BIOLOGY

mcbl.

APR 2 1979

610.5
BR
1910

THE

British Medical Journal.

THE JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

LIBRARY
UNIVERSITY OF ILLINOIS
URBANA

EDITED BY

DAWSON WILLIAMS, M.D., D.Sc.(HON.),

ASSISTED BY

CHARLES LOUIS TAYLOR.

LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

VOLUME I. 1910.

JANUARY TO JUNE.

London:

PRINTED AND PUBLISHED AT THE OFFICE OF THE BRITISH MEDICAL ASSOCIATION,
429, STRAND, W.C.

LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

Biology
610.5
BR
1910
Ja-Je

INDEX TO VOLUME I FOR 1910.

Readers in search of a particular subject will find it useful to bear in mind that the references are in several cases distributed under two or more separate but nearly synonymous headings—such, for instance, as Brain and Cerebral; Heart and Cardiac; Liver and Hepatic; Renal and Kidney; Cancer and Epithelioma, Malignant Disease, New Growth, Sarcoma, etc.; Child and Infant; Bronchocele, Goitre, and Thyroid; Diabetes, Glycosuria and Sugar; Light, Roentgen, Radium, X Rays; Status Lymphaticus and Thymus; Eye, Ophthalmia and Vision; Bicycle and Cycle; Motor and Automobile; Association, Institution, Society; Paris, France; Berlin, Prussia, Germany; Vienna, Austria, etc.

A.

ABBOTT, J. F.: Spelling of names, 1182
ABDERHALDEN, Professor (editor): *Handbuch der biochemischen Arbeitsmethoden*, rev., 450, 814; new method of determining blood volume, 1556
Abdomen, indications for immediately opening in acute cases, 51; correspondence on, 51
Abdomen, palpation of with superimposed hands, 1520
Abdomen, position of the patient after operations on (S. K. Vines), 17
Abdomen, pseudo-neoplastic inflammatory tumours of (leading article), 397
Abdomen, review of books on, 1414
Abdomen, upper, diagnosis and treatment of acute inflammations of (A. W. Mayo Robson), 61; correspondence on, 727. *See also* Stomach
Abdominal compression in tachycardia (W. Gordon), 624; correspondence on, 724, 792
Abdominal conditions, acute, simulation of (Dr. Cooke), 1171
Abdominal diseases: Cammidge reaction in (W. Russell), 1413
Abdominal disease, functional (F. Parkes Weber), 264
Abdominal effusions (O. C. Gruner), 320
Abdominal emergencies, 107, 176, 1213; correspondence on, 176; (E. Stanmore Bishop), 1213
Abdominal infection, acute, in a typhoid carrier (T. H. Gardner), 1107
Abdominal injuries (W. H. Battle), 1291
Abdominal injury, case of (T. M. G. Swainson), 445
Abdominal viscera. *See* Viscera
Abdomino-perineal excision of the rectum combined with hysterectomy (Maynard Smith), 81
ABEL, WILLIAMINA: Development of the autonomic nervous mechanism of the alimentary canal of the bird, 286
Aberdeen, treatment of phthisis in, 112; report of M.O.H., 482
Aberdeen Infirmary. *See* Infirmary
Aberdeen University. *See* University
Abersychan cellar dwellings, 530
Aberystwyth Rural Council report, 1158; "Cleanliness is next to godliness," 1158
Abortion, criminal, 1142, 1151; in Austria, 1151; to be forbidden in France, 1151
Abortion, induction of, 852
Abortion, review of books on, 1296
Aboyne, notification of phthisis at, 44
ABRAHAM, P.: Case of mycosis fungoides, 264
ABRAHAM, P. S.: Some idiopathic diseases of the skin which may simulate syphilis, 796
Abscess, appendix, purulent meningitis secondary to (Sydney Hartill), 990
Abscess, pelvic (Lamond Lackie), 1511
Abscess, subphrenic (reported by W. Sidney Sweet), 1169
Abstinence, case of prolonged (B. Hull), 1352
Academy of Medicine, Paris, appoints committee to study antityphoid inoculation, 872
Academy, Royal, of Medicine, in Ireland, 141, 202, 507, 570, 634, 873, 931, 1174, 1233. *Section of Anatomy and Physiology*, 507, 1233; influence of the addition of calcium salts on the coagulability of the blood *in vitro* (B. J. Collingwood), 507; superfetation in a cat (Dr. Cassidy), 1233; transposition of viscera (Seton Pringle), 1233; lantern slide of embryo in fifth week (N. C. Rutherford), 1233; lantern slide of external form of human embryo showing ectopia cordis (N. C. Rutherford), 1233. *Section of Medicine*, 202, 635, 931; glycosuria and Graves's disease (Dr. Drury), 202; treatment of gastric ulcer (Dr. Craig), 202; types of imbecility (Boyd Barrett), 635; pseudo-hypertrophic muscular paralysis (Dr. Dempsey), 636; the physio-therapy of sciatica (M. Orb), 636; acute leukaemia (Dr. Travers Smith and Dr. Earle), 636; bronzing of skin (J. Magee Finny), 931. *Section of Pathology*, 634; pyonephrotic kidney (L. G. Gunn), 634; rare sequels of typhoid fever (Dr. Day), 634; pulmonary diphtheria (Dr. Day), 634; sarcoma of femur (Dr. Harvey), 635; valvular stenosis of heart (Dr. Moorhead), 635; encysted haemo-pericardium (Dr. Boxwell), 635; tuberculous spleen from pig (Professor Mettam), 635. *Section of State Medicine*, 508; source of blood stains (E. J. McWeeney), 508. *Section of Surgery*, 141, 570, 873, 1174; malignant disease of the colon (E. H. Miles), 141; ethmoidal suppuration and trigeminal neuralgia (Oliver Gogarty), 141; paralysis from injury to brachial plexus (C. A. Ball), 570; operation for fractured femur in a child (W. I. de C. Wheeler), 570; multiple bone tuberculosis two years after treatment (J. Lentaigne), 570; fracture of head of humerus (W. S. Haughton), 570; thrombosis of the lateral sinus (O. Gogarty), 873; nephrectomy (R. Atkinson Stoney), 1174
Accident, definition of an, 769, 787, 908; leading article on, 769; report of the appeal, 787; correspondence on, 908
ACHARD, Professor: Inaugural lecture by, 845
Achondroplasia (C. W. Cathcart), 20; (O. Eichholz), 1229
ACHSCHARUMOFF, D. D., obituary notice of, 606
Acid-fast bacilli. *See* Bacilli
"Acidosis," clinical estimation of (A. E. Barnes), 258
ACKERLEY, R.: Saline waters, and the use and abuse of common salt, 382
Acne, cultural characteristics of the micro-bacillus of (E. H. Molesworth), 1227; correspondence on, 1382
Acoustic aid, an, 146
Acroteric piebalds. *See* Piebalds
Act, Asylum Officers' Superannuation, 1015; question in Parliament, 1015
Act, the Children's, 1374; in Belfast, 1374
Act, Dentists, interpretation of, 1070
Act, Finance, as it affects medical men, 1119; duties on land values, 1119; death duties and stamps, 1120; income tax, 1120; motor cars and petrol, 1120; spirit duty, 1120; method of obtaining rebates under the Finance Act, 1120
Act, Housing and Town Planning, 159; leading article on, 159
Act, Lunacy (1890), 658, 668; (Fowler *v.* Grant), 658; report of case, 668
Act, Midwives, 525, 825, 1134, 1261, 1327, 1436, 1446, 1507, 1527; circular from Local Government Board, 525; editorial article on the Act which came into force on April 1st, 1910, 825; questions in Parliament, 1134, 1507; payments to medical practitioners, 1134, 1507; midwives' protest against the Midwives Amendment Bill in Manchester, 1261; payment of medical men called in to assist midwives, 1327, 1446; and Ireland, 1436; memorial sent to the Lords and Commons, 1446
Act, Notification of Births (Scotland), 957
Act, Public Health, 731, 970; examination for sanitary inspectors, 731; and unsound food, 970
Act, Public Health Acts Amendment, 1907, and rural districts, 839
Act, Workmen's Compensation, 295, 482, 551, 769, 787, 907, 912, 958, 969, 1150, 1207, 1270, 1525; alleged death from hernia, 295; is a one-eyed collier totally incapacitated? 482; pneumonia, 551; definition of an accident, 769, 787; finality of medical referee's report, 788; neglect of treatment, 788; accident or pleurisy? 788; accident and lunacy, 788; alleged poisoning by carbon monoxide, 789; claim in respect of nystagmus, 789; refusal to do light work, 907; duties of a medical referee, 907; neurasthenia and hydrocele, 908; duty to use surgical appliances, 908; definition of an accident, 908; insurance under, 912; refusal of operation, 969; epistaxis and arterio-sclerosis, 969; medical referees as witnesses, 1150; objection to medical referees, 1207; accident or pneumonia, 1207; workmen wearing waistbelts, 1207; death in hospital, 1207; light work, 1207; medical certificates as to the nature of the injury under the Workmen's Compensation Acts, 1270; compulsory operations, 1525; phthisis or accident, 1526
Act, Workmen's Compensation, and medical evidence (R. J. Collie), 958
Action, against the Incorporated Dental Hospital, Dublin, 482; in respect of a lunacy certificate (Fowler *v.* Grant), 668; for recovery of fees (Hingston, Carter, and Pearse *v.* Hans Scharien), 1207; for libel (Hooper *v.* W. Piles), 1217; for negligence (Crickmay *v.* Biden), 1450; under the Lunacy Act, 1581
Acts, Inebriates, report of inspector, 939; leading article on, 947
ADAMI, J. GEORGE: *The Principles of Pathology*, vol. ii, *Systemic Pathology*, rev., 267; *Inflammation: an Introduction to the Study of Pathology*, rev., 996
ADAMS, F. S.: Cholesterin gall stones, 932
ADAMS, Staff Surgeon H. C.: Mercurial injections, 813
ADAMS, J. E.: Thoracoplasty, 203
ADAMS, MARTHA: Adams *v.* Pomeroy, 603
Adams *v.* Pomeroy, 42, 110, 153, 218, 330, 394, 603; an appeal, 42, 110, 153, 218, 330, 394. *See also* Pomeroy
Adenoma of breast (Thelwall Thomas and Dr. Mackarell), 446
Adenoma, hepatic, amyloid degeneration in (S. G. Shattock), 695
Adeno-carcinoma of the body in fibroid tumours of the uterus (J. M. Munro Kerr), 63. *See also* Cancer
Adnexa, removal of uterus in certain diseased conditions of (J. M. Munro Kerr), 692
Adrenalin in acute asthma (Craufurd Matthews), 441
ADSHEAD, G. P.: Two unusually situated chancres, 808
AFANASSIEFF, M., death of, 1208
Africa, British East. *See* British
Africa, South-West, medical report of the German campaign in 1904-7, 643
Africa, West. *See* West
African troubles, 1270
After-care Association. *See* Association
After-care, review of books on, 1414
Agglutinins (Georges Dreyer and J. Sholto C. Douglas, 322
AIKENS, CHARLOTTE A.: *Clinical Studies for Nurses*, rev., 641
AIKMAN, J.: Motor dust and diarrhoea, 1452
AINSWORTH, Major-General F. C., second-in-command of U.S. Army, 1372
Air, influence of on phthisis, 1451
Air purification in Glasgow, 111, 287, 468
AITCHISON-ROBERTSON, W. G.: Cremation, 141
Aix-la-Chapelle and its spa, 971
ALBEE: FRED. H.: *Orthopaedic Surgery for Practitioners*, rev., 208

341179

ALBU, A.: *Sammlung zwangloser Abhandlungen aus dem Gebiete der Verdauungs- und Stoffwechsel-Krankheiten*, 451, 1177; *Ueber Nichtdiabetische Glykosurien*, rev., 451; *Die Behandlungsmethoden des chronischen Magengeschwürs*, rev., 1177
Albulactin, 1242
Albuminuria, case of family (J. Newbery Fergusson), 689
Albuminuria, calcium chloride in, 772
Albuminuria in relation to life insurance, 837
Albuminuria and "return" cases of scarlet fever, 546, 784
ALCOCK, N. H.: *A Textbook of Experimental Physiology*, rev., 1358
Alcohol, antiseptic properties of, 792
Alcohol injection into superior laryngeal nerve for tuberculous odynphagia, 1578
Alcohol injection in trigeminal neuralgia (Wilfred Harris), 1404; correspondence on, 1578
Alcoholic insanity (Dr. Good), 1354
Alcoholic insanity (Straits Settlements), 658
Alcoholism, a drastic treatment for, 1249
Alcoholism, inquiry into, in Germany, 664
Alcoholism, parental, 239
Alcoholism, review of books on, 22
Alcohol question in Sweden, 1567
ALDERSON, W. E.: Gas and ether as an anaesthetic. 199
ALEXANDER, DAVID A.: Faith healing, 1574
ALEXANDER, FREDK. WM.: An appeal on behalf of Mr. H. W. Cox, 236
ALEXANDER, M.: Pylorectomy for cancer of pylorus, 446
ALEXANDER, MOORE: Retained testicles, 993
ALEXANDER, REGINALD G.: Appreciation of Kilner Clarke, 550
ALEXANDER, W.: *Therapeutisches Taschenbuch der Nervenkrankheiten*, rev., 1056
ALEXANDER, WILLIAM: Post-peritoneal haematocele complicating uterine fibroid, 505
ALEXANDER, WILLIAM BLACK, appointed Surgeon-Apothecary to Household of George V at Holyrood, 1509
Algiers University. *See* University
"Alienist," 1528
Alimentary tract, constrictions and occlusions of, of congenital or obscure origin (Arthur Keith), 301
Alimentary tract, diverticula of, of congenital or obscure origin (Arthur Keith), 376
ALLAN, Dr.: Ionic spasm in the hands, 993
ALLAN, GEORGE A.: Haemopneumothorax without traumatism, recovery, 744; closure of the cerebral arteries, 875; case of complete transposition of the viscera, with *post-mortem* report, 987
ALLAN, J.: Indications for immediately opening the abdomen in acute cases, 51; poisoning by oil of eucalyptus, 569
ALLCHIN, Sir WM. HENRY, appointed Physician-Extraordinary to George V, 1509
ALLBUTT, Sir CLIFFORD (editor): *A System of Medicine*, vol. vi, rev., 206; duodenal ulcer and appendix dyspepsia, 413; faith healing, 1453
ALLEN, Dr.: *Mackerel and Sunshine*, 342
ALLPORT, WILFRID: Infantile glaucoma or buphthalmia, 563
Alopecia areata (A. C. Turner), 573
Amble (Northumberland), report of M.O.H., 1210
Ambulance organization for extensive accidents in Germany. 539
Ambulance service, motor, for London, 1077
Ambulance Society of Berlin, 349
Ambulance work during the funeral ceremonies in London, 1304; organizations provided, 1304; military arrangements, 1305; St. John Ambulance Brigade, 1305; Church Red Cross Brigade, 1305; number of casualties, 1305; difficulties of the work, 1305; conditions treated, 1306
America. *See* United States
American and colonial clubs and international interchange of students, 1407
American Health League, 743
American Laryngological Association. *See* Association
American Medical Association. *See* Association
American President and a National Health Department, 340
Ammonium chloride inhaler, 578. 642
Amritsar Temperance Society, 125
Amyloid degeneration in a hepatic adenoma (S. G. Shattock), 695
Anaemia, fatal aplastic (Wilfred Thomas, with remarks by H. D. Rolleston), 16
Anaemia, pernicious, pathology of (F. H. Thiele), 695
Anaemia, pernicious, pigmentation of buccal mucosa in (T. Gillman Moorhead), 865
Anaemia, pernicious, having changes in the spinal cord (W. Hale White), 1393; leading article on, 1439
Anaemia, review of books on, 205
Anaërobic bacillus. *See* Bacillus
Anaesthesia with artificially limited circulation, 338
Anaesthesia, blood pressure in (William Guy, A. Goodall, and H. S. Reid), 381
Anaesthesia, faecal vomiting during: a suggested method of obviating its danger (Dudley W. Buxton), 980; correspondence on, 1085, 1206
Anaesthesia, lumbar (Károly Borszeki), 598
Anaesthesia for operations in piles, 424
Anaesthesia, spinal, death under, by Jonnesco's method in a case of acute intestinal obstruction (F. Victor Milward), 743; correspondence on, 847
Anaesthesia, vomiting after (J. W. Keay), 1511
Anaesthetic, choice of (Dudley Buxton), 633
Anaesthetic, gas and ether as (W. E. Alderson), 199
Anaesthetic, general, oxygenated and warmed ether as (S. T. Rowling), 320
Anaesthetics, cutaneous, action of (A. Rendle Short and Walter Salisbury), 560; correspondence on, 1521
Anaesthetics, deaths under, report of Coroners Committee. *See* Coroners
Anaesthetics, proposed legislation on, 50; correspondence on, 50
Anaesthetics museum, 949
Anaesthetists, responsibility of, 1528
Analgesia, spinal (leading article), 157
Analgesia, spinal, and pituitary extract for forceps delivery during acute pneumonia (J. A. Henton White), 1282
Anaphylaxis (leading article), 1254
Anasarca in an infant (John D'Ewart), 504
Anastomosis, intestinal (A. F. Theobalds), 200
Anatomical descriptions in Southey. *See* Southey
Anatomical teaching at St. Thomas's Hospital in 1774-75 (Joseph Else), 1555
Anatomy, surgical, review of books on, 577
ANDERSON, Dr., presentation to, 514
ANDERSON, J. FORD, complimentary dinner to, 279; nursing homes for the middle class, 540; conference on school children, 1199
ANDREW, STEPHEN: *The Serpent and the Cross*, rev., 23
ANDREWS, Dr.: Infant mortality in the Far East, 1000
ANDREWS, RUSSELL: Carcinoma of cervix, 810
Aneurysm, aortic (Sir Thomas Oliver), 447
Aneurysm, gluteal (W. Bernard Secretan), 800
Aneurysm of popliteal artery treated by excision (Andrew Fullerton), 1172
Aneurysm in a woman, case of (H. G. Frean, with a pathological note by Dr. Gibson), 318
Angeioma, venous (H. J. Davis), 1355
Angina pectoris, causation of (Byrom Bramwell), 126
Angina, Vincent's (J. M. Hunt), 20
Angioma of the pyriform sinus (Dr. McDougall), 993
Angioneurotic oedema. *See* Oedema
ANGUS, H. B.: Fibroma of sciatic nerve, 447
Animals, living, experiments on (licences), 957, 1015, 1135. *See also* Bill, Dogs' Exemption
Ankylostoma duodenale (F. M. Sandwith), 1232
Ankylostomiasis, risks of in Great Britain (Sir Thomas Oliver), 589; correspondence on, 781
ANNING, C. P.: Thoracic deformity, 994
Another "Honourable" gentleman, 160
Anthrax, annual meeting of the Bradford Investigation Board, 45
Anthrax, questions in Parliament, 718, 774, 839, 1569
Anthrax, deaths from (Shipley), question in Parliament, 774
Anthrax infection, question in Parliament, 718
Antibodies, antitoxins and predisposition, 410
Antiferment treatment of acute suppuration (David MacEwan), 185
Antikamnia tablets, 1073
Antileprol ,269
Antimalaria Association in the Transvaal, 527
Antimeningitis serum, 1505
Antiquackery campaign in Germany, 1130. *See also* Quackery
Antirabic vaccinations in Naples, 1906–8, 244
Antiseptic inhalation in pulmonary tuberculosis. *See* Tuberculosis
Antiseptic, lactic acid as, 610
Antiseptic properties of alcohol. *See* Alcohol
Antiseptic plugging, empyema treated by (Peter Tytler), 320
Antithyroid preparations (W. Edmunds), 202
Antitoxin treatment of diphtheria, 60. *See also* Serum, antidiphtherial
Antitoxin, tetanus, prophylactic treatment of dirty wounds by, 1267
Antitryptic index, clinical method of measuring (Frank C. Eve), 1540
Antivaccination campaign, in Ireland, 169, 405; in Wexford, 405
Antivaccination germ killer, 1130, 1256
Antivaccination in Parliament, 654. *See also* Vaccination
Antivaccinators in conference, 1074
Antivaccinators and the general election, 160, 402
Antivivisection Hospital. *See* Hospital
Antivivisection meeting in Dublin, 1078; at Caxton Hall, 1432
Antivivisectionist literature, curiosities of, 892
Anturic bath salts, composition of, 393
Aortic aneurysm. *See* Aneurysm
Aplastic anaemia. *See* Anaemia
Apoplexy with unusual symptoms (Dr. Tavlor), 751
Apothecaries' Hall of Ireland, 785, 1209; examinations, 785; pass lists, 1209
Apothecaries Society of London, 58, 179, 296, 608, 669, 850, 969, 1088, 1329; pass lists, 58, 179, 296, 608, 669, 850, 969, 1088, 1329
Appeals, 672, 732; to masons, 672, 732
Appendicitis (Dr. Stirling), 751
Appendicitis, boric acid and, 1085, 1146. *See also* Boric acid
Appendicitis, gangrenous (F. M. Caird), 20
Appendicitis, early operation in (discussed at German Surgical Congress), 964
Appendicitis, how to operate for (R. P. Rowlands), 621
Appendicitis, when to operate for (R. P. Rowlands), 245
Appendicitis, pelvic tumours and (W. Blair Bell), 1175
Appendicitis, virulence of (N. W. Murray), 874
Appendicular gastralgia (Herbert J. Paterson), 695
Appendix abscess. *See* Abscess
Appendix dyspepsia (B. G. A. Moynihan), 241; correspondence on, 349, 413, 471, 543, 601, 666, 732. *See also* Ulcer, duodenal
Appendix, gastric, hypersecretion and (Soltau Fenwick), 694
APPLEBY, Lieutenant-Colonel FREDERICK H., appointed Knight of Grace of the Order of St. John of Jerusalem, 671
Arabian ophthalmology (Dr. Meyerhof), 393
Archegoniate plants based upon the ontogeny (W. H. Lang), 581
ARDAGH, WILLIAM A.: Ossification in the brachialis anticus following injury to the elbow, 1289
ARLOING, M.: On vaccination against bovine tuberculosis, 49
Arm, cellulitis of, complicated with pneumonia, treated by vaccine (W. Owen Evans), 1106
ARMITAGE, Dr.: Neurasthenia, 1549
ARMOUR, DONALD: Greater Britain and the Annual Meeting, (1910), 116; treatment of brain tumours, 752
ARMSTRONG, H. E., and the University of London's regulations for degrees in science, 823
ARMSTRONG, HUBERT: Heart-block, 20
Army, British, 38, 54, 55, 178, 237, 299, 423, 479, 551, 608, 645, 669, 772, 786, 839, 845, 850, 906, 967, 1026, 1211, 1326, 1445. 1523; Army Medical Report for 1908, 55; typhoid carriers in, 38; pay in camp, 479; Army Nursing Service, 551; examinations for promotion, 669, 786, 906; army horsing scheme, 772, 845; R.A.M.C. and I.M.S., 786; examinations, 1211; Second Home Field Ambulance, R.A.M.C., 1326
Army, British, Special Reserve, Royal Army Medical Corps (Lieutenant-Colonel E. M. Wilson), 645
Army, British, Territorial Service, 54, 57, 178, 237, 299, 479, 608, 645, 653, 669, 786, 839, 850, 907, 967, 1026, 1086, 1206, 1445, 1523; the nursing service, 54, 299; service for promotion in, 57, 237; examinations for promotion, 178, 786; Second London Division, 178, 1445; Imperial Service Badge, 237; spurs, 237; promotion to major, 237; pay in camp, 299, 479; First Western General Hospital, West Lancashire Division, 479; First South Midland Field Ambulance, 608; First South Midland Mounted Brigade Field Ambulance, 608; church parade at Aston, 608; conditions of promotion, 608; and the British Medical Association, 653; the King's levée, 669; Territorial head quarters at Aston, 670; Lowland camps, 670; hospital equipment for, 839; questions in Parliament, 839; Royal Army Medical Corps, conference of the medical officers of the West Riding Division, 850; Territorial Force Reserve, 850; Cambridge University Officers' Training Corps, Medical Unit, 907; Second Home Counties Field Ambulance, 907; the medical service of, correspondence on, 967, 1026, 1086; military hygiene, 1206; Territorial decoration, 1206; First London Division, 1445; East Anglian Division Field Ambulances, 1445; Lowland Mounted Brigade Field Ambulance, 1523; Glasgow units, 1523
Army, doctors in command of an, 1372, 1554
Army, Indian, 356, 423, 658, 773, 850, 896; study leave, 356; result of the January examination, 423; the medical and the nursing services, 773; *re* list of diplomas, 850; questions in Parliament *re*, 658, 896; military assistant surgeons in, 658
Army, United States, doctors in command of, 1372
Arrhythmia, cardiac (Professor Lindsay), 445
Art the handmaid of hygiene (*L'Hygiène*), 275, 334, 518, 1061, 1555. *See also* L'Hygiène
Arteries, cerebral, closure of (George A. Allan), 875
Arteries, circular or end-to-end suturing of (E. Archibald Smith), 1407
Arterio-sclerosis, ocular symptoms of, 1191
Arthritis deformans (Llewelyn Jones), 751 1052
Arthritis, gonorrhoeal (W. R. Jack), 573
Arthritis, rheumatoid, juvenile (J. A. Coutts) 264. *See also* Rhematoid
Arthritis, tuberculous (Dr. Mitchell), 1233
ARTHUR, JAMES: Miner's nystagmus, 967
Artificial eye. *See* Eye
Artificial respiration. *See* Respiration
ASCHOFF, Professor: Pathology and nosology, 892; *Die Cholelithiasis*, rev., 1237

Arylarsonates, dangers of, 599, 664, 724, 846, 912, 1272
Arylarsonates and optic atrophy (Ernest Clarke), 1549
Arylarsonates and phthisis (R. A. Lundie and R. H. Blaikie), 141, 196
Asepticity of bread, 771
ASH, EDWIN: Treatment of neurasthenia and psychasthenia, 478
ASHBY, HUGH T.: Diagnostic value of the leucocytosis occurring in whooping-cough, 1105
ASHFORTH, T. L.: Miner's nystagmus, 902
ASHTON, J.: Pulmonary tuberculosis treated by continuous antiseptic inhalation, 175
ASHTON, WILLIAM EASTERLY: *Textbook on the Practice of Gynaecology for Practitioners and Students*, rev., 1176
Asklepios. *See* Faith healing
Asphyxia, medico-legal aspects of death from (Harvey Littlejohn), 753
Asphyxia, traumatic (John H. R. Garson), 990
Aspirin in solution, prescription of, 672
ASPLAND, W. H. GRAHAM: Is ponos kala-azar? 139
Assam, proposed Pasteur institute for, 952
Assault, is it an accident? 1525
Assistants, unqualified, 1270
Association, After-care, 527; annual meeting, 527
Association, American Laryngological, 24; *Transactions*, rev., 24
Association, American Medical, 137; Council on Defence of Medical Research issues pamphlets on animal experimentation, 137
Association, American, for Study and Prevention of Infant Mortality, 440; permanent head quarters, 440; officers, 440
Association, Asylum Workers, 1371; annual meeting, 1371
Association, the British, 403, 592, 961; date and place of meeting, 403, 961; proposal to visit Australia, 592
Association, British Hospitals, 1133
Association, British Medical: Annual Meeting (1910), 91, 116, 524, 656, 703, 949, 1133, 1243, 1359, 1419, 1516, 1564; Greater Britain and, 116; leading article on, 524; academic dress at, 656; post-graduate schools, 703; hospitals for children, 704; anaesthetics museum, 949; week-end and Sunday trips, 1133; British Museum of Natural History, 1243; museum of the Royal College of Surgeons of England, 1244; golfing arrangements, 1359; proposed black and white exhibition, 1359; King's College Hospital, 1360; museum of St. George's Hospital, 1419; Gordon Museum, Guy's Hospital, 1419; museum of St. Thomas's Hospital, 1419; museum of St. Bartholomew's Hospital, 1420; museum of the Royal Free Hospital, 1420; museum of the Westminster Hospital, 1420; museum of the Middlesex Hospital, 1421; museum of Charing Cross Hospital, 1421; museum of the London Hospital Medical College, 1421; museums of University College and University College Hospital Medical School, 1422
Association, British Medical: Annual Representative Meeting, 1331, 1503; dinner, 1331
Association, British Medical, Special General and Representative Meetings, 1503
Association, British Medical: New South Wales Branch, annual meeting, 1081
Association, British Medical: Perthshire Branch, 751; ichthyosis (Dr. Lyell), 751; disseminated sclerosis (Dr. Paton), 751; malnutrition (Dr. Paton), 751; wound of bladder (Dr. Stirling), 751; haematoma of scrotum (Dr. Stirling), 751; appendicitis (Dr. Stirling), 751; surgical cases (Dr. Stirling), 751; apoplexy with unusual symptoms (Dr. Taylor), 751
Association, British Medical: Staffordshire Branch, 1290; sarcoma treated with Coley's fluid (Mr. Deanesly), 1290; Graves's disease (Dr. Codd), 1290; *x* rays in favus (Dr. Codd), 1290; papers, 1290. *Pathological specimens*, 1290: Five specimens of chronic gastric ulcer (Mr. Deanesly), 1290; carcinomatous rectum completely removed by the combined abdomino-perineal method (Mr. Deanesly), 1290; cancerous caecum removed (Mr. Deanesly), 1290; popliteal aneurysm (Dr. Lowe), 1290; drainage tube encrusted with salts removed from a kidney (Dr. Cholmely), 1290
Association, British Medical: Yorkshire Branch, Leeds Division, 691; some points in modern hospital construction (E. O. Croft), 691; uses of the vaginal pessary (Dr. Oldfield), 691; radiograph of hour-glass stomach (Dr. Rowden), 691; radiograph of vesical calculus (Dr. Rowden), 691; pyosalpinx (Dr. Oldfield), 692; fibroid tumour of uterus (Dr. Oldfield), 692; malignant disease of cervix uteri removed by Wertheim's operation (Dr. Oldfield), 692; vote of thanks, 692
Association, British Medical, and the Bradford Medico-Chirurgical Society, 45
Association, British Medical: Ulster Branch, 444, 1171; sympathetic ophthalmia (Wyclif McCready, for W. M. Killen), 444; epithelioma of the cornea (Cecil Shaw), 444; *coli* infection after childbirth (Sir John Byers and Tom Houston), 444; pernicious vomiting of pregnancy (Sir John Byers), 444; Wharton Hood's treatment of fractured clavicle (T. S. Kirk), 444; treatment of neuritis (W. J. Maguire), 444; heart-block (Professor Lindsay), 445; cardiac arrhythmia (Professor Lindsay), 445; simulation of acute abdominal conditions (Dr. Cooke), 1171; stone impacted in ureter (Andrew Fullerton), 1171; secondary *coli* pyelitis (Andrew Fullerton), 1171; puerperal eclampsia (Andrew Fullerton), 1172; aneurysm of popliteal artery treated by excision (Andrew Fullerton), 1172; cancer houses (John Campbell), 1172; results of chronic iritis (Cecil Shaw), 1173; pelvic pain in unmarried women (R. J. Johnstone), 1173; cases, 1173; method of treating fractures with plaster-of-Paris splints (T. S. Kirk), 1173
Association, British Medical: Yorkshire Branch, 871; vaccine therapy (McLeod Veitch), 871; treatment of chorea gravidarum (E. O. Croft), 872; treatment of the puerperal septic infections (Dr. Oldfield), 872
Association, British Medical: Clinical and Scientific Proceedings, 444, 691, 751, 871, 1171, 1290
Association, British Medical, and disciplinary cases, 1440
Association, British Medical: Bradford Division, 409; supper and smoking concert, 409
Association, British Medical: Glasgow Division, smoking concert, 468
Association, British Medical: Yorkshire (East) Division, address by Sir Victor Horsley, 533; dinner, 533
Association, British Medical: Deputation to Board of Education *re* School Children. *See* Board *and* School Children
Association, British Medical, lending library, 1565
Association, British Medical: and the Medical Department of the Territorial Force, 653
Association, British Medical, Science Committee. *Report CXX:* Peritoneal Blood Transfusion (A. E. Boycott), 567; *Report CXXI:* On the electro-cardiographic curves yielded by ectopic beats arising in the walls of the auricles and ventricles (Thomas Lewis), 750; *Report CXXII:* A source of fallacy in counting red cells (Cecil Price Jones), 1351
Association, British Medical: Section of Navy, Army, and Ambulance, 717
Association, British Medical Temperance, 230, 719; lecture on drink and crime delivered to the Glasgow Branch (Dr. Devon), 230; converzazione of Dublin Branch, 719
Association, Brussels Medical Graduates, 1151; extra dinner, 1151
Association of Certified Dispensers, 749; annual meeting, 749
Association, District Nursing, 48; in New South Wales, 48
Association, Dublin University Biological, 719; annual dinner, 719
Association, Edinburgh and Leith Medical Practitioners', 286, 347; resolutions and discussion *re* a nursing home, 286, 347
Association, Scientific Esperantist, 970
Association of Fellows of the Royal College of Surgeons in Ireland, 1264
Association, French, for the Advancement of Sciences, 412; date and place of next meeting, 412
Association Général des Médecines de France, fifty-first annual meeting, 1030
Association of German Scientists and Medical Practitioners, 742; date and place of meeting, 742
Association, Invalid Children's, 1194; annual meeting, 1194
Association, Irish Medical, 1196, 1513; and a National Medical Service for Ireland, 1196; annual report, 1513
Association, Irish Medical Schools' and Graduates', 772, 1383, 1584; dinner, 772; visit to Bath, 1383, 1584
Association, Leeds and District Medical Practitioners', 1019; first dinner, 1019
Association, Life Assurance Medical Officers', 958; the first line of defence in the Workmen's Compensation Act 1906 (R. J. Collie), 958
Association, Medical Library, 1580
Association of Medical Officers of Health, 851, 1151, 1383; meeting of council, 851, 1151, 1383; and annual meeting of British Medical Association, 1383
Association, Medical Officers of Schools, *Code of Rules for the Prevention of Infectious and Contagious Diseases in Schools*, rev., 387
Association, Medico-Ethical, Manchester, 1020; admission of medical women to the staffs of general hospitals (Margaret Merry Smith), 1020
Association, Medico-Psychological, 31, 342, 700, 1036, 1233, 1413, 1527, 1554; dinner to commemorate the passing of the Asylum Officers' Superannuation Act, 31; examinations, 342; quarterly meeting, 700; electric-bath treatment in mental disorder (Mr. Mackenzie-Wallis), 700; typhoid carrier infection (G. Scot Williamson), 701; dinner, 701; insanity and conduct (Charles Mercier), 1413; Ross Jones test (John Turner), 1414; toxic and exhaustive psychoses (W. H. B. Stoddart), 1414; meeting at Hanwell Asylum, 1036; *Northern and Midland Division*, 1233; treatment of general paralysis by serums (E. R. Gave), 1233; carbon monoxide poisoning (A. J. Hall), 1233; change of dates of prize examinations, 1527; annual meeting, 1554
Association, National, for Prevention of Consumption, 1136, 1436; next annual meeting, 1136, 1436
Association, Peckham Nursing, 1546; number of cases attended, 1546
Association of Physicians of Great Britain and Ireland, annual meeting, 1320, 1512
Association, Poor Law Medical Officers', of England and Wales, 341, 731, 1148, 1372; issues schedule of questions on proposed reforms, 341; council meeting, 731, 1148; annual meeting, 1372
Association, Poor Law Medical Officers', Scottish, 468; annual meeting, 468
Association of Medical Women, Northern, 756, 1550; medical inspection of school children (Margaret Dobson), 756; carcinoma of sigmoid flexure (Catherine Chisholm), 1550; vesical caculi in a girl (Ruth Balmer), 1550; treatment of school children after inspection (Mary Davies), 1550
Association, Post-Graduate, International, 1014; formation of, 1014
Association for Prevention of Tuberculosis, Trinadad, fifth annual report, 1550
Association of Registered Medical Women, 142, 448, 755, 1549; crime and punishment in this country (Jane Walker), 142; lympho-sarcoma of small intestine (Miss Garrett-Anderson), 448; tertiary syphilitic ulceration (Miss Garrett-Anderson), 448; multiple synovial swellings (Miss Garrett-Anderson, for Miss Hamilton), 448; intracanalicular fibroma of breast (Miss Garrett-Anderson for Miss Aldrich-Blake), 448; cyst of the clitoris (Dr. May Thorne), 448; past year's work of the Vigilance Subcommittee (May Thorne), 755; medical inspection of school children (Dr. Gowdey), 756; neurasthenia (Dr. Armitage), 1549
Association, Sanitary, of Dublin, 112, 1017; and spitting, 112; small-pox (Percy Kirkpatrick), 1017
Association, Sanitary Inspectors', 663; South Wales and Monmouthshire centre in the training of sanitary inspectors, 663
Association, Social Welfare, for London, 528, 662
Association, Southern Surgical and Gynaecological, *Transactions*, rev., 1298
Association tests in mental disease, 1152
Association of Tropical Medicine, Far Eastern, 999; meeting in Manila, 999; beri-beri, 999; infantile mortality, 1000; helminthiasis, 1000; resolutions, 1000; next meeting, 1000
Association, Veterinary Medical, of Ireland, 660; annual meeting, 660
Association, Women's Medical, of New York City, offers the Mary Putnam Jacobi Fellowship for post-graduate study to any woman graduate, 57
Association, Women's National Health, 286, 536, 779, 1078; annual report of Tullamore Branch 286; infant mortality, 536; Cork Branch still active, 779; annual meeting in Dublin, 1078
Associations, district and cottage nursing, 1268
Asthenia, pelvic, review of books on, 1176
Asthma (Dr. Bronner), 1232
Asthma, acute, adrenalin in (Craufurd Matthews), 441
Asylum appointments, 120
Asylum attendants (Ireland), 1135
Asylum, Carlow, 1513
Asylum, certification of lunatics for, 1148
Asylum, City of London, Dartford, new nurses' home, 1088
Asylum, County Monaghan and Cavan, 469, 719; resignation of medical superintendent, 469, 719
Asylum officers, and the Superannuation Act, 896, 1015. *See also* Act
Asylum, Tyrone and Fermanagh Lunatic, 469; necropsies in, 469
Asylum Workers' Association. *See* Association
Asylums, lunatic, necropsies in, 469
Asylums, Metropolitan, 896
Asymmetry, 282
Ateleiosis (Parkes Weber), 1356
Athletics, place of in an educational system (Burn Murdoch), 633
ATKINSON, AMB.: Spontaneous passage of gall stone, 990
ATKINSON, E. L., goes on Antarctic expedition, 1383
ATKINSON, F. P.: Influence of air on phthisis, 1451
ATKINSON, J. M., elected Fellow of Royal Sanitary Institute, 1331
ATKINSON, STANLEY BEAN, obituary notice of, 298
Atlantic, observations on a voyage across the (C. J. Patten), 647
Atlas of Sectional and Dissectional Anatomy 1427
Atropine in gonorrhoea, 1142
Attendance, medical, State-provided, 179, 239

Attendance, voluntary medical, on paupers, 1146, 1266
Attendance at necropsies ordered by coroner, 1450
ATTHILL, LOMBE: Recollections of a long professional life (1844–1904), 25, 87, 147, 211
AUCHÉ, Dr.: The asepticity of bread, 771
"Audio," a disclaimer, 484
AULD, A. G.: Influence of posture in physical examination, 1442; auscultatory percussion, 1579
Auricles and ventricles, electro-cardiographic curves yielded by ectopic beats in the walls of (Thomas Lewis), 750
Auscultatory friction (Herbert H. Brown), 1168; correspondence on, 1269, 1325, 1381, 1444, 1518, 1579
Australia, small-pox and quarantine in, 1579
Australian Institute of Tropical Medicine. *See* Tropical
Automobile. *See* Motor
Automors, composition of, 762
AVARNE, ARTHUR BLAIR, obituary notice of, 1028
Avenola, composition of, 1240
Avulsion of eyeball. *See* Eyeball
Avulsion of lower limb in treatment of varicose veins (H. D. O'Sullivan), 921
Award for bravery (P. J. Flanagan), 719
Axbridge Rural District, report of Medical Inspector of Local Government Board, 482
AXE, JOHN WORTLEY, bequests of, 362
Azores, plague in, 270

B.

BABER, EDWARD CRESSWELL, obituary notice of, 1271, 1329
BACHA, A. P.: A protest, 120
BACHI: A pure milk supply, 1006
Bacilli, acid-fast (F. P. Wilson), 993
Bacilli, enteritis group of, study of, 882
Bacilli, lactic acid. *See* Lactic
Bacillus, anaërobic, case of general infection with (G. Graham), 1231
BACMEISTER, A.: *Die Cholelithiasis*, rev., 1237
Bacteria, Dewar's experiments on at very low temperatures (Sir E. Ray Lankester), 1181
Bacteria, pathology of, 293, 477; correspondence on, 477
Bacterial disease, gross parasites and, 42
Bacterial escape in strangulation of the gut (leading article), 158
Bacterial vaccines. *See* Vaccines
Bad Gastein, more readily accessible, 1031
Baden-Baden as a health resort, 1003
BAGSHAWE, ARTHUR G.: *Proteus vulgaris* and *Penicillium brevicaule*, 120; microscopical sections from cases of sleeping sickness, 1232
BAILY, Dr.: History of Hanwell Asylum, 1036
BAIRD, J. T. W., obituary notice of, 1583
BALDOCK, E. H.: Stove for invalid's bedroom, 732
BALDWIN, ASLETT: Fracture dislocation of right shoulder, 992
BALDWIN, F. A.: The operation for elephantiasis scroti, 495
BALL, C. A.: Paralysis from injury to brachial plexus, 570
BALL, CHARLES BENT, appointed honorary surgeon to George V in Ireland, 1509
BALLANTYNE, A. J.: Foreign body in the interior of the eye, 1112
BALLANTYNE, Dr.: Hemiplegia with sensory disturbance and hemianopsia, 755
BALLANTYNE, J. W.: The rational puerperium, 4
Ball's operation for pruritus ani, value of (Patrick Leighton), 440; correspondence on, 727
BALMER, RUTH: Vesical calculi in a girl, 1550
Balneology, review of books on, 696
BAMBERGER, L.: *Die innere und die chirurgische Behandlung des chronischen Mägengeschwürs und ihre Erfolge*, rev., 1178
Bandage, a triangular, 972
BANDERA, J. M., death of, 787
BANDLER, SAMUEL WYLLIS: *Medical Gynaecology*, rev., 576
BANKART, A. F., attended the late King's funeral, 1316
BARADUC, Dr.: *Clinique hydrologique*, rev., 452
Barber's rash, 972
BARCLAY, Dr.: Presentation to, 1151
BARDSWELL, NOEL D.: *The Expectation of Life of the Consumptive after Sanatorium Treatment*, rev., 1053
BARKER, ARTHUR E.: Traumatic pancreatic cyst, 448; case for diagnosis, 696; bone grafting, 931
BARKER, FREDERIC: Case of poisoning by camphorated oil, 921
BARKER, J. ELLIS: *Great and Greater Britain: the Problem of Motherland and Empire—Political, Naval, Military, Industrial, Financial, Social*, rev., 144
BARLOW, H. CECIL: Henoch's purpura or angio-neurotic oedema? 15
BARLOW, Sir THOMAS, elected President of the Royal College of Physicians, 770; appointed Vice-President Royal Institution, 1211; appointed physician extraordinary to George V, 1509
BARLOW, T. W. N.: Disinfectants, 753
Barnato Memorial Hospital. *See* Hospital, Middlesex
BARNES, A. E.: Clinical estimation of "acidosis," 258; syphilis serum reaction, 573
BARNES, G. C.: Inspection of school children, 930
BARNETT, H. NORMAN: Definition of an accident, 908
Barnstaple (Borough and Rural District), report of M.O.H., 1210
BARR, Sir JAMES, proposed presentation to, 46
influence of posture in physical examination, 1441
BARR, J. STODDART: Optic neuritis and suppurative otitis, 737
BARRATT, J. O. WAKELIN: Investigation into the mechanism of production of blackwater fever, 402; action of radium on the skin, 991
BARRETT, BOYD: Types of imbecility, 635
BARRON, G. M.: The medical curriculum at the Sydney University, 1320
BARRS, A. G.: Chronic sprue, 1232
BARRY, Sir EDWARD, 274, 334
BARTHOLOMEUSZ, F. R.: Case of strangulated inguinal hernia with appendicitis: operation: herniotomy: appendectomy: recovery, 1353
BARTON, G. A. H.: Dangers of spinal anaesthesia, 847
BASHFORD, E. F.: Homogeneity of resistance to transplantation of malignant growths, 382; delivers an address at Utrecht, 529
BASIL, M. M.: Distribution of diseases in Persia, 1247
BASSETT-SMITH, P. W.: Serum diagnosis of syphilis, Fleming's method, 632
BASU, B. D.: *The Dietetic Treatment of Diabetes*, rev., 880
BATEMAN, A. GEORGE: A tradesman's provident society, 240
BATEMAN, H. R.: Development of trypanosomes in tsetse flies, 1292
BATES, STANLEY H.: *Open Air at Home: Practical Experience of the Continuation of Sanatorium Treatment*, rev., 934
Bath salts for rheumatism, composition of, 393
Baths, electric light and heat, 388
BATTEN, F. E.: Bilateral ophthalmoplegia, 322
BATTERSBY, Mr.: Hydrocephalic head, 755
BATTLE, WILLIAM HENRY: Perforation of gastro-jejunal ulcer, operation, recovery, 989; internal abdominal injuries, 1291
BAUBY, Dr., death of, 1525
BAUER, Dr.: *Klinische und Experimentelle Studien zur Pathologie und Therapie der Tuberkulose im Kindesalter*, rev., 385
BAUM, FRITZ: Ophthalmo-fundoscope, 817
Bavaria, infant mortality in, 1246
Bavarian military surgeons, operation course for, established fifty years ago, 1142
BEATTIE, J. MARTIN: Syphilis serum reaction, 573; activity of the cells and fluids of the body in the prevention and cure of disease, 977
BEATTIE, ROBERT: Congenital talipes, 1354
BEATTIE, T.: Acute yellow atrophy of liver, 447
Bed bugs. *See* Bugs
Bed lift, 998
Bedwellty Urban District, report of Local Government Board Medical Inspector, 1526
BEGG, A. CLARKE: Vaccine treatment of a series of cases of staphylococcic infections, 186
Beit Memorial Fellowships, first appointments, 594. *See also* Uuniversity of London
Belfast, health of, 169; gas poisoning in, 228; milk supply, 469; medical officers and militia training at, 1135; the slums of, 1138; City Council, resignation of Chairman of Public Health Committee, 1196; municipal work by medical men in, 1318; the Children's Act in, 1374; measles in, 1374
Belfast Lough, shellfish and the purification of, 169
BELILIOS, D. A.: Part-time medical officers of health, 352, 419, 542, 667
BELIN: Serum anaphylaxis hereditary, 1556
BELL, W. BLAIR: Bicornute uterus, 265; calcium in treatment of epilepsy, 351; appendix dyspepsia, 732; pelvic tumours and appendicitis, 1175
BELL, Sir H. HESKETH, reports on sleeping sickness in Uganda, 226
BELL, R., sad death of, 170
Bengal (East), proposed Pasteur Institute for, 952
Bengal Veterinary Department, 537
BENNECKE, H.: *Die Leukocytose bei Scharlach und anderen Mischinfektionen*, rev., 996
BENNETT, NORMAN G.: London children's teeth, 900, 1021
Bequests to hospitals and medical charities, 21, 194, 237, 317, 327, 375, 383, 390, 396, 452, 691, 729, 756, 790, 987, 990, 1030, 1231, 1290, 1331, 1526, 1573
Beri-beri (Dr. Fraser and Dr. Stanton), 999, 1371
Beri-beri, long incubation in (Paul J. Verrall), 443
Berlin, special correspondence from, 348, 411, 539, 598, 664, 723, 845, 1515; work of school doctors, 348; tuberculosis in Prussia (Professor Kayserling), 349; administration of medicine by doctors, 349; the Berlin Ambulance Society, 349; history of the crusade against tuberculosis, 411; the housing question and tuberculosis colonies, 411; treatment of the insane, 539; average duration of life in Germany, 539; a school dental clinic, 539; proposed women's hospital officered by women, 539; ambulance organization for extensive accidents, 539; dangers of raw minced meat, 539; scientific cinematographs, 598; debate on the Imperial Board of Health, 664; lead poisoning, alcoholism, and mosquitos and disease, 664; Robert Koch on tuberculosis hospitals, 664; organization of relief and preventive agencies, 723; prevention of venereal disease, 723; retirement of Professors Olshausen and Senator, 845; annual report on Berlin hospitals, 845; a country hospital for tuberculosis, 845; bicentenary of the Charité Hospital, 1515; new buildings for the Army Medical College, 1516
BERNARD, CLAUDE, and the Cross of the Legion of Honour, 650
BERNARD, FELIX: *Clinique Hydrologique*, rev., 452
Berne, petition presented to Federal Council of, asking that it be enacted that before any marriage is allowed to take place a medical examination of both parties should be made, 452; Professor Schäfer at, 1375
BERNSTEIN, Dr., exhibition of specimens, 572
BERNSTEIN, JULIUS: New aspects of boric acid as a food preservative, 928, 1326
BERRY, GEORGE ANDREWS, appointed honorary surgeon-oculist to George V in Scotland, 1509
BERRY, R. J. A.: The place in nature of the Tasmanian aboriginal, 830
BERTILLON, M.: Health of Paris to-day and the effects of former floods, 538
BEVAN, Rev. J. O.: *The Genesis and Evolution of the Soul*, rev., 1553
BEVERIDGE, A. T. GORDON, appointed police surgeon for city of Aberdeen, 412
BEWLEY, H. T.: Cardiolysis, 914
Bezold's disease (Faulder White), 1110
BEZZI, GIOVANNI, death of, 787
Bible history, sidelights on, with personal reminiscences of Palestine and Egypt (K. T. Frost), 583
BICKERTON, THOMAS H.: John Rutter, 1006
BIDWELL, L. A.: Specimen of carcinoma of rectum, 572; large number of gall stones removed from a man of 43, 572
BIER, Professor: *Ueber die Berechtigung des teleologischen Denkens in der praktischen Medizin*, 277
BIGELOW, JOHN: *Retrospections of an Active Life*, 701
BIGGS, C. H. W.: On the dust question, 285
BIGGS, GEORGE N.: Case of foreign body in oesophagus removed by the direct method, 380
Bilharzia haematobia, presence of in Egyptian mummies of the twentieth dynasty (Marc Armand Ruffer), 16
Biliary obstruction and gall stones. *See* Gall stones
Bill, Census, 1507, 1508; (Ireland), 1508
Bill, Coroners' Law and Death Certification (Amendment), 1135
Bill, Cruelty to Animals (No. 2), 1016
Bill, Dogs (Exemption), 1135. *See also* Animals, Living, Experiments
Bill, Death Certificates (Charges), 839
Bill, Destitution, Prevention of, 767, 945, 953, 1092; leading article on, 767, 945; second reading, 953; correspondence on, 1092. *See also* Poor Law
Bill, Midwives, the Government's (1910), 893, 1012, 1022, 1261, 1371, 1446, 1527, 1569; opinion of the British Medical Association, 1012; correspondence on, 1022; midwives' protest against in Manchester, 1261; memorial to the Lord President of Council, 1371; memorial sent to the Lords and Commons, 1446, 1527; the bill withdrawn, 1569. *See also* SUPPLEMENT, p. 160
Bill, Milk and Dairies, 1015, 1569; and Tuberculous, 1569. *See also* Milk legislation
Bill, Parochial Medical Officers (Scotland), 658
Bill, Public Health, 658, 839; provisional orders, 658, 839
Bill, Public Health (Scotland) 1897 (extension), 718
Bill, Water Supplies Protection, 839
BILLINGS, F. (editor): *General Medicine*, rev., 326
BILLUPS, H. B.: Defective nipples, 988
BINET, M. E.: *Clinique Hydrologique*, rev., 452
BINGHAM, F. M.: Carcinoma in the male breast, 442
BINNIE, JOHN FAIRBAIRN: *Manual of Operative Surgery*: vol. ii, *Vascular System, Bones and Joints, Amputations*, rev., 996
Biochemistry, review of books on, 450, 814
Biology, experiments in (Hans Przibram), 284
Birmingham, special correspondence from, 534, 781, 843, 1020, 1081, 1261, 1376, 1572; sanatorium treatment and after-treatment, 534; tuberculosis and the milk supply, 535; Birmingham Medical Institute, 781; Birmingham Hos-

pital Saturday Fund, 781; an experiment in the reduction of infant mortality, 843; hospital finances, 1020; proposed Taylor memorial home, 1020; nursing service of the First Southern General Hospital, 1081; special schools and institutions for physically and mentally defective children, 1261; Birmingham Medical Benevolent Society, 1376; the Children's Hospital, 1572; bequests to Birmingham charities, 1573; Territorial Swimming Club, 1573
Birmingham, food adulteration in, 422
Birmingham University. *See* University
BIRNBAUM, R.: *Klinik des Missbildungen und kongenitalen Erkrankungen des Fötus*, rev., 387
Birth-rate, the falling, review of books on, 326
Births, notification of, 422, 592, 957; and infant mortality, 592; questions in Parliament, 957
Births Act, Notification of. *See* Act
BISHOP, E. STANMORE: *Lectures on Surgical Nursing*, rev., 385; operative treatment for haemorrhoids, 544; abdominal emergencies, 1213
BISHOP, HENRY DRAPER: Guernsey sunshine (1909), 120
Bismuth hair dye. *See* Hair
BLACK, KENNETH: Surgical odds and ends, 141
BLACKER, G. F.: Pubiotomy in contracted pelvis, 636
BLACKHAM, Major ROBERT J.: *Military Sanitation for Soldiers Serving in Hot Climates*, rev., 577; appointed Knight of Grace of the Order of St. John of Jerusalem, 671
Blackwater fever. *See* Fever
BLACKWELL, ELIZABETH, obituary notice of, 1523
Bladder, rupture of, followed by gangrene of the bladder walls (P. Clennell Fenwick), 798
Bladder tumour. *See* Tumour
Bladder, wound of (Dr. Stirling), 751
BLAIKIE, R. H.: Phthisis and arylarsonates, 141, 196; the drug habit, tobacco, 1152
BLANCHARD, Professor: On the part played by the Liverpool School in the study of tropical diseases, 172; *Epigraphie Médicale Corpus Inscriptionum ad Medicinam Biologiam que Spectantium*, 393
BLAND-SUTTON, JOHN: Treatment of injuries of the heart, 1273
"Bleeding polypus." *See* Polypus
Blenorrhoea of lacrymal sac (J. Reid), 200
Blindness, congenital word (Herbert Fisher), 1174
Blindness, night, and xerosis of conjunctiva (Malcolm L. Hepburn), 692
Blindness, transient, during pregnancy and labour, 1131
Blood cells, review of books on, 1415
Blood, influence of addition of calcium salts on coagulability of *in vitro* (B. J. Collingwood), 507
Blood-letting, physiology of (leading article), 104; correspondence on, 233
Blood pressure in anaesthesia (William Guy, A. Goodall, and H. S. Reid), 381
Blood stains, source of (E. J. McWeeney), 508
Blood-tight uterus (Geo. H. Peake), 199
Blood transfusion, peritoneal (A. E. Boycott) 567
Blood volume, new method of determining (Abderhalden and Schmid), 1556
BLUMENTHAL, FERDINAND: *Ueber Nichtdiabetische Glykosurien*, rev., 451
BLUMFELD, J.: Faecal vomiting during anaesthesia, 1085
Board of Education, 213, 227, 328, 609, 831, 888, 906, 911, 1180; chief medical officer's annual report, 213, 227, 328; history of medical inspection, 214; administration of medical inspection, 214; physical condition of school children, 328; school medical treatment, 329; special schools for defective children, 330; appoints Departmental Committee to inquire whether cost of building of public elementary schools can be properly reduced, 609; deputation from British Medical Association *re* medical inspection of school children, 831, 888; secretary for Science Museum, 906; Departmental Committee appointed to report on the Science Museum at South Kensington, 911; annual report, 1180. *See also* Council, London County
Board, Local Government, 107, 223, 354, 390, 400, 460, 483, 525, 907, 1437, 1567; Pathological Department of (Dr. Eastwood appointed additional Medical Inspector), 107; medical report of, 223; amended vaccination order, 354; annual report of the medical officer, 390; housing department of, 400; and the Castleford Guardians, 460; issues circulars *re* county councillors, 483; circular *re* Midwives Act, 525; circular *re* padded rooms at workhouses, 907; does not see its way to inquire *re* public slaughterhouses at present, 1437; the vote, 1567; Mr. Burns's salary, 1567; vaccination, 1567; boarded-out children, 1568
Board, Local Government, Ireland, 593, 1138; and the medical officer of Skibbereen Workhouse, 593; and the Belfast slums, 1138
Board, Local Government, Scotland, 44, 595, 1196; examination of nurses by, 44; proposed increase in staff, 595; additional medical inspector appointed, 1196
Board, Metropolitan Asylums, 15; lectures and demonstrations, 15
Board of Trade sight tests (A. Rudolf Galloway), 915; committee appointed to inquire into, 1566. *See also* Colour vision
Boarding out of pauper children. *See* Children
Boards of guardians, 166, 230, 343, 460, 496, 531, 660, 842, 897, 911, 961, 1581; the Manchester, and consumption, 166; the Salford, and the Hope Hospital, 230, 343, 531, 842; Local Government Board and the Castleford, 460; the Berwick, requested to take over the cost of medicines, 496; the Skibbereen, 660, 961, 1437; dilatoriness of the Cork, 897; medical men in the Bethnal Green, 911; the Castlebar, abuse of the red ticket system, 961
Boards of guardians, appointment of members and ex-members of to paid offices, 1581
Bodies in mortuaries, preservation of, 1148
Body, diseases of the orifices of (Peter Daniel), 121
BOILEAU, Lieutenant-Colonel J. P. H., obituary notice of, 786
BOIS-REYMOND, R. DU: *Physiologie des Menschen und der Säugthiere*, rev., 1296
Bologna province offers prize for improvements in dwellings against pellagra, 668
BOLTON, CHARLES: Pathology of gastric ulcer, 321; Does gastrostaxis exist as an independent disease? 1221, 1382, 1444
BOLTON, JOS. S.: The drug habit, tobacco, 1212
BOLTON, S.: Herpes zoster following injury, 1331
Bombay, Vaccine Therapy Institute, 976; malaria in, 1199
BOND, FRANCIS: Lactic acid as an antiseptic, 610; scarlet fever, 1205
Bone grafting (A. E. Barker), 931
Bone impacted in oesophagus (John A. Bower), 930
BONFIGLI, CLODOMIRO, death of, 296
BONHOTE, J. L.: The black rat, 1124
BONNEY, VICTOR (part editor): *Archives of the Middlesex Hospital, Clinical Series*, No. III, 107; curettage, 445
Book for lay perusal, publications and advertisements of, 358
BOOTH, AMOS: *A Beautiful Arm: A History of the Vaccination Delusion*, rev., 268
BOOTH, CHARLES: On Poor Law reform (leading article), 1127
BORDLEY: Colour fields in cerebral tumour, 838
Boric acid and appendicitis, 1085
Boric acid as a food preservative, new aspects of (Julius Bernstein), 928; correspondence on, 1085, 1146, 1326
Borneo tribes, death superstitions among (Charles Hose), 334
BORREL, Dr.: Cancer investigation, 464
Borstal School, Clonmel, 1513
BORSZEKI, KÁROLY: Lumbar anaesthesia, 598
BORTHWICK, THOMAS, elected Fellow of Royal Sanitary Institute, 1331
BOSANQUET, WM. CECIL: *Serums, Vaccines, and Töxines in Treatment and Diagnosis*, rev., 24; *The Stomach, Intestines, and Pancreas*, rev., 1177
BOTEZ, C., death of, 1150
BOTKIN, SERGEI, death of, 551
Bottle, hot-water, 998
BOULLÉ, JEAN CHARLES, 100th birthday of, 594, 894
BOULTON, Brigade-Surgeon EDWARD JOSEPH, obituary notice of, 787
Bovine tuberculosis. *See* Tuberculosis
BOWEN, W. H.: Case of sarcoma of petrous bone, 1546
BOWER, JOHN A.: Bone impacted in cesophagus, 930
BOWLBY, ANTHONY A.: Appendix dyspepsia, 349, 471; appointed surgeon-in-ordinary to George V, 1503
BOXWELL, Dr.: Encysted haemo-pericardium, 635
BOYCE, Sir RUPERT, visit to Paris, 172
BOYCOTT, A. E.: Peritoneal blood transfusion, 567
BOYD, Dr.: Diabetes mellitus, 20
BOYD, F. D.: Artificially-prepared hypnotics, 1412
BOYD, FLORENCE NIGHTINGALE, obituary notice of, 1582
Boys, chest development in, 840
BOZZOLO, CAMILLO, elected Senator of the Kingdom of Italy, 375
BRA, MARIE: *Cultures in vitro des cellules cancéreuses*, rev., 816
Brachial plexus, paralysis from injury to (C. A. Ball), 570
Brachialis anticus, ossification of following injury to elbow (Wilson Tyson), 920; (William A. Ardagh), 1289
BRADBURNE, A. ALISON: Notes on a case of cyclophoria, 564
Bradford, the smells of, 45; Anthrax Investigation Board, 45; medical staffs of the Bradford hospitals, 45; the Association and the Bradford Medico-Chirurgical Society, 45; school clinic, 722, 843, 899, 1019
Bradford Infirmary. *See* Infirmary
Bradford rural district, report of Local Government Board Medical Inspector, 1526
BRADSHAW, THOMAS R.: Appendix dyspepsia, 473; acute entero-colitis, 811; chronic ulcerative colitis, 811; bronchiectasis with cerebral abscess, 811
Brain tumours. *See* Tumours
BRAITHWAITE, L. R.: Post-operative suppression of urine relieved on three separate occasions by intravenous infusion, 981; hour-glass gall bladder, 1355
BRAMWELL, BYROM: Two cases of tabes, 20; case of clonic muscular contractures, 20; causation of angina pectoris, 126; claudication of arteries, 1355; case of subacute combined degeneration of spinal cord simulating disseminated sclerosis, 1396
BRAMWELL, E.: Traumatic hysteria, 20
BRAND, A. T., awarded Government grant for successful vaccination for tenth time, 790; auscultatory percussion, 1444
BRAND, ALEXANDER THEODORE: *Clinical Memoranda for General Practitioners*, rev., 1238
BRANDANE, JOHN: *My Lady of Aros*, rev., 1298
BRANSON, GUY J.: Severe *ante-partum* haemorrhage due to spontaneous rupture of vaginal varix, 319
BRAUER, AUGUST: Effect of mercury on the serum reaction of syphilis, 1259
BRAUER, L.: *Beiträge zur klinik der Tuberculose*, rev., 385
Bread, asepticity of, 771
Bread and Food Reform League. *See* League
Bread, geril, 146
Bread, machine-made, 282
Breakfast foods, composition of, 1239
Breaking one's word, 908
Breast cancer. *See* Cancer
BRECHIN, FORREST: Liverpool workhouse hospital, 484
BREWERTON, E.: Bilateral parotitis and cyclitis, 447
Brewing, Institute of. *See* Institute
BRIDE, J. W.: Depressed fracture of the skull in an infant 1 day old: trephining: recovery, 261; tuberculin skin reaction, 1161
BRIGGS, Dr.: Kraurosis or leukoplakia vulvae, 1175
BRIGHT, TIMOTHY, 333
Bright young man, 1528
Brighton Municipal Technical College, lectures on bacteriology, 971
BRISCOE, JOHN F.: Appreciation of Henry John Manning, 606
BRISSAUD, EDOUARD, death of, 48
Bristol, special correspondence from, 535; University Colston dinner, 535
British East Africa, plague in, 270; officials in, 338
British Guiana, special correspondence from, 171; Surgeon-General's report for years 1908-09, 171
British Guiana Medical Annual for 1908, rev., 997
British Hospitals Association. *See* Association
British Medical Association. *See* Association
British Medical Benevolent Fund and Guild. *See* Fund
British Medical Temperance Association. *See* Association
British practitioners abroad, 717; pamphlet issued by General Medical Council, 717
British Rainfall, 1556
British workmen, financial position of, 656
BROADBENT, G. H.: Appreciation of George W. Sidebotham, 1090
BROADBENT, SIR JOHN: Cases of syringomyelia, 264; atypical pneumonia, 569; pericarditis, 633; fibroid lung with displacement of heart, 695
BROCK, ARTHUR J.: Psychology of the consumptive, 1519
Bromural, 388
Bronchiectasis treated by intratracheal method (Colin Campbell), 573
Broncho-pneumonia after gastro-enterostomy, case of acute (W. A. Mackay, Ian Macdonald, and Halliday G. Sutherland), 745
BRONNER, A.: Hypertrophy of the tracheal mucous membrane, 19; hypopyon ulcer, 994; pyocyanase, 1175; asthma, 1232
Broomhill Home, Glasgow, 1318
BROUARDEL and GILBERT: *Nouveau traité de médecine et de thérapeutique*, rev., 1178
BROUGHTON, HENRY TODD, obituary notice of, 57
BROWN, CARNEGIE: Slides illustrating tropical dysentery, 1232
"Brown dog," 412, 588, 671, 717, 892; to be returned to donors, 412, 671; difficulty in the disposal of, 588; in Chancery, 717; Admiral Sir William Kennedy and, 892
BROWN, E. VIPONT: The medical profession, its present and its future, 27; general practitioners and Poor Law reform, 902, 1022, 1144
BROWN, F. TILDEN, death of, 1525
BROWN, GOODWIN: *Scientific Nutrition Simplified*, rev., 208
BROWN, HERBERT H.: Operative treatment of haemorrhoids 474; auscultatory friction, 1168
BROWN, JOHN: Medical Parliamentary roll, 784, 1032; sickness and invalidity insurance, 1441
BROWN, R. C.: A benefactor to Preston Royal Institution, 231; honorary freedom of Borough of Preston conferred upon, 657

BROWN, ROSS: Legal responsibilities of hospital authorities, 1066
BROWN, W. H.: Gastro-enterostomy in acute dilatation of the stomach, 727
BRUCE, A.: Ménière's disease with facial paralysis, 1174; ischaemic paralysis, 1355; hydrocephalus following meningitis, 1355
BRUCE, Sir DAVID: Development of trypanosomes in tsetse flies, 1292
BRUCE, LEWIS CAMPBELL: Effect of bacterial vaccines on nutrition, 430
BRÜCKNER, Dr.: The typhoid carrier, 1190
BRUGSCH, Dr.: Pathogenesis and treatment of gout, 1131
BRUNTON, Sir LAUDER: Medical treatment of school children, 1199; treatment of snake bites, 1438
Brussels Exhibition. *See* Exhibition
Brussels Medical Graduates' Association. *See* Association
BRYANT, JOSEPH D. (editor): *American Practice of Surgery*, vols iv and vi, rev., 699
BRYCE, ALEXANDER: *The Laws of Life and Health*, rev, 877
Buccal mucosa in pernicious anaemia, pigmentation of (T. Gillman Moorhead), 865
BUCHANAN, ANDREW: Vaccination in India, 494
BUCHANAN, Dr.: Enlarged tuberculous bronchial glands, 993
BUCHANAN, R. J. M., elected physician to Liverpool Royal Infirmary, 46; duodenal ulcer, 323; syphilis as an important factor in the causation of heart disease, 446; aortic aneurysm, 811
BUCK, ALBERT H. (editor): *American Practice of Surgery*, vols. iv and vi, rev., 699
BUCK, ARTHUR: Appendix dyspepsia, 543
Buckingham Rural District, report of M.O.H., 1210
Budapest, special correspondence from, 115, 598, 1141; Professor Loeb, 115; the Medical Society, 115; jubilee of Professor Politzer, 115; the ophthalmo reaction, 115; the sick club system, 115; typhoid and poverty, 116; lumbar anaesthesia, 598; death of Dr. Niedermann, 598; lithia waters, 598; post-graduate courses in Hungary, 598; museum of penal apparatus, 1141; atropine in gonorrhoea, 1142; criminal abortion, 1142
Budget, payment of taxes under, 824; (editoria), 824. *See also* taxes
Bugs, bed, survival of, 1092
Bugs in hospital bedsteads in 1767, 1061
BULLEN, F. ST. JOHN: Mr. Pomeroy and vaccination, 118
Bulletins, medical (leading article), 1187
BUNTING, T. L.: Nationalization of medical service, 1521
BUNYAN, JOHN, proposed memorial to, 1182
Buphthalmia or infantile glaucoma (Wilfred Allport), 563
Buphthalmos (Mr. Mayou), 322. *See also* Glaucoma
BURDETT, Sir HENRY: *Hospitals and Charities*, rev., 1056; hospital criticism and hospital letters, 1201
BURDON-COOPER, J.: Lime water in treatment of warts, 240
BURGHARD, F. F. (editor): *A System of Operative Surgery*, rev., 324
BURNET, JAMES: *Hints on Prescription Writing*, rev., 1298
BURNET, Sir ROBERT WILLIAM, appointed Physician to George V's household, 1509
BURNETT, NAPIER: Infection of the urinary tract, 1292
Burnley, compulsory notification of phthisis at, 289
BURNS, JOHN, salary of, 1567
BURRO, Dr.: Report on antirabic vaccinations in Naples, 1906-8, 244
BURY, JUDSON S.: Case of spasmodic syringomyelia, 132
BUSHBY, Dr.: Sea sickness, 573
BUSHBY, THOMAS, Acute visceral syphilis, 754
BUSHNELL, F. G.: General practitioners and Poor Law reform, 541
BUTLER, GLENTWORTH REEVE: *Diagnostics of Internal Medicine*, rev., 510
BUTLER, SAMUEL: On necessity of good physique, 1554
BUTLER, T. HARRISON: On the futility of the official tests for colour blindness, 316; miner's nystagmus, 558, 1024
BUTLIN, H. T.: Remarks on spiritual healing, 1466
BUTTERWORTH, JOHN: Voluntary medical attendance on paupers, 1266
BUXTON, DUDLEY: Choice of an anaesthetic, 633; faecal vomiting during anaesthesia, a suggested method of obviating its danger, 980
BYERS, Sir JOHN: Coli infection after childbirth, 444; pernicious vomiting of pregnancy, 444
BYGOTT, A.: District medical officers and school certificates, 355
Bynin emulsion of cod liver oil with hypophosphites, composition of, 30
Bynol, composition of, 30

C.

CABOT, FOLLEN, death of, 670
Caecum and sigmoid diseases simulating affections of uterus and adnexa (J. M. Munro Kerr), 638
Caesarean section for post-rectal cyst (E. O. Croft), 994
Caesarean section and placenta praevia (Henry Jellett), 1112
Caesarean section in puerperal eclampsia (F. J. McCann), 1547
CAIRD, F. M.: Gangrenous appendicitis, 20; dislocation of radius and ulna, 20; multiple chondromata, 1355; severe colitis cured by appendicostomy, 1355; excision of one half of tongue, 1355
Caird Cancer Research Laboratory. *See* Cancer
Cairo, new barracks for British troops, 921
Cairo, sanitary matters in, 1057; death registration, 1057; birth registration, 1058; infantile mortality, 1058; water supply, 1058; flies and mosquitos, 1059; sanitary laws, 1059; sanitary organization, 1060; expenditure, 1060
Cairo water supply, 593, 1058; question in Parliament, 593
CALABRESE, Dr.: Report on antirabic vaccinations in Naples 1906-08, 244
Calcium in epilepsy, 280, 351
Calcium chloride in albuminuria, 772
Calcium chloride as a haemostatic, 507, 1191, 1268
Calcium salts, influence of on the coagulability of the blood *in vitro* (B. J. Collingwood), 507; (M. P. Ciuffini), 1191
Calculi, ureteral (Sinclair White), 1
Calculi, ureteral, and *x*-ray diagnosis (Thurstan Holland), 811
Calculi, renal, producing no symptoms for fifty years (Charles Joseph Taylor, under the care of Mr. Hurry Fenwick), 1108
Calculus, urethral (Dr. Kelly), 993
Calcutta, proposed school of tropical medicine at, 1010; (leading article on), 1010
Calmette's ophthalmo-reaction, results of Dr. Parassin's investigations, 115. *See also* Ophthalmo
CALWELL, W.: *A Textbook of Medical Treatment (alphabetically arranged)*, rev., 575; auscultatory percussion and friction, 1381
Cambridge Hospital for Special Diseases. *See* Hospital
Cambridge University. *See* University
CAMERON, Sir HECTOR C., resignation of, 1513
CAMERON, Major KENNETH, obituary notice of, 1330
CAMERON, T.: Treatment of chronic oophoritis and associated conditions, 69
CAMMIDGE, P. J.: Pancreatic reaction, 202; examination of the excreta in pancreatic disease, 1293; surgical treatment of glycosuria, 1324, 1445, 1578
Cammidge reaction in abdominal disease (W. Russell), 1413
CAMPBELL, COLIN: Bronchiectasis treated by the intratracheal method, 573; angio-neurotic oedema and urticaria, 573
CAMPBELL, Dr.: Action of hypnotics, 873
CAMPBELL, HARRY: The late Dr. T. D. Savill, 1026
CAMPBELL, JOHN: Cancer houses, 1172
Camphorated oil, case of poisoning by (Frederic Barker), 921
Canada, special correspondence from, 232; prevention of tuberculosis, 232
Canada, medicine in (Andrew Macphail), 1118
Canada, practice in, 1272
Canada, reciprocity with 227; medical registration in, 527
Cancer of breast, result of one hundred operations (Priestley Leech), 72
Cancer of male breast (F. M. Bingham), 442; (Jas. Davidson), 1230
Cancer of right breast (Sampson Handley), 445
Cancer cells, effects of inoculation of living and disintegrated (M. Haaland), 382
Cancer of cervix (Russell Andrews), 810
Cancer of cervix uteri (C. Oldfield) 754
Cancer Commission, the Harvard, 1505
Cancer conference. *See* Cancer Investigation Conference
Cancer, fulguration for, 339
Cancer of gall bladder (B. G. A. Moynihan), 994
Cancer, gastric (Archibald Harrington), 383
Cancer houses (John Campbell), 1172
Cancer houses and dry rot, 484, 552
Cancer of large intestine (Sinclair White), 573
Cancer Investigation Conference, 283, 1150; date and place of meeting, 283, 1150
Cancer investigation, history of (Dr. Borrel), 464
Cancer of liver, primary bile-producing (F. Parkes Weber), 695
Cancer of right lung (Dr. Gullan), 993
Cancer of male breast. *See* Cancer of breast
Cancer of cervical oesophagus (H. Morriston Davies), 363; correspondence on, 599, 666, 781
Cancer of pelvic colon (Warren Low), 264
Cancer, pitch, 1370, 1578
Cancer prevention in Switzerland, 1260
Cancer of pylorus associated with general splanchnoptosis, partial gastrectomy (John Morley, under the care of G. A. Wright), 18
Cancer of pylorus, radical operation for (Ernest W. Hey Groves), 366
Cancer of pylorus, pylorectomy for (Mr. Newbolt and M. Alexander), 446
Cancer of rectum (James Swain), 361; correspondence on, 967, 1023, 1085, 1144, 1203, 1323, 1378, 1422
Cancer of rectum appearing simultaneously in husband and wife (C. Hamilton Whiteford), 1411
Cancer, recurrent (F. Palmer), 264
Cancer research, in Glasgow, 720; in America (annual report of Buffalo Laboratory), 894, 1062
Cancer Research Congress. *See* Congress
Cancer Research Fund. *See* Fund
Cancer Research Laboratory, the Caird (Dundee), 1514
Cancer, review of books on, 86, 1114
Cancer of tongue, cauterization in inoperable cases of (Cecil H. Leaf), 993
Cancer, vulvar, an extensive operation for, 1192
CANNEY, LEIGH: Climate of Egypt and North Africa, 1052
CANTLIE, JAMES (editor): *The Medico-Chirurgical Series, No. 2: The Stomach, Intestines, and Pancreas*, rev., 1177
CAPITAN, Dr.: The antiquity of man, 1009
CAPPE, HERBERT NELSON, obituary notice of, 1208
Carbon dioxide, solid, as a local application (Edward Reginald Morton), 257
Carbon dioxide snow in vascular naevi (J. M. H. Macleod), 254, 1411; correspondence on, 351, 1516
Carbon monoxide poisoning (W. J. Wilson), 1053; (A. J. Hall), 1233
Carcinoma. *See* Cancer
Cardiac arrhythmia (Professor Lindsay), 445
Cardiac disease, use of polygraph in (J. S. McKendrick), 638
Cardiac dullness, rightward edge of (W. Gordon), 1338. *See also* Posture, influence of in physical examination
Cardiac lesions resulting from acute rheumatism (W. Henry Harris), 990
Cardiac pain, mechanism of (Otto May), 13
Cardiac strain, a natural experiment in, 51, 234. *See also* Heart
Cardiff, Medical School, 526; medical inspection of school children, report of medical officer to Education Authority, 1261
Cardiolysis (H. T. Bewley), 914; correspondence on, 1023; leading article on, 1128
Cardiolysis (precordial thoracostomy) in heart disease (William Thorburn), 10
CARLING, E. ROCK: Three cases illustrating the surgery of the jejunum, 435
CARLOS, LOUIS L.: Spasmodic contraction of cervix in eclampsia treated with cocaine, 200
CARLYLL, H. B.: Case of sarcoma of petrous bone, 1546
CARLYLL, HILDRED: Sarcomatous tumour removed from a girl of two, 1356
CARMICHAEL, D. G.: United female twins, 1352
CARMICHAEL, E. SCOTT: Treatment of uterine displacements, 445
Carnegie hero fund. *See* Fund
Carnegie trust for the universities of Scotland, 43
CARNOT, P.: *Bibliothèque de Thérapeutique: Régimes alimentaires*, rev., 1055, 1551; *Crénothérapie, climatothérapie, thalassothérapie—cures hydrominérales, cures d'altitude, cures marines*, rev., 1551
CARPENTER, GEORGE, obituary notice of, 910
CARR, WALTER: Uraemia and diphtheria, 571; myositis fibrosa, 1356
CARRUTHERS, W. D.: Miner's nystagmus, 666
CARTEIGHE, the late Michael, and pharmaceutical legislation, 1433
CARTER, DONALD: Infant feeding, 324
CARTER, GEORGE A.: Dangers of arylarsonates, 847
CARTER, RONALD: Value of test meals as a guide to infant feeding, 1542
Cartilage, triangular, deflection of (Dr. Pegler), 931
Cartilaginous tumours. *See* Tumours
CARWARDINE, T.: Some of the rarer associations of gall stones and biliary obstruction, 66; ruptured tubal pregnancy, 810
CASSELS, WILLIAM: Forcible feeding, 50, 175
CASSIDY, Dr.: Superfetation in a cat, 1233
CASTLE, R. F.: *Tomatoes and How to Grow Them*, rev., 998
Castlebar district No. 2, resignation of medical officer of health, 660
Castlebar Union: Abuse of the red ticket system, 961
Castleford guardians and the Local Government Board, 460
Cat, superfetation in (Dr. Cassidy), 1233
Cataract, congenital, case of (Charles Killick), 318: (N. Bishop Harman), 1549
Catgut, dry iodine (William S. Dickie), 134 (Frederick Edge), 320. *See also* Iodine
Catgut, preparation of, 175, 234
CATHCART, C. W.: Achondroplasia, 20; nursing homes for the middle class, 601; catarrhal appendicitis, 1355; severe cut throat, 1355
Catheter life, 55
Catheter for prostatic cases, 1418
Catheter, ureteral, clinical illustrations of the use of (Edward Deanesly), 312
Catholic Church and cremation. *See* Cremation
CATTLE, C. H.: Milk, sweet and sour, 19
Cauterization in inoperable cancer of tongue (Cecil H. Leaf), 993

Cautery, cold, and thermo-penetration, apparatus for, 269
Caveat emptor, 1451
Cavitation and high tension (Stuart Tidey), 1231
Caxton Convalescent Home, annual report, 670
Cell activity and disease prevention (J. Martin Beattie), 977
Cell proliferation (Powell White), 813
Cell proliferation, induced, healing and malignancy, 1433
Cells, red, source of fallacy in counting (Cecil Price Jones), 1251
Cellulitis of arm. *See* Arm
Census, the coming, 655, 657, 731, 1507, 1508; questions in Parliament, 657, 1507, 1505; (Ireland), 1508; fees for enumerators, 731
CERASI, FILIPPO, death of, 551
Cerebellar tumour. *See* Tumour
Cerebellum and its affections (J. S. Risien Russell), 425, 497, 626
Cerebral tumour. *See* Tumour
Cerebro-spinal fever. *See* Fever
Cerebro-spinal rhinorrhoea. *See* Rhinorrhoea
Certificates, school and district medical officers'. *See* District
Certificates, medical, and school attendance, 1207
Cervical vertebra. *See* Vertebra
Cervix, spasmodic contraction of in eclampsia created with cocaine (Louis L. Carlos), 200
Cervix uteri, cupping the, 424
Ceylon, Secretary of State for Colonies approves proposal that the Principal Civil Medical Officer shall be an official member of the Legislative Council, 1151
CHALDECOTT, J. HENRY: The late Dr. T. D. Savill, 1026
CHAMBERS, E. K., appointed Principal Assistant Secretary Technological Branch Board of Education, 906
CHANCE, Sir WILLIAM: *Poor Law Reform, via Tertia: the Case for the Guardians*, rev., 758
Chancres, two unusually situated (L. Kilroy and G. P. Adshead), 808
CHAPMAN, CHARLES W.: Earpieces of stethoscopes, 732; Epsom College, 1580
CHAPMAN, E. SEYMOUR: Ovarian grafting and menstruation, 1543
Chapman's food, composition of, 1240
Charges, recovery of, 551
Charities Register and Digest, rev., 1239
Charity Organization Society. *See* Society
CHARLES I, death of, 1557
CHARLES II, death of, 1557
CHARLES, Sir HAVELOCK, appointed Sergeant-Surgeon to George V, 1509
CHARLES, J. R.: Infection of the urinary tract, 321
"Charms," use of, 1138
CHASTER, GEORGE WILLIAM, obituary notice of, 1330
Chauffeurs' Companion, rev., 387
CHEADLE, WALTER BUTLER, death of, 839; obituary notice of, 908
CHEATLE, G. LENTHAL: Proposed medical branch of the Navy League, 116; treatment of wounds in road or garden or field accidents, 1203
Chelmsford Rural District, report of M.O.H., 1581
Cheltine food, composition of, 1240
Chemists, unregistered, 1270
Chemistry, forensic, review of books on, 145
Chemists' Annual and P.J.F., the Pharmacists' Diary and Yearbook, 1910, rev., 85
Cheshunt Urban District, report of M.O.H., 1210
Chest development in boys, 840
Chester, scarlet fever at, 424
CHEVERS, MARTIN J.: Dysmenorrhoea 846
CHEYNE, Sir WATSON: appreciation of Robert Koch, 1388; appointed Surgeon in Ordinary to George V, 1509
Chicago, all hospitals or institutions having the care of children under 2 years of age to report to the Department of Public Health twice a year, 1290
CHICHESTER, CHAS. R.: Modern miracles, 1092
CHIENE, G.: Chronic osteomyelitis, 1355
Childbirth, *coli* infection after (Sir John Byers and Tom Houston), 444
Childbirth, diseases and accidents of, 850
Child emigration, 1023, 1206, 1452, 1504
Child Study Society. *See* Society
CHILDE, C. P.: Subperitoneal resection of the shaft of the ulna, 1548; partial tarsectomy, 1548
Children, boarding out of pauper, 162, 1568; boarding out at a shilling a week, 347
Children, defective, care of, in Glasgow, 660; special schools for in Birmingham, 1261
Children, meningitis in (Guthrie Rankin), 1045
Children in Poor Law schools. *See* Poor Law
Children, surgical diseases of, von Pirquet's tuberculin reaction in (Percival Mills), 1159
Children's Act. *See* Act
Children's diseases, review of books on, 449
Chiltern Hundreds (S. D. Clippingdale), 1427
China, plague in, 270, 959
Chinese pork, 593, 1135
CHISHOLM, CATHERINE: Carcinoma of sigmoid flexure, 1550
CHISHOLM, JAMES A.: Tick fever in Nyasaland, 442
CHITTENDEN, Professor, his experiments, 836
Chloroform poisoning, delayed (Stuart Macdonald), 447
Chloroma (Essex Wynter), 571
Choked disc. *See* Neuritis, optic
Cholelithiasis, review of books on, 1237
Cholera, serumtherapy in, 588
Chondo-sarcoma of femur (Thelwall Thomas and Dr. Mackarell), 446
Chorea gravidarum, treatment of (E. O. Croft), 872
Chorion-epithelioma (J. S. Fairbairn), a correction, 97. *See also* Cancer
Choroid, rupture of (Michael Teale), 19
Choroiditis, family (Mr. Doyne), 1549
Christian Science and the reduction of disease, 1392
Chromophil tissues and the adrenal medulla (Swale Vincent), 1151
Church Lads Brigade Medical Corps, Manual for, rev., 24
Church Missionary Society. *See* Society
Church Red Cross Brigade. *See* Red Cross
CHURCHWARD, ALBERT: Circumcision in Ancient Egypt, 424
CHURTON, T.: *X*-ray demonstration of an extra-cerebellar tumour, 755; orbicularis oculi, 1354
Cigarettes and cerebro-spinal fever, 952
CIMICIAN, Professor, elected a Senator of the Kingdom of Italy, 375
Cinematographs, scientific, 598
Circumcision in ancient Egypt, 294, 424
CIUFFINI, M. P.: Calcium chloride as a haemostatic, 1191
CLAIR, FRANCK: *La médecin à bord*, rev., 1179
CLARAC, A.: *Traité de pathologie exotique, clinique et thérapeutique*, rev., 1236
Claremont Institution for Deaf and Dumb, 1574
CLARKE, E. M.: *An A.B.C. of Nursing in Accidents and Illnesses*, rev., 24
CLARKE, ERNEST: Arylarsonates and optic atrophy, 1549
CLARKE, HENRY: Differential cutaneous reaction in tuberculous diseases, 1348
CLARKE, J. MICHELL: On recurrent motor paralysis in migraine, 1534
CLARKE, T. KILNER, obituary notice of, 549
CLARKE, W. BRUCE: Cancer of rectum, 1023
Clavicle, fractured, Wharton Hood's treatment of (T. S. Kirk), 444
CLAY, J.: Ovarian cysts, 447
CLAY, ROTHA MARY: *The Mediaeval Hospitals of England*, 216
CLAYTON, CUTHBERT E. A.: Medical Library Association, 1580
CLAYTON-GREENE, W. H.: Proposed medical branch of the Navy League, 116
CLELAND, JOHN, presentation to, 720
CLIFFORD, H.: Fibroid in pregnant uterus, 994
Climacteric (Leonard Williams), 992
Clinical diagnosis, review of books on, 510
CLIPPINGDALE, S. D.: Medical Parliamentary Roll, 100, 233, 294, 420, 784, 852, 1331, 1584; note on some royal death-beds, 1365, 1452; a correction, 1452; he Chiltern Hundreds, 1427
Clitoris, cyst of (May Thorne), 448
CLOGG, H. S.: *The Stomach, Intestines, and Pancreas*, rev., 1177
Clonic muscular contractures (Byrom Bramwell), 20
Closets, manurial value of dry earth from. *See* Manurial
CLOT-BEY, story of, 275
CLOUSTON, Dr.: Appreciation of James Rutherford, 728
CLOUSTON, T. S.: Presentation portrait, 229
Club, Edinburgh University Graduates', North of England, annual dinner, 720
Club, Glasgow Royal Infirmary, 777; dinner, 777
Club, Glasgow University, North of England, 534; annual banquet, 534
Club, Sheffield Edinburgh University, fifth annual dinner, 430
Clubs, sick, in Budapest, 115
Coach making and lead poisoning, 896
Coal miners. *See* Miners
COATES, WILLIAM: Some practical points in the treatment and clinical history of early syphilis, 1093
COBB, ERNEST HERBERT, obituary notice of, 786
COBBLEDICK, A. S.: Ophthalmic conditions caused or influenced by diseases of the upper respiratory tract, 1282
Cocaine, internal use of, 610
Cocaine, "reconstructed," 180
Cocaine in treatment of spasmodic contraction of the cervix in eclampsia (Louis L. Carlos), 200
COCKBURN, Sir John, appreciation of William Rose, 1448
COCKTON, JOHN, obituary notice of, 729
Cod-liver oil preparations, composition of, 30
CODD, Dr.: Graves's disease, 1290; *x* rays in Favus, 1290
Codex Medicamentarius, new edition, 1316
Coffee, the effect of, 300, 424, 972
Cold cautery. *See* Cautery
Cold hands. *See* Hands
COLE, PERCIVAL P.: Relation of the parovarium to cyst formation, 748
COLE-BAKER, L.: Bilateral absence of the puncta lacrymalia, 1548
COLERIDGE, STEPHEN: Lord Cromer as a medical expert, 1565, 1576
Coley's fluid in sarcoma (Mr. Deanesly), 1290
COLGAN, N.: Locomotion of marine molluscs 830
Coli infection after childbirth (Sir John Byers and Tom Houston), 444
Coli pyelitis, secondary (Andrew Fullerton), 1171
Colitis (H. P. Hawkins), 696
Colitis, ulcerative, treatment of, 1091, 1152
College, Epsom, 1123, 1580
College, King's, 239, 1149; special lectures in physiology, 239 1149
College, Livingstone, 9, 1511; annual report, 9; annual festival, 1511
College of Medicine, Hong Kong, 1065; Calendar, 1065
College of Physicians, Philadelphia, 430; annual report of Library Committee, 430
College reform, 791
College, Royal, of Physicians in Ireland, 904; election of Fellows, 904
College, Royal, of Physicians, London, 341, 354, 669, 707, 730, 770, 785, 1149, 1391; lectures, 341; lectureships, 354; Harveian oration, 354; membership, 354, 785, 1149, 1391; licences, 354, 1149; diplomas in public health, 354; communications, 354, 730, 1149, 1391; council, 354; Central Midwives Board, 554; pathology for the conjoint diploma, 354; reports, 354; library, 354; report of examinations, 354; diploma in psychiatry, 669; recognition of schools, 669; the University of London, a degree for London medical students, 707; proposed joint action with the University of London, 730, 785; Sir Thomas Barlow elected president, 770, 785; Harveian librarian, 785; presidential address, 785; Fellowship, 1149, 1391; librarian, 1149; reports, 1149; death of King Edward VII, 1391; Emeritus librarian, 1391; Chelsea physic garden, 1391
College, Royal, of Surgeons of Edinburgh, 1328; address of condolence, 1328; election of Fellows, 1329; Bathgate prize, 1329; Ivison Macadam prize, 1329
College, Royal, of Surgeons of England, 144, 296, 480, 483, 707, 730, 1015, 1030, 1205, 1244, 1269, 1328, 1435, 1448, 1506, 1520, 1525, *Appendix* to Catalogue of the Pathological Collection, rev., 144; council meeting, 296; lecturers, 296; the working of the Midwives Bill, 296; diplomas, 480, 1269; committee on anaesthetics, 480, 1030; court of examiners, 480; Central Midwives Board, 480; lectures, 483; University of London, a degree for London medical students, 707; Royal Commission on University Education in London, 730; annual report of the proceedings of the Central Midwives Board, 730; honorary medal of, awarded to Robert Fletcher, 1015, 1030; Anaesthetics Bill, 1030; Jacksonian prize, 1030; Triennial prize, 1030; Fellows elected, 1030, 1525; Egyptian Medical School, 1030; and dissections and surgery, 1205, 1520; and dentists, 1205; the museum, 1244; death of the King, 1269; National University of Ireland, 1269; pass lists, 1328; coming council elections, 1435, 1448, 1506, 1525; Queen Alexandra, 1525; examination results, 1525; examinerships, 1525; thanks of the council, 1525; Congress of Obstetrics and Gynaecology, 1525
College, Royal, of Surgeons in Ireland, 179, 228, 548, 785, 1030, 1138, 1209, 1264, 1391, 1448; the Barker anatomical prize, 179; special meeting of council, 228; examination for Fellowship, 548, 785; prizewinners, 1030; Royal College of Surgeons' Association, 1138, 1264; examiners, 1209; the licence in surgery, 1391; annual meeting, 1448; election of officers, 1448; council, 1448
College, St. Mungo's, Glasgow, 785; annual presentation of prizes, 785
College, Trinity, Dublin, 1088, 1318; courses, 1088; post-graduate classes, 1318, 1437
College, University, Cork, 228, 1078, 1374, 1573; important changes, 228; examinations at, 1078; first degree ceremonial, 1374; first report, 1573
College, University, London, 421, 642, 1149, 1209; Ludwig Mond Laboratory, 421; research studentship in biometrics, 421; *Collected Papers of the Institute of Physiology* (edited by C. H. Starling), rev., 642; lectures, 1149, 1209. *See also* University of London
Colleges, University, grants to, 669
COLLIE, R. J.: *The First Line of Defence in the Workmen's Compensation Act, 1906*, 958
Colliery explosions from the medical standpoint (T. Lister Llewellyn), 1399; leading article on, 1428
Colliery stoppages, 908
COLLINGWOOD, B. J.: Influence of the addition of calcium salts on the coagulability of the blood *in vitro*, 507
COLLINS, E. TREACHER: Lenticonus posterior, 447
COLLINS, Sir WILLIAM J.: Appreciation of Stanley Bean Atkinson, 298

COLLINSON, H.: Ovary and twisted Fallopian tube, 1355
COLLIS, EDGAR L.: *Special Report on Dangerous or Injurious Processes in the Smelting of Materials containing Lead*, 1311
Cologne sick clubs (*Krankenkassen*), 1031
Colon, dangers of the, 538
Colon, malignant disease of (E. H. Taylor), 141
Colon, normal peristalsis of, 478, 545
Colon, transverse, case of intussusception of in an adult (Leitch Wilson), 375
Colonial practitioners. *See* Practitioners
Colonial vote and sleeping sickness, 657
Colonies, appointments in, 1212
Colour blindness, 116, 461
Colour blindness and its detection, 461
Colour blindness, futility of the official tests for (T. Harrison Butler), 316
Colour fields in cerebral tumour, 838
Colour testing of railway men in Australia, 1514
Colour vision, testing of, 222, 236, 760, 1067, 1566; case of Mr. Trattles, 222, 236; lamp for testing, 760; leading article on, 1067; Board of Trade appoints a Commission to inquire into, 1566. *See also* Sight tests
COLT, G. H.: Surgical instruments, a disclaimer, 1147
COLT, H. S.: *The Six Handicap Golfer's Companion*, rev., 578
COLYER, STANLEY: Teeth of school children, 965
Combretum sundaicum, 337. *See also* Malay
Committee, Central Ethical, 358; publication and advertisements of books for lay perusal, 358
Committee, Poor Law Reform. *See* Poor Law
Compulsory service and national hygiene, 163
Concours d'externat (Paris), 232
"Concretio cordis," an interesting operation for, 173
Conditions which simulate dyspepsia. *See* Dyspepsia
Conference on cancer. *See* Cancer
Conference, Fabian medical, 731
Conference, Inter-university, Scottish, 111
Conference, Pharmaceutical, 145; *Transactions*, rev., 145
Conference on school children. *See* School Children
Conference, World Missionary, 1584
Congo, sleeping sickness in, 775
Congress on Cancer Research, International, 565; date and place of next meeting, 565
Congress of Criminal Anthropology, International, 691
Congress on Diseases of Occupation, International, 730; date and place of next meeting, 730
Congress of German Scientists and Medical Men, 1398; date and place of meeting, 1398
Congress of Gynaecology, Obstetrics, and Pediatrics, French, 592; date and place of next meeting, 592
Congress of Gynaecology and Obstetrics, International Periodical, 785; date and place of meeting, 785
Congress of Hygiene and Demography, 285, 470, 1088; next meeting, 285, 1088; change of date of next meeting, 470
Congress for Care of the Insane, Fourth International, 359; date and place of next meeting, 359
Congress of the Italian Society of the Critical History of Medical and the Natural Sciences, 1006; date and place of next meeting, 1006; Ingrassia, 1006
Congress, Laryngo-Rhinological, 283; next meeting, 283
Congress, Medical International, 150, 412, 943, 1087; meeting of general committee, 150; appointment of advisory board, 412; *re* report of Budapest meeting, 943, 1087; correspondence on report, 1087
Congress, Medical, South African, 1362; the Sections, 1362; programme for discussions, 1362
Congress of Medicine, French, 1133; date and place of meeting, 1133
Congress of Internal Medicine, German, 125; date and place of meeting, 125
Congress of Medicine and Hygiene, International American, 305; date and place of meeting, 305
Congress of Medicine and Hygiene, Pan-American, 71
Congress of Physiology, International, 463, 971; date and place of next meeting, 463, 971
Congress, Physiotherapeutics, International, 290, 392, 790, 845; date and place of meeting, 290, 290; the Sections, 392; information *re* railway fares, etc., 790; official opening, 845
Congress of Practitioners, French, 355, 663, 1075; third meeting, 1075
Congress of Psychiatrists and Neurologists, French-speaking, 1065; date and place of meeting, 1065
Congress of Psychology, Experimental, 179; date and place of meeting, 179
Congress of Radiology and Electricity, International, 1112; date and place of meeting, 1112
Congress of School Hygiene, International, 760, 1554; date and place of meeting, 760, 1554
Congress of Orthopaedic Surgery, German, 731; date and place of meeting, 731
Congress, Surgical, German, 964; early operation in appendicitis, 964
Congress of Tuberculosis, International, 1142; date and place of next meeting, 1142
Congresses, medical international, 958; meeting of the Bureau of the Permanent Commission at the Hague, 958
Conjoint Board in England, pass lists, 239, 354, 480, 969, 1269
Conjoint Board in Ireland, pass lists, 480, 669, 1270, 1448
Conjoint Board in Scotland, pass lists, 296, 1087, 1269
Conjunctiva, xerosis of, and night blindness (Malcolm L. Hepburn), 692
CONNELL, F. GREGORY: Intestinal stitch, 912
Consciousness, origin of (Piéron), 764
CONSIDINE, THOMAS T., appointed Inspector of Lunacy in Ireland, 1574
CONSTABLE, Dr., obituary notice of, 608
Constantinople, "decanisation" of, 1074
Constipation, review of books on, 932
Consultant, general practitioner, or half-and-half? 474, 540, 603, 725, 785, 849, 903, 968, 1024, 1086, 1092, 1147
Consultant, obligations of, 789
Consultants and general practitioners in Manchester, ethical relations between, 960
Consumption, Conquest of, and the Duties of Municipalities, rev., 1418
Consumption. *See* Tuberculosis
Consumptive, psychology of the (leading article), 1253; correspondence on, 1519
Consumptives, treatment of in Edinburgh, *See also* Tuberculosis, war against
Consumptives under the Poor Law, 1512
Contacts, isolation of, 229
Contract practice, 177
Contract practice, shall it be abolished? (leading article), 1561
Contracts not to practise within an area, 482, 731
Convalescent home. *See* Home
COOKE, Dr.: Simulation of acute abdominal conditions, 1171
COOMBE, RUSSELL: Boric acid and appendicitis, 1085
COOMBS, CAREY: Two cases of rhinorrhoea, 1411
COOPER, the late Dr., proposed memorial to, 1133
COOPER, D. N.: Practical points in the treatment and clinical history of syphilis, 1352
COOPER, GEORGE JOSEPH, estate of, 239
COOPER, HARRY: Congenital ophthalmoplegia externa (nuclear paralysis) in the same family, 917; case of general suppurative peritonitis, recovery, 1230
COOPER, H. M.: Treatment of dysmenorrhoea, 782
COOPER, P. R.: General practitioners and Poor Law reform, 475, 902, 1022; sickness and invalidity insurance, 1143, 1325
COPE, V. ZACHARY: *Minor Gynaecology*, rev., 1176
COPP, CHARLES J., appointed Esquire of the Order of St. John of Jerusalem, 671
COPPINGER, Inspector-General RICHARD W., obituary notice of, 1190
Coral, red (Professor McIntosh), 764
Cork, county, typhus fever in, 962
Cork, unresponsiveness of the Health Committee, 1017
Cork guardians, dilatoriness of, 897; and infant mortality, 1017
Cork Sanatorium. *See* Sanatorium
Cornea, epithelioma of (Cecil Shaw), 444
CORNER, EDRED M.: *The Operations of General Practice*, rev., 996
Cornhill Magazine, Jubilee number, 97
CORNIL, V.: *Les tumeurs du sein*, rev. 1114
COROMILAS, Dr.: Acquired diseases traced through the development of mankind, 393
Corporation, claim against, 55
Coroners Committee, 826, 940. *Issue of first part of second report*, 826; deputy coroners, 826; coroners as justices of the peace, 826; fire inquests, 826; *post-mortem* examination without inquest, 826; deaths under anaesthetics, 827; rules of procedure, 827; scales of cost, 827; exhumation, 827; removal of body, 827; perverse verdicts, 827; riders to verdicts, 827; medical witnesses summoned by jury, 827; view of the body, 828; fees to medical witnesses, 828; selection of medical witnesses, 828; medical fees in case of institutions, 828; cremation cases, 828; certification of deaths, 828; verdict in cases of suicide, 829; conclusion, 829. *Issue of second report*, 940; *Deaths Under Anaesthetics*, 940; statistics, 940; reports of deaths to coroners, 941; anaesthetics and the law, 941; general respirable anaesthetics, 941; nitrous oxide gas, 941; ethyl chloride, chloroform, and ether, 941; local anaesthetics, 941; instruction in the administration of anaesthetics, 941; coroners and skilled assessors, 942; proposed scientific committee, 942; summary of recommendations, 942
Coroners and doctors, 1311
Coroners' Law and Death Certification (Amendment) Bill. *See* Bill
Coroners, London, 462
Corrections, 1122, 1392
Correspondence, 49, 116, 173, 233, 290, 413, 471, 540, 599, 664, 724, 781, 846, 900, 964, 1021, 1083, 1142, 1199, 1264, 1321, 1377, 1439, 1516, 1574
Abdomen, indications for immediately opening in acute cases, 51
Abdomen, palpation of with superimposed hands, 1520
Abdominal compression in very rapid heart, effect of, 724
Abdominal emergencies, 176
Acne, cultural characteristics of the micrococcus of, 1382
Adams *v.* Pomeroy, 603
Albuminuria and "return" cases of scarlet fever, 546, 784
Alcohol injection into the superior laryngeal nerve in tuberculous odynphagia, 1578
Anaesthetics, proposed legislation on, 50
Anaesthetics, cutaneous, action of, 1521
Ankylostomiasis in Great Britain, risks of, 781
Annual meeting in London, 1516
Appendix dyspepsia, 349, 413, 471, 543, 601, 666
Arylarsonates, dangers of, 599, 664, 724, 846
Association's action in disciplinary cases, 1440
Auscultatory friction, 1269, 1325, 1381, 1444, 1518, 1579
Bacteria, pathology of, 293, 477
Ball's operation for pruritus ani, 727
Blood-letting, physiology of, 233
Boric acid and appendicitis, 1085, 1146, 1326
Boric acid, new aspect of the effects of, 1326
British Medical Benevolent Fund and Guild, 49, 116
Calcium in the treatment of epilepsy, 351
Calcium chloride as a haemostatic, 1268
Cancer of cervical oesophagus, 599, 666, 781
Cancer, pitch, 1578
Cancer of rectum, 967, 1023, 1084, 1144, 1203, 1323, 1378, 1442
Carbon dioxide snow in dermatology, 351, 1516
Cardiac strain, a natural experiment in, 51, 234
Cardiolysis, 1023
Catgut, preparation of, 175, 234
Catheter life, 55
Child emigration, 1023, 1206
Circumcision in Ancient Egypt, 294
College of Surgeons, the Royal, 1205, 1520; dissections and surgery, 1205, 1520; and dentists, 1205
Colon, normal peristalsis of, 478, 545
Colonial practitioners and the British Register, 547
Colour blindness, 116
Congress, Medical International, 1087
Consultant, general practitioner, or half-and-half? 474, 540, 603, 725, 785, 849, 903, 968, 1024, 1086, 1147
Consumptive, psychology of, 1519
Cox, W. H., an appeal on behalf of, 236, 294
Cremation, 668, 727; and the Catholic Church, 727
Diet during severe exercise, 54
Difficulties of modern practice, 547, 726
District and cottage nursing associations, 1268
Drowning, means of rescue in tidal, 1521
Duodenal ulcer, chronic, treatment of, 292
Dysmenorrhoea, treatment of, 782, 846, 901
Dyspepsia, conditions which simulate, 666
East African Medical Staff, 177
English literature and London examiners, 603, 667
Epsom College, 1580
Faecal vomiting during anaesthesia, 1085, 1206
Faith healing, 1574
Fever, scarlet, 1205, 1267
Food and feeding, 546, 604
Forcible feeding, 50, 117, 174, 233. *See also* Prison doctors and the Home Office
Foxwell memorial, 1087
Gastro-enterostomy in acute dilatation of the stomach, 727, 782
Gastroptosis, 1202, 1321, 1443
Gastrostaxis, does it exist as an independent disease? 1322, 1382, 1443
General practitioners and Poor Law. *See* Poor Law
Glands, ductless, 1203
Glycosuria, surgical treatment of, 1204, 1324, 1382, 1445, 1520, 1578
Greater Britain and the annual meeting 1910, 116
Gynaecological difficulties of the general practitioner, 349, 420
Haemorrhoids, operative treatment of, 234, 292, 415, 473, 544, 600, 848. *See also* Whitehead
Hermaphroditism, 1377
Hospital accounts, uniform system of, 176
Hospital criticism and hospital letters, 1201
Human sero-therapy, 848
Lavatories at railway stations (women's), 176, 294
Lead poisoning, gout and granular kidney, 1324, 1577
London children's teeth. *See* School children
London police and quacks, 1084
Lord Cromer as a medical expert, 1576
Medical attendance on paupers. *See* Paupers
Medical charities, reform of, 1200

Correspondence (*continued*)
Medical Commissioner of Prisons. *See* Prisons
Medical congress. *See* Congress
Medical Library Association, 1580
Medical officers of health, part time, 52, 117, 175, 233, 292, 352, 419, 475, 542, 602, 667, 727
Medical Parliamentary Roll, 233, 294, 353, 420, 784
Medical profession in India, 476, 1268
Medical profession and parliamentary representation, 118, 173, 235
Medical profession and the State, 53. *See also* Poor Law
Medical service, nationalization of, 1440, 1521
Medical Service of the Territorial Forces. *See* Territorial Forces
Medical Sickness Society, 1266, 1381, 1439, 1522, 1576
Midwives Bill (1910), 1022
Milk, soured, preparation of, 52, 118, 235
Miner's nystagmus, 666, 901, 967, 1024, 1085
National emergency, 966. *See also* School Children, deputation to Medical Officer of Board of Education
Navy League, proposed medical branch of, 116, 175
Neurasthenia and psychasthenia, treatment of, 478, 783
Nursing homes for the middle class, 540, 601
On sale or return, 727, 819
Ophthalmia neonatorum, prophylaxis of, 54
Ophthalmic school clinics. *See* School clinics
Oral education of the deaf, 784
Palaeogenesis, 1146
Palpation of abdomen. *See* Abdomen
Papilloedema, localizing value of unequal, 664, 725
Paupers, voluntary medical attendance on, 1146, 1266
Phthisis. *See* Tuberculosis
Piles, Whitehead's operation for. *See* Whitehead
Pitch cancer. *See* Cancer
Pituitary body, 350
Pneumonia, infectivity of, 1204
Pomeroy, Mr., and vaccination, 118, 293
Ponas, is it kala-azar? 545
Poor Law, Majority Report in reference to venereal disease, 52. *See also* Profession and the State
Poor Law reform, general practitioners and, 291, 351, 416, 475, 541, 601, 848, 902, 968, 1022, 1087, 1144
Poor Law schools, children in, 604
Posture, influence of in physical examination, 1441, 1517
Practitioners and Poor Law. *See* Poor Law
Prescriber and dispenser, 54
Prison doctors and the Home Office, 49, 117, 173, 233, 291, 352
Prisons, the Medical Commissioner of, 1146
Profession and the State, 53. *See also* Poor Law.
Pruritus ani, value of Ball's operation for, 727
Psychasthenia, treatment of, 478, 783
Psychical research, 477, 726, 783
Psychology, teaching of applied medical, 1576
Psycho-therapeutic Society, methods of, 783
Public medical service, model rules for, a criticism of its main principle, 1143, 1200, 1265, 1440
Public medical service in Fulham, 175
Pulmonary tuberculosis. *See* Tuberculosis
Relations of the laity and the medical profession, 53
Research Defence Society, 49, 291
Riviera, misconceptions concerning, 176, 295
St. Winefride's Well, 726, 903
Sanatorium treatment of tuberculosis. *See* Tuberculosis
Savill, the late Dr., 1026
Scarlet fever. *See* Fever
School children, conference on, 1199, 1267
School children, treatment of, 542, 1119; teeth of London children, 900, 965, 1021, 1083; medical inspection of (a national emergency), 966
School clinics, ophthalmic, 964
Seamen, habits of, 1580
Self-suggestion as a healing factor, 1575
Sex, causation of, 1024
Sickness and invalidity insurance, 1083, 1142, 1264, 1325, 1379, 1441, 1576
Small-pox and quarantine in Australia, 1579
Spinal anaesthesia, dangers of, 847
Sterilization of certain degenerates, 604
Strychnine in shock, value of, 1204
Surgical instruments, a disclaimer, 1147
Syphilitics, a short way with, 546
Territorial Force, Medical Service of, 967, 1026, 1086
Territorial nursing service, 54
"Trading on names" and "St. Winefride's Well," 903
Tuberculosis, influence of sanatorium treatment of, 1517, 1578
Tuberculosis, pulmonary, treated by continuous antiseptic inhalation, 175
Tuberculosis, pulmonary, physical signs of incipient, 51
Tuberculosis and strong winds, 1377, 1445
Ulcer, duodenal, and appendix dyspepsia, 349, 413
Correspondence (*continued*)
Ulcer, duodenal, chronic, treatment of, 350
Ulcer, gastric and duodenal, treatment of, 848
Universal service petition, 547
Whitehead's operation for piles, 234, 292, 415, 473, 544, 600, 848
Winds and phthisis. *See* Tuberculosis
Wounds in road or garden or field accidents, 1203, 1267; tetanus antitoxin in, 1267

Cortical lamination. *See* Lamination
COSENS, W. BURROUGH: Case of peritoneal pseudo-myxoma originating from the vermiform appendix, 1109
COSSHAM, W. R.: Treatment of depression of the skull in newborn infant, 1050
Cottage hospitals. *See* Hospitals
COTTERILL, J. M.: Inoperable sarcoma of neck, 20; dislocation of first cervical vertebra, 20; use of sterilized oil in peritoneal cavity, 20; arterio-venous aneurysm, 1355; decompression of brain for suspected brain tumour, 1355
COTTET, Dr.: *Clinique Hydrologique*, rev., 452
COTTON, W.: Auscultatory percussion, 1519
Coulsworthy water supply, 1470
Council, General Medical, 451, 654, 717, 1316, 1366, 1373; *Minutes for 1909*, rev., 451; finances of, 654; issuing pamphlet *re* British Practitioners Abroad, 717; business, 1316; death of King Edward VII, 1316; need for amendment of the Medical and Dentists Acts, 1316; revision of the *Medical Register*, 1316; Apothecaries' Society of London, 1317; Apothecaries' Hall, Dublin, 1317; disciplinary cases, 1366, 1373; leading article on disciplinary cases, 1366; dental disciplinary cases, 1373; the subjects of the Final Examination, 1373; the subjects of the First Examination, 1373; the Dental Education and Examination Committee, 1373; Pharmacopoeia Committee, 1373; finance, 1373; the Council's trustees, 1373
Council, London County, 47, 108, 113, 165, 287, 344, 408, 412, 470, 535, 596, 662, 722, 1020, 1139, 1197, 1437, 1572; payment for treatment of school children approved by Education Committee, 47; report of medical officer (education), 287, 344; medical staff of the Education Department, 344; dangers of the streets (no ambulance yet), 108; public health of London in 1908, report, 113, 165; prevention of glanders, 345; treatment of school children, 344, 408, 470, 535, 596, 1197, 1572; cost of medical inspection and treatment, 408; education in vaccination, 408; tuberculous milk, 408; epidemic cerebro-spinal meningitis to continue to be a notifiable disease, 412; health of children, 596; classes for children hard of hearing, 662; school clinic for Norwood, 662; feeding of necessitous school children, 722; registration of midwives, 1020; proposed receiving-house for incipient mental disorder, 1139; Dr. R. D. Jones of Banstead Asylum, 1437; public slaughterhouses, 1437; cost of medical inspection, 1437; inspection of milk, 1572; Asylums Committee, 1572. *See also* London, correspondence from, 590
Council, Surrey County, 1383; letter from lunatic asylums visiting committee on the improper use of the County Lunatic Asylum, 1383
Country doctors and motor cars. *See* Motor
COUPIN: Stories of the intelligence of dogs, 1426
Courtesy call, 851, 1327
Cousin marriages, 164
COUSINS, J. WARD: Appreciation of Henry John Manning, 606
COUTTS, J. A.: Juvenile rheumatoid arthritis, 264
COUTTS, JAMES ALLAN, obituary notice of, 851
COWAN, JOHN M.: Acromegaly, 755; pulsus bigeminus, 1112; convenient form of polygraph, 1112
COWIE, DAVID, obituary notice of, 1524
Cow-pox in man (Robert W. Cruickshank), 984
Cow-pox outbreak at Sudbury, 957
COX, H. W., an appeal, 156, 236, 294, 360
Coxa vara (J. Singleton Darling), 574
Crabs at Cavalière the victims of parasites, 520
CRACE-CALVERT, GEORGE A.: Cremation, 668
Cracow, Polish medico-historical museum opened at, 217
CRAIG, ALEX., obituary notice of, 787
CRAIG, CHARLES F.: *The Malarial Fevers, Haemoglobinuria Fever, and the Blood Protozoa in Man*, rev., 1236
CRAIG, JAMES: Treatment of gastric ulcer, 202, 247
CRAIG, MAURICE: Proposed medical branch of the Navy League, 116, 175
CRAMER, W.: Biochemistry of growth, 569
Cramp, telegraphist's, Departmental Committee appointed, 971
CRANE, NEWTON: Eugenics and divorce, 1075
Craniotomy (G. A. Robinson), 1052
CRAWFORD, D. DOUGLAS: Chronic prostatitis, 754; fractured axis, 810; left cervical rib, 810; cystic kidney, 993; Meckel's diverticulum, 993
CRAWFORD, I.: Notes on one thousand cases of instrumental labour, with four deaths, in a colliery practice, 1280
CREIGHTON, C.: "Mr. Pomeroy on vaccination," 293
Cremation (W. G. Aitchison-Robertson), 141
Cremation, progress of, 579, 585, 668, 727, 761; (leading article), 585; correspondence on, 668, 727
Cremation: in Scotland (annual report of Scottish Cremation Society), 112; in New South Wales, 290, 581; a society formed in Edinburgh, 406; in France, 580; in Germany, 580; in Belgium, 580; in Italy, 581; in Switzerland, 581; in Australia, 581; in New Zealand, 581; in the United States and Canada, 581; in South America, 581; and the Catholic Church, 727. *See also* Society
Crematto, composition of, 30
CRESSY, A. Z. C.: The knife and its point, 1107
Cretins (Greenwood Penny), 1354
Crews' provisions on vessels, 1135
CRICHTON-BROWNE, Sir JAMES, appointed Vice-President Royal Institution, 1211; freedom of Dumfries conferred upon, 1436
CRICHTON, G. C.: General practitioners and Poor Law reform, 1144; sickness and invalidity insurance, 1441
Crime, causes of (James Devon), 537
Crime and punishment in this country (Jane Walker), 142
Criminal statistics, 893
"Crimson Cross remedies," composition of, 1120, 1130; Crimson Cross fever and influenza powder, 1121; Crimson Cross No. 1 ointment (Captain Fielden's), 1121; Crimson Cross special ointment, 1121; Crimson Cross kidney cure, 1121; note on, 1130
Crippled Children's Help Society. *See* Society
CRIPPS, HARRISON: Whitehead's operation for piles, 292; cancer of rectum, 1323
CRITCHETT, Sir ANDERSON, appointed surgeon-oculist to George V, 1509
CROFT, E. O.: Some points in hospital construction, 691; primary epithelioma of vagina, 754; treatment of chorea gravidarum, 872; fibrosis uteri, 994; squamous epithelioma, 994; Caesarean section for post-rectal cyst, 994; "red degeneration," 1354
CROFTON, W. M.: Calcium chloride as a haemostatic, 1268
CROMER, Lord: Research Defence Society, 290; as a medical expert, 1565, 1576
CROMPTON, HAROLD JAMES, obituary notice of, 423
CROOKSHANK, F. G.: Part-time medical officers of health, 52, 352, 419, 542, 667; scarlet fever, 1354
CROOM, Sir HALLIDAY: Physiology, pathology, and psychology of the menopause, 231
CROSLAND, G. W. KILNER: Preparation of catgut, 234
CROSSE, Dr.: Resignation of as chief medical officer to South-West London Tradesmen's Provident Society, 483
CROWLEY, A. C. S. and H.: A rectification, 1032
CROWLEY, RALPH H.: *The Hygiene of School Life*, rev., 1550
Croyland and Abbot Joffrid (Herbert P. Thompson), 153
Cruelty to Animals Bill. *See* Bill
CRUICKSHANK, ROBERT W.: Note on cow-pox in man, with a report of a recent case, 984
CRUISE, Sir FRANCIS, appointed honorary physician to George V in Ireland, 1509
"Crusade against destitution," 715. *See also* Poor Law
CRYMBLE, P. T.: Exhibition of slides, 1053
Cumberland, special correspondence from, 596; Cumberland Infirmary, Carlisle, 596
CUNNINGHAM, D. J., memorial to, 44
CUNNINGHAM, J. T.: *Sex and Sexual Characters*, 586
Cup pessary, 86
Curettage (Victor Bonney), 445
Curette for Eustachian tube, 1057
CURIE, Mme., discovers polonium, 465
CURSCHMANN, HEINRICH, death of, 1330
CUSHING: Colour fields in cerebral tumour, 838
Cutaneous anaesthetics. *See* Anaesthetics
Cutaneous reaction in tuberculous diseases. *See* Tuberculous
Cyclodialysis in glaucoma, 1193
Cyclophoria (A. Alison Bradburne), 564
Cyder, Whiteway's Devonshire, 760
Cyst of clitoris (May Thorne), 448
Cyst formation, relation of parovarium to (Percival P. Cole), 748
Cyst of humerus (Hugh Lett), 572
Cyst, intraneural, of eighth cervical nerve (R. B. Etherington-Smith, with a report by E. H. Shaw), 1286
Cyst of omentum, multilocular (reported by Alex. H. Gifford), 1289
Cystoscope, use of (J. M. Renton), 875
Cystoscope, clinical illustrations of the use of (Edward Deanesly), 312; (J. F. Dobson), 320
Cysts, ovarian (J. Clay), 447
CZERNY, A.: Prophylaxis of tuberculosis, 463

D.

D.P.H. (Scotland), 180; (Dublin), 1091; (Cambridge, books for), 1451

DABBS, GEORGE H. R.: Local injections of strychnine in neuritis, 260
DA COSTA, J. C. (editor): *Surgery: its Principles and Practice*, rev., 384
Dairies, Cowsheds, and Milkshops (Ireland) Order (1908), 1134
DAKHUYSEN: Physiological application of the doctrine of phases, 461
DALGARNO, J. J. Y., obituary notice of, 1389
DANIEL, PETER: Diseases of the orifices of the body, 121
DANIELS, C. W.: *Tropical Medicine and Hygiene: Diseases due to Protozoa*, rev., 698; demonstrates slides dealing with malaria, 1232
Dante, was he a doctor? 331, 394
DARLING, J. SINGLETON: Coxa vara, 574
DARLING, S. J.: Histoplasmosis, 1074
Darran explosion from the medical standpoint (T. Lister Llewellyn), 1399; (leading article on), 1428
DAVIDSON, G. G.: Duodenal ulcer and appendix dyspepsia, 414
DAVIDSON, H. S.: Ovarian epilepsy, 202
DAVIDSON, JAS.: Carcinoma of male breast, 1230
DAVIDSON, MACKENZIE: Radium in treatment of *x*-ray dermatitis, 951
DAVIES, H. MORRISTON: Cancer of cervical oesophagus, 363
DAVIES, MARY: Treatment of school children after inspection, 1550
DAVIS, GEORGE: The late Dr. T. D. Savill, 1026
DAVIS, H. J.: Case of man who swallowed a bone, 448; soldier with pin in pharynx, 448; laryngeal vertigo, 448; entire excision of tongue, 1355; venous angeioma, 1355
DAWSON, BERTRAND, elected honorary secretary of King Edward VII Sanatorium, 1383; appointed physician extraordinary to George V, 1509
DAY, Dr.: Rare sequels of typhoid fever, 634; pulmonary diphtheria, 634
"Dead fingers" (leading article), 37
DEADERICK, WILLIAM H.: *A Practical Study of Malaria*, rev., 1236
Deaf, oral teaching of, 655, 784
Dealin powder, composition of, 761
DE AMICIS, TOMMASO, elected Senator of the Kingdom of Italy, 375
Deafness, chronic (E. A. Peters), 445
Deafness, perceptive (W. S. Kerr), 1111
DEAN, H. R.: Serum diagnosis of syphilis, 506
DEANESLY, EDWARD: Treatment of chronic duodenal ulcer, 292; clinical illustrations of the use of the cystoscope, the urine separator, and the ureteral catheter, 312; cancer of rectum, 1145; sarcoma treated with Coley's fluid, 1290; five specimens of chronic gastric ulcer, 1290; carcinomatous rectum completely removed by the combined abdomino-perineal method, 1290; cancerous caecum removed, 1290
Death-bed of George the Fourth, 163
Death by electric shock, 179
Death from starvation, 957
Death superstitions among savages, 334
Death vacancy, value of, 969
Deaths from camping in wet weather, 775
Deaths from misadventure, 115, 1450

Deaths in the Profession Abroad, 296, 551, 670, 787, 910, 1150, 1208, 1330, 1525. Afanassieff, M., 1208—Bandera, J. M., 787—Bauby, Dr., 1525—Bezzi, Giovanni, 787—Bonfigli, Clodomiro, 296—Botez, C., 1150—Botkin, Sergei, 551—Brown, Tilden, 1525—Cabot, Follen, 670—Cerasi, Filippo, 551—Curschmann, Heinrich, 1330—de Semo, Professor, 787—Edlefsen, Professor, 1525—Eisenberg, James, 1525—Gioffredi, C., 551—Gréhant, Nestor, 1150—Haehnlen, W. Frank, 551—Hennequin, Jules, 1150—Hirschberg, Max, 1330—Hodenpyl, Eugene, 1525—Iglesias, S., 911—Kölpin, Otto, 296—Krannhals, Johann, 670—Krich, George, 1525—Kumberg, Nicolai, 670—Landström, John, 1525—Lenhartz, Hermann, 1208—Lesshaft, P., 296—Malassez, L., 296—Mariani, J. M., 911—Mibelli, Vittorio, 1525—Oedmansson, Ernst L. V., 1208—Ogala, Dr., 787—Pflüger, Eduard, 787—Queirel, Dr., 296—Ricard, Henri, 1150—Ribeiro, Candida Barato, 910—Riegner, Oscar, 1525—Rona, Samuel, 670—Roth, Dr. von, 787—Schiess Pacha, Johannes, 910—Serratosa, A., 551—Sinkler, Wharton, 911—Smith, Andrew H., 1525—Spediacci, Assanto, 296—Stolpe, Dr., 1525—Troland, Dr., 1330—Van Beneden, Dr., 1208—Volborth, Dr., 1330—Widmark, Erik Johan, 296—Windscheid, Franz, 551—Zaufal, Emanuel, 551

DEBIERNE, M., helps Mme. Curie to discover polonium, 465
Defective children. *See* Children
Degenerates, sterilization of certain, 604
DE LAUNAY: *Crénothérapie, climatothérapie, thalassothérapie — cures hydraminérales, cures d'altitude, cures marines*, rev., 1551
Delivery in contracted pelvis, modern methods of (Hastings Tweedy), 505
"Demoniacal possession," a disclaimer, 1272
DEMPSEY, Dr.: Pseudo-hypertrophic muscular paralysis, 636
DENDY, ARTHUR: Mesocoelic recess, 1510
Dental Federation, International, annual meeting, 844
Dental hypoplasia, 1584
Dental injuries, damages for, 421
Dental paying clinics, 949, 1133
Dentists Act. *See* Act
Dentists and the Royal College of Surgeons, 1205
Dentists, unqualified, 1026
Dentist, unregistered, 177
Dentists Register, rev., 759
Depression, diagnosis in states of (Bedford Pierce), 1333
Dermatitis artefacta (Norman Walker), 1481
Dermatology, carbon dioxide snow in, 351
DERRY, DOUGLAS: Ancient human remains in Nubia, 394
DE SEMO, Professor, death of, 787
Destitution Prevention Bill. *See* Bill
Destitution prevention, lectures by Mr. and Mrs. Sidney Webb, 911
Deutsches Bäderbuch, rev., 696
DEVON, JAMES: Drink and crime, 230; causes of crime, 537
DEWAR, DOUGLAS: *The Making of Species*, rev., 326
DEWAR, Dr., appointed additional medical inspector under Local Government Board, Scotland, 1196
DEWAR, Sir JAMES, states that he has separated krypton from xenon, 179
D'EWART, JOHN: Anasarca in an infant, 504
Diabetes in a girl of 14 (E. A. Saunders), 264
Diabetes mellitus (Dr. Boyd), 20; (R. W. Philip), 1355
Diabetes, new vegetable for (Robert Saundby), 568
Diabetic coma at the age of 10 (Louis E. Stevenson), 632
Diabetic gangrene, amputation for (A. E. Johnson), 801
Diamalt with cod liver oil, composition of, 30
Diarrhoea, motor dust and, 1452
DICK, J.: Physical research, 477
DICKEY, J. S.: Slides illustrating the anatomy of the lung apex, 1053
DICKIE, WILLIAM S.: Dry iodine catgut, 134
DICKINSON, W.: Medical Sickness Society, 1381, 1522
Dictionary, New English, medical terms in, 107, 950
Dictionary, French, 423
Dictionary of National Biography, vol. xxii, rev., 935
Diet during severe exercise, 54
Diet and intestinal microbes, 1131
Diet, proteid, value of an exclusive, 852
Dietetics, review of books on, 208, 698, 1055
Difficulties of modern practice. *See* Practice
Digestion, bacterial disturbances of, and the consequences thereof (William Tibbles), 508
Digestion, intestinal bacteria and (leading article), 458
DIGHTON, CHARLES A. ADAIR: Cupping the cervix uteri, 424
DIGUET, LÉON: Mexican fly-traps, 647
Dilatory guardians, 897
DINGWALL-FORDYCE, A.: Diagnosis and treatment of a common form of dyspepsia and of early tuberculous infection in children, 251
Diphtheria, antitoxin treatment of, 60
Diphtheria, pulmonary (Dr. Day), 634
Diphtheria and uraemia (Walter Carr), 571
Disciplinary cases and the Association. *See* Association
Disciplinary cases before the General Medical Council. *See* Council
Disclaimers, 484, 610, 1272; C. Ernest West, 484; Sydney Scott, 484; G. E. Halstead, 610; C. Williams, 1272
Disease, activity of the cells and fluids of the body in the prevention and cure of (J. Martin Beattie), 977
Disease and heredity (E. Le Cronier Lancaster), 308
Disease, palaeogenesis as explanatory of certain forms of (Sir Jonathan Hutchinson), 980
Disease, value of serums and vaccines in the treatment of (Nathan Raw), 811, 1538
Diseases and accidents of childbirth, 850
Diseases, acute, nourishment in (F. G. Haworth), 871
Diseases of occupation, clinical institute for study of, in Milan, 1062
Diseases of the orifices of the body (Peter Daniel), 121
Diseases in Persia, distribution of, 1247
Diseases of the respiratory tract. *See* Respiratory
Diseases, Special, Hospital for. *See* Hospital
Disinfectants (T. W. N. Barlow), 753
Dispensaries, veterinary, 1374
Dispensary, Liverpool East, 289; the new, 298
Dispensary medical officers, Irish, salaries of, 469, 961
Dispensary medical officers' substitutes, fees of, 961
Dispensary, Paddington Tuberculosis, 780
Dispensary, Pendleton Provident, 407; annual meeting, 407
Dispensers' Association. *See* Association
Dissections and surgery, the College of Surgeons and. *See* College, Royal, of Surgeons
District medical officers' appointments, the conscientious objector, 790
District medical officers and school certificates, 299, 355
District Nursing Association. *See* Association
DIVE, Lieutenant G. H.: Congenital acholuric icterus, 1293
Diverticula of alimentary tract of congenital or obscure origin (Arthur Keith), 376. *See also* Alimentary
DIXEY, F. A., recommended for election to Fellowship of Royal Society, 592
DIXON, FREDERICK: Christian Science and the reduction of disease, 1392
DOBBIE, MINA L.: Herpes zoster following injury, 1331
DOBSON, J. F.: Use of the cystoscope, 320
DOBSON, MARGARET: Medical inspection of school children, 756
Dockyards, plumbism in, 1508
Doctor, a centenarian, 894
Doctor as patient, 682, 711, (leading article) 713
Doctors, administration of medicine by, 349
Doctor's courage, recognition of (Donald Macdonald), 898
Doctor's doorkeeper, 401
Doctors and coroners. *See* Coroners
Doctors in command of an army, 1372, 1554
Doctors, Gaelic league for, 596
Doctors and hairdressers, 424, 1438
Doctors and motor cars. *See* Motor
Doctors' relatives and professional relations, 1327, 1581
Doctors, school, work of, 348
Doctors, singing, 590, 911
Doctors on skis, 484
Doctor's telephone, 972
DOFLEIN, F.: *Lehrbuch der Protozoenkunde*: ii Auflage, *Der Protozoen als Parasiten und Krankheitserrege*, rev., 142
Dogs (Exemption) Bill. *See* Bill
Dogs, metabolism of pregnant, 1426
Dogs, stories of the intelligence of, 1426
DON, ALEXANDER: Antenatal lobar pneumonia, 693
DONALD, A. Q., licensed under the Inebriates Act to take in ladies only at Invereden Lodge, Dairsie, 300
DONALDSON, JAMES: Avulsion of eyeball during instrumental delivery, 200
DONELAN, JAMES: Tuberculous ulceration of epiglottis, 1547
DONKIN, H. B.: Prison doctors and the Home Office, 117; the Medical Commissioner of Prisons, 1146
DONOVAN, Lieutenant-Colonel HUGH L.: Obstetric tackle, 732
Don Quixote, the madness of, 944
DOUGLAS, C. GORDON: Action of nicotine and other pyridine bases, 693; causes of absorption of oxygen by the lungs, 693, 1167
DOUGLAS, Lieutenant-Colonel CAMPBELL MELLIS, obituary notice of, 358
DOUGLAS, J. SHOLTO C.: Agglutinins, 322
DOWDEN, J. W.: Two cases of ventral hernia, 20
Dowie, John Alexander, the faith-healer, a "cure" by, 106
DOWSE, T. STRETCH: Effects of abdominal compression on very rapid heart, 792
DOYNE, Dr.: Family choroiditis, 1549
Dr. Allinson's natural food, composition of, 1241
Dr. Richter's Orudon essence, composition of, 762
Dr. Williams's pink pills, composition of, 213
DRAGE, LOVELL: General practitioners and Poor Law reform, 541
Dresden, association for repression of quackery founded in, 609
DREW, DOUGLAS: Separation and displacement forwards of the lower epiphysis of the femur, 323; operative treatment for haemorrhoids, 600; dislocation of foot, 931; cancer of rectum, 1145
DREW, GEORGE HAROLD, awarded Beit Memorial Fellowship, 594
DREYER, GEORGES: Agglutinins, 322
Drink and crime (Dr. Devon), 230
Drowned, restoration of the apparently, 950
Drowning, curious methods of resuscitation from, 650
Drowning, inadequacy of provision for restoration of persons suffering from, in the Thames, 764
Drowning, tidal, means of rescue in, 1521
Drug habit, tobacco, 1152, 1212, 1332
DRUMMOND, DAVID: Causes and treatment of functional dyspepsia, 613
DRUMMOND, HAMILTON: Traumatic rupture of pylorus, 447
DRUMMOND, I. M.: *An Introduction to the Study of Biology*, rev., 1238
DRUMMOND, W. B.: *Elementary Physiology*, rev., 1551
Drunkenness, pathological (leading article), 36
DRURY, Dr.: Glycosuria and Graves's disease, 202
Dry rot (Falck), 341
Dry rot and cancer houses, 484, 552
Duars, commission on the medical arrangements on the tea gardens in the, 1199
Dubary's Revalenta Arabica food, composition of, 1241
Dublin, notification of tuberculosis in, 113, 405; students' union, 169, 1138; hospitals tuberculosis committee (*see* Tuberculosis); public health in, 405; the corporation and the hospitals, 406; medical education, 841; antivivisection meeting in, 1078; post-graduate classes, 1318; water supply, 1374
Dublin prize in Melbourne University, 286

Dublin University. *See* University
DUBOIS, PAUL: *Pathogeny of the Neurasthenic States*, rev., 1499
DUCKWORTH, Sir DYCE: Peculiarities of the gouty diathesis, 723
DUCLAUX: Organized matter, 1251
Ductless glands. *See* Glands
DUDGEON, J. H.: Cup pessary, 86
DUDGEON, L. S.: Haemagglutinins, haemopsonins and haemolysins, 20; cartilaginous and osseous tumours, 507; influence of bacterial endotoxins on phagocytosis, 1510
DUKE, JOSHUA: Lyssophobia or hydrophobia? 567
Dundee, the Town Council and Sidlaw Sanatorium, 468. *See also* Sanatorium
DUNLOP, BINNIE: Child emigration, 1023, 1452
Duodenal ulcer. *See* Ulcer
Duodenum, foreign bodies in (Somerville Hastings), 370
DUPUYTREN, story of, 275
Durham county, vital statistics, 355
Durham University. *See* University
DURINGER, CH.: Misconceptions concerning the Riviera, 176
Dust, fog, and smoke (Sir Thomas Oliver), 534
Dusty trades, mortality from consumption in, 1060; correspondence on, 1152
DUTTON, A. STAYT: Prevention of Destitution Bill, 1092
DUTTON, THOMAS: Preparation of soured milk, 235
Dwelling house. *See* House
Dying declarations, 897
Dysmenorrhoea (R. A. Gibbons), 676, 901; correspondence on, 782, 846, 901
Dyspepsia, appendix (B. G. A. Moynihan), 241; correspondence on, 349, 413, 471, 543, 601, 666, 732. *See also* Ulcer, duodenal
Dyspepsia and early tuberculous infection in children (A. Dingwall-Fordyce), 251
Dyspepsia, chronic, the existence of living creatures in the stomach as a cause of (W. Soltau Fenwick), 371
Dyspepsia, conditions which simulate (Robert Hutchison), 485; correspondence on, 666
Dyspepsia, functional, causes and treatment of (David Drummond), 613
Dystrophy, muscular (Erb's juvenile form), occurring in an adult (H. L. McKisack), 559; (H. Henry), 1111

E.

E. M. I., 747; place of 1910 tour, 747
Ear, middle. *See* Middle
EARL, Dr.: Acute leukaemia, 636
Earth from closets, manurial value of. *See* Manurial
Easington Rural District, report of Medical Inspector of Local Government Board, 482
East African Medical Staff, 177
EASTERBROOK, C. C.: Appreciation of James Rutherford, 728
East Stow Rural District, report of M.O.H., 790
EASTWOOD, Dr., appointed additional medical inspector of the Local Government Board, 107
ECCLES, MCADAM: Retroperitoneal myxo-fibrolipoma, 572; *St. Bartholomew's Hospital Reports*, rev., 758; osteoarthritis of both knee-joints, 992
ECCLES, R. G.: Cleansing the hands, 398
Eclampsia (W. Fletcher Shaw), 1175
Eclampsia, puerperal (Andrew Fullerton), 1172; (J. Vincent Shaw), 1411
Eclampsia, puerperal, Caesarean section in (F. J. McCann), 1547
Eclampsia, spasmodic contraction of the uterus in, treated with cocaine (Louis L. Carlos), 200
Ectopic fetation. *See* Fetation
Ectopic gestation. *See* Gestation
Eczema, cruro-genital (G. H. Lancashire), 993
EDGE, FREDERICK: Iodine catgut, 320
EDINBURGH, J. G. H.: *The Nurse's Guide to Prescription Reading*, rev., 641
Edinburgh, the Parish Council and temporary mental disorder, 43; health statistics, 111; social union, 25th annual report, 230; treatment of consumptives in, 406, 720, 776; Cremation Society formed in, 406; proposed home for paying patients in, 457, 466, 720; the great cold in Scotland, 659; "open spaces" scheme in, 659; I.M.S. dinner, 660; diminution of infant mortality in, 776; the School Board's skin diseases school, 777; children's shelter in, 962; medical inspection of schools in, 962; the milk supply and infant mortality, 1017; post-graduate study in, 1136, 1262; Harveian Festival, 1196; proposed zoological garden for, 1375; health of, 1574
Edinburgh Hospitals. *See* Hospitals
Edinburgh Royal Infirmary. *See* Infirmary
Edinburgh University Graduates' Club. *See* Club
Edinburgh University. *See* University
Edinburgh and St. Andrews Universities. *See* Universities
Edith Pechey Phipson Scholarship, 353
EDLEFSEN, Professor, death of, 1525
EDMUNDS, Mr.: Paresis of the left cervical sympathetic, 264
EDMUNDS, W.: Thyroid and antithyroid preparations, 202
EDRIDGE-GREEN, F. W.: Colour blindness, 116; and its detection, 461; awarded Beit Memorial Fellowship, 594
Education Board. *See* Board
Education Committee, London County Council. *See* Council
Edward VI, deathbed of, 1303
Edward VII. *See* King
Edward medal, awards, 1310
EDWARDS, A. D.: An immunizing subinfection in scarlatina, 1048
EDWARDS, E. C.: Suppurative pylephlebitis following oesophageal stricture, 199
EDWARDS, F. SWINFORD: Cancer of rectum, 967, 1024; Medical Sickness Society, 1439, 1576
Edwards' Harlene, composition of, 151
Egham Urban District, report of M.O.H., 1210
Egypt, climate of, 773, 1052; (Leigh Canney), 1052
Egypt, plague in, 270, 959
Egypt, ancient, circumcision in, 294, 424
Egypt and the Soudan, irrigation of (Colonel Sir C. C. Scott-Moncrieff), 1181
Egypt and the Soudan in 1909, reports of Sir Eldon Gorst, 1301, 1361; public health hospitals, 1301; plague, 1302; infant mortality, 1302; Cairo water supply, 1302; Cairo drainage, 1361; mosquitos and malaria, 1362; school of medicine, 1362; child labour in factories, 1362
Egyptian exploration (Flinders Petrie), 841
Egyptian mummies, presence of *Bilharzia haematobia* in (Marc Armand Ruffer), 16. *See also* Mummies
Egyptian mummy, the oldest, 1369
EHRLICH, PAUL, ten thousand dollars placed at disposal of for furthering his investigations into chemical therapy of the protozoon diseases, 432; *Die Anaemie, normale und pathologische Histologie des Blutes*, rev., 449
EICHHOLZ, O.: Achondroplasia, 1229
EICHHORST, HERMANN: *Handbuch der speziellen Pathologie und Therapie inneren Krankheiten*, rev., 1234
EISENBERG, JAMES, death of, 1525
EISENDRATH, D. N.: *Surgical Diagnosis*, rev., 1235
Elbow, ossification in brachialis anticus following injury to (Wilson Tyson), 920; (William A. Ardagh), 1289
ELDER, A. VAVASOUR: Sea-sickness, 424
ELDERTON, ETHEL M.: *On the Measure of the Resemblance of First Cousins*, 164; *A Primer of Statistics*, rev., 208; *A First Study of the Influence of Parental Alcoholism on the Physique and Ability of the Offspring*, 1367
ELDERTON, W. PALIN: *A Primer of Statistics*, rev., 208
Eleanor of Castile, Queen of England, and the monuments erected to her memory (James Galloway), 98
Election, the General, 42, 105, 160, 165, 227, 283, 387, 402; list of medical candidates, 42; withdrawal of Dr. F. E. Fremantle, 105; and food reform, 105; antivaccinators and, 160, 402; questions to medical parliamentary candidates, 165, 227; list of medical members elected, 283; *General Election Supplement*, rev., 387
Electric bath treatment and mental disorder (Mr. Mackenzie-Wallis), 700; (Dr. Goodall and Mr. Mackenzie-Wallis), 1504
Electric current, controller for, 880
Electric light and heat baths, 388
Electric shock, death by, 179
Electricity, medical, insulated wires for, 387
Electricity in medicine, review of books on, 1235
Electrocardiographic curves yielded by ectopic beats arising in the walls of the auricles and ventricles (Thomas Lewis), 750
Electro-medical apparatus, catalogue of, 1122
Elephantiasis scroti, the operation for (F. A. Baldwin), 495
Elizabeth, Queen, death-bed of, 1303
ELLIOT, A.: Haemorrhagic pancreatitis, 1548
ELLIOTT, JOHN F.: Risks of ankylostomiasis in Great Britain, 781
ELLIOT-BLAKE, H.: The college reform, 791
ELLIS, DAVID: *Outlines of Bacteriology (Technical and Agricultural)*, rev., 145
ELLIS, W. D., appointed member of Colonial Office Advisory Committee on medical and sanitary questions, 609
ELLISON, F. O'B.: *A Textbook of Experimental Physiology*, rev., 1358
ELLISON, WILLIAM A., appointed surgeon-apothecary at Windsor, 1509
ELLISTON, W. A., memorial window to, 279
Elm, varieties of in England (Augustus Ley), 1066
ELMSLIE, R. C.: Three cases of enlargement of the tubercle of the tibia, 1510
ELSE, JOSEPH: Anatomical teaching at St. Thomas's Hospital, 1774–75, 1555
ELSNER, HANS: *Lehrbuch der Magenkrankheiten*, rev., 266
Embryo, lantern slides of (N. C. Rutherford), 1233
Embryoma of the testis (T. B. Layton), 572
EMERY, W. D'ESTE: Hypernephroma, 141; honeycomb lung, 141
Emigrants, diagnosis of trachoma in, 1259
"Emphysema," definition of, 1308
Emprote, composition of, 1239
Empyema treated by antiseptic plugging (Peter Tytler), 320
En Avant (May 20th, 1910), 1260
Endocarditis, infective, treated with antidiphtherial serum (W. Rossell Judd), 14
Endocarditis, malignant (F. Parkes Weber), 141; (Porter Parkinson), 141
Endothelioma (Lloyd Roberts), 993
Endothelioma of the ethmoid (Chichele Nourse), 204
ENGEL, Dr.: *Klinische und Experimentelle Studien zur Pathologie und Therapie der Tuberkulose im Kindesalter*, rev., 385
Engine drivers, medical examination of, 231
England and Germany, vital statistics of, 514
English at the London matriculation. *See* Matriculation *and* University of London
Enteric fever. *See* Fever
Enteritis group of bacilli. *See* Bacilli
Entomological expedition to Malta, 1573
Environment and heredity (leading article), 1367
Environment and transmission, 1368
Epiglottis, tuberculous ulceration of (James Donelan), 1547
Epilation forceps, 1179
Epilepsia, 456
Epilepsy (E. F. Trevelyan), 320; (William Aldren Turner), 733, 803, 866, 889; (leading article), 889
Epilepsy, calcium in, 280, 351
Epilepsy and crime, 39
Epilepsy, ovarian (H. S. Davidson), 202
Epilepsy, review of books on, 879
Epilepsy, sensory prodromes of (leading article), 769
Epileptics, sane, colony for, 1513
Epilepsy, traumatic (Fredk. S. Palmer), 992
Epithelioma of cornea (Cecil Shaw), 444
Epithelioma of larynx (StClair Thomson), 448
Epithelioma, primary, of penile urethra (Wm. Ernest Peacock), 138
Epithelioma, squamous (E. O. Croft), 994
Epithelioma of vagina (E. O. Croft), 754. *See also* Cancer
Epocol, composition of, 762
Epsom College. *See* College
Erb's palsy (H. Henry), 1111
ERDÖS, ADOLF: Atropine in gonorrhoea, 1142
ERNST, PAUL: *Missbildungen des Nervensystems*, rev., 1115
Errata, 610, 1392
ERSKINE, JAMES: Old Glasgow pioneers in philanthropy, 456; the reform of medical charities, 1200
Erysipelas, afebrile, two cases of (W. Cameron Macaulay), 495
"Escolent" compounds, 327
Esperantist Association. *See* Association
ETESON, Deputy Surgeon-General ALFRED, obituary notice of, 550
Ether and gas as an anaesthetic (W. E. Alderson), 199
Ether, oxygenated and warmed, as a general anaesthetic (S. P. Rowling), 320
ETHERINGTON-SMITH, R. B.: Intraneural cyst of eighth cervical nerve, 1286
Ethical Committee. *See* Committee
Ethmoid, endothelioma of (Chichele Nourse), 204
Ethmoidal suppuration and trigeminal neuralgia (Oliver Gogarty), 141
Ethmoiditis (W. S. Kerr), 1111
Ethyl chloride inhaler, a new, 1242
Ethylene, dichloride of, and iodine in preparing the skin for operation (Arthur J. Wallace), 1288
Etiquette, elements of, 1210
Eucalyptus oil, poisoning by (W. Ronald Kirkness), 261; (J. Allan), 569
Eugenics, 1367
Eugenics and divorce, 1075
Eugenics Education Society. *See* Society
EURICH, F. W.: Tumour in lower sacral cord, 321
European women in Africa, excessive liability of to trypanosomiasis (Sir Patrick Manson), 72
Eustace Miles breakfast food, composition of, 1239
Eustachian tube, curette for, 1057
EVANS, ARTHUR: New growth, 1355
EVANS, Dr.: The American dentist of Paris 701
EVANS, E. D.: St. Winefride's Well, 726
EVANS, H. MUIR: Further studies in haemolysis by weever venom, 982
EVANS, J. HOWELL: Case of *x*-ray carcinoma, 696
EVANS, LAMING: Congenital dislocation of hip, 992
EVANS, SAMUEL, obituary notice of, 550
EVANS, WILLMOTT: Cases of syringomyelia, 264
EVANS, W. OWEN: Cellulitis of the arm, complicated with pneumonia, treated by vaccine, 1106
EVATT, Surgeon-General G. J. H., awarded good service reward of £100 a year, 818
EVE, FRANK C.: Clinical method of measuring the antitryptic index, 1540

EVE, FREDERIC: Surgical treatment of gastroptosis, 1098, 1111
EVERITT, Lieutenant-Colonel H.: *The Falling Birth-rate and its Significance*, rev., 326
Evolution, interpretation of (W. R. Sorley), 341; (F. W. Headley), 404
EWALD, C. A.: Duodenal ulcer and appendix dyspepsia, 413, 601
EWART, WILLIAM: Effect of abdominal compression in very rapid heart, 724; influence of posture in physical examination, 1442
Examination Hall, New London, 894
Examination and research (leading article), 832. *See also* University of London
Executors, claims of, 1326
Exercise, severe, diet during, 54
Exhibition, the Brussels, 894
Exhibition of fractures, 1031
Exhibition, International Hygiene, Dresden (1911), 715, 1255
Exhibition, Japan-British, 268, 829; Public Health and Sanitation, 268; science at (circular from Sir Henry Morris), 829
Exhibition, Manchester Industrial, 115
Exophthalmic goître. *See* Goître
Exophthalmos, unilateral (Maxwell Telling), 1232
Experiments on living animals. *See* Animals
Explanation, an, 1152
Eye, abnormalities of (G. H. Pooley), 1111
Eye accidents, review of books on, 995
Eye, artificial, for child, 360, 423
Eye, foreign body in the interior of (A. J. Ballantyne), 1112
Eye, phlyctenular affections of (Sydney Stephenson and J. A. Jamieson), 916
Eyeball, avulsion of, during instrumental delivery (James Donaldson), 200; (G. Symers Mill), 568
EYRE, JOHN W. H.: *Serums, Vaccines, and Toxines in Treatment and Diagnosis*, rev., 24

F.

Fabian Conference. *See* Conference
Face, ulceration of, treated by bacterial vaccines (J. Courtenay MacWatters), 190
Facial paralysis. *See* Paralysis
Faculty of Physicians and Surgeons, Glasgow, 44, 1329; word "Royal" conferred upon, 44; address of condolence, 1329
Faecal vomiting. *See* Vomiting
Factory Girls' Country Holiday Fund. *See* Fund
FAIRBAIRN, J. S.: Chorion-epithelioma, a correction, 97; the evolution of obstetric medicine, 217
FAIRBANK, WILLIAM, appointed Surgeon-Apothecary at Windsor, 1509
Faith healing, history of, 1483; the miracle of cure, 1483; demonology and disease, 1483; faith healing in antiquity, 1484; faith healing in the Roman Empire, 1486; Christianity and the ancient gods, 1488; votive offerings, 1489: incubation in modern Greece, 1489; healing wells, 1490; Lourdes, 1491; Christian Science, 1494; Emmanuel movement, 1494; the Church and Medical Union, 1495; the Society of Emmanuel, 1495; the Archdeacon of London on spiritual healing, 1496
Faith healing, 106, 154, 1092, 1453–1483, 1574; *post-mortem* evidence and, 106; modern miracles (Chas. R. Chichester), 1092; Johann Joseph Gassner, 154; (Sir Clifford Allbutt), 1453); (Sir Henry Morris), 1457; (H. T. Butlin), 1466; (William Osler), 1470; (T. Claye Shaw), 1472; (James Rorie), 1477; (Geoffrey Rhodes), 1497; editorial, 1483; leading article, 1500; correspondence on, 1574
Faith that heals (William Osler), 1470
FALCK: *Ueber den gegenwartigen Stand der Hauschwammforschung* and *Neue Mitteilungen über die Trochenfäule*, 342
FALKENSTEIN, Dr.: *Die Gicht und die Salzsäure Jodkur*, rev., 876
FANTHAM, H. B.: Life-cycle of the sporozoon parasitic in the alimentary canal of the grouse, 59, 1252
FAREBROTHER, W. A., re-elected to Bethnal Green Board of Guardians, 911
FARQUHARSON, A. C., and the Lady Eden Hospital, 971
FARQUHARSON, Right Hon. ROBERT, appointed Vice-Lieutenant for Aberdeenshire, 1372
Fat compounds, nature and therapeutic indications of (O. T. Williams), 754
Fauces, ulceration of, treated by bacterial vaccines (J. Courtenay MacWatters), 190
FAUGHT, Surgeon-Major-General JOHN GEORGE, obituary notice of, 1524
FAVELL, R: Solid ovarian tumour, 264; accessory lobes to the liver, 812
Favus, *x* rays in (Dr. Codd), 1290
FAWCETT, JOHN: Proposed medical branch of the Navy League, 116
Feeble-minded, control of, in Worcester, 470
Feeble-minded, the problem of (leading article), 1069, 1508; questions in parliament, 1508. *See also* SUPPLEMENT,
Feeding at the Court of Urbino in the fifteenth century, 1365
Feeding, forcible. *See* Forcible
Feeding, infant, test meals as a guide to (Ronald Carter), 1542
Feeding of school children. *See* School
Fees, alleged misappropriation of, 1327
Fees, assistants', 668
Fees for certification of wandering pauper lunatics, 1271
Fees for certification of workhouse lunatics, 850
Fees of dispensary medical officers' substitutes, 719, 961
Fees for inquest and necropsy, 1390
Fees in the case of lunatics, 119, 850
Fees, medical, new tariff of in Austria, 1141
Fees of monthly nurses, 422
Fees of medical practitioners in Paris, raising of, 172
Fees, notification, 299
Fees of plaintiff's doctor for attending examination by defendant's doctor, 295
Fees, solicitors', and stamp duties, 668
Fees, undertakings to pay, 1326
FEIN, J.: *Rhino- und Laryngologische Winke für praktische Aerzte*, rev., 1115
FELDMAN, W. M.: Conditions which simulate dyspepsia, 666
Fellows of the Royal College of Surgeons' Association. *See* Association
Female genital tract, treatment of gonorrhoeal and mixed infections of, by lactic acid bacilli (David Watson), 192
Female medical inspector under the Factories and Shops Act (Australia), 840
Femur, chondro-sarcoma of (Thelwall Thomas and Dr. Mackarell), 446
Femur, congenital absence of (P. Lockhart Mummery), 572
Femur, fracture of in a child, operation for (W. I. de C. Wheeler), 570
Femur, sarcoma of (Dr. Harvey), 635
Femur, separation and displacement forwards of the lower epiphysis of (Douglas Drew), 323
FENTEM, THOMAS: Country doctors and motor cars, 649
FENWICK, E. HURRY: Case of renal calculus producing no symptoms for fifty years, 1108; appointed to chair of urology at the London Hospital, 1567
FENWICK, P. CLENNELL: Ruptured gastric ulcer in a woman aged 64, 443; rupture of the bladder followed by gangrene of the bladder walls, 798
FENWICK, W. SOLTAU: The existence of living creatures in the stomach as a cause of chronic dyspepsia, 371; gastric hypersecretion and the appendix, 694
FERGUSON, Sir SAMUEL, centenary of, 456, 882
FERGUSSON, J. NEWBERY: Case of family albuminuria, 689
FERNANDEZ, J. SANDOS: Diagnos of trachoma in emigrants, 1259
Ferro-silicon, its uses and dangers (editorial), 269
Fetal deformities (A. Stookes), 265
Fetation, ectopic: laparotomy, supervention of diffuse peritonitis, recovery (J. Gardiner and H. W. Webber), 70
Fever, blackwater, 402; (J. O. Wakelin Barratt and Warrington Yorke), 402
Fever, cerebro-spinal, 193, 412, 952, 1020; to continue to be a notifiable disease in London, 412; in London, 1020; intravenous injection of soamin in (T. Arnold Johnston), 193; and cigarette smoking, 952
Fever, enteric, 59, 116, 410, 538, 634, 775; at Ormesby, 59; and poverty (in Austria), 116; and the carrier problem in France, 410, 538; fear of an epidemic of after the Paris floods, 538; at Funchal (Madeira), 775
Fever, enteric, causes determining the production and distribution of the eruption in (J. P. H. Greenhalgh), 438
Fever, enteric, rare sequels of (Dr. Day), 634
Fever, Mediterranean, 1016, 1507; questions in Parliament, 1016, 1507; goat's milk, 1507
Fever, scarlet, 422, 546, 784, 898, 1048, 1205, 1267, 1327, 1354; at Chester, 422; correspondence on, 1205, 1267; paper on (F. G. Crookshank), 1354; "return" cases of and albuminuria, 546, 784; and isolation (A. Fraser), 898; an immunizing subinfection in (A. D. Edwards), 1048; disinfection after, 1327
Fever, tick, in Nyasaland (James A. Chisholm), 444
Fever, typhus, in County Cork, 962
Fever, yellow, at Sekondi, 1339, 1434; in West Africa, 1434
Fevers, malarial, and quinine (J. H. Whelan), 986
Fibroid, necrotic submucous (J. H. Willett), 639
Fibroid, pedunculated, two cases of (Rutherford Morison), 447
Fibroid in pregnant uterus (H. Clifford), 994
Fibroid, uterine, which had undergone red degeneration (W. Fletcher Shaw), 265
Fibroid, uterine, post-peritoneal haematocele complicating (William Alexander), 505
Fibroid, uterine, rupture of (R. M. Littler), 639
Fibroid tumours. *See also* Tumours
Fibroids, life history of (F. W. N. Haultain), 1511
Fibroids, red degeneration of (Leith Murray), 994
Fibrolysin (H. C. Howard)' 203
Fibroma of breast, intracanalicular (Miss Garrett-Anderson for Miss Aldrich-Blake), 448
Fibroma of ovarian ligament (W. E. Fothergill), 994
Fibroma of the sciatica nerve (H. B. Angus), 447
Fibroma, soft, removal of a rapidly growing, from posterior wall of left maxillary antrum by Rouge's operation (Herbert Tilley), 694
Fibrosis uteri (E. O. Croft), 994
Fiction, modern, consumption in, 1252
Fife, West, hospital accommodation in, 407
Fiji Islands, leper station and asylum established in, 639
Finance Act. *See* Act
FINGLAND, W.: Treatment of ulcerative colitis, 1091
FINLATOR, C. C.: Appointed medical inspector of school children for county Clackmannan, 971
FINLAY, DAVID W., appointed Honorary Physician in Ordinary to George V in Scotland, 1509
FINLAY, JAMES, obituary notice of, 1524
FINN, FRANK: *The Making of Species*, rev., 326
FINNY, J. MAGEE: Bronzing of skin, 931
FINZI, N. S.: Sarcoma of ear treated by radium, 932; malignant growth in neck, 932; growth in gullet, 932
FIRTH, A. C. D.: Intestine prolapsed through anectopia vesicae, 323
FISCHER, EMIL: *Introduction to the Preparation of Organic Compounds*, rev., 451
FISCHER, H.: *Myeloische Metaplasie und Fötale Blutbildung*, rev, 1416
Fish dietary for soldiers and sailors, 1016
FISHBERG, MAURICE: Psychology of the consumptive, 1253
FISHER, HERBERT: Congenital word blindness, 1174
FISCHER, THEODORE: A natural experiment in cardiac strain, 51
Fishes, teleostean, eosinophile leucocytes in the blood of (Anna Drzewina), 403
Fistula, uretero-vesico-vaginal (Dr. Grimsdale), 264
FITZGERALD, CHARLES EDWARD, appointed Honorary Surgeon-Oculist to George V in Ireland, 1509
FITZWILLIAMS, D. C. L.: Traumatic dislocation of knee, 992
FLANAGAN, P. J.: Illuminated certificate for bravery awarded to, 719
Flea, rat. *See* Rat
FLEMING, ALEXANDER: Cultural characteristics of the microbacillus of acne, 1382
FLEMMING, CHAS. E. S.: General practitioners and Poor Law reform, 416, 541
FLETCHER, H. MORLEY: Case of symmetrical trophic lesions of extremities, 203; examples of rheumatic nodules, 448; *St. Bartholomew's Hospital Reports*, rev., 758
FLETCHER, JAMES: Albuminuria and "return" cases of scarlet fever, 784
FLETCHER, JOHN: Proposed legislation on anaesthetics, 50
FLETCHER, ROBERT, awarded honorary medal of the College of Surgeons, 1015, 1030
FLEXNER, SIMON: Infection of acute anterior poliomyelitis, 221
Flies, tsetse, development of trypanosomes in (Sir David Bruce, A. E. Hamerton, H. R. Bateman and F. P. Mackie), 1292, 1312
Flock bedding, 1013, 1263
Floods in France. *See* France *and* Paris
Fluid wedge. *See* Wedge
FLUX, A. W.: Vital statistics in England and Germany, 514
Fly, house, crusade against, 971
Fly, house (Gordon Hewitt), 520
Fly-traps in Mexico (Léon Diguet), 647
Folk lore, medical, in Normandy, 765
Food adulteration at Birmingham, 422
Food and feeding, 388, 453, 546, 604; introductory, 388; the non-breakfast plan and the fasting cure, 389; Fletcherism, 389; vegetarianism, 453; the low proteid diet, Chittenden's plan, 454; correspondence on, 546, 604
Food and physique, 732
Food preservative, boric acid as (Julius Bernstein), 928
Food reform and the general election, 105
Food supplies, modern, 1315
Food supply of the nation, 342
Food, unsound, and the Public Health Act, 970
Foot, dislocation of (Douglas Drew), 931
FOOTE, SAMUEL: The Devil upon two sticks, 943; and a pompous physician, 1252
FORBES, EDMUND: Notes on the Siamese-Malay Peninsula, 650
FORBES, NORMAN HAY: Coulsworthy water, 1470, 1527
Forceps delivery, spinal analgesia for. *See* Analgesia
Forceps, epilation, 1179
Forceps for holding Michel's sutures, 880
Forceps, improved midwifery, 387
Forcible feeding, 50, 117, 174, 1015, 1134; questions in Parliament, 1015, 1134; heart disease

and, 1015; prisons and asylums, 1134. *See also* Prisoners, *and* Suffragettes, *and* Home Office and prison doctors
FORDYCE, DINGWALL: Four cases of primary furunculosis, 20
Foreign bodies in the duodenum (Somerville Hastings), 370
Foreign body in the interior of the eye (A. J. Ballantyne), 1112
Foreign body in gullet (Herbert Tilley), 1355
Foreign body in oesophagus removed by the direct method (George N. Biggs), 380
Foreign body in the tongue (William Murray), 17
Foreign practitioners in France, 1377. *See also* France
Foreign students at the University of Paris, 290
Formaldehyde and chilled meat, 775
FORMAN, Colonel R. H.: Stove for invalid's bedroom, 1091
Formosa, plague in, 270
FORREST, ALFRED, obituary notice of, 1029
FORSYTH, CHARLES E. P.: Differential cutaneous reaction in tuberculous diseases, 1348
FORSYTH, DAVID: Congenital oedema, 323; non-cretinous mental deficiency with goître, 571
FOSTER, Right Hon. Sir WALTER, resignation of, 526
FOTHERGILL, E. ROWLAND: The general practitioner and Poor Law reform, 601; sickness and invalidity insurance, 1083, 1380
FOTHERGILL, W. E.: Ruptured cornual pregnancy, 264; hypertrophied uterus, 264; fibroma of ovarian ligament, 994; gonorrhoeal infection, 994
Fowler *v.* Grant, 658, 668; report of case, 668
FOWLER, J. S.: Tuberose sclerosis, 1173
Foxwell memorial, 1087
Fracture of cervical spine (H. Henry), 1111
Fracture dislocation of right shoulder (Aslett Baldwin), 992
Fracture of femur in a child, operation for (W. I. de C. Wheeler), 570
Fracture of head of humerus (W. S. Haughton), 570
Fracture, Pott's, a patient on, 209
Fracture of skull, depressed, in an infant one day old, trephining, recovery (J. W. Bride), 261
Fracture of the lower dorsal spine (D. Wallace), 20
Fracture of tibia and fibula by direct violence (D. McNabb), 443
Fracture of the great tuberosity of the humerus (W. G. Williams), 81; (William Martin), 81
Fractured clavicle, Wharton Hood's treatment of (T. S. Kirk), 444
Fractured limbs in workmen, results of the treatment of (Arthur P. Gibbons), 314
Fractures, treatment of (T. Jason Wood), 755
Fractures Exhibition, 1031
France, commission appointed to inquire into the condition of the oyster beds, 115; the Parliament decrees that a university shall be established at Algiers, names of those appointed to chairs in the Medical Faculty, 204; working women to have time and opportunity to suckle their babies, 216; medical degrees conferred in, in 1909, 290; the recent floods in, 339, 348, 538; the fear of typhoid after the floods, 538; the medical crisis in, 663; medical relief in, 899; bill before the Senate to compel every foreigner taking up residence in France to produce a certificate of vaccination or revaccination, 987; number of students in the universities of, 1122; law introduced into Chamber of Deputies against procuring or inciting to procure abortion, 1151; amendment of the law relating to the practice of medicine in, 1271, 1332; new edition of *Codex Medicamentarius*, 1316; foreign practitioners in, 1377. *See also* Paris
FRANKLIN, BENJAMIN: The medical side of (William Pepper), 1308
FRANKLIN, GEO. C.: Medical Parliamentary Roll, 294
Frascatorius of Verona, 1122
FRASER, the late Professor ALEC., 719
FRASER, A.: Scarlet fever and isolation, 898
FRASER, C. L.: Complete inversion of uterus, reduction, recovery, 260
FRASER, HENRY: Beri-beri, 999, 1371
FRASER, J. S.: Ménière's disease with facial paralysis, 1174; congenital otitis media, 1355; frontal sinus operation, 1355
FRASER, R. M.: Stove for invalid's bedroom, 732
FRASER, Sir THOMAS RICHARD, appointed Honorary Physician-in-Ordinary to George V in Scotland, 1509
FRAZIER, ALEXANDER, stories of, 765
FREAN, H. G.: Case of aneurysm in a woman, 318
Free-martin, 706, 1125, 1315, 1567; reproductive organs of (Berry Hart), 706; history and etymology of, 1125; note on Hunter's, 1315, 1567
FREMANTLE, F. E.: The medical profession and parliamentary representation, 118; Midwives Bill (1910), 1022; on school children found defective, 1478
French Association. *See* Association
French Congress of Practitioners. *See* Congress
FRENCH, GAY: Some points in middle-ear suppuration, its sequelae and treatment, 573
FRENCH, H. C.: Dangers of arylarsonates, 846
FRENCH, HERBERT: Case of extensive destruction of adrenals without Addison's disease, 203; pigmentary deposits in liver and pancreas in bronzed diabetes, 203; *Guy's Hospital Reports*, rev., 758
French territory, practice in, 1332
Friction, auscultatory (Herbert H. Brown), 1168; correspondence on, 1269, 1325, 1381, 1444, 1518, 1579
FRIEDEMANN, ULRICH: *Taschenbuch der Immunitätslehre mit besonderer Berücksichtigung der Technik*, rev., 815
Friendly societies and the Poor Law Commission, 999; editorial, 999. *See also* Poor Law
Friendly society, receipts from, 1270
FRIPP, Sir ALFRED D.: Proposed medical branch of the Navy League, 116
FROMME, F.: *Die Physiologie und Pathologie des Wochenbettes, für Aerzte dargestellt*, rev., 449
Frontal sinus operation (StClair Thomson), 1355
FROST, K. T.: "Sidelights on Bible history, with personal reminiscences from Palestine and Egypt," 583
Frostbite, 1525
FROUSSARD, Dr.: *Le traitement de la constipation. Les actualités médicale*, rev., 266
Fuchsia stains, removal of, 610
FUERST, MORITZ: Quackery in Germany, 281
Fulguration for cancer, 339
Fulham, public medical service in, 175
FULLERTON, ANDREW: Stone impacted in ureter, 1171; secondary *coli* pyelitis, 1171; puerperal eclampsia, 1172; aneurysm of popliteal artery treated by excision, 1172
FULLERTON, ROBERT: On mucocele of the nasal sinuses and its complication by optic neuritis, 917
Funchal (Madeira), typhoid fever at, 775
Function of the medical profession. *See* Medical
Fund, British Medical Benevolent, 49, 97, 116, 274, 578, 716, 829, 1123, 1360; correspondence on, 116
Fund, British Medical Benevolent, and Guild, 49, 116, 716, 1317; an appeal, 49, 116; note on, 716; drawing-room meeting, 1317
Fund, Imperial Cancer Research, 529; Dr. Bashford delivers an address at Utrecht, 529
Fund, Carnegie Hero, 314, 898; grant awarded to widow and family of the late John Herbert Wells, 314; medallion awarded to Donald Macdonald, 898
Fund, Factory Girls' Country Holiday, 1356; appeal, 1356
Fund, Glasgow Practitioners' Widows and Orphans, 1318
Fund, Hospital, Leeds Workpeople's, 661; twenty-third annual meeting, 661
Fund, Hospital Saturday, 781; in Birmingham, 781
Fund, Hospital Sunday, 287, 660, 661; in Glasgow, 287, 660; Manchester and Salford, 661
Fund, King Edward's Hospital, 119; meeting of general council, 119
Fund, Royal Medical Benevolent of Ireland, 593, 1318, 1512; offer from Sir William Smyly, 593; vote of condolence, 1318
Fund, Trained Nurses' Annuity, annual report, 432
Fund, Tropical Disease Research, 590, 648; report of Advisory Committee, 590, 648
FÜRBRINGER: Albuminuria in relation to life insurance, 837
FURET, Dr.: *Clinique Hydrologique*, rev., 452
Furunculosis, four cases of primary (Dingwall-Fordyce), 20
FYVIE, JOHN: *Wits, Beaux, and Beauties of the Georgian Era*, 766, 943, 1252

G.

GABBETT, M.: Death from spinal injection of novocain and strychnine, 690
Gaelic League for doctors, 596
Gag, mouth, with electric light, 760
Gall bladder, contracted (Mr. Newbolt), 446
Gall stone, spontaneous passage of (Amb. Atkinson), 990
Gall stones and biliary obstruction, some of the rarer associations of (T. Carwardine), 66
GALLOWAY, A. RUDOLF: Board of Trade sight tests, 915
GALLOWAY, JAMES: Eleanor of Castile, Queen of England, and the monuments erected to her memory, 98; spleno-medullary leukaemia with intercurrent erysipelas, 696; "trophic" dermatitis, 696
GAMAN, FRANCIS R. S., obituary notice of, 1150
Gangrene, diabetic, amputation for (A. E. Johnson), 801
Gangrene, dry, of arm (Lawford Knaggs), 1232
Ganister mines (lung diseases), question in Parliament, 1016
Gardening Questions Answered: A Horticultural "Enquire Within" for Amateur Gardeners, rev., 998
GARDINER, J.: Ectopic fetation, laparotomy, supervention of diffuse peritonitis, recovery, 70
GARDNER, BELLAMY: Resumption of discussion on his paper on lymphatism, 448
GARDNER, T. H.: Case of acute abdominal infection in a typhoid carrier, 1107
GARDNER-BROWN, Rev. JOHN: Appeal on behalf of Mr. W. H. Cox, 360
GAREL, J.: *Diagnostic et traitement des maladies du nez*, 1114
GARLAND, CHARLES H.: Influence of sanatorium treatment of tuberculosis, 1578
GARLAND, Dr., obituary notice of, 787
GARNER, J. E.: Solid ovarian tumours, 638
GARRETT-ANDERSON, Miss: Lympho-sarcoma of small intestine, 448; tertiary syphilitic ulceration of forehead, 448; multiple synovial swellings, 448; intracanalicular fibroma of breast, 448
GARRISON, FIELDING H.: True begetter of the germ theory of disease, 1122
GARROD, A. E., recommended for election to the Fellowship of Royal Society, 592
GARRY, T. GERALD: Pulmonary tuberculosis treated by continuous antiseptic inhalation, 484
GARSON, J. G.: *Remedial Gymnastics for Heart Affections used at Bad-Nauheim*, rev., 640
GARSON, JOHN H. R.: Traumatic asphyxia, 990
Gas and ether as an anaesthetic (W. E. Alderson), 199
Gas, nitrous oxide, nasal administration of, 1554
Gas, nitrous oxide, tracheotomy during the administration of (Herbert Relph and Felix Rood), 1287
Gas poisoning in Belfast, 228
GASK, G. E.: *The Practice of Surgery*, rev., 1234
GASKELL, J. F.: Ferric chloride reaction, 874
GASSNER, JOHANN JOSEPH, 154
GASTOU, PAUL: *L'Ultra-microscope dans le diagnostic clinique et les recherches de laboratoire*, rev., 1115
Gastralgia, appendicular (Herbert J. Paterson), 695
Gastric analysis (W. H. Willcox), 695
Gastric cancer. *See* Cancer
Gastric haemorrhage. *See* Haemorrhage
Gastric hypersecretion and the appendix (Soltau Fenwick), 694
Gastric secretion and excessive smoking, 460
Gastric ulcer. *See* Ulcer
Gastro-enterostomy (H. Littlewood), 19
Gastro-enterostomy, case of acute tuberculous broncho-pneumonia after (W. A. Mackay, Ian Macdonald, and Halliday G. Sutherland), 745
Gastro-enterostomy in acute dilatation of stomach, 727, 782
Gastro-intestinal diseases, review of books on, 576, 1177
Gastro-jejunal ulcer. *See* Ulcer
Gastroptosis, principles of treatment in (Robert Hutchison), 1102
Gastroptosis, surgical treatment of (Frederic Eve), 1098, 1111
Gastroptosis, correspondence on, 1202, 1321, 1443
Gastroscope (H. S. Souttar), 753
Gastrostaxis (W. Hale White), 1347
Gastrostaxis, does it exist as an independent disease? (Charles Bolton), 1221; correspondence on, 1322, 1382, 1443
GAUPP, E.: *Sammlung anatomischer und physiologischer Vorträge und Aufsätze*, 282, 511, 880; *Die Normalen Assymetrien des Menschlichen Körpers*, 282; *Elektro-Kardiogramme*, 511; *Phono-Kardiogramme*, 511
GAUTIER: *Crénothérapie, climatothérapie, thalassothérapie: cures hydrominérales, cures d'altitude, cures marines*, rev., 1551
GAVE, E. R.: Treatment of general paralysis by serums, 1233
GAYLORD, HARVEY R.: Cancer research in America, 894
GEARY, H.: *Bees for Profit and Pleasure*, rev., 998
GEDDES, A. C.: Mechanical effects of a massive right-sided pleural effusion, 1409
GEDDES, Professor: Medical education, 841
GELLÉ, M., jubilee of, 743
GEMMELL, J. E.: Pregnancy complicated by acute intestinal obstruction, 639; pregnancy at seven months complicated by appendicitis, 639
General election. *See* Election
General Medical Council. *See* Council
General practitioner. *See* Practitioner
GEORGE THE FOURTH, deathbed of, 163
GEORGE V, 1189, 1260, 1584; addresses of sympathy, 1584
Georgia, proposed registration of laundresses and washerwomen in, 1101
Geril bread, 146

Germ theory of disease, true begetter of, 1122
German East Africa, plague in, 270
German campaign in South-West Africa, medical report of (1904–7), 643
German research on tuberculosis, 836, 1272; a correction, 1272
German Scientists' Association. *See* Association
German, public health classes in, 60; quackery in, 281, 1130; number of students in the universities (1909), 358; average duration of life in, 539; school dental clinic in, 539; treatment of insane prisoners in, 539; smallpox and vaccination in, 589; reorganization of the Education Department in, 590; anti-quackery campaign in, 1130; number of lepers in the empire in 1909, 1298; women students in the Prussian universities, 1298. *See also* Berlin
Germany and England, vital statistics of, 514
Gestation, ectopic (C. Oldfield), 19. *See also* Pregnancy
GHOSH, BIRENDRA NATH: The local injection of sodium salicylate in acute rheumatism, 690
GIBBONS, ARTHUR P.: Results of the treatment of fractured limbs in workmen, 314
GIBBONS, ROBERT A., appointed Knight of Grace of the Order of St. John of Jerusalem, 671; dysmenorrhoea, 676, 901
GIBBS-SMITH, EDWARD G.: Part-time medical officers of health, 475
GIBSON, Dr.: Pathological note on a case of aneurysm in a woman, 318
GIFFORD, ALEX. H., reports case of multilocular cyst of omentum, 1289
GILBERT and BROUARDEL: *Nouveau traité de médecine et de thérapeutique*, rev., 1178
GILBERT, A.: *Bibliothèque de thérapeutique: Régiems alimentaires*, rev., 1055, 1551; *Crénothérapie, climatothérapie, thalassothérapie: cures hydrominérales, cures d'altitude, cures marines*, rev, 1551
GILCHRIST, A. W.: Palaeogenesis, 1152
GILES, P. B.: Medical service of the Territorial Force, 1086
GILL, L. H.: *Post-mortem* report of a cystic spleen, 1545
GILLETT, H. T.: Majority Report on the Poor Law in reference to venereal disease, 52
GILMOUR, A.: Albuminuria and "return" cases of scarlet fever, 546
GILMOUR, ANDREW, obituary notice of, 1271
GIOFFREDI, C., death of, 551
Glanders, prevention of, in London, 345, 1020
Glanders, questions in Parliament, 774
Glands, ductless, 1203. *See also* Glycosuria, surgical treatment of
Glans and prepuce, development and malformations of (Frederic Wood Jones), 137
Glare, its causes and effects, 162, 459
Glareless illumination, 459
Glasgow, notification of phthisis in, 44, 170, 287, 1263; Faculty of Physicians and Surgeons, word "Royal" prefixed, 44; air purification in, 111, 287, 468; milk supply of, 230; proposed extension of the city of, 230; death rate of, 1909, 230; drink and crime, 230; prevention of phthisis in, 287; Hospital Sunday Fund, 287; Red Cross Society Committee, 287; street accidents in, 347; British Medical Association in, 468; proposed free water supply for, 469; motor ambulance brougham for, 551; proposed scheme for new lectures at, 595, 720; Medical Students' hostel in, 595; the tramway employees and their doctors, 659; care of defective children in, 660; cancer research in, 720; nursing and hygiene competition, 777; medical school extension, 898; completion of drainage scheme, 1136, 1263; meat inspection in, 1209; Glasgow weather in 1909, 1262; purification works at Giffnock, 1263; rag flock as bedding, 1262; purification of the Clyde, 1263; Glasgow Practitioners' Widows and Orphans Fund, 1318; Broomhill Home, Glasgow, 1318; colony for sane epileptics, 1513; infant health visitors, 1514
Glasgow Infirmary. *See* Infirmary
Glasgow pioneers in philanthropy, old (James Erskine), 456
Glasgow University. *See* University
Glasgow University Club. *See* Club
Glasses, prescribing and wearing (Michael Teale), 1354
Glaucoma, chronic (Secker Walker), 19
Glaucoma, cyclodialysis in, 1193
Glaucoma, double (Constable Hayes), 993
Glaucoma, infantile, or buphthalmia (Wilfrid Allport), 563. *See also* Buphthalmia
Glaucoma operations, technique of (Colonel H. Herbert), 1174
Gleet, instruments for diagnosis of the seat of, 146
GLEGG, NORMAN: Case of fetal purpura, 632
Gluteal aneurysm. *See* Aneurysm
Gluten meal, composition of, 1241
Glycogen in cell nuclei (Huebschmann), 1124
Glycosuria and Graves's disease (Dr. Drury), 202
Glycosuria, non-diabetic, 401
Glycosuria, non-diabetic, review of books on, 451
Glycosuria, pruritus in, 239, 300, 360, 423
Glycosuria, surgical treatment of certain cases of (A. W. Mayo Robson), 973; correspondence on, 1203, 1204, 1324, 1382, 1445, 1520, 1578. *See also* Glands, ductless
Glycosuria and therapeutic immunization, 1332
GLYNN, ERNEST: Aortic aneurysm, 811; acute entero-colitis, 811; chronic ulcerative colitis, 811; bronchiectasis with cerebral abscess, 811; hydrosalpinx, 811; enlarged tuberculous bronchial glands, 993; lungs from a boy who died of acute pneumococcal septicaemia, 993
GLYNN, T. R.: Traumatic neurosis, 874
GODLEE, RICKMAN JOHN, appointed Surgeon-in-Ordinary to George V, 1509
Goethe's last illness (Sir Jonathan Hutchinson), 1182
GOGARTY, OLIVER: Ethmoidal suppuration and trigeminal neuralgia, 141; thrombosis of the lateral sinus, 873
Goitre, exophthalmic, cured by operation (F. P. Sturm), 1288
Goitre, non-cretinous, mental deficiency with (D. Forsyth), 571
GOLDING-BIRD, C. H.: Appreciation of Edward Cresswell Baber, 1329; the Brighton Throat Hospital, 1392
Golf at the annual meeting. *See* Association, British Medical, annual meeting
Golf, Sunday, 1508
Golfing Society. *See* Society, Medical Golfing
Gonococcus infections (James Miller), 572
Gonorrhoea, atropine in, 1142
Gonorrhoea and gonorrhoeal infection (H. Littlewood), 508
Gonorrhoea, passive hyperaemia in (Alexander Miles), 1173
Gonorrhoeal arthritis (W. R. Jack), 573
Gonorrhoeal infection (W. E. Fothergill), 994
Gonorrhoeal and mixed infections of the female genital tract treated by lactic acid bacilli (David Watson), 192
GONSALVES, V. P.: Medical profession in India, 476
GOOD, Dr.: General paralysis of the insane in women, 1354; alcoholic insanity, 1354
GOODALL, A.: Blood pressure in anaesthesia, 381
GOODALL, Dr.: Electric-bath treatment of the insane, 1504
GOODALL, EDWIN: Ideals in psychiatry, 913
GOODALL, E. W.: Annual meeting in London, 1516
GOODYER, N. S.: English literature and London examiners, 603
GORDON, W.: Effect of abdominal compression in a case of very rapid heart, 624; the right-ward edge of cardiac dullness, 1338, 1518
GORDON, WILLIAM: *Influence of Strong, Prevalent, Rain-bearing Winds on the Prevalence of Phthisis*, 1310; correspondence on, 1445
GORE, W. RINGROSE: Appendix dyspepsia, 666
GOSSE, WILLIAM: Sickness and invalidity insurance, 1379
GOUGH, HENRY EDWARD: Part-time medical officers of health, 53, 419, 542; sickness and invalidity insurance, 1142; Public Medical Service, 1266
GOUGH, W.: Malignant disease of cervix uteri treated by Wertheim's hysterectomy, with resection of one ureter, 754
GOULD, A. PEARCE: Detachment of entire scalp, 695
Goundou (J. O. Shircore), 503
Gout, pathogenesis and treatment of, 1131
Gout, review of books on, 23, 875
Gout and the thyroid gland (Chalmers Watson), 381
Gouty diathesis, peculiarities of (Sir Dyce Duckworth), 723
GOWANS, T.: Rodent ulcer, 447
GOWDEY, Dr.: Medical inspection of school children, 756
GOWERS, Sir WILLIAM: Some aspects of poliomyelitis, 305
GOYDER, DAVID, dinner to, 167; congratulatory address to, 410
GRAHAM, G.: Case of general infection with an anaërobic bacillus, 1231
GRALL, CH.: *Traité de pathologie exotique, clinique, et thérapeutique*, rev., 1236; *Paludisme*, rev., 1236
GRANDIDIER, ALFRED: Report on international map of the world, 942
Granoze, composition of, 1242
GRANT, C. GRAHAM: A hot-water bottle, 996
GRANT, DUNDAS: Growth in naso-pharynx, 204; tuberculosis of larynx, 448; malformation of soft palate and uvula, 932; hypertrophied anterior lip of the hiatius semilunaris, 932; appreciation of Edward Cresswell Baber, 1330; odynphagia, 1355; tuberculosis of larynx with extreme odynphagia, 1547; hypertrophy of lingual tonsil, 1547; alcohol injection into the superior laryngeal nerve in tuberculous odynphagia, 1578
Grape nuts, composition of, 1240
Graphic records, instrument for (H. Tyrrell Gray), 931
GRASSET, Professor: *Consultations médicales*, rev., 1239
GRATTAN, JOHN, 583
Graves's disease (Dr. Codd), 1290
Graves's disease and glycosuria (Dr. Drury), 202
GRAY, H. TYRRELL: Instrument for graphic records, 931
GRAY, J. A.: Radio-activity, detection of homogeneous beta rays by the photographic method, 1509
Greater Britain and the annual meeting. *See* Association, British Medical, annual meeting
GREEN, STANLEY: Gastric and duodenal ulcers, 812
GREENE, ADRIAN, appointed J.P. for county of Carlow, 59
GREENHALGH, J. P. H.: On the causes determining the production and distribution of the eruption in typhoid fever, 438
GREENWOOD, H. H.: Hydronephrosis, 1232
GREENWOOD, MAJOR: Part-time medical officers of health, 175; general practitioners and Poor Law reform, 291, 418, 475, 602, 968, 1087; Poor Law policy and medical reform, 1307; nationalization of medical service, 1521
GREER, W. J.: *Industrial Diseases and Accidents*, rev., 207
GRÉHAUT, NESTOR, death of, 1150
GREY, HARRY: General practitioners and Poor Law reform, 902, 1022; a national emergency, 966; auscultatory friction, 1325
GRIFFITH, HILL: Tumours of the eyelid, 813
GRIFFITH, WARDROP: Traumatic neurasthenia, 19; leucocythaemia, 994; precordial thoracostomy, 1232
GRIFFITH, W.: Annual meeting in London, 1516; carbon dioxide snow, 1516
GRIFFITHS, Dr.: (for Dr. Harris) Case of infantile hemiplegia, 383; (for Dr. Johnson) Charcot's disease of knee, 383
GRIFFITHS, JOHN G.: Uniform system of hospital accounts, 176
GRIFFITHS, JOSEPH: State civil medical services, 1340
GRIMSDALE, Dr.: Uretero-vesico-vaginal fistula, 264
Gross parasites and bacterial disease, 42
GROSSER, O.: *Die wege der fetalen Ernährung*, rev., 880
GRÓSZ, EMIL: International Medical Congress, 1087
GROTH, ALFRED: *Die Säuglinsverhältnisse in Bayern*, 1246
Grouse disease, 59, 1252
GROVES, ERNEST W. HEY: Radical operation for cancer of pylorus, 366; cancer of rectum, 1442
Growth, biochemistry of (W. Cramer and Harold Pringle), 569
GRÜNBAUM, A. S.: Action of radium, 874; "New aspect of the effects of boric acid," 1146
GRÜNBAUM, HELEN G.: Action of radium, 874
GRUNER, O. C.: Abdominal effusions, 320
Guardians, boards of. *See* Boards
GUBB, A. S.: *The Flora of Algeria*, rev., 513
GUERIN, VINCENZO: *History of Dentistry*, 456
Guernsey sunshine (1909), 120
GUIART, Professor: *Précis de parastologie*, rev., 513
Guild for members of the medical profession in this country, proposed, 1151
Guildford, report of medical officer of health, 1527
GULLAN, Dr.: Carcinoma of right lung, 993
GULLAND, LOVELL: Leukaemia, 1355
Gullet, foreign body in (Herbert Tilley), 1355
Gums, edentulous, neuralgia in, 239
Gums, red line in (G. Arbour Stephens), 626
GUNN, A. R.: An explanation, 1152
GUNN, L. G.: Pyonephrotic kidney, 634
Gut, bacterial escape in strangulation of (leading article), 158
GUTHRIE, Dr.: Paresis of the left sympathetic, 264; bulbar polioencephalitis, 383
GUTHRIE, LEONARD: Hypernephroma, 141
GUTZMANN, H.: *Sprachstörungen und Sprachheilkunde. Beiträge zur Kenntnis der Physiologie, Pathologie, und Therapie der Sprache*, rev., 513
GUY, JOHN: Dissociated anaesthesia, 755
GUY, WILLIAM: Blood pressure in anaesthesia, 381
Gynaecological difficulties of the general practitioner (G. Ernest Herman), 181, 420; correspondence on, 349, 420
Gynaecology, review of books on, 576, 1176

H.

HAALAND, M.: Effects of inoculation of living and disintegrated cancer cells, 382
HABERSHON, S. H.: *Diseases of the Stomach: A Manual for Practitioners and Students*, rev., 383
HABGOOD, W.: Survival of bed bugs, 1092
Habit spasm (E. F. Trevelyan), 754. *See also* Spasm
HADEN, Sir FRANCIS SEYMOUR, obituary notice of, 1449
HAEHNLEN, W. FRANK, death of, 551
Haemagglutinins, haemopsonins, and haemolysins (L. S. Dudgeon and H. A. F. Wilson), 20
Haematocele, post-peritoneal, complicating uterine fibroid (William Alexander), 505
Haematology, review of books on, 449

Haematoma, pelvic, of ovarian origin (Cuthbert Lockyer), 262; (Thomas Holmes), 689
Haematoma of scrotum (Dr. Stirling), 751
Haemolysis (von Krogh), 706
Haemolysis by weever venom (H. Muir Evans), 982
Haemo-pericardium, encysted (Dr. Boxwell), 635
Haemophilia in a female (E. W. Squire), 1168
Haemopneumothorax without traumatism, recovery (R. Barclay Ness and George A. Allan), 744
Haemorrhage, severe *ante-partum*, due to spontaneous rupture of vaginal varix (C. E. Purslow and Guy J. Branson), 319
Haemorrhage, gastric, fatal case of, 1452, 1528
Haemorrhage, severe traumatic *ante partum* (E. N. Lea-Wilson), 871
Haemorrhage, diffuse peritoneal (A. W. Lea), 812
Haemorrhoids, anaesthesia for operations in, 424
Haemorrhoids, Whitehead's operation for, modification of (W. Silverwood Richardson), 17; correspondence on, 234, 292, 415, 473, 544, 600, 848. *See also* Whitehead
Haemostatic, calcium chloride as, 507, 1191, 1268
HAHN, J.: *Therpeutisches Lexikon*, rev., 1418
HAHN, MARTIN: *Die Säuglinsverhältnisse in Bayern*, 1246
Hair dye, bismuth, 1032, 1272
Hair, preparations for, composition of, 151
Hairdressers and doctors, 424, 1438
Hairdressers', hygiene at, 1013
Hair-washes containing lead, 120, 1392
HALAHAN, THOS. D.: Soamin in virulent syphilis, a striking case, 504
HALDANE, J. S.: Causes of the absorption of oxygen by the lungs, 693, 1167; rescue work in mines, 1137
HALE, Surgeon-Major THOMAS EGERTON, obituary notice of, 57
HALFORD, Sir HENRY, note on, 583
HALL, ARTHUR: Intracranial tumours, 874
HALL, A. J.: Carbon monoxide poisoning, 1233
HALL, ARTHUR J.: Persistence of itch-mite infection in clothes, 360
HALL, B.: Case of prolonged abstinence, 1352
HALL, BASIL: Sarcocele, 321; fibrolipoma of pharynx, 321; hatpin 3 in. long removed through a low tracheotomy opening, 321; 52 cases of intestinal obstruction, 1233
HALL, I. WALKER: Medical Library Association, 1580
HALL, W. WINSLOW: *The Prayer Quest*, rev., 1298
HALLIBURTON, W. D.: Cortical lamination and localization, 21; *Essentials of Chemical Physiology*, rev., 814
HALSTEAD, G. E.: A disclaimer, 610
Hamburg, Tropical Hygiene Institute to be rebuilt, 1053; association for cure of patients suffering from lupus formed at, 1231
HAMERTON, A. E.: Development of trypanosomes in tsetse flies, 1292
HAMILTON, JOHN: Stove for invalid's bedroom, 732
HAMILTON, RICHARD: Herpes zoster following injury, 1451
HAMILTON, S.: Medical poets, 274
HAMMERSCHLAG, SIEGFRID, *Lehrbuch der Operativen Geburtshilfe*, rev., 1417
Hampstead Garden Suburb, vital statistics of, 609
HANCOCK, WILLIAM ILBERT, obituary notice of, 357
HANDLEY, W. SAMPSON (part editor): *Archives of the Middlesex Hospital, Clinical Series No. III*, 107; carcinoma of right breast, 445; surgery of the lymphatic system, 853, 922; cancer of rectum, 1378
Hands, cleansing of the, 398
Hands, cold, 912
HANN, REGINALD G.: Case of osteitis deformans terminating with cerebral symptoms, 135
HARDMAN, WM.: Is it safe? 424
HARDWICKE, W. W.: Medical book-keeping, 1032
Harlene, composition of, 151
HARMAN, N. BISHOP: Case of girl whose iris was so black that at a distance of a yard it could not be distinguished from the pupil, 324; mounted specimen of eye, 572; hair from an "albino" negro, 572; The Wassermann reaction, 1548; congenital cataract, 1549
HARMER, DOUGLAS: Fibrosarcoma of nose, 448
HARRINGTON, ARCHIBALD: Case of gastric carcinoma, 383
HARRINGTON, A. W.: Charcot's disease of knee-joint, 755; extensive peripheral neuritis, 755
HARRIS, C. J. J., and the Whitehaven mine disaster, 1287
HARRIS, W. HENRY: Cardiac lesions resulting from acute rheumatism, 990
HARRIS, WILFRED: Cases of syringomyelia, 264
HARRISON, EDWARD, reports cases of ruptured gastric ulcer, suture, primary gastro-enterostomy, recovery, 140
HARRISON, Major W. S.: Primary spastic paraplegia, 1293; disseminated sclerosis, 1293
HART, A. HERBERT: *How to cut the Drug Bill*, rev., 935
HART, BERRY: Mendelian law, 284; reproductive organs of the free-martin, 706
HARTILL, JOHN T.: Case of retained menses relieved by operation, 71
HARTILL, SYDNEY: Purulent meningitis secondary to a latent appendix abscess, 990
Harvard Cancer Commission, 1505
Harvey lectures. *See* Lectures
HARVEY, Dr.: Sarcoma of femur, 635
HARVEY, W. F.: *The Opsonic Index*, 225
HASLAM, W. F.: Foxwell memorial, 1087
HASTINGS, SOMERVILLE: Case of bending of bones of both legs, 203; foreign bodies in the duodenum, 370; "bleeding polypus" of inferior turbinate, 694; rupture of tunica vaginalis in hydroceles, 694; laryngeal paralysis, 1517
HAUBOLD, HERMAN A.: *Preparatory and After-treatment in Operative Cases*, rev., 1414
HAUGHTON, W. S.: Fracture of head of humerus, 570
HAULTAIN, F. W. N.: Life history of fibroids, 1511
HAUSMANN, THEODOR: *Die methodische Intestinalpalpation mittels der togographischen Gleit- und Tiefenpalpation*, rev., 1414
Hawaii, plague in, 270
HAWKINS, H. P.: Colitis, 696
HAWORTH, F. G.: Nourishment in acute diseases, 871
HAY, ARCH. G.: Paralysis of the thenar muscles, 755
HAY, EDMUND: Medical Sickness Society, 1523
HAY, JOHN: Heart-block, 20; paralysis of right arm in a girl of 10, 1111; senile heart, 1111
HAYCOCK, G. SIBLEY: Oral education of the deaf, 784
HAYES, CONSTABLE: Double glaucoma, 993; secondary syphilis, 1232
HAYNES, STANLEY: Appreciation of Henry John Manning, 606
HAZELL, W. ERNEST: Cancer houses and dry rot, 484
HEAD, G. P.: *The Practical Medicine Series*. vol. vi: *General Medicine*, rev., 326
Head, extensive injury to (C. S. Ridout), 1548
Headache after sleep, 484, 552
HEADLEY, F. W.: *Darwinism and Modern Socialism*, 404
Health resort, Baden-Baden, 1003
Health resorts in Ireland, 229
Health values (Geoffrey Rhodes), 1497
HEAPE, WALTER: Proportion of sexes produced by whites and coloured peoples in Cuba, 404
HEARD, R. LYNN: Dangers of arylarsonates, 725
HEARSEY, Dr. (editor): Nyasaland Protectorate, sleeping sickness, *Diary*, rev., 1179
Heart-block (Hubert Armstrong), 20; (John Hay), 20; (Professor Lindsay), 445
Heart disease, cardiolysis (precordial thoracostomy) in (William Thorburn), 10
Heart disease and forcible feeding. *See* Forcible
Heart disease, review of books on, 206, 511, 640, 1113
Heart, on the electro-cardiographic curves yielded by ectopic beats arising in the walls of the auricles and ventricles (Thomas Lewis), 750
Heart, treatment of injuries of (John Bland-Sutton), 1273; leading article on, 1309
Heart, senile (John Hay), 1111
Heart, valvular stenosis of (Dr. Moorhead), 635
Heart, very rapid, effect of abdominla compression on (W. Gordon), 624; correspondence on, 724, 792. *See also* Cardiac *and* Tachycardia
Heat stroke, 423
HEATH, H. F., appointed Principal Assistant Secretary of the Universities Branch of the Board of Education, 906
HEITZ, J.: *Crénothérapie, climatothérapie, thalassothérapie — cures hydrominérales, cures d'altitudes, cures marines*, rev., 1551
HELBY, E. H: Prison doctors and the Home Office, 174, 353
Hellos thermaphor, 1076
HELLIER, J. B: Leucocythaemia, 994
Helminths, bionomics of (William Nicoll), 1529
Hemel Hempstead Workhouse, 957
Hemiplegia, organic, diagnosis of, 1192
HENDERSON, G., re-elected on Bethnal Green Board of Guardians, 911
HENDERSON, GEO.: Lime water in treatment of verruca plana, 180
HENDERSON, JOHN, obituary notice of, 1524
HENDRY, ALEXANDER, appointed Surgeon-Apothecary at Balmoral, 1509
HENNEQUIN, JULES, death of, 1150
Henoch's purpura. *See* Purpura
Henry VIII, death-bed of, 1303
HENRY, H.: Erb's palsy, 1111; fracture of the cervical spine, 1111; muscular dystrophy, 1111
Henry Phipps Institute. *See* Institute
Hepatic adenoma. *See* Adenoma
HEPBURN, MALCOLM L.; Xerosis of conjunctiva and night blindness, 692
HERBERT, Colonel H.: Technique of glaucoma operations, 1174
Heredity and disease (E. Le Cronier Lancaster), 308
Heredity and environment (J. Wishart Kerr), 347
Heredity, review of book in, 1356, 1367
HERMAN, G. ERNEST: Gynaecological difficulties of the general practitioner, 181; Medical Sickness Society, 1439, 1576
Hermaphroditism, 1377
Hernia, alleged death from, 295
Hernia, double loop (John A. C. Macewen), 799
Hernia, strangulated inguinal, with appendicitis, operation, herniotomy, appendectomy, recovery (F. R. Bartholomeusz), 1353
Hernia, ventral (J. W. Dowden), 20
HERON, DAVID: *The Influence of Defective Physique and Unfavourable Home Environment on the Intelligence of School Children*, 1367
Herpes zoster following injury, 1331, 1451
HERRING, E. KEN: The intestinal stitch, 496
HERRINGHAM, Dr.: Case of general infection with an anaërobic bacillus, under the care of, 1231
HERRINGHAM, W. P: Proposed medical branch of the Navy League, 116; cyanosis with venous obstruction, 932
HERRIOT, EDOUARD: Hospital and teaching reforms, 1515
HERSCHELL, GEORGE, opens discussion on the utility of the lactic acid bacillus, 21; preparation of soured milk, 118; pancreatic reaction in diagnosis of duodenal ulcer, 240; *Soured Milk and Pure Cultures of Lactic Acid Bacilli in the Treatment of Disease*, rev., 1238
HERTER: Diet and intestinal microbes, 1131
HERTZ, ARTHUR F.: Normal peristalsis of the colon, 478; *Constipation and Allied Intestinal Disorders*, rev., 932; formation of cholesterin gall stones, 932; auscultatory friction, 1326, 1444
HETT, SECCOMBE: An extrinsic carcinoma of larynx, 204
HEWETT, FREDERIC WILLIAM, appointed anaesthetist to George V, 1509
HEWITT, GORDON: The house-fly, 520
Heywood, small-pox at, 289
HEYWOOD, T. W.: Advantages of one-cylinder cars, 887
HICK, Dr.: Contracted stomach, 993
HICK, HENRY: Part-time medical officers of health, 292; general practitioners and Poor Law reform, 848, 968
HICKEY, W.: The drug habit, tobacco, 1152
HICKS, FREDERICK J.: Paracentesis of the pleura, 807
HIGGINS, HUBERT: Food and feeding, 546
Highlands, medicine and public health in, 1436
High tension and cavitation (Stuart Tidey), 1231
Hildanus. *See* Hilden
HILDEN, FABRICIUS VON, 1370; memorial to, 1370
HILL, A. A.: The Association's action in disciplinary cases, 1440
HILL, LEONARD: A new mercury sphygmometer, 442
HILL, M. J. M., re-elected Vice-Chancellor of University of London, 1527
HILL, W.: Improved direct-vision laryngoscope, 264; cancer of cervical oesophagus, 599; carcinoma of gullet in a man of 62, 694; sarcoma of right tonsil, 932; malignant growth in neck, 932; growth in gullet, 932
HILLIER, ALFRED P.: *The Commonweal, a Study of the Federal System of Political Economy*, rev., 84
HILTON, H. H.: *The Six Handicap Golfer's Companion*, rev., 578
HIME, M. C.: *Masonic Hints regarding our Schools and School Elections*, rev., 935
HINDE, Surgeon-Major-General GEORGE LANGFORD, obituary notice of, 608
HINDLE, EDWARD, awarded Beit Memorial Fellowship, 594
HINES, A.: Sickness and invalidity insurance, 1381
Hip, congenital dislocation of (Laming Evans), 992
HIRSCHBERG, MAX, death of, 1330
HIRST, BURTON COOKE: *A Textbook of Obstetrics*, rev., 1417
Histoplasmosis, 1074
HITCHINS, FREDERICK CHARLES, obituary notice of, 1208
H.O., composition of, 1240
HOAG, ERNEST BRYANT: *Health Studies: Applied Physiology and Hygiene*, rev., 1551
HOBHOUSE, E.: Earpieces of stethoscopes, 672
HOCHENEGG, J. (editor): *Lehrbuch der speziellen Chirurgie*, rev., 813, 1235
Hochfelder pitch plaster, composition of, 761
HODDER, A. E.: Part-time medical officers of health, 667
HODENPYL, EUGENE, death of, 1525
HODGETTS, Major CHARLES A., appointed Esquire of the Order of St. John of Jerusalem, 671; elected Fellow Royal Sanitary Institute, 1331
HODGKIN, THOMAS, note on, 153
HOFMANN, JULIUS: *Remedial Gymnastics for Heart Affections used at Bad-Nauheim*, rev., 640

Hoffmann, Frederick L.: Mortality from consumption in dusty trades, 1060
Hogan, Louise E.: *How to Feed Children: A Manual for Mothers, Nurses, and Physicians*, rev., 816
Holland, Sydney: Research Defence Society, 290
Holland, Thurstan: Ureteral calculi and *x*-ray diagnosis, 811
Holmes, James: Lead poisoning, gout, and granular kidney, 1577
Holmes, J. D. E.: Treatment of trypanosomiasis, 1435
Holmes, Thomas: Epilepsy and crime, 39; pelvic haematoma of ovarian origin, 689
Holt, Jos. J. H.: Voluntary medical attendance on paupers, 1146
Home, Convalescent, Charnwood Forest, annual meeting, 843
Home for imbecile girl, 791
Home for mental deficients, 1032
Home Office and prison doctors, 49, 117, 150, 173, 233, 291, 352; correspondence on, 49, 117, 173, 233, 291, 352; *re* Miss Selina Martin, 150. *See also* Prison *and* Suffragette *and* Forcible feeding
Honeycomb lung. *See* Lung
Hong Kong, special correspondence from, 172, 963; presentation to Dr. J. C. Thomson, 172; foundation of the university laid, 963
Hong Kong College of Medicine. *See* College
Hong Kong, plague in, 270
Hong Kong University. *See* University
"Honourable" gentleman, another, 160
Hood, Wharton, his treatment of fractured clavicle (T. S. Kirk), 444
Hopewell-Smith, Mr.: Two odontoceles and some other cysts, 1052
Horbaczewski, Jan, created member of the Austrian House of Lords, 150
Horne, Jobson: Development of an innocent neoplasm, 1547; prolapse of mucous membrane, 1547
Horses, opinion of a medical practitioner on diseases in, 851
Horsley, Sir Victor: Prison doctors and the Home Office, 49, 173, 233, 352; delivers an address at meeting of East Yorkshire Division, 533: "optic neuritis," "choked disc," or "papilloedema," 553, 725; elected foreign associate of the Paris Academy of Medicine, 592
Hort, E. C.: Treatment of duodenal ulcer, 76, 350; serum treatment of gastric and duodenal ulcer, 360; does gastrostaxis exist as an independent disease? 1322, 1443
Hose, Charles: Death superstitions among savages, 334
Hospital, Aberfoyle Children's Home, 112
Hospital abuse, 1528, 1571; in Manchester, 1571
Hospital abuse in America, 1314
Hospital accommodation in West Fife, 407
Hospital accounts, the uniform system of, 110, 176. *See also* Hospital finance
Hospital Almoners' Council, 818, 838
Hospital almoners, the work of, 1432
Hospital, Ancoats, special appeal, 842
Hospital, the Antivivisection, 40; death at, 40
Hospital authorities, legal responsibilities of, 1066
Hospital for bad legs, Manchester, 1072. *See also* Tremol
Hospital, Barnato Memorial. *See* Hospital, Middlesex
Hospital, Barry, 114
Hospital at Bo'ness, proposed cottage, 537
Hospital, Brighton Throat, 1392
Hospital, Charité, Berlin, bicentenary of, 1515
Hospital for Children, Birmingham, appeal, 1572
Hospital for Sick Children, East London, Shadwell, 1546; case of sarcoma of the petrous bone (W. H. Bowen and H. B. Carlyll), 1546
Hospital for Children, Edinburgh Royal, 777; directors' report, 777
Hospital for Children, Glasgow Royal, 347, 1318; twenty-seventh annual meeting, 347; new buildings, 1318
Hospital for Children, Great Ormond Street, 177, 1211; demonstration, 177; post-graduate instruction, 1211
Hospital for Children, Pendlebury, Manchester, depressed fracture of the skull in an infant one day old, trephining, recovery (J. W. Bride), 261
Hospital for Children, Temple Street, Dublin, 169
Hospital, Christchurch, New Zealand, 443; ruptured gastric ulcer in a woman, aged 64 (P. Clennell Fenwick), 443
Hospital construction, some points in modern (E. O. Croft), 691
Hospital criticism and hospital letters. *See* Hospital letters
Hospital, Dalkeith Fever, 537
Hospital, Dental, Liverpool, formally opened, 843
Hospital, Dental, Manchester, and the dental school, 780
Hospital, Dorset County, Dorchester, case of peritoneal pseudo-myxoma originating from the vermiform appendix (Reginald M. Moore, under the care of Mr. W. Burrough Cosens), 1109
Hospital, Dr. Steevens's, Dublin, 1138
Hospital, Dreadnought. *See* Hospital, Seamen's
Hospital, Dublin, Incorporated Dental, action against, 482
Hospital, Ealing Cottage, 409; new premises, 409
Hospital, East Suffolk and Ipswich, improvements, 1572
Hospital, Edinburgh Royal Victoria, for Consumption, 43; completion of the scheme: the establishment of a working colony, 43
Hospital finance, 164. *See also* Hospital accounts
Hospital, Forster Green, for Consumption, Belfast, 348; fourteenth annual meeting, 348
Hospital, French, forty-second annual banquet, 1151
Hospital, Glasgow Maternity, 469
Hospital, Glasgow Samaritan, 778
Hospital, Government Civil, Kandy, Ceylon, case of strangulated inguinal hernia with appendicitis, operation, herniotomy, appendectomy, recovery (F. R. Bartholomeusz), 1353
Hospital, Guy's, 756, 1051; *Reports*, rev., 756; secondary parotitis (W. A. Maggs), 1051
Hospital, Gympie, Queensland, two cases of pelvic tumour (reported by W. Sidney Sweet), 809; three cases of subphrenic abscess (reported by W. Sidney Sweet), 1169
Hospital, Halifax Poor Law, case of intestinal anastomosis (A. F. Theobalds), 200
Hospital, Hope, 230, 343, 531, 842; and the Salford guardians, 230, 343, 531, 842
Hospital infection of tuberculosis (J. Edward Squire), 1039, 1051
Hospital for Invalid Gentlewomen, Lisson Grove, 671; new buildings opened by Princess of Wales, 671
Hospital, Lady Eden, and A. C. Farquharson, 971
Hospital letters, 1071, 1201
Hospital, Liverpool Workhouse, 484
Hospital, the London, 1108, 1567; case of renal calculus producing no symptoms for fifty years (Charles Joseph Taylor; under the care of Mr. Hurry Fenwick), 1108; Mr. Hurry Fenwick appointed to the Chair of Urology at, 1567
Hospital, Lying-in, New York, receives donation to make a special study of puerperal fever, 317
Hospital, Madras General, 1514
Hospital, Mercers', Dublin, King Edward VII cot, 1513
Hospital, Middlesex, 107, 209, 1151, 1383, 1418; *Archives*, rev., 107, 209, 1418; Barnato Memorial Hospital in connexion with Cancer Charity of, 1151; annual founder's day commemoration, 1383
Hospital, National, for Paralysed and Epileptic, 1088; regulations for externes, 1088
Hospital, New, for Women, 1356; annual report, 1356
Hospital, North-Western (Hampstead), 671; lectures, 671
Hospital, Nottingham General, 609; vacancies on staff, 609
Hospital Reports, 18, 81, 140, 200, 261, 443, 504, 809, 930, 990, 1051, 1108, 1169, 1231, 1289, 1353, 1412, 1546. *Manchester Royal Infirmary:* Case of cancer of pylorus associated with general splanchnoptosis, partial gastrectomy (John Morley, under the care of Professor G. A. Wright), 18. *St. Mary's Hospital, London:* Case of abdomino-perineal excision of rectum combined with hysterectomy (Maynard Smith), 81. *Hull Royal Infirmary:* Case of ruptured gastric ulcer, suture, primary gastro-enterostomy, recovery (reported by Edward Harrison), 140. *Poor Law Hospital, Halifax:* Case of intestinal anastomosis (A. F. Theobalds), 200. *Manchester Children's Hospital, Pendlebury:* Depressed fracture of the skull in an infant one day old, trephining, recovery (J. W. Bride), 261. *Christchurch Hospital, New Zealand:* ruptured gastric ulcer in a woman aged 64 (P. Clennell Fenwick), 443. *Royal Naval Hospital, Yokohama:* Soamin in virulent syphilis, a striking case (Thos. D. Halahan), 504. *Gympie Hospital, Queensland:* Two cases of pelvic tumour (reported by W. Sidney Sweet), 809; three cases of subphrenic abscess (reported by W. Sidney Sweet), 1169. *Macclesfield Infirmary:* Perforated gastric ulcer in a woman aged 71, operation, recovery (James William Littlejohn), 930. *Bradford Royal Infirmary:* Purulent meningitis secondary to a latent appendix abscess (Sydney Hartill), 990. *Guy's Hospital:* Secondary parotitis (W. A. Maggs), 1051. *London Hospital:* Case of renal calculus producing no symptoms for fifty years (Charles Joseph Taylor, under the care of Mr. Hurry Fenwick), 1108. *Dorset County Hospital, Dorchester:* Case of peritoneal pseudo-myxoma originating from the vermiform appendix (Reginald M. Moore; under the care of Mr. W. Burrough Cosens), 1109. *St. Bartholomew's Hospital:* Case of general infection with an anaërobic bacillus (G. Graham; under the care of Dr. Herringham), 1231. *Royal Surrey County Hospital, Guildford:* Multilocular cyst of omentum (reported by Alex. H. Gifford), 1289. *Government Civil Hospital, Kandy, Ceylon:* Case of strangulated inguinal hernia with appendicitis, operation, herniotomy, appendectomy, recovery (F. R. Bartholomeusz), 1353. *The Infirmary, Sunderland:* Notes on (Z. M. Hamilton Ross), 1412. *East London Hospital for Children, Shadwell:* Case of sarcoma of the petrous bone (W. H. Bowen and H. B. Carlyll), 1546
Hospital, Royal Country, Heswall, 661
Hospital, Royal Free, 1584; *Magazine of*, rev., 1584
Hospital, Royal Hampshire County, 179; annual ball, 179
Hospital, Royal London Ophthalmic, 327; *Reports*, rev., 327
Hospital, Royal Naval, Yokohama, soamin in virulent syphilis, a striking case (Thos. D. Halahan), 504
Hospital, Royal Portsmouth, 609; annual meeting, 609
Hospital, Royal Surrey County, case of multilocular cyst of omentum (reported by Alex. H. Gifford), 1289
Hospital, Ruchill Fever, observation wards, 887
Hospital, St. Bartholomew's, 758, 1231; *Reports*, rev., 758; case of general infection with an anaërobic bacillus (G. Graham, under the care of Dr. Herringham), 1231
Hospital of St. John of Jerusalem, appointments to the Order of, 671
Hospital, St. Mark's, for Fistula, 454; changes its name, 454
Hospital, St. Mary's, London, 81; case of abdomino-perineal excision of the rectum combined with hysterectomy (Maynard Smith), 81
Hospital, St. Thomas's, 1061, 1432, 1555; bugs in the bedsteads in 1767, 1061; and hospital almoners, 1432; anatomical teaching in 1774–75, 1555
Hospital, Seamen's, Greenwich (Dreadnought Hospital), 662; annual court of governors, 662
Hospital for Skin Diseases, Manchester, annual meeting, 780
Hospital, a skyscraper, 1506
Hospital, Southern General (First), nursing service of, 1081
Hospital for Special Diseases, Cambridge, 522; leading article on, 522
Hospital Sunday Fund. *See* Fund
Hospital, Sydney, clinical school at, 47 report, 840
Hospital and teaching reforms, 1515
Hospital for tuberculosis, Berlin, 845
Hospital, Waddilove's Samaritan for Women, 1019, 1080, 1140; correspondence on, 1080
Hospital, Wimbledon, 1079; annual meeting and questions as to a new hospital, 1079
Hospitalization of assisted persons in France 1082
Hospitals, bequests to. *See* Bequests
Hospitals, Berlin, annual report on, 845
Hospitals, Birmingham, finances of, 1020
Hospitals, Bradford, medical staffs of, 45
Hospitals, cottage, 300
Hospitals, Dublin, and the Dublin Corporation, 406
Hospitals, general, admission of medical women to the staffs of (Margaret Merry Smith), 1020
Hospitals, grants-in-aid to, 896
Hospitals, infectious diseases, 1570
Hospitals for the insane, to be established all over New South Wales, 48
Hospitals, Liverpool, annual reports, 597
Hospitals, Mercer's and Orthopaedic (Dublin) bazaar, 406
Hospitals, responsibility of, 421, 482; (Ruchill Fever Hospital), 421; (Incorporated Dental Hospital, Dublin), 482
Hospitals, St. Mary's, and women doctors, 231
Hot water bottle. *See* Bottle
House of Commons, medical men and, 161
House, dwelling, rateable value of, 484. *See also* Rates
House fly. *See* Fly
Housing problem, in Vienna, 599
Housing and Town Planning Act. *See* Act
Housing question, and tuberculosis colonies, 411; at Killiney, 536
Houston, Tom: Coli infection after childbirth, 444
Howard, H. C.: Fibrolysin, 203
Howarth, Walter: Tuberculosis of the larynx, 1547
Howell, W. H.: *Textbook of Physiology*, rev., 1295
Hrdlicka, Alis: *Tuberculosis among Certain Indian Tribes of the United States*, rev., 268
Huchard, Professor, retirement of, 290
Hudson, A. C.: Retinal disease, 447
Huebschmann: Glycogen in cell nuclei, 1124
Hughes, Henry: *Aerztliche Beverdsamkeit*, 763
Hughes, John R., obituary notice of, 729
Hull, special correspondence from, 533; East Yorkshire Division, address by Sir Victor Horsley, dinner, 533
Human serotherapy. *See* Serotherapy
Humerus, cyst of (Hugh Lett), 572
Humerus, fracture of head of (W. S. Haughton), 570
Humerus, fracture of the great tuberosity of (W. G. Williams), 81; (William Martin), 81
Humours of mad folk, 463
Hungary, post-graduate courses in, 598

HUNT, J. M.: Vincent's angina, 20
HUNTER, EDWIN JOHN, obituary notice of, 1028
HUNTER, W. K.: Pseudo-bulbar paralysis, 755; Friedreich's disease, 755; brain showing subcortical haemorrhage, 755; amnesia verbalis, 755
HUNTER, W.: *Severest Anaemias, their Infective Nature, Diagnosis, and Treatment*, rev., 205
Hunterian lectures. *See* Lectures
Hunterian Society. *See* Society
Hunterian specimens under the microscope, 1567
Hunter's free-martin. *See* Free-martin
HUTCHINSON, Sir JONATHAN: Palaeogenesis as explanatory of certain forms of disease, 980; Goethe's last illness, 1182; palaeogenetic face-pattern in acroteric piebalds, 1479
HUTCHINSON, JONATHAN: *A Manual of Operative Surgery*, rev., 814
HUTCHINSON, J. R.: A typhoid carrier, 746
HUTCHISON, ROBERT: Conditions which simulate dyspepsia, 485; oxycephaly, 1052; principles of treatment of gastroptosis, 1102
Hydrocele (Mr. Jeans), 446
Hydroceles, rupture of tunica vaginalis in (Somerville Hastings), 694
Hydrogen peroxide, apparatus for continuous irrigation with, 24
Hydronephrosis (H. H. Greenwood), 1232
Hydrophobia, death from in London, 851
Hydrophobia, proposed Pasteur Institute in Ohio, 822
Hydrophobia or lyssophobia (Joshua Duke), 567
Hydrotherapy, review of books on, 933
Hygiama, composition of, 1240
Hygiene and Demography Congress. *See* Congress
Hygiene exhibition. *See* Exhibition
Hygiene at the hairdressers'. *See* Hairdressers
Hygiene, national, and compulsory service, 163
Hygiene, review of books on, 877, 1550
Hyperidrosis, 1528
Hypernephroma (Leonard Guthrie and W. d'Este Emery), 141
Hypnotics, action of (Dr. Campbell), 873
Hypnotics, artificially prepared (F. D. Boyd), 1412
Hypnotism, 1584
HYSLOP, Dr., of Pietermaritzburg, presentation to, 716
Hysterectomy, vaginal subtotal (A. J. Wallace), 1175
ysteria, traumatic (E. Bramwell), 20

I.

Ibsen's plays, medicine in, 402
Ichthyosis (Dr. Lyell), 751
Idiocy, family (F. Parkes Weber), 324
Idiosyncrasy, two cases of, 792
IGLESIAS, S., death of, 911
IKONNIKOFF, Dr.: Bacterial escape in strangulation of the gut, 158
Illumination, glareless, 162, 459
Imbecile girl, home for, 791
Imbecility, types of (Boyd Barrett), 635
Immunity, phases of, 591
Immunization, therapeutic (J. Courtenay Mac-Watters), 1161; a correction, 1332
Income tax, 360, 672, 732, 972, 1001, 1091, 1120, 1212. *See also* Act, Finance
Income tax return, the medical man and, 1001; how to complete the Schedule D form, 1001; to claim abatement and reduction on earned income, 1001; particulars required for partnerships, 1001; how to arrive at the profits to be returned, 1001; receipts other than ordinary fees, 1002; expenses, 1002; deductions not allowed, 1002; the Schedule E return form, 1002
India, special correspondence from, 537, 597, 963, 1199, 1438, 1514; Bengal veterinary department, 537; Imperial Malaria Conference, Simla, 1909, 597; Blue Book on, 597; medicine in India, *re* Lord Morley's dispatches, 963; Commismission on the Medical Arrangements on the Tea Gardens in the Duars, 1199; malaria in Bombay, 1199; plague, 1199; permanganate treatment of snake bite, 1438; Madras General Hospital, 1514
India in 1908, 1300, 1360; report of Sanitary Commission, 1300; general characters of the year, 1300; vital statistics of the general population, 1301; prevalent diseases, 1301; the gaols, 1360; European troops, 1360; native troops, 1361; vaccination, 1361; miscellaneous, 1361
India: Independent medical profession in; recent memorial of the Bombay Presidency to the Secretary of State (editorial), 271; correspondence on, 476, 1268
India, mission to lepers in, report, 1546
India, Pasteur Institute of, eighth annual report, 110; plague in, 270, 959, 1199
India, Scientific Memoirs of the Government of—No. 36, *Observations on Rabies, with special reference to an Atrophic Form of the Disease occurring in Animals* (Major G. Lamb and Captain A. G. McKendrick), rev., 386
India, vaccination in (Andrew Buchanan), 494; note on, 525
Indian Medical Service. *See* Army, Indian
Indigestion, treatment of (E. I. Spriggs), 992
Indo-China, plague in, 959
Industrial employment of women and infantile mortality, 789
Industrial diseases, review of books on, 207
Inebriates Acts. *See* Acts
Inebriates, non-criminal, 791
Inebriates, reformatory treatment of (leading article), 947. *See also* Acts, Inebriates
Infant feeding, test meals as a guide to (Ronald Carter), 1542
Infant feeding, review of books on, 816
Infant mortality. *See* Mortality
Infantile wasting, results of thyroid treatment in (J. W. Simpson), 1049
Infants, dried milk as a food for (C. Killick Millard), 253
Infants, newborn, artificial respiration for, 1194, 1259; (B. F. Pendred), 1289
Infection and employment, 970
Infectious Diseases in Schools, Code of Rules for Prevention of, rev., 387
Infectious diseases, review of books on, 386, 995
Infectious diseases hospital. *See* Hospitals
Infirmaries, Glasgow, and the common good, 777
Infirmaries, Poor Law, nursing in, 1019
Infirmary, Aberdeen Royal, 111, 407; extensions, 111; appointments, 407
Infirmary, Belfast Poor Law Union, nursing in, 897
Infirmary, Bradford, new, 279, 722; report, 722
Infirmary, Bradford Royal: Purulent meningitis secondary to a latent appendix abscess (Sydney Hartill), 990
Infirmary, Cork South Charitable, 536; election of house-physician, 536
Infirmary, County Longford, special meeting of committee, 1573
Infirmary, Cumberland, Carlisle, 596; annual meeting, 596
Infirmary, Edinburgh Royal, 43, 287, 1318; annual meeting of the Residents' Club, 1318
Infirmary, Glasgow Royal, 347, 777, 1527; proposed amalgamation, 347; annual dinner of the club, 777; post-graduate classes, 1527
Infirmary, Glasgow Western, 1375; students' hostel at, 1375
Infirmary, Hull Royal, 140; case of ruptured gastric ulcer, suture, primary gastro-enterostomy, recovery (reported by Edward Harrison), 140
Infirmary, Leeds General, 661, 1018, 1198; statistical tables, 661; increase in the number of the honorary staff, 1018; department of clinical pathology, 1018, 1198; admission of women students to the infirmary, 1198
Infirmary, Leicester, 409; new nurses' home, 409
Infirmary, Liverpool, Royal, 46, 167; retirement of Sir James Barr, 46; R. J. M. Buchanan appointed physician, 46; O. T. Williams appointed assistant physician, 167
Infirmary, Macclesfield: perforated gastric ulcer in a woman aged 71; operation, recovery (James William Littlejohn), 930
Infirmary, Manchester Royal, 18, 343, 470, 1271, 1438; case of cancer of pylorus associated with general splanchnoptosis, partial gastrectomy (John Morley, under the care of Professor G. A. Wright), 18; appointment of women to resident posts at, 343, 470, 1438; endowment of a cancer bed, 343; post-graduate study at, 1271; resignation of F. A. Southam, 1438
Infirmary, Paddington, demonstration of cases, 1175
Infirmary, Perth Royal, 537; scheme for the new infirmary adopted, 537
Infirmary, Sunderland, 1412; notes on (Z. M. Hamilton Ross), 1412
Ingrassia, 1006
Inhaler, ammonium chloride, 578, 642
Inhaler, ethyl chloride, 1242
Inhalers, valved angle-piece for, 578
Inquest on a patient treated at the Sandow Institute (Henry Harridge Phillips), 1389
Insane, electric bath treatment of, 700, 1504
Insane, hospitals for. *See* Hospitals
Insane prisoners, treatment of in Germany, 539
Insane, private treatment of the, a century ago, 519
Insanitary condition of Keyingham and Patrington, 1016
Insanity, alcoholic (Dr. Good), 1354
Insanity and conduct (Charles Mercier), 1413
Insanity in Italy, 1190
Insanity, organic causation of, 180
Insanity, puerperal, 1031
Inspector of nuisances, salary of, 839
Institute of Brewing, 551; annual banquet, 551
Institute, Birmingham Medical, annual report, 781
Institute, Henry Phipps, for the study, treatment and prevention of tuberculosis, 1054; *Fifth Annual Report*, rev., 1054
Institute, Pasteur. *See* Pasteur
Institute, Rockefeller. *See* Rockefeller
Institution, Royal, 1211; appointment of vice-presidents, 1211
Institute, Royal, of Public Health, 1527; Congress, 1527
Institute, Royal Sanitary, 16, 237, 1331, 1513; award of Henry Saxon Snell prize, 16; lectures and demonstrations, 237; election of Fellows, 1331; address of condolence, 1331; sessional meeting, 1513
Institution, Liverpool Medical, 20, 289, 323, 446, 573, 754, 810, 874, 993, 1111, 1319; Vincent's angina (J. M. Hunt), 20; heart-block (Hubert Armstrong), 20; heart-block (John Hay), 20; annual meeting and election of officers, 289; duodenal ulcer (Dr. Buchanan), 323; contracted gall bladder (Mr. Newbolt), 446; pylorectomy for carcinoma of pylorus (Mr. Newbolt, with M. Alexander), 446; adenoma of breast (Thelwall Thomas and Dr. Mackarell), 446; chondrosarcoma of femur (Thelwall Thomas and Dr. Mackarell), 446; section of undescended testicle (Thelwall Thomas and Dr. Mackarell), 446; wall of old hydrocele (Mr. Jeans), 446; malignant tumour (Mr. Jeans), 446; syphilis as an important factor in the causation of heart disease (R. J. M. Buchanan), 446; sea-sickness (Dr. Bushby), 573; bronchiectasis treated by the intratracheal method (Colin Campbell), 573; angioneurotic oedema and urticaria (Colin Campbell), 573; villous tumour of bladder (F. T. Paul), 573; acute visceral syphilis (Thomas Bushby), 754; chronic prostatitis (D. Douglas Crawford), 754; nature and therapeutic indications of the fat compounds (O. T. Williams), 754; fractured axis (Douglas Crawford), 810; left cervical rib (Douglas Crawford), 810; *x*-ray dermatitis and epithelioma (Thelwall Thomas and Dr. Mackarell), 810; intestinal obstruction (Thelwall Thomas and Dr. Mackarell), 810; carcinoma of antrum (Thelwall Thomas and Dr. Mackarell), 811; carcinoma of testicle (Thelwall Thomas and Dr. Mackarell), 810; femoral hernia (R. W. Murray), 111; recurrent breast cancer exposed to *x* rays (Mr. Paul), 811; ivory exostosis removed from frontal bone (Mr. Paul), 811; two specimens of hypernephroma (Mr. Paul), 811; papillomatous carcinoma of the upper jaw and nasal septum (Rushton Parker), 811; lumbar puncture in tuberculous meningitis (Percy Marsh and T. J. Williams), 811; thymus gland (Percy Marsh and T. J. Williams), 811; aortic aneurysm (Dr. Buchanan and Ernest Glynn), 811; acute entero-colitis (T. R. Bradshaw and Ernest Glynn), 811; chronic ulcerative colitis (T. R. Bradshaw and Ernest Glynn), 811; bronchiectasis with cerebral abscess (T. R. Bradshaw and Ernest Glynn), 811; hydrosalpinx (Ernest Glynn), 811; prostatic enlargement (Mr. Paul), 811; ureteral calculi and *x*-ray diagnosis (Thurstan Holland), 811; serums and vaccines in the treatment of disease (Nathan Raw), 811; cerebro-spinal rhinorrhoea (J. McDougall), 874; the virulence of appendicitis (R. W. Murray), 874; traumatic neurosis (T. R. Glynn), 874; endothelioma (Lloyd Roberts), 993; 4 ft. of jejunum (Frank Jeans), 993; 3 ft. of ileum (Frank Jeans), 993; urethral calculus (Dr. Kelly), 993; molluscum contagiosum (Dr. Kelly), 993; retained testicles (Moore Alexander), 993; primary carcinoma of right lung (Dr. Gullan), 993; contracted stomach (Dr. Owen and Dr. Hick), 993; cystic kidney (Douglas Crawford), 993; Meckel's diverticulum (Douglas Crawford), 993; angioma of the pyriform sinus (Dr. McDougall), 993; tuberculous bronchial glands (Dr. Buchanan and E. Glynn), 993; lungs from a case of pneumococcal septicaemia (Ernest Glynn), 993; acid-fast bacilli in stools in tuberculous conditions (F. P. Wilson), 993; *Spirochaeta pallida* (Stopford Taylor and R. W. MacKenna), 993; case of paralysis of right arm (John Hay), 1111; cerebral tumour (T. C. Littler Jones), 1111; multiple myelomata (O. T. Williams), 1111; senile heart (John Hay), 1111; and the death of King Edward, 1319
Institution, the Royal, 1124; annual meeting, 1124
Instrume tal labour. *See* Labour
Insulated wires for medical electricity, 387
Insurance (leading article on), 1430
Insurance, life, albuminuria in relation to, 837
Insurance for medical men, 1071, 1503
Insurance, sickness, and invalidity, 818, 834, 883, 936, 1007, 1083, 1142, 1264, 1325, 1379, 1441; leading article on, 834, 1007. *Compulsory insurance in Germany*, 819; sickness insurance, 819; organization, 819; contributions, 820; benefits, 820; statistics of sick insurance, 820; accident insurance, 821; contributions, 821; benefits, 821; invalidity and old age insurance, 821; organization, 821; contributions, 821; benefits, 822; general statistics of German compulsory insurance, 822. *France*, 883; sickness assurance, 883; acci.

dent insurance, 883; invalidity and old age insurance, 883; friendly societies, 884; medical attendance, 884; la médecine cantonale, 885; la circonscription médicale, 885; the Vosgien system, 885; methods of remunerating the doctors, 885. *Austria*, 936. *Hungary*, 936. *Italy*, 936. *Belgium*, 937. *Denmark*, 937. *Norway and Sweden*, 938. *Finland*, 938. *Switzerland*, 938. *Spain*, 938. *Luxembourg*, 938. *Netherlands*, 938. *United States*, 938. *Australasia*, 938; general view, 939. *Correspondence on*, 1083, 1142, 1264, 1325, 1379, 1441, 1503, 1576. *See also* Poor Law
Insurance under the Workmen's Compensation Act, 912
Insurance against unemployment, 718
International Bibliographer, 1555
International Clinics, rev., 642, 1238
Inter-University Conference. *See* Conference
Intestinal anastomosis. *See* Anastomosis
Intestinal bacteria and digestion (leading article), 458
Intestinal infection and vegetarianism (leading article), 399
Intestinal microbes. *See* Microbes
Intestinal obstruction (Basil Hall), 123
Intestinal obstruction, acute, death under spinal anaesthesia by Jonnesco's method in a case of (F. Victor Milward), 743
Intestinal stitch (E. Ken Herring), 496; correspondence on, 912
Intestine, cancer of. *See* Cancer
Intestine, review of books on, 266
Intraneural cyst. *See* Cyst
Intravenous infusion in post-operative suppression of urine (L. R. Braithwaite), 981
Intravenous injection of soamin. *See* Soamin
Introduction by vendor, 358; conditions of, 789
Intussusception of transverse colon in an adult (Leitch Wilson), 375
Invalid Children's Association. *See* Association
Invalidity insurance. *See* Insurance
Inverness, report of M.O.H., 1436
Iodine catgut, dry (William S. Dickie), 134; (Frederick Edge), 320. *See also* Catgut
Iodine and dichloride of ethylene in preparation of the skin for operation (A. J. Wallace), 1288
Ionic medication, 852
Ionic medication, massage and electricity, 359
Ireland, special correspondence from, 44, 112, 169, 228, 286, 347, 405, 469, 536, 595, 660, 719, 778, 841, 897, 961, 1017, 1078, 1138, 1196, 1264, 1318, 1374, 1436, 1512, 1573; Sir Thornley Stoker appointed inspector of schools of anatomy, 44; D. J. Cunningham memorial, 44; Dublin Sanitary Association, 112, 1017; notification of tuberculosis in Dublin, 113, 405; antivaccination campaign, 169; Dublin Hospital Tuberculosis Committee, 169; Dublin Students' Union, 169; Children's Hospital, Temple Street, Dublin, 169; health of Belfast, 169; shellfish and the purification of Belfast Lough, 169; Royal College of Surgeons in Ireland, 228; University College, Cork, 228, 1374, 1573; gas poisoning in Belfast, 228; isolation of contacts, 229; Queen Victoria's Jubilee Institute for Nurses, report for 1909, 229; health resorts in Ireland, 229; County Cork Sanatorium for Consumption, 229, 1513; dangers to postal clerks, 229; Dublin Prize in Melbourne University, 286; award of the Royal Humane Society Medal to a medical man (Alfred Sheridan), 286; Women's National Health Association, 286, 536, 779, 1078; annual report of Tullamore Branch, 286; meeting in Dublin *re* infant mortality, 536, 1078; Cork Branch still active, 779; annual report, 1078; medical officers to Skibbereen Union, 286, 595, 660, 961, 1437; boarding out children at a shilling a week, 347; Forster Green Hospital for Consumption, Belfast, 348; Research Defence Society, 405, 778; antivaccination campaign in Wexford, 405; public health in Dublin, 405; Richmond District Asylum, 405; Mercers and Orthopaedic Hospitals Bazaar, 406; Dublin Corporation and Dublin hospitals, 406; salaries of Irish dispensary medical officers, 469, 961; Belfast milk supply, 469; resignation of an asylum medical superintendent (Monaghan and Cavan), 469, 719; necropsies in lunatic asylums (Tyrone and Fermanagh), 469; Poor Law reform, 536, 660; housing question in Killiney, 536; election of house-physician to South Charitable Infirmary, Cork, 536; Royal Medical Benevolent Fund Society of Ireland, 595, 1318, 1512; rest for the dying, 595; Gaelic league for doctors, 596; duties of sanitary authorities (Castlebar District No. 2), 660; Veterinary Medical Association of Ireland, 660; the late Professor Alec Fraser, 719; Dublin University Biological Association, 719; British Medical Temperance Association, 719; fees of dispensary medical officers' substitutes, 719, 961; award for bravery (P. J. Flanagan), 719; Queen's University, Belfast, 778; prevention of tuberculosis, 778, 1512; decrease of tuberculosis, 1512; St. Patrick's Nurses' Home, 779; medical education, 841; nursing in the Belfast Poor Law Union Infimary, 897; dying declarations, 897; dilatory guardians (Cork), 897; infant mortality, 898; abuse of the red ticket system, 961; typhus fever in County Cork, 962; King's Professor of Practice of Medicine, Dublin, 1017; an unreponsive corporation committee (Cork), 1017; Cork guardians and infant mortality, 1017; antivivisection meeting in Dublin, 1078; examinations at University College, Cork, 1078; inauguration of the Students' Union in Dublin, 1138; use of "charms," 1138; Dr. Steevens's Hospital, Dublin, 1138; Royal College of Surgeons' Association, 1138, 1264; Belfast slums, 1138; national medical service for Ireland, 1196, 1374; Belfast City Council, resignation of the Chairman of the Public Health Committee, 1196; Officers' Training Corps, 1264; health of Lurgan, 1264; post-graduate classes, Dublin, 1318; post-graduate classes, Trinity College, Dublin, 1318, 1437; municipal work by medical men in Belfast, 1318; the Children's Act in Belfast, 1374; measles in Belfast, 1374; Dublin water supply, 1374; veterinary dispensaries, 1374; Midwives Act and Ireland, 1436; Irish Medical Association, 1513; anticonsumption crusade, 1513; Borstal School, Clonmel, 1513; presentation to Surgeon McArdle, 1513; Royal Sanitary Institute, 1513; King Edward VII cot, 1513; Carlow Asylum, 1513; declining birth-rate, 1513; County Longford Infirmary, 1573; Claremont Institution for Deaf and Dumb, 1574; inspection of lunatics, 1574
Ireland, health resorts in, 229; supply of medicines in, 1134
Ireland, tuberculosis in, 1570
Ireland, National University of. *See* University
Irido-dialysis (T. H. Molesworth), 200
Iritis, chronic, results of (Cecil Shaw), 1173
Irish dispensary medical officers. *See* Dispensary
Irish medical writers of the eighteenth century, 334
Irish Poor Law Medical Service. *See* Poor Law reform
Irving *v.* Bodie, result of appeal, 604
Is it safe? (tuberculin reaction), 424
Iso-haemolysis in malignant disease (H. Upcott), 754
Isolation of contacts, 229
Italy, medical senators in, 375; insanity in, 1190
Itch mite infection in clothes, persistence of (John N. Laird), 261; correspondence on, 360

J.

JACK, W. R.: Gonorrhoeal arthritis, 573
JACOB, Dr.: Naevus with a peculiar distribution along the right intercostal nerves, 755; *x* rays in a case of aneurysm of ascending aorta, 755; sarcoma of suprarenal glands, 755; meningitis, 755; enlarged liver, 755; dilated stomach, 755
JAGO, WILLIAM: *A Manual of Forensic Chemistry, dealing especially with Chemical Evidence, its Preparation, and Adduction*, rev., 145
Jahresbericht über die Fortschritte der inneren Medizin im In- und Auslande, rev., 23
JAKSCH, R. v.: *Die Vergiftungen*, rev., 1416
Jamaica, special correspondence from, 1020; annual report of Registrar-General, 1020
JAMES, Dr.: "Cleanliness is next to Godliness," 1158
James I, death-bed of, 1363
JAMES, R. R.: Bacteriology of panophthalmitis, 692
JAMIESON, J. A.: Phlyctenular affections of the eye, 916
JAMIESON, R. HILLHOUSE: Scopolamine-morphine narcosis, 742
JANSSIG, FREDERICK I.: *Prevention and Treatment of Abortion*, rev., 1297. This is a misprint for "Taussig"
Japan, plague in, 270, 959
Japan-British Exhibition. *See* Exhibition
JARDINE, ROBERT: *Clinical Obstetrics*, rev., 641
Jaundice, congenital acholuric (Dr. Parsons), 1052
Jaundice, epidemic, in children, 609
Jaundice in pregnancy (H. D. Rolleston), 864
Jaundice, recurring, in mother and infant (E. N. Nason), 989
JEANS, Mr.: Hydrocele, 446; malignant tumour, 446; 4 ft. of jejunum removed, 993; 3 ft. of ileum removed, 993
Jecovol, 209
Jejunal ulcer. *See* Ulcer
Jejunum, surgery of, three cases illustrating (E. Rock Carling), 435
JELLETT, HENRY: Placenta praevia and Caesarean section, 1112
JENKINS, E. LYNN: Treatment of ringworm, 260
JENNINGS, OSCAR: *The Morphia Habit and its Voluntary Renunciation*, rev., 22, 300
JOHNSON, A. E.: Amputation for diabetic gangrene, 801
JOHNSTON, ARTHUR, physician and Latin poet 1122
JOHNSTON, GEORGE: Child emigration, 1206; auscultatory percussion and friction, 1382
JOHNSTON, J.: *Health in the Home, Children and their Ailments*, rev., 816
JOHNSTON, J.: Appreciation of Walt Whitman, 1555
JOHNSTON, T. ARNOLD: Intravenous injection of soamin in cerebro-spinal meningitis, 193
JOHNSTONE, G. W.: Treatment of tetanus, 552
JOHNSTONE, R. J.: Pelvic pain in unmarried women, 1173
JONES, Sir ALFRED, estate of, 232
JONES, CECIL PRICE: A source of fallacy in counting red cells, 1251
JONES, D. J., resignation of, 1437
JONES, FREDERIC WOOD: Development and malformations of the glans and prepuze, 137
JONES, JOSEPH: Means of rescue in tidal drowning, 1521
JONES, Staff Surgeon KENNETH H.: Syphilitic leucoderma in a male, 747
JONES, LLEWELYN: Arthritis deformans, 751, 1052
JONES, Professor: Pauperism and poverty, 536
JONES, T. C. LITTLER: Cerebral tumour, 1111
JONES, TOM, medallion portrait of, 1571
JORDAN, F. W., obituary notice of, 1330
JOSEPH: Normal habitat of the tetanus bacillus, 1005
JOY, JOHN HOLMES, obituary notice of, 178
JUDD, W. ROSSELL: Infective endocarditis treated with antidiphtherial serum, 14
Juvenia, composition of, 153

K.

Kala-azar, is ponos? (W. H. Graham Aspland), 139; correspondence on, 545
Kala-azar in the Yangtse Valley (Alexander C. Lambert), 750
KAUFFMANN, O. J.: Foxwell memorial, 1087
KAUFMANN, EDUARD: *Lehrbuch der speciellen pathologischen Anatomie*, rev., 815
KAYSERLING, Professor: Tuberculosis in Prussia, 349, 411; history of the crusade against tuberculosis, 411
KEAY, Dr.: Salary raised, 1088
KEAY, J. H.: The profession and the State, 53; public medical service, 1200
KEAY, J. W.: Perineal repairs, 446; vomiting after anaesthesia, 1511
KEEN, W. W. (editor): *Surgery: Its Principles and Practice*, rev., 384
KEENAN, J. F.: Medical Parliamentary Roll, 233, 353
KEETLEY, the late C. R. B., appreciation of, 57
KEITH, ARTHUR: Constrictions and occlusions of the alimentary tract of congenital or obscure origin, 301; diverticula of the alimentary tract of congenital or obscure origin, 376; gastroptosis, 1321
KEITH, GEORGE SKENE, obituary notice of, 237; estate of, 1271
KEITH, JOHN ROBERT: *Clinical Memoranda for General Practitioners*, rev., 1238
KELLY, Dr.: Urethral calculus, 993; molluscum contagiosum, 993
KELLY, RICHARD: Rupture of both quadriceps extensor cruris tendons, 807
KELSO, Dr.: Starlings, 1181
KENDALL: Diet and intestinal microbes, 1131
KENNARD, DUDLEY: Lime water in the treatment of verruca plana, 81
KENNEDY, ROBERT: Intracranial tumour, 755; traumatic paralysis, 755; Gasserian ganglion removed by the trans-zygomatic route, 755; case of intracranial tumour relieved by a decompression operation, 1226
KENNEDY, Admiral Sir WILLIAM: The Brown Dog and Professor Starling, 892
Kent, report of M.O.H., 355
KEOGH, Sir ALFRED, appointed Rector of Imperial College of Science and Technology, 717
Kepler solution of cod liver oil in malt extract, composition of, 30
KER, CLAUDE BUCHANAN: *Infectious Diseases: A Practical Textbook*, rev., 995
KER, HUGH, resignation of as chief medical officer for South-West London Tradesmen's Provident Society, 483
KERMAUNER, P.: *Die Missbildungen der weiblichen Geschlechtsorgane*, rev., 1115
KERN, BERTHOLD: *Die psychische Krankenbehandlung in ihren Wissenschaftlichen Grundlagen*, rev., 1498, 1501
KERR, J. M. MUNRO: Frequency of adenocarcinoma of the body in fibroid tumours of the uterus, 68; disease of sigmoid and caecum simulating affections of the uterus and adnexa, 638; removal of uterus in certain diseased conditions of the adnexa, 692
KERR, J. WISHART: Heredity and environment, 347
KERR, W. S.: Ethmoiditis, 1111; pansinusitis, 1111; mastoiditis, 1111; thrombosis of lateral sinus, 1111; perceptive deafness, 1111

KEY, ANDREW, obituary notice of, 607
Keyington, insanitary condition of, 1016
KIDD, BEATRICE E.: "Antivaccination germ killer," 1256
KIDD, J. C.: Opticians and federation, 1197, 1320
KIDD, LEONARD J.: Auscultatory friction, 1269
Kidney, cystic (Douglas Crawford), 993
Kidney, malignant growth of (Keith Monsarrat), 686
Kidney, pyonephrotic (L. G. Gunn), 634
KILLEN, W. M.: Sympathetic ophthalmia, 444
KILLICK, CHARLES: Interesting case of congenital cataract, 318
Kilmuiney, housing question in, 536
KILROY, L.: Two unusually situated chancres, 808
KING EDWARD, death of, 1183, 1250, 1260, 1304, 1316, 1319, 1320, 1328, 1331, 1365, 1391; the last illness, 1183; previous illnesses, 1184; and the medical profession, 1184; and the British Medical Association, 1184; and public health, 1185; "If preventable why not prevented?" 1185; his medical advisers, 1186; medical department of the household, 1186; addresses of condolence, 1250, 1316, 1319, 1320, 1328, 1331, 1365, 1391; doctors in the procession to Westminster Hall, 1260, 1316; *En Avant* (Friday, May 20th, 1910), 1260; ambulance work during the funeral ceremonies, 1304
King Edward's Hospital Fund. *See* Fund
KING GEORGE V, 1189, 1260, 1509; household appointments (medical), 1509
KING-KER, JAMES, resignation of, 1196
King's College. *See* College
King's household appointments (medical), 1509
KINGSLAND, ARTHUR, obituary notice of, 178
KIRBY, E. D.: Forcible feeding, 117; the Medical Sickness Society, 1266
KIRK, T. S.: Wharton Hood's treatment of fractured clavicle, 444; method of treating fractures with plaster-of-Paris splints, 1173
KIRKALDY, J. W.: *An Introduction to the Study of Biology*, rev., 1238
KIRKNESS, W. RONALD: Poisoning by oil of eucalyptus, 261
KIRKPATRICK, PERCY: Small-pox, 1017
KIRKPATRICK, T. PERCY C.: Sir Edward Barry, 274; Irish medical writers of the eighteenth century, 334
KLINKHARDT, WERNER: *Die Pathologie und Therapie der Lepra*, rev., 998
KNAGGS, R. LAWFORD: Upper jaws removed for epithelioma, 755; implantation of the ureters into the rectum by the sacral route, 1224; dry gangrene of arm, 1232
Knee, traumatic dislocation of (D. C. L. Fitzwilliams), 992
Knife and its point (A. Z. C. Cressy), 1107
KNOX, ERNEST BLAKE: *Aids to Microscopic Diagnosis* (*Bacterial and Parasitic Diseases*), rev., 815
KNOX, J., re-elected on Bethnal Green Board of Guardians, 911
KOCH, ROBERT: On tuberculosis hospitals, 664; obituary notice of, 1384
KOCHER: His views on appendicitis, 964
KOCHER, TH.: *Vorlesungen über chirurgische Infectionskrankheiten: Die Streptomykosen*, rev., 1053
Koko, composition of, 151
KÖLPIN, OTTO, death of, 296
KOREFF, DAVID FERDINAND, note on, 583
"Korpusdoon," composition of, 1005
KRANNHALS, JOHANN, death of, 670
Kraurosis or leucoplakia vulvae (Dr. Briggs), 1175
KRAUSE, FEDOR: *Surgery of the Brain and Spinal Cord*, rev., 997
KRAUSE, PAUL: *Lehrbuch der klinischen Diagnostic Innerer Krankheiten*, rev., 511; *Röntgenatlas der Lungentuberkulose: Beiträge zur Klinik der Tuberkulose*, rev., 1054
KRAUSE, WILHELM, obituary notice of, 550
KREHL, LUDOLF: *Pathologische Physiologie*, rev., 996
KRICH, GEORGE, death of, 1525
KROGH, VON: Haemolysis, 706
KRONER, K.: *Therapeutisches Taschenbuch der Nervenkrankheiten*, rev., 1056
KUMBERG, NIKOLAI, death of, 670
KÜMMELL, his views on appendicitis, 964
KÜSTNER, OTTO: *Die individualisierende Operation der inveterirten Scheiden-Damm-Mastdarm-Risse*, rev., 757
KUTTNER, A.: *Die entzundlichen Nebenhöhlenerkrankungen der Nase im Röntgenbild*, rev., 575
KYNOCH, Professor: Suprapubic fascial incisions, 1292

L.

LABBÉ, MARCEL: *Régimes alimentaires*, rev., 1055
Laboratory research by women, 1257
Labour, instrumental, one thousand cases of, with four deaths, in a colliery practice (I. Crawford), 1280; correspondence on, 1452. *See also* Version, spontaneous
Labour and pregnancy, transient blindness during, 1131
Labour colonies, 1079
Labour exchanges, 340
Labour party, school clinics and, 422; medical matters and, 471
LACKIE, LAMOND: Pelvic abscess, 1511
Lacrymal sac, blenorrhoea of (J. Reid), 200
Lactic acid as an antiseptic, 610
Lactic acid bacilli (Chalmers Watson), 1173
Lactic acid bacilli, treatment of gonorrhoeal and mixed infections of the female genital tract by (David Watson), 192
Lactic acid bacillus, discussion on opened by (G. Herschell), 21
Lactic fermentation, Lord Lister's work on, 1506
LADELL, R. MACD.: The drug habit, tobacco, 1332
Ladies' Public Health Society. *See* Society
Ladywell Sanatorium. *See* Sanatorium
LAIRD, JOHN N.: Persistence of itch mite infection in clothes, 261
Laity and medical profession, relations of, 53; correspondence 53
LAKING, Sir FRANCIS, appointed vice-president Royal Institution, 1211; K.C.B. conferred upon, 1451; appointed Physician-in-Ordinary to George V, 1509; and Apothecary to George V and the Household, 1509
LALESQUE: *Crénothérapie, climatothérapie, thalassothérapie: cures hydrominérales, cures d'altitude, cures marines*, rev., 1551
LAMARQUE: *Crénothérapie, climatothérapie, thalassothérapie: cures hydrominérales, cures d'altitude, cures marines*, rev., 1551
LAMB, Major G.: *Observations on Rabies, with special reference to an atrophic form of the disease occurring in animals*, rev., 386
LAMBERT, ALEXANDER C.: A drastic treatment for alcoholism, 1249
LAMBERT, ALEXANDER C.: Kala-azar in the Yangtse Valley, 750
Lambeth, infants' milk depôt at, 780
LAMBKIN, F. J.: Dangers of arylarsonates, 664
Lamination, cortical (F. W. Mott, E. Schuster, and W. D. Halliburton), 21
Lamp for testing colour vision, 760
Lamps, quartz, of mercury vapour, bactericidal action of (Th. Nogier), 403
Lancashire, special correspondence from, 1140; school inspection for the county of Lancashire, 1140; Cambridge Graduates' Medical Society, 1140
LANCASHIRE, G. H.: Cruro-genital eczema, 993
LANCASTER, E. LE CRONIER: Heredity and disease, 308
LANCEREAUX, E.: *Traité de la Goutte*, rev., 875
LANDOIS, L.: *Lehrbuch der Physiologie des Menschen*, rev., 1296
LANDOUZY, L.: *Crénothérapie, climatothérapie, thalassothérapie: cures hydrominérales, cures d'altitude, cures marines*, rev., 1551
LANDSTEINER, K.: Researches on transmissibility of acute anterior poliomyelitis, 290
LANDSTRÖM, JOHN, death of, 1525
LANE, J. ERNEST: Dangers of arylarsonates, 599, 725; treatment of syphilis, 1510
LANG, W. H.: A theory of the alternation of generations in the archegoniate plants based upon the ontogeny, 581
LANGMEAD, Dr.: Honeycomb lung, 141; congenital scoliosis, 1052; pigmentation in a baby, 1052; wasting of infants fed on undiluted citrated milk, 1052
LANKESTER, Sir E. RAY: Dewar's experiments on bacteria at very low temperatures, 1181
LANNELONGUE, Professor, offers medal and prize for the best progress in surgery, 968
Lanterns, projection, 817
LARAT, J.: *Traité pratique d'électricité médicale électrothérapie, radiothérapie, radiumthérapie*, rev., 1235
LARKING, ARTHUR E.: Part-time medical officers of health, 352, 476
Laryngeal vertigo (H. J. Davis), 448
Laryngitis, oedematous (Alex. D. Sharp), 1232
Laryngitis, tuberculous (Herbert Tilley), 931
Laryngo-Rhinological Congress. *See* Congress
Larynx, four rings of trachea, and part of thyroid gland and gullet removed during an act of suicide (E. A. Peters), 694
Larynx, epithelioma of (StClair Thomson) 448; (Chichele Nourse), 1355
Larynx, extrinsic carcinoma of (Seccombe Hett), 204
Larynx, general infiltration of (Dan McKenzie), 204
Larynx, inspiratory stenosis of (StClair Thomson), 694
Larynx, tuberculosis of (Dundas Grant), 448, 1547; (Walter Howarth), 1547
Lateral sinus. *See* Sinus
LATHAM, ARTHUR: Proposed medical branch of the Navy League, 116; influence of sanatorium treatment of tuberculosis, 1578
LATIMER, CAROLINE WORMSLEY: *Girl and Woman: A Book for Mothers and Daughters*, rev., 878
Laundry Engineers' Society. *See* Society.
LAURIE, R. DOUGLAS: Apparatus for continuous irrigation with hydrogen peroxide, 24
Lavatory accommodation at railway stations and teashops, 89, 109, 176, 294; correspondence on, 176, 294
LAWFORD, J. B.: Optic atrophy, 447
LAWRENCE, H. CRIPPS: Scarlet fever, 1267
LAWRIE, DUNCAN: The tuberculin test, 239
LAWRIE, W. DUNCAN: Abdominal emergencies, 176; psychical research, 783
LAYCOCK, THOMAS (Colonel Kenneth Macleod), 583
LAYTON, T. B.: Tumour of submaxillary gland, 572; embryoma of the testis, 572
LAZARUS, A.: *Die Anaemie. Normale und pathologische Histologie des Blutes*, rev., 449
LEA, A. W.: Diffuse intraperitoneal haemorrhage, 812
Lead in hair-washes. *See* Hair-wash
Lead poisoning, inquiry into, in Germany, 664; questions in Parliament, 774, 896, 1077, 1508; and coach making, 896; in dockyards, 1508; classification of the symptoms of (W. Dowling Prendergast), 1164; correspondence on, 1324; treated by internal administration of calcium permanganate (G. Arbour Stephens), 1166
Lead poisoning, gout, and granular kidney, 1324, 1577

Leading Articles, 35, 103, 157, 219, 277, 335, 397, 457, 521, 585, 651, 711, 767, 834, 888, 945, 1007, 1067, 1127, 1187, 1253, 1309, 1366, 1428, 1500, 1561
Accident, definition of, 769
Anaemia, severe, subacute combined degeneration and, 1429
Anaphylaxis, 1254
Annual Meeting in London, 1910, 524
Association and the treatment of school children, 831, 888
Bacterial escape in strangulation of the gut, 158
Bill, Prevention of Destitution, 767, 945. *See also* Poor Law
Blood letting, physiology of, 104
Cambridge Hospital for Special Diseases, 522
Cardiolysis, 1128
Colliery explosions from a medical standpoint, 1428
Colour vision, 1067
Contract practice, shall it be abolished? 1561
Cremation, 585
"Dead fingers," 37
Disciplinary cases before the General Medical Council, 1366
Doctor as patient, 711
Environment and heredity, 1367
Epilepsy, 889
Feeble-minded, the problem of, 1069
General practitioner and Poor Law reform, 219
Heart, operations upon the injured, 1309
Housing and Town Planning Act, 159
Inebriates, reformatory treatment of, 947
Insurance, 1430
Intestinal bacteria and digestion, 458
Invalidity insurance and a public medical service, 834, 1007
MCMX, 35
Malay "anti-opium plant," 337
Man, antiquity of, 1009
Medical bulletins, 1187
Medical inspection of school children. *See* School
Medical profession, the function of, 336
Medical treatment of the poor, 521, 712
Medicine and miracles, 1500
Mendelism and sex, 586
Mental healing, a philosophy of, 1501
National emergency (medical inspection of school children), 831
Nursing homes for the middle class, 457
Opium Commission, International, 104
Pathological drunkenness, 36
Pathological lying, 652
Physic of persuasion, 651
Poliomyelitis, infection of acute anterior, 221
Poor Law Bill and a circular, 767, 945
Poor Law reform, debate on, 945
Poor Law Reform, Special Committee, interim report, 335
Poor Law reform, Mr. Booth on, 1127
Poor Law reform and the general practitioner, 219
Prisons, Medical Commission of, 1067
Pseudo-neoplastic inflammatory tumours o abdomen, 397
Psychology of the consumptive, 1253
Rain-bearing winds and phthisis, 1310
Research Defence Society, 1562
Roosevelt, Mr., at Oxford, 1563
Sanitary superstition, 398
School children, medical inspection and treatment of, 831, 888
Sensory prodromes of epilepsy, 769
Serum reaction in syphilis, 278
Specialism, 946
Spinal analgesia, 157
Status lymphaticus, 103
Teaching, examination and research, 832
Teleology in medicine, 277
Trattles, Mr., case of, 222
Tropical medicine, proposed school of in Calcutta, 1010
Tuberculosis, traumatic, 1188
Vegetarianism and intestinal infection, 399
"Weltmerism," 891

Lead smelting, dangers incidental to, 1311
LEAF, CECIL H.: Mouth gag with electric light, 760; myosarcoma, 993; cauterization in inoperable cancer of tongue, 993
League, Bread and Food Reform, *re* the standardization of bread, 911
Leamington, Local Government Board inspector and loan for improvements, 518
LEA-WILSON, E. N.: Severe traumatic anti partum haemorrhage, 871
"Lebenswecker" treatment of sciatica, 732
Leber's disease, 1332
Lectures, the Harvey: delivered under the auspices of the Harvey Society of New York, rev., 450
Lectures, Hunterian (W. Sampson Handley), 853, 922
Lectures, Lettsomian (J. S. Risien Russell), 425, 497, 626
Lectures, the Morison (William Aldren Turner), 733, 803, 866, 889; leading article on, 889
LE DENTU: Pseudo-neoplastic inflammatory tumours of the abdomen, 397
LEE, SEPTIMUS J., obituary notice of, 238
LEECH, PRIESTLEY: Results of one hundred operations for carcinoma mammae, 72
Leeds, special correspondence from, 661, 779, 1018, 1198, 1571; the General Infirmary, 661, 1018, 1198; medical inspection of school children, 661; Workpeople's Hospital Fund, 661; installation of Chancellor, 779; changes in the surgical teaching staff at the university, 779; admission of women to the General Infirmary, 1198; appointments in the department of clinical pathology at the Infirmary, 1198; installation of the Duke of Devonshire as Chancellor of the University, 1571; the Professorships of Medicine and Anatomy, 1571
Leeds, report of M.O.H., 670
Leeds and District Medical Practitioners' Association. *See* Association
LEFTWICH, RALPH W.: Normal peristalsis of the colon, 545; *An Index of Symptoms*, rev., 1115
Leg, congenital oedema of (Maynard Smith), 571
Leg rest, a new, 642
Legal responsibilities of hospital authorities. *See* Hospital
LEGGE, T. M.: *Special Report on Ulceration of the Skin and Epitheliomatous Cancer in the Manufacture of Patent Fuel and Grease*, 1370
Leicester, special correspondence from, 409 new nurses' home at the infirmary, 409
LEIGHTON, PATRICK: Note on the value of Ball's operation for pruritus ani, 440
LEIPER, R. T.: Specimens of a nematode worm, 59; *Trichostrongylus pergracilis*, 765
LEISHMAN, Sir WILLIAM, recommended for election to Fellowship of Royal Society, 592
LEJARS, FELIX: *Urgent Surgery*, rev., 997
LENHARTZ, HERMANN, death of, 1208
LENTAIGNE, J.: Multiple bone tuberculosis two years after treatment, 570
Lenticonus posterior (E. Treacher Collins), 447
LEO: *Salzsauretherapie*, 876
LEON, J. T.: Peritoneal growths from a case of lymphocythaemia, 1548
Leper station and asylum established at Makogai, Fiji Islands, 639
Lepers in the German Empire in 1909, 1298
Lepers in India, appeal for an asylum in Hyderabad, 808; thirty-fifth report of mission to, 1546
Leprosy, nastin in (J. Ashburton Thompson), 565
Leprosy in New Caledonia, every case to be notified, 1031
LE ROSSIGNOL, AUGUSTIN A., obituary notice of, 670
LESER, EDMUND: *Lehrbuch der Chirurgie die Spezielle Chirurgie in 60 Vorlesungen*, rev., 699
LESSGAFT, PETER FRANTZOBVITCH, death of, 296; obituary notice of, 481
LETT, HUGH: Cyst of humerus, 572; catheter for prostatic cases, 1418
Letters, notes, etc. *See* Notes
LETTS, Professor: Seaweed and sewage pollution, 1005
Lettsomian lectures. *See* Lectures
Leucocythaemia (Wardrop Griffith and J. B Hellier), 994
Leucocytosis in whooping-cough, diagnostic value of (Hugh T. Ashby), 1105
Leucoderma, syphilitic, in a male (Staff Surgeon Kenneth H. Jones) 747
Leucoplakia vulvae, or kraurosis (Dr. Briggs), 1175
Leukaemia (Lovell Gulland), 1355
Leukaemia, acute (Dr. Travers Smith and Dr. Earl), 636
Leukaemia, chronic (F. Parkes Weber), 264
Leukaemia, lymphatic (E. F. Trevelvan), 993
Leukaemia, myelogenous (Dr. Whipham), 571
LEVADITI, M.: Researches on the transmissibility of acute anterior poliomyelitis, 290
LEVER, W. H., elected Chairman of Liverpool School of Tropical Medicine, 299; reported to be about to give damages from libel actions to various public services in Liverpool, 1053
LEVICK, G. M.: Goes on Antarctic expedition, 1383
Levico water, 60
LEVY, MATTHIAS: *William Shakespeare and Timothy Bright*, 333
LEWIN, W.: Small-pox and vaccination in Germany, 589
LEWIS, PAUL A.: Infection of acute anterior poliomyelitis, 221
LEWIS, PERCY: *Medical Exercises*, rev., 1553
LEWIS, THOMAS, awarded Beit memorial fellowship, 594; on the electro-cardiographic curves yielded by ectopic beats arising in the walls of the auricles and ventricles, 750
LEY, AUGUSTUS: Varieties of the elm in England, 1066
LEY, R. LEONARD: Inequality of the papill-oedema in certain cases of increased intracranial pressure, 919
LHERMITTE, Dr.: Diagnosis of organic hemiplegia, 1192
L'Hygiène, revue mensuelle illustrée, rev., 275, 334, 518, 1061, 1555
Licences, motor car and servant, 852
LIEBREICH, R., 80th birthday of, 1554
Life Assurance Medical Officers' Association. *See* Association
Life insurance. *See* Insurance
Life Insurance Journal, 943
Limbs, fractured. *See* Fractured
Lime water in the treatment of verruca plana (Dudley Kennard), 81; (Geo. Henderson), 180; (J. Burdon-Cooper), 240
Limosan, composition of, 762
LINDSAY, Professor: Heart-block, 445; cardiac arrhythmia, 445
LINT, A. VAN: *Accidents oculaires provoqués par l'électricité*, rev., 995
LISHMAN, FREDERICK: Motor cycles, 330
Lister Institute of Preventive Medicine, 574; appointments, 574
LISTER, Lord, note on in *Glasgow Herald* fifty years ago, 394; his work on lactic fermentation, 1506
LISTER, W. T.: Proposed medical branch of the Navy League, 116

Literary Notes, 97, 153, 217, 274, 333, 393, 456, 518, 583, 650, 701, 765, 830, 882, 943, 1006, 1061, 1122, 1182, 1252, 1308, 1365, 1427, 1554
Acquired diseases traced through the development of mankind (Albert Robin), 393
American Journal of Physiologic Therapeutics, 882
Anatomical teaching at St. Thomas's Hospital, 1774-5; (Joseph Else), 1555
Arabian ophthalmology (Dr. Meyerhof), 393
Atlas of Sectional and Dissectional Anatomy (Professor Berry), 1427
Barry, Sir Edward (T. Percy C. Kirkpatrick), 274, 334
Bernard, Claude, and the Legion of Honour, 650
Bible history, sidelights on, with personal reminiscences of Palestine and Egypt (K. T. Frost), 583
Bigelow, John: *Retrospections of an Active Life*, 701
Bornean death superstitions (Charles Hose), 334
Bright, Timothy, 333
Bunyan, John, proposed memorial to, 1182
Butler, Samuel: Necessity of a good physique, 1554
Chiltern Hundreds (Dr. Clippingdale), 1427
Chorion-epithelioma (J. S. Fairbairn), a correction, 97
Clot-Bey, story of, 275
Congress, International Medical, report, 943
Congress of the Italian Society of the Critical History of Medical and the Natural Sciences, 1006
Consumption and modern fiction, 1252
Cornhill Magazine, jubilee number, 97
Correction, 1122
Cracow, medico-historical museum opened at, 217
Croyland and Abbot Joffrid (Herbert P. Thompson), 153
Doctors in command of an army, 1554
Drowning, curious methods of resuscitation from, 650
Duchess of Queensberry, Catherine, 766
Dupuytren, story of, 275
Eleanor of Castile, Queen of England, and the monuments erected to her memory (James Galloway), 98
Emphysema, definition of, 1308
Encyclopaedisches Handbuch der Heilpaedagogik, 333
Epigraphie Médicale Corpus Inscriptionum ad Medicinam Biologiam que Spectantium (Professor Blanchard), 393
Epilepsia, 456
Feeding in the fifteenth century at the court of the Dukes of Urbino, 1365
Ferguson, Sir Samuel, centenary of, 456, 882
Folk lore, medical, in Normandy (Dr. Masqueray), 765
Foote, Samuel: *The Devil upon Two Sticks*, 943; and a pompous physician, 1252
Franklin, Benjamin, the medical side of 1308
Frascatorius of Verona, 1112
Frazier, Alexander, 766
Germ theory of disease, true begetter of, 1122

Literary Notes (*continued*)
Goethe's last illness (Sir Jonathan Hutchinson), 1182
Guerini, Vincenzo: *History of Dentistry*, 456
Halford, Sir Henry, note on, 583
Herald of the Golden Age, 334
Hippocrates, a new medical journal, 518
Hodgkin, Thomas (Sir Samuel Wilks), 153
"Hunger Strikers" in 1669, 766
Ingrassia, 1006
International Bibliographer, 1555
Irish medical writers of the eighteenth century (T. Percy C. Kirkpatrick), 334
Johnston, Arthur, physician and Latin poet, 1122
Laycock, Thomas, 583
L'Hygiène, 334, 518, 1061, 1555
Life Insurance Journal (*Blätter für Vertrauensärzte der Lebensversicherung*), 943
Lister, Lord, note on in the *Glasgow Herald* fifty years ago, 394
Literature of Medicine and Natural Science, 275
Manuscripts, ancient, photographic reproductions of, 456
Medical libraries of Berlin, proposed amalgamation of, 274
Medical poets, 274
Millican, Kenneth W., appointed editor of St. Louis Tuberculosis Commission *Bulletin*, 274
Misers, 830
Nubia, ancient human remains found in excavations in (Professor Elliot Smith and Douglas Derry), 394
Obstetric medicine, evolution of (Dr. Fairbairn), 217
Old Glasgow pioneers in philanthropy (James Erskine), 456
"Old Q," 650
Payn, James, story of, 583
Pechère, V., resigns editorship of the *Journal Médical de Bruxelles*, 217
Pernet, George, awarded bronze medal by medical faculty of University of Paris, 217
Psychological moment, 1427
Punch, on the JOURNAL, 701; King Edward Memorial number, 1182
Queensberry, Catherine, Duchess of, 766
Queensberry, Duke of, "Old Q," 650
"*Receipt book*" of a country practitioner (Dr. MacCallum), 99
Rutter, John (Thomas H. Bickerton), 1006
Saunders, John Cunningham, 766
School Hygiene, 275
Shakespeare and the suffragettes, 393
Sharp, Samuel, and bugs in hospital bedsteads, 1061
Siamese-Malay Peninsula, account of (Edmund Forbes), 650
Sloane, Sir Hans, story of his miserliness, 830
Spelling of names (J. F. Abbott), 1182
Strand Magazine prize for best medical story, 333
Surgery, history and practice of, in ancient and mediaeval times (James Swain), 218
Sylvius, Franciscus de la Baë, 98
Tibet, first white women to penetrate into, 830
Urbino, Duke of, advice to his son *re* doctors and feeding, 1365
Utopians and matrimony, 1554
Vaillant, Jean, 701
Whitman, Walt, an appreciation of (J. Johnston), 1555

Lithia waters, 598
LITTLE, JAMES, appointed honorary physician to George V in Ireland, 1509
LITTLEJOHN, HARVEY: Medico-legal aspects of death from asphyxia, 753
LITTLEJOHN, JAMES WILLIAM: Perforated gastric ulcer in a woman aged 71, operation, recovery, 930
LITTLER, R. M.: Rupture of a uterine fibroid, 639
LITTLEWOOD, H.: Gastro-enterostomy, 19; gonorrhoea and gonorrhoeal infection, 508; peridiverticulitis, 1232; malignant disease of upper end of common bile duct, 1232; appendix containing a large number of gunshot, 1354
Liver, accessory lobes to (R. Favell), 812
Liver, acute yellow atrophy of (T. Beattie), 447
Liverpool, special correspondence from, 46, 167, 232, 289, 533, 597, 661, 842, 1198, 1319, 1376, 1512, 1573; proposed presentation to Sir James Barr, 46; R. J. M. Buchanan appointed physician to the Royal Infirmary, 46; annual dinner of the Birkenhead Medical Society, 167; O. T. Williams appointed assistant physician to the Royal Infirmary, 167; Liverpool School of Tropical Medicine, 232, 533, 1376; the late Sir Alfred Jones, estate of, 232; Liverpool Medical Institution, 289; new East Dispensary, 289; medical inspection and treatment of children, 533, 842, 1198; hospital annual reports, 597; Royal Country Hospital for Children at Heswall, 661; new dental hospital, 843; the Medical Institution and the death of King Edward, 1319; Association of Physicians, 1320, 1512; Tuberculosis Exhibition, 1512; entomological expedition to Malta, 1573

Liverpool Dispensary. *See* Dispensary
Liverpool Medical Institution. *See* Institution
Liverpool Royal Infirmary. *See* Infirmary
Liverpool University. *See* University
Living creatures in stomach. *See* Stomach
Livingstone College. *See* College
LLEWELLYN, T. LISTER: The Darran explosion from the medical standpoint, 1399
LLURIA, ENRIQUE: *Super-organic Evolution, Nature and the Social Problem*, rev., 1552
Local Government Board. *See* Board
LOCH, C. S.: Medical relief, 991; *Annual Charities Register and Digest*, rev., 1239
LOCKIE, STEWART, obituary notice of, 1089
LOCKWOOD, C. B.: "Clean hands," 398; lectures to Northumberland and Durham Medical Society, 720
LOCKYER, CUTHBERT: Pelvic haematoma of ovarian origin, 262
Lockyer's sulphur hair restorer, composition of, 151
Locomotor ataxia of bulbar type (Campbell Thomson), 445
Locumtenent, obligations of, 668
LOEB, JACQUES, invited to occupy Chair of Biology in the University of Budapest, 115
LOEWENFELD, L.: *Somnambulismus und Spiritismus*, rev., 1499
LOEWY, A.: *Lehrbuch der Physiologie des Menschen*, rev., 1296
LOMBROSO, CESARE, statue to, 227
LONDE, P.: *Essais de médecine préventive*, rev., 576
London, special correspondence from, 47, 113, 165, 287, 344, 408, 470, 535, 596, 662, 722, 780, 1020, 1079, 1139, 1197, 1437, 1572; payment for treatment of school children, 47; report of Medical Officer (Education), 287, 344, 408; public health of in 1908, 113, 165; treatment of school children, 344, 408, 470, 534, 596, 662, 1079, 1197, 1572; medical staff of the Education Department, 344; prevention of glanders, 345; cost of medical inspection and treatment, 408, 1487; education in vaccination, 408; tuberculous milk, 408; Ealing Cottage Hospital, 409; health of children, 596; classes for children hard of hearing, 662; school clinic for Norwood, 662; Social Welfare Association, 662; Seamen's Hospital Society, 662; British Red Cross Society, 722; feeding of necessitous school children, 722; Paddington Tuberculosis Dispensary, 780; infants' milk dépôt at Lambeth, 780; registration of midwives, 1020; glanders and cerebro-spinal fever, 1020; hospital question at Wimbledon, 1079; proposed receiving house for incipient mental disorder, 1139; Dr. D. J. Jones of Banstead Asylum, 1437; public slaughterhouses, 1437; the Weir bequest, 1437; inspection of milk, 1572; Asylums Committee, 1572
London children's teeth. *See* School children, medical inspection of
London coroners. *See* Coroners
London county, report of M.O.H. for 1908, 59
London County Council. *See* Council
London Examination Hall. *See* Examination
London Matriculation. *See* Matriculation *and* University
London Medical Schools. *See* Hospital *and* University of London
London Meeting. *See* Association, British Medical, Annual Meeting
London police. *See* Police
London school children. *See* School
London School of Clinical Medicine, 702; "school dinner," 702
London School of Tropical Medicine. *See* Tropical
London suburbs and rheumatic patients, 1332
London, university education in. *See* University education
London University. *See* University
LONG, CRAWFORD W., monument to, 1242
LONGCOPE, W. T. (editor): *International Clinics*, rev., 642
Longevity, family, 1452
LONGHURST, ARTHUR E. T.: Women's lavatories at railway stations, 294
LONGHURST, Sir HENRY BELL, appointed a Commander of the Royal Victorian Order, 412
LORAND, A.: *Das Altern, seine Ursachen und seine Behandlung durch hygienische und therapeutische Massnahmen Ein Handbuch für eine rationelle Lebensweise*, rev., 22
Lord CROMER. *See* Cromer
LORTET, Professor, obituary notice of, 238
LOUGHEED, Lieutenant-Colonel S. F., appreciation of C. R. B. Keetley, 57
LOVEDAY, Dr.: Serum diagnosis of syphilis, 993
LOW, CRANSTON (for Norman Walker): Port-wine naevus, 1355
LOW, STUART: Lupus of the nose, 448
LOW, WARREN: Carcinoma of the pelvic colon, 264
LOWNDES, Mrs. BELLOC: *When no Man Pursueth*, rev., 817
LUCAS, HERBERT: Red line on gums, 732
LUCAS, THOMAS P.: Colonial practitioners and the British *Register*, 547
LUKE, THOMAS D.: The preparation of soured milk, 52, 235
Lumbar anaesthesia. *See* Anaesthesia
Lunacy Act. *See* Act
Lunacy in New Zealand (1908), 170
Lunacy, review of books on, 325. *See also* Maniac
Lunatic asylum. *See* Asylum
Lunatics, alleged, certification of for detention in workhouses, 1210
Lunatics for asylums, certification of, 1148, 1211
Lunatics, inspection of, in Ireland, 1574
Lunatics, pauper, medical certification of, 1447
Lunatics, wandering pauper, fees for certification of, 1271
LUNDIE, Dr.: Phthisis and arylarsonates, 141, 196
Lung, cancer of. *See* Cancer
Lung, honeycomb (W. D'Este Emery and Dr. Langmead), 141
Lungs, causes of absorption of oxygen by (C. Gordon Douglas and J. S. Haldane), 693, 1167
Lupus, association for cure of patients suffering from, formed at Hamburg, 1231
Lupus carcinoma, treatment of (Norman Walker), 1412
Lupus erythematosus (Norman Walker), 20
Lupus of the nose (Stuart Low), 448
Lurgan, health of, 1264; war against consumption in, 1513
LUTAUD, PAUL: *Sur un procédé d'urétérocysto-néostomie dans de traitement des fistules*, rev., 451
LYELL, Dr.: Ichthyosis, 751
LYLE, RANKEN: Double uterus, 447
Lymphadenoma (Dr. Miller), 1052
Lymphatic system, surgery of (W. Sampson Handley), 853, 922
Lymphatism (Bellamy Gardner), 448
Lymphocythaemia, peritoneal growths from a case of (J. T. Leon), 1548
Lympho-sarcoma (Miss Garrett-Anderson), 448
LYONS, Captain H. G.: Climate of Egypt and the Soudan, 773
Lyssophobia or hydrophobia (Joshua Duke), 567
LYSTER, R. A.: Medical treatment of school children, 509

M.

MCMX (leading article), 35
M.D. (Edin.), 912, 1091
MAAS, PAUL: *Die Sprache des Kindes und ihre Störungen*, rev., 512
McARDLE, Surgeon, presentation to, 1513
MACAULAY, W. CAMERON: Two cases of afebrile erysipelas, 495
MACBRIDE, DAVID, 334
McBRIDE, PETER, retirement of, 346
McCABE-DALLAS, ALF.: The Royal College of Surgeons and dentists, 1205
MACCALLUM, Dr.: *Receipt Book* of a country practitioner, 99
McCANN, F. J.: Caesarean section in puerperal eclampsia, 1547
McCOLLUM: Experiments on nutrition, 582
McCREADY, WYCLIF: Sympathetic ophthalmia, 444
McCULLAGH, CHARLES H. W.: The Bradford school clinic, 843
McCULLOUGH, JOHN W. S.: Urticaria, 1584
McDONAGH, T.: Microscopic sections from nodules in skin, 572
MACDONALD, DONALD, awarded medallion by Carnegie Hero Trust Fund, 898
MACDONALD, IAN: Case of acute tuberculous broncho-pneumonia after gastro-enterostomy, 745
MACDONALD, STUART: Streptothrix infection, 447; delayed chloroform poisoning, 447
McDOUGALL, Dr.: Angioma of the pyriform sinus, 993
McDOUGALL, J.: Cerebro-spinal rhinorrhoea, 874
McDOUGALL, JAMES EDLINGTON, appointed J.P. for City of Liverpool, 1347
McEOGH, JOHN, 334
MACEWAN, DAVID: Antiferment treatment of acute suppuration, 185
MACEWEN, J. A. C.: *Surgical Anatomy*, rev., 577; on double loop hernia (W hernia), 799
MACEWEN, Sir WILLIAM, appointed honorary surgeon to George V in Scotland, 1509
MACFIE, RONALD CAMPBELL: *Science, Matter, and Immortality*, rev., 386; *Air and Health*, rev., 816
McGill University. *See* University
MACGILLIVRAY, C. W.: Syphilis and marriage, 140
McINTOSH, Professor: The red coral, 764
McISAAC, ISABEL: *Bacteriology for Nurses*, rev., 641; *The Elements of Hygiene for Schools*, rev., 1551
MACKARELL, Dr.: Adenoma of breast, 446; chondro-sarcoma of femur, 446; undescended testicle, 446; *x*-ray dermatitis and epithelioma, 810; intestinal obstruction, 810; carcinoma of antrum, 811; carcinoma of testicle, 811
MACKAY, GEORGE: Spring catarrh, 1355
MACKAY, W. A.: Case of acute tuberculous broncho-pneumonia after gastro-enterostomy, 745
M'KENDRICK, ARCHIBALD: Post-parturient paralysis, 20
McKENDRICK, Captain A. G.: *Observations on Rabies; with Special Reference to an Atrophic Form of the Disease occurring in Animals*, rev., 386
McKENDRICK, J. S.: Use of the polygraph in cardiac disease, 638
McKENDRICK, W. F.: *The Opsonic Index*, 225
MACKENNA, R. W.: *Spirochaeta pallida*, 993
McKENZIE, DAN: General infiltration of larynx, 204; a short way with syphilitics, 546
MACKENZIE, H. G. G.: Methods of the Psychotherapeutic Society, 783
MACKENZIE, JAMES: *Diseases of the Heart*, rev., 1113
McKENZIE, R. T.: *Exercises in Education and Medicine*, rev., 1179
MACKENZIE-WALLIS, Mr.: Electric bath treatment in mental disorder, 700, 1504
Mackerel and sunshine (Dr. Allen), 342
MACKIE, Dr.: Cerebellar abscess, 755
MACKIE, F. P.: Development of trypanosomes in tsetse flies, 1292
MACKINTOSH, J. S.: Treatment of neurasthenia and psychasthenia, 783
McKISACK, H. L.: Case of muscular dystrophy (Erb's juvenile form) occurring in an adult, 559
McLAUGHLIN, Dr.: Infant mortality in the Far East, 1000
MACLEAN, EWEN J.: Medical profession and Parliamentary representation, 173
MACLENNAN, ALEX.: Tuberculous meningitis, 755
MACLEOD, J. M. H.: Therapeutic value of carbon dioxide snow in treatment of vascular naevi, moles, etc, 254, 1411
MACLEOD, Colonel KENNETH: Appreciation of Thomas Laycock, 583
McMULLAN, GEORGE: Large simple ovarian tumour removed from a girl, 1281
acMUNN, JAMES: Instruments for the diagnosis of the seat of gleet, 146
McNABB, D.: Fracture of tibia and fibula by direct violence, 443
MACNAMARA, E. D.: Proposed medical branch of the Navy League, 116
McNAMARA, J.: Dysmenorrhoea, 846; palaeogenesis, 1146
MACNAUGHTON-JONES, H.: An acoustic aid, 146
McNEIL, ANDREW S.: Dysmenorrhoea, 901
MACPHAIL, ANDREW: Medicine in Canada 1118
Macula, hole in (P. Foster Moore) 447
McVAIL, J. C.: Medical treatment of the poor, 488
McWALTER, J. C.: Internal use of cocaine, 610; pregnancy with perfect hymen, 1110; diploma in ophthalmology at Oxford, 1452
MACWATTERS, J. COURTENAY: Ulceration of face and fauces treated by bacterial vaccines, 190; some points relating to therapeutic immunization, 1161
McWEENEY, E. J.: The debt which humanity and science owe to animal experiment, 405; source of blood stains, 508
Mad folk, humours of, 463
MADDEN, Surgeon-General CHARLES DODGSON, obituary notice of, 357
Madeira, typhoid fever in, 775
Madness of Don Quixote, 944
Madras Medical College, 774
MAGGS, W. A.: Secondary parotitis, 1051
MAGIAN, A. C.: *A Handbook of Venereal Diseases*, rev., 1237
MAGILL, Colonel J., appointed Organizing Secretary British Red Cross Society, 952
Magnesium sulphate, intraspinal injection of a solution of, in treatment of tetanus (Llewellyn Phillips), 263
Magnetic field, physiological effect of an alternating (Silvanus P. Thompson), 991
MAGUIRE, W. J.: Treatment of neuritis, 444
MAIDLOW, W. H.: Difficulties of modern practice, 726
Makogai, leper station established in, 639
Malaria Conference, Imperial, held at Simla (1909), 597; Blue Book issued, 597
Malaria in Bombay, 1199
Malaria, proposed travelling professorship on, 204
Malaria, etiology, epidemiology, and prophylaxis of (Dr. Varis), 210
Malaria, review of books on, 1236
Malarial fevers. *See* Fevers
MALASSEZ, L., death of, 296
Malay "anti-opium plant" (leading article), 337
MALCOLM, JOHN: *Notes on Practical Physiology*, 1359
Maldon rural district, report of M.O.H., 1581
Male breast, cancer of. *See* Cancer
MALE, HERBERT C.: Pneumothorax in the apparently healthy, 1110
Malignant disease of upper end of common bile duct (H. Littlewood), 1232
Malignant disease of colon (E. H. Taylor), 141
Malignant growth, homogeneity of resistance to transplantation of (E. F. Bashford and B. R. G. Russell), 382
Malignant growths, effect of on the size of organs (F. Medigreceanu), 381. *See also* Cancer
Malnutrition (Dr. Paton), 751
Malt extracts, combinations of, 29, 86
Malta, entomological expedition to, 1573

Malted foods, composition of, 86
Malthusianism and its physical risk, 433
Maltico, composition of, 30
Maltine and cod-liver oil, composition of, 30
Mammary cancer. *See* Cancer of breast
Man, antiquity of (leading article), 1009
MANBY, Sir ALAN REEVE, appointed Physician Extraordinary to George V, 1509; Surgeon-Apothecary at Sandringham, 1509
Manchester and district, special correspondence from, 45, 115, 166, 230, 289, 343, 407, 470, 531, 661, 721, 780, 842, 898, 960, 1019, 1080, 1197, 1261, 1320, 1375, 1438, 1512, 1571; clean shaving, 45, 1438; Joint Matriculation Board, 46; Manchester Industrial Exhibition, 115; Manchester guardians and consumption, 166; opticians and State recognition, 167; Hope Hospital, 230, 343, 531, 842; St. Mary's Hospitals and women doctors, 231; medical examination of engine drivers, 231; compulsory notification of phthisis at Burnley, 289; small-pox at Heywood, 289; appointment of women to resident posts at the infirmary, 343, 470, 1438; endowment of a cancer bed at the infirmary, 343; Manchester Provident and Charity Organization Society, 407; Pendleton Provident Dispensary, 407; Manchester Hospital Work Society, 407; Ladies' Public Health Society, 407; meeting of the medical profession on the reform of the Poor Law, 531; Manchester and Salford Hospital Sunday Fund, 661; medical representation on public bodies, 721; North Manchester Medical Union, 721; ringworm in school children, 721; the Dental Hospital and the Dental School, 780; Hospital for Skin Diseases, 780; the Ancoats Hospital, special appeal, 842; sanatorium accommodation for consumption, 898; scarlet fever and isolation, 898; ethical relations between consultants and general practitioners in Manchester, 960; medical inspection of school children, 1019, 1080; ophthalmia neonatorum, 1019; nursing in Poor Law infirmaries, 1019; Manchester Medico-Ethical Association, 1020; opticians and the medical profession, 1080, 1197, 1320; medical inspection of children at Salford, 1080; opticians and federation, 1197, 1320; Ladywell Sanatorium, Salford, 1197; Crippled Children's Help Society, 1198; midwives' protest against the Midwives Act Amendment Bill, 1261; the Medical Guild, 1375; Mr. F. A. Southam and the Royal Infirmary, 1438; doctors and hairdressers, 1438; consumptives under the Poor Law, 1512; the late Mr. Tom Jones, 1571; hospital abuse in Manchester, 1571
Manchester Industrial Exhibition. *See* Exhibition
Manchester Infirmary. *See* Infirmary
Maniac, The: A Realistic Study of Madness from the Maniac's Point of View, rev., 325
MANN, E. W.: *Seventeenth and Eighteenth Laboratory Reports. 1908–1909*, rev., 268
MANNING, HENRY JOHN, obituary notice of, 605
MANSON, Sir PATRICK: Excessive liability of European women in Africa to trypanosomiasis, 72; elected a corresponding member of the Paris Académie des Sciences, 305
Manurial value of dry earth from closets, 360, 424, 1032
Manuscripts, ancient, photographic reproductions of, 456
MAPLETON, G. H.: Artificial eye in child, 423
MARCHOUX, E.: *Paludisme*, rev., 1236
MARIANI, J. M., death of, 911
MARINESCO, G.: *Maladies des muscles*, rev., 1178
Marriage, petition presented to Federal Council of Berne, asking that a medical examination before, should be made law, 452
Marriage and syphilis (C. W. Macgillivray), 140
MARRIOTT, Sir CHARLES HAYES, obituary notice of, 548
MARRYAT, THOMAS, 334
MARSH, J. HEDLEY: Part-time medical officers of health, 118
MARSH, PERCY: Lumbar puncture, 811; thymus gland, 811
MARSHALL, C. F.: Dangers of arylarsonates, 724
MARTIN, A. M.: Acute inflammation of a Meckel's diverticulum with a large enterolith *in situ*, 447
MARTIN, C. J.: Appreciation of Robert Koch, 1386
MARTIN, EDWARD: *Surgical Diagnosis*, rev., 1235
MARTIN, WILLIAM: Fracture of the great tuberosity of the humerus, 81
MARTYN, A. L.: Part-time medical officers of health, 602; cold hands, 912; public medical service, 1440
Mary Kingsley medal awarded to G. H. F. Nuttall, 483
Mary Tudor, death-bed of, 1303
MASON, J. M., called to the bar at Gray's Inn, 1527
MASQUERAY, Dr.: Medical folk-lore in Normandy, 765
Massachusetts, the State Nurses' Association petitions for State registration, 749
Massage and nursing homes, bogus, 1434
Massage, review of books on, 1238
MASSOL, LÉON, obituary notice of, 57
Massolettes, 452
Mastitis, recurrent, 360, 610
Mastoiditis (W. S. Kerr), 1111
MATHISON, ARTHUR J.: Treatment of red nose, 1272
MATTHEWS, CRAUFURD: Use of adrenalin in asthma, 441
MATHIESON, J. MOIR: Series of pathological specimens, 573
MATHISON, G. C. MCKAY, awarded Beit memorial fellowship, 594
Matriculation, London, English at, 516, 603, 667; correspondence on, 603, 667. *See also* University of London
MATTHES, M.: *Die Behandlungsmethoden des chronischen Magengeschwürs*, rev., 1177
Mauritius, plague in, 270, 959
MAW, GEORGE: Family longevity, 1452
MAXWELL, J. PRESTON: Action of cutaneous anaesthetics, 1521
MAY, OTTO: Mechanism of cardiac pain, 13; awarded Beit memorial fellowship, 594
MAY, WILLIAM PAGE, obituary notice of, 297
MAYALL, G.: *Cows, Cowhouses, and Milk*, rev., 934
MAYLARD, A. ERNEST: Reflex pain in diseases of the abdominal viscera, 616; sarcoma of the stomach, 638
MAYO, WALTER C.: New mucus evacuator, 24
MAYOU, Mr.: Buphthalmos, 322
Measles, in the Rhymney Valley, 47; in Wales, 47; in Belfast, 1374
Measles spread by post office officials, 1327
Meat inspection in Glasgow, 1209
Meat, raw minced, dangers of, 539
Mechano-therapeutics, 400, 656
Meckel's diverticulum, acute inflammation of, with a large enterolith *in situ* (A. M. Martin), 447
Meckel's diverticulum, specimen of (Douglas Crawford), 993
Mediaeval charity (Rotha Mary Clay), 216
Medical Annual, rev., 879
Medical attendance. *See* Attendance
Medical Benevolent Society. *See* Society
Medical bookkeeping, 1032
Medical bulletins. *See* Bulletins
"Medical butchers," 280
Medical charities, bequests to. *See* Bequests
Medical charities, reform of, 1200
Medical Commission of Prisons. *See* Prisons
Medical Congress. *See* Congress
Medical congresses. *See* Congresses
Medical crisis in France, 663
Medical Defence Union, annual meeting, 1299
Medical degrees conferred in 1909 in France, 290
Medical education in the United States, 835; in Dublin, Professor Geddes on, 841
Medical education of the public in France, 844
Medical evidence and workmen's compensation. *See* Act, Workmen's Compensation
Medical examination of engine drivers, 231
Medical folk lore. *See* Folk lore
Medical Golfing Society. *See* Society
Medical Graduates' College and Polyclinic. *See* Polyclinic
Medical Guild, Manchester, 1375
Medical inspection by public vaccinators. *See* Vaccinators
Medical inspection of school children. *See* School
Medical libraries, list of, 59
Medical libraries of Berlin, proposed amalgamation of, 274
Medical Library Association. *See* Association
Medical magistrates, 59, 790, 1347; Greene, Adrian, 59; McDougall, James Edlington, 1347; Redmond, J. O'Connell, 790
Medical man and his income tax return. *See* Income Tax
Medical matters at the Labour Conference, 471
Medical men and the House of Commons, 161
Medical men and the Finance Act. *See* Act, Finance
Medical men, insurance for. *See* Insurance
"Medical men and legacies from patients," 283
Medical men called in to assist midwives, payment of, 1327, 1446, 1507. *See also* Act, Midwives, *and* Bill, Midwives
Medical men, professional charges to, 1327
"Medical misgovernment," 1432
"Medical missionaries," 300
Medical Officers of Health Association. *See* Association
Medical officer of health, tenure of office of, 59, 178
Medical officers, administrative, 718
Medical officers of health, appointment of, 608
Medical officers of health, election of, 1210
Medical officers of health and infectious diseases in schools, 1327
Medical officers of health, notification by, 1148
Medical officers of health, part-time, 52, 117, 175, 233, 292, 352, 419, 475, 542, 602, 667, 727
Medical officers of health and private practitioners, 1327
Medical officers of health reports. *See* Public health *and under District reported*
Medical officers of health, security of tenure of, 178
Medical Officers of Health Society. *See* Society
Medical officers and militia training at Belfast, 1135
Medical Officers of Schools Association. *See* Association
Medical Parliamentary Roll (S. D. Clippingdale), 100, 233, 294, 420, 784, 852, 1331, 1584; correspondence on, 233, 294, 353, 420, 784, 852, 1032
Medical Phonographers' Society. *See* Society
Medical poets, 226, 274
Medical pointers, 108
Medical practitioners abroad, 1258
Medical practitioners, number of in Russia, 72; raising of the fees of in Paris, 172; relations of to district nurses, 1327; foreign, in France, 1376; and the patenting of instruments, 1581; membership of friendly societies by, 1581
Medical profession, the function of (leading article), 336
Medical profession, independent, in India. *See* India
Medical profession and the laity, relations of, 53
Medical profession and parliamentary representation, 118, 173, 235
Medical profession and the Poor Law (Jno. Milson Rhodes), 77
Medical profession in South Africa, 713, 1132, 1256
Medical profession and the State, 53. *See also* Poor Law
Medical referee, duties of, 907
Medical referees as witnesses, 1150
Medical Register, rev., 759; accuracy of, 1431
Medical registration in Canada, 527
Medical relief (C. S. Loch), 991
Medical relief in France, 899, 1082
Medical representation on public bodies, 721
Medical Schools (technical grants), 1134. *See also* Hospital *and* University of London
Medical senators in Italy, 375
Medical service, nationalization of (Benjamin Moore), 1345; correspondence on, 1440, 1521
Medical service, national, for Ireland, 1196, 1374
Medical service, a public. *See* Public
Medical service of the Territorial Force. *See* Army, British, Territorial Force
Medical services, inspector of, 718
Medical services, State civil (Joseph Griffiths), 1340
Medical Sickness, Annuity, and Life Assurance Society. *See* Society
Medical societies. *See* Society
Medical students, in German universities, 358 decrease of in America, 1189
Medical and surgical appliances, 24, 86, 146, 209, 269, 387, 452, 578, 642, 760, 817, 880, 998, 1057, 1179, 1242, 1418, 1554; new mucus evacuator, 24; apparatus for continuous irrigation with hydrogen peroxide, 24; spinal injection syringe, 86; cup pessary, 86; instruments for diagnosis of the seat of gleet, 146; an acoustic aid, 146; simple form of needle holder, 209; apparatus for cold cautery and thermo-penetration, 269; improved midwifery forceps, 387; insulated wires for medical electricity, 387; Dr. Burney Yeo's respirator, 387; electric light and heat baths, 388; "nebulique spray," 452; a valved angle-piece for inhalers, 578; ammonium chloride inhaler, 578, 642; new leg rest, 642; lamp for testing colour vision, 760; mouth gag with electric light, 760; projection lanterns, 817; ophthalmo-fundoscope, 817; forceps for holding Michel's sutures, 880; controller for electric current, 880; hot-water bottle, 998; bed lift, 998; curette for the Eustachian tube, 1057; epilation forceps, 1179; a new ethyl chloride inhaler, 1242; small thermo-generator, 1418; catheter for prostatic cases, 1418; nasal administration of nitrous oxide gas, 1554
Medical terms in the *New English Dictionary*, 107, 950
Medical titles, false assumption of, 422; conviction for assumption of, 604
Medical treatment of the poor (J. C. McVail), 488; (Dr. Cooper, *see* SUPPLEMENT, p. 105); leading article on, 521, 712
Medical Union, North Manchester, 721; annual dinner, 721
Medicinal and dietetic preparations, 86, 146, 209, 269, 327, 388, 452, 760, 1242, 1298, 1553; Tidman's sea salt, 86; "Tippee" petroleum emulsion, 146; porcelain walls, 146; geril bread, 146; thyresol, 209; jecovol, 209; antileprol, 269; "Escölent" compounds, 327; bromural, 388; styptol, 388; plasmon and its compounds as a source of phosphorus, 452; Whiteway's Devonshire cyder, 760; albulactin, 1242; standardized tabloids of thyroid gland, 1242; phosphova, 1242; thiocol "Roche," 1242; piutinol, 1298; sour milk preparations, 1553
Medicine in Canada (Andrew Macphail), 1118
Medicine in France, amendment of regulations for practice of, 1271
Medicine in Ibsen's plays, 402
Medicine in India. *See* India

Medicine and miracles (leading article), 1500. *See also* Faith Healing
Medicine and music, 590
Medicine in Norway, 295
Medicine, obstetric, evolution of (Dr. Fairbairn), 217
Medicine, review of books on, 143, 1234
Medicine, teleology in (leading article), 277
Medicines, new, 1189. *See also* Secret remedies
Medicines, supply of in Ireland, 1134
Medico-Chirurgical Society. *See* Society
Medico-Ethical Association. *See* Association

Medico-Ethical, 55, 358, 731, 789, 851, 908, 969, 1270, 1327, 1390, 1451, 1581
African troubles, 1270
Assistants, unqualified, 1270
Breaking one's word, 908
Colliery stoppages, 908
Consultant, obligations of, 789
Contract not to practise, 731
Courtesy call, 851, 1327
Doctors' relatives and professional relations, 1327, 1581
Fees, alleged misappropriation of, 1327
Horses, opinion of a medical practitioner on diseases in, 851
Introduction, conditions of, 789
Medical men, professional charges to, 1327
Medical officers of health and private practitioners, 1327
Medical practitioners and district nurses, relations of, 1327
Medical practitioners and membership of friendly societies, 1581
Medical practitioners and the patenting of instruments, 1581
Official charge, 1390
Publication and advertisements of books for lay perusal, 358
Purchase, restrictive effect of negotiations for, 731, 969
Substitute, obligations of, 55
Supersession, 55, 1451

Medico-Legal, 55, 119, 177, 236, 295, 358, 421, 482, 551, 604, 668, 787, 851, 907, 969, 1026, 1088, 1150, 1207, 1270, 1326, 1389, 1450, 1525, 1581
Action against the Incorporated Dental Hospital, Dublin, 482; in respect of a lunacy certificate (Fowler *v.* Grant), 668; for recovery of fees (Hingston, Carter, and Pearse *v.* Hans Scharien), 1207; for libel (Hooper *v.* W. Piles), 1207; for negligence (Crickmay *v.* Biden), 1450; under the Lunacy Act, 1581
Assault, is it an accident? 1525
Assistants' fees, 668
Attendance at necropsies ordered by coroners, 1450
Charges, recovery of, 551
Chemist, unregistered, 1270
Claim against a corporation, 55
Colour vision, testing of, 236; case of Mr. Trattles, 236
Contracts not to practise within an area, 482
Death vacancy, value of, 969
Deaths from misadventure, 1450
Dental injuries, damages for, 421
Dentists, unqualified, 1026
Dentist, unregistered, 177
Executors, claims on, 1326
Fee of monthly nurse, 422
Fees for inquest and necropsy, 1390
Fees in the case of lunatics, 119
Fees of plaintiff's doctor for attending examination by defendant's doctor, 295
Fees, undertaking to pay, 1326
Friendly society, receipts from, 1270
Frostbite, 1525
Hospitals, responsibility of, 421, 482
Hydrophobia, death from, 851
Inquest on a patient treated at the Sandow Institute (Henry Harridge Phillips), 1389
Introduction by vendor, 358
Irving *v.* Bodie, result of appeal, 604
Locumtenent, obligations of, 668
Medical men called in to assist midwives, payment of, 1327
Medical titles, false assumption of, 422; conviction for assumption of, 604
Midwives, payment of medical men called in to assist. *See* Medical
Operations, compulsory, 1525
Partner's motor car, 177
Partnership accounts, 295
Partnership agreement, 119
Partnership, question of, 1270
Partnership receipts, 119
Poisons, sale of, 1581
Prescribing for patients without seeing them, 177
Professional responsibility, 237
School attendance and medical certificates, 1207
Share, sale of, 969, 1088, 1207
Solicitor's fees and stamp duties, 668
Workmen's Compensation, 295, 482, 551, 787, 907, 969, 1150, 1207, 1270, 1525; alleged death from hernia, 295; is a one-eyed collier totally incapacitated? 482; pneumonia, 551; definition of an accident, 787; finality of medical referee's reports, 788; neglect of treatment, 788; accident or pleurisy, 788; accident and lunacy, 788; alleged poisoning by carbon monoxide, 789; a claim in respect of nystagmus, 789; refusal to do light work, 907; duties of a medical referee, 907; neurasthenia and hydrocele, 908; duty to use surgical appliances, 908; definition of an accident, 908; refusal of operation, 969; epistaxis and arteriosclerosis, 969; medical referees as witnesses, 1150; objection to medical referees, 1207; accident or pneumonia, 1207; workmen wearing waistbelts, 1207; death in hospital, 1207; light work, 1207; medical certificates as to the nature of the injury under the Workmen's Compensation Acts, 1270; Is an assault an accident? 1525; frostbite, 1525; compulsory operations, 1525; phthisis or accident? 1526

Medico-Psychological Association. *See* Association
MEDIGRECEANU, F.: Effect of malignant growths on the size of organs, 381
Mediterranean fever. *See* Fever
MELLANBY, E., awarded Beit memorial fellowship, 594

Memoranda: Medical, Surgical, Obstetrical, 17, 81, 139, 199, 260, 320, 380, 442, 503, 567, 632, 690, 750, 807, 871, 929, 990, 1050, 1110, 1168, 1230, 1289, 1352, 1411, 1545
Abstinence, case of prolonged (B. Hall), 1352,
Anasarca in an infant (John D'Ewart), 504
Artificial respiration in newborn infants (B. F. Pendred), 1289
Asphyxia, traumatic (John H. R. Garson), 990
Avulsion of eyeball during instrumental delivery (James Donaldson) 200; (G. Symers Mill) 568
Beri-beri, long incubation in (Paul J. Verrall), 443
Bezold's disease (Faulder White), 1110
Blenorrhoea of lacrymal sac (J. Reid), 200
Blood-tight uterus (Geo. H. Peake), 199
Bone impacted in oesophagus (John A. Bower), 930
Carbon dioxide snow (J. M. H. MacLeod), 1411
Carcinoma in the male breast (F. M. Bingham), 442; (Jas. Davidson), 1231
Carcinoma of rectum appearing simultaneously in husband and wife (C. Hamilton Whiteford), 1411
Cardiac lesions resulting from acute rheumatism (W. Henry Harris), 990
Chancres, two unusually situated (L. Kilroy and G. P. Adshead), 808
Diabetic coma at the age of 10 (Louis E. Stevenson), 632
Diabetics, new vegetable for (Robert Saundby), 568
Efflorescence of urea in uraemia (J. A. W. Pereira), 17
Empyema treated by antiseptic plugging (Peter Tytler), 320
Eucalyptus, poisoning by oil of (W. Ronald Kirkness), 261; (J. Allan), 569
Foreign body in oesophagus removed by the direct method (George N. Biggs), 380
Foreign body in the tongue (William Murray), 17
Fracture of tibia and fibula by direct violence (D. McNabb), 443
Fracture of the great tuberosity of the humerus (W. G. Williams), 81; (William Martin), 81
Gall stone, spontaneous passage of (Amb. Atkinson), 990
Gas and ether as an anaesthetic (W. E. Alderson), 199
Goundou (J. O. Shircore), 503
Haemophilia in a female (E. W. Squire), 1168
Haemorrhage, severe traumatic ante-partum (E. N. Lea-Wilson), 871
High tension and cavitation (Stuart Tidey), 1231
Iodine catgut (Frederick Edge), 320
Irido-dialysis (T. H. Molesworth), 200
Itch mite infection, persistence of in clothes (John N. Laird), 261
Kala-azar in the Yangtse Valley (Alexander C. Lambert), 750
Lime water in the treatment of verruca plana (Dudley Kennard), 81
Lyssophobia or hydrophobia? (Joshua Duke), 567
Miner's nystagmus (T. Ritchie Rodger), 929
Nourishment in acute diseases (F. G. Haworth), 871
Novocain and strychnine, death from spinal injection of (M. Gabbett), 690
Ossification in the brachialis anticus following injury to elbow (William A. Ardagh), 1289
Otitis, suppurative, treatment of (Faulder White), 504
Paracentesis of the pleura (Frederick J. Hicks), 807
Pneumonia, lobar, a patient's account of the crisis of (Oscar B. Trumper), 808
Pneumothorax in the apparently healthy (Herbert C. Male), 1110
Ponos, is it kala-azar? (W. H. Graham Apsland), 139
Position of the patient after operations on the abdomen (S. K. Vines), 17

Memoranda (*continued*)
Pregnancy with perfect hymen (J. C. McWalter), 1110
Puerperal eclampsia, recovery (J. Vincent Shaw), 1411
Purpura, fetal (Norman Glegg), 632
Pylephlebitis, suppurative, following oesophageal stricture (E. C. Edwards), 199
Rhinorrhoea (Carey Coombs), 1411
Ringworm, treatment of (E. Lynn Jenkins), 260
Rupture of both quadriceps extensor cruris tendons (J. Wallace Milne), 199; (Richard Kelly), 807
Samar twins. *See* Twins
School children, inspection of (G. C. Barnes), 930
Skull, depression of in newborn infant, treatment of (W. R. Cossham), 1050
Sodium salicylate, local injection of in acute rheumatism (Birendra Nath Ghosh), 690
Spasmodic contraction of the cervix in eclampsia treated with cocaine (Louis L. Carlos), 200
Spleen, cystic, *post-mortem* report on (L. H. Gill), 1545
Strychnine in neuritis, local injections of (George H. R. Dabbs), 260
Syphilis, practical points in the treatment and clinical history of (D. N. Cooper), 1352
Syphilis, serum diagnosis of, Fleming's method (P. W. Bassett-Smith), 632
Tick fever in Nyasaland (James A. Chisholm), 442
Tuberculous meningitis, treatment of (G. H. Younge), 1168
Twins, the Samar (R. M. Riggall), 1050
Twins, united female (D. G. Carmichael), 1352
Uterus, complete inversion of, reduction and recovery (C. L. Fraser), 260
Whitehead's operation for haemorrhoids, modification of (W. Silverwood Richardson), 17

Mendelian laws (Berry Hart), 284
Mendelism (W. H. Young), 721
Mendelism and sex (leading article), 586
Ménière's disease with facial paralysis (A. Bruce and J. S. Fraser), 1174
Meningitis in children (Guthrie Rankin), 1045
Meningitis, cerebro-spinal. *See* Fever, cerebro-spinal
Meningitis, otitic (Dr. Milligan), 813
Meningitis, purulent, secondary to a latent appendix abscess (Sydney Hartill), 990
Meningitis, septic (Logan Turner), 20
Meningitis, tuberculous, treatment of (G. H. Younge), 1168
Menopause, physiology, pathology, and psychology of (Sir Halliday Croom), 231
Menses, retained, relieved by operation (John T. Hartill), 71
Menstruation and ovarian grafting (Th. Tuffier and E. Seymour Chapman), 1543
Mental deficients, home for, 1032
Mental disease, association tests in, 1152
Mental disorder, electric-bath treatment in (Mr. Mackenzie-Wallis), 700; (Dr. Goodall and Mr. Mackenzie-Wallis), 1504
Mental disorder, incipient, proposed receiving house for, 1139
Mental fatigue (Professor Milroy), 1053
Mental healing, a philosophy of, (leading article), 1501. *See also* Faith healing
Mentally defective children. *See* Children, defective
MERCIER, CHAS: Prison doctors and the Home Office, 291; insanity and conduct, 1413
Mercurial injections (Staff Surgeon H. C. Adams), 813
Mercury, effect of on the serum reaction of syphilis, 1259
Mercury sphygmometer. *See* Sphygmometer
Mesocoelic recess (Arthur Dendy and G. E. Nicholls, 1511
METCALFE, JAMES: Some of the uses of *x* rays in diagnosis and treatment, 432
METCHNIKOFF, ELIE: Intestinal bacteria and digestion, 458
Metropolitan Asylums Board. *See* Board
METTAM, Professor: Tuberculous spleen from pig, 635
Mexican hair renewer, composition of, 152
Mexico, fly-traps in (Léon Diguet), 647
MEYER, KIRSTINE: Who was the discoverer of the thermometer? 284
MEYER, PAUL: Work done by Berlin school doctors. 348
MEYER, WILLY: *Bier's Hyperaemic Treatment: A Manual of its Practical Application*, rev., 878
MEYERHOF, Dr.: Arabian ophthalmology in antiquity, 393
MIBELLI, VITTORIO, death of, 1525
Mice and measles, 1566
MICHELS, E.: Disappearance of chronic ascites in alcoholic cirrhosis, 932
Michel's sutures, forceps for holding, 880
Microbacillus of acne. *See* Acne
Microbes, intestinal, and diet, 1131. *See also* Diet
Middle-ear suppuration, its sequelae and treatment (Gay French), 573
Midwifery, review of books on, 1417
Midwives Act. *See* Act

Midwives' registration in London, 1020
Migraine, recurrent motor paralysis in (J. Michell Clarke), 1534
Milan, Clinical Institute for Study of Diseases of Occupation in, 1062
MILES, ALEXANDER, appointed full surgeon to Edinburgh Royal Infirmary, 177; passive hyperaemia in gonorrhoea, 1173
MILES, EUSTACE: Food and feeding, 604
MILES, Mr.: Acute osteomyelitis, 1355; massage of the heart, 1355
MILES, W. ERNEST: Operative treatment of haemorrhoids, 473; cancer of rectum, 1203
Milk, proposed legislation on, 59, 593, 956, 1015; questions in Parliament, 593, 956, 1015. *See also* Bill
Milk and Daires Bill. *See* Bill
Milk dépôt at Lambeth, infants', 780
Milk, dried, as a food for infants (C. Killick Millard), 253
Milk inspection in London, 1572
Milk, review of books on, 934
Milk, soured, the preparation of, 52, 118, 235, 886, 1091, 1553
Milk, sweet and sour (C. H. Cattle), 19
Milk supply, of Glasgow, 230; of Belfast, 469; of Birmingham and tuberculosis, 535; of Edinburgh, 1017
Milk supply, a pure (Bachi), 1006
Milk, tuberculous, 408; report of Public Health Committee, London County Council, 408
Milk and tuberculosis, 1569
MILL, G. SYMERS: Avulsion of the eyeball during instrumental delivery, 568
MILLARD, C. KILLICK: Dried milk as a food for infants, 253; psychical research, 726
MILL, H. R., presents to a board of trustees his unique rainfall records and his house, 62, Camden Square, 1451
MILLER, Dr.: Juvenile general paralysis, 1052; lymphadenoma, 1052
MILLER, JAMES: Tuberculosis of the urinary system, 572; tuberculous glands in neck, 572; gonococcus infection, 572
MILLER, Surgeon-Major ORMSBY BOWEN, obituary notice of, 1524
MILLER, REGINALD: Protracted pyrexia in pneumonia in children, 569
MILLICAN, KENNETH W, appointed editor of St. Louis Tuberculosis Commission *Bulletin*, 274
MILLIGAN, Dr.: Otitic meningitis, 813; surgery of the faucial tonsils, 993
MILLIGAN, ERNEST H. M.: Sickness and invalidity insurance, 1264
MILLIGAN, WM.: Part-time medical officers of health, 667
MILLS, PERCIVAL: Study of von Pirquet's tuberculin reaction in the surgical diseases of children, 1159
MILLS, WESLEY: Some considerations bearing on the surgeon, the patient, the student, and the nurse, 682; leading article on, 711
MILNE, J. WALLACE: Rupture of both quadriceps extensor cruris tendons, 199
MILROY, J. A.: Oxygen capacity of the blood, 1053
MILROY, Professor: Mental fatigue, 1053
MILTON, J. PENN: Psychology of the consumptive, 1519
MILWARD, FREDERIC VICTOR: Death under spinal anaesthesia by Jonnesco's method in a case of acute intestinal obstruction, 743; obituary notice of, 910
MINCHIN, E. A., reviews F. D. Doflein's book on the Protozoa, 142; transmission of *Trypanosoma lewisi* by the rat flea, 381, 882
Mind and body, review of books on, 1498. *See also* Faith healing
Mine sanitation, 530
Mines, Royal Commission on, 1331
Miners, coal, and phthisis, 1140
Miner's nystagmus. *See* Nystagmus
Mines, rescue work in, 1137
Miol, composition of, 29
Miracles, modern, 1092. *See also* Faith healing
Mirfield Urban District, report of M.O.H., 1527
Misers, what the world owes to, 830
MITCHELL, A. B.: Treatment of gastric and duodenal ulcer, 848
MITCHELL, Dr.: Tuberculous arthritis, 1233
Modern faith healing. *See* Faith healing
MODY, H. N., knighthood conferred upon, 963
MOELLER, Professor: Oral hygiene and tuberculosis, 951
Moles, carbon dioxide snow in (J. M. H. MacLeod), 254
MOLESWORTH, E. H.: Cultural characteristics of the microbacillus of acne, 1227
MOLESWORTH, T. H.: Irido-dialysis, 200
Molluscs, marine, locomotion of (N. Colgan), 830
Molluscum contagiosum (Dr. Kelly), 993
Monaca, Prince of, builds a house to hold his oceanographical collection, 881
MOND, LUDWIG, bequests of, 70
Monmouthshire water scheme, 1319
MONSARRAT, KEITH: A malignant growth of kidney, 686
MONTEITH, JAMES: Neuralgia in edentulous gums, 239
MONTGOMERY, A. W.: The doctor's telephone, 972
Montreal, "Royal Edward Institution" for Tuberculosis, memento of, 1193
MOON, R. O.: *The Relation of Medicine to Philosophy*, rev., 82
MOORE, BENJAMIN: Nationalization of medical service, 1345
MOORE, P. FOSTER: Hole in the macula, 447
MOORE, REGINALD M.: Case of peritoneal pseudo-myxoma originating from the vermiform appendix, 1109
MOORE, T. W.: Habits of seamen, 1580
MOORHEAD, Dr.: Valvular stenosis of heart, 635
MOORHEAD, T. GILLMAN: Pigmentation of the buccal mucosa in pernicious anaemia, 865
MORE, Sir THOMAS: Customs of the Utopians in regard to matrimony, 1534
MORESTIN, M.: An extensive operation for vulvar cancer, 1192
Morgue in Paris to disappear, 185
MORISON, ALEXANDER: Cardiolysis, 1023; influence of posture in physical examination, 1517
MORISON, B. G.: Prescriber and dispenser, 54
Morison lectures. *See* Lectures
MORISON, RUTHERFORD, appointed professor of surgery in the University of Durham, 231; two cases of pedunculated fibroid, 447
MORLEY, JOHN: Case of cancer of pylorus associated with general splanchnoptosis, partial gastrectomy, 18
Morphine habit, 300
Morphine, trade of, to the East, 240. *See also* Opium
Morphomaniac, home for, 972
MORRIS, Sir HENRY, calls attention to a story of Sir Henry Halford, 583; issues circular *re* science at the Japan-British Exhibition, 829; suggestion in the treatment of disease, 1457
MORRIS, JAMES, obituary notice of, 1208
MORRISON, JOHN, spontaneous version after rupture of membranes, 1452
MORRISON, J. T. J.: Foxwell memorial, 1087
Mortality, infantile, 440, 536, 592, 658, 774, 776, 789, 843, 896, 898, 1000, 1017, 1082, 1246; in America, 440; discussed at meeting of Women's National Health Association, 536; and notification of births, 592; under the Poor Law, 658; questions on in Parliament, 658, 774, 896; diminution of in Edinburgh, 776; industrial employment of women and, 789; an experiment in the reduction of in Birmingham, 843; in Ireland, 898, 1017; in the Far East, 1000; of Edinburgh and the milk supply, 1017; and the Cork guardians, 1017; in New South Wales, 1082; causes of, an illustration from Bavaria, 1246
MORTON, CHARLES A.: Four cases in which stones were removed from the ureter, 793; cancer of the rectum, 1378
MORTON, EDWARD REGINALD: Solid carbon dioxide as a local application, 257; *Essentials of Medical Electricity and Radiography*, rev., 1236
MORTON, JOHN: Analysis of a series of cases of perforated gastric and duodenal ulcers, 249
Mortuaries, preservation of bodies in, 1148
Mosquitos and disease, inquiry into in Germany, 664
Motor ambulance. *See* Ambulance
Motor car and petrol duty, 1091, 1120. *See also* Act, Finance
Motor car and servant licences, 852
Motor cars for medical men, 285, 330, 400, 411, 594, 649, 700, 762, 887, 1298, 1360, 1509, 1554; relative cost of horse and motor traction, 285, 330; the dust question, 285; Thames cars, 285; motor cycle, 285, 330; sparking plugs, 285; car licences, 330; insurance of, a comprehensive policy, 400, 411; insurance during repairs or overhauling, 594; country doctors and motor cars, 594, 649, 762; repayment of petrol tax, 594, 700, 1212 (*see also* Petrol); motor car for town doctors, 700; the advantages of one-cylinder cars, 700, 762, 887; steam cars, 762; book of instruction from Messrs. De Dion, 1298; handy landaulette wanted, 1360; starting, 1509; an American car, 1509
Motor cars and tetanus, 1312
Motor dust and diarrhoea, 1452
Motor paralysis. *See* Paralysis
Motor propulsion for fire work, favourable reports on, 971
MOTT, F. W.: Cortical lamination and localization, 21
Moulds, a museum of, 1314
MOUREAU: *Crénothérapie, climatothérapie, thalassothérapie — cures hydrominérales, cures d'altitude, cures marines*, rev., 1551
Mouth gag. *See* Gag
MOYNIHAN, B. G. A.: Appendix dyspepsia and duodenal ulcer, 241, 415; carcinoma of gall bladder, 994; nephrectomy for a tumour, 1354
MRACEK, FRANZ: *Atlas der Syphilis und der venerischen Krankheiten, mit einem Gründriss der Pathologie und Therapie derselben*, rev., 1237
Mucocele of the nasal sinuses, and its complication by optic neuritis (Robert Fullerton), 917
Mucous membrane, prolapse of (Jobson Horne), 1547
Mucus evacuator, a new, 24
MUIR, Dr.: Cerebral tumours, 755; cerebral softening, 755
MUIR, G. S.: The trade in morphine to the East, 240
MULVANY, J., elected Alderman of Portsmouth, 551
MUMMERY, J. P. LOCKHART: Whitehead's operation for piles, 234, 474; congenital absence of femur, 572; cancer of rectum, 1144
Mummies, Egyptian, presence of *Bilharzia haematobia* in (Marc Armand Ruffer), 16
Mummy, the oldest Egyptian, 1369. *See also* Egypt
MUNRO, T. K.: Cases of syringomyelia, 755; angioneurotic oedema, 755; tabid arthropathy, 755; progressive muscular atrophy complicated with herpes zoster, 755; cerebral diplegia, 755; dissociated anaesthesia, 755
MÜNSTERBERG, HUGO: *Psychotherapy*, rev., 265
MURDOCH, BURN: The place of athletics in an educational system, 633
MURISON, A. W. P., receives permission to accept Fourth Class of the Order of the Red Eagle, 790
MURPHY, J. KEOGH (editor): *A System of Syphilis*, rev., 325
MURRAY, LEITH: Red degeneration of fibroids, 994
MURRAY, R. W.: Sac of femoral hernia, 811; virulence of appendicitis, 874
MURRAY, WILLIAM: Foreign body in the tongue, 17
Muscular dystrophy. *See* Dystrophy
Museum of Natural History, the British, 1243
Museum of Science, South Kensington, Departmental Committee appointed to report on, 911
MUSKENS, L. J. J.: *Studien über segmentale Schmerzgefühlsstorungen an Tabetischen und Epileptischen*, 769
MUSKETT, Dr., estate of, 551
MUTHU, C.: *Pulmonary Tuberculosis and Sanatorium Treatment*, rev., 385
Mycosis fungoides (P. Abraham), 264
Myelogenous leukaemia. *See* Leukaemia
Myelomata, multiple (O. T. Williams), 1111
MYERS, BERNARD: Hypnotism, 1584
MYLES, Sir THOMAS, appointed honorary surgeon to the King in Ireland, 529, 1509
Myopathies, review of book on, 1178
Myosarcoma (Cecil H. Leaf), 993
Myositis fibrosa (Walter Kerr), 1356
Myositis, nodular (Maxwell Telling), 19
Myxo-fibro-lipoma, retroperitoneal (McAdam Eccles), 572
Mysterious diseases, 672

N.

NAEGELI, O.: *Die Anaemie: Normale und pathologische Histologie des Blutes*, rev., 449
Naevi, vascular, carbon dioxide snow in (J. M. H. MacLeod), 254
NAGEL, W.: *Sammlung anatomischer und physiologischer Vorträge und Aufsätze*, rev., 511, 880; (editorial), 282
Names, spelling of. *See* Spelling
Naples, report on antirabic vaccinations in, 244
Narcosis, scopolamine-morphine (R. Hillhouse Jamieson), 742
Nasal administration of nitrous oxide gas, 1554
Nasal septum, submucous resection of (H. B. Tawse), 323
Nasal sinus, mucocele of, and its complication by optic neuritis (Robert Fullerton), 917
NASH, HENRY J.: College of Surgeons dissections and surgery, 1521
NASON, E. N.: Recurring jaundice in mother and infant, 989
Naso-pharynx, growth in (Dundas Grant), 204
Nastin, on a trial of in leprosy (J. Ashburton Thompson), 565
National emergency (medical inspection of school children, leading article), 831; correspondence on, 966. *See also* School Children
National Medical Service. *See* Medical Service
Navy League, proposed medical branch of, 116, 175
Navy, Royal, medical service of, 479, 896, 912, 1206, 1435; examination for commission, 479; advisability of entering, 912; distribution of prizes, 1206. *Questions in Parliament re* hospital stoppages, 896; sick berth staff, 896; the Navy Estimates, 1435
Neck, tuberculous glands in (James Miller), 572
Neck clothing, tight, 1392
Necropsies ordered by coroner, attendance at, 1450
Necropsies in lunatic asylums, 469
Needle holder, simple form of, 209
Neoplasm, development of an innocent (Jobson Horne), 1547
Nephrectomy (R. Atkinson Stoney), 1174
Nerve, eighth cervical, intraneural cyst of (R B. Etherington-Smith), 1286; (with a report by E. H. Shaw), 1286

Nerve injuries, some points in the treatment of (James Sherren), 130
Nerve, optic, review of books on, 1358
Nerve, spinal accessory, paralysis of after removal of cervical glands (T. H. Openshaw), 264
Nervous diseases, research work on, 109
NESS, R. BARCLAY: Haemopneumothorax without traumatism, recovery, 744
Neuralgia in edentulous gums, 239
Neuralgia, trigeminal and its treatment by alcohol injection (Wilfred Harris), 1404
Neuralgia, trigeminal and ethmoidal suppuration (Oliver Gogarty), 141
Neurasthenia (Dr. Armitage), 1549
Neurasthenia and psychasthenia, treatment of, 478, 783
Neurasthenia, review of books on, 1499
Neurasthenia, traumatic (Wardrop Griffith), 19
Neuritis, optic, "choked disc" or "papilloedema," (Sir Victor Horsley), 553, 591, 725; note on, 591; correspondence on, 664, 725
Neuritis, optic, complicating mucocele of nasal sinuses (Robert Fullerton), 917
Neuritis, optic, and suppurative otitis (J. Stoddart Barr and John Rowan), 737
Neuritis, local injections of strychnine in (George H. R. Dabbs), 260
Neuritis, treatment of (W. J. Maguire), 444
Neurology, review of books on, 1056
Neurosis, traumatic (T. R Glynn), 874
NEVILL, RALPH: *The Merry Past*, 830
Newark Rural District, report of M.O H., 1210
NEWBOLT, Mr.: Contracted gall bladder, 446; pylorectomy for carcinoma of pylorus, 446
New Caledonia, every case of leprosy in to be notified, 1031
Newcastle-upon-Tyne, special correspondence from, 46, 231, 534, 720; retirement of Professor Page, 46; the Clinical Society, 46, 231; address by Sir Halliday Croom, 231; the College of Medicine, 46; dinner of past and present students, 231, 534; Rutherford Morison appointed Professor of Surgery in the University of Durham, 231; North of England Glasgow University Club, 534, 720; dust, fog, and smoke (Sir Thomas Oliver), 534; the Dental School, 534; Chair of Materia Medica, 534, 721; Northumberland and Durham Medical Society, 720; visit of and lecture by C. B. Lockwood, 720; lecture on Mendelism, 721
NEWELL, PERCY: Pruritus in glycosuria, 423; recurrent mastitis, 610; treatment of ulcerative colitis, 1091
NEWMAN, E. A. R.: *Manual of Aseptic Surgery and Obstetrics*, rev., 24
New South Wales, special correspondence from, 47, 290, 840, 1514; clinical school at the Sydney Hospital, 47; District Nursing Association, 48; hospitals for the insane, 48; the Fisher Library, University of Sydney, 48; Cremation Society, 290; chest development in boys, 840; Sydney Hospital, 840; female medical inspector under the Factories and Shops Act, 840; women graduates in medicine, 841; colour testing of railway men, 1514. *See also* Sydney
New York, free treatment of rabies in the State of, 185; State registration of nurses made law in, 749; bills before the State Legislature: *re* expert medical testimony, 918; *re* restriction of cocaine and other "habit-making" drugs, 918; *re* practice of medicine, dentistry, or pharmacy by a corporation, 918; *re* advertisements relating to treatment of sexual or venereal diseases, 918
New Zealand, special correspondence from, 170; lunacy in 1908, 170
New Zealand, requirements of medical study in, 762
NICOLL, JAMES H.: Stenosis of the pylorus, 1112
NICOLL, WILLIAM: Bionomics of helminths, 1529
NICHOLLS, ALBERT G.: *The Principles of Pathology*, vol. ii: *Systemic Pathology*, rev., 267
NICHOLLS, F. L.: Country doctors and motor cars, 650; general practitioners and Poor Law reform, 902
NICHOLLS, G. E.: Mesocoelic recess, 1510
NICHOLSON, R. M., sad death of, 170
NOBL, G.: *Der Variciise Symptomencomplex (Phlebectasie, Stauungsdermatose, Ulcus Cruris)*, rev., 757
NICOLAYSEN, JULIUS, obituary notice of, 178
Nicotine and other pyridine bases, action of (V. H. Veley and A. D. Waller), 693
NEIDERMANN, JULIUS, obituary notice of, 598
Night blindness. *See* Blindness
Nipples, defective (H. B. Billups), 988
Nisbet's Medical Directory, 1910, rev., 387
Nitroglycerine, poisoning by, 120
Nitrous oxide gas. *See* Gas
NOGIER, TH.: Bactericidal action of quartz lamps of mercury vapour, 403
Non-diabetic glycosuria. *See* Glycosuria
NORMAN, R. H.: Case of bluish haemochromatosis of skin, 696; exophthalmic goitre in a man with symmetrical telangiectasis of the ocular conjunctivae, 696; congenital tumour in left parotid region, 696
Normandy, medical folk lore in, 765
NORRIS, W. P., elected Fellow of Royal Sanitary Institute, 1331
Norway, medicine and pharmacy in, 295
Norwood Sanatorium. *See* Sanatorium
Norwood, school clinic for, 662
Nose, lupus of (Stuart Low), 448
Nose, red, treatment of, 1272, 1332
Nosology and pathology, 892
Nostrum nuisance, 1073

Notes, Letters, Answers, etc.: 60, 120, 179, 239, 300, 359, 423, 483, 552, 609, 672, 732, 791, 852, 912, 972, 1031, 1091, 1152, 1212, 1272, 1331, 1392, 1451, 1528, 1584
Abdominal compression on very rapid heart, effect of, 792
Abortion, induction of, 852
Air, influence of in tuberculosis. *See* Tuberculosis
Alcoholism, parental, 239
Alienist, 1528
Anaesthesia for operations in piles, 424
Anaesthetists, responsibilities of, 1528
Antiseptic inhalation in pulmonary tuberculosis, 484
Antiseptic properties of alcohol, 791
Antitoxin treatment of diphtheria, 60
Appeals, 672, 732; to masons, 672, 732
Appendix dyspepsia, 732
Arylarsonates, dangers of, 912, 1272
Aspirin in solution, prescription of, 672
Asylum appointments, 120
"Audio," a disclaimer, 484
Bandage, triangular, 972
Barber's rash, 972
Bed bugs, survival of, 1092
Bill, Prevention of Destitution, 1092
Bismuth hair dye, 1032, 1272
Books for Part II, London University Medical Examination, 1031
Bright young man, 1528
Brighton Throat Hospital, 1392
Canada, practice in, 1272
Cancer houses and dry rot, 484, 552
Caveat emptor, 1451
Cervix uteri, cupping the, 424
Child emigration, 1452
Christian Science and the reduction of disease, 1392
Circumcision in ancient Egypt, 424
Cocaine, internal use of, 610
Cocaine, "reconstructed," 180
Coffee, effects of, 300, 424, 972
Cold hands. *See* Hands
Colitis, ulcerative, treatment of, 1091, 1152
College reform, 791
Colonial practitioners and the British *Register*, 672
Colonies, appointments in, 1212
Consultant, general practitioner, or half-and-half? 1092
Corrections, 1392
Cottage hospitals, 300
Cox, W. H., appeal, 360
D.P.H. (Scotland), 180; (Dublin), 1091; (Cambridge, books for), 1451
Death by electric shock, 179
"Demoniacal possession," a disclaimer, 1272
Dental hypoplasia, 1584
Dictionary, French, 423
Diet, proteid, value of an exclusive, 852
Disclaimer, 484, 610; C. Ernest West, 484; Sydney Scott, 484; G. E. Halstead, 610
Doctors and hairdressers, 424
Doctors on skis, 484
Drug habit, tobacco, 1152, 1212, 1332
Dusty trades, mortality from consumption in, 1152
Errata, 610, 1392
Explanation, 1152
Eye, artificial, for child, 360, 423
Fluid wedge, what is a? 120
Food and physique, 732
French territory, practice in, 1332
Fuchsin stains, removal of, 610
Gastric haemorrhage, fatal case of, 1452, 1528
German researches on tuberculosis, a correction 1272
Glycosuria, pruritus. *See* Pruritus
"Glycosuria and therapeutic immunization," 1332
Guernsey sunshine (1909), 120
Hair-washes containing lead, 120, 1392
Hands, cold, 912
Headache after sleep, 484, 552
Heat-stroke, 423
Herpes zoster following injury, 1331, 1451
Home, for imbecile girl, 791; for mental deficients, 1032
Hospital abuse, 1528
Hypnotism, 1584
Idiosyncrasy, two cases of, 792
Income tax, 360, 672, 732, 972, 1091, 1212
Inebriates, non-criminal, 791
Insanity, organic causation of, 180
Insanity, puerperal, 1031
Is it safe? 424. *See also* Tuberculin
Insurance under Workmen's Compensation Act, 912
Intestinal stitch, 912
Ionic medication, 852
Ionic medication, massage, and electricity, 359
Itch-mite infection in clothes, persistence of, 360
Jaundice, epidemic, in children, 609
Lactic acid as an antiseptic, 610

Letters, Notes, Answers, etc. (*continued*)
"Lebenswecker" treatment of sciatica, 732
Levico water, 60
Lime water in treatment of verruça plana, 180, 240
Liverpool Workhouse Hospital, 484
London suburbs and rheumatic patients, 1332
Longevity, family, 1452
M.D.Edin., 912, 1091
Malthusianism and its physical risks, 483
Manurial value of dry earth for closets, 360, 424, 1032
Mastitis, recurrent, 360, 610
Medical attendance, State-provided, 179, 239
Medical book-keeping, 1032
"Medical missionaries," 300
Medical Parliamentary Roll, 852, 1032, 1331, 1584
Mental disease, association tests in, 1152
Milk, soured, 1091
Miracles, modern, 1092
Morphine habit, 300
Morphine, trade in, in the East, 240
Morphomaniac, home for, 972
Motor car and servant licences, 852; and petrol duty, 1091
Motor dust and diarrhoea, 1452
Mysterious diseases, 672
Navy, Royal, medical service of, 912
Neck clothing, tight, 1392
Neuralgia in edentulous gums, 239
Nitro-glycerine, poisoning by, 120
Obstetric tackle, 732
One who does not intend to be victimized, 1528
Oxford, diploma in ophthalmology at, 1452
Palaeogenesis, 1152
Pancreatic reaction in diagnosis of duodenal ulcer, 240
"Paranoia," 1392
Perak, climate of, 1392
Perspiration, excessive, treatment of, 60, 1092
Petrol duty, 1212
Pituitary body, 672
Potain's sphygmomanometer, 180
Prolapsus ani in the adult, treatment of, 972
Protest, a, 120
Proteus vulgaris and *Pencillium brevicaule*, 120
Prurigo senilis, 610
Pruritus in glycosuria, 239, 300, 360, 423
Psychiatric terminology, 300
Rateable value of dwelling house, 484
Rectification, 1032
Red line on gums, 732
Red nose, treatment of, 1272, 1332
Ringworm, treatment of, 424, 912, 1031
Royal death-beds, 1452
Samson, story of 852
Scoliosis, exercises for, 239, 423
Sea-sickness, 424
Serum treatment of gastric and duodenal ulcer, 360
Sex, causation of, 1272, 1452
Siamese link, 1332
Speed limit, 1212
Sphygmomanometer, 1332
Spine, schoolboy's description of, 1092
Stethoscopes, the earpieces of, 672, 732
Stove for invalid's bedroom, 732, 791, 1091
Surgeries in poor districts, cheap, 791
Syphilis, parental, 972
Tea, effect of, 1092
Telephone, the doctor's, 972
Tendons, suture of, 179
Testimonial, a, 484
Tetanus, treatment of, 552
Thermometers, clinical, case of, 60
Tinnitus aurium, 1331, 1528
Tongue, sore, 852
Tradesman's Provident Society, 240
Tuberculin reaction: Is it safe? 424
Tuberculin test, 180, 239
Tuberculins, influence of air on, 1451
Tuberculosis, pulmonary, treated by continuous antiseptic inhalation, 484
Typhoid vaccine, standardization of a, 483
Urinary analysis, 610
Urticaria, 1584
Veronal poisoning, 552
Version, spontaneous, after rupture of membrane, 1452
Visceroptosis—viscerostaxis, 1452
Walsall County Borough, a warning, 972
Warnings, 60, 672
Wassermann's test, 240

Notification of births. *See* Births
NOURSE, CHICHELE: Endothelioma of the ethmoid, 204; epithelioma of larynx, 1355
Nova et Vetera, 32, 100, 154, 216, 275, 331, 395, 455, 519, 584, 709, 763, 944, 1125, 1303, 1363, 1557; anatomical descriptions in Southey's poetry, 584; art the handmaid of hygiene, 275; Dante, was he a doctor? 331, 395; Don Quixote, the madness of, 944; free-martin, history and etymology of, 1125; Medical Parliamentary Roll (S. D. Clippingdale), 100; *Modern Faith Healing*, Johann Joseph Gassner, 154; pellagra, 709; private treatment of the insane a century ago, 519; Quintillian of the sick room, 763; recollections of an old-time doctor's apprentice, 455; some royal death-beds, 1303, 1363, 1557; Tudor England, 32

Novocain and strychnine, death from spinal injection of (M. Gabbett), 690
Nourishment in acute diseases (F. G. Haworth), 871
Nubia, on ancient human remains excavated in (Elliot Smith on Douglas Derry), 394
Nuclear paralysis. *See* Ophthalmoplegia
Nurses' Co-operation, nineteenth annual report, 671
Nurses, district, relations of medical practitioners to, 1327
Nurses, examination of by Local Government Board (Scotland), 44
Nurses' Home, St. Patrick's, 779
Nurses of Paris demand higher wages, 172
Nurses, Queen Victoria's Jubilee Institute for, 111, 229; report for 1909, 229
Nurses' registration, 227, 459, 593, 659, 1451; Lord Ampthill and, 227, 459; questions in Parliament 593; meeting in Edinburgh, 659; report of the Council of the Society for, 1451
Nurses' registration, made law in New York State, 749; petitioned for in Massachusetts, 749
Nursing associations. *See* Associations
Nursing homes for the middle class, 457, 540, 601, 720; (leading article), 457; discussed at Edinburgh, 466, 720; correspondence on, 540, 601
Nursing and hygiene competition, 778
Nursing, review of books on, 641
Nursing scheme, Lady Dudley's Irish, 930
Nursing service of the First Southern General Hospital, 1081
Nut bromose, composition of, 1241
NUTHALL, A. W.: Foxwell memorial, 1087
Nutrition, effect of bacterial vaccines on (Lewis Campbell Bruce), 430
Nutrition, McCollum's experiments on, 582
NUTTALL, G. H. F., awarded Mary Kingsley medal of Liverpool School of Tropical Medicine, 483
Nyasaland, tick fever in (James A. Chisholm), 442; *Diary* on sleeping sickness, rev., 1179
Nystagmus, miners' (T. Harrison Butler), 558, 1024; (T. Ritchie Rodger), 929; correspondence on, 666, 901, 967, 1024, 1085

O.

Oath, taking the, 38
Obituary Notices, 57, 178, 237, 297, 356, 423, 481, 548, 605, 670, 727, 786, 851, 908, 970, 1027, 1089, 1149, 1208, 1271, 1329, 1384, 1448, 1523, 1582; Achscharumoff, D. D., 606 — Atkinson, Stanley Bean, 298—Avarne, Arthur Blair, 1028 — Baber, Edward Cresswell, 1271, 1329 — Baird, J. & T. W., 1583; Blackwell, Elizabeth, 1523 — Boileau, Lieutenant-Colonel J. P. H., 786 — Boulton, Brigade-Surgeon Edward Joseph, 787 — Boyd, Florence Nightingale, 1582; Broughton, Henry Todd, 57 — Cameron, Major Kenneth, 1330 — Cappe, Herbert Nelson, 1208 — Carpenter, George, 910 — Chester, George William, 1330 — Cheadle, Walter Butler, 908 — Clarke, T. Kilner, 549 — Cobb, Ernest Herbert, 786 — Cockton, John, 729—Constable, Dr., 608—Coppinger, Inspector-General Richard W., 1090 — Coutts, James Allan, 851 — Cowie, David, 1524; Craig, Alex., 787 — Crompton, Harold James, 423 — Dalgarno, J. J. Y., 1389—Douglas, Lieutenant-Colonel Campbell Mellis, 358 — Eteson, Deputy Surgeon-General Alfred, 550—Evans, Samuel, 550—Faught, Surgeon-Major-General John George, 1524—Finlay, James, 1524—Forrest, Alfred, 1029—Gaman, Francis R. S., 1150—Garland, Ormond Haldane, 787 — Gilmour, Andrew, 1271 — Haden, Sir Francis Seymour, 1449—Hale, Thomas Egerton, 57 — Hancock, William Ilbert, 357 — Henderson, John, 1524 — Hinde, Surgeon-Major-General George Langford, 608 — Hitchens, Frederick Charles, 1208 — Hughes, John R., 729 — Hunter, Edwin John, 1028 — Jordan, F. W., 1330 — Joy, John Holmes, 178 — Keetley, C. R. B., 57—Keith, George Skene, 237—Key, Andrew, 607—Kingsland, Arthur, 178 — Koch, Robert, 1384—Krause, Wilhelm, 550 — Lee, Septimus J., 238 — Le Rossignol, Augustin A., 670 — Lessgaft, Peter Frantzobvitch, 481—Lockie, Stewart, 1089—Lortet, Professor, 238—Madden, Surgeon-General Charles Dodgson, 357 — Manning, Henry John, 605 — Marriott, Sir Charles Hayes, 548 — Massol, Leon, 57 — May, William Page, 297—Miller, Surgeon-Major Ormsby Bowen, 1524—Milward, Frederic Victor, 910—Morris, James, 1208 — Muskett, Dr., 551 — Nicolaysen, Julius, 178 — Odevaine, Brigade Surgeon Ferdinand, 910 — Plowright, Charles Bagge, 1149 — Prentice, James Nimmo, 357 — Reid, Thomas Whitehead, 909—Reynolds, Cecil Arthur, 481—Richards, Thomas, 970 — Robins, Benjamin Savage, 57—Rose, William, 1448—Ross, Deputy Surgeon-General James, 1524—Rutherford, James, 727—Savill, Thomas Dixon, 238 — Sharp, Arthur John, 1582 — Sidebotham, George W., 1090 — Skinner, William, 481 — Smith, John, 1027 — Spark, John, 1090—Spence, Robert, 606—Steele, Russell, 1450—Stewart, Miss Isla, 670—Stocker, Alonzo Henry, 1150—Taylor, John William, 607—Terry, Charles, 1524—Thomas, Evan, 357—Wagstaffe, William Warwick, 356—Weir, Colonel Thomas Stephenson, 970—Wheatly, Arthur William, 550—Whitaker, George Henry, 1208—Wilson, George Morton, 178—Young, Peter, 1090

Obstetric medicine, evolution of (Dr. Fairbairn), 217
Obstetric tackle, 732
Obstetrics, review of books on, 641, 1417
O'CONOR, J.: Whitehead's operation for piles, 848
Occult, considerations on the (T. Claye Shaw), 1472
Occupation diseases. *See* Diseases
ODEVAINE, Brigade Surgeon FERDINAND, obituary notice of, 910
Odontoceles and some other cysts (Mr. Hopewell-Smith), 1052
Odynphagia (Dundas Grant), 1355
Odynphagia, tuberculous alcohol injection into superior laryngeal nerve for, 1578
Oedema, angio-neurotic or Henoch's purpura? (H. Cecil Barlow), 15
Oedema, angio-neurotic, and urticaria (Colin Campbell), 573
Oedema, congenital (David Forsyth), 323; (Maynard Smith), 571
OEDMANSSON, ERNST L. V., death of, 1208
Oesophageal stricture, suppurative pylephlebitis following (E. C. Edwards), 199
Oesophagus, bone impacted in (John A. Bower), 930
Oesophagus, cancer of. *See* Cancer
Oesophagus, foreign body in removed by the direct method (George N. Biggs), 380
Official certifying surgeons, 1570
Official charge, 1390
Official medical practice in France, extension of, 1083. *See also* France
OGALA, Dr., death of, 787
OGILVIE, F. G., appointed Secretary of Board of Education for Science Museum, Geological Museum and Geological Survey, 906
OGILVIE, GEO.: Hereditary ataxia, 383; three cases of tabes, 383; receives permission to wear Insignia of Knight of the Royal Order of Nossa Senhora de la Conceiçao de Villa Viçosa, 412
OGILVY, CHARLES: *Orthopaedic Surgery for Practitioners*, rev., 208
OGSTON, ALEXANDER, presentation portrait, 841; appointed honorary surgeon to George V in Scotland, 1509
Ohio, proposed Pasteur Institute in, 822; bill to protect public morals by prohibiting certain advertisements introduced into the State Legislature, 872
Oil, sterilized, use of in peritoneal cavity (J. M. Cotterill and Scot Skirving), 20
"Old Q," 650
OLDFIELD, C.: Ectopic gestation, 19; uses of the vaginal pessary, 691; carcinoma of cervix uteri, 754; treatment of the puerperal septic infections, 872; specimen of pyosalpinx, 994
OLIVER, Sir THOMAS: Aortic aneurysm 447; dust, fog and smoke, 534; risks of ankylostomiasis in Great Britain, 589; some of the less common aspects of pneumonia, 1033
OLSHAUSEN, Professor, retirement of, 845
Omentum, multilocular cyst of (reported by Alex. H. Gifford), 1289
ONODI, A.: *The Optic Nerve and the Accessory Sinuses of the Nose*, rev., 1358
Oöphorectomy and the growth of the pelvis (S. G. Shattock and C. G. Seligmann), 203
Oöphoritis and associated conditions, treatment of chronic (T. Cameron), 69
Open-air school. *See* School
Open-air treatment, review of books on, 934
Openshaw, T. H.: Paralysis of the spinal accessory nerve after removal of the cervical glands, 264
"Open spaces" scheme in Edinburgh, 659
Operation areas, sterilization of skin of. *See* Skin
Ophthalmia neonatorum, notification of, 1019
Ophthalmia neonatorum, prophylaxis of, 54
Ophthalmia, sympathetic (Wycliff McCready for W. M. Killen), 444
Ophthalmic conditions caused or influenced by diseases of the upper respiratory tract (A. S. Cobbledick), 1282
Ophthalmic school clinics. *See* School clinics
Ophthalmo-fundoscope, 817
Ophthalmology at Oxford, 1065
Ophthalmoplegia, bilateral (F. E. Batten), 322
Ophthalmoplegia externa, congenital (Henry Cooper), 917
Ophthalmo reaction, result of Dr. Parassin's investigations, 115. *See also* Calmette
Opium Commission, International, report, 93, 104; the Japanese report, 93; report of the Chinese delegation, 94; American report, 94; German China, 95; French Indo-China, 95; Siam, 95; Netherlands, India, 95; British Possessions, 95; Hong Kong, 95; Wei-hai-Wei, 95; Federated Malay States, 95; India, 95; resolutions, 96; recent action in China, 96; Leading article on, 104. *See also* Morphine
OPPENHEIMER, CARL: *Die Fermente und ihre Wirkungen*, rev., 145
Opsonic index, 225
Optic atrophy (J. B. Lawford), 447; reply to a question *re*, 1331
Optic neuritis. *See* Neuritis
Opticians and federation, 1197, 1320
Opticians and the medical profession, 1080, 1197, 1320
Opticians and State recognition, 167
Oral hygiene and tuberculosis, 951
Oral sepsis (Maxwell Telling), 1232
Oral sepsis from a dentist's point of view (T. Wilton Thew), 1293
Oral teaching of the deaf, 655, 784
ORB, M.: Physico-therapy of sciatica, 636
Orbicularis oculi (T. Churton), 1354
Organized matter (Duclaux), 1251
Orient Steam Navigation Company's cruises, 1170
Orifices of the body, diseases of. *See* Diseases *and* Body
Ormesby, typhoid fever in, 59
Orthopaedic surgery, review of books on, 208
O'RYAN, MICHAEL, 334
OSBORNE, THOMAS B.: *The Vegetable Proteins*, rev., 451
Osborne College, sanitary condition of, 592
OSLER, WILLIAM: Michael Servetus, 1011; and the true begetter of the germ theory of disease, 1122; the faith that heals, 1470
Osseous tumours (S. G. Shattock, L. S. Dudgeon, and C. G. Seligmann), 507. *See also* Tumours
Osteitis deformans terminating with cerebral symptoms, case of (Reginald G. Hann), 135
Osteo-arthritis of both knee-joints (McAdam Eccles), 992
Osteo-arthropathy, hypertrophic (W. Russell), 20
Osteo-myelitis fibrosa (Alexis Thomson), 20
O'SULLIVAN, H. D.: Treatment of varicose veins of the lower limb by avulsion, 921
Otitis media, suppurative (J. S. Fraser), 1355
Otitis, suppurative, treatment of (Faulder White), 504
Otitis, suppurative, and optic neuritis (J. Stoddart Barr and John Rowan), 737
Otorrhoea, chronic (A. L. Whitehead), 1232
Ovaltine, composition of, 30
Ovarian cyst. *See* Cyst
Ovarian epilepsy. *See* Epilepsy
Ovarian grafting and menstruation (Th. Tuffier and E. Seymour Chapman), 1543
Ovarian growths, proportion of malignant to innocent (Mrs. Scharlieb), 263
Ovarian pregnancy. *See* Pregnancy
Ovarian tumour. *See* Tumour
OWEN, Dr.: Contracted stomach, 993
OWEN, EDMUND: Greater Britain and the annual meeting of 1910, 116
OWENS, C. A. OWEN, Volunteer Officers' Decoration conferred upon, 1030
Oxford, ophthalmology at, 1065
Oxford University. *See* University
Oxycephaly (R. Hutchison), 1052
Oxygar, composition of, 762
Oxygen capacity of the blood (J. A. Milroy), 1053
Oxygen, causes of the absorption of by the lungs (C. Gordon Douglas and J. S. Haldane), 693, 1167
Oxy-hydrogen blowpipe as a cutting instrument, 1124
Oyster beds in France, Commission to inquire into condition of, 115
Ozaena (E. A. Peters), 445
Ozonia, composition of, 393

P.

Pacific Line Royal Mail steamers, sea trips by, 216
Padded rooms at workhouses, 907
Paddington Dispensary. *See* Dispensary
PAGE, Professor, retirement of, 46
PAGET, STEPHEN: Research Defence Society, 290; what we owe to experiments on animals, 1026
Pain, reflex, in diseases of the abdominal viscera (A. Ernest Maylard), 616
PAINTON, Captain G. H.: *The Field Ambulance Guide*, rev., 85
Paisley, report of medical officer of health, 1209
Paisley medical appointment difficulty, 595
Palaeogenesis as explanatory of certain forms of disease (Sir Jonathan Hutchinson), 980; correspondence on, 1146, 1152 *See also* Piebalds
Palate, soft, malformation of (Dundas Grant), 932
PALMER, F.: Case of recurrent carcinoma, 264; case of tabes dorsalis, 264
PALMER, FREDERICK S.: Traumatic epilepsy, 992
Pancreatic disease, examination of the excreta in (P. J. Cammidge), 1293
Pancreatic reaction (P. J. Cammidge and H. C. G. Semon), 202
Pancreatic reaction in diagnosis of duodenal ulcer, 240
Pancreatitis, haemorrhagic (A. Elliott), 1548

Pansinusitis (W. S. Kerr), 1111
Panophthalmitis, bacteriology of (R. R. James), 692
Panteg, a progressive community, 1141
PANTON, P. N.: Influence of bacterial endotoxins on phagocytosis, 1510
Papilloedema, inequality of in certain cases of increased intracranial pressure (R. Leonard Ley), 919
"Papilloedema." *See also* Neuritis, optic
PAQUY, E.: *Manuel de pratique obstétricale*, rev., 641
Paracentesis of pleura. *See* Pleura
Paraffin injection, simulation of tumours by means of, 1258
Paralysis from injury to brachial plexus (C. A. Ball), 570
Paralysis, facial, with Ménière's disease (A. Bruce and J. S. Fraser), 1174
Paralysis, general, case presenting early symptoms of, with recovery under soamin (R. Prichard), 192
Paralysis, general, of the insane (Dr. Good), 1354
Paralysis, general, juvenile (Dr. Miller), 1052
Paralysis, general, treated by serums (E. R. Gave), 1233
Paralysis, laryngeal (Somerville Hastings), 1547
Paralysis, motor, in migraine (J. Michell Clarke), 1534
Paralysis, nuclear. *See* Ophthalmoplegia
Paralysis, post-parturient (Archibald M'Kendrick), 20
Paralysis, pseudo-hypertrophic muscular (Dr. Dempsey), 636
Paralysis of the spinal accessory nerve after removal of cervical glands (T. H. Openshaw), 264
"Paranoia," 1392
PARASSIN, Dr., reports results of investigations in the opthalmo reaction, 115
Parasites, gross, and bacterial disease, 42
Paris, special correspondence from, 48, 172, 232, 290, 348, 410, 538, 663, 723, 844, 899, 1082, 1376, 1439, 1515; death of Professor Brissaud, 48; M. Arloing on vaccination against bovine tuberculosis, 49; inauguration of monument to Péan, 49; Sir Rubert Boyce in Paris, 172; raising of fees of medical practitioners, 172; Paris nurses demand higher wages, 172; gift of model workmen's tenements, 172; the *concours d'externat*, 232; further researches on transmissibility of acute anterior poliomyelitis (MM. Levaditi and Landsteiner), 290; retirement of Professor Huchard, 290; foreign students at the University of Paris, 290; medical degrees conferred in 1909 in France, 290; third international congress of physiotherapeutics, 290; the flood in Paris, 339, 345, 538; typhoid fever and the carrier problem, 410, 538; human sero-therapy, 410; antibodies, antitoxins and predisposition, 410; the fear of typhoid fever and the demand for disinfection, 538; health of Paris to-day and the effects of former floods, 538; dangers of the colon, 538; Congrès des praticiens, 663; the medical crisis in France, 663; Sir Dyce Duckworth on the peculiarities of the gouty diathesis, 723; suppression of unqualified practice, 844; medical education of the public, 844; meeting of the International Dental Federation, 844; memorial statue to Horace Wells, 845; the Third International Congress of Physiotherapy, 845; inaugural lecture by Professor Achard, 845; medical relief in France, 899, 1082; pharmaceutical assistance, 1082; hospitalization of assisted persons, 1082; extension of official medical service, 1083; congresses, scientific and professional, 1376; foreign practitioners in France, 1377; compulsory vaccination and its results, 1439; hospital and teaching reforms (Edouard Herriot), 1515
Paris Morgue to disappear, 185
Paris Pasteur Institute presents bust of Pasteur to Rockefeller Institute, 129
Paris University. *See* University
Paris. *See also* France.
PARKER, RUSHTON: Papillomatous carcinoma of upper jaw and nasal septum, 811
PARKES, LOUIS C.: *House Drainage, Sewerage and Sewage Disposal in Relation to Health*, rev., 877
PARKINSON, PORTER: Malignant endocarditis, 141; hypertrophic stenosis of pylorus, 572
Parliament, antivaccination in, 654

Parliament, Medical Notes in, 464, 529, 592, 657, 718, 773, 839, 895, 953, 1015, 1076, 1134, 1435, 1507, 1567
Act, Asylum Officers' Superannuation, 896, 1015
Act, Lunacy, 1890 (Fowler *v.* Grant), 658
Act, Midwives (Payments to Medical Practitioners), 1134, 1507
Act, Notification of Births (Scotland), 957
Act, Public Health Acts Amendment, 1907, and rural districts, 839
Alcoholic insanity (Straits Settlements), 658
Anthrax, 718, 774, 839, 1569; infection, 718; death from (Shipley), 774
Animals, experiments on living (licences), 957, 1015, 1135
Asylum officers (Ireland), 1135

Parliament, Medical Notes in (*contd.*)
Asylum officers and the Superannuation Act, 896, 1015. *See also* Act
Asylums, Metropolitan, 896
Bill, Coroners' Law and Death Certification (Amendment), 1135
Bill, Cruelty to Animals (No. 2), 1016
Bill, Death Certificates (Charges), 839, 1135
Bill, Destitution Prevention, 953; second reading, 953
Bill, Dogs (Exemption), 1135. *See also* Animals, cruelty to
Bill, Midwives, 1569
Bill, Milk and Dairies, 1015, 1569. *See also* Milk
Bill, Parochial Medical Officers (Scotland), 658
Bill, Public Heath (Provisional Orders), 658, 839
Bill, Public Health (Scotland) Act (1897), Extension, 718
Bill, Society of Apothecaries, 658
Bill, Water Supplies Protection, 839
Bills, private members', 530, 593, 1508
Births Act. *See* Act
Births, notification of, and infant mortality, 592
Burns, John, salary of, 1567
Cairo water supply, 593
Census of 1911, 657, 1507
Census Bill, 1507
Children, boarded-out, 1568
Children, defective teeth, 718; medical inspection of, 718
Children, Poor Law, 1570
Chinese pork, 593, 1135
Coroners' Law and Death Certification (Amendment) Bill. *See* Bill
Course of business, 464, 593, 839, 1135, 1435
Cow-pox outbreak, 957
Crews' provisions on vessels, 1135
Dairies, Cowsheds, and Milkshops (Ireland) Order (1908), 1134
Death from starvation, 957
Deaths from camping in wet weather, 775
Debate on the Address, 529
Fever, enteric, at Funchal (Madeira), 775
Fever, Mediterranean, 1016, 1507
Fish dietary for soldiers and sailors, 1016
Forcible feeding and heart disease, 1015 (prisons and asylums), 1134
Formaldehyde and chilled meat, 775
Ganister mines (lung diseases), 1016
Glanders, 774
Hemel Hempstead Workhouse, 957
Hospitals, grants-in-aid to, 896
Hospitals, infectious diseases, 1570
India, military assistant surgeons in, 658
Indian Medical and Nursing Services, 773, 896
Infant mortality, 658, 774, 896; under the Poor Law, 658; report on, 896
Insanitary condition of Keyingham and Patrington, 1016
Inspector of nuisances, salary of, 839
Lead poisoning, 774, 896, 1077, 1507; and coach making, 896; in dockyards, 1507
Local Government Board vote, 1567
Lunacy Act, 1890 (Fowler *v.* Grant), 658
Madras Medical College, 774
Medical inspection by public vaccinators, 718
Medical inspection of school children. *See* School *and* Children
Medical officer, Skibbereen dispensary, 1135
Medical officers, administrative, 718
Medical officers and militia training at Belfast, 1135
Medical schools (technical grants), 1134
Medical services, inspector of, 718
Medicines, supply of in Ireland, 1134
Mediterranean fever. *See* Fever
Milk legislation, 593, 956. *See also* Bill
Motor ambulance service (London), 1077
Navy, Royal, 896, 1435; hospital stoppages, 896; sick berth staff, 896; navy estimates, 1435
New Parliament, 464, 529; opening of, 529
Nurses' registration, 593
Official certifying surgeons, 1570
Order of business, 1435
Osborne College, sanitary condition of, 592
Poor Law, infant mortality under, 658
Poor Law reform, Ireland, 592, 1077
Poor Laws (Royal Commission), 657
Prisons, Medical Commissioner of, 1076, 1569
Public Health Bill. *See* Bill
Public health prosecution (Dublin), 1570
Sanitation and water supply in Wales, 957
School children, medical inspection of, 718, 1508; medical treatment of, 1077
Schools, disinfection of, 774
Sleeping sickness, and the Colonial vote, 657; in the Congo, 775
Spring recess, 1435
Sunday golf, 1508
Swearing-in of members, 464
Teeth, defective (children), 718
Territorial Forces, hospital equipment for, 839
Transvaal, medical officers in, 896
Tuberculosis Commission, 957
Tuberculosis in Ireland, 1570
Tuberculosis and the Milk Bill, 1569
Tuberculosis, pulmonary, notification of in Scotland, 1508
Typhoid fever. *See* Fever, enteric
University of London, 1077; (Senate), 1077

Parliament, Medical Notes in (*contd.*)
Vaccination Act (Declarations), 1077
Vaccination proceedings (Leicester), 1077
Vaccination officers' remuneration, 1567
Vaccination officers' superannuation, 1016
Vivisection, 593, 895, 1077
Vivisection (report of Royal Commission), 593
Wales sanitation and water supply in, 957
X-ray injuries, 718

Parliamentary representation and the medical profession, 118, 173, 235
Parliamentary Roll, Medical (S. D. Clippingdale), 100, 233, 294, 420, 784, 852, 1331, 1584; correspondence on, 233, 294, 353, 420, 784, 852, 1032
Parochial Medical Officers Bill. *See* Bill
Parotitis and cyclitis, bilateral (E. Brewerton), 447
Parotitis, secondary (W. A. Maggs), 1051
Parovarium, relation of to cyst formation (Percival P. Cole), 748
PARRY, E. J., presentation to, 323
PARSONS, Dr.: Congenital acholuric jaundice, 1052
PARSONS, J. HERBERT: Glare, its causes and effects, 162
PARSONS, J. INGLIS: Operation for prolapsus uteri, 262
PARSONS, L. G.: Instruments for graphic records, 931
PARSONS, P. H.: New ethyl chloride inhaler, 1242
Partner's motor car, 177
Partnership accounts, 295
Partnership agreement, 119
Partnership, question of, 1270
Partnership receipts, 119
PARTROU, Dr., founds vegetarian society in Roumania, 129
Pasteur Institute for East Bengal and Assam, proposed, 952
Pasteur Institute of India, eighth annual report, 110
Pasteur Institute in Ohio, proposed, 822
Pasteur Institute, Paris, presents bust of Pasteur to Rockefeller Institute, 129; and radium, 227
PATERSON, D. R.: Congenital occlusion of right posterior naris, 694
PATERSON, HERBERT J.: *Jejunal and Gastro-jejunal Ulcer following Gastro-jejunostomy*, rev., 267; duodenal ulcer and appendix dyspepsia, 414; appendicular gastralgia, 695
Pathological drunkenness (leading article), 36
Pathological lying (leading article), 652
Pathology and nosology, 892
Pathology, review of books on, 267, 815, 996
PATON, Dr.: Malnutrition, 751; disseminated sclerosis, 751
PATON, LESLIE; Localizing value of unequal papilloedema, 664
PATON, NOEL: Certain changes in the composition of urine, 382
Patrington, report of M.O.H., 790; insanitary condition of, 1016
PATTEN, C. J.: Observations on a voyage across the Atlantic, 647
PATTERSON, NORMAN: Occlusion of right anterior naris, 694; College of Surgeons' dissections and surgery, 1520
PAUL, F. T.: Villous tumour of bladder, 573
PAUL, Mr.: Recurrent breast cancer exposed to *x* rays, 811; ivory exostosis removed from a frontal bone, 811; two specimens of hypernephroma, 811; prostatic enlargement, 811
Pauper children. *See* Children
Pauper lunatics. *See* Lunatics
Paupers, voluntary medical attendance on. *See* Attendance
Paying patients, home for. *See* Nursing home
PAYN, JAMES, story of, 583
PEACOCK, WM. ERNEST: Primary epithelioma of penile urethra, 138
PEAKE, GEO. H.: Blood-tight uterus, 199
PÉAN, Dr., inauguration of monument to, 49
PEARSE, JAMES: Sickness and invalidity insurance, 1576
PEARSON, ALLAN C.: Auscultatory friction, 1269
PEARSON, C. YELVERTON: Simple form of needle-holder, 209
PEARSON, KARL: *On the Measure of the Resemblance of First Cousins*, 164; *A First Study of the Influence of Parental Alcoholism on the Physique and Ability of the Offspring*, 1367; influence of the sanatorium treatment of tuberculosis, 1517
PEGLER, Dr.: Deflection of triangular cartilage, 931; deflection of septum, 932
Pellagra (editorial), 327, 587, 709, 851, 1013, 1255; note on, 587, 1255, 1566; meeting of the Investigation Committee, 851, 1013; maize not the cause of, 1255
Pellagra in the United States, 226, 900; prize offered by Pellagra Committee of Province of Bologna, 668; investigation on ordered in Milan, 900
Pelvic abscess. *See* Abscess
Pelvic haematoma of ovarian origin (Cuthbert Lockyer), 262; (Thomas Holmes), 689
Pelvic tumour. *See* Tumour
Pelvis, contracted, modern methods of delivery in (Hastings Tweedy), 505
Pelvis, contracted, pubiotomy in (G. F. Blacker), 636

Pelvis, oöphorectomy and the growth of the (S. G. Shattock and C. G. Seligmann), 203
Pemphigus neonatorum occurring in the practice of a midwife (Margaret Merry Smith), 198
PENDLEBURY, HERBERT S.: Proposed medical branch of the Navy League, 116
Pendleton Provident Dispensary. *See* Dispensary
PENDRED, B. F.: Artificial respiration in newborn infants, 1289
PENDRED, VAUGHAN: Nationalization of medical service, 1440
Penile urethra. *See* Urethra
PENNY, GREENWOOD: Two cretins, 1354
PEPPER, WILLIAM: The medical side of Benjamin Franklin, 1308
Pepys's Diary, extracts from, 766; child born at a court ball, 766
Perak, climate of, 1392
PEREIRA, HENRY HORACE: *Intemperance*, rev., 22
PEREIRA, J. A. W.: Efflorescence of urea in uraemia, 17; infectivity of pneumonia, 1204
PERGES, M.: Serum diagnosis of syphilis, 1016
Pericardial effusion (Samuel West), 571
Pericarditis (Sir John Broadbent), 633
Peridiverticulitis (H. Littlewood), 1232
Perineal repairs (J. W. Keay), 446
Perineosynthesis, review of books on, 757
Peristalsis of colon. *See* Colon
Peritoneal blood transfusion (A. E. Boycott), 567
Peritoneal-pseudo-myxoma originating from the vermiform appendix (Wilfred Trotter), 687; (Reginald M. Moore, case under the care of Mr. W. Burrough Cosens), 1109
Peritonitis, case of general suppurative, recovery (Harry Cooper), 1230
Permanganate treatment of snake bite, 1438
PERNET, GEORGE, awarded bronze medal by Council of the Faculty of Medicine of the University of Paris, 217; carbon dioxide snow in dermatology, 351; French dictionary, 423; manurial value of dry earth from closets, 424
Pernicious anaemia. *See* Anaemia
Persia, duties of sanitary medical officer in, 671; distribution of diseases in, 1247
Perspiration, excessive, treatment of, 60, 1092
Pessary, vaginal, uses of (Dr. Oldfield), 691
PETERS, E. A.: Case of chronic deafness, 445; case of ozaena in a child, 445; larynx, four rings of trachea, and part of thyroid gland and gullet removed during an act of suicide, 694
PETRIE, FLINDERS: Egyptian exploration, 841
Petrol tax, repayment of, 529, 594, 700, 1212. *See also* Motors for medical men
PFLÜGER, EDUARD, death of, 787
Phagocytosis, influence of bacterial endotoxins on (L. S. Dudgeon, P. N. Panton, and H. A. F. Wilson), 1510
Pharmaceutical assistance in France, 1082
Pharmaceutical Conference. *See* Conference
Pharmaceutical legislation, the late Mr. Michael Carteighe and, 1433
Pharmacology, review of books on, 934
PHILIP, R. W.: Diabetes mellitus, 1355
PHILLIPS, HENRY HARRIDGE, inquest on, 1389. *See also* Inquest
PHILLIPS, LLEWELLYN: Treatment of tetanus by the intraspinal injection of a solution of magnesium sulphate, 263
PHILLIPS, MILES H.: Uterus containing a papillary carcinoma of the corpus, 754; uterus bearing a large submucous fibroid-754; subacute metritis and double pyo salpinx, 754
Phlyctenular affections of the eye. *See* Eye
Phosphova, 1242
Phthisis. *See* Tuberculosis
Physic of persuasion (leading article), 651
Physiological action of the doctrine of the phases, 461
Physiological effect of an alternating magnetic field (Silvanus P. Thompson), 991
Physiology, review of books on, 1295, 1358
Physiotherapeutic Congress. *See* Congress
PIATOT, Dr.: *Clinique Hydrologique*, rev., 452
PICKER, RUDOLF: *Die topische Diagnose der chronischen Gonorrhoe*, etc., rev., 326
PICKETT, JACOB: Medical Sickness Society, 1523
Piebalds, palaeogenetic face-pattern in acroteric (Sir Jonathan Hutchinson), 1479
PIERCE, BEDFORD: Diagnosis in states of depression, 1333
PIÉRON: Origin of consciousness, 764
Pigmentation in a baby (Dr. Langmead), 1052
PIKE, NORMAN H.: Case of cerebro-spinal rhinorrhoea with double optic atrophy, 1104
PILCHER, R. B.: *Official Chemical Appointments*, rev., 327
Piles. *See* Haemorrhoids
PILKINGTON, F. W.: Prescriber and dispenser, 54
PINCHES, H. IRVING: *The Operations of General Practice*, rev., 996
PIRIE, A. HOWARD: Treatment of excessive perspiration, 60; appointed delegate at International Congress of Physio-therapy, 668; hyperidrosis, 1528
PIRIE, W. R., appointed certifying factory surgeon for the city of Aberdeen, 412
Pistol-shot wound of abdomen (Alexis Thomson), 20
Pitch cancer. *See* Cancer
Pituitary body, 350, 672
Pituitary extract and spinal analgesia for forceps delivery in acute pneumonia (J. A. Henton White), 1282. *See also* Pneumonia *and* Analgesia
Piutinol, 1298
Placenta praevia and Caesarean section (Henry Jellett), 1112
Plague, prevalence of the disease, 270, 959, 1026, 1199; the Azores, 270; British East Africa, 270; China, 270, 959; Egypt, 270, 959; Formosa, 270; German East Africa, 270; Hawaii, 270; Hong Kong, 270; India, 270, 959, 1199; Indo-China, 959; Japan, 270, 959; Mauritius, 270, 959; Russia, 270, 1026; Siam, 959; South America, 270, 1026; Trinidad, 270; Turkey, 270, 959; United States of America, 270
Plasmon and its compounds as a source of phosphorus, 452
Pleura, paracentesis of (Frederick J. Hicks), 807
Pleural effusion, mechanical effects of a massive right-sided (A. C. Geddes), 1409
Pleurisy, traumatic (F. Parkes Weber, 1153
PLIMMER, H. G., recommended for election to Fellowship of Royal Society, 592
PLOWRIGHT, CHARLES BAGGE, obituary notice of, 1149
Plumbism. *See* Lead Poisoning
Pneumonia, acute, spinal analgesia and pituitary extract for forceps delivery during (J. A. Henton White), 1282
Pneumonia, atypical (Sir John Broadbent), 569
Pneumonia, some of the less common aspects of (Sir Thomas Oliver), 1033; correspondence on, 1204
Pneumonia, infectivity of, 1204
Pneumonia, lobar, antenatal (Alexander Don), 693
Pneumonia, lobar, a patient's account of the crisis of (Oscar B. Trumper), 808
Pneumonia and pneumococcal infection in childhood (T. R. C. Whipham), 1036
Pneumonia, protracted pyrexia in, in children (Reginald Miller), 569
Pneumonia, traumatic (F. Parkes Weber), 1153
Pneumonia (workmen's compensation case), 551
Pneumothorax in the apparently healthy (Herbert C. Male), 1110
PÖHLMAN, LUDWIG: *Remedial Gymnastics for Heart Affections used at Bad-Nauheim*, rev., 640
Poison, vegetable, a new, 224
Poisoning by camphorated oil (Frederic Barker), 921
Poisoning, carbon monoxide (W. J. Wilson), 1053; (A. J. Hall), 1233
Poisoning, delayed chloroform (Stuart Macdonald), 447
Poisoning by eucalyptus oil (W. Ronald Kirkness), 261; (J. Allan), 569
Poisoning by gas in Belfast, 228
Poisoning, lead, crusade against in Germany, 664; questions in Parliament, 774, 896, 1077
Poisoning, lead, classification of symptoms of (W. Dowling Prendergast), 1164; correspondence on, 1324
Poisoning, lead, treated by internal administration of calcium permanganate (G. Arbour Stephens), 1166
Poisoning, lead, gout, and granular kidney, 1324
Poisoning by nitro-glycerine, 120
Poisoning, veronal, 552
Poisons, review of books on, 1416
Poisons, sale of, 1581
Poisons, sale of minor, 949
Police and quacks, 1011, 1084; correspondence on, 1084
Poliomyelitis, some aspects of (Sir William Gowers), 305
Poliomyelitis, infection of acute anterior (leading article), 221; further researches on (MM. Levaditi and K. Landsteiner), 290
POLITZER, Professor ADAM, coming jubilee of, 115, 471
Polonium, discovery of (Mme. Curie and M. Debierne), 465
Polyclinic, Medical Graduates' College and, 701; annual meeting, 701
Polygraph in cardiac disease (J. S. McKendrick), 638
Polypus, "bleeding" of inferior turbinate (Somerville Hastings), 694
POMEROY, Mr., and vaccination, 118, 215, 293. *See also* Adams *v.* Pomeroy
Pomeroy pupil, the, 892
Ponos, is it kala-azar? (W. H. Graham Aspland), 139; correspondence on, 545
Pontefract, report of Local Government Board medical inspector, 1526
Pontypridd schools, report of medical inspector, 530
POOLEY, G. H.: Abnormalities of the eye, 1111
Poor, medical treatment of (J. C. McVail), 488; Dr. Cooper in SUPPLEMENT, p. 105; leading article on, 521, 712
Poor Law Bill (Prevention of Destitution) and a circular, 767, 945; leading article on, 767, 945. *See also* Bill
Poor Law children, 1570
Poor Law, consumptives under, 1512
Poor Law, infant mortality under the, 658
Poor Law infirmaries. *See* Infirmaries
Poor Law and invalidity and sickness insurance. *See* Insurance
Poor Law, leading articles on, 219, 335, 767, 945, 1127
Poor Law Medical Officers' Association. *See* Association
Poor Law Medical Service, Irish. *See* Poor Law reform
Poor Law, National Committee for the Break-up of, 715; issues a journal, *The Crusade*, 715
Poor Law Reform Committee, the Special, 335, 858; interim report (leading article), 335; Departmental Committee appointed, 838
Poor Law reform and Poor Law medical officers, 341; meeting of the medical profession of Manchester and district *re*, 531; in Ireland (Professor Jones), 536; in Ireland, 592, 660, 948, 1077; in Ireland, questions in Parliament, 592, 1077; Mr. Booth's memoranda, 1116, 1127; (leading article on), 1127
Poor Law reform, general practitioners and, 219, 291, 351, 416, 475, 541, 601, 848, 902, 968, 1022, 1087, 1144; (leading article on), 219; correspondence on, 291, 351, 416, 475, 541, 601, 848, 902, 968, 1022, 1087, 1144. *See also* Practitioners
Poor Law, Royal Commission on, 27, 52, 657, 818, 834, 999, 1116, 1127, 1294; Mr. Booth's memoranda, 1116, 1127; (leading article on), 1127; *The Majority Report:* The Majority Report in reference to venereal disease, 52
Poor Law, Royal Commission on, 27; *The Minority Report:* Some observations on school clinics (E. Vipont Brown), 27
Poor Law, Royal Commission on, 657; questions in Parliament, 657
Poor Law, Royal Commission on and friendly societies, 999; (editorial), 999
Poor Law, Royal Commission, review of books on, 1294
Poor Law, Royal Commission on, sickness and invalidity insurance, 818, 834; (editorial), 818; (leading article), 834. *See also* Insurance
Poor Law medical officers, Scottish, 170; return of vacancies, 170
Poor Law and the medical profession (John Milson Rhodes), 77
Poor Law policy and medical reform (Major Greenwood), 1307
Poor Law, review of books on, 639
Poor Law schools, children in, 604, 1570
Poor relief in the eighteenth century, 224
Porcelain walls, 146
Pork, Chinese, 593. *See also* Chinese
PORTER, CHARLES: *Sanitary Law and Practice; a Handbook for Students of Public Health and Others*, rev., 876
PORTER, Major F. J. W.: Dangers of the Aryl-arsonates, 1272
Portsmouth, special correspondence from, 1320; vote of condolence to the King, 1320
Postal clerks, dangers to, 229
Post-graduate Association. *See* Association
Post-graduate courses, in Hungary, 598; in Edinburgh, 1136, 1262; at the Great Ormond Street Children's Hospital, 1211; at Manchester Infirmary, 1271; in Dublin, 1318; at Trinity College, Dublin, 1318, 1437; at Glasgow Royal Infirmary, 1527; at the North-East London Post-graduate College, 1556
Post-office puritanism, 283
Post-mortem evidence and faith healing, 106, *See also* Faith healing
Posture, influence of in physical examination, 1441, 1517
Potain's sphygmomanometer, 180
Pott's fracture, a patient on, 209
POULSSON, E.: *Lehrbuch der Pharmacologie*, rev., 934
POWELL, ARTHUR E.: *Food and Health*, rev., 208
POWELL, Sir DOUGLAS, resigns position as member of consulting staff of King Edward VII Sanatorium, 1383; appointed Physician-in-Ordinary to George V, 1509
POWER, D'ARCY (editor): *A System of Syphilis*, rev., 325; elected a corresponding member of the Budapest Royal Society of Medicine, 1242
POWER, J. H.: Epidemic of jaundice in children, 609
POYNTON, F. J.: Cretinism and psoriasis, 264
Practical Medicine Series, 1909, vol. viii, rev., 85
Practice in French territory, 1332
Practice, modern, difficulties of, 547, 726
Practice, unqualified, suppression of in France, 844
Practitioner, the general, gynaecological difficulties of (G. Ernest Herman), 181, 420; correspondence on, 349, 420
Practitioners abroad, British. *See* British
Practitioners, Colonial, and the British *Register*, 547, 672
Practitioners, general, and Poor Law reform, 219, 291, 351, 416, 475, 541, 601, 848, 902, 968; (leading article on), 219; correspondence on,

291, 351, 416, 475, 541, 601, 848, 902, 968. *See also* Poor Law reform
Pregnancy at seven months complicated by appendicitis (J. E. Gemmell), 639
Pregnancy, transient blindness during, 1131
Pregnancy complicated by acute intestinal obstruction (J. E. Gemmell), 639
Pregnancy, complications of (Lloyd Roberts), 1175
Pregnancy, cornual, ruptured (W. E. Fothergill), 264
Pregnancy with perfect hymen (J. C. McWalter), 1110
Pregnancy, jaundice of (H. D. Rolleston), 864
Pregnancy, ovarian, case of probable (Beckwith Whitehouse), 1276
Pregnancy, tubal, ruptured (T. Carwardine), 810
Pregnancy, vaccine treatment of pyelonephritis in (Charles F. Routh), 191
Pregnancy, pernicious vomiting of (Sir John Byers), 444. *See also* Gestation
Prehistoric man in Scotland. *See* Scotland
PRENDERGAST, W. DOWLING: The classification of lead poisoning, 1164
PRENTICE, JAMES NIMMO, obituary notice of, 357
Prepuce and glans, development and malformations of (Frederic Wood Jones), 137
Prescriber and dispenser, 54
Prescribing for patients without seeing them, 177
Prescriptions, a suggested tax on in Austria, 172
Presentations, 172, 229, 514, 716, 823, 841, 1151, 1513; Anderson, Dr., 514; Barclay, Dr., 1151; Clouston, T. S., 229; Hyslop, Dr., of Pietermaritzburg, 716; McArdle, Surgeon, 1513; Ogston, Alexander, 841; Parry, E. J., 823; Thomson, C. J., 172
Preston, special correspondence from, 231; munificent bequest by Dr. R. C. Brown, 231
Pretence and the reality, 40
Preventive agencies, organization of relief and, 723
PRICE, JOHN A. P.: *Hoblyn's Dictionary of Terms used in Medicine and the Collateral Sciences*, rev., 880
PRICHARD, R.: Case presenting early symptoms of general paralysis, with recovery under soamin, 192
PRIESTLEY, JOHN: Pathology of bacteria, 293
PRINGLE, HAROLD: Biochemistry of growth, 569
PRINGLE, J. H.: Thrombosis of longitudinal and lateral sinuses, 755
PRINGLE, SETON: Transposition of viscera, 1233
Prison doctors and the Home Office, 49, 117, 150, 173, 233, 291, 352; correspondence on, 49, 117, 173, 233, 291, 352; *re* Miss Selina Martin, 150
Prisoners and forcible feeding, 50, 117. *See also* Forcible feeding *and* Suffragette
Prisons, Medical Commission of (leading article), 1067; debate in Parliament, 1076, 1569; correspondence on, 1146
PRITCHARD, ERIC: *The Physiological Feeding of Infants*, rev., 816
Profession, medical. *See* Medical
Professional responsibility, 237
Prolapsus ani in the adult, treatment of, 972
Prolapsus uteri. *See* Uterus
Proprietary preparations. *See* Secret remedies
Prostatic enlargement (Mr. Paul), 811
Prostatism (David Wallace), 381
Prostatitis, chronic (D. Douglas Crawford), 754
Proteid diet. *See* Diet
Protest, 120 (A. P. Bacha), 120
Proteus vulgaris and *Penicillium brevicaule*, 120
Protozoa, review of books on, 142
PROUT, W. T.: *Lessons on Elementary Hygiene and Sanitation, with Special Reference to the Tropics*, rev., 1057
PROWAZEK, S.: *Taschenbuch der mikroskopischen Technik der Protistenuntersuchung*, rev., 815
Prudential Assurance Company, sixty-first annual report, 671
Prurigo senilis, 610
Pruritus ani, value of Ball's operation in (Patrick Leighton), 440; correspondence on, 727
Pruritus in glycosuria, 239, 300, 360, 423
Prussia, prevention of tuberculosis in, 349; number of women students in the universities of, 1298
PRZIBRAM, HANS: *Verhandl. d. Kais.-königl. zool.-botan. Gesellschaft in Wien*, 284
Pseudo-myxoma, peritoneal, originating from the vermiform appendix (Wilfred Trotter), 687
Psychasthenia and neurasthenia, treatment of, 478, 783
Psychiatric terminology, 300
Psychiatry, ideals in (Edwin Goodall), 913
Psychical research, 477, 726, 783
Psychological moment, 1427
Psychology, teaching of applied medical, 1576
Psycho-pneumatology, lecture on (James Rorie), 1477
Psychoses, toxic and exhaustive (W. H. B. toddart), 1414
Psycho-therapeutic Society. *See* Society
Psychotherapy, review of books on, 265
Pubiotomy in contracted pelvis (G. F. Blacker), 636

Public Health and Poor Law Medical Services, 59, 178, 299, 354, 422, 482, 551, 608, 670, 731, 789, 850, 907, 970, 1026, 1148, 1209, 1271, 1327, 1446, 1526, 1581
Births, notification of, 422
Boards of guardians, appointment of members and ex-members of to paid appointments, 1581
Bodies in mortuaries, preservation of, 1148
Diseases and accidents of childbirth, 850
District medical officers' appointments, the conscientious objector, 790
District medical officers and school certificates, 299, 355
Etiquette, elements of, 1210
Fees for certification of wandering pauper lunatics, 1271
Fees for certification of workhouse lunatics, 850
Fees, notification, 299
Fever, scarlet, at Chester, 422; disinfection after, 1327
Food adulteration in Birmingham, 422
Industrial employment of women and infantile mortality, 789
Infection and employment, 970
Lunatics, alleged, certification for detention in workhouses, 1210
Lunatics for asylum, certification of, 1148, 1211
Lunatics, pauper, certification of, 1447
Measles spread by post office officials, 1327
Meat inspection in Glasgow, 1209
Medical inspectors of the Local Government Board reports, 482, 1526; Uxbridge Rural District, 482; Easington Rural District, 482; Bradford Rural District, 1526; Bedwellty Urban District, 1526; Pontefract Borough, 1526
Medical Officers of Health Reports, 355, 482, 551, 670, 790, 1209, 1527, 1581; for Aberdeen City, 482; Amble (Northumberland) Rural District, 1210; Barnstaple Borough, 1210; Barnstaple Rural District, 1210; Buckingham Rural District, 1210; Chelmsford Rural District, 1581; Cheshunt Urban District, 1210; East Stow Rural District, 790; Egham Urban District, 1210; Guildford Borough, 1527; Kent County, 355; Leeds County Borough, 670; Maldon Rural District, 1581; Mirfield Urban District, 1527; Newark Rural District, 1210; Paisley Burgh, 1209; Patrington Rural District, 790; Reigate Rural District, 790; Sedgefield Rural District, 1581; Thedwaste Rural District, 790; Wandsworth Borough, 551
Medical officers of health, appointment of, 608
Medical officers of health, election of, 1210
Medical officers of health and infectious diseases in schools, 1327
Medical officers of health, notification by, 1148
Medical officers of health, security of tenure of, 178
Medical officers of health, tenure of office of, 59
Milk legislation, proposed, 59
Padded rooms at workhouses, 907
Payment of doctors called in by midwives, 1446
Poor Law Medical Officers' Association of England and Wales, 731, 1148; council meeting, 731, 1148
Public Health Act and unsound food, 970
Sanitation and water supply in Wales, 1026
School clinics and the Labour Party, 422
Scientific research, 1447
Soils and Subsoils, 1210
Stoves, chimneyless, 59
Typhoid fever in Ormesby, 59
Vaccination Order, amended, 354
Ventilation assisted by electricity, 1327
Vital statistics, county of Durham, 355
Vital statistics in England and Wales (1909), 299

Public Health Act. *See* Act
Public Health Bill. *See* Bill
Public health classes in Germany, 60
Public health prosecution (Dublin), 1570
Public health, review of books on, 876, 997
Public Health Service Directory and Yearbook, rev., 997
Public medical service, model rules for, a criticism of its main principle, 1143, 1200, 1266, 1440. *See also* Medical service, nationalization of
Public medical service in Fulham, 175
Public trustee. *See* Trustee
Puerperal eclampsia. *See* Eclampsia
Puerperal insanity. *See* Insanity
Puerperal septic infections, treatment of (Dr. Oldfield), 872
Puerperium, rational (J. W. Ballantyne), 4; discussion on, 201
Pulmonary tuberculosis. *See* Tuberculosis
Pulsus trigeminus (W. T. Ritchie and J. M. Cowan), 1112
Punch on the JOURNAL, 701; King Edward memorial number, 1182
Puncta lachrymalia, bilateral absence of (L. Cole-Baker), 1548
Purchase, restrictive effect of negotiations for, 731, 969
Purpura, fetal (Norman Glegg), 632
Purpura, Henoch's, or angio-neurotic oedema (H. Cecil Barlow), 15
PURSLOW, C. E.: Severe ante-partum haemorrhage due to spontaneous rupture of vaginal varix, 319
PURVIS, GEO. CARRINGTON: Human serotherapy, 848
Pyelitis, secondary *coli* (Andrew Fullerton), 1171
Pyelonephritis in pregnancy, vaccine treatment of (Charles F. Routh), 191
PYLE: Cyclodialysis in glaucoma, 1193
Pylephlebitis, suppurative, following oesophageal stricture (E. C. Edwards), 199
Pylorectomy for carcinoma of pylorus (Mr. Newbolt and M. Alexander), 446
Pylorus, cancer of. *See* Cancer
Pylorus, hypertrophic stenosis of (Porter Parkinson), 572
Pylorus, pylorectomy for carcinoma of (Mr. Newbolt and M. Alexander), 446
Pylorus, traumatic rupture of (Hamilton Drummond), 447
Pylorus, stenosis of (Jas. H. Nicoll), 1112
Pyocyanase (A. Bronner), 1175
Pyonephrotic kidney. *See* Kidney
Pyrexia in pneumonia in children, protracted (Reginald Miller), 569

Q.

"Q, old," 650
Quackery, in Germany, 281, 609, 1130; in Austria, proposed legislation against, 471; association for repression of in Dresden, 609
Quacks, London police and, 1011, 1084
Quadriceps extensor cruris tendons, rupture of both (J. Wallace Milne), 199; (Richard Kelly), 807
Queen Victoria's Jubilee Institute for Nurses. *See* Nurses
Queensberry, Catherine, Duchess of, 766
Queensberry, Duke of ("Old Q"), 650
QUEIREL, Dr., death of, 296
Quinine, malarial fevers and (J. H. Whelan), 986
Quintillian of the sick room, 763

R.

RABAGLIATI, A.: Waddilove's Samaritan Hospital for Women, 1080; *Conversations with Women regarding their Health and that of their Children*, rev., 1552
Raban the printer, 1122
Rabies, the treatment of in New York State, 185
Rabies, review of books on, 386
Radio-activity, detection of homogeneous beta rays by the photographic method (J. A. Gray), 1509
Radium, action of (A. S. Grünbaum and Helen G. Grünbaum), 874
Radium, action of on the skin (J. O. Wakelin Barratt), 991
Radium bank in London, announced establishment of, 239
"Radium Institute of America," 471
Radium and the Pasteur Institute, 227
Radium treatment of rodent ulcer (Dawson Turner), 1355
Radium in the treatment of *x*-ray dermatitis, 951
Radius and ulna, dislocation of (F. M. Caird), 20
Railway men, colour testing of, 1514
Railway station lavatories. *See* Lavatory
Rain-bearing winds. *See* Winds
Rainfall, British, 1556
RALPHS, GERALD: Dysmenorrhoea, 846
RANKIN, GUTHRIE: Meningitis in children, 1045
RANSOM, F. PARLETT FISHER, awarded Beit Memorial Fellowship, 594
Rat, the black (J. L. Bonhote), 1124
Rateable value of dwelling-house, 484
Rates and taxes, revaluations for, 515, 528; quinquennial revaluation in the metropolis, 515; extra-metropolitan revaluation for income tax and inhabited house duty, 516; note on, 528
Rat-flea, transmission of *Trypanosoma lewisi* by (E. A. Minchin and J. D. Thomson), 381
Rational puerperium. *See* Puerperium
RAW, NATHAN: Serums and vaccines in the treatment of disease, 811, 1538
RAWLING, LOUIS BATHE: *Landmarks and Surface Markings of the Human Body*, rev., 880
READ, H. S.: Blood pressure in anaesthesia, 381
"*Reciept Book*" of a country practitioner (Dr. MacCallum), 99
Recollections of a long professional life (Lombe Atthill), 25, 87, 147, 211
Recollections of an old-time doctor's apprentice, 455
Rectification, 1032
Rectum, abdomino-perineal, excision of, combined with hysterectomy (Maynard Smith), 81
Rectum, cancer of. *See* Cancer
Rectum, implantation of ureters into (R. Lawford Knaggs), 1224

Red cells. *See* Cells
Red Cross Brigade, the Church, 1314
Red Cross Society. *See* Society
"Red degeneration" (E. O. Croft), 1351
Red line on the gums (G. Arbour Stephens), 626: correspondence on, 732
REDMOND, J. O'CONNELL, appointed justice of the peace for borough of Dublin, 790
Red nose. *See* Nose
Red ticket system, abuse of, 961
REES, MILSOM, appointed laryngologist to household of George V, 1509
Reformatory treatment of inebriates (leading article), 947. *See also* Acts, inebriates
Register, the British, and colonial practitioners, 547
REICHEL, P.: *Lehrbuch der Nachbehandlung nach Operationen*, rev., 1414
REID, A. CHRISTIE: Faith healing, 1575
REID, G. ARCHDALL: Prison doctors and the Home Office, 174, 292; *The Laws of Heredity*, rev., 1356
REID, Sir JAMES, appointed physician-in-ordinary to George V., 1509
REID, J.: Blenorrhoea of lacrymal sac, 200
REID, R. W.: Prehistoric man in Scotland, 465
REID, THOMAS WHITEHEAD, obituary notice of, 909
Reigate, report of M.O H., 790
Relations of the laity and medical profession. *See* Laity *and* Medical
RALPH, HERBERT: Tracheotomy during the administration of nitrous oxide gas, 1287
REMLINGER, Dr.: "Decanisation" of Constantinople, 1074
Renal calculus. *See* Calculus
RENSHAW, CHARLES J.: Part-time medical officer of health, 233
RENTON, J. CRAWFORD: Operative treatment for haemorrhoids, 544
RENTON, J. M.: Use of the cystoscope, 875
RENTOUL, R. R.: Sterilization of certain degenerates, 604
Research Defence Society. *See* Society
Research and examination (leading article), 832. *See also* University of London
Research, scientific, Government grants, 1447
Respiration, artificial, in newborn infants, 1194, 1289; (B. F. Pendred), 1289
Respirator, Dr. Burney Yeo's, 387
Respiratory tract, ophthalmic conditions caused or influenced by diseases of the upper (A. S. Cobbledick), 1282
Rest for the dying, 595; annual report, 595
Retinal disease (A. C. Hudson), 447

Reviews of Books, 21, 82, 142, 205, 265, 324, 449, 510, 575, 639, 696, 757, 813, 875, 932, 995, 1053, 1113, 1234, 1294, 1356, 1414, 1498, 1550
Abderhalden, Dr. (editor): *Handbuch der biochemischen Arbeitsmethoden*, 450, 814
Adami, J. George: *The Principles of Pathology*, vol. ii, *Systemic Pathology*, 267; *Inflammation, an Introduction to the Study of Pathology*, 996
Aikens, Charlotte A.: *Clinical Studies for Nurses*, 641
Albee, Fred. H.: *Orthopedic Surgery for Practitioners*, 208
Albu, A.: *Sammlung zwangloser Abhandlungen aus dem Gebeite der Verdauungs- und Stoffwechsel-Krankheiten*, 451, 1177; *Ueber Nicht diabetische Glykosurien*, 451; *Die Behandlungsmethoden des Chronischen Magengeschwürs*, 1177
Alcock, N. H.: *Textbook of Experimental Physiology*, 1358
Alexander, W.: *Therapeutisches Taschenbuch der Nervenkrankheiten*, 1056
Allbutt, Sir Clifford (editor): *A System of Medicine*, vol vi, 206
Andrew, Stephen: *The Serpent and the Cross*, 23
Aschoff, L.: *Die Cholelithiasis*, 1237
Ashton, William Easterly: *A Textbook on the Practice of Gynaecology for Practitioners and Students*, 1176
Association, American Laryngological, *Transactions* 24
Association, Medical Officers of Schools, issues *A Code of Rules for the Prevention of Infectious and Contagious Diseases in Schools*, 387
Association, Southern Surgical and Gynaecological, *Transactions*, 1298
Bacmeister, A.: *Die Cholelithiasis*, 1237
Bamberger, L.: *Die innere und die chirurgische Behandlung des chronischen Mägengeschwürs und ihre Erfolge* 1178
Bandler, Samuel Wyllis: *Medical Gynaecology*, 576
Baraduc, Dr.: *Clinique Hydrologique*, 452
Bardswell, Noel D.: *The Expectation of Life of the Consumptive after Sanatorium Treatment*, 1053
Barker, J. Ellis: *Great and Greater Britain: the Problems of Motherland and Empire—Political, Naval, Military, Industrial, Financial, Social*, 144
Basu, B. D.: *The Dietetic Treatment of Diabetes*, 800
Bates, Stanley H.: *Open Air at Home: Practical Experience of the Continuation of Sanatorium Treatment*, 934
Bauer, Dr.: *Klinische und Experimentelle Studien zur Pathologie und Therapie der Tuberkulose im Kindesalter*, 385
Bennecke, H: *Die Leukocytose bei Scharlach und anderen Mischinfektionen*, 996
Bernard, Felix: *Clinique Hydrologique*, 452
BEVAN, J. O.: *The Genesis and Evolution of the Soul*, 1553
Billings, F. (editor): *General Medicine*, 326
Binet, M. E.: *Clinique Hydrologique*, 452
Binnie, John Fairbairn: *Manual of Operative Surgery*, vol. ii: *Vascular System, Bones and Joints, Amputations*, 996
Birbaum, R.: *Klinik des Missbildungen und Kongenitalen Erkrankungen des Fötus*, 387
Bishop, E. Stanmore: *Lectures on Surgical Nursing*, 385
Blackham, Major Robert J.: *Military Sanitation for Soldiers Serving in Hot Climates*, 577
Blumenthal, Ferdinand: *Ueber Nichtdiabetische Glykosurien*, 451
Bois-Reymond, R. du: *Physiologie des Menschen und der Säugthiere*, 1297
Booth, Amos: *A Beautiful Arm: A History of the Vaccination Delusion*, 268
Bosanquet, Wm. Cecil: *Serums, Vaccines and Toxines in Treatment and Diagnosis*, 24; *The Stomach, Intestines and Pancreas*, 1177
Bra, Marie: *Cultures in vitro des cellules cancéreuses*, 816
Brand, Alexander Theodore: *Clinical Memoranda for General Practitioners*, 1238
Brandane, John: *My Lady of Aros*, 1298
Brauer, L.: *Beiträge zur Klinik de Tuberculose*, 385
British Guiana Medical Annual, 1908, 997
Brouardel and Gilberts: *Nouveau traité de médecine et de thérapeutique*, 1179
Brown, Goodwin: *Scientific Nutrition Simplified*, 208
Bryant, Joseph D. (editor): *American Practice of Surgery*, vols. iv and vi, 699
Bryce, Alexander: *The Laws of Life and Health*, 877
Buck, Albert H. (editor): *American Practice of Surgery*, vols. iv and vi, 699
Burdett, Sir Henry: *Hospitals and Charities*, 1056
Burghard, F. F. (editor): *A System of Operative Surgery*, 324
Burnet, James: *Hints on Prescription Writing*, 1298
Butler, Glentworth Reeve: *Diagnostics of Internal Medicine*, 510
Calwell, W.: *A Textbook of Medical Treatment (Alphabetically Arranged)*, 575
Cantlie, James (editor): *Medico-Chirurgical Series*, No. 2. *The Stomach, Intestines, and Pancreas*, 1177
Carnot, P.: *Bibliothèque de thérapeutique: Régimes alimentaires*, 1055; *Crénothérapie, climatothérapie, thalassothérapie—cures hydrominérales, cures d'altitude, cures marines*, 1551
Castle, R. F.: *Tomatoes and How to Grow Them*, 998
Cattell, Henry W. (editor): *International Clinics*, 642, 1238
Chance, Sir William: *Poor Law Reform, via Tertia: The Case for the Guardians*, 756
Charities Register and Digest, 1239
Chauffeur's Companion, 387
Chemist's Annual and P. J. F., The Pharmacist's Diary and Yearbook, 1910, 85
Church Lads Brigade Medical Corps, Manual for, 24
Clair, Franck: *La Médecin à bord*, 1179
Clarac, A.: *Traité de pathologie exotique, clinique et thérapeutique*, 1236
Clark, E. M.; *An A.B.C. of Nursing in Accidents and Illnesses*, 24
Clogg, H. S.: *The Stomach, Intestines, and Pancreas*, 1177
College, University, London, Collected Papers of the Institute of Physiology 642
Colt, H. S.: *The Six Handicap Golfer's Companion*, 578
Consumption, Conquest of, and the Duties of Municipalities, 1418
Cope, V. Zachary: *Minor Gynaecology*, 1176
Corner, Edred M.: *The Operations of General Practice*, 996
Cottet, Dr.: *Clinique Hydrologique*, 452
Council, General Medical, *Minutes of the Council and Its Various Committees for the Year 1909*, 451
Craig, Charles F.: *The Malarial Fevers. Haemoglobinuria Fever, and the Blood Protozoa of Man.* 1236
Crowley. Ralph H.: *The Hygiene of School Life*, 1550
Da Costa, J. C. (editor): *Surgery: Its Principles and Practice*, 384
Daniels, C. W.: *Tropical Medicine and Hygiene: Diseases due to Protozoa*, 698
Deaderick, William H.: *A Practical Study of Malaria*, 1236
de Launay: *Crénothérapie, climatothérapie, thalassothérapie–cures hydrominérales–cures d'altitude, cures marines*, 1551
Dentists Register, 759
Deutsches Bäderbuch, 696
Dewar, Douglas: *The Making of Species*, 326
Dictionary of National Biography, vol. xxii, 935
Doflein, F.: *Lehrbuch der Protozoenkunde*, II Auflage, *Der Protozoen als Parasiten und Krankheitserreger*. 142
Drummond, I. M.: *An Introduction to the Study of Biology*, 1238
Drummond, W. B.: *Elementary Physiology*, 1551
Dubois, Paul: *Pathogeny of the Neurasthenic States*, 1499
Edinburgh, J. G. H.: *The Nurse's Guide to Prescription Reading*, 641
Ehrlich, P.: *Die Anaemie: Normale und pathologische Histologie des Blutes*, 449
Eichhorst, Hermann: *Handbuch der speziellen Pathologie und Therapie inneren Krankheiten*, 1234
Eisendrath, D. N.: *Surgical Diagnosis*, 1235
Elderton, Ethel M.: *A Primer of Statistics*, 208
Elderton, W. Palin: *A Primer of Statistics*, 208
Election Supplement, General, 387
Ellis, David: *Outlines of Bacteriology (Technical and Agricultural)*, 145
Ellison, F. O'B.: *Textbook of Experimental Physiology*, 1358
Elsner, Hans: *Lehrbuch der Magenkrankheiten*, 266
Engel, Dr.: *Klinische und Experimentelle Studien zur Pathologie und Therapie der Tuberkulose in Kindesalter*, 385
Ernst, Paul: *Missbildungen des Nervensystems*, 1115
Everitt, Lieutenant-Colonel H.: *The Falling Birth-rate and its Significance*, 326
Eyre, John W. H.: *Serums, Vaccines, and Toxins in Treatment and Diagnosis*, 24
Falkenstein, Dr.: *Die Gicht und die Salzsäure Jodkur*, 876
Fein, J.: *Rhino- und Laryngologische Winke für praktische Aerzte*, 1115
Finn, Frank: *The Making of Species*, 326
Fischer, Emil: *Introduction to the Preparatian of Organic Compounds*. 451
Fischer, H.: *Myeloische Metaplasie und Fötale Blutbildung*, 1416
Friedemann, Ulrich: *Taschenbuch der Immunitätslehre: mit besonderer Berücksichtigung der Technik*, 815
Fromme, F.: *Die Physiologie und Pathologie der Wochenbettes, für Aerzte dargestellt*, 449
Froussard, Dr.: *La traitement de la constipation. Les actualités médicales*, 266
Furet, Dr.: *Clinique Hydrologique*, 452
Gardening Questions Answered: A Horticultural "Enquire Within" for Amateur Gardeners, 998
Garel, J.: *Diagnostic et traitement des maladies du nez*, 1114
Garson, J. G.: *Remedial Gymnastics for Heart Affections Used at Bad-Nauheim*, 640
Gask, G. E.: *The Practice of Surgery*, 1234
Gaston, Paul: *L'Ultra microscope dans le diagnostic clinique et les recherches de laboratoire*, 1115
Gaupp, E.: *Sammlung anatomischer und physiologischer Vorträge und Aufsätze*. 511, 880
Gautier: *Crénothérapie, climatothérapie, thalassothérapie—cures hydrominérales, cures d'altitude, cures marines*, 1551
Geary, H.: *Bees for Profit and Pleasure* 998
Gilbert, A.: *Bibliothèque de thérapeutique: Régimes alimentaires*, 1055; *Crénothérapie, climatothérapie, thalassothérapie—cures hydrominérales, cures d'altitude, cures marines*, 1551
Gilbert and Brouardel's *Nouveau traité de médecine et de thérapeutique*, 1178
Grall, Ch.: *Traité de pathologie exotique, clinique, et thérapeutique*, 1236; *Paludisme*, 1236
Grasset, Professeur: *Consultations médicales*, 1239
Greer, W. J.: *Industrial Diseases and Accidents*. 207
Grosser, O.: *Die Wege der fetalen Ernährung*, 880
Gubb, A. S.: *The Flora of Algeria*, 513
Guiart, Professor: *Précis de parasitologie*, 513
Gutzmann, H. (editor): *Sprachstörungen und Sprachheilkunde Beiträge zur Kenntnis der Physiologie, Pathologie und Therapie der Sprache*, 513
Habershon, S. H.: *Diseases of the Stomach: A Manual for Practitioners and Students*, 383
Hahn, J.: *Therapeutisches Lexikon*, 1418
Hall, W. Winslow: *The Prayer Quest*, 1298
Halliburton, Professor: *Essentials of Chemical Physiology*, 814
Hammerschlag, Siegfrid: *Lehrbuch der Operativen Geburtshilfe*, 1417
Hart, A. Herbert: *How to Cut the Drug Bill*, 935
Harvey Lectures, delivered under the Auspices of the Harvey Society of New York, 1907–8, 450
Haubold, Herman A.: *Preparatory and After Treatment in Operative Cases*, 1414

Reviews of Books *(continued)*
Hausmann, Theodor: *Die methodische Intestinalpalpation mittels der topographischen Gleit- und Tiefenpalpation*, 1414
Head, G. P.: *The Practical Medicine Series*, vol. vi, *General Medicine*, 326
Hearsey, Dr. (editor): *Nyasaland Protectorate Sleeping Sickness Diary*, 1179
Heuz, J.: *Crénothérapie, climatothérapie, thalassothérapie: cures hydrominérales, cures d'altitude, cures marines*, 1551
Henry Phipps Institute for Study and Prevention and Treatment of Tuberculosis, Fifth Annual Report, 1054
Herschell, George: *Soured Milk and Pure Cultures of Lactic Acid Bacilli in the Treatment of Disease*, 1238
Hertz, Arthur F.: *Constipation and Allied Intestinal Disorders*, 932
Hillier, Alfred P.: *The Commonweal: a Study of the Federal System of Political Economy*, 84
Hilton, H. H.: *The Six Handicap Golfer's Companion*, 578
Hime, M. C.: *Masonic Hints regarding our Schools and School Elections*, 935
Hirst, Barton Cooke: *A Textbook of Obstetrics*, 1417
Hoag, Ernest Bryant: *Health Studies: Applied Physiology and Hygiene*, 1551
Hoblyn's Dictionary of Terms used in Medicine and the Collateral Sciences, 880
Hochenegg, J.: *Lehrbuch der speziellen Chirurgie*, 813, 1235; *Surgery of the Extremities*, 1235
Hofmann, Julius: *Remedial Gymnastics for Heart Affections used at Bad-Nauheim*, 640
Hogan, Louise E.: *How to Feed Children: a Manual for Mothers, Nurses, and Physicians*, 816
Hospital, Guy's, *Reports*, 756
Hospital, Middlesex, *Archives*, 209, 1418
Hospital, St. Bartholomew's, *Reports*, 756
Howell, W. H.: *Textbook of Physiology*, 1295
Hrdlicka, Alis: *Tuberculosis among Certain Indian Tribes of the United States*, 268
Hunter, W.: *Severest Anaemias: Their Infective Nature, Diagnosis, and Treatment*, 205
Hutchinson, Jonathan: *A Manual of Operative Surgery*, 814
India, Scientific Memoirs of the Government of: *Observations on Rabies, with special reference to an atrophic form of the disease occurring in animals* (Major G. Lamb and Captain A. G. McKendrick), 386
Infectious Diseases in Schools, Code of Rules for Prevention of, 387
International Clinics, 642, 1238
Jago, William: *Manual of Forensic Chemistry, dealing especially with Chemical Evidence, its Preparation and Adduction*, 145
Jahresbericht über die Fortschritte der inneren Medizin im In- und Auslande, 23
Jacksch, R. v.: *Die Vergiftungen*, 1416
Janssig, Frederick I.: *Prevention and Treatment of Abortion*, 1298. (This is a misprint for Taussig)
Jardine, Robert: *Clinical Obstetrics*, 641
Jennings, Oscar: *The Morphia Habit and its Voluntary Renunciation*, 22
Johnson, J.: *Health in the Home: Children and their Ailments*, 816
Kaufmann, Edward: *Lehrbuch der speziellen pathologischen Anatomie*, 815
Keen, W. W. (editor): *Surgery: Its Principles and Practice*, 384
Keith, John Robert: *Clinical Memoranda for General Practitioners*, 1328
Ker, Claude Buchanan: *Infectious Diseases: a Practical Textbook*, 995
Kermauner, P.: *Missbildungen der weiblichen Geschlechts organe*, 1115
Kern, Berthold: *Die psychische Krankenbehandlung in ihren Wissenschaftlichen Grundlagen*, 1498
Kirkaldy, J. W.: *An Introduction to the Study of Biology*, 1238
Klinkhardt, Werner: *Die Pathologie und Therapie der Lepra*, 998
Knox, Ernest Blake: *Aids to Microscopic Diagnosis (Bacterial and Parasitic Diseases)*, 815
Kocher, Th.: *Vorlesungen über chirurgische Infectionskrankheiten. Die Streptomykosen*, 1053
Krause, Fedor: *Surgery of the Brain and Spinal Cord*, 997
Krause, Paul: *Lehrbuch der klinischen Diagnostic Innerer Krankheiten*, 511; *Röntgenatlas der Lungentuberkulose: Beitrage zur Klinik der Tuberculose*, 1054
Krehl, Ludolf: *Pathologische Physiologie*, 996
Kroner, K.: *Therapeutiches Taschenbuch der Nervenkrankheiten*, 1056
Küstner, Otto: *Die individualisierende Operation der inveterirten Scheiden-Damm-Mastdarm-Risse*, 757
Kuttner, A.: *Die entzundlichen Nebenhöhlenerkrankungen der Nase im Röntgenbild*, 575
Labbé, Marcel: *Régimes alimentaires*, 1055
Lalesque: *Crénothérapie, climatothérapie, thalassothérapie: cures hydrominérales, cures d'altitude: cures marines*, 1551
Lamarque: *Crénothérapie, climatothérapie, thalassothérapie: cures hydrominérales, cures d'altitude, cures marines*, 1551
Lamb, Major G.: *Observations on Rabies, with special reference to an atrophic form of the disease occurring in animals*, 386
Lancereaux, E.: *Traité de la goutte*, 875
Landois, L.: *Lehrbuch der Physiologie des Menschen*, 1296
Landouzy, L: *Crénothérapie, climatothérapie, thalassothérapie: cures hydrominérales, cures d'altitude, cures marines*, 1551
Lang, William: *Royal London Ophthalmic Hospital Reports*, 327
Larat, J.: *Traité pratique d'électricité médicale: Electrothérapie, radiothérapie, radiumthérapie*, 1235
Latimer, Caroline Wormsley: *Girl and Woman, a Book for Mothers and Daughters*, 878
Lazarus, A.: *Die Anaemie: Normale und pathologische Histologie des Blutes*, 449
Leftwich, Ralph Winnington: *An Index of Symptoms*, 1115
Lejars, Felix: *Urgent Surgery*, 997
Leser, Edmund: *Lehrbuch der Chirürgie. Die spezielle Chirurgie in 60 Vorlesungen*, 699
Lewis, Percy: *Medical Exercises*, 1553
Lint, A. van: *Accidents oculaires provoqués par l'électricité*, 995
Lluria, Enrique: *Super-organic Evolution: Nature and the Social Problem*, 1552
Loch, C. S.: *Annual Charities Register and Digest*, 1239
Loewenfeld, L.: *Somnambulismus und Spiritismus*, 1499
Loewy, A. (editor): *Lehrbuch de Physiologie des Menschen*, 1296
Longcope, W. T. (editor): *International Clinics*, 642
Londe, P.: *Essais de médecine préventive*, 576
Lorand, A.: *Das Altern, seine Ursachen und seine Behandlung durch hygienische und therapeutische Massnahmen. Ein Handbuch für eine rationelle Lebensweise*, 22
Lowndes, Mrs. Belloc: *Where no Man Pursueth*, 817
Lutaud, Paul: *Sur un procédé d'urétérocysto-néostomie dans de traitement des fistules*, 451
Maas, Paul: *Die Sprache des Kinder und ihre Störungen*, 512
Macewen, J. A. C.: *Surgical Anatomy*, 577
Macfie, Ronald Campbell: *Science, Matter, and Immortality*, 386; *Air and Health*, 816
McIsaac, Isabel: *Bacteriology for Nurses*, 641; *Elements of Hygiene for Schools*, 1551
McKendrick, Captain A. G.: *Observations on Rabies, with special reference to an atrophic form of the disease occurring in animals*, 386
Mackenzie, James: *Diseases of the Heart*, 1113
McKenzie, R. T.: *Exercises in Education and Medicine*, 1179
Magian, A. C.: *Handbook of Venereal Diseases*, 1237
Malcolm, John: *Notes on Practical Physiology*, 1359
Maniac, The: A Realistic Study of Madness from the Maniac's Point of View, 325
Mann, E. W. (editor): *Seventeenth and Eighteenth Laboratory Reports, 1908–1909*, 268
Marchoux, E.: *Paludisme*, 1236
Marinesco, G.: *Maladies des muscles*, 1178
Martin, Edward: *Surgical Diagnosis*, 1235
Matthes, M.: *Die Behandlungsmethoden des chronischen Magengeschwürs*, 1177
Mayall, G.: *Cows, Cowhouses, and Milk*, 934
Medical Annual, 1910, 879
Medical Register, 759
Meyer, Willy: *Bier's Hyperaemic Treatment: a Manual of its Practical Application*, 878
Moon, R. O.: *The Relation of Medicine to Philosophy*, 82
Morton, E. Reginald: *Essentials of Medical Electricity and Radiography*, 1236
Moureu: *Crénothérapie, climatothérapie, thalassothérapie: cures hydrominérales, cures d'altitude, cures marines*, 1551
Mracek, Franz: *Atlas der Syphilis und der venerischen Krankheiten, mit einem Gründriss der Pathologie und Therapie derselben*, 1237
Münsterberg, Hugo: *Psychotherapy*, 265
Muthu, C.: *Pulmonary Tuberculosis and Sanatorium Treatment*, 385
Murphy, J. Keogh (editor): *A System of Syphilis*, 325
NAEGELI, O.: *Die Anaemie: Normale und pathologische Histologie des Blutes*, 449; *Die hämatologische Technik*, 1415
NAGEL, W.: *Sammlung anatomischer und physiologischer Vorträge und Aufsätze*, 511, 880
NEWMAN, E. A. R.: *Manual of Aseptic Surgery and Obstetrics*, 24
NICHOLLS, ALBERT G.: *The Principles of Pathology*, vol. ii: *Systemic Pathology*, 267
Nisbet's Medical Directory, 1910, 387
NOBL, G.: *Der Variköse Symptomencomplex (Phlebectasie, Stauungsdermatose, Ulcus Cruris)*, 757
Nyasaland Protectorate Sleeping Sickness *Diary*, 1179
OGILVY, CHARLES: *Orthopaedic Surgery for Practitioners*, 208
ONODI, A.: *The Optic Nerve and the Accessory Sinuses of the Nose*, 1358
Oppenheimer, Carl: *Die Fermente und ihre Wirkungen*, 145
Osborne, Thomas B.: *The Vegetable Proteins*, 451
Painton, G. H.: *The Field Ambulance Guide*, 85
Paquy, E.: *Manuel de pratique obstétricale*, 641
Parkes, Louis C.: *House Drainage, Sewerage and Sewage Disposal in Relation to Health*, 877
Paterson, Herbert J.: *Jejunal and Gastro-jejunal Ulcer following Gastro-jejunostomy*, 267
Pereira, Henry Horace: *Intemperance*, 22
Piatot, Dr.: *Clinique Hydrologique*, 452
Picker, Rudolf: *Die topische Diagnose der chronischen Gonorrhoe, etc.*, 326
Pilcher, R. B.: *Official Chemical Appointments*, 327
Pinches, H. Irving: *The Operations of General Practice*, 996
Pöhlman, Ludwig: *Remedial Gymnastics for Heart Affections Used at Bad-Nauheim*, 640
Poor Law, Royal Commission on, nine lectures on, delivered in Sheffield, 1294
Porter, Charles: *Sanitary Law and Practice: A Handbook for Students of Public Health and Others*, 876
Poulsson, E.: *Lehrbuch der Pharmacologie*, 934
Powell, Arthur E.: *Food and Health*, 208
Power, D'Arcy (editor): *A System of Syphilis*, 325
Practical Medicine Series, 1909, vol. viii, 85
Price, John A. P.: *Hoblyn's Dictionary of Terms Used in Medicine and the Collateral Sciences*, 880
Pritchard, Eric: *The Physiological Feeding of Infants*, 816
Prout, W. T.: *Lessons on Elementary Hygiene and Sanitation with Special Reference to the Tropics*, 1057
Prowazek, S.: *Taschenbuch der mikroskopischen Technik der Protistenuntersuchung*, 815
Public Health Service Directory and Year Book, 997
Rabagliati, A.: *Conversations with Women regarding their Health and that of their Children*, 1552
Rawling, Louis Bathe: *Landmarks and Surface Markings of the Human Body*, 880
Reichel, P.: *Lehrbuch der Nachbehandlung nach Operationen*, 1414
Reid, G. Archdall: *The Laws of Heredity*, 1356
Rivière, J. A.: *Esquisses cliniques de physiothérapie*, 1359
Roberts, Frederick T.: *The Theory and Practice of Medicine*, 143
Robertson, W.: *Public Health: The Catechism Series*, 817
Robin, Albert: *Traitement médical des maladies des femmes*, 576
Robinson, Archibald: *Pure Milk and the Public Health: A Manual of Milk and Dairy Inspection*, 934
Robinson, B: *The Arteries of the Gastro-intestinal Tract with Inosculation Circle*, 266
Robinson, H.: *Midwives' Pronouncing Dictionary*, 146
Robinson, W.: *Sanitary Laws and Practice: A Handbook for Students of Public Health and others*, 876
Rolleston, H. D. (editor): *A System of Medicine*, vol. vi, 206
Romberg, Ernst: *Lehrbuch der Krankheiten des Herzens und der Blutgefässe*, 1113
Rosenthal, Carl: *Die Massage und ihre wissenschaftliche Begründung*, 1238
Rowley, William: *Treatise on the Regular, Irregular, Atonic and Flying Gout*, 876
Rumpel, O: *Die Cystoskopie im dienster der Chirurgie. Ein Atlas cystoskopischer Bilder und begleitendem Text für Aerzte und Studierende*, 1553
Sacconaghi, G. L.: *Anleitung Diagnostik der Abdominaltumoren unter Zugrundelegung der Palpation*, 1415
Samojloff, A.: *Electro-Kardiogramme*, 511
Sanders, T. W.: *The Alphabet of Gardening*, 998
Schaffer, Dr.: *Die Plasmazelle*, 1416
Schmieden, Victor: *Bier's Hyperaemic Treatment: A Manual of Its Practical Application*, 876
Scholtz, W.: *Pathologie und Therapie der Gonorrhoe in Vorlesungen*, 578

Reviews of Books (*continued*)
Schridde, Herm.: *Die hämatologische Technik*, 1415
Schwalbe, Ernst: *Die Morphologie der Missbildungen des Menschen und der Tiere. Die Entzelmissbildungen*, 1115
Schwesinger, Theodor: *Untersuchungen über die Bedeutungen der Teilung bie den Körperzellen*, 1416
Sersiron, Dr.: *Clinique Hydrologiques*, 452
Shattock, Samuel G.: *Appendix XXII and Appendix XXIII to the second edition of the Descriptive Catalogue of the Pathological Specimens contained in the Museum of the Royal College of Surgeons of England*, 144
Simon, Dr.: *Clinique Hydrologique*, 452
Sleeping-sickness: Skeleton Maps of Tropical Africa showing the distribution of Tsetse Flies and, 451; *How to Avoid Infection*, 1553
Smith, Eustace: *Some Common Remedies and their Use in Practice*, 513
Society, Gynaeceological, American: *Transactions*, 1297
Society, Medico-Legal, Transactions, vol. vi, 268
Society, Obstetrical, Edinburgh, Transactions, 1297
Society Pediatric, Transactions, vol. xxi, 1239
Spas and Mineral Springs of the Royal Prussian Board of Domains, 696
Spencer, W. G.: *The Practice of Surgery*, 1234
Squire's Pocket Companion to the British Pharmacopoeia, third appendix, 759
Starling, E. H. (editor): *Collected Papers of the Institute of Physiology, University College, London*, 642
Stern, Dr.: *Album of the Spas and Mineral Springs owned by the Royal Prussian Board of Domains*, 696
Stewart, Morse: *Pocket Therapeutics and Dose Book*, 1057
Stewart, T. G.: *Textbook of Nervous Diseases*, 1056
Stonham, Charles: *The Birds of the British Islands*, 759
Strasburger, Julius: *Einführung in die Hydrotherapie und Thermotherapie*, 933
Strauss, H.: *Gout*, 23
Swan, John: *Prescription Writing and Formulary*, 1057
Swanson, Thos. W.: *Handbook of Scotch Sanitary Law*, 817
Swanton, E. W.: *Fungi and How to Know Them: an Introduction to Field Mycology*, 145
Symes, J. Odery: *Parents, Teachers, and Schools: Lectures in School Hygiene*, 144
Tardif, D.: *Clinique Hydrologique*, 452
Taussig, Frederick I.: *Prevention and Treatment of Abortion*, 1258
Tavel, E.: *Vorlesungen über chirurgische Infectionskrankheiten: Die Streptomykosen*, 1053
Taylor, Henry Ling: *Orthopaedic Surgery for Practitioners*, 208
Thompson, W. G.: *Practical Dietetics*, 698
Thomson, H. H.: *Consumption: Its Prevention and Home Treatment: A Guide for the Use of Patients*, 935
Thornton, Alfred Augustus: *Thornton on Patents, British and Foreign*, 268
Thursfield, Hugh: *Medical Morbid Anatomy and Pathology*, 815
Treves, Sir Frederick: *A Manual of Operative Surgery*, 814
Tropical Medicine, American Society of, *Proceedings*, 145
Tropical Medicine and Hygiene Society, Transactions, 935
Tropical Medicine and Parasitology, Annals of, 207, 642, 997
Trypanosomiasis, Bibliography of, Embracing Original Papers published prior to April, 1909, and References to Works and Papers on Tsetse Flies, especially Glossina palpalis, 84
Tunstall, A. C.: "*First Aid*" *to the Injured and Sick: An Advanced Ambulance Handbook*, 998
Turner, W. A.: *Textbook of Nervous Diseases*, 1056
Uhlenhuth, P.: *Praktische Anleitung zur Ausführung des biologischen Eiweissdifferenzierungsverfahrens; mit besonderer Berücksichtigung der forensischen Blut- und Fleischuntersuchung sowie der Gewinnung präzipitierender Sera*, 85
Umber, F.: *Lehrbuch der Ernährung und der Stoffwechselkrankheiten*, 1055
Van der Hoeven, P. C. T: *Die Asthenie und die Lage-Anomalien der weiblichen Genitalien*, 1176
Vedel, Dr.: *Consultations médicales*, 1239
Vogt, Heinrich: *Die Epilepsie im Kindesalter, mit besonderer Berüchsichtigung erzieherischer, unterichtlicher, und forensischer Fragen dargestellt*, 879
Walford, Walter G.: *Cerebral Congestion and Tight Neck Clothing*, 699
Walker, H. D.: *Cancer and Sarcoma*, 86
Wallich, V.: *Eléments d'obstétrique*, 641
Walters, F. R.: *The Open-air or Sanatorium Treatment of Pulmonary Tuberculosis*, 385

Reviews of Books (*continued*)
Warwick, F. J.: "*First Aid*" *to the Injured and Sick; an Advanced Ambulance Handbook*, 998
Webb, Sidney and Beatrice: *English Poor Law Policy*, 639
Weidanz, O.: *Praktische Anleitung zur Ausführung des biologischen Eiweissdifferenzierungsverfahrens; mit besonderer Berücksichtigung der forensischen Blut- und Fleischuntersuchung sowie der Gewinnung präzipitierender Sera*, 85
Weiss, Otto: *Phono-Kardiogramme*, 511
Wherry, George: *Notes from a Knapsack*, 513
Whetham, William Cecil Dampier and Catherine Durning Whetham: *The Family and the Nation*, 21
Whitaker's Peerage, Baronetage, Knightage, and Companionage, 209
Whittall, W. J. H.: *An Elementary Lecture on the Theory of Life Assurance*, 815
Wilkinson, E.: *Tropical Medicine and Hygiene: Diseases due to Protozoa*, 698
Wilson, J. C.: *Handbook of Medical Diagnosis*, 510
Winkler, Carl: *Die Gewächse der Neben nieren*, 879
Wise, K. S. (editor): *British Guiana Medical Annual, 1908*, 997
Wolfenden, R. Norris: *Scientific and Biological Researches in the North Atlantic, conducted by the Author in his Yachts, "The Wahirn" and "The Silver Belle,"* 267
Wood, Neville: *Spa Treatment, Selection of Patients and the Choice of a Suitable Spa*, 1551
Woolsey, G.: *Applied Surgical Anatomy*, 577
Yearbooks, 145, 209, 327, 997; *of Pharmacy and Transactions of the British Pharmaceutical Conference*, 145; *Sanitary Record Year Book and Diary, 1910*, 209; *Year Book of Scientific and Learned Societies*, 327; *Public Health Service Directory and Year Book*, 997
Young, Ernest: *The Value of an Exclusive Diet in Certain Digestive Disorders*, 698
Ziegler, Otto: *Röntgenatlas der Lungentuberkulose: Beiträge zur Klinik der Tuberkulose*, 1054
Zuntz, N. (editor), *Lehrbuch der Physiologie des Menschen*, 1296

REYNOLDS, CECIL ARTHUR, obituary notice of, 481
REYNOLDS, ERNEST S.: Lead poisoning, gout, and granular kidney, 1324
Rheumatic patients, London suburbs and, 1332
Rheumatism, acute, cardiac lesions resulting from (W. Henry Harris), 990
Rheumatism, acute, local injection of sodium salicylate in (Birendra Nath Ghosh), 690
Rheumatism, bath salts for, composition of, 393
Rheumatoid arthritis, juvenile (J. A. Coutts), 264. *See also* Arthritis
Rheumsol bath salts, composition of, 393
Rhinoplasty (Sinclair White), 573, 919
Rhinorrhoea, two cases of (Carey Coombs), 1411
Rhinorrhoea, cerebro-spinal (J. McDougall), 874
Rhinorrhoea, cerebro-spinal, with double optic atrophy (Norman H. Pike), 1104
RHODAIN, Dr., announced to head Belgian sleeping sickness mission to the Congo, 349
RHODES, GEOFFREY: Health values, 1497
RHODES, JNO. MILSON: The Poor Law and the medical profession, 77
Rhymney Valley, measles in, 47
RIBEIRO, CANDIDO BARATO, death of, 910
RICARD, HENRI, death of, 1150
RICHARDS, THOMAS, obituary notice of, 970
RICHARDSON, RALPH: The great cold in Scotland, 659
RICHARDSON, W. SILVERWOOD: Modification of Whitehead's operation for haemorrhoids, 17
RICHET, CHARLES: A new vegetable poison, 224; phases of immunity, 591; anaphylaxis (leading article), 1254
RIDEING, WILLIAM H.: Story of James Payn, 583
RIDOUT, C. S.: Extensive injury to the head, 1548
RIEGNER, OSCAR, death of, 1525
RIGBY, HUGH M.: A warning, 60; proposed medical branch of the Navy League, 116; obliterative endaneurismorrhaphy (Matas's operation) for popliteal aneurysm, 695; appointed Surgeon to Household of George V, 1509
RIGGALL, R. M.: The Samar twins, 1050
Ringworm, treatment of (E. Lynn Jenkins), 260; correspondence on, 424, 912, 1031
Ringworm in school children (Salford), 721
RIPPON, THOMAS: Appeal on behalf of Mr. W. H. Cox, 294
RITCHIE, W. T: Pulsus bigeminus, 1112
Riviera, misconceptions concerning, 176, 295
RIVIERE, CLIVE: Physical signs of incipient pulmonary tuberculosis, 51
RIVIÈRE, J. A.: *Esquisses cliniques de Physicothérapie*, rev., 1359

ROBERTS, EDWARD A.: Appendix dyspepsia, 473
ROBERTS, FREDERICK T.: *The Theory and Practice of Medicine*, rev., 143
ROBERTS, LLOYD: Section of endothelioma, 993; complications of pregnancy, 1175
ROBERTSON, JOHN: Industrial employment of women and infant mortality, 789
ROBERTSON, W.: *Public Health: The Catechism Series*, rev., 817; *Sanitary Law and Practice: A Handbook for Students of Public Health and Others*, rev., 876
ROBIN, ALBERT; *Traitement médical des maladies des femmes*, rev., 576
ROBINS, BENJAMIN SAVAGE, obituary notice of, 57
ROBINSON, ARCHIBALD: *Pure Milk and Public Health: A Manual of Milk and Dairy Inspection*, rev., 934
ROBINSON, B.: *The Arteries of the Gastro-Intestinal Tract with Inosculation Circle*, rev., 266
ROBINSON, G. A.: Craniotomy, 1052
ROBINSON, H.: *Midwives' Pronouncing Dictionary*, rev., 146
Roborat, composition of, 1241
ROBSON, A. W. MAYO: Diagnosis and treatment of acute inflammations of the upper abdomen, 61, 782; pseudo-neoplastic inflammatory tumours of the abdomen, 397; cancer of cervical oesophagus, 666; gastro-enterostomy in acute dilatation of stomach, 782; surgical treatment of certain cases of glycosuria, 973, 1324
ROCHE, REDMOND: Two cases of idiosyncrasy, 792
Rockefeller Institute, money placed at the disposal of Paul Ehrlich, 432; and antimeningitis serum, 1505
ROCKLIFFE, W. C.: "Trading on names" and "St. Winefride's well," 903
Rodent ulcer. *See* Ulcer
RODGER, T. RITCHIE: Miner's nystagmus, 929
ROLLESTON, H. D.: Remarks on fatal aplastic anaemia, 16; (editor) *A System of Medicine*, vol. vi, rev., 206; jaundice of pregnancy, 864
ROMBERG, ERNST: *Lehrbuch der Krankheiten des Herzens und der Blutgefässe*, rev., 1113
Rome, Ordine dei Medice of, institutes a black list styled *clienti morosi*, 1026
RÖMER, OLE, the inventor of the thermometer, 284
RONA, SAMUEL, death of, 670
ROOD, FELIX: Tracheotomy during the administration of nitrous oxide gas, 1287; nasal administration of nitrous oxide gas, 1554
ROOSEVELT, Mr., at Oxford (leading article), 1563
ROPER, H. J.: Irreducible intussusception, 755
RORIE, JAMES: Lecture on psycho-pneumatology, 1477
Rosa the Pygopaga, accouchement of, 1313
ROSE, PERCY: State-provided medical attendance, 239
ROSE, WILLIAM, death of, 1383; obituary notice of, 1448
ROSENTHAL, CARL: *Die Massage und ihre wissenschaftliche Begründung*, rev., 1238
Ross, Deputy Surgeon-General JAMES, obituary notice of, 1524
ROSS, RONALD: Case of sleeping sickness showing regular periodical increase of the parasites disclosed, 1544
Ross, S. J.: Bacteria and disease, 477; appreciation of E. H. Cobb, 786; danger of arylarsonates, 912; ductless glands, 1203
Ross, Z. M. HAMILTON: Notes on the Sunderland Infirmary, 1412
Ross and Cromarty, medical inspection of schools in, 777
Ross-Jones Test (John Turner), 1414
ROTH, Dr. VON, death of, 787
Roumania, foundation of a vegetarian society in, 129
ROUS, J. BART, wins *Strand Magazine* medical prize, 333
ROUTH, CHARLES F.; Vaccine treatment of pyelonephritis in pregnancy, 191
ROWAN, JOHN: Optic neuritis and suppurative otitis, 737
ROWE, J. H.: Some remarks on genius, 755
ROWLANDS, R. P.: When to operate for appendicitis, 245; how to operate for appendicitis, 621
ROWLEY, WILLIAM: *Treatise on the Regular, Irregular, Atonic, and Flying Gout*, rev., 876
ROWLING, S. T.: Oxygenated and warmed ether as a general anaesthetic, 320; a valved angle-piece for inhalers, 578
Royal death-beds, 1303, 1363, 1452, 1557; Henry VIII, 1303; Edward VI, 1303; Mary Tudor, 1303; Elizabeth, 1304; James I, 1363; a correction, 1452; Charles I, 1557; Charles II, 1557
"Royal Edward Institution," Montreal, memento, 1193
Royal Institution. *See* Institution
Royal Mail Steam Packet Company's cruises 845, 872, 1581
Royal Medical Benevolent Fund. *See* Fund
Royal Sanitary Institute. *See* Institute
Royal Society. *See* Society

RUFFER, MARC ARMAND: Note on the presence of *Bilharzia haematobia* in Egyptian mummies of the Twentieth Dynasty, 16
Rule of the road, 41
RUMPEL, O.: *Die Cystoskopie in dienster der chirurgie. Ein Atlas cystoskopische Bilder und Begleitendem Text für Aerzte und Studierende*, rev., 1553
Rupture. *See* Hernia
RUSS, SIDNEY, awarded Beit Memorial Fellowship, 594
RUSSELL, B. R. G.: Homogeneity of resistance to transplantation of malignant growths, 382
RUSSELL, J. RISIEN: Proposed medical branch of the Navy League, 116; the cerebellum and its affections, 425, 497, 626
RUSSELL, W.: Case of hypertrophic osteoarthritis, 20; Cammidge reaction in abdominal disease, 1413
Russia, number of medical practitioners in, 72; plague in, 270, 1026
RUTHERFORD, JAMES, obituary notice of, 727
RUTHERFORD, N. C.: Lantern slides of a human embryo, 1233
RUTHERFURD, HENRY: Cerebral abscess, 755; cerebral tumour, 755; hydrocephalic head, 755
RUTTER, JOHN (Thomas H. Bickerton), 1006
RYALL, E. CANNY: Forceps for holding Michel's sutures, 880
RYAN, MICHAEL, 334

S.

St. Winefride's well, 654, 726, 903; correspondence on, 726, 903
SACCONAGHI, G. L.: *Anleitung zur Diagnostik der abdominaltumoren unter zugründelegung der Palpation*, rev., 1415
Sale or return, 727, 849
Salford, ringworm in school children of, 721; medical inspection of school children, 1080
Salford guardians. *See* Boards of guardians; *see also* Manchester
Saline waters. *See* Waters
SALISBURY, C. R.: Children in Poor Law schools, 604
SALISBURY, WALTER: Action of cutaneous anaesthetics, 560
Salt, common, saline waters and the use and abuse of (R. Ackerley), 382
Samar twins. *See* Twins
SAMOJLOFF, A.: *Elektro-Kardiogramme*, rev., 511
Samson, story of, 852
SAMWAYS, D. W.: Misconceptions concerning the Riviera, 295
Sanatorium for alcoholism, the Norwood, 59
Sanatorium, King Edward VII's, 1383; resignations and appointments, 1383
Sanatorium treatment and after-treatment, 534
Sanatorium treatment of tuberculosis. *See* Tuberculosis
Sanatoriums for consumption, the Sidlaw, 44, 468; County Cork, 229, 1513; Dundee Parish, 230; Westmorland Meathop, 887; Crossley Sanatorium Delamere (for Manchester), 898; in New South Wales, 1082; Ladywell, Salford, 1197
SANDELS, T. W.: *The Alphabet of Gardening*, rev., 998
Sandow Institute, inquest on a patient treated at. *See* Inquest
SANDWITH, F. M.: Research Defence Society, 290; *Ankylostoma duodenale*, 1232
San Francisco, new hospital at, 773
Sanitary Association. *See* Association
Sanitary authorities, duties of, 660
Sanitary condition of Osborne College, 592
Sanitary Inspectors' Association. *See* Association
Sanitary inspectors, examination for, passes, 1383
Sanitary inspectors, training of, 663
Sanitary matters in Cairo. *See* Cairo
Sanitary Record Yearbook, rev., 209
Sanitary superstitions (leading article), 398
Sanitation of mines, 530; and water supply of Wales, 957, 1026
Sanitation, review of books on, 577
Sarcoma treated by Coley's fluid (Mr. Deanesly), 1290
Sarcoma of femur (Dr. Harvey), 635
Sarcoma of neck, inoperable, temporarily improved by Coley's fluid and *x* rays (J. M. Cotterill), 20
Sarcoma of the petrous bone (W. H. Bowen and H. B. Carlyll), 1546
Sarcoma of stomach (A. Ernest Maylard), 638
Sarcoma of right tonsil (William Hill), 932
SAUL, B.: Teeth of school children, 965
SAUNDBY, ROBERT: New vegetable for diabetics, 568; on sale or return, 727
SAUL, B.: Teeth of school children, 1084
SAUNDERS, E. A.: Case of diabetes in a girl of 14, 264
SAUNDERS, JOHN CUNNINGHAM, 766
SAVILL, AGNES: Treatment of excessive perspiration, 1092
SAVILL, THOMAS DIXON, obituary notice of, 238; proposed memorial to, 1026
SAWYER, JAMES: Auscultatory percussion and friction, 1382
Scalp, detachment of entire (A. Pearce Gould), 695
Scandinavian skeletons found near Kilmainham, 520
SCANES-SPICER, ROBERT HENRY: Cancer of cervical oesophagus, 782; gastroptosis, 1202, 1443
Scarlatina. *See* Fever, scarlet
Scarlet fever. *See* Fever
SCHÄFER, Professor, at Berne, 1375
SCHAFFER, Dr.: *Die Plasmazellen*, rev, 1416
SCHARLIEB, Mrs.: Proportion of malignant to innocent ovarian growths, 263
SCHIESS, Pacha, JOHANNES, death of, 910
SCHJERNING, OTTO VON: *Sanitätsstatistische Betrachtungen über Volk und Heer*, rev., 163
SCHMID: New method of determining the blood volume, 1556
SCHMIEDEN, VICTOR: *Bier's Hyperaemic Treatment: A Manual of its Practical Application*, rev., 878
SCHOFIELD, ALFRED T.: Teaching of applied medical psychology, 1576
SCHOLTZ, W.: *Pathologie und Therapie der Gonorrhoe in Vorlesungen*, rev., 578
School attendance and medical certificates, 1207
School certificates, district medical officers and, 299
School children, conference on, 1199, 1267
School children, feeding of necessitous, 722
School children, medical inspection of, 346, 406, 408, 530, 533, 596, 661, 718, 777, 842, 962, 1019, 1079, 1080, 1136, 1140, 1197, 1198, 1261, 1437, 1508; in Wales, 346, 530, 1261; in Scotland, 406, 777, 962, 1136; cost of in London, 408, 1437; at Pontypridd, 530; in Liverpool, 533, 842, 1198; in Leeds, 661; questions in Parliament, 718; in Ross and Cromarty, 777; in Edinburgh, 962; in Manchester, 1019, 1080; in London generally, 1079, 1197; in Salford, 1080; in Lancashire, 1140; report of the medical officer to Cardiff Education Authority, 1261
School children, medical inspection of, method of finding the correct average height and weight for small numbers (G. C. Barnes), 930
School children, medical inspection of (Miss Gowdey), 756; (Margaret Dobson), 756
School children, medical inspection of, defective teeth, 718, 900, 965, 1021, 1077, 1508; questions in Parliament, 718, 1077, 1508; correspondence on, 900, 965, 1021
School children, medical treatment of, 47, 287, 338, 344, 346, 408, 470, 535, 442, 596, 662, 777, 831, 842, 888, 1079, 1129, 1197, 1198, 1199, 1261, 1550, 1572; leading article on, 831, 888; payment for approved by Education Committee London County Council, 47, 287, 338, 596; annual report of school children, 287, 344; report of Education Committee London County Council, 408; cost of medical inspection and treatment in London, 408; health of, 596; at Woolwich, 470; at Hampstead, 535; in Edinburgh (skin diseases school), 777; at Liverpool, 842, 1198; in London generally, 1079, 1129, 1197, 1572; in Birmingham, 1261; classes for children hard of hearing, 662; correspondence on, 542, 1199; leading article on (British Medical Association Deputation), 831, 888; Mary Davies on, 1550; correspondence on, 666. *See also* SUPPLEMENT, p. 133
School children, medical treatment of (R. A. Lyster), 509
School children, ringworm in, 721
School children, vision of the London, 338
School clinic, the Bradford, 722, 843, 899, 1019
School clinic for Norwood, 662
School clinics and the Labour Party, 422
School clinics, ophthalmic, 964
School nurse's lot, 1260
School, open-air, report of the Sheffield, 960
School, skin diseases, Edinburgh School Board's, 777
Schools, disinfection of, 774
SCHRIDDE, HERM.: *Die hämatologische Technik*, rev., 1415
SCHROEDER, KNUD: *Om Aareladningens Indflydelse paa Blodets Agglutinin-holdighed*, 104
SCHUSTER, E.: Cortical lamination and localization, 21
SCHWALBE, ERNST: *Die Morphologie der Missbildungen des Menschen und der Tiere: Die Einzelmissbildungen*, rev., 1115
SCHWESINGER, THEODOR: *Untersuchungen über die Bedeutungen der Teilung bei den Körperzellen*, rev., 1416
Sciatica, "Lebenswecker" treatment of, 732
Sciatica, physico-therapy of (M. Orb), 636

Science Notes, 284, 341, 403, 520, 581, 647, 706, 764, 830, 881, 942, 1005, 1066, 1124, 1251, 1306, 1426, 1509, 1553
Archegoniate plants based upon the ontogeny, theory of the alternation of generations in (W. H. Lang), 581
Atlantic, observations on a trip across the (C. J. Patten), 647
Bacilli, enteritis group of, 882
Bacteria, Dewar's experiments on at very low pressure (Sir E. Ray Lankester), 1181
Biology, experimental methods in (Hans Przibram), 284

Science Notes (*continued*)
Blood volume, new method of determining (Abderhalden and Schmid), 1556
British Rainfall, 1556
Cancer investigations (Dr. Borrel), 464
Consciousness, origin of (Piéron), 764
Coral, the red (Professor McIntosh), 764
Crabs at Cavalière the victims of parasites, 520
Darwinism and modern Socialism (F. W. Headley), 404
Dogs, metabolism of development in the pregnant, 1426
Dogs, stories of (Coupin), 1426
Dry rot (Falck), 342
Egypt and the Sudan, irrigation of (Colonel Sir C. C. Scott-Moncrieff), 1181
Elm, varieties of in Britain (Augustus Ley), 1066
Enteritis group of bacilli, 882
Eosinophile leucocytes in the blood of Teleostean fishes (Anna Drzewina), 403
Evolution, interpretation of (W. R. Sorley), 341; origin of consciousness and, 764
Food supply, 342
Free-martin, reproductive organs of (Berry Hart), 706
Glycogen in cell nuclei (Huebschmann), 1124
Grouse disease (H. B. Fantham), 1252
Haemolysis (von Krogh), 706
House-fly (Gordon Hewitt), 520
Mendel's law (Berry Hart), 284
Mexican fly traps (Léon Diguet), 647
Milk supply, a pure (Bachi), 1006
Molluscs, marine, locomotion of (N. Colgan), 830
Monaco, Prince of, house for oceanographical collection, 881
Nutrition, McCollum's experiments on, 582
"Organized matter," 1251
Oxyhydrogen blowpipe as a cutting instrument, 1124
Polonium (Mme. Curie), 465
Quartz lamps of mercury vapour, bactericidal action of (Th. Nogier), 403
Radio-activity, detection of homogeneous beta rays by the photographic method (J. A. Gray), 1509
Rainfall in Great Britain, 1556
Rat, the black (J. L. Bonhote), 1124
Scandinavian skeletons found in the neighbourhood of Kilmainham, 520
Scotland, prehistoric man (R. W. Reid), 465
Seaweed and sewage pollution (Professor Letts), 1005
Serum anaphylaxis (Belin), 1556
Sexes, proportion of produced by whites and coloured peoples in Cuba (Walter Heape), 404
Soil exhaustion, 1306
Starlings (Dr. Kelsol), 1181
Tasmanian, aboriginal, place in Nature of (R. J. A. Berry), 830
Telegraphic transmission of pictures (Mr. Thorne-Baker), 582
Tetanus bacillus, normal habitat of (Joseph), 1005
Thermometer, discoverer of the first (Ole Römer), 284
Trichostrongylus pergracilis (Dr. Leiper), 765
Trypanosoma lewisi, transmission of by the rat flea (Minchin and Thomson), 882
World, international map of, 942

Scientific research. *See* Research
Sclerosis, disseminated (Dr. Paton), 751
Sclerosis, simulated by subacute combined degeneration of the spinal cord, 1396
Sclerosis, tuberose (J. S. Fowler), 1173
Scoliosis, congenital (Dr. Langmead), 1052
Scoliosis, exercises for, 239, 423
Scopolamine-morphine narcosis (R. Hillhouse Jamieson), 742
Scotland, special correspondence from, 43, 111, 170, 229, 286, 346, 406, 466, 537, 595, 659, 720, 776, 841, 898, 962, 1017, 1078, 1136, 1195, 1262, 1318, 1375, 1436, 1513, 1574; Royal Victoria Hospital for Consumption, Edinburgh, completion of scheme, establishment of a working colony, 43; Edinburgh Royal Infirmary, 43, 287; Edinburgh Parish Council and temporory mental disorder, 43; Carnegie Trust for the Universities of Scotland, annual report, 43; Glasgow and the notification of phthisis, 44, 170, 287, 1263; examination of nurses by the Local Government Board, 44; Sidlaw Sanatorium, 44, 468; Faculty of Physicians and Surgeons, Glasgow, 44; notification of phthisis, 44, 406; Aberdeen Royal Infirmary, 111; inter-university conference, 111; air purification in Glasgow, 111, 287, 468; Edinburgh health statistics, 111; Queen Victoria's Jubilee Institute for Nurses, 111; Children's Home Hospital, Aberfoyle, 112; treatment of phthisis in Aberdeen, 112; Scottish Cremation Society, 112; sad boating accident (death of R. M. Nicholson and R. Bell), 170; Poor Law medical officers, 170; T. S. Clouston presentation, 229; Universities of Edinburgh and St. Andrews, 229, 406, 467; Edinburgh Social Union, 230; proposed extension of the City of Glasgow, 230; Glasgow's death-rate for 1909, 230; milk supply of Glasgow, 230; drink and crime, 230; Dundee Parish Sanatorium, 230; Edinburgh and Leith Medical Practitioners'

Association, 286, 347; students' conference and the medical curriculum, 286; Royal Society of Edinburgh, 286; Glasgow Committee of Red Cross Society, 287; Glasgow Hospital Sunday Fund, 287; retirement of Dr. Peter McBride, 346; infirmary amalgamation in Glasgow, 347; Glasgow Royal Hospital for Sick Children, 347, 1318; heredity and environment, 347; street accidents in Glasgow, 347; Scottish university elections, 406, 467; treatment of consumption in Edinburgh, 406, 720, 776; cremation society formed in Edinburgh, 406; medical inspection of school children, 406, 777, 962, 1136; hospital accommodation in West Fife, 407; Aberdeen Royal Infirmary appointments, 407; proposed home for paying patients in Edinburgh, 466, 720; Scottish Poor Law Medical Officers' Association, 468; British Medical Association in Glasgow, 468; proposed free water supply for Glasgow, 469; Glasgow Maternity Hospital, 469; Morison lectures, 469; annual dinner of the Royal Medical Society, Edinburgh, 537; scheme for new infirmary at Perth adopted, 537; proposed cottage hospital for Bo'ness, 537; Dalkeith Fever Hospital, 537; causes of crime (James Devon), 537; proposed scheme for new lectures at Glasgow, 595, 720; Medical Students' Hostel in Glasgow, 595; Scottish Local Government Board, 595; Paisley medical appointment difficulty, 595; State registration of nurses, 659; the great cold in Scotland, 659; "open spaces" scheme in Edinburgh, 659; Glasgow tramways employees and their doctors, 659; Glasgow Hospital Sunday Fund, 660; cure of defective children in Glasgow, 660; Edinburgh I.M.S. dinner, 660; Odonto-Chirurgical Society of Scotland, 720; presentation portrait of John Cleland, 720; Glasgow and Cancer research, 720; diminution of infant mortality in Edinburgh, 776; Royal Edinburgh Hospital for Sick Children, 777; medical inspection of school children (Ross and Cromarty), 777; Edinburgh School Board's Skin Diseases School, 777; Glasgow Royal Infirmary Club, 777; Glasgow infirmaries and the common good, 777; Glasgow Samaritan Hospital, 778; nursing and hygiene competition, 778; presentation to Professor Ogston, 841; Egyptian exploration (Flinders Petrie), 841; extension of Glasgow Medical School, 898; recognition of a doctor's courage (Donald Macdonald), 898; Edinburgh Children's Shelter, 962; medical inspection of schools in Edinburgh, 982; milk supply of Edinburgh and the infantile mortality, 1017; the late Dr. John Smith, Edinburgh, 1078; medical teaching in Aberdeen University, 1078; labour colonies, 1079; Edinburgh post-graduation vacation course in medicine, 1136, 1262; National Association for Prevention of Consumption, 1136; completion of Glasgow's drainage scheme, 1136, 1263; rescue work in mines (J. S. Haldane), 1137; annual report of Registrar-General, 1137; medical teaching in Edinburgh University, 1195; additional medical inspector under Local Government Board, 1196; Edinburgh Harveian Festival, 1196; voluntary aid scheme in Scotland, 1196; women students' petition to Glasgow University, 1262; Glasgow University Court and the medical curriculum, 1262; Glasgow weather during 1909, 1262; purification works at Giffnock, Glasgow, 1263; rag flock as bedding, 1263; purification of the river Clyde, 1263; vagrancy in Scotland, 1263; Glasgow Practitioners' Widows and Orphans Fund, 1318; Broomhill Home, Glasgow, 1318; Edinburgh Royal Infirmary Residents' Club, 1318; proposed Zoological Garden for Edinburgh, 1375; Professor Schäfer at Berne, 1375; Students' Hostel, Western Infirmary, Glasgow, 1375; National Association for Prevention of Consumption, 1436; medicine and Public Health in the Highlands, 1436; Sir James Crichton-Browne, 1436; Sir Hector C. Cameron, 1513; colony for sane epileptics, 1513; Caird Cancer Research Laboratory, 1514; Glasgow infant health visitors, 1514; health of Edinburgh, 1574

Scotland, prehistoric man in (R. W. Reid), 465

Scotland, notification of pulmonary phthisis in, question in Parliament, 1508

SCOTT, SYDNEY, a disclaimer, 484

SCOTT-MONCRIEFF, Colonel Sir C. C.: Irrigation of Egypt and the Sudan, 1181

Scrotum, haematoma of (Dr. Stirling), 751

Seamen, habits of, 1580

Seamen's Hospital Society. *See* Hospital, Seamen's

Sea-sickness, 424, 573; (Dr. Bushby), 573

Seaweed and sewage pollution (Professor Letts), 1005

Secondi, yellow fever at, 1339, 1434. *See also* West Africa

Secret remedies and proprietary preparations, composition of, 29, 86, 151, 213, 393, 761, 1005, 1063, 1120, 1130, 1189, 1239. *Combinations of malt extract*, 29, 86; virol, 29; miol, 29; cremalto, 30; maltico, 30; ovaltine, 30; bynol, 30; bynin emulsion of cod liver oil with hypophosphites, 30; Trommer's malt extract and cod liver oil, 30; standard malt extract and cod liver oil, 30; diamalt with cod liver oil, 30; maltine with cod liver oil, 30; Kepler solution of cod liver oil in malt extract, 30; malted foods, 86. *Preparations for the hair*, 151; tatcho, 151; Edwards' harlene, 151; koko, 151; Lockyer's sulphur hair restorer, 151; Mexican hair renewer, 152; vilixir, 152; W. Seeger's hair dye, 152; shadeine, 152; juvenia, 153. *Variable composition of secret remedies*, 213; Dr. Williams's pink pills, 213. *Bath salts for rheumatism*, 393; ozonia, 393; anturic bath salts, 393; rheumsol bath salts, 393; dealin powder, 761; Hochfelder pitch plaster, 761; Dr. Richter's orudon essence, 762; J. Völlner's world-renowned rheumatism cotton wool, 762; epocol, 762; limosan, 762; oxygar, 762; Victoria asthma drops, 762; automors, 762; "Korpusdoon," 1005. *Tremol treatment*, 1063; Tremol blood mixture, 1064; Tremol lotion, 1064; Tremol ointment, 1064. "*Crimson Cross remedies*," 1120; Crimson Cross No. 1 ointment (Captain Feilden's), 1121; Crimson Cross special ointment, 1121; Crimson Cross kidney cure, 1121; Crimson Cross fever and influenza powder, 1121. *Breakfast and general foods*, 1239; emprote, 1239; Eustace Miles breakfast food, 1239; grape nuts, 1240; avenola, 1240; H.O., 1240; hygiama, 1240; stamina food, 1240; Chapman's food, 1240; Cheltine food, 1240; Dr. Allinson's natural food, 1241; Dubarry's Revalenta Arabica food, 1241; Gluten meal, 1241; Winter's prunus perfect food, 1241; roborat, 1241; nut bromose, 1241; granose, 1242

Secret remedies, note on, 40, 161, 339, 403, 1130, 1189; the pretence and the reality, 40; variable dosage of, 161; formulae of, 339, 403; Dr. Bachem's analyses, 1189

SECRETAN, W. BERNARD: Case of gluteal aneurysm, 800

Sedgefield Rural District, report of M.O.H., 1581

Seegar's hair dyes, composition of, 152

Self-suggestion as a healing factor, 1575

SELIGMANN, C. G.: Oöphorectomy and the growth of the pelvis, 203; cartilaginous and osseous tumours, 507

SEMON, H. C. G.: Pancreatic reaction, 202

SENATOR, Professor, retirement of, 845

Sensory prodromes of epilepsy. *See* Epilepsy

Septum, deflection of (Dr. Pegler), 932

Sero-therapy, human, 410, 848

SERRATOSA, A., death of, 551

SERSIRON, (Dr.: *Clinique Hydrologique*, rev., 452

Serum anaphylaxis, hereditary (Belin), 1556

Serum, antidiphtherial, in treatment of infective endocarditis (W. Russell Judd), 14

Serum, antimeningitis, 1505

Serum diagnosis of syphilis (H. R. Dean), 506; (P. W. Bassett-Smith), 632; (Dr. Loveday), 993; (M. Perges), 1016; (August Brauer), 1259

Serum reaction in syphilis (leading article), 278

Serum reaction in syphilis, effect of mercury on, 1259

Serum-therapy in cholera, 588

Serum treatment of gastric and duodenal ulcer, 360

Serums in treatment of general paralysis (E. R. Gave), 1233

Serums and vaccines in treatment of disease (Thurstan Holland), 811; (Nathan Raw), 811, 1538

SERVETUS, MICHAEL, 1011; statue to, 1011

Services, the. *See* Navy, Royal, *and* Army, British

Sewage purification works for Glasgow, 1263

Sewage and seaweed (Professor Letts), 1005

SEWILL, HENRY: London police and quacks, 1084

Sex, causation of, 1024, 1272, 1452

Sex and Mendelism. *See* Mendelism

Sexes, proportion of produced by whites and coloured peoples in Cuba (Walter Heape), 404

Shadeine, composition of, 152

Shakespeare, William, and Timothy Bright (Matthias Levy), 333

Shakespeare and the suffragettes, 393

Share, sale of, 969, 1088, 1207

SHARP, ALEX. D.: Audible tinnitus, 19; oedematous laryngitis, 1232

SHARP, ARTHUR JOHN, obituary notice of, 1582

SHARP, SAMUEL, and bugs in hospital beds, 1061

SHATTOCK, SAMUEL G.: *Appendix XXII and Appendix XXIII to the Second Edition of the Descriptive Catalogue of the Pathological Specimens contained in the Museum of the Royal College of Surgeons of England*, rev., 144; oöphorectomy and the growth of the pelvis, 203; cartilaginous and osseous tumours, 507; amyloid degeneration in a hepatic adenoma, 695

Shaving, clean, 45

SHAW, CECIL: Epithelioma of the cornea, 444; results of chronic iritis, 1173

SHAW, E. H.: Report on an intraneural cyst of the eighth cervical nerve, 1286

SHAW, J. VINCENT: Puerperal eclampsia, recovery, 1411

SHAW, LAURISTON E.: Annual Meeting in London, 1516; auscultatory percussion, 1518

SHAW, R. HILL: "On sale or return," 849

SHAW, T. CLAYE: Prison doctors and the Home Office, 174; considerations on the occult, 1472

SHAW, W. FLETCHER: Uterine fibroid which had undergone red degeneration, 265; eclampsia, 1175

SHEEN, WILLIAM: Medical service of the Territorial Force, 1086

Sheffield, special correspondence from, 960; the open-air school, 960; the British Association, 961

Shellfish and the purification of Belfast Lough, 169

SHELLY, C. E., elected Fellow of Royal Sanitary Institute, 1331

SHENTON, EDWARD W. H.: Auscultatory percussion, 1579

SHERIDAN, ALFRED, awarded medal of the Royal Humane Society, 286

SHERREN, JAMES: Some points in the treatment of nerve injuries, 130

SHERRINGTON, Professor: Appreciation of William Page May, 298

SHIPLEY, Dr.: Gross parasites and bacterial disease, 42

Ship surgeons, 1257

SHIRCORE, J. O.: Goundou, 503

Shock, value of strychnine in, 1204

SHORT, A. RENDLE: Action of cutaneous anaesthetics, 560

Siam, plague in, 959

Siamese link, 1332

Siamese-Malay Peninsula (Edmund Forbes), 650

Sick clubs. *See* Club

Sickness Insurance. *See* Insurance.

Sidebotham, G. W., obituary notice of, 1090

Sidlaw Sanatorium. *See* Sanatorium

SIEMENS BROTHERS: Woolwich and Dalston Works, 1331

Sight tests, Board of Trade (A. Rudolf Galloway), 915. *See also* Colour vision

Sigmoid and caecum diseases simulating affections of the uterus and adnexa (J. M. Munro Kerr), 638

SIMON, Dr.: *Clinique Hydrologique*, rev., 452

SIMPSON, GRAHAM: Perinephric abscess, 754; vesical calculus, 754; tumour of kidney, 754

SIMPSON, J. W.: Results of thyroid treatment in infantile wasting, 1049

"Singing doctors," 590, 911

SINKLER, WHARTON, death of, 911

Sinus, lateral, thrombosis of (O. Gogarty), 873

SKALLER: Excessive smoking and gastric secretion, 460

SKERRETT, F. B.: Bacteria and disease, 477

Skiagraphy, review of books on, 575

Skibbereen union, medical officer to, 286, 595, 660, 961, 1135, 1437

Skin, action of radium on (J. O. Wakelin Barratt), 991

Skin, bronzing of (J. Magee Finny), 931

Skin diseases simulating syphilis (P. S. Abraham), 796

Skin of operation areas, sterilization of (J. Lionel Stretton), 1350

Skin, preparation of for operation by means of dichloride of ethylene and iodine (Arthur J. Wallace), 1288

SKINNER, WILLIAM, obituary notice of, 481

SKIRVING, SCOT: Use of sterilized oil in peritoneal cavity, 20

Skull, depressed fracture of in an infant one day old, trephining, recovery (J. W. Bride), 261

Skull, depression of in newborn infant, treatment of (W. A. Cossham), 1050

Skyscraper hospital. *See* Hospital

Slaughterhouses, public, 1437

Sleep, headache after, 484, 552

Sleeping sickness, in Uganda, 226; the Colonial vote and, 657; in the Congo, 775

Sleeping sickness, Belgian mission to the Congo, 349; Belgian Government gives £40,000 to help investigate, 1026

Sleeping Sickness Bureau, *Skeleton Maps of Tropical Africa, showing the distribution of Tsetse Flies and Sleeping Sickness*, rev., 451; *How to Avoid Infection*, rev., 1553; receives donation of £500 from Agent-General for the Transvaal, 1353

Sleeping sickness, case of, showing regular periodical increase of the parasites disclosed (Ronald Ross and David Thomson), 1544

Sleeping sickness, review of books on, 84, 451

Sleeping sickness, treatment of (R. Van Someren), 195. *See also* Trypanosomiasis

SLEMAN, REGINALD: Pay in camp, 479

SLOANE, Sir HANS, miserliness of, 830

Small-pox, at Heywood, 289; outbreak at Sydney, 1321

Small-pox (Percy Kirkpatrick), 1017

Small-pox and quarantine in Australia, 1579

Small-pox and vaccination in Germany, 589

SMEDLEY, IDA, awarded Beit Memorial Fellowship, 594

Smells of Bradford. *See* Bradford

SMITH, ANDREW H., death of, 1525

SMITH, BELLINGHAM: Amaurotic family idiocy, 1356

SMITH, E. ARCHIBALD: Circular or end-to-end suturing of arteries, 1407

SMITH, EUSTACE: *Some Common Remedies and their Use in Practice*, rev., 513

SMITH, FRED. J.: An appeal to Masons, 672; gastric and duodenal ulcer, 673
SMITH, G. ELLIOT: Circumcision in ancient Egypt, 294; on Douglas Derry's excavation of human remains in ancient Nubia, 394; the oldest Egyptian mummy, 1369
SMITH, JOHN, obituary notice of, 1027; funeral of, 1078
SMITH, J. BARKER: Surgical treatment of glycosuria, 1520
SMITH, LEWIS: Proposed medical branch of the Navy League, 116
SMITH, MARGARET MERRY: Pemphigus neonatorum occurring in the practice of a midwife, 198; admission of medical women to the staffs of general hospitals, 1020
SMITH, MAYNARD: Case of abdomino-perineal excision of rectum combined with hysterectomy, 81; congenital oedema of leg, 571; obliterative endaneurismorrhaphy (Matas's operation) for popliteal aneurysm, 695
SMITH, R. PERCY: Proposed medical branch of the Navy League, 116
SMITH, TRAVERS: Acute leukaemia, 636
Smith Turner Scholarship in Dental Mechanics, 246
SMITH, W.: Model rules for a public medical service, a criticism of its main principle, 1143
Smoking, excessive, and gastric secretion, 460
Snakebite, permanganate treatment of, 1438
Soamin in treatment of a case presenting the early symptoms of general paralysis (R. Prichard), 192
Soamin, intravenous injection of, in cerebro-meningitis (T. Arnold Johnston), 193
Soamin in virulent syphilis (Thos. D. Halahan), 504
Social Welfare Association. *See* Association
Society of Apothecaries. *See* Apothecaries
Society of Apothecaries Bill. *See* Bill
Society, Cambridge Graduates' Medical, 1140
Society, Charity Organization, annual conference at Leeds, 1478
Society, Child Study, 362, 1211, 1271, 1347; lectures and discussion, 362; annual conference, 1211, 1271, 1347
Society, Church Missionary, 1182; annual meeting of Medical Mission Auxiliary, 1182
Society, Clinical, Chelsea, 671; annual dinner, 671
Society, Clinical, Newcastle-upon-Tyne, 46, 231; banquet, 46; physiology, pathology, psychology of the menopause (Sir Halliday Croom), 231
Society, Cremation, of England, 761; annual meeting, 761
Society, Cremation, New South Wales. 290
Society, Cremation, Scottish, 112, 406; in Edinburgh, 406. *See also* Cremation
Society, Crippled Children's Help, 1198; annual meeting, 1198
Society, Eugenics Education, 1554; necessity for a national eugenic survey of school children (J. F. Tocher), 1554
Society, Gynaecological, American, *Transactions*, rev., 1297
Society, Harveian, 383, 573, 636, 992, 1175; hereditary ataxia (George Ogilvie), 383; tabes (George Ogilvie), 383; bulbar polioencephalitis (Leonard Guthrie), 383; paralysis of the serratus magnus (Campbell Thomson), 383; cerebral tumour (Campbell Thomson), 383; infantile hemiplegia (Dr. Griffiths for Dr. Harris), 383; case of tabes with Charcot's disease of the knee (Dr. Griffiths for Dr. Johnson), 383; some points in middle-ear suppuration, its sequelae and treatment (Gay French), 573; pubiotomy in contracted pelvis (G. F. Blacker), 636; the climacteric (Leonard Williams), 992; treatment of indigestion (E. L. Spriggs), 992; cases shown at the Paddington Infirmary (Maurice Squire), 1175
Society, Hunterian, 509; annual dinner, 509
Society, Illuminating Engineering, 162, 459, 1331; glareless illumination, 162, 459; report, 1331
Society, Ladies' Public Health, 407; annual meeting, 407
Society, Laundry Engineers', 442; proposes to hold exhibition, 442
Society, Manchester Hospital Work, 407; annual meeting, 407
Society, Manchester Provident and Charity Organization, 407; annual report, 407
Society, Medical Benevolent, Birmingham, 1376; eighty-eighth annual meeting, 1376
Society, Medical, Birkenhead, 167; annual dinner, 167
Society, Medical, Budapest, 115; bad financial condition of, 115
Society, Medical, Cambridge, 911; formation, 911
Society, Medical Golfing, 1211, 1427; 1910 tournament, 1211, 1427; results, 1427
Society, Medical, of London, 141, 264, 445, 569, 696, 731, 931, 1111, 1232, 1291; chronic malignant endocarditis (F. Parkes Weber), 141; malignant eudocarditis (Porter Parkinson), 141; hypernephroma (Leonard Guthrie and W. d'Este Emery), 141; honeycomb lung (W. d'Este Emery and Dr. Langmead), 141; chronic leukaemia (F. Parkes Weber), 264; functional abdominal disease (F. Parkes Weber), 264; cases of syringomyelia (Sir John Broadbent, Wilfred Harris and Willmott Evans), 264; cretinism and psoriasis (F. J. Poynton), 264; paralysis of the spinal accessory nerve after removal the cervical glands (T. H. Openshaw), 264; carcinoma of the pelvic colon (Warren Low), 264; paresis of the left cervical sympathetic (Dr. Guthrie and Mr. Edmunds), 264; improved direct vision laryngoscope (W. Hill), 264; curettage (Victor Bonney), 445; atypical pneumonia (Sir John Broadbent), 569; protracted pyrexia in pneumonia in children (Reginald Miller), 569; colitis (H. P. Hawkins), 696; 137th anniversary dinner, 731; bone grafting (A. E. Barker), 931; instrument for graphic records (H. Tyrrell Gray and L. G. Parsons), 931; dislocation of foot (Douglas Drew), 931; exhibits, 931, 1232; gastroptosis (F. S. Eve), 1111; *Ankylostoma duodenale* (F. M. Sandwith), 1232; annual oration: internal injuries, abdominal (W. H. Battle), 1291
Society, Medical, Manchester, 993; surgery of the faucial tonsils (Dr. Milligan), 993; serum diagnosis of syphilis (Dr. Loveday), 993; cruro-genital eczema (G. H. Lancashire), 993
Society, Medical, Northumberland and Durham, 447, 720; streptothrix infection (Stuart Macdonald), 447; delayed chloroform poisoning (Stuart Macdonald), 447; aortic aneurysm (Sir Thomas Oliver), 447; acute yellow atrophy of liver (T. Beattie), 447; fibroma of the sciatic nerve (H. B. Angus), 447; ovarian cysts (J. Clay), 447; rupture of pylorus (Hamilton Drummond), 447; rodent ulcer (T. Gowans), 447; double uterus (Ranken Lyle), 447; acute inflammation of a Meckel's diverticulum with a large enterolith *in situ* (A. M. Martin), 447; two cases of pedunculated fibroid (Rutherford Morison), 447; visit of and lecture by C. B. Lockwood, 720
Society of Medical Officers of Health, 509, 753, 851, 932, 991; medical treatment of school children (R. A. Lyster), 509; disinfectants (T. W. N. Barlow), 753; resolution *re* quinquennial census, 851; election of president, 932; medical relief (C. S. Loch), 991
Society, Medical, Oxford, 753, 1354; the gastroscope (H. S. Souttar), 753; three cases of general paralysis of the insane in women (Dr. Good), 1354; two cretins (Greenwood Penny), 1354; case of dementia (Woolfe Read), 1354; alcoholic insanity (Dr. Good), 1354
Society, Medical, Partick, 790; close of winter session, 790
Society of Medical Phonographers, 1348; offers prize to medical students, 1348
Society, Medical Sickness, Annuity, and Life Assurance, 31, 359, 604, 911, 1088, 1266, 1300, 1381, 1430, 1439, 1505, 1522, 1576; monthly meeting, 31, 359, 604, 911, 1088; correspondence on, 1266, 1381, 1430, 1439, 1522, 1576; twenty-seventh annual general meeting, 1300; chairman's address, 1300; alteration of rule, 1300; election of officers, 1300; vote of thanks to chairman, 1300; leading article on, 1430; note on, 1503
Society, Medical, South-West London, 445; cerebellar tumour (Campbell Thomson), 445; locomotor ataxia of bulbar type (Campbell Thomson), 445; extensive carcinoma of right breast (Sampson Handley), 445; chronic deafness (E. A. Peters), 445; child with ozaena (E. A. Peters), 445; case of abdominal injury (T. M. G. Swainson), 445; case of facial paralysis (Dr. Laking), 445
Society, Medical, Ulster, 574, 1053, 1550; coxa vara (J. Singleton Darling), 574; tuberculous kidney (Mr. Fullerton), 574; mental fatigue (Professor Milroy), 1053; oxygen capacity of the blood (J. A. Milroy), 1053; carbon monoxide poisoning (W. J. Wilson), 1053; skiagrams of the development of teeth of various apes (Professor Symington), 1053; exhibits and demonstrations, 1053; annual meeting, 1550; election of officers, 1550; discussion on certain obstetrical conditions, 1550
Society, Medical, United Services, 638, 813, 1293; the management of venereal disease at Woolwich (Lieut.-Col. J. B. Wilson), 638; mercurial injections (Staff Surgeon H. C. Adams), 813; clinical meeting, 1293; exhibits, 1293; disseminated sclerosis (Major W. S. Harrison), 1293; primary spastic paraplegia (Major W. S. Harrison), 1293; acholuric icterus (Lieutenant G. H. Dive), 1293
Society, Medico-Chirurgical, Bradford, 45, 755, 873, 1139, 1233, 1293; and the Association, 45; treatment of fractures (T. Jason Wood), 755; some remarks on genius (J. H. Rowe), 755; action of hypnotics (Dr. Campbell), 873; special general meeting, 1139; tuberculous arthritis (Dr. Mitchell), 1233; intestinal obstruction (Basil Hall), 1233; oral sepsis from a dentist's point of view (T. Wilton Thew), 1293
Society, Medico-Chirurgical, Bristol, 321; infection of the urinary tract (J. R. Charles), 321; jejunal ulceration (C. F. Walters), 321; tumours of bilateral origin (Roger Williams), 321
Society, Medico-Chirurgical, Edinburgh, 20, 140, 381, 633, 1173, 1355, 1412; post-parturient paralysis (Archibald M'Kendrick), 20; four cases of primary furunculosis in children (Dingwall Fordyce), 20; traumatic hysteria (E. Bramwell), 20; hypertrophic osteo-arthropathy (W. Russell), 20; tabes (Byrom Bramwell), 20; clonic muscular contractures (Byrom Bramwell), 20; lupus erythematosus (Norman Walker), 20; severe diabetes mellitus (Dr. Boyd), 20; gangrenous appendicitis (F. M. Caird), 20; dislocation of radius and ulna (F. M. Caird), 20; inoperable sarcoma of neck (J. M. Cotterill), 20; dislocation of first cervical vertebra (J. M. Cotterill), 20; sterilized oil in peritoneal cavity (J. M. Cotterill and Scot Skirving), 20; osteomyelitis fibrosa (Alexis Thomson), 20; pistol-shot wound of abdomen (Alexis Thomson), 20; achondroplasia (C. W. Cathcart), 20; fracture of lower dorsal spine (D. Wallace), 20; retrovesical tumour (H. J. Stiles), 20; septic meningitis (Logan Turner), 20; ventral hernia (J. W. Dowden), 20; fracture of glenoid fossa of scapula (J. W. Struthers), 20; syphilis and marriage (C. W. MacGillivray), 140; phthisis and arylarsonates (Dr. Lundie and R. H. Blackie), 141; cremation (W. G. Aitchison-Robertson), 141; gout and the thyroid gland (Chalmers Watson), 381; prostatism (David Wallace), 381; blood pressure in anaesthesia (William Guy, A. Goodall, and H. S. Reid), 381; the place of athletics in an educational system (Burn Murdoch), 633; lactic acid bacilli (Chalmers Watson), 1173; tuberose sclerosis (J. S. Fowler), 1173; passive hyperaemia in gonorrhoea (Alexander Miles), 1173; Ménière's disease with facial paralysis (A. Bruce and J. S. Fraser), 1174; suppurative otitis media (J. S. Fraser) 1355; frontal sinus suppuration (J. S. Fraser), 1355; radium treatment in rodent ulcer (Dawson Turner), 1355; port-wine naevus (Cranston Low, for Norman Walker), 1355; spring catarrh (George MacKay), 1355; leukaemia (Lovell Gulland), 1355; diabetes mellitus (R. W. Philip), 1355; ischaemic paralysis (A. Bruce), 1355; hydrocephalus (A. Bruce), 1355; claudication of the arteries (Byrom Bramwell), 1355; multiple chondromata (Professor Caird), 1355; appendicostomy in severe colitis (Professor Caird), 1355; excision of one half of tongue (Professor Caird), 1355; arterio-venous aneurysm (Mr. Cotterill), 1355; decompression of brain for suspected brain tumour (Mr. Cotterill), 1355; transperitoneal ureterotomy (Alexis Thomson), 1355; facial paralysis (Alexis Thomson), 1355; catarrhal appendicitis (C. W. Cathcart), 1355; very severe cut throat (C. W. Cathcart), 1355; spindle-celled sarcoma (Mr. Struthers), 1355; nephrectomy for sarcoma (D. Wallace), 1355; acute osteomyelitis (Mr. Miles), 1355; massage of heart (Mr. Miles), 1355; chronic osteomyelitis (G. Chiene), 1355; artificially-prepared hypnotics (F. D. Boyd), 1412; treatment of lupus carcinoma (Norman Walker), 1412; Cammidge reaction in abdominal disease (W. Russell), 1413
Society, Medico-Chirurgical, Glasgow, 382, 572, 638, 755, 875, 1112; certain changes in the composition of the urine (Noel Paton), 382; gastric carcinoma (Archibald Harrington), 383; tuberculosis of urinary system (James Miller), 572; tuberculous glands in neck (James Miller), 572; gonococcus infections (James Miller), 572; gonorrhoeal arthritis (W. R. Jack), 573; sarcoma of stomach (A. Ernest Maylard), 638; disease of the sigmoid and caecum simulating affections of the uterus and adnexa (J. M. Munro Kerr), 638; use of the polygraph in cardiac disease (J. S. McKendrick), 638; syringomyelia (T. K. Munro), 755; angioneurotic oedema (T. K. Munro), 755; tabid arthropathy (T. K. Munro), 755; progressive muscular atrophy complicated with herpes zoster (T. K. Munro), 755; cerebral diplegia (T. K. Munro), 755; dissociated anaesthesia (T. K. Munro and John Guy), 755; intracranial tumour (Robert Kennedy), 755; traumatic paralysis (Robert Kennedy), 755; Gasserian ganglion removed by the transzygomatic route (Robert Kennedy), 755; pseudo-bulbar paralysis (W. K. Hunter), 755; case of Friedreich's disease (W. K. Hunter), 755; brain showing subcortical haemorrhage (W. K. Hunter), 755; amnesia verbalis (W. K. Hunter), 755; acromegaly (John M. Cowan), 755; hemiplegia with sensory disturbance and hemianopsia (John M. Cowan and Dr. Ballantyne), 755; paralysis of the thenar muscles (Arch. G. Hay), 755; tuberculous meningitis (Alex. MacLennan), 755; Charcot's disease of knee-joints (A. W. Harrington), 755; extensive peripheral neuritis (A. W. Harrington and Dr. Teacher), 755; cerebral tumours (Dr. Muir), 755; cerebral softening (Dr. Muir), 755; cerebral abscess (Henry Rutherfurd), 755; cerebral tumour (Henry Rutherfurd and Dr. Teacher), 755; hydrocephalic head (Henry Rutherfurd and Mr. Battersby), 755; thrombosis of the longitudinal and lateral sinuses (J. H. Pringle and Dr. Teacher), 755; cortical cerebral lesion (John H. Teacher), 755; use of the cystoscope (J. M. Renton), 875; closure of the cerebral arteries (George A. Allan), 875; stenosis of pylorus (Jas. H. Nicoll), 1112; pulsus bigeminus (W. T. Ritchie and J. M. Cowan), 1112; foreign body

in the interior of the eye (A. J. Ballantyne), 1112
Society, Medico-Chirurgical, Leeds and West Riding, 19, 320, 508, 754, 874, 993, 1232 1354; chronic glaucoma (Secker Walker), 19; traumatic neurasthenia (Wardrop Griffith), 19; gastro-enterostomy (H. Littlewood), 19; audible tinnitus (Alex. D. Sharp), 19; hypertrophy of tracheal mucous membrane (A. Bronner), 19; ectopic gestation (C. Oldfield), 19; rupture of choroid (Michael Teale), 19; nodular myositis (Maxwell Telling), 19; cases (W. Thompson), 19; cases (B. G. A. Moynihan), 19; use of the cystoscope (J. F. Dobson), 320; abdominal effusions (O. C. Gruner), 320; oxygenated and warmed ether as a general anaesthetic (S. T. Rowling), 320; epilepsy (E. F. Trevelyan), 320; sarcocele (Basil Hall), 321; fibrolipoma of pharynx (Basil Hall), 321; hatpin three inches long removed through a low tracheotomy opening (Basil Hall), 321; tumour of lower sacral cord (F. W. Eurich), 321; cases and specimens, 321; gonorrhoea and gonorrhoeal specimens (H. Littlewood), 508; iso-haemolysis in malignant disease (H. Upcott), 754; malignant disease of the cervix uteri, treated by Wertheim's hysterectomy, with resection of one ureter (W. Gough), 754; tabes (E. F. Trevelyan), 754; habit spasm (E. F. Trevelyan), 754; primary epithelioma of vagina (E. O. Croft), 754; carcinoma of cervix uteri (C. Oldfield), 754; *x*-ray demonstration of an extra-cerebellar tumour (T. Churton), 755; irreducible intussusception (H. J. Roper), 755; upper jaws removed for epithelioma (Lawford Knaggs), 755; myopia with progressive choroiditis and detachment of the retina (A. L. Whitehead), 755; adeno-carcinoma corporis uteri (J. B. Hellier), 755; strangulated hernia with partially descended testis (J. Stuart), 755; Bazin's disease (Maxwell Telling), 755; cases and specimens, 755, 874; action of radium (A. S. Grünbaum and Helen G. Grünbaum), 874; ferric chloride reaction (J. F. Gaskell), 874; lymphatic leukaemia (E. F. Trevelyan), 993; tonic spasm in the hands (E F. Trevelyan and Dr. Allan), 993; double glaucoma (Constable Hayes), 993; leucocythaemia (T. Wardrop Griffith and J. B. Hellier), 994; colloidal carcinoma of gall bladder (B. G. A. Moynihan), 994; pyosalpinx (C. Oldfield), 994; hypopyon ulcer of cornea (A. Bronner), 994; fibrosis uteri (E. O. Croft), 994; squamous epithelioma (E. O. Croft), 994; thoracic deformity (C. P. Anning) 994); peridiverticulitis (H. Littlewood), 1232; malignant disease of upper part of common bile duct (H. Littlewood), 1232; chronic sprue (A. G. Barrs), 1232; chronic otorrhoea (A. L. Whitehead), 1232; dry gangrene of arm (Lawford Knaggs), 1232; precordial thoracostomy (Wardrop Griffith), 1232; secondary syphilis (Constable Hayes), 1232; oedematous laryngitis (Alex. D. Sharp), 1232; hydronephrosis (H. H. Greenwood), 1232; unilateral exophthalmos (Maxwell Telling), 1232; oral sepsis (Maxwell Telling), 1232; two cases of asthma (Dr. Bronner), 1232; congenital talipes (Robert Beattie), 1354; prescribing and wearing glasses (Michael Teale), 1354; "red degeneration" (E. O. Croft), 1354; orbicularis oculi (T. Churton), 1354; appendix containing gunshot (H. Littlewood), 1354; specimen from nephrectomy (B. G. A. Moynihan), 1354; ovary and twisted Fallopian tube (H. Collinson), 1355; hour-glass gall bladder (L. R. Braithwaite), 1355
Society, Medico-Chirurgical, Nottingham, 19, 141, 323, 508, 755, 812, 1052; milk, sweet and sour (C. H. Cattle), 19; surgical odds and ends (Kenneth Black), 141; submucous resection of the nasal septum (H. B. Tawse), 323; bacterial disturbances of digestion and the consequences thereof (William Tibbles), 508; cerebellar disease (Dr. Mackie), 755; carcinomatous growth blocking the nasal cavity (Mr. Willis and Mr. Tawse), 755; naevus with a peculiar distribution along the right intercostal nerves (Dr. Jacob), 755; *x* rays in a case of aneurysm of ascending aorta, 755; sarcoma of both suprarenal glands (Dr. Jacob), 755; meningitis (Dr. Jacob), 755; cases, 755; exhibits, 1053; gastric and duodenal ulcers (Stanley Green), 812; craniotomy (G. A. Robinson), 1052
Society, Medico-Chirurgical, Sheffield, 82, 573, 753, 874, 1111; piece of steel in the vitreous (G. H. Pooley), 82; penetrating wound of cornea (G. H. Pooley), 82; case of senile cataract showing Hess's method of simple extraction (G. H. Pooley), 82; severe crushing of foot treated by continuous baths (F. J. Sadler), 82; severe crush of the calf with fracture of the fibula (F. J. Sadler), 82; cerebral injuries (A. Cuff), 82; cancer of large intestine (Sinclair White), 573; rhinoplasty (Sinclair White), 573; syphilis serum reaction (J. M. Beattie and A. E. Barnes), 573; pathological specimens (J. Moir Mathieson), 573; alopecia areata (A. C. Turner), 573; medico-legal aspects of death from asphyxia (Harvey Littlejohn), 753; perinephric abscess (Graham Simpson), 754; tumour of kidney (Graham Simpson), 754; vesical calculus (Graham Simpson), 754; uterus containing a papillary carcinoma of the corpus (Miles H. Phillips), 754; uterus bearing a large submucous fibroid (Miles H. Phillips), 754; subacute metritis and double pyosalpinx (Miles H. Phillips), 754; intracranial tumours (Arthur Hall), 874; Erb's palsy (H. Henry), 1111; fracture of cervical spine (H. Henry), 1111; muscular dystrophy (H. Henry), 1111; ethmoiditis (W. S. Kerr), 1111; pansinusitis (W. S. Kerr), 1111; mastoiditis (W. S. Kerr), 1111; thrombosis of lateral sinus (W. S. Kerr), 1111; perceptive deafness (W. S. Kerr), 1111; abnormalities of the eye (G. H. Pooley), 1111; spleno-medullary leukaemia (A. G. Yates), 1112; lichen pilaris (A. G. Yates), 1112; myoclonus (A. G. Yates), 1112; Barany's labyrinthine tests (George Wilkinson), 1112
Society, Medico-Chirurgical, West London, 264, 483, 572, 752, 992, 1354, 1548; vote of condolence on the death of Charles Bell Keetley, 264; case of tabes dorsalis (Seymour Taylor), 264; case of juvenile rheumatoid arthritis (J. A. Coutts), 264; case of diabetes in a girl of 14 (E. A. Saunders), 264; case of recurrent carcinoma (F. Palmer), 264; case of tabes dorsalis (F. Palmer), 264; case of mycosis fungoides (P. Abraham), 264; annual dinner, 483; retroperitoneal myxo-fibro-lipoma (McAdam Eccles), 572; tumour of submaxillary gland (T. B. Layton), 572; embryoma of testis (T. B. Layton), 572; microscopic section from nodules in the skin (T. McDonagh), 572; specimen of eye removed on account of injury (N. Bishop Harman), 572; hair from an "albino" negro (N. Bishop Harman), 572; specimen of carcinoma of rectum (L. A. Bidwell), 572; large number of gall stones removed from a man of 43 (L. A. Bidwell), 572; large number of specimens (Dr. Bernstein), 572; treatment of brain tumours (Donald Armour), 752; congenital dislocation of hip (Laming Evans), 992; traumatic dislocation of knee (D. C. L. Fitzwilliams), 992; "infective" osteo-arthritis (McAdam Eccles), 992; traumatic epilepsy (Fredk. S. Palmer), 992; fracture dislocation of shoulder (Aslett Baldwin), 992; myosarcoma (Cecil H. Leaf), 993; cauterization in cancer of tongue (Cecil H. Leaf), 993; scarlet fever (F. G. Crookshank), 1354; Wassermann reaction (N. Bishop Harman), 1548; haemorrhagic pancreatitis (A. Elliot), 1548
Society, Medico-Legal, 268, 1066, 1307; *Transactions*, vol. vi. rev., 268; responsibilities of hospital authorities (Ross Brown), 1066; Poor Law policy and medical reform (Major Greenwood), 1307
Society, Meteorological, Scottish, 659; the great cold in Scotland (Ralph Richardson), 659
Society, Natural History and Philosophical, Belfast, 583; "sidelights on Bible history with personal reminiscences from Palestine and Egypt" (K. T. Frost), 583; John Grattan, 583
Society, Obstetrical, Edinburgh, 201, 445, 692, 1292, 1297, 1511; discussion on the rational puerperium, 201; ovarian epilepsy (H. S. Davidson), 202; treatment of uterine displacements (E. Scott Carmichael), 445; perineal repairs (J. W. Keay), 446; specimens, 446, 693; removal of uterus in certain diseased conditions of the adnexa (J. M. Munro Kerr), 692; uterus bicornis (B. P. Watson), 693; antenatal lobar pneumonia (Alexander Don), 693; suprapubic fascial incisions (Professor Kynoch), 1292; infection of urinary tract (Napier Burnet), 1292; *Transactions*, rev., 1297; vomiting after anaesthesia (J. W. Keay), 1511; life-history of fibroids (F. W. N. Haultain), 1511; pelvic abscess (Lamond Lackie), 1511
Society, Obstetrical and Gynaecological, North of England, 264, 638, 812, 994, 1175; election of officers, 264; solid ovarian tumour (R. Favell), 264; ruptured cornual pregnancy (W. E. Fothergill), 264; hypertrophied uterus (W. E. Fothergill), 264; uretero-vesico-vaginal fistula (Dr. Grimsdale), 264; uterine fibroid which had undergone red degeneration (W. Fletcher Shaw), 265; bicornute uterus (Blair Bell), 265; fetal deformities (A. Stookes), 265; solid ovarian tumours (J. E. Garner), 638; necrotic submucous fibroid (J. H. Willett), 639; rupture of a uterine fibroid (R. M. Littler), 639; pregnancy complicated by acute intestinal obstruction (J. E. Gemmell), 639; pregnancy at seven months complicated by appendicitis (J. E. Gemmell), 639; ovarian cystic teratoma (A. Cuff), 639; three solid ovarian tumours (A. J. Wallace), 639; uterus containing large mushroom-shaped adenoma (H. Briggs), 639; diffuse intraperitoneal haemorrhage (A. W. W. Lea), 812; accessory lobes to the liver (R. Favell), 812; fibroma of ovarian ligament (W. E. Fothergill), 994; Caesarean section for post-rectal cyst (W. E. Fothergill), 994; fibroid in pregnant uterus (H. Clifford), 994; red degeneration of fibroids (Leith Murray), 994; vaginal subtotal hysterectomy (A. J. Wallace), 1175; eclampsia (W. Fletcher Shaw), 1175; kraurosis or leucoplakia vulvae (Dr. Briggs), 1175; complications of pregnancy (Lloyd Roberts), 1175; pelvic tumours and appendicitis (W Blair Bell), 1175
Society, Odonto-Chirurgical, of Scotland, 720; annual meeting, 720
Society, Ophthalmological, of the United Kingdom, 322, 447, 692, 1174, 1549; bilateral ophthalmoplegia (F. E. Batten), 322; buphthalmos (Mr. Mayou), 322; optic atrophy (J. B. Lawford), 447; lenticonus posterior (E. Treacher Collins), 447; retinal disease (A. C. Hudson), 447; bilateral parotitis and cyclitis (E. Brewerton), 447; hole in the macula (P. Foster Moore), 447; xerosis of conjunctiva and night blindness (Malcolm L. Hepburn), 692; bacteriology of panophthalmitis (R. R. James), 692; technique of glaucoma operations (Colonel H. Herbert), 1174; congenital word blindness (Herbert Fisher), 1174; pyocyanase (A. Bronner), 1175
Society, Pathological, of Manchester, 813, 994; cell proliferation (Powell White), 813; otitic meningitis (Dr. Milligan), 813; tumours of the eyelid (Hill Griffith), 813; gonorrhoeal infection (W. E. Fothergill), 994; arylarsonates and optic atrophy (Ernest Clarke), 1549; congenital cataract (N. Bishop Harman), 1549; family choroiditis (Mr. Doyne), 1549
Society, Pathological, Reading, 1026; what we owe to experiments on animals (Stephen Paget), 1026
Society, Pediatric, *Transactions*, rev., 1239
Society for Prevention of Cruelty to Children, Scottish National, report, 1263
Society, Psycho-therapeutic, methods of, 783
Society, Red Cross, 287, 530, 722, 952, 1196, 1211; Glasgow Committee of, 287; appeal at Cardiff by J. Lynn Thomas, 530; meeting in City of London, 722; meeting in Kensington, 722; organizing secretary appointed, 952; in Scotland: annual meeting of the Scottish branch, 1196; issue of pamphlet by Devonshire branch, 1211
Society for Relief of Widows and Orphans of Medical Men, 359, 1088, 1426; quarterly court of, 359, 1088; annual general meeting, 1426
Society, Research Defence, 49, 290, 405, 778, 1316, 1372, 1423, 1562; attention of parliamentary candidates called to the work of, 49; circular concerning, 290; lecture in Dublin by Professor E. J. McWeeney, 405; annual meeting of Dublin Branch, 778; annual meeting, 1316, 1372, 1423; annual report, 1423; leading article on, 1562
Society, Royal Blind Pension, 1151; dinner, 1151; statistics, 1151
Society, the Royal, 20, 70, 321, 381, 569, 592, 693, 991, 1151, 1292, 1509, 1510; haemagglutinins, haemopsonins, and haemolysins (L. S. Dudgeon and H. A. F. Wilson), 20; cortical lamination and localization (F. W. Mott, E. Schuster, and W. D. Halliburton), 21; bequests to by Ludwig Mond, 70; pathology of gastric ulcer (C. Bolton), 321; agglutinins (Georges Dreyer and J. Sholto C. Douglas), 322; transmission of *Trypanosoma lewisi* by the rat flea (E. A. Minchin and J. D. Thomson), 381; effect of malignant growths on the size of organs (F. Medigreceanu), 381; homogeneity of resistance to transplantation of malignant growths (E. F. Bashford and B. R. G. Russell), 382; effects of inoculation of living and disintegrated cancer cells (M. Haaland), 382; biochemistry of growth (W. Cramer and Harold Pringle), 569; recommendations for election into Fellowship, 592; causes of the absorption of oxygen by the lungs (C. Gordon Douglas and J. S. Haldane), 693; action of nicotine and other pyridine bases (V. H. Veley and A. D. Waller), 693; action of radium on the skin (J. O. Wakelin Barratt), 991; a physiological effect of an alternating magnetic field (Silvanus P. Thompson), 991; chromophil tissues and the adrenal medulla (Swale Vincent), 1151; development of trypanosomes in tsetse flies (Sir David Bruce, A. E. Hamerton, H. R. Bateman, and F. P. Mackie), 1292; radioactivity, detection of the homogeneous beta rays by the photographic method (J. A. Gray), 1509; influence of bacterial endotoxins on phagocytosis (Leonard S. Dudgeon, P. N. Panton, and H. A. F. Wilson), 1510; mesocoelic recess (Arthur Dendy and G. E. Nicholls), 1510
Society, Royal, of Edinburgh, 286, 830; development of the autonomic nervous mechanism of the alimentary canal of the bird (Williamina Abel), 286; place in nature of the Tasmanian aboriginal (R. J. A. Berry), 830
Society, Royal Humane, 286; award of medal to Alfred Sheridan, 286
Society, Royal Medical, Edinburgh, 537; annual dinner, 537
Society, Roval of Medicine, 21, 202, 262, 323, 382, 448, 505, 571, 633, 694, 731, 751, 810, 931, 1051, 1112, 1293, 1355, 1451, 1510, 1547; removes to temporary quarters in Cavendish Square, 731. *Section of Anaesthetics*, 448, 633; lymphatism (resumption of discussion on Mr. Bellamy Gardner's paper), 448; choice of an anaesthetic (Dudley Buxton), 633. *Section of Balneology and Climatology*, 382, 751,

1052, 1451; saline waters, and the use and abuse of common salt (R. Ackerley), 382; arthritis deformans (Llewellyn Jones), 751, 1052; climate of Egypt and North Africa, (Leigh Canney), 1052; successful provincial meeting at Buxton, 1451. *Clinical Section*, 203, 448, 695, 932, 1510; fibrolysin (H. C. Howard), 203; thoracoplasty (J. E. Adams), 203; case of objective and rhythmical "clicking" noise in left ear (Herbert Tilley), 203; case of bending of bones of both legs (Somerville Hastings), 203; case of intermittent claudication (F. Parkes Weber), 203; case of symmetrical trophic lesions of extremities (H. Morley Fletcher), 203; case of angioneurosis (W. Essex Wynter), 203; four cases of epithelioma of larynx (StClair Thomson), 448; rheumatic nodules in a patient (H. Morley Fletcher), 448; traumatic pancreatic cyst (Arthur E. Barker), 448; fibrosarcoma of nose (Douglas Harmer), 448; detachment of entire scalp (A. Pearce Gould), 695; two cases of obliterative endaneurismorrhaphy (Matas's operation) for popliteal aneurysm (Maynard Smith and Hugh M. Rigby), 695; fibroid lung with displacement of the heart (Sir John Broadbent), 695; tibio-calcaneal resection at the ankle with amputation of the foot (C. Gordon Watson), 695; splenomedullary leukaemia with intercurrent erysipelas (James Galloway), 696; "trophic dermatitis" (James Galloway), 696; bluish haemochromatosis of the skin (F. Parkes Weber and R. H. Norman), 696; exophthalmic goître in a man with symmetrical telangiectasis of the ocular conjunctivae (F. Parkes Weber and R. H. Norman), 696; congenital tumour in the left parotid region (F. Parkes Weber and R. H. Norman), 696; *x*-ray carcinoma (J. Howell Evans), 696; two cases of myatonia atrophica (H. C. Turney), 696; case for diagnosis: female with lump on left upper gum (A. E. Barker), 696; myositis ossificans (Theodore Thompson), 696; cervical ribs (Theodore Thompson), 696; acromegaly (E. I. Spriggs), 696; sarcoma of ear (N. S. Finzi), 932; malignant growth in neck (N. S. Finzi and W. Hill), 932; rodent ulcer (Charters J. Symonds), 932; disappearance of chronic ascites in alcoholic cirrhosis (F. Parkes Weber and E. Michels), 932; cyanosis with venous obstruction (W. P. Herringham), 932; formation of cholesterin gall stones (A. F. Hertz and F. S. Adams), 932; pulsating ophthalmos (Gwynne Williams), 932; enlargement of tubercle of the tibia (Schlatter's disease) (R. C. Elmslie), 1510; jaundice with areas of unpigmented skin (H. D. Rolleston), 1511; cardiolysis (F. J. Poynton and Wilfred Trotter), 1511; hyperplastic tuberculosis of pelvic colon (J. P. Lockhart Mummery), 1511; congenital hairy mole (Cyril Nitch), 1511; trigeminal neuralgia (Wilfred Harris), 1511; phlegmonous gastritis (S. A. Clarke and A. F. Hertz), 1511; pulmonary phthisis with large cavity treated with ether (R. H. Hodgson), 1511. *Section of Diseases of Children*, 323, 571, 1052, 1356, 1548; congenital oedema (David Forsyth), 323; case in which the intestine had prolapsed through an ectopia vesicae (A. C. D. Frith), 323; case of separation and displacement forwards of the lower epiphysis of the femur (Douglas Drew), 323; family idiocy (F. Parkes Weber), 324; girl whose iris was so black that at a distance of a yard the difference between the iris and pupil could scarcely be detected (N. Bishop Harman), 324; spastic diplegia (O. K. Williamson), 324; infant feeding (Donald Carter), 324; congenital oedema of leg (Maynard Smith), 571; uraemia and diphtheria (Walter Carr), 571; myelogenous leukaemia (Dr. Whipham), 571; non-cretinous mental deficiency with goître (Dr. Forsyth), 571; chloroma (Essex Wynter), 571; cyst of humerus (Hugh Lett), 572; congenital absence of femur (P. Lockhart Mummery), 572; hypertrophic stenosis of pylorus (Porter Parkinson), 572; congenital thoracic deformity (E. I. Spriggs), 572; oxycephaly in children (R. Hutchison), 1052; congenital scoliosis (Dr. Langmead), 1052; pigmentation in a baby (Dr. Langmead), 1052; juvenile general paralysis (Dr. Miller), 1052; lymphadenoma (Dr. Miller), 1052; congenital acholuric jaundice (Dr. Parsons), 1052; eighty consecutive cases of wasting infants fed on undiluted citrated milk (Dr. Langmead), 1052; ateleiosis (Parkes Weber), 1356; myositis fibrosa (Walter Carr), 1356; amaurotic family idiocy (Bellingham Smith), 1356; congenital malformation of heart (Dr. Whipham), 1356; pulmonary stenosis (Dr. Whipham), 1356; air swallowing (Dr. Whipham), 1356; sarcomatous tumour (Hildred Carlyll), 1356; subperitoneal resection of the shaft of the ulna (C. P. Childe), 1548; partial tarsectomy (C. P. Childe), 1548; bilateral absence of the puncta lacrymalia (L. Cole-Baker, 1548; peritoneal growths from a case of lymphocythaemia (J. T. Leon), 1548; extensive injury to the head (C. S. Ridout), 1548. *Section of Laryngology*, 204, 448, 694, 931, 1355, 1547; occlusion of nostril (G. C. Cathcart), 204; tonsillar and faucial ulceration (Andrew Wylie), 204; endothelioma of the ethmoid (Chicbele Nourse), 204; woman with bands passing between the Eustachian tube and pharynx (E. A. Peters), 204; general infiltration of larynx (Dan McKenzie), 204; growth in the naso-pharynx (Dundas Grant), 204; extrinsic carcinoma of the larynx (Seccombe Hett), 204; man who swallowed a bone (H. J. Davis), 448; soldier with a pin in pharynx (H. J. Davis), 448; laryngeal vertigo (H. J. Davis), 448; child with congenitally deformed nose (George Wilkinson), 448; lupus of the nose (Stuart Low), 448; tuberculosis of larynx (Dundas Grant), 448; removal of a rapidly-growing soft fibroma from posterior wall of left maxillary antrum by Rouge's operation (Herbert Tilley), 694; face and mouth of a female aged 3 months (Alex. R. Tweedie), 694; "bleeding polypus" of inferior turbinate (Somerville Hastings), 694; larynx, four rings of trachea, and part of thyroid gland and gullet removed during an act of suicide (E. A. Peters), 694; inspiratory stenosis of larynx (StClair Thomson), 694; unilateral suppuration of all four accessory cavities (StClair Thomson), 694; congenital occlusion of right posterior naris (D. R. Paterson), 694; occlusion of right anterior naris (Norman Patterson), 694; carcinoma of gullet (William Hill), 694; tuberculous laryngitis (Herbert Tilley), 931; deflection of triangular cartilage (Dr. Pegler), 931; deflection of septum (Dr. Pegler), 932; malformation of soft palate and uvula (Dundas Grant), 932; removal of hypertrophied anterior lip of the hiatus semilunaris (Dundas Grant), 932; sarcoma of right tonsil (William Hill), 932; foreign body from gullet (Herbert Tilley), 1355; excision of tongue (H. J. Davis), 1355; venous angioma (H. J. Davis), 1355; epithelioma of larynx (Chichele Nourse), 1355; frontal sinus operation (StClair Thomson), 1355; odynphagia (Dundas Grant), 1355; new growth (Arthur Evans), 1355; laryngeal paralysis (Somerville Hastings), 1547; tuberculosis of larynx with extreme odynphagia (J. Dundas Grant), 1547; hypertrophy of lingual tonsil (J. Dundas Grant), 1547; development of an innocent neoplasm (Jobson Horne), 1547; prolapse of mucous membrane (Jobson Horne), 1547; tuberculosis of larynx (Walter Howarth), 1547; tuberculous ulceration of epiglottis (James Donelan), 1547. *Medical Section*, 263, 571, 633, 1051, 1293; treatment of tetanus by the intraspinal injection of a solution of magnesium sulphate (Llewellyn Phillips), 263; pericardial effusion (Samuel West), 571; pericarditis (Sir John Broadbent), 633; hospital infection of tuberculosis (J. Edward Squire), 1051; examination of the excreta in pancreatic disease (P. J. Cammidge), 1293. *Sections of Medicine and Surgery*, 203; duodenal ulcer, resumption of debate on, 203. *Obstetrical and Gynaecological Section*, 262, 505, 810, 1112, 1547; operation for prolapsus uteri (J. Inglis Parsons), 262; pelvic haematoma of ovarian origin (Cuthbert Lockyer), 262; proportion of malignant to innocent ovarian growths (Mrs. Scharlieb), 263; post-peritoneal haematocele complicating uterine fibroid (William Alexander), 505; modern methods of delivery in contracted pelvis (Hastings Tweedy), 505; ruptured tubal pregnancy (T. Carwardine), 810; carcinoma of cervix (Russell Andrews), 810; placenta praevia and Caesarean section (Henry Jellett), 1112; Caesarean section in puerperal eclampsia (F. J. McCann), 1547. *Odontological Section*, 1052; two odontoceles and some other cysts (Mr. Hopewell Smith), 1052. *Pathological Section*, 202, 506, 695; thyroid and antithyroid preparations (W. Edmunds), 202; pancreatic reaction (P. J. Cammidge and H. C. G. Semon), 202; oöphorectomy and the growth of the pelvis (S. G. Shattock and C. G. Seligmann), 203; extensive destruction of adrenals without Addison's disease (Herbert French), 203; pigmentary deposits in liver and pancreas in bronzed diabetes (Herbert French), 203; example of chylous cyst (E. O. Thurston), 203; serum diagnosis of syphilis (H. R. Dean), 506; cartilaginous and osseous tumours (S. G. Shattock, L. S. Dudgeon, and C. G. Seligmann), 507; gastric analysis (W. H. Willcox), 695; pathology of pernicious anaemia (F. H. Thiele), 695; bile-producing primary carcinoma of liver (F. Parkes Weber), 695; amyloid degeneration in a hepatic adenoma (S. G. Shattock), 695. *Section of Surgery*, 694, 1510, 1547; rupture of tunica vaginalis in hydroceles (Somerville Hastings), 694; gastric hypersecretion and the appendix (Soltau Fenwick), 694; appendicular gastralgia (Herbert J. Paterson), 695; treatment of syphilis (Ernest Lane), 1510, 1547; discussion, 1510, 1547. *Therapeutical and Pharmacological Section*, 21; utility of the lactic acid bacillus (discussion on, opened by G. Herschell), 21.

Society, Royal Meteorological, 270, 608; *re* study of meteorology at the University of London, 270; first meeting out of London (at Manchester), 608

Society, Royal Statistical, 514; vital statistics in England and Germany, 514

Society, Surgical, German, 227, 756; date and place of meeting, 227; some of the speakers, 756

Society of Tropical Medicine and Hygiene, 935, 1016; *Transactions*, rev., 935; annual meeting, 1016

Society, Vegetarian, founded in Roumania, 129

Society, Zoological, of London, 59, 441, 765, 1124, 1252; life-cycle of the sporozoon parasitic in the alimentary canal of grouse (H. B. Fantham), 59, 1252; specimens of nematode worm (R. T. Leiper), 59; probable cause of freshwater cyprinodont fishes in Barbados (Captain J. A. M. Vipan), 441; *Trichostrongylus pergracilis* (Dr. Leiper), 765; the black rat (J. L. Bonhote), 1124

SODDY, F., recommended for election into Fellowship of Royal Society, 592

Sodium chloride, 1073

Sodium salicylate, local injection of in acute rheumatism (Birendra Nath Ghosh), 690

Soil exhaustion, 1306

Soils and subsoils, 1210

Soldiers, syphilitic, a short way with, 462, 546. *See also* Syphilitic

SOMEREN, A. VAN: Treatment of sleeping sickness, 193

SOMERVILLE, W. F.: Pruritus in glycosuria, 239; recurrent mastitis, 360

Somnambulism, review of books on, 1499

SORLEY, W. R.: "Interpretation of evolution," 341

Soudan, climate of, 773

Sour milk. *See* Milk

South Africa, the medical profession in, 713, 1132, 1256

South African Medical Congress. *See* Congress

South America, plague in, 270, 1026

SOUTHAM, F. A., retirement of, 1438

Southey's poetry, anatomical descriptions in, 584

Southport Corporation, meteorologist's report, 1175

SOUTTAR, H. S.: The gastroscope, 753

SPARK, JOHN, obituary notice of, 1090

Spas and Mineral Springs Owned by the Royal Prussian Board of Domains, Album of, rev., 696

Spas, review of books on, 696, 1151

Spasm, tonic, in hands (E. F. Trevelyan and Dr. Allan), 993

Special Diseases Hospital. *See* Hospital

Specialism, the development of (leading article), 946

Specialist, title of, 173

SPEDIACCI, ASSANTO, death of, 296

Speed limit, 1212

Spelling of names, 1182

SPENCE, ROBERT, obituary notice of, 606

SPENCER, HERBERT R.: Palpation of the abdomen with superimposed hands, 1520

SPENCER, W. G.: *The Practice of Surgery*, rev., 1234

Spengler's immune body of tuberculosis, 225

Sphygmomanometer, Potain's, 180

Sphygmometer, mercury, new form of (Leonard Hill), 442; note on, 1332

Spinal anaesthesia, death under by Jonnesco's method in a case of acute intestinal obstruction (F. Victor Milward), 743; correspondence, 847

Spinal analgesia. *See* Analgesia

Spinal cord, subacute combined degeneration of, simulating disseminated sclerosis (Byrom Bramwell), 1396; leading article on, 1429

Spinal injection syringe, 86

Spine, schoolboy's description of, 1092

Spiritual healing, remarks on (H. T. Butlin), 1466

Spiritual healing. *See also* Faith healing

Spirochaeta pallida (Stopford Taylor and R. W. Mackenna), 993

SPITTA, HAROLD R. D., elected a Fellow of Royal Sanitary Institute, 1331; appointed Bacteriologist to Household of George V, 1509

Spitting nuisance, Dublin Sanitary Association and, 112

Spleen, cystic, *post-mortem* report on (L. H. Gill), 1545

Spleen, tuberculous, from a pig (Professor Mettam), 635

Spray, "nebulique," 452

SPRIGGS, E. I.: Congenital thoracic deformity, 572; case of acromegaly, 696; treatment of indigestion, 992; treatment of gastric and duodenal ulcer, 1216

Sprue, chronic (A. G. Barrs), 1232

SQUIRE, E. W.: Haemophilia in a female, 1168

SQUIRE, J. EDWARD: Hospital infection of tuberculosis, 1039, 1051; auscultatory friction, 1325

SQUIRE, MAURICE: Exhibition of cases at Paddington Infirmary, 1175

SQUIRE, PETER WYATT, appointed Chemist to George V, 1509

Squire's Pocket Companion to the British Pharmacopoeia, Third Appendix, rev., 759

Stamina food, composition of, 1240

Stammering, review of books on, 512

Standard malt extract and cod liver oil, composition of, 30

STANLEY, DOUGLAS: The medical profession and parliamentary representation, 235
STANTON, A. T.: *Etiology of beri-beri*, 999, 1371
Staphylococcic infections, vaccine treatment of a series of cases of (A. Clarke Begg), 186
STARK, JOSEPH: Causation of sex, 1024
STARLING, E. H. (editor): *Collected Papers of the Institute of Physiology, University College, London*, rev., 642
Starlings (Dr. Kelso), 1181
Starvation, death from, 957
State Civil Medical Services. *See* Medical Services
State and the profession. *See* Medical profession
State-provided medical attendance. *See* Attendance
Status lymphaticus (leading article), 103
STEAD, GEOFFREY: Walsall County Borough, a warning, 972
STEELE-PERKINS, GEO.: Treatment of ulcerative colitis, 1091
STEELE, RUSSELL, obituary notice of, 1450
Stenosis of heart. *See* Heart
STEPHENS, G. ARBOUR: Red line on the gums, 626; plumbism treated by the internal administration of calcium permanganate, 1166; pitch cancer, 1578
STEPHENSON, SYDNEY: Phlyctenular affections of the eye, 916; transient blindness during pregnancy and labour, 1131
Sterilization of certain degenerates, 604
Stethoscopes, earpieces of, 672, 732
STEVENS, B. C.: Cancer houses and dry rot, 552
STEVENSON, LOUIS E.: Case of diabetic coma at the age of 10, 632
STEWARD, F. J.: *Guy's Hospital Reports*, rev., 758
STEWART, C. R.: Model rules for a public medical service, a criticism of its main principle, 1143
STEWART, Miss ISLA, obituary notice of, 670
STEWART, J.: Strangulated hernia with partially descended testis, 755
STEWART, MORSE: *Pocket Therapeutics and Dose Book*, rev., 1057
STEWART, T. G.: *Textbook of Nervous Diseases*, rev., 1056
STILES, H. J.: Retrovesical tumour, 20
STIRLING, Dr.: Wound of bladder, 751; haematoma of scrotum, 751; appendicitis, 751; other surgical cases, 751
Stitch, intestinal (E. Ken Herring), 496; correspondence on, 912
STOCKER, ALONZO HENRY, obituary notice of, 1150
STODDART, W. H. B.: Toxic and exhaustive psychoses, 1414
STOKER, Sir THORNLEY, appointed Inspector of Schools of Anatomy, Ireland, 44
STOKES, CHARLES F., appointed Surgeon-General of the United States Navy, and Chief of Bureau of Medicine and Surgery, 551
STOLPE, Dr., death of, 1525
Stomach, contracted (Dr. Owen and Dr. Hick), 993
Stomach, gastro-enterostomy in acute dilatation of (W. H. Brown), 727; correspondence on, 782
Stomach, living creatures in as a cause of chronic dyspepsia (W. Soltau Fenwick), 371
Stomach, review of books on, 266, 383
Stomach, sarcoma of (A. Ernest Maylard), 638. *See also* Abdomen
Stones in ureter (Charles A. Morton), 793
STONEY, FLORENCE A.: Treatment of prolapsus ani in the adult, 972
STONEY, R. ATKINSON: Nephrectomy, 1174
STONHAM, CHARLES: *The Birds of the British Isles*, rev., 759
STOOKES, A.: Fetal deformities, 265
Stove for invalid's bedroom, 732, 791, 1091
Stoves, chimneyless, 59
STRACEY, B.: Care of clinical thermometers, 60
STRACHAN, P. D.: What is a fluid wedge? 120
Straits Settlements, special correspondence from, 1021; annual report of medical department, 1021
Straits Settlements, alcoholic insanity in, 658
STRANGEWAYS, T. S. P.: *Bulletin of the Committee for the Study of Special Diseases*, 522
STRASBURGER, JULIUS: *Einführung in die Hydrotherapie und Thermotherapie*, rev., 933
STRATON, CHARLES R.: *Survey of the Lands of William, First Earl of Pembroke*, 32
STRAUSS, H.: *Gout*, rev., 23
Street accidents in Glasgow, 347
Streets, dangers of the, 108
Streptococcal infection, review of books on, 1053
Streptothrix infection (Stuart Macdonald), 447
STRETTON, J. LIONEL: Appendix dyspepsia, 543; sterilization of the skin of operation areas, 1350
STRUTHERS, Mr.: Spindle-celled sarcoma, 1355
Strychnine accidentally administered, death, 115
Strychnine, local injections of in neuritis (George H. R. Dabbs) 260
rychnine in shock, value of, 1204
Strychnine and novocain, death from spinal injection of (M. Gabbett), 690
Students' conference and the medical curriculum, 286
STURM, F. P.: Remarks on thyroidectomy, 437; case of exophthalmic goître cured by operation, 1288
STYLES, R. G., re-elected on Bethnal Green Board of Guardians, 911
Styptol, 388
Subphrenic abscess. *See* Abscess
Substitute, obligations of, 55
Sudan and Egypt in 1909, report of Sir Eldon Gorst, 1301, 1361
Sudan and Egypt, irrigation of (Colonel Sir C. C. Scott-Moncrieff), 1181
Sudbury, cowpox outbreak at, 957
Suffolk, special correspondence from, 1572: East Suffolk and Ipswich Hospital improvements, 1572
Suffragettes and forcible feeding, 50, 117, 174
Suffragettes and Shakespeare, 393. *See also* Prisoners *and* Forcible feeding
"Suggestion" in the treatment of disease (Sir Henry Morris), 1457
Sultan Abdul Hamid decides to be vaccinated, 191
Superfetation in a cat (Dr. Cassidy), 1232
Supersession, 55, 1451
Suppuration, acute, antiferment treatment of (David MacEwan), 185
Suprapubic fascial incisions (Professor Kynoch), 1292
Surgeon, patient, student, and nurse, personal experiences of the (Wesley Mills), 682; leading article on, 711
Surgeons, official certifying, 1570
Surgeries in poor districts, cheap, 791
Surgery in ancient and mediaeval times, practice of (James Swain), 218
Surgery of the lymphatic system. *See* Lymphatic
Surgery, review of books on, 208, 324, 384, 699, 813, 996, 1234
Surgical diseases of children. *See* Children
Surgical odds and ends (Kenneth Black), 141
Surgical instruments, a disclaimer, 1147
SUTHERLAND, HALLIDAY G.: Case of acute tuberculous bronchopneumonia after gastro-enterostomy, 745
SUTHERLAND, J. F.: Appreciation of James Rutherford, 729
SWAIN, JAMES: History and practice of surgery in ancient and mediaeval times, 218; cancer of the rectum, 361
SWAINSON, J. M. G.; Proposed medical branch of the Navy League, 116
SWAINSON, T. M. G.: Case of abdomin injury, 445
SWAN, ANDREW T.: General practitioners and Poor Law reform, 418
SWAN, JOHN: *Prescription Writing and Formulary*, rev, 1057
SWANSON, THOS. W.: *Handbook of Scotch Sanitary Law*, rev, 817
SWANTON, E. W.: *Fungi and How to Know Them: an Introduction to Field Mycology*, rev., 145
Sweden, alcohol question in, 1567
SWEET, W. SIDNEY, reports two cases of pelvic tumour, 809; reports three cases of subphrenic abscess, 1169
Switzerland, committee for study and prevention of cancer formed in, 1260
Sydney, 47, 840, 1081, 1320; clinical school at the hospital, 47; annual report of the hospital, 840; women graduates of medicine in, 841; New South Wales Branch of the British Medical Association, 1081; sanatorium treatment of consumption, 1082; infantile mortality, 1082; medical curriculum at the university, 1320; compulsory notification of consumption, 1321; outbreak of smallpox, 1321 *See also* New South Wales
Sydney University. *See* University
SYLVIUS, FRANCISCUS DE LA BAË, 98
SYKES, JOHN F. J.: Treatment of school children, 542
SYMES, J. ODERY: *Parents, Teachers, and Schools: Lectures on School Hygiene*, rev., 144
SYMINGTON, Professor: Skiagrams of the development of teeth of various apes, 1053
SYMONDS, CHARTERS J.: Rodent ulcer treated with radium, 932
Synovial swellings, multiple (Miss Garrett-Anderson for Miss Hamilton), 448
Syphilis, some practical points in the treatment and clinical history of early (William Coates), 1093; (D. N. Cooper), 1352
Syphilis as an important factor in the causation of heart disease (R. J. M. Buchanan), 446
Syphilis and marriage (C. W. MacGillivray), 140
Syphilis, parental, 972
Syphilis, review of books on, 325
Syphilis, secondary (Constable Hayes), 1232
Syphilis, serum diagnosis of (H. R. Dean), 506; (P. W. Bassett-Smith), 632; (Dr. Loveday), 993; (M. Perges), 1016
Syphilis, serum reaction in (leading article), 278; (J. M. Beattie and A. E. Barnes), 573
Syphilis, serum reaction of, effect of mercury on, 1259
Syphilis, skin diseases simulating (P. S. Abraham), 795
Syphilis, soamin in (Thos. D. Halahan), 504
Syphilis, treatment of, discussion, 1510, 1547; (Ernest Lane), 1510
Syphilis, acute visceral (Thomas Bushby), 754
Syphilitic leucoderma in a male (Staff Surgeon Kenneth H. Jones), 747
Syphilitic soldiers, a short way with, 462, 546. *See also* Soldiers
Syringe, spinal injection, 86
Syringomyelia, cases of (Sir John Broadbent, Wilfred Harris and Willmott Evans), 264
Syringomyelia, spasmodic, case of (Judson S. Bury), 132

T.

Tabes (Byrom Bramwell), 20; (E. F. Trevelyan), 754
Tabes dorsalis, case of (Seymour Taylor), 264; (Rice Oxley), 264
Tachycardia, abdominal compression in (W. Gordon), 624; correspondence on, 724, 792. *See also* Heart
Taking the oath, 38
Talipes, congenital (Robert Beattie), 1354
TAMBURINI, A.: *Sulla statistica degli alienati in Italia nel 1907*, 1191
TARDIF, Dr.: *Clinique Hydrologique*, rev., 452
Tarsectomy, partial (C. P. Childe), 1548
Tasmanian aboriginal (R. J. A. Berry), 830
Tatcho, composition of, 151
TAUSSIG, FREDERICK I.: *Prevention and Treatment of Abortion*, rev., 1298
TAVEL, E.: *Vorlesungen über chirurgische infectionskrankheiten: Die Streptomykosen*, rev., 1053
TAWSE, H. B.: Submucous resection of the nasal septum, 323; carcinomatous growth blocking nasal septum, 755
Taxes, payment of under the Budget, 824 (*see also* Budget); (editorial), 824
TAYLER, HERBERT P.: Conference on school children, 1267
TAYLOR, CHARLES JOSEPH: Case of renal calculus producing no symptoms for fifty years (under the care of Mr. Hurry Fenwick), 1108
TAYLOR, Dr.: Apoplexy with unusual symptoms, 751
TAYLOR, E. H.: Malignant disease of the colon, 141
TAYLOR, HENRY LING: *Orthopaedic Surgery for Practitioners*, rev., 208
TAYLOR, JAMES: Preparation of catgut, 175
TAYLOR, J. H.: General practitioners and Poor Law reform, 417; sickness and invalidity insurance, 1265
TAYLOR, JOHN WILLIAM, obituary notice of, 607; estate of, 971; memorial home, 1020
TAYLOR, SEYMOUR: Case of tabes dorsalis, 264
TAYLOR, STOPFORD: *Spirochaeta pallida*, 993
Tea, an effect of, 1092
TEACHER, Dr.: Extensive peripheral neuritis, 755; cerebral tumour, 755; thrombosis of longitudinal and lateral sinuses, 755; cortical cerebral lesion, 755
Teaching examination and research (leading article), 832. *See also* University of London
TEALE, MICHAEL: Rupture of choroid, 19; prescribing and wearing glasses, 1354
Tea shop lavatories. *See* Lavatory
Teeth of apes, development of (Professor Symington), 1053
Teeth, defective (children). *See* School children, medical inspection of
Telegraphic transmission of pictures (Mr. Thorne-Baker), 532
elegraphists' cramp. *See* Cramp
eleology in medicine (leading article), 277
Teleostean fishes, eosinophile leucocytes in blood of (Anna Drzewina), 403
Telephone, the doctor's, 972
TELLING, MAXWELL: Nodular myositis, 19; Bazin's disease, 755; unilateral exophthalmos, 1232; oral sepsis, 1232
Tendons, rupture of both quadriceps extensor cruris (J. Wallace Milne), 199
Tendons, suture of, 179
Tenements, model workmen's, gift of in Paris, 172
Teneriffe, international expedition to, 716, 790
Tension, high, and cavitation (Stuart Tidey), 1231
Teratology, review of books on, 387
Territorial Nursing Service, 54. *See also* Army, British
Territorial swimming club at Birmingham, 1573
TERRY, CHARLES, obituary notice of, 1524
Testicle, undescended (Thelwall Thomas and Dr. Mackarell), 446
Testicles, retained (Moore Alexander), 993
Testimonial, 484
Testis, embryoma of (T. B. Layton), 572
Test meals and infant feeding. *See* Infan feeding
Tetanus antitoxin in treatment of dirty wounds, 1267
Tetanus bacillus, normal habitat of (Joseph), 1005
Tetanus, death from, 971
Tetanus and the motor car, 1312
Tetanus, treatment of, 552

Tetanus, treatment of by the intraspinal injection of a solution of magnesium sulphate (Llewellyn Phillips), 263
TETLEY, T. WALSH: Duodenal ulcer and appendix dyspepsia, 415
Thedwastre Rural District, report of M.O.H., 790
THEOBALDS, A. F.: Case of intestinal anastomosis, 200
Therapeutic immunization. *See* Immunization
Thermo-generator, small, 1418
Thermometer, the first (invented by Ole Römer), 284
Thermometers, clinical, care of, 60
Thermo-penetration and cold cautery, apparatus for, 269
THEW, T. WILTON: Oral sepsis from the dentist's point of view, 1293
THIÈLE, F. H.: The pathology of pernicious anaemia, 695
Thiocol "Roche," 1242
THOMAS, C. J., salary increased, 551
THOMAS, EVAN, obituary notice of, 357
THOMAS, T. L.: Miner's nystagmus, 1085
THOMAS, J. LYNN: Appendix dyspepsia, 666
THOMAS, THELWALL: Adenoma of breast, 446; chondro-sarcoma of femur, 446; undescended testicle, 446; *x*-ray dermatitis and epithelioma, 810; intestinal obstruction, 810; carcinoma of antrum, 811; carcinoma of testicle, 811
THOMAS, WILFRED: Fatal aplastic anaemia, 16
THOMAS, WOLFERSTAN, appointed to directorship of new laboratories at Manaos, 1376
THOMPSON, A. HUGH: Ophthalmic school clinics, 964
THOMPSON, HERBERT P.: Note on Abbot Joffrid and Croyland, 153
THOMPSON, J. ASHBURTON: On a trial of nastin, 565
THOMPSON, SILVANUS P.: Physiological effect of an alternating magnetic field, 991
THOMPSON, THEODORE: Myositis ossificans, 66; cervical ribs, 696
THOMPSON, W. G.: *Practical Dietetics*, rev., 698
THOMSON, ALEXIS: Osteo-myelitis fibrosa, 20; pistol-shot wound of abdomen, 20; transperitoneal ureterotomy, 1355; facial paralysis, 1355
THOMSON, CAMPBELL: Paralysis of serratus magnus, 383; cerebral tumour, 383, 445; locomotor ataxia of bulbar type, 445
THOMSON, DAVID: Case of sleeping sickness showing regular periodical increase of the parasites disclosed, 1544
THOMSON, J. C., presentation to, 172
THOMSON, H. CAMPBELL: Proposed medical branch of the Navy League, 116
THOMSON, H. H.: *Consumption, its Prevention and Home Treatment*, rev., 935
THOMSON, J. D.: Transmission of *Trypanosoma lewisi* by the rat flea, 381, 882
THOMSON, JAMES J., appointed superintendent of the Tuberculosis Institution at Tranquille, Victoria, British Columbia, 483
THOMSON, ST CLAIR: Four cases of epithelioma of larynx, 448; inspiratory stenosis of larynx, 694; case of unilateral suppuration of all four accessory cavities, 694; frontal sinus operation, 1355
Thoracic deformity, congenital (E. I. Spriggs), 572; (C. P. Anning), 994
Thoracoplasty (J. E. Adams), 203
Thoracostomy, precordial (Wardrop Griffith), 1232
THORBURN, WILLIAM: Cardiolysis (precordial thoracostomy) in heart disease, 10
THORNE, MAY: Cyst of clitoris, 448; reports on past year's work of Vigilance Subcommittee, 755
THORNE, W. BEZLY: Auscultatory percussion, 1579
THORNE-BAKER, Mr.: Telegraphic transmission of pictures, 582
THORNTON, ALFRED AUGUSTUS: *Thornton on Patents, British and Foreign*, rev., 268
THORP, H. J.: Treatment of ulcerative colitis, 1152
Thrombosis of the lateral sinus (O. Gogarty), 873; (W. S. Kerr), 1111
THURSFIELD, HUGH: *Medical Morbid Anatomy and Pathology*, rev., 815
THURSTON, E. O: Example of chylous cyst, 203
Thyresol, 209
Thyroid and antithyroid preparations (W. Edmunds), 202
Thyroid gland and gout (Chalmers Watson), 381
Thyroid gland, standardized tabloids of, 1242
Thyroid treatment in infantile wasting, results of (J. W. Simpson), 1049
Thyroidectomy (F. P. Sturm), 437
TIBBLES, WILLIAM: Bacterial disturbances of digestion and the consequences thereof, 508
Tibet, the first white women to penetrate into, 830
Tibia, three cases of enlargement of the (R. C. Elmslie), 1510
Tibia and fibula, fracture of by direct violence (D. McNabb), 443
Tick fever. *See* Fever
TIDEY, STUART: Diet during severe exercise, 54; high tension and cavitation, 1231
Tidman's sea salt, 86
TILLEY, HERBERT: Case of objective and rhythmical "clicking" noise in ear, 203; removal of a rapidly growing soft fibroma from posterior wall of left maxillary antrum by Rouge's operation, 694; tuberculous laryngitis, 931; foreign body from gullet, 1355
TINAYRE, MARCELLE: Consumption in modern fiction, 1252
Tinnitus, audible (Alex. D. Sharp), 19
Tinnitus aurium, 1331, 1528
"Tippee" petroleum emulsion, 146
TISSIER, H.: Vegetarianism and intestinal infection, 399
Tobacco habit, 1152, 1212, 1332
TOCHER, J. F.: Necessity for a national eugenic survey of school children, 1554
TODD, Dr.: Lamp for testing colour vision, 760
Tongue, cancer of. *See* Cancer
Tongue, excision of (H. J. Davis), 1355
Tongue, foreign body in (William Murray), 17
Tongue, sore, 852
Tonic spasm. *See* Spasm
Tonsil, lingual, hypertrophy of (J. Dundas Grant), 1547
Tonsils, surgery of the faucial (Dr. Milligan), 993
TOWNS, CHARLES B.: Drastic treatment for alcoholism, 1243
Tracheal mucous membrane, hypertrophy of (A. Bronner), 19
Tracheotomy during the administration of nitrous oxide gas (Herbert Relph and Felix Rood), 1287
Trachoma in emigrants, diagnosis of, 1259
Tradesmen's provident society, 240
Trading on names, 653, 903
Trained nurses' annuity fund. *See* Fund
Transvaal, antimalaria association in, 527; medical officials in, 896
TRATTLES, case of Mr. (leading article), 222; judgement of the special court, 236
Treatment, review of books on, 575
Tremol blood mixture, composition of, 1064
Tremol lotion, composition of, 1064
Tremol ointment, composition of, 1064
Tremol treatment, 1063; *See also* Hospital for Bad Legs, Manchester
TREVELYAN, E. F.: Epilepsy, 320; tabes, 754; habit spasm, 754; lymphatic leukaemia, 993; tonic spasm in the hands, 993
TREVES, Sir FREDERICK: *A Manual of Operative Surgery*, rev., 814; appointed sergeant-surgeon to George V, 1509
Trichostrongylus pergracilis (Dr. Leiper), 765
Trigeminal neuralgia. *See* Neuralgia
Trinidad, plague in, 270; prevention of tuberculosis in, 1550
Trinity College. *See* College
TROLAND, Dr., death of, 1330
Trommer's malt extract and cod liver oil, composition of, 30
Tropical disease research fund, 590, 648
Tropical hygiene, Hamburg Institute of, to be rebuilt, 1053
Tropical Medicine, American Far Eastern Section of, 349; date and place of next meeting, 349
Tropical Medicine, American Society for, *Proceedings*, rev., 145; seventh annual meeting, 1258
Tropical Medicine Association, Far Eastern, 999. *See also* Association
Tropical Medicine, Australian Institute of, 715
Tropical medicine, proposed school of in Calcutta, 1010; leading article on, 1010
Tropical Medicine, Liverpool School of, 172, 207, 232, 299, 483, 533, 642, 997, 1030, 1376, 1573; Professor Blanchard, of Paris, on the work of, 172; *Annals of Tropical Medicine and Parasitology*, rev., 207, 642, 997; starts new investigations, 232; W. H. Lever elected chairman, 299; award of Mary Kingsley medal, 483, 533; award of other medals, 534; gift from the King of the Belgians, 1030; entomological expedition to Malta, 1573
Tropical Medicine, London School of, 58, 59, 249, 969; pass lists, 58, 969; dinner, 59; lectures to nurses, 249
Tropical medicine, review of books on, 207, 698, 997
Tropical Medicine Society. *See* Society
TROTTER, A. P.: Glareless illumination, 459
TROTTER, WILFRED: Peritoneal pseudomyxoma originating from the vermiform appendix, 687
TRUBRIDGE, L. W. K.: Stove for invalid's bedroom, 732
True disinterestedness, 591
TRUMAN, CHARLES EDWIN, appointed dental surgeon to household of George V, 1509
TRUMPER, OSCAR B.: A patient's account of the crisis of pneumonia, 808
Trustee, the Public, 880; second annual report, 880; ordinary trusts, 880; executorial work, 881; small estates and compensation cases, 881; nature of investments 881; fees, 881
Trypanosomes in tsetse flies, development of (Sir David Bruce, A. E. Hamerton, H. R. Bateman, and F. P. Mackie), 1292, 1312
Trypanosomiasis, Bibliography of, embracing Original Papers Published Prior to April, 1909, and References to Works and Papers on Tsetse Flies, especially Glossina Palpalis, rev., 84
Trypanosomiasis, excessive liability of European women in Africa to (Sir Patrick Manson), 72
Trypanosomiasis, review of books on, 84
Trypanosomiasis, treatment of, 1435. *See also* Sleeping sickness
Trypanosoma lewisi, transmission of by the rat flea (E. A. Minchin and J. D. Thomson), 381, 882
Tsetse flies. *See* Flies
Tuberculin reaction, is it safe? 424
Tuberculin reaction, von Pirquet's, in the surgical diseases of children (Percival Mills), 1159
Tuberculin skin reaction, von Pirquet's (J. W. Bride), 1161
Tuberculin test, 180, 239
Tuberculosis, influence of air on, 1451
Tuberculosis and arylarsonates (Dr. Lundie and R. H. Blackie), 141
Tuberculosis treated by arylarsonates (R. A. Lundie and R. H. Blaikie), 196
Tuberculosis Prevention Association. *See* Association
Tuberculosis and boards of guardians (Manchester), 166
Tuberculosis, multiple bone, two years after treatment (J. Lentaigne), 570
Tuberculosis, bovine, vaccination against, 49
Tuberculosis, coal miners and, 1140
Tuberculosis colonies and the housing problem, 411
Tuberculosis Commission, International (American), for Control of Domestic Animals, 971
Tuberculosis Commission, question in Parliament, 957
Tuberculosis Committee, Dublin Hospitals', 169; quarterly meeting, 169
Tuberculosis Dispensary, Paddington, 780
Tuberculosis in dusty trades, mortality from, 1060, 1152
Tuberculosis exhibition, 1512
Tuberculosis in modern fiction, 1252
Tuberculosis, German research on, 836, 1272; a correction, 1272
Tuberculosis hospitals, Robert Koch on, 664
Tuberculosis, hospital infection of (J. Edward Squire), 1039, 1051
Tuberculosis of larynx (Dundas Grant), 448
Tuberculosis and milk supply, 535, 1569; of Birmingham, 535
Tuberculosis, notification of, in Glasgow, 44, 170, 287, 1263; at Aboyne, 44; in Dublin, 113, 405; at Burnley, 289; in Sydney, compulsory, 1321; compulsory in Scotland, 1508. *See also* Tuberculosis, war against
Tuberculosis, oral hygiene and, 951
Tuberculosis, prevention of. *See* Tuberculosis, war against
Tuberculosis, prophylaxis of, 463
Tuberculosis, pulmonary, treated by continuous antiseptic inhalation, 175, 484; correspondence on, 484
Tuberculosis, pulmonary, physical signs of incipient, 51
Tuberculosis and rain-bearing winds (leading article), 1310; correspondence on, 1377, 1445
Tuberculosis, review of books on, 385, 1053, 1418
Tuberculosis, influence of the sanatorium treatment of, 1517, 1578
Tuberculosis, sanatoriums for. *See* Sanatorium
Tuberculosis, Spengler's immune body of, 225
Tuberculosis, traumatic (F. Parkes Weber), 1153; (leading article on), 1188
Tuberculosis, treatment of, in Aberdeen, 112; in Edinburgh, 406
Tuberculosis of urinary system (James Miller), 572
Tuberculosis, war against, in Aberdeen, 112; in Canada, 232; in Glasgow, 44, 170, 287; in Prussia, 349; in Edinburgh, 406, 720, 776; in Germany, history of, 411; in Ireland, 778, 1512, 1513, 1570; decrease of in Ireland, 1512; gift to the National Association for Prevention of, by Mr. Astor, 1014; in Trinidad, 1550. *See also* Tuberculosis, notification of
Tuberculous infection, early, in children, and dyspepsia (A. Dingwall-Fordyce), 251
Tuberculous diseases, differential cutaneous reaction in (Henry Clarke and Charles E. P. Forsyth), 1348
Tuberculous glands in neck (James Miller), 572
Tuberculous meningitis, treatment of (G. H. Younge), 1168
Tuberculous milk. *See* Milk
Tudor England, 32
TUFFIER, TH.: Ovarian grafting and menstruation, 1543
Tumour of bladder, villous (F. T. Paul), 573
Tumour, cerebellar (Campbell Thomson), 448
Tumour, cerebral (T. C. Littler Jones), 1111
Tumour, cerebral, colour fields of, 838
Tumour, intracranial, case of, relieved by a decompression operation (Robert Kennedy), 1226
Tumour, malignant (Mr. Jeans), 446
Tumour, ovarian, large simple, removed from a girl (George McMullan), 1281
Tumour, ovarian, solid (R. Favell), 264; (J. E. Garner), 638
Tumour, pelvic (reported by W. Sidney Sweet), 809
Tumour, retrovesical (H. J. Stiles), 20

Tumours of abdomen, pseudo-neoplastic inflammatory (leading article), 397
Tumours of bilateral origin (Roger Williams), 321
Tumours of brain (Donald Armour), 752
Tumours, cartilaginous and osseous (S. G. Shattock, L. S. Dudgeon, and C. G. Seligmann), 507
Tumours, fibroid, of uterus, frequency of adeno-carcinoma of the body in (J. M. Munro Kerr), 68
Tumours, intracranial (Arthur Hall), 874
Tumours, pelvic, and appendicitis (W. Blair Bell), 1175
Tumours, review of books on, 879, 1114
Tumours, simulation of, by paraffin injections, 1258
Tunica vaginalis, rupture of, in hydroceles (Somerville Hastings), 694
Tunis, importation of goats or goat's meat from Malta forbidden because of Mediterranean fever, 341
TUNSTALL, A. C.: *"First Aid" to the Injured and Sick: An Advanced Ambulance Handbook*, rev., 998
Turkey, plague in, 270, 959
TURLE, JAMES: Stormy winds and phthisis, 1445
TURNER, A. C.: Alopecia areata, 573
TURNER, DAWSON: Radium treatment of rodent ulcer, 1355
TURNER, JOHN: Ross-Jones test, 1414
TURNER, LOGAN: Septic meningitis, 20
TURNER, WILLIAM ALDREN: Epilepsy, 733, 803, 866; *Textbook of Nervous Diseases*, rev., 1056
TURNER, WILLIAM WAGNER, awarded the Edward medal, 1310
TURNEY, H. G.: Proposed medical branch of the Navy League, 116; two cases of myatonia atrophica, 696
TUTEUR, R.: Sodium chloride, 1073
TWEEDIE, ALEX. R.: Face and mouth of a female infant aged 3 months, 694
TWEEDIE, E. HASTINGS: Gynaecological difficulties of the general practitioner, 349; modern methods of delivery in contracted pelvis, 505
Twins, Rosa-Josepha, 1313. *See also* Rosa
Twins, the Samar (R. M. Riggall), 1050
Twins, united female (D. G. Carmichael), 1352
Typhoid carrier, a (J. R. Hutchinson), 746; (Dr. Brückner), 1190
Typhoid carrier, case of acute abdominal infection in a (T. H. Gardner), 1107
Typhoid carriers in the army, 38
Typhoid carrier infection (G. Scott Williamson), 701
Typhoid carrier problem in France, 538
Typhoid fever. *See* Fever, enteric
Typhoid vaccine. *See* Vaccine
Typhus fever. *See* Fever
TYSON, WILSON: Ossification of brachialis anticus following injury to elbow, 920
TYTLER, PETER: Empyema treated by antiseptic plugging, 320

U.

Uganda, sleeping sickness in, 226
UHLENHUTH, P.: *Praktische Anleitung zur Ausführung des biologischen Eiweissdifferenzierungsverfahrens; mit besonderer Berücksichtigung den forensischen Blut- und Fleischuntersuchung sowie de Gewinnung präzipitierender Sera*, rev., 85
Ulcer, duodenal (Dr. Buchanan), 323
Ulcer, duodenal, and appendix dyspepsia, correspondence on, 413
Ulcer, duodenal, pancreatic reaction in diagnosis of, 240
Ulcer, duodenal, treatment of (E. C. Hort), 76, 350; discussion on, 203, 292; correspondence on, 413
Ulcer, gastric, pathology of (C. Bolton), 321
Ulcer, gastric, perforated, in a woman aged 71, operation, recovery (James William Littlejohn), 930
Ulcer, gastric, case of ruptured, suture, primary gastro-enterostomy, recovery (reported by Edward Harrison), 140
Ulcer, gastric, ruptured, in a woman of 64 (P. Clennell Fenwick), 443
Ulcer, gastric, treatment of (James Craig), 202, 247
Ulcer, gastric and duodenal (F. J. Smith), 673; (E. I. Spriggs), 1216; correspondence on, 848
Ulcer, gastro-jejunal, perforation of, operation, recovery (William Henry Battle), 989
Ulcer, hypopyon (A. Bronner), 994
Ulcer, jejunal (C. F. Walters), 321
Ulcer, rodent (T. Gowans), 447
Ulceration of face and fauces treated by bacterial vaccines (J. Courtenay Mac-Watters), 190
Ulceration, tertiary syphilitic (Miss Garrett-Anderson), 448
Ulcers, gastric and duodenal (Stanley Green), 812
Ulcers, gastric and duodenal, perforated (John Morton), 249
Ulna, subperitoneal resection of the shaft of (C. P. Childe), 1548
Ulster Branch. *See* Association, British Medical, Ulster Branch
Ultra-microscope, review of books on, 1115
UMBER, F.: *Lehrbuch der Ernährung und der Stoffwechselkrankheiten*, rev., 1055
United States: Laboratories for free treatment of rabies to be established in New York State, 185; pellagra in, 226; the President and a national health department, 340; "Radium Institute of America," 471; department of experimental breeding established in University of Wisconsin, 639; bill introduced into the Senate providing for the establishment of a Department of Public Health, 676; petition from Massachusetts State Nurses' Association asking for State registration, 749; State registration of nurses made law in New York State, 749; new hospital at San Francisco, 773; proposed Pasteur institute in Ohio, 822; medical education in, 835; bill to protect public morals by prohibiting certain advertisements introduced into Ohio State Legislature, 872; annual report of Buffalo Cancer Research Laboratory, 894; proposed commission on vivisection in, 895; orders an investigation on pellagra at Milan, 900; *Bills before New York State Legislature:* 918; *re* expert medical testimony, 918; *re* restriction of cocaine and other "habit-making" drugs, 918; *re* prohibition of the practice of medicine, dentistry, or pharmacy by a corporation, 918; *re* advertisements of treatment of venereal or sexual diseases, 918; Congress asked to give 50,000 dollars for cancer research, 1062; proposed registration of laundresses and washerwomen in Georgia, 1101; decrease of medical students in, 1189; hospital abuse in, 1314; all hospitals or other institutions having the care of children under 2 years of age in Chicago to report twice a year to the Department of Public Health, 1290; medical generals in command of the army, 1372; American and Colonial clubs and international interchange of students, 1407; the Windsor bequest, 1422
United States, plague in, 270
Universal service petition, 547
Universities of Edinburgh and St. Andrews, 42, 229, 406, 467; candidates for the parliamentary election, 42, 229; result of election, 406, 467
Universities of Glasgow and Aberdeen, result of election, 406
Universities of Manchester, Liverpool, Leeds, and Sheffield, 46; joint matriculation board, 46
Universities of Prussia, number of women students in, 1298
Universities of Scotland, Carnegie Trust for, 43
University of Aberdeen, 480, 850, 905, 1078; pass lists and degrees, 480, 850, 905; honorary degrees, 480; graduation ceremony, 905; medical teaching in, 1078
University of Birmingham, 58, 296, 420, 1209; pass lists and degrees, 58; resignations, 296; appointments, 296; number of students, 420; financial statement, 420; the libraries, 420; hostels and clubs, 421; Ingleby lectures, 1209
University of Bristol, 179; provisional ordinances, 179
University of Cambridge, 58, 295, 420, 548, 669, 730, 1148, 1209, 1328, 1391, 1447, 1525, 1583; pass lists and degrees, 58, 295, 420, 548, 669, 730, 1148, 1391, 1447, 1525, 1583; appointments, 58, 1447; professorship of biology, 295; research work in parasitology, 548; medical degrees, 1209; examinations, 1328; praelectorship in biochemistry, 1391
University College. *See* College
University Colston dinner, 535
University of Dublin, 58, 785, 849, 906, 1017, 1087; pass lists and degrees, 58, 785, 906, 1087; regulations for degrees, 849; King's professor of practice of medicine, 1017
University of Durham, 46, 231, 354, 534, 849, 904; dinner of past and present students of the College of Medicine, 46, 231, 534; appointments, 354; dental school, 534; chair of materia medica, 534; pass lists and degrees, 849, 904
University of Edinburgh, 119, 283, 905, 1195, 1328; pass lists and degrees, 905; annual report, 119; appoints an examiner in medical physics, 283; medical teaching at, 1195; university court, 1328; resignations and appointments, 1328; grants for research, 1328; recognition of teachers, 1328; colonial services, 1328; medical preliminary examination, 1328; students of medicine and science, 1328
University Education in London, Royal Commission on, 1506
University of Glasgow, 480, 1029, 1262, 1328; pass lists and degrees, 1029; the John Read prize, 480; women students' petition, 1262; the University Court and the medical curriculum, 1262; meeting of senate, 1328
University, Hong Kong, 963; foundation stone laid, 963
University of Ireland, the National, 58, 548, 1029; meeting of senate, 58; *University College, Cork*, 548, 1029; allocation of balance of the fund, 548; compensation of lecturers and professors, 548; examinations, 1029
University of Leeds, 779, 849, 1571; pass lists and degrees, 849; installation of Chancellor, 779, 1571; changes in the surgical teaching staff, 779, 1571; appointments, 849
University of Liverpool, 239, 354, 904, 1029; pass lists and degrees, 354, 904, 1029; public lectures, 239
University of London, 58, 119, 239, 283, 420, 479, 516, 594, 603, 666, 707, 730, 823, 832, 904, 969, 1030, 1031, 1077, 1149, 1209, 1391, 1525; pass lists and degrees, 58, 119, 904, 969, 1391; London School of Tropical Medicine pass lists, 58, 969; recognition of teachers, 119, 904; university extension lectures, 119; readmission of graduates to convocation, 119; research scholarship in craniology, 119; Gilchrist studentship for women, 119; advanced lectures in physiology, 119, 730, 904, 1209; lectures by the professor of protozoology, 119; regulations for degree of Master of Surgery, 283; Board of the Faculty of Medicine, 479; personnel of the senate, 479; appointment of representatives, 479, 904; Chadwick lecturers, 479; the university library, 479; English literature and the matriculation examiners, 516; correspondence on the matriculation examination, 603, 666; Beit Memorial Fellowships, appointments, 594; a degree for London medical students; meeting of the Royal Colleges, 707; action of the Medical Faculty, 708; physiological laboratory, 730; M.S. degree in dentistry, 730; staff examiners, 730; studentships in physiology, 730; the regulations for degrees in science (editorial), 823; leading article, 832; appointments, 904, 1391, 1525; Francis Galton Laboratory for National Eugenics, 904; return of examination fee, 904; presentation day, 904; *University of London Gazette*, 1030; questions in Parliament, 1077; death of the King, 1391; dates for submission of theses, 1391; Carpenter medal, 1391; alteration in price of calendar, 1391. *King's College*, 239, 1149; special lectures in physiology, 239, 1149 (*see also* College). *University College*, 421, 480, 1149, 1209; Ludwig Mond Laboratory, 421; research studentship in biometrics, 421; proposed new chemical laboratories, 480; lectures, 1149; advanced lectures in physiology, 1209. *See also* College
University of London medical examination, books for, 1031
University, McGill, Montreal, 895; new buildings, 895
University of Manchester, the Victoria, 296, 849, 1087, 1447, 1525; pass lists and degrees, 849; appointments, 296; resignations, 296; address by the Vice-Chancellor, 849; chair of clinical surgery, 1087; address to King George, 1447; annual statement, 1447; diploma in psychological medicine, 1448; dental diploma, 1448; intermediate B.Sc. examination, 1448; certificates in factory and school hygiene, 1448; D.P.H., 1525
University, Melbourne, 286; Dublin prize in, 286
University of Oxford, 58, 479, 608, 669, 785, 849, 1328, 1452, 1583; pass lists and degrees, 58, 608; Radcliffe travelling fellowship, 58, 785, 1583; Philip Walker studentship in pathology, 58, 669; Board of the Faculty of Medicine, 479; examination in preventive medicine, 608; co-option of member, 849; diplomas in ophthalmology, 1328; appointments, 1328; changes in regulations, 1328; the degree in ophthalmology at, 1452; Radcliffe Prize, 1583; Rolleston Memorial Prize, 1583
University of Paris, 290; foreign students at, 290
University, Queen's, Belfast, 778, 969, 1030, 1133; annual dinner, 778; pass lists and degrees, 969; first meeting of convocation, 1030; Sir William Whitla appointed representative on General Medical Council, 1133
University of Sheffield, 785, 1149, 1209, 1448; appointments, 785, 1149, 1448; anatomical department, 1149, 1209; instruction in diseases of children, 1448
University, Sydney, 48, 1320; the Fisher library, 48; the medical curriculum, 1320
University of Wales, 1002; annual meeting of Guild of Graduates, 1002
Unqualified practice. *See* Practice
Unregistered dentist. *See* Dentist
UPCOTT, H.: Isohaemolysis in malignant disease, 754
Uraemia, efflorescence of urea in (J. A. W. Pereira), 17
Uraemia and diphtheria (Walter Carr), 571
Urbino, Duke of, advice to his son *re* doctors and feeding, 1365
Urea in uraemia, efflorescence of (J. A. W. Pereira), 17
Ureter, stones in (Charles A. Morton), 793; (Andrew Fullerton), 1171
Ureteral calculi. *See* Calculi
Ureteral catheter. *See* Catheter
Ureters, implantation of into rectum by the sacral route (R. Lawford Knaggs), 1224
Uretero-vesico-vaginal fistula (Dr. Grimsdale), 264
Urethra, penile, primary epithelioma of (William Ernest Peacock), 138
Urinary analysis, 510

Urinary system, tuberculosis of (James Miller), 572
Urinary tract, infection of (J. R. Charles), 321; (Napier Burnett), 1292
Urine, certain changes in the composition of (Noel Paton), 382
Urine, post-operative suppression of relieved on three separate occasions by intravenous infusion (L. R. Braithwaite), 981
Urine separator, clinical illustrations of the use of (Edward Deanesly), 312
Urticaria, 1584
Urticaria and angioneurotic oedema (Colin Campbell), 573
Uterine displacements (E. Scott Carmichael), 445
Uterine fibroid which had undergone red degeneration (W. Fletcher Shaw), 265
Uterine fibroid, post-peritoneal haematocele complicating (William Alexander), 505. *See also* Fibroid
Uterus, removal of, in certain diseased conditions of the adnexa (J. M. Munro Kerr), 692
Uterus, frequency of adeno-carcinoma of the body in fibroid tumours of (J. M. Munro Kerr), 68
Uterus, bicornute (Blair Bell), 265; (B. P. Watson), 693
Uterus, blood-tight (Geo. H. Peake), 199
Uterus, double (Ranken Lyle), 447
Uterus, hypertrophied (W. E. Fothergill), 264
Uterus, inversion of, complete, reduction and recovery (C. L. Fraser), 260
Uterus, prolapse of, operation for (J. Inglis Parsons), 262
Utopians and matrimony, 1554

V.

Vaccination, questions in Parliament, 1077; vaccination proceedings (Leicester), 1077;
Vaccination Act, 1907 (Declarations), 1077
Vaccination against bovine tuberculosis (M. Arloing), 49
Vaccination, compulsory, results of in France, 1439
Vaccination, education in, 408
Vaccination in India (Andrew Buchanan), 494; note on, 525
Vaccination order amended, 354
Vaccination, Mr. Pomeroy and, 118, 215, 293
Vaccination officers' remuneration, 1567
Vaccination officers' superannuation, 1016
Vaccination, review of books on, 268
Vaccination and small-pox in Germany, 589
Vaccination of Sultan Abdul Hamid, 191. *See also* Antivaccination
Vaccinations, antirabic, in Naples (1906–8), 244
Vaccinators, public, medical inspection by, 718
Vaccine in treatment of cellulitis of arm complicated with pneumonia (W. Owen Evans), 1106
Vaccine lymph in the tropics, 773
Vaccine therapy (McLeod Veitch), 871
Vaccine treatment of pyelonephritis in pregnancy (Charles F. Routh), 191
Vaccine treatment of a series of cases of staphylococcic infections (A. Clarke Begg), 186
Vaccine, typhoid, standardization of, 483
Vaccines, bacterial, in treatment of ulceration of face and fauces (J. Courtenay Mac-Watters), 190
Vaccines, bacterial, effect of on nutrition (Lewis Campbell Bruce), 430
Vaccines and serums in the treatment of disease (Nathan Raw), 811, 1538
Vaccine Therapy Institute, Bombay, 976
Vagina, primary epithelioma of (E. O. Croft), 754
Vaginal varix, spontaneous rupture of, causing severe *ante-partum* haemorrhage (C. E. Purslow and Guy J. Branson), 319
Vagrancy in Scotland, 1263
VAILLANT, JEAN, story of, 701
VAN BENEDEN, Dr., death of, 1208
VAN DER HOEVEN, P. C. T.: *Die Asthenie und die Lage-Anomalien der weiblichen Genitalien*, rev., 1176
VANDERSTRAATEN, V. C. J.: The pituitary body, 672
Varicose veins, review of book on, 757
Varicose veins of lower limb treated by avulsion (H. D. O'Sullivan), 921
VARIS, Dr.: On the etiology, epidemiology, and prophylaxis of malaria, 210
VAUGHAN, Lieutenant-Colonel JOSEPH C. S., awarded Kaisr-i-Hind medal first class, 68
VEDEL, Dr., *Consultations médicales*, rev., 1239
Vegetable for diabetics, a new (Robert Saundby), 568
Vegetable poison, a new, 224
Vegetarian Society. *See* Society
Vegetarianism and intestinal infection (leading article), 399
VEITCH, MCLEOD: Vaccine therapy, 871
VELEY, V. H.: Action of nicotine and other pyridine bases, 693
Venereal disease at Woolwich, management of (Lieutenant-Colonel J. B. Wilson), 938
Venereal disease, prevention of, in Germany, 723
Venereal diseases, review of books on, 1237
Ventilation, an experiment in, 770
Ventilation assisted by electricity, 1327
Ventral hernia. *See* Hernia
Ventricles and auricles, on the electro-cardiographic curves yielded by ectopic beats arising in the walls of (Thomas Lewis), 750
Vermiform appendix. *See* Appendix
VERNON, A. HEYGATE: Whitehead's operation for piles, 293
Veronal poisoning, 552
VERRALL, PAUL J.: Long incubation in beriberi, 443
Verruca plana, lime water in treatment of (Dudley Kennard), 81; Geo. Henderson), 180; (J. Burdon-Cooper), 240. *See also* Warts
Vertebra, cervical, dislocation of first (J. M. Cotterill), 20
Version, spontaneous, after rupture of membrane, 1452. *See also* Labour, instrumental
Vertigo, laryngeal (H. J. Davis), 448
VERWORN, MAX, called to chair of physiology at Bonn, 1260
Veterinary Department, Bengal, 537
Veterinary dispensaries. *See* Dispensaries
Veterinary Medical Association. *See* Association
Victoria asthma drops, composition of, 762
Vienna, special correspondence from, 172, 471, 599, 1141; a suggested tax on prescriptions, 172; title of specialist, 173; an interesting operation for "concretio cordis," 173; jubilee of Professor Politzer, 471; proposed legislation against quackery, 471; the housing problem, 599; new tariff of medical fees in the country, 1141; proposed legislation as to the salary of professors, 1141; scarcity of practitioners in rural districts, 1141
Vilixir, composition of, 152
VINCENT, SWALE: The pituitary body, 350; chromophil tissues and the adrenal medulla, 1151
Vincent's angina. *See* Angina
VINES, S. K.: Position of the patient after operations on the abdomen, 17
VIPAN, Captain J. A. M,: Probable cause of the immense number of cyprinodont fishes in Barbados, 441
VIRCHOW, pronunciation of, 1182
Virol, composition of, 29
Viscera, abdominal, reflex pain in diseases of (A. Ernest Maylard), 616
Viscera, transposition of (Seton Pringle), 1233
Viscera, case of complete transposition of, with *post-mortem* report (Geo. A. Allan), 987
Visceroptosis—viscerostaxis, 1452
Vital statistics in England and Germany, 514
Vital statistics in England and Wales (1909), 299
VIVIAN, CHARLES, a testimonial, 484
Vivisection, a bishop on, 835
Vivisection, Royal Commission on, 591, 593; date of report? 591, 593
Vivisection, Lord Cromer and Mr. Stephen Coleridge, 1565, 1576
Vivisection, proposed commission on in America, 895
Vivisection, questions in Parliament, 593, 895, 1077. *See also* Antivivisection
VOGT, HEINRICH: *Die Epilepsie im Kindesalter, mit besonderer Berücksichtigung erzieherischer, unterrichtlicher, und forensischer Fragen dargestellt*, rev., 879
VOIGHT, L.: Vaccine lymph in the tropics, 773
VOLBORTH, Dr., death of, 1330
Vollner's world-renowned rheumatism cotton-wool, composition of, 762
Voluntary Aid. *See* Society, Red Cross
Volunteer Officers' Decoration, 1030, 1206
Vomiting after anaesthesia (J. W. Keay), 1511
Vomiting, faecal, during anaesthesia, a suggested method of obviating (Dudley W. Buxton), 980; correspondence on, 1085, 1206
Vomiting of pregnancy, pernicious (Sir John Byers), 444
Von Pirquet's tuberculin reaction in the surgical diseases of children (Percival Mills), 1159
Von Pirquet's tuberculin skin reaction (J. W. Bride), 1161
Voyage d'Etude Médicale. *See* E.M.I.
Vulvar Cancer. *See* Cancer

W.

WAGGETT, E. B., appointed Surgeon-in-Ordinary to Their Royal Highnesses Prince and Princess Christian of Schleswig-Holstein, 529; universal service petition, 547; erratum, 610
WAGGETT, JOHN, estate of, 191
WAGSTAFFE, WILLIAM WARWICK, death of, 299; obituary notice of, 356
WALDO, Dr.: On inadequacy of provisions for restoration of drowning persons from the Thames, 764
WALDO, HENRY: Treatment of ringworm, 424
WALES, EDWARD G.: Part-time medical officers of health, 117
Wales, special correspondence from, 47, 114, 346, 530, 663, 1140, 1261, 1319; measles in the Rhymney Valley, 47; the Barry Hospital, 114; medical inspection of school children, 346, 530, 1261; at Pontypridd, 530; at Cardiff, report of medical officer, 1261; Red Cross Society, 530; mine sanitation, 530; Abersychan cellar dwellings, 530; training of sanitary inspectors, 663; coal miners and phthisis, 1140; a progressive community Pante g), 1141; a water scheme, 1319
Wales, sanitation and water supply in, 957, 1026, 1319
WALFORD, W. G.: Headache after sleep, 484; *Cerebral Congestion and Tight Neck Clothing*, rev., 699; tight neck clothing, 1392
WALKER, A. NIMMO: Prophylaxis of ophthalmia neonatorum, 54
WALKER, E. W. AINLEY: Physiology of bloodletting, 233
WALKER, H. D.: *Cancer and Sarcoma*, rev., 86
WALKER, H. F. BELL: Value of strychnine in shock, 1204
WALKER, JANE: Crime and punishment in this country, 142
WALKER, JOHN SWIFT: Part-time medical officers of health, 602
WALKER, NORMAN: Lupus erythematosus, 20; port-wine naevus undergoing atrophy from application of CO_2 snow, 1355; treatment of lupus carcinoma, 1412; dermatitis artefacta, 1481
WALKER, SECKER: Chronic glaucoma, 19
WALLACE, A. J.: Vaginal subtotal hysterectomy, 1175; preparation of the skin for operation by means of dichloride of ethylene and iodine, 1288
WALLACE, D.: Fracture of lower dorsal spine, 20; prostatism, 381; nephrectomy for large sarcoma, 1355
WALLER, A. D.: Action of nicotine and other pyridine bases, 693
WALLER, M. L., appointed Commissioner of Prisons, 42
WALLICH, V.: *Eléments d'obstétrique*, rev., 641
WALLIS, F. C.: Operative treatment of haemorrhoids, 415, 545; cancer of rectum, 1084
Walsall County Borough, a warning, 972
WALTERS, C. F.: Jejunal ulcerations, 321
WALTERS, F. R.: *The Open-air or Sanatorium Treatment of Pulmonary Tuberculosis*, rev., 385
Wandsworth, report of medical officer of health, 551
WARD, GORDON R.: Appendix dyspepsia, 543
Warnings, 60, 672; (Hugh M. Rigby), 60
Warts, lime water in treatment of, 180, 240. *See also* Verruca plana
WARWICK, F. J.: *"First Aid" to the Injured and Sick, an Advanced Ambulance Handbook*, rev., 998
Wassermann reaction (N. Bishop Harman), 1548
Wassermann's test, 240
Water Supplies Protection Bill. *See* Bill
Water supply, of Glasgow, proposed free, 469; of Cairo, 593; of Wales, 957, 1026, 1319; of Belfast, 1374; of Coulsworthy, 1470
Waters, saline, and the use and abuse of common salt (R. Ackerley), 382
WATSON, B. P.: Uterus bicornis, 693
WATSON, CHALMERS: Gout and the thyroid gland, 381; lactic acid bacilli, 1173; surgical treatment of glycosuria, 1204, 1382, 1520
WATSON, C. GORDON: Operative treatment for haemorrhoids, 600; tibio-calcaneal resection at the ankle with amputation of the foot, 695
WATSON, DAVID: Treatment of gonorrhoeal and mixed infections of the female genital tract by lactic acid bacilli, 192
WEATHERHEAD, E.: Dysmenorrhoea, 846
WEBB, SYDNEY and BEATRICE: *English Poor Law Policy*, rev., 639; lectures on prevention of destitution, 911
WEBBER, H. W.: Ectopic gestation: laparotomy: supervention of diffuse peritonitis recovery, 70
WEBER, Dr,: German research on tuberculosis, 836
WEBER, F. PARKES: Chronic malignant endocarditis, 141; case of intermittent claudication, 203; case of chronic leukaemia, 264; case of functional abdominal disease, 264: family idiocy, 324; bile-producing primary carcinoma of liver, 695; bluish haemochromatosis of the skin, 696; exophthalmic goitre in a man wilh symmetrical telangiectasis of the ocular conjunctivae, 696; congenital tumour in left parotid region, 696; disappearance of chronic ascites in alcoholic cirrhosis, 932; traumatic tuberculosis, traumatic pneumonia and traumatic pleurisy, 1153; ateleiosis, 1356
WEBER, Sir HERMANN: Strong winds and phthisis, 1377
Wedge, what is a fluid? 120

Week, the, 38, 105, 160, 223, 279, 338, 400, 459, 525, 587, 653, 713, 770, 835, 892, 948, 1011, 1070, 1129, 1189, 1255, 1310, 1368, 1431, 1503, 1563
Abdominal emergencies, 107
Academic dress at the Annual Meeting, 656

Week (*continued*)
After-care Association, 527
Albuminuria in relation to life insurance, 837
Alcohol question in Sweden, 1567
American President and a national health department, 340
American Society of Tropical Medicine, 1258
Anaesthesia with artificially limited circulation, 338
Anaesthetics museum, 949
Anderson, Dr. Ford, complimentary dinner to, 279
Ankylostomiasis in Great Britain, risks of, 589
Another "Honourable" gentleman, 160
Antimalaria Association in the Transvaal, 527
Antimeningitis serum, 1505
Antiquackery campaign in Germany, 281, 1130
Antivaccinators in conference, 1074
Antivaccinators and the general election, 160, 402
Antivaccination germ killer, 1130, 1256
Antivaccination in Parliament, 654
Antivivisection hospital, 40
Antivivisection meeting at Caxton Hall, 1432
Antivivisectionist literature, curiosities of, 892
Army horsing scheme, 772
Arterio-sclerosis, ocular symptoms of, 1191
Asepticity of bread, 771
Association, the Annual Meeting, 1564
Association, the, and the medical department of the Territorial Force, 653
Association Lending Library, 1565
Asylum Workers' Association, 1371
Asymmetry, 282
Australian Institute of Tropical Medicine, 715
Beri-beri, 1371
Bill, Midwives, the Government's, 893, 1012, 1371; memorial presented to the Lord President of Council, 1371
Blackwater fever, 402
Blindness, transient, during pregnancy and labour, 1131
Board of Education, 227
Board, Local Government, housing department of, 400; and the Castleford guardians, 460; circular on the Midwives Act, 525
Board of Trade vision tests, 1566
Boarding-out of pauper children, 162
Bradford, new infirmary at, 279
Bread, machine-made, 282
British, East Africa, officials in, 338
British Hospitals Association, 1133
British practitioners abroad, 717
"Brown dog" and his friends, 588
"Brown dog" in Chancery, 717
Brussels Exhibition, 894
Calcium in treatment of epilepsy, 280
Calcium chloride in albuminuria, 772
Calcium chloride as a haemostatic, 1191
Canada, reciprocity with, 227; medical registration in, 527
Cancer Commission, Harvard, 1505
Cancer, fulguration for, 339
Cancer research in America, 894
Cancer, vulvar, an extensive operation for, 1192
Cardiff Medical School, 526
Carteighe, the late Mr. Michael, and pharmaceutical legislation, 1433
Cell proliferation, induced, healing and malignancy, 1433
Census, the coming, 655
Centenarian doctor (Dr. Boullé), 894
Child emigration, 1504
Chittenden, Professor, his experiments, 836
Cholera, serum-therapy in, 588
Church Red Cross Brigade, 1314
Cigarettes and cerebro-spinal fever, 952
Coleridge, Mr. Stephen, and Lord Cromer, 1565
College of Surgeons, honorary medal of 1015; Council of, 1506
Colour-blindness and its detection, 461, 1566
Colour fields in cerebral tumour, 838
Compulsory service and national hygiene, 163
Constantinople, "decanisation" of, 1074
Cooper, the late Dr., 1133
Coroners and doctors, 1311
Coroners, London, 462
Cousin marriages, 164
Criminal statistics, 893
"Crusade against destitution," 715
Cyclodialysis in glaucoma, 1193
Dangers of the streets, 108
Death-bed of George the Fourth, 163
Dental paying clinics, 949, 1133
Dentists Act, interpretation of, 1070
Dictionary, New English, medical terms in, 107, 950
Diet and intestinal microbes, 1131
Doctors in command of an army, 1372
Doctor's doorkeeper, 401
Drowned, restoration of the apparently, 950
Edinburgh and St. Andrews, 42
Education Department in Germany, reorganization of, 590
Edward medal, 1310

Week (*continued*)
Egypt and the Soudan, climate of, 773
Egyptian mummy, the oldest, 1369
Electric bath treatment of the insane, 1504
Elliston, the late Dr. W. A., 279
En Avant, 1260
Environment and transmission, 1368
Epilepsy and crime, 39
Eugenics and divorce, 1075
Examination Hall, New London, 894
Financial position of the British workman, 656
Flock bedding, 1013
Food reform and the general election, 105
Food supplies, modern, 1315
Foster, Right Hon. Sir Walter, 526
French Congress of Practitioners, 1075
French inundations, 339
Fulguration for cancer, 339
General election, 105
General Medical Council, finances of, 654
George the Fourth, death-bed of, 163
German research on tuberculosis, 836
Glare, its causes and effects, 162, 459; glareless illumination, 459
Glycosuria, non-diabetic, 401
Gout, pathogenesis and treatment of, 1131
Gross parasites and bacterial disease, 42
Harvard Cancer Commission, 1505
Helios thermaphor, 1076
Hemiplegia, organic, diagnosis of, 1192
Hilden, Fabricius von, 1370
Histoplasmosis, 1074
Hospital abuse in America, 1314
Hospital accounts, uniform system of, 110
Hospital almoners, 838, 1432
Hospital for bad legs, Manchester, 1072
Hospital finance, 164
Hospital letters, 1071
Hospital, a sky-scraper, 1506
Humours of mad folk, 463
Hunterian specimens under the microscope, 1567
Hunter's free-martin, 1315, 1567
Hygiene Exhibition, Dresden (1911) International, 715, 1255
Hygiene at the hairdressers', 1013
Hyslop of Pietermaritzburg, Dr., 716
Immunity, the phases of, 591
Insanity in Italy, 1190
Insurance for medical men, 1071, 1503
Irish Medical Schools' and Graduates' Association, 772
Irish Poor Law Medical Service, 948
King Edward VII, the late, condolences, 1316
King George V, 1189, 1260
Laboratory research for women, 1257
Labour exchanges, 340
Lead smelting, dangers incidental to, 1311
Lectures at the Royal College of Physicians of London, 341
Lister, Lord, his work on lactic fermentation, 1506
Local Government Board Medical Report, 223
London Hospital, Chair of Urology at, 1567
McGill University, Montreal, new buildings, 895
Massage and nursing homes, bogus, 1434
Mechano-therapeutics, 400, 656
Medical Benevolent Fund Guild, 716
"Medical butchers," 280
Medical education in the United States, 835
Medical men and the House of Commons, 161
"Medical men and legacies from patients," 283
"Medical misgovernment," 1432
Medical poets, 226
Medical pointers, 108
Medical practitioners abroad, 1258
Medical profession in South Africa, 713, 1132, 1256
Medical Register, accuracy of, 1431
Medical students, decrease of, in America, 1189
Medical terms in the *New English Dictionary*, 107, 950
Medicine in Ibsen's plays, 402
Medicine and music, 590
Medicines, new, secret remedies and specialities, 1189
Mercury, effect of, in the serum reaction of syphilis, 1259
Mice and measles, 1566
Midwives Bill. *See* Bill
Motor cars, insurance of, 400
Moulds, museum of, 1314
Nervous diseases, research work on, 109
Nostrum nuisance, 1073
Nurses, State registration of trained, 459
Opsonic index, 225
Oral hygiene and tuberculosis, 951
Oral teaching of the deaf, 655
Papilloedema and local diagnosis, 591
Pasteur institute for East Bengal and Assam, proposed, 952
Pasteur Institute of India, 110
Pathological department of the Local Government Board, 107
Pathology and nosology, 892
Pellagra, investigation of, 587, 1013, 1255, 1566
Pellagra in the United States, 226
Petrol tax, repayment of, 529
Physiological application of the doctrine of the phases, 461
Pitch cancer, 1370

Week (*continued*)
Poisons, minor, sale of, 949
Pomeroy pupil, 892
Poor Law Medical Officers' Association of England and Wales, 1372
Poor Law medical officers and Poor Law reform, 341
Poor Law Medical Service, Irish, 948
Poor Law reform, 838
Poor relief in the eighteenth century, 224
Post-graduate Association, International, 1014
Post-mortem evidence and faith healing, 106
Post Office puritanism, 283
President of the Royal College of Physicians of London, 770
Pretence and the reality, 40
Quackery in Germany, 281, 1130
Quacks and the London police, 1011
Radium in the treatment of *x*-ray dermatitis, 951
Railway station lavatories, 109
Rates and taxes, revaluation for, 528
Research Defence Society, 1372
Rosa the Pygopaga, accouchement of, 1313
Rule of the road, 41
St. Winefride's Well, 654
Sale of minor poisons. *See* Poisons
San Francisco, new hospital at, 773
School children, vision of London, 338; treatment of in London, 1129
School nurse's lot, 1260
Secret remedies, 161, 339, 403, 1189; the variable dosage of, 161; the formulae of, 339, 403; Dr. C. Bachem's analyses, 1189
Section of Navy, Army, and Ambulance, 717
Servetus, Michael, 1011
Ship surgeons, 1257
Sleeping sickness in Uganda, 226
Small-pox and vaccination in Germany, 589
Smoking, excessive, and gastric secretion, 460
Social Welfare Association for London, 528
Sodium chloride, 1073
Special general and representative meetings, 1503
Spengler's immune body of tuberculosis, 225
Syphilitic soldiers, a short way with, 462
Taking the oath, 38
Teneriffe, international expedition to, 716
Tetanus and the motor car, 1312
Trachoma in emigrants, diagnosis of, 1259
Trading on names, 653
Tropical Disease Research Fund, 590
Tropical Medicine, American Society of, 1258
True disinterestedness, 591
Trypanosomiasis, treatment of, 1435
Tsetse flies with trypanosomes, duration of infectivity of, 1312
Tuberculous prevention, 1014
Tuberculosis, prophylaxis of, 463; German research on, 836
Tumours, simulation of by means of paraffin injections, 1258
Typhoid carriers, 38, 1190; in the army, 38
United States, medical education in, 835; decrease of medical students in, 1189
University education in London, a Royal Commission on, 1506
Vaccination in India, 525
Vaccine lymph in the tropics, 773
Vegetable poison, a new, 224
Ventilation, an experiment in, 770
Vivisection in America, proposed commission, 895
Vivisection, a bishop on (Dr. Frodsham), 835
Vivisection Commission report, 591. *See* Antivivisection
Wells, the late Dr. Herbert J., 528
Wheelhouse, C. G., memorial of, 109
Who should pay? 714
Women and the university franchise, 1073
Yellow fever in West Africa, 1434

Weever venom, further studies in haemolysis by (H. Muir Evans), 982
WEIDANZ, O.: *Praktische Anleitung zur Ausführung des biologischen Eiweissdifferenzierungsverfahrens, mit besonderer Berücksichtigung der forensischen Blut- und Fleischuntersuchung sowie der Gewinnung präzipitierender Sera*, rev., 85
WEIR, BENJAMIN, bequests of, 790, 1437
WEIR, Colonel THOMAS STEPHENSON, obituary notice of, 970
WEISS, OTTO: *Phono-Kardiogramme*, rev., 511
Well, St. Winefride's. *See* St. Winefride
WELLS, the late J. HERBERT, 528; an appeal, 528
WELLS, HORACE, memorial statute to, 845
"Weltmerism" (leading article), 891
WEST, C. ERNEST: The "Audio," a disclaimer, 484
WEST, SAMUEL: Pericardial effusion, 571
West Africa, yellow fever in, 1339, 1434
West African Medical Staff, 358, 647, 775; dinner, 358; fees charged by Government medical officers for medical attendance on private patients, 647; officially approved course of study, 775
Westmorland Sanatorium. *See* Sanatorium
West Yorkshire. *See* Yorkshire
Wexford, antivaccination campaign in, 405

WHARTON HOOD. *See* Hood
WHEATLY, ARTHUR WILLIAM, obituary notice of, 550
WHEELER, ALFRED E., awarded Henry Saxon Snell prize of Royal Sanitary Institute, 16
WHEELER, EDWIN R., receives permission to accept third class of the Order of the Sacred Treasure, 790
WHEELER, J. PUTNAM: Definition of emphysema, 1308
WHEELER, W. I. DE C.: Operation for fractured femur in a child, 570
WHEELHOUSE, C. G., memorial of, 109
WHELAN, Fleet Surgeon J. H.: On malarial fevers and quinine, 986
WHERRY, GEORGE: *Notes from a Knapsack*, rev., 513
WHETHAM, WILLIAM CECIL DAMPIER, and CATHERINE DURNING WHETHAM: *The Family and the Nation*, rev., 21
WHIPHAM, Dr.: Myelogenous leukaemia, 571; congenital malformation of heart, 1356; pulmonary stenosis, 1356; air swallowing, 1356
WHIPHAM, T. R. C.: Some points concerning pneumonia and pneumococcal infections in childhood, 1036
WHITAKER, GEORGE HENRY, obituary notice of, 1208
Whitaker's Peerage, Baronetage, Knightage, and Companionage, rev., 209
WHITTY, C. J.: General practitioners and Poor Law reform, 351
WHITE, FAULDER; Treatment of suppurative otitis, 504; case of Bezold's disease, 1110
WHITE, J. A. HENTON: Spinal analgesia and pituitary extracts for forceps delivery during acute pneumonia, 1282
WHITE, POWELL: Cell proliferation, 813
WHITE, SINCLAIR: Ureteral calculi, 1: cancer of large intestine, 573; rhinoplasty, 573, 919
WHITE, W. HALE: Appendix dyspepsia, 472; gastrostaxis, 1347; case of pernicious anemia having changes in the spinal cord, 1393
WHITEFORD, C. HAMILTON: Carcinoma of rectum appearing simultaneously in husband and wife, 1411
Whitehaven mine disaster, bravery of a doctor, 1287
WHITEHEAD, A. L.: Myopia with progressive choroiditis and detachment of the retina, 755; chronic otorrhoea, 1232
Whitehead's operation for haemorrhoids, modification of (W. Silverwood Richardson), 17; correspondence on, 234, 292, 415, 473, 544, 600, 848. *See also* Haemorrhoids
WHITEHOUSE, BECKWITH: Case of probable ovarian pregnancy, 1276
WHITFIELD, ARTHUR: Epilation forceps, 1179
WHITLA, Sir WILLIAM, appointed Representative of Queen's University, Belfast, on General Medical Council, 1133
WHITMAN, WALT (J. Johnston), 1555
WHITTALL, W. J. H.: *An Elementary Lecture on the Theory of Life Assurance*, rev., 815
WHITTY, J. ST. GEORGE: The drug habit, tobacco, 1152
Whooping-cough, diagnostic value of leucocytosis in (Hugh T. Ashby), 1105
Who should pay? 714
WICKS, FREDERICK: On a Pott's fracture, 209
WIDMARK, ERIK JOHAN, death of, 296
WILKINS, ARTHUR G.: Doctors on skis, 484
WILKINSON, E: *Tropical Medicine and Hygiene, Diseases due to Protozoa*, rev., 698
WILKINSON, GEORGE: Barany's labyrinthine tests, 1112
WILKS, Sir SAMUEL: Account of Thomas Hodgkin, 153; hermaphroditism, 1377
WILLCOX, W. H.: Pulmonary tuberculosis treated by continuous antiseptic inhalation, 175; gastric analysis, 695
WILLETT, J. H.: Necrotic submucous fibroid, 639
WILLIAMS, C.: "Demoniacal possession," a disclaimer, 1272
WILLIAMS, GWYNNE: Pulsating ophthalmos, 932
WILLIAMS, H. W. S.: Sparking plugs, 285
WILLIAMS, LEONARD: Climacteric, 992
WILLIAMS, O. T., appointed assistant physician to Liverpool Royal Infirmary, 167; the nature and therapeutic indications of the fat compounds, 754; multiple myelomata, 1111
WILLIAMS, ROGER: Tumours of bilateral origin, 321
WILLIAMS, THEODORE, appointed chairman of King Edward VII Sanatorium, 1383
WILLIAMS, T. J.: Lumbar puncture, 811; thymus gland, 811
WILLIAMS, W. G.: Fracture of the great tuberosity of the humerus, 81
WILLIAMSON, GEORGE A.: Is ponos kala-azar? 545
WILLIAMSON, G. SCOTT: Typhoid carrier infection, 701
WILLIAMSON, O. K.: Spastic diplegia, 324
WILLIS, Mr.: Carcinomatous growth blocking nasal cavity, 755
WILLSON, J. WHERRY: The Bradford School clinic, 899
WILSON, ALEXANDER: Faecal vomiting during anaesthesia, 1206
WILSON, ALLAN: Country doctors and motor cars, 594
WILSON, E. A., goes on Antarctic expedition, 1383
WILSON, Lieut.-Col. E. M.: Special Reserve, Royal Army Medical Corps, 645
WILSON, F. P: Acid-fast bacilli, 993
WILSON, GEORGE MORTON, obituary notice of, 178
WILSON, H. A. F.: Haemagglutinins, haemopsonins, and haemolysins, 20; influence of bacterial endotoxins on phagocytosis, 1510
WILSON, Lieutenant-Colonel J. B.: Management of venereal disease at Woolwich, 638
WILSON, J. C.: *Handbook of Medical Diagnosis*, rev., 510
WILSON, LEITCH: Case of intussusception in the transverse colon of an adult, 375
WILSON, T. STACEY: Natural experiment in cardiac strain, 234
WILSON, WILLIAM: An appeal to Freemasons, 732
WILSON, W. J.: Carbon-monoxide poisoning, 1053
Winds, rain-bearing, and phthisis. *See* Tuberculosis and rain-bearing winds
WINDSCHEID, FRANZ, death of, 551
WINDSOR, THOMAS, bequeaths his library, 1422
WINGFIELD, HUGH: Self-suggestion as a healing factor, 1575
WINKLER, CARL: *Die Gewächse der Nebennieren*, rev., 879
WINSLOW, FORBES: "Paranoia," 1392
Winter's prunus perfect food, composition of, 1241
Wisconsin, department of experimental breeding established in College of Agriculture, 639
WISE, K. S. (editor): *British Guiana Medical Annual for 1908*, 997
WOLFENDEN, R. NORRIS: *Scientific and Biological Researches in the North Atlantic, conducted by the Author in his Yachts "The Wahirn" and "The Silver Belle,"* rev., 267
Women doctors and Leeds Infirmary. *See* Infirmary
Women doctors and Manchester Infirmary. *See* Infirmary
Women doctors and St. Mary's hospital, 231
Women graduates of medicine in Sydney, 841
Women, laboratory research by, 1257
Women and the university franchise, 1073
Women, working, to be allowed time to nurse their babies in France, 216
Women's lavatories. *See* Lavatory
Women's Medical Association. *See* Association
Women's National Health Association. *See* Association
WOOD, H. D. SEARLES, and Public Health Section of the Japan-British Exhibition, 268
WOOD, General LEONARD, appointed chief of staff of United States Army, 1372
WOOD, NEVILLE: *Spa Treatment, Selection of Patients and the Choice of a Suitable Spa*, rev., 1551
WOOD, T. JASON: Treatment of fractures, 755
WOODRUFF, CHARLES E.: Professor Chittenden's experiments, 836
WOOLSEY, G.: *Applied Surgical Anatomy*, rev., 577
Woolwich, medical treatment of school children in, 470; management of venereal disease in (Lieutenant-Colonel J. B. Watson), 638
Worcester, special correspondence from, 470; control of the feeble-minded, 470
Word blindness. *See* Blindness
Workhouses, padded rooms at, issue of circular from Local Government Board, 907
Workmen, results of the treatment of fractured limbs in (Arthur P. Gibbons), 314
Workmen's Compensation Act. *See* Act
Workmen's tenements. *See* Tenements
World, international map of, 942
World Missionary Conference. *See* Conference
Wounds in road or garden or field accidents, treatment of, 1203, 1267; tetanus antitoxin in, 1267
WRAY, CHARLES: Dangers of anylarsonates, 724; the College of Surgeons' dissections and surgery, 1205
WRIGHT, F. C.: Country doctors and motor cars, 762
WRIGHT, G. A.: Case of cancer of pylorus associated with general splanchnoptosis, partial gastrectomy, 18
WYNTER, W. ESSEX: Case of angioneurosis, 203; chloroma, 571

X.

Xerosis of conjunctiva and night blindness (Malcolm L. Hepburn), 692
X-ray dermatitis, radium in treatment of, 951
X-ray diagnosis and ureteral calculi (Thurstan Holland), 811
X-ray injuries, 718
X rays in diagnosis and treatment (James Metcalfe), 432
X rays in favus (Dr. Codd), 1290

Y.

Yangtse Valley, kala-azar in (Alexander C. Lambert), 750
YATES, A. G.: Spleno-medullary leukaemia, 1112; lichen filaris, 1112; myoclonus, 1112
YATES, Major HARRY B., appointed Esquire of the Order of St John of Jerusalem, 671
Year Books, rev., 145, 209, 327, 997; *of Pharmacy and Transactions of the British Pharmaceutical Conference (1909)*, rev., 145; *Sanitary Record Year Book and Diary (1910)*, rev., 209; *Year Book of Learned and Scientific Societies*, rev., 327; *Public Health Service Directory and Year Book*, rev., 997
YEARSLEY, MACLEOD: Curette for Eustachian tube, 1057
Yellow fever. *See* Fever
YEO, Dr. BURNEY: Respirator, 387
YORKE, WARRINGTON: Investigations into the mechanism of production of blackwater fever, 402
Yorkshire, special correspondence from, 45, 167, 409, 722, 843, 899, 1019, 1080, 1139; the smells of Bradford, 45; Bradford Anthrax Investigation Board, 45; medical staffs of the Bradford hospitals, 45; the Association and the Bradford Medico-Chirurgical Society, 45; dinner to Dr. David Goyder, of Bradford, 167; congratulatory address to, 410; Bradford Division of the British Medical Association, supper and smoking concert, 409; Bradford School Clinic, 722, 843, 899, 1019; Bradford Royal Infirmary, 722; Waddilove's Samaritan Hospital for Women, 1019, 1080, 1140; Leeds and District Medical Practitioners' Association, 1019; Bradford Medico-Chirurgical Society, 1139
YOUNG, ERNEST: *The Value of an Exclusive Proteid Diet in Certain Digestive Disorders*, rev., 698; value of an exclusive proteid diet, 852
YOUNG, JAMES: Public medical service in Fulham, 175
YOUNG, PETER, obituary notice of, 1090
YOUNG, W. H.: Mendelism, 721
YOUNGE, G. H.: Treatment of tuberculous meningitis, 1168

Z.

ZAUFAL, EMANUEL, death of, 551
ZENCHALLO, Dr., death of, 1182
ZIEGLER, OTTO: *Röntgenatlas der Lungentuberkulose: Beiträge zur Klinik der Tuberkulose*, rev., 1054
Zoological gardens for Edinburgh, proposed, 1375
Zoological Society. *See* Society
ZUNTZ, N: *Lehrbuch der Physiologie des Menschen*, rev., 1296
ZWAARDEMAKER: Physiological application of the doctrine of the phases, 416

SPECIAL PLATES.

	PAGE
FENWICK, E. HURRY: Renal Calculus Producing no Symptoms for Fifty Years	facing 1108
HANDLEY, W. SAMPSON: Surgery of the Lymphatic System	facing 928, 929
HORSLEY, Sir VICTOR: Optic Neuritis	i to xii
KOCH, ROBERT (1907)	facing 1384
WALKER, NORMAN: Dermatitis Artefacta	facing 1482
WHITE, SINCLAIR: Ureteral Calculi	facing 1

ILLUSTRATIONS IN THE TEXT.

	PAGE
Africa, South West, Medical Report of the German Campaign in (Five Figures)	643
ALLAN, GEO. A.: Complete Transposition of Viscera	987
ALLPORT, WILFRID: Infantile Glaucoma or Buphthalmia (Two Figures)	564
Artificial Respiration in Newborn Infants	1194
ATKINSON, AMB.: Spontaneous Passage of Gall Stone	990
Baden-Baden as a Health Resort (Two Figures)	1003
BALDWIN, F. A.: Operation for Elephantiasis Scroti	496
Belgrave Hospital for Children, Clapham Road	705
BISHOP, E. STANMORE: Abdominal Emergencies (Three Figures)	1214, 1215
BOWEN, W. H., and H. B. CARLYLL: Sarcoma of the Petrous Bone (Three Figures)	1546
BRAMWELL, BYROM: Combined Degeneration of Spinal Cord (Four Figures)	1397
BRUCE, LEWIS CAMPBELL: Bacterial Vaccines and Nutrition (Four Charts)	430
BURY, JUDSON S.: Case of Spasmodic Syringomyelia (Six Figures)	132
CARLING, E. ROCK: Surgery of the Jejunum (Two Figures) ...	435
CARMICHAEL, D. G.: United Female Twins	1352
CARWARDINE, T.: Gall Stones and Biliary Obstruction (Five Figures)	66
COBBLEDICK, A. S.: Some Ophthalmic Conditions Caused or Influenced by Diseases of the Upper Respiratory Tract (Two Figures)	1283
COLE, PERCIVAL P.: Relation of the Parovarium to Cyst Formation (Five Figures)	748, 749
College, Royal, of Surgeons of England, Plan of Museum ...	1245
CRUICKSHANK, ROBERT W.: Cowpox in Man (Two Figures) ...	985
Cup Pessary	86
DAVIDSON, JAS.: Carcinoma of the Male Breast	1230
DAVIES, H. MORRISTON: Cancer of Cervical Oesophagus (Five Figures)	365
Emperor Henry operated on by St. Benedict	1488
Ethyl Chloride Inhaler, New	1242
EVE, FRANK C.: Clinical Method of Measuring the Antitryptic Index (Four Figures)	1540
EVE, FREDERIC: Surgical Treatment of Gastroptosis (Four Figures)	1100
FENWICK, E. HURRY: Renal Calculus Producing no Symptoms for Fifty Years	1109
Forceps, Epilation	1179
Forceps for Holding Michel's Sutures	880
FREAN, H. G.; Case of Aneurysm in a Woman (Two Figures) ...	319
GEDDES, A. C.: Mechanical Effects of Right Pleural Effusion ...	1410
Gleet, Instruments for the Diagnosis of the Seat of	146
GORDON, W.: Rightward Edge of Cardiac Dullness (Three Figures)	1338
GROVES, ERNEST W. HEY: Radical Operation for Cancer of Pylorus (Four Figures)	36
HANCOCK, WILLIAM ILBERT	357
HANDLEY, W. SAMPSON: Surgery of the Lymphatic System (Twenty-three Figures)	854, 922
HANN, REGINALD G.: Case of Osteitis Deformans terminating with Cerebral Symptoms (Two Figures)	136
HARRIS, WILFRED: Alcohol Injection in Trigeminal Neuralgia (Two Figures)	1406
HARTILL, JOHN T.: Retained Menses Relieved by Operation ...	71
Healing Saints of Notre Dame du Haut	1489
HERRING, E. KEN: The Intestinal Stitch (Four Figures) ...	496
HILL, LEONARD: New Form of Mercury Sphygmometer ...	442
Hong Kong University, North Elevation	963
Hospital, King's College (Five Figures)	91
Hospital, Royal Free (London School of Medicine for Women) ...	92
HUNTER, JOHN	1244
HUTCHINSON, Sir JONATHAN: Palaeogenetic Face-Pattern in Piebalds (Five Figures)	1479
Inhaler, Ammonium Chloride	578
Inhaler, Ethyl Chloride	1242
Inhaler, Valved Angle Piece for	578
JAMIESON, R. HILLHOUSE: Scopolamine-Morphine Narcosis (Seven Figures)	742, 743
JONES, FREDERIC WOOD: Development and Malformations of Glans and Prepuce (Nine Figures)	137
KEITH, ARTHUR: Constrictions and Occlusions of the Alimentary Tract of Congenital or Obscure Origin (Six Figures) ...	301
KEITH, ARTHUR: Diverticula of the Alimentary Tract of Congenital or Obscure Origin (Nine Figures)	376
KENNEDY, ROBERT: Intracranial Tumour Relieved by a Decompression Operation (Two Figures)	1226, 1227
KILLICK, CHARLES: Case of Congenital Cataract	318
KOCH, ROBERT (1907)	facing 1384
Lamp for Testing Colour Vision	760
LEECH, PRIESTLEY: Results of 100 Operations for Carcinoma Mammae (Seven Figures)	73
LLEWELLYN, T. LYSTER: Diagrams of the Darran Colliery Explosion (Four Figures)	1399

	PAGE
LOCKIE, STEWART	1089
London School of Tropical Medicine (Two Figures)	703
Lourdes (Two Figures)	1491
MACEWEN JOHN A. C.: Double Loop Hernia...	799
McKISACK, H. L.: Muscular Dystrophy (Erb's Juvenile Form) in an Adult ((Three Figures)	560
MACLEOD, J. M. H.: Carbon Dioxide Snow in Vascular Naevi (Seven Figures)	254
McNABB, D.: Fracture of Tibia and Fibula by Direct Violence ...	443
MANNING, HENRY JOHN	605
MAY, WILLIAM PAGE	297
MAYLARD, A. ERNEST: Reflex Pain in Diseases of the Abdominal Viscera (Two Figures)	617
Midwifery Forceps, Improved (Two Figures)	387
Milan, Clinical Institute for Study of Diseases of Occupation at ...	1062
MONSARRAT, KEITH: Malignant Growth of the Kidney (Two Figures)	686
MORLEY, JOHN (under the care of G. A. Wright): Cancer of Pylorus Associated with Splanchnoptosis: Partial Gastrectomy (Two Figures)	18
Mouth Gag with Electric Light	760
Mucus Evacuator, New	24
Nasal Administration of Nitrous Oxide Gas	1554
"Nebulique Spray"	452
Needleholder, Simple Form of	209
Ophthalmo-fundoscope	817
Pott's Fracture, a Patient on	210
Prince of Wales's General Hospital	704
RIGGALL, R. M.: The Samar Twins	1050
Royal Waterloo Hospital for Children and Women	704
RUSSELL, J. S. RISIEN: The Cerebellum and its Affections (Five Figures)	425
SECRETAN, W. BERNARD: Case of Gluteal Aneurysm	800
SLOANE, Sir HANS	1243
SMITH, E. ARCHIBALD: End-to-End Suturing of arteries (Eight Figures)	1407
SMITH, JOHN	1027
SWEET, W. SIDNEY: Two Cases of Pelvic Tumour	810
TAYLOR, JOHN WILLIAM	607
THORBURN, WILLIAM: Cardiolysis (Precordial Thoracostomy) in Heart Disease	10
TROTTER, WILFRED: Peritoneal Pseudo-myxoma originating from the Vermiform Appendix (Four Figures) ...	687, 688
Tudor England, Wilton from a drawing in Roll II	32
TYSON, WILSON: Ossification of Brachialis Anticus following Injury to Elbow	920
Victoria Hospital for Children, Chelsea	705
WALKER, NORMAN: Dermatitis Artefacta ... ... facing	1482
WHITE, SINCLAIR: Successful Rhinoplasty in an Old Woman (Two Figures)	919
WHITE, W. HALE: Pernicious Anaemia, with Changes in the Spinal Cord (Three Figures)	1395
WHITEHOUSE, BECKWITH: Case of Probable Ovarian Pregnancy (Four Figures)	1277

Printed and Published by the British Medical Association at their Office, No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

6105
BR
B3U

THE

British Medical Journal.

THE JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

LONDON: SATURDAY, JANUARY 1ST, 1910.

ON

URETERAL CALCULI:

A Review of the Methods Employed for their Removal, with Notes of Two Successful Cases of Transperitoneal Uretero-Lithotomy.

By SINCLAIR WHITE, M.Ch., F.R.C.S.,

SENIOR HONORARY SURGEON TO THE ROYAL INFIRMARY, AND LECTURER ON SURGERY IN THE UNIVERSITY OF SHEFFIELD.

[With Special Plate.]

The employment of the Roentgen rays in the diagnosis of ureteral calculi has added greatly to our knowledge of, and the interest taken in, this field of surgery.

Formerly, unless the calculus could be felt through the rectum or vagina, or was arrested at the extreme end of the ureter and actually protruded into the bladder, it was difficult or impossible to distinguish between renal and ureteral stones previous to operation. The routine procedure was to explore the kidney, and then to search the ureter by means of a long flexible probe passed downwards from the renal pelvis. The angle formed by the ureter in its course over the pelvic brim was, however, a serious stumbling-block, and calculi in the pelvic portion of the ureter were not uncommonly overlooked.

The Roentgen rays have altered all this, and we are now able to predict with more or less certainty the presence or absence of a calculus in all suspected cases. Moreover—and this is a point of much importance—when a calculus is present, we can locate the exact point in the ureter where it will be found.

In the hands of an experienced radiographer it may be taken as generally correct that a negative finding excludes a calculus. Where a positive finding has been obtained the case is a little different, because phleboliths in the uterine or other pelvic veins, calcareous patches in atheromatous arteries, and especially tuberculous glands that have undergone calcification, all cast shadows which resemble in varying degrees that of an ureteral calculus. A careful scrutiny of the picture may show that the shadow of the pseudo-calculus does not lie on the anatomical line of the ureter, and that it lacks the clear-cut outline of a genuine calculus; but, in the light of cases recorded in which the mistake has been made, it is impossible to ignore altogether this source of error.

The *x* rays have demonstrated that, contrary to the belief formerly held, calculi are found in the ureters more frequently than in the kidneys. Leonard,[1] from a careful analysis of a series of cases, estimated the ratio as being two ureteral to one renal stone.

Morris,[2] Bovee,[3] and Schenck,[4] have shown that the vast majority of ureteral calculi are arrested at one or another of certain definite points in the ureter, and a study of its anatomy reveals why such should be the case. The lumen of a normal ureter is greatest in its central portion, where its diameter amounts to as much as one quarter of an inch. Towards the renal end it narrows to about one-seventh of an inch, and at its bladder end to one-tenth of an inch. There is a third slight constriction where it passes over the brim of the pelvis, and at this point it makes an angle of 135°.

Morris has tabulated 44 cases in which the site of the calculus was noted. Of these, 19 were found within an inch or two of the upper end, 10 at the brim of the pelvis, and 15 in the pelvic portion of the ureter.

The combined cases collected by Bovee and Schenck, omitting a few in which the stone was found in the central portion of the ureter, amount to 125. Of these, 41 were at the upper end, 25 at the pelvic brim, and 59 in the pelvic ureter.

Primary calculi of the ureters are very rare. They form around foreign bodies, or on ulcerated surfaces, and are usually phosphatic in character. The vast majority of ureteral calculi descend from the pelvis of the kidney, and most of these belong to the uric acid group, are oval in shape, and quite smooth. A small minority are oxalates with prickly surfaces which cause much irritation. When a calculus is impacted in a ureter the latter hypertrophies and becomes dilated above the stone, which frequently acts as a ball valve, and produces intermittent hydronephrosis. The calculus increases in size slowly but steadily, and if it does not escape into the bladder soon after entering the ureter there is no hope of it doing so later.

The treatment of abdominally placed ureteral calculi calls for little comment. The symptoms will be those of renal colic, and in nearly every case operative measures will include an exploration of the kidney. By prolonging the usual oblique nephrotomy incision downwards and forwards the whole of the abdominal portion of the ureter may be easily exposed, lying immediately behind the peritoneum, to which it is loosely attached. The calculus may be manipulated upwards to the renal pelvis, or, if it is not possible to do so, the ureter can be incised retroperitoneally over or, better still, just above the stone. After extracting the calculus and searching the ureter upwards and downwards the wound in the tube is closed by two or three fine catgut sutures, which should not engage the mucous coat.

In the pelvic portion the problem is much more difficult, and not a little ingenuity has been displayed in devising methods for approaching this part of the ureter. The dominant idea in planning almost all of these methods has been to reach and incise the ureter extraperitoneally.

Among the routes suggested and actually practised the following may be mentioned:

1. The intravesical.
2. The perineal.
3. The parasacral.
4. The trans-sacral.
5. The vaginal.
6. The rectal.
7. The iliac extraperitoneal.
8. The combined intraperitoneal and extraperitoneal and
9. The transperitoneal.

The vesical route is applicable to cases in which the calculus is arrested at the outlet of the ureter. In most instances the lower end of the stone protrudes into the bladder and can be felt with a searcher or actually seen through a cystoscope. Suprapubic cystotomy in the male and dilatation of the urethra in the female afford the necessary approaches.

The peritoneum covering the pelvic floor in the male is reflected on to the posterior wall of the bladder two-thirds of an inch above the lower end of the ureter, and short of

this extent the male ureter may be laid open from the bladder without injuring the peritoneum. In the female vesico-utero-lithotomy is less safe, and Thornton has recorded a fatality from peritonitis after this operation in a woman.

The perineal route was devised and successfully practised by Fenwick.[5] Through it the lower end of the ureter is reached after a deep dissection between the urethra and prostate and the rectum. The procedure is admittedly a difficult one, and in at least one case had to be abandoned by the operator.

The para-sacral route was designed by Sir Henry Morris, and is fully described in his classical work on *Surgical Diseases of the Kidney and Ureter*. He employed it successfully in two female cases. Rigby[6] had recourse to it in four male patients, all of whom recovered, but in one case he failed to find a calculus. The operation commences with an incision 5 in. long, parallel with, and a finger's breadth external to, the lower part of the sacrum and the coccyx. The posterior fibres of the gluteus maximus muscle, and, deeper, the sacro-sciatic ligaments are divided. The steps of the operation have been carefully thought out, and, although it involves a tedious dissection, it is undoubtedly superior to any of the other procedures conducted through the floor of the pelvis.

Cabot[7] is responsible for suggesting the trans-sacral route, the preliminary steps of which are identical with those of Kraske's operation for cancer of the rectum. Sick relates a remarkable case in which he attempted to deal with a large pelvic calculus in this way. A portion only of the stone was removed, while the remainder worked its way up the ureter to the pelvis of the kidney, where it was discovered after a subsequent nephrectomy.

The vaginal route has been practised by Emmet, Cabot, Freyer, and others with success. At first sight it would appear to be a comparatively easy operation, but inability to fix the stone while the ureter is being opened is a drawback. In one of Freyer's cases the calculus became displaced and could not be found. Fortunately it subsequently escaped through the vaginal wound and was caught on the dressing.

Emmet used scissors for making the incision, and closed the opening in the ureter with interrupted sutures. There was no subsequent leakage. Cabot[8] records the case of a woman aged 39, who had suffered from attacks of renal colic for sixteen years. There was a left pyonephrosis, and a small, hard mass could be felt in the left broad ligament close to the cervix uteri. After incising the ureter and removing the stone 10 oz. of pus escaped and the renal swelling disappeared. The patient ultimately recovered, but a uretero-vaginal fistula persisted for four months.

The rectal route need only be mentioned as an example of surgical temerity. Cecci has placed on record a successful case, but in the hands of other operators it has been attended with disaster.

In recent years there has been a growing tendency to attack pelvically placed calculi from above, and here, again, there is a choice of methods. The operation may be performed retroperitoneally; the peritoneum may be opened and the stone pushed up to a point above the pelvis, from whence it is removed retroperitoneally; or the stone may be dealt with transperitoneally.

The first of these methods is known as the iliac extraperitoneal operation. It has been practised many times, and most surgeons accept it as "the operation of choice." It is carried out as follows: The abdominal parietes down to the peritoneum are divided from a point slightly above and to the inner side of the anterior superior spine of the ilium downwards and inwards to 1 in. above the centre of Poupart's ligament, and then horizontally inwards above the internal inguinal ring to the outer margin of the rectus muscle. The edges of the wound are retracted widely and the peritoneum lining the side of the pelvis is displaced inwards until the ureter is reached. The stone is now located and, if possible, pushed up above the pelvic brim, from whence it is removed through a vertical incision in the posterior wall of the ureter.

After searching for other calculi, both upwards and downwards, the ureteral wound is closed by inserting two or more Lembert sutures. If the calculus cannot be displaced upwards, the ureter is incised over it, but in these cases, owing to the great depth at which the operator is working, it is usually quite hopeless to attempt to close the wound in the ureter by sutures, and ample provision must be made for urinary leakage which for a time will follow.

The second method—the combined intraperitoneal and extraperitoneal operation—has been resorted to by R. B. Hall[9] and Arbuthnot Lane,[10] each of whom records a successful case. Its technique consists in opening the abdomen and introducing a part, or the whole, of one hand, with which the stone is pushed up to a point above the iliac crest, from whence it is removed extraperitoneally through a small opening in the flank.

A modification of this method is to open the abdomen through one or other semilunar line; locate the stone by intraperitoneal palpation; displace it upwards as far as possible; strip the parietal peritoneum on the outer side of the wound downwards until the stone is reached, and open the ureter extraperitoneally. Gibbon[11] records particulars of two cases successfully operated on in this way. No attempt was made to suture the wound in the ureter, and in both cases a temporary urinary fistula resulted. A third case is reported by Erdman.[12] The patient was 7 years old, and had had symptoms for three years. The wound healed in two weeks.

There remains for consideration the transperitoneal method, which I used in the two cases recorded in this paper. It has received severe and, I think, altogether unmerited condemnation from Morris, Freyer, and others.

Morris[13] says, "Nothing should induce the surgeon ever to incise a ureter through the peritoneum unless he is absolutely sure of the aseptic state of the urine."

Freyer[14] writes: "Considering the grave danger of urinary leakage I hold that, even when the abdomen is opened for the purpose of effecting a diagnosis, if a stone is located in the ureter the abdomen should be closed and the calculus removed at a subsequent date extraperitoneally."

These opinions, coming as they do from workers who have done so much to advance our knowledge of ureteral surgery, necessarily carry much weight; but when one attempts to ascertain the facts on which they are founded there is a singular absence of evidence. I have gone carefully through the literature on the subject to which I have had access and with the exception of a case reported by Cullingworth I have failed to find a single death following the transperitoneal operation.

As much prominence has been accorded to Cullingworth's[15] fatal case it may be well to reproduce his account of it.

A female, aged 30 years, admitted to St. Mary's Hospital, Manchester, 1884. Right pyonephrosis. A vaginal examination revealed a mass of stony hardness, of the size of a walnut, to the right of the uterus, and a smaller equally hard mass to the left. The urine contained pus to the amount of one-fourth of its volume. Diagnosis—right pyonephrosis, with independent disease of both ovaries.

Exploratory laparotomy through right semilunar line; right ureter enormously dilated and very tense. On following it down to the pelvis a large stone was found. Ureter incised in its long axis above stone; escape of a large quantity of highly offensive pus. Stone removed; weighed 270 grains; wound in ureter closed with difficulty by five interrupted sutures of fine carbolized silk; opposite ureter not examined because of patient's critical condition; glass tube inserted. Operation lasted an hour and a half. Death from uraemia eighty hours afterwards.

Autopsy.—Right kidney—numerous small abscesses; two calculi. Left kidney—pelvis and calyces formed a large irregular abscess cavity; left ureter greatly dilated; half an inch from bladder large stone.

It is hardly necessary to say that almost any operation performed on a patient in so desperate a condition would end fatally, and that it is illogical to quote this case as evidence of the danger attending transperitoneal uretero-lithotomy.

Let us, in the absence of facts, examine for a little while the reasons for assuming that the transperitoneal operation is a dangerous one. They resolve themselves into (*a*) fear of infecting the peritoneum during the operation, and (*b*) danger of urinary leakage subsequently.

The urine in most cases of impacted ureteral calculi is sterile, and when it is not so the virulence of the organisms it contains is no greater than that of those found in a suppurating appendix, or in a pyosalpinx, lesions which when dealt with by modern methods have scarcely a mortality. Again, in Wertheim's operation for advanced uterine cancer, the ureters are divided and implanted into the bladder, when necessary, with the happiest results.

As I hope to show presently, with proper technique, a wound in the ureter—even in the pelvic ureter—is almost as easily closed by suturing as a wound in the large intestine, while it is infinitely less likely to reopen from subsequent tension on the sutures. Surgical traditions have at all times stood in the way of progress, and nowhere could a better instance of this be found than here, where the *noli me tangere* attitude of a past generation of surgeons towards interfering with the peritoneum still holds sway, and fortified by the dicta of high authorities constitutes the last citadel of a discredited theory.

That it should be so may be explained, partially at least, by the experience of operators who have confined their work to extraperitoneal methods, whether conducted from above or below. In all of these operations the surgeon works at the bottom of a deep and narrow wound, where space and light are at a minimum and the accurate placing of sutures wellnigh an impossibility. Indeed, many operators, impressed by the hopelessness of the task, make no attempt to suture the ureter.

The conditions are, however, vastly different when the ureter is explored intraperitoneally. By placing the patient in the exaggerated Trendelenburg posture and employing the median suprapubic route the intestines fall away to the upper abdomen, where they are securely walled off by one or more towels. If retractors are now used to separate widely the edges of the abdominal wound, a clear and uninterrupted view is obtained of the line of the right ureter throughout its lower two-thirds, while the line of the left ureter can be almost equally well observed if the meso-sigmoid is displaced inwards below and outwards above the pelvic brim. In thin subjects the ureters can be distinctly seen where they cross the brim of the pelvis, and by running a finger along their course, so as to displace the subperitoneal fat, it is possible to follow them with the eye for some distance both upwards and downwards.

But whether they are visible or not, they can be easily palpated with the fingers, and there should be no question of missing a calculus in the pelvic ureter. The stone can usually be displaced up to the pelvic brim, which is the most convenient place from which to extract it. It is surprising to find how accessible the ureter is at this point. In one of my patients, a thin female, it was possible to lift the ureter covered with peritoneum quite to the level of the skin wound. The portion of ureter about to be opened is surrounded with gauze, and the peritoneum divided over it. The stone is next grasped between the fingers and thumb of the left hand, and, while so held, the ureter is clearly divided over it in a vertical direction. Should there be any leakage, this is at once mopped up. The wound in the ureter is closed by two or more fine catgut sutures passed after the manner of Lembert. These, while just missing the mucous membrane, secure firm and accurate apposition of the cut edges, which are slightly inverted. The small opening in the peritoneum is sutured in the usual way, and, after removal of the gauze and towels, the abdomen is closed without drainage.

Owing to the inverted posture of the patient, and to the fact that intraperitoneal manipulations temporarily inhibit the renal function, there is usually no escape of urine when the ureter is incised; but if there should be any reason for dreading this, the ureter above and below the site of operation may be temporarily occluded by ligatures. This precaution was actually adopted by Knaggs and Sick in cases which will be alluded to presently.

In cases of pyonephrosis and hydronephrosis, where the ureter is distended and tense, it should be aspirated and temporary ligatures applied before opening it. Finally, if drainage of the operation area is thought to be desirable it can be readily and efficiently provided through a small opening in the flank, the drainage tube ending just short of the place where the ureter has been incised, and of course extraperitoneally. Where drainage is contemplated the stone should be pushed up as high as the level of the iliac crest before it is removed. In order to render the line of suture in the ureter still more secure it has been proposed to surround the tube completely with peritoneum, either by infolding the adjacent portions or by detaching a strip and wrapping it around the ureter. This addition to the operation is, I think, wholly unnecessary, and by unduly interfering with the blood supply of the ureter may be actually harmful.

The advantages claimed for the transperitoneal operation are:

1. That it, and it alone, enables us to clear up doubtful diagnoses. Thus, in the second of my cases the patient complained chiefly of pain on the left side, and although the *x* rays left no doubt as to the presence of calculi in the right ureter they also revealed a fairly well developed shadow on the left side, and as a matter of fact the diagnosis arrived at previous to exploration was bilateral ureteral calculi. Intraperitoneal palpation showed the left ureter to be free from a calculus, while the origin of the shadow of the pseudo-calculus was traced to a calcified mesenteric gland. Had the extraperitoneal route been adopted there would have been a second and wholly unnecessary operation performed in this case.

2. It is a less difficult operation than any of the extraperitoneal procedures. It ensures plenty of room and an abundance of light, and the operator is able to carry out the steps it entails with little or no disturbance of the surrounding parts, and with an amount of precision quite unattainable by any other method.

Probably in consequence of its denouncement by Morris and others, very few surgeons appear to have practised it.

F. J. Steward[16] relates a successful case. The patient suffered from haematuria and painful micturition, which were thought to be due to a vesical calculus. A suprapubic cystotomy was performed. Nothing was found in the bladder, but through its walls a stone could be felt in the lower part of the right ureter. Eight days later the abdomen was opened through the lower part of the right linea semilunaris, and the stone manipulated up the ureter to a point above the iliac vessels, from whence it was removed. The wound in the ureter was closed with fine silk sutures, passed after the manner of Lembert, and a second row united the edges of the peritoneum over it. A gauze drain was inserted. There was no leakage, and the patient made a satisfactory recovery.

Lane is credited by Freyer and several other writers with a successful case, but a study of the original report shows it to be an example of the combined intraperitoneal and extraperitoneal operation.

Lawford Knaggs[17] reports a case operated on after eleven years of suffering. Median laparotomy revealed a stone in the pelvic portion of the left ureter. The ureter was dilated and the left kidney hydronephrotic. The stone was pushed up to the loin, and the peritoneum over it divided. Strips of gauze were passed under the ureter above and below the stone. These served the double purpose of steadying the stone while the ureter was being incised and of preventing urinary leakage. The wound in the ureter was closed with fine silk sutures. A drainage tube was inserted through an opening in the left loin. Recovery took place without incident.

Another case is reported by Sick.[18] The stone was arrested 2 in. from the bladder. A temporary ligature was applied to the ureter before opening it. The wound in the ureter was stitched up and covered with peritoneum. In addition to a peritoneal drain, a catheter was passed through the bladder into the lower end of the ureter and left in position. The patient recovered, and there was immediate resumption of the function of the corresponding kidney.

My own cases are:

CASE I.

A female, aged 18 years, who was an inmate of the Sheffield Royal Infirmary in January, 1909. She gave a history of numerous attacks of severe pain in the left loin extending downwards to the bladder. There had been haematuria from time to time, but when it was absent the urine was normal. A large fluctuating swelling could be felt in the left renal region, and exploration showed this to be a hydronephrosis. The left ureter was dilated, but the ureteral sound could not be passed beyond the brim of the pelvis. A skiagram of the pelvis taken a few days afterwards showed a large oval stone in the left ureter. The patient was operated on in the manner already described. There was no leakage of urine during the operation, which was completed in a quarter of an hour. I did not employ any form of drainage. The wound healed aseptically, and she has had no more pain.

CASE II.

A male, aged 27 years, admitted to the Sheffield Royal Infirmary, September, 1909.

History.—Since the age of 13 years he has had frequent attacks of pain in the left side, accompanied by irritability of the bladder, and occasionally by haematuria. During the last few months the attacks had recurred almost daily. His urine was acid, and contained an appreciable amount of blood. Skiagrams of the abdomen and pelvis revealed the shadows of three calculi, close together, in the pelvic portion of the right ureter, and a less clearly defined shadow of a calculus in the left ureter. On being closely questioned he now admitted that occasionally he had felt slight discomfort in the right side, but was emphatic that the severe pain had always been in the left side. A diagnosis of bilateral ureteral calculi was arrived at, and the abdomen was explored. The three calculi in the right ureter were without difficulty pushed up to a point above the pelvic brim and removed. After closing the wound in the ureter and suturing the peritoneum over it the left ureter was examined, but no stone could be found. The cause of the shadow on the left side was eventually traced to a calcified mesenteric gland situated in the mesentery. The abdomen was closed without drainage, and aseptic healing resulted. He has had no return of his pain, and has gone back to his work.

Morris has called attention to the remarkable fact that occasionally the pain induced by a renal calculus may be referred to the opposite side of the body, and there can be no doubt that this case is an instance of the phenomenon as applied to the ureters.

I am much indebted to Dr. Rupert Hallam, Medical Officer in charge of the Electrical Department at the Royal Infirmary, for the excellent skiagrams accompanying this paper, and to Dr. A. E. Barnes, Medical Registrar to the Infirmary, for his kindness in assisting me to compile the table of references.

References.

[1] Leonard: *Lancet*, 1905, vol. i, p. 1632. [2] Morris: Ibid., 1899, December 16th. [3] Bovee: *Washington Medical Annals*, 1905, iv, p. 233. [4] Schenck: *Journal of American Medical Association*, May 11th, 1901. [5] Fenwick: *Edinburgh Medical Journal*, 1898, p. 281. [6] Rigby: *Annals of Surgery*, 1907, vol. ii, p. 793. [7] Cabot: *American Journal of Medical Sciences*, 1892, p. 281. [8] Cabot: *American Textbook of Genito-Urinary Diseases*, vol. i, p. 497. [9] Hall: *Medical Record*, 1890, October 18th, p. 430. [10] Lane: *Lancet*, 1890, vol. ii, p. 967. [11] Gibbon: *Annals of Surgery*, 1906, vol. i, p. 743. [12] Erdman: Ibid, 1909, vol. ii, p. 797. [13] Morris: *Surgical Diseases of the Kidney and Ureter*, 1901, vol. ii. [14] Freyer: *Surgical Diseases of the Urinary Organs*. [15] Cullingworth: *Pathological Transactions*, 1885, vol. xxxvi, p. 278. [16] Steward: *Lancet*, 1901, vol. i, p. 1142. [17] Knaggs: Ibid., 1908, vol. i, p. 105. [18] Sick: *Deut med. Woch.*, 1905, p. 126.

An Address

ON THE

RATIONAL PUERPERIUM.

Delivered before the Edinburgh Obstetrical Society.

By J. W. BALLANTYNE, M.D., F.R.C.P.E.,

Lecturer on Midwifery and Gynaecology, Surgeons' Hall, Edinburgh, etc.

Dr. Haultain's "plea for a rational puerperium," read before the Edinburgh Obstetrical Society last July,[1] was concerned wholly with one event in that period—namely, the resumption of the erect posture by the lying-in patient. The claim was then made that recumbency after the third day and in an ordinary case was unnecessary, and that it was rational management to allow the puerperal woman to sit up in bed on the second day and to rise on the third day. One hundred hospital patients were treated in this fashion, and it was stated that the morbidity was 3 per cent. Seven Fellows took part in the discussion which followed the reading of the paper, but, with one exception, the opinions expressed were critical. It seemed worth while, therefore, to raise the question afresh at the present time, both in view of the importance of the issues involved and because it might be anticipated that further evidence for or against early rising in the puerperium would be forthcoming.

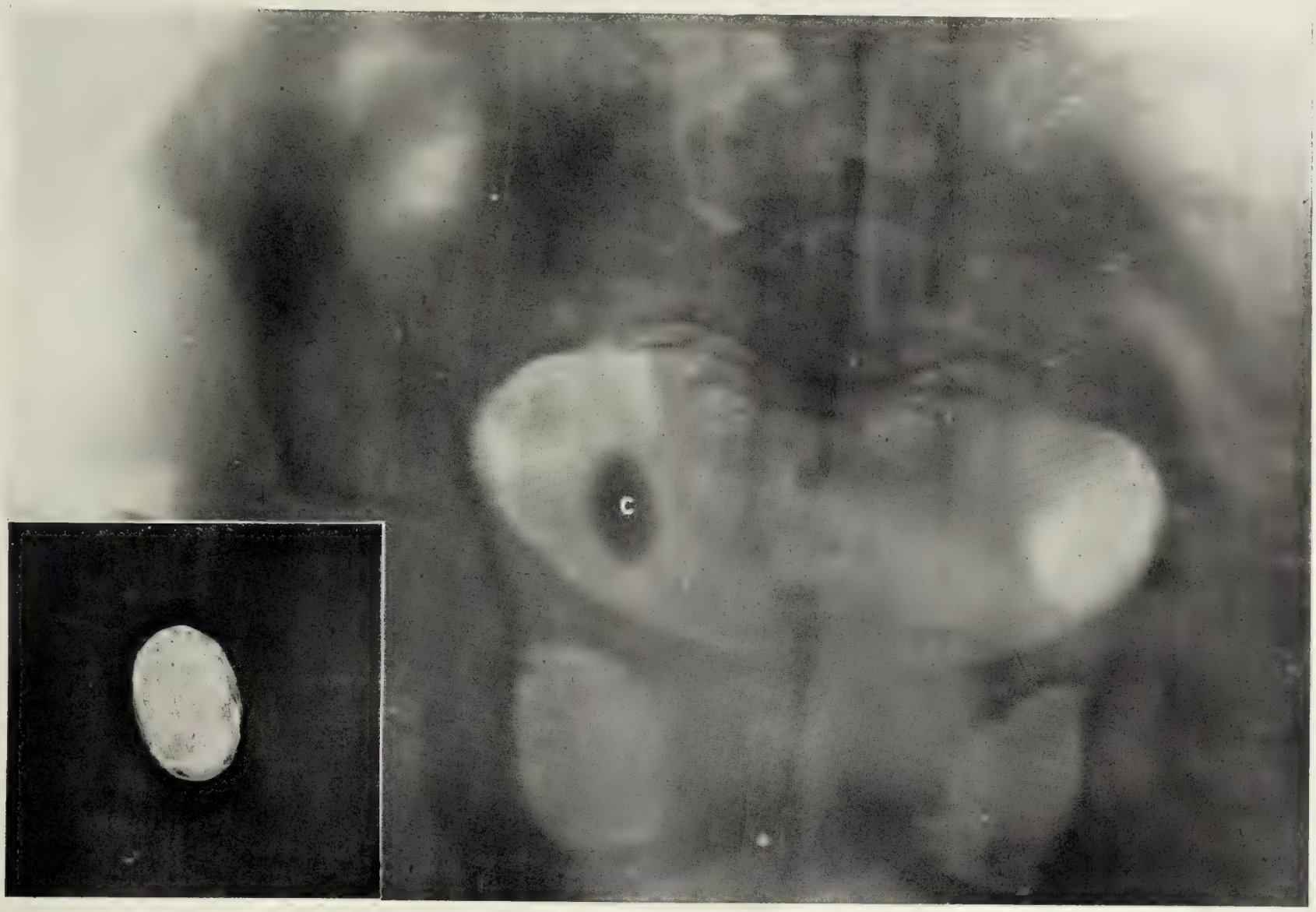
Let me, in the first place, clearly state the question under discussion. The term "rational" has various meanings, and it may be well, in the first place, to decide upon its significance as applied adjectivally to the puerperium. The dictionary states that it may mean "endowed with reason," "exercising or able to exercise one's reason in a proper manner," or "having sound judgement"; but obviously these definitions refer to a person rather than to a thing or a state such as the puerperium. Another meaning is "based on or derived from reason or reasoning"; but this, although nearer the sense, does not quite reach it. Perhaps the best definition is "agreeable to reason, reasonable, sensible," or, looking at it from the negative side, "not foolish, absurd, or extravagant." I am not forgetful of the fact that "rational" has had a special signification in the history of medicine, and that it has been used, as opposed to "empirical," for those physicians who deduce their treatment of cases from general principles; but I hardly think that this distinctive shade of meaning is contained in the phrase "rational puerperium," although it may not be altogether inappropriate to it. "Sensible, reasonable, not foolish, absurd, or extravagant," are doubtless the senses which underlie the word in its present application.

I take it, then, that Dr. Haultain was thus employing "rational" in his communication of July last, and that he was making a plea for early rising in the puerperium as being a reasonable and sensible procedure, and one which was neither foolish nor extravagant, although clearly opposed to custom and fashion, and, he added, to tradition and religion.

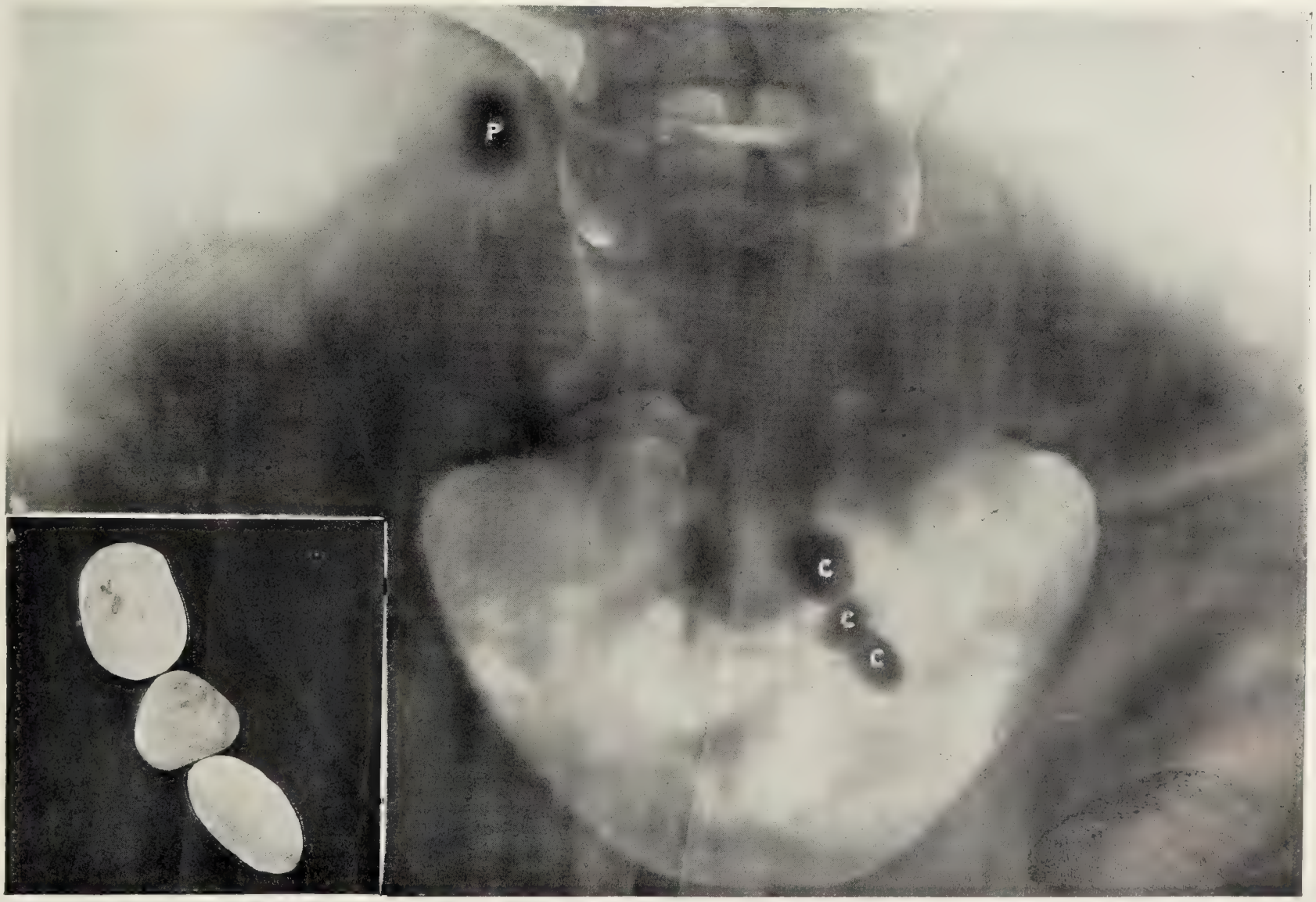
Of course, the *lying-in* period—if we may still use that term—presents other problems than the time of rising from bed. Some of these, such as the employment of vaginal douches, the management of the breasts, and the regulation of the bowels, may be regarded as solved; others, such as the nature of the diet, the giving of ergot, and the wearing of a binder, can scarcely be considered as quite settled. But, in the meantime, these matters are to be left out of account, and our attention is to be focussed on the date of the resumption of the erect posture by the puerperal patient. It may, however, be doubted whether it is possible to neglect the consideration of these other matters; whether, indeed, these details are not all bound up together with the one under consideration, and constitute, as a whole, the well-being or the undoing of the puerperal period. Still, so far as it can be done, let us deal solely with the question of the date of rising.

For some ten years or more the question of early rising has been exercising the obstetric mind on the Continent; but, rightly or wrongly, British practitioners and teachers have scarcely considered the matter, and might not now be debating the subject had not Dr. Haultain, by his experiment in the Edinburgh Royal Maternity Hospital last spring, forced it upon their notice. But the question, as a matter of fact, presented itself not ten but thirty-five years ago, when Dr. William Goodell of Philadelphia[2] described the method of puerperium followed at the Preston Retreat. I quote from his paper: "On the morning following the day of her labour the woman slips into a chair whilst her bed is making. This is repeated once or twice a day until the fourth or fifth day, when she, if so disposed, gets up and dresses herself. No patient quits her bed against her will, yet the force of example so great that very few care to stay in bed when they see their companions up and about." This is a very remarkable statement to have been made thirty-five years ago, for it is almost word for word the description which we have been getting from Germany during the past five or six years. But, further, Dr. Goodell adduced the following reasons for early rising: first, labour being a physiological process, it should not be made to wear the livery of disease; second, the upright position excites the uterus to contract, and lessens the amount and duration of the lochia; third, uterine diseases are hardly known among the nations whose women early leave their beds; and, fourth, experience has shown him (Dr. Goodell) that convalescence is rendered far more prompt and sure. These, let it be noted, are, with perhaps the exception of the third one, the very reasons now being brought forward in support of the early resumption of the erect posture in the puerperium.

From Dr. Garrigues's paper,[3] in which he criticizes the practice of Dr. Goodell, it may be learnt that the latter had some followers in America; but Dr. Garrigues was unable to find those who supported his views in Europe. "In the three chief countries of Europe," wrote Dr. Garrigues, "all the latest publications that have come



CASE I.—Skiagraph, posterior view, showing shadow of calculus, c, in left ureter. Inset, photograph of calculus, after removal; natural size.



CASE II.—Skiagraph, posterior view, showing shadows of three calculi—c, c, c—in right ureter, and of a pseudo-calculus (calcified gland), P, on the left side. Inset, photograph of calculi after removal; natural size.

to my notice recommend an absolute rest in the horizontal position for one, two, or even three or four, weeks after parturition." He took up in detail Dr. Goodell's four reasons for early rising in the puerperium. Although parturition was a physiological process, it was one in which a transition from the normal condition to the pathological was extremely common, and the women of our time were no longer in the same physiological condition as in the infancy of mankind; other observers had not found that the upright position lessened the amount and duration of the lochial flow; and here Dr. Garrigues, rather curiously as it has since turned out, cited Dr. Küstner's observations. Passages in the classics could hardly be advanced as evidence that the women of antiquity who rose early did not suffer from uterine diseases, for the medical writers of that age often recorded such maladies; and Dr. Goodell's primary good results were probably due rather to his other measures, such as good food, protection from infection, and relief from pain. The rest of Garrigues's contribution was devoted to the consideration of the lie of the uterus during the puerperium, both in the horizontal and in the erect postures, and, arguing from the researches of Küstner and others, the conclusion was reached that the upright and sitting postures ought to be carefully avoided until involution had proceeded so far that the uterus had receded from the anterior wall of the abdomen and returned to the pelvic cavity. Garrigues would, however, allow his puerperal patients to turn from side to side in bed after the first twenty-four hours, and, in addition (and the addition is significant), he gave in entirely normal cases vaginal injections of a 1 per cent. carbolic acid lotion twice a day.

I have considered somewhat fully these early contributions (by Goodell and Garrigues) to this subject, partly because they have been almost entirely overlooked by later writers and partly because they enumerate very well the arguments for and against early rising in the puerperium which were used then, and are being employed now. Of course, at the time when they were written prophylactic vaginal douching in the puerperium was being largely practised, with the result that retention of the lochial discharge in the upper reach of the vaginal canal was not so likely to occur as it was when these injections began to be abandoned.

Dr. Garrigues's arguments and practice must have proved victorious over those of Dr. Goodell, for more than twenty years were to elapse before the matter was again discussed. In 1899 Küstner[4] raised the question of prolonged rest for women in the puerperium at the meeting of the German Society for Gynaecology in Berlin. He thought that for strong, healthy puerperal patients who had come through a normal labour, and had neither been infected nor had suffered lacerations, a rest in bed for several weeks was not only needless but actually harmful; they ought to rise on the third, fourth, or even on the second day after delivery. If, however, there had been lacerations (vestibular, perineal, vaginal, or cervical); if the patient had entered the clinic showing signs of infection; if she had a profuse gonorrhoeal discharge; if operative means had been employed in the delivery, or if the labour, although terminated by Nature, had been tedious, the longer rest in bed should be permitted. These contra-indications enumerated by Küstner are specially noteworthy in connexion with the practice of some of his followers which has not always been similarly restricted. Küstner reported that patients thus treated did not suffer in any way; they did not develop prolapse or retroversion of the uterus, the involution of the organ was not delayed but hastened, the functions of the digestive tract were greatly improved (good appetite, natural action of the bowels), and there was no difficulty with micturition, which occurred spontaneously and more frequently. In the discussion which followed the hearing of Küstner's experiences fears were expressed by Olshausen and others lest the involution of the supporting ligaments of the uterus might be interfered with; lest the abdominal walls might remain relaxed; lest thrombosis might be more frequent; and lest the pelvic musculature might suffer. At first, Küstner's method of treatment, breaking as it did through a practice so firmly established as rest in bed during the puerperium, met with little support; indeed, in many parts of the world it was not even discussed. Of late years, however, it has found advocates in various places, and has consequently excited animated controversy. Quite a considerable literature has already accumulated, and reference may be made to articles mentioned in (5) in the list of references at the end.

So far most of the records have been favourable to the new departure, and seem to show that after normal labours there is no need for prolonged rest in the horizontal posture. Too much weight must not, however, be placed on these results, for it is a well-known fact that the adoption of a new method is often followed by a series of satisfactory results, to be succeeded by less desirable reports, and, finally, by an altered view of the requirements of the matter, and by a modification of both the original plan of treatment, and of the proposed substitute for it.

Some of the results obtained may be here stated. Karl Mayer allowed his patients to rise when they liked, with the result that 4 rose on the third day, 40 on the fourth, and 100 on the fifth day; the morbidity was lower by 10 per cent. than among those who followed the old rule. Von Alvensleben (to whose work Dr. Haultain alluded) found that out of 100 cases 3 rose on the first day, 61 on the second, 19 on the third, and 18 on the fourth; the morbidity was less among them than in the general clinic, being 10 per cent. in the one and 17 per cent. in the other. Dealing with 235 parturient patients, Opitz found that 56 got up on the first day, 65 on the second, 27 on the third, 52 from the fourth to the sixth day, 21 on the seventh and eighth days, and 14 later; his results showed that retroflexion of the uterus was not made more likely by the early rising, that involution was satisfactory, and that convalescence was not interrupted. Opitz, however, admitted that it was difficult to prevent the newly-delivered woman leaving the hospital too soon, and referred to the fact that in private practice there might be danger owing to the puerperal patient being under less constant observation. Krönig[6] does not seem to have been under the influence of this fear, for 70 per cent. of his private patients (250 in number) got up during the first day; he also still further shortened the resting period for patients delivered under the influence of scopolamine and morphine injections, allowing a certain number to get up from eight to ten hours *post partum*. Krönig's published results have been very good, and he did not meet with any cases of thrombosis or embolism. He was of opinion that his patients were better able to nurse their babies, that uterine involution went on quite as well, that the lochia came away more readily, that there was less risk of accumulation of faeces in the rectum, that the appetite was better, and that, speaking generally, the bodily system was better able to resist infection. Rosenfeld was able also to report good results; but he restricted his patients to rising for one hour on the third or fourth day, and this time was gradually increased till they left the hospital on the eighth or tenth day. Simon's plan was somewhat similar; he kept his patients in bed for three days, but allowed them to get up to pass water if there was any difficulty with micturition; then they got up for an hour on the fourth day and for two hours on the fifth, if there was no fever; he insisted on the wearing of a binder, and instituted gymnastic exercises to strengthen the abdominal muscles (bending and rotating the trunk, etc.); and he believed that his patients made better recoveries. It is interesting to note that early rising in the puerperium seems to be leading to the introduction of the obstetric binder into some countries where the custom has been to do without it; this ought to be borne in mind by the enthusiasts who are calling out for its abolition.

So far the articles to which I have referred have been favourable to the proposed alteration in the management of the puerperium. In America also Hinchey has supported the new procedure. Gellhorn, however, is of an opposite opinion, and has cited the observations of Müller-heim (given at the meeting of the Berlin Obstetrical Society on December 13th, 1907) on more than a thousand women in Berlin, many of whom, although all discharged from the hospital as being in perfect condition, required weeks of rest and treatment for disturbances which had come on after their return home. He has also referred to Wagener's observations (given at the same meeting in Berlin) regarding Javanese women, who are well known to be among the most perfect specimens of womankind so

far as physique is concerned; yet these women suffered much from embolism and prolapsus uteri, and Wagener pointed out that by an old law in Java they were compelled to get up immediately after confinement and walk about, but not to attend to their domestic duties. Gellhorn had noticed the same thing with the women of Siam. Here, then, in Java we have custom insisting that puerperal patients shall rise but shall not do any work in the early days of the puerperium, exactly what the obstetricians of Germany are advocating; and, further, the Javanese women are perfect specimens as regards physique; and yet the frequency of embolism and prolapsus uteri among these women impressed Wagener. A still more serious criticism of the early rising régime is contained in the occurrence of a death from thrombosis and embolism in the case of a patient who was allowed to get up for one hour on the second day of the puerperium.[7] It has been maintained by some that early rising, instead of predisposing to thrombosis and embolism, will actually tend to prevent these accidents, but Fromme's observation must give us pause. At any rate in the presence of even slight signs pointing to commencing sepsis, it will be well to suspend the practice of early resumption of the erect posture. Hinchey[8] was of opinion that inasmuch as no cases of death from haemorrhage or embolism had occurred on account of early rising, and as there were even no good theoretical reasons for fearing such an accident, the subject might be dismissed until we had cause for alarm. The cause for alarm has now, however, been provided, in the case recorded by Fromme. Another critical paper, called forth by Dr. Haultain's article, has appeared within the past few weeks; it is from the pen of Mr. H. T. Hicks.[9] This writer is convinced that the ten or fourteen days' rest in bed during the puerperium is not only right but rational, and he therefore joins issue with Dr. Haultain and through him with German obstetric opinion in a very definite fashion; his views are mainly theoretical, but are worthy of consideration.

Such was the state of matters regarding the question of rising in the puerperium when I took over the Edinburgh Royal Maternity Hospital for the autumn quarter last August. I felt forced to reconsider the management of the lying-in period in the light of Dr. Haultain's results obtained in the same building three months previously, and I had before me the evidence which had been accumulated during the past ten years in Germany, along with the criticisms that had been made thereon. I found that in the quarter immediately preceding mine the practice in the hospital had been to allow the normal puerperal cases to rise on the fifth day; and I discovered two patients who had risen at that time suffering from phlebitis of the leg. Should I pursue the same plan as in previous years and allow rising on the ninth or tenth day in ordinary cases? Should I, on the other hand, pursue the German method and get the patients up on the second, third, fourth, or fifth day, leaving the choice absolutely in their own hands? Should I adopt a middle path, with or without any other mode of treatment superadded to it?

In making up my mind I was guided by the following considerations. It seemed to me that perhaps the prolonged rest of ten or eleven days in the horizontal position was, for ordinary healthy puerperal women of the class that used the hospital, unnecessary. The dorsal decubitus strictly maintained had been shown to be needless in Germany, and Dr. Haultain's statistics had proven that it might be abandoned in this country without accident in a series of one hundred hospital cases. At the same time, I was convinced that the horizontal position in the early days (say the first week) of the puerperium had distinct advantages, and was in some respects an admirable safeguard against certain accidents. I was also convinced that there were advantages associated with early rising which were not entirely dependent upon the erect posture thereby assumed; these were to my mind the strengthening of the abdominal and pelvic muscles, the improved digestion and better appetite, the easier regulation of the bowels, the more ready escape of the lochial discharge, and the greater feeling of general well-being, bodily and mental, produced by exercise. So the problem before me was the obtainment for the puerperal patients under my charge of the advantages associated with early rising without the risks which might be expected to belong to the resumption of the erect posture in the first days of the puerperium. If I could accomplish this it seemed to me that I had solved my problem; and if, incidentally, I found a way of doing so which did not run altogether contrary to established custom and usage I fancied I might congratulate myself on complete success.

Before proceeding to detail the plan which I was led to adopt, I must here refer to a matter which I believe to be of some importance, and to have a bearing upon this whole question of early or late rising in the puerperium. For several years I have abandoned the practice of vaginal douching as a routine procedure in the puerperium; I still occasionally resort to it, but only in special cases and for definite indications (especially the presence of signs of vaginal or cervical infection). The result of this change in the management of the puerperal state was not at first recognized by me, but gradually I came to suspect that it had something to do with a tendency to delay in the escape of the lochial discharge. Dr. Nepean Longridge, in his paper on The Blood-tight Uterus, has recently been telling the profession that he looks forward to a time when it will not be necessary for women to have lochia after normal labour;[10] but until that day dawn it will, I think, continue to be incumbent upon the obstetrician to throw no obstacle in the way of the escape of the puerperal discharge. At first I treated delayed lochia by slightly raising the upper end of the bed, using a pair of blocks with cup-shaped depressions in them for this purpose; and I was often able to trace distinct benefit to this simple device. But, largely through the persistent and strenuous advocacy of my Assistant Physician, Dr. Oliphant Nicholson, it began to be our custom to give to almost all the puerperal patients a pill containing sulphate of quinine and extract of ergot, with the occasional addition of $\frac{1}{4}$ to $\frac{1}{2}$ grain of digitalis folia. Whatever plan of management of the puerperium should be decided upon, it was resolved to continue the use of the puerperal pill (as it was called) as an integral part thereof.

In reading Krönig's paper[11] I had been impressed with the fact that his patients carried out exercises, consisting in bending the body down and raising it again and in bringing into action the gluteal and adductor muscles, in addition to rising early from the horizontal position. I found that Gellhorn, whilst protesting against early rising, was persuaded of the necessity of physical exercise. "Hercules himself," he said, "would have lost his strength had he been confined to bed for several weeks." He pointed out that Dr. Von Wild, in Cassel, had recommended calisthenics in bed during the puerperium to counteract the obstinate constipation then so prevalent; and he (Dr. Gellhorn) recommended that his patients, after twelve hours' rest on the back, should commence turning movements from side to side. His method is set forth in detail in his paper already referred to.[12] Professor Schücking, of Pyrmont,[13] has also found these exercises in the lying position (*Liegegymnastik*) most beneficial in the puerperium.

I determined, therefore, to recommend to such puerperal patients as we might regard as suitable the performance of systematized movements carried out in the horizontal posture. The movements were not to be forced upon any one, but were to be quite voluntary. The carrying out of the plan was greatly facilitated by the fact that one of the nurses in training was well acquainted with the *Liegegymnastik*, and as a matter of fact the supervision of the exercises was left entirely to the Sister and nurses.

Each patient was covered with a blanket and lay flat in bed with her arms by her sides. The Sister or nurse standing in the centre of the ward directed the exercises. The patients were directed to turn from the back on to the side; three times they rolled on to the one side; thrice they drew up the knees; and thrice they rolled on to the other side. Next they did exercises with the arms, first stretching them above the head, then flexing them upon the chest, then stretching them at right angles to the trunk, and finally placing them by the side; the arm exercises were carried out six times. Next they did breathing exercises six times, filling the chest with air, the arms being stretched by the sides the while. Finally, they rolled from side to side three times. In the majority of cases these movements were begun in the first day of the puerperium—that is, in the second twenty-four hours

after labour. In no case were they begun later than the fourth day. On the first day they lasted for about ten minutes, on the second for twenty minutes, and on the third for thirty minutes; they were never carried beyond that time. The nurse in charge regulated the time for each. No patient ever refused to perform the exercises, and no compulsion was used; the majority enjoyed them. In most of the cases the tone of the abdominal muscles when the patients left the hospital was above the average, and it was noticed that the result was poorest in phlegmatic women and in those who had shown no enthusiasm for the exercises. It could not be traced that the movements had any marked effect upon the action of the bowels. The tone of the abdominal muscles was tested in every case by my senior resident surgeon (Dr. T. Y. Finlay). He got the patient to contract her muscles voluntarily, palpated the abdomen during the act, and again when the muscles were lax; if in any case the space between the recti muscles was at all patent the tone was not considered good, but this was not often noticed; the cases were classified as good (81), fair (19), and bad (7), and a few (6) of the good were regarded as excellent.

The following figures are interesting. One hundred and fifty-two patients were treated in the hospital during the quarter; 9 of these came in for prematernity treatment and left before the time of delivery; of the remainder (143), 21 patients were not allowed to do the exercises; all the rest, being 122, performed the movements after their deliveries, but as in 15 of these cases Dr. Finlay was not able to test the tone of the abdominal muscles—these patients being under treatment at the close of the quarter, when Dr. Finlay left—they were subtracted from the total. One hundred and seven patients, therefore, who had been delivered during the quarter carried out the movements and were examined as to muscular tone before leaving. Of this number—

69	began exercises on the	first day after delivery.
18	,,	second ,,
16	,,	third ,,
4	,,	fourth ,,

The 69 patients who did exercises from the first day onward were mostly normal cases. Some had forceps for delay, two or three had adherent membranes requiring an intrauterine douche, two were breech cases, and one was an occipito-posterior position. In the 18 cases in which the exercises were begun on the second day there had been some interference or anomaly. For instance, there was a case of forceps for persistent left occipito-posterior position; there was hydramnios with an anencephalic fetus; there was slight albuminuria; there was a case of twins; there was one of cervical cysts; there were several breech presentations; there was a prolapsed cord and dead fetus; there was syphilis with a dead fetus; there was epilepsy; and there was a *post-partum* haemorrhage. Among the 16 in which the movements were begun only on the third day there had been more serious irregularities, such as craniotomy (2), eclampsia (4), albuminuria (3), *post-partum* haemorrhage, and induction of labour. The 4 patients who began so late as the fourth day were a case of collapse after delivery of twins, two cases of accidental haemorrhage, and one case of persistently rapid pulse in which thyroid extract had been given during pregnancy for marked obesity. I think it will be generally admitted that many of the thirty-eight patients who began exercises later than the first day could not have been allowed, even by those who most enthusiastically advocate early rising, to leave their beds by the third day; yet they were able to perform exercises in the horizontal position and to benefit from them, as was shown from the dates on which they were able to leave the hospital and by their general condition. It will be remembered that 21 cases were not considered suitable for the *Liegegymnastik* or did not get it; of these there were 4 who were delivered before the plan of giving the exercises was adopted, there were 5 cases of eclampsia, there were 3 of inevitable abortion, there was a case sent into the hospital septic (where death took place), there were 2 cases of heart disease (1 a very serious one), there were 2 cases of influenza (1 complicated with rheumatism), there was 1 of albuminuria and pneumonia, 1 of craniotomy (a death), 1 of syphilis and hystero-epilepsy, and 1 of a patient who gave birth to a macerated fetus, got up on the fourth day, and left the hospital against orders.

With regard to the date of resumption of the erect posture, each of the cases in which exercises had been performed was judged on its own merits, with the result that 43 rose on the seventh day, 38 on the eighth, 19 on the ninth, 4 on the tenth, and 1 each on the sixth, the eleventh, and the twelfth. Towards the beginning of the quarter the eighth day was regarded as the routine time for leaving the horizontal position, but towards the latter

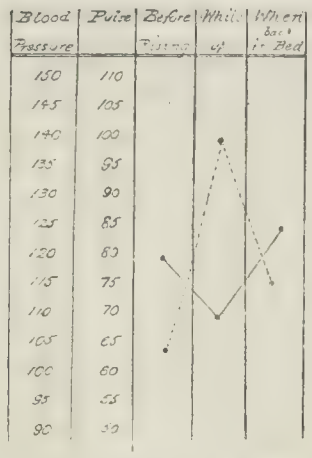


Fig. 1.—No. 104. Normal labour. Rose on seventh day.
—— Blood pressure; ..... Pulse.

12.20 noon	Pulse, 64 Blood pressure, 120	Before rising.
2 p.m.	Pulse, 100 Blood pressure, 110	While up.
9 p.m.	Pulse, 76 Blood pressure, 125	Back in bed.

part of the term many of the patients got up on the seventh. A very noticeable feature in these cases was the absence of the usual phenomena which follow upon rest for some days in the horizontal position; the patients, for instance, did not experience the same feeling of weakness in the limbs, dizziness, etc., as usual. It seemed, therefore, as if the seven or eight days' rest in bed with the exercises was followed by a more immediate return to the condition of normal health and strength than after the longer period of rest without the exercises, such as had

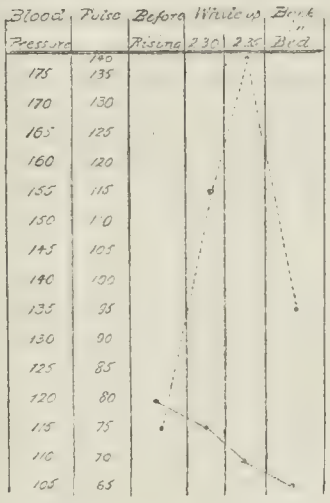


Fig. 2.—No. 92. Normal labour. Rose on seventh day.
—— Blood pressure; ..... Pulse.

11 a.m.	Pulse-rate, 76 Blood pressure, 120	Before rising.
2.30 p.m.	Pulse-rate, 116 Blood pressure, 116	While up.
2.35 p.m.	Pulse-rate, 138 Blood pressure, 110	
3 p.m.	Pulse-rate, 96 Blood pressure, 106	Back in bed.

prevailed during my previous term of office in the Royal Maternity Hospital.

When the rising took place upon the seventh or eighth days it was noticed that there was generally a rise in the pulse-rate accompanied by a fall in the blood pressure. In fifteen patients the blood pressure was taken before rising, during the time the patient was up, and again after she went back to bed again. Some of the results were very interesting; in one instance of rising (No. 104, Fig. 1) on the seventh day, the pulse before rising was 64, while the patient was up it was 100, and after her return to bed it was 76, while the blood pressure for the three corresponding times was 120, 110, and 125; so that here the rise of the pulse-rate and the fall of the pressure were very evident. In another instance (No. 92, a nervous woman, Fig. 2) the pulse-rate before rising was 76, while

the patient was up it rose to 116, and five minutes later it was found to be 138, when she went back to bed again it fell to 96; the blood pressure for the four corresponding periods was 120, 116, 110, and 106; here, then, it was seen that not only did the pulse-rate increase and the pressure fall when the patient rose, but the readings varied from 116 to 133 whilst the woman was up; after getting back to bed again neither the rate nor the pressure returned to what they were before. In another case (No. 94, Fig. 3)

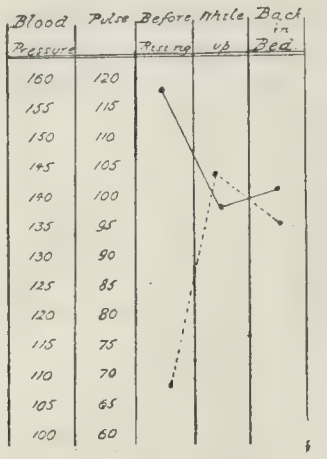


Fig. 3.—No. 94. Normal labour. Rose on seventh day. —— Blood pressure; ..... Pulse.

11 a.m.	... ...	Pulse-rate, 68 Blood pressure, 158	Before rising.
2.30 p.m.	... ...	Pulse-rate, 104 Blood pressure, 138	While up.
3 p.m.	... ...	Pulse-rate, 96 Blood pressure, 142	Back in bed.

of rising on the seventh day the pulse-rate before rising was 68, it rose to 104 whilst she was up, and fell after going back to bed to 96; the blood pressure for the three corresponding times was 158, 138, and 142. In another case (No. 99, Fig. 4) the rate and pressure were taken before rising, whilst the patient was up, and on the succeeding day; in this instance, the rate before rising was 51, it rose to 76 while she was up, and had fallen next day to 48, while the pressure for the corresponding times was 124, 120, and 128. These four were all seventh day risers who began exercises on the first or second days. In only one out of the fifteen tested cases

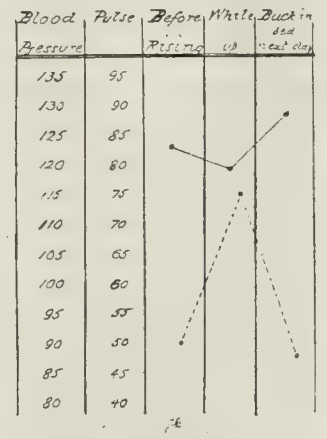


Fig. 4.—No. 99. Normal pregnancy. Retained membrane. Rose on seventh day. Exercises began on second day. —— Blood pressure; ..... Pulse.

12.15 noon....	...	Pulse-rate, 51 Blood pressure, 124	Before rising.
2 35 p.m.	... ...	Pulse rate, 76 Blood pressure, 120	While up.
12 noon next day		Pulse-rate, 48 Blood pressure, 128	Back in bed.

(No. 102) did the pulse-rate fall when the patient got up; this was a seventh day riser, who began exercises on the first day; the pulse before rising was 78, it was 64 while she was up, and it was 80 after she went back to bed; the blood pressure in this case also was anomalous, for it continued falling after she went back to bed, being 120, 110, and 100 at the three takings. Another anomalous case (No. 103) was one in which the pulse-rate increased from 72 to 88 on rising, and on going back to bed rose still further to 104; the blood pressure in this same patient fell from 135 to 110, and rose again to 140. In a patient (No. 96) who did not rise till the ninth day (a forceps case) the pulse followed the usual plan of deviation, being 80, 100, and 76 respectively, whilst the blood pressure was 112, 108, and 103. Although the pulse-rate increased in one case (No. 91) from 76 to 96, and fell again to 84, the pressure remained very much the same—namely, 120, 120, and 116.

These results, although they differ somewhat among themselves, prove very decidedly that rising from bed at the end of the first week produces a very distinct effect upon the pulse-rate and the blood pressure; and the change nearly always takes the form of a quickening of the pulse (often to the extent of 20 beats per minute, and sometimes to that of 40), while the blood pressure generally falls from 4 to 10, or even 20 points. The change in the pulse-rate is much more constant than in the blood pressure, however, and is far more than occurs in ordinary (non-puerperal) circumstances.

There was no mortality among these 107 patients who performed the exercises; and, what is perhaps more striking, there was no morbidity. That is to say, there was not a single case in which the temperature was above 100° for more than one reading, with a pulse of more than 90. In a few instances there was a pulse of between 90 and 100 for three consecutive readings, but in these cases the temperature was not above normal. It will be said that they were selected cases. So they were; but I have named the conditions which existed in some of them (hydramnios, twins, albuminuria, craniotomy, eclampsia, *post-partum* haemorrhage, and even accidental haemorrhage), and I believe it will be readily admitted that the selection was made within very wide limits.

With regard to displacements of the womb, discovered before the patients left the hospital, there were three instances of slight deviation of the uterus to the right side, and two cases of anteversion (a more marked degree than is to be counted normal is meant). Among the patients who performed exercises there were four in whom the uterus was found to be retroverted; one of these had had craniotomy performed, and she was sent to the Royal Infirmary for treatment, but was told there that the displacement was insufficient to necessitate the wearing of a pessary; another had had one eclamptic fit before admission; another was an epileptic, and had induction performed; and the fourth was a rheumatic subject. In a few cases the uterus was found to be larger than usual when the patients left the hospital, but the enlargement was comparatively slight.

Now, what effect have these observations upon the whole question of the rational management of the puerperium? With the facts before us are we to make any marked alteration in the routine treatment of the lying-in period, and, if so, what form shall the alteration take, and to what extent shall it be carried? To my mind the following conclusions are justified:

1. I think it is permissible to reduce the period of rest after labour for the ordinary hospital patient to a small extent, say, from ten or eleven days to from eight to nine; after a normal labour, therefore, the puerperal patient would resume the erect posture on the eighth or ninth day.

2. The carrying out of systematized exercises in the horizontal position during the early days of the puerperium up to the day of rising helps to keep the muscles in good tone, saves the patient from ennui, and facilitates a return to the normal after the resumption of the erect posture.

3. When systematized exercises (or *Liegegymnastik*) are carried through it may possibly be found to be safe to allow the patient to rise on the seventh instead of on a later day.

4. The consideration of the day of rising in the puerperium cannot be dissociated from the discussion of the other phenomena of that period; the rate of the pulse, the amount of the blood pressure, the temperature, and other things must all be scrutinized under the novel circumstances produced by changing the date of rising; and the result of such a scrutiny is to show that rising even on the seventh and eighth days causes a very distinct rise in the pulse-rate, with, generally speaking, a fall in the blood pressure. The disturbance in the circulation thus produced cannot be left unconsidered, and it may have a recognizable effect upon the after-health of the patient.

5. Neither can the employment of other measures in the puerperium be left out of account; if exercises in the recumbent posture be employed, and if the puerperal pill be given, then there will be no loss of muscular tone, and no disturbance of the rate of uterine and vaginal involu-

tion, and the escape of the lochial discharge will be facilitated; under these circumstances the necessity for earlier rising will disappear with the accomplishment by other means of the results alleged to be obtained by it, and the risks associated with the abandonment of the horizontal position will be avoided.

6. Whatever plan of management of the puerperium be adopted, there will be a necessity to distinguish normal cases from morbid ones, and the tendency to mete out the same treatment to all patients must be checked. The first advocates of earlier rising in the puerperium laid very considerable emphasis upon the contraindications to the procedure which they regarded as binding; but in later writings these contraindications have been somewhat obscured or slurred over. The contraindications to early rising are real, and they are tacitly, if not openly, admitted. My opinion is that the contraindications to the performance of exercises in the horizontal position are also real—they were present in 21 out of the 143 cases with which I had to deal—but it is also my belief that it will be found to be safe to practise the *Liegegymnastik* in many cases in which rising on the third day should be forbidden.

7. When the attempt is made to carry over into private practice from the hospital such a change in the management of the puerperium as is entailed in rising from bed on the third day, all the considerations adduced above will require to be taken into account. It is, I think, the case that rest in bed in the puerperal period is longer than need be, and possibly some shortening of the time so spent might be advantageous; further, the strict maintenance of the dorsal posture need not be insisted upon, and the patient may be encouraged to turn freely about while retaining the horizontal position. I should not otherwise alter the ordinary management of the puerperium in private practice.

Perhaps the crux of the whole matter is contained in the way we regard the puerperium. We may maintain, with Dr. Goodell, that labour is a physiological process, and ought not to be made to wear the livery of disease; but we must be prepared to own that labour has a mortality, which in maternity hospitals occasionally is as high as that following the performance of hysterectomy by a skilled gynaecologist. In the Edinburgh Royal Maternity Hospital there were thirteen maternal deaths in 1908, and not fewer will be recorded for 1909. It may be said that hospital statistics cannot fairly be used to decide regarding ordinary cases, but it is precisely into hospital practice that it is proposed to introduce third-day rising. We may more correctly say that labour is a physiological process which, under present-day conditions, borders so closely on the pathological that it not infrequently passes over into it; and we may add that the puerperium which follows this physiological process (with the tendency to become pathological) may also become pathological, may even become pathological when the preceding labour has remained physiological. It seems to me that the great guiding principle of midwifery practice is to prevent the passing of the physiological into the pathological. We give our students a hundred lectures not to enable them to deal with the normal cases which have no tendency to pass into the dangerous group—far fewer lectures would suffice for that—we give them this teaching to enable them to manage the few abnormal cases, to prevent them, or to cure them when prevention fail. The whole system of obstetric asepsis has been elaborated not so much to benefit the normal labour in which there is no need for interference as to save from the danger of infection the abnormal case in which there is much interference. We are legislating, so to say, always for the unusual, although we apply the laws both to usual and to unusual. It is the exceptional cases we have to keep in full view. I feel sure that every one will agree that it is wise to scrutinize closely any proposal to abandon any one of the precautions with which we have surrounded the puerperal period. The prolonged rest in the horizontal position may be irksome; it may be found possible to shorten it a little without risk (more especially if exercises are introduced), but we must be careful to retain the safeguards which experience has adopted for the advantage not only of the normal cases which might do without them, but also of the abnormal cases which could not dispense with them without an increase of danger. Rather than run any such risk the practitioner may find it wise to retain the *status quo ante Küstner*.

Pregnancy is a nine months' period of stress and strain during which every tissue and organ of the mother's body is working, so to say, at high pressure in building up the fetal organism and in adapting all the maternal structures to the new requirements. So long, as Professor P. Bar pithily and precisely puts it, as there is *foetus sanus in matre sana*, no harm results; but the path of safety is a very narrow track, and the pregnant woman needs every care that her medical attendant gives to her. Dr. Haultain's remark, interjected into his reply on the discussion following his paper last July, to the effect that he considered a fortnight's rest would be more beneficial to the working woman before rather than after her confinement,[14] meets with my cordial approval so far, at any rate, as it refers to care in pregnancy. *Labour*, again, is a time of marked stress and strain, for the act of childbirth is admittedly one involving great muscular exertion accompanied by intense suffering. During this time the parturient patient needs and freely receives the obstetrician's constant and watchful care. The *puerperium* is no less a time of stress and strain, for now the results of nine months' upbuilding have to be safely and speedily removed, the changes which took place in the maternal organs, both in the genital sphere and outside of it, have to be undone, and a great process of alteration and adaptation to new circumstances has to be carried through. To take but one phenomenon in it, the uterus, which after the birth of the child and placenta weighs about 35 oz., is reduced during the short term of the lying-in period to about 1 oz., a change which entails extraordinary rapidity and activity of absorption and excretion. Further, a new function, that of lactation, has to be established; it likewise is a physiological process, but liable to morbid developments or to imperfect performance. On the whole, it does not seem to be unreasonable or irrational to allow hospital patients a week or eight days' rest in the horizontal position after a time of stress of nine months, and to the class of private patients perhaps three or four days might be added with advantage. In both cases exercises in the lying position could be relied on to keep the muscular system in tone and to prepare for the resumption of the erect posture.

In conclusion, I have to thank Drs. T. Yule Finlay and Kelman Macdonald, the house-surgeons during the autumn quarter, for the careful way in which they ascertained the results of the *Liegegymnastik* and for the labour they bestowed upon the estimation of the blood pressure and other clinical details.

REFERENCES.

[1] BRITISH MEDICAL JOURNAL, 1909, ii, p. 307. [2] *Obstet. Journ. Gt Brit.* (Amer. Supp.), ii, 49; 65, 1874-5. [3] *Amer. Journ. Obstet.*, xiii, 846, 1880, [4] *Centralbl. f. Gynäk.*, xxiii, 705, 1899. [5] Edmonds (*Mass. Med. Journ.*, xxvi, 551, 1906), Pierra (*Rev. prat. de gynéc. d'obst. et de pédiat.*, ii, 340, 1907), Wallich (*Rev. prat. d'obstét. et de pédiat.*, xx, 129, 1907), Bouchacourt (*Presse méd.*, xv, pp. 307, 410, 1907), Heil (*Arch. f. Gynäk.*, lxxxi, 95, 1907), E. Martin (*Monatschr. f. Geburtsh. u. Gynäk.*, xxvii, 248, 1908), von Winckel (*Deutsche med. Wochenschr.*, xxxiv, 49, 1908), Brisset (*Union méd. du Canada*, xxxvii, 200, 1908), Rosenfeld (*Gynäk. Rundschau*, ii, 401, 1908), von Alvensleben (*Zentralbl. f. Gynäk.*, xxxii, 1184, 1908), Hinchey (*Interstate Med. Journ.*, xvi, 26, 1909), Gellhorn (ibid, p. 33, 1909), K. Mayer (*Münch. med. Wochenschr.*, lvi, 273, 1909), Simon (ibid., p. 47, 1909), Fromme (*Zentralbl. f. Gynäk.*, xxxiii, 15, 1909). Hofmeier (ibid., p. 21, 1909), E. Opitz (*Med. Klin.*, v, pp. 5, 48, 1909), Fehling (*Strassb. med Ztg.*, vi, 14, 1909), Hüffell (*Zentralbl. f. Gynäk.*, xxxiii, 764, 1909), Holzapfel (*München. med. Wochenschr.*, lvi., 1019, 1909), and Haultain (BRITISH MEDICAL JOURNAL, 1909, ii, p. 307). [6] *Deut. med. Woch.*, xxxiii, 1528, 1907. [7] Fromme, loc. cit. [8] Loc. cit. [9] BRITISH MEDICAL JOURNAL, 1909, ii, p. 1458. [10] Ibid., p. 1462. [11] Loc. cit. [12] *Interstate Med. Journ.*, xvi, 42, 1909. [13] *Zentralbl. f. Gynäk.*, xxxii, 1364, 1909. [14] *Trans. Edin. Obst. Soc.*, xxxiv, 301, 1909.

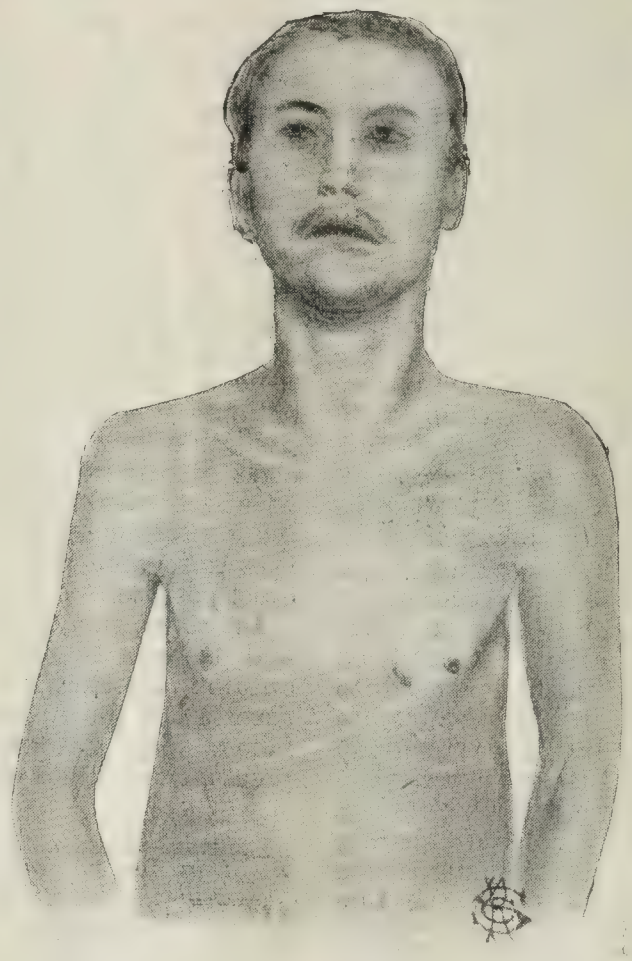
THE annual report of Livingstone College for the year 1908–9 expresses satisfaction at the growing appreciation of the system of training adopted at the college. In this connexion it instances the speeches made on Commemoration Day by the Master of Trinity and Professor Alexander Macalister, and Dr. Stein, the Central Asian explorer, allusions to which have already been made in these columns. Poplar Hospital for accidents, it seems, is its training ground for students in minor surgery, and it is hoped to secure at an early date the services of a member of the resident staff as a special teacher of Livingstone College students. Medical missionaries, it is pointed out, are not encouraged to perform operations, but the advantage of their being acquainted with minor surgery is evidenced by the case of Dr. Stein. The average number of students under instruction each term during the year was twenty-five.

CARDIOLYSIS (PRECORDIAL THORACOSTOMY) IN HEART DISEASE.

BY WILLIAM THORBURN, F.R.C.S.,
SURGEON TO THE MANCHESTER ROYAL INFIRMARY.

IN the early part of 1905 my friend and colleague the late Thomas Harris asked me to undertake for him the operation of "cardiolysis" in an old-standing case of adhesive mediastino-pericarditis. At that time I had not heard of the operation, which had been introduced by Brauer in 1902, and the only information which we possessed upon the subject was contained in a short note of Brauer's communication to the Heidelberg Congress of Physicians of the latter year. The operation appeared, however, to be so reasonable and to offer such prospects of benefit that I decided to carry it out. In several respects subsequent considerations have shown that details might have been improved upon, and the report which follows has therefore been delayed, not only on account of the early death of my colleague, who was himself a distinguished authority upon the pathology of mediastino-pericarditis, but also in the hope that further experience might render this communication of more value. As, however, four years have gone by without my seeing another case, and as it may be long before another is met with, it appears advisable now to describe a tentative operation which was certainly of benefit in one case, and which presents possibilities of greater value in others.

Adhesive or indurative mediastino-pericarditis is a rare sequel of pericarditis in which the cardiac and parietal layers of the pericardium have become united together, while the parietal layer is again connected by adhesions with the surrounding parts, including that portion of the chest wall which overlies the anterior surface of the heart. The condition, which may follow rheumatic pericarditis, chronic pleurisy, or empyema of the left side, and periostitis of those ribs which lie in relation to the heart, is fully described in Harris's *Indurative Mediastino-Pericarditis* (London, 1895) and in many medical works, so that it is here necessary only to enumerate briefly the more important results of the fixation of the heart to the chest wall which is thus produced.



At every systole the left ventricle is obliged not only to empty itself, but in so doing to drag forcibly upon the continuous adhesions and bands which fix it in all directions to the chest wall, lungs, mediastinum, and diaphragm. It is thus placed at a great mechanical disadvantage, and its muscular power is insufficient for the effort required. The result is seen locally in that with each systole the bony thorax is drawn in, while with each diastole it is thrust out; the ordinary "apex beat" is, in fact, replaced by a forcible rising and falling of the chest wall which obviously demands great effort. As a sequel of this excessive strain the myocardium proves unequal to the work of carrying on the circulation, and there ensue the phenomena of extreme congestion—dyspnoea, bronchitis, pulmonary oedema, cyanosis, congestion and enlargement of the liver and spleen, ascites, jaundice, albuminuria, general anasarca, and ultimately death from cardiac insufficiency. Associated with these conditions there are also usually found great swelling of the veins of the neck, regurgitant pulsation in the more prominent of these, and at times inspiratory swelling of the external jugular; the pulse is often very weak and irregular, and pulsus paradoxus—the pulse becoming smaller during the act of inspiration—is not uncommon.

Rest in bed, with careful dieting and medical treatment, is in these cases usually followed by great improvement, but as soon as the patient begins to get up and go about symptoms return, and the ultimate issue is probably always fatal.

Brauer's suggestion was based upon the view that the essential factor in the production of this chain of symptoms is the fixation or anchoring of the heart to the bony wall of the thorax, and that if this could be relieved its muscle might regain sufficient power to carry on the needs of the circulation. Such relief can be given by removing that portion of the bony thorax to which the heart is attached, so that any adhesions which remain are connected only with yielding tissues, and Brauer applied the term "cardiolysis" to the operation which was successfully carried out for him by Petersen and Simon. Fourteen cases have now been reported by German physicians and surgeons, and one recently by Poynton and Trotter (*infra*), the results being distinctly encouraging; while our own, which is, so far as the writer knows, the first to have been performed in this country, although not a complete success, shows clearly the practicability and value of the operation.

CASE.

History.

H. W., a lad aged 15, began to suffer in 1900 from shortness of breath and rheumatic pains in the knees. At the end of 1900 he was admitted to Dr. Harris's wards in the Manchester Royal Infirmary with double pleurisy, bronchitis, and general oedema. The area of cardiac dullness was enlarged; the pulse presented marked weakness on inspiration, and the jugular veins showed inspiratory swelling; the liver was enlarged, but without ascites or jaundice; the temperature presented an occasional evening rise; tubercle bacilli were not found in the sputum. From the right chest was removed 28 oz. of clear serous fluid. A few days later ensued an attack of acute pneumonia at the base of the left lung with a long period of remittent pyrexia, but eventually the lad made a fair recovery.

Two years later H. W. was again admitted to the infirmary with symptoms of cardiac weakness, indications of pleural adhesions and thickening on both sides of the chest and ascites. From this time until the beginning of 1905 he was repeatedly an in-patient, with symptoms similar to those already described. On each occasion he underwent temporary improvement in bed, but quickly relapsed on getting up again. In January, 1905, he was again an in-patient, remaining for two months with but little improvement, and Dr. Harris then suggested cardiolysis. The lad refused and returned home, but almost immediately he again became very ill, and in March, 1905, was admitted to the surgical wards.

At this time he presented marked cyanosis of the face and body, but he had then no oedema of the legs. The veins of the neck expanded greatly in inspiration. The pulse was of low tension, dicrotic, and beating at the rate of 65 to 70 a minute. Cardiac dullness extended from 1½ in. to the right of the sternum almost to the mid-axillary line on the left side. An impulse could be felt behind the fifth left rib almost 1½ in. internal to the mammary line, but there was no visible apex beat, no epigastric pulsation, and no general movement of the chest wall. There were no signs of endocarditis or of valvular disease.

Troublesome cough was associated with a scanty mucoid expectoration which furnished no tubercle bacilli. Dyspnoea was very marked, rendering it almost impossible for him to lie down, but the chest movements were very slight. The base of the left lung presented an extensive area of dullness with weakened breath sounds. Ascites was well marked; the liver extended 2 in. below the costal margin; the urine (sp. gr. 1024) contained albumen; splenic enlargement was not detected. The mental condition was markedly dull and heavy, and was at that time regarded as due to the cardiac trouble.

Operation.

The operation was performed on March 30th, 1905, Dr. A. E. Thompson administering chloroform, and the patient being at first in a semi-recumbent position. The anaesthetic was at first taken well, but before the operation was commenced there was spasm of the respiratory muscles and he became very cyanotic. Under artificial respiration and oxygen he rapidly recovered, and ether and chloroform were then given by the open method

in about equal quantities, after which there was no further trouble.

I made a semilunar incision about 9 in. in length with the centre of its base to the right of the sternum and the centre of the incision an inch internal to and on a line with the left nipple, thus turning over a large flap to the right and exposing a great part of the sternum; this flap contained the origin of the left pectoralis major, and was carried down to the plane of the ribs and intercostal muscles, somewhat free bleeding being arrested. A Gigli's saw was then carefully passed behind the sternum about 1 in. above the line joining the nipples, and the bone was sawn transversely across at this level. The same process was repeated at a line 1 in. below the level of the nipples. With bone forceps the fourth and fifth costal cartilages on the right side were then cut across close to the sternum, and their fellows on the left side were cut across at the costo-chondral junction. There was thus isolated a large square piece of the centre of the sternum with the fourth and fifth left costal cartilages, and this was carefully dissected up from the subjacent pericardium. This process was much more simple than had been anticipated, and there were no dense adhesions. A prominent gland was removed from the anterior mediastinum for purposes of bacteriological diagnosis, but inoculation experiments showed no evidence of tubercle. Haemorrhage being finally and fully arrested, the flap was replaced with a small gauze drain.

The operation caused no shock, and at the end of it the pulse was distinctly stronger than it had been, while the inspiratory swelling of the veins of the neck disappeared.

After-History.

For a few days after operation cough was troublesome, but the cyanosis rapidly improved and the pulse continued to gain strength. On the ninth day the ascites had so far diminished as to lessen the girth of the abdomen by 3 in. There was no difficulty in lying down in bed. At the end of a month the patient was able to get up, and a few days later to walk up and down stairs without trouble.

Six weeks after operation the patient was feeling well and able to go out. Ascites had disappeared, and the dullness at the base of the left chest was much diminished. Cough was hardly at all troublesome. The cardiac dullness was much diminished in extent, reaching from a point just internal to the left mammary line to half an inch to the right of the ster border. The pulse was regular, steady, and 72 a minute, with no trace of pulsus paradoxus, which had occasionally been observed before operation. Congestion of the face, neck, and chest had already disappeared. The patient and his parents had not seen him so well for years, even after six or eight weeks of confinement to bed in hospital.

Present Condition.

Some time after H. W. left the hospital his mental condition began rapidly to deteriorate, and he was eventually placed in an asylum. I thus lost sight of him until June of the present year, when I had an opportunity of examining him in the Lancashire County Asylum at Winwick; he is quite idiotic and very mischievous, the mental condition being regarded as congenital. He has on the whole good bodily health, but his mischievous tendencies require his being a good deal confined to bed. In January of 1908 he presented some signs of heart failure, and had some jaundice and ascites, which disappeared after rest and paracentesis, and have not returned. Albuminuria has been found occasionally. In the beginning of 1909 he had some temporary dyspnoea and oedema of the feet.

His general appearance was healthy and cheerful, although idiotic. The pulse was 80, and quite regular and normal. There was no venous distension, but the face presented very slight cyanosis. The abdomen was normal, as was the urine. In front of the chest was the prominent gap left by the operation, and the lower end of the sternum had been thrust considerably forwards. The position of the scar with the puckered depression left by the gauze drain are shown in the accompanying sketch taken from a photograph kindly obtained for me by Dr. Rodgers, but the restlessness of the patient made photography difficult. In brief, the physical condition is on the whole satisfactory, and would probably have been more so but for his restless, mischievous, and irresponsible habits.

Before passing to the consideration of certain points raised by the above case it will be convenient briefly to summarize the fifteen operations hitherto reported as "cardiolysis," these being the only cases known to me in which operation upon the thorax has been undertaken with the object of freeing the heart from adhesion to its

Case.	Reporter and Reference.	Operator.	Anaesthetic.	Parts Removed.	Result.	Remarks.
I.	Brauer, Petersen, Simon, *Centralbl. f. Chir.*, 1903; Supplement, p. 41	Petersen and Simon	Local anaesthesia, chloroform, ether	Ribs and cartilages in front of heart	Doing heavy work 4 years later	These three cases appear to be identical with those referred to by Blauel (*Centralb. f. Chir.*, 1907, No. 33) and by Ensgrüber (Dissertation Tübingen, 1907).
II.	Idem	Idem	Ether	Part of sternum and ribs	Great improvement, but died later from broncho-pneumonia	
III.	Idem	Idem	Chloroform and ether	Part of sternum and ribs	Great improvement.	
IV.	Beck, *Arch. f. klin. Chir.*, 1904, Bd. 73	Beck	Morphine, chloroform, and ether	3rd, 4th, 5th, and 6th costal cartilages and part of ribs with periosteum	In good health after 18 months	These three cases are complicated by the coexistence of tuberculous disease of lungs or pleura and by operations thereon.
V.	Idem	Idem	—	3rd, 4th, 5th, 6th, and 7th cartilages with ribs and periosteum	Improvement, later thoracoplasty for empyema	
VI.	Idem	Idem	—	As in Case IV.	?	
VII.	Treupel, *Münch. med. Woch.*, Oct. 10th, 1905, p. 1966.	Borkenheimer	?	4th and 5th ribs	Some improvement	Symptoms not very typical, but heart large.
VIII.	Schmidt, *Deut. med. Woch.*, Nov. 16th, 1905, p. 1859.	Lindner	?	4th and 5th ribs from sternal border to anterior axillary line	Marked improvement, working as wagon cleaner	Possibly identical with Case X.
IX.	König, *Centralbl. f. Chir.*, 1907, No. 27 Umber, *Therapie der Gegenwart*, 1905, No. 1	König	Morphine, ether and chloroform	2nd, 3rd, 4th, 5th, and 6th cartilages and ribs (8 cm. in all). Periosteum not removed	Immediate relief of heart; great and steady improvement up to 6 months	No cardiac trouble up to death after 2½ years from miliary tubercle.
X.	Meyer-Westfeld, *Münch. med. Woch.*, 1905, No. 40	Lindner	Chloroform	4th and 5th cartilages and ribs to anterior axillary line	Tedious recovery; ultimate return to work	
XI.	Küttner, *Münch. med. Woch.*, 1906, No. 28	Küttner	Ether	4th, 5th, and 6th cartilages and ribs, with periosteum as far as anterior axillary line	"Rapid recovery"	
XII.	Danielsen, *Beit. zur. klin. Chir.*, 1906, Bd. 51	Küttner	Ether	4th, 5th, and 6th cartilages and part of ribs; periosteum removed	Considerable improvement and return to work	
XIII.	Urban, *Wien. med. Woch.*, 1908, No. 8, p. 395	König	Local; followed by chloroform and oxygen	4th, 5th, and 6th cartilages and ribs; periosteum retained	Very good recovery	
XIV.	Wenckebach, BRITISH MEDICAL JOURNAL, Jan. 12th, 1907, p. 63	Koch	Chloroform	4th, 5th, 6th and 7th cartilages and ribs and left border of sternum	No great improvement	
XV.	Poynton and Trotter. *Lancet*, June 19th, 1909	Trotter	—	3 or 4 in. of 4th and 5th ribs, leaving posterior periosteum	Some improvement	

bony wall. I have omitted all details as to the symptoms before operation, as the cases are generally of a type similar to our own with marked evidence of cardiac failure, which was not relieved, or was only very temporarily relieved, by complete rest and medical treatment.*

In addition to these 15 cases we have also to note that an operation similar in some respects to Brauer's "cardiolysis," but differing in its objective, has been suggested by Alexander Morison,[1] and carried out for him in two cases by Stabb. Morison holds that in cases of cardiac hypertrophy, as met with in aortic disease and angina pectoris, the heart has not room to exercise its full power of compensation, and that when great enlargement occurs it is confined within the chest, so that on the one hand its power of work is limited, while on the other its action causes pain (angina). He therefore suggested a removal of part of the chest wall in front of the heart, "both when the mere bulk of the organ is the chief feature in the case, and when, as in irremediable mediastinal tumour, the heart is secondarily involved in the neoplastic growth." He refers without detail to one case in which this had been done "with benefit." He also records fully an example of aortic stenosis and regurgitation with marked ventricular hypertrophy and anginoid pain in a lad from whom Stabb removed 4½ in. of the fifth and 5 in. of the sixth rib with their cartilages and periosteum; the general condition and the pain were greatly relieved. In these cases there was no question of dealing with pericardial or extrapericardial adhesions, but they are relevant to the present subject both because the surgical methods are analogous and because the benefit resulting from "cardiolysis" may perhaps be due, in part at least, to giving the heart more room for action, especially in cases such as our own in which marked adhesions are not found.

We are thus provided with a total of 18 cases in which the bony wall of the thorax has been removed in front of the heart for the relief of diseases of that organ, the majority of these having been undertaken on Brauer's theory of relieving adhesions, while two aimed at, and possibly more succeeded in, relieving pressure. The operation is described as "cardiolysis" by those who adopted Brauer's view, while Morison uses the term "thoracostomy," as he does not aim at dealing with adhesions. There seems no reason, however, why the more limited term "cardiolysis" should not be applied to all operations for freeing the action of the heart, whether that be limited by adhesions or by mere want of space, or, if this be objected to, the expression "precordial thoracostomy" might be used to distinguish this from thoracic operations undertaken with other and quite different objects.

As regards this operation it has been conclusively shown not only that it can be performed with reasonable safety, but that in suitable cases it may prove of great value. So far as the question of safety is concerned, we can at present only say that there is no recorded instance of death or any minor untoward result, although certain dangers have to be encountered, especially perhaps in connexion with the anaesthesia.

With regard to the results we may classify the cases as follows: The eight cases in our table numbered I, IV, VIII, IX, X, XI, XII, and XIII appear to have been most satisfactory; four of these certainly returned to their work, and although we have less explicit information in the others the improvement is described as very great or spoken of as "recovery." Cases II, III, V and XV appear also to have been improved very considerably, and to these we may add our own and Morison's second case, making six in which the operation was of very definite value. In some of these, as in our own, and in several tuberculous cases, the results were, however, masked by other diseases. Lastly, there remain three cases, Nos. VI, VII, and XIV, and perhaps also Morison's first case, in which we have no clear evidence of any very material improvement. It is by no means easy in such a summary to assess fairly the amount of benefit in each case, but we can hardly doubt that in the great majority, if not in all, the surgeon and patient have been satisfied with the result. It is also to be borne in mind that in all these tentative operations the patients have been ill for a very long time, the disease has been far advanced, all other methods of treatment have been fully and fairly tried, and the disturbing question of how far improvement has been due to rest and nursing has been set aside by prolonged care before operation was even contemplated. In the future an early resort to operation before the heart has approached exhaustion may give much better results.

With regard to indications, Brauer and his school lay the greatest stress upon evidence of adhesions to the bony walls of the thorax and especially upon marked diastolic precordial bulging with systolic retraction. The last condition was not present in our own case, which was undertaken before any details of Brauer's work were published, and, of course, before any other cases except Beck's had been reported, and we were, or at any rate I was, unaware of the stress to be laid upon its presence. In our cases it certainly did not appear to myself that the heart was in any way rigidly bound to the chest wall, and I am quite prepared to believe that such benefit as resulted was at least in part due to the mere provision of space for the heart's action. It will, however, perhaps not be expected that a surgeon should express any judgement upon the interesting question raised by Morison beyond saying that the two indications at present recognizable are the release of the heart from a too confined area and its release from adhesions to the chest wall.

On the other hand, it is clear, as emphasized by Umber and others, that it is useless to operate so late that myocardiac degeneration has left the heart incapable of recovery, and the best test is probably the fact that temporary recovery ensues with rest and treatment.

In conclusion, I may now refer to certain points in connexion with the operation itself.

The question of anaesthesia presents special difficulties, and has given much anxiety. Beck and König used morphine, chloroform, and ether; Wenckebach and Stabb chloroform; Küttner and Danielsen ether; Petersen and Simon attempted to operate under local anaesthesia, but had to give chloroform and subsequently ether. In our case Thompson employed a mixture of ether and chloroform, and we had a few anxious minutes before the operation was commenced, but no subsequent trouble. The principal difficulty lies in the fact that there is danger on the one hand of syncope under chloroform and on the other of irritation of a congested, inflamed, or tuberculous lung by ether. Personally, we should prefer to mix these anaesthetics, using the open method, relying principally upon chloroform and adding more ether if any sign of cardiac failure demands it. It is also noteworthy that as soon as the chest wall has been opened the heart at once gains power and the pulse improves, so that less ether will be required in the later stages.

The incision has always taken the form of a curve, the soft parts being turned back as a flap. Most operators have turned this flap outwards; Stabb reflected it upwards. In our case it was reflected inwards, as excision of the sternum was our main objective; but in future I should turn it outwards, both because I should not remove much, if any, sternum, and because the flap with its base to the middle line is less well supplied with blood. In our case the congested veins and the section of the terminal branches of the intercostal arteries caused the flap to become very oedematous, with a little sloughing near the drainage aperture, and there can be no doubt that any trace of sepsis would under such conditions have led to disaster.

The extent of bone and cartilage removed has been sufficiently indicated in the table given above. In Brauer's first case this was limited to the ribs; in Simon's cases a part of the sternum was also cut away, and this we carried further, removing the whole of the centre of that bone. In all the later cases ribs and cartilages only have been excised, and this will probably be the course adopted in future. I did not find the firm retrosternal adhesions which I had been led to expect, and had I known more precisely the conditions to be met with I should have spared myself some anxiety by leaving the sternum intact. Possibly, however, in some cases in which after removal of the ribs dense retrosternal adhesions are discovered, it may be well to cut away the left border of the bone. With regard to the amount of

* Venus, in a critical abstract (*Centralblatt für die Grenzgebiete der Medizin und Chirurgie*, vol. xi, 1908, p. 539) enumerates also three cases referred to by Blauel, and he is followed by Poynton and Trotter (*Lancet*, June 19th, 1909), but these appear to be Brauer's cases.

rib to be removed further experience may guide us; but it would seem reasonable to make the thoracic window of good size, and at least to remove any bone upon which the heart can have a direct impact.

Much stress is laid by several German writers upon the importance of removing all periosteum and perichondrium to prevent bone regeneration, while others emphasize the danger of so doing, and even claim that the posterior periosteum cannot be removed without injury to the pleura, which might, under the conditions, prove a most grave complication (König). Of actual facts to support either contention there are few, if any; but the dread of bone regeneration appears to be at least greatly exaggerated and based on the results of thoracoplasty for empyema, in which the conditions are very different. It would seem to the writer probable that, even if regeneration did tend to occur over the bulging heart, the latter would readily provide space for its action in the thin layers of bone which would first be formed, and that, as the cartilages would in no case regenerate, there would always be an ample gap in the chest wall; while the ends of the ribs, having no attachments, would accommodate themselves to the requirements of the heart. In the case of Umber and König, in which periosteum was not removed, the patient died two and a half years later, and at the *post-mortem* examination it was found that there had been no regeneration except for a few bony spicules. On these grounds I should in future be inclined to adopt König's suggestion—namely, to excise the superficial periosteum, leaving that on the deeper side of the ribs, unless it could be taken away with ease and rapidity; in a case such as Meyer-Westfeld's, in which thick and dense fibrous tissue is found below the chest wall, it is, however, both easy and advisable to remove the posterior periosteum (Umber).

Lastly, it is of essential importance to arrest all haemorrhage before closing the wound, and it is probably wise to provide a drain for a few days, as the cut surfaces are extensive, and the movements of the heart cause a good deal of mechanical irritation in the flap, and will tend to aggravate the flow of serum.

REFERENCE.

[1] *Lancet*, July 14th, 1908, p. 7.

THE MECHANISM OF CARDIAC PAIN.

BY OTTO MAY, M.A., M.B.CANTAB., M.R.C.P.LOND.,

MEDICAL REGISTRAR TO THE MIDDLESEX HOSPITAL, AND PHYSICIAN TO OUT-PATIENTS TO THE EVELINA HOSPITAL FOR CHILDREN.

AN investigation of the pain and other sensory disturbances occurring in a series of 50 cases of heart disease has elicited certain facts which seem to have a bearing on the mechanism of production of cardiac pain. The details of these cases are published elsewhere;[1] the purpose of the present article is to emphasize these facts, and to touch upon a few theoretical considerations arising therefrom.

The whole heart, and the aorta as far as the origin of the innominate artery, are developmentally "mesial" organs. Further, the auricles develop from the more caudal part of the primitive heart tube, the ventricles and aorta from the more cephalic part.

From these facts it could be confidently predicted (*a*) that the cardiac nerves are derived from both sides of the nervous axis; and (*b*) that the auricles are innervated from segments of the central nervous system caudal (or posterior) to those innervating the ventricles and aorta. The former statement is easily verified by the known facts of anatomy, the cardiac nerves being derived from both vago-spinal accessories, and both right and left sympathetics.

Little seems to be really known, however, as to the exact details of distribution—for example, whether the nerves from the right side supply the right chambers, and vice versa. G. A. Gibson[2] states that "the left ventricle and its attachments are connected mainly with the left coronary and left deep cardiac plexuses, which, along with the entire superficial cardiac plexus, are in relation with the left nerve centres." He appears to believe, also, that the right chambers are supplied from the right nerves, and, in confirmation, instances a case of failure of the right heart in which "anginous" symptoms began on that side. On *a priori* grounds, such a scheme of innervation seems highly improbable, as the septation of the heart is a secondary process, having no relation whatever to the bilaterality of the organism.

Statement (*b*) receives neither verification nor denial from the anatomical textbooks, which contain no reference to the detailed innervation of the separate chambers in terms of the segments of the nervous axis. According to Head,[3] the afferent paths from the auricles are connected with the fifth to eighth thoracic segments, those from the ventricles with the first to fifth thoracic, and those from the aortic arch with the third and fourth cervical, and first to fourth thoracic. These statements accord with (*b*), but they rest on theoretical grounds rather than on anatomical observation. Neither do they represent the whole afferent innervation, as they do not include those of the "bulbar autonomic system" (vago-spinal accessories). There is abundant physiological evidence that these nerves carry afferent cardiac fibres—for example, the "depressor" nerve of the rabbit, and the reflex effects of stimulating the central cut end of the cardiac branches of the vagus in mammals generally. Recently Einthoven[4] has shown that the peripheral part of the cut vagus exhibits "negative variations" corresponding in frequency with the rate of the heart beat—strong presumptive evidence that the vagus transmits afferent cardiac impulses even during the normal heart rhythm. It is probable that the referred tenderness in the sterno-mastoid, to which Mackenzie[5] has drawn special attention as a sign often elicitable in patients with failing compensation, is a clinical manifestation of these afferent cardiac impulses in the vago spinal accessories. This tenderness was present in 13 out of the 50 cases examined.

Pain was, or had been, present in 35 cases—that is. 70 per cent. In some it was slight, in others it formed the most striking feature in the clinical picture, being of a severity sufficient to dominate the patient's mode of life. Its distribution varied in different cases, the important point in this connexion being the absence of any definite relation between the site of the pain and the clinical diagnosis of the valvular lesion present. This statement is contrary to the usually expressed views. Thus Head[3] describes cardiac pain as of two kinds, (1) local, (2) referred, according to the laws formulated by him and others for the reference of pain in visceral disease. He regards the pain of aortic disease as due to the left ventricle, and as situated over the upper part of the chest, the scapula, and the inner side of the left arm—that is, the territory of the upper thoracic nerves. Similarly, he explains the pain of mitral disease as auricular in origin, and referred to the territory of the middle four thoracic nerves. As regards the mechanism of production, he looks upon the causal factor as being the undue distension of the chamber in question during its diastolic pause. It is on these assumptions, in fact, that he has worked out the innervation of the different chambers as described above.

The discrepancy between Head's account and the findings in the present series of cases can best be exemplified by brief accounts of three cases of undoubted mitral disease in which the distribution of pain was of the type described by him as typically aortic. It is interesting to note that Mackenzie[6] has described this distribution of pain as occurring in certain cases of mitral stenosis, especially in female patients. He regards it as a sign of exhausted power of contractility of the cardiac muscle.

CASE I.

M. R., female, aged 35. Rheumatic fever one year ago. Since then she has never felt strong, and, at fairly frequent intervals, has had very severe attacks of pain in the front of the chest and radiating down the inner side of the left arm. The pain has been so bad as to cause the patient to pace the room, nursing the arm with the other hand. She noticed, moreover, that these attacks left the arm with a feeling of soreness for some hours afterwards. She was sent up to hospital by her doctor with the tentative diagnosis of angina pectoris. (She never exhibited the immobility or "the fear of impending death" characteristic of the severe form of angina.)

Physical Signs.—Apex beat in fifth left space, just outside the nipple line; impulse fairly well localized, but not very strong. At the apex there is a double murmur, presystolic and systolic, and the second sound can be heard. At the base the second sound is rather accentuated to the left of the sternum; both sounds are weak to the right. The pulse is rather irregular and the liver cannot be felt.

CASE II.

H. D., female, aged 45. Two previous attacks of rheumatic fever. Admitted with all the signs of failing compensation—general oedema, ascites, orthopnoea, and cyanosis. She complained of sharp pain in the chest and left upper arm as far as the elbow.

Physical Signs in Heart.—H.A.B. fifth space, 5½ in. from the middle line. Impulse irregular and not very forcible. At apex both sounds heard, and, in addition, there is a loud, rough, systolic murmur conducted outwards to the axilla. At the base both sounds are heard and the second sound is accentuated at the pulmonary cartilage. There is no murmur at the base.

CASE III.

M. G., female. Aged 31. Four attacks of rheumatic fever. Complains of shortness of breath, palpitation, and pain. The latter is in various parts of the chest, but especially in the precordium, and often radiates down the left arm.

Physical Signs.—H.A.B. in fifth space, 3½ in. from the middle line. The impulse is slapping in character, and preceded by a well-marked presystolic thrill. At the apex a rough presystolic murmur is heard, followed by a short first sound. The second sound at the pulmonary cartilage is accentuated. The pulse is irregular, and the liver cannot be felt.

The occurrence of such cases is sufficient to cast doubt on the theory of the "mechanical" origin of cardiac pain. And a more detailed consideration of the conditions confirms the necessity of abandoning this theory. Thus, two possible methods of mechanical stimulation of the afferent nerve endings in the heart wall suggest themselves (*a*) by increased strain as a result of undue distension of the chamber; (*b*) by increased pressure as a result of excessive strength of contraction of the cardiac wall. As already mentioned, the former of these alternatives is apparently the one adopted by Head.[3]

If it were true, then the ideal condition for the production of heart pain would be the overfilling of a cardiac chamber during diastole. In other words, pain should be a prominent symptom in all cases of heart disease, with marked dilatation and insufficient emptying of the chambers. Now this condition is met with to an extreme degree in the common case of "double mitral disease" with failure of compensation; yet a patient afflicted in this manner not uncommonly exhibits all the physical signs of complete failure of compensation—cyanosis, orthopnoea, general anasarca—without at any time suffering any pain referable to the heart. In the series of 50 cases two well-marked examples of this condition occurred, both in young subjects, and both going to a fatal issue; yet the patients never manifested either pain or tenderness. Such cases would be quite inexplicable were the mechanical effects of cardiac dilatation the chief factor in the production of pain. The converse argument tells in the same direction—many of the severest cases of heart pain occur in patients in whom no dilatation can be observed either clinically or at autopsy.

The second alternative—increased pressure on the nerve endings as a result of excessive force of contraction—hardly calls for consideration. The condition of great muscular hypertrophy without the occurrence of any pain is so commonly met with, in athletes, in renal disease, etc., that this possibility could never be seriously urged as a fitting explanation.

It seems, then, that no mechanical theory is capable of offering a satisfactory explanation of the origin of the "painful" stimulus. But there is one factor which may be presumed to be present to some degree in all cases of heart disease, namely, some *chemical* change in the myocardium. The suggestion presents itself that the stimulus to the nerve endings may be a chemical one, some product of the disordered metabolism of the heart muscle. On consideration a number of facts can be adduced which fit in well with this suggestion. Thus, there is a general consensus of opinion that those heart affections are most characterized by pain in which, at autopsy, most evidence of myocardial degeneration is present. Again, the paroxysmal nature of the pain in many cases, without any corresponding change in the physical signs in the heart, is easier to explain on the assumption of a chemical stimulus than of a mechanical one.

No striking originality is claimed for this view; in fact, it is in some degree foreshadowed by Mackenzie's opinion, quoted above, that the pain often results from exhausted contractility, for there can be practically no doubt that the phenomena of muscular exhaustion must rest on a chemical basis. In the present state of biochemical knowledge it is impossible to suggest what actual compound or compounds could be invoked as an adequate stimulus. But it is quite within the bounds of probability that competent chemical investigation of the myocardium of patients whose clinical history was known might throw considerable light on this question.

Further, this conception of the mechanism of cardiac pain tends to bring it into line with other painful conditions—notably, "cramp" of voluntary muscles and the "lightning pains" of tabes dorsalis. Mott and others believe that the latter are caused by gradual liberation of chemical irritants from the degenerating posterior root neurons. This view has displaced the earlier one—that the pain was due to pressure from sclerosis of the roots. It affords a ready explanation of the clinical observation that the pains often cease when ataxia develops, and that in those patients who never become ataxic pain continues to be a prominent feature throughout the course of the disease.

REFERENCES.

[1] O. May, *Archives of Middlesex Hospital*, October, 1909. [2] G. A. Gibson, *Nervous Affections of the Heart*, 1905, p. 38. [3] H. Head, *Brain*, vol. xix (1896), p. 153 et seq. [4] W. Einthoven, *Quarterly Journal of Experimental Physiology*, vol. i, p. 244. [5] J. Mackenzie, *Lancet*, 1895, p. 16 et seq. [6] J. Mackenzie, *Diseases of the Heart*, 1908, p. 187.

INFECTIVE ENDOCARDITIS TREATED WITH ANTIDIPHTHERIAL SERUM.

BY W. ROSSELL JUDD, M.R.C.S.ENG., L.R.C.P.LOND.,

ASHTON-UNDER-LYNE.

IN the absence of bacteriological proof, some authorities state[1] that the cure of infective endocarditis cannot be accepted as such.

Time and the many exigencies of general practice make it almost impossible for the practitioner to make blood cultures, take opsonic controls, and indulge in the ultra-refinements of the bacteriological laboratory. The following notes are based purely on clinical observation, and their publication would not have been sought had not the case in question been seen by one whose authority goes without saying.

On August 14th, 1909, I was called to see a man, J. T., aged 30, and was told that he had just had "a severe shivering attack."

Previous History.

The patient, as far as he could remember, had always enjoyed good health, the only trouble being a "running ear," which sometimes discharged a little, but for long periods was quiescent; the condition of the ear he dated back to childhood. His habits had always been regular, and he had always been most abstemious. No history of rheumatism or injury could be elicited.

State on Examination.

I found the patient sweating profusely, the pulse was forcible, and the respirations hurried; he was pale, complained of headache, and had just had an attack of vomiting; the tongue was furred, dry, and tremulous; the temperature was 104° F. For some few days he had not felt quite as well as usual, but did not attach much importance to this condition. The provisional diagnosis made was some atypical form of typhoid.

Progress of the Case.

The pyrexial curve and absence of other typhoid symptoms dispelled the idea of typhoid fever, and I then regarded the case as one of septic infection, and by a process of exclusion infective endocarditis was surmised.

The patient, in spite of ordinary treatment, continued to have severe rigors, averaging three attacks in the twenty-four hours, with an intermittent pyrexia ranging between 97° and 104° to 105°, accompanied by delirium and followed by profuse sweats.

Examination of the heart gave at first indefinite results, but a systolic murmur could be heard over the aortic area on the third day; and on the fourteenth day a well-marked mitral systolic murmur could be heard carried up into the axilla.

The spleen was enlarged and tender. The urine contained albumen, but no casts. Examination of the left ear revealed a perforation of the tympanic membrane, with a bead of pus in the middle ear.

On the eighth day of the disease the condition of the patient was so grave that I deemed it necessary to call in further advice, and Professor Dixon Mann saw the patient with me. The diagnosis was confirmed, but the prognosis was hopeless.

Treatment.

At first the patient was put upon large doses of quinine and arsenic, but they had practically no influence upon the pyrexia; and, having to deal with a case of a pyaemic nature, whose blood stream was no doubt charged with infective bacteria, I decided to treat the patient as much as possible on germicidal lines.

Regarding the septic ear as a possible channel[2] for the infecting micro-organism, this was treated with instillations of hydrogen peroxide, followed by irrigations of a mild antiseptic lotion. The alimentary canal and the renal secretion were likewise treated antiseptically; for the former salol and benzonaphthol were administered three-hourly, and for the latter 15 grains of urotropine was given night and morning. To maintain the patient's strength I allowed as much as he could take of an easily assimilative diet. Stimulants were not resorted to, since the patient had never taken any.

In spite of the above treatment, the rigors still persisted, so that my mind turned to vaccines and antitoxins. Two cases were recently brought to my notice where, even after blood cultures were made, and in the one case a suitable emulsion of killed micro-organisms made, and in the other an appropriate serum prepared, yet the result was disappointing.

Although antidiphtherial serum so far is regarded as a specific in neutralizing the toxins of the Klebs-Loeffler bacillus, yet cases are not wanting in which it has been of service in other directions, consequently I decided to inject an initial dose of antidiphtherial serum (Parke, Davis and Co.) of 2,000 units into the abdominal parietes. To my surprise and to the gratification of the patient, only one rigor took place during the next twenty-four hours, and for the following five days the morning temperature was slightly subnormal and the evening temperature just above the normal. On the evening of the fifth day after the first injection I was hurriedly summoned and found the patient in a severe rigor, with a temperature of 104.2°; the rigors continued for the following three days, but in a milder form than formerly, and were not as frequent.

The patient derived so much benefit from the first injection that he begged for another, and I therefore gave him a second injection of 4,000 units in the early morning; the same evening he had a slight rigor, and on the following day the temperature dropped to 101°; after this the temperature kept more or less to the normal, and the patient made an uninterrupted recovery. The patient remained in bed six weeks; three weeks he recruited in a convalescent home, and on examination on November 28th the heart sounds were quite clear, his anaemia much less marked, and his weight had increased 8½ lb.

REFERENCES.
[1] *Practitioner*, May, 1908. [2] Clifford Allbutt, vol. i.

HENOCH'S PURPURA OR ANGIO-NEUROTIC OEDEMA?

By H. CECIL BARLOW, M.B.Lond., L.R.C.P., M.R.C.S.
SOMERSHAM, HUNTS.

In connexion with Dr. Leigh Day's case of Henoch's purpura, the following cases, which occurred within a few weeks of one another, may be of interest:

CASE I.

C. M., male, aged 12. First seen on February 9th, 1906; had complained for four days of severe abdominal pain, accompanied by diarrhoea. "The motions looked like blood." On both legs and the backs of both hands there had been white swellings, "the size of a walnut," which developed rapidly, lasted a few hours, and then disappeared.

The boy was pale but not anaemic; the temperature was 100°, the pulse 80 and irregular. The abdomen was slightly retracted, nowhere tender, and nothing abnormal was felt. There were no spots nor any trace of the swellings described. There were no objective signs in the chest.

On February 10th the temperature was 99.6°, the pulse 74, and he looked very ill, with sunken eyes, and much abdominal pain. During the night he had passed six loose motions, containing much bright red blood but no mucus or pus. Nothing abnormal was felt on rectal examination. Several purpuric spots were observed around the elbows.

On February 11th he appeared better, the temperature was normal, the pulse 78, and he had had only one motion, normal in appearance, in the last twenty-four hours, but the urine was scanty and contained a large amount of blood. The skin of the buttocks and sacrum was covered with large purpuric spots, some the size of a shilling.

On February 12th the general condition was better and the pain was neither so frequent nor so severe. He had slight diarrhoea, but the motions contained only a small quantity of blood. The urine had increased and the quantity of blood had diminished.

Up to February 19th his condition remained much the same, when there appeared on the back of the left hand a patch of solid oedema the size of a bantam's egg. The movements of all the joints in the hand were unattended by pain. The patch lasted twelve hours, and then subsided rapidly, leaving no trace.

From February 19th to 28th his general condition steadily improved, pain ceased, and the blood disappeared from motions and urine.

On February 25th he had a fresh crop of purpuric spots on the buttocks which lasted two days only. By March 1st he was quite convalescent.

CASE II.

G. L., male, aged 4½. Was seen on March 12th, 1906. For a week he had complained of severe abdominal pain, coming on specially at night; otherwise he did not appear to be ill. The boy was well nourished and not anaemic; he did not complain of pain at the time of examination, and the temperature was normal. Careful examination of abdomen revealed nothing abnormal. There were no objective signs of disease.

For the next few days the attacks of pain were frequent and severe, but I failed to detect anything to throw light on the condition.

On March 20th I examined him during an attack of pain. The pulse was 100, regularly intermittent, and there was most noticeable rigidity and retraction of the abdominal muscles, but nowhere did pressure reveal any tender spot. Around the wrists and on the extensor aspects of the legs were a large number of circular spots, resembling urticaria, but the hyperaemic border was a darker and more dusky red than in ordinary urticaria. There was no irritation. These spots lasted four days, and left a stain like a bruise.

On March 21st his condition was about the same. On the backs of both hands were patches of solid oedema of an area of about 2 sq. in. There was no pain on movement of any of the joints of the hands. These swellings lasted forty-eight hours and then rapidly disappeared, leaving no stain. He complained of pain in the dorso-lumbar region.

On March 22nd a patch of solid oedema appeared on the back, over the spine of the last dorsal vertebra. It lasted less than twenty-four hours, leaving a well-marked bruise, which covered an area of 4 sq. in.

On March 23rd the eyelids were oedematous and the site of urticarial spots becoming purpuric. The child was very ill; the pulse was 120 and intermittent, the temperature normal; he was taking very little nourishment.

On March 24th he vomited during an attack of pain; urticarial wheals appeared on the cheeks, replaced two days later by purpuric spots.

On March 25th the child was exceedingly ill and vomited frequently; on the next day he was much collapsed, the face livid, the eyes sunken, and the pulse 120, small and very soft. He had vomited incessantly all night, but had had no attacks of pain.

On March 27th the condition was greatly improved; he had only one attack of pain, and there had been no vomiting. On March 29th large purpuric spots appeared on the elbow and backs of forearms; and from March 30th to April 3rd several fresh crops of spots appeared. On the arms many of the spots coalesced, causing large areas of discoloration. On April 3rd a few spots were noticed on the hard palate. He complained of pains in both knees; there was solid oedema above the left patella, and the knee-joint was hot, swollen, tender, and contained excess of fluid. The pulse for the last few days had been about 70.

From April 4th to 30th he improved steadily, although he had several fresh crops of spots and patches of oedema. The attacks of pain occurred at longer intervals, and were less severe. By the middle of May he was convalescent.

Perhaps the most interesting feature common to both cases was the occurrence of solid oedema which appeared and disappeared very rapidly. This is not a condition generally met with in Henoch's purpura, but angio-neurotic oedema is characterized by severe gastro-intestinal crises, and Osler has pointed out that Henoch's purpura has an interesting connexion with angio-neurotic oedema. In neither case was the spleen felt. The temperature in the first case was slightly raised at the onset, but in the second it was normal throughout; in both at times the pulse was unduly slow, and for some time in the younger boy it was regularly intermittent. There was no involvement of the joints in the first case, and a very slight and transient swelling of one joint in the second. The changes in the younger boy's general condition were very rapid. One morning he would appear to be in extremis, and the next his illness seemed to be slight. Conty regards the disease as of nervous origin, affecting the vasomotor nerves, and certainly in these two cases the symptoms might be explained by the presence of a toxin acting mainly on the sympathetic nervous system.

THE Metropolitan Asylums Board has arranged for further lectures and demonstrations in hospital administration for the benefit of candidates for the diploma in Public Health. There will be two simultaneous courses covering the same ground, the one being conducted at the North-Western Hospital by Dr. J. MacCombie, and the other by Dr. F. M. Turner at the South-Eastern Hospital. Each course lasts three months, that at the North-Western Hospital commencing at 11 a.m. on Monday, January 10th, and continuing on each consecutive Monday thereafter. The South-Eastern Hospital course begins at 2 p.m. on Wednesday, January 12th, continuing at the same hour on the following Wednesdays. The fee is £3 3s.

FATAL APLASTIC ANAEMIA.

BY

WILFRED THOMAS, M.R.C.S., L.R.C.P.,

WELWYN, HERTS.

With Remarks by

H. D. ROLLESTON, M.D., F.R.C.P.

PHYSICIAN, ST. GEORGE'S HOSPITAL.

As aplastic anaemia is not very commonly recognized and may easily be mistaken for lymphatic leukaemia in an aleukaemic phase, the following case—although not confirmed by a necropsy—is worth recording. It is noteworthy that the grave anaemia followed an infection of the gums with the spirilla and fusiform bacilli of Vincent's angina.

Male, aged 30, married, a club patient, always healthy, had never had syphilis, and except for severe influenza when 18 years of age had not had any serious illness. At Christmas, 1908, he had a lump in the roof of his mouth, and a dentist then extracted 6 teeth; he visited the dentist regularly every fortnight, and had 15 more teeth out. Since the date of the first extraction he had an offensive discharge from the gums, tasting and smelling like bad fish. In June, 1909, I saw him for the first time professionally, and probed the gums every few days and gave him a carbolic mouth wash, with great improvement in the local condition. In the second week in September he went to Folkestone, but while there he rapidly became worse, losing his appetite and suffering from sleeplessness and palpitation. On his return he was intensely anaemic. On September 26th the Clinical Research Association reported that pus from the gums contained the spirilla and fusiform bacilli of Vincent's angina, and also numerous very minute Gram-negative bacilli which could not be identified, and a few Gram-positive cocci, possibly due to contamination. His blood was examined by the same association, with the following result:

Red blood corpuscles	840,000 per c.mm.
Haemoglobin	17 per cent.
Colour index	1
White blood corpuscles	12,000 per c mm.
Differential count:	
Polymorphonuclears	12 per cent., or 1,414 per c.mm.
Small lymphocytes	55 per cent., or 6,624 per c.mm.
Large lymphocytes	32 per cent., or 3,840 per c.mm.
Eosinophiles	0
Mast cells...	0
Myelocytes	0.8, or 96 per c.mm.

Three nucleated red blood corpuscles, all normoblasts, were seen in a count of 250 white cells. The red blood corpuscles were somewhat irregular in size.

At this time the spleen was not palpable, but the liver was somewhat enlarged. Except for slightly enlarged glands in the neck, there were no palpably enlarged glands. Some purpuric spots appeared on the back. On the blood count a diagnosis of aplastic anaemia was made, and he was treated with injections of arsenic and iron. He rapidly got worse, and died on November 2nd. A necropsy could not be obtained. On October 1st Dr. Rolleston kindly came down and helped me to diagnose the case.

REMARKS BY DR. ROLLESTON.

Aplastic anaemia, though described by Ehrlich[1] in 1888, has not attracted much attention. Lavenson[2] in 1906 collected 11 cases, and Cabot[3] in 1908 tabulated 24 cases, and refers to 11 other cases which he does not regard as sufficiently complete; this case must also be considered incomplete inasmuch as, in the absence of a necropsy, the aplastic condition of the bone-marrow could not be proved.

Cabot considers aplastic anaemia to be closely allied to pernicious or Addisonian anaemia, and states that the distinction between the aplastic and the metaplastic (or pernicious) types of anaemia is one of degree only. French,[4] on the other hand, regards aplastic anaemia as a distinct form of grave anaemia; and Lazarus[5] considers it as a form of simple anaemia. The essential point about aplastic anaemia is the absence of any compensatory reaction of the bone-marrow (aplasia), and in this among other respects it differs from pernicious anaemia. As a result there is a diminution not only of the red blood corpuscles but of the granular leucocytes (the polymorphonuclears, eosinophiles, mast cells) manufactured by the red bone-marrow. There is, therefore, a relative increase of the lymphocytes; in 12 of Cabot's cases the lymphocyte count averaged 72 per cent. In a blood film the blood picture of lymphocytic leukaemia is thus imitated. It may also be pointed out that in this case in an early stage the condition of the gums would have been compatible with a diagnosis of acute lymphocytic leukaemia. As further characteristics of aplastic anaemia Cabot gives its incidence in young persons, 75 per cent. of his cases being under 35 years of age; greater incidence in women than in men; its rapid course without any remissions; the greater liability to haemorrhages; a low colour index, the average of 19 cases being 0.8; and the absence of nucleated red blood corpuscles.

REFERENCES.

[1] Ehrlich, *Charité-Ann.*, Berlin, 1888, xiii. [2] Lavenson, *Amer. Journ Med. Sci.*, Philadelphia, 1907, cxxxiii, 100. [3] Cabot, *System of Medicine*, (Osler and McCrae), 1908. iv, 637. [4] French, *System of Medicine* (Allbutt and Rolleston), 1909, v, 733. [5] Lazarus, quoted by Lavenson.

NOTE ON THE PRESENCE OF "BILHARZIA HAEMATOBIA" IN EGYPTIAN MUMMIES OF THE TWENTIETH DYNASTY

[1250–1000 B.C.].

BY MARC ARMAND RUFFER, M.D.,

PRESIDENT OF THE SANITARY, MARITIME, AND QUARANTINE COUNCIL OF EGYPT, ALEXANDRIA.

In a previous note published in this JOURNAL I described a process by which mummified tissues could be prepared for histological examination. I ventured to predict that it was highly probable that, by this method, one would be able to recognize pathological changes, such as cirrhosis, cancer, etc.

Thanks to the kindness of Professor Elliot Smith, Professor Flinders Petrie, and Professor Keatinge, I have obtained several organs from mummies of the eighteenth to the twentieth dynasty, and I may state at once that such diseases as atheroma, pneumonia, renal abscesses, and cirrhosis of the liver are plainly recognizable. In the renal abscesses and in other lesions I have stained micro-organisms with methylene blue, fuchsin, haematoxylin, and even by Gram's method.

At the present time there is perhaps no disease more important to Egypt than that caused by the *Bilharzia haematobia*. So far no evidence has been produced to show how long it has existed in this country, although medical papyri contain prescriptions against one of its most prominent symptoms—namely, haematuria. The lesions of this disease are best seen in the bladder and rectum, but unfortunately these are just the two mummified organs which I have not been able to obtain so far. Nevertheless, in the kidneys of two mummies of the twentieth dynasty I have demonstrated in microscopic sections a large number of calcified eggs of *Bilharzia haematobia*, situated, for the most part, among the straight tubules. Although calcified, these eggs are easily recognizable and cannot be mistaken for anything else. I may add that I showed some of my sections to Professors Looss and Ferguson, whose paramount authority on such a subject cannot be disputed, and both confirmed my diagnosis.

I have examined microscopically the kidneys of six mummies. The kidneys of two were apparently healthy; the left kidney of another was congenitally atrophied; those of the fourth contained multiple abscesses with well-staining bacteria and other lesions, which so far I have not diagnosed; those of the fifth and sixth showed bilharzia eggs, and the latter had other lesions as well, which, owing to the shrunken state of the organ, I am unable to define accurately as yet.

Renal disease, therefore, was not infrequent among Egyptians living over three thousand years ago.

THE Henry Saxon Snell prize of the Royal Sanitary Institute for 1909 has been awarded to Mr. Alfred E. Wheeler, of West Ealing, and special prizes have been awarded to Mr. J. Roger Preston, Stourbridge, and Mr. E. Thomas Swinson, Feltham. The subject was the principles of heating and ventilating public buildings.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

FOREIGN BODY IN THE TONGUE.

ON September 21st, 1909, a gardener aged 35 consulted me about a painful spot on his tongue which had been troubling him for over seven months. It was on the right side, below the margin of the tongue, a small inflamed patch crowned by a papilla which suggested the end of a sinus. No opening was visible, and an ordinary probe failed to find one, but careful search with a fine lacrymal probe revealed a minute opening leading into a sinus which could be traversed for about $1\frac{1}{2}$ in. inwards and backwards, where the probe eventually impinged upon something hard. On examining the tongue with the finger and thumb a hard lump of considerable size could be felt embedded in the substance of the muscle about the middle of the organ, and slightly to the left of the septum, pressure on the tongue causing a purulent fluid to exude.

Early in the preceding February the patient had fallen down some steps into the coal cellar, breaking off portions of the right upper second and left lower second molars, and lacerating the *left* side of his tongue. The wound had healed rapidly and given little trouble, but later a soreness developed on the *right* side of the tongue, remaining until the time of inspection. We surmised, therefore, that the foreign body was either a fragment of tooth or of coal. The sinus was gradually dilated until a sinus forceps could be introduced, but the instrument was too tightly grasped by the muscles for any attempt at removal to be made without great pain, and further treatment was postponed for a few days.

Within a week the patient returned with the information that the foreign body had come away of itself, and appeared to be a portion of tooth. I again introduced a probe, and found a hard substance of considerable bulk still remaining. I advised removal under a general anaesthetic. On October 4th Mr. Harmar administered a mixture of chloroform and ether. Employing a mouth gag, and drawing forward the tongue with a Liston's forceps, I dilated the sinus and enlarged the opening by an antero-posterior incision on the horizontal plane, dislodging the foreign body with the finger, and eventually extracting it with dressing forceps. It proved to be a fragment of the end of the vulcanite mouthpiece of a pipe which the man had been smoking at the time of the accident. Further investigation revealed the presence of another body which was similarly removed. It was almost identical with the former fragment, the end of the mouthpiece having not only broken off, but split longitudinally along the bore. The two pieces fitted together perfectly, forming in conjunction a body $\frac{3}{4}$ in. long by $\frac{1}{2}$ in. wide and $\frac{1}{4}$ in. thick, the total weight being 15 grains. The wound was closed with a single silk suture which was removed five days later, the recovery being uneventful.

It is remarkable that such a large sharp-edged object should have remained undiscovered so long in this situation.

Edgbaston, Birmingham. WILLIAM MURRAY, M.A., M.D.

EFFLORESCENCE OF UREA IN URAEMIA.

A MAN aged 56 consulted me for shortness of breath. There was nothing in the condition of heart or lungs to account for the dyspnoea. On examining his urine I found albumen. Two years later he developed cerebral haemorrhage, from which he made a slow and tedious convalescence. He lived a demented life for another year, and then died of the original kidney trouble. After death his wife called my attention to his skin. The face was covered with a coarse white powder, very thick over the forehead and nose. On looking at his chest, the parts about both clavicles were profusely covered. I collected some of this coarse gritty débris and heated it dry in a test tube. It gave off ammonia. The residue was treated with a trace of cupric sulphate and excess of sodium hydrate. It gave a rose colour. I may mention that the patient was under no treatment whatever during the later months of his life, and that his skin only exercised its excretory function with regard to urea *in articulo mortis*.

Exeter. J. A. W. PEREIRA, M.D.

MODIFICATION OF WHITEHEAD'S OPERATION FOR HAEMORRHOIDS.

IN the JOURNAL of October 30th, 1909, Mr. Stanmore Bishop very clearly describes the construction and cause of haemorrhoids, and rightly advocates their thorough and complete extirpation, which is impossible unless the operator removes the whole of the plexus of veins formed by the inferior haemorrhoidal.

On looking at the succeeding article, written by Mr. H. Graeme Anderson, it is shown that at St. Mark's Hospital in only one-third of the cases is such a radical operation performed.

The reasons why many surgeons avoid a radical operation are: Fear of haemorrhage and shock, failure of the wound to unite by primary union, sepsis, stricture of the rectum, loss of anal sensation, and length of convalescence.

At the annual meeting of the British Medical Association at Exeter, 1907,[1] Mr. Heygate Vernon demonstrated a simple method by which these possible dangers might be avoided. My own personal experience of this operation has convinced me that it is a good one. The haemorrhage is trifling; often the wound unites by primary union, enabling the patient to be about again in seven or ten days; there is no tendency to stricture, nor any loss of anal sensation or control.

By means of this operation one can remove just as much skin or mucous membrane as is desired, so as not to put undue traction on the uniting edges, and the whole plexus of veins can be dissected off without any haemorrhage, leaving the sphincter muscle uninjured and quite clean, so rendering a radical operation for haemorrhoids quite simple.

W. SILVERWOOD RICHARDSON, F.R.C.S.Edin.,
Assistant Surgeon to the Royal Boscombe and West Hants Hospital.

THE POSITION OF THE PATIENT AFTER OPERATIONS ON THE ABDOMEN.

CHANGES do not always mean progress and sudden changes are even bewildering. Of late "Fowler's position" has been much to the fore in current medical literature. I had the pleasure last month of listening to a lecture before a medical society in which it was highly praised. Not so long ago the craze was all for the "posture of Clark," the peritoneum was to do its own drainage, in the neighbourhood of the midriff was the all-important absorbing area, and the foot of the bed was to be raised.

It would be grievous to add to the giddy sensation which a rapid mental review of the various positions advocated during the last few years produces in the mind which is not special, but there is a further manœuvre which may be deemed worthy of consideration by abdominal surgeons.

From a general practitioner's point of view an operation is successful which is not too closely followed by death, and which leaves no legacy of evil after-effects. The owner of the scar of an old abdominal incision, who complains interminably of pains and aches, is the bane of the lives of some of us. Our burden would be lightened if the formation of bands and adhesions could be prevented. Again, the impression on the mind of a patient who finds himself the subject of some curious, post-operative, acrobatic procedure, is not to be neglected. Yet again, a gentle, rhythmical motion often has a soothing action on the human economy. Perhaps dim, unconscious memories of an arboreous ancestry are responsible alike for the movements of the cradle and the fondness of old people for rocking chairs.

I should wish, therefore, to call the attention of coeliotomists to the "rocking movement" as a post-operative therapeutic measure. Among its advantages are: (1) The hustling of fluids which may be lurking in out-of-the-way holes and corners; (2) a discouragement of palsy of the bowel; (3) the hindering of the formation of bands and adhesions; (4) a generally sedative effect. The cogitative may well add to these advantages. A rolling motion is preferable to a pitching, and excess must be guarded against.

Brierley Hill, Staffs. S. K. VINES.

[1] BRITISH MEDICAL JOURNAL, August 5th, 1907, p. 903.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

MANCHESTER ROYAL INFIRMARY.

CASE OF CANCER OF THE PYLORUS ASSOCIATED WITH GENERAL SPLANCHNOPTOSIS: PARTIAL GASTRECTOMY.

(By John Morley, M.B., Ch.B.Manch., late House-Surgeon.)

[Under the care of Professor G. A. Wright.]

Mrs. F., a widow aged 37, was admitted on October 23rd, 1908, and gave the following history: Her health had always been fairly good until about two years before admission, when she began to feel out of sorts, and to tire readily at her work. Her appetite failed, and after a few months she began to suffer from much flatulence after meals. At the end of a year vomiting set in; it was only occasional at first, but gradually became more frequent until she would vomit in from fifteen minutes to two hours after almost every meal. For the last month the vomiting had been less frequent, owing, she believed, to more careful dieting. The vomited material would sometimes taste sour, sometimes bitter. There was no history of haematemesis. The stools had been very black on one or two occasions. She had not been constipated during the illness.

Pain began about six months before admission. It was of a dull aching character, referred to the middle line 2 in. above the umbilicus, and passed through to the back. It was made worse by food—sometimes at once, sometimes after an interval—and it was relieved to some extent by vomiting and rest. Three months before admission she first noticed "something rolling about as though it was alive" in her abdomen, and could hear a splashing sound when she moved suddenly. She thought she was afflicted with tapeworms, as she had been four years before, but though she took many draughts to expel them, none appeared in the motions. On feeling her abdomen one day, about three months before admission, she noticed in the umbilical region a very movable hard lump, which had grown gradually larger since. All this time her health had been failing gradually, and she had lost weight considerably. Her previous health, except for an occasional "bilious headache," and the tapeworms referred to above, had been good, and there was no past history of chronic indigestion. She has had four children and one miscarriage. The last child is 10 years old. Her mother is now suffering from cancer of the rectum.

The patient was a woman of rather small build, emaciated, sallow, and anaemic. The lower thorax was narrow and the subcostal angle small. The abdominal wall was thin and unusually flaccid and atonic. The supra-umbilical region of the abdomen was somewhat sunken, the infra-umbilical more protuberant. About 2 in. above and to the right of the umbilicus was a distinctly visible mass, descending freely on inspiration to below the level of the umbilicus. There was slight visible peristalsis of the stomach at times. On palpation, the mass felt hard, round, and nodular, rather smaller than a hen's egg, and exceedingly mobile. It could be pushed upwards beneath the liver, downwards to below the umbilical plane, and towards the left to a point 1½ in. beyond the middle line. When it was thus pushed to the left she complained of a dragging pain in the right hypochondrium. Splashing could be obtained easily over a wide area extending down into the left iliac fossa. Percussion of the stomach after inflation with a Seidlitz powder showed that the fundus was some 2 in. only above the pubes, and that the lesser curvature was also abnormally low, reaching almost to the umbilical plane in the middle line. Peristaltic waves could now readily be seen rolling across the greatly dilated stomach.

The patient was given bismuth carbonate ʒj while standing in front of the radiographic screen, and it was seen that the liver was unusually low, its upper margin descending to the seventh rib in the nipple line. The bismuth, coming down the oesophagus, halted at the cardiac orifice, showing its level to be about the mid-epigastric plane, and then slipped straight down to the left iliac fossa, where it collected and outlined the fundus 2 in. above the pubes.

To test the secretory activity of the stomach an Ewald test breakfast, removed after one hour, was analysed, with the following result: No free hydrochloric acid; total acidity, 14°; lactic acid present; some blood and torulae were seen microscopically. The Oppler-Boas bacillus was not found.

Palpation and percussion showed the position of the solid viscera to be as follows: The upper border of the liver was at the seventh rib in the nipple line, and its lower border some 2 in. below the costal margin. The spleen could not be felt. Both kidneys were movable, especially the right, which could be manipulated down into the right iliac fossa. The upper pole of the left kidney was palpable. On deep bimanual palpation internally to the right kidney a smaller lump than the pyloric tumour could be felt about the level of the umbilicus. It was freely movable, about the size of a walnut, and had a firm elastic feel as of an enlarged gland in the omentum. Vaginal examination revealed no retroversion nor prolapse of the uterus.

Pyloric carcinoma was diagnosed, and it was decided to operate with a view to complete removal of the growth, if possible; on failing that, gastro-enterostomy.

Operation.

On November 4th, 1908, ether was administered by Dr. Bythell, and Professor Wright made a vertical incision 5 in. in length in the middle line between the ensiform

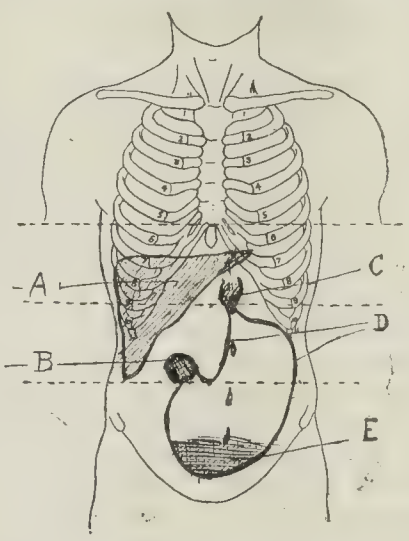


Fig. 1.—Condition before operation. A, Liver; B, pyloric tumour; C, bismuth at cardiac orifice; D, outline of inflated stomach; E, bismuth at fundus as seen in screen.

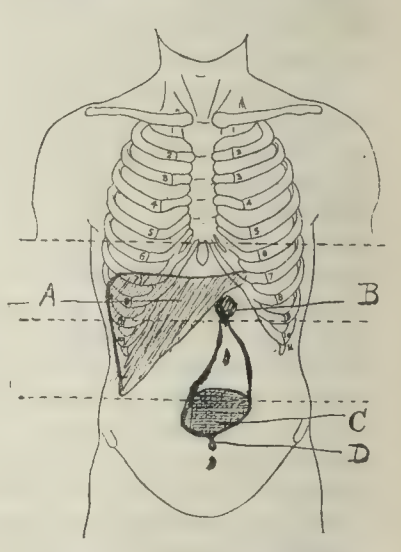


Fig. 2.—Condition after operation. A, Liver; B, cardiac orifice; C, bismuth at fundus; D, bolus entering jejunum.

cartilage and umbilicus. When the peritoneum was opened the proptosed liver at once came into view, moving up and down very freely with respiration. The lesser curvature of the stomach presented at the lower end of the incision, and immediately above it the pancreas floated forward into the wound. The gland was so movable that it could be pushed about in any direction, and appeared to have a meso-pancreas from the peritoneum forming the posterior wall of the lesser sac. The head of the pancreas was nodular and hard as compared with the body. It was undoubtedly the smaller mobile lump that had been felt before. The stomach was large and atonic, and, as was expected, the growth was pyloric. It was annular and about the size of a hen's egg. There were no adhesions, and both pylorus and duodenum were unusually mobile. Alongside of the pylorus, both in small and great omentum, were a few enlarged glands, but none could be found more than an inch away from the growth. There was no sign of secondary deposits in the liver. It was decided to attempt complete removal.

Clamps were applied on the distal and proximal sides of the growth, so as to include not only the pylorus but about one-fifth of the stomach on the proximal side, and about 1 in. of the duodenum on the distal side. The small and great omentum attached to the part to be removed were then tied off with silk and divided, and finally the stomach and duodenum were cut across and the segment of stomach and bowel removed. Owing to the great disproportion in size between the two cut ends, it was thought better to

close them completely with silk, and the suture lines were invaginated with Lembert sutures.

The second stage consisted in posterior gastro-enterostomy. This was performed in the usual way, except that it was found more convenient, on account of the enteroptosis, to bring up the jejunum to the stomach in front of the transverse colon, and thus sling up the colon in the jejunal loop. The gastro-enterostomy performed, the wound was closed with sutures of silkworm gut through the whole thickness of the abdominal wall.

The patient stood the operation well. She was propped up in bed, and rectal salines and nutrient enemata given for the first two days. After this she was given by mouth, first a little port wine and water and then Benger's food and albumen water, and at the end of ten days a light solid diet. On the tenth day half the sutures were removed, and the remainder on the twelfth day, when a little clear fluid was observed to ooze from one of the suture holes. This proved to be a small gastric fistula, which closed in about a fortnight. Otherwise recovery was uninterrupted. Microscopical examination showed the growth to be a spheroidal celled carcinoma.

Seen on March 1st, 1909, fifteen weeks after operation, the patient was much stouter and in good general health. Her appetite was good. An abdominal belt for the splanchnoptosis relieved her of a dragging sensation that otherwise came on when she walked about. A test breakfast still showed absence of free hydrochloric acid. The stomach was again examined by the bismuth method in the upright position, and the fundus was now only 2 in. below the umbilicus. The tone of its wall appeared to be greatly improved, and an occasional bolus of food could be seen passing through the opening from the stomach to the jejunum.

REMARKS BY PROFESSOR G. A. WRIGHT.

My house-surgeon's excellent report of this case needs little addition. The actual protrusion of the pancreas into the wound as soon as the abdomen was opened was very remarkable. The laxity of the visceral attachments no doubt much facilitated the operation, which was unusually easy.

Reports of Societies.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

Friday, December 17th, 1909.

Dr. J. B. HELLIER, President, in the Chair.

Clinical Meeting.

THE following were among the exhibits:—Mr. SECKER WALKER: *Chronic glaucoma* in a woman of 71, treated in the left eye by a modified La Grange operation, in which a wedge-shaped piece of sclerotic is excised just above the corneal margin and a small peripheral iridectomy made. The result is a weak spot in the sclerotic, through which filtration may take place. The pupil remains circular. Dr. WARDROP GRIFFITH: *Traumatic neurasthenia* in a man. About the end of July, 1909, whilst lifting a box, the patient "suddenly became unconscious," and was taken home and put to bed. During the following week he was very violent, and required restraint. Since then he had done no work, and walked with difficulty. His speech was slow, and spine hyperaesthetic. His hands showed slight intention tremor. Mr. H. LITTLEWOOD: Two cases of *Gastro-enterostomy* with recurrence of symptoms, although in both cases the anastomosis on examination proved satisfactory. Mr. ALEX. D. SHARP: A man, aged 45, with *Audible tinnitus*. He complained of a "scraping noise" in the right ear which began twelve years ago after a chill, and had been constant ever since. His hearing and drumhead were normal. The murmur could be heard if the observer placed his ear close to the patient's ear. With the otoscope the "scraping noise" was very distinct. It was synchronous with the pulse, could be modified by turning the head to the right, and made to disappear by firm pressure over the right carotid artery. Inflating the middle ear arrested the noise for about a minute. Mr. W. THOMPSON: A man on whom gastrostomy for malignant disease of oesophagus had been performed twelve months previously. Dr. A. BRONNER: A case of *Hypertrophy of the tracheal mucous membrane* in a man of 55, causing recurrent attacks of laryngitis. It was demonstrated by direct laryngoscopy. Dr. C. OLDFIELD showed a case in which *Ectopic gestation* had proceeded for nearly nine months. The fetus then died and was retained for a year. The sac then suppurated and ruptured into the colon. The menses stopped in early summer, 1908. The patient was only once seen by a doctor a year ago. Laparotomy was successfully performed, the patient at the time being in a very serious condition. Mr. MICHAEL TEALE: A case of *Rupture of the choroid* in a patient struck in the right eye some six months previously by a stone thrown by a boy in the street. When seen the following day there was extensive subconjunctival haemorrhage, together with tremulousness of the iris and several ruptures of the choroid. Some of them could still be seen concentric with the optic disc. The tremulousness of the iris had disappeared. Dr. MAXWELL TELLING showed a case of headache due to *Nodular myositis* of the muscles of the neck in a man of 28. He had had headache of considerable severity for ten years at intervals. This was always preceded by and associated with stiffness and "creaking" of the muscles at the back of the neck, and was mainly occipital. Examination in September, 1909, revealed numerous nodular and doughy thickenings, which had almost entirely disappeared under massage, with alleviation of the headache. Mr. B. G. A. MOYNIHAN: (1) A man aged 59, in whom regurgitation of almost unaltered food after twenty-four or forty-eight hours had occurred for ten years. An oesophageal diverticulum was shown by *x*-ray photography. The diverticulum was excised. (2) A woman of 38, for whom gastrostomy had been done elsewhere two years ago for supposed malignant disease of the oesophagus. A diagnosis of cardiospasm was confirmed by the *x*-ray appearance of an enormous dilated oesophagus along which peristaltic waves were seen to travel. Dilatation was effected, and the patient had gained weight and was taking food much better than formerly.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

Wednesday, December 15th, 1909.

Dr. FULTON, President, in the Chair.

BEFORE the work of the evening commenced the PRESIDENT made mention of the great loss which the profession in general, and the society in particular, had sustained in the death of Dr. Ransom, and suggested that a resolution of sympathy should be sent to his widow. The motion was accepted unanimously, all members rising in silence to signify their assent. Dr. C. H. CATTLE, in a paper on *Milk, sweet and sour*, contrasted the various views as to whether man is morphologically a carnivorous or a herbivorous animal, and summed up chiefly in favour of a lacto-vegetarian diet. Over-civilization, he said, led to either overfeeding and ignorant feeding, or else underfeeding and ignorant feeding, the rich overfeeding and the poor being underfed. Man was too carnivorous, and many diseases, such as gout and arterio-sclerosis, were due to indulgence in food containing purin bases. The poor man's diet consisted chiefly of bread and butter, tea, cheese, potatoes, and a very little meat. He seldom took milk, a form of food which medical men should prescribe more often than was the case. It contained practically no uric acid basis, and cheese with bread and milk was an almost perfect diet. Opinion still seemed to favour the hand milker to the mechanical milker. Owing to impurities milk should always be heated to at least 160° F. before use. On account of the putrefactive agents in the colon being more active in an alkaline medium, it was a distinct advantage to "sour" milk, and so ensure that it should reach the colon in an acid form. In fact, Metchnikoff looked upon sour milk as an intestinal antiseptic. Souring was best brought about by adding Bulgarian bacillus to boiled milk and allowing it to incubate. The author was now treating all his typhoid patients by this method, and with gratifying results. He especially recommended it in cases of ulcerative colitis.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Clinical Meeting.

Wednesday, December 15th, 1909.

Dr Byrom Bramwell, President, in the Chair.

The following were among the exhibits: Dr. Archibald M'Kendrick: *Post-parturient paralysis* in a woman aged 24, affecting the muscles supplied by the left peroneal nerve, the patient exhibiting paralytic drop-foot and flat-foot. By means of a simple elastic apparatus the patient could walk with little disability, and already slight active movements of the paralysed muscles promised an eventual recovery. Dr. Dingwall Fordyce: Four cases of *Primary furunculosis* in children under 1 year cured by staphylococcic vaccine. In every case the *Staphylococcus aureus* was found. In two cases a single dose of 80 million of the stock vaccine was effectual; in the other two, two similar doses of the child's own vaccine were used. Dr. E. Bramwell: A case of *Traumatic hysteria*, with functional hemianaesthesia and great paresis of the right upper limb. There was no evidence of organic lesion. The case illustrated the difficulties arising under the Workmen's Compensation Act. Dr. W. Russell: A case of *Hypertrophic osteo-arthropathy*, with great clubbing of fingers and toes, thickening of wrists, stiffness of elbow, shoulder, and knee-joints, general weakness, and marked sweating of hands and feet. There was no pulmonary disease. Some improvement had followed the use of iodolysin; fibrolysin had done no good. The President: (1) Two cases of *Tabes*, one with typical Charcot joints in the right hip and left shoulder and elbow, the other with a remarkable lordosis of the spinal column, probably due to a similar condition of the lower dorsal and lumbar vertebral joints. (2) A case of *Clonic muscular contractures* closely resembling Thomsen's disease, but by its association with almost total anaesthesia diagnosed as a functional condition, and completely cured by isolation and psycho-therapeutics. Dr. Norman Walker: Some cases of *Lupus erythematosus* cured by the application of CO_2 snow. The snow had acted far more rapidly than any other therapeutic agent and had left a remarkably good scar. It was also very successful in a case of rodent ulcer. Dr. Boyd: A case of severe *Diabetes mellitus* in which a single "hunger-day" caused a complete disappearance of glycosuria for twenty-four hours, thereafter sugar reappearing only in small quantity. Professor F. M. Caird: (1) A case of *Gangrenous appendicitis* with general peritonitis, temporarily relieved by operation, but relapsing into extreme weakness and prostration; when almost moribund, the use of peptonized milk was followed by recovery. (2) A case of forward *Dislocation of radius and ulna* with fracture of the internal condyle, in which reduction could only be effected by open operation, and from which a good result was obtained. Mr. J. M. Cotterill: (1) A case of *Inoperable sarcoma* of neck, temporarily improved by Coley's fluid and *x* rays. (2) A case of forward *Dislocation of the first cervical vertebra*, followed only by pain and slight limitation of movement. Mr. J. M. Cotterill and Mr. Scot Skirving: Patients, after operation, illustrating the use of *Sterilized oil* in the peritoneal cavity as a preventive against the formation or re-formation of adhesions. Professor Alexis Thomson: (1) A case of *Osteo-myelitis fibrosa*, with tumour-like bossing of the skull, and multiple fractures and curvature of both femora. (2) A case of pistol-shot wound of the abdomen, with recovery after closure of five perforations of the small intestine. Mr. C. W. Cathcart: A carcinoma of the descending colon in a man aged 23. The patient showed a typical *Achondroplasia*. Possibly the early development of cancer had some connexion with his general condition. Mr. D. Wallace: A case of *Fracture of the lower dorsal spine* with haemorrhage into the cauda equina, causing paralysis of the lower limbs, with practically complete recovery. Mr. H. J. Stiles: A *Retrovesical tumour* weighing 1 lb. 6 oz. in a man aged 68, removed by transvesical operation. It was doubtful whether the tumour originated in the retrovesical cellular tissue or in the lateral lobe of the prostate. The result was recovery without urinary fistula. Dr. Logan Turner: A case of recovery from *Septic meningitis* complicating chronic middle-ear suppuration. Streptococci were isolated from the cerebro spinal fluid, and intraspinal injections of antistreptococcal serum were given. Mr. J. W. Dowden: Two cases of *Ventral hernia* successfully treated by overlapping of fibrous structures and anterior sheaths of recti. Mr. J. W. Struthers: A case of fracture of the glenoid fossa of the scapula, without dropping of the arm or crepitus, in which the only sign was the inability to abduct or hold out the arm.

LIVERPOOL MEDICAL INSTITUTION.

Thursday, December 16th, 1909.

Mr. T. H. Bickerton, President, in the Chair.

Dr. J. M. Hunt showed a case of *Vincent's angina;* there were two other cases in the same family. He discussed the diagnosis between this condition and cases of diphtheria and syphilis, and Dr. E. E. Glynn demonstrated the characteristic fusiform bacilli and "spirilla" from the case both in smears and with dark ground illumination. Dr. Hubert Armstrong described a case of *Heart-block* occurring in a boy aged $5\frac{1}{2}$ years. The symptoms began about a week after an alleged fall upon the head. At first there were severe headache, occasional delirium, temperature 104° and 105°, with pulse 48 and lower. There were no other symptoms, and the nature of this febrile attack, which lasted five days, was not clear. The child recovered, but a fortnight later had a series of epileptiform attacks accompanied by profound syncope, and lasting over five days. On the second day he was admitted to hospital and had eight convulsions in three days. In the intervals there was so much cerebral irritation that the case was regarded as one of meningitis until lumbar puncture revealed a normal cerebro-spinal fluid. This irritability disappeared twenty-four hours after the last fit. The pulse-rate during the first ten days varied erratically between 28 and 84. It then became constant between 50 and 60 for five days, when it rose to above 100 for four days. It then fell to between 40 and 50, and has maintained the same rate to the present. Simultaneous venous and radial pulse tracings taken during this last period show typical dissociation of auricular and ventricular rhythms, the auricles beating about 70 when the ventricular rate was 45. The phenomenon was also demonstrated on the fluorescent screen. There had been no further epileptic fits since the third day after admission, and the child, except for a little cyanosis and incapacity for exertion, now appeared quite comfortable. There was a slight mitral regurgitant murmur, but the cause of the heart-block had not yet been determined. Dr. John Hay, in a paper on the same subject, mentioned 6 cases of Adams-Stokes disease which had been under his supervision during the last two years. Five of these were of the arterio-sclerotic type, the sixth was apparently caused by a severe gonococcic infection in a young woman. The patients exhibited all the grades of severity, ranging from slight attacks of vertigo and transient blurring of consciousness with bradycardia, to grave syncopal and epileptic seizures. Records were shown demonstrating the actual transition from partial to complete block, and the return from complete to a two to one rhythm without the appearance of any subjective symptoms. One of the cases mentioned had been greatly benefited by potassium iodide, and the gonococcal case had improved after the exhibition of a gonococcal vaccine.

THE ROYAL SOCIETY.

Thursday, December 9th, 1909.

Sir Archibald Geikie, K.C.B., President, in the Chair.

Haemagglutinins, Haemopsonins, and Haemolysins.

Drs. L. S. Dudgeon and H. A. F. Wilson presented a third report on the presence of haemagglutinins, haemopsonins, and haemolysins in the blood obtained from infectious and non-infectious diseases in man, based upon some hundreds of experimental observations made upon normal and pathological blood. Their conclusions were as follows:

1. Auto-agglutination of the red blood cells, as tested for by the methods which we have employed, may be shown to occur with specimens of pathological blood only occasionally, but never with normal blood; and auto-haemolysis has not been met with.

2. Iso-agglutination is often met with in specimens of blood obtained from patients suffering from the same disease.
3. Haemagglutination is largely a specific phenomenon, both in normal and pathological blood, and the specific effect can be shown to persist even if the red cells have been subjected to high degrees of temperature or to complete drying.
4. Haemagglutination and bacterial agglutination are distinct phenomena.
5. Well-marked iso-haemolysis in specimens of normal and pathological blood is not common, although some degree of haemolysis can frequently be demonstrated.
6. Concerning phagocytosis: It would appear necessary to avoid mixing specimens of normal or pathological blood, because just as samples of serums are known to vary in value, so do the leucocytes, although to a less extent, whether they are obtained from specimens of normal or pathological blood. Still further, by mixing samples of normal or pathological blood a haemolytic action may be induced which in itself has been found capable of exciting abnormal results in phagocytosis.
7. It appears to be incorrect to regard a specimen of blood as normal until it has been subjected to a detailed examination by the methods referred to in this and the two previous communications, quite irrespective of its actual source.

Cortical Lamination and Localization.

Dr. F. W. MOTT, F.R.S., Dr. E. SCHUSTER, and Professor W. D. HALLIBURTON, F.R.S., contributed a paper on cortical lamination and localization in the brain of the marmoset. The research had been carried out on lines similar to that previously published by two of the authors in relation to the brain of the lemur. A series of sections of the cerebral cortex had been examined in order to map out the extent and boundaries of the types of cell lamination observed. It was now well known that these differences were correlated with differences in function, and this method of histological localization of function (as it might be termed) had been controlled by the physiological method of stimulation.

ROYAL SOCIETY OF MEDICINE.

THERAPEUTICAL AND PHARMACOLOGICAL SECTION.

Tuesday, December 7th, 1909.

Professor A. R. CUSHNY, President, in the Chair.

DR. G. HERSCHELL opened a discussion upon the *Utility of the lactic acid bacillus* in therapeutics. Suitable cases, he said, must be chosen if a valuable means of treatment was not to fall into disrepute. An active preparation also must be used. Of the solid preparations on the market only two or three were active. Suitable cases were those in which there was an abnormally great putrefaction of proteid and an absorption of toxins from the bowel. Unsuitable cases were those in which symptoms were due to increased carbohydrate fermentation. In treating the former he had had great success. Dr. F. W. GOODBODY had searched for evidence of alteration in the chemistry of the faeces, but with little effect. Aromatic sulphates were apparently not diminished. Dr. VAUGHAN HARLEY had also found no chemical change as a result of the treatment. He thought the clinical improvement due to a psychological effect. Dyspepsias of functional origin were likely to improve, not those associated with organic change. Dr. W. BULLOCH, as a result of careful bacteriological examination, considered that all the solid preparations might be discarded as worthless. None contained active bacilli. Dr. EYRE, working with his own strain, had success in treating certain infections of the colon by pathogenic micro-organisms. Successive cultivations from the faeces had shown on this treatment a rapid disappearance of the organism concerned. Dr. ROBERT HUTCHISON expressed himself as profoundly sceptical of the results claimed. He hoped that what had been said would go far to squash a craze. Dr. LANGDON BROWN had certainly seen indicanuria disappear. Dr. C. W. MILLER regarded soured milk as a food rather than as a drug. Dr. HERTZ pleaded for the necessity of bacterial control. In colitis the treatment had done much good. Dr. HERSCHELL replied.

UNDER the will of the late Mr. James Thomas Slater, of Wood Street, City, the Great Northern Central Hospital and the Hospital for Diseases of the Chest, Victoria Park, each receives 1,000 guineas, and the Hornsey Cottage Hospital £1,000, for the endowment of beds to be called the "Slater" beds.

Reviews.

THE FAMILY AND THE NATION.

The Family and the Nation, by Mr. and Mrs. WHETHAM, is a study in natural inheritance and social responsibility.[1] Recent results in genetics are applied not only to the more pressing economic problems of to-day, but the consequences of these results are pushed to their logical conclusions in relation to the future welfare of the nation. The text of the book may, indeed, be found in the statement that the "essential factor in the rise and fall of nations is the quality of their people."

The earlier chapters deal in a general way with the known facts of variation and heredity, and a clear, succinct, and intelligible account is given of the principles of Mendelism. The authors next proceed to apply these facts and principles to such qualities as mental ability, mental deficiency and the like in the British race. The conclusions are both striking and instructive. Pedigrees are furnished of deaf-mutes which prove conclusively that deaf-mutism is not only directly inherited from parent to child, but that it will behave as a Mendelian character and will reappear in a grandchild born of normal parents, or even in a later generation of great-grandchildren, though both parents and grandchildren may have been normal.

Similar cases are quoted of the inheritance of the tendency to pulmonary tuberculosis, mental defect, and its correlatives crime and immorality. The evidence available leaves little room for doubt that heredity plays an important part in the transmission not only of physical defects but also of moral perversions. Equally strong evidence is forthcoming of the same tendency in regard to mental ability. This had been demonstrated some years ago by Galton, upon whose work on *Hereditary Genius* the authors freely draw.

It is not, however, in the bare statement of these facts that the interest of the book lies, but in the reflections and conclusions to which they give rise. Dr. Tredgold has put it on record that the average number of children in families which now use the public elementary schools is about 4, whereas in the degenerate families whose children are handed over to the special schools the average number is 7.3, *not including* the still-born. It is true that a somewhat larger proportion of the children of the latter class die at an earlier age than among the former. Out of 1,269 children belonging to 150 families, 485 were either still-born or died before 20 years of age. Of the remaining 784, no fewer than 328 were either mentally afflicted or diseased, or became paupers or criminals. The cost to the State is enormous. Statistics are furnished to show that the average birth-rate maintains a high level in the ranks of the unskilled labourers and of the feeble-minded, whereas there has now been for some years an appreciable diminution in the size of the families by the educated class and of the skilled artisans. If the present relative birth-rate in these two sections of the community be maintained, every 1,000 members of the educated and skilled artisan class will, in the course of three generations be represented by 687 descendants, while 1,000 of the unskilled and feeble-minded will be replaced by 3,600, a proportion of about 5 to 1. These statistics appear to warrant the conclusion that a rapid deterioration of the community is in progress, since not only will the "undesirables" rapidly outnumber the "desirables," but there will also be a constant hereditary transmission and accentuation by intermarriage of all those qualities which make them undesirable.

There is, however, one point upon which the authors' conclusions may be questioned. It is the extent to which environment contributes for good or ill. They admit that it does have an effect, but the general inference from the book is that they consider it of minor importance. No doubt its importance is secondary to that of inheritance, and social reformers would do well to consider this, for there is a tendency at the present time to attach too great, if not, indeed, supreme, importance to environment; but

[1] *The Family and the Nation.* By William Cecil Dampier Whetham, M.A., F.R.S., Fellow and Tutor of Trinity College, Cambridge; and Catherine Durning Whetham, his wife. London: Longmans, Green, and Co. 1909. (Roy. 8vo, pp. 241. 7s. 6d

we are inclined to think that the writers of this book underestimate the part played by environment. We cannot accept even the crude test of examination successes, nor the large percentage of eminent men descended from 286 judges, as being instances of hereditary ability only. Environment is a very decided factor. A judge holding a lucrative post is able to send his son to the best schools and to provide holiday tutors, thus making examination successes, whether for a scholarship or a wranglership, more possible than for the son of a parent with limited means; moreover, public school and university life, by virtue of the friendships formed, make for influence. This is human nature, and is by no means the unmixed evil some would have us believe. Last, but by no means of least importance, are the better food and hygienic surroundings during childhood and youth, which are of great value in producing a *mens sano in corpore sano*. It would be very interesting to inquire what percentage of persons attain eminence in whom no hereditary influence is recognizable and whose environment might be regarded as adverse.

The causes of the decline in the birth-rate are dealt with, and the interesting fact is recorded that the old high level is maintained only among the clergy, Roman Catholics, and Jews. The authors make tentative suggestions as to means o improvement in present conditions, and put forward one very sound idea which the Chancellor of the Exchequer would do well to consider—namely, the exemption from income tax of all money expended on education, expenses which often press unduly on the professional man of limited means.

Many other interesting points—such as the employment of women in factories, child labour, etc.—are discussed in this suggestive book, which is one every medical man and, indeed, every one interested in the social welfare of the nation—in a word, every good citizen—should read. The authors disclaim any idea of being alarmists. They have drawn attention to the canker which is in our midst, and in doing so they have done good service. Not only is the matter of the book worthy of study, but the style is pleasant and easy. The book can be strongly recommended.

ALCOHOLISM AND MORPHINISM.

THE subject of intemperance is one closely associated with the health of the nation and the sociological development of the race. Volumes almost innumerable have been written on it, and quite recently another, entitled *Intemperance*, has been added by the BISHOP OF CROYDON.[2] Though many of his readers will not be prepared to travel with him to the extreme goal of total abstinence, all will concur that temperance is advisable, and will approve the strenuous, but withal tolerant, way in which Dr. Pereira deals with his subject and pushes home his conclusions. It may be doubted whether the argument throughout the book is not here and there somewhat strained; is it, for instance, a fair statement of fact that "'gin livers' in children under 3 years of age is a common feature of hospital practice"? The experience of most hospital physicians would not exclude the occurrence of such cases, but would hardly confirm the statement that, in relationship to other diseases, they are common. Other extracts might be quoted to show that enthusiasm for his subject has tempted Dr. Pereira now and again to incorporate as conclusive statements and opinions which are not worthy of such full acceptation. But the merit of his volume is undoubted, while the simple and attractive style in which it is written enhances its value as a practical and temperate contribution to a subject of the very greatest importance. The bishop's medical readers will be grateful to him for the wise words in which he refers to secret "cures" for drunkenness, which at the present day are advertised and boomed with all the assurance and impudence of offensive quackery. He says:

> For myself, I dare not speak of these "cures" with too much confidence. They can only be justly judged by the test of time—of a longer time than we have at present to go by. If, indeed, a specific has been found which will allay the intolerable and miserable craving which alcohol creates, it seems sad that the poorest should be unable to secure it. So long as it is kept as a secret discovery, to be used for the enrichment of private individuals rather than for the good of suffering humanity, so long will a suspicion of its efficacy continue. If it has, indeed, the virtue that is claimed for it, it should be submitted to the examination of the medical world, whose approval would seal and determine the genuineness of its claims.

In the preface to his volume on *The Morphia Habit and its Voluntary Renunciation*,[3] Dr. OSCAR JENNINGS commits himself to the assertion that "one medical man out of four is a drug habitué, usually a morphinist." Whether this be true of France we do not know, though we take leave to doubt it, but we are convinced that in this country there is no such colossal addiction to drug habits either in the medical or any other profession. The book is devoted to an exposition of the writer's methods for the cure of the morphine habit. He claims most excellent results from the administration of sodium bicarbonate, Vichy water, and heart tonics, especially spartiene, combined with the use of Turkish baths. But excellent though such a plan of management may have proved itself in the hands of Dr. Oscar Jennings, it does not justify the statement that "Sir Clifford Allbutt and Dr. Rolleston have come to a most mischievous conclusion" because they do not agree with his views, and are not prepared to accept the conclusions at which Dr. Jennings has arrived. Indeed there are many who will share Sir Clifford Allbutt's and Dr. Rolleston's scepticism when they read in one of the early chapters of Dr. Jennings's book that "it may be remarked once more that it is useless to attempt the cure, by any means, of a morphia patient with a wrong mentality—that is to say, of one who does not really *intend* to give up the addiction if he be helped efficiently." Because herein lies the whole crux of the difficulty in dealing with such cases. If the "mentality" can be governed, then the cure by such medicinal, balneological, and dietetic measures, whatever they be, as are suited to the idiosyncrasy of the patient will make him well. He will probably recover even without the use of Vichy water, as to which Dr. Jennings is so enthusiastic. The greater part of the book is devoted to the description, in somewhat wearisome detail, of a case which recovered after twenty-five years' slavery to the morphine habit. But such a recovery is by no means unique, and equally striking cases might be readily adduced in testimony of the success of different forms of management. Other cases are referred to shortly in Dr. Jennings's book, one being that of a physician, about 30 years old, described as suffering from "hepatic paludic neurasthenia." This sounds very terrible, but we do not recognize in the name any known disorder, and it is not to be found in the official *Nosology of Disease*. Dr. Jennings's volume is pleasantly written, and carefully describes the methods in which he believes for weaning the morphinomaniac from his demon. It is, moreover, the outcome of considerable experience in dealing with such cases, but its interest is practically confined to the relation of one case, and the bulk of a volume of close upon 500 pages is a "tidy yarn to spin" even about a patient who has been the victim of an evil habit for so long a period as twenty-five years.

THE DISEASE OF OLD AGE.

IN his book on old age, Dr. LORAND has put together a large amount of learning and has dealt with an immense number of subjects.[4] It is not always easy to summarize his views, as his method is frequently to write with apparent conviction first on one side and then on another, and to add a few guarding sentences to which he can appeal. However, we think we shall do him justice if we say that his view is that old age should be considered to be a chronic disease brought about by changes in certain glands, of which the thyroid is the most important, and that by preventing or avoiding these changes it is possible to postpone the advent of old age for years, and to prolong the average duration of life. In his enthusiasm he exclaims: "Why should we feel old at 50 and leave

[2] *Intemperance.* By Henry Horace Pereira, Bishop of Croydon. New and revised edition. London, New York, Bombay, and Calcutta: Longmans, Green, and Co. 1909. (Crown 8vo, pp. 183. 2s. 6d.)

[3] *The Morphia Habit and its Voluntary Renunciation.* A Personal Relation of a Suppression after Twenty-Five Years' Addiction. With Notes and Additional Cases. By Oscar Jennings, M.D Paris. London: Baillière, Tindall, and Cox; Paris: Brentano. 1909. (Demy 8vo, pp. 502. 7s. 6d.).

[4] *Das Altern, seine Ursachen und seine Behandlung durch hygienische und therapeutische Massnahmen. Ein Handbuch für eine rationelle Lebensweise.* Von Dr. A. Lorand. Leipzig: Dr. W. Klinkhardt. 1909. (Roy. 8vo, pp. 265. M.5.)

this beautiful world at 60 or 70 when it is so easy by courage and foresight to enjoy for many long years the sunshine of youth and the joy of life!" (Preface, p. vi). Next to the thyroid the integrity of the sexual organs is the most important for prolonging life, and he maintains the opinion, which we take leave to doubt, that animals and human beings whose sexual glands have been removed become prematurely old. Even if we accept his theory, it is by no means so easy to secure the needful conditions for the attainment of old age, as the integrity of these important glands may be injured by many agents, including the attacks of infectious disease to which we are all liable in childhood, overwork, business cares and worry, anxieties, grief, and improper diet. The last means all but the most moderate use of meat, alcohol, coffee, tea, and tobacco. He concludes his book by laying down the following twelve rules for the attainment of old age:

1. Live as far as possible in fresh, healthy air and sunshine, avoiding great heat; take exercise regularly and a long walk every day.
2. Eat meat in moderation, only once a day; live chiefly on the raw milk of healthy cows or goats; eggs, cereals, green vegetables, butter, cheese, and fruit; every third month abstain from meat; masticate your food thoroughly.
3. Take a daily bath and a Turkish bath once a week.
4. Get a daily movement of the bowels and take a mild laxative once a week.
5. Wear porous clothes, which are best of cotton, but in winter wear woollen underclothing; let the shirt collar be wide; clothes should be light in summer and dark in winter; wear low shoes.
6. Go to bed early and rise early.
7. Sleep with open windows in a quiet room; sleep should not be less than 6½ hours, nor for men exceed 7½; for women 8 to 8½ hours.
8. Keep one day in the week for complete rest, and, if possible, spend from Saturday to Monday in the country.
9. Avoid worry and excitement; do not trouble over the irrevocable past or what the future may bring; do not talk about unpleasant things; be determined.
10. Be moderate in sexual relations, but do not repress the instinct; marry, and if you lose your wife, marry again.
11. Avoid over-heated places, especially those heated with steam or badly ventilated.
12. Be moderate in the use of alcohol, tobacco, coffee, and tea.

These are Dr. Lorand's precepts; our readers may follow them if they will—or can.

GOUT.

PROFESSOR STRAUSS'S small book on *Gout*[5] completes the series of monographs on *Diseases of Metabolism and Nutrition* issued in English under the direction of Professor von Noorden, and edited by Dr. Boardman Reid, of Philadelphia. As the volume contains something less than seventy pages of large leaded type it is evident that the subject is not dealt with in a very exhaustive manner. Clinical history and symptomatology are omitted, and only pathogenesis and treatment discussed. The chapter on the pathogenesis of gout gives briefly and clearly the modern views on the subject, the author maintaining a midway position between conflicting opinions. While he says that the retention of uric acid is of more importance as a cause than some allow, he lays stress on its deficient destruction in the body, his personal views being best illustrated by the rules he lays down for treatment. In these he forbids purin bodies, but allows eggs and cheese, and even a small quantity of meat (½ lb.) preferably boiled; extractives, meat soups and beef-tea are excluded. Complete abstinence from tea, coffee, cocoa, and alcohol is advised. The use of alkalis is defended mainly on the ground that they have stood the ground of experience, and he recommends the principal alkaline mineral waters, whether used at home or taken at a watering place in combination with treatment by baths, massage, and exercises. He employs colchicum, sodium salicylate, urotropin, and "later in all cases quinic acid," in spite of the doubt which recent research has thrown upon its power to influence the excretion of uric acid. The book is disfigured by many mistakes in printing—for example, leukaemia is spelt "lucaemia" (footnote p. 13); on p 15 Wollaston is made into a German and called "von Wollaston"; on p. 19 we read "the experiments of Kionka, which have already been mentioned," but we cannot find any reference to them; "Possel" (p. 21) is apparently a misprint for "Koessel"; (p. 25), "Stockvis" for "Stokvis"; (p. 37), "trioyxpurin" for "trioxypurin." More care might have been exercised in seeing this otherwise useful little work through the press.

[5] *Gout.* Being part viii of several clinical treatises on the pathology and therapy of disorders of metabolism and nutrition. By Professor H. Strauss, Royal Charity Hospital, Berlin. Authorized translation directed by N. B. Foster, M.D. Bristol: John Wright and Sons, Limited; and London: Simpkin, Marshall, Hamilton, Kent and Co. 1909. (Demy 8vo, pp. 70. 3s. 6d.)

THE CLUB DOCTOR IN FICTION.

MR. STEPHEN ANDREW has succeeded in writing a novel, *The Serpent and the Cross*,[6] which has something of originality, and which is far above the ordinary novel both in subject matter and in treatment. The main theme is the hollowness of a sort of fashionable religious orthodoxy, by no means uncommon, which panders to the weaknesses of the wealthier classes, and, while helping the poor in a routine and supercilious way, takes care to let them know their place. A curate, disgusted with the religious sham of his fashionable vicar, becomes inveigled in an attempt to overthrow Christianity, and to found a new religion in which the leading article of faith was "follow the promptings of Nature, follow the promptings of your own wills and desires." For a time this religion of "The Serpent" rapidly spread, and the author describes in a vivid way the evil effects on society of a religion of selfishness and the reflex good effects on the Christian Church. Some social problems are sketched, and to medical men there is a special interest, as one of the characters is a young doctor who goes as assistant to a practitioner in the Midlands with a large club practice. The description of cheap club practice is evidently drawn by a medical man who has seen it at its worst, as the following extracts show:

"To make a living by club doctoring," says the young assistant, "is low-down work. It means that the doctors are sweated and the patients neglected. Club doctoring means that a large number of people die every year from want of care and attention. The doctor who does little else than club doctoring has so much to do that he can do none of it properly. . . . I myself have paid as many as sixty visits in a day. It means that not a single patient is examined properly, not a single one is really diagnosed. He gets his symptoms treated, and if they are not due to anything serious, as is usually the case, all goes well, but if there is anything really the matter the patient may pay for want of diagnosis with his life. . . . Then consider what the effect is on the doctor; he never makes a diagnosis, until in time he is quite unable to diagnose anything. . . . The better class doctors have tried to abolish this club work, with the result that people have said they were thinking of nothing but their own pockets. Fools! Club work pays as long as the club doctor has no conscience. Doctors of the baser sort know this, and carry on in spite of all attempts to abolish the iniquitous system."

The young doctor had six months in such club work and then resigned, because he saw that "rule-of-thumb doctoring means loss of self respect to the doctor and loss of health and even of life to the patient." There is, of course, much that is perfectly true in all this; the evils of club practice are too glaring to be overlooked, and the statements made in this book are not all simple fiction, but are supported by facts. The religion of the Serpent is a deification of Self; it failed because it made every man into his own little god, and the creators of the cult forgot that there is no room in this world for more than one God. The whole book is eminently readable, both for its style and its material, and has the additional recommendation that it is full of the common sense philosophy of everyday life.

[6] *The Serpent and the Cross.* By Stephen Andrew. London: Greening and Co., Limited. 1909. (Cr. 8vo, pp. 320. 6s.)

NOTES ON BOOKS.

WE have received three fresh volumes of the yearbook of progress in internal medicine,[7] founded by Ebstein. It is now issued by new publishers, and edited by Dr. SCHREIBER, of Magdeburg, in association with Dr. RIGLER, of Leipzig, and a large number of assistants. The volumes to hand are the first volume for the year 1908, and both volumes for the year 1902-3. The general plan of the work is to give classified lists of all papers published on various subjects, adding brief notes as to their contents when the titles themselves

[7] *Jahresbericht über die Fortschritte der inneren Medizin im In- und Auslande.* Bande I und II, 1902-3; Band I, 1908. Leipzig: Verlag von Dr. Werner Klinkhardt.

are insufficiently explanatory. The design appears to be to carry back the record of progress to the beginning of the present century, but, in order to give the publication as a whole a present as well as a historical interest, the intention is to burn the candle, so to speak, at both ends, by publishing volumes relating to recent and long past years whenever and so soon as they can be prepared. The value of the work is not less evident than the immense difficulty of the task. It will, for instance, greatly facilitate the work of those who when dealing with any subject desire to leave no previously expressed view unconsidered, and it will aid all writers in giving due credit to authors who have helped to build up all that is known on any such considered subject. English and American writers, so far as can be seen, have received ample recognition, but in view of the number of years that have elapsed since that to which two of the volumes relate, this is a difficult point to test. We notice in one or two places apparent misprints, the dates of the year given being other than those to which the publication relates.

The latest volume of the *Transactions of the American Laryngological Association*[8] covers the proceedings of that body at its thirty-first annual meeting at Boston at the beginning of last June. It includes some thirty-four papers, five of which were contributions to a discussion on nasal and pharyngeal conditions as causative factors in aural disease, while three others were introductory to a debate on the surgery of the oesophagus. One of the latter deals with the question from the standpoint of the general surgeon, another from the standpoint of a laryngologist, while the third gives a detailed description of three cases in point. Included amongst the general papers are a report of a fatal case of status lymphaticus occurring in a patient whose tonsils were removed under cocaine-adrenalin anaesthesia, an account of a case of laryngeal carcinoma under observation for thirteen years, reports of cases illustrating progress in the surgical treatment of chronic stenosis of the larynx, and a short paper on the bacteriology of the normal nose.

The appearance of a second edition of Major E. A. R. NEWMAN'S *Manual of Aseptic Surgery and Obstetrics*[9] justifies the praise bestowed upon the book at its first publication. The few blemishes then noted have been removed, and the usefulness of the book considerably increased by the addition of chapters on asepsis in obstetric practice. Major Newman is obviously a man of sound common sense: he is neither academic nor faddy; he appreciates thoroughly the underlying principles of aseptic surgery, and describes their application with due regard to what is actually practicable and what is mere idealism. Whilst the little volume will be particularly useful to those who practise in India, it is an easy and reliable guide to aseptic habit under all conditions.

The *A B C of Nursing in Accidents and Illnesses*[10] contains much that is useful, but it requires careful revision before it can be recommended. It is said to have been revised by a medical man, but we hardly think he would endorse the advice to hook out a foreign body from the nose with a hairpin. The book is presumably intended for untrained individuals, as it is not sufficiently detailed for trained nurses. It contains a good many statements with which we are unable to agree, but it may be found useful in household emergencies.

The *Manual for the Church Lads Brigade Medical Corps*[11] contains elementary anatomy, first aid, stretcher, and other drill and regulations for camp, making a book of over 150 pages, which is very fully illustrated. It is apparently based on the manual for the Royal Army Medical Corps, and is very complete. There seems to be a sort of special first-aid physiology which one grows accustomed to find in the manuals on this subject, but it is at the best misleading to be told that "there are two kinds of blood—arterial and venous"; we might as well say there are two kinds of heart—contracted and dilated.

The first edition of Dr. BOSANQUET'S *Serums, Vaccines, and Toxines* was published five years ago. A second edition has now been produced under the joint authorship of Drs. BOSANQUET and EYRE.[12] Comparing the two editions, we find that the changes in the later one are not very great, though in the process of revision some amount of new information has been incorporated. Of the improvements made in the new edition, we may mention a note on paratyphoid infections at the end of the chapter on enteric fever, an account of the vaccine treatment of gonococcal infection, three pages on cerebro-spinal meningitis, the description of some recent work on the diagnostic uses of tuberculin, and a brief account of the serum reaction in syphilis.

[8] Published for the Society by the McConnell Printing Company, New York.

[9] *Manual of Aseptic Surgery and Obstetrics.* By E. A. R. Newman, M.D., Major I.M.S. Second edition. Calcutta: Thacker, Spink and Co. 1908. (Cr. 8vo, pp. 334, figs. 45. Rs. 5.)

[10] *An A B C of Nursing in Accidents and Illnesses.* By E. M. Clarke, C.O.M. Revised by P. Barnett-Bentley, M.R.C.S., etc. London: The Scientific Press, Limited. (Dbl. demy 32mo, pp. 62. 1s.)

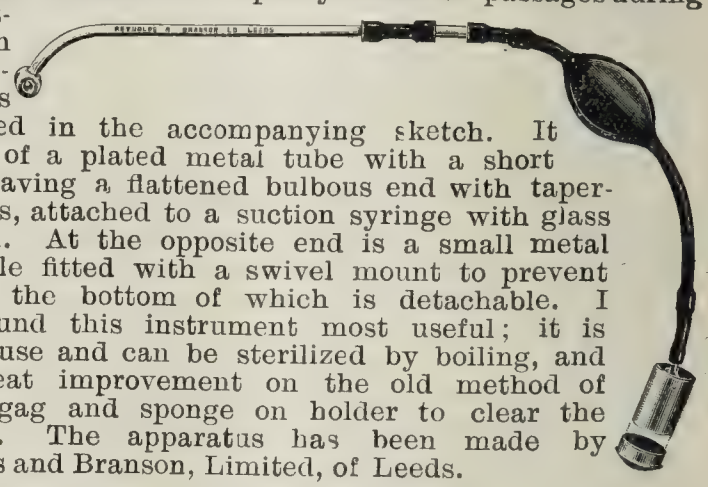
[11] *Manual for the Church Lads Brigade Medical Corps.* Fifth edition. London: The Church Lads Brigade. 1909. (Demy 16mo, pp. 172; figs. 66. 6d.)

[12] *Serums, Vaccines, and Toxines in Treatment and Diagnosis.* By Wm. Cecil Bosanquet, M.A., M.D., F.R.C.P., and John W. H. Eyre, M.D., M.S., F.R.S. Edin. Second Edition. London: Cassell and Co. 1909. (Cr. 8vo, pp. 570; illustrated. 7s. 6d.)

MEDICAL AND SURGICAL APPLIANCES.

A New Mucus Evacuator.

MR. WALTER C. MAYO (Headingley) writes: A small apparatus for the purpose of extracting (by suction) mucus and saliva from the pharynx and air passages during administration of anaesthetics is illustrated in the accompanying sketch. It consists of a plated metal tube with a short curve, having a flattened bulbous end with tapering holes, attached to a suction syringe with glass insertion. At the opposite end is a small metal receptacle fitted with a swivel mount to prevent spilling, the bottom of which is detachable. I have found this instrument most useful; it is easy to use and can be sterilized by boiling, and is a great improvement on the old method of using a gag and sponge on holder to clear the pharynx. The apparatus has been made by Reynolds and Branson, Limited, of Leeds.



Apparatus for Continuous Irrigation with Hydrogen Peroxide.

Mr. R. DOUGLAS LAURIE, M.B., House-Surgeon, Royal Hants County Hospital, Winchester, writes: The oxygen liberated from hydrogen peroxide by contact with the necrosed tissue is in a nascent state, and therefore a powerful germicide and stimulant to the walls of the cavity. It also acts mechanically in carrying effete matter from the surfaces, while its solvent action on blood aids the removal of clots. Its action, however, ceases shortly after application, namely, when all the oxygen is evolved. To get a more prolonged action an apparatus is employed which delivers the peroxide in a slow, steady stream into the cavity. This comprises a reservoir, a tube to indicate the rate of flow, and a clamp to regulate it. The apparatus is placed some two or three feet above the level of the patient. It has been found most suitable to dilute the peroxide to "5 volumes." With the solution running at the rate of 10 to 20 drops a minute, 6 oz. should be sufficient to irrigate the average sinus for four hours, say two in the morning and two in the afternoon. It is important that the tube should lie at the deepest part of the sinus or abscess cavity, to ensure the whole surface coming in contact with the peroxide. The mouth of the wound may with advantage be kept open by a short piece of wide drainage tube, and covered with some absorbent dressing such as gauze or cellulose. The tube may be fixed in position by adhesive strapping. This treatment has been used in some thirty cases, chiefly appendix abscesses; but also in empyema, tuberculous sinuses in soft tissues and in bones, and chronic mastoiditis. The results were very satisfactory, particularly in cases of appendix abscess. In several cases after two or three applications the abscess cavity has become clean, ceased discharging, and healing has taken place in a week or ten days. In a case of large parotid abscess, which contained a quantity of foul-smelling pus, due to *B. coli*, ordinary drainage and irrigation were employed through two incisions for several days with slight improvement. Continuous irrigation with peroxide was then employed, and in five days only dry dressings were needed, there being no discharge. One or two cases have been disappointing, for although at first there was rapid improvement, the sinuses refused to heal. In these the peroxide was discontinued after a week, and dry gauze plugs inserted, when healing then gradually took place. Septic superficial wounds have also shown rapid improvement under continuous peroxide irrigation. If used economically the expense of the hydrogen peroxide is not great, and is justified by the more rapid recovery. The apparatus is made for me by Messrs. Allen and Hanburys, Limited.

RECOLLECTIONS OF A LONG PROFESSIONAL LIFE—1844 TO 1904.

BY LOMBE ATTHILL, M.D.,

EX-MASTER OF THE ROTUNDA HOSPITAL, DUBLIN; AND EX-PRESIDENT, ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

I WAS bound as an apprentice in June, 1844, to Mr. Maurice Colles, at that time one of the surgeons to the Meath Hospital, Dublin. I was then only 16½ years old. It had not been intended that I should take a degree in Arts; but, finding that my classical education had been fairly good, Mr. Colles advised that I should enter Trinity College, Dublin, which I accordingly did; and, although this entailed the additional labour of doing for four years classical and mathematical work in addition to my medical studies, I undertook it willingly, and have always been glad that I followed the advice given by my master.

Mr. Colles was a truly good man, who devoted both time and money to good and charitable work. He was known as "Colles the Good" to distinguish him from his contemporary "Colles the Great"—he who first correctly described the fracture still known by his name. He was also a strict and most painstaking master. He required his apprentices to attend hospital every day both regularly and punctually; for myself, I do not think that from the day I joined the class to the final day of the examination for my diploma I was ever once absent, unless prevented by illness or during vacation.

From the first I was taught how to bandage, to draw teeth, and to bleed, and soon commenced case-taking; and at the end of my first session had gained such proficiency in these matters and such knowledge of fractures and the treatment of surgical cases of minor importance that Mr. Colles permitted me to go in for the Junior Surgical Prize, open to pupils of not more than two years' standing. I failed on this occasion. All the other candidates were second years men. Next year I gained it easily. I mention these trifles as they serve to contrast the present system, under which clinical teaching is virtually prohibited till the third year of study, with that which existed seventy years ago. But my hopes of entering the profession were well nigh extinguished before my third year of study was completed by my father's unexpected death (January, 1847). He was a very pious man, a clergyman of great ability. He had been Second Wrangler in his year, and subsequently a Fellow of Caius and Gonville College, Cambridge. His income dying with him, I feared lack of means would render it impossible for me to serve out my five years' apprenticeship. As soon as I had completed the three years' curriculum at that time required by the Colleges of Surgeons both of England and Ireland, I begged my master to permit me to present myself for examination for the diploma of the latter college, and, passing it successfully, found myself in July, 1847, a full-blown surgeon at the immature age of 19½. Ever since have I regretted this cutting short of my regular period of study.

Fortunately for me, my relatives enabled me to reside in Dublin during the following winter, so as to complete my university course. During that winter I filled the post of Assistant Demonstrator in the Park Street School of Medicine, which has long since ceased to exist. I also, as an ex-apprentice, was permitted to continue my attendance in the clinical class at the Meath Hospital, while I read steadily for my Medical and Arts degrees. It was not till Shrove Tuesday, 1849, that these were conferred, and at that time I was engaged in practice in the country.

The Dublin School of Medicine had at the time I joined the profession an excellent reputation, specially for the teaching of anatomy. Professor Harrison, in the school of the University of Dublin, and Mr. Power, in that of the College of Surgeons, were anatomists of deservedly high repute, and in the other Dublin schools the teaching of anatomy was good. Indeed, so highly was a knowledge of anatomy esteemed, that a good anatomist, though deficient in other subjects, was but seldom rejected by the examiners for the Diploma of the College of Surgeons, which at that date was the only qualification held by the great majority of the provincial practitioners. The clinical teaching of surgery was in like manner generally good, but that of medicine, in most hospitals, neglected, the attendance of students in the medical wards not being enforced. Of course there were exceptions to this. Graves and Stokes at the Meath Hospital were notable exceptions. The latter distinguished man became later on my kind friend, as he was then my esteemed teacher.

Students dissected and attended hospital from the day they commenced their studies, and now at the end of my life, and after taking an active part as a member of the General Medical Council in formulating first the four year and subsequently the five year scheme now in force, and having watched the working of these systems for years, I am satisfied that the relegation of anatomy to the secondary position it now holds in the five year scheme, and the postponement of hospital attendance till a later period of study are grave mistakes.

There were many eminent men amongst the Dublin surgeons in those days, but their methods would now be looked upon with horror, and, contrasted with bloodless operations of to-day, would justly be considered dreadful.

When anaesthetics were unknown, patients had always to be held, often strapped, down to the table while operations proceeded, and the groans and screams, specially in the case of women and children, were most distressing to hear. Instead of the deliberate care with which operations are now performed, surgeons vied with each other as to which would perform an operation in the shortest time. Much blood was lost. A tourniquet would be applied were a limb to be amputated, but beyond this no attempt would be made to temporarily arrest haemorrhage; the bone being sawn through, then the arteries would be ligatured with silk, and the stump dressed. But the mortality, even after the simplest operations, was great, and sloughing of the integuments quite common; even simple incisions seldom healed by "first intention." I have a vivid recollection of having seen two operations for strangulated hernia performed, I think on the same day, both patients being healthy men; both were dead a few days later. Cutting for the stone, too, was a not uncommon operation, and very frequently fatal.

On one occasion I saw the bladder opened from above the pubes with the view of removing a portion of a gum-elastic catheter which had broken off while being passed by the patient himself and retained in the bladder. That patient died a day or two subsequently. Contrast this with the results of the operation for the enucleation of the prostate gland now so frequently and successfully performed, and the present generation of surgeons will realize the incalculable benefits conferred on them and the whole human race by Lister.

When I was a student infectious cases were admitted into the medical wards of the Meath Hospital. The fever wards, as they were termed, were on the top story; the story below that was allotted for the reception of chronic cases; on the lower story were the accident wards, etc. Cases of typhus fever, of scarlatina, and even of small-pox, were frequently admitted. Wonderful to say, I have no recollection of these diseases being communicated to patients in the surgical wards. Of course, all this has long since been changed.

Then as to the nurses. Medical and surgical alike were virtually untrained, and many of them illiterate. There were no regular night nurses. The nurses were not dressed in uniform in any Dublin hospital, nor even supplied with dresses. There was one to each ward, who was responsible for the patients by night as well as by day. These women were kindhearted and attentive, and I believe that—at least in the Dublin hospitals—the patients were fairly well cared for and contented. In cases where patients were delirious,

or required special watching at night, some respectable old woman of the charwoman class would be engaged to act as night nurse.

During the winter of 1847–8, while acting as demonstrator, as already mentioned, I was appointed to the Fleet Street Dispensary—an institute, supported by voluntary contributions, for the good of the sick poor, who were visited at their own houses, as well as prescribed for at the institution. No member of the staff received any remuneration; on the contrary, each of us had to undertake to find two new subscribers of £1 1s. each, or to pay these subscriptions out of our own pockets. I gladly accepted the appointment on these terms.

The condition of the sick poor in Dublin was at this date and for many years subsequently truly appalling. The famine, due to the failure of the potato crop, had lasted for a year and a half. In all parts of the country there was the greatest distress, and in remote districts absolute starvation; hundreds died of starvation, thousands of "famine fever," as it was termed, typhoid not having been recognized or known, while typhus in its worst form was epidemic; large quantities of Indian meal was imported by the Government, but railways did not then exist in Ireland, and means of transport were wanting. Whole districts were depopulated by famine and fever, thousands emigrated to America, while the towns and cities were crowded by hosts of starving men, women, and children, who thronged the streets begging for food. Some sought employment which could not be obtained, while hospitals and poorhouses were filled to excess. Temporary hospitals, known as the "fever sheds," were erected outside the city, but even these failed to supply sufficient accommodation for the famine-stricken multitude of sick. What the work of the dispensary doctor who laboured amongst this poverty-stricken mass of humanity was, when overtaken by disease, may be imagined but can hardly be described.

The tenement houses in which the poor lived were crowded from attic to cellar. I have known four families each consisting of several individuals, living in one small room, a corner allotted to each family, without a stick of furniture amongst them. One instance I never shall forget. I narrate it to give some idea of the hopelessness of the task devolving on the medical man at this sad period. My district embraced the low-lying slums contiguous to the River Liffey. One day I received a ticket directing me to visit a woman in one of these streets, not of the worst class. Calling at the address given, I was told that the patient lived in the "kitchen," and as there was no communication between the house proper and the so-called kitchen I had to go out of the front door and down into the area to gain entrance. There I found the woman in a veritable cellar, into which neither air or light could enter save through the door. Her case was one of typhus fever, so I gave her an order for admission to the fever hospital. Before leaving I was asked to see another patient in the "back room," which I did. As it was pitch dark there they lit a candle; both these rooms were below the high-water mark of the river, which was but a few yards distant. The outer cellar was bad enough, but the back one was frightful. The walls, which were wholly below the level of the ground, had never been plastered; down them trickled little streams of water, the floor was saturated with damp, the air foul, and on a kind of bed raised a few inches from the floor lay a girl with small-pox. It is not a matter of surprise that the lives of several of the doctors engaged in this practice were lost from diseases contracted in these wretched dens.

Typhoid was not at this time recognized as a distinct and special disease. Typhus was well known and always prevalent in the large towns, but most of the other cases of continued fever were called "gastric," and a great controversy arose as to the nature of the so-called "famine fever" which raged from 1848 to 1855, one of its more prominent features being its tendency to relapse even when the patient seemed to have nearly reached convalescence, and from this it was not infrequently spoken of as "relapsing fever." Much interest was taken on the Continent as to its true nature, and two members of the Academy of Medicine were sent from Paris with introductions to Dr. Stokes to investigate the disease in Dublin. He received them with great courtesy, but as neither of these gentlemen could speak one word of English, I do not think their visit was productive of much good, but it gave rise to an incident for the truth of which I can vouch.

After taking the French physicians to see the patients suffering from this fever in the Meath and other hospitals, Dr. Stokes, at their request, took them to the slums from whence these cases came, and during their investigations they found themselves in a yard, in which numerous pigs were kept, while in what had been a stable-loft the owner and family resided, a number of cows being stalled under them. There was a huge heap of manure in the yard, and the room in which the family lived reeked with the stench from it and the cattle under them, as, indeed, did the whole yard. The Frenchmen were horrified, and, turning to Stokes, said that no doubt in such a place fever cases must abound. Dr. Stokes accordingly asked the owner if there was much fever about him. "No," he replied, and, calling his man, asked him the same question, to be told that he knew of none. The further astonishment of the French doctors was great, and they asked if any explanation could be given for this immunity from fever in such a place. Dr. Stokes, who had a vein of humour in his composition, repeated their question to the owner, who scratched his head, thought for a moment, and replied, "Faith, your honour, I don't know, barring it's the stink keeps it away." The doctors did not carry their investigations further.

As it was impossible for me to continue to reside in Dublin, holding only a post to which no salary was attached, I was obliged to seek an opening in the country, and a few days after my twenty-first birthday was appointed surgeon to a very poor dispensary district in King's County, on the verge of the great bog district.

The village of Geashill, in which I had to reside, was poor indeed; but, for an Irish village, clean. The district had previously been served by a doctor who lived five miles off. I was the first to reside in the district, and there was no house for me to live in, so I had to put up with lodgings in the only house in the village where such could be obtained. This was a long, low, one-storied thatched cottage. There were just four rooms, all mud-floored. The kitchen, in the centre, was the family day room (they slept in a windowless loft over it, reached by a ladder, which I was never permitted to ascend). Off the kitchen to the right was a small room in which were for sale a limited supply of groceries and unlimited supply of whisky. Opening off the kitchen to the left was my sitting-room, with a hard, dry earth floor, the centre covered with matting. It was a fair-sized room, about 16 ft. by 14 ft. Off it was my bedroom; it was only 7 ft. by 14 ft. Its floor, also of earth, was in wet weather very damp and soft. To enter or leave my apartments, I had to go through the kitchen, and this on market days was thronged with customers. Sometimes one of these would open my door and look in, but I was always treated with great respect and courtesy, and I spent the winter months from January 1st, 1849, very contentedly there, poor though the place was. I had plenty to do amongst the poor, and had to read for my M.B. degree, which I was not yet qualified to go up for. I passed the examination for it early in the spring, and later on moved into a house some little distance from the village.

The district was so large I had to keep a horse. I was paid a salary of £80 a year, and got a little private practice, but as there were virtually no resident gentry, and as in consequence of the famine the farmers were very poor, it is not surprising that this only produced £40 that year; indeed, I doubt even had I remained, if I could have made much more in that district. But before the second year had expired I was offered the appointment of medical referee to a well-known insurance company in Dublin. I with

some hesitation accepted that, not with the hope that I should succeed in getting into practice in Dublin, but that I might have the opportunity of improving myself in the knowledge of my profession, being painfully aware of my deficiencies, and I always believe that I owed such success as I subsequently attained to my determination to improve my education in every way, and to the last day of my over fifty years of active practice I tried to learn something in every possible way and from everybody.

An amusing incident occurred to me while at Geashill. Late at night I received a ticket requiring me to visit a woman in labour who resided a mile from my house. I found the patient to be a robust woman, aged about 35, primipara. Os nearly fully dilated, head just entering the brim, after a very tedious first stage. I had never seen the forceps used, and had been taught never to apply them unless I could feel the child's ear. I therefore told the friends that they must have patience, and believing that probably many hours would elapse ere I could deliver her, and not caring to spend the night in a wretched cabin, I said that she was going on well, and that I would come again if sent for. But first discovering that the bladder was greatly distended, I emptied it, using for the purpose a short silver catheter. So home I went and to bed, expecting to be sent for during the night; but I was not, and fearing I should be blamed for leaving her, I rode off to visit her quite early in the morning. My anxiety was soon dispelled, for before I could dismount a woman rushed out, exclaiming, "God bless your honour! Sure, you were no time gone, but the real pains came on and she was well in no time." I went my way rejoicing and forgot all about the case; but about three months after a man rode up to my house, saying he wanted me to go and see his wife, who was a long time in labour. I learned that he lived some miles off, outside my district, but as he offered to pay a fee I went with him. The patient was very young, looked delicate, and was quite exhausted by a very protracted labour, certainly much more than of twenty-four hours' duration. The pelvis was small, and the child's head was impacted in it. I believed the child to be dead, and told them that though I could deliver her the child would be dead. On my saying this there was a great outcry, and one woman exclaimed: "Why, we heard you had a silver horn, that you would point it at the child's head, and that it would follow it." Then it dawned on me that my catheter had been supposed to be an "enchanted horn," so my reputation was as quickly blighted as it had sprung up.

About this time I assisted an old practitioner residing in a neighbouring town in an operation which I can never forget. He deservedly enjoyed the reputation of being a good physician, but of operative surgery he was profoundly ignorant. The patient was an old man, aged about 65, living in a wretched hovel in the middle of a bog. His wife, as old as himself, was the only other occupant of this miserable dwelling, which consisted of just one room. Of course, antiseptics were unknown at that time, and even of water there was but little, and that was taken from a neighbouring bog hole. As for such things as towels, etc., there were none. The case was one of strangulated hernia of several days' standing, and the old man was too exhausted to permit of his removal to hospital, the nearest being many miles distant.

The preliminary arrangements were simple in the extreme; in fact, there were none. The operation was performed as the old man lay in his extremely dirty old bed—nothing on which had known what washing was for many a long day. The old wife, the operator, and myself were the only persons present.

My friend proceeded to operate without delay. I observed from the first that he was very nervous and that his hand trembled sadly. He succeeded, however, in exposing the sac satisfactorily, but on his proceeding to divide the stricture he punctured the sac. With escape of gas, the intestines collapsed, and were easily returned into the abdomen. The wound was then closed, and the patient left to the care of his ignorant old wife. I do not think that the doctor and I exchanged a word as we picked our way across the bog. I know I took it for granted that the patient would soon be a corpse.

A week elapsed ere I was again near the town where the old doctor resided; then I met him in the street and asked about the patient. "Oh," he replied, "he is quite well and walking about!"

I had one private midwifery case during my eighteen months' stay in the country, and it, too, had a ludicrous side.

The patient was a very young lady, and it was her first confinement. Her labour was easy and natural and convalescence rapid, so on her seventh day I allowed her to be up on the sofa, and I called that afternoon to see how she got on. It was a bright, warm, sunny day, but I found my patient wrapped up in blankets, lying before a huge fire, very hot and flushed. Opposite her sat the monthly nurse—a fat, pompous old woman, ignorant, and illiterate, and who had always treated me with little courtesy and, indeed, with hardly veiled contempt; in truth, though I was 22, I did not look 18. On her lap lay the baby, well swathed up. As I was leaving my patient said, "I am so hot, may I have a drink of water?" "Yes, of course," was my reply, whereupon the old nurse rose slowly from her seat, and, facing me, said, "No patient of mine shall taste anything cold till the ninth day," and then majestically sat down again. I was extinguished, and the water was not given!

(To be continued.)

THE ROYAL COMMISSION ON THE POOR LAWS AND RELIEF OF DISTRESS.

THE MINORITY REPORT.

WITH SOME OBSERVATIONS ON SCHOOL CLINICS.

DR. E. VIPONT BROWN recently read a paper before the South Manchester Division of the British Medical Association on The Medical Profession: Its Present and Its Future. After discussing the position of the Poor Law medical officer, the condition of out-patient departments, and the advantages and disadvantages of provident dispensaries and sick clubs, he passed on to consider the report of the Poor Law Commission, addressing himself mainly to the recommendations of the Minority Report, upon which he made the following observations:

The Minority Report.

That report suggests that the care of the poor should be entrusted to well-salaried whole-time medical officers acting under the chief medical officer of the county or county borough, who would be a very highly paid and responsible official requiring organizing capacity and administrative ability. Under his direction the medical service would comprise three branches, each with a staff of officers. Thus there would be:

1. The *Clinical and Domiciliary Staff*, to do the work now done by the parish doctors, by the physicians to the out-patient departments of hospitals, by the provident dispensary doctors, by the club doctors, and by the sixpenny doctors.

2. The *Institutional Staff*, to look after the various public hospitals, convalescent homes, sanatoriums, and other medical institutions.

3. The *Sanitary Staff*, to do the work now done by the medical officers of health. Each of these branches might equally well lead to the coveted position of chief medical officer of the county or county borough, who would thus be at the head of an efficient staff of medical men, all of whom would be in the position of civil servants, and only dismissible with the consent of the central health authority. Indeed, this excellent scheme suggests a Minister of Health with a seat in the Cabinet.

The whole idea underlying this scheme set forth in the Minority Report is radically different from that underlying our present methods of treating the poor. Instead of making a "lightning diagnosis" and hurrying our patients away well satisfied with a "bottle," it will be the

duty of the medical official to find out the causes of the patient's ill-health, and to set machinery in work that shall remedy these causes. Thus not only the patient, but his whole environment will be brought under treatment.

Indeed, the ideal which the Minority Report proposes to set before those whose duty it will be to treat the poor, is to keep the whole community in as efficient a state of physical health as is possible. They consider, and I think rightly so, that the health of the citizens is as much a national concern as is their education.

Curiously enough, the British Medical Journal dismisses this scheme of the Minority as a "fairy palace," and a "pretty picture," and prefers that of the Majority, which, at its best, could only prove a degraded and degrading servitude.

Now this subject is one of enormous importance to us as a profession. Great changes are already in progress which, in the near future, must vitally affect our interests. Coming events cast their shadows before, and there are much more substantial things than shadows to warn us that we cannot long remain where we are. Therefore, it is absurd to look no further than the end of one's nose. The wise man will look far ahead and steer for the harbour which appears to him the most desirable. At the present time there are two harbours in sight—the one recommended by the Majority, and the other by the Minority of the Royal Commission. To put it in a nutshell, the Majority points towards the beatification of the Provident Dispensaries, and our subjugation to them; the Minority towards the gradual extension of the public health service, at least in so far as the treatment of the poor is concerned. And between these two ideals we must choose. Let us not dismiss the recommendations of the Minority off-hand, as the British Medical Journal seems to do, merely because those who have worked out the scheme have set before them a high ideal. It surely does not follow that the scheme set forth in the Majority Report is more practical because their ideal is a low one! Unconsciously the profession has drifted already some considerable way in the direction pointed out by the Minority Report. One-tenth of our profession (seeing that they receive fixed stipends from public funds) are, in a sense, already civil servants (4,000 out of 40,000). But it is never safe to drift, and what I want is, that we should recognize this as our ultimate goal, and that we should consciously steer towards it.

One writer to the British Medical Journal has objected (and probably not without reason) that those who are already civil servants have not found the State an ideal employer. But if the profession were united in its aims and objects, and its members no longer engaged in trying to cut each other's throats, we should be quite strong enough to secure from the State adequate remuneration and favourable conditions.

Then, again, the British Medical Journal is much concerned to know whether the Minority scheme will or will not lead to free medical services for the poor. But this is surely not a matter that need concern us as a profession. All that we have to ensure is that the work shall be well done, and well paid for. The duty of recovering the money from those who can afford to pay would happily devolve upon the special officers of the local authorities appointed for that purpose, and not upon us. For all this elaborate provision had been made in the Minority Report.

School Clinics.

One of the most striking indications that changes are likely to take place which will materially affect our profession is the law for the *medical inspection of school children*. This is logically certain to be followed by *school clinics*, for it would be futile in the extreme to examine children and not to remedy the defects revealed by examination. Thus there will be created an enormous amount of fresh work, and possibly an entirely new order of medical practitioners.

After giving some extracts from the report on the treatment of school children at Bradford, he continued as follows:

Judging by the report of the school medical officer, it would be difficult to overestimate the value of the work done by the school clinic at Bradford; and yet, at the Representative Meeting of the British Medical Association, held at Belfast, all such clinics were deliberately condemned as illegitimate, because not run by general practitioners! Rarely have I felt more humiliated than when I listened to the discussion on school clinics at that meeting of Representatives. The main question seemed to be, "How much plunder can be got out of them for the general practitioner?" The welfare of the children, or even of the profession as a whole, seemed scarcely to be given a thought.

Now, it is not as though the general practitioner stood to lose anything worth talking about. Statistics prove that most of the work which these clinics will do is new work that has never been done before, and what little has been done has been done inefficiently and done for nothing in the out-patient departments of our hospitals. The difference is that in such clinics as that in Bradford it is well done and well paid for. Surely we should not condemn this beneficent change merely because the work is done and the payment received by whole-time medical officers, and not by general practitioners. By the passing of such resolutions we do not condemn the system, but rather we condemn ourselves as not only selfish but short-sighted in our selfishness, and if we persist in our perversity we shall be ignored, as we were over the Midwives Bill, and things will shape their course irrespective of our advice or our interests.

Now, as a matter of fact, school clinics worked by whole-time medical officers are not merely legitimate; they are the ideal which we ought to be striving after. It is inconceivable that school clinics run by general practitioners could work as well. In the first place, an enormous amount of jealousy and friction would be certain to arise if those by whom the children are treated were in general practice. Is it likely that I could acquiesce with equanimity in my little patients being examined or treated by a neighbouring practitioner in the presence of their parents? Perchance my neighbour might discover, or pretend to discover, some defect that I had overlooked; or, even apart from that, the parents might have the bad taste to think him pleasanter or cleverer than myself! The seriousness of this danger can be easily realized when we study the makeshifts that have been suggested to obviate it. Thus the Representative Meeting at Sheffield passed a resolution that the children should never be treated by the same man who examined them. But if the school examiner is never to be allowed to treat the ailments which he discovers, you condemn him to a life the dull monotony of which would soon become intolerable. Then, again, our own Manchester Divisions suggested that the school medical officer must never be one practising in the neighbourhood. But what busy practitioner has time to go to a distant school to examine the children? The whole difficulty is at once got over by the appointment of whole-time medical officers. Such men soon become specialists in their work, and in time a great national organization would be established, worked on a uniform system to the enormous advantage of all concerned.

As a matter of fact, if the system of medical *inspection* is to be by means of whole-time officers—and outside London this is almost universally the case—then necessarily I believe the staffing of school clinics must be by similar officers. We general practitioners originally said that *we* would do the *inspecting* as part-time officers. But we have now shifted our position and say that though inspection is best done by whole-time officers we must do any required treatment, and so far as I know, on no other grounds than that we want the work and the pay for it—a perfectly legitimate wish. But it seems to me absurd to expect an education authority in a large city to appoint a staff of half a dozen full-time officers for medical inspection, and then, when the question of treatment comes up, to say to them, "Now you men must go on with your inspecting. We are going to appoint a dozen general practitioners to give us a few hours a week each to do the treatment." Surely they ought rather to say, "We will divide the treatment among you, and, if necessary, add another two or three whole-time men to our staff who shall take their share in the common work."

Moreover, at the clinic school children are being *examined* daily by the ordinary staff—for example, special cases requiring further examination which have been met with at the routine inspection: candidates for the special

schools, the open-air school, etc, and children presented by the attendance officers. So that to introduce part-time men from outside for the purposes of treatment not only seems uncalled for but would greatly hamper organization and efficiency. How complicated the matter becomes you will see when I remind you that the whole-time inspector is fully entitled to examine more thoroughly all cases of deafness at the clinic, and should he find a running ear or an ear full of wax, he would apparently have to hand over the case to the general practitioner attending the treatment part of the clinic. Similarly, vision examination, including retinoscopy, is part of inspection; but how can you separate the examination from the prescription of spectacles?

From whatever standpoint viewed it seems clear that inspection and treatment must go hand in hand. It is difficult to think of anything of more importance at the present juncture than that the medical care and oversight of the children of our country should be in the hands of the best men and women our profession can produce. To condemn a man trained as a medical man has been, and with all his varied experience, to a life of inspection merely, and that, too, of a very monotonous kind, is quite unthinkable. If we are in earnest on the question of the physical condition of our children, we shall then endeavour to make the school medical service the magnificent instrument it ought to be, and is, indeed, capable of becoming. To do this, however, it will be necessary to weld together into one harmonious whole the carrying out of all the duties comprised under the heading of "school hygiene," including the detailed work of medical inspection of the children and the treatment of the defects and diseases found.

But you will ask me, and not without reason, where is this process of socialization of the medical profession to cease? Can we logically restrict it to those medical men who treat the poor, and the children in our national schools? No, I do not think that we can. But we need not trouble ourselves about that. The general medical practitioner will certainly last out our time, and probably that of our children's children. When education was nationalized, even though education was made free to all and sundry, Eton and Harrow did not cease to be. We all of us choose to pay for the education of our children, and most of us pay very heavily. This may be snobbishness, but it is snobbishness of which we are all alike guilty, and, judging others by ourselves, we may feel quite sure that so long as there are considerable inequalities in the distribution of wealth, so long will there be those who will choose to pay a general practitioner rather than accept the services of a State official. But of this I am equally certain, that in the near future the proportion of general practitioners and medical civil servants will be reversed; but the change will take place gradually, and if we have the foresight to direct its course instead of fighting against it, the change will prove an unmitigated advantage both to the profession and to the public.

Conclusions.

In conclusion, let me make a few practical suggestions for our immediate guidance.

1. It should be our endeavour to improve contract practice, as it is known to-day, off the face of the earth. There is absolutely nothing to be said in its favour; it has proved, and is still proving, disastrous for the public and for the profession.

2. In season and out of season we should advocate the scheme of the Minority of the Poor Law Commissioners, and condemn that of the Majority, which would indefinitely extend contract practice and perpetuate its evils.

3. We should strongly advocate whole-time appointments for medical officers of health, and for those who do the work of our education authorities. Men cannot serve God and Mammon. How can a medical officer of health condemn the insanitary property of his best patients? No man can afford to quarrel with his bread-and-butter. So wherever districts are too small or too poor to support whole-time officers, they should be grouped together for the purpose of so doing. And, as I have already shown, there are equally strong reasons why those medical men who serve the education departments should be whole-time officers also.

4. We should do our utmost to improve the position of those who already hold whole-time appointments, by endeavouring to increase alike their stipend and their security of tenure. It should be impossible for a man to be arbitrarily dismissed by a local authority, as is often done, because he does his work too well to please his employers; and, to secure this end, it should be made illegal for a local authority to dismiss any of its medical officers without the consent of the Central Education or Health Authority.

THE

COMPOSITION OF SOME PROPRIETARY FOOD PREPARATIONS.

V.—COMBINATIONS OF MALT EXTRACT.

EXTRACT of malt is largely employed as a vehicle for the administration of other substances, and the combinations so formed must in some cases be classed as medicines and in others as foods, while certain of these preparations are on the border line and might be put in either class with equal propriety. In all such compounds, however, the malt extract is not used merely as a vehicle, but is of some importance as supplying a large proportion of soluble carbohydrates and an appreciable amount of soluble protein. Probably the substance most frequently ordered in combination with malt extract is cod-liver oil, and a very large number of different makes is to be found on the market; with nearly all of these, however, no information is given as to the proportion of cod-liver oil present—obviously a matter of much importance. We give here the results of the analysis of a few selected out of the many preparations of cod-liver oil and malt extract which are sold; those dealt with include three in which a definite percentage of cod-liver oil is stated to be present, and in one of these there is a very wide discrepancy between the amount so stated and the amount actually found. Several other compounds of which malt extract is the basis have also been analysed, and the results are given below. Malt extract itself having been shown in a previous report of this series to be very variable, especially in regard to diastatic activity, the digestive power of the extract contained in the articles in question was ascertained, except in the case of the dry preparations, or where the malt extract was present in amount too small to be of importance. In each case the characters of the fat or oil which was extracted were consistent with its being of the nature claimed, whether cod-liver oil, olive oil, milk fat, beef marrow fat, etc., but the identity of the fat or oil in each case was not determined.

VIROL.

This preparation is sold by Virol, Limited, London, E C. The jar sold at 1s. was found to contain nearly 2 fluid ounces. It is described on the jar as a preparation of bone marrow. The directions are that Virol should be taken between or immediately after meals, adults commencing with a teaspoonful and increasing to a dessertspoonful, and children commencing with an eggspoonful and increasing to a teaspoonful.

Analysis showed it to contain:

Fat	12.3 per cent.
Reducing sugars, calculated as maltose	59.0 ,,
Protein	2.8 ,,
Ash	1.6 ,,
Water	21.1 ,,

(The portion soluble in water possessed no diastatic power.)

MIOL.

This substance is prepared by the Miol Manufacturing Co., Limited, London, S.E. A bottle costing 1s. 1½d. contained 3½ fluid ounces. Miol is described as "a preparation of the richest diastatic malt, the finest product of the olive, free phosphorus, the active principle of certain seaweeds, and other nutritious substances, also the necessary properties for forming bone and muscle." The dose is given as one teaspoonful for children and two teaspoonfuls for adults, to be taken three times a day within an hour after food.

Analysis showed it to contain:

Oil	22.4 per cent.
Reducing sugars, calculated as maltose	41.3 ,,
Protein	2.3 ,,
Ash	0.8 ,,
Water	16.7 ,,
Diastatic power of water-soluble portion	2

Iodine was present in combination in small quantity. No free phosphorus could be detected; the ash contained some phosphate, which is always to be found in the ash of malt extract.

Cremalto.

This is prepared by the Maltico Foods, Limited, Portsmouth. A bottle sold at 1s. contained 6½ fluid ounces. Cremalto is described as "a scientific combination of pure sterilized Devonshire cream." The dose is given as one or two teaspoonfuls on rising and after each meal. Analysis showed it to contain:

Fat	11.7 per cent.
Reducing sugars, calculated as maltose	56.3 ,,
Protein	4.1 ,,
Ash	1.3 ,,
Water	26.7 ,,
Diastatic power of water-soluble portion	6

(A trace of boric acid was present.)

Maltico.

This is prepared by the same company. A bottle sold at 1s. 6d. contained 6¼ oz. This preparation is in the form of a powder, and is described as "a perfect infant food." The quantity to be given at one time is stated to be from one to six teaspoonfuls, according to age. Analysis showed it to contain:

Fat	3.9 per cent.
Reducing sugars, calculated as maltose	66.5 ,,
Protein	16.8 ,,
Ash	4.6 ,,
Water	3.6 ,,

(No starch was present.)

Ovaltine.

A preparation with this name is sold by A. Wander, Berne and London, the price of a tin containing about 9 oz. being 1s. 9d. It is a granular powder, and is described as being "composed of Malt Extract, Fresh Swiss Cow's Milk, Fresh Eggs, and Converted Cocoa, and containing Active Lecithin." One or two teaspoonfuls are directed to be mixed with milk or milk and water to form a cupful of beverage.

Analysis showed it to contain:

Fat	12.3 per cent.
Reducing sugars, calculated as maltose	60.0 ,,
Nitrogenous substances, calculated as protein	13.4 ,,
Ash	3.5 ,,
Water	1.5 ,,

A very small quantity of free lecithin was found, and the presence of egg substance was also indicated by a small amount of sulphur in organic combination.

Bynol.

This preparation, made by Allen and Hanburys, London, and called also "Allenburys" Malt and Oil, is sold at the price of 2s. for a bottle containing 9½ fluid ounces. The dose is given as one teaspoonful, gradually increased to one tablespoonful, to be taken three times a day with or immediately after food.

Analysis showed it to contain:

Oil	12.9 per cent.
Reducing sugars, calculated as maltose	52.2 ,,
Protein	4.6 ,,
Diastatic power of the extract present	22

Bynin Emulsion of Cod Liver Oil with Hypophosphites.

This emulsion, made by the same firm, is sold at the rate of 2s. 6d. for a bottle containing 10½ fluid ounces. The dose is stated to be two to four teaspoonfuls for children, and one to two tablespoonfuls for adults, three times a day after meals.

Analysis showed it to contain:

Oil	34.6 per cent.
Reducing sugars, calculated as maltose	9.0 ,,
Protein	1.2 ,,

(Hypophosphite was present in very small quantity.

Trommer's Malt Extract and Cod Liver Oil.

This compound, prepared by the Trommer Company, Limited, is sold at the price of 2s. 6d. for a bottle containing 9¾ fluid ounces. The dose is stated to be for adults a tablespoonful, for children a teaspoonful or less, according to age.

Analysis showed it to contain:

Oil	29.9 per cent.
Reducing sugars, calculated as maltose	41.4 ,,
Protein	2.4 ,,
Diastatic power of the extract present	35

Standard Malt Extract and Cod Liver Oil.

This is prepared by the Standard Malt Extract Company, Liverpool and London. A bottle containing 4½ fluid ounces costs 1s. 3d. The dose for an adult is stated to be one teaspoonful twice a day, increasing to two teaspoonfuls; for children, half the adult dose. On the outer package it is stated that "Standard Malt Extract and Cod Liver Oil contains 25 per cent. of the finest Norwegian Cod Liver Oil."

Analysis showed it to contain:

Oil	4.1 per cent.
Reducing sugars, calculated as maltose	64.0 ,,
Protein	5.6 ,,
Diastatic power of the extract present	74

Diamalt with Cod Liver Oil.

This is prepared by the British Diamalt Co., London, S.E. A bottle costing 1s. 6d. contained 11 fluid ounces. The dose was given as a teaspoonful to a dessertspoonful three times a day. The preparation was described on the label as "containing 15 per cent. of Cod Liver Oil."

Analysis showed it to contain:

Oil	16.6 per cent.
Reducing sugars, calculated as maltose	51.0 ,,
Protein	5.1 ,,
Diastatic power of the extract present	592

Maltine and Cod Liver Oil.

This preparation is sold by the Maltine Manufacturing Co., Ltd., London, W.C., at the price of 2s. for a bottle containing 8¼ fluid ounces. The dose, for adults, is stated to be from a dessertspoonful to a tablespoonful three times a day; children in proportion. It is stated on the label that "Maltine with Cod Liver Oil contains 30 per cent. by volume of Cod Liver Oil."

Analysis showed it to contain:

Oil	22.7 per cent.
Reducing sugars, calculated as maltose	41.4 ,,
Protein	3.8 ,,
Diastatic power of the extract present	284

(22.7 per cent. of oil corresponds to 30.6 per cent. by volume.)

Kepler Solution of Cod Liver Oil in Malt Extract.

This solution, prepared by Burroughs, Wellcome, and Co., London, E.C., is sold at the price of 2s. for a bottle containing 9 fluid ounces. The dose is given as a teaspoonful, increasing to two dessertspoonfuls or more.

Analysis showed it to contain:

Oil	17.4 per cent.
Reducing sugars, calculated as maltose	42.5 ,,
Protein	3.4 ,,
Diastatic power of the extract present	3

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

ASYLUM OFFICERS' SUPERANNUATION ACT.

To commemorate the passing of the Asylum Officers' Superannuation Act, the President and Council of the Medico-Psychological Association dined together at the Gaiety Restaurant, London, on December 20th, 1909, under the presidency of Professor W. BEVAN-LEWIS, M.Sc., Medical Superintendent of the West Riding Asylum, Wakefield. A large number of superintendents and medical officers of asylums affected by the new Pensions Act in each division of the United Kingdom were present, and in addition many other members of the Association, who, though not affected by the new Act, desired to show their satisfaction in the fulfilment of a long-cherished aim of the Association with the object of securing the best procurable staff for the treatment of the insane.

The loyal toasts having been duly honoured, the PRESIDENT proposed the toast of the evening—namely, "The Passing of the Superannuation Act, and those who contrived it." He said their happiness that evening was based upon the material benefits derived from the Superannuation Act. All seemed satisfied with the measure as it stood, and the minds of those present were centred upon those who had realized the inadequate rewards meted out to a large section of the nursing community throughout the country. Nothing approached nearer to genius than a realization of the disabilities of our fellow men and the translation of that feeling into action, especially when the originating and impelling motives were disinterested and unselfish. There was no more pathetic sight than that of the rudderless mind, tossed hither and thither by the storms of conflicting passion, bereft of that one light, the light of reason, which Nature had given to be a guide. All asylum workers, from the topmost to the bottom rung of the ladder, were banded together with one fixed and determined purpose—the cure or amelioration of one of the saddest and one of the most terrible scourges which fell to the lot of man. There was no nobler avocation than that of ministering to the mind diseased, and it required the noblest of qualities, those which went to make the first-class nurse. To Dr. Shuttleworth he turned first, with every expression of heartfelt thanks, which were felt by every member of the Association. He had worked most assiduously and successfully to establish what had now been accomplished. To Sir William Collins was due not only a very great share in the legislative success, but also the establishment of the pathological department at Claybury, from which had emanated such great and brilliant work under the directorship of Dr. Mott. In the carrying of the present great measure Sir William Collins and Lord Monk Bretton had steered the barque, in spite of the searchlights which were always turned on such a measure, with infinite tact and resource. Others also had had no small share in the work, and he wondered whether the Archbishop of Canterbury had any realization of the warmth which he had caused in the breasts of those whose defence he so stoutly maintained. Nor must it be forgotten that a great deal of work had been done in connexion with the measure by the Asylum Workers' Association and the Medico-Psychological Association; he would also specially mention the name of Mr. Morgans.

Sir WILLIAM COLLINS, M.P., in responding to the toast, said he did so with mingled feelings of diffidence and gratefulness. Even in these days of constitutional usurpation, he thought he ought not to precede the noble lord of Monk Bretton. The establishment of the pathological laboratory at Claybury showed that a great body like the London County Council was not antiscientific. Sir William then indulged in an interesting historical retrospect, and urged that the practice of psychiatry required the highest qualities of heart and head, qualities which could transfigure and transform their lives. He concluded by a reference to some of the interesting incidents which occurred during the passage of the measure through both Houses.

Lord MONK BRETTON cordially thanked the President for the kind words he had chosen to use about him in relation to the passing of the Act. But seeing that some members of the Association had been labouring towards that object for the last twenty years, he felt that he had no right to accept the praise. He could only say that he was proud of the little that he had done in so good a cause. The asylum worker was engaged in a very noble and important profession, and one which was also very trying. In its lower ranks it was comparable to the prison service, or to the police. But prison warders were the protegés of the Government, and the Government had a very long purse. The police were under the local authority, and the policeman was a favourite of the ratepayer. But the asylum worker was shut in within the limits of his own asylum, and the public, while knowing but little of it, considered him a great nuisance from the ratepayer's point of view. The asylum service ought to be made a Government institution.

Dr. SHUTTLEWORTH also responded. He declared that the present happy gathering and its object had been a matter of the greatest gratification to himself, and he had been much touched by the way in which his share in the work had been referred to. But others, and particularly Dr. Hayes Newington, who had steadily advocated and worked towards the same object for twenty years, had had no small share in the great result. He also mentioned with high appreciation the work of such men as Mr. Morgans. His Majesty's Commissioners in Lunacy had also done very much to further the progress of the measure. He fully endorsed all that had been said concerning the work of Sir William Collins and Lord Monk Bretton, and declared that any attraction which the office of member of Parliament might have had for him in the past was obliterated by the constant attendance he had been giving in connexion with the measure, and the insight which it gave him into the legislative machinery.

On the proposition of Dr. PERCY SMITH it was resolved to send a telegram to the Lord Chancellor in the following words:

> The President, Council, and members of the Medico-Psychological Association, assembled at the Gaiety Restaurant to celebrate the passing of the Asylum Officers' Superannuation Act, desire respectfully to convey their profound appreciation and warm thanks for the sympathy and support which your lordship gave to the bill.

Dr. G. H. SAVAGE proposed "The Visitors" in a happy speech, and it was responded to by Dr. NEEDHAM.

Dr. BOND, the General Secretary of the Association, announced that he had received a number of letters of congratulation, including one from the Archbishop of Canterbury.

Dr. ROBERT JONES proposed the toast of "The Chairman," paying a high tribute to his scientific attainments, his skill and ability, and, with it all, his modesty; for Professor Bevan-Lewis was the author of the best textbook on mental diseases in the English language.

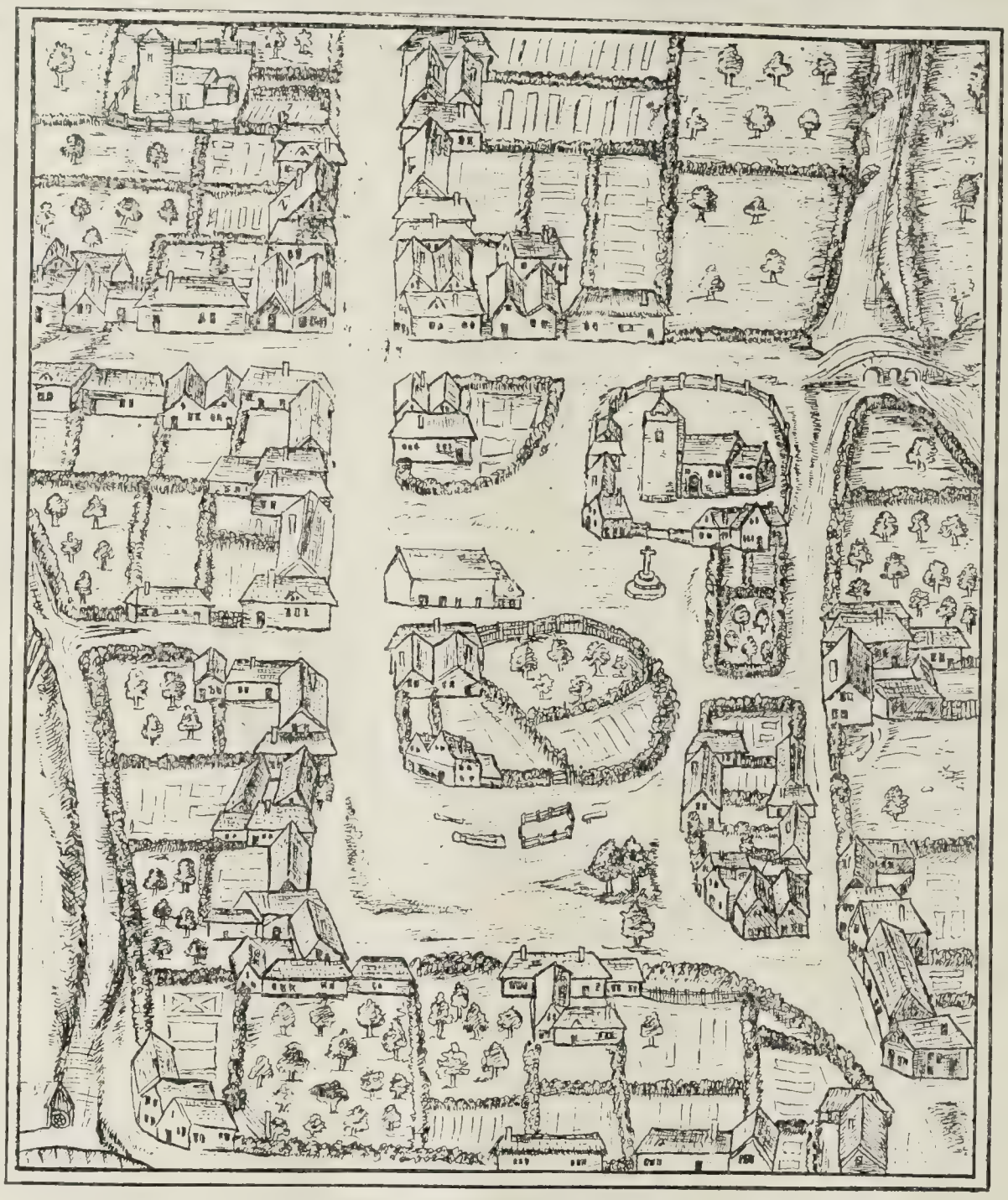
The PRESIDENT, in reply, said he regarded the present as one of the most auspicious events in the history of the Association. The present Act might be regarded as a model one, though possibly at some future time modifications would be made.

THE usual monthly meeting of the executive committee of the Medical Sickness, Annuity, and Life Assurance Society was held at 429, Strand, London, W.C., on December 17th, 1909, Dr. de Havilland Hall in the chair. The accounts presented showed that the business of the society during the month of November had been exceptionally good. The number of weeks of sickness claims was less than the expectation, and well under the number usually experienced in this month. During the month there had been a greater number of entrants than in any previous November during the society's working, and, in addition, an unusually large number of members increased the amount of the sickness benefit secured by them when they joined the society. The rules now allow six guineas a week, and nearly three hundred of the members have now secured this maximum amount. Two of the members who have been totally incapacitated for years died during the month; but there is reason to fear that their places on the chronic list have been filled up. This list is still growing, and will probably increase for some years to come. There are now over forty members who will in all probability be unable ever to resume professional work. They for the most part receive an annuity of 104 guineas a year. Prospectuses and all further particulars on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

Nova et Vetera.

TUDOR ENGLAND.

THE Earl of Pembroke and Montgomery has fulfilled his obligation as a member of the Roxburghe Club by presenting to it, in two quarto volumes beautifully printed at the Oxford University Press, a transcript[1] of three vellum rolls found in a plain wooden box which came to light some five years ago when a quantity of lumber, including old pieces of armour, was turned out of the riding school at Wilton, near Salisbury. The rolls proved to be a survey made early in the reign of Elizabeth of the lands of William, first Earl of Pembroke of the present creation, so far as his English estates were concerned. "I am fortunate enough," Lord Pembroke writes in the preface, "in having as a neighbour and friend Mr. Charles R. Straton, who was kind enough to examine the parchments and was able to expand the contracted Latin in which the results of the survey is written." The survey does not include the extensive property the Earl held in Wales, although Mr. Straton states that there is reason to believe that a survey of part of the Welsh property still exists. Were it discovered it would, Mr. Straton believes, allow a valuable comparison to be made "between the survivals of Celtic tribal customs found in South Wales and the various modifications of them in the manors of what had been West Wales and what had been Wessex."



Wilton, from a drawing in Roll II.

It would, perhaps, be presumptuous in us to praise the manner in which Mr. Straton has done his work, but its excellence appears to be generally recognized by experts, and even a non-expert may perceive, by comparing the facsimile of some sheets of the roll reproduced in collotype in these volumes with the printed transcript, how laborious the task must have been. It has, as we happen to know, occupied for several years much of the leisure of a life very full of the public work which has made Mr. Straton's name so well known to members of the British Medical Association.

The frontispiece to the second volume is a reproduction of a pen-and-ink drawing at the beginning of each roll representing the Earl of Pembroke dressed in a fur-trimmed robe, and seated in a high-backed curule chair, in the act of handing to Charles Vaughan and Robert Grove their commission to make the survey; behind him stands his son Henry, who was afterwards the father of that William, third Earl Pembroke, who has been erroneously supposed by some to be the Mr. W. H. to whom Thomas Thorpe dedicated the first edition of Shakespeare's Sonnets. The first earl was given by Edward VI the rich wardship of the second Earl of Southampton, who was the father of the third earl, to whom Shakespeare dedicated both *Venus and Adonis* and *Lucrece*.

The volumes also contain collotype reproductions of drawings of Wilton House, of a plan of the lands of one tenant at Stoford, and of birds' eye views of Wilton and of Paignton; the sketch of Wilton is reproduced to illustrate this article. In the text are reproduced some ruder drawings of churches and a few other buildings in various places.

The Earl of Pembroke for whom the survey was made was a Welshman, grandson of an Earl of Pembroke of whom Owen wrote: "Sithence the Conquest of the Normans this was the first man by name and descent a Brittaine that ever was advanced to title of honour." He was on the wrong side "in that troublesome tyme of the civil warres was taken at Banburie Field Anno Domini 1469 . . . and shortlie put to death." The fortunes of the family were partly restored by his son Richard, who married an heiress, the daughter of Sir Matthew Cradock of Swansea, and raised to a great height by their son William. He married one of the daughters of Sir Thomas Parr of Kendall; another daughter was Catherine, the last wife of Henry VIII, and when that monarch died in 1547, Sir William Herbert, as he then was, became a guardian and joint Governor of Edward VI. He was made a Knight of the Garter in 1548, appointed Lord President of the Marches of Wales in 1549, and Earl of Pembroke in 1551. Shortly afterwards, when Somerset and Sir Thomas Arundel were executed, the Earl received large grants from their Wiltshire estates. He very nearly came to grief by siding at first with the party of Lady Jane Grey, but adroitly recovered himself, was appointed on behalf of the nation to give Queen Mary

[1] *Survey of the Lands of William, First Earl of Pembroke.* With an introduction by the transcriber, Charles R. Straton, F.R.C.S., and a preface by the Earl of Pembroke and Montgomery. Oxford: Privately printed for presentation to the members of the Roxburghe Club. 1909. (Two vols. 4to, pp. xcix + 624, with 13 plates in collotype.)

away when she married Philip, and was described by the Spanish Ambassador as then the most powerful personage in England. He was one of the four Privy Councillors who in 1558 brought Elizabeth from Hatfield to London to be Queen, and, though he was sometimes in difficulties, retained her favour until he died in 1570, bequeathing to her his best jewel, named the Great Ballace. Though commissioners were appointed by the Earl to make the survey in 1562, when he had reached the height of his prosperity, and had attained the age of 65, they do not seem to have got to work until 1566, when the Earl had already, two years before, been so ill that his life was despaired of—"the Earl of Pembroke lies at God's mercy." It was the practice, Mr. Straton tells us, in his interesting Introduction, of all great landed proprietors at this date to have an accurate survey of their manors prepared, setting out in detail the rights of the lord, with the fines, rentals, and services to which he was entitled, and the various jurisdictions he possessed within his seignory. There were good reasons impelling the lord to make such a survey. Many of them, like Pembroke, had not long held possession. Owing to a variety of causes, of which the expropriation of monasteries and monastic estates was the most recent and probably most considerable, there had been very great changes in ownership, and there were no doubt many cases on every estate in which title was ill-defined and boundaries uncertain. That matters of this kind should be settled was important to the lord, and of hardly less consequence to those who held under him.

The Commissioners, Charles Vaughan and Robert Grove, went about their work very systematically, recording, in addition to particulars as to the situation and extent of each holding and of the buildings on it, the rent in money and kind, and the services, if any, to be rendered by the tenant, so that the roll was tantamount to a valuation of the whole seignory. They prefixed to the section dealing with each manor a paragraph setting out the date of the inquisition, and that they had conducted it

tam per inspeccionem Indenturarum copiarum et aliorum scriptorum quam per examinacionem tenentium subscriptorum et titulatorum. Qui supra sacramentum suum dicunt et presentant ut sequenter patet.

The later part of Mr. Straton's Introduction is, in fact, a short account of the organization of the rural community in the sixteenth century, the facts being illustrated by constant references to statements in the survey. In the essential matter of the administration of justice the system gives the impression of great complication, containing as it did many survivals from an earlier state of society, but it probably worked well and speedily; apparently it must also have had the great merit of being cheap. There are many interesting sidelights on the life of the time, but we must be content to pick out a few matters here and there which have more or less bearing on the public health.

At this time, when the minds of many are turned to the consideration of the Poor Law, reference may be made to the Church House, *domus ecclesiastica*, mentioned in the survey of many parishes. It was used for the observance of the Church Ale, or Scotale, which, according to the following quotation which Mr. Straton makes from Aubrey's *Natural History of Wiltshire*, was in a sense the precursor of poor rates.

There were no rates for the poor in my grandfather's time, but the Church Ale of Whitsuntide did the business. In every parish is (or was) a Churchhouse to which belonged spits, crocks and utensils for dressing provisions. Here the housekeepers met and were merry, and gave their charity. The young people were there too, and had dancing, bowling, shooting at butts, etc., the ancients sitting gravely by and looking on. All things were civil and without scandal.

The survey contains references to other provision for the poor and infirm. The hospital or priory of St. Giles at Wilton was founded for the relief of the sick poor by Adelicia, the second wife of Henry I; it was used as a leper hospital, and many of the old inhabitants, it is said, believed that they had seen "the leprosy queen" walk in the dark part of the road where it formerly stood; it was removed to another site in 1830, and, like a good many other old leper houses, is now an almshouse. The hospital of St. Mary Magdalen in the same town has also been moved, and it, too, is now an almshouse; the survey speaks of both brothers and sisters of this hospital, and the sisters apparently earned a livelihood by selling horse-loaves; the practice of feeding horses on bread seems to have entirely disappeared from this country, but may still be witnessed in parts of Germany, and must have been a convenient way of carrying horse-feed on a journey. The hospital of St. John was just outside Wilton, and afforded provisions and rest to wayfarers. At Shaftesbury the commissioners found another institution of a similar kind, a *domus eleemosinaria vocata a Magdalen*; it comprised a well-built house with a tiled roof, a chapel, a garden, and some old houses in decay. They considered it *apta et necessaria pro schola inde fienda* and said that they would speak to the lord about it; whether anything came of the suggestion we are not told, but since the dissolution of the monasteries the want of schools had become serious, and Mr. Straton calls attention to the fact that, with the exception of Eton and Winchester, named as holding certain lands, there is no mention in the survey of any school. Apparently the royal munificence which led to the foundation of many grammar schools under Edward VI had not extended to this part of England.

With regard to sanitation, the first thing to be noticed is that every house, or practically every house, however small, had a curtilage or enclosed piece of land about it, so that it stood more or less free to the winds of heaven, and had space for harmless disposal of refuse. This appears not only from the text of the survey, but from some of the drawings by which it was illustrated. It either surrounded the house more or less completely or was a "backside" behind it. In the sketch of Wilton the houses shown seem to be, for the most part, of one story; some have an attic story with windows in the roof, and only one or two have two full stories; the windows were in every case small, and no house, with one possible exception, seems to have had more than one chimney. The curtilage was divided usually into a garden and orchard. The garden was for vegetables, those usually grown, according to Mr. Straton, being cabbages, turnips, carrots, leeks, and onions. Peas and beans were field crops, and probably in England, as in France, filled to some extent the place now taken by potatoes. Beasts were killed and salted at Martinmas for winter consumption, apparently because the method of cultivation by the "three field system" did not provide root crops for winter feed. The menace of scurvy was therefore very real, and accounts perhaps for the importance of the "leke-beds" mentioned in the survey. But the lord also had to guard against it, and this was no doubt a reason for requiring fresh food—fish, pigeons, and chickens—to be paid as rents in kind.

Fish ponds were important sources of food and revenue. It is recorded that at Wilton House five ponds, planted with fruit trees on their banks, had recently been made by the lord, and at Shaftesbury there were several fish ponds. One of the entries may be quoted as a sample of the short cut the commissioners took when confronted by difficulties of Latin terminology:

Est ibidem una pastura vocata Wyncombe parke, ubi construitur una Warrenna pro Cuniculis et una Logea pro Warrennario jacendo et sunt in eadem pastura ij stagna pro piscibus viz. Carpes & Tenches.

From which entry it appears that rabbits also supplied fresh meat.

Houses had to be kept in repair sometimes by the tenant, sometimes by the lord. In boroughs the officer, if a tenement fell into decay, set up a stake against the door, and if the tenant made default in repairing his house for one year after the stake was set up, his lands within the borough escheated to the lord. Thus in a memorandum (in English) attached to the entries as to Wilton with which the second roll begins we read:

Item the Custome of the foreseid Borough is that yf the Rent of any Burgage helde be unpaied by the space of one yere after the Accompte, Orels yf the Burgage fall in decaye or yf any Burgager be chosen Port Reve and do not execute his office, and answer accompte at the next Auditt That then thofficers of the Borowgh shall set up a stake against his doors, Then yf he make defalt in repayring his house or in payment of his rent or answeringe accompt within one yere after the stake so sett up his lands within the Borough shall eschete to the lorde.

During this period the house was said to be "at stake," the origin, no doubt, of the familiar phrase.

What was the general custom about water for human consumption is not very clear. In some villages a common well is mentioned; at East Overton there were two,

et tenentes predicti presentant quod sunt infra Estoverton predictum, qui utuntur ad usum inhabitancium ij communes fontes vocati Comon Wells.

But in other places water was a serious difficulty. At Shaftesbury, which stands high, though there was a very deep well in the wellhouse, and a special manorial service for the repair of the rope, most of the water was carried from Enmore Green in buckets by a body of men on foot, or in barrels on horses, and grants were made by the corporation to the carriers. Enmore Green was in another manor, and every year on Holy Cross day a curious ceremony took place which Mr. Straton thinks was in part an acknowledgement of this customary right, and in part a vestige of old well worship. He says:

The inhabitants formed a procession carrying "the Besant," with the couple last married dressed up as the Lord and the Lady. When they reached the well they danced hand in hand round it, carrying the Besant adorned with feathers, rings, and jewels of all kinds, lent by the people for the purpose, and said sometimes to be worth £1,500. They then presented to the Bailiff of the manor of Gillingham, in which the springs were situated, a pair of gloves, a calf's head, a gallon of beer, and two penny loaves of white wheaten bread, and the whole procession was feasted by the Corporation.

In early Celtic times it was customary annually, on Midsummer day, to dance round a tree decorated with coins, etc., or round a bunch of twigs hung with things of value. Frazer, in *The Golden Bough* (vol. iii, p. 319), describes a similar custom in Voigtland, where on St. John's day the people danced round a tree hung with all kinds of things. The Bezant of Shaftesbury was "a staff of besome adorned with feathers, pieces of gold, rings and jewels." It is probable that in Christian times a "Cross Bezantée," a term still used in heraldry, had been substituted for the besome, and that the festival had been changed to Holy Cross day. Votive offerings and sacrifices to fountains were common in classical times. Horace, in the Ode to Bandusia, and Ovid in describing Numa's sacrifice, both speak of offering to fountains "goblets crowned with flowers."

Of sanitary arrangements in the restricted sense very little is said in the survey, but in the note of one holding it is stated that in part of it was

una comminis forica pro servientibus domini in prehendacione domini apud Wijlton et etiam unum kenyll pro canibus domini.

Both were roofed with slates; *forica* is defined in Bailey's edition of Forcellini's *Lexicon* as "a public jakes, or house of office."

Every manor had a manor house, *domus mansionalis* or *mansio*, where the lord's farmer lived. Brief descriptions of some of these are given in the survey; at Donyngton, otherwise Dynton, the manor house had a tiled roof, and contained a hall, parlour (*parlaria*), kitchen, bed-chambers, and various necessary apartments, a chapel with a slate roof, a large barn and a columbarium, both roofed with slates, a house for sheep, and a stable. The columbarium or culverhouse was a most important adjunct to a manor. Not only were pigeons of great value as fresh food at a time of year when salted meat alone was available, but the dung from a culverhouse was valuable. A culverhouse could not be erected without the lord's licence, and attempts to restrain pigeon-rights were frequent causes of friction; the landlord acted no doubt partly in his own interests and partly in those of the smaller tenants, who must have suffered a good deal as things were from the depredations of these winged marauders. A manor usually had also a cowhouse and a dairy or daye-house—chiefly used for making cheese, which is often mentioned in the survey as an article of food—a laundry-house, a malthouse, and a bread-house. In addition to the sheep-house already mentioned, there was the shepherd's house, wool, and cloth woven from it, being the principal articles of commerce produced within the county.

In some places there were public bakehouses, and the bakers were carefully looked after, for there was an assize of bread to see to its weight and quality. The mill, whether driven by wind or water, was another important adjunct to a manor; what appears to be a water wheel may be seen in the lower left hand corner of the sketch of Wilton, which has been reproduced to illustrate this article. The right which the miller enjoyed to certain tolls which he deducted in kind from the corn he ground was doubtless the origin of the many ancient gibes against the honesty of the trade.

Ale was the chief beverage, and the quality of that sold was supervised by the ale-tasters. There were inns for travellers, but for ale men went to the alehouse; and some inns did not supply either food or drink, leaving their guests to send to the licensed victualler and vintner. The alehouses were usually kept by women; some only sold beer, and these alewives were called hucksters or tipplers, to distinguish them from others who were brewers as well as vendors. The days of brewing were carefully regulated by the corporation, and they were obliged to "keep their brulock" when fixed. Until the sworn ale-taster had testified that their beer was "good and wholesome for men's bodies" they were not permitted to tap it or put it on sale. The price was fixed by the assize of ale, and the quality by the assaye.

At no time, so far as we know, did the English have the habit of making soup, which has always been the unfailing accompaniment of every meal for the French peasant. Ale, usually home brewed, was the standard beverage with all meals. The third virtue in the cat-log of the virtues appertaining to the milkmaid beloved of Launce was "She brews good ale." Ale for breakfast sounds dissipated, but tea and coffee were unknown, though buttermilk may have been available, and the home brewed ale was probably a very mild beverage containing very little alcohol, and thin. It was hopped no doubt as a rule, and there are many records in the survey of hopyards, but probably not always. The custom, even among cottagers, of brewing beer at home has died out in some parts of England only very recently, if indeed it does not still survive. It was a pale straw-coloured insipid beverage, flat and mawkish, but by those accustomed to it preferred to tea or coffee, for they would carry it miles to their work, though tea was provided for them there. The beer sold at the alehouse must have been stronger, for it was on ale that Christopher Sly the tinker, who ne'er drank sack in his life, got so drunk that he laid him down on the ground to sleep, and might have passed for dead had he not breathed.

We must not attempt to dig more deeply into the survey; it gives a picture curiously distinct in some respects of rural England in the middle of the sixteenth century, when the men who were to man the fleets that ruined the Armada were still playing about the village green, which gives the general impression of a well settled, well ordered country, where the folk were ill-housed, but sufficiently fed, where money was scarce, but when a man had little real need for coin, having few wants which the manor could not supply, and where, in spite of the evident remnants of the feudal system, the people for the most part—in all that nearly concerned their daily life—governed themselves through officials they themselves elected. The world, we may conclude, at any rate in this corner of England, went very well then.

British Medical Association.

ANNUAL SUBSCRIPTION, 1910.

Members are reminded that the Annual Subscription, amounting to 25s., falls due on January 1st.

Cheques or Postal Orders should be made payable to the British Medical Association, and crossed London County and Westminster Bank.

In the case of Colonial Members the subscription should be paid to the Honorary Treasurer of their respective Branches.

By Order of the Council,

GUY ELLISTON,
Financial Secretary and Business Manager.

429, Strand, London.

British Medical Journal.

SATURDAY, JANUARY 1ST, 1910.

MCMX.

"WELCOME ever smiles, and farewell goes out sighing." 1909 has not been a good year; trade has been bad, worse probably than in the previous year, and the medical profession on its financial side has not escaped the general depression. It is probably the first of the professions to feel the effects of bad trade, which has an immediate and serious effect on earnings and a still greater effect on actual takings. In addition there have been during the past year certain other causes special to the profession which have tended to lower the general level of professional earnings. But financial prophets begin to prophesy smooth things. The reported revival of trade in the United States is believed this time to be genuine; in Germany also it is said business is improving, while official statistics of British trade are more encouraging than they have been for a long time. With such signs it is not unreasonable to hope that 1910 will bring to this country renewed prosperity, a greater volume of trade, increased employment, and consequently greater financial easiness. In this improved state of things the medical profession may reasonably expect to share. It may be that, as some maintain, the general election will prove a disturbing factor and will have the effect of delaying the promised improvement, but it will practically be over before the end of January, and the degree of disturbance it will produce has probably been fully discounted by men of business.

The questions on which the appeal to the country is primarily made at this general election are not such as concern members of the profession more than other citizens, but the opportunity should not be lost of bringing to the notice of candidates, in their present impressionable state, those problems awaiting legislative solution in which the profession is specially interested. The mind of the candidate is wax to receive, and may perchance prove marble to retain. At any rate there will be no such opportunity, until another general election comes round, of directing public attention to medical needs. With the object here indicated, the Medico-Political Committee has drawn up a memorandum, which is published in the SUPPLEMENT for this week, on the most important matters which are considered to be ripe for action. These are: The Medical and Dental Acts Consolidation Bill, death registration and coroners' law, the Public Health Officers Bill to provide *inter alia* security of tenure, the Midwives Act, 1902, with reference especially to the payment of practitioners summoned in an emergency, and nurses' registration. The list might, no doubt, easily have been lengthened, but it was probably felt that the subjects enumerated would suffice, and that it would be impolitic to overburden candidates with a more extended list of questions. The number of candidates who are actually working members of the medical profession is not large, and it is all the more important, therefore, to bring medical matters to the notice of all candidates now, so that they may be the better prepared to give attention to the arguments which will be adduced by medical members in the next House of Commons.

The British Medical Association will, as already announced, hold its Annual Meeting in London next July, under the presidency of Mr. Butlin, who has already served it well and long in other capacities. The Address in Medicine will be delivered by Dr. Mitchell Bruce, Consulting Physician to Charing Cross Hospital, London, and that in Surgery by Mr. Gilbert Barling, Dean of the Faculty of Medicine and Professor of Surgery in the University of Birmingham. The Representative Body will meet on July 22nd under the chairmanship of Mr. Ballance of Norwich, who has succeeded Dr. J. A. Macdonald in that office, and will continue its business on succeeding days. The arrangements for the Sections, which number twenty-one, are so far complete that a list of officers is published in the SUPPLEMENT (p. 3). It will be observed that certain changes in the arrangements and grouping of the subjects of the Sections have been made on this occasion. Bacteriology, which has hitherto been combined with Pathology, this year will have a section of its own, under the presidency of Dr. C. J. Martin, Director of the Lister Institute, while Mr. S. G. Shattock, Pathological Curator to the Royal College of Surgeons of England, will be the chairman of the Section of Pathology. There has been for many years a Section of Psychology or Psychological Medicine, and at the meeting in Edinburgh in 1898 there was a Section of Neurology; this year there will be a combined Section of Psychological Medicine and Neurology, of which Dr. T. B. Hyslop, Resident Physician to Bethlem Royal Hospital, will be President. There was an Electrical Section at Exeter in 1907, and at Sheffield in 1908, and at the last Annual Meeting in Belfast there was a combined Section of Dermatology and Electro-Therapeutics; this year there will be a section of Radiology and Medical Electricity, under the presidency of Dr. J. Mackenzie Davidson. The Section of Dental Surgery held on four previous occasions will on this occasion reappear under the name of Odontology. In accordance with the resolution adopted at the last Representative Meeting, a Section of Medical Sociology has been instituted, with Dr. J. A. Macdonald as President. This is the first occasion upon which a section with this title has been held, and the announcement of the subjects selected for discussion will be awaited with interest.

The great object for which the British Medical Association exists is the promotion of medicine and the allied sciences and the maintenance of the honour and interests of the profession; it has never sought to attain these ends in selfish fashion; it has always recognized that the medical profession exists for the good of the community, and that one of its highest duties is the prevention of disease. It has recognized that it has the duty of stimulating scientific inquiry and disseminating knowledge on all the many subjects—scientific, political, and social—an acquaintance with which goes to the making of a good doctor, who shall also be a good citizen. But it has demanded and will demand that the profession has earned a wider and more generous recognition from the State and from the public. It asks for union within the profession itself, for without such union it will be impossible to win for medicine that influence in the counsels of the State which rightfully belongs to it—rightfully in the interests of the public, more especially the poorer members thereof, and rightfully in its own interests

also. It might take for its motto the noble words of John Milton: "They are the troublers, they are the dividers of unity, who neglect and permit not others to unite the dissevered pieces which are yet wanting to the body of truth. To be still searching what we know not, by what we know, still closing up truth to truth as we find it (for all her body is homogeneal and proportional), this is the golden rule."

PATHOLOGICAL DRUNKENNESS.

It is related in an old rabbinical legend that after Noah had planted the vine that God had given him Satan secretly watered it with the blood of a lamb, of a lion, and of a pig. The order in which these animals are named, though very likely without intentional significance, is interesting, for it corresponds roughly to the successive stages of acute vinous intoxication: First, the stage of mildly soporific euphoria; secondly, that of noisy, garrulous and actively quarrelsome excitement; and, lastly, that of bestial and abandoned lethargy. It is during the second stage that a very large proportion of all crimes of violence are committed, and the sudden and often explosive appearance of this phase is not at first sight apparent.

It might be expected that the operation of a general narcotic like alcohol would be to bring about simply a progressive obtusion of external and internal sensibilities, a gradual obliteration of consciousness, and an increasing motor enfeeblement—conditions not likely to be attended by criminal conduct. In some, doubtless, this is all that happens; but in most the lion phase, in some form or other, intervenes. We have been wont to say that alcohol, by enervating first of all the highest cerebral functions, for the time being annuls the superior inhibition of lower functions; or, expressed otherwise, that the removal of restraints which centuries of civilization have imposed upon man's primal instincts, allows his baser passions undisputed sway. It is, however, one of the many merits of Kraepelin and his school that they have put this matter, after long psychological experimentation, on a surer footing. They have shown, by means of an apparatus capable of estimating differences of one-thousandth of a second, that in addition to, or following, the increased internal resistance to mental processes, such as voluntary recollection, attention, and simple calculation, there is, after even small doses of alcohol, a shortening of the reaction period which intervenes between a stimulus and its motor response, the acceleration increasing at the expense of accuracy of result. That is, the process corresponding to psychic elaboration, which normally intervenes between stimulation and response, is either expunged or largely withdrawn. The sober man thinks first and then acts; the intoxicated man, in this stage, acts first and afterwards repents. The stimulus may be a gesture or an abusive word; the response a blow with the fist, or the knife. As Kraepelin says,[1] "This facilitation of motor reaction "is the source of all the unconsidered and aimless, as "well as impulsive and violent, actions which alcohol "has notoriously produced, recorded not merely in the "history of folly and youthful exuberance but in the "annals of passional crime."

This acceleration of motor response does not rapidly disappear; it may be present on the day following the intoxication, and in this prolonged effect is doubtless to be found the explanation of many crimes which have been committed by persons apparently sober, but who have been drinking shortly before. Many cases of this kind have been recorded, and, as an example, a case described by Dr. Dannemann[2] may be cited. A young man, whilst partially intoxicated, became involved in a quarrel, and received a blow on the nose and had his ears boxed by a certain S. This was at 10 in the evening, and the quarrel was soon amicably settled. About midnight the man, not obviously drunk, went home, and, passing on his way the home of S., became suddenly inflamed with anger, and, hastening to his house, seized a gun and ran back to the tavern. Here, in a room crowded with guests, from which S. was absent, he discharged his weapon at an unoffending man, wounding him fatally, and then fired again, wounding another, who afterwards succumbed, and injuring several others. He was apprehended, and was placed by the authorities under mental observation. There he was found to be mentally well endowed, normal in emotional reactions, and apparently of good moral character. His memory for past events was good, and, when first examined, for the events leading up to and during his homicidal acts. On the other hand, he had a history of nocturnal enuresis, lasting almost up to the date of his crime, and three years before he had sustained two severe head injuries followed by brief unconsciousness. Under experimental conditions it was ascertained that he was markedly intolerant of alcohol; at least, the finger tremors registered by Sommer's apparatus after moderate doses of alcohol were much more pronounced than with average people after prolonged drinking, and after even small doses the powers of observation and attention were unusually defective. The man, however, being found neither weak-minded nor insane, was sentenced to five years' penal servitude. The case was one of late reaction in a man markedly intolerant to alcohol.

Although different individuals exhibit the greatest variations in their toleration of alcohol, these variations being in all probability conditioned by factors such as race, temperament, character, and the individual oxidizing coefficient, the presence of a very marked intolerance of alcohol raises the suspicion of a latent pathological condition. The researches of numerous investigators have shown that, speaking generally, the insane, the weak-minded, the epileptic, and those who have sustained grave head injuries, are susceptible in unwonted degree to the evil influences of alcohol; and if, during intoxication, carefully concealed traits of character and suppressed desires come to the surface, it seems *a priori* possible that actual though latent defects or disorders, of insufficient intensity to invade the field of sober consciousness, may assert themselves when artificially freed from superior control. In this relation an interesting paper was published some time ago[3] by Dr. Tomaschny of Treptow, upon the use of alcohol as an aid to diagnosis in doubtful cases of mental disease, in which he described some cases of persons accused of crime, who, under observation and after the administration of alcohol, showed marked emotional changes of a kind corresponding to that in which they had committed the crimes, and with subsequent total amnesia. Of late considerable numbers of similar

[1] Kraepelin, *Beeinflussung einfacher psychischer Vorgänge durch einige Arzneimittel.* Jena: Fischer. 1892.

[2] Dannemann, Sommer's *Klinik. f. psych. u. nerv. Krankheiten*, Bd. I, Hft. 2. 1905.

[3] Tomaschny, *Allg. Ztschr. f. Psych.*, Bd. 63, Hft. 5.

cases have been recorded, and the term "pathological drunkenness," or *pathologischer Rausch*, has come into use in Germany. The essential characteristic is that the subjects exhibit marked intolerance of alcohol, the remaining symptoms varying according to the nature of the case, whether true or masked epilepsy, a transitory psychosis, or traumatic brain lesion. By intolerance of alcohol these writers mean that after the ingestion of a relatively small amount of alcohol signs and symptoms of a pathological order rapidly develop, but clear up quickly after the withdrawal of the alcohol. Among the many objective signs those most often quoted are: Marked finger tremor; increased knee-jerks and other deep reflexes; inequality of the pupils, and immobility to light stimulation; and among the symptoms of a subjective order: the unusually rapid appearance of the usual clinical picture of acute alcoholism, with false recognition of objects, actual hallucinations, powerful emotional disturbances, with their corresponding motor expressions, followed by complete recovery and total amnesia for the events of the period of intoxication. The fact, however, that in ordinary non-pathological drunkenness—if such a term be admissible—the above-mentioned somatic signs are of frequent occurrence divests them of any particular pathognomonic significance, except in so far as their facility of appearance suggests a constitutional nervous instability. Their conjunction, however, with the early appearance of marked disturbances of consciousness may certainly aid in the diagnosis of mental disease arrived at on safer and more convincing grounds. Beyond this it would be hazardous to go.

The authors of many of the recorded cases of pathological drunkenness evince a desire to extend to such cases the exculpatory clauses of the German Penal Code, basing the medical evidence mainly upon the phenomena disclosed by alcoholic intoxication. The question, therefore, is of considerable forensic importance. Drunkenness is, in point of law, no excuse for any wrong done by the drunken party, crimes committed in a state of drunkenness being punishable in the same way as if the actor were sober, although it is discretionary in the court to mitigate the sentence. Whilst every one will agree with Hoppe[4] that alcoholic intoxication is essentially a transitory mental disorder, not many will approve of his practical conclusion that drunkenness excludes responsibility, and that therefore when a man with a previously good record has committed a crime under the influence of alcohol, which he would not have done when sober, he should be released conditionally upon taking the pledge.

The whole matter has been very well put by Professor Weber of Göttingen, in an able discussion of a case in which the diagnosis lay between simple and pathological drunkenness.[5] The case, which had been the occasion of considerable litigation, presented many points of difficulty, and those interested in this question will find of value the detailed results of experimental dosage with alcohol. In dismissing the diagnosis of pathological drunkenness, Professor Weber insists that for such a diagnosis two things must be proved: First, a severe predisposition; and secondly, the development on this foundation, during alcoholic intoxication, of positive mental symptoms in addition to the usual evidences of acute alcoholism. With this statement most will agree, if it be accepted that the term "predisposition" includes grave fundamental abnormalities demonstrable under ordinary conditions.

[4] Hoppe, *Centralbl. f. Nerv. u. Psych.*, January 5th, 1906.

[5] Weber, *Klinik. f. psych. u. nerv. Krankheiten*, Bd. IV, Heft 3.

"DEAD FINGERS."

THE condition of so-called "dead fingers," or "waxy fingers," is especially apt to occur or to become troublesome at this time of year, owing to the exposure of the extremities to cold. Chilblains, and the cyanosis associated with them, as well as definite Raynaud's disease, with gangrene, must be excluded, but between these two extremes there are a fair number of cases which are certainly distinct from the former and possibly from the latter, although the view that the condition of dead fingers is a mild type of true Raynaud's disease cannot be altogether rejected. The clinical signs of "dead fingers" are alteration in colour of the fingers to a deep purple, to white, or, most often, to a waxy, transparent yellow; alteration in temperature, which is subnormal locally and not seldom generally also; alteration in sensation, the fingers being more or less anaesthetic to external stimulation, while pain is sometimes a prominent symptom; other alterations in the innervation, such as local cold sweats and the formation of vesicles and bullae, also occur.

The lesions usually first manifest themselves after some particular exposure to cold or a long series of exposures, and apart from this they may be distinguished from congenital cyanosis of the extremities by the absence of "clubbing" and the deformities which are associated with that condition. There is no true oedema—in fact, the fingers usually look shrunken—and whatever colour remains, if discharged by pressure, returns slowly. It is significant that chilblains are not common. There is no paralysis of the parts, but voluntary movements are small in range and rather sluggish. Two types of the disease have been observed: Intermittent attacks, occurring at regular or irregular intervals, often at one particular time of the day; and a more or less permanent condition, lasting throughout the winter, greatly improving, if not completely disappearing, in the summer.

Two theories of the pathology of the condition have been entertained. The one would attribute it to a local neurosis, and its fairly frequent association with true sclerodermia and the nervous signs mentioned above—local cold sweats, bullae, anaesthesia—lend support to this view. The other theory supposes vascular spasm or local syncope—an explanation which seems particularly applicable to the intermittent type, bringing it into relation with the vasomotor disturbances sometimes seen in migraine. In some cases, also, the blood pressure is high and the pulse filiform.

Whichever theory be adopted, we are still left to seek some cause for the peripheral neuritis on the one hand and the vasomotor spasm on the other. When the general conditions associated with this disease are examined, it is found that the most serious are nephritis, albuminuria of the intermittent or morning type, and cardiac disease. Monro estimated that 12 per cent. of the cases showed some cardio-vascular abnormality, or gastro-intestinal disturbance, or evidence of syphilis. Clinically, the condition of the hands resembles that seen in the early stage of ergotism more closely than any other. Here we have in circulation a toxin known to produce vasomotor spasm.

To sum up from this evidence, then, the most probable explanation appears to be that the condition is an intoxication which makes the vessels more susceptible to external stimuli, so that they react in an exaggerated degree to those which normally would produce little or no effect; the extremities being the weakest point in the circulation would naturally show the first signs. Looked at from this point of view, then, the condition is not a disease, but, as Marcel Sée suggests, rather a syndrome of which the cause may be variable, as the general conditions mentioned above would suggest.

In examining a case, therefore, one should look for cardiac disease, gastro-intestinal dyspepsia or irritation, syphilis, and albuminuria, and treat these conditions, if found, by recognized methods. In some cases in which more or less definite cardiac symptoms have been present good results have followed resort to Nauheim treatment, the improvement observed being due probably to the cardiac muscle being brought into a more healthy condition. The spasmodic type is said to be most often seen in association with the intermittent variety of albuminuria. The drugs which have been found of advantage are: potassium iodide, which has given good results in cases in which there was no suspicion of syphilis, and quinine or arsenic, especially in the spasmodic type with crises; amyl nitrite, as a rule, only gives temporary relief. Locally hot dressings and irritants, such as mustard, should be avoided; cold rubbings and electricity give the best results. Of the latter the variety most commonly found useful is the constant current with the negative pole on the affected part, but high-frequency and more especially negative static currents sometimes give relief where galvanism fails.

TAKING THE OATH.

SOME two months ago, in one of the principal divisions of the High Court, a discussion took place as to whether the new Oaths Act was as yet operative, and no one for the moment could decide the point. As a matter of fact, it comes into action on the last day of the current week—namely, January 1st—and in anticipation of the event a copy of the Act was published in the SUPPLEMENT to the issue of this JOURNAL for December 18th, 1909. When the Act was first introduced into the House of Commons we drew attention to several weak points which it presented, but these were eliminated during its passage through the House of Lords. To avoid "kissing the book" is now no longer merely permissible, for it is definitely laid down that the new form shall be that adopted in all cases where an objection thereto is not alleged by the witness. Moreover, adequate solemnity is secured by ordering that the witness shall not merely give assent to the words of the oath as repeated to him by the clerk of the court, but that he shall raise his right hand, holding therein a copy of the New Testament—or, if he is a Jew, the Old Testament—and himself repeat the words of the imposed oath. The ceremony of swearing a witness under the new oath as sanctioned by the Lord Chief Justice has been authoritatively described in the *Times* this week by an official of the High Court. *Officer of the Court*: "What is your name?" (*Witness having given his name.*) "Take the Book in your right hand and raise your hand." (*Indicating to the witness by gesture that the hand holding the Book be raised. This being done, the officer of the Court continued:*) "Repeat after me the following words: 'I swear by Almighty God that the evidence I shall give to the court (and jury) touching the matters in question shall be the truth, the whole truth, and nothing but the truth.'" During the passage of the bill through the Houses of Parliament practically no opposition was raised to the measure, but since then the member who introduced the original bill—Sir Thomas Bramsdon, coroner for Portsmouth—has expressed his discontent with the Act as passed, on the ground that making the witness repeat the oath will cause loss of time. The precise time which it will take to swear a witness in the new form has been calculated by a clerk of assize, who is likewise discontented, as eight seconds, but as, on his own showing, the present oath takes about seven seconds, the loss of one second per witness can scarcely be regarded as an important matter. The main thing is to impose an oath which is impressive without being insanitary, and the new oath fulfils both desiderata. The disappearance of the old uncleanly form will be greeted with much approval by the medical profession, whose objections to kissing the book have been strongly and constantly voiced in the pages of this JOURNAL. The bill does not apply to Scotland, in whose courts the need for reform in this respect has never existed.

TYPHOID CARRIERS IN THE ARMY.

THE Director-General of the Army Medical Service has issued a second report[1] on the transmission of enteric fever by the "chronic carrier." It contains further details, in continuation of the first report, of the treatment of certain typhoid convalescents who were discovered in India to be "carriers," and were then invalided to England. One of them, Gunner C., was treated with cultures of lactic acid bacilli. Treatment was commenced on March 8th, 1909, and was continued until August 9th. On the latter date, for the first time since the man came under treatment, no typhoid bacilli could be found in the excreta; the lactic acid bacilli were then omitted, but in the middle of August typhoid bacilli were again found in the stools, to the number of some sixty million per gram. The treatment has therefore been continued, but apparently without complete success, although the number of bacilli has fallen to ten million per gram. In the case of another carrier, Private H., dosage with lactic acid bacilli seems to have been more successful. Treatment was commenced on March 8th, and ceased on May 28th. Since April 30th typhoid bacilli have not appeared in the stools. The excreta were regularly examined until July, when the man was discharged to duty, though arrangements have been made for further periodical examinations, in order to determine the permanency of the cure. It was noted that, fourteen days after the omission of the lactic acid treatment, there was a rapid rise in the excretion of *Bacillus coli*, showing that the inhibitory effects of the lactic acid bacilli were disappearing, but no signs of *B. typhosus* could be found. Two convalescent carriers were treated with antityphoid vaccines, but the results do not appear to have been altogether satisfactory. Upon one patient the effect of intestinal antiseptics was tried. He was put upon low diet, and urotropin was then administered in gradually increasing doses, beginning with 30 and ending with 48 grains a day. The numbers of typhoid bacilli fell, being only two million per gram at the end of seven days. But as the patient's weight rapidly diminished it was found necessary to give him a full diet. Thereupon the number of typhoid bacilli at once rose. In two cases in which the bacilli were excreted from the bladder treatment by raising the acidity of the urine was attempted. Sodium benzoate and acid sodium phosphate were the drugs employed,

[1] Cd. 4,712. 1s. 9d.

30 grains of each being given to each man three times a day. Under this treatment the urine of Bombardier S. rose in acidity during the first week from + 20 to + 33, and the excretion of typhoid bacilli fell from 2,700 per c.cm. to 90 per c.cm. Later on, however, the acidity of the urine began to fall in spite of the treatment, and a corresponding increase in the excretion of typhoid bacilli at once took place. Similarly unsatisfactory results are reported with Lance-Sergeant I., the other patient who underwent this treatment. In the case of Private L., who suffered from occasional attacks of inflammation of the gall bladder and failed to respond to treatment with antityphoid vaccine, treatment by exposure to *x* rays was tried, the region of the gall bladder being exposed for three minutes to an 8 in. tube three times a week. Since the commencement of the treatment no typhoid bacilli have been found in the faeces, but no positive conclusion can, at present, be drawn from their absence, as the excretion of bacilli in this case was known to be intermittent. Commenting on the unsatisfactory results of the above-mentioned methods of treatment, the Director-General suggests that in the chronic carrier the bacilli in the gall bladder, urinary passages, and intestinal wall may be surrounded by areas of dead tissue, through which no curative agent can penetrate. "It follows, therefore, that no cure can result in such cases until all the contents of the necrotic areas have been discharged, which may be the work of years. It is also plain that if the 'chronic carrier' is to have a speedy cure, he must be detected before these changes have been produced in his tissues." Regarding the dangers arising from the typhoid carriers in the army, it is interesting to note that, in certain respects, the views of the Director-General closely correspond with those of the French authority, Professor Vincent, to which reference was made recently.[2] The Director-General says: "When the carrier is not employed in connexion with the preparation of food, it is conceivable that the infection might be carried (1) by direct personal contact; (2) through the agency of latrines and urinals either by dust or by flies. As regards direct personal contact, there is little evidence that, in peace time, this mode of infection is common in the army. Cases supposed to be due to carriers have rarely occurred in adjacent beds, or even in the same barrack room. It is, however, probable that in camp life, and especially on active service, when men are crowded in tents in actual bodily contact, such a mode of infection might hold a prominent place. As regards infection from urinals and latrines there has been a definite diminution in the number of cases of enteric fever in certain stations in India following on efficient sanitary care of these appliances and the substitution of disinfecting solutions, with a subsequent disappearance of flies, for dry earth. It does not, of course, follow that the excreta of the carrier cases have been the only infecting agents in these stations; it is more than probable that the excreta of undiagnosed and ambulatory cases of enteric fever have also played a part in such infection."

EPILEPSY AND CRIME.

FIRMLY convinced of the important relations subsisting between epilepsy and crime, and deeply impressed during his twenty-five years' experience of police-courts with the belief that epileptics are frequently and wrongly sentenced to imprisonment, Mr. Thomas Holmes has given utterance, in the report of the Howard Association, to statements which have been described in the lay press as alarming. To ameliorate the lot of epileptics, and at the same time to mitigate what he evidently considers a crying evil, he has made the five following suggestions: (1) That all epileptics be notified to and registered by the local health authorities. (2) That proper control, supervision, and, if necessary, detention of epileptics be provided by the local authorities or the State. (3) That marriages with epileptics be made illegal. (4) That provision be made for a systematic and scientific investigation of the cause, cure, and effects of epilepsy. (5) That epileptics be no longer sentenced as criminals, but be adjudged to be epileptics and cared for accordingly. Mr. Holmes's proposals have been criticized in the *Westminster Gazette* by Mr. Penn Gaskell, the Secretary for the National Society for Employment of Epileptics, who—whilst agreeing that the present system, under which epileptics are so often treated as criminals, is absolutely wrong, and that many crimes are committed by epileptics not termed insane but nevertheless quite irresponsible at the time of committing these crimes—considers that compulsory notification would only impose still greater disabilities than exist at present upon an unfortunate class; that detention for all epileptics would be entirely unjustifiable, and that the prohibition of marriage would be futile unless applied to the whole families or stock from which the epileptic individuals spring. A medical authority interviewed by the *Westminster Gazette* expressed the opinion that Mr. Holmes had made a mistake in giving epilepsy *per se* an isolated importance, inasmuch as it was only one of many indications of nerve instability, and that many epileptics were exceedingly useful members of society, whose detention would be a public loss. The ground occupied by Mr. Holmes's suggestions is so wide, and they raise so many intricate and contentious problems on heredity, that we can here only touch upon the fifth, "that epileptics be no longer sentenced as criminals, but be adjudged to be epileptics, and cared for accordingly," the only one, we suppose, to which Mr. Holmes's long and intimate experience of police-court cases adds the weight of authority. Mr. Holmes maintains that prison statistics cannot give even an approximate idea of the number of epileptics committed to prison, owing to the favourable conditions of life inside prisons, and because of the probability that many epileptics, incarcerated for short periods, have no attacks in prison. It is within his knowledge, he says, that a very large number of men and women suffering from epilepsy have been sent to prison for being drunk and disorderly or drunk and violent, and that others have been picked up in the streets and convicted for being drunk and incapable. We have no wish to minimize the importance of this statement. It discloses a state of affairs which should be remedied. But it is impossible by means of this evidence, even when strengthened by the facts relative to many other cases of serious crime committed by epileptics as the result of their epileptic condition, to justify the sweeping assertion that "the very fact that a medical practitioner has notified to the health authorities that a certain individual is an epileptic ought to do away with any possibility of that individual being treated as a criminal." The proposal to put the whole body of epileptics—even using the term "epileptic" as denoting only those who have convulsive major epilepsy — under the common ban of civil incapacity and criminal irresponsibility only requires to be stated to be dismissed. If it be a fact, however—and we do not question it—that numbers of people are wrongly convicted of being drunk and disorderly when they have in reality been

[2] BRITISH MEDICAL JOURNAL, December 25th, 1909, p. 1813.

epileptic, then it is evident that some additional machinery, facilitating a closer scrutiny of such cases, is needed. Also, if it be true—and again we do not question it—that serious crimes have been committed by persons entirely irresponsible at the time of their crime who have yet been held sane and responsible and thereupon sentenced to penal servitude, the need for some alteration in judicial procedure becomes still more evident. In this relation we may refer to the case of a man, an epileptic, who was convicted of having killed his wife under great provocation. A few days before this he had an epileptic attack. At the trial he professed entire ignorance of his crime, of which there was no doubt. Being sane and there being no evidence that he was other than sane at the time of his act, he was sentenced to a term of penal servitude. In prison he had several major epileptic attacks. Two days after some of these attacks he became for some hours violently maniacal, and during these states of post-epileptic mania he remembered the whole events of his crime and those which led up to it, including an attack upon him, with a knife, made by his wife. On the day following these attacks he had again a complete amnesia for the events of his crime and the assault which led up to it. There can be no question that in this case, viewed in the light of subsequent events, the man was irresponsible at the time of his crime, and that his imprisonment was a wrong to him just as much as his liberation afterwards was a wrong to society. Cases of such deep psychological interest as this are doubtless rare. Nevertheless, many others probably occur where the wrong to the individual is as great. To remedy this matter, however, no alterations in the law affecting criminal responsibility, such as Mr. Holmes's suggestions would entail, are necessary; but merely reforms in procedure. In some of the German States doubtful cases of drunkenness are taken by the police to the psychiatrical clinics for observation, and we have no doubt that with the establishment of such institutions in England the blots which Mr. Holmes has indicated would be erased from the calender of the law court. With regard to serious crimes, we have on more than one occasion urged the adoption of some measure analogous to that provided by Paragraph 81 of the German Code of Criminal Procedure where "for the purposes of a more thorough investigation of the mental state of an accused person, the court may order, at the instance of a medical expert, and after hearing counsel for the defence, that the prisoner be sent to and detained in a public asylum."

THE PRETENCE AND THE REALITY.

THE reports which have appeared in our columns during recent years, contrasting the composition of various proprietary medicines with the claims made for them, show that a favourite feature in the advertising of many of those of most recent origin is a pretence of personal attention to the details of each case by an expert. It is sometimes professed that this attention is given by a qualified medical practitioner, but whether alleged to be qualified or not, the "expert" is usually said to have made a life-long study of the particular complaint to be treated, and to know far more about it than any doctor practising his profession in the ordinary way. We have shown in many cases the hollowness of the pretence of personal attention to individual cases; instances will be found in *Secret Remedies*,[1] and some of the evidence given at a recent inquest at the Hammersmith Coroner's Court throws light on the kind of "expert" knowledge placed at the disposal of those deluded by such advertisements. The case was one in which the deceased had been taking the "Nelson Lloyd Obesity Cure," the results of the analysis of which were published in this JOURNAL, vol. ii, 1908, p. 1568, and in *Secret Remedies*, p. 100. As will be seen from the extracts from advertisements which are there given, the appeal to sufferers from obesity is in the form of a promise of personal treatment by "J. Nelson Lloyd," who says, "I myself am a member of a family many of whom died prematurely after much mental and physical suffering, arising from corpulence"; and "not only do I offer every client the full benefit of practically a life study of the whole subject of corpulence, but that I *guarantee* to effect a cure of every case I take up." The value of this "guarantee," and the real facts as to the proprietor's knowledge of the disease he guarantees to cure, are shown by his own evidence at the inquest referred to. The following is from a report of the proceedings in the *West London Observer*: "Mr. Frank Derry, the proprietor of Nelson Lloyd's Obesity Cure, recalled by the coroner, said his medical knowledge was confined to what he had learnt twenty years ago as secretary to a medical man. He had not been in the present business very long.—The Coroner: Since the last hearing I have had the advantage of reading your book. Did you write it? It is signed 'Nelson Lloyd.'—Witness: Of course, Nelson Lloyd is an imaginary person. The book was written for me. —In your book, you say, 'While studying for my degree?'—That represents the man who wrote the prescription. He assisted in the business.—But you are said to be Nelson Lloyd?—Yes, it is a joint effort. —When was the book first published?—In the spring of last year.—In the book you say, 'After I had succeeded in curing myself, I decided to take up the cure of obesity instead of that of medical practitioner'?—That represented the medical man who assisted me.—Obesity, you say, should only be treated by a specialist? —Yes.—You also say that you have made a life-study of it. Is that correct?—As for me, no, but as for the medical man, yes.—Do you undertake the diagnosis of a case?—With the assistance of a medical man. John Holmes, of Herne Hill, said he was a qualified medical man in America, but not in this country. As an employee of Mr. Derry, he went over the consultation forms and ordered the treatment." The statement of the proprietor, who is responsible for the letters and pamphlets sent out concluding, "I am, yours truly, J. Nelson Lloyd' (the signature being a facsimile of writing), and for the personal form of the advertisements, that "*of course*, Nelson Lloyd is an imaginary person," appears to show a correct appreciation of the degree of truthfulness usually pervading such a business.

[1] *Secret Remedies*. Published by the British Medical Association, 429, Strand, W.C. 1s.; post free, 1s. 3d.

THE ANTIVIVISECTION HOSPITAL.

IT is the one duty of all hospitals to use every possible means for the physical well-being of their patients. To accomplish this great work two things are necessary: First, the use of all such remedies as have been found by experience to be of value. Next, thorough, frequent, methodical, unbroken routine in the examination and observation of cases. Furthermore, it is necessary that the hospital authorities should work well together, without quarrelling among themselves. If these conditions be not loyally and constantly obeyed, no amount of emotional sympathy, no sentiment, no religion, will save a hospital from being a bad hospital. It is just a year ago since the first of four inquests was held on cases at the Antivivisection Hospital at Battersea. The report of the case of Mabel Florence Jones in the *Times* of December 31st, 1908, seems to show that the child was seen twice as

an out-patient, that on the second occasion she was seen only by a nurse, and was not told anything as to the need of further attendance. The report of the case of Harry Large (*Times*, November 29th, 1909) appears to show that no medical man was in the hospital at the time of the boy's death, and that there was an arrangement that in any such emergency some doctor in the neighbourhood should be sent for. On this occasion, the coroner, Mr. Troutbeck, is reported to have said that "he supposed that the hospital was not in a very prosperous condition. It did not seem to be an entirely satisfactory way of conducting a 'general' hospital that the resident medical officer might be absent for prolonged periods, during which time, if anything serious should occur, in the opinion of the nurses, a neighbouring medical man might be sent for." On Tuesday in this week (December 28th) Mr. Troutbeck held two more inquests on cases at the Antivivisection Hospital. In the first, a woman who ran a pin into her thumb had gone to the hospital. She had waited there nearly two hours, and had seen no doctor. A nurse had told her to keep her hand in a bowl of water. Next day the woman was ill, and a local doctor was called in, who sent her to the infirmary, where she died of blood poisoning (*Times*, December 29th). Mr. Troutbeck said that "the Antivivisection Hospital called itself a general hospital, whatever that might precisely mean. In connexion with other hospitals one associated the term with certain facts, such as the continual attendance of a regular staff. . . . In fairness to the public, it ought to be made known that it was not a general hospital in the ordinary sense of the term." The jury said that in their opinion there had been neglect on the part of the hospital. The second inquest, on the same day, was on a child who had been burned. This unhappy child had been taken to and from the hospital twice a day, through the cold and wet, day after day. It is said that she did not see any doctor till the third day. It is said that on one occasion she was kept waiting for three hours. It appears that after nine days she was told that she would have to get a doctor and a nurse at home. She was admitted to the infirmary, where she died on Christmas Day. Mr. Troutbeck said "that these facts could not be considered as other than disquieting. It should be widely known what the treatment might be if people went to the Antivivisection Hospital. It was for the governors of this hospital to consider these facts and their responsibility. If they thought to run an institution which on inquiry presented these results as to the treatment which patients receive, it would end, not in the kind of case they were hearing, but in something much more grave. It was the duty of the governors to take very strong action to put their house in order." The jury said that there had been great neglect on the part of the authorities of the Antivivisection Hospital. Now, putting aside the fact that this hospital keeps, or used to keep, that absurd instrument a "Buisson bath for the prevention and cure of hydrophobia"; and putting aside the fact that a member of its staff, not long ago, at a mass meeting in Battersea Town Hall, derided diphtheria antitoxin as "animal filth"; and putting aside the fact that another member of its staff is reported (*Shrewsbury Chronicle*, December 18th, 1908) as saying, at an antivivisection meeting, that the hospital barred those drugs which "came through the channels of vivisection," let us consider what chance there is that the governors of this hospital will so far agree together as to be able to set their house in order. Here is a paragraph from an antivivisection journal, the *Animal's Guardian* (May, 1908): "There were several resignations from the Board of management during the past year. . . . Mr. Pomeroy has issued a circular to some of the governors, objecting to the presence, on the Board of management, of practically the whole of the members of the medical Staff, to which he takes exception, as being contrary to the plan adopted at other Hospitals. The Board has passed a resolution that Mr. Pomeroy's action is irregular." Later in the year we find the hospital solicitor suing Mr. Pomeroy for libel and obtaining £150 damages (*Standard*, December 17th, 1908). Last year we find (*Times*, July 9th, 1909) the senior physician—who was also a trustee, a vice-president, and the honorary treasurer of the hospital—resigning all these offices because the hospital had not, he says, shown sufficient courtesy to the second of two rival antivivisection congresses which were held in London last July. "Events have proved," he said, in a published statement, "that the board has been captured, and has acted in the sole interests of a factious clique." And he goes on to speak of the "grossly improper and unbecoming conduct" and the "mere factious spite" of the board of the hospital. Thus, we find this hospital, which professes to be animated by gentler sentiments than those of other hospitals, torn to bits by quarrels among its own authorities. Add to this that it has provided, out of a very few beds and a moderate number of out-patients, and the grave and repeated evidence, in the coroner's court, that the hospital is ill worked. We hardly know who shall set this house in order. We only hope that the King's Fund, if it have the power, will take the matter in hand at once. Meanwhile, we venture to suggest that the hospital might, without much loss to the Battersea poor, be closed.

THE RULE OF THE ROAD.

As is very well known, the rule of the road in these islands differs from that in every other, or almos every other, country, in that we pull to the left in meeting another vehicle, and that the rest of the world pull to the right. The obstinacy of this country in adhering to the left-hand rule has been condemned as an example of insular stolidity and arrogance, but there has always seemed a good deal to be said for it. It appeared probable that its origin was to be explained by the fact that most people are right-handed. The reins may be, and perhaps ought to be, held in the left hand, but for the all-important guiding touch most men like to have the right elbow free; therefore they sit on the right side, and therefore, when meeting another vehicle, have good reasons for pulling to the left, so that the two vehicles pass driver to driver, and the exact space between the two wheels is easy to gauge. The last objection to pulling to the right may, of course, be overcome if the driver sits on the left of the carriage, and this position is often, though not by any means invariably, adopted on the Continent. It is a fact, however, that in the case of most foreign railways the English rule of the road is followed; this may perhaps be accounted for by the fact that the first locomotive engines were made, and many of the earliest railroads on the Continent built, by British engineers, but this explanation will not apply to the motor car, and it is interesting to note that a proposal has seriously been made to alter the Continental rule of the road to make it agree with the British, because it would be a safer rule for the automobilist. In foreign motor cars, as in British, the driver sits on the right hand side, and this position has without doubt been selected because

the driver wishes to have the levers under his right hand, and that they and his hands should be free from the interference which a person sitting beside him might otherwise cause. If we may, without bringing down upon us the wrath of the ambidextrists, venture the opinion that man is naturally a right-handed animal, then we think it follows that there is good physiological reason for the British rule of the road.

GROSS PARASITES AND BACTERIAL DISEASE.

IN an article published in the *Journal of Economic Biology* (vol. iv, Part 3, 1909) Dr. Shipley discusses "the relation of certain cestode and nematode parasites to bacterial disease." During the last three years he has been working on the parasites in grouse, in connexion with the Grouse Disease Inquiry. He has found that at times the grouse are very heavily infected both with cestodes and with nematodes, the former being found in the intestine, the latter both in the intestine and in the paired caeca, which in this bird attain to a remarkably large size. Each caecum, in a badly infected bird, may contain thousands of the thread worm *Trichostrongylus pergracilis;* and this condition is accompanied by changes, such as inflammation or atrophy, in the thickness of the caecal walls, together with a decrease in the power of absorption. By breaking the continuity of the mucous lining these worms allow the numerous bacteria which swarm in the lumen of the gut to gain access to the deeper tissues. Though these bacteria are harmless whilst in the alimentary tract, when they arrive in the deeper tissues they set up pathogenic change. Dr. Shipley also describes bacterial disease arising in rainbow trout from inoculation by the nematode *Cystidicola farionis.* This nematode, it seems, enters the swim bladder by piercing through the intestinal wall and traversing the intermediate tissues. In the course of its migration bacteria are naturally carried along with it. Another nematode—*Strongylus quadriradiatus*—has been found associated with a fatal disease of pigeons, death being due to peritonitis caused by bacteria which have passed through the damaged intestinal walls. Passing from the lower animals to man, Dr. Shipley thinks that disease of the vermiform appendix, as well as of other parts of the intestinal tract, may be initiated by entozoa more frequently than is commonly supposed in this country. He attaches particular importance to *Oxyuris vermicularis* and *Trichocephalus trichiurus* as organisms which may very commonly prepare the way for bacterial infections. Our medical grandfathers used to administer antihelminthics much more frequently than the present generation, and Dr. Shipley thinks that the increasing frequency of appendicitis may be due to this change in the therapeutic methods of the family doctor.

EDINBURGH AND ST. ANDREWS.

IN response to a widely-expressed request, Emeritus Professor Sir Alexander Russell Simpson has consented to stand as Liberal candidate for the Universities of Edinburgh and St. Andrews, at the approaching General Election in opposition to Sir Robert B. Finlay, K.C. Sir Alexander Simpson at the beginning of his career was John Goodsir's apprentice; for seven years he assisted his uncle Sir James Y. Simpson, and in 1870 he succeeded him in the Chair of Midwifery in the University of Edinburgh. He retired in July, 1905. His university conferred the honorary degree of LL.D. on him, and the University of Manchester the degree of D.Sc. In 1906 he was created a knight. Sir A. R. Simpson's business capacity is well recognized in Edinburgh; he has been President of the Royal College of Physicians, was from 1900 to 1905 Dean of the Faculty of Medicine in the University, and is at the present time a manager of the Royal Infirmary. He has long taken an influential part in the religious and philanthropic activities of the city, and is well known as an advocate of temperance principles. No man could be better equipped by intimate knowledge and long experience in the practical work of higher education to represent the universities, and to form one of the too small number of medical members of Parliament.

MR. M. L. WALLER, Private Secretary to the Home Secretary, has been appointed Commissioner of Prisons for England and Wales, in succession to Dr. H. B. Donkin, who retires under the age rule at the end of January. Dr. Donkin's services will be retained in the special capacity of medical adviser to the Prison Commission for a further period of five years.

GENERAL ELECTION.

LIST OF MEDICAL CANDIDATES.

So far as we have been able to ascertain, the following is a complete list of medical men who are candidates at the General Election. Sir Robert Finlay, Sir G. H. Pollard, and Sir R. J. Price have all, we believe, long abandoned medicine for the law. Dr. H. S. Lunn has long been engaged in business, and Mr. John Dillon has—at any rate, in recent years—not practised as a medical man:

England.

Dr. Christopher Addison (L.), Hoxton.
Dr. G. Coates (U.), Lichfield.
*Sir William J. Collins (L.), St. Pancras West.
Dr. T. Eastham (U.), Hyde.
Surgeon-General G. J. H. Evatt, C.B. (L.), Brighton.
*The Right Hon. Sir Walter Foster (L.), Ilkeston.
Dr. F. E. Fremantle (U.), Rotherhithe.
Dr. Alfred Hillier (U.), Hertfordshire North or Hitchin.
Dr. H. S. Lunn (L.), Boston.
Dr. J. E. Molson (U.), Bethnal Green.
Dr. R. O. Moon (L.), Marylebone East.
Dr. Permewan of Liverpool (L.), Bootle.
*Sir G. H. Pollard (L.), Eccles.
*Sir R. J. Price (L.), East Norfolk.
*Sir G. Scott Robertson, K.C.S.I. (L.), Central Bradford.
*Dr. V. H. Rutherford (L.), Brentford.

Scotland.

Dr. W. A. Chapple (L.), Stirlingshire.
Sir Robert Finlay, K.C. (U.), Sir A. R. Simpson (L.) } Edinburgh and St. Andrews.
*Dr. A. R. Rainy (L.), Kilmarnock District.

Ireland.

*Dr. R. Ambrose (N.), Mayo West.
*J. Dillon (N.), Mayo East.
Dr. T. Laffan (H.R.), Mid-Tipperary.
*Dr. C. O'Neill (N.), S. Armagh.

*Sitting member.

ADAMS v. POMEROY.

AN APPEAL.

DR. L. GARRETT ANDERSON, 114A, Harley Street, W., Honorary Secretary of the fund raised to reimburse Dr. Martha Adams the legal expenses she incurred over and above the taxed costs in the action brought by her against *Vanity Fair* and others, including the Hon. Ernest Pomeroy, acknowledges the following further subscriptions:

	£	s.	d.		£	s.	d.
Dr. Reginald Bligh Wall	1	0	0	Dr. G. Bennington Wood	1	1	0
Dr. and Mrs. Maitland Ramsay	1	1	0	Dr. Herbert R. Spencer	1	1	0
Dr. Percy Rose ...	0	5	0	Dr. Joseph O'Connor ..	0	10	6
Dr. W. A. Grogono ...	0	5	0	Mr. H. Alexis Thomson	1	1	0
Dr. A. E. Kennedy ...	0	5	0	Dr. Samuel Agnew ...	1	1	0
Dr. C. J. Stocker ...	0	5	0	Dr. L. Garrett Anderson	2	2	0
Dr. Alice Vowe Johnson	1	1	0	Dr. A. M Edge ...	1	1	0
Dr. Eleanor Lowry ...	0	5	0	Dr. Frank Hinds ...	1	1	0
Dr. A. W. Paterson ...	0	5	0	Dr. Catherine Fraser...	0	2	6
Major J. L. Marjoribanks, I.M.S. ...	0	5	0	Dr. R Langdon Down..	1	1	0
				Dr. de Havilland Hall ...	1	1	0
				H. C. M.	0	10	6

Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

THE ROYAL VICTORIA HOSPITAL FOR CONSUMPTION, EDINBURGH.

Completion of the Scheme: The Establishment of a Working Colony.

AT the annual meeting of the Royal Victoria Hospital for Consumption, on December 23rd, 1909, Sir Alexander Christison, Bart., President of the Committee, in submitting the annual report, made an interesting speech regarding the development of the various branches of the hospital's activity, and dwelt on the completion of the scheme of antituberculosis operations, which was begun in 1887, through the establishment this year of the working colony. The purpose of the hospital was much larger than the cure of the hundred patients who were daily under treatment at the hospital proper. The institution in its several branches had a wide outlook on tuberculosis from the preventive as well as the curative point of view. It aimed at tackling every aspect of the problem with a view to the eradication of the disease. Towards this end a combination of agencies was necessary. The fundamental principle of the dispensary, founded twenty-two years ago, was that if tuberculosis was to be treated effectively it was not sufficient to treat the consumptive poor who presented themselves, with more or less advanced disease, at the out-patient departments of hospitals. Cases of tuberculosis must be sought for in their homes. The consumptive patient must be followed to his dwelling. Not only must the dwelling be inspected, but, as far as possible, all members of the household, so as to detect the disease at the earliest stage. It was constantly found that several members of a household were affected simultaneously. By the "march past," which had for so long been a feature of the dispensary, such contact cases were brought under the surveillance of the institution. It dealt with every type of tuberculous patient among the poorer classes and with every inquiry regarding the treatment and prevention of consumption. It sifted and grouped the cases and recommended the suitable line of treatment. Some patients continued as visiting patients at the dispensary. Others, too ill to visit the dispensary, were attended at their own homes by the doctor and nurse and by the Samaritan Committee. Early cases were passed to the sanatorium—the Royal Victoria Hospital—with a view to cure. Advanced and dying cases were recommended to the medical officer of health for admission to the city hospital (62 beds), or, in the case of paupers, to the parish hospital, where special provision existed. During the year at the laboratory of the dispensary the diagnosis of tuberculosis had been confirmed by bacteriological examination in no fewer than 418 cases. All cases presenting themselves at the dispensary were notified to the Medical Officer of Health of Edinburgh or of Leith, as the case might be. The dispensary had proved a most valuable instrument in relation to notification. The closest co-operation existed between the several branches of that institution and the public health department of the city, so that what was known as the Edinburgh scheme worked both efficiently and smoothly. The Victoria Dispensary for Consumption continued to be the centre, as it had been the beginning, of all the operations. It had been of the greatest value to the city, and had served as a model for similar operations in different parts of the kingdom and in America, and had been adopted in Canada for the institution of the Royal Albert Institute, recently opened by the King. The Royal Victoria Hospital itself now contained approximately 100 beds, and a considerable number of visiting patients spent the entire day under the régime of the hospital, returning home for the night. The system of graduated labour continued to prove of first importance in the treatment of patients. The grounds of the hospital had long been largely maintained, and extensions from time to time had been made, by the activities of the patients themselves. Coloured badges were given to the patients as they passed from one grade of work to a higher grade. The effect of this had been to add interest to the work and promote a healthy emulation to reach the highest grade. The degree of work was carefully regulated by physiological considerations. In the great majority of cases an arrest of the disease had been attained, and most gratifying evidence of the permanence of cure was forthcoming in letters frequently received from patients in the enjoyment of good health for years after their discharge. At the last annual meeting an appeal on behalf of a special working colony had been made by Lord Dunedin, who pointed out that the colony was not a new departure but an essential part of the original plan. The purpose of the colony was to afford occupation for a selected number of patients to whom return to their ordinary avocations would mean relapse and disaster. "Colonists" would be selected from among the patients who had passed to the higher grades of graduated work—that is, patients able to work the greater part of a day, but return to whose previous occupation would almost certainly mean relapse. He was happy to announce that in response to the appeal over £6,000 had been received within a few months. The Committee had carefully considered numerous sites, and had selected the estate of Springfield, adjoining the classic Hawthornden. This had been acquired and was in course of adaptation. The property contained 50 acres and an extensive dwelling-house, which would require only slight structural alterations. It was matter for much congratulation that the extensive scheme, begun almost a quarter of a century ago, which had involved much thought and hard work, had now been almost realized. While foreshadowing various extensions in detail, he was glad to say that the main lines had been completed.

The adoption of the report was seconded by Lady Dunedin, and carried unanimously.

EDINBURGH ROYAL INFIRMARY.

At a meeting of the managers on December 20th, 1909, Dr. R. McKenzie Johnston presiding, intimation was made that the Royal College of Surgeons had reappointed Mr. George A. Berry, M.B., F.R.C.S.E., and Dr. R. McKenzie Johnston, F.R.C.S.E., as representatives on the board of management.

EDINBURGH PARISH COUNCIL AND TEMPORARY MENTAL DISORDER.

At the last monthly meeting of the Edinburgh Parish Council the question of the treatment of temporary mental disorder in the Edinburgh Royal Infirmary was considered. As the result of negotiations carried on for some time between the two boards, an arrangement had been come to whereby cases of temporary mental disorder will be treated in the Royal Infirmary. The recommendations, which will form the basis of the arrangement between the council and the infirmary, set forth that the council shall be entitled to have not more than three patients in all at any one time in Ward 3 and the adjoining side rooms, provided there are enough beds vacant, but that beds shall not be kept vacant or reserved for parish council patients if required for other patients; that cases of acute mania shall not be sent in; that no case shall, unless under very exceptional circumstances, be retained for more than six weeks; that the managers of the infirmary shall not be held responsible for any patient escaping; that the arrangement shall be tentative for twelve months, and that either party may thereafter withdraw; and that the parish council shall pay at the rate of 3s. 6d. a day for each case treated. The arrangement begins on January 1st, 1910. Dr. William L. Martin has been appointed certifying physician in lunacy, with a remuneration of £100 a year.

CARNEGIE TRUST FOR THE UNIVERSITIES OF SCOTLAND.

The eighth annual report of the Carnegie Trust for the universities of Scotland was submitted to the

annual meeting of the Trust held in Edinburgh on December 20th, 1909.

In the laboratory of the Royal College of Physicians of Edinburgh, which in the department of medicine has taken a prominent share in the Trust's scheme of research, the record of work for the past year was very encouraging. The expenditure for 1908–9 upon the scheme of fellowships, scholarships and grants, and upon the laboratory was respectively £6,861 and £1,992; towards the latter the Royal College of Physicians and the Royal College of Surgeons together contributed £1,025.

Besides making contributions of £65 250 to buildings and permanent equipment and £20,500 to libraries, the Trust will at the close of the period of five years have increased the resources of teaching in the four university centres by permanent endowments amounting to £87,500, while it will at the same time have afforded during the five years an annual income of about £4,150 to meet ordinary expenditure.

The regulations for the payment of class fees in the universities and extramural colleges of Scotland remain unaltered. Statistics of the payment of class fees for the academic year 1908–9 give the total number of beneficiaries as 3,553, the total amount paid in fees as £47,070 18s., and the average amount in fees paid for beneficiaries as £13 4s. 11d., an increase, as compared with the preceding academic year, of 284 beneficiaries, of £3,814 16s. 6d. in the total expenditure, and of 3d. in the average amount per beneficiary. During the year the sum of £257 10s. 6d. was voluntarily refunded on behalf of eleven beneficiaries, for whom class fees had been paid by the Trust.

GLASGOW AND THE NOTIFICATION OF PHTHISIS.

The Local Government Board for Scotland has approved the order of the Corporation, as local authority under the Infectious Diseases (Notification) Act, dated December 2nd, 1909, to make tuberculosis of the lungs or tuberculous phthisis a notifiable disease. The order will be in force from January 1st, 1910, for a period of three years.

EXAMINATION OF NURSES BY THE LOCAL GOVERNMENT BOARD.

Last week the Local Government Board issued the result of an examination which was held in Glasgow on December 7th, 8th, and 9th, 1909, for the certification of trained sick nurses. Forty candidates presented themselves for examination, and all passed in one or more subjects; eleven completed the examination, and are entitled to the certificate of efficiency granted by the Local Government Board. The examiners were Dr. J. O. Affleck, Edinburgh; Dr. D. J. Mackintosh, Medical Superintendent, Western Infirmary, Glasgow; and Dr. W. J. Richard, Medical Officer to the Govan Poor House. They were assisted in the practical part by Miss Smith, Matron of the Western Infirmary, Glasgow; and Miss F. A. Merchant, Matron of the Eastern District Hospital, Glasgow.

THE SIDLAW SANATORIUM.

Notwithstanding the generous offer of Mr. J. K. Caird, Dundee, of £10,000 to the Directors of the Dundee Royal Infirmary to enable them to assume control of Sidlaw Sanatorium, the matter is not yet settled. At a conference held on December 23rd, 1909, between the directors of the infirmary and the trustees of the sanatorium, the latter suggested that an effort should be made to induce Mr. Caird to alter the terms of his gift to permit of the admission of male patients to the sanatorium, instead of restricting it to children and women; it was pointed out that if this were done the trustees would be prepared to consider the question of handing over the management of the sanatorium to the infirmary directors, and at the same time give the directors the proceeds of the endowments, subject to the right of nominating to certain beds.

The infirmary directors met on December 27th, 1909, and members of the medical staff present at the meeting expressed a unanimous opinion that the maintenance in the sanatorium of a number of beds for tuberculous children would be of immense advantage to the city. The directors subsequently agreed to submit to Mr. Caird a scheme to provide that twenty beds be set aside for children, and that the remaining twenty beds should be equally divided between men and women suffering from pulmonary consumption. With regard to the financial liability, it was reported that the estimated annual charge was £2,200. Of this amount the revenue from the Caird gift and the investments would yield £1,500, and it is hoped that the town council will contribute £500 a year, which would entitle it to nominate several patients. The sanatorium at present receives about £200 annually in private subscriptions, and the directors of the infirmary hope that these will be continued.

FACULTY OF PHYSICIANS AND SURGEONS, GLASGOW.

The King, through the Secretary for Scotland, has signified his pleasure that the word "Royal" be prefixed to the title of the Faculty of Physicians and Surgeons, Glasgow.

NOTIFICATION OF PHTHISIS.

At a meeting of the Deeside District Committee held recently at Aboyne, Mr. John Michie moved that the Infectious Diseases Notification Act, 1889, be extended to include pulmonary phthisis in the list of notifiable diseases under the said Act, and that such Order be permanent, and come into operation at the expiry of one week from the date of the publication of the resolution as approved by the Local Government Board. Mr. Joseph Farquharson seconded. Dr. Watt said different provision was required for early and advanced cases of tuberculosis. Local patients for years back had been going to the Aberdeen Royal Infirmary, that being practically the only hospital available for advanced cases. But all over the country hospitals were beginning to close their doors to advanced cases because of the expense, and because it was not considered wise to have too many advanced cases in the wards with other patients. The whole accommodation in the hospital at Aboyne was required for those suffering from other diseases. If there were no objection by the people at Braemar, and he saw no reason for such objection, the hospital there might be turned to good account by treating advanced cases of phthisis in it. It was quite possible they might be able to get a sanatorium for the county, and for adjoining counties, and the city of Aberdeen, by voluntary contributions and aid from local authorities and paying patients. The motion was agreed to.

Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

INSPECTOR OF ANATOMY.

IT is announced that the Chief Secretary for Ireland has appointed Sir William Thornley Stoker, M.D., F.R.C.S.I., to the post of Inspector of Schools of Anatomy in Ireland, rendered vacant by the death of the late Sir William Thomson, C.B., M.D. Sir Thornley Stoker is a Past President of the Royal College of Surgeons in Ireland. He is Surgeon to the Richmond Hospital and Government Inspector for Ireland under the Vivisection Act. At an earlier period of his career he was Professor of Anatomy in the College of Surgeons.

CUNNINGHAM MEMORIAL.

At a meeting of the Executive Committee held on December 20th, 1909, at which Dr. James Little, Regius Professor of Physic, presided, it was decided to ask Mr. Oliver Sheppard to prepare the designs for the medal and bronze panel. In obtaining Mr. Sheppard's services the committee is fortunate not only in securing an artist who has already given the School of Physic two beautiful works of art—the Bennett and the Banks medals—but has the satisfaction of entrusting the preparation of the portrait of

the late professor to one of his former pupils. A number of letters were read which had been received from members of the School of Medicine at Edinburgh dealing with the question of a proposed memorial to Professor Cunningham in the University of Edinburgh. The committee felt that the suggestion of establishing similar medals, to be awarded in anatomy, and of placing identical bronze portrait panels in the schools of the two universities, was one which would meet with the unqualified approval of the subscribers, and would help to maintain the strong link between the two universities forged by the life and work of Cunningham. The secretaries were instructed to write to Dr. George A. Gibson explaining the views of the Dublin Executive Committee, and expressing the hope that a joint scheme would be arrived at, meeting the wishes of both universities.

England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS*]

WEST YORKSHIRE.

THE SMELLS OF BRADFORD.

THE inhabitants of Bradford have a great deal to put up with. The city has been pitched in a somewhat bleak, wild portion of the West Riding, exposed to more than the usual vagaries of the British climate. It is the centre of large and varied industries, many of which pollute the earth, the sky, and the streams in the neighbourhood. Nature has not dealt kindly with the district, and man has not been more considerate. It is remarkable that the people as a race are so strong and healthy. It appears to be an example of the theory of the survival of the fittest, the weaklings dying off or fleeing from the district; the stronger remain, and, combating the powers of Nature and civilization, develop all those faculties for initiative and industrial energy for which the city is famous. The Corporation is endeavouring to limit the injurious effects produced on the inhabitants by the processes of industry, and it is possible that a few decades hence the water in the streams and the air breathed by the people of Bradford will be as pure and healthy as in any country district. The Bradford Corporation has recently brought an action in the Chancery Division against the Hillcrest Oil Company, Limited, asking for an injunction to restrain the defendants from allowing smells from their works to pollute the atmosphere. A large number of witnesses gave evidence, amongst others being Dr. Arnold Evans (M.O.H. for Bradford). The injunction was granted, and it is to be hoped that Dr. Evans will exert all his power and influence in this direction over the whole city. A particularly obnoxious class of smells is being produced by the Bradford Corporation itself at the sewage works at Bolton Woods at the present time; that they can be much diminished was apparent some eighteen months ago, when special pressure was put on the Sewage Committee in this direction. The Corporation ought to set a good example to the private industrial concerns and endeavour to abate this nuisance at the earliest possible moment.

BRADFORD ANTHRAX INVESTIGATION BOARD.

The annual meeting of this board was held at the offices of the Bradford Chamber of Commerce on December 20th. The appeal made a year ago for a continuation of subscriptions for a further period of three years has met with a most satisfactory response. During the year 787 samples of wool, hair, and dust were examined for the presence of anthrax germs. Of these 719 were bloodstained. Anthrax bacilli were cultivated from 23 samples, all of which were bloodstained. The board states "that from the experiments of the last two years it is satisfied that if care be taken to remove all bloodstained material in the sorting department little or no danger from anthrax exists in the subsequent processes." Unfortunately in some materials, such as Persian or other brown or grey wools, the clots of dried blood are not easily distinguishable, and some of them are combed unsorted. In some of these cases it will be difficult to ensure that all bloodstained material is thrown out. It appears that it has not yet been possible to obtain a germicide that will sterilize anthrax spores in the few moments during which it can be applied to the material in the process of manufacture. Experiments with the view of ascertaining whether anthrax can spread from infected bloodstained material in the bale have shown (1) that when the latter is dry no extension of the germ takes place; (2) when wet or damp extension takes place only into the immediate vicinity of the deposited germs; wool 1 cm. distant from the infected area escapes contamination. Great credit is due to the untiring energy of the board's bacteriologist, Dr. Eurich, for the invaluable work done in endeavouring to investigate the sources of this industrial disease.

MEDICAL STAFFS OF THE BRADFORD HOSPITALS.

Some time ago it was felt that it would be a good thing for the medical staffs of the charitable hospitals to meet at intervals and discuss matters affecting the hospitals and their own interests. A preliminary meeting was held a few weeks ago, and more recently the first meeting was held at the Bradford Royal Infirmary. There should undoubtedly be unity of purpose amongst all medical men giving their services to the medical charities, and this movement is a step in the right direction. Great credit is due to Dr. Bronner, who took the initiative in the matter. At a moment when the rebuilding of the infirmary and additions to the Royal Eye and Ear Hospital are being considered, and extensions of the Children's Hospital and the St. Catherine's Home for Cancer are proposed, it is very advisable to obtain co-ordination and prevent overlapping.

THE ASSOCIATION AND THE BRADFORD MEDICO-CHIRURGICAL SOCIETY.

A joint meeting of the Bradford Division of the British Medical Association and the Bradford Medico-Chirurgical Society was held at the Bradford Royal Infirmary on December 14th, 1909. The evening was devoted to the demonstration of clinical cases and pathological specimens. A large number of cases were shown, and the evening was very successful. It is a good thing to have these joint meetings, but it would probably be even better to have all the local medical meetings under one common denominator—the British Medical Association—as was proposed and strongly urged in Bradford some years ago.

MANCHESTER AND DISTRICT.

CLEAN SHAVING.

THERE is naturally a feeling of the greatest concern among hairdressers at the result of several recent actions at law in which hairdressers have been mulcted in damages for what is known as a "foul shave." Following closely on such actions at Hull and Huddersfield came an action in the Manchester Court of Record. In this case the plaintiff said that while being shaved at a Manchester hairdresser's he was slightly cut; the same evening "watery matter" came from the wound which caused him much uneasiness. Several days after a skin disease developed, and he went to Dr. Lancashire, who pronounced it to be impetigo contagiosa. Dr. Lancashire, in his evidence, said he had no doubt that the cause of the disease was the cut, which when he saw it was surrounded with a number of tiny blisters. The period of incubation, he said, was from twenty-four hours, or even less, to forty-eight hours, before the specific signs of the disease would be seen, and it would take from one to two days for matter to form. It was not sufficient merely to dip the razor into boiling water, it must be kept in actual boiling water for at least a minute, to get rid of the germs. Dipping in boiling

water followed by wiping dry, stropping, and again dipping in boiling water would make a razor quite safe. But the germ might not have been on the razor at all, for given a slight abrasion of the skin germs might be picked up from towels or sponges. Dr. Sankey, Police Surgeon, said that matter could not possibly flow from the wound an hour or two after it was caused, nor could the disease be spreading over the face and neck the following day. That would point to a previous inoculation. It was impossible that the disease should show itself within twenty-four hours of inoculation as was said. Dr. Wolstenholme, medical referee to the Salford Hairdressers' Association, said that if the disease was spreading on the Saturday it was impossible that it could have been contracted on the Friday afternoon. Impetigo could be got in numerous other ways besides shaving; a frayed collar, for instance, might be the cause, or plaintiff might have had the germs in him beforehand. In the circumstances it was impossible that he should have contracted the disease at defendant's saloon. The judge instructed the jury that for the plaintiff to be entitled to a verdict it was necessary to prove that "the illness had been caused by an act for which the defendant was responsible." The jury found for the plaintiff, and awarded £24 damages.

There appears to be a strong feeling among hairdressers that medical men are sometimes careless in expressing opinions in these cases, both as regards diagnosis and in attributing in an offhand way any skin disease on the face to the last shave. There have even been threats of legal actions against medical men for giving a wrong diagnosis, though the editor of the *Hairdressers' Chronicle* very sensibly remarks that such proceedings would be "more than fatuous, nothing short, in fact, of suicidal." It may be pointed out that exact diagnosis, though of course quite necessary for treatment, is not necessary legally—that is, that it makes no difference to the success of an action for damages whether the disease is true tinea sycosis, impetigo, or any other disease. The ruling of the judge was quite definite that "all that needs to be proved is that the illness was caused by an act for which the defendant was responsible." There are certainly some points about the Manchester case which make it very doubtful whether the verdict was correct. Juries are far too prone in actions for damages to confuse *post hoc* with *propter hoc*. The improvement in hairdressers' saloons in Manchester has been very marked of late years, and there is undoubtedly an attempt to exercise sanitary and antiseptic precautions. Medical referees are appointed by trade associations in various towns, and lectures are given to hairdressers by medical men. Dr. Wolstenholme recently gave a lecture, open to the whole trade, dealing with the anatomy of the skin, the structure of the hair, the various diseases which may come under the notice of hairdressers, and the precautions that they should take. Referring to the relation of the trade to the medical profession, he said it would be a great pity if the Hairdressers' Association were to think of entering an action against a medical man who honestly gave his opinion to his patient. It would be quite right to call on him to prove his statement if he asserted that a man got a skin disease at a certain barber's, and he thought that medical men, when such cases came before them, ought not to say anything which might point to the liability of any particular hairdresser.

The Joint Matriculation Board.

The Joint Board of the universities of Manchester, Liverpool, Leeds, and Sheffield, which conducts the matriculation examination, has just issued its annual report, which shows that the number of candidates at the ordinary matriculation examination has fallen from 2,214 to 1,953, though the number of those who satisfied the examiners has risen from 960 to 1,067. The fall in the number of candidates thus appears to have been among those whose attainments were below the standard set by the board. The number of candidates already holding matriculation certificates who presented themselves for supplementary certificates at the higher standard has risen from 17 to 112. The number of exemptions granted to students holding certificates of other bodies has risen from 142 to 256. The board has arranged with the University of London under certain specified conditions for the mutual acceptance of certificates and also for the mutual acceptance of school certificates of the Oxford and Cambridge Schools Examination Board. The board has conducted the examinations for the award of scholarships by the education committees of Lancashire, Cheshire, the North and West Ridings of Yorkshire, Manchester, Salford, Liverpool, Leeds, Southport, and Blackpool, and also for the entrance examinations in some universities. The most important action of the board during the year has been in connexion with its scheme for the inspection and examination of schools. This has been carried out more fully during the year, and promises to become very successful.

LIVERPOOL.

Proposed Presentation to Sir James Barr.

A movement is on foot to make a presentation to Sir James Barr, who has recently completed his term of office as physician to the Royal Infirmary, to which he was appointed in 1897. Before that date he was successively physician to the Stanley Hospital and physician to the Northern Hospital. The presentation will take the form of a portrait to be painted by Mr. Hall Neale, and a dinner given to Sir James and Lady Barr, to which ladies will be invited. The presentation committee includes representatives of the various institutions with which Sir James has been connected, and it is expected that the movement will be widely supported.

The Royal Infirmary.

Dr. R. J. M. Buchanan, who has been assistant physician to the infirmary for more than eight years, has been elected physician in succession to Sir James Barr. Dr. Buchanan was a distinguished student of the Liverpool School, and was recently elected Professor of Medical Jurisprudence at the University.

NEWCASTLE-UPON-TYNE.

Professor Page.

Old students of the University of Durham College of Medicine will receive with regret the announcement of the retirement of Professor Page from the chair of surgery. For many years his name has been associated with the teaching of surgery in the infirmary and College of Medicine. A dexterous operator and an able exponent of the principles and practice of surgery, the kindly feelings of students and friends will accompany him into his wished-for leisure, with the hope that he may have many years to enjoy it.

The Clinical Society.

The tickets for the banquet of the Newcastle-upon-Tyne Clinical Society on January 13th are being taken up with great readiness. All who wish to be present should at once apply to the honorary treasurer, Dr. Wells Patterson, Ellison Place. In addition to Sir Halliday Croom other distinguished guests are expected. An interesting and pleasant evening is being looked forward to under the presidency of Mr. Joseph Leech. The dinner will be held in the King's Hall of the Armstrong College.

The College of Medicine.

On February 3rd the dinner of the past and present students of the University of Durham College of Medicine will be held in the large hall of the College of Medicine. Dr. W. C. Beatley will be in the chair. The Duke of Northumberland, the Earl of Durham, and the Lord Bishop of Newcastle have accepted invitations to be present. Tickets can be had from the honorary secretary, Mr. W. T. Hunter, College of Medicine.

By the new charter granted to the University of Durham the senate of the university has been considerably enlarged. Among those added are the names of several well-known laymen. The College of Medicine, in addition to Sir George Hare Philipson, gains by the addition of Dr. Drummond and Professor Horder.

LONDON.

PAYMENT FOR TREATMENT OF SCHOOL CHILDREN.

THE Education Committee of the London County Council on December 22nd approved a scale of charges to parents who can afford to pay for the medical treatment of their children. A subcommittee which had charge of the matter reported that the Council was not entitled to totalize the whole of its payments for medical treatment and divide the cost equally between the number of children treated, but that the charge made to the parent should represent as nearly as possible the actual cost of the treatment of the individual child. The payments to be made to the eight hospitals with which the Council had made arrangements on a financial basis varied in respect of each hospital and also in respect of each ailment treated. It would be undesirable to differentiate in the charges at the hospitals, but it would be possible to vary the charges to be made in respect of each ailment. It was calculated that the average cost of the eye cases would be approximately 4s., and of the ear cases 5s. The cost of ringworm treatment was not known with any certainty, and the subcommittee had not considered this for the present. The average number of attendances in eye and ear cases might be taken at three. On this basis the cost for each attendance would be 1s. 4d. and 1s. 8d. respectively. This might be taken as the nearest approach to the actual cost at which it was possible to arrive. Each case should be considered on its merits, and the parents charged with such a proportion as they might reasonably be expected to pay. The care committees, which under the scheme for feeding necessitous children had a great deal of information as to parents' means in its possession, should decide in each case. The subcommittee felt that some standard should be adopted to prevent wide variation in different districts. It advised that a family of two parents and four children, having a net income of 17s. 6d., after payment of regular outgoings, or a family still worse off, should not be charged anything for medical treatment, and that those better off by reason of their having smaller families or a larger income, should be charged upon an ascending scale. The proposal met with little opposition, though the minority on the committee who support school clinics not unnaturally took the opportunity of pointing out that if that system had been adopted, much of the difficulty of fixing a scale for repayment and travelling expenses would have been avoided.

WALES.

THE EPIDEMIC OF MEASLES.

AT a meeting of the Bedwellty District Council, held on December 20th, 1909, Dr. R. T. E. Davies, J.P., presiding, the medical officer of health (Dr. H. T. Evans) reported that in conseqence of the outbreak of measles in the Rhymney Valley he advised the closing of the elementary schools there on November 12th, but that although the epidemic had been serious, and in many instances fatal, to children under 5 years of age, it had not been so bad as some of the press reports indicated. It was not correct to state that thirty lives were lost through the epidemic. Unfortunately four deaths had occurred in one family, but all were due to bronchopneumonia. The number of deaths caused by measles and its complications at Aberbargoed, where the outbreak was most severe from October 1st to December 18th, was fourteen. He did not consider that the schools were the source of infection, nor did he think that the closure of the schools had had the slightest influence in diminishing the incidence of the disease. School closure might be of advantage in rural districts where the schools were the only common point where children met, but in districts like Aberbargoed, with its long streets, densely populated, overcrowding of small houses on small areas, and overcrowding of people in small houses, where isolation was impossible at home, the opportunities of contracting the disease were not far to seek, even though the schools were closed. In the discussion that followed, Dr. Evans said that of the fourteen deaths at Aberbargoed only one of the children attended school.

New South Wales.

[FROM OUR SPECIAL CORRESPONDENT.]

CLINICAL SCHOOL AT THE SYDNEY HOSPITAL.

NEGOTIATIONS have been in progress for some time between the Senate of the Sydney University and the directors of the Sydney Hospital with a view to the utilization of the hospital as a clinical school. Since the opening of the Sydney Medical School the students have done practically all their clinical work at the Royal Prince Alfred Hospital, but the increasing number of students has rendered it advisable that the Sydney Hospital should also be used for teaching purposes. The clinical school at the Sydney Hospital was accordingly officially opened last month by the chairman of the board of directors, Mr. John Pope, in the presence of a large number of students and subscribers and nurses.

Dr. Fiaschi, the Chairman of the Sydney Hospital Board of Medical Studies, in the course of an interesting address, said that it was ninety-eight years since Governor Macquarie laid the foundation stone of the Sydney Infirmary, and it bore that name for many years. It was incorporated as the Sydney Hospital in 1881, and the site on which the original building was erected was the same as that of the present building. The line of work had been consistently the same during all these years—namely, the relief of the sick poor, the education of medical students, and the training of nurses. From a very early period of its history the hospital had made provision for the training of medical students, and students were enrolled so far back as the Fifties. Dr. James Cox, who was present that day, was one of the first students of the hospital, and he was one of the four who subsequently went to Great Britain and graduated there. Chloroform was used for the first time in Australia in the Sydney Hospital, and many important operations and new methods of treatment had been first tried in Australia in the wards of that institution. After thirty years the training of students in the hospital ceased, because the establishment of the Royal Prince Alfred Hospital, in close proximity to the Sydney Medical School, afforded the students better opportunities for clinical work. When the infirmary was first established in 1811 the total population of the colony was 11,875, and the population of Sydney was 4,895, but the discovery of gold and the consequent influx of population in the Fifties contributed to its prosperity; a critical period in the history of the hospital occurred in the Eighties, for it was proposed at that time that the site upon which the hospital stood should be resumed by the Government and put to other uses. This proposal was over-ruled, and the present building was commenced in 1890, though the last portion of it had only been completed in 1907. In the number of beds and the accommodation for in-patients the Sydney Hospital was second only to that of Melbourne, but in the total number of patients it was far ahead of any other hospital in Australia. The hospital was a magnificent institution for the instruction of students, and that the time was ripe for it to become one was evidenced by the fact that twenty students had already entered for their clinical course.

Professor Anderson Stuart, Dean of the Faculty of Medicine in the Sydney University, replied on behalf

of the university, and congratulated the hospital on the step taken. It was a very good thing for the hospital to come into connexion with the university, as it stimulated work there. The Sydney Medical School was already beginning to be recognized as one of the important schools in the empire, not only in point of number of students, but in the character of its graduates. He thought that St. Vincent's Hospital might also before long become one of those in which students might receive their clinical training.

Votes of thanks to Dr. Fiaschi for his address, to Professor Stuart, and the President of the Board of Directors, brought the proceedings to a close.

DISTRICT NURSING ASSOCIATION.

The report presented to the eighth annual meeting of the District Nursing Association, held under the presidency of Mr. W. P. Faithfull, stated that six fully trained nurses had been at work in the city and suburbs during the past year. Dr. Camac Wilkinson, who had been president of the executive committee for the past eight years, had resigned on going to England, and Dr. C. P. B. Clubbe had been elected in his place. The home account was over £500 in debt at the time of the last annual meeting, but this sum was reduced by some legacies, and the debt had been finally extinguished on New Year's Day by a cheque for £500 from Mr. T. A. Dibbs. The value of the association's work in some districts was acknowledged by those districts paying the cost of a nurse each. The honorary treasurer's report showed that the receipts had been £1,372 15s. 2d., the total expenditure £836 17s. 3d., and that there was £1,042 in hand to carry on work during the coming year. The home at Darlinghurst, valued at £1,390, was free of debt.

HOSPITALS FOR THE INSANE.

Owing to the overcrowded state of the hospitals for the insane in this State, some additional accommoda is urgently required, and it is proposed to establish two new hospitals in different parts of the country. At the inquiry into this matter by the Public Works Committee of the Legislative Assembly, Dr. Sinclair, the Inspector-General of the Insane, stated that the number of insane patients in the hospitals for the insane on October 31st, 1909, was 5,599, of whom 3,400 were males and 2,199 were females. There was adequate accommodation for only 3,083 males and 1,972 females, so that the accommodation was short of the amount required by 544 beds. Buildings in the form of additions to the institutions at Parramatta and Kenmore, which were contemplated or in course of erection, would provide 137 additional beds, leaving an excess of patients over the accommodation of 407, even if no further addition of patients occurred; but as the asylum population was increasing every year, it would be necessary to make provision for that increase. The average annual increase for the past ten years was 160; at the end of 1908 the proportion of insane persons to the population was 1 to 281, and it was expected that as the population increased the number of insane would maintain this rate quite apart from any increase in insanity in the community. Amongst the causes which tended to raise the ratio of insane persons under official cognizance were the greater confidence shown in the institutions, and the consequent sending of patients earlier for treatment; the growing disinclination of families to care for their helpless and infirm members themselves, and the general objection to permitting persons with peculiar or eccentric habits to be at large in the community—a tendency which had markedly increased in recent years. There would always be acute and curable cases, unrecovered violent and troublesome cases, feeble, helpless, sick, and a residuum of able-bodied industrious but insane patients. The proposed new hospital at Morisset, on the shores of Lake Macquarie, was designed to receive the quieter, industrious patients, while the proposed hospital at Orange would receive and treat acute cases in a mental hospital, and would have wards suitable for the more troublesome and difficult of unrecovered patients, as well as for the feeble and sick. These two new hospitals would be erected ward by ward, as necessity for additional accommodation arose, and would together be able to deal with all classes of patients, which either alone would be incapable of doing.

THE FISHER LIBRARY, UNIVERSITY OF SYDNEY.

The Fisher Library within the University of Sydney has been completed at a cost of £72,000 after seven years of continuous work. Building operations were commenced on January 23rd, 1902. The basement is of hard stone, and the upper portions are of the best Pyrmont freestone. The designing and construction of the roof itself were matters of great consideration. To adopt fan-traceried stone groining was out of the question, on the ground of expense; but the hammer-beam roof was adopted in its place, constructed of the fast disappearing cedar of the east coast of Australia. The roof timbers of the Great Hall of the university, built in 1860, are constructed of cedar to a limited extent, probably, as Mr. Vernon, the Government architect, says, owing to the fact that fifty years ago facilities did not exist for obtaining logs of sufficient dimensions; and now, fifty years later, although the facilities exist, the supply is all but exhausted. But every part of the Fisher Library roof, which cost approximately £9,000 to place in position, is of solid cedar. It was obtained from the almost inaccessible gullies of the far northern ranges of Queensland. The type of roof adopted is that of Westminster Hall, and the Fisher Library stands second only in span to that of Westminster. The reading-room itself is a spacious apartment, and immediately adjoining it is the fire-proof book stack, seven stories in height, entirely in steel, with glass and marble floor and ceilings, all of local manufacture, and designed to contain 240,000 volumes. The ground floor beneath the reading-room contains the spacious museum intended for the housing of the Nicholson collection, while in the basement there is a refectory and common room for students. It is interesting to note that this library is named "Fisher" after the generous donor of some £25,000 for the purpose of founding a library. Mr. Fisher is said to have been a bootmaker in Sydney, but history does not record how he amassed his fortune. The balance of the money required to complete the building was provided by the Government.

Special Correspondence.

PARIS.

Death of Professor Brissaud: M. Arloing on Vaccination against Bovine Tuberculosis: Inauguration of Monument to Péan.

THE medical profession in France has suffered a serious loss by the death, on December 19th, 1909, at the age of 57 years, of Dr. Edouard Brissaud, Professor of Internal Pathology. His health had not been good for the last twelve months, but suddenly, a month ago, he was seized with violent pain in the head. Sir Victor Horsley, who came to Paris, agreed with his French colleagues, and performed an operation *in extremis*. Edouard Brissaud was born at Besançon, and studied medicine in Paris. He became interne of the hospitals in 1875; in 1878 he was *préparateur* in Charcot's Laboratory of Pathological Anatomy; he became *médecin des hôpitaux* in 1884, and *professeur agrégé* in 1886. At that date he began to lecture, and during the vacations took Charcot's place in the Clinical Chair of Nervous Diseases at the Salpêtrière. At Charcot's death he provisionally filled the chair (1893–4). In 1899 he was appointed Professor of the History of Medicine, and in 1900 he became Professor of Internal Pathology. Although he was best known for his work in neuropathology, he nevertheless did good work in all branches of medicine. In 1893 he founded, with Pierre Marie, *La Revue Neurologique*. He was the promoter of the large *Traité de Médecine* (Charcot-Bouchard-Brissaud), of which the second edition in ten volumes appeared 1888–1905. Professor Brissaud was a member of the

Académie de Médecine and of numerous scientific societies in France and abroad. The funeral took place on December 23rd, 1909, and was largely attended. By the expressed wish of the deceased, there were no flowers or orations.

At a recent meeting of the Académie des Sciences M. Arloing made an interesting communication on the result of the series of vaccinations against tubercle in cattle which he has carried out since 1902. The vaccines employed were fixed varieties of human and bovine bacilli; these varieties, not causing any appreciable lesions, were powerless to cause any harm to the animals vaccinated, and were without danger to the operator. The immunity thus artificially created was tested by inoculations of extremely virulent bovine bacilli; the experiments were controlled by similar injections given to non-vaccinated animals, both series being finally slaughtered and subjected to minute *post-mortem* examination. M. Arloing obtained the following results on 60 vaccinated animals and 30 control animals:

Vaccinated Animals.	Per cent.	*Control Animals.*	Per cent.
Complete success ...	50	No infection	9.2
Relative success	25	Partial infection ...	27.2
Failures	25	Complete infection ...	63.6

Measuring the degree of infection in the failures and the partial infections, the lesions appeared six times more serious in the control than in the vaccinated animals. Intravenous vaccination gave the best results—75 per cent. of successes; vaccination by ingestion gave 50 per cent. successful results; while the subcutaneous method gave 10 per cent. of entirely successful and 73 per cent. of partially successful results. M. Arloing concluded by saying that the experiments justified the use of vaccination, associated with the usual prophylactic measures, to diminish the ravages caused by bovine tuberculosis.

The statue which has been erected to the memory of Dr. Péan, the celebrated surgeon, was unveiled by M. Fallières, the President of the French Republic, on December 16th, 1909. The monument is placed on the Boulevard du Port Royal, opposite the entrance to the Rue de la Santé, in which street is the Hôpital International, which Péan founded and where he used to operate. After the unveiling of the statue, the company went on to the amphitheatre of the hospital, where speeches were made, Professor Pozzi handing over the gift to the City of Paris. A demonstration was made by Royalist students, *les Camelots du Roi*, and many of them were arrested.

Correspondence.

THE BRITISH MEDICAL BENEVOLENT FUND AND GUILD.

SIR,—The tragic fate of Dr. Wells of St. Mary's Hospital, whose death last October at the age of 30 years was caused by contracting glanders in the exercise of his duties, aroused the sympathy of the public, and has drawn attention to the dangers to which all medical men are exposed in the pursuit of their profession. Accident or disease may cut short the career of a medical man, or other adverse circumstances may prevent him from making any provision for old age, so that he himself and those dependent upon him may be left in actual want, and even encumbered with debt. Speaking at a meeting in support of the fund held at the Royal College of Physicians in February last, the Bishop of Oxford said: "I do not think there is any profession in which a man is compelled, without any choice of his own, without any chance of escape, to run so great a risk of inevitable impoverishment for himself and for his family. He really risks his all upon his health. To meet such contingencies the British Medical Benevolent Fund was instituted in the year 1836 (1) to make grants of money to distressed members of the medical profession, their widows or orphans; and (2) to provide annuities for such after they have reached the age of 60 years. During these 73 years the Fund has expended £70,000 in grants, and rather more than this sum in annuities. At the present time the Fund is supporting 126 annuitants who receive from £20 to £26 a year each, and in addition makes grants to others not yet eligible for annuities, spending in this way an aggregate of nearly £5,000 a year, the working expenses being under 6 per cent.. Yet the demands upon the Fund far exceed its resources, and much-needed help has frequently to be denied to applicants approved by the committee.

A Woman's Guild has recently been established in connexion with the Fund to supplement the money grants of the Fund by gifts of clothing and coals and other additional comforts, and, by personal service, to add a warmer touch of human sympathy.

At the meeting above referred to, the Lord Mayor of London, after drawing attention to the economic value of the services of the profession to the State and to the community, whether in general practice or in hospitals or in the departments of public health and preventive medicine, asked: "What has the State and what has the public done in return?" "I think very little," he added; "and it appears to me that the public requires calling to its duties in this respect."

The Fund gives money which has hitherto been mainly supplied by the profession itself; the Guild will give money's worth. For Fund and Guild alike increased support is needed, and in behalf of both we plead, and fain would trust that the public will not fail to recognize its obligation to the medical profession by a liberal response to the appeal which we now make.

Subscriptions and donations for the Fund may be sent to the Treasurer of the Fund, 15, Wimpole Street; and for the Guild to the Secretary of the Guild, 100, Harley Street, by both of whom further information will gladly be supplied.—We are, etc.,

For the guild:
ADELINE M. BEDFORD.
KATHERINE WESTMINSTER.
E. BROADBENT.
MAY THORNE.

For the fund:
R. DOUGLAS POWELL.
HENRY T. BUTLIN.
WILLIAM S. CHURCH.
THOMAS BARLOW.
JOHN TWEEDY.
SAMUEL WEST.

December 28th, 1909.

RESEARCH DEFENCE SOCIETY.

SIR,—In view of the General Election, we desire to call the attention of all Parliamentary candidates to the work of the Research Defence Society. It was founded in January, 1908, to make generally known the facts as to experiments on animals in this country, and the regulations under which they are conducted; the immense importance of such experiments to the welfare of mankind, and the great saving of human life and health which is already due to them. We hope that all candidates for Parliament, who may desire to acquaint themselves with these facts, will communicate with the Honorary Secretary, Research Defence Society, 70, Harley Street, W. He will be happy to supply them with literature, and to answer all inquiries.

We would also remind them that the Royal Commission, though it has published all the evidence, has not yet published its final report and recommendations to Government; and we hope that those candidates who may be unable, at present, to declare themselves in sympathy with our society, will at least preserve an open mind, till the report has been published.—We are, etc.,

CROMER,
President.
SYDNEY HOLLAND,
Chairman of Committee.
F. M. SANDWITH,
Honorary Treasurer.
STEPHEN PAGET,
Honorary Secretary.

London, W., Dec. 26th.

PRISON DOCTORS AND THE HOME OFFICE.

SIR,—I do not suppose many members of the Association will be deceived by the terms of Dr. Donkin's letter, which purports to be a correction of your leading article of December 18th, 1909.

Some, however, may not be aware that a disgraceful attempt is being made by the Home Office, from the Home Secretary down to Dr. Donkin, to put the responsibility of this repulsive treatment of political prisoners on to the shoulders of the medical profession. It is useless for Dr. Donkin to repeat the attempts he has been making in

the *Times* to maintain this imposition, for, as you indicate, the whole status of the Home Office was clearly and frankly related by the Under Secretary, Mr. Masterman, in the House of Commons, and is recorded in *Hansard* (q.v).

Dr. Donkin's suggestion that the responsibility of forcibly feeding suffragettes by the nasal method rests on the medical officers of prisons is as incorrect as the judge's suggestion (in his question to me) that the doctor did it to "save the prisoner's life"!

As may be seen by reading between the lines of Dr. Donkin's letter, this treatment of his political opponents was ordered by the Home Secretary and no one else, though we understand from Mr. Masterman's statement in the House that Mr. Gladstone's action received the concurrence of the Prison Commissioners, one of whom is Dr. Donkin. In his final sentence he alleges that his junior colleagues, the prison officers, who he amiably holds up to the public as the ingenious executioners of this practice, "always act, in the not very infrequent cases of forcible feeding, without any reference to superior authorities, and merely record the event in their journals." This, Sir, coming from one who admits he was present in court during the trial, Leigh *v.* the Home Secretary and others, is a deliberate distortion of the facts as bearing on the issue, namely, the forcible nasal feeding of suffragettes.

So far from these cases being "not infrequent," the Birmingham officer, who had also had an extensive experience of prison service in Wormwood Scrubbs, could only recall one case in which he had done it for some time, namely, the case of a "powerful foreigner," a criminal. As Dr. Donkin did not enter the witness-box he was not called upon to justify his assertion, which, though considered by him to be good enough for our JOURNAL, has the grave demerit of not being a fact. Precisely the same flat contradiction must be applied to his statement that the prison officers carry out this "treatment," as the court termed it, "without any reference to superior authority."

Dr. Donkin must have heard the Birmingham officer swear the exact opposite in court. That the local prison officials were in constant direct reference to the Home Office was also sworn to by the governor of the prison, as well as admitted by Mr. Masterman last September.

Dr. Donkin, unfortunately, is not the first medical official who has disloyally helped to thrust on his profession, and on its work, the odium which happens to follow an act of a responsible Minister.

We may always rely on our JOURNAL to repel such base attacks from within, but the case of Leigh *v.* the Home Secretary contains more questions than those discussed in your leader, and the profession will have to consider, among others, under what circumstances they will, at the bidding of a Minister, perform operations upon prisoners who refuse to undergo the same.—I am, etc.,

London, W., Dec. 25th, 1909. VICTOR HORSLEY.

FORCIBLE FEEDING.

SIR,—I was continually present at the feeding of the suffragettes in Birmingham Prison, and think it right to reply to Dr. Kirby's letter in your last issue.

As forcible feeding has been employed for years past, under various circumstances, is it not surprising that any medical man should stigmatize it as "cowardly and disgusting," even if it is to a self-starving suffragette that it is applied? The fact that good and attractive food was continually offered to them seems to be lost sight of. I am chiefly concerned, however, with Dr. Kirby's "few facts."

Most of the weight lost by Miss Laura Ainsworth was lost during her period of total starvation in the first few days of her imprisonment, and the whole of it was due to her persistent refusal of food. Her voice was not more "weak and husky" when she left the prison than it was when I saw her before forcible feeding was commenced.

"The doctors failing in their attempt to *force* the tube through" implies a charge which is not justifiable. No force whatever was used. As soon as the obstruction was found the attempt was abandoned. She was fed on four, not seven, occasions by the oesophageal tube, the last being seven days before her release, and during those seven days she made no complaint or suggestion of sore throat. As no trouble was ever experienced in the actual passing of the tube, there is no reason why any sore throat should have been produced by it. Although Miss Ainsworth has stated elsewhere that she did mention to me, the evening before her discharge, that her throat was sore, this is contrary to my recollection. Had she so complained in my hearing I would certainly have investigated the matter. Taking, however, Miss Ainsworth's own statement, the soreness of the throat was only mentioned on this one occasion, six days after the last passing of the tube. Yet Dr. Kirby describes her condition floridly as suffering from pharyngitis due to the "irritation of the tube."

Dr. Kirby states that Miss Hilda Burkitt was very weak when she left the prison. She certainly was very weak after her second hunger strike, but was nursed back to strength (her diet then consisting of fish, chicken, beef-tea, etc.) with such good effect that she told us before leaving the prison that she used to amuse herself by waltzing round the small ward, which has a polished floor, where she was located alone. She also said she felt fit to tackle ten policemen, but this may possibly have been an exaggeration.

Dr. Kirby believes Mrs. Leigh's vomiting was due to the irritation of the pharynx by the nasal tube. Had this been so it would have occurred immediately. As a fact, it never happened until ten minutes after the feeding and frequently was delayed for half an hour. Surely pharyngeal irritation is the least likely explanation of this and is also the least likely explanation of the stomatitis which he found at the back of a carious incisor tooth! Although vomiting did not occur until late in her imprisonment, Dr. Helby recorded, on the fourth day after her reception, that he feared this complication in her particular case. Of the nine suffragettes, Mrs. Leigh was the only one released on medical grounds. So far from being in the desperate condition on her release that one would infer from Dr. Kirby's description, Mrs. Leigh dressed herself rapidly, walked briskly a distance of about 130 yards to the prison gate, where she gave some final trouble, standing and arguing with the officials before entering the cab which was waiting to take her to her friends.

Dr. Kirby says Miss Selina Martin was suffering from dyspepsia aggravated by her imprisonment. She made no complaint of having dyspepsia while she was in prison, nor was any indication of this discovered at any time by Dr. Helby or myself, nor did the consulting surgeon who examined her the day before her discharge do so. She may have had dyspepsia after her release; in fact, this could only be expected if the return to normal diet, in one who had taken no food for six weeks except through a tube, were not judiciously graduated. In this case also Dr. Kirby states he found a "considerable abrasion" of the mucous membrane of the nose. It seems very unlikely that a "considerable abrasion" could be produced without drawing some blood. Not a drop of blood was drawn at any time, nor did the patient ever give any indication of having pain. Indeed on several occasions she passed the tube herself, and always said she felt very well.

I am glad to observe that these ladies "all agreed that the treatment had been as careful and humane as possible." I am pleased to hear at last a public acknowledgement of this from that side, as I was daily impressed with Dr. Helby's patience with prisoners whose obstructive methods were certainly very trying.

Referring to Dr. Kirby's recommendations: Feeding by tube was, of course, only resorted to when, owing to the resistance of the patient, feeding by means of a cup was found impossible. In any case, cup-feeding is the most exhausting form to a determinedly obstructing patient.

It is noteworthy that each of these ladies immediately prior to her release expressed her intention of resuming "militant" political action. None of them, apparently, had any intention of entering a nursing home. I agree with Dr. Kirby that they have shown remarkable courage, but am afraid that his sympathies have somewhat obscured his judgement and led him to discover ailments of which the patients themselves were apparently unconscious.—I am, etc.,

WILLIAM CASSELS, M.B., C.M.

Birmingham, Dec. 28th, 1909.

PROPOSED LEGISLATION ON ANAESTHETICS.

SIR,—As Dr. Joyce points out clearly in the JOURNAL of December 18th, 1909, p. 1782, the hands of the general practitioner are to be further tied by another clumsy piece of

legislation evolved by the General Medical Council, and much needless suffering will thereby be inflicted on parturient women if practitioners are to be forbidden to give a whiff of chloroform when exhausted Nature can bear no more.

The poor positively cannot pay the extra fee required if another man must be called in to administer an anaesthetic, for the yearly increasing number of women who for lack of means employ midwives shows that the poor take a risk to save their pockets.

What is the meaning of "due provision being made for cases of emergency"? Does this mean that one must carry an electric battery, a cylinder of oxygen, and a lot of other appliances for cases of emergency? Or does it mean that the State is at last realizing its responsibilities towards the nation's poor and is about to make provision for their being attended under a more intelligent and humane system than the present condemned Poor Law system?

Further, there still remain among my own patients 10 per cent. who, having some sense of shame, do not take their males to hospitals for circumcision. These little operations I have done generally alone, and at a less fee than I would have the hardihood to offer to an anaesthetist; thus I have saved a remnant from becoming paupers, and also taken my legitimate earnings. It now means 100 per cent. instead of only 90 per cent. paupers, and the statistics of the Howard Association in Scotland this year show how pauperism and crime march hand in hand.

With the Midwives Bill still unsettled it is surely evident that general practitioners must formulate measures themselves which are ultimately to bear on their own future conduct.

If the members of this Association only knew their power, and realized what an efficient instrument they have in their hands for putting their wishes into execution, they would not tolerate this vicarious legislation for a day longer. The slight influence of five direct representatives against twenty-nine men, who have shown that they cannot in the remotest degree appreciate the position of the general practitioner, has shown the present system to be a total failure.—I am, etc.,

London, S.W., Dec. 23rd, 1909. JOHN FLETCHER.

INDICATIONS FOR IMMEDIATELY OPENING THE ABDOMEN IN ACUTE CASES.

SIR,—Mr. W. G. Spencer, in the course of his paper on this subject published in the BRITISH MEDICAL JOURNAL of December 25th, 1909, makes some instructive and pertinent remarks, but I cannot pass without criticism his views on appendicitis. Mr. Spencer's definition of this disease appears to me to be too limited and to be fundamentally wrong in including only those cases in which the peritoneum is involved. In defining appendicitis he maintains that no symptoms show themselves until the peritoneal coat of the appendix is reached, so that the *symptoms* of appendicitis are those of infective peritonitis. This view is certainly not accepted by many eminent physicians and surgeons, some of whom regard the term "appendicitis" as including any inflammatory pathological condition in the appendix, even though this can only be determined by microscopic examination.

Mr. Spencer is evidently an enthusiast in the school of early operators, and scoffs at the idea of medical treatment for appendicitis. Many have, however, never been able to accept the view that immediate operation is called for in every case. In the first place, by this early operation some cases are almost sure to be operated on unnecessarily; and is operation under such circumstances justifiable or sound surgery? In the second place, operation during the acute stage is not without risk, and the patient may be caused unnecessary suffering if his life is not actually endangered.

Those who advocate expectant measures in appendicitis admit that certain cases require prompt surgical treatment. For instance, no one will deny that early operation is the only safe course in fulminating cases, or in cases of appendicitis with perforation, gangrene, etc. A large number of cases, however, will recover under expectant treatment, and then the question of removal of the appendix in the quiescent interval can be discussed. Operation at this period is practically without danger, and the mortality is almost *nil*. Mr. Spencer gives the mortality-rate of early operation cases as less than 5 per cent., presumably between 4 and 5 per cent. Unless the advocates of early operation can produce more flattering figures, they need not be surprised if their statistics are made use of in arguing against early surgical interference.

While I view the subject differently from Mr. Spencer in many ways, there is one important point, at any rate, in which I am in cordial agreement with him, and that is his insistence on the greater urgency for operation in children.

Speaking of hernia cases, Mr. Spencer points out that occasional vomiting should not be too lightly regarded—a statement which I can heartily endorse. I remember the case of a woman who sent for her medical attendant because of sickness and vomiting. The doctor was very busy and merely sent her a bismuth and soda mixture. When he saw her next day he found a strangulated inguinal hernia, and he at once made arrangements for having her surgically treated.

In adding my testimony to Mr. Spencer's remarks regarding abdominal injuries, I may say that there may be severe internal injuries without any marked symptoms. A cart wheel may pass over a man's abdomen, and there may be no external marks, there may be no marked pain or tenderness, and there may be little shock. Yet these cases must be most carefully watched. I can recall the case of a man who actually met with this accident, but who was able to walk into the out-patient room of a hospital. Though there was apparently little the matter with him he was detained. About one and a half hours later he developed serious symptoms, and died within half an hour. A *post-mortem* examination was not permitted, so that it could only be assumed that there had been severe injury to one or more of the abdominal viscera.—I am, etc.,

Edinburgh, Dec. 25th, 1909. J. ALLAN.

THE PHYSICAL SIGNS OF INCIPIENT PULMONARY TUBERCULOSIS.

SIR,—Dr. D. B. Lees, in his paper in the JOURNAL of December 11th, 1909 (p. 1659), has done a useful service in insisting once again on the value of the distribution of the lesions in the diagnosis of phthisis. There is, however, a pitfall of which he gave no warning, and into which his paper may well lead the unwary. Dr. Lees directs attention to "Dullness and lessened air entry at the four apices" of the lungs (that is, the apices of the upper and lower lobes) as a sign of incipient pulmonary tuberculosis, implying that at the earliest stages signs may be found in *both* intrascapular regions. Now it is easy to determine impairment on *one* side (and this is, in my experience, the common find in a fairly early case) by a comparison with the other, but if the percussor travels down each side of the back in the intrascapular region he will find a distinct area of impairment in the healthy extending for about three fingerbreadths from the scapular spine downwards. This is due to the two rhomboid muscles as they cross from the vertebrae to the scapular border, and in a muscular subject the percussion note may be greatly changed. These dull areas in the healthy correspond fairly closely with the common locality of tuberculous deposit in this region, and may readily be taken by a student of Dr. Lees's paper for a double tuberculous lesion confirmatory of some doubtful signs discovered at the apices of the lungs. The likelihood of such a mistake has prompted the present letter; in my own experience the signs appear at the points of election in phthisis in a more gradual sequence than Dr. Lees's paper suggests, and I have not had the good fortune to find them at four separate centres at a really early stage.—I am, etc.,

London, W., Dec. 19th, 1909. CLIVE RIVIERE.

A NATURAL EXPERIMENT IN CARDIAC STRAIN.

SIR,—Dr. Clive Riviere and Dr. Lloyd Jones appear in some measure to have misunderstood me. I did not intend to imply that the deep cardiac dullness cannot be marked out by percussion in children. My contention was that it is extremely difficult to define slight alterations in the area of dullness, at least by the majority of observers, especially

when only such a blunt instrument is used as the finger placed upon the chest affords. Dr. Clive Riviere speaks of the accuracy with which deep cardiac dullness can be defined in the *post-mortem* room. In this statement I agree, but the percussion note over the lungs becomes much more resonant some hours after death than it was during life, and consequently the comparative dullness over the heart stands out more clearly.

Since slight increase of dullness appears to me to be difficult to determine, I expressed the view that the appearance of murmurs is a more reliable guide to the presence of dilatation. Dr. Clive Riviere thinks that the murmurs to which I refer may be exocardial. I have been familiar with the frequent presence of exocardial murmurs since the days that I was a medical student. I do not think it possible that any one who has any degree of sensitiveness for the character of sound can—except in rare instances—mistake an exocardial for an endocardial murmur.—I am, etc.,

December 14th, 1909. THEODORE FISHER.

THE PREPARATION OF SOURED MILK.

SIR,—I have read with interest Mr. Ernest Quant's remarks of the preparation of lactic acid bacilli and sour milk treatment in the BRITISH MEDICAL JOURNAL of December 18th, 1909, p. 1738, and I can absolutely confirm most of his observations from personal experience. I have been working at the matter from the dietetic standpoint during the past year, and have, like many other medical men in all probability, been disappointed with the results obtained with the different lactic acid tablets on the market; also with the comparative uselessness of the simple apparatus sold with these tablets for preparation of the sour milk. With any of these in our climate it is next to impossible to keep the temperature from varying considerably, and especially from falling below that at which the optimum growth of the bacilli and formation of the acid takes place. I have tried almost all the tablets on the market, and one liquid culture sold in small tubes. This last, on the whole, was best, but almost prohibitively expensive. I have now adopted the use of milk cultures, and find with a temperature of 108° to 110° a very pleasant curdled milk is obtained in about five hours. I use a small portion of the curd of the previous day—about a salt-spoonful suffices.

I have replaced the simple tin apparatus and night light by a wooden box about 2 by 2 by 3 ft., lined with asbestos and fitted with a metal tray, sliding out, and placed over two 8 candle power electric lamps, with the thermometer passed through the top of the box, as in a bacteriological oven. The front side of the box falls down by means of a hinge, allowing the removal of the metal tray, which will hold some thirty glasses of milk. The front is fitted with a little sliding door about 2 in. by 8 in , and by means of this a supply of cooler air is regulated to keep the box from getting too hot.

This apparatus was made for me by a joiner, is inexpensive, and serves for the culture of any germs on suitable media.

I think Mr. Quant's note is of great value, coming at this time, and should lead to fresh endeavour in this matter by medical men who have thrown up the use of sour milk in disgust.—I am, etc ,

Peebles, Dec. 20th, 1909. THOMAS D. LUKE.

MAJORITY REPORT ON THE POOR LAW IN REFERENCE TO VENEREAL DISEASE.

SIR,—There are some recommendations in the Majority Report dealing with venereal disease which, if followed, must inevitably do harm.

The Commissioners suggest that certain types of sick cases should be compulsorily detained (see vol. i, p. 354). Amongst these are: (1) Persons suffering from phthisis; (2) persons suffering from venereal disease. Yet ultimately they advise different treatment for these two diseases: for phthisis they recommend "diffusion of knowledge of its dangers"; for venereal disease they recommend compulsory detention.

The reasons given against compulsory detention of phthisis seem equally to apply to venereal disease: (1) "The duty of a doctor or magistrate deciding a dubious scientific point which is to involve the question of a man's detention or freedom." (2) "The necessity in many cases of detaining them for some considerable period." (3) That "concealment of the disease will be encouraged, and to that extent it will be less possible to attract patients for treatment at the earlier and curable stages." They recommend "that meantime the spread of phthisis must be checked mainly by a wider diffusion of the knowledge of its dangers and of the means of its prevention and cure."

But as to venereal disease, they say, "we consider that an order for detention should be obtainable whenever sufficient proof is adduced that an individual suffering from venereal disease is in such a condition as to be a danger to the community amongst whom he is living. . . . Though the knowledge that the local authority had power to obtain an order for detention might occasionally lead to concealment of the disease, in our judgement the benefits of compulsory detention far outweigh its evils. . . . Infringement of the liberty of the subject is the foundation of all recent legislation dealing with infectious diseases of a dangerous character."

The above suggestions only refer to poor persons, and even if there were no concealment the disease would continue to be spread by the people who were not called "poor." Also in deciding just when and for how long venereal cases should be detained there would be the same difficulty as in phthisis, they would have to be detained often longer than phthisis, and concealment would be most probable, as shown from past history. In Christiania,[1] after the abolition of regulation in the year 1888, syphilis declined in frequency because the number of girls who applied for treatment increased; they had previously concealed their illness.

The Commissioners urge "infringement of the liberty of the subject." This would undoubtedly lead to much concealment of the disease. The "Committee of Fifteen," who were instituted for the study of prostitution in New York, say in their report: "Men with political insight are of opinion that every limitation of the freedom of the individual is in itself an evil, except where the good derived from the infringement can really be estimated at a very high valuation." Public opinion would never allow infringement of the liberty of the rich; in phthisis one could understand that the more wealthy classes would be less likely to spread the disease, but this is not necessarily so in syphilis and gonorrhoea.

It would seem more reasonable to endeavour to diminish venereal disease by a wider education among boys and girls who have reached the age of puberty, by lectures dealing with normal sexual physiological processes, as well as the consequences which may follow indiscriminate sexual intercourse. A full knowledge of things is surely better than the unhealthy fragments which many pick up from their companions. Parents, no doubt, might do more than they have done in speaking of these things to their children when they reach the age of puberty. Lectures by medical men and women might be arranged to be given to boys and girls before they leave school.

Professor Osler, in a lecture at the London Hospital on "Syphilis and Aneurysm,"[2] made four excellent suggestions for restraining the ravages of syphilis: (1) A wholesome and healthy education of our youth in matters sexual; (2) a special police force of men and women to clear the streets and places of public amusement from the open, flagrant whoredom; (3) that every venereal case should be known, registered, and supervised; (4) that facilities for early and prolonged treatment should be everywhere increased.

It is perhaps questionable whether venereal cases would care to be registered! It might lead to concealment unless the register was kept purely for the information of the medical faculty.—I am, etc.,

Oxford, Dec. 2nd, 1909. H. T. GILLETT, M.D.Lond.

PART-TIME MEDICAL OFFICERS OF HEALTH.

SIR,—There are many who will endorse every word of Dr. Belilios's letter in the JOURNAL of December 25th, 1909, p. 1828.

As a matter of fact, steps are already being taken to associate, "in the interest of the the public health," some

[1] Iwan Bloch, M.D., *The Sexual Life of our Time.*
[2] BRITISH MEDICAL JOURNAL, November 27th, 1909.

at any rate of the eleven hundred odd general practitioners in England and Wales who are medical officers of health.

I may add that the Richmond Division, amongst others of our Association, has taken steps to secure the reconsideration of the now famous minute of the Belfast Representative Meeting.

There is no doubt that, unless a more tolerant attitude is assumed towards those general practitioners who hold public appointments, the solidarity of the Association will be in some jeopardy.

Professional unity may well be exercised to secure a minimum wage or tariff, but it is only trade unionism that seeks to handicap ability and experience. If we practise trade unionism our calling will become a trade; if we promote professional unity we shall deserve, and retain, the recognition which we are in danger of losing.—I am, etc,

F. G. CROOKSHANK.

London, S.W., Dec. 25th, 1909.

SIR,—I am pleased to see Dr. David Belilios's letter in the JOURNAL of December 25th, 1909, p. 1828, but had no idea that the British Medical Association was so distinctly antagonistic to part-time officers.

I should be very glad to join him in any combination for our protection, and think that the Poor Law officials and public vaccinators would be very likely to join also, as they too are threatened; and doubtless the "profession" in its wisdom will push them overboard to sink or swim as best they may.

It is odd that the profession cannot learn that to disintegrate the "body" will damage the "unit." If we could only realize that the practitioners should hold *all* offices which are compatible with their private work, and leave as few to whole-time officials as possible, it would be better for the profession.

Once the general practitioners have lost the public offices, they will have the "public service scheme" just issued by the Association to fall back on; then good-bye to all practice (private), for it will be the death knell of the general practitioner.—I am, etc.,

HENRY EDWARD GOUGH.

Northwich, Cheshire, Dec. 26th, 1909.

THE PROFESSION AND THE STATE.

SIR,—It is often stated by your correspondents that it will be a bad day for the medical profession when they are paid by the State. Have these correspondents duly considered that in all countries where a system of State insurance has been adopted the whole community is not included, but only those earning less than £2 a week? Have they at the same time reckoned how much is being paid to medical men by those earning less than that sum in this country? In some of the smaller towns and rural districts I admit they are paying as much and possibly more than they can well afford. In most of them it is otherwise, while in the large centres of population, where admission is readily obtained to hospitals and medical orders are given by relieving officers practically without any inquiry into the patients' circumstances, the amount paid for medical attendance is practically *nil*. Under a State system the amount, though it may be small, is at least definitely assured. Further, be it noted that when a line of this sort is drawn no provision is made for those excluded by reason of their income from the benefits of State insurance, and they are thereby compelled to pay for medical attendance in the ordinary way.

There does not appear to be now the slightest doubt that whatever party in the Government is in power, State insurance is in the near future. Would it not then be better instead of resisting the inevitable that medical men should put their house in order and see to it that the best possible bargain is made with the State, not only in securing adequate payment for work done, but freedom from the control of county councils and outside bodies? This freedom had long been maintained in Germany, and though in recent years it has been threatened, it will still probably be maintained by the united and powerful efforts of the Leipziger Verband.—I am, etc.,

J. H. KEAY.

Greenwich, Dec. 27th, 1909.

THE RELATIONS OF THE LAITY AND THE MEDICAL PROFESSION.

SIR,—I have read with interest Mrs. Hodgkinson's not unsympathetic curtain lecture to the medical profession, and in case other and abler pens than mine have not thought it worth while to reply, I offer a few remarks.

The first part of Mrs. Hodgkinson's article is taken up principally with two points—one that the medical profession do not take the trouble to seek for the causes of the afflictions of their patients, and the other that they do not inquire into possible faulty habits and diet. I will pass over the suggestion that as a profession we are not zealous in the prevention of disease as being hardly worth a reply. The whole history of medicine and sanitation for the last thirty years cries out against it. But as regards the other two points—speaking from a considerable experience of medical men of all classes of practice, I should say that, with the exception of men doing large club practices when there is often such a press of work that they absolutely have not the time to go into their cases, the great majority of doctors are very anxious to find out causes, because to find a cause is generally to be on the high road to a remedy, and even looked at from a commercial point of view, it is good business for them to cure their patients as quickly as possible.

I should have thought that up to say two years ago the diet question was rather done to death, and that food faddists were nearly as common in the ranks of the profession as among the laity. There is now a reaction, and many men are inclining towards the opinion which I have strongly held for years—that a man in good health cannot be too careless about what he eats (in quality, not quantity, be it understood). The healthy man in body and mind may follow his natural instincts, and can digest anything down to 10d. nails, provided he does not think about it.

As to fees, I presume that Mrs. Hodgkinson does not think, unless she is well provided with money, that it is necessary to do her shopping in Bond Street, neither would a person of moderate income who was involved in a law suit expect to have the advocacy of Blank Blank, M.P., K.C. Eminent surgeons—like eminent barristers or eminent milliners—are undoubtedly expensive, but any operation can be done in London by perfectly efficient but less well-known men for quite moderate fees; just as I have no doubt Mrs. Hodgkinson could get a most useful and efficient bonnet in Holborn. The value of a thing is, after all, what it would fetch, and one can no more expect in these unsocialistic days Sir Pompey Partington to ask fees of £15 when he can get £100 than one can expect Mme. X. of Bond Street to ask £1 for a hat that she can £5 for. There is no question of charity in the case, for equally useful results can be had for less money. I see no reason why the public should expect to get fashionable surgeons at popular prices.

The monthly payment system and detailed accounts no doubt has its advantages, but Mrs. Hodgkinson must remember that medical men as a class have no clerks, and have, consequently, to make up and send out their own bills. This same sending out of bills is a necessary and disagreeable business, and, personally, I should be extremely sorry to have to do it more than twice a year, and should much prefer to have to do it once only. Occasionally one has to do it; I am attending a man now who asks for his account and pays it at the end of every month. I think he pays me considerably more than he would if he let his account run on for six months, because one often finds at the end of the half year or year that the bill amounts to a sum that one considers more than a patient can pay, and cuts its down considerably.

Mrs. Hodgkinson appears to have an idea of the patient and physician watching the case and discussing the symptoms and treatment together. I am afraid little would come of this, as it is hopelessly impossible for any one, without a preliminary training in anatomy, physiology, and pathology, to have the remotest idea of the purport of symptoms.

Still, I am not a fashionable physician, and I am a poor man, and if Mrs. Hodgkinson will consult me about herself I am quite willing to join her in consultation for a reasonable remuneration—say, £2 2s. per hour—but I am afraid it will be waste of money as well as of breath.

As this sounds rather like a seif-advertisement, I beg to sign myself—

December 23rd, 1909. ARS LONGA.

PRESCRIBER AND DISPENSER.

SIR,—The continuance of a discussion which I thought had been closed will, I trust, excuse my again trespassing upon your space.

Dr. F. E. Wynne's letter in your issue of December 11th well expresses the attitude of those practitioners who think that the system of medical dispensing is not above criticism. The difficulties in the way of its abolition are purely financial. I cannot agree with Dr. Shoyer that there is any necessary connexion between the supervision of treatment and the practice of supplying medicines. If otherwise, the case of our Colonies and of foreign countries must be worse than indifferent. We must all recognize the financial obstacle, especially those who, like myself, are not blessed with an opulent *clientèle*.

Unfortunately, medical practice in England, through some perversion of development, has not shared in that process of differentiation which is a sign of advancing growth, and which has characterized its progress elsewhere. Accordingly the primitive close combination of the medical practitioner with the maker and seller of drugs is still maintained, notwithstanding that the multiplied activities of each of these once united callings now justify their disconnexion. Practices continue to be worked on the old system, which as a matter of course is also considered in their disposal. The dispensing of medicines has thus come to be rooted in usage and commercial advantage, and a departure from it is proportionately difficult, otherwise it would not have been endured so long. The physician is pharmacist as well, and this arrangement makes for revenue. It also allows of smaller charges, not wholly in the public interest, without a corresponding decrease in income. Yet there are drawbacks. It tends to encourage the settlement of a greater number of medical men in a given district than would be feasible under another system, and, possibly from this cause, it is accompanied in some poor districts by a kind of professional service which can only be described as sweating. Its warmest advocates will hardly claim for it a highly professional character, and I do not think it is conducive to greater efficiency either in medicine or in pharmacy, but rather the reverse. Still it has become indigenous, and for the reasons already given it seems neither judicious nor fair to lay sudden or violent hands upon it. But to assert that it cannot, or should not, be amended is quite another thing. Hostility to it does not imply hostility to the interests of the general practitioner. The prescriptive method is practically universal in other countries, and if it can be gradually introduced here, beginning (as it has begun) at the wealthier levels, it is not unreasonable to expect that it will ultimately prove both safe and acceptable.

I cannot close without again expressing my agreement with you, Sir, in the very temperate statements contained in your article of August 21st. They did not merit the severe treatment administered to them at a recent meeting of the Chelsea Division. It is to be hoped that the resolution passed on that occasion will find no support from members of the Central Council. I can hardly conceive of any proceeding better calculated to discredit a journal in the eyes of its readers than that it should even attempt to disclaim responsibility for its articles.—I am, etc.,

Highbury, N., Dec. 21st, 1909. B. G. MORISON.

SIR,—I well remember the letters, written long before last August, telling medical men they ought to give up dispensing medicines; but take the country practitioner who lives miles away from a chemist, and a dirty one when you get there; in the name of common sense, is any medical man so situated going to ask his patients to travel to these shops to get their medicines? The practitioners so situated probably did not enter into the controversy, because they were more wisely occupied in their spare time in reading the latest novel, or, still better, in polishing up the stock bottles of drugs, so jealously regarded by those interested. It behoves us to proceed with extreme caution, for who would have thought that, when the "Midwives Act" was under consideration, a time would come when we should render ourselves liable to punishment for attending confinements to which an uncertified midwife had been called in, or at any rate have the onus of proving we did not know she was unregistered (vide JOURNAL, December 11th, p. 1731)?—I am, etc.,

Lechlade, Glos., Dec. 11th, 1909. F. W. PILKINGTON.

THE TERRITORIAL NURSING SERVICE.

SIR,—I think it would be well if the Territorial Forces Committee would make their views clear on the subject of cottage hospitals to those working under them in the country.

That the nurses should remain in their own hospital was obviously not the intention of the local committee in this county, as I was told that two of my nurses (that is, half the minimum working strength) were all that was required. The situation of the hospital in which they were to serve had not been settled, but it was believed that it would not even be in the county.

I am perfectly ready to place my hospital at the disposal of the authorities for the nursing of wounded Territorials, but if it is to be handed over to the authorities, I should like to know whether the local non-combatant is to be left to die in time of war for want of immediate help in urgent illness.

As far as it is humanly possible to say, my hospital has been the means of saving several lives which would have been lost had the local medical men been compelled to send them as far as the nearest county hospital, and it seems to me to be a choice between nursing wounded Territorials or non-combatants, amongst whom may be the mothers of future Territorials.

If the authorities made adequate arrangements for nursing the wounded it would then only be necessary to avail themselves of the voluntary offers of cottage hospitals as was done in the case of private individuals who nursed officers at the time of the South African war.—I am, etc.,

December 19th, 1909. HALFA.

DIET DURING SEVERE EXERCISE.

SIR,—I was interested to read the opinion of so experienced an alpinist as Dr. Claude Wilson on the subject of the consumption of water during climbing expeditions. In a work published by Dr. Edmund Hobhouse in 1899, to which I contributed certain portions, the following paragraph occurs. It was founded solely on my personal experience, and at the time I wrote it elicited the orthodox expressions of dissent:

> Headache and vomiting sometimes come on during long expeditions apart from mountain sickness. I believe they may be prevented by proper attention to the digestive organs before the start, and by frequent little drinks of water on the way. The advice not to drink water on the way is bad. The large amount of water both perceptibly and imperceptibly lost by the skin, especially at high altitudes, must be replaced, or the blood will increase in density and become charged with a large quantity of effete matter, of which some of the symptoms are those already mentioned.

—I am, etc.,

Montreux, December 26th, 1909. STUART TIDEY, M.D.

PROPHYLAXIS OF OPHTHALMIA NEONATORUM.

A Request for Statistics.

SIR,—I am endeavouring to collect statistics which may throw some light on the vexed question of antisepsis *v.* asepsis in the prevention of ophthalmia in the newly born. The antiseptic method assumes the possibility of infection in every case, and may be subdivided into germicidal, where an endeavour is made to kill the germ by strong germicides, such as silver nitrate and corrosive sublimate, and into mechanical, where trust is placed in the removal of the germ by mechanical flushing with feeble antiseptics, such as boracic lotion.

The aseptic method, on the other hand, aims at the thorough cleansing of the eyelids before they are opened and the prevention of inoculation afterwards, nothing being put into the conjunctival sac unless there is definite reason to fear infection.

There are many records of statistics of the antiseptic methods, but, as far as I am aware, the only statistics of the aseptic method are those quoted by Sydney Stephenson in his Middlemore prize essay of 1907. Moreover, the majority of statistics on the subject have been obtained from the lying-in hospitals, and there must be a great store of instructive information in the experiences of general practitioners (and of midwives) which has never been utilized.

May I ask any of your readers who are interested for:

1. References to recent statistics.
2. Personal experiences in the use of these different methods.

I will be very grateful for any information sent to me at the subjoined address, and for facility of tabulation I beg to suggest that the following table should be used:

Method Employed.	Number of Births.	Numbers of Cases of Inflammation within Four Days of Birth.*		Number of Cases of Injured Eyes.
		Severe.	Slight.	

* Details of the bacteriology and probable method of infection will be particularly valuable.

I am obtaining some statistics of this kind from friends in Liverpool, but I venture to ask the hospitality of your columns for this reqeust in order that the scope of the inquiry may be enlarged.—I am, etc.,

A. NIMMO WALKER.

45, Rodney Street, Liverpool, Dec. 22nd, 1909.

CATHETER LIFE.

SIR,—After many months of catheter life I should like from the vantage ground of personal experience to make a few remarks which may be of use to others.

1. I find that the ordinary flexible catheter may be safely used after two minutes' boiling.
2. The best lubricant in my experience is paroleine.
3. The most reliable method of carrying a catheter for occasional and urgent use is—after boiling it—to wrap it in lint steeped in 20 per cent. of paraform.
4. Absolute abstinence from alcohol (and in my case from coffee and meat) is "the way of (prostatic) peace."

One matter more I would like to refer to. The bladder should not, matutinally, be emptied (sc., relieved, it should never be emptied) until the action of the bowels has taken place, for if it is so relieved independently the bowels may not then urge a busy man to relieve them, and so a form of constipation (from carelessness) may ensue. This is not a fad, but a fact. As to prostatectomy, I may come to that. The indication is, of course, cystic infection. Catheter life is not unendurable, but unless a man has a capacity for taking infinite pains, the sooner his prostate is out the better.—I am, etc.,

December 20th. NUMBER EIGHT.

Medico-Legal.

CLAIM AGAINST A CORPORATION.

IN the Belfast Recorder's Court, on November 27th, 1909, a medical man sued the Corporation for a fee of half a guinea for first-aid treatment rendered to a child knocked down by one of its cars. The child was carried to the medical man's surgery by a bystander and accompanied by the conductor. The latter said he had only gone with the child to take its name and address, and denied that he had directed the man to take it to the surgery, or had asked the medical man to attend to it. The Corporation denied liability, and claimed that the action of the medical man in attending to the child was a purely voluntary and humane act. The Court held that the Corporation was liable, and made an order for the payment of the amount claimed, with costs.

Commenting on the case, a Belfast paper pointed out that in its shabby resistance of this very moderate claim the Corporation had shown lack of dignity and consideration, and involved the ratepayers in ten times the original expenditure.

Medico-Ethical.

The advice given in this column for the assistance of members is based on medico-ethical principles generally recognized by the profession, but must not be taken as representing direct findings of the Central Ethical Committee.

THE OBLIGATIONS OF A SUBSTITUTE.

SUBSTITUTION.—The case related appears to be one in which the ordinary rule should apply—namely, that a practitioner who sees a patient while acting as substitute for another ought to decline subsequently to accept the same person as his own patient.

SUPERSESSION.

C. R. sends details of a case in which he was superseded in the attendance upon two cases of pneumonia, and he submits four questions to which, assuming his account of the incident to be correct, we endeavour to supply answers. (1) When B. found that A. was in attendance on S., and had not been asked to discontinue his visits, he should have insisted upon that step being taken at once before he consented to take charge of the case. (2) When asked to visit the other brother B. should have declined, except in consultation with A. or after A.'s attendance upon the case had been terminated. (3) When the facts were explained to B. he might have expressed regret. (4) B. seems to have violated the well-known principle that a practitioner should not assume charge of a case which he knows to be under the care of another practitioner until that practitioner's attendance has been duly terminated.

The Services.

THE ARMY MEDICAL REPORT FOR 1908.

A BRIEF notice of this excellent report was published on December 18th, 1909 (p. 1769), and the following reviews some points not then noted:

Letter of the Director-General.

In an introductory letter to the Secretary of State for War Sir Alfred Keogh gives a lucid summary of the contents of the volume, and announces a continued improvement in the health of the army both at home and abroad.

The improvement has been observable during the current decade, but has been very marked since 1902, and we cannot but note has thus been concurrent with the better army status and increased sanitary powers granted to the Army Medical Service in recent years.

The decline in the incidence of sickness appears, as has already been stated, in all the chief statistical ratios.

It is shown that the "admissions into hospital" have fallen nearly one half since the decade ending 1898, but this decrease must be freely discounted by the introduction a few years ago of the system—borrowed from the French—of treating slight cases in barracks; it seems to work well, notwithstanding that it is in flat contradiction with the hard-and-fast adage applied to the ailing soldier of former days—namely, there is no middle course between "duty and hospital"!

Probably a better gauge of sickness than admissions is the ratio of "constantly sick," and this has fallen since 1898 from 59.85 to 32.28 per 1,000 of strength both at home and abroad; it actually means a constant effective addition of nearly 6,000 men to the fighting line.

The decline in the annual death-rate is also well marked, but is, of course, subject to yearly fluctuations from recurrent epidemics; thus 1908 was exceptionally unhealthy, owing to the prevalence of zymotic diseases, and the mortality was swollen by 35 deaths from cholera in India, which for some years in the decade had been singularly free from the disease in epidemic form.

Another great gain in effective strength has been the decline in invaliding, especially from India, through the establishment in that country of hill depôts, to which sufferers, and particularly from the malarial cachexias, are sent instead of being invalided to England.

The steady decline in all the chief diseases which have hitherto prevailed in our army, the Director-General states, affords an "encouraging indication of the effects of preventive measures now in vogue in our army," an opinion which will be heartily endorsed.

Health Statistics of Foreign Armies.

Appended to the Director-General's letter are a series of tables contrasting the health statistics of certain foreign armies with our own; but we are not prepared, without reservation, to take the figures given at their full face value, because so much depends on the source and methods of compilation of the statistics. For example, the table of annual admissions to hospital per 1,000 of strength are thus stated, from below upwards: Russia 414.9, United Kingdom 428.0, Germany 588.8, France 681.0, Austro-Hungary 826.5, United States 1,172.0. Surely we cannot accept as a fact that the small select voluntary army of the United States is nearly three times as sickly as the mighty conscript hosts of Russia. It seems certain that the statistics have not the same basis. But the contrast between specific diseases seems much more reliable; thus, Russia has—proportionally—seven times as many admissions for enteric fever as we have; the United States heads the line for tubercle of the lung, 4.9, against France 4.3, Russia 2.0, ourselves 1.6, and Germany and Austria 1.4. In cardiac affections we maintain an unhappy predominance, the rate being 6.10, against Austria 6.0, United States 4.98, Russia 3.6, Germany 3.3, France 2.8. The widest contrast of all is in venereal admissions: State regulated Germany 19.3 and France 28.6; unregulated Russia 62.7, United Kingdom 68.4, and United States 167.82!

In the death-rate from all diseases, our army, notwithstanding its large amount of tropical service, happily occupies a middle place as follows: Germany 1.8, Austro-Hungary 2.34, United Kingdom 2.52, Russia 3.13, France, 3.52, United States 5.63.

Recruiting.

The report appropriately opens on the portal of admission into the army, on which so much depends. The old difficulties of attaining uniformity in the medical examination of recruits are dealt with. We have often pointed out, though now the fact is apparently forgotten, that previous to 1879 there was no uniformity at all; standard measurements were then not part of the medical examination, but were made in the most haphazard manner by the sergeant-recruiters; since then, greater accuracy in measurements has slowly been attained, and some real approach to uniformity in medical examination has been made. But it is impossible to eliminate the personal equation of the examiner; it is expert work, which varies in different hands; and because it is so we are glad to see that young medical officers are now trained in this all-important duty. Immediately after the Boer war certain recruiting regulations were made too stringent, with the natural result that recruiting fell off; but some of these have been relaxed, and the medical examiner is now allowed more discretion in passing men. In the matter of loss and decay of teeth, it is now admitted that no hard and fast rule can be laid down, and so in other matters of opinion. Altogether we may take it that more uniformity and a higher standard—morally, mentally, and physically—is attained in accepted recruits than in bygone years. Old officers and soldiers casting critical eyes on our soldiers in the streets are fain to admit that, if youthful, they are certainly smart, well trained, efficient looking fellows. The physical training of recruits has, under medical direction, undergone great and rational improvement; formerly, only muscular training was had in view, regardless of strain on the heart, lungs, and internal organs.

Invaliding.

Towards the close of the South African war, through wear and tear, the high figure in invaliding of 29 per 1,000 of strength was reached; since then it has steadily gone down, until the lowest on record, 10 per 1,000, was declared in 1908. The fall has affected almost all classes of diseases, except nervous, including mental ailments, which in recent years have curiously increased, not only in our own, but in foreign armies.

Health of Troops in the United Kingdom.

Broadly speaking, this, in 1908, was satisfactory. In commands the London, as usual, was the most unhealthy, largely owing to the prevalence of venereal and sore throat in the Foot Guards.

In the report on sanitation in the United Kingdom rapid advances are recorded. The diffusion of sanitary knowledge among all ranks through lectures and by practical instruction by the R.A.M.C., especially at Aldershot, has been attended by excellent results. The teaching of hygiene is now an integral part of army training, and regimental squads are exercised in practical conservancy in camp and quarters. How different from the olden days, when sanitation and conservancy was left to the devices of the regimental quartermaster and his pioneers?

We note with satisfaction that attention is now being paid to substantial improvements in the comfort and convenience of the soldier in barracks, but much remains to be done in the married quarters. The cubic space of 600 ft. a head in barracks is found sufficient in lofty rooms, but the floor area has recently been increased by a few feet in order to prevent the crowding of the men's cots together.

In regard to infectious diseases more attention is being paid to the disinfection of personal effects than to the general fumigation of the room in which cases occur.

Mediterranean Area.

The health of the troops in the large stations of Gibraltar and Malta has shown distinct improvement, and the so-called Malta fever has been reduced to a minimum through the prohibition of the use of raw goat's and cow's milk by the troops; and yet, in the face of the great discovery that milk was the cause of this destructive fever, the Secretary for War was recently asked in the Commons whether he would not now remove the prohibition. In Egypt the health of the troops shows distinct improvement; "the most important sanitary measure has been the substitution of the use of a solution of cresol for dry earth in latrines, these being converted practically into portable water-closets." The use of this agent and of kerosene oil in latrines has the great merit of warding off flies.

South Africa.

We have still 14,000 troops there, and in every particular their health was good in 1908.

India.

The average strength of white troops in India in 1908 was 68,522. The admissions and deaths were slightly higher than in 1907 (but the death-rate in that year was the lowest since 1861), while the invaliding and constantly sick rates were the lowest recorded.

Enteric Fever.—The outbreaks and spread of this scourge of India are in the great majority of cases hardly to be traced; the spread by "chronic typhoid carriers" seems to occur less often than at one time expected. As regards inoculation for enteric fever, it is stated: "Generally, it may be said that the attack rate in inoculated men is reduced to rather less than one-half, and the case mortality to about two-thirds of the rates in uninoculated men."

Cholera accounted for 43 admissions and 35 deaths; in every instance of an outbreak the disease was prevalent among the natives.

Malaria showed an increase in admissions over recent years. Malarial fevers are generally believed to coincide with seasons of excessive rainfall, but this is not absolutely substantiated by accurate statistics from various stations having *plus* and *minus* rainfalls.

Venereal diseases continue to decrease from various moral causes, and through the recommendations of the recent conference on such diseases.

The Conference of Sanitary Officers held at Poona in December made important recommendations, which when carried out are likely to be of great value.

Spectacles.—The use of spectacles by officers or soldiers has long been held as an abomination in the British army, yet such aids to vision have decidedly improved third class shots in India.

Dispersed Stations.

Among these Bermuda was remarkably healthy in 1908, as it surely ought always to be, for it has one of the finest subtropical climates in the world.

Jamaica was fairly healthy.

West Africa.—The Europeans employed in this area comprise Royal Garrison Artillery and Royal Engineer companies, together with detachments of departmental corps, and all suffer from malarial diseases, varying according to locality. It is a remarkable fact that the black men of the West India Regiment suffer as much from malaria in West Africa as Europeans, whilst the West African troops, natives of the country, have much immunity.

Mauritius unfortunately continues exceptionally unhealthy, and strong sanitary measures are being taken to cope with malarial diseases.

Ceylon.—The health of the small garrison was somewhat indifferent through malarial diseases.

China.—South China showed improvement, but was still far from healthy. In North China the conditions were fairly healthy,

Straits Settlements.—There was no improvement on the year, although, when the comparison is made with quinquennial averages, there is a considerable decrease. Malarial fevers and venereal diseases were the chief ailments.

A long series of tables and abstracts complete this most instructive volume.

SERVICE FOR PROMOTION IN THE TERRITORIAL FORCE.

IT has been decided to allow a medical officer of the Territorial Force to reckon as service qualifying for promotion, under the terms of paragraph 44 of the Regulations for the Territorial Force and for County Associations, any service he may have rendered as a commissioned officer in any capacity (other than as a medical officer) in the Imperial Yeomanry, the Volunteer Force, or the Territorial Force, provided that of such commissioned service only so much shall be allowed to reckon as was rendered subsequent to the date on which he became a registered medical practitioner.

Obituary.

WE regret to announce the death of BENJAMIN SAVAGE ROBINS of Sparkbrook, Birmingham, which occurred on December 19th, 1909. Mr. Robins was in his 77th year, and was the second son of Mr. John Robins of Dunsley Hall, Kinver, Staffordshire. He studied at the General Hospital, Birmingham. He was House-Surgeon to the late Mr. Oliver Pemberton, and later occupied a similar position at the Wolverhampton Hospital. He became M.R.C.S.Eng. in 1854 and L.S.A. in 1855. He was subsequently in partnership with Mr. John Archer of Deritend. For many years he was Medical Officer and Public Vaccinator for the Aston Union, and for about forty years was a Certifying Surgeon under the Factory Acts. He married a daughter of Mr. Arthur Dabbs of Seckington, near Tamworth, and is survived by three sons and two daughters.

ON December 1st, 1909, in the family vault in Bradford Cemetery, preceded by a choral service in Heckmondwike Church, where he was churchwarden, and where the service was conducted by the present and late vicar, was laid to rest, amidst general scenes of mourning, the body of HENRY TODD BROUGHTON, M.R.C.S. He was educated at Guy's Hospital, obtained the diplomas of M.R.C.S. and L.S.A. in 1864; shortly afterwards he was appointed House-Surgeon to the Bradford Royal Infirmary. On resigning that post and commencing practice he was elected one of the Honorary Surgeons. He left Bradford a few years after to take over a large practice at Heckmondwike; there he remained to his death at the age of 68. He was Senior Honorary Surgeon to the Dewsbury Infirmary, an institution established about thirty years ago, and M.O.H. for Heckmondwike. Dr. Broughton was an excellent surgeon, performing successfully forty years ago many of the major surgical abdominal operations in cottages before aseptic surgery was so well recognized as it is to-day. His kindness and services were much appreciated by his patients and his friendship by his colleague. He leaves a widow and one daughter to mourn his loss.

SURGEON-MAJOR THOMAS EGERTON HALE, V.C., C.B., M.D., died at Botterley Hill, near Nantwich, on December 25th, 1909, in his 78th year. He was appointed Assistant Surgeon in the 7th Fusiliers, December 14th, 1854, and in the following year proceeded to the Crimea, and was present at the siege of Sebastopol, and at the assaults of the Redan on June 18th and September 8th, receiving a medal with clasp and the Turkish medal. He was also awarded the Victoria Cross "(1) For remaining with an officer who was dangerously wounded (Captain H. M. Jones, 7th Fusiliers) in the fifth parallel on September 8th, 1855, when all the men in the immediate neighbourhood retreated, excepting Lieutenant William Hope and Dr. Hale; and for endeavouring to rally the men in conjunction with Lieutenant Hope. (2) For having on September 8th, 1855, after the regiments had retired from the trenches, cleared the most advanced sap of the wounded, and carried into the sap, under a heavy fire, several wounded men from the open ground, being assisted by Sergeant Charles Fisher, 7th Royal Fusiliers." He subsequently had medical charge of a field force under Colonel Blunt during the Indian Mutiny, detached from Lahore to the Trans-Indus Frontier during the hot season of 1857. Dr. Hale retired from the service in 1876, and was made a Companion of the Order of the Bath in 1906.

WE regret to announce the death of M. LÉON MASSOL, Professor of Bacteriology in the University of Geneva, who died suddenly of heart disease on December 2nd, 1909, at the age of 72. Born in Paris, he began life as an engineer, and after going through the Ecole Polytechnique entered the service of the Nord Railway Company. He was a man of middle age before he turned his attention to the study of morbid anatomy. He worked in the laboratory of Cornil and at the Pasteur Institute. He was appointed official bacteriologist to the city of Geneva, and in that capacity made careful examinations of the water supply. In 1894 he established a laboratory for the manufacture of antidiphtherial serum. He also worked at the problem of tuberculosis, and strove to introduce the use of tuberculin among farmers as a test of latent disease. In his laboratory were made the first researches as to the ferment of Bulgarian milk, the use of which has since become so popular. According to the *Journal de Genève*, Massol took cultures of the ferment to Paris, and these gave Professor Metchnikoff the starting point for his researches on the efficacy of soured milk in destroying noxious microbes in the alimentary tract. In 1900 an Extraordinary Professorship in the Faculty of Science was created for him. His lectures were models of lucidity and precision. He remained a thorough Parisian to the end, though he preferred to reside at Geneva rather than return to his native "village" as he fondly called the *Ville Lumière*.

THE LATE MR. C. R. B. KEETLEY.—Lieutenant-Colonel S. F. Lougheed, R.A.M.C. (ret.), writes from Helouan, Egypt, to express his belief that many senior officers of the Royal Army Medical Corps and a greater number of the retired list will deeply deplore the death of Mr. C. R. B. Keetley, Senior Surgeon to the West London Hospital. "From him," our correspondent continues, "we learnt much at the West London Hospital. He possessed to a high degree the power of imparting surgical knowledge in a concrete form. To see him operate was quite sufficient to become attracted to his particular line of work if one's tendencies lay in that direction. The West London Hospital and its post-graduates will miss his genial personality for many a day. As a friend, his qualities were sterling and his advice sound and to the point."

THE Women's Medical Association of New York City offers the Mary Putnam Jacobi Fellowship of £160, available for post-graduate study. It is open to any woman graduate in medicine. The fellowship will not be awarded by competitive examination, but upon proof of ability and promise of success in the chosen line of work. Applications for the year 1910–11 must be received by March 1st, 1910, and must be accompanied by (1) testimonials as to thoroughly good health, (2) letters as to ability and character, (3) a detailed account of educational qualifications, (4) a statement of the work in which the applicant proposes to engage while holding the fellowship, (5) examples, if any, of her work, in the form of articles or accounts of investigations which she has carried out. When possible it is considered desirable that the applicant should present herself in person to the committee. All applications should be forwarded to the chairman of the committee on award, Emily Lewi. M.D., 35, Mt. Morris Park West, New York City, U.S.A.

Universities and Colleges.

UNIVERSITY OF OXFORD.

Radcliffe Travelling Fellowship.

AN examination for a Fellowship of the annual value of £200, tenable for three years, will be held on February 22nd and the three succeeding days. Candidates must have passed all the examinations for the degrees of B.A. and B.M., and they must not have exceeded four years from the time of passing the last examination for the degree of B.M. The successful candidate must before election declare that he intends to devote himself during the period of his tenure of the Fellowship to the study of medical science, and to travel abroad with a view to that study. Papers will be set in physiology, pathology, and preventive medicine, and a subject will be proposed for an essay. There will also be a practical examination in pathology. Any candidate desiring to offer in addition a special branch of either medicine or surgery must send notice of this to the Regius Professor of Medicine, to whom all intending candidates should send their names, addresses, qualifications, etc., on or before Saturday, February 5th.

Philip Walker Studentship in Pathology.

The Professor of Pathology gives notice that an election to this studentship will take place in February next. The studentship was founded "for the furtherance of original research in pathology." It is of the annual value of £200, payable quarterly in advance, and is tenable for three years. The student may be of either sex, and need not necessarily be a member of the University of Oxford, nor be legally qualified to practise medicine. While holding office the time of the student must be devoted to original pathological research. The place and the nature of the studies of the student are subject to the approval of the Professor of Pathology, but the student is bound to pursue these studies within the university during at least three terms of the tenure of his studentship. Intending candidates are requested to send letters of application along with three testimonials (one of which should vouch for the candidate's personal character and general education), to The Registrar of the University, Clarendon Building, Oxford, so as to reach him on or before February 14th, 1910. Testimonials ought to be framed with a view to setting forth the candidate's capacities for undertaking research work, and the greatest weight will be attached to those granted by heads of laboratories in which the candidate has worked. Copies of the regulations can be had on application to the Registrar of the University.

Final B.M. Examination.

The name of A. F. Sladden was accidentally omitted from the list of successful candidates in Forensic Medicine and Public Health reported recently.

UNIVERSITY OF CAMBRIDGE.

THE following candidates have been approved at the examinations indicated:

FIRST M.B., B.C. (*Part I, Chemistry*).—A. C. Ainsley, Cai.; J. C. Andrews, Joh.; L. W. Batten, Sid. Suss.: A. B. Bratton, Cai.; C. C. Brewis, Down; B. Burnside, Cla.; G. L. Ferguson, Jes.; H. Gardiner-Hill, Pemb.; H. L. Garson, Cla.; E. A. Gibb, Emm.; C. H. Gow, Emm.; E. H. H. Granger, Cla.; E. T. Halnan, Trin.; J. B. Hunter, Joh.; R. W. P. Jackson, Cla.; C. E. Kindersley, Magd.; W. Lambert, Corp. Chr.; E. A. Leak, Trin.; A. D. McLaren, Down.; R. H. Marten, Cai.; K. Masson, King's; T. D. Morgan, Jes.; W. D. Newcomb, Trin.; A. V. O'Keeffe, Sid. Suss.; A. A. Prichard, Cla.; R. A. W. Procter, Cla.; W. Raffle, Joh.: G. E. Seon, Jes.; R. S. S. Smith, Trin.; G. E. Spicer, Trin.; H. N. Stafford, Cai.; E. Watson-Williams, Cai.; W. L. Willett, Trin.

SECOND M.B., B.C. (*Human Anatomy and Physiology*).—K. B. Aikman, Cla.: G. Arnfield, Cai.; H. A. Ash, Pemb.; D. C. G. Ballingall, Emm.; R. E. Barnsley, Trin.; A. V. Boyall, Trin.; E. J. Y. Brash, Joh.; A. E. Brown, Christ's; D. S. Bryan-Brown, Down.; E. N. Butler, Cla.; D. G. Cherrington, Trin.; J. D. Clarke, Sid. Suss.; A. C. Clifford, Emm.; H. A. Douglas, H. Selw.; G. D. East, Emm.; B. C. Ewens, Cai.; J. V. Fiddian, Emm.; N. Garrard, Pemb.; J. L. Green, Down.: J. R. Griffith, Christ's; C. Helm, King's; R. Hodson, Pemb.; A. N. Hooper, Emm.; D. W. John, Cla.; C. C. Kerby, Trin.; G. A. Lilly, Cai.; A. R. MacMullen, Cai.; W. C. D. Maile, Pemb.; H. Y. Mansfield, Emm.; F. D. Marsh, Trin.; W. H. Marshall, Pemb.; J. A. Martin, Pemb.; E. J. Nangle, Cai; P. Newton, Cla.; M. W. Paterson, Joh.; R. A. Peters, Cai.; D. V. Pickering, Emm.; S. G. Platts, Cai.; N. P. Pritchard, Trin.; Ff. Roberts, Cla.; R. S. Scott, Cai.; H. N. Sealy, Trin.; D. N. Seth-Smith, Emm.; G. A. Smythe, Emm.; W. S. Soden, Joh.; L. C. Somervell, King's; D. L. Spence, H. Selw.; G. W. Spencer, Joh.: R. Stansfeld, Joh.; H. M. Stephenson, Cai.; A. V. Stocks, Joh.; J. W. Stretton, Cai.; A. L. Sutcliffe, Sid. Suss.; C. R. Taylor, Cai.; W. F. Thompson, King's; P. Verdon, Jes.; C. Warner, Pemb.; H. A. Watermeyer, Cai.; M. H. Watney, Trin.; W. G. Watson, Cai.; A. M. Zamora, Christ's.

FINAL M.B., B.C. (*All Sections*).—A. Abrahams, Emm.; G. G. Alderson, Cai.; W. B. G. Angus, Christ's; C. W. Archer, Trin.; L. Bromley, Cai.; H. T. H. Butt, Christ's; W. H. Cam, Cai.; A. B. Carter, Jes.; G. Cawston, Cai.; A. J. Clark, King's; E. B. Clayton, Cai; L. Colledge, Cai.; R. Crawford, Jes.; J. H. Crofton, Pemb.; J. P. H. Davies, Jes.; H. L. Duke, Cai.; H. B. Ellison, Cai.; P. K. Gilroy, H. Selw.; T. R. Glynn, Cla.; J. L. Graham-Jones, Emm.; B. Haigh, Cai.; W. C. Hodges, Trin. H.; G. Holmes, Cai.; N. G. Horner, Cai.; H. E. Humphrys, Cai.; R. W. Ironside, Pemb.; W. Ledlie, Christ's; C. McKerrow, Cla.; H. McLean, Cai.; L. Meakin, Trin.; E. Mellanby, Emm.; H. G. Monteith, Pemb.; E. D. W. Reid, Christ's; H. G. Rice, Joh.; J. G. Saner, Cai.; H. S. C. Starkey, Down.; C. H. S. Taylor, Cai.; F. R. Thornton, Trin.; G. H. H. Waylen, King's; H. B. Weir, Trin.; C. S. E. Wright, Emm.; O. K. Wright, Christ's.

Appointments.

On account of the large number of candidates for the final M.B., B.C. examinations, the following additional examiners have been appointed: T. Dyke Acland, M.D.Oxon.; G. F. Still, M.D.Cantab.; A. G. Phear, M.D.Cantab.; H. S. Pendlebury, M.A., M.B., B.C., F.R.C.S.; L. B. Rawling, M.B., B.C., F.R.C.S.; J. Hutchinson, F.R.C.S.; W. G. Spencer, M.S., M.B.Lond., F.R.C.S.

Degrees.

The following degrees have been conferred:

M.D.—W. Fletcher, Gonv. and Cai.
M.B.—J. L. Joyce, King's; W. W. Treves. Gonv. and Cai.
B.C.—C. L. Forde, Cla.

UNIVERSITY OF LONDON.

THE following candidates have been approved at the examinations indicated:

M.D., BRANCH I (*Medicine*).—A. Beeley, J. F. Blackett, M. Cohen, A. Fothergill, A. C. Gurney, W. L. Holyoak, H. I. Janmahomed (University medal), L. P. Maitland, E. F. Milton, B. T. Parsons-Smith, W. Patey, J. Ramsay, W. S. Sweet, R. S. Woods, A. S. Woodwark, C. E. Zundel.

M.D., BRANCH IV (*Midwifery and Diseases of Women*).—E. M. Cowell, J. H. Drew, P. L. Guiseppi, J. L. Lawry, I. C. Maclean, Emily M. S. Mecredy, Violet A. Turkhud.

M.D., BRANCH V (*State Medicine*).—E. H. R. Harries, L. F. Hirst, Sophia Seekings.

M.D., BRANCH VI (*Tropical Medicine*).—A. B. Fry, G. M. Harston, R. A. Lloyd, S. Shirgaokar.

M.S.—*W. S. Fenwick, B.Sc., Charing Cross Hospital; R. Milne, M.D., London Hospital; H. E. Ridewood, M.D. (University medal), London Hospital; H. W. Wilson, St. Bartholomew's Hospital.

*Obtained the number of marks qualifying for the University medal.

UNIVERSITY OF BIRMINGHAM.

THE following candidates have been approved at the examination indicated:

FINAL M.B., CH.B.—N. A. Boswell, H. G. Browning, Mary Clarke, H. F. Humphreys.

NATIONAL UNIVERSITY OF IRELAND.

AT a meeting of the Senate on December 22nd, 1909, it was agreed that provision should be made for holding the examinations for all degrees of the university for students of University College, Dublin, in University College, Dublin, and for students of University College, Cork, in University College, Cork.

It was ordered that advertisements be issued for extern examiners for the subjects of the medical examinations for the year 1910.

The Presidents of the three University Colleges were elected Pro-Vice-Chancellors for a period of three years, and a committee appointed to draft such regulations as are contemplated by the Charter and Statute A of the University.

Tuesday, April 5th, was fixed as the date at which the spring examinations in medicine should begin.

UNIVERSITY OF DUBLIN.

THE following were among the degrees conferred at a meeting of the Senate on December 20th, 1909:

M.D.—A. W. Goldsmith, H. Macmullen, J. E. M'Causland, F. R. Sayers, G. S. Walton, W. Shanks.

M.B., CH.B., B.A.O.—E. B. Bate, G. E. Craig, J. W. Flood, P. H. Lemass, J. E. N. Ryan, F. R. Sayers.

The following candidates have been approved at the examinations indicated:

D.P.H. (*Part I*).—J. W. Houston, R. B. Anderson.
D.P.H. (*Part II*).—S. B. Smith, R. B. Anderson, J. W. Houston.

LONDON SCHOOL OF TROPICAL MEDICINE.

THE following candidates were approved at the examination in Tropical Medicine held at the end of the thirty-first session:

*H. J. Walton, *A. Hutton, *G. D'Amico, *A. B. Fry, J. T. Smalley, F. H. Storey, F. E. Bissell, C. E. Vail, B. W. Cherrett, E. N. Cook, K. S. Mhaskar, W. J. Woodman, T. H. Gloster, B. Day, R. McC. Linnell, G. Olpp, F. N. Smartt, R. F. Baird, E. C. Hodgson, J. Lindsay, G. H. Gallagher, J. F. D'Mello, C. F. Strange, G. M. Sanderson, A. G. Carment, W. B. Carter, H. Catto.

* With distinction.

Of the twenty-seven successful candidates one represented the Royal Army Medical Corps, five the Indian Medical Service (of whom two passed with distinction), twelve the Colonial Medical Service, two passing with distinction.

SOCIETY OF APOTHECARIES OF LONDON.

THE following candidates have been approved in the subjects indicated:

SURGERY.—*†J. N. Beadles, *†R. J. Cyriax, *C. P. A. de L. Pereira, *E. D. Richardson.

MEDICINE.—*†O. R. Kelly, *B. W. Loewenberg, *A. Y. Massey, *J. G. Morgan.

FORENSIC MEDICINE.—O. R. Kelly, J. G. Morgan, W. E. North Smith, A. H. Rich.

MIDWIFERY.—K. Baylis. J. N. Beadles, J. J. Hughes.

* Section I. † Section II.

Public Health AND POOR LAW MEDICAL SERVICES.

TENURE OF OFFICE OF M.O.H.

WE are glad to observe that at a meeting of the town council of Richmond, Surrey, on December 14th, 1909, the following resolution, of which due notice had been given, was adopted:

> That subject to the approval of the Local Government Board, the appointment of Dr. John Hedley Crocker as medical officer of health for the borough be renewed at an annual salary of £450, until he resign or be removed by the Council with the assent of the Local Government Board.

The adoption would have been unanimous but for one councillor who persisted in asking certain questions. Councillor Taylor, who had moved the resolution, claimed the right to reply, but was deterred from doing so by general cries of "agreed."

Dr. Crocker was first appointed in 1902, and it is satisfactory to find that the appointment has now been placed on a more suitable footing by substituting for the annual form of appointment the form given above, which has the approval of the Local Government Board.

TYPHOID FEVER IN ORMESBY.

THE urban district of Ormesby, where there is a population of about 15,000 persons, adjoins the borough of Middlesbrough. The houses, which are for the most part occupied by the working classes, are built in parallel rows, and at the rear of each house there is either a privy midden or a pail closet, there being about 1,500 of the latter and rather fewer of the former in the town. Less than 100 houses have waterclosets. For some years past there has been an undue prevalence of typhoid fever in the district, and in 1908 there were as many as 65 cases in fifty-one houses. Dr. R. W. Johnstone was accordingly deputed by the Local Government Board to inquire into the circumstances connected with the outbreak, and his report has recently been issued. After discussing the possibility of the water supply, the milk supply, or fish being directly involved in the spread of the disease, each is dismissed as a likely cause, and Dr. Johnstone finally expresses the opinion that the privy middens were responsible in no small degree for the dissemination of the fever, whether by transmission of the infection by house flies or in other ways. He recommended the district council to adopt measures to hasten the conversion of the privy middens to pail closets, or, better still, to waterclosets, and he urged that stable manure should be removed at least once a fortnight, in order to limit the breeding ground of flies. An unusual condition of the main sewer of the town is related by Dr. Johnstone, and is worth recording. In consequence of the level nature of the district and its inconsiderable elevation above sea level the sewer gradients are often too flat. In one instance the gradient was found to be in the wrong direction. This condition was looked upon locally as an advantage, for it was maintained that the sewer behind the reversed gradient remained permanently full, or almost full, of sewage, so that there was formed a water trap, which prevented gas from the sewage tanks finding its way into the sewers or house drains behind this so-called trap. Dr. Johnstone had not much difficulty in showing how fallacious was this contention.

PROPOSED MILK LEGISLATION.

IN his December report to his authority the Medical Officer of Health for the City of London draws attention to the probability of the London County Council making a further effort next session to secure powers from Parliament for the purpose of dealing with dirty milk on the same lines as tuberculous milk. The powers sought would enable the Council to take samples of milk on arrival in London and to exclude all milk found to contain any sort of matter rendering it unwholesome or unfit for the food of man, and give similar authority to London sanitary authorities in respect of milk at any place within their districts other than railway stations. The medical officer recommends his Council again to oppose the granting of any such powers, on the ground that no legislation dealing with milk supply can be satisfactory unless it involves compulsory supervision over the whole country. He also urges that in the interest of traders any clauses dealing with the collection and examination of samples should provide both for their division and for the competency of the examiner as under the Sale of Food and Drugs Act.

CHIMNEYLESS STOVES.

No fewer than three inquests were held on Christmas Eve concerning the deaths of persons found dead in rooms heated by stoves unprovided with chimneys for the outlet of fumes. In each case the verdict returned was one of accidental death from carbonic oxide poisoning. The inquiries took place in Westminster, Marylebone, and Belfast respectively. The Westminster case concerned a young man found dead in a lavatory in which, the house being damp that day, a charcoal stove, used for many years in different parts of the house, had been placed.

The Marylebone case related to a domestic servant employed in the house of a medical man. To warm her room she had been provided with a stove of German origin and burning a special kind of fuel stated to be compressed peat. She had been told to use the stove only during the day and to put it into the passage at night, and had been specially warned on the subject the night preceding her death. Nevertheless she kept the stove in her room, the door and window both being closed.

In the Belfast case the deceased had been found in his office in the morning, and sitting beside him a lady, likewise unconscious. A gas stove was burning and the room was suffocatingly warm. The stove had a chimney, but it was not carried out of the room.

Medical News.

DR. ADRIAN GREENE, Resident Medical Superintendent of the Carlow District Lunatic Asylum, has been appointed a Justice of the Peace for the county of Carlow.

THE report of the Medical Officer of Health of the County of London for the year 1908 has been issued, with a short prefatory report by the Public Health Committee, in which attention is specially directed to the decline in infant mortality, in the birth-rate, and in the death-rate, the latter having fallen as low as 13.8.

A LIST of medical libraries throughout the world, which appeared in the New York *Medical Record* of September 25th, 1909, has been reprinted. The information has been gathered by correspondence, and evidently great care has been taken in the compilation of the list. It includes the medical libraries of universities, colleges, and societies, but collections of medical works in general libraries have been omitted.

TO celebrate a record session at the London School of Tropical Medicine, fifty-seven students of the school dined at the Trocadero Restaurant on December 23rd, 1909, under the chairmanship of Captain Bissell, R.A.M.C. This break-up dinner included nearly every student who had entered for the course, and occasion was taken to entertain Sir Patrick Manson, Dr. H. B. Newham, Dr. Daniels, Dr. Wenyon, and Dr. Leiper. The arrangements for the dinner were made by Dr. Coghill, one of the demonstrators in the school.

THE Norwood Sanatorium, founded for the medical treatment of alcoholism and other forms of drug habits, has been removed to larger premises known as The Mansion, Beckenham Park, Kent. We are informed that nine-tenths of the patients admitted are sent directly by their own medical attendants, and that investigation into the causes and the best means of treatment of alcoholism have been and are being carried out. The last report would be sent to any medical practitioner on application to the medical superintendent at the above address.

AT the meeting of the Zoological Society of London on December 14th, 1909, Dr. H. B. Fantham, Protozoologist to the Grouse Commission, exhibited microscopic preparations and sketches illustrating the life-cycle of the sporozoon *Eimeria tenellum (Coccidium avium)*, parasitic in the alimentary canal of grouse. The parasite produces a fatal coccidiosis in grouse chicks, especially during the first month or six weeks of their life. Schizogony and sporogony occurred in both the duodenum and the caecum of the host. The caeca of grouse chicks dying from coccidiosis were full of spores (oöcysts), which were passed with the caecal droppings, forming a source of infection on the moors. On the ingestion of the spores by other grouse the sporozoites were liberated by the action of the pancreatic juice. Larvae of *Scatophaga*, found in grouse droppings, swallow the coccidian spores, voiding them uninjured, and so aiding in the dissemination of the spores in nature. The coccidiosis of grouse is transmissible directly to young fowls and young pigeons by feeding these birds on faeces of infected grouse. At the same meeting Dr. R. T. Leiper exhibited the original specimens of the nematode worm *Acanthocheilonema dracunculoides* (Cobb) from the museum of the Royal College of Surgeons. The characters of the genus, of which this was the type, had been inaccurately interpreted, the posterior end of the worm having been described as the head and the cuticular caudal appendages regarded as "lips." The remarkable specific character—namely, the entire absence of male forms and the lack in the female of vaginal opening—had also to be repudiated, for both were to be seen in the original material. The genus, as revised, would admit a second species—the *Filaria perstans* of man.

Letters, Notes, and Answers.

BRITISH MEDICAL ASSOCIATION AND BRITISH MEDICAL JOURNAL.

THE offices of the British Medical Association and of the BRITISH MEDICAL JOURNAL are at 429, Strand, London.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London. W.C.; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

X. Y. Z. asks to be put on the royal road for separating blood corpuscles from fresh blood—for example, sheep's blood for Wassermann test. The chief difficulty he has found is to get the right centrifuge—one to work fairly large quantities. The cogs of all that he has purchased have ripped off before enough prolonged speed could be got out of them. He also desires to know the best diluent.

PUBLIC HEALTH CLASSES IN GERMANY.

H. B., who has recently passed his D.P.H., desires "to go over to Berlin to prosecute public health work," and asks us "how to set about it." Apparently he wants to take a short course of instruction. He confesses to "rather an elementary" knowledge of German.

*** We advise him to consult the director of the laboratory in which he has been working, explaining what particular branch of public health work he desires to study, and to obtain an introduction from him. Other letters of introduction might also be useful. With regard to the fees, he should make direct inquiries from the authorities concerned, specifying the nature of the course he wants to take up. He should consult *Minerva*, the scientific "Who's Who," for the addresses of distinguished pathologists abroad, but he can hardly expect that very busy men, such as the one he mentions, will be likely to give him much individual attention. If his knowledge of German does not enable him to understand the spoken language and to make himself understood, he will certainly be at a serious disadvantage.

ANSWERS.

ELECTRICIAN.—So far as our inquiries have extended, nothing appears to be known among electro-therapeutists in this country about the electrically heated garment mentioned in the leaflet, and it would be desirable to have more definite technical information than the vague statements given therein before venturing an opinion as to its merits, or even as to its practicability.

R.N.—The *Archives Générales de Chirurgie* (40, Boulevard Malesherbes, Paris (VIII^{e}) would probably meet our correspondent's requirements. It is a monthly review edited by a committee consisting of Professor Lannelongue and Professor Le Dentu of Paris, MM. Nové-Josserand of Lyons, M. Picqué and M. P. Mauclaire of Paris. M. Mauclaire, who is agrégé Professor and Surgeon to the Charité, is the acting editor. The subscription for foreign countries is 26 francs a year.

THE CARE OF CLINICAL THERMOMETERS.

DR. B. STRACEY (Leicester) writes: In reply to "Vox Clamantis," who asks for methods of restoring marks on clinical thermometers, I have found black enamel, to be obtained from any bicycle shop, the best material. Paint over the stem of the thermometer with a thin layer of enamel, allow it to dry, and then rub over with methylated spirit or other solvent. The enamel remains in the grooves of the index in sufficient quantity to show them clearly.

ANTITOXIN TREATMENT OF DIPHTHERIA.

L. D.—(*a*) Not all authorities are agreed that antitoxin should invariably be injected in all doubtful cases of diphtheria, though the majority of them are so agreed. (*b*) Not all authorities are agreed that it should invariably be injected where the disease has been positively determined by cultures. (*c*) Its use is practically universal in this country, so far as is known; it certainly is so in hospital practice, and most of the cases are treated in hospitals. (*d*) Northrup, article on diphtheria in Nothnagel's *Encyclopaedia of Practical Medicine* (English edition), p. 165; and Caiger, BRITISH MEDICAL JOURNAL, October 8th, 1904, p. 903, may be consulted for views as to the routine use of antitoxin. The annual statistical reports of the Metropolitan Asylums Board show that not all cases that are diagnosed to be diphtheria are treated with antitoxin.

TREATMENT OF EXCESSIVE PERSPIRATION.

DR. A. HOWARD PIRIE (Chief Assistant, *X*-Ray Department, St. Bartholomew's Hospital) writes: In answer to "Worry," I have during the past year had four patients to treat for excessive perspiration. Two of these had the symptoms described, and were so exactly alike that it seems to be a chronic disease not usually described in textbooks. In each patient the sweating began in the morning after breakfast, and kept on badly all day, till by 5 p.m. they were forced to change all their clothes about the armpit. The perspiration soaked the coat about the armpit, caused a "high water mark"—as one patient called it when it dried—and so discoloured and destroyed it that neither could wear a coat longer than three months. Driving in a cold wind, or getting chilled, brought on the perspiration very badly. After 5 or 6 p.m. the perspiration would cease for the day, unless any worry or anxiety kept it going during the evening. In bed the perspiration completely stopped, and the patients were comfortable till next morning, when it began again after breakfast. The treatment was four applications of *x* rays to each armpit. The applications were made at intervals of one month, and were the largest applications that the skin would stand at each sitting. The dose was measured by two independent methods—Sabouraud's pastilles and my own meter. The armpit was divided into two areas, and each area was treated separately. This was to ensure that every part of the armpit got an equal dose. After two applications the patients began to notice an improvement, and after the fourth the armpit remained dry all day. Some time ago one patient wrote to me saying, "The comfort I am feeling from the treatment is more than I can describe, after suffering for about thirty years." The treatment is so simple that it seems wonderful that it is not more generally known. It was described by me in the BRITISH MEDICAL JOURNAL of April 17th, 1909, page 953.

LETTERS, NOTES, ETC.

A WARNING.

MR. HUGH M. RIGBY, F.R.C.S. (London) writes: A young man claiming to be my relative has recently called on several medical practitioners in the London suburbs. He inquires for lodgings in the neighbourhood and then borrows money from the landlady to whom he has been introduced by the doctor. I write in the hope that this warning may be the means of securing his arrest.

LEVICO WATER.

WE have received from Messrs. Hertz and Co., 9, Mincing Lane, who are the English agents of the Levico Springs, a copy of a publication written by Professor Liemberger of Levico with a view to facilitating the use of these ferro-arsenical waters. It consists of a number of removable leaves, each giving a chart showing when and in what quantities the water should be drunk during the course of a cure. The charts are designed for patients of different ages from early childhood upwards, and it is intended that one of them should be removed from the block and handed to each patient, with any other instructions which the physician in charge of the case may think desirable. Each block of charts commences with a kind of title page to be retained by the physician himself, showing how much iron and arsenic respectively the patient will be taking when he has reached the middle of the course prescribed. The scheme has been well thought out and should greatly aid physicians employing these waters.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page	8	0	0

An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

NOTE.—It is against the rules of the Post Office to receive *postes Restante* letters addressed either in initials or numbers.

An Address

ON THE

DIAGNOSIS AND TREATMENT OF ACUTE INFLAMMATIONS OF THE UPPER ABDOMEN.

DELIVERED BEFORE THE NORFOLK AND NORWICH MEDICO-CHIRURGICAL SOCIETY, OCTOBER 12TH, 1909,

BY A. W. MAYO ROBSON, D.Sc., F.R.C.S.

ACUTE peritonitis of the upper abdomen may be dependent on disease starting in the stomach, duodenum, jejunum, colon, gall bladder, bile ducts, pancreas, liver, spleen, upward displaced appendix, kidneys, or inflamed lymphatic glands, and may be due to ulcer, perforation, abscess, concretions, hydatids, cancer, internal hernia, or other pathological conditions.

The acute seizure may occur after well-marked symptoms of disease extending over long periods, or may come on suddenly without premonitory symptoms to indicate the cause; in the former, the diagnosis is, as a rule, more simple, but in the latter it may be most difficult, and may sometimes be even impossible without exploration.

In nearly every case pain is the prominent symptom, and it is usually associated with rigidity of one or both recti and with local and general tenderness.

In other cases profound collapse may be the first sign, and the site of the trouble may only be indicated by rigidity of the muscles, by tenderness, and at times, in case of perforation of a hollow viscus, by absence of liver dullness and a thrill obtained on delicate palpation.

In the earlier stages the temperature is no guide, though later it may afford valuable information.

Pinched features, an anxious expression of countenance, and general distress are usually seen in the acute cases, but are less marked in conditions coming on gradually.

Shallow breathing, immobility of the lower ribs and of the abdominal muscles are characteristic of peritonitis in the upper abdomen from whatever cause.

High Appendicitis.

I think it is not sufficiently recognized that acute appendicitis nearly always commences by sudden pain above the umbilicus, and only after some hours does the pain settle in the caecal region, though from the first rigidity of the lower part of the right rectus and tenderness at some point between the umbilicus and right anterior superior spine of the ilium will usually indicate the true nature of the disease.

If, however, the caecum be displaced upwards, or the appendix be unusually long and extend upwards, appendicitis may lead to confusion in diagnosis, as in the following case:

A gentleman aged 27, seen in June, 1907, had had several attacks within the year of pain starting just below and to the right of the ensiform cartilage, associated with rigidity of the upper part of the right rectus, and tenderness at a point between the ninth costal cartilage and the umbilicus, but nearer to the former. Each attack was associated with vomiting and some general abdominal distension, and was followed by sallowness, but without definite jaundice. After a severe seizure the abdomen was opened by a vertical incision below the right costal margin, when an inflamed appendix, nearly seven inches in length, was found containing pus, the tip being adherent to the liver, though the caecum was in its usual place. The bile passages and the duodenum were involved in adhesions, but otherwise healthy, and the removal of the appendix led to complete recovery.

In another case a displaced appendix had been slightly inflamed on a number of occasions during several years antecedent to the attack in question, and the inflammation presented the ordinary signs of catarrhal appendicitis. When seen by me in consultation in February, 1906, the patient had had rigors for three days. His breath was very foul, he looked extremely ill, and was evidently suffering from septicaemia. In this case all the tenderness was above the umbilicus under the right costal margin and the caecal region could be pressed on without pain. Although there was no general abdominal distension, signs of free fluid could be elicited by flicking with the finger-nail. From the previous history of definite appendix attacks, and from the symptoms and signs then present, a diagnosis of appendicitis associated with acute cholecystitis was made. On opening the abdomen by a vertical incision starting from the right costal margin, the colon, caecum, and gall bladder were found adherent, and behind them was a gangrenous perforated appendix surrounded by offensive pus; the gall bladder was also inflamed, and contained brownish offensive matter and several gall stones. All free fluid was wiped away, the appendix removed, and the gall bladder emptied and drained. The local symptoms were relieved and recovery looked likely, but the pyaemic symptoms continued and ultimately proved fatal.

The patient's extreme illness decided the question of draining instead of removing the gall bladder; but I now think cholecystectomy ought to have been performed, as in another similar case I removed both the gall bladder and appendix, both being acutely inflamed, with complete success.

Acute inflammation and abscess in the upper abdomen secondary to appendix trouble is well known, and I could give several examples in which obscure symptoms have followed on appendicitis, and have been made clear by the discovery of a subphrenic abscess that had to be treated by incision and drainage below or between the ribs.

The history of an attack of appendicitis presenting the usual signs, followed after some days or even two or three weeks by fever, rigors, and pain behind the right costal margin, and associated with rigidity of the right rectus, should give rise to the suspicion of this complication and lead to exploration.

In one case that I operated on last year in Italy, in a second week of diagnosed appendicitis, there was marked tenderness beneath the right ribs, with rigid right rectus, and, after removing a perforated appendix, I traced the course of an abscess behind the whole length of the ascending colon up to the hepatic region, and thus apparently saved the patient from what would have been a subphrenic abscess.

In another case, some weeks after apparent recovery from appendicitis, fever, with rigors and rapid pulse associated with swelling, pain, and tenderness in the region of the liver, led to the diagnosis of secondary subphrenic abscess, which was treated by incision below the right costal arch and intercostal drainage.

In some of these cases, according to the general condition of the patient, the incision should be extended downwards, and at the same time the primary trouble in the appendix removed, while in others the appendix may be left for a later operation.

Where a suspicion of appendix trouble arises in a case in which the focus of acute inflammation renders it desirable to open the abdomen above the umbilicus, I am accustomed to make my incision about an inch to the right of the mid-line, and to separate and draw outwards the rectus, thus enabling the abdominal wall to be efficiently repaired by suturing the anterior and posterior rectus sheaths separately. In this way the incision may be safely extended downward as far as necessary, with the knowledge that no weakness will be left.

Acute Cholecystitis.

This is one of the commonest causes of inflammation in the upper abdomen. It may be secondary to cholelithiasis or to typhoid fever, or may come on without any apparent primary cause.

In some of these cases the diagnosis is readily made from the previous history of gall-stone attacks, as well as from a swelling of the gall bladder and right lobe of the liver associated with local tenderness; in others, the local symptoms and signs are so definite that, although there may be no previous history pointing to gall-bladder trouble, the diagnosis is not difficult; but in some cases an exact diagnosis may be almost impossible, as the symptoms may be so acute as to simulate perforation of the stomach or duodenum, or some other acute abdominal catastrophe. For instance, I operated on an elderly lady some little time ago on the second day of an acute phlegmonous cholecystitis, and there had never been any symptoms of cholelithiasis to give a clue to the cause of the trouble; and only about three months ago I operated on a lady in Dorsetshire and removed a gangrenous gall bladder within forty-eight hours of the onset of the attack, but, although an accurate diagnosis had been made before my arrival, chiefly by the local signs, the history of indigestion, pointing to duodenum or pylorus, made it quite

possible that a perforated ulcer might be the cause of the peritonitis then present.

In obtaining the history, it should not be forgotten that attacks of pain so long ago as twenty, thirty, or forty years may have significance, nor must it be forgotten that an enlargement of the right lobe of the liver very often accompanies cholelithiasis, and may completely hide the inflamed gall bladder, though the tender spot between the ninth costal cartilage and the umbilicus will be seldom absent. Absence of jaundice has no diagnostic value, as the obstruction is usually in the cystic duct; but in many of these cases inflammation extending to the common duct or to the head of the pancreas sets up secondary jaundice, which has then positive diagnostic importance.

Did time allow, I could relate numerous examples of

(*a*) Acute cholecystitis and gangrene of the gall bladder associated with gall stones, but without any previous symptoms pointing to the same; of
(*b*) Acute cholecystitis due to cholelithiasis, with previous though long antecedent history of gall stones; and of
(*c*) Acute cholecystitis without gall stones, and without any previous history pointing to trouble in the gall bladder region.

The treatment of these cases is by cholecystectomy, for the gall bladder is so seriously damaged that, if left, it may not only prove immediately dangerous, but may give rise to ulterior trouble.

Under ordinary circumstances, in operating for gall stones, I am not in favour of removing the gall bladder, as I do not think it to be the useless organ that some surgeons describe it to be.

Seeing that recurrence of gall stones after cholecystotomy with efficient drainage is an extremely rare event, that the danger of cholecystotomy in uncomplicated cholelithiasis is almost *nil*—in my own experience not 1 per cent. over a large number of cases—that drainage of the bile passages after any gall-stone operation is distinctly advantageous, and that if at some future time it should be necessary to drain the bile passages—say for obstructive jaundice or interstitial pancreatitis—the difficulties would be increased by the absence of a gall bladder, though not by a cholecystotomy, my feeling is very decided that cholecystectomy should not replace the simple operation of cholecystotomy as a routine procedure in operating for gall stones, though it is indicated in phlegmonous cholecystitis, and usually in empyema of the gall bladder, and in other conditions not coming under review in my present paper.

But in connexion with the gall bladder and bile ducts, a condition equally, if not more, serious may be found leading to acute peritonitis in the upper abdomen, and that is ulceration and perforation leading to extravasation of the infective contents of the biliary passages.

The indications for treatment in such serious conditions are important, as not infrequently the operator is tempted to do too much. If the case be seen sufficiently early, before the system is poisoned and before the peritonitis has become diffused, a complete operation, with removal of the ulcerated and perforated gall bladder and free drainage of the right kidney pouch, will be called for; but if diffusion has occurred and general peritonitis is present, an exposure of the inflammatory focus, a rapid removal of the pus and inflammatory material in the gall bladder region, and free drainage of the right kidney pouch through the loin, and, if needful, of the pelvic pouch through a suprapubic puncture, are only called for, and any attempt at abdominal flushing, removal of the gall bladder, or in fact any serious prolongation of the operation, will probably end in disaster. The following cases afford illustrations:

I operated in 1893 on a case of ruptured gall bladder, due to gall stones, in which acute symptoms supervened suddenly after a history of over twenty years' gall-stone seizures. On the third day of the attack, the patient being extremely ill with all the signs of acute peritonitis in the right upper abdomen, I made a free incision below the right costal margin and evacuated several pints of bile and pus. The patient being too ill to bear a prolonged search, I simply inserted drainage tubes into the subphrenic and right renal regions, with the result that the patient not only recovered, but was well some years later without any further operative treatment having been necessary.

Three years ago, in a patient nearly 70 years of age, I operated in like manner, the patient being at the time in an extremely critical condition on account of pneumonia of the right base, albuminuria, and a feeble heart. The sudden acute attack, followed by peritonitis of the right upper abdomen with fixation of the ribs, rigid right rectus, and a doubtful sense of fluctuation, left no doubt as to the nature of the disease, and on opening the abdomen above and to the right of the umbilicus, a large quantity of offensive pus and bile with a number of gall stones were evacuated from under the diaphragm and beneath the liver. Simple drainage by large tubes, one of which was passed between the ninth and tenth ribs, and one through a stab wound in the loin, led to complete recovery, although no attempt was made to close the perforation or to remove the gall bladder. The patient is at the present time in good health, and, curiously, has lost his albuminuria that had been present off and on for several years.

The condition is so grave that no hard-and-fast line of treatment can be insisted on. In the two cases just related a mere wiping out of the septic cavity after the removal of its contents, followed by free drainage through the loin in one case and between the ribs in the other, sufficed to bring about recovery, whereas a more extensive and radical operation would probably have resulted in disaster.

On the other hand, if the extravasation is local and the perforated gall bladder or cystic duct be ulcerated or gangrenous, and the patient in a fit condition to bear it, then removal will be the correct treatment, as in the following case:

I operated in May, 1906, on a gentleman of 62, during an acute gall-stone attack associated with signs of acute local peritonitis limited to the upper abdomen. On exposing the inflamed gall bladder, a collection of grumous, offensive pus was found beneath the liver. A perforation of the under surface of the gall bladder had allowed the contents, including gall stones, to escape, the effusion having been limited by adhesions. After clearing out the extravasated fluid and the concretions, the gall bladder was rapidly cut away by means of scissors, there being no haemorrhage on account of thrombosis of vessels. A tube was passed into the cystic duct, and the right renal pouch was drained through a stab puncture in the loin. The patient is now in excellent health, though his recovery was somewhat tardy.

In case of extravasation from injury the conditions are quite different, as the effused fluids are not septic; therefore, if the condition of ruptured gall bladder or bile ducts be recognized sufficiently early, a complete operation may be safely performed, and the gall bladder can be removed or drained or a ruptured bile duct may be sutured or drained. The right kidney pouch should also be drained through a lumbar stab puncture. In these cases, besides the local signs of peritonitis, jaundice supervenes about the third day, owing to absorption of some of the effused bile.

Should the serious nature of the accident not be recognized until several days have elapsed and a localized collection form beneath the right costal margin, it will be rarely advisable to do more than perform simple incision and drainage. Should the extravasated fluids have overflowed into the general cavity of the peritoneum, the local drain may be supplemented by suprapubic drainage, assisted by the patient being well propped up in bed so as to facilitate the evacuation of the extravasated fluid through the tube.

If adhesions have taken place, ulceration may occur into neighbouring organs, setting up symptoms of local peritonitis associated with those pointing to intestinal obstruction, in which case a complete operation may have to be undertaken, as in the following case:

A gentleman of 76, whom I saw on the third day of an acute attack of pain in the upper abdomen and violent vomiting, had never had any symptoms pointing to gall stones, and had been quite well before the present seizure. The upper abdomen was distended and tender and the patient extremely ill. On opening the abdomen, acute cholecystitis with ulceration, extending into the stomach and colon, was found, and a large gall stone was removed from the interior of the stomach and one from the opening leading into the colon. After packing off the abdominal cavity by sterilized gauze and separating adhesions, a quantity of pus and bile was mopped up, the visceral openings closed, and the ruptured gall bladder removed. The operation, which occupied half an hour, was completed with the patient in good condition, and when heard of a year later he was in good health.

Perforated Duodenal Ulcer.

This, while one of the most serious of the conditions we are considering, may occur without any warning and without any previous symptoms pointing even to the existence of ulcer.

I saw with his medical attendant a young man, aged 21, within eight hours of a sudden attack of pain in the upper abdomen. The condition had been correctly diagnosed before my arrival, the diagnosis having been made on the ground of the sudden

onset of an agonizing pain beneath the right costal margin immediately after exertion, which was followed by shock, and associated with marked rigidity of the upper part of the right rectus, a fluid thrill felt on flicking the right superior abdominal region, the presence of a tender spot to the right of and just above the umbilicus, and a history of a severe burn on the chest a few weeks previous to the sudden illness.

There was an entire absence of digestive trouble preceding the attack. I immediately operated, and found a duodenal perforation the size of a threepenny piece, which I was able to suture and cover with a flap of omentum. As perforation had occurred on an empty stomach the extravasated fluid was comparatively small in amount and limited to the right side of the abdomen. Recovery was uninterrupted.

Or the condition may have been preceded by the symptoms of duodenal ulcer for years and yet occur at a time when least expected and when the patient is apparently quite well.

Out of a number of such cases I will select two examples.

One, a clergyman of middle age, on whom I operated fifteen years ago within twelve hours of the sudden onset of pain in the right upper abdomen, apparently caused by getting over a stile. He had had pain three to four hours after meals, relieved by taking food, off and on for several years, and had been awakened frequently about midnight, a very characteristic symptom of duodenal ulcer. In this case I recognized the perforation at once, and after closing it simply wiped out the effused fluid without drainage. The patient was well when heard of some years later.

The other example was in the case of a middle-aged medical man, whom I saw three days after perforation, suffering from general peritonitis. The attack occurred when he was getting into his dog-cart on his usual morning round of visits, and when I saw him he did not give the history of indigestion, though later he recalled to mind that for a long time he had been subject to pain before meals relieved by food.

In this case the perforation was a large opening in the front part of the duodenum, which I closed, afterwards draining the right kidney pouch through a stab wound, and the pelvis through a suprapubic opening. Drainage was assisted by the semi-recumbent posture, and a good recovery resulted.

Perforated duodenal ulcer has often been mistaken for acute appendicitis, though the previous symptoms are usually so distinctive that the mistake ought not to occur so frequently.

If the case be seen within a few hours of the onset the mistake in diagnosis is of less importance, as, though an incision may be made in the appendix region, the nature of the extravasated fluid or the presence of a normal appendix will immediately throw light on the condition, and the incision can either be extended upwards or another incision made beneath the right costal margin for repair of the perforation.

But if at a later stage, when general peritonitis has developed, the mistake be made, and an appendix, inflamed secondarily as the result of a general peritonitis, be removed under the idea that it has originated the disease, and the duodenal perforation be left, the patient will almost certainly die, even though the peritoneal cavity be thoroughly drained.

Though general peritonitis from acute appendicitis is often followed by recovery after simple drainage, in peritonitis from duodenal ulcer the ulcer must be closed at the time of operation, as recovery has hardly, if ever, occurred where the perforation has been left untreated.

More than twenty years ago, having had success in the simple drainage of general peritonitis from perforated appendix, I was tempted to simply drain without closing a perforated duodenal ulcer on the third day after perforation, when the patient was, as I then thought, too feeble to bear an extension of the operation for the closing of the perforation; but, although the man survived till the third day, it was impossible to feed him, and the duodenal fistula continued to pour out fluid into the peritoneum.

The question as to the performance of gastro-enterostomy at the same time as the repair of a perforated gastric or duodenal ulcer is an interesting problem.

Though doubtless, for many reasons, gastro-enterostomy may be desirable, especially because it takes off strain from the newly-sutured opening, and at the same time enables the patient to be fed forthwith, yet such an extension of the operation is seldom possible in patients so ill as these subjects of perforation are, and I should only perform it at the time of closing a perforation in the duodenum where almost complete stenosis of the pylorus renders it certain that adequate feeding of the patient cannot be conducted subsequent to operation.

In several cases in which I have closed perforated duodenal ulcers in the presence of great thickening of the pylorus and first part of the duodenum the patients have recovered, and I have subsequently performed a successful gastro-enterostomy when conditions were more favourable; moreover, in some of these cases the patients have, much to my astonishment, got completely well, and have not required a subsequent operation, although the pylorus appeared at the time to have a very small lumen.

The diagnosis of perforated duodenal ulcer rests on the previous history, the site and sudden character of the pain to the right of the umbilicus radiating to the loin, rigidity of the upper part of the right rectus, and the presence of fluid in the right of the abdomen. In perforated ulcer of the stomach there is usually a characteristic history of indigestion, with pain shortly after food, the pain being usually above and often to the left of the umbilicus, both recti being rigid and boardlike, and a fluid thrill being sometimes felt across the front of the abdomen.

Suppuration in connexion with chronic ulcer of the stomach or duodenum is often a sequence of subacute perforation in which a leak has occurred through a minute puncture in an empty viscus, giving time for adhesions to form between neighbouring organs, and so preventing a general peritonitis, but an abscess may also form by the spread of infection through the damaged stomach or duodenal wall apart from perforation.

The diagnosis of these cases presents fewer difficulties, as the history of gastric or duodenal ulcer over months or years preceding the attack in question is usually so distinct as to render evident the true nature of the disease, as in the following case:

A gentleman of leisure, aged 45, had suffered from acidity and flatulency off and on for years and from three to four hours after meals, moreover he was regularly awakened at 2 a.m. when the attacks were on, and had to take food to obtain relief, clearly pointing to duodenal ulcer. When I saw him he was in great distress with signs of inflammation beneath the right costal margin, the right rectus muscle being rigid and the upper abdomen being extremely tender to the touch; these acute symptoms had come on suddenly three days previously, when the stomach was empty, and had increased in violence. A vertical incision below the right ribs revealed an abscess between the duodenum and liver, and at the bottom of the abscess was a minute perforation, just beyond the pylorus. The abscess cavity was carefully cleansed and the perforation closed. Subsequently a gastro-enterostomy was performed, with good results.

Some years ago I was asked to see a woman of 30 with a well-marked left subphrenic abscess, the acute illness having been present for a fortnight, following on a sudden violent pain in the left upper abdomen. The history of pain immediately after food for many months left no doubt as to the cause being a chronic gastric ulcer, and the physical signs of a collection of fluid and gas under the left ribs showed that the abscess communicated with a hollow viscus. In this case drainage of the subphrenic abscess through an opening between the ninth and tenth ribs on the left side led to complete recovery.

But that the diagnosis is not always so easy the following case will show:

I was asked by a medical friend to see a gentleman, aged 53, who was supposed to be dying from a malignant tumour in the region of the liver, with secondary effusion into the right pleura, and a hopeless prognosis had been given. I elicited the history that twenty years previously he had had a severe attack of indigestion, with pain some hours after food, and at that time he remembered that the illness was accompanied by dark motions, which his medical attendant told him were due to altered blood. From that time onwards he had been subject to what he termed weak digestion, characterized by pain three to four hours after a meal, usually relieved by taking food. He was not, however, prevented attending to his work until December, 1905, though in August he consulted a medical man because of the pain after meals, and of a pain which awakened him every night from 1 to 3 a.m. In December he became worse, and in January a swelling was first noticed beneath the right costal margin, which was supposed to be inflamed gall bladder, though in January the diagnosis was again altered, as the urine was noticed to be red and to contain blood, when kidney trouble was diagnosed. In February the right side of the chest was found to be dull, evidently due to some effusion in the pleura, and at that time the chest was aspirated, and 2 pints of clear fluid withdrawn. The diagnosis was changed to malignant tumour with secondary pleuritic effusion. The patient was then coughing up a quantity of muco-purulent sputum, and was rapidly becoming weaker.

When I saw him, on February 22nd, 1906, he was very ill, and emaciated to an extreme degree. He was suffering from irregular fever with profuse sweats, and his pulse was rapid

and feeble. I found well-marked dullness in front as high as the nipple line and rather higher behind, and there was a hard, tender mass below the right costal margin, which did not move during respiration. The right side of the abdomen was absolutely still and rigid during respiration, though the left side moved moderately. The outline of the stomach could be seen down to the level of the umbilicus, and while I was examining the abdomen there was visible gastric contraction, followed by a gurgle as if air and fluid were passing through some stricture. On auscultating the dull area on the right side of the thorax, the gurgle I felt on palpating the stomach could be distinctly heard in the chest, and on percussing with two coins in the epigastrium and over the first part of the duodenum, the marked percussion note was distinctly conveyed through the stethoscope, applied over the area of dullness. With the history that I had just elicited to guide me and with the well-marked physical signs I have mentioned, I had no hesitation in diagnosing subphrenic abscess due to perforation of a duodenal ulcer, and it became clear that the abscess had burst into the lung and was giving rise to the purulent expectoration, while the pleurisy was a secondary and superadded condition.

The patient was moved to a nursing home, and on March 3rd I made an incision between the seventh and eighth ribs in the axillary line over the centre of the area of amphoric resonance. An exploring syringe was passed, and offensive pus was at once obtained. The incision was then extended into the abscess cavity, and over a pint of very fetid pus was evacuated and a large tube inserted. So far as could be made out, the pus was situated between the liver and diaphragm He forthwith began to improve and the temperature at once became normal.

After the discharge had lessened to a certain extent, it did not tend to diminish further; and as he began to take more food the discharge increased, and with the increase of food the digestive symptoms reappeared. It was therefore decided to attack the abdominal disease, and on April 7th, about a month after the first operation, I opened the abdomen a little to the right of the mid-line, and found a large ulcer of the pyloric end of the stomach extending through the pylorus into the duodenum. The pylorus and duodenum were firmly fixed to the under surface of the liver and to the front of the kidney by such firm adhesions that it was felt advisable not to disturb them, as they were doubtless bounding the abscess cavity. The cardiac end of the stomach, though dilated, seemed to be healthy, and there was no great difficulty in performing a posterior gastro-enterostomy, from which he made an uninterrupted recovery. He was able to take food by the mouth on the day of operation, and by the end of the week he was taking a large quantity of pounded fish, meats, and other foods without discomfort. The discharge from the chest immediately began to lessen, and within a week the drainage tube was removed. Within a month from the time of the gastro-enterostomy he was able to leave the nursing home with both wounds soundly healed, and the tumour that had been felt below the right costal margin had entirely disappeared. When I saw him on May 31st, 1906, he had gained 12 lb. in the month, and I have since heard that he is in perfect health.

Acute Pancreatitis.

One of the most fatal of abdominal inflammations is acute pancreatitis, which is characterized by symptoms pointing to acute septic peritonitis starting in the upper abdomen. It may have been preceded by symptoms of gall stones, of which pancreatitis is a frequent complication, or it may occur without apparent cause.

Be the cause what it may, as soon as diagnosed or even suspected, the abdomen should be opened by a vertical incision a little to the right of the mid-line starting above and continuing downwards beyond the umbilicus. The focus of inflammation can then be reached, either through the great omentum below the stomach or through the lesser omentum above the stomach, or through the meso-colon by raising the transverse colon; the aim should be to incise and freely drain the inflamed area, packing off the adjoining healthy peritoneum by sterile or iodoform gauze. I have had 6 cases of acute pancreatitis under my care, and have operated on 4, of which 2 recovered.

In a case of gangrenous pancreatitis in a man aged 58 a collection of fluid was opened through the great omentum above the hepatic flexure of the colon and a slough of the pancreas was extracted, after which free drainage was established. At the same time the gall bladder and all the stones within reach were removed, but the common duct was not opened, as the patient was too ill to bear a prolongation of the operation. Fortunately several small calculi worked back through the tube in the gall bladder, and recovery was not delayed and was ultimately complete. The pancreatic reaction was well marked in this case.

In another case, of a young married woman suffering from acute suppurative pancreatitis, the viscera were found hopelessly matted together. There was extensive fat necrosis all over the abdomen. A subphrenic abscess, containing masses of necrosed fat and dark pus, was evacuated. The patient was only temporarily relieved, and succumbed on the third day. In this case it would probably have been better to have drained through the costo-spinal angle on the left side as well as from the front, but the patient was so ill that it did not appear to be advisable to do more, lest death should occur on the table.

In another case, of a middle-aged medical man, the diffuse fat necrosis and adhesions of the viscera and omentum into a dense mass presented a formidable obstacle to complete exploration; but as no evidence of any collection of fluid, either in the pancreas or in the lesser peritoneal sac, could be obtained, and as no gall stones could be felt in the gall bladder or bile ducts, the peritoneal toilet was performed and the abdomen closed, recovery following, and ending in complete restoration to health. It is worthy of note that in this case the diagnosis was confirmed before operation by the urinary pancreatic reaction.

Even if there has been a difficulty in diagnosis before the abdomen is opened, the presence of fat necrosis at once demonstrates the true condition directly the abdomen is opened. In some exceptional cases, after making the diagnosis by an abdominal incision, it may be wise also to establish drainage of the lesser peritoneal sac through the left costo-vertebral angle by means of a stab puncture from within. I performed this operation in 1888, and, although the patient succumbed to general peritonitis, which was present at the time of operation, yet the drainage of the lesser peritoneal sac had been efficiently maintained.

Subacute Pancreatitis.

Subacute pancreatitis, leading to abscess of the pancreas, is characterized by less acute symptoms, though the ultimate issue may be equally dangerous. In a case I saw recently the diagnosis was so obscure that all it was possible to affirm was that there was peritonitis starting in the upper abdomen, until the abdomen was opened, when the presence of fat necrosis associated with offensive pus clearly showed the nature of the illness.

Out of 9 cases of abscess of the pancreas that I have seen I have operated on 7, with recovery from operation in 6, though in two cases the relief was only for a few weeks and in one for a few months.

The presence of a tumour or of a diffuse epigastric swelling behind the stomach will be generally found, or if epigastric tenderness prevents palpation, an anaesthetic will enable the swelling to be felt. There is usually fever of a septic type. The presence of leucocytosis and the discovery of the pancreatic reaction in the urine will afford valuable aids to diagnosis. As soon as an abscess forms it may reach the surface above or below the stomach, in either loin, in the left iliac region, under the diaphragm, or even in the pelvis, and will require differential diagnosis from other conditions leading to a collection of pus in those situations, such as chronic perforative gastric or duodenal ulcer, suppurative cholecystitis, splenic abscess, perirenal abscess, spinal abscess, glandular abscess, etc.

Calculus of the pancreas, though an extremely rare condition, must not be lost sight of as a cause of inflammation in the upper abdomen. I have fully reported, in a work on diseases of the pancreas, the case of a lady of advanced age in which I removed several pancreatic calculi with complete success.

The diagnosis of pancreatic calculus may be assisted by the *x* rays, for, as I pointed out in my Hunterian Lectures at the Royal College of Surgeons, while gall stones transmit the Roentgen rays, pancreatic calculi, which contain abundance of lime salts, are opaque to the rays. The presence of Cammidge's reaction in the urine and of an excess of neutral fat in the faeces, from the associated condition of interstitial pancreatitis, are also of valuable assistance.

Suppuration around Cancerous Tumours.

Suppuration around cancerous tumours of the colon, pylorus, or gall bladder, is apt to lead to great difficulties in diagnosis.

It is well known that abdominal cancer, if it does not produce obstruction or does not invade the parietal peritoneum, may be present for a considerable time before attracting attention, and that the first symptoms may only occur when the disease is complicated by the presence of infective organisms leading to inflammation or suppuration. Hence, the presence of an abscess in the upper abdomen at or after middle age arising without apparent cause must always be viewed with some suspicion.

I was asked some time ago to see a gentleman of 64 who was supposed to be suffering from abscess in the right hypochondrium due to cholecystitis. The abscess and inflammation in the upper abdomen were manifest, but the history of ill health

without definite symptoms for some months and the absence of any symptoms pointing to gall stones gave rise to a suspicion of suppuration secondary to cancer, which proved to be the case, and the drainage of an offensive abscess beneath the right costal margin had to be followed by an operation for the relief of obstruction due to cancer of the hepatic flexure of the colon.

I have seen the same course of events in other cases of cancer of the colon as well as in cancer of the pylorus and of the body of the stomach and not infrequently in cancer of the gall bladder. In the latter case jaundice is usually, though not always, present. Were it desirable I could give notes of cases illustrating all these conditions in which operation has primarily been undertaken for abdominal abscess. The practical outcome of my experience is that it is better, when suppuration is combined with cancer, to do as little as possible, as not only can little good be done, but in all probability a fatal result will follow any attempt to do more than drain the abscess; or even should recovery occur after a radical operation, relapse owing to diffusion of the malignant disease will be so speedy that the slight prolongation of life is practically worthless.

Jejunal Ulcer.

This is fortunately a rare form of peptic ulcer which claims two causes, sepsis and hyperchlorhydria. In duodenal or gastric ulcers that have failed to yield to medical treatment, and in which gastro-enterostomy has been performed, I fear that the fact has not been properly grasped that the operation, though an important one, is still only an incident in the treatment, which ought to be continued on general lines for some time longer, or until good health is again established. Greater attention to oral sepsis and to the gastric condition of hyperchlorhydria subsequent to operation is advisable, and in this way the very serious complication of peptic ulcer in the jejunum, and of relapses in gastric ulcer might be prevented.

In the cases reported, perforation, associated with acute, subacute, or chronic symptoms, has occurred; hence there can be no question as to the desirability—nay, as to the absolute necessity—of operation, which ought not to be delayed too long. When the abdomen is opened the treatment will depend on the condition found. If perforation has occurred into the general peritoneal cavity, the condition will be one of the utmost peril, and only capable of relief by immediate cleansing or drainage of the peritoneum and closure of the opening, or excision of the ulcerated area.

Though peptic ulcer of the jejunum is less frequent after posterior gastro-enterostomy, and is hardly, if ever, seen when the operation is performed without a loop, yet, when it does occur, it is more likely to be acute and not to lead to adhesions, which usually occur in jejunal ulcer following anterior gastro-enterostomy.

If, as in the greater number of cases, adhesions have formed, the condition will be less acute, although very distressing from the associated pain due to perigastritis. It will be necessary to detach adhesions and to repair the perforation, but in the greater number of cases an excision of the portion of intestine involved and the performance of a Roux's operation will give the best results.

I have operated on 5 cases, and I am glad to be able to say that all recovered. In 3 I completely excised the ulcerated jejunal loop, uniting the intestine end to end, and closing the opening into the stomach, as the pyloric or duodenal ulcers, for which the gastro-enterostomy had originally been done by myself or other surgeons, appeared to have completely healed. In another I excised the ulcerated area and performed a Roux's operation.

My first case, which occurred nearly three years and a half after an anterior gastro-enterostomy performed for pyloric ulcer, was operated on in May, 1903. The patient had marked tenderness in the epigastrium, associated with a definite swelling and with rigidity of both recti. For some time previously he had been subject to severe attacks of epigastric pain, and blood had been noticed in the stools, but there had been no vomiting.

The abdomen was opened by an incision just to the right of the middle line, and the stomach was found adherent to the anterior abdominal wall, 1 in. to the left of the old scar.

On separating the adhesions it was found that ulceration had occurred at the point of junction between the bowel and the stomach, and that it had involved the whole circumference of the jejunum at that point, the ulceration having completely extended through the intestinal wall at the front; but this must have occurred after adhesions, so that there had been no acute symptoms of perforation. Through the opening left when the adhesions had been separated the finger was passed into the stomach, when it was found that the pylorus had quite closed as a result of the ulceration three years before, so that nothing could have passed through it. On passing the finger into the intestine extensive ulceration and thickening were discovered. The ulcerated portion of the bowel was completely excised and then separated from the opening in the stomach, the edges of which were pared, the distal end of the jejunal loop was implanted into the old opening in the stomach, and the proximal end was implanted into the jejunum about 4 in. lower. The patient made a steady recovery, and returned home within the month.

Liver.

Either liver abscess or suppurating hydatid disease may lead to inflammatory trouble in the upper abdomen, necessitating surgical interference, though the previous history and the presence of a tumour or of enlargement of the liver will usually render the diagnosis sufficiently evident, even before the abdomen is opened or before pus is discovered by the exploring syringe.

Did time allow, I could relate a number of cases illustrating the condition.

Retroperitoneal Glands.

Suppurating retroperitoneal glands forming a tender swelling above the umbilicus have on two occasions led me to fear more serious conditions, such as tumour of the posterior wall of the stomach or of the pancreas. In both cases superficial resonance on percussion and dullness on deep pressure showed that the swelling was behind the stomach, and in both I was able successfully either to excise the inflamed glands or to clean out the abscess connected with them.

Other Conditions.

Of other conditions that I have seen to produce inflammation in the upper abdomen I have only time to briefly mention: (1) A perforated colic pouch setting up peritonitis limited by omental adhesions, and which was cured by excising the portion of colon involved; (2) ruptured cancerous ulcers of the colon and of the stomach; (3) splenic abscess; (4) subdiaphragmatic abscess; (5) volvulus of the stomach; (6) phlegmonous gastritis; and (7) acute dilatation of the stomach.

On the latter condition I must make a few remarks, as I have seen a number of these alarming cases, the treatment of which, if recognized sufficiently early, may be successful, whereas, if undiagnosed, the condition is rapidly fatal.

It may occur without apparent cause or subsequent to any abdominal operation, and is characterized by the sudden onset of severe epigastric pain with shock, incessant but ineffectual vomiting, suppression of urine, great abdominal distress, breathlessness, rapid pulse, lowered temperature, and enormous distension of the abdomen, at first of the upper part and later of the abdomen generally. The face becomes pinched and sunken, and the expression is extremely anxious. On percussion the stomach resonance reaches well up into the thorax, displacing the heart and limiting chest expansion.

In the great majority of cases the issue has been fatal, and all treatment has been unavailing. But the disease is by no means necessarily lethal, and I have, in my own experience, three cases to record in which the symptoms have subsided, and the patients progressed to recovery.

In the early stages recourse should be had at once to lavage of the stomach. If the organ rapidly fills after it is emptied, the tube may be left in for several hours. The position of the patient must be altered, so that he lies prone in bed, with a pillow under the pelvis and the lower part of the abdomen. In the severer instances, it may be necessary to open the stomach and drain, performing, in fact, a gastrostomy; or, as I suggested some time ago, recourse may be had to gastro-enterostomy, whereby the stomach is drained continuously into the intestines. The latter operation has, I believe, only once been put to the proof, and that in a case of my own, which was followed by recovery; but on theoretical grounds, and from my experience in other diseases of the stomach, it would seem likely to be of service. The fact that gastrostomy has always proved fatal need not deter the surgeon, if other means have failed, for an examination of the recorded cases shows that all patients upon whom it was practised were moribund or almost in the last extremity.

But that the condition of acute gastric dilatation, when recognized early, is capable of being successfully treated, the following two cases distinctly prove:

In one, a woman of 35, recovering smoothly from cholecystotomy, which had been performed a week previously, was suddenly seized with pain in the epigastrium, followed by vomiting, which soon became ineffectual in emptying the stomach. Rapid dilatation ensued, and the stomach not only formed a large swelling, filling up the superior abdominal region, but also extended well below the umbilicus towards the pubes. This, owing to pressure on the diaphragm, and through it to pressure on the heart and lungs, led to great shock, quick and oppressed breathing, and a rapid, feeble pulse, with signs of lividity and imperfect blood aëration. The urine was scanty, and in fact almost suppressed. Strychnine was freely given subcutaneously, but no relief came until the stomach tube was used, when a large quantity of gas and several pints of brownish fluid were evacuated; the lavage was repeated several times during the next two days, during which time alimentation was entirely rectal. It was interesting to note that the pulse and temperature were paradoxical, the former running up to 150 and the latter down to 97.3°. All the symptoms passed off under treatment almost as quickly as they came, and in a week the stomach had returned to the normal size.

In another case, a patient of 29, who had had abdominal hysterectomy for a large myoma, and whose after-progress had been most satisfactory, the wound having healed by first intention, and the temperature and pulse having been normal throughout, was seized with pain over the stomach a fortnight after operation; this was followed by vomiting of frothy mucus with a few brownish streaks in it, and by distension of the abdomen beginning in the epigastrium. On percussion, the stomach was found to be down to the pubes, and on succussion a well-marked splash was easily obtained; the pulse became rapid and the face pinched, so that within thirty-six hours of being quite well, the patient presented every appearance of impending death. The urine was very much diminished, and for twenty-four hours almost suppressed. Strychnine was given subcutaneously, and rectal feeding was adopted, but no relief was obtained until the stomach was washed out, after which relief was immediate and the patient steadily improved, though no food was given by the mouth for three days. Within a week the stomach had returned to the normal size. Here also the temperature and pulse were paradoxical, the former being subnormal and the latter very rapid. The only cause that could be assigned was the eating of a raw apple, but that may have had nothing to do with the condition. The patient said that she had always been subject to a weak digestion since childhood, but at the time of operation nothing abnormal was noticed in the stomach.

I feel, Sir, that I ought to apologize for taking up a subject that almost necessarily from its magnitude has had to be treated in a discursive manner, and in a way that makes it merely suggestive rather than complete. But if my address should have the practical value of showing the importance of an attempt to make an early diagnosis with a view to speedy treatment in a class of cases which, if left undiagnosed, are prone to end fatally with great rapidity, I shall feel that your kind indulgence has not been imposed on.

A Clinical Lecture

ON

SOME OF THE RARER ASSOCIATIONS OF GALL STONES AND BILIARY OBSTRUCTION.

BY

T. CARWARDINE, M.S.LOND., F.R.C.S.,

SURGEON TO THE BRISTOL ROYAL INFIRMARY.

THE presence of several gall bladder cases in my female ward recently is an indication of a suitable subject to bring before you, but I will eliminate the consideration of ordinary cases, an adequate description of which can be found in modern surgical textbooks, and limit my remarks to some of the rarer associations, some of which you have had the opportunity of seeing.

A Congenital Peritoneal Fold as a Cause of Chronic Cholecystitis.

It is not uncommon to find the neck of the gall bladder connected with the lower margin of the foramen of Winslow by a fold of peritoneum, which is usually small. This was observed by Greig Smith,[1] and Dr. G. E. Brewer[2] noticed it in 3 per cent. of cases. In a patient recently under my care this fold extended the full length of the gall bladder, reaching the top of the fundus, binding the gall bladder down in such a way that the cystic duct was kinked; its opening into the gall bladder was eccentrically placed (Fig. 1). The lady was three months pregnant, and had discovered a hard, globular lump about a year previously, with little tenderness and no symptoms referable to it. The fold was freely divided, and the gall bladder, containing thick, tarry bile, was drained, with complete relief to the condition. There seems to be an occasional tendency for the gall bladder to be enclosed in the free border of the gastro-hepatic omentum, which explains the anomaly referred to. In one dissection Brewer found the gall bladder between the two folds of the gastro-hepatic omentum, the free border of which extended well to the right, from the anterior margin of the right lobe of the liver to the hepatic flexure of the colon.

Fig. 1.—Congenital peritoneal fold.

General Peritonitis Originating from the Gall Bladder.

In the slighter degrees of inflammation of the gall bladder from contained stones and infection a little fluid is found around, and translucent, soft gelatinous lymph in contiguity, agglutinating the surrounding parts in the same manner as obtains in infective appendicitis. This may clear up; but in the more severe cases the lymph organizes into firm fibrous tissue, binding the parts firmly together by strong adhesions, which may also pervade the surface of the liver. The adhesions are conspicuous in old-standing cases, especially those with small, contracted gall bladders. In many instances the degree of local peritonitis is greater, although with rest and treatment it usually diminishes, when the surgeon may select a more favourable opportunity for cholecystostomy. General peritonitis without perforation is a rarer event.

A woman, aged 68, who had hemiplegia a year previously, was admitted with general peritonitis and vomiting, suggesting intestinal obstruction as a probable cause. The acute illness began five days previously with sudden abdominal pain and sickness. On making a subumbilical incision much fluid and lymph escaped, the appendix and pelvic organs were normal, some filamentous peritoneal adhesions were met with, and there was no evidence of intestinal obstruction. The hand was then passed to the right hypochondrium, whence much fluid escaped, and a large, tense gall bladder was felt containing stones. Three large faceted calculi were removed, the gall bladder and right hypochondrium were drained, and two very large drainage tubes were put into the pelvis. The patient made a good recovery.

I have dealt with the advantage of peritoneal drainage elsewhere,[3] which I freely practise and strongly advocate in the treatment of general peritonitis.

Alternating Cholecystitis and Biliary Colic.

In the surgery of the gall bladder and common bile duct, the "ball-valve" action of floating stones is now well recognized, temporarily occluding the cystic duct on the one hand or the lower part of the common duct on the other hand. Fenger first drew attention to this mechanical occurrence in the common duct.[4] When the gall bladder contains a large ovoid stone, as well as many small and irregular ones, it is conceivable that the large stone may act as a trap, which, when opened, will permit a discharge of fluid and small stones; and the latter, in their turn, lodging in the common duct, will give rise to attacks of biliary colic with jaundice. The distended gall bladder would contract at the time of the flux caused by the opening of the ball-valve. This is the obvious explanation of a case first seen with Dr. Flemming and since operated upon (Fig. 2, A and B).

The patient, a man aged 55, gave a history of two attacks of "indigestion" and vomiting without jaundice, but with enlargement of the gall bladder, during the previous year. At the end of the year he had several slight attacks, followed by a severe one, commencing with pain and vomiting and followed by dark urine and *jaundice* for the first time, but *without enlargement of*

the gall bladder. The faeces were then examined, and several small irregular gall stones discovered; the jaundice quickly cleared up. A fortnight afterwards he had an attack of vomiting and pain lasting twenty-four hours, but without jaundice; and

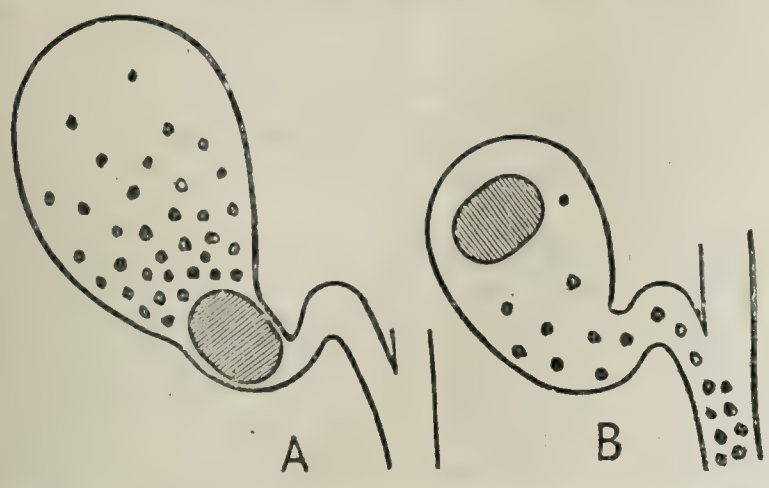


Fig. 2.—A, Stage of cholecystitis. B, Stage of colic and jaundice.

two days after that he had another attack of vomiting with collapse; no tumour could be detected.

On admission he was slightly jaundiced, and there was a little tenderness in the gall bladder region; but no swelling could be felt.

At the operation thirty small friable stones were removed from the gall bladder. A large ovoid stone blocked the cystic duct and bile flowed into the gall bladder on its removal.

Taking these facts into conjunction with the clinical history it is obvious that there was intermittent distension of the gall bladder from blockage by the large stone, and when there was no impaction of the large stone the gall bladder contracted and small stones were discharged into the cystic and common ducts. The features of this case are an observation of some clinical interest.

Spontaneous Disappearance of Gall Stones followed by Diabetes.

An interesting case is that of a married woman who was under my observation for several years and who became diabetic after the spontaneous discharge of gall stones, which I had the opportunity of proving by a train of fortuitous circumstances.

I saw her first as an out-patient with symptoms which led me to diagnose gall stones. During the time she was under observation she was admitted under my care (in 1904) for pelvic peritonitis from tubo-ovarian abscess which required an immediate operation. I took the opportunity of feeling the gall bladder through the abdominal incision and found it full of stones, but, owing to the condition of the patient, I did not remove them at the time. In 1905 she had symptoms of cholecystitis, and I then drained the thickened gall bladder, but all the stones had disappeared. In 1909 she was admitted into a medical ward with wasting and pronounced diabetes.

This case is a clear example of the irreparable damage done to the pancreas by the presence of gall stones in the biliary tract, although the stones may have been spontaneously discharged, as in this case, through the natural channels, or, as in a case related by Moynihan, by a fistula into the duodenum.[5]

Gall Stones Numerous or Large.

Gall stones vary much in number, from the solitary calculus of ovoid form to thousands which remind one of the epithelial pearls occasionally found in ovarian or cervical dermoids. As many as 7,000 have been counted in one patient. I removed 2.455 stones from a woman aged 40; of these stones, 2,257 were the size of small pearls, 194 were about $\frac{1}{8}$ in. in diameter, a few faceted but mostly globular, and four were $\frac{1}{2}$ in. in diameter, mottled, and irregularly globular in shape. The patient was slightly jaundiced at the time, and had been subject to "congestion of the liver" and attacks of biliary colic for some years, and her mother had suffered from jaundice.

Stones of enormous size are quite rare. I have removed one from the common duct of a woman measuring $3\frac{1}{2}$ in. long, 4 in. in circumference, and weighing $1\frac{1}{2}$ oz.

She was subject to bilious colic and jaundice for thirty-seven years, and on two occasions gall stones had been found in the stools. She was admitted a week after a severe attack of colic, with rigors and sickness. The jaundice cleared up, but again increased, and a hard swelling could be felt in the right hypochondrium (Fig. 3).

When the abdomen was opened, a very hard mass presented in the common duct, which gave a ringing sound when percussed with a pair of forceps. The gall bladder, small, contained a solitary calculus, and the hepatic ducts were much dilated, easily admitting the forefinger. The patient made a rapid recovery.

The spiral groove upon the stone suggests that there had been a certain amount of rotation whilst in the common duct.

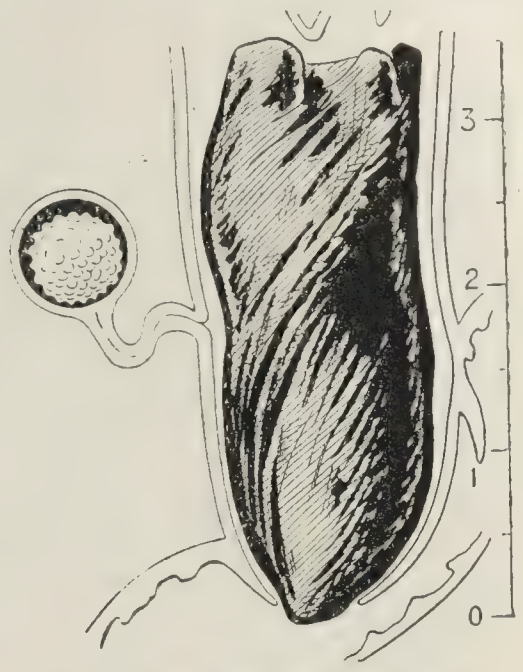


Fig. 3.—Large gall stone successfully removed from the common duct of a woman, aged 64. It measured $3\frac{1}{2}$ in. long, 4 in. round, and weighed $1\frac{1}{2}$ oz. × $\frac{2}{3}$.

I have only come across the record of one stone larger than this removed during life — that reported by Bartlett.[6] It weighed $2\frac{1}{2}$ oz. when removed, and measured 4 in. in length and $1\frac{1}{2}$ in. in breadth. A hard mass could be felt in the right hypochondrium, just as in my case; but whereas my patient was slightly jaundiced and had a contracted gall bladder with a solitary calculus, Bartlett's was deeply jaundiced, and the distended gall bladder contained thousands of stones. Mayo Robson quotes Richter (1793) as having seen a gall stone removed from a patient after death weighing over $3\frac{1}{2}$ oz.; and even in this case bile surrounded the stone and must have passed into the duodenum.[7] And it is a remarkable fact that jaundice may be slight although the common duct contains a large or several smaller stones. I have removed seventeen stones from the common duct although the patient was but slightly jaundiced at the time of operation.

Gall Stones associated with Cancer of the Ampulla.

Cancer of the ampulla of Vater is rare, and when it occurs the presence of gall stones is exceptional; whereas cancer of the gall bladder is frequently associated with stones. Fig. 4 is a sketch of the conditions observed at the time of operation on a patient 67 years of age who had symptoms of "hyperchlorhydria," with nocturnal pains and pain relieved by taking food. In addition the liver was large, with a hard swelling connected with it below.

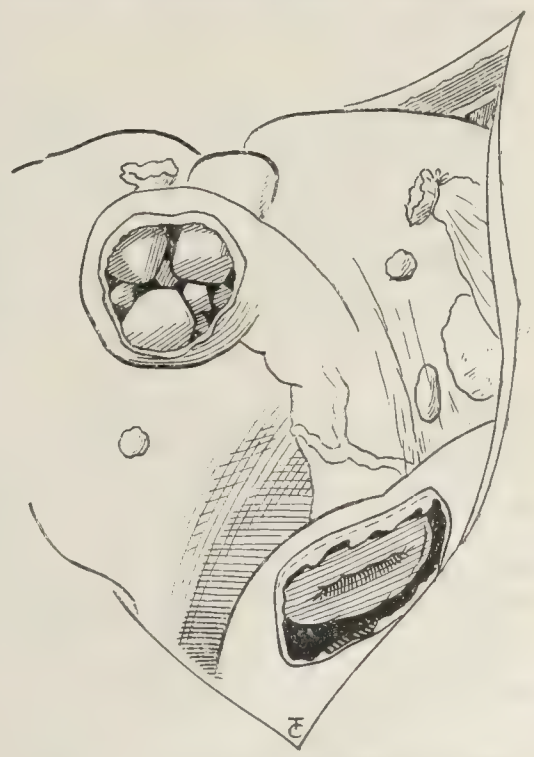


Fig. 4.—Cancer of the ampulla, with gall stones in the gall bladder and secondary nodules in the liver.

There had never been any jaundice, but in former years he had many attacks of "colic." The very adherent gall bladder was fragile, and contained stones and a little pus. The common duct was very hard and fixed to surrounding structures, and was continuous with a cup-shaped swelling in the duodenum at the position of the ampulla. The infiltration of the common duct extended to the portal fissure, a hard mass could be felt to the left of the common duct, and there were a few small nodules visible in the lower aspect of the liver. The absence of jaundice in this case was interesting. The operation

was done a short time ago, and I hear that the patient lived for about seven weeks after the exploration, losing flesh very rapidly. The morning before his death he vomited frequently and passed blood by the rectum, together with some material which resembled broken-down growth.

Biliary Colic caused by Appendicitis.

The vermiform appendix, when inflamed, may be an elusive organ, and there is scarcely any part of the abdomen in which it has not been found unexpectedly. The following is a case in which it was evidently the cause of biliary colic with jaundice, as the sequel proved.

I saw a young man with Dr. Lucas eighteen months ago, who for the two previous years had been subject to attacks of colic on an average about once a month, which doubled him up, and were accompanied by jaundice, dark urine, and a tender spot just above the umbilicus. They resembled attacks of gall-stone colic, and became so severe that he willingly submitted to operation for their relief. At the operation a year ago I found the gall bladder whitish and tense, so tense that it could not be emptied until all the surrounding parts were made free. The gall bladder and cystic duct were firmly buried in strong adhesions which could only be separated with great difficulty. No stone could be found anywhere, even in the ampulla, but two large glands were seen, one being deep down on the duodenum. The gall bladder was drained, and he remained well for seven weeks. The sequel explained the case.

He then had some pain in the lower abdomen, followed by a temperature of 103° F., and on account of his previous experience of pain rather delayed in requesting medical aid. Two days after the onset he was taken with collapse and violent pain, writhing with agony. I was summoned, and found him with *slight jaundice*, a running pulse of 156, and signs of general peritonitis, for which I operated at midnight, providing multiple drainage. Abundant curdy and bile-stained fluid escaped from the incision, and I removed a gangrenous appendix, with a concretion which had all but ulcerated through. Now the tip of the appendix was close to the spine, above the umbilicus, and pointing upwards in the direction of the sternum (Fig. 5).

Fig. 5.—Biliary colic with jaundice, caused by chronic appendicitis. × × Adhesions.

It was therefore quite evident that the appendix had been the cause of his previous biliary attacks and of the intimate adhesions found about the biliary apparatus at the time of the first operation, the explanation of which had been a mystery before. He is now, a year after the latter operation, perfectly well, and is rather proud of the fact that his biliary apparatus has been investigated, his appendix removed, and that he has been saved after general peritonitis with the aid of half a dozen drainage tubes.

I have referred to a few examples of the rarer associations of biliary trouble as a sort of sidelight on an important subject. We regard the possession of gall stones as a disease, for which suffering humanity has to pay its price. Chinese doctors regard gall stones from another aspect, use them as medicine, and purchase them from Australian cattle dealers at a somewhat fancy cost, varying from 1s. to 10s. each, according to their size.

REFERENCES.

[1] Greig Smith, *Abdominal Surgery*, 1906, II, 970. [2] Brewer, *Ann. Surg.*, 1899, I, 723. [3] Carwardine, BRITISH MEDICAL JOURNAL, 1907, ii, 1565. [4] Fenger, *Amer. Journ. of Med. Sci.*, 1896, vol. cxi, 125. [5] Moynihan, *Abdominal Operations*, second edition, p. 729. [6] Bartlett, *Ann. Surg.*, 1908, xlviii, 676. [7] Mayo Robson, *Diseases of the Gall Bladder and Bile Ducts*, 1904, 215.

THE New Year Honours were confined to the Indian Services. The only medical officer included is Lieutenant-Colonel Joseph C. S. Vaughan, M.B., Superintendent, Campbell Medical School and Hospital, Calcutta, who is awarded the Kaisr-i-Hind Medal of the First Class.

THE FREQUENCY OF ADENO-CARCINOMA OF THE BODY IN FIBROID TUMOURS OF THE UTERUS,

BASED ON A SERIES OF TWO HUNDRED CASES OF ABDOMINAL HYSTERECTOMY.

BY J. M. MUNRO KERR, M.D.,

GYNAECOLOGIST, WESTERN INFIRMARY, GLASGOW.

IN the present short communication it is my desire to indicate the frequency with which fibromyomata are invaded by malignant disease.

This matter has been receiving increasing attention in recent years, and as a result gynaecologists are forced to admit that malignant invasion and degeneration are more frequent than was supposed. This opinion has not been hurriedly reached; it has been formed slowly and after many years of observation. A few years ago a fibromyoma was looked upon as an absolutely benign growth, and operation was only recommended if symptoms were producing great discomfort; but year by year we have been forced to admit that malignant invasion and degeneration is by no means infrequent—in fact, that it occurs in from 3 per cent. to 5 per cent. of all fibromyomata removed.

On looking over the records of my cases I find that I have performed abdominal hysterectomy for fibroid tumours 200 times. In these cases I have found malignant disease on 9 occasions (sarcoma 2, adeno-carcinoma of the body of the uterus 6, and carcinoma of the cervix 1).

Of the 2 cases of sarcoma, one was undoubtedly a fibroid, which remained for many years quite inert in the abdomen, and then took on malignant degeneration. I can speak of this case with certainty, because I saw the patient with her medical attendant eight years before her death. Another gynaecologist at that time recommended leaving the case alone, as the patient was then over 50 years of age and the tumour was causing her comparatively little trouble. I was opposed to expectancy, but the patient was very pleased to escape an operation, and expectancy was decided upon. After an interval of seven years I was asked to see this patient again, and I found her extremely emaciated, with an enormous hard, irregular tumour in the abdomen. As the case was too hopeless for operation she was admitted to a medical ward in the Western Infirmary, where she died a few weeks later. A *post-mortem* examination was made, and the whole tumour and uterus removed and microscopically examined in the Pathological Institute. The tumour presented the typical appearance of a round-celled sarcoma.

In the other case the sarcoma was also of the round-celled variety, and although I feel convinced the tumour was originally a fibroid, I had no absolute proof of this, as the patient presented no symptoms and was only under medical observation a few days before operation. The tumour was limited to the posterior wall of the uterus, and presented the typical appearance of a fibromyoma. Upon microscopic examination, however, it proved to be a round-celled sarcoma, and the patient died some eighteen months after operation of sarcoma of the lung.

Regarding the 6 cases in which an adeno-carcinoma had extended from the mucous membrane of the uterus, in four the fibroid tumours were of large dimensions and in two small and multiple. One of the cases had been under the care of another gynaecologist for four years. She was a lady 53 years of age, and it was hoped that with the menopause the tumour would shrink; but the menopause never came, and the tumour began to increase in size. I removed the uterus and she made a most satisfactory recovery from the operation, but she died some months later from a recurrence in the bowel.

In other cases it was impossible to say how long the fibroid tumours had been present before adeno-carcinoma developed.

My experience, then, in 200 fibroid tumours of the uterus removed by abdominal hysterectomy is that in nearly 5 per cent. malignant degeneration or invasion was present.

Turning now to some operators who have considered this subject, I find records of very similar experiences.

Noble[1] in 1,118 collected cases found carcinoma of the body in 29 (2.4 per cent.), epithelioma of the cervix uteri in 12 (1 per cent.), sarcoma in 22 (1.8 per cent.), chorion-epithelioma in 2 (0.16 per cent.). Another American writer who has very recently discussed this subject, Ellice MacDonald, found in 700 cases of fibromyomata malignant disease present in 35 (5 per cent.)—namely, adeno-carcinoma in 20 (2.9 per cent.), sarcoma in 7 (1 per cent.), carcinoma in 6 (0.5 per cent.), chorion-epithelioma in 2 (0.29 per cent.). Kelly and Cullen[2] state that "in an examination of over 1,400 cases of myomatous uteri adeno-carcinoma was detected in the body of the uterus in about 1.7 per cent." Haultain,[3] in a series of 120 cases, found malignant disease in 5.8 per cent.; adeno-carcinoma in 5, and sarcoma in 2. Scharlieb,[4] in a series of 100 cases, found 3 cases of malignancy (1 sarcoma, 2 adeno-carcinoma). Very similar figures could be given from other writers, such as Bland-Sutton,[5] but it is unnecessary to do so, as it is obvious that the number of cases of malignant invasion and degeneration is, as already stated, from 3 to 5 per cent.

An interesting fact in connexion with these cases of malignant degeneration is the relative frequency of the occurrence in the later decades. Although occasionally one comes across cases of malignant degeneration at an early age, as a rule at least the fiftieth year has been reached before malignancy shows itself. This is strikingly seen in the 700 cases analysed by Ellice MacDonald—5 per cent. in the fifth decade, 1.7 per cent. in the sixth decade, and 23.7 per cent. in the seventh decade.

With such experiences it is not surprising that gynaecologists are becoming more and more afraid to leave fibromyomata alone, and some are even going the length of saying that they should always be operated upon whenever recognized. The majority of us, however, in view of the fact that many fibromyomata give rise to no trouble and cause no interference with the course of pregnancy and parturition, are still disposed to temporize in many cases. The question, then, we have to face is, When is it dangerous to temporize? We are all agreed that haemorrhage and pressure symptoms indicate immediate interference, but what we wish to try to arrive at is the indications which render interference necessary, even if these ordinarily recognized disturbances are not present. We wish to try to recognize the cases in which malignant degeneration or invasion has begun.

In a considerable number of cases we may suspect, and in many recognize, the malignancy. In cases of adeno-carcinoma—and this is the most common variety of malignancy—curettage of the uterus and an examination of the scrapings will give us the information. But sometimes the uterine cavity is most difficult to explore by reason of its distortion by the tumours; and in cases of sarcoma curettage is generally of no value, as the malignant degeneration rarely commences in the endometrium. Pain is always suspicious, and in my experience pain is much more commonly a symptom in adeno-carcinoma which has invaded fibroids than in adeno-carcinoma attacking an otherwise normal uterus. An increase of haemorrhage is also very general, and not infrequently there is a distinct increase in the swelling.

Lastly, there is the important fact that in a very large proportion of cases malignant invasion and degeneration do not occur until after the fortieth year, when the uterus is of little physiological value, and when one naturally has very little compunction in removing it. By the history, the age of the patient, and curettage, we will be able, I think, in most cases to recognize malignant changes, and can therefore safely allow a certain number of fibromyomata to remain unoperated upon. But the cases we should certainly never leave alone are those that continue to be associated with any disturbances, and, above all, with any haemorrhage after the fortieth year.

The operation of hysterectomy for fibroid tumours of the uterus has become one of such comparative safety that we can safely reckon on a death-rate of not more than 2 per cent.

REFERENCES.

[1] *Trans. Amer. Gyn. Soc.*, vol. ii, 1904, p. 301. [2] *Myomata of the Uterus*, 1909, p. 274. [3] *Trans. Edin. Obst. Soc.*, 1904–5. [4] *Proc. Roy. Soc. Med.*, 1908–9, Obst. Section, xlv–lxxiii. [5] *Journ. Obst. and Gyn. of Brit. Emp.*, July, 1906, p. 1.

THE TREATMENT OF CHRONIC OÖPHORITIS AND ASSOCIATED CONDITIONS.

By T. CAMERON, M.B., C.M.Glasg.,

SURGEON, THE HOSPITAL FOR WOMEN, AND ASSISTANT SURGEO VICTORIA HOSPITAL FOR SICK CHILDREN, HULL.

The following is reported because a large number of such cases are met with in gynaecological practice and are difficult to deal with so as to give satisfactory after-results. The more conservative treatment which is now adopted, when in the course of an operation inflamed, adherent, prolapsed, and cystic ovaries have to be dealt with (or various combinations of these conditions), does not always meet with unqualified success. The removal of diseased elements in the ovary and the conservation of whatever part that may be deemed sufficiently healthy to retain, is good practice as far as it goes. Associated with adhesions which have to be divided or torn through, and a prolapsed condition of the ovary, we meet with conditions which require something more than the ordinary measures mentioned in textbooks, in order that reasonable assurance of completely relieving the patient's symptoms may be obtained. When adhesions are freed we are left with raw surfaces of more or less extent, both on the surface of the ovary and the peritoneal surface of Douglas's pouch, so that there is considerable risk that fresh adhesions may form. The mesentery of the ovary is often weak and stretched, so that, unless special precautions are adopted, not only may the ovary become adherent but it is apt to do so in a faulty position.

Before adopting the measures to be described later, I have usually stitched the ovary to the broad ligament or shortened the mesentery, with or without simultaneously performing a suspension of the uterus. This gave variable results—some good, others not. In estimating results, most importance has been attached to the presence or absence of pain. These cases always apply on account of pain in one form or another. It may be almost constant in character, and aggravated on the least exertion; usually there is dispareunia and severe dysmenorrhoea. Occasionally defaecation aggravates the pain considerably.

No doubt there are cases of old-standing inflammation and adhesions of the ovaries in which there is little or no pain, but these do not come up for operation. The question—what is the main element in producing pain in these cases?—is interesting. It may be the direct effect of the inflammatory condition, just as in any other organ. In displaced ovaries the venous return seems to be interfered with, and the veins are often varicose. Sometimes the pain appears to be "neuralgic."

The nature of the numerous small cysts met with in many cases is also of interest. Olshausen suggests that they are true retention cysts—that is, due to sclerosis of the periphery of the ovary, which prevents the Graafian follicles from discharging their contents at the surface. Judging, however, from the large number of cysts sometimes found, their equality in size and often their distribution throughout the ovary, it appears to be more probable that there is an inflammatory action in the Graafian follicles which induces a condition of hydrops. I only mention the matter here because there is a probability that the pressure of these cysts may be another factor in producing pain in the ovary.

For practical purposes it may be assumed that each cause plays some part in the causation of pain.

In the course of an operation, when all adhesions have been dealt with and cysts dissected out of the ovaries, or a section of an ovary more markedly affected by cystic formation removed, the next step is to restore the ovary as much as possible, by stitching with fine catgut, so as to bring all raw surfaces into apposition, and renew as much as possible the general shape and contour of the organ.

In operating upon these cases, and in cases also in which there is a more acute degree of infection, such as cases of pyosalpinx, ovarian abscess, and so on, I have been struck by the wonderful immunity enjoyed by the anterior surface of the broad ligament as compared with the posterior. Whilst adhesions, the deposition of lymph, and all the other signs of an infective peritonitis are found

posteriorly, the Fallopian tubes seem to form a boundary, in front of which is a region almost immune from the invasion of infective organisms and the sequela which follow them. Taking advantage of this observation, I have devised an operation which, so far as a limited experience goes, seems to solve the problem.

The broad ligament is put upon the stretch by pulling the Fallopian tube upwards, and the ovary is pulled away at right angles to it, so as to get an idea of the length of the ovarian mesentery. A pair of sharp-pointed scissors is now thrust through the broad ligament from behind forwards at a point corresponding to the junction of the middle with the outer third of the ligament, and 1 in. below the level of the lower margin of the Fallopian tube. The opening is then enlarged sufficiently to allow of the delivary of the ovary through it on to the anterior surface of the broad ligament. The ovarian pedicle is now attached to the borders of the incision in the broad ligament on its anterior aspect by two catgut retaining stitches, one on each side. By this means the ovary is securely fixed in its new position. The opening in the broad ligament is reduced in size by approximating the edges with catgut. It is thought important, however, not to constrict the ovarian pedicle unduly. Any raw surfaces on the posterior aspect of the broad ligaments are invaginated and stitched over as far as possible, so as to present a smooth peritoneal surface.

The following case is typical of those which have been operated upon according to the method just described.

The symptoms were pain and tenderness over both iliac regions, and pain in the sacral region. There was dysmenorrhoea of a severe character and dyspareunia. On examination the ovaries were found to be enlarged, prolapsed into Douglas's pouch, and adherent. Pressure upon these by the examining finger caused exquisite pain.

An operation was carried out substantially as described above. The ovaries were freed from dense adhesions, a well-marked cystic condition dealt with, and the operation otherwise completed as indicated above. During the five months which have elapsed since the operation, pain has been absent, and in every other respect the patient has enjoyed very good health.

An objection which could be urged against this operation is the possible effect of pregnancy upon the pedicle of the ovary. As the gravid uterus gradually expands, the ovarian pedicle might be injuriously affected. It was considered that any such risk would be obviated by making the incision in the ligament as far externally as the length of the ovarian pedicle will permit. In the first place, even in a uterus at full time, one finds, in cases of Caesarean section, for instance, that there is a quite definite amount of broad ligament left. In the second place, the gradual stretching which takes place would obviate any risk of strangulation or other injury to the pedicle.

The new position of the ovary facilitates the emptying of its veins, and to this is to be attributed in part the successful results obtained. If there be an associated condition of malposition of the uterus, such as retroflexion or prolapse, this, it will be understood, should be dealt with before finally closing the abdominal wound.

Dr. Ludwig Mond, who during his lifetime made many gifts to scientific institutions in this country, including in particular his foundation of the Davy-Faraday Laboratory in connexion with the Royal Institution, has bequeathed a sum of £50,000 free of duty to the Royal Society of London. The income derived from this bequest is to be employed in the endowment of research in natural science, more particularly, but not exclusively, in chemistry and physics, by providing awards for new discoveries and by giving pecuniary assistance, including scholarships, by supplying apparatus and appliances for laboratories and observatories, and by improving existing or erecting new laboratories and observatories, and in such other manner as the Royal Society may decide to be best calculated to promote scientific research. The society is also authorized to spend a part of the income in the publication and circulation of reports and papers communicated to it and in the preparation and publication of catalogues and indexes of scientific literature. Dr. Mond also bequeathed a similar sum to the University of Heidelberg for the endowment of research in natural science. He likewise bequeathed to the nation, under certain conditions, a number of pictures from his collection of early Italian masters. The bequests are subject to the life interest of his wife.

ECTOPIC FETATION: LAPAROTOMY: DIFFUSE PERITONITIS: RECOVERY.

BY

J. GARDINER, B.A Oxon, M.R.C.S.Eng. and H. W. WEBBER, M.S.Lond., Surgeon to the South Devon and East Cornwall Hospital.

The following case presents several features of interest which render it worthy of notice:

The patient, aged 22, was first seen by Mr. Gardiner on October 5th, 1909, when the following history was obtained:

She was married on July 15th, 1909, and the mid-August menstrual period was quite usual in every respect. The next period, due about September 10th, was much less than usual, and towards the end of the month haemorrhage commenced again and continued up to October 5th in varying amounts.

The os uteri was not patulous, there was slight vaginal haemorrhage, and some tenderness to the right of the uterus on bimanual examination. A mixture containing ergot and morphine was prescribed.

On October 7th, the haemorrhage being rather increased, the vagina was packed with iodoform gauze in the morning. On removing the gauze on October 8th some shreds of mucous membrane apparently of decidual nature came away, and on bimanual examination the tenderness to the right of the uterus was marked, and a small rounded soft swelling was detected. On October 9th, in the morning, she was more comfortable, but in the evening pain returned on the right side of the pelvis, and Mr. Webber saw her with Mr. Gardiner at 10.30 p.m. At this time the pulse was 85 and the temperature 99° F. Vaginal examination disclosed nothing definite, the patient being in great pain, and satisfactory examination impossible.

At 11 p.m. the pulse had risen to 120, and the patient's condition had changed considerably. She was now blanched and collapsed.

It was decided to open the abdomen as soon as possible, but by the time instruments, dressings, nurse, and anaesthetist were obtained, and a table, etc., prepared, it was past midnight. The patient was pulseless when placed on the table, and 2 pints of saline solution were injected intravenously before commencing laparotomy. The ruptured right tubal gestation sac was found at once, clamped, and removed, and ligatures applied as quickly as possible. All effused blood and clots were sponged out, and the abdomen closed by mass sutures of salmon gut. By this time the radial pulse had again become imperceptible and the breathing very feeble. An attempt to infuse more saline solution failed; in neither arm could a vein be found of size sufficient to admit the cannula. Saline was therefore given by the rectum, and 2 pints were slowly run in and retained. Under this treatment, with strychnine injections in addition, and small doses of brandy by the mouth as soon as conscious, the patient rallied, and was left at 6 a.m. with a small, weak pulse of about 140. All day (October 10th) she remained on the operating table with its foot raised 2 ft.; at 7 p.m., the pulse being 120, she was lifted into bed. During the day 3 pints of saline solution were slowly absorbed by the rectum, and sips of hot water taken by the mouth.

On October 11th the patient began to suffer from hiccough, and by the afternoon vomiting of dark greenish-brown fluid commenced; the pulse was 130, temperature 100.6°, respirations 34, and abdominal tenderness and distension present. At 5 p.m. Mr. Gardiner administered A.C.E. mixture, and, two sutures being removed, a rubber drainage-tube was passed into Douglas's pouch, some iodoform gauze being packed down to the right of the uterus, as a certain amount of haemorrhage came by the side of the tube. She was now placed in the Fowler position, and inclined to the left side, and the saline again administered by the rectum, one pint being slowly run in at intervals of three hours. The result of these measures was free drainage from the pelvis, cessation of the vomiting, and fall of the temperature, so that on October 12th it was 99.2°, and the pulse 120; the abdomen was distended, some hiccough present, but no vomiting, and less abdominal pain. A soap and water enema produced a good result. On October 13th the hiccough ceased, and some albumen water and weak beef-broth were retained; a rectal enema gave a fair result, and the patient's general condition was much improved. On October 14th the gauze was removed under A.C.E. anaesthesia, the tube being left *in situ*. On October 16th it was necessary to remove some stitches on account of infection of the abdominal wall, and apply boracic fomentations. The patient began to take solid food on October 17th, and daily shortening of the tube was commenced. Menstruation reappeared on October 19th.

Remarks.

The points of interest in this case are:

1. The age of the patient, and the almost immediate supervention of the abnormal pregnancy on marriage. The gestation sac was the size of an ordinary walnut; the

ovum was unfortunately missed at the time of the operation, and the sac was empty on examination afterwards. Probably the gestation was of about five weeks' duration.

2. The satisfactory result of the adoption of the Fowler position, pelvic drainage, and absorption of saline solution by the rectum on the peritoneal infection.

A CASE OF RETAINED MENSES RELIEVED BY OPERATION.

BY JOHN T. HARTILL, L.R.C.P.LOND., M.R.C.S.ENG.,
WILLENHALL, STAFFORDSHIRE.

THERE are various sites in which the menses are retained—as, for instance, in the uterus, in a cul-de-sac between the os uteri and a part of the vagina; in the vagina as a whole, due to atresia; in one part of a double uterus; or in an imperforate second vagina. Of these I have only seen two examples; perhaps a third may be partially classed with them. When a student a young woman who desired to be married came to St. Bartholomew's Hospital with the vagina full of menstrual fluid, and no outlet for it. A powerfully built married woman consulted me for vaginismus, which had after marriage made her life miserable for years. A strong fleshy band as thick as my finger crossed the vagina, resting against the os uteri but not attached to it, and caused a certain amount of mechanical obstruction. I cut through and removed the band; in two or three weeks married life became and remained enjoyable, and pregnancy shortly after resulted. In the case described below, by the light of subsequent events I have no doubt that the cyst (so called) was a second vagina, running parallel originally with the patent one, without any outlet therefrom—hence the accumulation of menstrual fluid within it, whilst menstrual fluid discharged into the other vagina found a normal outlet. There was no doubt an imperfectly developed uterus also, having two outlets, one of which discharged into a patent vagina and one into an occluded vagina.

In 1898 a lady consulted me for symptoms of distress, not only during menstruation, but also for indefinite symptoms between the menstrual periods. On vaginal examination a large, irregular, boggy swelling was felt between the left vaginal wall and pelvic bones, pushing the sides of the vagina together, so as nearly to block it up. Well back at the roof of the vagina there was a pin-hole point, believed to be the external os of the uterus out of position. Above the pelvis no enlargement was felt. A specialist believed the swelling to be an ovarian tumour and advised its immediate removal. Though satisfied an operation was needed, I concluded that if the tumour were ovarian it differed from all others I had encountered.

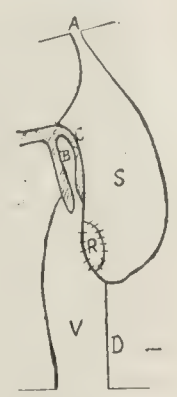
On opening the abdomen a large, beefy-red mass was found in the left pelvis intersected with large blood vessels, and adjacent thereto an imperfectly developed bicornuous uterus. The appearance of the mass differed from anything I had seen before, and it was found difficult to understand its precise nature. An incision was made into the tumour, one horn of the uterus was removed, and the contents, which were of deep chocolate colour and very viscid, evacuated. The walls of the tumour were from $\frac{1}{2}$ in. to $\frac{3}{4}$ in. thick everywhere, and resembled thickened placental tissue. The tumour was stitched to the abdominal wall and a drainage tube inserted. The specialist diagnosed the case as one of impounded menstrual fluid in a cyst originating in a congenitally occluded tube.

It soon became clear that the operation would not give permanent relief. Proposals to reopen the cavity and apply acids, with the object of producing adhesions, were not approved by me, and the lady would not then entertain another operation.

After a time menstruation occurred through the sinus, as well as by the vagina. In due course there was also a purulent discharge through the sinus, and then the wound healed and remained sound for six months at a time, breaking down from time to time. After the wound closed pain in the left groin became worse and dullness, due to distension of the cyst, extended as high as the spleen, the abdomen remaining absolutely flat, and there being no fluctuation. In 1899 and 1902, after the wound had broken down, there was copious discharge of very fetid purulent material mingled with viscid, chocolate menstrual fluid. In 1902, the abdominal sinus being closed, there was a bulging tumour pressing down the roof of the vagina, with the same boggy feeling at first observed. A small opening formed through the roof of the vagina, not far from the imperfect os uteri. Through this there was a considerable daily discharge of viscid, inoffensive chocolate fluid, which, escaping at the most dependent part, gave great relief, until after some months this opening closed again.

Early in 1905 the lady began again to have pain, accompanied by vomiting and general malaise. In June there was dullness over the left abdomen, and no outlet in the vaginal roof. Life became a burden, and was almost reduced to lying down in the garden. In July she again consulted the same specialist and another doctor. Operative interference was suggested, but not accepted. In October she consulted me again, and I wrote a detailed account of past symptoms to Dr. Christopher Martin. Armed with these particulars, and an experience of a dozen cases more or less bearing on the case—less rather than more—an operation was suggested, which was readily assented to.

A general anaesthetic (ether) having been administered, the vagina was made as aseptic as possible, and a speculum inserted to expose the interior and keep its posterior wall from protruding forwards. A long director was then passed down the abdominal sinus, through the cavity of the tumour, to the roof of the vagina, and there held in position. An incision was made through the roof of the vagina into the cavity of the tumour; the incision was afterwards made more or less radiate, and the radiating tongues were everted and firmly stitched to the vaginal wall, care being taken also to stitch the margins of the cyst wall to the vagina proper. A hot solution of hydrogen peroxide was then run through the abdominal sinus and cavity of the tumour, which, emerging through the incision made by Dr. Martin, passed outwards through the vagina proper. The lady returned home in less than a fortnight very much relieved.



A, Sinus in abdomen below umbilicus, down which director was passed to roof of vagina, and through which hydrogen peroxide gravitated; B, part of uterus capable of discharging contents into patent vagina; V, vagina with normal outlet; C, approximate position from which second horn of uterus was removed and stump ligatured; S, sac, which contained impounded menses, believed to be a second vagina with no outlet, and which was much nearer to point marked D, prior to first operation, when it was pushed up and stitched to the abdominal wall; R, position of stellate or radiating incision, and everted ligatures of its margins, made at second operation.

The ultimate permanent success of this operation depends entirely upon whether the artificial outlet made should in course of time contract and either become closed or be virtually closed to such an extent as again to permit the menses to be impounded. Four years have now elapsed; menstruation is fairly regular and rarely painful. She has learned to swim and to ride a bicycle, and sea-bathing has not been followed by ill effects. She walks three or four miles without discomfort, attends to household duties daily, runs about the house and garden, goes upstairs two steps at a time, does a little gardening, and feels such a delight in romping, after having been obliged to lie down or crawl so long, that she has a difficulty in keeping her movements within the bounds of prudence.

Assuming that the horn of the uterus removed at the first operation was the point of origin of the retained menses, the only explanation I can offer for a subsequent retention is that, although the stump was firmly ligatured, it probably sloughed, and thereafter permitted the menstrual flux from the other horn to escape into both the patent and the occluded vaginae.

If the true nature of the swelling could have been diagnosed in 1898, it is possible operative treatment of another kind, though attended with risk of severe septic infection, would have been suggested. However, between 1898 and 1905 a few specialists gained considerable experience of isolated cases of a similar nature, and on the whole I am inclined to think no other operation in 1898 would have been attended with more success than in this case, and that the signal success of the operation in 1905 was largely due to experience gained after 1898, and the clear history I was able to give Dr. Martin of antecedent circumstances, including a description of what was seen and imperfectly understood at the first operation—in other words, the success of the second operation was largely secured by the partial failure of the first.

AT the invitation of the Argentine Republic a Pan-American Congress of Medicine and Hygiene will be held at Buenos Aires in May, 1910. The opening session will take place on May 25th. An exhibition of hygiene will be held in connexion with the congress.

THE annual dinner of past and present students of the Royal London (Moorfields) Ophthalmic Hospital will be held at the Trocadero Restaurant on Wednesday, January 26th, under the Presidency of Mr. Edward Nettleship, Consulting Surgeon to the hospital. Tickets (10s. 6d., exclusive of wine) may be obtained from the Honorary Secretaries, Mr. Arnold Lawson, 12, Harley Street, W.; and Mr. J. Herbert Parsons, 54, Queen Anne Street, W.

EXCESSIVE LIABILITY OF EUROPEAN WOMEN IN AFRICA TO TRYPANOSOMIASIS:

ITS CAUSE AND PREVENTION.

BY SIR PATRICK MANSON, K.C.M.G., M.D., F.R.S.,
PHYSICIAN TO THE SEAMEN'S HOSPITAL SOCIETY; MEDICAL ADVISER TO THE COLONIAL OFFICE.

So far as I am aware, there is no anatomical or physiological reason for thinking that the European female is more susceptible to trypanosome infection than the European male. Considering the very small number of European women and their relatively slight exposure as compared to European men in tropical Africa, one would expect a case of trypanosomiasis in the female European to be a rare event. Of every hundred Europeans there, I do not suppose that five are females. I have no accurate statistics, but I believe that 5 per cent. is an overestimate. Nevertheless, of the 14 cases of trypanosomiasis in Europeans (2 from the River Gambia Colony, males; 2 from Northern Nigeria, males; 2 from Uganda, males; 5 from the Congo, 1 male and 4 females; 1 from the Congo-Rhodesia Frontier, male; 2 from Loanda, 1 male and 1 female) with which I have had to deal, 5 were females. Assuming that the above estimate of the proportion of the sexes of Europeans in these districts of Africa is approximately correct, and assuming that the susceptibility of the sexes to this terrible disease is equal, then one would expect that instead of 9 males afflicted with the disease, I should have encountered at least 95.

Having recently met with the fourth and fifth cases (included in the above) of trypanosomiasis in European ladies from Africa, the conviction has been borne in on me that this relatively enormous disproportion in liability to this very grave infection in the European female is no mere accidental coincidence. I am induced to call attention to the subject in the hope that, the fact and the probable cause being indicated, European ladies in tropical Africa will see to it that by quite simple measures a terrible risk may be obviated in the future.

Of my 5 trypanosome cases in females, 3 gave a definite history of a bite by some insect on the leg. Immediately on being bitten the part became very painful, inflamed, and swollen, and within a few days the initial fever and eruption symptomatic of trypanosome infection supervened. When I saw the patients some months later there was still distinct evidence in the local erythema and swelling of what had occurred. In one case only the infecting bite was apparently on the finger. With regard to the fifth case my impression was, though I have no record of the fact, that the bite was, as in the other three cases, on the leg. However that may be, it is certain that in three-fifths of the cases the infection was introduced by a bite on the leg.

These facts indicate that in the present European female dress *Glossina palpalis*, or possibly some other biting vector, has its opportunity, and that the petticoat and skirt should be discarded for some other type of garment, and one more resembling the male trouser, which apparently confers a relative immunity to the wearer. Skirts and petticoats should be discarded in Africa, and a Bloomer costume, or loose trousers of some sort, securely tied round the top of the boots, as well as loose sleeves similarly tied round the wrists, substituted. Thus, in my opinion, the grave and excessive risk to which the European female is unnecessarily exposed in tropical Africa might be obviated. Men, too, should have their trousers and jackets similarly secured. One of my male patients was infected by a bite on the leg while lying asleep with legs exposed on the deck of a river steamer. Manifestly the bathing-drawers style of trouser, so much affected by European travellers, residents, and sportsmen in Africa, should be abandoned for a safer kind of leg covering.

THE number of medical practitioners in Russia in 1907 was 18,315, of whom 986 were women. Of lower grade practitioners there were 20,279, of whom 3,150 were women.

RESULTS OF ONE HUNDRED OPERATIONS FOR CARCINOMA MAMMAE.

BY PRIESTLEY LEECH, M.D., B.S.LOND., F.R.C.S.ENG.,
SENIOR SURGEON TO THE ROYAL HALIFAX INFIRMARY.

IT has been in my mind for some time to put down in actual figures the results of my operations for cancer of the breast, but although I had made some steps towards that end it was the coming of the Yorkshire Branch of the British Medical Association to Halifax that gave the necessary impetus to the finishing of the task, which has been no light one.

The impressions formed by a surgeon as regards the results of a certain operation are not to be trusted unless these impressions are verified by a complete overhauling of the cases during some years. The successful cases are very apt to be remembered and the unsuccessful to be forgotten—not necessarily through any natural human desire to forget the unpleasant things in life, but because the old proverb, "Out of sight, out of mind," applies to patients who have died just as forcibly as it does to other persons and things. I confess that in my case I had formed an impression that my results in cases of breast cancer were much better than they actually are, simply because I have come in contact at intervals with cases which were operated on several years ago and have had no recurrence; the cases which had died some time after operation did not present themselves for review, and it was only those who happened to have been under my personal charge that occasionally made me wonder what the percentage of non-recurrence after operation really was. At one period during the collection of the statistics for this paper I was forcibly reminded of the saying of a French physician about tuberculosis, that *l'étude de la tuberculose est une meditation sur la mort.*

In this connexion I should like to draw the attention of both medical and lay journalists to a comparison of these two diseases from the point of causation and cure. The profession has been subjected to a good deal of obloquy and cheap sarcasm by newspapers because it has not yet discovered either the cause of or a cure for cancer, and even the medical papers continually lament the apparent want of progress in this direction. I well remember the enthusiasm with which Koch's discovery of the tubercle bacilli was hailed, but I should like to ask how many cases of tubercle even now die, although we know the cause. When the cause of cancer is discovered—and some day I believe it will be discovered—we shall yet be a long way from curing most cases of cancer, unless both the profession and the public are much better educated as to the insidious commencement of most cases and our means of diagnosis improve.

In certain cases of cancer a practical cure can be assured by operation. As regards other means of cure I have had a limited personal experience of the treatment of external cancer by the *x* rays; by oöphorectomy and thyroid gland; the results have not been satisfactory. In rodent ulcer, mammary carcinoma and sarcoma the growths have diminished in size under treatment by *x* rays, but the patients have died from internal recurrence although life has been rendered more comfortable, and perhaps lengthened by a period of some weeks. I have also seen cases which have been treated by cancer curers by injections, with appalling consequences as I will show later. How any one with the most elementary knowledge of the pathology of cancer could expect to cure a malignant growth by injections round it passes my comprehension. The results of trypsin and similar injections have been equally fruitless. As far as can be seen at the present time successful results can only be hoped for from a properly planned operation and possibly from the use of radium if the favourable results of its action recently published can be obtained.

From the very beginning of my surgical career I was thoroughly imbued with the idea that cancer had a local origin at first, and that its later manifestations were due to infection from the primary focus, just as in syphilis. This idea had a profound influence on my practice, and from the writings of Gross, Mitchell Banks (who never received the recognition due to him for his work on cancer of the breast), and Heidenhain, I have always extended my

Fig. 1.—Skin incision. The dark line round the nipple shows apparent size of new growth.

Fig. 2.—Shows wound after removal of breast and pectoral muscles. Ribs and intercostal muscles shown.

Fig. 3.—Incision sewn up. Shows the two drainage tubes.

Fig. 6.—Shows movement of arm two to three weeks after operation.

Fig. 4.—One position in which the arm is placed after operation.

Fig. 5.—Alternative position of arm after operation. The arm may be placed first in one and then the other position to relieve the patient.

incision in removal of the breast from the insertion of the pectoral to the external oblique in the epigastrium, and dissected up the skin as far as the sternum on the one side to the latissimus dorsi on the other. My idea was that separate lobules of the mammary gland were sometimes found lying outside the gland proper, and that the dissection described would remove such lobules if they were present. At the same time most of the skin over the mamma was removed.

Up to the present time the incision has remained the same, and the operation I perform to-day is the same as I performed fifteen years ago, except that I remove the deep fascia more completely over the epigastric region, and the axilla is more fully exposed by removal of lesser pectoral. Rodman, of Philadelphia, has lately described an operation for removal of the carcinomatous mamma in which he commences the operation by division of the insertion of the pectorals and dissection of the axilla; he claims that this avoids the further entrance of cancer cells or germs into the circulation by way of the axillary lymphatics and glands. Personally I cannot see that this amounts to much, for if the axillary glands are infected, handling of the mammary gland is not likely to cause any appreciable further infection, and the axillary route is by no means the only route by which, in an operation, cancer cells or germs can obtain an entrance into the lymphatic circulation.

Before giving the results of my operations, I will describe the various steps of the operation itself. The incision commences over the tendon of the pectoralis major, and is continued along the anterior fold of the axilla until it reaches the edge of the mamma; the further course of the incision is regulated by the situation of the growth in the breast. It is so planned that the growth forms the centre of a more or less round or oval incision, so that there is (as far as can be ascertained) a margin of healthy skin of a breadth of 2 in. to 3 in. round the growth (Fig. 1). If the skin is adherent, more is taken away, no consideration being paid to the subsequent closing of the wound. The incision is carried down over the epigastrium, as shown in the slides. The skin is then dissected back as far as the clavicle above, the sternum on the inner side (or even further if the growth is near the inner margin of the mamma) beyond the latissimus dorsi on the outer side, and the deep fascia over the upper part of the abdominal rectus and external oblique are bared. As little fat as possible is left on the skin. The handle of the knife is then pushed down between the fibres of the pectoralis major so as to separate the fibres actually attached to the clavicle, and the left forefinger follows it, passing underneath the tendon of the pectoralis major, which is then divided on the finger by knife or scissors; the left hand pushes the muscle downwards with a piece of gauze, and the pectoralis minor is divided near its insertion into the coracoid process. The two pectoral muscles are then separated from the thoracic wall by knife and gauze-covered fingers; the deep fascia is dissected off the external oblique and rectus below. The axilla can be cleared, if desired, before the breast and underlying muscles are separated from the thorax or afterwards. Generally I separate the breast and pectoral muscles from the chest wall downwards nearly to the subscapularis muscle, removing the digitations of the serratus magnus, and then dissect away the tissues from the outer incision above, exposing the axillary vein and clearing the axilla out from above downwards (Fig. 2).

The incision is then sewn up with a continuous button-hole suture of linen thread; a few silkworm gut sutures are inserted perhaps every 4 in. and two drainage tubes are used, one in the usual situation in the axilla, and the other over the rectus muscle at the abdominal extremity of the incision (Fig. 3). As a rule the edges of the incision come together very well without undermining. If they will not meet with undermining, a flap can often be cut from the skin below, and on twisting it the whole of the incision can be closed.

This incision has given a very low percentage of local recurrence, which is the great test of a successful operation; the surgeon has no command over internal recurrence or metastasis, but he has over local recurrence, unless the skin is widely infected at the time of operation.

To minimize shock as far as possible during the operation, sterilized towels wrung out of hot sterile saline solution are placed over the chest and over the wound; these are renewed before they become cold, and the wound is exposed as little as possible, bleeding vessels being closed immediately with forceps. No antiseptic solutions come in contact with the wound, and rubber gloves are worn as at all my operations. There is a good deal of post-operative shock, but with the above precautions there has only been one death from shock.

After operation the arm is not bandaged to the side, but is slung up (as shown by the photographs, Figs. 4 and 5) at right angles to the body, by a broad bandage passing round the upper arm and the head of the bedstead. I have located my patients in this manner during the last eleven years. The late Mr. Cotterill, of London, suggested the use of a right angled splint some eleven years ago, and it appeared to me that this method of slinging the arm would be quite as efficacious. This has proved to be the case, and at the end of a fortnight the patients are able to do their own hair and can raise the arm (as seen in the photographs, Figs. 6 and 7) straight up above the body. The drainage tubes are removed at the end of thirty-six or forty-eight hours, according to the amount of serous discharge.

Fig. 7.—Shows upward range of movement of arm two to three weeks after operation.

I have removed the breast and cleared out the axilla in this manner in 118 cases. Of these cases 97 were carcinomata; 1 duct papilloma; 11 proved to be cases of chronic mastitis, in 3 of which the microscopical report said it was wiser to remove the whole breast, although there were no definite signs of malignancy; 4 proved on microscopical examination to be cystic adenomata, and in 1 of these the report said it would be wiser to remove the whole breast; 4 proved to be abscess, and 1 of these was thought to be tuberculous; 1 (in a very stout woman) was found to be tuberculous mastitis on microscopical examination. Out of these 118 cases 8 died in hospital.

Deaths.

1 of emphysematous gangrene.
1 of pneumonia and empyema.
1 a month after operation from acute mania.
1 was a bleeder, and died twelve hours after operation.
1 died of cerebral softening.
1 of shock two days after operation.
1 from infection of the breast and femoral thrombosis.
1, a case with extensive ulceration, died of exhaustion and trichinosis (I shall refer to this later).

Two of these deaths (those due to emphysematous gangrene and femoral thrombosis) were both due to sepsis, and ought to have been avoided. The only death which can be ascribed to the operation itself was the one due to shock. The death-rate for such an extensive operation is therefore low, and should not be more than 2 per cent. The time taken over an operation has, in my opinion, a great influence on the amount of shock produced. The time usually taken in my cases has been from forty-five minutes to an hour; if possible, this should not be exceeded.

The ages of the patients have varied from 24 to 75 years; the latter, in spite of her age, made a good recovery, and is still living.

A microscopical examination of the breast and glands has been made in almost all the cases, and the results are interesting from the point of view of diagnosis, and of treatment other than by operation. The classical signs of cancer of the breast as given in the textbooks are absolutely useless and more than useless—they are dangerous—as, when they are present, the case has already passed the early stage when a good result from operation might be looked for. Enlarged glands in the axilla, retraction of the nipple, adhesion of the skin, all show that the growth is no longer in an early stage. The differential diagnosis

of carcinoma from mastitis, innocent adenoma, and deep-seated cysto-abscess is in some cases impossible, and the pathologist in some of these cases cannot give a definite answer, but suggests that removal would be the wiser course to pursue. The suggestion that during the course of an operation a piece of the tumour should be excised and examined by the microscope is, in my opinion, futile. In the first place, a good pathologist is not always to be obtained except in a hospital with a medical school attached. Secondly, where his assistance is most needed —namely, in those cases which have just crossed the borderland dividing the innocent from the malignant tumours—the piece excised might not show the change. Thirdly, in doubtful cases it is wiser to act as if they were malignant.

Carcinoma of the mamma is often preceded by chronic mastitis or a cysto-adenomatous condition of the breast, and who can say when the change will take place? The operation in competent hands shows a very high percentage of recoveries, and it is far better to remove a breast the seat of mastitis than leave one, or only do a partial operation on one, which is malignant. Again, as regards cysts of the breast, I am not sure whether most medical men would not regard a cyst of the mamma as quite an innocent sort of tumonr, but in one case of mine it was due to breaking down of a carcinoma, and cysts are frequently associated with papillary growths which are, or may become, malignant.

Even the microscope may fail the surgeon. Halstead, in one of his papers, says that for the microscopical investigation of supposed cancerous lymphatic glands it requires a pathologist of rare devotion, and those who are inclined to pin their faith to microscopical diagnosis might with advantage read a paper by Bonhôte Henderson,[1] where he describes a series of tumours of the breast which were doubtful before operation; after operation some of these were proved to be innocent, some malignant, and some remained doubtful after microscopical examination. As these occurred at the Brompton Cancer Hospital there can be no doubt that an adequate investigation was made, and this lends additional support to my contention that in any doubtful tumour of the breast in a woman over 40 it is much wiser to regard it as cancer and perform a radical operation. It must also be remembered that the mamma may be the seat of a so-called mastitis, cystic disease, or adenoma, as well as carcinoma.

Unfortunately, I have not kept notes of all the inoperable cases I have seen, but I have records of thirteen which so I regarded. Of these one was a case of inoperable scirrhus with ulceration; she was seen in 1902, when the disease had been in existence at least three and a half years, and at the present time the disease seems very little, if any, more advanced, though both the axillary and supraclavicular glands are enlarged.

Another case was sent to the hospital for carcinoma of the left breast, and locally it was not too far advanced for operation, but on examination there was found to be disease of the other breast and some dullness at the bases of the lungs; she was sent home and died in three weeks. A third one was treated by *x* rays; the breast sloughed, the tumour disappeared, and the skin healed, but the axillary glands remained enlarged, and although the patient lived over two years, she finally died of internal metastases. It is impossible in any individual case to make an accurate prognosis as to the probability of early or late internal recurrence, and one less frequently makes mistakes as to local recurrence.

Ulceration in many cases may be regarded as a contra-indication to operation, but I have operated on 8 cases in which there was ulceration, and of these 2 are living—one seven years and the other two years and four months after operation, free from recurrence.

To illustrate again the difficulty, if not impossibility, of giving a prognosis as to freedom from recurrence of the disease I may mention the case of a patient who was operated on in September, 1907, is still living with three nodules of local recurrence and internal lung and spine deposits. Two other patients are living, after seven years and two years and five months, without any recurrence.

The final results are not good; the results as to local recurrence are, however, very good, and show that if cases were operated on in the early stage the results would be much better than they are. The cases have not been picked in any way and only cases that were inoperable from the local extent of the disease or from internal metastases or infection of the supraclavicular glands have been refused operation. The number of patients in whom there is local recurrence is 9 out of 98; of these in 2 the chest wall was affected at the time of operation, 3 were very advanced cases in which early recurrence was predicted, and 1 is still living with three small nodules over two years after operation. In some cases the occurrence of a local return of the disease is very difficult to explain unless we accept the theory that there is a local infection at the time of operation with a lessened resistance to the disease. Even then why should one case be locally infected and not another when the same operation is done by the same operator? Moreover, in cases where ulceration is present local recurrence does not seem to be any more frequent than where there is no local ulceration.

Out of the 98 cases there are only 34 living, of whom 16 have been operated on under two years; 6 of the 98 cannot be traced, and have been counted as dead; 1 lived five years free from recurrence, and was then lost sight of. Of the rest, 20 only lived one year or under; 19 two years or under; 6 lived three years or under; 2 lived four years; 1 lived seven years, and died of cerebral haemorrhage; 1 lived ten and a half years, and died of internal recurrence. Of the causes of death in these 49 cases, 5 died of bronchitis, 1 of heart failure, 1 of pneumonia, 2 of cerebral haemorrhage, 2 of cancer of breast, 18 with internal recurrence, 1 recurrence in neck, 9 in lungs, 7 in spine, 2 in liver, 1 cancer of uterus; from these figures it follows that 40 deaths out of 49 were due to the original disease. If the three years' limit be taken, there are 66 cases with 14 living more than three years after operation. Of these 14, 2 were operated on more than three years ago, 3 more than four years, 4 more than seven years, 2 more than eight years, 2 more than eleven years, and 1 more than twelve years ago. In one of these the supraclavicular glands were removed, and she is living four years after the operation; in one living seven and a quarter years after the operation microscopical examination showed the axillary glands were infected, and also in another who is alive eleven years after operation.

The lesson to be learnt from these statistics is that until the public and the profession are better educated as to the difficulty, and even, in many cases, the impossibility (without a microscopical examination) of diagnosing early cancer from other conditions of the breast the results after operation will be far from satisfactory. The patients seen in private practice give a much better percentage of freedom from recurrence. In my own private cases of 11 patients operated on more than three years ago 7 are living, 4 dead; of these, 2 died from recurrence—these were both bad cases, 1 having been operated on before by another surgeon; 1 died of cerebral haemorrhage seven years after operation, and 1 from heart failure. The contrast between the two sets of figures is more than striking, and shows the great care that must be taken in compiling statistics, for of the 7 who are living 3 were operated on more than eleven years ago.

It also shows what good results could be obtained if the surgeon only got the cases early enough. The best planned operation is useless if there are metastases in the bones or lungs, and it would appear that if further progress is to be made it must be made along the lines of earlier diagnosis and complete removal in doubtful cases. If the supraclavicular glands are enlarged, it is rare to find any lengthened freedom from recurrence, even if they are removed, as probably there are already deposits in the mediastinum or the liver; but the only other addition to the modern operation is the routine removal of these glands, and in some cases it is possible their removal might prevent or postpone a return of the disease.

I am unable to give a thoroughly detailed account of the histology of all the cases, as full notes of the pathology have not been kept; but from the notes in the operating book the cases are divided as follows: 20 were registered as carcinoma only; 54 were scirrhus, among which 2 were colloid, 1 Paget's disease, and 1 which had been treated by a cancer curer with injections of permanganate of potassium or soda, had trichinosis in the growth and axillary glands and other parts of the body; 15 were spheroidal-celled carcinomata, among which was 1 mucoid degeneration; 1 with tubercle in the breast and also in the axillary

glands, and 1 probably originated in the ducts; 4 were duct carcinomata; 1 duct papilloma; 2 acinous carcinoma; 1 adeno-carcinoma, and 1 was returned as sarcoma by one pathologist and carcinoma by another; 1 was colloid.

In conclusion, my thanks are due to the medical men under whose care the patients have been, and to Mr. A. T. Longbotham, the Superintendent Registrar of Births and Deaths, without whose help I should not have been able to trace as many of the cases as I have done.

Reference.
1 *Lancet*, September 18th, 1909.

THE TREATMENT OF CHRONIC DUODENAL ULCER.

By E. C. HORT, F.R.C.P.Edin.*

In the last three years it has fallen to my lot to be directly concerned in the treatment of over 70 cases of gastric and duodenal ulcer, mostly in the chronic stage. Of this number, 24 have been diagnosed as duodenal by myself and other physicians. I venture to hope, therefore, that a very brief summary of what experience has taught me personally in these cases may illustrate one or two of the points raised by this debate.

In the past our surgical colleagues have undoubtedly had cause for complaint that often we have not invoked their assistance sufficiently early. To-day, with no uncertain voice, we are told that all chronic cases of duodenal ulcer should be submitted to operation as soon as diagnosed. But, before counselling our patients to seek the aid of the surgeon, we may surely inquire:

1. If the eventual results of operation, especially of the posterior no-loop variety, are as uniformly good as the immediate issues sometimes appear to show.
2. If we yet know sufficient of the essential nature of the disease itself to justify us in making *ex cathedrâ* statements as to what in these cases is the correct treatment to adopt.
3. If it is really true that medical science can do little to avert the necessity for what must always, even granting a low operative mortality, be a somewhat formidable procedure.

1. With regard to the first of these inquiries, it happens that in the last few months there have been sent to me 5 cases of duodenal ulcer which had been submitted to operation. In each case the surgeon was a man of high reputation in connexion with recent developments in gastric and duodenal surgery, so there can be no question of the degree of surgical skill involved. Very briefly these are the results:

The first patient, operated on twenty months ago, says: "Since the operation I have had no real peace or relief. My general health is perhaps improved, but I have the old pain always."

The second, operated on last winter, says he cannot believe the ulcer is really healed. He never had vomiting until after operation, and then not for many weeks. He now has severe pain at the old site and at the point of junction.

The third, operated on eighteen months ago, is in a lamentable condition, with frequent attacks of severe pain, sometimes melaena, and constant distress from an aggravated form of flatulent dyspepsia.

The fourth had an alarming attack of malaena several months after operation, and intermittent pain in the left subcostal area.

The fifth, operated on nearly two years ago, had recurrence lately of pain and haemorrhage, and, in addition, uncontrollable retching and sometimes vomiting when the hand is laid even gently on the abdominal wall.

I have in addition notes of 3 gastric cases short-circuited for ulcer presenting a similar history.

In these cases, and in the gastric ones, ulceration has apparently persisted or recurred, and in most there is the additional distress caused by the profound disturbance in the mechanics and hydrostatics of stomach and bowel caused by the new connexion. Viewed from any standpoint, the post-operative condition now is a most difficult one to deal with, as I find all treatment practically useless, beyond temporary relief of the associated catarrh

* The author was asked to take part in the discussion on the treatment of duodenal ulcer opened by Mr. Moynihan at a meeting of the Surgical Section of the Royal Society of Medicine on December 14th, 1909 (see British Medical Journal, December 25th, 1909), but was unavoidably prevented from being present. The remarks which Dr. Hort intended to make are embodied in this paper.

So much so, that I now decline to undertake the treatment of such cases.

It would of course be most unfair to quote a few isolated cases of failure of relief by operation, and from them to belittle the brilliant work of Mr. Moynihan, the Mayo brothers, and their colleagues. But it is most unlikely that mine has been a solitary experience, and the question arises if operation may sometimes perhaps be undertaken unduly early as well as unduly late. However this may be, an impression remains that a considerable time should elapse after operation before one can judge of the likelihood of permanence of results.

2. That we know absolutely nothing of the essential nature of the origin of duodenal ulcer few will deny, however much we may think we know of the causes of the maintenance of their patency. But—and the question is of more than academic interest—the problem whether duodenal ulcer is a disease *sui generis* or a mere symptom only has a most direct bearing on the question of surgical intervention. If it be a disease bearing no particular relation to other observed incidents in the life-history of the alimentary canal, universal excision of the ulcer, or of a cylinder of duodenum bearing the ulcer, as urged by Mr. Moynihan and his followers, would be on a similar footing to removal of a lipoma, and equally commendable. If, on the other hand, ulcer of the duodenum be only a symptom of a general disease, as yet unidentified, bearing very close relations to other ulcerative lesions in the whole alimentary tract, the matter assumes a very different aspect. Let us consider for a moment what these relations are.

Ulcer of the duodenum is very often a multiple lesion; it is frequently associated with a similar lesion on the other side of the pyloric gate; it is, as I have often had occasion to note, often associated with ulcers, sometimes of great depth and extent, in the tongue, gums, or cheeks; it is not by any means unknown in association with ulceration of the oesophagus; it has an inveterate tendency to recur, often through a long series of years; and, finally, there is hardly any toxaemic condition in which it may not occur as a purely symptomatic event. What can all this mean except that solitary or multiple ulcers of the duodenum are a local expression of some dyscrasia, we know not what, though my original suggestion of a floating mucolytic (gastrolytic or duodenolytic) poison is gradually gaining ground?

If only a fraction of this collateral reasoning be sound, how can the mere excision of a symptomatic lesion ensure the cure of the disease? It is as if by amputating a foot with a perforating ulcer one could eliminate the spirochaete, restore the integrity of trophic neurons, and prevent recurrence of ulcer in the opposite limb. So long as the unknown factor originally responsible for the appearance of an ulcer be present, so long will the ulcer tend to recur. If we could be sure that that factor were no longer present surgery could offer much, and the fact that operation is often followed by the happiest results is strong evidence in such cases of the disappearance of that factor. In such event it can only be supposed that, the exciting cause being gone, natural cure is made possible from exclusion from the lymph stream, by cicatrization, of the ulcer's base and sides. In such cases, therefore, there is for surgery a quite legitimate field.

On the other hand, the frequency of recurrence and of co-existence of multiple ulcers in different sections of the canal as well as near the primary focus is strong evidence of persistence or reappearance, in numerous cases, of the unknown factor. In the untreated disease we often see acute phases of suffering interspaced by considerable periods of relative or absolute ease. In quiescent intervals we have evidence that sometimes the lesion never completely heals; and yet it is only at times, often associated with some lowering of general health, as from anxiety and strain, or at certain seasons of the year, such as spring and autumn, that manifestations of activity occur. In all such cases the eroding influence of digestive fluids from the secreting glands in stomach and bowel, and from leucocytes and other tissue cells, is always present so long as the ulcer remains. Hence there must be some other factor to account for the transition from quiescence to activity. Surely, therefore, it is not unreasonable to surmise that renewed activity may be due, *inter alia*, either to a fresh activity of specific poisons or to the fact that they have

never vanished. Looked at in this way, how essential it becomes to make every effort to bring the nutritional factor to the maximum point of efficiency, not only in order to promote local repair, but to increase the general resistance against the essential cause of the disease! This will not necessarily be effected by excision or by short-circuiting, but by the more rational methods to which I will now briefly refer.

3. As regards medical treatment, many cases of duodenal ulcer, both acute and chronic, recover, and recover completely, under the medical régimes of starvation, semi-starvation, the milk, egg, and slop treatment, the Lenhartz diet, and so forth. It is also true that many of these cases relapse. In hospital patients almost any method may be followed by rapid and striking improvement, mainly on account of the change from a wholly indiscreet dietary indulged in before admission. The value of all statistics based on treatment of this class of case is, therefore, seriously discounted. So little is this sometimes realized that I have been assured by physicians of wide hospital experience that new medical methods of treating gastric and duodenal ulcer are hardly wanted. This view, based on the experience that the hospital class do well under the time-honoured régimes of starvation followed by slops, is a very one-sided view, quite apart from the fact that a vast number of these cases relapse. For since 1907, when two small papers appeared under my name advocating a broader conception of the pathology of the disease than is generally taught, and urging the trial of treatment on somewhat novel lines, I have been concerned in applying, directly and indirectly, the principles there enunciated to more than 200 cases of ulcer of the stomach or duodenum. The demand, therefore, for a somewhat more effective medical régime than the ones I have mentioned has not been small. Further, as the great majority of these have been private cases, the question of grossly inappropriate diet before treatment does not apply as in the case of patients of the hospital class.

The treatment I advocated was this:

> For acute cases, with haemorrhage, subcutaneous injections of sterile normal horse serum and feeding by the mouth at the very earliest opportunity with small dry meals, mainly of meat.
>
> For chronic cases, full meat diet in an appropriate form from the start, with repeated oral doses—never on an empty stomach—of an antilytic serum specially prepared.

None of the duodenal cases treated by me, alone or in consultation, were recent ones except one. All were private cases. Every one was a derelict of some other method of treatment, and some were of ten, fifteen, and even twenty years' standing. Of these 24—this number not including the surgical cases referred to—there have been 2 that showed a very temporary tendency to relapse, and 1 failure that was unable for domestic reasons to persevere with the treatment. The test, therefore, has been a very severe one, though I shall call none of them cures till at least three years have elapsed.

The relief of pain, haemorrhage, hyperchlorhydria, and dyspepsia has in all cases been most striking.

The history of the gastric cases is equally good, though with the greater number of cases the failures have naturally been more numerous. I am anable to attribute these results to the meat diet alone, as in three controls in which I withheld the serum for a fortnight progress was absent until the serum was added.

The *rationale* of my treatment is briefly as follows:

1. If it be true that duodenal ulcer is a symptom and not a disease, the absorption of adequate protein in suitable form cannot but increase the resistant powers of the body as a whole to the unknown determining cause of the disease. Moreover, local repair must certainly be assisted thereby.

2. If protein food is presented to a case of ulcer in which we know that the digestive fluids exhibit a high degree of peptic and tryptic avidity, a certain proportion of these peptic and tryptic molecules will be saturated by the protein. If now, at the height of digestion, be added a serum with a high antipepsin and antitrypsin content, some of the unsatisfied residue of peptic and tryptic bodies will combine therewith, and the ulcer itself thus be indirectly shielded by diversion of these bodies.

3. Once more, if an ulcer is constantly being bathed in secretions laden with trypsin and other proteolytic ferments set free from disintegrated leucocytes, other tissue cells, and from bacteria, the administration of a serum charged with antipeptic, antitryptic, and other inhibitory bodies, cannot but have great value. That is to say, the eroding activity of ferments from these sources must to a great extent be kept in check by such serum. That this is not a matter of theory only can be proved by any one who cares to treat a superficial ulcer which is constantly being bathed in highly tryptic pus, by the simple expedient of dressing it with sterile gauze soaked in sterile normal serum.

Whatever the *rationale* of this treatment the clinical results are undeniable, and though at first it met with quite legitimate scepticism, doubt is rapidly giving place to inquiry, inquiry to trial, and trial to conviction. Making every allowance, therefore, for personal bias and inevitable failures, I feel justified in adding my testimony to that of those who declare that the medical treatment of duodenal ulcer is approaching a sounder basis than it has perhaps reached in the past.

THE POOR LAW AND THE MEDICAL PROFESSION.*

BY THE LATE JNO. MILSON RHODES, J.P., M.D.,
ALDERMAN OF THE COUNTY PALATINE OF LANCASTER.

WHEN I was informed that you had done me the honour of inviting me to address you, much as I appreciated your kindness, I felt that I was, I will not say between the devil and the deep sea, for I would not for one moment venture to think either of you as the guardian of the former, but that as a member of the profession and Chairman of the Central Poor Law Committee for England and Wales, I was between the Scylla of the profession and the Charybdis of Poor Law administration. Probably under those circumstances the best course in my position to-day will be to imagine myself on the bench, and to do my best to well and truly try and true deliverance make between those who wish to reform the Poor Law and those who propose under the sole and not very courteous heading "to smash the guardians." That the report, or perhaps it would be more correct to say the seven reports, will receive the unanimous approval of the country I do not for one moment believe. That the Royal Commission has collected an enormous amount of information I cheerfully acknowledge, but they appear to have been too much divided among themselves to issue one *common sense* report, and, as regards some of the reports of the special investigators, from what I have seen of them their true value is—well, not very greatly due to work of bed rock knowledge. All the same the report is of considerable value, but so far as medical assistance is concerned the whole credit is most probably due to Dr. Downes, the only member of the profession on the Commission, and I am afraid the only member who had a thorough practical acquaintance with the urban and rural unions. Considering the splendid work he has accomplished, not only in regard to the Commission, but also in regard to the reform of the workhouse dietaries and workhouse nursing, it is a wonder that his services have not long since received that acknowledgement which they richly deserve. His memorandum and his evidence before the Commission are oases in the arid desert littered with the notions of the charity cranks and the Fabian faddist.

Before dealing with the strictly medical aspect of the question allow me for a minute to direct your attention to the "Statistical Memoranda Relating to Public Health and Social Conditions." No more valuable Blue Book has been issued in the thirty years that I have been connected with the Poor Law.

That report shows that the general death-rate in the last half century has fallen from 20.8 to 15 per 1,000, a loss of at least 100 cases of sickness per 1,000 to the medical profession; but the coster, hawker, the general labourer, and the innkeeper and the publican still have a death-rate of more than double that of the engineer, clerks, etc. As you are all doubtless aware the rate of pauperism for England and Wales has fallen, but the institutional treatment of disease has enormously increased; the Commission recommend that we should copy our friends the French and substitute for our present term Poor Law, "Assistance Publique" or "Public Assistance." I do not think it will make much difference as regards the sick. There has

* The paper was read before the Manchester (South) Division of the British Medical Association after the author's death.

been, and there is, a steadily-increasing demand upon our union hospitals, to use the common term—not workhouses—used to describe them; the demand is no doubt due to increased confidence in their system of administration. That statement is no mere fancy of mine. The Registrar-General's returns show that the percentage of deaths in union hospitals in England and Wales has risen from 5.6 in the year 1871 to 9 7 in 1906, a rise from 28,753 to 51,356. The ratio of deaths in asylums during the same period has risen from 0.8 to 1.9, or more than double, the deaths in hospitals, 2 6 to 6.6.

Those figures prove the correctness of the statement "that with the growth of the population, especially in the large towns, hospital and the medical provision for general diseases has become one of the most important parts of the Poor Law service."

A census taken in 1907 made public a fact which many of us had long been aware of, namely, that one-third of the total number of persons receiving public assistance were cases of medical relief—that is, about 250,000 per annum. With figures like those before you, you will probably be of my opinion, that there ought to have been one member of the Commission who had had official experience of Poor Law hospitals—gentlemen like Dr. Alexander or Dr. Reynolds. You have to wear the shoe to feel where it pinches. If the Commission was not to exceed a certain fixed number, surely certain of the clergy could have been spared. One doctor to four clergy is very much like a hap'orth of bread to a gallon of sack.

One of the London papers asked me if I would state briefly my opinion on the reports, and I think my answer was almost a record, summed up in the old saying, "A plague o' both your houses."

That the Poor Law needs reform in several ways is an opinion I hold as strongly as any; but are the so-called improvements suggested real or only apparent, and are all their statements facts? Take, for example, the statement made at page 847 of the Report. The writers state: "We have, however, to record that in the great majority of unions, especially those of rural or semi-rural character, the boards of guardians have shown themselves equally impervious to both sides of the advice and injunctions of the Local Government Board, and have continued with a minimum of improvement. Much the same primitive provision for the sick poor alike for those residing in their own homes, and those within the general mixed workhouses, in which the authors of the report of 1834 seem tacitly to have acquiesced." The most charitable thing to think about that is that the writers (I do not say the signers of the Report) have had very little practical experience of Poor Law administration, or they would not have written such nonsense.

In the last quarter of a century a reformed dietary, compiled on really scientific lines, has been adopted in all the workhouses of England and Wales. It is true, as the Majority Report states, that prior to 1865 the poor were chiefly nursed by paupers, who were often illiterate, drunken, and altogether unsuited for such work. I think I did more than anyone else to get the Local Government Board to issue the celebrated nursing order of 1897, which directed that "no pauper inmate of a workhouse may now be employed" to perform the duties of a nurse in the sick or lying-in wards of the workhouses, and no pauper inmate may be employed as an attendant in the sick or lying-in wards of the workhouses, or upon any pauper in the workhouse who requires nursing, unless such inmate shall be approved by the medical officer for the workhouse for the purpose, or shall act under the immediate supervision of a paid officer of the guardians.* That was an enormous improvement from the professional point of view, because it gave a power of veto to the medical officer. That was, in my opinion, the greatest reform in Poor Law accomplished in this or any other country in the world. There are other improvements, but I simply quote these to show that ignorance or prejudice must have played a considerable part in the preparation of certain parts of the Report.

I am quite aware that there is a complimentary phrase or two in regard to the medical profession in the Minority Report, but it is not the first case of "damning with faint praise."

* In the Minority Report the Northern Workhouse Nursing Association is quoted. The Association was wound up ten years ago.

If proof was required of the incompetency of the Commissioners—with, of course, the exception of Dr. Downes—as regards the number and aspects of the reports, it is found, in my opinion, in the lame and impotent conclusion they have come to in Recommendation No. 13: "That, with a view to enlisting the services of all competent medical practitioners in the *locality of a provident dispensary*, the British Medical Association be requested to suggest a general scheme, or scale of fees and wage limit, to be applied by their local Branches as local circumstances may suggest." Gentlemen, has the provident dispensary system in Manchester been one that has given satisfaction to the profession at large, and has it the support of the British Medical Association? And there is another question in this recommendation, and that is, Do you think the authorities (never mind whether guardians or health committees) would be willing to hand over the treatment and the payment for thousands of cases to a provident dispensary committee?

I see in the Report references to the French and German evidence given before the Commission by my colleagues, Dr. Munsterberg and M. Monod, but so far I have seen little if any evidence that use has been made of their expert knowledge, not only of *assistance publique* in France and Germany, but of all the countries of the world. Both, or perhaps it would be more correct to say all, the reports appear—at any rate in respect of the term used in regard to relief—to have taken their ideas from the French by adopting the term "Public Assistance" instead of "Poor Law." (I think the Commissioners might have done more than adopt the names, and given us a little more about the *Loi de l'Assistance Publique* and its result.) The population of France is practically the same as that of England, but the number of patients receiving medical attendance and relief at home is 498,033, or very nearly double the number we have in England. That total is greater than it was five years before by 151,000 cases, and the cost has also increased in like manner. Physicians' and surgeons' honoraria rose in the same time from 1,730,000 fr. to 2,819,000 fr. Drugs and dressings, which are a separate item, and are usually provided by the chemist, rose from 1,528,000 fr. to 2,961,523 fr.; the latter appears to have come off better than the former. The cost per case has risen from 9.86 fr. to 12.07 fr. That would amount to 5s. per case without medicine or dressing.

There is no doubt in my mind that sufferance has been too much the badge of all our tribe in regard to the fees paid to the medical officers, but there is something worse than sufferance, and that is a want of *esprit de corps* in the profession. I know of a case where a member of the profession took an appointment at a low figure simply to keep another man out. I know for a fact of another case where a candidate for a medical officer's position offered to do the work of the medical officer for nothing if he got the vaccination fees. I carefully explained to him that I could not possibly support him, first, on the ground that he was not loyal to his colleagues, and secondly, that the offer was an insult to the guardians, as it implied that they had not considered the question, and were extravagantly spending the money of the ratepayers on medical out-relief. Whatever sins the guardians are guilty of—and the number with which we are charged is so many that the writers of the Minority Report judged us to be guilty of death—they are, at any rate, not guilty of over-paying their medical officers. Mr. N. A. Stonham, in his evidence before the Commission, states that the Report of the Local Government Board shows that the remuneration averages about 3s. 3d. per case—not per visit—and that is, in my opinion, about what it is here. He also stated that whereas he received in 1892 at the rate of 3s. 4¼d. per medical order in Stepney, it was in 1907 only 1s. 6¼d. per order, or less than 50 per cent. There are plenty of places where the payment is much worse than that. Mr. Rushbridge in his evidence stated that he knew of a case where the district medical officers paid about 8,000 visits and dispensed 20,000 mixtures for the remuneration of £120, or 1d. a visit and the same sum for a mixture. Speaking as a guardian, I say that such a case as that is a disgrace to the board that practises such an abominable sweating system, for if the sick poor are properly treated it is done, not at the cost of the ratepayers, but at the cost of the very life-blood of the medical officer.

Dr. Downes in his evidence—and very valuable that evidence is; as a matter of fact the official evidence furnishes nine-tenths of what is valuable, that is, so far as the evidence is yet published, and that is not half—pointed out that in London you have two classes of out-relief medical orders, the temporary and the permanent. Now, I think under that system you might do better than we are doing at present. There is one matter that it is only right to point out, and that is that the Poor Law Commissioners who preceded the Local Government Board recommended in their report of 1839 that the payment should be per case treated. I am quite aware that there were reports from both sides against the system, but it is to Parliament that you owe the thoroughly unsatisfactory condition at present existing. No doubt the motor car has made it easier for the medicus who can afford one to rush through the country like a rocket, but that does not apply to the sick poor, and I do not think that our present system does fit the case. I am quite aware that a resolution was passed by one board that every member of the profession should be a district medical officer and vaccination officer. Now, with regard to the latter I am in thorough agreement; as you all know, the object of the vaccination officer was that he might be able to select a thoroughly satisfactory case from which to vaccinate the children. With vaccination from the calf there is no longer the necessity to pick and choose the case, and the sooner we adopt the Scottish system and pay the practitioner who does it, as you pay the practitioner who notifies a case of infectious disease, the better; but when you come to the question of medical assistance the case is different, for there are a very considerable number of members of the profession who would strongly object to be at the call of every Dick, Tom, and Harry at any hour of the day or night.

During the last ten years *assistance médicale gratuite* for the poor has been the law in France. Previous to that date it was under the Bureau de Bienfaisance.

At the present time uniformity has not been reached across the Channel; 59 departments allowed the patient to select the practitioner they desired, and in 24 the medical officer was appointed for a special area. In one department both systems were at work. The medical officer is paid by the visit in 57 departments, and by contract in 27.

That *assistance médicale gratuite* is very largely made use of is proved by the report recently issued, which showed that with a population of 35 millions, no less than 1,389,627 were on the permanent medical relief list, and 30,107 were admitted as urgent, in addition to those admitted by the *préfet*. The number was 1,421,392; the cost of visits and medicine and dressing was over 4 francs per case; rather more than half of that was for medicine.

Between 1895 and 1902 the number of cases of outdoor medical assistance has risen enormously, and the cost also, as the following figures prove:

Totaux Année.	Honoraires de Médecine.	Honoraires de Sages-femmes	Médicaments et Appareils.	Totaux
346,879	1,730,680fr. 54c	163,620fr. 21c.	1,528,520fr. 85c.	3,422,821fr. 60c.
554,252	3,458,737fr. 27c.	258,221fr. 20c.	3,613,090fr. 74c.	7,030,049fr. 21c.

Coût moyen: 1895, fr 9.86; 1902, fr.12.68.

You will notice that most of the increase has gone into the pockets of the chemist, and not the doctor. Some of the items that have attracted the attention of the auditors of our *chère amie* on the other side the Channel are:—In a case of caries of femur 260 francs was charged for 13 kilos of granulated kola; another used 169 metres of iodoform gauze at a cost of 591 francs, or 3.50 francs per metre, and 78 kilos of cotton-wool at 6 francs the kilo; the kola was replaced by quinine wine, and in another case peptone *sêche* was substituted for a bottle and a half of champagne a day—nearly as bad a come down as the pop and cockles for champagne and oysters.

The French nation has found, as we shall find, that the reform of the Poor Law *en bloc* is nothing like so easy as it looks; recent as the *Loi d'Assistance Publique* is, uniformity in France appears to be a term interchangeable with the Greek Kalends. In some parts of France there is, or has been, a strike of the medical practitioners, and no wonder. I should trust you would strike, too, if you received per pauper on the permanent list 1.50 franc in your own parish, 2.50 francs if four kilometres off, and 3 francs if more than four kilometres. In some parts the mean cost has been 4.86 francs, in another part 31.74 francs; the average cost per case has been in departments less than 10 francs, 13 in 1900, 13 in 1901, and 12 in 1902.

For cases of an urgent character the fees were:

6 francs in the parish where the medical officer resides.
7 francs where the distance is four kilometres.
8 francs where the distance is more than four kilometres.

The medical officers *de la somme* struck and resigned *en bloc*, having, to their honour be it said, made arrangements amongst themselves to treat the sick poor gratuitously for four months. In Paris itself the honorarium was fixed annually at sums of 1,200, 1,500, or 2,000 francs.

The system has many faults; there is not only, as M. Trichet points out, the difference between the man who scamps his work and the man who does not, but also the man who does it conscientiously has in the *arrondissement* where there are several officials the most to do, and receives no more for his labour.

To remedy that it was proposed to pay by the visit; against that the charge was made that there would be a very large number of unnecessary visits made, and it was recommended that there should be so much per case and so much per visit, and that system has I believe been adopted.

It is not only France that is troubled on this question. Germany, where they have State law as well as Imperial law, has also been troubled. In Strassburg the medical relief was provided by nine medical officers, whose duty it was to look after the sick poor, something on the plan of certain writers who think they understand Poor Law, and have never had a day's practical experience of administration. That system was, to put it mildly, found defective, and the sick poor under the Poor Law may apply to any of the seventy doctors who have accepted the terms proposed by the municipalities, namely:

1 mark for a consultation in the day time.
2 marks for a consultation in the night time.
1.50 marks for a visit in the day time.
3 marks for a visit in the night time.

Against that proposal were raised the objections:

1. A considerable increase in the number of visits.
2. Increase in the consumption of medical extras.
3. Abuse of prescription of mixtures pleasant to take and stimulating, prescribed with the idea of increasing the *clientele* of needy and unscrupulous medical men.

To meet that difficulty the Corporation of Strassburg resolved that when the medical officer's fees exceed the estimate of the municipal budget, which is calculated on the tariff for insurance against sickness of 5 francs per indigent and 10 francs per pauper family, the account of the medical practitioners will be reduced in proportion. At a congress of our French colleagues held last year they were of opinion:

1. That the free choice of the medical officer should be given to every pauper.
2. That every member of the profession accepting the terms of the department should be placed on the list as a medical officer of the public assistance.
3. That the law should apply to the towns having autonomy as soon as possible.
4. That all medical relief should be on the Vosgien system.
5. That for the settlement of all conflicts there should be an arbitration board—half councillors and half medical men—with a neutral chairman.
6. The congress expressed a very strong view against all the associations who desired to prevent the patient having the free choice of his medical adviser.
7. That a visit of consultation should never be less than 2 francs.
8. The present 2 franc fee should be 3 francs.
9. The present 3 franc fee should be 4 francs.

It is evident that the question of the remuneration of the medical officer is one that demands the careful attention of all members of the profession; we are, I am afraid, in the medical profession drifting into two sections, the official and the non-official, and the interests of the one

appear to be sometimes opposed to the interests of the other; for example, the sanatoriums are, no doubt, excellent things, but there is equally little doubt that the use of them has diminished the income of the general practitioner to a very considerable extent, though he has had to pay his quota towards supporting them, and though he derives no benefit from them. I have brought the example of France forward because it is evident that (though I have not the slightest doubt, after studying the practical administrative working of public assistance in most of the countries of Europe, that ours is the best in the world) there are things that might be improved, and that one of these is the control of the administration of public assistance.

I.—In England we have a Local Government Board composed on exactly similar lines to that described in the ballad:

> O, I am the cook and the captain bold,
> And the mate of the *Nancy* brig,
> And the bosun tight and the midshipmite
> And the crew of the captain's gig.

I do not believe the so-called Board has met more than twice in the last quarter of a century, and then only for a few minutes; the *President* is *the* Board, and in my opinion you cannot make the position too high; for the health and therefore the wealth of the country depends to a much greater extent upon that office than any other department of the State. But at the same time, while I would keep the President supreme, I would have a higher Council of Public Assistance, upon which the medical and legal professions should be represented as well as the laity. Upon the French council quite fifty per cent. are members of the profession, some of them eminent in hygiene, others in hospitals, others as alienists, and others *directly* representative of the medical profession. I believe with a Council similar we should progress steadily and safely at a more rapid pace than we have been doing, and we should probably be less troubled with red tape.

I hope I shall not be misunderstood when I say less red tape—tape, no matter whether it is red as in England, green as in France, or white as in Germany, is popularly supposed to be manufactured in the Government offices, and that some years ago was my opinion; *that* opinion was a mistaken one, the manufacture of red tape is almost a monopoly, and is carried on at H.M. Palace of Westminster. The vast majority of Members of Parliament have only a very elementary knowledge of Poor Law, and are not competent in many cases to criticize. I would not propose for one moment to do anything to diminish one iota the supremacy of Parliament, but could we not alter our system? Bills brought in and passed by the Colonial Parliament have, I believe, to be confirmed at Westminster—in other words, the British Parliament has a power of veto. If you enlarged the Board as I propose, there are a good many things that might be left to the Board, and so save the time of Parliament being wasted by discussing things they do not understand. That is the first reform.

II.—The *second* is that all medical men of good habit and repute should be placed on the list of medical officers, and in the event of the Board and their officers not being able to agree as to the honorarium the Local Government Board should have power to arbitrate. Of course that alteration could only come into force gradually, because the present medical officers have, and rightly have, a fixity of tenure under the existing system, and must be continued in office unless adequately compensated.

III.—The *third* is that the extra fees should be thoroughly revised. Conservative surgery has no doubt in many districts, especially the rural unions, reduced the extra fees, and the medical man ought not to be mulcted because he has restored a man's leg whole as the other instead of amputating it.

IV.—And *fourthly*, if the profession is to have the weight in the country that it ought to have we must have loyalty to each other; by that means, and by that alone, can the overworked and far too often underpaid medical officers in the Public Assistance Department of the Local Government Board hope to attain that position to which their arduous duties entitle them.

It may be thought that I have said very little about the Minority Report. I should have thought much more about it if it had been drawn up by those who had practical experience of Poor Law administration. You cannot make a surgeon by walking through a score of hospitals, and reading what other people have done. That never did and never will make any one competent to judge the guardians.

I will give you an example or two. The Minority Report states:

> So far as we can ascertain, the education given in the other Roman Catholic schools, some of which have over 100 boys or girls, and that given in the schools and homes belonging to other denominations or no denomination, apart from a series of institutions which happen to receive grants from the Board of Education as being public elementary schools, is to this day not subject to any inspection whatever.

Now what is the truth? Of the 55 Roman Catholic certified schools mentioned on page 810 of the Minority Report, it was found that 50 of the schools with 5,000 scholars were under educational inspection, and only 5, with a total of 49 scholars, were not under educational inspection. Again, at page 865, they say:

> In every Poor Law infirmary—and some of them exceed in size the largest voluntary hospitals in the kingdom—*all* the cases have to lie in the common wards and be diagnosed, physicked, and operated on by the overworked medical superintendent and his two or three assistant medical officers. The absence, even in the metropolis and the largest towns, of visiting physicians and surgeons, is here a patent drawback of these extraordinarily mixed institutions.

The writer may attach a different meaning to the words "in the common wards," but if they mean that medical and surgical, old and young, are herded together, it is no more true of good Poor Law hospitals like Manchester, Chorlton, Birmingham, Liverpool, etc. Any one who knows the facts knows that there are visiting physicians and surgeons as well as resident medical officers at Manchester. Dr. Renolds and Mr. J. Collier were visitors, and surely they were good enough for any hospital.

At page 861 they state that "Everywhere the master and matron have still to employ pauper assistants to help in attending to the sick." That is the sort of writing that you might expect in the yellow press, but hardly what you would expect from one who wants to pose as an expert. At page 862 they talk about the nurses, and on looking at the authority I find that it is quoted from an old report of my old friend, Mr. Jenner Fust, in 1897–8—eleven years ago!

At page 863 the writers say:

> We do not feel competent to determine how far the claim often made on behalf of these Poor Law infirmaries—that they are now fully equal to the endowed or voluntary hospitals—can be substantiated.

With that paragraph I cordially agree, and they might have started a good many of their paragraphs with a similar statement.

On page 863 is quoted the statement that their most significant feature, "we are informed, is that they have become largely surgical, some of them having daily operations under anaesthesia." What does "largely" mean? With the exception of about a dozen unions, I doubt if there are anywhere as many as 23 per cent. of surgical cases.

On page 863 they state that the most modern Poor Law hospitals "tend to be elaborate, ornate, and expensive; the lighting and heating, the ventilation and sanitation, the operating room and the dispensary, are *all* of the most costly, if not always of the most useful, character."

The most charitable thing to think about that is that the writer did not know what he was writing about. If the guardians—and there are very economical guardians on every board—have not cut down expenditure as far as possible, you may be quite certain that the Local Government Board will. In every Poor Law infirmary—and some of them exceed in size the largest voluntary hospitals in the kingdom—all the cases, we are told, have to lie in the common wards and be diagnosed, physicked, and operated on by the overworked medical superintendent and his two or three assistant medical officers. If that is true of London, it is certainly not true of Lancashire. As every gentleman here knows, the patients no more lie in common wards than is the case at the Royal Infirmary. At Crumpsall, Liverpool, Chorlton, West Derby, you will find every bit as

good classification as in any voluntary hospital, in regard to visiting medical officers. There are Poor Law hospitals where there are not only visiting physicians and surgeons, but ophthalmic surgeons and dental surgeons.*

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

LIME WATER IN THE TREATMENT OF VERRUCA PLANA.

A YEAR ago a young lady who had been suffering for three years with warts on the hands came to me for treatment. The condition was that known as verruca plana, and there were at least 300 to 400 warts on the back of each hand and wrist, but none on the face or any other part of the body.

I ordered her calcium chloride internally, but, as this had no effect, calcium iodide and liquor arsenicalis, and at the same time various preparations were used locally. The patient then went to France and I did not see her again for a few months, but when she returned the condition of the hands was unchanged. I then tried cauterizing the warts with acid hydrarg. nit. dil. After several applications the warts cauterized disappeared, and the patient began to cauterize the warts herself; some of the caustic got on to the healthy epidermis and oedema of the hands developed; this subsided in a day or two under local applications; but, as I was very dissatisfied with the progress—or, rather, lack of progress—of the case, I sent her to an eminent skin specialist. She was under his care for four months, and he tried various modes of treatment: magnesium sulphate internally, liq. carbonis detergens in alcohol locally, and *x* rays; all these having failed, he resorted to scraping each wart and applying pure carbolic acid. This had the desired effect on the wart treated; but during this time fresh crops appeared, and the patient came back to me in October quite discouraged.

As local treatment appeared useless, since crops of warts kept appearing, I fell back on an old remedy, which, as far as I can make out, has fallen into disuse, and ordered her half a pint of lime water a day for a week. In the course of four days all the warts disappeared, and since then (two months) no fresh outbreak has occurred.

I have brought this case to the notice of the profession, as none of the recent books on the subject mention lime water as a cure of this very intractable disease.

DUDLEY KENNARD, F.R.C.S.E.,
Honorary Surgeon, Westminster General Hospital.
London, W.C.

FRACTURE OF THE GREAT TUBEROSITY OF THE HUMERUS.

IN the JOURNAL of December 11th, 1909 (p. 1674), Dr. A. P. Gibbons reported a case of fracture of the great tuberosity of the humerus. I have at present a similar case under treatment.

On September 13th, 1909, a man, aged 35, slipped and fell a distance of about 20 ft. into one of the Cardiff docks; his left shoulder came in contact with the side of a ship. After being assisted out of the water he found that he could not use his left arm. The locumtenent of a doctor found that the shoulder was dislocated; the dislocation was immediately reduced, and the arm bandaged in the usual way. The joint was kept at rest for five weeks; at the end of this time he consulted a second doctor, as the locumtenent had left. He was advised to have the adhesions at the joint broken down, under an anaesthetic, because he was only able to move his arm very slightly, This was done, and there was improvement in the movements. On November 15th I was asked to examine the man on behalf of an insurance company. I found that the movements at the shoulder joint were limited—that of abduction being nearly absent. There was well-marked antero-posterior broadening at the shoulder, thickening at the great tuberosity, and acute pain on pressure. There was also pain and crackling in the joint due to arthritic changes. A skiagram of the shoulder joint showed that the man had, in addition to the dislocation a fracture of the great tuberosity of the humerus. For the last three weeks he has been undergoing a course of massage with passive movements and exercises, and intends to resume work in a few days.

Cardiff. W. G. WILLIAMS, M.B., Ch.B.

ON January 15th, 1907, I examined such a case as Dr. A. P. Gibbons describes, and the skiagram shows clearly a detached fragment in just the position indicated by Dr. Gibbons's diagram, but the fragment in my case was not so large as his would seem to have been. I only saw my patient some time after the accident took place, but inferred, from the history given, that the damage was done by direct violence. I agree with him that cases of detachment of the greater part of the tuberosity are probably rare, as the above is the only one I have seen in the course of thirteen years of *x*-ray diagnostic work. I think, however, from my experience, that it is by no means uncommon to have small fragments torn away from the region of the tuberosities in cases of complete dislocation of the humerus.

Newcastle-upon-Tyne. WILLIAM MARTIN, M.D.Durh.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

ST. MARY'S HOSPITAL, LONDON.

A CASE OF ABDOMINO-PERINEAL EXCISION OF THE RECTUM COMBINED WITH HYSTERECTOMY.

(By MAYNARD SMITH, M.B., B.S.Lond., F.R.C.S., Surgeon to Out-patients.)

THE patient, a female aged 58, was admitted on October 30th, 1908, having been sent to me by Dr. W. T. Harris of Chiswick. For some eight months she had suffered from constipation, and had found it necessary to take aperients to secure an action of the bowels. She had been subject to pain in the region of the rectum at the time of defaecation, and also after standing for any length of time. Four months before admission she had passed a considerable amount of blood from the bowel, and since that time had noticed streaks of blood in the motions. She was wasting rapidly. At the time of admission she was very emaciated, and looked extremely ill. She had irregular pyrexia—the temperature rising at times to 100° F. Rectal examination disclosed the presence of a hard nodular growth completely encircling the bowel at a point corresponding to the upper part of the sacrum. The finger could not be passed through the growth, which, however, appeared to be freely movable.

Operation.

It was decided to remove the growth by the abdomino-perineal route, if abdominal exploration showed this to be feasible. The operation was performed on November 4th after the usual preparation. The abdomen was opened by a free incision in the middle line. The growth was found at the junction of the pelvic colon and rectum, and a careful examination did not give evidence of any enlargement of glands or of any peritoneal involvement. It was seen, however, that fibroids of the uterus had enlarged that organ to the size of a large orange, and that this enlargement would constitute a formidable obstacle to the performance of the operation which was contemplated. The condition of the patient, although not good, appearing to warrant the more extensive operation, I decided to remove the uterus, and afterwards to proceed to the

* Dr. M. Russen Rhodes particularly wishes it to be understood that Dr. J. Milson Rhodes's paper was incomplete at the time of his death and had not been revised by Dr. Milson Rhodes, but his recommendations are clearly defined above in the paragraphs prefixed by the Roman numerals, I to IV.

excision of the rectal growth. Supravaginal hysterectomy was therefore performed. A hole was then made through the pelvic mesocolon about 2 in. above the upper limit of the growth, and a strip of gauze pulled through and spread out so as to protect the surrounding parts. This having been done, the bowel was ligatured in two places and divided, the division being at the spot already indicated. The ends of the bowel were then wrapped up in gauze, and the removal of the growth proceeded with. The superior haemorrhoidal artery was found and ligatured close to the upper margin of the sacrum; the peritoneum was next divided on each side of the rectum, and stripped back sufficiently to allow of removal of all the connective tissue lying in the hollow of the sacrum, which was then lifted forward in one mass with the growth and two inches of the bowel above and below. In this proceeding the middle haemorrhoidal arteries were exposed and divided between ligatures. A ligature was now placed round the rectum as far below the growth as the separation which had been carried out rendered possible. The bowel was divided below the ligature and the growth, which had thus been completely freed, was removed. It will be understood that the stump of the rectum, which was left on the anal side of the growth, had its lumen in communication with the peritoneal cavity, and a certain amount of foul contents escaped. This made no difference to the after-progress of the case, but might readily have been avoided had the bowel been washed out by an assistant after the ligature below the growth had been applied. This washing had of course been carried out before the commencement of the operation, but the necessary manipulations had caused a further escape of foul discharge from the ulcerated surface of the growth. The application of double ligatures below the growth would have been impracticable in this case, if due regard were to be had to removing a sufficient length of healthy bowel on the anal side of the growth. Moreover, the presence of a ligature on the anal stump of the bowel would have rendered the subsequent step of eversion of that stump impossible.

The next part of the operation was the most difficult and that which demanded the greatest care. It consisted in freeing the mesocolic attachments of the sigmoid sufficiently to allow of that portion of the bowel being brought down to the anal stump. This was carried out by dividing the peritoneum of the mesocolon and tearing through the connective tissue of that structure, without stretching or interfering with the integrity of the vessels contained between its folds. When the object in view had been secured the anal stump was completely everted through the anus by passing up several pairs of clip forceps; these were made to grasp the edge of the bowel and then pulled out through the anal orifice. A long pair of clamps were then passed up through the anus and the ligatured end of the sigmoid seized and pulled out at the anus. The ligature having been removed, the cut ends of the two pieces of bowel which it was desired to anastomose were lying outside the anus with their peritoneal surfaces in contact. A ring of interrupted sutures was put in to secure this union and the bowel allowed to retract into the pelvis. Complete restoration of the bowel was now accomplished, and the final steps of the operation consisted in inserting a tube into the cavity of the pelvis through an incision made behind the anus and closing the abdominal wound. Another rubber tube was passed in through the anus for about 5 in. in order to protect the suture line.

After-History.

There was some faecal discharge for a time from the drainage opening behind the anus, but this soon ceased and the bowels were opened naturally three days after the operation. At the present time, eleven months after the operation, she feels well, has gained 1½ st. in weight, and has normal control over the bowels. On rectal examination there is a fibrous ring around the bowel marking the line of suture, but although the lumen is here narrowed the finger passes readily and there is no obstruction.

Microscopical examination of the growth removed showed a columnar-celled carcinoma. The operative procedure followed the general lines of that described by Weir, complicated in this case, however, by the necessary hysterectomy.

Reports of Societies.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

Thursday, December 23rd, 1909.

Dr. George Wilkinson, President, in the Chair.

The following were among the exhibits: Mr. G. H. Pooley: (1) A man who had had a piece of steel in the vitreous. The magnet having failed to withdraw this, he enlarged the incision in the sclerotic, removed the contents of the eyeball and inserted a glass ball, and sewed up the wound, leaving the cornea complete. (2) A man with a penetrating wound of the cornea with suppuration. Mule's operation was done, part of the cornea being left. (3) A case of senile cataract showing Hess's method of simple extraction, with buttonhole iridectomy after removal of the lens. Dr. F. J. Sadler (Barnsley): (1) A case of severe crushing of the foot, treated by continuous baths to avoid the alternative amputation through the lower third of the leg. The result was the preservation of the tarsus and part of the metatarsal bone of the great toe. The patient eighteen months later was able to walk 4 miles at a stretch. (2) Severe crush of the calf with fracture of the fibula. The gastrocnemius, soleus, plantaris, and part of the flexor longus hallucis were allowed to slough off as alternative to amputation through the knee-joint. The patient was now able to walk well and rise from the squatting position, the popliteus, tibialis posticus, and deep flexors of the toes substituting the lost calf muscles. Mr. A. Cuff, in a paper on modern views of cerebral injuries, with especial regard to concussion and compression, discussed the parts taken by the vasomotor mechanism and the movements of the cerebro-spinal fluid.

Reviews.

MEDICINE AND PHILOSOPHY.

If music and sweet poetry agree
As they must needs, the sister and the brother,

we should be able to say as much of medicine and philosophy. For if not exactly sister and brother they are closely related, medicine being a part of philosophy. Yet the history of medicine shows that they have not agreed very well, and that philosophy has been rather a stepmother to medicine. Taking all knowledge for her province, she has tried to lay down laws for medicine; and the results have not been satisfactory. A physician may, of course, be a philosopher, because he can keep his philosophy apart from his physic; on the other hand, a philosopher may be a physician, but he is pretty sure to be a bad one, for philosophy brooks no rival near her throne. The history of medicine up to modern times is to a large extent the record of attempts to apply futile and often fantastic speculation to medicine. Like the astronomer in the fable, men while looking at the stars fell into the ditch which they did not see at their feet. It is this which, more than anything else, has retarded the progress of the healing art. Instead of applying the sound maxim, *primum vivere*—which might in this case be read *observare—deinde philosophari*, to medical practice, physicians saw Nature through the eyes of Plato, Aristotle, and Galen.

The extent to which the development of medical science was hindered by philosophy is excellently brought out by Dr. Moon in a small book recently published.[1] Some chapters of it appeared in this Journal. It is not, as the author tells us in the preface, a history of medical doctrines, in regard to which for many centuries it might have been said, as of French Governments, that they followed but did not resemble each other. His aim is, by taking various important epochs in the history of the world, to show how intimately medicine has been bound up with the current thought and philosophy of the day. That medicine has made vast progress it is impossible to deny. This—to take the proof that most appeals to the average man—is shown by the diminution of the

[1] *The Relation of Medicine to Philosophy.* By R. O. Moon, M.D.Oxon., F.R.C.P., Physician to the National Hospital for Diseases of the Heart, Assistant Physician to the Royal Waterloo Hospital. London: Longmans, Green and Co. 1909.

death-rate and by the prolongation of human life. We should no longer speak of a man of 50 as "Old John of Gaunt, time-honoured Lancaster." Indeed, most of the work of the world to-day is done by men who have considerably exceeded that limit. Dr. Moon meets the fallacy so often urged by ignorant persons—that if the mortality has diminished, on the other hand a host of new diseases has sprung into being—by pointing out that this means nothing more than increased differentiation of diseases which used to be lumped together under a vaguely comprehensive heading such as "fever." Some authorities hold that the alleged greater prevalence of cancer is to be accounted for in the same way; at any rate there is ground for thinking that under the word "cancer" there are classed together a number of heterogeneous diseases, differing probably in their origin, and certainly in their manifestations and clinical course. Even in the case of insanity we are disposed to think that the increase is more apparent than real. Eccentricities and departures from the beaten path of thought and conduct are more noticed, and, in spite of the "advanced" ideas which are professed, we are held more fast in the bonds of convention than older generations, in which passion found fuller expression and individuality had freer play in all directions. So-called unconventionality in modern literature, when it is not the deliberate perversion which is a mark of decadence, is anaemic indeed compared with that of the spacious times when every man lived according to his humour. Even leaders of revolt nowadays wear their professed defiance of convention more as a garment deliberately fashioned to catch the eye of the vulgar than as their natural attire. Hence a man going his own way in thought and conduct is more likely to be thought mad than formerly, when such deviations would not have been noticed in a world where, as the clown says of Hamlet, "the men are as mad as he."

We can only indicate in a very cursory manner the ground covered by Dr. Moon in this interesting and suggestive book. There is hardly anything at once more wearisome and more bewildering than the history of medicine told as it usually is as a record of little systems that had their day and ceased to be. In what he says of the systems of the ancients Dr. Moon has come as near to making them intelligible to the ordinary reader as any author of whom we have knowledge. He shows how in Greece medicine quickly emancipated itself from the trammels of religious formalism and superstition. This emancipation was mainly the work of Hippocrates, who taught that one disease is no more divine or human than another, but that each occurs in accordance with Nature, and showed that in the observation of facts lay the only path leading to truth in medicine. With the decay of Greece medicine became engulfed in quagmires of metaphysics. The Sophists made things worse by inducing people to believe that medicine, like modern politics, was a matter of rhetoric; fluency in discourse and subtlety in argument were taken as the standard of medical skill. It cannot be said that even at the present day we have shaken off the influence of ready speech, and misty speculation still too often takes the place of observation and experience. Plausible theories are put forward as substitutes for clinical knowledge, which is ignored and even scoffed at, diseases being diagnosed by examination of blood or pus, just as within the last century the inspection of urine was often considered an efficient substitute for the examination of the patient. The inevitable reaction against philosophical theory which took no heed of facts is seen in the rise of the Empirical School, which held by the sound principle that diseases are not cured by eloquence but by remedies, and that skill is acquired not by arguing but by practice. The Empirics studied the symptoms of disease, but unfortunately they directed all their efforts solely to its cure; they did not seek to discover its causes, and held that a knowledge of anatomy was unnecessary. They were "natural philosophers," like the Shepherd in *As You Like It*. It is easy to see how a system built on the principles of the "practical man" degenerated into a search for specifics. It is only fair to point out that the practice of some of the famous physicians of antiquity was better than their system. Thus Asclepiades, whom Sir Clifford Allbutt has recently painted for us in these pages in his habit as he lived, treated his patients by hygiene and diet rather than by medicine. With his coming to Rome the centre of gravity of the medical world shifted from Alexandria to Rome. We know that Cato foretold that Greek physic would undermine the Roman Republic. His view of medicine was that of Plato, who thought it a disgrace that doctors should be compelled to find names for diseases caused by indolence and luxury, which filled men with waters and winds, as if their bodies were a marsh. Echoes of these notions are still heard at the present day, when self-appointed prophets constantly assure the readers of newspapers that all that is needed to prevent illness is to live naturally and healthily—a precept which means that if you wish to avoid illness you must keep yourself well! This simple formula satisfies many who are in health, and who can scoff at medicine as "he jests at scars that never felt a wound." But the problem which most of us have at some time or other to face is how to keep well. It may be said incidentally that while the simple life will undoubtedly help to keep off the diseases incident to self-indulgence and dissipation, the application of the doctrine that any known system of diet or hygiene will safeguard a person from such a disease as, say, cancer is one of the most pernicious of all forms of quackery.

Dr. Moon devotes a chapter to Galen, whose teaching dominated the world for some fourteen centuries. Those who know him only as a name invoked by medical writers of the past as an authority against whom there was no appeal, are apt to underestimate the real merit of the man. He wrought an enormous reform in medicine, by insisting on the importance of anatomy, which he studied practically. His errors arose from the fact that, human dissection being impossible owing to the state of public opinion, he was compelled to confine himself to animals. He was the first experimental physiologist, and, among other things, showed that arteries contain blood, and not air. To him we owe the knowledge that the brain is the seat of sensation, and he distinguished between sensory, motor, and mixed nerve trunks. It is one of the ironies of fate that the influence which his teaching exercised throughout the Middle Ages was based not on his really scientific observations, but on his philosophy, which he took from Aristotle and Plato. The long persistence of Galen's authority Dr. Moon regards as due to the fact that for the vast majority of mankind thinking is an extremely difficult and unpleasant process, and any one who can provide a decent escape from this painful duty will usually find ready acceptance. Galen was the greatest of systematizers, and men were glad to accept from him doctrines ready made. His teaching was accepted by the Arabians, a people whose mental qualities particularly predisposed them to the acceptance of authority; from them, again, his doctrines were handed on to the mediaeval students of medicine, who were also to a large extent held in the shackles of authority in philosophy as in religion.

A particularly interesting part of Dr. Moon's book is the chapter in which he discusses the influence of early Christianity on medicine. The mystic element which bulks so large in Oriental doctrines tended to replace rational medicine by superstition, and although the Church set her face against magic—probably as the acknowledgement of a rival power—the whole trend of Christian thought was to subordinate the treatment of the bodily ailments of man to the cure for his spiritual necessities. On the other hand, the influence of Christianity was also shown in the foundation of hospitals for the tending of the sick and shelter of the helpless and homeless. There had indeed been hospitals in Mexico, India, and in Greece and Rome itself before Christianity, but the charity which is one of its fundamental precepts gave an immense impulse to their development in the Roman empire.

The Arabs got all their knowledge of medicine from the Greeks, whose clear objective thought became blurred in its passage through the Oriental medium. Of their conception of medical science an idea may be gathered from the fact that one of the greatest of them, Rhazes, says that he who reads attentively and meditates on the writing of former doctors acquires in the short space of a lifetime more knowledge than he could by tending the sick for several centuries. Avicenna, in his *Canon*, collected the various medical theories scattered through other writers into a body of doctrine; but he was a philosopher rather

than a physician. The Arabs and the mediaeval doctors who drew their learning from them thought research needless and buried themselves in abstract and barren speculations. This tendency was fostered by scholasticism, and the supremacy in the realm of thought which was awarded to theology. In the words of Dr. Moon: "Put briefly, the essential difference between mediaeval and modern medicine lies in the fact that whatever theories the modern physician may propound, whether as a result of patient investigation of facts or the sudden intuition of genius, the ultimate test of truth in his case consists in the power of his hypothesis to explain the facts, whereas, in the case of the mediaeval physician, the main criterion of truth was that his hypothesis should harmonize with certain theological dogmas." The Renaissance, which brought with it a first-hand knowledge of the writings of the ancient Greeks, made strongly for the restoration of reason, which had so long been displaced by authority. The structure and functions of the human body were studied in the only way that can lead to fruitful results. But the shadow of scholasticism long lay over medicine, and in their revolt against it the reformers, and even so fierce a contemner of the ancients as Paracelsus, only substituted new forms of tyranny over the reason for the older systems. With the seventeenth century, which brought the far-reaching discovery of Harvey, medicine may be said at last to set its face in the right direction.

Space will not allow us to follow Dr. Moon through his discussion of the influence of contemporary thought on medicine in the eighteenth and nineteenth centuries. We quote the concluding sentences of his book as they present in a condensed form the thought that inspires the whole: "Formerly physicians went to Philosophy to get help for their own special problems and to enable them to frame vast systems which should be co-extensive with the universe; now it will be rather the custom for Philosophy to come to Medicine, and taking from her all the truths which through the ages she has been slowly winning from ignorance and chaos, gather them up into one vast generalized truth which will at length enable men to lead the lives of intellectual and moral beings. Medicine in her turn, even in her special researches and more immediate occupations, will derive benefit from the contact with Philosophy. No longer imagining that a few *a priori* theories will yield up complete knowledge of the functions of the body in health and disease, she will yet feel that even in the smallest and narrowest investigations, or the humdrum round of every-day practice, she is hastening the time when the life of the modern man, though infinitely more difficult and complex, shall be as sane and dignified as that of the ancients."

We may be allowed, in conclusion, to say that Dr. Moon's book shows that the author is a thinker who has given much attention to the relations of medicine, not only to philosophy, but to the conditions which make up social life. His work marks him as a scholar and a man of wide culture—in short, as a physician of the type which, in the ever-increasing specialization that is a condition, but also a penalty, of the advance of science, is in danger of becoming extinct. Politics lie outside our province, and we only mention the fact that he is standing as candidate for East Marylebone as it gives us an opportunity of saying that, apart altogether from considerations of party, he would compel the respect of Parliament, not for himself only, but for his profession.

THE FEDERAL SYSTEM.

IN a preface to his monograph on *The Commonweal*[2] Dr. ALFRED P. HILLIER, who is the Unionist candidate for the North or Hitchin Division of Hertfordshire, tells his readers that he has put himself to the task of writing a book on the federal system of political economy only after very considerable preparation, having visited the United States, Germany, and some of the colonies chiefly concerned, for the express purpose of studying their fiscal systems on the spot. He considers that it is misleading to assume that the merits of any fiscal policy can be gauged by abstract considerations of protection on the one hand and of free trade on the other. "Free trade is," he says, "as a rule, a privilege to the consumer; protection, on the other hand, has often been held to be a national necessity, and, though less attractive to that hypothetic entity the consumer uninterested in the industries of his country, is, in certain cases, an advantage and a privilege to the producer."

From this foreword it will at once be surmised that Dr. Hillier is an advocate of tariff reform, and we do not propose to enter upon or to invite any discussion of this burning political question; but, as the author is a medical man long actively engaged in practice, first in South Africa and afterwards in London, it will not be out of place to summarize the arguments he advances in favour of the views he holds.

He deals at some length with the science and theory of political economy, and discusses the teachings of such masters as John Stuart Mill, Adam Smith, List, Ricardo, Jevons, and others, devoting special attention to the doctrines of the school of politicians which has so largely dominated the economic practice of Great Britain for many years. He considers that certain fallacies underlie the free trade policy of this country from the point of view of its present-day aspect; that there is much evidence to prove, as he believes, that whatever value may have attached to Cobdenite principles when they were first enunciated, they were based upon serious miscalculations as to the lines upon which the commerce of the world would develop.

Had free trade, as its original exponents hoped, become universal in its application, its economic value might, he thinks, never have required to be considered seriously, but its maintenance as the fiscal policy of a single country in competition with others which have elected to become more or less protectionist should, he argues, raise grave doubts in the minds of economists as to the wisdom of continuing a policy which, though it may have served its time and generation well, has become, in the twentieth century, unsuited to cope with the economic necessities of a great nation. "If," says Dr. Hillier, "the imposition of a tariff for protective as well as revenue purposes be, as Mill and his followers held, improper, it must be conceded that not only the United States, but all other civilized countries, have, since the days of Cobden and Mill, launched upon careers of the most flagrant economic impropriety; so far, indeed, from following England's example in adopting free imports, they have gone in precisely the opposite direction, and have imposed tariffs not merely for revenue purposes, but also with avowedly protective intention and effect." The present fiscal policies of the United States and of Germany, which are, in most respects, opposed to that now practised in the United Kingdom, are carefully considered, and the condition of Great Britain, both before and during her free trade era, is discussed in considerable detail. A chapter, which contains much thoughtful criticism, is devoted to the Colonies and India as they are affected by existing economic laws, and the plea for a policy of trade preference as a federating influence between them and the mother country is thus stated: "The two great factors which will be supreme in the federation of ourselves and our daughter States are mutual reciprocity in the field of commerce, mutual confidence in the field of political administration."

More need not be said to show that Dr. Hillier's book is a clear and concise exposition of a much debated question, upon which he has reached certain conclusions after mature consideration and persevering investigation. Many will disagree with Dr. Hillier's views, but his book deserves and will amply repay a careful perusal by all, whether friends or foes, who are interested in one of the most momentous problems which this country has ever been called upon to decide. We congratulate Dr. Hillier upon having accomplished a difficult task with conspicuous skill and moderation.

[2] *The Commonweal: A Study of the Federal System of Political Economy.* By Alfred P. Hillier, B.A., M.D. London, New York, Bombay, and Calcutta: Longmans, Green, and Co. 1909. (Post 8vo, pp. 174. 4s. 6d.)

A BIBLIOGRAPHY OF SLEEPING SICKNESS.

A *Bibliography of Trypanosomiasis*,[3] embracing original papers published prior to April, 1909, and containing also

[3] *Bibliography of Trypanosomiasis. Embracing Original Papers published prior to April, 1909, and References to Works and Papers on Tsetse Flies, especially Glossina palpalis (Rob.-Desv.).* Edited by C. A. Thimm. London: Sleeping Sickness Bureau. 1909. (Roy. 8vo, pp. 228. 4s.)

references to works and papers on tsetse flies, has been issued by the Sleeping Sickness Bureau. It has been compiled, under the direction of the Honorary Managing Committee, by Mr. C. A. THIMM, librarian to the Bureau. The arrangement is by authors in alphabetical order, the papers being given again under the names of the journals in which they appeared; against each entry of an author's name is an index number. The Director, Dr. Arthur G. Bagshawe, states that a subject index is in course of preparation, indicating the numbers to be consulted for the various subjects, and will be forwarded to subscribers as a supplementary pamphlet. References subsequent to March, 1909, are contained in No. 6 of the *Sleeping Sickness Bureau Bulletin* and in following numbers. The price at which the book is published is stated to be sufficient to cover only part of the expenses of printing, but the Bureau has undoubtedly done a most useful piece of work in causing this bibliography to be compiled. It appears to be most complete, and the fact that it contains 228 pages is some indication of the rapid growth of the literature on this comparatively new subject. It is interesting to note that so long ago as 1858 three notes, one of them by David Livingstone, were published in the BRITISH MEDICAL JOURNAL, suggesting the use of arsenic as a remedy for the tsetse bite. Mr. James Braid had in the BRITISH MEDICAL JOURNAL of February 13th, 1858, suggested the administration of arsenic for the disease produced in oxen and sheep by the bite of the tsetse, being led thereto by a statement that arsenic was an ingredient in various compositions recommended in India as remedies against the bites of serpents. Dr. Livingstone, writing from the "Screw steamer, *Pearl*, at sea off Senegal, Africa, March 22nd, 1858," states that the idea of employing arsenic in the disease which follows the bite of the tsetse fly had occurred to his mind about 1847 or 1848. He relates a story of a mare belonging to Mr. Gordon Cumming which, after prolonged exposure to the bites of the insect, became so ill that it was unable to proceed on the journey southward. Dr. Livingstone gave it 2 grains of arsenic in a little barley daily for about a week, when an eruption resembling small-pox appeared. The arsenic was discontinued, but when the eruption disappeared the mare's coat became so smooth and glossy that it seemed as though the complaint had been cured. The animal, however, about two months later began to be ill again, and died "through sheer exhaustion" nearly six months after the bite was inflicted. Mr. Thimm, in a short introduction, acknowledges his indebtedness to the compilers of previous bibliographies, and to Colonel Sir David Bruce, who placed at his disposal valuable lists of papers on the subject.

THE PRECIPITIN TEST.

IN a work, published in 1905, on the practical applications of the precipitin test, Professor UHLENHUTH reproduced the articles upon this subject which he had contributed to various journals, his object then being to present in historical outline the stages of the investigation. Now that the value of his methods has become widely recognized both in forensic medicine and in public health work, he thinks the time has arrived for writing a monograph on the subject, setting forth the methods of blood differentiation which he employs at the present day. He has, therefore, published, in conjunction with Dr. WEIDANZ, a practical guide to the technique of the biological differentiation of albumen,[4] an excellent and thoroughly practical volume which makes us realize the wide range of utility which the precipitin test now offers to scientific research. Every year, to quote one example out of many, the question of disease transmission by blood-sucking insects increases in importance, and it is, therefore, interesting to find that this is one of the subjects in which the application of Uhlenhuth's methods may provide useful information. In bugs, the authors state, human blood can be demonstrated by the precipitin test as long as fourteen days after ingestion, and similar results have been obtained with lice, fleas, and ticks. Examining mosquitos which had been kept in contact with certain animals, they were able to determine with accuracy the species of the animal each mosquito had bitten and to prove the absence of human blood. This line of inquiry, they point out, ought to prove of great value in investigating epidemics of disease where insects are known to be, or are suspected of being, the vehicles of transmission. With regard to the reliability of the precipitin test in forensic practice, the authors express themselves very positively, assuring us that their diagnoses may be accepted with absolute confidence, even when their answer makes all the difference between life and death to a prisoner accused of murder. The test must, of course, be performed with extreme care to avoid the possibility of error, and must be conducted on rigorously quantitative methods, since, as they point out, "all immunity reactions are only absolutely specific when based on quantitative estimations." Additional precautions must be taken in making a diagnosis between the bloods of nearly related animals. In ordinary criminal work this difficulty does not often arise in relation to human blood, because the possibility of the stains in question being caused by monkey's blood can generally be excluded. If, however, the necessity for such differentiation arises, the serum of a monkey immunized with human blood must be employed. Such a serum will give a well-marked precipitate with human blood, but none with monkey's blood. A special and most valuable feature of the volume is the very full and precise descriptions of every detail of technique involved in precipitin work.

[4] *Praktische Anleitung zur Ausführung des biologischen Eiweissdifferenzierungsverfahrens; mit besonderer Berücksichtigung der forensischen Blut- und Fleischuntersuchung sowie der Gewinnung präzipitierender Sera.* Von Professor Dr. P. Uhlenhuth und Dr. O. Weidanz Jena: Gustav Fischer. 1909. (Sup. roy. 8vo, pp. 252, 38 illustrations. M. 6.50.)

NOTES ON BOOKS.

THE eighth volume of the *Practical Medicine Series*,[5] for the year 1909, is divided into three parts, dealing respectively with materia medica and therapeutics, preventive medicine, and climatology. The first of these sections, edited by Dr. G. F. Butler, Professor of Therapeutics at the College of Medicine, Chicago, covers 218 pages; while Dr. Norman Bridge, Emeritus Professor of Medicine at Rush Medical College, assisted by Dr. Edith Claypole, manages to complete a notice of the more important papers on climatology in twenty-two pages. Preventive medicine, edited by Professor H. B. Favill, of Rush Medical College, occupies the remaining ninety pages. A good many of the papers abstracted, or otherwise noticed, by the editors in their account of progress in the subjects with which they have been entrusted by the editor-in-chief, Dr. G. P. Head, of Chicago, date back to the latter months of 1908 and to the early months of 1909. But this is not always the case, especially in the section relating to materia medica and therapeutics. In this papers are noticed which have been published as recently as August. One such is a paper in which Shober drew attention to the capacity of cocoanut charcoal for absorbing and retaining radium emanations, and to the possible utility of such radio-active charcoal in the form of ointments for local application, or even for internal administration in capsules. Nevertheless, though the book appears to be reasonably abreast of the times, we are not prepared to vouch for it as a reliable guide, since it calls attention without comment to at least one paper recording observations which the editors should have known to have been since proved quite untrustworthy.

The *Chemist's Annual, 1910*,[6] contains a considerable amount of material of value to pharmacists, in which legal information predominates. A compact digest is given of the Pharmacy Acts, the Sale of Food and Drugs Acts, and others of special interest to chemists, as well as of many laws affecting any one engaged in business. The Annual contains the usual interleaved diary pages.

The *Field Ambulance Guide*[7] will be found a most useful compilation by all those who have to do with a field ambulance. Its author, Captain PAINTON, when holding the office of Quartermaster at the R.A.M.C. Dépôt at Aldershot, thought it necessary for the efficient performance of his duties to keep notes on the lines of this book, and owing to the numerous requests that he had from officers and others to refer to these notes, he has published them in the expanded form in which they are now presented. We think that the book will be specially useful

[5] *The Practical Medicine Series, 1909.* Vol viii. Chicago: The Year Book Publishers (Gillies and Co., Edinburgh, sole agents for Great Britain and Ireland). (Cr. 8vo, pp. 348. 6s.)

[6] *The Chemist's Annual and P. J. F. The Pharmacist's Diary and Yearbook, 1910.* Edited by John Humphrey. London: The Pharmaceutical Press, 1910. (Imp. 8vo, pp. 266. 5s.)

[7] *The Field Ambulance Guide.* By Captain G. H. Painton. London William Clowes and Sons, Limited. 1909. (Demy 16mo, pp. 110. 2s. 6d

to Territorial quartermasters and their assistants, who are sometimes called upon to provide an article not in every-day use. By its aid, and without any confusion or delay, whatever is required will be immediately forthcoming.

We have received a pamphlet, entitled *Cancer and Sarcoma*, which is written by Dr. H. D. WALKER, of Buffalo, New York State, but does not bear the name of any publisher. It is a record of "a series of experiments comprising seven years of research work, made for the purpose of determining the origin and cause of cancer and sarcoma, their methods of propagation and means of prevention." The author argues that the evidence which he presents "shows very clearly that the parasites of malignant disease live in different species of the earth-worm, and are conveyed to man and animals through the vegetables they eat, which are infected by these parasites." Put briefly, his two "propositions" are: "No earthworms, no cancer. Plenty of earthworms, plenty of cancer." One of his arguments in favour of this view is that in the State of Florida, where earthworms are rarely found, cancer is also rare.

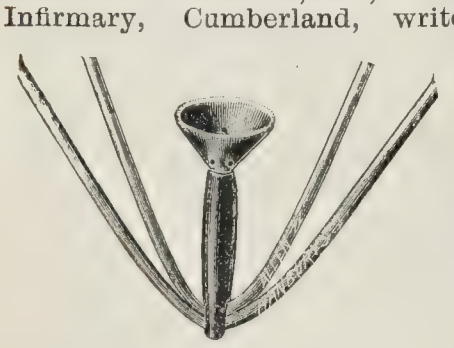
MEDICAL AND SURGICAL APPLIANCES.

Spinal Injection Syringe.

THE Holborn Surgical Instrument Company, 26, Thavies Inn, Holborn Circus, E.C., sell a spinal injection syringe as used by Professor Jonnesco (BRITISH MEDICAL JOURNAL, 1909, vol. ii, p. 1396 et seq.). It is a Pravaz syringe with asbestos plunger and a stout platinum iridium needle 3 in. long. The price with two needles in aseptic case is 21s.; the charge for additional needles is 7s. 6d. each.

A Cup Pessary.

Dr. J. H. DUDGEON, J.P., Honorary Surgeon, Workington Infirmary, Cumberland, writes: Messrs. Allen and Hanburys have made a very useful pessary for me, a rubber cup with vulcanite stem. It is more easily introduced than the vulcanite cup, and it gives more to the movements of the body. The all-rubber instruments are apt to double up with a heavy uterus. I have used these pessaries for some years, and have found them most satisfactory.



MEDICINAL AND DIETETIC ARTICLES.

Tidman's Sea Salt.

AN old adjunct to the treatment of many diseases which has probably never waned in favour is sea bathing, and many of its beneficial effects can be obtained at home by the addition of sea salt to the bath water, with the advantage of being able to regulate the temperature at will. Tidman's Sea Salt has been before the public for many years, and its merits and convenience are well known. Samples which have been sent to us recently show that it is supplied in a variety of packages, from a few ounces up to a hundredweight, and baths containing the essential ingredients of sea water can be readily prepared from it in any required quantity.

THE COMPOSITION OF SOME PROPRIETARY FOOD PREPARATIONS.

VI.—MALTED FOODS.

WE have already given the results of the analysis of a number of makes of extracts of malt, and also of various combinations of extract of malt. There is a further class of malt preparations, usually called malted foods; most of these consist of a farinaceous material—most frequently wheat flour—mixed with malt flour, that is, the flour obtained by milling malted barley, or in some cases with dry malt extract. The majority accordingly contain a large proportion of unaltered starch, and this does not undergo digestion to any considerable extent when the food is prepared for use, for the reason that the diastase of the malt will not act on the starch until it has been gelatinized, and when the heat is sufficient to do this it destroys the diastase.

The preparations mentioned below, however, are not all of the same kind, and certain of them might be described in some other class with equal appropriateness. Horlick's malted milk contains no unchanged starch; a part of the sugar in this, and also in Garman's food, consists of lactose, and others may contain a small quantity of the latter. It is more convenient, however, for purposes of comparison, to calculate all the reducing sugars present as maltose, and this has accordingly been done; and further to facilitate comparison, the results of the analyses are arranged in tabular form.

A "malted food" may be expected to contain the important constituent of malt—diastase; the diastatic power of the foods was therefore ascertained, and found to vary greatly. It is expressed in the table in the units of the *B.P. Codex* test—that is, a diastatic strength of 100 means that the food can digest its own weight of starch in half an hour at a temperature of 40° C.; and other figures indicate a proportionate amount of starch digested under the same conditions:

Name of Food.	Price of Package.	Approximate Weight of Contents of Package.	Fat, per Cent.	Protein, per Cent. (calculated from Nitrogen).	Reducing Sugars calculated as Maltose, per Cent.	Water, per Cent.	Ash, per Cent.	Diastatic Strength by "Codex" Test.
	s. d.	oz.						
Allenburys' Malted Food	1 0	12	1.22	11.35	14 5	3.96	0.93	14
Beane's Diastased Farina Food ...	1 6	11	1.20	8.76	5.06	10.10	0.87	161
Boyd's Banana Malted Food ...	1 0	11	2.12	11.40	7.56	5.72	1.25	11
Chapman's Malted Food	1 0	16	1.79	10.93	2.10	8 54	1.40	42
Ekins' Malted Farinaceous Food ...	1 0	14	0.48	10.47	2.56	10 65	0.62	43
Fry's Malted Cocoa	1 0	6	19.00	17.87[1]	17.00	6.88	3.75	0
Garman's Malted Food	1 0	16	1 80	12.40	16.80	8.54	0.81	76
Horlick's Malted Milk	1 6	8	7.25	14.35	55 50	2 25	3.66	4
Paget's Malted Farina	1 0	10	3.02	10 30	2.00	3.84	0.85	16
Potter's Malt Egg	1 0	7½ fl. oz.	0.04	5.95	67.4	—[2]	1.39	7

[1] Cocoa contains nitrogenous constituents which are not protein in considerable quantity. This figure is therefore too high for the true protein present.

[2] Potter's malt egg has about the usual consistence of malt extract, and the water was not determined. It is described on the label as "a concentrated extract of malt with the yolk of eggs"; the almost entire absence of fat, however, shows that the proportion of egg yolk must be very small, and all its characters are generally those of a malt extract

RECOLLECTIONS OF A LONG PROFESSIONAL LIFE—1844 TO 1904.

By LOMBE ATTHILL, M.D.,

EX-MASTER OF THE ROTUNDA HOSPITAL, DUBLIN; AND EX-PRESIDENT, ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

(*Continued from page 27.*

A FEW months later I moved to Dublin, little realizing the difficulties and trials which lay before me, and least of all anticipating that I would attain success as a practitioner in that city. My idea was to study for a couple of years, and then, having attained a better knowledge of my profession, to seek an opening in the provinces or in England. Looking back over the fifty-eight years which have since elapsed, I can hardly understand how I managed to maintain a respectable appearance and support my wife and family—for I married young—during the first ten or more years, for so slow was my progress that it was not till my tenth year that I earned a clear £100 a year by private practice, and twenty ere it reached £1,000.

Of course, I was most anxious to obtain an appointment which would bring an addition to my very limited income, and afford me an opportunity of gaining experience in the treatment of disease; so, soon after coming up to town, I became a candidate for the post of assistant physician to the South Dublin Union Hospital. I was the more anxious to get this because my ambition had always been to become a hospital physician. There were some thirty candidates; one of my supporters had to leave before the last vote was taken, and I lost the election by one vote. That one vote determined my future career, for Dr. Charles Johnston, whose pupil I had been when he was Master of the Rotunda Hospital, thereupon offered to obtain for me the post of assistant to the then Master of the hospital, which was shortly to be vacant, it having been promised to his son, who, however, now had resolved to give up medicine and enter the Church. And though I had always disliked midwifery, I felt that it would be unwise to refuse such an offer. So I availed myself of it, and in November, 1851, entered on my duties as resident assistant to the then Master.

The Rotunda Hospital in 1851 was very different to what it now is. It was then a lying-in hospital, pure and simple, without any extern department, and although there was a ward nominally for the reception of cases of uterine diseases, such were seldom admitted, and, if admitted, were speedily discharged, for nothing was then known as to the nature of such, or how they should be treated; no doubt a Ferguson speculum was occasionally introduced into the vagina, and if the os uteri was abraded we were told it was "ulcerated," and it was brushed over with nitrate of silver solution—that was all the instruction I ever received as to the treatment of those diseases which are peculiar to women.

There were twelve lying-in wards, each containing ten beds, there were also small wards opening off these into which cases of serious illness were moved. Each of the large wards in turn became "the labour ward," into which the patients were admitted till all the beds were filled. The bedsteads were wooden, all of hard old oak, and although they were probably a hundred years old, were perfectly sound and good, and quite free from bugs, etc., which was remarkable, seeing that the patients were mostly of the lowest class and, in general, very dirty. The bedding was somewhat primitive, the mattress consisted of a coarse canvas bag filled with clean straw, over which was laid an under blanket and sheets. This made by no means an uncomfortable bed. The straw was taken out and clean straw put in as each patient was discharged or removed to another ward, which always took place on the eighth day after delivery, but the sack which contained the straw was not washed with any regularity, nor were the blankets; these were, however, well aired, the ward and bedsteads were scrubbed, windows opened, and the ward thoroughly cleaned and ventilated for one or more days before another batch of patients came in.

The patients were delivered on a small bed termed "the couch" and then carried to their beds. The diet was gruel, bread and tea for the first five days after delivery, then broth was given for dinner; and so it remained till I became Master, when I was enabled to change the diet, and broth was given from the first, and meat on the fourth or fifth day. It must be borne in mind that sixty or seventy years ago no air was admitted into the lying-in chamber in private practice; and there even light was excluded, that nothing but warm drinks were given for several days, and that the patient was always perspiring. In the old authors will be found learned discussions on the treatment of "miliary fever," and a description of its peculiar rash, till at last someone discovered that all this was due to the long-continued sweating! The practice in the hospital was therefore much in advance of that generally followed in the case of private patients sixty years ago, at any rate in Ireland.

The mortality was wonderfully low. I kept, and still have, notes of every case admitted during my term of office. I find that in the first year 2,100 patients were admitted, with only 11 deaths, the majority of these being due to causes quite unconnected with parturition, such as phthisis, etc., or other forms of organic disease, 2 died from convulsions, and so on, but not one from any form of "puerperal fever," which was the term applied to all cases of what would now be classed as "septicaemia." Nor was it till nearly the end of my third year as assistant that I saw any of these terrible cases. Then about a month before my term of office expired a terrible outbreak of it occurred. There were many deaths, and the hospital was closed for a short time.

I have often since wondered at this long immunity from septic disease. The patients were of the lowest class and admitted without any recommendation or previous examination; consequently more than once scarlatina showed itself immediately after delivery, but no death from this cause occurred, nor did it spread in the hospital.

In the hospital itself no precautions whatever were taken either by pupils or nurses. The number of pupils was unlimited; there were generally about eight or ten internal and a large number of external pupils always on the roll. Six or eight, often more, being on duty together for twelve hours. These made vaginal examinations as often as they liked, none thought of washing hands before doing so. There was a table with two basins on it for the use of the pupils, and a tub stood near it on the floor into which the basins were supposed to be, but not always were, emptied after being used, and things so remained till I became Master in 1875, when one of my first acts was to get water laid on to each of the wards with proper lavatory arrangements, and the posting up of a notice that pupils "must wash their hands before making an examination," and rinse them in a solution of carbolic acid supplied for the purpose—rules I found very difficult to enforce; indeed, they were ridiculed.

The forceps when I was a pupil attending the hospital, 1846–7, were rarely, and, so far as my personal observation went, never, applied, the rule being that before doing so the child's ear must be felt. Consequently, patients were allowed to linger for much more than the twenty-four hours fixed by Denman as the limit of "natural labour," with the result that, after lingering for hours in agony, the poor patients, whose cases were then classed as "difficult," were delivered with the crotchet, the skull first having been perforated and head lessened. No doubt, in the vast majority of cases the child was dead previously, but this could not have been always the case. But though, as a result of the long pressure of the head on the soft parts of the pelvis, sloughing from time to time occurred, and though sometimes vesico-vaginal fistulae formed, still the patients, as a rule, made wonderfully good recoveries; and I am of opinion that more injury to the mothers has followed from the undue frequency, indeed recklessness, which became the fashion in subsequent years with regard to delivery

by means of the forceps, than from the timid practice of the followers of the "judicious Denman."

During my term of office as assistant (1851–4) the forceps were more frequently used by the then Master, a most amiable, kind-hearted gentleman, but one of the old school of practitioners, painstaking to a degree, and most anxious for the welfare of the patients under his care, very kind to them, and loved by them, and very kind to me. In speaking of the use of the forceps by him, it must be borne in mind that I refer to the "short forceps," which I should think are unknown to the present generation, and which was a most inefficient instrument; it was not till later that the long forceps, of the pattern introduced by Dr. Robert Barnes of London, came into use with us.

Then there was no extern maternity department, properly so called. Pupils were not prohibited from attending the poor at their own homes, as occasionally requests for such were made, but they were not encouraged to do so. It fell to my lot to establish and regularly organize the extern department, when I became Master, although my doing so was opposed by some of the governors, led by my predecessor in office.

As the assistants received no salary they were permitted to engage in private practice, and several, both before and since my day, succeeded in making a moderate income while residing in the hospital; but in this respect I was very unfortunate. No doubt I looked even younger than I was, and I had no professional friends to help me. At any rate, I had very few patients, and from those I managed to get received but scanty remuneration, making only about £10 in fees during my first year and some £30 during my third and last year there. Nor did I fare much better on setting up house when my term as assistant had expired, for so slowly did I progress that some seven more years elapsed ere my private practice yielded £100 in any year—in other words, till I had been quite twelve years qualified.

These were years of great anxiety. I had married early in life, children came, and it was absolutely necessary to maintain the appearance of a gentleman and to reside in a good district. By the observance of the strictest economy I succeeded in keeping absolutely free from debt; but to make the two ends meet I had to take pupils—a thing very uncongenial to me. Twice I entered into negotiations with the view to a partnership in England, and on the second occasion had decided to close on the offer made me, but on my wife's urgent request agreed to wait for another year. Ere it elapsed things looked brighter, but still my progress was very slow.

The great drawback to the post of "assistant" in the Rotunda Hospital is that it can be held but for three years, at the expiration of which all connexion with the hospital ceases—unless, indeed, after the lapse of years the holder becomes fortunate enough to be elected "Master," which can be attained by only one out of every five or six ex-assistants. Fortunately for the present generation, all the Dublin hospitals have now a gynaecologist on their staff, and these posts are, as a rule, filled by ex-assistants of the Rotunda; but as gynaecology did not exist as a department of medical science in 1854, when my term of office expired, I felt keenly being cut off from all hospital work. I tried to induce the governors of the Meath Hospital to appoint me as a specialist in the diseases peculiar to women, to treat only patients in the extern department of the hospital; but the medical staff would not hear of such a thing. The medical board did, indeed, appoint me "consulting obstetrician" to the hospital, but would not permit my name to appear on the list of medical officers, nor could I see any patient unless sent for by some member of the staff, so that the appointment did me no good.

A year or two after my term of office at the Rotunda expired, a gentleman now dead asked me to join him in carrying on as a dispensary an institution which had for a time been a kind of ophthalmic hospital, partly supported by subscriptions, but mainly by the gentleman who was the ophthalmic surgeon to it and by whom it had been started. It was to be a rather unusual kind of an institution, for it was to be open three mornings in the week as an ophthalmic dispensary, and on the other three to women suffering from some form of uterine trouble. I accepted the offer, and there for several years I treated this class of patients—I fear without greatly benefiting them, for I was very ignorant, but I acquired by degrees knowledge and experience.

At this time I made the acquaintance of the late Dr. George Kidd, who, having studied in Edinburgh under Sir James Simpson, then coming into note, settled in Dublin, and had become attached to the Coombe Lying-in Hospital as assistant shortly before I joined the Rotunda. More fortunate than me, the Board of the Coombe created for him the post of gynaecologist to the hospital, and so he continued to be attached to it. He commenced to practise what he had learnt from his distinguished teacher, and invited me to see his operations, etc. I gladly availed myself of these opportunities, and learnt much. We became fast friends, and though in after-years we were to some extent rivals, from the fact that we pretty well for a long time divided between us the gynaecological practice, not of Dublin alone, but of the provinces also, our friendship terminated only with his death. When one of us went for a holiday, the other always looked after his private patients.

There were at this time existing in Dublin three societies established with the view of advancing medical knowledge. The oldest was the "Surgical Society of Ireland." It held its meetings in the College of Surgeons. The papers read there were often interesting and the discussions frequently very "lively," for there was no little rivalry amongst its most active members, and personalities were not infrequent. I of course became a member of it. Then there was the "Medical Society of the College of Physicians," which met in the College Hall, at that time located in Sir Patrick's Dun's Hospital and now transformed into the theatre of the hospital, it having been handed over to the governors by the college when their new building was erected in Kildare Street in 1861. The meetings of this society were very decorous.

Thirdly, there was the "Obstetrical Society," instituted mainly by Dr. Evory Kennedy, about the year 1835. It held its meetings in one of the public rooms attached to the Rotunda Hospital. All these societies, along with the Pathological Society, established much later, are now amalgamated to form the "Royal Academy of Medicine of Ireland."

I was a regular attendant at the meetings of these societies, and began after a little to contribute papers, I fear of very little value, to the Obstetrical Society, and in time became an active member of it.

The leading obstetricians in Dublin in 1855 were Dr. Evory Kennedy, who soon after retired from practice; Dr. Montgomery, Professor of Midwifery in the School of the University of Dublin; Dr. McClintock, the then Master of the Rotunda Hospital; Dr. John Denham, who succeeded him in that post six years later; Dr. Ringland and Dr. Kidd, both of whom were attached to the Coombe Hospital. I was much younger than any of these. In 1860 I was elected a Fellow of the College of Physicians, and the same year appointed Registrar of the College, an office which must be held by a Fellow. I filled it for eight years, and on resigning it was at once elected "Censor."

Sir Dominic Corrigan was at that time President of the College, which, as already mentioned, was located in the central part of Sir Patrick Dun's Hospital. Not alone was there insufficient accommodation in the building for college purposes, but it was both undignified and inconvenient in its site, so Sir Dominic determined to mark his presidentship by inaugurating, and as it proved successfully carrying through, a movement to transfer the college to a better site.

Just at this time the members of the Kildare Street Club were erecting a new club-house at the corner of Kildare Street and Nassau Street, and their old premises being for sale Sir Dominic purchased them on favourable terms, and then offered them to the college for the price he had paid. This very liberal offer was at once accepted, the money needed being raised in a few days amongst the Fellows; but before

the club had vacated the premises the old building took fire and was burnt down. It was, however, insured for its full value, and instead of an old building which would have needed a heavy outlay a large sum of ready money came into the hands of the building committee and the present handsome building was erected. All this entailed on me, as Registrar, a great deal of work.

The College of Physicians, then known as "The King and Queen College of Physicians," from the fact that its original charter had been granted in the reign of William and Mary, was virtually refounded by Sir Dominic. Before 1858 very few took its Licence. This was due to several causes, the chief one being that a qualification in medicine was not required for any medical appointment except in the case of a few fever hospitals, the Licence of the Royal College of Surgeons being deemed sufficient for all others. Then there was £25 stamp duty to be paid to the Government on the Licence when granted, in addition to the college fee of £30, while at that time the degree of M.D. was obtainable on the easiest of terms from more than one of the Scottish universities. All that has been changed. The stamp duty was, mainly through Sir Dominic's influence, remitted, and the college at the same time reduced its fee from £30 to £15 15s., at which it has since stood. A very large number of candidates at once offered themselves for examination, most of them being Licentiates of one or other of the Colleges of Surgeons, certain special concessions as to curriculum, etc., being made in favour of those of a certain standing. Many of the candidates were men of mature age, some quite old. I as Registrar had to be present at all examinations. Some of these were interesting, while occasionally the answers were very entertaining. I recollect one case well, that of a gentleman who had been some fifteen years in practice. He had charge not alone of a large dispensary district in the West of Ireland, but also of the poorhouse and fever hospital. He came into the hall with quite a jaunty and self-satisfied air which the result proved not to have been warranted.

The examination of these senior men was altogether viva voce, and the examiners usually commenced by asking these senior candidates if they had recently treated any case of some disease—say, for example, of pneumonia—and on receiving an answer he would be asked what were the symptoms he had observed, his treatment, etc. The examiner in midwifery on this occasion asked the candidate if he recently had met with any case of difficult labour. "Oh, yes, and a very bad one." "What was its nature?" was asked. And as promptly came the reply, "One of anthroversion." The examiner, somewhat perplexed, asked what were the conditions and symptoms peculiar to the case. "Oh, those of anthroversion," he replied; and though the question was put in various forms no other reply could be extracted. Finally, the examiner gave it up and asked, "Well, how did you treat this difficult case?" "Well," he said, "as soon as I saw what a bad case it was I sent for another doctor." His astonishment was great when he learnt that he was rejected, which he was by the unanimous vote of the five examiners. But the majority of the candidates were well-informed men, though they could hardly have been called learned. The number of rejections was considerable, but most of the rejected, I fancy, obtained a licence in medicine elsewhere.

Personally, I owe much to my connexion with the college and to the kindness of the Fellows. I held the office of Registrar for eight years and then was elected Censor, and then after some years was Vice-President, and in 1888 was elected President; subsequently I was Treasurer for many years, and finally for fourteen years represented the college on the General Medical Council. Old age and its accompaniments made me in 1903 feel that I could not with satisfaction to myself continue to fill that post any longer. Of the kindness for so many years received from the Fellows of the College of Physicians it is impossible for me to speak too gratefully.

(To be continued.)

LAVATORY ACCOMMODATION AT RAILWAY STATIONS AND TEASHOPS.

A SHORT time ago a well-founded complaint reached us with regard to the lavatory accommodation for ladies at a certain railway station, and on addressing a few inquiries to persons likely to be well informed on the subject it was found that the conditions at the station in question, though possibly rather worse than is common, were in their broad characters no exception to the general rule. That there should be defects in this direction was not, on the whole, very surprising, as even in men's lavatories at railway stations the accommodation is by no means always above reproach; but one was not prepared for such a state of affairs as that revealed when definite inquiry into the matter was set on foot.

This has made it evident that the watercloset accommodation at stations and other frequented places is habitually of a very nasty character, and that women have been suffering in this direction for many years past, but have been silent on the subject for easily comprehensible reasons. The net outcome of the inquiry is summed up in the following lines.

As for the reliability of the data, their accuracy and freedom from exaggeration, it should be stated that the informants are none of them persons of a hypercritical class. They are women accustomed, it is true, to the refinements of better-class households, but equally acquainted with the conditions prevailing in public places. Most of them are ladies who have, in short, both the ordinary experience of women of their own class and in addition the special knowledge born of work in various public capacities which take them into institutions of all kinds. They are thus good judges of how far the accommodation in question falls short both of what is desirable and of what is readily feasible.

THE NATURE OF THE ACCOMMODATION.

The evidence shows that though there are considerable variations on different lines and at different stations, the accommodation throughout the country falls very considerably below the right standard, and is often disgraceful to the companies concerned. The accommodation is defective sometimes in point of maintenance and administration, sometimes of structure, often of all three.

Structure.—The waterclosets frequently communicate direct with waiting and tea rooms, and even when there is an intermediate lobby cross-ventilation is not provided.

The cabinets themselves are so dark that it is often impossible to detect at a glance whether they are cleanly or the reverse, or even to find the seats; if provided with any windows at all, such windows are hermetically sealed; if and when other ventilating arrangements are provided, they are commonly out of order. The pans are of varying type, very often old-fashioned; wood-encased high seats are almost universal. Occasionally the pans communicate with cesspits; others are of the long hopper type, and plug pans are not uncommon. So, too, are defective flushing cisterns, with the result that the pans cannot be cleared, even when they will hold water.

Maintenance.—The seats are commonly not only soiled but foul, and the walls dirty. Even when a woman is placed in charge of the closets things are not as they should be. She generally has something else to do as well, and at a busy station cannot keep abreast of the work, especially when the closets themselves are structurally defective. Nor is the outfit with which she is provided adequate, if she is not content to wipe seats with a dirty cloth; she can be seen sometimes to wash such cloth in a lavatory hand-basin.

At many stations no woman attendant is provided, all doors open on the penny-in-the-slot system, and the closets either receive no attention at all, or are once a week or so cleared out by a porter.

In any case the net result is bad, whether the closets are under the care of a woman or otherwise, and they are exceedingly unpleasant places to have to visit. It is not denied that lack of nicety on the part of some visitors is a factor in the situation, but with perfect reason it is pointed out this should be anticipated, and the arrangements made be such as to facilitate cleanly usage by persons of all classes, most of them pressed for time, and all more or less heavily clothed.

In respect of access, payment where a woman is in attendance is always expected, and most cabinets only

open on the penny-in-the slot system. If this invariably secured good accommodation, there would be something to be said for it, but this is not even commonly the case, and, anyhow, one disadvantage always remains—people have not always got a penny ready, two halfpennies will not act, and change from a bookstall or elsewhere cannot always be secured, even if time allows. Occasionally the attendant, if one be present, will open a door without a penny being put in the slot if the traveller is sufficiently strong-minded to make such a demand and insist on compliance with it. Should an attendant not be at hand, there is nothing to be done but apply to the station master, and this few women care to undertake.

THE REMEDY.

Structure and Maintenance.—So far as the placing of lavatory accommodation goes, there are often perhaps considerable difficulties; but with these, as with defects in structural detail, railway companies would probably be disposed to grapple if the matter were forced upon their attention by one means or another.

Intermediate passages with cross ventilation should always be provided, and the internal arrangements should be of the most modern character. They should, of course, include proper lighting and proper ventilation, but of equal importance is the selection of a readily flushed pattern of pan, the provision of an effective flushing tank with an ample supply of water, and a valve-closing bulb placed at such an angle as to allow of the tank filling with unusual rapidity each time the chain is pulled.

But perhaps of greater importance than anything else is the arrangement of the pan and seat. The pan should stand well away from the back wall, and have a clearance each side of at least 12 in. It should, too, be absolutely free from all wooden casing, and the seat should be 15 in. in height at most. A movable iron step might also be placed in front to facilitate proper usage of the seat by children. As for the structure of the seat, it should be merely a narrow brim made of hard wood, and it should be cut away in front.

A better plan still in many, if not all, places would be to imitate what is commonly done in France in public lavatories. This is to provide a series of movable tops, placing a freshly cleansed one at the disposition of every traveller. They are not expensive, and their use would ensure absolute cleanliness.

The Legal Position.—So far as the legal position is concerned, there does not appear to be any clause specifically dealing with closet accommodation in any public railway Act, and we have had no opportunity of examining the various railway companies' private Acts. It is improbable, however, that any such Act in itself obliges the company in question to provide accommodation for either women or men at all their stations. On the other hand, the point would appear to be fully covered by the ordinary powers of the Commissioners appointed under the Railway and Canal Acts. They can order any railway to provide "reasonable facilities" for passenger traffic. The Act of 1888 in particular (Part I, Section 7, Subsection 1 *a*) specifically mentions city, borough and county councils, and urban and rural sanitary authorities among the bodies having the right of laying complaint before the Commissioners, and there seems little doubt that "reasonable facilities" would be held to include the provision of proper sanitary conveniences. Whether railway companies are entitled to charge for the use of such places is another question. There appears to be only one decision on the point, and this was in favour of the company.

Apart, however, from such considerations, it is probable that any medical officer of health could, through his authority and by use of ordinary powers, bring about the provision of such accommodation where lacking; and it is practically certain that he could force the railway company to maintain any existing accommodation in a proper condition.

It is true that railway companies are treated with a certain degree of favour in the Public Health Acts. They are, for instance, exempted from the operation of Sections 155, 156, and 157 of the Public Health Act of 1875. Similarly they are exempted from the operation of Section 20 of the Public Health Acts Amendment Act of 1890 when Part III has been adopted by the local authority. The exemption, however, is of the most limited kind. It relates specifically and solely to the clauses in question, and those in the earlier Act deal mainly with building by-laws, the proper alignment of streets, the submission of building plans, and the like. In the later Act the clauses named relate to the powers of an urban authority to erect public sanitary conveniences of its own, and to control the private provision of any such convenience when situated in or accessible from any street. But even exemption from this section is qualified by a later Act, the Public Health Acts Amendment Act of 1907. Its 43rd section (which to be effective must have been declared to be in operation by the Local Government Board) contains no saving clause in favour of railway companies, and, as is pointed out in Lumley's *Public Health* (seventh edition, vol. i, p. 867), greatly increases the powers of local authorities. It gives power to the sanitary authority to deal with a public convenience, wherever situated, by ordering its removal if found to be a nuisance or an offence to public decency.

Apart from these exemptions, which, as has been pointed out, are of a very circumscribed character, there is every reason to believe that railway companies are not less subject to the operation of the clauses applying to sanitary conveniences than any other property owners or occupiers.

So far as the position of the necessary accommodation goes, Subsection 3 of Section 39 of the Public Health Acts Amendment Act of 1907, where Part III of the Act has been adopted, should amply suffice to secure the provision of whatever closets the medical officer of health deems necessary.

The question of maintenance is still simpler. It cannot be doubted that railway companies are subject to Section 41 of the Public Health Act of 1875, which gives full authority to a medical officer of health to enter, examine, and call for the rectification of any sanitary convenience in respect of which written complaint has been made by any person. Equally little doubt exists as to the subjection of railway stations to the operations of Sections 91 to 95 of the same Act, dealing with the abatement of nuisances, which by the specific terms of the Act include any privy or urinal so foul or in such a state as to be a nuisance or injurious to health. There have, indeed, been several actions successfully brought against railway companies for nuisances of an allied order, namely, allowing manure to remain on their premises.

The information in our possession also relates to a good many teashops and like places. In the Northern and Midland counties more particularly it is evident that the closets intended for the use of women customers are often exceedingly badly kept, and sometimes so situated as to be liable to damage by their effluvia the food served in the shop. As to the power of medical officers of health to deal with this part of the general question, there is, of course, not the slightest doubt, and we are aware that a good many medical officers make a special point of keeping a watchful eye on such places.

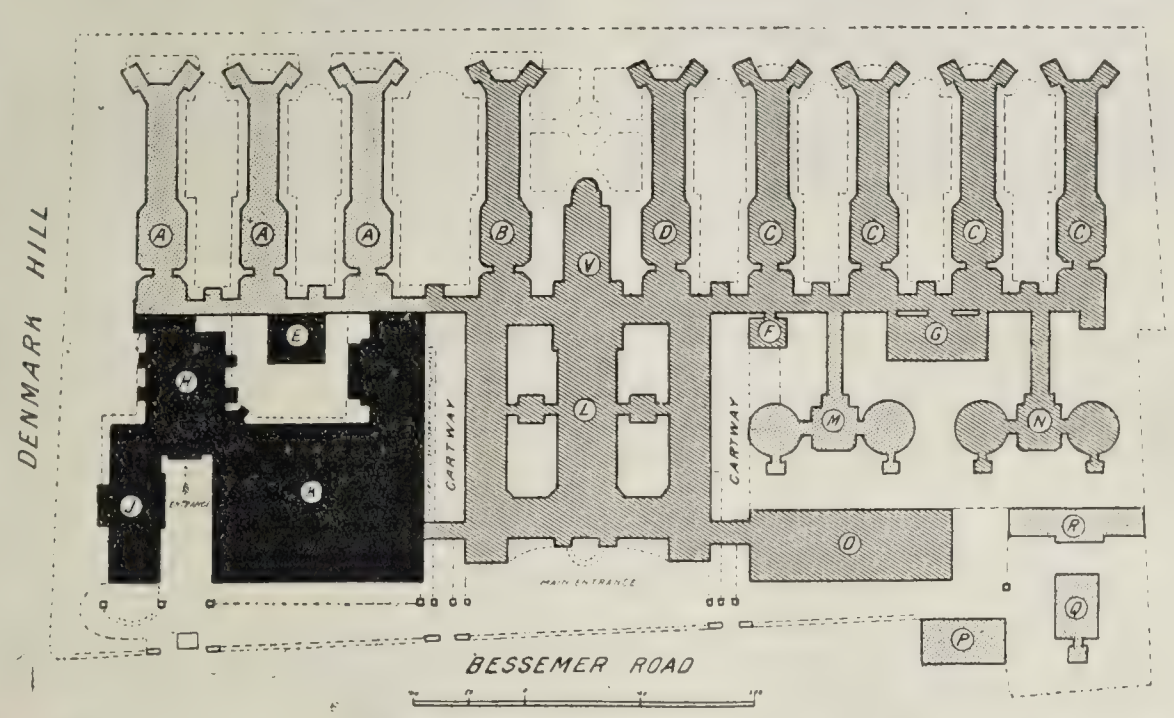
It is certain, however, that in some towns the point has hitherto been more or less overlooked. In districts unprovided with female sanitary inspectors it may present a certain amount of difficulty, for in such areas the male sanitary inspector might encounter some difficulty in examining the accommodation in question during the ordinary hours of business. Nevertheless, he could at least satisfy himself from time to time that the accommodation provided was of a kind suited to its purpose and kept in good working order, and the mere fact that inquiry was made would go a long way towards securing improvement when required. Moreover, most medical officers of health are in a position to obtain information as to the actual conditions of such places during business hours from other sources than their inspectors.

As for the accommodation at railway stations, we have already given reasons for supposing that medical officers of health are in a position to take the matter up, and as to the desirability of their endeavouring to do so, either officially or unofficially as the precise circumstances of each case may seem to render advisable, the information we have obtained leaves no doubt. Moreover, at stations at which access to no closet of any sort is obtainable except upon insertion of a penny in a lock, the undesirability of the arrangement might well be pointed out to the persons responsible.

SEVENTY-EIGHTH ANNUAL MEETING
OF THE
British Medical Association
LONDON, JULY, 1910.

KING'S COLLEGE HOSPITAL.

THE present King's College Hospital, near Lincoln's Inn Fields, is not a large one, but the new hospital, which is now in course of erection at Denmark Hill, will, when it is quite finished according to the plans projected, be one of the largest in the metropolis, as it will contain 600 beds. The site chosen is a fine one of 12 acres, so situated in Bessemer Road, Denmark Hill, that the buildings will overlook the beautiful Ruskin Park. The hospital can be reached by tram, and by train from Victoria, St. Paul's, or London Bridge, the station nearest to the hospital being Denmark Hill. The ground slopes gently upwards from north to south; the ward pavilions are to be on the highest portion, and each of them will have its axis in the same direction, and will therefore obtain the maximum of sun and air. Not one of the general hospitals of London will be more pleasantly and healthily situated than King's College Hospital.



Now being built. To be commenced shortly. To be built as funds become available.

King's College Hospital Block Plan.

A, Medical Ward Block (Two Floors).
B, Medical Ward Block (Three Floors).
C, Surgical Ward Block (Two Floors).
D, Surgical Ward Block (Three Floors).
E, Clinical Theatre.
F, Gyn. Op. PM. and Clinical Theatre.
G, Three Operating and one Clinical Theatre.
H, Bathing Establishment.
J, Casualty Department.
K, Out-patient Department.
L, Administration Block.
M and N, Special Wards.
O, Medical School and Pathological Department.
P, Mortuary.
Q, Isolation Block.
R, Isolation Block Administration.
V, Chapel.

The centre, towards the north, near Bessemer Road, will be the administration block (L), including the nurses' home. The rise towards the south has been utilized to bring the first floor of the administration block, on which is the matron's department, to the same level as the lower floor of the ward pavilions. Each of these pavilions runs southward from the main corridor, which will be 870 ft. in length, and will stretch east and west from the principal staircase and the chapel (V), which are on the south side of the administration block. The completed hospital will provide nine ward blocks, of which seven will have two floors (A and C) and two three floors (B and D). Westward of the central administration block will be certain special wards (some of which are to be circular), the medical school and pathological department (O), three operating theatres, an isolation block with separate chambers, and a mortuary. Eastward, in the angle formed by the junction of Denmark Hill and Bessemer Road, is the block containing the casualty and out-patient departments. It is expected that the whole of this block will be finished by next July, and will then be open for inspection by visitors. To reach these departments we pass by the gate porter's lodge in Bessemer Road and enter beneath a wide courtyard spanned by a glazed roof. The casualty department (J) is on the left of the yard and the out-patient department (K) on the right. At the further end of the court is the general entrance, beyond which are the bathing and electrical departments (H). The casualty depart-

King's College Hospital: Out-patient Department, Bessemer Road.

King's College Hospital: Part of Casualty Block, Denmark Hill.

ment provides the usual accommodation, including isolation and padded rooms, and rooms for the treatment of accidents. On the first floor is a small self-contained department for the observation of doubtful cases, planned upon the cellular principle.

The out-patient department on the opposite side of the courtyard has some novel features. There is an outer waiting-room with requisite offices on either side; this communicates with a large hall for 500 patients, with a refreshment counter in the centre. Swing doors round

King's College Hospital: Out-patient Department, entrance to Courtyard.

the hall open upon a surrounding corridor, which gives access to the several departments, each of which has been designed to meet special requirements. The corridor will afford ready and quiet access for official purposes, and is so arranged that the patient passes from the large hall to the department he is attending, thence to the dispensary, and so to an exit, which is distinct from the entrance to the hospital, without having to retrace his steps. The arrangements for the examination of patients, and especially of female patients, are excellent, both as regards privacy and the saving of time.

The dental department is on the first floor, to the rear. The teaching in the medical school at Denmark Hill will be confined to the strictly professional subjects.

For the information on which this short account of the hospital has been prepared we are greatly indebted to Mr. William A. Pite, F.R.I.B.A., the architect, who has also been kind enough to furnish us with photographs.

St. Mary's Hospital and School.

St. Mary's Hospital and Medical School, near Praed Street and Bishop's Road stations on the Metropolitan Railway, contains 319 beds. The principal addition to the hospital is the Clarence Memorial Wing, a handsome building fronting Praed Street, which was opened in 1909. In this wing are eight wards, containing altogether about 50 beds, an operating theatre, new administration offices, a nurses' home, and, what will probably be of most interest to members, the inoculation department. This is under the supervision of Sir A. E. Wright, and comprises not only accommodation for the treatment of patients, including 31 beds, but also numerous laboratories for the purpose of diagnosis and research, as well as for the preparation of vaccines.

The Medical School has been enlarged by the addition of museums of biology and pathology, laboratories for physics, pathology, and bacteriology, and a physiological lecture theatre.

Royal Free Hospital and School of Medicine for Women.

The Royal Free Hospital, in the Gray's Inn Road, not far from King's Cross station, has undergone complete reconstruction at a cost of £80,000. The front block, which comprises the administrative offices, residents' quarters, casualty receiving room, and dispensaries, has been entirely rebuilt. Two new operating theatres with accessory rooms have been erected; the museum has been enlarged and pathological laboratories added to it, and various alterations and adaptations have been made in all parts of the hospital in order to render it sufficient for modern medical and surgical requirements. There are 165 beds.

King's College Hospital: Electrical Department with Bathing Establishment below.

The London School of Medicine for Women is the medical school carried on in connexion with the Royal Free Hospital. It was founded in 1874, and has been rebuilt and equipped since 1895, at a cost of over £35,000. The site is that of the old school in Handel Street, Brunswick Square, but the new frontage is in Hunter Street. The building contains five fully-equipped laboratories, research rooms, and administration offices. There are also eight flats for students, forming part of the school buildings, with accommodation for seventeen students. The school affords a complete course of training, including the preliminary subjects, for women who are desirous of obtaining a medical qualification.

London (Royal Free Hospital) School of Medicine for Women.

Middlesex Hospital and School.

The principal additions to the Middlesex Hospital, which is situated in Berners Street, Oxford Street, and contains 349 beds, are the new cancer wing, with ample laboratory accommodation for the scientific investigation of cancer, and the school buildings, all of which were opened in 1899. In the latter are to be found all the class-rooms, laboratories, and offices necessary for a complete medical education. Many other minor, but very useful, alterations and additions have also been made.

CHARING CROSS HOSPITAL AND SCHOOL.

The improvements at Charing Cross Hospital, in Agar Street, Strand, opposite the premises of the Association, have followed somewhat the lines taken in the case of the large hospitals with which we have already dealt. Thus the chief addition is the new out-patient and casualty department, opened in 1904, which, though comparatively small, is very well arranged. A block containing six surgical wards, an operating theatre, and a lecture theatre was erected in 1905. In 1902 a new nurses' home and isolation wards were provided. The tiled decorations on the walls of the waiting-room of the out-patient department are uncommon, and certainly add to the pleasantness of the room, while those of one of the female surgical wards are quite worth inspection.

THE INTERNATIONAL OPIUM COMMISSION.*

REFERENCES to this commission, founded on telegrams, have already appeared in the JOURNAL, and the printed report has now reached this country. The commission, under the presidency of Bishop BRENT of the Philippine Islands, sat at Shanghai from February 1st to February 26th, 1909, the following countries being represented by delegations: Austria, China, France, Germany, Great Britain, Italy, Japan, Portugal, Russia, and Siam. The British delegates were Sir Cecil Clementi Smith, Sir Alexander Hosie, Mr. W. L. M. King (Canada), Mr. Brunyate (India), and Mr. Robert Laidlaw, M.P. The report consists of two volumes: (1) The Proceedings of the Commission (85 foolscap pages and a summary in French); (2) The Reports presented to the Commission by the delegations from the various countries, which furnish the data on which the discussions were based (372 pages). China, Japan, and America, whose delegations contained each one medical expert, wished to appoint a committee to investigate the medical and scientific aspects of the question, but the proposal was negatived by the other countries, and there is therefore no medical report, although the reports of the various delegations contain much that is of interest to the profession. A great many data have been collected with regard to the opium habit as exhibited by large aggregates of people. The Japanese report is a really scientific exposition, which has evidently been revised, if not written, by a medical man thoroughly imbued with modern scientific methods. We therefore give it the first place.

THE JAPANESE REPORT.

In Japan there is, fortunately, no opium question, as the Government recognized the dangers and has converted all branches of the opium trade into a Government monopoly, with the result that opium and morphine can be obtained for bona fide medical use, and for that alone. In Formosa, however, the Japanese were met with a serious opium evil when, in 1895, they annexed the island. There was more or less open insurrection, and any attempt to suppress the habit entirely would have made things much worse, so the policy of gradual suppression was adopted, and the following measures enforced:

1. Absolute prohibition of poppy cultivation.
2. A Government monopoly, to include the importation of opium, its preparation into a smoking preparation (chandu), and its retail sale.
3. In order to prevent the development of fresh opium consumers the sale of opium was prohibited to all except licensed smokers.

The licence was only issued if a Government physician certified after an examination that the applicant was a confirmed smoker. The registration was only completed in 1900, when 169,064 smokers were enrolled; the registers were then closed. After a few years it was found that many "secret smokers" had acquired the habit, and the register had to be reopened to these, who numbered in 1904–5, 30,543, and again in 1908, 15,849. In spite of these additions there has been a net decrease of nearly 8,000 per annum (average of ten years), due to death (mortality-rate of 52.05 per 1,000, twice that for the rest of the island), or to abandonment of the habit (12.54 per 1,000), representing either voluntary suspension of the habit, "cure" in a hospital, or "cure" through imprisonment.

Distribution of the Habit.

The total population in 1905 was 3,039,571, most of whom were Formosan Chinese, who furnish the bulk of the smokers. Of all the males, 6.64 per cent. are smokers, and to every 100 male smokers there were 13.4 female smokers. The vast majority were married people, and widows or widowers. The delegation explained this as an index of the fact that smoking is too expensive for the man who cannot afford a wife.

The *age distribution* is given in an elaborate table. It is similar for both males and females, so that it is necessary to give only the percentage of the male population at the different age-periods who are chronic smokers. Under the age of 20 it is 0.03 per cent.; from 21 to 30, 3.35 per cent.; from 31 to 40, 14.37 per cent.; from 41 to 50, 22.5 per cent.; from 51 to 60, 22.10 per cent.; from 61 to 70, 17.01 per cent.

The *effect of occupation* is interesting, as by far the greatest percentages are found in the cultured classes (public services and liberal professions, 39.81 per cent. of total), whilst the poorest classes, as represented by the agricultural classes, show only 2.21 per cent.

The retail dealers of chandu are all Chinese of good character, but nevertheless there has been difficulty in regard to adulteration. They receive as commission 1½ per cent. of the sale price.

Difficulties in Administration.

The difficulties which have been encountered are classified under three heads:

1. *Temptations* which cause a non-smoker to acquire the habit. Careful inquiries were made as to the reasons why secret smokers detected in 1904 and 1908 took to smoking. No fewer than 93 per cent. alleged that they had first used the drug as a medicine. It seems that in China opium is a popular "cure-all," and disinclination to pay for medical treatment, even when obtainable, leads to opium, which relieves the symptoms.
2. *Anti-opium pills* were also a serious problem, as they were all found to contain opium. The habitual smoker is tempted to substitute them for his cumbrous pipe when travelling, and the man who wishes to relinquish the habit may be deluded into taking them. The pill habit is more injurious than smoking, and those detected in it have been compelled to adopt smoking in place of it. Morphine has been the source of a similar difficulty, as by its injection the effects of opium can be obtained in the cheapest possible manner. The importation and sale of both morphine and the pills have been stopped, and there is now less difficulty on this score.
3. *The opium "dross"* which remains in the pipe still contains a large proportion of the opium, and attempts are made to convert it into chandu or pills. In some districts the police visit the smokers and collect all the dross, which is then destroyed.

Offences.

The majority of the offences connected with opium are naturally due to secret smoking; but others, as smuggling, reboiling dross, and secret preparation of chandu and opium pills, account for some of the 2,000 prosecutions instituted every year. During ten years 6.73 per cent. of all suicides were due to opium taken as a poison.

Treatment of Chronic Smokers.

There are numerous hospitals which admit patients for treatment of the habit, or treat patients for it who have been admitted for other diseases. The most common treatment has been by gradual withdrawal of the drug, but "this can hardly be considered a satisfactory treatment." More recently heroin has been used with apparent success, but not in a sufficient number of cases to justify any strong statement on the matter. In one hospital 89 out of 521 cases are said to have abandoned the habit.

Quantity of Opium Imported.

The weight of opium imported averaged for ten years 332,456 lb. per annum. There was a great drop in 1901 and 1902, and since then there has been a slight rise. This rise is probably not due to an increase in the evil,

* Report of the International Opium Commission, Shanghai, China. Vol. i, Report of the Proceedings, pp. 117. Vol. ii, Reports of the Delegations, pp. 372, map and tables. Published in England by P. S. King and Son, London.

although those who take opium gradually increase the dose when they can afford it. In the years 1901 and 1902 there was a great deal of smuggling, which has since been prevented. In these years there was also another very interesting phenomenon—a religious sect arose which professed to be able to cure the habit by incantation before the altars of the god Kuanti. Those who "took this cure" found their craving return. They dare not smoke for fear that the god would strike them dead, so they took to pills and morphine. A fortunate few were cured of the habit, but most of them were driven by superstition into a worse condition than before. The Japanese do not welcome this new form of "Christian Science."

Average Daily Consumption.

The ten years' daily average of chandu for each smoker worked out at 3 534 grams. In different individuals it varied from 1 1 to 50 grams. Powdered opium and morphine have already been mentioned. Their use has been suppressed.

Public Opinion.

The popular attitude was at first one of hostility towards the Japanese, who were suspected of being desirous of immediate suppression, but when it was seen that those incapable of giving up the habit were to be allowed to smoke for medical reasons the attitude changed, until at present by means of various educational measures there has been cultivated a strong public opinion against the habit.

Revenue.

At first the revenue derived from opium represented 27.9 per cent. of the total revenue, but now, in consequence of the increase in other sources of revenue, it only represents 12.6 per cent. Of this most is spent on the factory, so that the net revenue to the State is only about 1,000,000 yen per annum.

REPORT OF THE CHINESE DELEGATION.

The statistics in this report are of very little value. They were challenged by the British delegates, with the result that the Chinese delegation has represented to the Government the necessity of obtaining more reliable data. The figures dealing with the growth of the poppy and the consumption of opium are, as a rule, nothing more than rough estimates or mere expressions of opinion. Great Britain has agreed to diminish the export of opium from India by 5,100 chests a year, so that in ten years the exports to China will vanish. The maintenance of this reduction is, however, contingent on the Chinese Government diminishing the growth of the poppy in China by a corresponding amount every year. The Chinese must also make similar agreements with other nations which at present export opium to China.

Gradual Suppression in China.

The edicts which have been published vary slightly in the different provinces, but the chief features are the same in all. They are:

1. All smokers are to be licensed, and no new licenses are to be issued. All smokers under the age of 60 are to diminish their consumption by 20 to 30 per cent. yearly, and in ten years all smoking is to be prohibited.
2. All shops which retail opium are to be licensed, and no new ones opened.
3. All Government officials under the age of 60 are to give up the habit as an example to others, being allowed only six months to do so.
4. Cultivation of the poppy is to be restricted by at least one-tenth a year.
5. The sale of morphine and of hypodermic appliances is strictly prohibited. The penalty being decapitation.

The amount of opium imported is stated to be from 56,000 to 72,000 piculs (6,346,666 lb. to 8,160,000 lb). As there is much smuggling, these figures from the Customs cannot be accepted as accurate. It is stated that 95 per cent. of the imported opium is derived from India.

Native Opium.

The poppy forms a winter crop in the south and a summer crop in the north. It is three to four times as profitable as any cereal crop, although more risky. The total production in 1906 was 584,800 piculs, and it is claimed that the preventive measures have lowered it to 367,250 piculs in 1908. The evidence on which these figures are based is given in considerable detail, but the Chinese Commissioner admitted that "they would not satisfy a Western statistical society." It seems to consist of little more than a series of guesses. Thus, on page 59 we read: "As the province of Yunnan reports a decrease since 1906 of 50 per cent. in the production of opium, the inference is to be drawn that the [neighbouring] provinces of Shensi, Kansu, and Czechwan have likewise reduced their output. The estimates for 1908 have, therefore, been reduced, roughly, one-third of the figures for 1906."

Smoking.

Here again the figures are very inaccurate, and little more than guesses. The different estimates of the percentage of smokers in the general population vary for the same locality between 20 and 75 per cent. As there is a very strong public opinion in China on the smoking problem, it is quite probable that there has been a great decrease in smoking, but whether this represents a great improvement, or the reverse, cannot be determined with certainty, as there is a very large but illicit trade in morphine and the so-called anti-opium remedies. The anti opium pills all contain opium or morphine, and it is generally recognized that the pill habit is worse than the smoking habit. Morphine, used hypodermically, has also been substituted for smoking, because it is cheaper and more convenient. The report states:

> The use of morphine is on the increase. For this the anti-opium crusade is partly responsible. Many smokers honestly desirous of breaking the habit have been deluded into believing that morphine would free them from the yoke; others, intimidated and hampered by official restrictions, have only substituted one vice for the other, whilst many coolies resort to it on the ground of economy and convenience (p. 67).

The importation and sale of morphine (except for medical purposes) is prohibited. Its open sale for illegitimate purposes is punished by decapitation, yet it may be obtained in many parts of China with the greatest ease. In some places the price of morphine is less than the sum of its wholesale price in Japan *plus* the duty. This shows the enormous quantities which must be smuggled. The same fact is also shown by the fact that, although in Foochow no morphine has been declared at the Customs, yet it is sold in at least thirty shops, and some of these shops are known to have a stock of at least 1,000 oz. It gets into the country by the post; it is smuggled by returning emigrants, who invest their savings in the drug; it is smuggled over the Manchurian land frontier; it is sold in the foreign settlements. It is said that most of it comes from Japan, but all nations seem to help in this clandestine but remunerative traffic. The Chinaman is such an expert smuggler, and the drug is so easy to conceal, that all repressive measures have failed. It is also impossible to get accurate statistics of the prevalence of the habit. Thus:

> All the reports to the Swatow Commissioner are unanimous in declaring that no morphine is used; but medical officers of the port assert that in every batch of emigrants examined by them, there are about 10 per cent. who bear the marks of hypodermic needles.

AMERICAN REPORT.

The opium question in the Western States has long been a serious problem, especially when it was known that although the Chinese population was stationary, yet there was a constant increase in the opium importations. High tariffs only caused increased smuggling. There is not space to give here the statistics gathered by the delegation. The United States has recently passed an Act which absolutely prohibits the importation of opium except such as can be guaranteed for medical use alone. An excessive importation of such opium will not be permitted. There has been a good deal of smuggling of chandu prepared in Canada by Chinese, but as Canada has also passed a similar law, it is to be hoped that this will be stopped.

The report contains some interesting information on the subject of the opium habit in the white population. It is calculated that more opium is imported than can be accounted for by the Chinese population. The inference was that whites were taking to the habit.

The following startling statistics are said to have been collected from twenty-five large cities, but exact details are not given as to their origin:

Of prisoners in large gaols, 5.6 per cent.; of the general criminal population, 15.4 per cent.; of prostitutes and their parasites, 21.6 per cent.; of doctors, 2.06 per cent.; of trained nurses, 1.32 per cent.; and of the general population 0.18 per cent., are habitués of morphine or opium.

The regulations for the sale of morphine differ somewhat in the different States. In Georgia there is a "Narcotic Law" which prohibits the sale of morphine and other narcotics (except in very small quantities) without the production of a medical prescription, which must be retained and filed by the druggist and not repeated.

Philippines.—Chinese exclusion is enforced. The smokers existing when the Americans annexed the island were licensed (each for a definite daily quantity); then the tariff was raised and the quantity allowed to each licensee was diminished gradually until importation was prohibited and smoking made illegal. There is still some secret smoking, but the price of smuggled opium is so high that only the rich can afford the luxury. Smuggling is at present the most serious problem because the Customs service is not efficient enough for this purpose, and because "there is a vast amount of floating opium which is moving about the Pacific in readiness to be poured into the Philippines." The American Government desire some international arrangements for keeping an eye upon the movements of opium.

German China.

In Kiachow the cultivation of the poppy is prohibited. There is a heavy duty on all imported opium. Divans must be registered, and must keep a register of sales. All dealers in opium must have a special licence. Those who wish to smoke at home must have a licence for each lamp. There are heavy penalties for smuggling. The preparation of chandu is a monopoly farmed to a Chinese firm. The importation of opium has increased from 108 piculs in 1904 to 143 in 1907.

French Indo-China.

There is very little poppy cultivation. The importation of opium and the preparation and sale of chandu are all under a Government monopoly, or *régie*. Smokers are licensed. In some parts there are also licensed divans. Government employees are not allowed to smoke. The great source of difficulty is the extensive land frontier marching with some of the largest opium-producing provinces of China.

Siam.

The poppy is not cultivated. All chandu is prepared and sold by the Government *régie*. A policy of gradual suppression is being followed, and the registration of smokers and the provision of special hospitals is under consideration. There are at present no difficulties due to the use of morphine.

Netherlands India.

In most of the Dutch possessions the whole traffic is under a *régie*, which makes the chandu and sells it through salaried Government servants. One of its measures seems to be unique. All official chandu is mixed with some secret substance, which can be identified either in the dross or in any suspected opium found in cases of suspected smuggling. As the *régie* buys back the dross from the smokers the use of smuggled opium can be traced.

British Possessions.

In *Hong Kong* the preparation and sale of chandu are farmed to a farmer whose use of opium is restricted to five chests a day. As he has never used more than 864 chests a year, this restriction is not effective to prevent him pushing the sale far beyond its present limits. Divans were licensed, but since the report was published it has been decided to close them. There are numerous regulations designed to prevent the smuggling of opium into China. These are said, by the Chinese delegations, to have had a good effect.

In *Wei-hai-Wei* and the *Federated Malay States* the business is likewise farmed.

India.

Here we come to the root of the question, as we have both production and consumption, whilst in Burma we have the smoking problem.

Production.—(*a*) In the districts under direct British control all poppy cultivation and manufacture is directly under Government. There are about 1,500,000 native cultivators, who must sell all their product to the Government. The acreage to be put under cultivation is decreed by Government, and has already been decreased in view of the Chinese agreement. The manufactured opium is sold by public auction, and must be stored in bonded warehouses before exportation (to prevent smuggling into India and Burma). (*b*) The Native States produce the "Malwa" opium. The acreage is not known exactly, but the quantity exported is strictly regulated by the Government. For transit on British lines it pays a "pass duty." The Native States are allowed a fixed percentage of the total exports, and this introduces a serious problem. The Malwa opium is stored in order to mature. The result is that in these States there is almost sufficient opium at present in storage to supply their share of the export for ten years, so that when export to China is prohibited they will, unless they almost immediately cease production, have on their hands a large supply of opium for which there will be no licit outlet. Some of the native States have stopped cultivation and buy their opium from the British Government, as by this means they can collect the revenue more conveniently. These States are at liberty to recommence cultivation by giving twelve months' notice. The net revenue from opium varies from 3 to 4 million sterling a year. In addition to this must be noted the expenditure on employment for the natives of India, which amounts to about 2 or 3 million; these figures are not given clearly enough to show accurately the loss which the cultivators would suffer from prohibition. In addition to the above about another million is derived from the internal consumption of opium, chiefly in Burma.

Consumption.—Outside Burma smoking is prohibited, and eating is the common mode of consumption. The Excise restrictions consist of licensing the shops for retail trade and limiting the supply which an individual may possess. A licensed shopkeeper may not take goods in exchange, may not keep open between 9.30 p.m. and sunrise, allow eating in the shop, or allow gambling. The average consumption by eaters cannot be accurately given, but it has been estimated to be (in towns) from 21 to 27 grains a day; but the consumption varies in different districts. In Central India there is a prevalent practice of giving minute doses to infants. The drug is also largely used as a substitute for proper medical treatment, which is practically unobtainable in many parts.

In Burma there are three rules: (1) In Upper Burma no Burman may possess opium except for bona fide medical use. (2) In Lower Burma the native Burman may be registered when he ranks with (3) the non-Burman population—Chinese and Indians—who in either province may when registered possess opium and smoke. This policy dates from 1893, when the register was made. As in the case of Japan, it was found necessary to reopen the register for the admission of secret smokers. There is a limit to the quantity which any licensee may have in his possession (usually 54 grains). Shops for retail are licensed, and during the time they are open there must be a Government inspector present who sees that there are no infractions of the rules. The shops are open from 10 a.m. to 4 p.m. At one time restriction was attempted, with, at first, a delusory appearance of success. The ultimate result was failure.

The attempt to restrict consumption was gradually breaking down. The registered consumers were too far from the shops to obtain their supplies in a regular manner; there were also unregistered consumers, probably ten times as numerous, whom the prohibition policy was converting into an outlaw class; opium smuggling was rife, and opium could be obtained in almost every village even when there was no shop in the district (p. 188).

In 1904 some of the regulations were relaxed and the excise strengthened, resulting in the immediate increase of licit consumption. One difficulty here has been the "hawking" of opium by licensed consumers to secret smokers. It is difficult to get reliable statistics as to whether there has been any improvement. It has been

noticed that the percentage of prisoners who are opium victims has decreased from 23.3 per cent. to 12.12 per cent.

Morphine.—There is no very accurate information on this subject, but it is certain that there are some localities where it is very prevalent, especially the large towns. In the country the use of cocaine has spread more rapidly than that of morphine and the measures to suppress both have only been partially successful. It is interesting to note that it is not abuse of the drug licenses which is responsible for illicit sale here, but smuggling, mainly through the post.

The above is a summary of the evidence brought before the Commission.

RESOLUTIONS.

The following are the resolutions as adopted, in their revised form:

1. That the International Opium Commission recognizes the unswerving sincerity of the Government of China in their efforts to eradicate the production and consumption of opium throughout the Empire; the increasing body of public opinion among their own subjects by which these efforts are being supported; and the real, though unequal, progress already made in a task which is one of the greatest magnitude.

2. That in view of the action taken by the Government of China in suppressing the practice of opium smoking, and by other Governments to the same end, the International Opium Commission recommends that each delegation concerned move its own Government to take measures for the gradual suppression of the practice of opium smoking in its own territories and possessions, with due regard to the varying circumstances of each country concerned.

3. That the International Opium Commission finds that the use of opium in any form otherwise than for medical purposes is held by almost every participating country to be a matter for prohibition or for careful regulation; and that each country in the administration of its system of regulation purports to be aiming, as opportunity offers, at progressively increasing stringency. In recording these conclusions the International Opium Commission recognizes the wide variations between the conditions prevailing in the different countries, but it would urge on the attention of the Governments concerned the desirability of a re-examination of their systems of regulation in the light of the experience of other countries dealing with the same problem.

4. That the International Opium Commission finds that each Government represented has strict laws which are aimed directly or indirectly to prevent the smuggling of opium, its alkaloids, derivatives, and preparations into their respective territories; in the judgement of the International Opium Commission it is also the duty of all countries to adopt reasonable measures to prevent at ports of departure the shipment of opium, its alkaloids, derivatives, and preparations, to any country which prohibits the entry of any opium, its alkaloids, derivatives, and preparations.

5. That the International Opium Commission finds that the unrestricted manufacture, sale, and distribution of morphine already constitute a grave danger, and that the morphine habit shows signs of spreading: the International Opium Commission, therefore, desires to urge strongly on all Governments that it is highly important that drastic measures should be taken by each Government in its own territories and possessions to control the manufacture, sale, and distribution of this drug, and also of such other derivatives of opium as may appear on scientific inquiry to be liable to similar abuse and productive of like ill effects.

6. That as the International Opium Commission is not constituted in such a manner as to permit the investigation from a scientific point of view of anti-opium remedies and of the properties and effects of opium and its products, but deems such investigation to be of the highest importance, the International Opium Commission desires that each delegation shall recommend this branch of the subject to its own Government for such action as that Government may think necessary.

7. That the International Opium Commission strongly urges all Governments possessing concessions or settlements in China, which have not yet taken effective action toward the closing of opium divans in the said concessions and settlements, to take steps to that end, as soon as they may deem it possible, on the lines already adopted by several Governments.

8. That the International Opium Commission recommends strongly that each delegation move its Government to enter into negotiations with the Chinese Government with a view to effective and prompt measures being taken in the various foreign concessions and settlements in China for the prohibition of the trade and manufacture of such anti-opium remedies as contain opium or its derivatives.

9. That the International Opium Commission recommends that each delegation move its Government to apply its pharmacy laws to its subjects in the consular districts, concessions, and settlements in China.

RECENT ACTION IN CHINA.

Dispatches from the British Ambassador in Peking, forwarding reports respecting the opium question in China, have just been issued by the Foreign Office.*

The first dispatch, dated October 21st, 1909, covers a general report on the opium question in China, by Mr. Max Müller, Councillor to the British Legation in Peking. Sir J. Jordan points out that the report affords evidence that considerable progress continues to be made in the task which the Chinese Government undertook three years ago, and that there has undoubtedly been a very sensible diminution in the consumption and cultivation of opium, while a public opinion has been formed which will greatly strengthen the hands of the Government and the provincial authorities in the drastic measures which they contemplate taking in the near future. Total prohibition within a measurable time is, the Ambassador adds, undoubtedly the policy which finds favour at the moment, and considering the conditions of the country and the difficulty in verifying the progress of gradual reduction, it is perhaps the best method of dealing with the problem. That the end, however, is so near as many of the official pronouncements would seem to indicate is, it is said, very doubtful. Full and reliable information has been obtained about two only of the provinces—Shansi and Yünnan, in both of which much good work has been done. At the opposite extreme stand Shensi, Kansu, Hupei, and Szechuan, in all of which comparatively little has been accomplished to check either the consumption or cultivation of the drug.

In Szechuan, where roughly one-half of the entire supply of native opium in China has hitherto been produced, Mr. Max Müller states that there is good evidence that a large reduction in the area of cultivation was effected in 1908, and that there was some further reduction in 1909. The Viceroy has issued a proclamation forbidding the sowing of any opium this autumn, and Mr. Max Müller considers that the effect of this proclamation will certainly be to diminish the area under poppy cultivation still further, and that although it may not in such a vast province, owing to the laxity and venality of subordinate officials, produce immediately the desired result, there seems to be every chance that opium may not be grown on a large scale throughout the province in a year or two.

In a dispatch dated October 25th, 1909, transmitting a memorandum by Mr. Sly, acting consul at Chungking, as to the progress of the movement for the suppression of opium in the eastern portion of the Province of Szechuan, Sir J. Jordan summarizes Mr. Sly's report by stating that it confirms Mr. Max Müller's opinion that in this part of the province there had been no progress; in some districts no steps had been taken towards suppressing the cultivation of opium, and in some there had been an actual increase in the amount grown last year. With regard to the proclamation totally forbidding the cultivation of opium in the province, Mr. Sly quotes the opinion of a Chinaman who has given some thought to the matter. to the effect that the cause of opium reform in the province rests very largely on the adequacy or otherwise of the measures now taken. He holds that the total prohibition of cultivation is the only effective measure, and that if the area under

*Dispatches from His Majesty's Minister at Peking, forwarding Reports respecting the Opium Question in China. [Cd. 4,967.] (London: Wyman and Sons; Edinburgh: Oliver and Boyd; Dublin: E. Ponsonby.) 5½d.

poppy is reduced 70 or 80 per cent. during this winter, and if there be no relaxation thereof, success will be attained, but that if there is to be further vacillation and laxity on the part of the officials failure will threaten.

Anti-opium Pills.

Mr. Max Müller gives some interesting information supplied to him by Dr. Gray, the physician of the British Legation, Peking, who is also in charge of a hospital where large numbers of Chinese addicted to the drug are treated.

Dr. Gray's experience leads him to conclude that about eight-tenths of the officials and three-tenths of the people have stopped smoking. The former, however, being subject to periodical examination, often stop for a short time, and then relapse into their old ways. Among the officers of the army the habit has been entirely abandoned. It is now very difficult to purchase opium in Peking illicitly. The shops are licensed, and the purchaser must be provided with a licence. The licence ticket costs 10 cents, and is available for three months. After that period the licence has to be renewed, and at each renewal the daily amount purchasable is reduced. Though opium dens are forbidden, a considerable number are still open clandestinely—perhaps about half as many as were open eighteen months ago. From time to time the native newspapers mention raids made by the police on such secret dens, the penalty inflicted on the owners averaging a fine of $15, or a month's imprisonment with hard labour. The price of opium has increased greatly, in the case of foreign opium by 50 per cent.; while the price of native opium, which comes chiefly from Shansi and Kansu, has doubled. Opium pipes are difficult to obtain openly, though they can still be bought secretly.

Unfortunately a great deal of opium is now consumed in the form of anti-opium pills. After a large number of inquiries extending over a period of several months, Dr. Gray places the number of habitual anti-opium pill takers at between one-half and three-quarters of the former total of opium smokers. This means that the manner of taking opium has merely been changed, but for a form apparently less baneful—that is to say, a man can satisfy his narcotic craving in a way that does not stupefy him or curtail his working hours. When the anti-opium edicts were issued, a large number of smokers who left off opium took to hypodermic injections of morphine. But this craze has died down, and Dr. Gray states that for at least six months he had not seen a man at the hospital with scars of the needle pricks on the arms. The reason for this diminution is stated to be the great difficulty of procuring the drug or the injection needles. For those who are willing to pay the cost of this comparatively expensive luxury it can always be got, but Dr. Gray considers that if Peking were compared with other large cities in Europe and America there would be no difficulty in proving that the number of morphomaniacs in certain other cities is immeasurably greater.

BRITISH MEDICAL BENEVOLENT FUND.

AT the December meeting of the Committee twenty cases were considered and grants amounting to £182 made to seventeen of the applicants, two cases being passed over and one postponed for further inquiry. Appended is an abstract of the cases assisted:

Widow, aged 66, of M.R.C.S., L.S.A. Practically unprovided for at recent death of husband, and children only able to give very slight and irregular assistance. Voted £12.

M.D.Edin., aged 68. Used to have a large practice in Scotland, but lost his savings by becoming security for relations. Now suffers from an incurable complaint. Voted £10 in two instalments, with leave to apply again in six months.

Daughter, aged 54, of late M.R.C.S., L.S.A. Has exhausted small capital in the attempt to support herself by keeping a lodging house, and is now penniless and in arrears with her rent. Voted £12.

Widow, aged 38, of late M.D.R.U.I. Quite unprovided for at husband's death about a year ago, and is endeavouring to obtain a post to which she can take her only child, aged 9 months. Voted £10.

Widow, aged 64, of L.R.C.P., L.R.C.S.Edin. Permanently incapacitated by the results of rheumatism, and dependent on a sister who is a teacher. No children. Voted £12.

M.R.C.S., aged 81. Practised for forty-four years in one place in the south-west of England, but was obliged to give up on account of the infirmities of age. Only income a small Poor Law superannuation allowance. Children unable to help. Voted £12.

Widow, aged 74, of M.R.C.S., L.S.A., whose capital was exhausted by an illness lasting many years. Only income an old-age pension of 5s. per week. Relieved once, £12. Voted £12.

Widow, aged 44, of L.R.C.P., L.R.C.S.Edin. Is a permanent invalid. No income; children only able to give very slight and irregular help. Relieved fourteen times, £160. Voted £12.

Widow, aged 50, of L.F.P.S.Glasg. Is physically unfitted for hard work, and dependent on children who are barely self-supporting. Relieved six times, £58. Voted £12.

Widow, aged 48, of M.R.C.S. Quite unprovided for at husband's death a year ago after a long illness; is endeavouring to establish a boarding house. No children. Voted £10.

Widow, aged 45, of L.R.C.P., L.R.C.S.Irel. Husband's savings exhausted by a long illness. Is employed as a parish nurse but only receives a very poor salary. Relieved three times, £15. Voted £5.

Daughter, aged 63, of late M.R.C.S. For twenty-eight years acted as a companion, but was obliged to give up work on account of failing eyesight and other infirmities. Is dependent on this fund and a little occasional help from friends. Relieved five times, £60. Voted £12.

Widow, aged 65, of M.R.C.S.Eng., L.R.C.S.Edin. Income £20 a year from a small house which is frequently unlet. No children. Health indifferent. Relieved ten times, £114. Voted £12.

Widow, aged 39, of L.R.C.P.Lond. Supported herself as a working housekeeper for some years but developed phthisis, and is now quite broken down, and only fit to go to a sanatorium. Relieved twice, £10. Voted £10, with leave to apply again in six months if necessary.

Daughter, aged 62, of late M.D.Edin. Maintained herself as a governess or companion until five years ago, but was then obliged to give up in order to attend to an elder sister who is a permanent invalid. Only income, £10 a year from a friend. Relieved four times, £48. Voted £12.

Widow, aged 70, of L.F.P.S.Glas. After husband's death obtained employment as a nurse for several years, but is now incapacitated by the infirmities of age. No income, and dependent on two daughters who can ill afford to help. Relieved once, £12. Voted £12.

Daughter, aged 32, of late M.R.C.S., L.R.C.P. Quite unprovided for at death of father a year ago. Has a post as useful companion, but requires a little help for unavoidable expenses. Relieved once, £8. Voted £5.

Contributions may be sent to the Honorary Treasurer, Dr. Samuel West, 15, Wimpole Street, W.

LITERARY NOTES.

THE January number of the *Cornhill Magazine* commemorates the jubilee of that most interesting of our monthly periodicals. Founded in 1860, with Thackeray as its editor, it has maintained throughout the fifty years of its existence the high level of literary excellence on which it started. The present number contains what is virtually a history of the fortunes of the magazine under its several editors—Thackeray, Leslie Stephen, and James Payn—with reminiscences by Mr. Stanley Weyman, Mr. W. E. Norris, and other contributors. Among the varied contents not the least interesting and curious is a proof-sheet of a story corrected by Thackeray, showing us the editor at work with his erasing finger. He took the trouble to write a new ending, which, we are sorry to say, we do not think an improvement on the original—in fact, the great novelist appears to us to have missed the point of the story. To prevent misconception we hasten to say that the person who ventures to express this perhaps rash opinion is not the writer of the story, which, by the way—notwithstanding all the trouble taken with it by the editor—never saw the light. One of the earliest contributors to the *Cornhill* was Sir Henry Thompson, who wrote an article entitled "Under Chloroform." Thackeray lost the manuscript, and the manner in which he conveyed to the author the joyful tidings of its recovery is amusing: "Hurrah! I have found your leg." The article was a description of an amputation through the thigh; it was intended to illustrate the benefits of anaesthesia, but incidentally it gives a picture of an amputation in pre-Listerian days. No mention is made of drainage, and no hint of any precautions to ensure the most elementary cleanliness on the part of the surgeon, his assistants, dressers, nurses, or patient, is given.

In a report of the meeting of the Section of Obstetrics and Gynaecology of the Royal Society of Medicine, held on June 10th, 1909, which appeared in the JOURNAL of July 3rd, 1909, p. 19, it was stated that a paper on "chorion-

epithelioma" was read by Dr. J. S. "Fairburn." The name should, of course, be "Fairbairn." This error, which was in the "copy" supplied for publication, unfortunately was not detected at the time; hence naturally it appears in the index published in the JOURNAL of December 25th, 1909. We think it right to correct it now even at this late hour, in the hope that we may save trouble to some compiler of bibliographies. What these industrious persons suffer from misprints and mistakes of one kind or another is simply incalculable. Luckily for them, they often are unaware of the pitfalls into which they have been betrayed. Medical literature is full of references borrowed by one author from another, frequently without verification. The consequences may be imagined. Sometimes when the case is traced to its source it is found that the original reporter's name has become disfigured beyond recognition. We remember M. Tuffier appearing in an Italian periodical in the disguise of "Tuffieri," and in a Spanish journal as "Tuffiero." The commingling of the work of writers of the same patronymic leads to odd results. In an American yearbook a distinguished English dermatologist was credited with the work of a no less distinguished surgeon; similar instances must be common. The most amusing case of transformation we remember is that of the name of a well-known anatomist into a museum!

The *Charing Cross Hospital Gazette* for December, 1909, contains a most interesting article by Dr. James Galloway on "Eleanor of Castile, Queen of England, and the monuments erected in her Memory." Once more, as in "The Story of St. Mary Roncevall," Dr. Galloway has given ample proof both of his industry in historical research and his power of presenting its results in readable style; and whilst his subject cannot fail to be of peculiar interest to that portion of his readers who have the good fortune to be, in a certain sense, connected with the beloved Queen of Edward I, through the name of their hospital, it must also appeal to far wider circles. The memory of "Good Queen Eleanor" has always been dear to Englishmen; her virtues, and the love and respect which they inspired in her warlike husband and his rude subjects, have become a tradition; and for over 600 years her name has been venerated as that of a model wife, mother, and queen, by the very nation who received her, a child of 9, with dislike and contempt. Our ancestors did not like foreigners, and the marriage of the heir to the English throne with the little Castilian princess was intensely unpopular. It was not until years later, when, her education finished, Eleanor left Spain and took up her abode in her adopted country, that her subjects forgave her for being a Spaniard. But her own goodness, and the unfailing kindness and tact she displayed in all her dealings with her husband's people gradually won their hearts. She seems to have exerted her great influence over the King solely for the good of his subjects; and England realized how much it owed to her only when death removed the merciful restraint she exercised over her husband. Eleanor once dead, Edward's own harsh nature was allowed free scope, and it is hardly too much to say that the cruelties which disgraced the last years of his reign were due to the loss of her who had always played the part of his good angel. The exact nature of the Queen's last illness—which terminated on November 28th, 1290, at Harby near Lincoln—is not known, but it was long, and accompanied by a slow fever. She seems to have received the best medical advice of the period, Spanish as well as English, and it is interesting to note that several of her doctors are mentioned in her will. Her own physician had a legacy of 20 marks; Sir Garcia de Ispannia, another doctor, also received money; and the King of Arragon's physician was left a silver goblet worth 12½ marks. The King's grief on the death of his wife found expression in planning a funeral procession which has rendered the memory of their mutual love famous for all time. The idea may possibly have been borrowed from the ceremonies at the funeral of St. Louis, under whom the King had fought in the Holy Land, but the details were Edward's own, and were carried out with all the magnificence that he loved. Eleanor's body was borne by slow stages from Lincoln to London, resting each night at some great religious house or important town; and at each place where the bier rested stone crosses, designed and carried out by the most skilful artists of the day, were erected. The Queen's body was buried in Westminster Abbey, her heart in the Church of the Black Friars in London, and her viscera in Lincoln Cathedral, three beautiful tombs being built over the remains. The finest of these tombs was in Westminster, and much of its former beauty still remains; but no trace is left of the tombs at Lincoln and Blackfriars. The crosses, which were not merely memorial monuments, but shrines built on consecrated ground, have suffered equally during the centuries which have elapsed since their completion. Of all these exquisite little buildings only three remain—at Geddington, Northampton, and Waltham; for the present one at Charing Cross is only a modern reproduction of the ancient shrine, designed and erected by the late Mr. Edward Barry. Of the rest *etiam periêre ruinae.* The crosses at Grantham, Stamford, Stony Stratford, Dunstable, St. Albans, Cheapside, and Charing were demolished by Cromwell's soldiers during the Civil War, whilst not a stone remains to mark the site of those erected at Lincoln and Woburn. Not the least interesting feature of Dr. Galloway's article lies in the illustrations. These consist of really beautiful reproductions both of old prints and of photographs, taken by the author himself, of the three remaining crosses, whilst the magazine has for frontispiece William Torel's fine effigy of Eleanor on the tomb in Westminister Abbey. Dr. Galloway is to be congratulated upon an excellent piece of work. "Eleanor of Castile" will be read with pleasure, even by those who take only a superficial interest in history, for the author has managed to invest the story with human interest, and communicates his own sympathy with his subject to his readers. There is, besides, a certain appropriateness in the fact that the writer is a physician of the hospital which is called after the most beautiful of all the memorial shrines raised by the bereaved king in honour of his dead wife.

Reference was made in the JOURNAL of December 25th, 1909, to Professor Frank Baker's historical study of the two Sylviuses, published in the November number of the *Bulletin of the Johns Hopkins Hospital.* A summary of his account of Jacobus Sylvius was there given, and it was pointed out that the discovery of the Sylvian fissure, aqueduct and ventricle, had been wrongly attributed to that anatomist. It is from Franciscus de la Baë Sylvius that the fissure takes its name. The first mention of the fissure and artery of Sylvius appears to be in a note in the *Institutiones Anatomicae* of Caspar Bartholinus, father of the better known Thomas; that work was published in 1641. The following description appears in the *Disputationes* of Franciscus Sylvius himself, which was published in 1663:

> The whole surface of the cerebrum is everywhere quite deeply marked by gyri similar to the convolutions of the small intestines, and especially by a notable *fissure* or *hiatus*, beginning at the roots of the eyes (optic tracts), passing backwards along the temples above, not farther than the roots of the medulla (*crura cerebri*), and dividing the cerebrum on either hand into an upper much larger part and a lower smaller one, with gyri occurring the whole length and depth of the fissure, I may even say with the beginnings of the lesser gyri at the very upper part of the root.

The fifth ventricle (Sylvian ventricle, pseudo-ventricle, ventricle of the septum) was first described by Franciscus Sylvius in his *Disputationes* as follows:

> To our surprise we chanced to observe last year that there is a *hiatus* where the corpus callosum begins to thin out into the septum pellucidum. Although the septum is very thin it is divided into two layers. This we demonstrated a number of times to spectators.

As for the Sylvian aqueduct, Professor Baker clearly shows that it was generally known to anatomists long before the day of Franciscus Sylvius. It is singular, however, that the undoubted discoveries of that anatomist should have been attributed by most modern authorities to some one else. Professor Baker says this curious fact can be explained only by an account of the man. He was born at Hanau, in Germany, in 1614. His family was of French extraction and had been driven out of their native country by religious persecution. He studied at Sedan, Basel, Leyden, and some of the German universities, taking his degree at Basel when he was 23. After practising at Hanau for a short time he settled at Amsterdam. So great was his reputation that in 1658 he was offered and accepted the

chair of Practice of Medicine at Leyden, to which the fame of his lectures brought students from Russia, Poland, Hungary, Germany, Sweden, Switzerland, England, and France. Besides clinical medicine, he worked at anatomy, pathology, chemistry, and physics. He is said to have dissected more than 300 bodies, and always made *post-mortem* examinations when the opportunity presented itself in order to check his diagnosis. Most of the famous anatomists of his time were formed, directly or indirectly, by his teaching. Among them were De Graaf, to whom we owe our first correct conception of the anatomy of the ovaries; Nicolas Stensen, who first showed the muscular nature of the heart and uterus, and conceived that there must be conducting tracts in the brain; Swammerdam, who discovered both the red corpuscles of the blood and the valves of the lymphatics, and became famous through his profound researches into the anatomy of insects; and Van Horne, who discovered the thoracic duct in man. Willis, who described the base of the brain and the cranial nerves, though not a pupil, was a disciple of Sylvius. Sylvius himself gave special attention to the brain. The use of hardening solutions was then unknown, and he invented a system of sections in different directions by which the structures could be displayed. He described more accurately the interior of the ventricles of the sinuses of the dura mater. He also examined the lymphatics, the salivary glands, the pancreas, and the spleen. Malpighi had not yet written, and the nature of glands had not yet been made clear by the microscope; yet Sylvius clearly pointed out the differences between acinous and ductless glands, naming the former "conglomerate." Sylvius was a warm adherent of Harvey at a time when the doctrine of the circulation was vehemently opposed by the older anatomists. He called attention to the probable modification of the blood by the ductless gland, specifying the spleen, the thyroid, the thymus and the suprarenal capsules, and even suggesting that the liver might have a double function and, besides secreting the bile, produce some important changes in the blood carried from it by the ascending vena cava. His insistence upon the functions of the spleen was so great that his adversaries derisively nicknamed him *patronus lienis*. He anticipated modern ideas by distinguishing between the thermal and tactile senses. He knew the difference between arterial and venous blood, and ascribed the colour of the former to mixture with respired air. He appears to have understood the analogy between the processes of combustion and respiration. In pathology, too, he was ahead of his day. He seems to have understood something of purulent infection, as he speaks of the return into the system of altered and corrupted blood, and of the effect of insufficient excretion of urine. He noticed the occurrence of tubercles in pulmonary phthisis, and recommended listening to the bronchial sounds for the purpose of ascertaining the condition of the air tubes. Franciscus Sylvius was among the very first of the moderns to make bedside instruction a regular part of medical curriculum. Speaking of the University of Leyden, where there was a small infirmary with only 12 beds, he says in his *Epistola Apologetica*, written in 1664:

> Called some five years ago and more to the chair of medicine, I at length assumed it, and have endeavoured with all my might to make sure that my auditors should profit as much as possible by my industry and labour and go out as excellent physicians. To this end I pursued not only those things that it was truly necessary for them to investigate and find out, I went further in my way of teaching them, using especially a method not hitherto in use here nor perhaps elsewhere. I led them by the very hand into the practice of medicine—that is, I took them daily into the public hospital for the purpose of seeing the sick, to whose complaints and other notable symptoms I directed attention, asking immediately afterwards what they had observed in the disorders of the patient; their views as to the causes and proper treatment and their reasons for the same. Whenever differences of opinion arose among them concerning these things, I, in a quiet way, pitted against each other those holding different opinions, in order that they might mutually satisfy themselves by as solid reasons as possible drawn from every source, finally giving my own judgement regarding the various views. With me they confirmed the happy results of the treatment when God rewarded our labours by the return to health of the patients, or assisted in the examination of the cadavers when the patients finally paid the inevitable tribute to death.

His colleague, Lucas Schacht, describes Sylvius's method of instruction as follows:

> When he came with his pupils to the patient and began to teach, he appeared completely in the dark as to the causes or the nature of the affection the patient was suffering from, and at first expressed no opinion upon the case; he then began by questions put to different members of his audience to fish out (*expiscabatur*) everything, and finally united the facts discovered in this manner into a complete picture of the disease, in such a way that the students received the impression that they had themselves made the diagnosis and not learnt it from him.

Sylvius was fully acquainted with the philosophical speculations of his time. He was a much better anatomist than either Paracelsus or Van Helmont, and declared that no one can know the causes of the lesions of functions who does not understand the parts through which those functions act. Rejecting the *archaeus*, he held that the physiological phenomena of the body are wholly chemical. The ferments of Van Helmont he considered to be chemical substances contained in the various digestive juices, especially in the saliva, the pancreatic juice, and the bile. Their combination produced an effervescence which played a great part both in the digestion of the food and in the final production of animal spirits in the brain. These "spirits," transmitted by the nerves, produced sensation and motion, stored in the brain were the source of imagination and reason. It was upon this theory that his system of therapeutics was based. Excess of acid or of alkali in the digestive juices produced corresponding "acridities" which were to be overcome by medication, which he looked upon as applied chemistry. He used many remedies internally that others rejected because of deleterious effects—mercury, nitrate of silver, sulphate of zinc, etc.—and was peculiarly enthusiastic about antimony. It was said by his opponents that this system killed more men than the Thirty Years' War; and no doubt his theories did great harm in the hands of men of little judgement. Sylvius himself had a great and probably deserved reputation as a practitioner. Like many other founders of systems, he doubtless practised better than he preached. He died in 1672.

In the *Glasgow Herald* of November 6th, 1909, there is an account of the "*Reciept Book*" of a country practitioner, Dr. MacCallum, bearing the date 1833, which had recently come into the writer's possession. It is a book of prescriptions, but the doctor of the Thirties was evidently expected to have an encyclopaedic knowledge of culinary and domestic matters. Thus there is a "reciept" describing "the American way of salting beef." Between this prescription and one for making "common blacking for strong shoes," we find a cure for inflamed eyes, and then follows "Rat Poison from Richardson's 'Pests of the Farm.'" The book contains a number of formulas for cough mixtures. In addition to cures for simple ailments, we find an explanation of the mysteries of "blue light," "ginger beer," "mange ointment," and "mealy puddings." Dr. MacCallum farmed successfully a farm of 200 acres, was a keen angler, and enjoyed a day with the gun. He ambled along on a sturdy brown Sheltie to the remotest glens of his Banffshire parish, and was as welcome for his kindly gossip and his "reciept" for mealy puddings as for his "soda water powders" and cough mixture. The following pen portrait of the man is interesting: "The description that lingers in the memory of the oldest among us is that of a little spare man, rough in speech and brusque in manner, protected against the cruel winds by a thick coarse knickerbocker suit of grey serge, a cap concealing his baldness, but not the fiery red of the unkempt hair that escaped to his neck, grey eyes that shone with decision and kindness in a clean-cut face, purple from the pitiless assaults of wind and rain and snow, the whole aspect of this breezy, cheery man suggesting that it must have been pleasant to sit and listen, round the blazing fire of a lonely farmhouse, to the latest news of the countryside from the genial doctor, while his host drew him on with quip and question, and with liberal potations of best Highland spirit, 12 overproof. Not of the very last polish, it is true—polish, indeed, except furniture polish, for which he provides a 'reciept,' being the last thing that he thought of. His clothes, like his wit, were decidedly below par. But by the help of his 'reciept book' of 1833, a warm heart and as tender a touch as ever smoothed the fevered brow of a sufferer, he won the lasting veneration of the patient, sturdy hill-folk among whom his lot in life was cast."

Nova et Vetera.

MEDICAL PARLIAMENTARY ROLL.

ON the eve of a general election, at which it may be hoped many medical men may find themselves among the successful candidates, it is interesting to note to what extent the profession has hitherto been represented in the Legislature.

As to the *House of Lords*, with the notable exception of Lord Lister, no medical man, so far, has been raised to the peerage. Several peers, however, from the interest shown by them in medical matters, have received honorary medical qualifications. For instance:

His Majesty the King, when Prince of Wales, accepted the Hon. F.R.C P. in 1897 and the Hon. F.R.C.S. in 1900.

His Royal Highness the Prince of Wales accepted the Hon. F.R.C.S. in 1909.

The Marquis of Dorchester was, at the request of Harvey, elected Hon. F.R.C.P. in 1655.

The Duke of Montague was Hon. M.D.Cantab. (1717) and Hon. F.R.C.P. (1717).

The Duke of Richmond was Hon. M.D.Cantab. (1828) and Hon. F.R.C.P. (1829)

The late Marquis of Salisbury was Hon. F.R.C.S.Eng. (1900).

The Earl of Rosebery is Hon. F.R.C.S.Eng. (1900) and Edin. (1909).

Field Marshal Earl Roberts is Hon. F.R.C.S. (1901).

As to the *House of Commons*, a scrutiny of the Rolls of Parliament from the reign of King John downwards, goes to show that no member of the medical profession entered Parliament until the reign of Queen Elizabeth, when Richard Patrick, M.D., was returned for the Borough of Huntingdon. It is possible that other medical men entered Parliament without their profession being noted. It is also possible that such entries in the earlier Rolls as "Ricardus le Barbour" and "Willelmus le Leche" may represent humble members of the profession. With these exceptions, it is believed that the following list is as approximately complete as ordinary research can make it.

The Parliamentary Rolls consulted are those contained in the Parliamentary Returns, 1878 (No. 69), containing a list of all Members from 1213 to 1702; Part II of the same Return, continuing the lists to 1800, and supplementary Returns issued in 1891 (No. 169), 1902 (No. 365), and 1908 (No. 334). The brief biographical notes have been culled from such works as the *Dictionary of National Biography*, Evelyn's and Pepys's *Diaries*, Munk's *Roll of the Royal College of Physicians*, Debrett's *House of Commons*, and Churchill's *Medical Directory*.

HOUSE OF LORDS.

LISTER, Rt. Hon. Joseph, Baron Lister of Lyme Regis in the county of Dorset (so created 6 Feb., 1897), Baronet (26 Dec., 1883), has the Order of Merit, is Knight Grand Cross of the Order of Dannebrog, and Knight of the Prussian "Ordre pour le Mérite," Privy Councillor, D.C.L.Oxon., LL.D.Cantab., Edin. and Glas., D.Sc.Vict., M.B.Lond., Hon. M.D.Dublin, Bologna, Budapest, Geneva and Würzburg, F.R.C.S.Eng. and Edin., Hon. F.F.P.S. Glas., F.R.S.Lond. and Edin., Serjeant-Surgeon to His Majesty the King.

HOUSE OF COMMONS.

ELIZABETH.

PATRICK, Richard, M.D. (Huntingdon), 10 Jan., 1558.

GYFFORD, Roger, M.D.Oxon., F.R.C.P. (Old Sarum), 28 Oct., 1584 and 1588.

TURNER, Peter, M.D.Heidelberg, L.R.C.P. (Bridport), 3 Oct., 1586.

JAMES, John, M.D.Cantab. and Leyden, F.R.C.P. (St. Ives, Cornwall), 1584, (Newcastle-under-Lyme), 1592.

MUFFIT, Thomas, M.D.Basle, F.R C.P. (Wilton), 1597.

Dr. Patrick seems to have graduated abroad. His name does not appear in the list of Graduates of any British University.

Dr. Gyfford (or Giffard) was President of the Royal College of Physicians (1581), and Physician to Queen Elizabeth.

Dr. Turner was Physician to St. Bartholomew's Hospital. He remained L.R.C.P. to the time of his death.

Dr. James was elected for the Borough of St. Ives "with the consent of William, Marquis of Winchester, and William, Lord Mountjoie, Chief Lords of the Town and Borough of St. Ives." He was Physician to the Queen's Household.

Dr. Muffit was a Graduate in Arts of Cambridge. He had an extensive practice in Wiltshire, under the patronage of the Pembroke family.

CHARLES I.

TURNER, Samuel, M.D. (Shaftesbury), 1625 and 1640.

Dr. Samuel Turner was M.A.Oxon. (St. Alban's Hall), but took his degree in medicine abroad. He distinguished himself in the House of Commons by a violent attack upon the Duke of Buckingham, whom he accused of all sorts of political corruption. The King complained, and the Commons ordered Dr. Turner to apologize, which he did by letter, being seized at the time by a timely illness which prevented his appearance and saved further trouble. At the outbreak of the Civil War Dr. Turner took up arms for the King, received a commission as captain, and, at the head of a company of volunteers, defeated the Parliamentarians in a skirmish at Henley-on-Thames. In 1645, on account of his loyalty to his sovereign, he was declared by Parliament "disabled to sit."

COMMONWEALTH (*Oliver Cromwell*).

BATHURST, John, M.D.Cantab., F.R.C.P. (Richmond, Yorks), 1656.

COMMONWEALTH (*Richard Cromwell*).

SLATER, Thomas, M.D. (Cambridge University), 1658.

PETTY, Sir William, M.D.Oxon., F.R.C.P. (West Looe), 1658.

BOSWORTH, Roger, M.D.Oxon. (Hereford), 1658.

STANE, William, M.D.Cantab., F.R.C.P. (Thetford), 1658.

Dr. Bathurst was Physician to Oliver Cromwell. Dr. Munk says Bathurst was returned, a second time, for Richmond, in the Parliament of Richard Cromwell. His name does not appear in the Parliamentary Roll, which, however, is obviously imperfect, the Borough of Richmond being omitted.

Sir William Petty was Physician to Charles II, by whom he was knighted. He was at one time Professor of Anatomy at Oxford, and subsequently Professor of Music in Gresham College, London. He was appointed Physician to the Forces, a post which took him much to Ireland. He also devoted himself to naval architecture, and invented a ship with two keels. The achievement, however, which caused the greatest attention was his restoring to life a girl named Ann Green, who had been hanged (strangulated) for the murder of her child. The present Marquis of Lansdowne, whose family name is Petty-Fitzmaurice, is a direct descendant of Sir William Petty.

Dr. Stane was returned simultaneously for the constituency of "Argyll, Dumbarton, and Bute," but preferred to sit for Thetford.

CHARLES II.

BOSWORTH, Roger, M.D. (Hereford), 1660.

ARRIS, Thomas, M.D.Oxon., Hon.F.R.C.P. (St. Albans), 1661.

QUARTERMAIN, William, M.D.Oxon., F.R.C.P. (Shoreham), 1666.

JACOB, William, M.D.Oxon. (Canterbury), 1678.

JAMES II.

SCARBURGH, Sir Charles, M.D., F.R.C.P. (Camelford), 1685.

Dr. Arris was the son of Edward Arris, Serjeant-Surgeon to the King and founder of the "Arris Lectureship" at the Barber-Surgeons' Hall.

Dr. Quartermain was Physician-in-Ordinary to the King. Pepys, in his *Diary*, under date May 24th, 1680, refers thus to Quartermain and Scarburgh, *inter alia:* "Up, and made myself as fine as I could with the linning stockings on and wide canons that I bought the other day at Hague. Extraordinary press of noble company, and great mirth all the day. There dined with me, in my cabin (that is, the carpenter's), Dr. Earle and Mr. Hollis, the King's Chaplains; Dr. Scarburgh, Dr. Quartermain, and Dr. Clerke, Physicians."

Sir Charles Scarburgh was Physician to Charles II (by whom he was knighted), James II, and William III.

WILLIAM AND MARY.

BARBOUR, Nicholas, M.D.Utrecht, Hon. F.R.C.P. (Bramber), 1689.
RADCLIFFE, John, M.D.Oxon., F.R.C.P. (Bramber), 1690—1695.

Dr. Barbour was the originator of Fire Insurance Companies and a writer on the Currency.

Dr. Radcliffe was Physician to the King and Queen and the founder of the Radcliffe Infirmary, the Radcliffe Library, and the Radcliffe Observatory, Oxford.

WILLIAM III.

BARBOUR, Nicholas, M.D.Utrecht, Hon. F.R.C.P. (Bramber), 1696.

ANNE.

OLIPHANT, Charles, M.D. (Ayr Boroughs), 27 Oct., 1710, and 17 Sept., 1713.
HUTTON, John, M.D.Padua, F.R.C.P. (Kircudbright), 27 Oct., 1710.
RADCLIFFE, John, M.D.Oxon., F.R.C.P. (Buckingham), 23 Aug., 1713.

Dr. Hutton was Physician to the King, and was present with that sovereign at the siege of Limerick and at the battle of the Boyne.

GEORGE I.

OLIPHANT, Charles, M.D. (Ayr Boroughs), 16 Feb., 1714.
FREIND, John, M.D.Oxon., F.R.C.P. (Launceston), 29 March, 1729.

Dr. Freind was the cause of an intrepid act on the part of Dr. Mead, the leading London physician of the time. Dr. Freind was a staunch Tory and intimate friend of Bishop Atterbury. He attended that prelate in the Tower, and was thereby suspected of complicity in what was called the "Bishop's Plot," and was himself imprisoned. This act caused much indignation among his medical friends. The Prime Minister, Sir Robert Walpole, being taken ill at the time, sent for Dr. Mead. Dr. Mead, however, refused to prescribe for his distinguished patient until the latter had signed an order for Freind's release. Shortly after his liberation from the Tower Dr. Freind was appointed Physician to the Prince of Wales, and subsequently served Queen Caroline in the same capacity.

GEORGE II.

COTES, Charles, M.D.Oxon., F.R.C.P. (Tamworth), 3 April, 1735, and 6 May, 1741.

Dr. Cotes, who was Physician to the Westminster Hospital, married the only daughter of William Cheselden, the surgeon.

GEORGE III.

DIMSDALE, Thomas, M.D., King's Coll.Aberd., ex-L.R.C.P. (Hertford), 16 June, 1790.
FLEMING, John, M.D. (Gatton), 17 June, 1818.
HUME, Joseph, Asst. Surg. H.E.I.C. (Montrose), 13 July, 1818.

Dr. Dimsdale was sent for to St. Petersburg to inoculate the Russian Court against small pox. For his services in this matter he was created a Baron of the Russian Empire, received armorial achievements, a present of £12,000, and a pension of £500 a year. On entering the English Parliament he abstained from practice, but attended the poor gratuitously. Baron Dimsdale founded the well-known banking establishment which still bears his name.

Mr. Hume studied medicine in Edinburgh. On retiring from the profession he became a very distinguished politician. Among other things he advocated the establishment of savings banks, abolition of flogging in the navy, of impressment for the navy, and of imprisonment for debt.

WILLIAM IV.

HUME, Joseph (Middlesex), 5 Aug., 1830—10 May, 1831—17 Dec., 1832—15 Jan., 1835.
WAKLEY, Thomas, M.R.C.S. (Finsbury), 10 Jan., 1835.

Mr. Wakley was founder and first editor of the *Lancet*, Coroner for Middlesex, and, when in Parliament, introduced, and succeeded in passing, the Coroners Act of 1843, and the Act for the Abolition of Inoculation, 1840.

VICTORIA.

WAKLEY, Thomas, M.R.C.S. (Finsbury), 26 July, 1837—20 June, 1841—28 July, 1847.
HUME, Joseph, Asst. Surg. H.E.I.C.S. (Kilkenny), 7 Aug., 1837; (Montrose Boroughs), 16 April, 1842—11 Aug., 1847—7 July, 1852.
POWER, Maurice, M.D. (Cork County), 15 July, 1841—14 Aug., 1847.
MITCHELL, William, M.D. (Bodmin), 30 April, 1859.
CORRIGAN, Sir Dominic, Bart., M.D.Dub. and Edin. (Dublin City), 18 Aug., 1870.
LUSH, John Alfred, M.D.St.And. (Salisbury), 26 Nov., 1868—4 Feb., 1874.
BRADY, John, L.R.C.P., M.R.C.S., Hon. F.R.C.S.I. (Leitrim), July, 1852—20 April, 1857—26 July, 1857—12 May, 1859—24 July, 1865—23 Nov., 1868—10 Feb., 1874.
CLEMENTS, William, F.R.C.S. (Shrewsbury), 11 July, 1865.
GRAY, Sir John, M.D.Dub. (Kilkenny), 13 July, 1865 and 1874.
VANDERBYL, Phillip, M.D.Edin., M.R.C.P.Lond. (Bridgewater), 12 July, 1865—17 Nov., 1868.
BREWER, William, M.R.C.P.Lond. (Colchester), 18 Nov., 1868.
DALRYMPLE, Donald, M.R.C.P.Lond., F.R.C.S., L.S.A. (Bath), 18 Nov., 1868.
CAMERON, Sir Charles, Bart., M.D.Dub. (Glasgow City), 1874 to 1885; (Glasgow, College Division) 1885 to 1895; (Glasgow, Bridgeton Division), 1897 to 1900.
DILLON, John, L.R.C.S.I. (Co. Tipperary), 1880–83; (Co. Mayo, E.), since 1885.
CLARK, Gavin Brown, M.D.Brux., F.R.C.S.Edin. (Caithness), Dec., 1885.
FARQUHARSON, Rt. Hon. Robert, P.C., M.D.Edin., F.R.C.P., (West Aberdeenshire), 1880 to 1906.
FOSTER, Rt. Hon. Sir Walter, P.C., M.D.Erlang., F.R.C.P., M.K.Q.P.Irel., L.R.C.S.Irel. (Chester Borough), 1885—1886; (Derbyshire, Ilkeston Division), 1887.
HENRY, Mitchell, F.R.C.S. (Galway), 1871—1885; (Glasgow, Blackfriars), 1885.
HUNTER, Sir Guyer, K.C.M.G., M.D.Aberd., F.R.C.S. (Hackney), 1885.
KENNY, Joseph Edward, L.R.C.P. and S.Edin. (Cork, South Div.), 1885.
MACDONALD, Roderick, M.D.Durh., F.R.C.S.Edin. (Ross and Cromarty), 1885.
O'DOHERTY, Kevin Izod, F.R.C.S.I. (Meath, N. Div.), 1885.
TANNER, Charles Kearns Deane, M.D.Qu.Univ.Irel. (Cork, Mid. Div.), 1885.
LAWRENCE, Sir James John Trevor (2nd Bart.), M.R.C.S. (Mid-Surrey), 1875—1892.
LYONS, Richard Dyer, M.D.Dub., F.R.C.P.I. (Dublin City), 1880.
O'LEARY, William, F.R.C.S.I. (Drogheda), 1874.
PRICE, Sir Robert J., M.R.C.S. (East Norfolk), 1892.
PRIESTLEY, Sir William Overend, M.D.Edin. (Edin. and St. And. Universities), 1896.
AMBROSE, Robert, L.R.C.P. and S.Edin. (Mayo, West), 1893—1900 (unopposed).
AMBROSE, Daniel, M.D.Qu.Univ.Irel. (Louth County, S. Div.), 1892.
FOX, Joseph Francis, M.D.Cincinnati (King's Co., Tullamore Div.), 1885.
MACDONNELL, Mark Antony, M.D.Qu.Univ.Irel. (Queen's Co., Abbeyleix Div.), 1892.
FOSTER, Sir Michael, K.C.B., M.D., F.R.S. (London Univ.), 1900—1906.
THOMPSON, E. C., M.D. (North Monaghan), 1900—1906.
TUKE, Sir John Batty, M.D.Edin. (Univ. Edin. and St. And.), 1900.

Sir Dominic Corrigan was Physician in Ireland to the Queen and to His Excellency the Lord Lieutenant. See a curious reference to him in Her Majesty's letters, recently published.

Sir John Gray received his knighthood in 1863 from the

Lord Lieutenant for his services in connexion with the supply of pure water to the city of Dublin.

Dr. Vanderbyl, with his co-member Mr. William Kinglake, were unseated, on petition, in March, 1869.

Dr. Farquharson was formerly Physician to and Lecturer on Materia Medica at St. Mary's Hospital and Physician to the Belgrave Hospital for Children.

Sir Walter Foster, Parliamentary Secretary to the Local Government Board, 1892–5, was formerly Professor of Medicine at Queen's College and Physician to the General Hospital, Birmingham, and is a Vice-President of the British Medical Association.

Mr. Henry was formerly Surgeon to the Middlesex Hospital.

Mr. Kenny, while Physician to the Dublin Small-pox Hospital, was, in error, dismissed from his post and arrested on political grounds. He was, however, quickly released and reinstated, and received, as an expression of public sympathy, a gift of £1,000.

Mr. O'Doherty, in 1848, was convicted of a political offence, and sentenced to ten years' transportation. He was pardoned in 1856.

Dr. Tanner was Surgeon to the South Cork Infirmary and County Hospital.

Sir James Lawrence was the only son of the distinguished Surgeon, Sir William Lawrence, F.R.S., Serjeant-Surgeon to the Queen, and was in the Indian Medical Service for ten years.

Dr. Lyons was Professor of Medicine, Catholic University, Ireland.

Dr. O'Leary was Surgeon to the St. Vincent's Hospital, Dublin.

Sir William Priestley was elected without opposition. His speeches in the House of Commons were remarkable for their eloquence.

EDWARD VII.

DILLON, John, L.R.C.S.I. (vide supra) (Co. Mayo, E.).
FARQUHARSON, Rt. Hon. Robert, M.D. (vide supra) (West Aberdeenshire).
HUTCHINSON, Charles Frederick, M.D.Edin. (Sussex, Rye Div.), 1903
THOMPSON, E. C., M.D. (vide supra) (North Monaghan).
HARRIS, Frederick Rutherford, M.D.Edin. (Monmouth), 1900, but unseated on petition; (Dulwich), 1903; (Camberwell), 1906.
COLLINS, Sir William Job, M.D., M.S Lond., F.R.C.S. (West St. Pancras), 1906
FOSTER Sir Walter (vide supra) (Derbyshire, Ilkeston), 1906
ROBERTSON, Lieutenant-Colonel Sir G. Scott, K.C.S.I., M.R.C.S. (Central Bradford), 1906.
PRICE, Sir Robert John, M.R.C.S. (vide supra) (East Norfolk).
TUKE, Sir John Batty (vide supra) (Edin. and St. And. Univ.), 1906.
RAINY, Adam Rolland, M.D.Edin. (Kilmarnock Boroughs), 1906.
POLLARD, Sir George Herbert, M.D.Edin. (Lancashire, Eccles Div.), 1906.
AMBROSE, Robert (vide supra) (Mayo), 1906.
RUTHERFORD, Vickerman Henzell, M.B.Cantab. (Middlesex, Brentford Div.), 1906.
COOPER, George Joseph, M.R.C.S. (Bermondsey), 1906
O'NEILL, Charles, M.D.Roy. Univ. Irel. (South Armagh), 1909.

Sir W. J Collins was Chairman of the London County Council, 1897–9, and more recently Vice-Chancellor of the London University.

Mr. Cooper fell a victim to the strain of his parliamentary and professional duties. He was seized with illness while in the House of Commons, and died (of hemiplegia) the following day, October 7th, 1909. In Parliament he did much useful work and introduced the Anaesthetics Bill. He had also been an active member of the London County Council and of the Borough Council of Bermondsey.

CONVENTION OF THE ESTATES OF SCOTLAND.

1 William and Mary, 1689.

STIRLING, George, "late Dean of the Chirurgeons" (Edinburgh), 12 Nov., 1689.

Parliament of Ireland (1559—1695).

DUN, Sir Patrick, M.D. (Killileagh Borough), 29 Sept., 1692; (Mullingar Borough), 27 Sept., 1692; (Mullingar Borough), 23 Aug., 1695.
IRWIN, Christopher, M.D. (Fermanagh County), 9 Aug., 1695.
DOMINIC, Christopher, M.D. (Ardfert Borough), 24 Sept., 1692.
MOLYNEUX, Sir Thomas, Bart., M.D. (Ratcath Borough), 12 Aug., 1695.
PETTIE, William, M.D. (Enniscorthy Borough), 19 April, 1661.

Parliament of Ireland (1695—1699).

IRWIN, Christopher, M.D. (Fermanagh County).
MOLYNEUX, Sir Thomas, Bart., M.D. (Ratoath Borough).
DUN, Sir Patrick, M.D. (Mullingar Manor).

Parliament of Ireland (1703–1713).

IRWIN, Christopher, M.D. (Fermanagh County).
DUN, Sir Patrick, M.D. (Mullingar Manor).

Parliament of Ireland (1761–1768).

LUCAS, Charles, M.D. (Dublin City).

Parliament of Ireland (1769–1776).

LUCAS, Charles, M.D. (Dublin City).
CLEMENT, William, M.D. (Dublin City), in the place of Charles Lucas, deceased.

Parliament of Ireland (1776–1783).

CLEMENT, William, M.D. (Dublin City).

George Stirling. This gentleman's name has been here inserted from his obvious connexion with the profession; but whether or not he was a member of the profession has not been ascertained.

Sir Patrick Dun was the founder of the celebrated Dublin Hospital bearing his name. In 1692 he seems to have been returned almost simultaneously for two constituencies.

Sir Thomas Molyneux, who, according to *Burke* was not created a Baronet until 1730, was Physician-General to the Forces in Ireland.

Dr. Lucas was celebrated more as a politician than as a physician. He introduced in 1761 "Lucas's Act" for reconstructing the King and Queen's College of Physicians. He was one of the founders of the *Freeman's Journal*. A marble statue of him is in the City Hall, Dublin.

SUMMARY.

From the above list it will be seen that the medical profession has been represented in the Parliaments of England, Scotland, and Ireland during the last three and a half centuries by some seventy-seven members. It is probable, however, that others have been returned without disclosure of their medical qualifications, the conventional term "Esquire" alone being used.

S. D. CLIPPINGDALE, M.D., F.R.C.S.

British Medical Association.

ANNUAL SUBSCRIPTION, 1910.

Members are reminded that the Annual Subscription, amounting to 25s, is now due.

Cheques or Postal Orders should be made payable to the British Medical Association, and crossed London County and Westminster Bank.

In the case of Colonial Members the subscription should be paid to the Honorary Treasurer of their respective Branches.

By Order of the Council,

GUY ELLISTON,
Financial Secretary and Business Manager.
429, Strand, London.

British Medical Journal.

SATURDAY, JANUARY 8TH, 1910.

STATUS LYMPHATICUS.

FROM time to time during the last three or four years much has been said and written about the pathological complex known as the status lymphaticus, whilst every now and then cases of thymus-death or of death under anaesthesia in the subjects of the condition have been recorded. At the present moment there is a double reason for recurring to the matter, inasmuch as there would seem to be a tendency in the public press to raise the cry of "Bogey" over it, and further, because at a recent meeting of the Section of Anaesthetics of the Royal Society of Medicine it was suggested that a committee of the section or of the society as a whole should be appointed to investigate the entire question, for the benefit both of the anaesthetist and of the man in the street.

If it were in any way true that there existed a prevalent disorder, quite unrecognizable during life, which rendered the subjects incapable of undergoing ordinary inhalation narcosis, there would be just grounds for apprehension on the part of the public. Let it be said at once this is not the case. Neither from the point of view of the statistician nor from that of the pathologist is there satisfactory evidence of signal susceptibility to chloroform vapour as a recognizable symptom of the somewhat nebulous entity under discussion. Until the percentage of chloroform vapour administered is precisely measured, it seems idle to talk about idiosyncrasy. From the point of view of the practical anaesthetist, however, the problem is not quite simple, and it will be well perhaps to recapitulate and disentangle the several allied groups of facts overlying the immediate problem.

The dictum of Friedleben that "there is no thymic asthma" has long since been disproved. It is well known that a thymus of unusual size may occasion both chronic, non-spasmodic stridor, and sudden asphyxia. Relief has been afforded in such cases by the insertion of a long tracheotomy tube, and by dislocation of the offending organ through the divided manubrium sterni. By suitable methods of examination it has been possible to demonstrate narrowing of the trachea at the superior aperture of the thorax, especially with the head thrown back. Mechanical interference with the aorta, the heart, with the great vessels at the root of the neck, have all been verified by anatomical preparations, and pressure upon the vagus is to be inferred, according to some observers, from the occurrence of glottic spasm, and the not infrequent association of laryngismus. Again, there is a whole series of authenticated instances of sudden death from trivial or unapparent causes, in which at the necropsy a thymus of quite exceptional size has been the only, or almost the only, discoverable lesion. Such fatalities have occurred in seemingly healthy children and even in adults during the ordinary course of their daily life, or in relation to some such circumstance as a fright, or a cold bath, or an examination with a spatula, during convalescence from some exanthem, or after the administration of a subcutaneous injection. It is known, moreover, that some of the individuals who died thus suddenly have been anaesthetized more than once at periods considerably anterior to the lethal event.

In the pathological picture presented by the status lymphaticus proper the enlargement of the thymus plays a comparatively small part. The patients, for the most part children or adolescents, are well nourished, but pale, flabby, and of "lax habit"; the cervical, axillary, mesenteric, and other lymphatic glands are enlarged, the spleen is palpable. The tonsils, lingual, pharyngeal, gastric and intestinal lymphoid tissue exhibit hyperplasia often in extreme degree; the heart is usually remarkably flabby, and the muscle may show definite degeneration; the aorta sometimes is of small calibre and its tissue attenuated. There is some degree of anaemia with lymphocytosis; rickets is often obvious, and other morbid conditions have been noted in association. Graves's disease, simple enlargement of the thyroid, infantilism, myasthenia gravis, epilepsy and other psychoses, eczema and prurigo, are among the commonest. The sudden death correlated with this state is primarily syncopal, and this is true not only of those alleged against chloroform, but also of those totally unconnected or only remotely connected therewith.

It would be a mistake to lose sight of the fact that whilst the relation of this pathological state to inhalation anaesthesia generally, and to chloroform narcosis in particular, is of great importance, and offers some data for consideration in arriving at a just understanding of its true bearings, the issue cannot be decided without a most catholic examination. It is at present quite uncertain whether this is a disease of the lymphoid tissues themselves, or whether the lymphoid hyperplasia is only the expression of a chronic toxaemia, a perversion of nutrition, or a disturbance of the remarkable harmony that is preserved amongst the many internal secretions of the normal individual. It may be remarked that with a great array of morbid signs there is a signal absence of symptoms. In a well-marked case the condition could probably be recognized by any competent observer who had occasion to make a thorough examination, but apart from the impulsion afforded by the diseases so often associated, there is little to bring the patient to the doctor. It has happened in the past that incidental obstruction in the upper air passages has generally been the factor to thrust the patient into medical hands, and so to the anaesthetist. The anaesthetist is certainly not always unable to make a diagnosis. In a recent instance narcosis was induced despite the diagnosis, and no untoward symptoms appeared. A few weeks later the correctness of the opinion was verified by the sudden death of the patient when convalescent, from some trivial "cause." In another instance the blood count that showed the expected lymphocytosis revealed also an eosinophilia that indicated helminthiasis, and hinted thereby at a conceivable source of toxaemia.

Enough has been said to indicate that we are still in the stage of suspicion and conjecture, but if more were wanted it could be furnished by the current specula-

tions as to the conflicting parts played by the thyroid and the thymus, the pituitary and the adrenal medulla, to mention only the most obvious. It is indeed high time all available information were collated as a preliminary to further observation and research, but there are no grounds for alarm. The status lymphaticus is no new thing; no fresh source of panic has sprung up to strike terror into the hearts of anxious parents and timorous sufferers. It is only new in the sense that isolated observations accumulating over a number of years, and deriving a disproportionate importance from the tragic circumstances surrounding certain examples, have now assumed definite shape in the minds of clinicians. Hitherto the ordinary textbooks have, naturally enough, had not a great deal to say on the subject, and as the opportunities any one man has of meeting these rare cases are necessarily very limited, what has been said has perhaps not hitherto received all the attention it deserved.

THE PHYSIOLOGY OF BLOOD-LETTING.

As everybody knows, the treatment of disease by blood-letting has had an unusually chequered career through the whole history of medicine. After many ups and downs the practice probably reached its zenith in the hands of the famous French physician Broussais—whose doctrines and example met with such success in the first quarter of the nineteenth century that his professional rivals asserted him to be responsible for as much bloodshed as Napoleon I—and his pupil Bouillaud. Since their day, however, the leech and the lancet have been less and less freely employed, till at the present time bleeding for the relief of acute disease is a comparatively rare event. No longer a matter of routine, or even of precaution, it is now habitually and perhaps unduly neglected. This neglect is no more than natural, for general treatment by blood-letting has always rested upon an *a priori*, or at the best upon an empirical, basis. It has always lacked the support of confirmatory evidence derived from physiological or pathological experiments upon animals or man, and, in addition, it is little in sympathy with the naturalistic trend of modern methods of treatment.

Yet not a few researches have been published within the last twenty years incidentally showing that the powers of resisting disease may be increased by the letting of blood at the proper moment. For example Roux and Vaillard in 1893 proved that the bleeding of immunized animals might bring about a rapid increase in their production of antitoxins or antibodies, and since that date additional evidence to the same effect has accumulated from many sources, the experimental observations being made on rabbits, goats, horses, and others of the lower animals. But how far these results could be transferred to man, and to what extent the formation of antibodies in human beings could be promoted by blood-letting, are problems that have only recently been attacked directly, the evidence here being bound to come from the clinical rather than from the purely experimental side. Dr. Schroeder of Copenhagen has published[1] an elaborate investigation into the variations brought about in the agglutinating power of the serum by both small and large bleedings. In part his observations were made upon patients with enteric fever or paratyphoid fever, and in part on animals immunized by injections of cultures of *Bacillus coli* or *B. typhosus*. He finds that in the case of the animals, when the development of the specific agglutinating power due to the injection of the bacteria has passed its maximum and begun to decline, a bleeding will have the marked effect, not only of arresting that decline, but also of causing a considerable further increase in the specific agglutinating power. In other words, the bleeding acts just as a second bacterial injection would. This, of course, has been long known, and is admirably and graphically illustrated by a number of curves of agglutinating power in Dr. Schroeder's paper. But the chief interest of his investigations lies in the studies he has made of the development of agglutinin in the serum of patients with enteric or paratyphoid infections, employing an unimpeachable technique. He finds that, graphically expressed, their agglutinin-formation follows a curve very similar to those he had already observed in the artificially immunized animals. Blood-letting in the patients (from 3 to 20 oz. being withdrawn), as in the animals, was speedily followed by a rise in the specific agglutinating power of their serum.

Dr. Schroeder cautiously asks if it is not possible that this augmented production of agglutinin, and presumably of other antibodies as well, may not furnish, in part at least, the correct explanation of the beneficial effects that have been ascribed from time immemorial to the letting of blood in acute disorders? To answer such a question in the affirmative seems only reasonable. And thus it may be that experimental pathology has furnished at the last a partial excuse for even the worst excesses of those who believed in and practised the "*saignées coup sur coup*" of last century, and for the "haematomania" and "vampyrism" ascribed some eighty years ago to Broussais's pupil Bouillaud, the stoutest blood-letter known to medical history.

[1] *Om Aareladningens Indflydelse paa Blodets Agglutinin-holdighed*: Eksperimentelle og kliniske Undersøgelser af Knud Schroeder. Copenhagen: Lehmann and Stage. 1909. (Pp. 143, with 31 figures; 18½ by 26½ cm.)

THE INTERNATIONAL OPIUM COMMISSION.

THE analysis of the evidence given before the International Opium Commission which met at Shanghai last February, together with the resolutions embodying the conclusions at which the delegates of the powers represented arrived, will be found at page 93. Perhaps the most instructive paragraphs in the abstract which we publish, are those relating to the experiences of the Japanese in Formosa. The suppression of the trade and of the habit was taken in hand very vigorously by the Japanese Government, and the difficulties which it encountered and the manner in which, for the most part, they were surmounted, will undoubtedly prove most instructive to other Governments. It is rather disappointing that the delegates were unable to make any statement based on the medical evidence as to the effect of the habit on the individual; the evidence was conflicting, and some of the delegates, at least, considered that the subject was outside the scope of their instructions. They, however, fully recognized its importance, and recorded the unanimous opinion that each country should pursue the study of the scientific aspects of the question.

Although by common consent purely diplomatic questions were held to be out of order, the discussions were undoubtedly influenced by the diplomatic relations between England and China, and by the

existence of the agreement between those two countries to the effect that the Indian Government will diminish the exports of opium from India by 5,100 chests a year; a provision which would lead to the complete extinction of the trade in opium from India to China within ten years. China, in order to show her bona fides, has undertaken (*inter alia*) to reduce the production of opium in China by a corresponding yearly amount. The statistical evidence that China was able to bring to show that this undertaking was being performed was severely criticized by Sir Alexander Hosie; but the Chinese delegation promised to represent strongly to the Chinese Government the necessity for obtaining better statistical evidence, and the first resolution, in which the unswerving sincerity of the Chinese Government in its endeavours to put down the opium evil was acknowledged, was proposed by the British delegation. The second resolution recognizes the evil results of opium smoking, and recommends that all Governments should endeavour by gradual repression eventually to suppress it altogether.

The third resolution declares that it is desirable that all nations should re-examine their regulations in view of recent evidence. It was agreed on all hands that one of the first effects of repression is to encourage smuggling. As it has also been found in practice almost impossible to prevent smuggling over a large seaboard such as that of the Philippines, the fourth resolution demands the universal adoption of measures which will prevent the shipment of opium and morphine to countries which prohibit its importation. Repression of smoking leads to other forms of the habit, such as the taking of opium pills and hypodermic injection of morphine. Pills containing opium or morphine are sold all over China in spite of most stringent regulations; they are—sometimes at least—sold as anti-opium remedies, and emanate from the foreign settlements in China; the eighth resolution therefore recommends that their manufacture, importation, and sale should be prohibited; while the ninth resolution enjoins on each Government the duty of applying its own pharmacy laws in its settlements in China.

The evidence as to how far the hypodermic injection of morphine is superseding smoking is conflicting. Dr. Gray, of Peking, as will be seen from the abstract of Mr. Max Müller's report, which we append to the article on the Commission, is of the opinion that, though a large number of smokers took to hypodermic injections after the edicts against opium smoking were first promulgated, the habit is decreasing, owing mainly, he thinks, to the difficulty of obtaining the drug and the necessary needles. He believes that those willing to pay sufficiently highly can obtain morphine, and there is no doubt that, owing to its small bulk, it is easily smuggled. The only solution of the difficulty thus created would seem to be a rigid control of the traffic in morphine from its manufacture to its retail sale. That there is danger to a white population from morphine, owing to the defective character of present regulations, is shown by the American report, which reveals a very serious position in many American cities.

The fifth resolution, which advocates such control, is therefore of direct importance to Europe. The seventh resolution merely indicates that it behoves foreign Governments to follow the example of the Chinese Government and close the opium diva which exist in their own settlements.

THE GENERAL ELECTION.

THE scanty band of medical candidates for parliamentary honours at the general election has been diminished by the withdrawal of Dr. F. E. Fremantle, who was a candidate in the Unionist interest for Rotherhithe, a seat which it was thought he had good prospects of winning. Dr. Fremantle holds the post of medical officer of health for the Hertford County Council, and as this is a whole-time appointment, he comes under the proviso of Section 83 of the Local Government (England and Wales) Act, 1888, which lays it down that "no paid clerk or other paid official in the employment of a county council who is required to devote his whole time to such employment shall be eligible to serve in Parliament." The list has, however, been restored to its original number of twenty-four candidates by the adoption of Dr. J. Court as the Unionist candidate for North-East Derbyshire. At the last general election the number of candidates was the same and twelve were successful. In 1906 of the medical candidates eleven belonged to the Unionist, nine to the Liberal, and four to the Irish Nationalist party. Of the successful candidates only one, Sir John Batty Tuke, who is not now standing, was a Unionist. On the present occasion the medical candidates include 14 Liberals, 6 Unionists, and 4 Nationalists. The first polling in which medical candidates are concerned will take place on Monday, January 17th, in West St. Pancras, where Sir William Collins, the sitting member is standing again, and in East Marylebone, where Dr. R. O. Moon is opposed by two Unionists. Dr. Moon in his address deals chiefly with purely political questions, but has a paragraph expressing the opinion that among the true remedies for unemployment are State-aided insurance against unemployment, the development of labour exchanges, the reduction of hours of work, and the appointment of a Minister of Labour for the organization of work in general, and of unskilled labour in particular. He expresses the opinion that the want of cheap and good food is a leading factor in the physical deterioration of the nation, and states that he is opposed to any scheme of tariff reform, since he believes that, to be adequate for the purposes of the national revenue, it must include the taxation of food. In another column will be found a review of a thoughtful work on *The Relation of Medicine to Philosophy* recently published by Dr. Moon.

FOOD REFORM AND THE GENERAL ELECTION.

FOOD reformers are fond of reproaching the medical profession with indifference to or ignorance of dietetics, their chief reason for this reproach being apparently our unwillingness to endorse their particular fads. They are cock-sure on many matters about which those best qualified to judge hesitate or disagree. The National Food Reform Association is a body of the Executive Committee of which Mr. Eustace Miles is vice-chairman, and therefore it may be presumed to be inspired by his views on dietetics. It has an imposing list of vice-presidents, comprising a duchess, several peers, various notable ladies and dignitaries of Church and State, besides Mr. Horace Fletcher, a stray professor, and one medical practitioner. In view of the approaching general election, it has issued a circular to candidates asking for support in their efforts to impress upon the Government the need for executive and legislative action in directions some of which are indicated clearly and have our sympathy, while others are more vague, and may be reasonably supposed to favour the vegetarian views of Mr. Eustace Miles. As these proposals involve the reconsideration of the diets of prisoners'

paupers, soldiers, and sailors, it is desirable that candidates should be in no haste to pledge themselves to any line of conduct that may seem to endorse the views and opinions of the Food Reform League. The circular says that the alarming increase of cancer, appendicitis, and other diseases is "attributed by experts" to errors in diet; this is a misleading statement, as although individual expressions of opinion by members of the medical profession may be quoted in its support, there is no consensus of expert opinion upon it. It is doubtless disappointing to ardent reformers to find the medical profession slow to adopt their opinions, but there is wisdom in caution where such a grave matter as a radical alteration in national food customs is concerned. But the programme of the Food Reform Association is not without its good points. The United States Department of Agriculture has done useful work in giving to the public full information on the nutritive value of foodstuffs, but this is intended to guide farmers and stock raisers, and whether it is worth while to imitate it may be doubted; it would be more to the purpose here if we could ensure a more efficient inspection of food; the British Government seems to fear the charge of raising the price of food, since cheapness rather than quality appears now to be the main consideration. We have nothing but praise for the proposal to promote more systematic scientific teaching of cookery, hygiene, and domestic economy in schools and continuation classes, where this subject, so far as possible, should be made compulsory for the elder girls; this is a proposal which has already received the support of the British Medical Association. It is also desirable that in any dwelling let for the occupation of a family there should be a grate suitable for cooking, and we are heartily in favour of legislation to provide pure milk. We are also glad to have the help of the Food Reform Association in urging the need for patent medicines to bear labels setting out in detail their ingredients and their proportions, as well as the diseases they profess to cure. We are less confident of the value of the evidence of the efficacy of the dietetic treatment of inebriety furnished by the Salvation Army; and, while we may desire to see a further trial of the method, we should regard it as a great mistake to put it or any other method of treatment into an Act of Parliament.

POST-MORTEM EVIDENCE AND FAITH HEALING.

JOHN ALEXANDER DOWIE, the faith healer, who at one time had so large a following in America, is dead, and his name is nearly forgotten. But faith healing will live, for, as Macaire truly said, "*Tout passe; mais les badauds ne passeront pas.*" It is, as we have often had occasion to insist, difficult to get evidence as to what actually happens to sufferers from real or imaginary ailments who pass under the hands of faith healers. We know that even so strong-minded a woman as Miss Harriet Martineau believed herself to have been cured by mesmerism of a uterine affection which after death was found still palpably in existence. But hers was, as far as we know, till lately the only case in which the results of faith healing have been tested by *post-mortem* evidence. Now we are able to add another from a report published in the *American Journal of Clinical Medicine* for December. The patient was a woman who pinned her faith on Dowie. She was the daughter of a preacher of the doctrine of Zion, who is described as a very religious man. She married and had two children, a daughter and a son. The family moved to the Pacific North-West, and soon after settling there the mother and children contracted measles. This occurred during the first months of the daughter's menstrual life, and as an after-effect of the illness menstruation was interrupted and a temporary state of mental aberration occurred. Several physicians were consulted, but not being satisfied with their treatment, the mother took her daughter to Chicago, where Dowie was then at the height of his fame. In his sanatorium the patient was kept in quiet, orderly surroundings, plain nutritious food was given, and once daily an elder came to her and prayed fervently that she might be healed, telling her that at a certain hour each day the Prophet himself prayed for her, and further assuring her that she soon would be healed—that a solid faith was the only thing necessary for her cure. She slowly improved, and after several months and a trip to the home of her childhood regained perfect health. From that time forward she as well as her mother was firmly imbued with faith in the system to which she attributed her cure. Meanwhile, however, the mother was ageing fast and her health began to fail. Nevertheless she persisted in affirming that she had no physical disease, and that she had no use for doctors or medicines. During the year preceding her death it became obvious to all who came into contact with her that she was declining rapidly. Nevertheless she continued to read the literature of Zion, holding fast to her belief in Dowie's teaching. On January 17th, 1909, her son called in a physician. At that time the most prominent objective symptoms were anaemia, lemon-tinted skin, emaciation, and great weakness; the woman admitted that she was "weak" and had not been well for some time. She had lost her appetite, and what she did attempt to eat was vomited. These symptoms had existed in varying degree for a year. Menstruation had ceased, but for about a year bleeding from the uterus had followed any undue exertion. She would not submit to any extended physical examination, and said she suffered no pain. Advice as to diet was accepted, but all medicinal treatment was refused. At this time she was still able to walk about the house, but two or three days later she was confined to her bed, became delirious, and died one week after the physician's first visit. On *post-mortem* examination the gastric mucosa was found atrophied, the organ being described as nothing more than a fibrous bag. There was atrophic sclerosis of the liver; the gall bladder was filled with gall stones, one being wedged tightly into the cystic duct. The spleen was sclerotic; there was sclerosis of the aortic valve and calcareous plaques in aorta, together with signs of marked interstitial nephritis, especially in the right kidney. The uterus was enlarged and was virtually a mass of fibroid tumours, submucous, intramural, and subperitoneal, the largest being the size of a man's fist. Every vital organ was involved in the sclerotic changes. Dr. C. M. Hawkins, who reports the case, says the uterine and hepatic processes alone must have caused pain and other prominent symptoms at some time during the development of these changes; yet during all that time the woman declared that she was in perfect health. The case may be looked upon as an illustration of many of the "cures" of the so-called spiritual cults, the wide diffusion of which is a sign of our time, and, in the words of Dr. Hawkins, "clearly demonstrates the power of the mind to suppress symptoms, but its utter inability to check organic disease." But, after all, the "suppression of symptoms," as far as the immediate state of the sufferer is concerned, amounts to a cure. In many cases of disease, while waiting for the cure that can be brought about only by rational medicine, doctors would do well to cultivate the power of acting on the

mind, which, if its influence on the body is properly directed, can often scotch a disease which it is incapable of killing.

PATHOLOGICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

THE President of the Local Government Board has appointed Dr. Eastwood an additional Medical Inspector of the Board, with a special view to his undertaking pathological investigations. Provision also has been made for the necessary assistance and laboratories. The immediate object will be to apply to public health work the very important results obtained by the Royal Commission on Tuberculosis, and thereby to ensure the freedom of important foods from the infection of this disease. It is intended also to investigate the similar problems which are constantly arising in connexion with other infectious diseases. These investigations will be concerned chiefly with current doubtful points in regard to disease. In the work thus inaugurated by Mr. Burns will be included inquiry as to the pathological methods of diagnosis of disease already utilized in the public health work of many sanitary authorities; it is expected that by interchange of information good work will be encouraged and extended, and that co-ordination and standardization of the bacteriological methods of diagnosis of disease will be secured. In making arrangements for the work, the President of the Local Government Board was fortunate in being able to appoint a man of science so well fitted to take a wide view of the problems of infectious disease, and so competent to apply them to the solution of the practical difficulties of public health administration. Dr. Eastwood, who graduated M.D. Lond. in 1902, has been histologist and bacteriologist to the Royal Commission on Tuberculosis, and in that capacity did a large amount of most important research work, the results of which have added much to the value of the reports of the Commission.

MEDICAL TERMS IN THE NEW ENGLISH DICTIONARY.

FOR the first time for many months the editor of the *New English Dictionary*[1] sends forth only a single section: and, passing as it does from *Romanity* to *Roundness*, it contains comparatively few medical terms. Among the recent additions to the English language is *Röntgen*, as the name of the rays which were regarded with such wonder ten years ago. The *Dictionary*, with its accustomed accuracy and fullness, tells us that *Röntgen* is the name of a German scientist, Professor Conrad W. Röntgen, used attributively; and the first illustrative quotation, dated 1896, is from the *Proceedings of the Royal Society*, and reads: "The Röntgen rays, when they fall upon electrified bodies, rapidly discharge the electrification." Next in order is a very old term, *ropy*, meaning stick and stringy, an illustrative quotation of 1480 (Caxton, *Trevisa's Nigden*) stating that "Lentulus spat and threwe ropy spotel in his face." The word is now used almost exclusively of fluid or mucus discharged from the mouth or nose; but there is also a figurative sense, Gifford (in 1791) speaking of "the ropy drivil of rheumatic brains." *Rosacea* is regarded as a word not naturalized, and is defined as "a hyperaemic form of acne"; it means rose coloured, of course. This takes us on, in this rapid review of the contents of the part, to the medical significance of the expression *the rose*; it is "a popular term for a local inflammatory cutaneous disease, frequently accompanied by fever, in which the skin assumes a deep red colour"; it is also called St. Anthony's fire, and it generally is erysipelas. The editor (Dr. Craigie) states that it comes perhaps originally from the Dutch or German, and the first quotation is dated 1599. Another rose word, but of much later introduction, is *roseola*, defined as "a rash of rosy spots or eruptions occurring in measles or other diseases, also, false or German measles." *Rosemary*, although not a medical term in the restricted sense, is the name of a shrub which has been employed to some extent in medicine but much more in perfumery; its obsolete form is *rosmarine*, and its derivation is most probably from *ros marinus* (sea-dew), the plant growing near the sea, and not from *rose* and *Mary* (that is, the Virgin Mary). *Rot*, meaning the virulent disease affecting the liver of sheep, is a very old word in the language, the first quotation being dated 1400; but there is another medical meaning of the term, a putrescent or wasting disease in persons, used by Wyclif in his translation of Proverbs xii, 4, "rot is in the boonys of that woman, that doith thingis worthi of confusioun"; and there are yet other meanings, which are carefully detailed. *Rotula*, meaning knee-cap or point of the elbow, is described as a word not yet naturalized; it is, of course, the dimunitive of the Latin term *rota*, a wheel. *Rouncival* is a curious word; in one sense it means "a large variety of garden or field pea," and appears to be derived from *Roncesvalles;* but this does not explain how it has come to have the meanings of "wart" and "monster."

[1] A *New English Dictionary on Historical Principles. Romanity-Roundness* (vol. viii). By W. A. Craigie, M.A., LL.D. Oxford: At the Clarendon Press. January 6th, 1910. 2s. 6d.

ABDOMINAL EMERGENCIES.

AMONG the nine or ten papers of a clinical character included in the latest fascicule of the *Archives of the Middlesex Hospital*[1] are some notes on abdominal emergencies by Mr. Sampson Handley, in which some important considerations are well brought out. Among other things, he draws attention to some forty or more conditions which may lie at the root of a sudden attack of abdominal pain of such severity as to lead to the hasty summoning of medical assistance, and occurring in persons believed previously to be either in perfect health or to be suffering merely from some chronic ailment. What should be the conduct of a medical man called in on such an emergency? Obviously the desirable course is to make a precise diagnosis; but though, no doubt, a table showing the differential diagnoses applicable to each of the possible causes might be drawn up, it is usually necessary to be content with answering a much more limited number of questions. The first and perhaps the most important of these is whether the condition causing the pain is in itself trivial or serious; a second question is whether appendicitis or intestinal obstruction is present, or perforation in some part of the intestine has occurred; and a third whether the condition is one which can, and should be, relieved by operation. If no decisive answer can be found to any of these questions forthwith, what should be done meantime? Mr. Handley defends strongly the opinion generally expressed by surgeons that until some diagnosis has been made morphine should be withheld, whatever the distress of the patient, although he would not object, it appears, to the administration of small doses of belladonna. Pulse and temperature are not necessarily altered even by the occurrence of a real abdominal disaster, so no case may be written down as trivial merely on the ground of normality in these respects. In appendicitis in particular neither pulse nor temperature may prove illuminating even for six or eight hours after the onset of an attack of a most dangerous kind. Similarly,

[1] *Archives of the Middlesex Hospital*, Clinical Series No. iii. Edited by W. Sampson Handley and Victor Bonney. London: Macmillan and Co. November, 1909.

after the first shock of a perforation there may be a lull in which the depressed temperature returns to normal and the pulse becomes steady. A case of acute intestinal obstruction which is allowed to reach the stage of faecal vomiting is exceedingly unfavourable for operation, and this kind of vomiting should be regarded less as a symptom of intestinal obstruction than as a herald of approaching death. So, too, in these cases should abdominal distension and a rapid running pulse. In the same connexion failure to pass either flatus or faeces during twenty-four hours, despite repeated enemas, should be regarded as establishing a diagnosis of intestinal obstruction, and one which should be acted upon forthwith. Mr. Handley admits that general adoption of this rule might occasionally bring about unnecessary admissions to hospitals, but he claims that it would save many lives and enormously improve the results of the operative treatment of obstruction. This may well be the case, for patients suffering from acute abdominal maladies bear movement very badly, and in any case in which operation is at all probable, and cannot be performed at home, it is perhaps wise to act on the assumption that the possible operation will actually be performed, and move the patient forthwith. This is especially true of cases of appendicitis, which, even in their earliest stage, should never be subjected to transport except in an ambulance of a really suitable kind. Unfortunately this, so far as London is concerned, is somewhat in the nature of a counsel of perfection, for at present the prompt securing of an ambulance is a matter of much difficulty. In any case in which a working diagnosis cannot be reached within eight to twenty-four hours, and the symptoms are not abating, Mr. Handley favours an exploratory operation, repeated enemas being given meanwhile as a routine measure, and pulse and temperature being watched every hour. No doubt this is a sound view to take for it can scarcely be denied that the number of acute abdominal cases in which an operation is performed too late largely outweighs those in which an operation when undertaken proves to have been unnecessary.

MEDICAL POINTERS.

DURING our period of clinical clerking most of us make the discovery, if we have not made it before that we hear better with one ear than the other Young men who do their duty by their country in serving in the Territorial Force often learn that one eye is more serviceable than the other. In ordinary life we adjust ourselves more or less successfully to these conditions. But in the practice of medicine it is proverbially difficult to see and hear things for ourselves. We remember one of the greatest physicians of the past generation, after listening with exemplary patience to a detailed description of murmurs in a complicated case of heart disease, which he attempted to verify, as was his wont, step by step, remarking, "I daresay it is all right, but I can't hear all these things." The great man could afford to make this confession, but we fear the student too often imagines that he sees and hears things simply because he is told that he ought to do so. The aphorism of Hippocrates that "art is difficult" is probably more true in regard to learning the shades of difference and significance of physical signs than of anything else. Recognizing this, Sir Francis Galton, who in early life was a student of medicine, says, in his *Memories of My Life*: "I cannot understand to this day why youths selected for their powers of sharp hearing should not be so far instructed as to be used by physicians, much as pointers and setters are used by sportsmen. They could be taught what to listen for, probably by means of some sound-emitting instruments more or less muffled, and how to describe what they heard. A patient during the incipient stage of his disease might be submitted to examination by one or more of these quick-hearing youths, who would report to the doctor, who thereupon would form and express his opinion. Similarly, as regards touch, of which great delicacy is of the highest importance. Conceive what help might be given by them in discovering deeply-seated tumours, abscesses, and much else. The touch of a person far less sensitive than that of the wandering Princess of the well-known fairy tale might prove of vital importance. It will be recollected that her Princess-ship was acknowledged by all, through her discovering a pea surreptitiously inserted as a test below the bottom of the pile of feather-beds on which she slept." The suggestion is interesting, but it has the fatal defect which has been hinted at, that if you tell a man what to look or listen for he will infallibly see or hear it, whether it be there or not. The trained sense must be directed by knowledge if the signs of disease are to be interpreted aright. The thief of whom it used to be told that he could percuss out a £5 note in the inner breast pocket of a man wrapped up in an ulster, had an exact knowledge of the anatomical site and coverings of the object of his search, or the mere keenness of his sense of touch would have availed him little.

THE DANGERS OF THE STREETS.

OF the two medical measures standing to the credit of Sir William Collins for last session, one directly concerns the life and safety of every inhabitant of London and of every frequenter of its streets. This is the Metropolitan Ambulance Act of 1909. It received the Royal Assent on October 20th, and came into force forthwith. This being the case, one is disposed to ask—Why tarry the wheels of the London County Council ambulance? At the lowest computation the London County Council has had nearly three months in which to make up its mind as to what it intends to do in the matter, and practically it has had a great deal more. The bill passed its third reading in the House of Commons in August, and as Sir William Collins had been successful in securing the support of the Government and the measure itself was eminently desirable, its passage through the House of Lords was prompt and unaccompanied by any hitch whatever. The responsibility now resting on the shoulders of the London County Council is in no wise unexpected, nor even unsought; the Council has been aiming at securing its present powers for several years past, and on many occasions has given the public to understand that all its schemes were cut and dried, and that once given the power by the Legislature it was prepared to provide its constituents with a perfect service forthwith. In spite of this, so far as the public can discern, the dangers hitherto inseparable from the streets of London in their present congested condition still continue to be gravely increased by the likelihood that an injured person will have to be transported to a hospital in a cab, or in some other equally unsuitable and dangerous fashion. Nor is the public mistaken in the matter, for, to the best of our belief, the General Purposes Committee of the London County Council, which presumably has the matter in hand, has so far not even got ready in its final form a working scheme for submission to the Council itself for its adoption. The failure of the Council to act more promptly is as disappointing as it is detrimental to the public interest. The urgency of

the question of providing a proper ambulance service for dealing with street accidents needs at this date no emphasizing. Even as recently as New Year's Day attention was again drawn to the matter by a coroner's inquest. It showed that the deceased, a man suffering from fractured skull, was carried to the hospital at which he was eventually treated for part of the way on the back of a friend, and for the other in a goods van which happened to be passing. In consideration of the matter as a whole it is not out of place to recall the fact that when the bill came before the House of Lords the Council endeavoured to secure an amendment enabling it to contract and make arrangements with the Metropolitan Asylums Board and Poor Law authorities for the use of their ambulance in connexion with the proposed service. The amendment was withdrawn, but, in view of what had passed before, it is remarkable and disquieting that it should ever have been put forward.

MEMORIAL OF MR. WHEELHOUSE.

ON Sunday, December 19th, a memorial of the late Mr. C. G. Wheelhouse, President of the British Medical Association when it met in Leeds in 1889, and Chairman of the Central Council from 1881 to 1883, was unveiled in the Parish Church of Filey, where he was long churchwarden and in the welfare of which he took a deep interest. The memorial consists of a brass tablet of beautiful design fixed under the window he presented to the church some years ago. The inscription on the tablet is as follows: "Thou hast brought me to great honour and comforted me on every side. In loving memory of Claudius Galen Wheelhouse, F.R.C.S., born 29th December, 1826, died 9th April, 1909. For twenty years Honorary Surgeon to the Leeds General Infirmary, President of the British Medical Association, 1889, LL.D. of McGill University, Canada, 1897, D.Sc. of Leeds University, 1904, J.P. of the East Riding of Yorkshire, 1889–09, Churchwarden of this church, 1890–09. Some of his friends who loved and honoured him erected this memorial. Nihil tetigit quod non ornavit." The Vicar (the Rev. A. N. Cooper), in the course of his sermon, said that on the tablet would be found "the White Rose of York, in which county Mr. Wheelhouse's life was almost wholly spent; the Golden Fleece of Leeds, where his chief life's work was done; the Maple Leaf of far-off Canada, whose distance was measured by thousands of miles, and yet his good services to humanity had travelled all those thousands of miles, and one of its famous universities had honoured him. There would be seen also the Sphinx of Leeds University, which spoke more than words could utter; and the Serpent, which was credited with having founded the art of medicine. The Serpent had always been associated with magic and the magical arts, so that people who healed were said to have the power of the black art. But ignorance had been driven back, and knowledge had taken its place." It is very fitting that this memorial to Mr. Wheelhouse should find a place in Filey, the ancient fishing village, grown within his recollection into a town, where in a modest cottage looking out over the North Sea and across Filey Bay to the cliffs of Speeton and Flamborough he spent his declining years, years full of many activities for the good of the people among whom he dwelt and of the profession he loved so well.

RAILWAY STATION LAVATORIES.

IN another part of this issue will be found the results of an inquiry into the accommodation commonly provided at railway stations for the use of women passengers. It appears that the accommodation is frequently exceedingly disagreeable to those forced to make use of it, and not very creditable to the railway authorities. It is true that the like accommodation for male passengers not seldom falls far short of perfection in respect of the character of the appliances provided, their cleanliness, and the provision of adequate light and ventilation, but the provision for women is distinctly much worse. The persons primarily to blame are, of course, the railway authorities, but medical officers of health are clearly not entirely free from responsibility. The conveniences commonly provided for streetfarers by municipal authorities are, as a rule, excellent in every way, and there would seem to be no reason whatever why medical officers should not exact from railways an equal degree of care and cleanliness in maintenance and upkeep. At the same time it must be admitted that the public has itself to thank for some degree of its discomfort in the matter. For one reason and another people fail as a rule to make complaint on the subject, even when they have the best reasons for doing so, and consequently station masters and others concerned may often be unaware of the state of the lavatories. This was pointed out to us by a station master whose attention was drawn on a recent occasion to the condition of the lavatory for men. He had, he said, specially charged one of his men to look after it, but as he could not himself be constantly visiting the lavatories to see that everything was in order, he was commonly dependent on the public for his knowledge of how far cleanliness was maintained. The public, in short, including in the term both men and women passengers, must, if they desire to see things both put and kept right, be their own watchdogs. All strong ground for complaint would probably rapidly disappear if every woman who found a lavatory in an unsatisfactory condition sent a note of complaint either to the head quarters of the railway concerned, or to the medical officer of health of the district in which the station lay. Complaint might also rightly be made in respect of stations where no door opens except on the insertion of a penny in the lock. Apart from the fact that every one is not invariably provided with the desired penny at the right moment, such locks are often out of order. On a recent occasion we saw pennies fruitlessly inserted into one particular lock by four passengers one after another. Even if this modern custom, which cannot, after all, be a serious source of income to the companies, be maintained, there should be at least one door at every station to which a penny-in-the-slot arrangement is not applied. Nor should it be beyond the skill of sanitary engineers to duplicate arrangements in lavatories for women on the same general lines as those adopted in similar places for men.

RESEARCH WORK ON NERVOUS DISEASES.

WE had the satisfaction of reporting last May that the Directors of the Crichton Royal Institution, Dumfries, had resolved to establish a laboratory for research in nervous and mental diseases and to institute three Fellowships, one in clinical neurology and psychology, one in pathology and chemistry, and one in pathology and bacteriology. We are now glad to announce that this example, set by a great endowed institution, has been followed by the Committee of the City of Cardiff Mental Hospital, which, acting on the advice of the medical superintendent Dr. Goodall, this week gives notice by advertisement that it is about to appoint a physiological chemist to undertake research work. The incumbent will reside in the institution, will receive a salary of £200 a year, and will be provided with a laboratory. He will also have the great advantage of being within easy reach of the

physiological and other laboratories of the University College in Cardiff. The West Riding and some other public asylums have pathologists, and the great work done in the laboratory of the Claybury Asylum of the London County Council by Dr. Mott and his collaborators is well known, but we believe that this is the first occasion on which an officer for research in the physiological chemistry of the insanities has been appointed by the governing body of a rate-supported institution. The visiting committee of the Cardiff City Mental Hospital has perceived that research in the domain of physiological chemistry is likely to yield knowledge of great value in the prevention and treatment of mental disorders. There is no doubt, indeed, that there is here a very large unworked field for research, and Dr. Mott, Professor Halliburton, and other pioneers in this direction will, we are sure, be the first to congratulate Dr. Goodall on serving a committee which takes so enlightened a view of its duties. It is surely clear enough that the duty of the public authorities charged with the administration of mental hospitals does not end with the care of the patients admitted, but should also be directed to discover the causes which bring so large a number, it may be an increasing number, of persons into a condition of mental aberration or dementia which cuts them off from useful work for their families and for the world.

THE UNIFORM SYSTEM OF HOSPITAL ACCOUNTS.

THE secretaries of the three Metropolitan Hospital Funds have issued a fresh edition of the *Index of Classification*, showing the heads and subheads under which various items of hospital expenditure and income should be distributed in accounts kept on the uniform system. This list takes the place of the one originally appearing in the Red Book, or general account of the revised Uniform System of Hospital Accounts, which was issued by the three funds at the beginning of last year. The distribution of a certain number of items has been altered and these are printed in red ink; the whole index now contains some 750 entries. Hospital secretaries and others are invited to forward any suggestions for additions or improvements which may occur to them. Attached to the index are some explanatory notes with regard to the keeping of accounts under the uniform system, more especially in regard to fine points such as the right treatment from a bookkeeping point of view of legacies subject to the life of a third party, and of donations made in the form of securities of a kind suitable for retention. During the year the three funds have received suggestions concerning alterations or additions in the compulsory subheadings of the income and expenditure accounts, but it has been held that none of them concern points of sufficient importance or of such general application as to justify an alteration in the form of the account at such a comparatively early period of its existence. The object of the more important of these suggestions would appear to be to minimize the apparent expenditure in a given year. Among the notes on the keeping of accounts is one statement which may possibly be regarded as a welcome concession by some secretaries. Institutions which forget or shut their eyes to the fact that a stitch in time saves nine, sometimes find that repairs and renewals, when eventually carried out, involve them in much heavier expenditure than they care to see figuring in their annual statements. In this connexion secretaries are referred to certain paragraphs in the original report drawn up for the three funds by Mr. Griffiths, and it is pointed out that if the undertaking of such repairs and renewals is prefaced by the estimate on which Mr. Griffiths dwells, there is no objection to the governing body of the institution considering a report from the executive officers and deciding how much of the expenditure must be treated as ordinary repairs and charged to annual expenditure under the heading of "Repairs and Renewals," and how much may fairly be regarded in the light of improvements or additions and passed to the balance-sheet as capital expenditure on land, buildings, and equipment. The three funds have also decided that their questions as to "Statistics," "Income and Expenditure," and "Salaries and Wages" shall in future be uniformly worded with a view to lightening as far as possible the labours of hospital officials charged with the duty of supplying such information in connexion with the applications for grants; the replies drafted for one fund being copied when the time comes on to the forms issued by the other two.

THE PASTEUR INSTITUTE OF INDIA.

THE eighth annual report of the Pasteur Institute of India covers the year 1908. During this year the number of persons treated for hydrophobia was 1,389, as compared with 1,349 treated in 1907. These statistics refer to the Kasauli Institute. It is interesting to find that the patients continue to increase notwithstanding the work done for Southern India at Coonoor, which has caused the number of cases sent to Kasauli from Madras to fall from 94 to 2, and has also reduced the Bombay figures from 163 to 124. Another satisfactory feature of the statistics for 1908 is that the percentage of failures in treatment has been reduced to 0.36, the next lowest figure, obtained in 1907, being 0.44. Captain Carter, I.M.S., the officiating director of the Kasauli Institute, has shown, by tabulating his cases for each month of the year, that rabies in India is not in any way associated with any particular season, and that therefore the popular idea which attributes it to the hot weather is fallacious. The lowest number of cases, 94, happened in May; the highest, 132, in September; January and December each gave a total of 129. In 1,176 cases the bites were inflicted by dogs and in 169 by jackals; cats were responsible for 16 cases, and horses for 12; 8 persons were infected from the saliva of men suffering from hydrophobia. The Kasauli Institute made in 1907 an important departure from Pasteur's method of treatment by the use of a series of cords containing "fixed virus" but subjected to drying for varying periods of time. They now use instead a series of different dilutions of fixed virus, and find this method both more simple and more accurate. This innovation continues to be justified by the very low percentage of failures which follows it, and also by the disappearance of disquieting complications. "Such symptoms as local inflammatory reaction, urticaria, joint and muscle pains, headache, giddiness, lassitude, and more rarely local paralysis, have entirely disappeared."

ADAMS v. POMEROY.

AN APPEAL.

DR. L. GARRETT ANDERSON, 114A, Harley Street, W., Honorary Secretary of the fund raised to reimburse Dr. Martha Adams the legal expenses, amounting to about £100, which she incurred over and above the taxed costs in the action brought by her against *Vanity Fair* and others, including the Hon. Ernest Pomeroy, acknowledges the following further subscriptions:

	£	s.	d.
Mr. H. A. Ballance	1	1	0
Dr. Auguste Boyes	1	1	0
Dr. John A. Adams	0	10	6

The total sum at present acknowledged is £56 4s. 6d.

Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

ABERDEEN ROYAL INFIRMARY.

THE opening of a New Year sees the extensions at the above institution being pushed on with considerable energy. Building operations in connexion with the new surgical theatres are nearing completion. These provide an operating theatre on each flat of the surgical pavilion, with sterilizing, anaesthetizing, and recovery rooms attached. The furnishing and equipment of the theatres and attached rooms has been most carefully considered by the directors and the surgeons concerned, and it is expected that the result will be such as completely to modernize this part of the hospital equipment. For many years surgical work has had to be carried on amid surroundings which, from the modern standpoint, were rather depressing, and the excellence of the results obtained is in itself a high tribute to the personal technique of those who did it. The foundations have recently been laid of the new out-patient department and of the new ear, throat, and skin departments, which are to be located on the opposite side of Woolmanhill from the main hospital buildings. The provision of this new block will allow of much-needed extension of the nurses' home and administrative department. It is not expected, however, that these new buildings will be ready for occupation till 1911. The directors, with commendable if somewhat unusual alacrity, have already organized the ear and throat department, and at a meeting held on December 22nd, 1909, appointed Dr. Henry Peterkin—at present an Assistant Surgeon to the infirmary—Surgeon-in-Charge of this department. The vacancy consequent on this appointment has been advertised, and an appointment will be made towards the end of January.

The relation of the hours for clinical teaching at the infirmary to those for systematic lectures at the university has been the subject of much informal talk during the past few months, and it appears likely that the formal discussion and rearrangement of these will be matters for the near future. In Aberdeen, as in the other Scottish universities, it has long been felt that the addition of the fifth year to the medical curriculum has not given the increased time for clinical study that was intended. In Aberdeen at least that has been partly due to the fact that many, perhaps a majority, of fifth year students persist in attending systematic lectures during the final year; this, if not against the letter, is entirely against the spirit of the ordinance. The result is that the time for clinical teaching—of medicine, particularly—is broken up to such an extent as to detract much from its value. It is hoped that the recent changes in the teaching staff of the university may aid in the solution of the problem, and with hearty co-operation between the extramural and university teachers this matter should early be put on a more satisfactory footing. If the medical school is to maintain its position, much more if it means to improve it, this change, it is believed, must come.

INTER-UNIVERSITY CONFERENCE.

The annual Scottish Inter-University Conference takes place this year in Glasgow on January 14th and 15th, and among the motions which will come up for consideration is one of particular interest to medical practitioners, namely:

> That in view of the increasing number and virulence of unqualified medical practitioners, this conference requests the University Parliamentary Representatives to take steps to promote legislation for the increase of the penalties against such unqualified practitioners, and urges the General Medical Council to take determined action in the matter of prosecutions.

The President of this year's conference is Mr. James Hendry, and the Honorary Secretary, Mr. Robert Gibson.

AIR PURIFICATION IN GLASGOW.

The problem of air purification has recently been forced on the attention of the health authorities and on the public in Glasgow by a prolonged attack of fog, which raised the city death-rate from the normal 18 per 1,000 per annum (of which 4.5 per 1,000 were due to respiratory diseases) to 32.7 per 1,000, with 13.9 due to respiratory diseases. It has been pointed out that putting the normal death-rate from respiratory diseases as high as 4.5 per 1,000, or 25 per cent. of the total mortality, we find that two separate weeks of black fog were directly responsible for the loss of 450 citizens in five weeks. Any other catastrophe involving half this loss would have raised an outcry, but there is always the chance that with the passing of the immediate danger the good resolutions to combat it pass away also. This time, however, an attempt is being made to tackle the problem in earnest. The late Dr. J. B. Russell pointed out the effects of smoke pollution in his history of public health administration in the city. He said that one of the most powerful predisposing causes of phthisis was the universal catarrh of the lungs provoked by the damp, smoke-laden atmosphere. Lungs in such a condition were like the field ploughed ready for the seed. He wrote:

> We are a catarrhal, coughing, expectorating people because we live in a huge industrial city situated at the seaward end of the trough of a valley, which from one end to the other is covered with smoke, drifting in wreaths and clouds with the wind, or in calm filling up the trough, so that nothing is to be seen between the higher ground on either side but a sea of smoke. Living thus, we live constantly on the edge of a catastrophe.

This has been experienced last month to some extent, and hence the problem of smoke prevention is receiving attention. Heating by gas or electricity is being introduced into all the public departments. Experiments are being conducted on a large scale as to the best methods of smoke prevention, and an exhibition of smokeless fuels and heating appliances is being organized by the corporation. A genuine attempt is being made to educate the public as to the advantage of smokeless fuel to the health of the community, and the law is to be rigorously enforced against pollution on a large scale by manufacturers and others. It will probably be a long time before beneficial results can be achieved, and the crusade once begun must be continued if the city is to be freed from the injurious effects of a polluted atmosphere.

EDINBURGH HEALTH STATISTICS.

The deaths registered during the past year numbered 4,785, equivalent to a death-rate of 14.45 per 1,000 of the estimated population. The death-rate for the year 1908 was 13.37. Of the total deaths for 1909, 828 were under 1 year of age, 463 between 1 and 5, 195 between 5 and 15, 140 between 15 and 25, 1,344 between 25 and 60, and 1,452 above 60 years. Diseases of the respiratory system accounted for 960 deaths, while 541 were due to pulmonary phthisis and other forms of tuberculous disease, 183 deaths were due to whooping-cough, 54 to measles, 47 to scarlet fever, 34 to diphtheria, 11 to puerperal fever, 8 to erysipelas, 50 to enteric fever. The number of cases of infectious diseases notified was 3,060, and included 1,510 cases of scarlet fever, 444 of diphtheria, 228 of erysipelas, 50 of enteric fever, 24 of puerperal fever, 24 of cerebro-spinal fever, and 743 of pulmonary phthisis. The birth-rate was 20.99.

QUEEN VICTORIA'S JUBILEE INSTITUTE FOR NURSES.

The twenty-first annual report of the Scottish branch of Queen Victoria's Jubilee Institute for Nurses for the year ending October 31st, 1909, states that the staff consists of a superintendent for outside work, a superintendent of the training home, two district superintendents as assistants, and thirty-three nurses and probationers. Thirty-four nurses resigned their connexion with the institute—thirteen for private nursing or other departments of nursing,

ten to be married, four on account of health, four for home duties, one to go to Canada, one for other work, and one as unsuited for district nursing. The number of Queen's nurses now on the Scottish roll is 323. The home of rest has again proved a great boon to the nurses. A Queen's nurse from the home has continued her daily attendance at the special school for crippled and mentally deficient children in Edinburgh. The ordinary yearly income is still far short of being sufficient to meet the necessary and increasing annual expenditure.

CHILDREN'S HOME HOSPITAL, ABERFOYLE.

The sixth annual report of this most deserving charity has just been issued. The object of this charity is to provide country treatment for children suffering from tuberculous diseases of the bones, joints, etc., for whom no permanent cure is possible under the confined conditions of city life, but for whom recovery is possible under the combined influence of time, fresh air, and good food. There children are received from the Glasgow Infirmaries, Children's Hospital, and Invalid Schools. Cases of pulmonary consumption are not admitted. During the year ending July 31st, 1909, 53 children were received, many of whom were greatly benefited by their stay in the home. Like most deserving charities the home suffers from the lack of funds, more open space is required for the outdoor treatment, and it is hoped that before another year passes the necessary funds will be forthcoming.

TREATMENT OF PHTHISIS IN ABERDEEN.

In his annual report, Dr. Matthew Hay, medical officer of health, says the mortality from tuberculous disease continues to decline at every age period except among persons above 60. Thirty to forty years ago the death-rate from pulmonary phthisis at all ages was 282 per 100,000 of the population, and from other forms of tuberculous disease, such as tubercle of brain, abdomen, and joints, 121; or, in all, 403. With the present population of the city, this rate, if it had continued, would have meant a total of about 717 deaths last year. But last year there were only 286 deaths—184 from phthisis and 102 from other forms of tubercle, giving a death-rate from phthisis of 103 per 100,000 of the population, and for other forms of tubercle, 57; or, in all, 160. There were, therefore, now only 2 deaths from tuberculous diseases for every 5 that formerly took place, or considerably less than one-half. Dr. Hay went on to state that he had during the past two years been carrying out a special inquiring regarding the disease as met with in the city; and he had visited a considerable proportion of the families in which tuberculous cases had occurred, in order to become familiar with the conditions under which the disease had arisen, and to ascertain, if possible, the sources to which it might be traced. The Public Health Department had for many years provided medical practitioners with a leaflet of instructions to be left with tuberculous cases, and had afforded them the fullest facilities for bacteriological diagnosis. It had also for a long time followed up every death from phthisis by an offer to disinfect the house and clothing, and had latterly insisted on the disinfection; and it had disinfected, whenever requested, any rooms and clothing in connexion with living cases. It had also recently had notices against spitting put up in the principal streets and in every workshop where it appeared to be necessary. The medical men of the city, as a whole, showed great interest in the hygienic care of their cases, and few cases were met with in which open-window treatment had not been recommended, although it was not always carried out with sufficient thoroughness and constancy. A great deal of care was also being given by the medical attendant to the proper collection and destruction of the sputum. Dr. Hay expressed his belief that some part of the more recent decline in the tuberculous death-rate was due to the very intelligent appreciation and application by the medical men of the city of the principles governing the prevention and cure of the disease. At the same time it must be admitted that the most important factors in the almost universal reduction in Scotland of the tuberculous death-rate during the past forty years were to be sought probably, in large measure, in greatly improved economic and social conditions. By the beginning of the summer it ought to be possible to admit phthisical cases to the City Hospital, if the town council so decided. The new pavilion, which had been designed with a view to the possible treatment of such cases, would then be ready.

SCOTTISH CREMATION SOCIETY.

The annual meeting of the Scottish Burial Reform and Cremation Society was held recently in Glasgow. Dr. Ebenezer Duncan was in the chair. The annual report stated that 28 cremations were carried out as compared with 26 in the previous year, making a total since the opening of the crematorium of 315. The Chairman, in moving the adoption of the report, said that in Great Britain the number cremated in 1908 was 871, compared with 715 the previous year. There were increases in all other civilized countries, and to a much greater extent. In Germany the number cremated in 1907 was 2,977, and it rose to 4,050 in 1908. He believed the reason why the number in Scotland was so small was that the corporations had not taken up cremation as a method for the disposal of unclaimed bodies and the bodies of the poor in parochial institutions. The method they adopted was burial in common ground. That was "pit" burial. It was a common thing for bodies to be taken up after years had passed, and the ground to be used over and over again. After referring to the provision of safeguards against premature burial, Dr. Duncan stated that the society was prepared to erect mortuaries and waiting-rooms on the model of those in operation in many large Continental cities as soon as the necessary funds were available. He also stated that the directors drew the attention of the local authorities and other custodians of graveyards throughout Scotland to the advantages of cremation, so that where old churchyards were being closed reservation might be made of the right to inter cremated remains. Steps would also be taken, when opportunity offered, to legalize the interment of cremated remains in all closed cemeteries. The report was adopted.

Since February last a provisional committee, with Professor Harvey Littlejohn as chairman, and Mr. J. D. Easson, B.L., as secretary, has been at work preparing the way for cremation in Edinburgh. A draft constitution is being prepared, and when it has been adjusted and adopted office-bearers will be elected, and later a public meeting held to further the ends in view. These are for the present to form and educate opinion, especially in the medical profession, on the advantages of cremation as against earth burial. It is not proposed at once to proceed to the erection of a crematorium in Edinburgh, though doubtless that will come in time. Already several members of the profession are showing their interest and sympathy, and offering their support.

Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

DUBLIN SANITARY ASSOCIATION.

AT a recent meeting of the council of the Dublin Sanitary Association the question of the prevention of spitting on the footways was under consideration. The practice, although probably not so common in the city of Dublin as in some other cities, is still sufficiently common to render the footways in many parts of the city most offensive, and has lately attracted much attention. It is, perhaps, most common in the neighbourhood of the cab-stands and some licensed houses. The council has been in communication with the public health and corporation officials of several of the larger cities in Great Britain, and has ascertained that spitting in public places has attracted the attention of all these bodies and that they are quite alive

to the dangerous nature of the practice. In none of the places, however, have the public authorities power to make spitting on the footways a punishable offence, although in some cities by-laws prohibiting spitting in public carriages and in places of public entertainment are in force. In Dublin by-laws making spitting in tramcars a penal offence are in force, and some of the railway companies have adopted similar regulations, but the Corporation of Dublin believes that it has no power to prohibit persons from spitting in the streets. The council of the Dublin Sanitary Association now suggests that the Corporation should obtain legal opinion as to whether it is possible, under the existing statutory powers, to make spitting on the footways a punishable offence, and, if it has not got this power, urges the Corporation to deal with the question at present by putting up notices throughout the city urging the people to refrain from spitting.

NOTIFICATION OF TUBERCULOSIS.

At the fortnightly meeting of the Public Health Committee of Dublin Sir Charles Cameron reported that only 15 cases of tuberculosis had been notified during the two weeks ending December 25th, 1909. Since the adoption of compulsory notification a total of 341 cases have been notified, 120 from public institutions. Of the remaining 221, notified by private practitioners, about one-half contained the words, "No immediate attention required." In such instances Sir Charles Cameron proposes to send a letter to the doctor who notified, asking if there is any objection to himself or other officer of the Public Health Committee visiting the patient or his family to offer assistance, such as disinfectants, spittoons, or to give him or them leaflets relating to precautions against the spread of tuberculosis. The wisdom of this step remains to be seen. We have no doubt that many doctors will be glad to accept the assistance thus offered, but in every case the patient's wishes ought to be distinctly ascertained.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

LONDON.

THE PUBLIC HEALTH IN 1908.

THE introductory remarks with which in recent years the Public Health Committee of the London County Council have prefaced the annual report of the County Medical Officer of Health[1] serve a useful purpose. Not only do they epitomize the report, but emphasize its more important features. The general arrangement of the report does not differ materially from that to which Sir Shirley Murphy has accustomed us for many years. The first part deals with the vital statistics of the county, and the second with administrative details. Freely interspersed among the pages of Part I are statistical tables and graphic charts, and, as appendices, are reports by Dr. Hamer on the prevalence of typhoid fever in Shoreditch and Bethnal Green in 1908 and on the nuisance from flies, by Dr. Wanklyn on cerebro-spinal fever, by Sir Shirley Murphy on homeless persons in London, and by Dr. Kerr on the administration of the medical department of the Education Committee of the Council.

Population.

The population of the administrative county as estimated by the Registrar-General to the middle of 1908 was 4,795,757. In connexion with the individual sanitary areas included in the county, the populations of which are estimated for the statistical purposes of the report by the Registrar-General's method, it is pointed out that in several instances there is a considerable variation from the population as estimated on April 6th, 1908, for the purposes of the Equalization of Rates Act. This Act provides that an estimate of population shall be made by the Registrar-General each year upon returns which the Local Government Board receive from the authority making the poor-rate in each parish showing the total number of houses entered in the rate book of the parish. The discrepancies in some of the metropolitan boroughs are considerable and show, for example, that what may be termed the statistical population of Stepney has been over-estimated by 22,000 persons, while that of Wandsworth has been under-estimated by as many as 29,000. The urgent need of a quinquennial census is thus once again made manifest.

Marriages.

The marriage-rate in 1908 was equal to 15.9 per 1,000 of the persons living. This is the lowest rate recorded in London since complete marriage statistics have been available. In 1907 the rate was 17 per 1,000, and in 1898 it was 18.9 per 1,000. The marriages of minors are decreasing in number in London, as they are in Englandand Wales.

Births.

Although the birth-rate of 25.2 per 1,000 of the total population was lower than has yet been recorded, it was only 0.4 per 1,000 below the rate of 1907. When calculated, as it should be, as a proportion of the married females living between the ages of 15 and 45, the legitimate birth-rate was 198 per 1,000, compared with 202 per 1,000 in 1907. It may here appropriately be pointed out that the decreasing number of births in London is being partially compensated for by the lessened infantile mortality. In 1908 there were 10,575 fewer births than were registered in 1898, in which year there were 8,070 more deaths of children under 12 months old than there were in 1908. If a comparison is made between 1906 and 1908, it is found that in the later year there were 2,582 fewer births and 2,364 fewer deaths of infants than in 1906.

Deaths.

The death-rate from all causes was 13.8 per 1,000 of the population, or, when corrected for sex and age, 14.5 per 1,000. It was the lowest rate yet recorded in London, and was below that which prevailed in any of the thirteen English towns having a population exceeding 200,000, with the exception of Bristol and Leicester. The death-rate in 1908 in St. Petersburg was 28.6; Rome, 18.5; Vienna, 17.6; Paris, 17.5; New York, 16.5; Copenhagen, 16.4; Berlin, 15.4; Stockholm, 14.7; Brussels, 14.5; and Amsterdam, 13.0. The death-rate in the different boroughs varied considerably. In Hampstead it was as low as 9.6 per 1,000, and in Finsbury it was 19.3 per 1,000. A very instructive table shows that the rate of mortality in London in 1908 was considerably lower than in the period 1891–1900 at each age-period of life, and for each sex, except at the period 85 and upwards. If there had been the same rate of mortality in 1908 as the mean rate in the ten years 1891–1900, there would have been 26,205 more deaths than actually occurred.

Infantile Mortality.

In the whole of London the infantile mortality-rate was 113 per 1,000 births, and in no less than fourteen of the boroughs the rate was below that figure, while in six it was below 100. The lowest rate was in Hampstead (69), where the birth-rate was 14.9 per 1,000 of the population; and the highest in Bermondsey (144), where the birth-rate was 32.5 per 1,000. As in the former years, more than one-third of the deaths of infants under 1 year old occurred during the first month of life. Sir Shirley Murphy points out that the infantile mortality-rate is extremely sensitive to influences which vary from year to year, and for the effects of which administrative effort can as yet but imperfectly compensate.

The results, therefore, of the efforts which are now being made to lessen infantile mortality must not be judged by the mortality of the moment. It is sufficient that these efforts should be rightly designed and properly applied, and there need be no feeling of doubt that when the accumulated experience of some

[1] Report of the Public Health Committee of the London County Council, submitting the report of the Medical Officer of Health of the County for the year 1908. London: P. S. King and Son. No. 1,299. p. 97, with 5 appendices, charts, etc. (3s. 6d.)

years is available it will prove them to be of value. The difference between the rates of infantile mortality in districts well and badly circumstanced socially is sufficient indication of the results which might be obtained if the infants of the less favoured districts had extended to them the same care as that bestowed upon infants of the better favoured districts.

As in former years, there was found to be a much higher mortality among young children in the most overcrowded districts than was the case in the least overcrowded. In the group of districts where there were 7.5 per cent. of the houses overcrowded the infantile mortality-rate was 91 per 1,000 births, whereas in the group where 27.5 per cent. of the houses were overcrowded the rate was 132 per 1,000. The test of overcrowding was that applied by the Registrar-General—a tenement of less than five rooms in which there were living more than two persons to a room. At the end of 1908 all but eight of the metropolitan boroughs had adopted the Notification of Births Act, and all but four had appointed either female sanitary inspectors or health visitors. Section 6 of the London County Council (General Powers) Act, 1908, provides for the appointment of health visitors, and enables the Council to contribute to their salaries.

Principal Epidemic Diseases.

Four cases of small-pox were notified during 1908, but, as the diagnosis was not subsequently confirmed, it may be said that London was entirely free from the disease during the year—a circumstance which has probably never before occurred. Although measles was not so prevalent as in the previous year, there were as many as 1,524 deaths from it, or nearly three times as many as were attributed to scarlet fever. The death-rate per 1,000 children living under 5 years from measles was 2.71. The effect of overcrowding upon the fatality of the disease is shown from the fact that the death-rate in the least overcrowded districts was 2.12 and in the most overcrowded 4 57 per 1,000. In Bermondsey and Stepney the rate was over 6 per 1,000 children living under 5 years of age. Whooping-cough was much less prevalent than in the previous year, when it was responsible for 1,786 deaths, compared with 984 in 1908. The overcrowded districts suffered most from the disease, though not to the extent noticeable in the case of measles. The death-rate in the least overcrowded areas was 2.29 per 1,000 children living under 5 years of age, and in the most overcrowded it was 3.31 per 1,000. There were 22,072 cases of scarlet fever notified, and 548 terminated fatally, giving a case-rate of 4.5 per 1,000 of the population, and a death-rate of 0.11 per 1,000. Of diphtheria there were 8,002 cases and 724 deaths, giving a case-rate of 1.6 per 1,000, and a death-rate of 0.15 per 1,000. The employment of bacteriological methods for administrative purposes continues to increase in London. In the twenty-three boroughs from which returns were obtained 8,229 examinations for diphtheria were made, and in 20 per cent. there was a positive result. The five boroughs from which no return was made were Kensington, Hammersmith, Hampstead, Southwark, and Camberwell. Two cases of typhus fever occurred during the year; both patients recovered. Of typhoid fever there were 1,357 cases and 225 deaths, giving a case-rate of 0.3 and a death-rate of 0.05 per 1,000. When discussing the localized prevalence of typhoid fever in poor neighbourhoods, with special reference to two outbreaks which occurred in the autumn months of 1908 in Shoreditch and Bethnal Green, Sir Shirley Murphy writes:

A point of considerable interest in the investigation of such occurrences is the extent to which enteric fever may be communicated from person to person. The view that enteric fever will spread by case-to-case infection is generally accepted; but the question needs careful consideration whether this can occur on the scale shown by the Shoreditch figures, if we are to regard the secondary cases occurring in houses as due entirely to infection from the first case, and, indeed, the so-called primary cases as also due to personal infection. The conditions which exist in the homes of persons of the class who suffered in Shoreditch are precisely those which would give opportunity for infection from person to person. On the other hand, persons attacked by enteric fever are removed from these houses as soon as the disease is recognized, and therefore are not exposing others to infection during the whole period of their illness. Mild and unrecognized cases no doubt remain, and these have to be thought of in estimating the amount of opportunity for case-to-case infection.

Phthisis.

The deaths from phthisis numbered 6,419, giving a death-rate of 1.32 per 1,000. The lowest rate was in Lewisham (0.87) and the highest in Finsbury (2.17). In the least overcrowded group of districts the death-rate was 1 06, and in the most overcrowded it was 2.08 per 1,000. Voluntary notification of cases of phthisis was in force in 1908 in all the metropolitan boroughs except Paddington, Shoreditch, Bethnal Green, Stepney, Poplar, Battersea, Camberwell, and Deptford. Sir Shirley Murphy considers that the direction in which improvement of London administration is especially needed is in the early detection and treatment of the disease.

It is not claiming too much to say that there should be skilled inquiry as to the health of all members of invaded families, and provision for this is still wanting in London generally. That it is often impracticable for the medical officer of health, in view of his other duties, to undertake this work personally is obvious to those who are familiar with the duties which now devolve upon him. The institution of dispensaries will not only render useful service in the treatment of recognized cases, but will in some degree provide the necessary opportunity for early diagnosis if the medical staff of such dispensaries act in effective co-operation with the medical officer of health.

(To be continued.)

WALES.

THE BARRY HOSPITAL.

WE gave an account some time ago (October 16th, 1909, p. 1188) of the origin of the Barry Hospital, and of the difficulties which had occurred with regard to the staffing arising out of the fact that in 1900 the hospital, originally established as an accident hospital for the benefit of the workmen at the docks, was taken over by the Barry Urban District Council, and subsequently enlarged into a general hospital providing twenty-two beds. Under the original constitution all the medical men resident in Barry were members of the staff, and entitled to treat patients in the hospital. In course of time, no new appointments having been made, and several new practitioners having entered the district, it came about that fewer than half the local practitioners were members of the staff. When the institution was converted into a municipal hospital, it was felt that the work of the hospital should not be performed by a selected staff, but should be open to all members of the local profession. The matter was referred to the Division, and by it to the Central Hospitals Committee, which drew attention to a resolution of the Representative Meeting expressing the view that the medical officers of a rate-maintained hospital should be paid for their services. The Division and local profession agreed to give effect to this suggestion, and the medical men resident in the district expressed the view that while they had been willing to give their services free to a voluntary hospital, they did not consider that they should do so in the case of a hospital entirely supported by the rates, as is the case with the Barry Hospital under its present constitution. The matter was considered by the Cardiff Division of the British Medical Association and referred to the Central Hospitals Committee, who instructed the Medical Secretary to visit Barry to obtain full information. With this in its possession, the Hospitals Committee recommended a scheme which arranged that each medical practitioner in the district who desired to serve, and who had been in practice there for six months, should act on the staff of the hospital in rotation, and that each should receive a fixed honorarium. As was stated when the matter was last noticed in our columns, the committee of the Urban District Council charged with the management of the hospital did not accept the proposal, and appeared disposed to recommend instead the appointment of resident medical officers. The matter has, however, since been the subject of further conference and consideration, and we are glad to say that at a recent

meeting of the Barry Urban District Council it was decided to accept the principle of a rota and of an honorarium to each medical man serving on it. The honorarium arranged is at the rate of £10 for each period, and the rota will be so arranged that the period of service of each member of the medical staff will not recur always at the same season of the year.

The resolution to accept the system was carried unanimously, and afterwards a vote of thanks was unanimously adopted to each of the medical men who had been on the staff of the hospital, expressing the council's appreciation of the work done by them. In moving this resolution, Councillor Manaton said: I should like to say a word in connexion with the medical work done at the hospital. We established the hospital many years ago, and the work has been carried out there by some of the medical men up to now without their being paid a single penny, and I think the town owes these men a deep debt of gratitude. They have discharged their duties faithfully; they have attended the hospital at all hours of the day and night, in many cases it must have been a great financial loss to them and considerable inconvenience, and I think the least we can do now is to pass a vote of thanks to those men who so faithfully carried out the work at the accident hospital. Councillor Levers, who said that he had great pleasure in seconding, observed that the gentlemen had been on the staff for many years, and had given their best. He had been in the hospital several times, and had heard the patients express their deep sense of gratitude for the way in which they had been treated.

MANCHESTER AND DISTRICT.

THE MANCHESTER INDUSTRIAL EXHIBITION.

THE Manchester Industrial Exhibition promises to be a special attraction of the coming summer. The organizers are the same as those who organized the Electrical Exhibition of 1908, which was visited in twenty-five days by over 300,000 people. The exhibition is to be of a very comprehensive character. Among the exhibits invited are those from firms dealing in appliances for sanitation, ventilation, lighting, food and cookery, and recreation and physical culture. Ample space is to be provided, free of charge, for demonstrating schemes for housing the poor, model houses, sanatoriums, crêches, etc., and it is stated that "a proportion of 5 per cent. of all moneys received at the turnstiles, without any deductions whatever, will be handed over for distribution among such Manchester charities as shall be decided by the honorary committee." Inquiries should be addressed to the Organizers, the International Trade Exhibitions, Ltd., Broad Street House, London, E.C.

THE French Government has appointed a commission to inquire into the condition of oyster beds in France, with the object of preventing the spread of disease by means of oysters. The chairman of the commission is the Inspector-General of Fisheries.

AT a meeting of the Illuminating Engineering Society at the Royal Society of Arts, Adelphi, on Tuesday next, at 8 p.m., Mr. J. Herbert Parsons, F.R.C.S., will open a discussion on Glare, its Causes and Effects. The chair will be taken by Professor Silvanus Thompson, F.R.S.

A DISTRESSING accident happened on December 31st, 1909, at Fulham, where a woman died from a dose of strychnine accidentally administered. It was stated at the inquest held by Mr. Luxmore Drew that a bottle of medicine containing strychnine had been given to her by a medical practitioner in mistake for a mixture of opium and chloroform. The doctor stated in court that he had made a mistake, and the coroner commended him on the frank and candid manner in which he had given his evidence. The jury returned a verdict of death from misadventure, and asked the coroner to bring to the notice of the Home Office the facts of the case, in order that legislation providing for the use of a distinctive form of bottle for poison might be brought about. The medical man concerned was represented by Mr. Leycester, instructed by Mr. Hempson, solicitor to the Medical Defence Union.

Special Correspondence.

BUDAPEST.

Professor Loeb.—The Medical Society.—Jubilee of Professor Politzer.—The Ophthalmo Reaction.—The Sick Club System.—Typhoid and Poverty.

THE professorial board of the Budapest University has unanimously resolved to ask the Minister of Public Instruction to invite Jacques Loeb, Professor of Physiology in the University of California, to occupy the Chair of Biology in the University of Budapest. This invitation is the outcome of his address on artificial parthenogenesis delivered before the International Medical Congress at Budapest, where he captivated his hearers, and where it was at once decided to win him for the Budapest University if possible. The Hungarian medical profession awaits the decision of the Minister, hoping that the present unfortunate political and financial position will not hinder the realization of the proposal of the professorial board, for financial difficulties are often rocks on which good plans make shipwreck.

The Budapest Medical Society, too, affords a sad example of the drawbacks of being short of money. The library, which has been augmented in recent years by hundreds of new books, suffered during last year an undoubted decadence, owing to the bad financial position of the society. Not only has the purchase of new professional publications been impossible, but it even became imperative to stop the subscriptions to some foreign periodicals. The next annual meeting is to be invited to cure this evil by raising the subscription of members, which will still be low in comparison with foreign societies, even if raised by 12 crowns (10s.) yearly. Members of the society resident in Budapest pay an annual fee of 30 crowns (25s.), while provincial members pay only 12 crowns (10s.), for which sum they receive the publications of the society free of charge.

Professor Politzer of Vienna, one of the best known ear specialists of the Continent, will shortly celebrate the fiftieth anniversary of his doctorate, and Hungarian doctors are preparing to celebrate the occasion, in order to show that Hungary feels esteem and reverence even for those of her sons who, like Politzer, earn distinction beyond the boundaries of their motherland. Politzer, although he has lived in Vienna, has never forgotten that he is a Hungarian. He has been in the habit of spending one month in every year in his native land; during these visits he has related to his fellow-countrymen the results of his latest investigations, and has always been willing to give instruction. The Hungarian celebration, which has been arranged by the Otological Society, will take place early this year.

Dr. Parassin has recently reported the results of an investigation of the value of Calmette's ophthalmo reaction in surgical practice; he finds that whereas in most cases there is a relation between the occurrence or non-occurrence of the reaction and the presence or absence of tuberculosis, the relation is not absolute. Failure to react does not exclude the possibility of the existence of an early tuberculosis, while a severe reaction may occur in a patient who is not suffering from tuberculosis in any form; neither is the method free from danger even after careful precautions are taken. It is therefore necessary to obtain the patient's consent before resorting to the use of the reaction. The reaction gives no information of value in prognosis.

The numerous sick clubs formed to provide their members with medical aid for a trifling sum, though they have paid the doctors very badly, have hitherto been confined to artisans and agricultural labourers; in fact, it was the custom of the various trades, such as shoemakers, tailors, grave-diggers, and so on, to form their own clubs. Lately, individuals belonging to a richer class have combined with the object of forming clubs; recently, for instance, journalists founded a club, and in spite of a protest from the medical profession, have succeeded in finding practitioners who have undertaken the work at the paltry remuneration offered. If this system of founding clubs for well-to-do persons continues, general practitioners will be deprived of their only source of income.

Clubs employ as few doctors as possible, and these men are overburdened with work, being often required to attend as many as twelve or fourteen hundred families.

The Minister of Public Hygiene has sent two sanitary commissioners to investigate a very serious epidemic of typhoid fever in several districts of the province of Bihar. The commissioners have arrived at the conclusion that the great severity and rapid spread of the disease is to be attributed to the low resistance of the people to disease, owing to bad hygienic conditions, chief among which is defective alimentation. The majority of the peasants, it is stated, live on maize bread and potatoes, eggs and meat being quite unknown to them. The Minister of Agriculture has in consequence decided to distribute fine wheat flour every month in the proportion of 50 kilograms to each family. The report paints vividly the misery of these unfortunate people. The methods of agriculture employed are very imperfect, the oxen and cows used for agricultural work of poor strains and ill nourished, and the implements most primitive. The yield from the soil is so low that it does not supply the necessities of the scanty population. The area involved consists mainly of meadow and pasture land with forests; the inhabitants are chiefly Roumanian peasants, whose consumption of alcohol is very high, most of them being habitual drinkers. There are 194 fast days in the year, when, however, the use of alcohol is not prohibited. It is believed that great improvement might be brought about by the introduction of fruit culture, aided by the State.

Correspondence.

GREATER BRITAIN AND THE ANNUAL MEETING, 1910.

Colonial Reception Committee.

SIR,—The Colonial Reception Committee is particularly desirous of bringing the Annual Meeting to be held in London in July next to the notice of all medical practitioners residing in the Dominions beyond the seas, as affording them an unusual opportunity of visiting London both for the scientific purposes of the meeting and also for social intercourse with their fellow practitioners throughout the Empire.

The Colonial Reception Committee, in conjunction with the Colonial Committee of the Central Council, desires, through the medium of the JOURNAL, to extend a very cordial invitation personally to all medical practitioners in the Colonies, and assures them of a hearty welcome to the Annual Meeting and to the capital of the Empire.

Great efforts are being made by these two committees to arrange such entertainments as it is hoped will meet with the approval of their colonial brethren and so add to the success of the meeting of 1910.—We are, etc.,

EDMUND OWEN, Chairman,
DONALD ARMOUR, Honorary Secretary,
of the Colonial Reception Committee.

429, Strand, W.C., Jan. 3rd.

PROPOSED MEDICAL BRANCH OF THE NAVY LEAGUE.

SIR,—A proposal has been made to form a branch of the Navy League which shall consist entirely of medical men, irrespective of political opinions. Our profession has lent invaluable aid to various movements in the past, and there is no object more worthy of our support than the one which deals with the first line of defence in this country. Knowing the exceptional opportunities which medical men possess of discussing questions with all grades of society, it seems only right that some organized attempt should be made by the profession to use these opportunities, and thus further the interests of an object which so closely affects the welfare of the Empire. The Navy League has proved of such value in this country that a similar organization has been founded elsewhere with such singular success that its membership now far exceeds that of the English League. We believe that if medical men choose to use the influence that they possess, they can do a great deal towards advancing the claims of this league, and it is with this end in view that we, the undersigned, have formed ourselves into a provisional committee for the founding of a medical branch of the Navy League.

The following are the rates of subscription:

	£	s.	d.	
Vice-Presidents	5	0	0	annually.
Fellows	1	1	0	,,
Members	0	5	0	,,

All medical men who wish to join this branch are requested to send in their names to Dr. Maurice Craig, 54, Welbeck Street, London, W., who will forward the necessary form of application for signature.—We are, etc.,

W. H. CLAYTON-GREENE.	E. D. MACNAMARA.
G. LENTHAL CHEATLE.	HERBERT S. PENDLEBURY.
MAURICE CRAIG.	HUGH M. RIGBY.
JOHN FAWCETT.	J. RISIEN RUSSELL.
ALFRED D. FRIPP.	LEWIS SMITH.
W. P. HERRINGHAM.	R. PERCY SMITH.
ARTHUR LATHAM.	J. M. G. SWAINSON.
W. T. LISTER.	H. CAMPBELL THOMSON.
	H. G. TURNEY.

BRITISH MEDICAL BENEVOLENT FUND.

SIR,—It is to be sincerely hoped that the appeal in last week's JOURNAL on behalf of the British Medical Benevolent Fund will receive the attention of the whole profession. It comes at an opportune time, inasmuch as we, as members of the British Medical Association, have all just received the Secretary's request for our annual subscriptions. In remitting this it seems a duty incumbent on all of us to send therewith also a subscription to the Fund. If each one of us were to do this to the extent of a modest ten shillings, the difficulties of the Fund would mostly be smoothed away. There seems no adequate reason why any of us should fail in doing so. For him who finds ways and means pressing, and who has difficulties in supplying the present varied wants of a family, the duty seems of paramount importance; obviously, if he be not able to make secure his own and his children's future welfare, it will be from such families that claimants on the Fund will most surely arise, and he should regard such a subscription in the light of a premium of assurance against the woes and sorrows of poverty and want.

From such of us as have none of these responsibilities and cares, or who may be so placed that ways and means give little or no worry, it is surely little to expect sufficient brotherly kindness and love for others less happily placed to make it a pleasant duty to send in this annual subscription.

The profession itself should be able and proud to do this for its own unfortunates—it seems so little to do—without appealing for funds from outside. Not one of us would do this for one's own family unless driven to do so by a compelling necessity. Let us have the same *amour propre* where the larger family of the profession is concerned.—I am, etc.,

January 3rd. W. H. L.

COLOUR BLINDNESS.

SIR,—In reply to the letter of Dr. C. P. Burd, in the BRITISH MEDICAL JOURNAL of December 11th, 1909, p. 1717, I may say that cases of colour blindness may be divided into two classes—namely, those who have defective hue perception, and those who have defective light perception for rays of certain intensity or wave-length. If, therefore, a case of colour blindness be examined in which only one of these conditions be present, it is obvious that the examiner will be puzzled if he be depending upon a theory which assumes that some definite light and colour perceiving substance be absent. Even those cases which at first appearance would seem to support the old reduction theories will on more careful examination be found to be totally inconsistent with them. Let us take, for instance, a case of defective perception for red, and a good example of this class of case is that of a well-known scientist who fails to see a red light or a red golf flag at a distance when it is the most conspicuous object in the field of vision to me. He cannot recognize tubercle bacilli stained red under a microscope unless they are in a mass. Here it would be thought that we had an example of a simple reduction form, but further examination shows that is not the case. He can see red quite distinctly when close to or when intense. When walking along the street a red light

at about a hundred yards loses its colour and simply appears as light, and then this disappears. When examined with my spectrometer he can, when the spectrum is bright enough, see to the extreme limit which is visible to me. When the intensity is reduced there is considerable shortening of the red end of the spectrum. This is particularly remarkable, as he now fails to see bright red light of much greater luminosity than the very feeble red which he has seen with the greater intensity. He can also recognize red light when it is bright enough with the periphery of his retina. When examined with the Holmgren test he passed with the greatest ease, matching all three colours without touching a confusion colour. The most punctiliously careful examiner would not have suspected that there was the least defect in his colour perception. He failed, of course, with my lantern.

It is the same with the peripheral retina. Only a day or two ago I saw in a recently published book on physiology the statement that there must be definite substances for different colours in the retina because of the colour fields found with the perimeter, but the facts are definitely opposed to this view, because all colours can be recognized to the periphery if bright enough. If a red perceiving substance were absent this would not be possible. I will now briefly allude to the class in which there is a definite defect of hue perception, and the light perception is the same as normal, in fact, true colour blindness. These cases I have classified as dichromic, trichromic, tetrachromic, or pentachromic. I have examined colour-blind persons who could read the coloured letters constructed for testing them at twice the normal distance. I have examined so-called red-blind who could see the faintest red light which was visible to me.—I am, etc.,

Hendon, Dec. 24th, 1909. F.W. EDRIDGE-GREEN.

FORCIBLE FEEDING.

SIR,—I should not have thought it necessary to reply to Dr. Cassels's letter on this subject had it not been for the offensive suggestion that "his (Dr. Kirby's) sympathies have somewhat obscured his judgement, and led him to discover ailments of which the patients themselves were apparently unconscious." But in justice to myself as well as to other medical practitioners who saw these ladies at the nursing home, it is necessary that I should make some further comments.

If Dr. Cassels thinks the term "force the tube through" is not justifiable I am willing to use the verb "pass"; but I submit that in cases where nasal feeding is necessary it is proper to examine the nares first to see if there is a prospect of the tube passing, so that there could be no question of force. It is not necessary for me to state any more about the condition of Miss Ainsworth's throat, as Dr. Cassels admits that he did not examine it, and I shall only say that, having had a personal experience of a stomach tube passed on myself, I have yet a vivid recollection of the discomfort in the throat and the considerable period for which it lasted. Has Dr. Cassels ever tried it?

The question of the cause of Mrs. Leigh's vomiting is an interesting physiological one, upon which we apparently must agree to differ, but I protest against Dr. Cassels suggesting that I said the stomatitis had anything to do with pharyngeal irritation. I said nothing of the kind. The stomatitis existed in connexion with a carious tooth, but its existence was proof of much lowered vitality.

Miss Hilda Burkitt was, I repeat, in a very weak state of health when she left the prison. It is not very ingenuous of Dr. Cassels to narrate how well she was nursed back to health after her second hunger strike, and to omit all mention of a third one. He omits also any allusion to the state of her heart, and to the attack of acute indigestion from which she suffered, and which was the point in her case.

That Miss Martin never complained of her dyspepsia is no proof that she did not suffer from it. She never asked for the attention of the doctors for feeding even, and it was part of what she conceived to be her duty in protesting, not to assist them in any way. I can pass over Dr. Cassels's suggestion that the dyspepia was due to injudicious feeding afterwards, but I must say I am surprised to find him endeavouring to cast doubt on the existence of the abrasion of the mucous membrane of the nose. It seems to me that he owes an apology to the eminent specialist whom I called in, and who swore to the facts in an affidavit.

The whole point of my letter in the JOURNAL of December 25th, 1909, was to show that all these ladies suffered some definite injury from the system of forcible feeding adopted at the gaol, and that these injuries were not the fault of the doctors, but of the system.—I am, etc.,

Birmingham, Jan. 1st. E. D. KIRBY.

*** We are prepared to receive from Dr. Cassels corrections of any matters of fact upon which he considers that his statements have been misunderstood, but further discussion of the cases of these ladies would, it is considered, be out of place.

PRISON DOCTORS AND THE HOME OFFICE.

SIR,—It is futile to argue with a person whose only dialectic method is that of giving the lie direct. I therefore desire merely to reaffirm the absolute accuracy of the statements in my letter published in the JOURNAL of December 25th, 1909, which are first misstated and then denied by Sir Victor Horsley.

It matters not one whit in this regard whether the Home Secretary is the malicious politician or I the contemptible official represented by Sir Victor Horsley. The persons really attacked by him are the medical officers of prisons, against whom he makes the grave accusation of allowing themselves to be forced into malpractice by superior authority.—I am, etc.,

London, W., Jan. 3rd. H. B. DONKIN.

PART-TIME MEDICAL OFFICERS OF HEALTH.

SIR,—I am pleased to see the expressed views of Drs. Belilios, Crookshank, and H. E. Gough, and that this matter seems to have aroused some well-deserved interest among general practitioners, for I do not think that the interests of a large body of general practitioners were adequately considered or even discussed by the Representative Meeting at Belfast. At that meeting I endeavoured to put forward the claims of the part-time medical officer in the interests of the general practitioner, as the Representative of a Division composed entirely of general practitioners, and in seconding an amendment to the resolution was the sole supporter of the proposer (Dr. Pullon, of Burnley); not another vote was given to altering that resolution as it now stands in the minutes.

I believe that other Divisions, when the matter was first referred to them, voted as we in West Norfolk did—that is, that whole-time medical officers of health were desirable *in large boroughs and large towns*. The insertion of these words, or some to the like effect, formed Dr. Pullon's amendment; then why did no other Representative vote for it? I ask with all due deference to the Representatives, and simply for information. Is it that the general practitioner is not adequately represented at the meetings, or is it the policy of the Association gradually to extinguish the general practitioner, who requires the emoluments of various appointments to help eke out a living, in favour of State medical service, whole timers, and specialists of every description? There are many who will agree with Dr. H. E. Gough that we should leave as few offices to whole-time officials as possible.

Again, Sir, why so much of "in the interests of public health"? The interest is by no means proved. Why cannot we consider our own interests a little more? If the policy of our Association is always in the interests of somebody else, we shall soon legislate and philanthropize ourselves out of existence.

I have heard men who decline to join the Association say in effect: "If you of the Association employed your superfluous energy in fighting the common foe—namely, quacks, prescribing chemists, etc.—instead of trying to deprive one another of your jobs, dictating to one another how you shall run your practices, how you shall treat ophthalmia neonatorum, uterine cancer, etc., you might do more 'in the interests of public health,' and incidentally for yourselves." I yield to no one in my admiration for the work the Association has done, but it is well to learn the views and reasons of those who decline to join us, now that it is so important to make the Association solid and powerful; and there are murmurings within!

It does seem that a drastic resolution of policy such as

that under discussion, affecting over a thousand practitioners in England and Wales, tends towards disintegration of the Association, and will not encourage recruits, unless some additional reason be given for it to the debatable one of "in the interests of public health."—I am, etc.,

Downham, Norfolk, Jan. 3rd. EDWARD G. WALES.

SIR,—I am very pleased to see that at length the "part-timers" are bestirring themselves. The letters of Drs. Belilios, Crookshank, and Gough were most timely.

If we are to protect ourselves, it is most essential that we should be organized. It is abundantly evident that neither the British Medical Association nor the Society of Medical Officers of Health are going to render us any assistance. On the contrary, the British Medical Association is apparently wishful to give us the "happy dispatch" with all speed.

What is our Association doing to protect and further our interests? In the county of Cheshire we have six municipal boroughs, thirty-six other urban districts, and twelve rural districts. All the medical officers, excepting three, are part-timers. Thus for Cheshire alone a strong association of part-time medical officers could be formed, and I feel certain that the present position needs only to be placed before them for steps to be at once taken. I should be pleased to join such combination, and would do what I could to induce my fellow medical officers in East Cheshire to do the same.—I am, etc,

Macclesfield, Jan. 2nd. J. HEDLEY MARSH.

THE PREPARATION OF SOURED MILK.

SIR,—I should like to point out that the method advocated by Dr. Luke of using some of the previous day's curdled milk to inseminate the fresh brew is theoretically unsound, and likely to lead to untoward results. It is one of the first things that it is necessary to impress upon patients that they must *never* do this. As a rule, they invariably ask if they may, on the score of economy. In milk soured with that of the day before, after a very short time the Bulgarian bacilli will be outgrown by other less useful organisms. If Dr. Luke will examine his soured milk microscopically after a week's preparation in this manner, he will be astonished at the small number of Bulgarian bacilli and the large number of other organisms which he will find. The fact that he obtains a curdled milk in about five hours is of itself suspicious, as the Bulgarian bacillus takes far longer to produce this result. Of course, many organisms will curdle milk in this time, and if it is required solely for its food value, there can be no harm in using an innocuous organism like the Günther or Hueppe, which do so. But in this case we must not delude ourselves with the idea that any intestinal antisepsis will result, as, unlike the Bulgarian bacillus, they will probably be destroyed in the stomach.—I am, etc.,

London, W., January 3rd. GEORGE HERSCHELL.

*** In Bulgaria and Turkey, sour milk, which is an almost universal article of diet among the peasants, is prepared by putting a little of the previous day's brew into scalded milk, and leaving the vessel close to a charcoal or wood fire for twenty-four hours. It ought not to be impossible to obtain the same result in this country.

THE MEDICAL PROFESSION AND PARLIAMENTARY REPRESENTATION.

SIR,—As one of the twenty-four medical candidates for Parliament, and the only medical officer of health in your list published last week, I venture to offer a few comments on the circumstances that have compelled me at the last moment to withdraw from the Conservative and Unionist candidature for Rotherhithe.

On December 21st, 1909, my attention was drawn by my opponent to the fact that by Section 83 (*h*) of the Local Government Act, 1888, "no paid clerk or other paid official in the permanent employment of a county council, who is required to devote his whole time to such employment, is eligible to serve in Parliament." The opinion of leading counsel was taken, and it was clear that I could not therefore be nominated on January 13th next, unless I could resign my post by that date. This was found to require a special meeting of the Hertfordshire County Council, the presence of a quorum, their acceptance of my resignation without the required three months' notice, and the final sanction of the Local Government Board. The chances against my resignation being made valid compelled me to withdraw, and so to allow another candidate to be selected in time to make a good fight for the seat. Moreover, it was impossible to make immediate arrangements for securing some other employment to meet at least part of the loss entailed. The fact that this disability was not earlier known, either to the many leading political, legal, or county council authorities, or to the textbooks on electoral law, is a striking comment on the confused system of legal record in use. The marginal title of the said Section 83 is "Clerk of the Peace and of County Council."

It is almost as easy for a camel to pass through the needle's eye as for a medical man in active consultative work to become a member of Parliament. A good representative of the profession should have been engaged in a large sphere of work. To become an effective force in politics he should be in Parliament before he is 40. For general practitioners and clinical consultants the time involved in nursing a constituency is a complete bar. District medical officers of health are equally debarred. County medical officers of health must now give their "whole time" to their official duties, and are disqualified. It is left for the medical profession to be represented by those who have retired on pension, or are possessed of sufficient private means or have taken up commercial or legal work. And yet leaders of commerce and the law can continue their special work while at the same time engaging in active politics.

Is it not for the advantage of the community that medical men should be represented in both Houses of Parliament, in both political parties, and by men qualified to undertake the work as their sole occupation from an early period of their career? How may this be effected? For three and a half years I have been busily nursing this constituency. It has involved much work, mostly at night, wearisome but not without interest, and an expenditure of £300 a year. An election would have involved an additional expenditure of £800. Part of the election expenses are in special cases defrayed out of party funds.

It would seem necessary, therefore, to raise a fund by voluntary levy to support representatives, chosen between the ages of 30 and 40 as men of professional merit, sound judgement, and strong political convictions, to devote their lives to this work as to any other speciality in the profession. A sum of £700 a year would probably be necessary for each candidate to pay his current political and his occasional electioneering expenses, and to supplement any private income he may have; £1,400 a year and £100 for the organization required might thus secure two candidates, one in each party, the appointments to be made immediately after a General Election, to last till after the next and then to be renewable; the provisional selection of candidates, to be adopted by a vote of all subscribers, being entrusted to a committee of the profession, to be similarly elected. The sum required would entail an average subscription of under 1s. per annum for every medical man on the register.

By some such scheme I would suggest that the medical profession might be adequately represented in the House of Commons. Their representation in the Second Chamber would follow. Is it possible to inaugurate some such scheme?—I am, etc.,

London, S.E., Jan. 5th. F. E. FREMANTLE.

MR. POMEROY AND VACCINATION.

SIR,—In the letter from the Hon. Ernest Pomeroy, which appeared in the BRITISH MEDICAL JOURNAL of December 18th, 1909, p. 1783, I am referred to as having observed to the deceased girl, Rose Sandell, "you were a bright bonny girl before you were vaccinated." I merely wish to state that I neither made such a statement nor was likely to have done so, as R. S. was a frail-looking girl of distinctly neurotic type, like the other members of her family I have seen so far. I should not trouble to allude to anything Mr. Pomeroy might write were it not that his attempt seems to be to quote me as reflecting on the vaccination as a cause of the poor girl's condition.—I am, etc.,

Clifton, Dec. 29th, 1909. F. ST. JOHN BULLEN.

Universities and Colleges.

UNIVERSITY OF LONDON.

MEETING OF THE SENATE.

A MEETING of the Senate was held on December 15th, 1909.

Recognition of Teachers.

The following teachers were recognized as teachers of the university in the subjects indicated:

University College.—Dr. Frederick N. K. Menzies (hygiene).

St. Thomas's Hospital Medical School.—Mr. Ernest M. Cutting (biology), Dr. John Mellanby (physiology).

Westminster Hospital Medical School.—Dr. Eric D. Macnamara (medicine), Mr. James M. G. Swainson (clinical surgery).

St. George's Hospital Medical School.—Mr. Francis E. Fremantle (hygiene), Mr. Robert R. James (ophthalmic clinical surgery), Dr. E. Ivens Spriggs (pharmacology).

National Hospital for the Paralysed and Epileptic.—Mr. Sydney R. Scott (aural surgery).

Probationary recognition has been granted to Mr. Gordon C. M. Mathison as a teacher of physiology at University College.

University Extension Lectures.

Mr. J. Lionel Tayler, M.R.C.S., L.R.C.P., has been included in the panel of university extension lecturers in the department of medical sociology.

Readmission of Graduates to Convocation.

It was resolved:

That up to the receipt of the writ to be issued in connexion with the forthcoming election of a member of Parliament for the university the Vice-Chancellor be empowered to readmit to convocation all applicants who have fulfilled the statutory conditions, the name of each person so admitted to be reported to the Senate at their next meeting.

Research Scholarship in Craniology.

The Senate accepted with thanks an offer from Mrs. Norman-Robinson to found a scholarship in craniology and anthropometry tenable in the biometrical laboratory of University College, in memory of the late Dr. R. C. Benington. Regulations for the award of the scholarship will be issued at a later date.

Gilchrist Studentship for Women.

The Senate will proceed shortly to an appointment to the Gilchrist studentship for women of the annual value of £100, tenable for one year by a graduate of the university who is prepared to take a course of study in an approved institution in preparation for some profession. Further particulars can be obtained from the Principal, by whom applications must be received not later than February 28th, 1910.

Advanced Lectures in Physiology.

The following course of lectures have been arranged during the second term:

1. Eight lectures on the rate and conditions of chemical change, in the Physiological Laboratory of the University, by V. H. Veley, D.Sc., M.A., F.R.S., on Fridays at 5 p.m., beginning on January 21st.

2. Eight lectures on the physiological action of light, by W. M. Bayliss, D.Sc., M.A., F.R.S., at University College, on Fridays at 5 p.m., beginning on January 21st.

3. Eight lectures on recent progress in physiological chemistry, by O. Rosenheim, Ph.D., and F. S. Locke, M.D., at King's College on Mondays at 4.30 p.m., beginning on January 24th.

4. Eight lectures on the physiology of the skin, by M. S. Pembrey, M.D., at Guy's Hospital, on Thursdays, at 5 p.m., beginning on January 20th.

Courses numbered 2, 3, and 4 have been recognized by the Senate as courses of advanced lectures which a candidate at the B.Sc.(honours) examination in physiology may name for part of his practical examination.

The course of lectures by Mr. Hardy announced to be given at the university during the second term has been postponed.

Lectures by the Professor of Protozoology.

A course of fourteen lectures on protozoan parasites, with special reference to those of man, will be given at the Lister Institute of Preventive Medicine, Chelsea, by Professor E. A. Minchin, on Mondays and Thursdays at 5 p.m. during the second term, commencing on January 17th. The course is intended to provide instruction (*a*) to students past the intermediate stage—that is, to those preparing for the B.Sc. examination, pass or honours, or taking protozoa as a special subject for the B.Sc. examination, or to those preparing a thesis upon the group for the D.Sc. degree; (*b*) for medical men and others interested in the practical aspects of protozoology. The course is open free (1) to all members of the university, (2) to medical men or registered medical students, (3) to other persons who may obtain tickets on application to the Academic Registrar.

Degrees.

The following candidates have been approved at the examination indicated:

FIRST M.B., B.S.—G. A. Bird, ¶ Marjorie A. Blandy, Marion M. B. Burt, N. St. J. G. D. Buxton, F. H. L. Cunningham, J. H. Dancy, ¶ R. F. Fagan, R. Fazan, V. Feldman, J. Fielding, * S. L. Green, H. L. H. Greer, H. E. Griffiths, W. A. E. Karunaratne, R. H. Leigh, G. T. Loughborough, H. J. McCurrich, O. S. Martin, †¶ S. Miller, L. D. Phillips, J. S. Ranson, T. W. Robbins, P. D. Scott, J. H. Sewart, W. G. Shakespeare, H. J. D. Smythe, J. H. Staley, R. S. Stewart, A. L. Stokes, E. B. Sunderland, J. B. Thackeray, H. Q. F. Thompson, ¶ M. S. Woolf, ‡ J. P. Bracken, ‡ Gwendolyn M. Burns, ‡ E. J. Coombe, ‡ T. W. David, ‡ H. H. Fisk, ‡ F. B. Gilhespy, ‡ T. W. Robinson.

* Distinction in Inorganic Chemistry.
† Distinction in Physics.
¶ Distinction in General Biology.
‡ Completed the examination under the old regulations.

UNIVERSITY OF EDINBURGH.

Annual Report.

THE annual report for 1909 states that the total number of matriculated students was 3,322, including 594 women, and that of this number 1,386, including 27 women, were enrolled in the Faculty of Medicine. The degrees of M.B., Ch.B. were conferred on 180 persons, that of M.D. on 70, that of Ch.M. on 2, and those of M.B., C.M. on 1. The diploma in tropical medicine and hygiene was conferred on 8 persons. The report makes references to the changes in the staff of the university, all of which, as far as they affect the medical faculty, have already been noticed in our pages. The gifts of Emeritus Professor Chiene of his surgical museum, diagrams, and laboratory apparatus, and of Mrs. Anderson, widow of the late Dr. John Anderson, of £100 for the purchase of books for the department of anatomy, are referred to. The Crichton Research Scholarship Fund has increased, so as to permit the institution of an additional scholarship of £100 a year, raising the number of these scholarships in the Faculty of Medicine to five.

Medico-Legal.

PARTNERSHIP RECEIPTS.

JUSTICE.—One of the partners in a medical firm, where the profits of the whole practice are equally divided, is asked to examine the members of a "home nursing class," for which a fee of one guinea is paid. Is the fee earned by him to be reckoned a part of the profits of the firm, and consequently to be shared with the other partners?

*** We are advised that this fee ought to be reckoned with the other professional receipts of the firm and divided in the same manner.

FEES IN THE CASE OF LUNATICS.

A CORRESPONDENT who has recently certified a private lunatic and has had some difficulty in getting his fee wishes to know who is responsible. He also asks what is the usual fee in such cases.

*** A very usual fee is 1 guinea, and our correspondent can claim payment from those legally responsible for the care of the lunatic.

A PARTNERSHIP AGREEMENT.

R. M.—A., a practitioner in indifferent health, sells one-third of his practice to B., with an option of purchasing up to a half share at the end of five years, and with further permission at the end of seven years to practise for himself in the district. At the end of three and a half years B. finds that he will be unable to purchase the half share, and wishes to practise for himself in the district at a distance of about three hundred yards from A.'s residence. We are asked what would be a fair compensation to pay to A. under such circumstances.

*** If the contract of sale had been properly drawn up, it should be impossible for B. to do as he proposes without A.'s consent. In that case A., as is only right, would be the judge as to what was a fair compensation. On the data given, it would be quite impossible for any outsider to estimate the proper compensation.

A MEETING of the General Council of King Edward's Hospital Fund for London, at which the proceedings were for the most part purely formal, was held on January 3rd, Sir William Church in the chair. A letter received by the honorary secretaries from Sir Arthur Bigge was read stating that, as President of the Fund, the Prince of Wales had reappointed the Finance Committee as before constituted; that Lord Richard Cavendish and Mr. Danvers Power retired from the Executive Committee, and that Mr. Sydney Holland and Dr. J. R. Bradford had been appointed thereto, and the other members reappointed. To the Distribution Committee were appointed Mr. Danvers Power, Dr. F. H. Champneys, and Mr. Y. R. Eccles, and the other members, with the exception of the Rev. Canon Barnett, who retires, were reappointed. To the Convalescent Homes Committee was appointed Dr. Fowler, Mr. Alfred Willett and Sir Richard Havelock-Charles retiring, the other members being reappointed. The resolutions providing for the work of the Fund for 1910, approved at the meeting on December 13th, as reported in the SUPPLEMENT to the issue of this JOURNAL for December 18th, 1909, were formally adopted.

Letters, Notes, and Answers.

BRITISH MEDICAL ASSOCIATION AND BRITISH MEDICAL JOURNAL.

The offices of the British Medical Association and of the British Medical Journal are at 429, Strand, London.

Communications respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisements, non-delivery of the Journal, etc., should be addressed to the Office, 429, Strand, London, W.C.

Telegraphic Address.—The telegraphic address of the EDITOR of the British Medical Journal is *Aitiology, London.* The telegraphic address of the British Medical Journal is *Articulate, London.*

Telephone (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* British Medical Journal *alone unless the contrary be stated.*

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

Correspondents who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

Correspondents not answered are requested to look at the Notices to Correspondents of the following week.

Manuscripts forwarded to the Office of this Journal cannot under any Circumstances be Returned.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted will be found under their respective headings.*

QUERIES.

Headache after Sleep.

Cambria would be glad of suggestions for the treatment of headache in a gouty male patient, aged 67. The headache seems to depend entirely upon sleep. It is always present on waking, whether the sleep is in bed at night or upright in an armchair during the day. It is very severe, but gradually subsides in the course of an hour or two.

Hair Washes containing Lead.

M. S. writes: Two lady patients of mine have been for some years using a hair wash containing two grains of acetate of lead to the ounce and with satisfactory results as far as the colour is concerned. I wish to know if with ordinary precautions there would be any risk of lead poisoning; and if so, in what manner it would be likely to manifest itself? The hair is washed about once in two months so that the lead may not accumulate on the scalp.

*** There is a possibility of lead poisoning supervening in course of time, especially as eliminating organs become inadequate. The patients should certainly be watched from this point of view for any symptoms of plumbism. Lead preparations may be used for the hair (as dyes) for quite a long time without any trouble arising, but ill effects may occur unexpectedly unless strict observation is kept. On the whole lead salts are best avoided for long-continued use.

ANSWERS.

Proteus Vulgaris and Penicillium Brevicaule.

Dr. Arthur G. Bagshawe (Director of the Sleeping Sickness Bureau, Burlington House, W.) writes: "A. R. B." (British Medical Journal, December 25th, 1909, p. 1832) will find part of the information he seeks in a paper by Galli-Valerio published in the *Therapeutische Monatshefte*, 1909, April, vol. xxiii, p. 239. A summary of this was published in No. 6 of the Bulletins of the Sleeping Sickness Bureau (p. 229.)

Guernsey Sunshine, 1909.

Dr. Hy. Draper Bishop (M.O.H., States of Guernsey), writes: During the past gloomy year 1,967 hours of sunshine have been registered in Guernsey. I think this means that Guernsey holds the record for the year in the British Isles, as it has on many previous occasions.

Poisoning by Nitroglycerine.

178-7.—We have not been able to find a record of any case of poisoning by absorption of nitroglycerine through the intact skin under the circumstances mentioned. Information on the general subject may be found in the Departmental Committee's Reports on Compensation for Industrial Diseases, and the Minutes of Evidence; *Diseases of Occupation from the Legislative, Social, and Medical Points of View*, by Sir T. Oliver. (London: Methuen and Co., 10s. 6d.); *Dangerous Trades*, by Sir T. Oliver (London, John Murray, 25s.); Reports of H.M. Chief Inspector of Factories.

LETTERS, NOTES, ETC.

Asylum Appointments.

Senior Medical Officer writes: There appears in the Journal for January 1st, an advertisement for an assistant medical officer for a "county asylum," for which post it is necessary to apply through an agent. For various reasons there has of late been a difficulty of getting and keeping suitable men in asylum work, and so certain authorities have adopted this method of obtaining their medical officers—perhaps to avoid notoriety. The man who gets appointed has naturally to pay the agency fees, which is not quite fair considering the post is a public one. A post, as this, should be advertised by the asylum authorities themselves, and if no suitable applications are received, the committee will often find some unsatisfactory condition present, which could be readily rectified to the improvement of the service. I write this letter, for I have come across men who have obtained their appointments through an agency with unhappy results.

A Protest.

Mr. A. P. Bacha, M.B. (London, S.W.), writes: Kindly allow me to protest, through the Journal, against the publication of a flattering short sketch of my career in one or two lay papers in Bombay simply because I happened to pass a certain examination. One cannot rightly object to the publication of examination results, but when these editors take upon themselves to publish biographical sketches of some of the medical men which may amount to anything from a small paragraph to one or two big columns, and often accompanied with their photographs, they forget that they are doing a very great harm to the medical men concerned, and are violating their best and sacred ideals of professional conduct and etiquette. I myself would not have cared to take notice of this, but unfortunately this custom had grown to such an extent that it has become a positive evil, and, what is more to be regretted, is that so far, to my best knowledge, there is no united or individual protest from among the medical profession in Bombay against the same, which is nothing short of an advertisement.

What is a Fluid Wedge?

Dr. P. D. Strachan (Philippolis, Orange River Colony) writes: It would be well if questions of dynamics in medical textbooks were always as rigidly and as lucidly treated as a particular one has been treated by Dr. Stanley Colyer and by Dr. Gill in the British Medical Journal, November 20th, 1909, pp. 1456–1457. On p. 1456 occurs the following quotation from Galabin: "The mechanical action of the dilating part, as it is pressed into the cervix, is that of a wedge; a fluid and uniform wedge in the case of the bag of membranes," etc. Now I submit that the mechanical concept, "a fluid wedge," at least as it is used here, is an absurdity. It is because the bag of membranes is not a wedge, and the solid presenting part is, that there comes to be such an enormous difference between the dilating pressures exerted by them when the os is nearly fully dilated. As is clearly shown in the graphic diagram of Dr. Colyer, as well as in the formulae developed by Dr. Gill, the dilating pressure per unit area exerted by the bag of fluid is always finite, and can never become greater than the pressure in the fluid itself, whereas the dilating pressure of the real wedge (solid presenting parts) may become theoretically infinite, practically irresistible. Thus $\frac{F}{\pi r^2} \times \frac{a}{r}$ will not become greater than $\frac{F}{\pi r^2}$ so long as the condition holds that a is not greater than r—that is, radius of os not greater than radius of head but $\frac{Fa}{\pi r (r^2-a^2)}$ tends to become infinite as a approaches r in value. Dr. Gill, in fact, treats the head as a wedge, and the bag of membranes as a bag of fluid simply.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page	8	0	0

An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

Note.—It is against the rules of the Post Office to receive *postes Restante* letters addressed either in initials or numbers.

An Address
ON
DISEASES OF THE ORIFICES OF THE BODY.

WITH REMARKS ON LATENCY IN DISEASE AND OVERLOOKED INFECTIONS.

DELIVERED BEFORE THE TOTTENHAM DIVISION OF THE BRITISH MEDICAL ASSOCIATION.

BY PETER DANIEL, F.R.C.S.,
SENIOR SURGEON, METROPOLITAN HOSPITAL; SURGEON, GORDON HOSPITAL; ASSISTANT SURGEON, CHARING CROSS HOSPITAL.

FROM time to time every clinician is confronted with cases suffering from some atypical complaint, or one the origin and explanation of which baffles all attempts to elucidate. Often, unfortunately, such cases end in an autopsy, and then one of two verdicts is usually arrived at: (1) A negative one, *no satisfactory or sufficient cause found;* or (2) some simple explanation is forthcoming, and this in the vast majority of cases is an overlooked infection of some one or more of the various small accessory sinuses of the mouth, nose, or ear, etc.—that is, some cul-de-sac of the gastro-intestinal or genito-urinary tracts; *invariably one of the mucous surfaces of the body* is at the root of the evil. Further, the infection in the vast preponderance of cases consists of one of the group of cocci, generally the streptococci[1] and staphylococci,[2] very often the pneumococci,[3 4] not infrequently the gonococci.[4]

When we remember that in the majority of cases *post-mortem* examinations are incomplete, often necessarily so, and that, consequently, such anatomical structures and situations as the whole of the nasal accessory sinuses, the lacrymal duct and sac, portions or the whole of the urethra and prostate in the male, the vulva and urethra in the female, the middle ear, and even the tonsils, may be entirely overlooked, or examined in a perfunctory manner; when, in addition, we remember that many septic infections of mucous membranes leave only slight evidence in death, and this often equivocal, and easily confounded with vascular *post-mortem* changes, we cannot be surprised that, in the search for causes of disease, many of the perplexing clinical cases are equally baffling *post-mortem* subjects, and the verdict, "No cause found," so frequently results.

When we recall how long and completely overlooked in *post-mortem* investigations, even when conducted by skilled pathologists, was the rôle of the appendix, we should not be surprised at the overlooking of a septic follicle of the tonsil, an empyema of the antrum, an alveolar abscess, or a quiescent urethral and bladder infection, as the origin of a train of symptoms which culminated in the death of the patient.

The severe diarrhoea of infants practically leaves no trace in the intestine—at the most a small amount of injection of the ridges of the mucosa, visible and of value only to the pathologist alive to and in search of such evidence, and then *really* valuable only when associated with the clinical history—yet there can be no question of the vast mortality directly due to entero-colitis in infants,[5] nor of the profound effects of entero-colitis upon the growth and development of children. Herter[6] describes physical deterioration of a marked type which he calls *infantilism associated with intestinal disorders.* Stricture of the urethra, with its well-marked clinical manifestations and grave consequences, leaves very little evidence *post mortem.*

In dealing with this question of *disease*, one deals with it broadly; each and all of us succeeds in diagnosing a typical appendicitis, typhoid or tuberculous lesion, but it is the thousand and one illnesses which we cannot label, and the many small lesions which precede the invasion of the body by such master bacilli as the typhoid and tubercle bacillus, and which perform the pathological spade work whereby such well-defined bacteria are *able* to invade the body and successfully thrive in its organs and tissues.

Do we diagnose these? The why and the wherefore of the onset of disease? There can be no doubt *multiple* blood infections produce graver lesions and more rapid multiplication of bacteria.[7]

Immediately attention was directed to appendix diseases, all and sundry *perceived* its importance and frequency, and the rôle it played in hitherto obscure or anomalous abdominal lesions. Similarly, when the fact is widely recognized that the small mucous membrane diverticula are the source of a great number of obscure illnesses and pathological processes,[8] the state of the oral, nasal, genito-urinary passages, etc., will be more closely examined, and the explanation of many clinical puzzles elucidated.

Post-mortem findings being so often ineffectual in explaining certain types of illnesses, partly because they leave so little evidence, we have to rely for our proofs of the justness of the statements about to be formulated *upon the successful result of treatment in life*, and this, in my opinion, is the best of all proofs, granted such results are consistent and invariable, not sporadic.

Sir Clifford Allbutt, in referring to this type of proof, says:

> The chief therapeutic knowledge is empirical but it must be of the best kind—namely, that of experience.[9]

In dealing with my subject I would do so in the spirit which holds when, in referring to finance, we say: "Take care of the pennies, the pounds will take care of themselves." The diseases I particularly wish to direct attention to form the pennies of ill health, the typhoids and tuberculoses the pounds.

As I hope to adduce evidence—to me conclusive—in support of the statements made, I will immediately formulate certain *axioms*[10] which I have found to stand the test of investigation, of treatment, and time.

1. That the vast majority of "everyday" pathological processes are the result of, that is, are due to or secondary to, *diseased orifices.*

2. That all orifices are concerned, but the important ones are (*a*) the mouth and nose, (*b*) the urethra, (*c*) the vulva.

3. That the bacteria chiefly concerned are the *cocci*, and their rôle is threefold.

   (*a*) They give rise directly to disease—that is, they are specific—and the processes set up by them may broadly be called the "septic processes."

   (*b*) They so break down the resistance of the body, both locally and generally, that other pathogenic bacteria are enabled thereby to invade successfully the organs and structures of the body.

   (*c*) They co-operate with and increase the destruction and toxaemia due to other bacteria.

4. That an enormous number of the diseases which *make themselves manifest* in adolescence and adult life originated—that is, commenced—during infancy.[6 27]

5. While I see very little evidence in favour of the heredity of disease, I am firmly convinced that some of the graver diseases are *congenital*;[11 12] that is, the fetus is inoculated via the placenta—antenatal infection. Also that if the mother is the subject of these orificial septic processes the toxaemia must profoundly affect the well-being of the fetus *in utero*.[13 14]

6. That repeated small infections and intoxications—that is, repeated doses of bacteria or their toxins, taking place over an indefinite period of time, while each infection may be, and usually is, ineffective in producing a definite set of symptoms, and thus calling attention to what is taking place—*ultimately* give rise to pronounced and violent disorders, polymorphic in their manifestations, often culminating in virulent septico-pyaemia.

> Rabbits need a large dose of meningococci to kill them; if instead of one large dose smaller doses of meningococci are given at hourly intervals, a much smaller total amount of culture suffices to kill the animals, and this method brings about death with greater regularity.[15]

7. That a large number of *symptoms* are set up in distant parts of the body by toxins developed in some overlooked local nidus of disease,[16] and that these symptoms are designated by definite names, leading the unwary to assume that they are definite entities, definite diseases in themselves, primary in origin, and not what in reality they are—*secondary symptoms.*

8. That orifice disease amongst the poorer classes is universal, and exceedingly frequent in the upper spheres of society, *if properly sought for.*

Thus, as a direct result of septic processes taking place in the mouth, nose and nasal sinuses, the urethra or bladder or elsewhere, certain consequences arise:

1. The local process serves as a pathological laboratory where germs are generated, usually very pathogenic to the host, which are thence *conveyed in various ways to and infect other parts of the body.*

These methods are:

(*a*) *By Direct Continuity of Surface* (designated by Bond[17] as mucous streams). In this manner the whole gastro-intestinal tract and the glands opening into it becomes infected from the oral, nasal, and auditory suppurative processes. Similarly, from the vulva or urethra the whole genito-urinary apparatus may be infected.[18]

(*b*) *By Indirect Extension through the Lymphatic System*, so that, for example, a septic tonsil or gum may infect the lymphatics of the neck, then those of the thorax, and they in their turn involve the lung and pleura (or the thyroid in the neck). The resulting inflammatory process, by its intensity or magnitude or the pain and other symptoms it produces, cannot be ignored, and is thus looked upon as *the* disease, whereas the primary source of infection is usually overlooked.[3 19]

(*c*) *Blood Infection.*—As a result of cervical lymphatic implication the germs may be poured into the innominate vein and thus circulate in the blood—*Bacteriaemia.* Evidence of the constant implication of the thoracic duct and its rôle in infecting the blood stream as a result of gastro-intestinal and abdominal infective processes is so strong as to defy criticism.

Probably this route is the usual one taken by the tubercle bacillus.

In rare instances the blood stream may be directly involved by implication of blood vessels at the local nidus.

(*d*) The foregoing are anatomically easy to trace, but other equally well marked sequelae are less easy to follow, yet clinically demonstrable; such are the development of optic neuritis from empyema of the frontal and other sinuses,[19] or the mode of spread of bacteria from the middle ear into the centre of a cerebral hemisphere and the cranial complications of many latent processes of the naso-pharynx.[1 2]

The perineural and perivascular lymphatics are the probable agents. As all acute processes which hitherto have been regarded as strictly local diseases—pneumonia, typhoid, scarlet fever, etc.—are now known to be accompanied by blood infection (that is, a septicaemia), so in all probability chronic processes[20] give rise to mild blood infection; consequently we may fairly assume such a mild infection of the blood stream takes place in all these "orifice" diseases—in other words there is a *mild chronic septicaemia*—and granted a suitable opportunity, these circulating germs produce septic thrombosis, emboli, abscess formation, etc.; otherwise, how else does one explain the onset of acute osteo-myelitis, and many other inflammatory and gangrenous processes in the deep tissues of the body, or certain gonococcal[21 22] and pneumonic[23] visceral lesions?

2. *The Second Consequence: Toxaemia.*—From the pathological laboratory, situated in the gums, conjunctiva,[15] prostatic follicle, middle ear, and so on, chemical products—that is, *toxins*—are absorbed, which circulate by the lymph and blood streams through the body, *and damage or tend to damage all the cells and structures of the body*—brain, nerve, viscera, vessels, etc.

Such parts as joints, bursae, tendons, and muscular attachments, which are peculiarly exposed to trauma, climatic influences, or intermittent congestion from prolonged use, have an uphill fight to maintain their usual health against the combined assault of this prolonged toxaemia and trauma. Gradually they lose that reserve of vitality inherent in all structures, till suddenly a more severe trauma,* or an exacerbation in the local infective process in the gum (or wherever situated), or its extension to a new area, takes place, resulting in an increased amount of or a more powerful toxin reaching the joint or tendon, etc., which upsets the now unstable equilibrium, and produces an *inflammation*, designated an arthritis, a tendo-synovitis, and so on; this by its pain, loss of power of movement, or other prominent reason, again obtrudes itself to such a degree as to be looked upon as a primary affection, *the* disease, and so treated, to the total neglect of *the primary disease*, of which this is but a symptom.

One cannot wonder at the want of success which invariably follows treatment directed *solely* to these secondary manifestations, and the relapses which invariably take place under such a régime.

Having briefly outlined the rôle of sepsis of the orifices, one must take cognizance of the important part which the mere passage of time plays in developing the *symptomatology*, that is, in converting a latent process into one with definite objective or *revealing manifestations.* (I do not refer to incubation period after an infection has arisen)

As an example, take the formation of gall stones, a symptom of gall bladder and bile duct catarrh.[24 25]

The pathogenesis of gall stones is variously put by different writers; all, however, are agreed (with one exception—Boysen, of Copenhagen) that either bacterial or toxic infection of the mucosa of the bile passages is the underlying cause.

Some assume the bacterial invasion is directly from the duodenum, along the common bile duct, and as a result of the catarrh induced deposits occur in inspissated mucus, bile, or a small blood clot, of bile pigment, salts and cholesterin.

Others state that the germs and toxins generated in the gastro-intestinal tract are conveyed by the portal vein to the liver; and still a third say "that germs or toxins generated in *any* part of the body circulate in the blood stream, and are conveyed to the liver by the hepatic artery.

Assuming all views to be correct, catarrh and inspissation are the immediate precursors of gall stones.[25]

How long does it take to produce a fair sized gall stone? In my view years.

For the sake of illustration consider tartar, a similar type of deposit on and around teeth, and much conduced to by irregular or overcrowded teeth.

There are many elderly persons who have never cleansed their teeth and who have marked deposits of tartar. If a dental surgeon scaled and collected the tartar of such a patient and moulded it into a mass, it would form but a small sized gall stone, yet it has taken many years to collect.

Granted many *pros* and *cons* in the argument, still one must confess that to produce a gall stone of any size years are likely to elapse.

We know that catarrhal jaundice is common in infants and that gastro-intestinal disorders are amongst the commonest diseases of childhood,[5 6 26] and whichever view of the genesis of gall stones we accept, the fact remains that the conditions which lead to cholelithiasis begin in infancy.

Yet gall stone symptoms are rare in infancy, but we know they do occur, and with increasing knowledge and earlier exploratory examinations, they are discovered to be more common in adolescence than we were taught.

Also, although *operation may be deferred* many years the *symptoms* of gall stones have existed in many cases from youth, and that a small minority only of cases whose gall bladders contain stones are operated upon.

In the evolution of a stricture of the urethra, the evidence is very strong that the vast majority of strictures take years to develop, *certainly to produce symptoms*, which is the point I am emphasizing.

Vulvo-vaginitis[28] in childhood is comparatively common. Personally I have seen 10 cases of gonorrhoeal vulvitis in girls under 12 years of age, and very frequently infants in arms show vulval inflammations,[29] but, the acute symptoms over, parents take no further trouble or interest, yet in many instances the condition lies latent, only to light up under the stress of ill-health or marriage, and proclaim itself by extension into the urethra or bladder, or on the other hand by producing a pyosalpinx or other grave pelvic lesion.[28] *It is more than probable the ill-health, etc., only reveals an extension which has gone on from the first.*

Darling[3] says 92 per cent. of patients dying of pneumonia have nasal sinusitis of *older origin.*

Fish[1] quotes "that of the cases of measles and scarlet fever who die, *the majority have empyema of the antrum of Highmore*"; amongst those who survive surely there are many who have similar infections, and it can hardly be wondered that such develop tuberculosis, cerebro-spinal meningitis, diphtheria, or succumb to any stray infection they encounter, or similarly that at the puerperium many years later such mothers should easily become "septic."

Weichselbaum[1] found in 13 influenza autopsies an empyema of one or more of the sinuses in 12 cases. The thirteenth was not examined.

One of the best examples of latency is afforded by abscess of the brain, which may be associated with an otitis media, etc., of ten to twenty years' duration without marked objective symptoms until a sudden attack of coma reveals its presence or ends the patient's existence. Cases of this kind all surgeons have seen.

An unusual example is that in which an infant pushed a piece of slate pencil into its nose; some eight years elapse, during which the child had on two occasions a couple of fits; suddenly, however, it became gravely ill, comatose, and died. *Post mortem* a large frontal abscess was found—the point of the piece of pencil had worked its way through the ethmoid and projected into the cranium.

The presence of hitherto undiscovered sepsis as a cause of obscure diseases is, in my experience, common, and explains many cases of goitre, neuritis, arthritis, so-called heart disease, general ill-health, and hysterias.

* This explanation of sudden illness must be constantly borne in mind in dealing with workmen's compensation cases.

In fact, when we are called to sudden cases of grave illness, and find what is called a typical textbook case, we are apt to forget that in the vast preponderance of cases we are viewing the *terminal phase* of a chronic infective process,[27] and in ignoring this fact and the influence of time we fail to go sufficiently far back into history, or sufficiently minutely into the small beginnings of disease, without which we are unable to elucidate the natural history of the case and make an accurate diagnosis.

I wish to refer particularly to oral sepsis, because it is so easy to observe—also to a lesser degree to urinary sepsis, which is also comparatively easy to demonstrate—that is, they need no special apparatus or skill.

The prevalence of oral sepsis in the form of (1) stumps and caries of teeth, (2) gingivitis, (3) alveolar abscess or sinus, (4) ulceration of the gums, cheek, and tongue, (5) infected salivary ducts, has been amply demonstrated in my hospital practice. Since 1905 I have examined over 5,000 new cases, and amongst these I have found *10 cases (0·02 per cent.)* who had absolutely healthy mouths at the time of examination. A number were edentulous, a sufficient proof of many years of sepsis. Amongst those seen at the Gordon Hospital for Rectal Diseases—that is, intestinal cases—I have *not found a single case quite free from sepsis* of the mouth. Of 36 sigmoid, rectal, and anal cancer cases I have dealt with, all have had definite sepsis, the majority in a grave degree, yet I am convinced this extreme degree of sepsis is quite overlooked in general.

The last eight house-surgeons at the Gordon Hospital were men from Dublin, Guy's, Charing Cross, Edinburgh, Glasgow, Birmingham, and Newcastle-on-Tyne, all men of more than average ability; five were candidates for the F.R.C.S.Eng., of which four, while in residence or soon after, obtained this diploma, two M.B.Lond., and one M.B.Glasg. With the exception of the Charing Cross man none of these residents, as they willingly confessed after a few weeks' observation, ever understood the meaning of oral sepsis. They knew of a disease called Rigg's disease, "which one saw on rare occasions, and was (in their minds) a profoundly grave condition consequently," but they never saw, *as a routine*, the lower lip pulled down, the upper raised, and the gums carefully scrutinized and squeezed; they did not appreciate the importance of tartar in the pathology of the mouth; they rarely saw dentures and plates removed from patients' mouths, and thereby observed the great frequency with which stumps of the most septic type were left in the mouth and *covered by a plate;* they did not know of the dangers of the abominable bridges of American dentistry.

Yet these residents were keen men, creditable to any school and hospital, *who had been "residents" elsewhere*, and must be accepted as good samples of the general medical attitude towards this *most obvious* of all orificial diseases.

Such also has been my experience with the residents at the Metropolitan Hospital. *They know of oral sepsis as an abstract statement, not as an actual potent factor in the causation of everyday diseases.*

With this personal experience in mind I have, nevertheless, read with great astonishment reports of discussions on colitis at various societies, also papers by physicians and surgeons of authority in London and the provinces, in which almost everything was given as a cause of colitis,[30] yet not in a single instance do I find sepsis in the mouth, ear, nose, and throat given as a primary cause of colitis and pericolitis.

Similarly, with very few exceptions, the little prominence given to sepsis as a cause of gastritis, with its many-sided symptoms (pseudo-ulcer and pseudo-carcinoma), which, in my experience, is the commonest cause of gastritis and its sequelae. In the abstract it is accepted, but in its everyday importance it is almost ignored.

Many of these cases swallow pus in quantities varying from *a few minims to* ʒss *per diem.*

Yet when this question is put to them—

> Would you be surprised that this patient should develop gastritis, entero-colitis, and appendicitis, if *for years on end* he or she visited a pathological laboratory five, ten, or fifteen times in the twenty-four hours and swallowed on each occasion a platinum loop of a streptococcic or staphylococcic culture?

I have never heard surprise expressed, or the conclusion suggested dissented from, except the old fallacy that "the gastric juice destroys bacteria," or that "one was a pure culture, the other a mixture of dead cells with fewer bacteria," which puerile arguments are unworthy of consideration.

In these grave cases of intractable constipation from colitis, pericolitis, and adhesions, in which total removal of the large bowel is advocated and successfully performed I fail to find any mention of the connexion between this advanced and serious condition and orifice sepsis, yet the author[31] of this operation calls attention to the less obvious sequelae which *result* from the intestinal disease, such as duodenal ulcer and chronic mastitis and cancer of the breast! The question of sepsis of the orifices is one of such personal importance that one may logically ask, What avail it if a patient lives in the best drained town, or in the purest atmosphere, or subsists on the best food, if his own gastro-intestinal tract reeks with pus?

I would like to draw the attention of clinicians to the pathogenesis of hepatic cirrhosis and ascites. It may be stated boldly cirrhosis of the liver is not due to alcohol alone. Branthwaite and Donkin, inspectors of inebriates' homes, state emphatically that cirrhosis of the liver is not a frequent cause of death in such institutions; and, on the other hand, almost every medical man has come across pronounced hepatic cirrhosis, with ascites, *in patients who have been lifelong total abstainers.*

The number of such cases is doubtless great, because, when patients are questioned as to their temperance or intemperance, and they deny alcoholic excess, we often disbelieve their statements, because both by tradition and teaching we associate hepatic cirrhosis *of necessity* with alcohol, and find it difficult to give up old idols.

Experiments on animals (giving alcohol to) fail to produce cirrhosis, but alcohol *combined with the ingestion of pus*—that is, the development of a gastro-intestinal infection simultaneously—does produce cirrhosis.

D'Amato,[32] as a result of experiments, suggests that hepatic cirrhosis is but a part of a lesion of the whole abdominal organs.

The *ascites of cirrhosis* is also chiefly but a symptom of toxic infection of the peritoneum, associated possibly with the venous stasis of cirrhosis. This membrane is thickened, often rough, and occasionally I have seen small polypoid excrescences on its surface when operating for ascites or other conditions.

The pathology of ascites is indeed strictly copied, and to my mind proved, by the development of a chronic hydrocele in that piece of *detached peritoneum* the tunica vaginalis, which is always the result of a past or existing epididymitis or orchitis, or the result of trauma. Here venous stasis is not brought in to explain the hydrocele.

One form of modern treatment is common to both. In hydrocele we remove a sufficient portion of the thick, badly-absorbing, or non-absorbing parietal layer of tunica vaginalis; this opens up a large number of lymphatic spaces, which suffices to remove by absorption the fluid as it is secreted. In the same way, if a certain amount of the peritoneum is removed from the back of the recti, the ascites is cured in a certain number of cases, special precautions and after-treatment being taken into account as in the Talma-Morison operation.

Insanity.—Almost without exception, all recent authorities on this subject are agreed that chronic toxic poisoning is the most important factor underlying insanity (and fortunately it is the most vulnerable of these). The keynote to this view is "that any process which produces delirium may, if sufficiently prolonged, result in insanity."[33]

Savage[34] says:

> I have long pointed out that there is no entity—insanity, at most it is a negation.

And again:

> To poisoning, in some form or other, must be attributed the general exciting cause of nearly every form of insanity.

Kraepelin says:

> There are only two external causes: (1) Exhaustion, (2) intoxication.

Where, then, is the commonest nidus such toxins are produced? That they are largely coccal in origin is highly probable and intestinal in site.[35] That puerperal mania is associated with streptococcal[36] sepsis of the uterus and parametrium is almost certain, and therefore one must conclude the ordinary septic processes are competent to excite insanity; and when we note how widely spread is genito-urinary and gastro-intestinal sepsis, one is logically forced to accept these two great systems as the commonest site whence such toxins are absorbed. Thus is established the association of insanity with orificial disease.

Uraemia.—So bound by tradition are we that even now books mention the "intestinal ulceration of uraemia"—

an example of putting the cart before the horse it is difficult to improve on. Copraemia should be substituted for uraemia—that is, an intestinal intoxication in patients with defective kidneys.

It has always appealed to me as a reasonable deduction, if any febrile condition suffices to produce "cloudy swelling" of the kidney, and an attack of scarlet fever—a streptococcal invasion of the mucosa of the naso-pharynx—can produce virulent toxins in the course of a few days, which so damage the epithelium of the kidney as to produce an acute nephritis, *that* a similar chronic coccal infection of the mouth and whole gastro-intestinal tract, acting for many years, *should* suffice to produce equally grave changes in the renal epithelium (and stroma)—a different *type* of damage, as one would expect.

If, instead of a catarrhal infection, definite ulceration of the colon takes place, how much more readily should the renal destruction proceed; but when death takes place and such ulceration is discovered *post mortem*, how fatuous to ascribe the intestinal ulceration to the uraemia!

During my tenure of office as Pathologist to Charing Cross Hospital all cases of renal disease had definite oral sepsis. Those dying of uraemia had colitis; in three of them—very severe types—there was ulcerative colitis.

If a chronic sepsis of the genito-urinary tract itself also exists in these cases—that is, not such as would by its virulence and intensity produce surgical lesions—the probability of Bright's disease accruing is enormously increased. There is no hard-and-fast line between the origins of medical and surgical renal disease; it is rather a matter of degree.

What relation sepsis of these two important tracts bears to eclampsia[16] *and other renal complications of pregnancy is worthy of the strictest investigation.*

Gonorrhoea.—We now know there is not one variety of septico-pyaemia which the gonococci cannot produce—ulcerative endocarditis, multiple abscesses of joints, peritonitis, etc.—and its rôle in cerebro-spinal meningitis is rapidly being recognized.[21 22]

It has been obtained in pure culture in all sorts of lesions and at times long distant from the primary infection.[18]

Recently Sir Victor Horsley has called attention to the part it plays in *chronic* spinal meningitis, simulating myelitis and pressure on the cord from new growths, and amenable to operation.

This leads to a subject which has long occupied my mind, *What are Charcot's joints and the crises of tabes?*[37]

Is it possible for a moment to maintain that Charcot's joint is anything other than a toxic arthritis in a patient whose reaction to painful stimuli is reduced or *nil*, and in whom, therefore, the process has advanced before much attention is directed to it, and whose tissue (soil) is favourable to germ processes?

If the joint affection occurred in a non-tabetic patient it would be called an acute or subacute osteo arthritis or rheumatoid arthritis (conditions almost certainly of septic toxic nature, of gastro-intestinal or genito-urinary origin); and in a like manner, in a tabetic patient, I would hasten to seek for a septic focus.

But in a tabetic we still retain the nomenclature and the mysterious factor "trophic influence" devised by Charcot, whose views were formulated in the prebacterial days, certainly before it was established that all inflammatory processes presupposed the presence of bacteria or their toxins in the inflamed part.

The experience derived from Gasserianectomy and the part played by sepsis and trauma of the conjunctiva in producing ulceration and sloughing of the cornea, previously attributed to loss of trophic function from destruction of the ophthalmic division of the fifth nerve, has done much to modify surgeons' views on trophic nerves.

Visceral Crises.—Is there ever a bladder crisis in a patient whose genito-urinary passages are absolutely free from sepsis? or a gastric crisis without mouth and gastric sepsis?

In Regard to Laryngeal Crisis: During the past two years I have seen 5 cases (3 men, 2 women), the youngest 35, the oldest 60, who were sent up as cases of oesophageal cancer or stricture. I found the symptoms of dysphagia marked in all cases, but repeated careful examination and the passage of instruments revealed no stricture. In all the cases the mouths were, and had been for years, most septic.

Three of the 5 cases (2 men, 1 woman) had their mouths made healthy by radical sacrifice of the teeth, and recovered completely, *without any other treatment than that of the dental surgeon.*

These cases were unquestionably suffering from spasm of the oesophagus.

Recently Professor A. Keith demonstrated at the Royal College of Surgeons the presence of a sphincter, first described by Sir Everard Home, situated at the level of the cricoid cartilage; and I now have no doubt the dysphagia in my cases was due to spasm of this sphincter.

If sepsis can produce such marked symptoms in the oesophagus, and also in the intestine[38 39] (as I described in a lecture before the Harveian Society in 1903) may produce pseudo-obstruction apparently demanding laparotomy, of which cases I have notes of 18 since seen, surely it is competent to produce spasm of the larynx, especially in a patient whose nervous mechanism is imperfect.

The reflex spasm of laryngismus stridulus[40] is now attributed to post-nasal catarrh and adenoids, and is a clear indication that the septic explanation of laryngeal crises is not improbable.

Recently I was sent for to operate on a case, a man aged 60, presenting some difficulty, which was diagnosed as intestinal obstruction.

He had increasing marked abdominal pain and some distension, was sick once, and was somewhat collapsed, constipated three days, urine passed every two hours a few ounces at a time. On examination I found his bladder distended and drew off some pints of urine, which completely relieved his symptoms.

He had a small firm prostate, the obstruction from which the bladder usually overcame, but while constipated and suffering from a chill, he unduly delayed to answer the call to micturate, and his bladder became slightly distended. When he tried to pass water he failed and he had an acute retention.

After twenty-four hours the tension on the bladder became so great that, aided by voluntary effort, he was able to pass some urine and thence every two hours passed 2 to 3 oz., and he considered, therefore, the urinary trouble was at an end.

But the pain and constipation continued and he saw a doctor, and finally, on the third day, was admitted.

Had he suffered from tabes or any nerve lesion doubtless this attack would have been labelled "bladder crisis."

It may be asked, But what of female tabetics? It would help greatly to know the proportion of the various crises in the sexes; the number of female tabetics is 9.1 per cent. of the whole.[37]

However, bearing on this, let me quote a case I saw in the wards in September. She was a young woman 25 years old, admitted on the medical side as a case of appendicitis. Her history seemed to point to appendicitis without abscess, but per-rectum examination indicated severe constipation and a peculiar fullness in Douglas's pouch (?). I found she had passed no urine for twenty-four hours on one or two occasions, and a catheter drew off some 46 oz. A few enemata and purgatives brought about complete recovery.

Had she any form of nerve lesion, she would probably have been labelled a bladder crisis also.

Retention of urine in women without obvious cause is quite common, but in cases seen by me there has always existed some degree of cystitis or vulval inflammation.[27]

One could continue indefinitely multiplying examples of symptoms set up by *prolonged orifice infections;* but when one finds that, even in the conditions known as colitis and appendicitis, which lie in the direct path of infection, the medical profession as a whole ignores the presence and rôle of pus swallowed from the mouth, nose, and ear in their pathology, one feels it is rather hopeless as yet to insist that such conditions as exophthalmic goître and Henoch's disease are due to infections such as oral sepsis, yet there is accumulating a great deal of evidence to prove this.

Unfortunately, we have heard such bad accounts of the *Bacillus coli* from the bacteriologist that we have attributed the majority of intestinal and accessory gland lesions to it, whereas all recent investigation demonstrates clearly that the *B. coli* is of infinite value to man,[41] and that it is the introduction of other bacteria, probably streptococcal (here called variously *Streptococcus faecalis*, *enterococcus*, etc.),[42] and the *B. enterococcus*, *B. infantilis*, and putrefactive organisms which should bear the brunt for initiating the diseases.

The *B. coli* is of necessity almost certain to be found in all lesions connected with the digestive tract; but is it the cause of these lesions? The difficulty lies in proving whether it is the original culprit or only accessory after the fact.

But from time to time lesions are found in the appendix[43] and elsewhere, in which pure cultures of streptococci and staphylococci are found, and, as in puerperal septic poisoning, if the investigations are carried out early the presence of streptococci is found in an uncontaminated condition,[36] while later on contamination is invariable.

Lartigan[44] in 1902 called pointed attention to the rôle of the cocci in appendicitis, and the probability of the *coli* being a secondary infection, while in young infants we know that at the height of certain severe intestinal disturbances *the B. coli are entirely replaced by the B. infantilis.*[6]

The identity of Payne and Poynton's *Diplococcus rheumaticus* with the *Streptococcus faecalis*[45] and the enterococcus is highly probable, and explains the close association between the rheumatisms—acute and chronic—and arthritism with gastro-intestinal disorders.

With regard to local conditions of the mouth, I find cracks, fissures, papillomatous conditions of the tongue, and leucoplakia are almost universally believed to be of syphilitic origin; whereas, in my hospital experience, I find these conditions in patients without the history or any confirmatory evidence of syphilis; moreover, removing the carious and jagged teeth and tartar, making the gums healthy, removing badly-fitting and rough dentures, *conditions never absent*, results in marked amelioration of the patches, etc., and *in preventing new lesions*, which to me proves their connexion with sepsis as a causal factor.

I do *not* say syphilis does not produce these lesions, but in frequency it is a minor cause.

I have seen septic ulcers of the palate, and two on the posterior wall of the pharynx, clear up entirely without any treatment other than that afforded by the dental surgeon.

Similarly, sepsis under a long or a tight foreskin, with urethral infection, leads to desquamation of the epithelium of the foreskin and glans, to acute and chronic balano-posthitis, herpes, papillomatous warts, and soft sores. In every case of cancer of the penis I have seen, a chronic balano-posthitis has always existed, and in cancer of the tongue, lip, and cheek, sepsis plays a most important part.

The association of mucous membrane infection with dermatological conditions, chronic oedema of the face, lupus erythematosus and lupus vulgaris, idiopathic (?) facial erysipelas, abscess of the lacrymal sac, I have observed in hospital and private practice.*

We would expect, if the lymphatic system takes a great part in the dissemination of bacteria and their products, to find lymphatic gland disease associated—one has but to think of the gland abscesses to note a gross confirmation of this—but there is increasing evidence that the origin of lymphocythaemia (lymphoma), possibly status lymphaticus and other obscure lesions, is connected with septic and toxic processes.

Beginning with the glandular fevers of children[26] (Ffeiffer's gland disease[48]), the connexion between these and gastro-intestinal disorders is conclusive; again, in cases of fatal lymphocythaemia in children,[49] the connexion between some of the cases and sore throats was established, and the general conclusion of the writers of one such series was "that the disease is bacterial in origin, probably streptococcal."

Further, the condition called "toxaemic infantilism"[6] widens enormously the importance of the intestinal tract and its flora in the pathology of children, and the incidence of many diseased conditions in adults, otherwise inexplicable, may be traced to similar disorders, possibly infantile in incidence.

In my experience such conditions as sciatica, neuritis, and lumbago are due to arthritis of the hip, sacro-iliac and spine, etc., joints, or to osteophytic outgrowths on the vertebrae demonstrable by *x* rays, and associated with septic mucous tracts. Seventy per cent. of the joint cases in my out-patients (in a general hospital) are toxic, of gastro-intestinal origin; in 10 per cent. I fail to find a nidus, but after what has been said it is not to be wondered at; 10 per cent. are of genito-urinary origin; the other 10 per cent., chiefly in children, are tuberculous or syphilitic (generally congenital). Many septic cases are diagnosed as tuberculous or syphilitic hydarthrosis, but the result of treatment directed to the septic conditions present proves the inaccuracy of the diagnosis.

* This aspect of the subject was dealt with by Sir Malcolm Morris[46 47] and others at Belfast this year.

From the point of view of *prognosis in other diseases*, and from the post-operative standpoint, the presence or absence of an infected genito-urinary or gastro-intestinal orifice is of incalculable importance, yet I constantly see patients, who have been residents for months in hospital wards or attendants at out-patient departments, in convalescent homes, and under special care, suffering from phthisis or chronic pulmonary affections, in whom there are septic tonsils, stumps, purulent gingivitis, submaxillary calculi, chronic rhinitis, otitis media (least often ignored), and septic genito-urinary tracts, *which have been entirely overlooked and ignored in the battle against the tubercle bacilli.* If this occurs in hospital practice, where our students are trained and post-graduates taught, how can we expect the rank and file of the profession to be other than equally indifferent to this important subject?

REFERENCES.

1 Fish: BRITISH MEDICAL JOURNAL, November 2nd, 1907, p. 1218.
2 StClair Thomson: *Med. Soc. Trans.*, London, vol. xxxi, 1908.
3 Darling (quoted by Tilley): Ibid., vol. xxxi, 1908, p. 105.
4 Osler and others: Ibid., vol. xxxi, 1908.
5 Taube: Fourteenth International Congress of Hygiene and Demography, 1907. "Over 50 per cent. of deaths in the second month are due to intestinal infection."
6 Herter: *On Infantilism from Chronic Intestinal Infection.* Macmillan.
7 A Study of Diplococcaemia, BRITISH MEDICAL JOURNAL, EPITOME, No. 27, January 11th, 1909.
8 Ewart, etc.: *Med. Soc. Trans.*, vol. xxxi, 1908.
9 BRITISH MEDICAL JOURNAL, October 23rd, 1909, p. 1230.
10 Harvey, quoted by Savage: BRITISH MEDICAL JOURNAL, October 23rd, 1909, p 1206. "You counsel well when you say—Make sure of the thing, call it what you will."
11 Fournier: *Syphilis in Married Women.*
12 Baumgarten: *Tuberculosis of the Placenta.*
13 Lobenstein and Harrar: *Bulletin of the Lying-in Hospital, New York City*, December, 1906.
14 Sanger and Ivens: BRITISH MEDICAL JOURNAL, June 19th, 1909.
15 Horder and Holmes: BRITISH MEDICAL JOURNAL, June 26th, 1909, p. 1550.
16 Stephenson: *Med. Soc. Trans.*, vol. xxxi, 1908, p. 110.
17 Bond: British Medical Association, Leicester.
18 Weisswange: *Zentralbl. für Gyn.*, No. 17, 1908, and many other references.
19 Bishop Harman: BRITISH MEDICAL JOURNAL, September 25th, 1909, p. 878.
20 Smith and Griffith: BRITISH MEDICAL JOURNAL, November 2nd, 1907, p. 1234.
21 Ritchie: BRITISH MEDICAL JOURNAL, January 5th, 1907; January 22nd, 1907; and October 31st, 1907.
22 Hektoen and Riesman's *Pathology.*
23 Osler: *Med. Soc. Trans.*, vol. xxxi, 1908.
24 Paul and others: BRITISH MEDICAL JOURNAL, March 16, 1908.
25 Bland-Sutton: BRITISH MEDICAL JOURNAL, October 5th, 1907, p. 877.
26 Ashby: BRITISH MEDICAL JOURNAL, November 2nd, 1907, p. 1239.
27 Göppert: Purulent Affections of the Urinary Tract in Children, Review, BRITISH MEDICAL JOURNAL, October 2nd, 1909, p. 987.
28 Bovis: *Sem. méd.*, March 4th, 1908.
29 Barbier: *Prog. méd.*, June 22nd, 1907.
30 Hertz: BRITISH MEDICAL JOURNAL, April 10th, 1909, p. 903.
31 Lane (and editorial): BRITISH MEDICAL JOURNAL, June 12th, 1909, p. 1408.
32 D'Amato: *Giorn. Internaz. d. Sci. Med.*, Naples, 1907, p. 337.
33 Kennedy Hill: Hunterian Society, December, 1906.
34 Savage: BRITISH MEDICAL JOURNAL, January 5th, 1907, p. 19; March 23rd, 1907, p. 682; October 23rd, 1909 p. 1206.
35 Lewis Bruce: *Studies in Clinical Psychiatry.*
36 Knyvett Gordon: *Journal of Obst. and Gyn. of the British Empire*, October, 1908.
37 Byrom Bramwell: An Analysis of 263 cases of Tabes, BRITISH MEDICAL JOURNAL, March 21st, 1908, p. 669.
38 Dean: BRITISH MEDICAL JOURNAL, March 13th, 1909.
39 Pendred: Ibid., May 29th, 1909.
40 Eustace Smith: Ibid., July 20th, 1907, p. 131.
41 Sidney Martin: Hunterian Society, October 13th, 1909.
42 See Osler, 7th edition: The Variation in the Pneumococci and Dysentery Bacteria.
43 Wohlgemuth: BRITISH MEDICAL JOURNAL, July 10th, 1909, p. 102.
44 Lartigan: Ibid., March 14th, 1903.
45 Andrewes and Horder: Ibid., May 2nd, 1908, p. 1047.
46 Sir M. Morris, Wade, etc.: Ibid., August 28th, 1909, p. 542.
47 Adams: Ibid., October 2nd, 1909, p. 933.
48 Jones: *Amer. Journ. of Med. Sci.*, March, 1908.
49 Graham Forbes and Langmead: BRITISH MEDICAL JOURNAL, Apr 18th, 1908, p. 928.

AT a recent meeting of the Amritsar Temperance Society a vote of thanks was adopted to the local Government and certain of its officers for the interest they have displayed in disseminating information among schools and elsewhere with regard to the advantages of temperance. A further resolution was adopted, asking the Commander-in-Chief to take measures, similar to those adopted by the Army Temperance Association, to check the evil habit of drinking spirituous liquors among the native soldiers.

THE German Congress of Internal Medicine will hold its twenty-seventh annual meeting at Wiesbaden from April 18th to 21st, under the presidency of Professor F. Kraus, of Berlin. Among the addresses to be delivered are the following: The special diagnosis and treatment of tuberculosis, by Drs. Schutz of Berlin, and Penzoldt of Erlangen; and the origin and treatment of secondary anaemia, by Dr. D. Gerhardt of Basel.

A Clinical Lecture

ON THE

CAUSATION OF ANGINA PECTORIS.*

BY

BYROM BRAMWELL, M.D., F.R.C.P.E.,

SENIOR ORDINARY PHYSICIAN AND LECTURER ON CLINICAL MEDICINE IN THE EDINBURGH ROYAL INFIRMARY.

A PAROXYSM of angina pectoris is characterized by pain in the region of the heart. The pain is in many cases intense. During the attack the patient usually experiences a feeling of tightness and constriction in the chest; he may feel as if the chest were held in a vice; there may be a feeling of suffocation. The pain is usually accompanied by a feeling of alarm and dread, and in some cases by a terrible sensation of impending death.

The pain, which is usually first felt in the precordial or mid-sternal regions, usually radiates up to the left shoulder and down the left arm; in some cases the pain radiates through to the back; in some cases it extends up the left side of the neck; in exceptional cases the pain radiates still more widely. In some cases—but they are exceptional—the pain radiates down both arms, and in a few cases down the right arm alone, the left being unaffected.

After an attack of angina pectoris the skin over the parts in which the pain was felt during the attack is often hyperaesthetic and hyperalgesic. After a severe attack of angina pectoris the patient often for several days feels very much exhausted, and in some cases complains of special weakness—a certain degree of paresis—in the left arm, and, in the exceptional cases in which the pain extended to the right arm, it may be in the right arm. Dr. James Mackenzie thinks that the feeling of constriction in the chest is associated with and due to spasmodic contraction of the intercostal muscles.

Many different theories have from time to time been advanced to account for the manner in which the pain of angina pectoris is produced. In my book on the heart published twenty-five years ago (1884), I discussed the question in great detail. The theory which then seemed to me most satisfactorily to account for the mode of production of the pain I still believe the most satisfactory view.[1]

The brilliant researches of Dr. Henry Head and Dr. James Mackenzie have thrown a flood of light upon our knowledge of pain in visceral disease, and have rendered clear many of the points which were formerly obscure with regard to the distribution of the pain in angina pectoris.

At the outset let me point out that any theory of the causation of angina pectoris, if it is to be satisfactory, must explain the facts: (1) *That in the great majority of cases of angina pectoris the pain radiates down the left arm;* (2) *that in some cases it radiates down both arms; and* (3) *that in exceptional cases, which are very rare, it is referred to the right arm only.*

The group of symptoms included under the term "angina pectoris" may be produced by, or perhaps it would be more correct to say associated with, a number of different organic lesions of the heart and the root and arch of the aorta; and in its typical and severe forms is apt to prove suddenly fatal.

In angina pectoris all degrees of cardiac pain are met with, though there seems to be a tendency in some men's minds to limit the term "angina pectoris" to those cases—comparatively rarely met with before the age of 40—in which the pain is intense. Cases in which "cardiac" pain occurs in young and neurotic subjects, and cases in which there is no discoverable organic disease of the heart or great blood vessels are often termed cases of pseudo-angina; but the term is not a good one; a better term is, I think, "functional angina pectoris."

The former variety, which very frequently proves fatal, is very often associated with "coarse" pathological changes in the coronary arteries, heart, or aorta, and very generally, I believe, with minute structural changes, usually degenerative in character, in the heart (cardiac muscle and nerves) or blood vessels. The latter variety seldom, if ever, proves fatal, and often occurs without any "coarse" structural changes in the heart or vascular apparatus. The former may be appropriately termed the *organic* and the latter the *functional* form of angina pectoris.

This division, into a serious *organic* form and a comparatively trivial *functional* form, is of great practical and clinical utility, and may be safely adopted, provided that it is clearly understood that it is sometimes difficult or impossible to separate the two forms at the bedside—that is to say, whether the cardiac pain—the angina pectoris—is serious and due to organic disease, or whether it is, comparatively speaking, trivial and due to functional derangement.

In cases of true (organic) angina pectoris characterized by the occurrence of attacks of most severe heart pain, slight attacks of cardiac pain are of common occurrence; in some cases of organic angina pectoris the pain is never severe and widespread; in many cases of grave organic disease of the heart which prove fatal, slight angina pain is apt to occur, and in some of these cases the patients never have a typical and severe attack of angina pectoris.

In the organic cases physical examination may fail to reveal any evidence of organic disease either in the heart or great blood vessels. This is, of course, only what one would expect when one remembers that it is in many cases extremely difficult or impossible to detect by means of physical examination the organic lesions and structural changes in the heart and great blood vessels with which the organic form of angina pectoris is apt to be associated. Atheroma of the coronary arteries, fatty and fibroid degeneration of the heart, small, deep seated aneurysms of the root of the aorta, may be unattended with any definite and characteristic physical signs. Though in some cases we may be able to diagnose these conditions with practical certainty, in other cases we cannot do so. I have met with more than one case of apparently slight angina pectoris in which I could detect no definite physical signs of organic disease of the heart or aorta in which the patient has died suddenly. Vice versa I have seen cases of angina in young subjects in which the pain was very severe, and in which the diagnosis of organic angina pectoris would undoubtedly have been made if the patient had been older, or if there had been any obvious cardiac or aortic lesion, but in which the subsequent course of the case—the complete recovery of the patient and the maintenance of good health for years after recovery—showed that the angina was functional. Some twenty years ago I met with a case in hospital practice which greatly impressed me, and which showed the impossibility of differentiating the functional and organic forms. The patient was a woman, aged 36; there was no evidence of organic disease either of the heart or great blood vessels, the kidneys were normal, and the radial arteries not thickened; the angina pain of which she complained was confined to the region of the heart, and seemed to be functional; the patient was a nervous woman, and had had a great deal of domestic worry, which appeared to be the exciting cause of the attack for which she consulted me; she had also had some fits which from her description appeared to be hysterical in character. I gave a favourable prognosis, thinking that the angina was functional. This diagnosis was based upon the facts that the patient was a nervous woman, that her age was only 36, that the exciting cause of the attack appeared to be worry, that the pain was not very severe, and that the most careful physical examination failed to detect any evidence of organic lesion or structural change in the heart, great blood vessels, peripheral arteries, or kidneys. Some weeks after I saw the patient she had another attack while sitting at dinner, and she died in it.

It must also be remembered that the functional form of angina pectoris may, and I believe not infrequently does, occur in later life, while the organic form may occur in young subjects.

In order to understand the phenomena of angina pectoris it is necessary to refer briefly to the construction, so to speak, of the afferent (? sensory) nerve apparatus of the heart.

In conditions of health, and when the heart is contracting quietly, we are unaware of the action of the organ. It is only, in fact, when the cardiac action is markedly

* The cases illustrative of the lecture have been omitted.

deranged, either as the result of temporary and functional or permanent and organic causes, that we are conscious of any cardiac sensations. We become conscious of the cardiac action when the afferent (? sensory) nerve terminations in the heart and adjacent structures are more powerfully stimulated than they are in normal tranquil action of the organ; under such circumstances an impression is conducted to, and registered by, the sensory perceptive centres in the cerebrum.

The exact course of the afferent (? sensory) nerve fibres, which convey impressions from the heart to the cerebrum, has not yet been fully determined. In some of the lower animals—the frog, for example—sensory impressions seem to be conducted upwards by a special branch of the vagus, which has been termed the sensitive nerve of the heart; but it seems certain that in man the channels of sensory conduction are by no means so limited. The phenomena of angina pectoris seem, in fact, to prove that the cardiac branches of the sympathetic contain sensory fibres—fibres stimulation of which, if excessive in degree, excites pain. It would appear that in man afferent (? sensory) impressions are carried from the heart by the sympathetic fibres connected with the cardiac plexus, probably also, as in the frog, by the cardiac branches of the vagus.

Afferent (? sensory) impressions, passing to the cerebrum from the heart through the sympathetic, pass via the spinal cord, while afferent impressions passing from the heart through the vagus join the nerve centres at the medulla oblongata.

Dr. Henry Head gives the following tabulated statement of *the sensory supply of the heart*:[2]

Transverse arch of aorta ...	Inferior laryngeal segment.
Ascending arch of aorta ...	3rd and 4th cervical, 1st, 2nd, and 3rd dorsal (? 4th dorsal).
Ventricle...	2nd, 3rd, 4th, and 5th dorsal (? 6th dorsal).
Auricle	5th, 6th, 7th, and 8th dorsal (? 9th dorsal).

Dr. Gaskell informs me that the afferent nerves of the heart have their nerve-cell stations in the posterior root ganglia of the thoracic nerves (2nd to 5th), largely in the 2nd thoracic, and that possibly there are a few in the 1st thoracic.

The exact course of the fibres which conduct afferent cardiac impressions upwards through the spinal cord, and the exact position of the perceptive cerebral centre which receives such impressions, are not yet definitely known.

The pain of angina pectoris may theoretically result from excessive stimulation or irritation of any part of the sensory nerve apparatus connected with the heart; for, in accordance with the law of "eccentric projection," the pain which results from stimulation or irritation of a sensory centre is referred to that part of the periphery from which the sensory conductors or sensory centres are in the habit of receiving impressions, rather than to the point of irritation itself. Theoretically, therefore, we may suppose that it may be due to:

1. Irritation of the sensory nerve terminations *in the wall of the heart itself* (including under this term the pericardium, myocardium, and endocardium).
2. The sensory nerve-fibres comprised in the coronary and the superficial and deep cardiac plexuses.
3. The sensory conductors which connect these plexuses with the sensory perceptive centres in the cerebrum. (In the case of the sympathetic conductors the seat of irritation might theoretically be placed in (*a*) the branches connecting the cardiac plexuses with the spinal cord, including the posterior roots and posterior ganglia; (*b*) the spinal cord itself; (*c*) the conductors above the spinal cord—that is, between the spinal cord and the perceptive centre.)
4. The perceptive cerebral centres themselves.

Possibly the cardiac pain may be produced in most of these ways; but, so far as I know, there are no actual facts to show that angina pectoris is ever due to organic lesions in the spinal cord or brain. The so called "cardiac crises" of tabes, in which angina-like attacks may occur, are perhaps an exception to this statement, but whether the cardiac crises of tabes are due to the lesion in the cord, or to a lesion in the posterior roots or the peripheral nerves connected with the heart, we do not definitely know. In some of the functional cases, the so-called "pseudo-angina" attacks met with in hysterical patients, for example, the cerebrum is probably the seat of the disturbance.

Before proceeding to consider the exact manner in which the pain of angina pectoris is produced, let us turn for a moment to the records of *post-mortem* examinations, and see what lesions have been actually found after death in cases of angina pectoris.

In a large proportion of typical cases of angina pectoris (the form which I term organic, and which is apt to prove suddenly fatal) the coronary arteries are diseased (atheromatous). In some cases the heart muscle is degenerated (fatty, fibroid, etc.). In some cases the cardiac valves (and more especially the aortic valves) are diseased; in fact almost all forms of cardiac lesion have been found. In a considerable proportion of cases the base of the aorta is dilated or aneurysmal. In a few cases pericarditis has been observed. Very frequently the peripheral blood vessels, as well as the aorta, are atheromatous.

In some cases of angina pectoris changes have been shown to be present in the cardiac nerves or ganglia.* Probably in some of the cases of atheroma of the coronary arteries in which angina pectoris does occur, the coronary nerves (which are so closely connected in their course on the exterior of the heart with the branches of the coronary arteries) are implicated, just as the cardiac nerves which ramify over the arch of the aorta are affected in some cases of atheroma and chronic arteritis of the base of the aorta.

In some cases of angina pectoris the heart has been said to be healthy, but structural changes are probably present, either in the heart or arteries or in both, in all cases of angina pectoris which prove fatal.

Let us now endeavour to determine the exact manner in which the pain is produced in cases of angina pectoris. In most cases it is, I believe, due to *irritation of the afferent (? sensory) nerve terminations in the wall of the left ventricle*—including under the term "wall" the pericardium, myocardium, and endocardium.

The exact manner in which the cardiac nerve terminations are irritated has not yet been definitely determined. The view which seemed to me most probable when I published my book on the heart was that the irritation is due to spasmodic contraction of the muscular fibres, or rather of some of the muscular fibres of the left ventricle—that the cardiac pain is, in fact, similar to the violent pain which is experienced in the calf muscles when they are spasmodically contracted as in ordinary cramp, and similar to the severe pain which is experienced in cases of renal, hepatic, and intestinal colic. We know that cramp in the calf is most apt to arise when the muscle is exhausted and fatigued; all football players must be well aware of this fact.

Gaskell has shown that when the vitality of the cardiac muscle is impaired (by exhaustion, by injury, by malnutrition, etc.) it loses its power of rapid contraction, and contracts with a prolonged tonic contraction in the same way as unstriped muscle. Again, clinical experience has shown that muscular effort and conditions which cause increase of the blood pressure in the peripheral arteries—that is, *conditions which throw an increased strain on the left ventricle*—are in many cases the exciting cause of an attack of angina pectoris. In many cases the exciting cause of an attack is walking uphill, walking against a wind, etc; in some cases, walking on the flat excites an attack; in some cases (in which we may presume the heart muscle is greatly degenerated or the blood supply to the heart very imperfect) the attack may come on without any apparent exciting cause.

An attack of angina pectoris—the pain of angina pectoris—is, in short, an external expression of the inability of a weakened or degenerated left ventricle to cope with the blood pressure in front of it; or, as Dr. Henry Head puts it: "Pain, whenever it occurs in organic

* In three cases examined by Lancereaux, Peter, and Bazy, a distinct change was found in the branches of the cardiac plexus passing over the root of the aorta. Peter, for example, found in one of his cases slight dilatation of the base of the aorta, increased vascularity and thickening of the aortic coats, and evidence of old pericarditis at the base of the heart. The branches of the cardiac plexus, which were carefully dissected out from the fibrous adhesions surrounding the root of the aorta, were found on microscopical examination to be in a condition of chronic inflammation, the nerve tubes were separated by masses of connective tissue containing numerous nuclei; some of the nerve tubes were strangled, as it were, by this fibrous tissue, their myeline sheaths ruptured and transformed into an amorphous fatty mass (*Traité clinique et pratique des maladies du cœur*, p. 673).

heart disease, is a warning and an intimation that rest is required."[3]

It is difficult to conceive that all of the muscular fibres of the left ventricle could be spasmodically contracted without a fatal result; if spasmodic contraction of the muscular fibres of the left ventricle is the cause of the pain, it must be partial. This statement does not imply that spasm of the muscular fibres of the heart is *per se* attended with pain, but that it produces irritation of the afferent (sensory) nerves, which results in the production of pain.

The view that spasmodic contraction of the muscular fibres of the left ventricle is the cause of the irritation of the sensory cardiac nerves and of the pain in angina pectoris is not accepted by many authorities. Dr. James Mackenzie thinks that in angina pectoris the pain is not felt in the heart itself, but in the thoracic wall. He thinks that the pain in the region of the heart is a referred pain, exactly similar in character to the pain in the left arm which is such a characteristic feature of angina pectoris. Dr. Mackenzie does not agree with the view that spasmodic contraction of the cardiac muscle is the cause of the irritation. He says:

> Such considerations lead to the conclusion that angina pectoris arises from certain conditions of the muscular substance of the heart, when the contraction meets with a resistance greater than it can easily and efficiently overcome, whether a fairly strong muscle struggles against an increased resistance (as when there is great peripheral resistance or a narrowed aortic orifice), or when a weak or degenerated muscle has opposed to its contraction a normal or even a lowered pressure, but a pressure greater than the weakened muscle can readily overcome. . . . From this line of reasoning I would suggest that angina pectoris is an evidence of exhaustion of the function of contractility. . . . The fundamental functions of the heart muscle correspond to those of other involuntary muscles that form the walls of hollow organs, these functions being modified to suit its special work. Like the other viscera, the heart is insensitive when stimulated in a manner that provokes pain when applied to the tissues of the external body wall. I may point out that a prolonged strong contraction of a hollow organ can produce pain, and that this is undoubtedly the cause of the severe pain associated with renal calculus, gall stones, spasm of the bowel, and uterine contractions. Can the heart give rise to pain in a similar manner? On account of the modification of its functions, the heart cannot pass into a prolonged state of contraction. Immediately it contracts, the function of contractility is abolished, and the muscle passes at once into a state of relaxation, and for this reason the pain cannot be produced by a "spasm of the heart." But I suggest that the heart muscle may produce pain when it is confronted with work greater than what it can readily overcome—a condition which produces strong peristalsis and pain in other hollow viscera. But the pain in the heart arises by a slightly different mechanism. A skeletal muscle will contract in obedience to stimulation of a sensory nerve going to the spinal centre of its nerve, if a stimulus of sufficient strength be applied. If the stimulus is too weak no contraction follows, but, if this weak stimulus be frequently and rapidly repeated, then the muscle contracts in accordance with the law of the stimulation of stimuli. I suggest that the heart muscle induces pain on the principle of summation of stimuli. If we minutely study our cases we shall find that the pain rarely arises at the first exposure of the heart to the effort that induces the pain; sometimes effort has been undertaken a few minutes before the pain comes on, and in certain cases it may not come on for hours after the causal exertion has ceased. From such observation we can infer that the heart muscle was exhausted by the exertion, and so great was the exhaustion of the reserve force that the heart was unable to regain its reserve with cessation of effort, so that the exhaustion persisted till it culminated in an attack of angina pectoris.[4]

Dr. Henry Head believes that the cause of the irritation of the sensory nerves of the heart and of angina pectoris is increased tension in the cavity of the left ventricle. He says:

> Now, it is this distension at the moment when the walls of the cavity are at rest that is most pernicious, and it is this condition above all others that is most liable to lead to referred pain.[5]

And again:

> Thus, in conclusion, it would seem that the most potent conditions for the production of referred pain are: First, the maintenance of considerable tension within a cavity of the heart, accompanied by, secondly, a sudden accession of tension (owing to regurgitation) at the moment when the walls of the cavity are dilating after systole.[6]

Possibly in some of the cases of angina pectoris in which the coronary arteries are atheromatous the degenerative process, which commenced in the inner coat of the coronary arteries (endarteritis deformans), has extended to the outer coat and implicated the coronary nerves. Under such circumstances the terminal nerve fibres in the wall of the heart would, we may theoretically suppose, be in an unusually irritable condition.

Now, taking all these facts in connexion, we may, I think, with some probability theorize that in many cases of angina pectoris the sequence of events is as follows:

First, a sudden strain is thrown upon the left ventricle, either as the result of muscular effort or an increase of the peripheral resistance due to contraction of the peripheral arteries, the result of some external condition (sudden effort, exposure to cold, mental agitation, etc.), some reflex impulse arising within the body, or changes arising in the central nervous system (vasomotor centre). The strain or increased blood pressure may be actual or merely relative in proportion to the weakened left ventricle. In some cases in which the cardiac muscle or cardiac nerves are diseased, the attack arises independently of any muscular effort or sudden increase of the peripheral resistance. Under such circumstances, a strain on the left ventricle, which under ordinary circumstances would not be attended with cardiac pain, would probably be sufficient to produce the condition.

Secondly, in consequence of the strain (either actual or relative) which is thrown on the cavity of the left ventricle, or rather those fibres of the left ventricle which are degenerated, either as the result of imperfect blood supply (disease of the coronary arteries) or of degenerative changes in the cardiac muscle, irritation of the sensory cardiac nerves is produced. This irritation is attended with severe pain (angina pectoris).

The exact cause of the irritation of the sensory cardiac nerves is not clear, *and this seems to me to be the point with regard to the pathology of angina pectoris which needs to be cleared up;* perhaps it is spasmodic contraction of some of the muscular fibres, perhaps increased tension in the cavity of the ventricle.

Thirdly, this irritation of the terminal branches of the afferent (? sensory) nerves in the wall of the left ventricle (including under this term the pericardium, myocardium, and endocardium), is reflected, via the sympathetic branches of the cardiac plexus, distributed to the left ventricle and the spinal cord (left side of the upper dorsal segments), in the form of pain, to the periphery.

Now we would naturally expect that the reflex impression would be first reflected and referred to those parts of the periphery which are more immediately connected with the spinal centres to which the cardiac branches of the sympathetic distributed in the wall of the left ventricle pass; and that when the irritation was extreme, the stimulus might extend to other and more distant masses of spinal grey matter, and be reflected to other and more distant parts of the periphery. And such is in fact the case. In most cases of organic angina pectoris the pain radiates up to the left shoulder and down the left arm, sometimes to the tips of the fingers; it not infrequently passes up the left side of the neck; in exceptional cases it may pass down the right arm.

The radiation to the left shoulder and left arm is so constantly observed in typical cases of angina pectoris that it has been by some writers supposed that the primary lesion is situated in the spinal cord itself. Anstie, for example, thought that angina pectoris was probably due to "a mainly unilateral morbid condition of the lower cervical and upper dorsal portion of the cord, liable, of course, to be seriously aggravated by such peripheral sources of irritation as would be furnished by diseases of the heart, and especially by diseases of the coronary arteries." But with this opinion I cannot agree. In no case of angina pectoris, so far as I am aware, has a lesion of the spinal cord been found, and it is extremely difficult to believe that any spinal lesion could be so constantly unilateral—the very fact, in short, which Anstie advanced against the radiation of the pain outwards from the heart, namely, the unilateral character of the brachial pain, seems to me strongly opposed to his view.

This explanation is in accord with, and is in fact corroborated by, the facts (1) that the exciting causes of angina pectoris are increased muscular effort and conditions which produce increased pressure in the peripheral arterial circulation—that is, conditions which throw an increased strain (either actual or relative) on the left ventricle; (2) that in

many cases of angina pectoris the paroxysm is at once relieved by rest (stopping to rest while going uphill) and remedies (nitrite of amyl, etc.) which rapidly reduce arterial tension and take off the strain from the left ventricle; and (3) that in some cases of angina pectoris the attacks of angina disappear with the development of mitral regurgitation.

But further—and this is a very important point which for many years I have emphasized in my teaching—in the exceptional cases of angina pectoris in which the pain radiates to both arms or to the right arm alone, the "coarse" lesions, which are associated with and which are apparently the cause of the pain, often (? always) involve the root of the aorta or the aortic arch. I have met with a number of clinical cases which seem to corroborate this view.

A number of different theories may be advanced to account for the fact that in some exceptional cases of angina pectoris the pain, instead of radiating to the left arm, passes down both arms or down the right arm only.

The most satisfactory explanation is, in my opinion, that which I have just stated—namely, that in the exceptional cases of angina pectoris in which the pain radiates to both arms or to the right arm only, the irritation which causes the pain has its point of origin outside the heart—that is, that the irritation is due to a lesion, for example, of the root or arch of the aorta, or of the afferent (? sensory) nerves in the outer coat of the aorta, and not, as in the ordinary run of cases of angina pectoris, in the wall of the left ventricle. This view is corroborated by the fact that in many of the exceptional cases of angina pectoris in which the pain radiates to both arms or to the right arm only, a lesion either at the root of the aorta or of the aortic arch (aneurysm, atheroma of the root of the aorta, aortitis or periaortitis, aortic regurgitation, pericarditis) is actually present. I have seen quite a number of cases of this kind, and from time to time brought them before my clinic, and explained to the students their great interest and importance.

At the last annual meeting of the British Medical Association an important discussion on angina pectoris took place. Sir T. Clifford Allbutt, who opened the discussion, advanced the theory, which he had first propounded in the year 1894, that "the origin of angina pectoris was not in the heart but in the supra sigmoid portion of the aorta and its investments."[7] In the article on angina pectoris in my *Diseases of the Heart* I stated that disease at the root of the aorta and of the nerves ramifying over the root of the aorta seems in some cases of angina pectoris to be the cause of the pain. But that disease at the root of the aorta, or stretching of the root of the aorta, is the usual cause of angina pectoris, as Sir T. Clifford Allbutt supposes, seems to me to be contradicted by the fact that in the great majority of typical cases of angina pectoris the pain is reflected to the left shoulder and left arm. It is difficult, I think, to conceive that irritation arising in the aorta above the sigmoid valves in the way Sir T. Clifford Allbutt supposes could be so constantly reflected to one (the left) side of the body; while the fact that in many of the exceptional cases of angina pectoris in which the pain is reflected to both arms or to the right arm only, my clinical and pathological observations show that the root or arch of the aorta is diseased is, I think, of great significance. It is easy to conceive that when disease at the root of the aorta is the cause of angina pectoris the pain would be reflected to both arms, since in these cases the afferent nerves from *both* ventricles or from the aorta itself (passing to both sides of the spinal cord) would be likely to be implicated; and that in some cases of aneurysm of the aortic arch or local disease of the aortic arch the nerves passing from the right side of the heart or the right side of the aorta to the right side of the spinal cord might alone be implicated; this would explain the reflection of the pain to the right arm alone.

Another explanation of the radiation of the pain to both arms is that in the cases of angina pectoris in which this occurs the peripheral irritation has been sufficiently severe to pass over to the opposite (right) side of the spinal cord, and to be reflexly directed (referred) to the right as well as to the left side of the body (right as well as the left arm).

Another explanation of the radiation of the pain to the right arm is to suppose that the nerve terminations in the wall of the right ventricle have become irritated.

It has been suggested that the paroxysm of angina pectoris can be produced by a sudden diminution of the blood supply to the heart itself. According to this view, which I mentioned in my *Diseases of the Heart*, the coronary arteries become spasmodically contracted and cause a sudden diminution of the blood supply to the heart.

The intermittent claudication view, which is a modification of the anaemic theory (but which does not necessitate the supposition that there is spasmodic contraction of the coronary arteries), is more probable.

The phenomena which characterize the remarkable condition which has been termed "intermittent claudication," or intermittent limping (angina cruris), suggest that angina pectoris may be produced when increased muscular effort is demanded of a left ventricle which is imperfectly supplied with blood (perhaps as the result of spasmodic contraction of some of the muscular fibres).*

In intermittent claudication the arterial blood supply to one or both of the lower extremities is interfered with by obliterative arteritis, etc.; so long as the parts are at rest there are, or may be, no symptoms; but muscular efforts, which demand a copious supply of arterial blood, are attended with loss of motor power, stiffness, cramps and spasms, and, it may be, *acute pain* in the muscles of the affected part. If the patient rests for a time these symptoms pass off, and so long as muscular effort is not demanded the patient remains (apparently) well.

Now the most constant pathological change which is met with in fatal cases of angina pectoris is atheroma of the coronary arteries. In many of these cases the blood supply to the heart is defective, and degenerative changes are present in the muscular tissue of the heart. Under such circumstances it seems not unreasonable to suppose that when a sudden strain (whether actual or relative) is put upon the left ventricle, weakness and overdistension or spasmodic contraction of the muscular fibres or some of the muscular fibres of the left ventricle may occur, and an attack of angina pectoris may be developed, just as spasmodic contraction of the muscles and pain in the leg may occur in cases of intermittent claudication as the result of muscular effort. This seems to be a plausible explanation of the usual (typical) cases of angina pectoris. It accounts for the frequent association of angina pectoris with disease of the coronary arteries, for the occurrence of the angina pains after muscular effort and other things which throw a strain (either actual or relative) on the left ventricle, and which demand increased effort from the muscular fibres of that cavity.

The organic form of angina pectoris is often met with in gouty subjects, and is popularly included with other conditions under the term "gout of the stomach." Gout, it will be remembered, is one of the conditions which produce atheroma, and therefore disease of the aorta and coronary arteries. Further, in gouty subjects increased blood pressure, whether actual or relative to the strength of the left ventricle, which is such an important exciting cause of an attack of angina pectoris, is, of course, extremely common, more particularly when the kidneys are cirrhotic.

REFERENCES.

[1] *Diseases of the Heart*, page 672. et seq. [2] *Brain*, vol. xix, p. 225. [3] Ibid., p. 226. [4] *Diseases of the Heart*, pp. 39 and 40. [5] *Brain*, vol. xix, p. 215. [6] Ibid., p. 224. [7] *Lancet*, 1909, vol. ii, p. 337. Sir T. Clifford Allbutt's remarks are reported in full in the BRITISH MEDICAL JOURNAL, 1909, vol. ii, p. 1122.

* I have discussed the subject of intermittent claudication and published cases illustrative of this condition in my *Clinical Studies*, vol. vi, p. 317.

THE Pasteur Institute of Paris has presented to the Rockefeller Institute for Medical Research of New York a replica of the bronze bust of Louis Pasteur, in recognition of assistance rendered during the recent epidemic of cerebro-spinal meningitis which prevailed in France.

DR. PARTROU has founded a vegetarian society in Roumania, with branches all over the country. The society issues a journal, the aim of which is to make the advantages of vegetarianism known to the people. It has also established at Bucharest a restaurant which is managed on vegetarian principles.

Remarks
ON
SOME POINTS IN THE TREATMENT OF NERVE INJURIES.

BY JAMES SHERREN, F.R.C.S.,
ASSISTANT SURGEON, LONDON HOSPITAL; SURGEON, POPLAR HOSPITAL FOR ACCIDENTS.

THE importance of the early diagnosis and correct treatment of injury of one of the nerve trunks of a limb is difficult to over-estimate. Injury, for example, of the median, ulnar, or musculo-spiral nerves, unless completely recovered from, leaves the patient permanently unfitted to follow any employment involving the full, skilled use of that limb.

I have pointed out[1] that after primary suture of any one of these nerves recovery may be perfect, the part being restored to a condition indistinguishable from normal; that[2] the same may occur after incomplete division; but, on the other hand, after secondary suture the prospect of complete recovery is not so good, and sensory recovery is rarely perfect. Considerable responsibility attaches to those who are called upon to treat cases of nerve injury, for the ultimate prognosis depends upon the prompt treatment at the time of the accident and the efficient supervision for many months after it.

It is still no uncommon thing to see patients in whom the nerve injury has been overlooked, or in whom recovery is incomplete owing to imperfect treatment at the time of the accident, or later. It cannot be too often reiterated that a careful search must be made for evidence of nerve injury in every case of penetrating wound, especially in the region of the wrist, and also in all fractures. The search should be systematic and carried out on a definite plan. In extensive wounds in the wrist region, the fact of the nerve injury should always be discovered before the wound is explored and the damaged structures dealt with. This rule is not infrequently broken, and has led to the union of divided nerves to the severed ends of tendons. In fractures of the humerus, if the nerve injury is produced at the time of the accident—that is, is primary—operation should be undertaken without delay; the division will usually be found to be anatomical and complete. If expectant treatment is adopted in the hope that spontaneous recovery will ensue, it may be impossible at operation at a later date to bring the ends into apposition after they have been freed, rendering nerve transplantation necessary. Much valuable time is lost, and the prognosis is not nearly so good.

If these points are remembered, the operation of secondary suture would be almost unknown. Nerve injuries are overlooked, not from any want of knowledge, but from the neglect of systematic examination. It is not necessary—and, indeed, may be impossible—in the cases mentioned to discover before exploration if the injury is complete or incomplete; the fact that a nerve is injured in a penetrating wound, or in connexion with fracture of the humerus, should indicate immediate operation

There are three small but important points in connexion with the operation itself that are often overlooked, seriously interfering with full recovery: (1) The suture must be of absorbable material; (2) the wound in the nerve must be protected; (3) in wounds in the region of the wrist the deep fascia must be united separately.

1. Fine catgut should be used to unite the ends of the nerves, plain if there is no tension, lightly chromicized in cases where any tension falls on the junction. Non-absorbable material—silk, linen thread, celluloid thread—should be avoided; they give rise in many cases to symptoms months after suture, when recovery is well advanced, causing relapse and seriously interfering with complete recovery. I have recorded one such case[3] in which silk was used, and have seen several others. The following is a typical example, in this instance following the use of Pagenstecher thread:

Barbara N., aged 28, was admitted to the London Hospital under my care on April 14th, 1909. On May 15th, 1907, she cut her right wrist, and was admitted a few hours later to the London Hospital, where primary suture was performed by the house-surgeon on duty, Pagenstecher thread being used as suture material. Slight suppuration took place, and the wound did not heal throughout for eight weeks. Recovery was slowly progressing until three months before admission, when the hand began to get painful, the pain increasing in severity.

When I saw her the hand was held with the thumb in the position it often assumes in paralysis or weakness of the opponens abductor group of muscles, hyper-extended at the metacarpo-carpal joint, and slightly flexed at the metacarpo-phalangeal and inter-phalangeal joints. The opponens and abductor muscles were not acting, but reacting to stimulation with the interrupted current. The skin of the affected portion of the palm was bluish-red, and blisters were present over the terminal phalanges of the index and middle fingers; these had been present fourteen days. Light touches were not appreciated over the whole median area; a prick within this portion of the hand was extremely painful, and the sensation produced radiated widely. In the position of the median nerve at the wrist was an oval swelling, extremely tender, the pain being referred to the full distribution of the nerve.

At operation the day after admission, I traced the median nerve from above and from below into the oval swelling. On making a longitudinal cut into it, I found a cavity containing a celluloid stitch. I then wrapped the nerve in Cargile membrane, and sutured the deep fascia and the skin. The hand was kept slightly flexed on a posterior splint for three weeks. The pain disappeared gradually, and had quite gone when she left hospital, April 26th. Massage was started as soon as the splint was removed. She is slowly recovering, the muscles are acting voluntarily, and there is no pain or tenderness; but it is very doubtful if recovery will ever be perfect.

2. In all cases in which a nerve has been wounded it should be protected from forming adhesions to surrounding structures by wrapping in Cargile membrane. When tendons have been divided they should be treated in a similar way. Failure to protect the nerve is responsible for imperfect recovery in a certain number of cases, and often necessitates a second operation, even when, as in the following case, the nerve was not completely divided.

L. M., aged 16, was admitted to hospital under my care, June 3rd, 1909. On January 2nd, 1909, she cut her wrist with broken glass. The wound was explored within a few hours, and the nerve found incompletely divided. Two months later I saw her, as recovery was not as rapid as had been anticipated. The fingers were in the "ulnar" position, and the intrinsic muscles supplied by the ulnar nerve were wasted and paralysed, but gave the reactions which I consider typical of a certain stage of incomplete division.[4] Sensibility to light touch was diminished over the ulnar area on the palm and little and ring fingers, and over the last two phalanges of the little finger on its dorsal aspect. It was obvious that the nerve had been incompletely divided below the point at which its dorsal branch is given off. I advised relaxation of the paralysed muscles and massage. In spite of this no improvement took place. By June the wasting of muscles was more marked, and sensibility to light touch was completely lost. On June 9th I operated, and found that the ulnar nerve and flexor carpi ulnaris tendon had been cut into just above the pisiform bone, and were bound up in a dense mass of fibrous tissue. I freed them, and wrapped in Cargile membrane.

There is little doubt that if the nerve and tendon had been protected at the time of exploration recovery would have advanced steadily, and by this time have been complete.

3. After wounds in the region of the wrist the deep fascia should always be carefully sutured. If this is not done the tendons may become adherent to the skin, interfering considerably with their mobility, and in many cases, when the wound has been extensive, a hernia of tendons forms, which is a source of weakness until remedied by operation.

If these three points were remembered in operations upon recent nerve injuries, the percentage of cases of recovery of conduction in the nerve and of complete restoration of function in the damaged part would be much higher than it is.

But operation is only the first step in the treatment of a

case of anatomical division of a nerve. In order to obtain perfect recovery systematic treatment must be carried out for a considerable time, after complete division and primary suture of the median, ulnar, or musculo-spiral; at least twelve months—in the first two probably longer—must be devoted to this. Regeneration of the nerve will ensue if the points I have mentioned be remembered and the wound heal by first intention; but in order that recovery of function may be perfect, the paralysed muscles must be kept relaxed by the application of suitable splints or apparatus, and their nutrition kept up by massage until the restoration of voluntary power, when the splints may be discarded and systematic exercises adopted. The skin must be protected from injury during the first stage of recovery; failure to do this has resulted, in several cases which have come under my care,[5] in destruction of one or more of the phalanges of the affected fingers.

Failure to carry out muscular treatment must be held responsible for many incomplete recoveries. In my experience it is unusual to find any attempt made to prevent overstretching of the paralysed muscles; it is no uncommon occurrence to see a patient who has had an injury to his musculo-spiral nerve walking about with the typical drop wrist, or a patient being treated by massage after an injury of the ulnar with the fingers allowed to remain in the "ulnar" position. Recovery will never be perfect under these conditions; the paralysed muscles must be kept relaxed until the return of voluntary power. I have seen several cases in which nerve regeneration has ensued, but the limb remains useless on account of the muscular disability resulting from neglect of treatment.

In subcutaneous injuries treatment is imperfect most often in cases of brachial birth paralysis. It often happens that a child of 3 or 4 is brought with a view to operative procedure on account of the persistence of the deformity, and it is found on examination that nerve recovery has ensued, the muscles reacting perfectly to the interrupted current. In these cases it is impossible to tell by inspection what, if any, recovery has taken place, for the overstretched muscles do not act voluntarily. In some cases the resulting deformity is permanent. In the usual type of birth paralysis (Erb-Duchenne) the limb should be bandaged to the side over cotton-wool and the elbow supported, and should be taken down for massage, passive movements daily, and this treatment continued until muscular recovery ensues, or the occurrence of the reaction of degeneration in the affected muscles renders operation advisable.

There is a form of nerve injury in which the importance of early diagnosis and treatment does not appear to be universally recognized. I refer to the involvement of nerve branches in scar tissue. These cases are often overlooked or treated by massage and various lotions until serious damage has resulted, and prolonged and perhaps permanent disablement is caused.

It rarely happens now that symptoms due to nerve involvement follow a major amputation, for it has become one of the recognized steps of the operation to pull down and cut short the nerve trunks. This is often neglected in amputations of the fingers. During the last two years I have seen eleven workmen who were incapacitated from this cause, and have operated upon six, all of whom were able to return to work within a short time. It is to this form of nerve involvement that I wish particularly to refer.

The symptoms following the involvement of nerve branches in scar tissue and wounds of small nerves were well known to the older surgeons. A very definite train of symptoms follow, which I have discussed elsewhere,[6] and only wish here to draw attention to those which follow involvement of nerves in amputations of the fingers.

The following is an example of the type of case as it usually presents itself at an early stage.

M. R., aged 18, was admitted under my care on December 7th, 1907. Three months previously the first and second fingers of the right hand were crushed in machinery and were amputated through the middle of the second phalanges. Both suppurated and did not heal for two months. Soon after the wound was healed burning pain was noticed in the middle finger, at first in the scar, later involving the whole finger and shooting up the arm. I found the skin of the whole of the stump of the middle finger red and shiny. The scar itself was extremely tender, and on drawing a needle over the palm of the hand the median area was hyperalgesic, but there were no changes in the skin. The stump of the index finger was free from tenderness and the skin of normal colour. On December 9th I turned back the old flaps and found the two palmar digital branches spread out over the end of the bone in a fan-shaped manner. I dissected them out and divided them as high as possible, and then removed a little more bone, in order to allow the flaps to meet without tension. Pain was lost at once, and on discharge ten days later the wound was healed, all tenderness had gone from the stump and hand, and the appearance of the skin of the stump was normal.

This was an early and satisfactory case. In many cases, particularly where compensation is in question, hysterical symptoms supervene, but they are by no means confined to cases of this nature. In other cases the muscles supplied by the nerves whose branches are involved are wasted and paralysed, later the pain may spread to other nerves and be complained of in the corresponding positions on the opposite side of the body; lastly, particularly when fruitless operations have been performed, neurasthenia develops.

With regard to treatment, this should be preventive. I have been struck with the number of cases in which suppuration took place. I believe this is due to neglect of Listerian principles. From my own experience, I know that suppuration can be prevented in the large proportion of cases by the judicious use of carbolic lotion. The first aid treatment of a case of this nature should be to surround the part with a compress wet with 1 in 20 carbolic while preparations are being made to thoroughly clean up the surrounding skin. In the treatment of accidental wounds, nothing acts so satisfactorily as an antiseptic as carbolic. While nerve involvement may take place in wounds that heal by first intention, the most severe cases are those in which prolonged suppuration occurred.

In several cases upon which I have operated, the digital nerves have been spread out in a fan-shaped manner over the end of the bone; this with the appearance of the bone led me to think that the bone was divided with bone forceps before the soft parts had been efficiently freed. If bone forceps are used, it must not be until the bone is bare. In every amputation the nerves should be seen and cut short.

When pain and tenderness develop, treatment should not be delayed. The prognosis is good if operation is performed when the pain and tenderness is still confined to the scar or stump; when it has spread to other nerves, or is associated with hysteria or muscular affections, it is by no means favourable, and may, when spread has taken place, necessitate a serious operation—division of posterior roots—before relief can be obtained. Operation should be carried out with a definite object in view, to find and cut short the involved nerves. Reamputation should not be done in a haphazard way. I have notes of one patient who has had four reamputations performed without success, and now has all the complications that can result in this condition.

Sometimes it is possible to feel swellings on the ends of the involved nerves. This may be a help in finding them. In most cases it is best to turn back the old flaps and search for the nerves at the end of the bone. If they cannot be found here, they should be found at the sides of the fingers, traced to their involvement, and cut short. It is only necessary to remove bone when the flaps will not come together again without tension. After closure of the wound the part should be kept at rest until healing has taken place. In few cases will this fail to relieve the pain. If the pain is not relieved, or recurs, no further local operation should be done if the first was thorough. Before proceeding to the only certain treatment in these cases—division of posterior roots—Weir Mitchell treatment must be tried after removal of all cause for worry. It is useless treating advanced cases while compensation proceedings are pending. Weir Mitchell treatment must also be adopted after operation in the cases complicated by hysteria. When muscular symptoms are present, the affected muscles must be kept relaxed by suitable apparatus, until voluntary power returns, and daily massage given. It is often twelve months before muscular recovery takes place.

REFERENCES.
[1] Erasmus Wilson Lectures, *Lancet*, March 24th, 1906. [2] Ibid., March 31st. [3] *Injuries of Nerves and their Treatment*, p. 77. [4] Ibid., p. 40. [5] Head and Sherren: Consequences of Injuries to Peripheral Nerves in Man, *Brain*, Summer Number, 1905, Part CX, pp. 253-60. [6] *Injuries of Nerves*, p. 139 et seq.; *Clinical Journal*, June 28th, 1905.

ON A CASE OF SPASMODIC SYRINGOMYELIA.

By JUDSON S. BURY, M.D.LOND., F.R.C.P.,
PHYSICIAN TO THE MANCHESTER ROYAL INFIRMARY.

THERE are few diseases in which the symptoms present so many variations, both in kind and in grouping, as in syringomyelia. The most characteristic features of the disease are: Loss of sensibility to pain and temperature affecting portions of the arms and the upper part of the chest; muscular atrophy resembling in its distribution and progress that of "progressive muscular atrophy," and trophic disturbances of the skin, bones, and joints. Associated with these symptoms there may be loss of tactile sensibility, a spastic weakness of the legs varying much in intensity, ataxia, enlargement of a limb, or signs of implication of some of the cranial nerves, or of the cervical sympathetic. According to the presence or absence of any of these symptoms, to their relative preponderance and to the variations in their combination, the diagnosis in certain cases may be difficult, and may involve a consideration of disseminate sclerosis, disseminated forms of myelitis, cervical pachymeningitis, amyotrophic lateral sclerosis, ataxia paraplegia, and bulbar paralysis.

With regard to spasm, this as a rule is but little marked in syringomyelia, muscular hypertonus being often only expressed by exaggeration of the knee-jerk. Sometimes it is more in evidence, and in the legs may be associated with definite paralysis; then, if the muscles of the arms are atrophied, the case, apart from sensory phenomena, may closely resemble one of amyotrophic lateral sclerosis. Very rarely muscular spasm is so marked and so widespread that it constitutes the dominant feature of the case. This spasmodic form of syringomyelia was first described by P. Marie in 1900. Two years later one of his pupils, G. Guillain, wrote a thesis on the subject, in which, after a careful analysis of five cases, he enumerated the following symptoms as characteristic of the fully developed condition:

1. The arms are firmly applied to the sides of the chest, the elbows are slightly flexed, the wrists are extended, and the hands tend to meet in front of the pubis. The shoulders are raised and projected forwards, and a hollow is formed by the sinking in of the upper part of the sternum and the adjacent cartilages; the head is also inclined forwards, and is sunk between the shoulders. The back is rounded; the external border of the trapezius is often unduly prominent. The attitude is a rigid one, and resembles that of paralysis agitans.

2. The position of the hand is peculiar; besides being hyperextended, like the hand of a preacher, the three inner fingers are firmly flexed into the palm, and tend to recoil like a spring after they have been forcibly extended, but the thumb and index finger remain extended, and for a long time preserve a certain degree of movement which is like that of a pincers.

3. Limitation of movement, which affects all four limbs and sometimes the head, is mainly due to muscular rigidity.

4. The knee-jerks are greatly exaggerated, ankle-clonus is easily elicited, and the plantar reflex gives an extensor response.

5. The evolution of the malady is very slow, and its duration long, lasting often for more than twenty years. Death is frequently the result of septic infection from a paralysed, and often an ulcerated, bladder.

Guillain made a pathological examination in two cases. He found intense degeneration of the pyramidal tracts in their whole length in the cord; to this degeneration, more marked than that usually found in syringomyelia, he attributes the spasmodic condition. Since his thesis Guillain, in conjunction with Alquier and Raymond, has described two more cases. Other cases have been reported by Raymond and Francais, Verger and A. Bruce. In Bruce's case, which he diagnoses as probably a very early instance of the spasmodic form of syringomyelia, the symptoms were limited to the left arm; this showed the characteristic attitude, and there was dissociated sensibility of portions of the hand and forearm. In addition to muscular spasm, the skin and subcutaneous tissues of the arm were much thickened and the muscles were unduly firm; the condition was one of scleroderma and fibromyositis.

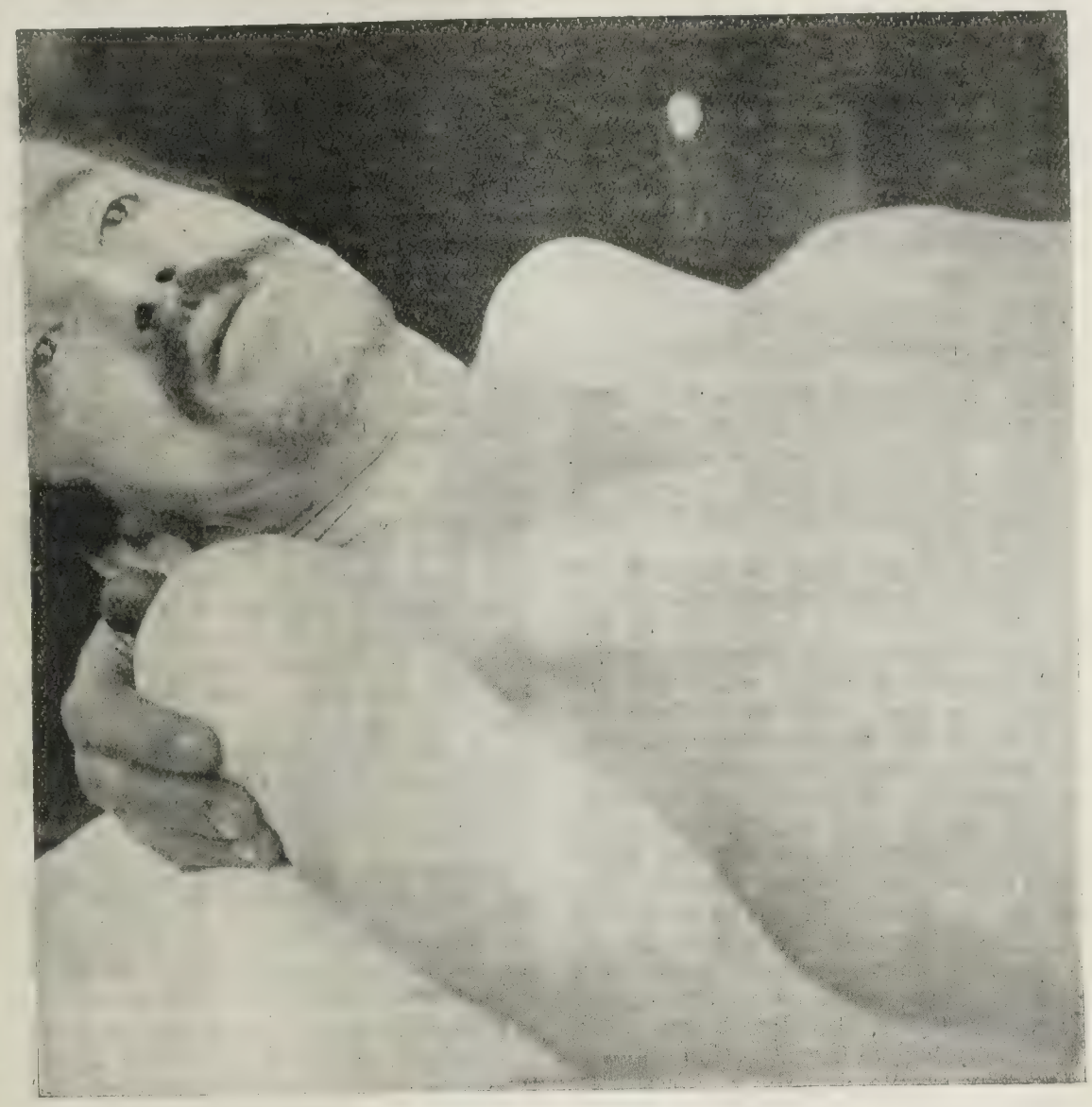
The following case, which was recently under my care at the Manchester Royal Infirmary, corresponds in its main features with the description given by Guillain of the spasmodic variety of syringomyelia.

CASE.

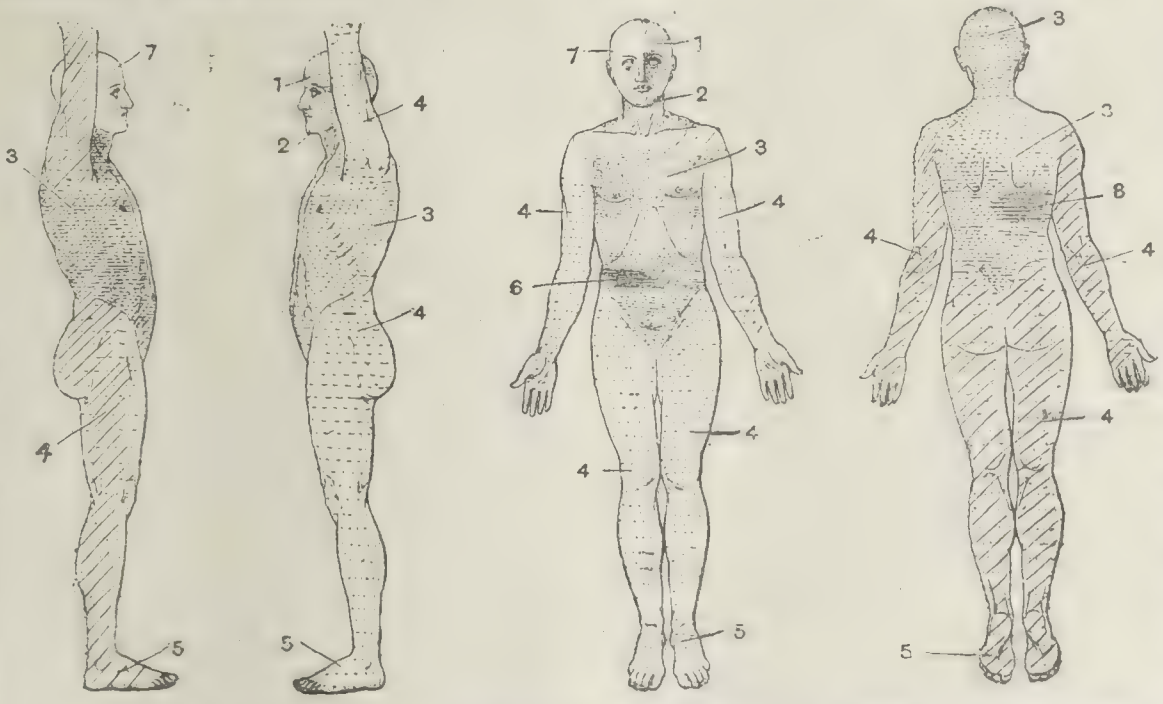
M. W., aged 30, was born in Yorkshire, and has always lived in England. Between the ages of 5 and 7 he had "fainting fits," about one attack a week, in which he lost consciousness; there was no struggling, no biting of the tongue, nor involuntary micturition. When about 21 years of age he contracted gonorrhoea, but denies having had syphilis. In 1893 (aged 20) he was medically examined for the railway service, and was passed as quite healthy. In 1897 (aged 24) curvature of the spine was noticed. In 1900 (aged 27) his left arm became weak, and gradually got weaker and stiffer. In 1903 (aged 30) the left leg began to get weak, and a few months later the right arm and the right leg. During the year 1904 his legs got steadily weaker and stiffer; his left leg used to jerk spasmodically at times, and the right leg became very tremulous under the influence of emotion or exertion. In January, 1905 (aged 32), he was obliged to give up work, and he entered University College Hospital under Sir Thomas Barlow. Six weeks later he went into the National Hospital under Dr. Risien Russell. On June 22nd, 1906 (aged 33), he was admitted under my care at the Manchester Royal Infirmary, when the following notes were taken: Patient is a short, thin man, very poorly nourished, unable to stand without support. There is a marked lateral curvature of the dorsal spine, with the convexity to the left; the left side of the thorax bulges posteriorly. The shoulders are raised and project forwards; the upper part of the chest presents a distinct hollow. These features are well shown in the accompanying figures, from photographs.

The patient is unable to sit up in bed, his trunk is very rigid. The limbs are weak and rigid, the right arm the least so. The left arm is almost completely paralysed; the upper arm is pressed against the side of the chest, the elbow is slightly

flexed, the wrist is hyper-extended. The whole limb is very rigid, and much force is required to bend its joints. All the finger-joints are flexed, the index finger being less bent than the other fingers; the distal joint of the thumb is hyper-extended, and is usually pressed against the first finger. The right arm is also rigid, but patient can feebly move it at shoulder, elbow, wrist, and fingers; the hand is strongly pronated; there is only slight power to supinate it. The fingers are rigidly flexed at the metacarpo-phalangeal joints, and slightly flexed at the phalangeal joints; the index finger is less rigid than the other fingers. Patient can feebly lift his legs from the bed, and can bend and extend the knees, ankles, and toes; all these movements are very difficult owing to muscular rigidity. Adduction and abduction of the thighs are stronger than other movements. The right leg is weaker than the left one; on movement it shows a fine rapid tremor. The left leg is occasionally drawn up by spasm. The limbs are very thin, but there is no obvious muscular atrophy. The wrist, elbow, and knee jerks are exaggerated; there is marked ankle clonus; the plantar reflex is extensor in type; the superficial abdominal reflexes are present. The patient is free from pain, and from other abnormal subjective sensations. The sense of position is not affected; muscular sensation as tested by squeezing the muscles is normal. Tactile sensibility is not impaired except to a slight degree on the hands and feet. Sensibility to pain is abolished or considerably diminished all over the body, with the exception of portions of the left arm. Sensibility to heat and cold is also diminished, but patient's answers are so variable that it is difficult to define the limits of the loss. The mental condition is normal. The only signs that any of the cranial nerves are involved are: (1) Marked nystagmus when patient looks towards the left side; and (2) analgesia of the face. The bladder and rectum are not affected. The patient was treated with massage, and his spine was exposed to the Roentgen rays thrice weekly. This treatment was followed by an improvement in the flexibility of the limbs and in the movements of the right arm.



He left the hospital on August 21st, was readmitted on September 25th, 1907, and was discharged on December 11th. At this time his condition was much the same as formerly. The following minor differences were observed: The limbs and body were more rigid, there was no voluntary power to move the left arm at the shoulder, and the superficial abdominal reflexes were absent. On October 22nd, slight improvement in the power of the right arm was noted; this was attributed to daily massage. Patient was admitted to hospital for a third time last July, and remained under treatment until November. He thought that daily massage did him good and lessened the tendency to tremor of his limbs. In other respects no material change in his condition was observed. Tactile sensibility was normal with the exception of a small area over the trunk. Sensibility to pain and temperature was most diminished over the occiput, the neck, and the trunk; it was less affected over the limbs, and was nearly normal over the left arm. On both arms a cold test-tube was occasionally thought to be warm. On the legs the temperature sense was only definitely diminished over the left thigh. Slight variations in the distribution and the condition of sensation were noted on different occasions; the accompanying charts were made shortly before he left the hospital.



1, Impaired sensation to pain; temperature sense normal. 2, Impaired sensation to temperature only. 3, Impaired sensation to both pain and temperature. 4, Slightly impaired sensation to both pain and temperature. 5, Very slightly impaired sensation to both pain and temperature. 6, Impaired tactile sensation. 7, Sensation normal. 8, Slightly impaired tactile sensation.

In its main features—namely, the intense and widespread rigidity, the peculiar attitude of the upper part of the body, and the dissociated sensibility—this case corresponds to the spasmodic form of syringomyelia, and it is difficult to admit the possibility of any other diagnosis. The rigidity might be caused by cervical pachymenigitis, but in this condition we should expect pain and muscular atrophy in the arms. In all probability the cavity occupies a considerable length of the spinal cord, and there is evidence in the presence of nystagmus and of analgesia of the face that the lesion extends into the bulbar region.

The extreme muscular rigidity suggests that the pyramidal tracts are severely implicated.

BIBLIOGRAPHY.

G. Guillain; *La forme spasmodique de la syringomyélie.* Paris, 1902.

Alquier et Guillain: Etude anatome-clinique d'un cas de syringomyélie. *Rev. Neurol.*, 1906, p. 489.

Raymond et Guillain: Un cas de syringobulbie. Syndrome d'Avellis au cours d'une syringomyélie spasmodique. *Rev. Neurol.*, 1905, p. 41.

Raymond et Français: Syringomyélie spasmodique avec attitude particulière des membres supérieurs. *Rev. Neurol.*, 1906, p. 350.

H Verger: Sur un cas de syringomyélie spasmodique douloureuse à évolution rapide. *L'Encéphale*, 1907, p. 21.

A. Bruce: A Case of Spasmodic Syringomyelia (?). *Review of Neurology and Psychiatry*, 1908, p. 390.

DRY IODINE CATGUT.

BY

WILLIAM S. DICKIE, F.R.C.S.,

SURGEON, NORTH RIDING INFIRMARY, MIDDLESBROUGH.

IN the BRITISH MEDICAL JOURNAL of October 2nd, 1909, there appeared a very interesting article by Mr. Steward on formalin-iodine catgut. As the subject of absorbable ligature and suture material is of constant interest, an account of my experiences with catgut sterilized by means of iodine may not be out of place.

I have used iodine catgut in one form or another for more than four years. At first I used ordinary raw catgut prepared by Claudius's method and preserved in the iodine solution. The great disadvantage attending its use is the brittleness which speedily develops when the gut lies in the iodine solution for more than ten or fourteen days. Another point to which Mr. Steward refers, namely, the rough and uneven surface which the material sometimes assumes after immersion in the iodine solution, annoyed me occasionally, and it was usually noticeable that the hanks which presented this peculiarity also failed to assume the usual deep brown, almost black colour. The last mentioned defects are not, I think, due to the method of preparation, but to variations in the material itself, because it would sometimes be observed that one or two hanks in a batch were rough and light-coloured, while the others were smooth and dark. However, the defect was more apparent than real, as bacteriological investigation showed that the doubtful hanks were sterile, and the material was just as strong and easy to handle as that presenting the usual appearances. On the whole, the method is satisfactory, and I still use it in hospital practice where a batch of catgut is speedily used up and renewed, because it reduces the preparatory handling to the minimum.

In private practice, however, the conditions were somewhat different; a given quantity of catgut lasted a very much longer time, and it was therefore necessary to prepare it in relatively small quantities and more often, or to take the chance of finding that the latter part of the stock had become rotten.

After reading the memoir on dry iodine catgut by Alexis v. Moschowitz,[1] I tried the method recommended, and have adhered to it ever since. The plan I follow is this:

I prepare four dozen lengths of one size at a time, because the tins which serve for the final storage of that quantity are of a handy size.

I wrap four dozen special glass slides with notches cut at the ends in a piece of gauze, and place them in a glass jar, and sterilize jar and contents in a steam sterilizer. Of course this preliminary sterilization is not essential; indeed, it is almost superfluous, since if the iodine solution can be trusted to render the catgut aseptic, it can also be trusted to sterilize the slides and the interior of the jar; still it is just as easy to use a sterile jar and sterile slides and to do the work with clean hands as to employ the reverse conditions.

One length of catgut is then wound loosely on each slide. A certain amount of slack is essential, as the gut contracts so much in the solution.

The loaded slides are placed in the jar, and an excess of iodine solution poured over them, and the jar, which is fitted with a ground-in glass cover, is stored in a dark place.

On the tenth day the iodine solution is poured off, and, after waiting for a few hours to allow as much of the fluid as possible to drain from the catgut to the bottom of the jar, the slides are transferred to sterile test tubes.

In a copper tin I place four dozen test tubes, each tube plugged in the ordinary bacteriological fashion with cotton-wool, with a layer of Gamgee tissue above and below the tubes; the tin and its contents are sterilized in a high-pressure steam sterilizer for half an hour, and then placed in a gas oven to ensure perfect dryness of the tubes and wool plugs.

With gloved hands and sterile forceps the loaded slides are transferred from the jar to the tubes, one slide to each tube, and the cotton-wool plugs are immediately replaced after a preliminary singeing in the flame of a spirit lamp. The covering layer of Gamgee tissue is placed over the tubes, the lid put on, and the tin put away upside down for a couple of days to allow of any remaining moisture gravitating from the interior of the tubes into the plugs. At the end of that time the catgut is perfectly dry and the plugs are more or less impregnated with iodine.

Preserved in this way the catgut will keep almost indefinitely and retain its tensile strength unimpaired for years; but perfect dryness is essential, otherwise the material is sure to become brittle.

For a time I tried sealing the tubes—after the contents were apparently dry—over the cotton-wool plugs with paraffin wax, and again I used tubes fitted with screw caps, but I found no advantage therefrom; indeed, I think that the catgut keeps best when a certain degree of ventilation is allowed through the plugs.

At one time I had some doubts as to the certainty of the tube contents remaining sterile, but repeated bacteriological examinations after the lapse of considerable periods have invariably shown that the catgut was perfectly aseptic, so that for a long time I had no further investigations made. I had in my possession, however, an unopened tube of No. 6 formalin-iodine catgut which had been intended for ligaturing pedicles, etc. The gut had been placed in iodine solution on May 7th, 1906, and transferred to the test tube on May 17th, 1906. I have not used catgut of this size for years, for reasons subsequently to be mentioned, and I felt that in any case I should not care to use this particular specimen, as its asepticity and tensile strength might be doubtful three years and five months after preparation. I therefore sent the unopened tube on October 20th, 1909, to the Clinical Research Association for investigation, and received the following report:

October 28th, 1909. After a preliminary washing to get rid of any disinfectant present, the catgut was incubated in sterile media for one week, half the time under anaërobic condition and the other half under ordinary conditions. After this time the media had remained quite sterile, proving the absence of living organisms from the catgut.

I myself tested what remained of this specimen of catgut with regard to its tensile strength, and found that it was in no way impaired, the average breaking strain of the knotted catgut being 36¼ lb.

When I first adopted the dry method of preservation I used the ordinary formalin catgut supplied by the dealers as my raw material, but ultimately gave it up, for two reasons.

One was that the formalin catgut never stained deeply in the iodine solution; usually after ten days' immersion it was only of a light brown colour. This was perhaps only a very unimportant matter, as bacteriological investigation of the light-coloured strands demonstrated their asepticity, a point which was amply confirmed by clinical experience; still the deep colour provides a somewhat rough but visible guarantee that the iodine has penetrated thoroughly into the material.

The other was that it remained too long unabsorbed. In the great majority of cases this constituted no disadvantage, but in several in which operations had been performed on thin patients with but little subcutaneous tissue—particularly hernia and appendix operations—where the somewhat bulky knot formed by knotting the penultimate loop and the terminal end of the continuous suture uniting the edges of the superficial aponeurosis lay immediately under the cutaneous incision, the knot was ultimately extruded through the long-healed scar four and five weeks after the operation. This difficulty might easily have been obviated by using finer sizes of catgut than the Nos. 2 and 4 which I commonly employ, but, for reasons which I shall subsequently state, I preferred to continue to use the heavier material.

This objection of too long persistence in the tissues also applies to formalin catgut and sulpho chromic catgut treated by the iodine method and stored in the iodine solution. I therefore returned to the use of ordinary raw catgut, and have used it continuously for three years. Prepared and stored in the way I have described it has proved exceedingly satisfactory. Even after nine months it has been found quite as strong as when first prepared; clinically, I have had no reason to doubt its asepticity. Its surface is perfectly smooth, and it has just a sufficient

degree of rigidity to render it easy to handle and to thread into the needles, and the knots are, I think, more secure than with any variety of wet catgut.

Except for sutures in the mouth I always use it dry, the glass slip carrying the catgut being simply tilted out of the tube on to the instrument tray. In the mouth, however, iodine catgut seems to cause an undue amount of pain, therefore when any intra-buccal operation is in view the catgut is placed in sterile salt solution to wash out the excess of iodine.

The sizes I use are Nos. 0, 2, and 4. No. 0 when a great number of small ligatures is required, No. 2 for the peritoneum and most ligatures, No. 4 for muscles and aponeuroses. More and more, however, I find myself using No. 2 only for all purposes, and obtaining any desired variations in additional strength by multiplying the number of strands—three strands for ligating a pedicle, two strands for the abdominal aponeuroses, one strand for ordinary ligatures, etc.

These sizes seem unnecessarily large, and were it a question simply of the material being strong enough to withstand a certain tensile strain, that would be true, but there are other important factors to be considered.

The first is the lack of uniformity in the standardization of catgut. The various sizes correspond to no definite gauge. I have made some measurements to determine the thicknesses of various samples, taken by chance, from the stock of unprepared catgut which happened to be in my possession. The nominal sizes were Nos. 0, 2, 4, and 6. The instrument I used for the measurements was an ordinary Imperial Standard wire gauge. No. 6 catgut was fairly uniform, about 21 w.g. No. 4 catgut varied from 22 w.g. to 24 w.g.; in one packet, supposed to contain No. 4, samples measuring 22, 23, and 24 w.g. were found. No. 2 catgut varied from 23 w.g. to 26 w.g.; specimens corresponding to 24 w.g. and 26 w.g. being found in the same packet. No. 0 catgut varied from 26 w.g. to something decidedly finer, which I could not measure, as the gauge does not go beyond No. 26; it would be necessary to use a micrometer to verify the thicknesses of the finer sizes. These variations in thickness of course correspond to enormous differences in tensile strength between various specimens which are nominally of the same size. These variations in thickness and in tensile strength entirely corroborate the statement of our theatre nurse, who, after having been blamed for getting her sizes mixed and for the occasional brittleness of the material, complained that the sizes put up in the same packet, and nominally of the same thickness, really varied enormously, the differences being perfectly obvious to the naked eye. A point which attracted my attention when making these measurements was that some dealers label their catgut No. — corresponding to — w.g., while others simply label it No. — and make no reference to the wire gauge to which the number is supposed to correspond, and it was further noticeable that the catgut belonging to the latter group, distinguished only by a number, showed a decided tendency to fall below the standard of thickness presented by corresponding sizes in the first group. I therefore think it would be advisable for any surgeons who are particular about the sizes they use to specify the wire gauge wanted rather than numbers, which apparently mean very little, when ordering their catgut.

Further, there are sometimes considerable variations in tensile strength owing to defects in samples of catgut of similar sizes. The tensile strengths of all materials are diminished when they are bent or kinked; this is notably the case with catgut, where a simple knot involves a very considerable diminution.

Catgut, especially the smaller sizes, tends to cut in the knots, even more than fine silk does; this is often the cause of breaking in cases where the material shows a quite satisfactory degree of resistance to a direct strain.

Of all materials used for surgical ligatures and sutures, with the exception of silkworm gut, catgut is the one in which the knots are most insecure. There is some difference, according to the variety of catgut, but all suffer from the same defect. Any one can demonstrate this for himself by tying two pieces of catgut together and then pulling on the long ends. If the catgut is fairly strong the knot is just as likely to slip as the material is to break, whereas with silk or linen the knot will always jam and the thread break if the strain is continued. The type of knot—surgical knot, reef knot, or granny knot—makes very little difference—one is just as likely to slip as the other; to my thinking the greatest security is obtained by tying the second turn of the knot very tightly, by adding a third turn to the knot, by using two finer strands rather than a single heavier one, and by leaving the ends fairly long.

For these reasons I think it is advisable to have a considerable margin of strength in the catgut employed, and, after all, the thickness is not of much moment if the material is soon absorbed.

With regard to the length of time plain iodine catgut lasts in the tissues, I am unable to speak very definitely; clinically I can say that I have no reason to think that it has in any case been absorbed too soon. When No. 2 dry iodine catgut was used experimentally as a skin suture to determine its resistance to absorption, the subcutaneous parts of the loops showed signs of erosion, but were still strong after fourteen days. In one case, where the abdomen was reopened on the eighth day, both No. 2 and No. 4 catgut were found to be perfectly distinct and strong. In another case, where the abdomen was reopened on the twelfth day, parts of both Nos. 2 and 4 were found to be still quite strong, but the sutures were so closely blended with the healed tissues that it was not possible without undue waste of time to follow them up. On the whole, I think that No. 2 plain iodine catgut lasts for about fourteen days in the tissues, and No. 4 for a few days longer.

To sum up, my experience of dry iodine catgut prepared and preserved as above described is:

1. It is aseptic.
2. Its tensile strength is satisfactory.
3. It remains aseptic and strong for years.
4. It is smooth, does not kink, is easily handled, and is easily threaded into the needles.
5. The knots are as secure as with any kind of catgut.
6. The iodine with which it is impregnated causes no trouble in the tissues.
7. It resists absorption for a sufficient time.
8. In private work it does away with the necessity for carrying about a jar containing iodine solution; I think that this is a decided advantage, although some very handy little jars with metal cases and spring caps to prevent leakage have been devised.
9. As each hank occupies a separate tube there is no possible risk of the stock being contaminated when taking out a portion for use; this is a point of considerable importance, in view of the absence of a protecting antiseptic solution.
10. The preparation is simple and easy.
11. It is not a good material for skin or intestinal suturing.

For a very thorough detailed account of the qualities of dry iodine catgut I would refer any one who is interested in the subject to the paper by Moschowitz which I have already mentioned.

At one time I tried the Salkindsohn catgut, but soon gave it up. If it lay for any length of time in the iodine spirit it became too hard; if when about to be used it was placed in water or an aqueous antiseptic solution, it quickly swelled, kinked, and became very elastic; and if not immersed in fluid, it became so dry and hard as to be unmanageable.

REFERENCE.
[1] *Annals of Surgery*, September, 1905.

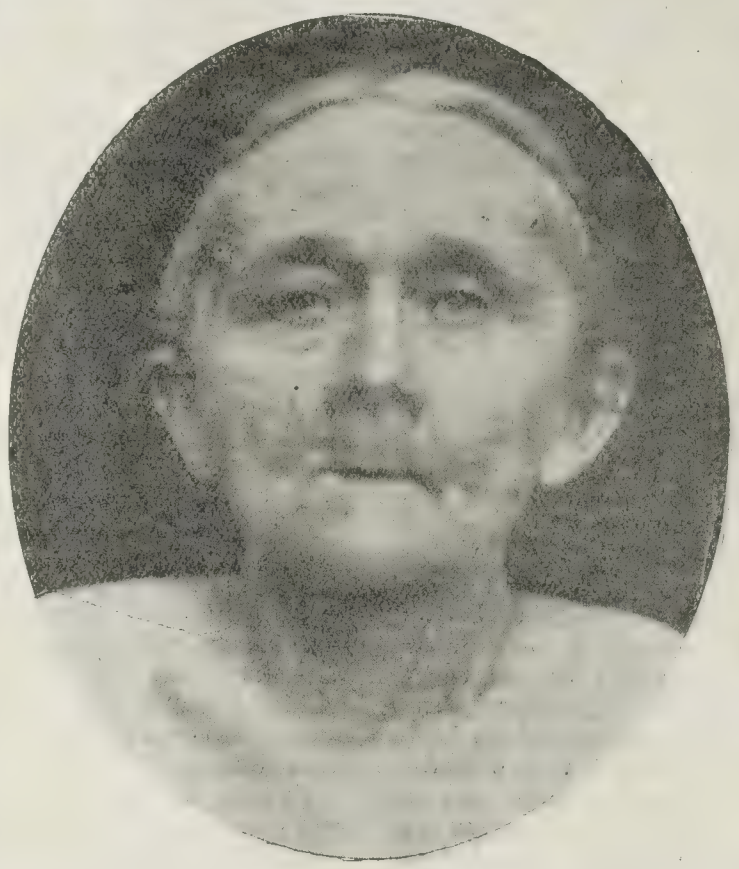
A CASE OF OSTEITIS DEFORMANS TERMINATING WITH CEREBRAL SYMPTOMS.

BY REGINALD G. HANN, M.R.C.S., L.R.C.P.,
LEEDS.

THE patient came under observation in 1902 at the age of 60. She was married at 22, had her only child (a daughter) at 24, and enjoyed good health until she was 40, when the right clavicle became prominent and rapidly attained its maximum growth. It caused no discomfort, and she paid no attention to it. At this time her limbs and body were undoubtedly perfectly straight. At 51 she began to ail, and from that time onwards was never in even moderately good health; she suffered from constant

headache and pain in the thighs, and her legs began to lose their shape and to bend, though the commencement of the enlargement of individual bones was not noticed.

As movement made her pains worse she gradually drifted into a bedridden existence. When first seen, in August, 1902, she was a dull and unintelligent old woman, always drowsy, spending her time in bed or on a chair without power to get about or any desire to occupy herself. Her surroundings were and had always been of the poorest. The outstanding feature of the case was the widespread alteration in size and shape of the bones. In the head the enlargement, which was very marked, affected the cranial bones and not the facial; the maximum circumference of the skull was 25½ in., and from one external auditory meatus over the vertex to the other was 15 in. In the spine there was an extensive dorsal kyphosis. The right clavicle was enlarged, as is well shown in the photograph. The spines of both scapulae and the left ulna in its upper part and parts of the pelvic brim were all thickened and stood out prominently. There was a projection of the right side of the chest due to enlargement and bending of two or three ribs. Both femora and both tibiae were greatly thickened and bent forwards and outwards, producing a condition of bow leg so extreme as to make it impossible to stand without crossing her feet. There was no tenderness of any of the affected bones, unless it might be of the tibiae, but as the legs were always oedematous it was not easy to be sure that the discomfort caused by pressure was due to tenderness of the bone.



The arteries were rigid and tortuous. The skin was persistently moist, and had a tendency to sweat profusely without obvious cause. The hair was plentiful and in good condition. An appearance of slight anaemia was scarcely supported by the result of an examination of the blood by Dr. Chaplin, who reported the red cells to be 4,300,000 and the white cells 7,510 per c.mm., the haemoglobin being 87 per cent. (Gowers's method). Taste and smell were normal; the sight and hearing were bad, and her memory had failed.

Dr. Chaplin also examined the urine, and reported that it contained no albumen, casts, or sugar. The chlorides, sulphates, and phosphates were normal. Indican was present.

Total solids by Christison Tyson's formula, 46.6 (500 c.cm. examined). Quantitative estimate of urea:

$$\frac{20\times 53.5}{354} = 3.002 \text{ urea per cent.}$$

Reaction acid; specific gravity, 1020.

During the subsequent years of her life no noticeable alteration in the bones took place, except in those of the head; its circumference increased from 25 in. in August, 1902, to 25⅞ in. in October, 1906, the increase being largely due to an outgrowth which filled up the right anterior temporal fossa. During the whole of the time the headache was constant and severe, and never relieved by drugs. She gradually deteriorated mentally and physically, and during the summer of 1905 was found one morning by her relatives unconscious in bed. She is said to have remained in this state for the next few weeks, quite oblivious to her surroundings, making no effort to speak or to feed herself, and having no control over the rectum or bladder. Then improvement slowly set in, and she recovered the power of speech and began to recognize her relations. The incontinence ceased. She is said to have had a similar seizure a year later and recovered, though perhaps not so fully; and, finally, on January 5th, 1907, she became comatose, and remained so until her death on January 7th. In this last illness there was no palsy or alteration of reflexes. Unfortunately she was not under medical observation during the first two attacks.

The *post-mortem* examination was limited to the head

and right clavicle. The vault of the skull was very vascular, very soft, and removed with great ease by the saw. The dura mater was adherent at the vertex for about 2 in. on either side of the falx cerebri, and was removed with the skull-cap. The thickness of the calvarium for the most part was from $\frac{3}{5}$ in. to $\frac{7}{10}$ in.; just behind the right frontal region it measured 1 in., and in the occipital bone varied from $\frac{4}{5}$ in. to $\frac{9}{10}$ in. Both inner and outer tables had increased in thickness, while the cancellous tissue was not particularly altered, except at the two places just mentioned as the sites of greatest expansion, where it shared in the general enlargement. The sutures were not obliterated. The inner surface of the vault presented a striking appearance. The posterior half was, generally speaking, smooth, but the channels for the vessels, which were unusually numerous, were very conspicuous and much deeper than normal. The anterior half presented a congeries of confluent flattened bony bosses, varying in size from that of half a walnut shell to a pea; these were particularly well marked in the frontal bone on either side of the longitudinal sinus; there was no definite symmetry in their arrangement. The right frontal sinus, which was of considerable size, had been opened by the section. The dura mater was much thickened, especially along the vessels. A portion of it and of the falx has been preserved with the calvarium, to which it was very adherent. The thickening was very marked, and was irregular in amount and distribution. Thick fibrous bands stand out upon its inner surface.

The clavicle on section showed the central medullary canal obliterated by coarse rarefied bone. Patches of medullary tissue persisted towards the extremities, where it was broken up by similar coarse trabeculae. There was considerable subperiosteal thickening of the shell of the bone, which had largely lost its compact structure.

The brain was normal in size, and on section showed no signs of any gross lesion. The blood vessels were comparatively good.

Dr. S. G. Scott, who prepared and examined sections of the bone, reports as follows:

Sections through the skull in the parietal region show a thin layer of bone arranged parallel with the fibres of the periosteum. The inner parts of the section are composed of regular trabeculae of bones surrounded by connective tissue composed of delicate fibrils and no great number of cells. Blood vessels are abundant in it, and are continuous through holes in the outer layer of bone with those of the periosteum.

At the edges of the bony trabeculae, often in shallow depressions (Howship's lacunae), are a good many cells, some of them myeloplaxes which are presumably osteoclastic in function. Marrow is scanty, but cellular and fatty marrow is seen in the inner parts of the bone here and there. These appearances appear to coincide with the usual descriptions of the disease, and, with one exception, do not traverse the accepted views of the morbid process—namely, that there is a formation of soft new bone, mainly from the periosteum, and a great widening of the Haversian canals by absorption of pre-existing and new-formed bone.

The exception is the use of the termination "itis." There is no evidence of inflammation in this specimen, and in the descriptions I have met with the evidence appears equally scanty. Histologically this specimen is no more inflammatory than is a normal growing bone, but the term "osteitis deformans" is so well established that nothing would be gained by suggesting an alteration of nomenclature.

Notwithstanding this expression of opinion of Dr. Scott's the writer feels strongly that the changes in the dura mater which were such a conspicuous feature in the case would be generally regarded as inflammatory, and very probably may have had a close connexion with the cerebral symptoms and the mode of death.

THE Council on Defence of Medical Research of the American Medical Association has recently issued five pamphlets which should serve to enlighten public opinion in regard to the value of animal experimentation. The following are their titles with the names of the authors: (1) *Vaccination and its Relation to Animal Experimentation*, by Dr. Jay Frank Schamberg of Philadelphia; (2) *Animal Experimentation and Tuberculosis*, by Dr. E. L. Trudeau of Saranac Lake, N.Y.; (3) *The Rôle of Animal Experimentation in the Diagnosis of Disease*, by Dr. M. J. Rosenau, director of the Hygienic Laboratory of the United States Public Health and Marine Hospital Service; (4) *Animal Experimentation and Cancer*, by Dr. James Ewing of New York; (5) *The Ethics of Animal Experimentation*, by Professor James Rowland Angell, head of the Department of Psychology of the University of Chicago.

THE DEVELOPMENT AND MALFORMATIONS OF THE GLANS AND PREPUCE.

By FREDERIC WOOD JONES, M.B., B.Sc.Lond.,
LECTURER ON ANATOMY, MANCHESTER UNIVERSITY.

IT is by no means uncommon to find in the newly-born male child that the prepuce cannot be retracted from the glans of the penis.

In performing the operation of circumcision upon infants this condition is frequently met with, and it is spoken of as congenital phimosis or "adherent prepuce." Further, in a very large proportion of all newly-born children some "adhesions" have to be broken down before the prepuce can be retracted from the glans.

Some degree of "adhesion" is normal, and in regarding such adhesions as being the products of inflammation—or as anything other than entirely natural processes of development—an incorrect idea is gained of the condition, and an interesting page of embryology is overlooked.

These "adhesions" are the outcome of the normal method of development of the glans and prepuce, and the misconceptions concerning them result from the incorrect accounts of the development given in most textbooks. Put briefly, this incorrect account describes the tip of the genital tubercle as being the glans of the penis, and pictures the prepuce as growing forwards over it as development proceeds. The prepuce is therefore regarded as a hood-like fold of integument which grows over a previously exposed glans.

The state of affairs as actually seen in embryos at various stages is entirely different to that just pictured; for the tip of the genital tubercle is a skin-covered papilla, within which the future glans is sculptured out by the invasion of a mass of epithelial cells. A correct account of the process was given by Dr. Berry Hart when he first described the curious phases in the development of the genital passages, and more recently he has gone into the question in more detail[1] and has figured the changes which take place in the glans and prepuce of the fetus. In 1902, without being acquainted with Dr. Berry Hart's paper, I described and figured the process of development of the same parts, and in the BRITISH MEDICAL JOURNAL of December 17th, 1904, I briefly mentioned it. In all respects my results were the same as those previously arrived at by Dr. Berry Hart.

Since the whole process of the development of the external genitalia wears a somewhat different aspect when this method of formation of the glans is accepted, it will be well to recapitulate briefly the various stages seen in the developing embryo.

1. The genital tubercle appears as a little papilla raised from the general surface of the skin (Fig. 1).

Fig. 1.—The genital tubercle, showing the urethral groove and inner genital folds confined to its base.

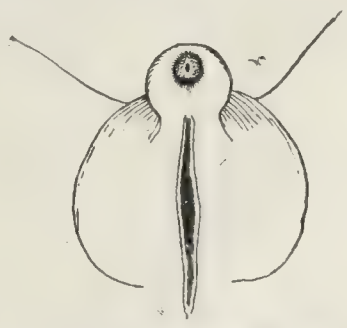


Fig. 2.—Showing the start of the formation of the glans. In the female the glans is early exposed owing to the spreading apart of the inner genital folds.

2. The inner genital folds mark the edges of the urethral groove, and it is to be noted that the tip of the genital papilla is never invaded by the urethral groove. It is knob-like, and is free from the lines of the inner genital folds. This is the portion of the genital tubercle wrongly called the glans (Fig. 1).

3. In the female the inner genital folds remain open, and when the epithelial ingrowth takes place at the tip of the genital tubercle, the glans which is formed within soon becomes exposed (Fig. 2).

4. As the inner genital folds become more widely separated in the growing female fetus the glans becomes

freely exposed within its prepuce. A like condition of congenital paraphimosis is developed in males born with any degree of hypospadias. The inner genital folds in the female form the labia minora, but the prepuce of the clitoris is formed quite independently by the ingrowth of

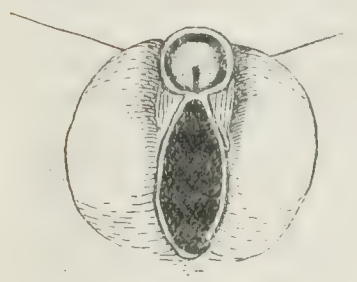


Fig. 3.—Showing the fate of the inner genital folds in the female, and the independent formation of the prepuce of the clitoris from the skin of the tip of the genital tubercle.

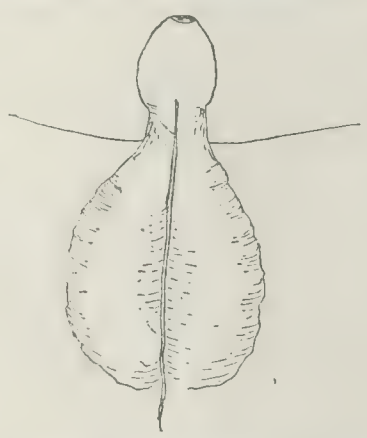


Fig. 4.—The condition in the male. The inner genital folds have met and formed the raphe, which does not extend to the tip of the penis.

the epithelial mass into the tip of the genital tubercle (Fig. 3).

5. In the male the inner genital folds meet in the middle line to form the raphe, which does not extend to the tip of the genital tubercle. The genital tubercle

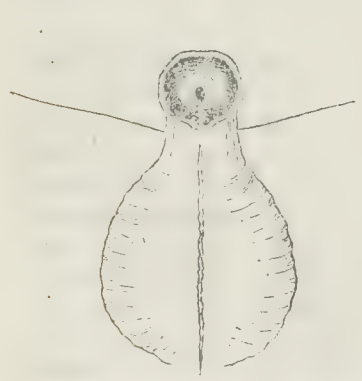


Fig. 5.—The condition in the male when the glans is completely formed and the prepuce is retracted.

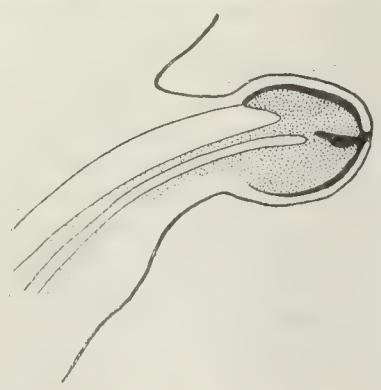


Fig. 6.—Section of the genital tubercle of the male. The dark mass represents the epithelial cell mass which has sculptured out the glans, prepuce, and terminal part of urethra, but has not yet broken down.

remains as a skin-covered papilla, swollen at its distal end (Fig. 4).

6. Into the distal end of the genital tubercle the epithelial cell mass grows, and it sculptures out the glans from the overlying skin. The cell invasion also burrows into the glans itself, and forms the urethra (at first as a solid plug) within the glans (Fig. 6). In the female fetus

Fig. 7.—Section of the penis of a full term male fetus in which the terminal ingrowth of epithelial cells to form the glans and distal portion of the urethra has altogether failed to develop.

Fig. 8.—Section of the penis of M. H. at birth. The glans is free from the prepuce over a very small area in front, in all other parts it is still fused with the prepuce. The terminal part of the urethra is formed. Normal fetal condition.

a similar invasion to form the distal portion of the penile urethra takes place, but it ends blindly, and later on it disappears.

7. The terminal portion of the urethra is hollowed out, and the prepuce set free from the glans, by the breaking down of the central cells of the invading solid plug. (Fig. 8.) The urethral plug is broken down by the seventh month of fetal life, and the fossa navicularis and lacuna magna are formed; but by this time the separation of the prepuce is scarcely begun. The breaking down of the preputial plugs is frequently not completed at birth. In a monkey at full term the corona is still occupied by a solid mass of cells, and the prepuce is only liberated in its fore part.

This normal method of formation may be arrested at any point.

1. The epithelial plug may altogether fail to develop and to invade the tip of the genital tubercle. In such a case (Fig. 7) no glans or prepuce is ever formed, and the portion of the urethra distal to the urethral groove is altogether wanting. Such is the condition of simple imperforate urethra, comparable to a case of imperforate anus. In the example figured the kidneys were functionless, and no distension of the urinary passages had taken place.

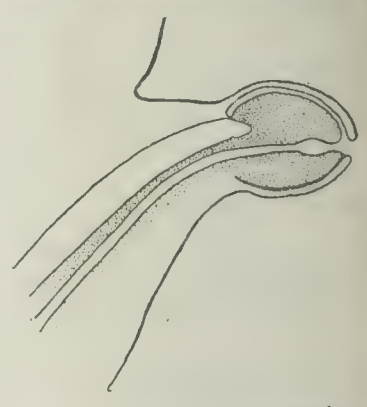


Fig. 9.—Section of the penis of W. B., aged 54. The prepuce is free above; but below, the division between glans and prepuce has never taken place.

2. The epithelial ingrowth may be developed, but may fail to break down in whole or in part. In such a case (Fig. 8, M. H.) it is impossible to retract the prepuce, for no glans—in the ordinary sense of the word—is developed. The urethra opens upon the tip of a skin-covered genital tubercle. This is the normal condition at about the sixth month of fetal life. In lesser degrees of this malformation the prepuce may be free above but firmly blended with the glans below; such a case (W. B.) is figured in Fig. 9.

3. Without any failure in development, the epithelial plug may invade the glans in a variety of ways, so causing variations in the position of the urethral orifice; or it may meet the proximal part of the urethra at a variety of angles, so causing sinuses and diverticula about the lacuna magna (Fig. 8.)

REFERENCE.
[1] *Journ. Anat.*, vol. xlii; fourth series, vol. i.

PRIMARY EPITHELIOMA OF PENILE URETHRA.

BY WM. ERNEST PEACOCK, M.D.DURH.,
STEEPLE ASTON, OXFORD.

As I have been unable to trace the record of a case similar to the following—that is to say, an instance of penile epithelioma inside the urethral canal—the case seems worthy of record on account of its extreme rarity alone.

On August 6th, 1907, a man, aged 74, complained of indefinite pains in the lower abdomen, back, and rectum. He was of gouty habit. The urine did not contain albumen, but there was excess of urates.

History.—He had suffered from the pains for two or three months, and when in London in July, 1907, had consulted a physician, who thought his symptoms were due to some growth in the bladder, and advised cystoscopic examination, but this was refused.

In September, in addition to the pains "across the bladder," he had some soreness and pain on micturition, with irritation round the glans penis. A discharge around, and the moist condition of the glans, was found to be due to a secretion of the coronary glands. The urine was carefully examined for sugar, which is a cause of discharge sometimes in old people, and has been mistaken for gonorrhoea. A catheter (No. 14 English) was passed quite easily, and nothing abnormal found in the bladder or urethra. A mixture of potassium bicarbonate, urotropine, and potassium bromide relieved the pains a good deal, and the balanitis was treated with a mild mercurial ointment and a starch powder, with calomel.

The patient continued to complain of the pains in the lower abdomen and back, sometimes of a shooting character and occasionally quite acute. I could detect nothing abnormal in the abdomen nor on rectal examination. The sphincter was, however, a little tight, and I believe during defaecation sometimes the muscle was in a state of spasm due to reflex irritation. This condition recalls a note from Mr. Heath, made in my student days, of the sympathy existing between the rectum and the urinary apparatus, and recalls, too, several instances in

which glandular swellings appeared in the groin synchronous with disease round the sphincter ani.

On November 5th Dr. Osler saw the patient in consultation and gave his opinion that there was no abdominal tumour. Nothing abnormal was found in a specimen of urine examined at the time at a clinical laboratory. I came to the conclusion that the balanitis was perhaps of gouty origin and that the pains were from a similar cause, probably angio-spasm.

The pain during micturition gradually increased and the urethral canal became narrower, so that instead of being able to pass No. 14 catheter easily, gradually only No. 7 could be passed. No actual stricture seemed present, but the desire to micturate or the passage of urine or a catheter seemed to cause a spasm of the urethral canal. On external examination no thickening of the penis could be felt in the region corresponding to the spasm about one inch from the urethral orifice.

I began to suspect a carcinomatous condition of the canal, and yet nothing could be felt to warrant the diagnosis, and there were no enlarged glands in the groin. Two years previously I had removed an epithelioma from his lip, and his father was said to have died of cancer. Mr. Parker of Oxford saw the patient, and agreed that there was probably some malignant disease present. The spasm and pain became so severe that I induced him to allow me to remove half of the penis.

Operation.

On January 31st, 1908, under a mixture of chloroform and ether, given by Dr. Duigan, the root of the penis was surrounded by an indiarubber band. A large anterior and a short posterior flap were dissected off. The urethra was separated for half an inch from the corpora. A horizontal slit was made in the anterior flap and the urethral canal brought through it. This in turn was split longitudinally, and the superior half stitched with a suture at each end to the upper half of the skin, and the lower half was treated similarly. The two skin flaps were united posteriorly, as in Teale's operation on the leg. A catheter was passed into the bladder, and kept there for three days. An uninterrupted recovery took place. To prevent retraction of the urethral orifice I made the patient pass a catheter through the orifice two or three times daily. He is now well, nearly two years after the operation, and has gained weight. He enjoys gardening, hunting, and shooting, and can walk some distance without fatigue. He suffers no pain and passes urine freely. I devised a small funnel with perpendicular sides which he carries about with him in his pocket; with it he can pass urine without wetting his clothes.

Specimen.

The specimen was put into 10 per cent. solution of formalin, and examined in the Pathological Department of Oxford University by Dr. A. Gibson, who reports as follows: "On examining the urethral canal there was, about three-quarters of an inch from the meatus on the dorsal side, an area slightly depressed in the centre, just perceptibly raised at the edges, which looked like a contracting cicatrix. On section of this area, the epithelium outside the ring, on tracing it towards the centre, became less regular in its structure, and apparently thinner, but on more careful examination by the high power numerous downgrowths of strands of epithelial cells could be seen. In the neighbourhood of these there was some increase of inflammatory round cells. The condition was undoubtedly epitheliomatous."

The early appearance of abdominal pain and its preponderance for so long a period was an interesting feature; also the spasmodic contraction of the canal with so small a lesion in the urethra. Two or three medical men who had passed the catheter through the offending portion were astounded at the small pathological lesion presented to the naked eye after slitting up the urethra; in fact, it was only found after careful examination. The early appearance of balanitis without urethral discharge until the later stages is of great interest, also the absence of enlargement of local glands.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

IS PONOS KALA-AZAR?

DR. G. A. WILLIAMSON, in the paper published in the BRITISH MEDICAL JOURNAL of September 18th, 1909, p. 781, suggests the name of "ponos" for this form of infantile disease. In the discussion which followed in the Section of Tropical Medicine Dr. J. L. Maxwell said he had seen the adult form in Formosa, and Mr. J. Cantlie drew attention to the presence of cancrum oris in "ponos" and kala-azar, but remarked that its etiology was a moot point. I have been in North China for five years, but have never seen a case of kala-azar in an adult, whilst I have in my out-patient clinic from 20 to 40 cases during the year in children. As I only know it in children, I cannot say in what points it differs from the adult form. I had occasion to open a discussion on the subject at the North China Medical Association annual meeting this year, and, whilst a great many doctors present had not known the disease under the name of "kala-azar infantum," most were familiar with the enlarged spleen, anaemia, diarrhoea, and necrosis of mouth so typical in these cases. This association represents medical missionaries from the provinces of Chili, Shantung, Shansi, Honan, and Manchuria, so that the disease may be fairly assumed to exist in North China as a whole. The men from Shantung remarked on its prevalence.

As we see it here the chief features are:

1. *Age.*—Always in children, rarely under 2 years, and never over 10.
2. The *spleen* is enlarged in all cases: the majority, when first seen, have a spleen at or below the umbilicus, and, in late stages, almost to the pelvis.
3. *Gastro-intestinal symptoms*, during the earlier months, are irregular; diarrhoea more or less frequent, but in the later stages constant and very severe.
4. *Great debility* in most cases, but the cachexia is not pronounced until after the so-called cancrum oris is well advanced, and I always attribute it to septic absorption, and probably this is the cause of the dysentericus of the later stages.
5. *Fever.*—On this point I cannot state definitely its course, because I only see them as out-patients. I have never been able to persuade a mother to come into hospital with her child, but my opinion is that it is irregular and intermittent, in the earlier stages, according to the description of the parents.
6. *Cancrum Oris.*—Under this heading my cases differ from what I take to be the true meaning of cancrum oris. I have never seen a case start in the *cheek*, but always in the upper or lower central incisors. Some describe the condition as a "gingivitis," but this I have not seen as a primary condition. It seems to commence at the roots of the incisor teeth and in the alveolar bone, and within a week or ten days the teeth drop out, leaving a black sloughing bone underneath; but so insidious and slow is the process that the gums are rarely inflamed, and even when the necrosis becomes so extensive as to affect the cheeks there is little or no surrounding area of inflammatory redness. In one case the whole of the left lower jaw was removed piecemeal back to the angle; and in another severe case there was complete necrosis of the upper jaw to the orbits on both sides, including the nose and anterior nares. How prevalent the disease may be amongst children I cannot say, for the parents do not bring them for treatment until the necrosis has commenced, and the putrid odour of the child's breath is the first thing they mention.
7. *Mortality.*—Every case dies, and our treatment is of no avail.

I can say little as to etiology. The frequency with which I noticed this necrosis in the central incisors naturally suggests a syphilitic origin; but it is very difficult to get any reliable history from the mothers, and, on the other hand, there is a very large amount of syphilis amongst men. Treatment with mercury (hyd. c. creta) over long periods had no effect. I gave up the malaria idea, because we have comparatively little malaria in North China, and I have never seen a case of kala-azar in an adult. The bug theory of transmission I also laid aside, for, whilst Chinese houses teem with bugs, why are only children affected? I have examined bugs brought from the houses of infected children, but so far have not found the Leishman-Donovan bodies.

I have not punctured a spleen, for the reason that I have not had a case as an in-patient; and being warned of the not infrequent rupture following this procedure, I have hesitated, knowing that I could not ensure proper rest afterwards in a recumbent position.

The Leishman bodies have been obtained by Dr. Lillie Saville of Tientsin by a blood smear from the peripheral circulation in the very late stages of the disease. What I consider a point of importance is that Dr. Lillie Saville has seen cases in which the necrosis or cancrum oris preceded the enlargement of the spleen. I have not seen such a case.

The anaemia, which is marked in the prenecrosis stage, becomes very profound afterwards, mucous membranes being blanched. I have not noticed or heard from parents of epistaxis or haematemesis; but purpura is frequent in the very late stage, as is also haemorrhage from the bowel in the form of dysentericus.

Speculatively, I am strongly in favour of inherited syphilis as the cause of the disease, and intend in future to push some of the arylarsonate compounds and note their effect.

W. H. GRAHAM ASPLAND, M.D., C.M., F.R.C.S.E.
The Church of England Mission Hospital, Peking.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

HULL ROYAL INFIRMARY.

A CASE OF RUPTURED GASTRIC ULCER: SUTURE: PRIMARY GASTRO-ENTEROSTOMY: RECOVERY.

(Reported by EDWARD HARRISON, M.A., M.D, F.R.C.S., Honorary Surgeon, Hull Royal Infirmary.)

IN reading *The Surgery of the Upper Abdomen*, by Deaver and Ashhurst, published this year, I was surprised to learn that only 22 cases had been recorded in which gastro-enterostomy was employed as a primary operation in cases of perforated gastric ulcer. At the time of the operation I was under the impression that in all cases of perforated gastric ulcer, if near the pylorus, or if any difficulty was experienced in the suture, it was customary to do gastro-enterostomy. I did not regard the case as one worth publishing, but as the number of cases hitherto reported is so small, it seems a duty to record this one.

E. B., aged 22, domestic servant, was admitted on November 22nd, 1907, at 9 p.m., under the care of Dr. Eve.

History.

There was a previous history of indigestion, and on the day previous to her admission at 11 a.m., while she was scrubbing a floor, she was seized with sudden and intense abdominal pain, so that she fell, and was unable to continue her work. She did not faint or vomit.

Condition on Admission.

The pulse was 140; liver dullness was present; the epigastrium was very tender and rigid, although she had had 2 grains of opium. The percussion note in the left epigastric region was impaired but not absolutely dull; she had an anxious look.

Dr. Eve sent for me at once, having diagnosed ruptured gastric ulcer.

Operation.

At 10.30 p.m., nearly thirty-six hours after rupture, the abdomen was opened above the umbilicus to the left of the middle line. Some lymph was seen on the anterior surface of the stomach near the pylorus, but no rupture was discovered. Further exploration revealed a mass of lymph on the anterior surface near the cardia, and to this the liver was adherent.

In order to obtain better access to this a lateral incision was made through the skin, rectus muscle, and the cartilage of the rib, and a search made for the opening in the stomach.

The rupture was not seen, but a couple of ounces of stomach contents welled up. The whole of the infected area was then inverted with a double row of Lembert sutures, and as I did not feel satisfied that a perfect closure had been made, and as the condition of the patient was no worse, I determined to perform gastro-enterostomy. This was done in twenty minutes, and at the conclusion the patient became collapsed, and ceased breathing. Strychnine 20 minims and adrenalin 10 minims were administered hypodermically and the wound hastily closed, with a stab drain in the loin, and an anterior drain in the upper part of the wound. Saline infusion was attempted, but the vein was too small to admit the cannula. On her return to bed she was infused subcutaneously, and her pulse improved.

Progress of the Case.

The next day she was greatly improved; she had had no vomiting, and complained of nothing but thirst. She was given frequent rectal injections of saline and mouth washes. The thirst, however, was so great that she contrived to imbibe the contents of a hot-water bottle given her to relieve alleged pain in the side.

The drains were removed on the third day; the temperature varied from normal to 101°.

On December 4th the temperature was normal, and remained so for five days, after which it again rose. The wound was still discharging, and she had an up-and-down temperature from subnormal to 101.

On January 3rd, 1908, the sinus was explored and scraped, with little benefit. This was done again on January 13th, and a tube inserted. A day or two after this there was some faecal extravasation, which I thought was due to the pressure of the tube. This was removed, and the faecal fistula soon healed.

She was put on the balcony and then developed a cough, and expectorated nummulated sputum, and I feared that she was phthisical. On February 19th it was found that she had an empyema on the left side. This was opened and drained; the temperature then became normal, and the wound healed. She was discharged to the convalescent home at Withernsea on March 13th.

On December 31st, 1908, I met her in a tramcar, and she told me that she was quite well, and could eat and digest her food better than she was ever able to do, and was at work.

Reports of Societies.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Wednesday, January 5th, 1910.

Dr. BYROM BRAMWELL, President, in the Chair.

Syphilis and Marriage.

DR. C. W. MACGILLIVRAY, in opening a discussion on syphilis and marriage, said that the physician in charge of a syphilitic man, married or about to marry, had not only to cure the disease, but also to prevent contagion and hereditary transmission; and in connexion with the latter the question of maintenance of medical secrecy was sometimes seriously raised. The crucial question was—When could a man with syphilis safely marry? Fournier, at the last, had urged six years' treatment. His own view was that a period of four years from the chancre was sufficient, provided the man was then healthy and had been vigorously treated. He described the varieties of maternal syphilis, and insisted on the importance of treatment in mitigating, and even in preventing, the transmission of paternal syphilis to the fetus. Dr. CLOUSTON said that in children a form of idiocy with epilepsy was due to hereditary syphilis. There were also the cases of developmental general paralysis, which were undoubtedly syphilitic. With regard to general paralysis in adults, in the great majority of cases there was precedent syphilis, but a causal relation was not established. It was a routine practice to begin the treatment of general paralysis by antisyphilitic measures. The few cases that thereby recovered were most probably of brain syphilis, which could closely simulate general paralysis. He was hopeful that fuller knowledge of the *Spirochaeta pallida* would increase their powers of diagnosis and treatment. Dr. HAULTAIN said that he was sceptical with regard to Colles's law. In those cases the mothers were not syphilitic. There was paternal syphilis and fetal infection; and the benefit of mercury was not wrought on the syphilis of the mother but on that of the fetus, by way of the placental circulation. The high solubility of the mercurial perchloride made this the more probable. Professor CAIRD said there were no accurate statistics in this country, but believed that the greater efficiency of treatment nowadays had saved many lives, both of the patients themselves and of their offspring. Dr. CRANSTON LOW said that the experiments of Metchnikoff and ROUX on monkeys showed that vigorous treatment made early reinfection possible. Mr. HODSDON cited a case of his own which, after very thorough treatment, showed a second infection two years after the first, special care being taken to verify both diagnoses. Mr. MILES quoted the most recent opinion of Jonathan Hutchinson that marriage could be permitted after two years' efficient treatment. A longer period of celibacy was no doubt advisable, but it was a counsel of perfection. Dr. JAMES RITCHIE said that his rule was two years' thorough treatment, followed by a year without treatment and without symptoms.

Phthisis and Arylarsonates.

Drs. LUNDIE and R. H. BLACKIE read a joint paper on the treatment of phthisis and other conditions by the injection of arylarsonates, which will be published in full. With reference to one of the cases recorded, in which blindness was induced, Dr. G. BERRY described the difference between tobacco poisoning, which produced a central scotoma, and the example, which began as a peripheral amaurosis. It was to be hoped that some other arylarsonate might be discovered which might have the general effect of soamin without its local action on the visual nerve apparatus.

Cremation.

Dr. W. G. AITCHISON-ROBERTSON, in a lantern demonstration on cremation, pointed out the value of cremation from many points of view—sentimental, hygienic, and economic.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF SURGERY.

Friday, December 17th, 1909.

J. LENTAIGNE, P.R.C.S.I., President, in the Chair.

Malignant Disease of the Colon.

MR. E. H. TAYLOR having read a paper on the operative treatment of malignant disease of the large intestine, Sir THOMAS MYLES concurred as regards the difficulty of effecting an anastomosis when a large area, starting from the splenic flexure to the upper part of the rectum, had to be removed. In some cases the lower end of the ileum might be attached to the upper end of the rectum, or the transverse colon implanted on to the rectum. The difficulty of bringing the mobilized colon into the pelvis varied greatly. The paper had borne out what had been observed clinically—that in certain cases of removal of the lower bowel, when they got above a certain point, it was better to remove more and get a mobile colon than to bring down the upper part of the rectum. The PRESIDENT recalled a case which supported Mr. Taylor's remark—that the whipcord form of cancer of the rectum was most amenable to surgical treatment, and least likely to give trouble by recurrence in the glands at an early stage. Mr. TAYLOR, in reply, said that even if no glands could be found diseased he thought the complete operation should be carried out. One was not justified always in concluding that because a gland was enlarged it was therefore malignant. If they had reason to believe that some of the secondary glands were involved the hope of radical cure was not great, as the chances were that the main glands would also be diseased. The disease might to some extent be septic, in which case one was justified in giving the patient the benefit of a radical operation. Where the glands were found diseased along the inferior mesenteric artery, the chance of a radical cure would be absolutely *nil*. In the case of cancer low down in the pelvic colon, what to do with the upper end was a great difficulty. To leave the patient with an artificial anus in the iliac region was the safest procedure. At the same time one would readily adopt any other method that would restore continuity. The operation of drawing down the bowel was extremely grave and the mortality was appalling.

Ethmoidal Suppuration and Trigeminal Neuralgia.

Mr. OLIVER GOGARTY narrated a case of suppuration of the ethmoidal cells, with symptoms of trigeminal neuralgia. A man, aged 31, had been suffering for thirteen years from left side facial neuralgia of epileptiform type. The attacks were frequent and often recurred several times in an hour. For nine months he lived on fluids alone, being unable to masticate. He described sores on the palate. In 1902 all the teeth, though sound, were removed above and below from the left side. Later the infra-orbital nerve was resected. He would not submit to removal of the Gasserian ganglion. In 1907 he was sent to Mr. Gogarty to exclude possible involvement of the accessory sinuses. Transillumination revealed nothing. There was no atypical hypertrophy in the nose. On the antrum being washed out a streak of pus was found. Both antrum and frontal sinus were sound. It was decided to open the ethmoidal cells. Pus came away freely when this was done. Subsequently necrosed bone and débris were removed. There had been no recurrence of neuralgia since March, 1907. In reply to observations, he added that his method of dealing with the case was as follows: The anterior third of the middle turbinal bone was removed with Grünwald's scissors and Stoerk's snare, and the superior margin of the cut surface punched away to the lamella with a conchotome. Five days later a sharp curved knife (Hajek's hook) was pressed against this, turned into the ethmoidal cells, and pulled downwards; pus at once came into view, and was followed up with a conchotome. The anaesthetic was local—40 per cent. of cocaine solution. No tampon was introduced, the anterior naris being plugged with cotton-wool and the patient warned against blowing his nose. The case probably began with influenza infecting the frontal sinus, the decomposition in the confined space breaking down the septa and giving rise to the empyema.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

Wednesday, January 5th, 1910.

Mr. A. FULTON, President, in the Chair.

MR. KENNETH BLACK, in a paper entitled *Surgical Odds and Ends*, dealt with the value of *x* rays in detecting needles, bullets, and other foreign bodies embedded in the tissues. Small foreign bodies frequently altered their positions; the *x*-ray examination, to be of use, should immediately precede the operation. He demonstrated two medico-legal specimens, the first showing a knife blade embedded in the cervical canal between the axis and the atlas, and dividing the spinal cord; and the second showing a portion of the left fifth rib with a portion of the skin and a bullet. Among curious sequelae to the Workmen's Compensation Act was a case of renal calculus ascribed to an abdominal injury $2\frac{1}{2}$ years previously. By *x*-ray examination the author had detected several curious accidents: one was a fractured fourth cervical vertebra quite unsuspected for several months; another was an unsuspected fracture of the radius in a medical man from a back-firing motor.

MEDICAL SOCIETY OF LONDON.

PATHOLOGICAL MEETING.

Monday, January 10th, 1909.

SAMUEL WEST, M.D., F.R.C.P., President, in the Chair.

THE following were among the exhibits:—Dr. F. PARKES WEBER: The heart from a case of *Chronic malignant endocarditis* simulating splenic anaemia. There was old thickening of the mitral valve, and adherent to one part of the valve was a soft organized thrombus of about the size of a hazel nut. In the left auricle, and apparently growing from the interauricular septum, was a large polypoid excrescence, which measured about 70 mm. in length and about 35 mm. in breadth. It was attached by a short circular pedicle about 7 mm. in diameter to a spot in the interauricular septum about halfway between the thrombus on the mitral valve and the (closed) foramen ovale. The free end of this polypoid excrescence, which was evidently an old organized thrombus, was opaque, white, and hard, its surface feeling as if it were partially calcified. The patient was a sailor who after contracting malaria abroad developed an enlarged spleen, and had been treated at several hospitals in London, where the diagnosis of splenic anaemia was made. Dr. DE HAVILLAND HALL said that the disease was not based on very sure evidence, and some scepticism was warranted in doubtful cases of so-called splenic anaemia. Dr. PORTER PARKINSON described a case of *Malignant endocarditis* in which during life leucopenia was noticed, and the CHAIRMAN pointed out the difficulty introduced by the fact that malignant endocarditis might be a secondary infection. Dr. LEONARD GUTHRIE and Dr. W. D'ESTE EMERY: *Hypernephroma*, with tumours of both optic nerves and hydrocephalus, associated with obesity and signs of precocious development. Dr. Guthrie described 12 cases of precocious development associated with the condition. Dr. W. D'ESTE EMERY and Dr. LANGMEAD: A specimen of *Honeycomb lung*.

ASSOCIATION OF REGISTERED MEDICAL WOMEN.

Tuesday, January 4th, 1910.

Mrs. DICKINSON BERRY, President, in the Chair.

A RESOLUTION was passed expressing the regret of the Association that the Board of Management of the Manchester Infirmary had decided that medical women were ineligible for the resident appointments at the infirmary. Dr. JANE WALKER, in a paper on *Crime and punishment* in this country, said that the objects of punishment were (1) the infliction of a penalty for evil-doing, (2) a deterrent effect, and (3) reform of the criminal. Our present methods were not deterrent and did nothing to reform the criminal; they aimed chiefly at the protection of society, but still retained a strong element of the primitive idea of vindictiveness and desire for retaliation. The primary mode of protecting society was to remove the criminal, and for a long time the death penalty was inflicted for all serious crimes. The next method was transportation, for which penal servitude had been substituted since 1853 in this country. In connexion with the two main classes of crimes, some of the anomalies of the laws dealing with theft were considered, and it was pointed out that crimes against the person were dealt with with extraordinary lenity compared with those against property. The speaker stated that the number of criminals in relation to the population had decreased considerably during the last fifty years. At the present time the proportion was rising, probably on account of the increase in unemployment. Some of the best recent laws were then considered, namely, the Habitual Inebriates Act, the First Offenders Act, the Probation Act of 1908, and the Prevention of Crimes Bill. In connexion with the first of these it was stated that of the women in the Inebriates' Home at Aylesbury only 10 per cent. were reformable, 80 per cent. were mentally defective, and 10 per cent. were feeble-minded. The lack of power of permanent detention was commented upon. The Borstal system was commended for the treatment of young offenders, both boys and girls. Other points touched upon were the question of the employment of prisoners, and the difficulty of procuring work for them after their discharge.

Reviews.

THE PROTOZOA.

THE exhaustive treatise on protozoa by Professor F. DOFLEIN[1] will be very welcome to medical men, especially to those interested in tropical medicine, for whom the protozoa are of ever-increasing importance. There is no learned profession for which so wide a range of knowledge is required at the present day as for medicine. The fully-equipped medical man is now supposed to be an expert on chemistry, anatomy, physiology, bacteriology, and zoology, and to have more than a slight acquaintance with many other sciences, in addition to an exhaustive knowledge of medicine in all its theoretical and practical ramifications. The student who can acquire such an extensive range of knowledge during the few years allotted to the medical curriculum must be a man of most exceptional intellectual power, and, as a rule, the amount of instruction in zoology that a medical man receives during his student career does not enable him to master even the most elementary principles of that science. When, therefore, the medical man finds himself called upon to deal with a vast assemblage of organisms the study of which involves a knowledge of many complex problems of zoology and cytology, together with an intricate special terminology and an elaborate technique, he naturally asks at once where he can find a book which shall put before him in a limited compass, but, so far as possible, in a complete manner, the principles and the most important facts of this branch of knowledge. Such a book is supplied by Doflein's treatise, which is neither too short to be useful nor so bulky as to scare the seeker after information. Some parts of it may be read with interest and pleasure by those who desire an acquaintance with modern thought and speculation on those fundamental biological principles which underlie the activities of living beings, and which co-ordinate the facts and give an orderly arrangement to what would be without them an incoherent mass of unintelligible detail. Other parts of the book are more useful for purposes of reference, and the reader who desires to look up some particular species or subject has the assistance of a complete index.

Within the limits of space imposed by a review, a work of this size can be dealt with best by first giving a general survey of its contents and scope, and then discussing such points as concern more directly the special problems in which a medical man is interested.

The work is divided into a general and a special part. The general begins with a brief introduction, in which the definition of the protozoa and their most characteristic features are discussed, after which follow six sections dealing exhaustively with the subjects of morphology, physiology, reproduction, biology (or bionomics), system (or classification), and technique respectively. Under morphology the author describes in detail the structure of the protozoan body, first of the protoplasm and nuclear apparatus, and then of the various organs, or, as he prefers to call them, organellae, classified on a physiological basis, as organellae of movement, nutrition, and so forth. The section on physiology is divided into "Stoffwechsel" (metabolism of substance) and "Kraftwechsel" (metabolism of energy).

The section on the reproduction of the protozoa is exceedingly interesting and instructive. After a detailed survey of the facts of fission, fertilization, regeneration and development, some important theoretical problems of reproduction are discussed, amongst which may be noted especially the theory of nuclear dualism and the question of the origin and significance of sex and sexual conjugation. By nuclear dualism is meant the theory put forward by Schaudinn and Goldschmidt, to the effect that in any protozoan cell-body the nucleus or nuclear apparatus in its entirety consists of two kinds of chromatin—so-called vegetative "somatochromatin," which governs the vital activities carried on at the moment, and generative "idiochromatin," which is in reserve for the functions of fertilization and heredity. The author disbelieves in the existence of two distinct kinds of chromatin, and agrees with Hertwig that the somatochromatin is chromatin in a state of functional activity, while idiochromatin is chromatin of which the activities are temporarily dormant, but can be awakened and brought into play again. With regard to the origin of the sexual process, the author first reviews the various theories that have been put forward, and comes to the conclusion that fertilization is a necessity for an organism possessing the cellular type of organization (that is to say, for all organisms higher in the scale than the bacteria and allied forms of life), a necessity brought about mainly by the deficiencies of cell-division. The structural components of a cell may be regarded as consisting principally of two classes of substances, the one regulating motor functions, the other active in metabolism. By inequalities in the results of cell-division two sets of individuals become differentiated, one of "male" character, more rich in motile substances, the other of "female" character, with stores of reserve nutriment. With extreme differentiation in these two divergent directions, the general functional activities of the organism as a whole, and its efficiency as a living body, especially its reproductive capacity, are impaired; but union of two such cells or "gametes" in sexual conjugation restores the just balance in the constituents of the cell-body.

In the special part of the book the protozoa are dealt with in systematic order, the principal types being described in detail, with full accounts of their structure, life-history, and mode of life. The spirochaetes are regarded as primitive or transitional forms leading up from the bacteria and their allies to the flagellates. The true protozoa, excluding the spirochaetes, are divided into two principal groups—the plasmodroma, in which the organs of locomotion are pseudopodia or flagella, and the ciliophora, in which the motile organs are cilia. The plasmodroma include the classes mastigophora, rhizo-

[1] *Lehrbuch der Protozoenkunde.* II. Auflage, *Der Protozoen als Parasiten und Krankheitserreger.* Jena: Gustav Fischer. 1909. (Sup. roy. 8vo, pp. 914; 825 text-figg. M. 24.)

poda, and sporozoa; the ciliophora are subdivided into the ciliata and suctoria.

Of special interest to medical men are the sections describing the parasitism and pathogenic importance of certain types of protozoa. There are four such sections, dealing respectively with spirochaetes, flagellates, amoebae, and telosporidia—that is, coccidia and malarial parasites. Each of these special sections is inserted in its proper systematic position, following the description of the group of protozoa concerned, and gives a summary of present knowledge concerning the parasitic forms, their occurrence, distribution, pathology, and etiology, with figures of the blood-sucking invertebrates which transmit certain of these parasites. Though necessarily brief, these chapters furnish much useful information when taken together with the systematic descriptions which precede them.

We may now consider the position taken by the author upon some disputed questions relating to protozoa. Ever since the publication of Schaudinn's famous investigations on the life-histories of the parasites of the little owl—researches put forward in the form of a preliminary report which the author did not live to confirm or complete—much controversy has arisen. Some authorities, accepting Schaudinn's statements, consider that the haemosporidia (the malarial parasites and allied forms) should not be retained as an independent order, but should be united with the trypanosomes in the classificatory system; others have criticized Schaudinn's results adversely, and consider that he was working with mixed infections and that he confused together distinct species of parasites in one life-cycle. Professor Doflein gives Schaudinn's statements in detail, but suspends judgement upon them, being of opinion that the question should be reinvestigated with all the precautions and safeguards required by recent advances in knowledge, and especially by the method of pure cultures. He does not accept, however, the proposed union of the trypanosomes and haemosporidia, but on the contrary unites the latter with the coccidia into one group termed the "Coccidiomorpha." The trypanosomes are all placed in the single genus *Trypanosoma*, which is not further subdivided, and which by itself constitutes the family *Trypanosomidae*. On the other hand, the genus *Trypanoplasma*, the common blood parasite of fishes, is placed in the family *Bodonidae*, and the genera *Herpetomonas* and *Crithidia* are placed in the family *Cercomonadidae*. The author regards the family *Trypanosomidae* as purely provisional, and considers that in the future *Trypanosoma* will be classed with *Cercomonadidae* in close proximity to *Herpetomonas*.

The haemosporidia are divided into *Plasmodidae* and *Haemogregarinidae*. The author remarks on the terrible confusion in the nomenclature of these parasites, and recognizes the following genera of *Plasmodidae*: *Proteosoma* for the malarial parasites of birds; *Plasmodium* (including *Laverania*) for the malarial parasites of man and mammals; *Achromaticus* for one species described by Dionisi from bats; and *Haemocystidium* from reptiles. In the family *Haemogregarinidae* are placed the genera *Lankesterella*, *Karyolysus*, *Haemogregarina*, and *Hepatozoon*, the last-named genus being used for the so-called leucocytozoon of the rat. The haemogregarines of mammals are considered to be allied to, or perhaps generically identical with *Hepatozoon*, but the treatment of these forms is disappointing, and the author does not seem to have grasped the great difference between the leucocytozoa of mammals, which are really haemogregarines, and those of birds, which show distinct affinities with the malarial parasites. As an appendix to the haemosporidia, the author places the genera *Haemoproteus* (= *Halteridium*), *Babesia* (= *Piroplasma*), *Endotrypanum*, and lastly *Leishmania*, with the species *L. donovani*, the parasite of kala-azar, *L. tropica*, from oriental sore, and the recently discovered *L. infantum* of Nicolle. The parasite described by Darling, from human beings in Panama, under the name *Histoplasma capsulatum*, is also included here. The author inclines to the view of Laveran that the Leishman-Donovan bodies show a close affinity to *Piroplasma*, and differs from those who place them in or near the flagellate genus *Herpetomonas*, on the ground that in cultures these organisms develop into typical herpetomonad forms, as was first discovered by Rogers. We are decidedly of opinion that the evidence of affinity between *Leishmania* and *Herpetomonas* greatly outweighs any arguments that can be brought forward for placing *Leishmania* in the haemosporidia.

With regard to the various bodies classified together by Prowazek in one group, termed by him "Chlamydozoa," including the supposed protozoan parasites of scarlet fever, variola, etc., Professor Doflein is of opinion that the bodies seen by Prowazek and others are not yet satisfactorily proved to be living organisms. He considers also the alleged parasites of carcinoma to be extremely doubtful in nature.

In conclusion, we may draw attention to the great number of beautiful illustrations which adorn the pages of this book, and facilitate the task of digesting its contents. At no time in the last twenty years have so many figures of protozoa been brought together in one work. Many of the illustrations are original, and of great interest are those of Schaudinn, now published for the first time from sketches found among his manuscript notes after his death. We have no hesitation in recommending this work to medical men who desire to possess a very complete treatise on protozoa written from the zoological standpoint.

E. A. MINCHIN.

ROBERTS'S MEDICINE.

WE have already reviewed the tenth edition of *The Theory and Practice of Medicine*, by Dr. FREDERICK ROBERTS,[2] and have pointed out the care with which the author has exercised his judgement in bringing one of our best text-books up to date. The one great difference in form between this issue and the last is the appearance in one volume instead of two—a change which adds greatly to its handiness. A very full index also serves in the same direction.

No doubt the author is well advised in writing an appendix, because by this means the reader is enabled to learn what are the newly accepted principles which have passed muster in recent medicine, and also what are the newer ways in which the old problems are faced, and what are the newer ways of endeavouring to solve the riddles of treatment in view of these changes. By placing these notices in an appendix, better perspective is secured to the reader than if they appeared in the body of the work; current knowledge of what is being tried is essential to a physician, and at the same time he should be enabled to learn that methods are only on trial, and are not yet sufficiently tested to be accepted as established facts.

Dr. Roberts succeeds admirably in describing briefly the methods of diagnosis which, known in the laboratory for some time, are slowly but surely finding their way into clinical laboratories. The section dealing with the special infective diseases puts before the reader the advances made in typhoid fever, including the subjects of "typhoid carriers," and Sir Almroth Wright's practice, which has now become established, of inoculation with antityphoid vaccine as a preventive measure. Reference is also made to the investigations of Bordet, which point to the discovery of a cocco-bacillus, the endotoxins of which are highly virulent and can produce the symptoms of whooping-cough. An excellent account is given of the various manifestations of pneumococcal infections, and a description of the use of tuberculin in the diagnosis of tuberculous diseases. The graphic method of investigating diseases of the heart, to which such a great incentive has been given in recent times by the introduction of instruments of greater technical finish, is a feature of the appendix. We do not think Dr. Roberts was wise in making no reference to the advances in the study of the etiology and serum-diagnosis of syphilis, matters which are of so great importance to the physician. We hope it will not be long before he will publish another appendix, when this subject may be added to the other valuable information which this one contains.

---

[2] *The Theory and Practice of Medicine*. By Frederick T. Roberts, M.D., B.Sc., F.R.C.P., Emeritus Professor of Medicine and Clinical Medicine, University College, Consulting Physician to University College Hospital and to the Brompton Hospital for Consumption and Diseases of the Chest. Reissue in one volume of the tenth edition, with Appendix. London: H. K. Lewis. 1909. (Roy. 8vo, pp. 1410, and 14 pages of Index. Illustrated. 12s. 6d.)

THE PATHOLOGICAL MUSEUM, ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE annual *Appendix* to the catalogue of the pathological collection in the Museum of the Royal College of Surgeons of England testifies to the energy of Mr. SHATTOCK.[3] Those who are in a position to appreciate the full value of these annual additions to the written catalogue must be agreed that the conservators of other medical museums of which that at the college is the prototype ought to take in the Appendix as an important scientific annual and an admirable guide to museum management. The particular additions registered in these two volumes have been already mentioned in our report of the annual show of new specimens held at the college in July during the elections for members of Council. It will be interesting to see how the new system introduced by Professor Keith and Mr. Shattock will suit the convenience of visitors and students. The chief disadvantage of the appendix system was made manifest by the copies of the catalogue placed for their use in the galleries of the museum. As it would have been highly inconvenient to keep twenty-three volumes of appendix as well as one copy of the original catalogue on the shelves of each gallery, interleaved copies of the original issue, with the additions from each appendix pasted on the blank sheets were, and are still, left for the use of visitors to the pathological collection. This system has proved better than older methods, or rather no methods, which allowed years to pass before a big accumulation of new specimens was catalogued at all. Still, the interleaved volumes are clumsy, and in course of time the additions require new interleaved sheets, which involve new binding and the disadvantages of a temporary withdrawal of the volume from the museum. By the new system the description of each specimen is printed and at once placed on a file fixed on the shelves of the museum. Each file contains the descriptions of some thirty or forty adjacent specimens. In this way the visitor can inspect the newest additions, and find the corresponding description close at hand without the trouble of turning over the dirty leaves of a catalogue dilapidated by *surmenage*. We trust, however, that the annual appendix will be continued.

EDUCATION AND EMPIRE.

IN a small pamphlet entitled *Parents, Teachers, and Schools*, Dr. ODERY SYMES has reprinted and issued a series of four lectures, previously given by him, on school hygiene.[4] The lectures are pleasantly written, and deal with the various details of school life, the relations of parents and teachers to one another and to the children they control, some of the diseases and physical deformities to which children are liable, and the proper ratio of work to play. Dr. Symes has much to say that is important and true in regard to the present-day home upbringing of many children, and the attitude assumed by their parents towards disease. He protests against the fads of neurotic mothers, who teach their children to take such an interest in sickness and in every symptom of each little illness that they predispose them to become hypochondriacal, and encourage the development of an abnormal intolerance of the slightest ache or pain, and a cringing fear of infection. He testifies to the frequency with which the increase of neurotic maladies among adults is being visited upon the children, and so much is the writer, out of the fullness of a wide experience, concerned at the serious prospect of an unrestrained continuance of the present conditions, that he expresses the deliberate opinion that "when the State takes up the duty of regulating the life of the individual and the home, as it will do in the socialistic millennium, the marriage of neurotics will be a criminal offence." One of the remedies which Dr. Symes recommends for the curtailment of neurotic tendencies in children is the abolition of the competitive system of work, and the discouragement of the prevailing spirit of rivalry except within a limited and properly defined scope. This recommendation, though perhaps unattainable now, possesses an element of prophecy, because it must be evident to all who are in any way connected with the school life of to-day that, unless the tyranny of examination cram is done away with and replaced by some better method of testing educational progress, the children of the future—before many generations pass—will have become incapable of originality either in thought or action, and quite unfit to carry on the traditions of a great and enterprising race. It would be to the advantage of the nation if every parent and teacher would read these lectures of Dr. Odery Symes.

Mr. J. ELLIS BARKER'S book, *Great and Greater Britain*,[5] is dedicated to Mr. Joseph Chamberlain, who, he says, has been his teacher, has formed his views and influenced his writings. Starting with the statement that Great Britain with her Colonies is the greatest commercial and maritime State existing, the author tries to gauge the future not by relying on the theories of abstract thinkers but by historical comparisons. An interesting sketch is given of the causes which lead to the rise and fall of various great commercial States, and the lesson is deduced that strength is better than wealth, and that neglect of the army and the decay of agriculture have been fatal in the past to all the great commercial States from Phoenicia to Holland. Since might is right in international politics, we are told that "the end of British naval supremacy would certainly mean the end of the British empire." Our naval policy is at present based on a two-power standard, and the two powers which the author thinks we ought to keep in view are the United States and Germany. Looking at our heavy burden of taxation and our financial resources, doubt is expressed whether we can maintain our naval supremacy for long against Germany alone, and Mr. Barker thinks that the life or death of the empire depends on its unification by the creation of a supreme imperial government representative of the whole empire and a navy paid for by an imperial exchequer. The familiar arguments and figures are given, all leading up to the conclusion that our only hope is in imperial federation with a preferential tariff throughout the empire and the abandonment of Free Trade for Protection. A chapter follows on the physical degeneration of the English race. This chapter consists of a paper which the author read at the annual meeting of the British Medical Association in 1908. He considers the report of the Departmental Committee on Physical Degeneration inconclusive, because no direct evidence was obtainable on the question whether the English race has degenerated in physique, though it is reasonable to suppose that the transference of the population from the country to the towns must have led to some deterioration. No British anthropometrical statistics are available, but in Germany and France where such statistics exist it is certain that the town populations are physically very much inferior to the country population. Statistics are given from the German, French, and Japanese armies to show that the training received in the army very quickly improves physique, and that the improvement is so marked as to afford a stronger and more popular argument in favour of universal military training than even that founded on the risk of invasion. One of the most interesting chapters is that on education and its dangers, and whatever may be thought of Mr. Barker's protectionist and imperialistic views his remarks on the present system of education are worthy of serious consideration. He is among those who think that the schools should cater more directly for the everyday needs of the people, and that practical men, not tradition-bound schoolmasters and well-meaning clergymen, are alone fitted to determine the practical requirements of education. Mr. Barker, it is said, is not a true born Englishman, but whatever foundation there may be for such a statement it is a mere *argumentum ad hominem*, and should not be allowed to influence our judgement of his book. Its style is curt, lucid, and often epigrammatic. His sketches of great historical movements are good, and his clear and trenchant style and his dependence on historical facts as his guide readily account for his rapid rise and advance as a writer on current political topics.

[3] *Appendix XXII and Appendix XXIII to the Second Edition of the Descriptive Catalogue of the Pathological Specimens contained in the Museum of the Royal College of Surgeons of England.* By Samuel G. Shattock, Pathological Curator of the Museum. London: Printed for the College and sold by Taylor and Francis. 1908 and 1909. (Roy. 8vo, pp. 46 and 38 respectively.)

[4] *Parents, Teachers, and Schools: Lectures on School Hygiene.* By J. Odery Symes, M.D., Physician to Clifton College. Clifton: J. Baker and Son; London: Simpkin, Marshall and Co., Ltd. 1909. (Fcap. 8vo, pp. 63. 1s.)

[5] *Great and Greater Britain: the Problems of Motherland and Empire—Political, Naval, Military, Industrial, Financial, Social.* By J. Ellis Barker. London: Smith, Elder, and Co. 1909. (Demy 8vo pp. 292. 10s. 6d.)

FORENSIC CHEMISTRY.

WE have read with extreme interest Mr. JAGO'S *Forensic Chemistry*,[6] and have nothing but praise for it in itself, feeling sure that, as the author hopes, so it "will prove of great value and assistance to those who have to prepare and handle chemical evidence," but at the same time we must caution those who would buy the book as to its contents. Its title might lead a would-be purchaser to think that it contained details of chemical processes to be used in making investigations for a court of law; this, however, is not the case, but it does give the fullest information as to the directions in which chemical evidence is to be sought, the deductions and inferences which may legitimately be drawn from chemical results, and full arguments as to the legal decisions upon these inferences. Adulterations of foods and drugs, new processes for manufacture, the use of preservatives and colouring matters, and breach of contract under the Sale of Foods and Drugs Act are in this relation very fully dealt with, and the book concludes with a chapter entitled "Practice," of which we can truly say that the word "chemistry" might be deleted and "evidence of any kind" substituted, for the chapter deals in a masterly manner with the way in which evidence should be collected, arranged, and dealt with so as to present it before a jury in the most convincing manner. Simply for the sake of this last chapter we would feel inclined to say that every medical jurist might with profit to himself possess the book, for it presents a perfect model of how to get up a case. The cases quoted prove every statement contained in the book, and must for some years prove a very valuable collection. Whether the decisions recorded will stand the test of time, time alone can prove, but they are based on such sound reasoning and equity that we believe they are likely to stand.

NOTES ON BOOKS.

As we remarked in reviewing the second edition (BRITISH MEDICAL JOURNAL, March 12th, 1904, p. 610), Professor OPPENHEIMER'S book on ferments and their action[7] is of great value as a critical summary, emanating from a high authority, of what is known concerning these important bodies. In preparing a third edition, Professor Oppenheimer has remodelled and expanded his work, which will be completed in two volumes. The volume which has now been published is entitled "special part," and will be followed later by a "general part." As its title implies, the "special part" consists of a systematic record of what is known about each ferment, and forms a most useful work of reference. Since 1903, when the former edition was published, the knowledge of ferments has developed rapidly, and consequently extensive revision has been necessary. The arrangement of the subject-matter has also been altered, in conformity with the author's desire to introduce an improved classification of ferments. His views on the principles of classification will be explained more fully in the "general part" which is to follow. The very condensed mass of details which constitutes the present volume will be more readily assimilated when the index and the general survey of the subject have been published. As these are to appear in Part II, which, we understand, will make its appearance in a few months, we postpone further criticism until we have the completed work before us.

Whilst we are inundated with a superabundance of text-books on the bacteria known to be pathogenic for man, comparatively little has been written about the much more numerous and more widely distributed micro-organisms which play a useful and, indeed, indispensable part in agricultural and many other industries. The attractive feature of the *Outlines of Bacteriology*,[8] by Dr. ELLIS, is that it devotes several chapters to these economically invaluable microbes, particular attention being paid to the organisms of nitrification and fermentation. There are also interesting chapters on the thermogenic and thermophilic bacteria, the sulphur bacteria, and the iron bacteria. The general chapters on the biology and the cultivation of bacteria do not appear to attain a very high standard; they are certainly inferior to the articles on these subjects in the better-known textbooks, such as Muir and Ritchie's. But the main purpose of the present volume is to serve as an introduction to the technical and agricultural branches of bacteriology, and we have no doubt that students of these subjects will find Dr. Ellis a helpful teacher.

The volume recording the *Proceedings of the American Society of Tropical Medicine* at its sixth annual meeting last April contains some twenty-four papers, including a review of the year's progress in tropical medicine by the President of the Society, Dr. J. M. Anders, of Philadelphia. Several of the papers relate to pellagra, a comparatively new problem with which the Southern States of America more particularly have now to deal. Dr. Alsberg strongly advocated the view that the disease was invariably due to the use of Indian corn grown on unsuitable soil, and therefore cut before ripe, such corn being specially liable to undergo changes rendering it unfit for consumption. Another discussion dealing with uncinaria infections demonstrates the grave economic losses which the prevalence of hook-worm disease in the Southern States of America is causing. Among the contributors of papers are Professor Leonard Rogers, of Calcutta, and Dr. A. Calmette, of Lille, the former dealing with the question of whether the seven-day fever of Indian ports is anything more than sporadic dengue, and the latter with the mechanism of the neutralization of cobra venom by its antitoxin. A large proportion of the papers have previously been published in some one or other of the American medical journals. The address of the Society is the Philadelphia Polyclinic, 1818, Lombard Street, Philadelphia.

The Yearbook of Pharmacy, 1909,[9] fully maintains the reputation established by its predecessors as a compact and useful record of the year's progress in the preparation and testing of medicines and other pharmaceutical compounds. The first part of the volume consists of abstracts of papers which have appeared during the year in the principal English and foreign journals, arranged under the three heads, Chemistry, Materia Medica, and Pharmacy. The first of these sections is not intended to deal with the general chemical work of the year, but only with the chemistry of drugs and tests for medicinal substances. Under Materia Medica are included abstracts of papers on new remedies, such as the organic arsenic compounds, as well as much new information with regard to older drugs. The section allotted to pharmacy contains a large number of formulae for mixtures, liniments, ointments, etc., and for toilet preparations; some of the papers in this section, however, would appear to belong more properly to the first. The second part of the book contains a report of the meetings of the British Pharmaceutical Conference at Newcastle last year, with the papers read and the discussions thereon. These include many subjects of interest, the first place after the presidential address being given to a paper on the bio-chemical testing of certain drugs, by Dr. William Martin. A report is also given of a discussion on dispensing by doctors, in which both medical practitioners and pharmacists participated, and in which the arguments against the practice and the difficulties in the way of giving it up appear to have been fairly dealt with.

To the amateur collector Mr. E. W. SWANTON'S *Fungi, and How to Know Them*[10] should prove of value. Fungi, besides being of great scientific interest, are now recognized as of considerable economic importance, if for no other reason than, as the author says, they are "second to none in their capacity for evil." Mycology is a branch of botany which has until recently been somewhat neglected. The appearance of this book will no doubt tend to arouse interest in the group among the large and steadily-increasing number of amateur botanists and students of nature-study, to whom the chapter on collecting, exhibiting, and preserving will be found useful. The earlier chapters deal with morphology, reproduction, and habitat, and are simple, readable, and not overloaded with details. They are particularly designed for the beginner. The

[6] *A Manual of Forensic Chemistry, dealing especially with Chemical Evidence, its Preparation and Adduction.* By William Jago. Based upon a Course of Lectures delivered at University College, University of London. London: Stevens and Haynes. 1909. (Cr. 8vo, pp. 264. 5s.)

[7] *Die Fermente und ihre Wirkungen.* Von Professor Carl Oppenheimer. Dritte Auflage. Spezieller Teil. Leipzig: F. C. W. Vogel. 1909. (Roy. 8vo, pp. 502. M.16.)

[8] *Outlines of Bacteriology (Technical and Agricultural).* By David Ellis, Ph.D., D.Sc., F.R.S.E. London: Longmans, Green and Co. 1909. (Demy 8vo, pp. 274, illustrations 134. 7s. 6d.)

[9] *The Yearbook of Pharmacy and Transactions of the British Pharmaceutical Conference, 1909.* Editor of the Yearbook, J. O. Braithwaite. Editors of the Transactions, E. Saville Peck, M.A., and Horace Finnemore, B.Sc., F.I.C. London: J. and A. Churchill. 1909. (Demy 8vo, pp. 408. 10s.)

[10] *Fungi, and How to Know Them: An Introduction to Field Mycology.* By E. W. Swanton, Curator of the Educational Museum, Haslemere. London: Methuen and Co. 1909. (Post 8vo, pp. 220; 48 plates. 6s.)

greater part of the book is devoted to classification and the description and means of identification of the different genera and species. This will be of help to the professional and amateur alike. It is carefully done, and will serve as a useful practical guide. The coloured plates by Miss M. K. Spittal are distinctly good, and much enhance the value of the work.

Dr. ROBINSON'S small book, *The Midwives' Pronouncing Dictionary*,[11] will undoubtedly be found of service by midwives, as it gives a fairly complete list of technical terms in common use in midwifery, with their meanings and often full explanation and pronunciation. The pronunciations given certainly require some revision. They are not always consistent; for instance, "neonatorum" is pronounced in one place quite correctly as nee-o-na-tór-um, but in another place as nee-o-náy-tor-um. Ecraseur is given as a-kra-zur, while there is more than doubt about yew-to-kí-a for eutocia, and mal-a-kí-a for malacia. Some of the meanings attached to words are not exact; thus, *podalic* is explained as "relating to the breech of the fetus." At the end of the dictionary there is an appendix giving the rules of the Central Midwives Board as they affect midwives. The danger in books of this class is that midwifery students should imagine that if they can define a word, that is quite sufficient; but no doubt as a pocket remembrancer it will have its place.

[11] *The Midwives' Pronouncing Dictionary.* By H. Robinson, M.A., M.D. London: The Scientific Press. 1909. (Cr. 16mo, pp. 80. 1s.)

MEDICAL AND SURGICAL APPLIANCES.

Instruments for the Diagnosis of the Seat of Gleet.

MR. JAMES MACMUNN (London, E.C.) writes: Urethroscopes and glass tests as ordinarily used often fail to show the seat of gleet; even in expert hands they sometimes fail. They fail because gleet springs much more commonly than we think from deep glands and follicles which may show no disease to the eye, and do not give up their contents to flushings. The "morphology" of flakes—whether banners, stars and stripes, and especially that flake (prostatic) which one might call "the long floss flake," may be distinctive, but with the last exception is not usually so; staining flakes has some use. As aids in otherwise difficult cases I beg to offer the simple contrivances shown. The anterior urethra having been flushed by means of a rubber catheter to remove secretions which, contrary to "the textbooks," often flow direct from the posterior, the penis is stretched over the pubis and massaged from below upwards on its under aspect so as to empty glands and follicles. The largest size of the straight instrument which will pass is used. It is pushed straight as far as it will go. Any secretion it holds (microscopically examined) will show how the anterior urethra is implicated as far as glands are concerned. Each instrument includes two sizes; the curved instrument with long bevelled (so as not to hurt) slot is used for the deep urethra. I often used a two-bulbed instrument to sweep respective parts of the canal. It is not required. I have used the straight instrument for removing papilloma, the bulb being passed beyond the growth, the latter being then removed between this bulb, and a circular-ended endoscopic tube (the bulbs unscrewed). Besides these uses it is a curette. The instruments are made for me by Messrs. Arnold and Sons.

An Acoustic Aid.

Dr. H. MACNAUGHTON-JONES (London, W.) writes: For those who are partially deaf a simple appliance consisting of two very light imitation tortoise-shell auricles, connected by a sliding metal spring band, which is very thin, and can be taken in two, will be found of considerable use to wear either in the house or in a public building. The separate halves are held together by a tiny screw; thus it is easily adaptable to any-sized head. It is adjusted in a second. I have tried it with different people, and with the most satisfactory results. In fact, I have several patients who now, when at home, never go without "their ears." I am indebted to Mr. Hawksley for making this appliance for me, which, for want of a better name, I have called an "Autophone." The principle is nothing new. It is as old as the prehistoric habit of primitive man of placing his hands behind his ears to divert and collect sound waves.

MEDICINAL AND DIETETIC ARTICLES.

"Tippee" Petroleum Emulsion.

A NEW emulsion of petroleum, which has recently been put forward under the above name by Messrs. Bash and Co. (35 and 36, Foley Street, London, W.) contains purified liquid petroleum in a vehicle of malt extract. Analysis of a sample which has been submitted showed the presence of 4.2 per cent. of petroleum, which, allowing for the density of the liquid, is about the proportion stated to be present (20 minims in each dessertspoonful). Malt extract is a very useful vehicle for the administration of substances compatible with it, and the Tippee Emulsion is an agreeable preparation. It is stated to contain also iron and lime salts and free iodine; the iron and lime salts were readily shown to be present, but it was impossible to detect any iodine, and it is not to be expected that this element would remain in the free state in the presence of the various constituents of malt extract capable of combining with it.

Porcelain Walls.

On a recent occasion we had an opportunity of examining some sheet porcelain which, although of English invention and English manufacture, is being put on the market by the American and Canadian Securities, Limited, of Broad Street Avenue, E.C. The merits of this porcelain are the fineness of its surface and the large size of its sheets in comparison with ordinary porcelain tiles, glass-faced bricks, and other materials commonly used for facing corridors and the construction of operating theatres. They measure 5 ft. long by some 2 ft. 6 in. broad, but, being less than 1 in. in thickness, they are not too heavy to handle. Indeed, it is calculated that a bungalow containing five rooms, each about 12 ft. square, roofed, walled, and floored with these porcelain sheets, would only weigh about 18 tons, and that its erection would only occupy about three days. The sheets are primarily intended for the erection of houses in tropical countries, but seem equally suited for use in hospitals. They are jointed together to form walls and partitions by fitting them into enamelled steel skeleton frames. Thoroughly to clean a room walled with these sheets of porcelain would require nothing more than a hose and a brush. In respect of cost, a rough calculation would seem to prove that, irrespective of a considerable saving of labour, it would be less than that of ordinary tiles, if only because no backing of brickwork would be necessary. On all grounds, therefore, this invention seems to deserve examination by architects and members of building committees charged with the improvement or first erection of hospitals.

Geril Bread.

We have received from Mr. J. Allmann (9, Cullum Street, London, E.C.) samples of a bread to which the name "Geril" is given. It is a dark brown bread of close texture; each loaf was enclosed in a tin hermetically sealed—something like the Westphalian black bread commonly called pumpernickel some people find so palatable and digestible, but less dark and less moist. The sample was perfectly fresh and moist when first cut, and it does not appear to dry readily. Analysis of one of the loaves gave the following results:

Protein	7.55 per cent.
Fat	0.79 ,,
Ash	1.58 ,,
Reducing sugar, calculated as maltose ...	9.7 ,,
Fibre	1.86 ,,
Water	36.22 ,,

The remainder consisting principally of starch and other carbohydrates.

The close texture of the bread, and the presence of a good deal of fibre, almost compel thorough mastication, and it is probably on account of these qualities that it is claimed that this bread is of special value in constipation. It is also recommended to be eaten for some other complaints, including diabetes; but as it contains a fair amount of a reducing sugar, and starch in abundance, it does not appear suitable for diabetic cases.

RECOLLECTIONS OF A LONG PROFESSIONAL LIFE—1844 TO 1904.

By LOMBE ATTHILL, M.D.,

EX-MASTER OF THE ROTUNDA HOSPITAL, DUBLIN; AND EX-PRESIDENT, ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

(*Continued from page 89.*)

THE monotony of my professional life, consisting as it did for many years in a struggle to make the two ends meet, was unexpectedly broken in 1868 by my being invited to join the staff of the Adelaide Hospital, to be allotted a small ward containing five beds, for the treatment of "diseases peculiar to women." I had no idea that such an appointment was contemplated, as such a post as gynaecologist to a general hospital was unheard of previously in Dublin. I of course jumped at the offer, which, as it proved, had a marked effect on my future. From the first my five beds were filled, and I had not infrequently to trespass on the kindness of my colleagues, who would lend me a bed for some interesting case. Although it never was directly stated to me, I believe the invitation to join the staff was due to the kindness of the two physicians to the hospital, Dr. James Little and Dr. Henry Head, to whom I know I owe much besides. I soon had a large extern clinic, and at once commenced giving clinical lectures, which were much appreciated by the class. They were attended by pupils from other hospitals also. After a time some of the class asked me to publish these, which, though I had only very rough notes to guide me, I did. They appeared in the *Medical Press*, at that time edited by the late Dr. Arthur Jacob, and I had an edition of 500 copies reprinted from this, every one of which, to my great surprise, was sold in a few months. A second and third enlarged editions followed, the latter of which was reprinted in America and translated into French. Altogether there were seven large editions published in Great Britain. Then, though pressed by the publishers to issue another, I decided not to do so, for so great had been the advance in the knowledge and methods of treating those "diseases which are peculiar to women" that I felt I could not do so without virtually rewriting the whole book, which I had neither time nor inclination to do. I realized altogether by the sales of that small book a clear profit of over £1.000. I believe the success of the book was due to two rules which I laid down for myself when writing it: One, to use the simplest language possible, avoiding abstruse terms; the other, that, while being just to other teachers, to state clearly my own views and the results of my own experience rather than embodying that recommended by others.

I was rather surprised at the warmth shown by some reviewers. Dr. Matthews Duncan fell foul of me for advocating the use of fuming nitric acid in the treatment of certain conditions of the intrauterine mucous membrane, stating finally "that it might cure the affection, but that if so there would be no uterus left." One of my pupils who went to Edinburgh with the view of obtaining the licences of the Colleges of Physicians and Surgeons there, amused us much by relating what occurred at the *viva voce* examinations in midwifery, etc., conducted by Dr. Matthews Duncan. He was asked a question which led him to say that he would treat the unhealthy condition of the cavity of the uterus by the application of nitric acid. Dr. Duncan immediately asked him, rather angrily, where he had been taught to do that, and was told that it was in Dublin; then further being asked had he ever seen it done, "Oh, yes, hundreds of times by Dr. Atthill"; and when asked what was the result, replied that all the cases were cured! Whether Dr. Duncan believed this amazing percentage of cures to be true may well be doubted, but, at any rate, he passed the candidate and ceased to publish any comments on my practice.

Ovariotomy was, in 1868, in its infancy. Sir Spencer Wells had no doubt performed a large number of operations with considerable success, and his example was being followed by others in England and Scotland, but in Ireland only one or two surgeons had the courage to attempt it, and their results were discouraging. Among these few operators was the then senior surgeon of the Adelaide Hospital. He had operated three or four times, two patients dying, and he became an opponent of the operation. Bear in mind that at this time the clamp was used for securing the pedicle, that antiseptics were virtually unknown, for Lister had not as yet enunciated his views, he being still far from sure that he was right, and hesitated to publish them prematurely.

I was but a few months attached to the hospital when a young woman came under my care, with a well marked ovarian tumour. The little knowledge I had of the operation was discouraging; personally I did not know of a successful case, though of course I was aware of Spencer Wells's results. Our senior surgeon set his face against it, and the other surgeons on the staff had not attempted it, but the patient was young, and was anxious that it should be performed, so I decided to operate. The operation began most inauspiciously, for on dividing the integuments I found adhesions so dense that, in my efforts to break them down, the wall of the cyst gave way, and with the rapid escape of its contents collapsed. Inexperienced as I was, this unexpected difficulty perplexed me, nor was I reassured by the senior surgeon exclaiming aloud, "Atthill, give up the operation, close your incision, and perhaps the girl will live till to morrow." Remember I was the junior of the whole staff, that I had only once seen the operation attempted, and that as it proved in an altogether unsuitable case. I hesitated, turned round and looked at him without speaking, and as I did so my friend Dr. George Kidd, who was at my side, whispered to me, "Don't mind him, plunge your hand into the cyst, and try if you can turn it inside out." I promptly took the hint, enlarged the opening, seized the wall at the bottom of the cyst, and out it came through the opening, for fortunately there were no adhesions posteriorly. The anterior adhesions were then easily broken down from behind, and the pedicle secured outside with the clamp. The patient made a speedy recovery.

Those who have no experience of the extraperitoneal treatment of the stump in these cases, entailing as it did the leaving the clamp *in situ* for days, can have little idea of the anxiety with which the patient was watched till the pedicle sloughed through, and the clamp came away, which, if the pedicle was thick, was sometimes delayed for many days. Nor even then was the patient safe, for in not a few cases did septicaemia subsequently result from the gangrenous state of the parts. The intraperitoneal method did not come into vogue till much later.

I had another successful case before my connexion with the Adelaide was severed, and as two consecutively successful ovariotomies were then quite an event in Dublin, I was warmly congratulated. Indeed, one worthy old physician begged of me "never to operate again," saying if I did not do so, I could always say that every one of my operations had been successful, which no one else could say! Unfortunately his implied prophecy that I would have deaths was verified. My operations while Master of the Rotunda were numerous; but for some years, and till we thoroughly understood not alone the value but also proper methods of using antiseptics, and all the precautions needful to be adopted to ensure true and absolute asepticism, the deaths following on abdominal sections were numerous. Mine were for a long time quite one in every three cases. Looking back now on this intermediate period between the first public promulgation of the value of antiseptics by Lister in November, 1869, and the bringing the system to almost perfection many years later, I feel surprised and humiliated at the slowness with which Listerism was accepted by us, and the astonishing blindness of many who, while approving and adopting it, failed to realize how easy it was to nullify all the precautions taken by some stupid forgetfulness on our own part, or of our assistants. Thus, on one occasion

I was present when ovariotomy was performed by a sincere believer in the value of antiseptics. His instruments had been carefully sterilized, as were his hands and those of his assistants; yet, just as he was commencing to make the first incision, observing that the patient's limbs seemed very cold, he called for a blanket. I saw that the one brought was hurriedly pulled off a bed in the adjoining ward and flung over the lower limbs of the patient. A moment or two later the operator laid down his knife on this blanket, took it up, and proceeded to use it freely. No wonder discredit was brought on "Listerism," as it was then termed, by such carelessness; that night after night it was openly sneered at at meetings of the Surgical Society; not a few were found to say that nothing was needed but the plentiful use of water, and that statistics could be produced to prove that the results were equally good.

Several hospital surgeons at this time, and, indeed, for some years later, used to wear invariably an old, much-soiled coat when operating. One specially, I remember, would never permit the blood or any soil which might splash on this coat to be washed off, or the coat to be in any way cleansed. He was proud of the blood clots which covered it! Listerism for long was a thing to be abhorred by him, and very reluctant was he when at last, compelled by his colleagues, he adopted it and got rid of his filthy coat. In one matter Lister certainly was mistaken—that was the introduction of the spray which filled the apartment in which the operation was performed with the pungent fumes of carbolic acid. I, of course, on his authority, used it in my practice. I suppose I may have been specially obnoxious to its effect, for I always suffered from headache after its use, indeed, feeling quite unwell. Then, too, I found that the steam condensing during a tedious operation made the patient so cold as to endanger life from collapse; for this reason I gave up its use long before Lister himself became convinced that he had over-estimated its value.

My connexion with the Adelaide Hospital terminated on my being elected Master of the Rotunda Hospital in November, 1875.

Twenty-one years had elapsed since I had left it when my term as assistant expired, and I found it almost unaltered. No doubt the oak bedsteads were gone and replaced by iron ones with wire mattresses, over which felt was spread. The straw beds had given place to these. The curtains, too, which used to be drawn round the beds had disappeared. These were decided improvements, but otherwise things were unchanged. Extensive repairs, too, were needed and many improvements urgently required, while there was no money, the hospital being some £800 in debt. But there were two matters most urgently needed which could not be postponed—namely, the bringing into the wards an ample supply of water, the making arrangements to enable pupils and attendants thoroughly to cleanse their hands, which hitherto was absolutely impossible; and, secondly, to improve the position of the nurses and to put them and the female pupils into uniforms made of washable materials. This last proved the most difficult to effect of the two; the former was a mere question of money, the latter was to upset old-established customs.

There was not a trained nurse in the house except the "head midwife" whose main business was to supervise the female pupils who were trained in midwifery only; they picked up from the ward nurses such knowledge of the nursing of lying-in women as the nurses were willing or able to impart. The ward nurses were always respectable elderly women of good character, selected by the matron, and put in charge of a ward when a vacancy occurred, without any previous training. Some of these I found could neither read nor write. Their wages too, were but £10 a year. They provided their own clothing, and as their laundry expenses were not provided for they were in the habit of washing their underclothing, etc., in their wards, during the interval between the discharge of one batch of patients and the admission of the next. Their dresses, being black, were never washed, and were worn till they could no longer be held together; not that you ever saw a nurse in rags, they always looked respectable.

As I could not think of discharging these women, some of whom, indeed, were worthy of trust, I made the following suggestions to the governors, which they approved of: First, that the nurses should be divided into three classes. Two selected by me to receive £20 a year each, the second class to receive £16, and the third £14; all to be provided with uniform, and laundry expenses paid. No washing to be permitted in the wards.

All were pleased at the prospect of better pay. Some objected to the division into classes, and most of them to being obliged to wear uniform. Indeed, the head midwife was much opposed to this innovation, specially as it applied equally to the pupil midwives; and she gravely protested against "the poor things being obliged to wear calico dresses in winter." Yet she was a most intelligent, and, in other respects, most trustworthy, woman; but she was a great conservative, and considered wearing uniform derogatory to her pupils. As to herself, she was not asked to wear it I knew she would have resigned sooner than do so.

The new rules worked very well. Some of the oldest and least efficient nurses being disgusted at not being selected for the first class, said that if they were given a gratuity they would resign. Their application was granted, and so I got rid of one or two inefficients without causing trouble; and before my term as Master expired I could not have wished for a better staff than I had.

The matron was a nice old lady, a widow, who had formerly been in a good social position. She wished to do right, but had not had any previous training, and had no idea of what the duties of a hospital matron should be. She walked through the wards once daily to see if they were clean, etc., but with this exception her duties were really those of a housekeeper. It remained for my then assistant, Dr. (now Sir William Smyly, to again reorganize the nursing staff. Acting on his advice when, some years later (in 1889), he was elected Master, the board abolished the office of head midwife and appointed, as lady superintendent, a trained nurse, with sisters, nurses, and probationers, under her, as in other hospitals. I, being then a member of the board of governors, was able to support him in this and other improvements, for the carrying out of which he deserves the greatest credit.

The introduction into the wards of a proper supply of water and proper lavatory arrangements was speedily carried out. A notice was also affixed in every ward that no pupil was permitted to examine a patient without previously washing his hands and dipping them into a solution of carbolic acid supplied for the purpose. This was the first attempt ever made to introduce the use of antiseptics into the hospital; it was no doubt most inefficient, but their use was at that time little understood, disbelieved, and openly scoffed at by many, and I found it very difficult to make the pupils obey this rule.

By means of appeals to the public, and by a bazaar, a considerable sum of money was raised, and many improvements were effected. The most difficult task was to try and improve the basement story, which was, and I fear must ever remain, very dark, and was at that time also ill-ventilated, but we succeeded in letting in a good deal of light and air. All those matters were willingly sanctioned by the governors, but when it came to providing suitable premises for the treatment of extern patients, of whom a large number daily presented themselves, and the organizing the extern maternity, opposition came, and I regret to say that it was led by the medical members of the board.

The Master for the time being is an *ex-officio* governor, but ceases to be so at the expiration of his term of office, but is usually re-elected a governor subsequently. There were four ex-Masters governors at the date of my election. One, Dr. Evory Kennedy, never attended the meetings of the board. I had the misfortune to have failed to gain at my election the

support of any one of the others, but we were nevertheless very good friends, and from Dr. Alfred McClintock I received the heartiest support in the carrying out of the various improvements I have referred to; but when it was proposed to erect a small building for the use of extern patients, he opposed it on the grounds of want of funds. Another of the ex-Masters opposed it, and also the extension of the extern maternity department, as unnecessary, and as calculated to induce patients to remain at their homes for their confinements instead of seeking admission into the hospital. This the result has proved to have had quite the opposite effect, for as the numbers attended in their own homes increased, more patients sought admission to the lying-in wards.

The board met one morning to consider the architect's report. It was divided into two parts. The first part related to many matters I have spoken of and to alterations in what was known as the "auxiliary hospital," and which I urged the board to convert into one for the treatment of the diseases peculiar to women, instead of using the wards in it for lying-in patients. All these matters were approved, and the work ordered to be proceeded with. The second part related to a new building of very moderate dimensions, mainly for dispensary work, which has long given place to the fine hospital erected subsequently, mainly, indeed nearly altogether, through the exertions of Dr. (now Sir William) Smyly, during his Mastership.

Dr. McClintock, who was present at the meeting of the board, approved of the first part of the report, but when the second part was reached he pushed back his chair, and rising, moved the adjournment of the meeting. I begged the governors to wait and consider the rest of the report, and as there was further opposition, I asked them at least to walk round and see the apartment in which these patients were being treated. This they agreed to do.

It happened to be a very cold, raw morning in February. Now the only place where these extern patients could be seen was in a small room off the porter's lodge. About 10 ft. by 8 ft. in size, there was no fireplace in it, and the assistant on duty, in order to have some warmth for himself and the poor patients, used to have a small petroleum stove burning, which always smoked horridly. Then there was no waiting-room for the patients, and they had to stand in a narrow, dark passage leading to the little room.

The governors, some eight or nine in number, followed me into this dark passage, and found themselves wedged in amongst some twenty poor, and certainly not very cleanly, women, who were watching for the door to open and admit the one nearest to it. With some difficulty I got through the crowd, opened the door, and introduced the governor nearest to me, who happened to be the late Mr. C. Uniacke Townshend. He stepped in and saw the then assistant sitting enveloped in an overcoat near the petroleum stove, the room being filled with the pungent fumes therefrom. Mr. Townshend stepped back more quickly than he had entered, saying, "That's enough; let us go back to the board-room." I believe one or two more governors looked in, withdrawing speedily. This bringing of the governors to see the place was quite unpremeditated, but it answered the purpose admirably. The architect's plans were approved, Dr. McClintock contenting himself by merely having a resolution passed that the new work was not to be undertaken till the money for the purpose was provided. The board then adjourned for a month. Before that time elapsed we had succeeded in collecting some more—not a sufficient sum of money to meet the intended outlay, but I was determined that the new building should be put in hand at once; so to meet the difficulty caused by the resolution referred to, I got the bank to agree to advance if needed any sum up to £1,000 to the governors on my sole guarantee, the governors neither personally nor collectively to be responsible for such advances. I laid a letter from the bank to this effect before the board, and they then at once ordered the work to be put in hand. As a matter of fact, the whole sum needed was raised by one means or another, without the bank being called on to make any advance. It remained for Sir William J. Smyly to carry much further what I very imperfectly began, and to make the Rotunda by far the most complete and perfect hospital for women in the kingdom. Without doubt, second only to the founder, Dr. Bartholomew Mosse, the public and the profession alike owe to him a great debt of gratitude.

The remainder of my professional career was absolutely uneventful. Then, having been for over half a century engaged in active practice, I retired altogether from it, though I still continued to take an active part in College matters. I was elected President in 1888, and subsequently represented the College on the General Medical Council for nearly fourteen years, which office I relinquished in November, 1903. So ended my professional career, which, counting from the day I was bound an apprentice, had extended over nearly sixty years.

Looking back over that long space of time, it seems to me impossible for any one to convey to the student of the present day an adequate idea of the revolution in the practice of medicine and surgery which has followed the great discoveries made in all branches of medical science within little more than half a century. Although insensibility had been produced previously by the inhalation of sulphuric ether, anaesthetics as we now understand them were unknown. Though water was known to swarm with animalcules, bacteria as a cause of disease was not dreamt of. Cholera and the allied diseases were looked upon as scourges to be combated as each man best could by the exhibition of drugs, etc., but no one thought it possible to prevent the epidemic, when it occurred, from spreading except by the crude method of quarantine, or of tracing the cause of the original outbreak to its source. Patients suffering from all forms of fever, including small-pox, scarlatina, etc., were shut up in closely curtained rooms from which fresh air and light were excluded. Consumptives, in like manner, were kept indoors in close, warm, ill-ventilated rooms. Any old woman was deemed good enough for a nurse, and cleanliness, as regarded the utensils in the sick room, little thought of. Bleeding, though going out, was still practised, and the application of leeches frequent. Perhaps, in this respect, the reaction against any form of blood-letting is being carried too far.

My recollections of the leading men of the day at the time I joined it, and of the kindness I received from some of these, are amongst the pleasantest memories of my old age. Crampton, Marsh, Stokes, Corrigan, and Graves, were medical men second to none in their day, and had raised the reputation of the Dublin School of Medicine high in public esteem.

Sir Philip Crampton, though still on the staff of the Meath Hospital, was wellnigh past work, only coming occasionally to see an operation or as a consultant. He was a handsome old man with a fine presence, and was in the habit of driving himself about in a high mail phaeton, well horsed. In it he nearly ended my career during my first year, for as I was leaving Trinity College one morning he turned so suddenly out of Nassau Street into Grafton Street as I was in the act of crossing, that I barely had time to save myself by throwing my hands against the near horse's chest; fortunately the horses, though high steppers, were not going fast, and I got off with a shaking.

Graves and Carmichael were both still living; of the former great physician I knew but little. He had ceased to be connected with the Meath before I was apprenticed. Carmichael met his death by drowning in a sad way; riding across the strand at Sutton to reach his country house, he was overtaken by the tide, which was running in strongly, and mistaking his course his horse stumbled; he was thrown into deep water and drowned. He was a very charitable man, and to his donation of a large sum of money the success of the Medical Benevolent Society of Ireland is mainly due. He was a good surgeon, though not so well known as others I have mentioned.

Stokes I was fortunate to have as a teacher, and to count as a kind friend in after-life—a man of great ability, but of various moods. At one time he would be a genial and delightful companion, full of anecdote, and then, again, he would be quite the reverse remaining, even in genial company, quite silent. He has kept me for half an hour chatting in his study, though I told him his waiting-room was full of patients. He was indifferent, too, about making money, and died a comparatively poor man. He was a most reliable consultant, though occasionally he would give his opinion in a way that astonished the regular attendant. Thus, being called in to see an old lady, whose relatives had been told by the attending physician that her case was hopeless, he surprised the latter by saying, "I think that old lady will pull through." "Why," was the rejoinder, "has she not so and so?" entering fully into his views of the case. "Yes," replied Stokes, "you are quite right, but I know all about her; her life is no use to anybody, and I think she will recover." And I believe his prognosis proved true.

(To be concluded.)

THE HOME OFFICE AND PRISON DOCTORS.

IN a leaflet issued by the Women's Social and Political Union, it is stated that on December 20th Miss Selina Martin and Miss Leslie Hall were arrested in Liverpool and remanded for a week. They were sent to Walton Green Gaol. There, on the ground that they were unconvicted prisoners, they refused to submit to the prison discipline or to take the prison food. Forcible feeding was threatened, and Miss Martin barricaded her cell. An entrance was, however, effected, and she was taken to the punishment cell. We quote the following narrative from the leaflet: "All that night she was kept in irons. Next day her cell was entered, she was seized, thrown down, rolled over with her face upon the floor. In this position, face downwards, her arms and legs were dragged up behind her till she was lifted from the ground. Her hair was seized by another wardress. In this way she was 'frog-marched' up the steps to the doctor's room, her head bumping on the stone stairs. In the doctor's room the operation of forcible feeding was performed—causing intense suffering—and then this tortured girl, in a terrible state of physical and mental distress, was handcuffed again, flung down the steps and pushed and dragged back into her cell."

It is further stated that "bail was arbitrarily refused." The further allegation is made that "prison officials, encouraged by the Government, have cast aside both law and humanity in dealing with women political prisoners."

This statement is amplified in *Votes for Women* of January 7th. There we read:

"Great indignation has been aroused by the story of the brutality inflicted upon Selina Martin in Walton Green Gaol, Liverpool. This has been heightened by the fact that at the time of the occurrence Miss Martin was an unconvicted prisoner detained in the prison on remand.

"Miss Martin, it will be remembered, was arrested on December 21st* and brought before the magistrate, who in remanding her for a week refused to allow her bail, though she was prepared to give an undertaking that she would engage in no militant work during the period. She was taken to the prison, and offered a rigorous (*sic*) resistance to being subjected to prison discipline; nevertheless, she was not only forcibly fed on refusing to eat prison food, but she was subjected to the utmost brutality. Her own account of the proceedings is as follows:—

"The wardress pulled me off the bed and threw me on the floor. Then the doctor came and told me he would not let me go without food, but would feed me right away. He then ordered me to be dressed in my own wet clothes, and I was taken to a cold damp cell without ventilation, and was handcuffed behind and left on the floor. At night I was taken to a larger cell and kept in irons. Thursday night I was thrown down, and frog-marched up some steps, letting my head bump on the steps as I was carried. I was then forcibly fed, after which I was dragged to the top of the steps and thrown down. I have had a frightful struggle every time they have come with the instruments of torture, which the doctor does not hesitate to sneer about because I ask for a woman doctor.

* * * * * *

"Perhaps the cruellest part of the feeding process is the vicious manner in which the doctor forces the gag into my mouth, and coolly remarks, 'Does that hurt you?' Yet he knows I cannot answer."

In *Votes for Women* it is added:

"For those who do not understand the meaning of the frog march we may add that Miss Martin was seized by the arms and legs and carried head downwards from her cell to the doctor's room."

The attention of the Home Secretary having been drawn to the leaflet to which reference has been made, he has sent the following letter to his correspondent:

Home Office, Whitehall,
January 10, 1910.

MADAM,—Your letter of the 6th inst. draws attention to a matter which had already been under my notice. The allegations contained in the leaflet, No. 64, issued by the Women's Social and Political Union, and headed "Atrocities in an English Prison," have been thoroughly investigated by the Visiting Justices for His Majesty's Prison, Liverpool, with the result that they prove to be entirely without foundation.

The two prisoners to whom the leaflet refers were, while on remand, treated in strict accordance with the rules for untried prisoners. In particular, they were told they could have food sent in to them from outside prison if they desired. As they refused to avail themselves of this permission and also refused to take the food provided for them by the prison authorities, there was no alternative but to feed them compulsorily. Their conduct was so violent and destructive that it became necessary to put them both under restraint, but for this they have only themselves to blame. Selina Martin on Saturday last herself made the following statement to the Visiting Justices:

I have no complaint to make against the officials except for forcibly feeding me. There was no persecution of me.

She had not previously made any complaint to the medical officer of the prison about any injuries to her head, or other parts of her body, such as must have resulted if she had been treated in the manner alleged in the leaflet, and the justices are satisfied by the evidence before them that no force was used towards her beyond what was rendered necessary by the violence of her conduct. Leslie Hall, when asked by the justices on Saturday if she wished to say anything about her treatment, replied that she had no complaints whatever to make to them.

Every fair-minded man must, I think, condemn electioneering tactics which lead to prison officials, and especially female officials, who have been doing their duty in circumstances of exceptional difficulty being made the subject of such outrageous and unfounded charges as those contained in the leaflet circulated by the Women's Social and Political Union, and it has been brought to my knowledge that other statements to a similar effect, though varying in details, have been published by the same agency. I believe that it will be generally agreed that persons making such statements for the purpose of political propaganda do much to damage the cause which they seek to promote.—I remain, Madam, your obedient servant,

H. J. GLADSTONE.

At present we are only concerned with the matter as it affects the prison doctors. It is satisfactory that Mr. Gladstone implicitly admits his ultimate responsibility for the manner in which food was administered to the prisoners by the doctors, as he says "there was no alternative but to feed them compulsorily."

* In the leaflet the date of arrest is given as December 20th.

DR. JAN HORBACZEWSKI, Professor of Medical Chemistry in the Czech district of Prague, has been created a member of the Austrian House of Lords.

THE first meeting of the General Committee to organize the seventeenth International Medical Congress, which is to be held in London in 1913, will be held at the house of the Royal Society of Medicine, 20, Hanover Square, W., on Monday, February 7th, at 5.30 p.m. The committee will decide the date of the Congress, nominate a president, an honorary general secretary or secretaries, and an honorary treasurer, and nominate an executive committee, with power to add to its numbers. All inquiries should be addressed to the Acting Secretaries of the Congress, 10A, Chandos Street, Cavendish Square, W.

THE COMPOSITION OF CERTAIN SECRET REMEDIES.*

PREPARATIONS FOR THE HAIR.

THE number of proprietary preparations for the hair which are advertised widely is very considerable. They include preparations for increasing the growth of the hair or curing baldness, and preparations for altering the colour of the hair. The line of division, however, is not a sharp one; of the articles sold for altering the colour of the hair some are plainly called dyes, but others are stated to restore the colour of hair that is turning grey without dyeing it, and for some of these it is also claimed that they increase the growth of the hair. It is, therefore, more convenient to arrange hair preparations in three groups—namely, hair growers, hair "restorers," and hair dyes. We give here the results obtained by analysing a small number of preparations selected from each of these groups, together with some extracts from the statements made in regard to them by the proprietors, either on the labels or in circulars, letters, or newspaper advertisements.

A.—HAIR GROWERS.

TATCHO.

(THE "GEORGE R. SIMS" HAIR RESTORER.)

This is to be obtained from the George R. Sims Hair Restorer Company, 81, Great Queen Street, Holborn, London.

It appears from the label that there are three varieties of this preparation, known as "Tatcho" oily, "Tatcho" non-oily, and "Tatcho" (concentrated). The non-oily, described as "A brilliant spirituous tonic, free from all grease," was taken for analysis. A bottle of this, containing 5¼ fluid ounces, was priced 2s. 9d. It is thus described:

The certain, trusty, genuine, right, honest Hair-Grower. There is no other.

Without "Tatcho" loss of hair is inevitable, but Mr. Geo. R. Sims has altered all that.

If your hair has become scanty or grey, get "Tatcho" to-day. It will bring back the hair of your youth, make a new being of you, and give you a new grip upon life.

The label and wrapper bear the following:

Certificate.

I guarantee that this Preparation is made according to the Formulæ recommended by me.

Geo. R. Sims.

The directions are:

Sprinkle a few drops on the head each morning, and brush the hair thoroughly after application.

Analysis showed the composition to be:

Borax	2.7 parts.
Glycerine...	2.5 ,,
Quinine	0.006 part.
Formaldehyde solution (40 per cent.)	0.38 part.
Colouring matter, brownish-yellow, and perfume	traces.
Alcohol	2.4 parts by measure.
Water, sufficient to produce 100 parts by measure.	

The estimated cost of the ingredients for 5¼ fluid ounces is ½d.

EDWARDS' HARLENE.

This is to be obtained from Edwards' Harlene Co., 95 and 96, High Holborn, London, W.C. A bottle, price 2s. 6d., contained 6 fluid ounces.

The package contained a booklet on "Harlene Hair Drill," from which the following extracts are taken:

Among all the scores of preparations for the Hair which are offered to the public (and it may be taken for granted that the proprietors of "Harlene" have analysed them all very carefully) many prove to be so wide of the mark as to be actually injurious in a very high degree, while a few may do no particular harm, but certainly no good; for, as we have said, Nature's requirements must be met in the precise measure—neither in a greater nor a less. . . .

"Harlene" alone answers all requirements; it has the property of penetrating direct to the roots of the hair, stimulating them to renewed vigour, cleansing the cells which line the way; and, above all, it conveys to the hair-bulbs the peculiar food which they require—the only food Nature has ordained can act as nourishment for them; the food they otherwise obtain from the blood. No other preparation contains this ingredient, and therefore no other preparation can be successful. . . .

the proprietors of "Harlene" recognizing that users of their specific have an undoubted right to look to them for the best information obtainable on this subject have, over a considerable period, conducted experiments to test thoroughly every method of "drill" not requiring the use of instruments.

Elaborate details follow of the method of carrying out the "drill," of which a sample may suffice:

The manner in which a cat moves among shrubbery is a good illustration as to the way the fingers should be moved through the hair; the manner in which a cat kneads its bed before laying on it, placing its paws on the material on which it will sleep, and pressing it down in a kneading manner until suitable, the paws never being lifted and brought down, but only relaxed before the pressure is applied; is exactly how this movement in the "drill" should be carried out.

Analysis showed the liquid to contain:

Borax	0.5 part.
Additional alkali, equivalent to anhydrous sodium carbonate	0.04 ,,
Solution of ammonia (10 per cent.) ...	0.12 ,,
Glycerine	0.4 ,,
Brown colouring matter and perfume	traces.
Alcohol	5.7 parts by measure.
Water, sufficient to produce 100 parts by measure.	

The small quantity of alkali, in excess of what was present as borax, may have been in combination with the colouring matter.

The estimated cost of ingredients for 6 fluid ounces is 1d.

KOKO.

A bottle of Koko sold by Koko-Maricopas Company, Limited, 16, Bevis Marks, London, E.C., price 4s. 6d., contained 12¼ fluid ounces.

The following extracts are from a circular accompanying the bottle:

Eradicates Scurf. Promotes Growth. Prevents Hair Falling. Contains No Dye. Will positively Stop Hair from Falling Out, and prevent it turning Prematurely Grey. Will certainly Increase the Growth of the Hair, and if consistently used will make it Bright, Soft, and Wavy. . . . The strong assertions of interested sellers of preparations cannot be relied on, and testimonials, as a rule, cannot be safely taken as genuine unless the position of the writer places him or her above suspicion. We often think that the public must be sick of seeing the eternal "This is the best" attached to every conceivable article which is offered for sale; and for this reason we usually refrain from saying much about Koko, leaving it to our illustrious patrons to speak of its good qualities.

The directions for use are:

The best plan is to apply Koko freely, and brush the scalp until a warm glow is produced. This treatment should be practised once or twice a day, or at intervals of a few days, according to the state of the scalp.

Analysis showed it to contain:

Borax	1.4 parts.
Glycerine	1.7 ,,
Formaldehyde solution (40 per cent.)	0.1 part.
Perfume	a trace.
Alcohol	3 parts by measure.
Water, sufficient to produce 100 parts by measure.	

The estimated cost of the ingredients for 12¼ fluid ounces is 1d.

B.—HAIR RESTORERS.

LOCKYER'S SULPHUR HAIR RESTORER.

This preparation bears the names of John Pepper and Co., Limited, Bedford Laboratory, London, S.E. The price of a bottle containing 12 fluid ounces is 1s. 6d. It is described as:

The Best. The Safest. The Cheapest.

Restores the colour to Grey Hair. Instantly stops the Hair from fading. Occasionally used, Greyness is impossible. If the Hair is actually Grey, the Sulphur Restorer in six or seven days effects a great alteration. By a gradual action, scarcely perceptible even to watchful observers, several darker shades will be attained. In a period of three weeks a complete change occurs, and a colour exactly resembling that lost will become manifest.

* Previous articles of this series were published in the following issues of the BRITISH MEDICAL JOURNAL: 1904, vol. ii, p. 1585; 1906, vol. ii, pp. 27, 1645; 1907, vol. i, p. 213; vol. ii, pp. 24, 160, 209, 393, 530, 1653; 1908, vol. i, pp. 833, 942, 1373; vol. ii, pp. 86, 505, 1022, 1110, 1193, 1285, 1566, 1697, 1875; 1909, vol. i, pp. 31, 909, 1128; vol. ii, p. 1419.

Where the Sulphur Restorer is applied scurf cannot exist, and a sense of cleanliness, coolness, etc., prevails.

Directions:

Well shake the bottle, and immediately apply the Restorer to the roots of the Hair. A very small sponge is convenient for this purpose. At first it should be used daily, but when the required shade is obtained, two or three times a week will suffice.

Analysis showed it to contain:

Precipitated sulphur	1.3 parts.
Lead acetate	1.6 ,,
Lead sulphate	0.4 ,,
Glycerine	9.6 ,,

Rose water sufficient to produce 100 parts by measure.

The lead sulphate was probably due to some reaction having occurred between the lead acetate and sulphur, with oxidation; assuming this to be so, the amount of lead acetate originally present would be 2.1 parts.

The estimated cost of ingredients for 12 fluid ounces is 2d.

MEXICAN HAIR RENEWER.

A bottle of this preparation, which is sold by the Anglo-American Drug Co., Ltd., 33, Farringdon Road, London, contained $7\frac{3}{4}$ fluid ounces; the price was 3s. 6d.

It is described as:

For restoring grey hair to its original color without dyeing it.
For renewing or causing hair to grow on bald spots.
For preventing dandriff and the hair from falling out.
For making the hair soft, glossy, pliant, and luxuriant.

Daily application of this preparation for a week or two will surely restore Faded, Grey, or White Hair to its natural colour and richness. If properly applied, it never fails; but it should be well shaken before using. It is not a dye, nor does it contain any colouring matter or offensive substance whatever. Hence it does not soil the hands, the scalp, or even white linen, but produces the colour within the substance of the hair. In many cases it has been successful in causing new hair to grow on bald spots, and it can be confidently recommended in all cases, unless the hair-glands are decayed; for if the glands are decayed and gone, no stimulant can restore them; but if, as is often the case, the glands are only torpid, "The Mexican Hair Renewer" will renew their vitality, and a new growth of hair will follow.

Directions for use:

First.—Turn the bottle cork downwards and shake it thoroughly. Turn a little into a saucer, apply it briskly to the bald spots, and thoroughly wet all the gray hair every morning for a few weeks, and, unless the hair glands are decayed, new hair will grow, and the gray hair turn to its original colour, then an occasional use is sufficient.

Analysis showed it to contain:

Precipitated sulphur	1.4 parts.
Lead acetate	0.13 ,,
Glycerine	19.0 ,,

Rose water, sufficient to produce 100 parts by measure.

A second bottle, however, contained 0.97 part of lead acetate in 100 parts by measure, or about eight times as much as the first bottle.

The estimated cost of the ingredients for $7\frac{3}{4}$ fluid ounces is 2d.

VILIXIR.

A preparation called "Vilixir" is sold by the Vilixir Company, Limited, Bromley Hydro, Kent. A 12s. 6d. bottle contained $5\frac{1}{2}$ fluid ounces. This preparation has been largely advertised of late, the advertisement in some cases taking the form of a half-page display in a newspaper so worded as to convey the impression that it was published as news. The following extracts are from such an advertisement:

Great interest has been aroused by the recent announcement in this paper of a unique and useful discovery made at the Bromley Hydro, near London, of a method of actually restoring the natural colour to faded, grey, or white hair.

So much curiosity has been aroused, indeed, that the authorities have been compelled to publish in pamphlet form the full particulars of this discovery (a copy of this interesting publication may be obtained on application to the person and address given later in this second review of the discovery and its possibilities of usefulness to the Public). . . .

No actual colouring agent is employed in the new dye-less and stain-less method. Instead, the hair's sleeping pigmentary process is reawakened. . . .

The new way of making people's hair show true colours is, happily, an inexpensive one.

The following extracts are from letters received from the Vilixir Company, after application for the pamphlet mentioned above:

The "Vilixir" Treatment differs from all other ways and means of colouring the hair. It does not put on an artificial colour—it will bring out the natural colour of your hair. . . .

At this Hydro we have assistants who have become expert in the obtaining of the best possible results from the Treatment, and if you would like to have us do all that is necessary for you, I shall be happy to quote you terms to include a short stay at this Hydro. . . . It is not necessary to the success of the Treatment, however, that you carry it out at this address. I can send the "Vilixir" and full directions to enable you to restore the natural colour of your hair in the privacy of your own home.

. . . the "Vilixir" Treatment is absolutely non-injurious either to the skin or to the hair; its action is wholly beneficial in every way. It promotes growth on the bald patches (unless the roots are absolutely perished); it thickens and lengthens the growth over the whole of the head; it stops falling out, and, most important of all, its effects are comparatively permanent.

The directions on the label are:

Shake the bottle and apply the liquid night and morning to the scalp with a small brush, rubbing in for two or three minutes, and finally brush the hair for a few seconds with the brush moistened with "Vilixir."

The bottle of liquid that was sent in return for 12s. 6d. was accompanied by about $\frac{1}{4}$ ounce of shampoo powder, for shampooing the head before the first use of "Vilixir." This powder was found to consist of

Borax	4.6 per cent.
Powdered soap	24.4 ,,
Partly exsiccated sodium carbonate .	71.0 ,,

Analysis showed the liquid to contain

Precipitated sulphur	3.2 parts.
Lead acetate	1.8 ,,
Glycerine	5.7 ,,

Rose water, sufficient to produce 100 parts by measure.

The estimated cost of the ingredients for $5\frac{1}{2}$ fluid ounces of the liquid and $\frac{1}{4}$ ounce of the powder is 1d.

C.—HAIR DYES.

W. SEEGER'S HAIR DYE.

This preparation bears a copy of signature "W. Seeger," and the words "made in Germany" on the package, but no address.

A bottle, price 2s., contained $1\frac{1}{3}$ fluid ounces.

Directions for use:

Before applying Seeger's, wash the hair in lukewarm water in which you have melted a piece of ordinary household soda of the size of a walnut to each quart of water you use. Then, when the hair is perfectly dry, pour a little of the dye into a clean saucer, dip the teeth of a perfectly clean fine tooth comb into the dye in the saucer, and pass the comb several times through the hair where it is required to be dyed. Now allow the dye to dry on the hair. While the hair is drying, comb it now and then, so that the dye, which does not become visible for some hours, may come in contact with the air and an equal shade be obtained. The day following, the dye which has not dried in can be washed out with clean water without soda.

The dye is prepared in three shades, for blonde, brown, and black; the "brown" was taken for examination.

Analysis showed the dye to contain, in 100 parts by measure:

Pyrogallic acid	3.8 parts
Cupric chloride (anhydrous) ...	1.8 ,,
Hydrochloric acid (*B.P.* strength)	0.75 part
Sulphuric acid	0.07 ,,

The liquid was much darker than a solution freshly prepared according to this formula; but the dyeing effect of the two was practically identical, and the difference in appearance appeared to be due to decomposition of a part of the pyrogallic acid having taken place in the original.

The estimated cost of the ingredients for $1\frac{1}{3}$ fluid ounces is $\frac{1}{2}$d.

SHADEINE.

This preparation, sold by L. Alexandre, 58, Westbourne Grove, London, W., was in a bottle which contained $3\frac{1}{2}$ fluid ounces, and was priced 3s. 6d.

It is thus described:

Shadeine is a new and important chemical discovery which regenerates and develops the original colour of grey and faded hair, at the same time tinting it a perfectly natural colour. . . . It contains neither lead, silver, mercury, sulphur, nor any objectionable stain.

Directions for use:

Wash the hair, if in the least greasy, with soda and warm water. When dry, pour a little Shadeine into a saucer, and with a small brush apply evenly over the parts to be coloured, then allow it to dry. A small quantity only should be used at a time, and the colour allowed to develop during the day. As soon as the shade is satisfactory, wash or brush off superfluous stain.

This preparation is made in seven colours. The one that was taken for examination was labelled "Brown."

Analysis showed it to contain in 100 parts by measure:

Pyrogallic acid	... ...	2.1 parts.
Cupric chloride (anhydrous)	...	1.3 ,,
Hydrochloric acid (*B.P.* strength)	...	0.3 part.

The estimated cost of the ingredients for 3½ fluid ounces is ¾d.

JUVENIA.

The hair dye called "Juvenia" is made by Guesquin, pharmaceutical chemist, Paris, and is supplied by Osborne, Garrett, and Co., London and Birmingham. A package, price 4s., contained two bottles, Nos. 1 and 2, each containing about 2⅓ fluid ounces; the liquids to be mixed at the time of using.

It is thus described:

This marvellous dye is guaranteed not to contain mercurial salts, it is altogether of a vegetable nature and harmless.

"Juvenia" instantly restores white hair and grey beard to their original colour, from auburn to the most jet black tints.

We specially recommend persons who wish to dye their hair or beard to follow our advice word for word.

It is well known that subjects suffering from arthritis, herpes, or eczema ought to abstain from eating sea-fish, shell-fish, sorrel, strawberries, etc., under penalty of provoking eruptions or eczema spots. Accordingly, generally speaking, such persons ought to entirely give up the use of all instantaneous dye, and make use of nothing else than our progressive regenerators alone, the use of which we advise for them, in preference to any other.

If, in spite of our advice, those persons subject to the above-mentioned affections, persist in dyeing their hair, they ought at any rate to consult their doctor.

It is necessary, in fact, to have oneself thoroughly examined as far as the scalp is concerned, before the application of a dye, and this recommendation may especially be given to ladies. At times, they may prick themselves with their combs, their hat or hair-pins, the result being small sores which ought not to be irritated or skinned. The scalp ought to be absolutely intact, and if need be, one must wait till all flaying is well healed.

Analysis showed the "liquid No. 1" to be a solution of hydrogen peroxide containing 2 per cent. of real peroxide, or two-thirds the strength of the ordinary "10 volume" solution. Liquid No. 2, or "Juvenia" itself, was found to contain:

Paraphenylene-diamine	... ...	0.9 per cent.
Solution of ammonia	... ...	0.6 ,,

With a trace of fixed alkali, probably dissolved out of the glass of the bottle.

A solution prepared in accordance with this formula gave an exactly similar result in dyeing hair. The estimated cost of the ingredients for the contents of the two bottles is 1½d.

ADAMS v. POMEROY.

AN APPEAL.

THE expenses incurred by Dr. Adams over and above the taxed costs in the action brought by her against *Vanity Fair* and others, including the Hon. Ernest Pomeroy, amount to about £100, of which £60 19s. have already been collected. Further contributions from members of the profession who followed the case and who wish to show their practical sympathy, will be gratefully acknowledged by the Honorary Secretary of the fund raised to reimburse Dr. Martha Adams.

Dr. L. Garrett Anderson, 114A, Harley Street, London, W., has received the following contributions since the publication of the last list:

	£	s.	d.
Dr. Henry Russell Andrews	1	1	0
Dr. W. Domett Stone...	1	1	0
Dr. George McIntyre	1	1	0
Dr. James Taylor (Tandragee) ...	1	1	0
Dr. William Frier	0	10	6

LITERARY NOTES.

SIR SAMUEL WILKS has contributed to the *Guy's Hospital Gazette* of December 25th, 1909, a very interesting account of Thomas Hodgkin, whose name lives in the history of pathology by his discoveries, and in the history of medical teaching in London by the fact that he was one of the most ardent workers in the formation of the medical school at Guy's Hospital, which was opened on June 21st, 1826. Hodgkin was appointed the first curator of the museum and lecturer on pathological anatomy. He was born at Tottenham, of Quaker parentage, in 1798, studied medicine at Edinburgh, where he graduated in 1823, being complimented on the Latinity of his thesis, which was entitled *De absorbendi functione.* After travelling for some time on the Continent he began to practise his profession in London, but gave almost all his time to the study and teaching of pathology and to the development of the museum. He published *Lectures on the Morbid Anatomy of the Serous and Mucous Membranes*, and in 1829, when he issued a catalogue of the preparations in the museum, they amounted to 3,000. He was the first to describe clinically, as well as pathologically, a case of torn and retroverted aortic valve; the patient was a young man who, when at Cambridge, was famous as a rower and an all-round athlete. Hodgkin's description of the disease which bears his name was published in the *Medico-Chirurgical Transactions* for 1832, vol. xvii, in a paper entitled "On Some Morbid Appearances of the Absorbent Glands and Spleen." The name of Hodgkin's disease was given by Sir Samuel Wilks, who showed a specimen at the Pathological Society in 1865; the disease was then so little known that he was credited with having made an original observation. Hodgkin seems to have been the first to observe the *Trichina spiralis* in human muscle; he thought the cysts might be the eggs of pediculi. Hodgkin was keenly interested in comparative anatomy and in physiology, as light was thrown by these sciences on malformations and monstrosities which he came across in his daily pursuits. Sir Samuel Wilks says "he evidently had a strong conviction of evolution, and explained in this way the retention of some form of fetal life which resembled those of the lower animals. On the occasion of Oxford's attempt on the life of Queen Victoria, Hodgkin wrote a pamphlet in which he discussed the question of moral insanity. He also wrote on the natural history of language, and on the influence of physical agents on life. He was disappointed at not getting an appointment on the medical staff of Guy's, and consequently resigned his position in the school, which he had held for twelve years. This is described by Sir Samuel Wilks as "an immense disaster to the cause of scientific medicine." Hodgkin practised for a time, but his generosity was imposed upon and he made little by it. Many of the later years of his life were given to philanthropic work, in which he co-operated with Sir Moses Montefiore. While on a visit to Palestine with Sir Moses, Hodgkin was struck down by an Eastern malady, and died at Jaffa in 1866.

Dr. Herbert P. Thompson writes:

With reference to the address given to the Belfast undergraduates by Dr. G. A. Gibson, which was published in the JOURNAL of December 4th, 1909, I was much interested to observe his mention of my native village, Croyland. Abbot Joffrid, who became head of the monastery in 1109, sent a doctor of great learning and three other monks, well instructed in the sciences, to Cottenham, near Cambridge, there to establish themselves as preachers and teachers. They began a course of lectures in a barn which they hired, and so popular did they become "that soon no building was large enough to hold their hearers." The Abbot Joffrid paid them a visit, and "though his audiences only knew the English tongue, and he knew nothing but French and Latin, yet merely by looking at him, they were so moved by the graciousness which appeared in his countenance that they often shed tears, and contributed largely to the Croyland funds." This was the beginning of what is now Magdalen College. St. Guthlac, the patron saint, a relative of the King of Mercia, rode away into the marshes and landed on the island of Croyland, and there he founded the abbey in the year 816 A.D. Here Torfrida, the wife of Hereward the Wake, the last of the Saxons, was buried. The first peal of bells that was ever heard in England was rung in Croyland Abbey, and Croyland possesses the unique triangular pack-horse bridge of the 12th century. It used to span the previous junction of the rivers Welland and Catwater. As the course of the streams has been changed, the bridge now stands high and dry in the street.

Nova et Vetera.

MODERN FAITH HEALING.

JOHANN JOSEPH GASSNER.

THE career of Johann Joseph Gassner, an eighteenth century faith healer, presents many points of similarity with that of Valentine Greatrakes, an account of whom was given in the JOURNAL of April 17th, 1909, p. 963. The chief point of difference between them is that whereas Greatrakes says he had "an impulse, or a strange persuasion in his own mind," of which he was not able to give any rational account, which very frequently suggested to him that there was bestowed on him the gift of curing the king's evil, Gassner treated disease frankly as a manifestation of Satanic agency. His name is probably now known to none but students of the history of spiritual healing, and an account of his "cures" may therefore be of some interest.

Gassner was born at Bratz, near Bludenz, on the frontier between Tyrol and Suabia, on August 20th, 1727. After studying at Innsbruck and Prague he became a priest, and in 1728 was appointed to the cure of Klösterl (? Klosters) in the diocese of Chur (Coire), in the Graubunden (Grisons). There he discharged his clerical duties to the entire satisfaction of his superiors and parishioners for some fifteen or sixteen years, when a rumour began to spread abroad that he cured all kinds of diseases by the laying on of hands without the use of any remedy. He was even said to have cured a patient (the Countess of Wolfegg) at a distance, by simply sending her his blessing. Soon patients began to flock from all parts to Klösterl. At first they came by fifties and sixties, but soon the number increased tenfold. At last, yielding to entreaties that were made to him to make his head quarters in some more accessible place, he got permission from his bishop to leave his parish for a time. He went successively to Wolfegg, Weingarten, Ravenspurg, Detlang, Kirchberg, Morspurg, and Constance, casting out devils and curing the sick. The Cardinal-Bishop of Constance, suspecting illusion or fraud, had Gassner examined by an official theologian. The healer made a perfectly orthodox profession of faith, and affirmed that he had never given himself out as a saint or a miracle worker. He protested that he only used the power conferred by ordination on all priests and even on simple exorcists to cast out in the name of Jesus Christ the devils who were, according to him, often the cause of disease. His discovery of his healing power was made on himself. He had long been troubled by severe headache and other infirmities, for which he could get no relief from the doctors of Innsbruck. He then sought for a remedy in medical treatises. At last suspecting that the cause of his illness might be supernatural, he had studied all the books on obsessions which he could get hold of, and had convinced himself, by the success of these exorcisms on himself as well as on others, that the diseases to which mankind is liable are of three kinds: There are some which are entirely natural, and therefore belong wholly to the domain of medicine; there are others, perhaps as numerous, entirely the work of the devil, which are caused by an "obsession," and can be cured by exorcism carried out by the invocation of the holy name of Jesus with faith by any priest whatever. Others, again, are caused by a "circumsession"; in these the diabolic invasion is complicated by a natural cause. The prelate, having made inquiries which convinced him of the soundness of Gassner's faith, of his submission to lawful authority, and of the purity of his morals, gave him permission to continue his exorcisms. This he accordingly did at Ellwang, Salzbach, and Ratisbon, from September, 1774, till the end of the following year. Crowds of patients flocked to him in ever-increasing numbers from all parts of Germany, Switzerland, and France. Among them were not only Catholics, but Protestants and Jews, and little children of 6 or 7 years of age. A notary or other public official kept a register of the interrogatories, the answers, and all the details of each case. This report was signed every day by the principal among the numerous spectators and by doctors, especially such as were Protestants, when any happened to be present.

The following was the mode of procedure. After one or two general questions addressed to the patient, Gassner, if there seemed to be reason to believe that it was a case of obsession or circumsession, began by performing what he called a test exorcism, by summoning the devil to make the patient exhibit the symptoms of the disease which was his handiwork. If nothing extraordinary happened the disease was declared to be natural, and Gassner passed on to another patient. Most frequently, however, the convulsions or cries of the patient announced the presence of the evil spirit and his obedience to the voice of the exorcist. The Protestants said that the pretended signs and convulsions were merely performances arranged beforehand, or produced in people by the influence of the imagination when they were off their guard. To convince unbelievers Gassner later prolonged his test exorcisms during several hours, putting questions to ignorant people and children in Latin, commanding the devil to cause the most extreme and sudden disorder in the patient's pulse, ordering the fever to show itself only on one hand, to pass from one hand to the other, thence to the foot, and other parts of the body. The doctors who held the patient's wrist are said to have been amazed at these singular phenomena, which they could not explain.

The Duke of Würtemberg having expressed a wish to examine these wonders for himself, Gassner respectfully invited him to do so, and in order to banish every suspicion of fraud begged him to name the doctors who should accompany him, the patients on whom the rite should be performed, and those by whom it should be witnessed. All these conditions were complied with. The report of the proceedings, signed by the principal persons present, and having the signature and seal of the priest attached thereto, was taken to Paris during a visit paid to that city by the duke in 1777, and was shown to many persons.

Naturally there were many sceptics and not a few active opponents. Gessner's most formidable opponents among the Catholics were Father Sterzinger, a Theatine, and the celebrated physician Anton von Haen of Vienna. The former, having gone from Munich to Ratisbon to be present at one of the exorcisms, saw nothing in it which he did not think could be explained as the effect of electricity, magnetism, or some yet unknown physical agency. Von Haen had never seen Gassner, but from reports received from various correspondents he was led to the conclusion that some of the effects could not be explained by natural causes; nevertheless, he held that they could not be described as miracles, as they tended to scandal rather than to edification. His conclusion, formulated in a treatise entitled *De Miraculis*, was that they should be regarded as works of the devil. Von Haen's reasoning was apparently more that of a theologian than of a physician.

As examples a few cases may be given. Of one of Gassner's early cures which brought him most into fame, Sterzinger gives the following account (p. 5):[1]

> Once he had the luck to make a certain Countess von Wolfegg, who had long been bedridden, get up, and that extended his fame as far as Mörsburg. At the supplication of many noble personages the Cardinal-Bishop of Constance was induced to allow the priest of Klösterl to come to the city where he held his court. In the month of July 1774 he entered Mörsburg amidst the cheering of the populace. But the air of that country did not agree with him; men of acute intelligence found his proceedings so foolish and harmful and so contrary to Christian principles, that His Eminence was persuaded to give the spiritual physician the *consilium abeundi*. I have by me a letter from a great landed proprietor of Mörsburg who had himself seen and noted all, from which I extract the following:
>
> "July 30th, 1774.
>
> "As many persons of rank as ordinary people were here for 10 days for the coming of the priest of Klösterl, whom they looked on as their saviour. The first cure took place in the convent, where the Canoness von Blarer presented herself to be cured of epilepsy. In the afternoon the healing performance took place in the Seminary, where the priest of Klösterl wrought his cures. First, there was the deaf Frau von Landsee from Ueberlugen. Secondly, there was the blind priest of Hettingen. Thirdly, there was the lame chaplain of Schönberg near Rothweil. Fourthly, there was a possessed person who firmly believed in Gassner."

After saying that Gassner's whole method of dealing with his patients seemed to him to savour of charlatanism and to consist in making the sick believe they were cured

[1] *Die aufgedeckten Gassnerische Wunderkuren aus authentischen Urkunden beluchtet, und durch Augenzeugen bewiesen.* By Ferdinand Sterzinger. 1775.

when in reality they were not, the writer goes on to say:

The blind priest of Hettingen, in spite of prayers said aloud for spiritual assistance and in spite of the strong faith he had in the name of Jesus, did not recover his sight through Herr Gassner. The spiritual physician, it is true, took him to the window, and the patient, who had cataract, perceived a little light and could recognize the red colour of Herr von Sickingen's clothes and the star on the black robes of the Herr von Rothberg. Then a white sheet of paper was held before his eyes, and he said it was something black, etc. In a word, the good priest of Hettingen was not a pin better than he had been before.

The following passage is very significant:

Again the feet of the lame Chaplain of Schönberg were not relieved. It is true that through his frequent ejaculations of: "Non debet consentire Dolori, sed resistere fortiter in fide," Herr Gassner managed to get his patient to rise and go down to the lower town with Wildenmann, but he had to be led, and suffered at each step so much from the pain that he ground his teeth.

Elsewhere it is stated:

I have seen no case of real possession for Gassner to exorcise. The trick with an epileptic person was discovered by the court quarter-master; the exorcist, in the name of Jesus, frequently commanded the paroxysms of the little girl to cease; she finally knelt before him with her hands clasped together as if in prayer, then lay down slowly, but so carefully, that she did not displace her hood. The exorcist declared that this was a paroxysm. The court quarter-master contradicted this, and spoke to the girl, who answered him. The exorcist was put to shame, and soon dismissed his patient.

The following is an extract from a letter written by the Cardinal-Bishop of Chur on September 6th, 1774:

The first operation that I had the honour to see was on Fräulein von B——, who had a lame foot, and already the spiritual physician had spent the previous day over its cure. The healer sat on a chair, with the patient near him. He took her by the head, then by the hand, and commanded the evil thing to come forth immediately, in the name of Jesus. The convulsions came on little by little, and he stilled them in the name of Jesus. After that he produced different spasmodic movements and convulsions in the patient; these he made to last now a longer, now a shorter time, and then through the powerful word "Cesset" he made them disappear. After that the poor Fräulein for about an hour sprawled about, stretched and moved her limbs as he ordered her, till he told her to stand up on the lame foot and walk. The Fräulein took courage, stood up on the ground where she had always limped, and went step by step a little way about the room, but I remarked that she forced herself to do it. After this the exorcist blessed her on the forehead with the cross which he wore like a bishop, murmured something unintelligible, and left her. I saw no trace of anything spiritual during the whole of this operation; therefore it did not surprise me that the spiritual healer cured Fräulein von B——'s lame foot through arousing cramps and different spasmodic movements.

The prelate explains the cure as follows:

Through the *distensiones* the nerves were drawn out, all the limbs were convulsed, and the inspissated humours in the affected parts were made fluid through the violent movements, so that the lame foot could henceforth move itself, until the thickened humours should accumulate again. How can one call such an artificial way of healing a holy way? The name of Jesus in the mouth of the faith healer seemed to me only a pretence of sanctity.

A modern physician would probably say that the lameness was caused by hysterical contracture, which was cured by the faith of the patient. Another case quoted in this letter is that of a sturdy peasant who had St. Vitus's dance. He had already seen Gassner treat Fräulein von B——, and was prepared to do all that the healer commanded. Gassner spoke to him earnestly, laid his hands on his neck and forehead, and shook him. He was forthwith freed from his disease, and "began to dance and snap his fingers. He danced three times round the room, at which all the spectators and even the exorcist laughed." The narrator goes on:

After that the faith-healer allowed the exhausted patient to recover his breath, and then commanded, in the name of Jesus, that epilepsy should be displayed. Accordingly the patient threw himself on the ground, lumbered about on his hands and knees, rolled about here and there, and bellowed like an ox. At the repetition of the word "Cesset" the peasant became quiet and stood up.

Another case was that of Franz Thurnes, son of the upholsterer to the electoral Court of Munich. He was an epileptic, and also subject to attacks of wind in the stomach:

After the necessary preparations, the healer made him swell his abdomen by three movements, until a powerful "Cesset" made it subside. I felt the stomach when it was swelled and also when it had subsided, but I cannot believe that this experiment expelled the devil with his circumsession. I still less believe that the spiritual performance had any medical efficacy. Then the healer commanded that the patient should be afflicted with epilepsy as he had had it. The patient became giddy, fell on the ground, and struck his head against an iron chest. After he had writhed about for a time, he stood up when ordered to, and the cramps attacked him. The patient breathed heavily, the cautious physician left him to recover, and appointed another hour in the morning to torture him once more.

Another case is that of a certain Count von S——, who had seen all the proceedings with impartial eyes. He asked the healer, "Could you cure me of gripes or colic, from which I often suffer, without touching?" "Why not?" said the healer; "if you only have a proper faith in the name of Jesus." "I have," answered the Count, "and I believe, as a good Christian, that Jesus as God is all-powerful." "You must also believe," continued the healer, "that your sickness comes from the devil." "As to that, I am indifferent," replied the prudent nobleman. The healer then commanded in the name of Jesus that the colic should appear, but it did not come. He commanded twice, and the exorcism had no effect. The healer got up from his seat, and was walking up to the count, when he was reminded that he ought only to remain seated; then he got rather angry, and in a voice that showed his temper he ordered, three times one after the other, that the colic should instantly appear. But it was of no use; the devil could not awake the stomach-ache without the touch of the priest. The healer availed himself of the only possible loophole, and said: "We can see, in this case, that the illness is natural." This incident took place in the house of the viceregent, where only six people were present. This experiment, says the narrator, furnishing a substantial reason for believing that there is a "secretum naturale" at the bottom of Gassner's cures.

According to this witness, Gassner, when asked if his "cures" were miracles, replied that they were only exorcisms. When it was pointed out to him that the Church had not instituted exorcism for the cure of the sick, and had always looked upon the cures of disease wrought by the Apostles in the name of Jesus as miracles, Gassner lost his temper and shouted his objector down.

The following account is interesting from its naïveté, It also shows that there was at least a strong suspicion of trickery, and that Gassner's operations were not regarded seriously by many of the witnesses.

I have as yet made no reference to Gassner's method of treating persons. The rôle which he played with people of this kind was so entertaining that it was a common saying at Ellwangen: "Let us go to the Gassner comedy." I went into the operating room one night at 9 o'clock with some other gentlemen and saw Gassner sitting by a table, upon which were two candles. Near it were two rows of seats for the nobility, and behind them was a space for the rest of the audience. At the side of the table stood the possessed and other infirm persons, and amongst them was Herr Riedmayr, a notorious exorcist from Munich, who had at his right side Magdalena Söluerin, the daughter of an artist of Munich, who was possessed. This young girl when she saw me, cried out, "Here comes our friend." I kept quiet, but she called me by name, and I said, "I know the speech of a wicked person; forbear from mentioning my name, or I will leave the assembly." Herr Gassner cried "Silence," and the evil spirit called me no more. I must say here how the girl had learnt to know me. Four years ago, when she was not yet 16, this person was brought before the exorcist as being possessed. I was told that a Capucin had expelled the devil from her, and that in his flight he had left behind his mark in the form of five indelible black scratches made by his claws on the white wall above the door. As I do not believe in anything unusual until I am convinced as to the facts, I went to the artist's house on April 25th, 1772, where I was conducted to see Lenerl, and the whole history, with all its circumstances, was related to me—how through a *maleficium* she was tormented by the devil, how he troubled her, and finally how her illness left her. I went into all the proofs with Lenerl . . . and found that the black marks were painted with Indian ink; the fraud was exposed, and Lenerl was put into the House of Correction, and examined, and as she stuck to her deceit, condemned to a year's work in the local Bridewell; when she returned to her parents it was perceived that she was not possessed, but hysterical. Then came the rumour of Herr Gassner's fame to Munich, how he had the power to cast out the devil from those possessed, and Lenerl

again became possessed: she had an epileptic fit on a couple of chairs on the grass-plot before the nuns' church, and therefore every one believed firmly that she was possessed; and she found some charitable people who gave her money to enable her to travel to Ellwangen.

This Magdalena Söluerin was the first with whom the priest of Klösterl began his comedy. . . . The exorcist asked: "What is your name?" "Lenerl." "How long have you been possessed?" "Six years." "Is there any one present who can affirm to the truth of this?" Herr Riedmayr, a secular priest of Munich, who had travelled to Ellwangen with this person, answered: "I give you my word as a priest that this creature has been possessed for six years, and what is still sadder she was confined three years ago in the House of Correction for it." "That is not right," said Gassner, beginning to hold forth, "poor people might disguise themselves as possessed persons in order to get alms, but not such persons as this; she is truly possessed, and whoever does not believe it, hurts her reputation, and commits a mortal sin." . . . The exorcist further asked: "How are you possessed?" "The devil has got into me with my food." [This would seem to show that the girl had in her own way anticipated certain modern theories as to the origin of disease.] After that the exorcist put several other questions to the pretended demoniac, and then by means of his mystic art, he aroused in her the hysterical illness to which she was subject; he let her lie about the ground in convulsions, and then quieted her. He also performed his universal experiment; he put the girl's right hand, with the fingers divided and stretched out on to the table, and cried out: "Let the hand become quite rigid."

A courageous gentlemen, wishing to be convinced, put one finger after the other on it, and finally the whole hand. The exorcist did not like this; he grew sulky, took the girl's left arm, stretched it out, and commanded in a terrible voice: "Let this arm be as stiff as a bar of iron!" But this experiment was rendered ridiculous by the same gentleman, who bent her arm into an arch. The Count, with the object of investigating the state of demonial possession, wished to speak to her in French; but she answered: "I only understand German." The exorcist himself, desiring no more ridicule, took Magdalena Söluerin by the head, sent the devil into her right foot, dismissed her in peace, and appointed a time for her to come the next day. Then came on the scene another person believed to be possessed, an unmarried woman of about 24. The exorcist treated her as he treated all persons similarly afflicted; that is to say, he asked her some questions, allowed her to fall into the fits and convulsions with which such persons are afflicted, and then banished the illness. Another thing which struck the audience with amazement was his putting her into a dying condition, and she appeared, as she lay in the exorcist's arms, to be in the last agony. Two doctors felt her pulse, and found it to be that of a dying person. . . . The exorcist was so pleased with this experiment that he did not torture the woman further, but commanded the devil to go forth, opened her mouth, and said that the devil was gone. Some one, who stood behind my chair, said: "I see the evil spirit already hovering about." But this eccentric person was the only one who had the luck to see so rare a phenomenon. It was already half-past twelve at night, and I went to my lodgings.

One day of the "Gassner comedy" was enough for this witness, who made haste to leave the "bewitched town" of Ellwangen. It should be said here that all witnesses agree that Gassner took no fee for himself. But his "cures" brought custom not only to innkeepers but to apothecaries. One of the writers whom we have fished up from what Carlyle calls "foul Lethean quagmires,"[1] says the whole town of Ellwangen was overflowing with strangers from every province in Germany, and even from Poland and Italy. The apothecary sold a universal eye water, a common olive oil, a universal powder, and a medicinal tea. The oil and the powder had been blessed by Gassner. In one day the apothecary made out of these trifling things alone a profit of over 100 rix dollars. What happened at Ellwangen occurred later at Ratisbon. Speaking of the after-effects of Gassner's cures the same writer says:

> Most (some say all) relapsed. Some, after undergoing the operations, died when they returned home, or became worse than they were before. I know towns from which 200 or 300 people journeyed to Herr Gassner, and there is not one of those patients who can say with truth: "I am well; he helped me." The thing in the long run had no lasting effect. But, on the contrary, I could name persons soon after their return home from being cured at Ellwangen—people who were half blind becoming totally blind, melancholics who went completely mad. Many, who had already been to Herr Gassner at Klösterl and Ellwangen, travelled to him a second time at Ratisbon. For a little time all went well, but soon afterwards they were the same as before.

Gassner defended himself in pamphlets, in which he maintained that his method of cure was expulsion of the devil.

[1] *Politische Frage ob ein weislich regierender Landesfürst über die Gassnerischen Kuren ohne Nachtheil seiner Unterthanen noch länger gleichgültig sein Kann* 1775.

The epidemic of obsessions continued to spread to such an extent that the authorities took alarm. The Bishop of Constance and the Archbishops of Prague and Salzburg forbade Gassner to "practise" in their dioceses, and Joseph the Second, by an Imperial Decree, dated 1777, expelled him from Ratisbon. The Prince-Bishop of that city, who had named him his chaplain with the title of Ecclesiastical Councillor, permitted him for some time to continue his operations at Ellwangen, where he still was on October 1st, 1777. The force of public opinion, however, soon compelled him to send back Gassner to his work as a priest. The healer died, forgotten by the world, on April 4th, 1779.

From a study of the available accounts one gets the impression that Gassner acted in good faith. He may have suffered from a little spiritual exaltation in the display of the powers which he believed himself to possess. It is equally clear that the majority of cases in which he wrought "cures" were examples of pronounced hysteria, on which he operated by suggestion. It is easy to understand that such formulas as *Cesset illa debilitas! Modo adsit febris tantum in manu et brachio dextro! Cesset in ista manu et adeat ad sinistram!* and *Praecipio hoc in nomine Jesu*, pronounced in an authoritative voice, must have had a powerful effect on the mind of the credulous and superstitious.

A point which is of special interest to us in these days is that Gassner's method—the laying on of hands, accompanied by prayer and exhortation to faith—is exactly that of the spiritual healers of our own time. In particular, the words *Non debet consentire dolori sed resistere fortiter in fide* contain the very marrow of Christian Science.

APPEAL ON BEHALF OF MR. H. W. COX.

SIR WILLIAM TRELOAR, who was Lord Mayor of London in 1906–7, has made an appeal for a fund on behalf of Mr. H. W. Cox, who was one of the first manufacturers and perfecters of *x*-ray apparatus for medical use. Nine years ago Mr. Cox began to suffer from dermatitis, and five years ago the middle finger of his left hand was amputated. His condition since then seems steadily to have deteriorated; four years ago the face, mouth, and chin were severely affected; eleven months ago three fingers of the right hand were amputated, and last November it was found necessary to amputate the right arm. There is dermatitis also of the chest, and the left hand is withered. Mr. Cox is 46 years of age, has a wife who nurses him, and three sons, aged respectively 12, 14, and 16 years. He had to give up work six years ago, and the grant made to him from the Royal Bounty Fund was a lump sum of £200, not a pension as has been thought in some quarters.

Mr. Cox is a victim of science in its application to medicine and surgery, and his crippled condition and the pain which he suffers will, we are sure, appeal to the generosity of the medical profession as well as of the public

Contributions may be sent to the Cox Fund, 69, Ludgate Hill, and cheques should be crossed London City and Midland Bank, Ludgate Hill.

British Medical Association.

ANNUAL SUBSCRIPTION, 1910.

Members are reminded that the Annual Subscription, amounting to 25s., is now due.

Cheques or Postal Orders should be made payable to the British Medical Association, and crossed London County and Westminster Bank.

In the case of Colonial Members the subscription should be paid to the Honorary Treasurer of their respective Branches.

By Order of the Council,

GUY ELLISTON,
Financial Secretary and Business Manager.
429, Strand, London.

British Medical Journal.

SATURDAY, JANUARY 15TH, 1910.

SPINAL ANALGESIA.

WHEN the method of subarachnoid anaesthesia first appeared it was regarded with sceptical tolerance or timorous curiosity. There followed in some parts of the world a stage of enthusiasm, and only now, after a decade, has it become possible to form a considered judgement of its true worth and proper sphere. In passing through these phases the method shared the fate of novelties in many departments of human activity besides the practice of medicine. To take an instance from this field, however, it may be said of the antiseptic system that, whilst the first stage of amused contempt was brief, it has taken many years to establish the limitations of its usefulness. Many years passed before the deep-rooted fear with which surgeons had learnt to regard the peritoneum was dispelled. Even now it is by no means appreciated amongst medical men that so far as the control of micro-organisms is concerned, the spinal cord and its membranes are on the same footing as other tissues. Not many surgeons now would refuse operation on the score of the danger of infection to the peritoneum. When asked if they would submit to puncture of the spinal canal for anaesthetic purposes, the answer is generally guarded, or emphatically negative. Of course, the origin of this attitude is not simply a question of sepsis. It is born also of doubts as to the virtues and the freedom from risk of the various drugs employed, especially in immediate relation with the actual tissue of the central nervous system. It is born of a suspicion that, transient as may be the influence of the drug to all seeming, some effect may be produced which will only show itself in years to come. Temperamental bias, too, must not be neglected.

First, then, as to the drugs: practically they have now been narrowed down to three. Of these tropacocaine is the least poisonous and least apt to produce undesirable after-effects. It is not used with suprarenal preparations, as a rule; in fact, it may be stated in a general way that the original plan of combining adrenalin is much less in favour nowadays. Tropacocaine is easily soluble in water, and the solution will stand boiling; it is neutral, and has no irritating effect upon the tissues. Novocain is a very similar drug, but its analgesic effects are fleeting unless combined with adrenal extract, an association which detracts from its usefulness, in so far as the latter drug is liable to deterioration with keeping[1] and loss of potency on boiling. Stovaine, in other respects the most useful, gives an acid solution, is irritating, and is easily rendered inert by alkalis, a fact which accounts for some of the recorded failures, since soda is so commonly used in sterilizers and for cleaning purposes. It seems that stovaine will not stand sterilization, but this drawback is minimized by the fact that it is definitely antiseptic.

As to the direct toxic working of these drugs, death statistics are of no practical value; it is mainly a question of dosage. Deaths have been attributed to all of them, even tropacocaine.[2] Chaput,[3] under protest from Hartmann and Beurnier, declared that he knew of no death amongst 7,000 cases; Köhler[4] says he has collected 12 deaths in 7,780 cases, and Hahn[5] 8 in 708. It is possible, however, that the majority of these deaths were not due to the drug, and that many were cases in which operation was undertaken under spinal analgesia because the patient was already too desperately ill to be submitted to inhalation narcosis. As to complications and evil after-effects, it is the universal experience that with increasing knowledge of the technique and of the proper dosage, such regrettable results and blemishes tend to disappear from the records. Nevertheless a good many reports of ocular palsies, most of them transient[6] but occasionally persistent,[7] and a few of paraplegia[7] are still published. Guinard,[8] who noted the subsequent development of cerebral softening, received the support of Nélaton, but *post hoc* is very different from *propter hoc*.

Borszeky[9] states that of 61 patients seen five months after spinal analgesia, 6 had paraesthesiae, neuralgia, headache, or vertigo, but his conclusions are open to similar criticism. The alarm which was raised over the noxious effects of stovaine on the kidneys has been allayed by the discovery that they are transient.[10] Headache, which has not been altogether eliminated, has been found to be due to many conditions,[11] and to be preventable in part, treatable in part, and relatively negligible in the rest. In hospitals where the method is much used it is common to hear the phrase "a stovaine temperature"; something has been written on the subject,[12] but the phenomenon has certainly little importance.

Experimental work is receiving some attention,[13] and has already resulted in improvement of points in technique, as well as in the control of complications. The attention directed by Mr. Barker to the importance of isotonicity and viscosity received somewhat tardy recognition, but it led to the employment of tropacocaine, in mixture with gum arabic[14] for the safe induction of high analgesia. More recently Jonnesco has attempted to solve the problem of using stovaine for general analgesia by the addition of strychnine to the solution injected. By this means he aims at preventing the fall in pulse-rate and blood pressure, and the respiratory paralysis which Chaput[15] had found it impossible to avoid in all cases, by the previous subcutaneous injection of scopolamine and caffeine. Jonnesco does not believe that the drug acts directly on the bulbar centres—an opinion which would seem to have the support of Head,[16] who speaks of the drug as acting on motor and sensory fibres, either before or just after they have entered the cord.

It is time, however, to examine the claims of a method which has established its feasibility and

[1] Mohrmann, *Therap. Monats.*, 1907. Nos. 7 and 8.

[2] Bier, *Deutsch. Zeit. f. Chir.*, 95, 373.
[3] BRITISH MEDICAL JOURNAL, May 30th, 1908, p. 1330.
[4] *Zeit. f. Chir.*, 1909, Beilage, p. 16.
[5] Hahn, *Centralbl. f. d. Grenzgeb.*, 8 and 9, 1901.
[6] Wolff, *Berl. klin. Woch.*, No. 41, 1907. Legueu, BRITISH MEDICAL JOURNAL, April 25th, 1908, p. 1018. Oelsner, *Deutsch. Zeit. f. Chir.*, 90-557. Tomaschewski, *Zent. f. Chir.*, 1908, p. 208. Münchmeyer, *Beiträge f. klin. Chir*, Bd 59, S. 447.
[7] Zwar, *Zent. f. Chir.*, 1909, p. 504.
[8] BRITISH MEDICAL JOURNAL, March 21st, 1908, p. 715.
[9] *Beiträge z. klin. Chir.*, Bd. 58, S. 661.
[10] Oelsner, loc. cit.
[11] Offergeld, *Zent. f. Gynäk.*, 1907, No. 10; Hosemann, *Zent. f. Chir.*, Beilage, p. 13, 1909.
[12] Zachrisson, *Keen's Surgery*, vol. v, p. 1032.
[13] Rehn, *Zent. f. Chir.*, Beilage, p. 11, 1909; Oelsner u. Kronar, *Deutsch. Zeit. f. Chir.*, Bd. 95, S. 386; Hesse, *Deutsch. med. Woch.*, 1907, No. 37.
[14] Ehrhardt, *Münch. med. Woch.*, 1908, No. 19; *Zeit. f. Chir.*, Beilage, 1909, p. 12.
[15] *Presse méd.*, 1907, No. 94.
[16] BRITISH MEDICAL JOURNAL, February 1st, 1908, p. 249; see also Rehn, loc. cit.

comparative safety. Is there any reason for preferring spinal analgesia to inhalation anaesthesia as a matter of routine? Theoretically it would seem better to cut off painful or excessive stimuli from the higher nerve centres altogether, rather than merely to abolish consciousness of the temporary havoc they may work there. Against that is to be put the serious consideration that the persistence of consciousness lays the patient open to psychological impressions of the rudest type. Notwithstanding all precautions, it is impossible to shut off from him knowledge of what is going on, and, although all who employ the method have triumphant instances to adduce of complete equanimity on the part of their subjects, there is an enormous class amongst city populations for whom complete oblivion of all the immediate circumstances of operations is best.

When it comes to the consideration of special advantages offered by spinal analgesia it is a very different matter. To begin with, there is a class of patient for whom the dread of losing consciousness is itself a bar to all but life-saving operations. Then there is the advantage that, if put to it, the anaesthesia can be induced by the operator even if he be single-handed. The great majority of the contraindications for inhalation anaesthesia do not constitute a similar bar to the spinal method. This, however, is equally true of local analgesia, and the infiltration method must not be overlooked in laying down the legitimate field of spinal injection. Wherever complete muscular relaxation is a necessity stovaine is pre-eminently useful—for example, in setting a fracture in an individual who has recently had food. Almost the only contra-indication[17] upon which a majority of opinion agrees is a septic process in the region adjacent to that traversed by the needle or a pyaemic state.

Since the demonstration of the apparent safety of high or general analgesia[18] the field of usefulness would seem to have considerably extended, but the great argument of muscular relaxation has not the same force, since if tropacocaine be used motility is almost unaffected, and the combination of strychnine with stovaine diminishes the duration, if not the degree, of motor inhibition.

It might be laid down that wherever inhalation anaesthesia is inadvisable or undesirable, and if local analgesia does not fulfil the requirements amply, there, at least, the subarachnoid route finds a legitimate field. In weighing the indications for and against chloroform or ether, moreover, one of the most important things to bear in mind is the experience of the administrator. There is, perhaps, no reason for refusing to accede to the request of a patient for the spinal method where it is simply a question of choice. There are plenty of anaesthetists who have extensive experience of the technique, so that it is as unnecessary as it is undesirable for the surgeon to charge himself with the added responsibility. It is hardly necessary to repeat that asepsis must be a fixed habit of the administrator, whoever he be.

It is perhaps surprising to find German army surgeons minimizing the probable utility of stovaine in the field.[19] Their objections seem to be based upon an alleged impossibility of obtaining aseptic conditions in the circumstances. As, however, the occasions upon which analgesia is imperative in the field itself are few, and as the combination of asepsis with antiseptics that is possible has proved its efficiency over and over again, the objection seems frivolous.

From the point of view of the surgeon's manipulations, spinal analgesia may be said to fulfil all requisites. From the average patient's point of view, and therefore from that of every surgeon who is alive to the widest aspects of his patients' welfare, it can only be said to be the method of choice in certain specific circumstances, of which perhaps the most weighty is a valid objection to inhalation. At the same time, many objections are now considered valid which would not have held a few years ago, because on the simple score of safety it is no longer possible to rule the lumbar route out of court. Every case now demands an appreciation of the possibilities of the newer resources, and calls for even more careful discrimination and selection.

[17] Zaradnicky, *Langenbeck's Arch.*, 89, Heft 2. Oehler, *Beiträge zur klin. Chir.*, Bd. 35, S. 273. Birnbaum, *Münch. med. Woch.*, 1908, No. 9

[18] Gilmer, *Zent. f. Chir.*, 1908, Beilage, p. 21. Schnurpfiel, *Zeit. f. Chir.* 1908, p. 813. Jonnesco, BRITISH MEDICAL JOURNAL, 1909, ii, p. 1396.

[19] Flath, *Deutsch. militär. Zeit.*, 1909, No. 8.

BACTERIAL ESCAPE IN STRANGULATION OF THE GUT.

DR. IKONNIKOFF has recently published the results of an investigation of the passage of bacteria through the intestinal wall in experimental strangulation of the gut.[1] His observations were made upon twenty-three rabbits. Under strictly aseptic conditions, he strangulated by means of a rubber band a loop of intestine from 2 to 3 cm. in length. Four experiments were performed on the large intestine, and resulted in death in from four to five days. The autopsies were performed "as soon as possible," but the precise interval after death is not stated. In every instance considerable dilatation of the intestine above the lesion was found, and there was a turbid, haemorrhagic, peritoneal exudate. The strangulated gut, which was also dilated, was of a slate colour, showed numerous haemorrhagic foci, and was attached to the neighbouring parts by fibrino-purulent membranes. In no instance was perforation observed. The histological lesions in the intestinal wall were nearly always the same. Except in one instance in which the muscular layers were almost intact, all the layers of the strangulated gut were undergoing necrosis and showed large tracts of haemorrhagic extravasation. The vessels of the subperitoneal layer were greatly distended. The epithelial and glandular cells had mostly disappeared, and both the mucous and the submucous layers were invaded by the haemorrhagic process and on the road to disintegration. Bacteria were found in all the layers of the intestinal wall, but were most abundant in the mucosa and submucosa. There were large Gram-positive bacilli, and smaller spore-bearing organisms, which decolorized more readily and were probably *Bacillus putrificus* or *paraputrificus*. Gram-negative bacilli of the "*coli*" type were found, and also long Gram-negative bacilli with spherical spores at their extremities. No cocci were present. Cultures of the peritoneal exudate yielded *Bacillus perfringens*, *Bacterium coli*, and *Bacillus putrificus* or *paraputrificus*. The only organism obtained from the heart was *B. coli*. Histological examination of the intestine in the neighbourhood of the strangulation did not reveal any microbes, although there was partial desquamation of the epithelium.

In other experiments the small intestine was strangulated, and it was observed that the higher the lesion the sooner the animal died. Strangulation of the lowest part of the small intestine produced death

[1] *Annales de l'Institut Pasteur*, November, 1909.

in from two to two and a half days. The lesions, both to the naked eye and under the microscope, were the same as those found in the large intestine. The same bacteria were isolated as those mentioned above; there were in addition streptococci in one case and in another a Gram-positive diplococcus, forming short chains. No cocci were found in the histological sections, though bacilli, particularly Gram-positive types, were very abundant. In the course of some of the experiments the peritoneal exudate was examined at intervals before death supervened. No bacterial growth could be obtained earlier than twenty-three hours after the operation, and later samples sometimes gave a negative result, although microscopic examination of the exudate revealed isolated Gram-positive bacilli.

In ten experiments the animals were killed at early intervals after operation. Two hours after the commencement of strangulation the hyperaemia of the intestine was visible to the naked eye, and its walls were thickened by oedema and congestion. The microscope showed that the epithelium was intact, whilst the cells of the submucous layer were dislocated by oedema. At this period no bacteria were found either in the intestinal wall or on the peritoneal surface; the peritoneal exudate was also sterile, although containing red corpuscles and leucocytes. Strangulation for six hours produced a more intense venous stasis, with extravasation of red corpuscles in the villi. Where the villi were not in a haemorrhagic condition there was found in their centre a large collection of lymph, which almost came into contact with the epithelial lining. At the same time there was oedema of the submucosa and hyperaemia of the muscular layers. The epithelial surface was almost intact, but a few desquamated cells were found. The surface of the villi was covered with a large number of bacilli, the majority being Gram-positive. A few isolated bacilli were found within the villi, but none either in the submucosa or on the peritoneal surface. The peritoneal exudate showed a reddish tinge, but no bacilli could be found in it, though both red corpuscles and leucocytes were numerous.

After noting minor details found in intermediate stages, the author calls special attention to the condition found sixteen hours after the commencement of strangulation. Then, for the first time, he found a large number of bacteria in the intestinal wall and on its peritoneal surface; but cultures of the peritoneal fluid, the heart's blood, and the spleen yielded negative results. Microscopic examination showed an intensely haemorrhagic condition of all the layers of the intestinal wall and a large number of leucocytes both in the submucous layer and in the interfascicular spaces of the subperitoneal layer, where the lymphatic vessels were greatly dilated. The false membranes covering the peritoneum were infiltrated with a considerable number of polynuclear cells. The epithelial lining was still intact in many places, though there were found, particularly at the summits of the villi, cells of ill-defined outline containing much mucus and Gram-staining bacilli. In some places, however, there was epithelial desquamation, associated with large numbers of bacteria in the mucosa.

Passing from the inner aspect of the gut to the outer the number of bacteria progressively diminished, and none were found in the muscular layers; but on arriving at the false membrane on the peritoneal aspect they again became very numerous. Between the eighteenth and the twenty-sixth hours the necrotic foci increased in number and expanded the bacterial invasion also became more dense. In twenty-eight hours advanced necrosis of the mucosa and submucosa was found, these layers being crowded with bacteria. The bacteria formed a band of infiltration parallel to the muscular layers, which also contained a certain number of microbes. The muscle bundles were dislocated by haemorrhagic foci. Much the same condition was found at the end of thirty-four hours, but at this period necrotic change was so far advanced as to make it difficult to distinguish the different layers of the intestinal wall.

THE HOUSING AND TOWN PLANNING ACT.

IN accordance with its custom in such cases, the Local Government Board has issued a memorandum dealing with the Housing, Town Planning, etc., Act, 1909, to the authorities whose duty it is to administer the Act. A separate memorandum has been addressed to the county councils other than the London County Council, the metropolitan borough councils, councils of boroughs and urban districts, and councils of rural districts.

In the circular letter which accompanies the memorandum to the county councils, the Board points out that Part I and Part III of the Act chiefly affect the powers and duties of these councils. Section 10 of Part I enables the Board, after complaint by, amongst others, the county council, to declare, after holding a public local inquiry, that a local authority has failed to exercise certain of its powers under the Act, and to make an Order directing the authority in question to do such things as may be mentioned in the Order for the purpose of remedying the default. In case the Order is not complied with the Board may, with the consent of the county council, direct that body to carry out the terms of the Order. The previously existing powers of county councils, derived from Section 6 of the Housing of the Working Classes Act, 1900, have been extended, so that it is now possible for a county council to transfer to itself the powers of a rural district council under Part III of the Act of 1890, either as regards a particular parish or with respect to the whole of the rural district. Power is given to a county council under Section 72 to promote the formation or extension of co-operative building societies which have for their object, or one of their objects, the erection or improvement of working-class dwellings. For this purpose advances, not exceeding two-thirds of its value, may be made upon property by the county council. Other portions of the Act with which county councils are concerned are the obligation to appoint a medical officer of health and to establish a public health and housing committee.

The first portion of the circular letter addressed by the Board to town councils, urban and rural district councils, is almost identical with that addressed to the metropolitan borough councils. In one paragraph in the latter circular there is an omission which should be gratifying to the members of the metropolitan councils. It reads: "Powers are given for the enforcement of the execution of the Housing Acts. The Board trust that it may not often be necessary to resort to these powers, but they must point out that they are very complete as regards all matters concerning the housing of the working classes, and in particular extend to enable the Board to enforce the inspection required by Section 17 of the new Act—a

matter in which certain local authorities have in the past been very lax." The words in italics are not contained in the circular to the metropolitan councils.

In the whole country the facilities for the acquisition of land for the purposes of the Housing Acts have been increased, and loans may now be made by the Public Works Loan Commissioners for periods up to 80 years. The powers of a Court of Summary Jurisdiction have now ceased with respect to the closing and demolition of dwellings unfit for human habitation, and the difficulties which have existed in some districts, especially in London, will no longer be present, for the sanitary authority can itself issue a closing order. In London, as elsewhere, houses of a rental double that hitherto fixed are in future to be held as let under the implied condition that they are in a state reasonably fit for habitation, not only at the time of first occupation, but during the whole time they are occupied.

In the circular letter to the provincial councils the Board draws attention to an important section of the Act (44), which enables them to require a local authority to revoke existing by-laws which in the opinion of the Board unreasonably impede the erection of working-class dwellings, or to make new by-laws. Borough and urban councils are reminded that the object of the Town Planning Part of the Act is "to ensure by means of schemes which may be prepared either by local authorities or landowners, that in future land in the vicinity of towns shall be developed in such a way as to secure proper sanitary conditions, amenity and convenience in connexion with the laying out of the land itself and of any neighbouring land." While a large portion of the Act is in the main concerned with the amendment or development of previously existing enactments on lines which have been suggested by experience or by expediency, that part which has reference to town planning is more or less of an experimental nature so far as this country is concerned. It is true that we have had the advantage of studying the experience of other countries where similar difficulties connected with the extension of towns have been met by legislation, but for various reasons the conditions sought to be remedied are not quite comparable, so that it will be necessary for us in this, as in so many other matters, to work out our own salvation.

ANOTHER "HONOURABLE" GENTLEMAN.

DOES the courtesy title of "Honourable" tend to engender in those who bear it the belief that it absolves them from observance of the code of gentlemanlike conduct accepted by ordinary men? It is a curious question, which is suggested by some notorious cases, familiar to our readers, in which we have had to expose the controversial methods of certain titularly honourable men. Another example has just been added which seems to strengthen the impression that a courtesy title is apt to be a stamp of discourtesy. In a campaign which for misrepresentation, meanness, and the vilest appeals to ignorance and passion is remarkable even in the history of general elections, we are inclined to think that the Hon. Claude Hay, in his attack on Dr. Christopher Addison, has reached the lowest depth. We should not think it worth notice were it not that it is calculated to inflame prejudice against the medical profession in regard to a matter which, though of the very highest importance to the public welfare, has absolutely no relation to politics. Dr. Addison is a distinguished anatomist who has made contributions of great value to scientific literature, and who has held several offices which give a man the position of a leader in his profession. He is standing as the Liberal and Radical candidate for Hoxton. His opponent is the Hon. Claude Hay, and there has been the usual exchange of amenities between the candidates. But Mr. Hay has issued a leaflet and poster in which an appeal is made to the lowest passions of the mob. The poster informs the hooligans who alone are likely to be influenced by it that "Dr. Addison asks for support on the ground that he is *Used* to *Cutting up Bodies*. Will you let him cut up the *Empire?* Don't Vote for Addison who cuts up the stomach, but Vote for Hay who will fill it." If Mr. Hay had promised to fill the stomachs of his supporters with thistles, the appeal would have a special appropriateness that might perhaps have been some excuse for its vulgarity. In the leaflet Dr. Addison is described as not "Carpet Bagger," but "Body Cutter." The cutting up of dead bodies is referred to again and again, obviously with the object of stirring up the horror which is still associated with dissection among the ignorant. Mr. Hay calls this "good-natured banter." If this is his notion of banter, we can only wonder what is his idea of abuse. Evidently, like his famous countryman, he "jocks wi' deeficulty," but his plentiful lack of wit can scarcely be held to excuse his want of good manners. There is a graver side to the matter. The study of anatomy, which forms the foundation of medicine as well as surgery, has been hindered by popular prejudice until a time within the memory of persons still living. In ancient Greece, under the Roman Empire, and throughout the Middle Ages, dissection of the human subject was made impossible by public feeling. As late as the eighteenth and the early part of the nineteenth century dissecting rooms were destroyed by mobs. At Lyons in 1768, the Collegium Medicorum was razed to the ground by a frenzied crowd excited by the casual remark of a woman that it was a place where children were cut up alive. In Aberdeen, in 1831, the anatomy theatre was burnt by an infuriated crowd who would have killed the lecturer, Dr. Andrew Moir, had he not contrived to escape. Even medical students went in danger. Dissection is still regarded with repulsion even by people who should know better. We therefore hold the Hon. Claude Hay guilty—though he may be too ignorant of the subject to have realized the full significance of his words—not only of vulgar abuse, but of a direct incitement to breach of the peace.

ANTIVACCINATORS AND THE GENERAL ELECTION.

THE Antivaccination League appears to be concentrating its energies during the present General Election on the re-election of Mr. Arnold Lupton as member for the Sleaford Division. At the last General Election Mr. Lupton defeated the Right Hon. Henry Chaplin by a majority of 293, and boasted that this result was chiefly brought about by his antivaccination attitude. The officials of the league have evidently some misgivings as to the lasting qualities of the impression, for Mr. Bonner, the lecturer of the league, announces in the January issue of the *Vaccination Inquirer* that in the course of six weeks he had visited twenty-eight villages on the Sleaford side of the constituency. He then moved to the Lincoln side on December 13th, where the "educational campaign" is still proceeding. The *Yorkshire Post* of January 10th, commenting on the prospects of various candidates for Parliament, says of Mr. Lupton: "It was believed a month ago he had a fairly good chance, but since then there has been a decided change in the constituency. His eccentric conduct in the House of Commons during the last four years has certainly not

tended to increase his popularity among the moderate members of his own party, while his continued reiteration on every available opportunity of the anti-vaccination fad has disgusted many of his former supporters." The Antivaccination League has also issued an election manifesto in the form of an appeal to the people to vote for health and liberty. It states that the antivaccinists are not satisfied with the concessions recently granted. The three following questions were submitted by the league in December to be put to parliamentary candidates: "Are you in favour of—(1) The repeal of the Compulsory Clauses of the Vaccination Acts; (2) the abolition of compulsory vaccination in all departments of the public service, whether national or local; (3) the legal prohibition of such compulsion by private employers?" For the sake of peace and harmony within the camp the last question has had to be withdrawn. It has been a source of still another of those discussions among antivaccinators to which we have frequently had occasion to make reference. The *Vaccination Inquirer* (January), in announcing the decision to withdraw the question, explains: "Some exception has been taken to the last question on the ground that it violates the principle of individual liberty in defence of which we are fighting." This is not the only principle which is violated by the antivaccination propagandists.

MEDICAL MEN AND THE HOUSE OF COMMONS.

PROBABLY there is no other profession or occupation which is quite so jealous a mistress as medicine, none which makes greater calls on an adherent's time and energies, and few wherein service is more gladly rendered by those from whom it is due. Most medical men think, dream, and live their profession, and wherever two of them are gathered together there is talk of symptoms, diagnosis, and treatment. Indeed, an average medical man may safely be regarded, apart from a possible minor hobby of an intellectual or physical variety, as least prone of all students and workers to occupy his thoughts, time, and energies with matters which do not immediately concern his day's work. This is the common view, and if at any medical gathering the question were raised as to whether medical men as a body took a keen interest in politics, the answer given would probably be, No. A more emphatic negative still would greet the question, Do medical men show a more marked tendency than other citizens to take an active personal part in political enterprise? Nevertheless, if the point be examined in the light of the facts revealed at the last two General Elections, the answer suggested would seem to be open to criticism. If the ratio between possible and actual competitors for seats in the House of Commons be taken as a gauge of the extent of the ambitions for parliamentary honours prevailing among citizens at large, those of the medical profession must exceed that of laymen as a whole. In the House of Commons there are 670 seats, and at a high computation the total number of candidates is just twice that number, or 1,340. On the other hand, the total number of possible candidates is that of the actual electors—namely, 7,615,438—and this sum divided by 1,340 gives a ratio of 1 to 5,683. The same kind of calculation applied to possible and actual medical candidates shows that in England and Wales (assuming that all medical men are entitled to a vote, and, therefore, to attempt to obtain seats in the House), the ratio of possible to actual medical candidates, is as 1 to 1.573, whereas the general citizen-ratio is only 1 to 6,218. In Scotland the same calculation gives a ratio of 1 actual to every 961 possible medical candidates, against a general ratio of 1 to 5,356. Finally comes Ireland, where the medical ratio is as high as 1 in every 664, against a general ratio of 1 to 3,337. So far as these figures go, therefore, it would be safe to assume that medical men in England, Ireland, and Scotland, were respectively four, five, and nearly six times more anxious for seats in Parliament than are the general mass of citizens. Probably members of the legal profession entertain this ambition in still larger ratio, but we have not had an opportunity of determining the point. Possibly the political colour of the majority of the medical candidates may give a clue to their number. Among all educated classes none have the need for progress and reform, more especially in social regards, more constantly and emphatically brought under their notice than medical men in the course of their everyday work and it is natural, therefore, that a comparatively large number of those who hope that social reform may be facilitated by legislation should be inspired to seek a seat in Parliament. The profession at large has much to gain by the counsels of Parliament being leavened by adequate medical knowledge, and a still greater gainer would be the general body politic. This is not only because a medical member must inevitably be a person of wide education and knowledge, but more particularly because modern legislators are constantly engaged in considering measures which in one way or another must materially affect the health and physical well-being of the nation. It is not necessary that he should be a great speaker, for the influence of the private member in open debate is, and must be, so long as our present party system prevails, comparatively small. It is in committee work and by personal conversations and exchanges of views that the medical member can do most to influence the aims of his own party and modify the opposition of the other side. Such a man may prove a tower of strength and a fountain of wisdom to both parties.

THE VARIABLE DOSAGE OF SECRET REMEDIES.

AMONG the proprietary medicines the composition of which, as revealed by analysis, has been published in these columns from time to time, are various powders, cachets, pills, and tablets, and in these cases the individual weights of different doses have usually been recorded; great variation in the quantity to be taken in one dose has sometimes been shown. Thus in the case of powders sold for the cure of drunkenness powders having an average weight of 1½ grains varied individually from ⅓ grain to 3 grains, and in another inebriety "cure," variations from 2.9 to 6 grains were found among ten powders of average weight 4.2 grains. If would appear from such cases that the quantity put into each was merely "a little," and could not have been either weighed or measured. One of these powders contained acetanilide and bromide, and such variations might be far from negligible in their consequences. In the case of headache powders, most of which consisted chiefly of acetanilide, some of the variations were very serious, the heaviest and lightest powders in a packet of ten differing in one preparation by as much as 6 grains; the average weight of these was 10½ grains, and acetanilide formed 50 per cent. of the constituents. Some ingenuity is shown by one of the makers of headache powders whose article was among those examined, in an advertisement which is appearing rather prominently at present in some of the pharmaceutical papers. In this advertisement attention is drawn to the "fact" that our analyses showed smaller variations in the weights of the powders in question than in any other; since, however, the lightest and heaviest powders in a packet of ten of average weight 6 grains, differed by 0.7 grain

(practically 12 per cent.) there seems to be no very good grounds for this self-congratulation on accuracy. And the "fact" itself belongs to the class described by Josh Billings as "facts which are not so," as in one of the powders analysed—the only other one which consisted of acetanilide only—the extreme variation found was only 0.2 grain; this appears to be referred to in the advertisement as a variation of 2.0 grains. The advertisement states "it is not possible in the ordinary course of dispensing business to weigh powders more accurately than 'Daisy' powders are dispensed," and, as to this, a pharmaceutical correspondent remarks that the statement "is an insult to the pharmacists to whom it is addressed. A dispenser who could not weigh to within 0.7 grain would not remain long in any good pharmacy." It is not unimportant to recollect, moreover, that it was shown in evidence at an inquest some years ago that extremely wide variations existed in the weights of specimens taken from one and the same packet of the very powders in question, and whatever greater accuracy may exist in the weighing of these powders to-day would seem therefore only to have been secured after attention had been drawn in this forcible way to the dangerous manner in which variable quantities of acetanilide were being distributed as doses.

GLARE: ITS CAUSES AND EFFECTS.

A DISCUSSION on the subject of glare, from the diverse points of view of physiology and engineering, took place on January 11th at a meeting of the Illuminating Engineering Society, which though only established a short time has a membership of 187. Professor Silvanus P. Thompson occupied the chair. The discussion was opened by Mr. J. Herbert Parsons, F.R.C.S., who laid stress upon the fact that the basis of the problem was physiological. The eye showed marvellous elasticity in responding to extremes of intensity of illumination, and in this faculty of retinal adaptation might be found the chief physiological element. Other conditions, of course, also came into play. Light reflected upwards into the eyes from the surface of the sea or a strongly-lighted ground or the glazed pages of a book was particularly prone to initiate the symptoms. When illumination came from such sources it was detrimental to clear vision because it interfered with spatial induction and thereby diminished the sharpness of the definition. The iris provided an automatic protective mechanism against the influence of bright light, but the range of this apparatus was not sufficiently great to abolish the evil results of intensely high illumination as had been proved by cases of serious permanent injury to vision following the observation of solar eclipses, or exposure to the bright flash of a short circuit. Mr. Parsons conjectured that in such circumstances profound chemical changes took place in the visual purple, and even in the structural elements, leading to destruction or loss of function. He asked whether the cause of this action was the mere intensity of the light or some particular form of energy in the incident rays. The incident light was always composite in character, and included ultra-violet rays, which, inasmuch as they were known to be specially potent in effecting chemical change, would naturally first be suspected. But, chiefly on the ground that the eye was protected against them by the crystalline lens, in which for the most part they were absorbed, he held that the ultra-violet rays were quite a subsidiary element in this connexion. As to the question whether colour or luminosity was the more potent in causing glare, he held colour was, if anything, beneficial in reducing the tendency to this condition, and that, from the physical point of view, glare was a function of luminosity rather than of colour. On the physiological side, he held that temporal induction (retinal adaptation) and spatial induction were the potent factors. There was also the psychological side to be considered, and he suggested that the pain of intense glare was largely due to prolonged efforts—such as the puckering of the brows—to minimize the discomfort, as well as to the mere summation of submaximal stimuli. The discussion, which will be continued at the next meeting, was noteworthy for several communications from foreign members on the question as to what exactly constitutes a "glaring" system of illumination. Professor Stockhausen, of Dresden, held that glare depended upon two factors: (1) Strain upon the faculty of retinal adaptation, so that the physiological limit is reached or over-stepped; and (2) the fluorescence of the eye-lens under ultra-violet rays. Some lantern-slides were shown demonstrating the different extent of the ultra-violet region after attempts to reduce it by means of different kinds of glass. The general opinion of the foreign experts appeared to be that brilliancy was the main factor in inducing glare, and that colour, although under certain conditions it might cause eye trouble, was secondary. Dr. F. W. Edridge-Green pointed out that the kind and degree of illumination which constituted glare for one person might not constitute glare for another. The mercury light, for example, was intensely disagreeable to him, and yet he knew many who worked every day comfortably with it. When he had the opportunity of examining the men who could bear mercury light with equanimity, he invariably found a considerable shortening of the violet end of the spectrum, while in his own case the violet end was considerably longer than in most people. Dr. Edridge-Green held that the visual purple was the sole visual substance in the eye, as he had never been able to find evidence of any other.

THE BOARDING-OUT OF PAUPER CHILDREN.

THE boarding-out of pauper children in homes not situated in the union to which they belong was first sanctioned in 1870, when the Poor Law Board made an order regulating the character of the homes in which the children were placed, and making rules for the visitation of the children and the homes by suitable persons. Since 1885 women inspectors of the Local Government Board have been engaged in visiting these children in their homes, and in inquiring into the manner in which the local visitors carry on their work. The boarding-out of pauper children in homes within the union to which they are chargeable has been carried out for a very considerable number of years where out-relief has been given to a destitute child. It was not, however, until 1877 that the system was in any way regulated. In that year the Local Government Board made an order under which such children were placed under the supervision of the relieving officer, whose duty it was to visit them once every six weeks. The district medical officer was also required to visit and report upon the children and the homes once each quarter. In 1889 the Board made an order which authorized committees of ladies and gentlemen to undertake the supervision of these children in place of the relieving officer. The Board has now taken a further step, and by an order dated December 31st, 1909, the duties of relieving officers with respect to boarded-out children will entirely cease on April 1st next. The Order requires that the duties at present performed in some districts by relieving officers shall be carried out either by a committee of the board of guardians or by a committee of persons

who are not members of the board but who are willing to undertake the duties specified in the Order. The board of guardians may, and when required by the Local Government Board must, appoint a woman to act as a visitor. The duties of the visitor include a monthly visit to the child and its home and a report to the committee upon the conditions found, and payment, either weekly or otherwise, to the foster parent of the agreed sum for the child's maintenance. The children boarded out within a union are not subjected to inspection by inspectors of the Local Government Board in the same manner as are those who are boarded out beyond the union—a circumstance which was referred to by the Royal Commission on the Poor Laws, which recommended that all boarded-out children wherever living should be officially inspected. Although no provision is made for this in the new Order, it is stated in the letter which accompanies the Order that it is the Board's intention that such inspection shall take place, and that it is making arrangements for that purpose.

THE DEATHBED OF GEORGE THE FOURTH.

IN the *Memoirs* of the Duchesse de Dino, the niece of Talleyrand, there is the following note under the date: London, January 27th, 1834: "Sir Henry Halford has just been telling me that the late King George IV, whose senior physician he was, asked him two days before his death to say on his word of honour whether the case was desperate. Sir Henry, with a significantly grave face, answered that His Majesty's condition was very serious; whereupon the King thanked him with a movement of his hand, desired the Sacrament, and communicated very devoutly, inviting Sir Henry to communicate along with him. Lady Conyngham was in the adjoining room. So no interest was absent from the deathbed of the Royal charlatan while he partook of the Sacrament for the last time." The King died early in the morning of Saturday, June 26th, 1830, more suddenly than was expected. Feeling a sudden thrill of pain, the King exclaimed, "This is death! Send directly for Halford," and he expired in the act of making a friendly inclination of the head to the physician on his entering the apartment. Munk, in his *Life of Sir Henry Halford*, says the physicians who had been in attendance on the King were sharply criticized in some of the newspapers for the bulletins which they had issued, which, it was held, were calculated, even if they were not intended, to mislead. Sir Henry Halford took an opportunity of defending his colleagues and himself in a paper entitled "On the Influence of the Body on the Mind," which he read before the Royal College of Physicians in February, 1831. Speaking of the conduct which should be observed by a physician in regard to making a patient acquainted with his opinion as to the probable issue of a malady presenting mortal symptoms, he said he thought his first duty was to prolong life by all practicable means. Unless, therefore, he found the patient unwilling to do what was necessary in aid of the medical treatment, he refrained from stepping out of the bounds of his province in order to offer any advice which was not necessary to promote the cure. At the same time he told the friends his view of the situation. He thought it better that the friends should do what they considered right in the interest of the patient; "they do so without destroying his hopes, for the patient will still believe he has an appeal to his physician beyond their fears; whereas, if the physician lay open his danger to him, however delicately he may do this, he runs a risk of appearing to pronounce a sentence of condemnation of death, against which there is no appeal, *no hope*." But if there is no one about the patient of sufficient influence to undertake the painful duty, the physician should do so, and Halford says he has in such circumstances done that which he would have done by himself. The difficulty is greater in the case of patients whose safety is an object of anxiety to the nation. In such circumstances the physician has a duty to perform not only to the sick personage and his family, but also to the public, who, in their solicitude for his recovery, sometimes desire disclosures incompatible therewith. "Bulletins respecting the health of a sovereign differ widely from the announcements which a physician is called upon to make in humble life, and which he entrusts to the prudence of surrounding friends. These public documents may become known to the royal sufferer himself. Is the physician, then, whilst endeavouring to relieve the anxiety or satisfy the curiosity of the nation, to endanger the safety of the patient—or, at least, his comfort? Surely not." Therefore bulletins must be carefully drawn up containing no word likely to mislead, but, on the other hand, stating nothing that would deprive the patient of hope. Halford held, however, that the family and the Government had a right to know the truth; therefore, he says, he had, some months before the King's death, informed the Royal Family and the Prime Minister that His Majesty's disease was seated in his heart, and that an effusion of water into the chest was soon to be expected. It was not, however, till the latter days of May that he thought it advisable to inform the King himself of his desperate condition. "This communication was not necessary to suggest to the King the propriety of religious offices, for His Majesty had used them daily. But it determined him, perhaps, to appoint an early day to receive the Sacrament. He did receive it with every appearance of the most fervent piety and devotion and acknowledged to me repeatedly afterwards that it had given him great consolation—true comfort." It will be noticed that Halford says nothing here of having communicated with the King, but we have no doubt he did so. He was so finished a courtier that he doubtless would have behaved like the Frenchman in Johnson's imitation of Juvenal's famous line—

> Bid him go to hell, to hell he goes,

had His Majesty so ordered. The account of the deathbed of the First Gentleman reads a little oddly when one recalls the records of his life; but let us hope that, like Falstaff, "'a made a good end."

COMPULSORY SERVICE AND NATIONAL HYGIENE.

STATISTICAL monographs are, it must be confessed, as a general rule somewhat dull reading, and it is pleasant to have the opportunity of recording an exception, for Dr. Otto von Schjerning's essay on the sanitary statistics of the German army in so far as they bear on general problems of the race[1] is agreeably written and contains much interesting information. No doubt the highly favourable judgement expressed as to the hygienic effect of compulsory military service is slightly coloured by *esprit de corps;* but the author is able to point to a continuous fall in the mortality of the army from all causes, and to the fact that the prevalence of all forms of disease, with the noteworthy exception of nervous and mental disorders, has diminished. He attributes the exception not to any greater prevalence of these diseases, but to greater stringency in medical inspection. Perhaps the most gratifying feature is

1 *Sanitätsstatistische Betrachtungen über Volk und Heer.* Von Otto von Schjerning. Bibliothek v. Coler u. Schjerning. Band xxvi. Berlin: A. Hirschwald. 1910. (Demy 8vo, pp. 120; 37 tables and 6 map. M. 3.)

the decline of typhoid, the mortality from which has fallen from over 9 per 100,000 in 1873–4 to less than 0.8 in 1907–8, being now actually below the figure for the civil population between the ages of 20–25, which corresponds to the period of military service. The author publishes a remarkable diagram which appears to show that, while in the case of English males and females, German females, and French females, the mortality coefficients (*Sterbenswahrscheinlichkeiten*) increase continuously from age 11, the curve for French and also for German males is almost parallel with the abscissa between ages 20–26. Dr. von Schjerning attributes this to the favourable effects of compulsory military service; the interpretation of his result requires a far more searching statistical analysis than he has provided, but the point is worthy of careful attention on the part of medical statisticians. A most interesting section of the work is devoted to the influence of school life on fitness for military service, and the author's conclusions may be formulated as follows: (1) The highest percentage of suitable recruits is furnished by agricultural schools (*Landwirtschaftsschulen*), then come private schools, seminaries, commercial schools (*Oberrealschulen*), and last of all gymnasia; (2) the longer the number of years at school the lower the percentage fitness; but (3) there is a much closer relation between unfitness and the number of years which have intervened between leaving school and reporting for service. While it would be impossible to assert that Dr. Schjerning's statistical treatment of his material is adequate to support far-reaching conclusions, his speculations are undoubtedly of considerable interest.

COUSIN MARRIAGES.

MEMBERS of the profession are frequently consulted as to the desirability, from the hygienic standpoint, of marriages being contracted between first cousins, so that a note on the present state of opinion may be useful. Before the question can be answered it is evidently necessary to obtain some measure of the degree of resemblance of cousins, or, as the statistician would phrase it, the correlation between cousins with regard to heritable characters. The most recent work on this subject with which we are acquainted is a memoir by Miss Elderton and Professor Pearson, which was reviewed at the time of its publication.[1] These authors concluded that the resemblance between first cousins was at least as close as between children and their uncles or aunts. In their own words: "We should conclude accordingly from the present results that, for the purposes of eugenics, cousins must be classed as equally important with uncles and aunts, and that they may eventually turn out to be as important as grandparents."[2] If these conclusions be just, cousin marriages are on the same footing as a union within the prohibited degrees of affinity, which in this country include that of uncle or aunt with niece or nephew. While decisive importance cannot be assigned to the table of kindred and affinity, especially as some of the prohibitions do not refer to blood kinship, yet it is probable that the table may ultimately have been derived in part from the teaching of experience. We do, indeed, know that numerous pathological defects, such as deaf-mutism and albinism have been alleged to occur with undue frequency among the offspring of cousin marriages. It is none the less true that most of these allegations are not supported by adequate statistical reasoning and should be accepted with reserve. Perhaps the following statements may be regarded as in accordance with the best modern teaching. If the cousins have behind them an ancestry physically, morally, and mentally without blemish, then such a marriage is certainly unobjectionable and may even be regarded as advantageous. Since, however, none but an insignificant percentage of our race can bring forward genealogical evidence approximating at all closely to this ideal, cousin marriages must generally be regarded with some apprehension. The bad points as well as the good points of the stock will tend to be exaggerated in the offspring and a disturbance of balance may be introduced not making for the health or happiness of the coming generation. We do not refer to the alleged lowered fertility of cousin marriages, since this requires further investigation. It is, we think, quite clear that any dogmatic condemnation of cousin marriages is not warranted by by the present state of knowledge.

[1] BRITISH MEDICAL JOURNAL, 1908, vol. i, p. 407.

[2] *On the Measure of the Resemblance of First Cousins.* By Ethel M. Elderton and Karl Pearson. Eugenics Laboratory Memoirs IV, p. 20. London: Dulau, 1907.

HOSPITAL FINANCE.

A WILL, the contents of which were made public last week, had a codicil attached, revoking a bequest of £500 to St. Bartholomew's Hospital, on the ground that it was exceeding its income. It is a curious circumstance, which seems to indicate that the testator was not well acquainted with the financial system on which voluntary hospitals are for the most part nowadays conducted. In an article published in this JOURNAL a year or two ago it was shown that the vast majority of all London hospitals were habitually exceeding their income, and risking between them such an accumulated debt as must, in the course of time, tend to bring all voluntary hospital enterprise to a standstill, and force them to choose between closing their doors and accepting the position of rate-supported institutions. In a certain measure this anticipation has already been realized, since a certain number have come to terms with the London County Council in respect of elementary school children, for whom treatment of one kind and another is deemed desirable. Though it is true that the hospitals have so far managed to guard their autocracy, the action represents a step towards municipalization. Of the number of hospitals whose finances we reviewed—some sixty-nine—a proportion showed an apparent surplus on the year's working, but this was only when legacies received were brought into account. The habitual utilization of legacies for the purposes of ordinary maintenance is a practice which hitherto has generally been deemed unsound finance, and if this view be accepted, the number of hospitals truly entitled to be regarded as having completed their year's work with a balance on the right side was only fourteen. Moreover, the ratio of the deficit to ordinary expenditure was in many cases exceedingly high. In the case of two or three hospitals it was as great as 1 to 3, and in several it was as much as 1 to 5. At the London Hospital, for instance, with an annual expenditure of about £100,000, the income fell short of this amount by £20,000. At the Hospital for Sick Children, Great Ormond Street, again, ordinary expenditure amounted to £22,171, while ordinary income fell short of this sum by more than one-third, namely, £7,854. But it is superfluous to multiply instances, for the position of the majority of the hospitals was in principle essentially the same—namely, that they were spending sums materially exceeding their income, quite apart from any expenditure they were incurring from structural improvements and additions. Hence, though it may be, and doubtless is, regrettable that St. Bartholomew's

Hospital should now exceed its annual income, it is merely conforming to the general rule. Nor is it really remarkable that hospitals as a class should be indisposed to cut their coat according to the cloth in hand, for, provided that the active administrator is a person possessed of the requisite talent and energy, an institution which habitually exceeds its income is often much better off than its fellow of more ant-like habits. But its financial position is unsound, since its prosperity depends mainly on the continued co-operation of perhaps one or two particularly able and persuasive individuals on its board of management. So long, however, as its luck in this particular continues the policy seems usually to be successful, for even the business portion of the community appear to reck little of true soundness in financial administration where charitable institutions are concerned, and there is a general disposition to open purse-strings widely in favour of any institution which can show a really big deficit in proportion to its assured means. Furthermore, the King's Fund, as pointed out on a recent occasion, seems disposed to encourage a belief that it takes the same view of matters. Whether by doing so the fund is not inflicting a grave injury on voluntary hospital enterprise as a whole and imperilling its future is another question; but in any case, in view of the commonness of the practice there would seem to be a certain tinge of absurdity in any individual withdrawing a legacy from an institution on the ground stated.

GENERAL ELECTION.

QUESTIONS TO MEDICAL PARLIAMENTARY CANDIDATES.

A COPY of the memoranda and questions on Parliamentary subjects affecting the public health and the medical profession (see SUPPLEMENT, January 1st) was sent to each of the following medical candidates for Parliament, with a letter expressing the hope that the candidate would (*a*) answer the Questions, and (*b*) find himself able, if elected, to give a general support to the policy of the Association, except when it might conflict with party obligations.

Up to noon on Wednesday, January 12th, the following candidates had replied:

Dr. W. A. Chapple (L.), Stirlingshire.
Sir William J. Collins (L.), St. Pancras West.
Surgeon-General G. J. H. Evatt, C.B. (L.), Brighton.
Sir Robert Finlay, K.C. (U.), Edinburgh and St. Andrews Universities.
The Right Hon. Sir Walter Foster, Derbyshire S.E. or Ilkeston.
Dr. Alfred Hillier (U.), Hertfordshire North or Hitchin.
Dr. T. Laffan (H.R.), Mid-Tipperary.
Dr. H. S. Lunn (L.), Boston.
Dr. J. E. Molson (U.), Bethnal Green.
Dr. R. O. Moon (L.), Marylebone East.
Sir G. Scott Robertson, K.C.S.I. (L.), Central Bradford.
Dr. V. H. Rutherford (L.), Brentford.
Sir A. R. Simpson (L.), Edinburgh and St. Andrews Universities.

Note.—In consequence of information as to Dr. Court's candidature for North-East Derbyshire being received later than the issue of the official letter, he has not yet had time to reply.

Candidates giving favourable answers to (*a*) and (*b*):

Surgeon-General Evatt.
Sir Robert Finlay.
Right Hon. Sir Walter Foster.
Dr. Hillier.
Dr. Lunn.
Dr. Molson.
Dr. Moon.
Sir G. Scott Robertson.
Dr. V. H. Rutherford.
Sir A. R. Simpson.

Candidates giving favourable replies to (*a*) only:

Dr. W. A. Chapple.
Sir W. Collins.

Dr. Laffan replies that family bereavement has prevented his pursuing his candidature in real earnest.

England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

LONDON.

THE PUBLIC HEALTH IN 1908.

THE first part of Sir Shirley Murphy's report to the London County Council for the year 1908[1] was dealt with on pages 113–114 of the BRITISH MEDICAL JOURNAL. Part II is more immediately concerned with an account of public health administration within the area of the County Council. The powers and duties of the London County Council differ very considerably from those of other county councils, whose powers are mainly administrative, whereas in London executive powers are shared by the County Council and the metropolitan borough councils. In these circumstances it would add very much to the value of the annual report if the medical officer would indicate more definitely where the County Council is responsible for executive details and where the responsibility falls upon the borough councils.

Dairies, Cowsheds, and Milk Shops.

At the end of 1908 there were 225 cowsheds in London, the number in each borough ranging from 1 in Paddington, Kensington, and Holborn, to as many as 38 in Stepney. The total number of cows is not stated, but it may be assumed to be about 3,500, for at each one of the five periodical inspections made in 1908 by the County Council's veterinary inspectors that was the average number examined. As a result of these periodical inspections, 1,139 cows were discovered with disease or defect of the udder (16 with tuberculous disease of the udder, 158 with acute mastitis) and 139 were giving milk of poor quality. The county medical officer of health, or some other duly authorized person, is empowered under the London County Council (General Powers) Act, 1907, to take within and without the administrative county samples of milk produced or sold or intended for sale within the county. Power is also given to examine particular cows, and if it appears to the Council, on a report presented to it, that tuberculosis is caused or likely to be caused to persons residing in the county from the consumption of milk from any dairy, the Council may make an order prohibiting the sale of milk within the county from such dairy, and a penalty of £5 may be inflicted for contravention of the order. These powers were in force for the second half of 1908, and during that period 620 samples of milk were taken by the Council's inspectors from churns of milk consigned from the country to the various London railway termini and submitted to the Lister Institute for bacteriological examination. In the case of those samples in respect of which the bacteriological examination proved that there was evidence of the presence of tubercle bacilli, a clinical examination of the cows at the farm from which the milk had been consigned was made by the veterinary inspector appointed for the purpose. Of the 620 samples taken as many as 61 were found tuberculous.

The examination of 92 samples was not completed for various reasons, so that of the 528 samples of which a complete examination was made 11.6 proved to be tuberculous. As a result of the next step, when 4,997 cows were inspected on 190 dairy farms situated in seventeen different counties, there were discovered 147 cows with tuberculous udders. The supply of milk from these cows for human consumption was immediately stopped. The report continues:

> The experience gained during 1908 shows the magnitude of the evil to be dealt with, and that it is possible, even under existing circumstances, to take steps which must eventually materially reduce the amount of tuberculous milk supplied to London. The great need at the present time is, however, the systematic veterinary inspection of cows by the local authorities of the areas in which the dairy farms are situated, and the exclusion from the milk supply of the milk of cows suffering from

[1] Report of the Public Health Committee of the London County Council, submitting the report of the Medical Officer of Health of the County for the year 1908. London: P. S. King and Son. No. 1,299. Pp. 97, with 5 appendices, charts, etc. (3s. 6d.)

tuberculous disease of the udder, or showing clinical signs of tuberculous disease, or giving tuberculous milk. In this connexion it might be stated that provincial local authorities have generally shown willingness to co-operate with the Council in preventing the sale of milk from cows which the Council's veterinary inspector has certified to be suffering from tuberculous disease of the udder, and in a few instances veterinary inspectors have been appointed by the local authorities for the enforcement of the provisions of the Dairies and Cowsheds Order of 1899. The adoption of this latter course by certain authorities, which is an indirect effect of the administration of the Council's powers, is one of the most hopeful results of the Council's Act of 1907.

Slaughterhouses.

The number of premises licensed to be used as slaughterhouses is decreasing year by year. In 1892 there were 537 such places, and in 1908 only 273. The City of Westminster is the only district in which there are no slaughterhouses; in Holborn there is one and in Bermondsey only two, while in Islington there are thirty-four. In the City of London there are seven slaughterhouses licensed by and under the jurisdiction of the City Corporation.

Offensive Trades.

New by-laws were made by the County Council in 1907 with respect to certain other offensive trades, the material point in which they differed from those which they superseded being the extension of the principle of the use of a "closed chamber" to all offensive processes and improvement in the method of ventilation of these chambers.

Removal of House Refuse.

The scandal attached to the storing up of house refuse and the difficulties connected with its removal is becoming a relic of the past, and now, instead of the householder having to hail the dust-cart in its progress through the street, the County Council by-laws require the dustman to call at every house at prescribed intervals. The desirability of introducing a daily removal is being more generally recognized; especially is this the case in those districts where houses are built in flats, or where there are many artisans' dwellings. The need for a daily removal is also increased owing to the larger use of gas fires, in which it is not possible to burn vegetable refuse. The sanitary authority of Westminster decided in 1908 to extend to the whole area under its jurisdiction the system of daily removal which had hitherto been adopted in certain localities only.

Verminous Houses and Persons.

The systematic cleansing of houses and persons in a verminous condition cannot fail to have an indirect influence on the general health of the community. It is satisfactory, therefore, to find that the facilities provided for this purpose are being increasingly used. Nearly 5,000 rooms and premises were cleansed in 1908 by the various sanitary authorities, and no less than 30,000 persons took advantage of the means provided for ridding themselves of vermin, more than half of the whole number being in St. Marylebone. Sir Shirley Murphy quotes from the report of Dr. Sykes a statement to the effect that since the establishment of the cleansing stations in St. Pancras and St. Marylebone each of the boroughs shows a remarkable improvement in its position in regard to the prevalence of scarlet fever and diphtheria.

The Midwives Act.

The following information is given with reference to midwives:

The number of midwives giving addresses in London whose names have been placed on the roll was 3,020, made up as follows:

(*a*) 1,824 in virtue of a certificate obtained by examination prior to the Midwives Act, 1902.

(*b*) 1,011 in virtue of a certificate from the Central Midwives Board.

(*c*) 185 in virtue of having been in practice for a year prior to the passing of the Act.

After correcting for removals and deaths, where such had been reported, the number of certified midwives residing in London in 1908, was reduced to 2,690. Of these, 518 gave notice of their intention to practise during the year, including 32 midwives acting on specific occasions, but not practising regularly in London. The London midwives are classified as follows:

	Not Practising.	Notifying Intention to Practise during 1908.	Total.
Class (*a*)	1,392	206	1,598
Class (*b*)	716	204	920
Class (*c*)	64	108	172
	2,172	518	2,690

Many of the 204 midwives in class (*b*) who notified their intention to practise were newly qualified, and were working for short periods at the institutions where they were trained prior to taking up practice in other parts of England, or going abroad.

From the above figures it will be seen that less than 20 per cent. of the midwives residing in London are practising. The remainder for the most part act as monthly nurses under the direction of medical practitioners.

Of the practising midwives, some 25 reside at, and work in connexion with, lying-in hospitals or Poor Law infirmaries, and are under the supervision of medical practitioners. Others living in their own homes attend patients on behalf of charitable institutions, which pay them fees for each case allotted to them, a few taking no other cases, while others are also engaged in independent private practice. The rest practise independently, or work in lying-in institutions not under direct medical supervision.

Three practising midwives died, 12 gave up practice, and 27 removed from the county during the year.

All practising midwives, except those working under the direction of medical practitioners, are subject to supervision by the Council's officers. The work of inspection is carried out by a registered woman medical practitioner, who, in addition to making routine inspections for the purpose of ascertaining whether the rules of the Central Midwives Board are being observed, makes special inquiries into all cases of a septic nature. In connexion with the rule of the Central Board which requires a midwife under certain specified circumstances to send for medical assistance, it appears that during 1908 there were 2,755 such instances, an increase of 222 over the previous year, and of 1,642 over 1905. This increase Sir Shirley Murphy considers to be in part due to a fuller understanding of the rules, but also to the fact that midwives are recognizing better the necessity for calling medical assistance in cases in which there is the slightest sign of danger to their patients. It would be interesting to know in how many of the 2,755 instances the medical practitioner who attended to the call of the midwife received any remuneration for his services. Assuming that 30,000 births are annually attended in London by midwives, it appears that in 9.2 per cent. the midwife finds it necessary to send for medical assistance.

MANCHESTER.

THE MANCHESTER GUARDIANS AND CONSUMPTION.

THE Manchester and the Chorlton Boards of Guardians have recognized recently, perhaps, more than at any previous period, that a large proportion of paupers are made paupers directly through phthisis, and last week the two boards met in conference to consider the desirability of waiting upon the Health Committee of the Manchester Corporation to urge the corporation to provide a sanatorium where persons suffering from phthisis could be received before they arrived at a state of destitution. Considerable discussion arose as to the power of compulsory removal to hospital, and as to how families should be dealt with while the breadwinner might be in a sanatorium. There seemed, however, to be some disagreement on the question as to whether the corporation should be asked to make the provision. The Clerk of the Manchester Board thought the time had not arrived when they should ask the corporation to take the matter in hand, while the Clerk of the Chorlton Board said it was only

suggested that the corporation should provide for curable cases, and he thought that the medical faculty in Manchester would give every assistance to an establishment of the kind. After prolonged discussion the conference adjourned without arriving at any decision.

The question of compulsory removal to hospital of persons suffering from phthisis has been frequently discussed in Manchester, and no decision has been reached. The Majority Report of the Poor Law Commission expresses the opinion that the suggestion is beset with administrative difficulties, on the grounds that it may be a moot point at what period of its development phthisis becomes infectious; further, that the detention would often have to be for a considerable time, and that the knowledge that detention might be enforced would probably lead to concealment of the disease, or at least make it less possible to attract patients for treatment at the earlier and curable stages, and that public opinion is not likely to sanction such drastic powers of detention as would be involved in detaining all infectious cases. The Majority Commissioners, therefore, think that:

> Meantime the spread of phthisis must be checked mainly by a wider diffusion of the knowledge of its dangers and of the means of its prevention, and by a stimulation of the efforts of the authorities concerned with its prevention and cure. If, however, anything is to be done in the direction of detention of phthisis, a beginning might be made, perhaps, with advanced cases, in which, first, the medical officer pronounced the patient in such a condition as to be likely to communicate the disease, and, secondly, the home conditions of the patient are such as to lead with practical certainty to the spread of the disease.

In the last annual report of the Medical Officer of Health for Manchester some particulars are given as to the straits to which the families of consumptives have been reduced, and Dr. Niven strongly urges the importance of finding some way of securing such families against distress in the absence of the bread-winner. Though some working men would refuse such charitable assistance for their families as long as they could work, yet some provision of the kind would undoubtedly in most cases lessen the reluctance to enter a sanatorium in the early stage. It would seem to be impossible for boards of guardians to do anything in the matter, as they can only help those already in distress, whereas the object should be to prevent or forestall destitution. The guardians also labour under the further disability that they cannot legally provide sanatoriums except for the destitute; and, even though there is a practical certainty that the phthisical father of a family will sooner or later have to throw his family on the rates if he does not receive proper treatment in the early stages while he is still able to work, nevertheless the guardians can do nothing in the way of providing sanatorium treatment for him. This question of phthisis shows the absolute necessity of a reform which shall either increase the powers of guardians or replace them by an authority that can not only relieve existing distress but, as far as possible, forestall it.

But even in cases where the guardians have now power the Chorlton Board have not acted; they allowed their phthisis wards to get into a dangerous state of overcrowding, and the workhouse committee last week received a letter from the medical officer, Dr. Orchard, stating that in one pavilion devoted to phthisis, although extra beds had been placed in the wards, ten patients were sleeping on the floor and there were phthisis cases in most of the other wards, so that practically no isolation of the cases existed. The difficulty could be met by some rearrangement when the new wards were completed. Dr. Orchard attended the meeting of the board and explained how impossible it was to obtain isolation at present, and it was resolved that consent should be obtained from the Local Government Board to erect temporary structures to provide the necessary accommodation. It was suggested, however, that a house might be taken in the country, and the final decision as to the kind of accommodation to be provided was left for future consideration after interviewing the Local Government Board.

Opticians and State Recognition.

At a meeting of the Manchester and North of England Optical Society, held at the Albion Hotel, Manchester, on January 5th, Mr. Hershberg, the Honorary Secretary, reported that in accordance with the resolution passed at the last meeting he had written to the secretaries of the different optical societies in the country with reference to the proposed federation of such organizations, the ultimate aim being the obtaining for qualified opticians of a legal status. So far four societies had replied expressing approval of the movement and intimating that representatives would be sent to the conference on the subject to be held in Manchester. The secretaries of other societies had replied stating that the matter would be placed before the next meeting of the members. The Scottish Optical Society had declined to take part in the movement. The societies who had answered in the affirmative were the Northern Optological Society, Manchester; the West Riding Optical Society; the Northern Counties Optical Society, and the National Association of Goldsmiths. After discussion, it was eventually decided to defer fixing a date for the conference until the next meeting, by which time it is hoped to have the replies of societies who have not yet dealt with the proposal.

LIVERPOOL.

Annual Dinner of the Birkenhead Medical Society.

The annual dinner of the Birkenhead Medical Society took place on January 8th in the Birkenhead Town Hall. The chair was taken by Dr. R. Sydney Marsden, M.O.H. for Birkenhead. Covers were laid for about sixty. The guests included Sir Thomas Fraser, F.R.S., Sir William Sinclair of Manchester, the Mayor of Birkenhead, and the President of the Liverpool Medical Institution.

The Royal Infirmary.

The post of assistant physician, rendered vacant by the promotion of Dr. R. J. M. Buchanan to be physician, has been filled by the election of Dr. O. T. Williams. Dr. Williams was a distinguished student of the Royal Infirmary, and has done original work more especially in the department of pathological chemistry, a subject which he has studied in Germany as well as in this country.

WEST YORKSHIRE.

Dinner to Dr. Goyder of Bradford.

On December 28th, 1909, the anniversary of his 80th birthday, a dinner was given to Dr. David Goyder.

Dr. Bronner took the initiative in the matter, and a great factor in the success of the evening was undoubtedly the excellent arrangements which he made, and the geniality which he inspired into the proceedings. The dinner took place at the Midland Hotel, Bradford, and the Chairman was Mr. T. Pridgin Teale of Leeds; over forty medical men were present, amongst whom were many of the leading practitioners of Bradford and district. Letters of apology at inability to attend were read from several medical men, including Dr. Eddison of Leeds and the President of the Bradford Medico-Chirurgical Society.

On the first page of the menu was the following:

> Deare Goydere was a Doctour of Phisyk,
> In all this world ne was ther noon him lyk,
> To speke of phisik and of surgerye;
> For he was grounded in astronomye.
> He kepte his pacient a ful greet del
> In houres, by his magic naturel.
> Wel coude he fortunen the ascendent
> Of his images for his pacient.
> He knew the cause of everich maladye,
> Were it hoot or cold, or moist or drye,
> And where engendred, and of what humour;
> He was a verrey parfit practisour.
>
> *The Prologue to the Canterbury Tales.*
> A.D. 1385.

Mr. Teale in the course of his remarks said it was a privilege and a delight for him to be present. It was about fifty years since he first knew Dr. Goyder, and his personality was one of the continuing elements that had always kept him in association with Bradford. Dr. Goyder had always been a great factor in the medical life of Bradford. He had promoted much friendly intercourse between the local medical men, which had tended to do away with jealousy and prejudice. He had always been specially active in assisting the good work of the Bradford Medico-Chirurgical Society.

Dr. Rabagliati said he could only supplement what Mr. Teale had said. His recollections of Dr. Goyder did not go back quite as far as Mr. Teale's, but he had had the pleasure and honour of knowing Dr. Goyder for forty years. Dr. Goyder was always the great moving spirit in the Bradford Medico-Chiurgical Society. One of his great characteristics was to keep the men together. He was a most versatile character. It was most gratifying to know that Dr. Goyder's son —a distinguished member of the medical profession of Bradford—was present that evening. He could never forget, when speaking of Dr. Goyder, his association with the late Dr. Brown of Bradford—a partnership which lasted eleven years. Nor could he dissociate from his mind the feeling of certainty that, if Dr. J. H. Bell had been alive and well, he would have been speaking there that evening to the good qualities of his old friend. In conclusion, he could only express the extreme pleasure that he had derived from being present that evening.

Dr. H. J. Campbell said that he spoke as the successor of Dr. Goyder in the treasurership of the Bradford Medico-Chirurgical Society. Dr. Goyder had been an inspiration to the society during the whole of its existence. He was most thorough and careful in everything he did, and the present flourishing condition of the society was largely due to Dr. Goyder's activity and work.

Dr. J. Metcalfe said that he had been asked, as chairman of the Bradford Division of the British Medical Association, to speak to one aspect of Dr. Goyder's life-work, and that a very important one. This was his long connexion in many capacities with the work of the British Medical Association. He had known Dr. Goyder for many years and he could only marvel that the ravages of time did not appear to have made any sensible inroads on his personality. Dr. Goyder, in fact, appeared to have discovered the secret of perennial youth. Dr. Goyder had been a member of the Association for forty-two years, was president of the Yorkshire Branch in 1882, and a vice-president since then. Since 1902 he had been a representative of the Yorkshire Branch on the General Council of the Association. He took the greatest interest in the new constitution and was the first chairman of the Bradford Division. Dr. Metcalfe said he was proud to bear witness to Dr. Goyder's good qualities and to his powerful influence on his day and generation. His efforts for the struggling members of his own profession were well known. He had had to work through domestic affliction that would have deterred any ordinary man. But his will had been indomitable.

Dr. Slater added a few words on Dr. Goyder's great hobby—the work he did as a Poor Law guardian. He was untiring, and was always attempting to unravel some Poor Law problem. His energy put his juniors to shame, and he was the most conscientious of all guardians he had ever known. Dr. Goyder always put the greatest literary grace and scientific details into the reports and memoranda prepared for the guardians. He could not say too much if he spoke all night of Dr. Goyder's good qualities. If he had the breath he would not have the vocabulary to do so.

Dr. Goyder, who was received with great applause and spoke with some emotion, said: I have been utterly at a loss to know how to give expression to your kindness in inviting me to this congratulatory dinner upon my 80th birthday, or how to show my gratitude for many benefits I have received at your hands in the past. At last I concluded that the best thing would be to recall to your memories some of the incidents of my professional life (for to state them all and the reflections arising out of them would take a volume) during the fifty years I have lived in Bradford, and allude to one or two points of which you may be ignorant. If I am too prolix, stop me without compunction. I only desire to state facts with as little comment as possible; in this friendly gathering the comments must be yours, whether of praise, contempt, or blame. Well, then, if you agree, I begin. I first came to Bradford in 1860 as assistant, and afterwards partner, to the late Dr. Brown. I was one of the founders of the Medico-Chirurgical Society, the original membership of which was twenty-five; of these, only three are now left. For twenty-five years I acted as honorary secretary, and was one time president of the society, and have always taken a very active interest in its affairs. One of the most important works ever undertaken by any society was that carried out by the Medico-Chirurgical. I allude to the Woolsorters Commission, during the sittings of which Dr. J. H. Bell made his investigations demonstrating the cause of woolsorters' disease to be the anthrax bacillus. The suggestion that anthrax might be the cause probably came from Dr. Eddison of Leeds, who had at that time been visiting Pasteur. I myself examined all the tissues microscopically. The findings of the Commission were affixed to the annual report published on the twenty-first anniversary of the society's existence in 1884. I took very great interest in the formation of the Medico-Ethical Society in 1875. We were able at a very early period to obtain excellent results with this society. A code of etiquette was drawn up. We arranged that fees for medical attendance should be based on the house rental; that the lowest midwifery fees should be 15s. if paid at the time, or one guinea if the case was booked; and we got the clubs to raise their payments from 2s. 6d. to 4s. per annum. Ultimately the society, after doing excellent work, and after splitting up into two societies, which again became amalgamated, was absorbed by the Bradford Division of the British Medical Association. I was, as you know, honorary medical officer for eighteen years to the Bradford Infirmary, and was connected with the Eye and Ear Hospital for three years as Dr. E. Bronner's assistant. I was actively engaged with the late Mr. Charles Semon, uncle of Sir Felix Semon, in founding the Semon Convalescent Home at Ilkley, and made arrangements for a large number of medical men to attend its opening. An interesting point connected with Mr. Semon was that he commissioned me to buy a complete set of surgical instruments for his nephew, who had recently come to London. I was connected with the formation of the Bradford Nurses' Institution, and acted as its honorary secretary for twenty-five years. I afterwards resigned my connexion with the institution, but during the past year my colleagues have honoured me by making me its chairman. I always took a great deal of interest in the British Medical Benevolent Fund, although it was somewhat uphill work, on account of the fact that in the West Riding there is the very excellent West Riding Medical Charitable Society. It has been difficult to get men to subscribe to both societies, but, for all that, during my connexion with the Benevolent Fund I have been able to send over £800 to head quarters. I joined the British Medical Association in 1867, and have been much interested in it ever since. I was President of the Yorkshire Branch in 1882, and was appointed in 1902 as the Branch Representative on the General Council of the Association. I could speak for a long time on the work of this great Association, but time forbids. I am glad to think that I believe the present unhappy differences of opinion will through a conference shortly disappear. I have taken a great interest as a Poor Law guardian in the work of the Bradford Board. I am extremely pleased with Dr. Slater's remarks on this "hobby" of mine. I have always been anxious to assist in medical matters and to help to promote the interests of the professional members doing district work.

Now, gentlemen, in conclusion I have a personal word or two to say. Believe it as you may I am free

to say that I have never been animated by mere ambition for position; I have never sought professional or other honours, but if these have come I have accepted them as incidents in the progress of any work I have undertaken to perform. My motto in my professional life, borrowed from that of the students' medical society of the old Andersonian College of Glasgow, has been *Pro Amicitia et Medicina*, a combination of the pursuit of medicine with the principles of amity and mutual professional kindness; because by friendship jealousy is banished, respect and assistance in professional difficulties is secured; emulation of each other's work and talents is more certainly promoted, and progress becomes more assured and lasting. Of necessity the older men must give place to the younger and better equipped in advancing knowledge, but there is always with the old the consciousness that when they *have* laboured, others in following their footsteps enter *into* their labours. The principle of usefulness to each and to all should be the motive force of our lives, for it eschews mere selfishness and follows the law of God in His universe, and of certainty is the law of the better world.

In the intervals songs were rendered by Dr. Carroll, a piano solo by Dr. Eurich, and a violoncello solo by Dr. Macvie. Dr. Eurich also acted as accompanist.

Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

ANTIVACCINATION CAMPAIGN.

AN active antivaccination campaign is at present being carried on throughout a large part of co. Wexford, and especially in the district of the Enniscorthy Union. For the last forty years the town of Enniscorthy has numbered amongst its inhabitants a few active antivaccinationists, but during the last twelve months a much more widespread feeling of antagonism to vaccination has sprung up, largely owing to the influence of articles which have appeared in one of the local papers, which is stated to be subsidized by an English antivaccination league. The attention of the Local Government Board has been called to the state of affairs prevailing thoughout the Enniscorthy Union, and, in consequence, one of their inspectors, Dr. Flinn, paid a visit to the district some months ago, but at that time failed to convince the Enniscorthy guardians that they were making a mistake in practically suspending the Vaccination Act. In the Wexford district public opposition to vaccination is also very vigorous, but here the guardians have determined to enforce the law, and, as a result, four Wexford men recently elected to go to prison rather than allow their children to be vaccinated. The medical officers of the Enniscorthy dispensaries have endeavoured by every means to inform the public of the true value of vaccination, and especially to bring home to the minds of the people the entire absence of risk entailed by vaccination; but finding that their efforts are not sufficient to cope with the situation, they have now addressed themselves to the Royal College of Physicians in Ireland asking it to address the public by resolution, and to point out to the people the grave danger they incur by the neglect of vaccination.

DUBLIN HOSPITALS TUBERCULOSIS COMMITTEE.

At a quarterly meeting of the Dublin Hospitals Tuberculosis Committee held in the Royal College of Physicians, Dublin, on January 4th, reports were received from the special tuberculosis district nurses who have been at work in Dublin and its suburbs during the greater part of the year 1909. During the nine months ending November 20th, 1909, the two Dublin nurses attended 297 cases, and paid a total of 4,939 visits. Fourteen of the patients improved sufficiently during that time to return to work, 45 were admitted to sanatoriums or institutions for special treatment, and 39 died. In addition to visiting patients much useful work was done in other directions. Thus, through the agency of these nurses, eighty-eight rooms have been disinfected, forty-eight sputum flasks have been distributed, 87 children of tuberculous parents have been sent to the country, and nourishment has been provided for a large number of patients and their families. The nurse employed in Terenure reports that during the seven months ending November 20th, 1909, she paid a total of 277 visits to 28 separate patients. She has been the means also of distributing nourishment and other necessities to several families. It is important to note that out of the 325 cases observed in Dublin and Terenure there were fifty-five families in which more than one person was affected, and that amongst the total number of families of whom one or more individual was tuberculous 114 were in occupancy of only one room.

DUBLIN STUDENTS' UNION.

At a largely attended meeting of the students of the Royal College of Surgeons in Ireland, held recently, it was unanimously resolved to form a students' union. One of the principal objects it is hoped to attain is to bring together the students and to give them the benefits of some form of corporate life which they at present do not possess. The Trinity College school and most of the English and Scottish schools already possess such unions, and their value, both from the educational and social points of view, is admitted on all sides. The project has already received substantial support both from the council of the college and from individual fellows and professors.

CHILDREN'S HOSPITAL, TEMPLE STREET, DUBLIN.

An amateur dramatic performance, under the patronage of Their Excellencies the Lord Lieutenant and Lady Aberdeen, was given on January 6th in the Empire Theatre, Dublin, in aid of the Temple Street Children's Hospital. During the past year the board of this hospital has opened a convalescent home in the country for the reception of patients in need of country air, and the immediate object of the dramatic performance was to raise funds for improving the lighting accommodation and for increasing the water supply to this home. It was the first of a series of three entertainments arranged to raise funds for this object. The other two entertainments were public balls held in the Rotunda on January 7th and 8th respectively.

HEALTH OF BELFAST.

At the monthly meeting of the City Council held on January 3rd, the death-rate for the preceding four weeks was returned as 23.9; this rise is due chiefly to the great increase of deaths from respiratory trouble and to pneumonia; the number registered for the last disease (109) is more than double that for the corresponding period of last year (50). A comparative table for the preceding four years shows a steady fall in typhoid; 551 were notified in 1906, as compared with 109 in 1909; also in scarlatina, simple fever, and pulmonary tuberculosis; the death-rate from zymotic diseases has fallen from 2.5 steadily to 1.3; the phthisis-rate from 2.7, 2.5, 2.3, to 2.1 (1.9 English method). In 1901 the death-rate for the city was 22.4; in 1905, 20; and in 1909, 18. For several years previous to 1906 strong representations were made as to the unduly high general death-rate of the city, and to the excessive rate of typhoid and phthisis; in 1906 more than one public meeting was held at which a firm protest was made against the lax system into which the health matters of the city had been allowed to drift. This action was severely condemned by the Health Committee at the time. The reformers, however, were clearly justified in their action, as proved by the great improvement which has since taken place.

SHELLFISH AND THE PURIFICATION OF BELFAST LOUGH.

At the same meeting a resolution was carried granting £3,000 for the purpose of clearing as an experiment 100 acres of the foreshore of the lough of shellfish, as recommended by the Royal Commission on Sewage

Disposal. The Commission found that mussel beds formed an excellent anchorage for the *Ulva latissima;* and it was thought that removal of the beds might check the development of the weed.

Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

SAD BOATING ACCIDENT.

MR. R. M. NICHOLSON, M.B., Ch.B., and Mr. R. Bell, a student of medicine near the end of his course, left Edinburgh on Friday evening, January 7th, to spend the week end at the village of Cramond, near Dalmeny and Barnbogle Castle. They left Cramond on Saturday morning in a frail punt with the intention of having some duck shooting on Cramond Island, about a mile from the shore. As a south-westerly gale had sprung up in the afternoon, increasing with the evening, and they did not return, fears were felt as to their safety. Unhappily these fears were too sadly confirmed, for on Sunday afternoon the body of Dr. Nicholson was found on the beach between Cramond and Dalmeny, with two fowling-pieces lying near him. The body of Mr. Bell was found near the same place on January 11th. Dr. Nicholson received his degrees only a week or two ago, and was soon to have left Edinburgh to join his father, Dr. John Nicholson, who is in practice at Benalla, Victoria, Australia. The disaster has created a profound feeling of pain and sympathy. The funeral of Dr. Nicholson took place from the Drill Hall, Forrest Road, on Wednesday, January 12th. He was a keen volunteer, and the officers and men of the 4th and 5th Battalions Royal Scots turned out to the funeral procession to the station. The body was conveyed to Penrith for burial.

POOR LAW MEDICAL OFFICERS.

In accordance with a promise given by the Lord Advocate to Mr. Cathcart Wason, a return has just been issued by the Scottish Office showing in how many and what parishes Poor Law medical officers in Scotland have vacated office during the period from May 15th, 1906, to May 15th, 1909, and the period that elapsed in each case before the appointments were permanently filled. There is nothing in the return to show how many of these vacated appointments were due to death vacancy or to voluntary resignations. The number of vacated appointments during the three years under review amounted to 208; of these, 87 were filled without any delay; the balance were filled at periods varying from two days to eleven months. The average time taken to fill the vacated appointments seems to have been about two months. The return does not seem to serve any very useful purpose, because, beyond the fact of stating the number of vacated appointments and the time taken permanently to refill them, there is nothing to show —what evidently was in Mr. Cathcart Wason's mind— the number of dismissals of Poor Law medical officers and the trouble thereby entailed on the poor. Included in this return there is to our certain knowledge more than one death vacancy. What is really wanted is a return showing the number of dismissals and the reasons.

GLASGOW AND THE NOTIFICATION OF TUBERCULOSIS.

The *Glasgow Herald* states that the decision of the corporation to make pulmonary tuberculosis notifiable for three years from January 1st, 1910, is but a first step in the campaign which it is undertaking against this disease. What is practically a new branch of the public health service of the city has been formed to follow up notification by practical and remedial measures. Acting under the medical officer there will be a special medical assistant, who will investigate the causes of consumption in the city. Arrangements have also been made with the parish councils of Glasgow and Govan for consultations to be held in the public dispensaries owned by these bodies. At each dispensary there will be in attendance a medical practitioner, appointed by the corporation, who will make an examination of all cases presenting themselves, and advise the patients as to treatment. In addition, there will be attached to each dispensary a trained nurse, who will visit selected cases in their own homes to see that the instructions of the medical advisers are being carried out. In Glasgow alone the disease claims an annual tribute of some 1,300 lives.

New Zealand.

[*FROM OUR SPECIAL CORRESPONDENT.*]

LUNACY IN 1908.

THE annual report for the year 1908 of Dr. Frank Hay, Inspector-General of the Insane for the Mental Hospitals of the Dominion of New Zealand, shows that on January 1st, 1908, the number of patients on the register was 3,240, and on the last day of the year 3,414, giving an increase for the year of 174. This increase, which is the largest annual increase recorded, may be compared with the last quinquennial increase of 78, or with that preceding of 84. The ratio of the total insane to population at the end of the year was, exclusive of Maoris, 35.13 per 10,000, or 1 in every 285; or, inclusive of Maoris, 33.86 per 10,000, or 1 in every 295. As compared with the figures of the previous year, the ratio to population rose by 0.33 per 10,000 for males and 1.03 per 10,000 for females. The total cases under care during the year numbered 3,999, and the average number daily resident 3,240.

Admissions.

During the year, and excluding transfers from one hospital to another, the admissions were 744, as compared with 600 for the previous year. Of the total admissions 610 were admitted for the first time. A table furnished by Dr. Hay shows that the ratio of first admissions to population during the last ten years has fluctuated between 4.71 per 10,000 of population in 1899 and 6.24 per 10,000 in 1908, and also that the ratio for this last year was exceptional, the quinquennial average for 1898–1902 having been 5.11, and that for 1903–1907, 5.50 per 10,000. As regards nationality no table is furnished showing the native origin of the admissions, but a table in the appendix shows that of those resident in the hospitals at the end of the year 1,188 were born in New Zealand; 118 in Australian States; 851 in England and Wales, 596 in Ireland, and 373 in Scotland, the remainder belonging to many other countries. That Scotland should contribute a considerably smaller number of insane to the asylums, not only in New Zealand but in all of the Australian States, than Ireland, affords interesting matter for speculation. For this reason a table showing the relative proportions of the elements of the populations of these States, arranged according to their native countries, would be of some value.

It is stated that in 374 of the total admissions the attacks were first attacks within three and in 86 more within twelve months of admission; in 153 not first attacks within twelve months; in 7 the duration was unknown, and in the remaining 139 the attacks were of more than twelve months' duration on admission. No information with regard to the forms of mental disorder obtaining among the admissions is given, but as to causation the various etiological factors were assigned in the following proportions: Alcoholism and drug habits in 12.39 per cent., syphilis in 3.9 per cent., critical periods in 14.89 per cent., brain disorders in 6.19 per cent., other diseases in 7.11 per cent., previous attacks in 7.77 per cent., mental stress in 8.04 per cent., an insane heredity and congenital defect in 19.63 per cent., various other causes in 13.44 per cent., and in 10.54 per cent. no cause could be assigned.

Discharges and Deaths.

During the year 326 were discharged as recovered, giving a recovery-rate on the admissions of 43.82 per cent., 22 as relieved, and 15 as not improved. In an

interesting discussion of the value of recovery-rates as an index of the results of treatment, Dr. Hay says that in New Zealand a growing belief in the efficacy of asylum treatment is resulting in a greater influx of patients in the earlier and more recoverable stages of mental disorder. At the same time, however, he says, this confidence is bringing about, as in England, the admission of large numbers of irrecoverable cases who would in former times have been tended in their own homes. The net result of this has been, he considers, the neutralizing of one set of factors by the other. The recovery-rate, therefore, is not a standard for estimating the value of treatment. In order to arrive at a more definite idea on this matter, Dr. Hay presents a statement of the year's history of patients in whose case recovery, in view of the clinical form of their malady, was deemed probable. The return shows that of the 3,240 patients resident on January 1st, 1908, only 160 were expected to be discharged as recovered, and that 124 of these were discharged as recovered during the year. Excluding irrecoverables, there remained 117, and of these 23 were discharged as recovered. Turning to the admissions, 265 were considered likely to recover, and 164 were discharged recovered. Excluding the incurable admissions, there remained 150, of whom 15 were discharged recovered. To sum up the whole matter, Dr. Hay says that "though the general total shows that during the year there were 692 patients who were classed as more or less curable, yet the proportion of curable cases at any one time is a small fraction of the number resident. Take, for example, the relative position on January 1st, the figures for which we possess. On that date, for only 4.94 per cent. of the inmates was there reasonable expectation of recovery, and, even when possibilities are added to probabilities, the proportion is merely advanced to 8.55 per cent." During the year 222 died, giving a death-rate on the average numbers resident of 6.85 per cent. The deaths were due in 73 to cerebro-spinal diseases, with only 26 from general paralysis; in 12 to respiratory diseases; in 25 to diseases of the heart and blood vessels; in 21 to digestive and genito urinary diseases; in 2 to suicide, and in the remainder to general diseases, including 36 from senile decay, and 25, or 11.2 per cent. of the total deaths, from tuberculosis.

Accommodation.

Owing to the considerable increase of New Zealand's insane, the accommodation was strained during the year, and will be still further taxed in the near future owing to the enforced abandonment of Mount View for the erection of Government House. A large building programme, however, has been drawn up; the site for a central mental hospital has been selected; considerable additions are to be made to existing hospitals and a special mental hospital, to be called the Wolfe Bequest Hospital after a large donor, is intended for the early treatment of mental diseases on the lines of a general hospital. Descriptions and plans of this new hospital are incorporated in Dr. Hay's report.

Cost.

The average yearly cost of each patient in the New Zealand mental hospitals for 1908 was £35 10s. 9½d, or, deducting repayments for maintenance, £27 12s. 11½d.

British Guiana.

SURGEON-GENERAL'S REPORT FOR THE YEAR 1908–9.

THE report of the Surgeon-General, Dr. J. E. Godfrey, for the year 1908–9 has recently been received. The Government medical service supplies officers for the five hospitals in the colony, to the seventeen districts, and to the lunatic and leper asylums. There is also a bacteriologist and Government veterinary surgeon. The total medical staff consists of twenty-nine.

The largest hospital is in Georgetown. It has accommodation for 291 males and 245 females. During the year under review 12,023 in-patients and 44,216 out-patients were treated. There were 532 births in the maternity ward. The deaths numbered 1,158, which gives a rate of 9.6 per cent. of the cases treated; this is low when it is considered that 22 per cent. died twenty-four hours after admission, and no less than 39 per cent. within seventy-two hours after admission. The children's ward has been equipped during the year with thirty modern cots. An important addition to the hospital was made during the year—namely, rooms for isolating lunatics pending their transfer to the lunatic asylum. A considerable number of operations (including 788 major operations) were performed by the staff during the year.

The hospitals at New Amsterdam, Suddie, Bartica, Morawhanna, and Arakaka are very much smaller than that at Georgetown, but all seem to be doing good work. One feature in connexion with these hospitals is the large number of patients treated, but possibly this is due to the fact that a large proportion of the cases are of a trivial nature, and their stay in hospital is short. The chief diseases were malarial fever, pneumonia, ankylostomiasis, diseases of heart and kidney, with phthisis and syphilis. There is a special ward for phthisical patients in the Georgetown Hospital, but the superintendent states that the results are disappointing, the patients refusing to submit to the prolonged course of treatment necessary. The nursing establishment of all the hospitals seems to be on a very satisfactory basis; there is a superintendent of nurses in the Georgetown and New Amsterdam Hospitals. Lectures are given by the staff and examinations held at stated intervals.

The public lunatic asylum at Berbice has accommodation for 803 patients, the average number resident daily during the year was—males 472, females 271.

The public leper asylum at Mahaica had under treatment during the year 532 patients, 388 being males and 144 females, the average number daily under treatment being 419. The total number of deaths was—males 39 and females 17, being approximately 10.3 per cent. on the total number of inmates. The chief diseases treated, irrespective of the primary disease (leprosy), were those of the intestinal canal, and these lesions, along with Bright's disease, were the chief causes of death. During the year a trial had been given to the nastin treatment of leprosy introduced by Professor Deycke. In all, 115 patients were treated by nastin; it is deemed too soon to offer any opinion as to the ultimate results of this treatment, but improvements, the medical superintendent reports, as far as external disfigurement is concerned, have undoubtedly taken place in some cases.

In the Bacteriological Department the bacteriologist, who has one laboratory assistant, examined 1,542 specimens, including sputum for tubercle bacillus, blood for filaria, etc. Special investigations were made in connexion with (*a*) biting flies, (*b*) cancer, and (*c*) rat virus. During the year this department made 567 *post-mortem* examinations. The *x*-ray apparatus is under the management of the bacteriologist. Two Clayton disinfecting machines imported by the Government during the year are also in charge of this department.

The health of the colony is reported to have been satisfactory, the number of deaths being 9,381, or 1,881 less than the previous year. This represents a death-rate of 30.8 per 1,000, as against 36.9 per 1,000 for the previous year. The births numbered 8,299, or 307 less than the previous year. This represents a birth-rate of 27.3, as against 28.3 for 1907. The mortality amongst children under 1 year is high, being equal to a rate of 198 per 1,000 births, but compares with a rate of 256 per 1,000 for the previous year. The mean rate for the last five years was 210 per 1,000. Tuberculosis is very prevalent in the colony, and accounts for 7.4 per cent. of the total mortality of the colony.

Malarial fever claims a large number of victims every year, and until the inhabitants realize that mosquitos are the carriers of this disease it will continue to do so. Regulations regarding vat screening have been passed by the mayor and town council, but have not been enforced, except at the Government institutions, where the vats and tanks have been made mosquito proof. The report states that the sale of

quinine is steadily increasing, 2,076 oz. having been sold at cost price during the year.

The bacteriologist states that the mortality from ankylostomiasis is not, as a rule, high, except in the case of infected pregnant women, when it is very considerable; this has a very important bearing not only on the death-rate of the women, but also on the birth-rate.

On the whole, the report shows that the medical service of the colony is carried out with a due regard to the well-being of the community, and that the hospitals and medical service in the various districts are up to date. The facts reflect great credit on the department which is so ably managed by the present Surgeon-General, Dr. Godfrey.

Hong Kong.

[*FROM OUR SPECIAL CORRESPONDENT.*]

PRESENTATION TO DR. J. C. THOMSON.

AT a meeting of the Senate, licentiates, and students of the Hong Kong College of Medicine, held in the Legislative Council Chambers, Dr. J. C. Thomson was presented with a massive English silver tray on the occasion of his approaching departure from the colony. Dr. F. Clarke, Dean of the College, in making the presentation, referred to Dr. Thomson's long service to the college, which extended over a period of twenty-one years. It was, he said, in 1889 that Dr. Thomson was appointed Lecturer on Pathology, and in 1891 he became secretary of the college, and in recent years had taught tropical diseases and clinical medicine. Dr. Thomson had worked energetically in the interests of the college, and had successfully overcome many difficulties incident to an institution in its infancy, and his departure would be felt as a great loss to the college. Dr. Thomson, in replying, thanked the members of the college for their generous gift, and briefly sketched the progress of the institution from its earliest days, when Sir Patrick Manson, Drs. Cantlie, Hartigan, Jordan, and Atkinson were some of the lecturers, down to the present day, when many facilities had been opened up for practical work, the preliminary examination had been recognized by the General Medical Council, and the college was about to be merged in the larger movement of the Hong Kong University.

Dr. Thomson will also receive presentations from the Directors of the Tung Wa Hospital and the students of the college.

Special Correspondence.

PARIS.

Sir Rubert Boyce in Paris.—The Raising of Fees of Medical Practitioners.—Paris Nurses Demand Higher Wages.—Gift of Model Workmen's Tenements.

SIR RUBERT BOYCE was recently present at the opening lecture to his university class given by Professor Blanchard, the Professor of Parasitology in the Faculty of Medicine. Professor Blanchard took as the theme of his lecture the part played by the Liverpool School in the study of tropical diseases, and described the work of Professor Boyce in the fight against malaria and yellow fever in British Honduras, the West Indies, and Venezuela. He spoke with envy of the flourishing condition and laboratories of the Liverpool School. The Institute of Colonial Medicine in Paris, which was founded in 1902, attracts about thirty students annually, most of whom come from the Latin races of South America. Professor Blanchard then welcomed Sir Rubert Boyce, who, speaking in French, emphasized the importance of parasitology; the parasites were living, and lived, as our cells did, as part of ourselves, but at our expense, and could get accustomed to quinine and arsenic in the same way as the cells of the human organism. The question of the day was the fight between parasites and man, a struggle between highly organized cells. The white races lived on the earth because they had escaped parasites; the African races were not so civilized as the white because of parasites, and the decadence of ancient Greece was due to the importation of slaves from Africa, who brought with them the parasites of malaria. Fossil tsetse flies had been found in tertiary deposits in North America, which explained the different fauna of that country. The study of parasitology was, in reality, the history of man. We must be practical, and as our intelligence is vaster than that of protozoa we must get rid of them and destroy the rats and mosquitos and other carriers of infection. Professor Laudouzy thanked Professor Boyce for his interesting address, and as Dean of the old University of Paris welcomed the Dean of the young school of Liverpool, whose work had been appreciated by the scientific world and had opened up the Black Continent to the European settler. Professor Laudouzy concluded by referring to the pleasure he had had in the exchange of visits of the English and French profession, and visits such as that of Professor Boyce did much to draw closer the bonds of the "entente cordiale médicale" between the two countries.

Whereas the cost of living has greatly increased in Paris and the wages of the working classes have increased in proportion, the scale of fees paid to medical men has remained the same as it was thirty years ago, with the result that the general practitioners have great difficulty in making a living. The question of raising the fees has been discussed at the meeting of the Syndicat des Médecins de la Seine, with the result that many of the sections of the syndicate have given notice to the members residing in their respective quarters of Paris of the minimum scale of fees they should charge—for example, in the Eighth Arrondissement (Madeleine quarter) the scale of fees in future will be as follows:

To all servants, workmen, and small employees the fee will be 5 francs for medical advice at the doctor's or the patient's residence.

To all shopkeepers and private persons who have servants or employees at their service the fee will be 10 francs.

All night visits and visits on Sundays and fête days will be charged double tariff.

The nurses employed in the Paris hospitals have held a meeting in the Bourse du Travail, and passed unanimously a resolution demanding that their wages should be raised to 5 francs a day.

The Princesse de Polignac has given a plot of 4,000 metres in the Thirteenth Arrondissement and a sum of 500,000 francs (£20,000) for the construction of model workmen's dwellings. One half of the available land will be occupied by two large tenement houses, with an avenue of trees between, the other half being divided into private gardens for the tenants. There will be eighty small apartments in the tenement blocks, which will also contain bathrooms, a washhouse, and a lecture hall. The highest rental will be 450 francs (£18) a year. The architect is M. Georges Vaudoyer, who has designed similar houses for "Le Foyer" Society in the Rue Laplace.

VIENNA.

A Suggested Tax on Prescriptions.—The Title of Specialist.—An Interesting Operation for "Concretio Cordis."

ONCE again the old suggestion of a tax on medical prescriptions has been brought before the public by a report of the Union of Medical Councils which recommends this measure. The suggestion has always been rejected, as the tax would not only be burdensome but would be difficult to work. The suggestion is to have every prescription stamped every time it is made up by the apothecary, who alone is entitled in this country to dispense medicines. The amount would be small, about a farthing per prescription, and the stamps necessary for this purpose would be procurable from the district medical council by the apothecary. It is estimated that at least a sum of £2,500 could be collected thus yearly, a sum which would be available for strictly medical purposes of a public nature: for instance, towards payment of inspectors of public charitable institutions or grants for special work by medical men in safeguarding the public health. So trifling a sum would hardly be felt by the individual patient, but it is doubtful whether the pharmacists would agree to the necessary co-operation, and neither the profession nor the public is likely to submit willingly to the measure.

The question, Who shall style himself a specialist? is now under discussion in this country, as it is in Germany. Here any doctor can affix to his name on the doorplate the words, "Specialist in Diseases of Children," or any other branch of medicine, without anybody questioning his right to do so. In these circumstances many a man fresh from the hospital styles himself "Specialist in Pediatrics and Obstetrics," which is the most favoured combination. The medical councils and the local medical associations have taken recently the matter in hand, and these bodies, in co-operation with the university staff, have drawn up a series of rules, which have been submitted to the consideration of the profession. The rules are very similar to those suggested in Germany by the Government. It is proposed that the title "Specialist" shall in future not be a simple denomination, but an official degree, obtained from a university. Any doctor who has been working either at a special hospital or a clinic for at least three years, and has been under a recognized specialist for at least one year, may present himself for examination in the branch of practice at which he has been working. He will not be prevented from practising any other part of medicine, too, if he chooses. The branches recognized as specialities are the following: Medicine, surgery, gynaecology and obstetrics, diseases of children, dermatology, otology, rhino-laryngology (the two latter may also be combined), ophthalmology, electrotherapeutics, neurology and psychiatry. No restriction as to the number of specialists has been recommended. The idea has been received with approval by the profession, as it is hoped that it would do away with a good deal of unpleasant and unethical conditions.

At a recent meeting of the Gesellschaft der Aerzte, Dr. v. Haberer demonstrated a patient on whom he had performed in Eiselsberg's clinic an extensive resection of the fourth, fifth, and sixth ribs to increase the space for the working of the heart. The patient had been suffering from concretio cordis, and the adhesions between the heart and the pericardium had caused very marked cyanosis, oedema, and respiratory trouble. The surgeon also removed the posterior part of the periosteum of the costal parts resected, in order to prevent the possibility of a new formation of bone. He recommends that the operation should be begun at the sixth rib, because the part of the heart most obstructed is generally the apex, which is at once freed by this procedure, giving a better pulse and more ease during the latter steps of the operation. Generally rapid recovery with a marvellously improved general health are the result.

Correspondence.

THE MEDICAL PROFESSION AND PARLIAMENTARY REPRESENTATION.

SIR,—In your issue of January 8th the article by Dr. Clippingdale and the letter from Mr. Fremantle forcibly remind your readers of the paramount need which exists for further and more direct representation of the medical profession in Parliament.

Mr. Fremantle, in his suggestive communication, truly indicates several of the difficulties which a medical man, as distinguished from those engaged in many other active vocations, must of necessity experience in endeavouring to combine his professional work with parliamentary duties. He outlines, further, a scheme intended to meet the financial aspect of the difficulties, and there can be little doubt that in the near future the medical profession will have such good cause to be fully alive to the urgent importance of direct representation in the House of Commons that the necessary funds to provide for a suitable scheme will be readily contributed.

Meanwhile, with a General Election upon us, and in the absence of any such scheme as would enable the profession effectively to support a medical candidate under the aegis of one or other political party in the general parliamentary divisions of the country, we may be well advised to consider the possibility of securing a useful degree of direct representation in and through one of the special constituencies such as those still provided for the several universities.

In this connexion the constituency of the Edinburgh and St. Andrews Universities should undoubtedly be one of the most amenable, where the majority of the electorate is composed of medical graduates. For this constituency Sir Robert Finlay, K.C., has been adopted by the Conservative Association as the prospective candidate, and later the announcement was made that Emeritus Professor Sir Alexander Russell Simpson has consented to stand as Liberal candidate. It is to be hoped that the recommendation conveyed in your article in the issue of December 18th has been effective, and that many medical graduates have not pledged themselves definitely in respect of the first-named candidate before the announcement of Sir Alexander's name.

As an Edinburgh medical graduate, who is also an officer of the British Medical Association, I trust it may not be considered out of place for me to urge briefly Sir Alexander Simpson's claim upon the support of those whose political convictions are not too strongly engaged on behalf of his opponent.

For those who, like myself, are in agreement with Sir Alexander's political views, it would be as futile as it would be unbecoming to do other than fully recognize that in Sir Robert Finlay the constituency has a candidate of eminence and of distinction in the legal profession; and, further, that we may claim him as an Edinburgh medical graduate. It appears, however, that he practised medicine for a limited period only, and on the basis of comparison of intimate knowledge of the legislative and economic needs of our profession, the great advantage must be with Sir Alexander Simpson.

The history of the treatment in Parliament, by either of the great political parties, of medical bills and Acts, furnishes ample proof of the pressing need of our profession for medical members of the House of Commons who realize that their presence in that assembly is dependent on medical votes.

With regard to the candidates now before the constituency of the Edinburgh and St. Andrews Universities, it is computed that, allowing for abstentions, the other factors of the electorate are likely so to exercise their suffrages as to leave the issue determined by the votes of the medical graduates.

I heartily concur in the appreciation of Sir Alexander's record of public and professional services in the note in the issue of the JOURNAL for January 1st, and I trust that the response will be such as to constitute the result of this election a first instalment of direct representation of our profession in Parliament.—I am, etc.,

Cardiff, Jan. 10th. EWEN J. MACLEAN.

PRISON DOCTORS AND THE HOME OFFICE.

SIR,—It is incredible that a person in Dr. Donkin's position can have the hardihood to state, as he does in your issue of January 8th, that I argue without proofs. If your readers will but kindly refer to my letter in your issue of January 1st they will find every one of my statements is accompanied by its proofs, namely, the sworn evidence given in court or Mr. Masterman's statement in the House of Commons, etc. His final and deliberate misstatement is, perhaps, the worst of all that he has written on this subject either in our JOURNAL or in the *Times*, namely, that I am attacking the prison doctors, whereas all my letters and your leading article have obviously been written to show that the guilt of forcibly feeding political prisoners rests upon the Home Secretary and upon Dr. Donkin, but *not* on the prison doctors. Dr. Donkin is evidently greatly indebted to the Honourable Claude Hay for his methods of controversy.—I am, etc.,

London, W., Jan. 11th. VICTOR HORSLEY.

SIR,—As I have been somewhat closely concerned in the affairs which have led to this discussion in your columns, may I be allowed space, first, to correct certain inaccuracies, and secondly, to explain the position of a prison medical officer in this connexion?

The Home Secretary having decided that he could no longer recommend the exercise of the royal prerogative to save these prisoners from the legal consequences of their action, the issue became a very clearly defined one. Either they must take food or they must die, with the corollary that, as I was responsible for their lives, I must,

persuasion failing, either compel them to take food or allow them to die. Therefore Sir Victor Horsley is wrong in describing as incorrect (BRITISH MEDICAL JOURNAL, January 1st) the statement that "the doctor did it to save life."

Sir Victor Horsley is also incorrect, in the same place, as regards my evidence. Prison medical officers in previous—that is, non-suffragette—cases of forcible feeding have, so far as I am aware, always carried it out without previous reference to the Home Office, and I did not in court "swear the exact opposite." What I stated was that in these particular cases I referred to the Home Office because it was a matter of common knowledge that in previous suffragette cases of so-called hunger-striking the prisoners had been treated differently from ordinary prisoners, and sentences imposed on them by the magistrates remitted. In reply I was informed that they were not to be released, and therefore the procedure hitherto adopted for ordinary prisoners was applicable to, and necessary for, these ladies. The only departure from the ordinary custom which was directed by the Home Secretary was that the Governor was instructed to furnish a daily report, enclosing one from me, to the Home Office.

Now, Sir, it is suggested in your leading article that an undue responsibility has been thrown on me by the Home Secretary, and Sir Victor Horsley suggests that the Home Secretary has used me, and other prison medical officers, as tools wherewith to carry out a vindictive policy on his political opponents.

With regard to the first, I submit that had *undue* responsibility been thrown upon me I should surely have been the first to be conscious of it; and I was not so conscious. In regard to the second, I cannot help wondering whether Sir Victor Horsley recognizes that his assertions involve a charge against prison medical officers of having *permitted* themselves to be made tools of for political purposes. Surely a very grave charge, and one which renders Sir Victor's kindly championship of the prison medical officers a source of embarrassment to those whose cause he has espoused. Should I be guilty of ingratitude to Sir Victor Horsley if I were to suggest that in accusing the Home Secretary of using prison medical officers as tools wherewith to attack his political opponents the suffragettes, Sir Victor is (doubtless inadvertently) using the prison medical officers to attack his political opponent the Home Secretary?—I am, etc.,

E. H. HELBY,
Medical Officer.

His Majesty's Prison, Birmingham, Jan. 11th.

SIR,—Whether the Home Office did or did not order the forcible feeding of the food-abstaining suffragettes, it is clear that at any rate it tacitly acquiesced, inasmuch as it did not either forbid or stop the process. It is, moreover, difficult to see how it could have done otherwise than throw the necessity for the treatment upon the prison doctors. Only three things were possible—either to discharge the prisoners, to let them die, or to feed them forcibly. The first was apparently thought not advisable, as it would have made the legal position absurd; the second would have necessitated an inquest and caused a great scandal; so evidently the only plan was the third, and the responsibility of treating the prisoners to a successful issue could rest with no one but the doctors, whose only way of shirking this responsibility was by running away from it. Why should they have shirked this responsibility? They are there to deal with the medical aspect of cases, and the only way at present known of dealing with voluntary starvation is by artificial feeding.

During my asylum experience, I fed by the stomach tube numbers of insane patients, and neither my Committee, nor the Lunacy Commissioners, nor the Local Government Board deemed it necessary to interfere in any way, nor to do more than require a report in the case-book of what was done; but if I had neglected to do this simple operation and the patient had died from inanition, the blame would (and rightly) have been placed on my shoulders, and the above-mentioned authorities would (quite properly) have said that I alone was responsible. That my patients were insane and the "political prisoners" not insane does not affect the argument, because in both cases life was in danger from want of food.

A Government can "order" a file of soldiers to shoot a traitor, and experience shows that the public holds the Government, and not the soldiers, responsible for the act In the case of the suffragettes, where the object was to uphold the law and to save the health of the prisoners, any "order" that was issued could have been nothing more than a permit to act in a certain way under certain conditions, and for the due estimation of those conditions the doctors alone could be—as no doubt they were—responsible. At the most, then, the Home Office could only be accessories, and if any legal action was to be brought it was of necessity brought against the doctors, who were responsible for employing a method which in their opinion was necessary. It is a legal act for a constituted authority to "order" the execution of a criminal—there is no law to compel a medical man to perform an operation, and if he does one he must accept the responsibility for doing it. That the "political prisoners" would have taken their food if they had been placed in the first division has nothing to do with the question. The law placed them where it considered right, and the doctors had to deal with the complications which arose apart from all considerations of equity.—I am, etc.,

London, W., Jan. 3rd. T. CLAYE SHAW.

SIR,—May I ask Sir Victor Horsley a question bearing both on points of principle and of practical politics? He writes: "The profession will have to consider . . . under what circumstances they will, at the bidding of a Minister perform operations upon prisoners who refuse to undergo the same." Now, suppose a murderer awaiting trial or a fraudulent company promoter under sentence refused food, how would Sir Victor Horsley, if he were a prison medical officer, a paid public official who had contracted to do his utmost to keep his charges in health, treat such a case?

Would he decline, either of his own initiative or at the bidding of a Minister, to forcibly feed the man? Yes. Then the prisoner must be allowed to commit deliberate suicide—a thing unthinkable in a civilized community; or he must be given his freedom—a proceeding which would tend to defeat the ends of justice, not only in this particular case but, by means of the example it furnished, in all cases.

Or would Sir Victor Horsley forcibly feed the prisoner? If he followed this course, then on what grounds would he refuse to feed a prisoner who was a suffragette? Does he suggest that medical officers of prisons, paid public officials as I say, should allow their sympathy, or lack of sympathy, with this or that legal offence to influence their conduct towards their charges?—I am, etc.,

Southsea, Jan. 10th. G. ARCHDALL REID.

FORCIBLE FEEDING.

SIR,—I am obliged for the opportunity which you afford me of briefly replying to Dr. Kirby's last letter.

He wonders if I have ever experienced the passing of the oesophageal tube on myself. The ordinary operation of stomach lavage, so frequently performed by patients on themselves, is carried out in precisely the same manner with the same form of tube, and I have seen patients of my own do it; it therefore did not occur to me to try it on myself. In order, however, that I might experience the sensation of the nasal tube, less commonly used in general practice, Dr. Helby, at my request, while the suffragettes were in prison, fed me by this means. I did not find the process painful, though certainly it was unpleasant.

I am glad now to see that Dr. Kirby does not attribute the stomatitis, which he found at the back of the upper incisor teeth, to the irritation of the pharynx by the nasal tube. But the two things were placed rather in conjunction in his first letter. Also, at the trial Mrs. Leigh's counsel asked me whether, presuming the existence of the two conditions, the stomatitis would not be caused by the spreading of inflammation from the throat to the mouth.

Dr. Kirby accuses me of disingenuousness in not referring to Miss Burkitt's third hunger strike. There was no third hunger strike. Her second and last one terminated over a fortnight before her discharge, and this prisoner was not fed by a tube. Therefore her case does not affect the question of feeding by these means. That she was in good health on release I showed in my last letter.

Referring to Dr. Kirby's last point: I am still of opinion that it is unlikely that any abrasion worthy of being called "considerable" could be produced without drawing some

blood and causing some pain. Miss Martin definitely and frankly stated to the consulting surgeon (a copy of whose report I have by me), who was called in to examine the suffragettes before their release, that she had received no injury whatever. It was not merely a case of not complaining or of not desiring medical attention.—I am, etc.,

Birmingham, Jan. 11th. WILLIAM CASSELS.

PART-TIME MEDICAL OFFICERS OF HEALTH.

SIR,—I am glad to find that an important matter that I alluded to in your columns a short time ago is receiving attention. During the last fortnight five of your correspondents have become conscious of the jeopardy in which part-time medical officers of health are likely to find themselves in the event of the recommendations of the Royal Commissioners on the Poor Laws being carried out. As I said, it is not only the interests of Poor Law medical officers that are at stake, but those of all part-time officers in every branch of the public service, and the latter would be wise in assisting the Poor Law Medical Service in opposing, as far as possible, the medical recommendations both of the Majority and Minority Commissioners.

Dr. Wales appears to be incredulous as to the "interests of the public health" requiring the extinction of part-timers, and I cannot help thinking that his incredulity will be shared by all who do not regard the interests of the public health—like Mrs. Hodgkinson—as identical with the socialization of medicine. I quite agree with Dr. Marsh that all part-timers should organize themselves, and the sooner the better, so that in event of not being supported, as they have a right to expect, by the proper organization of their profession, they will not be left defenceless.

It is not just to blame the British Medical Association at the present time. An important committee has been appointed to consider the whole matter. When it reports, and the Association finally formulates its policy, we shall then, and then only, discover whether there is ground for complaint.—I am, etc,

MAJOR GREENWOOD,
Honorary Secretary, Poor Law Medical Officers' Association of England and Wales.

London, Jan. 8th.

PUBLIC MEDICAL SERVICE IN FULHAM.

SIR,—A public medical service under the auspices of the Chelsea Division of the British Medical Association has been established in Fulham.[1] It commenced its work proper on December 1st, and judging from the members that have joined the service, I am confident its success is assured. There was evidently a need for an organization of the kind in this district, and all that is required now to make its success doubly assured is for more practitioners to join the staff. Many, I know, have hitherto kept aloof through diffidence as to its success, and I would remind these gentlemen that an opportunity presents itself at the present time for them to reconsider their position, as by the rules of the service new members may join in January and July. Any names sent to me I shall be pleased to bring before the next meeting of the committee. If the medical service is only accorded a due amount of support by the local profession, I feel sure there is a great future before it in this district.—I am, etc.,

JAMES YOUNG,
Honorary Secretary.
Member Chelsea Division, British Medical Association.

London, S.W., Jan. 11th.

MEDICAL BRANCH OF THE NAVY LEAGUE.

SIR,—It has been hoped that by the formation of a Medical Branch of the Navy League valuable information may be disseminated with regard to the condition of our fleet and of the fleets of other nations. The maintenance of the naval supremacy of our empire is of vital importance, for upon it depend trade and, indeed, national existence. A neighbouring Power has in terms declared that she "must have a fleet of such a strength that even for the mightiest naval Power, a war with her would involve such risks as to jeopardize its own supremacy," and to call attention to the enormous demands which war would make upon our navy, and to such measures as may be requisite to secure adequate preparation for the maritime defence of the empire is the general aim of the Navy League. The Medical Branch hopes to recruit large numbers of the profession who, conversant with the acutely serious condition of affairs, will take every opportunity of bringing the aims of the league before other other members of the profession, and so far as lies in their power of persuading members of the general public that the time is not far off when our national position will be challenged, and that it is even now the duty of every citizen to see to it that when the day of trial comes our navy is adequate to the occasion. The Medical Branch of the Navy League is under no delusion that there is any time to be lost, and with all earnestness it asks those whom it addresses at least carefully to look into the matter.

As regards the moneys received by the Branch, half of the amount is paid over to the Navy League Central Office and the remaining half is available for purposes, such as circulating pamphlets, literature, etc., as the Medical Branch may from time to time determine.—I am, etc.,

MAURICE CRAIG,
Honorary Secretary Medical Branch Navy League.

London, W., Jan. 11th.

THE PREPARATION OF CATGUT.

SIR,—I have read carefully Dr. C. Yelverton Pearson's contribution to the JOURNAL of December 25th, 1909, and admire the pains he has been at to produce a satisfactory iodine catgut: but I cannot see where it is more satisfactory than the sulpho-chromic catgut prepared according to the directions so minutely laid down by Lord Lister in the BRITISH MEDICAL JOURNAL of January 18th, 1908. Catgut so prepared I have used since Lord Lister's publication. Of course, I have prepared it myself; I have used it for intestinal work and for both buried and superficial sutures, and fail to see that anything better can be used.—I am, etc,

Chester, Jan. 3rd. JAMES TAYLOR.

PULMONARY TUBERCULOSIS TREATED BY CONTINUOUS ANTISEPTIC INHALATION.

SIR,—A case which I have recently been treating goes far to exemplify the great improvement which follows the treatment recommended in Dr. Lees's interesting paper on the continuous inhalation treatment of phthisis.[1] I was called to Mrs. H, aged 28, married, on November 14th 1909. I found her very ill indeed, in bed, with a temperature over 103°, pulse about 100, and dyspnoea. For six months previously she had been paying a weekly visit to St. Mary's Hospital for inoculation. This treatment was evidently not doing her good; in fact, she was rapidly going downhill. Such is the evidence of her husband and relatives. I at once put her on the continuous inhalation treatment according to the details prescribed in Dr. Lees's paper. In a few days the temperature came down to 101°, and the patient showed other signs of improvement. For three weeks now the temperature, morning and evening has been normal, the expectoration is much diminished, there is very little cough. The patient gets up daily, her appetite is good, and she looks wonderfully better. Her relations and friends are astonished at the improvement. In November, 1909, she seemed *in extremis*. At Christmas she was able to join the family gathering. I have not had the opportunity of weighing her, but I have no doubt she has put on weight. I do not claim that she is yet cured of her tuberculosis. The signs are still there, but they are diminishing.—I am, etc.,

J. ASHTON, M.B.Lond., M.R.C.S.

London, S.W., Jan. 1st.

SIR,—I have read with great interest the valuable paper on this subject which appeared in the JOURNAL of December 11th, 1909.

For several years I had the honour of being associated with Dr. Lees in work in the medical wards of St. Mary's Hospital, and had numerous opportunities of practising the methods of physical examination of the lungs which Dr. Lees has so clearly described, and which he claims are of the first importance in making an early diagnosis in incipient pulmonary tuberculosis.

[1] BRITISH MEDICAL JOURNAL, December 11th, 1909, p. 1659.

I can from my own experience fully endorse every word that Dr. Lees has written as regards the value of a careful physical examination of the lungs in making an early diagnosis of pulmonary tuberculosis. I believe that by this method the disease can be detected, in many cases before the appearance of tubercle bacilli in the sputum, and before in many cases there are any obvious signs, from an examination by the *x* rays.

A very valuable confirmation of the diagnosis based on these physical signs can, as Dr. Lees says, be obtained by taking a series of opsonic indices of the blood to the tubercle bacillus. This is best done by taking the blood before breathing exercises, and every six hours afterwards for twenty-four hours, when a marked deviation from the normal will be caused by the autoinoculation produced if an active lesion is present. It is obvious that a physical examination of the lungs is more quickly made than the series of opsonic tests, and it is not always possible for the opsonic tests to be carried out in the examination of a large number of hospital patients owing to the great amount of labour entailed; also in the case of private patients expense is an important consideration.

For clinical purposes a very careful physical examination of the lungs by the methods described in Dr. Lees's paper should, in my opinion, be always adopted as the first method of diagnosis of incipient pulmonary tuberculosis.

If the physical signs are slight only, or if there is a doubt as to whether these signs are due to an active or to an old healed lesion, then the opsonic test is of great value and should be employed.

I had the opportunity of observing the effects of the continuous antiseptic inhalations in several of Dr. Lees's cases, and can fully confirm all that he writes as regards the improvement made under the treatment. I have used this method of treatment in a considerable number of cases at my out-patient department at St. Mary's Hospital, London, and at the out-patient department of the Great Northern Central Hospital. Many of these cases have shown improvement similar to that which occurred in the cases Dr. Lees has quoted so fully.

In my opinion the method of treatment advocated by Dr. Lees is worthy of extended use.—I am, etc.,

London, W., Dec. 21st, 1909. W. H. WILLCOX.

WOMEN'S LAVATORIES AT RAILWAY STATIONS.

SIR,—It is to be hoped that effect will be given to the excellent suggestion made in your editorial note on railway station lavatories, that women's lavatories should be provided with a double set of conveniences, distinguishing, as is done in the case of men, between the needs of micturition and of defaecation. Many ladies who visit public lavatories for the former purpose are already accustomed to adopt the erect attitude, in order to avoid any approach of the person or garments to suspicious seats; but this sensible method is not favoured by the old-fashioned box-seat. It should be easy, as you suggest, to provide conveniences for women for this purpose, not very unlike those provided for men, and free of charge. For women who find this method inconvenient there would remain, as at present, the ordinary cabinets available on payment.

Apart from the fact that an arrangement of this kind, by saving time, would be a boon to women who are in nervous haste to catch a train, it is very unjust that women, who are usually less able to afford it, should be called upon to pay a tax which is never (since the days of Vespasian) demanded from men. All the tendencies of our civilization are in the direction of giving the same rights and privileges to women as to men; in this department, at all events, no one can grudge women their claim to equality of opportunity.—I am, etc.,

January 10th. H. H. E.

ABDOMINAL EMERGENCIES.

SIR,—I do not think that the annotation on "Abdominal Emergencies" in to-day's JOURNAL should pass unchallenged.

You refer to "the opinion held by most surgeons that until some diagnosis has been made morphine should be withheld, whatever the distress of the patient, in sudden attacks of abdominal pain of such severity as to lead to the hasty summoning of medical assistance." My experience is that this is mere theory, and that the practice of most surgeons is to give morphine. I will go further and say that an initial dose of morphine hypodermically with a hot-water enema will facilitate diagnosis by clearing the ground of such causes as ordinary colic, which may, of course, be a symptom of serious import, or may be only trivial, though alarming enough to the patient and friends.

Surely a hypodermic of morphine $\frac{1}{4}$ grain, while curing a simple colic, will not narcotize the patient sufficiently to mask serious symptoms.

An initial dose of morphine facilitates diagnosis in a further way by putting the patient in such a condition of ease that he can give a clear history of his case and allow an abdominal examination. How much of either can be expected when the patient writhes with pain? Let us be practical.

The point that should be insisted on—and here is the crux of the situation—is that morphine should under no condition be given in repeated doses. If an initial small dose does not alleviate, then it is criminal to blindly pour in morphine, which may only mean euthanasia, and is a sign of a mind either lacking in judgement or information.—I am, etc.,

Oldham, Jan. 8th. W. DUNCAN LAWRIE, M.D.

THE UNIFORM SYSTEM OF HOSPITAL ACCOUNTS.

SIR,—In your issue of January 8th, p. 110, in referring to the uniform system of hospital accounts and the notes on the bookkeeping accompanying the revised index of classificature lately issued by the three Metropolitan Hospital Funds, you mention an extract from my original report, which appears therein, as authorizing hospital secretaries, should the cost of repairs and renewals, when carried out, involve "much heavier expenditure than they care to see figuring in their annual statements," to treat a portion thereof as capital expenditure on land, buildings, and equipment.

I do not think the extract referred to is capable of the interpretation you put upon it.

The expenditure to which the extract refers is stated to be that "which includes necessary outlay on repairs and renewals together with *the cost of additions and other manifest improvements to the property.*

The words in italics should make it clear that my intention was not to point out a method by which a hospital secretary could relieve his accounts of inconveniently heavy expenditure; if you will kindly read the extract again, you will find that its purport is to enjoin on secretaries the necessity for a careful consideration of expenditure before it is incurred, and it requires proof of the value of any work of a capital character and the sanction of the governing body before any charge should be made against the account of land, buildings, and equipment of the hospital.

You will much oblige me by finding space for this letter in your valuable JOURNAL.—I am, etc.,

London, W., Jan. 12th. JOHN G. GRIFFITHS.

MISCONCEPTIONS CONCERNING THE RIVIERA.

SIR,—May I ask of your kindness and sense of justice the insertion in the BRITISH MEDICAL JOURNAL of the accompanying letter, addressed to Dr. Samways by the Syndicat des Hoteliers de Menton?

As you will see, it is in answer to a statement contained in a paper read by Dr. Samways at the annual meeting of the British Medical Association at Belfast in July last, and published by you on September 25th, 1909, that the impression that consumptives were no longer welcome in Mentone was a misconception.

For nearly twenty years now the reputation acquired previously by Mentone as a consumptive resort is unjustified, and the hotel keepers attribute the much increased prosperity of the town to the announcement made by them some eight years ago that consumptives could not be received by them.

As Dr. Samways admits, there are probably fewer cases of this illness in Mentone than in any winter resort—on the Riviera or elsewhere—and we view with alarm any step made that would tend to revive the impression that Mentone lends itself to consumptive invalids and the

prejudice created in the minds of other invalids and their medical advisers on that account.

I have authority for stating that Dr. Samways's views on this question are not shared by the other English doctors.—I am, etc.,

CH. DURINGER,
Secrétaire du Syndicat.

January 1st.

[Copy.]

17th December, 1909.

Dr. Samways,
Villa Flavie,
Avenue Boyer,
Mentone.

Dear Sir,

The Members of the Syndicate of Mentone Hotelkeepers (to which all the hotels belong), upon being acquainted at their meeting to-day with the paper read by you at the Medical Congress of Belfast this summer, resolved unanimously:

"To inform Dr. Samways (while thanking him for his praise of the climate, etc., of Mentone, and acknowledging the excellence of his intentions), that they emphatically protest against his statement that tuberculous patients are not unwelcome in this town.

"They admit that it is outside their competence to discuss the contagiousness of tubercular complaints, but (whatever Dr. Samways' opinion may be) they know that the affirmative is now generally accepted by the public, and, that being so, they cannot knowingly receive any persons suffering from this sad illness, so distressing to all who surround them.

"They can only judge, of course, of apparent cases, and they beg Dr. Samways not to recommend to their hotels any visitors he knows to be suffering from phthisis, as he states he can so easily do.

"For years such cases have been extremely rare in Mentone, and the fact being that to receive phthisical invalids would entail the loss of their *clientèle*, they have no alternative but to refuse them.

"Their sincerity in this declaration cannot be affected by the case or two of some years back referred to by Dr. Samways.

"As Dr. Samways is no doubt aware, in two Mentone institutions which depend partly upon outside support (St. John's Home of Rest for Clergymen and the Villa Helvetia) consumptives are no longer received; and the Gorbio Sanatorium, constructed expressly for the treatment of this disease, now advertises widely to the same effect.

"They quite admit that they have a past—although now remote—and it is just this that makes them peculiarly sensitive and anxious that there should be no misconception. Consumptives are absolutely unwelcome in Mentone hotels, and are refused, if known to be such."

I beg to remain, dear Sir,
Yours faithfully,
CH. DURINGER,
Secrétaire du Syndicat.

THE EAST AFRICAN MEDICAL STAFF.

SIR,—There is no doubt the West African Medical Staff have had much cause for discontent; let us hope the recommendations of the Select Committee will receive his Lordship's approval at an early date. However, very little mention has been made of the East African Medical Staff (including Uganda, B.C.A., and Somaliland), though the medical officers suffer from precisely the same disadvantages, and the risks to life being just as great, the pay of the senior medical officers is quite inadequate and the prospects are nil. Now is the time to encourage the good men they have in their service to continue by bettering their position and prospects. As things are at present a medical officer of ten or twelve years' service finds himself junior to administrative officers of four years' standing, who does or does not carry out the medical officer's recommendations just as he thinks fit—a state of affairs which is obviously a source of danger to the general public in so notoriously an unhealthy climate.

That a medical officer can be retired after ten years on a small gratuity is simply absurd: either a man has been discovered to be inefficient years before (and should have been dismissed), or he must have accumulated experience which is very valuable to individuals and the Government. The scale of pension requires revision.—I am, etc.,

December 1st, 1909. OBSERVER.

THE new session of lectures at the Hospital for Sick Children, Great Ormond Street, W.C., commenced on Thursday last, when Dr. Garrod gave a demonstration on selected cases in the medical wards. On Thursday, January 20th, Mr. Corner will lecture on appendicitis and its treatment in children. The lectures and demonstrations are given every Thursday, at 4 p.m., and are free to all qualified practitioners.

Medico-Legal.

PRESCRIBING FOR PATIENTS WITHOUT SEEING THEM.

AT an inquest with regard to the death of a married woman, aged 41, held in Dublin on December 31st, 1909, the practice of prescribing for patients without seeing them was discussed, and adversely commented on by the city coroner. The facts of the case are as follows: On the night of December 28th the husband of the deceased woman went to a doctor's house and described his wife's symptoms, stating that she had complained of pains in her stomach since Christmas Day. He stated that at the same time he asked the doctor to come and see his wife, but that the doctor thought it unnecessary to do so, and gave a bottle of medicine, with the direction that if the patient did not improve the husband was to return and inform him of the fact. The doctor asserted that he was only asked to prescribe, and was not asked to visit the patient. The mixture, the husband stated, gave relief, and therefore he did not return, but on the next morning, December 29th, went to his own dispensary doctor, and again described his wife's symptoms in detail. These symptoms the husband did not regard as urgent at the time. The dispensary doctor regarded the case as one of indigestion and prescribed treatment suitable for that ailment. He also told the husband to come back if the medicine did not relieve the patient. During the night of December 29th the patient apparently remained ill, but was no worse when the husband went out to his work at 8 a.m. on December 30th. She was also sufficiently well on that morning to converse with a little girl, who had come in to clean up the room, and to send her out to purchase some milk. Later on, after the girl had cleaned the room, she spoke to the patient, but got no response, and a few moments later it was found that the patient had died. At the *post-mortem* examination death was found to be the result of haemorrhage from a ruptured thoracic aneurysm. The coroner stated that the whole point of the inquiry and the only reason for holding it was that the man went to a doctor when his wife complained, and that the doctor gave her medicine without seeing her. He added that the medicine given was of no use to the patient, and that the description of symptoms by a workman could not be relied on. The jury returned a verdict in accordance with the medical evidence, and added that they disapproved of medicine being given without seeing the patient.

UNREGISTERED DENTIST.

PROVINCIAL.—The General Medical Council has no jurisdiction over persons not upon the *Dentists' Register*. A prosecution might lie on the ground that the use of the plate implies a personation of a deceased practitioner. Our correspondent might communicate with the Secretary of the British Dental Association, 19, Hanover Square, London, W.

PARTNER'S MOTOR CAR.

H. E. J. writes: A. and B. are senior and junior partners respectively, each having a half share of the practice. A. uses a motor car, and B. a bicycle. Should B. pay half the upkeep of the motor car?

*** It is usual in partnership agreements to specify how the driving expenses of the firm are to be shared. A not uncommon arrangement is for each partner to pay the expenses of his own stable, or garage. If there is no clause regulating this point, and if the motor car is only used for doing the business of the firm, it would have to be reckoned among the other expenses, and paid for by the partners in accordance with their shares in the business.

Contract Practice.

ALLEO.—We are asked to state whether any of the following proposals are illegal, unethical, or otherwise objectionable: (1) To contract to attend a family in all ordinary sickness for a fixed fee per annum. (2) Commuting the above for a fixed amount of groceries a week in a case where there is some uncertainty as to the payment of the cash. (3) Undertaking to give whatever advice or treatment (except instruments or operations) is necessary for a definite disease—for example, a child's hip-joint which is diseased—for a fixed fee for a fixed period—for example, £10 10s. for five years or any other sum or period.

*** (1) The proposed plan is, we believe, not unusual, and there is no obvious objection to it. (2) This may be looked upon as merely a matter of cross accounts. (3) It would be undesirable to make a contract such as suggested for a longer period than a year, in view of the uncertainty of life and other contingencies.

MR. ALEXANDER MILES, F.R.C.S.E., on his promotion to the full rank of Surgeon to the Edinburgh Royal Infirmary, has taken over the charge of the wards allocated to the Junior Surgeon.

The Services.

TERRITORIAL FORCE.

Examinations for Promotion.

CAPTAIN WM. A. WOODSIDE, R.A.M.C. (Adjutant, School of Instruction, R.A.M.C.(T.), East Anglian Division) writes: Lieutenants, Royal Army Medical Corps (Territorial Force), who wish to qualify for promotion to captain to enable them to retain their outfit grant (£20), are reminded that the necessary examination must be passed within three years of their first appointment.

Full particulars regarding this examination are contained in the amendments to the Territorial Force Regulations, issued with Army Orders, August 1st, 1909, which can be obtained from Messrs. Wyman and Sons, Limited, Fetter Lane, London, E.C., price 1d.

Second London Division.

We are informed that there are still some vacancies for regimental medical officers in the Second London Division. Particulars can be obtained from the Administrative Medical Officer of the Division, Craig's Court House, Charing Cross.

Public Health AND POOR LAW MEDICAL SERVICES.

SECURITY OF TENURE FOR MEDICAL OFFICERS OF HEALTH.

A CORRESPONDENT writes to express the opinion that it might not be altogether satisfactory to give security of tenure of office to all medical officers of health, for instances might arise in which a medical officer of health, by reason of his great age, should, in the public interest, retire from office. In such a case, if purely from sentimental reasons, the local sanitary authority continues to re-elect the medical officer year by year, and he consents to hold office, the public interests might suffer.

*** We do not think this is a very strong argument against the abolition of lapsing appointments, though it supports very forcibly indeed the contention of medical officers of health that they should be included in a scheme of superannuation. What medical officers of health desire is that they should hold office on the same terms as Poor Law district medical officers. Article 2 of the Order of May 25th, 1857, prescribes that where a Poor Law district medical officer resides within his own district "he shall hold his office until he shall die, or resign, or be proved to be insane . . . or become legally disqualified to hold such office, or be removed by the said (Poor Law, now the Local Government) Board. . . ." If medical officers of health were appointed on the same terms the Local Government Board would have the power, which it does not now possess, of removing a medical officer of health from office even though the local sanitary authority desired to retain his services.

Obituary.

GEORGE MORTON WILSON, M.B., C.M.EDIN.,

PENDYFFRYN SANATORIUM, NORTH WALES.

BY the death of Dr. George Morton Wilson, on January 6th, the medical profession has lost a pioneer of the open-air treatment of tuberculosis. His sanatorium, opened about ten years ago, was one of the first three sanatoriums for Nordrach treatment in England.

Dr. Wilson graduated at Edinburgh in 1893, and after a voyage as ship surgeon in the Orient Line, and one or two hospital appointments, he started practice in the North-West of London. In 1898, signs of pulmonary tuberculosis manifested themselves, and after undergoing a course of treatment at Nordrach, he gave up general practice, and in 1900 opened, at Penmaenmawr, the sanatorium known as Nordrach-in-Wales. For some time his health appeared completely established; but a few years ago there were signs of recrudescence of the disease, and his health began gradually to fail. For the last year he worked under great difficulties, with indomitable courage and fortitude. Gifted with a pleasant personality and endowed with patience, firmness, and tact, he supervised every detail of sanatorium treatment with whole-hearted devotion, and gained not only the confidence but also the affection of his patients, who will mourn him now both as doctor and friend. Dr. Wilson was married, and leaves a widow, a son, and daughter.

JOHN HOLMES JOY, M.A., M.D.DUBL.,

CORONER FOR EAST STAFFORDSHIRE..

WE regret to record the death of Dr. John Holmes Joy, Coroner for East Staffordshire, which occurred on January 4th, at his residence at Tamworth. Dr. Joy, who was 67 years of age, had been in indifferent health for some time.

John Holmes Joy, who was born in Dublin on February 28th, 1842, was the youngest son of the late Henry Holmes Joy, Q.C., LL.D. of Dublin and Belfast, grandson of the late Serjeant Ludlow, Recorder of Bristol, and grand-nephew of Chief Baron Joy, of the Court of Exchequer in Ireland. He was educated at Trinity College, Dublin, and graduated M.A., M.D., M.Ch. in 1865. He took also the diploma of L.M. Rotunda Hospital, Dublin.

Soon afterwards he went to Chili as ship's surgeon, took out medical diplomas in Spanish, and acquired a large practice in Valparaiso, where in 1868 he married Anita, daughter of Dr. John McKay and Mrs. McKay of that town, and formerly of Fortwilliam, Invernessshire.

He returned to England in 1873, and succeeded the late Dr. J. F. Woody in practice at Tamworth, where he remained till his death.

In 1883 he was made a Justice of the Peace for the counties of Stafford and Warwick. He was President of the Midland Medical Society in 1885 and 1886; and of the Birmingham and Midland Counties Branch of the British Medical Association in 1892.

He was Certifying Factory Surgeon for the Tamworth District and Medical Officer to the Tamworth Post Office, resigning the first-named appointment in 1903, and the second in 1907. He was District Surgeon to the London and North-Western Railway Company, and Medical Referee for No. 21 County Court District under the Workmen's Compensation Act. He was one of the Honorary Medical Staff of the Tamworth Hospital, Surgeon to the Foresters, and medical attendant to the inmates of Guy's Almshouses. On February 22nd, 1898, he was appointed Coroner for East Staffordshire; the duties of this appointment, which he held till his death, he discharged in a most careful and conscientious manner. For some time he served on the council of the Coroners' Society.

As a representative of the Staffordshire County Council on the governing body of the Tamworth Grammar School from 1899 to 1908, he showed a keen interest in the foundation. He was instrumental in securing the restoration of the ancient Spital, or St. James's Chapel.

He was a Past-Master of the Marmion Lodge of Freemasons at Tamworth, and a member of the Alma Mater Lodge at Birmingham.

The funeral, which took place on January 8th at Tamworth, was attended by a large number of friends.

MR. ARTHUR KINGSLAND died suddenly of cerebral haemorrhage in his house at Small Heath, Birmingham, on December 26th. He was born at Milton-on-Sea, Hampshire, fifty-one years ago, but after his father's death the family removed to Birmingham, and Mr. Kingsland received his medical education at the Queen's College in that city. He took the diploma of the M.R.C.S.Eng. in 1880, and established himself in practice at Small Heath, where he was very well known and widely respected, being greatly beloved by the poor for his unostentatious benevolence. He was a member of the Central Division of the British Medical Association.

WE regret to announce the death of Dr. JULIUS NICOLAYSEN, for many years the foremost surgeon in Norway. He was the first to perform ovariotomy and resection of the intestine in that country. Professor Nicolaysen, who was born at Bergen in 1831, studied and graduated at Christiania in 1856. He was appointed Medical Superintendent of the Herring Fishery, and afterwards was on the staff of the State Hospital, Christiania. He was also Professor of Surgery in the University of Christiania. He was for some time co-editor of the *Norwegian Medical Magazine*, in which most of his writings, which were mainly on surgical subjects, appeared.

Universities and Colleges.

UNIVERSITY OF BRISTOL.

Provisional Ordinances.

ORDINANCES and regulations for the degrees of the university having been approved in substance by the Council have been issued provisionally pending the approval of the General Court.

In the Faculty of Arts they provide for three degrees, B.A. (pass and honours), M.A., and D.Litt., and also a diploma in education. The B.A. curriculum provides an alternative course for theological students.

In the Faculty of Science there are three degrees, B.Sc., M.Sc., and D.Sc.; also a B.Sc. for research. There is a Faculty of Engineering, the degrees granted being the same in title as those in the Faculty of Science. Arrangements are also made for the granting of certificates in various departments of the same subject.

In the Faculty of Medicine there are the four ordinary degrees, M.B. and Ch.B., M.D. and Ch.M.; also two degrees in dental surgery (B.D.S. and M.D.S.), and diplomas in public health and veterinary State medicine. For the M.B., Ch.B. there are three examinations, the curriculum extending to five and a half years.

The first examination is the same as the intermediate examination in the Faculty of Science; the second deals with organic chemistry, anatomy, and physiology; the third with the ordinary subjects of final examinations, including materia medica and pharmacology.

A candidate for the final M.B., Ch.B, must have acted as a gynaecological clerk for at least three months, and have attended either at least 25 cases of labour in the wards of a lying-in hospital, or not less than 30 such cases in the extern department of some approved hospital. He must also have attended a course of lectures on anaesthetics, and have administered anaesthetics in not less than 30 cases.

The M.D. degree can be obtained either in General or in State Medicine, at the option of the candidate.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

Barker Anatomical Prize.

IT is announced that the Barker Anatomical Prize for the year 1910 is to be awarded for a dissection of the cervical sympathetic. The prize, which is of the value of £21, is open for competition to any student whose name is on the anatomical class list of any school in the United Kingdom. The preparations entered must be marked with a fictitious signature, and must be placed in charge of the Curator of the Museums of the Royal College of Surgeons in Ireland, on or before April 30th, 1910. By the will of the late Dr. Barker, the founder of the prize, the judges of the dissections are the Curator of the Royal College of Surgeons in Ireland for the time being, the President of the College, and the Professor of Anatomy of the University of Dublin.

SOCIETY OF APOTHECARIES OF LONDON.

THE following candidates have been approved at the examinations indicated:

BIOLOGY.—C. A. Hepburn.
CHEMISTRY.—H. P. Jelley.
MATERIA MEDICA AND PHARMACY.—K. L. Hart-Davis, H. P. Jelley, A. J. V. Mathews.
ANATOMY.—D. T. Corke, H. P. Jelley.
PHYSIOLOGY.—D. T. Corke, R. Fowle, H. P. Jelley.

THE fourth Congress of Experimental Psychology is to be held at Innsbruck from April 11th to the 22nd.

FOUR lectures on small-pox and vaccination will be given by Dr. F. M. Sandwith, Gresham professor of physic at the City of London School, Victoria Embankment, on January 18th and the three following days at 6 p.m.

THE annual ball in aid of the funds of the Royal Hampshire County Hospital was held in Winchester on January 4th, and was largely attended. It is anticipated that the hospital will benefit to the amount of at least £300.

A LECTURE on optic neuritis will be delivered at the Royal Eye Hospital, Southwark, by Dr. James Collier, on Thursday, January 20th, at 5.30 p.m. Gentlemen now or formerly connected with the hospital are invited to attend. Students desiring to join the classes at the hospital should communicate with Dr. H. Willoughby Lyle, Honorary Secretary.

SIR JAMES DEWAR, who has been experimenting for some years with the waters of the King's Spring at Bath, states that he has separated krypton and xenon from the gases given off by the hot mineral waters. These gases have also been discovered in the waters of Aix-les-Bains, Saint Honoré, and some other foreign springs by MM. Moureu and Lepage.

THE winter dinner of the West African Medical Staff will take place at the New Gaiety Restaurant on Wednesday, January 26th. Members of the Staff who have not yet received notice, and who desire to be present, are requested to communicate with Dr. Prout, C.M.G., 78, Rodney Street, Liverpool.

Letters, Notes, and Answers.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

BLOOD SMEARS WANTED.

A PHYSICIAN who is doing photomicrographic work in blood diseases would be grateful for blood smears of any pathological conditions, from mild simple anaemia to blood parasites. Address Haematologist, c.o. The Manager, BRITISH MEDICAL JOURNAL.

PRURITUS IN GLYCOSURIA.

NEMO asks for advice in the treatment of a lady suffering from intense pruritus vulvae induced by glycosuria. Dieting and locally ointments containing zinc, boric acid, cocaine, and morphine have all failed. The only relief, and that only temporary, is obtained from large doses of bromide internally, and an emulsion of olive oil and sodium bicarbonate, with cocaine locally—in fact, carron oil, substituting soda for lime water.

NEURALGIA IN EDENTULOUS GUMS.

G. D. asks for advice in the treatment of a middle-aged woman who has suffered severe pain in the gums since having her teeth extracted with some local anaesthetic a year ago. The pain is constant, with severe exacerbations, and its focus appears to be the area previously occupied by the left lower incisors. Nothing is to be seen or felt to account for it. All the more ordinary analgesics have been tried without effect.

DEATH BY ELECTRIC SHOCK.

F.H.S.A. (Hucknall-Torkard) asks to be referred to any recent work on the physiological causes of death by electric shock.

*** English literature on this subject consists mainly of scattered articles in various periodicals, but German is much more extensive. Perhaps the most useful work is a little book of less than 100 pages, entitled *Unfälle durch elektrische Starkstrome*, by Dr. Schumacher (Wiesbaden: J. F. Bergmann). This deals with the question very fully from the physiological point of view. More elaborate in character is Dr. J. S. Jellinek's *Atlas de Elektropathologie* (Berlin: Urban and Schwarzenberg). Some interesting details about electrocutions in America are given in *The Infliction of the Death Penalty by means of Electricity*, by Dr. C. F. MacDonald (New York and London: Appleton and Co.).

SUTURE OF TENDONS.

P. B. asks: What is the proper treatment of divided tendons in a workman's hand by a country practitioner? How long should it be dressed before being sent to hospital for suture, and how long after division is it possible to suture them successfully?

*** We are advised that it is desirable to attempt primary suture of the divided tendons if the practitioner can obtain the assistance of an anaesthetist and assistant. If such assistance is not available, the case may be sent to the nearest hospital under a temporary dressing. If the practitioner deems that the amount of damage is too great, or that the wound is too extensively infected for primary suture to be successful, he may be justified in continuing to dress it until healing has taken place, and then the operation for secondary suture may be tried even after the lapse of months. Whether or not the secondary suture is followed by good results will depend on many things, such as the extent of the original wound, the amount of infection, retraction of the cut ends, etc.

STATE-PROVIDED MEDICAL ATTENDANCE.

H. asks for "reference to an article or pamphlet dealing with State-provided medical attendance," etc.

*** We know of no pamphlet or article dealing with this subject as a whole or with anything but isolated points. There are pamphlets describing the French and German systems of State assisted sickness and invalidity insurance, summaries of which are given in the report of the Poor Law Commission. The German system was also described in the BRITISH MEDICAL JOURNAL, 1908, vol. i, p. 1523. A report on *An Investigation into the Economic Conditions of Contract Medical Practice in the United Kingdom*, prepared by the Medico-Political Committee is published by the British Medical Association, price 6d., (post free 8½d.), deals with the various forms of public medical service in this country. Perhaps the most general description of the present forms of Poor Law and charitable medical relief is given in the report of the Poor Law Commission. Part V of the Majority Report and Chap. 5 of the Minority Report describe not only Poor Law medical relief but all the various medical agencies existing in the kingdom.

ANSWERS.

HEALTH.—The purely Scottish Acts of Parliament required for the D.P.H. of the Scottish universities are—Public Health (Scotland) Act, 1897 (price 1s.), Burgh Police (Scotland) Act, 1892 (2s. 11d.), Burgh Police (Scotland) Act, 1903 (8d.), Local Government (Scotland) Act, 1894 (8d.), to be had from Messrs. Eyre and Spottiswoode, East Harding Street, London, E.C. The sums stated in brackets cover postage. But "Health" would be better advised to procure *Sanitary Laws of Scotland and Principles of Public Health*, by Dr. Brock (London: Oliver and Boyd). This gives all the sanitary law applicable to Scotland, with Local Government Board Orders, etc., in a very compact form.

POTAIN'S SPHYGMOMANOMETER.

H. E. K.—Potain's original paper—Du sphygmomanomètre et de la mesure de la pression artérielle chez l'homme a l'état normal et pathologique (*Archives de physiologie*, 1889, p. 556)—contains a description of the sphygmomanometer and the method of employing it. Two later papers—Détermination expérimentale de la valeur du sphygmomanomètre (*Archives de physiologie*, 1890, p. 300), and Faits nouveaux relatifs a la détermination expérimentale de la valeur du sphygmomanomètre (*Archives de physiologie*, 1901, p. 681)—deal with the experimental verification of the results obtained. Potain's book, *La pression artérielle de l'homme a l'état normal et pathologique* (Paris: Masson et Cie. 1902), gives a more exhaustive and up-to-date account of his methods.

LIME WATER IN THE TREATMENT OF VERRUCA PLANA.

DR. GEO. HENDERSON (Kirn, Argyllshire) writes: With reference to the communication of Dr. Dudley Kennard, F.R.C.S.E., on the treatment of verruca plana by lime water, I should like to state that some time ago (probably about two years) I read a letter by a medical man in the BRITISH MEDICAL JOURNAL in which he said that, whilst treating a patient for some other disorder with lime water, he had noticed that some warts had disappeared, and suggested that as a method of treatment. Since reading this letter I have many times tried this simple plan, and have never yet found it to fail. My doses were much smaller (a tablespoonful in milk thrice daily), and although the time taken for the disappearance of the warts was rather longer than in Dr. Kennard's case, I have no doubt that with his larger doses the cure may be effected in a shorter time.

"RECONSTRUCTED COCAINE."

DÈNTAL.—If "reconstructed cocaine" is cocaine at all, it cannot be non-toxic. Probably the following facts give the explanation of the name: Cocaine is accompanied in coca leaves by other alkaloids of greater toxicity, the principal ones being known as cinnamyl-cocaine and isatropyl-cocaine; when hydrolyzed, these yield as the principal product ecgonine, identical with what is given by cocaine itself; instead, therefore, of purifying the cocaine extracted from the drug, the whole of the alkaloids are hydrolyzed, and the ecgonine freed from the other products of hydrolysis which, not being basic, are easily removed. The ecgonine is then combined with methyl alcohol and benzoic acid in due proportions, by which means cocaine is produced or reconstructed; this is naturally less toxic than an impure cocaine. We do not know the firm named.

THE TUBERCULIN TEST.

A. R. P.—The "tuberculin test" consists in the introduction into the body of a suspected individual of the toxin of tuberculosis in order to judge by the occurrence or otherwise of a "reaction," whether or no the person is tuberculous. In a healthy individual the introduction of a small dose of tuberculous toxin produces no appreciable effect; when, however, a person is already infected with tuberculosis even a slight addition of the toxin may cause an appreciable disturbance—local or general. The evidences of this disturbance constitute the "reaction." There are various methods of employing the test.

1. *Subcutaneous Injection of Tuberculin* (Koch).—This produces a general reaction indicated by rise of body temperature and other symptoms; it may produce temporary or permanent increase in the activity of the local tuberculous lesion already existing.

2. *Von Pirquet's Skin Reaction.*—The tuberculin is applied on the surface of the skin, which is then lightly scarified. In the tuberculous individual a local inflammation occurs which is not produced in the healthy.

3. *Calmette's Ophthalmo-reaction.*—The tuberculin is dropped into the eye and produces a conjunctival inflammation in a tuberculous individual. The two latter methods produce a merely local reaction, and are therefore to be preferred to the first. The tuberculin reaction—which, like similar tests, is not absolutely conclusive—only indicates the presence of tuberculous infection; it does not show the seat of the lesion, which must be determined by ordinary clinical methods. In a case of tuberculosis of the lung, this could be ascertained by physical examination by an expert, who would in most cases be able to arrive at a diagnosis without the necessity for any tuberculin test. The presence of tubercle bacilli in the sputum marks a somewhat advanced condition of lung tuberculosis, since softening has in all probability already taken place. A diagnosis of pulmonary tuberculosis should be possible in most cases before bacilli could be found in the sputum. Cases of phthisis not infrequently go on for months with no expectoration.

A. R. P. is recommended to use "Calmette" if he wishes to employ the tuberculin test; it is simple, and the risk attending its use is probably less than with the other method. The material for the test can be obtained from any wholesale druggists. Messrs. Burroughs, Wellcome, and Co. send it out with a control liquid to be dropped into the opposite eye. The reaction produces some discomfort in the affected eye for a few days. It should not be used if there is any inflammatory disease of the eye. It would be well to warn the patient of possible disagreeable effects.

THE ORGANIC CAUSATION OF INSANITY.

"A PUZZLED DOCTOR."—Professor Lugaro, in the opening paragraph of Chapter II of his book on *Modern Problems in Psychiatry*, reviewed in the BRITISH MEDICAL JOURNAL, December 25th, 1909, p. 1803, writes as follows: "The mistaken opinion . . . that insanity is due especially to causes of a psychic nature, to prolonged overaction of the intellect and of the will, or to violent emotions, and that it may almost be considered as the ruin of a machine which has been forced beyond its capacity, was for a long time accepted without discussion even by alienists." In Chapter IV Professor Lugaro gives the two points of view from which the pathogenesis of psychic disturbances *must* be envisaged. "Firstly, it has relation to *the objective determinism of disturbances of the consciousness according to the laws of psycho-physical parallelism;* it is concerned therefore with the modification of cerebral processes in disease, with the connexion existing between psychopathic phenomena and functional disorders, and with the anatomical lesions of the cortical nerve elements. Secondly, it is concerned with the *genesis of cerebral lesions*, and consequently with all the objective mechanism, both cerebral and extracerebral, which connects these lesions with the morbid action in a more or less direct manner." These quotations show that for Professor Lugaro there are only two questions to be considered in the pathogeny of mental diseases: First, the connexions between mental symptoms and cerebral disease or disorder; and secondly, the causes of cerebral disease or disorder, which latter are, he says, "the immediate and necessary factors of the psychic disturbance." In discussing the question whether psychic causes can produce a morbid state—it being remembered that Professor Lugaro necessarily assumes that psychic causes can act, if at all, only by first of all producing disturbances of the bodily organism—Professor Lugaro treats first of exhaustion and fatigue. Here he said "it is very improbable, however, that a simple excess of functional activity in an organ which is anatomically normal and whose metabolism is carried on in a normal manner, can produce a normal state," and speaking of psychic causes in the genesis of insanity, he says that the importance attached to them "becomes restricted, and is, in fact, much diminished if not altogether dissipated, when an attempt is made to explain the mechanism of their action." Even of the emotions, after admitting their depressing effects and the probability of their determining autointoxication through disturbances of nutrition, he says, "but we do not meet with, nor is it possible to imagine, any fixed specific relation between the emotions, no matter how protracted, and some special form of mental disease." Of these cases, in which the insanity follows immediately on an intense psychic impression, he says that "this occurs for the most part in individuals who are the subjects of a grave predisposition, who possess in a latent state the organic conditions favourable to an outbreak of insanity, and the psychic impression acts merely as a violent stimulus which discloses the defect and determines the initial disturbance of the equilibrium of the functions," and later, "But in any case we cannot regard the external psychic stimulus as the cause of the disease; we must admit that this depends on an internal, unknown, but organic anomaly." In reply to our correspondent's further question as to the causation of this "internal, unknown, but organic anomaly," it may be said that by external agents Professor Lugaro does not mean simply such agents as alcohol, syphilis, etc., but external agents of whatever inimical kind acting directly on the patient's organization or on those of his progenitors during development. That is, for Professor Lugaro the mechanism of hereditary transmission consists in the tendency "to transmit unaltered the products of biological experience and the adaptations which have been acquired throughout the whole of the evolution of life." Hence a morbid or neuropathic heredity does not—according to Professor Lugaro—involve an inescapable doom, but may be counteracted or annulled in precisely the same way that it was originally brought about—by the external agent.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page	8	0	0

An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

NOTE.—It is against the rules of the Post Office to receive *postes Restante* letters addressed either in initials or numbers.

The Purvis Oration

ON THE

GYNAECOLOGICAL DIFFICULTIES OF THE GENERAL PRACTITIONER.

DELIVERED BEFORE THE WEST KENT MEDICO-CHIRURGICAL SOCIETY.

BY G. ERNEST HERMAN, M.B.LOND., F.R.C.P.,
CONSULTING OBSTETRIC PHYSICIAN TO THE LONDON HOSPITAL.

WHEN I received from your secretary your Council's invitation to deliver the Prior Purvis Oration, and looked down the list supplied to me by him of those who had given this address in previous years, I felt proud to think that my name should be thought worthy of appearing in such company, and I thank the society for this compliment. I think—I am not quite sure—that I once met Dr. Prior Purvis, but I know that I have heard men speak about him while he was alive. He was a good general practitioner. His professional knowledge and skill were above the average of his contemporaries. To his patients he was a faithful friend and a wise adviser; to his professional brethren he was a loyal colleague; and to his juniors an example in conduct. Because throughout a long life he displayed these qualities constantly and perspicuously, his professional brethren have established this oration in honour of his memory.

The subject on which it appears to me that it may be useful to remark is on some of the gynaecological difficulties of the general practitioner.

If one attempts a classification of the diseases to which women are specially liable, the first and the most important group comprises the new growths. These may arise in any part of the female genital organs. Some parts are more liable to be the seat of new growths than others, but none are exempt. The treatment of these new growths, if they need treatment, is entirely surgical. Operations for the removal of new growths cannot be practised on the dead body, not only because the teacher cannot provide his pupil with a body containing a new growth, but because the nature of the operation and the details of its technique vary infinitely according to the parts implicated. Skill comes only by watching operations and doing operations. Therefore I hold that these operations ought not to be attempted by the general practitioner, nor, I may add, by the general surgeon. They should be performed by specialists; and, granted that the specialist is competent and of ordinary manual dexterity, the more operations he does the more skilful he will become until age begins to dull the acuteness of his senses. The service that the family doctor has to render to his patient is to advise her when an operation is required and also when it is not required.

This general assertion applies, so far as I am able to form an opinion, not to gynaecological operations only, but to all operations. In the pre-Listerian days, while the immediate risks of an operation—such as death from haemorrhage—depended on the skill of the surgeon, yet when an operation had been successfully finished, it seemed to be matter of chance whether the patient recovered or died from some kind of blood poisoning. It was not surprising that surgeons then were opposed to specialization, and that some of them would maintain that, provided a man was properly equipped with anatomical knowledge and surgical skill, he would do his first operation of any particular kind as well as he would do his hundredth. But all that has passed. Recovery after an operation is no longer a matter of chance. A successful result is attained by due attention to a number of small details which an experienced operator finds out for himself in the repeated performance of the operation. The best man to do an operation is the man who, while still in the possession of his faculties, has yet done the operation a great many times before. This applies with the greatest force to operations within the abdomen—operations upon the stomach, bowels, gall bladder, pancreas, and upon the pelvic organs. These cannot be reduced to definite rules, and they cannot be practised upon the dead body.

The general proposition that with specialization comes skill applies to every branch of surgery. The general practitioner's means of livelihood are being more and more restricted every year, partly by the growth of preventive medicine and of operative surgery, and partly by the attempts at the municipalization of medical service. Experience has shown that municipal trading—that is, administration by popularly elected bodies—means inefficiency, waste, and loss. The experience of co-operative trading societies has shown that many of them have failed because the crowd cannot perceive that superior intelligence must be paid for. Municipal medical service will be inefficient service except for special purposes. It is not fair to put a man in such a position that his private interests may pull in an opposite direction to his public duties; and for this reason the officer whose business is the prevention of disease cannot be the same as those whose business it is to treat it. With this exception I think it much better to leave people to make their own arrangements for their treatment while they are ill, and let the patient and his doctor settle his remuneration between them. I am sure that improvement in the public health service would follow if the appointment of medical officers of health were taken away from popularly elected bodies and put in the hands of persons competent to judge of their qualifications and services, so that a young man might know that efficiency in a small post would be likely to lead to promotion to a larger one. At the great teaching hospitals the appointments to the staff were at one time made by a large body of governors—men whose position as governors indicated some measure of success in life and philanthropy of feeling, but who were like a borough or county council in their inability to gauge the value of a young medical man. As knowledge has become diffused these appointments have ceased to be made by the vote of a crowd, and come to be more and more influenced by the technical knowledge of the staff, and the quality of the appointments has depended on the degree to which the staff has been able to influence the selection.

It may seem that the prospect before the young man entering our profession is a gloomy one, and so it is for the young man whose ability is limited to the prescribing of physic. The one hope that I can see for the young man of average ability lies in the multiplication of specialities. The man who can *do* something that most people cannot do, and that is beneficial to his fellow men, will always find a way. It cannot always be the case that a person requiring some unusual kind of treatment must either incur an expenditure that may equal or exceed half a year's income, or accept charity by going into a hospital. Specialities, and within each speciality special operations and special modes of treatment, will go on multiplying, and the man who has mastered the technique of any one useful thing will, in the future as in the past, find his skill remunerated.

It is usually not difficult for the general practitioner to persuade women suffering from new growths to submit to surgical treatment, or, if they will not at once do this, to induce them to ask another person's opinion on the matter. Her disease stares her in the face. She may, if she pleases, tolerate its presence for a while and ignore the advice given to her; but sooner or later she will be obliged to recognize that the advice given to her was good.

I have recently become acquainted with a work on medical gynaecology by two French authors. The first 134 pages are occupied by what the authors term "*fausses utérines*." This means, symptoms mistaken for those of uterine disease, but really due to disease of some other part. These authors find that dyspepsia, organic disease of the stomach or bowels; abdominal ptoses—that is, displacements of viscera; diseases of the liver, valvular disease of the heart, kidney diseases, among them Bright's disease and renal calculus; neurasthenia, hysteria, exophthalmic goître, Raynaud's disease, scleroderma, acromegaly, insanity, neuralgias, arthritic disease, diabetes, obesity, various infections and intoxications, may produce such symptoms that the doctor may make the mistake of attributing the symptoms to disease of the uterus. In this connexion the term "uterus" should be taken as connoting the whole of the female generative apparatus. The uterus is the most conspicuous and accessible of these organs, and therefore the one most liable to maltreatment by a person at once ignorant and fussy. But this is a

matter of words, so that I need not dwell upon it. Doubtless these French writers speak from experience, and have met with cases in which such errors were made. I can quite believe such mistakes to have occurred in England many years ago. I cannot myself remember many cases in which organic disease of some other structure has been taken for uterine disease. I can recall one in which an eminent obstetric physician, who did not make a routine practice of abdominal examination, but, unless his attention was especially directed to the abdomen, made only a digital examination by the vagina, followed occasionally by the passage of a speculum, made in vain attempts at correction by a pessary of the position of a retroverted uterus. Another physician was called in, who made a more systematic examination of the patient and discovered ascites and malignant disease of the peritoneum. When abdominal ptoses are present, the uterus is often one of the viscera which are displaced; and there have been physicians who would recognize in such a case displacement of the uterus only. At the present day most medical men know better. The mistake of attributing to the uterus effects really due to organic disease of other viscera, abdominal or thoracic, is, in my experience, now rarely made. I have heard of a physician attributing ascites to anteflexion; but I think knowledge is now beyond this. I have sometimes, when consulted about pruritus vulvae, discovered diabetes in a patient who was not aware of it; and in some of these, when I wrote to the patient's doctor and told him of it, I found that he knew it.

The cases which are the worry and the puzzle of the general practitioner are those in which the chief symptom is that the patient has pain. Pain low down in the abdomen is one of the commonest symptoms in women, with or without local disease. With cancer, prolapse, retroversion, salpingo-oöphoritis, pain is much commoner on the left side than on the right. This is because the left side of the nervous system is weaker than the right, not only in muscular strength, but also in the power of resisting pain.

There are two conditions common in women, and therefore often associated with disease of the pelvic organs. These are hysteria and neurasthenia. Hysteria is not produced by pelvic disease, but a hysterical patient may complain of symptoms such as disease of the pelvic organs produces. Neurasthenia is often produced by disease of the pelvic organs and often also by other causes, and when produced by other conditions it may cause symptoms which the patient may think due to disease in the pelvis. A local condition concerning which a strong woman would not trouble herself may make the life of a neurasthenic person miserable.

These are two important facts—first, that long-continued pelvic pain may produce neurasthenia; secondly, that neurasthenia may produce symptoms referred to the pelvis. It is often difficult to say how much is due to the influence of the local disease, and how much to weakness of the central nervous system. This is one of the practical difficulties of the family doctor. If he overlooks local disease he fails to cure his patient. If he prolongs local treatment of a condition which is not morbid he also may fail to cure his patient, and he may injure her, and will certainly injure his own reputation.

In the days of my professional youth all sorts of symptoms were attributed to anteflexion of the uterus—a condition which is now, I think, generally recognized as the natural shape of the uterus in most virgins. Many young women were tormented by the introduction of a contorted piece of vulcanite into the vagina Others less fortunate had the uterus held straight by a rigid stem inside it, a contrivance which occasionally produced fatal peritonitis. These things, I hope, have passed.

But there are still those who think that the uterus is different from any other part of the body, in that changes in it which no pathologist can discover, and which cause no local symptoms, may yet be manifested by symptoms in some distant part The curette now seems to have taken the place of the twisted bit of vulcanite of thirty years ago

Matthews Duncan, in his *Clinical Lectures on the Diseases of Women*, the last edition of which was published in 1889, just twenty years ago, thus spoke of endometritis: "Who can tell what any one means by endometritis? Often its use is the parent or the child of ignorance and confusion; often it is a cloak of ignorance and confusion." After describing some real but rare forms of disease, Duncan went on: "Now at length I come to what would be, in the present day, called the real (the common!) endometritis, and I know nothing more unsatisfactory. I often hear of it, but very rarely do I find any evidence of its existence. Much is said of it, and I remind you that many authors delight in long descriptions of what is little known or not known. There is truly little to be said of what is known. . . . In reading and in conversation I often meet with a granular condition observed during life, but all the time I am inwardly most sceptical. I have looked for it carefully and often, but I have never seen it or felt it. Then it is said, Oh, take a curette and scrape it out, and then you have the diseased tissue in your hands. But the scrapings are very small, and you would get the same by scraping a healthy uterus."

This is as true now as it was twenty years ago. In a clinical lecture on "The Use and Abuse of the Curette," published in the BRITISH MEDICAL JOURNAL of December 5th, 1908, I criticized the writings of an eminent provincial gynaecologist, who had persuaded himself that endometritis was common in virgins. He had scraped out the uteri of many young women, and had the scrapings examined by a histologist, who found no signs of inflammation in them. But his opinions nevertheless deserved respectful consideration, because he had endeavoured to describe a group of symptoms and physical signs, which to his mind indicated endometritis His symptoms and signs did not convince me that there was endometritis, or local disease of any kind, because I thought that he took health for disease. But it must in justice be admitted that this gentleman did not go about curetting every body, or recommending the curette for every patient.

Since then another paper has been published on the subject of endometritis; and if the teaching of this paper were accepted as representative of scientific medicine, as being sound and good practice, no woman would be safe from the curette. The reader is told that "amenorrhoea, dysmenorrhoea, menorrhagia, metrorrhagia, the passage of decidual casts and blood clots. are all well-known accompaniments of the disease. Of referred symptoms, pain in the back, weakness in the loins, weariness on standing or after slight exercise, headaches, dyspepsia, and constipation, have a possible origin in endometritis." What woman ever consults a doctor who has not some of these symptoms? But even these are not necessary for the possessor of a curette, for the reader is told that "all these symptoms may be wanting in *severe types* of endometritis." . . . "It must be remembered that endometritis is always present before it manifests itself by symptoms." Have I gone too far in saying that if this kind of teaching were accepted as scientific gynaecology no woman would be safe from the curette? The writer of this gives us a little insight into the back of his mind when he speaks of "the number of cases we observe uncured after what I may term the 'bedroom operation.'" Operations done for the removal of disease are successful whether done in a bedroom or in the most up-to-date operating theatre. The only difference is that in the bedroom the surgeon has to give detailed instructions in order to secure asepsis, while in the theatre the attendants secure this as a matter of routine. But when an operation is done for the imaginary removal of imagined disease in a neurasthenic or hysterical woman, it makes all the difference whether it is done in her bedroom or in a hospital. If it is done in her bedroom, her surroundings and mode of life remain the same after as before the operation, and she remains uncured. But if she is in a hospital her surroundings are altogether changed. She gets rest, food, sleep, and encouragement, with very often a change to a convalescent home afterwards, and a new lease of health is the result. The benefit would have been better obtained without running the risk of anaesthesia and of rupture of the uterus, not to mention the unpleasantness of repeated local manipulations. A speaker in the discussion which followed the reading of this paper gave the results of experience very well, but could not bring his mind to draw the obvious inference. He said: "Curetting is only a part of the treatment of chronic endometritis, for it is a frequent experience in practice to find women who for this disease have been

eatedly curetted without benefit. Many of those who fer from endometritis chronica are in a depraved state health, neurasthenic, dyspeptic, martyrs to various ms of headache, and whose general nutrition is at ow level. For this reason I have been for some years the habit of combining the operation of curetting h a six weeks' rest cure. By massage, feeding, and rest general condition of the patient is improved, she gains weight, and a cure may be confidently anticipated. If retting alone is done, there is little general improve-nt, and the result is disappointing. Rest in bed for irteen days is beneficial after curetting, even when it is thought necessary to advise a 'rest cure.'" It does not em to have occurred to this gentleman that possibly the lure of the curetting may have been because there was thing the matter with the endometrium and that ndometritis chronica" did not exist. Another speaker eferred especially to the fact that in many operations for dometritis the tissues removed showed no distinct croscopic changes." "In very many cases," he said, ven in spite of repeated curettage the symptoms con-ued." It is to me most surprising that the failure to find sease in the scrapings, and the failure of his repeated rettings to cure the patient, should not have suggested so able a man that possibly there may have been some-ing wrong with his diagnosis. His experience is exactly at of Matthews Duncan—only that he derives no struction from his failures.

Dr. Cullen of Baltimore has remarked that "in many ses the uterine discharge is due to a run-down condition the patient, and not to any local lesion." I should gree, if I might omit the word "uterine." I think that most cases leucorrhoeal discharge comes from the agina and not from the uterus. But the good effect of r. Cullen's opinion is weakened by a previous statement his that "the term 'endometritis,' as usually employed, just as vague as is the term 'neurasthenia.'" I can quite nderstand that to people who scrape out the uterus of very patient who will let them do it, on the ground that there are neither symptoms nor signs of disease the ndometritis is in an early stage, and the symptoms and gns will come, "endometritis" and "neurasthenia" are ike vague terms. But any one who will study the writings the best neurologists will find that "neurasthenia" is ot at all a vague term.

Neurasthenia is a condition well described by the words, irritable weakness." It occurs in men as well as in omen. I will quote a short description of it as seen in en by a French physician, who portrays it with the larity characteristic of his nation.

Dr. Pitrés, of Bordeaux, thus describes it: Neurasthenia a disease of exhaustion. It is caused by nervous over-train; excess of work or pleasure. Every man who, in ne way or another, has immoderately fatigued his brain, whether by applying himself to difficult and prolonged ntellectual work, or by delivering himself without measure o debauchery or to the excitements of social life, may at ny time give himself an attack of neurasthenia, of which he can be cured by rest.

It is the direct and logical consequence of a perpetual ensation of fatigue; an incapacity of willing and acting which patients of this class experience, and which is the ssential and necessary element of their malady.

Because he has a very clear sensation of his physical nferiority, because he is always tired, powerless, broken, he neurasthenic preoccupies himself with his condition, gives himself up to interior auto-observations of his func-ions; alarms himself at the least morbid manifestations f which his organs are the seat. This physician differen-iates *neurasthenia* from another condition, *psychasthenia*, which is a hereditary, constitutional malady, of which he most typical symptomatic manifestations, anxious ixed ideas, obsessions, phobias, ordinarily develop as a equel to emotional shocks; and they continue long after he disappearance of the fortuitous circumstances which gave them birth. I think the distinction important. The liagnosis between them is in well-marked cases easy; in borderland cases difficult.

Neurasthenia is a far too common disease. I take the following from a leading article in the BRITISH MEDICAL JOURNAL of July 10th, 1909. "It is the prevalence of the schoolmaster, and of his satellite the examiner, which is to a large extent responsible for the prevalence of neur-asthenia—the strain of an unsuitable education forced on a large number of children who are intellectually and physically incapable of bearing it. We mistake a barren knowledge of facts for education; and it seems to be the aim of the modern system to make the mind of the child a mere *hortus siccus*, and to regard as weeds to be uprooted plants that might grow into things of beauty. Competition is everywhere the test of merit. What chance would Wellington, Nelson, or Napoleon have at the present day of winning admission to the army or navy? What chance would Canning, who did not know that a frog developed from a tadpole, have of getting his foot on the ladder which carried him to the highest office in the State? Our system of education is the root of modern neurasthenia, as many have come to recognize even in Germany—that land where education is, if we may say so, rampant—with the result that what Bismarck called an intellectual proletariate has been produced, which can find a sphere of action only in revolution." "It is neur-asthenia which breeds the almost universal anxiety about health which is one of the signs of the times. This leads to a corresponding prevalence of quackery of every kind. It is the alliance of neurasthenia with religious mysticism that is the true begetter of Christian Science and the other forms of faith-healing which are the prevailing superstitions of the day."

"The mind should be trained, not crammed with things which cause intellectual indigestion, and are happily got rid of as soon as the necessity for remembering details about them is past."

The condition produced by the bringing up which mistakes information for education, and forces the child to cram its memory with words at the earliest possible age instead of training its faculties, is what the French writer I have quoted calls "psychasthenia." English neurologists apply the term "psychasthenia" more especially to cases in which there is an inherited tendency to nervous instability but no disturbance of nutrition. It is not my business to discuss this question of nomenclature; that is for the neurologists. What I want to point out here is that a girl whose nervous system has been reduced to this condition of irritable weakness, when she menstruates is sure to be worse each month before and during menstruation. If she marries and her marriage turns not out a happy one, disappointment and unhappiness will make her worse. If she has children, the anxiety and strain of the nursing and rearing of young children will make her worse. In either of the circumstances I have referred to there may be local symptoms without local disease. The poor victim of over-information—the unhappy wife, the weary mother—may be stuffed with pessaries or have the uterus scraped out any number of times without benefit

Neurasthenia may be produced in a strong and healthy woman by chronic disease which causes pain. If that be so, the patient will not be cured until her disease has been removed. When the cause of chronic pain has been taken away, in a few months the patient will regain vigorous health. The great causes of neurasthenia are conditions which (*a*) cause continuous pain and (*b*) prevent sleep. The two things often form a vicious circle. A small local cause disturbs sleep, and want of sleep makes the nervous system over-sensitive. In proportion as the neurasthenic symptoms have coincided in time with the development of local pain, so surely may we conclude that the removal of the local pain and the procuring of sound sleep will cure the neurasthenia. Let me give illustrations. A strong, healthy woman of 35 is laid up for two weeks out of every four with pain centring round the spasms of dysmenor-rhoea. In the intervals she is free from pain. She elects to part with her ovaries. In six months she is well. A robust, well-built, well-nourished woman, previously not com-plaining of anything, has a fall, in which presumably the uterus becomes displaced backwards Result, con-tinuous sacral pain and irritation of bladder. Doctor after doctor consulted, and pessary after pessary tried, but none found that would keep the uterus in its place. Pain prevents exercise, disturbs sleep, and the patient becomes nervous, low-spirited, and querulous—in short, neurasthenic. This goes on for four years Then the uterus is fixed to the abdominal wall. Effect: patient again in robust health, free from pain, sleeps well, walks, gardens, is cheerful, happy, and good-tempered. I give

these illustrations because they show the effect of pain alone, not severe, but long continued. Another frequent cause of neurasthenia is the too frequent practice of preventing pregnancy without consideration of the feelings of the wife. Often the patient suffering in this way will be well in a few weeks if her natural instinct is satisfied. I could easily refer to cases—such, for instance, as pelvic suppuration—in which the surgical cure of local disease is followed by remarkable improvement in the nervous tone of the patient; but in them pain is not the sole effect of the morbid condition.

Hysteria and neurasthenia both occur in women more often than in men. A hysteric may become neurasthenic. But these two conditions, when occurring in their most pronounced forms, differ very widely. Neurasthenia is characterized by weakness with increased sensitiveness; hysteria by strength with deficient sensibility.

The essential, the dominating, feature of hysteria is diminution of sensibility. This disease is recognized by its physical signs, which chiefly consist in the discovery of anaesthetic areas. The one most easily discovered is the pharynx. Poke your finger down a healthy person's throat and you at once provoke retching. But in a hysteric's throat you can explore the epiglottis and the arytenoid cartilages by touch as long as you please without any such effect. Touching the conjunctiva of a healthy person provokes blinking. In a hysteric you may rub your finger over the conjunctiva, and in some over the cornea, without any effect. There are areas of anaesthesia on the trunk and limbs—over half the body (hemianaesthesia), over one limb, a leg, or an arm. The limitation of the area does not correspond to the area supplied by a particular nerve or nerves; it corresponds to a mental conception. This kind of anaesthesia cannot be as quickly ascertained as the loss of the pharyngeal and conjunctival reflex, because to discover and delimit it the patient must be undressed, and the area to be examined uncovered; therefore, this is not useful for the ready detection of hysteria by the general practitioner or the gynaecologist. Another kind of anaesthesia is the limitation of the field of vision. But this is still less useful in ordinary practice, because to ascertain the presence of this sign a prolonged examination with a special instrument—a perimeter—is required. For the purpose of the neurologist this sign is of extreme value, because the patient, as a rule, does not understand its import, and therefore cannot mislead the observer.

The cortex of the brain is made up of sensori-motor nerve centres. Each centre receives sensory impulses, and gives out motor impulses. The large areas of anaesthesia present on the surface of a hysteric show that the capacity for receiving sensory impulses is, to say the least, disordered; and, as many centres are not only of sensation but of motion, one would expect that with the sensory, motor disorders would be associated. And so they are; paralyses and contractures of different kinds are manifestations of hysteria as much as patches of anaesthesia. What we call ideas or thoughts are faint representations of sensory and motor impulses; and if the sensations and movements of the patient are disordered, her thoughts and ideas will be in like manner disordered also. The most characteristic feature of the hysteric is her abnormal want of sensitiveness. The main force in moulding people's characters is what George Meredith called "the pressure of the impalpable." John Stuart Mill more literally called it the force of public opinion. I think Meredith's paradoxical phrase is better. Opinion is expressed in words. The most useless thing in the formation of character is preaching. It is often worse than useless, because it sometimes is so irritating that it provokes a reaction in the opposite direction. It is not necessary to speak to show pleasure or displeasure. One may say without fear of question that there are many ways—I doubt if I should be wrong if I said thousands of ways, too indefinite to be described—by which the opinions of others about us reach our consciousness. This I take to be what Meredith's phrase "the pressure of the impalpable" means. The kind of education that most English gentlemen think the best for their sons, that of the great public schools, is in its essence this "pressure of the impalpable"—in these institutions known as "tone." The value of these schools is very little indeed in what the boys learn They are instructed in certain books written long ago in languages now no longer used, and it is supposed that their minds are disciplined by being brought into contact with these great minds of a dim and distant past, and that they are trained in the use of words, the vehicle of thought. The objections that not 5 per cent. of the boys ever get actually into contact with the great minds alluded to, and that some of the best English has been written by men ignorant of Greek and Latin, are not thought important. One parent is said to have complained to another, both having sons at a certain fashionable school, that the masters did not give enough time to the education of his son. "Never you mind," said the other and wiser parent, "the boys are educating him, every day, and every hour and every minute." In a great artificial community such as a large school is, the boys are moulded by this constant pressure of the impalpable to a common pattern; and as this pattern is that approved by men and women of the English upper classes, this moulding is the best education for one whose success in life depends upon his gaining the confidence of these classes.

But I am digressing. The important thing in the mind and character of the hysteric is that this pressure of the impalpable is not felt by her as it normally should be. Many ways by which the satisfaction or dissatisfaction of those around us are conveyed to our consciousness are not noticed by the hysteric. She does not perceive them. She revolves or staggers in her own little orbit unbalanced by the little buffets from many sides which correct deviations in an average healthy person, and keep him going steady and straight. The buffets reach her, but she feels them not, and they produce no effect. But because there are tracts of consciousness unoccupied, so to speak, where the myriad impulses from outside are not felt, the hysteric is the more violently influenced by direct, obtrusive, definite suggestion. The nature of this suggestion depends upon the surroundings of the hysteric. Its effect may be to make her a canonized saint or a murderess. If the suggestion is of a beatific vision—fasting, discipline, even death are not reckoned by a person whose nervous system is over a large area anaesthetic. If of a different kind—hard labour, the prison cell, have not upon a hysteric the deterrent effect that they exert upon normal consciousness. From a doctor's point of view the hysteric may be the most lucrative, and certainly is the most dangerous, patient that he can have. In the cautious words of Dr. Savage: "Cases which might be looked upon as hysterical; at all events, they are most common in young women at the period of adolescence. Here we meet with several rather special forms. I have seen a good many such who write scandalous postcards, make false accusations of seduction or of criminal assault, and though convicted, they repeat their faults. Such persons are in all other respects apparently reasonable, and it, of course, is always an open question how far they are responsible—that is, how much good punishment would do in reforming them and protecting society. They are so cunning, and their schemes to avoid detection are such as to make the ordinary man believe that they are more bad than mad; yet experience of punishment will, in many cases, not deter them from repeating their faults, and so far they are unreasonable."

Dr. Savage's careful phrase that "they might be looked upon as hysteria" probably means that he saw them in circumstances which made it inconvenient or impracticable to find out if the hysteric stigmata were present, and possibly some of them were examined before the physical signs of hysteria had been as definitely ascertained as they recently have been.

The ladies who hit, kick, and bite policemen—well knowing that those brave, excellent, and patient men will suffer their violence without returning it—barricade themselves in prison cells, refuse food, throw stones and slates at unoffending people, are probably hysterics. In the time of Queen Victoria the cause of women's suffrage had not been taken up by hysterics. Nevertheless the opinion of that greatest of queens, expressed in one of her letters, was that the women who clamoured for the suffrage ought to be whipped. This mode of dealing with them would hardly commend itself to public opinion nowadays.

One source of confusion between neurasthenia and hysteria is the application of the term "hysterical" to certain well-known seizures. The patient feels as if there were a lump in the throat, cries and laughs alter-

ately; has a quick pulse and hurried breathing, is not nconscious, and after the fit passes much urine of low pecific gravity. These fits are as involuntary as an pileptic fit. But they are not peculiar to hysterical emales. On the contrary, most hysterics do not have nem. They are a result of neurasthenia; they occur n neurasthenic men as well as in women. Hysterical vomen may become neurasthenic, and then they get hese seizures.

The conception of hysteria as a disease that can be dentified by definite physical signs is a recent one. I have described those that are best and have been longest known, but an eminent neurologist tells me that new ones have recently been discovered. It follows that we have no knowledge as to whether hysteria is inherited or not. If we to-day meet a hysteric it is very improbable that either of her parents was ever tested for the hysterical stigmata. Nervous instability is known to be inherited, and the children of neuropathic parents will probably suffer from unwise training and bad example; but whether the particular form of nervous instability known as hysteria is transmitted as such I know not.

I know of no research that has been made as to the effect of age upon hysterical subjects—whether or not after the climacteric symptoms persist or disappear. I have mentioned the susceptibility of the hysteric to suggestion. The hysteric whose pelvic organs are perfectly healthy, but who thinks she has something the matter with them, has been made ill by suggestion, and is to be cured by suggestion. The cures of Christian Science are cures by suggestion. As to this, Professor Osler remarks: "The essentials are first a strong and hopeful belief in a dominant personality . . . an ordinary doctor has served the purpose of common humanity very well."

"Secondly, certain accessories—a shrine, a grotto, a church, a temple, a sanatorium—surroundings that will impress favourably the imagination of the patient." In the light of the papers referred to in the early part of this address, one may particularize further as to these accessories, and mention among them the operating theatre and the curette.

"Thirdly, suggestion in one of its varied forms." It is these essential points that make women, after a healthy uterus has been scraped out, think that they have been cured of something.

Let me briefly summarize the purport of this address. Hysteria and neurasthenia occur in both sexes and at all ages; but they are commoner in women than in men, and commoner in women during the years of potential child-bearing than before and after. Hysteria occurs in the strong; it is accompanied with deficiency in sensibility; and has no relation whatever to any disease of the reproductive organs except such as may have been suggested to the patient. Neurasthenia occurs in the weak, and is accompanied with oversensitiveness. It is often produced by long-continued pain; and, if so, is cured when the pain is removed. Neurasthenia from any cause makes patients more liable to reflected pain than they would be if in health.

In cases of pelvic pain it is most important, generally easy, but sometimes very difficult, to distinguish between that which is hysterical, and curable by suggestion; that due to neurasthenia, curable by rest and sleep; that due to psychasthenia, benefited by rest and sleep, but not curable by anything; and that due to local disease, to be cured by local treatment.

THE Morgue, which some time ago ceased to be one of the shows of Paris, is now doomed to disappearance. The destruction of the buildings has been decided upon by the municipal council. The new mortuary which is to take its place will be an annexe of the Medico-Legal Institute, which is to be erected in the Place Mazas. It is estimated that the building and installation will cost £40,000, of which the City of Paris has undertaken to find one-half.

THE Commissioner of Health of New York State has recently announced that preparations have been completed at the State Hygienic Laboratory at Albany which will enable the State to furnish free treatment for all suffering from rabies. The present system of sending patients to New York for treatment is very expensive, and it is believed that this money could be saved and treatment provided by the State for administration at home at a comparatively small expense.

THE ANTIFERMENT TREATMENT OF ACUTE SUPPURATION.

BY DAVID MACEWAN, M.D., C.M.,
PROFESSOR OF SURGERY, UNIVERSITY COLLEGE, DUNDEE.

IN 1906 Müller and Iochmann,[1] of Breslau, described a simple method of determining the presence of a proteolytic ferment in the polymorphonuclear leucocytes, and also of distinguishing coccal from tuberculous pus.

If coccal pus is dropped on a Loeffler plate, and kept at a temperature of 55 to 60° C., deep depressions form on the plate; when tuberculous pus is applied in the same way, it simply dries on the unchanged surface, no depressions being produced.

Müller[2] also suggested the employment of Millon's reagent for the same purpose. If a small, moderately deep porcelain glass is filled almost to the brim with the reagent, a drop or two of coccal pus let fall on the surface forms in the solution a deliquescing disc, and a few minutes later a red coloration appears; tuberculous pus produces a firm film, and no coloration.

The explanation of the difference of the results in the two kinds of pus is that in the former an albumen digesting ferment derived from the polynuclear leucocytes is present; while in the latter the ferment is absent, because the leucocytes, which are its source, are more in the background in tuberculous inflammation, and the lymphocytes, which are mainly present, are not ferment producers. Further, if a little blood serum is added to the coccal pus, the reaction does not take place, which shows that there is an antiferment present in the serum which arrests the action of the proteolytic ferment.

An endeavour has been made to give a practical application to these observations in the treatment of suppurative processes, by bringing the antiferment of blood serum into antagonism with the proteolytic ferment of leucocytes and pus, in order to limit or arrest its power of melting down the tissues of the affected part.

Good results appear to have been got from the use of transudation fluids, containing the antiferment in natural solution, from the thoracic and abdominal cavities.[3] Hydrocele fluid has also been used for the same purpose. Great pains were taken to render the fluids free from infection by filtering them through porcelain; nevertheless there are obvious objections to their employment, both real and sentimental.

There are also objections to the suggestion that has been made, to treat the patient with his own serum prepared from blood procured by the insertion of a cannula into a vein.

The serum derived from the lower animals is unsuitable because of its deficient antiferment content; but it has been found that the content can be increased by immunizing the animals with the ferment of human pus.[6]

Further investigations have shown that the leucocytic antiferment and antipancreas-trypsin are evidently identical, and that in the preparation of the animals pancreas-trypsin, like leucocytic ferment, has the effect of increasing the antiferment to the extent of making it equal to that of the normal human serum.[4] Accordingly Merck of Darmstadt uses pancreas trypsin in the preparation of an animal serum, which he terms "leucofermantin." Such a preparation has obvious advantages if it can be shown to be as effective in its action as the human fluids that have hitherto been used.

TECHNIQUE OF THE TREATMENT.

What appears to have been chiefly employed by those who have written on the subject was the carefully prepared fluid from cases of hydrothorax and ascites.

The most suitable cases for the treatment are circumscribed abscesses with sharp limitation of the suppurative process, because it is essential that the antiferment should be brought into direct contact with the pus-producing surface; hence, in infiltrating suppurations the therapeutic effects, though sometimes good, are, as a rule, less favourable.

The earlier method in dealing with abscess was to empty its cavity by a small incision, to wash it out with the serum, to introduce a gauze tampon soaked with the same, and then to apply a moist aseptic dressing. The

same dressing was repeated on the following day, but generally in twenty-four hours the cavity was found to be free of pus, its surface dry or secreting only a watery fluid, and further antiferment dressing was usually unnecessary; the wound could be treated as aseptic and healed quickly.

Latterly, Peiser of Breslau and Kolaczek of Tübingen have employed aspiration and injection of serum instead of incision.[5 7] In suitable cases the method has yielded good results, and it has the special advantage of producing good cosmetic effects.

Subjoined are notes, drawn up by my house-surgeon, Dr. Cunningham, of a series of cases which I have treated by leucofermantin kindly supplied to me by Merck of Darmstadt. With two exceptions, they were dealt with by aspiration and injection. I used a fairly large needle, and, after evacuating the abscess, I injected and withdrew a small quantity of serum, so as to clean out the cavity as thoroughly as possible before making the final injection, which was allowed to remain; a moist aseptic dressing was then applied. If the aspiration had to be repeated, the needle was inserted through the old puncture, so as to save pain. The quantity of serum left in varied, according to the size of the abscess, from 2 c.cm. to 15 c.cm.

CASE I.—Mrs. M., aged 38. September 14th: Axillary abscess of fourteen days' duration. Aspirated; 2 oz. of pus withdrawn, and ½ oz. leucofermantin injected. September 15th: Pain and tenderness very much diminished. Aspirated; 4 oz. reddish-brown fluid removed, and 2 drachms of leucofermantin injected. September 20th: Aspirated; some reddish-brown fluid removed. September 23rd: Abscess cavity obliterated.

CASE II.—M. R., aged 40. October 16th: Large, intensely red, tender and fluctuating swelling in left side of neck. Incised under ethyl chloride spray; large quantity of pus. Cavity irrigated with leucofermantin and lightly tamponed with gauze soaked in leucofermantin; aseptic dressing. Dressed in same way for next two days; only slight serous discharge, redness and tenderness gone; healed rapidly.

CASE III.—J. M., aged 18. November 3rd: Abscess of mamma. Aspirated; 1 oz. pus removed and 3 drachms leucofermantin injected. Slight serous discharge took place from the puncture for the next two days. November 11th: Recovery complete.

CASE IV.—J. M, aged 11. November 19th: Acute abscess in front of upper part of thigh, 3 in. in diameter. Skin over fluctuating area very thin. Aspirated; 1 oz. of pus withdrawn and 2 drachms of leucofermantin injected. Sterile gauze dressing. On the next two days some leucofermantin was injected through a small opening that had formed in the thinned skin. November 25th: Abscess quite healed.

CASE V.—J. W., aged 19. August 3rd: Axillary abscess. Aspirated; a considerable amount of pus drawn off, and 2 drachms of leucofermantin injected. August 6th: Diminution of swelling and redness; some fluctuation. August 9th: Quite recovered.

CASE VI.—Mrs. W., aged 33. November 23rd: Mammary abscess swelling 2 in. in diameter; 1 oz. of pus drawn off by aspiration and 2 drachms of leucofermantin injected. November 25th: Aspiration repeated; serous discharge; 1 drachm of leucofermantin injected. November 30th: Quite recovered.

CASE VII.—R. O., aged 14 years. September 16th: Mammary abscess; swelling, 2 in. in diameter; aspirated, a quantity of thick pus removed, and 2 drachms leucofermantin injected. September 17th: Swelling and redness diminished; syringed out through puncture with leucofermantin. September 20th Recovered.

CASE VIII.—G. S., aged 37 years. December 15th: Cellulitis of front of upper part of forearm; area 4 in. in diameter; fluctuation; incision made 2 in. long and ½ oz. pus evacuated; plugged with gauze soaked in leucofermantin. December 16th: Swelling and redness diminished; still some pus; washed out with leucofermantin and plugged with gauze soaked in the same. December 17th: Two small abscesses incised and treated in same way. Dressed with leucofermantin daily till December 22nd; there was then no discharge, and wounds were looking dry and granulating.

CASE IX.—T. R., aged 14. December 21st: Abscess of forearm 2 in. in diameter; skin very red and considerable surrounding infiltration; incision; irrigated and tamponed with gauze soaked in leucofermantin. December 22nd: Looking clean and dry; redness and pain gone. December 27th: Granulating wound nearly healed.

CASE X.—F. T., aged 2. November 26th: Acute abscess under chin. Aspirated; 1 oz. pus withdrawn; washed out with leucofermantin, then 2 drachms injected and allowed to remain; injection repeated four times at intervals. December 9th: Quite recovered.

CASE XI.—L. M., aged 5. December 11th: Abscess of arm. Aspirated; 2 drachms of pus drawn off; washed out with leucofermantin and ½ drachm injected. December 16th: Quite recovered.

CASE XII.—A. W., aged 14. December 9th: Abscess on back of neck size of walnut. Aspirated, and ½ oz. pus withdrawn; washed out with leucofermantin and 1 drachm injected. December 13th: Swelling has nearly disappeared. December 16th: Quite gone.

CASE XIII.—B. W., aged 22. December 17th: Abscess of mamma, size of apple; ½ oz. of pus removed by aspiration leucofermantin injected, repeated twice. December 25th Recovered.

CASE XIV.—M. F., aged 18. October 12th: Infiltrating suppuration of mamma. Aspirated, and injected several times without improvement; Bier's suction treatment was then adopted with success.

CASE XV.—Mr. W., aged 25. December 18th. Large, red, tender, fluctuating swelling on right side of neck; aspirated and injected, 2 oz. of pus; repeated four times. December 30th: Nearly closed, small sinus with slight serous discharge; examination of pus showed a pure streptococcal infection, probably accounting for the resistance to treatment.

With the exception of Cases XIV and XV the results were highly satisfactory. Recovery took place sooner than it would have done under the ordinary treatment, and, in the aspirated cases, without any visible scarring—an important matter in abscesses occurring on the face and neck. In Case XV, even although the progress was slower, probably owing to the purely streptococcal character of the infection, recovery took place comparatively early.

In the two cases treated by incision the rapid drying up of the purulent discharge and cleaning of the wound were very noticeable.

I feel convinced, from my experience of the method, that the principle on which it is based is sound, and that it opens up a new pathway in the physiological treatment of suppurative inflammation.

The serum employed probably possesses bactericidal and other defensive properties besides its antiproteolytic power.

One of the many explanations of the beneficial effects of Bier's congestion hyperaemia in suppurative inflammation is that they are due to the flushing of the focus with transudation fluid from the distended vessels. Both methods therefore appear to attain the same object in different ways—in the one through the action of serum produced by physiological processes and reaching the part from within; in the other by direct application from without.

REFERENCES.

[1] Müller and Iochmann, *Münch. med Woch.*, 1906, No. 26. [2] Müller, *Zentralbl. f. inn. Med.*, No. 12, 1907. [3] Müller and Peiser, *Münch. med. Woch.*, No. 17, 1908. [4] Iochmann and Kautorowicz, *Münch. med. Woch.*, No. 14, 1908. [5] Peiser, *Zentralbl. f. Chir.*, No. 26, June 27th, 1908. [6] Müller, *Zentralbl. f. Chir.*, No. 3, January 16th, 1909. [7] Kolaczek, *Zentralbl. f. Chir.*, No. 30, July, 1908.

OBSERVATIONS ON THE VACCINE TREATMENT OF A SERIES OF CASES OF STAPHYLOCOCCIC INFECTIONS.*

BY A. CLARKE BEGG, M.D., CH.B.EDIN., M.B.LOND.,
SWANSEA.

DURING the last few years I have taken special interest in the vaccine treatment of bacterial diseases, and have had the opportunity of treating a large number of cases of this kind. I have also had the opportunity of working in Sir A. E. Wright's laboratory and attending his clinics, and would like to take this opportunity of acknowledging the courtesy and kindness both of himself and his staff at St. Mary's.

In order to avoid confusion, I think it best to take a definite series of some one infection. At first I had intended to bring forward a series of some of the less common infections, such as local tuberculous lesions, chronic catarrhal conditions, streptococcic infections, or infections by *Bacillus coli*, but I decided to take staphylococcic cases only—first, because of their frequency; and, secondly, because several articles have recently appeared in the medical press tending to throw doubt on the efficacy of vaccine treatment in this condition.

The following cases are selected as illustrating different types, and are a fair sample of those treated.

CASE I.

Male, aged 19, complained of a very painful boil on his chin. Has had slight acne for some years but there is very little now. General health good. Boil incised; bacteriological examination

* Read before the Swansea Division of the British Medical Association.

of pus gave a pure culture of *Staphylococcus pyogenes aureus*. Opsonic index to his own organism, 0.75. Injected stock vaccine containing 250 million *Staphylococcus pyogenes aureus*.

Seven Days Later.—No subjective effects after injection. Boil on chin healed, but has another smaller one on brow. Injected vaccine containing 250 million *Staphylococcus pyogenes aureus* made from his own organism.

Seven Days Later.—Boil on brow healed. Has had one very small one on neck. Opsonic index to own organism, 1.1. Injected 400 million *Staphylococcus pyogenes aureus* (own organism).

Six Months Later.—He has had no recurrence.

CASE II.

Male, aged 45, has had boils on neck for last three weeks, becoming progressively larger and more painful. Has now a very large one on neck; health otherwise good. Incised boil, grew culture from pus (pure culture of *Staphylococcus pyogenes aureus*), and from this made a vaccine. Opsonic index to own organism, 0.82.

Two Days Later.—Boil much better, but another is beginning. Injected 400 million *Staphylococcus pyogenes aureus* (own organism).

Five Days Later.—No subjective effects from the injection. The incised boil has quite healed and the later one aborted. Injected 500 million *Staphylococcus pyogenes aureus* (own organism).

Seven Days Later.—Slight malaise the day after last injection. Neck clear, and great diminution in size of indurated bases of all previous boils. Opsonic index to own organism, 0.95. Injected 400 million *Staphylococcus pyogenes aureus* (own organism).

Three Months Later.—He has had no more boils.

CASE III.

Male, aged 39, complained of boil on back of neck. Has been having boils off and on for three years. Incised boil; examination of pus showed pure culture *Staphylococcus pyogenes aureus*. Opsonic index to own organism, 0.72. Injected 250 million *Staphylococcus pyogenes aureus* (stock vaccine).

Seven Days Later.—Another boil on neck. Injected 400 million *Staphylococcus pyogenes aureus* (stock vaccine).

Seven Days Later.—Two more boils on neck. Opsonic index to own organism, 0.84. Injected 500 million *Staphylococcus pyogenes aureus* (own organism).

Ten Days Later.—No more boils; old ones healed. Opsonic index to own organism, 1.15.

Nine Months Later.—No recurrence.

CASE IV.

Male, aged 23, complained of large boil in right axilla. Has been having boils very frequently during the last four years. When younger had acne. Incised boil; from pus obtained pure culture *Staphylococcus pyogenes aureus*. Opsonic index to own organism, 0.68.

Four Days Later.—Injected 250 million *Staphylococcus pyogenes aureus* (own organism).

Seven Days Later.—No subjective effects from injection. Has had two small boils since which aborted. Injected 500 million *Staphylococcus pyogenes aureus* (own organism).

Eight Days Later.—No fresh boils. Opsonic index to own organism, 1.27. Injected 750 million *Staphylococcus pyogenes aureus* (own organism).

Ten Days Later.—Skin quite clear. Feels much better in health. Injected 750 million *Staphylococcus pyogenes aureus* (own organism).

Seven Months Later.—He has left the town, but I have heard that he has kept quite well and free of boils.

CASE V.

Male, aged 46, has been troubled with boils for many years. They come on different parts of the body, and he is seldom more than two or three weeks free of them. At present there is one boil on the neck, which is healing. Health otherwise good. Opsonic index to *Staphylococcus pyogenes aureus*, 0.65. Injected 350 million *Staphylococcus pyogenes aureus* (stock vaccine).

Fourteen Days Later.—No subjective effects from injection. One boil since which aborted. Injected 500 million *Staphylococcus pyogenes aureus* (stock vaccine).

Fourteen Days Later.—Has had one other abortive boil. Opsonic index, 0.9. Injected 650 million *Staphylococcus pyogenes aureus* (stock vaccine).

Eighteen Months Later.—I wanted to continue treatment longer, but did not see patient for eighteen months, when he told me that he had had no return of the trouble.

CASE VI.

Male, aged 27, had been troubled for about four years with small boils and pustules about the face and neck. At present has two small painful ones in the line of the collar. Bacteriological examination of pus, pure culture *Staphylococcus pyogenes aureus*. Opsonic index to own organism, 0.5. Injected 250 million *Staphylococcus pyogenes aureus* (stock vaccine).

Ten Days Later.—No subjective effects. Neck better; one fresh pustule on cheek. Injected 500 million *Staphylococcus pyogenes aureus* (stock vaccine).

Fourteen Days Later.—Another fresh boil on neck. Injected 500 million *Staphylococcus pyogenes aureus* (stock vaccine).

Twelve Days Later.—Neck well, but fresh pustule on forehead. Opsonic index, 0.7. Injected 500 million *Staphylococcus pyogenes aureus* (own organism).

Fourteen Days Later.—No fresh pustules. Opsonic index, 1.1. Injected 750 million *Staphylococcus pyogenes aureus* (own organism).

Sixteen Days Later.—No recurrence. Injected 1,000 million *Staphylococcus pyogenes aureus* (own organism).

Two more injections were given after this at intervals of eighteen days of 1,500 million *Staphylococcus pyogenes aureus* (own organism). Opsonic index, 1. Six months have since elapsed, and the patient keeps quite well.

CASE VII.

Male, aged 37, had a crop of boils nine years ago, and since then has never been free for more than a week or two at a time. At the beginning of the trouble they were typical large boils; in later years more commonly pustules, with a small root, but occasionally reverting to the earlier type. Has always treated them antiseptically, and has used various antiseptic lotions, baths, etc. Internally has taken endless tonics, calcium sulphide, yeast, and so on, without benefit. Health otherwise good. At present has two small boils on neck. Bacteriological examination of pus, pure culture *Staphylococcus pyogenes aureus*. Opsonic index to own organism, 0.74.

Three Days Later.—Injected 500 million *Staphylococcus pyogenes aureus* (own organism).

Twenty-eight Days Later.—As he was living at a distance, I arranged with his own doctor that he should see the patient in ten days, send me a sample of blood for the index, and I would then forward a suitable dose of the vaccine. I heard nothing more for a month, when the doctor sent the blood, and said that as the patient was quite free of boils, he thought he would wait to see if any more came before having any more injections. Opsonic index to own organism, 1.4.

Six Months Later.—There has been no recurrence.

CASE VIII.

Male, aged 17, complained of large superficial abscess in left axilla. Has been having a succession of boils for the last six months. He is a miserable-looking, weedy, nervous lad. Would not allow me to incise abscess. Came back next day, as abscess had burst. Bacteriological examination of pus, pure culture *Staphylococcus pyogenes aureus*. Opsonic index to own organism, 0.56.

Two Days Later.—Still a good deal of discharge from abscess. Injected 300 million *Staphylococcus pyogenes aureus* (own organism).

Six Days Later.—Abscess healed; has one pustule on left arm. Injected 600 million *Staphylococcus pyogenes aureus* (own organism).

Ten Days Later.—Skin clear; looks a different boy, healthy and strong. His mother says that she has not seen him looking so well for years. Opsonic index to own organism, 1.3. Injected 750 million *Staphylococcus pyogenes aureus* (own organism).

Eighteen Months Later.—Keeping in excellent health and free of boils.

CASE IX.

Male, aged 23. Three years ago a cut on the index finger of the right hand apparently became septic, for abscess formed, which, after opening, healed satisfactorily. A fortnight later, however, he had a boil on his neck, and since then has had boils and pustules frequently; hardly ever quite clear of them. Has now got two small ones on face. Health otherwise fair. Six months ago he had a course of vaccine treatment for his condition—apparently stock vaccine—but derived no benefit. Bacteriological examination, pure *Staphylococcus pyogenes aureus*; opsonic index to own organism, 0.66.

Three Days Later.—Injected 250 million *Staphylococcus pyogenes aureus* (own organism).

Ten Days Later.—Felt seedy day after last injection. Has one small boil on neck. Injected 250 million *Staphylococcus pyogenes aureus* (own organism).

Ten Days Later.—No subjective effects from last injection. Skin now clear. Opsonic index to own organism, 1.3. Injected 500 million *Staphylococcus pyogenes aureus* (own organism).

Eighteen Days Later.—Still clear. Feels much better in health. Opsonic index to own organism, 1.24. Injected 750 million *Staphylococcus pyogenes aureus* (own organism).

Twelve Months Later.—Has kept quite well and skin clear.

CASE X.

Male, aged 20, complains of psoriasis and boils. Ten years ago had psoriasis on head, which under treatment disappeared for a year, and then returned. Was confined to bed till six months ago, when it spread to body, arms, and legs, all of which are now covered. The last few weeks he has had a number of boils. Father and sister have psoriasis. I explained that vaccine treatment would cure the boils, but could not say whether it would have any effect on psoriasis. Opsonic index to *Staphylococcus pyogenes aureus*, 0.88. Injected 500 million *Staphylococcus pyogenes aureus* (stock vaccine).

Ten Days Later.—No subjective effects from injection. The psoriasis spots are more painful. One fresh boil. Injected 500 million *Staphylococcus pyogenes aureus* (stock vaccine).

Seven Days Later.—Boil has gone; otherwise no effect. Opsonic index to *Staphylococcus pyogenes aureus*, 1.1. Injected 750 million mixed staphylococci (stock vaccine).

Seven Days Later.—No effect on psoriasis. Injected 1,000 million mixed staphylococci (stock vaccine).

Ten Days Later.—Psoriasis spots decidedly more painful, and patient gave up treatment.

CASE XI.

Male, aged 29, complained of pustules on neck, face, and scalp, going on for over two months in spite of treatment —tonics internally, antiseptics, etc., externally. Was supposed to have had syphilis eighteen months ago, and went on with treatment for a year. As treatment had been begun before secondary symptoms had developed—and none did develop—patient thought that a wrong diagnosis had been made. I thought that diagnosis had probably been correct, but decided to try vaccine treatment first. Bacteriological examinations, pure *Staphylococcus pyogenes aureus*. Opsonic index to own organism, 0.78.

Three Days Later.—Injected 250 million *Staphylococcus pyogenes aureus* (own organism).

Seven Days Later.—No effect. Injected 500 million of the same.

Ten Days Later.—No new spots. Face and nose drying up. Crusts on places on scalp. Opsonic index to own organism, 0.88. Injected 750 million of the same.

Eight Days Later.—Nose and face well. Removed crusts on head, and found a few drops of pus below each. Ordered cyllin lotion. Injected 750 million of the same vaccine.

Seven Days Later.—Patient has got bad cold. Face keeps well; head much better. Gave no injection.

Nine Days Later.—Feels better, gained weight, and skin clear. Opsonic index, 1.12. Injected 1,000 million of the same.

He kept all right for six weeks, when ulceration appeared on the nose, obviously syphilitic, which cleared up under ordinary specific treatment.

CASE XII.

Male, aged 26. Had for six weeks suffered intolerable itching (worse at night) over arms, legs, and slightly on body. A few days later crops of vesicles appeared, which soon became pustular, and after some days gradually dried up, only to be succeeded by fresh crops. Has had a variety of treatment—sulphur baths, hydrarg. ammon. and tar ointments, various lotions, baths of cyllin, etc.—but the condition has got worse. Arms and legs practically covered with superficial pustules ranging in size from a mere point up to a diameter of an inch. Flexor and extensor surfaces alike affected. Only a few on body. No sign of scabies burrows between the fingers. He feels "seedy." Bacteriological examination of pus, almost pure culture of streptococcus; a few *Staphylococcus pyogenes aureus* (probably secondary). Opsonic index to his own streptococcus, 0.6.

Three Days Later.—Injected 15 million streptococci (own organism). Local treatment, continued cyllin baths.

Eight Days Later.—All spots dry; no fresh ones. Injected 25 million streptococci (own organism).

Ten Days Later.—Skin quite clear. Feels better in health than he has done for months. Opsonic index to own streptococcus, 1.34. Injected 25 million of the same vaccine.

Ten Months Later.—He has remained quite well.

CASE XIII.

Male, aged 18. Acne. Had scarlet fever when 3 years old, and this was followed by "running" right ear which has persisted. Three years ago a polypus was removed from this ear; adenoids were removed from the naso-pharynx at the same time. The acne commenced about fifteen months ago, first on the cheeks, then on the body. The back is now covered to such an extent that there was difficulty in finding a clear spot to make an injection. The face is covered with "black-heads" and pustules—the latter predominating. There is still a slight discharge from the right ear. Bacteriological examination of pus, pure *Staphylococcus pyogenes albus*. Opsonic index to own organism, 0.84.

Three Days Later.—Injected 250 million *Staphylococcus pyogenes albus* (own organism).

Ten Days Later.—No effect from injection. Opsonic index, 0.82. Injected 500 million of the same vaccine.

Ten Days Later.—Back very much better; face a little better, especially as regards the pustules. Opsonic index, 0.95. Injected 500 million of the same vaccine.

Twelve Days Later.—Back almost clear; face slightly improved. Discharge from ear has ceased. Injected 750 million of the same vaccine. Made another culture and found the acne bacillus in addition to *Staphylococcus pyogenes albus*.

Twelve Days Later.—Back keeps well; face about the same. Injected 750 million *Staphylococcus pyogenes albus* and 10 million acne bacillus (both from own organism).

Twelve Days Later.—Face much better; no pustules, but still a good many "black-heads." Ordered compound sulphur soap; also the occasional use of a sand soap. Injected 750 million *Staphylococcus pyogenes albus* and 10 million acne bacilli.

Fourteen Days Later.—Face better; back keeps well. Opsonic index to *Staphylococcus pyogenes albus*, 1.05. Injected 1,000 million *Staphylococcus pyogenes albus* and 15 million acne bacilli (both from own organism). Treatment had to be discontinued, as the patient left Swansea; and, although he promised to report progress, I have heard nothing further. In this case there was very great improvement, but not complete cure.

CASE XIV.

Female, aged 2 years 3 months. Since 3 months old spots began to appear on the body. The usual course of these was to appear as a papule the first day, becoming pustular on the second, then gradually disappearing, only to be succeeded by a fresh crop. At first her health did not appear to suffer, but the last six months she has been peevish, has little appetite, and is generally out of health. About a fortnight ago she had an abscess the size of a hen's egg over the left great trochanter. This had no connexion with bone, and after incision and drainage healed up well. Since then, however, there has been no improvement in health, and the other pustules are coming as badly, if not worse than before. Bacteriological examination of pus, *Staphylococcus pyogenes aureus* and *Staphylococcus pyogenes albus*, in the proportion of four of the former to one of the latter. Opsonic index to *Staphylococcus pyogenes aureus*, 0.72.

Five Days Later.—Injected 50 million *Staphylococcus pyogenes aureus* and *Staphylococcus pyogenes albus*, mixed in the proportion of four to one, both prepared from her own organisms.

Seven Days Later.—Mother reports that from the day after the injection the child's appetite improved; from being listless and peevish she became bright and playful. Her colour and general appearance is much better. She has now two pustules, one on the left leg and another on the right ear. Injected 75 million organisms (same vaccine).

Three Days Later.—Abundant fresh crop of pustules came out the day after last injection, and general health not nearly so good. Opsonic index to *Staphylococcus pyogenes aureus*, 0 53.

Fourteen Days Later.—Only one pustule, on right cheek. Opsonic index to *Staphylococcus pyogenes aureus*, 0 9. Injected 25 million organisms (same vaccine).

Eight Days Later.—No spots; gained 2 lb. in weight; looks a different child. Injected 40 million organisms (same vaccine).

Seven Days Later.—Still no spots. Opsonic index to *Staphylococcus pyogenes aureus*, 1.1. Injected 50 million organisms (same vaccine).

Fourteen Days Later.—Skin quite clear; put on 1½ lb. more; is in excellent health. Opsonic index to *Staphylococcus pyogenes aureus*, 1.56. Injected 50 million organisms (same vaccine).

This is a recent case, so I cannot say whether the cure is permanent.

CASE XV.

Female, aged 39. Three and a half months ago had cellulitis of left leg caused by an abrasion on the heel. The leg was much swollen; she had a high temperature, and two very free incisions were made under an anaesthetic. Recovery was slow, and at the end of three weeks after the operation the wounds were still open, and there was much swelling of the leg and foot. At the end of six weeks one incision had healed firmly, but the other was still unclosed and was discharging a small quantity of pus. From then till the present time, although the patient has had change of air and the general health is good, this incision has skinned over several times but always broken down again. The swelling of the leg has persisted, and very little walking makes this very marked. The lower half of leg, ankle, and dorsum of foot are swollen. A little above and outside the external malleolus is a small opening in the scar of one of the incisions, and from this a drop of thin pus was expressed. There is a good deal of induration round this opening. Bacteriological examination of pus, pure culture *Staphylococcus pyogenes aureus*. Opsonic index to own organism, 0.6.

Two Days Later.—Injected 500 million *Staphylococcus pyogenes aureus* (own organism).

Three Days Later.—Wound healed; induration and swelling much less. Patient says that the leg is much more comfortable and "natural" than it has been since trouble commenced.

Three Days Later.—Improvement maintained. Opsonic index to own organism, 1.5. Injected 750 million *Staphylococcus pyogenes aureus* (own organism).

Ten Days Later.—Wound firmly healed; induration gone and practically no swelling of leg, although patient has been walking much more than before. Injected 750 million *Staphylococcus pyogenes aureus* (own organism).

Two Months Later.—The leg has kept quite well.

This is a successful result, but much the most interesting feature is to follow. The patient from infancy has had chronic bronchial catarrh; constant cough, accompanied by profuse muco-purulent expectoration. Very liable to exacerbations on taking the least cold, but present the whole time, sometimes better, sometimes worse. It naturally interfered very seriously with her comfort, especially from a social point of view. When the vaccine treatment for the leg was begun she asked if I thought that a similar line of treament would be at all likely to benefit the cough. Seeing that the complaint was of nearly forty years' standing, I did not hold out very much hope.

When she came to report after the first injection of the staphylococcic vaccine, she said that, "strange to say, my cough has not been nearly so troublesome." I did not pay very much attention, but when, after the next injection, she said that she had never been so free of cough and expectoration, I made a thorough bacteriological examination of the sputum. I found that there was a great deal of *Staphylococcus pyogenes aureus* in it; also *Micrococcus catarrhalis* and Friedländer's bacillus. After the leg was cured I made up a mixed vaccine of these organisms, and she has just been started on a course of this. Even now, however, the cough and expectoration are very much less than they have been all her life.

My experience bears out the almost universal conclusion that the treatment of acute recent cases of boils is very successful. As antiseptic treatment of this class of

case, however, is often quite satisfactory, or indeed no treatment at all, too much stress must not be laid on the good results obtained by vaccines. On theoretical grounds one would expect this treatment to do good, as the opsonic index to staphylococcus is low; and this depression of the index probably precedes the infection. By comparing the results in some cases treated by vaccines with other cases, which so far as we can judge are similar, treated without vaccines, I think that acute cases of boils are benefited by vaccine treatment. The course of the disease is shortened, the boil ripens sooner, and after the discharge of pus it heals up more quickly and leaves less induration.

It is with regard to the chronic cases that there appears to be most divergence of opinion. In these cases, however, we can get much more evidence as to the value or otherwise of the treatment, than in the acute cases. It is, of course, possible that an old-standing complaint might, by a mere coincidence, clear up after the commencement of vaccine treatment; but when, time after time, conditions that have been constantly present, in spite of all other kinds of treatment, for one, two, five, or even nine years, disappear under the use of vaccines, it is a fair inference that we are dealing with a case of *propter hoc*, and not merely *post hoc*. Some cases react with extraordinary rapidity, others take longer; but I have not seen a failure in a pure staphylococcic lesion, however long the duration, provided that the patient will give it a fair trial. Of course, as in Case XI, where there was an underlying syphilitic condition, this could not be expected to be cured by any increase of immunity to staphylococcus; but even there it is noteworthy how the syphilitic manifestation was kept in check for a time.

I have treated a considerable number of cases of acne with varying results. Some did quite satisfactorily, others only did well up to a certain point. Case XIII is fairly typical of a severe case. Preponderance of the pustular element is favourable. The disease is not always a pure staphylococcic infection, but probably due in part to the acne bacillus, and the addition of some of these to the vaccine usually improves the results. Case XV is a good example of the benefit derived from vaccine treatment in cases of cellulitis, which, after incision, are slow to heal.

What has struck me very much is the improvement in the general health of the patients under treatment. They seem to experience an increased sense of well-being as immunization advances.

With regard to dosage in children, Case XIV illustrates the necessity of beginning with a very small quantity, in order to avoid the production of a negative phase.

Value of the Opsonic Index in Diagnosis and Treatment.

It is not necessary to enter into what the opsonic index is, or how it is estimated, but I would like to say in passing that the difficulties of the process have been unduly emphasized. To any one who has been accustomed to carry out bacteriological and general laboratory work the technique presents no special difficulties. There are, of course, many details that require some practice to carry out quickly and neatly. Accurate and conscientious working is also a necessity if the margin of error is to be kept down. The use of a special spreader, with a concave end, for making the films (first suggested, I believe, by Dr. Fleming of St. Mary's Hospital) is of great importance. The leucocytes are nearly all drawn to the free edge of the film and deposited in a row, thus greatly facilitating the work of counting their contents. Sir A. E. Wright's method of estimating the opsonic index has been much criticized, and various other procedures have been suggested. I am rather favourably impressed with a modification of Leishman's original method. This approaches more closely the actual conditions in the body, as the patient's own leucocytes are used with his own serum, and the leucocytes do not get nearly so much handling before being set to work.

Method.

An equal volume of the patient's blood and a suspension of the organism (in 1 per cent. sodium citrate, with 0.85 per cent. sodium chloride) is drawn into a warmed pipette, expressed on to a warm slide, thoroughly mixed, drawn into the pipette again; the pipette is then sealed, and placed in the incubator. A sample of normal blood is treated in the same way. After fifteen minutes' incubation the tubes are withdrawn, and films are made and counted in the usual way. It is important to use no pressure in obtaining the blood, otherwise there will not be the same proportion of leucocytes in the two mixtures, and this will vitiate the result.

Whatever method of obtaining the index is employed, it is very desirable to use a culture of the patient's own organism for making the bacterial emulsion.

There is one other point that has received too little attention—namely, leucocytosis. It does not seem reasonable to think that if a patient has, say, twice the usual number of leucocytes, the opsonic index of his serum is, *per se*, quite a fair criterion of the real state of his resistance.

In skin lesions the diagnosis is usually obvious from the appearance of the case, and from a bacteriological examination of the pus. But where we find a mixed infection, as Case XII, the question arises, which is the primary cause? The opsonic index helps here, as we may find the index normal to one of them, subnormal to the other, indicating that the latter is probably the culprit. In more obscure cases, where the patient's organism cannot be obtained, a wide departure from the normal in the index to the suspected organism would confirm the belief that it was the causative one.

There has been much discussion as to the necessity of knowing the opsonic index in order to regulate the dose of vaccine, and also to decide what intervals to allow between the doses. The effect on the index of a medium dose of vaccine is, first, a slight fall (negative phase); secondly, a rise (positive phase); thirdly, usually a more or less gradual fall. If the dose be too small, there is no negative, only a small and badly sustained positive, phase. If the dose be too large, there is a prolonged negative phase with a slow recovery. To get the best results the second injection should be given about the time that the positive phase reaches its height. The danger to be guarded against is that of injecting during a negative phase, which would cause a further, and perhaps dangerous, fall. I do not think that in ordinary cases of staphylococcic skin infections the estimation of the index is necessary; a negative phase being sufficiently clearly shown by a fresh crop of boils, pustules, etc., as in Case XIV. In the deeper seated and more serious acute infections, where there is nothing external to guide one, and where autoinoculation is probably going on, it is imperative to estimate the index and regulate the doses accordingly. Even in the skin infections it is very interesting to follow its course; at the beginning of treatment the index is low; when cure has taken place, it is usually high or at least about normal, but it does not always quite follow the clinical symptoms. When this happens I prefer to be guided by the clinical symptoms, for, as some one has remarked, it is the patient's disease and not his opsonic index that is under treatment.

The Relative Efficiency of Stock Vaccines, and Those Prepared from the Patient's Own Organism.

A vaccine is a suspension of dead bacteria in normal saline, to which a little antiseptic has been added. In order to make it we must have a pure culture of the organism. In many cases of staphylococcic lesions we can get this direct from the patient's pus. If there is a mixed infection we must separate the organisms by the ordin ary laboratory methods. Having isolated the organism, an agar tube is inseminated, incubated for eighteen to twenty-four hours, and from this young culture the vaccine is prepared. Probably no two workers follow exactly the same method, but the essentials are—an even emulsion, of known strength, and absolute sterility. An important practical point which I have not seen mentioned, is to make the vaccine of such a strength that only a fraction of 1 c.cm. is required for a dose. I have found that patients object much more to the injection of the fluid than to the prick of the needle, and if the quantity injected is small they suffer much less pain. I usually make up staphylococcic vaccines so that 1 c.cm. contains 2,000 million organisms, and it is seldom necessary to inject more than one-third of a c.cm.

For certain infections Sir A. E. Wright insists that the vaccine should always be prepared from the patient's own organism; but in the case of staphylococcus he countenances the use of a stock vaccine, unless any difficulty is encountered. In his own clinic stock vaccines

are largely used. While this may be necessary in a large hospital clinic, I feel sure that it is not, especially in chronic cases, the ideal treatment. In acute cases one has to fall back on a stock vaccine for at least the first injection, but I am certain that all, or nearly all, the unsatisfactory results in cases of chronic staphylococcic skin infections are due to not using a vaccine prepared from the patient's own organism. The vaccine should if possible consist of the exact race and strain of the organism to which immunity is desired. There are several well marked varieties of staphylococci—*Staphylococcus pyogenes aureus*, *Staphylococcus pyogenes albus*, etc.; but I think it is certain that among, say, the *aureus* variety there are many subvarieties. Our methods of examination and classification, although apparently elaborate, are really, considering the minute size of a coccus, exceedingly crude. Their morphological characters, staining reactions, cultural properties, etc., may be apparently similar, and yet there may be minute though important differences which we cannot detect. Every one who has worked with *Staphylococcus pyogenes aureus* must have noticed that, even under identical conditions, there is considerable variation in the amount and shade of pigmentation, the rate of growth, and the reaction to various stains The difficulty in accurately placing bacteria is increased by the fact that, even in a twenty-four-hour old culture we are probably looking at twenty or thirty generations Again, it is not long since there were only two kinds of streptococci described; now one can hardly pick up a bacteriological journal without finding mention of new varieties. Taking all these points into consideration, I am sure that whenever possible it is important to use the identical organism which has caused the infection.

When we turn to practical results we find this conclusion confirmed. In Case IX treatment by a stock vaccine had been previously tried without benefit; the condition rapidly cleared up when an autogenous vaccine was used. In several of the other cases the patient did not make much progress until a special vaccine was employed. I feel confident that if autogenous vaccines were used in, at least, all the chronic cases, we would hear little more of unsatisfactory results. Some cases, even chronic ones, undoubtedly do well on stock vaccines. Case V is an example, but it seems to me that it is a case of hit or miss. The difficulty is only partially obviated by using several strains in making up the stock vaccine. It is still quite possible that the one required is not included; and, even if it be, the effective dose is only a fraction of the nominal one. True, one can begin with a stock vaccine, and if that fails go on to an autogenous; but, in case of failure, one is apt to lose the confidence of the patient, and so bring undeserved discredit on the whole treatment.

CONCLUSIONS.

Briefly summarized, my conclusions are as follows:

1. That vaccine treatment is of great service in most staphylococcic infections.
2. That staphylococcic skin lesions, however chronic, are curable by its means.
3. That in many cases estimation of the opsonic index is unnecessary.
4. That the best results are only obtained by the use of autogenous vaccines.

ULCERATION OF THE FACE AND FAUCES TREATED BY BACTERIAL VACCINES.

BY J. COURTENAY MACWATTERS,
M.R.C.S., L.R.C.P.,
HONORARY MEDICAL OFFICER, ALMONDSBURY MEMORIAL HOSPITAL.

THE following case seems worth recording as a testimony to the efficacy of vaccine treatment. The writer has failed to find in any textbook the description of any similar case

The patient, a pale-looking man, aged 34, presented himself on April 26th, 1909, complaining of ulceration of the face, of a sore throat, and a discharge from the ear.

Previous History.

In September, 1908, his wife died from phthisis, and he, having done much of the nursing for the last few weeks of her illness, became "run down" He fumigated the death-chamber by boiling crude carbolic acid, which caught fire, and this necessitated his being in the room for about half an hour. The next and following days his face was too sore to shave, and about a week later he noticed small sores on his lips, cheek, nose, and leg. They ran a very chronic course, those on the neck and leg eventually getting well. Soreness of the throat began about the same time, and was followed some weeks later by a discharge from the left ear. His sister, who entered the room at the time of disinfection, also developed similar ulcers on the face, and these, though milder in their course, were said to have made no improvement till recently.

Course.

The patient had applied all usual remedies in accordance with medical advice, but he stated that nothing had given him any marked relief, and that for the preceding six months the large sore on his lip had steadily increased. He did not suffer much pain, but experienced great inconvenience, both on account of difficulty in talking and eating, and owing to the copiousness of the aural discharge, which necessitated his plugging the ear with absorbent wool four or five times a day, to prevent the discharge from running down his neck.

Condition when First Seen.

The sore on the lip was a soft, fungating, spongy, cauliflower-like growth, infiltrating the right half of the lower lip; it was about ¾ in. long and ⅝ in. broad, presenting numerous openings discharging a thin, watery, bloodstained pus, which had dried, forming a brown scab. There was no line of demarcation between the ulcer and the healthy skin; there was no deep infiltration round it, and it was not tender. The buccal aspect of the lip was involved, appearing sodden and white, the approximating gum and corresponding surface of the upper lip were infected, and similar ulceration was commencing. The soft granulation tissue could be easily broken down with a probe. There was a newly formed superficial ulcer on the side of the chin, which had a moist red surface.

Over the mucous membrane of the soft palate, uvula, anterior pillars of the fauces and the pharynx, were scattered about 100 white ulcerated patches, 1 to 3 mm. in diameter, and when these were rubbed with a swab a few points of blood appeared. The fauces were covered with glairy mucus, and appeared as if brushed over with milk, which had left scattered drops.

The meatus of the ear was plugged with absorbent wool quite sodden with a thin pus, which the patient stated had only taken three hours to accumulate. There was a perforation of the membrana tympani. On the neck and leg the healed scars, about the size of a sixpenny piece, were pigmented.

Bacteriological Examination.

Staphylococci, streptococci, and the pseudo-diphtheria bacillus were found in the ulcer on the lip. In the throat and the discharge from the ear staphylococci and these bacilli were found, while streptococci were absent, and staphylococci only were present in the newly formed ulcer on the side of the chin. Difficulty in isolating the streptococcus owing to its being overgrown by accompanying organisms led me to postpone immediate preparation of a vaccine from this organism, and to be satisfied for the time by making autogenous vaccines of the staphylococci and bacilli.

Vaccine Treatment.

Opsonic Estimate.—The opsonic index to staphylococci was 0.80, to the bacilli 0.76. I could not determine the streptopsonic index till later for the reason mentioned above.

On May 3rd the first dose of mixed autogenous vaccine was given, 200,000 000 staphylococci and 7,000,000 bacilli, and on May 6th a marked improvement was manifest in all lesions.

On May 10th the small ulcer on the side of the chin had quite healed. A similar dose was given, with the result that four days later the ulcers in the throat quite cleared up; the aural discharge, which had greatly diminished after the first dose, had quite ceased. The ulcer on the lip had definitely improved

On May 17th the patient's condition seemed at a standstill; definite improvement had taken place, but for a week no further improvement occurred.. The ulcer on the lip, now the sole remaining lesion, during the preceding week had not improved. A larger dose of each vaccine—250,000,000 staphylococci and 10,000,000 bacilli—was therefore given, and was followed by slight improvement.

The pus now yielded a pure culture of streptococci, and from this a vaccine was prepared, and on May 24th of this 12,500,000 were given. This slightly large initial dose, which was warranted by the fact that the patient's opsonic index to this organism was only lowered to 0.81, was followed in eighteen hours by a marked negative phase, the lip becoming markedly painful and swollen. After another twelve to eighteen hours this condition passed off and the sore rapidly improved, till by the end of a week the ulcer had quite healed.

On June 1st the patient wrote to say he was practically cured. There was still a little scurfiness round the site of the big ulcer but no discharge, and he felt better than for the previous six months.

On June 5th he was seen. The ulcer on the lip had quite healed, slight redness and a little desquamation being all there was to show where the ulceration had been. The ear and throat were both healthy he was able to shave comfortably. He seemed quite well, and had regained his colour and healthy appearance.

His opsonic index to streptococci was 1.20, to staphylococci 0.98, and to the bacilli 1.12.

There are several points of interest in the etiology of this case. Its connexion with carbolic fumes did not strike the patient till a medical man asked him if he had been near burning carbolic acid fumes, as he had before seen similar lesions from this cause, and later a chemist made similar remarks spontaneously. The similarity in the affection attacking the patient's sister, who suffered the same exposure, is pertinent. In her case I am told the same chronic unyielding course has been followed by the disease, but I am also told that she has now been treated by bacterial vaccines, and is making rapid progress.

The lesions resembled syphilitic lesions more than any other, especially the mucous ulcers on the fauces. No history of such infection, however, could be obtained, and this was borne out by the fact that the "Wassermann" reaction gave a negative result.

It is noteworthy that, while the first vaccines greatly improved his condition, they failed to cure, as they were only directed against two of the three invading organisms. They succeeded in driving out the bacilli and staphylococci, leaving only the streptococci, which kept up irritation till driven out by an autogenous vaccine. The initial dose of 12,500,000 was evidently quite suitable, as, although it produced a marked negative phase, the mechanism of immunization was sufficiently good to raise his resistance to a positive phase after thirty hours, producing a well-marked phase of increased resistance, resulting in cure.

Considering the multiplicity of the infection, the chronicity of the case, and the results obtained after failure of ordinary methods, the case is interesting.

The only local applications used during the time of therapeutic immunization were frequent bathings with a lotion containing sodium citrate, 1.5 per cent., with common salt, 2.0 per cent.; while at night the ulcers were covered with small dressings of lint soaked in this same lotion. This, while preventing clotting of exuding lymph, promoted by osmosis a flow of the now highly opsonized lymph through the infected tissues. Antiseptics were not used.

I do not regard the carbolic acid as having any specific pathogenic action in this case; the sequence probably was: first, a chemical injury of the superficial layers of the skin and fauces, producing a local reduction of natural immunity, which allowed invasion by micro-organisms that happened to be present. This soon led to a lowering of his general immunity from absorption of toxic products, resulting in a chronic course, till a rising tide of general immunity was set up by the inoculations of each specific vaccine. The condition in the ear was probably due to the extension through the Eustachian tube of the pseudo-diphtheria bacillus from the fauces and naso-pharynx.

VACCINE TREATMENT OF PYELONEPHRITIS IN PREGNANCY.

By CHARLES F. ROUTH, M.D.Lond.,
SOUTHSEA.

A YOUNG married woman, aged 30, with one child aged 7, had suffered from the age of 14 from chronic constipation and an "irritable bladder," with frequent micturition. For many years also she had been unable to lie on the left side for any length of time, as that position always caused pain in the right loin sufficiently severe to awaken her if asleep. Her first child was born in 1902, the labour being normal. She has had no miscarriages.

In June, 1907, while abroad, she suffered from an attack of acute pain running up from the right iliac region towards the right kidney, with tenderness over the appendix, which lasted some days. This was diagnosed as appendicitis, and on her return to England she was seen by Mr. C. H. Fagge, who was then unable to find any trace of the disease. She enjoyed good health until June, 1908, early in which month she became pregnant. On October 1st she had another attack of pain similar to the first, lasting several days and accompanied by fever. This was also looked on as a mild attack of appendicitis. Two months later she came under my care, and I was asked to attend her in her confinement early in March. She was then in good health, and the abdomen appeared perfectly normal. On January 2nd, 1909, she had a severe rigor, followed by acute pain in the right iliac region. This was followed on January 4th by vomiting. The symptoms did not abate, and when I saw her on January 6th she was evidently acutely ill; temperature 103°, pulse 120; constant vomiting and great abdominal tenderness, especially over the appendix; and pain running from the ascending colon to beneath the liver. Micturition was frequent and painful, and there were severe rigors followed by profuse perspiration and great exhaustion. She was treated with urotropin gr. x every four hours, aspirin at night when the pain was acute, and heat locally. On January 9th, 1909, pus was found in the urine, which was acid and free from smell. It became evident that the trouble was due to some lesion in the right kidney. Owing to the long history of pain in that organ in certain positions, and the history of "irritable bladder," it was thought that some calculus might be present, or that the attack was a lighting up of some old infection. Mr. Fagge saw her again on January 11th. The pain was then much more localized over the kidney, with acute tenderness over the point of the twelfth rib, running down to the iliac region and across to the left side, the patient being quite unable to lie with her legs extended. Micturition was very frequent, being accompanied by intense urethral scalding and great vesical pain. Mr. Fagge thought that the case was one of severe pyelonephritis due to *B. coli*, possibly complicated with some old-standing trouble.

Examination of the urine showed this view to be correct; a pure cultivation of *B. coli* was obtained, and from this a vaccine was prepared. The opsonic index was 1.8. The first injection was given on January 12th, and within six hours the temperature fell from 104° to normal, and the pulse, which had varied from 120–160, to 104. All other symptoms, with the exception of the rigors, remained, a very large amount of pus being passed daily. The urotropin was continued, small doses of morphine being occasionally given for the pain, which was still intense, and a purge each night. Five days after the injection the opsonic index was 2.5. From this date to January 24th the pulse never rose above 104, nor the temperature above 100°, though all other symptoms remained as acute.

On January 24th two rigors occurred, and the temperature rose to 102°, only to fall to subnormal the next day, at which point it remained. The patient was kept in bed on light diet, and gradually increasing doses of vaccine were given every eighth day until six had been administered.

On February 28th a healthy female child was born, the labour being perfectly normal. The patient made an uninterrupted recovery, and three weeks later the urine was free from pus and *B. coli*. She has now better health than she has had for years, as all constipation and frequency of micturition have ceased, and all pain in the region of the right kidney has disappeared, whatever position she is in.

The somewhat unusual symptoms have led me to publish the above notes. The disappearance of the old kidney pain and bladder irritation after the vaccine treatment makes me suspect that mild *B. coli* poisoning may have been present for many years, the pregnancy causing the acute attack.

At the onset of the illness the previous attack and character of the pain made the diagnosis very doubtful, and even when pus in large amount in the urine pointed to definite trouble in the right kidney, her sixteen years' history of pain in that organ still made the case obscure. The chief point of interest was the rapid improvement of the general condition of the patient after the first injection of vaccine, though all other symptoms remained as acute until the birth of the child, after which they rapidly disappeared.

THE estate of the late Dr. John Waggett, of Bournemouth, has been sworn at the net value of £49,542. Dr. Waggett, of whom an obituary notice was published in the last volume of the JOURNAL, p. 1445, formerly practised in Kensington, and died in his 91st year.

IT is stated that Sultan Abdul Hamid has recently made up his mind, at the age of 70, to be vaccinated. Being a cautious man, however, he first had the procedure carried out on the ten wives left to him out of his former populous harem, and on his son.

ON THE TREATMENT OF GONORRHOEAL AND MIXED INFECTIONS OF THE FEMALE GENITAL TRACT BY LACTIC ACID BACILLI.

BY DAVID WATSON, M.B., C.M.,
SURGEON, GLASGOW LOCK HOSPITAL, ETC.

GREAT diversity of opinion and of practice exists as to the most effective method of treating septic infections of the female genital tract. The objective of the most thorough is the sterilization of the whole tract. Others, recognizing the impossibility of completely destroying the infection, go as far in the same direction as they think they can without risk of forcing the disease into higher channels than are already involved. Thus, for an acute gonorrhoea one authority recommends an immediate dilatation of the cervix under an anaesthetic, curetting and tamponage with gauze saturated with antiseptic, and an equally drastic treatment of the urethra. Others, fearing to infect the tubes and bladder, content themselves with vaginal and cervical swabbing and sitz baths.

I think most observers will admit that the result of all treatment is merely a mitigation of symptoms until the patient has acquired immunity and further extension of the disease stops, leaving, however, more or less vaginal discharge, probably infective if transferred to a fresh soil.

The treatment at the Glasgow Lock Hospital has been varied from time to time within recent years in the attempt to dismiss the cases within the shortest period completely free of cervical or vaginal discharge. Douching with different antiseptics was at one time largely employed. Later, vaginal swabbing, cauterization of the cervix, and, when the internal os was patent, curetting and cauterizing the uterus followed by careful drying of the whole tract, was the treatment most favoured.

I do not propose to enter here into the details of the antiseptic treatment nor to discuss the relative merits of the various antiseptics and astrigents we have tried. The result, whatever method or combination of methods was employed, was on the whole disappointing, both as regards the length of time required for treatment and the permanent disappearance of the discharge.

Some months ago it occurred to me that the antiseptic treatment, while inefficiently dealing with the pathological micro-organisms, had effectively exterminated the natural flora of the vagina and thus weakened its resisting and recuperative powers. The acid-forming bacillus of Doderlein being the accredited protector of the vagina, the lactic acid bacillus now so readily obtainable suggested itself as a suitable substitute, and the result of its use has justified my expectations.

The preparation I am now using is obtained by filtering "Sauerkultur" made from skimmed milk by the Glasgow Dairy Company. Filtering separates the casein and leaves a slightly opalescent whey containing lactic acid bacilli in large numbers as well as lactose, lactalbumin, and salts. The solution can be strengthened by the addition of sugar of milk, and if desired a powdered tablet of lactic acid bacilli.

After a thorough disinfection of the parts (including curetting when necessary) all excess of disinfectant is removed and the lactic fluid introduced into the vagina.

The first effect of the treatment may be an increase in the amount of discharge, which, however, is completely altered in character. The purulent appearance ceases, and the discharge is white and thin. This is removed daily by gentle swabbing with dry wool through a speculum. In the most favourable cases the secretions are normal in a few days. In other cases the treatment is repeated weekly until cure is complete, usually in two to three weeks. Even cases in which the tubes are involved seem to benefit by the treatment, and can be discharged from hospital earlier than used to obtain.

Apart from lock hospital work many cases are met with at a gynaecological out-patient department, and also in general practice where treatment is called for on account of a purulent vaginal discharge. In my experience the majority of such cases respond excellently to the above method of treatment. As regards the use of lactic acid bacilli for urethral discharge in the male, I have not had the opportunity of sufficient tests, but in two cases remarkable results were obtained.

In this preliminary notice I am unable to give extended statistics or to refer to the bacteriological examination of cases before and after treatment, but I may say that what has been done in this direction corroborates the clinical finding. For instance, the normal number of inmates of the Lock Hospital was formerly from fifty to sixty. Now there are from thirty to forty in hospital, and this number will be further reduced as we eliminate those kept unnecessarily long for observation purposes and control cases not receiving this treatment.

A CASE PRESENTING THE EARLY SYMPTOMS OF GENERAL PARALYSIS, WITH RECOVERY UNDER SOAMIN.

BY R. PRICHARD, M.D.GLAS., D.P.H.,
CARDIFF.

THE following case exhibited some remarkable features. The history and early symptoms foreboded a sad termination in paralytic dementia; but happily for the patient and his relations he made a good recovery. General paralysis of the insane occurs so infrequently in medical practice that the opportunity for repeating the treatment adopted in this case may not present itself again for many years. This must be my apology for drawing attention to a single case. I hope that others may be induced to give the treatment a trial.

On June 23rd last I was summoned to see Mr. X., aged 53, married, the father of seven healthy children. He had landed from South Africa on the previous day, having travelled by himself. He was head of a large department which had a great deal of clerical work. In the beginning of 1908 the staff was reduced from thirteen to five. Being over-zealous to keep abreast of his work, he "was at it till eleven o'clock at night and all day Sunday," with the result that his health broke down. About September, 1908, it was remarked that his manner began to alter; he suffered from headaches and became irritable. He used to be devoted to his family and very hospitable; his children now worried him, and he did not want to see visitors. He also looked ill. In his business transactions he got very forgetful and gave wrong orders, which brought his condition to the notice of those in authority. In the beginning of April, 1909, he was ordered to go up country for three weeks' rest. There was very little improvement in his condition on his return, so that he was, on the advice of his doctor, given leave to take a voyage home.

He looked sallow; his hair was very grey, the conjunctivae were muddy. He stooped very much. He had passed a very restless night; a sister had to sit at his bedside, because when he awoke he was in great distress at finding himself alone. This was a feature of his complaint until well on towards recovery. There was amnesia; he did not remember the names of his sisters, although he had been at home six years before, and he said to his mother, "You have some daughters married?" (one had been married about twenty years). He had forgotten the names of his own children. His speech was slow and indistinct. The tongue was furred; the pulse 84, soft and irregular; the temperature 98.4° F. There were marked fibrillar tremblings of the lips and tongue; the pupils reacted sluggishly; the knee-jerks were exaggerated. During the voyage he had been very constipated, and now suffered from external piles. At times he had pains in the abdomen, the stomach was greatly distended with gas. I prescribed for him a mixture of sodium hypophosphite, lactopeptine, acid. nitric. dil., and liquor strychninae, and an ointment of oleate of zinc and opium.

The gastric and intestinal troubles improved rapidly, as the result, probably, of careful dieting and the administration of salines in the morning when necessary. His physical state was now fairly satisfactory; the pulse and temperature were normal, the tongue clean, and the bowels regular. He used to be very fond of outdoor games, and was recommended to be in the open air as much as possible. He played croquet when the weather permitted, and took occasional walks, but he could not go far without fatigue, and was so timorous that he could with difficulty be persuaded to go into the public streets. He accompanied me one day on my rounds in the motor car, but he appeared to be in perpetual dread of meeting or passing other vehicles, pointing them out when a long way off; he slept very badly that night. About a fortnight after his return an old friend called to see him, but he told his sister that he wished that gentleman had not come; there was a good deal of singing of old songs and piano-playing that evening, in which the patient tried to join, but he hardly slept all night, and was so fidgety next morning that he began to eat his porridge with a knife. He was very keen over the games of croquet, which he was allowed to win, and was greatly elated over his victories. His natural temperament was one of exceptional amiability and gentlemanliness. At this

time sulphonal, 10 grains dissolved in hot water or tea, was given in the evening, and repeated if necessary at bedtime for two nights; as, though it induced sleep, he appeared to be more restless, and his speech more indistinct next day, it was discontinued at the request of the patient's friends. When he had been home about three weeks he was one day very excitable, swinging the croquet mallet about in an alarming fashion, so that it was deemed advisable to engage an attendant. The companionship of this man seemed to compose the patient, who became quieter during the week, so that the attendant's services were dispensed with. I had previously given it as my opinion that the symptoms were those of general paralysis.

On July 30th he was seen by Dr. J. Michell Clarke of Clifton, who has kindly informed me that the examination was not so complete as he could have wished, as it was made "under the pretence of looking at his sister's and his own eyes." Permit me to quote the following note made at the time: "No history of syphilis or alcoholism. The chief symptoms being loss of mental capacity and memory. An attack of loss of speech in June, after which mental symptoms were worse; the loss of power of speech occurred afterwards occasionally for a time. In addition to the above, which seems to have been loss of articulatory power, he sometimes talked nonsense, used wrong words, forgot words he meant to say. Mental symptoms: (1) Suspicion. (2) Euphoria; though not strictly expansive, the absence of any anxiety about his inability to work and the future prospects of himself, wife, and seven children was striking. (3) Disorientation — for example, after talking for some time, he suddenly said that he knew me as a member of his —— Board at ——, and had seen me there many times (noticing no incongruity in my being, as he thought, an eye specialist here). (4) Some irritability; he had no true aphasia, but was often at a loss for words and stopped or used wrong words; speech certainly that of general paralysis, slurred and indistinct, with elision of last syllables; tremor of lips and facial muscles, loss of control over facial muscles, slight tremor of tongue, very slight tremor of hands; no paralysis. Right pupil oval and larger than left; both react well to light and accommodation; no Argyll Robertson phenomenon; optic discs normal; slight error of refraction. Knee-jerks and ankle-jerks much exaggerated. No ankle clonus; no affection of sensation." Dr. Michell Clarke added: "I am afraid that he is suffering from general paralysis of the insane, and told his sister so. I told her that the outlook was very bad, and that, though remissions sometimes occur in this disease and might last for a long time, their occurrence was quite uncertain and not to be relied upon." It was suggested that veronal or bromural might be given at bedtime, but neither was administered, as the patient slept fairly well as long as some one was in the bedroom with him. He was then taking a mixture of ammon. carbonate gr. vj, potass. sulphate gr. xij, and liquor cinchona hydrobromate ½ drachm, after each meal; to this was added potassium iodide gr. v in the beginning of August. There was no improvement in his condition during this month. He played croquet all day, but he was very fractious at times. Since his return to this country he would often take up a book or a newspaper and gaze at it as if reading it, but it was noticed that he sometimes held it upside down; he could never tell what he had been reading about.

Soamin (Burroughs) (sodium para-amino-phenyl-arsonate) is an organic preparation of relatively slight toxic action, containing 22.8 per cent. of arsenic. It is claimed for it that it is useful in syphilis and certain protozoal diseases. Beyond its tonic effect, I am not satisfied that it has any specific influence on tertiary lesions. It is beneficial in some forms of anaemia, and I have cured with it an inveterate case of psoriasis figurata which had resisted every other treatment. As the pallor of the gums, tongue, palate, and conjunctivae showed that the patient was suffering from considerable anaemia, and the general atony of the system was very evident, I suggested trying soamin, especially as arsenic is an established nerve tonic. He readily consented, and a 1-grain tabloid of soamin dissolved in hot water was injected into the gluteal muscles on September 7th. He slept well that night. The injections were repeated every two or three days until September 20th, when the dose was increased to 5 grains. The final injection was given on October 27th, the day before he left on his return to South Africa, the total amount administered being 86 grains. There was never any apparent inflammation at the site of the punctures, and the patient did not complain of the pain. The improvement was steady and remarkable from the first, especially after the larger doses were begun. The sleep became normal, the speech and mental faculties improved daily, he was able to take longer walks without fatigue, and before the middle of October he entertained the ladies of the house at their work by reading aloud to them. Before he left the fibrillar tremblings of the lips had disappeared, there was no sign of anaemia, his face was bright and intelligent, he carried himself erect, and he seemed fully restored to his former good health. On the voyage he sent a letter from Las Palmas and another from Capetown, both of which are perfect in caligraphy, expression, and sentiment. In his younger days he could whistle very prettily, but during his illness he could not utter a sound. In the former letter he jokingly remarked that he now whistled all day, and in the second he wrote lovingly of the pleasure of seeing his children in a few days. I think, therefore, that his recovery is complete, for the time being at least, and I confidently hope that it will be permanent.

I am convinced in my own mind that the cure is due to the arsonate. The symptoms appeared to be those of general paralysis of the insane, and though I have seen remissions in such cases, I have never before witnessed so complete a disappearance of the symptoms. Krafft Ebing has it, "No syphilis, no general paralysis." Dr. Clouston, however, writes: "I cannot agree that syphilis is the sole cause always . . . mental shock and strains of all sorts will of themselves cause the disease." I have notes of two other cases of general paralysis of the insane which had no history of syphilis. My patient had no hereditary tendency, and there was not the slightest suspicion of a specific taint. I examined him carefully, and taxed him on the subject before and after his recovery. Dr. Ford Robertson found in the meninges of some deceased patients a bacillus closely resembling the Klebs-Loeffler bacillus of diphtheria, and Dr. Clouston suggests that "mind strain is a predisposing cause to the bacterial invasion." This theory, it seems to me, tallies with the case which I have related, and may also explain how the recovery was brought about by the arsonate.

INTRAVENOUS INJECTION OF SOAMIN IN CEREBRO-SPINAL MENINGITIS.

TWO CASES WITH RECOVERIES.

By T. ARNOLD JOHNSTON, M.B., CH.B.EDIN.,
SENIOR HOUSE-PHYSICIAN, LEICESTER INFIRMARY.

So far as I can discover from the literature of cerebro-spinal meningitis, the intravenous injection of an arylarsonate has not been employed in treatment. During the last few years these salts have had a wide success in the treatment of spirochaetal and trypanosome infection, and have also proved useful in malaria. It seems a logical inference that they might prove inimical to infection from other lower organisms propagating in the body fluids. The reports of the officers of the R.A.M.C. on the injection of sodium para-amino-phenyl-arsonate, or soamin, for syphilis show that the drug is well tolerated in large doses. Intravenous injections of atoxyl and soamin have been largely used in the treatment of sleeping sickness, and I have published a successful case elsewhere (see bibliography).

It is seldom justifiable to publish a new treatment as successful unless a very large number of cases are available; the coincidence of a reaction towards health in the cellular organism with the advent of a fresh remedy is not infrequent. In the present instance, apart from the result of treatment, one case has an intrinsic interest from the prolonged simulation of a tertian fever. The clinical examination of both cases was as complete as the resources of our laboratory permitted; Gram-negative diplococci were isolated from the spinal fluids resembling the *Diplococcus intracellularis meningitidis*. The first case appeared likely to succumb to the disease when the treatment commenced; the second case had been less prolonged though more acute, the strength was more conserved, and the response to treatment rapid; in the former, recovery was slower, though uninterrupted.

CASE I.

Mary M., aged 23, domestic, admitted July 21st, 1909, complaining of pain in back and limbs, severe headache, and loss of power in the limbs. Four weeks previously she had been treated for "influenza"; after one week in bed and three days up, pains appeared throughout the body, vomiting without apparent cause was frequent, and she became delirious.

On admission she looked extremely ill, face flushed and blotchy, no petechiae or rash, lips covered with sordes, head slightly retracted, emaciated, abdomen retracted, no roseola, no swelling in the appendix region. Leucocytosis 13,000 white cells per c.mm. No enlarged glands, spleen and thyroid normal size. Widal's reaction negative. Pulse 100, low tension, regular. Heart slightly dilated, no murmurs. Respirations 24, lungs healthy. Kidneys not palpable; urine free from albumen, pus, blood, and sugar. Menses regular, occasional slight leucorrhoea. On vaginal examination organs healthy, no tumour or abscess, no discharge, no gonococci on film from vaginal swab.

Nervous system emotional, cries querulously when handled, memory sluggish, no coma. No fits or abnormal movements. Articulation slow, but clear. Slight photophobia; pupils large, unequal, circular; react to light and for accommodation; discs clear, no retinal haemorrhage; no ptosis, nystagmus, or strabismus. No facial paralysis. Hearing unaffected; both tympanic membranes healthy; no history of aural discharge.

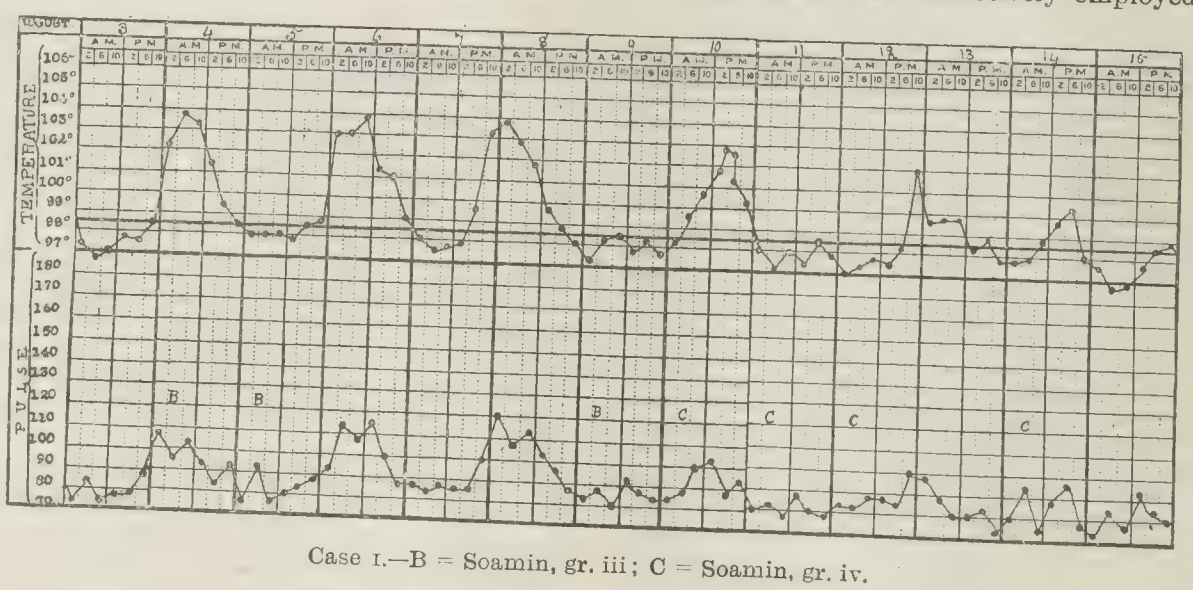
Subjective pain severe in occiput and down the spine; general hyperaesthesia to touch, acute hyperaesthesia to a sharp point in all regions. No paralysis; muscles of neck and back stiff and tender to pressure. Kernig's sign marked; knee-jerks increased; plantar response very excitable, but flexor. *Tache cérébrale* marked. Micturition under control; faeces passed in bed, motions loose and unpleasant. No rash or trophic change of the skin.

On performing the first lumbar puncture, 5 c.cm. of fluid were removed under pressure and mixed with blood. Organisms were not found on this occasion in the cells; a few cocci were seen in the film, but a culture was not obtained. A diagnosis of meningitis was made.

From the second day in hospital the patient developed a tertian type of fever. Regularly, on alternate days, the temperature rose with a rigor to 103–104° F., and dropped to normal on the intervening days. The four-hourly chart showed this cycle with undeviating regularity for seventeen days. The blood was examined two-hourly during this cycle for protozoan parasites, with negative results. Quinine was given steadily, and the dose increased up to 10 grains two-hourly between the rigors without the slightest effect.

With the commencement of the rigor the patient's condition became much aggravated. The pains gradually became violent, retching was continuous, no food was retained, the faeces were passed in bed, the tongue and skin became dry; she had violent shivers and she wept and shrieked with pain, became slightly delirious, and had hallucinations. The pulse was small and rose with the temperature from 110 to 120. The leucocytes rose to 25,000 per cubic millimetre; the blood platelets became extremely numerous. As the pyrexia passed away perspiration was free, all the symptoms abated in severity, she experienced a feeling of relief, ceased to moan, and dozed lightly. During this portion of her illness it became possible to accurately foretell her condition during any part of the succeeding forty-eight hours; each successive stage recurred with absolute regularity.

This type of pyrexia caused the diagnosis to be questioned. Repeated careful examinations of the blood showed no organism; Widal's test continued negative; no pyaemic focus could be found in the cranial sinuses, in the chest, abdomen, or pelvis. Finally, on August 1st, turbid fluid was obtained from lumbar puncture; this showed diplococci in the cells, and I obtained a pure culture of the Gram-negative diplococci.



Case I.—B = Soamin, gr. iii; C = Soamin, gr. iv.

By this time the patient's condition was extremely weak, emaciation was extreme, and each successive rigor was regarded as the probable termination of her existence, and her friends were advised that the case was hopeless.

The clinical course of this case suggested the liberation of fresh organisms into the circulation on alternate days. It occurred to me that a drug which I had found efficacious in sleeping sickness and malaria might prove successful in this infection also.

On August 4th I injected 3 grains of soamin into the median basilic vein during the height of a rigor. The injection was repeated next day. On August 6th and 8th the rigors recurred, but the vomiting, pain, and hyperaesthesia were distinctly better; the injection was, therefore, repeated on August 9th. On August 10th, although the temperature rose to 102.8°, there was no discomfort beyond a feeling of malaise and nausea. Rigidity and hyperaesthesia of muscles had almost ceased. The leucocytes were 25,000. The patient took food better and had sound sleep. On August 11th and 12th 4 grains were given, and on the latter day the temperature rose without a rigor, while pain, sickness, and hyperaesthesia definitely disappeared. Kernig's sign was still present. Five more injections of 4 grains were given on alternate days. On August 16th lumbar puncture was again performed and the organism obtained in culture; the growth was feeble and slower, and the individual organisms varied more in size and staining power on the films.

The knee-jerks became normal on the 23rd. Kernig's sign disappeared on August 27th; the temperature remained normal from August 18th. The patient left hospital after a fortnight's convalescence, and is still in excellent health, showing no trace of her tedious illness.

CASE II.

John W., aged 24, quarryman, was admitted on August 5th, 1909, complaining of severe pains in the head and back, duration two weeks. Began with headache and vomiting. On the fifth day acute pains developed along his spine; he vomited frequently, had no appetite, became very constipated, and during the last three days has become delirious, at times shouting and maniacal.

On examination, face flushed, skin dry, no rash; is semi-conscious; shrieks and moans loudly when touched; *tache cérébrale* marked. Pupils unequal; react to light and for accommodation; optic discs show slight hyperaemia; photophobia present. Extreme hyperaesthesia of skin generally; the neck and back muscles rigid, tender, and painful. Knee-jerks much increased; the plantar response very excitable and flexor. The cerebro-spinal fluid under pressure slightly turbid, and containing Gram-negative diplococci. Leucocytes 26,000 per c.mm.

For the first week after admission the patient was delirious; at night became extremely noisy and maniacal; morphine was required every night. For treatment he had mercurial inunction and aspirin, grains 10, four-hourly. The temperature was erratic with frequent hyperpyrexia, requiring ice bags and sponging to bring it down to a moderate range.

From August 12th the fever showed a tendency towards a remittent type, and on the 18th began to swing with a period similar to the former case. By this time the first case was almost convalescent, and it seemed justifiable to try the same treatment again. This was begun on August 22nd. The patient was emaciated, delirious at night; muscles and skin continued highly painful and hyperaesthetic; the knee-jerks were almost absent, the Kernig and head retraction were marked, the plantar reflex was flexor and very excitable. A daily dose of soamin, grains 4, was injected into the median basilic vein. On the 23rd the rigors recurred. On the 24th the temperature rose to 100.4°, and sank to normal in a few hours; from this date the temperature remained steadily normal. The pain, sickness, and other symptoms cleared up, even more rapidly than in the preceding case, the injections being continued until eight had been given. The patient continues in excellent health and is actively employed at his work as a quarryman. In this case a culture of the spinal fluid, on August 17th, gave a copious growth of the diplococci.

I have detailed the first of these cases at some length because of the prolonged remittent phase of the fever. Dow, in a most interesting article on the symptoms of cerebro-spinal fever, describes an intermittent variety, and several of the authorities mentioned below speak casually of intermittent cases. None of these have, however, been characterized with such a uniformity of cyclical change.

That the recoveries were entirely due to the remedy cannot be proved from such a limited number of cases. The disease certainly was influenced by the injections, and the result compares favourably with the reported cases of serum treatment in cases of equal severity, as described in the papers of Robb, Currie and Macgregor. As a treatment it is not expensive and the technique is simple.

I append a brief bibliography, bearing on the points raised in this paper, full lists of references are given with the papers referred to in it. I desire to express my indebtedness to the physicians of the Leicester Infirmary for the opportunities they allowed me of observation and treatment in these two cases.

BIBLIOGRAPHY.

Dow: The Clinical Symptoms of Cerebro-spinal Meningitis. *Lancet*, March 14th, 1908.

Cerebro-spinal Meningitis in New York. *Journ. Amer. Med. Assoc.*, vol. xlvi, No. 23.

Robb: Some Observations on the Recent Outbreak of Cerebro-spinal Fever in Belfast. BRITISH MEDICAL JOURNAL, October 6th, 1907.

Currie and Macgregor: Serum Treatment of Cerebro-spinal Meningitis in the City of Glasgow Fever Hospital. *Lancet*, October 10th, 1908.

Johnston: A Case of Sleeping Sickness Treated by Atoxyl. *Lancet*, September 19th, 1908.

Lambkin: Notes on the Treatment of Syphilis by Arylarsonates. *Lancet*, December 5th, 1908.

Soamin in Syphilis. BRITISH MEDICAL JOURNAL, August 15th, 1908.

Reports on Soamin and Atoxyl with Full Bibliography. *Bulletin of the Sleeping Sickness Bureau*, 1908–9.

Osler and McCrae: *System of Medicine*.

UNDER the will of the late Lieutenant-Colonel William Martin Powell, of Lyndhurst, Hants, a sum of £500 is directed to be paid to the Royal South Hants Infirmary at Southampton.

THE TREATMENT OF SLEEPING SICKNESS.

BY R. VAN SOMEREN, M.B., CH.B., D.P.H.EDIN.,
MEDICAL OFFICER, UGANDA PROTECTORATE.

IN the present paper the various methods of treatment in use at Kyetume Camp, Uganda, are discussed.

Therapeutic Effects of Arsenicals.

As to the ultimate curative results, no one method seems to have so far shown the least superiority over any other in any given class. As regards early therapeutical effects, good seems to result from all organic arsenical compounds, save possibly kharsin (Burroughs and Wellcome). It so happens that Class "A" have, as a rule, been under soamin, and therefore this drug has had the advantage of having to combat the disease in an early stage. By "A" cases I designate those only who on examination show trypanosomes in their glands or blood, but who otherwise *show no clinical symptoms whatever;* in fact, they themselves say that they feel perfectly healthy. In some respects soamin is undoubtedly superior to any other of the organic arsenics in use, for reasons which are given in detail later.

As far as one can judge, short of animal experiments, the trypanocidal effects of all organic arsenicals seem similar, and all appear to be trypanofuges, using the term to mean that one is able by a single hypodermic injection to banish trypanosomes from both glands and circulation, where they possibly swarmed, to such an extent that the parasites, after twelve hours, cannot be demonstrated microscopically in the usual way. That this is not a complete or real trypanocidal effect—that is, sterilization—is shown by the fact that the parasites have reappeared in the blood, and in one case the glands sooner or later, and also that patients die from typical sleeping sickness while under treatment.

However, in some "A" cases the sterilization seems to have been complete. These few patients have never, since treatment was stopped, shown the least advance in symptoms, nor have they appeared at any time other than well; one is almost tempted to say they are cured.

Toxic Effects.

As regards the toxic effects of the various drugs I at once find a wide divergence.

Kharsin.—This drug seems to be so toxic that death follows all save possibly very small doses, and to be unfit for use in the human subject. I have had no experience of it, but am judging from the camp records. In view of the fact that we have much safer drugs it does not seem worth while to try it further, even in small doses.

Atoxyl.—This, while some samples have proved satisfactory, has proved so much less stable than other organic arsenicals and so uncertain in the qualities of the various samples sent to us, that I consider its use as a therapeutic agent entirely unjustifiable, unless the risk of subsequent total blindness is considered of no moment, and because here again in soamin (Burroughs and Wellcome) we have a drug equal to atoxyl in therapeutical effects but entirely pure.

Soamin.—This I consider is the best form of organic arsenic which I have yet experimented with, as its trypanocidal and trypanofuge characteristics are equal to all others put forward as yet. I have found no reason to alter the opinion I stated more than a year ago that it is entirely non-toxic in doses up to 1 gram; moreover, every sample supplied has been of an entirely uniform quality, pure and reliable. I use this drug entirely, to the exclusion of all other organic arsenics, in the routine treatment of this camp. I find from the records that the former medical superintendent came across one case in which he seems to have concluded that serious optical symptoms (total blindness) followed the use of soamin; but there were no notes as to the eye conditions on admission. This I consider an important point, for I find that in this disease we have a certain number of patients who complain of poor vision without any treatment whatever. In one case I found complete optic atrophy. In all such cases it seems as if the eye conditions were aggravated by the treatment unless care be taken in the dosage; this does not mean that a diminished dose is required, for I am firmly convinced that eye symptoms are an incident in the disease itself, though aggravated by any impurities in the drug used. Some other four cases are also reported as having eye symptoms following on the administration of soamin, but the fact was overlooked that these also received atoxyl. As I stated before, I have yet to find untoward symptoms after the administration of soamin.

Asodyl or Orsudan (the 3-methyl 4-acetylaminophenylarsonate of sodium) seems similar in action to soamin, though I understand that Messrs. Burroughs and Wellcome claim it to be four times less toxic than atoxyl. We have had only one case treated by it, owing to the small amount of the drug supplied. The former medical superintendent notes that eye symptoms occurred, but I see that this patient also had atoxyl prior to the said symptoms. I am giving this drug a more extended trial at present.

Arsacetin has been tried in a few cases by Captain Gray. I find no notes as to its being a trypanofuge, but he remarks on five cases which showed eye symptoms after being treated with this alone. In three cases the symptoms appear to have been transitory, as the patients are now well, but in two I note total blindness. Personally, I have had no experience with this drug.

Antimony cream I have had no personal experience of, but Gray reports as follows:

> The treatment with antimony cream has not been very successful. Every patient who has had the injection has complained very much of the great pain and tenderness which followed. An indurated mass could be felt at the seat of injection for a fortnight after the dose was given. Very few patients would allow me to continue giving them injections. (Monthly report, Kyetume, March, 1909.)

Orpiment alone does not appear to be a trypanofuge, but used along with one of the organic arsenics is possibly of value in prolonging the effect. It is still under trial here, and in graduated doses up to 1 gram no untoward symptoms have been met with. It presents one great objection to my mind, when used as pills on natives—they find the daily attendance irksome, and as often as not, unless carefully watched, spit out the pills when outside, so one has to spend time seeing that each individual before leaving actually swallows his dose.

Soamin or Atoxyl, combined with Mercury, given Simultaneously.—For reasons given above I use soamin exclusively, but it is conceded by all, I think, that no single drug has yet been put forward whose sole use is justifiable in this malady; a combination of drugs is indicated, and, as organic arsenic has shown itself to be a certain trypanofuge, and also to some extent a trypanocide, it seems rational that it should form one part of the combination and of the organic arsenics we have seen that soamin has proved the most reliable. Mercury, of little value apparently in itself, seems undoubtedly of value when used simultaneously with organic arsenic. The statistics from the first quarterly report on the results of these camps, written by Gray, show that these drugs given simultaneously over the same period in the method originated by me gave by far the best results, although in common with every other method tried the later results were somewhat disappointing. However, one cannot avoid the impression that this method is the best we have at present, though it entails more laborious work.

Methods.

It is stated by the makers of soamin that it is not compatible with the salts of heavy metals, and should not be given too soon after injections of them. I have no hesitation in saying that this precaution is needless, for I have given mercury not only soon after soamin, but along with it in the one injection, thus reducing the number—an advantage when one has to give them to some hundred natives. A perfectly clear solution results if the sodium chloride necessary for the satisfactory solution of the sublimate is used slightly in excess, for this dissolves the first cloudiness formed on mixing the solutions.

Atoxyl has been given in various doses, Manson's method having been tried amongst others, but to my mind all these methods involving continuous or interrupted small doses are incorrect, and of absolutely no use in avoiding eye symptoms, etc., if the drug is impure; if it is pure, no symptoms follow even the large doses. I am convinced that we should attempt to get the maximum sterilizing effect as soon as possible, and

that small doses are useless. In my opinion we should endeavour to give the maximum quantity of arsenic in the first dose, as it seems probable that the parasite subsequently acquires an immunity to the drug; otherwise it is difficult to account for case after case no longer reacting to arsenic after a time. I give, therefore, as large a dose as is convenient for the first, followed by a second within twenty-four hours.

Mercury used alone has proved useless as a trypanofuge, whether given in injection by mouth or intravenously as the cyanide salt.

Contrary to the belief usually held that the Baganda have an idiosyncrasy for mercury, I find that they tolerate heavy doses in injections very well, though they react badly to inunctions or mercury by the mouth. Of course it is necessary to see that they keep their mouths clean to avoid sore gums, but this is not a difficult matter amongst natives. Abscesses forming at the site of injection are avoidable in most cases, if care is taken to see that the needle is dry before use, that it is made of platinum, and that the site of the injection is well massaged after injecting. The injection need not be intramuscular—a small point, but of importance when dealing with large numbers of natives. I find the posterior axillary fold as good a place as any.

Dr. Andrew Balfour's suggestion as to inoculations of the patient's own serum into the spinal canal has been tried in some six cases, but the results were not encouraging. I must add, however, that the method was tried only in cerebral cases, and these are usually too far gone for any other treatment. At present it is not, however, feasible to try this method in early cases in these camps.

THE TREATMENT OF PHTHISIS AND OTHER CONDITIONS BY ARYLARSONATES.*

BY

R. A. LUNDIE, M.A., B.Sc., M.B., F.R.C.S.E., and R. H. BLAIKIE, M.A., M.D., F.R.C.S.E.,

ASSISTANT MEDICAL OFFICERS, LONGMORE HOSPITAL FOR INCURABLES, EDINBURGH.

MUCH has been written during the last few years regarding the use of arylarsonates in protozoal diseases, chiefly sleeping sickness, and, more recently, syphilis. We have been able to find no account of their employment in any bacterial infection except in a paper by Hallopeau,[1] where one case of renal tuberculosis and two of leprosy are narrated that benefited much under treatment by atoxyl. The idea that they might be useful in tuberculous conditions came to us from our friend Dr. van Someren, of the Uganda Medical Service, who told us in the autumn of 1908 that, shortly before he came home on furlough, he had seen remarkable improvement in two cases of tubercular leprosy under one of these drugs. His first case was a young man who came to be treated for sleeping sickness, with which he was convinced that he was affected. Careful examination failed to reveal any evidence of it; but the man was so possessed with the idea that he had it, and so persistent in his request to be treated, that a course of injections was administered. During its progress it was noticed that leprous tubercles on the brow, etc., from which he was suffering improved rapidly and to a surprising extent. Dr. van Someren then sent for another leper at a more advanced stage of the disease who had consulted him some time previously, and subjected him to a similar course. Here also there was marked and striking improvement in the lesions, and it was noticed that there was a great diminution in the number of lepra bacilli present. Dr. van Someren had no time before leaving Uganda to pursue the investigation further, but he suggested to us that it would be worth while to try similar treatment in patients affected with tuberculosis. We have heard from him since his return to Uganda: "I have repeated my experiment in leprosy with the same results."

We should have liked to begin with cases of lupus, as the form of tuberculosis most resembling tubercular leprosy, but no cases presented themselves, and we determined to make trial in other forms of the disease. We are much indebted to Dr. Bell and Dr. Affleck for allowing us to treat some of the cases in the Longmore Hospital in this way, and to put on record our results.

We have used the same substance as was used by Dr. van Someren—namely, sodium para-aminophenylarsonate, as it is put on the market under the trade name of "soamin." This is a white powder very readily soluble in hot water, but liable to decompose if kept in solution. It is said to contain 22.8 per cent. of arsenium, so that our usual dose includes over $2\frac{1}{4}$ grains of that metal. It has been dissolved immediately before use in boiling distilled water, and injected warm either subcutaneously or, more often, intramuscularly, generally in the buttock. Platino-iridium needles have always been used. We have given the injections early in the forenoon. The dose given has generally been 10 grains, but a dose of 5 grains has been tried in the first instance. In one case a dose of 10 grains was almost invariably followed by abdominal pain, with nausea and vomiting after from eight to twelve hours; here the treatment is being continued with 5-grain doses which cause no inconvenience. Once 15-grain doses were tried, as noted below, with a similar result. In most cases we have followed Dr. van Someren's practice—a dose on each of two successive days, then a fortnight's interval. Sometimes we have given two doses weekly till 50 grains have been administered, and then waited ten days or a fortnight before commencing another course.

Our experience does not agree with that of Dr. van Someren when he says, "In the course of several thousand injections I have never yet had any untoward symptoms, not even pain and irritation at site of injection." Others have recorded similar experiences. In the published reports of the use of the drug pain is hardly mentioned, except as not occurring. For example, Dr. J. Johnston Abraham[2] says, "The injections are painless"; and Captain G. S. C. Hayes,[3] "Pain after injection is extremely rare." We have found that about one-third of our patients have, as a rule, local pain following the injections. In most the pain comes on about twelve hours after the injection. No redness, swelling, or other perceptible sign of irritation has been observed to accompany it; but the pain is sufficiently severe to interfere seriously with the night's rest. It usually lasts for some hours, but has always subsided within twenty-four hours of the injection. Local pain immediately following the injections also occurs—in some patients habitually, in some only occasionally. Pain has by no means been confined to tuberculous cases; one of those who complained most was suffering from syphilis. So far as we could see, the occurrence of pain neither favoured nor interfered with improvement following the injections. In two patients besides the one already mentioned abdominal pain, nausea, and vomiting followed injections, but there was not sufficient evidence to show that the injections were the cause of the disturbance.

We did not know of any case in which the injections did harm to the patient, beyond temporary inconvenience, until January 3rd, 1910, when we were met by the startling intelligence that one of the patients under this treatment, aged 51, had been discovered to be blind. How long she had been in this condition we cannot say—she lies quiet and rather apathetic in a corner of the ward, and has never taken much notice of what goes on—her own estimate is a fortnight; but, as she said she had not spoken of her loss of sight because she thought it was merely the effect of the darkness of the winter days, her statement must be accepted with reserve. On examination she proved to be totally blind. Externally the eyes appeared normal; on ophthalmoscopic examination it was found that in both eyes the discs were pale and the retinal vessels considerably diminished in calibre. She is known to have been able to read while in the infirmary, though she had never been seen to do so since she came from it to the Longmore Hospital on May 11th, 1909.

Many cases have been observed in which the administration of atoxyl has been followed by blindness, and in most of these the pathological process causing it is known to have been optic atrophy.[4] Soamin has so far, though under suspicion, never been definitely proved to produce the same result.[5] In this case the suspicion is so strong as almost to amount to certainty, particularly as there is no pathological evidence that the disease from which our patient suffers (pemphigus foliaceus) has any special tendency to cause nerve degeneration.

* Read at a meeting of the Edinburgh Medico-Chirurgical Society.

This unfortunate occurrence emphasizes Dr. Bagshawe's warning that in patients under treatment with any arylarsonate the fields of vision should be carefully watched in order that the drug may be discontinued at once on any sign of their restriction.

Our patient has been treated by 50-grain courses as described above, and has had nine of these (450 grains). The state of her skin has slowly improved, whether as a result of the injections or not we cannot be certain; but, not realizing the attendant danger, we maintained these along with the other conditions under which improvement appeared to be taking place. She had previously had the same drug in the Royal Infirmary; Dr. Cranston Low informs us that she had an injection of 3 grains every third day from March 30th to May 8th, 1909—42 grains in all.

To one other patient only have we given as much of the drug; her vision is so bad from dense corneal opacities that its loss would make still less difference to her than to the patient who has suffered. What vision she had, however, she retains.

When we had found that the injections were generally well borne we tried them in some other conditions besides tuberculosis in which arsenic has been found useful. Altogether we have given injections to 24 patients in the hospital. We have had entirely negative results in rheumatoid arthritis (2 cases), cancer (1 case), tabes dorsalis (1 case), severe chronic bronchial asthma (1 case), and pemphigus (1 case).

In one case sent in with a diagnosis of pulmonary and laryngeal phthisis, but with no tubercle bacilli and certainly syphilitic, and in one sent in with a diagnosis of "multiple rodent ulcer," but probably syphilitic, we have had very marked improvement, aided, but in neither case initiated, by potassium iodide. One case of congenital specific disease, complicated by various tuberculous lesions, had some ulcers of long standing healed after injections were begun.

Fifteen other tuberculous cases, mostly phthisical, have had injections. All, as might be expected from their being patients at the Longmore, were bad cases.

Two died very shortly after injections were commenced; and one, about a month after the first injection, developed tuberculous meningitis, and died within a week.

In four other cases, only two or three injections were given, and the treatment was stopped at the patient's request. The reason in each case was pain or discomfort attributed by the patient to the injections. In one of these, a girl of 11, with ulceration and many sinuses following a hip-joint amputation, a notable improvement in appetite was observed after the injections. In two cases where injections were continued for some time, no impression seemed to be made on the patient's condition.

One patient, in whom injections were begun a few days after admission, improved considerably, gaining half a stone in weight during the five weeks she remained in hospital. This may have been due to the improvement in diet and surroundings.

One patient consistently maintains that she is much the better for the injections, having an unusual feeling of wellbeing and vigour during the days following them. Objective signs do not give convincing proof of benefit from the injections, but she has certainly improved while under treatment.

Four cases remain, which form our main reason for recording our experiments. All were advanced cases of phthisis with extensive affection of both lungs, large cavities, and abundant tubercle bacilli in the sputum. All were young females and had been for some time under observation:

A., aged 11	years;	under	observation	3 months.
B., aged 14	,,	,,	,,	4 months.
C., aged 18	,,	,,	,,	3 years.
D., aged 24	,,	,,	,,	3½ years.

In none was any other change of treatment made when the injections were begun in November, 1908. A. and B. were improving slowly; C. had been for months in much the same condition; D. was becoming rapidly worse.

At this time and for long before all had much cough and profuse expectoration. Within a fortnight there was in all a very marked decrease in both, as well as in the moist accompaniments in the lungs. In A. both cough and spit had entirely ceased within a month of the first injection, have remained absent most of the time since then, and are absent now. Two or three weeks after the treatment was begun it was noticed that the sputum had not only greatly diminished in amount but had strikingly altered in character. It was no longer sticky and tenacious but curdy and friable. Dr. W. Darling (to whom we are indebted for a very large number of microscopic examinations of sputa in connexion with our work) tells us that he never had sputa to deal with in which it was so difficult to get a satisfactory film. A similar change occurred also in some of the patients in whom no definite benefit followed the injections. At present A., as already mentioned, has no sputum; B. has a scanty sputum with a scanty crop of tubercle bacilli; C. has both in abundance.

Before decided improvement appeared in the condition of the lungs there was a marked increase of appetite. In C. it was noticed within twenty-four hours of the first dose of 5 grains. The weight in all rose several pounds during the first fortnight; after this improvement there was not continuous increase. D. had not only no appetite but much nausea and vomiting when treatment was begun, and was wasting visibly for want of nourishment. Within three days of the first injection appetite was returning, and there was much less sickness. For some time her strength and vigour greatly improved, but about three months after treatment was begun appetite failed again and sickness returned. As a forlorn hope injections of 15 grains were administered on two successive days; they were followed by diarrhoea and vomiting with abdominal pain and a collapsed condition which forbade their repetition, although improvement of appetite and cessation of sickness again followed and lasted for some weeks. After the sickness returned a second time there was once more a rally; this time it followed a prescription of her own—namely, a fresh herring every afternoon at tea time! For about a fortnight after this was commenced she not only ate and retained it daily, but took and digested other food as well. Then the sickness recommenced, and this time continued to her death in May, 1909.

C., whose case is complicated by aortic regurgitation, has lately had increased cough and return of haemoptysis, to which she has been very liable, as well as a considerable recrudescence of tuberculous enlargement of glands in the neck. For some months after the treatment was begun, however, she was in a better condition than during the preceding three years.

In A. and B., as already stated, most of the improvement has been maintained. A. has had no injections since July; B., none since June. A. has lost weight of late, though there has been no evidence of any tuberculous process. The explanation of the loss may possibly be found in two distinct sharp attacks of rheumatism, with some pyrexia, and much swelling, pain, and tenderness in the right wrist and hand. Both yielded readily to ordinary antirheumatic remedies.

One of us has also in his private practice watched the case of a middle-aged lady with extremely chronic phthisis, in whom a course of injections produced a very decided improvement in appetite and digestion.

We are also able, by the kindness of Dr. Murray, of Leven, to refer to a case lately under his charge—a young man with consolidation and thickening of pleura at both apices, hacking cough, a good deal of expectoration, and considerable pain. He had one injection every fortnight of 5 or 6 grains of the same drug. The pain was relieved in a day or two; he developed a keen appetite, and in a month he had gained 6 lb. in weight, and the cough and expectoration had almost disappeared.

So far as our observations go, we do not consider that these injections are in any sense a cure for tuberculosis. We believe, however, that we have obtained evidence that in some cases they can give a tuberculous patient, even in an advanced stage of the disease, a very distinct and remarkable stimulus in the direction of improvement. Dr. Murray's case suggests that considerably smaller quantities of the drug than we have used might prove equally successful.

The possibility of causing optic atrophy by the use of soamin shows that, though this substance is much less toxic and dangerous than atoxyl, it is not quite free from

its treacherous properties, and must be employed with much caution and discrimination; but we think there is great scope, within perfectly safe limits, for its use.

REFERENCES.
[1] *Bull. de Thérap.*, 1907, pp. 648-50. [2] *Dublin Med. Journ.*, February, 1909, p. 104. [3] *Journal of the Royal Army Medical Corps*, January, 1909, p. 70. [4] See Morax, *Annales d'oculistique*, vol. cxxxix, 1908, p. 75, and Bulletin VIII of the London Sleeping Sickness Bureau. [5] Bagshawe, *Lancet*, 1909, vol. ii, p. 1196.

PEMPHIGUS NEONATORUM OCCURRING IN THE PRACTICE OF A MIDWIFE.

BY

MARGARET MERRY SMITH, M.B., CH.B.EDIN., D.P.H.,

EXECUTIVE OFFICER, MIDWIVES SUPERVISING COMMITTEE, MANCHESTER.

CROCKER[1] places pemphigus neonatorum among the group of skin diseases due to pus cocci, and separates it from the pemphigus group, with which it has in reality no connexion. It is not, he says, a syphilide, but a bullous infantile form of impetigo contagiosa.

The disease is not very common, but isolated cases and epidemics occur. Improved hygiene and the use of antiseptic and aseptic methods in midwifery practice have made it rarer than formerly. The characteristic of the disease is that during the first week or two of life an eruption appears on the skin of the infant. The eruption is first noticed as an isolated bulla about the size of a threepenny piece, containing clear or yellowish fluid. This bulla increases in size and ruptures, leaving a raw base. Meanwhile other bullae appear, the size and rapidity with which these develop depending on the severity of the case. Maguire[2] very fully describes the development of these bullae. The site most frequently affected is the lower part of the abdomen and the groins, but bullae may be present on any part of the body except the palms and the soles.

There are two forms—a benign and a malignant—but both may occur in one epidemic. In the malignant type general septicaemia sets in after the bullae have appeared, and the issue is fatal. The umbilicus is probably the avenue through which general infection takes place, the lower part of the abdomen in such cases being extensively involved.

Maguire gives the period elapsing between infection and development of the bullae as two to four days. In the benign type the average duration of the bullae is from two to three weeks. In the fatal cases death may occur any time within three weeks after the onset. In the rapidly fatal cases death may take place in four days. It is not always possible to trace the source of the disease, but it is without doubt contagious, and epidemics in maternity hospitals and in the practice of midwives are described. The bacteriology has not been definitely settled, but it is believed to be a streptococcal infection.

The treatment advocated is to avoid infection of the umbilicus and of fresh skin from the fluid in the bullae; to apply mild antiseptic washes, powders, and ointments, and in malignant cases to give stimulants and apply warmth. The attendant should not wash or handle another newborn child until after thorough disinfection of her hands, person, clothing and appliances.

A malignant outbreak took place in the practice of a midwife in Manchester in March and April, 1909. There were 4 cases, 3 of which were fatal. The midwife attended seven other lying-in women during this time, none of whose children developed the disease. In all the cases the mothers did well, and there was no history of sepsis. There was no infection of other members of the household. The original source could not be traced. So far as could be ascertained syphilis did not play any part in the disease and no information was obtainable that the midwife had any septic illness.

The inquiry was somewhat difficult to carry out, as the midwife did not lodge information concerning the cases until April 20th, when no other course was open to her, two of them having then been notified to the Medical Officer of Health by the medical attendant.

CASE I.

This case was found out through the death register. The child was born on March 18th, and was stated to be full time and healthy. The illness began on March 22nd and the child died on April 7th. On the morning of March 22nd a bulla, the size of a shilling, was noticed on the left thigh; in the evening there was one at the umbilicus, which next day was as large as a five-shilling piece. This bulla dried up quickly. Fresh bullae appeared on the lower part of the abdomen, the groins, the buttocks, and axillae, and on April 4th small bullae appeared on the face and around the finger nails. The child did not appear to be ill apart from the skin condition until April 3rd; it then ceased to take food and had "convulsions." It died on April 7th, by which time all the skin lesions had healed except those in the axillae. The midwife is stated to have snipped with her scissors the original bullae, and to have washed the child up to March 27th. Medical aid was called in for the child on March 26th. The above history was given by the parents on April 23rd.

CASE II.

The child was born on March 29th, and was full time and healthy. The illness began apparently on April 1st, the first bullae appearing near the umbilicus. On April 3rd another came on the groin, and during the next few days more appeared. The midwife pricked the bullae and applied boracic powder. She dressed the child until April 6th. Medical aid was called in on April 7th.

On April 21st I saw the child; it was healthy and well nourished, but was somewhat fretful. The skin condition was as follows: The epidermis of the groins had disappeared, leaving the red, raw base of ruptured bullae. The left iliac region was in a similar condition, but was healing. The skin over the site of a bulla higher up on the abdomen was quite healed, but a red mark remained. A fresh bulla was present on the left thigh; it was about the size of a threepenny piece, and had risen within the previous twelve hours. It was filled with fluid which was clear except at the margin, where it was yellowish. In the centre of the base there was a pinhead of pus. On April 22nd I again saw the child. The base of the bulla was then healing. The history was given by the mother on April 21st.

CASE III.

The child was born on April 7th, and was full time and healthy. The illness began on or about April 13th and the child died on April 18th. The midwife looked after the child until its death.

Dr. Mitchell, who was called in on April 16th, stated that the affected area on that date was extensive. The lower part of the abdomen, the groins, buttocks, lower part of the face, chin, ears, and fingers were involved. The epidermis was hanging in tags, and the skin where there had been bullae was raw.

After death a swab was taken from a moist surface under one of the tags of epidermis and streptococci were found in the cover-glass preparation. The whole of the skin was evidently involved and would have peeled off readily. I was never able to see the mother of this child, though I called many times.

CASE IV.

This child was born on April 7th and was full time and healthy. It became ill on April 16th and died on April 21st. On the morning of April 16th the mother of the child washed it and noticed nothing abnormal. In the afternoon she saw little blisters, about the size of a sixpence, on the right thigh. On April 17th the little blisters had become a large hanging oval bulla, "like a scald," which ruptured the same day. On April 18th another bulla appeared on the abdomen, and also on the other thigh.

On April 21st I saw the child. It was collapsed and had a subnormal temperature, and the pulse could not be felt. The skin was extensively involved. The umbilicus was not protruding, but was raw and somewhat greenish; the lower part of the abdomen was one red raw surface, with tags of loose skin at the margin. The groins, buttocks, and posterior parts of the thighs were in the same condition. The epidermis on the front of the thigh was not shed. The chin and neck were involved and also the left cheek, and there were small bullae on the left ear and raw areas there and on the lips. The mouth was evidently affected also. The skin was peeling on the fingers of the right hand and on some of the toes.

Unfortunately it was not possible in these cases to prove anything concerning the bacteriology. It has been already stated that in Case III streptococci were found. In Case II on April 21st a swab was taken from the recent bulla, and in Case III on April 20th a swab was taken from the thigh, the place chosen being a moist part under a tag of epidermis. Both swabs were examined in the Public Health Laboratory. The organism found was *Staphylococcus pyogenes aureus;* it did not differ appreciably from the ordinary variety, and it was stated that no special significance could be attached to its presence.

The bacteriological technique required has been described by Sabouraud and is stated to be special.

The treatment of the cases calls for little comment. Case II, which would in all probability have recovered in any case, was treated with a mild antiseptic ointment. At least two of the other cases were hopelessly ill when medical aid was called in.

The preventive measures taken were exactly similar to those adopted in puerperal fever. They were effective. No further cases occurred. The midwife was at once suspended from work on April 20th. Thorough disinfection of the midwife's person, clothing, and appliances was carried out; the disinfection of her hands, appliances, and bag being personally supervised by me. She had a holiday in the country and resumed work on May 4th. The length of the suspension was in reality due to the fact that the midwife was unable to realize the serious nature of the disease, and to the probability that she had been the means of spreading it. She had failed to notify, as required, to the Local Supervising Authority, that she had advised medical aid to be called in to each of these cases, and thus had prevented early precautionary measures of disinfection being carried out.

It has been stated that pemphigus neonatorum occurs in the children of women who suffer from puerperal fever. In the last four and a half years I have only come across one such instance, although I have investigated all reported cases of puerperal fever in Manchester during that time.

I am indebted to the Midwives Supervising Committee and to the Medical Officer of Health for permission to publish the account of this outbreak, and to Dr. Mitchell for particulars of Cases II and III.

REFERENCES.
[1] Crocker, *Diseases of the Skin.* [2] Maguire, *British Journal of Dermatology*, 1903.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

THE BLOOD-TIGHT UTERUS.

IN his interesting paper on the Blood-tight Uterus, published in the JOURNAL on November 20th, 1909, p. 1459, speaking of Nature's method of haemostasis after delivery, Dr. Longridge suggests that, besides the two lines of defence against haemorrhage which he mentions, Nature "may have another card up her sleeve as a reserve."

Some time ago I was called to a case of retained placenta. I had no difficulty in introducing my hand, or in removing the afterbirth, which I found still attached to a loose and flabby uterus. The womb, however, did not contract after withdrawal of the placenta, and I expected every moment an appalling rush of blood, but there was no haemorrhage to speak of. My hand, which I had immediately reintroduced to stimulate contractions and to see that the uterus was clear, moved freely in what felt like a flabby leather bag. It was some time before the uterus assumed even a partially contracted condition in response to my efforts.

What struck me very forcibly afterwards, when washing, was that I had unusual difficulty in cleaning my hands, having to peel off thin strings of blood-clot which adhered firmly to them. It occurred to me then that, as there was no muscular contraction to close the blood vessels, the absence of haemorrhage must have been due to this sticky condition of the blood. Probably clots had already formed in the uterus before the placenta was detached.

Was this haemostatic power accounted for by the increase of leucocytes and fibrin, known to exist during pregnancy; or is there at term some blood constituent (produced at the placental site perhaps) which favours coagulation?

Hornchurch. GEO. H. PEAKE, F.R.C.S.Edin.

RUPTURE OF BOTH QUADRICEPS EXTENSOR CRURIS TENDONS.

I HAVE been much interested in the publication in the JOURNAL of November 6th, 1909, p. 1343, by Dr. Chichester, of Colchester, of notes of a case of rupture of both quadriceps extensors of the legs. A similar case came under my care in September, 1904.

A. M., aged about 57, slipped on entering a tramway car opposite my door and was helped into my house. He was placed on a sofa till I should return. He felt his left leg below the knee powerless in the movement of extension, and doubtless had, in his fall, ruptured the left quadriceps extensor cruris tendon. Feeling a little better, and being impatient in my absence, he endeavoured, with the support of the consulting room table, to get on his feet and to walk. Suddenly he collapsed on the floor, with severe pain in the right leg above the knee. He was again placed on the sofa, and when I arrived a little later I found that both the quadriceps tendons were ruptured, leaving considerable gaps above the patellae. Unlike Dr. Chichester's patient, my patient declined suture, and both legs were put in plaster for three weeks in the extended position. Subsequently the plaster was removed and massage and gentle passive movement adopted. The result now is good, though there was a great feeling of feebleness for about a year. This, apart from Dr. Chichester's case, is the only instance I have seen or heard of of this double rupture, and it is very curious that the conditions in his case and in mine should be so identical. I have not seen a case of it in hospital, though I have been associated in the surgical work of a large one for nine years.

J. WALLACE MILNE,
M.B., C.M., M.R.C.S.Eng., L.R.C.P.Lond.,
Assistant Surgeon, Aberdeen Royal Infirmary.

Aberdeen.

GAS AND ETHER AS AN ANAESTHETIC.

No one will question Dr. Edward Phillips's belief (BRITISH MEDICAL JOURNAL, vol. ii, 1909, p. 1407) in the superiority of gas and ether over A.C.E. and chloroform.

I would, however, urge the decided advantages of ether administered by the open system over gas and ether. An almost daily experience during the last two years has convinced me that this is the best anaesthetic for routine work, particularly in dental cases where nitrous oxide alone is insufficient. From the point of view of:

1. *The Administrator*—open ether is easy to give and requires no expensive or cumbersome apparatus. I use Bellamy Gardner's wire frame with two layers of lint enclosing eight layers of gauze (thus obviating the superficial freezing apt to occur when gauze alone is used). Two ounces of ether is sufficient on an average to induce in ten minutes a condition of anaesthesia long enough for all dental operations.

2. *The Patient*—open ether is extremely pleasant to take (the testimony of doctors and nurses whom I have anaesthetized is definite on this point), and the after-effects are slight. It is very safe, the cleanliness of the apparatus affording a great contrast to the "to and fro" bag-breathing.

3. *The Operator*—the upright position, diminution of mucus, saliva, and haemorrhage, and rapid recovery, constitute open ether an ideal anaesthetic in dental surgery.

W. E. ALDERSON, M.D., M.S., D.P.H.,
Honorary Anaesthetist and Lecturer in Anaesthetics
Dental Hospital, Newcastle.

SUPPURATIVE PYLEPHLEBITIS FOLLOWING OESOPHAGEAL STRICTURE.

A SAILOR, aged 73, had suffered for nine months from the usual symptoms of cancerous stricture of the oesophagus. Though for some weeks unable to swallow solids, he retained the power to get down fluids slowly and in small quantity to the end of his life. He took to his bed a fortnight before death, and lost power then rapidly, at the same time developing an increasing swelling of the liver, which was readily palpated to 6 in. below the right costal margin. There was also great trouble with rectal tenesmus two days before death.

Post-mortem Examination.—There was septic peritonitis, the peritoneal cavity containing over a quart of dark-yellow serum. There were large flakes of lymph at the anterior margin of the liver and about the pylorus and omentum, as also on the intestines in the pelvis. The omentum was contracted to a width of about 3 in., and matted to the under surface of the liver and about the pylorus. The stomach lay empty and drawn up under the left lobe of the liver. The liver was much enlarged, especially the right lobe, which reached to 6 in. below the costal margin. The enlargement was quite regular, and no nodules of secondary growth were discovered. The capsule was smooth, and the whole surface of the liver was studded with fine yellow points, which on section proved to be tiny multiple abscesses. In addition there were two larger abscesses, containing some ounces of pus,

and in the quadrate lobe a large abscess which occupied the greater part of it. By opening the stomach and passing the finger for about 3 in. up the oesophagus, I came on a well-marked stricture through which the point of the finger was driven with a little force. On exposing this the malignant growth was fully seen in the form of an annular stricture with ulcerating edges. There was no fluid in either pleural cavity. The pericardium was not opened.

Remarks.

The condition found constitutes true suppurative pylephlebitis, and, as a sequela of an oesophageal condition, is, I believe, very unusual. I can find no reference to it in the textbooks to hand. Theoretically, it is quite possible on account of the free anastomosis of the gastric (or coronary) vein and lower oesophageal veins, which, in forming a connecting link between the portal vein on the one hand and the azygos veins on the other, play such an important part in the venous compensation in cases of cirrhosis of the liver.

In this case it would appear that the growth first obstructed and obliterated the upper venous route, and thus forced the blood to return by the downward or portal route—in the reverse direction, that is, to that taken in cirrhosis of the liver. Thus there was infection of the oesophageal veins through the growth, and carriage of the infection by way of the gastric vein to the liver, where the secondary abscesses formed. The peritonitis may have been due either to leakage from one of the bigger abscesses, or possibly to infection infiltrating directly through from the growth in the oesophagus, such as takes place in cases of suppurative pericarditis following on cancer of the oesophagus.

My warmest thanks are due to my friend, Dr. Stanley Barnes of the Birmingham General Hospital, for assistance given me in the above explanation of the condition found.

Penzance. E. C. EDWARDS.

AVULSION OF THE EYEBALL DURING INSTRUMENTAL DELIVERY.

IN the Memoranda of the BRITISH MEDICAL JOURNAL of November 27th, 1909, p. 1529, Dr. Turnbull mentions a case of "avulsion of right eyeball" in a newly-born female child. I suppose these cases are very rare, but about ten years ago I had an exactly similar experience in the Pleck, Walsall. The patient, a multipara, had good pains, but no progress was being made. I administered chloroform and applied forceps; when the baby was born (also a female) her left eye was lying on her cheek. I immediately took a towel, caught the eye, and replaced it. The mother's recovery was uninterrupted, but the baby's eye looked like a blood clot for about ten days, after which time it rapidly cleared up and became quite all right. I last saw the baby when it was 3 years old; it was then a strong, healthy child; her eye was apparently normal and the sight quite good.

One would naturally think the eye would be destroyed, but this case shows, I think, wonderful recuperative power in the tissues.

Senghenydd. JAMES DONALDSON, M.B., C.M.

IRIDO-DIALYSIS.

A GARDENER, aged 24, whilst chopping wood on October 17th, 1909, was injured by a piece striking the eye. Suffering much pain, he came at once to the surgery, about half a mile off, with a handkerchief over the eye.

A cleft was seen on the temporal side of the right iris, at about the junction of the outer with the inner two-thirds. The cleft was nearly vertical, and about $\frac{1}{2}$ in. in length, and through it the red reflection of the fundus could be easily seen with the ophthalmoscope. There was no hyphaemia, and the lens was not dislocated, but the vision was much below normal (that is, as it was before the accident).

Drops of cocaine hydrochloride (grains v ad $\frac{z}{3}$j) and atropine sulphate (grains ii ad $\frac{z}{3}$j) were put into the eye, and after repeating the latter drug, the pupil dilated and the cleft in the iris disappeared, although the iris remained broader on the temporal side than elsewhere. A pill was given containing calomel, and the patient was kept in bed in a dark room for four days. The pupil was kept widely dilated for ten days, and the eye covered with a pad and bandage.

No trace of the cleft could be detected when last seen, even with a magnifying glass, and his sight has become normal.

T. H. MOLESWORTH, M.B., F.R.C.S.
St. Margaret's-at-Cliffe, Dover.

BLENORRHOEA OF THE LACRYMAL SAC.

REGARDING blenorrhoea of the lacrymal sac, whose etiology seems to be obscure, it may be of interest to recall a case treated by me in 1883.

The child, aged about 6 months, recovered from a rather severe attack of measles, with lung complication. There were only the usual eye troubles connected with the disease, which usually require no special treatment. One eye sac, which swelled up after obstruction, was opened by me under chloroform, and an eye probe passed once only. Recovery was complete.

London, E.C. J. REID, M.D.Aberd.

SPASMODIC CONTRACTION OF THE CERVIX IN ECLAMPSIA TREATED WITH COCAINE.

MRS. L. B., aged 38 years, a multipara, was seized at full term with violent eclamptic fits at about 10 a.m. on September 21st, 1909, before labour pains had set in.

At 4.30 p.m., when I arrived to see the patient in consultation with the family physician, she was in a fit, and had had six since morning. The uterus was felt to be tightly contracted on to the child. The os would hardly admit two fingers, and there was spastic rigidity. The pulse was feeble, quick, and intermittent.

The lower bowel was thoroughly cleaned out with copious enamata of soap and hot water, Barnes's hydrostatic dilator was introduced, and hot vaginal douches and hot packing ordered. I suggested morphine in preference to chloroform to control the fits, and injected $\frac{1}{2}$ grain morphine and $\frac{1}{30}$ grain strychnine at 5 p.m. Again, at 7.30 p.m. I injected $\frac{1}{4}$ grain morphine and $\frac{1}{30}$ grain strychnine.

The convulsions ceased, but the os was as rigid as ever, and no regular labour pains were present. I then suggested cocaine, and applied $\frac{3}{4}$ grain of cocaine in cocoa butter to the inner surface of the cervix at about 10.30 p.m. At 11 p.m. the patient passed about 4 oz. of urine. The os quickly dilated, good labour pains set in, and in less than an hour after the application of cocaine the head of the child was well down in the pelvic cavity. A stillborn child was soon delivered by forceps.

The patient suffered from partial loss of vision, and consciousness for the two following days; otherwise she had an uninterrupted recovery.

Rangoon. LOUIS L. CARLOS, F.R.C.S.I., etc.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

POOR LAW HOSPITAL, HALIFAX.

A CASE OF INTESTINAL ANASTOMOSIS.

By A. F. THEOBALDS, M.B., Ch.B.Edin., Resident Assistant Medical Officer.)

PROFESSOR EDINGTON'S article in the BRITISH MEDICAL JOURNAL of October 2nd, 1909, p. 970, on some cases of intestinal anastomosis, leads me to report the following case.

A woman, aged 22, pale, anaemic, and flabby, had been admitted two years previously suffering from tuberculous peritonitis. Two years before, exploratory laparotomy was performed, and the peritoneum found studded with tubercles. The wound healed and she was discharged.

On readmission in 1907 she was suffering from abdominal pain and vomiting, and a lump was felt in the right iliac region. Some months later the skin broke down over

the abdominal incision; there was a slight serous discharge, which in December, 1908, was noticed to be faecal, and some currants which she had eaten passed out.

At this time a radical cure seemed impossible, but the patient was so wretched, suffering from considerable abdominal pain and vomiting, with slight rise of temperature, and unable to take sufficient nourishment, that she asked for an operation. As there was definite evidence of some localized peritonitis, and the condition was grave, Mr. William Shaw, visiting surgical officer, consented to operate. A director was placed in the fistula, and an incision made at the side. There was a good deal of hard cicatricial tissue and some old adhesions, but the peritoneum itself looked fairly healthy, and no tubercles were seen.

A piece of small intestine about 5 in. in length, and containing the fistula, was removed with difficulty. It was distinctly kinked, but there was no definite sign of an ulcer, though that was probably the cause of the fistula. A small Murphy button was inserted, end-to-end anastomosis completed, and a large drainage tube inserted.

She suffered from considerable shock, and on the third day signs of obstruction appeared, with faecal vomiting and jaundice. As it was thought the button was pressing on some part of the bowel, she was moved first on to one side and then on to the other, and in six hours the vomiting ceased, and she began to improve. She passed the button in a well-formed motion easily on the fourteenth day.

The abdominal wound is now practically healed though the skin is a little thin yet, and the patient is in greater comfort than she has been for the last four years. Menstruation has also reappeared after amenorrhoea of some months.

The case has been interesting and instructive, and I am indebted to Mr. William Shaw, visiting surgical officer, for permission to record it.

Reports of Societies.

EDINBURGH OBSTETRICAL SOCIETY.

Wednesday, January 12th, 1910.

Dr. F. W. N. HAULTAIN, President, in the Chair.

The Rational Puerperium.

THE discussion on Dr. Ballantyne's paper on the rational puerperium (which will be found published in full in our issue for January 1st) was resumed.

Dr. LACKIE was of opinion that the principle of voluntary movements was good, but in their execution they must entail more work to the patient than rising out of bed and sitting on a chair. The movements were not, however, continued over a long enough period to produce any change in the muscle tone. It was recognized at schools of physical culture that exercises must be carried out for some weeks before any definite improvement in the tone of the muscles was evident. He saw no reason for giving the puerperal pill in normal cases when the mother nursed her child. He was bound to support the principles of early rising, after seeing the excellent results obtained by Dr. Haultain in the Royal Maternity Hospital. It was more "rational" than the *Liegegymnastik* advocated by Dr. Ballantyne. At the same time it must be remembered that massage was a third possible line of treatment in the puerperium.

Dr. PORTER said he could not accept the statement about the frequency of prolapse and embolism in the women of Java till he knew their habits, and had figures comparing the percentage with that in this country. Dr. Ballantyne's charts of the blood pressure and pulse frequency were of little value by themselves. They ought to be compared with the charts of women who were kept in bed for the customary period. He had had two deaths from embolism in the last three years, and on both occasions the patient had not been out of bed. He had recently been much struck with two cases of prolapse, one occurring five weeks after labour and the other in the fourth month, yet both had been treated in the recumbent posture during the customary lying-in period. Hence they were not entitled to attribute isolated cases of uterine displacement, phlebitis, and embolism to early rising.

Dr. ARMOUR said his state of mind on the matter of the rational puerperium was not yet organized. Dr. Ritchie had said that the puerperium was pathological. He himself looked on it as physiological, though apt to become pathological. Many mammals did a certain amount of lying-in or "lying-out," and it would be interesting to know the habit of the women in this country some centuries ago. This would give an indication of the right treatment to adopt. The doctor was called in for abnormalities, and on that account he ought to have a clear idea of the normal.

Dr. NICHOLSON said that after a large experience of dispensary patients, who rise as soon as they care to after a confinement, he was convinced the results were better than in private practice. He agreed with Dr. Haultain that the main object was efficient drainage of the uterus. The dispensary patients rose on the second or third day, and the vast majority came to no harm. The uterus was able to expel blood clots and fragments of chorion before they became infected. For this, if no douching was carried out, early rising was essential. He was in the habit of prescribing the puerperal pill of ergot and quinine as a safeguard, owing to its action on non-striped muscle. Private patients were not in favour of rising so soon as the third day, so he allowed them to stay longer in bed.

Dr. KEPPIE PATERSON said that he douched every patient once with corrosive sublimate after the expulsion of the placenta, if he had made a vaginal examination. In his treatment of the puerperium he had fallen into a groove, but those papers read before the society had shaken him up. He had always allowed a woman to turn round on her knees and pass water on the day of labour, to slide out of bed on the fifth day, and to rise on the ninth day. Since Dr. Haultain's paper he had relaxed a little, but had not yet allowed her up as early as the third day.

Dr. HAIG FERGUSON said the discussion had impressed on his mind the importance of not keeping a patient absolutely on her back for ten or fourteen days. At the same time he was satisfied with the present arrangement. Between early rising and the usual custom there was not much to choose regarding immediate results, but there was a difference in remote results. The same numbers of prolapses, cystoceles, and other displacements were not seen in private practice, and they must be looked on as remote results of early rising as practised by dispensary patients. He believed strongly in the exercises advocated by Dr. Ballantyne, and he did not agree with Dr. Lackie that they were more harmful than early rising. But the main principle of treatment was sitting up in bed to secure good uterine drainage.

The PRESIDENT said he was glad to know that his views had evoked so much interest and support. As Dr. Ballantyne had stated, the crux of the situation was the attitude in which they viewed pregnancy, labour, and the puerperium. He was surprised to hear Dr. Ritchie say that the puerperium was pathological. Many others were in the habit of saying: "It is so much on the border line, and it passes over so easily!" But any other of the workings of Nature was in the same category. How easy to get indigestion after a big meal! Others had argued that the puerperium was becoming pathological owing to the degeneracy of the race. That was an argument which he strongly objected to. He asked why women should be kept in bed after a confinement. Dr. Nicholson had said they did not want to rise, but that was absolutely foreign to his experience. At first he gave his patients the choice of rising on the third day, but now, after obtaining such good results, he was beginning to urge them to get up then. Of his last 25 cases 20 had risen on the third day, and all were perfectly well. Two were unwilling to rise then, and stayed longer in bed. Three were not allowed up, one for heart disease, one after placenta plaevia, and the third because of the large size of the fetus. Yet the last patient had acquired a prolapse. In 125 cases he had not once seen phlebitis or pulmonary embolism. Dr. Ballantyne's alternative to early rising, exercises in the recumbent posture, must do good, but not to so great a degree as rising on the third day. In addition, the muscular strain in that position must tend to drive back the uterus, which was at that time supported only by the round ligaments.

Dr. BALLANTYNE, in his reply, stated that massage as a substitute for exercises would be impracticable in a hospital, as each patient would require a nurse. He repeated that he had seen two cases of phlebitis in patients who had got up on the fifth day, and Dr. Barbour thought there was a chance that this was due to early rising. Douching had its advantages, but these were outweighed by its disadvantages, unless in exceptional cases. Dr. Haultain and he had both attacked a well-established custom, but it was still doubtful whether benefit was to be gained by departing from the old custom to a greater or to a less extent. He sought to obtain the advantages that accrued from early rising by means of the *Liegegymnastik*, and at the same time kept his patients in bed for a few days longer than Dr. Haultain.

Ovarian Epilepsy.

Dr. H. S. DAVIDSON read a paper on ovarian epilepsy, with a report of two cases successfully treated by operation. He said it was allowed that reflex nervous symptoms might be caused by the generative organs, but it was not generally agreed that removal of these organs stopped the symptoms. In the first of his two cases the fits came on six months after the menarche. At each period they began a few hours before the menstrual flow. The administration of bromides was at first sufficient to prevent the fits, but latterly it had had no inhibitory effect. The ovaries were removed, and it was noticed at the operation that respirations stopped when the ovary was pulled on, and did not begin again till after its removal. Sections showed the existence of follicular ovaritis. In the second case the history was similar. Dilatation and curettage had produced a great improvement for two years. Both ovaries were removed. Nothing abnormal was found by the microscope. In both cases the result was a cure of the epilepsy. In the first one fit occurred at the menstrual period three months after operation, but it was not repeated. Of 33 cases which he had collected from the literature the ovaries usually showed naked-eye or microscopic changes. Only in 5 cases were they apparently normal; in 15 they were cystic; and in 5 cirrhotic. Other conditions were rare. Tubal disease was occasionally present, and in 1 case the uterus was impervious. In two-thirds of the cases the removal of the ovaries had resulted in a complete cure. Others were incompletely cured, the fits still occurring, but being easily kept in check by small doses of bromides. In one-fifth the operation had had no effect. Hence the prospect of obtaining a cure in cases of epilepsy of undoubted ovarian origin was good.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF MEDICINE.

Friday, January 7th, 1910.

Dr. FINNY in the Chair.

Glycosuria and Graves's Disease.

DR. DRURY drew attention to recent observations tending to show that the combination of glycosuria and Graves's disease was sufficiently marked to warrant the idea that it was not an accidental phenomenon. He gave an outline of recent work and observations upon the subject, and the possible influence of the islands of Langerhans in carbohydrate metabolism. A case of well-marked Graves's disease under his care had recently developed diabetes of serious type, with severe symptoms, including acetonuria. The CHAIRMAN had also had a similar case; the discovery of sugar in the urine caused anxiety, but no great loss of weight had followed. Professor W. H. THOMPSON pointed out that there might be many causes for the appearance of glycosuria in any given individual, but thought the evidence showed some orderly connexion between this condition and disease of the thyroid. After cases in point had been quoted by Drs. MATSON and LUMSDEN, Dr. CRAIG said it had been taught for a quarter of a century that glycosuria might be expected to be found in Graves's disease, and he had made it a rule to have an examination of the urine made for sugar. It occasionally appeared, but in much fewer instances than might be expected from the paper to which they had listened.

Treatment of Gastric Ulcer.

Dr. CRAIG having read a paper on the treatment of gastric ulcer, the CHAIRMAN said the raw egg and milk treatment of Lenhartz was very valuable, and he had been satisfied with it. Dr. KIRKPATRICK felt convinced that the most important thing for the patient was absolute rest. It was even more difficult to know when permission might be given for the patient to move than to know when the diet might be increased. If a patient had a septic mouth, there was very little use in treatment until the condition of the mouth was improved. On *a priori* grounds rectal feeding ought to give admirable results; but the cases in which it would be tolerated for any length of time were few. It was really only starvation. Occasionally, for the the first two or three days, patients were benefited and pain relieved by witholding all food from the mouth, and giving just enough by the rectum to support life. The most difficult of all points in connexion with gastric ulcer was to decide what should be done for patients with gastric haemorrhage. Immediate operation had not been found satisfactory, but if they waited for a second haemorrhage it might prove fatal. Dr. MATSON spoke of the administration of olive oil, which was supposed to be seized upon by the hydrochloric acid, which it thus neutralized. Professor THOMPSON thought their ideas of the quantity of hydrochloric acid that ought to be normally present in the gastric juice were much too low. Want of teeth and bad mastication would be predisposing causes to fermentation and the production of hyperacidity. It had recently been shown that there was a normal return of bile and pancreatic juice from the duodenum into the stomach, particularly where there was a large amount of acidity. The giving of foods which promoted the free secretion of acid was a means of causing such return, and connected with the treatment by olive oil. Rest in the recumbent position kept the food more in the part of the stomach where the digestion ought to go on. Dr. LUMSDEN favoured treatment by the ice-bag. He had found the results of gastro-enterostomy most admirable.

ROYAL SOCIETY OF MEDICINE.

PATHOLOGICAL SECTION.

Tuesday, January 18th, 1910.

Dr. F. W. MOTT, President, in the Chair.

Thyroid and Antithyroid Preparations.

MR. W. EDMUNDS, in a communication on the action of thyroid and antithyroid preparations, described ten experiments made on rats with commercial thyroid and antithyroid preparations. Four controls used remained well throughout. The preparations were given by the mouth in doses of 10 grains three times a day, mixed with food. One thyroid preparation produced in two rats, death, or severe illness, in twenty days. Another produced the same result on two other rats in eighteen and nineteen days. An antithyroid preparation produced no effect on two rats during thirty-nine days. Thyroid and antithyroid administered together, 10 grains of each three times a day, caused death or severe illness in ten, eighteen, nineteen, and twenty-one days. The symptoms produced were loss of flesh, roughness of coat, general weakness, illness, and death. *Post mortem* the chief change found was marked alterations in the suprarenal glands; they were obviously enlarged and dark in colour as compared with the glands in the controls; under the microscope they were much engorged with blood and contained haemorrhages. The other organs, including the thyroid glands, showed no marked or uniform changes. The conclusions drawn were: (1) That thyroid feeding in large doses causes congestion of and haemorrhage into the suprarenal glands; (2) antithyroid preparations in equal doses with the thyroid produces no effect in preventing the ill effects of thyroid excess.

Pancreatic Reaction.

Drs. P. J. CAMMIDGE and H. C. G. SEMON described a series of animal experiments undertaken to determine (1) whether the Cammidge reaction was dependent upon disease of the pancreas; (2) if the reaction arose from changes in the pancreas itself, or was consequent upon a disturbance of the metabolism of the body caused by interference with the functions of the gland. They found that a chronic pancreatitis caused by an ascending infection

from the duodenum gave rise to a characteristic "pancreatic" reaction in the urine, but when the pancreas was extirpated at the end of the third week the reaction disappeared. Simple extirpation of the pancreas did not give rise to any urinary "pancreatic" reaction, indicating that the disturbance of metabolism caused by interference with the functions of the gland were probably not the cause of the reaction, and suggesting that the "pancreatic" crystals were derived from some substance, probably a nucleo-glyco-proteid, set free from the tissues of the pancreas. The crystals had the character of a pentosazone.

Oöphorectomy and the Growth of the Pelvis.

Mr. S. G. SHATTOCK and Dr. C. G. SELIGMANN made a communication upon oöphorectomy and growth of the pelvis (in the cow).[1] In the case of man the data for such an observation, amongst Europeans at least, were not forthcoming; that was the reason of the above investigation. *A priori* the disproportionate growth of the female pelvis at puberty would be associated with the maturation of the ovaries, and the formation of an internal secretion. In passing, the authors referred to certain feeding experiments which they had carried out with dried sheep thyroid upon the dachshund, with the object of seeing whether the shortness of the limbs in this particular breed was attributable to thyroid deficiency. In the case of the short-limbed Dexter ox the proclivity to produce cretinous offspring was a noteworthy fact, suggesting that the short-limbedness of the normal animal might be due to the diminution in some constituent of the thyroid secretion. A dachshund puppy received for two years 12 grains of dried sheep thyroid daily. No increase in the normal growth of the limbs took place, although the administration was prolonged till the dog was fully grown. In the rabbit and pig the results of oöphorectomy upon the growth of the pelvis were, the authors had found, inconclusive. In these animals there was little or no difference in the size of the pelvis of the sexes, and for this reason they selected the cow. A calf was spayed when 7 months old, the uterine cornua being also removed; the animal was killed at the age of 2 years and 5 months. For comparison a fully-grown cow of the same breed was taken. The pelves were prepared after death, together with the bones of the right hind limb as a standard of size. The measurements showed a diminished growth of the pelvis in the spayed animal; the distance between the iliac crests, for example, was 10 cm. less when worked out proportionally. The feminine breadth of the hips observed in eunuchs castrated before puberty was probably due to local obesity. In Pelikan's work on the Russian castrating sect, the Skoptzi, figures are given showing this increase in breadth; the external conjugate diameter, moreover, exceeded that of normal males. But these measurements were taken during life and were open to criticism, the actual size of the pelvis being masked by the local obesity of the buttocks, thighs, and pubic region which ensues after early castration. In the eunuch's skeleton described by Lortet the pelvis presented no departure from the male type, though the length of the femora and leg bones was increased. The average height of the Skoptzi is above normal, and increased length of limb was a well-recognized result of early castration in animals.

Cases and Specimens.

Dr. HERBERT FRENCH described (1) a case of extensive destruction of the adrenals without Addison's disease, and (2) pigmentary deposits in the liver and pancreas in bronzed diabetes. Mr. E. O. THURSTON recorded an example of chylous cyst removed from the left side of the neck.

[1] The expenses incurred were defrayed by a grant from the British Medical Association and in part by the Lister Institute, at the farm of which the animal was kept.

CLINICAL SECTION.

Friday, January 14th, 1910.

A. PEARCE GOULD, F.R.C.S., President, in the Chair.

Fibrolysin.

MR. H. C. HOWARD showed a case of stricture of the rectum treated by fibrolysin. The patient was a female, aged 40, who was first seen in July, 1908, when there was a hard fibrous stricture of the rectum and a large recto-vaginal fistula, the result of an operation for piles at a hospital. Nothing could be done for her except a colotomy, which she declined. On June 12th, 1909, injections of fibrolysin were commenced, and continued about three times a week. In this severe case of formation of pathological fibrous tissue the following improvements were noted: (1) An arrest of the growth of the fibrous tissue; (2) a certain amount of absorption had taken place; (3) the pain had been much less; (4) motions were passed through the anus with little or no pain. The fistula was now merely a small slit, but it was doubtful if that condition were due to the fibrolysin. Dr. LEONARD WILLIAMS narrated a case of sciatica treated by injections of fibrolysin over the sciatic nerve; after three weeks the patient could walk well. Mr. CARLESS said he had treated a case of Dupuytren's contraction with iodolysin by the mouth. In six months' time the fingers were much more movable than before the treatment. As the patient had not returned, he assumed that no recurrence had taken place. Mr. BARKER said his experience of fibrolysin forced him to say he had not seen any advantage in the treatment. He had, however, observed one or two disadvantages.

Thoracoplasty.

Mr. J. E. ADAMS showed a case of thoracoplasty in a male, aged 23, admitted to hospital suffering from an empyema. There were signs of pleural effusion occupying the whole of the left side of the chest and displacing the heart to the right so that its pulsation extended from the right margin of the sternum to the mid-axillary line. Aspiration gave exit to seven pints of greenish-yellow, sweet-smelling pus. A few hours later 2 in. of the seventh rib were resected, and three pints more of pus escaped, and a quantity of thick fibrin was removed. A rubber drainage tube was left in the wound. A pure culture of the pneumococcus was obtained from the pus, and the patient was treated with a stock pneumococcic vaccine. Three weeks later the discharge was very slight, but there was very little evidence of expansion of the lung. The heart was still displaced far beyond the right border of the sternum. At a second operation a long incision parallel to vertebral border of scapula and 1 in. behind it, terminating in the original wound, was made. Large portions of sixth to ninth ribs, together with intercostal muscles and parietal pleura were removed. The superficial muscles were divided by the primary incision and freed from the overlying skin. The lower muscle-flap was pulled over the tenth rib and sutured with catgut to the diaphragm and the base of the shrunken lung. The scapula was pushed into the pleural cavity, and the muscles attached to its vertebral border secured to the lower part of the lung with catgut stitches. The wound was completely healed in ten weeks. The lung expanded rapidly, and the heart returned to its normal position. Eighteen months after the second operation the left lung was expanded from apex to upper border of ninth rib; the deformity of the chest consisted only in a slight convexity of the spine on the side of the lesion, and the general health was excellent.

Exhibits.

The following were among the cases shown: Mr. HERBERT TILLEY: A case of objective and rhythmical "clicking" noise in the left ear, associated with synchronous muscular contraction of certain muscles forming the floor of the mouth. Mr. SOMERVILLE HASTINGS: A case of bending of the bones of both legs and partial ankylosis of both hips in a young man. Dr. F. PARKES WEBER: A case of intermittent claudication, due to chronic arteritis obliterans in a tobacconist, and a case of chronic arteritis obliterans (lower extremity) associated with phlebitis; Dr. H. MORLEY FLETCHER: A case of symmetrical trophic lesions of the extremities in a child (Morvan's type). Dr. W. ESSEX WYNTER: A case of angioneurosis, and a case of aneurysm of the descending thoracic aorta associated with dilatation of the arch.

SECTIONS OF MEDICINE AND SURGERY.

Tuesday, January 11th, 1910.

Mr. G. H. MAKINS, C.B., in the Chair.

Duodenal Ulcer.

ON resumption of the debate on the diagnosis and treatment of duodenal ulcer, Dr. R. HUTCHISON, conceding that the treatment of actual ulceration was surgical, concerned himself with diagnosis. Too much stress, he thought, had

been laid on "hunger-pain" as a pathognomonic symptom. It occurred both in appendicitis and gall stone cases. Whether or not there were such a condition as "hyperchlorhydria," there was certainly a condition of hypersensitiveness of the gastric and duodenal mucosa, which permitted gastric juice of normal acidity to produce symptoms not unlike those sometimes described as "hyperchlorhydria," without any organic lesion. The evidence from autopsies, statistical and direct, afforded conclusive proof to this effect. Dr. HERTZ said he had experimental evidence to show that the pain in cases of so-called "nervous dyspepsia" was not due to the contact of hydrochloric acid with sensitive mucosa, nor that of ulcers to contact with the raw surface. He mentioned a case operated on by Mr. Sherren to prove that hunger-pain, even when of nine months' duration, did not mean duodenal ulcer, in a first attack. He was convinced, despite the evidence as to rarity of scars, that duodenal ulcers heal easily. In fact, the rarity of ulcers *post mortem* was evidence of the completeness with which they cicatrize. Relapse after healing was accounted for by recrudescence of the cause. Prophylactic measures, such as persistent attention to the teeth and proper care in mastication, were as necessary after "cure" as the means taken to effect that cure. Mr. H. J. PATERSON, speaking from an experience during the last three years, of forty-one operations for duodenal ulcer, had observed very little uniformity in the symptoms as to onset, time relation to food, or character, of the pain. Few of his patients had complained of "hunger-pain." This might, however, be due to the fact that he had not inquired carefully enough into the early history of the attacks. He mentioned the difficulty in distinguishing the pain of duodenal ulcer from that of gastric crises in some instances. He pointed out the difference to be observed between "hyperchlorhydria" and "hyperacidity"; the latter condition he had found present in 83 per cent. of his gastric analyses in ulcer cases. He believed that where true hyperchlorhydria was present there was certainly some organic lesion also. To justify gastro-enterostomy there must be a demonstrable ulcer present. Haemorrhage, in his experience, much more often came from the gastric mucosa than from the ulcer itself. Vomiting was due rather to spasm of the pylorus than to stenosis. He believed that less than 25 per cent. of duodenal ulcers were healed by medical means. It was quite unnecessary to obliterate the pylorus when doing the gastro-enterostomy. After operation milk diet should be continued for at least six months. Dr. NATHAN RAW said in the last twelve years at Liverpool, amongst 40,000 admissions to hospital only 37 were diagnosed as duodenal ulcer; amongst 5,000 autopsies there were 13 ulcers in the duodenum. During the same time there were seven perforations. It seemed, therefore, that Mr. Moynihan had exceptional opportunities for seeing these cases. He believed there were no pathognomonic signs. He had seen a case with all the classical symptoms in which no ulcer was present, but in which there was chronic thickening of the pylorus. Dr. CRAVEN MOORE believed that no such condition as "hyperchlorhydria" really existed. In an "acid dyspepsia" due to excessive secretion of normal gastric juice he did believe, and he was of opinion that it could give rise to symptoms claimed by Mr. Moynihan as diagnostic of duodenal ulcer. Certainly hunger-pain was not exclusively significant of such a condition. Whilst it was true that the diagnosis should not wait on haemorrhage as ordinarily understood, he wished to emphasize the value for diagnosis of occult blood in the stools after a few days of haemoglobin-free diet. He had found it in every case of ulcer he had investigated. Mr. CHILDE said his experience, and he thought that of most surgeons, was an experience of "late" cases. He related three cases of long duration that had occurred in his practice. It was not the cases that bled that went on to perforation. In early cases with a single ulcer he thought excision was a proper proceeding. In selected cases the pylorus should be closed. Mr. MOYNIHAN, in reply, maintained that the hunger-pain he had originally described (he could not speak for the debased application of a term he introduced with well-defined significance) did mean duodenal ulcer. He thought the difficulty of diagnosis from appendicitis had not been sufficiently brought out in the discussion. The cases published by Dr. Hort as a contribution to the discussion were in his opinion not cases of duodenal ulcer at all, but probably of appendicitis. He wished to insist strongly on the absolute impropriety of performing a gastro-enterostomy because a diagnosis of duodenal ulcer had been made, unless on opening the abdomen the ulcer could be demonstrated. He joined issue absolutely with Mr. Eve as to opening the stomach and exploring the duodenum with the finger. It seemed to him unnecessary and, therefore, inadvisable.

SECTION OF LARYNGOLOGY.

Friday, January 7th, 1910.

Dr. DUNDAS GRANT, President, in the Chair.

THE following were among the cases and specimens shown:—Dr. G. C. CATHCART: A case of *Occlusion of the nostril* by deflection of the septum in a girl aged 7 years. Dr. ANDREW WYLIE: A man, aged 32, with *Tonsillar and faucial ulceration*, believed to be tuberculous; both apices were affected. Mr. CHICHELE NOURSE: A case of *Endothelioma of the ethmoid* in a woman aged 29. Before its removal she complained of no pain but of obstruction of the right nostril. There was a yellowish bloody discharge, and the septum was deflected to the left, and the right nostril blocked by a smooth red swelling, which seemed to be the much enlarged inferior turbinal body. On operation it was found to be a pedunculated growth the size of a small walnut projecting downwards into the nasal cavity from the anterior part of the ethmoid. Dr. E. A. PETERS: A woman, aged 29, with bands passing between the Eustachian tube and pharynx. They were not quite symmetrical, and one was continued as a cicatricial band across the pharynx. There was chronic otitis media on both sides. An operation for adenoids had been carried out at the Evelina Hospital eighteen years ago. Dr. DAN MCKENZIE: A case of *General infiltration of the larynx*, probably syphilitic, in a woman aged 44. Hoarseness and occasional loss of voice had existed for the last nineteen months, with paroxysms of dyspnoea. Sequestra of the right inferior turbinal had come away, and the general evidence was in favour of syphilis; she had improved under iodide of potassium. Dr. DUNDAS GRANT: *A growth in the nasopharynx* like very pale "adenoids" in an elderly woman, but much more dense in consistence, and suggestive of malignancy; microscopical examination revealed the structure of a granuloma. It was thought that the case was specific, and that a deep-seated sequestrum would be detected. Mr. SECCOMBE HETT: *An extrinsic carcinoma of the larynx* removed from a man, aged 65. He had been admitted into University College Hospital in June, 1909, having had dysphagia six weeks. On examination a large rounded greyish-white mass was found immediately behind the free portion of the epiglottis, and completely filling the entrance to the larynx. The larynx proper was free from disease, and the growth seemed to spring from the region of the aryepiglottic fold or the base of the epiglottis. The whole appearance was that of an epithelioma. There were some enlarged glands in the neck. It was removed by Mr. Wilfred Trotter.

THE institute founded by the Visconti di Modrone proposes to establish a "travelling professorship on malaria." The professor will deliver popular lectures in malarious districts on the social and economic and the pathological and prophylactic aspects of the disease, and on agricultural improvements likely to lessen its prevalence in infected districts. In addition to the lectures, pamphlets as to prevention will be issued. Mechanical preservatives such as metallic netting for doors and windows and supplies of quinine will also be distributed gratuitously to the poor.

THE French Parliament recently decreed that a university should be established at Algiers. The *Journal Officiel* has just published the names of those appointed to Chairs in the Medical Faculty. Among them are the following: Anatomy, M. Trolard; Physiology, M. Rey; Pathology, M. Soulié; Clinical Surgery, M. Vincent; Diseases of Hot Countries, Syphilis and Dermatology, M. Brault; Hygiene and Forensic Medicine, M. Crespin; Clinical Midwifery, M. Rouvier; Clinical Ophthalmology, M. Cange. The following are *agrégés*: Diseases of Children, M. Curtillet; Clinical Medicine, M. Ardin-Delteil; Morbid Anatomy, M. Weber.

Reviews.

ADDISONIAN ANAEMIA.

No department of medicine calls more urgently for renewed study and criticism than that concerned with the various forms of anaemia, and it would be impossible for an investigator so accomplished as Dr. HUNTER, who during twenty years has devoted much attention to the subject, to write on it without giving to his readers not only many facts derived from his own extensive and prolonged observations, but also views on the etiology and pathogenesis of these disorders derived from a catholic acquaintance with the literature. His book entitled *Severest Anaemias*,[1] the first volume of which has appeared, is certain, therefore, to excite the interest of pathologists, and we make no doubt has already received at the hands of many of them the attention it deserves. But though the book is in form a pathological treatise, and the author has, to quote a phrase of which he somewhere makes use, been forced to cut his way through a thick undergrowth of pathological researches, yet it is in its aim clinical. This first volume is to be followed by another ostensibly on the questions of diagnosis and treatment, but the main thesis contained in what has already been published, is of first-rate importance to men engaged in the everyday practice of medicine. The author, in fact, asks the profession radically to revise the opinions it had been induced to accept mainly on the authority of certain distinguished German histologists with regard to the severest anaemias, to give up once and for all the term "pernicious anaemia," and to recognize a new classification of anaemias based on their etiology. The matter is far more important than a mere academic disputation as to terms, for if Dr. Hunter's views as to etiology may be accepted, there follow from them certain obvious conclusions which, by arming us with an effective system of treatment, must altogether alter the prognosis in cases hitherto regarded as beyond the resources of art.

He has not hesitated to enter into a controversy as to English or German priority in the discovery of one of the severest anaemias, that first described by Addison under the name idiopathic anaemia, but to which the term "pernicious anaemia" has commonly been applied for many years. Dr. Hunter is urgent that the question-begging adjective "pernicious" should be replaced by "Addisonian." Very much may be said for adopting this nomenclature. In this case there is very much in a name, for whereas "pernicious" carries with it a prognostic connotation which must be most distressing to the patient and discouraging to his doctor, it possesses no value as an indication of the cause of the malady. As Dr. Hunter holds a very definite opinion as to its infective nature it would perhaps have been better to have used more consistently the term "Addison's infective anaemia."

Dr. Hunter has traversed the literature very fully. He reviews the work of Combe and of Addison, of Biermer and of Immermann, and shows that the published works of the British protagonists not only establish their priority but attain a clearness of definition of Addison's anaemia which German writers of a later date only tended to confuse.

To determine what view of the etiology and pathology of the severest form of anaemia is the more correct, it must first be ascertained whether the opposite camp are in agreement or not as to what should be called Addison's (or pernicious) anaemia, for most of the difficulties of all workers in this subject would be resolved if the cause of this obscure disease were unearthed. There can, however, be little doubt that proper credit has not been given to our fellow countrymen. Dr. Hunter deserves our gratitude on this ground alone for so skilfully sifting the evidence; but, as will be seen, the result of this examination of the evidence is something far more valuable than the settlement of a question of priority. It shows that, the way having been paved by an initial clinical confusion for which Biermer must be held responsible, pathologists, dazzled by the brilliant histological researches of Ehrlich, have for more than a generation gone on mistaking cause for effect, and have led the profession generally to retrograde from the position won by the clinical acumen of Addison, who recognized that the special anaemia to which he applied the rather unfortunate term "idiopathic" is a distinct disease presenting a series of symptoms of which profound anaemia is the most striking—a disease not curable by ordinary treatment, and with a very marked tendency to go on to a fatal issue, the symptomatic anaemia deepening as the disease progresses.

Dr. Hunter's thesis is that the cause of the disease is an infection, and that the infectious process attacks primarily the alimentary system, producing, with or without observed antecedent inflammatory lesions, degenerative and atrophic changes commencing in the mucous membrane of the tongue, stomach, and intestine, but extending to the deeper structures of those organs. He further asserts that treatment directed to the cure or arrest of this local infection is attended by cure or arrest of the disease and consequent disappearance or diminution of the attendant anaemia.

Setting aside for the moment the more technical points in order to make Dr. Hunter's position clear, and to explain, perhaps, some of the difficulty which he encounters in defining it, it should be said that two different opinions, or currents of opinion, with regard to the severe anaemias not due to haemorrhage, have existed. One has been that all varieties of severe anaemia are destined to be merged again into one, when etiology shall be perfected; and the other that a better knowledge of their etiology will show that the group of affections in which severe anaemia is the prominent symptom belong to several categories. It is to the latter view that Dr. Hunter has been brought, and in a diagram which forms a frontispiece to his book he classifies anaemias into three great classes, which, beginning with the least serious, are as follows:

I.—NON-INFECTIVE ANAEMIAS.

In which the chief cause is not infection, namely:

Traumatic anaemia following haemorrhage.
Trophic anaemia due to nutritional causes.
Chlorosis, a special form related to age, sex, development, loss of iron, etc.

II.—INFECTIVE ANAEMIAS.

Caused by various infections seated for the most part in the alimentary tract (mouth, stomach, intestine), and affecting the blood with special intensity, owing to their action in the portal circulation where the blood changes, both formative and destructive, are most active. The commonest of the infective anaemias is

Septic anaemia, due to staphylococci or streptococci, and connected with oral, gastric, and intestinal lesions. In this way severe anaemia may be produced, presenting symptoms closely resembling those of Addisonian anaemia, and frequently so diagnosed; pathologically it is sharply distinguished from Addisonian anaemia by the fact that it causes non-haemolytic and aplastic blood formative changes, and by the absence of the special type of atrophic inflammation of the tongue, characteristic of Addisonian anaemia.

Intestinal infective anaemias, including many cases of severe anaemia not otherwise classified, "tropical anaemias" (sprue, etc.), and many forms of anaemia in children.

Anaemia due to putrefactive sepsis, such as that attending tapeworm, and that of the dirt eaters of India.

III.—ADDISONIAN INFECTIVE ANAEMIA.

A specific infective disease due to a special infection causing marked haemolysis. Its lesions are to be found in the tongue, where the changes they produce can be recognized during life, and in the mucous membrane of the stomach and intestines.

This first volume, then, of Dr. Hunter's *magnum opus* is essentially a review of the work done at home and abroad during the past forty years on severe anaemias. The history, interpretation, nomenclature, and classification of the subject is entangled to a singular degree, but the author's investigations have led him to certain conclusions regarding the real nature of the several types, which are embodied in the above classification. He summarizes his thesis as to Addisonian anaemia in the statement that "the essential changes are not, as is generally alleged, the blood changes, but the infective processes underlying these changes." He insists that these infective processes are not, as some have supposed, terminal processes, but that, on the contrary, they are most marked in the earlier stages, and may become less obvious as the disease progresses. Nor are they the result of anaemia *per se*, for the anaemia is profoundly modified or arrested altogether by their removal. He holds that these infective processes lead to the histological changes in tongue, stomach, and intestines which he describes and figures, and not only explain the more prominent and characteristic clinical and pathological features of the

[1] *Severest Anaemias, their Infective Nature, Diagnosis, and Treatment* By W. Hunter, M.D Edin. Volume I. London: Macmillan and Co. 1909. (Roy. 8vo, pp. 242. 10s.)

disease—its glossitic, gastric, and intestinal lesions and disturbances, the intense haemolysis with its resulting anaemia, and the compensatory marrow changes—but account also for other features no less constant and characteristic—the fever and the nervous symptoms and lesions (peripheral paraesthesiae, striking psychical and even mental disturbances, and subacute combined degenerations of the cord), which, in varying severity, singly or combined, are, he states, presented by every case of Addisonian anaemia. As to the nature of the pathological processes produced by the infection, he writes:

> The character and pathogeny of these disturbances and lesions are fully elucidated, according to the writer's observations, by the lesions presented in the tongue. As can there be seen in severe cases the lesions extend down and involve the nerves, causing a toxic neuritis. This is marked, *clinically*, by tenderness of the tongue—in many cases of the most intense character, and it is followed, *pathologically*, by two sets of changes: (1) Intense *neurotrophic changes* in the epithelial covering and in the muscle of the tongue, shown also during life by the *glossiness* of the tongue surface, and the *diminished size* of the tongue; and (2) *secondary degenerative changes* extending along the sensory nerves to the cord, and causing the various peripheral sensory disturbances and the subacute degenerations above described.
>
> Similar changes, doubtless, accompany the lesions in the stomach and intestine, and cause similar effects, notably the unusual degree of gastric atrophy which attends the disease. For, in many cases, the sensory disturbances—evidenced by acute gastric discomfort, repeated vomiting, sharp attacks of tearing, griping pain in the intestine followed by diarrhoea—are even more marked in the stomach and intestine than in the tongue, and are accompanied by peripheral paraesthesiae in the legs and arms.

If we accept Dr. Hunter's thesis that Addisonian anaemia is an acute specific infectious disease, we are entitled to ask him to enlighten us on its etiology. If we understand him aright his answer would be that the specific infection is to be traced to definite exposure to drain or sewage infection, but that it occurs commonly in association with septic infection, which septic infection itself produces anaemia, so that ordinarily the patient when first seen is suffering from a degree of anaemia due in part to the specific Addisonian infective agent, and in part to the septic infection. In the lesions caused by the septic infection in mouth, stomach, and intestine, the specific Addisonian infective agent finds a suitable port of entry. Effective treatment of the septic lesions produces a marked effect on the anaemia, though during the prolonged course which these cases often run relapses may often occur.

In the present volume the facts observed with regard to this Addisonian anaemia are described in sections dealing respectively with its problems, its history, its etiology, its nomenclature, and its pathology, including the haemolytic lesions, infective lesions, and blood-forming lesions. The infective lesions are illustrated by seventeen plates. Each of these sections of the work is to a large extent an independent essay, dealing with separate classes of facts, recorded in many instances by different observers. A study of each section is necessary to a full understanding of the whole subject, since conclusions important in diagnosis and treatment arise out of some portion of each section. In this respect the reader's task is facilitated by the introductions to the sections, which bring out the relation of each section to the one preceding it, and to the problems of the disease as a whole. Finally, the whole argument is summed up in an epilogue.

The etiological, clinical, and diagnostic features are classified in tabular form in an index or summary at the end of the work. The full consideration of the clinical bearing of these facts, and a discussion of the anaemic conditions which have been and still are constantly grouped with Addisonian anaemia, are reserved for a second volume.

The point to which we would call attention as of prime importance, because it is in this particular direction that the book will appeal with the greatest success to general practitioners, is the discussion of the question whether it is possible for Addison's anaemia to be diagnosed by clinical signs and symptoms, or whether it is necessary to rely upon the haematological criteria set up by Laache, Ehrlich, and others. Having seen some of Dr. Hunter's cases, we venture to express the opinion that the condition of the tongue presented in a patient who is suffering from the condition to which he would apply the term "Addisonian anaemia" is undoubtedly striking—the atrophic appearance of the mucous membrane, the smooth surface, as though covered with a thin transparent varnish, the patches of what may perhaps be best described as excoriation, as though the mucous membrane had been sandpapered here and there, and finally the diminution in the bulk of the organ, best seen when it is withdrawn. When combined with the lemon anaemia, these signs certainly make up a striking clinical picture. Dr. Hunter, we believe, would claim that it is characteristic, and his claim appears confirmed when the same atrophic condition of the tongue is seen in another patient presenting no obvious anaemia, but who, the history sheet shows, has on one or more occasions suffered for a prolonged period from an illness accompanied by severe anaemia arrested by treatment directed mainly to the local condition. At any rate, it would seem that Dr. Hunter is entirely right when he demurs from accepting Ehrlich's dictum that for the diagnosis it is necessary to establish the presence of megaloblasts. Dr. Hunter has clearly taken great pains to weigh fairly the evidence by which this view is supported; and if he be correct in his statement as to the real pathological diagnosis of the cases upon which Ehrlich based his contention, then it must at once be conceded that haematological investigations of this form of anaemia have been robbed of much, if not all, of their value. He entirely, so it seems to us, disposes of Ehrlich's contention that Addison's anaemia and its megaloblastic expression are due to a primary reversion of the marrow to the embryonic type, and are associated with degenerative changes occurring in the marrow. That reversion to embryological features should be attended by degeneration of the marrow elements is certainly a surprising proposition, and Ehrlich provides no explanation why this reversion (and degeneration) takes place. Dr. Hunter, on the other hand, relying largely upon the more indirect and circumstantial evidence yielded by clinical investigation, concludes, as has been said, that the changes in the marrow are the results and not the causes of the other change attending the disease.

DISEASES OF THE HEART AND BLOOD VESSELS.

THE sixth volume of the new edition of ALLBUTT and ROLLESTON'S *System of Medicine*[2] is devoted to the important subjects of diseases of the heart and blood vessels. These were divided between two volumes in the original edition, and their inclusion under one cover is an obvious gain.

Several entirely new chapters have been written, and most of the old ones have been revised and brought up to date, either by their original authors or by the editors and their assistants. Of the whole book, it may be said that it is essentially a work for the library rather than for the consulting room. Many of the articles, and notably those contributed by the senior editor, are written in discursive and chatty style, more suggestive of the medical philosopher in his armchair than the teacher in his class-room. Full of a vast amount of information as to the results of modern experiment and observation, at once interesting and instructive, it will not be found so easy to draw conclusions from them as from the more dogmatic assertions of the textbooks.

Dr. J. Mackenzie has revised Dr. Sherrington's original paper on cardiac physics, and has amplified it under the heading of "Physics of the Circulation." The complex relations of the neural and muscular elements in the heart wall are gradually being unravelled, and many new observations have been recorded on vascular tension. By slow degrees explanations are forthcoming of the varied disturbances of the heart's rhythm observed at the bedside, valuable in some cases for prognosis, but affording little help as yet in effective treatment.

Diseases of the pericardium are described at length by Dr. F. Roberts, while the pathological and experimental evidence as to the causation of the Stokes-Adams syndrome is judicially summed up by Dr. Keith and Professor Osler. The verdict is left to the jury of readers.

---

[2] *A System of Medicine.* By Many Writers. Edited by Sir Clifford Allbutt, K.C.B., and Dr. H. D. Rolleston. Vol. vi, Diseases of the Heart and Blood Vessels. 1909. London: Macmillan and Co., Limited. (Med. 8vo, pp. 877; 85 figs., 3 plates. 25s.)

Following on a full account of angina pectoris by Sir R. Douglas Powell, in which a more hopeful tone as regards treatment may be noted, will be found a long chapter on overstress of the heart by Sir T. Clifford Allbutt, supplemented by a valuable summary of his observations among young athletes, by Dr. R. W. Michell, of Cambridge, who lays chief stress upon the lessons to be learnt from repeated observations of the pulse and of the blood pressure, and is not inclined to trust the very uncertain evidence afforded by percussion and skiagraphy. Professor Allbutt discusses at considerable length the elasticity of the heart walls and the effects upon them of strain leading to overstress, by which term he would indicate a greater or less degree of permanent damage. In some quarters an undue importance has been attached to certain minor cardiac disturbances, leading to fears and precautions that are by no means warranted. The senior editor has also revised his chapter on functional disorders of the heart, and in the discussion of both subjects the personal note predominates. The reader may for the time forget his textbook and enjoy the fireside chat of the experienced clinician who thus genially indicates the difference between the solid and the gaseous elements of modern theory and practice.

Articles by Dr. Newton Pitt on right-sided valvular disease, and by Dr. Laurence Humphry on congenital diseases, are brought up to date by their respective authors, while others on endocarditis and mitral disease by the late Drs. Dreschfeld and Sansom are revised by Dr. McCrae and Dr. Gibson.

A chapter on vascular disorders, contributed by Dr. F. W. Mott, contains an admirable account of all the best work that has been done in past and present times on arterial degeneration and its relation to renal disease. Dr. Mott's special opportunities of study of the degenerative processes in the insane have led him to conclusions which should rank as authoritative. The artificial contraction produced by adrenalin has opened up many new views as to the chronic morbid changes in contractile vessels and has also thrown considerable light upon the functional disturbances of circulation which have of late years been held to explain many obscure conditions. The author's contribution is of more than ordinary value and deserves careful study.

Dr. Osler has written a new account of aneurysm, less discursive in style than some of the articles that we have referred to, but not less full of accurate observation and practical wisdom.

Chapters on diseases of the veins and lymphatic vessels and on thrombosis and embolism, revised or rewritten by Dr. Rolleston, serve to conclude a volume which is in all respects representative of the latest knowledge and experience at home and abroad.

TRYPANOSOMIASIS: SPLENOMEGALY.

NUMBERS 2 and 3 of the third volume of the *Annals of Tropical Medicine and Parasitology*[3] are chiefly devoted to the study of trypanosomiasis; articles on the prophylaxis of malaria and splenomegaly, however, are included. The list of the papers is as follows: On the Flagellates occurring in the Intestine of *Glossina palpalis* and in the Intestine and Proboscis of *Glossina morsitans*; Second Report on Human Trypanosomiasis in North-Eastern Rhodesia and Nyasaland; and a Report on Trypanosomiasis of Domestic Stock in Northern Rhodesia (North-Eastern Rhodesia), all by Allan Kinghorn and R. Eustace Montgomery; Sanitary Measures and Malaria Epidemics of Athens, by John Cardamatis; an Account of a Form of Splenomegaly with Hepatic Cirrhosis, Endemic in Egypt, by H. B. Day and A. R Ferguson; and Biochemical and Therapeutical Studies on Trypanosomiasis, by Anton Breinl and M. Nierenstein. Drs. Kinghorn and Montgomery raise some very interesting points in their report on trypanosomiasis in domestic animals in Northern Rhodesia. One of these is a suggestion that *Glossina morsitans* seems to be able to exist without sucking blood, and the proofs they bring forward seem conclusive. Another is that in the parts they worked in, the wild game did not seem to act as the reservoir for infection, only a very small percentage showing peripheral trypanosomes, 2 out of 158 direct examinations, for example. Again, they have failed to notice any intimate connexion between the fly and the game, their conclusions being strongly supported by the testimony of big-game hunters such as Mr. F. J. Jackson and Sir Alfred Sharpe. All these questions are of manifest importance for Rhodesia, and further work on the lines laid down by the authors is indicated. Drs. Breinl and Nierenstein's paper on the biochemical and therapeutical studies on trypanosomiasis is very valuable; it indicates, for instance, how chronic an infection may be in an animal, and how dangerous it is to say when it can be considered cured. The recent reports of sleeping sickness in Uganda unfortunately appear to bear this out for the human subject also. The Egyptian splenomegaly with hepatic cirrhosis, an account of which is given by Drs. Day and Ferguson, will probably turn out to be a specific entity. Apparently similar cases have been seen from the West Coast of Africa, and have also been noted in the Philippines, but at present it is impossible to say whether they or, as a matter of fact, ponos, an incompletely investigated condition found in some of the islands of the Grecian Archipelago, have anything to do with the Egyptian form or even with each other. This much is certain—that there is a class of tropical splenomegalies in no way associated with the Leishman-Donovan body, and there seems no doubt that the writers are correct when they say that their cases have nothing to do with kala-azar or malaria. Apart from the absence of the Leishman-Donovan bodies, which are easily found in liver and spleen juice in kala-azar, the cirrhosis of the liver described by them is enough to differentiate the two diseases. In many cases of kala-azar the liver shows no cirrhotic changes at all, and though in others it does, these are seldom marked or specially manifest, nor, in fact, are the papular eruptions and ulcers of the limbs containing the parasite—at least in sporadic cases seen in white people—a point on which some stress is laid by the authors in their differential diagnosis. Malaria can be dismissed in one word—the slate-coloured pigmented spleen is totally different to that described, and the two have evidently no relation to each other. Dr. Cardamatis's paper shows by a series of clear photographs how stagnant watercourses can be improved and rendered less attractive to mosquitos for breeding purposes. The results obtained from the antimalarial measures in Greece are highly encouraging. It is interesting to note that *P. superpectris* seems to be the only anopheline present, no mention being made of the *Anopheles maculipennis*, the common carrier of Italy.

[3] University of Liverpool, October 20th, 1909. Series T.M., vol. iii, No. 2. Reports, November 1st, 1909, vol. iii, No. 3. *Annals of Tropical Medicine and Parasitology*. Issued by the Liverpool School of Tropical Medicine. Liverpool: University Press; London: Constable and Co., Ltd. (Each 7s. 6d. net.)

INDUSTRIAL DISEASES AND ACCIDENTS.

THE handbook on *Industrial Diseases and Accidents*,[4] by Mr. W. J. GREER, F.R.C.S., Surgeon to the Newport and Monmouthshire Hospital, is intended to serve as a handy work of reference when information is quickly needed in connexion especially with cases of alleged inability to work, in which claims for compensation arise under recent Acts. As the author truly says in the preface, "the subject of trauma as an etiological factor in disease is one of much interest and some obscurity," and he modestly adds that he is conscious that in the present position of the medical and economic questions involved, the book must be incomplete. For all works on the subject the same apology must at present be made, since the profession is being called upon to deal with an application of medical and surgical knowledge to practical affairs under novel conditions created by modern legislation. In another application of the word the book seems very complete, as we have not failed to find a note upon every subject which it might be expected to treat. The several articles, which necessarily vary very much in length, are arranged alphabetically, and there is, in addition, an index, so that it is easy to find the information required on any point. In the various articles a short description of the anatomical structures concerned is given, and a set of semi-diagrammatic drawings of the abdomen and viscera, the pelvis, lumbar vertebrae, and hip-joints,

[4] *Industrial Diseases and Accidents.* By W. J. Greer, F.R.C.S., D.P.H. Bristol: J. W. Arrowsmith; and London: Simpkin, Marshall and Co. 1909. (Cr. 8vo, pp. 348, plates viii. 7s. 6d.)

of the hip-joint dissected to show the head and acetabulum, of the knee, shoulder, and elbow joints, of the hand, and of the foot, admirably executed by Mr. T. P. Collings, are reproduced in eight special plates.

The article on malingering is a good example of Mr. Greer's method. After a definition guarded by sentences in which it is pointed out that it must not be confounded with mere exaggeration of a condition actually existing, and some general observations, pain, the signs of Mannkopff, Bechterew, and Müller, anaesthetic areas, Unverricht's electrical test, tremor, Fuchs's test, and Seeligmüller's procedure are severally described and discussed, and the article concludes with hints as to the method of examination and some statistics of the frequency of malingering, the more recent fully justifying the author's opinion that the medical examiner should arrive at this diagnosis only after most carefully excluding every other. The article on exaggeration contains so much practical wisdom that we take leave to quote it in full:

EXAGGERATION.—Claims for compensation after injury appear to fall naturally into three classes—genuine, exaggerated, fraudulent. On the question of exaggeration it must be obvious that even a genuine claimant will hardly be expected to relate the account of his injuries and the story of his symptoms without, at all events, endeavouring to fully impress on the medical examiner the reality of the claim. In such a case there will have been an actual accident and positive injury, and if he does lay what appears to be undue weight on any of his symptoms it is very often on that one which is least important from a pathological point of view. This amplification of real symptoms is, strictly speaking, reprehensible, but frequently *bona fide*. It mostly expresses the lines on which the patient's fears for his future runs. Such an amplification or over-statement is a totally different matter to the exaggeration which comes close to imposture. In giving careful consideration to the narrative of the patient's sufferings, it is well to remember that it is not in accordance with scientific precepts to put down to exaggeration or fraud symptoms which we are unable to explain, and that it is quite possible for even the youngest medical man to make a mistake. We may, then, guardedly speak of two kinds of exaggeration: (*a*) The involuntary, an exaggeration which is part of the hypochondriasis and neurosis that accompany injuries; (*b*) the voluntary, an exaggeration which is deliberate, and which is capable of being demonstrated as fraudulent.

The book, which bears a dedication to Judge Owen of the Cardiff and South Wales County Court Circuit, who has died since its publication, will be found useful by lawyers concerned in compensation cases. It will enable them to understand something of the medical difficulties which attend the formation of a just opinion in such cases, and of the extreme complexity of the factors which have to be taken into consideration before a true answer can be given to a question which can be expressed in a few words, and to which an uninformed person might readily suppose that a definite "Yes" or "No" would be an adequate reply.

ORTHOPAEDIC SURGERY.

DR. HENRY LING TAYLOR, of New York, correctly calls his recent book *Orthopedic Surgery for Practitioners*.[5] The book embodies the results of a long and wide experience, expressed with sound judgement, but it is, as it is doubtless meant to be, more of a guide for those in general practice than a complete treatise for specialists. The subject is approached from the clinical more than from the pathological side, and considerations of space have caused many points to be almost too briefly dealt with. The result is that the work has rather a marked didactic tone, for in many cases it has only been possible to give the opinion of the author, without discussing the views of other authorities. A countervailing advantage is that the reader feels no doubt as to what should be done in any given case, and we think that he will find his confidence justified in practice. Fuller descriptions of some conditions are desirable, among which we may mention birth palsies, psoas abscess, typhoid spine, and finger contractions. The descriptions of these and of some others are very cursory. On the other hand, the article on congenital dislocation of the hip, although short, is very much to the point and very practical.

[5] *Orthopedic Surgery for Practitioners.* By Henry Ling Taylor, M.D., etc., assisted by Charles Ogilvy, M.D., etc., and Fred. H. Albee, M.D., etc. New York and London: D. Appleton and Co. 1909. (Roy. 8vo, pp. 527; 254 illustrations, 21s.)

The book is divided into three parts—general, special, and technical. The last treats of the various appliances and proceedings used in orthopaedic work.

On the whole, we can safely recommend this book as a useful handbook and guide to the subject, especially if the reader's information can be amplified by reference when necessary to more elaborate works. It is well illustrated by numerous photographs, but a fuller list of references to the authorities quoted in the text would have been welcome.

AMATEUR DIETETICS.

THE little book on *Scientific Nutrition Simplified*, by Mr. GOODWIN BROWN,[6] and that on *Food and Health*, by Lieutenant ARTHUR E. POWELL,[7] are examples of a somewhat large class of publications addressed to the public by lay persons who consider themselves competent to lecture their fellow men on how and what they should eat, and the medical profession upon their duty to their patients. Both the writers take it upon themselves to charge the medical profession with ignorance and neglect of the subject of dietetics, although all the information they possess is derived from the writings of medical men. They are both fond of indulging in disparaging extracts from Dr. Dewey, Dr. Edward Curtis, and Dr. Anna Kingsford, whose position as scientific authorities has never been recognized by the medical profession. By far the worst offender is Lieutenant Powell, whose book is throughout merely a strong appeal in favour of vegetarianism; he is also an advocate of most of the allied fads, such as the use of whole-meal bread, the "thorough mastication" of Mr. Horace Fletcher, and abstinence from tea, coffee, tobacco, and alcohol. Flesh eating is denounced on ethical grounds on account of the cruelty involved to the animals whose flesh is eaten. As an example of the untrustworthy character of the book, we may quote the analysis of what the writer calls "a typical good dinner," his object being to show that the average man eats far too much animal food. This is how the account is made up: 2 oz. oysters; 4 oz. sole; 2 oz. mutton cutlets; 2 oz. roast beef; 2 oz. chicken; 1 oz. partridge; ½ oz. sardines, which seems an altogether unusual sequence of animal food. On the other hand he allows only 1¾ oz. of bread, including the bread in the bread sauce and breadcrumbs, with 2 oz. of potatoes. From a considerable experience in the dieting of diabetic patients whose carbohydrates are necessarily limited, we are sure that most persons would complain greatly of the above amount of carbohydrate food as insufficient, and yet this is put forward by the writer as the average quantity taken by the "ordinary Britisher." If these quantities are raised to 3 oz. of bread and 4 oz. of potato, the whole argument crumbles to the ground. The writer is biassed throughout. He uses quotations from standard medical authors when they can be made to serve his purpose, although they repudiate the conclusions at which he arrives. Mr. Goodwin Brown's book is peculiar, because while all that is written by him is a prejudiced account of the progress of modern dietetics from the vegetarian and faddist standpoint, it concludes with a perfectly sound chapter written by Dr. J. Sven, which, in tone and teaching, is completely at variance with the rest of the book.

NOTES ON BOOKS.

MR. W. PALIN ELDERTON and Miss ETHEL ELDERTON, two able representatives of the modern biometric school, have set themselves the task of explaining in simple language modern statistical conceptions. Their *Primer of Statistics*[8] accomplishes this task with great success. Statistical terms of art such as standard deviation, mode, quartilex, median, coefficient of correlation and probable error, are explained and illustrated without appealing to any mathematical technicalities, and the veriest tiro could hardly misunderstand the account. The illustrations chosen, the size of nuts and cricket scores, are not in themselves of great interest, but all statisticians know the difficulty of

[6] *Scientific Nutrition Simplified* (Simple Life Series). By Goodwin Brown, A.M. With Supplementary Chapter by J. Sven, M.D. London: William Heinemann 1909. (Cr. 8vo, pp. 283. 2s. 6d.)

[7] *Food and Health.* By Arthur E. Powell, Lieutenant Royal Engineers. London: Methuen and Co. 1909. (Post 8vo, pp. 276; 1 illustration. 3s. 6d.)

[8] *A Primer of Statistics.* By W. Palin Elderton and Ethel M. Elderton. Pp. 86. 1909. London: Adam and Charles Black. 1s. 6d. net.

choosing examples at once simple and interesting. We congratulate Mr. and Miss Elderton, and hope that their work will be widely studied.

The Year Book and Diary[9] issued by the publishers of the *Sanitary Record* retains the useful features which have characterized the publication for so many years. The long list of sanitary and allied associations which it contains is evidence of the very considerable interest taken in sanitary matters at the present time. The omissions in the list which we noted when we referred last year to the issue for 1909, have been repaired, and the new volume may be regarded as accurate and dependable. The detailed particulars relating to the examinations conducted by the Royal Sanitary Institute, the Sanitary Inspectors' Examination Board, and by the Sanitary Association of Scotland should prove of great service to those who contemplate entering for one or other of these examinations.

The new issue of *Whitaker's Peerage, Baronetage, Knightage, and Companionage*[10] exhibits no material departure from its thirteen predecessors, but it has been brought up to date and shows one or two minor improvements. Among these is some extension of the long introduction, which includes a glossary of official terms and descriptions of modes of address, and the origin of various orders. This year appears for the first time a section dealing with Indian titles, while in the body of the directory itself an attempt is made to give an account of the better-known Indian princes and chiefs. The whole of the names included in the work are placed in alphabetical order, and this makes the use of the book for reference very easy. It concludes with an index of the country seats and residences of the various persons named.

Of the seventeenth volume of the *Archives of the Middlesex Hospital*,[11] about half is given up to the reports of the medical, surgical, and obstetric registrars for the year 1908, together with the report of the Pathologist, Mr. C. Ernest Laking. The remaining pages are occupied by some nine papers of a clinical character, among the writers being Mr. Bland-Sutton, who deals with tubal pregnancy; Dr. Campbell Thomson, who in some notes on diseases of the nervous system discusses disorders of gait; Dr. F. E. Taylor, whose subject is the operative treatment of uterine displacements; Mr. Sampson Handley, whose notes on abdominal emergencies have already been mentioned in these columns; and Messrs. A. E. Johnson, Otto May, and Cecil Rowntree. The former discusses the nature, prevention, and treatment of shock, and the latter deal respectively with sensory disturbances in heart disease and actinomycosis of the vermiform appendix.

[9] *The Sanitary Record Year Book and Diary 1910.* London: The Sanitary Publishing Company. (Post 4to, pp. 72. 2s. 6d.)
[10] *Whitaker's Peerage, Baronetage, Knightage, and Companionage.* London. 1910. (Post 8vo, pp. 800. Price 5s.)
[11] *Archives of the Middlesex Hospital.* Clinical Series No. 111. 1909. London: Macmillan and Co.

MEDICINAL AND DIETETIC ARTICLES.

Thyresol.

WE have examined samples of thyresol, in capsules and in tablets, submitted by the Bayer Company, Limited (19, St. Dunstan's Hill, London, E.C.). This substance is the methyl ether of santalol, and it is claimed that no santalol is liberated in the system when it is administered, with a consequent absence of the unpleasant symptoms sometimes produced by the latter, such as eructations, irritation of the kidneys, or interference with digestion, while its antiseptic action in gonorrhoea is said to be equal to that of santalol itself. Thyresol is an oily liquid, insoluble in water but readily soluble in alcohol; the capsules contained 5 grains each. In the tablets a similar dose is, by the addition of magnesia, presented in dry form; the liquid was readily liberated from these when they were placed in water, and disintegration soon occurred.

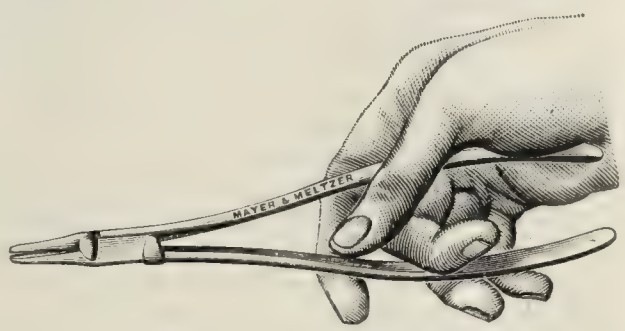
Jecovol.

Messrs. Jas. Woolley, Sons and Co., Limited (Manchester), have submitted a sample of their preparation called "Jecovol," which is described as an egg emulsion of cod-liver oil, with glycerophosphates of calcium, sodium, and iron. Our analysis showed the proportion of oil present to be practically 50 per cent., but the fishy taste can barely be detected, if at all, in the emulsion, which is quite agreeable to the palate, and stable. The glycerophosphates are stated to amount to 6 grains in each fluid ounce, and the combination should prove useful.

MEDICAL AND SURGICAL APPLIANCES.

A Simple Form of Needle-Holder.

PROFESSOR C. YELVERTON PEARSON (University College, Cork) writes: The belief that anything which favours greater simplicity and uniformity in operative methods is an advantage has induced me to bring under notice a description of a simple form of needle-holder which has for some years given me satisfaction. Many surgeons avoid the use of any holder when possible, and this has been my invariable custom. For superficial wounds a needle, if straight and of sufficient length, can be used more rapidly and efficiently without any holder, and I usually employ an ordinary straight sewing needle and thimble for intestinal work, which in most cases can be done outside the abdominal wound. There are, however, many situations in which, owing to inaccessibility or the variety of small needle employed, the use of a holder becomes imperative. The requirements of a good needle-holder are many: (1) It should be simple in construction, and (2) consequently easily cleansed. (3) It should be able to grasp an ordinary needle of any form in almost any position without permitting it to rotate and without danger of fracturing it. Fracture of a fully-curved needle is easily produced by pressing it tightly in a holder possessing jaws with grasping surfaces so formed that their approximation tends to straighten the needle. (4) The instrument should be one that can be readily manipulated; and (5) noiseless in action, as the clicking sound which accompanies the locking and unlocking of many needle-holders is highly irritating to the feelings of a patient who is not under the influence of a general anaesthetic. My needle-holder fulfils the above conditions. Its form and the method of holding it are well shown in the accompanying illustration. In general appearance it resembles Martin's needle-holder. The jaws are, however, much narrower and more pointed. The surface of the lower blade has a broad and shallow groove, while the surface of the upper blade is flat and leaded. This form of construction makes it impossible for the operator to fracture a curved needle even when severe pressure is used in holding it. If the instrument is held in the manner shown in the illustration the ease with which a needle can be released and again seized will be a pleasure to the operator. The instrument is manufactured by Messrs. Meyer and Meltzer.



A PATIENT ON A POTT'S FRACTURE.

THE following note by Mr. Frederick Wicks, distinguished as an inventor, and especially as the inventor of the rotatory type-casting machine, will, we believe, be read with interest:

It is now two years and three months since I found myself charged with the job of mending a Pott's fracture in my left leg; and a week ago I found myself pointing my toes to the step as I came downstairs. I said to myself, "The job is finished at last."

I know nothing of anatomy, surgery, or pathology beyond what an ordinary man comes up against in his going to and fro; but I have always kept a pretty constant watch upon myself as a working machine; and it has occurred to me that the medical faculty might like to know what has happened to me in the mending of that Pott's fracture from a purely amateur point of view in the 68th year and the two succeeding years of a life devoted chiefly to sedentary occupation.

Setting aside the early stages of the process, which were characterized by the customary bandaging and immobility, concerning which I have something to say later, I have an acute recollection of a feeling of deadness or numbness of the foot when the bandage was removed, and I am conscious of a continuance of that same feeling of numbness, now here and now there, at varying times, resulting, I presumed, from defective blood circulation and the growth probably of new blood vessels, or the re-establish-

ment of former courses hitherto checked. But I discovered early in the contest that the slightest decrease of warmth aggravated this numbness and caused pricking sensations not necessarily in the immediate position of the fracture, but in places comparatively remote. Being a profound believer in warmth as a curative influence, and having a conviction that cold is a most energetic developer of all physical ills, I adopted processes of habitual warmth with satisfactory results. Throughout the job sympathetic friends have inquried of me how the weather affected the fracture, and whether I had any rheumatism in the parts. There seems to prevail a conviction that a once fractured limb must of necessity be followed by chronic rheumatism. This is a vulgar superstition. Keep the limb warm and no rheumatism will supervene, nor any other subsequent infirmity, provided the power to mend exists in the constitution.

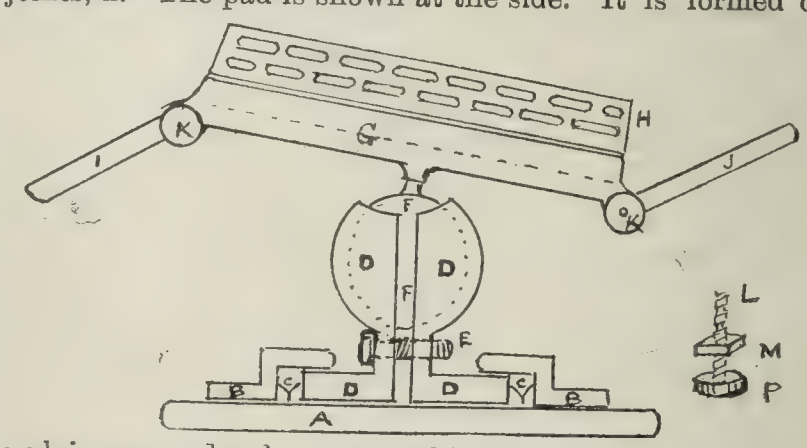
The first attempt to put the foot to the ground provides a curious sensation. It feels as if one had no foot of one's own, but was being provided for the day with a foot by some one else. The idea of putting weight on it seems ridiculous, and this preposterous idea of using the foot for any ordinary purpose remains for days and weeks. When at length some portion of weight is allowed to try its stability the sensation is one of amazement that there is an actual foot there, and hope revives. Then follows more numbness and more prickings, and all one's friends talk of "massage." I preferred my process of continuous warmth and movement without weight or strain—waggling, bending, twitching, jerking with caution, a pretence of doing all the things a foot ought to do save carrying a human being, and later doing even that cautiously, slowly, and with much sitting down.

The maintenance of continuous warmth is not difficult. I had some anklets knitted in thick wool. These I wore under my socks for a whole year. Sometimes they were uncomfortably warm, but I kept them on. Then in the country I wore leather gaiters up to the knee, with knickerbockers and wool underneath; in the town I wore dress Wellingtons. The dress Wellington is a great success. The boot must be made loose round the ankle, and so made it provides a chamber of warm air halfway to the knee. The temptation to go to a dinner party in silk socks and pumps is resisted with ease, and a draught on the floor is a matter of no concern. The only thing now remaining to be done is the revival of the rotund calf, and with continual warmth even this may come to pass.

But there has been one question pressing upon me for solution during all this tedious process, and that is whether some means could not be devised to obviate the necessity of so much restraint during the earliest processes of the cure; and certainly, to prevent the comparative atrophy of the blood vessels during the period of bandaging resulting in the necessity of what appears to be an entire rebuilding of the structure. These seemed to me to be two defects in the process of the splint. The bandaging is necessarily tight, because, no matter how expert the manipulation, the passing of one band upon another, with the gentlest pressure of each upon its predecessor, results in an accumulation of restraint altogether beyond calculation. This restraint is not confined to the fracture only, but extends for some distance above and below, and throughout the whole region the circulation is hampered, and, indeed, is practically arrested. It occurs to me that this method of bandaging delays the cure. I have the feeling that the numbness and pricking sensations I experienced were mainly due to the revival of the hampered circulation, and I suggest a remedy.

The common splint and the lint bandage should be reproduced in steel. The lower half should be lined with the customary layers of wool and lint, and the upper half should be curved in like manner to the lower half and hinged upon it, so as to bring it over the limb, and with means of bolting it to the lower half, thus allowing the limb to lie, as it were, within a cage, for I would have the upper half made of steel openwork, through the openings of which the limb could be seen. Through these openings also I would pass screwed rods in at least three places, above and by the sides of the fracture; and on the ends of each of these rods a pad. These pads I would screw down upon the fracture and fix it definitely in position upon the base. Other pads in other positions should be added for greater security. The limb thus secured would be practically immovable, but the blood circulation would be interfered with only where the pads were in contact. We know how minor blood vessels become major channels when some necessity calls upon them. I suggest that a fracture treated in this manner would not be associated with the tiresome and tedious process of reviving an attenuated limb long after the actual fracture had been mended, and that the mending of the fracture itself would be accelerated by a scheme which did not hamper the circulation throughout the whole limb.

There is another point. The fracture is set and bandaged, and the patient is requested to lie on his back and not move the limb. How many patients comply with this simple request? One per cent. at the outside. The only way possible for a patient to move without disturbing the setting of a fracture in the leg is to pivot himself upon the hip joint. It requires reflection, mechanical knowledge, and some skill to achieve by this means a movement of only an inch to get relief from a constrained position. I suggest a remedy permitting a patient to move as he pleases without a chance of disturbing the fracture or even the limb beyond the joint outside the splint. Put broadly, the scheme is to place the cage containing the fracture (held within the grip of the pads) upon a universal joint, erected upon a table, so that the limb may move in any direction without putting the least strain upon it or permitting it to be disturbed within the cage. The patient might be the veriest fidget and yet unable to disturb the setting. The drawing will explain the complete apparatus. A is a wooden table, upon which the brackets B B are screwed, holding down within a given space the socket D D, which is held together by the screw E and enclosing the ball F, which carries the cradle or splint G with its covering H provided with apertures, through which the rods holding the pads can be passed and fixed. The appendages I and J at either end are designed for supporting parts of the limb if desired, or they may be removed by unscrewing the joints, K. The pad is shown at the side. It is formed of



a plain screwed rod, L, upon which the pad, P, is loosely fitted, so as to turn upon it; and the plate, M, is screwed upon the rod, L, so as to press the pad downwards and hold it in position, as against the inside of the cage and the fractured part. So arranged, it will be observed that the blood vessels other than those pressed by the pad will be unaffected by the setting, and will maintain the limb in a normal condition, save only the weakness which will result from inaction. For the purpose of clear exposition the ball and socket in the drawing is exaggerated in size and height.

As regards the splint, it will be observed that, no matter what movement may be made by the patient, he will be unable to disturb the limb, because the framework holding it securely will yield in every direction by the ball-and-socket joint and by the to-and-fro motion on the base.

DR. VARIS, of Lucknow, in a recent pamphlet containing a paper on the etiology, epidemiology, and prophylaxis of malaria, contributed to the Medical Congress in Bombay, discusses some points of interest in connexion with this disease. He refers to observations of persons becoming infected while living in or passing through jungles where no inhabitants exist, but in the territory he describes the presence from time to time of wandering natives cannot be excluded. He would have done well to get an entomologist to identify the big domestic *Anopheles* he mentions, for observations made without such identification are necessarily useless. In his treatment of the epidemiology of the disease his views are orthodox, and may, therefore, be found of use.

RECOLLECTIONS OF A LONG PROFESSIONAL LIFE—1844 TO 1904.

By LOMBE ATTHILL, M.D.,

EX-MASTER OF THE ROTUNDA HOSPITAL, DUBLIN; AND EX-PRESIDENT, ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

(*Concluded from page 150.*)

VERY different was his contemporary, Sir Dominic Corrigan. Dr. Alfred Hudson—who for many years enjoyed a large practice, and was loved by all who knew him—called Stokes "the poetry" and Corrigan "the prose" of medicine—a most apt phrase.

Corrigan had for years the largest practice in Ireland. He was very particular about his fees, and necessarily so, for a large number of the patients who thronged his waiting-rooms were members of the lower middle class from the Irish country districts, who not infrequently tried to evade paying the fee. An amusing illustration of this came to my knowledge in this manner:

I was elected Registrar of the College of Physicians at the end of Sir Dominic's first year's tenure of office as President. It was a very busy time with me, for the building of the new college had just commenced, in which the President took an active interest, and he directed me to report to him every matter of any importance which might occur in reference thereto, or any college matter I might want advice about, so I not infrequently called at his house during his consultation hours. I used to wait in the hall till the patient came out of his study, when he always saw me at once. His man-servant, who had been for some time in his service, used, while I waited, to entertain me with various scraps of semiprofessional news. Calling one day, I found this man gone and a new man in his place, with whom I had a chat. About a fortnight elapsed ere I called again, and on doing so I said, "I hope you are getting on well." "Oh, no," he replied, "I am leaving to-morrow." Asking the cause, he told me this story: "It was a simple thing," he said; "there were a great lot of patients waiting to see the doctor the other day, and amongst them a lady from Cork. Well, the doctor had to go away before he had seen them all; this lady was among those left and was greatly put out, saying she had come all the way just to see him. I said, 'Don't mind; come early to-morrow and I will take care you see him at once.' Well, she gave me a shilling, and I put her in first the very next day. All went on well till she was leaving the study without giving the fee. So the doctor says, 'My fee, ma'am.' 'Your fee,' says she; 'did not I give the man in the hall a shilling?' He called me in and asked me was this true, and I said it was, and he gave me warning at the minute; but, you know, the place would not be worth holding if it was not for what the patients give." I burst out laughing, and at that moment the study door opened, and Sir Dominic, hearing me laugh, asked what it was about. I told him, and he said it was quite true, and joined in the laugh himself.

No doubt it was usual for doctors' servants to look out for tips from patients, but for this woman coolly to pretend that she thought a shilling given to the servant constituted the doctor's fee is a good illustration of Irish character amongst a certain class, and their "'cuteness" in finding an excuse to try and evade paying the debt.

But such meanness is far from being universal. Personally I have no reason to complain of patients of the class I have spoken of; they generally dealt fairly with me; indeed, the very opposite principle influences some—namely, that unless the doctor is paid an adequate fee he would not do his best for them. Thus, on one occasion, a woman of evidently quite the poor farmer class was ushered into my consulting room. She came from a remote district in Connaught, wore neither bonnet or hat, merely the customary shawl over her head. I soon detected that her case was hopeless; she suffered from carcinoma of the uterus in such an advanced stage that I feared she might die ere she reached her distant home. So I advised her to return the next day, and that I would write to the local doctor, though she had not brought any introduction to me. She thanked me, asked me my fee, and paid it, asking, further, what the fee would be the next time she came. I said that as she had not, I presumed, much money to spare, I would not ask for any fee the next time, adding that I strongly advised her to return home at once. She withdrew, and another patient was ushered in, on whose departure my servant came in, and said that the country woman wished to speak to me again, when she said she thought me very kind, but that she wished to remain in town, and that she preferred paying the "regular thing"—that is, a guinea—every time she came to me. Suspicion is a very strong characteristic of all classes of the Irish peasantry.

Sir Dominic Corrigan died rather suddenly while still in active practice. The Fellows of the College of Physicians elected him President five times consecutively, an honour never previously conferred, and which he fully deserved, for it was through his instrumentality the present handsome college was erected, and to the end of his life he took the greatest interest in all college matters. To me he was the kindest of friends.

Sir Henry Marsh, though an older man, was a contemporary of Stokes. He had a very large and fashionable practice; was fond of show; kept a number of handsome horses and for coachman the best whip in Ireland; he always dashed through the streets at a great pace, which had it not been for the skill of his coachman would have been dangerous. He was not genial like Stokes, and probably, from his somewhat distant manner, not popular amongst the rank and file of the profession, though liked by his personal friends, whom he sought chiefly amongst the aristocracy.

Dr. Thomas Beatty, who had a very large midwifery practice, was one of the most popular men of his day; he was alike a favourite with members of his profession and with public and with his patients. He was a fine-looking man, with a ruddy, hairless face; had a beautiful though not strong voice, and sang sweetly; was full of amusing anecdotes specially relating to medical men of a previous generation, told to him by his father, who also had been a medical practitioner, of his contemporaries; in fact, he was a regular raconteur, and in all respects a delightful after-dinner companion. I regret that I have now forgotten most of the stories I heard him relate, but the following I can give correctly.

Mr. Solomon Richards, who died in 1819, was in his day a leading Irish surgeon. He had the reputation of being the fattest and biggest surgeon in the United Kingdom. Ireland at the beginning of the nineteenth century was in a most unsettled state—even the roads about Dublin were not safe after dark, robberies and even murders not being uncommon.

Well, Richards was called on to perform an operation near Santry, a village some ten miles from Dublin, and was detained with the patient till long after sunset. It was winter, and he was returning in his carriage, having with him a Dr. Obré, who had called him in, a physician at that time in good practice, and who was as spare and insignificant as Richards was the reverse. Suddenly the carriage was stopped, and a footpad, opening the door on the side next which Richards sat, presented a pistol and demanded his purse. Richards, begging him to lower his pistol, handed him the purse, and then his watch, which the robber demanded. Then followed the demand: "Have you anything else?" "Yes," replied Richards, "here is my case of instruments," handing them out promptly. All this time Obré was concealed—hid by Richards's huge frame, which, in the dark, seemed to fill the carriage—and the footpad, not observing him, called to the coachman to drive on, but Richards stopped him, saying: "Oh, no; not till you speak to my friend on the other side of me." So

Obré, too, thus pointed out, was relieved of his money and watch. Then the robber politely said, "Good night." But Richards was not yet done with him, and said: "My friend, you would not have got that gentleman's money if it had not been for me. Now, my instruments won't bring you ten shillings in Charles Street (a street which was, and still is, the mart for all kind of second-hand tools and iron), while to me they are of value. I think you might give me them back." "Well, I will," was the prompt reply, and the case was handed in. "One word more," said Richards, "you will get very little for that old watch. I care for it because it was my father's. Let me have it." "Well, you are a decent fellow," said the robber, "here it is." Then they drove on. Obré then, in great anger, broke the silence, and in unmeasured terms abused Richards, declaring that it was mean of him to point him out, as otherwise he would have escaped. Richards let him talk for a while, and then quietly said: "Do you think I was going to allow you to boast in the club to-morrow how well you got off while Richards was robbed? Oh, no; if I was to be robbed you must be also." Dr. Beatty assured me that this story was strictly true.

Beatty was not only good company but enjoyed a good dinner thoroughly, and, to secure good care for himself at public dinners, made it a rule to tip the waiter beforehand liberally. He told me the following amusing incident in connexion therewith:

The dinner was at the Mansion House, where in old days hospitality was lavish. Everything was good and plentiful save that Beatty had some difficulty in getting as much bread as he wished for; and, having had to ask for a fresh supply of it more than once, apologized to the waiter, saying, "You see, I eat a deal of bread with my meat." "Yes, sir," replied the waiter, "and a deal of meat with the bread."

Everyone liked Beatty, and we all felt much regret that his declining years were saddened. First his wife died; then his only daughter, whom he idolized, made a match of which he did not approve. She and her husband, a doctor, lived in a remote part of Ireland, and he saw little if anything of her subsequently; while his only other child, a son, grievously disappointed him. To me he was the kindest of friends.

Dr. Montgomery, Professor of Midwifery in the University of Dublin, was an eloquent speaker, but a very different man from Beatty. He was small but not insignificant looking, and had a great idea of his personal appearance, of which he was vain. He always wore a white tie and a diamond stud in his shirt front. It was told of him that he caused no little merriment at a dinner party—all the guests being medical men—where the conduct of a lady said to be fast was discussed, it being stated that her husband was very jealous of her. Montgomery took no part in the conversation for some time, but a pause occurring, said, "Well, gentlemen, I don't believe one word of those stories. Mrs. —— has been my patient for months past. I have seen her over and over again alone in her house and at mine, and I can assure you Captain —— never once showed the least jealousy of me." At this time Montgomery was long past 70, and looked it.

I have pleasant recollections of many others, who, though senior to me, were more or less my contemporaries. Dr. Samuel Gordon, Alfred Hudson, Sir William Wilde, Robert Mayne, and others. Gordon, the colleague of Sir Dominic Corrigan, and Dr. Alfred Hudson, were both charming men—genial, but quiet and unassuming in manner, esteemed by their professional brethren, loved by their patients. Sir William Wilde, the oculist, was brusque in manner and as wild in appearance as his name, a great conversationalist, and a welcome guest everywhere.

Gordon, though a retiring man, was full of quiet humour; he told a story well. One of himself amused us much. A country woman, a farmer's wife, consulted him, her main complaint being that she constantly "reefed up wind," meaning thereby frequent eructations, no doubt kept up by the habit so common amongst the lower orders, at least in Ireland, of forcing such. Dr. Gordon prescribed for this woman asafoetida pills. Some months elapsed before he saw the patient again; he had forgotten all about her, so he again prescribed the same pills. She took the prescription and looking at it said, "Why this is the same old asafoetida pills again, they did me no good." Gordon asked her how she took them, and was told that she "swallowed them with a drop of water." "That, ma'am, was your mistake," he gravely said, "you should hold them in your mouth, chew them well, and swallow them slowly." She went away quite pleased to try the new method of taking pills. This "reefing up wind" is quite a nuisance amongst the old women in Dublin; they all practise it. I have seen two women sitting on a doorstep, one keeping up constant efforts to produce eructations, and the other clapping her on the back exclaiming, "That's right, reef it up."

If the great advance made in medical science during the last sixty years has led to a revolution in the practice of medicine and surgery, the education of the student has in like manner been revolutionized, not merely altered, and after very mature experience and much thought, I am compelled to say, not in my opinion in all respects for the better. Sixty years ago a higher standard—perhaps too high a standard—in anatomy was required of the student than is now demanded, while the clinical teaching of both medicine and surgery was far more extended than under the five years' scheme now in vogue, the result being that while the student of the present day when qualified will be far better educated in the collateral subjects, including by that term physiology, chemistry, and physics, and has acquired some knowledge at least of the then unknown science of bacteriology, he is greatly inferior in the practical part of his profession, which can alone be acquired by long clinical teaching.

During my fourteen years' term of office as representative of the College of Physicians on the General Medical Council, I took an active part in the discussion which resulted in the formulating of first the four and then the five years' schemes for medical education. To the last, in its present form, I strongly objected. I objected to the practical inhibition of a student studying anatomy or attending hospital during his first years of study, and having closely watched the result, am strongly confirmed in my then opinion. I held then that during the first year the student would not have sufficient compulsory work to occupy his time; that this would tend to the forming of habits of idleness; that he would consequently be driven more and more into the crammer's hands, and that his fifth year would be devoted to this pernicious method of teaching and not to clinical work. I have kept in touch with teachers ever since, and all except a few too interested not to be biassed admit that my fears are only too truly realized.

I see no difficulty in improving the present five-year scheme; this might be done by encouraging the student to dissect during his first year, and to attend hospital, even were it only the extern department; that would be better than nothing.

But the real solution of the difficulty would be were intending students to pass an examination in at least chemistry and physics prior to registration, registration being compulsory. This, of course, means relegating the teaching of chemistry and physics in the majority of cases to ordinary schools.

The objection to this would come mainly from the lecturers in schools of medicine. I am sorry that such should be losers. No reform is possible without someone suffering; but is the whole profession—not to speak of the public, who are so interested in the matter—to be sacrificed for the sake of a very few?

When some such reform comes—and come it must, sooner or later—four years devoted mainly *ab initio* to the study of anatomy and of medicine and surgery in all their branches would produce a far superior class of practitioners to those turned out by the cramming system now in vogue.

The Conjoint Board of the Royal Colleges of England has initiated this reform, and other bodies must follow that lead, though it may take time to effect it.

THE COMPOSITION OF CERTAIN SECRET REMEDIES.*

THE VARIABLE COMPOSITION OF SECRET REMEDIES.

A CORRESPONDENT of the *Pharmaceutical Journal*, in a letter in the issue of January 8th, draws attention to the differences between the formulae of certain proprietary medicines published in *Secret Remedies* as the results of analysis, and those printed on the labels of the medicines when these are imported into France or Italy. The first instance taken is "Dr. Williams's Pink Pills"; the formula for these given in *Secret Remedies* is:

Exsiccated sulphate of iron ...	0.75 grain
Potassium carbonate, anhydrous ...	0.66 ,,
Magnesia	0.09 ,,
Powdered liquorice	1.4 grains
Sugar	0.2 grain

in one pill.

while according to the writer of the letter it is given on the label as:

Pot. carb.	0.07
Ferri sulph.	0.80
Mangan. oxid. puriss.	0.02
Nuraemin	0.05
Sacchar.	0.03
Ext. gentian	0.025
Aloes	0.009

[The quantities apparently do not indicate grains, but the fractional parts of the various ingredients in 1 part of the pill.]

The *Pharmaceutical Journal's* correspondent proceeds to assume, without further evidence, that the formula published in *Secret Remedies* is wrong. A little familiarity with the composition of proprietary remedies and the ways of their makers would, however, have taught him that a particular composition in one country or at one time gives not the slightest guarantee of the same composition at another time or in another country. When the two formulae above are compared, it is at once clear that no competent analyst could have obtained from pills having the composition of the second formula results pointing to the first. To begin with, the potassium carbonate of the second is only a fraction of what was found by our analyst, who converted it into sulphate in the usual way, after removal of all other ingredients, and weighed the pure potassium sulphate; there is no loophole for error here. Again, powdered liquorice was found to constitute nearly half the pill, but none is shown in the other formula; it can hardly have been omitted as being unimportant excipient, since it is thought worth while to mention sugar present in only one-thirtieth of the quantity; the fibre of liquorice makes it one of the easiest drugs to recognize with certainty, and none of the ingredients mentioned in the other formula contains any fibre or vegetable tissue at all. These two instances suffice to show that the formulae refer to pills having very different composition, and the other differences are equally incapable of explanation in any other way. The comparison serves to emphasize the obvious fact that the only formula that is of value for showing what is being sold under a given name in a particular country is that obtained by expert examination of the article purchased there in the ordinary way. The second instance which is referred to in the letter in question is that of Laville's Antigout Remedies. In *Secret Remedies* the results of qualitative analyses of these by Dr. Zernik are quoted, and the composition thus given is now shown to differ from what is printed on the label. The statement in *Secret Remedies* is given on the authority of Dr. Zernik, and we are, of course, unable to answer for his methods of work, but it appears almost certain that remarks similar to the above would apply here also. Thus, Zernik found the pilules to contain guaiacum resin, whereas this is not one of the admitted constituents; it is well known that guaiacum resin can be identified with much greater certainty than most resins, and it is extremely unlikely that any mistake was made about it by so experienced an analyst as Dr. Zernik. The correspondent of the *Pharmaceutical Journal* adds that "the natural conclusion is a strong doubt as to the accuracy of the other formulae given in the book. Its pages form very interesting reading, but with errors such as these, which could easily have been avoided, the book hardly reflects credit on its authors or any pharmacist who uses it as a book of reference." If pharmacists are as little able to criticize the claims of the makers of proprietary articles as the writer of this letter appears to be, it is perhaps not surprising that they are often willing to play the part they do in distributing them. Fortunately evidence is not lacking that many of them regard the quack medicine evil in a very different manner, and welcome such exposures as we have given of many of these preparations. The facts adduced in the letter show very plainly how desirable it is that in this country, as in France and Italy, the law should require the composition of such medicines to be stated on the label. The public could then judge to some extent whether they were receiving fair value for money, and the proprietors could be brought to book if analysis proved that they had departed from the declared formula.

* Previous articles of this series were published in the following issues of the BRITISH MEDICAL JOURNAL: 1904, vol. ii, p. 1585; 1906, vol. ii, pp. 27, 1645; 1907, vol. i, p. 213; vol. ii, pp. 24, 160, 209, 393, 530, 1653; 1908, vol. i, pp. 833, 942, 1373; vol. ii, pp. 86, 505, 1022, 1110, 1193, 1285, 1566, 1697, 1875; 1909, vol. i, pp. 31, 909, 1128; vol. ii, p. 1419; 1910, vol. i, p. 151.

BOARD OF EDUCATION.

CHIEF MEDICAL OFFICER'S ANNUAL REPORT.

THE first annual report of the Chief Medical Officer to the Board of Education, issued recently, relates to the year 1908, but is dated November, 1909, and includes references to some events in the intervening period. It is a volume of 120 closely-printed pages, with an appendix, containing a list of present senior school medical officers and copies of the principal circulars that have been issued by the department. In the practical absence of statistical matter and other respects, the volume differs materially from ordinary blue books.

The reason of these differences is explained in a covering letter addressed to the President of the Board. During the first year the attention both of the Board and of local education authorities was inevitably concentrated on problems of organization, and the energies of the Board itself were mainly directed to settling and illustrating the principles on which it should offer advice and guidance to local education authorities in preparing their schemes for medical inspection. Hence most of the report is devoted to such questions, and also to discussions of the relations which should exist between the new School Medical Service and the already existing Public Health Service and auxiliary agencies.

The subject-matter is divided among seven sections, the first of which traces the development of the idea of School Hygiene and Medical Inspection, both at home and abroad, down to the date of the establishment of the new department. The second section discusses the administration of medical inspection by local authorities, and the third the physical conditions of school children as revealed by medical inspection. Section IV records and discusses the action taken by local education authorities with regard to medical treatment; and the remaining Sections, V, VI, VII, deal respectively with the knowledge of hygiene to be acquired by teachers and pupils respectively, with special schools for defective children, and with open air schools. The interest of many of the sections is increased by historical notes on the subjects treated.

The net outcome of the whole movement, as revealed in this report, may be summarized in much the same words as those with which Dr. Newman himself concludes. Such part of the work now undertaken by education authorities as did not originate under the new Act has been strengthened and systematized, and something has been done towards co-ordinating and correlating the whole of it. Much of the medical work is already of proved value, and most praiseworthy efforts have been made in many areas. Broad foundations have been laid, and to build upon them wisely and patiently must be the work of the future.

Whether medical inspection can ever determine the existence of physical deterioration in the nation as a whole may be a moot question, but in any case it is certain that medical inspection and school hygiene generally are yielding substantial results in practical reform. In almost

all educational areas the new work is contributing to a wider knowledge of child life than has been obtainable in the past, and this cannot fail to guide, encourage, and foster the highest kind of social development. Moreover, the increased attention devoted to school hygiene, including the whole health conditions and physical training of the child, is already beginning to bear fruit in a better conception of the true ends of a State system of education.

HISTORY OF MEDICAL INSPECTION.

From this report it would seem that in no country did the health of school children become a subject of systematic study until toward the end of last century. In England certain lay writers in the sixteenth and seventeenth centuries pointed to physical fitness as lying at the root of children's education, and in 1812 Dr. James Ware published a report on the eyesight of school children in Chelsea and on students at Oxford.

In Germany, J. P. Frank, in 1780, and Lorinser, in 1836, published some work on school hygiene, and in 1840 doctors were appointed to some training colleges in Sweden. In 1866 Hermann Cohn undertook at Breslau his classic investigations into the eyesight of 10,000 children, and it is this work which is regarded as the real parent of medical inspection as now existing. The subject began to be generally studied, and a little over a decade later medical inspection was commenced in all departments in France, and school inspectors and school medical officers were appointed in one or two places in Germany and Switzerland. Meantime, in England Priestley Smith had in 1880 published an address on the subject of short sight in relation to education, and in 1882 Clement Dukes his book on *Health at School*. Then in 1890 the old London School Board provided itself with a medical officer, and Bradford some two years later created a similar office, appointing to it Dr. Kerr, now Principal Medical Officer to the Education Committee of the London County Council.

Finally came the Act of 1907, which brought medical inspection in its present form into existence, but the conception underlying it was of slow growth. In the early days attention was concentrated on buildings and equipment; the special needs of certain classes of defective children next received attention; and, finally, it was recognized that not only these, but all children submitted to compulsory education required supervision and safeguarding. The evolution was greatly aided by the public interest in the question of national deterioration, and the reports of the commissions which in 1903 and 1904 dealt with this subject advocated increase of medical inspection, in addition to attention to school sanitation and building construction and provision for underfod children. In 1905 an interdepartmental committee drew up a report as to what school inspection was then being carried out, and as to what might reasonably be expected from the system, and expressed the opinion that the work should be associated with that of the medical officer of health. The final step was the establishment, immediately after the passage of the Act of 1907, of the medical department of the Board of Education. At first it consisted of only two officers, Dr. George Newman as Chief Medical Officer, and Dr. A. Eichholz. A few months later on Dr. Janet Campbell was added to the staff, and in June, 1909, Dr. R. H. Crowley of Bradford. Previous to 1907 very few local education authorities had made any arrangements for medical work in their schools; but now all the 328 authorities in England and Wales are endeavouring to meet the needs, direct and indirect, which have been created.

ADMINISTRATION OF MEDICAL INSPECTION.

The new department commenced work promptly, and in November, 1907, was issued a memorandum (Circular 576) describing the new duties of the local education authorities and the lines on which they should be carried out. From the beginning the Board took the view that medical inspection and school hygiene should be regarded as an integral part of State medicine, and that the new medical service should work in with the existing machinery of medical and sanitary administration as closely as possible. In this way dual jurisdiction within the same area would be avoided and a further step be taken in the direction of a simplified and unified State medical service. The Board also bore in mind that the centre of gravity of the public health service seemed to be gradually passing from problems of outward or environmental sanitation to those of personal hygiene.

The School Medical Officer.—Medical inspection does not necessarily involve the appointment of a school medical officer who, as a specific functionary under the system of public elementary education, was brought into official existence by the code of regulations for public elementary schools issued by the Board in 1908; the idea of the Board being to place administrative work of a medical character in the hands of a single officer responsible to the local education authority, and thus help the latter to organize its school hygiene, and co-ordinate it with the work of medical inspection. The arrangements made in this connexion by local authorities have been approved by the Board in all but 21 of the 328 local areas, and altogether there are now at work in the whole school medical service of England and Wales 1,084 medical officers.

In the majority of cases the "recognized" school medical officer is the medical officer of health, and in nearly all areas the arrangements are such as to secure practical unification of the two services, even if the school medical officer is not directly subordinate to the medical officer of health. This is the end to which the Board is working, for it takes the view that school hygiene cannot be divorced either from home hygiene or from the health conditions of the community at large. Other reasons given for this policy are that effective discharge of the duties of a school medical officer necessarily involves wide questions of public health, the infection and spread of infectious disease, and not only school but home hygiene. Moreover, efficiency and economy in the working of the two services would demand intimate relationship, even if many of the duties naturally undertaken by a school medical officer were not by statute thrown on the medical officer of health.

Organization.—The Board has, as far as possible, abstained from interference with the organization of school medical services proposed by local education authorities. The systems adopted vary considerably; the most usual one seemingly is to appoint the medical officer of health to be school medical officer, and furnish him with such additional aid in the form of whole-time assistants as circumstances prove to be required. In some areas the school medical officer has part-time assistants, these often being district medical officers of health. In others, again, some of the assistants are part-time, some whole-time. As a rule, the large towns have established a whole-time service. An exception is Willesden, where the medical officer is assisted in his work as school medical officer by thirty-seven private practitioners. What system the Board itself favours is not apparent.

Qualifications of Medical Officers.—The report quotes the advice originally given on this subject, which concluded by recommending that preference should be given to those having adequate training in State medicine, definite experience of school hygiene, and who had enjoyed special opportunities for the study of diseases in children, and that in any case care should be taken that school hygiene formed an integral and fundamental part of the public health administration of the district and was not subordinated to other less important sanitary questions. This counsel has, generally speaking, been followed. Of the total number of medical officers, 68 are women, 7 of them being the senior school officers of the authority. It is stated that the opinion of the Board is that, as a rule, it is inadvisable that medical inspection of school children should be wholly conducted by Poor Law medical officers or public vaccinators, and that only 63 of the latter are to be found in the list.

School Nurses.—The Board regards with much approval the inclusion of nurses in any system for carrying out the medical work of an education authority, though its sanction is only necessary when such nurses are employed in treating minor ailments. The precise number of nurses employed cannot be stated, as in some areas

arrangements have been made with local nursing associations for a supply of whatever nurses are required. But in 141 areas either whole-time or part-time appointments of nurses have been made.

School Teachers.—In all areas where the part which can be played by school teachers has been rightly understood, ample assistance has been forthcoming, but the Board deprecates placing upon the teachers any undue measure of the new work, particularly any part of it which borders on the responsibility of the school doctor.

Scope of the Work.—The aim in organization has been to meet two broad requirements: (1) That all children should at some time or times in their school life come under medical inspection, whether healthy or unhealthy; (2) that the inspection should, as a rule, be not the maximum of clinical examination possible, but the minimum necessary to detect such defects as would unfit the children to receive State education. The Act itself necessitated examination on entrance, whatever the age of the children, and the Board added at once an examination on leaving. Commonly the entrants are aged from 3 to 6 years, and the leavers 12 to 14. Between them the entrants and leavers approximate to two-ninths of the average attendance. In addition to these "entrants" and "leavers," who are estimated at 1,328,000 for each year, most authorities include among the children submitted to the school doctor all those who seem ailing or defective from one cause or another. These "special examinations" add a quarter of a million to the total. Hence the first Code year has seen arrangements made for the examination of not less than one and a half million children. Later on the number inspected will probably rise to one-third of the average attendance.

Schedule of Inspection.—The schedule of medical inspection issued by the Board has been adopted by most authorities, and, when properly used, few cases of physical weakness have escaped detection, while nothing of what might be thought inquisitorial has taken place. In some areas additional items have been added, among them being inquiries as to vaccination, but the Board has from the first advised that no such inquiry should be used as the basis of action under the Vaccination Acts. The schedule, it is pointed out, comprised three objects: to set out the methods to be followed and the particulars to be attended to; to guide the authority in adapting the means of education to the peculiarities of the child; and to prepare the way for the amelioration of defects and disabilities in the child or its environment. The collection of statistics is not one of the primary objects of the Board of Education, and though a schedule more elaborate clinically and anthropometrically could easily have been devised, it would have defeated its own end. On the other hand, a still simpler schedule would have failed to guide the authorities sufficiently as to the scope of the work contemplated, and would not have ensured an adequate degree of uniformity of action and method.

Parents.—It is not possible at present to say how far the intention of the Act to stimulate amongst parents a sense of duty as to matters affecting health in their own homes has been achieved. When the objects of inspection have been clearly explained it has usually been welcomed by parents, and there is evidence, too, that attention to the treatment of disease in school children has immensely increased; the same is true of attention on the part of parents to the cleanliness of their children.

Cost.—A precise estimate as to the total cost of medical inspection, as distinct from treatment, is at present impossible. Payment of a capitation fee for inspection of children offers, it is considered, many disadvantages. It is not common, and when adopted the rate ranges in different districts from 1s. to 2s. 6d. The best way to consider the cost of any particular scheme of medical inspection is to consider it in relation to the average school attendance and to the produce of a penny rate in the £. Thus considered, the cost of salaries, etc., has so far varied from 4.79 pence to 7.56 pence per child, and from 0.15 to 0.28 of a penny rate in the £. For obvious reasons it is natural that at first the rates should vary considerably, but later on it is anticipated they will reach a uniform level in areas of the same type and broadly similar conditions.

(To be continued.)

MR. POMEROY ON VACCINATION.

IT may be remembered that the Hon. Ernest Pomeroy, who made an attack on Dr. Martha Adams, of which the judge said nothing more libellous could be imagined,[1] made a statement in a letter published in the JOURNAL of December 18th, 1909, p. 1783, as to a case which, in his opinion, illustrated "the difficulty of obtaining a death certificate as death due to vaccination." He wrote: "The last bad case of this happened at Bedminster. Rosina Sandhill was vaccinated by order of Messrs. Merdon and Sons on February 13th, 1909. By February 25th she was too ill to go to work, and she expired after fearful suffering on Sunday, November 14th. Dr. Bullen, who attended her pretty constantly throughout, said to her on one of his visits, 'You were a bright, bonny girl, Rosie, before you were vaccinated.' A *post-mortem* examination was held by Drs. Walker Hall and Bullen, at which Dr. Creighton and Dr. Hadwen attended. The two last were satisfied that the cause of death was a malignant disease—cancer—in the pelvis. The inquest was held on Wednesday, and the verdict, on the evidence of Dr. Hall Walker (*sic*), was 'Tubercle of many years' standing.' Why was not vaccination even mentioned? Truth? the mother's feelings? or future vaccination fees?" The part of his statement which refers to Dr. Bullen was categorically denied by that gentleman in the JOURNAL of January 8th, 1910, p. 118. With regard to Mr. Pomeroy's statement relating to the *post-mortem* examination, Professor Walker Hall has kindly informed us that the girl, whose age was 22, was vaccinated in February, and a few days later felt unwell. He proceeds:

> According to the mother, there was "proud flesh" on the arm and on the foot, with, I should gather, a little cutaneous infection superadded. She continued unwell, and ultimately took to her bed. Diagnosis in her condition was doubtful, although she was seen by several consultants, and attended by Dr. Bullen, representing the firm by which she was employed, and also by her own doctor. Apparently the family were in close contact with the antivaccinationists all the time, for Dr. Hadwen came over to see her, and he and the rest of the antivaccination people were kept posted up as to the progress of events. The family agreed (prompted, I suppose, by the antivaccinationists) that a *post-mortem* examination should be made, and I was asked to conduct it when death occurred. A few hours after death, however, the family made objections to a *post-mortem* examination, and Dr. Bullen and the medical attendant, feeling that they could not give a death certificate, reported the case to the coroner. I was asked again to make a *post-mortem* examination. At this examination the antivaccinationists were represented by Drs. Hadwen and Creighton. Immediately on opening the body I had no doubt as to the case being one of old tuberculosis, and further examination showed that this had commenced in the Fallopian tube, spread laterally in the pelvis, slowly causing the whole pelvic organs to be absolutely matted with fibrous tissue and caseous foci; spreading upwards via the glands, the tubercle had invaded practically all the retroperitoneal and abdominal glands, finally reaching the glands in the portal fissure, the liver, spleen, and ultimately the lungs.

In commenting on the facts Dr. Walker Hall says:

> Drs. Hadwen and Creighton made their own diagnosis. As they were older men I tried to save them making an error by numerous hints, and ultimately by telling them my complete diagnosis; but they rather pooh-poohed my views, and went off, taking tissues for microscopical examination, and telling me that I should find that it was cancer. As a matter of fact, microscopical examination showed that every tissue was permeated by tuberculous lesions, and I have demonstrated tubercle bacilli in most of the specimens. There was no cancer or suggestion of cancer in any of the tissues. Drs. Hadwen and Creighton did not attend the coroner's inquest, where the mother gave her evidence of the illness, and she naturally thought it was due to the vaccination; but the coroner and the jury were convinced that the tuberculosis was of many years' standing, and (from the evidence) that there was no tuberculosis at the seat of the vaccination inoculations, nor any signs of communication of the disease with the vaccination lesions. The signs usually met with in cases of small-pox or of those cases reported as due to vaccination were not present.

This is a perfectly definite and straightforward statement by a man whose authority as an expert in pathology is recognized by the whole profession. Against it we have the opinions of Dr. Hadwen and Dr. Creighton. Dr. Hadwen may be dismissed from the case; we intend no discourtesy to him when we say that his opinion on such a question as is here in debate would not be taken by pathologists against that of Professor Walker Hall. Dr. Creighton knows what cancer is; but, apart from the warp which his views

[1] BRITISH MEDICAL JOURNAL, December 11th, 1909, p. 1731.

on vaccination have given to his mind, there are one or two points which should be made clear. Has he made any report on the tissues which he took away for examination? If so, has the report been published, and where? Again, why did neither he nor Dr. Hadwen attend the inquest? Surely, if they had any evidence that would bear the light of a court, they would not have missed so good an opportunity of bringing it before the public! It may be pointed out that, even if they had been able to prove that the disease of which the poor girl died was cancer, it would still have remained for them to show that there was any connexion, beyond that of accidental sequence of time, between the cancer and the vaccination.

Mr. Pomeroy has sent us a letter the purport of which is that Dr. Bullen is a "fee hunter." On this we need only say that it would serve no useful purpose to argue with a man who in open court stated it as his belief that it was a great mistake to suppose there is any merit in being truthful always. In plain English, this means that one can lie as much as may seem needful in support of what he thinks a good cause. Like jesting Pilate, he asks: "What is truth?" but does not wait for an answer. Nevertheless, we have felt bound to give him an answer, though we are doubtful whether he will understand it.

Mr. Pomeroy describes doctors who vaccinate as "fee hunters." Are we to understand that Dr. Hadwen and Dr. Creighton gave their valuable services on this occasion without fee or reward? Does Mr. Pomeroy, in the spirit of *noblesse oblige*, of which he is so shining an example, accept no payment for the articles which he contributes to *Vanity Fair* and other organs for the enlightenment of the public? If he does, he is a "fee hunter." If he does not, he supplies a convincing illustration of John Wilson's famous saying that "an unpaid contributor is *ex vi termini* an ass." He should take to politics; his fine gifts are thrown away in the lowly sphere of antivaccination.

Since this was written we have received from the National Antivaccination League a long statement about Rosina Sandill, signed "H. G. Cottle," "J. W. Marshall," and "J. W. Derrick." We know nothing of these gentlemen, but they are mentioned by Mr. Pomeroy as having nothing to gain by what they say, and we presume they are some of the antivaccinationists referred to by Professor Walker Hall. A notion of the sort of nonsense which these infatuated people believe may be gathered from such statements as that when the girl was sick "the stuff thrown up presented the same appearance as the stuff with which she was vaccinated," and that later "something broke in her inside which caused a horrible discharge from her bowels, in appearance, according to Miss Sandill, like the stuff used to vaccinate and the vomit she saw in the early part of her illness"! There is nothing else in the document but what might be described as old women's gossip, except a statement that "Dr. Hadwen visited Miss Sandill on Wednesday (October 13th), and after very careful examination said that from the history and appearance it was probable that vaccination had something to do with it, if it had not actually caused it." Dr. Hadwen's caution might well be imitated by Mr. Pomeroy, who with the assurance of ignorance bluntly declares that vaccination killed the girl.

To sum up: The case of the unfortunate girl presented two distinct questions for solution: What did she die of? And had the disease which brought her to an early grave anything to do with vaccination? To the former Dr. Walker Hall has supplied an answer which will be accepted as final by all who can form an unbiassed judgement on the facts. As to the second, there is not a particle of evidence to show that the vaccination had any effect whatever in bringing on the fatal illness or shortening her life.

A SEA TRIP to France, Spain, and Portugal is offered by the Pacific Line of Royal Mail steamers: it is to last eleven days, and the fare will be £10. Hitherto these attractive tours have not been available by such large ocean-going liners.

THE Labour Commission appointed by the French Government to examine the question of arrangements for working women to nurse their babies has decided that every industrial establishment employing more than fifty women shall provide a special room for the purpose. The period of suckling is fixed at ten months.

Nova et Vetera.

MEDIAEVAL CHARITY.

THERE is a tendency to-day to look upon organized charity as an essentially modern development. The present-day philanthropist, professional and amateur alike, bulks so large in the social horizon that he somewhat obscures those who preceded him in his work of mercy, and we are apt to consider him a new type, at once the product and the result of this humanitarian age. We forget or ignore the fact that charity is an ancient virtue, older than Christianity, and practised centuries before philanthropy became a recognized profession. Moreover, charity in mediaeval England did not, as is still perhaps commonly believed, consist merely in individual and desultory almsgiving, but was a properly organized system of relief, almost as extensive as that at present in existence. Our ancestors, faced with equally grave problems and lacking many of our means for overcoming them, gave, some their lives, others both time and money to the service of "Christ's poor," and, according to their lights, endeavoured as earnestly as we do in these days to grapple with want and disease, and lighten the burden of the sick and suffering poor. This view of mediaeval philanthropy is confirmed by Miss Rotha Mary Clay[1] in her most interesting and instructive book on *The Mediaeval Hospitals of England* (the latest of the series known as the Antiquary's Books), in which we are told that our manifold charities "are not the outcome of any modern philanthropic movement, but are rather England's inheritance for above a thousand years." Not the least important portion of this inheritance still exists, in the form of hospitals.

"Hospitals," says Miss Clay, "played an important part in the social life of the Middle Ages;" but it is well that one should understand exactly what the term "hospital" designates in this case. To the man in the street a hospital means one thing, and one thing only, and that is a place where the sick are taken in and cared for. But in the Middle Ages the same word might mean anything from the infirmary of a monastery to a leper house. Moreover, almshouses, hostels for pilgrims, refuges for infirm or superannuated priests and decayed gentlefolks, lunatic asylums and orphanages, were all called hospitals, and frequently many, or even all of these, were under one roof, and formed part of the same establishment. The hospital proper, in the modern sense of the word, was evolved gradually from these vast foundations. The first English hospitals were nothing more than wayside shelters, where pilgrims, sick people, and beggars were lodged and tended with indiscriminating charity. The earliest of these—St. Peter's Hospital at York, and St. Wulstan's near Worcester—date from Saxon times, the former being built by Athelstan somewhere between the years 925 and 940, and the latter a century later. At the time of the Conquest, the chief refuge of the sick was the monastery. Every religious house had its own public infirmary, at first within the monastery precincts, and later outside the walls, in the form of a separate building. The century which followed the Conquest witnessed the further divorce of the hospital from the monastery in the rise of independent charitable foundations, where "all sorts and conditions of men were lodged—wayfarers, invalids, and even lepers." During the next three hundred years, it became the fashion amongst men of all ranks to found houses for the relief of every variety of sickness and distress. In many cases pious founders were inspired with a very real and practical charity, but in others the hospitals owed their origin to the desire to expiate sin, or perpetuate the name of the benefactor and obtain the prayers of the grateful patients for all time. In these later foundations may be seen the germ of the modern general hospital.

The idea of separate establishments for the sick had begun to dawn upon the mediaeval mind; and in the thirteenth and fourteenth centuries existing houses of hospitality were kept up, but a growing tendency to discriminate amongst applicants may be noticed. In

[1] *The Mediaeval Hospitals of England.* By Rotha Mary Clay. With a preface by the Lord Bishop of Bristol. Published by Methuen and Co., 36, Essex Street, London, W.C., with 78 illustrations, pp. 357.

many cases more beds were reserved for chronic invalids than for casual comers. St. Thomas's Hospital, Canterbury, carried on its old work, but the renewed statutes of Archbishop Stratford (1342) direct "that poor pilgrims in good health shall be entertained only for one night . . . that greater regard shall be had for the sick than for the well pilgrims." Moreover about this time the necessities of lying in women began to be taken into serious consideration. "The assistance of women in childbirth," says Miss Clay, "was named in the Petition and Statute of 1414 as part of the recognized aim and scope of hospital charity. . . . The foundation deed of Holy Trinity, Salisbury, sets forth that 'lying-in women are cared for until they are delivered, recovered, and churched.' The Spital near Blyth was newly constructed in 1446 for the lodging of strangers and distressed women."

This same form of charity was practised at the Canterbury Hospital, St. Thomas's, and St. Mary's Without Bishopsgate and St. Bartholomew's, in London. At the two London hospitals, if the mother died, the child was kept and educated until it reached the age of 7 years; and St. Bartholomew's, in 1437, received certain privileges as a reward for its "great charges in keeping women in childbirth until their purification, and sometimes feeding their infants until weaned."

To this same period we owe the foundation of separate hospitals for the insane. Hitherto such a thing had been quite unknown, lunacy being treated in the general hospitals together with every other known form of disease. The first madhouse was near Charing Cross, and Stow says "that some time a King of England, not liking such a kind of people to remain so near his palace, caused them to be moved farther off, to Bethlem without Bishopsgate." The custom of admitting lunatics into the general hospitals and almshouses continued for many years, however, though several of these institutions were forbidden to receive them. A bed in St. John's, Coventry, was endowed on the condition that the occupant should be neither "mad, quarrelsome, leprous, infected"; whilst the almshouse at Ewelme was not allowed to give shelter to any "wood (crazy) man." In several places, such as Holloway near Bath, disused lazar-houses were used as asylums for the mentally afflicted. The custom of isolating lepers is, on the other hand, a very ancient one. Miss Clay, speaking of the mediaeval lazar-houses, tells us that "there is documentary evidence for the existence of over 200 such institutions in this country in the Middle Ages," two of which, at Harbledown and Rochester, were founded before 1100.

It is a curious fact that, owing to a variety of causes, the greater number of the leper hospitals in England had fallen into disuse and decay by the end of the fifteenth century, whilst the majority of the other hospitals and charitable institutions lasted well into the sixteenth, and were still doing good and useful work at the commencement of the Reformation. Several, of course, had succumbed in the course of years to abuses, mismanagement of funds, and other causes, but many of those which survived only received their death-blow from the dissolution of the monasteries. Yet enough were left to form the nucleus of our modern charities. Though Miss Clay has not followed the history of English hospitals after the Reformation, she has shown us where more recent foundations have taken the place of the ancient ones, and traced the connexion between the old and the new. "More has come down to us than perhaps we realize," she says, and the full force of her words is felt when we see how such hospitals as St. Thomas's and St. Bartholomew's, and almshouses such as St. Nicholas's at Salisbury, St. Mary's at Chichester, and St. Giles's at Norwich, have come down to us retaining their essential form through hundreds of years, whilst in many other cases the ancient charities still survive, even if it be only in name.

We can cordially recommend *The Mediaeval Hospitals of England* to any of our readers who are interested in the by-paths of history. It is full of learning without any trace of pedantry, and of information without being heavy or dull. Miss Clay is to be congratulated on a very interesting and attractive piece of work, and the beauty of the book is further enhanced by the large number of really beautiful illustrations.

LITERARY NOTES.

A POLISH medico-historical museum has been opened at Cracow.

The Council of the Faculty of Medicine of the University of Paris has awarded Dr. George Pernet a bronze medal for his thesis entitled *Le lupus érythémateux aigu d'emblée*, presented for the doctor's degree, to which reference was made in this column in the BRITISH MEDICAL JOURNAL of December 5th, 1908. It is a monograph consisting of 137 pages, and gives details of ten cases collected from dermatological literature and including one observed by himself. The disease with which it deals is a hitherto unclassified type of acute erythematous lupus, the characteristics of which have been carefully worked out by the author. We congratulate Dr. Pernet on the distinction which his thesis has won for him.

Dr. V. Pechère has resigned the position of editor of the *Journal Médical de Bruxelles*, which he has held for fifteen years. He is succeeded by Dr. H. Coppez, with whom is associated Dr. de Keyser.

In a presidential address delivered at the opening of the Medical and Physical Society, which appears in the *St. Thomas's Hospital Gazette* for November, Dr. Fairbairn traces the development of obstetric medicine. He divides the story of its growth into three eras: In the first period midwifery consisted in the assistance given to the woman in labour by friends, with perhaps a little magic and incantation thrown in to help Nature. Then came the Hippocratic era, when traditional notions as to the management of difficult cases were collected and sifted by the Father of Medicine and his contemporaries and committed to writing. The third period is marked by the evolution of the man-midwife; among its most conspicuous figures are Paré and his pupil Guillemeau; Chamberlen, the inventor of the forceps; Mauriceau, Smellie, and William Hunter. The office of midwife is mentioned several times in the Bible. Hippocrates deals chiefly with complicated cases. In difficult labour, with the head presenting, sternutatories and succussion were the chief means advised. Anointing and steaming of the external parts were also employed. In cases where other methods of delivery fail he describes fully the operation of embryulcia. Referring to the danger of retention of the afterbirth, he says that if it does not come away immediately, the patient suffers from abdominal pain, with fever and rigors, which disappear when it is discharged, as usually happens about the fifth to the seventh day, when it is putrid. If the uterus is inflamed after delivery, unless the bowels are made to act, or the symptoms relieved by bleeding, the patient is in great danger. The high-water mark of ancient obstetrics was reached at the time of the great Alexandrian school, of which the most distinguished representatives were Rufus and Soranus, both of Ephesus, and Moschion. Of these, Soranus left the most lasting mark on obstetrics. He studied in Alexandria where he practised at the end of the first and beginning of the second centuries A.D. He was a voluminous writer, but his work is best known from portions included in extensive compilations from works of earlier writers made in the sixth and seven centuries by Aetius and Oribasius. The Byzantine writers of the fourth to the seventh centuries devoted themselves almost entirely to the analysis of the work of their predecessors. Aetius, however, distinctly advises podalic version, not only in transverse lies, but also in different head presentations, when it ought to be attempted before having recourse to embryotomy. He says, "At si caput fetus locum obstruxerit, in pedes vertatur, atque ita educatur." For nearly a thousand years this procedure was forgotten; at any rate, it was not practised till the sixteenth century, when it was introduced again by Ambroise Paré. The first important landmark after the Middle Ages is the publication at Worms in 1513 of the first printed book on midwifery, *Der Swangern frawen und Hebammen Rosegarten*, by Eucharius Rösslin. This book is largely based on Soranus, but it marks an epoch in the development of obstetrics because, with the discovery of printing, it was translated into all the languages of the more civilized countries of Europe, and for centuries was the standard

work on midwifery. The first Latin edition appeared in 1532 under the title, *De partu hominis et quae circa ipsum accidunt: Libellus D. Eucharii Rhodionis Medici*, and the eleventh in 1563. Many of the translations into modern languages were made from this Latin version. Seven or eight German editions appeared up to 1541, and then it appeared under an altered title, as the *Hebammenbuchlein*, which was republished for the eighth time as late as 1608. There are said to have been no fewer than twenty-eight translations into Dutch, the last of which appeared in 1742. A Hungarian translation made in 1519 is in the University Library at Prague. The French (1536), Italian and English (1540) translations were made from the Latin text. The English version, Raynalde's *Byrth of Mankynde*, was a translation of the first Latin edition, which first appeared in 1532. A full account of this book was given by Dr. J. W. Ballantyne in the *Journal of Obstetrics and Gynaecology of the British Empire* for 1906–7. Published first in 1540, in the reign of Henry VIII, new editions constantly appeared with but few alterations, the final one being issued in 1676. Smellie was born in 1697, and his famous treatise on midwifery appeared in 1742. The most celebrated of the French obstetricians, Mauriceau, published his treatise on midwifery in 1668, and this was far in advance of anything before made public. Contemporary with Mauriceau were Chamberlen and his three sons, who kept in the family the secret of the midwifery forceps invented by Dr. Peter Chamberlen. The story is not creditable to the inventors. One of the Chamberlens advertised it in the manner of a quack medicine vendor. He wrote:

> My father, brothers, and myself (tho' none else in Europe as I know) have, by God's blessing and our own industry, attained to and long practised a way to deliver women in this case, without any prejudice to them or their infants; tho' all others (being obliged, for want of such an expedient, to use the common way) do, and must, destroy one or both with hooks. By this manual operation a labour may be dispatched (on the least difficulty) with fewer pains, and sooner, to the great advantage, and without danger both of woman and child.

After much bargaining, he sold his secret in Holland for a great price. The first full account of the instrument was not, however, published till 1713 by Chapman. Owing to the war between the midwives and the obstetricians—the fierceness of which may be gathered from the references in *Tristram Shandy* and from the graceful allusion to Smellie made by a lady controversialist who speaks of the "delicate fist of a great-horse-godmother of a he-midwife"!—attention was directed to the necessity for the provision of hospitals for lying-in patients, and for instruction in midwifery. From that time dates the foundation of the lying-in hospitals of London. This marks the beginning of scientific training in the obstetric art in this country, and the conquest by the physician of a territory the possession of which had so long been disputed with him by the midwife.

Professor James Swain's presidential address delivered at the opening of the thirty-sixth session of the Bristol Medico-Chirurgical Society, which is published in the *Bristol Medico-Chirurgical Journal* for December, deals with the history and practice of surgery in ancient and mediaeval times. He gives a short account of the Ebers Papyrus, which mainly treats of medical subjects. The physicians of the Pharaohs were, however, familiar with such operations as amputations and circumcision; and the great antiquity of the latter procedure is, he says, shown by the fact that the operator generally used a flint knife in accordance with ancient custom. As there are no representations of Egyptian circumcision earlier than the time of Rameses II (B.C. 1310–1243), Professor Swain thinks it probable that the circumcision of Abraham about the year B.C. 1897, as narrated in the Scriptures, is the earliest definite record of a surgical operation. Turning next to Greece, Professor Swain gives an interesting summary of the surgical practice of Hippocrates and of the famous medical school of Alexandria. The later Greek and Roman writers—Celsus, Heliodorus, Archigenes, Galen, and Oribasius—are briefly passed in review. A short sketch of the Byzantine surgeons brings us to the Arabian writers—Rhazes, Hali Abbas, Avicenna, Albucasis, Avenzohar. These added little to the healing art as taught by the Greeks, but they kept alive the knowledge derived from them which otherwise would probably have been lost. The Arabs bring us to the Middle Ages, when the Mondino of Bologna (1276–1326) revived the study of human anatomy, and influenced a number of men—among whom may be mentioned William of Salicet, Arnold of Villanova, Henri de Mondeville, John Ardern, Serjeant Surgeon to Edward III in 1346, the first surgical writer of importance in England; Guy de Chauliac, and others—to study ancient writers, but at the same time to think independently. A thing that cannot fail to strike the reader is the amount of knowledge possessed by men in days when we are apt to think the art of surgery was wrapped in Cimmerian darkness. Hippocrates trephined for head injuries; he opened the thorax for empyema, practised paracentesis of the abdomen, and treated not only abscess of the liver but suppuration of the kidney by incision. He understood the method of reducing certain dislocations by manipulation, and used waxed bandages and splints in the treatment of dislocation. His treatment of club-foot was so sound that, as Mr. Swain reminds us, it is only in recent times that any advance has been made in treating this deformity. He used a rectal speculum and operated for piles. Praxagoras, the last of the Asclepiadae (about 335 B.C.) used taxis in the treatment of strangulated hernia, and recommended, if he did not actually carry out, abdominal section and suture of the intestine in intestinal obstruction. Erasistratus of Alexandria opened the abdomen in order to apply remedies directly to the surface of the liver and spleen. Some form of urethral catheter was used by the immediate followers of Hippocrates. Celsus described cutting for stone, suture of the wounded colon, the laying open of fistulae, the treatment of cataract, amputation of limbs, and the use of the ligature in preference to the cautery for the arrest of bleeding. To Antyllus we owe the operation for aneurysm, which still goes by his name; he also performed subcutaneous section of ligaments. Paul of Aegina ligatured varicose veins and recommended refracture in cases of badly-united fractures; he mentions extirpation of the uterus and the dilatation of the rectum with bougies. Rhazes described spina bifida, recommended that catheters should be made with eyes, and practised puncture of the bladder. Avicenna, according to Mr. Swain, seems to have been the first to use obstetric forceps for the extraction of the child in difficult labour. It may be interesting to some to learn that Avenzohar (A.D. 1132–62), surnamed by his contemporaries "The Wise and Illustrious," mentions the use of a silver or tin oesophageal tube for the purpose of artificial feeding. Many other instances might be given to show that surgery in ancient and mediaeval times was by no means made up of "methods of barbarism," as we are still, perhaps, too ready to assume. But it must be remembered that, although the masters of the art knew much that seems strangely modern, it is probable that but little of their knowledge trickled down to the ordinary practitioner. Moreover, without efficient anaesthesia, even the practice of the greatest surgeons must have been of a nature that makes the men of a more sensitive period shudder to think of.

ADAMS v. POMEROY.

AN APPEAL.

WE have received notice of the following contributions, made during the past week, towards the fund raised in order to reimburse Dr. Martha Adams the legal expenses of this action. Dr. Adams incurred an expense of about £100 over and above the taxed costs, and it is felt that many members of the profession, desiring to show their practical sympathy in the case, will wish to refund this sum, so that Dr. Adams should not be called upon to meet it herself.

Further contributions should be sent to Dr. L. Garrett Anderson, the Honorary Secretary of the Fund, 114A, Harley Street, London, W. She has already received £64 1s. 6d., and she will have much pleasure in acknowledging further help towards the completion of the fund.

	£	s.	d.
Miss Lila Greig	0	9	0
Mr. F. C. Poynder	2	2	0
Dr. M. W. Manuk	0	10	6

British Medical Journal.

SATURDAY, JANUARY 22ND, 1910.

GENERAL PRACTITIONERS AND POOR LAW REFORM.

IT is somewhat surprising that up to the present the discussion on Poor Law reform in our columns has been mostly confined to correspondents writing from the standpoint either of medical officers of health or district medical officers. General practitioners have perhaps hardly yet realized how seriously they may be affected, whatever scheme is adopted. So far it seems fairly clear that many county and county borough medical officers of health have given their whole-hearted support to the idea of making the sanitary committees of counties and county boroughs into the future authorities for a public medical service, consisting entirely of whole-time officers. On the other hand, it is equally clear that many medical officers of health of non-county boroughs and urban and rural districts are far from satisfied with this prospect. The Poor Law Medical Officers' Association has officially declared itself in favour of a medical service distinct from the sanitary service, with part-time district medical officers as at present, and we have seen no published evidence for the suggestion that this is not the opinion of the majority of the district medical officers throughout the country.

Amid the conflict of opinion revealed in the correspondence it may be well, without entering into the relative merits of the Majority and Minority schemes, to refer to the nature of the official evidence of the British Medical Association before the Royal Commission, and also to certain decisions of the Representative Meeting which seem to have a more or less direct bearing on some of the questions in dispute.

On the question of whole-time versus part-time appointments, the evidence of the Association was that "there is no general dissatisfaction with the present system of appointment" of district medical officers, the system, that is, of part-time appointments, but that there are some members of the profession who would prefer the creation of a State medical service consisting of whole-time medical officers, with perhaps other duties besides those of the present district medical officers. Other members of the profession, again, would prefer that no special officers should be appointed, but that Poor Law patients should be attended by any local practitioner willing to agree to the State regulations. Thus, the evidence given on behalf of the Association was definite to the extent that no alteration of the present arrangement of part-time district medical officers was then recommended. With regard to medical officers of health, the Representative Meeting has decided "that, in the interests of the public health and in view of the multiplicity of duties thrown upon medical officers of health by recent enactments, it is desirable that, in future appointments, medical officers of health should be required to devote their whole time to the duties of their office, and be debarred from private practice, except as consultants; that they should be adequately paid, and, if necessary, districts should be grouped for the purpose," etc. This resolution was really an endorsement of the Council's recommendation arrived at as a result of referring the question to the Divisions, when only 8 out of 96 Divisions approved of part-time medical officers of health.

With regard to medical inspectors of school children no definite preference has been expressed between whole or part time appointments, though the Association has acquiesced in the very general appointment of whole-time inspectors. With regard to medical treatment of school children, however, the Representative Meeting definitely resolved "that under existing conditions the most satisfactory provision for the treatment of school children found upon inspection to be defective is by placing them under the care of private practitioners."

Again, public vaccinators are almost invariably part-time officers, and the Association has recommended that every private practitioner who fulfils the requirements of the Local Government Board should receive a fee for vaccination. Further, in the scheme of the Association for a public medical service it is laid down that any practitioner who fulfils the conditions may be a medical officer, and in strict accord with this there is a movement in the Association to induce the friendly societies and medical clubs in general to make the same provision, and not to limit their members to special medical officers.

In attempting to deduce a general principle from these particulars, we can only pay regard to past decisions of the Association, but it is necessary to note that a number of present part-time medical officers of health have recently expressed a very decided opinion that part-time appointments should be retained even in the sanitary service. The matter will probably be again considered in the next Representative Meeting, and we would appeal to members of the sanitary service to await the result, as there can be no doubt that the utmost attention will be paid to the claims and interests of all concerned. Without attempting any forecast, it is possible to say that if the resolution of last year should be rescinded or modified, it would simply show that the feeling in the Association in favour of part-time appointments in a public medical service was even stronger than the decision of the Association here quoted would indicate, and was not confined to clinical appointments, which is all that can with certainty be argued from those decisions.

There is, then, a perfectly clear and definite principle underlying all these decisions, a principle which has regard for the interests not only of the profession but of the community. It is simply this—that for sanitary and preventive measures the Association has felt that there is an advantage in whole-time service. The inquiries and inspections that have to be made are often necessarily of a somewhat inquisitorial character; the orders to be given are frequently not too pleasing to members of the public who may be touched by them in comfort or pocket, so that cases must occur in which a part-time officer's interest as a private practitioner might conflict with his public duties. It has been held that a medical officer concerned with preventive measures should be independent of local criticism founded on private interests, and can best be rendered independent and free to extend his influence in every necessary direction if he be a whole-time officer, with security of

tenure. But in the case of a medical service engaged in treating disease, and mostly domiciliary, these factors are not prominent, and form no argument against a part-time service.

In the treatment of the individual we must proceed by reasoning and persuasion: you cannot compel a man to have a whitlow opened, or a woman to have a suspicious mammary tumour removed, or parents to allow an empyema in their child to be incised, by magistrate's order. Nor can you compel a man to change habits as to food, drink, or exercise, or fresh air, which are undermining his health, by legal procedure, and short of legal procedure the only way is by reasoning and persuasion. As to the truth of the general principle expressed by the hackneyed phrase "prevention is better than cure," there is, of course, no difference of opinion. It has, during the last few generations, been applied with remarkable success, but mainly to communicable diseases. If, as is hoped, we are to see a very great extension of the principle to other diseases which diminish efficiency and shorten life, it follows that the methods of applying it must be correspondingly altered and extended.

The difference may perhaps be illustrated by taking two theories of the cause of the alleged increase of cancer which have been put forward recently in our columns. The one attributes it to the products of the combustion of coal; and it is obvious that were this theory proved to be true the application of methods of prevention would be a case for the direct action of the State through the sanitary service. The other theory attributes the increase of cancer to eating too much meat, and if this were proved it seems obvious that the preventive measures which the State could take could only be indirect by way of disseminating information. The human element in patients cannot be overlooked. Prevention often needs to be carried out partly by compulsion, a method altogether inappropriate to the personal medical treatment of responsible persons; and if the two functions, of direct State prevention and personal clinical treatment and advice, were combined in one man, would there not be a great risk that his influence in one or the other direction would be lessened? This by no means implies that the medical adviser should neglect to inculcate preventive measures as part of his routine practice; it only implies that there is such a multiplicity of duties grouped under the head of sanitation or prevention, as these terms are now usually understood, that they form a speciality, the special methods of which an ordinary clinician is no more qualified fully to carry out than are many whole-time medical officers of health to supervise medical treatment of ordinary diseases.

Two conclusions, then, seem naturally to follow: First, that while the sanitary service should be mainly whole-time, the clinical service may well be a part-time service. The decisions about the treatment of school children can hardly logically be confined to children. Secondly, it would seem to be a corollary that the two services should be kept separate. This would seem to be the opinion of the district medical officers, who number over 3,700 practitioners; we believe it is the opinion of a large proportion of general practitioners who do not belong to any service, and it seems to underlie the decisions of the Association. This opinion does not arise from any antipathy to the sanitary service; it would be as reasonable to assume antipathy between surgeons and physicians or between any other two specialities. Nor does it involve an absolute rule that in no case shall a clinician undertake any sanitary work. The opinion arises, we believe, from a feeling that curative domiciliary treatment is outside the speciality of the sanitary service, and that while the head of the sanitary service is rightly the medical officer of health, the head of a clinical service ought to be a clinician with the intimate knowledge of home treatment and common diseases which only a general practitioner can have. That prevention and cure run into one another by almost imperceptible degrees is of course obvious, and if there are to be two separate services there will have to be a strong and elastic method of co-ordinating them to prevent such overlapping as might lead to some work being done twice over, or some being omitted altogether. Various methods of attaining this might be suggested, such as a properly constituted supreme local authority with a fair proportion of experts, including medical men among its members, this authority co-ordinating its own two separate departments.

Such a separation would also have the advantage of affording a readier means of controlling the danger of the whole service becoming gratuitous. The Association took it for granted in its evidence that a universal free service was not contemplated, and the whole of the Commissioners profess themselves opposed to a free service for all comers. But the sanitary service has already become mostly free, and as it deals with measures which are for the good of the community in general, it may well be argued that it should remain, at any rate largely, free for all. But it is by no means equally clear that the curative service, which is directly in the interest of the individual and only indirectly in that of the community, should be free to any but the destitute. It must be evident that if free preventive measures and chargeable curative measures are to be carried out by one and the same department, it will be difficult to apportion the services, and the whole will tend to become free. There would be far less danger of this if the two services were distinct but co-ordinated. Nor would there be any necessity for unduly confining the energies of the medical officer of health. He and his department would simply have to show to the supreme authority that any special measure, such as the treatment of infectious disease, was in the interest directly of the general community; if that were proved, it would then come within his sphere, while any measure directly in the interest of the individual would be assigned to the clinical service. There would never be any fear, as has been suggested, of degrading any medical officer of health who knew his business to the "level of a kind of superior sanitary inspector."

It will be seen that if the decisions of the Representative Meeting were carried out to their logical issue, they would involve an arrangement under which every medical practitioner conforming to the regulations might be a part-time medical officer in the clinical service, nor is there any reason why this should be confined to domiciliary treatment. Any out-patient dispensary work that might be instituted might quite well be carried out by part-time general practitioners. It is difficult, however, to see how it would be possible immediately to make every private practitioner into a district medical officer. In the case of the medical treatment of school children the service is a new one, but with the Poor Law domiciliary service there are the interests of the present district medical officers, which

rightly demand consideration. Nevertheless, any new work for the destitute or any new work undertaken among the poorer classes just above the verge of pauperism which some system of invalidity insurance might bring under a public service, might quite well be divided among private practitioners. But this great question of invalidity insurance has not been considered by the Association. It may quite possibly be found necessary to modify the logical consequences of past decisions of the Association, and in pointing them out we have simply wished to claim on behalf of the great body of general practitioners that their rights and interests are as much involved as are those of the sanitary and Poor Law services.

THE INFECTION OF ACUTE ANTERIOR POLIOMYELITIS.

IT has long been known that acute anterior poliomyelitis (infantile paralysis) sometimes occurs in epidemics, and no one who has witnessed the onset of a well-marked case can doubt that it may present every clinical character of an acute infective disease. Recently some significant experimental inquiries have thrown much light on the etiology and pathology of the disease, and have afforded evidence of the nature of the virus by which it is produced.

Landsteiner and Popper[1] seem to have been the first to prove that acute infectious poliomyelitis of man could be transmitted to monkeys. They inoculated into the peritoneal cavity of a *Cynocephalus hamadryas* and a *Macacus rhesus* an emulsion of the spinal cord of a child, aged 9, which had died during a typical attack of poliomyelitis. Seventeen days later one of the monkeys showed paralysis, localized chiefly in the lower limbs. Microscopical examination revealed in both animals inflammatory and degenerative lesions in the grey matter of the cord and brain. Attempts to transmit the disease to other monkeys failed at this time; but Leiner and Wiesner showed that this could be done, and Krause and Meinike[2] stated that they had produced paralysis in the rabbit by inoculating with the spleen, the brain, and cerebro-spinal fluid of persons who had died of infectious poliomyelitis.

Landsteiner and Levaditi[3] reported to the Société de Biologie on November 27th, 1909, that working in M. Metchnikoff's laboratory at the Pasteur Institute in Paris they had produced typical acute anterior poliomyelitis in a chimpanzee by inoculating into the peritoneal cavity an emulsion of the spinal cord of an infant which had died on the fourth or fifth day of a severe attack of the disease. The lesions observed in the spinal cord of the chimpanzee after death were typical and very extensive; in the neighbourhood of the anterior horns were inflammatory nodules, and in the lumbar region the nerve cells had almost completely disappeared; the lesions were most marked in this and in the cervical region. With an emulsion of the spinal cord of this chimpanzee two macaque monkeys were inoculated in the brain and peritoneum, with the result that both developed paralysis and typical lesions of poliomyelitis were found in the lumbar region of the cord in both. The incubation period in the chimpanzee was 6 days, in the macaques five. It was ascertained also that the virus passed through a Berkefeld filter. At the meeting of the society on December 18th[4] the same observers reported that the infection could be transmitted by inoculation into the vitreous, but that scarification of the skin, subcutaneous injection, and ingestion by the mouth had given negative results. While confirming their previous observation that the disease was transmitted by the filtrate, they added that when produced in this way the incubation period was longer and the disease developed more slowly. They had not found the cerebro-spinal fluid virulent, but they had evidence that the salivary glands were, and they therefore suggested that the virus might be eliminated by the saliva, and that as the virus in the cord had been shown to withstand desiccation for nine days it was possible that the epidemic dissemination of the disease might take place through the saliva, whether fresh or dry. In both communications they expressed the opinion that there was a striking analogy between this virus and that of rabies, but added that it had not been possible to produce a vaccine by following the method used in producing the vaccine of rabies.

In a series of papers published during the last three months, Drs. Simon Flexner and Paul A. Lewis[5] have reported results obtained in the Rockefeller Institute for Medical Research, New York, which are identical up to a certain point with those of Landsteiner and Levaditi, but carry the matter a good deal further. Poliomyelitis, or infantile paralysis, prevailed in epidemic form along the Atlantic seaboard of the United States in the summer of 1907 at the same time as it was occurring also in Germany and Austria. At that time they attempted to transmit the disease by injecting cerebro-spinal fluid obtained by lumbar puncture into the spinal canal and peritoneal cavity of monkeys and other animals, but without result. Last summer the disease appeared as a focalized epidemic in Greater New York, and was at the same time widespread in the United States and some European countries. From a patient who succumbed during the epidemic on the fifth or sixth day after the appearance of the paralysis which affected the lower extremities, the lumbar cord was obtained in sterile condition, and an emulsion in salt solution injected intracranially in a monkey forty-eight hours after the death of the patient. The animal became paralysed twelve days later, and microscopical examination revealed lesions similar to those of poliomyelitis in man. Emulsions of the spinal cord and brain of this animal proved infective to other monkeys, and the infection was transmitted in the same way from these to a third series of animals. The spinal cord of another patient who died on the fourth day of the disease, which had produced very extensive paralysis, the lesions being found to be diffuse throughout the cord, was used to start another series of inoculations. The results in the first series were confirmed, and in addition it was proved that successive transmission was possible by way of the peritoneal cavity, and by intravascular and intraneural injection. In the monkey in which the virus was introduced into the sheath of the sciatic nerve, the lesions developed first on the same side of the cord and extended later to the other.

Careful microscopic examination of films and sections, prepared and stained in various ways, did not reveal in the organs of patients or experimental animals either bacterial or protozoal parasites which

[1] *Zeitschr. f. Immunitäts.*, 1909, ii, 377.
[2] *Deut. med. Woch.*, 1909, No. 42, p. 1825.
[3] *Comptes rendus de la Soc. de Biol.*, T. lvii, p. 592.
[4] Ibid., p. 787.
[5] *Journal of the American Medical Association*, November 13th, December 4th and 18th, 1909, and January 1st, 1910.

could account for the infection; and the next series of experiments, made to ascertain the probable size of the organism assumed to be the virus of the disease, proved that it could pass through a Berkefeld filter.

Flexner and Lewis, like Landsteiner and Levaditi, find that the virus resists drying, and also that it survives a temperature of −4° C., and the dissolution of the cord which takes place at a temperature of +4° C. They failed to prepare a vaccine, but obtained some evidence that one attack confers immunity.

So far the observations of Flexner and Lewis ran very much on the same lines as those of Landsteiner and Levaditi, for the last-named investigators also had found that the disease could be transmitted by intraneural injection. But Flexner and Lewis succeeded in making another step forward, for their investigation in its next stage established the important fact that, though the virulent organism could not be seen in the ordinary or in the dark-field microscope, it would grow in a suitable fluid. When a clear filtrate was mixed with rabbit-serum bouillon and incubated the fluid became turbid on the second day; the turbidity increased, and on the fourth day the fluid was used to inoculate a monkey, which developed paralysis on the thirteenth day. Attempts to carry on the cultivation in rabbit-serum bouillon failed, but when human-ascitic-fluid bouillon was used they succeeded.

THE CASE OF MR. TRATTLES.

THE case of Mr. Trattles, who has been examined for colour vision on no less than six different occasions on behalf of the Board of Trade, has now, it may be hoped, been finally settled. Thrice was he passed as having normal colour vision, and thrice was he rejected for colour blindness. The inquiry which has finally set the matter at rest was held by a special court, consisting of Sir Francis Mowatt and Mr. Dickinson, appointed by the Board of Trade, and an abstract of the evidence on which the finding was based will be found on page 236 of this issue.

We have several times commented upon the extremely unsatisfactory tests upon which the Board of Trade relies, and this case must surely prove a death-blow both to the Holmgren test and to the way in which it is used. Mr. Trattles began his seafaring career as an ordinary seaman, and by ability and industry worked himself up until, six years ago, he was able to pass the examination required for a second mate's certificate. There was no hint then that he was colour blind, but when, some eighteen months later, he went up for examination as first mate, he was rejected in the colour test, and eventually called upon to surrender his certificate as a second mate. He appealed, and one of the examiners appointed by the Board of Trade was Sir William Abney, F.R.S., to whom Mr. Churchill referred in the House of Commons as "the first authority on colour vision in this country." To cut a long story short, Sir William Abney examined Mr. Trattles on at least two occasions, and on both declared him to be colour-blind, stating in evidence that his tests "showed absolutely and completely that he was red-blind." A stronger statement than this could not well be made. The Board of Trade, however, was open-minded enough to get Mr. Trattles examined by independent men, although, characteristically enough, neither of the gentlemen selected was an expert; the result, however, is perhaps all the more calculated to impress the public mind. On the recommendation of the Trinity House, Commander Wilson-Barker, R.N.R., was appointed with Mr. Dickinson, on behalf of the Board of Trade, to take Mr. Trattles down the Thames in a steamer on the night of December 30th last, when the weather was fine but with some haze, and then and there to see what he could do in the way of picking up lights and naming their colour. So accurate was Mr. Trattles's vision, especially for red, that he was able actually to distinguish some red rays in the Nore light, which had recently been altered so as to allow a preponderance of these to show in order to test their ability to penetrate fog; the reddish colour in the planet Mars was at once seen by Mr. Trattles when he was asked to describe it, though at the time he was unaware of the planet's identity. Both these examiners and many others declared that Mr. Trattles had unusually good sight, and that he never made a mistake in accurately determining the colour of any light which came into view.

Could any practical test more completely refute the statement of Sir William Abney? To call a man "absolutely and completely red-blind" who could pass such a test can only show either that Sir William Abney knows extraordinarily little about colour blindness, or that the tests he uses are utterly fallacious. As well might one certify a man to be totally paralysed who was capable of running a Marathon race. Yet Mr. Trattles has for the last four years been kept in a state of suspense as to whether or no he would be allowed to follow his profession. A more cruel and unjust state of things could scarcely be imagined.

Now, what is the cause of this? A good many years ago, when the subject of colour vision was engaging the attention of the Board of Trade, which had already Dr. Edridge-Green as its expert adviser, the Royal Society came down with all its weight, and declared, in its ignorance, that the testing of colour vision was simplicity itself. All that was wanted was to provide a layman with a box of wools, and he would at once become capable of testing any one for colour vision, while in case of any difficulty one of the Fellows of the society would be able to settle the matter. The result was that Dr. Edridge-Green's appointment was terminated, and the medical element having been eliminated chaos has reigned supreme ever since. Mr. Trattles is the most recent case of crying injustice brought to light, but it has been proved over and over again that dozens of normal-sighted individuals have been rejected as colour blind, while scores of colour-blind people are at this present moment possessed of certificates of good colour vision, and are a standing danger to life and property at sea and ashore.

Sir Francis Mowatt, after carefully considering the evidence, was forced to the conviction that Sir William Abney's opinion was quite wrong, and concludes by stating that "Mr. Trattles is not incompetent from colour blindness to discharge the duties of a mate."

Surely this must sound the death-knell of the inefficient wool test, and its application by incompetent examiners! Surely no examiner could be proved more incompetent than Sir William Abney, "the first authority on colour vision in this country." How can a man be totally red-blind when he can pick up a slight tinge of red present in a light a long

distance away which is otherwise white, and when he never mistakes a red light for one of another colour?

Whether Mr. Trattles has the full six units of colour present in the spectrum he sees is quite another matter; by certain mistakes he made with the wools probably he may not have quite the full amount, but that is altogether beside the point. It is not the business of the Board of Trade to detect minute differences in the colour vision of candidates; what it has to do is to certify whether a man has colour vision sufficiently good to be able to state positively the colour of a light which is being used as a signal and never to make a mistake. There seems to be an impression in some quarters that colour defect must always be absolute, and that a man must see all the colours of the spectrum or none. But this is not so. Like every other function, colour vision varies in its perfection, and some men have a keener sense of colour than others, but to reject a man whose vision is a trifle subnormal—a case, for instance, that might be exemplified by one who could not distinguish orange from yellow or blue from violet—would be absolutely absurd. Such a man for all practical purposes of sailor or railway man possesses normal colour vision, and could never mistake the colour of one signal for another.

If the Board of Trade tests were so minute and so hard that none but persons possessing six units of colour in the spectrum could get through, we might consider them unnecessarily severe, but not unjust. That, however, is not the point; the Board does not so minutely examine candidates; but it frequently passes dangerously colour-blind people, and at the same time rejects normal-sighted persons like Mr. Trattles, who was stated to be totally red-blind, when all the evidence tends to show that red is the colour above all others about which he never has the smallest doubt, even when the red rays are so watered down with white light as to be almost invisible; if he is weak in any colour it certainly is not red. He obviously has perfectly normal red sensations, with no shortening of the extreme red end of the spectrum.

We have on several previous occasions commented on this case, and have expressed our sympathy with Mr. Trattles, so that we shall not be misunderstood if we say that the mistake of which he has been the victim is not altogether a matter of regret. His case has in a very arresting manner directed public attention to the existence of a serious defect in the administration of the Board of Trade, and the President may now be asked with insistence to put an end to a source of inefficiency in his department. The Board should now once and for all have done with such amateur advice as the Royal Society tenders on a subject which is entirely one to be submitted to medical experts.

THE MEDICAL REPORT OF THE LOCAL GOVERNMENT BOARD.

THE report of the Medical Officer to the Local Government Board in England and Wales for 1908–9 has been issued. It is the first for which Dr. Newsholme, who was appointed in January, 1908, is wholly responsible. It opens by a review of the public health in 1908, which contains a discussion of the general urban death-rate and of infantile mortality. A diagram shows in a striking way the variations in the infant mortality-rate in different towns, and leaves no doubt that a large proportion of the mortality is preventable. Evidence is afforded in another part of the report that local sanitary authorities are beginning to realize the possibilities of good work in this direction, and it is added that "materials are being collected in the medical department of the Board for a much fuller review of the conditions affecting mortality during the first five years of life, and of the possibilities of reducing this loss, and of diminishing the incidence of sickness at these ages, which commonly leaves its traces in impaired health in later life." The analyses of the returns with regard to vaccination showed a further reduction in the proportion of children born who were vaccinated from 73.4 in 1907 to 70.9 in 1908. Among the auxiliary scientific investigations conducted for the Board, reference is made to two that are being carried out by Dr. Theodore Thomson, one into persistent and recurrent infection in diphtheria, in association with Dr. C. J. Thomas, and the other into the carrier problem in enteric fever, conducted along with Dr. J. C. G. Ledingham. The latter investigation is being pursued on three lines: observation of persons recently recovered from enteric fever, as to whether they continue to excrete the typhoid bacillus; the medical treatment of carriers, with a view to the discovery of a remedy; and inquiry into outbreaks of enteric fever in which carriers appear likely to have been the means of conveying the infection. Dr. Gordon has undertaken an investigation into the cocci occurring in scarlatinal throat, with a view of ascertaining whether a bacteriological test for identifying suspected cases can be discovered. Dr. Savage's experiments on the relation of bovine and human streptococci to mastitis in cows have yielded some interesting results. He had previously shown that the streptococci causing mastitis in cows could be distinguished from other strains found in throat affections in man, and he has now ascertained that none of the streptococci so obtained from man produced bovine mastitis in the cow, whereas it was readily produced by a streptococcus derived from a previous case of bovine mastitis. Experiments made on himself with this *Streptococcus mastitidis* afforded direct confirmation of the view he had advanced in a previous report that this particular streptococcus is not a source of human disease. The cocci seemed, however, to have survived for some time in the human throat, for they were recovered, and were found to produce mastitis in goats. Dr. Savage has also presented a report on the presence of paratyphoid bacilli in man and the etiology of paratyphoid fever; he obtained blood reactions in 200 specimens, which appeared to justify the conclusion that 3 to 3.5 per cent. of the patients whose illness ran the clinical course of enteric fever, really suffered from paratyphoid fever. Professor Delépine has contributed an account of the methods of investigation of milk in relation to tuberculosis which have been devised by him and carried out for the public health department of the Manchester Corporation. Other scientific investigations in progress are those by Mr. Foulerton on pneumonia in young children, and by Dr. Sidney Martin on the mode of growth of the *Streptococcus pyogenes*. An investigation rather out of the usual run of those which have appeared in previous reports has arisen out of an inquiry into the amount of indoor pauperism in three metropolitan boroughs and the causes which led to this pauperism, the results of which were communicated to the Royal Statistical Society by Dr. Basil Cook. In the three infirmaries and workhouses examined it appeared that varicose veins and hernia accounted for the presence of a considerable number of the inmates, and it was found possible to carry

the investigation of hernia somewhat further. The general result seems to be that the chief incidence of hernia occurs at an earlier age among porters and other persons engaged in hard manual labour of that nature than among persons whose occupations keep them indoors or do not require great physical strain. We have indicated only in a general way the subjects with which the report deals, and hope to return to some of them in a future issue.

POOR RELIEF IN THE EIGHTEENTH CENTURY.

A CONTRIBUTOR to the *Glasgow Herald* who signs himself "W. W. M." tries to reconstruct from some fragments of the parochial records of a Border Parish an idea of the conditions of life among the labouring classes in Scotland during the second half of the eighteenth century. The documents also show that the "overseers of the poor," by which title those entrusted with the distribution of public assistance were then known, were a body of men whose decisions were not only humane but well seasoned with common sense. Indeed, they anticipated movements—such as the boarding out of children and sending friendless invalids to health resorts—which are generally believed to be quite modern. The earliest entry refers to an old woman too infirm "to bide by herself" who was allowed, over and above her weekly aliment, the sum of four shillings "for hiering one for to look after her in the time of harvest, her daughter being obliged to winn her harvest fee for to pay her house rent." At the same meeting another applicant was paid ten shillings "for taking care of her brother in the harvest quarter." An orphan boy boarded out in Oxnam Water was on February 14th, 1760, required to serve his guardian until the following Whit Sunday, and the clerk was ordered to supply him with "a Bible and shirts." In the same year a young woman besought the assistance and protection of the heritors—who looked after the landward poor, while the town councils took charge of those within the burghal boundaries—under the following curious circumstances. She had come to Jedburgh, so her story ran, from the parish of Oxnam with her father in 1754, "and from that time had lived in the town earning bread for herself by teaching a private school, without being in the least burdensome to the town or any in it, always behaving herself without reproach; that the magistrates of Jedburgh, on May 26th, in an arbitrary manner did lock her out of her room and deny her access to it, or goods and effects, whereby she is greatly injured." The heritors, "pitying her distress," instructed their clerk to acquaint the provost that in case she should be reduced to proverty they would relieve the town of her maintenance. Among the entries we find it recorded that an old man was allowed "eight shillings to buy a horse." At the same meeting a maiden received a similar sum "to go to try the sea water for the recovery of her health," while on a subsequent date another sufferer received eight shillings to help him to proceed to Edinburgh Infirmary. In the spring of 1770 a farm servant residing in Upper Jedwater was allowed 10s. of interim supply "for his distress of four children in the small-pox." The writer goes on to say that during the closing years of the eighteenth century, when there was severe distress among the working classes on the Borders owing to the want of employment and the scarcity and high prices of provisions, the heritors undertook to find employment "for persons of both sexes who were able and willing to work and could not obtain it, as well as for persons of declining strength, at a rate of wage adequate to the value of their work." Unfortunately no record has been left of the sort of work provided or the rate of wages paid, but the action of this little group of Jedwater lairds in voluntarily agreeing to find remunerative work for the unemployed may be regarded as anticipating by a century the claim that the willing worker is entitled to be presented, by local authorities or by the State, with an opportunity to labour for bread for himself and his family.

A NEW VEGETABLE POISON.

IN the *Annales de l'Institut Pasteur* for October, 1909, M. Charles Richet describes his preliminary investigations of a new vegetable toxin, which is comparable in some respects to the well-known toxins, abrin and ricin. The new toxin, for which he proposes the name "crepitin," is derived from the sap of the Brazilian tree, *Hura crepitans*, or "assaku." The seeds, leaves, flowers, bark, and branches of this tree are all highly poisonous, and are used by the natives to poison water, the result being that the fish die, come up to the surface, and are easily taken. The use of these poisoned fish as food appears to be risky, and this method of fishing seems to be more or less strictly prohibited; but upon these points the author has been unable to obtain precise details of a reliable nature. The sap of the tree is of particularly high toxicity, and may be obtained in great abundance by incising the bark of the trunk and collecting the juice in vessels suspended beneath the wound. It is a caustic liquid, rarely employed by the natives, who are afraid of it; it is greyish-white in colour, is coagulated by heat, has no odour, and does not readily give way to putrefactive changes. This is the material from which M. Richet has isolated his crepitin. When injected intravenously into rabbits in large dosage—that is, a dose exceeding 0.02 gram per kilogram of body weight—it produces immediate death. The first effect is arrest of respiration; the heart continues to beat for a while and then stops; finally there are respiratory gasps in the death agony. The respiratory arrest is preceded by a general muscular paresis; the animal falls on its side with semiconvulsive movements, but without true convulsions. At the autopsy no clots are found in the heart; the lungs are of an intense vermilion-red colour, exceeding in brightness anything which the author has seen in any other form of intoxication. There is no haemorrhagic congestion of the intestine. In dogs, on the other hand, the haemorrhagic congestion of the intestine is very pronounced, and there is an extreme lowering of arterial pressure. The dog's heart appears to be less susceptible than the heart of the rabbit, since the intravenous injection of as much as 0.065 gram per kilogram of body weight does not produce immediate death in a normal dog. Guinea-pigs do not die immediately after an intraperitoneal dose of 0.04 gram per kilogram, nor do frogs after subcutaneous inoculation of a similar dose. But though, in the animals investigated, the action of smaller doses than these is relatively slow, a fatal result is ultimately produced with an amount of toxin which is only one-fiftieth or one-hundredth of that required to produce immediate death. Crepitin becomes attenuated when mixed with normal blood; a dose toxic *per se* must be multiplied fourfold, when mixed with serum, in order to produce the same toxic effect. M. Richet also observed that an animal which had been bled was more sensitive to the action of the toxin than a normal animal. It thus appears that the blood possesses protective properties not merely owing to the development of antitoxin in the course of chronic intoxication but also in virtue of its immediate—more or less complete—neutralization of toxic elements. Very young dogs, particularly newly born dogs, were

more resistant than older animals, and Professor Richet suggests that this may be due to less complete development of the nervous system. The properties of crepitin as an antigen appear to be feeble, since during the first three months after inoculation the immunized animal is not able to resist more than four or five times the dose fatal for a normal animal. The phenomenon of anaphylaxis is also produced, and is specific in the sense that anaphylaxis cannot be produced by crepitin unless a previous dose of this substance has been administered. When the toxin is mixed with the blood of an animal in the anaphylactic condition, the mixture sometimes produces immediate anaphylaxis in a previously untreated animal. This result is regarded as an indication that anaphylaxis is due to a poison which results from a chemical combination between the toxin and a substance inoffensive in itself (toxogenin) which is found in the blood of animals in a state of anaphylaxis.

SPENGLER'S IMMUNE BODY OF TUBERCULOSIS.

No chapter in the recent history of medicine has been marked by more startling announcements than that on tuberculosis. Koch has twice—nay, three times—appeared with little or no warning on the forum with important statements; von Behring resorted to a method of communication which was little short of theatrical; and others have suddenly taken the profession into their confidence, after prolonged silent working. Perhaps the most startling announcement which has been made with regard to this disease was made by Dr. Carl Spengler,[1] of Davos, and inasmuch as his statements included a thorough revolutionizing of our ideas of this disease, notice has been taken of his communication in the lay, as well as the medical, press. We would not have deemed it necessary to offer any criticism on this matter for several reasons, but an article written by Dr. G. Landmann[2] shows that Spengler's work has been taken seriously by him and perhaps others. Spengler has immunized animals against tuberculosis, but he neglects to inform his readers how he has accomplished this. It is certain that no one has succeeded before him, in spite of manifold attempts. Then he finds immune bodies of various kinds manufactured and stored up in the red blood corpuscles, also a new and startling discovery. Next we are suddenly introduced to a new tubercle toxin, called "phthisin." No details are given with regard to this toxin. It is used for the detection of an antitoxin, which is also found attached to the red cell. Next, Spengler prepared his immune substances pure, and frees them from haemoglobin and albumen. The most advanced chemists of the day have tried in vain to separate proteid from toxins, but now we are told that the thing is done, but how is not explained. The pure "stuff" is called I.K. (Immune-Körper). We would multiply reasons for having refrained from discussing the first paper, but content ourselves for the present with these few words. Landmann offers much more weighty evidence against the solidarity of Spengler's new theses. He has obtained some I.K., and as he was unsuccessful in obtaining *phthisin* he employed a tubercle toxin, called *tuberculol*, made partly from the bacilli themselves (bacillary extract) and partly from the products of the bacilli (true toxin). He then proceeded to test the protective power of I.K. According to Spengler, one-millionth of a cubic centimetre suffices to protect animals against a lethal dose. This method of gauging antitoxic power with single lethal doses is unsatisfactory, but, nevertheless, Landmann repeated it to control Spengler's results. All his rabbits and guinea-pigs injected with I.K. and with one or both of the toxin constituents of tuberculol died within a few hours. He therefore concluded that I.K. has no ascertainable antitoxic content.

[1] Carl Spengler, *Deut med. Woch.*, No. 38, 1908.
[2] G. Landmann, *Berl. klin. Woch.*, No. 45, 1908.

THE OPSONIC INDEX.

CAPTAINS HARVEY AND MCKENDRICK[1] have continued in *Biometrika* the discussion of the opsonic index from the statistical side which was initiated by Greenwood and White. Greenwood and White concluded from an analysis of counts of 25 cells that, in the case of the tubercle bacillus, indices falling within the limits 0.85 and 1.3 could not be regarded as definitely abnormal. Adopting a somewhat different but quite reasonable method and working with samples of 100, Harvey and McKendrick assign 0.8 and 1.2 as the limits outside of which indices obtained in routine work may be regarded as definitely significant. Some evidence is adduced that the opsonic index is more reliable in the case of organisms other than the tubercle bacillus, and the important suggestion is made that variability in phagocytic power as measured by the standard deviation, may prove a more useful criterion than the arithmetic mean. The authors express doubts as to whether the opsonic indices calculated by different observers are comparable with one another and show that the index obtained with a thick emulsion may be very different from that yielded by a thin one. For instance, in one case, an index for Friedlander's bacillus of 2.17 was obtained with a thin emulsion. On the following day, with a thick emulsion, the value was 0.75. They attribute this paradoxical result to the existence of strong agglutination of the bacteria when mixed with the immune serum. They found also, in the case of *Bacillus coli*, that the frequency distribution in the case of a concentrated emulsion exhibited a lower variability than was observed after dilution, and they attribute this to the so-called aggressin effect. It will be seen that this memoir contains matter of the greatest interest, and reflects much credit on its authors both as statisticians and experimenters. There are in the paper some remarks, rather of the nature of *obiter dicta*, which are open to criticism. The authors write: "Much more criticism seems to have been levelled at the method of measuring the effect of vaccino-therapy than upon the efficacy of vaccino-therapy itself, which seems somewhat of a reversal of their relative importance. One would imagine that those who invented the opsonic index and initiated vaccino-therapy would prefer to have their names more closely associated with the latter than with the former." The explanation of this tendency must be obvious. It is well known, and our columns have frequently borne witness to the fact, that enthusiastic supporters of the opsonic method have claimed for the index a far higher degree of accuracy than is warranted by the investigations either of Harvey and McKendrick, or of Greenwood and White. There has also been a tolerably plain inclination to accuse those who disagreed with these dicta of technical incompetence. It is not therefore surprising that discussion has been provoked. We are not even clear that Harvey and McKendrick's findings will reassure the doubters. What the profession desires to know is whether the opsonic index is a clinical method which can be expected to give reasonably accurate results in the hands of ordinarily intelligent workers. If the index is only accurate, within the limits suggested by

[1] "The Opsonic Index: A Medico-Statistical Inquiry," by W. F. Harvey, M.A., M.B., D.P.H., Captain, I.M.S., and Anderson McKendrick, M.B., Ch.B., Captain, I.M.S., *Biometrika*, vii, 64-95.

Harvey and McKendrick, in the hands of a very small class of observers, it can scarcely be said to possess much general interest for the profession. We need hardly say that these difficulties in no way detract from the real value of Captains Harvey and McKendrick's paper, and we heartily congratulate them on the completion of an important and laborious task.

SLEEPING SICKNESS IN UGANDA.

SIR H. HESKETH BELL'S report[1] on the measures adopted for the suppression of sleeping sickness in Uganda is of interest, not only because it gives the views of a distinguished administrator, but because he was largely instrumental in carrying out the removal of the inhabitants from the fly-infested areas around the Victoria Lake—a measure that must certainly result in a diminution of the disease in Uganda, and finally, it may be hoped, its disappearance. The report is a history of events from the date of the outbreak of the disease in Uganda to the present time. The chief measure adopted was the removal of all natives from the fly-infested belt round the lake shore, from the islands in the lake, and from territory adjoining the Nile. It was hoped that within a few months no infected tsetse flies would be surviving in the district, but Sir David Bruce's most recent experiments have thrown doubt on this; he found that flies taken from the lake shore were still infective to monkeys two years after the evacuation. No very satisfactory explanation of this persistence is yet forthcoming, and until the matter has been further investigated the natives cannot be allowed to return to the lake shore. The removal of such a large body of persons without the slightest trouble or friction is a splendid piece of administrative work, and Sir Hesketh Bell, the medical staff, and all who assisted in it are to be heartily congratulated on its successful accomplishment.

MEDICAL POETS.

THE recent issue from the Clarendon Press of the works of Thomas Campion will doubtless be of interest to some of our readers, as Campion was a member of the medical profession. His first appearance as a poet was made in 1595, when he published a small volume entitled *Thomae Campiani Poemata*. He died in 1619, and had a great reputation in his lifetime, but no complete edition of his works has ever before been issued, though the several volumes were highly prized by collectors. About his personality little is known except what can be gathered from his writings. He probably took his medical degree abroad, but he does not seem to have practised medicine till somewhat late in life. The stormy period of his youth in Elizabethan London is reflected in some of his verses. In his poetry he achieved what few poets attempt and what some, like Goethe, have disliked being attempted by others; as Mr. Vivian, who contributes an Introduction to the new edition, says: Campion's words and music were born for each other, and in their wedding was consummated the only object of their existence. Campion himself says: "In these English Ayres I haue chiefely aymed to couple my Words and Notes louingly together, which will be much for him to doe that hath not power over both." He was one of the last of the Euphuists. The medical profession can boast a fair number of poets, though most of them have abandoned science for literature. Medicine is a jealous mistress, and he who would dally with the Muse must give up the worship of Aesculapius. The greatest poet who had any connexion with medicine, of course, was John Keats, who, had not his thread of life been untimely slit by the blind Fury with th' abhorred shears, would have had one of the highest places on Parnassus. But we should not forget Arthur Johnston of King's College, Aberdeen, although he wrote in Latin. In Sir Thomas Urquhart's phrase, Johnston was "laureated poet at Paris, and that most deservedly." Among his verses are some on professional subjects. One is entitled, "De Abrenethea virgine cum scabie laboraret." It should be explained that the Isabella Abernethy here commemorated was suffering, not from itch—a malady *quod versu dicere non est*—but from smallpox, which destroyed the beauty of her face and dimmed the brightness of her eyes, whose extinction is mourned by the poet of Aberdeen. Another of Johnston's poems is addressed to the Town Council on behalf of a midwife whom he designates Thaumantia, and who had been imprisoned on account of some improper liberties she had allowed her tongue. Of Sir Robert Blackmore, who "wrote to the rumbling of his chariot wheels," nothing more need be said than that he was more successful as a physician than as a poet. Nor is it necessary to dwell on the work of Grainger, the friend of Johnson, who in his poem on the sugar cane, has the famous invocation, "Now, Muse, let's sing of rats!" Garth and Cowley must be mentioned among poet-doctors. Armstrong, the author of a poem on health, was held in esteem till he spoiled his reputation by indecency; he figures in Thomson's *Castle of Indolence*. Of Oliver Goldsmith and Mark Akenside we have good reason to be proud, though poor Goldsmith was advised by Beauclerk to change the limitation of his medical practice from his friends to his enemies; and the author of *The Pleasures of the Imagination* was not thought much of as a physician by his colleagues and students at St. Thomas's. Smollett is the author of a fine ode on Independence, and all readers of Scott will remember his lamentation for the death of John Leyden—"Scenes sung by him who sings no more." The late Dr. Hake was highly thought of by good judges, and Thomas Lovell Beddoes, author of *Death's Jest Book*, was a true poet. As a physician his career was somewhat erratic. He was a son of the well-known Dr. Beddoes of Clifton, in whose Pneumatic Institute Humphry Davy was assistant; there he discovered the anaesthetic properties of nitrous oxide gas, but his mention of it passed unnoticed. Of living medical poets we do not speak; but we cannot leave unnoticed one who is recognized to be one of the glories of English literature—Robert Bridges, M.B., of Oxford, formerly casualty physician at St. Bartholomew's Hospital, and assistant physician to the Children's Hospital, Great Ormond Street.

PELLAGRA IN THE UNITED STATES.

PEOPLE in certain parts of the United States are becoming alarmed at the spread of pellagra. How seriously they regard the matter is shown by the fact that a national conference on the subject, attended by over three hundred delegates from all parts of the country, as well as by representatives from Yucatan, the West Indies, Paris, and Egypt, was held at Columbia, South Carolina, on November 3rd and 4th, 1909. More than forty communications were presented, among them being an address by Dr. F. M. Sandwith, of London, which was read by Dr. J. W. Babcock. The author suggested the desirability of establishing compulsory notification of cases of pellagra by its addition to the list of diseases for which immigrants should be excluded. It seemed, according to the *Boston Medical and Surgical*

[1] Colonial Reports—Miscellaneous. No. 65, Uganda. Report on the Measures adopted for the Suppression of Sleeping Sickness in Uganda. By Sir H. Hesketh Bell, K.C.M.G. Presented to both Houses of Parliament by command of His Majesty. December, 1909. London: Darling and Son, Ltd., 34-40, Bacon Street, E., etc. [Cd. 4990.] Price 5d.)

Journal, to be the general opinion of the assembly that, though predisposing causes are of importance, the chief factor in the production of pellagra is the use of spoiled Indian corn and of spirits distilled therefrom. Rigorous Government inspection of all corn and corn products was therefore emphatically recommended. The conference passed a resolution, introduced by Dr. J. H. Way, of the North Carolina Board of Health, urging the national Government "to bring its resources to bear upon the questions of the cause, prevention, and control of the disease." It further resolved "that the work of the conference be brought to the attention of the State and territorial boards of health, and that they be urged specially to investigate the disease and to establish proper inspection of corn products sold for food in the various States." At the close of the conference a National Association for the Study and Prevention of Pellagra was organized. Dr. J. W. Babcock of Columbia was elected President; Dr. William A. White of Washington, D.C., a Vice-President; and Dr. George A. Zeller of Peoria, Illinois, Secretary and Treasurer. A Vice-President for each State will be appointed later. The next congress on pellagra is to be held at Peoria in June.

RECIPROCITY WITH CANADA.

IN his address at the opening of the last session of the General Medical Council, the President stated that the province of Prince Edward Island had petitioned His Majesty in Council that the benefit of medical recognition on reciprocal terms might be extended to it. Sir Donald MacAlister added that, as the provincial law appeared to afford due facilities for local registration of all practitioners registered in the United Kingdom, it was to be expected that a satisfactory agreement would speedily be reached. The expectation has been fulfilled, and the *London Gazette* for January 14th published an Order of Council declaring that the second part of the Medical Act, 1886, shall be deemed, as from the date of the Order, to apply to the province of Prince Edward Island in the Dominion of Canada.

THE BOARD OF EDUCATION.

AT another page of this issue will be found an abstract of part of the annual report of the Chief Medical Officer to the Board of Education. The document as a first review of the working of a new and highly important department during a complete year would in any case be of interest. In this instance the interest is increased by the fact that, though the intentions of the Board and the aims which it is keeping in view in putting into operation the Education Act of 1907 in all particulars have in one way and another become more or less well known to most of those more immediately concerned in school work, it is convenient to have a complete survey of the policy of the Board. In this volume, which, taken as a whole, much less resembles an ordinary annual report than an elaborate essay on the principles of State education so far as the physical well-being of the children of the nation is liable to be affected thereby, the policy of the Board is carefully set out and even in places defended.

LORD AMPTHILL, by whom the Nurses Registration Bill was introduced into the House of Lords in 1908, is forming a joint committee of bodies interested in the subject. He has requested the co-operation of the British Medical Association, on whose behalf representatives have been nominated to attend a preliminary conference which will be held at 3.30 p.m. on Tuesday next in the Council room of the Association, which has been placed at his disposal for the purpose. The other bodies which have nominated representatives to attend the conference are the Matrons' Council of Great Britain and Ireland, the Society for the State Registration of Trained Nurses, the Fever Nurses' Association, the Irish Nurses' Association, the Scottish Nurses' Association, the Royal British Nurses' Association, and the Association for the Promotion of the Registration of Nurses in Scotland.

GENERAL ELECTION.

QUESTIONS TO MEDICAL PARLIAMENTARY CANDIDATES.

SINCE our last issue a communication has been received from Dr. J. Court, Unionist candidate for North-East Derbyshire, stating his approval of the policy of the Association, and his intention, if elected, to support it.

We are informed that the deputation from the Isle of Wight Division which interviewed the candidates for that parliamentary division, submitted the following question in addition to those published in the SUPPLEMENT of January 1st, 1910, p. 1:

> An agreement was come to by the late Government by which doctors' motor cars were put in the same category as motors used for commercial purposes, and they were allowed the full rebate of duty on petrol up to the end of 1909. Would you, in the event of the petrol tax being retained, be prepared to support this, also the return of half the annual licence fee?

Both candidates expressed themselves strongly in favour of the proposal embodied in the question.

We understand that a large number of Divisions of the British Medical Association have communicated with local candidates, and that in many instances very satisfactory undertakings have been given by candidates on parliamentary questions of medical interest.

MEDICAL MEMBERS.

The following medical candidates have been returned during the first four days of the election:

England.

Dr. Christopher Addison (L.), Hoxton.
*Sir William J. Collins (L.), St. Pancras West.
*Sir G. Scott Robertson, K.C.S.I. (L.), Central Bradford.

Scotland.

*Dr. A. R. Rainy (L.), Kilmarnock District.

Ireland.

*J. Dillon (N.), Mayo East.

*Re-elected.

Surgeon-General Evatt, C.B. (Brighton), Dr. H. S. Lunn (Boston), Dr. J. E. Molson (Bethnal Green), and Dr. R. O. Moon (Marylebone East), Sir J. Sherburn (Hull City West), have been defeated at the polls. Dr. R. Ambrose, who had represented Mayo West since 1893, failed to be selected at the Nationalist Convention, and was not nominated on this occasion; his place has been taken by Mr. W. Doris, a journalist.

THE German Surgical Society will hold its thirty-ninth annual congress in Berlin from March 30th to April 2nd, under the presidency of Professor Bier. The German Orthopaedic Society will hold its ninth congress on March 29th, under the presidency of Professor Joachimsthal.

THE Communal Council of Verona has unanimously passed a resolution that a statue should be erected to Cesare Lombroso. The Council has voted £200, and it is hoped that subscriptions will be received from all parts of the world.

RADIUM AND THE PASTEUR INSTITUTE.—At a recent meeting of the Council of the University of Paris the Vice-Rector gave an account of negotiations with the Pasteur Institute with reference to building a laboratory on a site belonging to the university between the Rue Ulm and the Rue Saint-Jacques. The cost of this laboratory, which is intended for the investigation of the phenomena of radioactivity and their therapeutic application, is to be shared by the university and the institute. The Council of Management of the Pasteur Institute has unanimously agreed to the proposal. The laboratory will consist of two parts, one for scientific research, the other for the study of its medical applications. The former will be under the direction of Madame Curie, the latter under that of the Pasteur Institute. The Institute will contribute £16,000 towards the building and installation of the laboratory out of the Osiris legacy.

Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

ROYAL COLLEGE OF SURGEONS IN IRELAND.

AT a special meeting of the Council of the Royal College of Surgeons in Ireland, held on January 11th, it was decided to send a circular letter to all the Fellows and Licentiates of the college, urging upon them the importance of exercising their influence with candidates in their several parliamentary constituencies in order to have remedied the gross injustice under which the college and its medical school now labours, as being the only medical school amongst the six in Ireland which is wholly without State aid or endowment, and which cannot long hope to survive such unfair competition. At the same meeting a subcommittee of the Council was appointed to act with a subcommittee from the Royal College of Physicians for the purpose of interviewing candidates for Parliament in connexion with a parliamentary grant for the medical school of the college. This conjoint committee met some of the candidates for the city and county of Dublin on Saturday, January 15th. Those who attended were Sir Edward Carson, M.P., Mr. J. H. Campbell, M.P., Mr. H. D. Conner, candidate for Stephen's Green Division of Dublin, and Major O'Connor, candidate for College Green Division, while letters of apology were received from those candidates who were unable to attend. The colleges were represented by the President and Vice-President of the Royal College of Surgeons, the President and Vice-President of the Royal College of Physicians, Sir John Moore, and Dr. James Craig. The President of the College of Surgeons pointed out that the college school, which is absolutely non-sectarian, has been in existence for over 130 years, and during that time has managed to thrive and prosper. It is now, however, met with the unfair competition of other schools, unfair in the sense that each of the other six medical schools in the country receives a Government grant, while the college school is absolutely dependent on the fees received from the candidates for the college diplomas. If some grant was not made to the college in order to enable it to compete on fair terms, it would become necessary to close the school. The danger was no theoretical one, but already imminent. That the stress of competition is already being felt was borne out by a statement of one of the other speakers, to the effect that it had become necessary this year for the professors to subsidize the school to the extent of two-thirds of the students' fees. Sir Edward Carson and Mr. Campbell in their replies both expressed great sympathy with the present position of the college school, and promised their active assistance, a promise which was also made by Mr. Conner and Major O'Connor.

UNIVERSITY COLLEGE, CORK.

The university changes in Ireland carry in their train several consequences of considerable interest to the citizens of Cork. Hitherto all the medical examinations have been conducted in Dublin, and Cork students have had to present themselves there for their examinations. Under the new arrangements this will be obviated, as Cork University College will be recognized as satisfying all the conditions necessary for the proper adjudication of the claims of the student to university advancement.

More important from a spectacular aspect and more dignifying from an academic standpoint is the proposal which has been accepted by the Senate and by which Cork University College will in future be the scene of capping the university students. Ceremonials of this character must do much to give visibility to the excellent work done by this university centre, and direct the attention of the citizens to the high position occupied by the city in the world of scholarship.

The President of University College is making an effort to obtain a mace which could be utilized on such occasions, and already an appeal has been issued to old students and graduates to assist. It is intended that the mace should be made in Cork, and of Irish silver. Professor Harry Cummins will be glad to receive subscriptions, limited to 10s., from those interested in the future welfare of the old Alma Mater. It will be recollected that the Queen's University of Belfast has been presented with a magnificent mace through the generosity of one of the public-spirited citizens of Belfast.

GAS POISONING IN BELFAST.

From time to time cases of gas poisoning have occurred in the city, and of late they have been unduly frequent; during the last month three fatalities have been recorded, and in one a full investigation was made. On January 7th Mr. J. Rooney, who had just been elected an alderman, was found dead in bed. He had been taking an afternoon nap. Quite close to his head an electric wire crossed a gas pipe; the latter was found melted and the wire fused, with signs of charring of the adjacent material. His dog was found dead underneath the bed.

Dr. Graham, coroner for the city, decided to adjourn the inquest to enable the experts to complete their examination of the gas and of the blood of the dog.

The inquest was resumed on January 13th. Dr. Wilson, Lecturer in Hygiene in the Queen's University, Belfast, deposed that in conjunction with Mr. Totton, B.Sc., County Analyst for Armagh, he had made a *post-mortem* examination of the dog. Its blood, according to Haldane's carmine method, was found to be saturated with carbon monoxide to the extent of 76 per cent.; their conclusion was that the dog had died from carbon monoxide poisoning. They had also examined the gas supplied to the city. Samples were taken from an ordinary gas bracket at different hours on January 11th and 12th. Four tests gave an average of 20.3 per cent. of carbon monoxide gas. The percentage of carbon monoxide in ordinary coal gas free from admixture with carburetted gas was usually between 6 and 8 per cent. The experiments of Professor Lorrain Smith had shown that in coal-gas poisoning carbon monoxide alone was the lethal agent. The Departmental Committee on Water Gas which reported to the Home Office in 1899 recommended that the limit of carbon monoxide in gas supplied during the night hours should be 12 per cent. Dr. Haldane had shown that deaths from coal-gas poisoning were enormously more frequent in towns using coal gas mixed with carburetted gas than in those towns which used ordinary coal gas. From experimental and statistical data he concluded that the number of accidents referable to the mixed gas increased approximately as the cube of the increase in percentage of carbon monoxide; thus, if the percentage of carbon monoxide were increased from 6 to 12, the chance of being poisoned became eight times greater.

Mr. Sharpe, manager of the gas works, said the gas was the same as in any other large city using the mixture of coal and carburetted gas; it was impossible to use the latter without having carbon monoxide. The Belfast carburetted water gas had about 32 per cent. carbon monoxide; Liverpool and Bath had 50 per cent.; Dublin and Southport 51 per cent.; the Gas Light and Coke Company, supplying the City of London, 46 per cent. For the last three months Belfast gas had 46 per cent. of water gas and 54 of coal gas. If the gas pipes were properly laid there was no special danger. About 100 cub. ft. an hour were passing through the pipes in question, and deceased's head was lying in the stream of the escaping gas as it came from the skirting. He was of opinion that death ensued within fifteen minutes from the time Mr. Rooney became subject to the gas. The arrangement of the piping was dangerous; there should always be a space between gas pipes and pipes conveying electric wires. In midwinter the gas works were forced to use water gas.

Mr. Bloxam, city electrical engineer, said the only mistake made in connexion with the installation of the gas and electricity was the contact of the electric wire and the gas pipe.

Mr. Sharpe said the corporation had no power to regulate the laying of piping throughout a house.

The jury found that death was due to accidental gas poisoning, and added as a rider that more care should be taken in the laying of gas pipes and electric wires.

ISOLATION OF CONTACTS.

A special inspection of the Refuge at Nicholas Street, Dublin, was made by the Public Health Committee of the Corporation on January 13th. The establishment is used for the accommodation of dwellers in tenement houses in which infectious disease has occurred. When any serious outbreak takes place the persons who are likely to have come in contact are immediately removed to the Refuge, where they are supplied with food and other necessaries, and are kept under observation till the danger of infection is past. The importance and value of such an institution is obvious. Testimony to the good condition in which it is kept was borne by the inspecting members of the committee.

QUEEN VICTORIA'S JUBILEE INSTITUTE FOR NURSES.

The report for 1909 of this institute states that there are at present 138 Queen's nurses working throughout Ireland in addition to the Queen's candidates at various stages of training. During the year nineteen new districts were opened in counties Armagh, Cork, Dublin, Donegal, Galway, Kerry, Kilkenny, Meath, Mayo, Tipperary, Westmeath, Wicklow, and Wexford; while, in addition, an extra nurse has been engaged in Ballymena and in Drogheda. During the year 2,006 patients were nursed in Dublin from St. Patrick's Home, and 45,514 nursing visits paid; from St. Lawrence's Home, 2,541 patients were nursed, and 57,505 visits paid. The above record speaks for itself. Every doctor is aware of the immense boon that the Jubilee nurses have been to the poor of Ireland.

HEALTH RESORTS IN IRELAND.

A conference of delegates, representing municipal bodies from all parts of Ireland, was held in Dublin on January 12th, with the object of discussing the best methods of making known to the public the attractions of the health resorts and watering places in Ireland. Under the Health Resorts Act passed last session urban and borough councils are empowered to raise money for the purpose of advertising their districts, by imposing a rate not exceeding one penny in the pound. As the amount which could be thus raised in many districts would be quite insufficient to be of any value, the conference came to the conclusion that co-operation was essential, and accordingly unanimously decided to form an "All Ireland Tourist Council," to work, co-ordinate, and assist the local schemes of the various councils. We have no doubt that under energetic management this council will do much to attract public attention to the advantages which many parts of Ireland offer both to the holiday tourist and to the convalescent seeking strength.

THE COUNTY CORK SANATORIUM FOR CONSUMPTION.

The buildings in connexion with this institution have now been completed, except in so far as the contract for plumbing is concerned, and efforts are being made to hasten the opening. The committee is acting wisely in arranging for the medical superintendent and the secretary to visit various sanatoriums in England before settling the details of furnishing and nursing, whilst in their visits they are to investigate the methods of administration, the comparative cost of patients and maintenance, and the figure representing salaries, and also the conditions attached to the admission of patients to the institution.

DANGERS TO POSTAL CLERKS.

The Irish postal clerks, at their annual meeting, have called the attention of the Government to the risks incurred by them in their work. Mr. Healy, one of the delegates, made the statement that under the present system "the ordinary post officials inhaled more germs in one day than any other member of the public did in his whole life." The following resolution was passed unanimously, on the proposition of Mr. Croker of Limerick:

> That this conference is of opinion that the mail bags at present used and treated in the various post offices and railway vans of this country constitute an active agency for the spread of infectious diseases, especially consumption.

Mr. Croker proposed that in order to minimize the dangers arising therefrom, both to the staff and to the public, all mail bags in use should be washed and disinfected fortnightly, and such vehicles and other means for their conveyance should be provided, and such measures enacted as would ensure that no mail bag would ever come in contact with the floor of any post office or railway van.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

DR. T. S. CLOUSTON.

A NUMEROUS company assembled in the hall of the Royal College of Physicians, Edinburgh, on January 10th, on the occasion of the presentation of the portraits of Dr. Clouston, subscribed for by friends in recognition of his long connexion with the Royal Edinburgh Asylum for the Insane. The chairman, Professor Rankine, in making his presentation, said he had been closely associated with Dr. Clouston for many years, and during that period his feeling had been one of ever growing admiration for him as a physician, as a man of business affairs, and as a friend. Dr. Clouston had attained a most eminent position as an alienist, and that his fame had gone through all the earth was well illustrated by the list of subscribers to the testimonial. As an administrator these three noteworthy features should be mentioned: The first was the initiation of that mental pathological scheme which had done much, and would do still more, for the advancement of psychiatric science. The second was the smooth way in which the very onerous contract with the Poor Law authorities of Edinburgh was altered into the agreement upon which the matter now rested. But above all stood Dr. Clouston's monument on Craighouse, that magnificent pile of buildings which was unsurpassed by any in the kingdom. Dr. Clouston had well earned a period of comparative repose, and the subscribers all hoped he would long continue among them. Sir William Turner then unveiled the portraits amid great applause. Both are by Mr. Fiddes Watt, and admirably represent Dr. Clouston in familiar attitudes, and afford a striking likeness of the subject. The larger picture, a full-length portrait in medical gown and hood, is to be hung in the hall of the asylum, and a three-quarter portrait, showing Dr. Clouston in ordinary morning attire, is a personal gift to him.

EDINBURGH AND ST. ANDREWS.

On Monday, January 17th, within the University of Edinburgh, nominations were made for a representative in Parliament of the Universities of Edinburgh and St. Andrews. Principal Sir William Turner, the Returning Officer, presided, and the two candidates, Sir Robert Finlay and Sir Alexander Simpson, were present. The Principal read the writ and the enactments ruling the procedure. Dr. Joseph Bell (Edinburgh) nominated Sir Robert Bannatyne Finlay, G.C.M.G., K.C., LL.D., and Professor Scott Lang (Mathematics), St. Andrews, seconded. Sir Halliday Croom nominated Sir Alexander Simpson, and Professor McIntosh (Natural History), St. Andrews, seconded.

The Principal explained that 9,000 voting papers had to be sent out, some to the further Hebridean Islands in the North, and others to the Channel Islands in the South. That would be done on January 21st, and he fixed the polling to begin on February 7th, the poll remaining open for four days, and being declared on February 11th.

EDINBURGH SOCIAL UNION.

The twenty-fifth annual report of the Edinburgh Social Union and Social and Sanitary Society has been issued. The object of the society is to apply the methods which economic science suggests as tending most permanently to the mental and moral development of the community. The immediate question to face is how to "raise the standard of comfort without waiting for the operation of legislative changes." The Housing Committee concerns itself with houses the average rent of which is £6 10s. a year. There is a Window Gardening Committee and an Industrial Law Committee, and the work generally is deserving of the support of the benevolent.

PROPOSED EXTENSION OF THE CITY OF GLASGOW.

A problem which is engaging the attention of the Glasgow municipality at the present time is that of the absorption of surrounding districts, which, owing to the tramway facilities, have become mainly residential, although outside the city boundary. The reports of the Medical Officer of Health show that there has been a steady decrease in the number of inhabited houses within the city since 1904, amounting to a total of over 6,000 fewer than in 1903. There is also a shrinkage of population, the inhabitants being 70,000 less than the estimate of the Registrar-General. This is accounted for by the great increase in districts close to Glasgow, but outside the municipal area, the population of the Burgh of Cathcart. on the South, for example, having increased since 1901 by over 75 per cent. Other southern districts have correspondingly increased. It is maintained that the whole hygienic conditions could be improved, and the death-rate lowered, if there was a single authority dealing with the whole area. Other questions have cropped up of recent years, and now that the rates within the city are going down while those in adjacent burghs are tending upwards, the argument for amalgamation becomes evident to residents within the autonomous burghs. A special committee has been appointed by the Glasgow Corporation to consider the whole question.

GLASGOW'S DEATH-RATE FOR 1909.

The deaths registered in Glasgow during 1909 numbered 15,244, which is equivalent to a death-rate of 17.5 per 1,000 of the population. Notwithstanding the heavy mortality during the last quarter of the year, when the rate for several weeks exceeded 30, this rate for the whole year is again lower than before, the lowest previously recorded being 17.8 per 1,000 for the immediately preceding year. The rates for the four quarters of the year were 19.9, 16 6, 12.6, and 19 7, as compared with 23, 17.1, 14.6, and 16.4 the previous year. The heavy increase during the last quarter of 1909 was, as already noted in our columns, due mainly to respiratory diseases following a phenomenal spell of fog. Respiratory diseases during the year accounted for 3,411 deaths, as compared with 1,305 in 1908. In the last quarter of 1909 the deaths from respiratory ailments numbered 1,225, or only 80 less than the total for the whole four quarters of 1908. Deaths from infectious disease, however, were decreased by 232, the deaths from measles numbering only 398 as against 830 in 1908, and from cerebro-spinal fever 49 in place of 156. Phthisis accounted for 1,179 deaths, four more than in 1908. Diarrhoeal diseases also showed a considerable reduction, being 180 as compared with 301 a year ago.

THE MILK SUPPLY OF GLASGOW.

In a lecture on sanitation and dairying, Mr. John Frew, County Sanitary Inspector, Bathgate, dealt recently with the causes of disease among cows, and insisted that the condition of the buildings in which they are housed should be perfected. Mr. Peter Fyfe, Chief Sanitary Inspector of Glasgow, who presided, related the results of tests of 120 samples taken without any discrimination at railway stations and shops. Of 60 taken at stations only 1 was found to be adulterated; it was reported on by the analyst as "watered." Of 60 taken in shops 13 were reported against for deficiency in fat, but no sample was found watered. In only 7 of these samples was the deficiency such as would have warranted a prosecution, the percentage legally amiss being thus 11. For the whole 120 samples, 8, or 6 per cent., were legally adulterated. Looked at in general, 14 samples, or 11 per cent., were reported against, in comparison with 14 per cent. for Liverpool and 29.4 for Scotland.

DRINK AND CRIME.

In a lecture to the Glasgow Branch of the British Medical Temperance Association, Dr. Devon, medical officer to the Glasgow Prison, dealt with the question of drink as a cause of crime. He concluded (1) that drink put a man into a condition in which he was more liable to commit an offence than when sober; (2) that while drinking was common in all parts of the country, police offences occurred mainly in closely populated districts; (3) that the number of crimes in Scotland was not dependent on the amount of drinking alone, but was mainly dependent on indulgence in drink under certain conditions of urban life; (4) that the major portion and the most serious kind of offences against property were not attributable to drink, while those against the person were. In his opinion, much progress could not be expected till attention was devoted to the causes underlying the drinking, and till those who profited by the conditions which incited to vice and crime dealt with.

DUNDEE PARISH SANATORIUM.

The question of providing buildings for the treatment of phthisical cases in the grounds of the East Poorhouse has been before the Parish Council Committee for some time, and a scheme for the erection of a sanatorium has been recommended. The building will accommodate 32 patients, and will cost £2,000.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

MANCHESTER.

HOPE HOSPITAL.

THE Salford Board of Guardians is apparently acting in the same way as the man who cut off his nose to spite his face. There is some ground for believing that, under the strong pressure of the Local Government Board, it has agreed to do at least some of the things that the Salford Division of the British Medical Association urged; but it is impossible to obtain official verification of this, and the reports of the guardians' intentions are somewhat contradictory. In order to settle any doubts, the honorary secretary of the Salford Division on December 31st, 1909, wrote to the clerk to the guardians, asking in the most conciliatory terms for information, and stating that the British Medical Association had no desire that the present deadlock should continue, and that as soon as the Division was convinced that it could do so with justice to its members and to the profession it would withdraw all opposition, and that it was solely with a view to facilitate this that information was asked for. The clerk sent a printed acknowledgement to the letter, saying that it would be submitted to the proper committee in due course. On January 15th no further answer had been received, though the "proper committee" had had a meeting, and the board itself had also met. Meantime the guardians had been advertising in the public newspapers for two resident medical officers at Hope Hospital; the last day for sending in applications was January 19th, and several prospective candidates, with a praiseworthy desire to support the profession in its attempts to obtain reasonable conditions for the medical officers, had written to the honorary secretary of the Salford Division asking for information. He was, of course, unable to advise, but, being anxious to facilitate matters, he again wrote to the clerk to the guardians on January 16th, asking for a reply to the

former letter, and stating that the Division would be pleased to be able to inform the profession that there were no longer any objections against the appointments. Again the clerk sent a printed form stating that the letter would be laid before the proper committee in due course. This seems to mean that no information will be given until after the last day for receiving applications for the vacant posts. In other words, it practically amounts to a refusal to give information. The position then is this: The guardians are trying to get candidates for the two resident posts on the faith of rumours which they have allowed to be circulated, but which they refuse to substantiate, and through an advertisement in the public newspapers which has been refused by the BRITISH MEDICAL JOURNAL and the *Lancet*. One of these rumours is that the Local Government Board urged the guardians to work in harmony with the local profession in a matter which so intimately affects the profession. The guardians' method of doing this is to refuse information just at the time when it is necessary, and to expect the profession to rely on rumours which may or may not be correct as to intentions which may or may not be carried out if once the junior resident posts can be filled. It is perfectly possible that application may be received for the posts from candidates who are ignorant of the state of affairs, but in the absence and practical refusal of information, it must be definitely understood that candidates will accept the appointments at their own risk if they neglect the "warning notice." Possibly, if no suitable applicants are forthcoming, the necessary information will then be given, but the guardians will have had themselves to blame for any delay, just as they are to blame for the fact that during the last four or five months they have had to pay locumtenents six guineas a week out of the ratepayers' pockets. They evidently prefer to stand on their dignity rather than to work in harmony with the local profession for the welfare of the hospital. No such petty motive will actuate the local profession when anything like satisfactory information is obtained.

ST. MARY'S HOSPITALS AND WOMEN DOCTORS.

At a meeting of the board of the St. Mary's Hospitals last week, at which Sir F. Forbes Adam presided, the question of the appointment of a woman resident medical officer was discussed, and Dr. E. Maude Marsden was appointed house-surgeon for a period of six months. This is the first appointment of a woman to the resident staff at St. Mary's Hospitals. The question of a similar appointment at the Royal Infirmary is still being vigorously canvassed, and signatures are being freely obtained to a petition that the board of the infirmary should reconsider its refusal to appoint a woman resident medical officer.

MEDICAL EXAMINATION OF ENGINE DRIVERS.

At an inquest in the Manchester Coroner's Court on the death of an engine driver the medical evidence was to the effect that the driver was suffering from Bright's disease and might have had an attack on the footplate at any time. As a matter of fact, he had moved his engine from a siding in spite of the signals being against him, and a serious accident was only avoided by a railway inspector jumping on the buffers and applying the vacuum brake. In reply to the coroner, a railway official said that there was no periodic medical examination of engine drivers. The coroner pointed out to the jury that the man had been suffering from an exceedingly serious form of disease which was liable to cause a breakdown at any moment. While in that condition he was allowed to be in charge of an engine, and therefore of the lives of a large number of people. Time after time tragedies occurred of which there was no apparent explanation, and it seemed to him that here was a possible cause. He thought the railway company should do something to prevent such a possibility. The jury returned a verdict of death from natural causes, and expressed the view that the railway company ought to arrange for a compulsory periodic medical examination of all engine drivers.

PRESTON.

DR. R. C. BROWN, who has been a munificent benefactor to the Preston and County of Lancaster Queen Victoria Royal Institution, has given £510, a sum which covers the estimated cost of the new building which is to be used for the provisional isolation of infirmary inpatients suspected of having contracted diphtheria or scarlet fever (or septicaemia), but whose symptoms are not sufficiently pronounced to justify their immediate removal to the Corporation Isolation Hospital in Deepdale Road. When this building is completed, one of the three blocks erected by the late Mr. E. R. Harris, hitherto used as a temporary isolation hospital, will be available for the reception of thirteen ordinary or non-infectious patients. In the name of the managers, Mr. Park has expressed their deep feeling of gratitude to Dr. Brown for his further manifestation of interest in the hospital, and his great generosity towards the institution. The fact may be recalled that Dr. R. C. Brown lately promised to continue for a further term of two years the Pathological Scholarship of £150 a year, which he founded in connexion with the Committee for the Study of Special Diseases.

NEWCASTLE-UPON-TYNE.

CLINICAL SOCIETY: ADDRESS BY SIR HALLIDAY CROOM: BANQUET.

ON January 13th Sir Halliday Croom delivered an address on "The Physiology, Pathology, and Psychology of the Menopause" in the University of Durham College of Medicine to the members of the Clinical Society. The Medicine Theatre was filled to overflowing. An enthusiastic welcome was given to the orator, and very great interest was taken in his address. The lecture was of a scientific yet almost of a popular character. The pathological aspects of the question were carefully dealt with, whilst the psychological, always an interesting side of human activities, were handled with a delicacy and truthfulness such as the subject necessitated. Sir Halliday Croom rightly laid stress upon the necessity of vaginal examination in all cases where discharges of blood occurred months or years after the "change of life" had been reached. Such a discharge was not a reappearance of menstruation, but often denoted either malignant disease of the uterus or some adenomatous or other change of the endometrium. To Professor T. W. McDowall fell the honour of proposing a vote of thanks to Sir Halliday Croom. It was extremely appropriate that he should do so, for the orator and he had been boys together, and had therefore many reminiscences in common.

In the evening the banquet of the society, which was held in the King's Hall of the Armstrong College, was attended by upwards of 150 members and friends. Among the guests were the Earl of Durham, Viscount Ridley, the Right Hon. Robert Spence Watson, and others. Mr. Leech, the President, occupied the chair. It fell to the President to propose the health of the guest of the evening. This he did in felicitous terms. In his reply Sir Halliday Croom was equally happy. To the Earl of Durham was entrusted the toast of "The Empire," than in whose hands it could find no better exponent. His lordship, who is a most acceptable after-dinner speaker, was most enthusiastically welcomed and thanked. Viscount Ridley's reply to the toast was most able and of a statesmanlike character. Other toasts followed. The dinner was altogether a great success.

DINNER OF PAST AND PRESENT STUDENTS.

Graduates of the University of Durham and students of the College of Medicine are looking forward to the dinner of past and present students, which is to be held in the College of Medicine on February 3rd under the chairmanship of Dr. W. C. Beatley.

PROFESSOR RUTHERFORD MORISON.

To the Professorship of Surgery in the University of Durham, rendered vacant by the resignation of Professor Page, Mr. Rutherford Morison has been appointed.

LIVERPOOL.

LIVERPOOL SCHOOL OF TROPICAL MEDICINE.

THE Liverpool School of Tropical Medicine, with the assistance of the Colonial Office, has taken steps to start investigations on the following lines: (1) Researches on malaria; (2) a detailed bibliography of malaria, the literature of which has grown so enormous during the last ten years (being in ten different languages) that it requires thorough classification; (3) researches on various points of parasitology; (4) researches on pathological chemistry. The school is continuing the work at the Runcorn Research Laboratories, and is enlarging the staff there. It may be added that the secretary of the school has received a letter from the Compagnie du Kasai, dated Brussels, January 8th, in which the president of the company says: "We have much pleasure in sending you the enclosed cheque for £100 towards the funds of the Liverpool School of Tropical Medicine as a slight recognition of the magnificent work your school is doing in the cause of tropical medicine."

THE LATE SIR ALFRED JONES.

Sir Alfred Jones, the senior partner in the shipping firm of Elder, Dempster and Co., who died on December 13th last, left estate valued at £674,259 gross, with net personalty £446,759. Subject to power to carry on any business of his for ten years, Sir Alfred left the residue of his estate on trust for such charitable purposes and objects in England or any British possession on the West Coast of Africa as his trustees may think proper. For their guidance he indicated, among other purposes, original research of all kinds into the cause of disease on the West Coast of Africa.

Canada.

[*FROM OUR SPECIAL CORRESPONDENT.*]

THE PREVENTION OF TUBERCULOSIS.

THE Canadian Parliament has passed the following resolution:

> That in view of the encouraging results which have come from the money already spent in disseminating information regarding tuberculosis, and of the interest which the people of Canada are taking in the question, and also in view of the great saving in life which has been brought about in other countries by practical work in this connexion, the House is of the opinion that Parliament should now take more active steps further to lessen the great suffering and mortality.

Special Correspondence.

PARIS.

The Concours d'externat.

THE publication the other day by one of the examiners at the recent *concours d'externat* for the Paris hospitals of certain criticisms of the manner in which these examinations are organized aroused in my mind a feeling of strong and righteous indignation. Probably our British *confrères* know very little about the *concours* held in France, and doubtless nothing at all about the *concours d'externat*, unquestionably the most picturesque, the most characteristic, and the most jovial of all. The externat of the hospitals constitutes the first degree in the medical service of the Assistance Publique, of that hierarchy which comprises externe, interne, chef de clinique, and physician (or surgeon) to the hospitals. He who has been externe has the right to present himself at the *concours d'internat*, and that is pretty nearly his only reason for existence; the only use of the examination to which he is required to submit is to act as the first turnstile in a road otherwise too freely sprinkled with obstacles. Long ago, François Rabelais, *doctor medicinae* of the Faculty of Montpellier, suggested that judgements rendered by courts of law should be drawn by chance, by a kind of ballot, proving by many solid arguments that decisions at least as satisfactory as those resulting from the prolonged judicial proceedings could be obtained in this way, and in much less time. This method might have been employed in the selection of *externes*, but it would have been a great pity, for we should have lost one of the ceremonies best calculated to give the young student a lofty idea of the process by which "masters" are created.

The way in which an examination is organized may be influenced by three considerations—the object with which it is established, the convenience of the candidates, and the convenience of the examiners. Here the object in view, which is to reduce the number, is attained beforehand independently of the means. The convenience of the candidates cannot be allowed to weigh in the balance against the convenience of the judges, eminent personages who have other fish to fry. For the jury, therefore—that is to say, the examiners—it is important that the concours should be simple and quickly over. These two conditions have been realized with a mechanical ingenuity which James Watt himself might have envied. The most essential piece of apparatus for the fabrication of externes is an accurate clock whose single hand completes the circuit of the dial in five minutes. The only other accessory apparatus consists of three rooms opening one into the other. All the candidates assemble in the largest room, which will be designated by the letter C. The president of the jury at the beginning of each sitting draws from an urn the names of twenty candidates to be examined that day. On the summons of the president they descend into the arena, their fellows who have escaped for that day taking the opportunity of calling attention by jokes, puns, or appropriate growlings and hootings to any oddity in a name or peculiarity in personal appearance. The chosen twenty are at once secluded in the second room, which may be indicated by the letter A, where they are cut off from all communication with the outer world. The president then draws from another urn the question which is to be the subject of the oral examination. The clock comes into action at this point. When its ping is heard the first candidate is led into the third room (B), where he is at once confronted with the subject. Five minutes are allowed him for meditation, and then another ping dispatches him to Room C, a second candidate at the same moment taking his place in B. Face to face with the seven impassive and silent examiners and with the clock, which warns him to temper his eloquence, he grinds out his discourse until another ping cuts him short; at the same moment the machinery expels the second candidate from C, to take the seat just vacated by the first, and a third counter in the game, a third young hopeful, passes from A to C. The process is repeated until the supply is exhausted. The machine, it will be seen, works simply, automatically, and with lightning-like rapidity. Nobody has heretofore dared openly to criticize machinery so wonderfully well adapted to its purpose, although, to tell the truth, I must admit that on the fateful day, when it was my turn to perorate in face of the circling hand of the five-minute clock as it went its inflexible way, being intimidated, inhibited by its sardonic motion, I hastily decided that the whole business was so stupid and absurd that, I believe, never did the fate of a timepiece hang so near the edge of the bottomless pit; but that must have been because I was young and inapt to see through the poverty of externals into the inner harmony of things. Let me add, confident that so personal a detail will not be permitted to find its way back again across the narrow seas, the story of a little incident which befell me a short time after I had undergone this examination. I was serving my time as a soldier in Paris, and circumstances into which I need not more particularly enter caused me to find myself in the kitchen of the Secretary-General of the Assistance Publique. My eye fell upon an object which seemed not altogether unfamiliar. "What," I said, in a voice which startled the *cordon bleu*, "is that apparatus up there?" "That?" she said. "Oh, that is the beafsteak clock, and very convenient it is. You put the beafsteak on the grill, and it begins to sizzle; ping! goes the clock, and you turn the steak over; ping! goes the clock again, and your beefsteak is cooked to a turn. The annoying thing is that every year, at the beginning of October, they take the clock away from me for two months; I miss it very much, and I can't imagine what they do with it." "Ah," I said, "what do they do with it?

What they do with it is . . ." But I stopped in time, an instinct of professional solidarity checked the confession on my lips. It was the five-minute clock of the *concours d'externat!*

The *concours* conducted on the old-fashioned system are now in full swing again, and the criticisms directed against them are in many quarters conveyed in more serious terms than those I have ventured to use.

Correspondence.

MEDICAL PARLIAMENTARY ROLL.

SIR,—I shall be glad if you will allow me to supplement, by the following corrections and additions, the Parliamentary Roll which I recently sent you, and which appeared in the JOURNAL for January 8th:

Corrections.

The Duke of Richmond received the Hon. M.D. and the Hon. F.R.C.P., not in the years mentioned, but in the years 1728 and 1729 respectively.

Joseph Hume graduated M.D.Mar.Coll.Aberd., March 25th, 1799. When in Parliament he reintroduced into the currency the old English "groat," a little silver coin of the value of fourpence, which was nicknamed after him the "Joey."

The Christian name of Sir Guyer Hunter was "William."

Dr. Vanderbyl, who was unseated for Bridgwater in 1869, was re-elected at Portsmouth in 1885.

Additions.

Finlay, Right Hon. Sir Robert Bannantyne, G.C.M.G., P.C., K.C., LL.D., M.D.Edin. (Inverness Districts 1885–92 and 1895–1906). Sir Robert was Solicitor-General from 1895 (when he was knighted) to 1900, and Attorney-General from the latter year to 1906.

Macgregor, Donald, L.R.C.P.and S.Edin. (Inverness County 1892–5).

Pilkington, Sir George Augustus, M.R.C.S. (Lancashire, Southport, 1885–1901). The knighthood was conferred in 1893.

For much of the above valued information I am indebted to Dr. Stanley Atkinson of Bow, Dr. J. W. Browne of Kensington, Dr. F. E. Fremantle of Chester Street, S.W., and Colonel W. Johnston, C.B., of Murtle, Aberdeenshire.—I am, etc.,

London, W., Jan. 16 S. D. CLIPPINGDALE, M.D.

SIR,—In the Medical Parliamentary Roll published in the JOURNAL of January 8th, Dr. Clippingdale has not taken notice of the Parliament held in Dublin in May, 1689, by King James II, known as the "Patriot Parliament." In this Parliament "Walter Kelly, Esquire, Doctor of Physic," sat as member for the borough of Gowran (co. Kilkenny).

An account of this Parliament will be found in *The Patriot Parliament of 1689*, by Thomas Davis (London: T. Fisher Unwin. 1893).—I am, etc.,

J. F. KEENAN, M.B.

Ballinalee, Edgeworthstown, Jan. 13th.

PART-TIME MEDICAL OFFICERS OF HEALTH.

SIR,—I think the letters which are appearing in the JOURNAL with regard to part-time medical officers of health are well worth the consideration of the Association. The letters are sensible and forcible; the practitioners holding those appointments have well proved their ability and capacity to meet the difficulties of sanitary science; the death-rate has lessened; several diseases, previously common, are rarely met with now or not at all, and the great important factor—the death of children under 12 months—is on the decadent scale. Why should those gentlemen be ousted for whole-time officers who probably know nothing of the neighbourhoods in which they will have to work, and who will take long to learn their minutiae? I cannot see the advantage of such a change.

There is a county medical officer in all or most counties; he gives his whole time to the appointment, and also summarizes the reports annually sent in by the part-time medical officers, so that sanitary science is very well looked after at the present time.

The general practitioner is a great asset to the nation; if you take from him all appointments you take from him what interests he has as a scientist. If you do that, what will become of the nation at large? Will not the general practitioner cease to be the able man he now is?

I would suggest that the appointments now made yearly be made for three years, and if the councils are, as many are, in favour of retaining their medical officer, the appointment shall then be permanent, subject to the Local Government Board.

I am sorry I was not at the Belfast meeting to protest against the abrogation of the present very efficient part-time medical officers of health.—I am, etc.,

CHARLES J. RENSHAW, M.D.

Ashton-upon Mersey, Jan. 11th.

PRISON DOCTORS AND THE HOME OFFICE.

SIR,—Dr. Helby surrenders the whole of his case at the outset, for he states the fact which was revealed in the court during the trial of Leigh *v.* the Home Secretary, that the Home Secretary departed from his previous treatment of suffragettes and of his own deliberate choice ordered the Birmingham prisoners to be forcibly fed. The responsibility therefore rests with him alone. Dr. Helby says he did it to save Mrs. Leigh's life. I am sorry to say it was shown in court that in this he failed so lamentably that, in order to prevent the scandal of Mrs. Leigh dying under his life-saving treatment, he had to advise the Home Secretary to turn her out of the prison; and turned out she was—starved, weak, and suffering—into the streets of Birmingham, without the means to get to her home. Had it not been for some kind people who removed her to a nursing home, Dr. Helby would not have written to you at ease, as he apparently does now.

In his second paragraph he begins by alleging I incorrectly said of him that he "referred to the Home Office," and yet in the same paragraph he confesses, as he did in the witness box, that he did so refer to the Home Office. I do not understand such methods of controversy.

As regards his last sentence, he makes a suggestion that I have proffered some ridiculous charge against somebody else, and, what is still more absurd, he represents my action as being an attack on a politician whom he asserts to be an opponent of mine, namely, the Home Secretary.

As regards the first of these points, considering that, as every one knows, my sole object has been to fix the primary responsibility for this repulsive treatment of political prisoners on its real author, the Home Secretary, and not allow it to rest on the medical profession, Dr. Helby should in fairness reconsider his position in this matter. And on the second point, considering that I am not a "food taxer," no member of a Liberal Administration is my "political opponent."

For these reasons Dr. Helby's letter does not appear to me to be a valid contribution to the discussion of a very serious subject, namely, the common rights of political prisoners.

Dr. Archdall Reid similarly suffers from not having made himself acquainted with the facts of this question. He compares a suffragette to a murderer. Surely the comparison is childish. He might as well have compared her to a violent burglar who may half murder a warder. Such prisoners are commonly flogged. Does Dr. Reid, who suggests that the same treatment should be meted out to prisoners of all classes, political or otherwise, propose to flog suffragettes?

As I have repeatedly indicated, these women who, when naturally excited by a brutal refusal to them of the common right of representation, become somewhat violent, are amply punished by a few days' imprisonment and starvation. The Home Secretary and the English Prison Commissioners should in this particular copy the example of the Secretary for Scotland and the Scottish prison authorities. The civilization, however, of Birmingham is evidently quite different from that of Dundee.—I am, etc.,

London, W., Jan. 18th. VICTOR HORSLEY.

THE PHYSIOLOGY OF BLOOD-LETTING.

SIR,—I read with much pleasure the interesting and appreciative editorial article on the results published by Dr. Schroeder, of Copenhagen, in his thesis on the effect of bleedings on the agglutinin content of the blood, which appeared in the BRITISH MEDICAL JOURNAL of January 8th. But I have been led to fear that as it stands it is capable of leading to considerable misapprehension. No one can set a higher value than I do upon the important work

which has been carried out by Dr. Schroeder in investigating this problem on the human subject. But it would be unfortunate, and I am sure most unwelcome to Dr. Schroeder himself, were it to be supposed, as your article almost seems to suggest, that the probable explanation of the beneficial effects which have often followed venesection in infective conditions was now put forward for the first time in the thesis in question.

The idea has been familiar in this laboratory for several years. It was first advanced by Professor Dreyer in a paper read before the Biological Society in Copenhagen in the spring of 1906; it was emphasized by him in an address delivered before the Pathological Society of Manchester in 1907, and was repeated at the meeting of the Pathological Society of Great Britain and Ireland held in London in January, 1908.

It is to be noted that in Dr. Schroeder's thesis the author himself expresses at the outset his warm thanks "to my distinguished teacher, Professor Dreyer, to whom I am indebted not only for the suggestion of my subject, but also for much help in carrying out the work." And it appears from a footnote on p. 41 that the whole of the calculations for his curves were actually done by Professor Dreyer himself,

The precise facts regarding the reaction of immunized animals to venesection were first worked out in a joint investigation undertaken by Professor Dreyer and Dr. Schroeder, a great part of which was intentionally incorporated in the present thesis. And these authors were the *first* to show that venesection can be made to produce a rapid rise in the immunity curve of the animal concerned.

The earlier investigations, such as those of Roux and Vaillard, of Salomonsen and Madsen, and of Nicolle, had only succeeded in demonstrating the fact that the effect of bleeding was to check the rate of fall in the quantity of antibodies present in the blood, and to induce a fresh formation of these substances, which brought the curve back (or nearly back) to the level at which it stood before the bleeding, as the animal recovered from the immediate effects of the removal of a quantity of blood. But the fact that the removal of blood may be made to act "just as a second bacterial injection would" in "causing a considerable further increase in the specific agglutinating power," so far from being "long known," was only demonstrated comparatively recently by Professor Dreyer in the experiments above referred to, which he carried out with Dr. Schroeder. This will be found clearly stated in Dr. Madsen's article on methods of immunization in Kraus and Levaditi's handbook, vol. ii, page 57.

The facts thus established were referred to and made use of by Professer Dreyer and myself in January, 1909, in our paper on the relation of the leucocytes and leucocyte-forming tissues to the production of agglutinins (*Journal of Pathology and Bacteriology*, 1909, vol. xiv, page 30), and they were then becoming familiar among pathologists. In continuing his investigation on the human subject Dr. Schroeder has provided us with valuable evidence that, as might be expected, facts ascertained by observations on the blood of mammals in laboratory experiment are also capable of demonstration in man.—I am, etc.,

Pathological Department, Oxford, January 17th. E. W. AINLEY WALKER.

A NATURAL EXPERIMENT IN CARDIAC STRAIN.

SIR,—In a letter from Dr. Theodore Fisher, in the JOURNAL of January 1st, p. 52, there is a statement which, if accepted, may prove misleading to your readers and productive of serious error. I refer to the sentence which runs as follows: "I do not think it possible that any one who has any degree of sensitiveness for the character of sound can, except in rare instances, mistake an exocardial for an endocardial murmur."

This is, in my opinion, far from accurate, for there is a decidedly common exocardial murmur, produced in the lung by cardiac interference with the regular air entry, which has precisely the tone and character of a soft mitral systolic murmur. Such a murmur may even be audible when the breath is held, if it be due to the pressure of the heart upon the pulmonary tissue. As these murmurs may often be well heard just external to the apex beat, they are apt to give rise to very important errors in diagnosis.—I am, etc.,

Birmingham, Jan. 10th. T. STACEY WILSON.

WHITEHEAD'S OPERATION FOR PILES.

SIR,—In the JOURNAL of January 1st I notice a letter by Mr. W. S. Richardson in which he seems to assume that Whitehead's operation, or some modification of it, is the only radical operation for piles. Surely any operation for piles is radical which removes the piles, and it is not necessarily an advantage to remove the whole of the mucous membrane lining the anal canal and incidentally the sensitive area of the rectal orifice. Many surgeons have at one time or another stated that they have never seen bad results from Whitehead's operation, but they all fail to state how long after the operation they have had the patient under observation. My experience is that the bad effects of this operation are seldom observable till some time after the patient has left hospital. At St. Mark's Hospital for Diseases of the Rectum we see the after-effects of every kind of rectal operation, and from every part of the kingdom, and thus have exceptional opportunities of forming a correct judgement of the good or bad results which follow any particular operation. I have for some years kept a record of all cases of recurrence or other unsatisfactory results after operations for piles which have presented themselves at the hospital for further treatment, and which have come directly under my observation.

I have records of nine cases of recurrence after Whitehead's operation and only four cases of recurrence after other operations for piles. When we take into account that Whitehead's is the least commonly performed operation for piles, this shows a much greater liability to recurrence after Whitehead's operation. In addition, I have records of two cases of severe stricture and one of complete and permanent incontinence of faeces as the result of Whitehead's operation, whereas I have no record of any such complications after the operations by ligature or cautery.

The great objections to Whitehead's operation are that it may give rise to serious complications while it offers no balancing advantages, the proportion of recurrence being considerably greater after this operation than is the case with any of the others. Personally I never perform Whitehead's operation for piles, and believe most strongly that it should not be done for uncomplicated cases of piles.—I am, etc.,

London, W., Jan. 8th. J. P. LOCKHART MUMMERY, F.R.C.S.

THE PREPARATION OF CATGUT.

SIR,—I have read with great interest the articles which have appeared recently in the JOURNAL about the preparation of catgut for surgical purposes, especially that issued by Mr. Dickie in the JOURNAL of January 15th, p. 134.

For some years past I have had the opportunity of using and seeing used catgut prepared in various different ways, and am firmly convinced that the best all-round results are obtained by the use of one of the iodine methods.

The disadvantages of the sulpho chromic gut are, in my opinion, that it remains too long in the tissues unchanged; in thin patients, as Mr. Dickie remarks, it occasionally works through the scar. Though it can probably be rendered aseptic, yet I think surgeons will grant that for the best results in healing it is necessary to have as small a quantity of foreign material in the wound as possible, and for as short a time as possible. Again, if it be used in a case in which suppuration has already occurred, or is likely to occur, a more or less troublesome sinus will persist as long as any of the gut remains in the wound, and in actual practice it does remain at times for a considerable period.

I do not think that the strength of a wound depends on the suture, say, after the lapse of a fortnight, and in the large majority of cases the time is considerably less than this. Ligatures, for instance, in an aseptic wound at the end of a few hours have probably done all that is required of them, and their further presence is rather a source of irritation than benefit.

Having come to the conclusion that any process of hardening the gut for general surgical work was unnecessary, I decided to try an alcoholic solution of iodine

without the addition of any water as my sterilizing and preserving agent, and chose the tinct. iodi (*B.P.*). The gut (unmedicated in any way) is put in the hanks as it comes from the maker in a glass-stoppered jar and completely covered with the tincture. It remains there for eight days, and then is ready for use. At the time of operation it is lifted out and placed on a dry sterile towel, or, if preferred, it is dipped in spirit, to get rid of the excess of iodine. Prepared in this way, it remains strong for a considerable time, and is reliably sterile.

So successful was this method found to be after trials of various others that it has been universally adopted by my colleagues on the hospital staff, and for two years no other method has been used. During this time no case of suppuration traceable to infection from the material used has to the best of my knowledge occurred, with the single exception of a case of my own, in which I used catgut which had only been in the solution for four days. I used it wittingly, and a slight suppuration did occur.

Prepared in the way described I have used it in a large number of cases, some of which—as hysterectomy, Caesarean section, nephrectomy, intestinal and subcutaneous suture—are calculated to test its strength and sterility to the utmost. I have not yet tried it in gastro-enterostomy, as I am uncertain whether the inner haemostatic suture would stand the action of the gastric juice for a sufficiently long time.

This method of preparation is eminently suitable for work in general practice, as no special solutions have to be made, and the materials are at hand in every surgery; in hospital work the preparation can with safety be left to the sister in charge of the operation theatre.—I am, etc.,

Huddersfield, Jan. 17th. G. W. KILNER CROSLAND.

THE PREPARATION OF SOURED MILK.

SIR,—Perhaps I was not explicit enough in my previous letter, and have thus led Dr. Herschell to conclude that I was using day to day "insemination" indefinitely. Of course, after a week or so, the bacillus of Massol culture becomes somewhat attenuated, and would probably disappear altogether if some fresh ferment, a pure strain of the Massol bacillus, were not introduced periodically. This we have been doing here, using latterly with satisfaction a tablet made by Boucard of Paris, and this last week a pure liquid culture from one of the pathological institutes.

While we know, as Dr. Herschell says, that using the curd of the previous day for insemination is theoretically objectionable, it is equally well known that in Bulgaria and Turkey soured milk has been prepared for centuries without any such special precautions as are now suggested, and with eminently satisfactory results from the clinical standpoint. I have this week examined a specimen of curd, over a month old as regards original inoculation, and found numbers of the Massol bacillus, and a friend of mine, who is an expert bacteriologist, confirmed my opinion.

I am aware from his previous writings that Dr. Herschell does not approve of the preparation of soured milk by the large dairy companies. This I cannot quite understand, for the large modern dairies are run on highly scientific principles, and I should have thought that with the aid of a bacteriological expert they were in the best position to supply the public with soured milk of a reliable character inexpensively. Certainly I have been very pleased to avail myself of the facilities they offer in the case of patients returning to town who have not had time to complete a course of this treatment here.

From the recent debate at the Royal Society of Medicine on this subject, there seems to have been much difference of opinion among physicians as to the exact *modus operandi* of this soured milk, and in some quarters great scepticism as to whether it was of any use as a therapeutic measure at all.

I cannot speak from actual personal experience, never having undergone a systematic course myself, but I can say that patients have assured me they have derived very great benefit from the use of soured milk. A friend (not a patient) told me recently that he had been taking the soured milk—home-made by means of a "Veronelle" apparatus with day to day insemination—for two months, and his dyspepsia of many years' standing had been very much ameliorated; indeed nothing he had taken had done him so much good.

Now whether the good derived in such cases is due to the bacillus of Massol, or to several glasses of easily digested milk a day, or to fancy, one can only conjecture. If the good done is due to the establishment of new flora in the intestine, possibly the *Streptococcus lebenis*, the *Streptobacillus lebenis*, and the *Mycoderma lebenis* have something to do with it. As to whether any or all of them survive a sojourn of several hours in the gastric juice I am unable to say. So far as air contamination is concerned, however, one can show quite easily by a control glass that curdling from this cause is rare in the extreme. To minimize any such contamination we are now covering each glass with a small glass plate fixed on with a slight amount of vaseline. The time taken in curdling depends very largely on the amount of the previous day's curd added, as one would imagine would be the case.—I am, etc.,

Peebles, N.B., Jan. 10th. T. D. LUKE.

SIR,—Evidently Dr. G. Herschell has not been to the home of soured milk, else he would not call Dr. Luke's method of making it theoretically unsound. Dr. Luke's method is the best, the most economical, and the quickest way of producing the article; besides it follows closely upon how the peasants prepare it. No doubt the learned French professor found many aged Bulgarians, but this is due to the simple life they lead, and soured milk, also their cheese, being very nutritious foods. I should judge by the smell of their breath they are full of bacilli.

I may add my experience with soured milk upon myself and a number of patients is that it is quite useless for intestinal antiseptics, although it amuses the patient during the trial.—I am, etc.,

London, W., Jan. 8th. THOMAS DUTTON.

THE MEDICAL PROFESSION AND PARLIAMENTARY REPRESENTATION.

SIR,—In common with many others, I have received a circular, signed by four members of the medical profession in Birmingham, urging the claims of Sir Alexander Simpson on the votes of graduates in this city.

Our attention is drawn "upon *non-political* grounds" (*sic*) to the paramount claims of Emeritus Professor Sir Alexander Simpson as parliamentary candidate for the Universities of Edinburgh and St. Andrews.

It is urged that in the event of Sir Alexander being elected "his time and activities will be principally engaged (1) in the furtherance of the interests of our great Scottish universities, and also (2) in the promotion of measures for the national well-being, in which practitioners of medicine may pre-eminently claim to have their views expressed."

This seems to be a quotation from Professor Simpson's election address, which I have not as yet seen, but I have this day received a circular signed by four professors in the University of Edinburgh and four in the University of St. Andrews by which I am informed that the Emeritus Professor's political views have been expressed in his address, and I gather from the circular what those views are, as the greater part of it is taken up with the question now before the nation—as to the action of the House of Lords with regard to the Budget, the expression of opinions on the political situation, and the statements (or, as I believe, the misstatements) of facts as to the power of the Lords to refer any matter to the electorate.

In a word, Sir, this circular shows the strongest political bias, and yet I and other graduates of medicine are asked to vote for ex-Professor Simpson on "non-political grounds," and because, as a medical practitioner, he will be of great service in the furtherance of very necessary medical legislation.

I take second place to none in respect for and gratitude to Sir Alexander Simpson as a former teacher, but I feel that the position is strange. If a non-political and purely medical candidate, Professor Simpson should stand as an Independent. If the circular issued by the eight professors means anything, it means that the would-be representative of Edinburgh and St. Andrews is strongly partisan.

Or, again, he asks for the votes of medical graduates as a medical man, and on "non-political grounds," and for the votes of Radical graduates as a Liberal. Which is it to be?

For myself, and I hope for many others, there should be no hesitation. Important and necessary as are many things requiring revision and legislation with reference to the practice of medicine in this country, there are others of far greater moment. For those of us who feel and believe that the welfare and unity of the Empire must take precedence of all else, there is only one course open—namely, to vote according to our convictions on the two great questions of the day—the existence and subsistence of our country—and not to vote for a candidate on "non-political grounds," but who takes up a strong party attitude.

So far as even medical questions are concerned, I believe that they would be quite safe in the hands of a lawyer who is also a graduate in medicine. I do not think we have gained much from purely medical representatives in the House of Commons.

Speaking for myself, whatever intentions I may have had concerning the representation of the University of Edinburgh, the appearance of two contradictory circulars, only one of which can be true, is an indication that this election is purely political and a party question; and I shall therefore vote for Sir Robert Finlay, and I strongly recommend fellow graduates not to be deluded into voting against their political convictions by "non-political" circulars or other *ruse de guerre*.—I am, etc,

Birmingham, Jan. 19th. DOUGLAS STANLEY, M.D.

AN APPEAL ON BEHALF OF MR. H. W. COX.

SIR,—The whole civilized world will without doubt greatly appreciate the exceedingly kindly action of Sir William Treloar in bringing to public notice the most lamentable condition of Mr. Cox, one of the most truly pathetic cases of scientific martyrdom the world has ever known, and will, I am sure, show considerable practical sympathy with this suffering "Victim to Science" by a hearty and generous response to Sir William's appeal.

Early in December last it was my painful experience to visit Mr. Cox, three weeks after his right arm had been amputated, and a more pitiable case I have never witnessed in any human being during my thirty-three years' professional career. Sir William Treloar, in his letter of January 11th to the *Daily Telegraph*, truly describes the excruciating agony Mr. Cox has endured for the past six years, which must have been borne with a fortitude beyond conception, and the many very serious and soul-wearing operations he has been compelled to undergo to maintain the life that must be almost bereft of human consolation; words cannot depict the awful condition of the man who has sacrificed his living and shortened and distorted his life for the benefit not only of his country but of the whole human race. His suffering, his martyrdom to the sacred cause of science, means the alleviation of pain and sickness in the future of countless thousands of suffering and tortured human beings throughout the world.

This "Victim to Science" has indeed made the English nation his debtor by the extreme efforts he put forth during the dark period of the South African war, as mentioned in Sir William Treloar's communication to the *Daily Telegraph* in the following words:

> Working day and night testing the appliances to ensure the utmost value of the *x*-ray apparatus for the use of the English surgeons at the front in the South African war;

and Sir William Treloar's further statement must clearly show that the whole civilized world owes a deep debt of gratitude to Mr. Cox for the important invention he worked out with Dr. Hall-Edwards by means of which not only is the position of a bullet located, but also its depth, so that a surgeon can now remove an obstacle with a minimum amount of suffering to the patient. Dr. Hall-Edwards, Mr. Cox's co-worker, who lost both his hands, and who I am pleased to say has recovered in health, and I understand is pursuing his profession, was rightly shown his country's gratitude by being granted a pension from the Civil List; but poor Cox, whose shattered health is beyond all doubt irrecoverable, has not only lost his right arm and the middle finger of his left hand—which left hand is withered—but he is totally incapacitated and precluded from earning his living in consequence of his devotion to duty, which culminated in contracting the terrible and painful malady of rodent ulcer and a most serious cancerous condition attacking his face, chin, and jaw.

Mr. Donnithorne, in his letter of the 12th inst. to the *Daily Telegraph*, undoubtedly strengthens Sir William Treloar's appeal by the statement that:

> Thanks largely to the improvements originated by Mr. Cox cases of martyrdom such as his will be unheard of among future *x*-ray workers.

Mr. Cox was always ready to give the treatment freely to poor people who could not afford to pay. On the occasion of my visit Mrs. Cox had been occupied for two hours dressing her husband's terribly affected face, and I agree with the Rev. Thomas Rippon's statement in his letter to the *Daily Telegraph* of the 14th inst.:

> I know not who to admire more, the patient sufferer in his agony or the brave wife who nurses him.

—I am, etc,

FREDK. WM. ALEXANDER, M.R.C.S., etc.

"The Nook," Hardy Road, Blackheath, S.E., Jan. 18th.

P.S.—Any subscriptions with a view to alleviating his most piteous sufferings will be gladly received and gratefully acknowledged by Sir William Treloar, if sent to the "Cox Fund," 69, Ludgate Hill, E.C. Cheques to be crossed "London City and Midland Bank, Ludgate Hill."

Medico-Legal.

THE TESTING OF COLOUR VISION.

THE CASE OF MR. TRATTLES.

JUDGEMENT has now been given by a special court consisting of Sir Francis Mowatt and Mr. J. Dickinson on the case of Mr. Trattles, who, during the last six years, has undergone six examinations by the Board of Trade, in which he was three times passed as possessing normal colour vision and three times rejected.

The most distinguished examiner among those who declared he was colour blind was Sir William Abney, F.R.S., and he gave the result of his experiments as follows:

1. Trattles confused a white light with a bluish-green colour, and this showed that he was colour blind.
2. When a darkish red light was placed beside white of the same brightness, Trattles said the white was brightest, and when the white was diminished to a faint glimmer, he said they about matched. This showed that he was red blind.
3. When a white light was superimposed on red, he frequently called it green, or, in the case of extreme red, he would call it white. This showed absolutely and completely that he was red blind.

He also failed to satisfy Sir William in tests by simultaneous contrast colours, and as regards the wool test, with green he matched seven greens (two almost blue) and two browns; with pinks he matched nine pinks of which two were so dark as to be almost a brown-red; with reds he matched seven reds and one almost pink; with yellows he picked out six yellows, one almost a light green; with purples he picked out four purples and one blue-green.

In reviewing these latter results Sir Francis Mowatt said that he did not think the selection of wools by daylight, as he saw the test applied, afforded a conclusive test of a man's ability to pick up lights at night under the open sky, or to distinguish between the three colours in use at sea.

On the other side of the question we have much evidence. Mr. Trattles himself stated that he never had the slightest difficulty in picking up lights or in distinguishing their colour, and his evidence was supported by the marine surveyors who tested him for colour vision on the Mersey in November last, and by Commander Wilson-Barker, R.N.R., who tested him in the same way in the Thames in December. These examiners were all unanimous in declaring that Trattles made no mistake throughout the whole of this examination, and that he appeared to be rather above the average in the range of his vision. It may be noted that the Mersey examiners were Captains Peel and Way, marine surveyors, and Captain Toms, a retired master mariner, formerly a member of the Advisory Committee of the Board of Trade, and that the final test was made by Commander Wilson-Barker, who was nominated by the Trinity House, and Mr. J. Dickinson representing the Board of Trade. The latter found Mr. Trattles's vision for red so acute that he has able to distinguish in the Nore Light a reddish tinge. The light had quite recently been altered experimentally from white to one which let through many ruby rays in order to test its penetrability in fog.

In addition to these exhaustive tests Captain Townsend, of the *Kingfield*, the ship in which Trattles had acted as second officer since 1905, said that he had frequently tested him on the bridge after he had heard that his colour vision was stated to be imperfect. "In all my experience, and under all conditions of weather, that man never made a mistake." He tested him again and again, and found his vision excellent in every respect. He never mistook the colour of a light.

In face of this evidence, which is so utterly at variance with that of Sir William Abney's, who declared Mr. Trattles to be red-blind, Sir Francis Mowatt gave judgement as follows: "On a very careful consideration of this evidence, I have come to the conclusion that Trattles is not incompetent from colour blindness to discharge the duties of a mate, and I direct that his certificate as second mate be returned to him."

PROFESSIONAL RESPONSIBILITY.

A CORRESPONDENT writes that a maid servant, while lifting some luggage for her employer, was seized with uterine haemorrhage. On a doctor being called in, he reported to the employer, without the consent of the patient, that the girl was eight months pregnant. Is the doctor liable to an action at law and damages for an infringement of professional secrecy?

*** If the doctor were called in by the servant, and he divulged to the employer without her consent anything that he had ascertained while in attendance, he would be acting improperly, and might be mulcted in damages if an action were brought against him. But it would be otherwise if he were called in by the employer, at the latter's expense, and the servant understanding this submitted to an examination. In all such cases, the medical practitioner should inform the patient that he has been called in by her employer, and that he proposes to report to the latter. The patient can then choose whether she will or will not accept his attendance. Other considerations might arise, if the patient were under age, or the case one of urgency.

The Services.

TERRITORIAL FORCE.

Service for Promotion in the Territorial Force.

THE Secretary of the Army Council has been good enough to inform us in response to an inquiry that the Council recently decided to allow a medical officer of the Territorial Force to reckon as service qualifying for promotion, under the terms of paragraph 44 of the Territorial Force Regulations, any service he may have rendered as a commissioned officer in any capacity (other than as a medical officer) in the Imperial Yeomanry, the Volunteer Force, or the Territorial Force, provided that, of such commissioned service, only so much shall be allowed to reckon as was rendered subsequent to the date on which he became a registered medical practitioner. This decision has been notified in the commands, but is not being incorporated in the regulations.

ROYAL ARMY MEDICAL CORPS (TERRITORIALS).

IMPERIAL SERVICE BADGE.

AN Army Order has been issued, decreeing that a badge shall be worn on the right breast of officers and men of the Territorial Force when in uniform, who take the liability to serve outside the United Kingdom in time of national emergency, under the provisions of Section XIII, [2], (*a*), of the Territorial and Reserve Forces Act, 1907.

SPURS.

SAXON.—A Surgeon-Captain in an infantry battalion does not wear spurs, except when mounted on manœuvres.

PROMOTION TO MAJOR.

SURGEON-MAJOR.—The officer named, having served as Surgeon-Captain and Captain in the R.A.M.C.(T.) upwards of eight and a half years, is eligible for promotion to Major. He has no examination to pass, but must attend a Territorial Force Medical School or selected military institution (eight days).

A MEETING of the North Northumberland Division of the North of England Branch of the British Medical Association will be held at the Infirmary, Alnwick, at 3.30 p.m. on Thursday next, January 27th.

Under the will of the late Miss Ellen Morrison, of Basildon Park, Pangbourne, the Royal Berks County Hospital at Reading receives a legacy of £5,000, King Edward's Hospital Fund for London £2,000, and the Helena Nursing Home for Poor Ladies and the Clevedon Convalescent Homes £500 each.

THE usual course of lectures and demonstrations for sanitary officers arranged by the Royal Sanitary Institute will be given during February, March, and April, beginning on February 7th. The course of lectures and demonstrations on sanitary science applied to buildings and public works will commence on February 16th, and the course of lectures for students entering for the examinations on hygiene in its bearings on school life for women health visitors and school nurses on March 14th. Further particulars can be obtained on application to the Secretary of the Institute, 19, Buckingham Palace Road, S.W.

Obituary.

GEORGE SKENE KEITH, M.D., LL.D., F.R.C.P.E.

DR. GEORGE KEITH, who died at Currie at the patriarchal age of 91 on January 12th, was well known both to the profession and to the public as the advocate of plain living. His system had nothing original in it, as it is at least as old as Pythagoras, and had been made the basis of therapeutics and especially of self-treatment by many in later times. It was preached by him in two booklets entitled *A Plea for a Simple Life*, and *Fads of an Old Physician*, which went through several editions though they did not greatly influence medical opinion. For many years he practised as a physician in Edinburgh with much success, retiring about fifteen years ago. He was a "son of the manse" by ancestry as well as by birth, being the son of Alexander Keith, D.D. of St. Cyrus Free Church, known from a theological work of which he was the author as "Keith of the *Evidences*," and grandson of Dr. George Skene Keith, who was Minister of Keith Hall from 1778 to 1822.

Dr. Keith, who was the elder brother of Thomas Keith the famous ovariotomist, was born at the Manse of St. Cyrus on March 11th, 1819. He received his early education at Aberdeen where he entered on the study of medicine in 1836. Thence he passed on to Edinburgh where he was first gold medallist in Simpson's class. He took the degree of M.D. in 1841, and in the same year was admitted a Licentiate of the Royal College of Surgeons of Edinburgh. In 1845 he became a Fellow of the Royal College of Physicians of Edinburgh. In his *Plea for a Simpler Life* he gives some interesting fragments of autobiography. He says:

> I was one of the last of the Edinburgh apprentices, one of several. Our master took much pains with us, gave us much practical aid, and long before I was M.D. I had seen and attended large numbers of sick as a dispensary pupil. This enabled me to derive real benefit from a full course of attendance at the Edinburgh Infirmary. Owing to the illness of my father there, I spent most of the winter of 1839-40 in Pesth. There I attended closely the clinique of Professor Schoepf Merei, director of one of the three hospitals for children then in existence, and editor of the only Hungarian medical journal. I spent the winter of 1841-42 in the hospitals of Paris and the classes of the Ecole de Médecine. After this I was assistant to Professor (afterwards Sir James) Simpson, who was then at the commencement of his brilliant career. This occupied me very fully for a year. I then went to Rome for a season, intending to practise there for a time, but, owing to the prevalence of homoeopathic ideas which I could not adopt, I had no encouragement to return. In the wards of the Santo Spiritu Hospital I witnessed the "Hippocratic succussion," the only physical diagnosis I saw practised there, though now it is very different. The rest of the year I spent travelling in the East, mostly in Palestine and Syria, where our dragoman, who had never been with a real "hakim" before, kept me rather too fully occupied with a varied *clientèle*, from Turkish pashas and Arab sheiks down to the poorest inhabitants of the country in their tents or more wretched villages. In 1845 Professor Simpson asked me to join him as colleague. After five years I left him, and continued to practise in Edinburgh till 1880.

He goes on to say that his varied medical education and experience made him gradually lose faith in the ordinary medical dogmas of the day, and especially in the depleting and drugging system then considered orthodox. He had a strong conviction that homoeopathy, however wrong in its own dogmas, would at least show the absurdity of the orthodox system of drugging. The doses, he says, were then really infinitesimal, and they were coming to be used by non-professionals, especially by ladies. Many of these "had their book and their box of globules and tinctures, and treated not only their own families but all others who would consult them; some who have done this for years have told me it was no use to say there was nothing in homoeopathy, for the change in the health of their families had been most manifestly better since adopting it; and among them were women far above the average in power of observation and common sense. . . . I had no doubt whatever," he says, "of the good faith of those ladies, many of whom were personal friends and relatives; and to me the only possible way of accounting for the phenomena was that the benefit derived was not from the infinitesimals, but from the absolute withdrawal of all drugs whatever, and from greater attention to simple methods." Dr. Keith was much influenced by what he saw of the practice of

Abercrombie and Syme, who put little trust in drugs. He came finally to the conclusion that in sickness neither medicine nor alcoholic stimulants nor food are necessary as a general rule, but on the contrary are often absolutely injurious, and that the golden rule of practice is that "the sick are in most cases to be left to Nature's methods and to these only." For the Hippocratic maxim, *Melius remedium dubium quam nullum*, he substituted, *Melius medicamentum nullum quam dubium.*

On this plan of "masterly inactivity" he treated his patients, and—although he met with a good deal of opposition, being even threatened with the terrors of the law on one occasion—he says that for thirty-five years he had more clients than he could do justice to without assistance. He did not publish his views till he retired from active work, but he adhered to them to the end. He practised what he preached, and attributed his length of days to his system. Speaking of the banter of younger medical friends who used to laugh at him as a very poor specimen of the mode of life he recommended, he says:

> The element of Time was a great one in my case, and now, when I am not ashamed to offer myself as a specimen of an old man who lives a most simple life, I have no one left of the old scoffing friends whom I was most anxious to appeal to. They have all had the short life, but not, I fear, the merry one. In most instances one severe illness carried them off when at the height of their work and prosperity. It is a sad recollection.

In this utterance we can almost hear a soft chuckle as the old man thinks of his having outlived those who preferred Burgundy to hot water, and beefsteak to milk and white of egg. But Dr. Keith, in his zeal for the simple life, seemed to forget that in diet, as in everything else, we cannot all follow the same path. He did not make allowance for the fact that many people are so constituted that they are compelled to echo Sir James Paget's frequent thanksgiving for good food and good wine. That great surgeon found that for him these things were good, just as much as Dr. Keith felt the benefit of his own mode of life.

One remarkable incident in Dr. Keith's professional career was the part he took in the first experiments with chloroform as an anaesthetic. Miss Eva Blantyre Simpson says in her life of her famous father:

> Contemporary accounts as to its first trial differ slightly. Dr. George Keith and my aunt, Miss Grindlay, are the only two survivors. My aunt says the professor came into the dining room one afternoon holding a little bottle in his hand, and saying, "This will turn the world upside down." He then poured some into a tumbler, breathed it, and fell unconscious. This may have been some other drug, for many were tried, but till recently, when dimmed by age, Miss Grindlay's memory was a veracious one. Miss Petrie, her niece, was much at Queen Street in these days, and in a journal she kept, mentions that my father "tried everything on himself first," and once, after swallowing some concoction, was insensible for two hours. Dr. Keith recalled another experiment, when, not content with chloroform, he tried a compound of carbon, which brought on such irritation in breathing that he had to be kept under chloroform to relieve him.

In later life apparently Dr. Keith was not particularly proud of his association with this far-reaching discovery. When preparing a special issue of the JOURNAL to celebrate the fiftieth anniversary of anaesthesia, we wrote to Dr. Keith asking him to contribute some recollections of the early experiments. The answer was long and the purport of it not very clear, but it may be summed up in a remarkable declaration to the effect that "the whole thing is best forgotten."

Dr. Keith had travelled much, and was fond of the study of languages. When considerably past 80 he read some of the Latin classics with pleasure. He is described by those who knew him as a man of attractive personality, whom his wide knowledge and experience made a delightful companion.

THOMAS DIXON SAVILL, M.D., M.R.C.P.LOND.,

PHYSICIAN, WEST-END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM AND ST. JOHN'S HOSPITAL FOR SKIN DISEASES.

NEWS of the unexpected death of Dr. Thomas Dixon Savill reached London last week, and is the cause of much regret. It took place while on a holiday in Algiers, on January 10th, as the result of a fracture of the skull incurred through a fall while riding. It is a premature end to a career which traversed, on useful and thoroughly scientific lines, a considerable section of the general field of medicine.

Dr. Thomas Savill, born and educated in London, commenced the study of medicine at St. Thomas's Hospital, continued it at St. Mary's, and completed it abroad at Paris, Hamburg, and Vienna. His student career was one of distinction; he entered St. Thomas's Hospital as a natural science scholar, took several class prizes, won the Tite Scholarship, and finally graduated with honours at the M.B.Lond. examination in 1881. Later on he became in turn M.D. of the same University, a member of the Royal College of Physicians of London, and D.P.H.Cambridge.

On first settling down at home, Savill joined the West London Hospital, which he served as Assistant Physician and Pathologist, but gave up this appointment on election to the post of Medical Superintendent of the newly opened Paddington Infirmary in 1885; during his seven years' tenure of this post he studied medical Poor Law work in all its aspects, held office as President of the Medical Superintendents' Society, and became an early advocate of the utilization of Poor Law institutions as fields of clinical study. Having meantime commenced to do work for the Royal Commission on Vaccination, he gave up this appointment in 1892, and afterwards devoted himself to literary work and to the specialities of dermatology and nervous disease. Neurology he had studied at the Salpêtrière Hospital in Paris, his first literary essay being an English version of the lectures he had heard delivered by Charcot. On dermatology he wrote some papers quite early in his career, and soon after leaving Paddington joined the St. John's Hospital for Skin Diseases. He was one of its Senior Physicians at the time of his death, and held a similar appointment at the West End Hospital for Diseases of the Nervous System.

It was indeed to nervous diseases, especially those of a functional character, that he had devoted most of his time in late years. A book which he published on the subject of neurasthenia in 1899 had gone through four editions at the time of his death. A later work on an allied subject was his lectures on hysteria, which he endeavoured to prove was due to a vasomotor condition. A third book, his second in regard to date of first publication, was a *System of Clinical Medicine*, founded largely on his experiences while working at Paddington Infirmary. It has reached a second edition, and is markedly original both in arrangement and matter. It is entitled in many respects to be regarded as of much value, and but for the special form adopted in giving expression to the author's views might have been expected to obtain much greater popularity. It is an attempt to write on disease from the standpoint from which it is considered at the bedside. The symptoms which disorder of any one of the various systems of the body may bring about are described and so grouped as to enable a differential diagnosis to be reached. In addition to these books Dr. Savill contributed a good many papers to the *Lancet* and was a valued member of its outdoor staff. He also for some time acted as an examiner in medicine to the University of Glasgow and to the Society of Apothecaries of London, and was a corresponding member of several foreign societies.

His life, therefore, was very full, and being only 53, he may be regarded as perhaps not having reached his zenith when death overtook him. For the past seven or eight years he had been greatly assisted in his literary work by his wife, Dr. Agnes Savill (formerly Miss Blackadder), Assistant Physician at the St. John's Hospital for Diseases of the Skin, in whose loss all must feel the deepest sympathy.

THE death occurred on January 10th, from acute tuberculosis, of SEPTIMUS J. LEE, L.R.C.P.Lond., M.R.C.S.Eng., of Brampton, Cumberland, in the Hospital for Epilepsy and Paralysis, Maida Vale, W., of which he had been Resident Medical Officer since April, 1909. Mr. Lee, who was educated at Edinburgh and the Middlesex Hospital, was appointed to the Hospital for Epilepsy and Paralysis as soon as he had qualified, and a promising career has been terminated by his untimely death whilst engaged in the hospital's service.

PROFESSOR LORTET, Honorary Dean and Professor of the Medical Faculty of the University of Lyons, died in that city on Christmas Day in his 74th year. He had filled the office of dean since 1876. Dr. Lortet was commissioned

by the French Government to inspect the French Schools at Beirut in Syria. In discharging this duty he conceived the idea of studying Egyptian antiquities. In Egypt during many years he conducted excavations which enabled him to fit up a museum at Cairo. He also created at Lyons a natural science museum of which he was director. In Egypt he made a large collection of mummies, birds, and other animals venerated by the Egyptians; his collection was particularly rich in serpents and saurians found at Komb-Bo, the city of crocodiles. Some years ago he exhumed some skulls of monkeys which he thought presented marks of syphilis. Only a week before his death M. Lortet received the intimation that the Egyptian Government had decided to make him a grant of £1,000 for next year. Dr. Lortet was the author of a number of contributions to scientific literature. Among his writings are monographs on researches as to the rapidity of the circulation of the blood in horses; the penetration of leucocytes through organic membranes; and palaeontological studies in the valley of the Rhone; and on modern Syria.

Universities and Colleges.

UNIVERSITY OF LONDON.

KING'S COLLEGE.

Special Lectures in Physiology.

A COURSE of lectures on recent progress in physiological chemistry will be delivered in the Physiological Laboratory during the present session. Five lectures on physiological chemistry of proteins, lipoids, and putrefaction will be given by Dr. O. Rosenheim on January 24th, 31st, February 7th, 14th, and 21st, at 4.30 p.m., and three lectures on metabolism of muscle and the energetic aspect of vital metabolism by Dr. F. S. Locke on February 28th, March 7th and 14th, at 4.30 p.m. The course is free to all students of medical schools in London and all internal students of the University of London, and to medical practitioners on presentation of their cards. The course is recognized as a B.Sc. Honours Course by the University of London.

UNIVERSITY OF LIVERPOOL.

Public Lectures.

A COURSE of public lectures to be given during the Lent term has been arranged; on January 27th, Dr. H. B. Forbes, Reader in Ethnography, will lecture on the golden age of the stone workers; on February 11th, Mr. K. W. Monsarrat, F.R.C.S., Lecturer in Clinical Surgery, on the conditions which determine predominance among individuals and species; on February 25th, Dr. A. T. de Mouilpied, Lecturer in Chemistry, on the imaginative use of science; and on March 11th, Mr. W. S. Abell, Professor of Naval Architecture, on naval architecture, the art and its application. The lectures are free to the public, and further particulars can be obtained from the registrar.

CONJOINT BOARD IN ENGLAND.

THE following candidates have been approved in the subjects indicated:

FIRST COLLEGE.—*Part I, Chemistry; Part II, Physics:* J. G. Ackland, *H. L. Addison, W. H. Alderton, C. P. S. Allingham, *O. Baier, A. Bishara, *H. Chorley, *C. T. J. Drobig, W. A. Easton, *C. L. Emmerson, †A. C. Freeth, †H. P. Gabb, C. de W. Gibb, O. Gleeson, *T. S. Greenway, †W. H. Harris, †C O. Hudson, *A. M. Hughes, *J. Kinnear, V. E. Lloyd, J. Neal, *H. L. P. Peregrine, *G. W. Pool, S. J. S. Reid, S. Simons, *C. R. Smith, *W. B. R. Stower, *W. H. A. D. Sutton, †R. R. Sy Quia, J. R. N. Warburton, G. C. Wright.

Part III, Elementary Biology: C. P. S. Allingham, C. W. Armstrong, F. E. Bendix, R. O. Crawshay, T. H. Cresswell, A. C. Freeth, L. N. Glaisby, O. Gleeson, O. Hairsine, D H. Hargrave, W. R. H. Heddy, A. H. Hilmy, L. Kahan, C. G. G. Keane, T. R. Kenworthy, S. H. Keys, L. A. Malik, W. E. Masters, H. P. Price, S. J. S Reid, J. P. Shaw, E. M. Townsend, T. R. Trounce, J. R. N. Warburton, E. J. Wright.

* Part I only. † Part II only.

THE late Dr. George Joseph Cooper, who was member for Bermondsey in the last Parliament, left estate valued for probate at £433.

IT is announced that what is called a Radium Bank will shortly be established in London. The object of the bank is said to be to hire out radium to medical men who wish to use it in their practice. The bank will, it is stated, keep in stock £50,000 worth of radium, and will charge for the hire of 100 mg. of the substance £40, or 2½ per cent. of its value, for the first day, and ½ per cent. for subsequent days. The inception of the bank is said to be due to the General Development Trust, Limited. At present we are unable to give our readers any more definite information as to the scheme.

Letters, Notes, and Answers.

BRITISH MEDICAL ASSOCIATION AND BRITISH MEDICAL JOURNAL.

THE offices of the British Medical Association and of the BRITISH MEDICAL JOURNAL are at 429, Strand, London.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

DR. SHARP (Cavendish Road, Leeds) asks for information about L. Pappe, M.D., author of *Florae Capensis Medicae Prodromus.* (Capetown: W. Brittain. 1868.)

A COUNTRYMAN asks where he can obtain a pamphlet or card of directions suitable to give to a patient suffering from adolescent scoliosis, including a description or illustrations of suitable exercises.

*** We do not know of any such publication, and believe that most specialists draw up their own list of exercises. Our correspondent could probably compile one for himself, and for this purpose might consult Taylor's *Orthopaedic Surgery for Practitioners*, a review of which is published elsewhere in this issue.

PARENTAL ALCOHOLISM.

M. G. B. asks for literature of a scientific but popular nature dealing with the effects of parental alcoholism on the race.

*** *Infant Mortality*, by G. Newman (Methuen) (consult its index). *The Drink Problem*, edited by Kelynack (Methuen) (chap. ix, etc.). *Alcohol and the Human Body*, by Horsley and Sturge (Macmillan) (chap. xv.)

ANSWERS.

STATE-PROVIDED MEDICAL ATTENDANCE.

DR. PERCY ROSE (Canning Town) writes, in reply to "H." to state that Dr. Frederick Henry Alderson published in the *Provincial Medical Journal* for December, 1893, an article on "State Remuneration of Medical Men," which has been reprinted.

NEURALGIA IN EDENTULOUS GUMS.

MR. JAMES MONTEITH, M.B., C.M. (Oldham) writes, in reply to "G. D.": Be careful to examine for errors of refraction, and more especially for small amounts of astigmatism or apparent or spurious myopia or any irritation to the auriculo-temporal nerve or auditory apparatus. The local introduction of the salicylic acid ion by the application of pads soaked in a 1 per cent. to 2 per cent. solution of salicylate of soda, covered by a tin electrode attached to the negative flex; have the solution warm; apply to face, centre of brain, over scalp area, and not over the painful area; use 16 milliampères of current for at least thirty minutes. Then to positive flex attach a tin electrode of the same size as is attached to the negative flex, and compel patient to hold one hand in a warm solution of lithium citrate. On no account use a carbon electrode in a strong lithium solution. Pain will almost at once disappear, and keep away for good. Give internally ¼ gr. calomel every night for a week and a gr. x dose of salicylate of soda in half-cupful of hot water first thing in morning.

HOSPITAL DENTAL SURGEON writes: An *x* ray of the mandible at the site of pain should be taken, and if the result is negative, relief may be obtained by resection of the inferior dental nerve.

PRURITUS IN GLYCOSURIA.

DR. W. F. SOMERVILLE (Glasgow), in answer to "Nemo's" query regarding pruritus in glycosuria, advises the use of copper, a method recommended by Dr. Sam Sloan (Glasgow) and others. Introduce into the vagina a glass speculum of convenient size, perforate at its inner end. Fill the speculum with a saline solution and employ a rubber stopper, through which a thick spiral copper wire is passed, connected with the positive pole of a continuous current battery. The negative pole is connected with a carbon electrode placed on pad of twelve layers of lint, 6 in. square, which is soaked in warm saline solution and laid on the hypogastrium over the region of the uterus. The current is slowly applied till there passes 40 to 100 milliampères for ten to twenty minutes. The current should be slowly turned off. The treatment is repeated every third or fourth day. Selkirk and Co., 100, Bath Street, Glasgow, keep suitable specula.

THE TUBERCULIN TEST.

DR. DUNCAN LAWRIE (Oldham) writes: In the answer in the JOURNAL of January 15th, p. 180, "A. R. P." is recommended to use "Calmette" if he wishes to employ the tuberculin test. In *The Ophthalmoscope* of this month appears an abstract of a paper on the action of instillations of tuberculin into the conjunctival sac, by K. Stargardt

Zeitschrift für Augenheilkunde, July, 1909). I quote from it the following: "This paper reviews all that has been written on the Calmette test. In spite of all the thousands of experiments which have been recorded, and the numerous papers which have appeared in medical journals, Stargardt thinks that the test is still on trial, and that no definite or final opinion can be given as to its value. Few critical scientists who read his valuable collection of facts will feel much difficulty in deciding that both von Pirquet's and Calmette's tests are perfectly unreliable, and that the latter is extremely dangerous. The calamities and complications following the use of the reagent are narrated fully, and from such a heavy indictment against it that few could consider judicially and arrive at any other verdict than utter condemnation of the proceeding. Phlyctenules, keratitis, corneal ulcers, iritis, cyclitis, and phthisis bulbi, have all been seen after the instillation of a drop of tuberculin into normal eyes! One example is enough. Görlich instilled one drop of Calmette's ½ per cent. solution into the perfectly normal eye of a child 3 weeks old. An intense conjunctivitis associated with blepharospasm was followed by acute general keratitis, ulceration, perforation, and finally phthisis bulbi. Similar misfortunes are recorded by Schrumff and by many others. The list is a formidable one.

LIME WATER IN THE TREATMENT OF WARTS.

DR. J. BURDON-COOPER (Surgeon, Bath Eye Infirmary) writes: With reference to the communications of Drs. Kennard and Henderson in the recent issues of the BRITISH MEDICAL JOURNAL, I should like to point out that this treatment of warts was advocated by me and brought to the notice of the profession in a note published in the JOURNAL as far back as August, 1905. I had used the remedy in a number of cases successfully before I published the record of my own case in the note above referred to, and since then its value has been amply confirmed not only by myself, but also by those of my friends who have used it, and not a few have been medical men. I have never had to record a failure, and it is gratifying to learn that Dr. Kennard and Dr. Henderson have also had success with it. In Dr. Kennard's note he says that "In the course of four days all the warts disappeared." If he refers to my note he will find that I stated this time (four days) was the shortest in which I had ever succeeded in curing a wart, the longest being six weeks. He also emphasizes as I did the total inefficacy of local treatment. With reference to his remark upon the remedy not having found a place in the textbooks, I would like to say that I hardly think that this was due to any want of publicity, for my note occasioned considerable interest, and was extensively copied not only in this country, but also by Continental and American medical papers, judging by the extracts and communications I received at the time. The remedy was the subject of an editorial in a well-known American medical journal, and in it the editor referred to the late Dr. Peter Hood, who in the middle of last century used calcined oyster shells empirically in the treatment of cancer with reported success, and suggested as a subject of research the influence of lime in malignant disease. Being quite opposed to anything that savours of loose empiricism in therapeutics, and having regard to the attention that has recently been given to the importance of lime in the economy of the body generally, I venture to pass on his suggestion in the hope that the subject may be removed from the position in which it now stands to that of a more scientific pharmacology.

WASSERMANN'S TEST.

SPIROCHAETE.—(1) The serum of syphilitic patients, kept even under favourable conditions, frequently loses its power of deviating complement within a fortnight. It is, therefore, almost certain that a serum collected in South Africa and sent to this country would not yield trustworthy results by the Wassermann test. Presuming that the blood were taken aseptically, the serum separated from the clot and transferred to a sterile tube and sealed without contamination, inactivized by heating for thirty minutes at from 56° to 60° C. and sent in cold storage to England, a negative result would be obtained in a moderately large percentage of cases which would have yielded a positive result when fresh. (2) If our correspondent considers it worth while under the circumstances set out above, the serum should be sent to the Lister Institute of Preventive Medicine, Chelsea Gardens, London. (3) It is best to abstract a small quantity of blood (from 2 to 3 c.cm.) from a vein in the arm by means of a sterilized hypodermic syringe which has been washed out with sterile physiological saline fluid immediately before use. The blood should then be transferred to a sterile test tube and allowed to clot. The serum should then be pipetted off, or drawn off by the syringe, and enclosed in a clean sterile tube, and sealed at both ends. The drawn-out walls should be sufficiently thick to withstand the increased pressure caused when heating for the purpose of inactivizing. In view of the importance of the test and the difficulty of obtaining its application, when the patient is resident in a place far away from a laboratory where it can be carried out, some modification in the technique appears necessary, and experiments are shortly to be carried out with a view of determining whether a serum can be dried and kept for a few weeks and then dissolved for the purpose of applying the test. The results of these experiments will be published at as early a date as possible.

LETTERS, NOTES, ETC.

THE PANCREATIC REACTION IN THE DIAGNOSIS OF DUODENAL ULCER.

DR. GEORGE HERSCHELL (London, W.), writes: At the recent discussion upon duodenal ulcer at the Royal Society of Medicine none of the speakers alluded to the diagnostic value of the pancreatic reaction in the urine. When present, I think that it points to some definite lesion in the duodenum, and thus tends to exclude purely functional hyperchlorhydria. The pancreatic C reaction has been present in all my cases of duodenal ulcer demonstrated at the operation, in which it has been looked for, and in the majority of those in which the presence of duodenal ulcer was inferred from the symptoms.

A TRADESMAN'S PROVIDENT SOCIETY.

DR. A. GEORGE BATEMAN, General Secretary, Medical Defence Union, 4, Trafalgar Square, W.C., writes: Agents of the South West London Tradesmen's Provident Society, Limited, are calling upon medical practitioners in various provincial towns offering appointments, etc. In some instances it has been stated that the "Medical Defence" recommends this society. As such statement is entirely contrary to the truth, may I ask those canvassed not to accept any offers from the society in question without further examination of the position of the society, or before communicating with me.

THE TRADE IN MORPHINE TO THE EAST.

REV. G. S. MUIR, Honorary Secretary Edinburgh Committee for the Suppression of the Indio-Chinese Opium Traffic (Edinburgh), writes: I was grateful for the notice, in the JOURNAL of January 8th, of the International Opium Commission, and the White Paper of January 3rd. In your leading article you remark that the only solution of the morphine evil is "the rigid control of the drug from its manufacture to its retail sale." There can be no doubt that such supervision is urgently needed. It is calculated that about 2,000 chests of opium are made into morphine in Edinburgh and London annually, and this constitutes about half the world's supply. A large proportion of this finds its way, directly or indirectly, to the East; and although, since the coming into force of the Mackay Treaty a year ago, the traffic in non-medicinal quantities is contraband so far as China is concerned, the ease with which it can be smuggled and the profits possible are strong inducements for the continuance of the business. Mr. Müller, in his report, says: "It is to be feared that without the assistance of the countries from which the morphine is exported, China will be unable to check the smuggling of it." Dr. McDowal, Chief Medical Officer for Singapore, in his evidence before the Straits Opium Commission, suggested that the Home Government should appoint detectives to find out when and whence consignments of morphine were being shipped, so that they might be seized on arrival; and he mentioned one firm of London wholesale druggists who were specially known in this connexion. Such a measure may appear too drastic. But if even morphine were put as a separate item in the Board of Trade returns, the increase or decrease of the export could be noted. The anti-opium societies have asked that this should be done, but the request has not yet been complied with.

The principal feature of the recent White Paper is the emphasis laid on the fact that the Chinese authorities, both imperial and provincial, have come to the conclusion that the policy of total prohibition of the cultivation of the poppy in the immediate future is likely to be more successful than gradual reduction over a term of years. In seven of the eighteen provinces cultivation has virtually ceased, and in other nine orders have been issued that it is to cease this year. Mr. Müller regards the situation as very hopeful. If China succeeds in suppressing the home growth within the next two years it is inconceivable that we would continue to force our Indian opium upon her even in diminishing quantities. In fact, the Under Secretary for India said last month in Edinburgh that if China antedated the period agreed upon, so would Britain. The prospects, therefore, are hopeful of this "immoral traffic" being speedily ended.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	½	4
A page	8	0	0

An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

NOTE.—It is against the rules of the Post Office to receive *postes Restante* letters addressed either in initials or numbers.

Remarks
ON
APPENDIX DYSPEPSIA.

BY B. G. A. MOYNIHAN, M.S., F.R.C.S.,
SURGEON TO THE LEEDS GENERAL INFIRMARY.

THE term "dyspepsia" was used by the older writers to indicate a variety of conditions, believed to be always functional in character, in which disturbances of "digestion" were the main features. If the older works on medicine, such as Budd's, Trousseau's, Brinton's, and Sir Thomas Watson's, are consulted—and this may profitably be done, and will indeed prove a delightful and absorbing recreation—it is seen that a considerable space is devoted to a description of the various forms of "dyspepsia." The work of the surgeon, human vivisector as he is, has enabled him to make an intimate study of the "Pathology of the Living," and has newly conferred upon him the power of discovering that the term "dyspepsia" has been used to denote a group of symptoms which can now positively he ascribed to demonstrable lesions in other organs than the stomach. The "acid dyspepsia" in its characteristic, protracted and recurrent form is recognized as being due to a duodenal ulcer; the "flatulent dyspepsia," when severe, persistent, and repeated, is frequently due to stones lying within the gall bladder.

In the vast and unexplored territory formerly known by the name "dyspepsia" certain areas have been carefully surveyed and their exact features determined and accurately recorded. But the area still awaiting the intrepid discoverer is enormous; indeed the work already accomplished seems little more than a beginning. That beginning has, however, been made with sedulous care, and the clinical results which have accrued are indeed most satisfactory, and are an inspiration and incentive to further research. So is the prophecy of Brinton being realized, who wrote fifty years ago:

> As the progress of scientific medicine has gradually revealed the morbid anatomy of the digestive canal, and thus detected structural disease with increasing accuracy and frequency, the vague (but useful) term "dyspepsia" has acquired a continually more restricted meaning. Nor can we doubt that it is destined to still further limitation; and that, as advancing knowledge brings us better means of investigation, and so enables us to discover and distinguish structural changes of which we now can only observe the functional results, the aggregate of maladies called dyspepsia must undergo successive subtractions, tending more or less completely to its total subdivision into special maladies, and to the removal of this term from our nosology.

During the last few years I have been brought by degrees to recognize that in many of the intractable cases of indigestion, where a lesion of the stomach, duodenum, or gall bladder might not unreasonably have been supposed to exist, no structural alteration could therein be found. On further investigation an appendix, obviously diseased, was discovered, and its removal was quickly followed by a complete relief of all former disabilities. This experience did not come in any degree as a surprise, for I had long recognized that the "bilious attacks" of children, the sharp abdominal pain, headache, vomiting, languor, and brief malaise, often associated with constipation, and ascribed to an unwholesome meal, culminated sometimes in a flagrant and obvious attack of acute appendicitis for which an operation, then or in a later stage of the disease, was performed. After the loss of the appendix no more is heard of the "bilious attacks," which before have been so frequent. When I am now told, in a case of acute appendicitis in a child, that there has been this earlier history, I am accustomed to predict that the future will be free from these troublesome complaints.

The close investigation of the anamnesis of the cases to which I am now anxious to call attention reveals the fact that there are several types of "appendix dyspepsia," types which differ from one another in some striking particulars, but which yet resemble one another in many conspicuous features.

In what is, perhaps, the most interesting group of all these there is a very close mimicry—indeed, very often an exact reproduction—of those symptoms which have long been attributed to "gastric ulcer." The symptoms are pain, which comes on soon after food, usually within half an hour to one hour, but sometimes later, sometimes earlier, and usually with caprice. There is here no fixed interval of relief after a meal, as is constantly the case in chronic gastric ulcer. The patient will say that the pain comes "at any time" after a meal. The pain is epigastric; it is rarely felt elsewhere, though it may spread over the abdomen to one or both sides, or, rarely, to the back; pressure often gives great relief to it for the moment. It is always worse on exertion and after exercise; a game of golf, an evening's dance, a day's hard physical work will always excite the pain or increase the severity of that which food has caused. Flatulence, the belching of gas, and sour eructations may all be present, and vomiting is not infrequent. In the vomited matter and in the contents removed from the stomach after a test meal there may be an increased amount of free hydrochloric acid. Epigastric tenderness is sometimes, indeed generally, present, and in two recent cases of my own was well marked beneath the left costal arch, so that, in both cases, I had been led to diagnose an ulcer on the lesser curvature of the stomach. Tenderness is not present in any other part of the abdomen, though it is a frequent experience to find that the patient complains of epigastric discomfort, his "usual pain," he may say, when pressure is made over the appendix. Nausea is not infrequent, and haematemesis may occur. In perhaps a dozen cases of my own the haemorrhage from the stomach has been considerable—that is to say, a quantity in excess of a pint has been vomited at once. In one case I visited the patient at her own home with her medical attendant, and we saw that about 3 pints of blood had been vomited in twenty-four hours. Patients who suffer from these symptoms are said to have "gastric ulcer"; indeed, no other diagnosis would seem permissible or possible to the majority of physicians. The symptoms, in nature and degree, are those which would satisfy the most exacting German clinician. After the "attack" has passed away the patient's health may greatly improve, but there is never the same absolute return to complete unthinking health as is seen in cases of duodenal, and less commonly of gastric, ulcer. There is always, I find, epigastric uneasiness, some concern as to the quantity or quality of the foods to be taken, and red meat especially seems to be avoided by many patients. The regurgitation of bitter fluids and a burning of the throat are taken to indicate a persistent acrimony of the gastric contents. The exacerbation in the symptoms which is described by the patient as an "attack" may occur infrequently or at short intervals. Something depends on the nature of the life the sufferer leads, but more upon the care with which food is taken. It is quite common to hear that the first attack occurred "when I was quite a child"; ages of 7, 11, 15, and so on have been given to me as indicating the time of the first onset of indigestion. Sometimes, though this is quite exceptional, the beginning is made to date from an acute illness, which inquiry may indicate as having been due to appendicitis. In by far the great majority, however, the onset is insidious, its exact beginning unknown, and its earlier developments imperfectly remembered.

The complete clinical picture, it will be seen, suggests a diagnosis of gastric ulcer; but close inquiry discovers some discrepancy. In gastric ulcer there is order and method, as an almost invariable rule, in the appearance of the symptoms; in the condition I describe there is caprice. In gastric ulcer there is frequently a seasonal variation—an improvement in warm weather, a special liability to chills, or damp, or colds. There is, moreover, a tendency for exercise and fresh air to relieve the symptoms. In "appendix dyspepsia" there is no note of seasonal differences, and exercise always makes the condition worse. Vomiting in cases of chronic ulcer, whether of the stomach or of the duodenum, is infrequent; in many cases of appendix dyspepsia it is the most constant of all symptoms. It occurs for long periods after each meal, generally one or two hours after the meal has ended, and it is the one conspicuous means by which relief from pain or distress is obtained. The amount of food returned is always small, but on the instant of its regurgitation some release from pain, fullness, or discomfort is experienced.

In several of my cases a diagnosis of gastric ulcer has been made by one or more physicians, and patients have been in the medical wards of hospitals or in private homes to undergo a rest cure, with the limited dietary and rectal feeding, in the orthodox way. One patient, a private case, had three such courses of treatment for "gastric ulcer," the last of which endured ten weeks.

I hold it to be axiomatic that if a gastric ulcer has produced symptoms of a severe character over a period of years, 5, 10, 15, 20, or more, the ulcer is one which will have reached the serous coat, and will have so involved the wall of the stomach as to make the ulcer palpable, visible, and demonstrable.

On opening the abdomen of a patient whose type-history I have described, no flaw can be discovered in the stomach even after the most minute and most meticulous care has been expended. There is no thickening, no whiteness, no puckering, no adhesion. The stomach looks in every particular quite normal. But if it be allowed to lie quietly for inspection (and it is better to watch it while the abdominal wall is raised up, before the organ is handled) a most interesting condition is displayed. The stomach in its pyloric half is seen to be in vigorous and excited action. At the point where the vertical and horizontal parts of the stomach merge a contraction starts and spreads towards the pylorus, and at last involves all the pyloric antrum. The stomach becomes thick, contracted and pale; its muscle is evidently in a state of strained and vigorous action, and the channel through it is almost obliterated. On the cardiac side of this area of spasm the stomach is quiet, a little distended even, and shows no movement. I described this condition for the first time in 1904[1] in the following words:

> On several occasions during the last few years I have watched the stomach intently for several minutes, and have seen the onset, the acme, and the gradual relaxation of a spasmodic muscular contraction in its walls. Quite gradually the stomach narrows, and the wall becomes thicker and almost white in colour; when taken between the fingers the contracted area feels like a solid tumour. The spasm may be so marked as to prevent a finger being invaginated through the segment affected. The appearance presented is very striking. I have seen it in the body of the stomach and at the pylorus, but never at the fundus. As slowly as it comes on the spasm quietly relaxes, and the stomach assumes its usual form.

When this condition is seen it may be predicted that a lesion will be found in the appendix. As Bishop Butler tells us, "probability is the very guide of life," and the appendix is selected as the seat of an organic lesion in such a prediction because it is found to be the cause of a "pyloro-spasm" far more frequently than any other part. The symptoms in the condition I have described are referred to the stomach, I believe, partly on account of the turbulent condition of muscular over-action at the pyloric portion of the organ. What is the reason for this spasmodic contraction? The explanation is to be found in the work of Pawlow, Starling, and Cannon. Pawlow demonstrated that the action of the pylorus was controlled by stimuli excited both on the gastric and on the duodenal side. On the gastric side an acid reflex causes the pylorus to open, and at the moment when, by a series of rhythmical contractions, the muscular wall of the pyloric antrum has squeezed a portion of the prepared contents onwards to this point. A jet of acid chyme is projected into the duodenum and there sets up at once a reflex, which closes the pylorus until the acidity is neutralized by the alkaline juices poured out through the bile papilla (bile and pancreatic juice). The pylorus is kept closed until the change in the condition of the duodenal contents gives the signal for its release.

W. B. Cannon and F. T. Murphy[2] in a most interesting article describe a series of experiments carried out upon cats. In the cat, ordinarily, food begins to leave the stomach within ten minutes of ingestion, as is shown by examination with *x*-ray screen after an opaque food (bismuth and potato) has been given. After a high intestinal operation—an end-to-end anastomosis, for example—the food begins to leave the stomach only after five or six hours. The delay is not due to etherization or to division of the abdominal wall; it is dependent upon an alteration in the action of the pylorus. After the operation peristaltic waves are seen to be coursing regularly over the stomach to the pylorus, precisely as they do in health. The difference is in the fact that the pylorus refuses to relax. Cannon and Murphy then show that the protective mechanism of the pylorus is beautifully proportioned to the needs of the intestine, for it is exerted during almost precisely that period (six hours) which is necessary for the repair of the intestinal injury. The function of the pylorus would, then, appear to be this: That, being controlled by stimuli aroused both on its proximal and distal sides, the distal stimulus, undoubtedly the more important, in altered conditions of the intestine, may be so insistent that relaxation is prevented and a firmer action is excited. The pylorus, that is to say, acts as a guard to the bowel distal to it, and it is probably true to say that its protective control extends to the whole of the mid-gut.

The occurrence of haemorrhage, even profuse and recurrent haemorrhage, in these cases of "appendix dyspepsia" is at first thought difficult perhaps to understand. But it is an observation which has often been made in the *post-mortem* room that patients may bleed to death without any lesion being discoverable in the stomach, and a large number of cases are recorded by surgeons in which an earnest search in the interior of a stomach from which blood has freely poured has failed to disclose any breach in the continuity of the mucosa. In many instances the stomach is said to be bleeding from many tiny points—the mucous membrane is weeping blood. Unfortunately in these cases no special attention seems to have been paid to the intestine and appendix. Haemorrhage we know may be excited by causes which do not leave any mark upon the stomach wall. Post-operative haematemesis, for example, as described by von Eiselsberg in 1899, may follow abdominal operations, and may prove fatal after hernia operations and the like, and yet no gross lesion of the stomach can be seen. And in a certain proportion of cases of acute appendicitis and of acute cholecystitis I have known haematemesis usually slight, but rarely severe, to occur. Exactly how the haemorrhage is caused does not seem clear; it may be sepsis, as Rodman suggests, or embolism of the artery of the stomach secondary to thrombosis in the omental branches, as von Eiselsberg considers possible, or to toxic influences which we do not at present understand; but the fact that gastric haemorrhage can occur in association with acute intestinal lesions does not admit of doubt. It is interesting to consider whether it is possible that the condition produced in the stomach which leads to the haemorrhage, being itself the result of an inflammation in the appendix, may not be the initial stage in the development of an ulcer in the stomach; the area involved in the production of the bleeding having its resistance so lowered that the gastric juice is able successfully to attack it. That acute ulceration of the stomach (a lesion in which there is destruction only of the mucosa, the serosa being unharmed) occurs in intestinal lesions—for example, typhoid fever, and in acute specific fevers—is well known. The lesion is probably toxic, as the work of Turck suggests, but is possibly of an infective origin. It is accordingly not improbable that in some cases of haematemesis due to appendicitis, a structural lesion may be present in the stomach. But in the cases to which I desire especially to draw attention the stomach is healthy, the appendix alone is diseased.

In a brief but most interesting article,[3] Dr. Hale White asks the question: "Are not some patients said to be afflicted with gastric ulcer really suffering from a different disease?" In this paper he relates many instances in which a diagnosis of ulceration of the stomach had been made, in which also haematemesis had occurred when no perceptible lesion was present. The answer I would suggest to the question is: "Yes, they are suffering from appendicitis." The following cases may be quoted as examples of this form of the disease:

CASE I.

Mrs. H., aged 52, sent by Dr. Ellis, Halifax, for at least twenty years has been liable to "bilious attacks" accompanied by severe headache and dizziness. At first symptoms consisted of a feeling of epigastric discomfort and pain coming on about one hour after food, frequently followed by the vomiting of a few mouthfuls of food and mucus which gave relief. These attacks used to come on at intervals of about a month, and varied in severity and duration. Sixteen years ago a severe illness (rheumatic fever) accompanied by much vomiting.

Twelve or fourteen years ago very severe attack accompanied by vomiting of dark fluid, probably altered blood. Seven years ago hysterectomy was performed by Mr. Moynihan, and since

that time the attacks have been more frequent and more severe. Pain, she states, has come on from half an hour to one hour after food. There is at first a feeling of tightness in the chest, which is followed by pain in the epigastrium and round both costal margins, passing to between the shoulders; this is accompanied by distressing flatulence and belching and followed by vomiting; the vomited material recently has consisted mainly of bile, and sometimes has been considerable in quantity. The pain is relieved by vomiting, and if this does not occur usually diminishes before the next meal. In the intervals between the attacks she has been fairly well, and has managed to do her house work, although she has been compelled to limit her diet very much, and has lived mainly on slops, Benger's food, etc.

Seven weeks ago a severe attack; was kept in bed on fluids for three weeks, and then an attempt was made to start solids again, but this brought a recurrence of pain and a return to fluid food was made. Has lost weight considerably during last twelve months.

On Examination.

A rather thin woman. No tumour palpable; stomach slightly dilated; some tenderness on pressure below and to right of umbilicus.

Operation, January 31st, 1909.

Stomach, duodenum, and gall bladder normal. Appendix long and showing several diverticula (?) near its tip; no adhesions. Appendicectomy.

Pathological Report: Appendix.

The specimen is an appendix measuring 3½ in. by ¼ in. At a point ½ in. from the tip is a small excrescence about ⅛ in. in diameter. Around this excrescence and extending over this lower third of the surface of the appendix the vessels are dilated, congested, and tortuous. On splitting open the specimen the lumen was found to be patent for only 1 in. from the severed end. This portion was covered with mucous membrane and not injected; the lower 2½ in. formed a solid fibrous cord. A piece from the tip was removed for microscopical examination.

Microscopical sections of the nodule show that it is a small fibro-myoma. There is no trace of any glandular epithelium or lymphoid tissue in the sections. At the edge of the section and at the foot of the small excrescence is a strip of necrotic tissue which suggests that the tortuous vessels may have been thrombosed.

Dr. Ellis writes on December 2nd: "I have seen Mrs. H. to-day. She has gained 12 lb. in weight. She is quite well, and has no pain."

CASE II.

M. C., aged 54. Twenty years ago he began to have indigestion—that is, a certain amount of discomfort after food, with the bringing up of wind and a little mucus; there was never anything he could call pain. Eighteen years ago he had mucomembranous colitis occurring in spasms lasting three or four days each; each attack was caused immediately by worry and strain, both mental and bodily. He has never vomited. His complaint is chiefly that, after food, at a time from a few minutes to an hour or so, he begins to have discomfort, flatulence, bringing up wind and passing it downwards, and occasionally he eructates a little acid mucus. At no time has he had acute pain. Food does not relieve him, but dry food suits him the best. (For eighteen months he has had a morning cough and a chronic pharyngitis.) Six years ago he was in hospital in Glasgow, and had his stomach washed out regularly for dilatation. He has never had jaundice or anything to suggest gall stones.

He has been under the care of a large number of doctors, some have told him his stomach was dilated, others have said the trouble is in his lungs.

He has seen specialists for his throat, and they say his stomach is the primary cause. He says the right lower half of his abdomen has always been sensitive to touch; on pressure there he complains of epigastric pain.

Operation.

Incision through right rectus below umbilicus. Appendix found tied tightly down to the brim of the pelvis and tautly stretched. At its termination it was slightly clubbed and firmly adherent. It was 3 in. in length, and the surface was covered with minute excrescences of a paler colour. Appendicectomy performed. There were several caseous glands along the ileo-colic artery. The appendix showed on subsequent examinations chronic inflammation in all its coats. The distal end was greatly thickened and the cavity dilated. There were many diverticula. The patient experienced relief almost at once, and has taken food better and with greater comfort than he did for years before.

CASE III.

C. N., female, aged 25, admitted July 21st, 1909. Eight years ago began to suffer from anaemia and indigestion. Pain and a sense of heaviness came on soon after food, occasionally vomiting occurred, and always gave relief. After a few months vomiting became frequent, and after a hearty meal some return of food was always observed. At first there were exacerbations, usually about three a year, when the pain and vomiting became much more severe. Five years ago in a very severe attack she vomited blood twice or thrice. She was then in bed for seven weeks. Four years ago haematemesis occurred again more profusely, and she underwent a "cure" of ten weeks' duration in which she was treated by restriction of the diet and nutrient injections. She was in hospital for five weeks. After this she was easier for a few weeks, but the symptoms then returned and continued up till March, 1909. Then a much more severe attack of haematemesis occurred, and she was in bed under treatment for nine weeks. The pain comes on either immediately after food or within half an hour; it is sometimes "gnawing," or there is a "feeling of distension and weight." The pain lasts one to two hours, is always relieved by vomiting, and is always made worse by more food. During all these years constipation has been severe, and enemata are given regularly. On examination there was slight dilatation of the stomach and some tenderness in the epigastrium. Pressure in the right iliac region caused epigastric pain. At the operation no lesion was found in the stomach, duodenum, or gall bladder. The appendix was sharply kinked and firmly adherent in its proximal part. It was removed, and the pathologist reported "examination shows the mucosa to be thickened all the length of the appendix, and there is a small old haemorrhage half way along the length of the tube. There is marked inflammatory infiltration of the submucosa." Within a few days of the operation the patient began to ask for more food, and has since eaten well with absolutely no discomfort. She had not been free from symptoms for more than a "few days" for seven years.

In a smaller number of cases a distant or a close resemblance to the symptoms of duodenal ulcer may be present. The patient then complains of pain coming usually one to three hours after a meal, not constantly, but capriciously. There is complaint of flatulence, belching, some acidity, and constant epigastric or general abdominal discomfort. The symptoms extend over many years, and in some degree are always present. A good example is the following:

CASE IV.

W. W., aged 28. For several years has had "indigestion"—he thinks it dates from an attack of pain which woke him up in the middle of the night when he was 12 years of age. He has pain usually late in the mornings, at 11 or 11.30, and again at about 8 p.m. At these periods, about two to three hours after a meal, he begins to feel "blown out" and "as if he would burst"; sour and acid eructations occur, and sometimes vomiting, which always brings relief. If he empties the stomach by vomiting, he feels ease at once, and is able to take another meal in a few minutes. He has not found that dieting makes much difference to his symptoms; if anything, he is rather easier if he keeps to fluids. Appetite is good, so he prefers to eat a good meal and let some of it return if he gets uneasy. He has only been wakened twice by the pain in the night; on both occasions it was very severe, and was referred to the epigastrium; brandy relieved it in a few minutes. On both occasions he was able to go to work the next morning. He is anxious to have relief by some means, as he is "never comfortable."

At the operation an incision through the right rectus at the umbilical level revealed no structural alteration in stomach, duodenum, or gall bladder. A very well-marked pyloro-spasm was watched for three or four minutes. The appendix was found very firmly bound down to the iliac fossa for one inch after leaving the caecum; this portion was narrow, thin, and compressed. Beyond the adhesion the appendix was greatly distended, full of cheesy faecal material, containing seven concretions, and the walls were "as thick as the small intestine." The pathologist reported that the submucous coat was densely infiltrated throughout with inflammatory cells. There was no ulceration. The contrast between the thin compressed portion of the appendix and the distal free portion was very evident.

In this case the diagnosis of appendicitis had been made, but in an earlier case I had made a diagnosis of duodenal ulcer, and had found as the solitary organic lesion an appendix firmly adherent. The patient was a lady whom I saw with Dr. Godfrey of Scarborough. Both he and I and a well-known London physician had concluded, after hearing the detailed history, that the case, by reason of the long persistence and severity of the symptoms, was one for which surgical treatment should be adopted. The usual incision for the performance of gastro-enterostomy was made, and at once a busy contortion of the pyloric antrum was evident. I knew what this meant, and after displaying a healthy stomach, duodenum, and gall bladder, I verified my instant prediction and exposed a thick white appendix, the seat of ancient disease, firmly bound down by many complex adhesions.

The following is another case in which there is some resemblance to the symptoms of duodenal ulcer:

CASE V.

E. M. H., female, aged 42, seen with Dr. H. J. Roper. Patient admitted complaining of pain in the body and indigestion. She is a woman of medium build, looks a little pinched about the face, but does not think she has lost much weight recently. She has had a dietary treatment for some time. No signs of

jaundice. There is a moderate amount of fat about the body wall.

Up to three years ago was perfectly well and never complained of indigestion in any form. Three years ago she began to have "indigestion" or "trouble in the body." This came on when she was in bed at night, generally about 10.30 p.m., and she generally took her last meal about 8.30 p.m. She did not complain of a great pain, but rather of an uneasiness and abdominal discomfort with a blown up feeling and tightness. There were no vomiting and no sour eructations. This condition lasted about six months, and during that time the "indigestion" got slightly worse. Then for six weeks patient took to her bed complaining of acute pain. The pain seems to have been nearly always present, but at night time, about 10 to 11 o'clock, became worse. Sometimes it would become worse during the afternoon, often about two hours after a meal. She did not vomit and never brought up any sour material into the mouth. The motions were not noticed to be darker in colour at any time. Since then up to five weeks ago has been going about and attending to her work—she is a matron at a school. But she has continually complained of the pain, which seems to have come generally within two hours of a meal; she kept a record on paper of the times of onset of the pain. During the last five weeks she appears to have been slightly worse, and she has noticed that the pain comes on sometimes almost immediately after food and sometimes one hour later. She was on milk diet for many weeks. The pain is described as being like a hot iron being passed through the body to the back to the right of the umbilicus.

At the operation the stomach, duodenum, and gall bladder were normal. A moderate degree of pyloric spasm was seen. The appendix was normal in its first inch, beyond that it was greatly dilated, thickened, its vessels engorged, and its colour very florid. At the junction of the normal and pathological portions there was a single band of adhesions and a kink. Sections of the distal portion showed "a well-marked chronic inflammation especially in the submucous layer."

There are cases, again, in which the symptoms do not resemble those aroused either by gastric or duodenal ulcer. The complaint again is of "indigestion," of discomfort after food, inability to eat generously, flatulence, aching of the body, occasional colic with diarrhoea which relieves it, and "mucous colitis." Palpitation is not seldom present also, and seems to the patient to be dependent upon the filling of the stomach; as a result the meals taken are often small in quantity, less than enough to appease the patient's desire. In this group of cases a history of an attack of appendicitis, before the onset of the dyspeptic symptoms, may be obtained; or a story may be related of an acute illness, attended by abdominal pain, diarrhoea, and vomiting, which has almost certainly been due to an inflammatory attack in the appendix.

The appendix, when examined before and after removal, may present almost any degree of abnormality. I have twice found it to be tuberculous, on several occasions to be filled with pus, and in every case to show indisputable evidence of ancient disease The most frequent of all the changes found is this: For the first inch or rather less from its caecal attachment the tube is thin, pale, and narrow; adhesions commonly bind it to the caecum or to the iliac fossa, or, rarely, to the abdominal wall. Beyond this first inch the appendix is enlarged, its walls greatly thickened, and its cavity, which is greatly dilated, contains one or more concretions, or a thick, offensive, and possibly purulent fluid. The distinction between the two portions of the appendix—the one thin, pale, and empty, the other turgid, grossly enlarged, and overfull—is striking. At the junction between them a strong, firm adhesion may be found. In other cases the appendix is club-shaped, with a narrower pedicle and a large free extremity. In all forms its lumen is obstructed either by a definite constriction or by external attachments On section the walls show the evidences of old inflammation, and the submucosa especially seems to bear the traces of this attack.

In some of the cases, though these are few, the appendix itself appears to differ little or not at all from the normal. It is merely adherent for an inch or more at the caecal end. These adhesions are of course abnormal, for there is no process of "physiological fusion" in the region of the appendix or of the caecum, and any adhesion implicating the former is certainly pathological. The microscopic examination of such an appendix does not fail to show that old and probably long-continued inflammation has had its seat in the walls of the little tube. It is the rule for the appearances to be those due to a long continued smouldering inflammation rather than to a single flagrant attack. Among my specimens are two exemplary instances of diverticula, the appendix being studded with the minute excrescences due to hernial protrusions of the mucous membrane.

A far greater amount of information, based upon observation both before and after operation, is necessary before the exact characters and precise frequency of this condition of "appendix dyspepsia" can be gauged. The number of investigators, too, needs increasing. The range of observation during the progress of an operation for supposed gastric disorders needs extension. Of the facts that dyspepsia, often confidently assumed to be the effect of a gastric lesion, may be dependent upon nothing else than a structural change in the appendix, and that the symptoms are completely relieved by ablation of this part there can be no question. The typical "gastric ulcer" of the medical textbook, in my view, is frequently the appendix. The bearing of this statement upon the need for and the efficacy of the diverse systems of medical "cures" is obvious.

I cannot refrain from wondering in what proportion of cases of "gastric ulcer" treated medically there is truly a structural change in the walls of the stomach. Though the diagnosis is probably quite frequently wrong, the treatment by rest and a restricted dietary can do nothing but good to an inflamed and adherent appendix. If, therefore, relief, fugitive or permanent, should follow upon this treatment, the diagnosis of a gastric lesion is by no means thereby confirmed.

CONCLUSIONS.

The following conclusions may be stated:

1. The symptoms of both gastric and duodenal ulcer, especially the former, may be exhibited with great fidelity in cases where no structural lesion can be found in these parts.

2. In many of the cases of "gastric ulcer" in which the symptoms pain, vomiting, haematemesis are present, and in many cases of intractable dyspepsia of a capricious kind, the only pathological change discovered during operation is a chronic inflammation of the appendix.

3. Removal of the inflamed and obstructed appendix is generally followed by a complete and instant relief of all former dyspepsia. The cessation of symptoms may, however, come only by degrees and with the lapse of many weeks.

4. No operation for supposed gastric or duodenal ulcer is complete until an examination has been made of the appendix, small intestine, and mesenteric glands (that is of the midgut).

5. If in such an operation no lesion can be found in the stomach or duodenum, it is not permissible to perform any operation such as gastro-enterostomy. This operation has results not surpassed by any other when performed in strictly appropriate cases. It is worse than useless in chronic appendicitis.

6. The mimicry of the symptoms of gastric ulcer in these cases is due to an exaggerated action of the pylorus. This tumult of contractile activity can be recognized when the stomach is inspected.

7. Investigation is necessary to ascertain the frequency with which the mucous erosion of the stomach (the "acute" or "medical" ulcer) is dependent upon a primary lesion in the appendix or intestine.

REFERENCES.

[1] BRITISH MEDICAL JOURNAL, 1904, i, p. 414. [2] *Annals of Surgery*, 1906, i, p. 512. [3] *Lancet*, 1901, i, p. 1819.

DRS. CALABRESE AND BURRO have lately published a report on the antirabic vaccinations carried out in the Antirabic Institute of Naples during the three years 1906–08. The total number of bitten persons who were treated was 2,616; of these 851 were inoculated in 1906, 992 in 1907, and 773 in 1908. Most of the patients belonged to the city and province of Naples. Of the total number 1,122 were bitten by animals experimentally proved to be suffering from rabies; 1,001 by animals who showed the clinical symptoms of rabies; and 493 by animals which were only suspected of having the disease. There were only 12 failures, giving a mortality percentage of 0.46. From the time the institute was opened in August, 1886, till December 31st, 1908, the total number of cases treated was 8,446, with a mortality of 0.53 per cent. The highest mortality has always been among persons bitten on the face, the lowest being among those bitten through the clothes.

A Clinical Lecture
ON
WHEN TO OPERATE FOR APPENDICITIS.*

BY R. P. ROWLANDS, M.S., F.R.C.S.,
ASSISTANT SURGEON, GUY'S HOSPITAL.

IT is certain that a great many people die of appendicitis who could be saved by timely operation, and that we in England err on the side of conservatism, whereas it is probably true that some American surgeons go to the other extreme. What a pity that we cannot lay down absolute rules which would always guide us to take the right course; but in this, as in other branches of surgery, no such laws can be made because of a variety of circumstances. Diagnosis is difficult; patients may grin and bear in silence, or refuse to be guided, and a skilful surgeon may not be available at short notice. In this lecture I propose to give my own opinions, formed after some years' experience.

A.—AFTER ONE ATTACK.

Most physicians and surgeons are now of opinion that it is wise to remove the appendix after one attack of appendicitis. It is certainly true that one attack does not usually protect against another; it nearly always predisposes. Moreover, it is never certain that a second or subsequent attack may be trivial like the first. The evidence goes to show that succeeding attacks increase in severity. This is only what one would expect from the mechanical changes occurring in the appendix during each attack. It is a mistake to suppose that the patient who has had one severe attack of appendicitis is not likely to develop peritonitis in the second. Adhesions rarely shut off the whole of the appendix from the peritoneal cavity, and often enough they entirely disappear, so that the appendix may lie free in the abdominal cavity a month after a severe attack. This is often seen at an interval operation. If one goes into the history of any patient who comes into "clinical" with spreading peritonitis due to appendicitis, one usually finds that he has already had several milder attacks. It is true, of course, that in some cases the first attack is grave and rapidly leads to spreading peritonitis. Remembering these facts, it seems to be foolish to wait for a second attack before operating. It is far better to get rid of the appendix and be on the safe side. To wait for a second attack, with the idea of operating very early in the attack, seems to me to be wrong, because no one can ever foretell the circumstances under which the second attack may arise. It may be impossible to operate early enough to make the operation as safe as one undertaken in the quiescent period. The best time for operation is about three weeks after an attack, when the inflammatory adhesions have absorbed and the intestines have assumed their normal condition, and before another attack is likely to develop. While waiting for operation the patient should avoid all but the gentlest exercise. The operation undertaken within a few days of an attack may be attended with considerable difficulty on account of inflammatory adhesions, haemorrhage, and possible pockets of pus, so that drainage may have to be established in some cases, with the attendant risk of hernia. Some attacks never do subside, but become subacute. In these there is usually a little pyrexia and some local induration, due to the presence of a small abscess with thick walls. There is nothing to gain by waiting in these cases, and much to lose from the risk of general infection.

B.—EARLY IN THE ATTACK.

I hold very strongly that it is wise to operate, whenever practicable, as soon as the diagnosis of appendicitis is made, and, if possible, within twelve hours of the commencement of the attack. This is the only way to avoid dangerous and troublesome complications. Moreover, this saves the patient a great deal of time and money, and relieves the medical attendant of much anxiety. At this early stage the operation is very easy because of the absence of adhesions, and it is almost, if not quite, as safe as an "interval" operation. Appendicitis is only dangerous when the inflammation is allowed to spread beyond the appendix, and gives rise to complications which of necessity take some time to develop, and are preventable. Various authorities give the mortality of appendicitis as from 14 to 20 per cent. This ought to be capable of reduction to less than 1 per cent. by operating at the earliest possible moment, as shown by experience and an increasing volume of evidence. I have not lost a single patient operated upon within twenty-four hours. In many cases perforated duodenal or pyloric ulcer, inflammation of Meckel's diverticulum, and suppuration of the gall bladder have been mistaken for appendicitis, and the resulting delay in treatment under the conservative régime has usually been serious. Early exploration enables the surgeon to discover his error and to treat these grave conditions while they are in a hopeful stage.

Dangerous Complications.

Some attention may now be given to some of the dangerous complications which are mostly avoidable by early operation.

1. *Spreading Peritonitis.*—Frequently during an early operation, a gangrenous distended, but still shiny, appendix is discovered ready to perforate at any moment. No one can say, with any pretence of accuracy, what the condition of the appendix may be until the abdomen is opened, and to wait in many cases is bound to be disastrous. He who dares to guess the end of an attack of appendicitis assumes the power of prophecy. Moreover, with our improved methods of treatment, even peritonitis, *if treated early enough*, does not possess its ancient peril. Nothing has surprised me so much as the way in which patients with early peritonitis make a complete recovery after the modern operation. Thirteen years ago, when I was a "clinical" at Guy's, all cases of peritonitis coming into "clinical" during three months died. Now quite 75 per cent. get better, partly because they are admitted earlier, but chiefly because, with increasing knowledge, they are treated better (vide infra).

2. *Localized Abscess.*—A localized abscess due to appendicitis carries with it a risk of death of about 15 per cent. It is much better to operate before an abscess can have time to develop. I am well aware that it is not always possible, because patients occasionally present themselves for the first time when an abscess is already formed. There are instances of subacute attacks in which patients may continue at work until the symptoms and signs of an abscess may develop. The dangers of an appendicular abscess are chiefly due to its liability to rupture into the peritoneum, causing spreading peritonitis. Many of the cases of peritonitis are of this secondary type. During the operation for appendicular abscess it is easy to notice how frail the adhesions are that separate the abscess from the abdominal cavity, so that any unusual exertion, or the natural increase of tension, may lead to rupture into the peritoneal cavity at any moment. In more fortunate cases the abscess may burst into the intestine, and the patient may often get well soon after this; but it is a mistake to think that such a patient is not liable to future attacks. An abscess may burst into the urinary organs, possibly leading to cystitis and ascending suppurative nephritis. An abscess may form in the pelvis and lead to permanent damage to the important structures placed there. Residual abscesses may form at some distance, such as subdiaphragmatic abscess, which is still attended by a high mortality.

3. *Empyema and other Pulmonary Complications.*—There is little room for doubt that infections of the lungs and pleura are mostly embolic, and that the liability to them increases with the duration of the appendicitis. It is a fact that these complications, and especially subdiaphragmatic abscess, are far less common in patients treated by early operation. It stands to reason that with the continued presence in the abdomen of an inflamed appendix with infected blood vessels in communication with the portal vein, portal pyaemia is much more likely to occur than if the appendix is removed at once. Moreover, the presence of a suppurating appendix is a constant risk of general pyaemia.

4. *Intestinal Complications.*—Intestinal adhesions with secondary intestinal obstructions and also faecal fistulae

* Delivered at Guy's Hospital.

are far more likely to develop in neglected cases. Moreover there is some evidence to show that chronic constipation in many cases dates from a severe attack of appendicitis, followed by contracting adhesions.

5. *Hernia.*—By operating very early the abdomen can be completely closed in the majority of cases without endangering the life of the patient. Thus the risk of hernia is minimized. These early cases are in striking contrast with those in which one is driven to operate late in an attack of spreading peritonitis or large abscess, when it is necessary to drain the abdomen for a few days at least.

C.—Cases not seen Early in the Attack.

It must be allowed that, although an operation at the earliest possible moment is the safest and best treatment for appendicitis, it is often impossible to get this done, for various reasons. Poor patients often do not ask their doctor to see them until they are getting seriously ill, and have tried in vain all their homely remedies, more especially a variety of purgatives. A skilful surgeon may not be available, the diagnosis may be very doubtful, or a patient may at first refuse operation. If the advantages of early operation were properly appreciated by those concerned it is certain that there would be less delay than there often is at the present time. The public, and even the medical profession, have still much to learn in this direction.

In such cases, seen after the most favourable time for operation has been allowed to pass, it is a difficult matter to decide for or against immediate operation. If the signs and symptoms are subsiding, it may seem wise to postpone the operation until about three weeks after the attack; but it must be remembered that appendicitis is a treacherous disease which is liable to take a bad turn at any moment, and that the patient is never safe until the appendix is removed, so that if surgical aid is not available at short notice, it is safer to operate at the first opportunity. The risk of operation in such cases is small, whereas the risk of leaving alone is uncertain. Under more favourable circumstances, such as exist in the wards of a hospital, where an operation can be performed at any moment, the risk of waiting for the quiescent period is smaller, and may seem to be justified by the low mortality of the interval operation. But in some apparently mild cases in which this course is adopted an abscess develops at any time within about fifteen days of the onset of the attack, often after all danger is supposed to be over. Then an operation has to be undertaken under less favourable circumstances than at an earlier stage. The risks of complications and of death are increased, and the difficulty of removing the appendix is greater on account of denser adhesions between vital structures and the presence of pus. Drainage is usually necessary, and a ventral hernia is apt to follow.

In those cases in which an abscess would not otherwise develop, I do not believe that an operation at any stage of the disease increases the danger. The risk of causing a localized peritonitis to become diffuse is a very small one if proper precautions be taken to prevent it. The same is true of infection and suppuration of the abdominal wall. It is assumed, of course, that the surgeon is experienced and skilful in abdominal surgery, for what may be a safe course for one surgeon may be dangerous to advise for another. In any case, waiting involves waste of time, money, and anxiety. For these reasons I believe it is wise to recommend operation without delay in all cases of appendicitis when the circumstances are favourable, and a capable and experienced surgeon is available for what may prove to be a difficult operation. I believe that a careful operation reduces the dangers of the disease at all stages. Every surgeon knows that it is practically impossible in many cases to estimate the gravity of the patient's peril before the abdomen is opened. The duration of the disease is of little value, although it has been relied upon. The symptoms and even the signs are often deceptive. A wise and conservative physician told me that he had painfully and slowly come to the conclusion that immediate operation is the best treatment for appendicitis, at whatever stage the patient is first seen. However, different opinions prevail concerning the treatment of cases in which the patient is not getting worse, or the disease seems to be subsiding. When the signs and symptoms are getting progressively worse or fail to subside in due course, it is imperative to operate without delay in order to save life. This is not the time to dwell upon the troublesome sequelae of late operation. It is important to mention some of the most reliable signs and symptoms which indicate that the patient is getting worse, and that an operation is urgently required.

Signs and Symptoms.

1. Increasing rigidity, tenderness, and fixation of the abdominal wall. When these conditions are localized to the right iliac fossa, they usually indicate a localized abscess, but when they are spreading they indicate a spreading peritonitis.
2. Persistence of pain and vomiting.
3. Accelerating pulse-rate.
4. Rapidly rising or falling temperature, especially associated with shivering; these indicate a rapid spread of the disease, and often follow the discharge of pus into the peritoneal cavity.
5. Shifting dullness in the flanks, indicating the presence of free fluid in the abdomen, generally due to spreading peritonitis, although there may be free fluid complicating a local abscess.
6. The presence of a tender, dull swelling in the iliac fossa, loin, or pelvis, the latter being discovered by bimanual examination.
7. Leucocytosis, especially a rise in the proportion of polymorphonuclear cells.
8. Flushing of the face.

These indicate localized abscess. When the abscess is unusually high the appendix is retro-caecal or the caecum has failed to descend naturally. When it is situated in the pelvis the appendix is hanging over the brim. The pelvic abscess is often indicated by frequent and painful micturition, rectal tenesmus, and diarrhoea. It may not be possible to feel the localized swelling until the abdominal muscles are relaxed by an anaesthetic. The swelling may be resonant, especially in late cases, from the presence of gas in the abscess.

9. Rapid wasting.
10. Profuse sweating, often associated with rigors.

These indicate spreading infection and suppuration.

The peritonitis is getting grave when distension of the abdomen and tympanites begin; but operation should not be deferred so long. It is not wise to wait for fluctuation, redness, or oedema before opening a localized abscess, because of the grave danger of peritoneal and vascular infection.

It may be repeated that an exploration is the only reliable means of ascertaining the nature and extent of the abdominal disease, the signs and symptoms being notoriously inadequate.

Conclusions.

1. It is wise to remove the appendix in the quiescent period after one definite attack of appendicitis.
2. The best treatment of acute appendicitis is an operation at the earliest possible moment, if a good surgeon is available.

Since this lecture was sent to press my late dresser, Mr. Mutch, has collected and analysed the results of a large number of cases treated at Guy's Hospital. His paper will be read before the Guy's Physical Society shortly. He has kindly given me some of his figures and conclusions, which strongly support my remarks upon the wisdom and safety of early operation.

The next examination for the award of the Smith Turner Scholarship in Dental Mechanics—annual value £30—founded by the British Dental Association in 1907 to honour the memory of James Smith Turner, will be held on April 15th, 1910. The scholarship is open to any registered dental student who, in the opinion of the committee, has financial difficulty in completing the dental curriculum. The examination in dental mechanics is both practical and viva voce. The scholarship is tenable for one or two years, at the discretion of the committee, and is paid to any dental school in discharge of fees. Applications must be received on or before April 1st, addressed to the Honorary Secretary, British Dental Association, 19, Harover Square, London, W.

Remarks
ON THE
TREATMENT OF GASTRIC ULCER.*

BY
JAMES CRAIG, M.D.UNIV.DUB., F.R.C.P.I.,
PHYSICIAN TO THE MEATH HOSPITAL, DUBLIN.

IT is not only just but expedient that physicians should recognize and acknowledge the splendid work which their surgical colleagues have accomplished within recent years in the domain of gastric surgery. So excellent have been their results in certain classes of cases that one is not surprised to find a growing tendency among all sufferers from any variety of gastric trouble to gravitate to the consulting rooms and hospital wards of the operating surgeons.

Fifteen years ago the physician called the surgeon to his assistance when some calamity, such as perforation, had arisen in connexion with the treatment of a gastric case. To-day there are signs that the positions are becoming reversed, and it may be that somewhere in the near future it will rest entirely with the surgeon to decide what cases he will himself treat and what he will relegate to the care of the physician. Needless to say, the prospect that such a state of affairs may arise is not altogether pleasing to the physician, and, furthermore, I believe, if it does happen, that it will neither tend to the advancement of scientific surgery nor lead to greater confidence on the part of the public. There is great need that the physician and surgeon should continue to work together, for there is still room for both, and in no section of human ailments is it more necessary that they should work together, and their relative powers and limitations be recognized, than in the case of gastric derangements.

A feeling appears to have gained a hold in the minds of the surgical profession that their medical colleagues have been slow to recognize the possibilities for good that lie within the scope of the knife, and have accordingly been slow in seeking for surgical assistance, whereas the physicians, on the other hand, appear to have become imbued with an idea that surgeons were occasionally reckless in undertaking operations, and were not too punctilious in giving up the future care of the patients.

These points of view, and perhaps others, have led, I believe, to a certain amount of estrangement between physicians and surgeons, and the short paper which I bring before the Academy to-night is written with the best intentions to endeavour to show what the physicians may fairly claim to be able to accomplish, and the extent to which surgical interference may be productive of good in the treatment of cases of gastric ulcer. I trust also that what I have to say may do something to remove any feelings of distrust which the two great branches of the medical profession may entertain towards one another.

My surgical colleague, Mr. William Taylor, has lately mapped out certain lines which he is disposed to follow in regulating his practice in the treatment of gastric ulcer, and I am pleased to say that I am in complete agreement with him in nearly every instance.

The rules which I have formulated for my own guidance are somewhat upon the following lines:

1. Cases of acute ulcer of the stomach may be confidently expected to get well with a course of sufficient rest combined with suitable dietetic and medicinal treatment. Should perforation, however, occur, as it sometimes does, even during a course of the above-mentioned treatment, then it is almost needless to say that surgical assistance is imperatively called for. On the other hand, should haemorrhage—even several successive haemorrhages—occur, I am not prepared to advocate operative interference in these acute cases. This is, I think, the only point upon which I am unable to agree with Mr. Taylor, who considers that where a copious haemorrhage has taken place, and more particularly where there is an immediate recurrence of it, an attempt should be made to secure the bleeding vessel in the floor of the ulcer. His reasoning, however, that a life may be lost which an operation would have saved, is worthy of careful consideration.

2. In all cases of chronic gastric ulcer (of a non-malignant type), unless it is apparent at the time that pyloric obstruction has been already produced by the ulcer, I consider it is only fair to give the patient a chance of recovery in the first instance by a course of treatment similar to that employed in acute cases. I am bound to admit that, in the great majority of cases where the symptoms have been in evidence for a year or longer, recurrence of such symptoms takes place within a longer or shorter period, as the case may be, even although a cure appeared to have been effected as the result of the rest combined with dietetic and medicinal treatment. I am convinced, however, that a small proportion of these cases remain permanently well, and for this reason I believe the physician is justified in attempting the cure.

It is in the chronic cases, where symptoms *recur*, that surgical interference has been followed by the most brilliant results, and it is in such cases that I gladly recognize the good effects that follow the operation of gastro-enterostomy when performed by a skilful surgeon; but it must be admitted that even when we exclude such occasional accidents as the occurrence of the vicious circle or perforation from an intestinal ulcer which has formed at a point opposite the opening of the stomach, there is still a margin of cases, whose number is at present unknown, in which all the previous symptoms reappear after operation. Nevertheless, there should be no hesitation in recommending a gastro-enterostomy to be performed in all chronic cases in which there is an undoubted recurrence of symptoms pointing to a chronic ulcer.

The question of the hydrochloric acid content of the gastric secretion has an important bearing upon the treatment of gastric ulcer, whether the treatment be dietetic and medicinal or whether it be surgical; but it is not within the province of this short paper to discuss the diagnostic significance of the absence or presence of free hydrochloric acid in the various derangements of the stomach, although the importance of having a chemical examination made of the stomach contents after a test meal has been given is now fully recognized as affording a distinct help in the diagnosis of functional as well as organic cases. I can only touch at present upon the result of chemical investigations that have been made in recent years in connexion with cases of gastric ulcer.

Dr. Willcox, of St. Mary's Hospital, London, published[1] a critical review of the estimation and quantitative significance of hydrochloric acid in the gastric contents, and from it I extract the following table:

HCl may exist as—
- I. Free hydrochloric acid—that is, the acid is not combined with any base either inorganic or organic.
- II. Hydrochloric acid which is combined—
  - (*a*) With proteins.
  - (*b*) With other nitrogenous organic bases.

  } Active hydrochloric acid.
- III. Hydrochloric acid which is combined with inorganic bases to form neutral salts—for example, sodium chloride.

The first two combined he calls "active hydrochloric acid." They must have been secreted by the stomach, and, as is shown in the table, are equal to the free HCl + the HCl combined with proteins and other organic bases.

Many workers, such as Vaughan Harley and Goodbody, in making a quantitative examination of the gastric contents, determine the amount of volatile acid, the amount of free HCl, the amount of HCl combined with proteins, and also the amount of HCl combined with minerals.

The point, however, upon which I desire to concentrate attention is that in the great majority of cases of gastric (and also of duodenal) ulcer the "active hydrochloric acid" is markedly increased, and free hydrochloric acid is present *in excess*. The condition, as you are aware, is spoken of as hyperhydrochloria or hyperchlorhydria.

I cannot here indulge in a recital of the numerous theories that have been put forward to explain the occurrence of a gastric ulcer, but it is now pretty generally accepted that an excess of HCl in the gastric secretion is an important factor in its causation. Bolton

* Read in the Section of Medicine, Royal Academy of Medicine in Ireland.

found that if gastrotoxin is introduced into the wall of the stomach of an animal, necrosis and ulcer will result, but not if the HCl has been previously neutralized by sodium bicarbonate. If we admit, therefore, that there is an excess of HCl in cases of gastric ulcer; if we further admit that probably the excess of HCl is an important factor in producing the ulcer; and if it can be also admitted that the presence of the excess of HCl is an important agent in the production of pain and in the prevention of the healing of the ulcer, then we are in a position to approach the relief of such a condition by methods founded on a sensible basis That is, we must endeavour to get rid of the excess of hydrochloric acid in the gastric contents. Now let us consider in what way we may hope to accomplish this.

First of all, there is the administration of alkalis, given with the object of neutralizing the excess of acid. At best the relief afforded in this way is only of a temporary nature, even if harm is not done by the use of bicarbonate of sodium, which is so frequently used.

Secondly, attention has already been directed to the important fact that HCl combines in the stomach with proteins given as food, so that the importance of a diet rich in easily assimilated proteins at once becomes evident. Lenhartz took advantage of the fact that HCl in the gastric secretion combines with protein food, and introduced with great success the treatment of acute gastric ulcer by what is known as the method of "immediate feeding," by which much larger quantities of food rich in proteins are given than was previously thought advisable. To the details of this method I shall subsequently refer.

Thirdly, the administration of a ferruginous preparation, such as the dried sulphate of iron may be considered capable of using up some of the excess of HCl in the gastric contents by forming an albuminate and a chloride compound. Investigations have shown, moreover, that there is an excess of HCl present in cases of chlorosis, and we are familiar with the frequency with which anaemia and gastric ulcer are combined, so that in the administration of an iron preparation in cases of gastric ulcer we may prescribe it with a double object, first as a means of using up the excess of HCl, and, secondly, to relieve the anaemia.

When we come to the question of the treatment of chronic ulcers that have not proved amenable to the methods that meet with success in acute cases, it is surely a tremendous advantage to the physician to be able to rely on the help of his surgical colleagues who will perform a gastro-enterostomy and cure the patients. It is only right that we should endeavour to obtain an answer to the question—How does this operation afford relief and effect the healing of a chronic ulcer?

I have never hesitated to teach that, in my opinion, gastro-enterostomy was not a sound or scientific procedure. I have maintained that where possible the removal of the ulcer, to be followed afterwards by suitable dietetic and medicinal treatment, would be a more surgical undertaking and more likely to end in permanent benefit to the patient. I recognize, however, that in some cases the removal of the ulcer might be impossible, and that a gastro-enterostomy is at present the operation which surgeons most readily undertake, and although I am not altogether in favour of having a second opening made in the stomach when the pylorus is patent, still I am bound to testify to the excellent results which follow the procedure. Many reasons have been adduced to explain the curative action of a gastro-enterostomy, but it is now pretty generally admitted that the second opening in some way relieves the hyperhydrochloria.

Willcox, in the criticism before referred to, published the result of the examination of the gastric contents in five recent cases in St. Mary's Hospital before and after gastro-enterostomy for gastric ulcer.

He found that *free* hydrochloric acid was absent in three cases after the operation, although present before the gastro-enterostomy was performed, and, further, that in every case the *active* hydrochloric acid was reduced after the operation. Bile and mucin were found in all the cases after the operation, and this has led him and others to assume that these were carried from the duodenum into the stomach through the new opening, and without doubt that the presence of bile, etc., in the stomach had the effect of partly neutralizing the HCl secreted by the stomach. There can be little doubt also that the opening into the intestine favours the escape of the highly acid gastric secretion.

I was under the impression that the view was prevalent among surgeons that the partly-digested food passed directly from the stomach into the small intestine after a gastro-enterostomy had been performed, and thus gave rest to the wall of the stomach and the ulcer it contained. But, while one authority states that where the pylorus is patent it is quite easily demonstrated by means of bismuth in the food and *x* rays that the food continues to escape from the stomach by way of the pylorus, another equally eminent observer has equally plainly observed the food passing through the gastro-enterostomy opening directly into the jejunum. If it were beyond question that the food continued to pass through the pylorus, then it removes one of the most serious objections which I had formed against gastro-enterostomies, for it was apparent that it could not be right to divert the food away from its natural course, where its stimulating effects in the duodenum would be lost on the pancreatic and hepatic secretions.

It is true that in some cases of chronic ulcer, where the symptoms have extended over several years and much inflammatory thickening is found, the active hydrochloric acid may not be much raised or may only be normal in amount, but still it is said (Willcox) that these cases are also cured by a gastro-enterostomy. From this observation one is not unnaturally led to suppose that other factors enter into the cure by operation besides the relief of the hyperhydrochloria.

I now wish to examine the treatment of acute ulceration a little more in detail. Rest, milk diet, relief of constipation, with bismuth and alkali mixtures, and iron, form the basis of the lines on which most physicians in this country work.

In London rectal feeding has been much more extensively employed than has ever been the case here. In Dublin a milk diet (of from two to three pints a day) has been attended with excellent results, and is that upon which I have on the whole relied. For many years, however, I have been emphasizing the fact that iron is very scantily represented in milk. Stockman in 1891 calculated that 5 pints of milk would be required to supply the amount of iron required daily by a full-grown adult, and, to quote Hutchison, "for this reason persons who are kept for a long time on a purely milk diet are apt to become anaemic." As previously stated, patients with gastric ulcer are practically always anaemic, and a milk diet makes them more so. Undoubtedly milk is one of the least irritating of foods in causing a flow of gastric secretion, but there is no doubt that in eggs we have another food which is of the greatest value in the dietary of cases of ulcer of the stomach. The egg albumen readily takes up HCl, and so relieves the hyperacidity. The yolk is of great nutritive value, as it contains protein and a large amount of fat; but, furthermore, it is comparatively rich in iron, which is present as an organic compound, probably with nuclein, and, therefore, as an organic compound it is easily absorbed.

Stockman calculated that seven and a half ordinary-sized (2 oz.) eggs yield sufficient iron to supply the blood of an adult with its daily requirement in this respect. For these reasons I have been accustomed to add the albumen water and the beaten-up yolk in soda water of one or two eggs daily to the milk diet.

Where Professor Lenhartz's treatment has made a departure from recognized methods is in the rapidity with which he increases the amount of nourishment given to the patient by the mouth. I have the strongest objection to be tied down to hard and fast rules which must be slavishly followed in every case irrespective of the special characteristics of the patient or of the disease; but I was agreeably surprised to find how little modification on the whole it required when one comes to put the treatment into practice. The details of the treatment are:

1. Rest in bed for four weeks, during the first two of which the patient is not even allowed to sit up for any reason whatsoever.

2. An ice-bag is kept on to the epigastrium for the first two weeks.

3. The dietary consists of 10 oz. of milk and one beaten-up egg on the first day, and each successive day $3\frac{1}{2}$ oz. of

milk and one egg beaten up with sugar are added until a total of 1¾ pints of milk and six or eight eggs are consumed, and this corresponds with the eighth day. From the third to the eighth day, according to the disappearance of symptoms, 1 oz. of raw, or nearly raw, minced beef or chicken is given, and increased next day to 2 oz if well borne. About the eighth day a little well-boiled rice is given, followed in a few days by softened bread, and then a small amount of bread-and-butter. The number of eggs are gradually reduced, and one or two of them are given, lightly boiled, as the other food is increased. During the third week more mince and pounded fish are given, and by the end of the fourth week the patient is able to partake of normal diet and to get out of bed. He leaves hospital about two weeks after.

4. As to medicine: For the first ten days 30 grains of subnitrate of bismuth without mucilage are given thrice daily, and towards the end of the first week pills are administered containing dried sulphate of iron and light magnesia. The amount of sulphate of iron may be increased from 7½ grains to 30 grains daily.

5. The bowels are not interfered with during the first week, although a natural action may occur, but afterwards an enema, if required, is administered every fourth day.

There is nothing of very much importance in all this detail—nothing that appeals for its enthusiastic and slavish adoption any more than for its scornful rejection. To me it seems that there is included in the method one outstanding principle, the adoption of which, if it can be carried out with safety to the patient, is an advance on previous dietetic methods. This principle is the giving of easily assimilated protein food in rapidly increasing amount, so that the excess of free HCl is taken into organic combination, and by giving a large amount of nutriment the strength of the patient is quickly restored, and the gain in weight is marked. I have not used the ice-bag. Professor Lenhartz is a strong advocate for a supply of good teeth, and instructs his patients to masticate slowly. We all agree in the necessity for teeth that can chew. It is possible that much ill-health and anaemia may arise from continued absorption or the swallowing of septic material in cases of dental caries, but the want of grinders is, I fancy, greatly to blame in the production of gastric ulcer. For the person who is unable to chew falls back upon soft carbohydrate food, which tends to produce excess of HCl without using it up by forming organic compounds.

I wish to refer very briefly to my own experience in the adoption of Lenhartz's treatment, which I have followed fairly closely in all respects with the exception of the ice-bag.

In a case of chronic ulcer with gastrectasis the patient, a labourer, aged 28 years, was put on the treatment on May 5th last, when he weighed 7 st. 1 lb. He left hospital free of all symptoms on June 22nd, when he weighed 9 st. 4 lb. (a gain of 2 st. 3 lb.). His symptoms of pain and discomfort returned in August. He again entered hospital on November 4th, when he was transferred to the surgical wards under Mr. Taylor's care, and a gastro-enterostomy was performed and an ulcer found. He is now in excellent health, I am told.

In three cases of acute ulcer in women the results were most satisfactory.

One remained in hospital under this treatment from May 25th until June 22nd. She left free from symptoms, was eating ordinary diet, and increased in weight from 7 st. 4 lb. to 8 st. 7 lb., and is still in good health.

The second was placed on the treatment on September 26th, and left hospital on October 31st, having no symptoms, eating all food, and having increased in weight from 7 st. 6 lb. to 8 st. 7 lb.

The third was placed upon the treatment on November 20th, 1909, and she was free from all symptoms, eating all food, and left hospital on January 3rd, 1910.

I have tried the immediate feeding on several other cases where the diagnosis was in favour of a neurosis rather than of ulcer, but the results were not satisfactory.

REFERENCE.
[1] *Quarterly Journal of Medicine*, October, 1909.

ARRANGEMENTS have been made for lectures on tropical subjects to be delivered to nurses at the London School of Tropical Medicine, Royal Albert Dock, E. Any qualified nurse may attend the course, whether she intends proceeding abroad or not.

AN ANALYSIS OF A SERIES OF CASES OF PERFORATED GASTRIC AND DUODENAL ULCERS.

BY JOHN MORTON, M.B., C.M.,
ASSISTANT SURGEON, WESTERN INFIRMARY, GLASGOW.

THE following remarks are based on a series of 11 cases of perforated gastric and duodenal ulcers which have been under my care during the past two years in the wards of the Western Infirmary. The cases, while perhaps in no way very unusual, serve to illustrate many points in the diagnosis, and the results of treatment of these lesions, and some of them, I think, present features of special interest sufficient to warrant their publication.

I have not distinguished the gastric from the duodenal cases for the reason that, in the main, the clinical signs and symptoms are identical, and the treatment is the same. It is not always possible to say to which of the two classes a given case belongs until the abdomen is opened, although sometimes the previous history may suggest a definite site for the lesion.

My cases bear out the generally accepted view that duodenal ulcer is more common in men, and gastric ulcer in women. All the duodenal cases, 4 in number, occurred in males, while of the 7 gastric cases, 6 occurred in females. One of the latter (Case IX) was really a malignant tumour of the pylorus, which gave way suddenly while the patient was in hospital, with the usual sudden acute symptoms of a perforating lesion; while Case XI was a perforated "peptic ulcer" at the line of junction between stomach and jejunum, in a patient on whom a gastro-enterostomy had been performed four months previously.

The ages of the patients varied from 21 to 65 years, the average age being 39 years.

The site of the ulcer in all but two of the cases—that is, in 82 per cent. of the whole—was quite close to the pylorus, and in the whole series was situated on the anterior wall of the organ.

The ulcer presented in most of the cases a more or less definite punched-out appearance, with characteristic hard edges, and varied in size from a very tiny opening to ¼ in. or more in diameter. Cases I and IV, both of which died, presented not so much a perforated ulcer as a large ragged opening, which could not be satisfactorily closed by suture. In Case II, although the history of the attack and the symptoms on admission seemed quite typical, no actual perforation was found at the operation. In Case VII, although I had no doubt as to the diagnosis, operation was not performed immediately, but eight days after admission for a large subphrenic abscess.

Mortality.—Excluding, for obvious reasons, the malignant case above referred to (Case IX), we have 10 cases operated on, of which 7 recovered and 3 died—a mortality of 30 per cent.

Diagnosis.

In considering the question of diagnosis of perforation of stomach or duodenum, it must be recollected that the symptoms most characteristic of this catastrophe are not necessarily those exhibited by the patient when admitted to hospital. The most typical signs are those presented at the very beginning, which therefore come under the observation of the practitioner first called in to see the patient. The signs often described in textbooks as indicating rupture of stomach or duodenum, such as distension of the abdomen, absence or diminution of liver dullness, general tenderness and rigidity, and rise of temperature, are late symptoms, indicating spreading mischief due probably to perforation, but are not signs to be awaited before arriving at a diagnosis, which can as a rule be made quite early, from a proper consideration of the mode of onset of the illness and the character and site of the rigidity.

The mode of onset is characterized more than anything else by its suddenness. This was a feature in practically all the cases; the terms "stricken down," "doubled up," or "seized" with severe or violent pain being the descriptions commonly given. The importance of recognizing this, the earliest indication of perforation, cannot be too strongly insisted on, and the responsibility for recognizing

its gravity most often rests upon the medical attendant first called in to see the patient. The following description of the initial symptoms, from a note sent by the doctor with one of these patients, is worth quoting: "The patient was very suddenly seized with a very acute pain in the abdomen to-day. When I saw her she appeared to be suffering great agony. The abdomen was quite rigid, and the breathing was painful. Temperature subnormal. Pulse slow and feeble." This sudden onset of pain is accompanied by collapse, from which the patient may have recovered before reaching the hospital.

The pain in all the cases was referred to the upper abdomen, becoming localized in the epigastric or subcostal regions. One of the patients with duodenal ulcer complained of pain in the right shoulder.

Rigidity and tenderness follow this onset of acute pain. The abdominal muscles are on guard at once. Rigidity was present in all the cases in the upper abdomen, or at any rate was most marked there. In Case x it was most marked on the left side, corresponding with the seat of the ulcer.

Vomiting was definitely stated to have occurred in four cases. In one there had been vomiting of blood. In the other cases no vomiting had occurred at the time.

Distension of the abdomen was marked in only four cases (Cases v, viii, ix, xi).

Absence or marked diminution of liver dullness was noted in the same four cases.

Temperature on admission, varied from 96·4° to 102° F.

Pulse on admission, varied from 64 to 148.

Respirations on admission, varied from 16 to 28.

The appearance of the patient, seen after the first agony and collapse had passed off, was variable, and sometimes misleading, but as a rule there was something of the anxious look so characteristic of serious abdominal trouble.

Previous History.—In every one of the cases there was a history of previous gastric trouble—in Cases vi and x for a week and ten days respectively, but in the majority of the cases for a much longer period of months or years. In two of the duodenal cases the patient gave a history of the characteristic "hunger pain," coming on two or more hours after a meal.

Treatment.

The time which had elapsed between the onset of the symptoms and the operation varied from four to forty-eight hours. With three exceptions, they were operated on within fourteen hours from the time of rupture.

Operation.—The abdomen was opened by a vertical incision above the umbilicus, either in the linea alba or through the inner part of the rectus sheath. The escape of gas and fluid at once confirmed the diagnosis. No great difficulty was experienced in any of these cases in locating the perforation, which in every instance was situated in the anterior wall of the organ. The perforation was closed by infolding it with a double layer of Lembert stitches of catgut, or an inner of catgut and an outer of fine silk. Only in one instance (Case i) did I excise the ulcer. In two of the cases, for reasons which are given in the summaries (Cases v and viii), I performed gastro-enterostomy at the same time. I do not as a rule flush out the abdomen with saline or other fluid, believing it to be neither necessary nor desirable. Efficient drainage was provided by a tube in the pelvis through a median suprapubic incision, and in the majority of the cases by an additional opening in the right flank. Usually, also, a small drain tube or gauze was put into the upper wound, and removed in a few days.

After-Treatment.—The patient was kept in bed in the Fowler position. Salines and nutrients were given by the rectum. Small quantities of saline were permitted by the mouth at the end of forty-eight hours, and gradually chicken tea and other liquid nourishment was added. There were no complications to record in any of the cases which recovered. The patient, as a rule, was able to leave the hospital at the end of a month.

After-Results.

I made a point of personally ascertaining the condition of these patients in December, 1909. They were all in very good health. Among the earlier cases, three state positively that they have had no trouble since the operation. Two have had slight symptoms of indigestion for the first time during the previous few weeks. Of these two, one is a gastric case operated on two and a half years ago; the other a duodenal case after an interval of fifteen months. The last two cases of the series, operated on only three months ago, have so far remained quite well.

Summary of Cases.

I have to thank the following surgeons—Sir Hector C. Cameron, Sir George T. Beatson, Dr. Renton, and Dr. Dalziel—for permission to publish the summary of cases occurring in their respective wards.

Case I.

E. J., a woman aged 45, was admitted on March 25th, 1907. Twelve hours previously she was stricken down with sudden acute abdominal pain.

On Admission.—Temperature was 99° F., pulse 136. She looked very ill. The abdomen was intensely tender and rigid all over, but more markedly so in the epigastrium. Respirations were very rapid.

Previous History.—She has had gastric trouble since childhood, and has been ailing more or less continuously for the past year, with frequent attacks of sickness, pain, and vomiting after food. Three days ago she vomited blood, and has taken no food since.

Operation thirteen hours after perforation. On opening the abdomen in the middle line above the umbilicus some gas and much dirty brown fluid escaped. A large perforation was found, involving the pylorus, which was extremely stenosed, only admitting a director. The ulcer was excised and the wound stitched in the transverse diameter (pyloroplasty). A large drain was put in above the pubes and in either flank. The patient left the table pulseless, and died two hours later.

Case II.

A. W., a woman aged 21, was admitted on April 7th, 1907, as a case of ruptured gastric ulcer. Twelve hours prior to admission she was seized with severe pain, which doubled her up, and which lasted for several hours, accompanied by sickness and vomiting.

On Admission.—Temperature 99.4° F., pulse 120. There was general abdominal tenderness, most marked in the epigastric region. Rigidity was not very marked, and there was little or no distension and no diminution of liver dullness.

Previous History.—For three months she has complained of pain soon after food but no vomiting.

Operation fourteen hours after onset of acute symptoms. No perforation was discovered, but a well-marked thickened and congested area was found on the anterior wall of the stomach, close to the pylorus. The abdominal wound was closed in layers. Recovery uneventful.

Case III.

L. K., a woman aged 28, was admitted on September 3rd, 1907. She was sent in by Dr. MacIntyre of Airdrie for immediate surgical treatment. While engaged "doing a washing" in the morning, she was seized suddenly with the usual acute symptoms.

On Admission.—Temperature 100° F., pulse 148, respirations, 28. She looked extremely ill, with a typical abdominal facies, and lay with her knees drawn up. The abdomen was rigid and tender, chiefly on the left side; respiration was thoracic and painful. There was no distension, and no apparent encroachment on the liver dullness.

Previous History.—She had been under treatment for gastric ulcer for some years, giving the usual story of pain and vomiting soon after food.

Operation nine hours after rupture. On opening the abdomen some air escaped, and a quantity of milky fluid mixed with particles of food. A perforation of the size of a threepenny piece was found in the anterior wall near the oesophagus, and close to the lesser curvature. The ulcer was infolded with a double row of Lembert stitches, and a small drain left in the wound. A large glass drainage tube was inserted through a suprapubic wound, and the abdomen flushed with saline.

Recovery. Dismissed October 12th.

Case IV.

A. M., a man aged 53, was admitted on December 15th, 1907, *in extremis*, having been ill for two days. His illness set in with sudden pain and vomiting.

Previous History.—No definite information could be got, except that he had had trouble with his stomach for a very long time.

Operation forty-eight hours after perforation. The abdomen was found full of faeculent material. The intestines were very much distended, with other signs of general peritonitis. A large ragged opening was found involving the pylorus, and first part of the duodenum, from which liquid faeces continued to flow freely into the general peritoneal cavity. The patient was obviously dying, and nothing was done beyond inserting a drainage tube. He died two hours later. No examination was allowed.

Case V.

J. M., a woman aged 22, sent in by Dr. Nairn of Greenock, was admitted on May 13th, 1908. Her illness began the previous day, with sudden severe abdominal pain, accompanied by vomiting and fever.

On Admission.—The temperature was 102° F., and pulse 130. She looked very ill. The abdomen was rigid and tender, very much distended and tympanitic. Liver dullness was absent.

Previous History.—Pain and vomiting after food for some considerable time.

Operation twenty-seven hours after perforation. On opening the abdomen above the umbilicus, gas and free fluid escaped. On the anterior wall of the stomach, near the pylorus, a perforation was found in the centre of a sloughy area of considerable extent. The stomach was markedly enlarged. The perforation and slough were infolded with layers of Lembert sutures, and on account of the narrowing of the pyloric aperture I performed a posterior gastro-enterostomy at the same time. Drainage tubes were inserted locally, as well as above the pubes and in the right flank.

Recovery. Dismissed June 13th.

CASE VI.

W. J., a man aged 45, was admitted on September 10th, 1908. This patient was seen by Dr. Halkett, and sent in within a few hours of perforation.

On Admission.—His temperature was 96.4° F., pulse 64, respirations 28. He complained of dull aching pain in the left hypochondrium. There was absolute rigidity of both sides of the abdomen, with great tenderness in the epigastrium. No vomiting.

Previous History.—Heaviness in the stomach, and slight pain two hours after food, for the past week.

Operation four hours after perforation. On opening the abdomen both gas and fluid escaped. The pyloric end of the stomach was bound down by adhesions, and could not be raised up. A small perforation was found in the anterior wall of the duodenum, quite close to the pylorus. This was closed with a double layer of catgut sutures. Drainage tubes were inserted above the pubes and in both flanks, and a small gauze drain in the upper wound.

Recovery.

CASE VII.

P. W., a man aged 29, was admitted on September 15th, 1908, as a case of peritonitis of four days' duration. On September 10th, after a meal of cornflour, he was seized with sudden severe pain in the epigastrium, which doubled him up. The pain gradually got easier, but recurred on September 12th, and extended to the lower abdomen. Since September 13th pain had been constant under the right costal margin. He has not been sick nor vomited.

On Admission.—Temperature 101.4° F., pulse 100, respirations 22. He felt fairly comfortable but for the epigastric pain. The upper part of the right rectus is rigid, and here there is marked tenderness. and dullness to percussion.

Previous History.—For five years he has had discomfort and pain two hours after food, and three years ago had an attack similar to the present, but not so severe.

Operation.—I had no doubt that in this case there had been a rupture of a duodenal ulcer. Considering, however, that four days had elapsed, and the resulting mischief being quite localized, either because of previously formed adhesions or because the leakage was slight, immediate operation was not indicated. Anticipating the formation of a localized abscess, the patient was simply kept under observation. At the end of a week the abscess, which had increased much in size, was opened by a vertical incision and drained, a counter opening being made in the right flank.

Recovery slow but uneventful.

CASE VIII.

A. S., a woman aged 48, was admitted on September 21st, 1908. This, which proved to be a case of malignant tumour of the pylorus, is included in the series, because perforation took place with the usual acute symptoms, after being three days in the ward.

On Admission.—Temperature 98.4° F., pulse 120, respirations 24. The patient was very thin and pale and emaciated. She complained of soreness in the stomach region, but with no marked tenderness. The stomach was dilated, extending 1½ in. below the umbilicus, and exhibiting marked peristalsis and splashing. No tumour could be felt. She was put to bed for observation.

Three days after admission she cried out with sudden severe pain in the epigastrium, and became quite collapsed. She lay with her legs drawn up, the abdomen being very rigid and tender.

Previous History.—Indigestion for two years. Pain coming on half an hour after food for the past three months. Vomiting for the last month, sometimes the vomit being black. Stools at times black.

Operation three hours after rupture. A large quantity of dark brown bile-stained fluid escaped when the abdomen was opened. The stomach was much enlarged and hypertrophied. At the pylorus there was a hard cartilaginous mass as big as a Tangerine orange, having a large ragged opening the size of a florin in its centre. The tissue was so friable that the opening could not be satisfactorily closed. A posterior gastro-jejunostomy was performed, and drains inserted locally as well as suprapubically and in both flanks. Died a few hours later.

Pathological report: "A large fibrous mass with an adenocarcinoma invading it. Pancreatic tissue is included in the fibrous tissue."

CASE IX.

E. M., a woman aged 43, was admitted on December 11th, 1908. In the morning, while engaged in housework, she was suddenly seized with violent pain in the epigastrium, and became very collapsed. No vomiting. When I saw her with Dr. King of Yoker, at 8 p.m., she had considerably improved; her temperature was 100° F. and pulse 106. There was marked abdominal rigidity, not much distension, and no diminution of liver dullness.

On admission to the infirmary two hours later, temperature was 102° F., pulse 124. Rigidity and tenderness were present all over the right side of the abdomen and in the left iliac region. Liver dullness had diminished.

Previous History.—Occasional sickness and pain after food for some years.

Operation thirteen hours after rupture. The abdomen contained a large amount of turbid fluid. A small perforation was found in the centre of a very hard ulcer, near the cardiac end of the lesser curvature of the stomach, and near the pylorus another doubtful area of stomach wall covered with adherent omentum. The perforation was closed in the usual way. The part near the pylorus was also infolded, and drains inserted above the pubes and in the left flank. The patient died two days later, during which time she was constantly troubled with hiccough, and vomited dark brown fluid.

CASE X.

J. B., a man aged 65, was admitted on August 14th, 1909. He had not been feeling well for ten days, but continued to work. Coming from work the previous night he felt a severe pain under the right ribs, accompanied by sickness and vomiting. He went to work again in the morning, but had to desist on account of a severe attack of pain, which made him fall down. Dr. Allan, who saw him then, sent him in for operation at once.

On Admission.—Temperature 98.2° F., pulse 64, respirations 16. The abdomen was rigid and tender, especially under the right costal margin, with pain also in the right shoulder.

Operation six hours after onset. On opening the abdomen air and fluid escaped. Just beyond the pylorus, on the anterior wall of the duodenum, was a well-defined perforation a quarter of an inch in diameter. Behind the bowel could be felt a hard mass, which I took to be a gland. The perforation was closed by Lembert sutures in the usual way, and drainage provided for above the pubes and in the right kidney pouch.

Recovery.

CASE XI.

A. T., a man aged 34, was admitted on September 18th, 1909. In the morning he complained of pain in the epigastric region. After his mid-day meal the pain became very severe, and Dr. Allan, who saw him, diagnosed a perforated ulcer.

On Admission.—Temperature 98.8° F., pulse 104, respirations 24. He looked and felt fairly well. The abdomen was rigid and slightly tender, and did not move with respiration. Both flanks were dull to percussion, and liver dullness had disappeared.

Previous History.—This patient had a gastro-jejunostomy performed for ulcer three and a half months ago by Dr. Dalziel. Since then he has been very well, and has gained 4 st. in weight.

Operation six hours after perforation. The abdomen contained a large amount of fluid. A perforation about a quarter of an inch in diameter was found in the anterior suture line of the gastro-jejunal junction, evidently a "peptic" ulcer. The perforation was closed by a double row of catgut stitches and the abdominal wound closed. A drainage tube was inserted above the pubes.

Recovery.

P.S.—This patient was readmitted to hospital on January 3rd, 1910, with a fresh perforation in the same situation, and is again making a good recovery.

THE DIAGNOSIS AND TREATMENT OF A COMMON FORM OF DYSPEPSIA AND OF EARLY TUBERCULOUS INFECTION IN CHILDREN.

BY A. DINGWALL-FORDYCE, M.D., F.R.C.P.ED.,
EXTRA-PHYSICIAN, ROYAL HOSPITAL FOR SICK CHILDREN, EDINBURGH.

IN many cases of chronic dyspepsia in childhood the symptoms are sufficiently definite to settle the diagnosis, and the probability of a tuberculous infection lying at the root of the evil is not to be entertained.

There is, however, a type of case in which it is extremely difficult to say this is tuberculosis or this is dyspepsia, and an exact diagnosis in these cases is of great importance as leading up to a definite line of treatment. The subject is doubtless hackneyed, the theme a wide one, and the difficulties besetting it great; but owing to recent developments in the methods of diagnosis and treatment I am emboldened to record the impressions I have gained, the conclusions I have formed, and the results I have attained by adopting them in practice.

Chronic dyspepsia is a territory of medicine the boundaries of which are wide, the characteristics protean, the limits vague, and the etiology and pathology too often obscure; but with more precise methods of diagnosis at

our disposal our certainty of knowledge of the incidence of microbic infection increases and our powers of delimitation are enhanced.

One boundary is tubercle infection, another may be rheumatism, another something else; it is with the tubercle boundary in its clinical aspects that I propose to deal.

Some of the cases of which I speak might be called mucous disease, some chronic gastro-enteritis, some lithaemia, some other things, but the point in common in all is that in history, appearance, symptoms—in one or all—grave doubt as to the presence of tubercle infection exists. The chief characteristic of all the cases—tuberculous and non-tuberculous—is their vagueness in personal history and in symptoms; all have very chronic symptoms, mostly gastro-intestinal, and there are no physical signs on which to found a diagnosis.

The cases are those of children of from about 5 to 10 years of age who are not confined to bed but who are going about, are comparatively well, and have approximately normal temperatures. The diagnosis in these cases lies, I take it, between the two following conditions:

On the one hand, a form of chronic dyspepsia which is broadly characterized as follows: The child is thin, has dark rings round the eyes, and looks anaemic but is not actually markedly so. He is nervous, probably smart, and may be subject to bad habits, suffers from constipation and occasional attacks of sickness, at which times he is cold and shivery, and passes a large amount of urine. His gastric digestion is apparently good but he cannot eat fat; he is always relieved temporarily by calomel, and he suffers from no obvious organic condition. During a passing slight acute attack of illness (non-gastro-intestinal) his condition is improved.

On the other hand are cases of early tubercle infection. Here we have a child in many respects very similar in appearance to the foregoing—thin, pale, and not infrequently with a distinct anaemia; with or without a history of tubercle among near relatives—phthisis in an occupant of the home, particularly for some time during the period of infancy, being, however, practically always sufficient for a definite diagnosis; in chronic ill-health, with no definite abnormal physical signs but with assimilative incompetence, gastro-intestinal irritation, lassitude, and weakness. These cases are, I think, practically always glandular—it may be the bronchial, it may be the abdominal glands which are infected, or it may be glands elsewhere, but it not infrequently is the abdominal glands

Further, while differentiating strictly between the two conditions, I am at the same time sure that this form of chronic dyspepsia, closely simulated as it is by the initial stage of tuberculous infection, not infrequently merges itself in tuberculosis.

The points upon which a definite diagnosis rests are:

1. The capacity of digesting fat.
2. The reaction to tuberculin tests.
3. The condition of the urine.
4. The opsonic index.

Of these tests I shall merely touch upon the two last named; they are complicated and tedious, and, consequently, in many instances are not of practical application.

As regards the urine, I allude more particularly to the quantitative and qualitative tests for sulphates—the determination of the relative amount of ethereal and preformed sulphates. Given its fullest value, this test is obviously no criterion by which one can exclude tubercle infection. I think, however, that absence of excess of ethereal sulphates—as indicating absence of abnormal intestinal putrefaction—along with the other signs and symptoms of this type of case is definitely in favour of tuberculous infection.

As regards the opsonic index, elaborate technique and constant practice, associated, perhaps, with incommensurate results, also place this test, to a certain extent, outside the realm of practical medicine. So far, however, as my experience goes, the opsonic index to tubercle in early cases of glandular infection is consistently low, and I am certainly prepared to deny that this test, efficiently carried out, is valueless.

For the majority of patients, however, the chief criteria of the condition are the powers of fat digestion and von Pirquet's cutaneous tuberculin test.

In early childhood the power of digesting and assimilating quantities of fat is very considerable, and in the early stage of tuberculous infection this power is, as a rule, not markedly affected. The diet of both types of these children of whom I speak varies enormously, and in many cases but little is taken; but in tuberculous cases this small amount not infrequently consists of milk, eggs, and other fatty food. Again, cod-liver oil emulsion is usually readily taken in early tuberculous infection, and does good even in cases where previously it could not be borne, and this is seen very strikingly in cases which merge into tuberculosis from this form of chronic dyspepsia.

Want of power to deal with fat is, on the other hand, one of the outstanding characteristics of this form of dyspepsia. It may be that, owing to conditions in the gastro-enteric tract, fat is only imperfectly digested and is not absorbed, or it may be that fat assimilation is imperfect, and, according as one or other condition predominates, the course of the condition may tend towards mucous disease, acidosis, etc., but in all there is inability to utilize fat, the original exciting cause of the condition varying very widely.

As regards the tests with tuberculin, the evidence of many observers, and more particularly the results of Holt, seem to show that the cutaneous test of von Pirquet is as reliable as any, while unattended by the constitutional and local disabilities of respectively the tests by injection and by Calmette's method.

Personally, I am inclined to attach marked value on the von Pirquet reaction in cases of this description. In its employment I have used both human and bovine tuberculin; in some instances the reactions of the two have corresponded, in some they have not. A positive reaction to either I consider a positive result.

Further than being a point of interest in the etiology, and possibly in the prognosis, I do not think it matters which tuberculin gives the reaction; it is no indication as regards the specific form of tuberculin treatment.

The tuberculous focus may be in the cervical, thoracic, or abdominal glands, or elsewhere; a positive reaction is a definite danger signal; in young children of this type it indicates the necessity of active antituberculous treatment.

Owing to the very various routes by which a child may arrive at the condition of chronic dyspepsia, it follows that treatment in different cases must vary considerably. By whatever route the condition is attained, there are, however, certain points in treatment common to all, and certain points of marked difference in this treatment from that of early tubercle infection.

Each case has, of course, to be treated on its own merits, but for all prolonged and careful dieting is necessary. The condition may have originated with irregular meals and excess of carbohydrate food, or a diet rich in protein, or an excessive supply of fat. But now, for all cases, the diet is to be cut down; rest is essential for the digestive apparatus, and to regain their normal power the duties of the various organs must be well within their diminished capacity. Rest in bed is generally desirable, but not always obtainable, and small doses of calomel to begin with, and later of strychnine, are invariably of value. A good drink of water at bed time, a cold bath in the morning, alkalis in some cases, thyroid extract in others, and butter-milk where it can be taken, are among the measures most generally beneficial. Absence from school and change of air are always desirable.

Compared with such a scheme of treatment, that of early tubercle infection is markedly different. The diet should be free; fat and animal protein specially should be given as freely as is found possible. In many cases, an occasional dose of calomel and the daily administration—specially in cases with high amount of ethereal sulphates in the urine—of butter-milk is of marked value; fresh air is, of course, of the utmost importance. Great care must be taken in the prevention of sources of glandular irritation and infection, and the teeth, mouth, throat, ears, etc., must be closely attended to.

Finally, all such children should be treated with tuberculin. My own impressions as regards the administration of tuberculin in obviously glandular infections—mainly abdominal or cervical glands—or in cases which by the previous methods of diagnosis, I have diagnosed as latent tuberculosis—and I think these are chiefly glandular—are:

1. That this treatment is very unsafe when large doses are employed or when the temperature is unsteady.
2. That it is quite safe in the minute doses hereafter mentioned, when commenced with a practically normal temperature and when the patient is kept under observation.
3. That in many cases tuberculin treatment appears to have no definite effect upon the condition one way or another.
4. That in cases in which treatment by rest, climate, feeding, and careful nursing can be employed, improvement by these means alone is usually so marked that it is impossible to attribute to tuberculin, when given in these cases, its due meed of praise or to judge whether it takes any part whatever in the improvement.
5. That, however, when treatment by rest, climate, feeding, and careful nursing cannot be properly adopted, tuberculin is often of very marked value. These are the cases which otherwise do badly, and tuberculin treatment is with them of the greatest importance.
6. That T.R. is as a rule preferable to P.T.R.
7. That for routine use the method of hypodermic injection is greatly superior to that of oral administration; the effect of giving tuberculin by the mouth varies very much.

These impressions are derived from the treatment of about 100 cases during the past three years. At the commencement I used the opsonic index as a guide, but early found it impossible, and I think unnecessary, to take the index in selected cases such as these. The condition of the temperature is, I think, a sufficient guide for the initial administration and the clinical symptoms thereafter in relation to each injection.

The forms of tuberculin I have used have been Koch's new tuberculin, T.R., and the corresponding bovine tuberculin, P.T.R. The two varieties I originally employed in order to determine their varying results in cases showing different reactions to von Pirquet's test with human and bovine tuberculin. I have come to the conclusion, however, that, no matter to which strain of bacillus von Pirquet's reaction is positive, T.R. is the tuberculin of the greater therapeutic value.

The tuberculin was given hypodermically and by the mouth. By the mouth the doses I gave varied from $\frac{1}{1000}$ of a milligram to $\frac{1}{250}$ of a milligram, and the results I considered very disappointing; only very occasionally was any satisfactory result noticeable. By hypodermic injection the initial dose varied from $\frac{1}{10000}$ of a milligram to an infant 9 months old to $\frac{1}{3000}$ of a milligram to a child of 12 years.

The injections were repeated weekly or fortnightly and the dose increased at long intervals and by very minute amounts, the rapidity and amount of increase desirable being gauged by the clinical condition.

In all cases, diminished vitality or health—apparent in any manner whatever—during the few days following an injection was considered a sign either to diminish the dose or increase the intervals between doses, the conditions aimed at being that after each injection the child should continue steady improvement or show a step in advance. In several instances a child while under tuberculin treatment had apparently attained sound health. The tuberculin treatment was stopped for two or three months; the child relapsed, only again to improve on the renewal of the injections.

DRIED MILK AS A FOOD FOR INFANTS.

By C. KILLICK MILLARD, M.D., D.Sc.,
MEDICAL OFFICER OF HEALTH, LEICESTER.

DRIED milk is the residue left after the natural moisture in milk has been evaporated. The process of manufacture usually adopted is that invented some years ago by Drs. Just and Hatmaker and known by their names. Fresh milk is fed in a continuous stream on to revolving heated cylinders on which it forms a thin film. These cylinders are heated by steam at about 40 lb. pressure; the surface attains a temperature of, say, 250° F., and the moisture in the film of milk is almost instantly dispelled. The dried film is automatically detached from the cylinders by knife edges, and falls off into receptacles below. The small amount of moisture not evaporated is taken up by the milk sugar as water of crystallization. The dried milk is subsequently passed through a sieve to ensure uniform pulverization, and is obtained as a coarse granular cream-coloured powder, practically sterile, which, in airtight packages, will keep almost indefinitely. I have kept samples in my laboratory for over a year and found them still good.

When again mixed with the equivalent quantity of water about 60 per cent. is found to be soluble, the remainder being readily suspended. The resultant fluid is slightly different in consistency from fresh milk; the flavour is altered, although by no means unpleasant, and the fat tends to separate and to rise to the surface, owing to the cream globules having been ruptured. To what extent the chemical composition is affected is a little uncertain. The relative proportions of the main groups of constituents—proteids, fat, milk sugar, and salts—remain, as we should expect, practically unchanged; but there is, no doubt, some interference with the exact composition of the more complex albuminoids and enzymes, similar to what occurs when fresh milk is boiled. Owing, however, to the extremely short time—only a matter of seconds—during which the heat is applied, which is one of the essential principles of the Just-Hatmaker process, it is possible that the alteration in chemical composition is less than in the ordinary process of boiling milk. The heating process destroys all tubercle bacilli and other pathogenic organisms.

The process of manufacture is not expensive, and, owing to the saving on carriage, dried milk, if manufactured in localities where milk is cheap, can be sold wholesale at a price very little above the price of fresh milk. If retailed in small quantities in tins the price is, of course, increased.

USE OF DRIED MILK IN LEICESTER.

The use of dried milk at the Leicester Corporation Infants' Milk Dépôt was begun about eighteen months ago. I was somewhat prejudiced against it, disliking the idea of abandoning fresh milk with its antiscorbutic properties, and only very limited use was at first made of it. It was very soon discovered, however, that dried milk had one most important advantage—greater digestibility—and that many infants would retain it and at once begin to thrive who previously had been continually subject to vomiting after each feed and in consequence were making little or no progress. This difference in digestibility would seem to be largely accounted for by the character of the curd formed in the stomach; it does not tend to run into hard cheesy masses, as is the case with ordinary cow's milk. The babies certainly like the milk. In my experience they never refuse it when offered it for the first time; and it is quite common to hear that they show a decided preference for it, and after getting used to it they will sometimes refuse ordinary milk.

As a consequence of these good results it gradually became our practice to order dried milk in all cases where infants were not thriving on the humanized bottled milk, but it was found that once a baby had been put on dried milk it was very seldom that the mother wished to go back to the humanized milk. Indeed, with the mother dried milk has been very popular from the first. After a time requests from neighbours began to be received that their babies should also be put on dried milk, and medical practitioners began to specify dried milk when sending cases to the dépôt.

A careful watch has been kept for any bad effects, such as scurvy or rickets, but although I have had experience of some hundreds of infants fed on it for periods ranging up to ten months, or even longer, so far none have been seen. Inquiries have also been made from fifteen medical men practising in the districts whence most of the cases have been drawn, and their replies in all cases were favourable to the use of dried milk, and support the conclusions that no bad effects have followed. Inquiries, too, have been made from the mothers of babies fed on the dried milk to ascertain if the health had continued good after giving up the milk, but nothing pointing to bad after-effects has been discovered.

As for rickets, it was not to be expected, having regard to modern views as to the etiology of this affection, that

the use of dried milk would predispose to it, provided the proportion of fat was adequate. Whilst as regards scurvy the precaution has been taken of advising the routine administration of fresh fruit juice every other day as an antiscorbutic. There is reason to think, however, that this advice has not always been very carefully followed, nor is it certain how far it is necessary. The question as to what extent the antiscorbutic properties of fresh milk are destroyed in the Just-Hatmaker process can only be decided by practical experience. It is, of course, a very controversial question how far the use of ordinary sterilized milk predisposes to scurvy. Whilst many writers have insisted upon this supposed danger very strongly, others, like the late Professor Budin, of Paris, who made use of sterilized milk on a very large scale for many years, take the opposite view. The experience of infants' milk dépôts, both in this country and abroad, at almost all of which sterilized milk is used, and has been used for years, is to the same effect. It seems a reasonable conclusion, therefore, that the infantile scurvy danger is rather of the nature of a bogey, and not of much practical importance.

At the Leicester Infants' Milk Dépôt two grades of milk are used: one, "full-cream," containing the whole of the fat present in the original milk, amounting to about 26 per cent. of the dried milk; and a slightly less rich grade—threequarters cream—which only contains about 20 per cent. of fat. The latter is used for babies under 6 months old. An addition of 10 per cent. of sugar is made to both grades.

The milk is supplied in airtight tins, holding about 1 lb. A special metallic scoop or gauge is supplied to each customer, and the directions specify so many scoopfuls of dried milk to so many tablespoonfuls of water, varying with the age of the infant. The milk is prepared for use by stirring in the requisite quantity of warm (not boiling) water, and it is then ready for use with any ordinary feeding bottle. Only enough for one meal is prepared at a time.

At the present time at the Leicester Infants' Milk Dépôt dried milk has almost entirely superseded the "humanized" milk, about 200 infants out of 230 now on the books being fed on it. In addition to its intrinsic merits as a food for infants, it has the important practical advantage over humanized milk of being much less expensive. The latter, as is usual at infants' milk dépôts, is supplied on the principle of a separate feed in a separate bottle. This method, whilst it secures uniformity and appropriateness in the amount of each feed, in the number of feeds per day, in the strength of the milk, and in freedom from contamination, is very expensive, owing to the great amount of labour entailed in bottling, etc., and to the loss incurred on broken bottles, and as it is necessary to keep the price within reach of the poor it was found that a loss was incurred on every bottle of milk supplied, in addition to the cost of upkeep of the dépôt. Also, owing to the milk having to be fetched daily (or delivery paid for as an extra), poor persons living at a distance from the dépôt found the milk beyond their reach.

With dried milk both these objections are obviated. It can be sold at cost price, and, as a week's supply or more can be fetched at a time, distance from the dépôt is of little moment.

The advantages of dried milk as a food for infants may be summarized as follows:

1. *Ease of digestion*—milk not "sicked up," as is so often the case with fresh milk, however modified.
2. *Bacterial purity*—freedom from tubercle bacilli or contamination by flies.
3. *Conservability*—no "souring" in hot weather.
4. *Cheapness*—no waste.
5. *Convenience*—always ready for use, no waiting for the milkman.
6. *Palatableness*—babies love it.

Its disadvantages are of a theoretical nature, and consist in the presumed destruction of the antiscorbutic properties of fresh milk. This, however, can be compensated, if thought necessary, by administration of fruit juice For domestic purposes, apart from infant feeding, dried milk has distinct limitations as a substitute for fresh milk, as, owing to its taste, it is not so suitable for adding to tea or coffee.

An important consideration remains to be referred to. One reason, no doubt, why dried milk is so popular with the mothers is that it possesses all the convenience of the patent "food." As a matter of fact, they like to refer to it as a "food" rather than as milk. Yet it is obvious that dried milk, being after all "only milk," stands in an entirely different category from all patent foods prepared from cereals. The serious objections rightly entertained to the wholesale use of these proprietary foods, which inevitably tend to supplant milk in the infant's dietary, sometimes almost entirely, obviously do not apply to dried milk. It may prove, therefore, to be a very real blessing to the infant population if dried milk should come to supplant patent foods of the class referred to.

ON THE THERAPEUTIC VALUE OF CARBON DIOXIDE SNOW IN THE TREATMENT OF VASCULAR NAEVI, MOLES, ETC.*

BY

J. M. H. MACLEOD, M.A., M.D.ABERD., M.R.C.P.LOND.,

PHYSICIAN FOR DISEASES OF THE SKIN (OUT-PATIENTS), CHARING CROSS HOSPITAL AND VICTORIA HOSPITAL FOR CHILDREN.

THE value of cold as a local therapeutic agent has long been recognized, but until recently its field of utility in the treatment of skin affections has been limited and practically confined to its employment as a local anaesthetic. With the discovery of liquid air and the intense cold (−250° C.) associated with it, new therapeutic possibilities presented themselves. It was recognized early in America that in liquid air we had a valuable addition to our local destructive agents, and a remedy which might be of great service in reducing or removing such superficial lesions of the skin as vascular naevi and moles. It was found that the application of liquid air caused an immediate freezing of the underlying skin, succeeded some hours later by an inflammatory reaction, and that if the application lasted only a few seconds complete recovery followed, while if it was more prolonged a destruction of the tissue would occur with ulceration or sloughing. Inflammation properly controlled is followed by a process of repair and a rebuilding through the formation of new fibrous tissue. Liquid air, if applied for a few seconds, is capable of producing an inflammatory reaction and subsequent repair, and of replacing certain superficial skin lesions by a scar which is hardly appreciable.

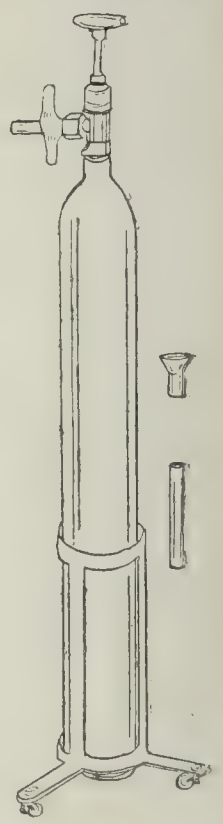


Fig. 1

At the July meeting of the Dermatological Section of the Royal Society of Medicine, the late Dr. Radcliffe Crocker showed a series of cases of naevi, lupus vulgaris, etc., which he had treated with benefit by liquid air, and conclusively demonstrated the value of this method of treatment. There were certain disadvantages, however, associated with its employment which detracted from its utility—namely, the costliness of liquid air, and the difficulty of obtaining it, and of definitely restricting its area of action by the method adopted—namely, of dipping a pad of cotton-wool on the end of a rod into the liquid air and applying it to the affected skin. Previous to this an excellent substitute for liquid air had been found in carbon dioxide snow. This material, though not so cold—its temperature being about −90° C.—has all the advantages of liquid air and none of its disadvantages, for it is easily obtainable, cheap, and is capable of being applied in the most definite manner. One of the first to use carbon dioxide for therapeutic purposes was Dr. Allen Pusey, of Chicago, who described the method he adopted in 1908.[1] Three years before this Juliusberg had employed carbon dioxide for local treatment in the form of a spray; but, so far as I am

* Being a demonstration given at Charing Cross Hospital on Thursday, November 25th, 1909.

aware, Pusey first used it in the form of snow, a method which has certain distinct advantages over the spray.

In the department at Charing Cross Hospital under my charge I have been employing carbon dioxide snow since March, 1909, and have treated by it a considerable number of cases of vascular naevi, moles, lupus vulgaris, lupus erythematosus, etc. At the meeting of the Dermatological Section in July, already referred to, I demonstrated a series of cases successfully treated by it, and since then further experience has only more firmly convinced me of its value.

Fig. 2.—Case I. Reproduction of water-colour drawing.

Fig. 3.—Case I. From a photograph.

METHOD.

The procedure adopted has been as far as possible that described by Pusey, but never having seen the application of carbon dioxide before I attempted to use it, I encountered certain difficulties both in obtaining the snow and in applying it satisfactorily. The following method was eventually arrived at. An iron cylinder containing 7 lb. of liquid carbon dioxide was obtained (Fig. 1), fitted with a central tube so that the cylinder might be placed vertically in an iron stand while the carbon dioxide was allowed to discharge itself. A cylinder of this size is not too heavy, and can easily be lifted. The nozzle of the cylinder is horizontal, and the key is at the top. When the key is turned so as to open the valve, a jet of carbon dioxide rushes out horizontally with great force, and is quickly volatilized.

The snow is obtained by allowing the carbon dioxide to play on a piece of baize folded in the form of a conical sugar bag about 9 in. long. This is held in the left hand over the nozzle, so that the nozzle is well inside the bag, without being in contact with the baize, and the controlling key is turned gently by the right hand. The carbon dioxide jet is allowed to play into the bag for 15 to 30 seconds or longer according to the amount of snow required. The baize is then spread out on a table, and is found to be thickly coated with fine snow. The snow is scraped off with a teaspoon, and the requisite applicator filled with it. The applicators are funnel-shaped, like aural specula, and are made of vulcanite. Their diameter at the narrow end varies from $\frac{1}{4}$ in. to 1 in., and they are fitted with rod-shaped plungers, by means of which the snow is pressed down. When filled, the applicator is transferred to the lesion to be treated, so that the snow is in contact with the skin, the applicator being held firmly by the left hand, while the plunger is held by the right hand and the requisite amount of pressure exerted. During this procedure, it is necessary to wear a glove on the left hand to protect it from the extreme cold.

Fig. 4.—Case v. Reproduction of water-colour drawing.

Fig. 5.—Case v. From a photograph.

The effect of the snow on the tissue is dependent on the length of the exposure and the degree of pressure. No hard and fast rules can be laid down as a guide in these matters, as each case requires to be treated on its merits, but a short experience will enable the operator to judge of them. The degree of pressure should be just sufficient to cause a slight depression in the frozen tissue when the applicator has been removed. After an application of five seconds the underlying skin is frozen into a solid white disc, about $\frac{1}{8}$ in. thick. This thaws in about a minute. Some hours afterwards, it may be ten or twelve, the inflammatory reaction sets in, and a blister may form. This subsides, and perfect healing takes place in a few days. Exposures of healthy skin up to thirty seconds' duration are followed by complete healing; should the exposure be prolonged to a minute or longer sloughing is apt to occur with subsequent scarring. In the case of soft lesions, such as vascular naevi, the exposure should not exceed thirty seconds, so as to avoid scarring; in the case of hard lesions, such as warts, rodent ulcers, etc., a more prolonged exposure is indicated, as it is the destructive effect which is chiefly required. If the lesion to be treated be greater than the diameter of the largest applicator, it is attacked piecemeal, or a piece of thin lead is cut the size of the lesion and placed between it and the applicator, as the metal conducts the cold, and by it irregularly shaped lesions can be treated exactly. When lead is interposed a longer exposure is necessary than when the snow is applied directly to the skin. The application is not unbearably painful, and no anaesthetic is required, the cold itself having an anaesthetic action. The amount of pain varies according to the situation of the lesion. I have noticed, also, that some patients scarcely feel it sore, while others have said that it was as painful as a fine-pointed actual cautery. When the reaction sets in there is the usual discomfort associated with inflammation. Should the application result in vesication and breaking of the skin it is advisable to dress the part with a mild antiseptic ointment to prevent contamination with pyogenetic micro-organisms.

LESIONS TREATED.

Naevi.

The lesions in which I have found this treatment to act most satisfactorily are the common raised angiomatous

naevi of infants. The only other treatment which can compare with it in my opinion is that by radium. So long as our chief methods of dealing with these naevi were excision, cauterization, and electrolysis, it was doubtful whether it was advisable to treat them at all, as in a considerable number of cases they eventually disappeared spontaneously; and it was only when one's hands were forced by the anxiety of the parents that one felt warranted in subjecting an infant to the risks of electrolysis under a general anaesthetic. By the introduction of these newer methods all such risks are at an end, and the naevus can be easily removed by one or two applications of the snow, with little or no scarring. Up to the present the largest raised naevus I have treated successfully by the snow has been about 2 in. long and 1½ in. broad; but there is no limit to the size of lesion which could be attacked in this way. When the naevus is very soft a single exposure of twenty seconds may suffice to remove it; if it be harder owing to the presence of fibrous tissue, several exposures at intervals of ten days may be required.

It is advisable to let the inflammatory reaction completely subside before a second application is made, as this may prove to be unnecessary, as a process of involution is set up which continues for a considerable time after the acute inflammation has gone down. One

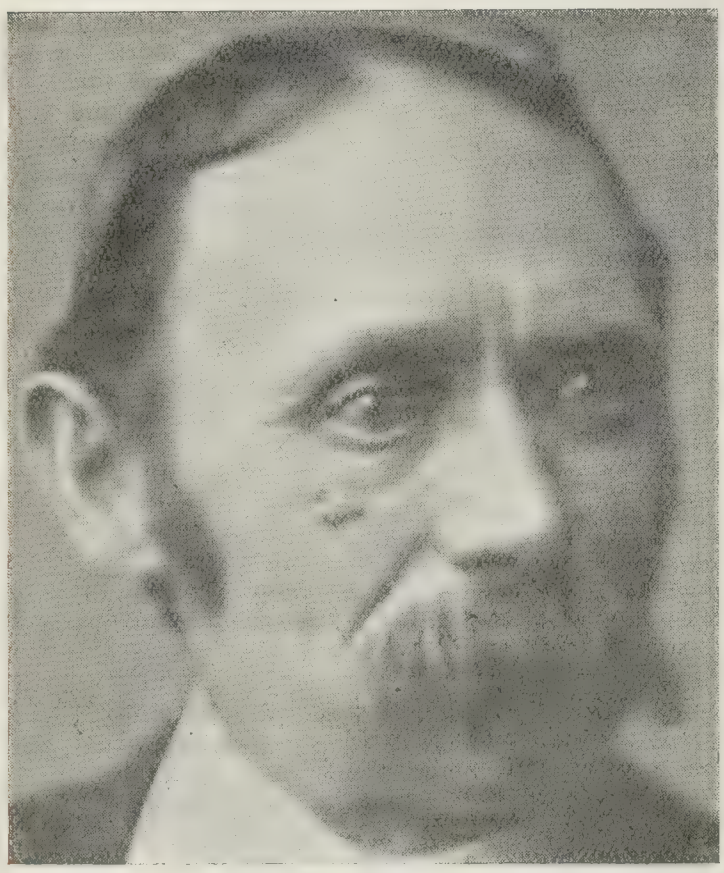


Fig. 6.

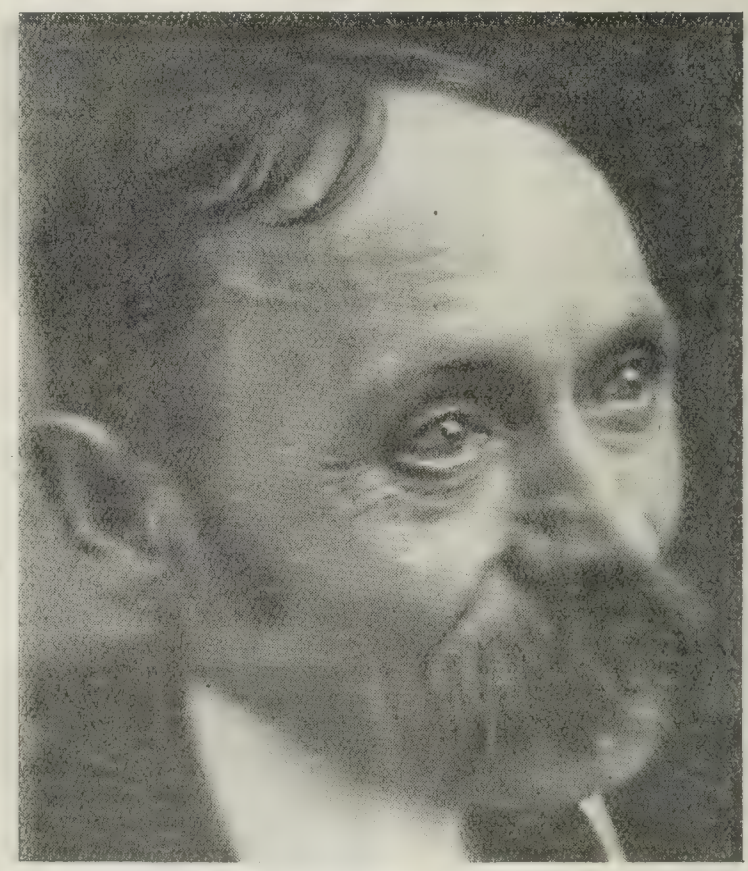


Fig. 7.

of the chief merits of the treatment is the nature of the resultant scar, if it can be called a scar, for in many of the cases it is difficult to detect any cicatrix. In one instance a girl aged 5 weeks (Case II), had a raised naevus in the centre of the breast; it was removed by one exposure to the snow, and the scar was so slight that the nipple in the centre of it seemed to be preserved.

CASE I.

Kathleen B., aged 5 months, raised naevus 1½ in. in length, bright red in colour, situated on the right breast, including nipple (Fig. 2). Snow applied for 30 seconds on June 5th, 22nd, and 29th. A severe reaction occurred after the last exposure, followed by disappearance of most of the naevoid tissue. When seen in October the resultant scar was little noticeable, and the nipple was apparently preserved (see Fig. 3).

CASE II.

B. D., aged 5 weeks; raised vascular naevus, size of sixpence, bright red in colour, situated in centre of right breast, including the nipple. Case shown at the Dermatological Section, Royal Society of Medicine, July 15th, 1909.

A single exposure to carbon dioxide snow was given on April 5th. A marked reaction occurred with the formation of a bulla the same night. When the reaction subsided a fortnight later the naevoid tissue had gone, there was scarcely any scar, the nipple itself not being destroyed.

CASE III.

F. A., aged 5 months; fibrous pyriform vascular naevus about the size of a large pea situated behind the left auricle.

Snow applications were given, of 30 seconds to one minute, on May 18th, 25th, June 1st and 15th. The lesion diminished slowly under the treatment, but as it did not react so satisfactorily as the soft flat lesions, a ligature was tied round it on June 15th. When seen in October it had disappeared, leaving a good scar. Case shown at the Dermatological Section, Royal Society of Medicine, July 15th, 1909.

The advantages of the snow treatment of raised vascular naevi over that by electrolysis, cauterization, etc., are so obvious that it is unnecessary to labour them further, but in the case of radium the choice is more difficult. The following cases treated by radium will serve for comparison:

CASE IV.

G. C., aged 14 months; sent to Charing Cross Hospital by Dr. Peter Harper, with a raised vascular naevus the size of a threepenny piece on the skin of the upper lip on the right side of the middle line.

Exposed to 5 mg. of radium bromide of 1,800,000 activity spread out and screened by a thin sheet of mica and a thin layer of indiarubber, for fifteen minutes on March 23rd, April 6th, May 4th, and May 18th. By the end of July the naevoid tissue had almost completely gone and the scar was all that could be desired. The same result might have been obtained more quickly even by a single long exposure, but as the object was to leave as little scar as possible the more tedious method was adopted, to avoid the risk of a reaction with subsequent telangiectasis.

So far as the resultant scar is concerned, there is in my experience little to choose between the snow treatment and radium, and radium has the advantage of being absolutely painless. On the other hand, the carbon dioxide snow acts far more rapidly, for by it a small raised naevus may be removed by an application of half a minute, while the same lesion might require an exposure to radium of an hour or longer, and it is much less costly, as the amount of snow required for an exposure costs a fraction of a penny. There is another great advantage which the snow treatment has over that by radium—namely, that by it there is no danger of producing a scar with telangiectases, such as may occur after a radium exposure if it has been excessive.

Several cases of "*port-wine-stain*" naevi have been treated at Charing Cross Hospital by the snow, but so far without marked improvement.

Telangiectatic or stellate naevi can be removed by a single application of the carbon dioxide snow of five seconds, but the treatment has no advantage over that by a fine-pointed cautery or an electrolytic needle.

Pigmented and Hairy Moles.

These lesions can be appreciably reduced, and in some cases satisfactorily removed, by the snow, with a cosmetic result which is superior to other forms of treatment. The following notes of a case will serve to illustrate this:

CASE V.

W. T., aged 10 years; hairy mole like a mouse, 1½ in. long and ¾ in. broad on left cheek (Fig. 4).

Exposed piecemeal to the snow for five seconds on March 16th. A reaction occurred next day, followed by a marked improvement, and the lesion became less prominent and paler. An application of forty seconds was given on April 15th, and as a result the pigmentation and much of the hair was destroyed.

Subsequent applications were given on July 6th of forty seconds, August 24th of sixty seconds, and October 12th of twenty seconds. The condition on November 23rd is as shown in the illustration (Fig. 5). The lesion has been replaced by a supple, little disfiguring scar, and almost all the pigmentation has gone. A certain amount of thickening still persists towards the lower edge. The treatment of the case is not yet completed, and further applications will be given to remove the slight thickening and to destroy the remaining hairs.

Lupus Vulgaris.

A number of cases of lupus vulgaris have been subjected to this treatment, and where the lesions are superficial in type I have found it to be of definite value, but in deep-seated lesions it seems to be less effective and penetrating than Finsen light.

Lupus Erythematosus.

I have treated several cases of lupus erythematosus of the chronic discoid variety by this method, and though they have all benefited by it, and none of them have been aggravated, I am not convinced that it is as good a local remedy for this disease as zinc ionization. The following is an illustrative case:

R. S., aged 49, with a patch of lupus erythematosus on the bridge of the nose extending towards the left cheek and another patch in front of the left ear. It was exposed to the snow piecemeal for five seconds on July 21st. A sharp reaction occurred, which on subsiding left considerable improvement.

A second application was made on October 9th. On November 23rd a great improvement was noted: the greater part of the nasal lesion had healed with slight scarring, and the patient said that the affected skin felt much more comfortable.

Rodent Ulcers.

Carbon dioxide snow is capable of destroying rodent ulcers provided they are superficial and do not involve deep structures. In a case of such a lesion situated on the cheek, an excellent result was obtained (Figs. 6 and 7), but in this affection the treatment does not seem to me to be much better than the careful application of the actual cautery, and where the lesions penetrate deeply it is of less value than radium.

Sufficient has been said to indicate the therapeutic value and possibilities of this new agent. In conclusion I must take this opportunity of thanking my clinical assistant, Dr. Dyce Fraser, for the valuable help he has given me in the treatment of these cases.

REFERENCE.

1 *Berliner klinische Wochenschrift.*

SOME RESULTS OBTAINED FROM THE LOCAL APPLICATION OF SOLID CARBON DIOXIDE.

BY EDWARD REGINALD MORTON, M.D.TOR., F.R.C.S.EDIN.,

LECTURER ON RADIOLOGY, WEST LONDON POST-GRADUATE COLLEGE.

THERE is some difference of opinion as to the relative value of solid carbon dioxide and liquid air in the treatment of naevi and other cutaneous lesions, and while I do not dispute the claims on behalf of the latter agent made by those who have had more experience with it than I have, yet I venture to say that the more they use carbon dioxide, properly compressed into a hard, firm crayon, the more they will like it, and even prefer it to any other agent.

Liquid air certainly possesses the quality of extreme cold far beyond that of solid carbon dioxide or anything else at present available; but, in my opinion, the temperature of solid carbon dioxide, equivalent to 142° of frost, is low enough for anything required in therapeutics, and yet not so low but that it is perfectly manageable and easy to control. In addition to all this, carbon dioxide can be kept in the house ready for use at any time, and no more need be taken from the cylinder than is necessary for the case in hand. There is no way of storing liquid air, and when any is wanted it is necessary to give some hours' notice, and it must be used within a very few hours of its preparation. These conditions are not always convenient, and it is not given to every one to reside in the near neighbourhood of a laboratory where liquid air is prepared. A cylinder of the liquefied carbon dioxide (from which the solid crayon is prepared) can be sent anywhere, to be used at convenience, and now that small cylinders of CO_2 are being used by motorists for inflating tyres it is more easy than ever to obtain and use this valuable agent.

The mode of preparing and using solid carbon dioxide I have more or less fully described in another paper,[1] and in this article I propose to give the results I have obtained in a series of 123 cases. This number does not include all the cases I have treated—the total would be about 200—as at times it is very difficult to get all the cases written up. It takes no account of a number that I have treated at the West London Hospital, through the kindness of Dr. Abraham, nor does it include those that have come to me in the course of my private practice. Were all these included, the effect would be to make the general result more favourable than it is. It does include practically all the cases I have treated from the beginning, when I had everything to learn, and no past experience to guide me clear of pitfalls—cases where two or more applications were necessary, that now would be treated successfully with one. The faults were found to be due, for the most part, to an improper degree of pressure, and, to a less extent, to errors in the time of the application. If the pressure is too light, the result is incomplete; if too heavy, the reaction is needlessly severe, and some necrosis may possibly follow.

The 123 cases were made up as follows:

Naevi	105
Common warts	12
Lupus vulgaris	1
Lupus erythematosus	1
Moles	4
	123

Lupus.

The two cases of lupus were sent to me in the hospital for trial by my colleague, Dr. Sequeira, before he took up the method himself. The case of lupus vulgaris was not very suitable; the patch was near the bend of the elbow, where it was difficult to make firm pressure, and the great amount of movement incidental to the part made healing difficult. It was not successful. No one, of course, would draw any definite conclusions from this, and I may say that since then I have treated some patches on the inner side of a child's foot with, so far as it is possible to judge at present, very satisfactory results, but it is too soon to draw any conclusions as to the efficacy of carbon dioxide in the treatment of this disease. The case of lupus erythematosus was a fairly extensive one. The disease affected the face, back of the pelvis, and both anterior tibial regions. There was a very marked improvement after the reaction from each application had subsided. This, however, is no more than can be said for a number of other methods that are in more or less regular use for the treatment of this troublesome disease. Here again further investigation is called for before we claim too much or too little.

Moles.

Only 4 cases were treated, but the results have been highly satisfactory; 3 were cured, leaving a very small scar that is almost imperceptible, the result in each case being highly gratifying to the patient as well as to myself. The fourth case was improved but it was one of unusual difficulty. It was, in fact, an exaggeration and pigmentation of a little boy's left eyebrow. Its size and hairy growth were such as one would find on a full-grown man. The idea of the treatment was to destroy a part only in order to bring it to a proper size and shape. It is noteworthy that hair is removed by the application, but it is too soon to say if the epilation will be permanent.

Warts.

The treatment here is very simple, and it is not necessary to time the application; in fact, the attempt to judge the proper dose by timing is doomed to failure. The chief disturbing factor is the very poor conducting properties of

the growth. The crayon of solid CO_2 is trimmed to a diameter corresponding to that of the growth. The application is made with firm pressure, and continued until a narrow ring of the healthy tissue around the base of the growth is white and frozen by conduction from the centre. Properly carried out in this way there should never be a failure in dealing with a common wart. In the reaction that ensues a blister is formed under the base of the wart, causing it to be thrown off. Twelve cases were treated in the series under consideration; 9 were completely cured, 2 are still under treatment, and 1 ceased attending. There was no reason to think that these last would not be equaliy successful under further treatment.

Naevi.

The 105 cases presented 129 naevi for treatment, which were made up as follows:

Capillary	85
Cavernous	32
Capillary and cavernous (mixed)	5
Stellate	1
Lymphatic	2
Port-wine marks	4
	129

Distribution:

Head and neck	61
Arms	10
Thorax	21
Abdomen	16
Pelvis	6
Perineum and genitals	6
Legs	9
	129

Of the 85 capillary naevi, no less than 74 were cured by a single application of solid CO_2 lasting, on an average, forty seconds; 6 cases had two, 2 had three, and 2 had four applications; while 1 case was incompletely cured after three attempts and was finally finished off by electrolysis.

Of the 32 cavernous naevi, 20 were cured by one application, 4 had two, and 2 had three applications; 6 cases were incompletely cured or not benefited, and finally dealt with by electrolysis.

In all cases in which the capillary and cavernous varieties were coexistent the capillary part was treated by CO_2 and the rest by electrolysis. Of the whole series, 12 had finally to be dealt with by electrolysis. The stellate naevus and the two lymphatic naevi were all cured by a single application of CO_2.

At the time of writing, the cases of "port-wine mark" are still under treatment. These cases require much time whatever the mode of treatment employed, but I am convinced that in CO_2 we have a remedy better than any hitherto known, except perhaps radium, as I have seen equally good results from both. All the cases I have treated with CO_2 are doing exceedingly well, and the outlook is very hopeful. It is noteworthy that in treating cases of this kind the first application seems to have little or no influence in reducing the depth of colour, even after waiting three weeks. After the second application the effect is very marked, and may be sufficient.

It will be seen from the above results that, taking capillary naevi as they come, no less than 87 per cent. have been cured by a single application, and I venture to say that with greater experience an even higher percentage would be obtained were I starting a similar series again. As might be expected, the results in treating cavernous naevi were not so good, but even here the proportion cured by a single application was as high as 63 per cent.

Higher percentages of cures are, of course, possible and obtained by other methods, such as electrolysis and the cautery, but it must be remembered that with these a general anaesthetic is always necessary. No anaesthetic, local or general, is ever necessary with carbon dioxide, as the application is practically painless and of only a few seconds' duration. I have had children who never cried or moved during the application; this is, of course, exceptional, but it does show that the process cannot be a very severe one.

REFERENCE.

[1] *Lancet*, December 4th, 1909.

THE CLINICAL ESTIMATION OF "ACIDOSIS."

BY A. E. BARNES, M.B., M.R.C.P.,

MEDICAL REGISTRAR, ROYAL INFIRMARY, SHEFFIELD; MEDICAL TUTOR, UNIVERSITY OF SHEFFIELD; LATE RESEARCH SCHOLAR, BRITISH MEDICAL ASSOCIATION.

THE subject of acid intoxication is becoming daily of greater importance, it being more generally recognized as a terminal condition in a large number of diseases. Although it usually proves fatal, yet the occasional brilliant success which follows properly applied therapeutic measures must render welcome any means by which the condition may be recognized before it has reached a stage beyond hope of recovery. It seems desirable, therefore, to record some of the routine methods which have been made use of in the work of the Practical Medicine Laboratory of the University of Sheffield during recent months, from which results of considerable interest have been obtained. No originality is claimed for the methods here described. It is well recognized that acidosis may exist for years without any marked effect upon the general health, but, whilst at any time the acidosis may increase to such an extent as to become a positive danger and demand urgent treatment, yet the means at our disposal for knowing when that danger is imminent are as yet incomplete.

To remedy this defect it is necessary that a large number of cases should be examined and followed up for prolonged periods. It is therefore essential that such methods of examination should be used as will, whilst giving a good general idea of the state of metabolism, not be too complicated for general clinical use. The first requirement is a method which will show approximately the amount of organic acid in the urine. It has been assumed that in diabetes the β oxybutyric acid is the factor which requires measurement, and various methods have been devised to do this. All of them, however, are either difficult to carry out or require expensive apparatus. The usual method of estimating the quantity from the difference between the values obtained for dextrose by titration and polarization respectively involves not only expensive apparatus, but the assumption that all the difference is due to the above acid—an assumption which seems somewhat unsafe in view of the fact that many cases of severe diabetes give a definite reaction for laevulose when tested by Seliwanoff's method. The other methods of extraction by ether are very tedious, and even that with the best apparatus (Lind's) is stated to require seven hours for complete extraction.

To obviate these difficulties we have used a modification of Folin's method for determining the total organic acidity of the urine. In this method all the organic acids are estimated together, including, therefore, uric and hippuric as well as the fatty acids. The latter, however, are so small in quantity that they may be neglected.

Method.

1. Take 20 c.cm. of urine. Dilute with water and add some crystals of neutral potassium oxalate and a few drops of alcoholic solution of phenolphthalein. Titrate with decinormal caustic soda solution until a definite red tinge appears. The number representing the total acidity is obtained as follows:

$$\frac{\text{C.cm. of } \frac{N}{10} \text{ caustic soda solution used}}{\text{20 (c.cm. of urine)}} \times \text{Total number of c.cm. urine passed during 24 hours.}$$

The total acidity for twenty-four hours thus expressed in units of decinormal soda is due to acid salts and to organic acids not combined with alkalis or ammonia.

2. The titration is now carried a stage further by adding to the same urine mixture 2 c.cm. of previously neutralized commercial formalin. (The neutralization is easily done by adding phenolphthalein followed by dilute alkali until a pink colour appears.) In a few seconds the pink coloration of the mixture disappears. This is due to the fact that the ammonia present in the urine in combination with acids has united in a condensation reaction with the formaldehyde as hexamethylenetetramine. Thus the acid which was previously combined with this ammonia base has been set free, causing the disappearance of the pink colour. Further titration is now carried out with the same decinormal caustic soda solution until the pink colour reappears. The number of cubic centimetres of decinormal caustic soda solution used in this further titration represents the acidity of the urine which has been neutralized by the ammonia, and this is the factor which we require to determine the organic acids; it will be called the "ammonia acidity." Each cubic centimetre of decinormal caustic soda solution used in this second

titration represents 0.0014 gram of nitrogen in the form of ammonia.

3. The next step is to ascertain the "mineral acidity." This is obtained as follows: 20 c.cm. of urine are placed in a platinum crucible, dried and ashed, great care being taken to prevent the contents rising beyond a dull red heat. The mass is then dissolved in distilled water, and titrated with either decinormal acid or alkali as required. All the ammonia and organic acids have been driven off by the heat, leaving only the mineral bases and acids. The mineral acidity is then easily calculated by the following formula:

$$\frac{\text{No. of c.cm. of } \frac{N}{10} \text{ alkali (or acid) used}}{\text{No. of c.cm. of urine used (20)}} \times \text{Total No. of c.cm. of urine passed in 24 hours} = \text{Mineral acidity.}$$

In a normal urine the residue is acid, and the mineral acidity then gives a number expressed in cubic centimetres of decinormal alkali, and is marked in *plus* quantity; in cases of acidosis the ash is alkaline owing to the acids in the blood having combined with bases in the blood in accordance with the tendency of the blood to maintain its normal reaction, but the result in terms of decinormal acid solution is still called mineral acidity, but expressed in *minus* quantities.

These estimations having been made, we are now able to calculate the organic acidity in terms of decinormal soda solution, according to the following formula:

Ammonia acidity + total acidity − mineral acidity = organic acidity.

The method is really quite simple. The only expensive part of the apparatus is the platinum crucible, but in cases of acidosis, where the ash is alkaline, a nickel crucible may be substituted; and, as a matter of fact, considerations of economy have compelled us to use a nickel crucible in our experiments.

By this method we can detect any perversion of ammonia or alkali excretion, and as it shows at once if the body is being drained of alkalis to any marked extent, it gives direct control of the most dangerous factor of acidosis (alkali starvation). It is desirable to estimate also the nitrogen content of the urine, and for this we have used the Kjeldahl method. By so doing we can obtain the ammonia-nitrogen coefficient, and see how the nitrogen distribution has been disturbed by the acidosis.

It may be objected that the Kjeldahl method is too cumbrous for general use, but it is so accurate and inclusive of all nitrogenous bodies that it demands a place in clinical medicine. In fact, in severe cases of diabetes it is absolutely indispensable, for it is now recognized that the nitrogen balance is of much greater importance than the sugar content from the point of view of prognosis and dietetic treatment. Given the apparatus and the place to accommodate it, we have found it only slightly more troublesome than the tricky aërometric determinations.

An estimation of the phosphorus excretion in the form of phosphates (reckoned as P_2O_5) is of value in showing how the basic phosphates are drained from the blood. The body seems to hold to its phosphorus salts until the very last, and any abnormal excretion is usually a sign of danger.

We have tried these methods in a variety of cases. The normal organic acidity is equivalent, according to Voegtlin, to about 300 units, the normal ammonia-nitrogen coefficient being 3 to 5 per cent.

A case of cirrhosis of the liver with ascites, albuminuria, and gouty tophi gave the following figures: Quantity of urine 752 c.cm. Total acidity 176, ammonia nitrogen 0.2422 gram, mineral acidity 26, phosphates 1.69 gram, total organic acidity 375 units, total nitrogen 6.316 grams, ammonia-nitrogen coefficient 3.8 per cent. The acidosis is thus very slight, the ammonia-nitrogen coefficient not being disturbed. Up to six weeks later this man has had no clinical symptoms of toxaemia, his symptoms being mechanical (ascites).

Another man, with cirrhosis of the liver and ascites complicated with nephritis, gave the following figures: Quantity 454 c.cm., acidity 289, ammonia 0.6610 gram, mineral acidity −45, organic acidity 760, total nitrogen 6.356 grams, ammonia-nitrogen coefficient 10 per cent. There is here a definite acidosis, but we cannot say how much the ammonia increase was due to the liver insufficiency or to production of acids. After large doses of sodium bicarbonate the figures were: Quantity 482 c.cm., acidity 108, ammonia 0.5060 gram, mineral acidity −86.76, organic acidity 556.71, total nitrogen 7.155 grams, coefficient 7.07 per cent. As the phosphates and chlorides gave very low figures, we concluded that there was a retention of salts, including the alkalis, and that all attempts to treat the acidosis would be useless. This was the case, for the man died in coma two days after the last examination, and for twenty-four hours had complete suppression of urine.

Another earlier case of cirrhosis had severe ascites, which recurred after paracentesis; there was much emaciation and slight oedema of the legs. The ammonia coefficient was 5 per cent., and he recovered so much that he was able to return home. Unfortunately this was before we began to determine the organic acids.

In diabetes some interesting results have been obtained. In this disease we have come to recognize that the deprivation of carbohydrates is not the only factor in treatment. Some authorities, in giving a prognosis, lay more stress on the relation of nitrogen intake to output than on the sugar excretion. There is no doubt that the attempt to remove glycosuria by dieting is apt in some cases to produce coma, whilst in others the results are most beneficial. As coma is due to acidosis we ought, by estimation of the organic acids in the urine, to be able to separate these two classes of cases in time to prevent coma. To the surgeon these facts are of interest, as it is not unlikely that the fatal results of operations on diabetics are seen when the effect of the operation has been to increase the organic acid or diminish its excretion beyond the danger line, near which line it may have been hovering for some time. The recognition of these cases would save the surgeon from operating on absolutely hopeless cases. We have been able to follow one case of diabetes after a severe operation.

Mr. Miles Phillips, of the Jessop Hospital, Sheffield, kindly sent us specimens of the 24-hourly urine of a case of early carcinoma uteri in a fat glycosuric patient. On admission it had been found that there was 4 per cent. of sugar in the urine, but by a partial restriction of carbohydrate this had been reduced to 2 per cent. Before the operation it was only possible to obtain a 24-hour specimen for one day, but this urine gave the following data: Quantity 1,931 c.cm., acidity 621, ammonia 0.773 gram, mineral acidity −193, organic acidity 1,367, total nitrogen 16.49 grams, ammonia-nitrogen coefficient 4.6 per cent. As we knew that the organic acid could rise to above 4,000 units without coma we felt justified in saying that there would be no very great danger in the operation from the point of view of acidosis. For a few days after operation we were able to obtain 24 hourly specimens as the urine was removed by catheterization. The following are the figures obtained:

Date.	Quantity.	Acidity.	Nitrogen as Ammonia.	Mineral Acidity.	Organic Acidity.	Nitrogen.	Co-efficient.	Phosphates.
							p. cent.	
11th ...	1931	621	0.773	− 193	1367	16.49	4.6	—
14th*...	—	—	—	—	—	—	—	—
15th ...	1050	903	0.933	− 73.5	1643	16.75	5.5	4.25
16th ...	965	458	1.0132	− 28.95	1216	13.78	7.3	2.581
17th ...	965	299	1.0402	− 0	1041	12.00	8.6	1.582
18th ...	852	340	0.9338	− 17	1020	11.92	8.6	1.789
21st ...	908	295	0.5021	− 376	1030	9.2797	5.4	0.6719

*Vaginal hysterectomy.

This case was undoubtedly, from the purely clinical point of view, a suitable case for operation, for it was not a severe case of diabetes. It furnishes, however, some indications, although not evidence which is truly scientific, as to the manner in which operation may affect a diabetic very seriously. For the first twenty-four hours the patient took no food of any kind. Yet we see that there was a large nitrogen excretion. The phosphates were also markedly increased. The urine was loaded with urates, and a quantitative estimation by the rough and ready method of Sicuriani gave 2.4 grams of uric acid. The coincident increase of phosphate and of uric acid was interpreted as an index of leucocyte destruction, and this was confirmed by the occurrence of slight pyrexia. As the ammonia coefficient was hardly increased, it was concluded that it was not an increase of organic acid which was depriving the body of the basic phosphates of the blood. As it is probable that in acidosis some of the acid is excreted in combination with the basic phosphates, this increased excretion due to the operation may deplete the body of phosphorus, and aid in the production of coma. It is of interest to note that "septic" operations are notoriously more dangerous than aseptic ones, and an increased drain of phosphates might supply a simple explanation. The excretion of phosphates afterwards became subnormal, particularly on the 21st, when sodium bicarbonate had been given. Although after the operation the urine became free from sugar, there was still an increase

in the organic acidity above the normal. We have unfortunately no exact data as regards the food taken, but the gradual diminution of nitrogen coincidentally with the ingestion of more food, is an index that in this case nitrogenous metabolism was in a good condition, and that the patient was able to recuperate somewhat from the starvation incident to a severe operation. The fall in ammonia with the accompanying fall in mineral acidity was the result of giving sodium bicarbonate. As an example of a moderately severe case of diabetes we give the following data from a middle-aged woman who was on a diet almost free from carbohydrate.

Quantity 3,635 c.cm., acidity 981, ammonia 1.323 gram, mineral acidity 54.5, organic acidity 1,563, phosphates 3.44 grams P.O., total nitrogen 20.7195, ammonia-nitrogen coefficient 6.3 per cent.

As a contrast to this, take the following figures from the case of a young man who on a less restricted diet was passing exactly the same amount of urine:

Quantity 3,635, acidity 1,163, ammonia 3.56 grams, mineral acidity −181, organic acidity 3,944, phosphates 3.88, total nitrogen 17.78 grams, ammonia coefficient 20.06 per cent.

Some cases of diabetes have been followed for weeks, and interesting results have been obtained, which will be communicated in a joint paper with Dr. Arthur Hall.

In order to obtain figures for the changes occurring during starvation, a case of rectal "feeding" was examined:

The patient, a woman aged 30, had apparently a gastric neurosis, and one day, after severe retching and vomiting, had a slight attack of haematemesis. She was admitted and fed exclusively per rectum for seven days, at the end of which the following figures were obtained: Quantity 511 c.cm., acidity 183, ammonia 1.234 gram, mineral acidity −15, organic acidity 1,131, phosphates 0 82 grams, total nitrogen 4.57 grams, ammonia-nitrogen coefficient 26.7 per cent. This at once raised the question of pregnancy, but we were unable to decide with certainty as a vaginal examination was refused. Nothing could be felt from the abdomen, and there were no other indications of pregnancy.

The patient subsequently got quite well. The above cases afford illustrations of the general applications of this method, which in our opinion provides a rough estimate of several factors which are very important in the treatment of many conditions, and has the great advantage of being applicable to ordinary clinical work by a man with the usual training of a modern medical student. A vast field of work is open to the ordinary worker in such conditions as cirrhosis of the liver, eclampsia, pernicious vomiting of pregnancy, the effects of narcosis, many cases of so-called neuroses (which may, as in one described by Voegtlin, be accompanied by an acidosis due to some unknown fatty acid), rheumatoid arthritis (also sometimes accompanied by an acidosis), and the acute infections. Cases of marasmus in infants promise to afford very interesting results in view of recent Continental work. In fact, they seem to open the door for the admission of recent work in metabolism to the practice of the general physician.

It may be objected that the methods here described are not accurate. This objection applies especially to the method of ammonia determination, which was first published by Malfatti; it has been used also by other workers, and has been tested by Macpherson[1] against the Folin method. He found that it gave slightly higher results, and this may be due to the fact that it estimates at the same time the amino acids. The method of determining the organic acids has been adopted for original research on metabolism at the Johns Hopkins Hospital,[2] and has given satisfactory results. It has given results in our experience which accord with clinical observation, and is so easily applied that we draw attention to it in the hope that some highly qualified chemist may test its accuracy, and either condemn it or show that it gives results sufficiently accurate for clinical purposes.

I have great pleasure in thanking the medical staff of the Infirmary for permission to use their cases, and Dr. Hall for kind help in preparing this paper.

REFERENCES.

[1] Macpherson, BRITISH MEDICAL JOURNAL, March, 1909. [2] Reports from the Laboratories of the Johns Hopkins Hospital, July and August, 1907.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

LOCAL INJECTIONS OF STRYCHNINE IN NEURITIS.

I DESIRE in all humility to ask for a trial of the following simple treatment for neuritis—namely, the injection twice daily of $\frac{1}{100}$ gr. of strychnine in about 20 minims of sterilized water along the course of the affected nerve. The "cure" never in my experience takes longer than four weeks.

London, E.C. GEORGE H. R. DABBS, M.D.

TREATMENT OF RINGWORM.

THE several antiseptics advocated for outward application in cases of ringworm are far from satisfactory, the prolonged duration of the disease proving their inefficiency. In dealing with the numerous cases of pediculosis in our fever wards we always employ the essential oil of sassafras, which, without exception, we find acts as a specific in such cases. When both pediculosis and ringworm occurred in the same scalp, it was noticed that the latter disease also reacted favourably to this preparation. This led me to test the possible usefulness of the oil for ordinary cases of ringworm, and so far the results have been most happy. The hair is cut closely around in order to identify the patches, the application of the oil being made twice a day by means of a camel-hair brush. This is continued for a few weeks, as the case indicates. No irritation is produced, while the preparation is most pleasant to use. Not only is the spread of the infection prevented, but that the fungus is being destroyed with certainty is recognized in two or three weeks, by commencing development of fine hairs.

In country practice, where treatment by *x* rays is impracticable, this method will, I venture to think, prove a valuable addition to the several means recommended by various authorities.

E. LYNN JENKINS, M.B., B.Sc.,
Medical Officer, Isolation Hospital, Hinckley and District.

CASE OF COMPLETE INVERSION OF THE UTERUS: REDUCTION AND RECOVERY.

MRS. H., aged 24, a primipara, was delivered with forceps at 7 p.m. on December 2nd, 1909, after a tedious labour, presentation being occipito-posterior. Delivery with forceps was easy, no severe traction being required. I waited expecting the contractions which would expel the placenta, and meantime used no undue traction on the cord nor pressure on the fundus. After an hour and twenty minutes contractions began, and increased in violence every minute, and latterly were extremely violent. The placenta began to be extruded, was finally expelled, and was followed by a hard mass and much haemorrhage. I placed my left hand on the abdomen, and found the uterus gone. I grasped the neck of the mass between my knitted fists and controlled the bleeding very largely. The patient was blanched and gasping, and the situation was alarming in the last degree. I sent for the assistance of my nearest colleague, and, pending his arrival, held the bleeding in check. I tried to separate the edges of the placenta where it was still undetached, and was astonished at the very close incorporation of placenta and uterus. Presently my colleague, Dr. Mackay, arrived. I requested him to sluice the mass with biniodide solution (1 in 1,000), and then to detach the placenta. He experienced the same difficulty, and remarked upon the extremely close adhesions. I still held the mass firmly by the neck and plugged the sinuses with my fingers as the difficult and tedious detachment of the placenta proceeded. When it had been finally accomplished as well as we could do it, the uterus was well washed with biniodide solution. My colleague gave chloroform. I squeezed the organ into a smaller volume as a first step and then tried reduction by inverting the fundus. It was almost at once evident that that method would not succeed for two reasons: (1) the tissue of the uterus was too friable and would not bear the pressure of the fingers; (2) it formed a very unnecessary bulk in passing the os.

I therefore passed the fingers and thumb of the right hand into the sulcus, and pressed gradually upward, and from side to side, kneading it the while. By this method I found reduction perfectly easy, and a few minutes sufficed to complete the operation.

The patient was in the last stages of exhaustion, having lost a great volume of blood and suffered a very severe shock. Rectal infusion of saline with infundibular extract had marvellous effects, and as she could from the first take small quantities of fluid by the mouth she made a good recovery, and is now (January 8th, 1910) up and walking about the house.

My reasons for publishing this case are its great rarity. Playfair says it was only met with once in 190,800 cases in the Rotunda. Again, there is a difference of opinion as to whether the placenta should be removed before or after reduction. In this particular case after-removal would have been wellnigh impossible, and I hardly think reduction with the mass attached could have been done. In removing the placenta before reduction we had the bleeding sinuses at once plugged, and saw all haemorrhage stopped before it was returned.

C. L. FRASER, F.R.C.P., F.R.C.S.Ed.

Berwick-on-Tweed.

POISONING BY OIL OF EUCALYPTUS.

CASE I.—A man, married, aged 28, who had been suffering from a bad cold for several days, had been dosing himself for two or three days with oil of eucalyptus (2 to 3 drops), inhaling it from a pocket handkerchief, and sucking numerous eucalyptus and menthol gum lozenges. He had taken very little nourishment. Just before leaving his office, where he kept two bottles, one containing ammoniated tincture of quinine and the other oil of eucalyptus, he poured himself out a dose, as far as he remembers between two and three teaspoonfuls, of oil of eucalyptus, in mistake for the tincture. His home is situated ten to fifteen minutes' walk from his office, and he noticed nothing until he had been walking about ten minutes, when he was seized with sudden giddiness and faintness and ataxic gait, as though he had taken an excess of alcohol. He just managed to reach his house when the following symptoms showed themselves: His breathing became very laboured, and dyspnoea was very acute and distressing; his pupils were dilated, and pulse very weak and thready; the temperature was subnormal (95°–96° F.). Violent vomiting occurred before any emetic was given. His skin was a greenish-yellow colour, and he complained of a girdle-like constriction around the abdomen. He was very drowsy, and complained also of shivering and great cold, with intense frontal and occipital headache.

In about half an hour after taking the oil he had violent diarrhoea, with very painful and excessive micturition; the urine was dark in colour and the faeces smelt strongly of the oil. His skin also smelt of the oil. He was given a simple emetic, stimulants administered, and put to bed; four hot-water bottles and many warm thick blankets were used, as the collapse was severe. In the course of a few hours he felt better, the temperature rose, and the pulse became more satisfactory. For three days the skin retained the chlorotic hue, which only very gradually passed off. He was very depressed, his mental faculties were blurred, and he was unable to make any effort. Drowsiness continued for three days, and his gait was somewhat ataxic. For nearly a fortnight his breath, urine, faeces, and skin all smelt strongly of the oil, and it was a clear fortnight before he really felt well.

CASE II.—On January 5th at 11.50 p.m. I was called to see a girl, aged 18, who had swallowed about a drachm of eucalyptus oil, with which she had been rubbing her gums to allay toothache, as well as sucking lozenges. All the symptoms observed in the first case were present, but to a less degree—namely, intense headache, vomiting, collapse, bodily and mental; feeble pulse, subnormal temperature, girdle-like constriction around the abdomen, and dilated pupils.

In the BRITISH MEDICAL JOURNAL of December 4th, 1909, page 1656, it is stated that larger doses than ʒj to ʒij have been given, with little or no untoward effects; further, that mothers in certain districts have been accustomed to give ʒj doses for colds to their children. Evidently oil of eucalyptus (and in this case it was a quite pure essential oil of eucalyptus, being a sample from a well known first class London manufacturing company) does not affect all people alike. Its dosage, according to Mitchell Bruce and Hale White, is ½ minim to 3 minims only. It seems to be closely allied in composition to oil of turpentine, containing several isomeric terpenes, all having the formula of $C_{10}H_{16}$, and no doubt the fact that it causes similar respiratory, nervous, cardiac, gastric, and urogenital symptoms from over-dosage is due to these isomeric hydrocarbons.

Portsmouth. W. RONALD KIRKNESS, L.R.C.P., M.R.C.S.

PERSISTENCE OF ITCH MITE INFECTION IN CLOTHES.

THE following data furnish evidence of the vital tenacity of itch mite removed from its human host.

The subject of the attack was a young adult, of cleanly habits, who had never been attacked before. The symptoms of the first attack began to manifest themselves early in February, 1909. Ordinary knitted woollen gloves were worn at the time, and they covered the infected areas on both wrists.

They were put away, and nothing further thought of them. The attack yielded readily to treatment. The gloves were again worn towards the end of October, 1909, and about four weeks later the disease again appeared in the same parts.

Hence (in the extremely probable event of the infected gloves being the cause of the second attack) one may fairly conclude that here we have an instance of itch mite infection preserving its vitality, apart from a human host, for over seven months.

JOHN N. LAIRD, M.A., M.D., D.P.H.Trin.Coll.Dub.

Macclesfield.

Reports
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

MANCHESTER CHILDREN'S HOSPITAL, PENDLEBURY.

DEPRESSED FRACTURE OF THE SKULL IN AN INFANT ONE DAY OLD: TREPHINING: RECOVERY.

(By J. W. BRIDE, M.B., B.S.Lond., M.B., Ch.B.Vict., Senior Resident Medical Officer.)

I AM indebted to the kindness of Mr. J. Howson Ray, Senior Surgeon to the Manchester Children's Hospital, for permission to publish the following case, which may be of interest as showing the ability of the new-born infant to undergo successfully a severe cranial operation.

The infant, aged 36 hours, was admitted on November 11th, 1909. It had been born at 1.30 a.m. on the previous day. The position was left occipito anterior; labour was rather tedious and considerable suprapubic pressure was applied. Artificial respiration had to be resorted to at birth. Twelve hours later there were convulsions, though there was no definite information as to whether these were general or localized. There was no vomiting.

On admission the child was healthy looking and quite conscious. The pulse was slow, regular, and forcible. The pupils were equal, normal in size, and reacted to light. The whole area of the left parietal bone was considerably depressed below the general surface of the skull.

The following operation was immediately performed, A.C.E. mixture being employed as the anaesthetic. A piece of bone the size of a sixpenny piece was trephined from the centre of the left parietal bone, and about 2 drachms of dark fluid blood escaped. The dura mater was found not to be lacerated. The bone was readily elevated and restored to its normal shape. The brain resumed its natural convexity. The child was in the theatre about half an hour.

On returning to the ward there was a convulsion limited to the right side of the body, and another on the following day. With this exception recovery was uneventful. The sutures were removed on the eighth day, and on the ninth day the child returned home and resumed breast feeding.

At the present date, seven weeks after operation, I learn that the child is thriving, and both the local and general conditions are quite satisfactory.

Reports of Societies.

ROYAL SOCIETY OF MEDICINE.

OBSTETRICAL AND GYNAECOLOGICAL SECTION.

Thursday, January 13th, 1910.

H. MACNAUGHTON-JONES, M.D., President, in the Chair.

Operation for Prolapsus Uteri.

DR. J. INGLIS PARSONS reported a case of prolapsus uteri with severe cardiac disease operated on under local and spinal analgesia.

The patient, aged 39, had had three children, the youngest being 5 years old. Menstruation had been regular but rather excessive. She had suffered for some years from a profuse leucorrhoea, and complained of bearing-down pains and falling of the uterus. This had been treated with pessaries without relief. On admission to the Chelsea Hospital for Women the patient was found to have a systolic mitral murmur and systolic and diastolic aortic murmur. The pulse was a little irregular and had the typical water-hammer character of aortic regurgitation. The general condition, however, was good. On vaginal examination the cervix was found to be enlarged and to present an erosion, the perineum was torn through to the sphincter ani, and there was prolapse of both vaginal walls. It was determined to attempt injection of the broad ligaments with quinine solution for the prolapse under local analgesia. After treatment in bed for ten days the right broad ligament was injected first with 80 minims of quinine solution after 1 drachm of saline solution, containing one-sixth of a grain of eucaine B., had been injected into each broad ligament. The first injection of the quinine caused a good deal of pain and the patient became distinctly faint, the pulse being hardly perceptible. The hypodermic administration of strychnine caused rapid improvement, and the second injection into the left broad ligament was then carried out. This caused almost as much pain and faintness as the first injection, but the patient recovered from it more quickly. Three weeks after the operation she left the hospital, wearing a metal pessary. Although Dr. Inglis Parsons did not expect a very good result owing to the dilution of the quinine solution by the eucaine, yet when the patient came up to the hospital at the end of five months the uterus was in good position and well held up, and she was able to do without the pessary. As the ruptured perineum still caused a good deal of trouble, she was readmitted for operation. In view of the condition of her heart, Dr. Inglis Parsons recommended that the operation should be performed under spinal anaesthesia; 1 c.cm. of a 5 per cent. solution of tropacocaine, therefore, was injected into the spinal theca between the third and fourth lumbar vertebrae by the house-surgeon, Mr. T. C. Clare. After waiting five minutes, the patient was placed in the lithotomy position, and anaesthesia was found to be satisfactory. Throughout the operation the pulse maintained its ordinary rate, and there was no evidence of any cardiac distress. Two hours afterwards she felt faint, and actually fainted shortly afterwards; this was, no doubt, due to the head of the bed having been raised 8 in. for the purpose of limiting the upward diffusion of the tropacocaine solution.

This case, in the author's opinion, is of interest as showing that the method may be employed for operation on the pelvis, even where severe valvular lesions of the heart exist.

Pelvic Haematoma of Ovarian Origin.

Dr. CUTHBERT LOCKYER read a paper on this subject. He said Mr. Stanley Boyd had given him the details of two cases operated upon by him for supposed acute appendicitis, but which proved to be cases of pelvic haematocele in which there was no evidence of pregnancy. In both instances the Fallopian tubes were intact and not damaged; in both an ovarian blood cyst had ruptured, and was the cause of the internal bleeding. To these two cases of ovarian haemorrhage not due to gestation Dr. Lockyer added a third, by the kind permission of Dr. Amand Routh, in which, after the left tube had been removed for ruptured ectopic gestation, a pelvic haematocele formed on the right side, due to ovarian bleeding. In this case, and in one of Mr. Boyd's two cases, the author had sought by microscopic investigation to find proof of ovarian gestation, but no evidence thereof had been obtained.

CASE I.—A healthy young woman was taken ill with diarrhoea and abdominal pain. She was seen by Dr. Bone of Luton. The pulse-rate was 100 and the temperature 99.5°. The next day, in the evening, the pain was worse, the pulse-rate had increased to 120, and the temperature was 100°. The following day there was some general tenderness and distension of the abdomen. Nothing could be felt per rectum. When seen by Mr. Boyd the diagnosis of appendicitis was made. After making an incision outside the right rectus muscle, which revealed the presence of merely a little clear fluid, the abdomen was opened again by a paramedian incision, and a haematocele was exposed. The left Fallopian tube was a little red and the ampullary end somewhat swollen. The orifice was patent but not large, and no blood could be squeezed from it. No trace of a fetus could be found. The left ovary was represented by a thick-walled ($\frac{1}{8}$ in.) ruptured collapsed cyst, and was surrounded by clot. It and the right ovary, which was a mass of small cysts, were removed. The patient made a good recovery.

CASE II.—A single young woman was seized while at a da ce with pain in the right iliac region. The pain continued, but became rather less until the following morning, when it recurred severely. She was seen by Dr. John Harold, who found her looking very ill, with a rapid, feeble pulse, and considerable tenderness over the right iliac region. In the afternoon the pulse-rate was 120 and the temperature 99°. Mr. Boyd saw her in the evening, and found her looking better, but writhing with pain. No pelvic examination was made, but a provisional diagnosis of early appendicitis was made. An incision outside the right rectus revealed a mass of clot in the position of the right ovary. Through a paramedian suprapubic incision about one pint of recent blood clot was removed. The right ovary was adherent to the pelvic wall in the normal position, and was surrounded by blood clot. On its anterior free surface there was a rent in the wall of a cyst, which had a diameter equal to that of a florin. The tube was apparently normal. The left ovary contained a cyst the size of a cob nut This was opened, and its lining membrane removed. The patient made a good recovery. She had previously been under treatment for dysmenorrhoea. The last period ended one week before the haematocele formed. Microscopic examination of the removed ovary showed that the origin of the bleeding was a corpus luteum which had matured at the last menstrual epoch, namely, a week prior to the date of the operation. The opposite ovary contained no corpus luteum. There must have been one present which ripened and discharged an ovum within a few days of the operation. The only compact lutein tissue to be found was that seen in the blood clot of the ruptured cyst, and the unavoidable conclusion was that this torn cavity represented the recent corpus luteum. The possibility of a retrograde corpus luteum behaving in this way was referred to in a paper published by Dr. Lockyer in the *Trans. Obstet. Soc.*, London, vol. xlvii, pp. 164–165.

CASE III.—A married woman was admitted into Charing Cross Hospital and operated upon by Dr. Amand Routh as an emergency case. At the time of the operation she was collapsed as the result of repeated recent haemorrhage. The abdomen contained a large quantity of fluid blood. The left tube was ruptured in its outer half and adherent to it was a mass of blood clot. The tube and ovary were removed and the patient made a good recovery. She was again admitted sixteen months later, complaining of pain in the right groin. She had been married eleven years and had three children. She had been quite well since leaving the hospital until November, one month before her admission on this occasion. On November 18th the period started in the morning, and on the evening of the same day violent pain in the right groin set in which went on until the evening of the following day. The pain was much relieved by fomentations. The period ceased the afternoon of the day it commenced, but began again five days later. The loss was slight but offensive, and continued for six days. On examination the uterus was found to be anteverted, and there was a round, hard body the size of a cricket ball to its right in the pouch of Douglas. Five days after admission Dr. Routh opened the abdomen and found the pouch of Douglas partly filled with blood, while the right ovary was also distended with clot, and presented a large rent on its surface. The tube was intact, but its fimbriated end was closed. The case was regarded as one of ovarian gestation, and the parts removed given to Dr. Lockyer to examine. A careful examination of the ovary showed no signs of gestation. A section of the wall of the cyst showed the lutein convolutions of a mature follicle still *in situ*. There was extravasation of blood into the stroma of the ovary, into the theca interna, and into the lutein convolutions, while engorged capillaries filled with red discs could be seen in the delicate tissue which keeps the lutein convolutions together.

Dr. Lockyer said in bringing these cases before the notice of the section his object was to ascertain if any of the Fellows had met with similar experience. Dr. A. E. GILES said that he had met with a case resembling that described by Dr. Lockyer. The patient presented symptoms pointing to a tubal gestation, and at the operation the left appendages and the right tube were normal, but there was a rent in the right ovary. The case was thought to be one of ovarian pregnancy, but a careful examination of the ovary by Dr. Lockyer showed that there were no signs of any such gestation present. Eight months later the patient was readmitted to the hospital with similar symptoms, and on this occasion the left ovary showed a rent with blood clot attached. The history of the case left its exact nature doubtful. It might have been a double ovarian pregnancy, or a repeated haematocele due to a ruptured lutein haematoma, or a lutein haematoma in the first instance, and an ovarian pregnancy in the second. The PRESIDENT thought it had been shown for some years that pelvic haematocele might occur independently of the presence of a gestation, and the differentiation of the two

classes—that which was of gestational origin and that which arose from a corpus luteum and was associated with lutein changes—he had embodied in the last edition of his book. He had had cases which undoubtedly were not due to gestation. Dr. BLACKER thought he had met with a case of this kind. The patient, a young girl, aged 19, a virgin, was admitted into University College Hospital with a history of acute abdominal pain. The pain had commenced suddenly two days before the period was due, and was followed by the formation of an abdominal tumour, which gradually increased in size. The periods had been regular, and the last period occurred at the proper date, and was normal in amount. Dr. Herbert Spencer opened the abdomen and found a large haematocele, which was removed, and the cavity drained. The patient made a good recovery. There was nothing to suggest pregnancy, and there seemed no reason to doubt that this was a case probably of haemorrhage from a ruptured Graafian follicle in the ovary.

Proportion of Malignant to Innocent Ovarian Growths.

Mrs. SCHARLIEB read a paper on this subject based on a consecutive series of 150 cases. Of the 125 innocent growths there had been paucilocular 48, multilocular 42, adenomata 10, papillomata 2, dermoid 16, corpus luteum 2, lutein cysts 1, fibroma 3, fibromyoma 1. Of the 25 malignant cases there were papilliferous cysto carcinomata 13, adeno-carcinomata 7, sarcomata 4, and uncertain 1. In this series of 150 cases no growth was included smaller than a hen's egg, and very few smaller than a lemon. The proportion of malignant to innocent cases worked out as one-sixth; the average age of the malignant cases was a little over 46 years, and of the innocent cases about 35 years. The immediate mortality of the malignant cases was 20 per cent., whereas only 2 died of the 125 non-malignant cases; of these deaths one was due to the slipping of a ligature, and the other to a large suppurating cyst universally adherent and not removable. It was found that of 25 cases 5 were probably secondary, 2 to cancer of the stomach, 2 to scirrhus of the mamma, and 1 to sarcoma of the uterus. Mrs. Scharlieb laid stress upon the fact that, considering the impossibility of making a correct naked eye diagnosis as to the nature of the growth, it was important that all should be submitted to microscope investigation by a competent pathologist; she also emphasized the necessity for removing ovarian growths intact in all cases where it was surgically possible; she advanced a plea for better equipment and remuneration of pathological research, and pointed out the difficulties of the present chaotic systems of classification. Dr. AMAND ROUTH agreed with Mrs. Scharlieb as to the difficulty of classifying papillomata of the ovary, especially with regard to their malignancy. He believed that almost all varieties of papillomata developing on the inner surface of an ovarian cyst were likely to take on a malignant character. Mr. B. GLENDINING offered some figures on the relative malignancy of ovarian tumours taken from the pathological records of the Chelsea Hospital for Women for the years 1908 and 1909. Among 106 cases of ovarian tumours (follicular, lutein, and tubo-ovarian cysts being excluded), the relative malignancy was 17 per cent. (11.3 primary carcinoma and 5.7 secondary carcinoma). The primary malignant cases were composed of columnar-celled carcinoma 5.7 per cent, endothelioma 1.8 per cent., and sarcoma 3.8 per cent. From an examination of the cancer register of the Middlesex Hospital he had found that the incidence of secondary carcinoma of the ovary for all cases of carcinoma in a series of 690 *post-mortem* examinations was 5 per cent. These secondary carcinomata could readily be divided into two groups—namely, those arising as the result of direct extension from neighbouring viscera, and those the result of dissemination from a distance via the peritoneal cavity. A striking fact was the frequency with which secondary carcinoma was engrafted upon a pre-existing cystadenoma. He had met with four cases of this kind during the past year. Dr. W. S. A. GRIFFITH asked Mrs. Scharlieb if the diagnosis in her twenty-five cases was from pathological, as well as from clinical, characters. If not, he doubted if there were not some cases included which were not malignant. The PRESIDENT said he had gone through the records of 100 cases of removal of the ovaries for various growths and degenerations. Of this number there were five carcinomata, three of these being adeno-carcinomata, one sarcoma, one malignant papillary dermoid, and one papillary carcinoma. All the remainder were benign, including two fibroma, and two adeno-fibroma. He obtained a series of statistics from the foreign clinics of a few personal friends. Analysing the total of 2,893 cases, the records of 1,045 showed that 659 were unilateral, 386 bilateral. Of the entire number 309 were indisputably malignant. Of the latter growths 189 were epitheliomatous degenerating cysts, and 18 were not differentiated, 32 adeno-carcinomatous cysts, 28 proliferating papillomata, 22 sarcoma, 18 various types of carcinoma as glandular and papillary adenoma, and cystadenoma, solid malignant adenoma, malignant dermoid adenoma, and 1 endothelioma. Of the 41 cases of which there was a record of the unilateral or bilateral occurrence, 26 were unilateral and 15 bilateral. With regard to primary or secondary growths it was often extremely difficult to say whether a growth was primary or not, so frequently were the adjacent viscera involved. At present a great deal of confusion existed as to the differentiation of benign and malignant tumours of the ovary. He noticed that there was no case of malignancy from a dermoid tumour in Mrs. Scharlieb's list. One clinical feature which had struck him in these cases was the almost entire absence of pain.

MEDICAL SECTION.

Tuesday, January 25th, 1910.

Dr. J. MITCHELL BRUCE, President, in the Chair.

Treatment of Tetanus by the Intraspinal Injection of a Solution of Magnesium Sulphate.

Dr. LLEWELLYN PHILLIPS communicated a paper on this subject. The case mortality of tetanus, even with the use of antitoxin, was, he held, still very high. The figures over a number of recent years, gleaned from *St. Bartholomew's Hospital Reports*, gave a mortality of 56 per cent. The reports of the cases at the Government Hospital at Cairo showed a still higher mortality—namely, 75.8 per cent. The main indications of treatment were to prevent further poisoning, to neutralize the poison already present, to nourish and conserve the strength of the patient, and to relieve symptoms. Antitoxin had proved somewhat disappointing as a curative measure, though as a prophylactic it was of great value. For the relief of symptoms, and so for the prevention of exhaustion, magnesium sulphate had been used in a 25 per cent. solution as an intraspinal injection. It had previously been shown that it was a spinal anaesthetic. Experiments made by Meltzer showed, further, that monkeys injected with tetanus toxin could be kept alive longer if they received injections of magnesium sulphate intraspinally. Twenty-one cases had been published, chiefly in America, with a mortality of 42.8 per cent.—a very substantial improvement on former figures. To this the author added 7 cases under his own treatment, of which 4 recovered, the same percentage mortality being observed. This substantial addition brought the number of cases up to 28, with 16 recoveries. Mr. PAGE described a case of tetanus admitted to St. Thomas's Hospital a few days previously, under the care of Mr. H. B. Robinson, in which 5 c.cm. of a 25 per cent. solution of magnesium sulphate was injected. Flaccid paralysis of both legs ensued, and respiratory failure occurred later, but passed off under artificial respiration; a few hours afterwards flaccid paralysis of the arms occurred, with respiratory and cardiac failure, and eventually a fatal termination. It seemed as if death must be attributable to the injection, the case not being an acute or severe one. Dr. A. E. RUSSELL said that there was no doubt spinal anaesthesia could control the spasms of tetanus or of strychnine poisoning. If magnesium sulphate produced a longer anaesthesia it might be a better agent to employ than other spinal analgesics. Mr. CASSIDY thought the rational method of treating tetanus was to get the antitoxin into contact with the central nervous system. He described another St. Thomas's Hospital case, a child under the care of Dr. Hector Mackenzie, that recovered after injection of antitetanic serum within the spinal theca. Mr. A. E. BARKER would have liked some explanation of the mechanism of the action of the sulphate of magnesium solution in tetanus. Its specific gravity being

so high it was difficult to understand its travelling up to the medulla. Dr. BEDDOES thought the apparently greater mortality of tetanus in Cairo, as compared with London, depended on the cases coming under treatment earlier in this country. It was really a less fatal disease in the tropics, which he attributed in part to the higher atmospheric temperature.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

Friday, January 7th, 1910.

Dr. NEVILLE T. WOOD, President, in the Chair.

CLINICAL MEETING.

BEFORE the work of the meeting commenced the following resolution was passed, on the motion of the PRESIDENT:

> The West London Medico-Chirurgical Society takes this opportunity of expressing a deep sense of obligation to its distinguished founder, Mr. Charles Bell Keetley, and hereby records a vote of sincere condolence with his nearest relatives.

The following were among the exhibits:—Dr. SEYMOUR TAYLOR: A case of *Tabes dorsalis* in a man aged 61 with history of an untreated hard sore of twelve or fourteen years ago. He showed signs of early general paralysis. In addition, tertiary and quartan manifestations seemed to coexist in a mass in the right tibialis anticus, and degenerative changes in the central nervous system. Dr. J. A. COUTTS: A case of *Juvenile rheumatoid arthritis* in a child 6½ years old. All the large joints of both hands and feet were involved, as well as the first interphalangeal joints. There was persistent pyrexia. The disease had lasted two years. Dr. E. A. SAUNDERS: A case of *Diabetes* in a girl aged 14. He first saw her in January, 1907, for polyuria and thirst. Under a strict diet in the wards the urine became sugar free and thirst and polyuria disappeared. Since her discharge sugar had been present from time to time though she had been kept on a fairly strict diet, having only the carbohydrate present in gluten bread and in the lactose of milk. The case had, so far, run an unusually benign course in a child. Dr. SEYMOUR TAYLOR remarked on the advisability in cases of diabetes of giving a little starchy food. Dr. FREDERICK PALMER asked Dr. Saunders whether in the case of children he advised a strict diet or allowed a small quantity of starchy food; the latter he considered better in the case of older subjects. Dr. RICE OXLEY advised allowing a little elasticity in diet, anyhow to older patients, as otherwise they would take liberties themselves. Dr. F. PALMER showed (1) A case of *Recurrent carcinoma* affecting the cerebro-spinal system in a woman, aged 42, whose right breast had been removed four and a half years ago. The present condition began eight or nine months ago with ptosis of the right eyelid. There was present now some local recurrence, and besides the ptosis there was affection of some of the ocular muscles, and of the plantar and knee reflexes. (2) A case of *Tabes dorsalis* in a man aged 41 years, the condition being well marked. His wife had been delivered of twins only four months previously, which seemed to connote unusual retention of reproductive power. Dr. P. ABRAHAM: A case of *Mycosis fungoides*. The lesions, desquamating eruption and some ulcers and scars of old ulcers, were very much like syphilitic lesions. The man gave a history of having had that disorder some years ago.

MEDICAL SOCIETY OF LONDON.

A CLINICAL meeting was held on Monday, January 24th, Dr. SAMUEL WEST, President, in the chair. Dr. F. PARKES WEBER showed a case of *Chronic leukaemia* without anaemia, and in the discussion on this case Dr. ROBERT HUTCHISON discussed the possibility of its being an instance of slowly growing lympho-sarcoma in which white cells occurred indistinguishable from lymphocytes. Dr. WEBER also showed a female patient, aged 36 years, suffering from *Functional abdominal disease*, accompanied formerly by vomiting of faeces and enemata. Sir JOHN BROADBENT, Dr. WILFRED HARRIS, and Mr. WILLMOTT EVANS showed cases of *Syringomyelia*, and the question was discussed as to whether *x*-ray treatment of this condition was of any use. In some cases it seemed to increase the sufferings of the patient, and there did not seem much to be said in favour of the treatment. Dr. F. J. POYNTON showed a case of *Cretinism and psoriasis*, and Mr. T. H. OPENSHAW a case of *Paralysis of the spinal accessory nerve after removal of the cervical glands*. The whole of the trapezii muscles and the left sterno-mastoid were atrophic, the sterno-mastoid on the right side of the neck acting feebly. Mr. Openshaw emphasized the importance of suturing the spinal accessory nerve in such operations in cases where it was divided; and Dr. WILFRED HARRIS pointed out how extraordinary it was that such little disability resulted in these cases, the patients being able to do almost anything except carry weights on their shoulders. Mr. DREW commented on the importance of defining the spinal accessory nerve when removing glands. Mr. WARREN LOW showed a case of removal of a *Carcinoma of the pelvic colon* eighteen months after operation; an end-to-end anastomosis of the bowel was performed, and the wound healed well. The patient was in good health and had increased in weight. The specimen of carcinoma was examined by Dr. B. H. Spilsbury, who reported that microscopically the growth was adeno-carcinoma. Dr. GUTHRIE and Mr. EDMUNDS showed a girl, aged 6 years, with *Paresis of the left cervical sympathetic*, retarded growth of left upper and lower extremities, wasting and paresis of the intrinsic muscles of the left hand associated with caries of the cervico-dorsal spine. Dr. W. HILL, by means of a new improved *direct-vision laryngoscope*, demonstrated a case of benign laryngeal growth.

NORTH OF ENGLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

THE annual meeting was held at Manchester on January 21st, 1910, Dr. J. W. MARTIN (Sheffield) in the chair. *Election of Officers:* Dr. W. K. Walls (Manchester) was elected President, and Dr. W. Fingland (Liverpool) Treasurer for the year 1910. Mr. R. FAVELL (Sheffield) showed a large *Solid ovarian tumour* which he had recently removed from a girl of 15 who had never menstruated. There was a little ascites. Microscopically the growth was a papillary adeno-carcinoma. Dr. DONALD and Dr. GRIMSDALE doubted if the tumour, in spite of its microscopical appearances, would prove to be malignant. They had removed precisely similar growths from girls of 7 and 18 years respectively, several years ago, and in neither case had there been a recurrence. Dr. W. E. FOTHERGILL (Manchester) showed an example of *Ruptured cornual pregnancy*, consisting of a fetus 4 in. long and a thick-walled ruptured cornual gestation sac, the size and shape of a large hen's egg. The patient had borne four children in the left cornu of the uterus, and then pregnancy in the right cornu led to its rupture, which demanded an emergency operation. The cornu was excised by a V-shaped incision, the ovary and tube being left. The patient was now again four months pregnant. Dr. Fothergill also showed the corpus of a much *Hypertrophied uterus*, removed from a woman of 43, who had not been pregnant for six years. Haemorrhage of a month's duration had caused profound anaemia. The uterine wall was 1½ in. thick. The hyperplasia was shared in due proportion by the endometrium and the muscle, whose blood vessels were not more thickened than is usual in women of the patient's age. The glands, stroma, and vessels of the endometrium were normal. Dr. Fothergill protested against the use of the name "chronic metritis" in cases of this kind, which were commonly found in patients who had no history, no symptoms, no physical signs, and no pathological change indicating the existence, at any time, of any infective or inflammatory process. Dr. GRIMSDALE (Liverpool) recounted his experiences with a case of *Uretero-vesico-vaginal fistula*, in order to indicate the advantages of the finest silk over catgut as a suture material in such cases. The patient was a virgin aged 24 years. Another surgeon had removed a ureteral calculus by the vaginal route, the fistula resulting. Several plastic operations, in which catgut was used, failed, leakage occurring on or after the fifth day. On one occasion fine Japanese silk, No. 0000, was used, and the fistula was reduced to a pinhole. An attempt to close this with catgut failed, and a large fistula resulted. Several

unsuccessful operations with catgut followed. Finally, the silk was again used, and with complete success. Dr. Grimsdale expressed the belief that coarse catgut tore the sodden delicate structures, whilst fine catgut was absorbed too quickly. Dr. A. W. W. LEE and Dr. A. J. WALLACE pointed out the advantage of using Schuchardt's para-vaginal incision to facilitate getting at such a fistula when the vagina was very small. Dr. LLOYD ROBERTS (Manchester) reported a case in which a woman aged 39, suffering from metrorrhagia, had noticed gradual enlargement of the abdomen for twelve months. Two months before operation an attack of severe left-sided abdominal pain occurred. A very tender cystic swelling was felt on the left side of the large fibroid tumour. Torsion of the pedicle of a fibro-cystic uterine tumour was suspected. On opening the abdomen an *Ovarian cyst*, with twisted pedicle, was found. The fibroid uterus was also removed. Dr. W. FLETCHER SHAW (Manchester) showed a *Uterine fibroid which had undergone red degeneration*. It had been removed by Dr. W. K. Walls from a nullipara, aged 39. The tumour was a rapidly-growing one, and there had been malaise, raised temperature, and quickened pulse for two days. Progress was favourable until the ninth day, when the temperature rose to 102°, and two days later it reached 105° and was accompanied by a rigor. Acute ulcerative endocarditis was diagnosed by a physician and anti-rheumatic serum was used, though no culture could be obtained from the blood. She eventually made an excellent recovery. Microscopically the tumour showed an enormous number of small thin-walled blood vessels, many of which were thrombosed, the others being engorged with blood. No micro-organisms were found by microscopical examination. Cultures could not be made, owing to the presence of preservative fluid. Dr. BLAIR BELL (Liverpool) showed a *Bicornute uterus* with a cystic ovary on one side and a fibroma of the ovary with a large cyst of the hilum on the other. Dr. A. STOOKES (Liverpool) showed some specimens of *Fetal deformities*, including one of cervical spina bifida, which had presented by the brow, and one of cyllosomus, with which had been associated hydrorrhoea for two and a half months and a partial placenta praevia.

Reviews.

MÜNSTERBERG'S PSYCHOTHERAPY.

A VOLUME of *Psychotherapy* by Professor MÜNSTERBERG[1] belongs to a series of books which he is writing on the practical applications of modern psychology. The first book, published in 1908, called *On the Witness Stand*, was a study of the relations of scientific psychology to crime and the law courts. This new book deals with the relations of psychology to medicine. It is, however, not addressed merely to medical men and has two aims—one to counteract the misunderstandings and vague mysticism which overflood the whole field of psychotherapy in its various forms, and the other "to strengthen the public feeling that the time has come when every physician should systematically study psychology, the normal in the college years and the abnormal in the medical school." Unless this is done now, Professor Münsterberg foresees a most deplorable disorganization, the symptoms of which no one ought to overlook to-day.

The keynote of the book, in so far as it aims at correcting popular misunderstandings and the dubious "spiritual healing" movements in America and elsewhere, is struck in the first chapter, on the aims of psychology, where the author dissevers moral from mental influences. Moral influences are for Professor Münsterberg those which have an ethical and ideal value, and bear upon man as a purposive *subject* or personality; whereas mental influences are those which affect him in his relations as an *objective* causal chain of events, that is, of contents of consciousness. According to Professor Münsterberg, the former moral view may be religious, or ethical, but is not psychological. Hence, though the co-operation of the clergyman may be valuable as strengthening purposive ideals, his posing as a healer by mental influences—as, for instance, in the Emmanuel Church—is nothing else than an unwarrantable intrusion, due to his confusion of the mental and the moral spheres of action.

Recognizing that much of the overlapping of religion and psychotherapy is due to a failure to get down to fundamental facts, Professor Münsterberg proceeds to clear the ground in the third chapter by an examination of the connexion of mind and brain. This chapter is in the main an exposition of his views according to the hypothesis of psychophysical parallelism, to which theory Professor Münsterberg adheres. This theory is, of course, essentially a deterministic theory. Professor Münsterberg, however, is a libertarian—outside psychology. His reconciliation of these two opposite views is ingenious. He says: "As long as we move in this sphere of purposive interest, we are free and deal with free selves; but if in the midst of these free aims the will arises to consider the actions of others and of ourselves from the standpoint of causality, then we have ourselves decided to enter a new sphere in which it would be meaningless to seek for any will which is not determined by causes." That is, it is entirely a matter of the point of view: from the ethico-religious or purposive standpoint man is free; from the psychological standpoint he is determined. A little later, however, he modifies this latter statement and concedes the psychologist's right to speak of freedom—which, he says, does not mean exemption from causality—and regards the morbidly conditioned as unfree, and the action of a normal subject, where "the motor response results from the undisturbed co-operation of normal brain parts," as pyschologically free. Difficult as it may be to regard, with Professor Münsterberg, any action as at once free and determined, such views have practical advantages at the present time when psychological, ethical, legal, and religious issues are continually confused. It has been necessary to lay stress on Professor Münsterberg's view of the relations of brain and mind, because it explains his subsequent elucidation of practical therapy. For Professor Münsterberg, in harmony with the foregoing, mental disease is a disease of the organism, "the mind reflects only symptoms of the disease." There are no functional diseases, for "every mental disturbance corresponds to a disorder in the brain's functions," and "there cannot be a change in the functions of the brain without a change in its structure." This leads—omitting any reference to a valuable chapter on suggestion and hypnotism—to the doctrine of the subconscious. Here Professor Münsterberg is refreshingly clear: "The story of the subconscious mind can be told in three words—there is none." The whole question of the subconscious, of course, turns on the nature of memory. For Professor Münsterberg, memories are physical traces which become mental only when they are reflected in consciousness, after which, and before which, they are purely physical facts, "dispositions of brain cells." "To have psychical existence at all means to be object of awareness for a consciousness. Something psychical which simply exists but is not object of consciousness is therefore an inner contradiction. Consciousness is the presupposition for the existence of the psychical objects. Psychical objects which enjoy their existence below consciousness are thus as impossible as a wooden piece of iron," or, as Professor Ziehen said (*Das Gedächtnis*, 1908; Berlin: August Hirschwald) in following a similar line of argument about this same doctrine, "ein hölzernes Eisen." How Professor Münsterberg squares this conception with the phenomena of hypnotism, somnambulism, day dreaming, and particularly with the results of work done in laying bare subconscious complexes by Jung, Bleuler, Peterson, and others who have followed Professor Freud in his psycho-analytic methods—of which, by the way, he gives an admirable account—we must leave to the reader. The chapters on general methods, special methods, mental symptoms, and bodily symptoms occupy a large part of the book, and are admirable both in form and expression, in what they contain, and, having regard to the wide public addressed, in what they leave out. Three chapters on the place of psychotherapy—that is, in relation to the church, to the physician, and to the community—each of them a separate and most informing essay, bring to a close an excellent book. Whilst there may be some who on philosophical

[1] *Psychotherapy*. By Hugo Münsterberg, M.D., Ph.D., Litt.D., LL.D., Professor of Psychology, Harvard University. London and Leipzig: T. Fisher Unwin. 1909. (Demy 8vo, pp. 413. 8s. 6d.)

grounds will have a large and hearty quarrel with this eminent writer and teacher, there can be no doubt that the publication of this book to-day is most opportune, and that it should be widely read.

STOMACH AND INTESTINES.

IN the preface to his textbook on diseases of the stomach,[2] Dr. ELSNER apologizes for publishing a new volume on the subject, and offers as an excuse that the others are either very large or very small, and that his is intended to occupy a midway position. Without discussing how far a book of 500 pages justifies this intention, we may consider it upon its merits. Dr. Elsner, a former assistant to Professor Boas, has had a large experience of stomach diseases, and is able to give a fair and clear account of the views now held about them, and of the current methods of examination and treatment. The author holds that during the last ten years three important advances have been made in the diagnosis of stomach disease, and he places first the use of the Roentgen rays; secondly, the search for latent blood in the stools; and thirdly, the recognition of the asthenic constitution, or the "habitus gastroptoticus," which in Germany is believed to play such an important part in determining ptosis of the abdominal viscera with its associated functional derangements. He shares the opinion which allows a great deal of weight to the history in the diagnosis of stomach disease. Every physician recognizes the importance and the interest of histories, but they are often misleading, and where the acceptance of a particular diagnosis may mean the performance of an operation wherein the patient risks his life, we ought to feel our feet upon more solid ground, unless we are prepared to regard exploratory incision as a necessary part of stomach diagnosis. He says that pain coming on three hours after food, but relieved by eating, is nearly always attributable to hyperacidity, but we have been told here on high authority that these symptoms are always attributable to duodenal ulcer, yet both parties rely upon the history! Ulcer of the stomach, he says, may be diagnosed by cramp-like pains coming on sooner or later after meals and bearing a definite relation to the taking of food, especially if these symptoms are associated with a high degree of acidity (over 80), but he does not explain how it is to be distinguished from hyperacidity, in fact he leaves the readers under the impression that he believes hyperacidity to be usually due to the presence of an ulcer. The only means of distinguishing between a gastric and a duodenal ulcer is held by him to be the seat of the pain as indicated by the patient. In discussing the causes and treatment of gastric ulcer Dr. Elsner says nothing about the experiments of his colleague Dr. Katzenstein of Berlin with "antipepsin," of which we should have been glad to hear more. Due importance is given to the examination of the stools for latent blood, and the benzidin and hydrogen peroxide test is praised, but the benzidin solution is said not to keep more than three days. We have found a saturated solution of benzidin in absolute alcohol to keep good for several weeks, but we note the "benzidin paper" recommended by Einhorn as worth trying; it is a necessary precaution in this test that the patient should have been on a diet free from meat for the preceding three days. The author, like many of his countrymen, is disposed to attach no importance to the state of the tongue as an indication of stomach disease, and believes that a coated tongue merely implies defective mastication, especially from want of teeth. In the diagnosis of pyloric obstruction he recommends Boas's supper, but although all may agree that if the remains of food are found in the stomach next morning pyloric obstruction exists, yet their absence is not inconsistent with a degree of obstruction sufficient to cause the symptoms of which the patient complains, and which can only be removed by surgical interference, and it is, therefore, necessary to examine at a shorter interval. On the need for surgical interference in pyloric stenosis he is hesitating, and instead of recognizing that its existence is a cardinal indication, and that drugs, diet, and stomach tubes are futile, he says an operation may be performed after the failure of other means, if the patient continues to lose weight and so forth. The comparative infrequency with which recourse is had to surgery in Germany in stomach disease perhaps tends to impair the accuracy of diagnosis, for if German physicians had more often to decide whether an operation had to be performed, they would presumably be less content with their methods. For determining the size of the stomach, Dr. Elsner uses distension with carbonic acid gas in preference to air, and makes the judicious suggestion to regulate the dose by circumstances; he generally uses a teaspoonful of alkali and rather less acid. As the presence of lactic acid has been said by Boas to be diagnostic of cancer of the stomach, it is right to remember that lactic acid fermentation takes more than an hour, and cannot occur in the time allowed for an ordinary Ewald test breakfast. As bread contains lactic acid, it is better to use oatmeal gruel made with water, and the stomach should be examined at the end of three or four hours. It is only of importance when abundant, but where stasis is marked and lactic acid present the case is probably one of cancer. Boas's long bacilli, also said to indicate cancer, are only met with where hydrochloric acid is absent, which may account for the general failure to confirm the opinion of Boas as to their diagnostic value. The book is a good students' manual, but does not impress us as possessing any special individuality.

Dr. BYRON ROBINSON'S account of the *Arteries of the Gastro-intestinal Tract with Inosculation Circle*[3] contains much repetition, both of words and figures, and not very much new information. He offers his readers not so much new lamps for old as new terms for old knowledge. Most people prefer to tell a straightforward tale by means of well-known and well-understood terms, but Dr. B. Robinson likes new terms. When he wishes to mention the superior mesenteric artery he does not use the old term; nor does he speak of the arteria mesenterica superior, but of the proximal mesenteric artery; and he adds to the confusion by occasionally calling parts of the trunk by different names, the upper part being the jejunal artery and the lower the ileal. He certainly does good service by insisting upon the importance, length, and number of the straight terminal vessels which spring from the enteric arterial arcades, and the reader who will struggle through the tedious repetition and wrestle vigorously with the terminology will eventually gather a good knowledge of the arterial supply of the abdominal part of the alimentary tract, and he will have engraved in his memory the author's dictum that "the function of the inosculation circle is to congest its peripheral viscus, and to transport blood volume from one viscus to another."

The second edition of Dr. FROUSSARD'S book on the treatment of constipation, which is one of the series known as *Les Actualités médicales*, appears after an interval of six years.[4] The author adheres to the somewhat artificial classification adopted in the first edition, by which constipation is divided into spasmodic and atonic, although both occur in the course of the same case, and spasm is frequently the result of the abuse of purgatives taken to relieve atonic constipation. The definition of the condition which Dr. Froussard calls "quantitative constipation" is incomplete. It is defined as a condition "in which the bowels are moved daily, even several times a day," yet the colon is not emptied. Is not this the normal condition? It is, for instance, the rule to find faeces in the colons of healthy persons who die suddenly. The methods of treatment recommended are those generally recognized, including diet, exercise, massage, douching, enemata, irrigation, and drugs; but we note with surprise that no reference is made to lacticized sour milk, as recommended by Professor Metchnikoff, which is the most useful recent suggestion for the cure and prevention of habitual constipation.

Mr. PATERSON has reprinted, in a small volume entitled *Jejunal and Gastrojejunal Ulcer following Gastro-*

---

[2] *Lehrbuch der Magenkrankheiten.* Von Dr. Hans Elsner. Berlin: S. Karger. 1909.

[3] *The Arteries of the Gastro-intestinal Tract with Inosculation Circle.* By B. Robinson, M.D. Chicago: Published by Chicago Medical Book Company. (Cr. 4to, 222 pp., 88 figures.)

[4] *Le Traitement de la constipation.* Par Dr. Froussard. Second edition. *Les Actualités médicales.* Paris: J. B. Baillière et fils. 909 (Cr. 8vo, pp. 100. Fr. 1.50.)

jejunostomy,[5] a paper read before the Royal Society of Medicine. The main point of his paper is to show that when ulceration of the jejunum or gastrojejunal junction occurs after gastrojejunostomy it may be due either to infection or to the toxic action of hydrochloric acid on the mucosa. Up to the present no such ulcer has followed the posterior no-loop operation, so it may be assumed provisionally that it is less likely with this method than with anterior gastrojejunostomy. Prevention must be based on careful technique and in prolonged after-treatment directed to the avoidance of hyperacidity of the gastric juice. There is a good bibliography.

A TEXTBOOK OF PATHOLOGY.

THE second volume of Professor ADAMI'S *Principles of Pathology* is written in conjunction with Dr. ALBERT G. NICHOLLS, and is devoted to what the authors term *Systemic Pathology*.[6] Being the sequel to vol. i, reviewed last May (vol. i, 1909, p. 1124), which dealt with "general pathology," the present volume discusses what is usually termed "special" pathology. In two respects it contains more than is usually published in books bearing this latter title; it includes the pathology of the blood and organs of circulation, and it makes a special point of dealing with disturbances of function, as well as those of structure. The authors describe as erroneous the more usual opinion that the pathology of the blood should come under the heading of "general." Upon this matter we are not disposed to quarrel with them; provided that the morbid conditions of the blood receive their due recognition, the academical question as to the particular kind of pathology to which these conditions belong appears too unimportant to call for serious dispute. They raise a more difficult problem in claiming that discussions of function should occupy an important place in a textbook of systemic pathology. It is, indeed, true that advanced teaching in medicine is becoming more and more based upon what they term "functional pathology," and this is a healthy sign that medicine is broadening its scientific foundations. The physician is becoming more and more of a pathologist; and pathology, thanks to such men as Professor Adami, is broadening its grasp of clinical problems. But, admitting that the science of disease is of vital concern to the practitioner as well as to the pathologist, the ever-increasing complexity of the subject has made a subdivision of labour obviously necessary. We must, moreover, remember that disease, being a deviation from the normal, requires for its interpretation a knowledge of physiology, and not merely an elementary knowledge, but a knowledge of its most intricate problems, because this boundary zone between the normal and the abnormal, which is so important to the science of medicine, is precisely the region where the modern physiologist is engaged upon his most difficult tasks. Hence the necessity for a further specialization of the work, since the interpretation of disease, as a disturbance of function, must be dependent on the results of the physiologist. But together with subdivision there must be co-ordination, and, however complicated each branch of the subject may become, it will always be necessary to bring together into one focus the data derived respectively from the physiologist, the pathologist, and the clinician. It is conspicuously to the credit of Professor Adami and Dr. Nicholls that they have attempted this extremely difficult task of co-ordination. Their enterprise will certainly be appreciated by advanced students, though perhaps the average man who is preparing for life as a general practitioner will sometimes find himself carried out of his depth.

The book is divided into ten sections, each of which is devoted to a special "system." As some of these have required treatment at considerable length, the volume has assumed the inconveniently large bulk of 1082 pages. The book is difficult to criticize because it occupies an intermediate position between an ordinary textbook on special pathology and a series of monographs on diseases of particular organs. Judged by the former criterion, it is too bulky; judged by the latter, it needs considerable expansion. Owing to the excellence of its contents we say without hesitation that expansion into several volumes, after the analogy of *Quain's Anatomy*, would be the better remedy of the two. Section I, on the cardio-vascular system, which already runs to 236 pages, might easily and with much advantage be converted into an independent volume. It puts together the main facts about the pathology of the blood, the blood-forming organs, and the vascular channels; and, owing to the constructive grasp with which these data are marshalled and correlated, it excels the majority of textbooks in conveying a clear picture of the part played by the cardio-vascular system in relation to disease. Sections II, III, and IV are concerned, respectively, with the respiratory, alimentary, and nervous systems. The last hardly comes up to the standard which has been set by the best books on this subject; but Sections II and III each deserve expansion into volume form; the authors would then have a fuller opportunity of developing their conceptions of "functional pathology" in relation to these two systems. Section VI, on the urinary system, needs supplementing with a good deal more chemistry before it can attain to a very high standard. Of the remaining portions of the book, special mention may be made of Section VIII, which gives a much fuller account of the pathology of skin diseases than is usually found in general textbooks.

THE NORTH ATLANTIC.

DR. NORRIS WOLFENDEN is well known to all zoologists both as a keen yachtsman and an enthusiastic naturalist. The publication of his *Scientific and Biological Researches in the North Atlantic*[7] will be welcomed by all interested in the investigation of the marine problems. These researches, commenced in 1899, and pursued more or less continuously until 1907, were at first confined to the Faeroe-Shetland Channel. Subsequently, as this area came within the scope of operations of the International Committee, Dr. Wolfenden turned his attention to more westerly districts, and examined the deep-sea trough of the Atlantic and southwards as far as Madeira and Gibraltar. The various methods employed are fully described, and careful statistical details and tables relating both to hydrography and to the plankton are given *in extenso*. These will be of considerable value to all engaged in similar work, and reference will have to be repeatedly made to these observations. One sentence from the introduction may be quoted in the hope that it may attract more widespread notice. The author says: "I cannot but think that there are many yachtsmen who would willingly give their assistance if they were only initiated into the work, and only realized of what great importance scientific observations of this kind may be in helping to solve many problems of oceanography." Let us hope that this may meet the eye and rivet the attention of some among the many medical men who are yachtsmen.

The work of the International Committee is perhaps of too economic a character to arouse any very enthusiastic interest even among professed zoologists, but there are very many problems connected with oceanography in its widest sense which are in themselves intensely fascinating, and which are bound to arouse interest in any scientifically minded person. Some of such problems can be learnt by a glance at the published results of Professor Stanley Gardiner's oceanographical survey of the Indian Ocean.

Dr. Wolfenden has handed over the more important zoological "catches" to specialists, whose reports are included in the volume. These researches are of great value, and Dr. Wolfenden has earned the gratitude of all marine biologists and hydrographers not only for publishing his observations, but also for the labour and enthusiasm with which he has carried on the work in such a public-spirited manner.

---

[5] *Jejunal and Gastrojejunal Ulcer following Gastrojejunostomy.* By Herbert J. Paterson. London: John Bale, Sons and Danielsson, Ltd. 1909. (Sup. roy. 8vo, pp. 72; illustrated. 2s. 6d.)

[6] *The Principles of Pathology.* By J. George Adami, M.A., M.D., LL.D., F.R.S., and Albert G. Nicholls, M.A., M.D., D.Sc., F.R.S.Can. Vol. II. *Systemic Pathology.* London: Henry Frowde, and Hodder and Stoughton. 1910. (Roy. 8vo, pp. 1082; 310 engravings and 1 plates. 30s.)

[7] *Scientific and Biological Researches in the North Atlantic, conducted by the Author in his yachts "The Wahirn" and "The Silver Belle."* Memoir of the Challenger Society No. 1. By R. Norris Wolfenden, B.A., M.D.Camb., F.L.S., etc. London: Rebman, Limited 1909. (Med. 4to, pp. 242. 10s. 6d.)

A BEAUTIFUL ARM.

THE case against vaccination will not benefit creditably by the publication of the small book entitled *A Beautiful Arm*.[8] The writer boasts of his fourteen days' imprisonment for his refusal to comply with the Vaccination Acts. He claims to have made "an exhaustive study of the subject in all its bearings, especially upon its legal side, and became thoroughly equipped for the defence." Inspiration, and possibly dollars, for the writing and publication of these pages have come from a wealthy American, as the book is stated, in a prefatory note, to have been "directly instigated" by Mr. C. D. Taylor, a successful prospector in Nevada and the Rocky Mountains, whose intention it is to circulate the book widely at his own expense in the United States. If Mr. Taylor could be induced to arrange for the publication and circulation of a reply to *A Beautiful Arm* he would find himself engaged in enlightening and not misleading his fellow citizens. This would show that the successful prospector really desired to circulate the truth on this matter among those he wishes to educate. Mr. BOOTH contends that "the whole controversy and all of importance that may be regarded as of direct relation to it will be found in his pages in a condensed form 'so that he who runs may read.'" This statement is absurdly incorrect. The American readers for whom this book was specially concocted are not even informed that a Royal Commission sat in this country for seven years, or that it unanimously agreed it was the duty of the State to continue to provide vaccination for the people. Nor is any mention made of the evidence from Germany. Surely these are matters of importance in the controversy and have "a direct relation to it," but these matters are not condensed, they are suppressed. On page 88 the writer says, "Instead of less small-pox, we have it proved to a demonstration what antivaccinators have taught for nearly a century—viz., that with increased vaccination there will be increased small-pox, and this is the only logical conclusion that unbiassed and sensible people can arrive at." This statement is quite as far from the truth as the one just controverted. If it were true, then Germany would long since have been depopulated by small-pox alone. If it were true, then the staff, nurses, and attendants at small-pox hospitals "with increased vaccination," instead of being practically immune, would be the first to contract small-pox. It is, however, true that when small-pox appears the conscientious objector and the merely apathetic or negligent rush for the protection which vaccination affords, and thereby increase the vaccinations contemporaneously with the presence of small-pox, but they escape. That is not the "logical conclusion," however, to which Mr. Booth refers.

NOTES ON BOOKS.

AN inquiry into the prevalence of any disease amongst a dying race in a distant part of the world has a medical as well as an ethnological value, and Dr. ALIS HRDLICKA has produced a very interesting report on *Tuberculosis Among Certain Indian Tribes of the United States*,[9] which establishes the fact that these peoples suffer from tuberculosis far more than the white inhabitants of the country, in spite of the fact that they do not live in over-crowded towns and are engaged in outdoor occupations. The cases of phthisis positively established by Dr. Hrdlicka in the five tribes examined amounted to the very high proportion of from 3 to 5 per cent. of the whole population. From the information available it appears that this state of affairs only dates from recent times, and may be traced to the advent of the white men. Once infection had been introduced the spread of the disease was furthered by the habits of the Indians, which tend to lower the resisting power of the individual whilst favouring direct infection. Neglect of ventilation of their houses and huts, especially during the winter, excessive clothing, and indulgence in alcohol of the worst description, seem to be the main agents in lowering resistance, whilst inadequate and improper food is a contributory agent in many cases. Direct infection is favoured by uncleanly habits and by traditional customs. Indiscriminate expectoration seems general, and the earth floors of the huts must be thoroughly infected; clothing and bedding, which may easily get soiled with sputum, are never changed; wooden bowls and spoons are used for food, and are passed from one to another during a meal; the pipe is passed round and smoked by all. As consumptives are numerous and no precautions are taken, the opportunities for infection are many. Dr. Hrdlicka sketches the requirements for prophylaxis, but these depend upon an alteration in the habits of the Indians, which may not be brought about in time to save the tribes from extinction.

The sixth volume of the *Transactions of the Medico-Legal Society*[10] is edited by Mr. DIGBY COTES-PREEDY and Dr. W. A. BREND, both members of the Inner Temple, and covers the work of the society during the session ending in July, 1909. Some fourteen papers and discussions are recorded, of which the majority, including the Plea for Correct Thinking, put in by the late president of the society, Mr. Justice Walton, by way of an inaugural address, have already received notice in these columns. Among other papers are considerations of hereditary resemblances in relation to legal affiliation, of the law of exhumation and of haemothymia, a term under which Dr. Claye Shaw disguises lust for blood as a real and prominent motive in many cases of murder. Most of the papers provided excellent discussions, and as a whole the volume fully bears out our previously expressed belief that the membership of this society might be doubled with great advantage, both to medicine and law, and to the active practitioners of one and the other.

The seventeenth and eighteenth laboratory reports[11] of Messrs. Southall Brothers and Barclay are issued together in a pamphlet which contains records of the examination of drugs, chemicals, and galenical preparations in the firm's laboratories. The details are naturally of importance to chemists and pharmacists, though many of the matters touched on are of wider interest. Arsenic continues to be a serious impurity in certain chemicals, though it seems practically to have disappeared from others, such as citric and tartaric acids and glycerine. Commercial samples of liquid extract of hydrastis were found to vary considerably in alkaloidal strength, and it is suggested that a definite strength for this preparation should be officially fixed. Sundry minor researches are recorded, one of which, on the loss of strength undergone by spirit of nitrous ether, showed that it is due to evaporation and not to decomposition; when exposed in an open measure as much as 42 per cent. of the ethyl nitrite was lost in half an hour. The firm will send a copy of the pamphlet to any of our readers on application.

In *Thornton on Patents*[12] the author, Mr. A. A. THORNTON, a consulting patent agent, sets forth the rules obtaining, both in this country and abroad, with regard to the protection of new inventions. His explanations are very clear, and an excellent index, supplemented by full details as to the contents of each chapter and marginal notes to the text, make easy the search for information on any particular point. Lists of cases are also supplied, with brief notes on the points involved, and the view held by the court on the most important of them. It is a reference book for the information chiefly, perhaps, of solicitors, but is written in such style as to be equally useful to those who have made some invention and desire, before putting themselves in the hands of a patent agent, to see what steps are necessary to obtain a patent.

MR. H. D. SEARLES WOOD, President of the Section of Public Health and Sanitation of the Japan-British Exhibition next summer, calls the attention of all those engaged in matters which come within the scope of the section to the advisability of making it worthy of the occasion. The Japanese Government are keenly interested in all matters of public health and sanitation, and the arrangement made by that Government promises to provide at the White City a very complete demonstration of the progress made by Japan.

[8] *A Beautiful Arm. A History of the Vaccination Delusion.* By Amos Booth, of Leicester. London: Sampson Low, Marston and Co., Ltd. 1909. (Fcap. 8vo, pp. 142. 2s.)

[9] *Tuberculosis Among Certain Indian Tribes of the United States.* By Alis Hrdlicka. Smithsonian Institution, Bureau of American Ethnology, Bulletin 42. Washington: Government Printing Office. 1909. Med. 8vo, pp. 55, plates 22.)

[10] *Transactions of the Medico-Legal Society.* Vol. vi. London: F. J. Lamb. 1909. (Pp. 248.)

[11] *Seventeenth and Eighteenth Laboratory Reports, 1908–1909.* Edited by E. W. Mann, Ph.C., F.C.S. 1910. Southall Brothers and Barclay, Limited, Birmingham. (Demy 8vo, pp. 47.)

[12] *Thornton on Patents, British and Foreign.* By Alfred Augustus Thornton, Consulting Patent Agent. London: Charles Jones, Ltd. (Roy. 8vo, pp. 575. 21s.)

MEDICAL AND SURGICAL APPLIANCES.

Apparatus for Cold Cautery and Thermo-penetration.

A NEW electrical apparatus, in which von Lepell's system of high-frequency currents is employed, has lately been introduced for thermo-penetration, or the delivery of internal heat, and also for administering what is known as the "cold" cautery. Its value in the latter respect has been tested for rectal operations at St. Mark's Hospital, London, and the surgeon concerned (Mr. F. C. Wallis), after a little preliminary difficulty in obtaining a suitable current for the spark, pronounced it very successful so far as his trials had gone. The apparatus, which has been brought out by Mr. K. Schall (75, New Cavendish Street, W.), is remarkably simple and compact. For cautery one of the poles is connected to a needle, and when the needle is brought close to the body there is a discharge of a spark, about half a millimetre in length, which rapidly destroys the tissues at the point of impact, so that deep incisions may be made without haemorrhage. The other, and perhaps the chief, purpose of the apparatus is to give thermo-penetration, as distinct from the more superficial heat-production of hot-air or electric-light baths. Von Lepell's high-frequency system has a much smaller voltage, but a higher milliampèrage, than the type of high-frequency usually employed, and it is stated that with these new currents no sensation is experienced other than that of the rise in temperature, and no chemical or physiological effects produced other than those of heat. Given an apparatus for delivering and controlling the internal heat certainly and efficiently, various uses will suggest themselves. Good results in the treatment of gonorrhoeal rheumatism are reported from the Continent; the coagulation of the albumen which takes place under the continued influence of the current may furnish a means of destroying tumours, and it is stated that deep local anaesthesia can be produced, although this last effect requires further investigation.

MEDICINAL AND DIETETIC ARTICLES.

Antileprol.

THE value of chaulmoogra oil for administration in leprosy has long been recognized, but it is far from being an attractive drug, and often produces gastric disturbance. We have received samples of a purified form of this oil, which has been introduced with the name Antileprol by the Bayer Company (19, St. Dunstan's Hill, London, E.C.). The nature of the purification which has been effected is not stated. The sample which we examined was a liquid oil, bright, practically colourless, and forming a practically neutral solution in alcohol. It is intended for either hypodermic injection or mouth administration, and for the latter purpose it is also supplied in capsules containing respectively 0.5 and 1.0 gram (7½ and 15 grains). Various reports on its employment which are submitted indicate that the avoidance of unpleasant complications by the use of the purified oil permits of more prolonged treatment, and has led to favourable results.

FERRO-SILICON:

ITS USES AND DANGERS.

A SUPPLEMENT, in continuation of the Report of the Medical Officer for 1908–9, on the nature, uses, and manufacture of ferro-silicon, with special reference to possible dangers arising from its transport and storage,[1] has been issued by the Local Government Board. Associated with Dr. Monckton Copeman, the Medical Inspector of the Board, in this inquiry were Mr. Samuel R. Bennett, one of H.M. Inspectors of Factories, and Dr. Wilson Hake, Lecturer on Chemistry at Westminster Hospital.

Ferro-silicon is an alloy of iron and silicon, of which the low-grade variety, containing not more than 15 per cent. of silicon, is made in blast furnaces to a considerable extent in this country; while the high-grade class, containing from 25 to 95 per cent. of silicon, can only be made at the very high temperature of the electric furnace. The latter variety is imported from parts of France, Austria, Scandinavia, and other places where ample electrical energy is derivable at a low cost from water power. The annual importation of this material into England amounts to about 4,000 tons. Ferro-silicon forms an essential ingredient as regards its silicon content in the manufacture of certain grades of steel, to which it is added in small quantities while the metal is in a molten condition. The proportion of silicon added to steel during manufacture is primarily dependent on the nature of the finished product required. Generally speaking, the presence of silicon in small amount has a hardening effect on iron, similar to, but to a much less extent, than is the case with carbon. But of greater importance than the hardening effect is the property silicon possesses of transforming combined carbon into the graphite condition, and thus producing a softening effect. Advantage is taken of this peculiarity in almost all processes of iron manufacture.

The functions of silicon in the manufacture of and its effects on the physical properties of steel are as follows:

(*a*) Silicon in being oxidized in the furnace or converter acts as a metallurgical fuel.

(*b*) Owing to the heat produced it will cause molten steel to remain fluid for a long time, and so enable thin and intricate castings to be made.

(*c*) It acts as a reducing agent or otherwise to prevent formation of blowholes in castings.

(*d*) It is used as an admixture in steel to produce certain important physical properties in the highest degree.

References are made in the report to accidents, fatal and otherwise, which are known to have occurred in connexion with the transport and storage of ferro-silicon. Dr. Copeman states that the earliest record he has found of danger incidental to the handling of high-grade ferro-silicon, manufactured in the electric furnace, is contained in a paper published in 1904 by the late Dr. Dupré, F.R.S., at that time chemical adviser to the Explosives Department of the Home Office. This paper refers to the circumstances attending a series of explosions which occurred in connexion with a consignment of this material from the Cunard Company's steamship *Veria*, at the Alexandra Dock, Liverpool. These explosions were due, in the opinion of Dr. Dupré, to the evolution of an inflammable gas consisting, in a far greater part at any rate, of phosphoretted hydrogen. Another observer, Mr. Watson Gray, found also, besides phosphoretted hydrogen, small amounts of acetylene and arseniuretted hydrogen among the gases generated in the casks.

In January, 1905, on the steamship *Vaderland*, during a voyage from Antwerp to New York, of the steerage passengers lodged in the forward compartment of the vessel, over a hold in which a cargo of ferro-silicon was stored, fifty were made seriously ill by fumes given off from this substance. Of these, eleven died on the voyage. The authorities became seriously alarmed, and although the medical officer on board certified the deaths as due from pneumonia, the steamer and its passengers were quarantined on suspicion of the vessel being infected by plague. As the result of official inquiry at the time, the deaths were attributed to "unknown causes," but subsequent fuller inquiry resulted in the conclusion that the sickness and death of so many of the steerage passengers were due to fumes given off by the cargo of ferro-silicon.

In this country several deaths have occurred from the fumes. In October, 1905, Dr. J. F. Robertson, of Althorpe, was called to the Keadby Canal to see two children, aged 3 and 4 years respectively, who were lying ill on board a "keel" (canal boat). In a letter to the JOURNAL of May 15th, 1909, p. 1179, Dr. Robertson stated that on arrival he found one child was already dead, whilst the other was lying in an unconscious state, covered with a cold, clammy sweat, the pulse hardly perceptible, the breathing slow and light, and the pupils somewhat dilated. Crepitations were heard all over the chest, but nothing else abnormal. The child died soon afterwards. The father and mother were also suffering from an abdominal pain, sickness, and diarrhoea. As Dr. Robertson was unable to certify the cause of death an inquest was held. A *post-mortem* examination was ordered, but nothing was observed but some congestion of the lungs. Chemical examination was made on portions of the viscera together with samples of the food taken by the family. The analyst reported that no evidence of poisoning could be found in the viscera, but that a sample of the cargo proved to be ferro-silicon. The jury returned a verdict to the effect that the cause of death was narcotic poisoning, caused by the fumes of ferro-silicon. Other deaths have been reported from time to time as being due to the same cause. In the JOURNAL of

[1] London: Wyman and Sons; Edinburgh: Oliver and Boyd; Dublin: E. Ponsonby. 1909. (Cd. 4958). 1s. 11d.

January 9th, 1909, p. 127, an account is given of the inquiry as to the cause of the deaths of five Jewish emigrants during the voyage from Antwerp to Grimsby. The deaths were traced to the inhalation of fumes from 9 tons of ferro-silicon the ship was carrying. In the JOURNAL of July 3rd, 1909, p. 42, an account is given of the death of four passengers on board a Swedish steamer which carried 15 tons of ferro-silicon.

The *post-mortem* appearances, and from the bacteriological and chemical examinations carried out in connexion with persons dying in ships which carried ferro-silicon, leave no doubt that the cause of death has been clearly established as due to emanations from the cargo of ferro-silicon, the chief gas being phosphoretted hydrogen, along with a small quantity of arseniuretted hydrogen. The matter of the conveyance of ferro-silicon was very fully investigated, and the works of over twenty firms using the material were visited. Dr. Copeman also visited certain of the manufactories in the south-eastern district of France, from whence ferro-silicon is exported to this country, and the different processes of the manufacture are described. Dr. H. Wilson Hake analysed seventy-one samples. Mr. Bennett's report deals with the composition and structure of ferro-silicon.

In view of the facts disclosed by the report of Dr. Dupré and Captain Lloyd, issued in 1904, a large number of shipping companies came to the conclusion that ferro-silicon is dangerous to carry from the shipowners' point of view, and thereupon announced in April, 1905, that they would only carry in bulk ferro-silicon which is the product of the blast furnace.

After the deaths on board the steamship *Ashton* in December, 1908, a conference of steamship owners and agents, representing a number of East Coast lines, adopted a unanimous resolution to the effect that "this traffic (that is, ferro-silicon) is not to be carried." Notwithstanding, however, that practically all the chief shipping companies have determined, under existing circumstances, to discontinue acceptance of consignments of ferro-silicon from abroad, a certain amount of the material continues to reach this country, owing to the fact that some owners are willing to accept the possible risk. As a consequence, what business remains has been transferred from East to West Coast ports, and, at present, practically all consignments, comparatively small in amount, from France, Austria, and Italy to this country are being shipped from Treport to Manchester. Owing to the smallness of the supplies now coming into this country agents' and manufacturers' stocks are becoming depleted, and, as no electrically produced ferro-silicon is being produced in this country, considerable anxiety exists as to how future needs are to be met.

The report ends with a summary of conclusions drawn up by Dr. Copeman, who also submits draft regulations as to precautionary measures in connexion with the storage and transport of ferro-silicon.

One of the conclusions is that low-grade ferro-silicon (10 to 15 per cent.) produced in the blast furnace does not evolve poisonous gases even in the presence of moisture, and has not given rise to accidents. Grades of alloy made in the electric furnace up to and including 30 per cent. appear to be "practically innocuous," and this statement applies probably, "though in a considerably less degree, to those of 70 per cent. and over." The proprietors of iron and steel works are therefore advised to restrict their orders to grades of this material, either not exceeding 30 per cent., or 70 per cent. and upwards according to the special nature of their requirements. The regulations suggested include the following requirements: (1) That ferro-silicon, after being broken up into pieces of the size in which it is usually sold, should be stored at the place of manufacture under cover, but exposed to the air, for at least a month; (2) that manufacturers should be required to mark each barrel or package in a way to show the nature, percentage, date of manufacture, and place of origin of each consignment; (3) that the carriage of ferro-silicon on vessels carrying passengers should be prohibited, and that when carried on cargo boats it should, if possible, be stored on deck; (4) that these regulations should apply also to river or canal barges; (5) that storage places at docks or works should have provision for free access of air, and should not be near workrooms, messrooms, or offices.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

THE deaths from plague in India during the following periods in 1909 were as follows: August 28th to 31st, 834; in September, 10,632; in October, 17,362; in November, 18,379; in December to the 18th, 14,189.

The chief centres of plague during the periods in question from August 28th to December 18th: The deaths from plague in the Bombay Presidency numbered 13,065; Bengal, 2,234; United Provinces, 18,117; Punjab, 8,770; Central Provinces, 12,672; Rajputana, 5,419; Cashmere, 165; Central India, 4,514; Hyderabad, 120; Mysore State, 2,662; Madras Presidency, 1,518; Burma, 469.

MAURITIUS.

During September (18th to 30th) 30 cases and 20 deaths were reported; in October, 98 cases, 59 deaths; in November, 154 cases, 74 deaths; in December, 92 cases and 43 deaths.

HONG KONG.

During the week ended November 27th, 1909, one fatal case.

CHINA.

Canton was declared free of plague on August 1st. In Amoy 460 cases of plague were reported between June 27th and August 14th; on August 31st the epidemic was reported to be extinguished.

JAPAN.

During August and September a few cases of plague occurred in Kobe, 16 deaths from the disease having occurred during these months; in Schikoku 2 cases were reported on August 23rd.

FORMOSA.

In the early part of the year, January to June, 1909, 1,015 cases of plague were reported. In July 12 cases occurred.

TURKEY.

From Adalia, between June 25th and July 25th, 5 cases of plague were reported; on October 28th, 1 death from plague occurred.

EGYPT.

Between August 14th and October 29th, cases of plague numbered 54. Amongst the places slightly infected were: Zifta, Dessuk, Alexandria, Port Said.

BRITISH EAST AFRICA.

At Kisumu, in July, 8 cases plague reported; during August, 4 cases were notified.

GERMAN EAST AFRICA.

Plague was declared extinguished on September 17th, 1909.

THE AZORES.

Plague reported to be extinguished on September 26th.

SOUTH AMERICA.

Venezuela.—Between June 1st and August 16th 25 cases of plague reported. On September 7th Venezuela declared free from plague.

Ecuador.—At Guayaquil, between August 15th and September 15th, 74 cases of plague declared.

Peru.—In all Peru, from August 28th to September 4th, 13 cases of plague reported, with 9 deaths from the disease.

Chili.—Between August 18th and September 5th 2 reported cases.

TRINIDAD.

No cases of plague in Trinidad since July 18th.

UNITED STATES OF AMERICA.

At Sunol, California, on August 2nd, one case of plague reported; at Alameda, California, one case reported to have occurred on September 24th.

HAWAII.

Between June 18th and August 16th 13 cases of plague reported.

RUSSIA.

At Kugisenaul, in the Ural district, between August 5th and 20th, 23 persons died of plague.

THE report presented by the council to the annual general meeting of the Royal Meteorological Society last week stated that the council had forwarded a memorial to the Royal Commission which is now inquiring into the work of the University of London, urging that the time is fully ripe for placing the study of meteorology on a more satisfactory basis, and for its inclusion among the subjects for degree examinations. Mr. H. Mellish, the President, afterwards delivered an address on the relations of meteorology with agriculture.

THE RECENT MEMORIAL OF THE INDEPENDENT MEDICAL PROFESSION OF THE BOMBAY PRESIDENCY TO THE SECRETARY OF STATE.

[FROM A CORRESPONDENT.]

THE public services in India have of late years become the object of a good deal of hostile criticism—some honest and useful, but a good deal dishonest and futile. Among them the Government Medical Service, which has for long been of incalculable value to the country, has come in for its share of criticism of both kinds.

The so-called "Swadeshi" movement, combined with the existence of an Indian medical profession which has been built up by the enthusiastic labours of succeeding generations of Indian Medical Service officers, has now, in the great majority of civil stations, removed the factor of private emoluments, and we must therefore take all references which may be made to the "lucrative private practice" of the Indian civil surgeon with something more than a grain of salt. The existence of this private practice was, however, in former days one of the main attractions of the service.

The memorial addressed to the Secretary of State for India by the Bombay Medical Union, dated September 8th, and reproduced in the SUPPLEMENT of the BRITISH MEDICAL JOURNAL of October 9th, 1909, purports to be the representations of the "independent medical profession of the Bombay Presidency," held under the chairmanship of Sir Balchandra Krishna, L.M.Bombay University, a former student of the Grant Medical College. This memorial contains statements of genuine admitted grievances and demands for much-needed improvements, mixed up with requests which are unreasonable or impracticable—arguments which are specious, insinuations against the professional efficiency of honourable and distinguished men, and some assertions which are demonstrably untrue.

The question, however, of the destruction of an important public service, should not be argued either from the point of view of the vested interests of that service, or from the view of the interests of a political coterie in Bombay actuated by motives of hostility towards the European element in the Indian public services, but from the much broader standpoint of the interests of the Empire as a whole.

Keeping this in mind, it may first be pointed out that the object for which the Indian Medical Service primarily exists is the medical care of the Indian army in peace and war. The civil department is the highly efficient reserve on which the Government will draw (and has repeatedly drawn) in times of national stress. The necessity of maintaining unimpaired the efficiency of the Indian army will not be disputed. The officers of the Indian Medical Service have accompanied the forces on many an arduous campaign, nor have they been found wanting on occasions which would have strained to breaking point any but the most efficient department. This efficiency has been maintained through the traditions of a service which, in spite of great official discouragement, has always held that the "good doctors" are its most creditable members.

This service has attracted the best type of young English surgeon—the man who has taken brilliant or respectable qualifications, has held hospital appointments, and combines professional enthusiasm with a healthy desire for a life of freedom and adventure. In the face of such manifold discouragements as obtain at present, the service will not attract such men much longer, but it will be a bad day for the Indian army when they cease to present themselves at the entrance examination.

The man who enters for the Indian Medical Service under present conditions expects to have some five or six years of military work, during which he will become acquainted with Indian dialects, customs, and methods; will have a somewhat monotonous but useful existence in cantonments; will "rough it" on service once or twice; and when he has been through the mill will be eligible for the more interesting professional work of civil employment, in which he believes he will find ample material for any branch of medical work which he may have an inclination to follow. It is true he will be cut about £40 of his annual income for this privilege, but he is willing to meet it. In his capacity as civil surgeon he will be the final medical and surgical authority in a district containing a million or more of souls; the administrator of a hospital, a jail, and several dispensaries; the sanitary adviser of a municipality; the professional adviser of the civil servants and most of their families; the Government medical referee in the enrolment of the subordinate civil servants and police, and on questions relating to sick leave and retirements on pension caused by ill health; and last, but by no means least, he is the final and expert adviser of the Crown on all matters pertaining to homicide, suicide, rape, infanticide, grievous hurt, and all other medico-legal work of the gravest and most responsible character.

This extraordinary conglomeration of expert assistance the Government expects to get, and does get, in return in the great majority of cases for the pay of 600 to 800 rupees a month. This is the service which the Secretary of State is asked to destroy and he is asked also to diminish the efficiency of the medical service of the military forces, for is it likely that the type of English surgeon above described will continue to be attracted to a service the most attractive part of which from a professional point of view is done away with? The particulars of the memorial may now be examined.

I.—*The Service "Monopoly."*

We are told of "the acknowledged anomalies and abuses of the existing monopoly of the Indian Medical Service" (par. 1), which, it is alleged, has "not only created grave dissatisfaction, but has also prejudicially affected the cause of science and the public revenue"; after enumeration of the gazetted medical appointments in the Bombay Presidency, reference is made to "the total and systematic exclusion of the sons of the soil, however qualified and deserving," from all medical appointments worth having.

From this it would be concluded that the Indian Medical Service was open to Europeans only. A reference to any list of successful candidates will at once show a number of native names, but this would not give an accurate idea of the actual proportion, inasmuch as the names of many natives, especially those of Parsees, are English in character. Moreover, the list would not show the Eurasian element. The Indian Medical Service is open without restriction to natives of India who care to enter for a competitive examination, can pass the physical tests, and possess a registrable qualification. This involves some work in the United Kingdom, an examination in London, and a valuable course at the Military Medical School, during which successful candidates draw pay.

The "Independent Medical Profession in India" probably strongly objects to the expense entailed on native aspirants for medical commissions by this residence in England, but can it be doubted that in the interests of the Empire it is a good thing for young Indians, who are to become gazetted officers, and the colleagues of English officials, civil and military, and who will become as civil surgeons persons of influence in native cities—can it be disputed that it is a good thing that they should have seen something of English life and conditions, and have been compelled to realize by residence that, after all, England is not the decadent Power which so many Indian seditionists love to picture it? The voyage between Bombay and the Channel is in itself an education on the magnitude of English power and English commerce. It is undoubtedly in the interests of the Empire that young Indians should be encouraged, and assisted, to visit the United Kingdom if only for a few months, and any breach of the system which takes them there is to be deprecated.

Any expense which this system entails is more than compensated for by the remarkable cheapness of the medical curriculum in India, and that this is of a very high quality is proved by the facility with which students who have been unsuccessful in their final examinations at Indian universities qualify at home before one or other of the examining boards.

Next, "the advancement of medical science" has been hindered by the existence of a Government medical service throughout the peninsula. Any candid man who will take the trouble to study the recently published *Transactions* of the Bombay Medical Congress of 1909 will

be able to judge as to what class of men is doing the most for the advancement of medical science in India. The most valuable papers (not the longest—that is another story) were contributed by members of the Indian Medical Service, and out of all proportion to their numbers. It is painful that so soon after this striking object-lesson had occurred the "independent" medical profession of Bombay should give the service men such an ungrateful return.

As regards the effect on the public revenue, it has already been pointed out that the country gets a very high grade of expert work in return for pay which compares very unfavourably with that available for other public departments.

Lastly, as regards the "monopoly." The local administrations have built hospitals and dispensaries through out British India, and have equipped them at a cost of many crores of rupees. They naturally require that this valuable property shall be administered by their servants—men whose discipline, control, movements, standard of efficiency, responsibility for the care of valuable property and for expenditure, shall be directed by themselves; in other words, a disciplined public service must do the greatest part of the medical work of the country.

On the other hand, the Government of Bombay has indicated that it will go no further in adding to medical institutions. If more are required (and they are required) they must be built by private charity, and be administered and officered by honorary staffs, as is the case in England. A Parsee hospital on these lines has arisen in Bombay. It forms the commencement in the Western Presidency of opportunities to the independent medical profession to develop their own class of consultants. But there are already posts for honorary physicians and surgeons at the leading Government hospital in Bombay (posts which might well be increased) which afford opportunities for the acquisition of professional status and experience similar to like appointments held at non-Government hospitals in England.

The suggestion contained in the memorial that natives of India who decline to enter a disciplined Government service are thereby deprived of professional opportunities is not justified by the facts.

II.—*The Medical Professors.*

We now pass to the consideration of the system under which the medical teaching is carried on at the most important (not the only) medical school in Western India—the Grant Medical College, which nowadays has nearly 550 students on its rolls.

Among the alleged grievances most emphasized by the memorialists is the fact that the majority of the professorships are reserved for officers of the Indian Medical Service, who, it may again be remarked, need not necessarily be Europeans.

The insinuation which runs throughout the memorial is to the effect that the present staff are incompetent, and have been placed by official favour in billets for which they are unfitted. We read the perfectly reasonable demand that "in the interests of learning and science the Principal and professors of the Grant Medical College and the attached J. J. Hospital should be appointed solely on the grounds of scientific attainments and teaching powers." We are told of "the system of appointing men to important college and hospital posts by the test of membership of the service, and, according to service exigencies, *to the disregard of all other considerations*" (our italics); of the policy which "had till then" (Lord Reay's time) "reserved appointments for members of the Indian Medical Service, *irrespective of fitness or aptitude*."

It is extremely easy to make these covert insinuations against the professional capacity of a body of honourable men, who have the grave responsibility of preparing Indian youths for membership of a most important profession in one of the largest provinces under the Crown, but such a method of influencing the mind of a Secretary of State must shock those acquainted with the facts.

The present Professor of Midwifery is an M.D. Durham University, has held the appointment for something like seventeen years, and is recognized as the highest authority on his speciality in the Bombay Presidency. The Professor of Medicine holds the degree of M.B.Lond., and has been connected as a physician with the medical school for the greater part of his twenty-three years' service. The Professor of Pathology and Second Physician possesses the M.D., B.S.Lond., has held the post for seven years, and was before this for many years Professor of Physiology. The two surgeons, Professors of Surgery and Anatomy respectively, have the F.R.C.S.Eng. The whole-time Professor of Physiology, who also holds the minor Professorship of Hygiene, is M.D. and D.P.H. of Cambridge. The Professor of Chemistry, who is also Chemical Analyser to Government, is the author of the leading textbook in India on forensic medicine and toxicology. The deputy who has acted for him in recent years during furlough is a graduate of Edinburgh University, and has been a scientific chemist from boyhood.

The department of the Chemical Analyser (so important in the administration of justice) is a service within a service. The Government now takes young men who have an inclination (that is, "fitness" and "aptitude") for this sort of work, attaches them to various laboratories throughout India, gives them a training which is unique, and utilizes their highly expert services as occasion offers.

The Professorship of Bacteriology, a post recently created by Government, is held by a native graduate M.D.Bombay and M.R.C.P.Lond., a distinguished former student of the school but not a service man.

We may now consider "acting" appointments. When a temporary vacancy occurs from furlough or sickness a junior member of the service is appointed by the Surgeon-General to "act." The suggestion that the Surgeon-General is prepared to put into one of these acting appointments any medical cypher, who through "service exigencies" has to be fitted in somewhere, is one which has no foundation. It is the business of the head of the civil medical department to know his men, and he appoints some one, whose complete record is before him, whose aptitudes are known from the nature of special studies which have been followed, or appointments which have been held in England, or from original work which has been done in India. If this man be tried and found wanting, whether in professional knowledge, tact in dealing with students, or ability to teach his special branch, he is certainly not appointed again. If, after trial, his work is found to be good he is noted as the "waiting man" for the appointment when in course of time a substantive vacancy occurs. The system is obviously good, and it might be difficult to improve upon it.

Again, as promotion vacancies occur among the staff, the Professor of Anatomy becomes the Professor of Surgery; the Professor of Pathology becomes Professor of Medicine. The chairs of Obstetrics and of Ophthalmology are subjects apart. There is nothing in this system which differs from that which obtains in medical schools in the United Kingdom.

Finally, we may note that this is not only a civil, but also a military, medical school, where young assistant surgeons are trained for the Indian Subordinate Medical Department. Here the maintenance of discipline under professors connected with the military system becomes a matter of necessity.

III.—*Multiple Appointments.*

We now come to the grievance of the "heterogeneous and incongruous combination of appointments held by the same individuals who cannot, in the nature of things, be expected to possess the necessary combination of qualifications for the posts," and examples are quoted which illustrate the looseness and inaccuracy of the memorial.

Thus, "the Professor of Midwifery and Diseases of Women and Children" (the full title is spun out) "acted also as professor of botany." This refers to the fact that for six months during the absence of the present incumbent the acting professor of midwifery held also the minor professorship of botany, a subject in which he had taken honours at his university, and which he has since maintained as a matter of interest and recreation.

Again, "the professor of anatomy was deemed qualified to hold the chair of midwifery." This appears to refer to a fairly recent occasion when a gentleman who had been acting as professor of anatomy and had left Bombay was called back to fill a sudden vacancy at the hospital for women for eight weeks during the vacation—work which he was well qualified to perform as an expert abdominal surgeon. It is true there were no lectures to be given

and but few students about, but this is called "holding the chair of midwifery."

Next, "pathology, chemistry, and medical jurisprudence have found the same exponent." It is difficult to fix this, but it appears to refer to an occasion when the Chemical Analyser left in a hurry caused by sickness, and during the interval of a week or so pending the arrival of his successor the professor of pathology was gazetted to take charge of the office under a "paper appointment." Such "paper appointments" are made in exceptional circumstances to secure continuity in the routine administration of the correspondence connected with every Government office, or to indicate the responsibility of a particular commissioned officer for the care of the office itself. Such passing appointments involve no teaching and carry no pay.

Next, the Secretary of State is informed that "one professor was deemed versatile enough to be capable of doing justice to such widely divergent subjects" (in succession) "as botany, chemistry, medical jurisprudence, etc.," seven professorships in all being named. As it stands in the memorial, it would appear to one not conversant with the facts that this occurred the day before yesterday. It appears to refer to the official history of that many-sided man, the late Wellington Gray, who more than twenty years ago was a great power in Bombay as a physician, surgeon, and ophthalmologist, and who presided over the school at a time when, in comparison with its present state, its size was microscopic, and when an "independent" medical profession could hardly be said to exist. He became Principal and Senior Medical Officer in 1888.

IV.—*The Professional Qualifications of Non-Official Native Practitioners.*

Next we come to the "independent medical profession" itself, which is represented as a collection of high graduates—on the one hand left out in the cold by their happy medical brethren of the Indian Medical Service under the present system, and, on the other hand, quite capable of taking the place of the service men. According to the memorial, there are in the Bombay Presidency one M.D., D.Sc.Lond.; two F.R.C.S.Eng.; "over half a dozen" F.R.C.S.Edin.; five F.R.C.S.I.; three M.R.C.P.Lond.; one M.R.C.P.Ed.; one M.B., B.S.Lond.; one M.D. Cornell University, U.S.A.; five M.D.Bombay; one M.D.Freiburg *(honoris causâ)*. From these it might be concluded that twenty-six highly qualified individuals in the Presidency were out in the cold. But while, on the one hand, the memorialists have endeavoured to decry the professional abilities of the Indian Medical Service, they have, on the other, attempted to "crack up" the "independent" forces, for we must eliminate the three M.R.C.P.Lond., one of whom should have been coupled with a F.R.C.S., and the others with two of the M.D.'s. Two at least of the Irish Fellows are Parsee ladies engaged at women's hospitals. This reduces the number to twenty-one in the whole Presidency. Of the remainder, one F.R.C.S.Eng. was an honorary surgeon at the J. J. Hospital, and lecturer on diseases of the ear and throat. After a period of friction he resigned his appointment, and started a hospital of his own in which excellent surgical work has been done. The other F.R.C.S.Eng. (and M.R.C.P.Lond.) is a member of the honorary staff of the J. J. Hospital, and lectures on diseases of the ear and nose. Of the "more than" six Edinburgh Fellows—two are on the surgical staff of the J. J. Hospital; and a third is an assistant surgeon, who for long had a teaching appointment at the Ahmedabad Medical School. Of the three (male) Irish Fellows, one has for a long time been connected with the medical school in Bombay as a teacher on obstetrics with opportunities for practical work; a second was for many years teacher of chemistry, and now specializes in ophthalmology. One M.D.Bombay is a professor at the college; a second is a tutor on midwifery; and the M.D.Freiburg *(honoris causâ)* has charge of the Bombay fever hospitals (a paid appointment), enjoys an extensive practice, and is a recognized authority on the subject which he has made his own.

This accounts for ten persons, mainly in Bombay city itself, out of the alleged twenty-one individuals in the whole Presidency. It does not appear that effort has been lacking on the part of the official portion of the profession or of the Government to advance their interests in every possible manner.

It is difficult in the absence of a proper medical register for India to fix the qualifications and localities of those Indians in this Presidency who have taken European diplomas. In the latest Churchills' *Medical Directory*, the list for Bombay City shows thirty-seven native and Eurasian names. This list is not complete, as one F.R.C.S.Eng. is not found there. Of these, twenty-two show the L.R.C.S.Edin. or triple qualification of Edinburgh and Glasgow, and several of them have the M.D. of the University of Brussels. All the better qualified men on this list have received official recognition of some sort, either at Government or municipal hospitals, or under the Health Department; and one has retired from the service of a native State.

V.—*The Control of Medical Teaching Institutions.*

Want of space allows only of attention to one further misrepresentation in this memorial, namely, that concerning the "anomaly" of the "dual control of the Surgeon-General and the Director of Public Instruction over the . . . Grant Medical College and the J. J. Hospital. Principals after Principals (*sic*) have protested against this anomaly, etc.," and the demand is made later on that all control of the college and "teaching side" of the hospital "should be vested in the Director of Public Instruction alone, and that the Surgeon-General should have no control over the professors and teaching staff of the college and hospital.'

It is true that Principal after Principal has protested against the anomaly of the Director of Public Instruction having control over a medical institution. From the nature of the case this distinguished layman can know little of the complexity of medical work, and certainly is not in a position to estimate the respective merits of the professors' abilities, or to be a judge of the claims of candidates for appointments, to say nothing of the strange demand which is now made that he should control the clinical teaching of a hospital. His own limitations are recognized in practice by the Director of Public Instruction (who is nominally the Director of the Medical College) when he refers questions connected therewith to the Surgeon-General for his opinion and advice, which is freely given in the public interests. This is called "control claimed to be shared by the Military Head of the Service."

It is an interesting sidelight on the unpractical character of the memorialists that they should demand that the lay control over a medical school, which is now both nominal and anomalous, should be made absolute.

In conclusion, the Indian Medical Service can hardly be congratulated on the brilliancy of service prospects. On the one hand, with a Government apathetic in the rewarding or even in the protection of their medical servants, and which does not scruple to humiliate them by public orders which are insulting to the whole profession; and, on the other hand, with every evidence of outside hostility, the position of service men seems by no means to be envied. Young Englishmen with first-class qualifications might well be instructed to pause before compromising their careers by entering the service.

This memorial, replete with inaccuracies, innuendoes, and a want of common charity towards honourable members of the medical profession, is not likely to raise the Indian medical profession in the estimation of medical men in other portions of the British Empire. There are genuine reforms which might well have been urged, as, for instance, that appointments in the Uncovenanted Service might be increased in number; that the pay of such civil surgeons should be greatly improved; that promotions to the better civil stations should be given for the best professional work. That every facility and even pecuniary assistance should be afforded to promising young Indians to go to the United Kingdom to enter the Indian Medical Service can be advocated in the interests of the Empire. Nay, a certain proportion of appointments in each batch might well be reserved for youths from Indian schools should suitable candidates present themselves.

But this attack on a useful public service savours too much of political faction.

BRITISH MEDICAL BENEVOLENT FUND.

AT the January meeting sixteen cases were considered by the Committee and grants amounting to £155 made to fifteen of the applicants. Appended is an abstract of the cases relieved.

M.D.(Durham), aged 58. Is incapacitated by hemiplegia and dependent on a sister whose income is very small. Used to be a man of considerable means, but owing to a series of misfortunes, over which he had no control, is now practically penniless. Voted £10 in two instalments.

M.B.(Cantab.), aged 41. Used to practise in London, but was obliged to give up owing to a long illness. Is now sufficiently recovered to do locumtenent work, but finds great difficulty in obtaining engagements at this time of year. No income, and wife a chronic invalid. Voted £10, of which half was subscribed by another society anxious to help the applicant.

L.S.A., aged 70. Has been quite incapacitated for the last three or four years, and is dependent on a small allowance from a local medical benevolent society and slight help from relations. Voted £12.

Daughter, aged 53, of late M.R.C.S., L.S.A. Only certain income about £10 a year, and endeavours to support herself by taking boarders, but was unable last year to cover her unavoidable expenses. Voted £10.

Widow, aged 33, of M.B., M.Ch.Glasg. Only income about £20 a year, and asks for a little help towards school fees for her only child, a boy aged 9, who is a candidate for Epsom College. Is endeavouring to obtain a post as housekeeper or companion. Voted £10.

Daughter, aged 32, of late M.R.C.S.Eng., L.R.C.P.Edin. Used to support herself as a shorthand typist, but about five years ago developed phthisis and has since been unable to work. Dependent on her mother, an Epsom pensioner, and a sister, who is a clerk. Voted £10 in two instalments.

Daughter, aged 38, of late M.R.C.S., L.S.A. Is a chronic invalid, and only able to help her mother, whose income is insufficient for the support of both. Relieved once, £10. Voted £10 in two instalments.

Widow, aged 60, of M.R.C.S. No income, and dependent on children, who can ill afford to help. Relieved six times, £70. Voted £12 in twelve instalments.

Daughter, aged 72, of late M.R.C.S., L.S.A. Income less than £20 a year; earns a few shillings occasionally by needlework. Relieved ten times, £101. Voted £12 in twelve instalments.

Daughter, aged 58, of late M.R.C.S., L.S.A. Was a matron at a large school for several years, and now endeavours to support herself by sewing. Eyesight failing and health indifferent. Relieved three times, £36. Voted £12 in twelve instalments.

Widow, aged 52, of M.R.C.S., L.S.A. Income very small, but with the help of this fund has been enabled to keep a small home and bring up her family. One boy still at school, having won a scholarship. Relieved fourteen times, £162. Voted £12 in twelve instalments.

Widow, aged 65, of late L.F.P.S.Glasg. Husband's savings exhausted by long illness, ending in death about eighteen months ago; endeavours to support herself by taking boarders. Relieved twice, £10. Voted £12 in twelve instalments.

Widow, aged 36, of M.R.C.S.Eng., L.R.C.P.Edin. Asks for help to send a daughter to Canada as a mother's help. Relieved once, £10. Voted £5.

Widow, aged 58, of L.R.C.P., L.R.C.S.Dub. Unprovided for at husband's death a few years ago, and dependent on friends and the help of this fund. Relieved five times, £47. Voted £6 in six instalments.

Daughter, aged 55, of late M.R.C.S. Since father's death several years ago has supported herself by a small school, but has lost several pupils owing to competition and removals. Relieved three times, £43. Voted £12 in twelve instalments.

Contributions may be sent to the Honorary Treasurer, Dr. Samuel West, 15, Wimpole Street, London, W.

LITERARY NOTES.

IT is proposed that the medical libraries of Berlin should be amalgamated. They include the library of the Berlin Medical Society, of the German Surgical Society, of the Dermatological, Laryngological, Otological, and Roentgenological Societies, of the Imperial Committee for the Study of Cancer, and of the Medical Department of the Empress Frederick Foundation. Most of these libraries already have a mutual arrangement which allows members of one society access to the books in the others. The new proposal, however, is to gather all the libraries of Berlin into an Association of Medical Libraries, of which Professor C. A. Ewald will be President. It is further proposed to publish a complete catalogue of the contents of the federated libraries. There are certain economic difficulties in the way of the realization of the scheme, but there is said to be good ground for the hope that these will be overcome.

Dr. Kenneth W. Millican has been appointed by the Chairman of the Municipal Commission on Tuberculosis of Saint Louis, editor of its *Bulletin*. Dr. Millican, who is a graduate of Cambridge, and received his medical education at St. Mary's Hospital, London, for several years edited the *St. Louis Medical Review;* he was also for some time associate editor of the *New York Medical Journal*, and later was on the editorial staff of the *Journal of the American Medical Association*.

S. Hamilton, B.A., M.B. (Newport, Mon.), writes:

In your article on medical poets in the JOURNAL of January 22nd there is at least one omission. No mention is made of Henry Vaughan, known as "the Silurist" (owing to the fact of his birth and residence in Siluria, which comprises the county of Monmouthshire and part of Breconshire). He was born near Crickhowell, in the vale of the Usk, in Breconshire, in 1621; was educated at Jesus College, Oxford, and returned to his native district, where he practised medicine and cultivated the muse until his death in 1695. It is said that he took some part in the Civil war, and that he was imprisoned with a certain Dr. Powell for his activity in the Royalist cause. As a poet he ought not to be forgotten. I have before me a little volume of his poems containing 300 pages. His verse is sometimes rugged, but it contains many beautiful thoughts. Little is known of him as a medical practitioner.

There are doubtless many other omissions in the article, which was mostly written from memory. The *Dictionary of National Biography* gives 1622 as the date of Henry Vaughan's birth. The writer of his life says that "where and when he obtained his medical diploma has not been ascertained, but about 1645 he began to practise as a physician in Brecknock, whence, in or about 1650, he removed to his native place (Newton-by-Usk, in the parish of Llansaintffraed, Brecknockshire), continuing to practise." Writing to John Aubrey, his cousin, towards the end of his life, he says: "My profession also is physic, which I have practised now for many years with good success (I thank God), and a repute big enough for a person of greater parts than myselfe." Antony à Wood says he was eminent for his medical skill. Some of his poems are held to rank among the finest in the English language. It may be mentioned that he was also distinguished as a writer of prose.

The *Dublin Journal of Medical Science* for December contains an article by Dr. T. Percy C. Kirkpatrick, physician to Steevens's Hospital, Dublin, giving an account of Sir Edward Barry, an Irish physician of the eighteenth century. Born at Cork in 1698, he graduated at Trinity College in 1717. In 1718 he is found "entered on the physic line in the University of Leyden," where he studied under Boerhaave and took his doctor's degree in the following year. A copy of his inaugural dissertation, *De Nutritione*, is in the British Museum. He then began to practise his profession in Cork. In 1726 he published a work entitled *On a Consumption on the Lungs*, in which he largely incorporated the substance of his Leyden thesis. In 1740 he took the doctor's degree at Dublin. He had considerable success as a physician, and in 1745 was appointed Physician-General to the Forces in Ireland. In the same year he became a member of the Irish Parliament. In 1749 he was elected President of the Irish College of Physicians. In 1754 he was elected Regius Professor of Physic in Trinity College. Soon, however, his thoughts turned to London, for he was incorporated M.D. at Oxford, and in 1761 was elected a Fellow of the London College of Physicians, of which he was Censor in 1763. Barry is mentioned by Boswell, where Johnson is reported as mentioning his *System of Physic*, and saying:

He was a man who had acquired a high reputation in Dublin, came over to England and brought his reputation with him, but had not great success. His notion was that pulsation occasions death by attrition; and that, therefore, the way to preserve life is to retard pulsation. But we know that pulsation is strongest in infants, and that we increase in growth while it operates in its regular course; so it cannot be the cause of destruction.

About 1769 or 1770 Barry left London and settled in Bath, where he died, probably in 1776. He was the author of several writings, including an account of a malignant lues venerea communicated by suction in the city of Cork (1735); an observation on bloody urine, caused by a worm in the bladder (1740); and a book entitled *Observations, Historical, Critical, and Medical, on the Wines of the Ancients* (1775), which is said to be the first work of

its kind in English. Dr. Kirkpatrick gives an analysis of his principal work, which is entitled *On Digestion*. To us Barry's most interesting writings are his correspondence with John, fifth Earl of Orrery, the biographer of Swift, which extended over many years. In these letters we get glimpses of some of the celebrities of the time. Writing in April, 1735–6, Barry says:

I'm concerned to hear that Swift is confin'd by some Disorder; I hope nothing but a bilous (*sic*) cholic, which a few Satyrical evacuations will remove.

On May 19th, 1738, he writes of his old teacher:

Poor Boerhaave is dying in an asthma, and, as he says himself, from a collection of purulent matter in his Thorax.

Some glimpses, too, we get of medical treatment in the eighteenth century, as in the following passages. On May 18th, 1736, Barry writes:

I was mad enough to go to Kinsale last Wednesday and return the same Day. I inflamd my Blood by this unusual exercise and took Cold. By being twice blooded, Watergruel, and Confinement, I am now free from any Complaint of Consequence.

Then again, May 25th, 1736, he writes:

By three times bleeding and applying Cantharides I am entirely free from a Fever, and have but weak remains of my cough, but still confine my Self to milk morning and evening, and a total abstinence from Wine. I visited my patients these two days. Dean Ward will tell yr Lordship that all this was unnecessary, and perhaps he is in the right of it, he would not believe that I had anything of a Colic when I was in most exquisite pain. Yr Conduct, my Ld, has been too much the reverse of mine, you have been too careless, and I am too anxious and busy in the use of medicines. I own I have an aversion to pain, and I know the dangerous Fire of my Constitution can only be appeas'd by a large Sacrifice of Blood. These visits of Sickness are the most usefull Lectures of Philosophy, tho' for my part I would rather continue ignorant; however, I hope they will make us more prudent in our Conduct for the future.

In a letter, dated "Orrery Quay, February 1st, 1736–7," he says:

While I thought myself invulnerable and had bid Adieu to all pain, I was seizd with a confounded toothach. I had the suspected one extracted, but since it has raged more violently in the rest. I must wait with patience for ease. . . . I have spent these three or four nights past in chewing Tobacco and reading Rollins History.

Barry was created a baronet in 1775. He was succeeded by his son Nathaniel, whom Grattan is said to have described as the most accomplished gentleman he had ever met. He was President of the Irish College of Physicians in 1767, this being, according to Dr. Kirkpatrick, the only instance of father and son both being presidents of the College during the father's lifetime.

We have received the second edition of the *Literature of Medicine and Natural Science*, an illustrated guide to the publications of Messrs. J. and A. Churchill. The catalogue covers the whole range of medicine and surgery and the ancillary sciences, and the specimens of the drawings reproduced in the books are admirable specimens of the art of illustration. We are informed that the first edition was so well received that it had to be reprinted twice in three weeks.

School Hygiene is described on its title page as a monthly review for educationists and doctors. Its founders express their conviction that "there is a need for a review which shall treat of the newly-discovered gaps in education from the medical and educational aspects." They intend, whilst being rigidly scientific in their thoroughness, to be popular in form—"to present the case, that is to say, in such a way as to make clear to any well-instructed person the necessity for this alliance between the professions of teaching and medicine." The first number contains articles on co-operation in education by Professor H. Griesbach, Sir Lauder Brunton, and Dr. A. Mathieu, Presidents of the three International Congresses on School Hygiene. Among the other contents are articles on elementary schools and tuberculosis, by Dr. James Kerr; on interest in education as affecting health, by the Rev. the Hon. E. Lyttelton; and on hair colour and height, by by Dr. F. C. Shrubsall. The new periodical is published by the School Hygiene Publication Co., Ltd.

Clot-Bey, to whom was mainly due the organization of the French Medical School at Cairo, and who was at one time physician to Mehemet Ali, was once attacked by an Egyptian fanatic while delivering a lecture. The dagger fortunately slipped on the ribs, and Clot-Bey, taking a bandage from his pocket, dressed the wound himself. Then calmly continuing his discourse he said: "Gentlemen, we were speaking of the sternum and the ribs. I will explain to you why there is little chance of stabs directed from above downwards penetrating deeply." The coolness of the professor gave him an immense moral influence over his pupils. Perhaps a finer example of courage, because there was nothing of scenic display about it, is related of Dupuytren. Towards the end of a lecture he felt that a stroke of apoplexy was impending. Steadying himself by holding on to the table with his hand and fixing a foot round one of its legs, he quietly brought his remarks to a close, and then had himself taken home. Though not altogether relevant to the subject, we cannot help recalling, in connexion with these instances of quiet discharge of duty in extraordinary circumstances, the Salamanca professor who, after spending seven years in the dungeons of the Inquisition, was restored to his position. A huge audience assembled, expecting to hear some reference to what he had gone through since he had last sat in the professorial chair. They were astonished and probably somewhat disappointed when he quietly began *Dicebamos ayer* (We were saying yesterday), and continued as if there had only been the usual interval between two lectures.

Nova et Vetera.

ART THE HANDMAID OF HYGIENE.

ALTHOUGH the conservation of health is one of the chief objects to be aimed at by the community, as well as by the individual, and forms the reason for the existence of the medical profession, it should not be made the sole end of human life. We are, perhaps, rather apt in these days to take too much thought for our food and our raiment wherewith we shall be clad, and for everything that may in any way be supposed to affect our physical wellbeing. When the *cura cutis* became a religion among the Romans they had entered on the stage of decadence; this was the meaning of the poet when he warned them of the danger *propter vitam vivendi perdere causas*. An inevitable consequence of what may be called the health obsession is the large space which it occupies in newspapers and magazines and in the number of journals devoted to the subject. The education of the public in health matters is an excellent thing in itself, and, instead of making the doctor a figure lagging superfluous on the stage, it makes his part in life ever more conspicuous and important. But for the lay folk themselves it is not an unmixed good. The reading of such literature makes for self-consciousness and neurasthenia, even in those who start in life with a sound constitution; for others it tends to drive them into hypochondriasis, and makes them the prey of quacks.

We are glad, therefore, to welcome a new French periodical which deals with questions of health in an entirely rational manner. It is entitled *L'Hygiène*[1] and is edited by the well-known Paris physician, Dr. Maurice de Fleury, who has among his collaborators most of the leading members of the medical profession in Paris. Among them need only be mentioned Professors Bouchard, Calmette, Chantemesse, Chauffard, Debove, Dieulafoy, Charles Richet, Albert Robin, Armand Gautier, Lannelongue, Landouzy, and MM. Huchard, Metchnikoff, Léon Labbé, and Widal. This list alone is sufficient to guarantee success to the new journal, for it includes the most illustrious and most honoured names in French biology and medicine. Nor will their collaboration be a purely nominal one. Each time that occasion demands it, readers may procure from these specialists an article, letter, or interview, expressing their views and teaching upon the subject they have made their speciality. M. de Fleury has also enlisted the co-operation of a number of well known writers and artists. In an introductory article, he explains that the aim of the publication is to make attractive and living the results of modern hygienic science; to teach men how to suffer less; how to lessen the suffering they see around them; how to

[1] *L'Hygiène; revue mensuelle illustrée.* Published by Goupil and Co., Art Publishers; and Manzi, Joyant and Co., Fine Art Publishers, Successors, 25, Bedford Street, Strand, London.

husband their strength and to get all the good and happiness to be got out of life without shortening their days. The teachings of science are to be presented not only in language understanded of the people, but set off with literary grace. *L'Hygiène* takes everything appertaining to health for its province—the sanitary conditions of homes, of theatres, schools, barracks, workshops, and all public places; clothing and especially food. The hygiene of professional life will not be neglected, and the "hygiene of beauty" will find a place. In a word, every part and phase of human life, whether among the rich or among the poor, will be considered as falling within the scope of *L'Hygiène*. As Dr. de Fleury well says: "Hygiene among the poor is a safeguard of the health of the rich." In dealing with the prevention of disease the writers will not advise its readers to pass their lives, as it were, in an antiseptic atmosphere with the fear of the microbe ever before their eyes. Dr. de Fleury points out that there is a *via media* between utter neglect of the body and excessive care of its well-being. Here we may be allowed to say that sanctity has often been associated with dirt. It is true that in the later days of the Roman Empire, when the public baths had become places of debauch, moralists fulminated against them, and their teaching was, as is usually the case, carried too far by fanatics. But there is abundant evidence that bathing was common even all through the so-called Dark Ages. M. de Fleury quotes a very sensible pronouncement made by the Superior of a convent to which he was called. She said to him:

"Doctor, look after my sisters. Do not wait to give counsels of hygiene till they are actually ill. The rules of our Order are strict, and, as you are well aware, we will not break them; but they are not absurd. More than ever during this period of trouble, I intend to take care of my flock. To deserve Heaven—I except a few chosen souls—we must be able to offer to God a long, very long life of works and prayers. Do not let us shorten by imprudence our time of exile upon earth. I have remarked that anaemia, excessive fatigue which has become chronic, and a certain languor of physical vitality, strongly predispose to nervous disorders, extravagant mysticism, morbid doubt, absurd scruples—all things which my long experience leads me to look upon with dread. Give strength to my daughters that they may have healthy souls, spirits at rest and a joyous energy in long bearing their burden of duty."

We might supplement these sensible remarks of this lady by saying that fasting, though now oddly enough preached by some as a principle of hygiene, leads in most people not only to inefficiency of mind, but of body. In many, as is well known, in community life, it causes irritability of temper, which we should think, even from the strictly religious point of view, cannot make the sacrifice acceptable. Dr. Johnson seems to have experienced this effect in himself, for he quotes with apparent approval one of the Fathers who condemned fasting because it made him feel peevish.

What Matthew Arnold would have called a sweet reasonableness is the distinctive character, the "note" of *L'Hygiène*. "We will always endeavour," says M. de Fleury, "not to prescribe anything too hard, and not by exaggerated severities to restrict the narrow bounds of earthly enjoyment, particularly with regard to the pleasures of the table. Whilst advising such régimes as conform to all dietetic rules, we will take care not to exact useless sacrifices." The wide and kindly tolerance of human weakness expressed in these words is shown on every page of *L'Hygiène*, which is further distinguished by the entire absence of fanaticism, and a refreshing freedom from every sort of fad. "Sensible moderation in all things" might be taken as the keynote of every article. Professor Armand Gautier, of the Académie des Sciences and the Académie de Médecine, discusses the question of wine. He recommends the drinking of wine in moderation, particularly red wines such as Bordeaux, Macon, etc., as the best means of mitigating and ultimately destroying the terrible scourge of drunkenness. "What," he says, "does the workman who labours with his hands ask for—at least, during his meals and when he can pay for it? He asks for wine, and almost always red wine. It is this wine that the people instinctively feel as supplying them with the maximum of restoration and vigour." Tobacco is dealt with in the same spirit by Dr. Etienne Burnet of the Institut Pasteur, who says that smoking in the majority of cases, if not carried to excess, is harmless. Professor L. Landouzy contributes the first of a series of articles on tuberculosis. M. Paul Strauss describes the Pierre Budin foundations for the care and feeding of nurslings, and Madame Augusta Moll-Weiss writes with the tenderest sympathy and the clearest insight on the rearing of infants and the training of young women in the duties of motherhood. In an interview with Dr. Metchnikoff by Dr. Surger, the celebrated Russian bacteriologist discourses on his favourite theme—the dangers of the large intestine and how to protect ourselves against them by means of sour milk. We note that he has somewhat mitigated the severity of his denunciation of the colon, for while still holding it to be the haunt of mischief breeding microbes, he says: "It cannot reasonably be urged that the large intestine should be got rid of by surgical procedures." But we must replace the hurtful microbes by useful ones, such as the Bulgarian bacillus, and the beneficent varieties of lactic bacilli. M. Paul Juillerat writes on the slums of Paris, and the influence of the absence of air and light in the production of tuberculosis; and MM. Chantemesse and Borel discourse on the efficacy of the quarantine methods of Holland and Germany against the spread of cholera. In an essay on the intemperance of princes, Pierre de Nolhac deals with a theme which was handled not long ago in this JOURNAL in an article on Royal Appetites.

A section of the magazine is devoted to cookery—so important a factor in the maintenance of good health—and various useful receipts, both old and new, are to be given each month, together with a complete list of the meat, poultry, game, fish, vegetables, and fruit then in season. M. Georges Vicaire gives an amusing account of high class fourteenth century cooking based on an old recipe book of Guillaume Tirel, nicknamed Taillevent, who was chef to Charles V. M. Vicaire has had the courage to try one or two of them. One, comparatively simple, for a dish of roasted eggs, gave him the impression of a mixture of all the phials in a druggist's shop, with the various scents in a perfumer's establishment. Of some of the others we can well imagine the description *horrifique recette* to be no exaggeration. Salted whale was formerly much eaten in Lent. M. Vicaire doubts whether it formed an appetizing dish. At any rate, an experiment with the flesh of fresh whale left him an unpleasant memory; it was oily, leathery, and tasteless. Our forefathers seemed to have liked their viands strongly seasoned and peppered; they would, according to M. Vicaire, burn a modern palate.

In order to encourage interest in hygienic questions, M. de Fleury invites his readers to collaborate in the great work of improving the public health by writing for any information that they may desire on the subject; and he has established a bureau for the purpose of answering such questions, each one of which will be referred to that member of the staff best qualified to supply the answer. Further, in order to carry out more effectively the mission they have undertaken, the directors of *L'Hygiène* have organized an exhibition and a series of lectures on hygiene in connexion with the journal; these features it is intended to develop as circumstances allow.

The illustrations are almost beyond praise. Besides many interesting photographs, which include fine portraits of some of the eminent contributors, every second page of *L'Hygiène* is decorated with pictures of famous paintings and statuary, all exquisitely reproduced, and ranging from Della Robbia's figure of "Charity" on the hospital of Pistoja to J. Ring's "Cuisine au XVI^{e} Siècle," from Jan Steen's "Jeune Malade" and "Un Evanouissement" to the "Petit Déjeuner" of François Bouchet. These pictures add very largely to the interest and value of the journal, which is not only the best illustrated, but the best printed journal of its kind it has ever been our good fortune to see. If the high standard of the first number is kept up, *L'Hygiène* cannot fail of success. We congratulate the publishers on the happy thought of enlisting art and literature in the service of hygiene, which has unfortunately become associated in the public mind with drains and cesspools. The journal will be the means of making the teachings of science in regard to health reach many who are not attracted by books or periodicals of the ordinary kind.

British Medical Journal.

SATURDAY, JANUARY 29TH, 1910.

TELEOLOGY IN MEDICINE.

IN an address which he recently delivered before the Kaiser Wilhelm's Academy of the German army medical service, Professor Bier takes as his theme the importance of teleological conceptions in practical medicine.[1] Perhaps, in this country, the word "teleology" savours too much of abstract metaphysics to appeal to the medical practitioner; so we may say at once that the gist of Professor Bier's doctrine may be described in more homely terms as an enunciation of the principle that it is the medical man's duty to help Nature to help herself. But homely language also has its disadvantages; it encourages the familiarity which breeds contempt, and prompts the suggestion that the desirability of studying Nature's methods is a commonplace truism which every medical man accepts as a matter of course. The value of Professor Bier's address lies neither in its essential simplicity nor in its indulgence in the use of abstract terminology, but in its insistence that the apparently purposive manifestations of the animal organism are much more important than is usually supposed as a guide to medical and surgical treatment.

It was, he says, the "teleological" method of thinking which led him to devise his mode of treating localized lesions by induced hyperaemia, his purpose being "to bring into play the normal capacities of the blood for relieving pain, promoting absorption and resolution, and destroying bacteria." Behring observed that in diphtheria Nature's way of combating the disease is to manufacture an antidote to the diphtheria toxin; and the recognition of this "purposive" reaction led to the introduction of the antitoxin treatment. Metchnikoff's doctrine of the protective and curative significance of phagocytosis has been equally fruitful in medical practice; it has shown that for prophylactic and therapeutic purposes the body may advantageously be subjected to treatment which induces a marked leucocytosis. In this respect Professor Bier remarks, we find, as is not uncommonly the case, that a method now justified by modern scientific research was anticipated long ago by the crude empiricism of our forefathers, who, with their "setons," "artificial issues," and similar means, aimed at producing intrinsically the same result. Then we have Jennerian vaccination and modern methods of producing immunity against diseases other than small-pox by treatment with specific "vaccines," which are all based on the same principle of imitating the protective mechanism naturally inherent in the body. These are only a few examples, but they may suffice to show that strong evidence can readily be brought forward in support of what Professor Bier calls the "teleological conception" as a guiding principle for the treatment of disease.

Whilst contending that the recognition of this purposive element in vital phenomena is justified on its practical side by its utility in medical treatment, and that it is confirmed in its scientific aspect by its support from the Darwinian doctrine of the survival of the fittest, Professor Bier is anxious to disclaim association with those who interpret teleological conceptions in an unscientific and illogical manner. He particularly objects to the doctrine of "vitalism" or "vital force," which, according to some, is the logical outcome of the teleological conception. According to "vitalism," we must postulate a peculiar force or form of energy, different from ordinary physical and chemical agencies, which creates and controls the form and activity of the living organism. Such a conception he considers to be merely an appeal to the scientifically unknown; being vague and intangible, it explains nothing, but serves amongst loose thinkers as a licence for random speculation and mysticism. The attempt to replace "teleology" by "vitalism" springs from the desire to ascribe a cause to everything. To seek for the cause of phenomena is the natural desire of every scientist, and Professor Bier recognizes that scientific requirements will not be satisfied until the true causal relationship of the data under investigation have been adequately established. But the recognition of this necessity does not, in his opinion, justify the postulation of a mysterious force which, in its causal relationships, is scientifically unintelligible, or, at least, unknown, and therefore explains nothing.

On the other hand, the "purposive" element in vital phenomena is, he maintains, made manifest by a vast array of established facts; therefore the scientific usage of the teleological conception is legitimate, and does not transcend the data of exact knowledge. Nor is there any incompatibility between the teleological interpretation of presented data and the demand that these must, before they can meet the full requirements of scientific knowledge, be arranged in ordered sequence, each item of which shall appear as an essential cause followed by its logically necessary effect. Or, to express the same idea in the more abstract language of Kant and later German metaphysicians, the teleological aspect of the phenomena of vital processes is in no way incompatible with the scientific explanation of them as effects inevitably determined by definite causes.

The "teleological" method of interpreting the reactions of the body in health and disease has already, in Professor Bier's opinion, served as "the guiding star of medical practice," and will continue to be of the highest value in the fuller advancement of medical knowledge. But it must, he is careful to add, be employed with discretion. We must avoid the foolishness of exalting it to the pedestal of a universally valid law of Nature; it is no more than an induction from experience, and consequently only holds good in so far as it rests on the support of authenticated data. It would be foolish to jump to the conclusion that all reactions which are induced in the body by infective agents and morbid processes are, in their purport, conservative and beneficial. Interference with Nature's method of reacting to morbid processes is often, as every medical man knows, peremptorily demanded. Professor Bier limits himself to the sober contention, which few would be inclined to dispute, that Nature's apparently purposive mechanism for resisting disease is still very

[1] *Ueber die Berechtigung des teleologischen Denkens in der praktischen Medizin.* Festrede gehalten am Stiftungstage der Kaiser Wilhelms-Akademie für das Militärarztliche Bildungswesen, 2 Dezember, 1909. 1910. Berlin: A. Hirschwald. (Med. 8vo, pp. 19. M.0.40.)

imperfectly understood, and that the desire to unravel its secrets is still one of our greatest stimuli to advancement in the art of healing.

THE SERUM REACTION IN SYPHILIS.

THE discovery of the *Spirochaeta pallida*, the introduction of the arylarsonates in the treatment of the disease, and the careful and extensive statistical study by Erb and others have brought about great changes in our knowledge as to the causation and treatment of syphilis. Perhaps the most striking innovation, however, is the introduction by Wassermann, Neisser, and Bruck of a serum reaction which was supposed to be specific for syphilis. Much work has been done in clinics and laboratories, and, though many points are still unsettled, it has become possible to form an opinion of the value of this reaction in many respects. The first question which has to be answered is, "Does Wassermann's reaction when positive indicate active syphilis?" Dr. F. Lesser,[1] who applied this reaction in 2,000 cases, has come to the conclusion that with a few reservations the answer to the question must be in the affirmative. A positive reaction has been obtained in scarlatina, but it differs somewhat from the syphilitic reaction, and soon disappears after the fever has passed off. In his 2,000 cases Lesser met with three positive reactions where syphilis could be excluded. A positive reaction in doubtful cases of congenital syphilis, in interstitial keratitis, and in cases where there is a suspicion of commencing general paralysis of the insane, may, he considers, be accepted as clinching the diagnosis. Dr. A. Blaschko[2] is a little more reserved on this point, but he, too, believes that a parallelism exists between the reaction and the clinical manifestations of the disease. Dr. Harald Boas[3] accepts the diagnostic importance of the reaction to its full extent, as does Dr. J. K. Beckers[4] and Dr. J. Bauer.[5]

Similar opinions have been formed by workers in this country. Bassett-Smith[6] has found the reaction one of very great diagnostic value, although the positive reactions in his syphilitic cases were not so frequent as those in the hands of others. At St. Mary's Hospital undoubted syphilis appears to have yielded a very large percentage of positive reactions, especially when the test was conducted by Fleming's modification.[7] Froude Flashman and Graham Butler[8] regard a positive reaction as diagnostic of syphilis.

On the other hand, none of these authors regard a negative reaction as excluding syphilis. The power of the serum to deflect complement appears only after a certain time, and the reaction is therefore of no value in distinguishing between a hard chancre and a soft sore. But, as Lesser points out, the presence or absence of spirochaetes will determine the diagnosis in these cases. Positive reactions have been met with in yaws, a disease which has much in common with syphilis, but the observation will not as a rule detract from the practical value of the test. The reaction occurs also in leprosy, and Drs. C. Bruck and E. Gessner[9] found it necessary to make a close investigation on this point. That the serum of lepers possessed the power of deflecting complement is certain, but the reaction, it is stated, differs somewhat from the true Wassermann reaction, and it is only in districts where leprosy is present that any uncertainty is likely to arise from this source. Boas, who has studied the reaction in 1,345 cases, found that it was positive in primary syphilis in 60 per cent. of the cases examined; it was positive in all the secondary syphilis cases and in 97 per cent. of the untreated tertiary cases. In general paralysis it was also present in all cases, while a positive reaction was obtained in 80 per cent. of the cases of tabes examined. Only in latent syphilis were the negative reactions more common than the positive (47 per cent. positive). On the other hand, Beckers obtained 90 per cent. of positive reactions in secondary syphilis, but only 55.5 per cent. in tertiary. Lesser's figures approximate to those of Boas, but he does not arrange his cases into primary, secondary, and tertiary. Flashman and Butler[10] are of opinion that negative results with the serum of syphilitics are diminishing as the technique of the experiments is improving.

The effect of mercurial treatment in changing a positive into a negative reaction is dealt with by most of the authors. Blaschko holds that the change is only temporary in the majority of cases. He is of opinion that the treatment should be continued until the reaction becomes negative, and that the practitioner should not rest satisfied merely with disappearance of symptoms. A careful control, even after this has been effected, may be of use. Unless special reasons determine otherwise, he considers that a positive reaction must be taken as an indication for further treatment. Lesser, who recognizes that mercurial treatment does effect this change in acquired syphilis, states that he has not observed it in congenital syphilis. Many of the British observers appear to consider that a positive reaction is not often changed into a negative one by the exhibition of mercury, if symptoms have been present. Further, the abuse of alcohol, which is not uncommon among prostitutes, appears to prevent the change. Boas regards the return of the positive reaction as an indication of threatening symptoms, and therefore as an urgent indication for renewed treatment. On the ground that in general paralysis of the insane the reaction is always positive, Lesser is satisfied that this disease is always syphilitic. Tabes dorsalis he regards as syphilitic when traumatic causes can be excluded, since in 74 per cent. of his cases syphilis was admitted, and in all but three of those in which it was denied the positive reaction proved the infection. The three other cases were undoubtedly traumatic. Blaschko also believes that the reaction may be utilized diagnostically in general paralysis. Henderson Smith and Candler[11] have also adduced evidence of the value of the reaction in the diagnosis of general paralysis of the insane.

In regard to prognosis, practically all authors agree that the change from positive to negative by treatment and the want of an accurate method of measuring the degree of the reaction renders it dangerous to form any opinion as to the future course of a syphilitic infection on the basis of the reaction. The second difficulty will, in all probability, be removed by further experiment, and it will then remain to be seen whether the first factor is an insurmountable obstacle.

[1] *Deut. med. Woch.*, March 4th, 1909.
[2] *Deut. med. Woch.*, March 4th, 1909.
[3] *Berl. klin. Woch.*, March 29th, 1909.
[4] *Muench. med. Woch.*, March 16th, 1909.
[5] *Deut. med. Woch.*, March 11th, 1909.
[6] Bassett-Smith, BRITISH MEDICAL JOURNAL, vol. ii, 1909, p. 377.
[7] Fleming, ibid., vol. ii, 1909, p. 984.
[8] Graham Butler, ibid., vol. ii, 1909, p. 1019.
[9] *Berl klin. Woch.*, March 29th, 1909.
[10] Loc. cit.
[11] Henderson Smith and Candler, BRITISH MEDICAL JOURNAL, vol. ii 1909, p. 198.

COMPLIMENTARY DINNER TO DR. FORD ANDERSON.

A DINNER given by the Hampstead Division in honour of Dr. J. Ford Anderson, on the occasion of his 70th birthday and of his Presidency of the Metropolitan Counties Branch, was held at the Great Central Hotel, on the 21st inst. The company consisted of a large number of the members of the Association, both of the Hampstead Division and of other Divisions, with their ladies, a muster of medical women from the London School of Medicine for Women, and the official guests. The latter were Dr. and Mrs. Ford Anderson, Mrs. Garrett Anderson, Dr. Lauriston Shaw (President-elect of the Branch), the Editor of the JOURNAL, the Deputy Medical Secretary, and Drs. Goodall and Griffith (the Honorary Secretaries of the Branch); while among the privately invited guests were several of Dr. Ford Anderson's oldest patients. After dinner the Chairman (Mr. H. W. Armit) proposed the toast of the evening in a graceful speech. He referred to Dr. Ford Anderson's career as a medical practitioner, as a member of the British Medical Association, and as a man, and before asking his friends to drink the health, presented to Dr. Ford Anderson a beautiful illuminated address signed by a large number of the members of the Association. Amid song and enthusiastic applause the youthful septuagenarian received such a welcome that when he rose he faltered with emotion. His remarks were partly directed toward expressing his gratitude to his friends for the manner in which the toast had been received, and partly toward his past, present, and future position in the Association. He referred to the interest he had taken in checking hospital abuse, and to the progress which had already been made in dealing with it. With the expiration of his Presidency of the Branch and of his term of service on the Central Council, both of which fell together in the coming summer, he would cease to take an official part in the business of the Association, but as long as he lived he would work for the Association and the profession. He also returned thanks for the reference which had been made to Mrs. Ford Anderson by the chairman, in giving the toast. Dr. Claude Taylor was most happy in his speech proposing the toast of the British Medical Association, and in reply, Dr Lauriston Shaw struck an earnest note in calling upon others to emulate Dr. Ford Anderson's example by giving time and energy to the work. Replying for the guests, the toast having been proposed by Dr. Oakley, Mr. Bergheim, an old patient and friend of Dr. Ford Anderson, spoke in terms of warm affection and great praise, in the name of what he termed the real examiner of the medical man, the patient. Mr. Bergheim's remarks were greatly appreciated, and filled to overflowing the already full cup of honour presented to Dr. Ford Anderson. The unanimous opinion expressed was that the dinner was a success. An excellent programme of music enhanced the enjoyment of the company.

THE LATE DR. W. A. ELLISTON.

ON January 22nd a beautiful stained glass window, placed at the east end of St. John's Church, Felixstowe, in memory of the late Dr. W. A. Elliston, by his widow and family, was dedicated by the Bishop of Thetford in the presence of a large congregation. The bishop, in an address delivered afterwards, said that the congregation had gathered to honour the memory of a distinguished and emphatically many-sided man, a man who was greatly beloved and who was an ornament to the great medical profession. He had had the distinction of being President of the British Medical Association when it held its annual meeting at Ipswich, and discharged the duties of that office with dignified ability and intellectual power which reflected credit alike upon himself and the profession of which he was a member. Dr. Elliston was not only a distinguished medical man but a conscientious student, a faithful councillor of the town in which he lived, an educationalist, a ready speaker, and a progressive worker in all life's departments. He was also keen on games and one of the truest of friends, so that it was little wonder that he was beloved by the people as well as by those of his own family. He was a devotedly religious man, and it was that which gave such tone, quality, living power and usefulness to his life. The influence which the lives of good men, the bishop said, had on their fellows was always striking, and he concluded by asking the congregation to let a life of dedication and consideration mark their every thought, word, and deed. The window represents the crucified Saviour, with the emblems of the Passion on shields in the background. In the two side lights are the prophets David and Isaiah, with types of Christ (Melchizedek, Moses, Isaac, and Abel) in the upper parts. At the foot of the cross are the Virgin and St. John, with St. Mary Magdalene kneeling. On the left side are St. John the Baptist, the patron saint of the church, St. Luke the beloved physician, St. Alban protomartyr of England, and St. Felix; on the right side are St. Edmund, St. George, St. Augustine, and Botolph. In three cinquefoils above the window are the Holy Spirit, in the centre and on either side the pelican feeding its young with its own blood, and the Agnus Dei.

THE NEW INFIRMARY AT BRADFORD.

ALTHOUGH it is barely twelve months since it was first publicly announced that some steps must be taken to provide Bradford with a new infirmary, very satisfactory progress has been made towards the realization of a comprehensive scheme. During the latter part of his Lord Mayoralty, Mr. James Hill succeeded in raising £58,392 towards a building fund, and his successor in office, Mr. Alderman William Land, has taken up his mantle and is showing a keen interest in the project. The political situation has rendered it impossible to make much progress during the past three months, but in spite of this obstacle the fund now stands at £64,000. The workpeople are supporting the movement with great enthusiasm, and are ambitious to raise a handsome contribution, an ambition which bids fair to be realized. A visit from Sir Henry Burdett gave the committee an opportunity of obtaining much valuable advice, and he indicated on broad lines the more essential points of the policy he considered the best to be pursued. At the outset of the movement some difficulty was experienced in making an effective appeal for funds on account of the absence of any definite pronouncement regarding a site. It was recognized from the first that the acquisition of a suitable site would do more than anything else to stimulate public interest. Yorkshiremen are proverbially "canny," and hesitate to lend their support to any scheme in which the important details are not definitely provided for. It appears, however, that the anxieties of the committee in this direction are now at an end, as they have accepted an offer of an estate from the executors of the late Mr. Isaac Smith; this action was confirmed by the board of management at its meeting on January 26th. As an infirmary site it probably ranks as one of the best in this country. It consists of 23 acres, surrounded by plantations and a substantial stone wall, with entrance lodge and good approach. It stands 600 feet above sea level, and is sheltered by high ground and the

Yorkshire hills to the north. It has a south aspect overlooking Bradford, and is to the windward of the city throughout the greater part of the year. It is two miles from the town hall, and the tram terminus is close to the entrance gate. The offer also includes the first refusal of an additional 6 acres on the west. The ground is sufficiently level to be well adapted for building purposes. The committee are desirous of raising at least £100,000 before commencing any building operations. It is to be hoped that they will not rest content with a sum sufficient only for "bricks and mortar." Bradford has now the opportunity of founding a modern infirmary, which should rank second to none of the great provincial hospitals, but to achieve that proud position the new infirmary must be endowed and equipped with every advantage which modern science and modern administration only can provide. To make such provision a much larger sum will be required, and it is therefore essential for success that having once put their hand to the plough the committee should carry the scheme through to a completely successful conclusion.

"MEDICAL BUTCHERS."

THE minister of religion preaches charity to all men, and, in particular, he generally expresses appreciation of the work of doctors and the self-sacrificing spirit in which it is done. And indeed he has special reason to do so, as of all classes of patients there is none, not excluding those treated at hospitals, to whom the doctor renders more gratuitous service than the clergy. Many of them claim it almost as a right; all but very few accept it as a gift, without thinking it necessary to make any show of reluctance. Of course there are ministers of religion, ordained or self-constituted, who think they have a gift of spiritual healing. A little time ago we heard much of their "cures," but already, even in America, the native soil of most of these superstitions, such influence as these earnest and well-meaning but mistaken enthusiasts ever had is on the wane. Neither faith nor prayer has availed to stay the fatal march of true cancer, nor as far as we know have they been more efficacious in other cases of organic disease. As to the various drugs for cancer from the use of which brilliant results have from time to time been reported in our columns by various practitioners, we have waited to hear something further of the cases, but in vain. Looking at the ever-running river of remedies which goes steadily past our eyes into oblivion, we are tempted to say, with the countryman in *Horace* who waited for the passing of the river:

> At ille
> Labitur et labetur in omne volubilis aevum.

The knife still remains the best hope of the unfortunate sufferer from cancer. None can regret more keenly than we do the general futility of the other methods of dealing with this terrible disease that have hitherto been tried. We can only say, "'Tis true, 'tis pity, and pity 'tis, 'tis true." But the cancer problem is not likely to be elucidated by abuse of the surgeon. We know nothing of the Rev. A. M. Mitchell, the Vicar of Burtonwood, and we have never had the privilege of seeing his parish magazine. But if he is correctly quoted in that sympathetic organ the *Star*, the reverend gentleman would seem to be somewhat wanting in the virtue of charity towards all men which he doubtless preaches from his pulpit. The following may be taken as a specimen of his style of eloquence: "The diagnosis which leads to a verdict of cancer generally places the unhappy sufferer in the hands of the operating surgeon or consigns him to the hospital shambles as valuable clinical material for medical butchers with their attendant hooligans. Doomed to a tragic death the cancerous patient of worldly substance is nevertheless buoyed up with false hopes of recovery, misled by the plausible assurances of those whose pecuniary interests are represented by the knife; the cancerous ones yield themselves willing or unwilling victims, and are led as lambs to the slaughter—the shambles of the operating theatre. The same medical fairy tale is invariably rehearsed after each operation, until the persecuted victim, worn to skin and bone through sheer exhaustion, slips away into the unseen. High fees are paid, although the surgeons, in their heart of hearts, know the futility of numberless operations which they perform." We do not know whether the philanthropic divine is here merely delivering a message which he feels inspired to give his parishioners or whether any particular circumstance has moved him to this remarkable outburst. From the fact that he goes on to say that "vaccination and cancer may probably stand to each other in the relation of cause and effect" it may be inferred that the Vicar of Burtonwood is one of that common class of men who talk of what they do not understand. We do not complain of his denunciations, for cursing comes natural to the ecclesiastic. Argument with such a person would be merely a profanation of our "own gained knowledge." The "medical butchers" will only laugh at Mr. Mitchell's tub-thumping.

CALCIUM IN THE TREATMENT OF EPILEPSY.

IN a recently issued number of *Epilepsia*[1]—an international quarterly review devoted to the pathological, therapeutic, social, and forensic aspects of epilepsy and kindred nervous diseases, Professor Julius Donath of Budapest gives an account of the investigations which led to the use of calcium salts in epilepsy, and of the results observed by himself from their use. Sabbatani[2] showed that calcium salts lowered whilst sodium oxalate heightened the excitability of the cerebral cortex, and also that epileptic states induced by sodium citrate could be reduced by calcium chloride. From these facts he drew the conclusion that the calcium normally present in the cortex exercises a constant inhibitory influence, and that its removal or diminution may bring about convulsive phenomena. Roncoroni,[3] by faradic stimulation of the exposed sensory motor zone in dogs, with and without the application of isotonic solutions of calcium salts, demonstrated the inhibitory effect of calcium salts and the opposite effect of neutral sodium phosphates, a precipitator, like sodium oxalate, of calcium salts in solution. Earlier than Roncoroni, however, both Cavazzani[4] and Stefani[5] had proved this antagonistic relation between calcium salts and the oxalates of either sodium or potassium in frog-muscle preparations. These results led to the hypothesis that in epileptics the presumed heightened excitability of the cortex was determined by a deficient supply of calcium to the brain by the blood, and, in view of the well-known relations subsisting between calcium and blood-clotting, to observations upon the coagulation-times of the blood of epileptics. The results were conflicting; Besta[6] found not only diminished coagulability in 37 out of 45 epileptics, but also that the amount of such diminution in each case was in direct proportion to the frequency of the epileptic attacks. Perugia,[7] no supporter of the calcium treatment of epilepsy, found in every one of 36 cases of epilepsy in the

[1] *Epilepsia. Der Wert des Chlorcalciums in der Behandlung der Epilepsie.* By Dr. Julius Donath. London: Williams and Norgate.
[2] L. Sabbatani, *Riv. sper. di Fren.*, vol. xxvii, fasc. 3, 4.
[3] L. Roncoroni, ibid, vol. xxx, fasc. 1.
[4] Cavazzani, *Rif. Medic.*, June, 1892.
[5] U. Stefani, *Riv. sper. di Fren.*, vol. xix.
[6] C. Besta, *Rif. Medic.*, 1906, No. 43.
[7] Perugia, *Il Morgagni.* October, 1908.

asylum at Venice a lowered coagulability, which could be raised to normal by the exhibition of calcium salts. Dr. John Turner, on the other hand, is stated in Dr. Aldren Turner's work on epilepsy[8] to have found an increased tendency to blood coagulation in epileptics, and that this tendency was most marked just before, during, and shortly after the seizures. Since the publication of this work Dr. Turner has modified his views in so far as he affirmed a special tendency to clotting in epileptics' blood apart from those periods when they are under the influence of fits; but he maintains, after many thousands of observations, that shortly before and during the fits the average rate of coagulation is quickened, although in some cases, after the fits, it may be retarded. According to the theory which Dr. Turner supports the immediate cause of epileptic fits is local stasis in cortical areas due to thrombosis, so that the introduction into the blood stream of any agent which favours coagulation would be expected to increase the frequency of epileptic convulsions. As bearing directly on the matter, a few investigations, quoted by Professor Donath, may be mentioned. Silvestri[9] administered 1 to 3 grams of calcium hypophosphite a day to epileptics with very favourable results, even in cases in which bromide salts were of no avail. Quest[10] found an abnormally low calcium content in the brains of infants who had died in convulsions, and also that dogs fed upon a calcium-free diet manifested a greatly heightened electrical excitability of the peripheral nervous system, without, however, showing any heightened excitability on faradic stimulation of the cortex; subsequent analyses of the brains showed no diminution of calcium content in the test animals. Cohn,[11] on the other hand, found in the brains of infants with tetany no diminution in the calcium content, whilst Stoelzner,[12] in the same class, found the opposite condition—an increase of calcium bodies. Lastly, Risel,[13] employing the same methods as Stoelzner, arrived at opposite results, and found that the experimental use of calcium in spasmophilic children did not heighten, but, if it had an influence at all, lowered the galvanic excitability. From these discrepant results Professor Donath draws the conclusion that an altered calcium content in the brains of children with tetany is not proved. Further, on the ground of his own observations of the effect of calcium treatment, he is of the opinion that calcium plays no particular part in either epilepsy or tetany. Professor Donath's cases were 9 in number, 6 being genuine epileptics, 1 a case of traumatic epilepsy, 1 an alcoholic epileptic, and the last a hystero-epileptic. The patients were under observation on the average for 124 days, all patients being placed at first on indifferent medication—for example, sodium bicarbonate—for a period long enough to determine the usual frequency of the fits. They were then treated by increasing doses of calcium chloride, at first 3, then 6, and finally 9 grams a day. Later, the effect of bromide treatment was noted. In 2 cases small doses of calcium chloride (0.25 gram three times a day) proved to be entirely useless, and in 1 of the cases the treatment had to be discontinued owing to increasing motor unrest and excitement. Large doses had in 4 of the 8 cases in which they were given no effect at all, and in the other 4 either an uncertain or very feeble action. The sudden fall in the number of fits which occurred in all cases where bromide treatment replaced that by calcium is the most striking feature of Professor Donath's observations. Perugia in his cases also found that calcium salts excited no therapeutic action in epilepsy—at least, so far as the frequency of fits is concerned—and on the ground of his experiments on blood-clotting came to the conclusion that the diminished coagulability which he found in epileptics had no causal connexion with the fits. The whole matter is one which evidently requires further investigation.

[8] Turner, *Epilepsy*. 1907.
[9] Silvestri, *Gazetta degli Ospedali e delle Cliniche*, 1907, No. 3.
[10] Quest, *Wiener klin. Woch.*, 1906, No. 27.
[11] Cohn, *Deut. med. Woch*, No. 48. 1907.
[12] Stoelzner. *Neur. Centralbl*, 1908, No. 2.
[13] Risel, *Deut. med. Woch.*, 1908, No. 19.

QUACKERY IN GERMANY

OUR German colleagues complain of the competition of quacks owing to the widespread organization called the *Naturheilkunde*, which is supported by all classes. Dr. Moritz Fuerst,[1] medical inspector of schools at Hamburg, has recently related his experiences for the encouragement and assistance of others. The school doctor, he points out, comes into confidential relation with the classes which suffer most from this pest, and he knows the teachers, who are not always altogether free from leanings towards quackery. Excellent opportunities are afforded by the parents' evenings, at which the school doctor meets the teachers, the parents, and the older pupils, and can talk to them about social and personal hygiene. At these conferences questions are put, and there is a short discussion, when the supporters of quackery may express their views; but Dr. Fuerst says that he has put the case from the medical point of view (*suaviter in modo, fortiter in re*), and, if he has not always converted his opponents, he has had better luck with his audiences, and always managed in the end to get the laugh on his side. At the general inspection he says a few words about the social danger of quackery; and if a child, when asked the name of his family doctor, named a quack, Dr. Fuerst did not hesitate to call him one, for, as he says, it would be no good calling him "an unrecognized practitioner," which may be his legal position, but would be unintelligible to children. In consequence of his plain speaking Dr. Fuerst has had to defend three actions. One was withdrawn and the others were decided in his favour; but this experience has made him more careful, and now he is able to avoid legal proceedings without diminishing the effectiveness of his attacks. In the first case the charge was that Dr. Fuerst had told a school boy, who was being treated by the plaintiff, that "he should not go to a quack." The defendant admitted that he said this, but explained that the word was a technical term and was not a slander; that it was his duty to see that the school children had proper treatment, by which the State could only mean that of a recognized practitioner; and that in speaking to the boy he was obliged to use plain language, and he had only fulfilled his duty in the interests of the boy. The court held that the description of the plaintiff as a quack was a slander, but would not convict, as the defendant had used the expression in the course of his official duty and was entitled to the protection of the law regarding officials. Moreover, no intention of insulting the plaintiff appeared either from the mode of expression or the circumstances. The complainant appealed, but the Superior Court held that the expression was not a slander, the word having two meanings—one being that of a person who is not a regularly trained physician, and the other that he unsuccessfully or ignorantly pursues the calling of a medical practitioner; in the former sense it is not slanderous and this was the sense in which it was used. It was the defendant's duty as school doctor to urge the parents to get medical treatment for their children, and this could only mean the treatment of a recognized practitioner. In the second case, the defendant had told the children not to go to

[1] *Zeitschrift fuer Schulgesundheitspflege*, 1909, xxii.

quacks, that "they would not go to a tailor if their shoes were worn out." The plaintiff said that this was disparagement with intent to injure, that the suggestion that he bungled his work was untrue, and that both disclosed professional jealousy. He asked that the defendant should be ordered not to repeat the suggestion that he, the plaintiff, was a quack, and that, in accordance with the provision of the law for preventing unfair competition, he should be permitted to carry on his business without molestation. The reference to "bungling" his work is due to the German expression translated as "quack," which is *kurpfuscher*, that is cure "bungler" or "cobbler." Reference to standard German dictionaries showed that it has always been used in the sense of an outside or unrecognized worker. According to Grimm, it first appeared in the times of the guilds, and meant a man who did not work in accordance with guild rules. Various quotations are given from German literature to show that it has often been applied in this way. The Court fully accepted this view, and held that it was not improper, nor did it necessarily imply ignorance or unskilful work, but merely that the man so described was an outsider in relation to a trade or profession. Moreover, in reply to the plaintiff's point that it was not the defendant's business to concern himself with the treatment of the children, the Court quoted the instruction to the school doctor, which read: "You shall urgently recommend that the child shall be given medical treatment," and held that medical treatment meant treatment by a recognized practitioner. Unfortunately, neither the etymological nor the legal precedents are applicable to English cases, but *mutatis mutandis* there is something to be learnt from Dr. Fuerst's experiences.

MACHINE-MADE BREAD.

THE Prefect of Police of Paris recently, in consequence of a resolution adopted by the Health Committee of the XIXth Arrondissement, drawing attention to the alleged dangerous properties of bread made by tuberculous workmen, and pointing out the advantages of machine-made bread, instructed M. Laveran to investigate the matter. While recognizing that tubercle bacilli may be included in the dough when a tuberculous baker is employed, and sharing the desire to see bread making by machinery generally adopted, he reported[1] that virulent bacilli could not be present in the bread because he had satisfied himself that the minimum temperature reached by any part of it during baking was 100° C. The minimum time for baking was thirty minutes, and it has been proved that tubercle bacilli in moist media do not resist a temperature of 70° C. prolonged for ten minutes. Further, he considers that the number of tuberculous bakers has been exaggerated, but there are no reliable recent statistics on the subject; the work is, he considers, too hard for a man with advanced phthisis to continue it. The great objection to the present method is that it is disgustingly dirty. According to Arpin and Ammann a workman during the kneading of a batch of bread loses from 200 to 340 grams in weight, a loss mainly represented by perspiration which runs off his body and becomes in part mixed with the dough. Machines for bread-making have been long known in London, but they have not come into general use, partly no doubt on account of the opposition of the workmen who dread diminution of employment, and partly from the prejudice of the public. Whether this exists as much in England as in France we do not know, but the article from which we are quoting says that a French baker who had started a machine was asked to advertise the fact on the outside of his shop, but replied, "I should be very sorry to do so, for if I did I should lose all my custom; I had the machine brought in during the night, so that no one in the neighbourhood should know about it." At the present time there is in Paris an exhibition of the milling and baking trades, and no less than thirteen different models of bread-making machines are shown; all are said to make bread as good as that made by hand, and that they are coming into favour seems to be proved by the fact that, whereas in 1906 there were only 12 in 2,000 bakeries, at the present time there are 200, and they have been introduced into the French military bakeries. The introduction of electricity has overcome the difficulties caused by the necessities of installing machinery in places where space is limited and absence of noise essential. The need for reform is hardly less urgent in England as in France, and the advent of machine-made bread is much to be desired. It is a matter for surprise that this reform should be so long delayed, as the hygienic conditions of bakers has been long known to be unsatisfactory.

[1] *La semaine médicale*, No. 2, 1910.

ASYMMETRY.

IN an inaugural dissertation, delivered ten years ago, Dr. Gaupp treated the subject of inequality of the bones of the extremities, and he has written also upon right and left-handedness, so that we may assume that he has given serious study to the subject of the normal asymmetries of the human body,[1] with regard to which he has brought together in a small volume a summary of most of what others have written and of his own conclusions. At least as long ago as 1780 the theory of dualism was propounded, and it has again been revived by van Biervliet in his *L'Homme droit et l'homme gauche*. Although it may be possible to divide the ovum of the frog or sea-urchin in its two-celled stage into two independent organisms, this fact has little bearing on the organization of so highly developed a vertebrate as man. That there is what may be called a "physiological scoliosis" is now established by many observations, but this scoliosis is not found in young children, and does not make its appearance until school life begins. In adults the deformity takes various forms, the commonest being (as in pathological scoliosis) a curve convex to the right in the dorsal region. Children, on the other hand, are more subject to deformity in the opposite direction. It is impossible to say to what extent asymmetry of limbs, scoliosis, etc., is caused by embryonal tendencies and how much by environment. Asymmetry appears to be the rule in quadrupeds, although it is more irregular than in men, in whom, as is well known, the left lower limb and the right upper limb are most often longer than their fellows. Dr. Gaupp reproduces some very interesting diagrams of "ring-wandering" in snow or fog on perfectly level surfaces, such as frozen lakes, etc. In the case of men the rings are described with the sun, thus showing the influence of the longer and stronger left leg. In the case of a horse quoted by Dr. Gaupp the circles were described in the opposite direction. A hunted hare, also, whose course was carefully traced, described nearly four circles, always against the sun, before being killed. These observations on quadrupeds are obviously too few to afford grounds for drawing any conclusion as to the commonest direction of the circles, and it seems probable, seeing how irregular the arrangement of asymmetry is in them,

[1] *Sammlung anatomischer und physiologischer Vorträge und Aufsätze.* Herausgegeben von Professor Dr. E. Gaupp und Professor Dr. W. Negel. Heft 4. *Die Normalen Asymmetrien des Menschlichen Körpers.* Von Professor Dr. E. Gaupp, Freiburg in Breslau. Jena: Gustav Fischer. 1909. (Sup. roy. 8vo, pp. 59, 8 textfiguren. M.1.50.)

that repeated experiments would show an indifference as to direction. It is not only in the limbs that asymmetry is common—it is manifest in all the twin organs and parts of the human body, and the unpaired organs are none of them situated centrally. These considerations have led Dr. Gaupp to write that "normal man is asymmetrically built." As to right-handedness, Dr. Gaupp concludes that it originates in an inequality of the two sides of the brain, although it is doubtless increased by use, and that the division of labour thus established renders possible a greater capability of both hands, to which mankind owes so much. For this conclusion there is much to be said.

POST OFFICE PURITANISM.

THE British public should be grateful to the Post Office for the tender care of its morals taken by that department. A week or two ago a copy of the *Journal Médical de Bruxelles*, addressed to us in the ordinary course of journalistic exchange, was not delivered. The reason given was that it contained an indecent illustration! We have since received under cover of a registered envelope a copy of the journal and illustration in question. The illustration which excited such horror in the chaste breasts of the officials at St. Martin le Grand turns out to be a coloured plate accompanying the description of a case of congenital vulvar anus in a woman aged 30. It is of purely scientific interest, and is altogether unlikely, we should have thought, to excite the pruriency even of the most elderly debauchee or to offend the austere virtue of a halfpenny journalist. The Post Office has not always been so active a guardian of morals. In the JOURNAL of December 19th, 1908, we had occasion to call attention to a circular containing coloured illustrations of a highly offensive character, which had been allowed to be distributed in open covers. The excuse of the Post Office then was that the circular would not have been delivered if its character had been observed. The Postmaster-General added that instructions had been given that a watch should be kept in case any circulars of the same description were received. It would appear that these instructions have been carried out in a very literal manner. But we take the liberty of suggesting to the Post Office that it should learn to discriminate between suggestive advertisements and illustrated reports of surgical cases intended solely for members of the medical profession. Perhaps it would be well to assign the censorship of medical journals to officials of wider knowledge and experience than those entrusted with the duty at present.

A SPECIAL general meeting of the Fellows of the Royal Society of Medicine will be held on Wednesday next, at 5 p.m., to consider, among other matters, a resolution of the council altering the by-laws so as to provide that women shall be eligible for the fellowship of the society.

THE Second Conference on Cancer Investigation will be held this year in Paris from October 1st to the 5th. A number of reports on cancer in different countries will be presented. All communications relative to the congress should be addressed to Professor George Meyer, Bendlerstrasse 13, Berlin, W.

THE Senate of the University of London has adopted regulations for the degree of Master of Surgery, constituting dental surgery a second branch in which the degree may be taken; the examination will be open only to those who have taken the degree of M.B. and B.S. in the university.

THE University of Edinburgh has made a new departure in appointing a separate examiner, Dr. Dawson Turner, to examine in medical physics. Hitherto one examiner has been appointed to examine in experimental physics for degrees in arts, science, and medicine. It does not follow that, because a man is well qualified to examine for degrees in arts and science, he should also be the best qualified to examine medical students in physics, and the policy of specializing the preliminary scientific subjects in the direction of future medical studies has no doubt led to this step.

THE third Laryngo-Rhinological Congress will be held at Berlin in 1911. The Laryngological Society of Berlin, at its general meeting held on January 14th, expressed its satisfaction at the choice of a place of meeting. The entire board of the society constituted itself an executive committee, and for the purposes of the Congress will co-opt well-known laryngologists in different parts of Germany. The Congress will take place at the end of August or the beginning of September. All communications should be addressed to the Secretary of the Executive Committee, Professor Rosenberg, 26, Schiffbauerdamm, Berlin, N.W.6, or to Dr. Finder, 17, Nettelbeckstr., Berlin W. 62, Secretary to the International Committee.

IN the BRITISH MEDICAL JOURNAL of March 6th, 1909, there appeared a paragraph headed "Medical Men and Legacies from Patients," based on a report of an action brought by Major Gerald Thomas Rawnsley, R.A.M.C., against Dr. Dunn and Mr. Lewin, a solicitor, published in the *Times* of February 25th, 26th, and 27th, 1909. Arising out of that paragraph an action for libel was brought by Major Rawnsley against the British Medical Association and the Editor of the JOURNAL. Under legal advice a note stating that it had not been intended to make any reflection whatever on Major Rawnsley, and expressing regret that such a construction should have been put upon the paragraph, was published in the JOURNAL of March 20th, 1909. A writ was issued by Major Rawnsley's solicitors on March 24th. On the advice of the legal advisers of the Association, a sum of £100 was paid into court. The case was tried in the High Court of Justice on Monday, January 24th, before the Lord Chief Justice of England, and a verdict was given for the plaintiff, the damages being entered at £750.

GENERAL ELECTION.

THE following is a list of medical members whose elections have been announced up to January 26th, 1910:

England.

Dr. Christopher Addison (L.), Hoxton.
*Sir William J. Collins (L.), St. Pancras West.
Mr. C. H. Dixon (U.), Boston.
*The Right Hon. Sir Walter Foster (L.), Ilkeston.
Dr. Alfred Hillier (U.), Hertfordshire North or Hitchin.
*Sir G. H. Pollard (L.), Eccles.
*Sir R. J. Price (L.), East Norfolk.
*Sir G. Scott Robertson, K.C.S.I. (L.), Central Bradford.

Scotland.

Dr. W. A. Chapple (L.), Stirlingshire.
*Dr. A. R. Rainy (L.), Kilmarnock District.

Ireland.

*Mr. J. Dillon (N.), Mayo East.
*Mr. A. Lynch (N.), West Clare.
Dr. C. O'Neill (N.), S. Armagh.

*Members of last Parliament.

SCIENCE NOTES.

THE wonderful progress that has been made in almost every branch of scientific inquiry has caused the nineteenth century to be designated by various terms, such as "the age of steam," "the age of electricity," and so forth. Perhaps no attribute is so applicable as that of "the age of scientific experiment." The dominating feature of all scientific work has almost necessarily been the attempt to imitate natural processes by carefully conducted experiments, and thus investigate these processes in their minutest details. Experimentation of this kind is undoubtedly a product of the nineteenth century, and it is to this, to a large extent, that we owe the enormous advances that have been made. We are not unmindful of the few great experimental observers of previous centuries; but these were men far ahead of their time, isolated indications of the trend which scientific work was to take in the years to come. The first half of the century was characterized mainly by mechanical and physical investigations; but the advent of Darwin and his co-workers initiated that extraordinary outburst of activity in the bio-medical sciences that has lasted till this day. At first sight there did not seem much hope of attaining the same exact results as in the case of the physical sciences, but with the lapse of time it is found that the probable error can be reduced to a greater and greater extent. It is in this hope and with this intention that within comparatively recent years a new branch of biology has been instituted with the distinctive title Experimental Biology. Many famous names are associated with this work—Bateson, O. Hertwig, Arnold Lang, De Vries, T. H. Morgan, and Loeb, to mention only a few of the living representatives of the school. Albeit such work is in little more than its initial stage, many important and remarkable results have already been obtained. Dr. Hans Przibram, himself an able worker in this department, gave an interesting summary of these last year.[1] The main objects of inquiry are the fundamental problems of biology—namely, development, regeneration, the laws of descent, vitality, and functional adaptation. One of the best known and most startling of these investigations is that of Professor Loeb, who has been able by means simply of chemical solutions to initiate segmentation and development in an unfertilized normal ovum from a sea-urchin. From this it may be concluded that the ovum contains to a large extent the elements of differentiation of the future organism. Illustrative of this, in a sense, is the fact that if the eggs of *Hydra viridis* are kept in the dark a white animal is produced. The phenomena of regeneration have attracted many observers, and it has been found that almost every class of animals possess a wonderful power of renewing parts of even highly-specialized organs of which it may have been deprived. These experiments may eventually have an important bearing on human surgery. Numerous instances of adaptation to changed environment or altered conditions of life have been experimentally demonstrated. Of those, one of the most interesting, perhaps, is the behaviour of the common hermit-crab when permanently deprived of the shell in which it has taken up its abode. Having lost what it has probably come to consider as its natural means of protection, it proceeds to clothe its soft and vulnerable body in hard calcareous plating just like that of the ordinary edible crab or lobster. From this the natural conclusion is that the hermit-crab has not lost the power of covering its abdomen with a calcareous case, but that it keeps it in abeyance, preferring the more expeditious plan of making use of some empty whelk-shell. The study of the interdependence of various organs, physiologically independent to all appearances, has attracted many observers, who have shown that a whole class of characters—for example, the sexual characters—may be substantially modified by changes induced in any one of them. The best known of these is, perhaps, the effect of castration, causing the male to lose decided masculine characteristics—for example, plumage, colours, etc. These are but a few of the applications of experimental methods in the field of biology. Practically every biological problem has been made the subject of experiment, and it remains to be seen how much further his will take us than have previous speculation and hypothesis.

A subject to which much attention has been devoted of late years has been the application of Mendel's law to human beings. The inquiry is as yet in hardly more than a preliminary stage, and, in fact, the whole subject of Mendelism is just beginning to find definite and concrete expression throughout the natural world. The practical investigation of Mendel's law is not an easy matter, involving, as it does, years of patient labour and close attention; and in the case of man the difficulties are greatly increased. We welcome, therefore, any attempt to throw light on the problem. In a recent inquiry[2] Dr. Berry Hart has brought forward some interesting facts which may serve to stimulate further research. The author refers to the structure of the human genital system, in which there are present not only the organs peculiar to the particular sex, but also rudiments of organs appertaining to the opposite sex. Thus, in the male, the prostatic utricle and the Müllerian hydatid of the testes are female in character, while in the female the epioöphoron is equivalent to the epididymis of the male. In Mendelian terms these vestiges may be regarded as recessives, while the proper organs of each sex are dominants. The genital tract thus contains dominant and recessive determinants in unequal proportion, and is, in consequence, itself an impure dominant. Under ordinary circumstances this in the next generation would give rise to a mixture of dominants, recessives, and impure dominants, but by a process of reasoning the author shows that in this case the dominant and recessive determinants must be regarded as coupled and acting as one whole. He further discusses the origin of the sexual elements, and, rejecting the germ-epithelium theory, argues in favour of the continuity of the germ cells from the first segmentation of the zygote. Following this line he comes to the conclusion that the zygote is the product of the union not merely of two simple sexual elements or gametes, but of a sex male gamete and a non-sex male gamete with a sex female gamete and a non-sex female gamete. In support of his arguments Dr. Hart refers to the structure of dermoid tumours in the ovary and testis. In none of these tumours is there ever any evidence of the presence of internal genital organs; they may assume the structure of almost a complete embryo, but always minus testes or ovaries. To the numerous views on the origin of these tumours the author adds the suggestion that they may arise from a non-sex gamete which has retained the power of development normally lost when the primitive germ cells are transformed into sexual gametes. This implies the existence of more than two gametes in the zygote, as mentioned above. According to Dr. Hart, Mendelism does not differentiate sex, but the sex determinants are coupled and present in the sex gamete, acting as Mendelian units. A continuation of this work is promised.

Moved thereto by certain stray references in the scientific literature of the eighteenth century, Dr. Kirstine Meyer made a search in the libraries of Copenhagen for any records which might confirm the surmise that Ole Römer, a Danish physicist, who lived at the beginning of that and the end of the preceding century, had devised the first thermometer. The success which rewarded the search is recorded in an inaugural dissertation given at Copenhagen last year, and in a special article contributed by the author to *Nature*.[3] In a manuscript volume entitled *Adversaria*, containing notes in Römer's handwriting, are some entries which seem to prove that somewhere about 1702 he constructed thermometers with two fixed points—the temperature of melting snow and of boiling water—and with the cubic contents of the tube divided into equal parts. As this was some six or seven years before Fahrenheit made his first thermometer, there would seem to be good grounds for looking on Römer as the father of the modern thermometer. He appears to have grasped the theoretical aspects of the problem very completely, and not only to have foreseen the practical difficulties but to have solved some of them. He appears to have chosen a tube 8 in. long with a bulb blown at one end, and to have used alcohol tinted with saffron as the fluid. By means of a drop of mercury he ascertained whether the tube was regular, and rejected

[1] *Verhandl. d. Kais.-königl. zool.-botan. Gesellschaft in Wien*, 1908, pp. 171-180.

[2] *Proc. Roy. Soc. Edin.*, xxix (1909), pp. 607-618.

[3] *Nature*, vol. lxxxii, p. 296.

irregular forms; he divided the tube into four equal parts, and then determined that the scale of the thermometer should have sixty divisions (degrees) arranged in such a way as to read: "Boiling, 60; snow without cold or warmth, 7½." In concluding his instructions for making the instrument, he wrote: "When the thermometer is completed, filled, and closed, fix by means of snow or crushed ice the point of division 7½, by means of boiling the point 60." Why Römer fixed on 60 for the number to express his upper limit, the boiling point of water, is not clear; but having chosen that number, and having found it easier to divide the whole tube into four equal parts, it was natural that he should mark his other fixed point—the melting point of snow—7.5 and not, for instance, 15, because he might expect to find more uses for the thermometer above than below the freezing point. The further reason may have been that he had no knowledge of very low temperatures, lower than that of a freezing mixture, and there is some evidence that he had the temperature of a freezing mixture in mind. Apparently he afterwards fixed 8 on his scale as the freezing point, and, if a passage in Boerhaave's writings is correctly interpreted, altered his scale again, so that the freezing point was marked 32, as in the modern Fahrenheit thermometer. It is known that Fahrenheit visited Denmark and Sweden to confer with the most famous mathematicians, so that it is fairly certain that he must have met Römer and seen his original or standard thermometer, and it is very significant that in some of Fahrenheit's earliest thermometers freezing point was marked 7.5. Moreover, when Barnsdorf, the mathematical tutor to whom Fahrenheit is said to have confided his secrets, set to work to construct thermometers he put 7.5 at the freezing. The evidence, therefore, for the view that Fahrenheit derived the main principle of the thermometer—the two fixed points—from Römer is fairly conclusive. The history of the Fahrenheit scale would, according to Meyer's story, be this: Römer's original 7.5 for the freezing point was very soon changed, possibly by himself, to 8, and zero came to be identified with the temperature of a freezing mixture. For greater accuracy of observation each degree was divided into 4, giving $4 \times 8 = 32$ below the freezing point; carrying degrees on the same scale upwards it was found by experiment that the boiling point of water must be marked 212.

The idea of plants and trees possessing eyes is not a new one, but until recently no great interest had been taken in the subject. The researches of two German botanists have shown how widely prevalent such organs are. To us hitherto plants can hardly fail to have seemed dead-alive sort of creatures, eking out a monotonous existence, and having few pleasures such as we understand them. The special senses are at once the seat of all our pleasures and a distinctive mark of superiority of the animal over the vegetable kingdom. In view of the above-mentioned communications, however, it would appear that this superiority is actually not so great as we may have been led to suppose, and that trees can see and appreciate the brightness of a summer's day almost to the full as well as we can. Seefried and Haberlandt, working independently, have examined numerous species of trees and plants belonging to common families like the oak, elm, buttercup, etc., and have found in all of them on the upper surface of the leaves eye-cells, or, rather, organs of light perception, as they are more properly called. They consist of epidermal cells, of which either the outer or the inner walls are arched, and so form concentrating lenses. In addition to these simplest forms, there are many special modifications, such as conical papillae, over the outer wall. These papillae frequently assume a lenticular shape, and in other cases a lens-like structure is formed by a simple thickening of the outer epidermal wall; very many different devices, in fact, are resorted to in order to provide lenses, one of the most ingenious being a modification of some of the ordinary leaf hairs. It is obvious that these so-called eyes are somewhat primitive structures compared with that model of perfection, the vertebrate eye, but they are quite as highly organized as the structures which are dignified with the term "eyes" in some of the more lowly groups of invertebrates. In the case of the tree, however, their function is much more localized and circumscribed, but the exact extent of this function is not determined.

MOTOR CARS FOR MEDICAL MEN.

THE RELATIVE COST OF HORSE AND MOTOR.

THE Secretary of the De Dion Bouton (1907), Limited, has sent us the following estimate of the comparative cost of horse and motor traction for a distance of 5,000 miles a year. The secretary informs us that the figures given for horse traction are based partly on those published in the JOURNAL of May 18th, 1907, and partly on the information he has obtained from personal experience. The estimates do not in either case, it will be observed, include the charges for coach-house and stable or motor house, nor for depreciation.

COMPARISON OF ESTIMATED COST FOR MEDICAL MEN OF HORSE AND MOTOR TRACTION (DISTANCE 5,000 MILES A YEAR).

Horse Traction.	£	s.	d.
Capital Outlay:			
2 horses at £50 ...	100	0	0
2 sets harness... ...	20	0	0
1 brougham	120	0	0
	240	0	0
Annual Expenses:			
Coachman	65	0	0
Livery	6	0	0
Forage and litter for two horses... ...	78	0	0
Shoeing and vet. ...	12	0	0
Repairs and tyres ...	10	0	0
Licence, carriage ...	2	2	0
	173	2	0

Motor Traction.	£	s.	d.
Capital Outlay:			
8 h.p. chassis with body hood, screen, lamps, tools, etc., £275 to £325, say ...	300	0	0
Annual Expenses:			
Motor man	65	0	0
Livery	6	0	0
Petrol, 200 gallons, at 1s. 2d....	11	13	4
Oil and grease ...	2	10	0
Carriage repairs, etc.	10	0	0
Machinery repairs and replacements	15	0	0
Tyre repairs and replacements	20	0	0
Licence, carriage ...	2	2	0
Licence, two driving	0	10	0
	132	15	4

THE DUST QUESTION.

In a lecture on the "Mechanics of Dust," delivered recently before the Society of Engineers, Mr. C H. W. Biggs said that in all scientific attempts to abolish the dust nuisance the aim must be to avoid the presence on public roads of matter so small in bulk or light in weight as to be capable of being moved either by wind or by the draught set up by the passage of rapidly moving vehicles. The problem, in short, was how to secure that the matter known as dust should always be collected into masses too large and heavy to be distributed in the atmosphere. The use of water carts had this effect, but the action of water was very temporary, and if water carts were so constantly used as to keep down dust, the expense entailed was very large. A considerable number of adhesive materials had been tried as a substitute for water, but up to the present none had been discovered which proved more than a temporary palliative. The ideal material would be an agglutinative which, once incorporated with the road surface, continued to act until that road surface had to be replaced by a new one.

THAMES CARS.

In an account of the Thames Car published at page 1559 of the issue for November 27th, 1909, it was mentioned that an ordinary Thames car chosen out of stock had established a record at Brooklands for 50, 100, and 150 miles. This was in November, 1907. We are informed that last November a corresponding car has established a further record by travelling 261 miles in three hours, which is some 50 miles further than the highest previous record. The driver on the first occasion was Mr. Clifford Earp; on the second Mr. C. L. Smith.

MOTOR CYCLE.

H. K. asks for advice as to the choice of a motor cycle which would have sufficient power to take a side car on ordinary country roads. The inquirer would object to a machine which required him to start it by running alongside and jumping on when in motion.

SPARKING PLUGS.

DR. H. W. S. WILLIAMS, of Castle Hill, Holywell, North Wales, is anxious to get into communication again with a person who travels in sparking plugs. The traveller appears to have pointed out to our correspondent that the pole in the plug he had to sell was of different metal to the remainder of the plug, and to have added that the mica insulation was bored out of the solid. Our correspondent has since remembered that he had not previously heard of mica except in flakes. On several previous occasions we have received communications from correspondents who had reason to be dissatisfied with sparking plugs sold by travelling agents. It would seem to be preferable to deal with established firms known in this country.

THE fifteenth International Congress of Hygiene and Demography, which was fixed for the end of September this year, has been postponed to 1911.

Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

DUBLIN PRIZE IN MELBOURNE UNIVERSITY.

AT a meeting of the Melbourne University Council on December 6th, 1909, Dr. Leeper, on behalf of the Vice-Chancellor of the University, proposed a new statute providing for the foundation in the University of Melbourne of a prize, to be called "The Dublin Prize," and at the same time handed to the registrar a sum of £260, which had been subscribed by a number of former members of the University of Dublin, resident in Victoria, for the purpose of commemorating locally the tercentenary of the founding of Dublin University in 1591. The statute provided that this money should be applied to endow an annual prize in the University of Melbourne, to be awarded to that student or ex-student of the university who had, during the preceding year, made, in the opinion of the Professorial Board, the most important original contribution to literature or science or art.

AWARD OF THE ROYAL HUMANE SOCIETY MEDAL TO A MEDICAL MAN.

At a meeting of the Council of the Royal College of Surgeons in Ireland, held on January 20th, the President, at the request of the Royal Humane Society, presented Dr. Alfred Sheridan, a licentiate of the college, with the bronze medal of the society for saving life from drowning. The report of the event, received from Captain M'Combie, the Irish representative of the Royal Humane Society, stated that on August 24th, 1909, at 2 p.m., Mr. John J. O'Neill was bathing in the sea near Westport, co. Mayo, when he became exhausted and sank. Some children who were looking on became frightened and gave the alarm, bringing to the beach Dr. Sheridan, but the children could only vaguely indicate where Mr. O'Neill had sunk. Dr. Sheridan had to locate him by diving, and found him floating away on the tide, midway between the surface of the water and the bottom. With some difficulty Dr. Sheridan brought him ashore, and after about an hour's work had him out of danger. Dr. Sheridan is the sixth licentiate of the Irish College of Surgeons who has within the last few years received the recognition of the Royal Humane Society for saving life from drowning.

WOMEN'S NATIONAL HEALTH ASSOCIATION.

The annual report of the Tullamore Branch of the Women's National Health Association shows that a vigorous "health campaign" has been conducted during the past year. By means of leaflets the people in the district have been made acquainted with the importance of sunshine and fresh air, and have been instructed in the methods of home treatment of tuberculosis. The report also refers to the charge which has been brought against the national health campaign, that it is injuring the country's industry and trade, and points out that the assertion is unsupported by any facts or figures that will stand the test of investigation. Many Irish doctors can testify to the improved hygienic habits adopted by the people as a result of the exertions of the National Health Association, and to the general interest displayed in the information that it disseminates.

MEDICAL OFFICERS TO SKIBBEREEN UNION.

A special meeting of the Skibbereen Board of Guardians was called on January 19th to consider the appointments to the vacancies caused by the death of Dr. Jennings, who had held the position of medical officer for Skibbereen Dispensary District, and also medical officer of the union. Dr. O'Meara, the senior medical officer and consulting sanitary officer in the Skibbereen union, was anxious to be appointed to the position of medical officer to the workhouse hospital, but as it would have entailed a rearrangement of the dispensary districts, the board did not see its way to make the special appointment, consequently Dr. O'Meara applied for the Skibbereen Dispensary District which carried this hospital appointment with it. At the last moment, however, Dr. O'Meara resigned, and in consequence Dr. Burke, who is much respected in the Leap District, was unanimously elected to the Skibbereen Dispensary District. As regards the hospital appointment, a consultation was held, and it was unanimously decided that Dr. O'Meara and Dr. Burke be conjointly appointed medical officers of the workhouse—the former to have £50 a year and the latter £30 a year with proportionate increments; the former as being longest in the service of the board to be styled senior medical officer, but the latter is to have equal rights and privileges with the former, each to help the other free of charge in all consultations and operations, subject to the sanction of the Local Government Board and any alteration which the proposed amalgamation of unions may entail.

Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

EDINBURGH AND LEITH MEDICAL PRACTITIONERS' ASSOCIATION.

ON the question of a new charitable staffed hospital for women in Edinburgh, or a nursing home where patients can be received at rates from 10s. a week, the Edinburgh and Leith Medical Practitioners' Association is taking a vote of its members. At a recent meeting of the association two motions were submitted, first:

> That this association does not approve of the institution of a new charitable staffed hospital for women in Edinburgh;

and the second:

> That there is a felt want in Edinburgh for an enlarged nursing home, conducted on the same lines as the nursing homes are at present conducted, but admitting patients at lower rates—that is, from 10s. per week upwards.

The fifth general meeting of the association will be held in the Hall of the Royal College of Physicians, 9, Queen Street, on Saturday, January 29th, at 8.15 p.m., when a discussion on "Milk Supply," opened by Dr. John Robertson, B.Sc., Medical Officer of Health for Birmingham, will take place.

STUDENTS' CONFERENCE AND THE MEDICAL CURRICULUM.

Among other subjects engaging the attention of the Conference of Students' Representative Councils of the Four Scottish Universities at its meeting in Glasgow, the medical curriculum was under discussion. Mr. Brash, Edinburgh, moved: "That this conference is of opinion that the medical curriculum should be of six years' duration." He quoted returns to show that the average time of study was seven years, and that only 14 per cent. of students graduated in the minimum five years. Of these, most extended their study by a year's hospital appointment without emolument. There would thus be no hardship in the extension to six years, as five was "totally inadequate to produce an efficient scientific modern medical practitioner." It was argued, however, that the medical course was to produce physicians, not scientists, and that the drain on the time and resources of students was already sufficient. The motion was finally defeated by nine votes to two, the Arts delegates abstaining from voting.

ROYAL SOCIETY OF EDINBURGH.

At a meeting of the Royal Society of Edinburgh, on January 24th, Professor Cossar Ewart, F.R.S., Vice-President, in the chair, Professor D. Noel Paton read a communication by Dr. Williamina Abel, on the development of the autonomic nervous mechanism of the alimentary canal of the bird. A nervous mechanism existed in the wall of the stomach and intestine which controlled their movements. The investigation undertaken by Dr. Abel was to determine the question whether this mechanism was developed *in situ*, or was an outgrowth from the central nervous system. It was

shown by a series of lantern slides, prepared from specimens, that the mechanism was an outgrowth from the central nervous system, and that therefore its independent action must develop secondarily.

EDINBURGH ROYAL INFIRMARY.

At the weekly meeting of the managers on Monday, January 24th, Mr. E. Scott Carmichael, M.B., F.R.C.S.E., was appointed an assistant surgeon. There were six candidates. Hugh Paterson, M.B., Ch.B., was appointed clinical assistant to Dr. N. T. Brewis for the period from now till March 31st, 1910. It was agreed to minute that the term of office of Dr. William Guy as dental surgeon to the infirmary having expired, the managers desired to record their high satisfaction at the manner in which he had discharged his duties during the fifteen years he had held the appointment. In token of their appreciation of Dr. Guy's services the managers unanimously agreed to appoint him consulting dental surgeon to the Royal Infirmary.

GLASGOW COMMITTEE OF RED CROSS SOCIETY.

At a meeting of the Glasgow Committee of the Scottish Branch British Red Cross Society, held on January 21st, the Lord Provost presiding, Dr. R. T. Halliday, the honorary secretary, read the correspondence, the chief item being a copy of a resolution from the Territorial Force County Association in the following terms :

> It was resolved to delegate to the British Red Cross Society the organization of voluntary aid detachments in the county for the Territorial Force in time of war, and to ask the society if they would be willing to undertake this work.

Sir George T. Beatson explained that while the Territorial Force Medical Service supplied the field units and the base hospitals, there existed at present no connecting link between these in the form of clearing hospitals and personnel for the lines of communication. The provision of these in the shape of voluntary aid detachments would give the country an opportunity of helping in a very useful work and a necessary part of the national defence. Sir George moved that the request of the County Association be agreed to, and this became the finding of the meeting. It was also decided to co-opt seven members of the County Association on the Red Cross Committee. The work of organization will then be undertaken by the committee.

GLASGOW AND THE PREVENTION OF PHTHISIS.

At the annual social meeting of the Ladies' Auxiliary of the Glasgow and District Branch of the National Association for the Prevention of Consumption, a large and representative gathering, including the Lord Provost, the Bishop of Glasgow, and the Dean of Guild, attended in the City Chambers. Dr. Philip, Physician to the Royal Victoria Hospital for Consumptives, Edinburgh, gave an address on the problem of tuberculosis, emphasizing the fact that it was essentially a disease of communities. While legislation regarding dwellings, workplaces and lodging-houses, and other health enactments had all been of incalculable service, the great difficulty was to graft our present more enlightened ideas on to the previously existing conditions. We had to face the results of the earlier and ill-formed civilization. The problem of to-day was a much greater one than the curing of tuberculous individuals. It was to limit the spread of an infectious disease, and finally eradicate it. It meant a comprehensive programme of organized and concentrated effort. Co-ordination of activity was essential. In proportion as we attained a clear conception of the nature and extent of the issue, our efforts would become direct and effective. With concentration of effort, proper organization, and harmonious co-ordination of measures, the end would be assured.

AIR PURIFICATION IN GLASGOW.

In furtherance of the movement, which has already been reported, for the purification of the atmosphere of Glasgow, the Gas Committee of the Corporation has appointed a special subcommittee to make arrangements for the delivery of a course of lectures on the advantages of gas for cooking and heating purposes. This committee has agreed that at various public halls throughout the city a course of ten lectures will be delivered, when the practical advantages of the most up-to-date appliances will be demonstrated.

GLASGOW HOSPITAL SUNDAY FUND.

The Executive Committee has received towards this fund the sum of £4,248 from the collections in the various city churches, although a further amount has not yet reached the treasurer's hands. The claims on the infirmaries have this year been exceptionally heavy, and it was decided to keep the books open till February 15th, in order to have the full amount received till that date included in the annual report for 1909.

England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

LONDON.

SCHOOL CHILDREN.

THE report of the Medical Officer (Education) for the twenty-one months ended December 31st, 1908, to the Education Committee of the London County Council was issued some time ago, and is now published as an appendix to the report of the medical officer to the County Council. Previous reports of the Medical Officer (Education) have been made for the year ending March 31st, 1908; the change to December 31st has been made to accord with the regulations of the Board of Education, and to bring London into line with the rest of the country and with the sanitary authorities, whose reports are made up to the end of the calendar year.

Dr. Kerr points out that the period of twenty-one months covered by this report was marked by great activity in all matters concerning school hygiene and physical care of children. With most of the discussions and decisions concerning these subjects and the administrative work of the education authority in relation to them readers of the BRITISH MEDICAL JOURNAL are already acquainted, as they have been reported from time to time as the matters were considered by the Education Committee of the County Council.

General Observations.

In some preliminary paragraphs Dr. Kerr deals with some general legislative and administrative questions. He says :

> The doctrines which guide our work, and, indeed, all educational work, must be sharply realized, clearly defined, and understood, otherwise a labyrinth of legislative enactments or a tangle of overlapping authorities will cause trouble and confusion in the future. During the plastic period of development of the nervous system each individual acquires a stock of experiences of value during the rest of life. The information and knowledge derived through reading, writing, and the other conventions of civilized life form an addendum to the great mass of experience accumulated by the mere process of living, and it is this addendum of a formal or artificial nature which it is to the common interest to impart to each individual, if necessary, at the cost of the State. During this plastic period, which in England is mainly the first sixteen years of life, the desires and needs of the growing organism of the child are essentially different from those of the adult, and must always be separately considered and have special provision. The whole State provision for aiding the growth and development of the child from the time it ceases to be entirely dependent upon its parents until it attains puberty—a period roughly embraced between 3 and 16 years of age—now constitutes this formal education. The only scientific doctrine to follow as a guide for legislation is that any public supervision of, or provision for, the growth and development, that is, the general care of children should be under the control of the education authority. The recognition of this unifying principle will simplify laws and avoid endless overlapping and complications in practice. Any attempt to separate duties or functions by artificial definitions is bound to result in enhanced cost of working, unnecessary friction, duplication and possibly even actual failure. Hitherto in our work it has, for practical purposes, been attempted "to render unto Caesar the things that are Caesar's," by regarding all that concerns the child in school as under the control of the education authority, and all that concerns it beyond the school as being under the control of other (local) authorities, but in practice there is often lack of

co-ordination, and sometimes differences of standard, which occasionally give rise to results that are most grievous. In regard to cleanliness of the person, any efforts to fully effect this throughout the schools have been frustrated in many part of the metropolis by lack of provisions for effecting cleansing. Again, for children excluded from school as suspicious, during the prevalence of diphtheria, several sanitary authorities have refused to test the conditions existing in such suspicious children in their districts, holding that this is a matter for the education authority, who from their standpoint simply exclude the children until the risk of infectiousness is deemed to be past, leaving the sanitary authority to deal as they please with suspicious cases in their own districts. Probably the majority of children refused admission to the special schools of the Council, as being for educational purposes imbecile, are later on either refused care by the guardians of the poor or transference to any suitable institution on the ground that they are not "imbecile." The question of the care of idiots and imbeciles forms a very good instance of confusion. There is no authority having the statutory duty of caring for imbecile or idiot children who are not paupers. The poorer classes have no institutions open to them except those under the Poor Law. A child excluded from the special schools as imbecile by the educational officers is generally refused help by the guardians, but if this body accepts its care, then the parents, even if they pay the whole cost of maintenance at such an institution as Darenth, are thereby pauperized. The light shed in the last few years on the problems of ordinary education from the study in our schools of feeble-minded and partially defective children would to a large extent have been lost if these had not been under the educational authorities. The least costly and most practical solution appears to be, that any public provision for protecting and aiding growth and development of children during the years of school life—3 to 16 years of age—should be entirely committed to the education authority. This would allow such matters as the feeding, teaching, cleansing, medical treatment or social protection of school children, when these duties become a public care, to be administered by the one authority, and by bringing all the various problems into a correct relation and perspective would also effect considerable financial economy. On the other hand, transient conditions in which the child bears the same social relations as any other individual, as for instance when affected with typhoid or scarlet fever, or when guilty of a crime, would still come under the same provision by the sanitary authority or police respectively as at present. Fortunately this is the line taken by all the recent legislation in matters concerning children.

Medical Staff.

The medical staff at the end of 1908 numbered 52. The permanent staff consisted of the medical officer (education), 1 assistant medical officer giving whole time, 2 assistants giving half time, and 8 assistants giving quarter time—of whom 3 are women. The statutory medical inspection of elementary school children is carried out by a temporary staff of 16 school doctors, each in charge of a district, and having one or more assistant school doctors, of whom there are 24. It has been decided to increase the staff by the addition of 16 assistant school doctors in the summer and another 16 in 1910, so that ultimately there will be 72 members of this temporary staff giving quarter time. Each of the temporary staff serves for a period of three years. The school nursing staff consists of a superintendent, 2 assistants, and 51 school nurses; they undertake the oversight of personal hygiene in both elementary and secondary schools.

The duties of this staff consist of: (1) The examination of candidates for employment in schools, scholarship candidates, scholars in secondary and trade schools, and students in the pupil teachers' centres and training colleges; (2) the medical inspection of schools; (3) prophylactic measures of cleanliness and disease prevention, in co-operation with managers and care committees in respect to cleanliness and personal hygiene, and with the medical officers of health and sanitary authorities in respect of infectious and other diseases; (4) examination of children nominated by school doctors, teachers, managers, and others, for admission to special schools for the physically and mentally defective, the blind and deaf, and similar institutions, together with the periodic examination of children already in these schools.

Routine Medical Inspection.

In the routine medical inspection the head teachers are asked to place on a form the names of all children known to them as presenting any abnormality (except vision). The school doctor, after giving due notice, visits the school and sees the children selected by the teacher, and especially notes any cases presenting defects of hearing, brain, speech, limbs, or nutrition, and a card is left with the teacher for each child requiring treatment. The doctor then goes over the school and notes any defects in regard to the general arrangement of the building (environment, etc.); general condition of the school (window and artificial lighting, heating, ventilation, building, sanitation, desks, and seating); general condition of the children (physique, teeth, and nutrition, etc.); the hygiene of school work (hours of work, modes of work, reading, writing, drawing, manual work, recreation, exercise); and any other matters which affect the health of the teachers and children and the physiological development of the latter. Should the doctor discover any child who, in his opinion, should be medically examined with a view to being admitted to a special school, the teacher is asked to fill up and forward a nomination form to the head office. The teacher has an opportunity of discussing with the doctor any matters affecting the health of the school.

The vision of all children is tested once in twelve months, the preliminary test being applied by the teacher, who records on a form particulars as to all children in Standards I, II, III, and IV whose vision is $\frac{6}{18}$ or worse, and children in Standard V and above whose vision is $\frac{6}{12}$ or worse. When the doctor visits the school he tests the vision of the children returned as defective, and gives the teacher a red or green card (the red card signifying that the case is urgent), according to the amount of defect found, for each child who should seek advice. These cards are distributed to the children a few at a time, so as not to cause inconvenience to the hospital authorities.

In the medical register now kept at each school the doctor notes any school conditions detrimental to the health and well-being of teachers and children, and enters the name of any child presenting a condition such as discharging ears or very defective vision, for whom managers could help to obtain relief.

Infants.

Of the children, numbering 221, newly admitted at ages 3, 4, and 5 years, into several infant departments in Islington schools of average type examined by Mr. Cecil Rowntree, only 115 could be recorded as absolutely normal; but among those enumerated as defective were many in which the defect was very trivial, such as impetigo, or in which medical treatment could do little, as in the case of old rickets, mental defect and physical inferiority, the results of improper feeding, defective hygienic surroundings and environment which go to complete the picture of poverty, dirt, and misery. The chief single cause of defect was naso-pharyngeal disease (tonsils, adenoids, or nasal obstruction); they constituted 20 per cent. of the total number examined, and 47 per cent. of those with defect; the incidence of naso-pharyngeal conditions was 30 per cent. higher in the boys than in the girls, but the numbers dealt with were too small to warrant deductions.

Enlarged Glands.

A special examination of 1,500 children, 750 boys and 750 girls, in various council schools, was made by Miss A. M. Roberts with special reference to the lymphatic glands about the head and neck. The number of cases of enlarged glands among girls was more than double that among boys; this difference is attributed partly to the healthier tone from more energetic exercise among boys, and partly from the less frequent pediculous irritation of the scalp; 50 per cent. of the boys had decayed teeth with enlarged glands, but this occurred in only 13 per cent. of the girls; this is held to be evidence of the large part pediculi play in causing such irritation. The result of the inquiry was to show the extreme importance of the cleanliness which it is now being attempted to enforce in schools, and the necessity for treatment of carious teeth and of chronically enlarged tonsils, or adenoids.

Adenoids.

At three representative schools having 2,251 children on the rolls, 1,506 were selected for detailed examina-

tion with regard to adenoids; 822 were normal, and 164, or about 7 per cent., were in a condition suggesting the advisability of surgical operation.

School Dust.

From inquiries and observations in naturally and artificially ventilated schools, it is concluded that about as much dust is carried in by the air as is taken in by the children on their boots and clothing. The amount of dust collected in mechanically ventilated schools is only about one half of that found in those naturally ventilated. With regard to personal introduction, the opinion is expressed that the danger of specific contamination will be minimized by greater attention to personal cleanliness and the more extended use of baths. The habit of scraping and wiping the feet upon entry to any building is important, and the habit should for this reason be inculcated in all children, apart from the advantage which would accrue to the schools themselves. The use of wet sawdust in sweeping halls leaves nothing to be desired, and it is considered improbable that any better method could be adopted. But in those parts of classrooms which are occupied by dual desks the time allowed is insufficient for the removal of the sawdust from between and beneath the feet of the desks, which cannot be moved, so that a certain amount of dry sweeping is practically universal. The use of frequently damped brooms would probably be the best remedy, while light spraying with a garden syringe with a fine rose would be of service. With regard to disinfectants and the use of oils for floors, Dr. Kerr makes the following observations:

> The specific function of disinfectants is asserted to be in connexion with infectious diseases, the zymotic fevers especially. All our inquiries here and most of the teaching of recent years go to show that out-of-school conditions are far more powerful means of disseminating these diseases, and that the school plays a comparatively secondary rôle. The infection is from the children themselves, not from doors and cupboards, desks or floors; these means are trivial; it is the undetected or mild cases or carriers continuing to attend that accounts for school spread of disease when it exists. It is little use disinfecting a school room if the clothes and persons of the infective children cannot also be disinfected. The method of searching for the infective focus and removing it must always be the chief line of resisting the spread of infective diesases. With these facts in mind, the value of routine disinfection as applied to school rooms sinks to insignificance compared with its value in such a focus as a sick room after the patient has been removed. The cost of disinfection will always be very great, and as the cost of the disinfectant is probably nine-tenths of the whole, it is obvious that as a commercial interest routine disinfection in relation to educational buildings is likely to be pushed as energetically as ventilating expedients were once urged on an ignorant public; although the value seems to be in little doubt the actual results to be obtained by routine disinfection might be worth a trial, using disinfection in one group of schools and omitting it in a control group.
>
> Far more efficacious from the dust point of view would be the use of oils as floor dressings. In many commercial houses and banks these oils are found very useful. They appear to have been unsuccessful when tried in some elementary schools, but at the Stockwell Secondary School for the past year the use of this method has been very satisfactory. The usual routine in the hall, for instance, is 9 a.m. assembly, 9.30 to 12 10 drill, 12 40 dinner; after this it is swept; 1.30 to 2, on wet days, dancing, 2 drill. The drill mistress formerly suffered much from irritable throats, due probably to dust. This has disappeared since the floors were oiled. There is less dust now on the food and during meals, and dancing has only been practicable during the past year. The decorations of the room seem fresher than those of the adjoining school decorated at the same time. There are no complaints. Dresses are not dirtied or discoloured, and there is a considerable economy in labour. Considering the extensive use of these dust-fixing oils (Staubbindende Oele) in German schools it would be well worth trying an experiment on a considerable scale.

(To be continued.)

LIVERPOOL.

LIVERPOOL MEDICAL INSTITUTION.

AT the annual meeting held on Thursday, January 20th, 1910, the following list of office bearers and members of Council was adopted: *President*, *Thomas Robert Bradshaw; *Vice-Presidents*, Robert A. Bickersteth, Richard I. Richardson, *J. E. McDougall, and *G. P. Newbolt; *Treasurer*, J. Lloyd Roberts; *General Secretary*, *Thomas Bushby; *Secretary of Ordinary Meetings*, *W. B. Warrington; *Secretary of Pathological Meetings*, *Ernest E. Glynn; *Librarian*, W. B. Paterson; *Editor of the Journal*, John Hay; *Council*, W. T. D. Allen, A. P. Hope Simpson, A. Nimmo Walker, *T. H. Bickerton, *T. C. Litler Jones, *Herbert R. Hurter, *Joseph Unsworth, *A. A. Mussen, *Richard Humphreys, *John Owen, and *J. Graham Martin; *Auditors*, *Hubert Armstrong and *W. N. Clemmey. Those marked * did not hold the same office last year.

A NEW EAST DISPENSARY.

Next to the Royal Infirmary, which was opened in the year 1749, the dispensaries are the oldest medical charity in Liverpool, having been in existence since the year 1778. The first dispensary was opened in Church Street, but was subsequently removed to Vauxhall Road while the latter was still a country lane. As the town continued to grow two more dispensaries were found to be necessary; the original in Vauxhall Road became known as the North Dispensary, that in Richmond Row is known as the East Dispensary, and that in Upper Parliament Street as the South Dispensary. The work of the two latter institutions has been carried on in buildings originally built for private dwelling-houses. For the past twenty years or so the work of the dispensaries has been done by resident medical officers, three in each. There is an indoor and an outdoor department, the sick poor being visited at their homes or attending at the dispensaries if they are able to do so. The dispensaries thus to a great extent perform the work done in other cities by the out-patient departments of hospitals, and consequently the general hospitals have not developed their out-patient departments to the same extent as their in-patient departments.

The East Dispensary, which has been at 160, Richmond Row since the year 1848, has recently been rebuilt and provided with an operating theatre and the usual appliances for general and special work. All patients attending are charged the sum of twopence, and care is taken to exclude all who are in a position to pay ordinary medical fees. In one year the income from this source at the East Dispensary alone amounted to more than £1,200. The new building was opened by Lord Derby on January 13th in the presence of a large and representative gathering.

MANCHESTER AND DISTRICT.

COMPULSORY NOTIFICATION OF PHTHISIS AT BURNLEY.

THE health authority of the Burnley Corporation has made application to the Local Government Board for a provisional order extending the compulsory notification of phthisis for ten years. The Corporation has the power for two years under a local Act, but this period has not furnished data sufficient for the medical officer of health to depend on in advising the Corporation as to what steps are most desirable to prevent the spread of the infection. It is stated that out of 289 cases reported 116 died within a year. The Corporation has fitted up a laboratory for the free examination of sputum suspected to contain tubercle bacilli, and the Government inspector was informed that any person can call in for such examination, and by this means the authority hoped to get information of cases in the early stages when sanatorium treatment was desirable.

SMALL-POX AT HEYWOOD.

The outbreak of small-pox which has recently occurred in the Heywood district has caused considerable alarm. Seven cases, 3 being reported in one day, have been notified. All have been removed to the isolation hospital at Birtle, and the prompt measures taken ought to check further spread. So far the origin of the disease is not known. It has been reported that it arose owing to the working of infected cotton from Egypt, but there is no proof of this. The probability of such a source is suggested, of course, by reports some time ago about a similar outbreak at Stockport, where there were some grounds for the suggestion. In all the latest cases the patients work at a mill at Hopwood, near Heywood.

New South Wales.

[*FROM OUR SPECIAL CORRESPONDENT.*]

CREMATION SOCIETY.

THE Cremation Society, at a public meeting held in November last, decided once more to urge the subject of cremation on the attention of the Government. The following resolutions were passed:

That, in view of the repeated recommendations of the Board of Health, and in view of the expressed opinions of the medical profession and municipal councils, we again respectfully urge on the Premier the necessity of placing on this year's Estimates a sum of money for the erection of a crematorium.

That it is unnecessary to await new legislation, as under the amended Health Act such regulations may be created and enforced by the Governor and Executive Council.

Special Correspondence.

PARIS.

Further Researches on Transmissibility of Acute Anterior Poliomyelitis.—Retirement of Professor Huchard.—Foreign Students at the University of Paris.—Medical Degrees Conferred in 1909 in France.—Third International Congress of Physiotherapeutics.

MM. LEVADITI AND K. LANDSTEINER at the last two meetings of the Académie des Sciences communicated the results of further researches on the transmissibility of acute anterior poliomyelitis to the chimpanzee and on the possibility of inoculating the disease to a series of the lower apes. They found that the spinal cord of animals which had died of the disease, dried *in vacuo* over sulphuric acid, preserved its virulence for at least fifteen days. They further confirmed their previous results that the virus passed with ease through the Reichel filters, and that the incubation period was of longer duration in animals which were inoculated with the filtrate. The experiments showed that the resulting infection was due to the virus, and not to a toxin in the dried cord. Rabbits inoculated in the brain and peritoneal cavity were for the most part resistant, but a few reacted. It was possible by inoculation of dried marrow to confer immunity. Emulsions made from marrows of infected animals heated for thirty minutes at 56° C. did not vaccinate animals. Microscopical examination by the usual methods did not show the presence of any micro-organism, but using the method of Loeffler as modified by Borrel, M. Levaditi noted the presence of a large number of corpuscles, round or slightly ovular, often in pairs or in groups, and deeply stained red. They were extremely small, but showed here and there some polymorphism. They were not distinctly colourable by the aniline stains, but with dilute fuchsin, applied for a long time, they stained them a pale rose, or appeared in the field as clear points, surrounded by a reddish zone. The Giemsa stain showed small round or oval points stained a very pale blue. The same methods applied to preparations made with the culture medium without cultures showed the presence of granulations, but they differed from those described above in volume and regularity.

The pupils and friends of Professor Huchard assembled on January 19th at the Necker Hospital to hear his last clinical lecture, when he retired from the active staff of the hospital on reaching the age limit. Dr. Renon and Professor Robin both spoke, and Dr. Gillet recited a poem for the occasion. Professor Huchard made an eloquent speech in reply.

Foreign students are coming to Paris in greater number than formerly, when Germany attracted the greater number. Recently published statistics show that twenty years ago (1888–9) the number of foreign students in Paris was 457; in 1898–9 the number rose to 1,174; while in 1908–9 there were no fewer than 3,326; the numbers had doubled during the last five years, having been 1,633 in 1904–5. The students came from all parts of the world: England 115, United States 107, Egypt 165, Austria 139, Germany 231, Roumania 233, while from Russia came 1,356. Some were sent with scholarships from their Governments, notably from Turkey since the change of régime, from Hungary, and from the Argentine Republic.

During the past academic year the number of medical students who obtained the State diploma of Doctor in Medicine was 936, while 3 obtained the diploma of Officier de Santé. The largest number of degrees were obtained in the Faculty of Paris, that is, 440; in Lyons 144 were granted, in Bordeaux 120, in Montpellier 99, in Toulouse 47, in Lille 32, in Nancy 29, and in Beyrouth 25. The university diploma of M.D., which does not give the right to practise on French territory, was conferred on 48—26 in Paris, 12 in Montpellier, 5 in Lyons, 4 in Nancy, and 1 in Lille. In 1904 the number of practitioners in Paris was 3,427, in 1825 it was 911; as the population then was only one quarter of the present number, it would appear that the profession was as crowded then as now.

The Third International Congress of Physiotherapeutics will be held in Paris from March 29th to April 2nd. The reporters in the following sections have been appointed: (1) Sea and Mountain. Comparative Climato-Physiology. Reporters, Dr. Huggard (Davos) and Dr. Sardou (Nice). (2) Forest Cures. Reporters, Dr. Mol (Scheveningen) and Dr. Lalesque (Arcachon). (3) Climato-Therapeutics in Disease of the Heart and Circulatory Apparatus. Reporters, Dr. G. A. Gibson (Edinburgh) and Dr. Laubry (Paris).

Correspondence.

RESEARCH DEFENCE SOCIETY.

SIR,—This society was founded on January 27th, 1908; we therefore hope that you will find room for an account of its work during the past twelve months. It has now about 2,800 members and 130 associates. In addition to the branches which it had a year ago, it now has branches in Birmingham, Brighton, Edinburgh, Liverpool, Newcastle, and Shrewsbury. Other branches are in course of formation in Bath, Harrogate, Oxford, Ryde, and elsewhere. In other places it has corresponding members representing the society and in touch with the central committee.

Since last January the following have consented to be Vice-Presidents of the society:

Miss Balfour.
Sir Robert Ball.
Mr. Otto Beit.
Mr. Neville Chamberlain.
The Very Rev. Wm. Delany.
The Bishop of Derry.
The Duke of Devonshire.
The Rev. T. A. Finlay.
The Rev. John Gwynn.
The Rt. Hon. Jonathan Hogg.
Viscount Iveagh.
Lord Leconfield.
Sir Henry Morris.
Miss Isabella Mulvany.
Lieutenant-Colonel Pilkington.
Lord Stanmore.
The Provost of Trinity College, Dublin.
The Archbishop of Tuam.

The Research Defence Society has now obtained a well-established position, and is becoming generally known throughout the country. There has been a great increase in the work of distributing literature, and many thousands of pamphlets have been sent out. There has also been a great increase in the number of addresses and lantern lectures given by members of the society. These addresses and lectures have been very useful, and have been well received by large audiences. We have three complete sets of lantern slides, illustrating: (1) What we owe to experiments on animals in physiology and pathology; (2) Pasteur's life and work; (3) the prevention of tropical diseases—malaria, yellow fever, Malta fever, sleeping sickness. Duplicates have been made of most of these slides, and are at the service of all members of the society. Full catalogues and notes are sent with each set of the slides.

The committee are always willing to send speakers to debates arranged by clubs, institutes, debating societies, or representative committees; but they do not feel bound to accept the "challenges" which they receive from anti-vivisection societies.

The society held a stall at the Church Congress Exhibition last October, and a lecture was given in the Exhibition Building during the congress.

Before the General Election a letter was published in the press calling the attention of all parliamentary candi-

dates to the society's work, and to the evidence already published by the Royal Commission, and reminding them that the Commission has not yet published its final report and recommendations to Government. A copy of this letter was sent to each candidate.

A circular letter has lately been sent to all the Honorary Secretaries of the Branches and Divisions of the British Medical Association, asking them to bring before the members of the Association our need of more branches and corresponding members.

Since last January the following pamphlets have been issued:

1. Experiments on animals during 1908 in Great Britain and Ireland.
2. Anaesthetics used in experiments on animals.
3. On the use of dogs in scientific experiments.
4. The value of antimeningitis serum.
5. Recent surgical progress.
6. Advance in knowledge of cancer.
7. Some thoughts on causation in health and disease.
8. Reprint of correspondence in the *Times*, December, 1908, — January, 1909.
9. Reprint of articles in the *Standard*, July 20th, 1909.

Other pamphlets are in course of publication, and a series of short popular leaflets is being prepared for more general distribution. A set of all pamphlets and leaflets lately published will be sent in due time to each member of the society.

The society's work must be slow, and cannot be judged only by the number of pamphlets distributed and lectures given. But we have abundant evidence that the society is gradually impressing on the public mind the truth about experiments on animals in this country.—We are, etc.,

CROMER,
President.
SYDNEY HOLLAND,
Chairman of Committee.
F. M. SANDWITH, M.D., F.R.C.P.,
Honorary Treasurer.
STEPHEN PAGET, F.R.C.S.,
Honorary Secretary.

London, Jan. 25th.

GENERAL PRACTITIONERS AND POOR LAW REFORM.

SIR,—As a Poor Law medical officer I am quite in sympathy with most of the suggestions in the article published in the JOURNAL on January 22nd (p. 219). I think, too, they accord very fairly with the opinion of the greater portion of the Poor Law medical service. That this service should be a distinct one has been embodied in one of our published resolutions, and, as you point out, its amalgamation with the sanitary medical service of the country would almost certainly result in gratuitous medical attendance on all poor persons. You remark that hitherto discussion on Poor Law reform has been carried on from the standpoint either of the medical officer of health or of the district medical officer, but without reference to the interests of the general practitioner; but it must not be forgotten that the district medical officers all over England and Wales are essentially general practitioners mostly independent of their Poor Law appointments. That they are in nearly all cases in friendly association with their non-official medical neighbours, who recognize that their interests are almost identical with those of their Poor Law brethren, and who would be far more likely to trust to their views as to what was beneficial for the general practitioner, than sympathize with the views of the medical officers of health. I would make one exception here: When I say medical officers of health I allude only to whole-time officials, I do not include the numerous part-time medical officers of health. They, like district medical officers, are essentially general practitioners, and their views on Poor Law medical reform are much more likely to be in agreement with those of Poor Law medical officers than with those of the whole-time members of their own body.

There is, however, one matter alluded to in your article with which, I fear, Poor Law medical officers will not be in agreement—that is, as to the desirability of every medical practitioner being a public vaccinator or district medical officer. In other words, we are almost unanimously opposed to the destruction of these branches of the public medical services of the country. I was unaware that the British Medical Association had recommended the abolition of the post of public vaccinator, and if the carrying out to their logical issue of the decisions of the Representative Meeting would involve the abolition of the district medical officer, I earnestly hope they will not be so extended. That such a change would be good either for the poor or for the community generally is highly questionable, and I do not think would be supported by any experienced Poor Law practitioner; nor do I think that any considerable section of the general practitioners of the country desire such a change. With the increasing number of degenerates, largely fostered by modern civilization, it is quite Utopian to imagine there will be any large reduction of the pauper class. It will be a great triumph if it can be kept within its present bounds. To attend to this most helpless section of the community a special medical service is indispensable, and nothing to my mind is more undesirable than that members of this class should be allowed a choice of doctors. All the evils so well portrayed by the Minority Commissioners would be the certain accompaniment of such a concession, and the administrative difficulties that would arise in a large and populous union, where all the medical practitioners were ordering relief in competition with one another for poor applicants, can be better imagined than described.—I am, etc.,

MAJOR GREENWOOD,
Honorary Secretary, Poor Law Medical Officers' Association of England and Wales.

London, Jan. 22nd.

PRISON DOCTORS AND THE HOME OFFICE.

SIR,—Sir Victor Horsley's memory is short, or his notions of attack and defence are peculiar. Keeping to his familiar tactics of giving the lie direct, he calls it a "deliberate misstatement" that he is attacking the prison doctors, "whereas," he says, "all my letters and your leading article have obviously been written to show that the guilt of forcibly feeding political prisoners rests upon the Home Secretary and upon Dr. Donkin, but *not* on the prison doctors." *Litera scripta manet.* Here are Sir Victor Horsley's own words:

> The Lord Chief Justice suggested that the medical officer had to act on his own responsibility and forcibly feed to save the prisoner's life, whereas in real fact he saved her life by ceasing his professional care and life-saving attentions, and by turning her out into the streets of Birmingham. The responsibility throughout was never the medical officer's, as suggested by the judge's question, but Mr. Gladstone's, who directed operations from the Home Office (*Westminster Gazette*, December 13th, 1909).

In this passage, the gist of which he repeats in your issue of January 22nd, there are two main assertions. One is that the responsibility—now become the guilt, and shortly, no doubt, to become the crime—of feeding the prisoners is on Mr. Gladstone and not on the prison doctor. (There is no word about Dr. Donkin, though Sir Victor Horsley now says: "All my letters . . . have been written to show that the guilt . . . rests upon . . . Dr. Donkin.") The other assertion is a direct accusation against Dr. Helby—first, of professional misconduct or professional incompetence; and, second, of inhumanity.

If it is not an attack upon a medical man, to say that he saved the life of his patient by ceasing his professional care, there is no longer any meaning in words. And what does Sir Victor Horsley mean by saying that Dr. Helby turned the prisoner out into the streets of Birmingham? The prisoner was discharged from prison. Sir Victor Horsley calls this "turning her out into the streets"—a mere vulgar raising of prejudice. He might as well call it "robbing her of her means of maintenance." It would be less inaccurate to describe it as "restoring her to the comforts of her home." But why put any gloss at all upon the description? Why, except for the purpose of throwing odium upon the medical officer who is alleged to have done the act?

But, when he made this imputation on Dr. Helby, Sir Victor Horsley must have known that the imputation was unfounded. Sir Victor Horsley may be ignorant of the comparative merits of rectal feeding and nasal feeding, but he cannot be so ignorant as not to know that the prison doctor has no more power to discharge a prisoner than he has to prolong her sentence.

It was after this accusation against Dr. Helby had appeared in a non-medical paper, that Sir Victor Horsley

accused Dr. Donkin of "disloyally helping to thrust on his profession, and on its work, the odium," etc. Surely a more memorable accusation has not been made since Satan first reproved sin.

Dr. Helby and the Home Secretary are blamed for turning out Mrs. Leigh—starved, weak, and suffering—into the streets of Birmingham. Ought they to have kept her—starved, weak, and suffering—in prison, or have sent her home—starved, weak, and suffering—by balloon? Aeroplanes are cheap to-day, it is true; but if this method had been pursued, Sir Victor Horsley would, no doubt, have made it the ground of another grievance.

Your readers will not fail to mark the courtesy, moderation, and good humour of Dr. Helby's letter, nor to contrast it with the feeble violence of Sir Victor Horsley, who seems to take his clients, the suffragettes, as his model in controversial methods. The one shouts "Votes for women!" and the other shouts "Liar!" or its equivalent, and both are aggrieved that they fail to convince. Let me assure Sir Victor Horsley that positive evidence is not demolished by calling it "an imposition," "a deliberate distortion of the facts," or "a final and deliberate misstatement," and this I shall continue to hold, even though he seeks to disprove it by chaining himself to my area railings.—I am, etc.,

London, W., Dec. 15th, 1909. CHAS. MERCIER.

SIR,—I asked Sir Victor Horsley if officials—it matters not whether Ministers of State or medical men—in charge of prisoners ought to allow their sympathy, or lack of it, with this or that legal offence to influence their conduct towards their charges. He answers that I suffer from an insufficient acquaintance with the facts, and that I compare a suffragette to a murderer. Will he, then, tell me of what material facts I am ignorant; and will he please note—it seems to me a very material fact—that I compared suffragettes to murderers, not with respect to their degree of criminality, but only with respect to the circumstance that they are all equally charges of the prison officials?—I am, etc.,

Southsea, Jan. 23rd. G. ARCHDALL REID.

PART-TIME MEDICAL OFFICERS OF HEALTH.

SIR,—I am pleased to find that it appears likely that the threatened interference with part-time appointments in the profession generally may bring a sympathetic reconsideration of the views of the British Medical Association with regard to the part-time medical officer of health. I have read with great interest the leading article in the JOURNAL of January 22nd, and note that you appeal to members of the sanitary service to await the result of the next Representative Meeting. In the same article you state that only eight out of ninety-six Divisions approved of part-time medical officers of health; but, Sir, I would ask you in fairness to consider how these decisions were obtained. At any rate in my own Division the meeting was called in Folkestone at 8 o'clock on Saturday night, and was attended by less than a dozen men, all of whom I understand practise in Folkestone or Dover. How shall a decision come to at such a meeting be taken as expressing the views of the profession generally, and what chance has the medical officer of health in an outlying rural district of recording his vote? If you take these facts into consideration I think you will see that it is asking a good deal of the rural medical officer of health when you require him to sit still and watch a powerful Association of which he is a member, and which is supposed to be established for his benefit, as well as others, passing resolutions by its governing body which threaten to deprive him of a considerable portion of his income, and brand him as incompetent and untrustworthy. The assumption in the circular to the Divisions that the work can be better done by the whole-time man is perfectly gratuitous, and no shred of evidence has been produced in proof of it.—I am, etc,

New Romney, Jan. 24th. HENRY HICK.

THE TREATMENT OF CHRONIC DUODENAL ULCER.

SIR,—Will you permit me as a surgeon with a considerable experience of gastric and duodenal ulcers to make a few observations on the article by Dr. E. C. Hort (p. 76)?

First, as to the five cases of failure of operation to relieve the symptoms of duodenal ulcer. In no case does he state the nature of the operative findings. In only two of them is any symptom mentioned which might not occur in purely functional derangement. Unless the *fact* of ulceration was demonstrated at the operation the cases obviously prove nothing. Nor does Dr. Hort state the nature of the operation. For all that he states they might have been merely negative explorations. Assuming that an operation was actually performed on the stomach or duodenum in each case, it may be inferred that it consisted either in excision of the ulcer or gastro-enterostomy, or possibly both. One would like to know which of these methods was adopted. It is well known to surgeons with any experience of this field of work that when a chronic gastric ulcer is situated at a distance from the pylorus gastro-enterostomy gives only temporary relief, and is often followed by a return of pain, and sometimes even haemorrhage, though the latter is rare. For chronic ulcers situated away from the pylorus, excision, and not gastro-enterostomy, is the proper treatment, and this has, in my own experience, been invariably completely successful. Of course, when there is more than one ulcer this course may not be feasible, and gastro-enterostomy may be the only surgical alternative. In my own experience—and I believe in that of most other surgeons—when the ulcer is situated in the neighbourhood of the pylorus, either on the gastric or duodenal side, the operation of gastro enterostomy rarely fails to bring about a complete and permanent cure. My faith in this position will not be shaken unless some far more explicit evidence is produced than that which Dr. Hort brings forward.

With regard to Dr. Hort's own suggested method of treatment I have quite an open mind, but here again he fails to tell us just those things which we require to know before we can form any opinion. At the beginning of his article he says that he has been directly concerned in over 70 cases of gastric and duodenal ulcer, of which 24 have been diagnosed by himself and other physicians. Towards the end of the article he says that directly and indirectly he has applied his principles of treatment to more than 200 cases. May I point out that cases which have been treated by operation have at least this advantage from a controversial point of view—that the rightness or wrongness of the diagnosis is verified beyond the possibility of dispute? Cases treated without operation are diagnosed merely with a variable degree of probability into which the personal element largely enters.

This being so from the nature of things, it is doubly necessary for Dr. Hort, if he wishes to establish his contentions, to bring forward the whole of his available evidence in a form which can be judged and criticized. If he succeeds in establishing to the satisfaction of reasonable men that real gastric and duodenal ulcers can be more satisfactorily treated and more permanently cured than by surgery, I shall be one of the first to put his method into practice. At present even the method itself is not described with sufficient detail to enable any one to give it a trial.—I am, etc.,

Wolverhampton, Jan. 14th. E. DEANESLY.

WHITEHEAD'S OPERATION FOR PILES.

SIR,—I should like to endorse Mr. Mummery's remarks on Whitehead's operation for piles. I regarded it as the worst operation that has ever been introduced for the cure of this common malady. That it cures the disease in most cases must be admitted, but not more effectively than the simpler plan of removing each bunch separately. The operation has the risk of producing a disease far more serious than piles—this is, a fibrous annular stricture.

In the hands of so skilled an operator as Mr. Walter Whitehead the operation, no doubt, is free of such a risk, but this is certainly not the case in the hands of inexperienced operators, for I have seen quite a number of cases of annular stricture following the procedure.

The operation is unnecessarily severe for the class of haemorrhoids we meet with in the South of England. After any operation for piles a stricture may occur, and this arises from removing too much of the mucous membrane with the submucous fibrous tissue. I consider, indeed, that an operator cannot be too careful in *not*

removing a complete ring of the bowel. The risk of stricture can only be certainly avoided by carefully leaving between the bunches of piles portions of mucous membrane which will ultimately stretch. This means the removal of each individual pile separately, according to its size and extent. An operation performed in this manner is one of the most satisfactory and certain in surgery.—I am, etc.,

London, W., Jan. 25th. HARRISON CRIPPS.

SIR,—The radical operation for piles described by me at the Annual Meeting in 1907,[1] and referred to by Mr. W. S. Richardson in the JOURNAL of January 1st, is quite distinct from Whitehead's operation. It was first spoken of as a modification of Whitehead's operation, because like it, the whole plexus of veins round the sphincter ani should be removed, but its technique and results differ considerably.

Mr. Lockhart Mummery's remarks in the JOURNAL of January 22nd as regards Whitehead's operation are correct. They were these and other disadvantages that made me think out some other procedure by which a simple, safe, clean, scientific, and radical operation might be performed, rather than a serious, difficult, and often unsatisfactory one. Compared with all other operations of modern surgery, the cautery clamp or ligature seemed out of date now, and are rather more in keeping with the days of mediaeval surgery. A clean dissection and removal of the offending structure followed by rapid union of the incision, is a considerable advance on a septic sloughing or granulating wound.

In the operation I advise the mucous membrane lining the anal canal and, incidentally, the sensitive area of the rectal orifice, is not removed, it is dissected upwards, and replaced when the haemorrhoids have been removed. As there is no haemorrhage while the dissection is being done, the sphincter ani is left intact and uninjured.

Mr. Lockhart Mummery refers to the more frequent recurrence of piles after Whitehead's operation than after other forms of operation, although performed probably far less frequently. I would point out that Whitehead's operation is usually done for the more serious cases, and also that at the operation the free haemorrhage often makes it difficult to see that the whole of the veins have been removed. It stands to reason that if all the veins are removed, recurrence is less likely than if only a few of the worst, as with the ligature or cautery. When there is no haemorrhage, time and care can be taken to dissect away all dilated or thrombosed veins, and it is often astonishing what a number of these there are, which, unless seen in this manner, would very likely be overlooked.

As to incontinence, loss of sensation, contraction of the anal canal, or stricture following, I have never yet seen a single instance of either in any cases operated on by the method I advise, although it is now many years since first this operation was adopted by me.

It is not only in very bad cases of piles that this operation is suitable, but in milder ones also, the period of recovery and ultimate results are better than if treated by those methods more frequently adopted.—I am, etc.,

Bournemouth, Jan. 22nd. A. HEYGATE VERNON, F.R.C.S.

"MR. POMEROY ON VACCINATION."

SIR,—I do not see why you should concern yourself with the grounds of my *post-mortem* diagnosis of malignant disease in the case at Bristol on November 15th last, which is the subject of your article, January 22nd, p. 215. You publish to the world your opinion that I have a warp in my mind, owing to my opposition to Dr. Jenner's now almost neglected cow-pox, which disqualifies me even in such matters as cancer and tubercle, both of them the subjects of books and papers by me for the space of thirty-five years. You also decide, before hearing what I may have to say, that the other diagnosis in the case, tubercle, "will be accepted as final by all who can form an unbiassed judgement on the facts." After such professional amenities as those, I certainly ought to ignore your existence. But as you have taken care to insinuate that I am afraid of the light, I will answer the questions you have asked me.

1. Why did I not attend the inquest? If I had any evidence to give which would bear the light of a court, was it not a good opportunity of bringing it before the public? Every one who has any practical knowledge of inquests knows that the coroner does not call evidence from a pathologist who may have attended the *post-mortem* examination by his leave as the representative of some interested party. He hears the evidence of his own pathologist, who may, indeed, be further questioned by a solicitor prompted by the medical man beside him. I advised my Bristol antivaccinist friends not to be represented at the inquest, because their suspicion that the poor girl's illness was somehow due to her vaccination could not be entertained after the *post mortem* examination, however tenable it may have been while she was alive and no diagnosis made. The discovery of unsuspected malignant disease in the pelvis, with secondary extensions, explained the mystery, as well as pointed to the existence of the disease prior to her sudden breakdown just after her vaccination. I did not then know but that Dr. Walker Hall, when he came to the microscopic part of his work, might take the same view of the case as myself; but, at all events, there was no use trying to make a jury understand, by cross-examining questions through a solicitor, the difference between malignant disease and tubercle. My advice was followed, and no attempt made to question the diagnosis, which, as I was surprised to learn, was "tubercle of many years' duration."

2. Have I made any report on the tissues which I took away? I have indeed. Has the report been published, and where? Let me ask you another question, Why *should* a report to those who employed me have been published anywhere? But as you are curious about the reasons for calling this case malignant disease, you shall have them now.

The new growth was everywhere dense and tough to cut, and in most places coarsely fibrous. There was no caseous detritus and no friability anywhere. The whitish infected lymph glands along the lumbar vertebrae were not at all swollen, often flattened, surprisingly thin, glistening, and very dense. The right suprarenal was occupied over more than half its superficies with three whitish masses, which were so thinly spread out that the organ remained the same shape and thickness as the normal one on the left side. The collapsed, spongy lungs both contained several deep-seated hard knots, of a dirty grey colour, some as large as marbles, with firm outlines, and no softening in their centres. Microscopic sections from those three chief secondary seats showed the cells to be round, ovoid, or quadrate, and of a rather small and uniform size for cancer; they were set in a reticulum of coarse fibres, which was almost without cells in places of the lung nodules. The type was more like malignant lymphoma, or "fibrous cancer," than the usual ovarian cancer. The case resembled those fibrous ovarian tumours with metastases in comparatively young women, described by Virchow in his chapter on sarcoma, one of the authorities cited for them being Wilks (*Path. Trans.*, x). You are good enough to say that I know what cancer is. I know also what tubercle is. My diagnosis was made with no bias in favour of one or other. If I had wished to give an unscientific opinion, so as to make plausible the suspicion of an origin from matters inoculated, I should rather have diagnosed tubercle.

Since the day after the inquest, November 18th, 1909, until three days ago, I had heard nothing of the case, and had supposed that it was "dropped absolutely," as I advised that it should be.—I am, etc.,

London, Jan. 25th. C. CREIGHTON, M.D.

THE PATHOLOGY OF BACTERIA.

SIR,—For years we have been taught that the toxic micro-organism is the dominant cause of many diseases. Other causes are merely contributory, and, so to say, recessive. How much longer can we go on believing this?

For some time doubt has been overcasting the sky for many of us; but it is not often, perhaps, that within the limits of one number of the BRITISH MEDICAL JOURNAL so many facts giving furiously to think are published in juxtaposition, as was the case in the issue of December 25th, 1909.

On p. 1798 Dr. G. E. Lloyd describes the case of two

[1] BRITISH MEDICAL JOURNAL, 1907, vol. ii, p. 903.

brothers in the same house, of whom one had tonsillitis with sloughs, believed to be diphtheria, but no bacilli; while the other, apparently in perfect health, had bacilli but no diphtheria. The former child had antitoxin injected, and next morning the temperature was normal and the throat almost clear; but I have seen this clearing and fall of temperature happen again and again spontaneously in so-called diphtherial (? pseudo diphtheritic) throats.

On p. 1813 Professor H. M. Vincent, of the French Military Medical School, Val-de-Grâce, in a paper on the "carriers" of pathogenic microbes, is reported to have said: "In certain military epidemics observed in France, 15 to 20 per cent. of the men in the same regiment have been found to be healthy carriers of the diphtheria bacillus." Fifteen to 20 per cent. of healthy people presenting the dominant characteristic feature of a deadly disease is surely an embarrassment of riches to any pathogenic theory; it comes near to being a *reductio ad absurdum*.

On page 1816 is an account by Dr. Laetitia Andrew-Bird of life and work in the East End of London, from which I quote: "The women of the East End have a marvellously low mortality in childbed. This is all the more remarkable since, in an ordinary case of confinement, no precaution is taken by the patient herself against septic infection. The woman wears her dirty clothes, including the skirt which has been trailing along the streets, all through labour. Yet in one medical man's practice only 18 deaths occurred in 5,000 consecutive cases."

I make no comments; I am not out for an argument; but the facts may well set us thinking. It is not suggested that micro-organisms have no connexion with diseases; but what exactly *is* the connexion?—I am, etc.,

Stafford, Jan. 2nd. JOHN PRIESTLEY.

CIRCUMCISION IN ANCIENT EGYPT.

SIR,—In the report of Professor James Swain's presidential address to the Bristol Medico-Chirurgical Society[1] the statement is made that "there are no representations of Egyptian circumcision earlier than the time of Rameses II (B.C. 1310–1243)."

In the BRITISH MEDICAL JOURNAL of March 28th, 1908, (p. 732, first footnote), I called attention to a series of ancient Egyptian pictures of the operation of circumcision, which were carved 2,000 years before the time of Rameses II, and referred to the bodies of early prehistoric men from Egypt who had been circumcised a thousand years earlier still.—I am, etc.,

G. ELLIOT SMITH.

Anatomical Department, The University of Manchester, January 24th.

MEDICAL PARLIAMENTARY ROLL.

SIR,—I have to thank Dr. Keenan for the interesting information that a Dr. Walter Kelly sat in a "Parliament held in Dublin in May, 1689, by King James II, known as the 'Patriot Parliament.'" Neither Dr. Kelly nor the Parliament referred to, however, are mentioned in the official list; the reason, no doubt, being that in May, 1689, James had ceased to be King, having been deposed the year before. Dr. Keenan's contribution, however, is nevertheless a welcome addition to the Roll of Parliamentary doctors.

For another Irish Parliamentary doctor I have to thank a correspondent who has been so good as to point out the following omission from my list:

Barry, Sir Edward, Bart., M.D.Dub., Oxon., and Leyden, F.R.C.P.Irel. and Lond. (Charleville Borough 1740–1760). Sir Edward was Physician-General to the Forces in Ireland, Professor of Medicine in Dublin University, and President of the King and Queen's College of Physicians. He received the Baronetcy in 1775.

—I am, etc.,

London, W., Jan. 23rd. S. D. CLIPPINGDALE, M.D.

SIR,—I will add one more name to the Medical Parliamentary Roll—Dr. J. W. Noble, M.B Cantab, Physician to the Leicester Infirmary, 1848–56. He was elected M.P. (Liberal) for Leicester Borough, April, 1859, and died in January, 1861, at Malaga, in Spain. His daughters built a small hospital there in his memory. It is called the "Noble Hospital," and has about twenty beds. It has been taken over by the Government. I went over it about three years ago.—I am, etc.,

Leicester, Jan. 24th. GEO. C. FRANKLIN.

[1] BRITISH MEDICAL JOURNAL, January 22nd, p. 218.

WOMEN'S LAVATORIES AT RAILWAY STATIONS.

SIR,—My attention having recently been drawn to the offensive and very insanitary condition of the lavatory accommodation (especially that for women) at a certain station on the London and South-Western Railway, I was very glad to see your comprehensive notice of the subject in the issue of January 8th, and it may interest you to know that I wrote to the general manager of the line about it, calling attention to your article, and also to the very practical letter by "H. H. E." of January 15th, saying that I thought the subject was worthy the attention of the directors.

I trust, therefore, that by your powerful advocacy and the combined professional action, always so desirable in the interest of the public, matters may be improved.—I am, etc,

ARTHUR E. T. LONGHURST, M.D.

Chandlersford, Hants, Jan. 23rd.

SIR,—I think I voice the desire of every woman traveller in the following matter. Why not do away with the box seats, which no one uses, as we all stand for fear of infective complaints, and just place the usual pan, with a narrow *metal* rim, well into the room, so that we can stand over it without risk of getting skirts damaged? Also, why should any one pay for performing a natural function?

Another even more crying evil is the scarcity of such places for women. On every platform, as the train draws up, there is a rush of men to their lavatories, which are always placed on the platform, but why should women, who have even greater need of such places, have to go the length of the platform, pass, with the usual delay of showing tickets, through the barrier to one central waiting room, which serves all platforms, and risk losing the train owing to the crowded condition of the lavatories?

This seems to be a matter which the medical profession are the only people to act in.—I am, etc.,

January 23rd. A DOCTOR'S WIFE.

THE APPEAL ON BEHALF OF MR. W. H. COX.

SIR,—As a neighbour of Mr. Cox, the *x*-ray martyr, and conversant with the facts of the case, I thank you for the insertion of Dr. F. W. Alexander's letter in support of Sir William Treloar's appeal.

Dr. Alexander's statement is no exaggeration when he says that "a more pitiable case I have never witnessed in any human being during my thirty-two years' professional career." Words fail to express the pathetic condition of the man, who has sacrificed health and fortune for the benefit of his race, and who bears his sufferings with heroic fortitude. Testimonies are daily to hand from leading members of the medical profession expressing their indebtedness to Mr. Cox, whose work they acknowledge to have been of the greatest service. Visiting him last week, he said: "When I was working with the doctors, I little thought the help I rendered would return to me in such generous sympathy as I am receiving from them now." Mr. Cox's medical attendant, Dr. R. Taylor, says: "It is not outside my professional office to mention the very great deal which this public action is meaning to him, both as a comfort to his fatal trouble, and as a hope of leaving his family in some measure provided for." Mr. Cox is in his 47th year, and, when able to follow his calling, was an enthusiast in scientific research. Generous and self-sacrificing, he lived for others, and was always ready to give the *x*-ray treatment freely to the poor who could not afford to pay. Sir William Treloar, in raising a fund for Mr. Cox and his young family, is doing a kind and timely act. Help given is opportune, as the small savings of the dying man are practically exhausted. I may add that the average expenses for dressings alone to relieve his sufferings have averaged for the last two years £3 per week.

I strongly support the appeal of Sir William Treloar, who will be glad to receive subscriptions at his address, 69, Ludgate Hill, London, E.C.—I am, etc.,

London, N.E., Jan. 25th. THOMAS RIPPON.

MISCONCEPTIONS CONCERNING THE RIVIERA.

SIR,—As the letter published in your issue of January 15th from the Syndicat des Hoteliers de Menton in no way contradicts, but merely protests against the statements I made in my paper at Belfast—which indeed were well within the truth—it is not necessary for me to discuss it.

At the same time it raises the question, ever of growing importance, whether the medical faculty is justified in allowing the prejudice against consumptives to spread as it does, from hotel to hotel and from town to town.

It took centuries for the profession to discover that phthisis was infectious, and it is doubtful, had we depended upon clinical observation and experience alone, whether it would not have taken centuries more. We cannot make up for lost time by overdoing the thing now, and exaggerating its dangers. Is a phthisical patient who is taught to expectorate into a suitable receiver a danger to any one? If not, why should he be treated as an outcast? Till two years back I had in my house here the captain of a yacht whom I wanted to help. No one in the house had any doubt that the man was dying of phthisis, as nearly every symptom was pronounced; but all accepted my assurance that there was nothing to fear. The man died early in the first winter that I refused to have him back, and, of course, no one here was infected.

The late Professor Straus of Paris wrote—and no one knew better than he—that the air expired by a phthisical patient does not contain tubercle bacilli nor any other bacilli, and yet people will cross the street to avoid a consumptive. Sir Douglas Powell has given his opinion in these words: "My own personal experience and observation convince me that, apart from artificial conditions, such as those brought about by experiment, and in the ordinary circumstances of life, phthisis is not an infectious malady."[1] Laënnec's experience was the same.

The patient experiments of many observers seem to me to show how difficult it is to disseminate phthisis, and how impossible it is when elementary precautions are adopted by invalids. Why should the phthisical patient, as such, be held responsible for an evil of which 90 per cent. is the indirect consequence of overwork, carelessness, bad hygiene, influenza, pneumonia, etc.? Why, too, should crowds of people now suffer from discomfort, insomnia, rheumatism, neuralgia, or bronchitis, in their endeavours to avoid the risk of phthisis, by prematurely treating themselves for it in their panic, and adopting, even at night time, the "open air" craze?

The popular persecution of the consumptive, and alarming of the healthy, is a disgrace to science and civilization. To science, because the case against the criminal is so weak, and to civilization because he is the victim and scapegoat of cupidity, selfishness, and prejudice, against which he has no appeal. It is for the profession to do him justice.—I am, etc.,

Mentone, Jan. 17th. D. W. SAMWAYS.

[1] *Diseases of the Lungs*, 1893, p. 348.

THE *New York Medical Journal* states that interesting reports on the practice of medicine and pharmacy in foreign countries continue to be issued by the Bureau of Manufacturers of the Department of Commerce and Labour. In response to an inquiry regarding conditions in Norway, Consul-General Henry Bordewich, o Christiania, reports that the relation existing between physicians and pharmacists is generally very friendly. The inspection of pharmacies is conducted in the smaller towns by the district physicians, who are sometimes assisted by practitioners appointed for the purpose by the Government medical board, under whose direction the examinations are made. A pharmacist's licence may be revoked after he has been convicted of drunkenness, fraudulent actions in his business, and for bankruptcy. The pharmaceutical examination boards are permanent. They are appointed by the Government, through its medical board, whose chief is a physician. Norway has a permanent pharmacopoeia commission, consisting of three proprietors of pharmacies and three professors of medicine. The first Norwegian pharmacopoeia was published in 1854, the second in 1870, and the third in 1895.

Medico-Legal.

FEES OF PLAINTIFF'S DOCTOR FOR ATTENDING EXAMINATION BY DEFENDANT'S DOCTOR.

AN important decision bearing on the medical examination of plaintiffs in cases of actions for damages for personal injuries was given in Dublin in the King's Bench Division on January 21st. The action was one in which the plaintiff had sued the Dublin United Tramway Company and had recovered damages. Prior to the trial the defendants, in the exercise of their right, required the plaintiff to be examined by their own medical adviser. This was done twice, and on each occasion the plaintiff's doctor also attended, and the fees for these two attendances were included in the plaintiff's costs, for which the defendants were liable. The defendants objected to this item on the ground that the attendances of the plaintiff's doctor were purely voluntary, but the Taxing Master overruled the objection, and in consequence the matter was referred to the King's Bench. The Lord Chief Baron, in giving judgement, upheld the decision of the Taxing Master, and said that it had become a settled practice that, in a case such as the present one, when an independent medical examination was applied for, there should be a doctor present on the other side. That was most desirable in the interests of the administration of justice, and he had never known a case of an inspection by the defendant's medical man at which the plaintiff's medical man had not also an opportunity of being present. Furthermore, the Taxing Master had jurisdiction to allow the costs of such attendance in cases where the plaintiff had obtained a verdict. The plaintiff's doctor, when he came to give evidence, should be in a position to know what to expect from the doctor who would be called on the other side, and for the purpose of showing that what took place on the examination by the defendant's doctor was not inconsistent with his own direct evidence, he should, of course, be present at such examination and be allowed his fees accordingly.

WORKMEN'S COMPENSATION.

Alleged Death from Hernia.

IN a case heard before the Judge of the County Court, Carmarthenshire, last month, a widow claimed compensation on account of the death of her husband, a seaman, who had been injured in April, 1908, while at sea. It was contended that the injury had caused hernia on the left side, and medical evidence was called to prove that the hernia was irretainable by a truss, and that death was due to exhaustion produced by vomiting and pain. Dr. Anstey-Chave, medical inspector of seamen to the Board of Trade, Cardiff, attributed death to Bright's disease, and expressed the opinion that the hernia could have been retained by a suitable truss. Similar evidence was given by Dr. J. Barry, medical examiner to the Shipping Federation, Cardiff. His Honour found that the man died from Bright's disease, and gave judgement against the applicant.

This case is interesting not only from the point of view of the conflict of medical evidence, but from the fact that there does not appear to have been a necropsy. The Court had to find a verdict on the evidence placed before it, and His Honour was, of course, entitled to draw his own conclusions. The responsibilities of the Court would have been less onerous, and much greater satisfaction would have been afforded to all parties if it had been possible to produce *post-mortem* records.

PARTNERSHIP ACCOUNTS.

H. writes: When a partnership is entered into, and a portion only of an account is paid by a patient containing items due both to the period before and after the partnership, what proportion, if any, is to be paid to the partnership account?

*** The whole of the earlier items must be paid before anything can be claimed as due to the partnership account. The legal aphorism is, *Qui est prior in tempore, potior in lege.*

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

THE following degrees have been conferred:

M.C.—J. P. Hedley, King's; A. S. B. Bankart, Trin.
M.B., B.C.—E. H. V. Hodge, Cla.; F. G. Cawston, Gonv. and Cai.
M.B.—D. G. Pearson, Pemb.
B.C.—L. Meakin, Trin.; F. R. Thornton, Trin.; H. Chapple, Joh.; H. G. Rice, Joh.; H. L. Duke, Gonv. and Cai.; G. Holmes, Gonv. and Cai.; H. E. Humphrys, Gonv. and Cai.; J. G. Saner, Gonv. and Cai.; W. B. G. Angus, Christ's.

The following candidates are entitled to receive the Diploma in Tropical Medicine and Hygiene:

Roy Fearon Baird (Captain I.M.S.), John Francis D'Mello, Arthur Brownfield Fry (Captain I.M.S.), Thomas Henry Gloster, Ernest Charles Hodgson (Captain I.M.S.), Robert McCheyne Linnell (Joh.), Krishnaji Shripat Mhaskar, Edward Pigott Minett, Herbert James Walton (Major I.M.S.).

Professorship of Biology.

R. C. Punnett, M.A., Fellow of Gonville and Caius College, has been elected to the Professorship of Biology.

UNIVERSITY OF BIRMINGHAM.

PROFESSOR J. W. TAYLOR has resigned the Chair of Gynaecology, and the Council has passed the following resolution:

> That the Council accepts the resignation of Professor Taylor with great regret. It desires to convey to him its thanks for his services to the university and its best wishes for his restoration to health.

Dr. Robert Simon, F.R.C.P., Physician to the General Hospital, has been elected to the Chair of Therapeutics, as successor to the late Professor Foxwell.

On the nomination of the Dean of the Medical Faculty, the council has appointed Professor Peter Thompson Sub-Dean of the Faculty. Mr. George Heaton, F.R.C.S., has been appointed Lecturer in Operative Surgery, and Dr. Edgar P. Hedley Demonstrator in Chemistry.

VICTORIA UNIVERSITY OF MANCHESTER.

SIR W. J. SINCLAIR, Professor of Obstetrics and Gynaecology at the university, has been appointed Pro-Vice-Chancellor, in place of Professor William Stirling, whose term of office has expired.

Professor Conway has been elected Dean of the Faculty of Arts, and Dr. Carroll Dean of the Faculty of Music, the deans of the other faculties being re-elected.

At a recent meeting of the university council a resolution was passed expressing regret at the death of Dr. Ludwig Mond, and placing on record its sense of his service to the cause of science and his great generosity to the university.

Mr. F. H. Gravely, M.Sc., has resigned his position at the university to take up his new duties as Assistant Superintendent of the Natural History Section in the Indian Museum, Calcutta. Mr. J. H. Koppern, of the University of Freiburg, has been appointed Temporary Assistant in the Department of Zoology.

The committee for the election of the honorary medical officers at the Manchester Royal Infirmary has co-opted the following representatives of the university: The Vice-Chancellor, Sir Frank Forbes Adam, Sir Edward Donner, Mr. Hermann Woolley, and Mr. Ivan Levinstein.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A COUNCIL meeting was held on January 13th, Mr. H. T. Butlin, President, in the chair.

Lecturers.

Mr. Edmund Owen was appointed Hunterian Orator for 1911, and Mr. A. Pearce Gould Bradshaw Lecturer for 1910.

The Working of the Midwives Bill.

It was reported that the following letter had been addressed by the President to the Clerk of the Privy Council:

Royal College of Surgeons of England,
Lincoln's Inn Fields, W.C.,
15th December, 1909.

Sir,

In July, 1906, the Council of this College drew the attention of the Lord President of the Privy Council to the fact that no adequate provision has been made in the Midwives Act for the "Remuneration of Medical Men summoned on the advice of Midwives," and they contended that the Act would not work efficiently until such provision had been made. The uncertainty as to the payment of Medical Men under these circumstances has thus far been attended with grave injustice to the Medical Men who have been summoned; with great anxiety to the Midwives who have summoned them, lest they should fail to obtain assistance when it was most needed; and with consequent danger to the poor women for whom assistance was required.

The Council of the Royal College of Surgeons therefore view with great satisfaction the Recommendations (with the exception of No. 7) on this subject (*b*), which are contained in the "Report of the Departmental Committee appointed by the Lord President of the Privy Council to consider the Working of the Midwives Act, 1902," and earnestly trust that the Report will lead to the introduction of an Amending Act early in the course of the next Session.

With regard to No. 7 of the Recommendations, the Council would point out that the onus of obtaining the fee would be thrown upon the medical man who had been summoned by the midwife, and that he might even be compelled, in accordance with the Recommendation, to attempt to recover his fee in Court before he could claim it from the local authority.

The Council of the Royal College of Surgeons also desire to express their satisfaction with the Recommendations in the Report which deal with Prematurely-born Children (*d*. 6) and with those which refer to Ophthalmia Neonatorum (*d*. 7). The number of cases of blindness which are due to that form of Ophthalmia is very large, and many of the individuals who thus become blind are a permanent burden to the State.

I am, Sir,
Your obedient servant,
HENRY T. BUTLIN,
President.

Sir Almeric FitzRoy, K.C.V.O.,
Clerk of the Privy Council.

REPLY FROM PRIVY COUNCIL.

Privy Council Office,
London, S.W.,
17th December, 1909.

Sir,

Referring to your letter of the 15th instant, I am directed by the Lord President of the Council to say that His Lordship notes with satisfaction that the recommendations of the Midwives Act Committee on the subject of the "remuneration of medical men summoned on the advice of midwives" (with one exception) commend themselves to the Council of the Royal College of Surgeons.

With regard to the recommendation to which exception is taken (see paragraph 80 of the report), I am to request you to be good enough to call the attention of the Council to the evidence of Mr. J. Smith Whitaker, who was a witness on behalf of the British Medical Association (Nos. 5605–8, 5718–9), Dr. Woods (Nos. 1692–5), and Dr. Hope (3034–8). A perusal of that evidence will probably satisfy your Council that the interpretation they have placed upon the recommendation in question (which is described by Mr. J. Smith Whitaker as "a desirable and reasonable arrangement") is a somewhat strained one, and that the intention of the recommendation was not to cast on the medical man "the onus of obtaining the fee," but merely to secure that he shall at least test the patient's willingness to pay before applying to the Poor Law authority for payment of his fee.

I am, Sir,
Your obedient servant,
ALMERIC FITZROY.

The President of
The Royal College of Surgeons of England,
Lincoln's Inn Fields, W.C.

CONJOINT BOARD IN SCOTLAND.

THE following are the lists of successful candidates at the quarterly examination of this Board concluded on January 21st:

First Examination.—Rastamji Ratanji Dadina, Bombay; A. E. F. L. Forbes, France; L. Lazarus, Natal; W. Ashworth, Halifax, England; Pravag Deb Banerji, Allahabad; W. N. P. Williams, Holywell, Flints; Pasupulet Krishnasaumi Kuppuswami Naidu, Madras; Nallamma Williams, Ceylon; G. L. Pierce, Llangollen; A. B. Bull, Cape Colony; J. H. Cooper, Lancashire; and J. Calder, Lanarkshire; and 9 passed in Physics, 3 in Biology, and 4 in Chemistry.

Second Examination.—M. McL. Bainbridge, Roxburghshire; W. Brennan, County Clare; W. A. Reardon, Rangoon; W. Chapman, British Guiana; Mary W. Doran, Magheralin; W. E. P. Briggs, Rochdale; Jamshed Hirjibhoy Appoo, Bombay; M. P. Power, County Cork; J. B. Wilman, England; J. McCagie, Edinburgh; J. Scott, Scotland; J. Hegarty, Belfast; W. A. Rees, Wales; and P. W. Laidler, Gateshead; and 8 passed in Anatomy and 3 in Physiology.

Third Examination.—G. F. Hegarty, Cork; E. C. A. Smith, Ballary; E. L. Matthew, Corstorphine: A. E Mackenzie, India; Furdon Framji Keravalla, India; I. J. McDonough, Melbourne; H. Russell-Macnab, co. Down; W. J. H. Davies, Liverpool; H. Mathewson, co. Tyrone; F. M. Stewart, Portree; R. W. D. Hewson, Cheshire; M. J. Ahern, co. Kerry; A M. Billings, Birmingham; Rastamji Ratanji Dadina, Bombay; Badrinath Varma, India; Maganlal Maneklal Daru, Bombay; Framroze Limji Bhajiwalla, Bombay; and Triloki Nath Sinha, Benares; and 1 passed in Pathology and 5 in Materia Medica.

Final Examination.—Bikrama Jit Sani, India; J. Young, Newcastle-on-Tyne; A. A. Campbell, Canada; I. C. Pratt, Sierra Leone; Samuel Henri Siung, British Guiana; W. Tregea, Birmingham; G. M H Osborne, New Zealand; Badrinath Varma, Allahabad; Saravaiya Amritaraj Chetti, Bangalore; G. W. Rundle, Australia; C. L. Ievers, co. Clare; Noshir Shapoorji Bhedwar, Bombay; Manakshy Emperumal Naidoo, Madras; E. A. S. Carrington, Barbados; Ampattu Thomas Kuriyan, Travancore; E. P. Maitland, India; J H. Bennett, co. Cork; R. W. A. Brown, Chester; and V. D. Griffen.

Sixteen candidates passed in Medicine and Therapeutics, 3 in Surgery and Surgical Anatomy, 17 in Midwifery, and 20 in Medical Jurisprudence.

SOCIETY OF APOTHECARIES OF LONDON.

AT the examination held in January the following candidates passed in the subjects mentioned:

SURGERY.—*†K. Baylis, †J. A. Jones, †E. D. Richardson, *†J. W. Williams.

MEDICINE.—*†J. N. Beadles, †J. A. Jones, *†G. S. Richardson.

FORENSIC MEDICINE.—J. N. Beadles, R. J. Cyriax, S. K. Poole.

MIDWIFERY.—G. J. F. Elphick, J. A. Jones.

* Section I. † Section II.

Diploma.—The diploma of the society was granted to the following candidates, entitling them to practise Medicine, Surgery, and Midwifery: J. N. Beadles, R. J. Cyriax, S. K. Poole, and J. W. Williams.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are: Dr. L. Malassez, member of the Paris Academy of Medicine; Dr. P. Lesshaft, formerly Professor of Anatomy in the Medical Faculty of Kazan; Dr. Erik Johan Widmark, Professor of Ophthalmology in the University of Stockholm; Dr. Assanto Spediacci, Professor of External Pathology in the University of Siena; Dr. Otto Kölpin, Lecturer on Mental Diseases in the University of Bonn; Professor Clodomiro Bonfigli, Director of the Public Asylum for the Insane at Rome, a member of the Italian Chamber of Deputies, and author of numerous publications; and Dr. Queirel, Professor of Clinical Midwifery in the Medical School of Marseilles, and author of three volumes on gynaecology, in his 68th year.

Obituary.

W. PAGE MAY, M.D.LOND., D.SC., F.R.C.P.LOND.,
LECTURER ON THE PHYSIOLOGY OF THE NERVOUS SYSTEM, UNIVERSITY COLLEGE, LONDON.

WILLIAM PAGE MAY, whose premature death on January 19th science has to deplore, was born on May 5th, 1863. His father died when he was 9 years old, when his care devolved upon his guardian, Sir Alexander Rendall, the well-known engineer, and his cousin, Mrs. Bennett.

On leaving school in 1882, he entered University College, taking the medical and scientific courses for the University of London. He obtained the B.Sc. degree in 1884, passed the first M B. examination in 1885, the final M.B. in 1888, and in 1890 obtained the degree of M.D., being awarded the scholarships in Medicine at the M B., and the gold medal at the M D. examinations. As a student Page May threw himself heart and soul into the life of the college, achieving success both in work and in play. He obtained an Entrance Science Scholarship as well as the Tufnell Scholarship in chemistry and numerous class prizes. As a keen sportsman, he excelled in all the games that he took up, and was one of a small band that made constant use of the racquet court provided by the college. He was to the fore in all matters affecting the students or their clubs and societies. The same spirit of patriotism which during his student days prompted him to take an active part in the common life of the college showed itself later in a wide imperialism. Unfortunately his energies were in advance of his strength, and there seems little doubt that his exertions during his student days laid the foundation of the cardiac mischief which has been responsible for his untimely death.

Photograph by] WILLIAM PAGE MAY. *[Lafayette Ltd*

After filling the ordinary resident posts at University College Hospital and that of Resident Medical Officer at the National Hospital for Diseases of the Nervous System, he went to Berlin for some months to work at neurology under Professor Gad. While there he carried out the research on the distribution of fibres in the spinal roots, which was later published in the *Philosophical Transactions*. Considerations of health making it inadvisable for him to settle in England, he decided to practise as a consulting physician in Egypt. It was here that he met his future wife, Beatrice, daughter of Mr. W. G. Evans, whom he married in 1899. From 1895 to 1906 he was in active practice during the winter months at Helouan, returning to England each summer in order to continue his researches in neurology. For these researches he was in 1903 awarded the D.Sc. degree by the University of London. In the same year he was appointed Lecturer on the Physiology of the Nervous System at University College, and in 1906 he finally gave up practice altogether, deciding to devote the remainder of his life to the prosecution of research in neurology. The lectureship was entirely unpaid, but Page May, who was given the use of a small room in the Physiological Laboratory, devoted the whole of his energies to making, at his own charges, a research department in neurology. Each year during the summer session he gave a course of advanced lectures on the nervous system, which were attended by students from all the schools in London. At these lectures he placed the whole wealth of the material, which he had collected with much pains, at the disposal of his audience, so that they admitted the students, so to speak, to the arcana of the research laboratory, and interested them in the subject to an extent which could not be attained by any other method. The cessation of these lectures will be a severe loss to the neurological and physiological teaching in London. At the same time he was active in the prosecution of his original investigations. While still in practice at Helouan, he had published papers on the reaction of degeneration, on the electrical excitability of muscle, and on the innervation of the stomach. Later he devoted himself more exclusively to the central nervous system, and especially to tracing out the different tracts in this system. Four years ago he described a tract of descending fibres (now known as "May's tract") in the posterior column of the cervical region, which had previously escaped the attention of neurologists, and at the time of his death he was still engaged in searching for the cells, probably situated in the mid-brain, from which these fibres were derived. During the last year he published, with Dr. Gordon Holmes, an important research on the origin of the pyramidal tract. Since then he had collected a large amount of additional material dealing with this subject, as well as with the central connexions of the vagus nerve and with the fibres taking origin in the thalamus. It is to be hoped that the labour spent in the accumulation of this material will not be lost to science, and that some of the work will be found sufficiently advanced for publication.

Page May leaves one daughter, whose birth, two months ago, had been a source of great happiness to him.

About a fortnight ago Page May went, with his wife, to Brighton, where he intended to spend a few weeks. On Tuesday, January 18th, being then apparently in his accustomed health and spirits, he went for a stroll with his wife. Seeing a carter ill-using his horse, he was very indignant, and spoke to the man severely. While doing this he suddenly fell down, and was found to be completely paralysed on the right side. He became rapidly worse, and died at 7 o'clock the next morning, the cause of death being probably cerebral embolism.

The way in which he met his death was characteristic of the man. Fearless and large-minded himself, he was

impatient of any conduct associated with meanness or cruelty. His scientific career was practically just beginning, and the work that he had already done gave promise of much greater performance in the future. To those who knew something of the many lines that were being opened up by his work his loss at present seems irreparable. To his friends his death leaves a gap which can never be filled. Ever sympathetic and ready to help those in trouble or difficulty, he was eminently free from the smaller aims of ordinary careers, and was endowed with an enthusiasm and appreciation for all the really larger pursuits of a cultured life, which made his friendship a constant inspiration to all who had the advantage of association with him.

The skill at sports which distinguished May from his earliest student days was marked in the quieter recreations which his state of health led him to take up. He was an excellent golfer, winning last year the Medical Handicap; he was also a first-rate shot and a successful fisherman. Although always delicate and suffering frequently from feverish colds and migraine, he was always in good spirits, and with his ready wit and fund of anecdote was a delightful colleague in the laboratory, and a welcome companion in any society.

Professor SHERRINGTON writes: The premature loss of an ardent and able worker is always a heavy blow; in the case of Dr. Page May many circumstances enhance the grievousness of it. He was a man beloved by all who knew him. He had entered upon a career of singular value to neurology. He was an original investigator who had achieved results of high value, and shown in the obtainment of them a facile mastery of difficult technique and an enthusiasm which shrank from no pains in its devotion to the aim pursued. In exceptionally wide touch with the various paths along which modern neurology is advancing, with unsurpassed knowledge of the literature of his subject, he had a gift of criticism at once sympathetic and keen, and a native power of lucid exposition. He seemed, indeed, marked out to be a teacher whose personal qualities would attract to him as years went by an ever-increasing group of advanced students and research workers of the best type. The place which he had made for himself in British neurology will always be remembered.

A FRIEND sends us an appreciation of Dr. Page May from which we quote: For some months in 1888 I met May regularly at Moorfields. Our next association was at the Queen Square Hospital in 1890, just before he delighted us all by winning the M.D.London Gold Medal. It is not necessary for me to dwell on the many acts of devoted kindness and encouragement which he ever lavished on me. After his final leaving of Egypt he began those superb courses of lectures at University College on the anatomy and physiology of the nervous system. He gave six courses, and I attended them all. If Great Britain possesses an anatomico-physiologico-neurological lecturer to compare for a moment with May, where is he hiding? Who knows better than I do by personal experience the width of May's comparative neurological knowledge, the splendid accuracy of his retentive memory, his ease and lucidity, his beautiful presentation of both the easy and the difficult problems of neurology? As special examples of his skill I should select his lectures on (1) The Optic Thalamus; in his third lecture last summer he surpassed himself on this topic, and I was eagerly looking forward to hearing him in this coming summer on the recent work of Dr. Sachs (*Brain*, 1909); (2) the Cerebellum; (3) Dr. Head's work on the peripheral sensibilities and the afferent paths; (4) many of Professor Sherrington's researches. On the first and last lecture he used to come up to greet me on the back benches; his greeting was always the perfect one described by Macbeth: "Bear welcome in your eye, your hand, your tongue." Observe the order. He used then to ask me the rather awkward question, "Is this what they (the audience) want?" He knew that I had talked with hundreds of practitioners from all parts of the world at a certain neurological hospital. All I could answer was that it was just those elements of neurology—the true fundamentals of neurology—which he put so clearly, that were what all of us needed above all things. His exceptional knowledge is illustrated by the following incident: One day I asked a neurological friend of exceptionally wide range of knowledge a certain point about the centrifugal fibres in the optic tracts. He said to me: "X., you will keep me awake at nights if you ask me such questions." I then replied that I would ask May. "Oh!" said he, "May is a walking encyclopaedia." The last occasion on which May and I spoke together was a few weeks ago at the end of one of Professor Elliot Smith's lectures at the Royal College of Surgeons. He gave me the invariable old greeting, and asked affectionately after my health. I expressed my joy at his recent domestic happiness, and he said these memorable words: "I think it will come right this time, X." And indeed it has for him—but for us? Even now in my northern suburban home, so near to that place of sadness where this afternoon many of us who loved and valued him shall meet at his funeral, I hear his voice calling to all of us in those touching words of Hamlet: "If you love me, hold not off."

STANLEY BEAN ATKINSON, M.B., LL.M., J.P.

WE regret to announce the death of Dr. Stanley Bean Atkinson, which took place on January 18th, at the age of 36. He worked very hard in Mile End during the election, and it is believed that his efforts on the occasion laid a strain on his heart which proved fatal. Dr. Stanley Atkinson had a promising career before him. He gained a junior entrance scholarship at St. Bartholomew's in 1892, and a junior scholarship in anatomy and physiology in the following year. In addition to the diplomas of the Conjoint Board for England he held the degrees of M.B., B.Sc.Lond., and M.A., LL.M.Camb. He was a Barrister-at-Law of the Inner Temple, and a J.P. He was formerly Honorary Secretary of the Medico-Legal Society, and was for a time editor of its *Transactions*. He was a member of the Romilly Society, of the Society for the Study of Inebriety, and of other bodies for the promotion of matters relating to the public welfare. For three years before his death he had represented the Midwives' Institute on the Central Midwives Board. He was also a member of the Stepney Borough Council, and represented the Mile End Board of Guardians on the Metropolitan Asylums Board. He was to have stood for Mile End as a Progressive candidate at the forthcoming County Council election. Dr. Stanley Atkinson was the author of *Golden Rules of Medical Evidence* (1906); *The Office of Midwife* (1907); *The Law in General Practice* (1908). He also contributed an article on Life, Birth, and Live Birth to the *Law Quarterly Review* (1904); one on Forensic Physiology to the *St. Bartholomew's Hospital Reports* (1904); and others on the Medico-Legal Relations of Intemperance to the *Edinburgh Medical Journal* and the *British Journal of Inebriety* (1905); Definitions of Accident to the *Law Magazine and Review* (1905); and Tuberculosis under the Poor Law to the *Journal of Tuberculosis* (1908).

Sir WILLIAM COLLINS, M.P., writes: I should like to add a line or two of my personal testimony to the great worth of the late Dr. Stanley Atkinson, whose untimely death has cut short a life of greatest promise and full of good works. He was one of a band of younger medical men with whom I have been brought in contact whose horizon of duty was not limited by narrow professionalism. He had a stern feeling of duty within him urging him to use his great powers of heart and head for the succour of his fellow men. Keen pathologist and well-read jurist as he was, and as his contributions to the Medico-Legal Society—of which he was Honorary Secretary when I was President—prove him to have been, he had yet a wider outlook as a sociologist, practical as well as theoretical, and he spared neither pains nor his own health to use his position as guardian, borough councillor, and justice of the peace to humanize and elevate the life of East London in which he lived and moved and had his being. Ascetic and severe towards himself, he was indulgent and sympathetic to others, especially the less fortunate others, of whom hundreds called him friend. Keen politician, yet undebased by the sordid side of politics, he lived as ever in the Great Taskmaster's eye, and he died a victim to self-imposed work. Original, gifted, and cultivating his own selfhood, he yet was the most unselfish of men. As our profession would have been enriched by the mature development of such a nature, it is indeed poorer by the premature termination of so promising and precious a life.

Public Health AND POOR LAW MEDICAL SERVICES.

VITAL STATISTICS IN ENGLAND AND WALES (1909).

WE are indebted to the Registrar-General for the following rates, compiled and published for the convenience of medical officers of health. The figures are provisional and subject to revision.

ENGLAND AND WALES.

Annual Birth-rates, Death-rates, and the Death-rates from the Principal Epidemic Diseases.

	Annual Rates per 1,000 Living.				Deaths under One Year to 1,000 Births.
	Births.	Deaths. Crude.	Deaths. Corrected*	Principal Epidemic Diseases.	
England and Wales	25.6	14.5	14.5	1.12	109
75 great towns ...	25.7	14.7	15.6	1.42	118
143 smaller towns ...	24.8	13.9	14.5	1.08	111
England and Wales less the 219 towns	25.6	14.5	13.6	0.80	98

* The corrected death-rates are the rates which would have been recorded had the age and sex constitution of the populations of the several areas been identical with that of England and Wales as enumerated in 1901.

DISTRICT MEDICAL OFFICERS AND SCHOOL CERTIFICATES.

A POOR LAW medical officer in a country district informs us that a letter has recently been addressed by the instruction of the county education committee to the guardians of the district calling the attention of the board to the fact that in its district parents of children who are being treated by the Poor Law medical officers are not able to obtain a certificate of the sickness of their children. The letter goes on to refer to "the decision of the Local Government Board, that under Article 205 (3) of the General Consolidated Order a parent can require a certificate of the sickness of his child when attended by the district medical officer." The letter concludes by asking the guardians to inform the education committee whether they will instruct their medical officers to give certificates to the parents in cases where the children are receiving treatment.

So far as we are aware this suggestion involves a proposal to put a new duty on Poor Law district medical officers. The following is the text of Article 205, paragraphs (1), (2), and (3) of the General Order (Consolidated), of July 24th, 1847, and we reproduce a footnote to number (3) from the eleventh edition of Glen's *Poor Law Orders*:

DUTIES OF A MEDICAL OFFICER.

Art. 205.—The following shall be the duties of every medical officer appointed by the guardians, whether he be the medical officer for a workhouse or for a district:

(1) To give to the guardians, when required, any reasonable information respecting the case of any pauper who is, or has been, under his care; to make any such written report relative to any sickness prevailing among the paupers under his care, as the guardians or the commissioners may require of him; and to attend any meeting of the board of guardians when requested by them to do so.

(2) To give a certificate respecting children whom it is proposed to apprentice, in conformity with Arts. 59 and 61.

(3) To give a certificate under his hand in every case to the guardians, or the relieving officer, or the pauper on whom he is attending, of the sickness of such pauper or other cause of his attendance, when required to do so.

The footnote is as follows:

That is, when required to give such certificate by the guardians of the union of which he is an officer. It is optional with him to give the certificate to boards of guardians or relieving officers of other unions. The certificate need not be in any particular form. It will suffice if it be in the form in which ordinary medical certificates are usually given. If the medical officer be summoned to attend a justice when he makes an order for the removal of a lunatic to an asylum under 53 and 54 Vict., c. 5, s. 16, the case will not be within this regulation. Apparently the regulation will include a certificate of illness in the case of a member of a benefit club, where the medical officer may attend in sickness on a pauper, if such a certificate be required of him by the guardians, or the relieving officer, or the pauper. It forms no part of the official duty of a medical officer to attend the justices to prove that the sickness or disability of a pauper is likely to produce a permanent disability, so as to render such pauper removable to the parish or union of his settlement under 9 and 10 Vict., c. 66, s., 4; 28 and 29 Vict., c 79. He must be summoned or subpoenaed to attend before the justices the same as any other witness whose evidence is necessary, and he will be entitled to be recompensed accordingly for his attendance.

Under Art. 205, No. 3, it will be the duty of a medical officer of a union or parish in the etropolis to give certificates for the admission of paupers into the Leavesden and Caterham Asylums. See Art. 5 of the regulations issued to these asylums on October 6th, 1870, *post*.

The certificates to which the application of the Education Committee refers are not required for the use of the guardians to enable them to carry out any of their special duties, but are required by another body—namely, the education authority, which has different duties to perform and has special funds at its command for the discharge of such duties. We therefore fail to see that medical officers of the guardians can be called on to certify as suggested by the education authority.

NOTIFICATION FEES.

A RESIDENT medical officer of a union infirmary can claim a fee from the urban district council in which the infirmary is situated, for notifying cases of infectious disease which occur in the infirmary and which are treated in the infirmary.

The Services.

TERRITORIAL FORCE.

NURSING SERVICE.

MISS SIDNEY BROWNE, R.R.C., has been appointed Matron-in-Chief of the Territorial Nursing Service. The full establishment of the service is 2,783, and the number already enrolled is 2,570. Twenty-three general hospitals of the Territorial Force have been organized, and the staff of each consists of a principal matron, a matron, 22 sisters, and 68 nurses, that is to say, 92 altogether; to make provision for the fact that at the moment of mobilization the whole staff might not be immediately available, the staff to be actually enrolled for each general hospital is 121. At the present time the general hospitals are controlled by the county associations and each has the assistance and advice of the matrons of the principal hospitals in each area.

An Army Order issued recently with regard to the appointment of Matron-in-Chief Territorial Nursing Service contains the following: "The Matron-in-Chief will not be called up for duty in time of peace, but will be required to make herself acquainted with the organization of the service, and should be a member of the Advisory Council. She may be called up for duty on the embodiment of the Territorial Force. In the event of the Matron-in-Chief being called up, she will be on the staff at head quarters, and will be required to exercise general superintendence; to co-ordinate the administration of the nursing service in the various hospitals of the Territorial Force, and will be responsible for the general efficiency of the nursing service."

Every nurse enrolled is required at the beginning of each year to report to the principal matron of the Territorial hospital to which she is attached; inquiries are made as to the nurse's fitness for duty, and the nature of the work she has been doing during the preceding twelve months, so that any who show signs of physical incapacity, or who have specialized to a degree which would interfere with their usefulness for the Territorial nursing service are replaced by others.

Miss Browne, who is a sister of Dr. Langley Browne of West Bromwich, has had a long experience of army nursing. In 1884-5 she was with the Suakin field force, and was subsequently superintendent of nurses in turn at Malta, the Curragh, the Herbert Hospital, Woolwich, and the Connaught Hospital, Aldershot. During the South African war she was matron successively of General Hospitals 3 and 12. At the close of the war she was appointed matron-in-chief of Queen Alexandra's Imperial Military Nursing Service; when she took up the duties she found a staff of 87 nursing sisters; when she retired four years later there were 400. In 1902 the King conferred the decoration of the Royal Red Cross upon her, and she also holds the Egyptian medal and clasp, the Khedive's star, and the King's and Queen's South African medals.

R.A.M.C.(TERRITORIAL).

PAY IN CAMP.

L. P. D.—The pay of a major R.A.M.C.(T.) in camp is £1 3s. 6d. a day; after three years' service as such it is £1 6s., with allowances according to Class 9.

MR. W. H. LEVER has been elected Chairman of the Liverpool School of Tropical Medicine in the room of the late Sir Alfred Jones.

THE annual dinner of the West London Medico-Chirurgical Society will be held at the Hotel Great Central, Marylebone, on Wednesday, February 16th, at 7.30 for 8 p.m.

WE regret to have to announce the death of Mr. W. W. Wagstaffe, formerly Senior Assistant Surgeon and Lecturer on Anatomy at St. Thomas's Hospital, who was compelled to retire from that position many years ago owing to ill health.

AT the meeting of the Pharmaceutical Society of Great Britain, to be held at 17, Bloomsbury Square, W.C., on February 8th, Mr. C. A. Hill and Mr. J. C. Umney will read a paper on the essential oils of the *British Pharmacopoeia*. Medical friends and members will be cordially welcomed.

Letters, Notes, and Answers.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

A. L. desires to hear of a school, private or otherwise, where special arrangements are made for the reception of boys suffering from ringworm of the scalp.

RECURRENT MASTITIS.

P. asks for advice in the treatment of an unmarried woman, aged 38, of nervous temperament, who has suffered for a year from diffuse mastitis in one breast with induration, pain, and enlargement. At the menstrual periods, which are attended by pain for three days, the gland becomes swollen with tensive pain and an evening temperature of 101°–102°. After the period the swelling diminishes. Belladonna internally and externally, potassium iodide, iodized vasogen, strapping with mercurial ointment and bandaging have been tried without benefit. If the affected breast is removed what is the chance of the disease beginning in the other, which is at present normal?

MANURIAL VALUE OF DRY EARTH FROM CLOSETS.

REFORM writes: As the question of the introduction of a dry earth system for the town of 2,000 inhabitants in which he resides is to be laid before the town council at an early date, he desires information as to the value of human excreta to farmers for use as manure, compared with other kinds of manure used. I am, he adds, led to believe that in some towns where the dry earth system is in use farmers are willing to cart away the contents of privies at a small cost to the owners of houses. What I would like to know in particular is the "relative" value of human excreta to the ordinary manure generally used by farmers.

COTTAGE HOSPITALS.

J. F. C. asks for information from members who have had experience as to the cost per bed for erecting a cottage hospital to provide four to six beds and the cost of maintenance or other advice on the subject.

*** Some information on the subject will be found in the article by Mr. Percy Adams, F.R.I.B.A., published in the BRITISH MEDICAL JOURNAL of June 20th, 1908, p. 1476 et seq. It is there stated that the new building recently erected for the Cranleigh Cottage Hospital contains two wards each 23 ft. by 14 ft. and holding four beds. The total cost of the new block was about £1,800, but the old building in which the hospital was originally started was retained to serve as an administrative block. The last edition of the book on *Cottage Hospitals* by Sir Henry Burdett was, we believe, published in 1896 (London: The Scientific Press. 10s. 6d.)

ANSWERS.

A. H. G. should state his opinion clearly and forcibly to the patient himself, but should not give information to others without the patient's consent.

PRURITUS IN GLYCOSURIA.

M.D.GLASG. writes: "Nemo" will find the vacuum electrode attached to the top of the solenoid of the high-frequency apparatus a certain means of relief, if not of cure, in cases of glycosuric pruritus vulvae. The movable contact should be attached to the sixth, seventh, and eighth ring of the lower solenoid. A few daily applications of fifteen minutes' duration will suffice.

PSYCHIATRIC TERMINOLOGY.

G. D. is not likely to find in the medical dictionaries he has named, both compiled before the year 1897, the terms he has selected from Dubois's *Pathogeny of the Neurasthenic States*, as nearly all are of later date. The precise date of the coinage of all of them we cannot give. "Catatony" or "catatonia" appears to have been first used by Kahlbaum, while "psychasthenia" came into general use after the publication of Raymond and Janet's work on the subject. All the remaining terms (aboulia, algogenic, dynamogenic, ponogenic, ponophobia, and psychoneuroses) are, with the help of a Greek lexicon, self-explanatory. Ponophobia and ponogenic (*ponos*=toil) are new to us; as are also "dynamophanic" and "thanatophobia" (*thanatos*=death), not quoted by "G. D.," but contained in Dubois's book. These, however, are mere trifles when placed besides the welter of wild and whirling words which appal the modern student who approaches the study of psychiatrics. Such, to take only a few examples, are aichmophobia, ereuthophobia, rupophobia, taphophobia, siderophobia, oikophobia, dysmorphophobia, belenophobia, eremnophobia, potamophobia, and even the siderodromophobia, or fear of steam-engines of Riegler. "G. D." will find psychasthenia and catatonia adequately described in almost any modern textbook on nervous and mental diseases.

LETTERS, NOTES, ETC.

DR. J. Q. DONALD, of Invereden Lodge, Dairsie, N.B., informs us that the county council of Fifeshire has granted to him a licence under the Inebriates Act for ladies only.

"MEDICAL MISSIONARIES."

IN an account of the annual report of Livingstone College, which appeared at page 9 of the issue of the BRITISH MEDICAL JOURNAL for January 1st, the term "medical missionary" was inadvertently used in a sentence describing the way in which the students of this college obtained some knowledge of minor surgery. The phrase did not appear in the report itself, and we have reason to believe that it is one intentionally avoided by the principal of the college, Dr. Harford; he does not wish that the missionaries for whose education in matters appertaining to health he is responsible, should either be regarded by the public, or regard themselves, as anything more than missionaries who have acquired such an amount of medical knowledge as may help them in safeguarding their own health and that of their followers, and enable them to attend to minor ailments when qualified medical aid is not obtainable. All the students of the Medical Missionary Association of London (which is distinct from Livingstone College) and of the Edinburgh Missionary Society, pass through the full five years' curriculum and obtain registrable diplomas in the ordinary way, and the title "medical missionary" should be confined to persons who take this course.

THE MORPHINE HABIT.

DR. OSCAR JENNINGS (Le Vesinet) writes: In a recent notice of my book on the *Morphia Habit* your reviewer points out that one of the cases "referred to shortly" is described as suffering from "hepatic paludic neurasthenia." This, he adds, "sounds very terrible, but . . . it is not to be found in the official *Nosology of Disease*." Will you allow me to say that the diagnosis referred to was not my own? The case is quoted from another writer, and, although its nature is quite comprehensible, I called attention to the somewhat unusual terminology by quoting it myself between inverted commas. It was probably the literal translation of the French equivalent, but of this I am not sure, as I only saw an article in an English reprint. The case was, however, related by Glenard, who is a considerable authority on liver affections, and is of great interest as showing the value of Vichy water by hypodermic injection in drug weaning.

AN EFFECT OF COFFEE.

M.D., D.P.H. writes: Perhaps my personal experience with coffee may be of interest to some of your readers who may be suffering, as I was, from its effects without knowing their cause. Some sixteen years ago, while in New York, I had occasion to travel each morning after breakfast a few miles by rail, and my journey was embittered by a sensation of excited depression, if I may use such a phrase, by which I mean an inclination to be physically active combined with an uneasy feeling which amounted at times to a dread of losing mental control. At other times, later in the day, and even at night, a similar unhappy mental condition overcame me, so that I could not sit still in a public building, such as a concert room or a church, both of which I have had to leave on account of a sense of insecurity that I might fall from a gallery or in some other way lose my control. My only security lay in not letting my fancy or imagination work. On one occasion, not long ago, when swimming in the middle of a lake the depth of the water suddenly occurred to me, and I had at once to make for a boat because I felt as if I should lose my powers of locomotion. I may say that I am not a specially nervous individual, and have an ordinary healthy body and mind. It was not till comparatively recently that I discovered the cause of the trouble I have tried to indicate. While I have it under no other circumstances, I can bring on this most trying and unpleasant condition at any time by coffee taken for a few days continually, say, a breakfast cup and a half, or even less, of *café au lait*, or by an extra large dose of it. I have in recent years been observing its effects on others, with the result that I think it likely that many people are doing themselves a considerable amount of harm by drinking coffee, which, while an excellent stimulant when taken occasionally as such, seems to be a powerful poison to the nerve centres. I have not been able to assure myself that tea is so harmful.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page	8	0	0

An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

NOTE.—It is against the rules of the Post Office to receive *postes Restante* letters addressed either in initials or numbers.

A Demonstration

ON

CONSTRICTIONS AND OCCLUSIONS OF THE ALIMENTARY TRACT OF CONGENITAL OR OBSCURE ORIGIN

GIVEN AT THE ROYAL COLLEGE OF SURGEONS, ENGLAND,

BY

PROFESSOR ARTHUR KEITH, M.D., F.R.C.S.ENG.,

CONSERVATOR OF THE MUSEUM.

THE statistical list which I subjoin gives not only the subject-matter of this demonstration, but shows to what extent congenital occlusions and constrictions of the alimentary tract are represented by preparations in the various metropolitan medical museums. Under column A are grouped the specimens in the Museum of the Royal College of Surgeons, England, and under column B those in the museums of the medical schools attached to the various hospitals in London, to the authorities of which I am greatly indebted for the many privileges they have extended to me.

List of Specimens showing Constrictions and Occlusions of the Alimentary Tract of Congenital or Obscure Origin in the Medical Museums of London.

	A.	B.	Total.
I. Non-cicatricial stenosis of the upper oesophageal orifice	4	5	9
II. Stenosis of the lower oesophageal orifice, with dilatation of the oesophagus	2	4	6
III. Congenital stenosis of the mid-oesophagus ...	0	2	2
IV. Malformation of the tracheo-oesophageal septum	5	9	14
V. Hour-glass constriction of the stomach ...	4	10	14
VI. Hypertrophic stenosis of the pylorus	2	12	14
VII. Congenital occlusion of the duodenum... ...	1	6	7
VIII. Congenital occlusions and constrictions of the jejunum and ileum (not including those associated with a Meckel's diverticulum)	6	9	15
IX. Congenital occlusion at the ileo-caecal junction	1	0	1
X. Congenital occlusion of the colon...	0	4	4
	29	57	86

Non-cicatricial Stricture at the Commencement of the Oesophagus.

In the Museum of the Royal College of Surgeons, England, there are four specimens, two of which belong to the original Hunterian collection, showing a marked narrowing at the commencement of the oesophagus. Such strictures are usually regarded as the result of a severe and localized inflammation, but in the specimens I here illustrate there is no clear evidence of cicatrization (Fig. 1). The condition and such clinical histories as are available point to a disturbance in the normal mechanism of the oesophagus. In the Museum of St. George's Hospital School there are three specimens of a similar nature, and in that of Charing Cross Hospital there are two more, making nine in all. The condition was described and investigated by Sir Everard Home.[1] The specimen (No. 2295) was presented to the College Museum by him, and is shown in Fig. 1. From various observations in health and disease, he concluded that the upper part of the oesophagus acted as a sphincter—he compares it to the constrictor of the urethra—and that under certain pathological conditions the contraction of the upper sphincter of the oesophagus may become permanent. It is not my present purpose to whitewash the reputation of Sir Everard Home, yet I feel that it is a misfortune to medical science that the obloquy which has justly overtaken his moral reputation, on account of the destruction of Hunter's manuscripts, should have been extended to his own writings. The lectures which he delivered at this college, just a century ago, contain many observations and discoveries probably inspired by Hunter, yet not made by Hunter, which deserve to be again brought into common knowledge. The existence of an upper oesophageal sphincter is one; the presence of a functional mid-gastric sphincter is another. Like the sphincter at the pylorus, that at the upper end of the oesophagus is continually in action, except during the initial act of swallowing. It is a well-known fact that, on passing a stomach tube, a temporary resistance is encountered when the point of the instrument enters the oesophagus, but beyond this point, as Drs. Scuttar and Thompson observed when passing their gastroscope, the rest of the oesophagus, until the cardiac orifice is reached, is flaccid and open. The resistance offered at the commencement of the oesophagus is due to the tonicity of the sphincter which guards the upper orifice. In the specimens which illustrate stenosis of the upper oesophageal orifice the condition seen in eight of the specimens is not comparable to a hypertrophic but to a fibrous stenosis of the pylorus. The circular muscle is not hypertrophied but

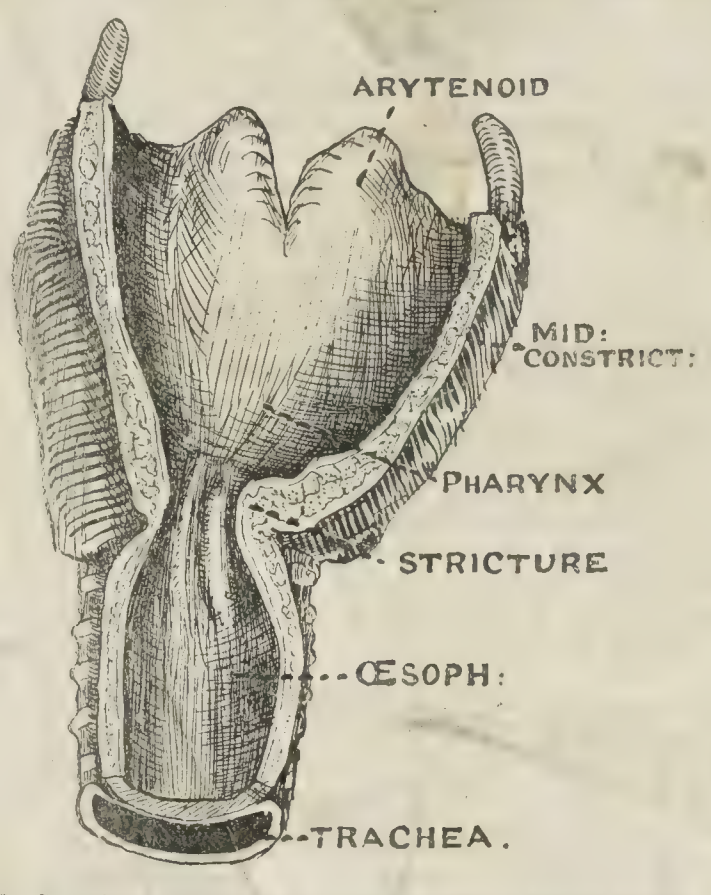


Fig. 1.—Drawing of the preparation (No. 2295) presented by Sir Everard Home, Bart., to the Museum of the Royal College of Surgeons, England, to illustrate non-cicatricial constriction of its upper orifice).

atrophied, contracted and replaced by loose connective tissue. In one of the specimens there is a hypertrophy of the musculature.

Cicatricial Contraction of the Upper Oesophageal Orifice.

I am also able to show a specimen of cicatricial stenosis at the upper aperture of the oesophagus, the result of the inflammation set up by the swallowing of sulphuric acid. I noted four similar specimens in the museums of the London medical schools; in all the corrosive action was limited to or affected chiefly the upper inch of the oesophagus, a result that is explained by the sphincter-like action of the muscle of this part. A description of this sphincter will be given in my next demonstration, in connexion with diverticula of the pharynx.

Stenosis of the Lower Oesophageal Orifice and Dilatation of the Oesophagus.

In the two specimens of "idiopathic" dilatation of the oesophagus in the college museum and in four others to be seen in the museums of metropolitan medical schools the commencement and termination of the oesophagus have not shared in the general dilatation. In this pathological dilatation the terminal or sphincteric parts of the oesophagus have not shared. Indeed Lerche[2] and several others[3] have ascribed the dilatation of the oesophagus to a vitiated action of the lower or cardiac sphincter. Dr. A. F. Hertz[4] has given a minute account of this sphincter so far

as it can be observed in transilluminations of the body during the act of swallowing bismuth-laden food.

W. H. E. Ehlers[5] has described the condition of hypertrophy and dilatation of the oesophagus in connexion with hypertrophic stenosis of the pylorus; all the evidence at present at our disposal indicates that dilatation and hypertrophy of the oesophagus is due to a pathological action and hypertrophy of the lower oesophageal sphincter. In one specimen I observed that the submucous coat was enormously increased, and that the circular muscular coat, although greatly hypertrophied, showed a peculiar degeneration in its fibres. In preparation No. 2321 this sphincter is greatly hypertrophied.

Congenital Stenosis of the Mid-part of the Oesophagus.

In newly-born children, that part of the oesophagus which lies in the posterior mediastinum and extends from the bifurcation of the trachea to within 1 or 2 cm. of the diaphragm may be reduced to a fibrous imperforate cord. The illustration given here (Fig. 2) is taken from a specimen in the museum of the medical school of St. Thomas's Hospital; there is a similar specimen in the museum of the Middlesex Hospital School. The condition is allied to the abnormalities to be described in the next group, but a satisfactory explanation of this lesion has not yet been given. It is certainly associated with an elongation of the oesophagus which occurs during the development and growth of the lungs, and with the fact that in one stage of development (in human embryos of the second month) the oesophagus undergoes a temporary occlusion.[5a]

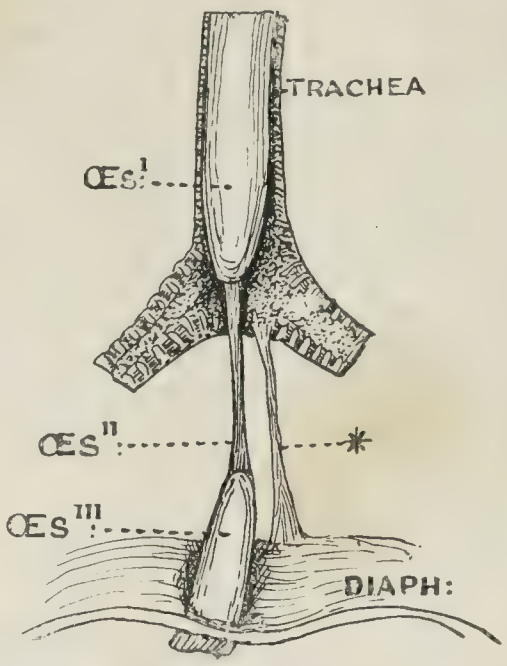


Fig. 2.—Congenital stenosis of the oesophagus in a newly-born child. Oes[I], the retrotracheal part of the oesophagus; Oes[II], the imperforate part; Oes[III], the supradiaphragmatic part; * muscular strand from the right bronchus to the diaphragm.

Irregular Separation of the Trachea from the Oesophagus.

Examples of this condition, usually reported under the title of atresia of the oesophagus, are not of uncommon occurrence. There are five examples in the college collection and nine in the museums of the metropolitan medical schools.

In all 14 specimens the arrangement of parts is remarkably similar; the condition shown in Fig. 3 may be regarded as typical. The upper part of the oesophagus ends blindly at a point some distance above the bifurcation of the trachea; the lower part of the oesophagus springs from the posterior wall of the trachea as a narrow tube, and gradually increases to its normal calibre as it approaches the diaphragm and stomach. The opening from the trachea to the lower part of the oesophagus in the specimens examined was situated somewhere in the posterior wall of the lower half of the trachea; in the majority the opening was at the junction of the upper three-fourths with the lower fourth. In 12 of the 14 specimens the fundus of the upper segment of the oesophagus overlapped the origin of the lower segment from the trachea, and there was usually a greater or less degree of union between the musculature of the two segments of the oesophagus and that of the trachea.

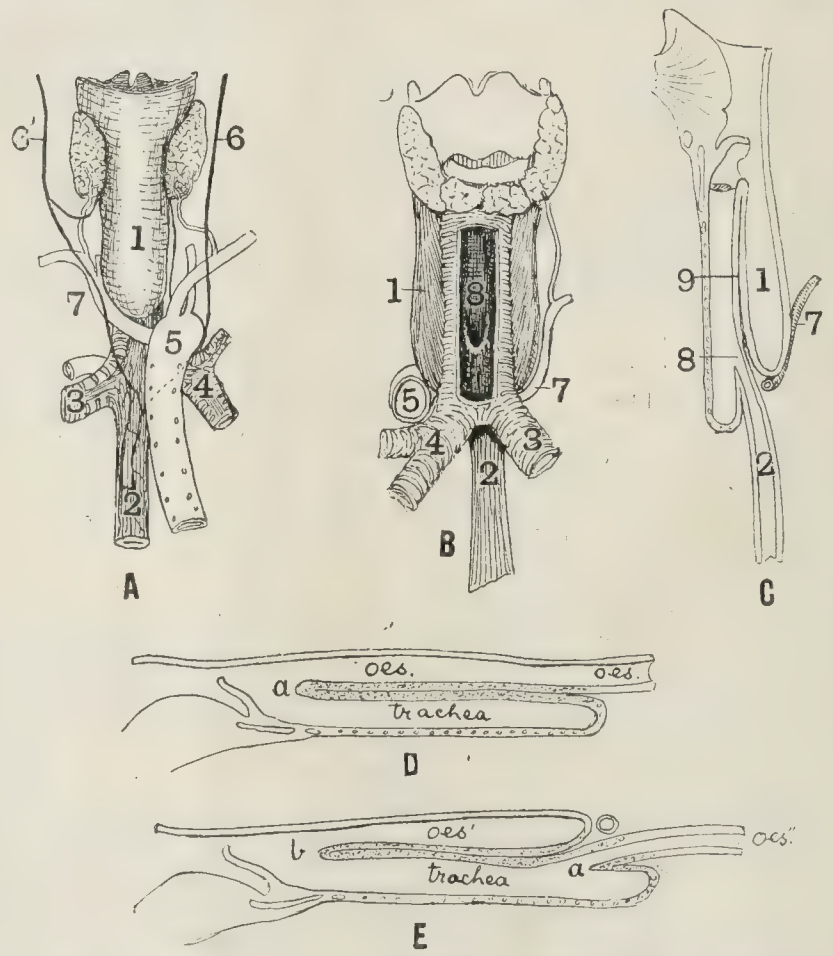


Fig. 3.—Figures illustrating irregular separation of the trachea from the oesophagus. A, B, and C, Dorsal, ventral, and lateral views of a case reported by Keith and Spicer in the *Journ. Anat. and Phys.*, 1907, vol. xli, p. 52. 1, Upper part of oesophagus ending in a cul-de-sac; 2, lower part arising from posterior wall of trachea; 3, 4, left and right bronchi; 5, arch of aorta; 6, vagus; 7, right subclavian artery arising as last branch of the aortic arch; 8, opening in trachea for lower part of oesophagus. D, E, The regular and irregular formation of the septum between trachea and oesophagus.

The arrangement of parts is incompatible with life; to reach the stomach, food must pass by the larynx, trachea, and the lower part of the oesophagus which opens from the trachea. The great majority of children with this malformation die in the latter half of the first week of life, but one case at least lived until the twelfth day. Every attempt to suckle ends in an attack which threatens suffocation. Operative measures to unite the two segments of the oesophagus are theoretically possible, but the technical difficulties are very great, and, so far as I know, operation has never been attempted. The diagnosis rests in finding the obstruction at a point 8 to 10 cm. from the lips.

The condition here described is usually regarded as an atresia of the oesophagus, but it is more than that—it is a maldevelopment of the septum between the oesophagus and trachea. A study of the evolution and development of the trachea and oesophagus provides a key to this malformation. The trachea is a comparatively recent structure in its evolution; it appears with the demarcation of a neck. In the amphibia the trachea and bronchi are absent; the lungs spring directly from the larynx. The oesophagus is little more than a sphincter between pharynx and stomach. When a neck appears, the posterior part of the amphibian larynx and the overlying part of the pharynx are elongated to form the trachea, bronchi, and the corresponding part of the oesophagus. Their common origin is seen in their common nerve supply from the recurrent laryngeal nerves. To interpret the appearances seen during the development of the trachea in the mammalian embryo, one must apply the knowledge gained from a study of the comparative anatomy of the parts. The larynx and the trachea appear in the human embryo towards the end of the third week as a gutter in the floor of the primitive foregut; the margins of this groove fuse to form the trachea-oesophageal septum, out of which the posterior wall of the trachea and anterior wall of the oesophagus are differentiated. The processes of fusion begin behind and spread uninterruptedly forwards. In normal development the union of the tracheal margins takes place simultaneously with the elongation of the foregut. Clearly, in the malformations with which we are dealing, the lateral margins of the tracheal groove, instead of meeting behind on the floor of the foregut, meet on its dorsal wall; hence, when they fuse, the septum between the trachea and oesophagus is laid down in the position shown in D E, Fig. 3, in place of the normal position shown in D, Fig. 3.

The break in the oesophagus occurs at what I believe is the junction of two morphological parts. The upper part is derived from the pharynx; its muscular fibres are chiefly, almost entirely, striated fibres, a fact which Luschka had discovered many years before me, as may be seen in Ballantyne's excellent book.[6] The lower part is derived from the primitive oesophagus, and is coated with non-striated fibres. In this malformation the primitive oesophagus ends in the trachea, a derivative of the primitive pharynx.

Cases have been described in which a congenital fistula existed between the trachea and oesophagus; we have no specimen of this condition in London collections, nor is there one in which the lower part of the oesophagus opens from the left bronchus. These forms can be accounted for by an irregular or interrupted fusion of the tracheal margins of the embryo; cases have also been seen in which the upper cul-de-sac of the oesophagus communicated with the trachea by a fistula.

Mr. Bland-Sutton has pointed out how often congenital constrictions of the alimentary canal occur at the points where developmental diverticula occur. Mr. Shattock[7] regards the atresia of the oesophagus as being determined by the outgrowth of the lung buds, the process of evagination involving the whole thickness of the foregut instead of being confined to its ventral wall. A study of the associated malformations throws some light on the nature of this lesion. Happich found that in 28 cases out of 59 there were other abnormalities, such as an imperforate anus, pulmonary stenosis, club-foot, spina bifida. In three consecutive cases, Dr. Spicer and I found that there was a persistence of the left aortic arch; but the persistence of this arch, although common, is not constant. Morell Mackenzie[8] collected 63 published cases of malformation of the oesophagus in 1884; 43 of them were of the nature described here. Drs. Crozer Griffith and R. S. Lavenson[9] have given a summary of recently published cases.

Hour-Glass Constriction of Stomach.

Although an hour-glass constriction of the stomach cannot be regarded as of uncommon occurrence, yet there are remarkably few specimens in the metropolitan medical museums. I saw fourteen in all, four of them being in the museum of this college. All the specimens agree in having the cardiac part sharply marked off from the pyloric by a constriction, but the form of the constriction is not quite alike in any two of them; in some the constriction is annular, notching both the lesser and greater curvatures of the stomach, or only the lesser curvature may be involved. In more than half of the cases the connexion between the two compartments of the stomach was tubular in form, the intermediate narrow part being 1 in. or more in length.

As to the nature of the mid-gastric constriction, one must remember that the condition has never been observed at birth; there is no evidence of maldevelopment producing the constriction. Sir Everard Home was the first to form a definite conception of its nature. In his Hunterian lectures, delivered nearly 100 years ago in this theatre, he described how his observations on the living stomach had convinced him that it was made up of two functional parts—a cardiac and pyloric—and that these two parts were separated in life by a mid-gastric sphincter. In hour-glass stomach the contraction of the mid-gastric sphincter became permanent, in the same manner and for the same obscure reasons as happens at the upper oesophageal and pyloric orifices. The results gained by Canon, by Hertz, and by Gray,[10] in studying the mechanism of gastric digestion, have confirmed and extended Home's observations; so, too, have the anatomical studies of the late Professor Cunningham.[11] The mid-gastric sphincter differs from the musculature at the oesophageal, pyloric and ileo-caecal orifices in being active only during digestion, whereas the others are always in action. Home also observed that the action of the mid-gastric sphincter might be lost in certain cases of disease—a conclusion which Dr. W. H. M. Gray reached from his study of clinical cases by the aid of *x* rays. The mid-gastric sphincter of the stomach is certainly not an anatomical entity, but must be regarded as the commencement of the pyloric part of the stomach. Mayo Robson[12] and Moynihan[13] regard hour-glass constriction as always the result of a pathological process; Tobin found that in only 1 of 6 cases was there evidence of cicatrization. I agree that in the majority of cases this constriction is a result of ulceration, but the narrowing is determined by cicatrization occurring in that part of the stomach which is kept in a state of tonic contraction by the mid-gastric sphincter. Ulceration may occur at any part of the stomach, but this constriction occurs between the cardiac and pyloric divisions.

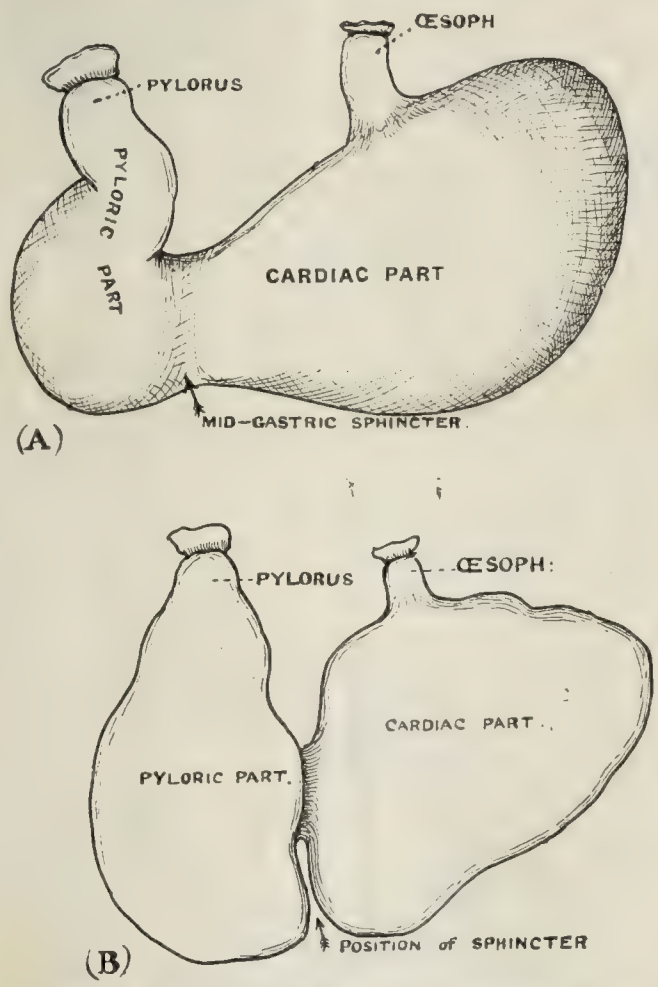


Fig. 4.—Sir Everard Home's illustrations of the mid-gastric sphincter in the normal human stomach (A) and in the hour-glass stomach (B).

Hypertrophic Stenosis of the Pylorus.

There is not a single specimen in the metropolitan medical museums of a stenosis of the pylorus in a fetus or newly-born child. Of the fourteen museum specimens illustrating this condition, only two of which are in the college collection, not one is from a child less than one month old. Many of these specimens are also unsatisfactory for the reason that their appearance depends on the manner of preservation, the varying length of time which elapsed after death before they were fixed by preservatives, and the degree of contraction present in the sphincter at the time of fixation. The pyloric region of the stomach of healthy children shows a wide variation in development. In only eight of the fourteen specimens was a longitudinal section of the pylorus shown. In these the musculature at the pylorus measured 2.5 to 3 mm. in thickness, whereas the thickness in normal children of a corresponding age amounts to 1.5 to 2 mm., but all these measurements vary with the state of tonus at the time of fixation. The condition appears to result from a functional derangement. Beyond the muscular hypertrophy there is no pathological manifestation.

Congenital Occlusion of the Duodenum.

The only specimen representing congenital occlusion of the duodenum in the college collection is one recently presented by Mr. Ernest Shaw, but it is typical of the other seven specimens which I have examined, six in metropolitan medical museums, and one in the University Museum of Leeds. Mr. Shaw's specimen is shown in Fig. 5. Immediately above the entrance of the common bile duct the duodenum is occluded by a septum, which is covered on each side by mucous membrane, and contains muscular strata continuous with the muscular coats of the bowel. In two cases an accessory pancreatic duct can be seen to open in the duodenum above the septum. In one case the occlusion is represented by, not a septum, but an annular constriction, showing that in this lesion there is an arrest of development of a segment of the duodenum. A specimen in the museum of St. Bartholomew's Hospital (No. 3635E[1]) was obtained

from a very remarkable case. The child lived for nine months, although the occlusion of the duodenum was complete. It had recurrent fits of vomiting, and passed very little per anum. The medical men who reported the case thought there must have been some other passage for the food than that by the duodenum. Sir Everard Home found that absorption from the stomach took place in the dog after the duodenum had been tied; in the case of this child absorption was apparently sufficient to keep it in life for nine months. Besides the eight specimens mentioned above there were three others showing variations of this condition. One in the museum of St. Mary's Hospital Medical School is remarkable. The dilated duodenum of an adult is crossed by a diaphragm above the opening of the common bile duct. In the diaphragm, which is ballooned downwards into the second stage of the duodenum, there is an oval orifice measuring about 5 by 3 mm. In another specimen (No. 3635 B, St. Bartholomew's Hospital) the occlusion occurs at the usual point, but the duodenum beyond the occlusion and the first part of the jejunum are obliterated. A specimen in the college museum obtained from Mr. Liston's collection shows a constriction of the duodenum just beyond the pylorus.

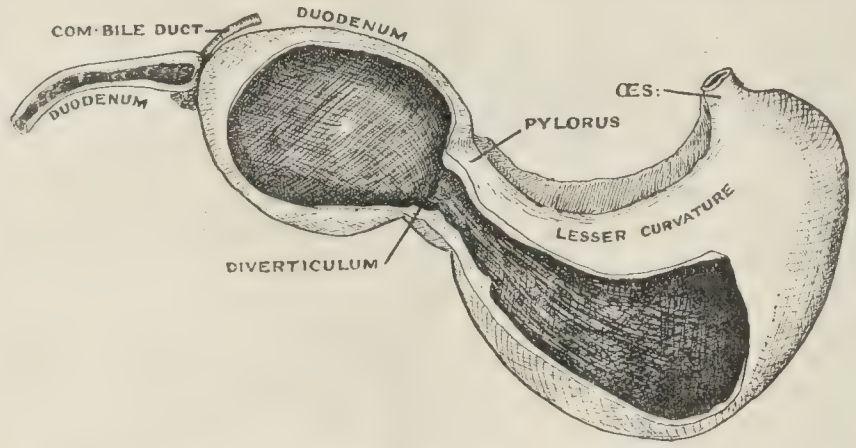


Fig. 5.—Stomach and duodenum of a child several days old, showing congenital occlusion above the entrance of the common bile duct.

Why occlusion should occur in the Vaterian segment of the duodenum is not very apparent. It is probably associated, as Mr. Bland-Sutton has inferred, with the outgrowth of the embryonic buds of the liver and pancreas. It occurs at the junction of two morphological parts of the alimentary tract—the fore and mid gut. Congenital occlusions of the bowel have been recently investigated by a Swedish anatomist, Hjalmar Forssner,[14] who finds, as Professor Tandler had found some years before, that the Vaterian segment of the duodenum is occluded by the proliferation of its epithelial lining during the greater part of the second month of development—a form of occlusion which also occurs in the oesophagus and many parts of the small and large bowel. The epithelial plug, failing to break down as development proceeds, leads to an occlusion of the bowel at that point. Cases of this nature have been recently reported by Mr. H. S. Clogg.[15]

Congenital Constrictions and Occlusions of the Jejunum.

Malformations of the jejunum are variable in shape and position. Of the eight museum specimens representing this lesion, three of which are in the college collection, not any two are exactly alike. In Fig. 6 I represent the condition found in a case which occurred at the London Hospital some years ago—that of a child who died on the third day after birth with all the symptoms of acute intestinal obstruction. The continuity of the jejunum is interrupted above the ileo-jejunal junction, the total length of the small bowel being 135 cm. The upper segment is distended and elongated by the intestinal contents, while the lower segment is contracted and contains a considerable amount of meconium-like material. The diameter of the upper segment was 25 mm., that of the lower 9 mm. At the point of interruption there is a V-shaped gap in the mesentery (Fig. 6), with a smooth but thin edge. In a similar case, Bergallonne[16] found a thread-like margin to the mesenteric gap, the thread representing the two outer coats of the bowel. The exact lesion which causes a localized atresia of the intestine can only be guessed at, for until the end of the third week of embryonic life the jejunum, ileum, and proximal part of the colon are represented by the short segment of gut which overlies the yolk sac. The manner in which this short segment becomes rapidly elongated, thrown into coils, and separated from the yolk sac is at present imperfectly understood. Forssner[14] attributes the occlusions to a persistence of the epithelial plugs which close the bowel in the second month of development. Altogether I saw 8 cases of congenital constriction or occlusion of the jejunum. Three cases were of the type just described, where a segment was absent altogether or represented merely by a thread on the edge of the mesentery; in 2 there were multiple defects; in 2 the lumen of the bowel was open, but the passage of contents was prevented by a septum; in 1 there was merely a localized narrowing or stricture. J. E. Emmanuel[17] reported the case of a seventh-month child with multiple constrictions of the jejunum, which lived for nine days. In 31 cases of congenital constriction of the small bowel Hirschsprung found that the lesion was situated in the duodenum in 16, at the ileo-caecal junction in 6, and between these points in 9.

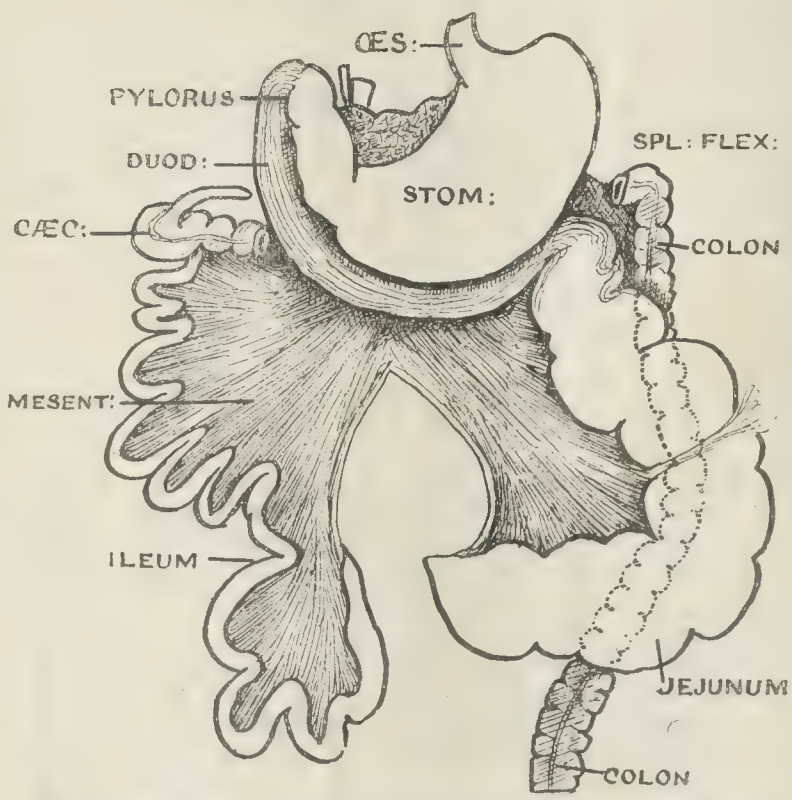


Fig. 6.—Congenital atresia of a segment of the jejunum with a V-shaped gap in the mesentery.

Congenital Occlusion of the Ileum.

A narrowing of the ileum is often associated with the presence of a Meckel's diverticulum; it is usually situated proximal to the diverticulum, but may be distal or opposite to it. I have seen several cases in which the bowel was reduced to half or less of its normal lumen at a distance of 2 ft. or 3 ft. above the ileo-caecal junction; these constrictions apparently occur at the same site as Meckel's diverticulum, and are associated with the atrophy of the yolk sac. The process of atrophy, which normally overtakes the stalk of the yolk sac, appears, in these cases, to extend to the neighbouring bowel. Of the seven museum specimens illustrating congenital occlusion of the ileum, one shows a complete break in the continuity of the bowel at a point 2 ft. above the ileo-caecal junction; in two the terminal part of the ileum is absent, the defect apparently commencing at the usual site of a Meckel's diverticulum; in one the terminal part of the ileum is reduced in size, the reduction commencing at Meckel's point; in one a diaphragm crosses the lumen of the bowel at this point; in one the defects are multiple; in the seventh preparation the occlusion is apparently due to adhesive bands resulting from fetal peritonitis. A remarkable preparation (No. 45 Museum of St. Bartholomew's Hospital) may be placed in this group, although it repre-

sents an arrest of growth of the whole of the small intestine. The preparation was obtained by Mr. Abernethy from a boy aged 12 years, in whom the small bowel was only 2 ft. in length; the colon measured 4 ft. Mr. H. S. Clogg[15] has recorded two very instructive cases of occlusion of the ileum; in one the ileum at Meckel's point was reduced to a thread; in the other the small intestine, which lay within an umbilical hernia, showed a complete absence of the segment of the bowel in the neighbourhood of Meckel's point. Dr. D. Waterston[18] has also reported a case in which the ileum near Meckel's point was absent, the corresponding part of the mesentery showing a V-shaped deficiency.

Occlusion at the Ileo-caecal Junction.

Although cases of congenital occlusion at the ileo-caecal junction have been recorded, there are no representatives of the lesion in the metropolitan museums with the exception of one in the college collection. Seeing that the musculature at the termination of the ileum is sphincteric in action, one may expect constrictions to occur at the ileo-caecal orifice similar to those which occur at the pylorus, but the only specimen I have seen which may represent such a lesion is No. 2522A in the college museum. The preparation was obtained from a woman, aged 62, who suffered from habitual constipation. The constriction at the ileo-caecal sphincter is supposed to result from syphilis, but there is no evidence that this is the case. In the specimen of congenital ileo-caecal occlusion the lumen of the ileum is closed ½ in. above the ileo-caecal orifice.

Congenital Occlusion of the Colon.

This lesion is represented by only four preparations in the medical museums of London. In one the great intestine is absent beyond the hepatic flexure; in two the splenic flexure is represented merely by a thread which united the transverse and descending colons; in the fourth a septum occurs at the junction of the pelvic colon and rectum. Congenital atresia of the colon is thus of uncommon occurrence; apparently the splenic flexure is the part most frequently affected. Atresia at the termination of the rectum is by far the most common point at which occlusion of the alimentary canal occurs. The specimens illustrating this lesion have been already described.[19]

REFERENCES.

1 Home, Sir Everard: *Lectures on Comparative Anatomy*, London, 1823, vol. iii.
2 Lerche: *Amer. Journ. Med. Sci.*, 1907, cxxxiv, p. 528.
3 Goldmann, E. E.: *Lancet*, 1906, vol. i, p. 21.
4 Hertz, A. F.: BRITISH MEDICAL JOURNAL, 1908, vol. i, p. 130.
5 Ehlers, H. W. E.: *Virchow's Archiv für Path., Anat., und Physiol.*, 1907, Bd. 189, p. 512.
5a Phillips, J.: *Archiv. of Pediatrics*, 1908, xxv, p. 266.
6 Ballantyne, J. W.: *Manual of Antenatal Pathology*, 1904, vol. ii.
7 Shattock, S. G.: *Trans. Path. Soc.*, London, 1890, vol. xli, p. 87.
8 Mackenzie, Morell: *A Manual of Diseases of the Throat and Nose*, London, 1884, vol. ii, p. 216.
9 Griffith, J. P. C., and Lavenson, R. S.: *Archiv. of Pediatrics*, 1909, vol. xxvi, p. 161.
10 Gray, H. M.: *Lancet*, 1908, vol. i, p. 549; vol. ii, p. 224.
11 Cunningham, D. J.: *Trans. Roy. Soc. Edin.*, 1906, vol. xlv, part 1.
12 Robson, Mayo: *Lancet*, 1904, vol. i, p. 5.
13 Moynihan, B.: BRITISH MEDICAL JOURNAL, 1904, vol. i, p. 413.
14 Forssner, H.: *Darm und Oesophagus Atresien.* Anatomische Hefte, 1907, xxxiv, pp. 1–160.
15 Clogg: *Lancet*, 1904, vol. ii, 1770.
16 Bergallonne, Ch. J.: *Rev. Méd. de la Suisse Rom.*, 1907, t. xxvii, p. 960.
17 Emmanuel, J. G.: *Lancet*, 1905, vol. ii, p. 440.
18 Waterston, David: *Journ. Anat. and Physiol.*, 1907, xli, p. 147.
19 BRITISH MEDICAL JOURNAL, 1908, vol. ii, p. 1736.

AT its last meeting the Paris Académie des Sciences elected Sir Patrick Manson a corresponding member.

THE International American Congress of Medicine and Hygiene will be held on May 25th in Buenos Aires in commemoration of the first centenary of the May revolution of 1810. The President of the Congress will be Dr. Eliseo Canton, who, in conjunction with the Minister of the Argentine Republic at Washington, has appointed a Committee of Propaganda, of which Dr. Charles H. Frazier of Philadelphia is Chairman, and Dr. Alfred Reginald Allen of Philadelphia, Secretary. The work of the congress will be distributed among eight sections: Biology; medicine; surgery; public hygiene; pharmacy and chemistry; sanitary technology; veterinary police; and dental pathology. There will also be an exhibition of hygiene. The official languages of the congress will be Spanish and English.

A Lecture
ON
SOME ASPECTS OF POLIOMYELITIS.

DELIVERED AT THE NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, DECEMBER 14TH, 1909.

BY

SIR WILLIAM R. GOWERS, M.D., F.R.S.

GENTLEMEN,—If you were asked the question, "What disease causes the most numerous mistakes in diagnosis?" your answer would probably depend on the character of your experience; but I think if you said "poliomyelitis" you would not be far from the truth. The errors to which it gives rise do not imply ignorance. They are due to the fact that the symptoms of the paralysis are so often preceded by others that resemble some general malady, and this is first supposed to exist, and to it the paralysis, when recognized, is often supposed to be secondary.

This danger does not always arise. In many of the cases, especially in those which arise in the early period of life, the paralysis comes on at the onset or at the second day of any general symptoms. There is then no room for error. But when the onset is after the infantile period, as the first three years of life may be termed, the general initial symptoms are much more marked in character and more prolonged in duration. These misleading cases have seemed to be more frequent during recent years, and are certainly of sufficient frequency to justify a word of warning. They occur at any period up to the completion of development, and sometimes even later. These patients are naturally able to describe their symptoms in greater detail, and so sometimes to add to the delusiveness which special symptoms confer upon them. I shall have some cases to show you which illustrate this fact.

I may mention another symptom which often causes error—the great pain in the limbs in the early stages, often accompanied by much tenderness. It may endure much longer, and is then attended with definite signs of inflammation of the nerves. In the early stage much fever accompanies the pain, and it is easy to think that the symptoms indicate rheumatic fever; to which it is easy to think that the spinal cord affection is secondary. This is probably always a mistake. I saw a case not long ago in whom the febrile disturbance of the disease lasted for a fortnight, and a diagnosis of typhoid fever was made to which the spinal affection was thought to be secondary. In such cases it is easier not only to say but to think that the original diagnosis was correct, and the spinal affection was really secondary to it. Many diagnostic errors are made in a kind of honesty over which the mind glides easily to a wrong conclusion.

Moreover, a mistake is often rendered easy by the severity of the initial symptoms; they naturally cause prostration. The area affected by the paralysis is usually at first wide, sometimes almost universal, and only the return of power in some part shows that it cannot be ascribed to mere prostration. Those of you who have already had some experience of practice will realize how firmly rooted an idea may be about the nature of a child's illness in the maternal mind, especially if it was originally formed after a consultation with the mind of an older individual of the same sex. I remember once seeing a child with severe paralysis of this form whose mother had allowed it to go on for three months before she thought it worth while to see a doctor.

The disease was formerly known as infantile spinal paralysis because it chiefly occurred during the first three years of life, but cases later in life seem to have been more frequent in recent years, and during the last ten or fifteen years it has been observed to occur in apparent epidemics. In consequence, the pathology of the disease has attracted much attention, and our knowledge of it has been found to be most defective.

The epidemics of the disease have varied much in their extent, but all have occurred during or just after the hot season of the year. This is not a new feature; it has always been so with the sporadic form. As I expressed it many years ago, two thirds of the cases occur during the

hottest third of the year. Excluding the epidemics that is nearly the truth, and it is less than the truth if they are included. July, August, September, and October are the periods of most of the cases. Both sporadic cases and those in epidemics have been noted to occur after hot dry weather.

The most extensive epidemic occurred in the United States in 1907, and is believed to have included several thousand cases. Two have occurred in Australia—one in Queensland in 1903 and one at Melbourne in 1908 (of 137 cases). The second largest occurred in Sweden in 1905, which has been very thoroughly investigated by Wickman, who has published an admirable account of it, much more thorough than any other outbreak has received. It consisted of a great number of small local epidemics, each of which is separately described and illustrated by a small map. He is convinced that the extension of the disease in each locality can only be explained by personal contagion, although in every instance it seemed to begin without infection. Unfortunately he has thought it desirable to introduce a new name for the disease, and calls his book the *Heine-Medin Malady*, from two writers who described it, the latter in its epidemic form.[1]

It is curious that extensive outbreaks have been preserved for the present time. But many smaller epidemics have been described—one in the United States as long ago as 1841. This country has, fortunately, been free from such as merit record. A curious series of cases in one family in London was recorded a few years ago by Dr. Pasteur, and a very instructive account of an outbreak last year in the south of Essex has been given by Dr. W. W. Treves, of the London Hospital, in the last number of *Brain*.[2] It comprehends only 8 cases which occurred in Upminster, July to September, 1908. It closely resembled the individual outbreaks in Sweden. No other epidemic is known to have occurred in this country last year, but I have 3 sporadic cases to show you, the onset of which occurred then. Two of them have a peculiar interest because they are two brothers, who lived together near Wisbech in Lincolnshire, and were taken ill on the same day, whilst the epidemic at Upminster was in progress. But no connexion between the two cases can be traced, and Wisbech is about 130 miles from Upminster.

It has been noted that during the epidemics cases have been frequent which transcend in age the common infantile period of incidence of the disease, and that they present features that are thought to be special to the epidemic form. It is probable that these features are chiefly connected with the older age of the patient. Dr. Berg,[3] of New York, has specially insisted on the features of the epidemic form in the United States, but these features have been conspicuous in the cases that have occurred here in the last two years, including those I have to mention to day.

The first two cases I have to show you are young men, two brothers, healthy young farmers. They lived in the same house in the country, and were taken ill on the same day a year and a quarter ago. No other cases are known in the district, before or since, I am assured by the doctor who attended them. The younger, George C. is now 17, he was 16 when, on August 27th, 1908, he was suddenly taken ill with sore throat and some headache. He soon improved, but did not feel strong enough to resume his usual work. On September 5th the weakness seemed to increase, and he had a difficulty in standing up, and the following day he had greater weakness, especially in the left leg; he also again felt ill, and his temperature was considerably raised—to 104°F. The following day the right leg was also almost powerless; and afterwards he found that the arms were also weak. There was no loss of sensation or impairment of the sphincters. In ten days power began to return in the feet; he stayed in bed for a fortnight, and slowly improved, but it was three months before he was able to stand. No symptoms in the region of the cranial nerves were felt, but his power of coughing was much weakened.

His residual condition you now see. His arms are only a little weakened, but the thoracic muscles are very feeble, and he can exert no power with the abdominal muscles. The left erector spinae is much more wasted than the right, and considerable curvature has developed. The legs are still weak, but he can walk for a mile, and the knee-jerk is fair on the right side; on the left it is only just to be obtained.

The brother was 17½ when he was taken ill, in the same way, on the same day, August 27th, with sore throat, frontal headache, and general malaise. He was in bed two days and spent the third in the house, but felt so well on August 31st that he went back to his farm work and did an ordinary day's work. The following day was wet, and he got wet through, but came home and changed his clothes, feeling quite well. He slept well that night and got up in the morning feeling nothing amiss. But at 9 a.m. he felt giddy and could not walk straight. The condition came on quite suddenly, while he was churning. Headache came on at the same time, frontal and at each side; it was severe, the giddiness rapidly increased, and was accompanied by weakness of the legs, which were so feeble that at 11 o'clock he went to bed. He slept most of the time till the following morning, when he had lost all movement in the legs and the arms were distinctly weak. He was found to be feverish, his temperature being 104° F. For a fortnight he continued to feel ill, with much headache and sleeplessness. The arms began to gain strength after the first few days, and in six weeks seemed as strong as before, but the legs presented wasting, and even now there is only a very little movement in the toes.

Before I speak further of these two brothers I will mention the onset of the disease in the two other cases I have here. This boy was taken ill a year ago, in November, 1908, when he was a little more than 14 years old. For two days he had general pains, especially severe in the back. This is a common seat for the initial pains. On the third day weakness of the legs was found and he was more feverish, his temperature being 104°, and there was some delirium. The weakness of the legs continued with wasting, and even now very little recovery has taken place.

The fourth patient is younger, only 7. His illness dates from this year; it began in the middle of last September. It at first resembled a severe cold, and lasted for a week. He was kept in bed for three days, and seemed to get quite well and to be so for two days. (Compare this intermission with that of the two brothers.) Then, while writing a letter in a noisy room, he went to sleep. He was carried upstairs, undressed and put to bed, still asleep. He slept on through the rest of the day and night. He woke in the morning to find that he could not move his legs or the right arm. He had pains all over, and his neck was rigid. His temperature is said also to have been 104°. Power in the arm was soon regained, during the first week, and the stiffness of the neck disappeared, but his legs still remain paralysed.

These cases illustrate the common rule, but varieties constantly occur in the severity and duration of the early symptoms. Sometimes they are scarcely to be recognized, occasionally, as I have said, they continue for a couple of weeks. All the cases I have shown you are beyond the common infantile epoch, and, as a rule, the older the patient the more pronounced are these general manifestations, and the longer their duration. In the remarkable occasional prevalence of the disease during recent years, an unusually large proportion of the cases have occurred in patients who transcend in age that of cases usually observed, and in whom, therefore, these general symptoms have been unusually conspicuous.

I may mention to you another sporadic case of last year. A girl of 16½, ten days after getting wet through, was seized with a febrile illness on September 26th. Her temperature was 101° on the second day and 102° on the third, with paralysis of the legs and loss of all reflex action. Retention of urine existed from the first, but power of expulsion was regained in a month. Moderate recovery very slowly followed.

The following case presented the affection of the centre of the medulla, which has been thought to be a feature of the epidemic form. A boy, aged 10, at school played football after rain on the last Saturday in September, 1909, and sat down afterwards on the damp grass. On the Monday he had headache and a temperature of 104°. On Wednesday weakness of the right side of the face was noticed, and it was definitely paralysed on the next day. Then the right arm was found to be paralysed, and in a day or two both legs also, and at the end of a week there was strabismus, apparently due to paralysis of the sixth nerve. The temperature did not become normal until after the tenth day. The face recovered power in a week.

The strabismus ceased after a month; the arm can now be moved freely but is generally wasted, and the legs are still too weak to enable him to stand.

Another feature of the epidemic form is the frequency with which cases terminate fatally and also recover completely. The mortality has been estimated at about 12 per cent., and consists especially of cases in which the grey matter of the medulla has been extensively involved.

Numerous and strenuous have been the attempts to isolate and cultivate the material agent of the disease. But none can have been said to have been successful. In a large number of cases the results have been simply negative. Organisms have been sought in the spinal cord of early fatal cases, and also in the fluid obtained by lumbar puncture. Those that have been found in small quantity, bacterial or micrococcal, have failed to grow. The only success in reproducing the disease has been obtained in monkeys, which seem specially prone to the malady. Landsteiner and Popper[4] failed to find any organisms in the spinal cord of a boy, aged 6, who died within twenty-four hours of the onset of symptoms in Vienna, nor could they succeed in attempts to cultivate. The substance of the cord was injected without result into rabbits, guinea-pigs, and mice, but of two apes injected, one developed typical paralysis after seventeen days and died in two days. The other monkey was taken ill the day after inoculation, and died two days later. There was general inflammation of the spinal cord, but not the typical condition of the disease. The spinal cord of the first was injected into two other apes, but without result. Recently greater success has been obtained by Flexner and Paul[5] in the United States at the Rockefeller Institute, New York. They succeeded in producing the disease in six successive monkeys, using for the first the inflamed spinal cord of a fatal case of poliomyelitis, and for the next the spinal cord of the monkey affected. They employed intracerebral and intraperitoneal injection, but at first failed with subcutaneous injection, which, however, was at last successful. But they failed to find or to cultivate any organisms. They confirmed the supposition that their size is too small for observation, by pressing the material through a Berkefeldt filter, and after this found that it would still give rise to the disease.

This result seems to raise a question whether the poison which affects the spinal cord may not be a simple chemical poison like that which has been shown to cause the paralysis after diphtheria, or which causes the symptoms of tetanus. The prolonged manifestations of the early disturbance in many cases are often in harmony with a secondary production of the poison. It is so, for instance, in the cases of the first two patients and the fourth one I have shown you, in which the early general symptoms were separated by approximate or complete recovery from the onset of the symptoms of the affection of the nervous system. But in the third case the nervous symptoms seemed part of the early disturbance, and this is often the case.

Unfortunately, moreover, this discovery of the reproduction of the disease by the material from the seat of the specific inflammation affords no prospect of means of treatment. It leaves us therapeutically where we were before. Could a bacterial materies morbi be obtained, we might hope that its cultivation would afford the prospect of obtaining a means of counteracting the action on the spinal cord, but any discoverable organism seems further off than ever, and there is no promise of any prospective means of neutralizing the paralysing agent. We can only hope that the power of recognizing the initial symptoms may grow, and that they may induce more care in the management of those patients who present them, even if they have the semblance of a simple catarrh. At least we may hope that this may be common when there are any signs of local prevalence of the disease. Any pronouncement or special symptom of a catarrh should then cause more than usual caution, especially if pains in the limbs or back are conspicuous. When any loss of power presents itself it should be remembered that it may be the same at first whether the paralysis is going to be transient or enduring, and a posture should be adopted which will prevent congestion of the grey matter related to the part. Especially if the symptoms indicate that the spinal cord is affected, the patient should not lie on the back. If a position on one or the other side is impracticable, pillows against the back will raise the spine from the lowest position and save the inevitable hyperaemia from being augmented by the effect of gravitation. We can never know the effect of the measures we adopt in a case in which the degree of change varies so much, but it is more than probable that this measure will often save from an extreme degree of damage which otherwise would easily occur. Any symptoms indicating an affection of the nerve centres should obviously prevent any functional excitement of the part, even so slight as that involved in the least locomotion. The medicine given at first may be that for an acute catarrhal state which the general character of the symptoms resembles. Strychnine should not be given until after the first two or three weeks. It is not wise to stimulate structures that are inflamed. Electricity should be deferred a little longer. Massage, or rather rubbing, may be commenced sooner, but with great gentleness. Upward rubbing should be employed, with such pressure as causes no pain. Kneading of the muscles is better avoided. The upward motion has a valuable influence on the circulation, vascular and extravascular; it tends to move the fluids towards the heart. The affected limbs are cold, and there is a tendency to slight oedema of the subcutaneous tissues which the effect of upward rubbing counteracts.

The inflammation of the grey matter, if severe, destroys the motor nerve cells and entails degeneration of the motor nerve fibres, and in consequence the excitability of the muscles to faradism fails, but the muscle tissue retains its excitability to slowly interrupted voltaism. This is generally increased, the action occurring to a weaker current than in health, and more readily to the positive than to the negative pole; in other words, the anodal closure contraction occurs more readily than the kathodal closure, which normally occurs with the weaker current. This voltaic reaction of the muscles is very important, because, if employed, it preserves their power of action to the normal stimulus if the nerves regenerate, as they may do if the cells are not completely destroyed.

We do not always find the reaction changed as I have described. Sometimes the inflammation is slight, and only a few of the cells are gravely damaged. The muscle may then react to faradism through the unaffected nerves, although those that have degenerated cause some of the fibres to react to the anode of degeneration. On the other hand, the action to voltaic electricity may quickly disappear, as well as that to faradism. This is a sign of a very irritative form of nerve degeneration, which passes from the ends of the motor nerves to the muscular fibres, and entails their structural degeneration, so that they also perish and cannot be renewed. It is thus the gravest possible sign.

The two conditions may be reproduced experimentally. If the nerve is tied by a simple thread, a simple nerve degeneration is the result, with the persistent voltaic irritability in the muscle. But if the thread is made irritative by some acid and is passed through the nerve, the descending nerve degeneration is rendered irritant; it is passed on to the muscular fibres, and they speedily lose all reaction, and undergo rapidly the destructive degeneration.

Such cases are but rarely met with. Ordinarily, there is not complete loss of excitability, and after a few months improved reaction can be perceived and steadily increases. Indeed the progressive improvement goes on for much longer than would be thought probable and the degree of power ultimately gained transcends anticipation. After a month from the onset, strychnine should be given regularly. After a time, say six months, when the legs are affected, their power may be made more effective by artificial support carefully contrived to supplement the weakness. The deformities which are apt to develop from the contraction of the less paralysed muscles, in consequence of the loss of the force of those that should oppose them, must be carefully watched for from an early period. As far as possible they must be prevented by careful attention to posture; especially the contraction of the calf muscles must be obviated by support to the feet, and curvature of the spine when a child begins to sit up, if there is weakness of the spinal muscles which is greater on one side, may be counteracted by constant attention to posture. Often an appliance is needed to give the support that is lacking on one side and prevent the displacement

of the spine towards the less affected side, which, in these cases, often tends to occur.

The epidemic in Scandinavia has left the conviction that the disease is contagious. This is the conclusion of Wickman, who has described the whole epidemic most carefully. Cases of poliomyelitis are now carefully isolated in Denmark and Sweden, and are taken to the hospitals for contagious diseases, whether the cases are sporadic or the disease is epidemic. In this country, with the exception of the small epidemic I have mentioned, the disease has only occurred in its sporadic form. No second case has ever been known to occur from contact. This is true of the cases I have shown you to-day; even if we include the so-called abortive cases, no instances are to be heard of. Isolation is never thought of, and it is always neglected with perfect impunity. But when we read the account of the separate outbreaks described by Wickman, it is easy to understand the belief that it is contagious, and yet there are difficulties in applying the belief. Many escaped infection who were of the age that involves an apparent disposition to suffer. Others suffered in the same district who lived so far away and were affected so long afterwards that it was necessary to assume an indirect contagion by some unknown means. But this can only happen in the case of a malady that is intensely infectious, of which, in this malady, there is no evidence.

The only other conceivable explanation of these outbreaks is that the cause of the attacks is of local origin —that the so-called epidemics are really endemics. The Upminster outbreak is of significance in this respect. Although it was so small in extent, it presents all the features relevant to the question of its nature. The first case was a resident child, 3½ years old, who was taken ill on July 26th. All the other cases were over 6. Two sisters were taken ill on August 24th who had been staying at a distance and returned to Upminster on August 18th; one proved an abortive case, but the other developed some paralysis. A boy was also attacked on the 24th. Two sisters who had been away until September 3rd were attacked on the 11th and 12th; a younger child was unaffected. The last case was a boy taken ill on September 16th, who had no constitutional symptoms and only transient palsy of one leg. No opportunities for personal infection are mentioned.

The cases which returned to Upminster from a distance suggest five or six days as the period of incubation of the disease. Attempts to determine it were made by Wickman without success. They varied from one to thirty days. It is certain that if the disease is endemic in origin and not due to contagion many cases must occur having the semblance of a contagious origin.

REFERENCES.

[1] Heine, *Spinale Kinderlahmungen*, II Aufl., 1860 (I Aufl., 1840); Medin, *Verhandl der X Internat. Med. Kongr.*, Berlin, 1840. [2] *Brain*, vol. xxxii Part 127, p. 285, July to September, 1908. [3] *Med. Record*, vol. lxxiii, January 4th, 1908. [4] *Zeitschr. f. Immunitätsforschung*, 1909, Bd. II, Heft iv, S. 377. [5] *Journ. Amer. Med. Assoc.*, November 13th and December 18th, 1909.

An Address
ON
HEREDITY AND DISEASE.

GIVEN BEFORE THE SWANSEA DIVISION OF THE SOUTH WALES AND MONMOUTHSHIRE BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

BY

E. LE CRONIER LANCASTER, M.B., B.CH.OXON.,

SENIOR PHYSICIAN TO THE SWANSEA GENERAL AND EYE HOSPITAL; CHAIRMAN OF THE DIVISION.

WITHIN the limits of this address I shall not attempt to deal with details, but shall confine myself to a statement of certain fundamental principles which must always be clearly kept in mind if we wish to get any real grip of the problems associated with the inheritance of disease.

As with many other concepts of science, heredity has passed through a stage in which it was looked upon as something mystical, or at any rate metaphysical—something akin to the vital essences or the humours of the old philosophers. But those old foes to mysticism, observation and experiment, enable us to conceive of heredity and inheritance as something entirely physical, to be expressed in terms of molecules and chemical combinations, with an actual physical basis of particles of protoplasm. Of course, as regards the eternal "why" of the whole process, we are no whit nearer than was Hippocrates—"Ignoramus, Ignorabimus"—but we have attained to a working hypothesis as to "how" heredity is manufactured in the laboratory of the reproductive organs.

Heredity, then, is not an abstract conception, or a principle, or an essence, but simply a short term for "the genetic relation between successive generations of organisms," and inheritance may best be defined as being "all that any organism is, or has, to start with by reason of its hereditary relations" (Thomson).

And what is the physical basis of inheritance? It may be taken, I think, no longer as a physiological theory, but as a fact, that this physical basis resides in those deeply stainable particles in the intranuclear network of the fertilized ovum known as the "chromosomes" or "idants," and one of the most interesting discoveries of modern times is that all the cells—all the cells of the different tissues—in the body of any particular plant or animal always contain the same number of chromosomes, and in all forms which reproduce sexually the number is even. The number varies greatly—as low as two in some of the threadworms, as many as 168 in some of the crustacea. The human species has twenty-four chromosomes, and we share this number with such differing fellow-beings as the mouse, the trout, the salamander, and the lily. It is known that the mature sperm cell and the mature ovum just prior to fertilization each contains only half the number of chromosomes characteristic of the body cells of the species—during the maturation of the germ cells, that is, there has been a reduction of the chromosomes by one-half. When the nuclei of the germ cells fuse to form the single nucleus of the fertilized ovum it is found that all the paternal and maternal chromosomes are present, there has been no fusion of the chromosomes, and the fertilized ovum now again contains the number characteristic of the species—twenty-four in man—half of which have been derived from the father and half from the mother. If we look upon the chromosomes as containing within themselves the physical bases of all the independently hereditable and independently variable qualities which in their totality are the future offspring, this reduction to one-half the number during maturation followed by the close union of the two sets of chromosomes with their different ancestral histories both explains how it is that an offspring tends to resemble its parents and at the same time tends to vary from them—for in this mingling of the chromosomes there must be ample scope for new permutations and combinations of the smaller particulate constituents from which the chromosomes are built up.

Each cell of the future offspring will have 12 paternal chromosomes and 12 maternal. The mature sperm cell of the father has 12 chromosomes, having lost half its original number during maturation, but it does not of necessity follow—and this is the point of cardinal importance—that 6 of them were derived from the grandfather and 6 from the grandmother. The reduction of the paternal chromosomes from 24 to 12, which occurred during maturation, may take place more or less at haphazard. The final number 12 is always attained, but it may be that 7, 8, or 9 of them come from the grandfather, and only 5, 4, or 3 from the grandmother. If the mature sperm cell in a given case had 9 grandpaternal and only 3 grandmaternal chromosomes, then obviously, so far as paternal inheritance goes, the offspring would tend to resemble its grandfather and his ancestors much more than its grandmother and hers. In view of the facts that certain qualities such as stature, or certain diseases such as haemophilia, show a definite relationship to the sex of the inheritor, it is probable that the question of sex causation is connected in some way with this irregularity in the reduction of the chromosomes. Similarly the chromosomes of the four grandparents are made up of contributions from eight great-grandparents, and if the reduction processes were always quite regular, the 24 chromosomes in the fertilized human ovum should contain in the 12 derived from the father 6 from the grandfather and 6 from the grandmother, and these latter groups should each

contain 3 from the great-grandfather and 3 from the great-grandmother; but as the reduction processes are not regular a very great number of possible arrangements may occur, and it becomes easy to understand how any particular heritable quality, making either for health or for disease, may disappear from the inheritance of any particular individual. Now, if we only go back so far as our great-grandparents, we each inherit characteristics from eight different families—barring, of course, marriages of consanguity—and it is somewhat probable that we all of us have chromosomes, some of whose primary constituents or determinants are those of phthisis, of carcinoma, of what not. The point of importance for any individual, some of whose near ancestors have suffered from so-called heritable diseases, is what proportion do the tainted chromosomes bear to the untainted; the greater the proportion, of course, the greater will be the chance of inheriting the tendency to the disease, and a similar taint on both sides of the ancestry will naturally be a double source of danger. A schema which I have modified from a paper by H. E. Ziegler makes this very clear.

Father with marked tuberculous and cancerous taints, inherited from both sides.

O O O V V V V V V Λ Λ O O O Λ Λ Λ Λ V V V O O O

Three mature sperm cells, showing three different combinations.

(*a*)	O	O	O	O	O	O	O	O	Λ	O	V	Λ
(*b*)	O	O	V	V	V	V	V	V	V	O	V	V
(*c*)	O	O	O	Λ	Λ	O	Λ	Λ	Λ	O	O	Λ

Mother with quite healthy paternal inheritance, slightly tainted with tubercle and cancer on maternal side.

O O O O O O O O O O O O O O O O O V V O O O O O Λ Λ

Three mature egg cells, showing three different combinations.

(*d*)	O	O	O	O	O	O	O	O	O	O	O	O
(*e*)	O	O	O	O	O	O	O	O	O	O	V	V
(*f*)	O	O	O	O	O	O	O	O	V	O	Λ	Λ

O, Healthy chromosome.
V, Chromosome with tuberculous determinants.
Λ, Chromosome with cancerous determinants.

Here it is clear that the offspring resulting from the fertilization of (*d*) by (*a*) will be almost free from taint of disease, but that the result of the fertilization of (*e*) by (*b*), and of (*f*) by (*c*), will be offspring respectively tainted with tubercle and carcinoma to a marked degree.

It has been well said that all the sciences contribute to the science of medicine, and it is true that the student of heredity has to invoke the aid of mathematics, especially the algebraical theories of the law of probability and the summation of series, to rightly interpret the facts. If we accept as correct Weismann's theory as to the continuity of the germ plasm from generation to generation, then as the inheritance of any individual is made up by equal contributions from the two parents—the contribution from the father must consist of more or less equal contributions from his two parents, and similarly the contribution of the mother of more or less equal contributions from her two parents, and so on backwards to the beginning of life. If these contributions are not metaphysical expressions used simply to cloak ignorance, but actual solid protoplasmic bodies, then the definition of each person's inheritance as "a mosaic of ancestral contributions" is literally and not figuratively correct. From careful statistical work on certain definite characteristics, such as stature in man and colour of the coat in basset hounds, Sir Francis Galton formulated the important law known as the law of ancestral inheritance, which in his own words is as follows: "The two parents between them contribute *on the average* one-half of each inherited quality, each of them contributing one-quarter. The four grandparents contribute between them one-quarter, or each of them one-sixteenth, and so on, the sum of the series $\frac{1}{2}+\frac{1}{4}+\frac{1}{8}+\frac{1}{16}+$, being equal to 1, as it should be. The bias towards particular diseases or tendencies to such diseases transmitted by any particular ancestors in any given pedigree are eliminated by a law which deals only with average contributions, and the varying prepotencies of sex in respect to different qualities, such as the familiar sex limited diseases of pseudo-hypertrophic muscular paralysis, haemophilia, and colour-blindness, are also presumably eliminated." Professor Karl Pearson, who more than any one else has thrown the searchlight of mathematical investigation upon the disorderly and chaotic masses of biological facts, states Galton's law in this form: "Each parent contributes on an average one-quarter, or $(\frac{1}{2})^2$, each grandparent one-sixteenth, or $(\frac{1}{2})^4$, and so on; the occupier of each ancestral place in the nth degree, whatever be the value of n, contributes $(\frac{1}{2})^{2n}$ of the heritage."

Galton's law and the various ways in which it may be stated are obviously statistical conclusions—that is, they are true on the average, they apply to masses of individuals, they are large and useful generalizations, but they do not of course apply, they are not intended to apply, to individual cases, and there is a sharp contrast between statistical laws referring to masses and physiological laws which can be applied to individuals. There is a well-known conundrum which illustrates the antithesis between truths about masses and truths about individuals—"Why do white sheep eat more than black ones?" the answer not being expressed in terms showing any distinction between metabolic processes in white or black sheep, but being merely, "Because there are more white sheep than black."

Now are there any physiological laws of inheritance applicable to individual units which might be a present help to some comprehension of the real secrets of inheritance, and a future aid to deliberate attempt at the elimination of disease, or even, *pace* sentiment, deliberate attempt to raise the physical and mental status of the race by some system of voluntary selective mating?

Now, some such laws, applicable at any rate to plants, were formulated as the result of careful experiments some forty years ago by a man who is probably destined to take rank with Darwin, Wallace, and Weismann as among the pioneers of biology, Gregor Johann Mendel, the Abbot of Brünn. Mendel published his discoveries in the proceedings of the natural history society of Brünn, and there they lay buried until about the beginning of this century; once brought to light, Mendel's experiments have been repeated and his conclusions verified, so far as concerns the vegetable kingdom, and to-day Mendelism is generally accepted as one of the great generalizations of biology, and the main question now is how far it applies to inheritance in the human race.

Mendel's two chief laws are: The Law of Dominance and the Law of Segregation. The object Mendel set himself was to find out the law of inheritance in hybrid varieties, and he chose for experimentation the ordinary edible pea—*Pisum sativum*—with its several varieties or subspecies—*P. quadratum*, *P. umbellatum*, etc. These varieties have differentiating characteristics which are perfectly constant, such as tallness or dwarfness, rounded or angular seeds, colour of the seed-coats, shape of the pods, etc., and *inter se* they breed quite true. He crossed one variety with another, investigating one character at a time. Thus pollen from a tall pea was used to fertilize the stigma of a dwarf pea, the stamens of the latter being, of course, first removed, and the same was done with the other differentiating characteristics of the varieties. As the result of this artificial fertilization in the hybrid offspring there might have been expected, *a priori*, some sort of an intermediate result, corresponding to a Mulatto or Eurasian in human beings; but what happens is that the hybrids show *one* of each pair of contrasted characters to the total, or almost total, exclusion of the other. The characteristic that prevails or appears in the hybrid offspring is termed "dominant," and that suppressed or apparently suppressed the "recessive" character. In the example of crossing tall and dwarf varieties the offspring are all tall, not intermediate in height between the tall and short parents, and "tallness" is the dominant character, and "dwarfness" the recessive character. This result expresses the first of Mendel's laws—the law of dominance—that when a plant with a dominant character and a plant with a recessive character are crossed the offspring all resemble the dominant parent as regards the character in question. But the recessive character has not in reality disappeared from the inheritance; it is only unexpressed in this particular generation, just as, in popular opinion, gout may in mankind skip a generation, the goutiness,

though present in the gouty son's inheritance, being unexpressed. The proof that the recessive character in the inheritance was simply unexpressed and not lost was obtained by further experiments leading up to the formulation of the second chief law—the law of segregation. In the next generation the cross-bred plants —the products of the dominant and the recessive, but all apparently dominant—were allowed to fertilize themselves, and the result was that the second generation exhibited the two original forms, and generally in a certain proportion—that of three dominants to one recessive. Out of 1,064 plants of this second generation 787 were tall and 277 were dwarf (the exact 3 to 1 proportion would have given 798 tall to 266 dwarf). Now comes the most vitally interesting point: when the recessive dwarfs of this second generation were fertilized among themselves they gave rise to dwarfs only for all succeeding generations—that is, the recessive character bred quite true; and when the dominants were fertilized among themselves they produced *one-third* of "pure" or "extracted" dominants, which in all succeeding generations gave rise to dominants only; and *two-thirds* of cross-bred dominants, which on self-fertilization again gave rise to a mixture of dominants and recessives in the proportion of 3 to 1—and so on for all time.

Punnett gives the following summary of the Mendelian position:

> Wherever there occurs a pair of differentiating characters, of which one is dominant to the other, three possibilities exist: there are recessives which always breed true to the recessive character; there are dominants which breed true to the dominant character, and are therefore pure; and thirdly, there are dominants which may be called impure, and which on self-fertilization (or in-breeding, where the sexes are separate) give both dominant and recessive forms in the fixed proportion of three of the former to one of the latter.

I need not go further into the theories of Mendelism except to indicate the mechanical means by which these results, so constantly observed, may be brought about.

It is supposable, it is even not unlikely, that what happens is this: The hybrid D(R) produces in equal or approximately equal numbers two kinds of germ cells (that is, two kinds of sperm cells and two kinds of egg cells), and in the developing reproductive organs the germ cells are *segregated*, or divided off into two equal lots, one lot containing the determinants which eventually give rise in the case of peas to tallness, or in the case of man (to choose two characteristics which have been observed in some cases to obey Mendelian rules) normal pigmentation or normal colour vision, and the other lot with the determinants of dwarfness for the peas, or for albinism or colour blindness in man.

There are, of course, many further elaborations of Mendelian phenomena, such, for example, as the mating of an impure dominant with a recessive, when the result will be an equal number of impure dominants and recessives; or the mating of an impure dominant with a pure dominant, which produces equal numbers of impure and pure dominants—in both cases exactly what would *a priori* be expected to happen, assuming the explanation of this segregation of the germ cells to be the right one.

I have, however, said enough to show that Mendelian phenomena, if applicable to man, must have a very practical bearing upon the problems of the heredity of disease. And in connexion with disease and Mendelian laws there is a well-known example in the vegetable kingdom which is pregnant with suggestions as regards disease in man. Certain strains of wheat are very liable to the attacks of the fungus which produces the disease known as "rust"; other strains of wheat are immune to this fungus. Now if these two strains are crossed the resulting hybrids are found to be all susceptible to rust; but if these susceptible hybrids are self-fertilized, seeds are produced which give rise to dominant "rusts" and recessive immune plants in the usual proportion of 3 to 1. Thus an innate quality, such as immunity to a certain disease, is seen to be a characteristic which obeys Mendelian laws, at any rate in wheat. Such an instance is very unlikely to be isolated, and it is not going too far to say that it is extremely unlikely to be confined to the vegetable kingdom; and it has significant bearings not only on the heredity of disease in man, but also on the heredity of immunity. For after all that is the great point of interest —How far are Mendelian phenomena applicable to man? Now, this question has only been asked since the beginning of this century, so that the opportunities for observation have been so far limited, and the opportunities for deliberate experiment, even if utilized, have scarcely had time to produce results. That they do not always hold, at any rate in their full simplicity, is shown by the fact that the offspring of Mulattoes or Eurasians who have respectively intermarried do not, I believe, show any tendency to return to the pure black or white skins of their grandparents. But, on the other hand, Mendelian rules can often be found to apply in the descent of certain human characteristics, such as the presence or absence of pigment on the front of the iris which constitutes the essential difference between light and dark eyes, and in the descent of certain human diseases and abnormalities. Pedigrees have been constructed of families in which occur brachydactyly, arrested development of fingers, split hand and foot, keratosis palmaris, ptosis, night blindness, colour blindness, hereditary chorea, and some others.

Most of these are somewhat rare conditions, and when the abnormal individual married the mate was generally a normal; it has been found that the resulting offspring have some been normal and some abnormal, and did not show a mixture of normal and abnormal characters. If this only occurred in a few instances, it could be interpreted as the result of so-called *exclusive or unilateral inheritance*, where as regards any given character one of the parents is absolutely prepotent over the other, but the results, the absolute normality or absolute abnormality among the offspring, are not isolated instances, but are the rule, and, moreover, as regards numbers, closely approximate to Mendelian rules. As has been seen, pure or extracted dominants and pure or extracted recessives breed quite true for an indefinite number of generations, so that, if these diseases are inherited according to Mendel's laws, the number of abnormal offspring of abnormal parents compared with the normal should show neither increase nor decrease with the progress of time. This is chiefly a matter for future investigation, but some pedigrees have been already drawn out for keratosis palmaris and plantaris, and for epidermolysis bullosa, in which it holds good. The question of Mendelism as applied to the inheritance of disease in man is still *sub judice*, but the evidence in its favour is steadily increasing.

When endeavouring to trace out exactly the part played by heredity in the causation of disease there are several fallacies which must always be carefully guarded against. For instance, the recurrence of the disease may be due simply to the recurrence of a changed or morbid environment, of a changed or morbid functioning. For example, the recurrence of anthracosis in generation after generation of colliers is no example of heredity, but simply of the power of a morbid environment to impress a diseased modification upon the organism; and in the days when chimney sweeping was strictly an hereditary trade the recurrence of scrotal carcinoma was in no sense due to heredity, but merely an example of the recurrent power of morbid functioning.

One of the most subtle of fallacies is failure to draw a clear line between inheritance and prenatal infection. Since it is logically correct to say that the organization of the fertilized ovum is both the potential inheritor and the actual inheritance, and since with our present knowledge one is justified in saying that actual microbes are never present in either sperm cell or egg cell, it is also indisputably correct logic to affirm that no microbic disease can ever be in the strictest sense inherited. In this respect the use of the word "congenital" is responsible for much laxity of thought. The human placenta is usually a reliable filter, but it is not a perfect one, and the fetus *in utero* can be directly infected by the microbes of certain infective diseases which during gestation are affecting the mother. With syphilis, for instance, this is comparatively common. In tuberculosis it is now known to be exceedingly rare. Up to 1905 there were not more than twelve well-authenticated cases in man, and seventy in animals, which showed clinical evidence of tuberculosis at birth. It was at one time considered probable that this rarity of clinical signs at birth simply meant that the disease or the bacilli

were present, but remained for a longer or shorter time inactive or latent. As regards animals, this has practically been proved to be incorrect, for it may be stated as the result of experiment that newborn calves born of tuberculous parents do not react to tuberculin, and also that such calves, when carefully guarded from infection, do not develop the disease. It would be a most interesting experiment if all newborn babies, born of parents suffering from active tuberculosis, were subjected to some quite innocuous tuberculin test such as that of von Pirquet or Moro. Children, again, have been born with small-pox or with anthrax; there is the historical instance of Sir Thomas Watson's gyp at Cambridge, whose child had vigorous paroxysms of whooping-cough on the day of its birth: but these are all instances of contagion, not of heredity. To the lay mind this might possibly appear to be a distinction but not a difference, but in real attempt to estimate the exact part played by heredity in the causation of disease, this distinction between it and pre-natal infection must be kept clearly in mind. All microbic diseases are, strictly speaking, accidental; they are injurious modifications which affect the body cells of the parents, but they cannot be supposed to specifically affect the parental germ plasm, and it is therefore impossible that there should be any specific inheritance of them. Yet at the same time it must be granted that there may be and often is a transmission of what may be called the secondary effects, the consequences, of microbic disease. A mother whose general health is undermined by the toxins of tubercle, of cancer, of syphilis, is likely enough to bear weak and ill-developed offspring. But even here, again, one must remember what frequently happens in the case of a tuberculous mother who becomes pregnant; it is not rare to see the tuberculous process arrested during the pregnancy and a healthy well-developed child born, almost as if Nature were making a special effort on behalf of the future life, and then when the pregnancy is over the maternal tuberculosis flashes up again into more disastrous activity. Though the germ plasm cannot be specifically affected by microbic disease in the parents, it must be granted that its general well-being, its vitality, may be injuriously affected by a poisoning of the health of the parents, and probably the ovum with its larger amount of cell protoplasm is more likely to suffer than the spermatozoon. But all this indirect affection of parental constitution and germ plasm is not true specific inheritance.

Again, in thinking over the transmissibility of disease, the distinction between a disease acquired by the parent during his or her lifetime and a disease innate to the parents must be remembered. To take a simple instance: A man in whom the tendency to drink to excess is innate has a definite mathematical chance of transmitting a like tendency or some other related psychosis to his offspring —we have probably all known examples of this—but such a parent is quite unable, fortunately, to transmit the cirrhotic liver which he has acquired through his indulgence in alcohol. Is there a case on record of the child of drunken parents entering this world with an atrophically cirrhosed liver? Surely not; yet if it were possible the opportunities have been ample.

To appreciate fully the significance of this division of disease into two classes—innate and acquired—one should have a clear idea of the fundamental biological difference between acquired characters or bodily modifications and true germinal variations. Unfortunately the one term "variation" has been used to express both these forms of divergence from the parental likeness, and much confusion has arisen.

As a necessary condition of life all organisms within limits are plastic and modifiable—the bodily form inherited from the parents may be altered for better or for worse by changes in the environment or in the functioning. Such modifications may be defined as "structural changes in the body of an individual organism, directly induced by changes in function or environment, which transcend the limit of organic elasticity and persist after the inducing conditions have ceased to operate." They are also known as acquired characters. Examples of such bodily modifications in the pathological field are to be found in such diseases as general paralysis of the insane due to the slow action on the cerebral cells of the toxins of syphilis, as the dropped hand and foot of peripheral neuritis, hammerman's cramp, and writer's palsy. The whole present trend of biological opinion is to the view that such modifications or acquired characters are not transmissible; however permanently or injuriously they may affect the cells of the body they leave untouched the germ plasm in the reproductive cells, and hence they can form no part in an inheritance.

Such deviations from the normal type, however, as haemophilia, pseudo-hypertrophic paralysis, polydactyly, colour blindness, have a much deeper-seated origin. They are due to innate peculiarities in the germ cells, to the excess or deficiency of some determinant constituent of the chromosomes; they are the expression of some variation in the constitution of the germ plasm; they are similar to mutations or the sudden arisings of new varieties or species among plants and animals, and they tend to breed true for an indefinite number of generations of the descendants of the person in whom they first appeared. Many of these diseases have been found to obey Mendelian laws in their appearance in successive generations. In estimating the heritability of a disease we must distinguish between diseases which are of the nature of acquired characters or bodily modifications, and as such are not transmissible, and diseases which are the outward expression of true germinal variations and are, as such, transmissible.

When we speak of the inheritance of disease, what is it exactly that we mean? Putting aside obvious malformations, such as hare-lip or excess or defect in the number of parts, disease is a condition or process—not a thing, not an entity; the actual gouty or tuberculous condition, for example, is not transmitted. What is transmitted is no more than the predisposition for the gouty, tuberculous, or other condition of disease to be developed later on in life, provided the suitable environment is furnished for it. It is in great measure true to say that there is no such thing as inherited disease; there is at the most inherited predisposition. It is not mere unpractical metaphysics to talk about inherited predispositions instead of inherited diseases, for such predispositions imply some physical or chemical peculiarity in the organization of the germ cells—the presence of some determinant towards disease, or the absence of some determinant towards health.

The items going to make up an inheritance need not all be expressed in development, and they will not be expressed if they do not receive proper nurture and stimulus. Given a strong tuberculous predisposition in any child, that predisposition could never develop into tuberculosis if it were possible to prevent the bacilli supplying the necessary stimulus. A knowledge that the item in the inheritance is predisposition rather than disease makes us concentrate our attention on the environment, so as to make it unsuitable and to ensure the absence of the stimulus.

If we admit the inheritance of predisposition to disease, can we deny the inheritance of the converse to predisposition—namely, immunity? For, putting aside the gorgeous terminology of the new pathology with its anti-this and anti-that, its stimulins, lysins, agglutinins, etc, what is immunity except the "other side of predisposition," just the reverse of the shield? But as in the case of disease, so with immunity, we must distinguish between innate immunity and acquired immunity. There is no doubt as to the inheritance of innate immunity. The negro is immune to malaria and yellow fever; certain breeds of sheep to anthrax. Instances could be multiplied. But there seems no evidence for the inheritance of acquired immunity. The young of certain of the mammalia (for example, rabbits), whose mothers have been artificially immunized, in some instances are likewise born immune; but as with the above-quoted examples of contagious disease, this is presumably an immunity acquired by contagion, the antibodies reaching the fetal blood by way of the placenta, and I do not know of any records of acquired paternal immunity having been transmitted.

The study of heredity is at the same time depressing and encouraging. It is depressing because there is no getting away from the fact—I think it has passed out of the limbo of theory—that there does exist some actual physical protoplasmic basis through which disease or the tendency to disease is handed down from germ cell to

germ cell—even if we do not admit the whole Weismannian conception of chromosome, id, determinant and biophor—and that no amount of care or education, no change in environment, no choice of function can, so far as we know, alter by one jot or one tittle the constitution of the germ plasm that each of us has received from parents and may transmit to offspring. It is encouraging because more and more it becomes clear that whatever of abnormal is contained within the inheritance it is not disease so much as predisposition to disease, and that each item of an inheritance requires suitable environment in which to appear, and suitable functioning for the encouragement of its growth.

The deliberate improvement of the health of the race by restriction of the mating of those whose inheritance is physically or morally bad, except in extreme and obvious cases, is an idealistic dream for a future that may never arrive; the world gets more, not less, sentimental as it grows older. Though the courts of Science may give a verdict in favour of voluntary selective mating, the judgement would be always liable to be reversed in the appeal court of Love. Even the problem of what characteristics to select for breeding purposes would be no easy one. The wheat and the tares in the germ plasms of mankind are so inextricably intermingled, so mutually related, that the time is far from ripe for attempting to anticipate the Judgement Day. Oliver Wendell Holmes used to speak of "pathological piety" and "the tuberculous virtues." How pathetic and how true those expressions are; how desirable it would be, and yet how impossible it probably is, to perpetuate the mental and moral excellence apart from the weakly soil in which it flourishes!

At any rate for the present, efforts towards raising the general health of the race should be directed towards improving the environment and providing for proper functioning. Heredity, function, environment, they have been aptly likened to the Norns or Fates who, according to the old religions, directed and guided human life from the cradle to the grave.

CLINICAL ILLUSTRATIONS OF THE USE OF THE CYSTOSCOPE, THE URINE SEPARATOR, AND THE URETERAL CATHETER.

By EDWARD DEANESLY, B.Sc.Lond., F.R.C.S.Eng.,
HONORARY SURGEON TO THE WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.

THE following cases are intended to illustrate the use of the cystoscope, the urinary separator, and the ureteral catheter.

It is hardly necessary to say that the cystoscope and its adjuncts do not render obsolete or supersede the older methods of clinical investigation. A careful analysis of the history and symptoms and a painstaking clinical examination are as necessary as ever. In some cases the results of this investigation afford evidence so plain and positive that the indications for operative or other treatment appear to need no reinforcement; but even in such cases it is seldom that the cystoscope will not furnish further evidence of importance, particularly with regard to the condition of the kidney on the side opposite to that indicated by symptoms. Again, although it is seldom that a complete clinical survey fails to find any indication of renal disease when this is present, yet cases are not uncommon in which the symptoms point so predominantly to the lower urinary tract that without cystoscopic evidence the disease may be erroneously referred to this region when the real seat of the mischief is renal. Or, conversely, disease in the bladder may be erroneously referred to the kidney, on account of the symptoms to which it may give rise. A stone, for example, impacted in the lower end of the ureter generally gives rise to vesical symptoms, such as painful and frequent micturition, and, if pus is also present, a purely clinical investigation often leads to an erroneous diagnosis of cystitis. The same error may also be made in cases of tubercle of the kidney when the disease affects the lower part of the ureter and the trigone. On the other hand, tumours of the trigonal area sometimes cause occlusion of one ureter, and the symptoms may then, in the absence of cystoscope examination, be referred erroneously to the corresponding kidney.

For the diagnosis of the source of blood found in the urine the cystoscope is absolutely indispensable. The following are two typical cases.

CASE I.—*Villous Tumour of Bladder.*

A man aged 44 had noticed blood-stained urine at intervals of two or three weeks for eighteen months, accompanied by pain on micturition and suprapubic pain independent of micturition. No lumbar pain. Small blood clots had sometimes been observed in the urine. The clinical examination was negative, except for the presence of blood in the urine and the absence of pus or casts. The cystoscope showed a small villous tumour near the right ureteral orifice, which was successfully removed by a suprapubic operation.

CASE II.—*Villous Tumour of Bladder, simulating Prostatic Haemorrhage.*

A man aged 74 suddenly began to pass copious blood, partly clotted, and causing pain in the penis. He had had several less severe attacks of haematuria during the previous twelve months; he had also nocturnal frequency of micturition for a year or two. He was admitted to hospital after six days of unremitting haemorrhage, blanched from loss of blood, and with the bladder distended. The age and symptoms rather suggested haemorrhage from an enlarged prostate; but after washing out a large quantity of clot from the bladder there was seen by the cystoscope a small villous tumour surrounding the orifice of the right ureter. Fragments of growth were also found in the bladder washings and identified microscopically. The growth was removed suprapubically, together with the intravesical part of the ureter, and no further haemorrhage occurred. Death occurred from exhaustion, and the kidneys were found normal, except for some dilatation of the ureters. The prostate was small.

The first of these cases was clinically a typical case of bladder tumour, and in precystoscopic times no surgeon would have hesitated to open the bladder on the strength of the history and symptoms. Nevertheless, in many cases presenting similar symptoms the bladder has been opened and nothing abnormal found, because the source of the haemorrhage was in reality renal. In other cases the source of the blood has proved to be a bladder tumour which was quite inoperable. Errors of this kind the use of the cystoscope would have avoided, and at the present day I suppose no competent surgeon would think of opening the bladder without previous cystoscopy, except in a clear case of calculus or enlarged prostate. Even in these two diseases preliminary cystoscopy often affords valuable information which it would be foolish not to obtain, since it may be made under the anaesthetic in a few minutes immediately before the operation.

The next example is a case of symptomless renal haematuria—that is, a case in which blood in the urine occurs without any other symptom to give a clue to the source, and even operation fails to disclose any abnormality of the kidney.

CASE III.—*Symptomless Haemorrhage from Granular Kidney.*

A married woman, aged 29, passed without pain a considerable quantity of blood in her water one month before admission to hospital. The haematuria continued thereafter, with the exception of a single day. There were no other symptoms, and the general health, except for some anaemia resulting from the haemorrhage, was good. There was nothing to indicate the source of the haemorrhage. With the cystoscope the trigone and ureteral orifices appeared normal, but jets of dark blood were seen issuing from the right ureter only. With Luys's separator rapid rhythmic drops issued from both catheters, but those from the right looked like pure blood, those from the left were pale green. Methylene blue was administered previous to the examination. The right ureter was catheterized, and grouped drops of blood-stained urine flowed freely from it.

The right kidney was explored. It was of normal size, markedly lobulated, and had a few cysts on the surface the size of a split pea. The pelvis was incised, and the interior of the kidney palpated with the finger and bimanually. In many places the substance was found to be thinner than natural, otherwise no abnormality was felt. The kidney was partly decapsulated. One rubber catheter was passed a few inches down the ureter, so as to block it towards the bladder, and a second sutured with catgut, with its tip just inside the pelvis of the kidney. These were left in for two days, during which the urine was clear, and that drained from the one catheter was blood-stained. After removal of catheters the bladder urine became smoky for a few days, but then became and remained clear. The patient was discharged well, and had no recurrence when last heard of.

In the following cases the clinical history and symptoms pointed more or less clearly to calculus in one kidney, and cystoscopic examination, separation of the urines, or catheterization of the ureters, was carried out in some or all of them for the purpose of further localizing the

disease, or ascertaining the function of the opposite kidney.

CASE IV.—*Stone in the Kidney: Nephrotomy.*
A man, aged 41, had had pains in the right side and "in the privates" for six months before admission to hospital. During this time the urine had been bloody and contained a thick deposit. Neither kidney could be felt. By Luys's separator equal amounts were obtained in each tube, but in the right alone were red blood cells found on microscopic examination of the deposit. At the operation a small crystalline stone the size of a broad bean was found in the pelvis and removed by an incision directly over it.

CASE V.—*Stone in Kidney: Obstruction of One Ureter: Nephrotomy.*
A police officer, aged 52, was thrown across a chair while struggling with a man. Soon after and during the following four years he suffered much from pain in the left loin and groin, especially after walking. During these attacks he had blood in his urine. By Luys's separator normal urine was collected in the right tube with a regular rhythmic flow. From the left side the flow was *nil*. At the operation the left kidney was found greatly distended and thinned, with a cicatrix at its upper pole. A large calculus weighing 294 grains lay in the pelvis of the ureter, with a projecting process, which on slight descent of the calculus would completely block the ureter. At the previous cystoscopic examination the orifice of the left ureter was noted to be dilated.

CASE VI.—*Obstruction of Kidney Pelvis by Stone: Nephrectomy.*
A man, aged 27, had suffered as long as he could remember from pain in the right renal region. Blood was noticed in the urine on two occasions after an attack of pain many years ago. Cystoscopy showed that the orifice of the right ureter was large and patulous, and no urine was seen ejected from it. The left ureteral orifice was normal and ejected normal jets. By Luys's separator 1 c.cm. of normal urine was collected in the left tube, containing no blood or other cells. In the right tube were only two small drops of colourless fluid containing numerous red and white blood cells and a few epithelium cells. At the operation a large chronic hydronephrotic kidney was found full of small calculi, with one large one blocking the pelvis of the ureter. The kidney was removed and the patient made a good recovery.

Cases IV, V, and VI were all characteristic cases of renal pain and tenderness, confined to one side, accompanied in all with blood in the urine. In several the pain had the typical characters of renal colic. On the clinical evidence alone calculus was in each case the most probable diagnosis. In each case some confirmatory evidence was found by cystoscopic examination or by separation of the urines, and in most of them valuable indication of the secretory activity of each kidney. The ejection of normal urine in regular rhythmically grouped drops from Luys's separator may be taken as strong presumptive evidence that the kidney, if not sound, has at any rate a substantial proportion of sound tissue. When this result is obtained on the unaffected side—that is, in a case in which the symptoms are unilateral—little fear of renal insufficiency need be felt. When there is also from the affected side a free and regular flow of urine, it may be safely assumed that the kidney substance on that side is not extensively destroyed, nor the lumen of the ureter obstructed, even though the urine contains signs of disease in the form of blood or pus.

The following cases of hydronephrosis or pyonephrosis afford illustrations of the use of the cystoscope or the separator:

CASE VII.—*Hydronephrosis: Nephrectomy.*
A man, aged 23, had suffered for three years from intermittent pain in the left loin. An indistinct resistance was felt in this region, and tenderness on pressure. The urine contained no pus, blood, or albumen. There was some frequency of micturition, both day and night. With Luys's separator normal urine, with normal rhythmic flow, was collected from the right side; nothing at all from the left. The left kidney was found a mere sac distended with clear fluid, and was removed. The patient made a good recovery and remains in good health.

CASE VIII.—*Hydronephrosis: Nephrectomy.*
A youth, aged 19, had been subject for three years to attacks of pain in the left loin, shooting into the left testicle, and made worse by exertion. The urine contained pus. By the cystoscope the left ureteral orifice was seen to be dilated. Using Luys's separator for ten minutes, 3 c.cm. of urine were collected from the right side, 1.8 c.cm. from the left. The right urine, which was straw coloured, contained a microscopic trace of pus and 1.8 per cent. urea; the left was pale and turbid, and contained much pus, and only 0.4 per cent. urea. The left kidney was found to be merely a thin-walled cyst, and was removed. The patient was in good health a year later.

CASE IX.—*Pyonephrosis: Drainage of Ureter.*
A man, aged 46, while at work was seized with stabbing pain in the right loin and groin. The pain lasted several hours and then subsided. Several similar attacks followed. The pain was often started by passing water, but there was no urethral pain. For three days before admission to hospital he vomited everything taken. On examination there was tenderness in the right loin, but the kidney could not be defined. On rectal examination the prostate was found somewhat enlarged, and an elastic swelling was felt in the position of the lower end of the right ureter. Cystoscopically the mouth of the right ureter was enormously dilated, and shreds of lymph were attached to its margin. The left ureter could not be seen. The man's general condition made an exploration of the kidney too serious a procedure; accordingly it was thought better to expose the right ureter in the iliac region. It was found dilated to the size of a man's thumb, and distended with pus. It was traced upwards to the lower end of a kidney about twice its natural size and downwards into the pelvis. An opening was made into it, and several ounces of thick pus evacuated; no stone was felt with a probe. The ureter was drained by means of a catheter, secured by a stitch in its wall. A ureteral fistula remained for some weeks, but eventually the whole wound closed soundly, and the man was seen several months later, when he was at work and in fair health. He was admitted a year later with vesical symptoms, and a large phosphatic calculus was removed by suprapubic section. In the centre of the stone was found a uric acid nucleus ½ in. in diameter, which no doubt lay in the ureter or kidney and was overlooked at the first operation.

CASE X.—*Pyonephrosis: Profuse Haemorrhage: Nephrectomy.*
A married woman, aged 25, had a normal confinement six weeks before her admission to hospital. She got up on the sixth day; she then had abdominal pain, distension, and vomiting, with a temperature of 102° F. After these symptoms subsided, a large mass was found projecting from below the liver. The day before her admission, while engaged in housework, she was seized with pain in the right side of the abdomen, vomited, and passed blood with her urine. Four days later dark jets of blood were seen with the cystoscope issuing from the right ureter. The urine at this time looked like pure blood. Luys's separator gave a striking difference in the two collecting tubes, the right containing deep blood-stained urine, the left a larger quantity of clear urine. The abdomen was distended and tender, with a large indistinct tumour on the right side. Permission to operate was only obtained ten days later, when the general condition was critical, and a rapid evacuation and drainage of a huge distended pyonephrotic kidney was all that could be safely performed. The kidney sac was successfully removed a month later, and the patient made a good recovery.

In these cases the cystoscope and separator obtained diagnostic evidence of the utmost value, and enabled nephrectomy to be performed without misgivings as to the capacity of the remaining kidney.

The next case is an example of the use of cystoscopy and separation of urines in tuberculosis of the kidney.

CASE XI.—*Tuberculous Kidney: Nephrectomy.*
A girl aged 20 had pain in the left side for four years, at times severe. Much pus and a little blood had been observed in the urine. A large, tender kidney was felt in the left loin, nothing in the right loin. She was stated to have once passed a stone per urethram. Cystoscopy showed a small, retracted ureter on the left side, and near it a small round ulcer with ragged edge. The mouth of the right ureter appeared rather large and patulous, but frequent and free jets of clear urine were seen issuing from it. With Luys's separator there was normal ejection from the right catheter of urine well stained with methylene blue. From the left side were collected only a few drops of blood-stained fluid, containing also pus cells. The left kidney was found a typical example of an advanced stage of tuberculous disease with cavities. It was removed, and the patient made a good recovery. The urines were not separated in this case, as the patient's condition made it inexpedient to sit her up.

The following is an example of absence of one kidney:

CASE XII.—*Absence of One Kidney: Observations by Cystoscopy and Separator.*
The left kidney, somewhat enlarged, but otherwise healthy looking, of a woman aged 23 was fixed by the ordinary lumbar operation on account of pain and extreme mobility. The kidney continued to be painful and tender, as well as obviously enlarged. It was exposed a second time without finding any cause for the pain or any sign of disease. Twelve months after the first operation an exploratory incision into the kidney itself was contemplated, and the patient was anaesthetized for this purpose. On cystoscopic examination the trigone and two ureteral orifices were found normal. Nevertheless, the large size of the left kidney, without any sign of disease in it, made me suspect the possible congenital absence or atrophy of the right kidney. The catheter cystoscope was not at the time available, and Luys's separator cannot be used satisfactorily under an anaesthetic. The patient being already anaesthetized, instead of again exploring the left kidney, I made the usual lumbar incision on the *right* side, and searched thoroughly without finding a trace of a kidney. Nevertheless, it is probable that a rudimentary kidney existed, for by subsequent use of

Luys's separator a fraction of 1 c.cm. of colourless fluid containing a trace of urea was collected from the right side. In the same time 10.5 c.cm. of normal urine were collected from the left kidney.

The above cases illustrate most of the common and some of the rarer practical problems of renal surgery, and the assistance afforded in their solution by the use of the cystoscope, the ureteral catheter, and the urinary separator. A few concluding observations may be made on the relative value of these three methods.

Leaving on one side the use of the cystoscope in discriminating between affections of the kidneys and affections of the bladder, a use which is too obvious to need further argument, we have in the visual inspection of the trigone and ureteral offices a simple means of obtaining direct evidence of the greatest value of the patency or occlusion of the ducts of the kidney, and of the secretory activity of each organ. The appearances of the mouths of the ureters and of the neighbouring mucous membrane often enable us to diagnose tuberculosis of the kidney, or impaction of a stone in the ureter. The previous ingestion of methylene blue or other pigment enables us to watch the force and frequency of the jets expelled from each ureter, and the degree of pigmentation of the jets and the rapidity with which the pigment is excreted from the blood gives us some idea of the functional capacity of each kidney. The use of the ureteral catheter carries the investigation a stage further, for it not only enables us to test the patency of either ureter with precision, but to collect and analyse the urine of each kidney separately. The latter object is attained, though perhaps less perfectly, by means of the urine separator of Luys. Of other separators I have no experience, but as to the relative advantages of ureteral catheterization compared with Luys's separator, the following remarks may be made.

In the first place, as regards ease of application, there is little to choose between the two methods, but on the whole catheterization is the easier, as it is certainly the more precise. The separator requires a preliminary cystoscopy in order to exclude conditions of the bladder which may introduce fallacies in the use of the separator; and since cystoscopy and catheterization can be carried out with the introduction of a single instrument, that is a distinct advantage over the separator. Catheterization of the ureters, again, is possible under general anaesthesia while the use of the Luys's separator is not, so that the former operation can be performed immediately preceding an operation on the kidney, and with the same anaesthetic. This is not, however, generally a procedure to be recommended, for two reasons. In the first place, general anaesthetics nearly always diminish or inhibit the secretory activity of the kidney; and, in the second place, it is not advisable to catheterize both ureters immediately before an operation on either kidney for fear of adding to the inhibitory effect of an operation on both. Whatever method of separation be employed, it is better to carry out this procedure on a separate occasion and employ only a local anaesthetic, which is quite efficacious for the purpose. By means of Luys's separator properly used I have satisfied myself that reliable observations can be made as to the patency of the ureters and the relative functional activity of the two kidneys, with little pain, in five to ten minutes.

Nevertheless, both care and experience are required to avoid certain fallacies, and I think it is probable that those who are familiar with the use of the cystoscope will prefer to employ the ureteral catheter in most cases.

A DISCUSSION on the ventilation and warming of public buildings will be opened at the Royal Sanitary Institute, 90, Buckingham Palace Road, S.W., on Wednesday next, at 8 p.m., by the Rev. J. B. Lock, Bursar of Caius College, Cambridge, who will read a paper on the ventilation of the large Examination Hall, Cambridge.

WE are glad to note that the trustees of the Carnegie Hero Fund, at a meeting on January 27th, decided to grant an allowance of £35 per annum (with a supplement of £15 for the first year in consideration of special circumstances) to the widow and family of Dr. John Herbert Wells, formerly of the therapeutic inoculation department of St. Mary's Hospital. An obituary notice recording the circumstances of his death will be found at page 1322 of the JOURNAL for October 30th, 1909.

RESULTS OF THE TREATMENT OF FRACTURED LIMBS IN WORKMEN.

BY ARTHUR P. GIBBONS, M.B.LOND., M.R.C.S.,
LONDON, E.C.

A PAPER read by Mr. Mansell Moullin before the City Branch of the British Medical Association,[1] drawing attention to modern methods of treating fractures by early mobilization and massage, or wiring these cases in which good position could not otherwise be attained, and a remark he made that few statistics are available to show how long men are kept from work after fractures, led me to examine a series of cases which have come under my notice during the last three or four years, or have been treated in the City Police Hospital in the last few years (I am indebted to Mr. Gordon Brown, City Police Surgeon, for these). My own cases have been in connexion with workmen's compensation and have been treated at various hospitals; they show that the aforesaid modern methods, which have been advocated at any rate for ten years, have not yet become very completely established.

The patients are all men working in arduous and hazardous employment, they have to be really "fit" before going back to work, and their lot on half wages is often hard when inability to work is prolonged, entailing much poverty and semi-starvation for themselves and families.

There are several causes which, "under the Act," at times contribute to the inordinate length of time away from work. These are:

1. Unwillingness to return and the hope of getting a lump sum by hanging on. Men belonging to clubs are sometimes better off "resting."
2. Malingering, not common in connexion with fractures.
3. The average working man shirks the pain necessary to get an injured joint or stiff tendons in working order; the pain to him is an all-sufficient reason for not using them and he clings to his crutches or stick.
4. Light work, which would often be good for them, is hardly obtainable nowadays. Employers have shifted their responsibilities on to insurance companies and say that if a man is not able to do his full work he is no good to them.
5. If insurance companies adopt the "strong hand" policy and stop payment, the workman has no difficulty in getting a sympathetic solicitor to run his case, one or two sympathetic doctors to swear to his incapacity or permanent impairment, and a sympathetic judge who usually fears to interfere with the award, and who in his anxiety not to wrong the working man often wrongs the employer; it must be remembered he has only a layman's knowledge of surgery. Employers or insurance companies therefore often submit open-eyed to imposition, and settle cases with lump sums rather than risk expensive and very unpromising lawsuits.
6. Workmen are often afraid to start working because they fear that they will find themselves unable to continue, and they wrongly imagine that compensation which ceases if they start work cannot be obtained again if they are obliged to give up.
7. There are doctors who, ignorant of the provisions of the Workmen's Compensation Act, frequently urge their patients to insist on their imaginary "rights" and get full wages, lump sums and so forth, and will not allow them to go back to work when they should do. One of my cases, recorded below, was recently offered work by his employers which he could have done in absolute safety, but he was unwilling, and said he would consult his doctor; his doctor refused to allow him to begin. This man is partly neurasthenic, but certainly physically able to do the work, and it would be best for him. In my opinion, the actions of these medical men are not in the best interests of their patients.

Apart from these contributory causes, however, there are many cases in which disability is genuine; some cases are inevitably crippled for life, but there are others in which it is possible that better methods might give better results; fractures of the thigh are notably unsuccessful, and fractures involving the ankle-joint give very poor results, tendon and joint stiffness usually being responsible. It is not my object to point the way. Others well qualified by experience and position have done and

are doing so; but are the present methods as employed in the great hospitals satisfactory? One great defect in the present system is that fractures are "no man's cases." They are usually first admitted into a ward, but as soon as possible they are fixed in a plaster-of-Paris splint and transferred to the out-patient department under a fresh surgeon; after a series of junior house-surgeons or clinical assistants the patient is apt to tire of a succession of doctors who "don't know his case," and gives up attending; he then often goes on for months visiting a private or club doctor occasionally, chiefly for the purpose of obtaining a certificate.

I would suggest that a good change would be for the surgeon in charge of beds to make a point of seeing his fracture cases in the wards once a month till cured (if susceptible of cure); they could be sent to special departments for special treatment; facing the "calamities" monthly would be a fine stimulus to fresh efforts to obtain better results. There is good surgery to be done in the treatment of fractures, as there is in major operations, but do the fracture cases get their fair share of it? It would be very interesting if a surgeon would bring forward a series of fractures of the femur treated by some special method of his own with the result of no deformity, the patient being fit for work in four months, or a series of Pott's or Dupuytren's fractures with the same good results obtained, say, in two and a half to three months. Massage departments in hospitals are unfortunately overcrowded, and there is a tendency for patients to get too little of it or too infrequent applications to derive full benefit. I do not think I am unfair in saying that the majority of cases give themselves all the massage they get, using liniment supplied by the hospital they attend.

I append a list of cases of fractures of the limbs, with results so far as I have been able to obtain them. One or two I have not been able to follow up, and others are still incapacitated after various periods. I have as far as possible named the hospitals at which they were treated and the treatment adopted; for this I have had to depend on the patients' statements, so there may be inaccuracies. My numbers are not sufficient to be of value for statistical purposes, but they show some things.

Of 10 patients who suffered fracture of the thigh only 3 are likely to do their own work again; of these 3, 1 was an impacted fracture and another of doubtful nature, probably a splintering of the bone.

The 23 patients with leg fractures examined under the Workmen's Compensation and Employers' Liability Act show 11 incapacitated for various periods exceeding a year, and 1 settled with a lump sum after forty-five weeks' half wages. Among the others there are several in which the final result is not yet known.

It is noteworthy that the police cases show much better results. They are mostly fractures not involving joints; they are picked healthy men of good type; there is no wages question; they are under one surgeon during their incapacity; there is no shortness of food and worry about ability to maintain homes and families, and most of them get a period of residence at a convalescent home, and on their return to duty they can, if necessary, be spared from work which is too trying for their condition.

More than half of the 14 patients with fractures of the arm show incapacity extending for six months and upwards, in some the impairment is probably permanent. Prolonged and even permanent incapacity is very common after shoulder injuries, especially when the patient is anything over middle-age.

My list shows that the plaster-of-Paris splint, severely condemned by the "new school," is not dead yet.

1. J. G., aged 50. Fracture of the lower third left thigh; there was 1½ in. shortening, knee weak, and capsule loose. He had been three weeks in King's College Hospital, and had worn a plaster-of-Paris splint; was still receiving half wages fourteen months after accident; prognosis doubtful.

2. A. C., aged 31. Fracture of lower third thigh; there was no shortening, but he could not flex knee or climb ladders; he had been six weeks in Rochester Hospital, wore plaster-of-Paris splint four weeks and back splint five weeks; twenty months after accident he was still on half wages, and was not likely to do his work again.

3. C. A., aged 30. Fracture of right thigh, with "several breaks in several places; *x* rays showed fractures at neck and lower down"; there was 1½ in. shortening, and lump felt at upper third anteriorly; he had been in the Metropolitan Hospital for eight weeks; still on half wages twenty months after accident.

4. J. S., aged 56. Fracture of the lower third left thigh, compound fracture above ankle-joint, and other injuries; 2 in. to 3 in. shortening; swelling and ulceration at ankle six months after the accident; he was in Guy's Hospital for eleven weeks; three and a half years after the accident was still on half wages.

5. M. O., aged 24. Fracture of the right thigh (no evidence); patient said that a splinter of thigh was removed; fractured skull. No shortening or deformity; if there was a fracture it was probably incomplete; he had been in Charing Cross Hospital; walked with support thirteen days after accident; head symptoms predominant; twenty-one weeks' half wages and a lump sum.

6. A. W., aged 34. Impacted fracture at neck of the left thigh; ⅜ in. shortening five months later; hip movement very limited; he had been in the London Hospital; twenty-four weeks' half wages and a lump sum equal to twenty more.

7. H. O., aged 53. Fracture of the upper third of the left femur; 1½ in. shortening; large antero-external lump; one year after accident could walk two to three miles with a stick; he had been in Greenwich Infirmary for ten weeks and three days; fifty-two weeks' half wages and good lump sum in settlement; he was not likely to do his own work again.

8. W. M., aged 39. Fracture of left thigh (middle), and concussion; no shortening; lump felt at middle of bone; one year after ¾ in. wasting of thigh, and no confidence to use it. He had been in Middlesex Hospital for eight weeks; plaster-of-Paris splint removed eleven weeks after the accident; fourteen months after accident still half wages; should get well.

9. W. J., aged 44 (window cleaner). Fracture of right thigh near trochanter, fracture of humerus and (?) dislocated shoulder, ½ in. shortening sixteen months after accident, very little shoulder movement, limited hip movement; he was in St. Mary's Hospital for six weeks; plaster-of-Paris splint; seventy-eight weeks' half wages and lump sum; never likely to be fit for old job, partly on account of shoulder.

10. W. C., aged 40. Compound fracture of the left thigh (middle) comminution, 1½ in. shortening, big lump hampering quadriceps action, knee-joint swollen; he had been in St. George's Hospital; patient said it had been wired; six months after accident could hardly bend knee; not likely ever to do ladder work again.

11. W. J. W., aged 34. Fracture of the left ankle, position good; he had been in St. George's Hospital, in bed fourteen days; had plaster-of-Paris splint five weeks; he had nineteen weeks' half wages.

12. F. B., aged 48. Fracture of right fibula (?). Nine weeks later swelling and pain at ankle; no deformity; no splints; he was in St. Bartholomew's Hospital for sixteen days, and after that looked after himself; four months later he was still on half wages.

13. W. H. M., aged 56. Fracture of the right os calcis and (?) external malleolus; no deformity; he had been in Westminster Hospital; plaster of-Paris one month; six months later on half wages; could walk well, but (?) ladder work.

14. H. N., aged 42. Fracture of the ankle (? internal malleolus), through ladder falling across his ankle; eight months after the accident said he could not work; rather neurasthenic; he was treated at St. Mary's Hospital, bound up ten days and had massage; had crutches for seven weeks; eleven months after the accident was still on half wages; I thought he should be at work.

15. M. W., aged 60. Compound fracture of the right ankle, fractured skull, and other injuries; seven months after the accident using stick and no confidence in ankle, fair movement but some swelling; other injuries make it unlikely he will be able to do his own work again.

16. C. G., aged 52. Both ankles fractured, Dupuytren; injury to right hip; both feet everted, left flat, right less so, lot of swelling in the right; treated at King's College Hospital; he was permanently crippled; employer's liability action.

17. W. F., 46. Fracture of bones in foot; a year afterwards said his foot was very painful; there was no deformity; treated at Seamen's Hospital, and later at St. Thomas's physical exercise department; fifty-four weeks after accident, still on half wages; ? genuine.

18. J. M., 40. Pott's fracture; good position; one year after accident very limited ankle movement; treated at London Hospital; sent home in back and side splints and footpiece four weeks; plaster-of-Paris splint six weeks; fifty-nine weeks' half wages, and final settlement equal to fifteen more; was not a trier.

19. A. R., aged 32. Fractured tibia just below right knee; good position; treated at Lewisham Infirmary; splints at first, plaster-of-Paris splint five weeks; ten weeks after accident looked like being about two months; lost sight of.

20. T. W., aged 65. Fracture of right fibula near ankle; albuminuria; nine months later ankle stiff and swollen; fourteen months later (?) good bony union, fibula spring deficient; treated at St. Bartholomew's Hospital; plaster-of-Paris splint eight weeks and three days, then fresh plaster-of-Paris splint three weeks and three days; twenty-five months after accident still on half wages.

21. W. C. Fracture of os calcis, left, and concussion; no deformity; twenty weeks after could not walk far for pain; was inclined to neurasthenia; treated at St. Mary's Hospital for eight days; plaster-of-Paris splint five weeks; massage later; twenty-three weeks half wages and lump sum; foot not right when examined, but head symptoms predominant.

22. G. T., aged 34. Fracture of left ankle, tibia (?), just above ankle; external malleolus enlarged; outward displacement of

foot; ten months later very limited ankle movement; treated at Croydon General Hospital for three weeks; plaster-of-Paris splint (? time); forty-five weeks half wages and lump sum; not a good result; bad fracture; not likely to do own work again.

23. G. C., aged 43. Fracture of left ankle (? tarsal bones); swelling of foot; no bony deformity noted; treated at St. Thomas's Hospital; plaster-of-Paris splint seven or eight weeks; twenty-six weeks' half wages, and lump sum equal to more than that.

24. A. R., aged 56. Fractured tibia just above left ankle; slight concavity just above ankle; good ankle movement; in Guy's Hospital eleven days; out-patient about five months; fifty-five weeks half wages, and settlement by lump sum; would not try.

25. H. A. P., aged 39. Fracture of right ankle, good position; six weeks after accident there was pain on moving the joint; treated at St. Thomas's Hospital; sent home in splints; splints three weeks; lump sum paid under employer's liability; lost sight of.

26. M. Pott's fracture; not fit for work fifteen months after accident; position good; ankle stiff; examined in court under employer's liability.

27. C. O., aged 40. Compound fracture right tibia and fibula just above ankle; left leg at ankle (? Dupuytren); right: deformity above ankle; left: inward displacement of foot; malleoli widened, very little movement; treated at St. Bartholomew's Hospital; plaster-of-Paris splints removed about three months after accident; seventeen months after accident using two sticks; left foot not likely to get good enough for work.

28. J. S., aged 35. Fractured tibia and fibula, just above ankle, fairly good position; treated at London Hospital, in bed twenty-four days; plaster-of-Paris splint forty days; twenty-six weeks' half wages.

29. A. H., aged 34. Fracture of left leg above ankle; position good; could not feel fracture site; treated at Royal Free Hospital three weeks; plaster-of-Paris splint on a month; fifteen months after the accident still on half wages; nine months after leg fit at any rate for ground work, but patient neurasthenic.

30. R. W., aged 49. Fracture right fibula about ankle; position good; eleven months after good movement, some pain; should do ground work; in St. Bartholomew's Hospital fourteen to twenty-one days; plaster-of-Paris splint six weeks; eighteen months after accident still on half wages.

31. G. F., aged 40. Fractured patella; good result; treated at Hampstead General Hospital; wired; twenty-eight weeks' half wages and lump sum.

32. J. B., aged 46. Fracture of right ankle (? compound); position good; limping badly and using stick sixteen months later; treated at St. Mary's Hospital; splints (anaesthetic); in bed five weeks and three days; plaster-of-Paris splint six weeks; sixteen months after accident on half wages, and likely to be some long time.

33. A. E. H., aged 30. Fracture of right ankle; thirteen months later wasted leg and thigh muscles; both feet flat; treated at St. Bartholomew's Hospital; fracture (?) diagnosed by *x* rays eleven months after accident; ? tubercle in ankle and tarsal joints; using crutch and stick thirteen months afterwards and foot very painful.

34. Constable P. Fracture of right tibia and fibula just above ankle; treated at St. Bartholomew's Hospital; plaster-of-Paris splint at once and then police hospital; two days later plaster-of-Paris splint removed and back and side splints applied; off duty eight weeks and two days.

35. Constable S. Fractured tibia and fibula half way down shaft; ankle joint not involved; wrestling accident; treated at police hospital, back and side splints; off duty sixteen weeks and three days.

36. Constable F., aged 29. Fractured tibia and fibula 2 to 3 in. above ankle; tibia oblique sharp point under skin on inner side above ankle; treated at the police hospital; off duty thirteen weeks, then went to full duty, but allowed to sit down for a few minutes occasionally for first two months.

37. Constable B. Fractured fibula, external malleolus; wrestling accident; treated at police hospital; massage from second day, passive movement from fifth; plaster-of-Paris splint from fourteenth day for three weeks; off duty eleven weeks.

38. Constable P. Fracture of upper third of fibula; wrestling accident; treated at police hospital; back and side splints; off duty nine weeks and four days.

39. Constable T. Fractured tibia and fibula, lower fifth; first treated at Guy's Hospital, then police hospital four days, then convalescent home, and again police hospital fourteen days; off duty twelve weeks and six days.

40. Constable M., aged 44. Compound fracture of tibia and fibula, lower third; wound just behind tibia; run over by cab; treated at the police hospital; off duty thirteen weeks but not doing quite full ordinary duty till eleven months after accident.

41. Constable M. Fracture of middle shaft of tibia; horse fell on him, fibula not broken; treated at police hospital, back and side splints; off duty thirteen weeks.

42. A. H., aged 51. Fracture of neck of humerus; no deformity noticed; full passive movements painful three months after accident; treated at Guy's Hospital for two months, then massage; thirty-two weeks' half wages.

43. F. J., aged 49. Fracture of "cup of right shoulder"; no deformity; two months later wasting of muscles; full passive, but little active movement; treated at St. Bartholomew's Hospital; passive movement commenced at five weeks; twenty-six weeks' half wages.

44. C. P., aged 48. Compound fracture of right arm; callus felt middle of forearm; slight concavity forwards; treated at Middlesex Hospital; splints six to seven weeks; surgeon told him to do light work at the end of three months; twenty-three weeks' half wages and lump sum.

45. G. M. Fracture internal condyle humerus and at wrist; tendons cut; left arm; some outward displacement of the hand; treated at Middlesex Hospital; gas twice for elbow movement; twenty-five weeks' half wages and lump sum; fit for light work.

46. E. M., 40. Fracture of left wrist "bone cracked," *x* rays; no bony deformity, but severe injury to soft parts; lot of swelling and pain; treated at St. Mary's Hospital; six months after wrist rigid; no pronation and supination; looked hopeless; fifty weeks' half wages and big lump sum.

47. H. W., aged 36. Fracture of part of head of radius; *x* rays; only capable of being diagnosed by radiography; treated at St. Thomas's Hospital; mobilization and massage; seen eleven days after accident; hospital people thought five or six weeks; employer's liability settlement.

48. C. D., aged 64. Fracture of neck of humerus; union good; some grating in the shoulder sixteen months after the accident; no deformity; could not use it; treated at Westminster Hospital, then the London; eight months' massage and a machine and movement; last three months, letting it go when seen by me; seventy-nine weeks' half wages and a good lump sum.

49. J. K., aged 38. Fracture of scapula; seven weeks after accident very poor shoulder movement; treated at Great Northern Central Hospital; eleven weeks' half wages, and lump sum equal to ten more.

50. B. H., aged 39. Fracture of lower end of right forearm by direct violence; fairly good position; three months after, some swelling about wrist, and wasting of forearm muscles; treated at St. Bartholomew's Hospital; Carr's splint four weeks, massage afterwards; seventeen weeks' half wages and lump sum equal to thirty more; work involves using heavy hammer for breaking concrete.

51. F. W., aged 43. Fracture of lower end of left radius; position good; five months later pronation and supination good; flexion and extension limited by pain in tendons; treated at West London Hospital; back and front splints; twenty-two weeks' half wages.

52. T. L., aged 48. Fracture of left humerus; ten months later no deformity; muscles good; limited shoulder movement; no treatment last six weeks; treated at Great Northern Central Hospital; forty-four weeks' half wages, and lump sum equal to at least twenty more.

53. W. G., aged 40. Colles's fracture; typical displacement; treated at St. George's Hospital; ether for setting; Carr's and back splints; mobilization and massage after third day; seven months later still on half wages; probably some permanent weakening.

54. Constable J. Fracture of forearm; both bones broken; treated at police hospital; went first to (?) St. Bartholomew's; seven weeks off duty.

REFERENCE.

[1] *Clinical Journal*, November 10th, 1909, p. 65.

ON THE FUTILITY OF THE OFFICIAL TESTS FOR COLOUR BLINDNESS.

BY T. HARRISON BUTLER, M.D.,

HONORARY OPHTHALMIC SURGEON, COVENTRY AND WARWICKSHIRE HOSPITAL.

FOR the past twenty years or more Edridge-Green has pointed out the utter inadequacy of the official tests for colour blindness, and his efforts have been seconded by many other ophthalmic surgeons both in this country and on the Continent and in America. In Germany, Nagel, who was colour blind, repeatedly stated that from his own personal experience he knew how easy it is for an intelligent man to defeat many of the tests which to the lay mind appear to afford conclusive evidence of the presence or absence of defective colour vision.

The result of these efforts is so far very disappointing. Holmgren's wools are still scheduled as the official test both by the Board of Trade and by railway companies, and the examinations are practically always conducted by men who have no special knowledge of the physiology and pathology of colour vision. It is true that if a seaman is rejected he can appeal to a special court of examiners which includes a physicist possessing expert knowledge of colour vision, but what if he passes the tests conducted by laymen by inefficient methods?

The practical working of the system is a matter of common knowledge to all who have had opportunities of investigating the question. Signals are frequently overrun by engine drivers, and it is well known that the

majority of railway accidents are caused by misinterpretation of signals. It is highly probable that some at least of these mistakes are due to the fact that individual drivers are colour blind, either because the tests were insufficient to exclude them when they joined the service or because they have subsequently acquired defective colour vision. To show that these fears are not imaginary, I shall shortly describe cases which have come under my notice during the past month. All are dangerously colour blind, and they would all easily pass the colour tests carried out by the company's inspector with the wools. One of them is still a locomotive engine driver, and is therefore an active danger to the travelling public.

CASE I.—*Engine Driver: Colour Defect Congenital.*

An engine driver consulted me about his vision. He wished for reading glasses, and at the end of his examination confessed that he had difficulty in distinguishing the lamps, more especially if they were being swung. He had no difficulty in distinguishing a red light, or a green light when at rest, but he had great difficulty with the white lights, which sometimes looked red, at others green. He was uncertain about some of the purple lights which are used on the points and are lighted by an oil lamp, which often gives a feeble illumination.

He was found to be emmetropic, with some presbyopia corresponding to his age. When shown a red, green, blue, or purple hank of wool he immediately named it correctly. When asked to pick out reds he did so easily, and did the same with definite blues and purples. He picked out a large number of greens without a mistake, but eventually included some greys.

It is quite obvious that he might quite easily pass such an inadequate wool test as this, and he had in fact been able to get admitted into the railway company, and had quite easily passed the yearly colour tests carried out by the inspectors.

He was then asked to sort out and grade all the wools in the box. All manifest reds and browns were grouped together, but browns and greys were mixed with the green, dark blue with browns and greys, light blue with mauve, light pink and blue, and pink with light brown. Sage green was placed with yellow, yellowish-green with yellow, pink with grey, and yellow-green with grey. So that in the case of this man a *careful* examination with the wools would have certainly discovered his defect, and yet he had passed the railway test regularly.

The man was now confronted with the Edridge-Green colour perception lamp, with the following results. All reds, however much obscured by neutral tinted glass, were at once correctly named as red. Signal green was always called green, but pure green was almost always called red. Violet was invariably correctly named. Orange was called red, pale blue green, and white light was called red or green. If shown green and then white, the white was called red, and if white followed red it was named green. It is quite obvious, then, that this engine driver is a *dichromic* who only possesses red and violet in his spectrum separated by a band of various shades of grey. He is a man who, if driving a locomotive on a misty night, might easily make a fatal mistake, although he is hardly likely to miss a red light, for his spectrum is not shortened at the red end.

CASE II.—*Acquired Colour Blindness: Partial Optic Atrophy.*

This man, a painter by trade, has always been able to match his colours correctly till recently, when he began to make slight mistakes. When first seen he was found to be suffering from partial optic atrophy, the result of lead poisoning. His vision was then $\frac{5}{60}$ and $\frac{1}{60}$. When last seen, he had given up painting for four months, and his sight had improved to $\frac{5}{20}$ and $\frac{5}{30}$.

His colour sense was carefully tested, as when first seen it had been found to be defective. The wools were named and matched in a way which was truly marvellous, when the real state of his colour vision is known. He, however, mixed greens and blues and purples and greys. Light green, grey, and mauve are confused. But, probably because of his long training in colour values as a painter, he could easily pass the colour tests imposed by a lay examiner. When examined with the lamp, with the diaphragm fully open, and using both eyes, he utterly failed to name correctly a single colour! Bright red was green, green red, purple red, and blue green. The lamp proved conclusively that he would be a most dangerous man as an engine driver or a seaman.

This was a case of acquired colour blindness due to optic atrophy, but similar conditions are found in many other diseases, especially in diabetes, which is a disease to which engine drivers are especially liable. No central scotomata could be detected with Bardsley's scotometer, nor were the other symptoms comparable to those found in tobacco amblyopia.

CASE III.—*Partial Optic Atrophy and Retrobulbar Neuritis.*

This was a man who some twenty years ago suffered from syphilis. He now has V.R.$=\frac{6}{36}$, V.L.$=\frac{6}{18}$—that is to say, he can get about well, and had he been a seaman or a railway man he could for some time have performed his duties before his defective vision was detected. The examination of his colour vision was highly instructive. He sorted, named, and matched all the wools without the slightest error or mistake.

The lamp test showed that his colour sense was dangerously defective. The right eye, examined with a fully opened diaphragm and no tinted glasses, saw no colour at all except red, and when the diaphragm was narrowed he even failed to see the red. The left eye saw red, violet, and purple, but could not appreciate green at all. White was seen as red.

Bardsley's scotometer showed on the right side a central scotoma for all colours of very irregular shape, and in addition several detached islets where colour was not perceived. The left eye showed a central scotoma for green. There was no contraction of the white fields. The condition is one of partial optic atrophy and retrobulbar neuritis. The right disc shows intense temporal pallor; the left is hyperaemic.

This individual would be a very deadly man in charge of a steamer, and yet his defect could easily have arisen after he had obtained all his certificates. The case shows the absolute necessity for a yearly examination of all mariners holding certificates.

CASE IV.—*Partial Optic Atrophy.*

A well-educated man, aged 44; V.R.$=\frac{6}{18}$, V.L.$=\frac{6}{6}$; has one diopter of hypermetropia, but no glass improved the vision of the right eye. There was temporal pallor of the right disc; the left was normal. Tested with Bardsley's scotometer there was no central scotoma, but a small paracentral one, and the perimeter showed slight nasal contraction of the field on the right side. The left was normal. There is some slight nyctalopia; he is a little dazzled by bright light, and sees well in twilight. He neither smokes nor drinks. An examination of the nose showed a deviation of the septum to the right, giving rise to much obstruction in the upper part of the nose and to retention of secretion. This deformity was probably the result of a fall from a tree when a lad, when he pitched upon his nose.

The condition is one in which certain of the tracts in the optic nerve have been temporarily or permanently put out of action, probably on account of pressure upon the optic nerve by a distended sphenoidal sinus or inflamed posterior ethmoidal cells, a defect from which any engine driver might suffer.

Tested with wools he picked out reds and greens correctly, and when asked to match wools made no glaring or obvious mistake. Tested with the lamp he utterly failed to distinguish red from green with the right eye. He called bright red red or green alternately, and signal green was similarly treated. He was able with the left eye to name all the colours correctly, but when shown yellow or orange after green he called it red, after red he called it green. When the red light was diminished in intensity he did not see it at all. Obviously he would not be a safe man to drive an express train, for he could easily mistake a white light for a green one, and a dim red light he would not see at all, for he has shortening of the red end of the spectrum.

CASE V.—*Retrobulbar Neuritis due to Alcohol and Tobacco.*

This case is the most important of all. He suffers from retrobulbar neuritis, the result of excessive indulgence in alcohol and tobacco. His vision has sunk to $\frac{6}{60}$ and $\frac{1}{60}$ within the past few months.

He picked out and matched the coloured wools with ease and certainty because his peripheral vision was good, but when tested with the lamp he could see neither red nor green at all, although he had good vision for blue and violet. The scotometer showed a large central scotoma for red and green.

Such cases must be very common at sea where men have plenty of time to smoke excessively, and also drink heavily as well. They cannot be unknown on the railway, and may explain many of the cases in which red signals are overrun. The mystery shrouding the Shrewsbury accident could be elucidated upon the theory that the driver had central scotomata for red and green, and so never even saw the red lights arrayed against him. If he had these scotomata he would easily pass the railway tests, but the lamp would at once have unmasked him.

These five cases are simply adduced to show that in a large class of defects of the colour sense the ordinary official tests can be evaded, but that the Edridge-Green colour perception lamp at once detects them.

I do not suggest that the wool tests applied correctly would not have been sufficient in the first two cases to unmask the abnormality in question, in fact they clearly did so, yet one of these men, an engine driver, *at work to day on the railway*, had passed several times, and yet he is a dangerous dichromic.

The conclusion is that the Board of Trade should be compelled by public opinion to insist that the obsolete wool test be abandoned and that the examinations be made with the Edridge-Green lamp, which could be made up for railway use at a cost of about £1. This lamp is simple to use and it gives results which for all practical purposes are accurate. If a man passes the lamp test he is safe on the railway. All seamen and railway men should be examined at least once a year by an expert.

THE Society of the Lying-in Hospital of New York has received from Mrs. Helen Hartley Jenkins the sum of £5,000 to enable the hospital to make a special study of puerperal fever.

AN INTERESTING CASE OF CONGENITAL CATARACT.

BY CHARLES KILLICK, M.A., M.D., F.R.C.S.,
HONORARY SURGEON, KENT COUNTY OPHTHALMIC HOSPITAL.

MISS H., aged 36, was first brought to the Kent County Ophthalmic Hospital on October 23rd, 1909, not on her own initiative, as she regarded her case as hopeless, but by one of my old cataract patients, who had recently undergone a successful operation, and naturally took an interest in the afflicted woman.

Previous History.

The patient's father was born blind, and was operated upon as a baby by the late Mr. Woolcott at the Kent County Ophthalmic Hospital. She has a brother, aged 34, who was operated upon at the Moorfields Hospital when 3 years old for cataract. Another brother and three sisters, who are all younger than herself, are stated to have nothing wrong with their eyes. She herself was born blind, and when 3 months old was brought to the Maidstone Hospital where the left eye was operated upon by Mr. Adams, unfortunately without success, and no further steps were taken until she was between 4 and 5 years old, when she and her brother were taken to Moorfields Hospital and operated upon several times by the late Mr. George Critchett. She cannot remember seeing as a result of these operations, a statement which is corroborated by a lady fully acquainted with her past history, but nevertheless somewhat difficult to reconcile with a note upon the old Moorfields paper, dated August 20th, 1877, where it is expressly stated that all details of the right fundus could be clearly seen. The lady in question subsequently took her on several occasions to see Mr. Critchett privately, but the latter never prescribed glasses—saying that it would be useless to do so. Apparently the only benefit which the patient received consisted in the fact that she was thenceforth able to distinguish between certain colours, especially if bright; for example, she could, in certain lights, make out that grass was green, and could also tell when she was wearing a red dress.

When 9 years old she was admitted into the School for the Indigent Blind, Southwark, and remained there till 1901—that is, for nineteen years altogether. When 12 years old she suffered from a severe inflammation of the right eye, with the result that it became worse, and she has remained ever since in her present helpless condition. While in the institution she was taught how to use her hands and to find her way about unassisted in places with which she was familiar, her knowledge of the outside world being limited to what she was able to perceive by touch and sound. From 1901 up to the present time she has lived at home in Maidstone, helping her mother as much as she is able by knitting, and has sought no further advice about her eyes.

Condition when first Seen.

Examination of the eyes showed that they were habitually directed downwards, exhibited slow lateral nystagmus, and were so covered by the upper lids that only about half to two-thirds of the corneae were left exposed. The left eye was hopelessly disorganized, totally blind, and in an advanced condition of phthisis bulbi. The right eye, on the other hand, though appearing somewhat sunken and smaller than normal, the cornea only measuring about a centimetre in diameter, was much more hopeful in appearance. The cornea was transparent over its whole extent, except at one spot near the outer margin, where the scar of a needle puncture was visible; the anterior chamber was of average depth, and the iris appeared healthy, but was so drawn upwards, as a result of some previous operation, that not a trace of a pupil could be seen. The tension of the eyeball was T — ?. Vision amounted to perception of light, but I found on trying the projection of light test in the dark room that the retina was perfectly sensitive and functional throughout its entire extent.

Operation.

Further examination having convinced me that an iridotomy could be done, and feeling that it would probably be of benefit to the patient, I accordingly advised her to consent to operation.

The operation was performed on October 29th, 1909, under adrenalin and cocaine. A small incision having been made with a keratome at the upper corneal margin, a pair of de Wecker's scissors were introduced, and iridotomy was easily performed; the iris immediately gaped, and a second incision, so as to complete the Λ-shaped section, was thus rendered unnecessary; there was no loss of vitreous. Both eyes were then bandaged, and the patient remained in bed for three days. No inflammation followed, and there was hardly a trace of redness throughout. On October 31st the case-book records that "the patient says she can see to get about. She was discharged from hospital on November 8th.

Present Condition of the Eye.

Careful examination of the eye on December 4th, 1909, reveals the following state of affairs: An elongated oval slit, about ¾ cm. in length and about 2 mm. across at its widest part, traverses the iris in a downward and slightly inward direction, a little to the inner side of its centre. (See diagram.) If the eye is examined by oblique focal illumination, a small blood clot is noticed in the centre of the aperture, while above and below this the space is partially occupied by fragments of lens capsule. Through the upper part of the opening, which is, however, habitually covered by the upper lid, a dim reflex is obtained, but no fundus details can be made out; vision, however, is not improved if the patient raises the lid with the fingers. As a +11 D. lens enabled the patient to see large objects a little better, it was prescribed for constant wear.

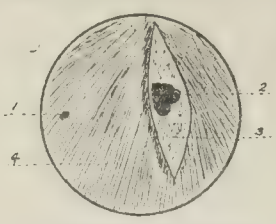


Diagram of cornea magnified two times. 1, Needle puncture; 2, remains of clot; 3, remains of capsule; 4, iris.

The increase of vision, then, to the patient, if measured by the ordinary standard of sight testing, does not appear to be very great; she is enabled to find her way about alone, to perceive objects dimly, to distinguish colours, and to count fingers with hesitation, but from her own point of view the gain is very great, and she says that her sight is better now than it has ever been in her life. Whether, later on, the blood clot will be absorbed by natural processes only time will show; but probably a further operation for tearing the capsule, to be undertaken at some future time—perhaps in six months—would, if successful, result in a still more definite improvement in visual power.

A CASE OF ANEURYSM IN A WOMAN.

BY
H. G. FREAN, M.B., B.C.CAMB., M.R.C.S., L.R.C.P.,
With a Pathological Note by Dr. GIBSON.

THE following case, presenting some difficulties in diagnosis, and also some interesting points in the course of the disease, seems worth reporting.

Mrs. C., aged 65, was a gaunt, almost emaciated looking woman, accustomed all her life to the usual hard work of the poorer classes. She could not remember ever having a day's illness; she had brought up a large and apparently healthy family, and had had no miscarriages or stillbirths.

In August, 1908, I attended her for severe paroxysms of pain in the left side of the chest, which came on at irregular times of the day or night independent of any apparent cause. They were severe enough to make her cry out, and lasted "a minute or two." After about a fortnight they ceased, and she never had a recurrence. The condition of the alimentary and nervous systems calls for no comment.

I found the following physical signs when I first saw her: Pulses equal, small, irregular, and averaging 80. The arterial wall was not thick nor the course of the artery tortuous. Respirations quiet and usually 20. The apex beat was in its normal place. The chest wall seemed slightly fuller on the right side than the left. The sternum and front of the chest were visibly thrust forward at each beat of the heart. Pulsation was visible in the first four spaces on the right side for 2½ in. from the mid-sternal line. This pulsating area was dull to percussion, and merged directly into the liver dullness below. The lower margin of the liver was 2 in. below the costal margin, and was strongly thrust down by each heart beat. On auscultation at the apex both sounds were clearly heard. Over the pulsating area the first sound was continued as a short soft bruit; the second sound was sharp and clear. The air entry seemed little better at the right than the left apex. Other extrinsic signs of aneurysm, such as unequal pupils, tracheal tugging, etc., were all absent.

At the end of December, 1908, I noticed visible pulsation in the intercostal spaces between the spine and the vertebral border of the left scapula. The spaces were absolutely dull to percussion, and on auscultation a faint systolic bruit was heard. The pulsation increased in force during the next month, and then slowly diminished. By the end of April the pulsation and the systolic bruit in this position had quite disappeared, and only the dullness to percussion remained. The other physical signs remained as when I first saw her. In May she began to suffer attacks of dyspnoea, and spent most of her time lying curled up on her left side. She died quietly on June 19th, 1909.

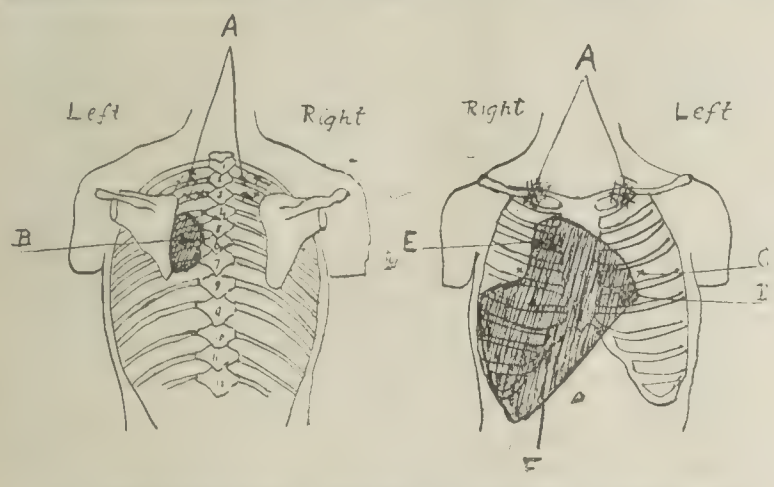
PATHOLOGICAL REPORT BY DR. GIBSON.

The body was that of an emaciated woman. There were adhesions in the right and left pleural cavities. The heart showed one milk spot posteriorly. There was slight hypertrophy of the left ventricle, but no other change in the cavities, valves, or walls of the heart. At the base of the aorta was a large patch of atheroma, swollen, soft, and whitish, but showing no parallel ridges. The coronary arteries showed patchy atheromatous change. The first part of the aorta was enormously dilated; the rest of the course of the thoracic aorta to about 2 in. above the diaphragmatic opening formed a huge

aneurysmal sac having compressed the left lung in front of it, and become attached thereto. The greater part of the cavity of the aneurysm was filled with laminated clot. The blood channel penetrated the clot posteriorly, and where the descending aorta began the degenerated wall formed the posterior boundary of the channel. No part of the thoracic aorta except the ascending part was normal to the naked eye. The lung was firmly bound to the wall of the aneurysm, and showed numerous scattered patches of grape-like tubercles. The liver on cross section presented numerous white, firm, opaque, triangular masses not larger than 3 or 4 mm. across, embedded in the upper part of the organ. They came into relation with the capsule, but this was not thickened. The kidneys showed very early sclerotic change. In the left was a small cyst the size of a pea containing a jelly-like substance. The suprarenals were normal. No abnormal change was detected in the pancreas or bowels,

Microscopically the aorta was in an advanced state of mesaortitis; in parts there was little of the normal tissue left, and very little of the elastic tissue. The masses in the liver were granulomatous. They were all connected with Glisson's capsule. Many showed an increase of small bile ducts, and some of these presented advanced catarrh. The whole substance of these areas was permeated with round cells, epithelioid cells, and connective tissue cells in various proportions. Necrotic patches were seen in nearly every one of the areas. In parts there were many new blood vessels. No micro-organisms could be detected by the ordinary methods of staining, and no tubercle bacilli could be found after a careful search. The rest of the liver tissue was very hyperaemic in parts, and showed much increase in intracellular connective tissue. The arteries occasionally had thickened walls, but there was no marked change in the direction of endarteritis obliterans.

The case presents many interesting features besides the uncertainty of accurate diagnosis. Statistics show that aneurysm in women, as compared to men, is about in the



A, Diminished breath sounds; B, dullness, pulsation, soft systolic murmur in December, dullness only in April; C, nipple; D, apex beat; E, pulsation, dullness, soft systolic murmur, ringing second sound; F, transmitted pulsation. The shaded area shows absolute dullness.

proportion of 1 to 10, though a good many practitioners answering offhand would put down the proportion very much smaller.

The absence of a clinical history of syphilis, as compared with the *post-mortem* findings, is perhaps now common enough.

It is surprising, however, that with such a large tumour none of the usual pressure signs or so-called extrinsic signs of aneurysm could be obtained. It is difficult to understand how a tumour that reached from the front of the thorax on the right side to the back of the thorax on the left side, did not yet appear to interfere with, for instance, the oesophagus and the act of deglutition.

A point of great interest is that we were able to watch the growth of the aneurysmal sac and also its healing. I think it not unfair to assume that the few isolated attacks of pain in August, 1908, marked the time when the main dilatation began to bulge back into the left lung. If so, we can allow about three and a half months for this dilatation to reach the back wall, and another three and a half months before it was finally filled up with clot. In addition we must remember that the wall of the aneurysm was composed of degenerated and thickened aortic tissue. I do not know what information there is on the time taken for arterial walls to hypertrophy, and for an aneurysm to grow a certain size, or for a laminated clot to be formed.

It was further of interest that the apex beat was not displaced, and that, in spite of the enormous size of the aorta, even in its ascending portion, there was no regurgitant murmur at the aortic orifice, but, on the contrary, a sharp clear second sound.

SEVERE ANTE-PARTUM HAEMORRHAGE DUE TO SPONTANEOUS RUPTURE OF VAGINAL VARIX.

BY

C. E. PURSLOW, M.D., M.R.C.P., and GUY J. BRANSON, B.A., M.D.LOND.

THE case appears to be worthy of record, in view of the prominence given by all writers to placenta praevia and accidental haemorrhage as being practically the only forms of haemorrhage occurring spontaneously in the later months of pregnancy. In all the authors consulted, the only possibilities really entertained appear to be these two.

Mrs. J., aged 27, was in the thirty-second week of her first pregnancy, which had been quite normal in every respect up to November 15th, 1909. On that morning, when she first got out of bed, she was seized with profuse haemorrhage from the vagina, and very soon fainted. Dr. Branson was sent for, and on his arrival found her greatly collapsed, exsanguine, and with an almost imperceptible pulse; a chamber utensil half filled with firm blood clot was produced, as representing a portion of the blood lost. The os was found high up, and quite closed; there was a vertex presentation, but the head was free above the pelvic brim, and there was no evidence of labour; the haemorrhage had ceased.

Dr. Purslow was called to see the case in consultation, and found the patient as above described, though she had rallied slightly, and had a perceptible, though very feeble, pulse; the bleeding had not recurred.

Placenta praevia was diagnosed, and, as the patient could not obtain adequate nursing at home and lived some distance from Dr. Branson's house, it was decided that it would be advisable to remove her to hospital. The vagina was firmly plugged and the patient removed on an ambulance to the Queen's Hospital, where she was admitted under the care of Dr. Purslow.

The vaginal plug was removed next day and the bleeding almost immediately recommenced. A Sims's speculum was then passed and the vagina well cleansed with swabs preparatory to further treatment. On making an inspection, the blood could be seen coming in a profuse and steady stream from the vaginal wall at a point about 1½ in. above the urethral orifice and slightly to the left of the middle line.

The patient was at once taken to the operating theatre, anaesthetized, and placed in the lithotomy position. On making a careful examination of the vagina, the bleeding spot was seen to be a hole in a localized varicosity of a vein. This opening was seized with catch forceps and the varicose portion of the vein drawn away from the vaginal wall; an incision through the mucous membrane was made around it, and the varicose portion with one or two adjoining veins, which appeared to form a small plexus, was ligatured and excised.

The tissue removed was hardened, and on section showed distinctly the varicose enlargement of the vein, with marked thinning of the wall around the site of the rupture.

There was no further haemorrhage and the patient went on well, except that there was troublesome retention of urine, requiring the catheter, during the greater part of her stay in hospital. She went home on November 25th and was again under the care of Dr. Branson; her progress was uneventful and there was no further sign of haemorrhage. She was delivered on December 15th of a macerated fetus and made a normal recovery.

From the time of the haemorrhage she never felt any fetal movements nor could movements or fetal heart sounds be detected either during or after her stay in hospital.

It is worthy of note that careful examination failed to disclose varicosity of veins in the vulva or legs, or in any other part of the body.

The main point of interest in the case is its extreme rarity; reference to a large number of textbooks shows that they practically all mention a varicose condition of the veins of the vulva as a possible source of serious bleeding, especially in connexion with traumatism—for example, a kick; they also mention the occurrence of vaginal haematoma or thrombus from rupture of a vein in the vaginal wall during the second stage of labour and subsequent extravasation into the tissues; but the possibility of serious haemorrhage from rupture of a vein in the vaginal wall during pregnancy is not referred to; one exception is Hirst's *Textbook of Obstetrics*, where on p. 217 it is stated:

> Varices of the vagina may be dangerous if the veins are large and their walls thin. The part should be guarded from traumatism, which might result in rupture of the distended veins, and an alarming, if not a fatal, haemorrhage.

There appeared to be no traumatism in the case recorded above. The question of coitus was inquired into, and it was ascertained that the last act had taken place one week previously.

An extensive search into the periodical medical literature has failed to discover the records of a similar case.

The effect of the haemorrhage upon the child is interesting; it seems clear from the history that the child's death took place about the time of the haemorrhage, and it seems probable that it was directly due to the great loss of blood which the mother experienced.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

EMPYEMA TREATED BY ANTISEPTIC PLUGGING.

THE proper treatment of empyema is still a matter of discussion. My last eight cases I have treated by free incision of the chest wall, and completely removing the pus, by retracting the ribs, and raising the patient on his side so that the opening was in the most dependent position; the wound was then packed tightly with iodoform gauze. The plug was kept in for three or four days and then withdrawn, the patient being put in the same position to empty the pleural cavity. On the first occasion, in a favourable case, about a cupful of sanguinolent fluid will be discharged; in one case it was clear serum. The plug is renewed, and if the case goes well in another three days there will be about a teaspoonful of discharge, and the wound may then be allowed to heal. If there is still considerable discharge the plug should be renewed.

The object of the gauze plug is to disinfect the fresh wound after the passage of the pus, to prevent the ingress of other germs so as to avoid a mixed infection, and lastly, by firmly closing the wound, to prevent collapse of the lung, and, if much air has entered at the operation, to allow its absorption and draw the lung towards the side, and thus tend to abolish the cavity.

This treatment I found successful in cases of two or three weeks' standing. If a case is opened earlier a good result is not certain. In one case the pleural cavity became so fetid that gangrene of the lung was suggested; but after putting in a pinch of powdered potassium permanganate and leaving out the plug, the cavity soon became sweet. The case was a long time in recovering, and probably there was an opening into a bronchial tube. In another case, which was very slow, with no fetor but much pus, there was probably a small pin-point perforation in the lung, which caused a mixed infection from the lung, and so defeated the action of the plug.

These cases prove the existence of a pre-existing lung complication as the cause of empyema. Just as purulent peritonitis is in all cases the result of perforation, so is empyema the result of perforation.

An old empyema is very quickly cured by this method. There is none of the mess and repeated dressing required where a drainage tube is used, and there is the advantage of the contracting influence caused by the absorption of any enclosed air pulling the sides of the cavity together; or if the lung be bound down hopelessly, tending to produce a compensatory emphysema of the neighbouring lung so as to fill up the cavity, especially if the plug is covered with a pitch plaster so as to seal the wound hermetically.

On account of the possibility of a perforation it is better to wait two or three weeks till the lesion of the lung is healed before emptying the pus, unless its removal is urgent, when ordinary drainage should be employed.

PETER TYTLER, M.D.,
Honorary Surgeon, Ancoats Hospital, Manchester.

IODINE CATGUT.

As there is so much interest in suture material I may perhaps give the method of preparation which I have worked out for absorbable iodine catgut, which is as follows: Catgut, defatted by lying in ether for twenty-four hours, is boiled in absolute alcohol for one hour. It is then laid in a solution made of 1 part of liquor iodi fortis (linimentum iodi) and 11 parts of water for one week. It is preserved in and used from a solution made of 1 part of liquor iodi fortis and 50 parts of rectified spirit.

Catgut must be boiled. It must be antiseptic.

Birmingham. FREDERICK EDGE, M.D.Lond., F.R.C.S.Eng.

Reports of Societies.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

Friday, January 21st, 1910.

J. B. HELLIER, M.D., President, in the Chair.

The Use of the Cystoscope.

MR. J. F. DOBSON read a paper on the use of the cystoscope, illustrated by lantern slides. He said that of the various instruments the new Nitze cystoscope was probably the best; with a cold lamp, wide field, and clear definition, it was a great improvement on its predecessors. The Luys cystoscope was useful for the female. The various difficulties in obtaining a view of the bladder were discussed, and cases were described in which cystoscopy had been of great value in making a diagnosis. But, valuable as it was in bladder conditions, it was in the investigation of renal diseases that the cystoscope found its greatest field of usefulness. In cases of pyuria, haematuria, and bacilluria of doubtful origin accurate information could almost invariably be obtained. The presence of lesions of the bladder could be eliminated or confirmed; disease in one or both kidneys could be recognized, and if one kidney was disorganized the functional capacity of the other kidney might be ascertained Nephrectomy, except in cases of extreme urgency, should never be performed, unless a preliminary cystoscopic examination had been made. Statistics bearing on this point were given. He said that the methods of investigating the state of the kidneys were: (1) Cystoscopy alone. This was thought to be insufficient. Details were given of a case of advanced tuberculous pyonephrosis in which the orifice of the ureter showed no abnormality. (2) Cystoscopy and the segregator. Though useful in some cases in slight haematuria and pyuria, the segregator was not reliable. (3) Chromocystoscopy (Voelcker and Joseph). This was a method of considerable value, which should, however, be supplemented by the use of the ureteral catheter. (4) Ureteral catheterization. The difficulties and dangers of this were discussed, and he considered that with proper care and the selection of cases the dangers were very small. He described the various methods of estimating renal permeability, such as the injection of methylene blue and indigo carmine, the production of phloridzin glycosuria, and of artificial polyuria, etc. Illustrative cases were related.

Abdominal Effusions.

Dr. O. C. GRUNER read a paper on the laboratory examination of abdominal effusions. A description was given of several of the more reliable chemical tests which the author was accustomed to employ. The reactions for different varieties of albumoses were specially advocated, and it was pointed out that the richer the fluid poured into the peritoneum was in protein derivatives the more likely was the case to be one of cirrhosis of the liver or of cancer involving the peritoneum. One or two new applications of existing tests were referred to, and the value of a thorough analysis of these fluids was indicated.

Oxygenated and Warmed Ether as a General Anaesthetic.

Mr. S. T. ROWLING showed an apparatus for the administration of oxygenated and warmed ether vapour for general anaesthesia. The apparatus consisted of a long cylinder containing ether, through which oxygen was passed. The gas was warmed, both before and after—before, in order that more ether vapour might be taken up, and after, to counteract the chilling of ether evaporation. The warmer contained hot water, and the gas passed through coiled tubes inside. The face mask had a hollow perforated frame through which the ether passed.

Epilepsy.

Dr. E. F. TREVELYAN showed (1) two twin Jew boys aged 13, with typical epilepsy. They were the third and fourth of a family of ten children, all of whom had suffered from fits during teething. The fits, which had persisted in these boys and had recently become more frequent, appeared to be controlled by bromides. (2) A man, aged 41,

with severe paralysis agitans. The tremor began in the left arm five years ago, and soon spread to the left leg. The opposite side and the lower face became affected eleven months ago. He presented the typical facies and to a less extent attitude of the disease.

Specimens.

Mr. BASIL HALL showed: (1) A large *Sarcocele* weighing 5 lb. The tumour occurred in a man 62 years of age, and had been growing eighteen months. A complete pathological examination of the specimen had not yet been obtained, but it appeared to be a carcinoma undergoing colloid degeneration. The inguinal glands were infected, and had been removed with the tumour. There was no thickening of the cord. There was an enlarged gland in the opposite groin. (2) A *Fibrolipoma of the pharynx*, removed from a man of 60 years through a pharyngotomy opening. The patient had suffered from dysphagia for six months, and could only swallow fluids. The tumour was sessile, and attached to the lateral wall of the pharynx on the left side, an inch below the base of the arytenoid cartilages. It could be grasped with forceps through the mouth, but the pedicle could not be secured against haemorrhage. It was easily removed through an incision through the usual pharyngotomy route on the left side of the neck. Except for a slight secondary haemorrhage after a fit of coughing recovery was uneventful. (3) A *Hat-pin, 3 in. long, removed through a low tracheotomy opening*, in a boy of 12 years. The boy was holding the glass head of the pin between his teeth when he made a sudden inspiratory effort and the pin disappeared. No symptoms occurred, but on placing him before an *x*-ray screen the pin could be seen lying in the left bronchus, the point being upwards close to the tracheal bifurcation. An attempt to seize the pin with forceps failed, but on allowing the patient to become semiconscious and then tickling the mucous membrane of the trachea the point of the pin appeared momentarily in the tracheotomy opening. On repeating this manœuvre the pin was seized and removed. The tracheal incision was sutured and the wound closed. Dr. F. W. EURICH showed a spinal cord from a woman, aged 50, who had suffered from pins and needles in hands and feet and weakness of the lower limbs. Patellar reflexes were increased; there was ankle clonus but no anaesthesia. There was very severe pain over the sacrum and in the groins. Later, paralysis of bladder with incontinence of urine and faeces. Could flex lower limbs but not extend them. Tumour of the lower lumbar cord was diagnosed, but at the autopsy a *tumour in the lower sacral cord* was found. Condition was too bad to admit of operation. Other cases and specimens were also shown by Dr. A. G. BARRS, Mr. B. G. A. MOYNIHAN, Mr. G. CONSTABLE HAYES, Dr. BRONNER, Dr. WARDROP GRIFFITH, Dr. OLDFIELD, Mr. LAWFORD KNAGGS, Dr. R. A. VEALE, and Dr. MAXWELL TELLING.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.

Wednesday, January 12th, 1910.

Dr. JAMES SWAIN, President, in the Chair.

Infection of the Urinary Tract.

DR. J. R. CHARLES, in a paper on some cases of *Bacillus coli* infection of the urinary tract, described a series of cases in which general symptoms with fever and rigors were present without obvious urinary symptoms. Bacteriological examination revealed the presence of *B coli* in the urine. In treating the cases urotropine had been found valuable, and serum therapy was occasionally useful, but *B. coli* vaccines had not proved reliable, their effect being only temporary and relapses occurring. The PRESIDENT said he had seen vaccines prove effective. Mr. HEY GROVES described three groups of *B. coli* infection of the urinary tract: (1) Cases with general symptoms and absence of urinary symptoms, such as Dr. Charles had dealt with; (2) cases with irritable bladders, usually cystitis and occasionally ulceration of the bladder; (3) cases of advanced pyonephrosis or renal abscess. He related his experiences in operating on the last class. Dr. EMRYS-ROBERTS remarked on the acuteness of the cases Dr. Charles had described, and suggested that in acute cases treatment, especially with vaccines, was likely to prove more efficacious than in chronic cases. Mr. MUNRO SMITH dealt with the historical aspect of the subject, reminding the meeting that fifteen years ago surgery scouted the idea of infection of the urinary tract, save by catheterization. To Guyon was due the credit of first insisting on the possibility of direct infection from the intestinal canal. Dr. CAREY COOMBS spoke of *B. coli* bacilluria in children without urinary symptoms. In children urotropine was generally useless, but the cases could be cured by giving full doses of sodium citrate until the urine became alkaline. Dr. J. M. H. MUNRO described the vaccine therapy of mixed urinary infections, particularly cases in which *B. coli* was secondary to tubercle. Tuberculin injection should be first given, and later *B. coli* vaccine. He pointed out that the antitoxic serums were apt to produce severe constitutional symptoms, but vaccines were free from this drawback. Dr. MICHELL CLARKE discussed the mode of entrance of the infection. Dr. D. A. ALEXANDER described some similar cases.

Jejunal Ulceration.

Mr. C. F. WALTERS made a preliminary communication on jejunal ulceration, not post-operative, in which he directed attention to examples of catarrhal ulceration of the jejunum, sometimes terminating in perforation—a condition which appeared hitherto to have been undescribed and unexplained. The PRESIDENT mentioned that he had met with such a case occurring during the puerperium.

Tumours of Bilateral Origin.

Mr. ROGER WILLIAMS read a paper on malignant and non-malignant tumours of bilateral origin, in which he argued for a developmental predisposition to tumour formation. Dr. EMRYS-ROBERTS, Dr. MICHELL CLARKE, and Dr. J. A. NIXON discussed the paper.

THE ROYAL SOCIETY.

Thursday, January 20th, 1910.

Sir ARCHIBALD GEIKIE, K.C.B., President, in the Chair.

Pathology of Gastric Ulcer.

Dr. C. BOLTON presented a progress report on further observations on the pathology of gastric ulcer. The production and properties of gastrotoxic serums, obtained by immunizing the rabbit with guinea-pig's gastric cells, had been described in four previous reports, and it was demonstrated that the ulcers produced by the serum healed within three or four weeks, if the animal were in its normal condition and fed on a normal diet. Since chronic gastric ulcer in the human subject is a common malady, and gastric ulceration is initially acute, it was considered that some unknown condition or conditions must be present which delayed the healing of these ulcers. It was, however, found on experiment that so long as the stomach emptied itself in the normal time it was impossible to delay the healing of gastric ulcer by increased or diminished acidity of the gastric contents or by feeding on infected food; the position of the ulcer in the stomach did not materially affect the result. The report now presented dealt with the effects of interference with the motor function of the stomach upon the healing of ulcer, the food and acidity of the stomach contents being normal. The gastric ulcers were produced in the cat by the local injection of gastrotoxic serum into the stomach wall, the serum being prepared by immunizing the goat with the gastric cells of the cat. Motor insufficiency of the stomach leading to retention of its contents, one of the commonest forms of indigestion of food in man, was produced by constricting the pylorus of the cat by means of rubber tubing, the ulcer then being formed on the anterior wall of the stomach. It was found that under these circumstances the healing of the ulcers was delayed for at least twice the normal time. When the ulcers eventually healed up the regenerated mucous membrane was of a lower type than normal. It might consist on the forty-first day of a single layer of cubical cells such as should be found on the tenth day of normal healing, or of glands formed entirely of duct epithelium. It was further found that the more sclerotic the base of the scar, the more badly developed was the mucous membrane. In certain cases the *normal* healing of the ulcers was occasionally delayed by necrosis of the granulation tissue forming their bases, or by excessive formation of fibrous tissue, and in these cases the mucous membrane was of the lower type. It was therefore considered that the delay in healing in motor insufficiency was an exaggeration of the condition occasionally seen in the normal state. Both conditions are due to digestion or irritation of the base of the ulcer leading to necrosis or increased formation of fibrous tissue, so that the regenerated mucous membrane is either unable to grow over it at all, or only consists of a single layer of cells, or of glands of a lower type than normal. When the base is excessively fibrous the glands have not a sufficiently vascular and cellular stroma in which to proliferate.

Agglutinins.

Drs. GEORGES DREYER and J. SHOLTO C. DOUGLAS presented two papers on agglutinins. The first dealt with the velocity of reaction in the "absorption" of specific agglutinins by bacteria, and in the "adsorption" of agglutinin, trypsin, and sulphuric acid by animal charcoal. The authors stated that though a fair number of observations existed as to the influence of time on the so-called adsorption processes—for example, the adsorption of a dye by a fibre (Bordet, Bayliss, etc.), proving that it takes a very considerable time before equilibrium is reached, the study of the time reaction in the taking up of agglutinins by bacteria had been confined to the observations of Eisenberg and Volk. These authors maintained that the velocity of reaction was extremely fast, and that equilibrium was reached in five minutes, even at a temperature of 0° C., and that no appreciable difference was to be found in the absorption velocity, whether the reaction took place at 0° C. or 37° C. The authors' results, which were contradictory to those of Eisenberg and Volk, were summarized as follows:

1. The establishment of equilibrium in the absorption of agglutinins by their specific bacteria is not attained, as stated by Eisenberg and Volk, in less than five minutes at 0° C., but takes a considerable time, since equilibrium is not reached at room temperature even in four hours.
2. The adsorption of agglutinin or trypsin by charcoal does not reach an equilibrium within four hours at room temperature, nor the adsorption of sulphuric acid by charcoal in twenty-four hours, or possibly even in forty-eight hours.
3. There is no justification for judging as to the nature of the interaction between an absorbing substance and a material absorbed, from the rapidity or slowness with which equilibrium is attained, as has been done by Arrhenius.

In the second paper, on the absorption of agglutinin by bacteria and the application of physico-chemical laws thereto, it was stated that Eisenberg and Volk, in 1902, were the first to make more or less exact quantitative measurements of the absorption of agglutinins by bacteria. They showed that if agglutinating serum were treated in varying dilutions with a constant amount of homologous bacteria, the amount of agglutinin taken away was not constant, but that in a concentrated serum the absolute amount removed was greater than in a diluted serum, whilst, on the other hand, the relative amount taken away in a dilute serum was much the greater. By taking the experiments of Eisenberg and Volk, Arrhenius showed the existence of a relation between the quantity of absorbed agglutinin, C, and of the agglutinin left in the fluid, B, and expressed this relationship in the simple formula $C=kB^n$. The result of the experiments by the authors might, on the other hand, be summarized as follows:

1. When an agglutinating serum in different concentrations is treated with constant amounts of bacteria, the quantity absorbed, C, may not only increase to a limit value, but may, when this point is passed, even decrease to zero when the concentration of the serum is further increased, which is quite different to the statement of Eisenberg and Volk.
2. It is impossible, from the greater or smaller size of the exponent "n" in the formula $C=kB^n$, to determine whether in the case of agglutinin we have to deal with an absorption or an adsorption process, as done by Arrhenius, as in both cases "n" may vary within nearly the same ranges.
3. The formula $C=kB^n$, proposed by Arrhenius to express the absorption of agglutinin by bacteria, as being a special example of the Guldberg and Waage law of chemical mass action, does not hold good either in the case of the absorption of agglutinin by bacteria, or of the neutralization of agglutinin by homologous bacterial filtrate.
4. The combination of agglutinin and bacteria is therefore not such a simple process as anticipated by Arrhenius, but is very possibly complex, and not improbably of the same nature as the interaction of bacterial toxins and antitoxins.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Thursday, January 27th, 1910.

Dr. G. A. BERRY, President, in the Chair.

Bilateral Ophthalmoplegia.

DR. F. E. BATTEN, in a note on a case of bilateral ophthalmoplegia in an infant, referred to a case of bilateral paralysis of the third nerves in an infant shown by Mr. Jessop at the meeting of the society on June 10th, 1909. The case he now reported presented very similar symptoms. The child, a male aged 10 months was the fourth of four children, the eldest of whom had died of meningitis. The child was quite well till 7 months old, when a squint was noticed. When 8 months old there was some weakness of the right side of the face. The child was otherwise quite well, and when first seen at 10 months of age was a plump, rosy-cheeked child. There was marked external strabismus, double ptosis, and paralysis of all the muscles supplied by the third nerves. The optic discs were normal. There was slight weakness of the right arm and leg, and a constant rhythmical movement. The cerebro-spinal fluid was found to contain tubercle bacilli, and a von Pirquet gave a positive reaction. The paralysis gradually extended, and the child died three months later. Optic neuritis never developed. The autopsy showed a tuberculous mass occupying the region of the corpora quadrigemina and tegmentum. From the symptoms—that is, the ophthalmoplegia associated with a rhythmic tremor—it was possible to arrive at an accurate diagnosis as to the situation of the lesion, and from the examination of the cerebro-spinal fluid an accurate diagnosis as to the nature of the lesion.

Buphthalmos.

Mr. MAYOU showed a case of congenital anterior synechiae with buphthalmos. The patient was a male aged 7 weeks, strong and healthy, and showing no signs of syphilis. He obviously had very bad vision, but could see bright lights. There was well-marked nystagmus, and the right eye had excentric fixation for objects, but, as far as could be seen by focal illumination and ophthalmoscopical examination, presented no pathological change. The left eye was blind. It had the appearance of buphthalmos with bombé iris. The iris was closely applied to the back of the cornea, and at the pupillary margin it had not separated off from the corneal tissue and was adherent. Descemet's membrane covered the back of the cornea nearly up to the position where the iris was adherent to the cornea, but the membrane was entirely absent in the position of the adhesion and over the whole pupillary area. The iris was thin and attenuated, especially in its mesoblastic constituents. The angle of the chamber was perfectly formed. There had been a failure of the separation of the iris at the angle of the anterior chamber, which was occluded. There was no canal of Schlemm present. The ligamentum pectinatum was very imperfectly formed and the ciliary muscle ill developed. The suspensory ligament of the lens was absent. The lens itself was conical anteriorly, and, although it was adherent to the cornea, there was no anterior polar cataract or even wrinkling of the capsule. Posteriorly there was a large gap in the capsule, which was filled in by loose atypically developed fibrous vitreous, into which passed a persistent hyaloid artery with a well-marked nucleated sheath. The hyaloid artery passed backwards from the mass behind the lens to the disc. The choroid was normal. The retina was *in situ*, and macroscopically appeared normal, but on microscopical examination the retina in the anterior part of the globe showed a great deficiency in ganglion cells. The rods and cones in all situations were short and imperfectly developed. The optic disc presented a coloboma of the nerve sheath below and a well-marked hyaloid artery coming off from its centre, around which there was some atypically developed fibrous vitreous. There was no cupping of the disc. Although the superficial clinical appearance of the eye before enucleation resembled a pseudo-glioma with secondary glaucoma due to an excluded pupil and iris bombé, the presence of a clear cornea, together with the absence of all signs of exudation in the pupil, was strongly against the probability of the defect being due to intrauterine inflammation. The pathological examination further bore this out, and showed that the condition was undoubtedly due to maldevelopment. A failure in the development of the suspensory ligament had taken place. This had led to the ciliary process remaining adherent to the sides and back of the lens. These processes consisted practically of nothing more than the epiblastic element of which they were composed. The eye increasing in size had pulled the epiblast inwards, so that the situation where the processes were adherent to the back of the lens, the ora

serrata had not formed, and the retina appeared to join it close up to the ciliary processes. The anterior lenticonus was due to the lens being adherent to the cornea in front, whilst it was held firmly in position behind by the ciliary processes and persistent hyaloid artery and fibrous vitreous. Although the lens was in contact with the cornea, there was no anterior polar cataract, which was against the view that contact alone of the lens with the posterior surface of cornea was sufficient to produce it. The drag of the ciliary processes had evidently produced a rupture in the posterior capsule, which was subsequently filled by atypically developed fibrous vitreous, and accounted for the persistence of the hyaloid artery. The imperfect formation of the retina was of interest in view of the fact that the other eye, although presenting no ophthalmoscopic change, evidently possessed bad vision, as the patient had nystagmus and excentric fixation, and did not take notice of anything but large objects; presumably the retina might be affected by similar changes. That intrauterine buphthalmos could occur was important in view of the fact that cases had been recorded of congenital anterior staphyloma in which perforation had apparently taken place immediately before birth.

LIVERPOOL MEDICAL INSTITUTION.

Thursday, January 27th, 1910.

Dr. BRADSHAW, President, in the Chair.

Duodenal Ulcer.

DR. BUCHANAN, in a paper on the symptoms and treatment of duodenal ulcer, emphasized its latency and described various premonitory symptoms—flatulence, feelings of epigastric distension aggravated by starchy foods, sugars, and fats. A mild icterus was sometimes present. Spasm of the pharynx was a suggestive symptom. The onset of haemorrhage was sometimes preceded by toxic symptoms, general malaise, and the facies was sometimes suggestive, this being either anaemic or resembling cirrhosis of the liver. When spasm of the rectus existed it was useful to palpate the patient while in a hot bath. In the treatment he advised absolute rest in bed and a proteid diet, 3 to 4 oz. of minced meat being given for a meal; half a pint of warm water four times a day; no soups or meat juices; natural Vichy water was useful; no pepsine or opium should be used. Mr. MONSARRAT, in a paper on the indications for and the choice of operation in gastric and duodenal ulcerations respectively, said they resembled each other in pathology, symptoms, and complications, and described 18 cases. In 15 of them the ulceration was chronic, and the indication for operation had been pain persisting despite prolonged medical treatment. Another indication for operation was the occurrence of frequent small haemorrhages and troublesome vomiting. The PRESIDENT confessed that in most cases he was unable to distinguish clinically between gastric and duodenal ulcers; Dr. Buchanan's account would in the main apply to both. Mr. Monsarrat's suggestion that acute and chronic ulcers were of different origin was a valuable one, and might account for the fact that while the symptoms of gastric ulcer were far more common in women, *post-mortem* records showed that the ulcers were as common or more common in men. The acute ulcer might be expected to heal, not so the chronic. Professor GLYNN instanced a case showing remarkable latency with recurrent haemorrhages. Mr. R. W. MURRAY considered that gastro-enterostomy should be performed whenever the diagnosis was clearly established. Mr. THELWALL THOMAS drew attention to the difficulty of differentiating between a lesion of the stomach or duodenum and one of the gall bladder. The sensory nerves distributed to these structures were the same. The treatment of haemorrhage was absolute starvation; he doubted the utility of serum or drug treatment, and considered the treatment of duodenal ulceration to be essentially surgical. Dr. NEWBOLT reserved the anterior operation for cases in which the stomach was fixed by carcinoma or by adhesions, or when it was necessary to operate quickly. He was not in favour of gastro-enterostomy as a routine practice in perforated duodenal ulcer; in many cases it was not necessary. Dr. HAY referred to a patient who had suffered from recurring melaena and haematemesis extending over a period of eight years, and who had also the symptoms of duodenal ulcer. He was relieved temporarily by gastro-enterostomy, but two years later the abdomen had to be opened again on account of most serious haemorrhage. The enterostomy opening was found to have closed. The patient died, and no lesion could be found in oesophagus, stomach, or intestines to account for the fatal bleeding. Dr. WARRINGTON referred to three patients in whom the diagnosis of duodenal ulcer was made. One perforated a few hours later, in a second nothing was found at operation, and the third was so improved by medical treatment that operation was refused. Dr. MACALISTER considered a toxic origin of gastric ulcer to be indicated by certain long-continued prodromal symptoms not immediately connected with the stomach. These consisted of Raynaud-like phenomena sometimes associated with muscular spasm. Probably acute ulcer originated in local vascular spasm.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

Wednesday, January 26th, 1910.

Mr. A. FULTON, President, in the Chair.

MR. H. B. TAWSE, in a paper on Killian's *Submucous resection of the nasal septum*, emphasized the value of local anaesthesia by means of cocaine and adrenalin hydrochloride in this operation. He employed this method, with one exception, in a series of cases with complete success. The sitting posture and the conscious help of the patient greatly assisted the operator, and complaints of pain were few; whereas chloroform meant the patient being recumbent and the presence of a first-class anaesthetist. He ordered the patient to have a good meal before the operation and an alkaline douche. In performing the operation he made a buttonhole incision in the mucous membrane with a tenotome, and with a blunt dissector carefully freed the muco-perichondrial tissue from the cartilage. The cartilage was then incised in the same line as the original incision and freed from the opposite muco-perichondrial tissue. After cutting away the cartilage the mucous membrane was united with a few stitches and the nasal cavities plugged for twelve hours. Some oedema appeared after twenty-four hours, but disappeared in a few days. Blowing the nose was prohibited for three weeks. After enumerating the difficult cases, the author dwelt on the errors likely to be made during the operation, such as buttonholes, especially where adhesions resulting from old fractures were encountered. Secondary haemorrhage was easily stopped by prompt plugging of the bleeding point. After enumerating the various indications for operation, the author reviewed his 110 cases, 102 of which were completely successful as regards the operation.

ROYAL SOCIETY OF MEDICINE.

SECTION OF DISEASES OF CHILDREN.

Friday, January 28th, 1910.

Dr. H. D. ROLLESTON in the Chair.

THE following were among the cases described:—Dr. DAVID FORSYTH: A case of *Congenital oedema*, with dilatation of the intestinal lymphatics. No family history of a like condition could be obtained. The face and trunk showed nothing amiss. An average quantity of urine was passed, and contained no albumen. After a sudden rise of temperature the child died somewhat unexpectedly. At the autopsy the oedematous patch on the left leg was incised, and appeared as a greyish-white gelatinous mass. Microscopically, it was composed of connective tissue, with large spaces, which had been distended with clear fluid. The intestines seemed under their peritoneal covering to be distended lacteals. The mesenteric glands were healthy, as also the other viscera. Dr. A. C. D. FIRTH: A case in which *Intestine had prolapsed through an ectopia vesicae.* The anus was imperforate. The child died on the sixth day after its admission, at a time when it was a few hours old. Mr. DOUGLAS DREW: A case of *Separation and displacement forwards of the lower epiphysis of the femur* which he had treated by plate and screws. The patient was a boy, aged 8½, who was knocked down and run over by a van on November 30th,

1909. After the operation, nine days later, the limb was placed in a splint bent to a right angle. Massage and passive movement were begun within three weeks, and active movement a week later. When shown at the end of the sixth week the child could walk with assistance, and movements at the knee were good. Dr. F. PARKES WEBER: Three cases of *Family idiocy*. Though practically blindness existed, ophthalmoscopic examination showed nothing characteristic of family amaurotic idiocy. Mr. N. BISHOP HARMAN: A girl aged 2¾ years, whose right iris was so black that at a distance of a yard the difference between iris and pupil could scarcely be detected; the sclera was covered with patches of brownish-black pigment. The left eye showed white sclera and a dark brown iris. The parents were normal eyed. The exhibitor said this excessive pigmentation was occasionally seen in Dalmatian dogs, but was very rare. Dr. O. K. WILLIAMSON: Case of *Spastic diplegia* in a girl aged 10½ years, who also showed mental defect. There was a history of forceps at birth, and the child did not walk until 3 years old or speak until about 8 years of age. Dr. DONALD CARTER read a paper on *Infant feeding*.

Reviews.

A SYSTEM OF OPERATIVE SURGERY.

LIKE so many other of the Oxford Medical Publications, the four volumes of Mr. BURGHARD'S *System of Operative Surgery*,[1] assert their claims upon the reader by their handsome appearance and excellent typography. Let it be said at once that the illustrations, upon which so much care and attention have been lavished, are also a recommendation. With regard to the first volume, it must be admitted that something was sacrificed to a desire on the part of the publishers to get early into the field, and the editor's chapter on excisions would have come much better in the same volume as that on the treatment of tuberculosis of the joints, and space might have been saved thereby. Mr. Lockwood contributes the first article, on the principles and technique of wound treatment, embodying a good deal of his well-known work on aseptic surgery. There follows a chapter, or, rather, a couple of short sections, on methods of local analgesia by Captain Houghton, satisfactory enough as far as they go, but hardly adequate to fair expectations of a treatise on this scale. Of the editor's 200 pages on amputations nothing need be said, save that they are characterized by the thoroughness and lucidity that have made him one of the most successful teachers of operative surgery in London. Section 4, dealing with operations upon the arteries, veins, and lymphatics, is from the same pen, and embraces so much of new work—Dorrance's arterial suture, Matas's endo aneurysmorrhaphy, Handley's lymphangeioplasty, etc.—that it is exceptionally interesting reading and most opportune. Ligation of arteries in their continuity is rather a barren subject, but it is worth while correcting the statement made on page 370, that "operation (ligature of the first part of the subclavian) is never attempted on the left side," because a successful case was published, several years after performance, by Mr. Stonham, three or four years ago. In the section on the nerves, Mr. Burghard gives an excellent account of his modification of the Hartley-Krause operation. In describing tendon suture he does not do justice to the virtues of silk as a medium; it is exceedingly well tolerated and makes a satisfactory bridging material. Mr. Burghard, who also deals with non-tuberculous lesions of bones, does not favour subtrochanteric osteotomy for coxa vara, though there is much to be said in its favour. Mr. Legg has written a fairly complete account of plastic surgery, and, what is more important, a practical one; so many descriptions are wearisomely complicated and so obviously outrun the illustrator's powers of representation, that these pages are refreshing by contrast.

The first article in the second volume is by Mr. Stiles, and deals with operations for tuberculous affections of the bones. He illustrates by excellent radiographs the gratifying results to be obtained after subperiostal resections of large parts of the diaphysis. His directions for dealing with tuberculous abscesses in connexion with the spine are very explicit. In the next article the same author treats of tuberculous diseases of the joints, and, far from confining himself to the mere description of the operation, devotes a good deal of space to well considered directions for after-treatment. His account of measures suitable for various forms of ankylosis is useful. Mr. Edmund Owen, who deals with hare-lip and cleft-palate, gives us his matured views on a subject on which he can speak with authority. Mr. Lenthal Cheatle writes the chapter on cancer of the lips, illustrating with good diagrams the principles which he has laid down for the proper extirpation of the disease. Mr. Fagge is responsible for operations upon the jaws, and upon the oesophagus. Mr. Butlin lends all the weight of his great authority to the section dealing with diseases of the tongue, tonsils, and pharynx. His statistics are fully set out, and figures of his operations upon those chronic inflammatory conditions which precede cancer are displayed. Section 4 is devoted to diseases of the stomach and intestines. When it is said that the stomach and duodenum are dealt with by Mr. Moynihan, that the surgery of the intestines is in the hands of Mr. Makins, that of "hernia" in those of Mr. Barker, and that Mr. Swinford Edwards writes upon the rectum, no more will be necessary to recommend this volume to the judicious reader. There is perhaps no more thoroughly satisfactory article in the whole *System* than that from the pen of Mr. Makins. The reader cannot fail to realize that he is reaping the fruit of a large experience, and that anything that may be lacking in the way of encyclopaedic completeness is more than atoned for by the discriminating individuality which pervades it.

In the third volume the plan of putting the various sections in the hands of those who have more or less specialized therein is continued. For example, Mr. Berry in thirty-five pages has given a succinct and valuable summary of the various methods of dealing with goître and allied conditions. For operations upon the bile passages and pancreas Mr. Mayo Robson's help has been sought, whilst Mr. Moynihan, with the assistance of Mr. Upcot, discusses the indications for, and methods of operating upon, the spleen. Operations upon the thoracic wall and its contents are naturally enough left in the hands of Mr. Godlee, who has taken the opportunity of describing the special chambers, with negative and positive pressures, employed by Sauerbruch and others for operations. Mr. Stiles, who writes upon the treatment of tuberculosis of the lymphatic glands, and also upon diseases of the breast, does so with the careful attention to detail, and to the anatomical and pathological principles involved, which characterizes all he has written. Dr. David Newman, who contributes the section upon the kidneys and ureters, develops his well-known views as to the proper field of the cystoscope, and allows play to his experience and predilections in a manner that makes his pages interesting. It is a little difficult to believe that the forceps he figures for delivering the kidney can really be of value enough to deserve that prominence. Mr. Thomson Walker writes about the bladder and urethra with all his accustomed facility; his discussion of the indications for urethrotomy, for cystectomy and other conditions, should be very useful to young surgeons. Mr. Freyer deals not only with the prostate, but also with vesical calculus. He speaks with the authority of large experience when crushing and cutting operations are considered, and it is interesting to find him still faithful to lateral cystotomy. The editor takes charge of operations upon the genital organs, and it is to be noted that he is a strong advocate of the preservation of the imperfectly descended testicle, which he believes is generally capable of functioning. In this volume are included operations upon the central nervous system, those on the cranial cavity being described by Mr. Rawling and those on the spinal cord by Mr. Thorburn. The latter, in particular, has discussed "indications" with great acuity. Whilst he speaks of various reasons for division of the posterior roots, he does not, it appears, mention the measure in connexion with lightning pains.

In the fourth volume Mr. Bland-Sutton takes up

[1] Oxford Medical Publications. *A System of Operative Surgery*. Edited by F. F. Burghard, M.S Lond., F.R.C.S. In four volumes. 1909. London: Henry Frowde, and Hodder and Stoughton. (Roy. 8vo, Vol. I, pp. 783, 341 illustrations; Vol. II, pp. 750, 317 illustrations; Vol. III, pp. 764, 381 illustrations; Vol. IV, pp. 687, 351 illustrations. 36s. a volume, £6 four volumes.)

abdominal gynaecological operations. He is not content with Mr. Lockwood's article, but opens his own with an account of the technique of coeliotomy. He adds, however, a chapter on the after-treatment of abdominal operations which covers much ground. His statistics, his references to literature, and his vigorous style are alike admirable. It is worth while mentioning that he condemns hysterectomy for puerperal sepsis, though some American surgeons look upon it as a routine measure. Vaginal procedures are under the charge of Dr. John Phillips. The remaining five hundred pages are devoted to the eye, ear, larynx and trachea, and nose, and are in the hands respectively of Mr. Mayou, Mr. Hunter Tod, Mr. Harmer, and Dr. StClair Thomson. All alike are extremely good, and well maintain the general high level of the whole *System*. It will be a long time before Mr. Burghard's volumes are displaced from a premier position.

SYPHILIS.

THE third volume of the *System of Syphilis*,[2] edited by Mr. D'ARCY POWER and Dr. KEOGH MURPHY, commences with an article by Professor William Osler and Dr. A. G. Gibson on visceral syphilis. This is a very thorough piece of work, and will be found particularly useful on account of the careful attention which is paid to the clinical diagnosis of difficult cases. In advising the reader on the art of diagnosis the authors always proceed straight to the essential points, often illustrated by concrete examples from well-chosen clinical histories of particular cases; they avoid the long lists of theoretical possibilities to be excluded which are commonly found in advanced medical textbooks, but often prove more of an embarrassment than a help to the physician seeking practical guidance. Special attention is also devoted to diagnosis in the *post-mortem* room and by histological methods; the coloured reproductions of typical microscopic specimens are particularly good.

Dr. Mercier, who writes on the clinical aspects of general paralysis, observes, in discussing the relationship of this disease to syphilis, that in about 80 per cent. of cases of general paralysis a syphilitic history has been established; and the absence of such evidence in the remainder must be considered in conjunction with the fact that in other diseases which are unquestionably syphilitic "there is a residue of 20 per cent. in which no history of syphilis and no other stigma of syphilis can be found." Some other factor besides syphilis is, however, necessary to produce general paralysis. It has not been ascertained with certainty what this factor is, or whether there are more factors than one. Dr. Mercier suggests that excessive use of the brain is a predisposing cause, since it has long been observed that "general paralysis seemed to prefer active, energetic, strenuous, successful, busy men." He also views with favour Dr. Mott's idea that there may be a special variety of the syphilitic spirochaete having a peculiar power of producing general paralysis. Regarding the crises in general paralysis, he remarks that no satisfactory explanation has yet been forthcoming for the fact that they may be mitigated in severity, or even wholly averted, by measures for the disinfection of the intestinal tract.

Dr. Castellani gives a very interesting account of yaws, supported by excellent photographs illustrating the clinical appearances of the disease. The author, as is well known, considers the specific cause of yaws to be the *Treponema pertenue*, an organism which he regards as distinct from the *Treponema pallidum* of Schaudinn. He summarizes as follows the reasons for holding yaws and syphilis to be two distinct diseases: "(1) Patients suffering from syphilis may contract yaws; patients suffering from yaws may contract syphilis. (2) Monkeys successfully inoculated with yaws do not acquire an immunity against syphilis, and vice versa." In his clinical experience of yaws at Colombo he finds that potassium iodide, in large dosage, is the most effective treatment.

In the present volume, though each writer deals with a separate aspect of the subject, there is a certain amount of overlapping. Perhaps the editors have found it impossible to eliminate this fault entirely, but they might at least have lopped off a few of the more obvious redundancies. Dr. Atkinson contributes the section on "Some Medico-Legal Associations of Syphilis." If he is to be our authority on this matter, well and good; but why permit Dr. Mercier, who writes on the clinical aspects of general paralysis, to tack on to his section Chapter XII, which deals with the medico-legal aspects of this disease? Again, Dr. Brockbank, writing under the title of "Syphilis and Life Assurance," overlaps very considerably in his first chapter, which is on "Evidence Derived from Clinical and Pathological Sources." He discusses, for example, the relation of general paralysis to syphilis, a matter which has already been dealt with by Dr. Mercier. Dr. Brockbank's section might with advantage have been limited to its three remaining chapters, which form a valuable and lucid exposition of the experiences of assurance companies in the mortality of syphilitics, and record at length the opinions of important medical referees regarding the insuring of syphilitics. The last article in the volume is a useful chapter by Mr. Haldin Davis on the technique and theory of the serum reaction for the diagnosis of syphilis.

[2] Oxford Medical Publications. *A System of Syphilis*. Volume III. Edited by D'Arcy Power, M.B., F.R.C.S., and J. Keogh Murphy, M.D., M.C., F.R.C.S. London: H. Frowde, and Hodder and Stoughton. 1909. (Royal 8vo, pp. 300, with illustrations, £2 2s.; 6 vols., £10 10s. to subscribers.)

MADNESS FROM THE MANIAC'S POINT OF VIEW.

THE story which is offered to the public by the publishers as at the same time "the most weirdly sensational of novels" and a valuable psychological study under the title of *The Maniac*[3] has been very diversely received by the medical men who have read it. The book purports to be a faithful account of a genuine attack of acute mania which lasted six weeks. Her tale is told in very graphic and realistic fashion by the patient, a woman journalist, who had become deeply imbued with spiritualistic literature and had been overworked before the attack. This began, continued, and ended with vivid auditory hallucinations to which previous reading and thought about spiritualism had given both content and, in her insane state, justification as real experiences. Visual hallucinations followed, of a rather sublimated erotic character; then delusions of "fiend-seduction," accompanied by frenzied despair, but interrupted at times by hilarious outbursts of merriment, occasioned by the grotesquely absurd nature of constantly changing kaleidoscopic visual and auditory hallucinations. As a subjective study the book does not add anything to objectively known facts; at the same time, it very well illustrates by concrete individual experiences the underlying mechanism of many of the phenomena of mental disorder. For example, the sudden emergence above the threshold of consciousness of some disturbance of common sensibility, or of some buried memory, which, once emerged, becomes the nucleus of a temporary system of converging special sensations which clothe the phantom in the garments of every-day reality and make it proof against reason. The anonymous writer's own explanations of her illness are strangely exotic, and throw some light on her case. Her central idea is that during her madness her "ego" was actually extruded from her body, and that consequently, though she remembers everything of what she herself experienced, and is thus able to write this account of her extra-corporeal happenings, she was and is absolutely ignorant of what her body said and did when she was absent from it. This appears to be the subject's interpretation of the dissociation of personality found in hysterics. A second and significant fact is noted by the writer as "the automatic, instantaneous, and violent action of the mind upon the body"—or, put otherwise, the excessive lability of somatic outlet described by Freud as a characteristic hysterical phenomenon. Lastly, there is the assertion by the patient of loss of consciousness with the retention of intact reason. Without a commentary from the medical man who attended her a diagnosis is impossible, but that of "acute mania" hardly fits the book. The book has been blamed for its erotic allusions; we have not read anything which need prevent its circulation on this score, though on other counts—the writer's esoteric views of the nature of insanity, her inadequate knowledge of her own constitution, and her banal counsels to medical men—it would have been better left unpublished in this form.

[3] *The Maniac: A Realistic Study of Madness from the Maniac's Point of View*. London: Rebman, Limited. 1909. (Post 8vo, pp. 316. 6s.)

"THE MAKING OF SPECIES."

The Making of Species is the joint production of two authors, Mr. DOUGLAS DEWAR and Mr. FRANK FINN.[4] The former, a member of the Indian Civil Service, is an amateur naturalist, the latter a professional zoologist who held for some years a post in the Natural History Museum at Calcutta; both writers have on previous occasions made contributions to literature of a more or less popular nature dealing with natural history subjects.

The present work is an attempt to deal with the philosophic side of biology, and touches upon many of the vexed questions of evolution and the origin of species. The aim of the book, so the authors tell us in the preface, is to instruct the populace and to furnish the scientific men of the day with food for reflection. Had the authors contented themselves with placing before the general reader a clear exposition in simple language of the current views on the biological problems with which they deal, they might have produced a work of some value. But they are fired with the enthusiasm of the missionary spirit, and are withal ambitious. They fear that the book will come as a "rude shock" to many men of science, whom the authors console by telling that they, the men of science, will find themselves in the same position as the theologians after the publication of the *Origin of Species*. They prescribe the perusal of their book as an antidote to the "blight of dogma" that has laid hold of British biologists, and a cure for the "generally unhealthy condition" of biology in England. We share neither their pessimism nor their complacent faith. The scientific world will not be convulsed. To be quite frank, we cannot admire either the literary style or the tone and temper of the book. One does not expect, in a work of such pretensions, to find expressions like "the man in the street," or "spotted" as a synonym for "recognized," etc. The sneers cast at British scientists are unmerited and in bad taste, and we refuse to accept the statement that the "average scientific man of to-day makes facts fit his theory, and if they refuse to fit in he ignores or denies them." The tone of the preface and of the earlier chapters is that of a spoilt child when he considers sufficient notice is not being taken of him.

While thus criticizing the temper of the book, it must not be concluded that it is without merit. There are many facts given, especially connected with bird life, which are of much interest and importance. So long as the authors confine themselves to what may be termed the natural history side, so long are they interesting and informing, but their science and their philosophy are questionable. The statement on page 21 that "the germinal matter," in hydra, "is diffused through the organism, so that a complete individual can be developed from a small portion of the creature," is not an evidence of scientific accuracy. The authors are qualified believers in natural selection, as well as in Mendelism and other theories, but what their exact position or what the particular view of their own which they are anxious to inculcate are matters difficult to understand. The earlier part of the book is evidently intended to be a confession of faith; but the statements lack sequence, and the quotations are so numerous and often so lengthy that it is almost impossible to see the wood for the trees.

Many of the illustrations are good, while others—for example, that facing page 124—are very crude. The outside of the book is good.

THE FALLING BIRTH-RATE.

IN a pamphlet entitled, *The Falling Birth-rate and its Significance*,[5] Lieutenant-Colonel EVERITT has gathered together from various sources, medical as well as lay, information regarding the falling birth-rate in this country. There can be no doubt that the prevention of conception is being practised on a very large scale, and when that practice exists the other one of production of abortion is never far distant. Malthusian views are quoted, and it is shown that very different economical conditions prevail now compared with what Malthus looked forward to. "We have the whole world now as a granary," and large families are not likely to starve because of an absolute lack of food in any part of the globe. Other arguments have been adduced by neo-Malthusianism in favour of the limitation of families, but the remedy proposed is surely more dangerous than the evils it would check. The White Cross League approves of the following recommendations: (1) That means be taken to penalize the advertisement and sale of ecbolics and preventives of conception, as well as of literature dealing with these articles; (2) that every effort be made to strengthen the powers given to magistrates, so as to extend their jurisdiction in dealing with things offensive as well as indecent and obscene; (3) that, if possible, a medical statement be obtained from, and issued by, the medical profession, as to the physical dangers of artificial sterility; (4) that means be taken (*a*) to create a healthier public opinion on these matters, and (*b*) to enlighten the public as to the physical, as well as moral and spiritual, dangers to the individual and the race incurred by their use; (5) that means should be taken (*a*) to advocate greater simplicity of life, and (*b*) to impress on women (especially of the intellectual classes) the danger of forgetting their true and highest vocation—namely, that of being mothers; (6) that means should be taken to stimulate the growth of high ideals and a sterner morality.

[4] *The Making of Species.* By Douglas Dewar and Frank Finn. London and New York: John Law. 1909. (Med. 8vo, pp. 419, illustrations 15. 7s. 6d.)

[5] *The Falling Birth-rate and its Significance.* Notes compiled by Lieutenant-Colonel H. Everitt, R.M.A. (retired), Honorary Secretary, White Cross League. London: The White Cross League. 1909. (Cr. 8vo, pp. 40. 6d.)

NOTES ON BOOKS.

THE sixth volume of the *Practical Medicine Series*[6] for 1909 deals with the year's progress in general medicine, and is edited by Dr. F. BILLINGS and Dr. J. H. SALISBURY, with Dr. G. P. HEAD as general editor. It contains abstracts of important papers that have appeared during the previous months in current English and foreign medical literature, particularly on the acute infections, the diseases of the mouth, oesophagus, stomach, intestines, liver, pancreas, and peritoneum. The choice of papers is happy, the abstracts terse and clear, and the introductory and connecting paragraphs helpful. The following subjects receive special attention: Typhoid fever, visceroptosis, colitis and pericolitis, gastric and duodenal ulcer, and pancreatitis. Although it does not cover the whole ground of general medicine, it is a useful volume.

We have received the first volume of the annual course of medical post-graduate education, *Jahreskurse für ärztliche Fortbildung*, which is published in Munich under the editorship of Dr. D. SARASON, of Berlin. The idea of this publication is to lay before the practitioner each month a series of articles from the pens of eminent specialists on the more recent additions to medical knowledge. The programme announces one volume each month, and the subscription for the whole year is 16 marks. No. I contains a few pages of introduction from the editor, and a very excellent treatise on general biology and pathology by Professor O. Lubarsch, including chapters on inheritance, fertilization, normal and pathological growth, tumours and disturbances of the cellular fat, and carbohydrate metabolism. There is no question that the general practitioner would gain materially by carefully reading, marking, learning, and inwardly digesting this treatise, but it is quite another thing to expect him to give up the time required for it. The matter cannot be absorbed by rapid skimming. We can only recommend him to subscribe to the publication and use it judiciously. If the subsequent volumes are as good as the first, the scientific value of the venture is assured.

In a pamphlet on the diagnosis of chronic gonorrhoea and other bacterial affections of the male genito-urinary organs,[7] Dr. RUDOLF PICKER of Budapest advises that in all cases the medical man should begin his investigation by examining the posterior urethra, the prostate, seminal vesicles, ampullae of the vas deferens, and Cowper's glands, and that this be followed by microscopical and bacteriological examination of any secretions that can be obtained from one or other of them by rectal palpation. If the posterior urethra and its adnexa can be excluded as

[6] *The Practical Medicine Series.* By G. P. Head, M.D. Vol. vi. *General Medicine.* Edited by F. Billings, M.D., and J. H. Salisbury, M.D. Series 1909. Chicago: The Year Book Publishers; and Glasgow: G. Gillies and Co. 1909 (Cr 8vo., pp. 358. 6s.)

[7] *Die topische Diagnose der chronischen Gonorrhoe, etc.* Von Dr. Rudolf Picker. Berlin: O. Coblentz. 1909. (Roy. 8vo, pp. 54, Taf. 1. M 1.60,)

causes of the trouble, the anterior urethra is next to be dealt with, and if it too can be excluded, the state of the bladder and kidneys is to be inquired into. The author describes this method of procedure carefully and in detail, and various points are emphasized by the notes of illustrative cases.

Part I of the eighteenth volume of the *Royal London Ophthalmic Hospital Reports*[8] has for its editor Mr. WILLIAM LANG, one of the surgeons to the institution. He is not himself a contributor to this fasciculus, which, however, contains nine good papers, of which six are freely illustrated. The volume opens with a paper already familiar to readers of this JOURNAL, being that with which Mr. Treacher Collins opened the discussion at Belfast on diseases of the lymphoid tissue of the conjunctiva. Among other contributors are Dr. Tatsuji Inouye of Tokyo, who deals with an investigation in the laboratory of the institution of a case of obstruction of the central vein; and Messrs. Herbert Fisher, Claud Worth, M. L. Hepburn, R. J. Coulter and G. Coats, and A. C. Hudson. Of chief general interest, perhaps, is the careful description by the late Mr. W. Ilbert Hancock of three cases in which infection followed operations for the relief of cataract.

A third edition of *Official Chemical Appointments*,[9] compiled for the Institute of Chemistry by Mr. R. B. PILCHER, has now been issued. It made its first appearance some three years ago, and serves as a reference book to all appointments of an official character connected with the application or teaching of chemistry in any of its branches throughout the whole of the British dominions. There is also an appendix giving a list of societies and institutions directly and indirectly connected with the same science, and an index of names and places at which official appointments exist. The volume should prove useful both to those in search of chemical appointments, and to local authorities and others needing chemical assistance.

The new edition of the *Year Book of Scientific and Learned Societies*[10] is the twenty-sixth annual issue of a reference book of much utility. It gives an account of associations and societies in Great Britain and Ireland which occupy themselves with either science, literature, or art. A list of their officers is supplied, of their habitations, of the terms of membership, their days of meeting, and usually some account of the work they have done during the previous year. As a rule this takes the form of a list of papers read, and a glance over the titles supplies a good conception of the current direction of scientific thought. The book is divided into fourteen sections, of which much the largest is that devoted to medicine. Also large is the section of biology, including microscopy and anthropology. In the medical section are to be found some 177 societies, of which 61 appear to be in the metropolis, 87 in the provinces, 22 in Scotland, and 7 in Ireland.

[8] *The Royal London Ophthalmic Hospital Reports.* Edited by William Lang, F.R.C.S. Part I, vol. xviii. 1910. London: J. and A. Churchill. (Pp. 142. 5s. net.)

[9] *Official Chemical Appointments.* By R. B. Pilcher. Third edition revised and enlarged. 1910. London: The Institute of Chemistry of Great Britain and Ireland. (Pp. 234; price 2s. net.)

[10] *The Year Book of Scientific and Learned Societies.* Twenty-sixth annual issue. London: Charles Griffin and Co. (Demy 8vo, pp. 351, 7s. 6d.)

MEDICINAL AND DIETETIC ARTICLES.

"Ecsōlent" Compounds.

WE have received samples of three preparations supplied by Ecsōlent Compounds, Limited (Saracen Buildings, Snow Hill, E.C.), and intended for the treatment of eczema and other skin affections. These comprise an ointment, a soap, and a dusting powder. The ointment is made with a basis of soft paraffin, and contains zinc oxide, starch, boric acid, and resorcin, with small quantities of a number of antiseptic and aromatic substances; the soap shows no free alkali, but is slightly superfatted, and both this and the powder contain some of the aromatic and antiseptic ingredients used in the ointment, the basis of the powder being talc, with zinc oxide, starch, and boric acid. From the composition of these preparations they may be expected to prove useful for the purpose for which they are intended.

UNDER the will of the late Mr. Samuel William Eden of Mansfield, the General Hospital, the Samaritan Hospital, and the Midland Eye Infirmary—all institutions in Nottingham—each receives a legacy of £250, the Children's Hospital and the Association for the Prevention of Consumption, in the same city, receiving £100 and £50 respectively.

PELLAGRA.

PELLAGRA is a scourge from which we in these islands are fortunately free. It is by no means certain, however, that this immunity will continue. The disease, which saps the vitality of its victims and often leads to madness, murder, and suicide, is endemic in certain regions, but it slowly spreads beyond their boundaries. In Europe its chief haunts are Italy, Spain, and Roumania. But there are areas in Asia, Africa, America, and Australasia where it is also endemic. It prevails to a serious extent in many parts of the British Empire and its dependencies. In Egypt it is a veritable scourge. It has been observed in the West Indies (Barbados) by Dr. Cuthbert Bowen, and, more recently, by Dr. G. C. Low. In South Africa it occurs among the Zulus and Basutos. There is evidence that it is prevalent in parts of India. At the Tropical Section of the British Medical Association Meeting at Edinburgh, Dr. Sandwith showed pictures and photographs of pellagra which were independently recognized by three members from India as representing a disease which they had often seen among out-patients without being able to give it a name. In the United States a few sporadic cases had been observed from time to time, but since 1906 numerous cases have been reported from no less than thirteen States.

At the present day the hypothesis as to its causation which is almost universally accepted is the "maize theory," which ascribes the disease to the use of maize (*Zea mais*) or Indian corn as an article of food. By some investigators the morbific action of Indian corn has been attributed to specific toxic substances contained normally in the grain, or to poisons which are the product of certain bacteria which attack the maize. At the Tropical Section of the British Medical Association, held at Leicester in 1905, Dr. L. W. Sambon argued that pellagra did not seem to be a food disease or to be due in any way to unsound maize, and suggested that in all probability it was protozoal in origin.[1] Briefly summarized, the reasons advanced for this belief were: (1) The total absence or extreme rarity of pellagra in certain places where maize forms the staple food of the population. (2) The presence of the disease in places outside the area of maize culture, and in people who have never partaken of this cereal as food. (3) The failure of numerous investigators to reproduce the disease (true pellagra) in either man or the lower animals by means of maize itself, by the toxins obtained from decomposing maize, or by the cultures of any of the numerous bacteria and fungi found on maize, which have been suggested at one time or another as its causative agents. (4) The striking recurrence of symptoms each spring, even after removal of the patient from the endemic area, and after the entire elimination of maize from the diet. (5) The peculiar topographical distribution of the disease. (6) Its strict limitation to field labourers. (7) The similarity of symptoms (early skin eruption, late nervous manifestations) and anatomical lesions (perivascular small-cell infiltration) with such protozoal diseases as syphilis and sleeping sickness. (8) The marked increase of large mononuclear leucocytes. (9) The favourable action of arsenic in the treatment of the disease, just as in trypanosomiasis, kala-azar, syphilis, and other protozoal infections.

Dr. Sambon's theory has received the support of Sir Patrick Manson, who has repeatedly urged the necessity of investigating the disease. Professor Terni, at the third Pellagra Congress held in Milan in 1906, said he was inclined to accept Sambon's opinion; and at a conference held in Columbia, U.S.A., in 1908, Drs. Moore, Wood, and Taylor, who read papers on the etiology of pellagra, adopted the protozoal theory, to which more recently Professor Babes has become a convert. Dr. Lavinder, of the United States Public Health and Marine Hospital Service, in a paper read before the American Society of Tropical Medicine in 1908, said, in summing up a revie of the literature of the subject, that Sambon's suggest of the possible protozoal nature of the disease offer new and possibly profitable field for investigators. ern

The sudden spread of the disease in the section. States of the American Union has led to pron South Since 1908 two conferences have been held Pellagra Carolina, and, as already stated in the JOURN 05, p. 1272.

[1] BRITISH MEDICAL JOURNAL, November 11t

Congress has been arranged to be held next June at Peoria, Illinois, and a National Association for the study and prevention of the disease has been organized.

In view of the prevalence of the disease in British colonies, protectorates, and dependencies, it has been thought a matter of urgency that a scientific inquiry into the causation of the disease should be made by a British Commission. Accordingly a Pellagra Investigation Committee has been formed consisting of the Italian Ambassador; Sir T. Clifford Allbutt; Mr. E. E. Austen, of the Department of Zoology, British Museum (Natural History); Fleet Surgeon P. W. Bassett-Smith, R.N., Lecturer on Tropical Medicine, Royal Naval Hospital, Haslar; Sir T. Lauder Brunton; Mr. J. Cantlie; Mr. R. S. Fraser, Member of Council, London Chamber of Commerce; Dr. C. F. Harford, Principal of Livingstone College, Leyton; Sir William Leishman, Professor of Pathology, Royal Army Medical College; Dr. G. C. Low, Lecturer in Parasitology, King's College, London; Dr. J. M. H. MacLeod, Lecturer on Dermatology, London School of Tropical Medicine; Sir Patrick Manson; Dr. F. G. Melandri, Physician to the Italian Embassy; Professor E. A. Minchin, F.R.S.; Dr. F. W. Mott, F.R.S.; Professor William Osler, F.R.S.; Commendatore Paola Polenghi, President of the Italian Chamber of Commerce, London; Professor Ronald Ross, F.R.S.; Dr. L. W. Sambon; Dr. F. M. Sandwith; Professor W. J. R. Simpson; Dr. S. Squire Sprigge, Editor of the *Lancet;* Mr. H. S. Wellcome; and Dr. Dawson Williams, Editor, BRITISH MEDICAL JOURNAL. At a meeting held in London on Friday, January 21st, with Sir W. Leishman in the chair, Dr. Sambon explained his views with regard to the etiology of pellagra and proposed a scheme of investigation. The following resolutions were passed:

1. That the committee, after hearing Dr. Sambon's statement concerning the etiology of pellagra, are of opinion that it is a matter of importance that, both on scientific and hygienic grounds, the hypothesis formulated by Dr. Sambon shall be investigated.
2. That the committee are of opinion that any funds raised to defray the expenses of such investigation will be well spent.

It is suggested that Dr. Sambon be sent forthwith to a pellagrous area to work out the topographical distribution and epidemiology of the disease. Dr. Sambon believes that pellagra must be an insect-borne disease, and that the most likely carrier is a simulium. The *Simulidae* are very widely distributed throughout the world; geographically their distribution coincides with that of pellagra, topographically the coincidence becomes far more accentuated. The *Simulidae* breed in mountain and swift-running streams; they need well-aërated waters, and are never found in stagnant water; indeed, they die in three or four hours when placed in quiet water; their seasonal appearance in the imago stage agrees in a most striking way with the incidence of pellagra. In Europe their swarms appear in early spring and again in autumn. The *Simulidae* are greedy blood-suckers, and, although hitherto no special infection of man has been definitely ascribed to them, there are many reports in newspapers of human beings dying in consequence of their attack. They are known to cause great destruction amongst horses, cattle, hogs, sheep, and poultry. Unlike mosquitos, they bite in the daytime and swarm in bright sunshine. Finally, the meteorological conditions which favour the incidence of pellagra seem to be the same as those which favour the increase of these insects.

Dr. Sambon will study the disease in the lower animals as well as in man; he will try to establish in a definite manner whether pellagra can be looked upon as belonging to the group of protozoal diseases, and he will endeavour to demonstrate the parasite. Important results will be studied with a view to confirmation by other members of the committee who will also either work at material sent home or, if necessary, will join Dr. Sambon in the field. Owing to the large amount of preliminary entailed, it is proposed to send with Dr. Sambon amin qualified assistants to help him in the excollecti of patients, in laboratory work, and in the arrangend study of insects. It is also suggested that possible ar be made for Dr. Sambon to receive every by associatince from local medical men and naturalists to raise a futhem as correspondents. It is hoped of £1,000 to defray the expenses of travelling, outfit, etc., and, if more is available, to afford adequate pay to such others as the committee may appoint to take part in the investigation, whether in the field or at home. To raise this subscriptions will be necessary. Already the Colonial Office has promised £150 on condition that a further amount of £450 is found; Commendatore P. Polenghi, President of the Italian Chamber of Commerce, and others have also promised donations, and both the London and the Liverpool Schools of Tropical Medicine are contributing to the fund. We commend the objects of the Commission to the attention of all who are interested in the health of our colonies.

THE BOARD OF EDUCATION.

CHIEF MEDICAL OFFICER'S ANNUAL REPORT.

(*Continued from page 215.*)

THE PHYSICAL CONDITION OF SCHOOL CHILDREN.

THE opinion is expressed that, while it was not the intention of Parliament, when passing the Education Act of 1907, to secure anything in the nature of an anthropometric survey of the children of the country, there are directions in which useful work might be done by school medical officers. The following are mentioned:

(*a*) A comparison of diseases or defects at different age periods of both sexes, in the same locality, extending over a period of years, with the consideration of the possible conditions and circumstances which affect the incidence and character of such diseases.

(*b*) The incidence of disease or defect at certain ages in different localities, rural and urban, may be contrasted (for example, the eyesight, general nutrition, relation of height and weight, cleanliness, and, where criteria may be mutually agreed upon, such diseases as tuberculosis and rickets).

(*c*) The general physique, etc., of children born in seasons of distress or unemployment, may be contrasted with that of children born in more prosperous times in the same locality.

(*d*) The physical condition of school children born in years of high infant mortality in an area as contrasted with that of children born in years of low infant mortality.

(*e*) The incidence of certain diseases or defects at different age periods in each sex may be compared.

(*f*) The effect of several years' medical inspection on certain general conditions—for example, in securing cleanliness of body and head, whether by domestic means or "cleansing" schemes, in ensuring care of the teeth, counteracting the practice of mouth-breathing, etc.

(*g*) The effect of the general hygienic conditions of the school on the health and physique of the child—for instance, the possible influences of good and bad lighting on the eyesight; of lessons given in the open air; of improved methods of teaching physical exercises, etc.

Nutrition.

It is suggested that nutrition should be taken as representing not only fair growth, plumpness, and physique, but a body in which all the systems are carrying out their functions harmoniously. The examiner should keep before him as a mental standard a child to whom the term well-nourished might fairly be applied, and not an average child of the district in which he is working, for the average may be high or low.

Cleanliness.

There is said to be a tendency to adopt too low a standard and to consider it inevitable that children should attend school in a more or less dirty condition, whereas if education has not engendered a habit of cleanliness it has seriously failed in one of its objects. The influence of the teacher can be exerted not only on the child but on its mother. If a local education authority decides to make some special provision for the cleansing of school children, it is important to adopt a system which will enable the largest number of children to be dealt with in the shortest possible time. From this point of view the shower bath system so esteemed on the Continent merits consideration.

Cleanliness of the Head.

Verminous heads are not confined to the poorer districts, one-half of the girls in urban areas and one-quarter of those in rural areas having unclean heads. Carefully contrived cleansing schemes have been devised by many authorities, those described by the school medical officer for Gloucestershire, Dr. Middleton Martin, and by Dr. Fosbroke, of Worcestershire, being quoted as examples. The vigorous measures instituted several years ago by Dr. Kerr in London and the statistics resulting from them also find place.

Ringworm.

The prevalence of this disease is stated to be probably greater than can be gauged by the number of cases

discovered during routine medical inspection. In Bradford, where the average number of children absent on account of ringworm has been between 80 and 100 out of 37,000 each week, the number has doubled since the advent of the school nurse. The points of primary importance are: (1) Careful observation by the class teacher (who will have to be aided in many areas by a school nurse); (2) exclusion of all children affected; (3) the strict supervision over all children returned to school as cured. Periodic examination of the heads of all children will probably prove another necessary measure. Even children certified by a medical man to be cured are sometimes found to be in an infectious condition. The disease needs persistent treatment, but on account of the expense and trouble it is difficult to ensure continuous attention by parents. Hence, five local authorities have themselves offered treatment. At three drug treatment is employed, at one drug treatment *plus* *x* rays, and at Bradford *x*-ray treatment only, unless objection is raised by parents. When thus treated the disease is commonly cured in from four to six weeks, and there is no substantial evidence that it is in any way injurious.

Dental Conditions.

The condition of the teeth in children from very poor districts seems somewhat better than in children of schools in better-class districts. In Cambridge the work is done by a dentist, who points out that whereas 11 per cent. of children aged 3 and 4 have perfectly sound teeth, those of 13 and 14 have each nine or more permanent teeth carious. Though the ill-effects of caries on the general health are not easy to tabulate, the condition somewhat vaguely known as delicacy frequently had dental caries as a contributory cause. Preventive treatment should be instituted before the child comes under the care of the local Education Authority. The chief cause of damage to the developing teeth, both temporary and permanent, is unsuitable food. In this direction improvements may be expected from the work of the Sanitary Authority in dealing with the prevention of infantile mortality. From infancy upwards children should be taught to cleanse their mouths daily.

Adenoids.

From 8 to 10 per cent. of all children examined on admission to school present marked obstruction to nasal breathing, which is taken as evidence of adenoids, which, together with enlarged tonsils, represent a vast mass of educational inefficiency. Removal alone is not sufficient, for, mouth breathing having become habitual, careful training in nose breathing is necessary. When possible the child should be sent to an open-air school for one or two months. Teaching children the use of the pocket-handkerchief and simple breathing exercises while in the infant school is a means of prevention which should not be overlooked by local education authorities.

Glandular Enlargements.

Enlarged lymphatic glands about the head and neck are very frequent. If not traceable to septic conditions in the mouth or to vermin in the head, they may be evidence of a general conditition of debility due to causes such as lack of fresh air, or they may be associated with tuberculosis. Increased accuracy respecting their distribution and extent would be advantageous.

Eye Disease and Vision.

About 30 per cent. of the entrants and leavers seem to suffer from either blepharitis, conjunctivitis or inflammatory conditions of the cornea. Children in rural schools are as frequently affected as those in urban districts. About 10 per cent. of all children of all ages seem to need treatment for visual defect. Vision equal to $\frac{6}{18}$th or less is taken as indicating need of careful examination by an ophthalmic surgeon. The returns should classify the condition according to the degree of the defect, and separate returns be made for boys and girls at each age period. This examination should usually not be delegated, and special attention should be paid to children found provided with spectacles, as they are often unsuitable.

Ear Disease.

Running ears are found in about 1 in 60 of all entrants and leavers, and in just twice that proportion among infants. A large proportion are found to have had running ears at some time or another. Parents do not understand the serious nature of the condition, and not only medical skill, but daily attention on the part of a nurse, is required. Defective hearing, as observed by teachers, exists in approximately 5 per cent. of school children. All children noticed to be deaf, either permanently or intermittently, or to be dull and inattentive, should be specially examined. Each ear should be tested separately, and the forced whisper, not a ticking watch, employed. The latter method is frequently fallacious with young children. Children whose hearing makes them ineducable at ordinary schools should be returned as "very deaf," and the others classified as "deaf" and "somewhat deaf."

Tuberculosis.

The percentage of recognized cases varies greatly in different areas; about 0.8 per cent. of all children examined seems an average, but is less than the real proportion. If a child coughs or expectorates, or is in any way a source of danger to others, it should be excluded from school; other cases must be treated on their merits. Education Authorities are mainly concerned with preventing phthisis by methods which aim at improving health, and by attention to hygiene in various forms. Under the Act the authority can now provide food for children in whom the incidence of phthisis is likely to be precipitated by insufficient nourishment.

School Sanitation.

The treatment of this subject, which includes ventilation, lighting, heating, equipment, schoolroom cleanliness, cloakroom disinfection, playgrounds, and water supply, is limited to recording the arrangements in existence in sundry areas. Of disinfection it is remarked that there are not wanting signs of a wholesome tendency to rely more on routine and habitual cleanliness than upon artificial disinfection.

SCHOOL MEDICAL TREATMENT.

The Act of 1907 gives power to local authorities to provide medical treatment if they think fit, and for this purpose to co-operate with voluntary agencies if by so doing it seems to them they can effect their purpose and yet avoid laying a burden on the rates. The responsibility of sanctioning any such schemes is thrown on the Board, and before sanctioning any substantial outlay on specific medical treatment it must be assured that the authority is really attempting to grapple with treatment in a broad and scientific way, and existing machinery must be utilized so far as possible before new agencies are created. Acting on these principles, most of the authorities have referred all cases of disease or defect in the first place to a private medical practitioner, for though it is the duty of the authority to find out what children require treatment, it is that of the parent to obtain it. The real problem at present facing the local authorities is: (1) What is to be done when treatment is required which cannot be provided by an ordinary medical man? (2) what is to be done for those who cannot afford the expense of treatment? (3) what is to be done for children whose parents are irresponsible or indifferent on the subject? On these points no opinion is offered.

The work done by school nurses partakes to some extent of the nature of treatment; but it throws a good deal of work into the hands of private practitioners, even if these are directly included in the local authority's scheme. Certain schemes have not been sanctioned by the Board because the supervision of the nurse by the school medical officer when treating children for minor ailments did not seem adequate. The Board has required that in all cases treatment by nurses shall be confined to ailments such as ringworm, vermin, and superficial sores, though in a limited number of cases it has approved the inclusion of other conditions, such as conjunctivitis, discharging ears, and slight accidents.

When the services of a specialist, such as an ophthalmologist, are utilized, he may be regarded as part of the school medical staff. Schemes for providing spectacles free of charge have only been sanctioned when it has been shown to be impossible for the child to secure them through its parents or from voluntary associations, and when care is taken to secure adequate examination

and proper prescription by medical men of suitable experience.

Contributions to Hospitals.

The question of making contributions to hospitals by way of providing medical treatment is stated to be one of much difficulty, but no attempt is made to discuss it. It is stated that when an arrangement of this character has been sanctioned it has only been on an understanding that it shall only apply to necessitous cases, and that the amount paid shall include, when desired, reasonable remuneration to the medical staff working for such institutions.

School Clinics.

Only when other available means of providing treatment have been exhausted should a school clinic be established. The only fully-equipped school clinic hitherto sanctioned is that at Bradford, but similar work is done on a small scale at four or five other places.

Speaking of the Dental Clinic established at Cambridge by private munificence, which is described with much approval, it is pointed out that the attendance of a child at a public elementary school is not in itself evidence that the parents are unable to secure proper medical or dental treatment.

The Syllabuses of Hygiene.

It is of great importance that teachers should possess adequate knowledge of school hygiene, but it is not intended that they should assume the functions of a doctor, and, by issuing the syllabus specially dealing with temperance, it was hoped to guard against incompetent or extremist teaching on the one hand, and over-elaborate physiological discourses on the other. Much excellent work in physical training is being done, and what is now needed is that the teaching and practice of physical exercises shall be organized and co-ordinated on a national basis and applied and directed specifically to the education of the child.

Special Schools for Defective Children.

A considerable number of schools for blind and other defective children have been opened since the Medical Department of the Board commenced work.

Schools for the Blind.—The present schools and institutions for the blind are of two types: those solely for blind children, and those forming part of a wider organization, including provision for the training and employment of adult blind workers. When the effort is confined to day-school work, better premises, better education, and better care are usually given, and the child at the end of his school life is a better product. But unless the school is directly in touch with workshops and other agencies for employment, the child, when his education is complete, is apt to fail in his attempt to find opportunity for exercising and improving his craft.

Schools for the Deaf.—Only by studying and combining various methods and by becoming acquainted with the psychological aspects of the problem can any teacher expect to teach a deaf and dumb child to express the whole range of its experience in intelligent and connected language. In obtaining employment for deaf and dumb persons, the missionaries to the deaf perform excellent services, but much remains to be done by after-care committees in small towns and remote country places.

Schools for the Mentally Defective.—It is now generally admitted that children of low-grade mentality are out of place in the day schools. Such children may in many cases be trained with considerable hope of success in a residential school, but their training should not be undertaken unless it is reasonably certain that provision for permanent care will be made at the expiration of school age. In conducting an examination for mental defect, school medical officers should recognize three distinct conditions of mind, since they call for distinct modes of educational treatment: (1) Children who are merely dull and backward, who do not require special educational treatment beyond what is obtainable within the limits of the ordinary elementary school curriculum; (2) educable feeble-minded children suffering from some minor mental defect which leaves the child able to profit by training in special schools; (3) the non-educable feeble-minded for whom school training of any kind is futile. As a rule, examination for mental deficiency should not be made before the age of 7 years, and it should be a special examination. No authority should undertake the education of mentally defective children unless a strong after-care committee has been formed to deal with such cases.

Schools for the Physically Defective.—Though often very backward on entry, physically defective children gain ground rapidly, and occasionally pass beyond the curriculum of the ordinary elementary school. If it were everywhere possible to follow the course of the Manchester Education Committee in establishing a school of recovery, where children are both treated and taught, it would be a better arrangement than that of special day schools for cripples.

Open-air Schools.

An account is given of the working arrangements of such open-air schools as have at present been established; an important feature of them is the long mid-day rest in the open air. As an educational experiment the open-air school is certainly justifying the hopes entertained of its success. The children who return from them show quicker response, keener power to learn, better temper, and a new energy. The medical records furnish direct evidence of their value. Work of this kind is still in its early stage, and many points remain for future investigation.

ADAMS FUND.

It is hoped this Fund, to relieve the plaintiff in the action Adams *v.* Pomeroy and others of the expense, amounting to about £100, which the taxed costs do not cover, may now shortly be closed. The response has been generous, and only a small balance of £21 0s. 6d. remains to be subscribed. The article in *Vanity Fair*, October 7th, 1908, which was brought before the notice of the High Courts, contained a personal attack on the plaintiff, and was also a bitter attack on the whole medical profession. A full report of the action appeared in the Journal of December 11th, 1909, p. 1723. In determining to bring the action defending her own reputation the plaintiff was greatly influenced by the consideration that the attack was one on the whole medical profession. Her action was justified by the strong comments made by Mr. Justice Grantham on the article written and signed by Mr. Pomeroy. Further donations will be gratefully acknowledged by the Honorary Secretary, Dr. L. Garrett Anderson, 114A, Harley Street, London, W., who acknowledges the following sums received since the last list was published:

	£	s.	d.
Dr. Amy Sheppard	1	0	0
A. M.	1	0	0
Anonymous subscriptions	6	12	6
Dr. McNeill, Wolverhampton ...	0	10	6
Dr. D. J. Robertson, Oldham ...	1	1	0
Dr. David Lawson, Banchory ...	1	1	0
The Home Counties Branch, Incorporated Society of Medical Officers of Health	3	3	0
Major P. Carr-White, I.M.S.... ...	0	10	0
Already acknowledged	64	1	6
Total sum received	£78	19	6

MOTOR CARS FOR MEDICAL MEN.

Car Licenses.

F. W. inquires whether, inasmuch as the petrol tax has been paid since the Budget was introduced, medical men are not entitled to take out car licences according to the proposals of the last Budget.

*** If "F. W." offers to pay the licence duty on the scale proposed by the Budget, he will no doubt find the duty provisionally accepted.

The Relative Cost of Horse and Motor.

Economy writes: During the past twelve months I have covered 2,600 miles on purely professional work—no long pleasure rides—with a two-cylinder 12 h.p. car, at a cost of under £26, including insurance, licenses, repairs, benzol, oil, one cover retreaded, and one fine of £3.

Motor Cycle.

Dr. Frederick Lishman writes: Three makes satisfy the conditions which your correspondent "H. K." desires—namely, the "V.S.," the "Roc," and the "Rex." Of these the first is the best; 5 h.p. and two-speed gear is essential; the price is £64; the side car from £10 to £14, a very good one costing £12. Particulars from V.S. Motor Cycle Co., Great Portland Street, W.

Nova et Vetera.

WAS DANTE A DOCTOR?

Two very different meanings may attach to this question, and according as the one or the other is chosen so will be the answer. Further, a reply to the one can easily and confidently be given, whilst it is doubtful whether our knowledge will enable us to do more than hazard a guess regarding the other.

If we ask, Was Dante nominally a physician? the answer is clearly in the affirmative. Not many things, perhaps, are securely known regarding the great Tuscan poet, but it is certain, so far as anything can be certain that happened more than 600 years ago, that he was enrolled in the Guild of Physicians and Apothecaries (*L'Arte de' Medici e degli Speziali*) of Florence. Edgcumbe Staley, whose learned work on *The Guilds of Florence* will often be quoted in this article, states that in 1296 "the Matriculation Roll of the Guild was adorned with its most celebrated name in the annals of Florence—the immortal writer of the *Divina Commedia*—Dante Alighieri." All are not agreed as to the year of Dante's registration, some thinking that it took place in 1295 (it could not have taken place earlier by reason of one of Gian della Bella's ordinances, which fixed 30 as the minimum age, and Dante did not attain that age till 1295), and others being of opinion that it was as late as 1297; but in one or other of these years, or in 1296, the inscription of *Dante Alighieri poeta Fiorentino* was made in the *Register* of the Guild of Physicians and Apothecaries. By virtue of his entry into this guild, Dante took the first step into the public life of his time, a step which was to lead him, before many years had passed, into lifelong exile. But what was its significance from the standpoint of the practice of medicine? This suggests the second meaning of the question, Was Dante a medical man—a doctor?

We may inquire whether Dante actually studied medicine as a student in Bologna or elsewhere, whether his entry into the Guild of the Physicians and Apothecaries entailed any test of his knowledge of medicine, and whether he ever actually practised the art of healing. To none of these inquiries can a definite reply be given, but we can make surmises, and there is evidence (of the oblique kind it must be admitted) upon which to found certain conclusions. Our evidence and our surmisings may be grouped together as follows:—First, we shall consider in their order the guild system of Florence and the significance of enrolment in it; the special history of the Guild of Physicians and Apothecaries, its rules, requirements, tests, privileges, and the like; and the reason or reasons which may be supposed to have led Dante to choose one rather than another of the guilds of his native city. Secondly, we shall look at the information which is obtainable regarding medical education in Italy at the close of the thirteenth century, and try to apply it to the known facts of Dante's life. Thirdly, we shall scrutinize the evidence of special knowledge of medicine and of familiarity with disease and death furnished by the reading of the *Divina Commedia*, the *Convivio*, and the *Vita Nuova*. Thereafter we shall possibly be able to reach a conclusion concerning Dante's connexion with the medical life of his time.

The Guilds of Florence.

The Florentine guilds had their origin in the *collegia*, *scholae*, or *corpora* of ancient Rome, corporations of merchants and artisans, formed for the purpose of teaching the crafts to young men and boys, and for safeguarding the interests of all involved. They flourished till the fall of the empire. Doubtless their memory lived on even in the darkest years of the Dark Ages, and in the ninth century an attempt was made to restore the *scholae*, or to found institutions closely resembling them. In the year 825 A.D. the Emperor Lothair issued what were known as his *Constitutiones Olonenses*, whereby power was given to eight cities in Northern Italy (Bologna, Cremona, Florence, Ivrea, Milan, Padua, Turin, and Venice) to establish *scholae*. In Florence these were named *capitudini* or *arti*, although it was not till the first year of the twelfth century, in the days of the Countess Matilda, that consuls were appointed at the heads of the industries. Here is an account of how the city was governed in 1204; it is quoted from Edgcumbe Staley:

> At the head were two Consuls—called the Military Consuls—precursors of the Podestà and Capitano del Popolo, then three Priors of the three principal Guilds—Calimala, Wool, and Bankers—next six Senators of the City, one Officer of Justice, twelve Buonuomini, Good Men—two representing the people of each sestiere,—and lastly, Special and General Councils of influential citizens. . . . This magistracy exhibits the immense power of control in public business—both commercial and political—exercised by the representatives of the Guilds, for the six Senators of the City were appointed—one by each of the six Greater Trades, in fact they were the Consuls of the Guilds.

Mention is here made of the Greater Trades, and the statement implies the existence of Lesser Trades.

> In 1236 thirty-six Buonuomini assembled in council at the residence of the Consuls of the Calimala merchants, by special ordinance, to determine the styles and precedence of the principal trade-corporations working in Florence. They placed them in two divisions which they called Greater and Lesser Guilds, respectively—accentuating thus the distinction between the popolo grasso and the popolo minuto, In the former category they arranged in the following ordor: 1. Giudici e Notai—Judges and Notaries; 2. Mercatanti o Arte di Calimala—Merchants of the Calimala; 3. Cambio—Changers of Money; 4. Lana—Woollen-Manufacturers; 5. Seta—Silk-Manufacturers; 6. Medici e Speziali—Doctors and Apothecaries; 7. Pellicciai e Vaiai—Skinners and Furriers. In the second category were placed the following Crafts: 1. Beccai—Butchers; 2. Calzolai—Shoe-makers; 3. Fabbri—Black-smiths,

and so on, concluding with "14. Albergatori—Inn keepers."

Thirty years later, in 1266 (the year after Dante's birth), another important step was taken in the advancement of the guilds. Count Guido Novelli, who had been Podestà for two years, was succeeded by two Frati, a Ghibelline and a Guelph; the new Podestàs were installed in the Badia, and were assisted in the government by thirty-six Buonuomini chosen by Novelli from the merchants and artisans. The council, thus formed, took up as part of its work the reorganization of the guilds. A list of the six more important corporations was drawn up, at the head of which the Guild of Judges and Notaries retained its place; for each guild three chief officers were elected, a Consul, a Capitudo (Master), and a Gonfaloniere (Standard-bearer); and in this way each guild became virtually a body of armed men. But this change was opposed by the aristocratic party of the Grandi, acting in concert with the Ghibelline Podestà, and the movement was delayed; but after a time we find democratic influences prevailing, and a court of final appeal in all causes, made up of the Consuls of the seven Greater Guilds established. Signs of the rising importance of the Lesser Guilds, were seen in 1280, when five of them (the Butchers, Shoe makers, Smiths, Master Masons, and Retail Cloth Merchants) were formed into a group of Intermediate Guilds; on several occasions (for example, in 1285, 1287, 1293, and 1297) the Consuls of these guilds joined those of the Greater Guilds in associated consultation, and in this way they acted as a check upon democracy and aristocracy alike. In 1282 we read of the guilds electing three priors, along with a new officer, the Defender of the Crafts and Guilds; in the following year, three more priors were added, one of whom was appointed by the *Arte de' Medici e Speziali*. In 1292 there is notice of erasure of names of offenders from the Matriculation Registers of the guilds; and in 1293 were passed the famous *Ordinamenti della Giustizia*, the Magna Charta of Florence. The passing of the *Ordini* was in large measure the work of Giano della Bella, a noble acting on the popular side. The powers of the Grandi were thus considerably curtailed, and no longer was the office of prior open to any Grande who was a member of a guild, for he had now to renounce his rank with the public approval of the Council of State. Further, every member or apprentice of a guild had on entry to take a solemn oath for the maintenance of peace and concord. The statutes of 1301 were the result of deliberations on these Ordini; they were unanimously adopted, and signed by representatives of the seven Greater Guilds. It is interesting to find that now the signatures of the four Consuls of the Guild of the Physicians and Apothecaries follow immediately after those of the Judges and Notaries, and so come to occupy the second place among the guilds, whereas formerly they were sixth. In wealth, also, a rearrangement of the guilds was taking

place, and, judging from a list of taxes paid in 1321 (the year of Dante's death), the Guild of Doctors and Apothecaries took the third place, the Guilds of Wool and Silk being first and second, and the Butchers fourth.

The Guild of Physicians and Apothecaries.

Having now traced the history of the guilds of Florence from the beginning up to the end of Dante's life, let us look more particularly at the special guild to which the great poet belonged.

In the year 934 A.D. there is record of an "Amalpertus—diaconus et medicus" (minister and doctor) in the archives of Florence; he was styled "Domino Messere." In 1070, 1090, and in subsequent years mention is made of other medical men, until, early in the twelfth century they were incorporated into a guild, which must soon have acquired considerable power, for the signatures of its consuls, as representing "the Guild of the Doctors and Apothecaries," are appended to a document written in 1197. Edgcumbe Staley (op. cit., p. 238) further records that somewhere about the year 1218 there is evidence of the existence of a College of Doctors and Apothecaries established on similar lines to the old Roman and Imperial *collegia*.

Its members included not only doctors, apothecaries, physicians, and chemists, but also surgeons and midwives; the two latter classes were, however, quite insignificant and subordinate.

Taddeo d'Alderotti, to whom Dante refers in the *Paradiso*, was the founder of the Florentine school of medicine; he was made a professor of medicine about the year 1278, when Dante would be about 13 years old. Among his pupils were Dino del Garbo, his son Tommaso, Giambattista Torregiano, and Michele Vieri, all distinguished members of the medical and surgical faculties of their day. The guild was evidently prospering, if we may judge from the large fees that were paid to Taddeo, and by the fact that one of the priors chosen in 1282 was a member of it, and we do not forget that when Dante was made a prior in 1300 it was as a representative of the Guild of Physicians and Apothecaries.

The *Ordini* of Giano della Bella of 1293 applied to the Guild of Physicians as well as to the others; a merely nominal enrolment in one of the Greater Guilds was no longer sufficient to open the way to public offices. No one could be elected prior who was not actually practising the business or art of his guild (Plumptre, *Life of Dante*). Further, Staley states that there was a statute which laid it down that

no doctor may be admitted a member of the College, nor be allowed to practise, unless he has first been publicly examined by the Consuls of the Guild;

and adds:

this was doubtless, more or less, a perfunctory exercise, for the candidate had already obtained his degree and qualification at his university; it had reference, probably, to social standing, and, not a little, to the good conceit the applicant had of himself!

Plumptre says that it is not unlikely that admission to that guild (the one of the doctors) implied an examination; and Dr. Sutherland Black (in Dr. Whyte's *Dante Illustrations and Notes*, p. 61) goes so far as to name Dioscorides's *Materia Medica* as the book which Dante no doubt read in connexion with his professional studies as a physician. As has been said already, Dante matriculated in the guild about the year 1296.

There seems to have been no examination for the apothecaries, who were doubtless associated with their more aristocratic brethren for their mutual benefit. To quote again from Edgcumbe Staley (op. cit., p. 251):

They were not looked upon as men of science, and in early times, at all events, they were not obliged to undergo any educational test beyond that of being able to decipher the infamous handwriting of the *Messeri Medici*. They were regarded in the light of assistants to the medical faculty, and convenient agents for the sale of various small commodities.

In Dante's age it was a not uncommon custom for a doctor of medicine to fix his professional residence and consulting-room at an apothecary's, and an agreement was come to whereby the doctor prescribed only drugs sold by his own apothecary. But it is unnecessary for our present purpose to consider the apothecaries any further.

The doctors, physicians, and surgeons of Florence all told did not number more than 60 out of a population of 100,000 in the first half of the thirteenth century; but they were more numerous in the second half—that is, in Dante's times, when Guglielmo di Saliceto da Piacenza wrote his treatise on surgery. In 1300 there were nearly one hundred apothecaries in Florence (Villari), and through them the guild came to have its connexion with the following long list of subordinated crafts: Hairdressers and barbers, goldbeaters, capmakers, glass-blowers and bottlemakers, jug and dish makers, purse-makers, truss and suspender makers, straw and felt hat makers, paper makers, stationers, wax chandlers and makers of wax figures, quack doctors, cutlers, sheath and case makers, makers of bleaching media, well rope and gearing makers, lantern-makers, makers of small linen articles, booksellers, mask-makers, dealers in raw silk and sundries, makers of catgut for musical instruments, makers of gilded leather articles, tennis bat and ball makers, comb-makers, perfumers, potters, etc.

Everything of an aromatic nature, or pleasing to the eye, no less than every ingredient useful in the *Pharmacopoeia*, became articles of barter and traffic.

A glance over the above list, containing as it does books and paper, will prepare the reader for the following statement:

With something like the catholicity of a beneficent Alma Mater, the Guild of Physicians and Apothecaries extended its sheltering patronage to numbers of objects and interests not at first sight necessarily associated with medicine, surgery, and drugs. Literature, Painting, and Geographical Discovery alike benefited from the fostering care of the Guild.

Of the famous literary men who followed Dante in the guild of the doctors we have not space now to speak; but it may be mentioned that by-and-bye printing and selling books and the making of wood and copper engravings all came to belong to this guild. Finally, about the year 1297 (when Dante was a newly admitted member), the Florentine painters placed themselves under the banner of the Guild of Doctors and Apothecaries. "Great Guild it truly was . . . it yielded to none in the loftiness of its aims, and in the splendour of its achievements."

Dante's Choice of a Guild.

From what has been written above regarding the guilds of Florence in Dante's day, it will not be difficult to trace the reason or reasons which led him to enter one of these corporations. Florence was enjoying a period of amazing commercial prosperity, and the trade guilds and associations were able more and more to get control of the affairs of the city. For one not of the upper classes—Dante was the son of a notary—the only way to public office was now through one of these guilds. But, further, the Renaissance had set learning free, and knowledge could now be got outside as well as inside the cloister; and it was no longer any hardship to a knowledge-loving and literary man like Dante to enter a trade-corporation, for "one of the civil phenomena of the times of the Republic in Florence—and one very difficult to understand from our present point of view of educational economy—was the union in the persons of merchants and artisans, of fine literary taste and scholarly culture, with rare qualifications for political office and keen instincts for commercial enterprise." There need be no difficulty in understanding why Dante registered as a member of one of the Florentine guilds in the closing years of the thirteenth century.

But why did he choose the Guild of the Physicians and Apothecaries? His choice may have been determined by more than one motive. We have seen that this guild occupied a high place, both in social standing and in wealth, among the others; and to a proud man this may have been an attraction. Then it was one in which, more than in any of the others with the possible exception of that of the Judges and Notaries, intellect and literary ability were welcomed and were, indeed, almost essential. Edgcumbe Staley says (op. cit., p. 265): Dante "was sent to study law at Bologna, and philosophy at Padua; but having no taste for either faculty he matriculated in 1296 in the Guild of Doctors and Apothecaries"; and he suggests that "his choice may have been dictated by his fondness for literature, because books were among the wares sold exclusively in the pharmacies." Plumptre (op. cit., p. 87) gives yet another reason when he says that, as was natural in a student of

natural science, he (Dante) chose the Guild of Physicians and Apothecaries. But it is possible that he may also have been led by a certain degree of liking for the study of medicine. Dante had indeed so encyclopaedic a mind that it is difficult to say that there was any one part of the world of knowledge that he cared for more than another; but there are traces in his writings of an interest in and an acquaintance with medical matters which at least suggest that medicine was not the least attractive of the subjects which occupied his time. To these traces we shall refer immediately. Finally there is yet one other circumstance, which may have had some power with him. It is well known that Beatrice was the great influence in Dante's life, and that her memory was warmly cherished by him in the years that immediately preceded his admission to the Guild of the Doctors. Now it has been discovered that in the year 1285 Folco Portinari, Beatrice's father, founded the Spedale di San Matteo, the nucleus of the Spedale di Santa Maria Nuova, which still exists, by taking a house in the Piazza di Santa Maria Nuova, and endowing seventeen beds in it for the sick poor. Three years later, in 1288, the actual hospital was completed and opened. A little while afterwards Folco died (on December 31st, 1289), but while he lived he took an interest in his hospital; and Edgcumbe Staley, in his work on *Famous Women of Florence*, states that his wife and children loved to visit the patients and minister to their necessities. Among the children would certainly be Beatrice until the spring of 1290, when she died. Further, there is good reason to believe that Dante's friend "next in order after the first" was none other than Beatrice's brother. If we place all these facts and circumstances together, we can scarcely help wondering if Dante were not in some degree influenced in his choice of the guild through which he was to enter public life by the consideration of the close connexion existing between the Portinari family and this early medical charity of Florence. Some years after Dante's death we read of members of the first Order of the Guild of Doctors and Apothecaries, paying daily visits to the wards of the Hospital of Santa Maria Nuova, and it may well be that in his lifetime Dante was one of these visiting physicians. When we think of Dante's *Vita Nuova* and of his intense devotion to the memory of Beatrice, we can hardly be accounted fanciful if we regard the Portinari Hospital as one at least of the determining factors which led the young poet to the Guild of the Physicians. Doubtless there were other factors—the love of power, the desire for knowledge, the political necessity, the interest in manuscripts, music, and painting; but it cannot be denied that in this, as in so many other events of Dante's chequered life, the Beatrice-influence was not wanting.

Dante's Connexion with Universities.

At the time when Dante may possibly have gone to a university—namely between the years 1280 and 1295—there were several places in Italy and in other lands to which he might have directed his steps; and some of his biographers have stated that he studied at the universities of Bologna and Padua, but Paget Toynbee (*Dante Alighieri*, p. 92, 1904) writes, "there is no evidence to support this statement, which is probably little more than a conjecture." Toynbee is further of opinion that Dante was largely his own instructor, and that at the age of 30 (1295) his knowledge of the classics was neither extensive nor deep, consisting of some acquaintance with Aristotle, Ovid, Lucan, Horace, Virgil, Ptolemy, and Alfraganus, along with greater familiarity with the Bible, Cicero, and Boëthius. If this be so, then Dante must have enormously increased his store of learning after his exile from Florence, and he must also have known next to nothing about medicine when he registered in the Guild of Physicians (1296). I am inclined to place more of his acquisition of learning in the ten years of which we know so little—from 1285 to 1295—than Toynbee allows; and I think it is hardly safe to judge of the poet's knowledge from the authors he happens to quote in a prose poem like the *Vita Nuova*. There is nothing which absolutely shuts out the possibility of Dante having visited a university in these early years. There was the ancient university at Salerno, where for two centuries before Dante's time there had been a flourishing medical school; but in the second half of the thirteenth century its fame was passing away, and the popularity of the medical faculties of Bologna and Montpellier was in the ascendant. There were universities also at Padua (1222), Naples (1224), and Rome (1245); and outside of Italy, and in addition to Montpellier, there were schools of learning at Paris, Toulouse, Salamanca, and elsewhere. But if Dante studied anywhere in the years which preceded his enrolment in the Guild of the Doctors it would almost certainly be at Bologna, which was not far removed from Florence, whose scientific medical school was most probably founded by Thaddaeus of Florence (Dante's "Taddeo," *Par.*, xii, 83) in 1260, and where the medical student was examined in Galen's *Liber Tegni* and the *Aphorisms* of Hippocrates (Rashdall's *Universities of Europe*, i, 247), the very works to which Dante refers in his allusion to medicine in the *Convivio* (I, viii, 30–40). We have, however, no facts to rest upon,* and we must reluctantly own that it cannot be affirmed that Dante received any university training to fit him for the Guild of Physicians and Apothecaries or to enable him to pass what may perhaps be called the entrance examination. That he knew not a little about medicine cannot be doubted, as we shall see immediately from the authors to whom he refers in his works and from allusions to medical subjects which he makes; there is also evidence that he was in both Bologna and Padua during his exile (that is, after 1300), probably in Paris, and possibly in Oxford; but that he was in any sense a medical student before the year 1295 can only be surmised from what we read in his writings.

(To be continued.)

LITERARY NOTES.

THE *Strand Magazine* recently offered a prize of £50 for the best medical story, either fact or fiction, which was to be written by a qualified medical man, and which had to be sufficiently interesting and well written to justify its publication on its own merits. In response to this offer large numbers of stories were sent in, and the February issue of the *Strand* contains the story which has been adjudged to be the best. The story is entitled "Under the Microscope," and the author is Dr. J. Bart Rous, Sub-editor of the *Lancet*, to whom we offer our hearty congratulations.

We have received the first fasciculus of a large work on the treatment of abnormal children. It is entitled *Enzyclopaedisches Handbuch der Heilpaedagogik*, and is edited by Professor A. Dannemann of Giessen, with whom are associated two members of the scholastic profession, Herren H. Schober of Posen, and E. Schulze of Halle. Among the collaborators are medical men, clergymen, teachers, and others having special experience in the management of children. The work, which is arranged alphabetically, will deal with the special bodily and mental constitution of abnormal children, their rearing and education, and the care of their health. It will consist of ten fasciculi, which will appear monthly. The publisher is Carl Marhold of Halle.

In a monograph entitled *William Shakespeare and Timothy Bright*, Mr. Matthias Levy gives an interesting account of Timothy Bright, M.D., said to be the first man in England who invented marks to represent words. He was born in 1551. On May 21st, 1561, he matriculated as a Sizar at Trinity College, Cambridge. His name appears in the College List presented to Queen Elizabeth at Oxford in 1564. He graduated B.A. in 1567–8; went to Paris and studied medicine; and in 1572 narrowly escaped the massacre of St. Bartholomew's Eve. Returning to England, he graduated M.B. Cambridge, 1574; Licentiate of Medicine, 1575; and was created M.D. 1579. He wrote and published medical works 1581–83; and in 1586 was Physician to St. Bartholomew's Hospital, London. Later Bright gave up the medical for the clerical profession. He was Rector of Methley in Yorkshire, July 5th, 1591, and of Berwick-in-Elmet December 30th, 1594. He made his will August 9th, 1615, and died in the same year, his will having been proved at York, November 13th, 1615. In 1586 Vincent Skinner, in

* The supposition advanced by some commentators that the occasion of the departure of Dante from Florence, referred to in the *Vita Nuova* (§ ix), was a visit to Pologna to prosecute his studies is founded on no certain evidence.

a letter of that date, recommended him to the notice of Michael Hicks, secretary to Cecil, as being desirous of teaching his art to Robert Cecil. Queen Elizabeth granted Bright a patent, dated July 26th, 1588. He published in 1588 a treatise, entitled *Characterie, an arte of shorte, swifte and secrete writing by character. Invented by Timothe Bright, Doctor of Phisike. Imprinted at London by I. Windet, the assigne of Tim. Bright, 1588. Cum privilegio Regiae Majestatis. Forbidding all others to print the same.* There has, says Mr. Levy, been a most unfortunate misunderstanding as to what are called Timothy Bright's manuscripts relating to Shakespeare. There are no such documents in existence. There are no manuscripts of Shakespeare, either in longhand or shorthand, and the Timothy Bright manuscripts do not relate to Shakespeare.

In the JOURNAL of last week (p. 275) a full description was given of the scope and aims of the new periodical, *L'Hygiene*. We have now received the second (January) number, and one of the most interesting articles in it is an account by M. E. Levasseur, Administrator of the Collège de France, of the "Pouponnière" of Versailles, an institution for the rearing of children, for the care of unmarried mothers, and for the assistance of married women who, with young children on their hands, have to earn their living. It was founded about twenty years ago by two ladies, Mesdames Charpentier and Manuel, and among its early patrons were Pasteur and Jules Simon. Among the members of the Medical Committee are Dr. Roux of the Pasteur Institute, and Dr. Méry, Physician to the Hospital for Sick Children. The illustrations seem to justify the name of "Children's Paradise" given to the institution. M. Georges Vicaire continues his amusing article on the cookery of our forefathers, who had no food fads, and apparently were mighty drinkers as well as robust trenchermen. We have often wondered in reading of the Gargantuan feasts of the fifteenth and sixteenth centuries, and of the amount of food devoured by Dr. Johnson within a few months of the end, whether the human stomach has degenerated? Or are we paying the penalty of the gluttony and intemperance of our forebears? Among the pictures we would especially single out a reproduction from the *Heures de Henri II* in the Bibliothèque Nationale showing the King touching for scrofula; one of a picture by Dom. di Bartolo of the Hospital of Santa Maria de la Scala of Siena, giving a view of a mediaeval hospital interior; and one of a detail in a tapestry by Ant. Coypel in the Palace of the Archbishop of Aix-en-Provence, showing Sancho Panza before a table copiously furnished forth with appetizing viands, and the physician at his side with his wand forbidding the unfortunate Governor of Barataria to indulge his appetite.

We have received the January number of a periodical entitled *The Herald of the Golden Age*. Apparently the advent of the "golden age" is to be brought about by living on fruit and avoiding the eating of meat; this is described as "a violation of one of the most important physical Laws of Health which govern Man's being, and consequently the cause of a large proportion of the Pain, Disease, Suffering, and Depravity, with which our race is cursed." Dr. Robert Bell, who contributes an article on natural diet *v.* disease, complains that "the majority actually make themselves believe that the corpses of animals are necessary accessories to the food of mankind." Would he have us eat the bodies living? He appears to consider the eating of the flesh of animals, particularly swine, as "cannibalism"! Really, we must ask the advocates of the "simple" diet to speak for themselves. If we may judge from its intellectual results, the simplicity would seem to affect not the body alone but the mind. Mr. Sidney H. Beard is doubtless as "able" as all editors proverbially are, but he should know that "*facile descensus averni*" is not a form of human speech. Perhaps, however, dog Latin is considered appropriate in a journal in which the interests of animals are so prominent a feature.

Nearly all savage people dread lest the dead should return to trouble them. For this reason an Australian tribe will always desert a camp in which a man has died and erect new mia-mias at some distant spot. Among many African tribes a hole is knocked in the wall of a hut in which a man dies, and the corpse is carried through that, instead of through the doorway, so that the spirit of the dead man may not be able to find its way back. Some Bornean tribes evidently have a similar dread. Dr. Charles Hose, a member of the Cambridge Anthropological Expedition to unexplored Borneo, writing in the February number of *Travel and Exploration*, describes the precautions that are taken to prevent the dead from returning to the living. At the graveyard, a stick, cleft in the shape of a V, is placed in the ground, and through this the funeral procession passes in single file. Dr. Hose says:

> As soon as the coffin had been placed on the stage erected for the purpose the people commenced their return, following one another's heels as quickly as possible, saying as they repassed through the V-shaped stick, "Keep back, close out all things evil and sickness." When the whole party has passed through the cleft ends of the stick are tied together, and this is then regarded as "a wall that separates the living from the dead." By so doing they believe that they shut out the spirit of the deceased. They believe that the spirit of the dead is not aware that life has left the body until a short time after the coffin has been taken to the graveyard, and then not until the spirit has had leisure to notice the clothes, weapons, and other articles belonging to its earthly estate, which are placed within the coffin.

Sir Edward Barry, a short account of whose career appeared in this column in the JOURNAL of January 29th, p. 274, was the first Irish medical writer who dealt with consumption. He published a work entitled, *On a Consumption of the Lungs*, in 1726. In the January number of the *British Journal of Tuberculosis* Dr. T. Percy C. Kirkpatrick gives an account of the work of other Irish physicians of the eighteenth century who wrote on the subject. In 1739 John McEogh published *A Short Treatise on the Diagnostic and Prognostic Parts of Medicine*, in which, after describing the symptoms, he says:

> If this disorder is inveterate, it is for the most part incurable; but if recent, the cure is easier.

He recommended in its treatment "a water distilled from shell snails in canary wine in the month of May." In 1764 Thomas Marryat, a Dublin physician, published a *New Practice of Physic*. He also believed in the restorative effect of snails. Speaking of the cure he says:

> A milk diet or that of meat broths, as strong as the stomach will bear, especially of port (by the use of which I've seen miracles perform'd), and riding on horseback, are things absolutely necessary. A warm, dry, clear air . . . snails or earthworms boil'd in milk . . . conserve of red roses to the quantity of two or three ounces a day.

He had tried the method on himself after being given up by "two judicious and learned physicians," recovered in six weeks, and at the time of writing was "as healthy and hearty a grey-headed old fellow as any one in His Majesty's dominions." It 1772 David MacBride, a Dublin physician of great reputation, published *A Methodical Instruction to the Theory and Practice of Physic*, in which he says that if persons with the "morbific disposition" transmitted from their parents "can by temperance and care, and by living in a pure atmosphere, distant from the smoke of large towns, get beyond their thirty-sixth year, they may probably pass the remainder of life with tolerable security as to a phthisis." Another Dublin doctor, in a small book on physic published in 1785, recommends that "the patient should breathe a pure country air, and should ride on horseback every forenoon, unless he have been liable to a spitting of blood, and then he had better use a carriage." In an *Enquiry into the Nature, Causes, and Cure of the Consumption of the Lungs*, published in 1787, Michael Ryan of Kilkenny protests against "the extravagant stories of cures as due to the mineral waters." In a treatise entitled *Advice in the Consumption of the Lungs*, published in Dublin in 1798 by Michael O'Ryan, "late Professor of Medicine in the College of Lyons in France," the author lays stress on preventive measures, but urges that when hectic fever is once established the patient should be protected from fresh air. He says:

> The cough and the pains which attend it, the difficulty of breathing, etc., become more violent and distressing by breathing the purest or more copiously *oxygenated air*, than by that which is contained in the room which the patient inhabits, or even in stables or cowhouses.

Perhaps, says Dr. Kirkpatrick, it is to teaching such as this that some of our present-day difficulties in inculcating the use of fresh air are due.

British Medical Journal.

SATURDAY, FEBRUARY 5TH, 1910.

THE INTERIM REPORT OF THE SPECIAL POOR LAW REFORM COMMITTEE.

IT would hardly be possible to give a more forcible demonstration of the absurdity of the present system, or, rather, want of system, of medical assistance in England than is contained in the Interim Report of the Special Poor Law Reform Committee of the British Medical Association, which is published in the SUPPLEMENT to-day. It is not too much to say that the whole system, disguised though it be under a garb of public philanthropy, is a huge machine for the wholesale manufacture of paupers, and, what is still worse, of parasites on society. While it often encourages the worthless, it often fails to meet the legitimate needs of the deserving.

In considering the report, we wish in the first place to lay emphasis on Paragraph 5, which urges that "general questions of politics and social theory should be avoided." Neither the Association nor its JOURNAL is either Liberal or Conservative, Socialist or anti-Socialist, Fabian or anti-Fabian, and it would be a calamity if reform of the Poor Law, and especially of the Poor Law medical service, were made a battle-ground on which Socialists were on one side and anti-Socialists on the other. This is specially important, as it is quite certain that, in proportion as the Association shows itself free from party bias, in the same proportion will any Government that undertakes legislation be inclined to pay regard to its recommendations on professional matters, on which alone the Association can claim to speak with authority.

Broadly speaking, the interim report is intended to demonstrate three things: first, the necessity for reform of existing systems of medical relief; secondly, the necessity for further inquiry into the medical aspects of Poor Law reform and other agencies for medical relief, such as can only be made by a departmental committee; and thirdly, the paramount necessity of organization of the Divisions of the British Medical Association if the opinion of the profession is to carry due weight with the Government and the Legislature.

In considering these points the Divisions will keep always in mind the interests of the community at large, the interests of the profession as a whole, and the interests of individual members of the profession, whether existing medical officers or future medical officers under any new scheme, for all these interests are interdependent. No system that is unfair to the profession or to its individual members can for long be satisfactory to the public, and no exploitation of the profession will ever induce the ready and willing service essential for the public welfare. On the other hand the profession has a duty to the community, and any appearance of mere self-seeking would at once rouse public opposition, which is unfortunately only too ready to manifest itself.

Dealing with the three points named in order, the necessity for reform of existing systems of medical relief is forcibly shown in the report. The reports of the Poor Law Commission both contain eloquent denunciations of the wasteful overlapping of one public service with another and of all public services with medical charity and provident medical institutions, but the table given in Appendix II of the Interim Report is even more eloquent in the bare simplicity of its details. It tabulates practically every form of medical relief given by public and voluntary agencies, and it will be seen that in nearly every case the same kind of service is rendered by some agencies only after strict inquiry into the ability of patients to pay for it, by other agencies after a test which is variable and sometimes eccentric, and by others after no test at all. In practice this means that anybody can obtain medical assistance for nothing somewhere or other, while at the same time it may happen that the service is deficient in certain respects, because one agency depends on another to supply what it either cannot or will not supply itself. On the other hand, it often happens that there is a woful waste, as several agencies supply some particular form of relief which one agency alone could amply supply.

Besides showing the overlapping and eccentric application of tests by the different agencies, the table will be of the greatest use when Parliament comes to define in a consistent code what services shall be free to all and what shall be charged for. It will be easy, for instance, to pick out from the list those services which are purely in the interest of the community at large, and only in a secondary way in the interest of the individual; and in such cases arguments might well be advanced in favour of the service being free to all. On the contrary, other forms of service named in column 1 of the table may be grouped as being solely in the interest of the individual, and here patients might reasonably be required to pay according to their ability.

Another fact becomes almost self-evident from the table, namely, that no reform of the Poor Law medical service will be of any real use unless it is accompanied by a reform of other medical agencies. The existing chaos is by no means the fault of boards of guardians alone. Take, for instance, item 12 in the first column, "Provision for disease or injury not necessitating rest in bed"—it would be quite useless here to impose stricter inquiries into patients' means under the Poor Law, if every such patient can obtain free medical attendance elsewhere with no test at all. Even if what is called a "unified public medical service" were adopted, in which all forms of medical aid provided by the Poor Law, the sanitary, and the education authorities, were brought under one authority, no tests as to ability of patients to pay for medical assistance would be of the least use if a charitable hospital or a free dispensary or a medical club without a wage limit were ready at hand for well-to-do persons mean enough to take advantage of them. The strict inquiry of one agency would simply be stultified by the laxness of another. In short, the Special Poor Law Reform Committee would appear to have become more and more convinced during its deliberations that reform of the Poor Law medical service is inextricably bound up with reform of all kinds of charitable and provident medical agencies. It is a fundamental necessity that the spheres of public services and charitable agencies should be carefully and accurately delimited.

This brings us to the second point—one on which the Special Committee lays great stress—that is, the necessity for such further investigation as can only be carried out by a departmental committee

appointed to consider the organization of medical assistance, and especially the co-ordination of the work of the various agencies now administering such assistance. The Council of the Association has already, at the instance of the Committee, urged on the Government the appointment of a departmental committee. In this it is in full accord with both the Majority and the Minority reports of the Royal Commission; while Dr. Downes, one of the commissioners, is emphatic in saying that the Royal Commission was not fully equipped to deal with the difficulties in detail involved in the mutual relations and the need for reciprocity between provident agencies, voluntary hospitals, and any system of public medical service. We have no hesitation in saying that neither the Majority nor the Minority schemes for a medical service is complete. The profession is faced by the difficulty that any complete scheme of reform involves some State interference in, or at any rate some State guidance of, charitable agencies.

As Appendix II demonstrates in detail, charitable agencies do not at present simply amplify and supply deficiencies of the public service; rather do all the agencies seriously overlap, compete with, and so stultify one another. The problem is to co-ordinate public and charitable agencies without at the same time drying up the springs of private charity. Municipalization of hospitals, even if it were proved to be good in some respects, would not meet half the difficulties. The hospitals would of course soon lose all charitable subscriptions if public funds were available for their support; but it can hardly be doubted that fresh institutions wholly supported by charity, and controlled by voluntary boards of management, would immediately arise, and the old competition and mutual stultification begin anew.

There is the most urgent need for reform and organization of medical assistance, but further inquiry by a departmental committee, properly equipped, and on which the medical profession should be properly represented, is an absolute necessity, if reform is to be efficient and lasting.

Meantime, the profession cannot afford to be caught napping. Responsible Ministers of the Crown have foreshadowed early legislation in the direction of sickness and invalidity insurance. Such legislation could not fail to influence present forms of contract medical practice. It might even be the means of vastly extending forms of contract practice which would seriously injure private practitioners. In view of this risk it would appear to be the urgent duty of every Division to have its machinery in full working order, to know its own mind, and be ready to press its views on public authorities. Public reforms will certainly not wait the convenience of the medical profession, and if the profession is not itself organized, it will inevitably suffer. There is far too much criticism by the drones of the Association directed against the workers. The need is for personal work by the critics themselves. The mere machinery of the Association is sufficiently complete for the purpose in hand, but the most perfect machinery will be useless failing the motive power of a united profession, strong enough in its convictions to sink all minor internal differences.

We earnestly commend this Interim Report to the attention of the Divisions, and indeed of every individual member. A careful study of it will be the best preparation for consideration of the recommendations that will follow from the Special Committee in due course.

THE FUNCTION OF THE MEDICAL PROFESSION.

IN an article published in the JOURNAL of November 13th, 1909, under the title of The Doctor as a Social Force, we showed, from the opinions expressed by certain leading men in France, how little the true extent of the doctor's activity is recognized even at the present day. The gist of these opinions might be expressed in the proverb that the cobbler should stick to his last. We showed that had the doctor done this there would have been no such thing as public health. Every movement for the prevention of disease, every effort for the physical well-being of the population, has come from the profession. We are glad to note that Professor Debove, in an address delivered not long ago before a fashionable audience in Paris, discoursed on the same theme and to the same tune.

After defining medicine as the science which had as its object the conservation of man and of the human species, he pointed out how vast a scope was comprised in this definition. Medical science finds applications not only in the care of the health of the individual, but in the making and administration of laws, in morals, and in the customs of social life. It explains problems of history; it often reveals the secret springs of popular movements, political, social, and religious, and the mental constitution and the underlying causes of the acts of rulers and statesmen. An orator may be deprived of his suggestive power by a headache; a diplomatist may fail in a delicate negotiation owing to the irritability engendered by an attack of the gout. An attack of indigestion has caused the loss of battles, and Napoleon's defeat at Waterloo has been attributed to the fact that he was suffering from piles. Armies have often been made powerless by dysentery and enteric fever, and up to the very end of the eighteenth century our fleets repeatedly had to creep back to port rotten with scurvy. Governments are beginning to appreciate the far-reaching effects which may be produced by such diseases as sleeping sickness and the great part that medicine plays in colonization.

Professor Debove insists strongly on the necessity to the psychologist of some knowledge of medical science. The modern psychologist knows, or ought to know, that the faculties attributed to the soul are slaves of the body; that they are modified by a slight lesion of the brain or by a slight disturbance of the cerebral circulation. But it is not the brain alone that has to be taken into account. The mental faculties may be impaired in their working by disturbance of other organs. Probably every disease has its psychological equivalent. We know how profoundly diseases of the liver and intestine, for instance, may affect the mental outlook. There is also a mentality peculiar to each sex, and in women this is often affected by the menstrual function. The effects of absence or deficiency of the internal secretions is doubtless responsible for things that would be generally attributed to the mind or character of the patient. An instance is the idiocy which so often accompanies goître and the lethargy which is a feature of myxoedema. Physiology and pathology play a part in estimating human responsibility; yet this question is daily decided by persons who have no knowledge of either of these sciences, appeals to which are often regarded as an encroachment on a domain within whose circle none dare walk but lawyers.

On the other hand, the doctor must not neglect

psychology, even when he has nothing to do with the treatment of mental diseases. Just as functional diseases underlie certain mental states, so disturbances of the mind or spirit may cause or aggravate certain bodily ailments. This is especially the case in the region of nervous diseases, but depression, grief, and mental shock, worry or fear, appear to be predisposing causes of cancer and other organic affections. A physician has to treat a human being as a whole, and of that whole the *psyche* is an essential part. He has to deal not merely with a machine which has got out of order, but with the driver, who may be the real cause of the trouble. In the history of human suffering there are, to our mind, no sadder words recorded than those of the dying Goldsmith. When Dr. Turton said to him that his pulse was more disordered than the degree of fever he had seemed to account for, and asked him, "Is your mind at rest?" he answered, "No, it is not." It is probable that if there had been any means of giving rest to the troubled spirit, the world might not have lost the author of the *Vicar of Wakefield* at the age of 45. The physician will be better able to minister to the needs of a suffering body if he is able to cleanse the stuff'd bosom of any perilous stuff that may be weighing upon the heart. A doctor who cannot operate on the mind of his patient will too often fail to act upon his body.

The province of the doctor touches on that of the moralist at certain points so closely that a word or two must be said on the subject. There is a strong objection to the physician posing as a priest, or in any way trespassing on the province of the minister of the spirit. But they should help each other, and there are some things in which the special knowledge of the doctor makes his advice useful from the moral point of view. Thus, in regard to intemperance, especially in the matter of alcohol, the doctor has a wide sphere of duty open to him in inculcating the dangers arising therefrom to the sufferer himself and to all belonging to him. Now that, happily, the evils of drink are taught in schools, the doctors must teach the teachers. The evils of sexual immorality also fall to a certain extent within the proper sphere of the doctor. There is no one more likely to be listened to by young men than he is, as he can speak with authority of the manifold foul and dangerous diseases hidden in the snares which Venus is allowed in this land of cant to set in every street. Then there is the population question, as to which M. Debove had naturally a good deal to say. He gave his audience some home truths. A hundred years ago, he said, the French represented the eleventh part of the population of Europe; to-day they constitute no more than a twenty-seventh part, and matters are getting steadily worse. In the first half of 1909 there was a fall in the birth-rate of 13,000 compared with the corresponding period of the previous year. We are by no means free from the reproach of race suicide, and in regard to this subject we find ourselves in disagreement with M. Debove. He seems to regard it as outside the sphere of medicine, and the fall of the birth-rate at a certain stage in the evolution of a nation as a law of Nature. As he puts it, when children are a source of riches, population increases. When they are a cause of poverty, it diminishes. Professor Debove says that laws and other means so far devised for the prevention of this evil have had the effect of protecting the individual to the detriment of the species. We think, however, that the doctor could do much by his private teaching to impress the evils of Malthusianism from the point of view of the community as well as the individual whenever the opportunity presents itself. Here, again, more than anyone he knows the exact nature and extent of the evil, and his advice is, perhaps, the more likely to be listened to as it comes in the form of a warning as to ill consequences that directly affect the person to whom it is addressed.

THE MALAY "ANTI-OPIUM PLANT."

A LITTLE more than two years ago we published a short account of the Malayan plant, *Combretum sundaicum*, which was being put forward as a cure for the opium habit. Inquiries which continue to reach us with regard to this drug indicate that up to the present its reputed virtues have not been definitely established, nor, on the other hand, has it been fully proved that the cures attributed to it either did not occur or were due to some other cause. In these circumstances it may be useful to summarize the small amount of additional information with regard to it which has been made available since the previous note was published. The use of the drug originated in the province of Selangor, Federated Malay States, where the plant grows freely; the leaves and twigs are prepared for use by roasting on an iron plate over a charcoal fire. In a paper published in the *Pharmaceutical Journal* for January 18th, 1908, an account is given of a preliminary investigation of the fresh and roasted drug by Mr. E. F. Harrison, who found both to contain a resin or resins, tannin, and phlobaphene (a derivative of tannin); alkaloids were proved to be absent, and no appreciable amount of any glucoside was found, though slight indications were obtained of the presence of a glucosidal substance in very small qnantity. A decoction of the drug, prepared in the manner recommended in Selangor, contained only traces of the resin, as was to be expected, and its principal constituent appears to have been tannin. Any medicinal virtue actually possessed by the drug must, of course, be ascribed to constituents soluble in water, and therefore extracted in making the decoction; the tannins of different drugs, while possessing in common an astringent character, frequently have distinctive individual properties, and it appears not impossible that bodies of this nature might be of use in mitigating the unpleasant temporary effects resulting from deprivation of opium after its use had become a habit. In an official report on the general situation in China in regard to opium by Sir Alexander Hosie, published last year, a short reference occurs to the use of this drug in breaking off the opium habit, and mention is made of a statement of an English missionary that he had employed it in about 50 cases, and in every case it had been successful in promoting a cure, but no medical evidence as to its usefulness is cited. On the other hand, a commission appointed to inquire into matters relating to the use of opium in the Malay States obtained a good deal of evidence with regard to the use of combretum; and while the opinion of the lay witnesses was divided, the medical evidence was not favourable to the drug. This evidence included that of Dr. D. K. McDowell, C.M.G., Principal Civil Medical Officer in the Straits Settlements, Mr. M. J. Wright, State Surgeon at Perak, and several native practitioners. Combretum was stated to be of no more use as a cure than ordinary Indian tea, though its astringent constituents were said to have the property of stopping the diarrhoea which otherwise often followed the withdrawal of

opium. It cannot be doubted that if the drug possessed anything like the specific properties originally ascribed to it, when its efficacy was stated to be proved in thousands of cures in a very short time, its usefulness must by now have led medical men in China and other Eastern countries where the opium question is acute to adopt it and report on the nature of its action. But even if it has failed to give results commensurate with the original claims, it is not necessary to surrender whatever assistance it is able to give as an accessory in the cure of the opium habit. It may be added that the opinion expressed in our previous note on the drug, that British pharmacy would probably provide a more suitable preparation for its administration than the crude decoction, was soon afterwards justified by the appearance on the market of an elixir, of which a notice appeared in the JOURNAL of April 11th, 1908.

OFFICIALS IN BRITISH EAST AFRICA.

THERE appears to be need for some revision in the rules regarding leave to officials serving in British East Africa, as the conditions there do not seem to be far removed from those in West Africa, where the leave rules are more liberal. In British East Africa, although officials are entitled to four months' leave after twenty months' service, and five months after twenty-five, a man on his first tour is usually not granted leave until his six months' leave is due, that is, after two and a half years in the country. This limit of two and a half years' service in East Africa might be considerably reduced, especially for officials serving in unhealthy stations, some of which are just as enervating as stations in Nigeria, where the officials get four clear months in England after twelve months' service in the country. A good many misleading statements have been made regarding the climate of East Africa, in speeches and writings by sportsmen and tourists, who go out and have experience only of the healthiest parts of the country, and who live on the best of everything for a few weeks. So brief a sojourn is not sufficient to enable them to form a sound judgement even as to a healthy climate. These gentlemen come home after a very short time and proclaim the climate of British East Africa to be everywhere quite fit for the white man. Residents in England should ask these sportsmen if they have ever stayed for a prolonged period throughout the rains in the more unhealthy stations. A curious vagary of the Colonial Office may here be pointed out. Means of conveyance about the districts in East Africa are at present almost absent. Horses are impossible owing to the tsetse fly or other disease, and though mules are supplied as a rule, even these sicken and die. Ticks abound in some parts of British East Africa. Owing to these difficulties of means of locomotion the officials asked to be supplied with bicycles, but the Governors, presumably on the ground of economy, refused. The inconsistency of the Government lies in the fact that it pays between £30 and £40 for a mule, and yet refuses their officials £10 or so, which would purchase a reliable bicycle, and thus enable them to move about the district rapidly—an urgent matter when a fierce sun has to be reckoned with. It is understood that in Uganda the authorities have advanced considerably, for there they have insisted on having good roads, and the Public Works Department and other officers are provided with motor cycles. Would it not be possible for the Government, if it cannot furnish officials with bicycles, to grant them an allowance if they purchase their own bicycles? At present native trucks seem to be the only means by which officials can get about their work in the districts.

ANAESTHESIA WITH ARTIFICIALLY LIMITED CIRCULATION.

THE danger associated with inhalation anaesthesia is probably actually greater in Germany than it is in England. The reason is that while a number of practitioners in this country specialize as anaesthetists, and by accumulated experience learn how to avoid a danger zone, no such specialization has as yet occurred in Germany. The estimate of the risk of anaesthesia varies in different parts of Germany, and judging from the number of alternative methods which have issued from Bier's clinic it may be assumed that a sort of inhalation narcosiphobia exists in the surgical clinic in the Ziegelstrasse of Berlin. It is sufficient to mention that Bier is more or less directly responsible for lumbar injections of cocaine and its substitutes (at present he uses only tropacocaine, and obtains excellent results from it) for venous local anaesthesia and for other modifications of conduction anaesthesia. Some two and a half years ago the number of alternatives issuing from his clinic was increased by the introduction by Klapp of inhalation anaesthesia with artificially limited circulation. This method was dealt with in a summary of an article by zur Verth published in the EPITOME of May 1st, 1909; zur Verth, however, was unable to give the data which any physiologist would require with regard to a method of the kind under consideration. These data are the relative concentrations of anaesthetic with the artificial constriction of the legs, and without such interference of the circulation. Dr. K. Hörmann,[1] who has supplied some useful information on this new method, also fails to give the desired data. He attempts to compare the amount of chloroform and ether used in persons anaesthetized with and without artificial limitation of the circulation by a constricting bandage round the thighs. His tables show that approximately half the quantity of chloroform required to produce anaesthesia under ordinary circumstances sufficed when the bandages were applied, while about one-third of the amount of ether was required. The amount of an anaesthetic required to produce anaesthesia cannot be accurately estimated from the amount evaporated in a Roth-Dräger apparatus, since this would be to assume that the anaesthesia depends on the absolute quantity used in the apparatus and not on the amount of vapour actually absorbed. The relative concentration of vapour necessary to induce and maintain anaesthesia would yield comparative results on which reliance could be placed. No bad effects of the anaesthetic were observed in any of the cases. A further advantage is stated to be that, should the patient become asphyxiated, the symptoms can be readily removed by loosening the constricting bandages.

THE VISION OF LONDON SCHOOL CHILDREN.

THAT part of the report of the Medical Officer (Education) to the London County Council which relates to the vision of the children in the schools under the supervision of the London Education Committee affords food for much thought. It is stated that for the past two years it has been recognized that some provision must be made to treat the children whose eyes have been found to be defective. Although only a small proportion of these appear to have sought advice, the ophthalmic hospitals and the special department of the general hospitals have become so congested with school children, especially on Saturdays, that the ordinary work of the clinic is

[1] *Muench. med. Woch.*, No. 42, 1909.

seriously impeded. At the London Hospital upon one day fifty children came for refraction alone. The same sort of thing has happened at other London hospitals, and we may add at provincial hospitals also. The school clinic, with a skilled staff receiving suitable remuneration, would seem to be the only solution of the difficulty. The school authorities have no record of the condition of the child's eyes when he has been examined at a hospital. If a serious defect be detected the school medical officers can only get an account of its nature through the parents, and much time may be lost before the child is removed to a special school for children with defective eyesight. An experimental school clinic is being worked privately at Bow; it has not been established long enough to make a report, but we are told that it is paying a reasonable price for the glasses ordered. Some time ago an agitation was started to provide the London poor with cheap glasses, but inquiry shows that a strong steel frame cannot be fitted carefully to a child's face by an expert for less than the prices quoted in the report—namely, 2s. for simple glasses, 3s. for cylinders, and 4s. for compound spectacles. A soft, badly-fitting frame can be supplied for perhaps half this price, but will probably have to be replaced in a few months. The report favours the view that myopia is induced by pressure of the muscles during convergence, a theory which, so far as we are aware, is not supported by any direct evidence. The most careful measurements have failed to show any rise of tension during the act of convergence or accommodation. The fact that the high myopia is often found in one eye alone lends no support to this hypothesis. It has been found in Germany that the incidence of myopia is greater in the Latin schools than in the modern schools, and in Sweden and Germany it has been proved that there is much less myopia in schools where the pupils have regular athletic exercise in the open air. Racial idiosyncrasies must, as the report says, be taken into account; the Teuton and the Jew are more liable to myopia. In some of the higher forms of the German *Gymnasia* about 20 per cent. of the scholars are myopic.

FULGURATION FOR CANCER

IT is now more than three years since Keating-Hart described his method of treating cancer by electric sparking. The first communication was made with becoming modesty and caution; it was not claimed that cancer had been conquered, but it was merely suggested that the new appeared to yield better results than the older methods. The results which he obtained, however, were not quite so convincing as subsequent writers, chiefly French and German clinicians, might lead the casual reader to suppose. In Keating-Hart's treatment—or fulguration, as Pozzi called it—these writers recognized the long-sought-for remedy for cancer; and even the distinguished surgeon of Heidelberg, Czerny, expressed his belief that fulguration was a marked advance in the treatment of that disease. For our own part we have waited for more convincing evidence, and that this cautious attitude was justified is shown by a report of Dr. Hans Schulz, who, writing from the university surgical clinic of Breslau,[1] records his experience of fulguration and gives sufficient details to enable his readers to form an opinion on the subject. In all, 13 patients were treated, and with the exception of one case of cutaneous carcinoma, which had not been under observation for a sufficiently long time to justify any conclusion, not one of the patients derived any benefit from the treatment. No effect was produced on the pain and discharge; recurrence took place just as rapidly after fulguration as it did after operation without it, while implicated lymphatic glands continued to grow, sometimes at an increased rate. Keating-Hart and Czerny claimed for the electric sparks an elective specific action on cancer cells, but neither has been able to prove its existence, and Schulz states that his observations failed to yield anything which could support this contention. It may be added that Bier, Abel, and Cohn, have also failed to obtain useful results from this method of treatment of cancer.

[1] *uench. med. Woch.*, September 14th, 1909.

THE FORMULAE OF SECRET MEDICINES.

A LETTER in the *Pharmaceutical Journal* of January 8th, to which reference was made on January 22nd (p. 213), has elicited other letters in subsequent issues of our contemporary showing that other pharmacists do not share the view of the original correspondent, that the differences which he pointed out between the formulae of certain proprietary medicines published in *Secret Remedies*[1] and the formulae given by the makers for the medicines sold under the same name in some Continental countries, throw suspicion on the accuracy of the analyses made for the British Medical Association. The matter is further commented on in an editorial paragraph in the *Pharmaceutical Journal* of last week, in which it is stated that "there appears to be a little misunderstanding with regard to the conditions under which proprietary medicines are sold on the Continent. Excluding from these observations the preparations which were specifically mentioned, those who have had a lengthy experience of Continental practice are perfectly familiar with the fact that in connexion with the sale of proprietary articles there is little relationship between the things that are lawful and the things that are customary. As a rule, the statements made on the labels of proprietary medicines sold in France, for instance, do not convey a correct impression of the composition of the medicines sold in France, while they do not even purport to give any idea of the composition of articles sold under the same name in other countries." This is a sufficiently emphatic confirmation of our contention that the only evidence that is of value as to the composition of a proprietary medicine at a given time and in a given place is the evidence furnished by expert analysis. Even if the law in this country required the composition of proprietary medicines to be declared on the label in the same way as it is required in France — and nothing less than this can be accepted as satisfactory—some vigilance would no doubt be necessary to prevent it being evaded or ignored; but it is pretty certain that such vigilance would not be wanting, and the consequences to a nostrum monger of being caught making a false declaration as to the composition of his goods should be sufficiently serious to act as a strong deterrent. At present it is all but impossible to secure a conviction for the most extravagant false statements about the properties of nostrums, while their composition may be almost anything suggested by the fancy of the proprietor, and may be altered as much and as often as he pleases.

[1] *Secret Remedies: What They Cost and What They Contain.* Published by the British Medical Association, 429, Strand, W.C. Price 1s.; post free, 1s. 3d.

THE FRENCH INUNDATIONS.

THE accounts of the floods in France given by the lay newspapers last week seemed very lurid, if such a term be applicable to pen-pictures of a watery catastrophe, but our own information shows that they did no more than justice to the real situation; indeed,

they failed in some degree to bring home a true conception of the immensity of the havoc which has been wrought, since the space devoted to descriptions of what was occurring in Paris left little room for allusions to what was happening in districts further afield. A great deal of the country south of Paris has suffered more or less considerably, and Burgundy in particular, as seen from its railways, has been converted into a vast marsh. In many localities the sparse habitations are cut off from one another by quite deep water, haystacks and market produce are afloat, and hundreds of the peasantry must be ruined. It has not yet been found possible to estimate accurately the general economic loss in money, and to estimate the consequences to the general public health of France is far more difficult. However active the steps taken houses and subsoil alike must remain damp for weeks, and hence a considerable rise in the mortality classified in this ountry under the general headings of respiratory and diarrhoeal diseases must be expected. Whether any corresponding increase is likely in the death-rates from the acute infectious diseases is another question. Wherever small outbreaks of measles or scarlet fever or diphtheria, such as are common, were in progress at the beginning of the floods, the mortality will, it is to be feared, be higher than normal. There are always, perhaps, more cases of typhoid fever in Paris than in any city of corresponding size in this country, and the flooding of its streets and houses by the water from the sewers which have burst in so many parts is a circumstance which seems likely gravely to increase their number. On the other hand, the vitality of the typhoid bacillus in the presence of the innumerable organisms always present in sewage and sewers is exceedingly limited, and on this account such matter of sewer origin as has been distributed in the streets and houses of central and suburban Paris may, however nasty in appearance and odour, be comparatively innocuous. A further saving clause in the situation — and one which it is particularly pleasant for a medical journal to be able to record — is that the sanitary authorities and their allies rose nobly to the occasion. Long before the flooding of Paris had reached its height, the Société de Secours aux Blessés Militaires, with its thirty-six branches and nearly 150 nurses, was at work, assisting cases of distress and distributing provisions, and our Paris correspondent has sent us the Conseil d'Hygiène instructions immediately issued, a copy of which will be found elsewhere in this issue. But however effectual these precautions may prove against typhoid fever, the amount of sickness and physical and mental suffering left behind by these remarkable floods must be very great, so that on medical grounds alone there is ample cause for hoping that the relief fund opened at the Mansion House will be well supported.

LABOUR EXCHANGES.

THERE is no sound reason, perhaps, for regarding the idea of Government Labour Exchanges as having originated with the late Royal Commission on the Poor Law, but it is certainly one of the few subjects on which the Commissioners were in accord. Hence, perhaps, they are entitled to some congratulation on the events of last Tuesday. On that day the new Labour Exchanges founded under the Labour Exchanges Act came into operation, and if the scenes to be witnessed at the eighteen or nineteen exchanges in London may be taken as evidence, their popularity with those for whose benefit they are more immediately intended seems assured. The precise number of exchanges eventually to be established has at present not been decided, but between sixty and seventy of these agencies are already in operation in different parts of the country. Judging from the London agencies, the arrangements are of a very practical kind, and in choosing their officials adequate attention seems to have been paid to the propriety of selecting persons accustomed to dealing with men and women from a business point of view and to gauging their capabilities for work. This is a point of the highest importance, for it is essential to the success of the scheme that the Exchanges shall become not less popular with the employers of labour than with the employed, and this can only be the case if employers find that the men sent them are really suited to their needs. It is a strong point in this connexion that a great deal of spade work has been done by the Exchanges previously established by a few of the more active municipal bodies; some of these acquired an excellent reputation among employers, and this they pass on to the Government offices, into which they have now been absorbed. The advantages of Labour Exchanges are very obvious. Instead of the would-be worker spending hours, and often a material portion of what little money he has left, in tramping the country in search of places where labour may possibly be required, he merely enters at the Exchange serving his district particulars of what work he is prepared to undertake, and then waits until a post is offered him. Should this not happen within a week he must repeat the process. An employer, on the other hand, instead of advertising his requirements, or using up the time of his foreman and other responsible assistants in hunting up the required number of men, merely sends a note of the work he wishes done to the Exchange of his choice. The necessary hands are then selected and sent, and the whole matter completed with a minimum of trouble to all concerned. Should these Exchanges acquire popularity with employers and retain it with workers, contingent advantages may accrue also to persons less obviously interested. Among the working classes are many wishful to pay such small charges as are made to them by medical men, but who are quite unable to do so owing to inability to find work; thanks to the new facilities afforded to competent workers, medical men may possibly find a slight decrease in the number of bad debts on their books. But how far these Exchanges will help to solve the general problem of unemployment, and of the poverty which creates so much of the work both of general practitioners and the staffs of hospitals, and so vastly complicates its effective performance, is quite another question. In themselves they can do nothing to create employment; they can only ensure the more rapid distribution among would-be workers of what work is going. Hence, perhaps, though the realization of this scheme may be regarded on general grounds as beneficial, and as of distinct importance in the history of the sociological progress of this country, probably the true conclusion to be reached is that the scheme leaves practically untouched the vicious circle formed by poverty, drink, and degeneration.

THE AMERICAN PRESIDENT AND A NATIONAL HEALTH DEPARTMENT.

IN President Taft's recent message to the United States Congress there is a passage of considerable significance in regard to a movement with which a number of those who take an enlightened interest in the safeguarding of the public health are in active sympathy. The President said: "For a very considerable period a movement has been gathering strength,

especially among the members of the medical profession, in favour of a concentration of the instruments of the national government which have to do with the promotion of public health. In the nature of things, the medical department of the army and the medical department of the navy must be kept separate. But there seems to be no reason why all the other bureaus and offices in the general government which have to do with the public health or subjects akin thereto should not be united in a bureau to be called the Bureau of Public Health. . . . I am aware that there is a wide field in respect to the public health committed to the States in which the federal government cannot exercise jurisdiction, but . . . reasons can be given for the establishment of a Bureau of Health that shall not only exercise the police jurisdiction of the federal government respecting quarantine, but which shall also afford an opportunity for investigation and research by competent experts in questions of health affecting the whole country, or important sections thereof, questions which, in the absence of federal governmental work, are not likely to be promptly solved."

LECTURES AT THE ROYAL COLLEGE OF PHYSICIANS, LONDON.

THE Milroy Lectures before the Royal College of Physicians will be delivered on February 17th, 22nd, and 24th, by Mr. A. G. R. Foulerton, F.R.C.S., director of the bacteriological department of the Middlesex Hospital, and medical officer of health for East Sussex; the subject selected is the streptotrichoses and their relationship to tuberculosis. The Goulstonian Lectures will be delivered by Dr. J. S. Bolton, senior assistant medical officer of Rainhill Asylum, Lancs., on March 1st, 3rd, and 8th; these lectures will deal with the localization of cerebral function, and will be based on a clinico-pathological study of mental disease. The Lumleian Lectures will be given by Professor W. Osler, F.R.S., on March 10th, 15th, and 17th, on angina pectoris. The Bradshaw Lecture and the Harveian Oration for this year will be delivered by Dr. Newton Pitt, and Dr. H. B. Donkin respectively, and the Milroy Lectures for 1911 will be given by Dr. A. E. Boycott, lecturer on pathology, Guy's Hospital.

POOR LAW MEDICAL OFFICERS AND POOR LAW REFORM.

THE council of the Poor Law Medical Officers' Association is issuing a schedule of questions on proposed reforms in the medical branch of the Poor Law to every Poor Law medical officer in England and Wales. As the Poor Law Medical Service must be greatly affected by any of the proposed changes, it is much to be desired that the opinion of that service should be known. It is therefore hoped that as many Poor Law medical officers as possible will send answers to these questions to the honorary secretary, Dr. Major Greenwood, at 144, Stoke Newington Road, London, N., so that this, the chief representative association of the service, may obtain a reliable basis for formulating its considered judgement of the Poor Law Medical Service of the country.

IN consequence of the results of the researches of Dr. Ch. Nicolle, director of the Tunis Pasteur Institute, and of Dr. Conseil of Tunis, showing that Malta goats, which are very common in Tunis, are dangerous vehicles of Mediterranean fever, the Bey of Tunis has issued a decree forbidding the importation or carriage in Tunis of goats coming from Malta, and of the flesh or remains of these animals.

SCIENCE NOTES.

THE present attitude of philosophical thought towards the evolutionary theories of Darwin and his predecessors is rather well expressed in a short paper by Mr. W. R. Sorley entitled the "Interpretation of Evolution."[1] Although Mr. Sorley naturally devotes most attention to evolution as applied to living matter, he treats the subject also in its broader scope, which aims at including the whole universe. The most obvious and essential characteristic of evolution is change, not necessarily always in the same direction, but the object of inquiry has constantly been to get beyond this and attempt to discover and grasp the permanent at one or other end of the succession of changes. Each advance in knowledge, unfortunately, appears to thrust the permanent further and further away. "It would almost seem as if change is the only permanent which we can get to know, as if we could grasp no other reality than the process, and as if the only thing that is constant is the law of this process, or of evolution." Biological or organic evolution is but a small part of inorganic evolution; and although the existence of life has modified to some extent its environmental inorganic conditions, this influence is limited, and it can hardly be regarded as likely to cause any change in the fundamental structure of the earth. Evolution, both organic and inorganic, involves continuity between successive stages, but it excludes the consideration of any forces acting from without the cosmos itself. Darwin interpreted the idea of continuity very strictly, and his is the theory of accumulated minimal variations. Huxley's criticism of this has found expression in the modern mutation theory of De Vries. This, however, does not destroy the continuity of evolution but simply makes the steps more abrupt. Evolution is not to be regarded merely as a process of gradual unfolding; it involves the interaction of forces, attractive and repulsive in conflict, the "struggle for existence" in the biological sense. This applies both to inorganic and organic processes. These forces may be imagined to be at any moment in a state of equilibrium or otherwise as far as any particular organism is concerned. In the latter case change is produced causing the organism to pass into some other form—that is, to evolve. For us, one of the most important questions in evolution is whether the phenomena of life can be expressed in the same terms and adequately interpreted by the same mechanical theory which apply to inorganic evolution. Here enter the difficulties of the genesis of consciousness, of man's place in the biological sequence. "No approach has ever been made to a satisfactory explanation of consciousness in terms of mechanism." The work of Darwin added great weight to the mechanical interpretation of life. Almost contemporaneously, however, Pasteur's experiments put an end to the idea of abiogenesis, and thus deprived the mechanical theory of its prime support. The various theories which have been put forward to explain this break in organic continuity at its very outset need not now be dwelt upon. The second critical question in the theory of evolution is the possibility of reducing to physico-chemical processes the processes involved in the maintenance and continuance of life. Here physiology has at times seemed to be able almost to give an affirmative answer, and there has been the tendency to regard vitality as something not essentially different from any of the other attributes of protoplasm. Actual demonstration, however, is apparently as far from realization as ever. The mechanical theory is thus manifestly incomplete, and it would appear as if we must give up the attempt to express biological phenomena in the simple terms of physics. "The method of interpretation which must now be taken into account looks from a different point of view. It seeks to understand from within, not discarding the mechanical method, but supplementing it." The principle of life appears to occupy an intermediate position between two kinds of process—namely, mechanical causation and conscious design.

A household nuisance, which we may congratulate ourselves is not excessively plentiful in this country, is the much-dreaded, devastating dry rot. It occurs, however, with sufficient frequence to be not unfamiliar. Growing insidiously in some obscure corner for months and years, it

[1] *Proceedings of the British Academy*, vol. iv, pp. 1–32.

gradually gains a more and more secure hold, until some day it makes its presence known by a cracking plank or yielding beam. Frequently it announces its arrival much earlier by sending up its hideous brown "toadstools." When the timber is examined it is found covered by mycelial threads, riven and fissured in all directions, in fact, rotten. Once such a pest is introduced into a house it is extremely difficult to eradicate, and the most prompt and drastic measures are called for. Persistent recurrence time after time is a common experience, and in some cases it is found necessary to completely gut the house of its timber. The causes predisposing to the attacks of this scourge are inadequate seasoning of the wood, dampness, and insufficient ventilation. The subject, however, is not by any means well or completely known. It has recently been somewhat fully investigated in Germany, where it appears to be very prevalent in some districts, especially since the introduction of Galician timber. Falck has made two material contributions[1] to our knowledge. In the first place he shows that the rot is not invariably due to the common *Polyporus vaporarius*. There are two distinct types of disease, the one attacking from without inwards, the other in the opposite direction. *Polyporus*, an example of the first type, forms fine fleecy, web-like mycelia on the surface of the wood and then sends processes into its substance. The other is due to various species of *Lenzites*, the wind-borne spores of which find entrance by minute chinks or are drawn in by capillary attraction. In the interior they proceed to germinate and begin their destructive work. *Lenzites* is much more formidable than *Polyporus* on account of the high degree of resistance which it offers to drying and heat, and also on account of the rapidity with which it absorbs moisture whenever available. The most important consideration, from a practical point of view, is the means of avoiding or destroying these fungi, and here, as in most other cases, prevention is obviously better than cure. A cure must be of the most radical description, and there is always the risk of leaving some of the spores in what appears to be perfectly healthy timber or scattering some about, and so renewing the infection. Preventive measures are much more successful in the case of *Polyporus* than in that of *Lenzites*. They consist in the disinfection and impregnation of the prepared timber by heating to 34° C., and treating with copper sulphate or some other suitable chemical. *Lenzites*, however, can only be destroyed at a temperature of 100° C., and it is not practicable to subject timber to such a heat. The only available means, indeed, are careful protection of the wood from rain and damp and incubation or quarantine of six to twelve months. Such a period is usually sufficient to show the presence of the rot. It is always well to remember, too, so that additional precautions may be taken, that stricken houses are a source of infection to those in the neighbourhood.

The matter of food supply is one of constant interest, and at times, indeed, may become a source of national anxiety. Without trenching on any political question, it may be taken, broadly speaking, that the security with which a nation obtains its food supply is a measure of its prosperity and welfare. With the advance of civilization the business of food production has become more and more a science. As we begin to understand the processes more fully, we depend less on Nature, or rather we put natural resources in harness and direct them to our ends. Modern agriculture is not a simple matter of sowing seeds and gathering ripe corn; it has become a process based on strictly scientific lines, improved by constant observation and guided by the results of careful scientific experiment. Modern cattle-rearing and sheep-farming take cognizance of Mendelism and other biological factors. Modern fishing is not a case merely of a hook and bait or a net, according to circumstances; it involves a very wide knowledge of almost innumerable variable factors, and that knowledge is far beyond the empirical stage. A thorough grasp of the facts afforded by the study of marine biology, and a clear conception of natural modes of life in the sea form the essential factors in successful fishing; but, in addition, there are winds and currents, temperature, nature of the "ground," quality of the water, and efficiency of the vessels and gear all to be reckoned with. Evidently this is too intricate a subject for simple individual fishermen to tackle, and so we find the establishment of large fishing companies controlled by local fishery authorities, and eventually by the Fishery Board. This method has commended itself, not only in this country, but also throughout Europe and in America. At the back of the official board in every case there is the scientific investigation department, consisting of trained observers who have made a speciality of marine biology with particular reference to its bearing on fishes. The vastness and elusiveness of the sea renders a close study of its inhabitants much more difficult than a similar problem on land, and for this reason it is not surprising that on many questions an appeal to scientific knowledge elicits only vague and unsatisfactory answers. Along main lines, however, and in numerous minor details science has exercised a consistently wise and beneficial influence. A fruitful source of inquiry has been the habits, more especially the feeding and breeding habits, of our food-fishes. It has become a matter of common knowledge that each species of fish selects a particular "ground" for feeding on, and another—perchance a great distance off—for breeding purposes. Certain localities have become more or less defined in association with these two habits. Such knowledge affords much valuable information as to when and where to fish with the maximum present gain and future and ultimate profit. Great hauls could be made by depopulating the breeding-grounds, but obviously with disastrous consequences. The various papers which appear on such subjects from time to time make very interesting reading; but unfortunately all of them are not so easy to follow as a recent short note[2] by Dr. Allen, director of the Plymouth Laboratory, who is one of the leading British authorities. It is an attempt to correlate the relative abundance of mackerel off the south-west coast of England with the amount of bright sunshine occurring in these parts during the first quarter of the year. Various fishes have different partialities in regard to their food; some like to feed on their smaller cousins, even their brothers on occasion; others prefer crabs, cockles, or worms—*chaque poisson a son goût*. The staff of life of the mackerel consists of minute swimming crustaceans, called copepods. The latter, in their turn, find means of subsistence in the innumerable microscopic diatoms and other vegetable organisms with which the sea abounds. The greater the number of diatoms, therefore, the fatter and more numerous will the copepods be, and consequently the more mackerel will be attracted to that locality where such a feast of good things is in readiness. Now the factors which favour the production of diatoms are chiefly three—the composition of the sea-water, the temperature, and the amount of available light. In the particular locality in which Dr. Allen's observations were made it was found that the first two factors did not enter into account. Attention was directed to the third factor as a result of laboratory experiments which showed the importance of the intensity of light on diatom production. Statistics were accordingly obtained of the amount of bright sunshine occurring in the first quarter of the years 1902–8. Figures for the numbers of mackerel caught in May during the same years were also compiled, and accurate curves of each were plotted. The mackerel curve was found to follow the sunshine curve surprisingly closely. Without jumping at conclusions, we might therefore assume that, in the absence of disturbing circumstances, a bright spring portends a plentiful supply of mackerel. Now that attention has been drawn to the matter, it will be instructive to observe how the theory is borne out by actual experience.

[1] *Ueber den gegenwartigen Stand der Hauschwammforschung* and *Neue Mitteilungen über die Trockenfäule.*

[2] Mackerel and Sunshine, *Journ. Marine Biol. Assoc.*, vol. viii (4), p. 394–406.

Dr. Frederic Hewitt will, as Emeritus Lecturer on Anaesthetics, deliver a lecture at the London Hospital on Friday, February 25th, at 3 p.m., on the aesthetics of anaesthetics.

The following examinations of the Medico-Psychological Association of Great Britain and Ireland will take place early in July: The Gaskell Prize examination and the examination for certificate in Psychological Medicine. Essays for the bronze medal of the Association should be in the hands of the Registrar on or before June 14th. For particulars apply to the Registrar, Dr. A. Miller, Hatton Asylum, Warwick.

England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

MANCHESTER AND DISTRICT.

HOPE HOSPITAL.

AT a meeting of the Salford Board of Guardians the question of appointing an eye specialist for the workhouse, the infirmary, and the children's homes was discussed. It has been before the board several times during the past few years, but resolutions for the appointment were always lost. On the present occasion it was objected that it would be better to wait until the new arrangements about the staff, which have been made directly owing to the insistence of the Salford Division of the British Medical Association, had come into operation, so that the board might have the advantage of the opinion of the new medical superintendent. In the end, however, the resolution that an eye specialist be appointed was carried by nine votes to four, and referred to the Finance Committee.

It was announced that the following letter had been received by the clerk from the Assistant Secretary to the Local Government Board.

Whitehall, January 19th, 1910.

Sir,—I am directed by the Local Government Board to advert to your letter of December 24th, informing them of the proposals of the guardians of the Salford Union in regard to the medical staff of the union infirmary at Hope. The Board concur in the view of the guardians that it is expedient a medical superintendent should be appointed, with full control, to devote his whole time to the duties, and they accordingly deem it desirable that the duties of the present visiting medical officer (Mr. E. T. Milner) should cease, and they consent to the determination of his appointment by three months' notice in pursuance of Article 34 of the Order of April 14th, 1891. The Board are willing in the circumstances to approve of the payment of a gratuity of £250 to Mr. Milner, as proposed by the guardians. The Board also approves generally of the proposals of the guardians in regard to the proposed terms of appointment of the medical superintendent and two resident assistant medical officers, and the modification of the steward's duties. They will consider subsequently the question of amendment of the existing regulations.—I am, Sir, your obedient servant,

NOEL T. KERSHAW, Assistant Secretary.

A statement has been published in the newspapers to the effect that the salary of the new medical superintendent is to be £350 a year, rising to £500, with allowance for house in the neighbourhood of the hospital. Such a salary is by no means excessive for a medical man of experience as the medical superintendent should be, but if the status offered and the administrative powers are satisfactory, there will be nothing seriously to object to, and when proper assurances on these points are obtained, the warning notice may be withdrawn. The Salford Division has made two applications to the guardians for information as to the terms and conditions of the appointment, but the reply is simply that "the guardians have no observations to make"; in other words, they bluntly refuse to give the medical profession any information. That being so, the Salford Division seems to have no alternative save to continue the warning notice until some authoritative information is obtained directly or indirectly, for it is impossible for the profession to accept press rumours as sufficient guarantee of what the guardians propose to do some time in the future.

It appears that the guardians are proposing to treat the present visiting medical officer very badly. Owing to the new arrangements he will receive three months' notice of the determination of his present appointment, and, considering that there are no complaints in any shape or form against him, and that he is to lose his present salary of £250 solely because the guardians have been compelled to reform their own administration, the offer of £250 as compensation is shabby in the extreme. As he is a surgeon well known in the district, it had been expected that he would be retained, possibly at a smaller salary, to go, when required, for operations; but apparently it is expected that the new medical superintendent shall be both physician and operating surgeon. In any case, the way in which the guardians propose to treat him shows the absolute necessity for caution in seeing that the terms and conditions of the appointment of the new superintendent and his assistants are strictly set forth and properly defined.

APPOINTMENT OF WOMEN TO RESIDENT POSTS AT THE INFIRMARY.

At a meeting of Convocation of the Manchester University, presided over by Professor Wild, an important debate took place on the question of the appointment of medical women to resident posts at the Royal Infirmary. The Chairman pointed out that the decision of the question lay entirely with the Infirmary Board, and Convocation could do nothing but make recommendations. Mr. A. E. Steinthal then moved the following resolution:

> That, having regard to the interests of the women students in the Faculty of Medicine, Convocation desires to suggest to the University Court that they should ask the Royal Infirmary Board to reconsider the question of appointing women to resident posts at the Royal Infirmary.

Mr. Steinthal said that he fully recognized the right of the infirmary to determine the matter, and asked only that the University Court should bring its influence to bear on the Infirmary Board to reconsider its recent decision. It had always been one of the principles at the university that there should be no distinction between men and women in the facilities for completing their study, and the university was doing nothing unreasonable in asking that the same principle should be carried out at the infirmary. No one could believe that the want of accommodation was the real ground for the refusal to appoint women. Dr. Catherine Chisholme, in seconding the resolution, said the posts in question were really the completing of the university training, and Convocation had some legitimate ground for urging the university to use all the pressure it could with the Infirmary Board to give perfect equality of opportunity to both men and women. Dr. George Ashton wished to move an amendment:

> That it is not in the best interests of the infirmary that lady students should be admitted to the resident posts.

This, however, was ruled out of order, and he proceeded to speak against the resolution. He said the university syllabus stated that women would be admitted to the infirmary posts, but the university had put this in without the consent of the infirmary, and the board had taken exception to the statement. He thought the sphere of women was among women and children, and there was plenty of scope for women doctors at other hospitals in Manchester. Mr. E. J. Broadfield understood that the Infirmary Board intended to consult the trustees on the matter, thus showing that it was open to conviction, and there would be no discourtesy in the university asking the board to reconsider its decision. A very animated debate followed, in which Dr. Moore of Huddersfield, Dr. Brown of Bacup, Dr. Schuster, Dr. Edge, Professor Weiss, Mrs. Tout, and others took part. The resolution was then put to the meeting and declared carried by 34 votes to 5.

ENDOWMENT OF A CANCER BED AT THE INFIRMARY.

At a meeting of the Board of Management of the Manchester Royal Infirmary a letter was read from Mr. G. Spiegelberg, of Bowdon, offering a donation of £1,000 for the endowment of a bed for male cancer patients at the infirmary. It is to be known as the "Edward and Antonia Spiegelberg Bed," in memory of the donor's parents. A condition made by the donor was that the bed must be available for any male patient suffering from cancer irrespective of nationality or creed. The board accepted the offer, and passed a vote of thanks to the donor.

LONDON.

TREATMENT OF SCHOOL CHILDREN.

AT the meeting of the Education Committee of the London County Council on February 2nd, the Day Schools Subcommittee reported the receipt of a letter from the Board of Education approving, for a period of twelve months, the arrangements adopted by the Council on November 30th, 1909 (BRITISH MEDICAL JOURNAL, p. 1644), for the medical treatment of school children at thirteen hospitals. In consenting to the scheme the Board stated that it was to be understood that the arrangement must be regarded as experimental, and that they would subject its working to careful scrutiny. During the next twelve months the Board would take measures to ascertain how far the proposals embodied, or might be regarded as leading up to, a scheme for attending to the health and physical condition of the school children which would be effective, adequate, and economical; and that it must be a condition of its approval that the Council would itself reconsider the whole situation at or towards the end of the experimental period, and would furnish the Board with a report upon the general working of the scheme in its administrative, educational, and medical aspects.

The subcommittee also reported the result of negotiations which had taken place for the treatment of children not included in the arrangements adopted last November. Since then the Central London Ophthalmic Hospital and the Victoria Hospital for Children, which had undertaken to provide treatment free of charge, had stated that they now desired financial aid. The effect of these withdrawals from the list of free hospitals was that the number of children for whom further provision must be made on a financial basis was increased from about 5,000 to about 10,000. The subcommittee recommended that agreements be entered into with the following hospitals:

1. The Hospital for Sick Children, Great Ormond Street, W.C. (400 eye and 440 ear cases a year).
2. The Royal Eye Hospital, St. George's Circus, S.E. (2,000 eye cases a year).
3. St. Mary's Hospital, Paddington (750 eye and 500 ear cases a year).
4. The Victoria Hospital for Children, Tite Street, Chelsea (440 eye and 260 ear cases a year).

The terms were generally in accordance with those previously approved, consisting of a payment of £50 a year for each clinical assistant working one half-day a week, and a capitation grant of 2s. Grants for apparatus were also included for the Royal Eye Hospital and St. Mary's Hospital, Paddington, the stipulation being made that the apparatus remained the property of the Council. The authorities of the Royal Eye Hospital proposed to provide increased accommodation by establishing a special department for school children, and had asked for a grant towards the capital expenditure. This had been refused. The proposals would secure treatment for approximately 5,000 children, leaving 5,000 children still outside the scheme. Steps were already being taken towards making this provision, and the subcommittee promised a further report. It was also considering the steps to be taken in respect of the outlying districts of the country, which were inconveniently situated in respect to hospitals. There also remained the question of the permanent provision to be made at Hampstead, when the experiment now being carried out by the local Council of Social Welfare was completed. It had been necessary to amend slightly the arrangements made on November 30th, 1909, with King's College Hospital. It was understood that 500 ear and throat cases would be treated in one department, but the hospital authorities wrote that they were being dealt with in separate departments, and that consequently additional staff would be required. In the circumstances it had been decided to send only aural cases to this hospital, the grant remaining the same. The proposals now made would cost £1,350 a year, and would come into operation on April 1st, 1910.

It was decided to continue for another three months the arrangements with the Queen Victoria Jubilee Institute of Nurses for the treatment of children in two districts who were suffering from suppurating ears (BRITISH MEDICAL JOURNAL, February 13th, 1909, p. 426). The scheme was put into operation in Hackney, Shoreditch, and Bethnal Green on October 1st, 1909, and it was felt that three months was not long enough for its merits to be ascertained.

THE MEDICAL STAFF OF THE EDUCATION DEPARTMENT.

With regard to the proposal which came before the Education Committee of the London County Council recently to appoint an assistant medical officer in the Education Department at a salary of £700 a year (BRITISH MEDICAL JOURNAL, December 11th, 1909, p. 1712), a further report was considered by the Committee on February 2nd. It was decided to dispense with one of the present quarter-time posts, remunerated at £150 a year, and to appoint the holder, Mr. F. C. Shrubsall, M.A., M.D., M.R.C.P., D.P.H., to the new office at a commencing salary of £500, rising by annual increments of £50 to the maximum. The General Purposes Subcommittee stated that, in addition to carrying out his present duties, Dr. Shrubsall would carry out other duties allocated to the medical officer (education), for which about £75 would otherwise be paid, and also continue certain examination work for which he has been paid £115 a year. The new post would, therefore, involve an additional expenditure of only £340 a year.

ANNUAL REPORT ON SCHOOL CHILDREN.

(Continued from page 289.)

Notifiable Infectious Diseases.

Dr. Kerr observes that the only notifiable infectious diseases which to any material extent affect school children are scarlet fever and diphtheria.

With regard to scarlet fever, he says that its spread in schools appears to be through close personal contact with: (1) A previously known case either in its early or later stages; (2) a mild unrecognized case, not excluded from school; (3) an apparently simple sore throat, without other symptoms; and (4) rarely a carrier case not suffering. Experience so far obtained goes to prove that the peeling stage is of little importance as regards infectivity, and further that a high proportion of people escape the disease. Closure of a school or department for scarlet fever as now met with may, he thinks, be relegated to the list of crude and unscientific measures, although closure of one or two classrooms may occasionally be resorted to when school visitation and investigation is not possible.

With regard to diphtheria, Dr. Kerr observes that from the school point of view the greatest danger of spread arises from mild undetected cases, and he believes that the regulation by which all sore throats are notified to the medical officer of health by teachers when diphtheria is prevalent in the district, and admission refused until a certificate of freedom from infection based upon bacteriological examination is produced, is likely to be of the utmost value where local arrangements exist for bacteriological diagnosis. Such arrangements have not been made in many of the London boroughs, and Dr. Kerr adds that unless facilities exist for the detection of mild carrier cases, preventive measures are largely wasted.

Non-notifiable Diseases.

The principal non-notifiable infectious diseases which have been found to affect school children are measles, mumps, whooping-cough, chicken-pox, ringworm, ophthalmia, and scabies, but, with the exception of measles and whooping-cough, they are not dangerous to life, although they may seriously affect attendance at school.

Among these diseases measles claims the heaviest death-rate, due largely to ignorance on the part of parents. The special inquiry proposed by Dr. Kerr to the School Board for London has now been conducted for five years in Woolwich by Dr. C. J. Thomas, in co-operation with Dr. Davies, medical officer of health. It has yielded much valuable information, and in Dr. Kerr's opinion has revolutionized ideas as to the distribution and methods of treating measles

outbreaks in schools. The principles deduced from this inquiry have now been applied in all the infants' departments in the metropolitan area, and have been recommended generally by the Local Government Board. The procedure is as follows:

The infants' head teacher makes inquiry as to the measles history of each scholar on the roll, and of every child newly admitted to the department. If a child has already had measles, this is recorded in the attendance register by the letter M; if a child is not known to have suffered, this is noted by the letter O. Should a child with a negative measles history contract the disease before leaving the infants' department, a suitable alteration is made in the register. The record thus established serves to show at any time the proportion of children protected by previous attack to those who are unprotected and liable to attack when exposed to infection, and it is upon this knowledge that any action is based. Immediately a case of measles occurs in the department, a copy of the following on a dark red card is distributed to each of the unprotected children in the classroom in which the patient was attending:

OBVERSE.

M.O.19 A.] LONDON COUNTY COUNCIL.

Notice to The Parent or Guardian of ——— *From* The Head Teacher (Infants' Dept.) ——— *School.*

As a case of measles has occurred among the scholars in the class which your child attends, it is possible that——may have contracted the disease. As it requires about twelve days for measles to develop after infection, you are requested to pay particular regard to the state of your child's health, during the NEXT THREE WEEKS, and upon the slightest sign of illness to abstain from sending——to school.

Date——— ———

Signature.

REVERSE.

NOTE.

Measles may be a very serious illness in young children, and many die from it. The early symptoms are those of a cold, which may be at first slight; there is generally running at the eyes and nose, sneezing and possibly cough. Many children lose their lives because parents allow them to go out of the house, thinking that the indisposition is only a slight cold, when it is really measles.

The measles returns from all schools are reviewed daily at the Head Office, and when it is considered that closure of a classroom will tend to check the spread of the disease, instructions are given to the head teacher, who sends the children home after giving each a light green card informing the parent that the classroom has been closed, and warning them to keep the child, should it show any signs of the disease, from contact with other children, or exposure in public places for a fortnight, and adding that a child who appears only to have a slight cold may have contracted measles and be dangerous to others. A child who has contracted measles is not allowed to resume school attendance for a month. Dr. Kerr states that an apprehension was expressed by some teachers that the red cards might throw parents into a state of panic, but these apprehensions do not appear to have been justified. He adds:

The increase in frank confidence between school authorities and parents can only tend to greater trustfulness ultimately. The parent has a right to know if his child has been exposed to the risk of contagion, and we would fail in our duty if this information were suppressed through the indirect action of the Board of Education's regulations in the supposed interest of school attendance.

Vision.

During the period under consideration, from April 1st, 1907, to December 31st, 1908, vision testing was carried on in the usual manner with Snellen's test types by the teachers, who recorded the vision in the attendance registers. All children who do not attain $\frac{6}{18}$, or, above Standard V, $\frac{6}{12}$, are put upon a list which is forwarded to the Head Office. These children are reviewed later by the medical officer, and green cards of warning or red cards in more urgent cases are forwarded to the parents.

The following tables give a summary of the results obtained:

	April 1st, 1907, to March 31st, 1908.		April 1st to December 31st, 1908.	
	Numbers.	Percentages.	Numbers	Percentages.
Number of children on registers	473,145	100.00	313,415	100.00
Returned as defective by the teachers	50,854	10.75	29,326	9.36
Returned as defective by the oculists	35,142	7.43	20,584	6.58
Green advice cards given	21,201	4.48	13,331	4.25
Red advice cards given	8,303	1.75	3,983	1.27
Total cards	29,509	6.24	17,314	5.52

A special school at Boundary Lane has been opened for cases of high myopia, and it will be used to educate these children in such a way that their eyes may be spared during the period of growth.

An experimental school clinic on a small scale is being privately worked at Bow. Dr. Hugh Thompson has been conducting an ophthalmic clinic for school children in Woolwich since May, 1907. The organizing work is done by the ladies of the Invalid Children's Aid Association, and on its premises the children selected by them are seen during two and a half or three hours once a week. Dr. Thompson has treated 456 children; of these, 316 were refraction cases. An optician attended to provide the spectacles ordered at prices ranging from 2s. to 4s.

In London, on account of the magnitude of the work, it has been almost impossible to go beyond the determination of proportions of children at different ages with defective visual acuity. The general ideas of ophthalmic surgeons as to the effect of school work upon the eyes are mainly based upon Continental research. It has been suggested that hypermetropic astigmatism tends to develop into myopia; if this be so, every attempt should be made to save these eyes by ordering the correcting glasses at an early date.

Mr. Bishop Harman has analysed the results of his examination of school children seen at the Middlesex and Belgrave Hospitals. The results are not identical, and the difference is referred in the report to the different class of patient seen at the two hospitals. Far more aliens and a poorer class of patient are seen at the Middlesex Hospital than at the Belgrave Children's Hospital. The figures accord with those usually found by such a method of analysis.

One of Mr. Bishop Harman's graphs is included; it shows that, as far as his records are concerned, the incidence of myopia increases from the age of 6 to 12, from 5 cases among 618, to 46. Hypermetropia gives approximately a level line, whereas hypermetropic astigmatism gives a curve which rises up to 8 years of age, remains level to 11, and falls rapidly between 11 and 13. Hypermetropia is the usual condition found in young children, whereas myopia only occurs in 3 per cent. of the children examined.

THE PREVENTION OF GLANDERS.

The Public Control Committee reported to the London County Council on February 1st upon the administration of the Glanders or Farcy Order of 1907. During the period from January 1st, 1908, to November 30th, 1909, the Council paid as compensation to horse owners nearly £33,000, but the estimate for 1910–11 contained provision for the expenditure of only £12,000, some diminution in the disease being apparent. The prevalence of the disease in some large studs had exceeded the committee's expectations, but there was likely to be a reduction in the expenditure in the future as the number of centres of infection had been reduced. The two most serious difficulties with which the Council had had to contend in connexion with the extirpation of glanders had

been the very large number of latent cases of the disease in some studs and the recurrence of disease in a few. Experience proved that the spread of glanders had been largely due to the failure of horse owners to take adequate measures for the protection of their horses, and the neglect of the most important precaution urged upon them by the Council—namely, the use of mallein in all newly purchased animals. The neglect of the latter precaution had led to the introduction of glanders where it had not previously existed, and to its reintroduction after considerable expense had been incurred in stamping it out. To ensure the complete extermination of glanders the committee felt that additional powers were necessary: (1) to destroy all suspected nosebags, which were difficult to disinfect; and (2) to reinspect a stud without waiting for the disease to reappear. It was seldom that one test with mallein detected every case of disease in a large stud. A local authority should be empowered to test the stud again after a period of from one month to six weeks, as was already done in some cases with the concurrence of owners. The work under the Order would be greatly facilitated if proprietors of horse repositories were required to disclose to local authorities the name and address of the vendor of any horse subsequently found to be suffering from glanders. The local authority should be able to exercise control over a horse as long as it gave a doubtful reaction, or for a maximum period of three months, instead of twelve days as at present. The committee recommended that the Board of Agriculture be asked to amend the Order in accordance with these suggestions. The recommendation of the committee was approved.

WALES.

MEDICAL INSPECTION OF SCHOOLS.

A CONFERENCE recently took place between the chief medical officer of the Board of Education and representatives of the Education Committees for Breconshire and Radnorshire. The chief medical officer impressed on the conference the importance and necessity of (1) nominating one of their present medical officers at once to be the school medical officer for the current code year, (2) examining all scholars entering and leaving the schools during the current school year, (3) co-operation between the school medical officer and medical officers of health in the county, (4) the re-examination at intervals of defective children. The Breconshire Committee consequently made certain recommendations to the County Council, which have been adopted; it has been arranged that Dr. T. P. Thomas, of Brecon, should act as school medical officer for the current code year, and he has agreed to allow the question of his remuneration to be in abeyance until the committee has fuller information as to the extent of his duties. It appears that when some time ago the committee was arranging for the appointment of school medical officers of the various districts, the doctors in the Builth and Vaynor districts declined the terms offered, which, we understand, were £1 per annum for the inspection of each school at least twice a year. It appears that in one part of the district a visit to the school would have entailed a journey of eleven miles, and in another of twenty-five miles each way. Further representations were made by the committee to the medical men in the district, who, having taken into consideration the bad roads and hills in the district, have agreed to a rate of 2s. 6d. a mile one way, and 3s. 6d. for each child examined. It appears that these terms have been accepted by the committee, and that Dr. W. Black Jones of Llangammarch and Dr. W. W. B. Fry of Builth Wells have been appointed medical officers for the upper and lower Builth districts respectively until July 31st next. In two other districts it appears that the services of medical men have been obtained on different terms; in one case at the rate of 1s. a child examined and in the other reimbursement of bare travelling expenses, and some small sum for time. It would appear to be a matter for regret that the medical men in the county have not acted fully together in this matter, and unanimously insisted on vindicating the principle that medical men should claim adequate remuneration for services rendered to the State.

Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

RETIREMENT OF DR. PETER MCBRIDE.

DR. PETER MCBRIDE, well known as a leading Scottish specialist on diseases of the ear and throat, was entertained to dinner on the evening of January 28th by his old clinical assistants in the Edinburgh Royal Infirmary, his retirement from professional work being deemed a fitting occasion whereon to do him honour, and to commemorate his long and distinguished services. The dinner took place in the Caledonian Hotel, Edinburgh, and the Chairman was Dr. R. H. Blaikie, Dr. McBride's first clinical assistant in the infirmary. Dr. Blaikie was supported by twenty other gentlemen who had held the same appointment in later years, and apologies for absence were received from many others throughout the country.

The Chairman proposed Dr. McBride's health in a felicitous speech. Having sketched the rise and development of the ear and throat department, and referred to the great changes which had taken place as regards the premises required for patients, he went on to speak of the speciality itself, and of the part which Dr. McBride had taken in its advancement. He referred, also, to the very high position now occupied by Dr. McBride in the profession, and spoke of the esteem in which he was held by his compeers, as evidenced by the many honourable positions to which they had elected him. He further drew attention to the fact that, in spite of a busy and active professional life, Dr. McBride had found time to engage in various outdoor sports; and that, in addition to fishing, shooting, and curling, he had for many years been a familiar figure in the hunting field, attending regularly the meets of the Linlithgow and Stirlingshire Hunt. Dr. Blaikie mentioned, also, the loyalty which Dr. McBride had always won from his assistants; and this, he said, was due, not only to the esteem in which they held him as a man of exceptional learning and ability, but also to his invariable kindness and courtesy, and to the charm of his personality. Dr. McBride would carry with him on his retirement the most cordial wishes alike of his old assistants and of his many friends within and without the profession, and it was hoped he would long be spared to enjoy the leisure he had so deservedly won.

Later in the evening the Chairman presented Dr. McBride with an album containing the photographs of most of his old assistants, on which was inscribed: "To Peter McBride, Esq., M.D., F.R.C.P.E., from his former clinical assistants in the Royal Infirmary, Edinburgh, on the occasion of his retirement from professional work. January, 1910."

In his reply Dr. McBride dwelt on the great cordiality which had always existed between himself and his assistants. This was largely due, he asserted, to the loyal way in which they had served him, and to the free and willing fashion in which they had given their time to the work of the department. In the early days of the speciality his knowledge had to be gained from the writings of foreign authors, and, throughout many years, much of his time was perforce given to such study. Having next sketched the position of the speciality when he first began to practise, he spoke of the difficulties he had encountered in persuading the profession to realize the necessity of studying ear diseases, and he recounted several anecdotes—connected with his early years—which illustrated the very extraordinary notions some of his medical friends formerly held regarding his work and position. In conclusion, Dr. McBride said that nothing could have

gratified him more than to be received and entertained so kindly by those with whom he had worked.

Dr. McKenzie Johnston, after proposing the health of the Chairman and of the Croupier, Dr. Logan Turner, said he could not help referring to the cordial relations which had long existed between himself and Dr. McBride, and to the very kind way in which the latter had always treated him during the twelve years in which he (Dr. McKenzie Johnston) had acted as his assistant surgeon. After Dr. Blaikie and Dr. Turner had replied, several songs were rendered. Finally "Auld Lang Syne" was sung, and a very pleasant and enjoyable evening was brought to a close.

INFIRMARY AMALGAMATION IN GLASGOW.

At the annual meeting of the Glasgow Royal Infirmary the Lord Provost, who presided, again referred to the question of the amalgamation of the Glasgow infirmaries, and said that in the future attention must be directed to the problem of how the annual decrease in the subscriptions to hospitals could be arrested. The question of co-ordination and consolidation of effort should be seriously considered. It was notorious that in philanthropic and charitable endeavour overlapping and interlacing of work took place, and more than one institution was found doing the same work with the same class of cases. The three great infirmaries were doing splendid work, providing for the same class of patients and with no substantial difference in their method of administration. It might be worth while for the respective governing bodies to consider the subject of amalgamation, as it was not impossible that an economy might thus be effected, and he did not believe that the total contributions would suffer. His official experience had strongly impressed him with the necessity for something being done to prevent the dissipation of effort and overlapping of work. The Royal Infirmary was one of the most ancient institutions, and had rendered incalculable service to the community. He regretted that ordinary expenditure had exceeded the ordinary revenue during the past year by £13,640, though the admissions were 118 fewer than in the previous year.

GLASGOW ROYAL HOSPITAL FOR SICK CHILDREN.

Sir John Ure Primrose, who presided at the twenty-seventh annual meeting of this institution, stated that the subject of the site and equipment at the new building had been carefully considered by the directors, who had obtained expert advice and visited a large number of kindred institutions. The building fund was now £94,000, but £26,000 was still required. The new site, although within the city boundary, was on a commanding height where the hospital wards could secure all the sunshine available; it was central, with radiating lines of communication to all districts; and it was near the university, so that the value of the hospital as a school for the study of children's ailments would be considerably enhanced. It would virtually become a part of the medical school.

The plans for the new building were prepared by Mr. J. J. Burnet, architect, with the expert advice of Dr. D. J. Mackintosh, after seeing the most recent children's hospitals in Germany and in the United States. Building operations will be begun in the spring, and plans provided for the erection of a 300-cot hospital on a site extending to 10 acres. It will be on the pavilion system, each block being connected with the others by a single well-ventilated passage. Provision for 200 beds is at present being made, but the blocks can be increased in number as required without disturbing the work of the hospital. Most of the blocks will be two stories in height. The patients treated last year in hospital numbered 1,012, and the out-patient attendances 51,594.

HEREDITY AND ENVIRONMENT.

Dr. J. Wishart Kerr, in a recent lecture on the importance of heredity and environment before the Glasgow Health Culture Society, said that it had been proved that heredity played an important part in the transmission of physical defects and moral perversions. In the present state of public opinion it was too much to expect the establishment of a lethal chamber for the regular elimination of the unfit, but drastic measures should be taken to prevent their propagation. The average number of children in families which used the public elementary schools was about four, whereas in the degenerate families whose children were handed over to the special schools the average number was seven. The remedies he suggested were absolute intramural care of all deaf-mutes, mental cases and epileptics; the demand by parents of a certificate of life assurance from prospective sons-in-law, and a concentrated effort on the part of the public to prevent further deterioration of the race by a policy of wide streets and artisan cottages in new districts, the demolition of existing slums and insanitary areas, the abolition of overcrowding, and the inculcation of temperance principles in the young.

THE EDINBURGH AND LEITH MEDICAL PRACTITIONERS' ASSOCIATION.

At a meeting of this association on January 15th the adjourned discussion of the proposal to establish a nursing home for private patients at the lowest possible rates was continued. About fifty members were present, and many took part in the debate. A plebiscite of the members had been taken on the following points: (1) The advisability of starting in Edinburgh a staffed gynaecological hospital. (2) The desirability of having a private non-staffed nursing home for patients paying 10s. and upwards. The plebiscite showed a large majority in favour of a private non-staffed nursing home and against a staffed gynaecological hospital.

STREET ACCIDENTS IN GLASGOW.

In consequence of the action taken by the Glasgow and West of Scotland Branch of the British Medical Association (SUPPLEMENT, BRITISH MEDICAL JOURNAL, July 3rd, 1909, page 13), and as a result of a deputation of the Branch, which had a conference with the Glasgow Corporation on the question of the fees payable to medical men when summoned to street accidents, an arrangement has been arrived at. Much dissatisfaction was occasioned not infrequently among medical practitioners at the refusal of the Corporation to pay more than 2s. 6d. even in serious cases. Under the new arrangement a regulation fee of 5s. will be paid to any practitioner summoned by the police, and a method has been devised for noting all cases and having them duly vouched for in the proper quarter. A circular intimating the new agreement arrived at has been sent to the practitioners in the city and district by the Honorary Secretary of the Branch.

Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

BOARDING-OUT CHILDREN AT A SHILLING A WEEK.

IN our review of the report of the Irish Local Government Board for the year ending last March [1] the fear was expressed that the lady inspectors of boarded-out children were becoming disheartened, and we have since noticed that guardians in some of the Irish unions are not quite satisfied with the way these waifs are treated.

At a recent meeting of the Cavan Board a guardian broached the subject of the treatment of some of the boarded-out children in that union. He strongly condemned the way in which some of the boarded-out children were treated, and said that no guardian should have anything to do with the boarding out of children unless he were a guardian of the division in which the applicant resided, and were made responsible for the care of the child. He asserted that some of them were treated like slaves, and asked who looked after them. The relieving officer said that he did, and that a lady inspector came once a year, adding that it was

[1] BRITISH MEDICAL JOURNAL, October 2nd, 1909, p. 1003

very hard to expect foster parents to keep the children on what they were getting; in a neighbouring union when the relieving officer reported that the children wanted warm clothing it was ordered at once, but in Cavan the guardians would not give any clothing, and it was unreasonable to expect foster parents to do all for 4s. or 5s. a month, as the children could do very little work if they were kept at school. The Chairman said that if the children were well treated it was better to send them out of the workhouse, and the matter was eventually allowed to drop. In the review above referred to, it was stated that the average cost of boarded-out children for all Ireland was £7 a head a year, but it appears that in Cavan Union twenty-one children have been boarded out at a cost of £55, or £2 12s. 4½d. a child a year, while the adjoining Union of Cootehill paid £64 for the maintenance of thirteen children, or £4 18s. 5d. a child a year. The class of people who take these children are small farmers and cottiers, and they do not usually take them merely from philanthropic motives. The Local Government Board insists that they shall be sent regularly to school, so that the profitable work to be got from them is small—smaller than from the foster parents' own children, who in many cases are not sent regularly to school. The advantages of the boarding-out system for children of the workhouse class are incalculable when it is properly administered, but it can hardly be said that a payment of a shilling a week is likely to conduce to good results.

FORSTER GREEN HOSPITAL FOR CONSUMPTION, BELFAST.

The fourteenth annual meeting of this institution was held in Belfast on January 27th. Mr. Herbert Ewart presided. The total number of patients admitted during the year was 231, of whom 76 were discharged with the disease apparently arrested; 103 were improved; 13 showed no improvement; no patient whose stay in hospital was less than two weeks is included in these statistics. The average number under treatment throughout the year was 70.77, of whom 32.56 were on the old foundation and 38.21 were nominated by the City Council. In the out-patient department there were 725 new cases. The medical staff drew serious attention to the overcrowding and general inadequacy of the present out-patient dispensary; the patients had often to sit on the stairs, and the work of examination was handicapped.

Special Correspondence.

PARIS.

The Flood in Paris.

THE rapid and continued rise of the Seine reached its maximum on the night of January 28th, when the scale at the Pont d'Austerlitz registered nearly 29 ft. above normal level; the scale at the Pont Royal had been by this time submerged for a long time. It is estimated that more than 100,000 inhabitants are homeless, and the number out of work will reach nearly twice that number.

Large areas of the city at a distance from the river are under water, due to the flooding of incompleted subterranean works for the metropolitan railway, which will pass under the river near the Pont de la Concorde, and also due to bursting of flooded sewers which carry off surface road drainage and slop waters from the houses to the river.

The hospital principally affected by the rising waters was the Hôpital Boucicaut. From the time the director became alarmed at the encroach of the water and telephoned to M. Lépine, the prefect of police, it only took a little over two hours to empty the hospital. Firemen carried the 400 patients, many of whom were dying, in blankets to waiting motor cars, and they were distributed between the Necker, Laënnec, and Cochin hospitals.

The Hertford British Hospital at Levallois Perret, to the north-west of Paris, has not escaped. Water began to invade the cellars and court on January 28th, and it has only been possible by continuous pumping day and night to prevent the water reaching the heating apparatus. The hospital is deprived of the telephone, gas, and drinking water. The Mayor of Levallois has given directions for a street-watering cart full of drinking water to be sent to the hospital each morning. For the last four days it has been impossible to heat water for the baths. All the water used has to be boiled in the ward kitchens, and there is a prospect of coal becoming scarce.

The permanent committee of the Conseil Supérieur d'Hygiène has been sitting under the chairmanship of Dr. Roux, of the Pasteur Institute, and has drawn up the following scheme of hygienic measures to be carried out by the public authorities and private individuals to prevent any epidemic after the waters subside.

Instructions for the General Public.

In districts which have been flooded, or which receive their water supply from flooded regions, the water having been contaminated with sewage, is highly dangerous, and will remain so for a lengthy period.

To prevent grave epidemics, notably typhoid fever, it is indispensable only to use water (whether from springs, the river, wells, cisterns, public fountains, etc.) for drinking, preparation of food, and even for personal ablutions, which has been *boiled*.

Vegetables also have been soiled by the water, and people are expressly advised not to eat them raw.

Instructions for Persons whose Houses have been Inundated.

It is dangerous to re-enter a house which has been inundated without having previously cleansed it in the following manner:

1. Clear the house and its annexes of all mud and filth deposited by the water. To facilitate the removal of mud deposited in large quantities on the ground, plaster or chalk may be spread to dry it.
2. The heaps formed by the mud removed must be disinfected by mixing with quicklime (5 kilograms of lime to the cubic metre). Be careful not to deposit these heaps near any wells.
3. After removal of the mud the floors of the dwellings must be disinfected (when of beaten earth with milk of lime, all parquet floors with water).
4. The walls of the houses must be scraped and washed with lime.
5. Soiled mattresses must be burnt. All other bedding must be cleaned and disinfected as far as possible.
6. The aëration and ventilation of the rooms will thus be the best method to dry the dwellings and render them healthy. The most efficacious method of drying is to keep a large fire burning with the windows and doors open.

The bodies of drowned animals should be buried without delay at a good depth, covered with lime.

Dépôts for the distribution of disinfectants are to be established in the different quarters affected.

BERLIN.

Work of School Doctors.—Tuberculosis in Prussia.—Administration of Medicine by Doctors.—The Berlin Ambulance Society.

DR. PAUL MEYER'S annual report of the work done by Berlin school doctors contains some instructive figures. The number of doctors was 44, and they were responsible for 265 municipal schools. Of what are called "school recruits," 9.45 per cent. had to be kept back from school, the most frequent reasons being anaemia, rickets, and mental debility. Almost 25 per cent. of the children remained under medical supervision; 456 were transferred to special classes for mentally defective children; 25 were removed to the home for idiots. Only 0.7 per cent. were found suffering from actual consumption, and it is stated that in the great majority of cases the disease breaks out after the close of school life; 25 per cent. showed some form of spinal curvature. One doctor found 10 per cent. of nail-biters. Many improvements were effected in ventilation and hygienic arrangements generally. The work of the newly established school dental clinics cannot be reported on for another year. The municipality spent 83,580 marks (£4,179) on mid-day meals for the poorest children during the winter months (835,823 meals); 100,000 marks (£5,000) have now been voted, in order that these free dinners may be continued during the late spring, the summer, and the early autumn months. A Berlin philanthropist, Herr Mosse, contributes a sum sufficient to provide those children who come to school unbreakfasted with milk and bread. Swimming lessons were given gratis to 2,173 children; 100,000 tickets for river baths and 118,000 tickets

for public bathing establishments (these latter at half price) were distributed. The school shower baths were largely made use of, new skating grounds were acquired, and large country playgrounds put at the disposal of the children during the summer holidays. There can be no doubt that the school doctors have warmed to their work, and that they are gradually gaining the confidence of both parents and teachers. Personal meetings between doctors and parents have undoubtedly had a good influence, and parents now frequently consult the school doctor as to the kind of work a child may be best fitted for when it starts to make a living.

In a paper read before the Berlin Society for Medical Statistics, Hygiene, and Social Medicine at its last meeting, Professor Kayserling gave a careful and most detailed analysis of the spread and virulence of tuberculosis in Prussia, and proposed a number of very definite and by no means Utopian public measures for combating it. Of all places in the Prussian monarchy, Berlin has the highest percentage of deaths from tuberculosis, and this is no wonder, for it is the most thickly populated place with 32,197 inhabitants to the square kilometre. Since 1903 the Berlin Municipal Board of Statistics has kept a record of the number of individuals living in the same room as a tuberculous person up to that person's death. About half the number of tuberculous patients in Berlin die in hospital, the other half in their homes, and of these latter no less than 81 per cent. lived in one or two-roomed homes. These cramped habitations, therefore, are the most dangerous tuberculosis foci, and the children living in them are in constant danger of infection. Moreover, this danger is far more extensive, numerically speaking, than the above figures show, for the average number of days spent in hospital by tuberculous patients in Berlin is only 45, whereas the period during which such a patient is liable to infect others must be calculated at no less than 600 days on the average. Therefore, the greatest efforts should be made to protect children of such patients from infection (such as open-air schools, open-air homes, efficient disinfection gratis, a comfortable home-hospital with about 750 beds for advanced stages, etc.).

The Berlin-Brandenburg Aerztekammer (representative body of medical men) has taken up the case of a doctor who had been committed to prison for having himself given a small quantity of medicine to a patient who appeared to him urgently in need of it. Their appeal to the Prussian Cultus Minister for alteration of the existing law so as to give doctors more latitude in such matters has been answered by a promise—slightly conditional, it is true—that their request will shortly be acceded to.

The Berlin Ambulance Society has gradually developed into a thoroughly useful institution. Its numerous stations, distributed all over the city, are fitted with excellent appliances for first aid and for transport, and the readiness and efficiency of the workers have stood so many tests, that the population have learnt to depend on the organization as a thing that will keep its place. The society now numbers 1,117 members, 350 of whom are active workers. During last year (1909) 13,660 persons applied for aid, and in more than 11,000 cases this aid was given in the stations. About 10,000 cases were accidents, 1,530 internal complaints, 140 obstetrical cases, and 114 poisoning cases. About 3,000 of the applicants were without means; 7,000 were members of sick clubs. In round figures, 26,000 marks (£1,300) were paid in fees; the Berlin municipality contributed 58,000 marks (£2,900); the remainder of the year's expenses, about £4,000, was raised by voluntary subscriptions.

IT is announced that Dr. Rhodain will be the head of the Belgian Sleeping Sickness Mission to the Congo. The Mission proposes to make its centre of work the Kalengwe Falls, in the neighbourhood of which the disease is very prevalent.

THE American Far Eastern Section of Tropical Medicine will hold its first biennial meeting in Manila, March 5th to 14th, 1910. The association was established for the purpose of bringing together workers in tropical medicine in the Philippine Islands, so as to give them an opportunity for the exchange of ideas and foster the spirit of scientific investigation. Among the subjects to be dealt with are questions relating to protozoology, helminthology, cholera, plague, leprosy, tropical fevers, and beri-beri.

Correspondence.

APPENDIX DYSPEPSIA.

SIR,—I think that one result of Mr. Moynihan's paper will be that many "dyspeptic" people will undergo operations for the removal of the appendix, and that the great majority of them will be none the better.

Let it be admitted at once that flatulent distension, with so-called indigestion and aching and discomfort in the caecal region, occur with great frequency in people who have chronic constipation and a dilated caecum, and that in many of these patients there are to be found perityphilitic adhesions and thickening of the appendix. Such cases are seen by every surgeon in these days, and few of them are as much benefited by operation alone as by suitable habits, diet, and aperients.

But Mr. Moynihan's description of "appendix dyspepsia" is at once so vague and so inclusive that there are few people with flatulent dyspepsia, from whatever cause arising, who would not be included in it. Thus, in one patient the pain occurs directly after food; in another an hour or two after; in another it is quite independent of food. So that all patients with dyspeptic pain are in the net. As to age, it appears to occur from the age of 7 to at least 50 or 60. Some people are sick, others are not. Some have nausea, others have not. Epigastric tenderness is "sometimes, indeed generally, present." In some there is "flatulence, aching of the body, occasional colic with diarrhoea, . . . and mucous colitis." In others there are all the symptoms of a gastric or duodenal ulcer. And all these various and diverse symptoms are attributed to an appendix which is not bad enough to cause any local symptoms!

Then, we are told, "exercise always makes the condition worse," yet, on reading the notes of five cases published to illustrate the clinical history, this symptom is not mentioned as occurring in any single one of them, although elsewhere in the paper stress is laid on this point as a diagnostic feature.

It is also stated that "haematemesis may occur," apparently to the extent of several pints, and Mr. Moynihan attempts to supply an explanation of how a chronic appendicitis will cause the stomach to bleed; but the explanation does not really explain it at all.

Mr. Moynihan gives no real proofs of the correctness of any of his conclusions, although in support of his views the scanty notes of five cases are published. Yet in only two of these are we told how long ago the operation of appendicectomy was performed, and as one of these patients was operated upon only last July and one in January, 1909, it is early days to speak of final results after previous years of abdominal trouble. In Cases IV and V even the immediate result of the operation is not given, nor is any subsequent history of the patients supplied, and there is no information as to the relief obtained.

But there is yet another difficulty in accepting Mr. Moynihan's opinion that latent appendicitis can cause all the various troubles enumerated, and this difficulty is not even alluded to in the paper. In the numerous patients who do have definite and typical acute attacks of appendicitis at long intervals, and are found by subsequent operation to have old-standing inflammation with concretions or other obstructions, why is it that this "appendix dyspepsia," with its vomiting, gastric pain, and haematemesis, etc., never occurs? It is common knowledge that one of the most notable clinical features of most cases of real appendicitis is the complete remission of all symptoms between the attacks, although the appendix may remain swollen and unsound, and except at these times the patient is perfectly well. Mr. Moynihan must explain this anomaly before he can expect acceptance of his opinion as to the part supposed to be played by the appendix when the symptoms themselves point to the stomach and do not suggest any trouble in the appendix itself.—I am, etc.,

London, W., Jan. 31st. ANTHONY A. BOWLBY.

GYNAECOLOGICAL DIFFICULTIES OF THE GENERAL PRACTITIONER.

SIR,—Dr. Herman in his "Purvis Oration" refers to several sentences in the paper which I read before the British Medical Association at the recent meeting in

Belfast. These sentences are quoted without any reference to the context, and from them is deduced the most erroneous and extraordinary conclusions.

Dr. Herman writes: "Have I gone too far in saying that if this kind of teaching were accepted as scientific gynaecology no woman would be safe from the curette?" A deduction such as this is not warranted from the isolated passages quoted. It is quite inconceivable that a careful reader of the article could have summed up its meaning in such a manner.

That this care was lacking is evidenced by Dr. Herman's suggestion that my patients are subjected to "the unpleasantness of repeated local manipulations." In my paper I distinctly stated: "The only subsequent treatment —that is, after curettage—is rest in bed for one week.' I also gave my reasons for saying that after curetting further local treatment is very rarely necessary, should certainly not be undertaken without clear indications, and then only at intervals separated by months.

Having quoted the symptoms which I said "are well-known accompaniments of the disease" (endometritis) and the referred symptoms which "have a possible origin in endometritis," Dr. Herman writes: "What woman ever consults a doctor who has not some of these symptoms?"

I reply, What doctor should ever forget that "amenorrhoea, dysmenorrhoea, menorrhagia, metrorrhagia, the passage of decidual casts and blood clots" are conditions associated with an abnormal endometrium, and that when the symptoms exist in combination with some of the others I mentioned (referred symptoms), a possible cause for their occurrence may be found in a diseased endometrium?

I endeavoured to bring out in my paper that curettage should precede all gynaecological operations if general anaesthesia is necessary, when experience has shown that the condition for which the operation is undertaken is often associated with an abnormal endometrium. One of the operations mentioned by Dr. Herman is a case in point. A woman was cured of neurasthenia and backache by the performance of ventrifixation. It is not stated whether this operation were preceded by curettage. The excellence of the cure makes it probable that it was. If so, Dr. Herman should have stated the fact, and if not, I feel that all available resources for cure were not adopted in the treatment of this woman.

Finally, I am quoted as saying that "endometritis is always present before it manifests itself by symptoms." The reader must infer from the context of Dr. Herman's paper that he does not concur with this statement, although he does not say so definitely. Theoretically it is self-evident that a disease must precede its symptoms. This statement was developed by reference to abnormalities of pregnancy, abortions, etc., the result of endometritis which had never manifested itself by symptoms before the abortion or other abnormality occurred. We have all seen these cases, and have also seen full term pregnancy result after curettage for endometritis, the only symptom or sign of which was repeated abortions.—I am, etc.,

E. HASTINGS TWEEDY,
Master, Rotunda Hospital.

Dublin, Jan. 29th.

THE PITUITARY BODY.

SIR,—In the JOURNAL of December 4th, 1909, appeared a very interesting article by Dr. Bell upon the pituitary body. As to the clinical value of infundibular extract I have no observations to offer, but in one of Dr. Bell's concluding paragraphs there are some remarks which call for discussion.

After calling attention to the presence of epithelial cells in the infundibular portion, Dr. Bell goes on to remark: "It is probably these epithelial cells and those of the pars intermedia that are responsible for the pressor base." Now, this is a very natural presumption, and has suggested itself to previous observers; but Osborne and myself[1] tested the matter, and found that an extract made from the central part of the infundibular portion—devoid of epithelial elements—is much more active than one from the peripheral. Probably the external layer would be found to be inactive if it could be obtained quite free from admixture with the central portion. Schäfer and Herring[2] found this to be the case also with the substance which acts as a diuretic. Improbable as it would appear at first sight, the conclusion seems inevitable that it is the nervous portion proper which contains the substance or substances having such pronounced pharmacodynamical properties different from those possessed by other nervous tissues.

This same paragraph of Dr. Bell's communication concludes: "For it has already been shown by Osborne and Vincent that extracts made from ordinary nervous tissue . . . rarely have any effect on the blood pressure, but that if there be any it is a depressor one." There are surely a good many steps in the argument left out. At any rate, this is a curious way of stating that we found extracts of nervous tissues to have a regular and marked depressor effect. The implication is that pressor effects are very significant, while depressor effects are not so. This is probably the correct view, but it is not universally, nor indeed very generally, accepted. Working in conjunction with pupils and others I have shown that probably all animal tissues contain a substance which, when injected into the circulation of a living animal, lowers the blood pressure. What this substance is has not yet been ascertained, although Popielski has recently given it a name, "vaso-dilatine."

Gautrelet[3] adopts the naïve attitude that "les différentes glandes hypotensives" have a common active principle, and that this is choline. Now it has been abundantly proved that the chief depressor principle in brain extracts is not choline, for it possesses different physiological properties, and that the tests employed to detect choline were valueless.[4] Notwithstanding this, Gautrelet says:

> Le rôle de la choline nous semble donc capital dans l'organisme; elle répond à la définition de l'hormone telle que la conçoivent Bayliss et Starling. Nous considerons volontiers le système des glandes à choline (cholinogène) comme antagoniste du système des glandes adrénaline (chromaffine); de la mise en jeu des deux systèmes dépend la régulation de la pression sanguine.
>
> La présence commune de la choline dans un certain nombre de glandes explique aussi les synergies qu'ont observées les auteurs entre elles.

Even if the action of tissue extracts were in reality due to choline, there would be no grounds for such an assumption as is here put forward. Gautrelet would not, I imagine, suggest that because a substance which lowers the blood pressure can be extracted from nervous tissues it is one of the functions of the nervous system to manufacture this substance as an internal secretion. Why, then, should a similar hypothesis be tenable in the case of other tissues and glands?

But how stands the matter when we find that an organ or tissue yields to extracts a substance which raises the blood pressure? Such a pressor effect being exceptional (applying only, in fact, so far as we know, to the chromophil tissues and to the peculiar nervous tissue in the infundibular portion of the pituitary) deserves more attention than the common depressor effects of extracts of tissues generally. And this consideration, perhaps, justifies to some extent the form in which Dr. Bell quotes the results of Osborne and myself. But we must not be too dogmatic. There are observers who deny an "internal secretion" to the chromophil tissues, and it is not yet absolutely proved that the pharmacologically active substance of the pituitary is an internal secretion, and is normally passed into the circulation to minister to the needs of the economy, though the recent work of Schäfer and Herring lends very strong support to this hypothesis.—I am, etc.,

SWALE VINCENT.

Winnipeg, Jan. 10th.

THE TREATMENT OF CHRONIC DUODENAL ULCER.

SIR,—In answer to Mr. Deanesly's letter in the BRITISH MEDICAL JOURNAL of January 29th, he will, I hope, allow me to point out that—

1. The 5 cases of duodenal ulcer which I quoted in the paper he refers to were proved by operation to be what I called them, cases of duodenal ulcer. Also that by describing them, as I did, under the heading "Results

[1] BRITISH MEDICAL JOURNAL, March 3rd, 1900.

[2] *Phil. Trans*, 1906.

[3] C. R., No. 11, T. cxlviii, 1909, p. 995.

[4] Osborne and Vincent, *Journ. of Physiol.*, vol. xxv; Vincent and Cramer, ibid., vol. xxx; Vincent and Sheen, ibid., vol. xxix; W. Webster, *Bio. Chem. Journ.*, vol. iv, 1909.

of Operation, especially of the Posterior No-loop Variety," short-circuiting was, I thought, clearly implied. How the ulcers themselves were dealt with, or what their relation to the pyloric area, I cannot say.

2. I was careful to state that I should call none of my cases cured till at least three years had elapsed. Hence to publish, before the end of that period, results as to relative permanency of benefit would be useless. The interim results, favourable and the reverse, of the serum and proteid treatment as applied by myself and independent workers will appear in due course.

3. The statement that "the method is not described with sufficient detail to enable any one to give it a fair trial" is not quite accurate, as the following facts show:

(*a*) It is described in detail in the *Lancet* of February 15th, 1908, and in a paper read at Sheffield in July of that year published in the BRITISH MEDICAL JOURNAL in the autumn (October 10th, 1908, p. 1080).

(*b*) I have in front of me a list of 96 medical men from various parts of the country who, after reading these papers, have either written to ask where the serum could be obtained or ordered it direct, and I am still constantly receiving inquiries. The greater number have not thought it necessary to ask for further information than that already detailed.

(*c*) In ten months in the year 1908 one firm of chemists alone supplied 586 separate orders for 55,000 c.cm. of the serum, though not exclusively for gastric and duodenal cases.

If Mr. Deanesly finds the information in the papers referred to insufficient, I will gladly give him any further details he desires. If he will undertake the treatment of a consecutive series of cases he will be able to satisfy himself as to immediate results. This course, in common with many of his colleagues, once equally sceptical, he will find more convincing than waiting for the published results of a method the ultimate value of which is still *sub judice*. With the steadily increasing number of observers who, after trial, have reported favourably of a treatment for which I have made no extravagant claims, I am more than satisfied.

Mr. Deanesly's observation that gastro-enterostomy should be reserved for cases in which the ulcer is close to the pyloric sphincter is of the greatest interest. If other surgeons, with experience equally large, can confirm this its value is greater still. I fully endorse his remarks on the advantage, in diagnosis, of inspection over inference. It is often said that inferential diagnosis of the existence of open ulcer is easy. Personally, I find it sometimes most difficult.

Mr. Deanesly's letter, courteous in tone as it is, rather misses, if I may say so, the point of my contribution to the debate on Mr. Moynihan's masterly address. To have come across a few cases of operative failure in no way justifies antagonism to all surgical measures in cases of ulcer. Far from it. In suitable cases, and, of course, in certain emergencies, the value of operation is often admittedly high. My object was to suggest that recognition of this need not blind us to the fact that even uniform success in treating symptoms is not necessarily the last word in eradication of the disease, and that a first-hand knowledge of all the methods available is desirable before giving rein to dogma.—I am, etc,

London, W., Jan. 29th. E. C. HORT.

CALCIUM IN THE TREATMENT OF EPILEPSY.

SIR,—I read your article in the issue of January 29th, p. 280, on the treatment of epilepsy by the administration of calcium salts with some slight sense of humiliation, for the writer failed to mention the work done by any of his own countrymen. I do not pretend to say that their work is worthy of special mention, but a passing reference would not have been out of place, since some of it appeared in your own columns.

Although it may not be exactly modest, I am compelled to begin with myself in order to be chronologically accurate.

In a paper read before the Royal Society of Medicine in the early summer of 1908, on the relationship of the calcium metabolism to menstruation, I stated that hystero-epilepsy could be successfully treated by the administration of calcium lactate, for, as I showed, the attacks are due to an excessive fall in the calcium content of the blood at the commencement of menstruation. This paper was published in the *Transactions* of the Royal Society of Medicine, July, 1908; and the facts it contained were afterwards incorporated in a series of papers on The Physiology of the Female Genital Organs, by Hick and myself, that appeared in the BRITISH MEDICAL JOURNAL in February and March of last year.

Personally, of course, I do not see cases of ordinary epilepsy, but I should like to call attention to a striking paper by Arthur R. Littlejohn, of the Hanwell Asylum, on the treatment of epilepsy by calcium lactate, published in the *Lancet* of May 15th, 1909. In this paper the author illustrates the remarkable efficacy of this salt of calcium in the treatment of epilepsy. Further, he brought out a point of great interest to me, namely, that even under treatment the progress of the case may undergo a relapse during the menstrual periods. This is further evidence in support of my theory of the close connexion between menstruation and the calcium metabolism.

I do not know who was the first to suggest the use of calcium salts in epilepsy, but I must make some claim to having quite independently used, nearly three years ago, and advocated calcium lactate in the treatment of hystero-epilepsy, and I did so as a direct and logical conclusion drawn from my experimental work into the nature of the menstrual function.—I am, etc.,

Liverpool. Feb. 2nd. W. BLAIR BELL.

CARBON DIOXIDE SNOW IN DERMATOLOGY.

SIR,—With reference to the use of carbon dioxide snow in the treatment of moles, etc., I have found an ordinary leather tobacco pouch with a running noose very useful to catch the snow in. The pouch is tied on to the nozzle. I use chamois gloves to handle. I think it is preferable for the small cylinder to be kept in an inclined position, with nozzle downwards, on a cheap wooden stand which can be readily made by any carpenter. As to the applicators, mine are made of German silver after the design of Dr. Richard Sutton, of Kansas City, to whom I am indebted for details as to them.

May I point out that Dr. Allen Pusey of Chicago suggested the use of carbon dioxide as a therapeutic agent in 1905, and the credit of having brought this valuable method into practical use belongs to him? The results of his work in this direction were embodied in a paper read before the Pittsburg Academy of Medicine in 1908.

I have used liquid air, and with benefit, but when one compares the readiness with which one can obtain carbon dioxide, and its cheapness, there appears to be no doubt that the latter body will supersede the former in practice. —I am, etc.,

London, W., Jan. 29th. GEORGE PERNET, M.D.

GENERAL PRACTITIONERS AND POOR LAW REFORM.

SIR,—If, as is no doubt the case, Dr. Greenwood's letter (JOURNAL, January 29th, p. 291) expresses the point of view of Poor Law medical officers in regard to the above subject, it certainly is in opposition to the interests of very many other general practitioners. Your article, on the other hand, gives with excellent impartiality the true issues involved and indicates the just solution.

Many of us have long felt strongly that a grave injustice to general practitioners was committed when the present system of public vaccination was instituted, under which certain medical men are paid by the State to vaccinate our patients free of charge, and thereby introduced to the families to which these patients belong. I do not suggest that the privilege is often abused, but that it lends itself to abuse is obvious.

There can be little doubt that the establishment of a public medical service would have the result of greatly enlarging the class which habitually obtained free or almost free medical attendance; and if all this extra work went exclusively to the present holders of district Poor Law appointments, who would be the losers? Obviously, every general practitioner not holding such an appointment, whose income depends now, in part or wholly, upon the fees of the working-class patient.

What could be more disastrous to this large body of deserving men? Is it too much to say that hundreds might be ruined, while the extra emoluments of the new service would go to swell the incomes of those for whom Dr. Greenwood speaks?

I trust general practitioners will firmly resist the desire of those holding district appointments—if they do desire this—to monopolize the work of the proposed new clinical service. For this reason I consider that *every man willing to accept the conditions offered* should have a share in the work, and that patients should have the right to choose, among such men, by whom they will be attended. —I am, etc.,

C. J. WHITBY.

Bath, Jan. 29th.

PART-TIME MEDICAL OFFICERS OF HEALTH.

SIR,—The British Medical Association, in deciding that its policy should be to favour the whole-time medical officer of health, was guided by the votes given by its members at their meetings, where a very large majority were adverse to the part-time medical officer of health. Somehow or other this official has created a prejudice against himself in the minds of his brother practitioners. They look at him with mistrust and dislike, which is in many cases quite justified. If some of the part-time medical officers of health had changed places with their colleagues in the same town they would view the matter from a different point of view. It is all very well to talk about "taking the bread out of the mouths of brother practitioners," and all that sort of thing, but it is really nothing of the kind, for the more whole-time medical officers of health there are the less remain to become general practitioners and swell our already overcrowded ranks. The establishment of numerous whole-time officers, such as medical officers of health, school medical officers, and such like, are all for the benefit of the profession at large in creating openings to divert newly qualified men from the ranks of the general practitioner.

To be a part-time medical officer of health is neither good for the medical officer of health himself, his brother practitioners, nor the general public. In the first place, he is bound to offend some of his patients who own property if he does his duty conscientiously. I myself once had a man stop me in the street, put his fist to my face, and dare me to come and inspect his property again! This man was hardly likely to call in my services as a general practitioner! Consequently he takes little interest in his work, and does just enough to justify his salary and no more. Can one blame him? I think not.

His brother practitioners, unless he be a man of wonderful tact and disinterestedness, having to notify all cases of infectious diseases to him, view him with suspicion, and object to his going, as he often does, to see their cases and confirm their diagnoses. In many cases an indiscreet remark has been caught up by the patient or his friends and construed as a reflection on the medical attendant. The part-time medical officer of health, having to report to his sanitary authority about other practitioners' patients, is given, in the eyes of the public, a superiority which he ought not to have. On the other hand, when the part time medical officer of health is a practitioner in the town, he is often diffident in going to make full inquiries in cases attended by other practitioners. An independent full-time medical officer of health would be able to do this without creating any bad feeling. The salary he often accepts—a miserable £15 or £20 a year—tends to lower the value of medical services in the eyes of the public. They will pay their clerk £80 or £100 a year for doing far less work than their medical officer of health.

It is not good for the public, because they often think they see a prejudice in the action of the part-time medical officer of health. They think he favours one person because he happens to be a patient. A feeling of mistrust and want of confidence in sanitary measures is engendered. Moreover, influences are often brought to bear on a local part-time medical officer of health, and he is induced to support a certain party on the council or sanitary authority simply because they are his personal friends, or, perhaps, because another medical man, whom he does not like, is on the other side. It is needless to say that the medical officer of health, owing simply to his official position, can make or mar any project to the discomfiture of his brother practitioners who are not medical officers of health.

There is no doubt that the days of the part-time medical officer of health have gone by. I am surprised there should be any in our Association who have the temerity to advocate such an out-of-date arrangement.—I am, etc.,

ARTHUR E. LARKING, M.D., D.P.H.

Buckingham, Jan. 29th.

SIR,—We enclose a copy of a circular letter which has been, this week, sent to every medical officer of health in England, Wales, and Scotland.

The response has been very striking and a strong provisional committee of over one hundred medical officers of health has already been formed.

As obviously the fullest expression of opinion is desirable, we beg the hospitality of your columns in order that we may invite any medical officer of health who is willing to respond but has not yet done so, to communicate with us at once.

We shall be pleased to send a copy to any person interested, or to any medical officer of health who, through inadvertence, may not have received one.

The circular has not been issued in any spirit of hostility to the British Medical Association, but in the hope that the organization of deeply felt, though necessarily scattered, opinion may assist the Society of Medical Officers of Health in arriving at a decision, and may induce the British Medical Association to adopt a course which will arrest the disintegrating forces activated by Minute 234.—We are, etc.,

D. A. BELILIOS, M.O.H., Merton.
F. G CROOKSHANK, M.O.H., Barnes.
Acting Secretaries to the Provisional Committee.

London, S.W., Jan. 29th.

*** The circular letter enclosed contains the following passages:

. . . Obviously it is only in the interests of the public health that the principles of this resolution can be defended, if at all.

But those who, with us, believe that the policy of the Association in this matter is opposed to the interests of the public health may properly urge the injustice which it, if persisted in, must inflict on many medical men, and the extent to which it will militate against the interests of the profession as a whole.

Whole-time, no less than part-time, officers are concerned with a policy which would confine them to the duties of their office, inasmuch as these duties have been laid down for England and Wales by the Local Government Board, and do not include those of a hospital superintendent, police surgeon, public analyst, school medical officer, or teacher of hygiene and bacteriology.

Part-time officers are vitally concerned with a policy which seeks to debar them from general practice. . . .

In England and Wales there are over eleven hundred medical officers of health who are also general practitioners.

In Scotland there are few indeed whose appointments are not contrary to the terms of Minute 234.

Should the policy of the Association prevail, for how many of these can "adequately paid posts" be created which will compensate them for the loss of practice and secondary appointments? Will there not be creation of many small posts, at salaries of two or three hundred a year, which will be filled by junior men, birds of passage, whose emoluments will be saved to local authorities by the retrenchment of clerks and assistant sanitary inspectors.

For the rest, it is obvious that districts, "grouped for the purpose," will not be formed, inasmuch as now that every county council must appoint a whole-time medical officer of health the one great reason for "combined districts" has passed. The public health will be, in the future, best served by the retention, in the district of each local authority, of the man on the spot, whose work will be co-ordinated or controlled by the county officer, and will be none the less valuable by reason of touch with general practice, clinical experience, and local affairs. . . .

PRISON DOCTORS AND THE HOME OFFICE.

SIR,—With the disappearance of Dr. Donkin and Dr. Helby, the pantomime of the defence of the Home Secretary by his subordinates has now reached the harlequinade stage. Dr. Mercier's topical allusions to aeroplanes or balloons and his cheap sneers at sufferings he did not himself experience would pass unnoticed by me had he not been allowed by your courtesy to furbish up an old letter of his which seems to have failed to obtain publication elsewhere some weeks ago. Whether our JOURNAL ought to be made the receptacle of such second-hand controversial contributions is another question, especially as Dr. Mercier's only object is to try to twist the obvious meaning of a passage in a former letter of mine into something my own words specifically deny. My letter was published directly after the trial of Leigh *v.* the Home Secretary, seven weeks ago, in another paper;

it is consequently for Dr. Mercier's purpose conveniently out of the reach of your readers for reference.

I must therefore recall the fact that the "life-saving" excuse now repeatedly urged in extenuation of the Home Secretary's forcible feeding of suffrage women arose out of a question put to me by the Lord Chief Justice during the Leigh trial, and which had the effect of making the jury think (as shown by a letter of a juror to the *Times*) that this treatment of political prisoners by the Home Secretary was an ordinary piece of Good Samaritan work on the part of the medical profession, and conducted on the usual principles and responsibility of life-saving medical practice.

This mode of regarding the real facts is warmly adopted by Dr. Mercier, and he, to shield the Home Secretary, tries to put the responsibility of this disgusting business on the medical profession, just as His Majesty's Prison Commissioner Dr. Donkin also attempted to do. What are the actual facts? A political prisoner starving is ordered by the Home Secretary to be forcibly artificially fed "in order to save her life." The prison medical officer sets to work to carry out his orders. The "life-saving treatment," however, sets up vomiting, gastritis, etc. The starvation naturally gets worse. The emaciation and weakness become very alarming and then the prison medical officer refers to his chief, the Home Secretary. That functionary being at the end of his ("medical") tether cannot imagine what to do next, and only does what he ought to have done before, namely, liberates his victim from prison and lets her escape from his "life-saving" and "humanitarian" authority.

What a travesty of the genuine treatment by a medical practitioner of a patient whose life is in danger, and what a disgrace to our calling that any one with a medical education should describe such futile idiocy as life-saving professional care of a case!

But the last week has also proved the existence of a worse state of things, and one which applies directly to Dr. Archdall Reid's second letter. Dr. Reid says I have not answered a question of his. On referring to his first letter, dated January 10th, I find he asked me two questions. Of these I have replied fully in your issue of January 22nd to the principal one—namely, how suffrage women and murderers ought respectively to be treated in prison.

I did not notice that his last sentence consisted of another query on a different subject altogether—namely, whether "the medical officers of prisons, paid public officials, should allow their sympathy, or lack of sympathy, with this or that legal offence to influence their conduct towards their charges."

As I have never suggested that prison medical officers as long as they remain in the public service should do aught than obey their superiors, I do not know why Dr. Reid addressed this very ordinary academic question to me originally; but I do know that in his second letter (in your last issue) he has materially altered it, and I am pleased to answer his revised version as well.

He now includes Ministers of State, and asks, therefore, whether the Home Secretary ought "to allow his sympathy, or lack of it, etc., to influence his conduct towards his charges"—that is, the suffrage prisoners. My answer to this is that the Home Secretary stands convicted in the public press of having grossly allowed his personal feelings and views to influence his treatment of these victims of his political prejudices.

He has "allowed" political prisoners to be imprisoned in the second division, to be refused bail, to be punished twice over for the same offence, to be given sentences of hard labour for trivial offences, and, finally, when he knew that a lady of rank (Lady Constance Lytton) was a prisoner and about to be forcibly fed he discharged her from prison on a physical pretext; whereas when the same individual was sentenced as a poor mill hand (Jane Warton) he allowed her to be brutally treated and forcibly fed until she too, like Mrs. Leigh, had to be freed from his "life-saving" attentions and treatment by discharge from prison.

Dr. Reid will thus recognize that Mr. Gladstone has established a record in the manner suggested in his question, and will, I am sure, agree with me that it is most urgently necessary that we should as a profession clear ourselves of any share or responsibility in this brutally stupid and Russian treatment of political prisoners.—I am, etc.,

London, W., Jan. 31st. VICTOR HORSLEY.

SIR,—May I be permitted to correct a misapprehension, which might give the profession an erroneous idea as to the treatment of prisoners in English prisons?

Sir Victor Horsley has evidently not been correctly informed, or he would not have said that "Mrs. Leigh was turned out into the streets of Birmingham."

On the arrival of the order for Mrs. Leigh's release inquiries were made, the result of which was that Mrs. Leigh was sent in a cab, accompanied by a wardress, to the friends in Birmingham to whom she had agreed to go, who had been asked beforehand if they would receive her, and who had consented to do so. Her only appearance in the streets of Birmingham therefore was in crossing the pavement from the cab to her friends' front door! There was nothing unusual in this procedure, which is one often adopted in particular cases—for instance, in advanced pregnancy.

I am not, and have not been, concerned in this correspondence to defend myself, but I am unwilling that an erroneous impression should prevail as to the humaneness of the authorized prison methods.—I am, etc.,

H.M. Prison, Birmingham, Jan. 29th. E. H. HELBY.

*** As it seems inadvisable to continue this correspondence, we have referred Dr. Helby's letter to Sir Victor Horsley, who writes:

"The statement I quoted was sworn to by Mrs. Leigh in court, and was not refuted by Dr. Helby or any other witness called on behalf of the Home Secretary when they were in the witness box or until now."

We cannot insert further letters on this subject, and would ask other correspondents who have addressed us to excuse the non-appearance of their letters since the matter seems now to have been sufficiently debated.

THE MEDICAL PARLIAMENTARY ROLL.

SIR,—Dr. Clippingdale says that the Parliament held in Dublin in May, 1689, by King James II is "not mentioned in the official list." He suggests that its absence therefrom is due to King James "having been deposed the year before." This surmise is not historically correct. Dr. Clippingdale is thinking too Britannically. It is to be remembered that Ireland and England were, as they are, wholly distinct kingdoms. Ireland was then governed—in so far as it was governed at all—by its own king and Parliament. King James may have been deposed from the crown of England by the British people. He had not been deposed from the crown of Ireland by the Irish people, who were his loyal adherents. In May, 1689, and for more than a twelvemonth afterwards, he was as much King of Ireland as he had been at any time since his accession. The Irish Parliament of 1689 was, therefore, in all respects, a complete and perfect constitutional parliament. At a later day James lost his cause and crown. The Williamite cause triumphed, and King William held a Parliament in Dublin in 1695, which annulled and voided all the Acts of James's Parliament, ordered its records to be expunged from the Statute Books and destroyed, and decreed severe penalties against any person preserving copies of them. Hence the absence of any allusion to it in the official parliamentary records.

Unless I am wrong Mr. Arthur Lynch, Member for West Clare, is a member of the medical profession, as well as being a graduate in engineering of the University of Melbourne.—I am, etc.,

Ballinalee, Edgworthstown, Jan. 31st. J. F. KEENAN.

AT a meeting of the Royal Society of Arts on Wednesday evening next a paper on colour blindness will be read by Dr. Edridge-Green. The chair will be taken at 8 p.m. by Dr. F. W. Mott, F.R.S.

THE Edith Pechey Phipson post-graduate scholarship for the assistance of medical women will be awarded at the end of March, 1910, preferably to a woman coming from India or going to work in India. Applications for the scholarship, which this year is of the value of £40, should be addressed to the Honorary Secretary of the fund, Mrs. E. M. Salter, 33, Chepstow Villas, London, W.

Universities and Colleges.

UNIVERSITY OF DURHAM.

PROFESSOR SIR GEORGE HARE PHILIPSON, M.D., D.C.L., LL.D., the President of the University of Durham College of Medicine, Newcastle-upon-Tyne, has been appointed Senior Pro-Vice-Chancellor of the University of Durham, under the statutes of the University of Durham Act, 1908, for the two ensuing academic years.

UNIVERSITY OF LIVERPOOL.

Diploma in Public Health.

THE Senate, at their meeting on January 26th, awarded the Diploma in Public Health to the following successful candidates in the recent examinations:

F. Brechin, M.B., Ch.B, Glasgow; K. R. Dalal, L.M. and S., Bombay, D.T.M. Liverpool; E. H. R. Harries, M.D. (State Medicine), M.B., B.S. London, M.R.C.S., L.R.C.P.; G. F. Oldershaw, M.B., Ch.B. Liverpool.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN ordinary quarterly Comitia was held at the college on Thursday, January 27th, the President, Sir R. Douglas Powell, in the chair.

Harveian Oration.

On the nomination of the President, Dr. H. B. Donkin was elected Harveian Orator for the present year.

Lectureships.

On the nomination of the Council, Dr. Newton Pitt was elected Bradshaw Lecturer for the year 1910, and Dr. A. E. Boycott Milroy Lecturer for the year 1911.

Membership.

The following gentlemen were admitted Members of the College:

Henry Sherwood Ranken, M.B Glasg.; Christian Hugo Rippmann, M.A., M.B. Cantab.; Christopher Rolleston, M.A., M.D Oxon., L.R.C.P.; Eric Bellingham Smith, M.D. Lond.; Ernest Frederick Gordon Tucker, M.B. Lond., L.R.C.P.; Robert Stanton Woods, M.D. Lond., L.R.C.P.; Carl Ernst Lundel, M.D. Lond., L.R.C.P.

Licences.

The Licence of the College was granted to 59 gentlemen.

Diplomas in Public Health.

In conjunction with the Royal College of Surgeons, diplomas in Public Health were granted to the following gentlemen:

Devarayadoorg Venkata Giri, L.R.C.P. and S. Edin., L.F.P. and S. Glasg; Walter Leigh Mackinnon Goldie, F.R.C.S., L.R.C.P.; Arthur Henry Headley Huckle, L.R.C.P., M.R.C.S., L.S.A.; Kombur Ramaswamy Krishnaswamy Iyengar, M.B., Ch.B. Edin.; John Macpherson Johnston, M.B., Ch.B. Edin, L.R.C.P., M.R.C.S.; Jagannath Vasudev Karve, M.B., Ch.B. Edin.; James Alexander Milne, M.B., B.S. Lond., L.R.C.P., M.R.C.S.; Herbert Wilberforce Perkins, L.R.C.P., F.R.C.S.; Frederick Joseph Wilfrid Sass, L.R.C.P., M.R.C.S.; Sidney Browning Smith (Major, I.M.S.), L.R.C.P., M.R.C.S.; Edmund Fairfield Thomas, L.R.C.P., M.R.C.S., M.D. Brux., L.S.A.; Alexander Butchart MacArthur Thomson, M.B., Ch.B. Edin.

Communications.

The following communications were received:

1. From the Secretary of the Royal College of Surgeons, reporting proceedings of their Council on November 11th, December 9th, and January 13th last.
2. From the Registrar of the General Medical Council, dated December 17th and December 20th last.
3. From the Medico-Psychological Association of Great Britain and Ireland, on the necessity of a course of instruction and diploma in Psychiatry. After a prolonged discussion the matter was referred to the Committee of Management.
4. From the Clerk to the Privy Council: (*a*) Inviting the college to nominate a delegate to represent it at the International Congress in Physiotherapeutics to be held in Paris in March next. On the motion of the President, Dr. Lewis Jones was nominated. (*b*) Inviting the college to nominate a representative at the forthcoming International Congress in Obstetrics and Gynaecology, to be held in St. Petersburg in September next. The question was postponed to a future comitia.
5. From the Royal Sanitary Institute, inviting the college to send delegates to their Congress, to be held in Brighton in September next. It was left to the President to nominate delegates to represent the college.
6. From Mrs. Playfair, offering to the college a portrait of the late Dr. Playfair.
7. From Dr. Donald Hood, offering to the college a gold pencil case formerly belonging to the late Sir William Gull.

Both of these gifts were accepted, and thanks returned to the donors.

Council.

On the nomination of the Council, Dr. Edward Liveing, Dr. Donald W. C. Hood, Dr. Hector W. G. Mackenzie, and Sir James Reid were elected councillors, in the room of Sir William Allchin, Dr. T. R. Green, Dr. G. Newton Pitt, and Dr. R. Percy Smith, who retired by rotation.

Central Midwives Board.

On the nomination of the Council, Dr. Champneys was re-elected the representative of the college on the Central Midwives Board.

Pathology for the Conjoint Diploma.

Dr. Lazarus-Barlow moved:

That the President be requested to nominate a small committee to consider and report upon the teaching regulations and examinations in pathology for the Conjoint Diploma.

Dr. Andrewes seconded, and after discussion the following were nominated to serve upon the committee: Drs. Lazarus-Barlow, Andrewes, Sharkey, F. Taylor, Herringham, and Norman Moore.

Reports.

The following reports were received:

1. From the representative of the college on the General Medical Council on the proceedings of the Council during its sessions in November last.
2. From the committee of management, dated October 19th, 1909, recommending that the Mater Infirmorum Hospital, Belfast, be recognized by the Royal Colleges for instruction in clinical medicine and surgery in connexion with Queen's College, Belfast.
3. From the same, dated December 7th, 1909, recommending: (*a*) That the London School of Medicine for Women and the Edinburgh School of Medicine for Women be added to the list of recognized medical schools; (*b*) that the Royal Free Hospital be added to the list of recognized hospitals; (*c*) that the public health laboratories of the school of medicine of the Royal Colleges of Physicians and Surgeons of Edinburgh be added to the list of laboratories recognized for the course of instruction for the diploma in public health.

All these recommendations were adopted.

Library.

Books and other publications presented to the library during the past quarter were received, and thanks returned to the donors.

Report of Examinations.

The annual return by the examiners of the results of the examinations for the licence in the year 1909 was received.

CONJOINT BOARD IN ENGLAND.

THE following candidates have been approved in the subjects indicated:

FIRST COLLEGE—*Part IV, Practical Pharmacy.*—D. F. Borrie, S. Caplan, R. C. Clifford, G. Cock, J. Crétin, J. E. Davies, J. P. H. Davies, A. E. L. Devonald, H. W Doll, E. P. Edwards, S. E. Elphick, L. Game, F. C. Godding, H. Harvey, A. S. Heale, J. F. Hoare, J. C. John, J. A. Lamb, E. M. Mahon, H. W. Maltby, W. E. Masters, Constance A. Mortlock-Brown, K. M. Nelson, W. L. Partridge, E. C. Peers, R. B. Pullin, C. A. Robinson, A. F. Salisbury, F. D. Saner, S. Simons, R. S. S. Statham, D. M. Stone, E. A. Sutton, D. S. Twigg, C. U. Whitney, O. E. Williams, M. M. Woods, A. K. S. Wyborn.

SECOND COLLEGE (*Anatomy and Physiology*).—W. S. Armitage, W. S. Birch, A. R. Bourgault-Ducondray, W. H. Broughton, R. G. Brown, K. B. Clarke, E. C. Cline, A. B. Danby, H. de Silva, S. O. Dolan, J. Dotto, P. Dvorkovitz, Gertrude M. Flumerfelt, H. C. Godding, J. Greene, P. D. Hamilton, F. C. Hunot, E. B. Jardine, E. L. Jones, N. M. Joshi, K. B. Kanga, N. C. Kapur, F. H. Kelly, G. B. King, G. Laurence, E. R. Longstaff, Margaret J. McEnery, K. P. Mathur, W. H. Matthews, A. G. H. Moore, Constance A. Mortlock-Brown, C. D. Pande, S. G. Papadopoulos, D. D. P. Perera, A. B. Pestonji, W. G. Reynolds, G. B. Richardson, W. B. Sanders, G. D. Sherwood, T. S. Stafford, J. S Strachan, A. R. Taylor, A. Tilbury, M. L. Treston, W. Watkins, C. A. Webster, N. T. Whitehead, M. A. K. Wood, W. Worger.

Public Health AND POOR LAW MEDICAL SERVICES.

AMENDED VACCINATION ORDER.

BY a General Order signed by the President of the Local Government Board on January 27th, 1910, a new form is prescribed in substitution for Form Q of the Order of 1907. This refers to the notice by the vaccination officer to the parent or other person having custody of the child with regard to the transmission of the certificate of successful vaccination, and inquiry respecting the same.

The circular to the guardians which has been sent out with the Amended Order explains that in some cases Form Q, as drafted in 1907, has been misunderstood, and has been taken to imply that the statutory declaration of conscientious objection is valid if made within seven days after the child is 4 months old. Section I of the Vaccination Act of 1907 requires that the declaration shall be made within four months, not four months and seven days, from the birth of the child.

The alteration of the text is designed to prevent future misunderstanding on this point, and to make it clear that the statutory declaration must be made *within four months*

from the birth of the child, and that the exemption certificate must be transmitted to the vaccination officer within seven days thereafter, otherwise it will not be valid. Appended is the amended form.

SCHEDULE.

FORM Q.

THE VACCINATION ACTS, 1867 TO 1898, AND THE VACCINATION ACT, 1907.

Notice by Vaccination Officer to Parent or other Person having Custody of Child with regard to transmission of Certificate of successful Vaccination, and inquiry respecting the same.

To.....

I hereby give you notice that on the.....day of.....19..... your Child will be four months old, and that, unless within seven days from that date I shall have received from you or from the Public Vaccinator a certificate of the successful vaccination of the said Child, or a statutory declaration made under Section 1 of the Vaccination Act, 1907, within four months from the birth of the Child, or some other legal excuse for the non-vaccination of the Child, it will be my duty to notify the case to the Public Vaccinator, who will then in due course visit the Child's home and offer to vaccinate the Child.

If, however, you should propose some other arrangement for the vaccination of the Child, I shall be glad to be informed of the same.

Dated this.....day of.....19.....

(Signed).....

Vaccination Officer for

.....

Address of Vaccination Officer.....

DISTRICT MEDICAL OFFICERS AND SCHOOL CERTIFICATES.

DR. A. BYGOTT (M.O.H. Barking, Essex) writes: I am very interested in your remarks in reference to the above subject, but I do not agree with your conclusion: "We therefore fail to see that medical officers of the guardians can be called on to certify as suggested by the education authority." Article 205 (3) states that the certificate is to be given in every case, either to the guardians or the pauper on whom he is attending when required; this allows of certain courses of action. The guardians may require such information to be sent to them, and they may afterwards transmit it to the education authority—a course which was not suggested in this case—or the information may be given to the pauper "when required to do so"—for example, the child might be instructed to ask the doctor for it if it is determined that the child is *the pauper* referred to; but the section does not state that the requirement shall be a request by the pauper, and it would probably be satisfied by a general instruction on the part of the guardians or a request from the person responsible for the child's maintenance. In the case of a child the relief is readily granted to the person responsible for its maintenance; and I submit that such a person's request for such a certificate would be a requirement to do so satisfying the section; and that in the case of a child such a person would be *the pauper* referred to in the section. At the same time, the "when required to do so" would enable such certificates in long illnesses to be applied for periodically, provided that the parties requiring them acted reasonably. The footnote from Glen's *Poor Law* carries us only a very little way, by giving an instance in which such certificate might be applied for, but it does not exclude any others.

That such a question is asked shows how valuable it would be for all the systems of medical service provided at the public expense to be co-ordinated, so that useful information obtained in one department could be available in other departments without quibble. At the same time it demonstrates how these old orders, dating from 1847, if they are dealt with in a sensible way, are capable of disposing of many small grievances which occasionally give trouble. As a former medical officer in a district of 120,000 people I at various times gave certificates to parents in cases involving magisterial and county court investigations in which refusal would have been cruel. It is quite true that in 1847 the education authorities did not exist and the sanitary departments were in a primitive state, but the destitution authorities recognized that paupers at times would need such written information for various purposes, and it must be given to them.

A parent has a duty to send his child to school, and to provide it in certain cases with medical assistance (vide Children Act, 1908). It ought to be easy for him to obtain legal proof that he is discharging his duties.

The question of children's absence from school is a very serious one, and it is very useful for an education authority to have a satisfactory statement as to its cause, and to know that the child is under the care of a medical man, especially if the parents are in such circumstances as to need parish relief. I have every sympathy with medical men desiring to obtain an adequate reward for their labours; but I think that it would be the duty of guardians to require the giving of such certificates, and, failing compliance, the matter should be reported to the Local Government Board so as to obtain a definite ruling on this very important matter.

COUNTY OF DURHAM VITAL STATISTICS.

UPON an estimated population at the middle of 1909 of 854,800 persons, the medical officer of health of the county of Durham, Dr. T. Eustace Hill, records a birth-rate for 1909 of 35.6 per 1,000, compared with 25.6 per 1,000 in England and Wales during the same period. The death-rate in Durham County from all causes in 1909 was 15.7 per 1,000, a reduction of nearly 2 per 1,000 upon the rate for 1908. In England and Wales the death-rate in 1909 was 14.5 per 1,000. The infantile mortality-rate in Durham County was 124 per 1,000 births in 1909 and 151 per 1,000 in 1908. In England and Wales in 1909 it was 109 per 1,000. The most satisfactory feature of the Durham vital statistics both in 1909 and in 1908 is the record of the death-rate from phthisis. In the earlier year it was 0.95 and in the later 0.91 per 1,000. In his report for 1908 Dr. Hill draws attention to the low death-rate from this disease. In two districts voluntary schemes of notification have been in force. In Jarrow, where 49 deaths occurred during 1908, giving a death-rate of 1.41 per 1,000, there were notified voluntarily only 8 cases, and in Hebburn, where 21 deaths gave a death-rate of 0.89 per 1,000, there were 26 cases notified. In Dr. Hill's opinion the experience of these two districts shows the uselessness of voluntary notification. This view is endorsed by Dr. Nicoll, the medical officer of health of Jarrow, who advocates compulsory notification, which he considers is demanded by the ordinary standpoint of common safety, and without it the disease from a sanitary point of view can only be treated in a very haphazard fashion.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

County of Kent.—In his first annual report to the County Council of Kent, the medical officer of health, Dr. W. J. Howarth, is able to record the very low death-rate in 1908 of 11.9 per 1,000. In no part of the county does there appear to have been excessive mortality. In the urban districts the highest death-rate was in Queenborough (14.5), and in the rural districts in Maidstone (15.7). The rate of infantile mortality was equally low. In the urban districts it was 89 per 1,000 births, and in the rural 84 per 1,000. Dr. Howarth does not advise the County Council at the present time to adopt the Notification of Births Act (1907), believing that if any benefits are to accrue from such a step it is necessary that there should be in the different districts some means of practically using the information obtained. This, he considers, is not the work of a sanitary inspector, but of some person who could give practical advice to mothers as to the rearing of infants. In the Beckenham urban district the Act has been adopted, but during 1908 only 362 births were reported to the medical officer of health, Dr. Carpenter, although 517 were registered. Dr. Carpenter has drawn up a very useful memorandum, for distribution among those having the care of infants, upon ophthalmia neonatorum, and suggests that the notification of this disease should be made compulsory. In several of the isolation hospitals in the county cases of phthisis were treated during 1908. In the Rochester hospital there were 20 cases, in Bromley 9, Sevenoaks 8, Milton and Tonbridge 6 each, and in Maidstone 5 cases. We trust that in his next report Dr. Howarth will give some details of the accommodation provided for such cases at the respective hospitals.

THE Vigilance Committee of the French Congress of Practitioners has decided that a third meeting of the doctors of France shall be held in Paris, April 7th to 10th, 1910. The two former meetings took place at Lille and Paris respectively. Among the questions proposed for discussion are the following: The law of 1902 relative to public health (to be introduced by Dr. Declercq of Lille, and Dr. Wicart of Paris); the raising of the scale of medical fees (to be introduced by Dr. Brosselle, of Le Vésinet, Seine-et-Loire); abortion from the medico-social point of view (to be introduced by Dr. Bertillon of Maisons-Lafitte, Seine-et-Oise); the illegal practice of medicine and "covering" (to be introduced by Dr. Levassert of Paris); the administrative structure of hospitals in foreign countries and in France (to be introduced by Dr. Léon Archambault of Paris); hospitals for the indigent (to be introduced by Dr. Régis of Paris); the free choice of medical attendants and benefit societies to be introduced by Dr. Bolliet of Lyons); the limitation or non-limitation of students in the medical schools (to be introduced by Dr. Tourtourat of Paris); the superior medical council (to be introduced by Dr. Lefur of Paris); medical syndicates and medical teaching (to be introduced by Dr. Lafontaine of Paris). The Secretary of the Congress is Dr. Leredde, 31, rue La Boëtie, Paris.

The Services.

INDIAN MEDICAL SERVICE.

STUDY LEAVE.

REGULATIONS as to the grant of study leave to officers of the Indian Medical Service are published in the *Gazette of India*, among them being the following: Extra furloughs for the purpose of study may be granted to officers of the Indian Medical Service on the recommendation of the Director-General of the Indian Medical Service. The period of such study leave will be calculated, in the case of an officer under military leave rules, at the rate of one month for each year of pension service, and in the case of an officer under civil leave rules at the rate of one month for each year of active service, as defined in the Civil Service Regulations, up to a total in either case of twelve months in all during an officer's service. Study leave may be taken at any time, but will not be granted more than twice in the course of an officer's service. This restriction does not apply to an officer who has part of his furlough converted into study leave under Rule 8. The minimum period of study which will render an officer eligible for study leave shall be two months.

Obituary.

WILLIAM WARWICK WAGSTAFFE,

B.A.LOND., F.R.C.S.ENG.,

FORMERLY SENIOR ASSISTANT SURGEON AND LECTURER ON ANATOMY, ST. THOMAS'S HOSPITAL, LONDON.

MR. WILLIAM WARWICK WAGSTAFFE, whose enforced retirement from the active practice of his profession in 1878 caused such general and sincere regret, died on January 22nd at Sevenoaks.

Born in 1843, he was the son of Mr. Wagstaffe, of Kennington, was sent to Epsom College at the time of its opening, had as schoolfellows there Sir Augustus Hemming, Sir Henry Morris, Dr. F. Taylor, and Dr. Goodhart, who, in common with many other early friends, remained in touch with him during the long period of his retirement. Wagstaffe attained an excellent position at Epsom, alternating for the first place with Mr. Marshall, for many years Resident Medical Officer at St. George's Hospital. He became prefect, and captain of both the cricket and football teams, and his love for physical exercise and proficiency in games continued until the ability to indulge in them was taken from him.

After leaving school, Wagstaffe worked at home for two years, attending lectures by Professors Tyndall and Hoffman at the School of Mines, and also at King's College, and in 1861 he obtained a first class in the examination for the B.A. of the University of London. He entered at St. Thomas's Hospital in the same year, obtaining scholarships in classics and mathematics, natural science, and modern languages. Throughout his subsequent course he kept the first position in the school and maintained himself without any further expense to his parents. He became a Member of the Royal College of Surgeons in 1864, and proceeded to the Fellowship in 1868. At the University of London he obtained honours in the Preliminary Scientific and First M.B. Examination, but he early undertook so much work in his hospital and school that he was never able to complete his Bachelor of Medicine examinations.

On qualification he became House-Surgeon to the hospital, and then, following the time-honoured course, Surgical Registrar and Demonstrator of Anatomy. In 1871 he succeeded Mr. John Croft as Resident Assistant Surgeon, and in that position moved to the new hospital, while, on the retirement of his most trusted friend and adviser, Mr. Le Gros Clark, in 1874, he was appointed Assistant Surgeon.

In 1868 Sir John Simon gave him the post of Medical Officer under the Privy Council, which he held as a summer appointment until 1870 inclusive. Then the full appointment was offered; but, although the salary amounted to some £1,000 a year, Wagstaffe preferred to take up the post of Resident Assistant Surgeon at St. Thomas's and start upon a purely surgical career. He was appointed Lecturer on Anatomy in the Medical School, in conjunction with Francis Mason; a member of the Board of Examiners in Anatomy and Physiology at the Royal College of Surgeons in 1878; and in 1875 Surgical Secretary to the Pathological Society of London, holding office during the presidencies of Sir William Jenner, Mr. George Pollock, and Dr. Charles Murchison.

In 1878 a sudden breakdown in health necessitated a period of rest abroad, and to the great regret of his colleagues and the hospital authorities, who kept his appointment open for a period of three years, he was never able to return to active work.

Wagstaffe's progress in the profession was rapid. He had acquired and held with much credit to himself various important offices at a comparatively early period in his career, and also laid the foundation of a successful surgical practice which was already becoming remunerative, when he was struck down by an obscure nervous malady, which slowly but steadily removed from him all power of physical activity. His sympathies were wide, including as they did surgery, anatomy, morbid anatomy, and some problems of the public health. Beyond these his early training had specially fitted him for the examinership in arts, which he held from the year 1875 at Apothecaries' Hall.

As a surgeon he belonged to the progressive school, and he worked at some of the subjects which have since come prominently forward, such as the surgical treatment of intestinal obstruction. Thus he was an early advocate of the direct reduction of intussusceptions, and himself performed the operation. His judgement and technical powers were very good, and had circumstances permitted his taking part in the great advances then about to occur in practical surgery there is no doubt that he would have won a leading position. In the out-patient department his powers as a diagnostician and teacher were much appreciated; but the prominent feature of his work was the application of his anatomical knowledge to the study of morbid anatomy, which at that period was at the height of its popularity as a means of elucidating the problems of pathology.

In the anatomical department his efforts were especially directed to the practical application of the science; he was also a good draughtsman, and took much pleasure in lecturing on such subjects as the muscles of expression or the outlines of the human body. He was lucid and fluent as a lecturer or demonstrator, holding the attention of his class, which was always orderly and well behaved at a time when the lecture room occasionally tended to degenerate into the bear garden. He wrote a work on *Human Osteology* in which are embodied a number of original observations on the mechanics of the human frame; also a student's guide book, the object of which was to make the subject of human mechanics more attractive.

Wagstaffe's first papers were on human anatomy and animal physics (*Journal of Anatomy and Physiology; St. Thomas's Hospital Reports*); the later ones dealt with surgery and pathology, and appeared in the *Transactions of the Pathological Society*, the *St. Thomas's Hospital Reports*, and the medical journals. His energy and determination of purpose are well illustrated by the fact that when disqualified by illness from practical work he busied himself for some years in writing reviews for the BRITISH MEDICAL JOURNAL, and other medical journals; he translated Heiberg's *Atlas of Cutaneous Nerve Areas*, and edited Le Gros Clark's *Outlines of Surgery*, and the third edition of Mayne's *Medical Vocabulary*.

Meanwhile he retained an active interest in all the advances of surgical science; even to the end he was well versed in what was going on, and with what may be called the family life of his old school he kept himself as conversant as if he had still been present there. Thus, although outside the current of his profession, he maintained relations of real friendship with his old associates, and they visited him with pleasure and profit. Indeed, no more striking lesson of resignation to a hard lot, combined with the power and determination to make the best and brightest of it, can be conceived than the life of Wagstaffe during the past twenty years. No word of complaint left his lips, and he remained the genial kindly spirit his friends had known, physically incapacitated, but mentally as bright and active as ever.

Mr. Wagstaffe married a daughter of the late Mr. F. W. Tetley, of Leeds, who survives him, and has left one son, now engaged in the study of his father's profession at St. Thomas's Hospital.

G. H. M.

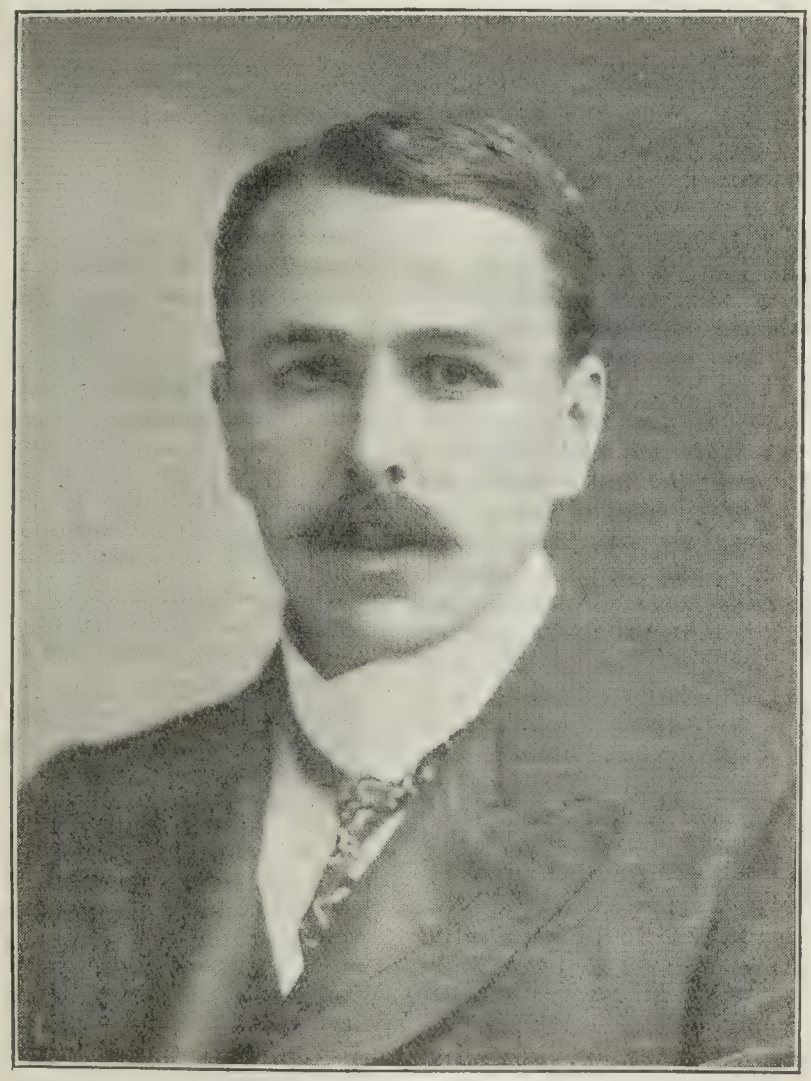
WILLIAM ILBERT HANCOCK, F.R.C.S.,

ASSISTANT SURGEON, ROYAL LONDON OPHTHALMIC HOSPITAL (MOORFIELDS).

It is with sincere regret that we record the death of one of the younger members of the ophthalmic speciality in London.

William Ilbert Hancock was one of a family of ten brothers. He was born at Wiveliscombe in Somersetshire in 1873. He and his brothers were well known football and cricket players, and their strength added to the local club made it one of the strongest in the county. He was educated at Dulwich College, and in 1891 entered as a student at Guy's Hospital. Here he at once took a prominent part and speedily found a place in the lawn tennis team, and played in the cup ties for 1891–1894; in 1892 he was captain of the club. He was one of the best cricketers at the hospital, but he shone most conspicuously in the Rugby football team, and was its captain in 1893–4. He played for his county in lawn tennis, cricket, and football, and it is practically certain that he would have gained international honours in football (as more than one of his brothers did) had it not been for an accident to his knee.

He became M.R.C.S. and L.R.C.P. in 1896. He had previously passed the First Fellowship Examination of the Royal College of Surgeons of England, and became a Fellow in 1898. He soon showed a liking for ophthalmic work, and was for a long time well known as a Chief Clinical Assistant at Moorfields. He also worked for a time as a Clinical Assistant at the Royal Westminster Ophthalmic Hospital. At the time of his death, at the early age of 36, he was Assistant Surgeon to the Royal London Ophthalmic Hospital, Moorfields, and Ophthalmic Surgeon to the East London Hospital for Children and to the Bolingbroke Hospital. He had recently resigned his position as Senior Assistant Surgeon and Pathologist to the Central London Ophthalmic Hospital.



William Ilbert Hancock.

Photograph by [London Stereoscopic Company.

Although he was a member of the staff at Moorfields for only nine months, he had even in that time made his mark both as a teacher and an operator. His classes were always well attended, and he possessed not only the knowledge but also the ability to impart it to others; while a more genial and loyal colleague could not well be imagined. He worked for the love of it, and his courtesy and kindness to his patients, and especially to children, made him beloved of all. He was a most accomplished operator, and, had he lived, would doubtless have taken a very prominent place in the profession. In 1899 he married Miss Margaret Hay Sweet Escott, and leaves a widow and four children to mourn his loss.

For about eighteen months he had had vague abdominal symptoms; in December last they became more acute, and he took a rest of four weeks in bed, and appeared better, but acute symptoms developed, which rendered an operation for appendicitis necessary; this was successfully performed on January 21st. He made an excellent recovery, and was doing quite well until January 25th; on the following day he died from pulmonary embolism and thrombosis.

His loss will be severely felt by all who knew him. Owing to his retiring disposition, few beyond his close personal friends understood his worth. He was a man utterly incapable of doing a mean act or of harbouring an unkind thought, while nothing would induce him to push himself forward at the expense of any one; he would far prefer to stand aside and let a man be thought more worthy than himself to take a prize or appointment he wanted rather than enter into competition. His sterling qualities when known, however, carried him forwards where his modesty and reserve would have left him behind. To the outside world his good works and deeds were never known, and only his most intimate friends were acquainted with many acts of kindness and the good service he so frequently rendered to those in need of it. His influence for good was at once felt on the staff of any hospital he served; he was scrupulously upright, and was a strong man in every way—mentally, morally, and physically. To few people is it given to endear himself to his friends as he did, and many there will be who will deem his loss irreparable.

It is once again our sad duty to record the death of a medical man in the prime of life, the cause of death being one of the accidents which may befall any one in extensive practice. Dr. Evan Thomas, of Newbridge, South Wales, died on January 15th from septicaemia contracted while making a *post-mortem* examination on January 8th. He was educated at University College, Aberystwyth, and afterwards at University College, London. He held the diplomas of the Conjoint Board, and also the degree of M.D., B.S.Lond. While at University College he was Resident Obstetric Assistant to Dr. Spencer, and afterwards resident at Highgate Infirmary and Hanwell. He started practice at St. Margaret's, but a large colliery appointment becoming vacant he applied for and obtained it, and held this post until his premature death, that of the Celynen Colliery at Newbridge. A singularly lovable and conscientious man, he was very reserved and diffident in giving his opinions, which those who knew him valued very highly. He was one of the best examples of the colliery doctor, thoroughly up in his work, very conscientious, and most sympathetic and kind in his manner. He was buried at his birthplace, St. Dogwael's, Cardigan, where a large concourse came to pay their last tribute of respect, the colliery he attended sending eight representatives to act as bearers. He leaves a wife and two young children to mourn his loss.

Dr. James Nimmo Prentice died suddenly at his residence, Belmont, Ladybank, Fifeshire, on January 24th, at the early age of 32. He graduated at the University of Glasgow in 1902, after a course of considerable distinction. Some five years ago he went to Ladybank as successor to the late Dr. Robert Laidlaw, and, by his kindly and attentive manner and his skill as a doctor, had retained and extended the practice. Last year he had a complete breakdown in health. From this he had apparently quite recovered. So late as the night of January 21st he was out visiting patients. He will be much missed in Ladybank.

Surgeon-General Charles Dodgson Madden, C.B., Honorary Surgeon to the King, died recently at St.

Leonards-on-Sea, aged 76. He was born at Kilkenny, and educated at Trinity College, Dublin. He entered the Army Medical Service as an Assistant Surgeon, December 14th, 1854; becoming Surgeon, October 5th, 1867; Surgeon-Major, August 15th, 1868; Deputy Surgeon-General, June 28th, 1876; and Surgeon-Major-General, May 7th, 1882; retiring August 1st, 1893. He served in the Crimea in 1855, and was at the siege of Sebastopol, receiving a medal with clasp and the Turkish medal; in the Indian Mutiny campaign in 1857-9 with the Saugor Field Division (medal); and in the Abyssinian war in 1867-8, being present at the action of Arogee and the capture of Magdala (mentioned in dispatches, medal, and promoted to be Surgeon-Major "for valuable services rendered during the campaign.") For three years he was Principal Medical Officer at Madras, afterwards serving under the Government of India, at Netley, and at Malta. In 1895 he was appointed Honorary Surgeon to Queen Victoria, received the Diamond Jubilee Medal in 1897, and the King's Coronation Medal in 1902. He was in receipt of a reward for distinguished service, granted to him in 1908.

LIEUTENANT-COLONEL CAMPBELL MELLIS DOUGLAS, M.D., V.C., late of the Army Medical Service, died on December 31st, 1909, at the age of 69. He was appointed Assistant-Surgeon, October 1st, 1862; Surgeon, March 1st, 1873; and Surgeon-Major, April 28th, 1876; retiring from the service with the honorary rank of Brigade-Surgeon, October 1st, 1882. Dr. Douglas, together with four privates of the 24th Regiment, was awarded the Victoria Cross "for the very gallant and daring manner in which, on May 7th, 1867, they risked their lives in manning a boat and proceeding through a dangerous surf to the rescue of some of their comrades, who formed part of an expedition which had been sent to the island of Little Andaman by order of the Chief Commissioner of British Burmah, with the view of ascertaining the fate of the commander and seven of the crew of the ship *Assam Valley*, who had landed there, and were supposed to have been murdered by the natives. The officer who commanded the troops on the occasion reports: 'About an hour later in the day, Dr. Douglas, 2nd Battalion 24th Regiment, and the four privates referred to, gallantly manning the second gig, made their way through the surf almost to the shore, but, finding their boat was half filled with water, they retired. A second attempt made by Dr. Douglas and party proved successful, five of us being safely passed through the surf to the boats outside. A third and last trip got the whole of the party left on shore to the boats.' It is stated that Dr. Douglas accomplished these trips through the surf to the shore by no ordinary exertion. He stood in the bows of the boat and worked her in an intrepid and seamanlike manner, cool to a degree, as if what he was then doing was an ordinary act of everyday life. The four privates behaved in an equally cool and collected manner, rowing through the roughest surf when the slightest hesitation or want of pluck on the part of any one of them would have been attended by the gravest results. It is reported that seventeen officers and men were thus saved from what must otherwise have been a fearful risk, if not certainty, of death." The silver medal of the Royal Humane Society was also awarded to Dr. Douglas for the same service.

Medico-Legal.

INTRODUCTION BY VENDOR.

A., who has 800 names in his ledger within four years, sells his practice to B. Should A. introduce the whole of the 800 people, or should A. only introduce the patients who call or send for treatment during the three months' introduction?

*** It would be impossible for A. to introduce B. to all these 800 persons on his books. Some would be dead, others gone away, and a certain proportion would now be the patients of other doctors. The proper course would be to introduce B. to all patients coming under treatment during the three months of introduction, and to all those on his books whom he has reasonable grounds for regarding as his patients.

Medico-Ethical.

The advice given in this column for the assistance of members is based on medico-ethical principles generally recognized by the profession, but must not be taken as representing direct findings of the Central Ethical Committee, except when so stated.

PUBLICATION AND ADVERTISEMENTS OF BOOKS FOR LAY PERUSAL.

MEMORANDUM BY THE CENTRAL ETHICAL COMMITTEE.

THE following queries submitted by a member of the Association have received the consideration of the Central Ethical Committee. As the answers may be of interest to other members of the profession besides the inquirer, it has been thought well that they should be published in the BRITISH MEDICAL JOURNAL.

Q. 1. Whether the publication of a book to the public upon a subject of general interest—such, for instance, as dietetics—by a medical man is a transgression of any definite rule of medical ethics?

A. 1. No, if the contents of the book and the circumstances attending its publication are such as to warrant the conclusion that its object is to inform the public, and not to advertise the medical practitioner.

Q. 2. Whether it is proper to sign the preface of such a book, and to add the author's address?

A. 2. There can be no objection to signing the preface, but it is undesirable that the address should be added.

Q. 3. Whether such a book, being intended to give useful information to the public, and being written in clear and simple but entirely unobjectionable language, may with propriety be advertised in the lay press?

A. 3. There is no objection to inserting in the lay press an advertisement of a simple character, of a work such as is referred to in the third question, but such advertisement must contain no extravagant claims on behalf of the book or personal advertisement of the author.

THE total number of students in the twenty-one German universities in the summer session of 1909 was 51,500. Of these 4,879 were students of medicine.

THE German Society of Scientists and Medical Practitioners will hold its eighty-second annual congress this year at Königsberg from September 18th to the 24th.

THE dinner of the West African Medical Staff on January 26th was well attended by such past and present officers of the service as could be in London that day. The guests included Messrs. H. Read, C.M.G., A. Fiddian, and J. P. Robinson of the Colonial Office, and Dr. Kingston Fowler of the Advisory Committee. The chair was taken by Dr. William Prout, C.M.G., who, in the course of the evening, remarked that since the last occasion on which he had had the privilege of proposing the toast of "The West African Medical Staff" two of the reforms then foreshadowed had taken concrete shape—namely, the formation of an Advisory Committee at the Colonial Office on medical and sanitary questions connected with tropical Africa, and the institution of a separate sanitary branch of the West African Medical Staff. The former was the most important step in the history of medical progress in West Africa since the creation of the staff itself. It would promote continuity of work and effort, and ensure that the Secretary of State had the benefit of well-weighed and well-considered advice on the many serious problems connected with the West African colonies. Great results and material progress might be expected, and the hearty support, co-operation, and assistance of the West African Medical Staff, which was essential to make the committee's work successful, would, he felt sure, be forthcoming. He trusted that the other reforms recommended by the Departmental Committee of Inquiry would eventually be adopted in their entirety. The net outcome would then be not only a contented and efficient service, but one which would attain a position of distinction in the medical profession. The toast of "The Guests" was proposed by Dr. Strachan, who dwelt on the benefits of informal meetings between representatives of the Colonial Office and members of the staff. It was acknowledged by Mr. Read, who, after expressing his pleasure at being present, showed that tropical medicine, in which he had always taken a great interest, was now making gigantic strides. A reply also came from Dr. Fowler, who alluded briefly to the need of co-operation between the executive and scientific branches of all Governments. The formal proceedings closed with the drinking of a toast to "The Chairman" on the proposal of Dr. G. F. Darker.

Medical News.

THE usual monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society was held at 429, Strand, W.C., on January 21st, Dr. de Havilland Hall in the chair. The accounts for 1909 are not yet fully completed; but the statements presented to the committee showed that the general financial results of the year's working had been very satisfactory. The sickness experience had been good, showing a small margin in favour of the society. The full accounts will be presented to the members at the annual general meeting, to be held in May next. The time of the committee was principally spent in the examination of a large number of special reports on what are called the chronic cases—namely, those in which there is little or no hope of the member ever being able to resume professional work. The sick pay received by these members is usually 2 guineas a week, and therefore in valuing the liabilities of the business each of these cases has to be considered as an annuity of £109 4s. payable until age 65, or death before. The necessary reserve for these is large, and at each valuation of the society's business a considerable sum is specially ear-marked to cover this liability. Prospectuses and all further particulars on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

A QUARTERLY court of the directors of the Society for Relief of Widows and Orphans of Medical Men was held on January 12th at 11, Chandos Street, Cavendish Square, Dr. Blandford, President, in the chair. Fourteen directors were present. Eight new members were elected, and the death of one reported. Since the last court one of the annuitants had died; she had been in receipt of grants since January, 1867; her husband had been a member for three years, and had paid in subscriptions £6 6s.; his widow received in grants the sum of £2,900, and one of her children, a cripple, is still receiving £20 a year from the Copeland Fund of the society. This instance speaks for itself as to the great advantages to be derived by joining the society. The sum of £518 was distributed in December last as a Christmas present, each widow receiving £10, each orphan £3, and each orphan on the Copeland Fund £5. The funds of the society now admit the annual grants to orphans being raised from £12 to £15 a year, and a sum of £1,238 was voted to pay the half-yearly grants. Six letters were received since the last court from widows of medical men, asking for relief, which had to be refused, as their husbands were not members of the society. Relief is only granted to the widows and orphans of life members or ordinary members of at least three years' standing. The invested funds of the society now amount to £100,071. Further particulars and application forms for membership may be obtained from the Secretary at the offices of the society, 11, Chandos Street, Cavendish Square, W The next election will be on April 13th, and forms must be sent in two clear weeks before the first Wednesday in April.

THE fourth International Congress for the Care of the Insane will be held at Berlin next October from the 3rd to the 7th. The scope of the congress will include not only all matters relating to the insane, whether scientific investigation, statistical inquiries, legal provisions, administrative measures, or educational methods, but also all questions concerned with the maintenance of the public mental health, such as, for example, social evils which tend to bring about or foster mental ill-health. Also an exhibition will be associated with the congress, which it is said will afford a complete survey of the progress made in the care of the insane during the last thirty years in Germany and other countries. Lectures explanatory of the various objects exhibited will be given. This exhibition, which has been promised the support of most of the magistracies and unions in Germany, should prove of the greatest interest. A number of distinguished authorities have consented to open discussions on the following subjects: The connexion between insanity and civilization; the growth of insanity; the care of infants in relation to epilepsy, idiocy, and the psychopathies; bacillus carriers in asylums; voluntary boarders; the polyclinic treatment of the psychoses; psychopathology in modern art and literature; the social rebirth of the insane by means of regulated work; the treatment of the insane in the army and in the field, etc. Those wishing to read papers are requested to communicate with Professor Dr. Boedeker, Fichtenhof, Schlachtensee-Berlin. General information may be obtained from Dr. Falkenberg, 79, Herzbergstr., Lichtenberg-Berlin, whilst questions concerning the exhibition should be addressed to Professor Dr. Alt, Uchtspringe (Alt-mark), Germany.

Letters, Notes, and Answers.

BRITISH MEDICAL ASSOCIATION AND BRITISH MEDICAL JOURNAL.

THE offices of the British Medical Association and of the BRITISH MEDICAL JOURNAL are at 429, Strand, London.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London*. The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, London*.

TELEPHONE (National):—

2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.

2630, Gerrard, BRITISH MEDICAL ASSOCIATION.

2634, Gerrard, MEDICAL SECRETARY.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

O. B. asks (1) for information about the appliances for cupping the cervix uteri in cases of cervical endometritis; (2) for any references to this method of treatment.

HEAT STROKE.

FEMUR will be much obliged if any reader will give him information concerning the bibliography of heat stroke, etc. He has consulted the following books: Clifford Allbutt, Patrick Manson, Osler, Gibson's *System*, and Sambon's article in the BRITISH MEDICAL JOURNAL for March, 1898.

NON-OPERATIVE TREATMENT OF CANCER OF THE TONGUE.

G. T. B. has a case of cancer of the tongue (epithelioma), which has existed some eight or nine months; it apparently commenced in the gum under misfitting false teeth. The glands are not enlarged. The patient refuses all operative procedures, but would allow injections to be made. Could any members suggest treatment likely to be of service under such circumstances?

TREATMENT OF PROLAPSUS ANI IN THE ADULT.

A.B.C. asks for advice as to treatment of an elderly patient who suffers from slight prolapsus ani after a walk of any considerable extent; it does not affect him when sitting, cycling, or at any other time. It is probably owing to thickening and redundancy of the mucous membrane. He thinks it is scarcely worth while undergoing an operation for it by knife or cautery. Would the application of chromic acid or other powerful astringent as suppository or otherwise, be likely to prove useful?

IONIC MEDICATION, MASSAGE, AND ELECTRICITY.

M.B. AND C.M. (Madras) asks what books can be recommended to an up-country practitioner for studying ionic medication and for carrying out the treatment of paralytics by means of systematic exercise, massage, and electricity. He also inquires as to the minimum cost and the nature of the appliances necessary.

*** The most useful work on the subject of ionic medication up to the present is Leduc's *Electric Ions and their Use in Medicine*, an English translation of which is published by Rebman Limited (2s. 6d. net). The subject is also dealt with in the latest edition of Dr. Lewis Jones's *Medical Electricity* (H. K. Lewis), which is also invaluable for its authority and comprehensiveness in the whole field of electrotherapeutics. There are many handbooks on the subject of massage, such as—to mention one of the cheapest—Ellison's *Manual for Students of Massage* (H. K. Lewis, 3s. 6d. net). For ionic medication, if no electrical supply is available, or if it is alternating, the chief requisite is a galvanic battery; if a continuous supply is at hand, a switchboard has to be

employed to utilize the current for the purpose required. A 20-cell galvanic battery, with necessary electrodes, costs about £6; a switchboard costs about the same, or rather more. For the treatment of paralytics by electricity an induction coil makes the outfit more expensive—it may amount to £8 or £9. Exercise machines and appliances for massage are expensive, but the range in cost is considerable, and it would be best to forward the precise requirements to some reputable dealer in electro-medical apparatus.

ARTIFICIAL EYE FOR CHILD.

T., who says that he has had no experience of such cases, asks for advice in the fitting of an artificial eye in a child aged 5 years. The eye was removed in infancy, and the lower conjunctival sac is extremely shallow, the lids appearing to be atrophied.

*** It is very questionable whether an artificial eye should be fitted in so young a child, as sooner or later its continued presence is almost sure to produce irritation, and possible ulceration of the socket. It would probably be better to wait until the patient is old enough for the appearance to make some real difference. If it is considered necessary to fit an eye at once, it is to be feared that the case would prove a very difficult one to manage, as the socket appears to be very shallow; in all probability a special eye would have to be made, and the services of a skilled artificial eye-maker would be necessary.

INCOME TAX.

M.D. inquires as to the admissibility of certain expenses disallowed by the surveyor of taxes in accounts rendered for income tax purposes.

*** Of the expenses mentioned, the subscriptions to a medical defence association and the British Medical Association are clearly to be regarded as outlay incurred in the conduct of the practice. It is possible that under a strict reading of the law the salary and board and lodging of a locumtenent are not admissible as a deduction, on the ground that the profits of the practice are not affected by the consideration that for a time it is convenient to procure a second person to carry on the practice; on the other hand, when the employment of the locumtenent is a necessity it is not usual for the expense to be disallowed; nor where it can be shown that the locumtenent himself includes his salary in his income-tax return, or is exempt from income tax. With regard to the allowance for rent, the law provides for an allowance not exceeding two-thirds, according to the proportionate value of the part of the house used for professional purposes. The expenditure on medical books is presumably regarded by the surveyor as capital expenditure, but even so a portion of the expense must be regarded as an expense of *maintenance* of the practitioner's necessary outfit, and a reasonable sum should be allowed on this ground.

ANSWERS.

RECURRENT MASTITIS.

DR. W. F. SOMERVILLE (Glasgow) suggests the employment of high frequency currents. The patient holds an electrode which is connected with one terminal of the apparatus, while the operator in connexion with the other terminal gently massages the affected mamma; 300 to 350 milliampères are used for five to eight minutes daily or twice daily.

PRURITUS IN GLYCOSURIA.

PATER writes: Electricity may, of course, be useful, but I have in my practice never had occasion to try it. I have always looked upon pruritus in glycosuria as quite different from ordinary pruritus, and as due to the growth of torulae or other vegetable organisms on the surfaces of the vulva, due to their being bathed with the saccharine urine, etc. I have always found it to be quickly relieved by a lotion of carbolic acid, 1 per cent., or 1½ per cent., or even stronger, with a good proportion of oxide of zinc, which acts mechanically as a protective. Weak hydrarg. bichloride lotion, or any other efficient antivegetative solution, would do also, but the former I have found quite sufficient, as a rule. Of course, the glycosuria must be treated effectively, or the relief is only temporary.

MANURIAL VALUE OF DRY EARTH FROM CLOSETS.

D.P.H.LOND. writes: If "Reform" consults Parkes and Kenwood's *Hygiene and Public Health*, 1907 edition, p. 78, he will find: "There can be but little doubt that the manure produced by the passage of the earth even five or six times through the closet has but little manurial value. The late Dr. Voelcker estimated its value as only 7s. 6d. per ton. . . . When we reflect on the large amount of valueless earth with which the compost is diluted, and the absence from it of a large proportion of the daily urine of each individual, the reasons for its low value are not far to seek."

LETTERS, NOTES, ETC.

THE APPEAL ON BEHALF OF MR. W. H. COX.

THE REV. JOHN GARDNER-BROWN (Vicar of St. James's, Clapton) writes: Will you allow me to add a few words to what has already appeared in your columns about the case of Mr. Cox, whose sufferings in the cause of science have caused such widespread sympathy? I am not qualified to say anything on the medical aspect of the case, but, as a clergyman of nearly forty years' experience, I have witnessed much suffering, and known many brave and patient sufferers. In all that time, however, no sadder case has come before me, nor have I ever met with more heroic endurance. I do not hesitate to say that Mr. Cox presents an object lesson of the most noble character in the way he bears his terrible trial, and in this he is most wonderfully helped by his wife. They are parishioners of mine, and it gives me the greatest pleasure to support the appeal made by Sir William Treloar, which I am thankful to know is meeting with valuable support. The strain on Mr. and Mrs. Cox's resources has necessarily been very great, and they ought not to be allowed to bear this in addition to the great weight of his sufferings, unchecked by substantial and sympathetic help.

PERSISTENCE OF ITCH-MITE INFECTION IN CLOTHES.

DR. ARTHUR J. HALL (Sheffield) writes: The case recorded by Dr. J. N. Laird in the JOURNAL of January 29th, p. 261, in which reinfection of the same individual by a pair of woollen gloves worn during an attack of itch, and not again for over seven months, is of much interest, and emphasizes the importance of thorough disinfection of all the clothes in these cases. Some years ago I saw an outbreak of itch traced to old "army blankets" which had been used in the South African war. It occurred amongst a party of boys who were camping out in Derbyshire during the summer holidays, and had bought old army blankets for use in the tents. In this connexion it is an interesting fact that the South African war has amongst its numerous remote effects introduced scabies widespread amongst communities up to that time almost exempt. This is certainly true of Sheffield, and, I believe, of other large centres in the North Midlands. During the decade 1890-1900 the average number of cases of scabies attending at the Skin Department of the Sheffield Royal Hospital was very small—in fact, it was comparatively a rare disease. With the advent of the war in 1900 the number of cases rose enormously, and, although I am unable to give exact figures here, yet I believe the numbers have kept about as high ever since. It was probably introduced by the calling up of militia regiments whose units came from districts in which scabies is prevalent. These regiments were stationed in large centres vacated by the regular troops. Dr. Laird's letter reminds me also of another point, namely, reinfection by clothes in other contagious skin diseases, for example, staphylococcic folliculitis. I saw an example of this in a medical man who, some years previously, I had seen suffering from a very severe outbreak of boils on the neck. He was at that time wearing regularly a long light covert coat. After his illness this was put away and was never worn again until four years later, when he put it on to go into the country for the day. As the weather was cold he had the coat collar turned up most of the day. Next day he felt some soreness at the back of the neck, and soon after a crop of superficial boils appeared. As he had never suffered from anything of the kind since his previous attack four years before, the appearance of this second attack reminded him of the last time he had worn this overcoat. He therefore discarded it entirely, and since then, about six years ago, has never had another attack. That the old coat collar was the source of infection seems highly probable.

THE SERUM TREATMENT OF GASTRIC AND DUODENAL ULCER.

DR. E. C. HORT (London, W.) writes: I receive so many letters from medical men asking for information on this subject, that I shall be much obliged if you could find space for this note: (1) Sterile normal horse serum, for administration by skin or mouth, can be obtained from all the leading chemists. (2) Antilytic serum—that is, normal serum with the inhibitory content artificially raised—can be obtained from Allen and Hanbury in Vere Street. (3) The dose of either serum for oral administration is 30 to 40 c.cm. daily, in divided doses of 10 c.cm., always with, or directly after, food. (4) There is no danger of anaphylactic symptoms following the use of either serum when given throughout by the mouth only.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page	8	0	0

An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

NOTE.—It is against the rules of the Post Office to receive *poste Restante* letters addressed either in initials or numbers.

A Clinical Lecture
ON
CANCER OF THE RECTUM.

BY
JAMES SWAIN, M.S., M.D.LOND., F.R.C.S.ENG.,
PROFESSOR OF SURGERY IN THE UNIVERSITY OF BRISTOL;
SURGEON TO THE BRISTOL ROYAL INFIRMARY.

IN dealing with the extirpation of carcinomatous growths in various parts of the body the modern tendency is to enlarge the area of operation in order that the lymphatic supply of the part affected may be widely removed with the primary growth. I remember the time when the axillary glands were only removed in cases of cancer of the breast when they were palpably enlarged, but now we remove the pectoral and axillary lymphatic areas in every case. In cancer of the tongue, too, it is only in comparatively recent times that we have adopted the removal of the lymphatics of the neck as a routine measure, and in this, as in the case of cancer of the breast, the wider operation has resulted in a diminished tendency to that recurrence which all patients afflicted with cancer have such good reason to dread.

Many of the operations for cancer of the rectum do not allow of a sufficient removal of the lymphatic area in the neighbourhood of the growth, and recurrence of the mischief is so common that Bergmann[1] considers it probable that only "about one-fourth or one fifth of the patients operated upon for cancer of the rectum can be permanently freed from their disease." This deplorable state of affairs is only likely to be improved when it becomes the rule to operate in such a manner as to permit of a more extensive removal of the lymphatics, as in the case of operations for cancer of the breast and tongue, and it is in order that we may consider how this may be best accomplished that I have brought this subject before you to-day—exemplified by a case which will serve to illustrate some points in the diagnosis and treatment of cancer of the rectum.

Mrs. W., aged 56 years, was admitted under my care for pain and difficulty in defaecation For twelve months previously she had complained of a gradually increasing constipation, and aperients were constantly necessary. The stools frequently contained blood, and there was also a more or less continuous blood-stained discharge. There was rectal tenesmus, and at times the motions were "loose and frothy." There had been loss of flesh and a general feeling of languor. For the past three months these symptoms had increased in severity, and there had been considerable sacral pain, especially after walking. The patient was pallid and somewhat thin. No tumour could be felt in the abdomen. Per rectum a hard irregular growth could be felt projecting into the lumen of the gut about 2½ in. from the anus. The rectum was invaginated by the growth, and on palpation resembled the cervix uteri. The lumen of the gut at the situation of the tumour would just admit the forefinger. The growth was movable, and there was no involvement of the vagina or other tissues in the neighbourhood. No enlarged glands could be felt. After a period of purgation and enemata to thoroughly empty the lower bowel, the patient was placed in the Trendelenburg posture, and a median abdominal incision was made from just below the umbilicus to the pubes. A double ligature was placed on the sigmoid flexure near its centre, and the bowel divided between the two ligatures. The upper end was tied up in gauze to prevent infection, and the lower end was invaginated into the bowel below by means of a purse-string suture. An incision was then made through the peritoneum on either side of the rectum, joined below by an incision through the peritoneum of the pouch of Douglas. The flaps of peritoneum were turned outwards, and the superior haemorrhoidal vessels were tied near the top of the sacrum. The lower part of the sigmoid and the rectum were then freed from all surrounding connexions as far as the insertion of the levatores ani, the mesorectum and all its contained lymphatic glands being turned out of the hollow of the sacrum with the rectum by forcibly detaching it from the bone by gauze. The parts thus set free were crowded down into the pelvis, and the cut portions of the peritoneum were approximated. The patient was then placed in the lithotomy position, a circular incision was made round the anus and extended backwards to the coccyx in the mid line. Through this incision the lower part of the rectum was freed, and, after division of the levatores ani, the whole rectum, with the mesorectum and glands and part of the sigmoid flexure, were delivered through the perineal incision. A rubber drain and some gauze were inserted, and the rest of the perineal wound was closed. The upper end of the sigmoid (which had been tied up in gauze) was then brought through an opening made by blunt division of the muscles in the left iliac fossa near the anterior superior iliac spine. The ligature round the bowel was removed and a Paul's tube tied into the lumen, the gut being sewn to the adjacent peritoneum. The median abdominal incision was completely closed. The operation was not followed by any marked shock, convalescence was uninterrupted, and the patient left the Infirmary on the twenty-sixth day after operation with the abdominal and perineal wounds quite healed, the colotomy wound in a healthy condition, and the bowel acting satisfactorily. On microscopical examination the growth proved to be of the ordinary type of adeno-carcinoma.

The symptoms of which this patient complained may be regarded as typical of cancer of the rectum, but for a long time they were regarded as due to piles. This is perhaps the most common mistake, owing to the fact that haemorrhage and rectal discomfort are common to piles and cancer, but if we are to reduce the present high rate of recurrence in the latter, it is important that the cases should be diagnosed correctly as early as possible.

The early stages of cancer of the rectum are frequently unaccompanied by any marked symptoms, and the insidiousness of the disease is well known. Pain occurs in all cases of rectal cancer sooner or later, and towards the end may be very severe, but in the early stage it is, in my experience, often absent. Haemorrhage is perhaps a more common symptom, but this may be absent until the disease is well established. I have recently had under my care, in private, two cases which emphasize the difficulty of diagnosis in these cases unless a proper examination is made in all cases of rectal trouble, and this is the only way in which you can prevent yourself from falling into serious error. The one was a gentleman who had slight constipation and bleeding, which he attributed as usual to piles; but noticing on one occasion a little more blood than usual he was wise enough to consult his medical attendant, and the latter fortunately made a rectal examination and discovered the cancer of the rectum. The patient looked perfectly well, and felt so, and yet he had a fairly advanced condition of the disease, though I was able to perform on him an operation similar to the one above referred to. The other case was in a patient aged 60, who had a slight rectal discomfort but had had no pain, haemorrhage, diarrhoea, or constipation, and yet he had an advanced condition of cancer of the rectum associated with such widespread glandular involvement that a radical operation was impossible. Ulceration and stenosis occur relatively early, and then we get the passage of blood-stained mucus, foul smelling discharge and diarrhoea, alternating with constipation. The last fact is to be borne in mind, and all cases complaining of an uncontrollable diarrhoea should be subjected to rectal examination.

Our aim should be to arrive at a diagnosis sufficiently early in the case to allow of a radical operation with a good prospect of ridding the patient of the mischief. In all cases of definite rectal trouble a digital examination should be insisted on, and it is sometimes found that a growth which cannot otherwise be reached may be brought to the examining finger by getting the patient to strain downwards in the standing position. If no growth is discovered and cancer is suspected a further examination should be made under an anaesthetic, and with the aid of the sigmoidoscope if necessary.

Although most cases of cancer of the rectum commence after 40 years of age, the disease occurs with even greater virulence in younger people. I have excised the rectum for cancer in a patient aged 21 years, and other observers have operated for this condition at a still earlier age.

The later characters of the growth have been described in the case under discussion; earlier in the disease the hard nodular margin of the growth infiltrating the tissues around and the smoothness of the unaffected mucous membrane below leave no doubt as to the character of the mischief, even though the patient looks quite healthy and has suffered little discomfort.

When the diagnosis has been established we have to decide whether the case is suitable for a radical operation. There was no difficulty in doing this in the case I have narrated, where the growth was movable and non-adherent, though a slight involvement of the vaginal walls need not deter one from operation. But where the bladder is involved, or where there are extensive adhesions to the sacrum, a radical operation should not be recommended, as recurrence would certainly take place. When there is sufficient obstruction to cause an accumulation of faeces above the growth, the amount of fixation often appears to be more than is actually the case. You should not,

therefore, hastily decide that a case is unfit for the radical operation until the bowel has been thoroughly emptied by means of enemata and purgatives. It is not uncommon to find that with the removal of the accumulation the growth is much more limited than it at first seemed to be.

Having decided to perform a radical operation, it is highly desirable that the bowel should be empty beforehand, and though it may take the greater part of a week to ensure this condition by means of enemata and aperients, the time is well spent. A loaded intestine is a source of danger at the time of operation, and, moreover, patients suffering from the effects of absorption of intestinal toxins are less able to bear the shock of a severe operation. In late cases, where the patient has a definite chronic obstruction, it is occasionally necessary to perform a preliminary colotomy, in order that the bowel may be relieved of its germ-laden contents before the radical operation is proceeded with. It should, however, be our constant aim to operate at an early stage of the disease, before any marked obstruction has supervened.

There are several ways of attacking a rectal carcinoma. Let me first briefly enumerate some of these, and then point out to you the reasons why I chose that method of operation which was adopted in the case which forms the basis of this lecture.

A growth situated, as this one was, about $2\frac{1}{2}$ in. from the anus might have been removed by the sacro-coccygeal route (Kraske's operation), by the abdomino-anal route, in which the sigmoid flexure is brought down to the anus after the whole rectum has been excised, or by the abdomino-perineal route, in which the whole rectum—including the sphincter—is excised and an artificial anus made in the left iliac fossa or other part of the lower abdomen. It was this last method which was adopted in the case above quoted.

Apart from the fact that those of us who are familiar with abdominal operations find it easier to excise the rectum from above, it is clear that a wider removal of the rectum and the lymphatic glands of the pelvis is possible through an abdominal incision. That this more extensive operation is necessary is shown by the unsatisfactory results of the sacro-coccygeal (Kraske) operation. We cannot be content with a method that is not only attended by a fairly high mortality, but which also is followed by recurrence of the disease in a large proportion of cases. The average mortality of Kraske's operation in the hands of twelve well known surgeons appears to be over 20 per cent., and the permanent cures after rectal excision, as shown by the average results of nine leading operators, is under 16 per cent.[2]

These results leave much to be desired, and I believe that by the adoption of some form of abdominal operation in all cases of cancer of the rectum (except, perhaps, those which are situated quite low down near the anus) we may ultimately succeed in placing the operative treatment of this disease on a satisfactory basis.

Having explained the reasons for preferring one of the forms of abdominal operation, let us see why the abdomino-perineal route was chosen instead of the abdomino-anal; or, in other words, why was an artificial anus made in the left iliac fossa instead of bringing the divided sigmoid flexure down to the anus? The abdomino-anal operation is certainly preferable if the patient has sphincteric control; and in this case, as in the majority of patients, it would have been quite possible to bring the divided sigmoid down to the anus; but it appeared doubtful whether the growth was not too low to run the risk of recurrence by leaving any part of the rectum, and, in any case, it seemed certain that the necessary incisions for freeing the lower part of the gut must result in the division of the nerve supply of the external sphincter, which would, therefore, be functionless. If sphincteric control cannot be obtained, it is better to make an artificial anus in the lower abdomen.

Some time ago I performed the abdomino-anal operation upon a lady in whom I was able to preserve the sphincters, but (probably owing to nerve division), unfortunately, control was lost. The resulting incontinence was so troublesome that I yielded to her desire to perform a colotomy some months after the operation for excision of the rectum. This was found to be much more manageable, and probably most patients would prefer an artificial anus above, rather than an anus over which they had no control in the normal situation. On the other hand, it is highly desirable to preserve the sphincters and bring the divided sigmoid down to the anus in all cases where it is possible so to do.

There is one other question which may arise in your minds—namely, the reason why the artificial anus was made in the left iliac fossa rather than by anchoring the divided sigmoid flexure in some part of the median abdominal incision. In the performance of an ordinary sigmoidostomy an incision through the left rectus near the median line is sometimes deliberately chosen with advantage, and I have found such an artificial anus very satisfactory; but after excision of the rectum it is undesirable to risk the fouling of the comparatively large central incision by the necessary escape of faeces, and, therefore it is better to make the artificial anus through a separate opening in the left iliac fossa. In this way contamination of the median incision can be avoided, and healing by first intention can thus be generally assured.

The operation of excision of the rectum for cancer which I have been advocating through an abdominal incision has not yet been generally adopted, and it is too early to compare its mortality and the freedom from recurrence of the disease afterwards with other methods. In the sacro-coccygeal route it is a well-known fact that the higher the disease is situated in the rectum the greater the mortality. Again quoting Bergmann,[3] who refers to Rave's statistics of 335 cases of rectal carcinoma treated by operation in various clinics, he says:

> The higher tumours were almost all operated upon by Kraske's method, with a mortality of 23 per cent. . . . For high-seated tumours it gave a mortality of 33 per cent. in women and 19 per cent. in men. This higher mortality in women may be explained by the fact that the tumours easier of access, were operated upon perineally in women.

We might, therefore, presume that the abdominal operation would probably be attended by a high mortality, but we must remember that with new methods of treatment the mortality is generally higher than when the principles of the operation are better understood. The mortality of Kraske's operation is said to have been from 30 to 50 per cent. at first, but this was diminished when better means for the prevention of sepsis were adopted. I have elsewhere[4] shown that resection of the large bowel for carcinoma is fairly well borne even by those of advanced years, and I have not found, so far, any excessive amount of shock in the operation of excision of the rectum by the abdominal route.

With our present means of preventing infection of the operation area, I do not think the mortality of the abdominal route will be found unduly high in experienced hands; and the greater opportunity we have, by its adoption, of examining the growth (and deciding for or against the desirability of excision) and the more thorough removal of the lymphatics with the primary growth which this method allows, will probably ensure for it the chief place in the various radical operations for carcinoma of the rectum.

REFERENCES.

[1] V. Bergmann, *A System of Practical Surgery*, vol. v, p. 172. [2] Gant, quoted in Kelly and Noble's *Gynecology and Abdominal Surgery*, vol. ii, p. 488. [3] V. Bergmann, Op. cit., p. 169. [4] Swain, BRITISH MEDICAL JOURNAL, January 10th, 1903.

THE lectures and discussions of the Child Study Society were resumed at the house of the Royal Sanitary Institute, 90, Buckingham Palace Road, S.W., on Thursday last, when Dr. R. Langdon-Down gave an address on the social relation of the child. Next Thursday Dr. J. Lionel Tayler will speak on types of children, their observation, and nurture. On April 7th Dr. T. B. Hyslop will give a lecture on subconsciousness, and on April 21st Dr. C. A. Mercier will introduce a discussion of the aims of education. The meetings begin at 7.30.

THE late Mr. John Wortley Axe, Chief Veterinary Inspector to the Surrey County Council, in addition to making certain other dispositions for the benefit of the Royal College of Veterinary Surgeons and its old students, bequeathed £400 to its council to defray the expense of painting full-length portraits of Professors Spooner, Summers, Varnell, and Brown, to be hung in the council chamber of the college in recognition of their great services to veterinary science.

A Clinical Lecture
ON
CANCER OF THE CERVICAL OESOPHAGUS.*

BY H. MORRISTON DAVIES, M.C., F.R.C.S.,
ASSISTANT SURGEON, UNIVERSITY COLLEGE HOSPITAL.

I HAVE chosen this subject for my lecture as, in the first place, cancer of the cervical portion of the oesophagus is a condition frequently met with, and operative technique has advanced so far in recent years in the treatment of this condition that not only is it possible at times to remove the growth, but even to restore the continuity of the tube by plastic procedures. In the second place, the extension of the growth into the thyroid is not so rare as one would be led to suppose by the almost complete absence of any mention of this condition in the textbooks,† whilst the clinical picture which is sometimes offered by this direction of spread may, unless one is aware of the possibility, lead to the erroneous diagnosis of primary carcinoma of the thyroid, as happened in one of my cases.

I shall begin by giving a brief sketch of the symptoms and physical signs of an uncomplicated case of carcinoma of the cervical oesophagus, shall then deal with the complications in the clinical picture produced by extension of the growth into surrounding parts, and, lastly, describe the operative treatment of the condition.

The disease manifests itself usually after the age of 45, but the age of the earliest case on record was 19. Men are more frequently affected than women, in the proportion of 7 to 3, whereas pharyngeal tumours seem to be more common in women. The cervical portion is said to be the seat of the lesion in about 12 per cent. of all cases of cancer of the oesophagus.

PATHOLOGY.

The commonest form of carcinoma is the squamous epithelioma with a tendency to well-marked cell-nest formation. More rare is the softer medullary carcinoma with cubical cells and large alveoli, originating in the glands; and occasionally very hard carcinomata of the scirrhous variety, with abundant fibrous tissue and very few cells, are met with.

The squamous epitheliomata are at first usually firm, flat, greyish-white tumours involving part of the circumference of the oesophagus; at first covered by epithelium, they later undergo ulceration, which is brought about either by irritation of the surface by food or through the decomposition of the particles of food which become lodged above or on the growth. As the tumour increases in size, it tends to encircle the lumen; it may remain a flattened ulcer, or be irregularly proliferating. The margin of the ulcer is hard and infiltrated, and it is this which produces in the main the stenosis. The medullary carcinomata proliferate much more rapidly, and produce irregular cauliflower-like growths which disintegrate early. The scirrhous carcinomata, as one would expect, produce the greatest amount of stenosis by the contraction of the abundant fibrous tissue.

The growth at first remains limited to the mucous membrane and submucous tissues, but later spreads into the muscular wall, and eventually perforates the oesophagus. Once outside, the rate of growth seems to become much more rapid, and the surrounding structures become involved by the neoplasm proliferating into the loose areolar tissue. The rapid increase in the size of the tumour, formed once the cancer has begun to spread externally, is undoubtedly in some considerable part contributed to by the septic infiltration brought about by the spread of infection through the perforation of the oesophagus. In the immediate neighbourhood of the primary growth collections of cancer cells forming small tumours in the course of the lymphatics can frequently be seen. Occasionally a second carcinomatous growth will be found at some distance from the first. This occurred in one of the cases I shall describe later; the main growth was opposite the upper tracheal rings, and a second smaller one was situate at the level of the bifurcation of the trachea; the intervening mucous membrane had the appearance of being perfectly healthy. It is interesting in this connexion to note that a second growth at some distance from the primary growth may also be found in the colon and rectum. The fact that solid food passes through the oesophagus, and that in the colon the intestinal contents are again becoming solid, suggests the possibility that the second growth may be due to implantation from the primary tumour.

There is almost always some dilatation of the oesophagus above the growth.

SYMPTOMS.

Those due to the presence of a carcinoma confined to the oesophagus are few in number, and cases have been described where a growth unsuspected during life was found *post mortem*. Usually the first and most constant symptom is the feeling that the food gets stopped when it reaches some point in the oesophagus—a spot quite easily localized when the cervical part is involved. This "sticking" of the food is generally first noticed when some mouthful larger or drier than usual is swallowed, and it may subsequently for some weeks, or even months, be a very variable symptom, the patient at one time swallowing solids easily, and at another being only able to take fluids or semi solid food. This variation sometimes leads to the erroneous diagnosis of hysteria. Eventually, however, the obstruction to solids becomes permanent, and later even liquids cannot be swallowed. At the seat of arrest there is often some pain. Regurgitation of food in an unaltered condition becomes a frequent symptom, and when the growth is situate close to the opening of the larynx there may be overflow into the larynx, producing spasm of the vocal cords and cough. When ulceration takes place, the food may return streaked with blood, and even pieces of growth may be brought up. With the extension of the disease and the increasing difficulties in taking nourishment there is progressive wasting and weakness, and as the obstruction becomes more complete thirst causes great discomfort.

During this stage there is no swelling to be felt in the neck, though at times there is some forward projection of the trachea; but the position and amount of constriction caused by the cancer can be ascertained by the passage of bougies, whilst the exact appearance of the upper part can be seen by direct oesophagoscopy.

With the extension of the growth beyond the oesophagus there is usually increase in the pain, due to the involvement of more sensitive parts, and even of nerves, such as the cervical or brachial plexus, and due, in addition, to the presence of inflammatory infiltration in the tissues of the neck.

When the growth is at the upper end of the oesophagus it may extend to the larynx and produce the picture of a subglottic growth, while symptoms of dysynoea and aphonia may be present, owing to the oedema produced by inflammation in the neighbourhood of the tumour. Ulceration of the tumour into the lower part of the larynx generally gives rise to some cough, and the patient brings up a considerable amount of secretion, composed partially of discharge from the surface of the growth and partially of mucus due to the increased activity of the mucous glands in the neighbourhood. These cases may at any time develop pneumonia from inhalation of the septic products of the growth. Even in those cases where the oesophageal cancer does not penetrate into the trachea there may be very marked thickening of the lining wall. This thickening, which was present in one of my cases, produced such marked narrowing of the trachea that the lumen was reduced by three-fifths, and there was consequently shortness of breath on the least exertion. The thickening, though it has the naked-eye appearance of growth, is in reality due to a hypertrophy of the mucous glands and of fibrous tissue.

At times the growth extends backwards and produces erosion of the vertebrae. There is then generally marked increase in the pain, limitation of movements of the neck, and a curved rigid spine may result. Growths have been described which produced pressure on the spinal cord. The common carotid artery and the internal jugular vein

* Delivered at University College Hospital.

† McCrae, in his article on Diseases of the Oesophagus, in Osler and McCrae's *System of Medicine*, gives a special paragraph on *extension to neighbouring structures*, but does not even mention the thyroid gland.

are the two vessels most often implicated, but the subclavian, thyroid, and vertebral arteries may be also affected. The growth tends to surround the arteries and compress them, so that in the case of the carotid a distinct difference can be detected when examining the corresponding facial arteries or any of the other branches. At times, however, the growth ulcerates into the vessels, and then the termination is usually caused by a rapid uncontrollable haemorrhage. In the case of the veins, however, thrombosis usually occurs early, and produces obliteration before either haemorrhage or compression occurs. Rarely the thoracic duct is involved on the left side, and complicates the picture by the oedema and ascites which may ensue. The symptoms most commonly produced are those due to involvement of nerves. Pressure on the recurrent laryngeal gives rise at first to stridor and hoarseness; later, when the adductor fibres are paralysed as well as the abductor and the cord assumes the cadaveric position, there may be improvement in both the stridor and hoarseness. Paralysis of the sympathetic gives rise to a contracted pupil on the same side, narrowing of the palpebral fissure and enophthalmos. There are usually no symptoms to be recognized in connexion with involvement of the vagus. Rarely the growth extends to and surrounds the brachial plexus, and produces considerable pain in the area of distribution of the affected nerves. Lastly, there is the invasion of the thyroid; but, before dealing with that, one word must be said concerning the spread of growth to the glands. The enlargement of glands, often on both sides of the neck, does not usually take place till late in the course of the illness, but it is possible that the deep cervical glands are affected for some time before this can be recognized clinically.

Invasion of the Thyroid.

During the last five years there have been 4 cases of carcinoma of the cervical oesophagus, with secondary invasion of the thyroid, in University College Hospital. In 3 of these cases the diagnosis was confirmed by *post-mortem* examination. Two of the cases gave the ordinary history of carcinoma of the oesophagus.

The first of these was admitted in 1904. A. C., aged 59, gave a history of dysphagia of six months' duration, some dyspnoea for two months, and he had noticed a swelling over the thyroid for one month. On admission he had constant stridor and a very weak voice, and there was "weakness" of the right vocal cord. In the inner part of the right posterior triangle, in the situation of the lateral lobe of the thyroid, was a hard mass attached to the trachea, and moving upwards during deglutition. There were in addition numerous hard enlarged glands in both posterior triangles. The patient died two days after gastrostomy, and the necropsy showed extensive infiltration of the thyroid. This case had two carcinomatous growths, one opposite the cricoid and the other opposite the bifurcation of the trachea.

The second case (J. S., aged 61) I saw in the out-patient department in August, 1909. He had suffered from progressive difficulty in swallowing both solids and fluids for one year; he complained also of some pain in the upper part of his chest and of bringing up phlegm. During the last month his voice had been husky. Oesophagoscopy showed obstruction opposite the upper tracheal cartilages. The isthmus of the thyroid was slightly enlarged, fixed, and did not move well with deglutition. The lateral lobes did not seem to be enlarged, but were somewhat adherent to the surrounding structures. A few small glands could be felt in the lower part of the posterior triangle. The left vocal cord was in the cadaveric position. An exploratory operation was done, but it was found that the growth involved the trachea and extended down below the clavicles and the first rib. The wound was therefore closed. The patient died on the third day from a sudden attack of syncope.

At the *post-mortem* examination a soft growth was found involving the whole circumference of the oesophagus; the tumour had extended also into the posterior mediastinum. At the level of the upper border of the sternum there was a perforation into the trachea into the lumen of which a nodule of growth the size of a pea was projecting. On the left side the growth was invading the lateral lobe of the thyroid, and sections of this gland show masses of squamous cells in the fibrous tissue of the capsule and extending among and replacing the alveoli of the thyroid gland. In some of the alveoli at a part not invaded by the growth there is proliferation of the lining membrane, the cells of which have become detached, swollen and vacuolated, and are lying scattered in the colloid, which in these alveoli is rapidly disappearing. The growth from the oesophagus is a squamous-celled carcinoma.

In both cases, then, it is seen that the thyroid gland was invaded, and in both the invasion could be recognized clinically. Although in neither case could a radical operation be performed, yet it does not necessarily follow that all cases in which this gland is implicated are necessarily hopeless. It is, of course, certain that the disease is advanced, and that probably the adjacent part of the trachea will have to be removed as well as the oesophagus, lateral lobe of the thyroid and adjacent vessels and nerves; but it is quite possible to support life under such conditions, and for the patient even to talk and swallow his food.

The other two cases are, however, much more interesting, in that they offer a clinical picture which suggests strongly a primary carcinoma of the thyroid.

The first of these (J. H., aged 51), was an in-patient in this hospital in 1904. The man came up complaining of hoarseness, cough and shortness of breath, which had been present for eight months; four months ago he first noticed some lumps in his neck, whilst only for the last five weeks had there been any difficulty in swallowing. The patient was very hoarse and had a constant cough. There was an ill-defined swelling and induration at the root of the neck; the swelling was more distinct on the right side close to the sternum; from this part it spread forward into the thyroid, where it again became ill-defined. There were several hard enlarged glands in the right posterior triangle. There was abductor paralysis of the right vocal cord and irritation of the right sympathetic. The patient had difficulty in swallowing solids and only a small-sized oesophageal bougie could be passed. The patient left the hospital without operation.

Last of the cases is the woman (A. A., aged 33), on whom I operated for carcinoma of the thyroid. She came to the hospital complaining of swelling in the neck of four months' duration, huskiness of the voice of three weeks', and shortness of breath of one week's, duration. In answer to a question, she said that she had had some difficulty in swallowing solids for the past fortnight. Both lobes of the thyroid were enlarged, but the left more so than the right. The outline of the left lobe on the inner side was quite distinct, but on the outer and posterior aspect it faded off into a deeper mass of induration. The lobe was very hard and fixed. The carotid could not be felt on this side, as it was included in the induration but not compressed. There were a few hard, slightly enlarged glands in the left posterior triangle. When first seen there was abductor paralysis of the left recurrent laryngeal, and a week later complete paralysis. No bougies were passed into the oesophagus. I made the diagnosis of carcinoma of the left lobe of the thyroid, and thought the right might also be affected. At the operation, therefore, I first explored the right lobe, but found no evidence of growth. The left lobe, however, was definitely affected, and the growth appeared to extend from it and to surround the carotid sheath. The jugular and common carotid were ligatured both above and below and cut through; that portion also of the vagus which went through the growth was excised.* I found afterwards, however, that the growth, although surrounding and slightly adherent to the common carotid and vagus, was not actually involving them. The left lobe of the thyroid was freed at its upper and lower poles, and then separated from the trachea and isthmus. It was now evident that the growth invaded the oesophagus, and in effecting the separation an opening was made into the latter. The patient's condition was very good for the next forty-eight hours, and then she became restless, comatose, and died.

At the *post-mortem* examination a carcinoma of the oesophagus was found extending for 2 in. down from the level of the cricoid. The growth had involved all the coats on the left side and had extended into the neck, surrounding the carotid sheath and producing thrombosis of the jugular vein, and invading the left lobe of the thyroid (Fig. 1). Near the lower border the growth was beginning to perforate the trachea. The lumen of the trachea, however, and of the lower part of the larynx was much diminished by hypertrophy of the mucous glands, increase in fibrous tissue and to a small extent round-celled infiltration. The microscopic character of the growth is that of a squamous carcinoma (Figs. 2 and 3), with considerable tendency to cell-nest formation. Sections of the thyroid gland show columns of squamous carcinoma penetrating the fibrous capsule, which is considerably thickened (Fig. 4), while large masses of these cells can be seen extending between the alveoli and in places destroying and replacing them (Fig. 5).

It is thus evident that in certain cases the signs of the extension of the growth in the thyroid may be maximal while those of the primary oesophageal tumour are minimal, giving the clinical picture, that is to say, of a fairly advanced case of malignant disease of the thyroid. When, however, the possibility of such an error is recognized, avoidance of it can be ensured by the examination of the oesophagus with the oesophagoscope. The presence of this condition does not necessarily mean that the case is inoperable, though it does mean that it is only by an extensive operation that the disease can be removed.

Treatment.

The results of operations upon the oesophagus are probably more depressing than those of any other region. The oesophagus is only readily accessible in a very short part of its course, and until quite recently the intrathoracic part was regarded as practically outside the range of

* There was no obvious alteration in either the pulse or respiration when this was done.

perative interference on account of the fatal results which ttended the efforts of those surgeons bold enough to ttempt relief. The introduction of the "Ueberdruck" nd "Unterdruck" mechanisms or preventing the collapse of the ung on opening the pleura does, owever, hold out hopes for the uture. In the neck, where the esophagus can be reached with- ut such attendant dangers. the dvance of the disease, either efore it is diagnosed or before t reaches the surgeon, often pre- ludes either an attempt at re- noval or, at any rate, its success. Here, again, there should be some considerable hope of advance, in hat, whereas before the sole method of confirming the diagnosis was by the passage of bougies, which in cases of a flat non-ulcerated growth might fail to establish any marked degree of stricture, we now possess in the oesophagoscope the means of seeing the form and extent of the upper extremity of the growth and its nature, though not the actual length. It is absolutely certain, then, that every case which shows symptoms suggestive of carcinoma of the upper part of the oesophagus should be examined with the oesophagoscope without delay. As soon as the condition is diagnosed operation should be undertaken in order at any rate to attempt to excise the growth, instead of waiting until the patient is reduced by the increasing difficulty in swallowing, and then doing a gastrostomy, as too often happens.

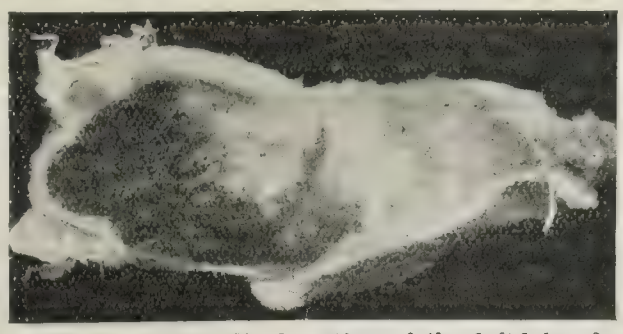


Fig. 1.—Longitudinal section of the left lobe of the thyroid. × 1. Showing invasion of gland by squamous carcinoma.

The chief facts of the treatment may be summarized in a few sentences:

1. The technical difficulties in the actual removal of an operable growth are never great and the operation in itself is not dangerous.

2. The main objections to the operation are the great dangers of spreading infections in the cases where the oesophagus cannot be closed completely; and, should the patient survive this danger, the troubles consequent upon the mutilation involved.

It is generally impossible to know exactly the longitudinal extent of the growth until the oesophagus has been opened. In accordance with the state of affairs found the operations may be divided into four groups:

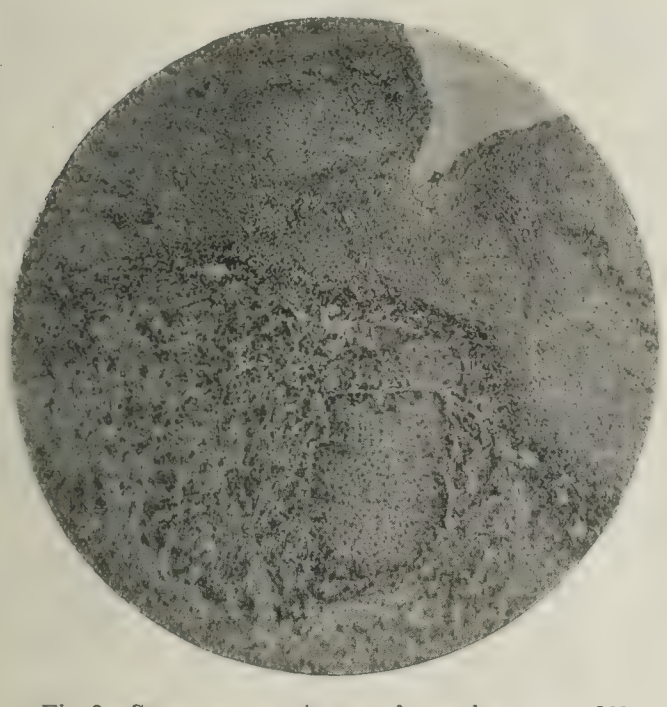


Fig. 2.—Squamous carcinoma of oesophagus. × 100.

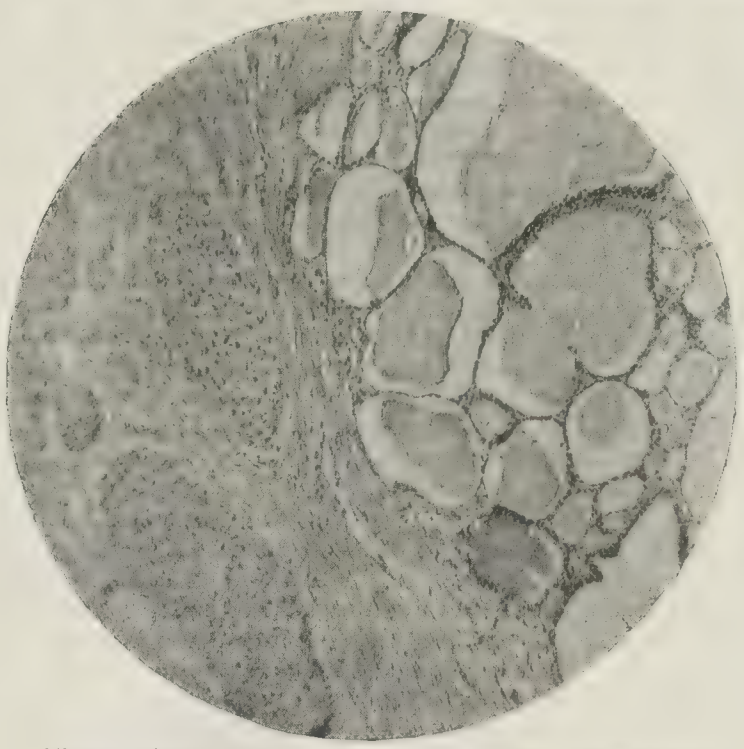


Fig. 4.—Thyroid gland and capsule. × 100. Showing carcinomatous cells invading capsule.

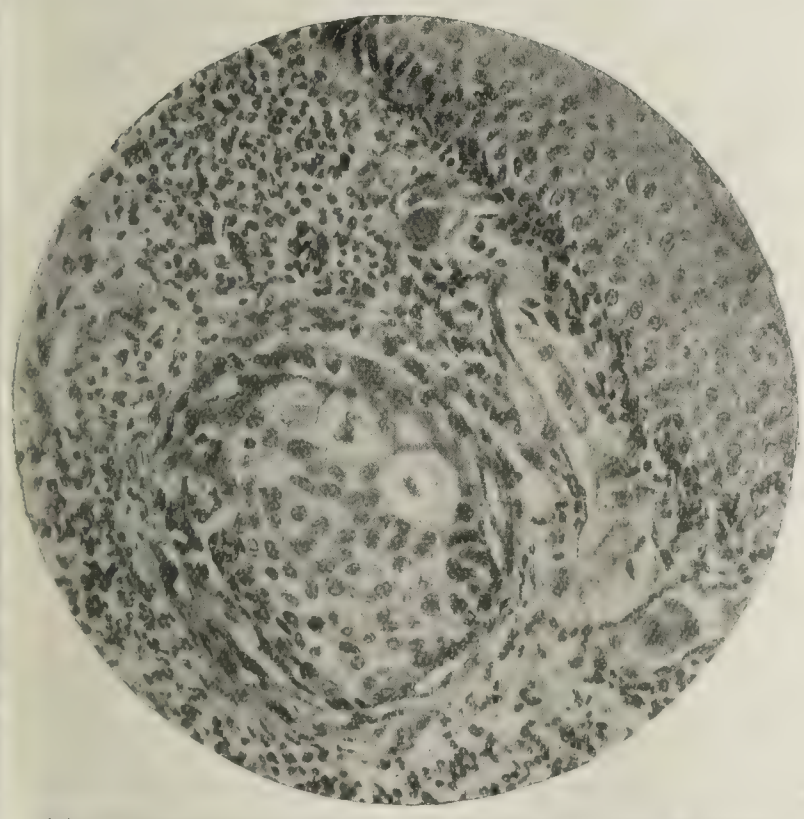


Fig. 3.—Squamous carcinoma of oesophagus. × 400. Showing cell-nest formation.

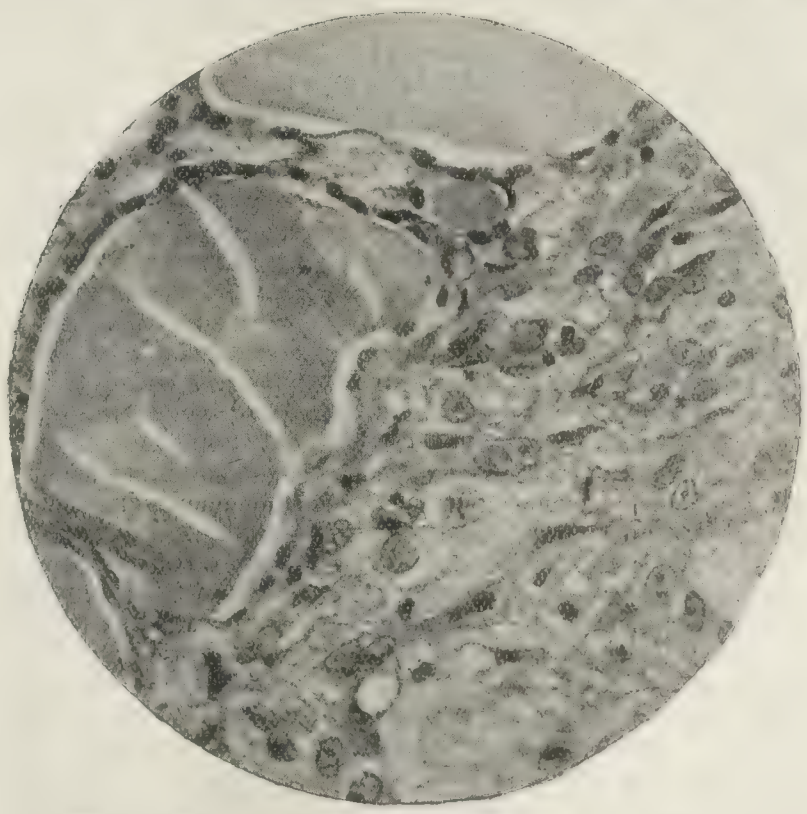


Fig. 5.—Invasion of thyroid gland by squamous carcinoma. × 400.

1. Where the growth extends too far into the posterior mediastinum to permit of removal.
2. Where a small part only of the circumference of the oesophagus is involved.
3. Where the whole or greater part of the circumference is invaded by tumour but the total length does not extend to more than 2 cm.
4. Where the length is greater than 2 cm. or there is involvement of the trachea or larynx in addition.

In the first case, of course, further operation is impossible, and the oesophagus must be closed by two rows of sutures.

Cases which come into the second group are unfortunately but rarely seen. In recent years there has been only one such case operated on in this hospital; in this patient a longitudinal ulcer, 2 cm. long, was excised from the oesophagus, and the wound was closed along the greater part of its extent, but the patient unfortunately died some days later owing to the spread of infection into the surrounding tissues.

When the growth involves the greater part of the circumference of the oesophagus but has not spread beyond the outer coat, and is not more than 2 cm. in length, then it is possible not only to excise that portion of the tube with a margin of healthy tissue above and below, but also to bring the two cut ends into apposition and to suture them together. Leakage, however, is apt to occur, and therefore the outer wound should not be completely closed, so as to allow for drainage. It is most essential, however, to limit the spread of the discharge from the oesophagus into the wound; this can be done to a great extent by deep stitches, bringing into apposition the surrounding muscles, and covering, as far as possible, the carotid sheath by suturing the adjacent muscles over it. The escape of septic matter from the oesophagus may then be regulated to the track left open for it. Another precaution is the introduction of a Gluck's oesophageal tube into the oesophagus; the dilated upper end rests on the back of the tongue and catches most of the saliva that is swallowed; and also later, when the patient is taken off rectal feeds, the fluids swallowed are conveyed by the tube to a portion of the oesophagus well beyond the anastomosis. Apart from the actual technique in the removal of the affected portion of the oesophagus, the essentials to success are the thorough cleaning of the mouth and removal of carious teeth before the operation, the introduction of a Gluck's tube as soon as the anastomosis is complete, and the approximation of all the adjacent structures between the skin wound and the oesophagus so as to prevent the spread of infection among the tissues of the neck. In all cases, of course, in which an excision of the growth is effected the glands, whether obviously involved or not, must be dissected out.

Finally, we come to the last group of cases—those in which the ends of the oesophagus cannot be approximated after removal of the growth, and in which perhaps, also, a portion of the trachea has to be excised. As to the latter, all that need be said is that the lower end must be sutured into the wound and a tracheotomy tube tied in. Later the patient can learn to speak quite comfortably with a Gluck's phonation apparatus. The upper and lower ends of the divided oesophagus must also be drawn out and sutured to the skin; the patient can for the time be fed through the lower opening, and the secretions escaping from the upper end can be controlled by an oesophageal tube passed down the pharynx, out of the upper oesophageal opening and in again at the lower opening. By this means also the patient can enjoy the pleasure of swallowing his own food. Later a plastic operation can be undertaken to restore the continuity of the oesophagus. This is done by replacing the excised portion by a tube formed from the skin which lies between the two cut ends of the oesophagus. The skin is freed on either side and the edges rolled over and sewn together, so that the outer surface of the skin now forms the inner lining. The ends of the new tube are now united to the cut ends of the oesophagus, and the whole covered over by undercutting the skin on either side and stitching these flaps together over the raw surface.*

When the upper end of the divided oesophagus is so close to the pharynx that it cannot be brought out of the wound, then precautions must be taken to provide for the escape of the secretions in the same way as described in the operation of excision and end-to-end anastomosis.

* A very full account of plastic operations for restoring the continuity of the oesophagus can be found in Professor von Hacker's paper, Ueber Resection und Plastik am Halsabschnitt der Speise-röhre, insbesondere beim Carcinom, *Verhandlungen der deutschen Gesellschaft für Chirurgie*, Thirty-seventh Congress, Berlin, 1908.

ON THE RADICAL OPERATION FOR CANCER OF THE PYLORUS:

WITH ESPECIAL REFERENCE TO THE ADVANTAGES OF THE TWO-STAGE OPERATION AND TO THE QUESTION OF THE REMOVAL OF THE ASSOCIATED LYMPHATICS.*

BY

ERNEST W. HEY GROVES, M.S., F.R.C.S.,

SURGEON TO THE COSSHAM HOSPITAL; ASSISTANT SURGEON TO THE BRISTOL GENERAL HOSPITAL.

THE subject of the radical treatment of cancer of the stomach by surgical operation is one on which a great deal of work has recently been done. And yet, owing chiefly to the long delay which occurs before the cases are submitted to the surgeon, the immediate mortality is very high and the proportion of lasting cures is disappointingly low. It is my object to discuss the causes and remedies for this state of affairs and to support the following propositions:

1. There is a good prospect of cure in early cases of the disease.
2. That exploratory operations should be performed for diagnostic purposes in all doubtful cases.
3. That the immediate operative mortality may be greatly reduced by operating in two stages.
4. That a more systematic attempt should be made to remove the whole of the lymphatic area connected with the stomach.
5. That the limits of operability, both for palliative and radical operations, should be more rigidly defined, so as to lessen if possible the number of surgical failures.

The following table shows the chief features of the cases upon which I have myself operated:

Order.	Sex.	Age.	Length of History.	Pain.	Vomit.	Emaciation.	Tumour	Free HCl.	Operation.	Interval.	Result.	Remarks.
1	M.	57	8 mnths.	+	+	+	–	–	Billroth I	—	D.	Died on third day, probably from leakage.
2	F.	56	12 mnths.	+	+	+	+		Two stage	7 days	R.	Lived for seven months and then died of uraemia.
3	M.	66	9 mnths.	+	+	+	?	-	Two stage	7 days	R.	Died of recurrence nineteen months later.
4	M.	55	5 years	+	+	+	?	–	Two stage	12 days	R.	Alive and well now after two and a half years; a very early cancer growing in a chronic ulcer.
5	M.	32	2 mnths.	+	+	?	?	+	Two stage	10 days	R.	Alive and well now one and a half years after operation.
6	F.	38	4½ mnths.	+	+	+	+	+	Billroth II	—	D.	Died seventeen days after of asthenia.
7	M.	54	12 mnths.	+	+	+	+	–	Two stage	12 days	D.	Died of shock two hours after the operation.
8	M.	49	3 mnths.	+	+	+	–	–	Two stage	30 days	R	Alive and well (three months).

It will be noted that of these cases 6 were men and 2 women, and that the ages varied between 32 and 66. In 6 cases I operated in two stages with only one death, whereas in the two cases in which excision and anastomosis were done at the same time both died. Other points which require further notice can be more conveniently discussed under the various headings into which the subject naturally divides itself.

* Part of a paper read before the Surgical Section of the Royal Society of Medicine on February 8th.

ETIOLOGY.

The only determining factor of importance of which we know anything is the pre-existence of an ulcer. In one of my cases (No. 4) this factor was present, and I was fortunate enough to time my operation at the very earliest stage of malignant transformation. Judged from a clinical point of view about 12 per cent. of all cases of cancer of the stomach are caused by an ulcer (Stumpf,[3] 6 out of 47 cases). But according to Wilson and MacCarty[49] there is strong pathological evidence for associating the pre-existence of an ulcer with cancer of the stomach in nearly 80 per cent. (125 out of 158 cases of growths of the pylorus resected by the brothers Mayo).

SYMPTOMS, SIGNS, AND DIAGNOSIS.

In cases which are presented for surgical treatment the symptoms have usually been present for many months. In my cases, apart from the one preceded by an ulcer, the duration was 2, 3, 4½, 8, 9, 12, and 12 months, with an average of about 7. It is quite clear that in most cases a most unreasonable delay occurs before the surgeon is consulted, and that this delay must often involve the growth becoming unfavourable for radical treatment.

It will be seen from the table that in my cases the cardinal symptoms of loss of flesh, vomiting, and pain were never absent. Of these, emaciation is probably the most important, the loss occurring so rapidly, and being so unamenable to treatment. In any doubtful case, a steady gaining of weight is in my opinion the only condition that renders a postponement of an exploratory operation justifiable. Makkas,[1] in speaking of over 600 cases of cancer of the stomach, states that this sign of emaciation never failed.

The Occurrence of a Tumour.

In only 3 out of my 8 cases was a definite tumour constantly present. In one case a tumour was sometimes present and sometimes absent; in 2 cases there was a sense of resistance, and in 2 there was nothing abnormal palpable. The proportion of operable cases in which a tumour is present is, according to various authors, 51 per cent. (Stumpf[2]), 79 per cent. (Makkas,[1] 132 out of 167), or 70 per cent. (Mizokuchi,[3] 43 out of 61). It must therefore be most emphatically stated that no case can be diagnosed as non-malignant because of the absence of tumour, and, on the other hand, that no case should be regarded as inoperable simply because a tumour is present. There may be four quite different constituent elements in a stomach tumour, namely (1) A contracted rectus muscle; (2) a tonic contraction of the pylorus and antrum pylori, or of the whole stomach; (3) a mass of new growth or inflammatory tissue in the stomach; (4) an invasion of the parts round the stomach by new growth, especially the parietes and peritoneum. The fact that a stomach tumour may be formed by tonic contraction in the neighbourhood of an ulcer or new growth has not, I think, been sufficiently appreciated. A tumour which is movable and variable in consistency is favourable for operation, whilst a fixed nodular mass is the reverse.

Chemical Changes in the Stomach Contents.

All observers are practically agreed now that the absence of free HCl and the presence of fatty acids in the stomach contents should only be regarded as of importance as confirmatory evidence. Of the 7 among my cases in which these tests were applied free HCl was absent in 5 and lactic acid present in 3.

Diagnosis.

The important point in the diagnosis of cancer of the stomach is the early recognition of the possibility of malignancy. Of course, if one waits long enough almost every case will reveal its own nature sooner or later. It should be enough for us to know that, in any given case of dyspepsia, emaciation is taking place steadily to make us suspect organic disease of the stomach, and advise an exploratory operation, unless the symptoms definitely improve under medical treatment. When this exploration is made, however, the difficulties are often not at an end. In my fourth case I actually removed a piece of pyloric growth after doing a gastro-enterostomy, and the microscope proved this to be inflammatory. But I was not satisfied, and having explained the situation to the patient, I excised the pylorus a fortnight later, and at the back of it was found the early stages of cancer. Wilson and MacCarty's[49] paper, already referred to, gives many illustrations of specimens which showed only inflammatory tissue in one part and malignant in another. Cases are often subjected to resection under the impression that they are malignant, and the microscope shows nothing but inflammatory tissue—for example, Frazier,[6] Taylor.[7] On the other hand, it often happens that a hard mass is regarded as malignant and inoperable and a gastro-enterostomy done for mere palliation, and the patient, instead of dying, gets quite well and lives for years, to prove that the mass must have been inflammatory—for example, Lilienthal,[8] Wolfler,[9] Patterson,[10] Kindle.[11]

The mere disappearance or diminution of a tumour of the pylorus after gastro-enterostomy cannot be held to be proof of its benignity, because, as in my fourth case, the mass may be composed of much inflammatory and little malignant tissue. The former disappears and leaves the latter as a cancerous germ to fructify later. Dowd[12] relates such a case — a young man in whom at a second operation after a gastro-enterostomy the pyloric tumour had apparently disappeared, and nothing further was done; but eighteen months later the patient died of peritonitis due to perforation of a malignant growth of the stomach.

Fig. 1.—A, Great omentum. B, Primary growth in lesser curvature of stomach. C, Gastro-hepatic omentum. D, Duodenum. E, Pancreas. F, Transverse mesocolon. G, Transverse colon.

The practical deduction from this great difficulty in the distinction between inflammatory and malignant disease of the stomach seems to me to be this: Every case should be submitted to no more than gastro-enterostomy in the first place. The abdomen is opened again in from two to four weeks, and if there is still any nodular mass it should be excised. If, on the other hand, the mass has entirely disappeared, it is probably benign, but the case should be kept under observation for the next twelve months.

OPERATIVE TREATMENT.

Before discussing the value and scope of the two-stage method, it may be well to give an idea of the results of the three classical operations. This is given in a large series of figures collected by Goldschwend[16] as follows:

Method.	No. of Authors.	No. of Cases.	Deaths.	Percentage.
Billroth I ...	11	279	102	36
Billroth II ...	9	189	77	40
Kocher	3	54	14	26
All methods ...	13	553	229	51

It is probably not fair to argue from these figures that Kocher's operation, in which an end-to-side junction of

duodenum to stomach is effected, is much safer than the others, for it has been employed for cases of early growth, and is not applicable to advanced disease. The main point proved by these figures is that even in the hands of experienced operators the mortality of the operations for resection of cancer of the stomach is about 50 per cent.

The reason for this high death-rate is easy to understand. The patients are often of advanced age; they are reduced to a condition of marasmus by pyloric stenosis. The stomach itself is in a most unhealthy condition, because it is the seat of a cancerous mass, and also because its contents are stagnant and decomposing. Is it any wonder, then, that an extensive resection followed by an anastomosis should result either in fatal shock, or that the patients should have too little recuperative power to resist peritonitis or other post-operative sequel?

I have been able to collect 127 cases in which the cause of death after resection operations is given. They are from the following authors, namely: Goldschwend,[16] Rasumowski,[23] Müller,[24] Branham,[25] Frazier,[6] Bishop,[26] Brunner,[27] Garré,[28] Kronlein,[29] Steinthal,[30] Czerny,[31] Korte,[32] Graham,[33] Makkas,[1] and Mizokuchi.[3] Placing these together, the causes of death are as follows:

	Cases.
Peritonitis (including "leakage" or "leaking from the duodenal stump")	79
Shock, Heart failure, Collapse, Weakness, Marasmus, Narcosis	23
Lung complications, especially pneumonia ...	20
Haemorrhage	2
Septic cholangitis ...	1
Brain symptoms	1
Colitis	1

For practical purposes, then, the causes of death are three: peritonitis, shock, and lung complications. It is certain that the danger of all these can be greatly lessened by dividing the operation into two stages. At the first stage gastro-enterostomy is performed. The patient rapidly gains in strength and vigour, and the stomach is relieved from its stagnation, whilst in many cases the inflammatory element of the tumour mass greatly diminishes. Then when, after an interval of one or two weeks, the resection is undertaken, the operation is much shorter, and, the patient's vitality being greater, there is much less danger of his succumbing either to peritonitis, shock, or to lung infection.

In my series of 8 cases, the whole operation was performed at one stage in 2, and both these patients died. In 6 cases the two-stage operation was performed, and of these only one died. I have been able to collect 12 other cases in which the two-stage operation was employed from the following authors: Franke[34] (1 case), Tuholski[35] (2 cases), Kammerer[36] (1 case), Tixier[37] (2 cases), Jaboulay[38] (1 case), Stumpf[2] (1 case), Robson[21] (1 case), and 3 other cases quoted by Mayo Robson.[21] Adding these to my own series, we have 18 cases, of which only 3 died—a mortality of only 16.6 per cent.

In addition to these definitely described cases, there are many authors who speak well of the method. Such are Quenu,[39] Doyen,[40] Czerny,[31] Hahn,[41] Kummel,[42] and Krause.[13] It will be noted that the interval between the two stages of the operation varies very much with different operators. In my own cases the intervals were seven, seven, ten, twelve, twelve, and twenty-eight days, and I am inclined to think that a fortnight represents the average time which ought to elapse between the two operations. In cases recorded by other surgeons, however, the interval has usually been much longer—generally about two months (fourteen days, six weeks, two months, ten weeks, three months). It seems to me that such a long interval is quite unnecessary, as patients gain in strength very rapidly after the gastro-enterostomy, and this long postponement gives time for the cancer to spread or to become disseminated, while the adhesions left after the first operation become often densely organized. Kammerer,[36] Krause,[13] and Tixier,[37] in particular, call attention to the difficulty caused by these adhesions. If the interval is only a fortnight these adhesions are easily broken down and do not add materially to the difficulty of the operation.

The Removal of the Lymph Area.

A pretty general agreement concerning the amount of the stomach and duodenum which should be removed has been arrived at. It should include the whole of the lesser curvature, or at least that part of it up to the point where the coronary artery and lymphatics join it, about a half or a third of the greater curvature, and about 1 in. of the duodenum.

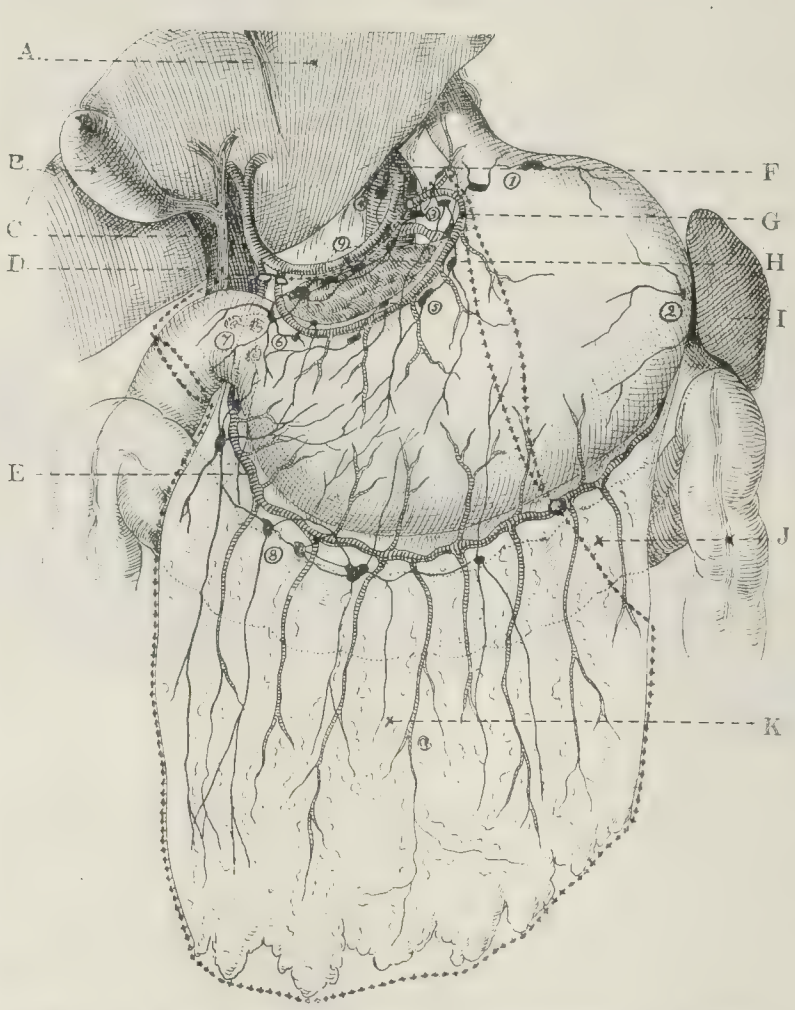


Fig. 2.—A, Liver. B, Gall bladder. C, Portal vein. D, Bile duct. E, Right gastro-epiploic artery. F, Coeliac axis. G, Coronary artery. H, Hepatic artery. I, Spleen. J, Colon. K, Great omentum. Lymph glands: 1, Paracardial; 2, splenic; 3, upper coronary; 4, coeliac; 5, lower coronary; 6, suprapyloric; 7, subpyloric; 8, gastro-epiploic; 9, suprapancreatic.

But in connexion with the removal of the lymphatic area associated with the stomach there has hitherto been no definite plan at all comparable, for example, with that adopted in cancer of the breast. So far all that has been done and advised is the removal of the lymph glands connected with the stomach along its lesser and greater curves, together with certain glands on the anterior face of the pancreas. But it is obvious that this by no means includes all the lymph channels which lie in the path of what Sampson Handley calls lymphatic permeation. The largest lymph-bearing area connected with the stomach is in the great omentum, and from this the lymph vessels loop back in front of the transverse colon, above the transverse mesocolon to the peritoneum in front of the pancreas, ending in the lymph glands round the coeliac axis. Before discussing the possibility of the removal of this wide area of peritoneum it may be well to give some evidence that cancer cells do really travel thus along the tissues named. Dobson and Jamieson[50] have recently made preparations showing the lymphatics connected with the stomach. I have shown the chief gland groups which they describe in Fig. 2. They state that the glands associated with the hepatic artery lie along its gastro-duodenal branch, whilst a chain of four to seven glands are associated with the right gastro-epiploic artery, lying below the vessel and having a tendency to stray down between the layers of the great omentum, especially in the case of adults. These never extend to the left of the middle of the great curve, and their efferent vessels all end in the subpyloric glands. It is also noted that some of the lymph vessels from the pylorus are not connected with the lower coronary glands, but go direct to the glands which lie below the origin of the coronary artery. Lymph vessels from the great curvature run into the great omentum, and finally looping back, end in the gastro-epiploic groups. Lengermann[51] found in cases of gastric cancer the following involvement of glands: coronary in 50 per cent.; glands on the great curve 37 per cent.; and subpyloric groups in 60 per cent.

Fig. 1 is the drawing of a slice taken from the tissues of an old woman who was admitted to the General Hospital

ith enormous ascites, and who died very soon after this ad been tapped. She had advanced colloid carcinoma the stomach, which had extended widely in the peri-neal tissues. This diffuse growth had spread itself in o disorderly fashion, but in the definite planes provided y the lymphatic areas of the omenta. A continuous ass of growth could be traced from the stomach, up the astro-hepatic omentum, and down the great omentum, hen it turned back in front of the colon, which was ot involved, along the upper rface of the transverse esocolon to the tissues in ront of the pancreas. Fur-her, the free margin of the reat omentum was adherent the pelvis, and from this oint an exuberant mass of rowth extended over the hole of the pelvic floor. It s clear, then, that in this ase the whole of the great mentum had become per-neated with the cancer, and ad served as a carrier of ancer cells to the pelvis.

It may be objected that his was a case of such ad-anced disease that no in-erence can be drawn from t relating to the early stages of cancer dissemination. But I have been able to demon-strate the same process in a much earlier stage of the disease.

In my seventh case, on beginning the removal of the tumour one week after a posterior gastro-enterostomy, I was surprised to find that the edge of the great omen-tum was adherent somewhere in the right iliac fossa. This adhesion had not been noticed at the time of the first operation. A very little manipulation served to separate the adherent parts, and it was noted that the point to which the omentum was fixed was at the root of the mesentery ad-jacent to the ileo-caecal region. The actual point of the omental edge thus separated was apparently thickened and inflamed. After the patient's death the point on the mesentery from which the omentum was separated could be identi-fied as an injected area. Both these tissues (the tip of the omentum and the mesentery) showed unmistakable cancerous infiltration. And this malig-nant growth at the extremity of the mesentery involving the tissues at the pelvic brim existed with an omentum which otherwise appeared perfectly free from disease. I would venture, there-fore, to assert that these cases, con-firming as they do what we should expect of the lymphatic areas connected with stomach cancer, prove that the whole of the great omentum ought to be removed in every radical opera-tion.

In confirmation of the suggestion that cancer spreads in this area from the stomach through the great omentum to the pelvic organs, it may be noted that among the scanty records we possess of the condition of patients dying from recurrence of the growth after opera-tion, there are several instances of the recurrence taking place in the pelvis. Goldschwend[16] mentions the case of a woman who died forty-one months after resection of the stomach of malignant disease of the ovary. Makkas' relates two cases, one a woman of 39 the other a woman of 40, who died of recurrence in the ovary or pelvis. Goullioud[45] had a female patient who died seventeen months after partial gastrectomy of cancer of the ovary.

If it is admitted that the great omentum ought to be removed, this is easily carried out by cutting through the peritoneum, which passes from the back of the omentum to the front of the transverse colon. And in many cases it is then possible to strip the peri-toneum off the upper surface of the transverse mesocolon to the front of the pancreas.

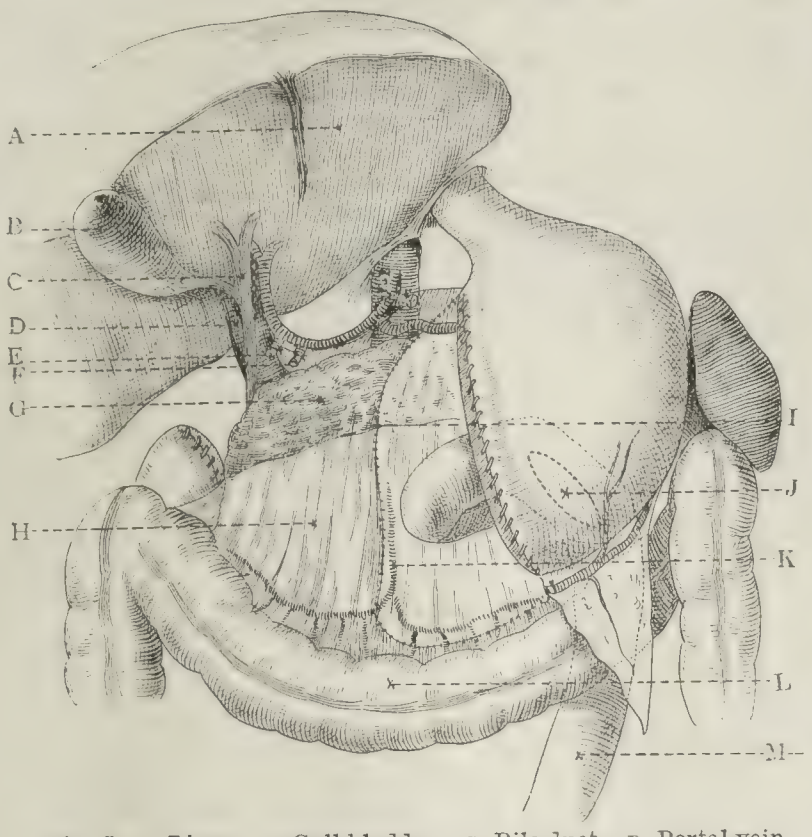


Fig. 3.—A, Liver. B, Gall bladder. C, Bile duct. D, Portal vein. E, Gastro-duodenal artery. F, Pyloric artery. G, Pancreas. H, Mesocolon. I, Cut edge of peritoneum. J, Gastro-enterostomy. K, Middle colic artery. L, Colon. M, Jejunum.

The complete removal of the small omentum is fortunately not so important, because it has far fewer lymph vessels than the great omentum. It cannot of course be entirely removed, because it is wrapped round the portal vein, bile duct, and hepatic artery. The lymph vessels from the upper margin of the stomach run in company with the gastro-duodenal and hepatic arteries on the one side, and with the coronary artery on the other, behind the peritoneum which covers the pancreas at the back of the lesser sac of peritoneum. This is the same layer of peritoneum which is continuous with the posterior layer of the great omentum, and it may be removed with it. The coronary artery should be tied as it comes off from the coeliac axis, the gastro-duodenal as it comes off from the hepatic.

The operation which embodies these suggestions I have carried out in my last two cases. It is illustrated by Figs. 2, 3, and 4. In Fig. 2 the stomach and great omentum, with chief vessels and lymphatics, is shown, and the lines of incision indicated by a dotted line. Fig. 3 shows the condition after the removal of parts of the stomach and duodenum, great omentum, and the peritoneum from the front of the head of the pancreas. Fig. 4 shows, by means of a diagrammatic sagittal section, the line along which the peritoneum attached to the stomach is removed.

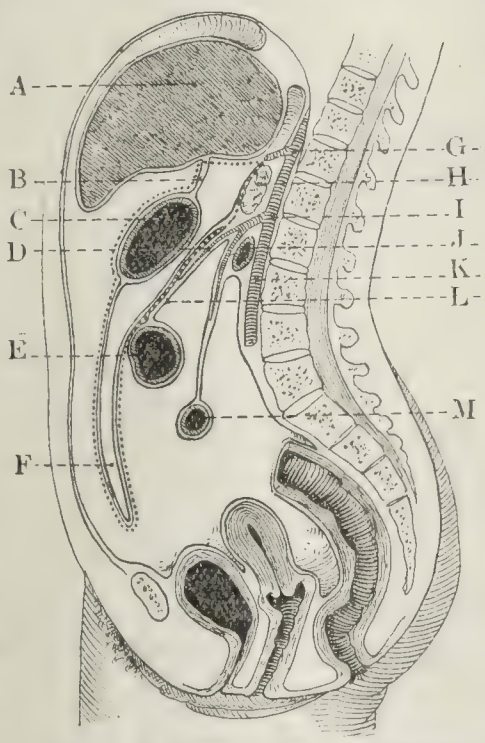


Fig. 4.—A, Liver B, Lesser omentum. C, Stomach. D, Middle colic artery. E, Transverse colon F, Great omentum. G, Coeliac axis. H, Pancreas. I, Superior mesenteric artery. J, Duodenum. K, Aorta. L, Transverse mesocolon. M, Small intestine. Dotted line shows area of peritoneum removed with the stomach.

As regards the ultimate results of operations for the radical cure of cancer of the stomach, the figures of Goldschwend,[16] Clairmont,[46] Makkas,[1] Kindle,[11] v. Eiselsberg,[46] Mikulicz,[46] Caspersohn,[46] give ample information. If added together the result is as follows:

Out of 736 cases submitted to resection, 56 only were known to be alive and well at the end of three years (7.6 per cent.).

Out of 237 cases recovering from resection, 37 were alive and well at the end of three years (15.6 per cent.).

Such results evidently prove that there is great room for improvement in the thoroughness with which the radical operations are performed, and it may be that such improvement lies in the direction which I have above indicated.

CONCLUSION.

In conclusion, the opinions discussed above may be summarized as follows:

1. That a quite unreasonable time is usually allowed to elapse before the patient is presented for surgical treatment.

2. That in the majority of cases the diagnosis is to be made from the cardinal symptoms of loss of weight, vomiting, and pain.

3. That all doubtful cases should be submitted to exploratory operation, unless the body weight rises under medical treatment.

4. That even exploratory operations often leave the diagnosis doubtful. In such circumstances the case should be seen at frequent intervals or else treated by excision.

5. Mortality after resection of cancer of the stomach is about 50 per cent. This is caused by peritonitis, shock, and lung complications.

6. The immediate mortality can be greatly reduced by adopting the two-stage method.

7. That mortality can be further much reduced by excluding cases where the colon, pancreas, or posterior lymph glands are seriously involved.

8. That the adequate removal of the associated lymph areas demands that the great omentum and the tissues in front of the pancreas should be taken away.

9 This can be done by the above-described operation.

10. Remote results of radical operations only give a percentage of 7.6 three-year recoveries of those operated upon. This low figure may in part be due to the inadequate removal of lymphatic tissues.

REFERENCES.

1 Makkas: *Mittheil. a. d. Grenzgebieten*, 1907, p. 988.
2 Stumpf: *Beiträge z. klin. Chir.*, 1908, lix, p. 551.
3 Mizokuchi: *Deutsch. Zeit. f. Chir.*, 1909, September, p. 53.
4 Groves: *Practitioner*, 1905, lxxv, p. 172.
5 Lund: *Boston Med. and Surg. Journ.*, 1908, vol. clviii, p. 451.
6 Frazier: *Annals of Surgery*, 1907, xlv. p. 950.
7 Taylor: *Medical Press and Circular*, 1906, p. 248.
8 Lilienthal: *Annals of Surgery*, 1906, vol. ii.
9 Wolfler: Quoted by Ausin, *St. Petersb. med. Woch.*, 1904, vol. xxix, p. 63.
10 Patterson: *Lancet*, 1906, i, p. 574.
11 Kindle: *Beiträge z. klin. Chir.*, 1909, lxiii, 19.
12 Dowd: *Annals of Surgery*, 1906, vol. ii.
13 Krause: *Berl. klin. Woch.*, 1903, p. 1105.
14 Cobb: *Boston Med. and Surg Journ.*, vol. clvii, p. 111.
15 Haberkrant: *Archiv f. klin. Chir.*, 1896, li, p. 484.
16 Goldschwend: *Archiv f. klin. Chir.*, Bd. 88, S. 218.
17 Patterson, loc. cit.
18 Ito and Goyesima: *Deutsch. Zeit. f. Chir.*, 1908, vol. xcii, p. 352.
19 Makins: BRITISH MEDICAL JOURNAL, 1903, ii, p. 876.
20 Mayo: *Annals of Surgery*, vol. xxxix, p. 321.
21 Mayo Robson: BRITISH MEDICAL JOURNAL, 1900, i, p. 696; also *Cancer of Stomach*, p. 136.
22 Maydl: Keen's *System of Surgery*.
23 Rasumowski: *Arch. f. klin. Chir.*, Bd. 88, S. 451.
24 Müller: *Münchener med. Woch.*, 1907 i, S. 907.
25 Branham: *Maryland Med. Journ.*, 1908, i, p. 144.
26 Bishop: *Clinical Journal*, 1907, vol. xxx, p. 411.
27 Brunner: *Centralbl. f. Chir.*, 1905, p. 1265.
28 Garré: Ibid,
29 Krönlein: Ibid.
30 Steinthal: Ibid., 1905, p. 1345.
31 Czerny: Ibid., p. 1265.
32 Korte: Ibid.
33 Graham: *Annals of Surgery*, 1906, vol. i.
34 Franke: *Centralbl. f. Chir.*, 1837, appendix, p. 98.
35 Tuholski: *Medical News*, 1890, i, p. 503; 1893, i, p. 263.
36 Kammerer: *Annals of Surgery*, 1904, vol. xxxix, p. 106.
37 Tixier: *Lyon Médical*, 1905, p. 377; and also 1908, vol cxi, p. 123.
38 Jaboulay: Ibid., 1907, vol. cix., p. 892.
39 Quenu: *Revue de Chirurgie*, 1895, p. 850.
40 Doyen: Quoted by Patterson, loc. cit.
41 Hahn: Ibid.
42 Kummel: *Archiv f. klin. Chir*, vol. liii, p. 87.
43 BRITISH MEDICAL JOURNAL, 1906, vol. i, p. 194.
44 Kausch: *Berl. klin. Woch.*, 1907, p. 509.
45 Goullioud: *Lyon Médical*, 1908, vol. cx. p. 475.
46 Clairmont: *Archiv f. klin. Chir.*, Bd. 76.
47 Bircher: *Centralbl. f. Chir.*, 1907. S. 865.
48 Leriche: *Lyon Médicale*, 1908, vol. cx. p. 591.
49 Wilson and MacCarty: *American Journal of Medical Sciences*, December, 1909, p. 846.
50 Dobson and Jamieson: *Lancet*, 1907, i, p. 1061.
51 Lengermann: *Verhandl. der Deutsch. Ges. f. Chir.*, 1902, p. 483.

FOREIGN BODIES IN THE DUODENUM.

By SOMERVILLE HASTINGS, M.S., F.R.C.S.,

ASSISTANT SURGEON TO THE BELGRAVE HOSPITAL, LATE SURGICAL REGISTRAR TO THE MIDDLESEX HOSPITAL.

THE rarity of the impaction of foreign bodies in the duodenum makes it desirable that every case of this accident should be recorded.

History.

A girl, aged 3 years, was admitted into the Belgrave Hospital for Children on August 19th, 1909. Two days before admission the child, who had been very healthy previously, told her mother that she had swallowed a short piece of pencil with a metal extremity, such as is usually attached to a dance programme. The next day she began to suffer from sickness, diarrhoea, and colicky pain. As this continued, she was brought to the hospital, and admitted on the third day after the accident.

When put to bed the child appeared to be in no pain. The abdomen was not distended, and moved well with respiration. Slight tenderness was present to the right of the umbilicus. The diarrhoea soon ceased. When the child was examined by *x* rays on the day following admission a well-marked shadow, evidently the metal end of the pencil, was seen about 1½ in. from the middle line beneath the right costal margin. With the child lying on her back and the *x*-ray tube beneath her, the dark area appeared to descend fully an inch on deep inspiration. Every day the child was examined with *x* rays, but neither constipating food nor purges made any difference to the position of the shadow.

Operation: Recovery.

On September 1st, twelve days after admission, I decided to operate. An incision, 3½ in. long, was made above the umbilicus in the middle line. On introducing the hand into the abdomen the pencil was at once felt impacted across the gut just at the bend between the descending and transverse parts of the duodenum. It was easily disimpacted and pushed back into the stomach. An attempt was next made to pass a Brüning's foreign body forceps into the stomach, with which, aided by the hand in the laparotomy wound, it was hoped to seize the foreign body, and remove it by the oesophagus. Unfortunately, having no oesophagus tube with me, I was unable to pass the forceps down to the stomach, owing to their points catching in the mucous membrane of the gullet. The attempt was accordingly abandoned. A small incision was made through the anterior wall of the stomach on to the foreign body held between the fingers. The pencil at once shot out, and the small wound was closed by a double row of stitches. Through-and-through sutures closed the abdominal incision.

The wound healed in a satisfactory manner, and the child left the hospital on October 7th.

The pencil was found to be 1⅞ in. long and $\frac{3}{16}$ in. in diameter. The point was not at all sharp.

When the fate of the various foreign bodies that are swallowed is considered, the rarity with which they give rise to any serious trouble during their passage through the alimentary canal must appear striking. Innumerable cases are recorded, both in children and in adults, in which the most varied assortment of miscellaneous articles have been successfully passed by the rectum. Thus Norton[1] describes a case in which a pin $3\frac{9}{16}$ in. long passed through the alimentary canal of a child aged 13 months in twenty-one hours, and Petit de la Villéon[2] another in which a pin 2 in. long, with a large head and sharp point, was passed by the rectum fifteen hours after it had been swallowed. A third example in which a child of 3 successfully disposed of a pin 3 in. in length is recorded by Silver.[3] Goodall[4] mentions a case in which a pocket-knife nearly 3 in. long traversed the alimentary canal of a child of 2 years in four days. Numerous examples of safety pins having been swallowed by infants without any harm resulting are to be found in the literature, and Holt[5] mentions a case in which an infant of 6 months managed to dispose of a mouthful of seven such pins, some open and some closed, without any evil consequences. Davis-Colley[6] describes how a needle 5 in. long only gave rise to trouble when the descending colon was reached, and Mansell Moullin[7] a case in which 4½ in. of hatpin travelled as far as the ileo-caecal valve in a girl of 19 before it became impacted.

Some interesting observations on the way in which the intestines deal with pointed foreign bodies are referred to by Ross[8]; he mentions the experiments of Müller and Exner, who have shown that in dogs the contact of any sharp pointed body with the mucous membrane of the bowel results in a corrugation of the intestinal wall, which tends to push away the offending body. This action is purely reflex, and occurs just as well after the nerves going to the segment of bowel under observation have been divided. Evidence of a similar action in man is seen in a case described by Kretz,[9] in which a chicken bone perforated the bowel, and numerous scars were seen in the mucous membrane proximal to the point of perforation.

But foreign bodies do occasionally become impacted even in the duodenum, though relatively few cases seem to have been described. Clement Lucas[10] relates a successful case which closely resembles the one here recorded. A child of 22 months swallowed a French nail 2 in. long, which was seen by the *x* rays in the situation of the second part of the duodenum. When it had remained in the same position for nearly a month Mr. Lucas decided to operate. He opened the abdomen, seized the nail through the duodenal wall, and cutting on to it, removed it. Laurence Jones[11] records a case under the care of Mr. Crisp English, in which a girl swallowed 2½ in. of a broken bodkin. For the first few days it appears to have remained in the stomach, but later on it passed through the pylorus, and twelve days after being swallowed the

sharp broken end pierced the second part of the duodenum and gave rise to acute symptoms. Lihotzky[12] mentions a most curious case, in which a spoon remained harmlessly in the stomach and duodenum for two and a half years, and only gave rise to perforation of the latter when the anatomical relations of the viscera became disturbed by the occurrence of pregnancy. Last of all, we have Chaput's[13] case in which a tooth plate was swallowed and became impacted in the third part of the duodenum, its onward progress being blocked by the pressure exerted on the gut by the superior mesenteric vessels and the ligament of Treitz. After ten days an attempt was made to remove the foreign body through an opening in the commencement of the jejunum. But the tooth-plate was firmly fixed in the bowel by its metal points, which had deeply penetrated the wall, and not until the incision was prolonged upward to the duodenum could it be removed. Although some difficulty was experienced in suturing the bowel the patient did well.

It seems not a little curious that elongated foreign bodies do not more frequently become impacted in a bent tube like the duodenum. The screen examination in the case here recorded seems to indicate that the duodenum of children is more movable than might be imagined, and it is probable that this part of the bowel is capable of considerable dilatation. Again, the observations of Müller and Exner serve to show that a curved and pointed body will be rotated by the bowel into such a position that it will pass most easily. In this way, perhaps, may be explained the numerous cases in which, especially in children, a foreign body of considerable length has passed through the duodenum without giving rise to trouble.

REFERENCES.

[1] Norton, *Boston Medical and Surgical Journal*, 1893, p. 336. [2] Petit de la Villéon, *Journal de médecine de Bordeaux*, 1909, p. 122. [3] Silver, *New York Medical Journal*, 1891, vol. ii, p. 655. [4] Goodall, *Lancet*, vol. ii, 1894, p. 383. [5] Holt, *Pediatrics*, 1903, p. 44. [6] Davis-Colley, *Lancet*, 1900, p. 95. [7] Mansell Moullin, *Lancet*, 1896, p. 1284. [8] Ross, *New York Medical Journal*, 1907, p. 881. [9] Kretz, *Wiener klinische Wochenschrift*, 1898, p. 190. [10] Clement Lucas, *Reports of the Society for Study of Diseases of Children*, 1903, p. 272. [11] Laurence Jones, *Lancet*, 1905, p. 1545. [12] Lihotzky, *Zentralblatt für Gynaekologie*, 1902, p. 485. [13] Chaput, Société de Chirurgie, *Bulletins et Mémoires*, Paris, 1907, p. 1217.

THE EXISTENCE OF LIVING CREATURES IN THE STOMACH AS A CAUSE OF CHRONIC DYSPEPSIA.

BY W. SOLTAU FENWICK, M.D.

THE frequent occurrence of entozoa in the human subject is probably responsible for the superstitions current through many centuries regarding the occasional harbourage in the stomach of various strange animals, which, subsisting upon the food of their host, or even upon the structures of the viscera, gave rise to a series of weird symptoms that usually terminated in an agonizing death. Such stories have not only obtained credence among all classes of the population throughout the entire world, but have frequently been recorded and commented upon by members of the medical profession, many of whom appear to have been genuinely convinced that the animals shown to them had actually escaped from the body. So many of these fables were obviously the outcome of gross superstition, hysteria, or of a deliberate intention to defraud, that it is, perhaps, hardly surprising that modern writers on diseases of the digestive system either ignore the subject altogether or only briefly mention accidental parasitism. Nevertheless, instances are still recorded from time to time in medical journals in which some unusual inhabitant of the human body has been observed by credible witnesses. With some little trouble more than 180 cases may be collected in which lizards, salamanders, frogs, slugs, caterpillars, worms, leeches, beetles, larvae, chrysalides, or maggots, were believed to have been harboured in the digestive tract for a considerable time and accompanied by an intractable form of dyspepsia. Some of these are so well authenticated that the subject certainly merits more attention than has hitherto been accorded to it.

INSECTS.

A large number of different insects or their larvae have been observed as accidental inhabitants of the human body, and in the early part of last century Hope published a list of some forty-three varieties which had been identified. Since that time numerous other cases have been recorded, and there is now little difficulty in collecting a hundred and thirty examples of myiasis or diseases caused by the presence of insects. In the vast majority, where sufficient details are given to permit of their identification, the insects belonged to three of the fifteen natural orders—the Diptera or two-winged flies, the Coleoptera or beetles, or the Lepidoptera, or butterflies and moths—and it is with the various species belonging to these three orders that the following remarks are chiefly concerned.

1. *Diptera.*

Of the numerous families of this order, the Muscidae, which include the house-flies, blow-flies, flesh-flies, and flower-flies, contribute the greatest number of parasitic larvae. The eggs of these insects are usually deposited in places where an abundance of food is obtainable without the necessity of exertion, and consequently the resultant larvae constitute the lowest form of maggots, and possess no legs. A very short time may intervene between the deposition of the egg and the appearance of the larva. In the case of the blow-fly it does not exceed twenty-four hours. As a rule, the common house-fly (*Musca domestica*) lays her eggs upon various forms of cooked meats, sweets, or biscuits, while the bluebottle or blow-fly (*Musca vomitoria*) prefers high meat, game, or other kinds of animal food that are undergoing decomposition. In his description of the latter species, Wood remarks that the oval wire covers which are sold for the purpose of keeping blow-flies from meat are often useless, since, when the insect finds that she cannot gain direct access to the meat, she will rest on the top of the cover, and allow her eggs to drop through the meshes or the wire gauze. The flesh fly (*Musca carnaria*) proceeds in a different and more expeditious manner. In the case of the bluebottle and most other Muscidae the eggs have to be hatched after their deposition, but in this species they are hatched within the body of the parent and are deposited as maggots, each female producing about twenty thousand. It was to such insects that Linnaeus referred when he wrote the apparent paradox that three flies could eat an ox as fast as a lion. The flesh-fly does not even wait until the meat has undergone incipient decomposition, or, perhaps, is able to detect signs of it before they become apparent to the human senses, since hosts of these minute larvae are often found upon birds and animals within two hours of their death.

Of the genus Anthomyia some species, such as the meat-fly (*Musca anthomyia*) particularly affect meat, while others feed on radishes, onions (*A. ceparum*), lettuces (*A. lactucae*), or cabbages (*A. brassicae*). Others, again, deposit their eggs in certain fruits, especially the raspberry and blackberry, each specimen of which when fully ripe may be found to contain a maggot. The number of eggs and larvae which are ingested by persons who devour garden and hedgerow fruit must be enormous.

In two apparently authentic cases (Lasalle, Sentex) larvae belonging to the family of Tipulidae or crane-flies were detected in the vomit and faeces. Of this, the best-known species is the *Tipula longicornis*, or daddy-long-legs, which deposits its eggs on the ground, whence they possibly gain access to the human stomach by means of unwashed vegetables and fruit. The grubs, which are tough-skinned and hard-headed, are well known to gardeners by the name of leather jackets. The larvae of other species live in rain or well water, in which they may often be detected as minute thread-like worms of scarlet colour that exhibit constant twisting movements. Occasionally the larvae of the drone-fly (*Eristalis tenax*) find their way into the stomach through the medium of water, although the muddy fluid favoured by these rat-tailed maggots can hardly be described as suitable for drinking purposes.

Drosophila larvae are sometimes ingested in sour milk (Hutton), and the well-known cheese mites (*Piophila casei*), which are probably quite harmless, need no description. Another dipterous insect that lays its eggs upon the surface of the water is the common gnat (*Culex pipiens*), and Allonneau has related an instance in which immense numbers of the eggs and larvae of gnats were vomited at intervals. The family of the Oestridae or bot-flies are parasitic in certain animals, the larvae of the

common bot-fly (*Gasterophilus equi*) infesting the stomach of the horse. Several cases have been recorded in tropical countries in which persons vomited or evacuated larvae of this species, while the one related by Cattle is of particular interest, since it occurred in an inhabitant of this country who was not concerned in tending domestic animals.

2. *Coleoptera.*

At least twenty-four varieties of beetles or their larvae have been identified in the vomit or evacuations of persons suffering from symptoms of gastro-intestinal irritation, and more than forty instances may be found recorded in the literature. In the great majority of the cases the insects apparently belonged either to the Staphylinidae or rove beetles, the Carabidae or ground beetles, or to the Blaptidae; among the latter the *Blaps mortisaga* is the most conspicuous example, its existence having been specially noted in nine instances. Sometimes many species of the same family or of different families were found in the same individual, mixed with dipterous larvae, spiders, millipedes, and entozoa. The eggs of many of these beetles are deposited upon the earth, although those of the *Tenebrio molitor* are usually found in corn mills and bakehouses, whence they probably find their way into the stomach with the flour or bread. All the larvae are of considerable size, those of the *Blaps mortisaga* often measuring 1½ in. in length; and since they are provided with very formidable feet and jaws, their existence in the stomach and intestines of their human host is usually productive of anything but comfort. If well supplied with food and warmth, the *Tenebrio molitor*, and perhaps other species, breed throughout the entire year—a fact that may help to explain the persistent evacuation of the insects in all stages of development, which was noted in the cases of Mary Riordan and others.

3. *Lepidoptera.*

Members of this order are less frequently parasitic in the human subject than the Diptera or Coleoptera. Caterpillars of the Noctuae have been evacuated alive in six instances; in four others, those of the *Mamestra brassicae*, or cabbage moth, which infests the summer cabbage, have been identified; while in one instance (Herold) the caterpillar of the large white butterfly (*Pieris brassicae*) has been found. In all, some twenty-two parasitic caterpillars, generally referred to as "hairy" or "smooth," have been observed; and Cavenne has recorded an instance in which chrysalides of butterflies were the cause of a severe gastro-enteritis. Finally, it may be mentioned that Bartels has observed internal parasitism by a member of the family of Pulicidae or fleas, and Ranque a case in which numerous woodlice were vomited.

Gastro-intestinal infection by dipterous insects is far more common in tropical countries than in England, owing to the greater number and variety of flies, and the custom of eating meat in a raw or partially cooked state. Even in this country, however, it is probable that the majority of people who enjoy cold game or stale cooked meats during the warm months of the year invariably swallow eggs, and even larvae, while those who indulge in garden fruits, raw cabbages, salads, onions, or radishes which have been carelessly cleaned, are also extremely prone to infection by the various Anthomyia, as well as by other insects that lay their eggs in these substances. It is stated that the eggs of the blow-fly have been found in the stools of healthy individuals, and it is probable that if a systematic investigation were undertaken the eggs and larvae of other forms would also often be detected. The habit of drinking unboiled water or water that has been exposed to the air for some time is responsible for infection by those species which usually lay their eggs on water; while such persons who drink the contents of pools, lakes, wells, or tanks, invite infection by a vast number of larvae. The fact that the rat-tailed grub of the drone-fly, which selects for its residence only the foulest water, has been found in the human stomach, is sufficient to indicate how widely opinions may differ concerning the exact definition of "drinking water." Cakes, biscuits, or sweets kept in cupboards are liable to be contaminated by many insects; and in a case related by Albrecht it was observed that the larvae in the boy's stools were identical with those that infested the cupboard where his favourite cakes were stored. A depraved appetite resulting from hysteria or mental disease seems to have been responsible for many examples of coleopterous larvae in women, although the fact that children are by no means exempt (Pickells) proves that accidental infection may sometimes occur, possibly through the medium of garden mould.

The clinical details of many of the cases of internal myiasis, while deficient in several important particulars, conclusively prove that under certain circumstances the eggs of insects are hatched in the human stomach, and the resultant larvae grow to their full size; while in rarer instances all the various metamorphoses which precede the development of the perfect insect may be completed in the organ. Thus, more than 45 cases have been recorded in which a vast number of maggots were evacuated as the result of the ingestion of insects' eggs, and in many of these the length of time which elapsed between the probable date of infection and the first discharge of living larvae corresponded with that required for the hatching of the eggs and the development of the maggots. In others, again, as in that related by Cavenne, the appearance in the stools of chrysalides suggests that the pupal as well as the larval stage was completed in the alimentary tract, while the case of Mary Riordan and others, in which larvae, pupae, and the perfect insects were discharged at intervals for years, can only be explained by the assumption that the insects actually multiplied in the digestive canal of their host.

These clinical observations are to some extent confirmed by the results of experiment. Thus, larvae of flies introduced into the stomachs of guinea-pigs and frogs have been found alive at the expiration of three days, and those of the blow-fly not only withstand prolonged immersion in water, but resist artificial peptic and pancreatic digestion for six or seven hours. The extraordinary vitality of many species of beetles, especially the Blaptidae, has frequently excited comment (Pickells), and even immersion in spirits of wine for several hours does not seem to affect the *Blaps mortisaga* (Wood).

It is quite certain, therefore, that not only do the eggs of dipterous and coleopterous insects frequently hatch in the human stomach, but that the larvae may remain alive in the organ sufficiently long to permit their escape into the more hospitable regions of the intestine. If these statements apply to the normal stomach, they become infinitely more forcible when the frequent occurrence of gastric subacidity is considered. It is well known that certain functional disorders of the nervous system, including neurasthenia, hysteria, and some forms of insanity, are not infrequently accompanied by a marked deficiency of hydrochloric acid in the gastric juice; and since all varieties of primary inflammation of the stomach produce a similar diminution of digestive activity, it is obvious that the gastritis which ensues from the presence of living animals must indirectly favour their longevity. It is also highly probable that the condition known as achylia gastrica, in which the stomach never secretes any acid, is far more common than is usually supposed, and consequently in many apparently healthy individuals the stomach may prove an excellent incubator for the development of any eggs that happen to gain entrance to it.

SYMPTOMS.

The symptoms that ensue from the presence of larvae in the alimentary tract vary according to the numbers and nature of the parasite. In the case of the Muscidae, the passage of maggots by the rectum is often the first indication of the disease; but when larvae of the Oestridae, Tipulidae, or Coleoptera are present, their large size and sharp appendages always give rise to considerable irritation. An interval of four to twelve days usually intervenes between the ingestion of the eggs and the appearance of the first symptoms, during which time the patient either feels perfectly well or complains of vague abdominal discomfort, restlessness, and want of appetite.

At the end of this incubation period general malaise is experienced, accompanied by headache, thirst, anorexia, and faintness, while in children rigors, convulsions, and delirium are not infrequent. Extreme vertigo has been mentioned in so many cases that its occurrence cannot be regarded as purely accidental. Fever occurs in more than half the cases, and may persist for ten days or longer, although as a rule it tends to subside within forty-eight

hours. In several instances continued pyrexia for three weeks, accompanied by loose stools, caused the disease to be diagnosed as enteric fever. When dipterous larvae inhabit the intestine the abdominal symptoms are usually slight, and chiefly consist of distension, uneasiness, or of pinching and pricking sensations in the region of the navel; but if those of beetles, bot-flies, or crane-flies are present, severe tearing or gnawing pains are often complained of, or genuine colic is experienced. Retching and vomiting occur in the majority of the cases in which the latter larvae exist, and in more than one instance haematemesis has been observed.

The crisis of the complaint, which appears to coincide with the maturity of the larvae, is heralded by a sudden evacuation of the parasites, dipterous maggots being usually discharged by the bowel as well as by emesis, but beetle larvae chiefly by vomiting. Occasionally only a few specimens are eliminated at a time, but as a rule their numbers have been reckoned by the pint, quart, or litre, or are described as "innumerable."

It is interesting to notice that young children often suffer from general urticaria, especially when the caterpillars of certain moths have been swallowed. An evacuation of maggots is accompanied by a rapid subsidence of the former symptoms, with the exception of a mild diarrhoea which may persist for several days. In nearly two-thirds of the recorded cases, however, the symptoms recurred within fourteen days, and in about 40 per cent. of the entire number the patient continued to discharge larvae from the stomach or bowel for many months. In only two instances was mention made of the appearance of the fly in the stools or vomit, so it is probable that the apparent chronicity of the complaint depended upon a succession of distinct infections; but in cases of coleopterous parasitism, such as those recorded by Pickells, Ariel, Paterson, Bateman and others, the long continuance of the disease, which in Pickells's patient was still increasing in severity after three years, indicates that the insects must have multiplied within the body. Senator's case is of interest from the fact that while no maggots could be obtained by washing out the stomach, the patient vomited another dozen a month later. In only one instance was external myiasis associated with a discharge of larvae from the bowel. This was observed by Pout in 1787, and concerned a girl, aged 11, who was suffering from small-pox. On the ninth day of the disease she suddenly passed about half a pint of live maggots, and in all about three quarts were discharged. As the pustules burst each one was found to contain a similar maggot. Death ensued from exhaustion. The medical attendant appears to have been so surprised and perplexed by these abnormal features of small-pox that it is hardly possible to regard the case as anything but genuine. Emaciation, debility, and anaemia are usually present in chronic cases, and occasionally mention has been made of a depraved appetite, dyspnoea, difficulty of micturition, and dropsical effusions.

The general features presented by beetle parasitism are well exemplified by the case of Mary Riordan, which excited widespread interest during the third decade of last century and was so carefully watched by independent observers for the space of three years that even Cobbold admitted its genuineness. This young woman, who was highly neurotic and steeped in superstition, made it a practice for two years to remove clay from the graves of some priests of extreme sanctity and to mix it with her daily food. When first seen by Pickells she complained of severe gnawing and cramping pains in the abdomen, nausea, giddiness, and retching, and was subject to attacks of catalepsy. At intervals violent vomiting would occur, attended by the ejection of various larvae mixed with blood and mucus. In these attacks the patient would scream with pain and describe herself as suffering the tortures of hell, and was sometimes seized with epileptic convulsions. During the first year of her illness 700 larvae, most of which were alive, were vomited and about 100 passed by the bowel, while in the course of the next eighteen months nearly 1,300 were counted. Most of the larvae were identified as those of the *Blaps mortisaga*, or churchyard beetle, but in addition to these the meal-worm, or larva of the *Tenebrio molitor*, various dipterous maggots and intestinal parasites were observed. The majority of the larvae were full grown, those of the *Blaps mortisaga* measuring 1½ in. in length. When kept in boxes for observation they frequently devoured each other. Pupae as well as perfect insects were often seen, and on one occasion, when two beetles were vomited, the insects flew away. For three years and a quarter these parasites continued to increase in number, and the patient remained extremely ill and suffered from retention of urine, dropsy, and other symptoms. After numerous remedies had been tried in vain, the administration of 6 oz. of turpentine each day procured the discharge of immense numbers of larvae, pupae, and insects, after which the pain and vomiting subsided and the girl was restored to health.

In Ariel's case the patient vomited immense numbers of beetles during the course of two years, including 263 belonging to various species of Staphylinidae, among which were identified the *Ocypus olens*, or devil's coach horse, as well as numberless larvae of the *Tenebrio molitor* and of different species of Carabidae. This patient was cured by a mixture of turpentine and linseed oil. Osiander's case, to which reference has already been made, vomited and passed by the bowel numerous spiders, millipedes, flies, larvae, and worms. Colter relates that a Kaffir girl, 18 years of age, after suffering for a considerable time from abdominal pains, vertigo, and loss of flesh, vomited every few days a specimen of the "dunghill beetle"; while in the cases recorded by Jessop, Rosenstein, and others, living larvae of various beetles were either vomited or evacuated.

Very little is known concerning the phenomena that accompany parasitism by lepidopterous larvae, most writers being content to refer the symptoms exhibited by their respective cases to gastritis or enteritis. In the case described by Waters a child was seized with high fever, delirium, general urticaria, and acute gastritis, all of which symptoms subsided after a hairy caterpillar 1½ in. in length had been expelled from the bowel.

TREATMENT.

Accidental parasitism would probably be prevented if sufficient care were taken to protect meat and other articles of diet from the access of flies, and to avoid uncooked vegetables, musty cakes, and unboiled water. Muslin safes are alone of any value in protecting meat from the blow-fly. In mild cases of internal myiasis a sharp purge is often sufficient to rid the intestines of larvae and eggs, while in the more troublesome forms of the complaint the administration of thymol, santonine, or other anthelmintics, often appears to be successful. Beetles are, however, notoriously difficult to kill, and it was only by enormous doses of turpentine that Pickells and Ariel were able to rid their patients of these pests. With the exception of three doubtful cases death never occurred.

SLUGS.

The garden slug has long been credited with the power of living in the human stomach for a considerable time (Trümpy). Most of the cases, however, which are supposed to support this contention are extremely doubtful, although the following instance, reported by Dickman in 1859, presents certain features of interest:

> This patient was a girl, 12 years of age, who was in the habit of devouring raw vegetables in the garden. For two months she had complained of nausea and discomfort after meals, and on August 5th of that year vomited a large and active garden slug. The following day two more were vomited, and on the 7th no fewer than five of different sizes. On August 9th she suddenly exclaimed that something was crawling up her throat, and was seized with violent choking and retching, at the same time making frantic efforts to extract the animal with her fingers. A mixture of ammonia and camphor gave immediate relief, and after free purgation the symptoms disappeared.

Dickman considered that the child had probably swallowed the slugs when they were very small. In 1865 Dalton discussed the question whether slugs could live in the stomach in the light of certain experiments. He stated that when small slugs are carefully introduced into the stomachs of dogs they are always found to be dead when the animal is examined after a short interval, and that if kept in water at a temperature of 70° F. they invariably succumb within twenty-four hours. My own observations indicate that garden slugs rapidly die when placed in water at the temperature of the human body, although large ones may live for several hours in a moist chamber at a temperature of 99° F. On the other hand, immersion in the filtered contents of a healthy human stomach which

possesses the normal degree of acidity is attended by an immediate coagulation of their mucilaginous envelope and death within a few minutes. It can only be assumed, therefore, that if Dickman's observations were correct, the patient's stomach was either devoid of acid secretion or the slugs had never penetrated further than the oesophagus.

Rhind's case, in which a common grey slug, 4 in. in length, is stated to have lived in the stomach for eighteen months, and to have survived five days after being vomited, seems to have been similar to many others where hysterical women added slugs to their vomit or excreta in the hope of exciting notoriety or compassion.

LIZARDS.

In 1834 Luroth published the case of a woman, aged 28, who, after suffering for a long time from gastralgia and other symptoms of indigestion, was attacked by severe colic, and voided a lizard 3 in. in length, after which her former troubles disappeared. In David's case the patient, who had attained the age of 60, was cured of a severe gastritis by vomiting a lizard; while in that related by Spence the animal voided by the bowel was sufficiently agile after its long incarceration to defy all efforts to capture it. In these, as in other instances (Bernstein, Pingault, Hirzl), the sole evidence of the phenomenon appears to have rested upon the statements of the patient, and the evacuation of the reptile was not observed by any independent witness. There is consequently no reason to believe that the lizards had ever inhabited the alimentary tract.

WORMS.

Garden worms are frequently brought to medical men with the story that they had been vomited or passed with the stools. Several instances have been recorded (Eyting, Fermaud) in which the deliberate ingestion of such worms was followed by severe inflammation of the stomach and bowels, but there is no evidence that they remained alive for any length of time after being swallowed.

LEECHES.

In former years, when leeches were constantly employed in medical practice, many instances were recorded in which they were accidentally swallowed, with serious results, and in a medical treatise published in 1835 it is stated that when leeches gain access to the stomach they grow to an immense size and occasion severe losses of blood. Spence claimed to have removed from the throat of a man a leech which had caused spitting of blood for two months; Dumas relates an example of acute gastritis due to a leech in the stomach; Marques one in which repeated haematemesis occurred during the course of twenty-one days from the same cause; and Wanderbach a somewhat similar instance. There does not seem to be any reason why a leech should not enjoy a comfortable existence in the human stomach if it is not subjected to the normal percentage of free hydrochloric acid, but whether it would be capable of sucking blood from its host for an indefinite period is open to question. It is comforting to know, however, that the administration of a strong solution of salt is a certain means of destroying such an unwelcome parasite.

AMPHIBIOUS ANIMALS.

The popular belief that the stomach always contains fluid may possibly account for the superstition that certain amphibia, such as frogs and salamanders, are able to pass a prolonged existence in the human body. At least four cases have been recorded in which the presence of living frogs appears to have been honestly regarded by doctors as the cause of gastric disturbance (Ille, Sander, v. Wiebers, Weiss). In two of these only one frog seems to have existed, but Sander's case was remarkable from the fact that no fewer than nine frogs were vomited. In every instance the patient was a woman who had experienced colicky pains, flatulence, nausea, and loss of flesh for some time previous to the appearance of the animal.

Aquatic salamanders as occasional inhabitants of the human body have been recorded by Linckius and others, but it would appear that in every case the reptile had been intentionally swallowed. Berthold has specially investigated the question of living amphibia in the human stomach, and in two cases was able to demonstrate the existence of flies and other insects in the stomachs of reptiles which were stated to have been vomited after a prolonged residence in the patient's body; while a salamander which was supposed to have been vomited by a girl rapidly succumbed when placed in water at a temperature of 65° F. This observer also found that frog spawn, tadpoles, edible frogs, and salamanders were unable to exist when the water in which they lived was raised to a temperature of 65° F.

On the other hand, at least two cases have been recorded which suggest that amphibia are able to resist a much higher temperature than Berthold was inclined to admit. Thus, an insane woman under the care of Bremser, believing that the bite of the reptile was always fatal, attempted to commit suicide by swallowing a small toad which she had carefully wrapped up in a piece of mesentery obtained from the butcher's shop. No symptoms of interest developed for several hours, but in the course of the evening she complained of nausea and oppression at the chest, and finally vomited the toad, which was quite alive but had both its hind legs broken. Colin's patient, who swallowed a salamander, vomited the animal alive after the lapse of nearly sixty hours.

With regard to the question of food, it is probable that the smaller amphibia and reptilia are able to accommodate themselves to circumstances to a much greater degree than is usually believed. As an instance of this I may mention that some lizards which a friend and I had captured in the summer were threatened by starvation during a severe winter, but were eventually saved by a diet of milk, which they soon learned to drink out of a dish placed in their cage.

Although there is no reason to believe that amphibia ever enjoy a prolonged existence in the digestive tract, or that spawn accidentally swallowed can develop into tadpoles, it does not appear improbable that a small frog, if uninjured in transit, might be vomited alive after several hours' residence in the stomach.

With regard to the cases in which live fresh-water shrimps are stated to have been discovered in the evacuations (Banon, Troschel, Wright), I have never known these crustacea live more than thirty seconds when placed in water at a temperature of the human body.

SNAKES.

The only carefully attested instance of a snake living for more than a few hours after being swallowed is that recorded by Mandt. The subject of this incident was a Russian peasant who, when sleeping in a forest, was awakened by the sensation of something passing down his throat. On examination, a rounded body could easily be felt moving about in the stomach, and a loud bruit was audible through the stethoscope. In spite of vigorous medicinal treatment the movements did not cease until the third day, and nearly a fortnight elapsed before a viper, measuring 12 in. in length, was expelled from the bowel. The reptile belonged to a species the bite of which excited inflammation but was not fatal.

BIBLIOGRAPHY.

Alloneau: *Journ. compt. du dict. de Soc. Méd. Paris*, 1829, xxxiv, 138.
Ariel: *Cyclop. Pract. Medicine*, 1835, vol. iv, p. 521.
Berthold: *Ueber den Aufenthalt lebender Amphibien im Menschen*, Göttingen, 1850.
Braun: *Thierischen Parasiten des Menschen*, Würzburg, 1895.
Cattle: BRITISH MEDICAL JOURNAL, 1906, ii, p. 77.
Cavenne: *Ann. de la med. physiol.*, Paris, 1823, iv, p. 136.
Colin: *Journ. de méd. chir. et pharm.*, Paris, 1779, p. 460.
Colter: *Medical Times and Gazette*, 1878, i, p 676.
Dalton: *Amer. Journ. Med. Sci.*, 1865, N. S., xlix, p. 334.
David: *Gaz. méd. de Paris*, 1839, vii, p. 491.
Dickman: *Lancet*. 1859, ii, p. 337.
Drew: BRITISH MEDICAL JOURNAL, 1906, ii, p. 1066
Dumas: *Gaz. hebdom. d. Soc. Méd. de Montpelier*, 1885, vii, p. 571.
Eyting: *Journ. d. prakt Heilk.*, 1822, liv, S. 16.
Fermaud: *Journ, de méd. et chirurg. prat*, 1836, vii, p. 57.
Hope: *Trans. Entomol. Soc. of London*, 1839, p. 256.
Hutton: *Encyclopaedia Medica*. vol. viii, p. 211.
Ille: *Wien. med. Blat.*, 1882, S. 1108.
Lallier: Étude sur la myase. *Thèse de Paris*, 1882.
Luroth: *Gaz méd. de Paris*, 1839, vii, p. 263.
Mandt: *Dublin Med. Press*, 1840, iii, p. 408.
Marques: *Journ. da Soc. Sc. Med. de Lisbon*, 1845, xxii, p. 149.
May: BRITISH MEDICAL JOURNAL, 1906, ii, 180.
Pickells: *Trans. College of Physicians of Ireland*, vols. iv and v. *Edinb. Med. Journ.*, 1846. lxvi, p. 382.
Pinqualt: *Quart. Journ. Med. Phys. Soc.*, Calcutta, 1839, i, p. 291.
Pout: *New. Med and Phys. Journ*, 1811, ii, p. 449.
Pruvot: Larves de diptères trouvées dans le corps humain. *Thèse de Paris*, 1882.
Ranque: *Bull. Fac. de Méd. de Paris*, 1806, i p 143.
Sander: *Wochensch. f. d. ges. Heilk.*, 1834, iii, S. 617.
Senator: *Berl. klin. Woch.*, 1890, xxvii, S. 141.
Sentex: *Journ. de méd. de Bordeaux*, 1885, xv, p. 196.

Spence: *Edinb. Med. and Surg. Journal*, 1813, ix, p. 315.
Trümpy: *Gaz. des hôpitaux*, 1829, ii, p. 15.
Wanderbach: *Journ univ. d. sc. méd.*, Paris, 1828, p. 72.
Waters: *Med. Record*, N. Y., 1886, xxix, p. 93.
Weiss: *Wien. med Blat.*, 1882, S. 1076.
Wiebers, v.: *Mag. f. d. ges. Heilk.*, 1839, liv, p. 377.
Wright: *Dubl. Med. Press*, 1864, xli. p. 407.
Wood: *Insects at Home and Abroad*, vol. i.

A CASE OF INTUSSUSCEPTION OF THE TRANSVERSE COLON IN AN ADULT.

BY

LEITCH WILSON, M.B., CH B EDIN.,

GOVERNMENT MEDICAL OFFICER, VIRGIN ISLAND, B.W.I.; LATE HOUSE-SURGEON, BRADFORD ROYAL INFIRMARY.

THE patient in the following case, a coloured man aged 45, came under my care on the evening of September 26th, 1909. He had had severe pain in the epigastrium, vomiting and diarrhoea for some thirty hours. Some twenty-four hours earlier still he had lifted a weight of 50 lb. with the right hand alone, but he was accustomed to lift much heavier weights, and remained in his ordinary health until the next morning. He was then on board a small sailing boat, and at 9 a.m. felt a sudden sharp pain in the right side, and an inclination to go to stool. The motion was easy and normal, but he had to lean in a strained position during the act of defaecation, the boat being under full sail and rocking a great deal. After the motion the pain in the right side became very much worse and doubled him up, and at this juncture he vomited the sugar-cane and pupa seeds which had been part of his last meal. He vomited again twice in the next two hours—green material. On getting ashore, about 11.30 a.m., the pain was less severe, and he walked half a mile to his home, though with difficulty. He drank a little sugar and water, and this was immediately rejected. Vomiting continued at intervals during the night, but no bad-smelling material. The following morning—that of the day on which I saw him—he was carried on board a boat to be brought to me. At 9 a.m. he passed about a pint of dark red clotted blood, and at the same time vomited material which smelt like bad eggs. This was repeated ten or twelve times, and he passed more blood by the bowel on four or five occasions.

Previous History.

For about twelve years he suffered from constipation on sea voyages, lasting often for eight days. The bowels never moved when at sea. Since 1902 the bowels had moved daily.

State on Examination.

He was a tall, spare man, but well developed. He was twisting about in bed, and complained of severe pain in the right hypochondrium. His face was pinched and drawn, breathing entirely thoracic; pulse 90, was full and regular; his temperature was not raised. He complained of great thirst, very severe pain in the abdomen, a feeling of sickness, and was quite worn out by the excessive vomiting. The mouth was parched, tongue coated with a thick brown fur, lips pale and drawn, and the breath was most offensive. The abdomen was retracted with scarcely any movement—with a slight fullness in the region of the pylorus; no peristalsis was detected; there was general tenderness over the abdomen, but this was especially marked over the swollen area. The abdominal muscles were contracted but not quite rigid; no tumour could be palpated. The abdomen yielded a tympanitic note all over, including the tender area. There was no enlargement of liver or spleen, and nothing was made out per rectum.

Diagnosis.

In view of these symptoms and the definite history of faecal vomiting, a diagnosis of obstruction in some part of the bowel was made.

Treatment.

He was given soap and water enema, two pints in fifteen minutes. This was returned, along with a little thin, dark-coloured blood; no clots. Sips of water were ordered, and the patient given liq. morph. 43 minims every two hours till the pain was relieved; this was after four doses.

September 27th. The next day another soap and water enema was administered, two and a half pints; it was returned with a little dark blood.

September 28th. Turpentine and starch enema, two pints, brought away a few small hard masses of faeces and a little flatus, which relieved the patient considerably.

September 29th. Patient was given calomel, ½ grain, in the morning, and again ½ grain in the evening.

September 30th. Calomel, ½ grain, was given at 6 a.m. At 11 a.m. the patient had a good motion, which was quite natural and formed. He was then allowed a little milk and water and albumen water; up till this he had taken nothing but water. He had another natural motion in the evening, and continued the calomel, ½ grain morning and evening during the following day the bowels being moved twice, morning and evening.

Result.

In the afternoon of October 2nd, at 3 o'clock, the patient felt something move at the painful spot, accompanied by a shooting pain and a "feeling of hollowness." He had a motion between 4 and 5 o'clock, which he passed with great difficulty. His friends noticed that he had passed a piece of bowel, and sent me a most urgent message to come at once. I found the patient much alarmed but considerably better, and was able to reassure him that everything was all right. This prognosis proved justified, for after this day the patient's recovery was steady. I ceased attendance on October 26th, but have since heard that there has been no recurrence of any symptom.

The piece of bowel passed proved to be the transverse colon. The intussusceptum was about 1 ft. in length, and consisted of the two tubes of gut—the middle and internal tubes, so that about 24 in. of gut were involved. There was evidence of a tight constriction at the neck of the intussusceptum, but in the specimen the little finger could be introduced into the inner tube. This would explain the passage of natural formed motions previous to the passage of the intussusceptum itself. The whole bowel was gangrenous and very offensive; but the two tubes were not adherent, and the inner tube could be reduced a little way. Attached to the middle tube was a mesentery, which contained fat, and which was believed to be omentum. The mesentery attached to the inner tube was in shreds and gangrenous. The three longitudinal muscular layers were clearly made out, so that the part involved would be mostly the right half of the transverse colon, with possibly a part of the ascending colon.

I have felt justified in reporting this case because of:

1. The rarity of acute intussusception in the adult.
2. The absence of any definite exciting cause.
3. The very rare occurrence of spontaneous cure.

Muscular strain and indigestible food are the causes commonly ascribed in textbooks, but this man was accustomed to lift heavy weights up to 300 lb, and when he happened to lift 50 lb. with the *right* hand alone on the morning previous to the attack he felt no immediate bad effect.

His food was that to which he was accustomed. The strained position which he occupied during defaecation on board the sailing boat may have increased the extent of the intussusception, but the pain had then already commenced.

As regards the treatment adopted, my first thought was operation, which I offered to perform, but as the patient was unwilling I did not press the point, in the absence of hospital accommodation and other medical assistance. Remembering the dictum of an experienced physician of my acquaintance that "nearly all cases of acute appendicitis could be cured by morphine and hot water," I tried this treatment, adding daily enemata in an attempt to reduce the obstruction. As the patient passed a little flatus with the third enema, I felt justified in prescribing small doses of calomel to overcome the effect of the morphine on the upper part of the bowel. This, as the case showed, proved successful, as I believe, by causing a movement of the bowels, it prevented the stercoraemia which might have caused the death of the patient from exhaustion; and, although unforeseen, it probably hastened the separation of the gangrenous gut, thus preventing a certain amount of toxaemia.

In conclusion, I attribute the result of the case to be due in a large degree to the physique of the patient, who was one of those thin, spare individuals who seem best able to survive a serious illness.

AMONG the new Senators of the Kingdom of Italy are two representatives of the medical profession. These are Dr. Camillo Bozzolo, Professor of Clinical Medicine in the University of Turin; Dr. Tommaso de Amicis, Professor of Dermatology and Syphiligraphy in the University of Naples. The same distinction has been conferred upon Professor Cimician, who, though not a doctor, has taught chemistry to so many generations of medical students, first at Rome and afterwards at Bologna, that he may be claimed as of the household of medicine.

UNDER the will of the late Mr. Henry Minson, of Green Lanes, Newington, the following institutions each receive one-seventeenth share of the residue of his estate: The Royal Sea Bathing, Great Northern Central, London, Metropolitan, and London Fever Hospitals, Earlswood Asylum, and the Royal Asylum for Incurables, Putney. The residue is of such amount as to secure to each of the beneficiaries between £400 and £500.

A Demonstration

ON

DIVERTICULA OF THE ALIMENTARY TRACT OF CONGENITAL OR OF OBSCURE ORIGIN.

GIVEN AT THE ROYAL COLLEGE OF SURGEONS, ENGLAND,

BY

PROFESSOR ARTHUR KEITH, M.D., F.R.C.S.ENG.,

CONSERVATOR OF THE MUSEUM.

ABNORMAL diverticula of many different kinds are found in connexion with the alimentary tract. The annexed table will show you to what extent the various forms are represented in the college museum (Column A) and also in the museums attached to the various medical schools in London (Column B).

List of Specimens Illustrating Diverticula of the Alimentary Tract in the Medical Museums of London.

	A.	B.	Total.
I. Retro-cricoid diverticula of the pharynx	3	7	10
II. Traction diverticula of the oesophagus	2	10	12
III. Cysts apparently derived from the oesophagus...	1	5	6
IV. Diverticula of the stomach	1	1	2
V. Pressure diverticula of the duodenum	5	7	12
VI. Developmental diverticula of the duodenum and neighbouring parts of the alimentary tract	2	0	2
VII. Cysts connected with the intestine	2	1	3
VIII. Pressure diverticula connected with the small intestine	5	2	7
IX. Pressure diverticula connected with the great intestine	2	5	7
X. Meckel's diverticulum	11	84	95
	34	122	156

Retro-cricoid Diverticula of the Pharynx.

In Fig. 1 I have represented a typical retro-cricoid diverticulum of the pharynx, drawn from one of the three preparations in the museum of the Royal College of Surgeons. There are seven preparations in the museums of the metropolitan medical schools, so that I have had an opportunity of studying ten in all, six of which show the sac in its relationship to the pharynx. In all six, as in the specimen shown in Fig. 1, the pouch springs from the posterior wall of the pharynx, its orifice being situated opposite the cricoid cartilage. The sac is composed of the mucous and submucous coats of the pharynx, which have become gradually evaginated between two definite parts of the inferior constrictor muscle. On the smaller sacs, and round the necks of the larger, may be seen scattered muscle fibres derived from the inferior constrictor. The two parts of the inferior constrictor separated by the opening orifice of the diverticulum are shown in Figs. 1 and 2. The lowest part is mainly attached to the cricoid cartilage, and serves as a sphincter to the upper orifice of the oesophagus.* The upper or chief part of the inferior constrictor serves quite another purpose; its main function is to seize the bolus of food and force it into the oesophagus in the following manner. In deglutition the larynx is drawn upwards and forwards, the quadrate plate of the cricoid cartilage being thus drawn away from the posterior wall of the pharynx, so that the bolus of food which is to be forced into the oesophagus may sink into the space between the quadrate plate of the cricoid and the inferior constrictor. The moment the bolus of food has reached the retro-cricoid space it is seized by the inferior constrictor, compressed against the cricoid quadrate plate, and forced past the sphincter into the oesophagus. Apparently in the act of swallowing the upper sphincter of the oesophagus is relaxed, but of the nervous mechanism concerned we know nothing. A study of the mechanism of swallowing shows why diverticula arise at the junction of the two parts of the inferior constrictor between the upper part, which acts as a force-pump, and the lower part, which is sphincteric in nature. It is between these two parts that the mucous membrane of the pharynx becomes evaginated to form diverticula.

It is certain that these pouches are unconnected with embryological branchial clefts;† they have never been seen in fetuses, nor in children; the youngest subject I have found a record of was 45 years of age. Although these pouches cannot be regarded as embryonic remnants, yet it is very probable that the opinion expressed by our leading authority on these structures—now President of this college—that they are the result of a congenital predisposition, is true, but at the present time one cannot decide whether the predisposition is a defect in the arrangement of the inferior constrictor or to a functional disturbance in the action of its two parts. Preparations of the pharynx made by the prosector, William Pearson, show that the diverticula arise where a special deep layer of the inferior constrictor ends; these deep longitudinal fibres have been described by the late Professor Birmingham.[1] Mr. Bilton Pollard,[2] in a remarkable case published recently, found that the pouch became $2\frac{3}{4}$ in. deeper in five years. Mr. Bowlby informs me that they are more apt to occur in people with long necks. Another case is well described by Mr. William Taylor.[3] In 1905 Mr. Butlin[4] published an account of a series of 8 cases.

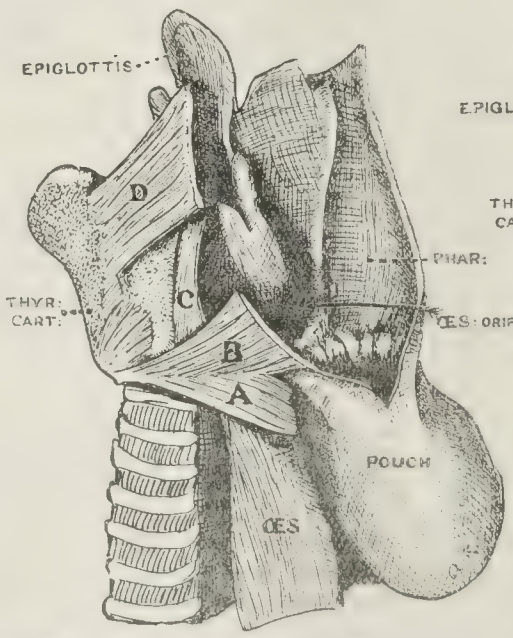


Fig. 1.—Specimen showing the relationship of the retro-cricoid diverticulum to the inferior constrictor. (No. 2291.)

A, Sphincteric part of inferior constrictor: B, D, propelling part of inferior constrictor; C, E, vertical, deep fibres derived from the middle constrictor, stylo-pharyngeus and palato-pharyngeus.

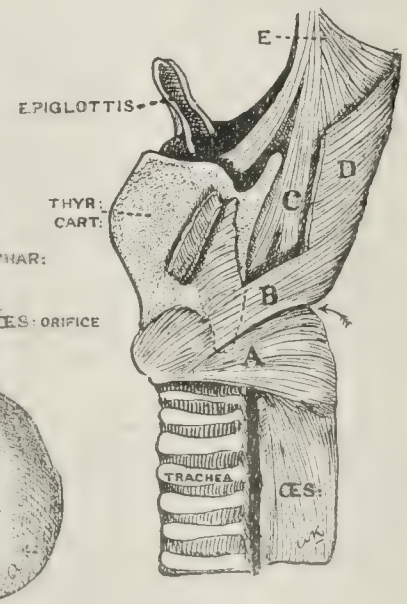


Fig. 2.—Showing the sphincteric part of the inferior constrictor (A).

Diverticula of the Oesophagus.

In the museum of the Royal College of Surgeons there are two typical specimens of "traction" diverticula of the oesophagus, one of which is represented in Fig. 3. These diverticula are commonly found on the anterior wall of the oesophagus, near the bifurcation of the trachea. They vary in size; the smaller may hold a pea, the larger will take the point of the little finger. Adherent to the fundus of the saccule are found (1) a lymphatic gland, usually showing marks of former inflammation, and (2) a fibro-muscular cord (Ribbert's cord), which ends on the posterior aspect of the trachea or of the bronchi. The diverticulum is composed chiefly of the mucous and submucous coats of the oesophagus, but the attenuated muscular coat may also be present. Riebold[5] has recently devoted a monograph to these pockets; they rarely give rise to clinical

* After these demonstrations were delivered Dr. Scanes Spicer was good enough to draw my attention to a very remarkable paper by Professor Gustav Killian of Freiburg in the *Annales des maladies de l'oreille et du larynx*, 1908, t. xxxiv, p. 8. In this article Professor Killian gives a full description of the upper sphincter of the oesophagus, of its anatomy, physiology, pathology, and relationship to pharyngeal diverticula, anticipating me in every point, and proving his thesis in a more complete manner than I have done.

† Professor Fawcett of Bristol has informed me that he has seen a diverticulum in the developing pharynx of a pig which corresponds in position to the diverticula found in the human pharynx.

symptoms. Their origin is due to (1) a localized adhesion of the oesophagus to the surrounding parts, usually due to inflammation of one of the bronchial glands; (2) to traction of this adhesion, which occurs during coughing, deep inspiration, and deglutition. In these acts the trachea and oesophagus move independently and elongate the adhesions formed between them, with the result that "traction" diverticula of the oesophagus are formed.

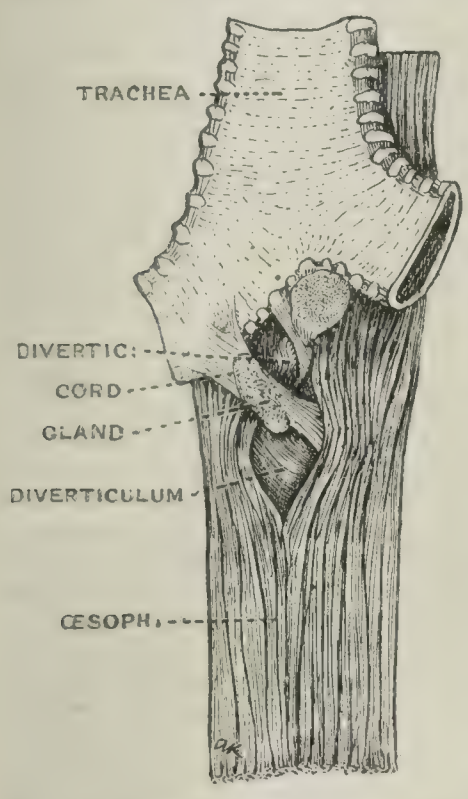


Fig. 3.—Traction diverticula of the oesophagus (Preparation No. 2291A).

Although such oesophageal pouches are common, there are only ten specimens in the metropolitan medical museums, six being in the museum attached to the school of Guy's Hospital. In nine specimens the pouches—in one case five in number—were situated at the bifurcation of the trachea; in one the pocket was situated on the posterior wall of the oesophagus.

Besides these traction diverticula there are others of a more obscure nature. One of these, in the college museum, No. 2291c, occurs in the lower third of the oesophagus of a horse. The muscular coats, especially the longitudinal, are greatly hypertrophied (Fig. 4). The diverticulum is wide-mouthed and shallow, and appears to have been formed by the evagination of the mucous membrane in a rent of the longitudinal coat. In another specimen in the museum of Guy's Hospital the pouch measures 30 by 40 mm.

Cysts Apparently Connected with the Oesophagus.

In this group I include a series of six preparations all of which are of an obscure nature.

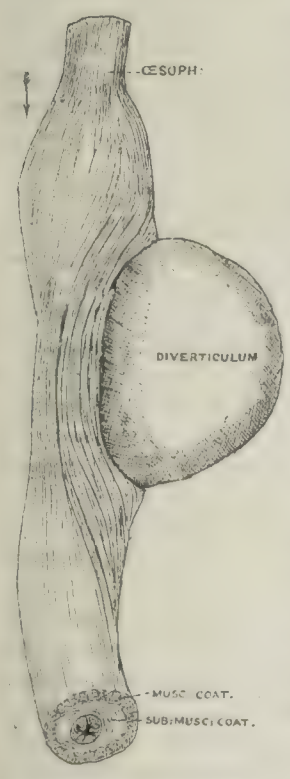


Fig. 4.—Diverticulum in the oesophagus of a horse (Preparation No. 2291c).

In Fig. 5 is shown a preparation in the college museum (No. A 2324) presented by Dr. R. G. Hebb[6] some years ago. A cyst about 20 mm. in diameter occurs in the wall of the upper part of the oesophagus. It gave rise to no symptoms and lies against the left and posterior wall of the trachea. The cyst wall, which contains striated and non-striated muscle, is lined by an epithelium similar to that of the trachea. It evidently arose during the separation of the trachea from the oesophagus. Were this cyst to communicate with the oesophagus a form of pouch or diverticulum would be produced, very similar to one recently described by Dr. Denyer.[7] Two preparations in the museum of Guy's Hospital show a small cyst in the wall of the oesophagus—probably derived from distended glands. Two other preparations in the museum attached to the schools of St. Thomas's and St. George's Hospitals show a cyst of a different nature—probably dermoid. These cysts, of large size—30 to 40 mm. in diameter—are situated immediately behind the oesophagus in the posterior mediastinum. A preparation in the museum of Charing Cross Hospital shows a large cyst at the junction of the oesophagus and stomach.

Diverticula Connected with the Stomach.

Diverticula connected with the stomach are very uncommon. In some mammals, such as those of the pig family, diverticula are developed normally in connexion with the cardiac end of the stomach; indeed, the cardiac end of the human stomach is developed as a diverticulum of the foregut. I have seen only two preparations of diverticula of the stomach. In both cases these diverticula were connected with the cardiac end, and were evidently pathological in nature. One of these is in the college museum, and was obtained from the body of a woman over 70 years of age. The diverticulum is wide mouthed and shallowed, with an attenuated covering of muscular fibres. It arises from the cardiac end of the stomach, just below and behind the entrance of the oesophagus. In the other preparation, in the museum of Guy's Hospital, the diverticulum is composed merely of mucous membrane, and arises from the stomach near the oesophageal orifice. Recently Dr. Falconer[8] has described a case in which a diverticulum was connected with the pyloric part of the stomach. Pancreatic tissue was developed at the fundus of the diverticulum.

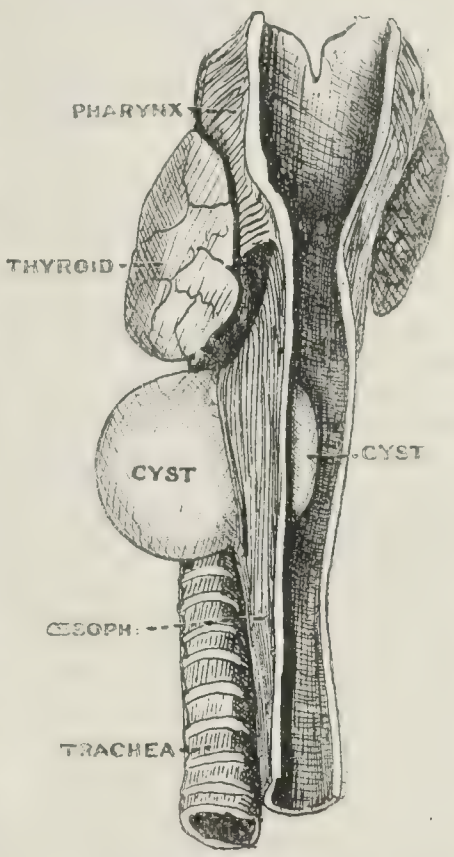


Fig. 5.—Cyst in the upper part of the oesophagus (Preparation No. A 2324).

Pressure Diverticula of the Duodenum.

In old people, especially in those who are the subjects of visceroptosis, it is not uncommon to find diverticula in the posterior wall of the duodenum near the termination of the common bile duct. These diverticula are pouches of mucous membrane, varying in size from 10 to 25 mm. in depth, extruded at certain weak points in the musculature of the duodenum—weaknesses due to the oblique manner in which the terminal part of the common bile duct perforates the muscular coat of the duodenum. These pouches appear to give rise to no functional disturbance. I had an opportunity of studying twelve preparations illustrating these traction diverticula, five of which are in the college collection. In three specimens there were two pouches, the orifices being situated to the right and left of the terminal part of the common bile duct (see Fig. 6). In seven specimens only the right pocket was present; in one only the left. In another case the orifice of the pocket was situated 20 mm. above the termination of the common bile duct. The exact manner in which these pouches are produced is obscure, but since they are composed purely of mucous membrane, and arise at definite weak points in

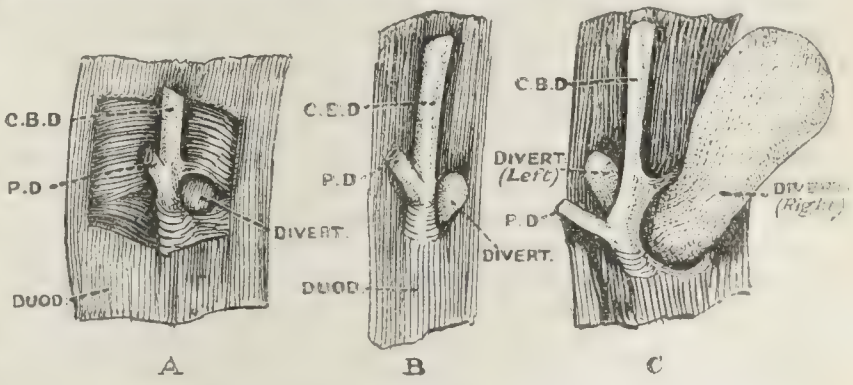


Fig. 6.—Three specimens of duodenal diverticula. The common bile duct is seen passing down the posterior aspect of the duodenum. A, represents an incipient stage of the pouch; B, a small pocket to the right of the common bile duct; C, a pocket on each side.

the musculature, one may safely infer that they are of the nature of pressure pouches. They are so frequent in the subjects of visceroptosis that one must suppose they are produced either by a compression of the terminal part of the duodenum which passes under the origin of the superior mesenteric artery, or that they are produced by traction at the terminal part of the common bile duct where prolapse of the duodenum takes place. Pilcher has attributed the earliest case on record to Morgagni; the paper by Rolleston and Fenton[9] in 1900 was the means of directing the attention of medical men in this country to their occurrence.

A specimen in the museum of St. George's Hospital shows the ampulla of Vater converted into a large cyst.

Developmental Diverticula of the Duodenum of Neighbouring Parts of the Gut.

The pockets just described are certainly produced by obscure forces acting in later life, but the forms now to be described are produced during embryonic life. In mammalian embryos during the second month of development, Drs. F. T. Lewis and F. W. Thyng[10] found numerous epithelial outgrowths along the whole length of the intestinal tract, but especially in the duodeno jejunal part. These outgrowths, which gradually disappear, were similar in nature to the buds which give rise to the pancreas. Diverticula of the intestine, with masses of pancreatic tissue at the fundus, have been described by Mr. H. S. Clogg[11] and Professor Alexis Thomson[12]; mention has already been made of Dr. Falconer's case, in which a pancreatic diverticulum was connected with the pyloric part of the stomach. Preparations illustrating this form of diverticulum are rare in metropolitan medical museums. In a preparation of congenital occlusion of the duodenum, presented to the college museum by Mr. Ernest Shaw, there is a shallow diverticulum from its first stage, but the glandular tissue at its fundus has rather the structure of Brunner's glands than of the pancreas. Another specimen in the college museum (No. A 2523) shows an accessory pancreas attached to the upper part of the jejunum, but there is no diverticulum. A pouch, arising from the third stage of the duodenum, recently described by Professor C. M. Jackson,[13] may have arisen from a congenital pancreatic diverticulum.

Fig. 7.—Segment of the jejunum showing numerous pressure diverticula in various stages of development. The arrows indicate the diverticula.

Cysts Connected with the Intestine.

Of the various museum preparations I had an opportunity of examining, only three showed a cyst connected with the intestine. The most typical specimen is No. 2523 G of the college collection, presented by Mr. Frederic Eve. A serous oval cyst, some 25 mm. in its greatest diameter, lies between the layers of the mesentery where these are reflected on the jejunum. It is not improbable that a cyst such as this is formed from one of the many intestinal diverticula which Lewis and Thyng have observed during development, for they noted that their communication with the intestine may become closed and a cyst thus formed. A cyst in a similar position, but much larger in size (45 by 25 mm.) is shown in a specimen in the museum of St. Bartholomew's Hospital (No. 1952 A), but in this case the cyst possesses two communications with the jejunum. No. 264A in the college museum illustrates a dermoid cyst connected with the small intestine of an ox.

Pressure Diverticula of the Small Intestine.

The preparation I have selected to illustrate this condition is one recently presented to the college museum by the authorities of the medical school of Middlesex Hospital through Dr. Ernest Lakin. It is a segment of the jejunum (Fig. 7) measuring 16 in. in length with its mesentery still attached. Along the line of the mesenteric attachment is a series of pockets or diverticula of the mucous membrane, lying between the layers of the mesentery and varying in size from a pea to that of a hen's egg. On each of the smaller cysts a vessel ends, countenancing the theory that these diverticula perforate the muscular coat at the points where the vessels enter and leave the submucous coat. Such specimens demonstrate the strength and value of the peritoneal coat of the bowel; such diverticula are always formed along the mesenteric line, where the muscular coats are unsupported by a serous covering. The exact manner in which they are formed is obscure; one cannot conceive either the segmental or the true peristaltic movement of the intestine as sufficient to produce them; to give rise to such diverticula there must be a high intra-intestinal pressure such as occurs during irregular tonic contraction of considerable segments of the intestine. There are four other specimens besides the one shown in Fig. 7 in the college collection; one of these was obtained from Mr. Langstaff's museum; another, from a boy who died of septicaemia, was presented by Mr. Marcus Beck; a third, in which the diverticula are filled with cholesterin-lime bodies, came from Sir Erasmus Wilson; the fourth specimen was found in an ox. There is also a specimen in St. Bartholomew's Hospital Museum, and another—a single cyst in the upper part of the jejunum—in the museum of Middlesex Hospital. Thus, as far as I know, there are only seven museum specimens in London of this condition, and all of them affect the jejunum or commencement of the ileum. Dr. Angas Johnson[14] described a case in an old man of 90 in which there were numerous diverticula along both the large and small intestine. The same writer mentions the fact that Hansemann has demonstrated the artificial production of such diverticula by subjecting closed segments of intestine to high degrees of pressure. Dr. Scot Skirving[15] has described invaginated diverticula of the small intestine, but I have seen no illustration of this condition.

Multiple Diverticula of the Great Intestine.

Although multiple diverticula of the great intestine—especially of the iliac and pelvic segments of the colon—are not infrequently seen in the *post-mortem* room, there are comparatively few specimens in the metropolitan museums. In the college museum there are only two—one presented by Sir Erasmus Wilson in 1884, and another from a dissecting room subject added to the collection last year. In the museums attached to the medical schools I saw only five specimens. Last year Mr. W. H. Maxwell Telling[16] was able to give an account of 80 cases, 33 of which manifested no clinical symptoms. His article is the best contribution that has been made to the literature of this obscure condition.

In Fig. 8 I give a section across one of the specimens in the college museum. The diverticula are of various sizes, and do not contain concretions. In another case which I examined, and in the specimen presented by Sir Erasmus Wilson, there were concretions composed of cholesterin and calcium carbonate. When concretions are present the orifices of the diverticula are very small. Most of the diverticula, but not all, occur either at the attachment of the mesocolon or in the roots of the appendices epiploicae. They are true evaginations of the mucous membrane through the muscular coat, evidently caused by a high intracolic pressure. The taenia of the colon, in the segments where these diverticula occur, are so strongly contracted—a tonic contraction evidently—that the wall of the colon is thrown into circular folds, somewhat after

the manner of a concertina; but so deeply do these folds invade the lumen of the colon, and so closely do they come into apposition, that a forward passage for the contents of the intestine is nearly impossible. The circular coat is also irregularly contracted. The diverticula of mucous membrane are evidently extruded at weak points of the muscular coat of the colon, their evagination being caused by an irregular and continued contraction of the musculature of the colon, especially of the longitudinal bands. The vessels for the appendices epiploicae arise from the submucous plexus of the colon, and apparently the diverticula occur, as Klebs has pointed out, at the points at which the vessels perforate the muscular coat. Meckel's diverticulum and other structures connected with the yolk sac form the subject of a separate demonstration.

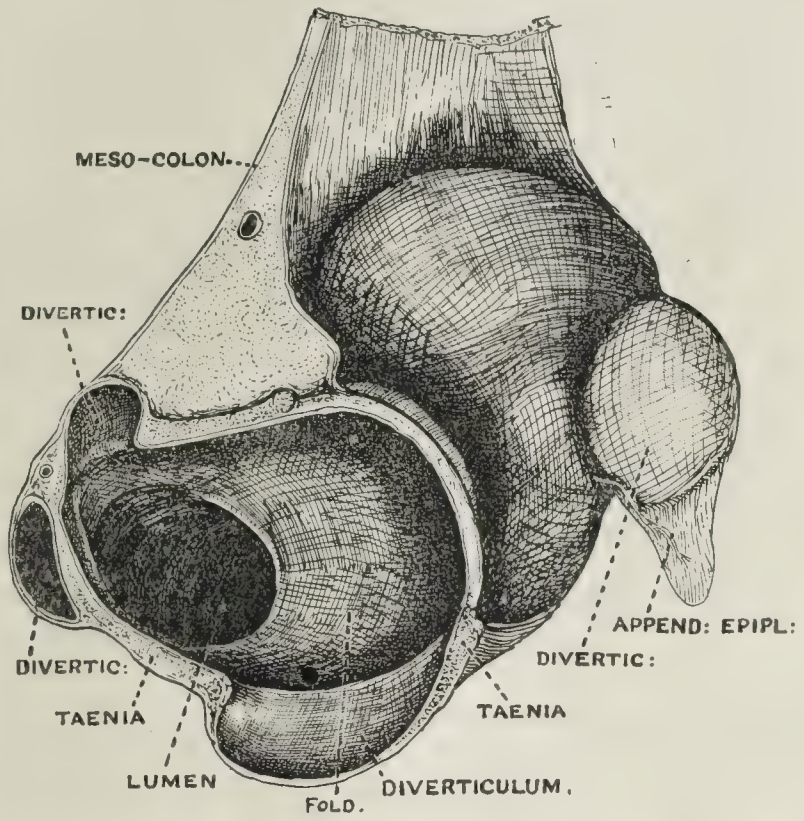


Fig. 8.—Part of the colon showing the relationship of the diverticula to the taenia, and the manner in which the lumen is occluded by semilunar folds.

Meckel's Diverticulum.

It is a remarkable fact that man is almost the only mammal in which Meckel's diverticulum occurs with any degree of frequency. Dr. Chalmers Mitchell,[17] on examining over 200 mammals of various species, did not find a single instance, and found no record in literature with the exception of one by Pallas, who had seen it in a species of rodent. Amongst certain families of birds Dr. Chalmers Mitchell found that Meckel's diverticulum was always represented, especially amongst wading and swimming birds. Johannes F. Meckel,[18] however, in his textbook on pathological anatomy, published in 1812—where one may still find the best and fullest description of the structure which has received his name—mentions the fact that it occurs not infrequently in the pig. All the specimens—some 95 in number—in the medical museums of London are from man. There is a specimen in the college collection of the ileum of the ox with a shallow diverticulum which may be Meckelian in nature, but, with this exception, the human form is the only one represented in our museums. It is just possible that the frequent persistence of a part of the yolk sac in man—a part which may be described as its neck—is owing to the comparatively rich and abundant nourishment that is available for the mother amongst civilized races.

Not one of the eleven specimens of Meckel's diverticulum in the college museum belongs to the original Hunterian collection, although in the physiological series of the museum there is the most complete evidence that Hunter had studied the history of the yolk sac in all forms of vertebrates. Numerous preparations of his show the function and fate of the yolk sac in fishes—how it gradually shrivels up and disappears within the body as the young fish matures, and how in certain sharks it forms a real placenta. He illustrates the manner in which the yolk sac is drawn completely within the body of birds towards the end of the incubation period. He must have been familiar with the fact that in mammals the yolk sac is not retained as in other vertebrates, but cast off with the membranes. His brother William, in his great work on the gravid uterus, gives an excellent drawing of a third-month human embryo in which the sac is seen at the distal or placental end of the umbilical cord, for that structure is developed from the belly wall of the embryo round the neck of the yolk sac. As the umbilical cord elongates, the neck of the yolk sac is drawn out to the full length of the cord, and undergoes a complete atrophy in the process. If the intra-abdominal part of the neck of the yolk sac persists it forms a Meckel's diverticulum. There are specimens in the physiological series showing Hunter knew that remnants of the artery and vein of the yolk sac may persist within the abdominal cavity of young mammals—structures with which Meckel was also familiar.

A study of the museum preparations perhaps overemphasizes the dangers of possessing a Meckel's diverticulum. Of the 95 preparations, 37 had caused acute obstruction; 3 had produced intussusception, 3 had been the seat of inflammation (diverticulitis); the remainder—52 in number—were discovered in the routine work of the dissecting or *post-mortem* room. Dr. H. T. Gray[19] was able to collect, from medical records published between 1893 and 1907, 150 cases in which Meckel's diverticulum was the cause of intestinal obstruction.

I have notes relating to the length of the diverticulum in 51 preparations. In 11 it was under 25 mm.; in 21 it was over 25 but under 75 mm.; in 14 it varied between 75 mm. and 100 mm.; in 5 it was over 100 mm., the longest specimen (130 mm.) being one described recently by Mr. F. G. Parsons, and presented to the collection of this college by the authorities of the medical school of St. Thomas's Hospital. As regards form, 30 may be described as sausage-shaped, 12 as saccular, 9 as conical, 23 as vermiform, 13 as filiform, 3 as hemispherical, and 3 as vestigial—mere serous tags on the free border of the ileum at Meckel's site. In 12 preparations there were secondary sacculations of the diverticulum, situated at or near its fundus.

The diverticulum may be provided with a mesentery similar to that of the appendix, which usually passes, not behind the ileum as is the case with the mesentery of the appendix, but in front of it, although this is not invariably the case. In birds the diverticulum has both an anterior

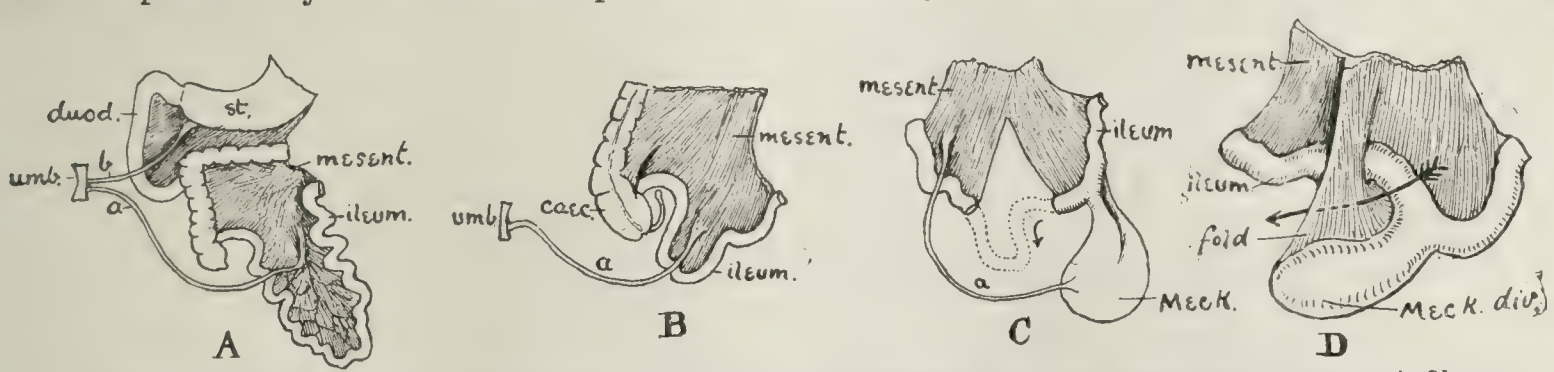


Fig. 9.—Illustrating various remnants of the mesentery of Meckel's diverticulum and of the vessels of the yolk sac. A. Showing the termination of the arterial cord (*a*) and the venous cord (*b*) in the mesentery of a kitten. The cords are attached to the umbilicus (*umb.*) B. The persistence of the arterial cord in a human subject. C. Showing the free border of the mesentery of Meckel's diverticulum separated to form a cord (*a*). D. Specimen showing a Meckel's diverticulum with a well-developed mesentery. The arrow perforates the part of the mesentery which may atrophy, thus leaving the free border as a cord.

and a posterior mesentery. In 16 specimens of the 95, the mesentery was well developed; in 3 it was vestigial. In 6 of the specimens with a well developed mesentery a single artery passed to the diverticulum near the free border of the mesentery. In 10 preparations there was no mesentery, only a cord of varying length passing from the mesentery of the ileum, to end in the fundus of the diverticulum (Fig. 9, C). There can be no doubt now as to what that cord is; it is a persistent free border of the original mesentery of the diverticulum—usually containing a remnant of the vessels to the diverticulum, the rest of the mesentery having undergone the normal process of atrophy (Fig. 9, D). This interpretation was forced on me some years ago by the study of intermediate forms, but I found from Dr. Ernst Schwalbe's excellent textbook[20] that Neumann had given the correct explanation years before me. A diverticulum provided with such a cord forms a snare in which a loop of bowel is apt to become strangulated; indeed, most cases of strangulation occur with this form. In three cases the apex of the diverticulum was adherent to the mesentery of the ileum—an adhesion which may be the result of inflammation or of merely a contraction of the mesenteric cord. In three cases the diverticulum was turned up and almost adherent to the front of the mesentery of the ileum owing to a peculiar shortening or contraction of the mesentery of the diverticulum.

The ileum often shows a marked constriction or narrowing in the neighbourhood of a Meckel's diverticulum. In 12 of the preparations the constriction was just above the diverticulum, in 8 below it, and in 7 almost opposite to it. These constrictions are of two kinds: (1) those due to the pressure or traction exercised by the mesentery of the diverticulum as it crosses the ileum; (2) those due to an irregular growth or expansion of the Meckelian loop of the ileum—the last part of the intestine to be differentiated from the yolk sac.

In twelve preparations, all of them derived from subjects under 12 years of age, Meckel's diverticulum ended at or near the umbilicus. In nine of the twelve there had been an umbilical fistula at birth, which had become closed spontaneously or by operative measures; in the remaining three specimens the diverticulum terminated imperviously as a cord which was attached to the umbilicus or to the abdominal wall some distance below. The most remarkable specimen of this group is No. 548 B in the college collection (Mr. Bilton Pollard's case), where the diverticulum is 90 cm. long, and arises from the jejunum 60 cm. below the pylorus. In this case there was also an umbilical hernia.

Many cases have been reported recently where masses of glandular tissue, similar to the pancreas in structure and in function, have been found embedded in the wall of a Meckel's diverticulum, even in those which open at the umbilicus. I met with no example of an accessory pancreas attached to a Meckel's diverticulum, but it is possible that a microscopic examination may reveal pancreatic tissue in some of the museum preparations. Those which I have examined showed the same microscopic structure as the ileum, and it is not impossible that the diverticulum in many cases represents not a part of the yolk sac, but a part of the ileum which has been imperfectly separated from the yolk sac. As already mentioned, Drs. Lewis and Thyng found that an accessory pancreatic outgrowth may be formed in any part of the bowel. In explanation of the occurrence of an accessory pancreas in Meckel's diverticulum, one must remember that at an early stage of development—the end of the third week—the mouth of the yolk sac extends up to the second stage of the duodenum, where the pancreas has its origin.

Omphalo-meseraic Cords formed by the Vessels of the Yolk Sac.

The intra-abdominal part of the vitelline duct (neck of the yolk sac) may undergo a normal atrophy, and yet the artery of the sac may persist, forming a stout cord between the umbilicus and mesentery of the ileum, over which the bowel may become strangulated. There is such a specimen in the college collection and three others in museums attached to medical schools in London (see Fig. 9, B). The cord is also present in two specimens of umbilical hernia in the college collection. In newly-born puppies and kittens these cord-like remnants of the yolk sac vessels are found constantly, a fact which Hunter was familiar with, and their nature was fully understood by Meckel. In kittens and puppies the cord representing the vein ends at the lower border of the pancreas; that representing the artery ends in the mesentery of the ileum. I have seen no remnant of the vein in human subjects, but in two malformed human fetuses with umbilical hernia I found the superior mesenteric vein, which is derivative of the vein of the yolk sac, terminating in the placenta in place of in the portal vein. Dr. H. E. Jordan[21] found that there may be two veins to the yolk sac in the human embryo. Kittens sometimes show two cords of venous origin. A preparation presented recently to the college collection by Mr. J. D. Malcolm, shows a cord-like remnant of the artery of the yolk sac in the adult, but the cord had lost its connexion with the umbilicus.

REFERENCES.

[1] Birmingham, A.: *Journ. of Anat. and Physiol.*, 1899, vol. xxxiii, p. 10.
[2] Pollard, Bilton: BRITISH MEDICAL JOURNAL, 1907, vol. i, p. 1039.
[3] Taylor, Wm.: Ibid, 1909, vol. ii, p. 193.
[4] Butlin, H. T.: Ibid, 1903, vol. ii, p. 64.
[5] Riebold, G.: *Virchow's Archiv*, 1908, Bd. 192, p. 126.
[6] Hebb, R. G.: *Trans. Path. Soc. Lond.*, 1898, vol. xlix, p. 88.
[7] Denyer, S. E.: *Journ. Anat. and Physiol.*, 1904, vol. xix, p.
[8] Falconer, A. W.: *Lancet*, 1907, vol. i, p. 1296.
[9] Rolleston, H. D., and Fenton, W. J.: *Journ. of Anat. and Physiol.* 1900, vol. xv, p. 110.
[10] Lewis, F. T., and Thyng, F. W.: *Amer. Journ. of Anat.*, 1908, vol. vii, p. 489.
[11] Clogg, H. S.: *Reports, Society for Study of Diseases of Children*, 1908, vol. viii, p. 221.
[12] Thomson, Alexis: *Edin. Med. Journ.*, 1908, vol. xxiii, p. 304.
[13] Jackson, C. M.: *Journ. Anat. and Physiol.*, 1908, vol. xlii, p. 219.
[14] Johnson, E. Angas: *Australian Med. Gaz.*, 1906, vol. xxv, p. 633.
[15] Skirving, A. A. Scot: BRITISH MEDICAL JOURNAL, 1907, vol. i, p. 256.
[16] Telling, W. H. M.: *Lancet*, 1908, vol. i, p. 843.
[17] Mitchell, P. Chalmers: The Intestinal Tract of Mammals, *Trans. Zoolog. Soc.*, 1905, vol. xvii, p. 437.
[18] Meckel, Johann F.: *Handbuch der pathologischen Anatomie.* Leipzig, 1812, p. 553.
[19] Gray, H. T.: BRITISH MEDICAL JOURNAL, 1907, vol. ii, p. 823.
[20] Schwalbe, Ernst: *Die Morphologie der Missbildungen des Menschen und der Tiere*, Part III, Jena, 1909.
[21] Jordan, H. E.: *Anat. Anz.*, 1907, vol. xxxi, p. 291.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

A CASE OF FOREIGN BODY IN THE OESOPHAGUS REMOVED BY THE DIRECT METHOD.

AN elderly gentleman whilst taking his lunch felt a piece of bone pass into the oesophagus and become fixed there; he was unable to take any more food, and as he was suffering great pain he went to the hospital. No foreign body could be seen by the ordinary laryngeal examination; the probang was therefore passed several times, but no foreign body was extracted, nor did the instrument catch on anything. On examination in the *x*-ray room with the screen no foreign body was seen. He, however, persisted that he could feel it there, and he was sent on to me. On examination both arytenoid regions were seen to be swollen, and there was a small wound on the left. As the patient said that this was where the pain on swallowing could be felt, and as no foreign body had been revealed by the *x* rays, I thought that this would probably account for the pain, and I therefore advised him to wait a few hours before having any further examination.

The pain continued to increase; I therefore had him anaesthetized, and by means of a Brüning's tube I was able at once to see and extract a large piece of bone from a point about 2 in. down the oesophagus. The bone was firmly fixed right across the oesophagus, and had to be broken in half to be removed; it was about $1\frac{1}{4}$ in. long and was a piece of the temporal bone with a large zygomatic process, which was embedded firmly in the anterior wall of the oesophagus. After the removal the patient made a rapid recovery.

The case is reported, first because of the fact that the *x* rays showed no foreign body, and secondly on account of the ease with which foreign bodies in the oesophagus and the air passages can be seen and removed by this method.

GEORGE N. BIGGS, M.B., B.S.

Surgeon to the Ear and Throat Department, Evelina Hospital for Sick Children; Assistant Surgeon, Ear and Throat Department, Seamen's Hospital, Greenwich.

London, W

Reports of Societies.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Wednesday, February 2nd, 1910.

Dr. BYROM BRAMWELL, President, in the Chair.

Gout and the Thyroid Gland.

DR. CHALMERS WATSON drew attention to some of his earlier investigations which had shown an important influence upon the structure of glands and tissues, and notably the thyroid gland, of an exclusive meat diet. These results were made the basis of the theory of gout as due to a special type of thyroid activity induced by the long-continued use of an excessively nitrogenous diet. Such a diet, in his view, altered the "soil" or diathesis, and thereby created a predisposition to autointoxication; and these two factors constituted gout. His experiments had been criticized. But on repeating them with a diet which removed the objections advanced, and consisting of cooked lentils, cooked ox flesh, and bread and milk—that is, a rich nitrogenous diet—he obtained the same evidence of altered thyroid structure, a primary stimulation followed by exhaustion, and this alteration of structure was transmitted to the offspring. The anomalous cases where gouty symptoms were relieved by restriction of farinaceous food he explained by the hypothesis of derangement of the function of the pancreas; and by the presence of Cammidge's reaction in the urine of these cases he had secured evidence for this hypothesis. This view of gout was supported by clinical facts. There was an antagonism between the physical types of tuberculosis and gout. Yet by a richly nitrogenous diet the type of the former could be transformed into that of the latter. Again, the transmission of the gouty type from one generation to another was well known. Dr. W. RUSSELL said that it was improbable that diet should affect one gland and not other structures in the body. On the contrary, it was known that free proteid feeding stimulated powerfully the liver and kidneys, and affected also the internal secretion of the adrenals. It was difficult to accept the proposition that modification of the thyroid had anything to do with gout. Dr. CHALMERS WATSON, in reply, said he was aware of the effect of special diet upon other glands and organs, but the striking change produced by a rich proteid diet was in the thyroid gland.

Prostatism.

Mr. DAVID WALLACE said that prostatism was usually, but not always, associated with enlargement of the prostate. There were also the cases where, in the absence of prostatic enlargement, there was a fibrous stenosis of the neck of the bladder, and there were also the cases of malignant disease. In the cases of simple prostatic enlargement he was opposed to operation unless the symptoms were disabling or getting worse. The existence of, say, 4 oz. of residual urine was no indication for operation, and the practice of catheterization for this purpose was needless and dangerous. For ordinary prostatectomy the suprapubic operation was the better. In the cases where per rectum there was no palpable enlargement of the prostate cystoscopy was useful, and if there was constriction of the vesico-urethral orifice this should be divided, and preferably by the perineal route. Malignant prostatic enlargement was indicated by pain and by diurnal incontinence, and on rectal examination by the hardness, fixation, and nodularity of the tumour. In such cases the radical operation was rarely successful, and the best treatment was first catheterization, and later suprapubic cystostomy. Professor CAIRD agreed that operation in the simple enlargement was not advisable unless the symptoms were serious, but did not share the dread of catheterization both for diagnosis and for treatment of the early cases. The PRESIDENT asked the average duration of life after the operation. Mr. WADE, in view of the association of renal damage even with early prostatic enlargement, suggested the advisability of early operation. Mr. MILES had known 3 cases of death from pulmonary embolism to follow the operation. Mr. WALLACE, in reply, said that the worst cases were those with thin dilated bladders. In his experience septic cases had done fairly well; and in his cases he had had no deaths from uraemia or pulmonary embolism. In his last series of 50 consecutive cases, the percentage fatality had been over 8 per cent., a figure claimed by several surgeons; in that series the average age had been 76.

The Blood Pressure in Anaesthesia.

Mr. WILLIAM GUY, Dr. A. GOODALL, and Dr. H. S. REID presented observations on the blood-pressure variations under various anaesthetics, and combinations of anaesthetics, Martin's modification of the Riva-Rocci instrument being used. Chloroform caused a uniform fall of pressure. Nitrous oxide increased the pressure markedly, largely because of the element of asphyxia; but this increase was much less with previous inhalation of oxygen. Ethyl chloride lowered blood pressure, and the more with increasing doses. Previous inhalation of nitrous oxide removed this depressing effect, while the use of oxygen, nitrous oxide, and ethyl chloride, maintained a steady blood pressure without any asphyxial element. Dr. MCALLUM, discussing the danger of chloroform in the struggling of early anaesthesia, said this was due to action of the concentrated vapour upon the cardiac ganglia. Dr. Ross pointed out that in Johannesburg the combination of oxygen with chloroform had reduced the fatalities. Dr. GOODALL briefly replied.

THE ROYAL SOCIETY.

Thursday, February 3rd, 1910.

Sir ARCHIBALD GEIKIE, K.C.B., President, in the Chair.

Transmission of Trypanosoma Lewisi by the Rat Flea.

PROFESSOR E. A. MINCHIN and Mr. J. D. THOMSON contributed a paper on the transmission of *Trypanosoma lewisi* by the rat flea (*Ceratophyllus fasciatus*). Their experiments were concerned essentially with the method of transmission and with questions connected therewith. Incidentally the fact of transmission was confirmed. All experiments were arranged so as to eliminate the possibility of infection other than by fleas, and to separate "direct" from "cyclical" infection. When preliminary experiments showed that infection, not "direct," had taken place, further experiments were arranged to determine if fleas once infective retained infection so as to be capable of infecting a series of healthy clean rats without themselves being again exposed to infection, and at the same time to determine by direct observation and within narrow limits (1) the length of the incubation period in the flea, and (2) the length of the multiplication period in the rat. In all the experiments tame rats and fleas bred in captivity were used. The following conclusions were drawn:

1. The rat-flea (*Ceratophyllus fasciatus*) transmits *T. lewisi* from infected to non-infected rats.
2. Transmission takes place by the "cyclical" method.
3. Transmission by the "direct" method did not take place.
4. The incubation period in the flea has a minimum length of about six days, but may be longer.
5. The length of the multiplication period in the rat is about twelve days.
6. In the developmental cycle the establishment of the trypanosome in the flea begins with multiplication of *Crithidia*-like forms in the rectum. No flagellates had been found in any fleas which had not fed on infected rats.

Effect of Malignant Growths on the Size of Organs.

Dr. F. MEDIGRECEANU (Bucharest) contributed a paper on the relative sizes of the organs in rats and mice bearing malignant new growths. The weights of the different organs of normal animals bore a relatively constant ratio to the total weight of the body, and weighing experiments on 200 mice and rats bearing transplanted tumours, and on four mice with spontaneous tumours, had shown: (1) No disturbance of the normal ratio for the alimentary canal; (2) hypertrophy of the liver in all cases and up to a certain point proportional to the weight of tumour; (3) hypertrophy of the heart also in proportion to size of tumour; (4) no disturbance of normal ratio for the kidneys except in the case of a spindle-celled sarcoma which induced hypertrophy; (5) varying ratios for the lungs. The most important result had been the discovery of an enlargement of the liver in animals bearing carcinomata and sarcomata, whether transplanted or naturally arising.

Homogeneity of Resistance to Transplantation of Malignant Growths.

Dr. E. F. BASHFORD and Dr. B. R. G. RUSSELL (Imperial Cancer Research Fund) contributed a paper containing further evidence that the resistance which animals already bearing transplanted tumours might offer to a second transplantation was identical in nature with the resistance offered by animals without tumours, after immunization with normal or tumour tissue of the same species. A study of the processes at the site of the second implantation showed that, concomitantly with the establishment of the tumour developing from the first inoculation, an active resistance might be induced by the absorption of tumour tissue. Then the cancer cells implanted at the second inoculation failed to elicit the supporting connective tissue and vascular scaffolding necessary to their development into a tumour, and the process of resistance was exactly analogous to that previously described, when tumour tissue was implanted into mice after a preliminary immunization with tumour or normal tissue of the same species. The assumption of a distinct form of resistance, "atreptic immunity," was thereby rendered superfluous when tumour-bearing animals were resistant to a second inoculation. Prevailing conceptions of what constitutes immunity to cancer *sensu strictiori* were simplified further by experiments demonstrating that the active immunity to cancer, which followed in rats after a preliminary inoculation of mouse cancer, was not an immunity against cancer, but against the protein of a foreign species. Therefore, hypotheses of cancer immunity based upon a study of the behaviour of tumours in strange species had at most only an indirect bearing upon the immunity to cancer of the same species. By actual observation of the processes occurring in animals immunized against the inoculation of cancer of their own species, only one form of induced resistance had been demonstrated to exist, consisting, so far as elucidated, in an inhibition of the chemiotactic powers the cancer cells normally exercised upon the connective tissue and vascular scaffolding of the host. This single explanation harmonized all the observed facts, and freed the experimental study of cancer both of confusing hypotheses and of errors.

Effects of Inoculation of Living and Disintegrated Cancer Cells.

Dr. M. HAALAND (Imperial Cancer Research Fund) read a paper on the contrast in the reactions to the implantation of cancer after the inoculation of living and mechanically disintegrated cells. It had been shown that inoculation of living tumour or normal tissue of the same species induced resistance to subsequent transplantation of cancer. The present paper recorded experiments in which cancerous or normal tissues, after mechanical disintegration at −180° or 0° C., had been inoculated into mice. The experiments showed that a complete disintegration of the cells entirely robbed them of their immunizing properties against a subsequent transplantation of cancer. There was no difference between tumour cells and normal cells in this respect. The absence of immunizing power did not seem to be a question of dose of introduced material, because relatively enormous doses of dead material did not induce any resistance. In the same way the press-fluid, obtained from tumours and normal tissues by Buchner's press, was devoid of immunizing properties. The immunizing property was not bound up with the protein of the cell, but depended on a different principle. Living cells were necessary to induce resistance to transplantation of cancer. It seemed necessary that these cells should not only remain alive, but also even grow for a certain time; without the fulfilment of these conditions the reaction inducing active resistance was not set up. The same consequences followed autolysis, the action of heat, radium, etc., upon tumour tissue and normal tissue. The reaction which the introduction of disintegrated cells called forth was not only quantitatively different from that induced by living tissues, but also qualitatively different. Far from inducing any increased resistance, inoculation of disintegrated cells only seemed to manure the soil for a subsequent growth of tumours. The failure to elicit the reactions of immunity to the transplantation of cancer by devitalized tissues revealed an important difference from the immunity reactions obtained against bacteria and their products and foreign proteids in general, in which cases the immunizing properties were independent of the vitality of the organisms or cells.

ROYAL SOCIETY OF MEDICINE.

SECTION OF BALNEOLOGY AND CLIMATOLOGY.

Thursday, January 27th, 1910.

Dr. LEONARD WILLIAMS, President, in the Chair.

DR. R. ACKERLEY (Llandrindod Wells), in a paper on *Saline waters, and the use and abuse of common salt*, said the necessity of taking salt was disproved by the fact that in ancient and modern times large bodies of men did not take it. He instanced the Numidians and Egyptian priests in ancient times, more recently the North American Indians before they acquired European habits, the inhabitants of North Russia and Siberia, the Bedouins of Arabia, the Damarces, and others. Breast-fed infants obtained very little salt. The bulk of the common salt ingested by adults was added by the cook in the preparation of food for the table. Nearly all the common salt passed away from the body by the kidney. It was now admitted from the researches of Widal, Javal, and others, that when the kidneys were not healthy there was frequently considerable NaCl retention. Common salt taken in excess might prove harmful from the following causes: (1) By throwing excessive work on the kidneys; (2) by increasing for many hours in the day the proportion of sodium salts in the fluids and tissues of the body; (3) by causing the retention of fluid in the body; (4) by causing certain forms of diarrhoea, chronic bronchial and pharyngeal catarrh, and chronic skin diseases, in many cases where the kidneys were not able to excrete the salts ingested. Dr. Ackerley then considered the action of saline waters containing a small percentage of NaCl, and contended that clinical evidence showed that hypotonic saline waters were not injurious in gouty conditions. Such waters acted quite differently from salts added to and absorbed with food. He had no experience of hypertonic waters, but in the case of mixed mineral waters of low salinity like those at Llandrindod Wells he had failed to find any evidence that the gouty received anything but benefit from them, if the care necessary at any spa to see that the waters were being taken properly was exercised. Dr. SOLLY remarked that his own experience and that of his colleagues in Harrogate supported Dr. Ackerley's contention that an excess of salt absorbed was harmful, especially to the gouty, or to those whose eliminatory organs were at all defective. In administering the "strong sulphur water," which was very strongly charged with sodium chloride, it was always considered necessary to ensure free purgation—even to the extent of frequently administering a "liver pill" overnight, and Harrogate practitioners all were prepared to find trouble arising if the taking of the waters was not rapidly followed by free evacuation; the dehydrating action upon the blood and tissues being counteracted by the taking of a glass of one of the milder waters (whose salinity is about equal to "normal saline solution") during the forenoon, afternoon or both. The PRESIDENT, Dr. MOUILLOT, and Dr. HASLIP also took part in the discussion.

MEDICO-CHIRURGICAL SOCIETY OF GLASGOW.

Friday, January 14th, 1910.

Professor MUIR, President, in the Chair.

PROFESSOR NOEL PATON, in a paper on *Certain changes in the composition of the urine*, pointed out that the significance of the appearance of abnormal constituents in the urine—for example, sugar and albumen—was fully recognized by the physician, but that the meaning of quantitative changes in the normal constituents had not yet been properly appreciated. He then proceeded to consider these changes, especially alterations in the distribution of the nitrogen in the urine. The urinary nitrogen, derived as it was from the protein of the food and body, was, he said, normally distributed as follows: About 90 per cent. in urea, 4 per cent. in ammonia compounds, 4 per cent. in creatin and creatinin, 2 per cent. in the

purin bodies (uric acid, etc.). As to the mode of formation of these nitrogenous bodies from the protein, experiment showed that protein subjected to the action of a mineral acid could be broken down into various substances which differed according to the method of breaking down employed. In the analogous breaking down of protein in the body the first step was denitrization; ammonia was split off and went to form ammonia salts. These were dehydrated in the liver, and the resulting product was urea. Most of the nitrogen of the protein went to form mon-amino acids, but di-amino acids were also formed. The arginin compounds were denitrified, forming ammonium carbonate, which was dehydrated to form urea. Creatin in muscle, on the other hand, was dehydrated to form creatinin, which appeared as such in the urine. The purin bodies were derived: (1) In muscle, as xanthin; (2) from nucleins, as amino compounds, such as adenin. Eventually they were converted into uric acid

---

AT a further meeting on January 28th Dr. ARCHIBALD HARRINGTON described and illustrated a case of *Gastric carcinoma*, with metastasis in the bone marrow. The blood picture suggested pernicious anaemia, and remained much the same during the five weeks the patient was under observation, many examinations being made. Nevertheless a diagnosis of metastasis was made on the ground of the presence of bone pains, leucocytosis, and the constant presence of large numbers of erythroblasts. The author, from his own case and others published, considered that when there was any reason to suspect the presence of cancer of the stomach or other organ, the presence of bone pains and large numbers of erythroblasts and myelocytes in the blood should suggest metastasis in the bone marrow, and that even the blood picture alone should suggest the diagnosis. Such a blood picture probably did not occur in cancerous anaemia apart from metastasis. The following are the results of one of the blood examinations made on January 9th, 1909: Erythrocytes, 1,900,000; leucocytes, 8,000; haemoglobin (Haldane), 42 per cent.; colour index, 1.1; differential count of leucocytes (Leishman stain), 500; polynucleated neutrophiles, 52.2; eosinophiles, 0.6; basophiles, 0.2; lymphocytes, 13.8; large mononucleated and transitionals, 28.2; myelocytes, 5; megaloblasts, 46 normoblasts, 20.

HARVEIAN SOCIETY.

Thursday, January 27th, 1910.

Dr. HANDFIELD-JONES, President, in the Chair.

THE following were the exhibits:—Dr. GEO. OGILVIE: (1) Three little girls in one family suffering from a form of *Hereditary ataxia*, differing in several features from Friedreich's disease; (2) three cases of *Tabes* treated over varying periods by special exercises, showing the gradual improvement in gait obtained thereby. Dr. LEONARD GUTHRIE: A case of acute *Bulbar polioencephalitis* in a child of 13, improving under treatment. Dr. CAMPBELL THOMSON: (1) A case of *Paralysis of the serratus magnus* muscle from injury, and demonstrated the consequent loss of power in fixation of the scapula, as shown by its winged appearance when the arm was raised, and also the inability to lift the arm freely above the head, owing to the rotation of the scapula being incompletely performed; (2) a case of *Cerebral tumour* of the motor area, in which the chief localizing symptom had been the occurrence of Jacksonian epilepsy in the right foot. Removal of the tumour had been followed by great temporary benefit, so that the patient had been able to return to his work for some months, but unfortunately the growth proved to be malignant, and signs of extensive recurrence were now present. Dr. GRIFFITHS (1) (for Dr. Harris): A case of *Infantile hemiplegia* with extreme contraction of wrist flexors treated by division of the tendons; (2) (for Dr. Johnson) a woman suffering from tabes with *Charcot's disease of the knee*.

THE late Mr. James Smith, a cotton broker of Liverpool, bequeathed £1,000 each to the David Lewis Northern Hospital, Liverpool, the Victoria Central Hospital, Liscard, and Wallasey Cottage Hospital, in addition to £500 each to the New Brighton Convalescent Home and the Cottage Hospital at Moffat, Dumfries.

Reviews.

DISEASES OF THE STOMACH.

IN his monograph on *Diseases of the Stomach*,[1] Dr. HABERSHON has produced a well-written and admirably illustrated textbook in which the student will find not only an adequate account of the subject indicated by the title but also a complete and copiously illustrated description of the anatomy of the stomach, supervised by Professor Peter Thompson, as well as a clearly written compilation of the physiology of digestion based on Professor Starling's lectures. The author adopts Dr. Pavy's view that the leucocytes act as carriers of carbohydrates from the intestine; he is against a low protein standard, and opposes vegetarianism, mainly on the ground that vegetables are indigestible, and that their use leads to flatulence and anaemia, a position which he might have some difficulty in maintaining against the votaries of this system, who are at least able to point to a high degree of health and efficiency. We agree that racial experience is of the highest importance, but is it, perhaps, not going too far to suggest that the inhabitants of the Arctic Circle eat fat in preference to carbohydrates because experience has taught them that it is better for them? Is not the fact that carbohydrates have been so difficult to obtain the true explanation? In recent times flour has become an important article of trade with them, and the present race of Eskimos wherever they are in contact with civilization have made bread as much a staple food as the inhabitants of temperate climates. There seems to be some confusion between small and large calories, as on page 55 1 gram of protein is said to be equal to 4,500 calories, but on page 57 100 grams of protein are given as equivalent to 450 calories! Large calories are now invariably used, and should be employed throughout. The general rules for the examination of a stomach patient are excellent, but there seems to be need for some qualification of the statement that retraction of the umbilicus is a sign of the "round ligament being infiltrated with new growth," as this condition may always be seen in thick-walled fat abdomens. There is no reference to the width of the costal angle or the *habitus enteroptoticus* upon which so much stress is laid in Berlin. There seems to be some amount of uncertainty with regard to the value of certain signs, as, for example, the meaning of stomach peristalsis, which is said to be observed when there is obstruction of the pylorus and "less often in dilatation." The last statement is not quite clear; the sign is due to the pyloric obstruction and not to the dilatation, and is never present when dilatation occurs without an obstacle to the outflow of the stomach contents from some cause. Again, the succussion splash is called "an important sign," but excellent reasons are given why no great reliance can be placed on it, so that it would seem better not to have introduced it with terms of praise. Auscultatory percussion cannot be recommended as a means of defining the limits of a dilated stomach, nor is there any real analogy between the air-containing cavity in the liver which the author says he mapped out accurately by this means and a stomach surrounded by other air-containing viscera. The method of gastro-diaphany has not secured the confidence of clinicians, and in a very excellent paper Dr. E. Meinert of Dresden some years ago exposed its fallacy. The danger of distension by CO_2 is exaggerated, and nothing is said about defining the lower limit of the stomach by swallowing water, while readers are merely referred to Boas's textbook for the use of x rays in the investigation of stomach diseases. Considering the progress that has been made in this particular method of investigation at Dr. Habershon's old school, Guy's Hospital, this omission is strange. In the description of the use of test meals twelve hours is mentioned as the period warranting the diagnosis of stasis, but if useful deductions are to be drawn a period of six or seven hours is quite long enough. In the description of the examination of the stomach contents the student may be bewildered by the number of tests given, and his interest would be better served if Dr.

[1] *Diseases of the Stomach. A Manual for Practitioners and Students.* By S. H. Habershon, M.A., M.D., F.R.C.P. London: Cassell and Co., Ltd. 1909. (Cr. 8vo, pp. 577, 8 coloured and 4 black and white plates. 9s.)

Habershon had indicated those upon which most reliance can be placed. The subject of the urine in gastric disease is dealt with somewhat more briefly than its importance deserves. The author distinguishes between albumosuria and peptonuria by putting them under different headings, but does not indicate how he would distinguish them in practice; and as a fact we believe that these two conditions have generally been confounded. A great deal is grouped together under the heading of "dyspepsia" which would be clearer if it had been kept under separate headings. It is not possible to define what is meant by this term except that it is discomfort after taking food, and this is far too wide a definition to be usefully made the basis of systematic discussion, although it may well be used to illustrate various clinical types. In the dietetic treatment of dyspepsia we think many would take exception to the statement that stimulants are indicated in all cases of gastric insufficiency and atony due to nervous exhaustion, debilitated states, and anaemia, for many physicians are strongly impressed with the ill-effects of alcohol in all cases where gastric irritability exists. In the treatment of gastric ulcer we are surprised to see that Dr. Habershon advocates fourteen days' rectal feeding. He says: "In favourable cases, at the end of the second week after severe haemorrhage a small amount of food may be given by the mouth. A teaspoonful of Valentine's or other meat juice diluted with 1 oz. of water may be given every three hours . . . otherwise nothing but a few teaspoonfuls of water or some pieces of ice should be given to moisten the mouth." This treatment by starvation we had thought generally abandoned. We are surprised to find that in the treatment of dilatation of the stomach no mention is made of gastro-enterostomy. It would, perhaps, have been as well if the author had devoted a special chapter to stomach surgery in order that there might be no doubt as to his teaching upon this important question. A book for students should not be written exclusively from a medical point of view. It is most undesirable that students should imagine that physicians and surgeons differ on this question and that there can be a medical and a surgical method. It is possible to indicate the stage at which the help of the surgeon should be asked, and to lay down clearly for the guidance of students and practitioners what the indications are.

KEEN'S SURGERY.

THE fifth and concluding volume of KEEN'S *Surgery* well maintains the high standard of excellence set by those already published.[2] The first article, a monograph of 350 pages on the surgery of the vascular system, from the pen of Rudolph Matas, is enough in itself to make the book indispensable to general surgeons. Not only are such subjects as haemorrhage, phlebitis, and varicose veins, treated in the light of modern knowledge, with no more than decent respect for traditional nomenclature and conceptions, but the whole new field of reparative surgery of the heart and vessels is traversed in comprehensive fashion, possible only to one equally familiar with the practice and the literature of the subject. With the most unostentatious of guidance the reader is led to a safe discrimination amongst the many tentative methods for pericardiotomy, for exposure of the heart, for suture of arteries and veins, for anastomoses and transplantations, for aneurysmorrhaphy. The mention of parasitic aneurysms, which are found only in the horse, hints at the width of view of pathogeny which is beginning to prevail. The author points out that for surgical purposes it is no longer enough to classify aneurysms according to external form, the proper criterion being the number of orifices which connect them with the parent artery. It is instructive to learn that whilst aneurysm was rare amongst negro slaves, since emancipation has given them access to alcohol and exposed them to venereal infection, the coloured races have become four times as prone to the disease as the white. Where the whole is fresh and interesting it is idle to select parts for mention; from experimental aneurysms to post-operative visceral haemorrhages, every paragraph should be read.

The next two hundred odd pages offer a compact little treatise on gynaecology. Dr. Bland writes on methods of examination, advocating, of course, the dorsal position for vaginal diagnosis and entering a caution against neglecting inspection on grounds of delicacy. It is significant that he should find it necessary to write: "The marital history should also include a record of the methods employed to prevent conception." Surgery of the vulva and vagina is dealt with by Fisher of Philadelphia; the surgery of the uterus, broad ligaments, and tubes by Montgomery, who enters a plea for the pessary, the uses of which seem not to be appreciated on the other side of the Atlantic. Such, at least, might be inferred from the numerous operations, including one of the author's, described for the relief of retrodisplacements. It strikes one that the space devoted to hysterectomy is disproportionately small. There is a short chapter on surgical technique by Gibbon, which is sufficient, but no more. Ligation of arteries in their continuity and amputations are familiar friends, for they are by Warren Stone Bickham; and no more need be said, unless it be, with diffidence, that it would perhaps have been a good place to strike out a new line and relegate two-thirds of the set operations to the oblivion they deserve, and would experience but for examiners. Dr. Warbasse writes about operations on bones and joints; he gives directions for dealing with acute osteomyelitis which indicate complete appreciation of recent ideas about the pathology. He overrides accepted ideas when he says that while "the earlier operators laid stress on the kind of tumour that the surgeon had to deal with, I believe that this need be given but little consideration." The author of the section on plastic surgery, Dr. Roberts, has suffered severely from limitation of space; but what can be done outside the pages of a special treatise he has done with discretion. The surgery of accidents, by Estes, is more than a recitation of surgical principles; he deals with the subject as one must who has had very special opportunities and realizes that success in this field depends more on organization for bringing the injured and the skilled surgeon together quickly, and without meddling intervening, than on questions of practice. It is obviously, in his view, a sociological problem. He observes that "malingering among working people . . . is very rare. . . . It is quite another story when it comes to the so-called better classes." American experience seemingly differs widely from our European.

Mr. Charles Mayo has a chapter on the surgery of the parathyroid bodies which will surprise a good many steady-going surgeons, but which, after all, does not advance matters very materially. Dr. Frazier considers the intracranial surgery of the fifth and eighth nerves, favouring division of the sensory root of the Gasserian ganglion by the auriculo-temporal route. General anaesthesia and anaesthetics are treated in somewhat academic fashion by Hobart Amory Hare; local analgesia by Lennander, who unhappily did not live to complete his task. His article is the work of an enthusiast, and should do not a little to extend the use of the method in this country. Some of his feats, such as disarticulation at the hip under infiltration and endoneural analgesia, sound too wonderful for realization. Subarachnoid methods are described by his pupil Zachrisson, who shares his views as to the severe limitations proper for its employment. Professor Armstrong of Montreal has a chapter on the surgery of the infectious diseases, which, though necessarily scrappy, has some useful information on points such as "typhoid spine." Mr. Carson's pages on the legal relations of the surgeon have less interest for those who live beyond the pale of American law, but his statement of his principles is clear and sound. Dr. Coplin takes as his subject the laboratory as an aid to technique and diagnosis, whilst Ochsner brings the volume to an end by valuable suggestions for the surgical organization of a hospital.

The bibliography attached to each section increases the value of the system as a work of reference, but the index, though good, is hardly worthy of the high standard set in the text.

SURGICAL NURSING.

THE day has long gone by when every woman was supposed to be an ideal "nurse" simply because she wore a petticoat. The modern surgical nurse is a highly-trained

[2] *Surgery: Its Principles and Practice.* Edited by W. W. Keen and J. C. DaCosta. Vol. V. 1909. Philadelphia and London: W. B. Saunders Company. (Roy, 8vo, pp. 1274; 550 illustrations. 30s.)

and disciplined unit in the organized scheme of asepsis. Her habit and her conscience must be as inflexible as the surgeon's if results are to be satisfactory. A receptive intelligence, capacity for hard work, and initiative without independence are essential. All these qualities seem to be forthcoming in plenty, but, after all, they do not make a "nurse"—one thing is lacking. It is just because there is a danger of forgetting the one thing lacking that Mr. STANMORE BISHOP has thought fit to introduce into his excellent little book of *Lectures on Surgical Nursing*[3] a chapter on "altruism." The Anglo-Saxon does not take kindly to the display of altruism. Amongst doctors it happens not infrequently that those who practise altruism most unflinchingly in their work most belie it in their words. But just as the young doctor has to learn that he treats, not diseases, as his textbooks have taught him, but human individuals, so nurses have to learn that the most perfect system will fail if she have not cultivated that temperament, that grace of manner, and that *savoir faire* which enable her to enlist the services of a whole household in the performance of tasks which seem to them irrelevant and unnecessary, and to secure their abstention from the promptings of well-meaning but ignorant altruism. The modern surgical nurse amongst private patients needs the most whole-hearted spirit of unselfishness; she labours that another may take the reward. To her, as Mr. Bishop says in his graceful introduction, a great part of any success attained by the surgeon is owing. To ingratiate herself with a household, to divine her patient's character and adapt herself to it, to transform a house into a suitable place for operation without disturbing its routine or upsetting its mistress, to act as the surgeon's right hand and right eye, to forget nothing save her own personal interests, and through it all to adopt her patient's point of view, is a task which brings only its own reward, but it is worth doing, and it is done every day. A great many books for nurses nowadays contain much information that is unnecessary. It is idle to try to teach nurses in a few lectures or pages what it takes a medical student months to learn in a laboratory. This little volume hits off almost exactly the proper line to take in telling nurses about the true inwardness of the system they are to be taught to observe. It is to be commended to the attention not only of those who are beginning their training, but even to those superior persons who know all about bacteriology, whose experience by now is all-embracing, and who are forgetting that there is anything left to learn. The human side of a nurse's work is an inexhaustible source of new knowledge, and the humane attributes of character are ever in need of cultivation.

TREATMENT OF TUBERCULOSIS.

THE record of observation and work in open-air sanatoriums contained in Dr. MUTHU'S *Pulmonary Tuberculosis and Sanatorium Treatment* is both interesting and valuable, for the author stimulates thought by his broad views on life in relation to disease, and has wisely based the clinical portion of the work on the results of his own observation and experience.[4] The subject is divided into three parts, dealing respectively with the scientific aspect of tuberculosis, the sanatorium treatment, and the social aspect of the disease. In the first part, and more particularly in the introduction, Dr. Muthu gives us glimpses of a philosophic trend of thought which is as refreshing as it is uncommon in medical textbooks. Western medical training may, as he says, tend to view life from a physical standpoint, but this training has fortunately not completely overcome the author's temperament. Here and there throughout the book we come across views which are not entirely in accord with those generally held by the profession, but it is one of the interests of the book that the author is not afraid to think for himself and to express his thoughts boldly. Dr. Muthu considers that the present tendency is to exaggerate the part played by the tubercle germs in the causation of tuberculosis. We are inclined to agree with him when he says that the soil much more than the seed controls the disease, though we cannot follow him in his conception of tuberculosis originating without the bacillus. In the second part of the book, on the sanatorium treatment, Dr. Muthu's ten years' experience enables him to speak with authority. He utters a much-needed warning against expecting success in treatment after a few weeks. He puts the shortest stay in a sanatorium to bring about recovery at six months for an early case. He makes an excellent suggestion—which he has carried out in his own sanatorium—in advocating camping-out for the patients, either in some part of the estate, the camping party doing their own cooking, etc., or making a caravan tour of the neighbouring country. It will be seen that this book is something more than a mere recapitulation of ideas and facts gleaned from other writers. It is pleasantly written, and embodies a good deal of original thought and observation. By a curious mistake the name of the author is given on the cover as D. J. A. Muthu.

Dr. RUFENACHT WALTERS'S book on the *Open-air or Sanatorium Treatment of Pulmonary Tuberculosis*[5] is an excellent handbook of the subject with which the author is thoroughly conversant. The book is divided into two parts. The first portion gives, in considerable detail, all the essential elements of sanatorium treatment and the hygienic principles on which they are based—as Dr. Walters in his preface expresses it, "matters which an intelligent patient should know." Reference numbers in the text refer to corresponding paragraphs in the second portion of the book, which contains the more technical matter. Little that any superintendent of a sanatorium for consumptives should know will he fail to find in this book. Construction of buildings and shelters, ventilation, routine, feeding, rest and work, disinfection—all these are reviewed and discussed with the knowledge gained by the practical experience of the personal management of such an institution and a wide acquaintance with sanatoriums in other countries. In Part I we would especially draw attention to the common-sense remarks on the selection of a place for treatment (in Chapter IV), and the section on travelling (Chapter XXVI). The medical reader will find many details of treatment which bear the stamp of personal experience, and in the second portion of the book there is much in the section on treatment of symptoms—for example, cough, haemoptysis—which will be helpful to many. Dr. Walters discusses very fully the specific treatment of tuberculosis: he is a follower of Wright, though he does not by any means ignore the methods of others. The section on dietetics is very good, and those who have to arrange the dietary in sanatoriums and similar institutions will be grateful for the list of articles of food in which food values and calorics are given. The book may be confidently recommended to all who wish for information on the details and principles of the sanatorium treatment of the tuberculous.

DRS. BAUER and ENGEL have combined to publish in one volume[6] several contributions on the subject of tuberculin in the tuberculosis of childhood. The first and most important paper is one by Dr. Engel on the reaction of tuberculosis in childhood to tuberculin, which, with the record of cases and temperature charts, occupies the greater part of the volume. He considers the subject nnder various headings, commencing with the technique of tuberculin administration, the dosage for children, and the method of using the remedy so as to produce the most satisfactory and lasting effects. The results of a very full investigation into the effects of the inoculation of tuberculin in children are given, together with practical deductions as to various points in reference to its employment. Thus we find investigations as to the best initial dose, the rapidity of increase and the maximal dose, and the length of time for which the injections should be continued. The first essential is to avoid too large an initial

---

[3] *Lectures on Surgical Nursing.* By E. Stanmore Bishop, F.R.C.S. London: Simpkin Marshall; Bristol: J. Wright and Sons. 1909. (Fcap. 8vo, pp. 143: illustrations 9. Cloth, 2s. 6d; leather, 3s. 6d.)

[4] *Pulmonary Tuberculosis and Sanatorium Treatment.* By C. Muthu, M.D. London: Baillière, Tindall, and Cox. 1910. (Demy 8vo, pp. 213; illustrations 6, plates 10. 3s. 6d.)

[5] *The Open-air or Sanatorium Treatment of Pulmonary Tuberculosis.* By F. R. Walters, M.D., B.S.Lond. London: Baillière, Tindall, and Cox. 1909. (Demy 8vo, pp. 339; ill. 29. 5s.)

[6] *Klinische und Experimentelle Studien zur Pathologie und Therapie der Tuberkulose im Kindesalter.* Von Dr. Bauer and Dr. Engel. Sonderdruck aus *Beiträge zur Klinik der Tuberculose.* Herausgegeben von Professor Dr. L. Brauer, xiii Bd., Heft 3. Würzburg: C. Kabitzsch (A. Stuber). 1909. (Sup. roy. 8vo, pp. 245-457. Taf. ii, Abb. 4. Mk. 6.50.)

dose, and Dr. Engel advises strongly that the child should be kept strictly in bed during the injections. The severity of the tuberculin reaction cannot be measured by the height of the temperature alone; the duration of the reaction must also be taken into consideration. Children show considerable differences in their resistance to or tolerance of tuberculin; but Dr. Engel points out that the susceptibility to tuberculin varies not so much according to age as with the site, extent, and degree of activity of the tuberculous process. Lung cases are more intolerant than cases of bone, joint, or gland tuberculosis. Since the usual seat of tuberculosis in children is in the glands—a condition in which there is comparative tolerance of tuberculin—while in adults the seat of disease is usually in the lungs—a condition very intolerant of tuberculin—the relative doses for children and adults are not proportionate to the age. In discussing "latent" tuberculosis, Dr. Engel prefers to use the term "occult" in reference to children as expressing an ever-present source of danger though its presence may not be evident. A section is devoted to indications and contraindications, from which it would appear that the conclusions of the author would support the views of those who hesitate to employ tuberculin in tuberculosis of the lungs, though they use it in cases in which these organs are not affected. The article is illustrated by numerous temperature charts and records of cases, photomicrographs of fibrous tubercles, and some skiagraphs of tuberculosis of bones. A second article by Dr. Bauer, on immunity in tuberculosis, and a third by the two authors conjointly, on tuberculous immunity and specific therapy, complete the volume, which forms an important contribution to the study of the specific treatment of tuberculosis.

SCIENCE AND IMMORTALITY.

Dr. Macfie's latest work, *Science, Matter, and Immortality*,[7] is dedicated to Sir Oliver Lodge. The title and dedication afford an indication of the scope and purport of the book, which may be briefly summarized as the application of the latest conceptions of matter to the problems of life and immortality.

A historical summary is given of the views which have been held as to the nature and origin of matter from the earliest times to the present day. The more materialistic of the ancient classical writers—for example, Diogenes of Apollonia, Heraclitus, and Empedocles—attributed the source of all things to fire, air, earth, or water; Pythagoras to number; while the more mystical Anaximander regarded the infinite as the first element of things. These speculations form interesting reading, and it is worthy of note that the underlying idea of Dalton's atomic theory seems to have been foreshadowed in the minds of some of these ancient philosophers.

The author carries us through the speculations of Bruno and Maemonides, of Leibnitz and Descartes, of Boscovitch and Schopenhauer, to the time of Kelvin, J. J. Thomson, and Rutherford. The modern theory of electrons is expounded in a clear and graphic manner. It is a veritable fairy tale. Science has indeed opened to us "wide, wonderful, and mysterious horizons." Matter becomes unthinkable. When we are told by Larmor that the "material molecule is entirely formed of ether and of nothing else," and by the late Lord Salisbury—a no mean physicist—that "ether is but the nominative case of the verb to undulate," it is difficult for one who is not a professional physicist to collect his wits.

No less fascinating is the account given of the modern hypotheses of cosmogony and their relation to astronomy in general. The application of the electron theory to organic life is discussed. The author believes in the idea, now held by an increasing number of scientists, of the evolution of the organic from the inorganic.

Scissors and paste have largely been made use of in the first seventeen chapters, but the compilation has been well done, and we turn with interest to the remaining chapters in the hope of finding the author's own conclusions and applications in reference to immortality. These appear somewhat nebulous. He hints at a possible psychical application of the electron theory, but expresses the belief that the ultimate verdict must rest with philosophy; science cannot solve the riddle. Though a corporeal resurrection seems wellnigh impossible, death does not of necessity mean for him a total and synchronous loss of consciousness. The author's creed, though ill-defined, is cheerful and optimistic. The future evolution of man will, in his opinion, be mental and moral rather than physical, the two main factors in this evolution being "microbes and marriage." In the concluding chapter there is a plea for a wider sympathy among scientific men with poetry, philosophy, and literature, to prevent a too cramped and narrow outlook. With such a plea we are in entire agreement.

The book is of considerable interest, and is written in an easy, pleasant, and at times even an amusing manner. That the author can write with vigour is shown when dealing with the fallacies of that "most cowardly and vulgar religion," Christian Science. It is a pity that the book is marred by the too frequent use of alliterations, often very forced.

[7] *Science, Matter, and Immortality.* By Ronald Campbell Macfie, M.A., M.B., C.M. London: Williams and Norgate. 1909. (Cr. 8vo, pp. 308. 5s.)

PATHOLOGY OF RABIES.

The *Observations on Rabies* by Major Lamb and Captain McKendrick are concerned with several points which are of scientific interest in connexion with the nature of this disease.[8] It has frequently been asserted that by passage through certain species of animals, such as the monkey and the dog, rabies virus lost its virulence, and ultimately became innocuous. The experience of the authors, however, is opposed to this view. They obtained a virus from a street dog, and after passing it through a series of thirteen dogs they found that it had become increased in virulence not only for dogs but also for rabbits. In the course of the routine work of the Pasteur Institute of India, the authors have noted several cases in which subdural inoculation of street virus produced a peculiar form of rabies in the rabbit. The animals remained in good health for a time, and then gradually became emaciated, and died without developing the usual symptoms of rabies in the rabbit such as paralysis and tremor. In most instances the progress of emaciation was slow, and the disease lasted for a month or more. In some cases, however, wasting set in very rapidly after infection, and death took place within ten days of the inoculation. The fact that the conditions observed were true rabies was proved by producing typical symptoms of rabies in animals inoculated with material obtained from this peculiar atrophic variety of the disease. This variety was observed also in a dog which had been spontaneously infected. The authors also record some observations on the susceptibility of various species of animals to subcutaneous inoculation with rabies virus. Guinea-pigs, they find, can be infected with comparative ease by subcutaneous inoculation of a small quantity of fixed rabbit virus, and are equally susceptible to subcutaneous inoculation of virulent dog virus. Rabbits are also susceptible to inoculation by this method with fixed rabbit virus, but the disease which results is often of a more or less chronic nature, mainly characterized by progressive emaciation without any definite paralysis. Monkeys can be infected by sucutaneous injection of fixed rabbit virus, though in these cases the incubation period is much prolonged. It was found that passage through a single monkey greatly prolonged the incubation period of fixed rabbit virus for rabbits. All these observations of Major Lamb and Captain McKendrick are, as they admit, "somewhat fragmentary and by no means exhaustive"; but they are none the less interesting.

INFECTIOUS DISEASES IN SCHOOLS.

It is no mere polite form of words to say that we welcome most heartily the appearance of a new edition of the *Code of Rules for the Prevention of Infectious and Contagious Diseases in Schools*, issued by the Medical Officers of

[8] Scientific Memoirs of the Government of India. New series. No. 36. *Observations on Rabies; with Special Reference to an Atrophic Form of the Disease occurring in Animals.* By Major G. Lamb, M.D., I.M.S., and Captain A. G. McKendrick, M.B., I.M.S. Calcutta: Government Press. 1909. (Med. 4to, pp. 34. 9d.)

Schools Association.[9] The first edition was published twenty-three years ago, and the new edition is the sixth. The code has therefore stood the test of time. It has been continuously revised in the light of school experience, and is the work of men who are constantly being called upon to deal with the practical questions it is designed to answer. It will be most useful to general practitioners, for though the questions may be asked them less frequently quite as much depends on their correct answer. It contains the best opinion of the day, and expresses with a degree of authority which will not only fortify the confidence of the doctor, but will help him to carry conviction to the mind of a reluctant parent. The acute infectious diseases dealt with are: Varicella, diphtheria, rubella (German measles), epidemic roseola, measles, mumps, scarlet fever, small-pox, and whooping-cough, and there are notes also on ringworm and ophthalmia. The scope of the work can perhaps best be shown by giving the headings of the sections. The first deals with general hygiene and the arrangement and inspection of school premises; the second with the infirmary and sanatorium; the third with the medical examination of scholars on admission; the fourth with general precautions against the introduction and spread of disease; and the fifth with the measures to be adopted when an infectious disease has appeared in a school. There are three appendices—the first gives forms of certificates suggested for use with reference to the prevention of infectious diseases in schools; the second is on the notification of infectious disease; and the third, by Dr. A. C. Houston, on disinfection.

TERATOLOGY.

WE associate a work on teratology with an atlas, but atlases have their disadvantages, which Dr. BIRNBAUM has avoided in his *Klinik des Missbildungen*.[10] With the exception of one plate of skiagrams, the forty-nine remaining illustrations are incorporated with the text. The resources of photography, not altogether satisfactory for high art and portraits, allow of very correct representation of monsters at a far smaller expenditure than was demanded by older pictorial methods. The majority of its illustrations are taken from original photographs of specimens in the museum of the Frauenklinik in the University of Göttingen. They are highly instructive, and we may single out as examples Fig. 21, which represents fetal hydrocephalus with oedema and adiposity of the neck; and Fig. 24, the photograph of a case of malformation of the outer ear. In Fig. 21 the fat neck and shrunken integuments of the abdomen come out clearly; in Fig. 24 not only is the deformity of the pinna manifest, but the shiny, greasy fetal skin is quite true to nature. Again, Fig. 37—"chondrodystrophia fetalis"—is a most beautiful portraiture of a most unlovely fetus. As these forms of malformation, difficult to represent, are so successfully demonstrated by illustration in this work, we need hardly add that the more familiar double twins, fetal parasites, acardiacs, and anencephali stand out plainly in all their natural interesting hideousness so familiar to us. The few illustrations taken from other works compare unfavourably with the original photographs from the Göttingen Museum. Dr. Birnbaum describes each type of monstrosity very clearly in the text, and, admitting that the literature on teratology is voluminous, adds full references to authorities, from St. Hilaire to Ballantyne. His aim, as he declares in his preface, is to present the reader, especially the student and the busy practitioner, with a manual which is an epitome of teratological facts hitherto widely scattered over costly atlases and the medical press of the Continent and Anglo-Saxondom. The *Klinik des Missbildungen* will prove of much value to the practitioner, and, as it contains copious tables of references down to 1908, it is an important work of reference, which deserves a place in every medical library.

[9] *A Code of Rules for the Prevention of Infectious and Contagious Diseases in Schools.* Issued by the Medical Officers of Schools Association. Sixth edition. London: J. and A. Churchill. 1910. (Demy 8vo, pp. 64. 1s.)

[10] *Klinik des Missbildungen und kongenitalen Erkrankungen des Fötus.* Von Professor Dr. R. Birnbaum. Oberarzt der Kgl. Universitäts-Frauenklinik zu Göttingen. Berlin: J. Springer. 1909. (Sup. roy. 8vo, pp. 284, 49 Textabbildungen und 1 Tafel. M. 12.)

NOTES ON BOOKS.

The Chauffeur's Companion,[11] by "A Four-inch Driver," is a very practical little book, and will be useful to the man who is his own driver. It will help him in the choice of a car, but its particular object is to teach him how to prevent unnecessary wear and tear and breakdowns—the alpha and omega of motoring, whether for business or amusement. It is illustrated by some mechanical drawings and diagrams, which will help, so far as such aids can, to an understanding at least of the principle of the internal combustion engine. The rest must come with experience and practice.

A general election in January is very inconvenient to compilers of annuals. The publishers of *Whitaker's Almanack* have endeavoured to meet the difficulty this year by issuing a *General Election Supplement*, price 1d., giving alphabetical lists of constituencies and members of the new House of Commons and of unsuccessful candidates, together with some statistics of the balance of parties in this and in the last House of Commons. The issue is, perhaps, a little premature, as there are three constituencies in which the results could not be stated, and the alterations in the Government which must be made owing to Mr. Herbert Gladstone's appointment to South Africa, and other causes, cannot be shown.

The edition for 1910 of *Nisbet's Medical Directory*[12] reached us on the first day of this month, and the annual would appear to have become established in the favour of the profession. It consists of two parts: the first contains in alphabetical order on a single list the names of, we presume, all registered medical practitioners; the second part is a local list, the names in the first part being arranged under places with, in the case of London, a further subdivision by streets or suburbs; in Manchester, Birmingham, Liverpool, and Glasgow also the suburbs are distinguished. The publishers' claim that this directory is handy and accurate appears to be fully justified; and as to the further claim that it is inexpensive, every one can judge for himself.

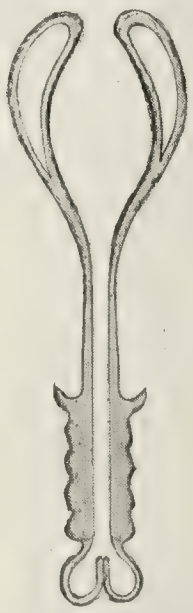
[11] London: Mill and Bowne. 1909. (8vo, pp. 162.)

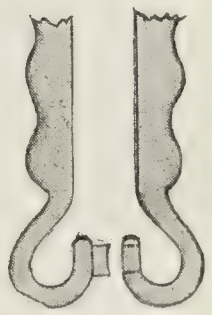
[12] *Nisbet's Medical Directory, 1910.* London: J. Nisbet and Co (Demy 8vo, pp. 802. 7s. 6d.)

MEDICAL AND SURGICAL APPLIANCES.

An Improved Midwifery Forceps.

THE numerous good points in Assilini's Midwifery Forceps have made them favourites with many practitioners. They have, however, a drawback in that the handles are not powerful enough, and fail to provide a good grip for the hand. Dr. Richard J. Tristan, of Retford, has overcome this defect in the pattern of forceps here illustrated. Briefly, his design is the combination of the Simpson pattern of handle with the Assilini blades. The result is a beautifully balanced and powerful forceps, which we feel sure will be much appreciated. The forceps are made by Messrs. Sharp and Co. 37, Piccadilly, Manchester.





Showing the lock.

Insulated Wires for Medical Electricity.

We have received from Messrs. E. Kalker and Company, of Coventry, some samples of their standard insulated wires and cables for low and high tension. In the samples forwarded to us the tinned copper wires are very carefully insulated with heavy layers of pure india-rubber, the diameter in some cases being more than half an inch. Medical men will appreciate their perfect insulation when using them in connexion with *x*-ray work and medical appliances and batteries. Messrs. Kalker state that they supply cables with lead covering when it is necessary to protect them from injury.

Dr. Burney Yeo's Respirator.

This respirator, made by Squire and Sons, at the suggestion of Dr. Burney Yeo, for purposes of continuous antiseptic inhalation, is referred to in Dr. Yeo's *Handbook of Therapeutics*, vol. i. It is made of pliable perforated

zinc, and is supplied to the profession either uncovered, price 5d. each net, or covered with silk, price 8d. each net. As it is made of a pliable material its shape can be adjusted to suit the form of the face. The usual substances for inhalation are creosote, liquefied carbolic acid, oil of turpentine, formaldehyde, eucalyptus oil, terebene, spirit of camphor, solution of tar in rectified spirit, solution of menthol, tincture of benzoin, and tincture of iodine. The composition of the liquid required for inhalation can be modified to meet the special requirements of each case. The felt pad with which the inhaler is fitted can be taken out and replaced with cotton-wool or tow, which will be found useful for such resinous tinctures as compound tincture of benzoin. In a recent paper (BRITISH MEDICAL JOURNAL, 1909, vol. ii, p. 1659) on the physical signs of incipient pulmonary tuberculosis and its treatment by continuous antiseptic inhalation, Dr. Lees referred to the use of more or less specialized formulas, such as 6 to 8 drops of a liquid containing acid carbolic, creosote, tincture of iodine, spirits of ether, and spirits of chloroform; or 10 to 20 drops of a mixture containing ethereal tincture of iodine, acid carbolic, creosote and thymol, and alcohol.

Electric Light and Heat Baths.

Radiant light and heat as therapeutic agents have now a considerable weight of authority behind them, and their value has been proved, particularly in the treatment of the various forms of arthritis. A catalogue which reaches us from the Dowsing Radiant Heat Company, Limited, of 24, Budge Row, E.C., is occupied mainly with the description of a convenient means of applying these agents in the form of the "Solarium," or "electric sun bath." We have had the opportunity of examining the various patterns of this bath at the Dowsing Institution in York Place, Baker Street, and can testify that the practical conveniences claimed for it are in no way overstated. The patterns range from special folding cabinets to small portable designs, and each bath is fitted with four, six, or eight electric lamps, with reflectors of aluminium or other metal, and controlling switches, by which the user himself can regulate the amount of heat thus dircted upon his person. It is difficult to see how the tonic effects of combined light and heat could be more readily obtained. At the institutions it is expressly stipulated that the treatment shall only be given by the order of a medical man.

MEDICINAL AND DIETETIC ARTICLES.

Bromural.

BROMURAL is the short name given to α-monobrom-isovaleryl-urea, which is one of the most recently introduced synthetic hypnotic drugs. As the chemical name indicates, the relation of this substance to either veronal or sulphonal is not a close one; the intention has been to obtain something of the nerve-soothing properties of valerian by preparing a derivative of isovalerianic acid, while the presence of bromine in the grouping gives a more distinct hypnotic effect. It is claimed that the result is quite satisfactory, and that bromural is a gentle sedative, free from harmful effects. Samples of bromural in powder and tablets have been submitted to us by the makers, Messrs. Knoll and Co. (8, Harp Lane, London, E.C.); it is a white crystalline substance of slightly bitter taste, nearly insoluble in cold water, but fairly soluble on heating, neutral in reaction; the tablets contained 5 grains each, and disintegrated rapidly when placed in water.

Styptol.

In addition to the many natural alkaloids which are of value in medicine, and others of purely synthetic origin, certain artificial derivatives of natural alkaloids have proved to be of use, and one of the most important of these is cotarnine, an oxidation product of the opium alkaloid narcotine. Cotarnine is principally employed in the forms of the hydrochloride and the phthalate; Messrs. Knoll and Co. (8, Harp Lane, London, E.C.) draw attention to the many favourable reports on the latter salt, which is manufactured by them, and issued under the name "styptol." Cotarnine phthalate, or styptol, possesses an important haemostatic action, and since this appears to be unaccompanied by the ecbolic action of ergot, it is particularly recommended for employment during pregnancy. Messrs. Knoll and Co. submit samples of the sugar-coated tablets in which they supply this drug, each containing $\frac{3}{4}$ grain; on account of their small size and the sugar coating they are very easily administered.

FOOD AND FEEDING.

Introductory.

PERHAPS never before has food been so abundant, varied, and cheap as it is in England at present, but certainly at no time has it been the subject of so much public discussion among the votaries of different systems of feeding. It is, moreover, a new departure to find an organized body like the Food Reform League attempting to make questions of dietetics an issue at a general election, and to get candidates to pledge themselves to certain parts of their programme. If food is the most important of human considerations—for although man does not live by bread alone he cannot live without it—we may yet feel that there is some exaggeration in this agitation, that human health and happiness do not depend upon whether we eat brown bread or white, or go without breakfast or abstain from meat or purins. To the writers and readers of the *British Health Review* the future of England depends upon their success in impressing their views upon the people of this country and converting them into a race of vegetarians. The justification often pleaded for this extreme mode of stating opinion is that it is necessary in order to arrest attention; measured statements are platitudes which no one regards, but paradoxes containing a germ of truth attract notice by their violent opposition to popular opinion, and arouse public discussion out of which it is hoped the slender body of truth may emerge. It is repugnant to the scientific mind to advocate truth by means which involve the large amount of misstatement to be found in the writings of these food reformers, but we desire to do justice to what is praiseworthy in their aims and correct in their statements.

It is unfortunate that the abundance of cheap and varied food has not given us a healthier and better-nourished population, for the wage-earning classes of the present day are notoriously less robust physically than they were a hundred years ago; this is true not only of factory workers who live in towns but of farm labourers and Highland cotters. The present cheapness of dietetic luxuries has proved an evil; cheap tea and cheap sugar have done disservice to our people, while the relative cheapness of meat, especially tinned meat, has induced a disproportionate expenditure on an article of diet the dietetic value of which is over-estimated.

It is often held that the general experience of the race is a sufficient guide to the choice of food, but this can hold good only where the conditions remain the same for a long period of time. If they have altered, as has happened to a remarkable degree in England during the last hundred years, the people are called upon to learn a new lesson without the guiding light of experience. Articles of food are now abundant and cheap which a generation or two ago were hardly obtainable by the poor; they may now consume daily what were formerly the rare and costly luxuries of the rich. Therefore, while it is probably true that in course of time the mass of the population learns the right road, it is rash to assume that this must infallibly be chosen from the beginning.

All who have studied the housekeeping budgets of the modern poor agree that these might be improved both economically and dietetically, as too much money is spent on certain classes of food in proportion to the food value obtained. The working man's wife lays out her money upon ready-prepared articles of food which save cooking, but the food costs more than those her mother bought, and contains less nourishment.

Oversea commerce brings year by year into England more and more of the products of distant countries, and the people are being fed mainly on exotic food. If it were as wholesome and nutritious as it is cheap there would be no ground for complaint. But is it so? Why should we assume that the popular taste is a safeguard, and that the rule *caveat emptor* sufficiently protects the purchaser? Taste requires educating, and the ignorant buyer is easily deceived. The State should not allow the fear of interfering with trade to prevent due inquiry, uninfluenced by commercial considerations, into the effect of foreign food upon the health of the people. The reduction of the duties on tea and sugar has led to an increased consumption of these articles which has not been altogether to the advantage of the health of the people. If cheap tea, sugar, and meat are bad things, they should be taxed, as alcohol is taxed

to diminish its consumption. Dentists agree that the main cause of the early decay of teeth which prevails among the present generation is the excessive amount of soft starchy food and sugar in the diet of the people, especially of children. Bread containing a certain proportion of bran requires more mastication, and would act as a natural cleanser of the teeth. When Englishmen ate coarser bread and their food was rougher their teeth were better. Decayed teeth lead to imperfect mastication, impaired digestion, defective nutrition, and consequent inefficiency. It is hopeless to cope with this evil by dentistry, however skilful; we must search out the cause, and having found it, remove it if that be possible.

Politicians and social reformers have hitherto regarded cheap food as a short cut to the millennium, but this is an illusion. Cheapness may only be apparent, and tends to breed waste and an undue indulgence in dietetic luxuries. The progress of evolution has been rapid during the last hundred years, but its result is not always favourable; it is as powerful to destroy as to create, and those conditions which time has brought about have been operating adversely to the physical wellbeing of the people. So long as the income-tax returns rise statesmen are content to believe that all is well; but, in spite of the advance in wealth and of much well-meant legislation in the interests of the masses, their physical condition has deteriorated, and this process will go on so long as the present conditions are regarded with complacency, and nothing is done to remove the causes that are at work. If we desire to see a healthier population grow up in these islands we must alter the conditions which have proved prejudicial in the past.

We may now consider some of the multitude of schemes and systems proposed.

The No-Breakfast Plan and the Fasting Cure.

The apostle of the fasting cure was the late Dr. E. H. Dewey, who, after an inadequate medical education at the University of Detroit such as obtained fifty years ago, had a chequered experience as surgeon in the United States army during the civil war, and later as a general practitioner, without, it would appear, attaining any conspicuous success until he hit upon his great discovery. This was that most people in America ate more than was good for them, and that many of their troubles could be relieved by partial or total abstinence. The plan he recommended at first was to allow only two meals a day, suppressing breakfast; but afterwards, growing bolder, he prescribed prolonged fasts, and in this method—which it might be thought would not be very popular—he has had followers. One of his disciples, a Mr. Carrington, published a book, reviewed in this JOURNAL at the time (July 4th, 1908, p. 28) in which he contended that food is not a source of energy or of body heat; but Dr. Dewey (*No-Breakfast Plan and the Fasting Cure*, 1900) does not commit himself so clearly. It is in the United States that the gospel of "three square meals a day" has received the most complete acceptance. An English breakfast is regarded as meagre, and it is easy to understand that in a country where all classes eat three daily meals composed of meat, cereals, fruit, and vegetables, there is room for reform by way of diminution of the intake.

Dr. Dewey's book is not so written as to carry conviction to the medical mind. In the beginning of the second chapter a case is described which is called in the index typhoid fever; but the only details given are that the patient was "a sallow, overgrown girl, with a history of several months of digestive and other troubles," who had been so "sick that for a period of three weeks not even one drink of water was retained"—a history not very suggestive of typhoid fever. Further on in the same chapter another case is related of "diphtheria," treated by two of his "ablest and most experienced medical friends" with "all the strong whisky possible to be forced into the stomach," in spite of the throat being in such a condition that swallowing was painful and difficult! Dr. Dewey was perhaps unfortunate in his colleagues, and a policy of mere abstention may have been an advance on their meddlesomeness; but his criticisms are irrelevant to modern European methods. He was not an accurate or careful writer, and in some cases indulges in misstatements; for instance (on page 29), he writes:

> Sir William Roberts of England, in his exhaustive work on *Digestion and Diet*, asserts that milk curds are not digested in the stomach during sickness, but are forced into the duodenum, where, he asserts, they are digested; but he gives no reason for his faith that there is power to digest in the duodenum when there is none in the stomach.

Now Sir William Roberts's book on *Digestion and Diet* made no claim to be "exhaustive," and he nowhere makes the statement attributed to him. What he does say is:

> If milk be given too freely, or when there is excess of acid in the stomach, the curds may fail to be dissolved, and may pass into the intestine more or less unchanged and are ultimately voided with the stools (p. 183).

Dr. Dewey condemned most articles of food, especially milk; he denounced "the irritating effect of fruit acid on the stomach," but added that tropical fruit was "without acid"! "Acid fruits" could "only be taken with apparent impunity by the young and old who can generate gastric juice copiously"! These extracts illustrate the type of writer, but there are passages in the book of an uglier kind in disparagement of his profession which we forbear to quote. In support of his views Dr. Dewey refers to the writings of Dr. George Keith, who practised in Edinburgh a generation ago, and whose death was recorded in the JOURNAL of January 22nd, 1910. He was an enemy to "butchers' meat," and treated his patients by short fasts with hot water to drink, but his was a moderate and reasonable practice, doubtless suitable for certain cases; with Dr. Dewey it was an all-round remedy, and he claimed to have conducted fasts of twenty-eight, and even sixty days, though not without fatal results. There are not many people disposed to follow Dr. Dewey in these long fasts, but in acute diseases the need for food is probably overestimated and the merits of abstinence insufficiently appreciated. A short time ago the Vienna newspapers were publishing an alleged English cure for a cold, attributed to the late Dr. C. J. B. Williams, its essence being abstention from food and drink for twenty-four hours—a valuable plan, possibly, if combined with rest in bed. Typhoid fever is usually treated nowadays with little food; many physicians give only albumen water, others whey, while an Australian practitioner has advocated nothing but distilled water; and although most practitioners prefer the *via media* and allow diluted milk, yet the results of the other methods are not unsatisfactory, and few could claim with justice the epitaph of Graves so far as typhoid fever is concerned.

In chronic diseases there is considerable risk in going without food or reducing it to a minimum. Such a practice appeals chiefly to neurotic individuals whose ailments are functional, and who are destitute of the healthy desire for food. Such patients eat little at any time, and suffer from general debility dependent upon insufficient nourishment, hence the success of the cure by copious feeding tempered by massage introduced by Dr. Dewey's fellow-countryman Dr. Weir Mitchell. All that Dr. Dewey's cases prove, assuming that he was not deceived, is that neurotic zealots can go without food for long periods, but that we knew before, and there is nothing in his book to show that fasting as a panacea is other than a foolish delusion.

Fletcherism.

The system of dietetics of which Mr. Fletcher is the prophet has attained a certain repute in the medical profession owing to the interest in the metabolic problems involved taken by physiologists like the late Sir Michael Foster and Professor Chittenden; but his "system" has little or nothing to do with the questions that interested them, and he has no right to quote their researches as if these eminent men supported his physiological principles. Mr. Fletcher, like Dr. Dewey, is an American, and America is not only the country where people eat too much, but also where they bolt their food, and, as Dr. Dewey led a crusade against overfeeding, so Mr. Fletcher protests against the neglect of mastication. Both alike carry principles which are fundamentally right to an irrational extreme. Mr. Fletcher's system is to chew each mouthful of food until it is reduced to a liquid, and to swallow this liquid only, removing the solid residue with the fingers from the mouth. He claims for this plan that all digestive troubles cease, that a relatively small amount of food is sufficient to satisfy appetite, and that, though there is a

loss of body weight, the general health and activity are more than maintained. Of himself, he says that he has cured a man who was a chronic invalid, but who has since attained to a standard of athletic efficiency sufficiently remarkable for one of his age. Mr. Fletcher submitted himself for examination at the Cambridge physiological laboratory, with the result that Sir Michael Foster was convinced that he did not exceed the quantities of food stated by him, and this conclusion was subsequently confirmed by Professor Chittenden.

The Superintendent of the Gymnasium at Yale has testified to Mr. Fletcher's athletic performances, and there can be no doubt that upon a diet which contains about 1,600 heat units and 60 grams of proteid he maintains himself in perfect health and fitness. The main point at which we diverge from Mr. Fletcher is on the importance of such prolonged mastication as he advocates, and the need for removing all solid residue from the mouth. He argues that it prevents a large amount of waste reaching the bowel, where he thinks it exercises an injurious effect on the body. He says "the mere passage of waste through some 20 to 25 ft. of convoluted intestinal canal is a great tax upon available mental and physical power"; and he regards it as a great advantage of his system that the amount of faeces is small, and that a daily movement of the bowel is unnecessary. This is not in accordance with general experience or with physiology, as even in starvation (Fr. Mueller) there is a considerable amount of faeces, as was seen in Cetti's fasts, while the remarkable feature of that case was that the excretion of indol rose considerably. In the experiments of Hermann on dogs a loop of intestine cut off from the rest of the bowel was shown to contain after a certain time 60 grams (2 oz.) of faecal matter, and Praussnitz has shown that a large proportion of the faeces is not derived from food residue.

Undoubtedly mastication receives too little consideration, and the important part played by defective teeth in the causation of digestive troubles is hardly appreciated even by the profession and still less by the public, but Mr. Fletcher goes too far. One of Mr. Fletcher's principal disciples in this country is Mr. Hubert Higgins of Cambridge, who has modified his own personal habits in accordance with the system and claims to have benefited greatly in health thereby. In a letter written by him to Mr. Fletcher, he says: "The great advantage of finely dividing the food in the mouth so as to present as large a surface as possible for the action of the intestinal juices is obvious when one reflects on the rapidity with which bacteria can and do act on pieces having a smaller area in consequence of their larger bulk" (whatever this may mean); and he adds, "When one reflects that Dr. Mott attributes the main cause of insanity to the absorption by the body of the cleavage products produced by microbes in the intestines, and the increasing recognition of such poisons in the causation of chronic disease and disturbance of health, this factor alone would afford an explanation of some of the phenomena induced by the practice of economical nutrition." The argument is a little difficult to follow, for if by finely dividing the food we favour bacterial action in the intestine, it would seem doubtful whether we should not thereby induce a greater formation of these poisons, for, as the experience with Cetti showed, even complete absence of food, far from hindering, apparently favours their formation in quantities even larger than normal.

With respect to the low proteid content of Mr. Fletcher's diet we shall have to say something later, but it cannot be admitted that mastication, however perfect, can increase the value of the meat albumen; and while we may grant that 60 grams of proteid have proved sufficient for Mr. Fletcher, and may be enough for other persons of his age and manner of living, it has yet to be proved how far the rate may be more widely applicable. As we shall see, there are good reasons for believing that 80 grams are more generally required.

(To be continued.)

UNDER the will of the late Miss Elizabeth Gough of Ashton, Somerset, the following Bristol institutions each receive a sum of £500: The Royal Infirmary, the General Hospital, and the Hospital for Sick Children and Women. Similar sums are bequeathed also to the West End Hospital for Diseases of the Nervous System, London, and the Royal Hospital for Incurables. To the Bristol Dispensary is left a sum of £200.

THE ANNUAL REPORT OF THE MEDICAL OFFICER TO THE LOCAL GOVERNMENT BOARD.

A PRELIMINARY notice of the annual report for 1908–9 of the Medical Officer to the Local Government Board in England and Wales appeared in the BRITISH MEDICAL JOURNAL of January 22nd.

The matters of greatest general medical interest are, as usual, the auxiliary scientific investigations, but there are some points in the report of the Board's medical officers which are of importance to the profession.

Cholera.

Dr. Theodore Thompson's sanitary survey of the coast was undertaken in view of the prevalence of cholera in Russia. It is satisfactory to note that the seaports with the greatest traffic are, as a rule, classed as "good." Dover, Harwich, Newhaven, Portsmouth, Southampton, and Weymouth are only "fair," whilst Holyhead is "bad."

Reports of Medical Inspections.

Abstracts of reports on various localities made by the medical inspectors of the Board seem to afford evidence that the system of part-time medical officers is not viewed with favour, and the Board is prepared to take a strong line with regard to insufficient remuneration and to oppose ill-judged attempts of sanitary authorities to economize at the expense of efficiency. The report on a much advertised health resort is summarized as follows:

Diphtheria prevalence associated with school attendance; little advantage taken of bacteriological methods, both in diagnosis and in ascertaining whether cases have ceased to be infectious. Artisans' dwellings with defective drains and unpaved backyards. Considerable number of underground bakehouses. Some cowsheds dark, dirty, ill-ventilated and overcrowded; cows generally in a filthy state. Certain members of council openly advocate deviation from by-laws; majority of the Sanitary Committee engaged in the building and allied trades. . . . Vaccination of small-pox contacts not urged . . . annual reports not adequate and not available for the general public.

Enteric Fever due to an Infected Swimming Bath.

An epidemic in the Royal Marine Dépôt at Walmer was investigated by Dr. R. J. Reece. The cases were confined to the recruits, whilst the older men, who were under almost the same conditions, escaped. Water supply, infection from cases outside the barracks or from carriers, could apparently be excluded. The swimming bath was supplied from the sea, and the sea was contaminated by sewage at this point. The bath was abandoned and the epidemic ceased.

Cambridge Water Supply.

Dr. Theodore Thompson and Mr. P. M. Crossthwaite report adversely on this supply, which, as regards the part of it which is derived from the Lower Chalk, is considered to be dangerous to the lives and health of the large and important community to whom it is supplied.

The Hygiene of the Navvy.

Dr. Reginald Farrar has investigated the problem of housing a large temporary population. In the vicinity of all large temporary works there have been numerous complaints of sleeping out. The inspector points out that this is in part due to the contractors evading their moral responsibilities as to the provision of proper lodgings; but, as the same evils have occurred where there was proper accommodation, this is not the sole cause. The fact seems to be that, besides the respectable navvy, there are attracted to these places large numbers of bad characters who "lodge with Mrs. Greenfields"—that is, sleep out—in order to have more money for drink. They are encouraged by the practice of "subbing"—paying at the end of the day. Subbing is necessary in the case of good workmen for the first two weeks, but not later. Some recommendations for the more effectual prevention of these evils are made.

Food Inspection.

Regulations were issued in the autumn of 1908 for the inspection of imported meat, and it is satisfactory to learn that they are working smoothly and have resulted in the rejection of much unsound and diseased meat.

It has been satisfactorily demonstrated by Dr. MacFadden that boron preparations and other preservatives are only required when unsound meat is to be packed, and that this fact is now admitted by most manufacturers. The metallic contamination of tinned meat has been shown by Drs. Buchanan and Schryver to be due to the use of inferior qualities of tinplate and unsatisfactory methods of soldering.

Water Supplies Acting on Lead.

In an introductory note to a series of forty-eight short reports on this subject, the medical officer adopts the position that it is the duty of the water undertakings to supply a water free from plumbo-solvent properties, and that it is impracticable to forbid the use of lead piping. He also suggests that a good deal of chronic ill-health may be due to plumbism which is not severe enough to furnish definite diagnostic signs. "The question as to whether lead poisoning due to domestic water should not be made a notifiable disease will deserve attention." Private supplies have given rise to a fair number of cases. He strongly recommends the systematic examination of water supplies, private as well as public. The appended reports show that the subject still requires attention.

Vaccination Returns.

Excluding those children who died before vaccination, 77.5 per cent. were successfully vaccinated; 0.2 per cent. were either insusceptible or had had small-pox; 1.8 per cent. were postponed under medical certificate, and 9.1 per cent. were unvaccinated owing to conscientious objections, leaving 11.3 per cent. who are still unaccounted for. Leicester heads the record with 67 per cent. of all births remaining unvaccinated. Carmarthen has only 4 per cent.

Typhoid "Carrier" Cases.

Drs. Theodore Thomson and J. C. G. Ledingham are following a series of typhoid cases after recovery in order to ascertain the conditions under which bacilli are excreted. They have not yet obtained sufficient data for a report on the subject. Nine outbreaks, with features suggesting that they might be due to carriers, were investigated, and in two the outbreak was traced to a carrier. Treatment with sour milk and vaccines, both stock vaccines and homologous vaccines, has proved useless.

Hernia.

Hernia being an important cause of pauperism, Dr. J. Basil Cook has made it the subject of a careful statistical study. Its prevalence is very difficult to gauge, as even the recruiting statistics are quite unreliable. A candidate is rejected without any further examination when any serious defect is found, hence statistics vary according to the order in which the examiner proceeds. The proportion of hernia in a general population is greatest in infancy, very low during childhood, increases with age during the most active period of life, and falls again after the age of 65. In regard to heredity, it was found that less than 1 per cent. of the unruptured had more than one relative ruptured, whilst more than 16 per cent. of the ruptured gave this history. Figures show the preponderance of right inguinal hernia over left. Analysis of the occupational incidence of inguinal hernia brings out some interesting facts, the preponderance of hernia on the right side being much less in railway porters, carpenters, and hammermen. Dr. Cook can propose no explanation in the case of porters, but in the case of carpenters he suggests that the attitude with the left knee bent during sawing may relax the tissues around the left ring, whilst in the case of hammermen the advanced position of the left foot in striking may act in a similar manner. It having been suggested that the excess of right femoral hernia is due to a larger capacity of that side of the pelvis, careful cyrtometric measurements were made of the pelvis in children and adults. The circumference appeared to be equal on each side in the great majority of cases, but when unequal it was more common to find the right side larger than the left. Hospital statistics showed that there had been a great increase in the number of patients who underwent the radical cure. The death-rate in the kingdom has remained practically stationary, the decrease in the number of deaths from strangulated hernia having apparently been neutralized by the small percentage of fatalities following the radical cure. In the army and the navy there has been an increase in the number of operations and a corresponding decrease in the number who were invalided the service on account of hernia.

The influence of occupation is very difficult to gauge. The statistics of the Truss Society show a great number of gas-workers, but this is merely an indication of the fact that the gas companies are liberal subscribers. An ingenious handling of the figures obtained from the Truss Society shows that the labourers have relatively a larger proportion during the early years of life, whilst clerks show a greater proportion in later life. This may merely indicate that ruptured men become clerks owing to the non-strenuous nature of the work.

Differentiation of the Streptococci.

Dr. Savage has continued his researches on this subject. Streptococci of bovine origin set up mastitis in goats. Streptococci of human origin usually fail to do so, and in those cases in which inflammation ensues it is always much less severe than when due to bovine streptococci. It is interesting to note that, although considerable cultural differences were met with, there was no relationship between cultural type and ability to set up mastitis in the goat. Being convinced that the streptococcus of bovine mastitis is not virulent for man Dr. Savage on two occasions inoculated his own throat with a streptococcus isolated from a recent case of bovine mastitis. On each occasion the result was negative; subsequent examination of the flora of the throat showed that the coccus rapidly diminished in numbers, whilst, instead of producing acute mastitis in the goat, it caused a chronic mastitis associated with slow diminution of the milk, which was of normal appearance although it contained large numbers of cocci. Dr. Savage remarks that these experiments do not prove that the coccus in question was absolutely innocuous to man.

The Presence of Paratyphoid Bacilli in Man.

Dr. Savage is responsible for this report, which is full of useful information on the subject. The question of the relative frequency of paratyphoid in man is very difficult to answer. The complete proof of the diagnosis of paratyphoid is dependent on the isolation from the blood and discharges of the patient of the bacillus, which, when isolated, must be agglutinated by his serum, and at higher dilutions than the typhoid bacillus. A diagnosis from the serum reaction alone can be relied on only when the reactions to both typhoid and paratyphoid bacilli are determined to their ultimate limits. The fact that the serum of a case of enteric fever agglutinates paratyphoid bacilli is quite useless. It does not even indicate a mixed infection, as the serum of a rabbit immunized with pure culture of typhoid bacillus may also agglutinate both types. The serum from 200 cases of suspected typhoid fever was examined. Only 171 of these cases were afterwards found to be clinically typhoid, and of these 5, or possibly 6, gave the reaction for paratyphoid when tested according to this rule. Clinically these cases were like typhoid. Thus, about 3 per cent. of ordinary "typhoid" cases are probably paratyphoid. The paratyphus bacillus could not be isolated from healthy faeces, or from cases of diarrhoea, but only from paratyphoid cases. The relationship between the paratyphus bacillus and other members of the Gaertner group was investigated. Agglutination reactions are the only means by which this can be done. The *B. enteritidis* is easily separated from the others, including the paratyphus bacillus, the bacillus of swine fever, and of various meat-poisoning cases. Whilst the meat-poisoning bacilli agglutinated well with paratyphoid serum, the paratyphoid bacilli were agglutinated by meat-poisoning serums only at low dilutions, hence Dr. Savage concludes that they are not quite identical.

B. suipestifera is apparently identical with the bacillus of meat poisoning. In regard to epidemiology, Dr. Savage emphasizes the fact that the similar clinical courses of typhoid and paratyphoid fevers do not entitle us to assume that their epidemiological features are similar. One case of paratyphoid fever cannot be traced to a former case, and the rarity of the disease is also an argument against this mode of dissemination. One view is that the disease is due to sudden augmentation of the virulence of paratyphoid organisms originally present in the body as saprophytes, but there is no positive evidence for this hypothesis. Another view is that animal infection may play a part. This is supported by the fact that whilst *B. typhus* is never met with as a parasite of the lower animals the members of the Gaertner group as a whole play an important part in animal pathology, but there is no definite evidence for this theory. The German cases described as being due to *B. paratyphus* are not admissible, as German pathologists claim that the bacilli of meat poisoning (Aertrycke group) are identical with the paratyphoid bacillus. During an epidemic of swine fever at Colchester a careful watch was kept for cases of paratyphoid, but none were found.

Prevalence and Sources of Tubercle Bacilli in Cow's Milk.

This is a valuable summary by Professor Delépine of his work on this subject from 1892 to 1908. The descriptions of methods and technique will be very useful to all bacteriologists, but only points of general interest will here be mentioned. The pathology of the udder of the cow is described and illustrated. The possible sources of tubercle bacilli in the milk are discharges from the respiratory passages, from the urine, from the alvine discharge, from utero-vaginal discharge, and from a tuberculous udder. All but the last are easily avoidable, as is contamination from a phthisical milkman. Fourteen years' work has confirmed his original view that the chief source of tubercle bacilli in the milk is the tuberculous udder. In all tuberculous cows which had not given tuberculous milk it was found that the udder was free from tubercle, Thus the problem is to diagnose tuberculosis of the udder. This cannot be done by purely clinical means. When, however, a skilled veterinary surgeon picks out any suspicious case, and forwards the milk to the laboratory, the results are very satisfactory. At Manchester the ordinary routine is as follows: Samples of milk are collected at the railway stations and examined by microscopical and inoculation methods. If a positive result is obtained, the veterinary surgeon visits the farm and forwards samples of the milk from any suspected animal. The tuberculous animals are then eliminated, and a second railway sample taken to check the result. In some cases the samples collected at the farm were not tuberculous, and a second railway sample was also negative. Explanations of this apparent contradiction were found in many cases. The farmer who hears that a sample of his milk has been taken, examines his herd and sells any suspicious cow, or he may be constantly buying and selling. These causes explained 40 out of 60 cases. In other cases the farmer had been selling milk from another farm. In others, again, a cow with a tuberculous udder was found at a subsequent visit. Investigation into these details showed that in 78 6 per cent. the source of the bacilli was traced to the udder, whilst in a further 16 per cent. the same source was at least probable. When the milk of certain farms remained persistently tuberculous in spite of the weeding out of cases of tuberculous mastitis the failure was usually due to the farmer keeping old cows or frequently changing his stock. The great disadvantage of the bacteriological method of diagnosis is that it is very slow, but in many instances it can be accelerated. Thus it is generally possible by the microscopical method alone to demonstrate the presence of bacilli in the milk from a single tuberculous cow. These results must be checked by injection experiments, as a negative result is of little value when obtained by the microscopical method alone. This method of supervision is very expensive, but it has resulted in a diminution of tuberculous samples from 16 1 per cent in 1897–1898 to 6 5 per cent. in 1907. There has also been a concomitant decrease in the macroscopic dirt found in the samples.

Pneumonia in Young Children.

A report by Dr. Foulerton on this subject is based on the statistics of the Registrar-General and from some London hospitals. Whilst hospital *post-mortem* statistics show that the vast majority of the "respiratory" deaths are due to pneumonia, the general statistics state that 40 per cent. are due to pneumonia and 51 per cent. to bronchitis. This leads to the conclusion that the "bronchitis" deaths are really unrecognized pneumonia and therefore not to be differentiated. It is also impossible to differentiate, in statistics, between lobar and bronchopneumonia. A series of hospital cases were then classified into five groups.

I. Directly connected with *antenatal causes* (syphilis, cleft palate, and congenital heart disease). These causes were found to have a distinct influence during the first year of life, and their mode of action is easily understood.

II. *Marasmus* and long-standing diarrhoea, which had distinct influence in the first year of life, and to a slighter extent in the second year.

III. *Rickets*, which is seen to be a factor in the first year, much more so in the second year, and to a less extent in the third. In a series of necropsies of children under 3 years of age it was found that of the pneumonia cases 44 86 per cent. had rickets, but of cases dying from other diseases only 24.73 per cent. Dr. Foulerton concludes that rickets is not a special predisposing factor in itself, but that both rickets and pneumonia are results of lowered resistance due to artificial feeding.

IV. The effects of previous zymotic disease (excluding cases in which the pneumonia was a direct sequela of the zymotic). Pneumonia after convalescence from measles and whooping-cough was almost the only form which figured in the statistics. The mortality from this cause is greatest in and after the second year of life.

V. Where no evidence of any cause could be obtained. This group contained 52.5 per cent. of all the cases.

The report concludes that no special measures are practicable beyond such as are at present operative or contemplated to promote the natural feeding of children, to check the spread of epidemic disease amongst young children, and to provide for the satisfactory housing of the working classes.

Streptococcus Pyogenes.

Dr. Sidney Martin has succeeded in growing this organism on a special alkali-albumin medium, and has obtained some toxins which killed rabbits in a few hours. Boiling destroyed their potency to a great extent. The results were rather inconstant.

Storage of Glycerinated Calf Lymph.

Statistics are given to show that vaccine lymph can be stored at temperatures below freezing point without losing potency. Samples of lymph were sent for a tropical voyage. The lymph stored in tubes inside a tin box which was kept cool preserved its power, whilst some dried "points" were almost useless.

THE third International Congress of Physiotherapy will be held in Paris this year from March 29th to April 2nd, under the presidency of Professor Landouzy, Dean of the Faculty of Medicine. The work will be distributed among seven sections, which will deal respectively with treatment by the following physical agents: (1) Movements (massage, gymnastics, sports, etc.) and rest; (2) water, air, heat, and cold; (3) climate, sun, and sea; (4) radiations, electricity; (5) luminous and dark, radium, etc.; (6) mineral waters; (7) diet, food, and systems of alimentation. The subjects proposed for discussion are: (1) The education of the respiratory function; (2) bloodless treatment of congenital luxation of the hip; (3) treatment of constipation; (4) the movement treatment in diseases of women. Among the communications promised are the effect of active and passive gymnastics on disorders of the circulatory system, by Dr. Hazebroeck, of Hamburg; modern physical education, by MM. P. Tissié, M. Faure, and J. Philippe; the treatment of organic affections of the nervous system, other than ataxia, by methodical exercises, by MM. Petren, M. Faure, and Mencière; treatment of deviations of the vertebral column, by MM. Redard and R. Mesnard, of Paris; treatment of neuralgia in its various forms, by MM. Weterwald, of Paris, and Petren. Communications relative to the congress should be addressed to the Secretary, Dr. Maurice Faure, 2, rue de la Bienfaisance, Paris.

THE COMPOSITION OF CERTAIN SECRET REMEDIES.*

BATH SALTS FOR RHEUMATISM.

THE proprietary remedies for rheumatism and allied complaints which we have previously described have been mostly for internal administration. Recently certain "bath salts" have been largely advertised for the treatment of complaints of this kind by means of baths. We give here the results of analysis of some of the principal articles of this kind.

OZONIA.

This is supplied by the Ozonia Company, Dublin, in a packet, price 1s., containing about 13 oz. The package contained a descriptive leaflet, from which the following extracts are taken:

The introduction of Ozonia marks a new era in the treatment of Rheumatism, Gout, and allied complaints. This remarkable preparation is used in the bathing water, where it reaches the source of the trouble through the pores of the skin. The whole body is treated at once, and not the least trouble is entailed to the sufferer. The system is thoroughly cleansed—the poisonous uric acid is neutralized, and the patient is reinvigorated. The method is new, but it has hundreds of wonderful cures to its credit already—so try one packet, and judge by results. . . .

The Bath Cure. Bathe in it—that's all.

There are many complaints which are acknowledged to have one root cause. The cause of Rheumatism, Sciatica, Lumbago, and Gout is the presence of too much uric acid in the blood. The problem of how to remove this poison has hitherto proved unsolvable, but now Ozonia has been proved to be the proper means. The worst cases of uric acid troubles yield to the soothing medicated waters of Ozonia. . . .

"Ozone," the health-giving principle of Fresh Sea Breezes, is liberated in the "Ozonia" bath, and has a marvellous exhilarating effect on the patient; this, combined with the stimulating effect of the other constituents of the bath, induces a feeling of bodily well-being which is most gratifying.

How to use "Ozonia."

Dissolve one packet in an ordinary bath of hot water, and immerse the body in it, keeping the face and back of the neck sponged.

Remain in the bath at least 15 or 20 minutes, even longer if desired.

The best time for taking the Bath is before going to bed, but this is not imperative.

Number of Baths to be taken. In severe cases a bath every second night is advised, but when the acute symptoms have disappeared, a bath once or twice a week is sufficient; in most cases, a series of 12 baths will be found to effect a perfect cure.

If total immersion is not feasible, stuping with a hot solution (a tablespoonful of "Ozonia" to a gallon of water) is very beneficial, but complete immersion gives best results.

Analysis showed the composition of the salt to be:

Sodium carbonate, reckoned as anhydrous	77.00 per cent.
Water	22.30 ,,
Chloride, reckoned as sodium chloride	0.46 ,,
Potassium salt...	a trace

In view of the statement, quoted above, that ozone is liberated in the bath, special search was made for any ingredient, such as percarbonate, perborate, or peroxide, which could yield oxygen, but no trace was found of any such substance. Commercial sodium carbonate commonly contains a little chloride, such as the quantity found.

ANTURIC BATH SALTS.

This preparation is supplied by "Anturic Salts," Limited, of London. A tin, price 1s. 6d., contained about 4½ oz. It is described on the package as:

For Gout, Rheumatism, Sciatica.

Directions. Dissolve the contents of one tin in a bath full of hot water. Take two baths weekly for six weeks. The water should be as hot as can be comfortably borne. In severe cases the contents of two tins may be used for one bath.

If it is inconvenient to use a full bath, or for local affections fomentations may be used; for this purpose dissolve a tablespoonful of the Anturic Salts in a gallon of hot water, and bathe the part affected.

After the cure an occasional bath is desirable.

Analysis showed the salt to consist of:

Sodium carbonate, reckoned as anhydrous	96.86 per cent.
Water	2.70 ,,
Chloride	trace
Potassium salt	,,
Perfume	,,

RHEUMSOL BATH SALTS.

This is supplied by Clarence Chemical Works, Hounslow. A tin, price 1s., contained about 5 oz. It is described on the tin as:

Uric Acid Solvent. For Rheumatism, Gout, etc.
Directions for use. Add the contents of this tin to a full sized bath of hot water. For a smaller bath less in proportion. A bath should be taken every third night for a month.

Analysis showed the salt to consist of:

Sodium carbonate, reckoned as anhydrous	87.96 per cent.
Water...	11.18 ,,
Chloride	considerable trace
Potassium salt	trace

Exsiccated sodium carbonate (*B.P.*) is practically anhydrous, and is priced in a wholesale druggist's list at 7d. per lb. One pound of anhydrous sodium carbonate of commercial quality represents about 2¾ lb. of common washing soda crystals.

* Previous articles of this series were published in the following issues of the BRITISH MEDICAL JOURNAL: 1904, vol. ii, p. 1585; 1906, vol. ii, pp. 27, 1645; 1907, vol. i, p. 213; vol. ii, pp. 24, 160, 209, 393, 530, 1653; 1908, vol. i, pp. 833, 942, 1373; vol. ii, pp. 86, 505, 1022, 1110, 1193, 1285, 1566, 1697, 1875; 1909, vol. i, pp. 31, 909, 1128; vol. ii, p. 1419; 1910, vol. i, pp. 151, 213.

LITERARY NOTES.

DID Shakespeare, who seems to have known everything by intuition, foresee the suffragette? At any rate, he makes Cleopatra anticipate the "hunger strike." When she is taken prisoner she says to Proculeius:

> Sir, I will eat no meat, I'll not drink, sir;
> . . . this mortal house I'll ruin,
> Do Caesar what he can.

This is prophetic. But though one may admit that many suffragettes have more than the charm of her of whom it was written—

> Age cannot wither her nor custom stale
> Her infinite variety,

we cannot see in Mr. Herbert Gladstone much likeness to Caesar.

At a meeting of the Paris Académie de Médecine held on January 25th, Professor Blanchard presented the first fasciculus of a work, entitled, *Epigraphie Médicale Corpus Inscriptionum ad Medicinam Biologiam que Spectantium*, which he is bringing out. For several years past he has collected documents of all kinds appertaining to medicine. He asks all who are interested in the history of medicine to help him by sending copies of any curious or interesting inscription they may come across in the registers of churches, or on tombstones, whether in the humblest village, in great cathedrals, or local museums. Manuscripts preserved in the archives of cities and departments, and in public libraries, will often supply precious material of the kind indicated. The names of all contributors will be published in the *Epigraphie*. M. Blanchard does not propose for the present to include inscriptions concerning persons who have lived or events which have happened later than December 31st, 1900. He will be glad to accept "finds" not only from doctors, but from historians, libraries, learned societies, and antiquarians. The work will appear in parts at irregular intervals. The first fasciculus contains 262 inscriptions with 4 figures in the text.

At the same meeting of the Academy Professor Albert Robin presented on behalf of Dr. Coromilas, Professor in the Faculty of Medicine of the University of Athens, a pamphlet containing two lectures delivered before the Society of Friends of the People, bearing the title, *Acquired Diseases Traced through the Development of Mankind*. The "acquired diseases" are tuberculosis and cancer, of which the author has made a pathological study extending back to the fourth century before Christ and coming down to the present day.

Dr. Pergens states in the January number of *Janus* that Dr. Meyerhof, an ophthalmologist practising at Cairo, has discovered interesting manuscripts relating to Arabian ophthalmology. Among them is *The Book on the Structure of the Eye*, by Honein *The Book on Vision*

and Perception, by Thabit ibn Qorra; two treatises of Mesuë, entitled respectively, *The Book on the Knowledge of the Eye and its Coverings*, and *The Book on the Change in the Eye;* a work on anatomy by an hitherto unknown writer, named Ali ibn Ibrahim ibn Bakhtischoua, probably a member of the celebrated family of that name. Dr. Meyerhof has also in his possession the treatise of Ammarel Mausili; another, with illustrations by Abi ibu Issa, and the thirteenth chapter of Galen's work on ophthalmology. Part of it has already been translated, and will shortly be published.

In the *Glasgow Herald* of January 31st, 1910, there is an extract from that journal of half a century before. The *Herald* of January 31st, 1860, announces the appointment of "Mr. Lister of Edinburgh" to the office of Professor of Surgery in the University of Glasgow, vacant by the death of Dr. Lawrie. While admitting, "so far as we have heard," that "Mr. Lister is a gentleman qualified in every respect for the important office to which he has been nominated," the *Herald* evidently thinks that a Glasgow surgeon should have been chosen. Apparently it was all the fault of an over-zealous advocate.

> The claims of our local men have been ignored, we suspect, from the preposterous plan which Mr. Dalglish followed in his well-meant attempt to bring their merits before the Home Secretary. We cannot regret that our impulsive representative has been snubbed, although we may regret that the office has gone past the door of some able Glasgow practitioner. We never doubted that Mr. Dalglish honestly and disinterestedly desired to find the best man; but the plan he took was a singularly injudicious one; and he must now be satisfied that the Government patronage, especially when it concerns with university appointments, is not to be regulated according to the principles of universal suffrage.

Poor Mr. Dalglish. He meant well, but he was snubbed, and the Glasgow paper is evidently not sorry that such a misadventure should have befallen him. And assuredly we entirely agree that "universal suffrage," whatever advantages it may have politically, is not a satisfactory means of choosing a professor or estimating scientific merit. The writer goes on to say: "What Mr. Lister may achieve as a lecturer we have yet to learn." Well, we have no doubt that the *Glasgow Herald* has learnt by this time; certainly the world has learnt the name of Lister as marking not only the beginning of scientific surgery, but an era in the history of mankind.

In Bulletin No. 3 of the Archaeological Survey of Nubia, published by the Egyptian Government, Professor Elliot Smith gives a summary of the results of Dr. Douglas Derry's examination of human remains brought to light in the course of excavations in Lower Nubia between October, 1908, and the end of that year. They show that the predynastic population of Nubia was indistinguishable in physical characteristics from the predynastic population of Egypt. Professor Elliot Smith insists on the fact that the examination of accurately dated anthropological material lends no support to the view, often put forward in recent years, that the "archaic" Egyptian had a strong negro element in his constitution. Neither in Egypt nor in Nubia, before the time of the third dynasty, was evidence of negro influence found, except in rare sporadic cases. That a people living for long years on the fringe of the negro territory could remain wholly free from admixture is, he says, altogether inconceivable. In a cemetery at Gerf Husein dated by Dr. Reisner as late predynastic and early dynastic, they found four negro skeletons, all female. Professor Elliot Smith proceeds:

> The occurrence of such individuals in a graveyard, all the male occupants of which are unmistakably Egyptian, may be an indication of the manner in which the mixing of Egyptian and negro began. The Egyptians occasionally took unto themselves negresses as wives, and perhaps the definite negroid tincture of the Nubian population, which became manifest by the time of the third dynasty, may have been produced in this way. What I want to make perfectly clear is that such contamination of the Egyptian type is exceedingly rare before the time of the third dynasty, and that it is an utterly misleading misrepresentation to so magnify these sporadic and insignificant evidences of a tincture of black blood as to speak of the archaic Egyptian people as a mixed race, of which the negro constitutes one of the elements.

An important transformation of the population of Lower Nubia began about the end of the third dynasty and has continued ever since. The change in the physical characteristics of the people was produced by a large influx of negroes from the south, who intermarried with the Egyptians left behind in Nubia. The cause of this sudden immigration can only be conjectured. Dr. Elliot Smith says:

> Perhaps it is something more than a mere coincidence that it happened at the very moment when the seat of government was being transferred from Upper to Lower Egypt, and perhaps the hold of Egypt on Nubia was relaxed as a result of the concentration of Egypt's power on her relatively small population near the Delta, the more abundant and fertile land of which may have been the attraction.

Dr. Derry's investigations, he adds, seem to point to the possibility that the Middle Nubians (twelfth dynasty) are merely the result of the more intimate blending and assimilation the one to the other of the heterogeneous Egyptian and negro elements of which the archaic Nubian population consisted. The process of mixing began, as has been said, at the time of the third dynasty, and became more and more intimate during the time of the succeeding eight Egyptian dynasties, until the new hybrid population assumed the remarkably homogeneous blend of Egyptian and negro traits which characterize the Middle Nubian people. No doubt during the whole of that period, extending roughly over ten centuries, the two racial elements were reinforced, from time to time, by the immigration into Nubia of fresh Egyptian elements from the north, and Sudanese from the south; but the large mass of evidence available seems to indicate that the predominant factor moulding the physical characteristics of the people in Nubia during this period was the more or less undisturbed blending and assimilating of the two series of racial characters the one to the other. The view that the Middle Nubians are the product of such a fusion of the heterogeneous elements of the archaic Nubian population is strengthened by the fact that there is no evidence of the irruption of any new ethnic factor into this region. The Middle Nubian population conforms to a physical type which seems to have remained dominant in Nubia ever since then, for the span of almost 4,000 years separates the Middle Empire from the present. In the Ptolemaic and Roman periods the bulk of the population was still Nubian, but from time to time series of Egyptian and negro bodies are found in the cemeteries. It is interesting to note that in one of the Middle Nubian cemeteries Dr. Derry found the skeleton of a woman about 21 years of age showing marked signs of tuberculous disease of the spine. The discovery of two other cases of tuberculous disease has shown that tuberculosis in Nubia is at least a thousand years older than was before known. Dr. Derry also found in a pre-Christian Nubian tomb a case of what was probably malignant disease. This specimen is of particular interest, as Dr. Elliot Smith says that no definite evidence of malignant disease has yet been found in any ancient Egyptian or Nubian body.

ADAMS v. POMEROY.

THE fund raised to reimburse Dr. Martha Adams's legal expenses, incurred as the result of the action Adams *v.* Pomeroy, is now closed.

Dr. Adams's out-of-pocket expenses not covered by the taxed costs amounted to a sum of about £100. It was felt that this charge should not be allowed to fall on the plaintiff, and with the cordial co-operation of the BRITISH MEDICAL JOURNAL and the *Lancet* an appeal was made to the profession.

There was a generous response from individual members of the profession, and this has been supplemented by a grant from the *Lancet* Relief Fund, which now completes the required sum.

On behalf of those responsible for the inauguration of this appeal, the Honorary Secretary wishes to express recognition of the sympathy and help which have been shown in the matter.

Dr. L. Garrett Anderson gratefully acknowledges the following contributions which she has received since the publication of the last list of donations:

	£	s.	d.
Lancet Relief Fund	20	0	0
Miss F. Davenport-Hill	1	0	0
J. M. C.	1	0	0
Sir Richard Douglas Powell	3	3	0
Dr. Owen Berkeley Hill	2	2	0
Already acknowledged	78	19	6
	£106	4	6

Nova et Vetera.

WAS DANTE A DOCTOR?

(Continued from page 333.)

Medicine in Dante's Writings.

We approach now the third line of investigation from which some hint may be gained as to Dante's relation to the practice of medicine—it is the internal evidence of special knowledge of medical matters which the poet's own works exhibit.

Plumptre (op. cit., p. 87) has no doubts regarding this evidence and the conclusions to be drawn from it. He writes:

> Of both studies and practice (in medicine) his works supply sufficient traces. His library contained Hippocrates and Galen and Dioscorides, probably also translations of the medical treatises of Avicenna and Averrhoes (*H.*, iv, 139–143), possibly the writings of Jewish physicians, and those of the great medical school of Salerno. He became acquainted with the foulness of Italian hospitals (*H.*, xxix, 46), with the symptoms of leprosy (*H.*, xxix, 73–84), dropsy (*H.*, xxx, 52–57), fever (*H.*, xxx, 107), famine (*Purg.*, xxiii, 49); looked with compassion on what is perhaps the most piteous of all sights, the frenzied delirium of a child (*Par.*, i. 102). He studied his Aristotle on the mysteries of embryology (*Purg.*, xxv, 37–72), and with them faced the question of the origin of the human soul, the theories of creation or transmission (*Purg.*, xvi, 35–90). He learnt to pay special honour to the "beloved physician" who wrote the Acts of the Apostles (*Purg.*, xxix, 137).

Plumptre then continues his argument, showing that in the knowledge of spices, jewels, pigments, and surgical and optical instruments, all of them articles included in the apothecary's business in the thirteenth century, Dante spoke with "the language of an expert." But, further, he proceeds to find in the weakening of the Florentine poet's belief in religion about the year 1300 supplementary evidence of his familiarity with medicine. He writes (op. cit., p. 91):

> I do not know how far back the proverb of the later renaissance, *Ubi tres medici, duo athei*, may be traced, but it was true in the thirteenth as in later centuries that while, on the one hand, the study of natural science tended to emancipate men's minds from popular superstitions, it not seldom drifted into materialism, scepticism, pantheism; and Dante was drifting with the current.

When, however, these statements, which both singly and as a whole are very striking, are looked at more closely, the evidence to be had from them becomes slightly less conclusive.

It is somewhat deceptive to speak of Dante's library containing such and such authors. Books in Dante's time were manuscripts only, and meant much money to purchase; and it is necessary to disabuse our minds of the idea of Dante sitting in his study surrounded by valuable manuscripts to which he could easily and constantly refer. No doubt he had access to books from which he was able to take notes, and this means of acquiring knowledge must have been greatly extended by his wanderings after his exile from Florence. Moreover, he had a mind which was like a photographic camera in the way it received and retained information of all kinds; so that whilst we may not speak of Dante's library in the sense of his collection of books, we may certainly speak of it with the meaning of the vast storehouse of book knowledge which lay within his brain. Encyclopaedic his mind was in every sense, and to the full extent of the significance of that word.

Had Dante, then, read Hippocrates's works? This raises the question, Could Dante read Greek? Dr. Edward Moore's opinion may be taken as decisive on this subject (*Studies in Dante*, First Series, p. 305, 1896). He holds that Dante did not possess any working knowledge of Greek, and was dependent upon Latin translations of Aristotle and other Greek writers for his information. At the same time mention may be made of the curious fact referred to by Moore (op. cit., p. 164) in a footnote, that there was an unedited MS. in the Laurentian Library at Florence, entitled *Teleutologia*, the author of which stated that he was a pupil of Dante, and had learnt Greek from him. But, putting this aside, the conclusion can scarcely be avoided that Dante had not gathered what he appears to have known about Hippocrates from reading the original works. But the Arabian physicians studied and translated Hippocrates, and through them his works were passed on to Western Europe and could be read in Latin versions made from the Arabic ones; thus, Gerhard of Cremona (1114–87) translated the writings of Hippocrates, of Galen, and of many of the Arabian physicians; Burgundio of Pisa gave still better renderings of Hippocrates and Galen, and Thaddaeus of Florence (Dante's Taddeo of *Par.*, xii, 83), who died in 1303, was so great an authority on the Father of Medicine that he was named "Ippocratista." There could, therefore, have been no difficulty in obtaining a knowledge of the *Aphorisms* of Hippocrates and of many of his other works through these sources in Latin. Dante, however, refers very slightly to Hippocrates. In the *Convivio* (I, viii, 30), in speaking of usefulness in gifts, he instances the absurdity of a knight giving a shield to a doctor, and of a doctor presenting a copy of the *Aphorisms* of Hippocrates to a knight; in the *Paradiso* (xi, 4) the *Aphorisms* are named as a synonym of medicine; in the *Purgatorio* (xxxix, 136–8) Luke is termed one of the familiars of that highest Hippocrates whom Nature made for the creatures she holds most dear (that is, for mankind); and finally, Dante, in his imaginary pilgrimage through the underworld (*Inf.*, iv, 143) pictures Hippocrates in Limbo among the blameless and illustrious heathen. In all these passages there is no reference to any medical matter; they simply relate to aspects of Hippocrates's life and works with which any layman might be well acquainted.

Standing with Hippocrates in Limbo were Avicenna, Galen, and Averrhoes (*Inferno*, iv, 130–144). Aristotle, the master of them that know ("il Maestro di color che sanno"), is seated with the men of science round him; on one side are the moralists, Socrates and Plato, and the natural philosophers, Democritus, Anaxagoras, Diogenes of Apollonia, Thales, Empedocles, Zeno of Elia, and Dioscorides; and on the other side are, again, the moralists, Orpheus, Linus, Cicero, and Seneca, and the naturalists, Euclid, Ptolemy, and the four physicians to whom reference has already been made. If one pictures the scene in one's mind, it will be noticed, as the Hon. Warren Vernon has pointed out (*Readings on the Inferno*, i, p. 143), that

> The last person of the first group—the botanist and physician, Dioscorides—is, as it were, side by side with the last person of the second group, the four physicians; so that the two groups are linked together, and compose a circle, of which Aristotle is the soul and origin.

This is one of these minor details in which Dante delights to be exact, and it is strikingly suggestive to the student who looks deeply enough. Now, all these six scientists (Aristotle, Dioscorides, Hippocrates, Avicenna, Galen, and Averrhoes), who dealt in their writings with medicine, are, with the exception of Dioscorides, quoted by Dante in one or other of his works. The references to Hippocrates we have noted; Aristotle is frequently quoted, and it is to be observed that in the *Purgatorio* his embryological treatise, *De Generatione Animalium*, is largely drawn upon; Galen's work (*Methodus Medendi*) is mentioned in the *Convivio* (I, viii, 33) and a saying of his is reported in *De Monarchia* (I, xiii, 45–47); and Avicenna and Averrhoes, the commentators, come under contribution, although not in connexion with medical matters, but rather with such questions as the nature of the soul and the composition of the Milky Way.

It is evident, therefore, that whilst there is abundant proof from his works that Dante was acquainted with some of the standard medical writings of his age, there are very few signs that he paid special attention to the purely medical portions of them as judged by the presence of quotations from them. Of course it may be, and must be, pointed out that the subjects with which Dante was dealing were not such as to give opportunity for medical references or quotations, and did not touch, save in the most incidental way, upon diseases and their treatment. This brings us to the last kind of evidence which is forthcoming regarding Dante's knowledge of medicine—namely, the references which his works contain to purely medical matters.

If we count a knowledge of embryology medical, and I think we may, then the passages in the *Convivio* (IV, xxi) and in the *Purgatorio* (xxv, 32–75), in which Dante

describes generation and formation of the body, are almost conclusive proof that the poet had more than a superficial acquaintance with medicine. Vernon quotes from Varchi (*Lez. sul Dante*, 1841, Lez. 1) the following strong statement on this point:

> This canto is sufficient to prove Dante to have been a physician, philosopher, and theologian of the highest order. It certainly proves him to have been a close student of Aristotle's *De Generatione Animalium* (for his embryology) and of Thomas Aquinas's *Summa Theologiae* (for his views on the origin of the soul), as must be evident to any one will trouble to look at the parallel passages which have been selected by Dr. Butler (*Purgatory*, p. 319).

So technical are these parts of Dante's writings that some of the commentators have spoken of them as an ostentatious display of a wide encyclopaedic knowledge; but it is possible that the matters dealt with in them appealed in a special way to Dante, and for reasons which are less evident in the twentieth century than in the fourteenth (vide Carroll's *Prisoners of Hope*, p. 342). At any rate, they deserve a more minute study than they have yet received, and I hope at another time to return to the consideration of Dante's indebtedness to the *De Generatione Animalium* of Aristotle. In the meantime it is sufficient to say that the passages referred to prove the poet's intimate knowledge of the most accurate information of his time respecting embryology, a conclusion which is further strengthened by a study of some other passages in the *Convivio* (IV, c. xxiii, xxiv), where the four ages of life are described and the statement made that the ten years after seventy are intended to balance the eight prenatal months of fetal existence.

Even in such a non-medical work as the beautiful and almost ethereal love story known as the *Vita Nuova*, Dante brings in some of the current physiology of the time, more of it, one is inclined to think, than any save a love-sick medical student would think of introducing. He sees Beatrice; at the sight the vital spirit (the heart or the emotional life) begins to beat (horribly apparent) in the least of his pulses; then the animal spirit (the brain or the perceptive life) begins to wonder; and then the natural spirit (the liver or organic and digestive life) begins to be disturbed (*Vita Nuova*, Section II). On this quaint description of falling in love Sir Theodore Martin quotes Karl Förster's note (*Das neue Leben*, 1841, p. 109) as follows:

> The philosophy of that period assumed, according to the precedent of Aristotle, the faculties of the soul to be threefold, and also three kinds of powers as lying at the bases of these, a natural or vegetative faculty (*potentia vegetativa*), a faculty of sensation (*potentia animalis*), and a faculty of life (*potentia vitalis*), each of which has its appointed seat and appropriate organs in the body. In connexion with this stands the doctrine, which has passed from the Greek physicians and Arabian philosophers into the psychology of the time, of the Spirits—delicate filmy beings—to each of which its appointed seat in the body is assigned, in order therefrom to set into motion and activity the faculty which appertains to it. Of these spirits there are three sorts: (1) The natural spirit (*spiritus naturalis*), which has its seat in the liver, and shows itself more especially active in the organs of digestion and evacuation; (2) the animal or sensitive spirit (*spiritus animalis*), born in the heart, but to which the brain has been assigned as its abiding place, from which it radiates, like light, through the nerves, and by exciting them stimulates the faculties of sense and motion; (3) the spirit of life (*spiritus vitalis*), begotten from the purest heart's blood, which conveys the glow of life through the other members, and gives them all the capabilities of action, which emanate from vital heat. The arteries serve to transmit this spirit to all the members.

Dante, then, may have got his ideas of the "spirits" from some Latin translation of Aristotle, or, as Förster suggests, indirectly from Hugo of St. Victor's work *De Anima*.

Passing now to the allusions to disease in Dante's writings, we find, for instance, that the twenty-ninth canto of the *Inferno* contains a series of medical or semi-medical details. Virgil and Dante are passing through the tenth Bolgia of the eighth Circle, and the latter compares it to a hospital ward into which are gathered together all the malarial and other maladies of some of the most unhealthy parts of Italy in the hottest months of the year; gangrene, with its horrible odour, and some leprous skin diseases with their intolerable itching, are graphically, very graphically, described; and the poets pass between the sufferers like visitors going from bed to bed, or like physicians passing round their wards. In the succeeding canto (the thirtieth) of the *Inferno* there are clinical pictures of dropsy and fever which could hardly have been written by one who had not looked at these diseases with the trained eye of a physician. Take, for instance, the following description of a dropsical man, as rendered by Warren Vernon:

> I saw one shaped in fashion of a lute, if only he had had his groin cut short at that part which man has forked. The heavy dropsy, which so disproportions the limbs with the moisture which perverts all food, that the face no longer corresponds to the belly, forced him to keep his lips wide open, as does the hectic patient, who from thirst curls one (lip) towards his chin, and the other one upwards.

The technical realism here shown in the comparison instituted between the body deformed by dropsy, and the lute with its expanded lower part and narrow upper part, and in the description of thirst or perhaps of dyspnoea, is perfect; indeed, it is so complete that it may be doubted whether any poet who was not also a medical man could have written it. Some other passages in the *Divina Commedia*, for example, the description of famine in the *Purgatorio* (xxiii, 20–66) and of delirium in the *Paradiso* (i, 100–102) are not nearly so convincing. Taken as a whole, however, the evidence afforded by these passages is very strong, and one is not surprised that Dean Plumptre regarded it as conclusive proof that Dante had both studied and practised medicine.

CONCLUSIONS.

To sum up this long argument, it may fairly be concluded that Dante's attitude to medicine was not that of the mere *dilettante*; he had a far greater and more intimate and practical knowledge of the subject than can be supposed to have been acquired by reading and private study, even if we keep full in view the absolutely phenomenal nature of his mind. Doubtless he chose to enrol in one of the guilds in order to enter public life, but his choice of the Physicians and Apothecaries was not haphazard, but directed by several special considerations, among which it is fair to reckon a liking for medicine, and perhaps a sentimental feeling called into being by Beatrice's connexion with the Portinari Hospital. From a study of the rules and regulations of the guilds which came into force in Dante's time, it is not improbable that his enrolment entailed an examination which was not perfunctory and proof of the practice of his profession which was not merely formal.

If this conclusion be allowed, then it almost necessarily follows that Dante studied medicine at some university, most probably that of Bologna, although direct proof is absolutely wanting; he may not have passed through the whole curriculum, which at Bologna appears to have occupied four or five years, but yet have got sufficient knowledge to satisfy the consuls of the guild in Florence. The strongest proof that Dante had a real working acquaintance with medicine is supplied by the evidence contained in his works, none of which was medical in character, of a knowledge of medical authors, and of a power of describing and discussing medical matters which could hardly have been acquired by a layman, but might have been obtained by a genius such as Dante during a comparatively short period of application under favourable circumstances. If Dante were not a practising physician in the ordinary sense of the word, and if he never took the degree of Doctor in Medicine at Bologna or elsewhere, he yet had a knowledge of the subject which justifies us in describing him as a literary man of the highest rank, with a not inconsiderable practical and theoretical knowledge of medicine. He was not a medical man, but he was a man possessing some familiarity with medicine.

J. W. B.

ERRATUM.

IN part of the edition of the JOURNAL for last week an intrusive "not" found its way into the third sentence of the paragraph headed "Dante's Choice of a Guild," on page 332. The words should read, "For one of the upper classes."

THE will of the late Mrs. Caroline Amelia Savage of Tooting directs that the residue of her estate shall be paid to the Hospital for Women, Soho Square. The extent to which this institution is likely to benefit would appear to be about £10,000.

British Medical Journal.

SATURDAY, FEBRUARY 12TH, 1910.

PSEUDO-NEOPLASTIC INFLAMMATORY TUMOURS OF THE ABDOMEN.

IT has been the lot of not a few medical men to receive a visit from a robust and healthy person who had been condemned many months before, in thought, if not in so many words, to a certain death from abdominal cancer. The records of "homes for the dying" could furnish a good many such cases, in some of which, no doubt, exploratory operations had been performed. Of late years many contributions to the subject have been published,[1] among them an important paper in these columns by Mr. Mayo Robson,[2] and others have recently been reviewed by Le Dentu[3] in reporting an instance of the kind.

At the present time it cannot be said that there is any pathognomonic sign of cancer applicable to all cases. Not palpation, not inspection, not all the refinements of chemical analysis or of haematology, not even the microscope itself, except in the most careful and experienced hands, can claim infallibility. How many gastro-enterostomies, performed as a palliative measure, where the constitutional decline, the special symptoms, and the gross findings within the abdomen combined to corroborate a diagnosis of cancer, have proved curative in their outcome!

It is familiar knowledge that chronic inflammatory processes may give rise to massive hyperplasia of the connective tissues. Sir James Paget described a condition of "quiet necrosis" which was illustrated by the classic case of Morrant Baker's, in which amputation at the hip was performed for a large tumour of the femur thought to be a sarcoma. Again, all the granulomata furnish examples of inflammatory "tumours," and some of the deceptive abdominal conditions are undoubtedly due to such causes. An enormous mass, filling the whole lower abdomen, and apparently spreading from the left iliac fossa, was thought, when it broke down and a sinus appeared, to be due to actinomycosis. It was incised and a piece removed for microscopical examination. It was reported to be a small spindle-celled sarcoma, but in the fullness of time, under the influence of potassium iodide, the mass disappeared, and subsequent lesions, developed a year or two later, justified the assumption that the real origin was syphilis. That case exemplified, too, a remark of Le Dentu, that these inflammatory masses, size and fixity notwithstanding, are not characterized by obstruction, nor by persistent pain, nor necessarily by tenderness.

The granulomata, however, generally give some collateral evidence of their nature, whereas in the cases more particularly under notice it is wanting. Ulcers of the stomach or duodenum which reach the serous surface, perforating by a minute opening or not at all, sometimes give rise to massive induration by agglutination and induration of surrounding structures or by the development of hyperplastic connective tissue which may assume cartilage-like hardness and yet eventually undergo absorption. Chronic appendicitis, as Gangitano[4] has recently recalled, may induce a similar condition in the caecal region even in the absence of tuberculosis or actinomycosis. Less generally recognized is the important group met with throughout the course of the colon and most typically in the sigmoid loop. The causation is obscure. Sometimes no doubt ulcers form the starting point. In many instances there is a definite diverticle formation and the serous covering of these protrusions is the initial seat of a fibrosis comparable in its pathological history to that about the appendix. Le Dentu describes four forms: a discrete interstitial hypertrophic colitis often leading to stenosis; a simple limited adhesive pericolitis which does not, as a rule, lead to tumour formation; a diffuse pericolitis leading to an elongated tumour, the form and lie of which recalls that of the colon; and finally an "exuberant" pericolitis which agglomerates the omentum, coils of small intestine, subperitoneal connective tissue and even the prevertebral glands, and thus constitutes a voluminous aggregation in which the component parts are clinically indistinguishable. Mr. Mayo Robson is satisfied with a less elaborate classification, speaking of a chronic adhesive colitis with acute onset, and a chronic infiltrating colitis or proctitis of insidious onset and slow progress. The common sites are the flexures, but all parts of the large intestine may be affected.

In all such cases a suspicion of cancer is likely to arise, and the object of Le Dentu's paper seems to be to obviate the necessity for exploratory operation in this event. He has not, however, as yet advanced any sufficiently convincing criteria for diagnosis to support his position. It is not enough that time has proved him in the right in certain cases. The time that has been needed to clinch his argument may rob the patient of a clear chance of cure by excision, and the amelioration, produced by confinement to bed, dieting, and regulation of the bowels, upon which he insists as characteristic of the inflammatory cases, is not an unknown occurrence in true cancer cases. Of the importance of being conversant with the possibility of an inflammatory origin for neoplasms of the alimentary tract there cannot be two opinions, but any dictum which tends to minimize the enormous importance of exploratory laparotomy when undertaken after full investigation of all other sources of information, is to be deprecated. For one case of carcinoma of the gut operated upon in the early, excisable stage as a deliberate measure, the surgeon probably meets three or four in acute or subacute obstruction. The lesson to be learnt is not so much to hold the hand in the presence of doubtful tumours within the abdomen but to be guarded in pronouncing a bad prognosis after exploratory inspection, and to make the fullest use of the well-proven virtues of anastomosis and exclusion.

The inflammatory masses which develop about the diseased gall bladder and in the head of the pancreas, and the chronic epiploitis which is said to follow operations for hernia more especially—probably due, as Haim[5] has suggested, to infection of ligature silk by some attenuated virus—but which is also met with quite apart from operation, are other sources of error which could easily be multiplied.

The general bearings of the problem have been indicated, but there is one aspect upon which we wish to dwell with some insistence. A mistake in diagnosis

[1] Tissot: *Presse méd.*, 1908, No. 79.
[2] BRITISH MEDICAL JOURNAL, 1908, vol. i, p. 425.
[3] *Bull. de l'Acad. de Méd. de Paris*, 1909, vol. lxii, p. 289.
[4] *V. Langenbeck's Arch.*, Bd. lxxxix, Heft 2.
[5] *V. Langenbeck's Arch.*, Bd. xc, Heft 2.

which betrays the surgeon into the declaration of a hopeless prognosis does harm beyond the injury to his own reputation. In the words of Mr. Robson, "A single case of this kind may be the making of a fortune to the charlatan or the faith healer, or may serve to establish the reputation of a patent remedy." Of course, it may be of comparatively little moment that charlatans, faith healers, and patent medicine vendors should amass money; but only those who are daily witnesses of the tragedies traceable to delay occasioned by recourse to the futile means offered by such people can realize the harm done and the suffering caused.

It is such cases as these, moreover, that give plausibility to the various "cures" purporting to be founded on scientific principles and actual experience. But the end is not yet; and if there is something to be learnt by the medical man from the "faith healer" in the presence of a case that is quite without hope, it certainly behoves him to remember that there are conditions which simulate cancer with such faithfulness as to falsify all the bitter experience of other cases in which he has hoped, and striven against hope.

SANITARY SUPERSTITION.

We are inclined to think that the greatest progress made by man within the last half-century lies in the discovery and application of means of defending himself against the multitudinous enemies which, "horsed on the sightless couriers of the air," threaten his life and health at every point where there may be a weak point in his armour. It would be otiose to recount the tale of our triumphs over pestilences against which our fathers were practically powerless. So complete has been the victory in certain directions that few among us have seen a case of typhus; small-pox, notwithstanding a recent epidemic, is unfamiliar to most practitioners in this country, while in Germany it is thought superfluous to describe it in textbooks; hospital gangrene is unknown to the present generation. The prevalence of consumption has been reduced by one half, and it has recently been estimated that by the adoption of proper measures it could, within a quarter of a century, be blotted out from the list of diseases to which man falls a prey.

In view of what has been accomplished, it is scarcely surprising that hygiene should, by zealous spirits, have been raised almost to the rank of a religion. This is, in itself, a good thing. But there are not wanting signs that already the cult of Hygeia shows a tendency to degenerate into superstition. Although Metchnikoff now suffers man, on certain conditions, to retain his colon, there are others whose teaching leads logically to the conclusion that, to be safe from microbes, we must, in the language of an old writer, "close and stop up all our vents," so that we can neither eat, nor drink, nor breathe, nor perform any other natural function except under a full aseptic ritual. But even this strict guard over the apertures of the body will not serve unless we keep our hands constantly holystoned, as it were, to preserve them free from infective germs. This, as we understand it, is the gospel preached by Dr. R. G. Eccles in the December number of the *Dietetic and Hygienic Gazette* of New York. In dirty hands he sees the source of woes to men more unnumbered than those which the wrath of Achilles brought on the Achaeans. "It can safely be asserted," he says, "that the chief unintentional crime of our age—if we can call that which is unconscious and unintentional a crime—is dirty hands. . . . Less than a century ago the medical profession had to face this problem in a most serious form. Like the hands of the average layman, the hands of medical men were equally as filthy. Now, thanks to our knowledge of bacteriology, we know when and how to wash our hands so as to avoid doing as did our predecessors in the medical profession." We can testify from our own observation that a good deal less than half a century ago we have seen surgeons of the highest eminence, not only handle patients, but operate, with hands which, even in a non-bacteriological sense, were far from clean. Dr. Eccles complains that the "average sensual man," as Matthew Arnold called him, does not wash his hands enough. Bacteriologists, he says, have shown that after a dozen or so of ordinary persons have dipped their hands into a basin of water the liquid is found to contain large numbers of colon bacilli. He adds that hands that can pollute water by a mere touch cannot possibly be shaken without leaving behind evidences of unnamable dirt. This makes us wonder how much disease the President of the United States scatters about him when five or six thousand citizens insist on shaking hands with him. Even if his own hands are germ-free to start with, they must very soon "bear evidence of unnamable dirt," and distribute it liberally among the crowd. For dirt is the opposite of mercy: it curses him that gives and him that takes.

We will not follow Dr. Eccles through the harrowing details of the contamination of bread, fruit, vegetables, pastry, and money, by the people who handle these things. "Cook's son, duke's son"—we all fail to come up to the level of manual purity which Dr. Eccles indicates as necessary to our sanitary salvation.

We would not have it thought that we share the opinion of Walker "the Original," who held that a healthy skin needed no washing, as it did all that was required for itself. That dirty hands may carry the seeds of disease and death is a truism. But are we therefore to spend all our time washing our hands? Has Dr. Eccles considered what thorough purification of the hands really means? Mr. Lockwood showed long ago in this Journal[1] how difficult it is to disinfect the hands. Scrubbing with soap and water is generally as effectual as, in Sydney Smith's phrase, rubbing the dome of St. Paul's to tickle the Dean and Chapter. The following is the method which, after many experiments, he found least hurtful to the hands and most effective in disinfecting the skin:[2] "After the scissors have been used the hands and arms are first scrubbed for three minutes in hot water and soap to remove all dirt and grease. The scrubbing brush ought to be steamed or boiled before use, and kept in 1 in 1,000 biniodide of mercury solution. When the soapsuds have been thoroughly washed away with plenty of clean water, the hands and arms are thoroughly soaked and rubbed for not less than two minutes with a solution of biniodide of mercury in methylated spirit, 1 part of biniodide in 500 parts of spirit. Hands which cannot endure 5 per cent. carbolic acid lotion, or 1 in 1,000 sublimate, bear frequent treatment with the spirit and biniodide. After the spirit and biniodide has been used for not less than two minutes it is washed off with

[1] British Medical Journal, October 25th, 1890; May 28th, 1892; January 27th, 1894, and July 11th, 1896.
[2] Ibid., July 11th, 1896, p. 60.

a biniodide of mercury lotion, 1 in 2,000 or 1 in 4,000." Even after all this lustration, some hands were found to be septic! Sir Watson Cheyne made some experiments on the disinfection of the skin by the following method. He says[1]: "On the morning of the day of the operation the skin was washed with soap and strong mixture (1 in 20 carbolic lotion containing $\frac{1}{500}$ part of corrosive sublimate in solution) and shaved. It was then scrubbed with turpentine, and subsequently with soap and strong mixture and a nailbrush. A piece of gauze saturated with strong mixture was then fixed over the part. When I came four or six hours later I repeated the whole process again very thoroughly. Even with 1 in 20 carbolic lotion alone, without turpentine or sublimate, I found that in parts where the skin was thin, and in children, disinfection was satisfactory, but in other parts, such as the axilla in adults, growth took place. This plan was, however, only used for the sake of experiment, and is not that which I employ." We only recall these experiments to show that the disinfection of the hands, not mere freedom from visible dirt—and this is what Dr. Eccles mean—is by no means an easy thing to accomplish.

We are as keenly alive to the importance of cleanliness as Dr. Eccles, but we have shown that even the ritual ablutions of the strictest Mohammedan are insufficient to make our hands free from possibilities of pollution. For this purpose all the resources of the laboratory are required, and even when these are used in the most thorough-going manner, some germs of things evil may be left. Dr. Eccles's teaching, if it is to be followed out literally, would make us live under a dispensation of asepsis which recalls Sir Toby Belch's recommendations to Sir Andrew Aguecheek in the matter of dancing: "Why dost thou not go to church in a galliard, and come home in a coranto? My very walk should be a jig! I would not so much as make water, but in a sink-a-pace." In the matter of hygiene we must take a good deal on trust; fortunately a healthy body has within it means of protection against the inroads of infective microbes. While admitting that Dr. Eccles is right in theory, we have thought it desirable to point out that it is impossible to carry out his precepts in practice. The danger of preaching counsels of perfection as vital rules of conduct is that the vaulting ambition of the enthusiast may o'erleap itself, and neutralize his well-meant efforts by exciting ridicule.

[1] BRITISH MEDICAL JOURNAL, August, 1897, p. 374.

VEGETARIANISM AND INTESTINAL INFECTION.

SOME years ago,[2] in the course of investigations into infantile diarrhoea, Dr. H. Tissier distinguished a specific form caused by the *B. perfringens*, an organism met with normally in the intestines of adults, bnt not in infants after the discharge of meconium. This infection is characterized by the presence of frothy green stools, the child ceases to gain weight, loses its appetite, and becomes restless.

In breast-fed infants the disease is comparatively benign, but in those fed on the bottle it may be rapidly fatal, and the younger the child the greater the danger. Bacteriological examination of the stools shows disappearance of the *B. bifidus*, with growth of many cocco-bacilli and diplococci and the appearance of various abnormal forms, of which two were found constantly—the *B. perfringens* and the B. III of Rodella, the latter being a non-pathogenic organism. Experiments made by feeding a kitten with a pure culture of the *B. perfringens* produced rapidly fatal diarrhoea; the virulence of the organism is shown also by the case of a woman who suckled an infant which was at the time infected by this organism; soon afterwards her own healthy baby was attacked by the same symptoms, suggesting that the infection had been communicated by the breast. In the treatment of this disease M. Tissier has found the usual remedies useless. If the child is breast-fed he recommends that the nurse should be put upon a vegetarian diet with an increased amount of sugar and fat, and before each feed he gives the child a tablespoonful of a 10 per cent. solution of lactose. If it is bottle-fed he stops cow's milk and substitutes for it glucose, lactose, saccharose, or starch. In addition the child is given one or two teaspoonfuls of a pure culture of the *B. paralactici* of Kosaï, which has been kept in an incubator at a temperature of 37° C. for five or six days. This organism is itself harmless, but checks the growth of the *B. perfringens*, and thus brings about a cure.

At a meeting of the Société de Biologie a year later M. Tissier referred[3] again to the question, and asserted that cases of gastro-enteritis caused by infection of the intestine with abnormal bacteria could be successfully treated by replacing these pathological microbes by normal intestinal bacteria. His treatment consists in putting the patient on a strict vegetarian diet, and giving daily a bottle of water containing 50 grams ($1\frac{2}{3}$ oz.) of lactose, and two wineglassfuls of a pure culture of the *B. acidi paralactici*, or of a mixture of this with the *B. bifidus*. Under this treatment the stools, he stated, lost their fetid character, and all the symptoms disappeared. He claimed that if the treatment is maintained for two and a half months the results are permanent, and the patient may then return with safety to a less severe regimen.

Quite recently[4] in another contribution to the subject Dr. Tissier maintains that intestinal putrefaction plays a great part in the causation of intestinal infections, putrefactive bacteria preparing the soil for the growth of pathogenic bacteria. To prevent this the intestinal chemical medium must be rendered uninhabitable by noxious species and favourable to those which arrest putrefaction and toxic action. For this purpose he prescribes a regimen in which sugar, starches, and fats hold the chief place and proteid matters are reduced to a minimum; he rejects not only eggs, cheese, and meat of all sorts, but also cow's milk, the casein of which he regards as the special pabulum of certain dangerous microbes. Vegetable albumen is less putrefiable, and has, further, the advantage that it is always accompanied by at least three times its weight of carbohydrates. A vegetable diet containing only a small proportion of pulses affords the least opportunity for the growth of putrefactive bacteria. Strict vegetarians would insist that all vegetables must be cooked with vegetable fats such as olive oil; but he does not go so far, and allows butter, bouillon made from meat, and the gravy of cooked meat, and he also adds in certain cases a small quantity of grated cheese. To prove that it could be followed without danger by a normal person engaged in physical or intellectual work, he has prescribed this diet for two years to

[2] *Ann. de l'Instit. Pasteur*, May, 1905.

[3] *La Semaine Médicale*, 1906, p. 104.

[4] *La Tribune Médicale*, 1910, No. 4.

two healthy adults who had not suffered from any previous illness. Their food in twenty-four hours consisted of chocolate 40 grams (1⅓ oz.), fats 80 grams (2⅔ oz.), bread 270 grams (9 oz.), green vegetables 420 grams (14 oz.), mushrooms 175 grams (6 oz.), potatoes 345 grams (11½ oz.), honey or jam 25 grams (⅚ oz.), fruit 50 grams (1⅔ oz.). All the vegetables were weighed before being cooked. This diet gave proteid 42 to 50 grams, fat 103 to 143 grams, carbohydrates 225 to 249 grams, which furnished from 2,100 to 2,280 heat units. The first, a medical practitioner, aged 43, measured 1.66 metres (5 ft. 4½ in.) and weighed 64 kilograms (9 st. 2 lb.; the other, a chemist, aged 33, measured 1.65 metres (5 ft. 4 in.) and weighed 66 kilograms (9 st. 6 lb.) In addition to their ordinary work, they were in the habit of taking exercise by walking or cycling and employed their vacations in outdoor exercises. On this diet all their bodily functions were accomplished as well as before, and the diet proved equally satisfactory on occasions of special physical activity, such as long walks of 20 to 30 kilometres (12 to 20 miles) and a long bicycle ride of 200 kilometres (120 miles) in wind and rain. During this long ride the diet was a little more, giving a total of 2,703 heat units, and containing 61 grams of proteid, 89 of fat, and 404 of carbohydrates. M. Tissier points out that according to the ordinary data the food required for the work done on this bicycle journey should amount to 7,060 heat units, while as an adult at rest, according to the same authority, requires 1,950 heat units, the bicyclist ought to have been supplied with 9,010 heat units, nearly four times what he actually had, yet he only lost 1 lb. in weight during the twenty-four hours, and this was recovered the next day. He thinks the necessary conclusion to be drawn is that physiologists have for the most part been studying men who ate a great deal too much, and, in his opinion, workmen would find themselves able to do more work if they ate half the quantity they do at present.

THE HOUSING DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

IN the report of the Select Committee of the House of Commons on the Housing of the Working Classes Acts, over which Sir John Dickson Poynder presided, it was stated that the formation of a separate Housing Department of the State or Central Housing Commission had been suggested, and there appeared to be a great deal to be said in favour of the proposal. There were, however, several practical difficulties in the way of establishing such an independent central authority, and the committee recommended, therefore, the creation of an expert departmental staff in connexion with the Local Government Board similar to the railway department of the Board of Trade and other special departments in the public offices. During the debates on the Housing and Town Planning Bill in the House of Commons the President of the Local Government Board assented to the principle of this recommendation, and a beginning has been made by the appointment as a medical inspector of the board of Dr. Thomas Carnwath, assistant medical officer of health to the city of Manchester. Among the duties allotted to Dr. Carnwath will no doubt be included the holding of inquiries on behalf of the board upon complaint being made to that authority by four inhabitant householders of a district, by the county council, or by the parish council or parish meeting that local authorities have failed to exercise their powers under the Housing Acts where those powers ought to have been exercised. The board may of its own initiative make an order requiring a district council to cause an inspection of the district to be made with a view to ascertaining the existence in it of uninhabitable houses, and appeal may be made to the board by owners who consider themselves aggrieved by the requirements of local authorities in the administration of the Housing Acts. In these particulars the services of the newly appointed inspector may well be requisitioned.

INSURANCE OF MOTOR CARS.

SINCE the use of a motor car has become so much more a matter of business than pleasure, the question of insurance has received more and more attention from owners, especially from medical men, who when an accident befalls a car experience not only the same inconvenience as every other user, and the loss due to cost of repairs, but find their arrangements for the conduct of their practice seriously upset. The Medical Insurance Committee (429, Strand) a a year or more ago drew attention to the Red Cross policies, including a special doctors' policy issued through Lloyds, and the secretary of the Committee has since acted as agent for the "Red Cross" Indemnity Association, and has arranged a number of policies. This year a new form of Red Cross policy has been drawn up called the Doctors' "C.C." (complete cover) policy. Some particulars of the provisions of this policy, which seems to deserve its name, are given at p. 411. It covers all sorts of accidents to the car, excluding punctures and bursts, and wear and tear, and includes also an indemnity to the assured against third party claims against him or any member of his family, or any friend who is authorized by him to drive the car. The conditions as to beginning and paying for repairs appear liberal, and are further simplified if the car is within reach of one of a long list of authorized repairers. If no claim is made under a policy during the period for which it is in force 25 per cent. of the premium will be returned to the assured, whether the policy be renewed or not. In addition the policy provides compensation at the rate of £1 a day whilst the owner's car is being repaired.

MECHANO-THERAPEUTICS.

ALTHOUGH methods of treatment by massage and electricity are commonly employed by practitioners in this country, there has been a lamentable lagging in the introduction of those mechanical appliances for the treatment of disease which were invented by Dr. Gustav Zander as early as 1857, and now are to be found in admirable institutions at many health resorts in Switzerland, Germany, and France, as well as in the principal Continental cities. In reviewing a French book on this subject some time ago, it was stated that no such institution existed in Great Britain; even in prosperous bathing towns like Harrogate, Buxton, Bath, or Leamington, there has not been sufficient enterprise to establish a Zander Institute. Perhaps a partial explanation may be that a Zander Institute was established in London about twenty-five years ago which had an unfortunate history. It was promoted by a competent Swedish medical practitioner, and was afforded the countenance, encouragement, and support of the leaders of the medical profession in London, but was transferred to a man named Harness, who soon made it notorious to the infinite annoyance of those who had allowed their names to be used in the first instance. Harness's methods were a public scandal, but he spent much money in advertising and enjoyed

immunity until the *Pall Mall Gazette* had the public spirit to expose him. Driven to defend himself by an action for libel, he failed to convince the jury, and for many years afterwards the Zander system, in spite of its growing popularity on the Continent, did not exist here; but we desire to say that when we stated that there was no place in Great Britain where the treatment could be obtained we were speaking without full knowledge, and now desire to make amends. Dr. Gustav Hamel, who possesses the diplomas of the London Conjoint Board, and is also an M.D. of the University of Berne, carries on at 103, Mount Street, a well-equipped establishment containing a full set of the Zander machines for passive movement, percussion, and vibration; and, although we think there should be a similar installation in every great centre, as well as in our principal health resorts, we have to thank him for making a beginning. It is a matter for congratulation that the work is in the hands of a registered medical practitioner, whose standing and position are a guarantee for the proper treatment of those patients who consult him. Dr. Hamel prefers to treat only those patients who are sent to him by medical practitioners, and this is his general practice. It is not, perhaps, easy to make such a rule absolute, but we are satisfied that it is his wish to act in accordance with its spirit. The value of the method in cases in which passive exercises are required has been fully established. The machine regulates the movements more accurately than is possible by the hand, and patients who shrink from having stiff joints moved by a nurse gain confidence in a machine which is under control, and noting the increase of movement on the scale speedily learn to co-operate. The strength of the active exercises is regulated by means of graduated levers and sliding weights, so that a resistance from zero to the maximum can be obtained, and the position of the lever is so arranged that the resistance increases when the muscle begins to contract, and diminishes towards the end, in compliance with physiological laws of muscular contraction. Machines for passive exercises which can be used for rotary movements of the body in different planes, and the mechanical-horse are of use in constipation and indigestion, and other machines for breathing exercises, for development of the chest, for pendulum movements of the limbs, or for applying mechanical vibration, percussion, kneading, and friction, can be employed for various curative purposes. The amount of exercise, as well as the extent and range of each movement, can be adjusted and regulated, so that in this way exercise can be prescribed by the physician in measurable quantity to suit individual cases. The good effects of the mechano-therapy received striking testimony from Herr Boedeker, President of the German Imperial Insurance Company, who at the congress in Milan in 1894 stated that "in 1888, before the use of systematic exercises in cases of accidents, the proportion of injured persons whose treatment exceeded twenty weeks in duration was more than 50 per cent.; in 1893 the systematic treatment of mechano-therapy was found to have reduced the percentage to 2 per cent." The great firm of Krupp has found it worth while to have an institute of its own for the treatment of its injured workmen. We have no doubt that a method which has proved of such benefit in France and Germany will be found equally useful in this country if given a fair trial.

NON-DIABETIC GLYCOSURIA.

IT is of practical importance to bear in mind that the presence of sugar in the urine does not always mean diabetes. As an example, attention may be drawn to the cases related by Dr. K. Funck[1] of enterocolitis associated with glycosuria, a condition often confounded with diabetes, to the detriment of the patient, as it is aggravated by antidiabetic diet, whereas on appropriate treatment it and the glycosuria rapidly disappear. His first case was a man aged 33, who had suffered for a year from diarrhoea, colic, and flatulence. He had lost a good deal of flesh, and presented a dry skin with eczema and pruritus of the legs. The urine contained 1.8 per cent. of sugar, but there was neither polyuria nor thirst. Under diet and medicine suited to his condition he recovered in three weeks, and when, six months later, he had an attack of influenza followed by appendicitis, for which an operation had to be performed, there was no recurrence of the glycosuria. The second case was also rapidly cured, but the slightest indiscretion in diet was followed by a return of the bowel trouble accompanied by glycosuria.

THE DOCTOR'S DOORKEEPER.

THE doctor's doorkeeper is often, in his own eyes, a more important personage than his master. Indeed, we have known more than one who gave people the impression that he, as it were, "ran" the oracle whose inspired utterances were, in a literal sense, "golden opinions." It might not occur to the untutored mind that any special talent was needed for the discharge of the functions of doorkeeper. But if the doctor has a large practice among fashionable folk, he is to a considerable extent dependent on the loyalty, discretion, and tactfulness of his hall porter. That functionary has to keep restive patients in good humour; to regulate admission to the sanctuary without seeming to show favour; and sometimes to assume the responsibility of his master's forgetfulness. Hall porters range in type from the sombre person who solemnly ushers you as into a vault where you are to be embalmed, to the patronizingly genial person who will condescend to give you his views on things in general. He will even, whenever he sees the right kind of person, hold him with his glittering eye while he professes to reveal the tricks of the trade, point out where "me and the doctor differ," and refer to "our assistant" as to a sort of domestic animal. His manners vary from bland politeness in the prospect of a probable tip, to bullying ferocity where the patient is obviously poor. This variety of doorkeeper must necessarily be in the full vigour of life. There is another type—the grey-haired dignified retainer who is kept mainly for show. He is too stately for a place where there is much business. Then there is the discreet Abigail of the obstetrician, who besides opening the door assists at the mystic rites within. There must be a certain congruity between the medical Prospero and his ministering Ariel. Thus it would be unseemly if a fervid advocate of temperance had a doorkeeper with a countenance decorated with grog blossoms, or a throat specialist had one with a hoarse voice. The chief function of a doorkeeper was once described to us by one of the tribe as never to allow any one who came prepared to pay a fee to escape him. To achieve this result he stuck at nothing in the way of ingenious perversion of the truth, salving such conscience as he had with the reflection that the blame of all his lies would be laid on the shoulders of his master. This man—who, together with the doctor whom he served, has long passed "beyond these voices"—might have stepped out of the old comedy where the unscrupulous valet plays so large a part. He had a vocabulary all his

[1] *Muench. med. Woch.*, October 12th, 1909.

own. He spoke of the patients as his "proteegees"; he would delicately allude to a young couple performing the "martial rites"; he would describe a person whom he disliked as a regular "Mephistofeeles," with a "déamonical" smile; he would speak of "gratitious" patients, whom he frankly despised; of a "maligant" tumour attached by a small "pedestal"; of blood "codgilating"; of some old patient who had written his "reminiscénes"; of the sword of "Damo*ccle*" being suspended over his head (when he had been threatened with dismissal for drunkenness). He would sympathetically say that a lady seemed as if she were suffering from a feeling of thorough "debiliation." When taxed with lying he would indignantly declare that he would not have his veracity "impung-ed," and that his statement could not be "counterfuted." Such as he was, his value to his master was incalculable. He would spur the doctor on to work when he was inclined to dawdle, and he helped to prepare *coups de théâtre* which had a marvellous psychical influence on the patient. He remembered a face which he had seen twenty-five years before; would by dextrous questioning extract the name and then look up the record in the casebook. This he would pin on the door of one of the two consulting rooms, which communicated by a narrow passage. There the doctor would study it carefully, and then going in would greet the patient with the familiarity of old acquaintance. It was in somewhat the same way that Napoleon prepared himself to remember the veterans who had fought under him at Wagram and Austerlitz. Such a one must have been the faithful "Charles" who figures in the life of Sir Astley Cooper.

ANTIVACCINISTS AT THE GENERAL ELECTION.

ONE of the noteworthy features of the General Election of 1910 is the failure to secure re-election of a very large number of candidates specially marked for the approval and support of the National Antivaccination League. Immediately after the General Election of 1906 the *Vaccination Inquirer* (February 1st, 1906) devoted no less than thirteen pages to an analysis of the views on vaccination of a large number of members elected to represent English constituencies. A reference to this analysis discloses the fact that over forty of the members then elected who were regarded as friends and sympathizers of the league are not returned as members in 1910. Only in one or two instances is this due to retirement, the bulk being candidates who were beaten at the polls in the recent elections. This represents about 50 per cent. of those who were claimed by the antivaccinators as being pledged to their cause, or sufficiently sympathetic to receive the official support of the league. The current issue of the *Vaccination Inquirer*, referring to the "bad reports" to hand on going to press, says: "The most regrettable item of bad news is the defeat of our virtual leader in the last Parliament. . . . Alas, for the fickleness of voters, although Mr. Lupton defeated Mr. Chaplin by 293 votes, he has now himself suffered defeat at the hands of the supporters of Mr. Royds by 1,265." During the progress of the election we commented in these columns (January 15th) on the great activity of this league, and its special attention to the Sleaford Division. The Organizing Secretary and Lecturer of the league conducted a most vigorous campaign. All this has been of no avail, and it is not unreasonable to attribute Mr. Lupton's overwhelming defeat to the persistent and successful manner in which his fallacies have been controverted and his exaggerations corrected. The circumstances of the Sleaford election afford undoubted evidence of popular condemnation of antivaccinist and antivivisection propaganda conducted on lines and by methods such as those adopted by Mr. Lupton. In other places throughout the country, where previous success had been attributed to the efforts of antivaccinators, the candidates favoured and supported have been defeated, notwithstanding most strenuous exertions. In Gloucester, for example, the local branch of the Antivaccination League, under the presidency of Dr. Hadwen, failed to secure the re-election of the Right Hon. Russell Rea. A special campaign was conducted on his behalf. We do not know to what extent this contributed to his failure, but it may confidently be assumed that this campaign would have been claimed as the secret of success if success had been recorded.

MEDICINE IN IBSEN'S PLAYS.

HENRIK IBSEN makes many references to medical subjects in his works. In *An Enemy of the People* he gives a vivid picture of the struggle between a doctor who has at heart the good of the inhabitants of the town of which he is medical officer and the municipal authorities, who look mainly—as members of similar bodies nearer home have sometimes been known to do—to their own interests as exploiters of public property. The burden of a syphilitic inheritance forms the subject of *Ghosts*. In *A Doll's House* Dr. Rank watches in himself the development of inherited disease in his "poor innocent spine," which he knows to be inevitably fatal. There are other allusions to medical matters, but *An Enemy of the People* and *Ghosts* would suffice to show that Ibsen had some familiarity with medicine. This is explained by the fact that shortly before his sixteenth birthday he was apprenticed to an apothecary in the little town of Grimstad, between Arendal and Christianssand, at the extreme south-east corner of the Norwegian coast. There he lived and worked making pills and ointments and spreading plasters for six years. So busy was he in the shop that, as he himself tells us, he had to steal whatever time he could for study. At Grimstad he wrote his first play, a three-act tragedy on the conspiracy of Catiline, of which only about thirty copies were sold. In 1850, at the age of 21, Ibsen left his gallipots, and went out into the world to seek his fortune as a poet. In a letter to the *Times* dated February 1st, 1910, Mr. Edmund Gosse says the house at Skien in which Ibsen was born having been destroyed, the melancholy, but completely water-tight, wooden house in Grimstad, where he slept in a garret, is all that remains to recall his youth. A national movement has been set on foot in Norway to purchase it, and to fill it with memorials and biographical objects.

BLACKWATER FEVER.

DRS. WAKELIN BARRATT AND WARRINGTON YORKE have published the results of investigations into the mode of production of blackwater fever, undertaken in Nyasaland for the expedition of the Liverpool School of Tropical Medicine.[1] The publication is full of important data; the work has evidently been done with minute care and exactness, facts are carefully separated from assumptions, and theories are not built up on appearances. It is probably on this account that the authors do not pretend to offer the reader a complete account of how blackwater fever is produced. While they prove beyond dispute that quinine in the alkaloidal state

[1] An Investigation into the Mechanism of Production of Blackwater Fever. By J. O. Wakelin Barratt, M.D., D.Sc., and Warrington Yorke, M.D., *Annals of Tropical Medicine and Parasitology*, Vol. iii, No. 1. Liverpool University Press, 1909. (Pp. 256; 2 plates, 39 illustrations, and many tables. 10s. 6d.)

breaks up haemoglobin at a monomolecular rate, they hold that in the body the concentration of quinine is never sufficient to produce a direct action on the blood cells. More than this, they record instances in which the black water disappeared during the exhibition of quinine. They have faced the mystery of the solution of blood cells, and have distinctly refused to be led away by stray clinical facts. The relationship between haemoglobinuria and haemoglobinaemia is carefully studied both in blackwater fever and as an experimental condition in animals, and the conclusion is arrived at that the former is a result in blackwater fever of an accompanying haemoglobinaemia. The state of the kidneys in this disease is fully dealt with, and while it is concluded that the sole pathological condition existing in these organs during the simple uncomplicated haemoglobinuria of blackwater fever appears to be a blocking of the lumen of the renal tubules, they refuse to commit themselves either as to the nature of this brown blocking material or even as to the effect which it exercises on the secretion of urine or transmission of haemoglobin. A minute account of the cases observed is appended, and the whole work is freely interspersed with good illustrations, diagrams, and tables. Taken in its entirety, the report contains a vast amount of detail on this obscure condition, and the study of it may be all the more recommended since the authors have refrained from presenting theories which might appear to explain all the facts but which might well be overthrown in favour of others within the course of a year or so.

"SECRET REMEDIES."

WE have received during the last few months a large number of letters with reference to the volume *Secret Remedies*, published by the British Medical Association last autumn. To most of these private replies have been returned, but we may here state for general information that, in selecting the secret remedies which should be analysed, those were for the most part chosen which were being largely advertised, or were believed to have large sales. Additions are constantly being made to the quack preparations advertised and sold, while others appear to drop out of fashion. As we had occasion to remark last week, their composition may be almost anything suggested by the fancy of the proprietor; but, as is amply shown in the book, the imagination of these persons is not much more highly developed than their knowledge of therapeutics and materia medica; for the most part their preparations contain only the most commonplace and cheapest drugs. That the publication of the book has done good in giving the public a knowledge of the curious impudence with which its want of acquaintance with drugs is exploited, there are many evidences; one of the most satisfactory, perhaps, is that the sale of *Secret Remedies* continues to be rapid. The issue is now in its sixty-second thousand. The price of the book is 1s., and it can be obtained through any bookseller, or direct from the Financial Secretary and Business Manager, 429, Strand, London, W.C., post free, 1s. 3d.

THE meeting of the British Association for the Advancement of Science, which is to be held this year at Sheffield, under the presidency of the Rev. T. G. Bonney, F.R.S., Emeritus Professor of Geology in University College, London, and Honorary Canon of Manchester, will begin on August 31st. The President of the Section of Physiology is Dr. A. B. Macallum, Professor of Physiological Chemistry in the University of Toronto.

SCIENCE NOTES.

To a comparative study of the structure, physiology, and diseases of the lower animals we owe many important advances in medical science. The dog has been and is the friend of man in more than the usually accepted sense of the expression. Hitherto attention has been almost entirely confined to the mammalia, but it is quite possible that further observations on the lower vertebrates would be of more than academic interest. The present Cancer Commission, recognizing this, has extended its investigations not only to fishes—practically the lowest class of vertebrates—but also to invertebrates. The obvious advantage to be gained is a more accurate knowledge of the development and function of various organs and of the modifications they have undergone and are capable of acquiring. Small and apparently irrelevant facts not infrequently prove of as great moment as the big facts, and we often fail to realize how important minor details, insignificant in themselves, may suddenly and unexpectedly become. The demonstrated presence of eosinophile leucocytes in the blood of Teleostean fishes is not a discovery of paramount importance, nor would we maintain that it is likely to shed much light on our present unsatisfactory knowledge of the blood and blood diseases, but it is a fact that may or may not have to be reckoned with, and for the moment it is interesting. Mlle. Anna Drzewina has published a preliminary note[1] on the matter. She has studied the blood of Teleostean fishes for several years, and her observations may therefore be regarded as fairly comprehensive. Until 1902 it was generally accepted that there were no eosinophile elements in fishes' blood, but in that year Meinertz showed that they occurred in the roach, perch, and tench. Mlle. Drzewina has studied forty species of fish, but in only eight has she succeeded in finding eosinophiles. Their presence is therefore not general, nor are they invariably present in the species in which they occur. They are most frequent and abundant in the *Labridae* or wrasses, four of the eight species belonging to this family. It is curious that none of the *Gadidae* or *Pleuronectidae*, which are our common food fishes, appear to have eosinophile cells; no mention is made of these having been examined, but some of these could hardly fail to have been included in the forty. The acidophile granules take on a bright red colour with the ordinary staining reagents. In two cases—the garpike and lesser weaver—neutrophile leucocytes were also present, and even occasionally transitional forms. No indication is given of the relative percentage of these eosinophiles or of their connexion with other peculiarities or characters of the fishes in question, but we may expect to learn something about these matters when a fuller account of the work is published.

Extensive investigations into the bactericidal action of quartz lamps of mercury vapour, and the application of these lamps to the sterilization of drinking water, have lately been carried out by Dr. Th. Nogier, of Lyons.[2] His experiments have been made partly with the lamp of Kromayer and partly with a quartz lamp of his own construction. After repeated trials he has proved that the rays of small wave length possess a bactericidal action upon water within a radius of 30 cm. from the light source, at which distance the destruction of pathogenic microbes requires an irradiation of about one minute. The effect is yet more marked when the lamp is immersed in the water instead of being placed at a certain distance away from it. In a tank, having a capacity of 115 litres (about 26 gallons), he suspended in the water with which it was filled a quartz lamp, working at 9 ampères, 135 volts, and achieved complete sterilization, effecting the destruction of the colon and typhoid bacilli within one or two minutes. Then he proceeded to submit plants and animals to water sterilized by light. There was no difference between irradiated and non-irradiated water in the development of algae (conferva, spirogyra); the germination of water plants, such as certain grasses and cress, was in no way retarded, while larger plants and small animals gave no evidence of injury after its exclusive use. The author

---

[1] *Compt. Rendus Soc. Biol.*, lxvi, 1909, pp. 514–6.
[2] *Archives d'électricité médicale*, Bordeaux, January 10th, 1910.

states that sterilization is stopped or impeded by colloid substances in suspension in liquids. Although, in the case of water abounding in colon bacilli, sterilization was completed after one minute's irradiation up to within 30 centimetres of the lamp, yet when a peptone solution was added to the water before irradiation the sterilizing effect was not established at one-tenth of this distance in spite of ten times as long an exposure. Nogier denies very positively that sterilization is to be attributed to ozone or to the oxidation of the water or to anything save the light. Moreover, the ultra-violet radiations, he says, destroy not only the extremely simple organisms, but also the more complicated cells. After being exposed for some moments to the rays of the quartz lamp, a plant cell no longer possesses power to assimilate, its turgescence disappears, and it practically ceases to live, although the effect is not immediately apparent. The floral organization seems to suffer particularly from the inhibitory action of the radiations, as though the cells concerned in the future development of the plant were more sensitive than others to such external influences. He is unable to discover any considerable chemical changes in the sterilized water, and he is of opinion that the chemical composition is preserved despite the irradiations. In considering the industrial application of the subject, he describes his own apparatus for sterilizing the drinking-water supply. This consists of a mercury vapour lamp suspended by its electrodes, and fed by a continuous current. The lamp is permeable to rays of short wave-length, and the metal envelope which encloses it receives the water to be sterilized and contains a diaphragm arrangement for forcing the water against the lamp wall. The supply is carefully regulated by an automatically controlled tap, with an ingenious arrangement for ensuring that no water is passed when the lamp is not working at its optimum. While this sterilizer destroys the injurious germs and poisons, he claims that it conserves salts which render the water agreeable to the taste and salutary to the health, and that water thus sterilized by light remains fresh and without odour.

There has long been a desire amongst those interested in evolution and evolutionary theories to make some more or less accurate estimate of the extent to which man is and has been subject to the laws of evolution. It is generally agreed that, to whatever degree natural selection may have acted in evolving its highest zoological type, as soon as the type was definitely established it ceased to be entirely subservient to the influences which had produced it, and that in gradually increasing measure it began to make laws unto itself, and to substitute those for the laws which govern the rise and fall of types throughout the rest of the natural world. These new laws, however, in their turn would appear to be becoming as hard and fast in their action on mankind as the previous less complex laws of Nature were at an earlier period. Mr. F. W. Headley is one of the latest to endeavour to interpret modern social life from a biological standpoint. In a most readable book[1] he deals with the position of man as a social unit under the selective forces which have now taken the place of natural selection, and particularly with reference to present-day socialism. The new elements which come under selective action are those which derive their origin mainly from man's reasoning faculty, such as honesty, uprightness, generosity. Unfortunately, Mr. Headley in this connexion is distinctly idealistic, and takes no account of the baser human qualities which, we regret to admit, so frequently play a most important part in the struggle for existence. Selfishness, unscrupulousness, and the ability to drive a hard bargain can hardly be denied to be attributes which in this commercial age tend to the preservation and prosperity, financial and otherwise, of the individual. Opinions are divided as to whether we are evolving a nobler or an inferior race, but everything seems to point to the fact—and modern conditions certainly favour it—that physically at least we are on the down grade. Mental qualities, in some cases good, in many bad, are the subjects of this humanized natural selection, and physical ability is allowed to look after itself. It is encouraging, however, to recollect that good health still is as important a factor as it was in the time of man's earliest evolution. It is true that disease, in one or other form, is not an actual bar to social advancement, but in the long run the race is to the stout of wind. It need hardly be mentioned, then, that medicine, in particular prophylactic and preventive medicine, must be reckoned amongst the forces influencing man's future destiny. Medical prescience takes, to a considerable extent, the place of "Nature's kindly care," and enhances the prospects of survival of its protégés. Mr. Headley deals with many other matters in a lucid and relevant fashion. He shows the value of individual industry and private enterprise, contrasting the latter with the comparative inefficiency of enterprise by Government and corporate bodies. Socialism, he holds, would abolish this individual striving, and so make for a dead uniformity in which there would be no evolutionary progress.

[1] *Darwinism and Modern Socialism.* By F. W. Headley. London: Methuen and Co. 1909.

Some time ago Mr. Walter Heape read a paper before the Royal Society on the proportion of the sexes produced by whites and coloured peoples in Cuba. He sets forth several matters of much interest from a bio-medical point of view. In dealing with such questions there is always the difficulty of securing sufficiently large numbers, and in this respect the artificial experimental method is often unreliable on account of the smallness of the numbers dealt with. Mr. Heape's attention was drawn to the fact that the medical officer of Cuba supplied separate details of the births and still-births of whites and coloured people on the island, and that these records were further subdivided into legitimate and illegitimate births. During a period of three years there was a total production of nearly 180,000, and from the details Mr. Heape has drawn up a number of tables. On studying these the first important point to be noticed is the difference in the proportion of the sexes produced by the two races, in that the whites produce a considerably larger proportion of males than the coloured people. This holds both in the case of births and still-births. The next noteworthy feature is the consistent variation in the proportion of the sexes produced from legitimate or illegitimate union. This variation is to the effect of an increased proportion of female children from illegitimate union, and holds good for both races. The deductions from this fact are based on the statement that illegitimate union amongst civilized peoples is due to individual characteristics in the woman which have for their origin a specially active sexuality. This increased production of females is accordingly an individual matter not to be accounted for by any law of heredity, but rather associated with physiological conditions affecting the metabolic activity of the woman. A further consideration of the statistics under investigation shows that there are two well-marked breeding seasons each year, and that they have no relation to the marriage season. They are correlated, in fact, with marked changes in climate—namely, in the autumn on the change from great heat to cooler weather, and in the spring, and are thus associated with periods of increased metabolism. At these times the reproductive activity increases very rapidly to a maximum, and falls quite as rapidly. Following the theory that increased metabolism favours the production of female children, we should expect to find a comparative excess of females at the breeding seasons, and this is exactly what does occur, both amongst the whites and the coloured people. Here again the author insists that this variation in the sex ratio cannot be ascribed to heredity, but is associated with and due to the action of extraneous forces on the ovary. A further feature of interest which can be ascertained from the tables is the fact that whites show a more marked sensibility to influences inducing the production of females, while the converse is true for coloured people, and this is more noticeable amongst illegitimate than amongst legitimate births. This shows that the race normally producing excess of males is more amenable to forces tending to induce the production of females, and vice versa. The author considers that here is demonstrated the working of a force which limits the output of an excess of either sex, tending to make the numbers approximately equal, and this in fact is the force of heredity. In conclusion, it is worth remarking that these extraneous influences which have been referred to above, probably affect the proportionate production not only of differences in sex but also of various kinds of characters which are associated with metabolism.

Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

RESEARCH DEFENCE SOCIETY.

A PUBLIC lecture, promoted by the Dublin branch of the Research Defence Society, was given recently by Professor E. J. McWeeney, under the auspices of the Catholic Young Men's Society, in the St. Laurence Hall, Dublin, and was largely attended. The lecturer selected for his title, The Debt which Humanity and Science owe to Animal Experiment, and pointed out, in the first place, that in order to understand the importance of animal experimentation it was necessary to view the subject together with its surroundings, and to class it as part and parcel of the experimental movement in medicine. Those who objected to what they were pleased to call "vivisection" removed that method of research out of its proper setting, and strove to make it appear as if it were a wanton and uncalled-for exercise of cruelty towards the brute creation indulged in by men who were needlessly prying into the workings of animated nature. Against this view he strongly protested, for experiment on animals was essential to the progress of medical science. More than 90 per cent. of all the experiments done under licence in the country were of the nature of inoculations and were practically painless, and even the diseases induced by such inoculations seldom caused pain. In an experience of seventeen years he had not himself seen evidences of pain exhibited by experimentally infected animals. He had no doubt that many rabid antivivisectionists had themselves benefited by the use of drugs the value of which had been discovered by experiments on animals. The lecturer next referred to the great advances in the treatment of disease which had been made as a result of animal experimentation. To it was due practically the whole knowledge of bacteria as a cause of disease, the introduction of antiseptic surgery, the diminution in mortality from diphtheria and hydrophobia, the stamping out of yellow fever, the cure of myxoedema, and also the relief of many infectious diseases that animals suffer from. Against this the foes of experimental research could not place the saving of a single human life, nor the abolition or abatement of the ravages of even one disease. A vote of thanks to the lecturer was proposed by Monsignor FitzPatrick and seconded by Mr. E. J. Smyth, and after Professor McWeeney had replied Sir Henry Swanzy in a short speech explained the objects of the Research Defence Society. The proceedings then terminated.

ANTIVACCINATION CAMPAIGN IN WEXFORD.

In response to the request of the medical officer of the Enniscorthy Union, the Royal College of Physicians in Ireland has drawn up a statement for circulation throughout the Enniscorthy district, in the hope that it may help to check the widespread feeling against vaccination which prevails in that part of Ireland. The document points out that since the introduction of compulsory vaccination into Ireland in 1868 the mortality and incidence of small-pox has enormously decreased. In the ten years 1898–1907 the average annual mortality was only 7, as compared with a total death-roll of 96,281 in the twenty years 1831–1851, an average of 4,814 deaths a year. It is also pointed out that the purity of the vaccine lymph supplied to the public vaccinators in Ireland is guaranteed by the bacteriologist of the Irish Local Government Board. This officer states that he examines bacteriologically every batch of Government lymph on at least two occasions, and that no lymph is passed for issue unless found in all respects satisfactory.

NOTIFICATION OF TUBERCULOSIS.

The Public Health Committee of the Dublin Corporation reports that the Local Government Board, in reply to a query addressed to it, has informed the committee that there is no statutory provision under which public bodies can make arrangements for sleeping accommodation for consumptives in their own homes, and that in consequence the Board is prevented from according its sanction to the proposal to provide such accommodation. As a result, the committee has recorded its belief that it would be useless to put the Notification of Tuberculosis Act into operation, inasmuch as the committee is prevented from doing any practical work in helping poor consumptive people, or lessening the possibility of infection amongst the people who dwell in tenement houses. The absence of powers to carry out the well-intentioned plans of the Public Health Committee is no doubt unfortunate, but having regard to the amount of opposition to the Act in some parts of Ireland, and the lukewarmness in others, the wisest course would be to make the best use possible of the powers already possessed, and later, when the beneficial effects of the Act have been proved, to seek such additions to it as experience may show to be advisable.

PUBLIC HEALTH IN DUBLIN.

Details of the health statistics for the year 1909 of the city of Dublin and the four townships included in its registration area—Rathmines, Pembroke, Blackrock, and Kingstown—are now available. The total population is estimated at 398,356, of which all but some 91,000 are resident in Dublin City itself. The average number of persons to an acre is 29, the numbers varying from 8.1 in Blackrock to 38.8 in Dublin. The birth-rate for the year was 28.6 per 1,000, which is 0.1 higher than the average of the past ten years. The corrected death-rate for the whole area is 20.9, which appears to be considerably below the average of the previous ten years. The infantile mortality shows an improvement, the death-rate of children under 1 year being 143 per 1,000 births, as against 149 in the preceding year, and 159 in 1907. No deaths occurred from small-pox, and no cases of this disease appear to have been observed. The measles death-rate is 0.31 per 1,000; the total number of cases of this disease treated in the hospitals seems to have been 525; nevertheless, the figures represent a reduction on previous years. The same remark may be made of scarlet fever, which caused 25 deaths, the number of new cases treated in the hospitals during the year being 654. Of patients suffering from typhus fever, 22 were admitted to the hospitals, of whom 4 died. There was an increase in the whooping-cough mortality, which accounts for 156 deaths, or 0.39 per 1,000. In the preceding ten years the mortality from this cause varied from 48 to 239. Diphtheria also showed a slight increase, the deaths numbering 60 (0.51 per 1,000), against an average of 52. In enteric fever there was a marked decline, the death-rate being only 0.71 per 1,000 of the estimated population. The decline in the number of deaths from this disease has been comparatively steady during the past ten years, though the figure for the year 1909 is not the lowest on record. To cerebro-spinal fever 13 deaths were ascribed, the figures for the two previous years being 30 and 46 respectively. In the figures relating to tuberculous disease there is some evidence of commencing decrease; the average for the eight years ending 1908 was 4.61, but last year the figure was 3.79. Taking pulmonary phthisis alone, the average for the same eight years was 3.14, while last year it was 2.64. The figures for the principal urban areas of Ireland are also available, but, with the exception of Belfast and Londonderry, are based on the population enumerated in the census of 1901. The average density of the population of the 22 town districts of Ireland which form the basis of the weekly returns of the Registrar-General, may be noted as 20.1, the birth-rate 27.8, the death-rate from all causes 19.2, and that from zymotic diseases 1.4. There were 31,781 children born during the year, and 4,203 children died at ages under 1 year.

RICHMOND DISTRICT ASYLUM.

At a meeting of the Joint Committee of the Richmond District Asylum held on January 27th a gross estimate for the coming financial year of

£104,861 was presented and adopted. This estimate, which includes a sum of £1,161 carried forward as a deficit from the previous year's accounts, exceeds the estimate for the last financial year by £2,306. It is satisfactory, however, to note that the excess is not due to any increase in the number of patients, but is due to the unforeseen rise in the price of various commodities, to increased duties payable on tobacco and whisky, and various other items. The total number of patients has averaged about 3,140 during the past two years, and it is expected that this number will not now be largely exceeded, as the Old Age Pensions Act, by providing for many old people who are mentally broken down, has probably been the means of preventing a number of such people from entering the asylum. Additional premises, which will cost about £50,000, are at present being constructed to provide accommodation for those lunatics who are at present confined in workhouses ; but it is hoped that the increased expenditure thus involved will be more than compensated by a reduction in the demands made by the various Poor Law union authorities.

MERCERS AND ORTHOPAEDIC HOSPITALS' BAZAAR.

At the final meeting of the committee which managed the bazaar held in June last in aid of the above-mentioned hospitals, the honorary treasurer's report and the statement of accounts, duly audited, were submitted and adopted. The net profits amounted to £5,896 2s. 5d., and this sum was paid to the two hospitals. The committee passed votes of thanks to the auditors, who had made up the accounts free of charge, and also to the stall-holders and all engaged in the work of the bazaar, for their valuable services.

THE DUBLIN CORPORATION AND DUBLIN HOSPITALS.

The following notice of motion has been handed in, and will be proposed at the next meeting of the Dublin Corporation:

> That this Council request the Boards of Governors of the hospitals which receive annual grants from the Corporation to expressly stipulate for Irish manufactured goods and materials in their advertisements for tenders for supplies; and, further, that in all future appointments by aforesaid Boards of Governors that preference be given to persons of Irish birth and residence. That failing compliance with this request the Council shall reconsider the advisability of continuing its annual contribution in such particular instances.

While the desire of the promoters of this resolution to support home industries may be laudable, it is to be hoped that the Corporation will limit its resolution to the expression of a wish and will omit the minatory clause at the end. The Boards of Governors of the Dublin hospitals are, in most instances, in the position of trustees of public money, and are bound to expend their funds in accordance with the principle of obtaining the best possible value for the least possible outlay.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

SCOTTISH UNIVERSITY ELECTIONS.

THE poll for the election of a parliamentary representative of the Universities of Glasgow and Aberdeen closed on February 8th, when the result was declared as follows:

Sir H. Craik (U.)	4,879
Sir F. Pollock (U. Free Trader) ...	3,411
Majority	1,468

The electorate, it is stated, numbers 11,705.

The poll for the election of a representative of the Universities of Edinburgh and St. Andrews closed on February 10th, when the result was declared as follows:

Sir Robert Finlay (U.)	5,205
Sir Alexander Simpson (L.) ...	2,693
Majority	2,512

THE TREATMENT OF CONSUMPTIVES IN EDINBURGH.

Reference was made some weeks ago to a proposed scheme before the Public Health Committee of the Edinburgh Town Council, whereby, under an arrangement, a certain number of beds in the Royal Victoria Hospital for Consumption would be available to the medical officer of health for treatment of cases under his observation, provided that the cost to the corporation should not exceed £1,000 per annum. The desire of the Town Council, as expressed by the Public Health Committee, seemed to be to get the benefit of the information the Victoria Hospital for Consumption has, through its dispensary, been accumulating for twenty years past. When it is borne in mind that 60 per cent. of the notifications of phthisis come through the dispensary, it will be readily seen that it must acquire a considerable amount of detailed information regarding the disease of which it is desirable that the medical officer of health for the city should be in possession, so that he might know how the cases affect certain areas, streets, and houses. There have been certain instances in which successive occupants of houses have contracted the disease without having been in contact with the previous occupants. The dispensary is a voluntary institution, and if it had more funds at its disposal might be able to extend its operations in dealing with cases outside the hospital. It is thought that for a subsidy of £500 a year the city medical officer of health might receive the information in possession of the dispensary officials as to the condition of the different persons affected. A further proposal is that already indicated, that a larger sum should be paid for a certain number of beds in the hospital. The proposal was remitted to a subcommittee in order that the subject might be considered in all its bearings before coming to a resolution on any of the points raised.

CREMATION SOCIETY FORMED IN EDINBURGH.

The inaugural meeting of the Edinburgh Cremation Society was held in the City Chambers on February 3rd. The Lord Provost, who presided, explained that while he cordially agreed to take the chair he must not be held to commit himself absolutely in favour of the movement, though he quite agreed that it was high time there was some reform in burials.

The Right Hon. R. Farquharson briefly reviewed the history of the cremation movement, the opposition raised by the Government of the day, the legal persecution set on foot until it was declared by Sir James Stephen to be lawful, and to the time when the Cremation Bill was passed in 1902. Cremation, he said, was good on sanitary grounds, and public sentiment was now setting in favour of cremation. There was one argument against cremation, and it was one deserving of serious consideration, and that was whether it was just possible that the ends of justice might be frustrated in the case where a body might have to be exhumed. But it was a scandal to public administration now that there were very many bodies put into graves without proper verification and certification. Edinburgh was much behind Glasgow, where there had been a crematorium for several years.

The Rev. William Main, Trinity College Church, moved the adoption of the constitution. Prof. Harvey Littlejohn seconded, and the resolution was passed.

On the motion of Dr. Clouston, seconded by the Rev. Dr. Donald McMillan, the following office-bearers were appointed:

President—Sir Henry D. Littlejohn, M.D., LL.D. *Vice-Presidents*—Sir Alexander R. Simpson, M.D., D.Sc., LL.D.; Lady Constance Lytton, Lady Steel, Professor Thomas Hudson Beare, M.Inst.C.E.; T. S. Clouston, M.D., LL.D.; Professor Harvey Littlejohn. *Executive Council*—James Annandale, Polton; Miss Isabella Spring Brown, Rev. George Christie, B.D.; Mrs. MacLeod Easson, William Hume, Claude B. Ker, M.D.; Rev. William Main, Thomas M. Burn Murdoch, M.B., C.M.; Miss Purdie, W. G. Aitchison Robertson, M.D., D.Sc.; William Robertson, M.D., D.P.H. Mr. J. Dan Easson, B.L., 10, George Street, *Secretary*.

MEDICAL INSPECTION OF SCHOOL CHILDREN.

The following is the scheme proposed by the Education Committee of the County Council of Inverness:

1. That for the purposes of school medical inspection the area be the whole county of Inverness, including the burgh of Inverness.

2. That the area be divided into two sections: (*a*) The mainland area, exclusive of certain schools along the western seaboard, and (*b*) the rest of the county being the said schools and the Hebrides (Skye, Harris, the Uists, and Barra).

3. That two school medical officers be appointed (who will be debarred from private practice and parochial medical appointments), one for the mainland section, at a salary of £250, rising to £300, per annum, and one for the rest of the county, who must be a fluent speaker of colloquial Gaelic, at a salary of £200, rising to £250 per annum—both officers to receive reasonable travelling and maintenance allowances according to a scale to be fixed later.

4. That, subject to the consent of the county council being obtained, the whole medical arrangements be under the supervision of the medical officer of health for the county, who will act in an advisory capacity to the committee and generally supervise and direct the work of the school medical officers, with an honorarium of £50.

5. That while the main duty of the school medical officers will be school medical inspection in accordance with the minutes and regulations of the department, and under the advisory direction of the medical officer of health, it is suggested that the county council might, with a view to promote co-operation between the school medical officers and the medical officers of public health, recommend the respective district committees of the county to appoint the school medical officers *formally* as depute or assistant district medical officers of health, but without additional remuneration from the county council or county committee.

At a recent meeting of the Elginshire Secondary Education Committee it was decided by a majority not to proceed with a scheme of medical inspection, as requested by the department, as the authority had not put the compulsory clauses of the Act into operation. The Scottish Education Department has warned the committee that it will not hesitate to avail itself of the compulsory powers conferred by Section 4 of the Education Act if the committee does not prepare and carry out a scheme for the medical inspection of school children.

At a meeting of the School Board of Aberdeen on January 27th, Dr. Rose, who has for the past year been employed by the board as its part-time medical officer, was appointed its chief medical officer at the annual salary of £550, to give his whole time, and to have the oversight and direction of such reasonable number of assistants as the board might allow him. The board resolved to accept Dr. Rose's estimate of the assistance that will be needed for fully overtaking the duties of his appointment, and to take steps in conjunction with him, after inquiry or advertisement, to select and appoint the assistance required.

HOSPITAL ACCOMMODATION IN WEST FIFE.

Owing to the number of cases now being sent from the naval base at Rosyth, the directors of the Dunfermline and West Fife Hospital informed the annual meeting of subscribers that it would be necessary to formulate a scheme for adding 15 beds to the hospital. It was estimated that about £15,000 would be required in order to provide and endow these beds.

ABERDEEN ROYAL INFIRMARY.

At a special meeting of the directors of the above institution held on February 7th, Mr. George Herbert Colt, M.A., B.C.Cantab., F.R.C.S.Eng., was appointed assistant surgeon in room of Mr. Peterkin, who was recently appointed surgeon-in-charge of the ear and throat department. The status of physician was at the same time conferred on Dr. John F. Christie, at present assistant physician in charge of the department for diseases of the skin.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

MANCHESTER.

THE MANCHESTER PROVIDENT AND CHARITY ORGANIZATION SOCIETY.

THE extent of the work undertaken by the Manchester Provident and Charity Organization Society is shown in a striking way in its annual report presented last week. The Manchester and Salford Provident Dispensary Association is affiliated with it, and other branches of its work mentioned in the report are the Savings Bank, the Surgical Aid Society, and the South African War Fund. At its convalescent home at Southport, 661 patients were received last year. Patients are there charged 15s. a week, and generally remain in the home for three weeks. It was stated that the home has a debit balance of £102, though there had been a reduction in the weekly cost for each inmate. From various funds possessed by the society grants were made to supplement the Government old age pensions, but the bulk of the persons benefited were under 70 years of age, and had the society not helped them, many would have been compelled to apply for parish relief, and would thus have been disqualified for the Government pension. Much work is done in the way of investigating cases in which applications for relief have been made to charitable institutions. In this way the society is used by the Manchester Midwives Supervising Committee in order to prevent fees being paid by the corporation to medical men called in to the aid of midwives on behalf of patients who have a wage above a fixed limit. During the year no fewer than 72,560 investigations were made on behalf of various charities and hospitals of the district in order to prevent imposition by the undeserving. The society has at present a scheme in hand for giving assistance to families in which consumption appears, and Dr. Niven, the medical officer of health for Manchester, warmly commended the idea. He said that the absence of such provision caused people to delay acknowledging their illness, and when they were obliged to acknowledge it caused them to delay seeking medical aid or the assistance of hospitals until they had reached such a stage that they were incurable. Another argument in support of the proposed scheme was that the infection of consumption took hold most readily and most strongly of systems weakened by privation.

THE PENDLETON PROVIDENT DISPENSARY.

At the annual meeting of the Pendleton Provident Dispensary, which is a branch of the Manchester and Salford Provident Dispensary Association, it was reported that the number of paying patients at the end of last year was 3,200, as compared with 3,298 at the end of 1908. The number of prescriptions dispensed during the year was 26,372, which is an average of over 8 to each member on the books. The total receipts amounted to £852, and there was now a reserve fund of £1,118. The chairman said the loss of 98 members was a serious matter. It was due partly to removals and partly to members joining the friendly societies. It was pointed out that during the last ten years there had been a decrease of 20 per cent., mostly due to the competition of the friendly societies. The members of the medical staff were re-elected, and a resolution was passed directing that a letter of sympathy in his recent illness be sent to Dr. Stewart.

THE MANCHESTER HOSPITAL WORK SOCIETY.

A crowded audience met in the Lord Mayor's parlour last week at the annual meeting of the Manchester Hospital Work Society. The principal work of the society is providing garments of various kinds, which are presented to the various hospitals for the use of the inmates. A large number of dressing-gowns have been thus presented, many being contributed by associates of the society, and others being provided out of its funds. The total income had amounted to £101, and over 2,900 garments had been distributed among the hospitals. Appreciations of the work of the society were received from the Manchester Royal Infirmary, the Salford Royal Hospital, and the St. Mary's Hospitals.

THE LADIES' PUBLIC HEALTH SOCIETY.

The annual meeting of the Ladies' Public Health Society, which is in union with the Manchester and Salford Sanitary Association, was held last week at the Manchester Town Hall under the chairmanship of the Lord Mayor. The society is now working in fourteen districts in Manchester and twelve in Salford. In Salford the salaries of seven of the lady health visitors are paid by the corporation, while five are paid by the society. The time of the visitors was taken up in visiting all the babies in their districts

under a year old, the visiting of consumptives, and the visiting of houses to see that they are kept in a sanitary condition. In addition leaflets on health subjects are distributed and sanitary powder and lime are provided, brushes for whitewashing being lent. An important experiment has been made with a view to reducing the infant mortality by providing nursing and expectant mothers with cheap dinners. The mothers paid only a penny for each dinner, which was as much as they could afford, the average wages of their husbands being only 14s. a week. During the first six months 143 children had been medically attended at the Salford centre of the Mothers' Guild. The Lord Mayor said that in Manchester all the health visitors were now paid by the corporation, and they were under the control of the medical officer of health, and he hoped that would soon be the case in Salford. The Mayor of Salford said that as far as he was concerned he would try to remedy that in Salford. The society is a good example of what can be done in the way of combining voluntary associations with municipal work.

LONDON.

TREATMENT OF SCHOOL CHILDREN.

AT the meeting of the Education Committee of the London County Council on February 9th the Day Schools Subcommittee reported further with regard to steps to be taken to secure the medical treatment of school children in districts inaccessible to hospitals. Among these districts the subcommittee included Greenwich and Woolwich, and now reported an offer by the governing body of the Miller Hospital, Greenwich, to provide treatment by *x* rays for fifty children suffering from ringworm for twelve months, at a charge of £55. The subcommittee recommended the acceptance of this offer. The suggested agreement with the hospital included the following clauses: "No grant shall entitle the London County Council to representation on the governing body of the hospital, nor to interference in any way with the work of the departments concerned. The payment of £55 shall be accepted by the governors in full discharge of expense incurred, including adequate payment for clinical assistants. The hours of attendance must be made to suit the convenience of the hospital."

When the arrangements for medical treatment were approved by the Council on November 30th last (BRITISH MEDICAL JOURNAL, December 4th, 1909, p. 1644), the amount of the capitation grant for the treatment of ringworm was reserved, as the cost of the *x*-ray method was not known at the time. Records had been kept, it was reported, at the Charing Cross and St. George's Hospitals, each hospital providing treatment for 25 cases, and the cost, apart from payments to clinical assistants, had worked out at 7s. a case at Charing Cross Hospital and 8s. 8d. a case at St. George's Hospital. The agreements with these hospitals provided that the amount of the capitation grant for the treatment of ringworm should be fixed in accordance with the result of these experiments. Each hospital had undertaken to provide treatment for 200 cases a year, and the grant to Charing Cross Hospital would be, therefore, £70, and to St. George's Hospital £87.

In a further report as to the recovery of the cost of ringworm treatment from parents, the subcommittee stated that the cost including clinical assistants varied at the different hospitals from 22s. to 15s., and on the average five attendances were necessary to effect a cure. The subcommittee thought it would be undesirable to vary the payments to the different hospitals and proposed that the lowest charge (15s.) should be accepted as the cost of ringworm treatment, and that as to the amount to be demanded from parents, 3s. per attendance for not more than five attendances should be the full charge. The procedure adopted for the recovery of these sums would be the same as that agreed upon in the case of other ailments, as reported in the BRITISH MEDICAL JOURNAL of January 1st, 1910, p. 47.

The Special Schools Subcommittee reported that an application had been received from Paddington Dispensary for the Prevention of Consumption for assistance from the London County Council in connexion with the formation of a special school for (1) children suffering from tuberculosis; (2) children predisposed to tuberculosis; and (3) children discharged from sanatoriums and convalescent homes, and being treated by the dispensary. At present 300 children between the ages of 5 and 15 attended the dispensary. The subcommittee agreed that such a school should be established as an experiment for three years. Premises known as Kensal House, Harrow Road, were recommended by the dispensary for the purpose. The house stood in its own grounds of three-quarters of an acre, abutting on the Paddington Canal. The committee of the dispensary would be responsible for the expenditure for adapting the building, and the funds for this purpose had been guaranteed for three years. The Council would only be responsible for the maintenance of the school, which would cost annually about £800, less a Government grant of nearly £500.

The Education Committee accepted the offer of the Miller Hospital with reference to the treatment of ringworm, but postponed, at the request of the subcommittee, the consideration of the proposals for the recovery of the cost of ringworm treatment from parents. The scheme for the establishment of the special school for tuberculous children was approved.

The committee debated at great length the estimates of expenditure mentioned in the BRITISH MEDICAL JOURNAL last week (p. 344). An amendment was proposed that the estimate in respect of medical treatment be increased from £4,000 to £8,000 in order that treatment of teeth might be included, but this was rejected. Dr. Beaton also drew attention to an item of £100 for the upkeep of the laboratory which is concerned with the infectious diseases of the school children, urging that £100 was utterly inadequate for such important work. The item, however, was passed.

THE COST OF MEDICAL INSPECTION AND TREATMENT.

The education estimates of the London County Council for 1910–11 issued last week include the sum of £19,075 for medical inspection and treatment; £1,000 is expected to be recovered from parents. Amongst the provisional estimates is a sum of £120 to meet the cost of the thorough cleansing, as an experiment, with soap and water of the floors of six infants' schools for six months. The cost of extending the proposal to all infants' schools would be £10,500, but if an improvement in the health of children results larger exchequer grants would be received as a set-off. A year ago Dr. Beaton drew attention to this question, urging that stricter cleanliness of schools would check epidemics. He stated that the present practice is to sweep schoolroom floors once a week and to wash them once in three weeks.

EDUCATION IN VACCINATION.

The Education Committee decided by a large majority to disregard a request by the National Vaccination League that the subject of vaccination should be excluded from the schemes of instruction in London schools. Certain books were objected to by the league, but these, in the opinion of the Books Subcommittee, were "all excellent." Some months ago, however, a diagram entitled "Small-pox Statistics" was removed from the requisition lists after the league had drawn the committee's attention to it. Further than this, the subcommittee stated, they did not propose to go.

TUBERCULOUS MILK.

The Public Health Committee of the London County Council reported on February 8th that between October 11th, 1909, and January 29th, 1910, 810 samples of milk dispatched to London railway termini from 25 English counties had been taken under the provisions of the London County Council General Powers Act, 1907. Of 676 which had been examined to date, 73 had been found to be tuberculous. Since the Act came into operation the examination of 1,930 out of 2,531 samples taken had been completed, 9.6 per cent. being proved to be tuberculous. The Council's veterinary inspector had visited 184 farms outside London, and inspected 4,455 cows; of this number 74, or 1.7 per cent., were

found to be affected with tuberculosis of the udder. In every case the dairy farmer had undertaken to sell no more milk from the affected animal.

EALING COTTAGE HOSPITAL.

At a meeting on February 7th the committee of Ealing Cottage Hospital issued authority for the signing of a contract for the building of new premises at a cost of £16,500, exclusive of the cost of land. The plans include accommodation for 38 patients, and an arrangement by which provision can be made at a later period for 20 additional beds if thought desirable. Of the sum required about two-thirds have been received. The decision now recorded represents the first definite move in a scheme which probably would meet with little favour among lay residents in Ealing were its full meaning brought home to them. Ealing Cottage Hospital originated in a provident dispensary established some forty years ago. To this in 1871 a few beds were added, and these were increased on three subsequent occasions. In its present state the institution dates from 1896. It has twenty-two beds and two cots, its in patients number between 200 and 250, and there are some 2,500 members on the books of the dispensary. The in-patients, as a rule, pay small sums varying from 3s. 6d. to 12s. a week towards their maintenance. The total annual income is a little under £2,000, and about balances the ordinary expenditure. As a hospital, its work is done on "cottage" lines by local practitioners, with the assistance, when needed, of three consultants. A year or more ago it was suggested that the number of beds should be increased, and a request for a building grant was made to the King's Fund. The reply was to the effect that it would be forthcoming if the new hospital were conducted on the lines of a metropolitan general hospital. The condition was accepted, and at the last distribution meeting of the King's Fund a grant of £1,000 to the building fund of Ealing Cottage Hospital was approved. The conditions attaching to such a grant mean the transformation of a local institution which, under an active committee, has proved highly efficient, into one staffed entirely by London surgeons and physicians, and requiring for its upkeep a much wider opening of money-bags than the present institution has ever demanded, or is ever likely to demand. It may be desirable to rehouse the institution and somewhat increase the accommodation, and the system on which it is staffed might be slightly modified with advantage; but local conditions would not seem to justify its replacement by an institution of the ordinary general hospital type. It is open to question whether thus transformed the hospital would be of any greater service to such poor as live in Ealing than is the present one, and it is certain that those who do not belong to the really poor classes, but to the comparatively well-to-do and wealthy sections of the community, will lose by the change. The benefits of a hospital are not limited to those who are treated within its walls, but are extended to every person in its neighbourhood through its influence on local medical men, provided that a considerable proportion of these actually take part in its work. Hitherto this has been the case at Ealing, where the stimulating influence of hospital work has been a part of the daily lives of as many as twelve of its medical practitioners and three of its dental surgeons. It would seem that a year or two hence this stimulus will cease, whereas the true interests of the inhabitants of Ealing would, on the contrary, best be consulted by preservation of the present system, with possibly the extension of its benefits over a still wider area by shortening somewhat the period for which any one individual local medical practitioner can uninterruptedly hold office on the staff. If, however, the situation is to be saved, it can only be—it would seem—by lay effort. The policy of the King's Fund in encouraging enlargements of existing institutions in outlying parts is no doubt sound in a general way, but the transformation of small local hospitals into institutions of the metropolitan type is a plan only rightly applicable to suburbs almost entirely inhabited by members of the working classes, whereas the borough of Ealing is largely residential. In many provincial towns the hospital work required is done by men who rarely confine themselves solely to consulting work, and it seems foolish to deprive the medical profession in Ealing of like opportunities. After all, that neighbourhood is, in point of accessibility, not much further away from the centre of London than is, for instance, Brighton, in these days of fast trains. But what would Brighton say if it were proposed to rob its practitioners of the stimulus of hospital work by staffing the Royal Sussex Hospital by London men, merely for the sake of £1,000.

LEICESTER.

NEW NURSES' HOME.

THE last part of the building scheme in connexion with the Leicester Infirmary, which has been carried out under the auspices of Sir Edward Wood, the chairman, who has raised £100,000 to bring the institution up to a modern standard of efficiency, was completed on February 2nd, when Mrs. Fielding-Johnson, the wife of the former chairman, opened the new nurses' home which has recently been erected from designs of Messrs. Everard, Son, and Pick, of Leicester. The total cost, including furnishing, was £22,500. The building is an E-shaped structure of a plain character, built of Bagworth bricks to harmonize with the existing buildings, and faced with Ketton stone. There are four stories, the three upper being exactly similar. The basement contains box-rooms, bicycle store, coal-house, etc., and the heating chamber for the building. The ground floor, which is approached by three entrances, contains a large central hall leading to the main corridor, which gives access to a spacious recreation-room with oak floor and a raised platform at the north end. The other rooms on this floor are two probationers' sitting-rooms, sisters' sitting-room, the home matron's room, a linen store, kitchen, class-room, waiting-room, quiet room, library, five bedrooms, and lavatory accommodation. Shut off entirely from the main buildings is a small isolation block with separate entrances, containing isolation room, nurses' rooms, and separate lavatory accommodation, which will prove most serviceable in dealing with any case of infection which may arise among the nursing staff. The three upper floors each contain 31 bedrooms, as well as a large central lavatory equipped with basins, hot and cold supplies, etc.

The side wings contain on either side three bath-rooms and three waterclosets. The home faces due south. The corridor floors are of terrazzo, the sitting and bed room floors of dolomont.

The building is equipped with electric light, gas being laid on in case of emergency, and is heated throughout with low-pressure steam radiators, each bedroom and sitting room being provided with a separate fireplace. Telephonic communication has been installed between the home and the infirmary, as well as an intercommunication system on each floor of the home. The bedroom furniture is of oak, and many of the rooms have been furnished by friends at a cost of £15. The whole of the arrangements made for the comfort of the nurses met with much commendation from the large number of ladies and gentlemen present at the opening ceremony, in whose opinion the nursing staff are now housed in apartments which compare very favourably with those of most institutions.

WEST YORKSHIRE.

THE BRADFORD DIVISION OF THE BRITISH MEDICAL ASSOCIATION.

A SUPPER and smoking concert, held under the auspices of the Bradford Division of the British Medical Association at the Great Northern Victoria Hotel, Bradford, on February 1st, was attended by a large number of medical men. Dr. Metcalfe, Chairman of the Division, presided, and after supper the

Chairman, in the course of a few remarks, stated that the meeting was for pleasure, not business. The concert had been arranged to take place under the aegis of the Bradford Division of the British Medical Association—that great Association of the medical profession which existed to promote the intellectual, the material, and the social interests of its members. Social intercourse was of the greatest use in removing the asperities and suspicions which sometimes arose. The amount of musical talent amongst the medical men of Bradford is astonishingly great, and many well-known doctors contributed songs and recitations. Amongst the latter was Dr. Goyder, who contributed no less than three admirable items to the programme. After a most enjoyable evening, the proceedings came to a close at midnight.

We may note that Dr. Goyder, who, it will be remembered, was entertained lately at a complimentary dinner by the medical profession at Bradford on his eightieth birthday, has now received a congratulatory address from his colleagues on the Bradford Board of Guardians in the following terms:

To David Goyder, Esq., M.D.

We, the undersigned members of the Bradford Board of Guardians, in congratulating you upon the attainment of your eightieth birthday, desire to place upon record our high appreciation of your unfailing courtesy and kindness, your unselfish devotion to and care for the poor; and also of the enthusiastic and efficient manner in which you have discharged your many public duties, especially those as chairman of the Union Hospital Committee.

The presentation was made by the Chairman of the board, and the address was signed by all the members and by the clerk.

Special Correspondence.

PARIS.

Typhoid Fever and the Carrier Problem.—Human Sero-therapy.—Antibodies, Antitoxins, and Predisposition.

DURING the last three months a full-dress debate on the prophylaxis of typhoid fever has been going on in the Académie de Médecine. No disease has been fought in France with more enthusiasm and none with more success, but none has prevailed with more dire intensity. As an old country doctor said to me the other day, in rather grim jest, "What an excellent disease it is; for forty years I have made 2 000 francs a year through it, and now science is stepping in to spoil my trade." Hitherto the principal consideration which has guided our preventive measures has been the disinfection of contaminated waters, and it must be admitted that to this we owe three fourths of the diminution in the number of cases. A new idea has recently been introduced—that of the bacillus carrier. These persons, after they have recovered from their attack of typhoid fever, continue to harbour for years, in the alimentary canal or in the urinary organs, dormant bacilli which they can pass on to others, and which in the new soil thus provided for them can again develop their mischievous activity. This discovery seems to imply the introduction of prophylactic measures so extremely difficult of application, and so extremely delicate, that without questioning their utility, I must agree with M. Delorme in believing that they should be assigned a secondary place. If precautions of this nature are to be extended to all infectious diseases, it is evident that we shall have to ostracize, or at the very least put under suspicion, nearly everybody everywhere, and that in the name of prophylaxis this planet of ours will be rendered uninhabitable.

Moreover, these excellent bacilliferous folk are not wholly mischievous. If a theory which is just beginning to rise above the horizon, but which is growing bigger and brighter as rapidly as Halley's comet, is to be accepted, then these persons, like the lance of Achilles, will turn out to be eminently capable of curing the ills they cause. This new luminary is humano-sero-therapy.

Why has this simple way of preserving mankind not been thought of before? Was it not easy enough to conceive that a patient might be cured by the simple expedient of injecting him with the serum of one of his own kind who had himself been cured? For if this other person had recovered, the reason must have been that his blood possessed or had acquired certain special qualities which enabled it to repel the infection, and, since this infection is produced by micro-organisms and their toxins that, fighting foot to foot, and opposing element to element, his blood produced antibodies and antitoxins which triumphed over the enemy. Yet it is asserted that the science of medicine is infinitely complex, and that we shall never be able to unravel the tangle of human nosology! Now, on the contrary, the utmost simplicity in action and reaction is revealed! Were I not thoroughly hardened by the daily practice of a sanguinary profession, I could weep tears of joy and admiration. The story, moreover, is even more wonderful than it seems at first sight. We might be inclined to suppose that, in order to cure a patient in whom the disease was in the acute stage of its development, half or even three-quarters of the serum of a person who had defeated the enemy would not be too much, because its antibodies and antitoxins, having had for some time nothing to do, might be expected to have sunk into a state of indolent inactivity, if, indeed, for the most part, they had not retired covered with glory to their native haunts. Not at all; of this wonder-working serum only an infinitesimal quantity is necessary, 20 to 70 c.cm. injected in divided doses for acute peritonitis (Wilkie). This is very fortunate, for it would have been deplorable had it turned out to be necessary to *saigner à blanc* a convalescent in order to cure a patient with the disease in its acute stage. These antibodies are mighty fine fellows, and Bayard, who defended the bridge of Garigliano against 200 Spaniards, was as nothing in comparison with these doughty champions of our physiological integrity.

So much then for this new science of humano sero-therapy, founded, I venture to say, not a day too soon. All the animal serums and all the organic extracts derived from the lower mammalia which have hitherto been employed in therapeutics have filled me with anxiety for the future of the human race. Now we are returning once more to the paths of logic and dignity—*Ratio cum dignitate.* Already there are on record instances of doctors who have not hesitated during an epidemic to contract an eruptive disease, to cure themselves of it, and to open their own veins in order to provide their clients with a serum always at hand and always up to standard. This, indeed, carries to its heroic acme the *haud ignara mali miseris succurrere disco* of Virgil, poet and prophet. Yet there is one point which still troubles me a little. I dread some treason in this serum, with its wonderful micro-actions, and I see clearly that the exponents of the method are themselves a little suspicious, and for the same reason. They are careful that the blood borrowed from a species so foolishly diseased as the human shall not contain in addition to the desired antitoxins poisons of some other nature which may have taken their place; they take, for instance, precautions against inoculating syphilis for the cure of a coryza. They will, I hope, permit me to point to another source of danger. In the course of nature it is not inevitable that each particular individual should fall ill of each particular disease. The theory of what we commonly call predisposition will be a vain thing if we do not give it a legitimate extension in accord with the hypothesis set out above, and assume the existence in the blood serum of pre-bodies and pre-toxins, ready, if the simile may be permitted, to welcome with open arms their accomplices from the outer world. Anaphylaxis and predisposition ought to be interpreted on the same lines as immunity. All this is not very reassuring, and I can quite easily imagine that fifty years hence one of our descendants may have some tale such as this to tell: "In 1921 I caught measles; my doctor, who had foreseen what was about to happen, and had had himself inoculated a few weeks earlier, injected me with 25 c.cm. of his own serum, and within a fortnight I was cured; but in 1922 a strange thing happened. We were both attacked by typhoid fever at the same time. The serum of a hospital nurse who was convalescent from the disease saved our lives however, and we recovered after an illness lasting about sixty days. Now we are all three suffering from chronic rheumatism, and are looking out for some person who has been cured of that disorder to try and catch a fourth disease less serious than rheumatism.

So far we have not been able to find such an one." I may seem to jest, but—

Quamquam ridentem dicere verum quid vetat?

and I should be mortified were the apostles of humano-sero-therapy to take what I have written to be altogether a hostile criticism. I may poke fun at a theory which seems to me much too simple to be true, but I am always ready to accept without any explanatory hypothesis a series of convincing facts. But where in medicine can we discover the wholly convincing fact? It is the misfortune of our art, the despair of therapeutics, that we have to direct our inquiries to subjects so difficult to define, so individualized, so little comparable one with another as human organisms. In medicine hypotheses have always stood in the way of facts; our road is strewn with them, and all our generalizations are no more than smoky torches, throwing for our feet a trembling and deceptive light, which only makes the rest of our road seem the more dark.

BERLIN.

The History of the Crusade against Tuberculosis.—The Housing Question and Tuberculosis Colonies.

DURING the last few years the efforts of hygienists in Berlin and other parts of Germany have been largely centred on the combat against tuberculosis, and Professor Kayserling recently read a paper before the Gesellschaft fuer soziale Medizin, Hygiene und Medizinalstatistik in which he gave statistics as to the number of deaths from tuberculosis during the period 1883 to 1908 in Berlin, where the name of each inhabitant is registered and the cause of every death is officially certified by a physician. A decrease in the mortality followed closely on the discovery of the bacillus in 1881 by Robert Koch, who even at that early date pointed out that contagion might be prevented by disinfection of the sputum, etc. The crudest cases of transmission were henceforth avoided. Substantial progress was made in 1884 by the institution of State insurance against sickness. To the working classes in particular better medical treatment was in this way guaranteed and the opportunity was given of diagnosing the malady in its initial stages. In 1890 notification was made compulsory by a municipal regulation which has, however, been rather neglected. The most important step was taken in 1890, when colonies or sanatoriums for curable consumptives were established. By 1907 Berlin had 1,700 beds in such institutions. During the period 1889–1908 there was no decrease in mortality among males aged 15 to 20 years, while among females of the same ages there was a noticeable increase; at ages 20 to 25 the statistics show a similar result, but in women at the age-period 25 to 30 no increase is to be observed. At the age-period 35 to 40 years there was a fall from 42 to 23 per 10,000 among males, and a similar decline in the female rate. The decrease among both sexes over the age of 40 has been continuous. The increased mortality among females at the age-period 15 to 25 might, Professor Kayserling thought, be attributed to the greater calls made during recent years upon their energy by the employments in which women now engage. The decreased mortality of those past the age of 30 is probably due to the homes for consumptives, for, in addition to the treatment there given, the patients are disciplined in hygienic principles, so that on returning to their former sphere of life they continue to live in accordance with these principles; moreover, in the event of a relapse, they know how to avoid transmitting the disease to others.

The institution of these sanatoriums was, however, only the first step in the contest with tuberculosis. The improvement of dwellings, especially those of the working classes, must, Professor Kayserling thought, be regarded as equally important. Inquiry showed that 40 per cent. of consumptives lived in single-roomed apartments, and were thus brought into intimate contact with 82,000 other inhabitants of Berlin, so that it was not difficult to realize what opportunities were furnished for the propagation of the disease. It should be the function of the so called *Feversorgestellen* to procure in the first place better housing accommodation by paying a portion of the rent, and in the second to see after the proper disinfection of dwellings in which a death from consumption has occurred, or from which a patient has gone to a consumptives' home. Further, it was, he said, of the highest importance to isolate children in consumptive families. In France, such children were sent into the country to avoid infection. The next step that should be taken in Germany was to make the method of disinfection the subject of legislation. After the removal of a patient to a hospital, a thorough disinfection of the house should at once be carried out. Obviously the best means of stamping out tuberculosis would be complete segregation of the patient: but for the present such a proposal would be utopian, since it was impossible to compel a sufferer, still capable of working, to abandon his family for the rest of his life, or even to spend some years in a consumption colony in the hope of ultimately regaining his health. Notwithstanding this, the establishment of such colonies or homes would be of great practical benefit. Statistics showed that for Berlin accommodation for 750 would be ample. Last among the means of fighting tuberculosis was finding suitable hygienic work for consumptives after they left the colonies, and open-air employment would, of course, be the most satisfactory. In spite of all the advances of the last twenty or thirty years, these requirements were imperative. Until they were satisfied there could be no hope of bringing the combat against tuberculosis, the most formidable enemy of mankind, to a successful conclusion.

MOTOR CARS FOR MEDICAL MEN.

A COMPREHENSIVE INSURANCE POLICY.

THE Medical Insurance Committee (429, Strand, W.C.) is now in a position to offer, through the "Red Cross" Indemnity Association, a new form of policy for the insurance of motor cars of a very comprehensive and inclusive kind. The policy, which is called the Doctors "C.C." (complete cover) policy, instead of setting out the various benefits under numerous clauses which the insurer is to enjoy, states clearly that, with certain exceptions, the policy covers all loss or damage to his car, however caused, including mechanical breakdowns and damage whilst being cleaned. The exceptions are: The cost of maintenance; damage due to wear and tear or depreciation; road punctures, bursts, and wear and tear of tyres; and damage occasioned wilfully, or through earthquake, invasion, foreign enemy, riot, civil commotion, or military, or usurped power. The insured is indemnified against all damage directly sustained by him from loss or injury to the automobile insured, including accessories, up to the amount specified as the value of the automobile in the schedule to the policy by whatever cause such loss or injury may be occasioned. Further, the assured, and any member of his family, or a friend, who may be driving the automobile with the consent of the assured, is indemnified against any claim made by a third party, not being the driver of, or passenger in, the automobile, arising out of the use of the car, including law costs payable in connexion with such claim when incurred with the consent of the underwriters. A case suitable for carrying on the car, containing a list of authorized repairers, instructions, claim form, and a repair permit, is issued with each policy. In the event of an accident the car may be taken to any authorized repairer, who, without submitting estimates and waiting for the consent of the company, will at once commence the repairs. The assured will thus get his car back into use again at the earliest possible moment, and the underwriters agree to pay as from the second day after the arrival of the car at the works of an authorized repairer; or, in the alternative, after the receipt of an estimate, compensation at the rate of £1 a day whilst the automobile is being repaired, up to an amount not exceeding 75 per cent. of the agreed cost of the repairs. The assured must undertake to bear the first part of each loss, damage, or claim to the amount of £3 in the case of a mechanical breakdown when the automobile is more than two years old, and of £1 in respect of loss of accessories by theft. In the event of the total destruction or loss of the automobile insured the amount declared on the policy as the present value of the car will be accepted as the replacement value. There is a special clause providing that in the event of no claim being made under the policy 25 per cent. of the premium will be returned to the assured, whether the policy be renewed or not. Full particulars of the form of this doctors' "C.C." policy, and of other policies issued

by the "Red Cross" Indemnity Association can be obtained on application to Mr. Guy Elliston, Secretary and Agent, Medical Insurance Committee, 429, Strand, London, W.C. The Committee is in a position to allow a rebate of 10 per cent. off premiums on policies effected through it.

MOTOR CYCLE.

DR. CECIL E. REYNOLDS (Coldash, Newbury) writes: I have ridden about 15,000 miles on a machine made by one of the firms mentioned during this year, and although the engine is more efficient now than ever, the cycle part has been an endless source of annoyance and expense. It seems a little unkind to recommend to a medical man, to whom reliability means so much, a twin cylinder machine with automatic inlet valves, belt drive, and epicyclic two-speed gear. I have had experience of these also, and consider the combination abominable. Two machines stand out clearly at the head of the poll, namely: (1) The Phelon and Moore for sidecar and solo work; (2) the Triumph for solo work only. Let "H. K." compare the performances of these two machines with the heavy belt-driven twins in the quarterly trials of the Auto-Cycle Union, and I think his difficulty will be settled. The Phelon and Moore won the medal for the best team. It is amply powerful enough with its two-speed gear for sidecar work, and if the rider did stop on an unusually severe hill it is no hardship to drop the passenger, engage the low gear from free engine position, and go up alone. Apart from workmanship and material, the advantages are mainly (1) one cylinder only to keep in order, thus abolishing the worries of synchronization; (2) a light and simple two-speed gear; (3) lowest possible saddle position; (4) no belt troubles. This latter advantage is a host in itself. Added to this the machine is weatherproof. If "H. K." wishes further proof, let him submit ten names of machines with a number to each to the editor of a motor-cycling paper asking him to arrange the numbers in order of merit. Lastly, let him remember that if a machine does not suit him and he wishes to sell it, some makes fetch almost list price, others fetch next to nothing even if they have only been once on the road. I advise a castor-wheel sidecar, not a flexible.

THE INTERNATIONAL MEDICAL CONGRESS, 1913.

THE first move in preparation for the seventeenth International Congress of Medicine, which is to be held in London in 1913, was made last Monday, when a meeting was held in the hall of the Royal Society of Medicine for the purpose of forming a general committee and of taking such preliminary steps as should be considered advisable. At the last meeting of the National Committee, held at Budapest last summer, that body dissolved, but determined that its officers should continue their duties pending the constitution of the General Committee for the Congress in London. Dr. Pavy took the chair, and Mr. D'Arcy Power and Dr. Clive Riviere supported him as the Acting Secretaries. The Chairman, having explained the position, called upon Mr. D'Arcy Power to read a list of 360 names of those who had intimated their willingness to serve on the committee. To this number must be added those who had served on the National Committee. A few names were added to the list at the suggestion of some members present, and the General Committee was thereupon elected *en masse*. It was then resolved, on the motion of Dr. Pavy, that the office of President of the General Committee (not of the forthcoming Congress) should be filled by the President of the Royal College of Physicians for the time being, and Sir Richard Douglas Powell, on taking the chair, moved a hearty vote of thanks to Dr. Pavy for his valuable services. The vote was carried by acclamation.

At the suggestion of Mr. Pearce Gould, supported by Professor Osler and Mr. Butlin, an Advisory Board was appointed to consider nominations for the posts of President, Treasurer, and Secretary of the Congress as follows:

Sir T. Clifford Allbutt, K.C.B., F.R.S.
Sir William Allchin, M.D.
Sir Charles B. Ball, Dublin.
Sir Thomas Barlow, Bart., K.C.V.O.
H. T. Butlin, President of the Royal College of Surgeons of England.
Sir W. Watson Cheyne, Bart., C.B.
Sir William S. Church, Bart., K.C.B.
Clinton Dent, F.R.C.S.Eng.
The Director-General of the Navy (Inspector-General J. Porter, C.B.).
The Director-General of the A.M.S. (Surgeon-General W L. Gubbins, C.B., M.V.O.).
The Director-General of the Indian Medical Service (Surgeon-General A. M. Branfoot, C.I.E.).
G. A. Gibson, M.D., Edinburgh.
A. Pearce Gould, F.R.C.S.Eng.
Percy Kidd, M.D.
Sir William Macewen, Glasgow.
G. H. Makins, C.B.
Norman Moore, M.D.
Sir Malcolm Morris, K.C.V.O.
Sir Shirley Murphy.
George Newman, M.D. (Board of Education).
Arthur Newsholme, M.D. (Local Government Board).
Professor Osler, F.R.S., Oxford.
F. W. Pavy, M.D., F.R.S.
Sir Douglas Powell, Bart., President of the Royal College of Physicians, London.
D'Arcy Power, F.R.C.S., Acting Secretary, General Committee, Seventeenth International Congress of Medicine.
Seymour J. Sharkey, M.D.
Charters J. Symonds, F.R.C.S.Eng.
Sir John Tweedy, F.R.C.S.Eng.
Sir John Whitla, M.D., Belfast.

The reference to the Board was extended by instructing it to suggest the composition of the Executive Committee. The date of the Congress will be fixed after the meeting of the International Committee at the Hague in March.

The meeting was very well attended, and the General Committee contains members representing the various educational and other public bodies, including the Local Government Board and the medical services of the navy and army, as well as most of the specialities. It was a little difficult to follow and bear in mind all the names in so long a list, but the impression conveyed was that the mass of the profession, the general practitioners, are certainly not adequately represented.

Medical News.

HIS MAJESTY THE KING has graciously granted permission to Dr. George Ogilvie to accept and wear the Insignia of Knight of the Royal Order of Nossa Senhora de la Conceiçao de Villa Viçosa conferred on him by the King of Portugal.

SIR HENRY BELL LONGHURST, Surgeon-Dentist to the King, has been appointed a Commander of the Royal Victorian Order.

DR. A. T. GORDON BEVERIDGE has been appointed Police Surgeon for the City of Aberdeen, in room of Dr. Matthew Hay, who recently resigned the appointment.

Dr. W. R. PIRIE has been appointed Certifying Surgeon under the Factory and Workshop Act for the County and the City of Aberdeen, in place of Dr. Angus Fraser, resigned.

THE French Association for the Advancement of the Sciences will hold its thirty-ninth annual meeting at Toulouse in August next under the presidency of Professor Gariel. The foundation stone of a new suburban hospital will be laid on the occasion.

ON Wednesday evening, February 9th, the Battersea Borough Council, by 41 votes to 4, decided to adopt a recommendation of its Highways Committee "that steps be taken with a view to the removal of the Brown Dog drinking fountain, and its return to the donors."

THE annual meeting of the After-care Association for Poor Persons discharged from Asylums for the Insane will be held in the library of the Royal College of Physicians, London, on February 16th. Sir Richard Douglas Powell, Bart., will take the chair at 4 p.m.

LORD SANDHURST will preside at a meeting of the Indian Section of the Royal Society of Arts on Thursday, February 17th, when a paper on the Bombay housing question will be read by Mr. G. Owen Dunn, Chairman Bombay City Improvement Trust, 1904–9. The chair will be taken at 4.30.

A DISCUSSION on pericarditis with effusion, as determined by operation or *post-mortem* examination, will be opened by Dr. Samuel West at a meeting of the Medical Section of the Royal Society of Medicine to be held at 5.30 p.m. on Tuesday, February 22nd. Fellows and others wishing to take part in the discussion are requested to send their names to the honorary secretaries as soon as possible.

THE London County Council on February 8th decided to continue to require the notification of epidemic cerebro-spinal meningitis in the county of London for another year. It was stated that since the notification of cerebro-spinal fever had been compulsory in London, 317 cases had been notified, and detailed information, which might at any time become of importance, had been obtained.

Correspondence.

DUODENAL ULCER AND APPENDIX DYSPEPSIA.

SIR,—As I had read Mr. Moynihan's paper on "Appendix Dyspepsia" with much interest, and fancied that I had learnt yet one more lesson upon an old text of mine, that "neurosis" must be, so to speak, the *last ditch* of diagnosis, I felt a little discomfited to read the severe strictures upon his paper by Mr. Bowlby—strictures which could not have come from a more authoritative source. Moreover, Mr. Bowlby's opinions appealed to the apprehensions of the physician—apprehensions not without substance—lest there be nowadays some over-readiness in our surgical colleagues. So I began to vacillate in my judgement, yet was unable to expel the suspicion that Mr. Bowlby's chastisements, wholesome as they may be, might in this case have erred on the side of severity; and as I am engaged in revision of my article on Neurasthenia for our *System of Medicine*, I desire, with all respect, to compare the opposing arguments.

Mr. Bowlby's demurs are fourfold—that Mr. Moynihan's categories are vague and indefinitely comprehensive; that the series of symptoms are respectively inconsistent, or even contradictory; that in his scanty reports and short sequels the data are insufficient; and that between acute phases of appendicitis symptoms are in abeyance.

Now I will not stop to discuss the practice, now become general, of issuing preliminary papers before the author has completed the laborious and mature researches which are essential to a complete study of his subject. Mr. Moynihan, while admiring such reticence, may plead custom, even in high places, and may (if I may guess for him) regard the paper before us as an essay of this kind; and, taking it in this light, may we not ask ourselves if there is not something in it—perhaps a great deal? Immature, fragmentary if you please, yet with a core of important truth. For I must say that, when thus put to me, Mr. Moynihan's views seemed to account for some obscure cases, and, indeed, for a few not obscure, in my own experience. Two especially came into my mind; both these are to the same effect, and I will ask your leave to cite one only, one in which, brief as I must be, I can give more of the data which Mr. Bowlby rightly desires.

Mrs. X. was a patient of Mr. Arthur Cooke and myself for many years. She was, when I was first consulted, a married woman approaching middle life, and presented a typical example—as we thought—of neurasthenia. At first the right kidney was a little dropped and the other viscera slackened in place. After some treatment in vain—this was before Mr. Cooke was associated with me—she was sent to the late Mr. S. Eccles for a Weir Mitchell cure. The event seemed all we could wish; the viscera were made taut again, and for eighteen months she was quite well. But then the complainings began again, and in the same vein—I need not recount them; suffice it to say she became again a weary, aching, repining woman, a trouble to herself and to all about her. Mr. Cooke had taken the case in hand, but nothing more than "neurasthenia" could be made out. Then Mr. Cooke began to importune for an exploration of her appendix. I must confess that I regarded his importunity as a surgeon's restlessness against inaction. The lady's friends objected on other grounds, but we were all infidels. At length Mr. Cooke and the patient came to terms, the operation was performed six years ago, and from that day to this the lady has been perfectly well and active, both in mind and body. The appendix was bound down by adhesion, and diseased after the fashions described by Mr. Moynihan. An old history of "peritonitis" in adolescence was recalled afterwards. The second case, I repeat, was to a similar effect. Now Mr. Bowlby will agree that a six years' sequel is no inadequate testimony; and I would point out that while this lady was at the tip-top of health—that is, after Dr. Eccles's "cure"—she was practically free from symptoms; although we cannot doubt that the appendix was at the root of the misery all the time.

But I would inquire most respectfully of Mr. Bowlby if it be an accepted canon that in the intervals of attacks of appendicitis the patients are wholly free from pain? My own impressions are otherwise; for example, I recall a fine healthy young man who had control of a large business who, even after a second mild attack of appendicitis, declined operation because the interests of his family were in his hands; he decided to run the risk. Of course we watched him anxiously, and he admitted to us from time to time unwillingly that he had frequent and not inconsiderable discomforts, especially after such food as celery, salads, etc. At length, in an easier time of business, he was delivered of a diseased appendix, with complete recovery. Thus, again, one person with a fallen kidney is unaware of it, another is rendered miserable by it—a diversity which depends upon the background of receptive instability in the individual constitution.

I am disposed to anticipate, then, partly by the analogies of other such vicious circles, that a finer discrimination of symptomatic series and an accumulation of data will prove that latent disease of the appendix may not infrequently, in persons of low resistance, set up reactions of a dyspeptic and "neurotic" kind.—I am, etc.,

CLIFFORD ALLBUTT.

Cambridge, Feb. 8th.

SIR,—In the issue of the BRITISH MEDICAL JOURNAL of January 29th, 1910, Mr. Moynihan describes a series of symptoms of dyspeptic disturbances originating in the appendix and not being cured before the excision of this organ. The experiences published by this eminent surgeon are of high interest and value for me, coinciding entirely as they do (apart from small differences, as for instance the frequency of haemorrhages in Mr. Moynihan's cases) with the description of such cases which I communicated to the Berlin Congress of Surgeons[1] and the *Berliner klinische Wochenschrift*[2] as early as 1899, and later on in my book, *Klinik der Darmkrankheiten*.[3] I have given to these cases the name of "Appendicitis larvata," because the physician treating them thinks of anything but a disease originating from the appendix. Clinically all symptoms of manifest appendicitis are absent. To quote myself, I said in 1899:

> We have to do with an affection connected with quite a series of widely differing symptoms; dyspeptic complaints, stomach ache, colic, or pains in the lower part of the abdomen; disturbed intestinal digestion, secretion of mucus and blood in the faeces. Or there is vomiting (even bloody), loss of appetite, and so on. Sometimes the physician treating the case diagnosed an ulcus ventriculi.

But on careful investigation in cases which have been for years unsuccessfully treated on varying diagnoses one finds the ileo-caecum and its neighbourhood changed, thickened, inflamed, and painfully swollen. The proof of an altered appendix is best given by inflating the intestine by way of the rectum. If in such cases one has the appendix removed all complaints vanish as by magic. In the course of years I have observed quite a number of such cases in which I made the diagnosis, had the operation done, found my diagnosis confirmed, and saw a prompt cure.

As various German and American authors have since confirmed these results I did not return to the subject during the last years, believing that it was universally known and appreciated.

I have in the same communications ventilated the question—how far these results are to be attributed to the operation itself or how far suggestive moments might enter into the curative effect. Three reasons spoke against the latter assumption: (1) None of the cases, either men or women, were hysterical; they had partly got nervous by prolonged suffering, but could not be looked upon as being *ab origine* hysterical or neurasthenical persons. (2) It is an old experience that suggestive effects are never of long duration; they may be surprising, but they subside after some time and the old complaints return; in my cases the cure was permanent—in some of them ten years by now. (3) There are patients who have their appendix taken out because of typical classical attacks of appendicitis, but who besides complain of pains not originating in the processus vermiformis. With these patients appendicitis has been accompanying an inveterate disease of the stomach or the intestines, and the complaints consequently remained after the operation. This proves that in genuine cases of appendicitis larvata there is really a connexion between

[1] *Archiv für klinische Chirurgie*, Bd. lx, Heft 1.
[2] *Berliner klinische Wochenschrift*, 1899, No. 24.
[3] C. A. Ewald, *Klinik der Darmkrankheiten*, 1902, p.

cause and effect. There is no question of atypical attacks of recurring appendicitis, which are easily recognized as such, but of a symptoma morbi which at first in no way points to the appendix and its neighbourhood at all. Hence so many wrong diagnoses and the name of 'Appendicitis larvata." It is striking how small the anatomical changes in the appendix often are in comparison to the vehemence of clinical symptoms. As a confirmation of my views I venture to quote another case, observed in 1900, from my *Klinik der Verdauungskrankheiten*, it being, perhaps, of special interest to the British reader:

CASE M. D.

In May, 1900, Mrs. D., of Valparaiso, consulted me by advice of her London physician, who had for some time treated her for obstinate constipation. The complaint got much worse when the patient was pregnant; then there were attacks of vomiting with intense prostration, absolute anorexia, dry tongue, and strongly inflated abdomen, with a pulse of 130. The first attack of this kind dates five years back, when she expected her first child.

About this and the further course of the disease I best relate in the terms of her physician: "At the end of the eighth month she had severe pains in the abdomen, strong flatulence, and obstinate vomiting. Three days after labour began, and as soon as the child was born the attack stopped. A similar but graver and more prolonged attack recurred towards the end of the second gravidity, while in the meantime there were always complaints of constipation. This time the pains had a more cramp-like character, with strong peristalsis, loud gurgling of the bowels, and intense prostration. They stayed on for a week after her confinement. The patient was again constipated, and when treated with aperients was successful but twice a week. She then came to England for treatment, but none of the internal remedies, massage, or Swedish gymnastics had any success whatever. On the contrary, during this treatment there was a new attack. This time the patient was most restless and temporarily confused—speaking Spanish, for instance, to her attendants, who did not understand a word of it. No increase in temperature. The extreme constipation could only be overcome by high enemas. A famous London authority was consulted. The abdominal organs were regarded to be absolutely intact, and all the consulted physicians in England and America were of the opinion that the attacks were hysterical, and "never had anything to do with the appendix." Since a year there had been no attack, but the severe constipation had remained.

When I saw the patient I could record a slight sensibility near McBurney's point on deep pressure, and after the bowels had been well evacuated and inflated with air I felt a circumscribed resistance which I could not but attribute to the appendix. As there were no changes in the adnex organs, no hysterical stigmata, and as the patient was quite well else, I made the diagnosis of appendicitis larvata and advised operation. Half a year later the lady decided to undergo the operation in London; she had seen me again before; I had confirmed my first diagnosis, and requested the patient to go to England for operation. The appendix was found to be lengthened, and grown together by adhesions with the colon and right ovary. The appendix itself was thickened and inflamed, the surgeon saying during the operation that the patient lived with a loaded bomb in her body under constant peril of explosion. The healing process went on evenly, and the complaints never returned.

I am glad to answer by these lines Mr. Moynihan's request for further contributions to this very important theme, and to confirm in this way his most interesting statements.—I am, etc.,

Berlin, Feb. 6th. C. A. EWALD.

SIR,—Whenever a new form of surgical treatment is proposed there is usually a strong probability that that particular operation will sometimes be performed unnecessarily. We have seen this during the past ten years in connexion with the operation of gastro jejunostomy. For this reason I agree with Mr. Bowlby that there is a serious risk that the frequency of appendicular disease as a cause of dyspepsia will be greatly overrated, and I think the use of the term "appendix dyspepsia" is calculated to foster this belief, and lead the public to overlook the fact that most cases of dyspepsia are functional in origin. At the same time, that there are cases in which latent appendicular disease does cause gastric symptoms I have not a doubt. This is no new discovery; it has been recognized in America for some years, as must be known to all who have had the privilege of visiting the clinic of the Mayo brothers at Rochester. For these cases I prefer the term "appendicular gastralgia," as being more vague, and less likely to lead to the belief that the majority of cases of dyspepsia have some organic cause which is curable by operation. There is no doubt that these cases have been often unrecognized in this country, and that gastro-jejunostomy has been performed for them without benefit to the patient, and Mr. Moynihan has done a valuable service in giving us his experience on this subject. Some months ago Dr. Soltau Fenwick and myself wrote papers on this condition, which have been accepted for reading before the Royal Society of Medicine, and I trust that the discussion will lead to the wider recognition of these cases, and will result in crystallizing our knowledge as to the class of case in which operation is justifiable and likely to be of benefit.—I am, etc,

London, W., Feb. 7th. HERBERT J. PATERSON.

SIR,—The question at issue is: Does chronic appendicitis sometimes simulate chronic disease of the stomach so closely that (as Mr. Moynihan asserts) skilled observers sometimes diagnose gastric ulcer when they ought to diagnose chronic appendicitis?

We are all familiar with acute local disease of the bowel giving rise to acute gastric symptoms, which may be by far the most conspicuous symptoms in the case. In strangulated hernia, for instance, the strangulated bowel may give rise to hardly any local pain, or to a local pain which lasts a very short time. The practitioner is summoned to see the patient not because he has pain or a hernia, but because he is vomiting.

Again, enteric fever—a disease characterized by local lesions far down in the small intestine—may begin with vomiting. I observed a case a few weeks ago in which, in an otherwise mild case, the vomiting lasted a week, during which time the patient retained practically nothing but water, but he had no abdominal pain whatever, and no tenderness on palpation. Again, in another mild but protracted case the disease began with vomiting and anorexia, but the patient never had any abdominal pain, except, at the beginning, a little tenderness on palpation in the epigastrium.

No one would contend that acute lesions of the bowel, far removed from the stomach, always cause acute vomiting; still less would any one believe that acute vomiting is always due to an acute lesion remote from the stomach. Similarly with chronic lesion. Mr. Moynihan, as I understand, does not assert that all chronic dyspepsia is chronic appendicitis, or that chronic appendicitis usually causes chronic dyspepsia. No one would believe him if he said that. At the same time there is absolutely no prima facie reason for refusing to believe that chronic localized bowel disease may sometimes produce chronic gastric symptoms. I am convinced that chronic gastric symptoms are sometimes thus produced, and I am sure that readers of the JOURNAL could easily produce an overwhelming number of instances. Two cases will serve for illustration:

1. A woman, aged 54, previously robust and healthy, began to suffer from attacks of acute gastric pain sometimes accompanied by violent vomiting. The attacks followed very slight indiscretions in diet, and after some of the worst attacks it was weeks before she was able to take even liquid nourishment in adequate amount. On one occasion she had melaena apparently to a considerable extent. The pain was always in the upper part of the abdomen and usually on the left side. This continued for eighteen months. She visited various health resorts. She saw several doctors including an eminent London physician, and all of them decided that she had a gastric ulcer, possibly malignant, but most likely not. Then the symptoms changed. From being gastric, they became obviously intestinal. Signs of obstruction came on, and these were found to be due to an annular carcinoma of very small size constricting the small intestine a few inches above the ileo-caecal valve. The surgeon who operated informed me that he frequently saw patients with bowel cancer whose symptoms at first suggested gastric disease.

2. A female servant, aged 35, had been attending the out-patient department of a London hospital for "gastric ulcer." She was constipated and anaemic, and had severe pain usually accompanied by vomiting after all solid food. She was tender on palpation under the left costal margin, and there was an area of cutaneous hyperaesthesia on the left of the middle line between the xiphoid cartilage and the umbilicus. On being put to bed, and treated as for gastric ulcer, she improved to the extent of being able to take selected articles of solid food without discomfort. A few months later she had a very slight attack of pain in the right iliac fossa. Six months later still I saw her on her return from a holiday in a well-marked attack of appendicitis, and she said she had had two similar but slighter attacks within the preceding month. Appendicectomy was performed, and since then (seven or eight months) she has been able to eat anything she fancies with absolute impunity.

The diagnosis of the true cause of the chronic gastric symptoms in these cases is undoubtedly difficult. The

first essential is of course a knowledge that such cases exist. An imperfect response to remedies known usually to afford temporary relief in cases of gastric ulcer may lead one to suspect that the gastric symptoms are secondary to a remote cause. The two cases mentioned above were more amenable to treatment than hysterical cases usually are.—I am, etc.,

London, W., Feb. 5th. G. G. DAVIDSON.

SIR,—I read with great interest Mr. Moynihan's paper on appendix dyspepsia, in the BRITISH MEDICAL JOURNAL of January 29th, as it at once recalled to my mind an interesting case which was under my care during 1908 and 1909.

The patient, a young lady aged 23, whilst away from home early in 1908, presented symptoms of acute gastric ulcer; the usual treatment was adopted, and the patient removed home at the earliest opportunity when she came under my care. There was a history of dyspepsia and constipation of some years' standing. On seeing the case I agreed as to the diagnosis. Under treatment the patient improved, the improvement alternating with a series of relapses. Vomiting was a constant symptom, relieving the pain, which was always referred to the epigastrium.

On two or three occasions a slight attack of haematemesis occurred, amounting to about a teacupful each time. Twice whilst under my observation she developed a very mild attack of apparently subacute appendicitis; with these two exceptions the pain, as before mentioned, was always referred to the epigastrium.

The chief points in the case were briefly these: Epigastric pain increased by food and relieved by vomiting half an hour after the meal; obstinate constipation was a marked feature throughout the case. As time went on the loss of flesh was pronounced. At no time could gastric dilatation or a palpable pyloric thickening or tumour be made out.

After a relapse in July, 1909, the patient consented to see a consulting physician, who confirmed the diagnosis of gastric ulcer, and agreed with me for operative procedure. In early August, 1909, a laparotomy was performed (not by Mr. Moynihan), when the stomach and duodenum, much to the astonishment of the operating surgeon and myself, presented no evidence of disease recent or ancient. Recalling the attacks of subacute appendicitis, it immediately struck one that whilst in the abdomen it might be well to have a peep at the appendix, which was found to have a distinct "kink" near its centre; it had no adhesions, but looked slightly turgid. It was removed. The patient made an uninterrupted recovery, with immediate cessation of the whole of the symptoms; the obstinate constipation became amenable to treatment, and the bowels now move naturally. She has put on weight, looks well, is well, and enjoys life. After a long and tedious illness, defying all medicinal treatment, the relief experienced since the appendectomy astounded me.

Until reading Mr. Moynihan's paper I had neither heard nor read of a similar case; but still, I have no doubt that other medical men will recall a similar experience.—I am, etc,

Kirbymoorside, Feb. 7th. T. WALSH TETLEY.

SIR,—I should be glad to be allowed to correct an error which has crept into the necessarily very compressed summary of my remarks made at the conclusion of the debate at the Royal Society of Medicine on Duodenal Ulcer.[1] I am reported to have said: "The cases published by Dr. Hort as a contribution to the discussion were in his opinion not cases of duodenal ulcer at all, but probably of appendicitis."

The argument I raised was, that before saying that the surgical treatment of duodenal ulcer had failed in any given case we must be quite sure that there had been a definite structural lesion in the duodenum at the time of operation. In Dr. Hort's cases an ulcer was seen in all. In other cases the diagnosis made before operation had been accepted in spite of the visible integrity of the duodenum, and gastro-enterostomy, then performed, had proved disastrous. In these latter cases I suggested that the appendix was perhaps at fault, and I urged the recognition of the condition of "appendix dyspepsia." I pointed out that gastro-enterostomy for duodenal ulcer was one of the most successful operations in surgery, judged by its immediate and remote results, but that the results of gastro-enterostomy for gall stones were bad, and those for appendicitis were worse. This criticism did not apply, and cannot of course apply, to the five cases of Dr. Hort. I am so deeply sensible of the enthusiasm and ability which Dr. Hort is devoting to the elucidation of many of the problems connected with gastric and duodenal ulceration that I should be very loth to appear in any degree as a hostile critic of his work.

I am well content to find that my writings seem not infrequently to act as an intellectual provocation to those who are good enough to read them. But if happily I might choose, I should prefer the response to such excitation to be expressed rather in reflection and renewed inquiry than in hasty denials or ill-informed judgements.

It came to me as a great surprise to find my paper on "Appendix Dyspepsia" the object of a merely destructive criticism from so distinguished a surgeon as Mr. Bowlby. I could not lightly pass over any comment of his, yet the opening and the final sentences of his letter in your issue of February 5th, page 349, indicate quite plainly that the condition I have described has met with no smallest recognition from him. The thoughts which my paper embodies are new to him; they are instantly met in a spirit, not of inquiry, but of denial. I am sorry this should be so, for it is evident that Mr. Bowlby and I are not yet equally equipped for a profitable discussion of this large, intricate, and important subject. One point only in Mr. Bowlby's letter needs reply. He writes, "It is common knowledge that one of the most notable clinical features of most cases of real appendicitis is the complete remission of all symptoms between the attacks," etc. Now a great many cases of "real appendicitis" pass unrecognized, as I have endeavoured to show; but I am prepared to admit the truth of Mr. Bowlby's contention in respect of a certain proportion of them. Why, then, are symptoms in some cases persistent and in others absent except during an acute attack? My present experience leads me to believe that if an obstruction exists in the appendix there will be an almost constant complaint of some of the symptoms to which I have drawn attention; if the lumen of the appendix is free there is complete quietude between acute attacks. But with the great opportunities Mr. Bowlby possesses for research into the question, he will, I think, not be long in recognizing, if, with an open mind, he will start a critical inquiry, that there is much truth in the matter I have laid before your readers. Then I hope that he and I may have the chance to debate the subject in all its details, and to have a happy little laugh together over his letter of to-day.—I am, etc.,

Leeds, Feb. 5th. B. G. A. MOYNIHAN.

OPERATIVE TREATMENT FOR HAEMORRHOIDS.

There are forty different ways
Of transcribing tribal lays,
And every single one of them is right.

SIR,—These words of Kipling's may well be applied to the various operations for haemorrhoids. It is easy but it is wrong, and worse still it is most foolish, to say any operation is a bad one on account of the failures which may come to one's notice. What operation could not be so condemned? I can give any number of details of bad results after ligature, but this does not condemn the operation, which is a good one.

It also seems easy, but it must be both wrong and foolish, for any one to decry an operation concerning which he has had little or no personal experience, and apparently for the simple reason that he will not gain it. This seems to be the state of the case with respect to both Mr. Harrison Cripps and Mr. Lockhart Mummery, who have recently written against the radical cure for haemorrhoids.

In the BRITISH MEDICAL JOURNAL for January 1st, Mr. W. S. Richardson says—quoting the excellent paper of Mr. H. Graeme Anderson, my late house surgeon—that only one-third of the cases of haemorrhoids at St. Mark's Hospital are treated radically. This is accounted for by the fact that until Mr. Gordon Watson recently came on the staff, I was the only one at St. Marks who ever did a radical operation for haemorrhoids, with the exception of one or two of my house-surgeons, who learnt the operation from me.

During the last fourteen years I have done this operation many hundreds of times, and without wishing to

[1] BRITISH MEDICAL JOURNAL, January 22nd, p. 204.

appear too conceited as to my powers of perception, I do not believe I should have persisted in it if it were such a failure as Messrs. Cripps and Mummery are anxious to make it appear.

One of these writers has had many long years of experience in rectal surgery, and the other will, I hope, get it in time, but I have never seen so many wrong statements made about a simple operation from want of experience of it. Mr. Mummery says: "Any operation for piles is radical which removes the piles, and it is not necessarily an advantage to remove the whole of the mucous membrane lining the anal canal, and incidentally the sensitive area of the rectal orifice."

The first statement hardly needs any comment, as it is so obviously wrong. No operation can be called radical which leaves behind it the very essentials for a recurrence.

The second statement is one which I have long wanted to clear up. Mr. Mummery has frequently made this statement with regard to the results of the operation in question; and yet, if he will look at others of his writings, which I always read with the greatest interest, he will see that he has described operations performed by himself in cases of rectal carcinoma, in which he has brought the bowel down many inches and attached it to the anus, with the result which he with natural pride tells us is in every way perfect with regard to control, etc. I do not think further comment on this is required!

Mr. Cripps's statement that he regards Whitehead's operation for piles as "the worst operation that has ever been introduced for the cure of this common malady," is a statement which I venture to think should never have been made by a surgeon of Mr. Cripps's standing until he has thoroughly gone into all the reasons for performing such an operation and conferred with those who have had experience in it. I know I am stating a fact when I say that there is only one recorded instance of this operation having been performed at St. Bartholomew's, and this on investigation is found to be wrong, as it was a combination of ligature and cautery. Mr. Cripps considers the operation as unnecessarily severe for the class of haemorrhoids met with in the *South* of England! The suggestion is, then, that haemorrhoids in the North of England are presumably of a much more serious type. What they would be in the Hebrides at this supposed progressive rate I shudder to think!

The concluding remarks of Mr. Cripps have to do with what I now propose to say concerning this operation.

That the radical operation for haemorrhoids is the best surgical procedure for this complaint is a statement which I think will be agreed to by all unbiassed surgeons, who will regard the operation with an evenly balanced mind and a proper desire for surgical progress.

I have purposely left out the name of Mr. Whitehead in discussing this radical operation because, with every desire to give the credit due to him as a pioneer, I do not think it is fair that his name should be tacked on to any operation of this character which is a failure owing either to unskilful surgery, indifferent nursing, or both.

When a person is contemplating being operated on for haemorrhoids the first question he asks is, Will these things come again? If a properly conducted radical operation is performed a promise of no recurrence can safely be made, and this cannot be said of any other existing operation.

The very essence of the operation is that a complete ring *should* be removed, including the anal mucous membrane and its subjacent areolar tissue, with the intermediate plexus of veins lying between the sphincters—a most important detail.

I do not propose to go further into the technique of this operation; it has been described often and extremely well, but I would like to mention here Mr. Heygate Vernon's method, which I propose to try at St. Mark's, and after I have done 50 cases I will publish the results.

However well the operation is conducted the ultimate result will be made or marred by the nursing. Unless these cases are scrupulously nursed justice will not be done to the operator or to the patient. There is no doubt that bad, indifferent, or insufficient nursing is the main cause of many shortcomings in these cases. I should like to pay a tribute to the nursing at the Grosvenor Hospital for Women and Children, where I have operated on a large number of these cases, and in not one single instance has there ever been any setback of any sort or kind.

Good nursing is the keynote of success in all rectal surgery, and this is particularly the case in this operation for haemorrhoids, which, when properly performed and properly nursed, is not only a radical cure for haemorrhoids, but an almost equally radical preventive of abscess and fistula.—I am, etc.,

London, W., Feb. 3rd. F. C. Wallis.

GENERAL PRACTITIONERS AND POOR LAW REFORM.

Sir,—No one can read your admirable article in the Journal of January 22nd and the report of the Special Committee in the Supplement for February 5th without realizing how profoundly legislation carried out in accordance with either of the reports of the Commissioners must affect medical practices in general and general practitioners in particular. And although it has apparently often been assumed that Poor Law medical officers will be most affected, I feel sure that such is not the case. The suggested reforms will be felt in the practice of all, from the sixpenny doctor to the specialist.

The increase of specialism and of preventive medicine of all sorts, the great advance of surgery, the greater number of official appointments, all subtract from the work of the general practitioner. The improvement in treatment which is so much to the advantage of the patient has no corresponding pecuniary recompense to the ordinary medical man, so also all the social reforms of the past have depended for their success upon the benevolence of the profession; for instance, the working of the Midwives Act, the treatment of school children, the notification of births, the conduct of district nursing—each and all rely upon the help of medical men, while offering them little, if any, compensation; and now it is quite evident that not only those who are called paupers but very many others will sooner or later, in one way or another, receive their medical attendance through the State. That enormous class of patient who attend dispensaries and the out-patient departments of our hospitals, school children found on inspection to be defective, sufferers from infectious diseases, consumptives—all these, and many more, if they are to be attended by various State-paid officials, will leave but few for the general practitioner.

We are told that it would not be fair to take away the Poor Law medical officer's work. With that, I think, we all agree, and I see no cause for it. But would it not be equally unfair to take work from the general practitioners and throw it on to the Poor Law medical officers? In this way a double injury would be done to the profession, for while the one would be deprived of more or less profitable work, that work would have to be done by the other, we may be sure without proportional recompense. Unless a much larger class of patients than has been suggested is to be attended by the Poor Law medical officers, it would be impossible to have whole-time officials in any but large and thickly-populated districts, because, to see the numbers that would be worth while making the appointment a whole-time appointment, a doctor would have to traverse an enormous district and there would of necessity be a great and unnecessary overlapping of official and other practice.

But assuming it to be possible, is it what we want?

It is our aim as a profession to be as free as possible from any sort of outside control—this, both in the interests of our patients and ourselves. The life and individuality, diligence and efficiency of free competition are surely more in the interests of science and our patients than the blighting and enervating influence of officialdom. Again, we want as medical men to take part in the councils of the authorities that control and organize medical relief; if we are all to be officials this will be impossible. It is certain that lay public authorities are not by any means the best to make medical appointments or to control promotion; they never do or will understand that special and superior skill and knowledge must be well paid for, and that a medical man is not a mere machine.

What do we as medical practitioners want? What do the public expect of us?

We want, as already said, such freedom of action as is compatible with carrying out our duties properly.

We want time, plenty of work to do, but not so much that we cannot give proper time and thought to the examination and treatment of our cases.

We want opportunity to make sure as far as possible that our treatment is given a proper chance, that our patients are fed, nursed, and housed properly.

The public want to be sure that if they provide these things and pay a fair wage we shall give our patients the best possible attention, cure them, and restore them to work again. Many go to out-patient departments of hospitals because they cannot or do not want to pay; but a considerable number go because they are dissatisfied with the treatment they have received, and they are dissatisfied because the attendance was not in their opinion good, and if it was not good the reason, we may be almost sure, was that their doctor was perforce too hurried or was demoralized by the conditions of his work.

Now, Sir, if we have a well organized and generally adopted Public Medical Service on some such lines as has been suggested by the British Medical Association, we shall have an opportunity of meeting many of these difficulties.

This service will be practically a great club, but essentially different from contract practice as we have known it in the past, for it will be under our own control. Remuneration will be what we ourselves consider fair, and there will be a definite wage limit, and so it will be free of the cardinal objections to contract practice as it now exists.

If we can have such a service ready and in order, the question of medical attendance on paupers becomes fairly simple; for all that we should have to do would be take them as ordinary members, their fees being paid by the destitution authority; provided the wage limit be observed it is immaterial to us whether those fees are paid by the State or by the patients themselves. This arrangement should certainly be agreeable to those who wish to remove the taint of pauperism from all medical assistance. It should be agreeable to the practitioner if he does not object to the new form of contract practice, because he will be receiving payment in proportion to the number of patients he is liable to attend; in the case of a whole-time or part-time salary this is not necessarily by any means the case—the salary, once fixed, is with difficulty increased, however much the work may increase. In this way every private practitioner may become practically a district medical officer. I do not think the existing medical officer need object, for it should not be difficult to devise a temporising arrangement by which the paupers in his district should not have free choice of doctor, but should have their names put on the list of the medical officer for such time as he would otherwise have held the appointment. If there were any deficiency between these fees and his previous salary it should be made good by the destitution authority.

Some of the commissioners have objected to this scheme that inspection would not be possible. Of course, no medical man would tolerate anything like inspection of his treatment, so that I assume what is meant is merely the entry in a book of visits made, disease, etc., and the examination of this book by some lay official. If that is all, it might be done, and better done, by adopting the plan of the benefit societies—each sick member has a sheet, on which the doctor notes the illness and the dates of his visits. This sheet is inspected by a sick visitor and sent in to the secretary of the lodge at stated times. Such a plan would provide for quite as much inspection as any lay body could require. But is inspection so necessary? Guardians subscribe to hospitals, and they make no sort of inspection of the work done there on their behalf.

Another objection is that, if patients have free choice of doctor, "the poor patient will tend to choose the doctor who interferes least with his habits, and whom he finds most sympathetic in ordering 'medical extras.'"

If this means anything, it means that the medical officer ought to be a sort of hygienic drill sergeant; in theory he might be useful, but in practice we know full well that his influence for good would be but small unless his instructions were toned down with that human sympathy with the habits, the thoughts, the surroundings, and the needs of the patient which is so essential to successful treatment. The suggestion that medical men will go beyond this and pander to the vicious habits of their patients for the sake of popularity is almost contemptible. Neither is the argument good, because the man who succeeds best in practice, is most sought after and has most influence, is he who combines firmness with his skill and sympathy.

We as an Association have now before us a rare opportunity, if we fail to grasp it we shall not again be able to catch it. Let us make up our minds, carefully but not too leisurely, and then work without ceasing until we get what we want.

I have only referred to domiciliary attendance; there is, however, much for the consideration of all practitioners in the proposed arrangement for institutional treatment.—I am, etc.,

Bradford-on-Avon, Feb. 6th. CHAS. E. S. FLEMMING.

SIR,—The assurance given in your issue of last week by Dr. Belilios and Dr. Crookshank that the circular to medical officers of health "has not been issued in any spirit of hostility to the British Medical Association" is doubly welcome, because it was not altogether unnecessary after some previous letters that have appeared, and also because many members would certainly have dissociated themselves from any party that hinted at secession from the Association.

In your leading article of January 22nd you presented in a perfectly fair way the arguments that undoubtedly weighed with the Representative Meeting in passing Minute 234. But during the last few months a somewhat ominous movement has been pressed forward by Mrs. Sidney Webb, supported by several whole-time medical officers of health writing in your columns, in favour of whole-time appointments for all medical officers under a future public medical service. The question is no longer one that only affects part-time medical officers of health; it equally affects district medical officers; and your leader came as a very timely reminder that it most seriously affects general practitioners. The seriousness of the movement will be seen from the fact that, if it succeeded, in the future no general practitioners would have any public appointment of any kind whatever, either under the Poor Law or the sanitary service or under any public medical service that supplants the Poor Law service or combines it with the sanitary service. Both medical inspection and medical treatment of school children would be put into the hands of whole-time officials, thus defeating the Watford and Harrow resolution (Minute 40) about medical treatment of school children.[1] Not only so, but it is practically certain that the scope of the proposed public medical service would be much wider than anything now existing. Paupers would be, as at present, treated at the public cost, but, in addition, a large class of persons above the stage of pauperism who cannot afford to provide for themselves everything that an advanced scientific service deems necessary, would be treated by the public authority, and, even though measures were afterwards taken to recover the whole or part of the cost of such treatment, the actual treatment would be undertaken by the whole-time medical officers of the public authority. Moreover, if, as is likely, a Sickness and Invalidity Insurance Act is passed, the same will apply, as probably the authority that controls the public medical service will

---

[1] That, under existing conditions, the most satisfactory provision for the treatment of school children, found upon inspection to be defective, is by placing them under the care of private practitioners. In order to do this, the method of procedure should be as follows:

The medical inspector should report each case to the Education Committee, stating in writing all the defects found.

The Education Committee should notify the parent or guardian that the defects must at once be attended to.

When the parent or guardian shows that he is unable to pay the fees required, the Education Committee should give a voucher for the payment of the fees on a fixed scale (after the manner in which payments are made for soldiers on furlough in districts where there is no available officer of the Royal Army Medical Corps).

When application for treatment is made, this voucher should be handed to the practitioner along with the medical inspector's report.

A free choice should be left to the parent or guardian to select for himself the practitioner to carry out the treatment; but it should be distinctly enacted that charitable institutions should not be made use of in this connexion.

be responsible for the working of the Act, so far as it is not worked through the great friendly societies. Thus, many patients who are now private paying patients would be handed over to the proposed whole-time public medical officers.

In short, we are faced with a movement that would deprive general practitioners of all State appointments, and at the same time take away a goodly proportion of their present paying patients, handing them over to the whole-time officers. We are threatened with a reign of officialism and a serious contraction of the field of private practice.

It has been argued that such a State service would require a large number of medical officers, that the withdrawal of these from private practice would leave fewer competitors and a higher class of practice for those who continued in private practice, while the whole-time officers would be certain of an adequate salary, and perhaps, as Mrs. Webb suggests, a county motor car thrown in. The seductive fallaciousness of this argument reminds one of the spider and the fly. As to the salaries, judging from the difficulty there has been in obtaining £250 as the minimum for medical inspectors of school children, it is highly improbable that more than this would ever be obtained for ordinary whole-time clinical medical officers.

Again, the number of whole-timers would never need to equal the present number of part-timers; and, further, the whole number of State medical officers would in any case only be a small fraction of the total number of general practitioners. The effect of this may be seen by an example. In the four unions of Manchester and Salford there are now just over thirty part-time district medical officers and over 600 practitioners in all. But even with the increased work that would be undertaken by any future public medical service, about twenty whole-time medical officers could efficiently do the whole work. It may be presumed that very few of the present district medical officers would give up their private practice for a salary anything like £250. The new appointments would be mostly taken up by young newly qualified men, but in any case the withdrawal from the 600 practitioners of twenty competitors would not relieve private competition to any appreciable extent. But it is not true that the twenty would no longer be competitors. They would really be competitors of a far stronger kind, backed up by the State and with the most costly appliances that the State could provide. They would have, as State patients, many of the persons to be insured under the Sickness and Invalidity Insurance scheme and numerous others who now pay private practitioners. Thus, while the relief of private competition would be too little to be noticeable there would be a far more serious State competition and the loss of paying patients would be most serious. In face of this, all the glamour of Mrs. Webb's "pretty picture" vanishes into thin air.

Looked at from a public standpoint, we have quite enough officialism as it is, and the cost of the scheme would be practically prohibitive. Twenty whole-time medical officers at only £250 a year would cost Manchester and Salford over £1,000 a year more than the present cost. To talk of salaries of £500 is preposterous. The ratepayers could not stand it. Twenty medical officers at £500 would mean an increased cost of over £6,000 a year in medical salaries alone, and this does not take into account the large sums to be paid for compensation to district medical officers who refused to give up their private practice and who, in spite of their excellent work in the past, would thereupon be deprived of their present appointments. Few medical men of experience would take the posts for any salary that the rates would afford, and to hand over the poorer classes to young and inexperienced men, who might be satisfied with the salaries for a time, would be a public scandal. That any new service will be more costly than the present may perhaps be inevitable, but it is by no means necessary to choose the most costly service of all, which would inflict the greatest injustice on the large body of general practitioners, with no proved advantage to the public.

I am not unmindful of the fact that Minute 234 does not affect any existing medical officer of health; it has only regard to future vacancies caused by death or voluntary resignation. Nevertheless, the principle of advocating all whole-time appointments remains the essential part of the Minute, and it is this to which objection is raised, especially as applied to a public medical service. I see no reason why most of the new work that may be undertaken by a future public medical service should not be distributed among general practitioners in some way analogous to what the Watford and Harrow resolution proposes for the medical treatment of school children. This could be done quite well, without the least interference with the vested rights of existing medical officers under the Poor Law or sanitary service, and some proposal of this kind will certainly come up for the consideration of the next Representative Meeting—I am, etc.,

Salford, Feb. 7th. J. H. TAYLOR.

SIR,—I am sorry to see that Dr. Whitby altogether misunderstands the views of Poor Law medical officers. In my letter of January 29th, to which he refers, the objection to Poor Law medical work being distributed among all practitioners generally applied only to a medical service dealing with a strictly limited class, not a public service for all "poor" persons. I quite agree with Dr. Whitby that under such a service "hundreds" of deserving practitioners would be ruined, and I hope he will assist us in striving to prevent such a calamity. I can assure him there has never been a proposal that Poor Law medical officers should monopolize such a service, which according to the recommendations of the Minority Commissioners can only come into existence after the "break-up of the Poor Law"—that is, after a Poor Law medical service has ceased to exist. Our Association has published a resolution in favour of a distinct Poor Law medical service, as at present, but better co-ordinated with the sanitary medical service. Dr. Whitby evidently recognizes the danger of a public medical service on the lines of the Minority Report, and I hope he will therefore join with all general practitioners, whether Poor Law medical officers, part-time medical officers of health, or holders of any other public offices which do not remove them from the bulk of the practising profession of the country, in opposing such a public medical service—in our opinion, not good for the public and ruinous to our common profession.

Before concluding, I should like to refer to a portion of Dr. Larking's letter on "Part-Time Medical Officers of Health." I do not agree with his conclusions generally, although he has no doubt clearly denoted some objections to the system he condemns; but when he speaks of such officers as "school medical officers"—and by that description I understand officers who are to undertake the treatment of school children—as being "for the benefit of the profession at large," I am lost in astonishment. Whether the public are gainers by such appointments I consider very debatable, but I should have thought there could be no doubt as to the injury likely to accrue to the general practitioner. That a few medical practitioners should get moderately well-paid posts may be good for them, but the profession would pay dearly for it by being deprived of a considerable portion of practice that has hitherto been in their hands, and that at a time when their legitimate emoluments are encroached upon and threatened from every side.—I am, etc.,

MAJOR GREENWOOD,
Honorary Secretary, Poor Law Medical Officers' Association of England and Wales.

London, E.C., Feb. 5th.

SIR,—As a practitioner having a fair amount of working class and contract practice, I heartily endorse Dr. Whitby's remarks in the JOURNAL of February 5th, p. 351.

Dr. Greenwood's opinions simply reflect the interests of the association he represents, which are far from being identical with those of the non-official general practitioner. If a State medical service were to be instituted and the proposals advocated by him carried out, there is no doubt that many practitioners in working class districts would suffer total extinction. Those of us who hold appointments from friendly societies, clubs, etc., would probably find that these organizations had no longer need for our services, and we would be in the pleasant position of being obliged to hand over our former patients to the erstwhile Poor Law medical officers.

It behoves all of us so situated, to strenuously resist, through the Divisions, any such proposals, and take steps

to ensure that the work of the proposed service will be open to all.

As regards vaccination, despite Dr. Greenwood's contentions, I feel sure that the great majority of medical men regard the present system as inequitable and absurd.—I am, etc.,

London, N.E., Feb. 7th. ANDREW T. SWAN, M.B.

PART-TIME MEDICAL OFFICERS OF HEALTH.

SIR,—We welcome Dr. Larking's letter, for it so openly reveals the spirit which actuates much of the opposition to part-time medical officers of health that our Association will be much strengthened thereby. Dr. Larking appeals to prejudice, and prejudice alone; but such prejudice could be as easily evoked against the four part-time appointments which he, though not a medical officer of health, at present holds. We ask all practitioners to divest their minds of the notions adverse to part-time medical officers of health, which, though totally unsupported by evidence, have, through much vain repetition, obtained some credence.

Some men will always be tactless and others touchy; we doubt not that, if ever "part timers" do disappear, your columns will be filled with complaints about "jacks-in-office" and "petty bureaucrats." Probably it will be then suggested that, not only should every practitioner be a Poor Law officer and public vaccinator, but a medical officer of health as well.

Are we really to believe, with Dr. Larking, that men in good practice sell their souls to a sanitary authority for twenty pounds a year, while whole-timers on two or three hundred will be gloriously independent of the local councillors who fix their salaries? Many local authorities can no more afford adequate salaries to whole-time medical officers than they can to whole-time surveyors and clerks; and the combination of districts is neither so facile nor so desirable as many who have no practical knowledge of local government seem to think.

There are a few hard facts which should be remembered: Part-time medical officers of health are to whole-timers at present as 4 to 1, and make up 7 per cent. of the general practitioners of Great Britain.

The question sent last year to the Divisions covered far less ground than Minute 234, and was accompanied by a memorandum wrong on at least one important point of law. Of the 206 Divisions referred to only 96 replied, and of these only 46 "approved the whole-time principle without reservation."

The total number present at the forty-six divisional meetings can hardly have been more than 400. How many of these 400 realized that Minute 234 was going to be based, as "a declaration of policy," on their expression of opinion on a matter of abstract principle?—We are, etc,

D. A. BELILIOS,
F. G. CROOKSHANK,
Acting Secretaries to the
Association of Medical Officers of Health.

London, S.W., February 7th.

SIR,—I can endorse every word of Dr. Larking's letter. When this matter came before our Division at Croydon I went there prepared to speak very strongly on the subject, but there was no necessity, as every member seemed equally alive to the undesirability of employing part-time medical officers of health. No doubt in these populated districts on the outskirts of London the disadvantages of the system are more apparent than they would be in more sparsely populated districts, and a good deal also depends on the type of man who holds the appointment.

If it be in the hands of a medical man who associates himself with cheap contract work and who commands neither the confidence or respect of his fellow practitioners, a most undesirable state of affairs must result. When in addition this appointment carries with it the local inspectorship of midwives, it is easy to see that, without exaggeration, a condition prejudicial alike to our profession and to the general public may be created.

The British Medical Association has given its unqualified verdict that the part-time medical officer of health is no longer desirable, and in doing so it has acted in the best interests of all.—I am, etc.,

GEORGE A. CLARKSON, F.R.C.S.Eng.

Caterham-on-the-Hill, Feb. 7th.

SIR,—Dr. Larking in his letter finished up a number of wholesale assertions by saying that part-time medical officers of health were out of date, but gave no evidence in support of his dictum. If we are to judge by his letter a good many other things are out of date, such as justice, doing as one would be done by, and a few little trifles of that kind. These unconsidered trifles are clearly beside this mark (in Dr. Larking's economy), and the real consideration is that "the more whole-time medical officers of health there are the less remain to become general practitioners." Question!

There are some 1,100 part-timers, and if all of them leave their miserable £15 or £20 a year to make way for whole-timers, and continue to exist as general practitioners, as they must, is it not evident that they will have infinitely more time and opportunity when relieved of their appointments to make up "the miserable £15 or £20 a year" by more strenuous competition with their fellows; and how many whole-timers will be created in place of the 1,100 part-timers?—say, ten or twenty. But does any one suppose they will be drawn from the ranks of the general practitioners? They will be recently-qualified men who will not become assistants because, although the pay is better, the work is hard and the outlook harder, as practices get scarcer and part-time appointments are open to seizure. They will drift into whole-time appointments at £150 to £250 per annum, and there they can stop, knowing full well that if they dare to move there will be dozens ready to snap their position at less remuneration.

Dr. Larking says a part-time medical officer of health is neither good for himself, the public, nor his fellow-practitioners. I should have unhesitatingly repudiated the accuracy of these sweeping assertions, and only refrain because Dr. Larking appears to have been a part-time medical officer, and is evidently speaking from his personal experience.

His anecdote about the man threatening him is very amusing; but if he inspected any man's premises with the same want of consideration for other persons' rights, views, opinions, and feelings as he shows towards part-time officers, the wonder is, not that he was threatened, but that he escaped with a whole skin. Even then, *mirabile dictu*, and most illuminating of the low ebb to which private practice has come, he appears to wish that he could secure the gentleman who threatened his olfactory organ with violence as a private patient.

In what least particular has a part-timer to "trim his sails" towards his council more than a whole-timer? Not nearly so much, for while the part-timer has only a small portion of his income at stake, the whole-timer has his all. Given men of equal rectitude in the two posts, which has the greater temptation to be frightened of vexing his council? Unquestionably the whole-timer.

Dr. Larking says it is better for the public to have a whole-timer. This I think is quite as erroneous a statement as the others. A part-timer is certainly cheaper than the whole-timer, who will cost no more himself, perhaps, but will pretty certainly necessitate a large army of inspectors and other officials and a number of institutions. Unquestionably if every medical officer of health had to serve five years in bona fide general practice he would be better qualified for the post. A general practitioner knows the wants and requirements, the difficulties, and the necessities of his "parishioners"; he has a large sympathy with them (generally a quality which a mere "official" is bound to curb), and they have a greater confidence in him, and can come in confidence, as they often do, not to shake their fists in his face but to ask for reform and help in sanitary matters, which they dare not ask for openly; and where the people know the medical officer of health is to be trusted it is surprising the number of "nuisances," etc, which are dealt with by request.

Again, Dr. Larking says part-timers are not good for general practitioners, but what of whole-timers? Who has engineered the systematic removal of all infectious diseases, of phthisis? Because, although of questionable service to the public and very costly also, these have been taken away from the general practitioners; midwifery also has been taken from them; the treatment of infants (by notification of births and inspectors) has been taken away, medical treatment of school children is being taken away; and yet, with all the shrinking of the field of private

work, openly pushed by the whole-timers, Dr. Larking asks us to believe that they are the friends of the general practitioners.

I maintain that all these things which have been enumerated ought to be in the hands of general practitioners; it is their birthright, and I believe they are as capable of doing the work as well as any other official class, but I much fear that their birthright is being sold for a mess of pottage.

The comparison of the salaries of medical officers of health with clerks is a very striking illustration of the wretched business aptitude of medical men, but will, I feel sure, show on comparison that in districts where part-time medical officers of health are employed, they are proportionately (to the clerks) better than in districts where whole-timers are employed.

This letter is already too long, but the subject is capable of considerably more expansion to show how very short-sighted a policy it is for general practitioners to be led by "officials" who are out of touch and sympathy with the work of general practitioners, to curtail their sphere of work so enormously, while curtailing the "number of practitioners "so very slightly.—I am, etc.,

Northwich, Feb. 6th. HENRY EDWARD GOUGH.

GYNAECOLOGICAL DIFFICULTIES OF THE GENERAL PRACTITIONER.

SIR,—I am glad to find that Dr. Hastings Tweedy regards the conclusions I drew from his paper on endometritis as "erroneous and extraordinary."

Nevertheless I think they follow from the plain meaning of his language. I ask leave to quote a few sentences. He said[1]: "All these symptoms" (that is, symptoms complained of by nearly every woman who is tired or run down) "may be wanting in *severe types* (italics mine) of endometritis, the presence of which can only certainly be ascertained after miscarriage, abnormalities of the pregnant or parturient state, such as *ante-partum* or *post-partum* haemorrhage, abortions, hydatidiform mole, hydrorrhoea gravidarum, etc. Or again, the accidental discovery of a large uterus may alone direct attention to the condition. Therefore, *whether symptoms are present or not* (italics mine), if dealing with a condition which you have a reasonable suspicion will cause endometritis, treat your patient for endometritis, *irrespective of precise symptoms*" (italics mine). I submit that this amounts to advising the young practitioner to curette every patient who will let him do it, whether there is anything the matter or not, on the ground that if she has any kind of symptoms these may be due to endometritis; and if she has no symptoms then she may be going to have endometritis. Dr. Hastings Tweedy says that "it is self-evident that a disease must precede its symptoms." Yes, but till the symptoms appear, how can any one tell that the disease is there?

To Dr. Hastings Tweedy's incidental question about a case of ventral fixation, I reply that the uterus was not curetted.—I am, etc.,

London, W., Feb. 8th. G. ERNEST HERMAN.

THE MEDICAL PARLIAMENTARY ROLL.

SIR,—Dr. Keenan says that in assuming the Parliament held by James II in Dublin after his deposition to be irregular, I am "thinking too Britannically," as James had not been deposed from the crown of Ireland by his loyal Irish subjects. I have never heard that James received the crown of Ireland from his loyal Irish subjects. I have always understood that he was crowned King of the three Kingdoms at Westminster, and deposed from the same position at the same place.

I have to thank Mr. John Patching of Brighton for pointing out the following serious omission from my Parliamentary Roll:

Robertson, Sir William Tindall, M.D.Edin., F.R.C.P.Lond. (Brighton, November 29th, 1886—October 6th, 1889). Sir W. T. Robertson was originally in practice in Nottingham, and when, in 1857, the British Medical Association visited that town, he delivered the Address in Medicine. In 1873 his eyesight failed and he went to live at Brighton. At Brighton he became very popular, and was sent to Parliament without opposition. In May, 1889, while leaving the House of Commons, he slipped and sprained his ankle. The enforced idleness produced by this accident and by the blindness acting upon a hypersensitive nature brought on a condition of melancholia, which it is to be feared ended in suicide (see obituary notice in the BRITISH MEDICAL JOURNAL, October 12th, 1889). Dr. Robertson received the honour of knighthood, January 1st, 1888.

The Borough of Brighton is singular in having, during its comparatively short enfranchisement, sent two blind members to Parliament—Sir W. T. Robertson and Professor Fawcett.—I am, etc.,

London, W., Feb. 4th. S. D. CLIPPINGDALE.

[1] BRITISH MEDICAL JOURNAL, October 9th, 1909, p. 1029.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

THE following degrees have been conferred:

M.D.—E. H. Coleman, Johns; W. B. Swete-Evans, Clare.
M.B.—F. R. Thornton, Trin.
B.C.—H. G. Monteith, Pemb.

UNIVERSITY OF BIRMINGHAM.

Number of Students.

THE report of the Principal (Sir Oliver Lodge) states that the registered students last session numbered 984, of whom 565 were matriculated students. They were distributed as follows, some previous years being given for comparison:

	1908–9.	1906–7.	1904–5.	1903–4.	1902–3.
Faculty of Science	245	207	134	99	69
Faculty of Arts	215	170	124	85	57
Faculty of Commerce	30	18	16	13	6
Faculty of Medicine	75	66	92	89	89
Total matriculated ...	565	461	366	286	221
Unmatriculated	419	483	479	554	586
Total	984	944	845	840	807

Two matriculation examinations were held, one in July and one in September, in addition to other University examinations, with the following result:

	1909.			In 1908.
	July.	Sept.	Total.	
Number of candidates entered	298	135	433	373
Number passed in all subjects	143	53	196	165
Completed examination previously begun	4	15	19	21
Total number rejected	148	58	206	183
Withdrawn from examination	3	9	12	5

Financial Statement.

The financial statement for the year ending September 30th shows that the income was £48,981, as compared with £47,330 in 1908. It included, general endowment £5,267, special endowments £1,950, Government grants £11,000, local authorities' grants £7,581, students' fees £14,361, examination fees £2,483, day training colleges £2,349, bacteriological department £1,578, brewing school £1,092, and Treasury special grant £900. The expenditure amounted to £56,206, as compared with £52,264 in 1908. The chief items of expenditure were: Principal's and Vice-Principal's departments £3,352, stipends of professors, lecturers, and demonstrators £24,671, scholarships £578, university examinations £2,479, departmental expenses £8,261, library £1,058, interest of a mortgage and bank interest £3,338, general management £3,486, maintenance £4,681, brewing school £1,469, contributions to superannuation fund £819, Queen's College Hall of Residence £483, and women's hostel £789. The excess of ordinary expenditure over income was £7,225. In addition, there was £3,208, the expenses connected with the royal visit, and £3,247 expenses in respect to structural alterations, etc., at the Edmund Street buildings, making the total deficiency for the year £13,680. The special appeal for funds which was made last year resulted in promises of donations amounting to £78,493, and £52,170 had been collected at the end of the financial year. Included in this total was the generous donation of £30,000 received from Sir Charles Holcroft, Bart., bringing his contributions to the university funds to the munificent sum of £100,000.

The Libraries.

The libraries received many additional books. During the long vacation the works on mathematics, physics, and chemistry

were transferred from the library at Edmund Street to the Harding Library in the new buildings of the university. The number of volumes in the two libraries is now over 65,000. Arrangements have been continued with the Birmingham Medical Institute, whereby its members are permitted to use the libraries for purposes of reference and study.

Hostels and Clubs.

The women's hostels, the buildings of which were taken over by the university in October, 1908, now contains 37 residents. The number of residents in Queen's College, which is for men students, is now 28 as compared with 21 a year ago. Both institutions are thriving, but until the numbers are made up to the full complement, cannot fail to be a drain on the funds of the university. The university has become responsible for the working of the university club. Heretofore the club has consisted only of a portion of the students, admitted by election, occupying the Great Charles Street premises only, and financing itself, with private guarantees behind it, but without risk to the university. The removal of important departments to the new university buildings materially altered the situation. There all the students have had the benefit of common rooms and refectory without any club subscription. The object of the rearrangement is to abolish the distinction between the privileges in the two places, and therefore an annual subscription of £1 1s. is collected by the university as part of the fees in order that the students in both places may be in the same position in regard to their clubs.

UNIVERSITY COLLEGE, LONDON.

Ludwig Mond Laboratory.

IN memory of the late Dr. Ludwig Mond's scientific eminence and his generous gift of £3,000 towards the building of the Institute of Physiology at University College, the College Committee has resolved to name the biochemistry research department of the Institute "The Ludwig Mond Biochemistry Research Laboratory."

Research Studentship on Biometrics.

The University College Committee will shortly proceed to elect a Crewdson-Benington Research Student. The studentship, of the value of £50, tenable for one year in the Biometric Research Laboratory of the College, is for the promotion of research in anthropometry and craniology in relation to evolution. Candidates should send their applications, together with any statement of qualifications that they desire to submit, not later than March 1st to the Secretary of University College, Gower Street, W.C., who will furnish particulars of the studentship.

Medico-Legal.

DAMAGES FOR DENTAL INJURIES.

ON February 2nd, at the Glasgow Sheriff Court, Sheriff Fyfe issued decision in an action against the Hygienic Institute, Glasgow, by James Lawson, who sued for damages for alleged injury caused through an unskilful dental operation. His lordship found that the pursuer, a man aged 45, contracted through a canvasser of defenders to supply him with a set of teeth for the sum of £6, payable by instalments. The contract contained a condition, "Painless extractions with our own 'anaesthetic' done free of charge to those ordering artificial teeth." On September 19th, 1909, pursuer attended defenders' premises at 30, Elmbank Crescent, Glasgow, and an operator was entrusted to extract seventeen teeth to make room for the artificial set. In course of the operation the pursuer's jaw was broken and his mouth very much lacerated. The formation of his mouth has been so altered that it was not likely that he could now be fitted with a set of artificial teeth, and, if he could, a surgical operation, involving much suffering and considerable expense, would most likely be required. His lordship further found that the injuries which the pursuer had sustained were the result of the incompetency, or carelessness, or negligence of the defenders' employee, the operator. He therefore awarded the pursuer £100 damages with expenses. In a note his lordship said it was, unfortunately, within the law for people who were not registered dental practitioners to make contracts to remove teeth. It was a striking illustration of the wide gulf which often existed between the letter and the spirit of a statute that under the Dentist Act of 1878 it was not legal for an unqualified person to take the title of dentist, but it was quite within the law for an unqualified and unregistered person to undertake, for payment, to do dental work. The defenders' firm, the Hygienic Institute, seemed to his lordship about the most barefaced evasion of an Act of Parliament which ingenuity could suggest, for they went as near to designing themselves dentists as it was possible to go.

In the second division of the Court of Session judgement has been given by the Lord Justice Clerk and Lords Low, Ardwall, and Dundas, in an appeal from the Sheriff Court at Airdrie, where Bethia Campbell Dickson, 32, Commonhead Street there, sued the Hygienic Institute, Main Street, Coatbridge, for £50 damages for personal injuries sustained by her in a teeth-drawing operation. Sheriff-Substitute Glegg found that in August, 1908, the defenders' operator subjected the pursuer's mouth to unnecessary violence, tearing away a piece of the jawbone, and causing permanent enlargement, and awarded her £30 damages. Sheriff Millar, on appeal, adhered to the Sheriff-Substitute's interlocutor with expenses, and the defenders appealed to the Court of Session. That Court affirmed the interlocutor appealed against, and found the appellants liable in expenses.

Lord Dundas, who delivered the opinion of the court, said in the course of his observations that the defendants admittedly employed assistants who were not qualified dentists or dental surgeons. Any man who performed a service of art for another was responsible up to the limit of his own profession—that was what he professed or announced to the employer. The question came to be whether or not the actings of the defenders or of their employee had come up to the professions made by them to the pursuer. The first matter therefore for consideration was what the defenders held out or professed to the pursuer. On that point his lordship said he was content to take the order form as embodying what the defenders held out or professed to the pursuer. It was quite idle to contend, as the defenders' counsel did, that the document held out the defenders merely as makers of artificial teeth and not as dentists. It was plain that they also held themselves and their assistants or employees out as extractors of teeth and practisers of dentistry. The lump sum to be paid by the pursuer included the extraction of her teeth. She was, in his lordship's judgement, entitled to expect that the defenders' employees could perform the necessary dental operations with ordinary success and with ordinary care and prudence. That being the fair scope and meaning of the contract between the parties, one turned to the proof to consider whether or not the defenders' actings fell short of their contractural professions to her, and he agreed with the sheriffs that the answer upon that issue must be in the affirmative. There seemed to be no doubt that bone and flesh were in fact torn away from the pursuer's upper jaw with serious and distressing consequences, and no other cause was suggested than the operation; and it was plain upon the evidence that such an operation was a grossly careless one. If, then, the defenders held themselves and their operators out as competent to perform dentistry with ordinary care and success, as his lordship held they did, they must be liable in damages.

At the West London County Court on February 3rd judgement for £100 damages and costs was entered against the London Hygienic Institute and Portman Teeth Institute, Limited, Baker Street. The plaintiff was the wife of a policeman, who had been persuaded by a canvasser of the institute to have certain teeth removed and others substituted. She understood that the whole operation would be painless, whereas, according to her statement, she suffered severe pain, a root was left in, and she had to remain in bed for three weeks.

THE RESPONSIBILITY OF HOSPITALS.

A CASE of importance to medical practitioners and hospitals has been decided in Glasgow Sheriff Court. In the winter of 1907 a man was removed to Ruchill Fever Hospital (belonging to Glasgow Corporation), sufferng from scarlet fever, and died there. His widow sued the Corporation of Glasgow for £1,000 in respect of its failure to take proper care of her husband in removing him to hospital, and whilst there allowing him when delirious from fever to escape into the grounds and get a chill, which led to his death. She also claimed for a *post-mortem* examination, but this was regarded as irrelevant, and was not insisted in. The proof of the main averments lasted several days, and both parties were represented by counsel. The Sheriff has now issued his judgement assoilzing the defenders with expenses, as the pursuer has failed to prove that death was caused by fault or negligence of defenders. In a "note" the Sheriff goes into the case very thoroughly. The first point was as regards the removal, the case for the pursuer being that the nurse in charge of the ambulance van, who was a probationer, allowed the patient to walk to it in place of being carried. The Sheriff finds that the patient elected to walk, and that there is no proof he suffered from doing so. The main issue was, however, that defenders were negligent in allowing the patient, while delirious, to escape. The ward was admittedly full above normal, containing on the night in question 32 male patients, 25 of whom were boys, 3 were lads, and 4 were adults. More than half of the 32 were convalescents who needed no attention during the night. In normal circumstances one staff nurse was considered sufficient during the night. On this particular night there was a nurse in charge, a night sister within call, a male attendant watching this particular man, and another available in emergency. The resident doctor was under the same roof within call. The patient was delirious, imagined he was being maltreated, and got out of bed more than once. Each time he was coaxed back, and at 11 p.m. the doctor gave him a sedative. It did not act as was anticipated, and at 11.30 the patient got up, evaded the male attendant and nurse, ran about the ward for a bit, and then suddenly broke a window and escaped through it into the grounds. He was captured and brought back and then put in a restraining sheet, and four hours later he died. The Sheriff finds that the attendance provided was sufficient, and there the responsibility of defenders ended. The attendants had not failed in their duty, and there was no evidence that the use of the restraining sheet was improper. He did not consider that either the doctor or male attendant committed any error of judgement, and even if it were proved that the doctor committed an error of judgement, there was no liability on the defenders.

FALSE ASSUMPTION OF MEDICAL TITLES.

CHARLES BANKS, of Cromer Street, Gray's Inn Road, was summoned on February 2nd, at Clerkenwell, at the instance of the Medical Defence Union, being charged under the 40th section of the Medical Act with having used the title M.B. on a death certificate, with having used the the same title on a sick certificate, and with having used the title of "doctor" in a note given by him personally to Thomas William Tyrrell, a clerk of the Medical Defence Union. The death certificate was not valid, but had been accepted by the registrar, and the entry had to be corrected by statutory declaration under the Registration of Births and Deaths Act. Mr. Tyrrell said that when he called at the defendant's address the door was opened to him by a lady with a black eye; defendant, when he appeared, explained that he was just out of bed, and suggested a walk, which ended at a public-house. There he felt witness's pulse, told him he was weak and suffering from consumption, and that if all the complaints from which he suffered were to be enumerated a very large piece of paper would be required. Defendant took witness to a drug store in Gray's Inn Road, where defendant entered the dispensing room and wrote a certificate stating that witness would be greatly benefited by a change of air and surroundings. Witness paid defendant 5s. and 1s. 9d. for having the prescription made up. Another adjournment was made to the public-house, when defendant declared he had a very large practice and had to live where he did because he had to lecture and coach young students close by. The magistrate imposed a fine of £20 for the use of the title M.B. on the death certificate, £5 for the use of the title M.B. on the sick certificate, and a fine of 7s. 6d., to include costs, for the third offence, with the alternative of three months' imprisonment.

MONTHLY NURSE'S FEE.

C. W. H. engaged a nurse for his wife's confinement; it occurred before the time expected. He wrote to the nurse informing her of the fact, and expressing a hope that she would get another case instead; but she replied that she would expect her fee to be paid, as she had refused other cases. He wishes to know if he is legally bound to pay the nurse's fee under the circumstances.

*** We are advised that the nurse is entitled to this fee, unless she gets employment during the time for which she was engaged of the same value. If she gets employment at a lower rate, then our correspondent is only liable to pay the difference between the fee she earns and what he would have paid her had she nursed his wife.

Public Health AND POOR LAW MEDICAL SERVICES.

SCARLET FEVER AT CHESTER.

DURING the whole of last year scarlet fever was present in the city of Chester and nearly 900 cases were notified. This is a far greater number than has been notified in any previous year since the adoption of the Infectious Disease (Notification) Act in 1885, the nearest approach being in 1894, when 256 cases were reported. There appears to be a decrease in the epidemic at the present time, only 30 cases having occurred in January of this year compared with 70 in the same month of 1909. The unusual incidence of the disease is partially explained by Dr. A. E. Thomas, the late medical officer of health, in his annual report for the year 1908. The epidemic of that year, he stated, was characterized by the mildness of the cases; it was not unusual to find that a child had had an undoubted attack of scarlet fever without missing a single day's school attendance, or, on the other hand, had been absent for a few days and returned with the information that it had had mumps. In Chester any swelling at or around the lower jaw seems to be regarded as mumps. Pressure on the isolation hospital in 1908 rendered it impossible to admit all the cases in which that course was advisable, so that many patients had to be treated in their own homes, where there was often no effective means of isolation. If this was the case in 1908, when there were only 163 cases of the disease during the whole year, much more must it have applied in 1909, when there were more than that number in the single month of October. Still another cause for the persistence of the epidemic is to be found in the callous indifference of the parents of those children who have been infected. The Chester Corporation is to be commended for its action in taking proceedings before the local justices against four such persons, three of whom had permitted infected children or infected clothing to be exposed in a public place, and one who had not notified to the medical officer of health an undoubted case of the disease. The chairman of the bench of magistrates before whom the cases were tried expressed the opinion that the Health Committee of the corporation had done wisely in bringing the cases up, in order that parents might know their duty, but he thought that justice would be met if each defendant were ordered to pay the costs. This result appears to mean that no conviction was recorded, a circumstance which must be discouraging not only to the Health Committee but also to the sanitary officials.

SCHOOL CLINICS AND THE LABOUR PARTY.

THE annual conference of the Labour Party has been in progress this week in Newport, Monmouthshire, and in one of its sections—that representative of the work done by women—two resolutions of medical interest were adopted. One of these, moved by Dr. Ethel Bentham and seconded by Dr. Marion Phillips, stated that the conference asked for the immediate establishment of free, compulsory, and convenient means of obtaining medical treatment for school children, and declared itself in favour of school clinics, believing these to offer opportunities for supplying needs not met either by hospital or home. The other resolution drew attention to the undesirable results, in point of health and other respects, of young children between the ages of 14 and 18 being constantly kept at work entailing neither physical nor technical training, and urged on Government the desirability of so amending the Factory and Education Acts as to secure efficient physical and technical training for every boy and girl between the ages of 14 and 18, and to make some provision for the maintenance of the children during that period. Further resolutions advocated that education authorities should not only be permitted, as at present, but obliged to provide meals for school children whose parents cannot provide them, and that the Factory and Workshops Act should be so amended as to extend the period during which women may not be employed after childbirth from four weeks to six months.

FOOD ADULTERATION IN BIRMINGHAM.

DURING the last quarter of last year 763 samples were analysed and have been reported on by the city analyst (Mr. J. F. Liverseege). Of these, 581 were taken for analysis under the Food and Drugs Act, and 2.2 per cent. were adulterated with preservatives only, being a rather higher proportion than usual owing to an increase in the use of preservatives for milk and beer. In addition to this, 5 3 per cent. of the samples—practically the same percentage as in the corresponding quarter for 1908—were adulterated in other ways than by preservatives. Eleven of the 257 samples of milk analysed contained less than 11.5 per cent. of total solids, being below the standard fixed by the Board of Agriculture. Three samples of milk contained small proportions of formic aldehyde, and five samples boric acid; 3.1 per cent. of the samples of milk were adulterated with preservatives, as compared with 1.4 per cent. in the fourth quarter of the previous year. Of the 219 samples of butter analysed, 20, or 9.1 per cent., were adulterated with foreign fat. This proportion is considerably higher than in the two previous years, but not so high as in 1906 and 1905, when 12.4 per cent. and 14.1 per cent. respectively were adulterated. The 219 samples were obtained from 159 vendors, of whom 9 sold one or more adulterated samples, showing that 5.7 per cent. of the vendors of butter sold an adulterated article. Two vendors were fined £5 each for selling margarine when butter was asked for. Of 29 samples of beer analysed 25 were passed as genuine. Two samples from one vendor contained a slight excess of chlorides, while two samples from another vendor contained 126 and 130 grains per gallon of chlorides expressed as common salt. The brewer of these samples was communicated with, and he supplied samples of the materials used in brewing and gave particulars of the quantities. These samples were analysed, and the source of the chlorides was found to be as follows: Malt 4.5 grains, glucose 28.8 grains, hops 0.2 grain, water 1.3 grains, Burtoniser 47.2 grains, salt 43.7 grains, clarifier 4.4 grains, being a total of 130.1 grains per gallon, expressed as common salt. The three ingredients responsible for the excess, therefore, were the Burtoniser, glucose, and the common salt added as such. Both vendors were cautioned by the Health Subcommittee.

THE NOTIFICATION OF BIRTHS.

PASCE (London) asks if any movement has been made by any body of medical men to obtain payment for certificates under the Early Notification of Births Act, etc.

*** We believe that the feeling among general practitioners has been for the most part opposed to taking any responsibility for notification of births either with or without a fee, on the ground that cases not rarely occur in which patients would resent such a notification by their medical attendant, who ought to regard everything that occurs in his practice as private and confidential. It is not always possible to know when such resentment would be entertained; and, in any case, it is felt that the responsibility for notification ought to be laid on the parents alone, not on the medical attendant. For this reason there has been no general attempt to obtain payment for certificates, but in several isolated cases urban district councils which have adopted the Act have been approached and asked for a fee of 1s., the council to supply printed forms for filling up. As far as we know, the answer has been that there are no funds available for the purpose of paying such fees, and the Act makes no provision for payment. In several districts where the Act has been adopted the medical men have tacitly ignored it, and no attempt has been made to enforce it on them. In several other districts medical men have been prosecuted for failing to notify, but the plea that they had reason to believe the parents would notify has been accepted.

The Services.

INDIAN MEDICAL SERVICE.

AT the January examination for commissions in the Indian Medical Service there were 34 candidates, of whom 28 ultimately entered for the examination; of these, 26 qualified, the first 13 being admitted as Lieutenants-on-Probation, while 1 withdrew during the examination. The names of the successful candidates, with the marks obtained by each out of a possible total of 5,100 are given below, together with their degrees and medical schools:

Name.	Degrees, etc.	Medical School.	Marks.
E. G. Kennedy ...	M.B., B.Ch., B.A.O. (R.U.I.)	Queen's College, Cork	3,629
R. F. D. MacGregor	M.B., Ch.B.Edin.	Edinburgh University; Coombe Hospital, Dublin; West London Hospital	3,532
A. L. Sheppard ...	M.B., B.S.Durh.	Durham University; Newcastle Royal Infirmary; Bristol Royal Infirmary	3,510
P. K. Gilroy ...	M.R.C.S., L.R.C.P., M.B., B.C.Cantab.	Selwyn College and Addenbrooke's Hospital, Cambridge; St. George's Hospital	3,436
J. A. A. Kernaban	M.R.C.S., L.R.C.P.	St. Bartholomew's Hospital	3,428
M. L. C. Irvine ...	M.B., B.S.Lond., M.R.C.S., L.R.C.P.	St. Thomas's Hospital	3,408
E. W. O'G. Kirwan	M.B., B.Ch., B.A.O. (R.U.I.), L.M.Dubl.	University College and Catholic University School of Medicine, Dublin	3,357
A. N. Palit... ...	L.M. and S.Calcutta, F.R.C.S., L.R.C.P.Edin., L.F.P. and S.Glas.	Calcutta Medical College; University College Hospital	3,291
J. V. Macdonald ..	M.B., Ch.B.Edin.	Edinburgh University	3,279
H. A. H. Robson...	M.B., B.S.Lond., M.R.C.S.	St. Thomas's Hospital	3,261
G. L. Duncan ...	M.B., Ch.B.Edin.	Edinburgh University and School of Medicine, Edinburgh	3,243
K. K. Mukerji ...	L.M. and S.Calcutta, L.R.C.S. and P.Ed., L.F.P. and S.Glas., D.P.H.Cantab.	Calcutta Medical College; Westminster Hospital; Royal Infirmary, Liverpool	3,112
C. G. Howlett ...	M.B., Ch.B.Victoria University, Manchester	Victoria University and Royal Infirmary, Manchester	3,074

Obituary.

To the very great regret of his friends, there died on January 28th, after a week's illness, HAROLD JAMES CROMPTON, M.D., D.P.H., one of the Medical Officers of the County Asylum, Prestwich, Manchester, at the age of 37 years. After leaving school, he spent three years in Paris studying chemistry, whence he proceeded to Manchester to begin his medical education. In 1894 he was awarded the medal in materia medica at Owens College and the Society of Apothecaries' gold medal in materia medica and pharmaceutical chemistry. He took the degrees of M.B., Ch.B. with honours in 1898, and in 1903 that of M.D. with commendation for his research into the pharmacology of selenium, tellurium, and arsenic. Afterwards he obtained the diploma in public health. After qualifying, he became House-Physician at the Manchester Royal Infirmary, where he later served as Resident Medical Officer. He acted as House-Surgeon at Ancoats Hospital, and as Resident Medical Officer at the Barnes Convalescent Hospital, Cheadle. His last years were spent in work at the Prestwich Asylum. Highly efficient as a physician and a capable administrator, he was a man of wide culture. Well read in the literatures of England and France, he had an altogether extraordinary acquaintance with classical and modern music, and was an enthusiastic golfer. Witty himself and quick to see humour, he loved to observe men and manners. Always reserved, always true, always large hearted and generous, he made many friends, and by them his untimely death will be deplored to the end of their lives.

Letters, Notes, and Answers.

BRITISH MEDICAL ASSOCIATION AND BRITISH MEDICAL JOURNAL.

THE offices of the British Medical Association and of the BRITISH MEDICAL JOURNAL are at 429, Strand, London.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London. W.C.; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London*. The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, London*.

TELEPHONE (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

R. C. H. asks whether it would be possible for a patient to take chicken-pox from a dog supposed to have distemper. The dog has had suppuration of its eyes, and is said to have lost the sight of one of them and may lose the sight of the other. The case is one in which every source of infection has been eliminated except this one of the dog.

ANSWERS.

ARTIFICIAL EYE FOR CHILD.

DR. G. H. MAPLETON (Goudhurst, Kent) writes, in reply to "T.": My experience is that a child is practically never too young to wear an artificial eye. In the case of a shallow sac, the eye may have to be flat and scale-like at first.

PRURITUS IN GLYCOSURIA.

DR. PERCY NEWELL (St. Leonards-on-Sea) writes: I would suggest that before "Nemo" submits his patient to electrical treatment he should prescribe an ointment as follows:—Creosoti pur. ♏33; ungt. conii ʒj. M., ft. ungt. To be kept constantly applied. If he has not tried uranium internally it would be worth while doing so.

FRENCH DICTIONARY.

IN reply to a correspondent who some time ago inquired as to a small French dictionary, Dr. George Pernet recommends the following: Landais, Napoléon, *Petit Dict. des Dictionnaires français*, 1 vol. in 32, 600 pages; paper cover, 1 fr. 50 c.; bound, 2 fr. (Perrin and Cie., Paris.)

EXERCISES FOR ADOLESCENT SCOLIOSIS.

"STOCKHOLM," who writes from that city, sends the following reply to "Countryman" (BRITISH MEDICAL JOURNAL, January 22nd, p. 239): Remedial exercises for scoliosis and other deformities and diseases cannot be learnt from a book, any more than auscultation of the heart can, and the idea of a practitioner (whose education in medical gymnastics has been neglected) endeavouring to compile exercises for scoliosis should not be thought of. Over-correction is easily brought about in some cases, whilst injudicious movements given by a person who has received no training in this branch of treatment may easily produce harmful results. In my opinion such a case as "Countryman" mentions should be sent to a specialist for treatment.

HEAT STROKE.

CALOR writes: "Femur" will find reference to this subject in Ziemssen's *Cyclopaedia of Medicine*, vol. xii; Billroth's *Surgical Pathology*, Wunderlich's *Medical Thermometry*, Charcot's works, Taylor's *Medical Jurisprudence*, and, for periodical literature, Neale's *Medical Digest*.

*** We may add to this list a paper by Dr. Harvey Sutton, published in the *Journal of Pathology and Bacteriology*, vol. xiii, p. 63, an annotation on which was published in the BRITISH MEDICAL JOURNAL of October 17th, 1908, p. 1206.

MANURIAL VALUE OF DRY EARTH FROM CLOSETS.

IN reply to "Reform's" query (JOURNAL, January 29th, p. 300), Dr. G. Pernet (London) writes: I would recommend the perusal of the following works by my old friend and teacher, the late Dr. George Vivian Poore: (1) *Essays on Rural Hygiene*, third edition (Longmans. 1903); (2) *The Dwelling House*; (3) *The Earth in Relation to the Preservation and Destruction of Contagion*; (4) *Colonial and Camp Sanitation*.

G. D. writes: "Reform" will find human excreta roughly valued at 10s. per head per annum in Dr. Geo. S. Keith's *On Sanitary and Other Matters* (London: A. C. Black. 2s. 6d.), which contains a very interesting account of the dry earth system in chapter i, which he would do well to read. Dr. Keith estimates the loss to the nation by the water system at 20 millions per annum.

CUPPING THE CERVIX UTERI.

DR. CHARLES A. ADAIR DIGHTON (Scarborough) writes: In answer to the query of "O. B." in the BRITISH MEDICAL JOURNAL of February 5th, p. 359, as to instruments and technique for cupping the cervix uteri in cases of endometritis, there are special Bier's suction glasses made closely resembling a Ferguson's speculum in shape, and these can be obtained at most instrument dealers. The technique is practically the same as for other kinds of cupping by Bier's method—namely, five minutes' suction and three minutes' rest, the whole sitting lasting three quarters of an hour. This should be repeated night and morning, and must on no account whatever produce any pain. Full details of technique and illustrations of appliances are given in *Bier's Hyperemic Treatment*, by Meyer and Schmeiden, published by Saunders and Co.

ANAESTHESIA FOR OPERATIONS IN PILES.

T. W.—It is the usual practice in this country to give a general anaesthetic for operations for piles. The choice of a drug for inhalation is determined by other considerations than the locality of the operation, except in so far as very deep narcosis is often necessary for satisfactory stretching of the sphincter. Spinal analgesia may be employed in any subject who presents a contraindication to inhalation narcosis. In America cocaine, eucaine, alypin, novocain, chloretone, and simple sterilized water have been used for local analgesia in operating on both external and internal piles. A 1 per cent. solution of eucaine lactate for the skin and a solution one-tenth that strength, employed so as to distend the whole area of operation, may suffice for a "painless" operation, but there is always some discomfort. If adrenalin be added, it should not be of greater strength in the solution than 1 in 10,000. Local analgesia cannot be said to "answer as well as a general anaesthetic."

LETTERS, NOTES, ETC.

DOCTORS AND HAIRDRESSERS.

THE Secretary of the Northern Counties Hairdressers' Federation (Warrington) writes: As a trade we are subject to charges being brought against us by customers who have contracted in some way a facial disease, and we have found that very often the suspicion has been cast upon us—as the cause of such disease—by the doctor to whom the customer has gone for treatment, no doubt unwittingly on the doctor's part. We, as a federation, have adopted a code of sanitary rules for our shops, based upon the advice of high medical authority, and we are doing what it is possible for us to do to minimize any danger which may arise in our shops and during the course of our business. We, therefore, courteously ask doctors to consider our position when a facial disease which may be caused in many different ways is submitted for their diagnosis and treatment, to name it by its proper name—namely, sycosis, tinea sycosis, impetigo, etc., and not to call it "barber's itch" or "barber's rash," or say at once it is through a "dirty shave." Our federation is always anxious to work in accordance with the best medical advice, and several of our branches have appointed local medical advisers to whom they may apply for professional guidance, and who on several occasions have given lectures on the best sanitary methods of conducting our business, from which much benefit has been derived.

AN EFFECT OF COFFEE.

M.D., D.P.H., M.R.C.S., L.R.C.P. writes: I was very interested in reading the experience of "M.D., D.P.H." on the effect of coffee. I have several patients who suffer exactly as the writer of the article did, and have tried to find a cause for the very unpleasant symptoms by eliminating certain articles of diet, but without marked success. None of these patients ever take coffee. Does the writer think smoking may be a cause, or is there any other possible factor in his case which might account for the feelings of "dread of losing mental control" which so many neurasthenic patients complain of? If the writer could further elucidate these facts he would be conferring an immense boon upon many sufferers, as the symptoms described are becoming, in my experience, very common, especially amongst persons of the cultured and intellectual classes. I might add that a medical man was completely cured of these symptoms after removal of the appendix; he was at one time so ill with depression that he consulted a brain specialist.

TREATMENT OF RINGWORM.

DR. HENRY WALDO (Consulting Physician to the Bristol Royal Infirmary, late Senior Physician, and in charge of the Department for Skin Diseases, Bristol) writes: Dr. Lynn Jenkins, in a memorandum in the BRITISH MEDICAL JOURNAL of January 29th, concludes that ringworm of the scalp is easily cured by using the essential oil of sassafras. Perhaps these were cases of large-spore fungus! I consider that the treatment of small-spore ringworm of the scalp is most difficult and unsatisfactory. If one mode is better than another, I think it consists in imitating Nature's cure, and producing a mild *kerion*. With croton oil diluted to the extent of causing a redness of the hair follicles without any scabbing, there is no fear of producing any bald patch, and if persevered in and accompanied with systematic epilation it is the most effectual treatment in the majority of cases. We are told that *x* rays are sure and safe if manipulated by an expert. But I am assured from a high authority at one of the largest London hospitals that the average of permanent baldness from the rays is 1 in 300.

IS IT SAFE?

DR. WM. HARDMAN, M.B., J.P., etc. (Blackpool), in a note under this heading, writes: (1) The Calmette conjunctival tuberculin reaction for the diagnosis of tuberculosis is occasionally followed by destructive inflammation of the eye, and damage to, or loss of, the sight. (2) The intra-arachnoid injection of cocaine, or its derivatives, or magnesium sulphate, is sometimes followed by permanent paralysis. (3) The treatment of syphilis, or other condition, by the intramuscular or hypodermic injection of the arylarsonates may be followed by neuritic atrophy of the optic nerve, and consequent blindness. In each of these cases it is certain that the dire consequence is caused by the respective act. Therefore, I hold that it is not safe for the medical man to practise any of these procedures. These comments are intended also to have an interrogative aspect.

CIRCUMCISION IN ANCIENT EGYPT.

DR. ALBERT CHURCHWARD (South Norwood, S.E.) writes: Dr. G. Elliot Smith is quite right about the antiquity of circumcision practised in Ancient Egypt (see a previous letter of mine in the BRITISH MEDICAL JOURNAL), and to those interested in this subject I would refer them to a plate on page 86 (in a book of mine, which I hope will be ready for the public next month—*Signs and Symbols of Primordial Man*), taken from the Borgian Codex, which shows that circumcision was practised in the Central States of America at least 10,000 years ago, and that this "rite" was brought here from Ancient Egypt; and not only circumcision, but subincision as well, the meaning of which I have fully explained, and why all the aboriginal natives of the stellar Mythos, wherever found throughout the world, practise, and still carry on, this "rite."

SEA-SICKNESS.

DR. A. VAVASOUR ELDER (ss. *Cretic*) writes: Sea-sickness may be briefly described as the reflex result of psychical and physical causes acting concertedly in varying degrees of individual ascendancy. In some cases the psychical preponderates, in others the physical. Instances of both might be quoted in full and yet leave the subject undetermined. Experience has shown that much can be done to relieve suffering by therapeutic measures conducted along both lines of argument. As the size of ships increases there is naturally a greater steadiness and less disturbance of equilibrium at sea than formerly. This results in a marked decrease in the number of cases of sea-sickness in which the physical factor predominates. It remains to be seen whether by diminishing motion the general application of the gyroscope to larger vessels will not be of more material service to suffering humanity than the whole faculty and pharmacopoeia combined. Until, however, the psychic element can be completely eliminated as a causative factor there is not much to be expected in the form of a universal cure. In all probability "air-sickness" will be puzzling therapeutists long before its marine prototype is relegated to the limbo of therapeutic successes. The foregoing may seem to be a very pessimistic view to hold in face of the daily increasing strides made in the realm of medicine, but it is the outcome of several years' close investigation under progressingly favourable circumstances—that is, from a ship of 2,000 tons to one of 16,000 tons. With every increase in size of ship the results were more promising, but in each the constant and common bar to complete success was found in the psychic element.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page	8	0	0

An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

NOTE.—It is against the rules of the Post Office to receive *poste Restante* letters addressed either in initials or numbers.

The Lettsomian Lectures

ON

THE CEREBELLUM AND ITS AFFECTIONS.

DELIVERED BEFORE THE MEDICAL SOCIETY OF LONDON,

BY

J. S. RISIEN RUSSELL, M.D., F.R.C.P.,

PROFESSOR OF CLINICAL MEDICINE AND PHYSICIAN TO UNIVERSITY COLLEGE HOSPITAL; PHYSICIAN TO OUT-PATIENTS AT THE NATIONAL HOSPITAL, QUEEN SQUARE.

LECTURE I.

MR. PRESIDENT AND GENTLEMEN,—It has been my good fortune to be called on to acknowledge with gratitude many compliments from this society, but no honour that I have hitherto received at your hands can compare to that for which your council has seen fit to select me this evening. I can conceive of no greater privilege than to be chosen as the society's representative to do honour to its great benefactor Lettsom, in memory of whom these lectures were founded.

In acknowledging my debt to you, I cannot forget that which I owe to my late colleague, Dr. C. E. Beevor, who twenty years ago induced me to seek admission to this society as one of its Fellows, and who, three years ago, fulfilled the task which I am about to attempt, in a manner that may well be emulated by succeeding generations of Lettsomian lecturers.

So little was known of the cerebellum in Lettsom's time that it is not surprising that there is no evidence from his published writings that disorders of this organ engaged his attention. It is nevertheless evident, both from his medical publications and from his correspondence, that he took an interest in affections of the nervous system, although he made no more special study of these diseases than is the wont of general physicians.

I make no apology for asking your attention to a few fundamental points in the anatomy of the cerebellum and its connexions, without a clear knowledge of which it would be impossible to appreciate the significance of much that will have to be said of the functions of the organ and of the disorder of these functions by disease.

STRUCTURE.

The student of neurology cannot fail to be struck by the peculiar and distinctive appearance presented by the cerebellum when contrasted with the cerebrum. Distinctive as is its general conformation, made up as it is of a middle lobe and two lateral ones, even more distinctive is the way in which its convolutions are arranged. Like the cerebrum, a grey mantle or cortex encloses white substance, in the midst of which are islands of grey matter, which constitute the nuclei of the cerebellum, but the arrangement of the surface grey matter is altogether different from anything seen in the cerebrum. The external surface has a laminated appearance owing to its being divided up by a series of deep curved fissures, which are arranged transverely and situated close to each other, while separation of the folia into which the surface of the organ is thus divided reveals others hitherto concealed. Section of the cortex presents a dendritic appearance, the *arbor vitae cerebelli*, which is due to the fact that each folia is in turn composed of a series of secondary folia, which in their turn are composed of tertiary ones.

Nuclei.

The most striking of the islets of grey matter revealed by section through the organ is the dentate nucleus (Fig. 1), not only because of its large size, but also because of its distinctive appearance, resembling as it does so closely in its outline and general conformation the nucleus of the inferior olive in the pons. The grey matter of which this nucleus is composed forms a wavy band which encloses white matter, which it shuts off from the surrounding white matter of the cerebellum at all parts except one, where the band of grey matter is interrupted on the mesial side of the nucleus, and allows of free intercommunication between the white matter inside and that outside the nucleus. The fibres which thus pass from the interior of the nucleus through this part of it, which is known as the hilus, constitute the nerve fibres which form the superior cerebellar peduncle, which connects the cerebellum with the mid and fore brain. There are, however, other islets of grey matter situated in the depth of the cerebellum the importance of which cannot be too strongly insisted on, for although their apparently small size and lack of peculiarity of conformation, as seen on vertical transverse section, may lead to the belief that they are not of much significance, in reality there can be no doubt that they subserve most important functions. There are three nuclei of the kind on each side of the middle line—the nucleus emboliformis, situated on the mesial aspect of and next to the nucleus dentatus; while in the inferior vermis are situated the nucleus globosus, still more mesially placed, and the tegmental or roof nucleus, also known as the nucleus fastigii, close to the middle line, but more ventrally situated, and occupying the anterior part of the vermis.

Fig. 1.—Nuclei of cerebellum (Stilling). O, Inferior olive. D, Dentate nucleus. E, Nucleus emboliformis. G, Nucleus globosus. T, Tegmental nucleus.

Peduncles.

The superior cerebellar peduncle, which has its origin in the dentate nucleus, is the only purely efferent tract from the cerebellum, and passes forward to the mid-brain to reach the red nucleus, to which and to the oculo-motor nuclei collaterals are given off, while others of its fibres pass on to terminate in the optic thalamus, and, according to van Gehuchten, some cross the middle line to end in the thalamus of the opposite side. It is important that we should remember in this connexion that nerve fibres pass from the thalamus to the cerebral cortex, and that a communication is thus established between the cortex of one cerebral hemisphere and the opposite half of the cerebellum and its nuclei. Another fact that must not be lost sight of is that from the red nucleus, to which so many of the fibres of the superior cerebellar peduncle pass, there emanate fibres which constitute the bundle of Monakow or rubro-spinal tract, which crosses the middle line and passes down the lateral column of the medulla oblongata and spinal cord (Fig. 2). There is thus established an indirect communication between one half of the cerebellum and the same side of the spinal cord—an interesting fact that will have to be further emphasized later when we come to consider other connexions between the cerebellum and cord, for this homolateral tendency becomes strikingly evident in contrast to the well-known crossed connexion which exists between the cerebrum and spinal cord.

Fig. 2.—OT, Optic thalamus. RN, Red nucleus. DN, Dentate nucleus. C, Cerebellum. F, Afferent cerebellar tract (Flechsig). M, Rubro-spinal tract (Monakow's bundle).

The middle peduncle of the cerebellum has its origin in the nuclei pontis, and, forming the transverse fibres of the pons, passes across the middle line to the opposite cerebellar hemisphere. There is thus established another indirect connexion between the cerebrum and cerebellum through the cerebro-pontine fibres, which, having their origin in the brain, terminate in the pons by arborizations around the cells of the nuclei pontis. It has hitherto been supposed that this tract takes its origin in the excito-motor cortex of the Rolandic region and the adjoining frontal lobe; but Sir Victor Horsley and Dr. R. H. Clarke are of opinion that this point requires further consideration, and adduce the following reasons for regarding the

temporal rather than the frontal lobe of the brain as the most important part which is associated with the cerebellum through the pontine nuclei. They point to the fact that it is now generally accepted that Déjerine is correct in his opinion that a temporo-pontine bundle exists which takes origin in the middle third of the temporal lobe, occupies the outer fifth of the cerebral peduncle, and terminates in the pons, and as the temporal pallium is the seat of projection of the auditory paths, they consider that it is not unreasonable to regard it, rather than the excito-motor gyri, as being also the area in which the vestibular sensations are represented. They further point to the fact that their view receives support from Charles K. Mill's conception of the subject, for he figures "equilibratory" and "orientation" in the posterior third of the second and third gyri of the temporal lobe.

The inferior peduncle—otherwise commonly known as the restiform body—is peculiarly interesting in virtue of its complexity of composition, and because of the important connexions which it establishes between the cerebellum and other parts, notably the labyrinth. Like the middle peduncle, it is composed—in the main, at any rate—of afferent fibres, which, having their origin elsewhere, terminate in the cerebellum. Some of these (bundle of Flechsig) are derived from the cells of Clarke's column in the spinal cord, and end in the grey matter of the cortex of the forepart of the vermis. Others are derived from the olivary nucleus of the medulla oblongata, cross the middle line, and enter the inferior peduncle of the opposite side, to terminate in all parts of the cerebellar cortex. Yet others are derived from the cells of the reticular formation of both sides of the pons and the lateral nucleus of the medulla, while there remain those which come from the vestibular nerve, and from the nuclei in which this nerve ends. These pass to the tegmental or roof nuclei of the cerebellum.

Paracerebellar Nuclei.

In the grey matter on the inner side of the inferior peduncle certain groups of nerve cells constitute two important nuclei, that of Deiters and of Bechterew (Fig. 3). Fibres pass from the cerebellum to both of these nuclei, which form a means of communication between the organ and other parts of the central nervous system. From Deiters's nucleus fibres pass down the ventro-lateral region of the spinal cord on the homolateral side, forming a well-defined tract, which can be traced to the lowest region of the cord; while others pass forwards in the posterior longitudinal bundles to reach the oculo-motor nuclei. From Bechterew's nucleus and the neighbouring grey matter fibres pass in the posterior longitudinal bundles of the same and the opposite sides, and accordingly bring this nucleus into communication with the oculo-motor nuclei; while others pass dorsalwards to the spinal cord, and thus connect the nucleus with the ventral horns.

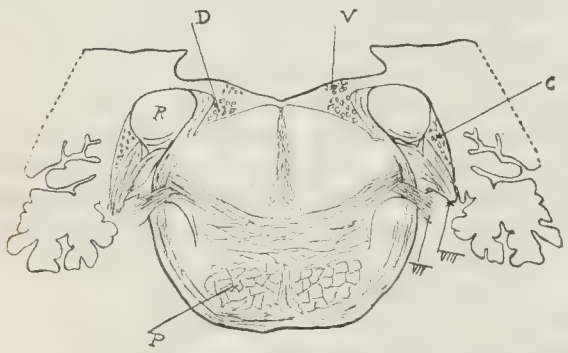


Fig. 3.—Transverse section of pons (modified from Schäfer). P, Pyramid. R, Restiform body. D, Deiters's nucleus. V, Nucleus of vestibular division. C, Ventral nucleus of cochlear nerve. VII, Facial nerve. VIII, Auditory nerve.

CONNEXIONS.

Horsley and Clarke, as a result of localized destructive lesions of the cerebellum, found that no fibres derived from the cortex of the cerebellum pass into any of the peduncles, and that all of the fibres which leave the organ through its peduncles have their origin in one or other of the nuclei. They found, moreover, that the cortex is related to the homolateral nuclei, and they have not been able to trace any cortico-nuclear fibres which cross the middle line. The roof nucleus is regarded by them as probably the most important of the nuclei for associating the corticofugal impulses, for they find that it is connected with practically all parts of the cerebellar cortex. This nucleus has long been known to be intimately related to the vestibular nuclei, for the observations of Kölliker, Edinger, and Ramon y Cajal have made this evident; and Horsley and Clarke, after very limited lesions of the nucleus, have been able to trace degenerate fibres from it over the superior cerebellar peduncle to the vestibular nuclei and *locus coeruleus*. These observers find that the nucleus globosus is not in any way related to the lateral lobe or flocculus, but that it essentially appertains to the vermis system. The dentate nucleus, on the other hand, they find has very little to do with the vermis, and no connexions with the flocculus and paraflocculus, but is intimately associated with the pennate lobules.

Cerebro-spinal System.

Before calling your attention to certain other connexions of the cerebellum it is necessary for me to remind you briefly of the afferent and efferent connexions between the spinal cord and cerebrum (Fig. 4). Some of the fibres derived from posterior spinal nerve roots cross in the posterior commissure, and then pass up in the dorsal tracts and grey matter to terminate in the nuclei of Goll and Burdach in the medulla. From these nuclei fibres are derived which cross the middle line and proceed brainwards as the fillet, which terminates in the optic thalamus, from which fibres emanate which pass to the sensori-motor cortex of the Rolandic region of the brain. The neurons of the sensori-motor area give origin to fibres which pass through the internal capsule, crus, and pons, and, having reached the lower end of the medulla, the bulk of them cross the middle line and pass down the opposite (contralateral) pyramidal tract, to terminate at different levels, and convey impulses which reach the muscles through the neurons of the ventral horns, whose axons constitute the peripheral motor nerves. Thus, afferent impressions which enter the spinal cord can pass to the cerebral cortex, and efferent impulses, evoked in the cortex, can reach the muscles without reference to the cerebellum in either case.

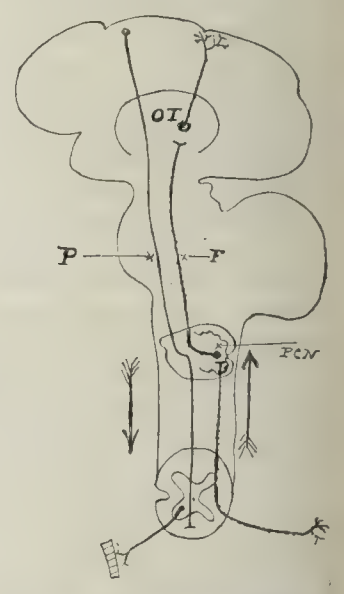


Fig. 4.—Cerebro-spinal system. OT, Optic thalamus. P, Pyramid. F, Fillet. PCN, Posterior column nuclei.

Cerebello-spinal System.

There are, however, other afferent impulses which can only reach the cerebrum by way of the cerebellum, and an indirect motor path exists from the cerebrum which is equally dependent on its connexions with the cerebellum for the transference of impulses from the cerebrum to the spinal centres, and thence to the muscles. In the dorsal sensory nerve roots are fibres which convey afferent impressions from the muscles, joints, and deeper structures, as opposed to the skin, some of which pass to Clarke's column of cells, from which is derived the dorsal or direct cerebellar tract; while others cross in the anterior commissure, and pass upwards in the ventro-lateral region of the cord, constituting the ventral or crossed cerebellar tract of Gowers. Both of these tracts pass to the cerebellum to terminate in the cortex of the organ, the former, as we have already seen, by way of the inferior peduncle, while the latter courses along the superior peduncle to end in the cortex of the middle lobe. From the cortex fibres pass to the nuclei, and from the dentate nucleus fibres are derived which leave the organ by way of the superior peduncle, to reach the red nucleus and optic thalamus of the opposite side, and through the thalamus connect the cerebellum with the cerebral cortex. From the cortex of the cerebrum, in addition to the direct motor path which has already been described, an indirect one may be traced, which passes to the pons, and thence by way of the middle peduncle of the cerebellum to the cortex of the opposite side of the organ, from which fibres pass to the

roof nuclei, from which others arise which go to the nucleus of Deiters, which in its turn sends fibres down the ventro-lateral region of the spinal cord to the ventral horns. It thus becomes evident that afferent impressions can reach the cerebrum by way of the cerebellum, and that efferent impulses may similarly reach the muscles from the cerebrum by way of the cerebellum. Moreover, this system provides a means by which afferent stimuli can evoke efferent impulses from the cerebellum without reference to the cerebrum (Fig. 5). Another indirect motor path is probably established through the connexion which exists between the inferior olive and the cerebellum, for fibres derived from neurons of the cerebral cortex have been traced to the inferior olive (van Gehuchten).

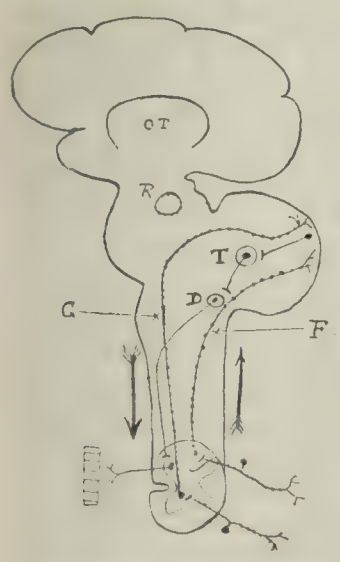


Fig. 5.—Cerebello-spinal system. T, Tegumental nucleus. D, Deiters's nucleus. F, Flechsig's tract. G, Gowers's tract. R, Red nucleus. OT, Optic thalamus.

The significance of all this is best appreciated when we recall the fact that an animal deprived of its cerebrum retains the power of standing and of walking. It is thus clear that afferent impressions to the cerebellum and red nucleus may evoke efferent impressions which are capable of maintaining station and locomotion without the co-operation of the cerebrum, and there is evidence to show that the afferent impressions concerned are derived from the deeper structures, such as the muscles and joints.

The Labyrinth.

The most important peripheral sense organ from which the cerebellum receives afferent impressions, however, is the labyrinth, and the path by which they are conducted is the vestibular nerve. Taking origin in the ganglion vestibulare, and supplying its peripheral filaments to the semicircular canals, it enters the pons between the ascending root of the fifth nerve and restiform body, and among the important connexions which it forms are included the nucleus of Deiters and that of Bechterew, which we have already seen are intimately connected with the cerebellum. Besides this indirect connexion with the cerebellum Ramon y Cajal considers that some of its fibres pass directly to the roof nucleus of the organ and others to the cortex of the lateral lobe. It also forms connexions with the mesial vestibular nucleus and nuclei of the pons, which permits of another connexion with the cerebellum through the internal arcuate fibres. The connexions of the vestibular nerve with Deiters's and Bechterew's nuclei permit of an indirect communication with the ocular nuclei, but in addition to this a direct path has been traced from the nerve to the sixth nucleus. Afferent impressions from the labyrinth can thus evoke efferent impulses from the cerebellum in the same way as results from the afferent impressions which reach the organ from the muscles and joints.

The Proprioceptive System.

How intimate is the relation of the labyrinth to the cerebellum, and how important is the part which it plays in maintaining the equilibrium of the body has long been recognized, but cannot be better illustrated than by reference to Sherrington's conception of their mode of operation.

As sensation does not accrue as a result of all peripheral stimuli which evoke a central (reflex) reaction, Sherrington adopts "receptor" as the neutral term to apply to the peripheral apparatus which receives the stimulation. He points out that there are two main fields of distribution of the receptor organs—a *surface field*, which is situated at the surface layer of the organism, both external and internal, which he speaks of as exteroceptive and interoceptive respectively; and a *deep field*, which is situated in the tissues of the organism beneath the surface layer, which he designates proprioceptive. The stimulations which occur in the deep field are traceable to actions of the organism itself, as opposed to stimuli received from without. Hence the term "proprioceptor," which he has applied to the receptors of these stimuli, which are brought about largely, as he says, through the agency of mass, with its mechanical consequences of weight and inertia, and also largely through mechanical strains and alterations of pressure, resulting from contractions and relaxations of muscles. Among the functions subserved by the receptors of the proprioceptive, or deep field, is that of maintaining a state of tonic reaction in the skeletal muscles, which Sherrington regards as concerned with the maintenance of attitude. The receptor organs are found to be more highly developed and of greater importance as the head segments are reached, as contrasted with those at the caudal end of the animal, as is well illustrated by the organs of sight, hearing, and smell in the exteroceptive field, and as illustrated by the labyrinth, which belongs to the proprioceptive field, in that the active agent which excites the receptor in the labyrinth is a portion of the organism itself, and not a stimulus derived directly from the environment, such as obtains in the case of the organs of sight, hearing, and smell. In accordance with what obtains in the case of the proprioceptors of all other segments of the organism, however, although the receptors of the labyrinth are stimulated by the animal itself, this is secondary to the action of the environment on the exteroceptors, which evokes a movement of the animal, which in its turn causes the stimulation of the proprioceptors of the labyrinth. As the segment to which the labyrinth belongs is commonly rigidly connected with the other segments which compose the head, posture and movement of the head cause stimulation of the labyrinth. Sherrington further points out that whereas the proprioceptor of a limb has practically only an influence on the reflex maintenance of posture in that limb, the proprioceptive organ of the head (labyrinth) has not only an influence upon the position of the head itself, including the eyeballs, but in addition exerts its influence on the limbs and trunk. Indeed, all segments of the body are embraced within this field of reflex action. Moreover, whereas the proprioceptors of the limbs give them reflex attitudes which are chiefly concerned with their relation to other segments of the body, the proprioceptors of the head (labyrinth) give an animal a reflex attitude in relation to the external world and gravitation. In common with all reflex systems in which there is a tendency for the nerve centres to fall under the dominating influence of one of their own number, which is so situated as to receive the afferent paths from the group of receptors of the system that are pre-eminently important, the whole reflex mechanism of the proprioceptive system becomes focussed upon the main centre belonging to that group. As the labyrinth is the most important receptor in this system, it follows that the central mechanism of the proprioceptive system is built up chiefly in the hind brain, to which the afferent vestibular nerves pass from the labyrinth. To this region of the hind brain internuncial paths from many proprioceptive centres of other segments converge, which with those of the labyrinth form an organ of confluence of great complexity, which is the cerebellum. This increases in size as it is traced through the animal kingdom, becoming larger as the range and complexity of the movements of the animal become greater. The cerebellum is thus, according to Sherrington, the head ganglion of the proprioceptive system, and it accordingly follows that it is the main ganglion of the system.

It is impossible for me to leave this part of my subject without paying a tribute to my colleague, Mr. Sidney Scott, whose experimental researches on the labyrinth have yielded such brilliant results, but deal with a part of the subject not comprised in this lecture, and which time does not permit me to include in our deliberations.

FUNCTIONS OF THE CEREBELLUM.

To experimental researches we are chiefly indebted for the precise information which we now possess in regard to the important connexions of the cerebellum to which your attention has been called, and it is especially to the discovery of Waller that we owe so much in this respect, for his observation that a nerve degenerates when it is severed from the cells from which it takes its origin has enabled us to determine not only what the connexions of

the cerebellum are, but where the tracts take their origin, and where they terminate, which pass from the cerebellum to other parts of the central nervous system, and which take their origin in other parts and terminate in the cerebellum. It would be impossible to overrate either the importance of Waller's discovery or the use that has been made of it by Marchi, who, by the introduction of a special method of treating nerve tissues so as to reveal the degeneration which results when the axons are severed from the cell bodies of the neurons from which they are derived, has enabled an army of neurological workers to investigate not only the connexions of the cerebellum, but also the internuncial paths which link up various other parts of the nervous system with each other. Aided by the Marchi method, observers have been able to determine that certain tracts which have their origin in the cerebellum degenerate when lesions are produced in the organ, while others fail to do so, which nevertheless in their turn degenerate when lesions are made in certain other parts of the nervous system.

Great as is the debt which we owe to experimental investigations for the light which has now been thrown not only on the precise connexions which exist between the cerebellum and other parts of the nervous system, but also on the direction in which impulses pass along these paths, whether to or from the organ along any given tract, even greater is the amount of our indebtedness to experimental physiology for the knowledge which we now possess in regard to the functions of the cerebellum, knowledge which we are able to utilize in our clinical work with such brilliant results in many cases, not only in so far as we are concerned with diagnosis, but also in regard to treatment. The darkness which obscured the cerebellum in Lettsom's time has been dispelled by the searchlights of experimental physiology, which have illuminated the organ in a way that leaves us in no doubt as to what its chief function is, even if there be any diversity of opinion as to the precise way in which that function is exercised. We can affirm on evidence that is incontrovertible, which began with the discovery of Flourens in 1824, nine years after Lettsom's death, and which has since been confirmed by a host of experimental physiologists, that the cerebellum is concerned with the co-ordination of movement, and that lesions of the organ accordingly result in inco-ordination. In the endeavours that have been made to determine the precise functions of the cerebellum attention has been paid both to the effects of destructive lesions of the organ and to the results of electrical and other forms of excitation.

Results of Electrical Excitation.

Among those who have directed attention to the latter aspect of the subject it would have been surprising if the name of Dr. Ferrier had not figured prominently, in view of the epoch-making experimental investigations which he conducted on the cerebral cortex with such brilliant results for science and such untold benefit to mankind. The main points that seem proved by his excitation experiments on the cerebellum were that faradic stimulation of certain parts of the middle lobe of the organ resulted in movements of the eyes, and that the head also participated, but that no very satisfactory conclusions could be arrived at with regard to the limbs, in that when any movements were evoked they were too sudden and violent to permit of proper analysis, except that it was observed that they occurred on the same side as that on which the excitation had been applied to the cerebellum. The difficulty of evoking a response from the cerebellum as contrasted with the cerebrum was evident to Ferrier; and so impressed have subsequent observers been in regard to this that it is now admitted by many that the cortex of the organ is non-excitable, and that such movements as can be evoked on faradic excitation are in reality due to diffusion of the current to the nuclei situated in the interior of the organ. The most conclusive proof of the truth of this has been supplied by Sir Victor Horsley and Dr. R. H. Clarke, who, aided by an ingenious instrument devised for the purpose, have been able to localize the stimulus to the individual nuclei of the cerebellum, and to demonstrate that, while the cortex of the organ is non-excitable, an electric stimulus applied to the different nuclei readily evokes a response, which differs according to which of the nuclei is selected for excitation. Thus, on maximal stimulation to the basal region and dentate nucleus there resulted homolateral conjugate deviation of the eyes and head and flexion of the homolateral elbow, whilst deeper excitation of the paracerebellar nuclear region caused in addition extension of the contralateral elbow, hyperextension of the neck and trunk, and forcible extension of the lower limbs. We are thus very strongly reminded of the clinical picture which Dr. Hughlings Jackson described so long ago as 1871, as produced by a cerebellar fit, in which the head is retracted, the trunk arched backwards, the upper limbs flexed and the lower ones rigidly extended.

We are fully prepared for the results which Horsley and Clarke have obtained in so far as the eye movements are concerned, for it will be remembered that the superior cerebellar peduncle takes its origin from the dentate nucleus, and that it forms important connexions with the oculo-motor nuclei. The paths by which the discharge travels so as to evoke movements of the limbs may not be so readily perceived, in that there is no direct efferent tract from the cerebellum to the spinal cord. It was at one time supposed by Marchi, Biedl, and others that an efferent homolateral tract degenerated in the ventro-lateral region of the spinal cord as a result of destructive lesions of the cerebellum, and that there was thus evidence that a direct path from the cerebellum to the spinal cord existed. It has, however, been definitely established that the fibres of this tract only degenerate when the nucleus of Deiters has been injured by the lesion of the cerebellum, and that the tract is accordingly a path from Deiters's nucleus to the spinal cord, and not one which has its origin in the cerebellum (Ferrier and Turner, Risien Russell, Fraser and others). It will nevertheless be remembered that Deiters's nucleus is connected with the roof nucleus, and thus an efferent path is established from the cerebellum to the spinal cord. Yet another way in which impulses may reach the cord from the cerebellum is by way of the superior peduncle, through its connexions with the red nucleus, from which, as we have seen, Monakow's bundle passes to the spinal cord as the rubro-spinal tract.

Cerebellar Influx.

It would be impossible to discuss any problems in neurology which are entirely free from the suggestions of Dr. Hughlings Jackson, whose master-mind has evolved order out of chaos in so many directions, and who was able to predict with so much precision what Ferrier and others have demonstrated in regard to the localization of function in the cortex of the cerebral hemispheres. It accordingly follows that Dr. Jackson long ago formed a very definite conception of the cerebellum in its relation in function to other parts of the nervous system. He considers that all parts of the body are represented both in the cerebellum and cerebrum, and that these two organs are constantly in co-operation, both of them taking part in every operation. There is, according to Dr. Jackson, an interaction constantly going on between the cerebrum, cerebellum, and spinal cord; and if one of these is put out of action from any cause the energy from the remaining parts must assert itself. He speaks of the energy which is derived from the cerebrum and cerebellum as cerebral and cerebellar influx; and he regards these higher centres as constantly exercising an influence on the lower ones in such a way that, if the cerebrum be removed, the cerebellum is no longer hampered, and can exercise its full effects on the lower centres. This flow of nerve energy from the cerebellum he speaks of as the cerebellar influx.

Among the results of my experimental investigations on the cerebellum, there were some that appeared in opposition to Dr. Jackson's view of the action of the cerebellum, and which seemed in accord with a view advanced by Sir William Gowers to the effect that one half of the cerebellum exercises an inhibiting or controlling action on the cortex of the opposite cerebral hemisphere. The evidence that seemed to point to this was that the excitability of the cortex of the Rolandic region of the opposite cerebral hemisphere was increased to faradic stimulation after ablation of one half of the cerebellum, and fits induced by the intravenous injection of absinthe resulted in marked

exaggeration of the discharge from the opposite cerebral hemisphere, so that tracings obtained from the muscles of the limbs revealed an exaggerated clonic fit on the homolateral side, while from the limbs of the contralateral side an almost tonic discharge was revealed.

Although it was not possible for me to reconcile the results of my experiments with Dr. Jackson's views at the time when my work was published, it never occurred to me otherwise than that future research would either reconcile what then appeared to be discrepancies between my results and his views, or prove that some fallacy had entered into my experiments of which I was not then aware. Thus it is that, in the light of more recent experimental investigations, I am now convinced that my results are capable of a different interpretation to that which seemed most obvious at the time when they were published, and that there is nothing in them that can be regarded as in opposition to Dr. Jackson's view, which has since received the confirmation which was to be expected from the results of the investigations of numerous experimental workers.

Bouché has determined that fits induced by intravenous injection of absinthe in an animal deprived of one cerebral hemisphere were clonic and mainly flexor in type from the intact cerebral hemisphere, whereas the fit on the other side was tonic and chiefly extensor. Section of the mesencephalon during the fits abolished the clonic discharges and only allowed the tonic to continue. Even more striking are the results of Leonard Hill, who was able to alter the character of the fit from tonic to clonic at will, according as he interrupted the arterial supply to the cerebrum by clamping the vessels or allowed the blood charged with absinthe to reach the brain.

Decerebrate Rigidity.

Sherrington has shown that removal of the cerebrum results in what he speaks of as decerebrate rigidity, which fully accords with Dr. Jackson's view of cerebellar influx. Moreover, he found that this rigidity could be abolished, and was replaced by flaccidity in the homolateral limbs on hemisection of the spinal cord in the cervical region, which makes it evident that the tonus is derived from the mesencephalon or cerebellum. Sir Victor Horsley, acting on Dr. Jackson's suggestion, divided the mesencephalon at the level of the intercollicular groove, and thus allowed of decerebrate rigidity appearing. Removal of successive sections of the cerebellar cortex produced no appreciable effect on the hypertonus until the sections involved the intrinsic and paracerebellar nuclei. A large horizontal lesion, separating the dorsal half of the cerebellar cortex without involving the nuclei, was also made three weeks before the division of the mesencephalon, again without any appreciable effect on the decerebrate rigidity which resulted in these animals, as compared with that which obtained when a similar section of the mid-brain was performed in normal animals. Thiele, in his researches undertaken with a view to determine the source from which the hypertonus which constitutes Sherrington's decerebrate rigidity is derived, found that the chief source of this energy was at the level of the paracerebellar nuclei. Successive lesions of the mesencephalon, commencing in front and proceeding caudalwards, failed to affect the decerebrate rigidity until these nuclei were reached. The experimental evidence is thus very convincing, both as proving that the nuclear region of the cerebellar complex is the source of the energy which constitutes the cerebellar influx, and as thus confirming the view enunciated by Dr. Jackson more than thirty years ago.

A crossed relationship between one half of the cerebellum and the opposite cerebral hemisphere, however exists, as we have already seen, and this is further emphasized by the fact that in cases of defective development one cerebral hemisphere and the opposite lateral lobe of the cerebellum have both been found atrophied, while the inferior olive homolateral to the affected cerebral hemisphere has shared in the defect.

Motor Centres in Cortex of Cerebellum.

There are those like Adamkiewicz and Prüss, who would have us believe that the cerebellum is exclusively a central organ for bodily movement, and as such possesses localized centres for movement in its cortex. According to these observers centres exist in the cerebellar cortex which are related to the homolateral limbs, excitation of which evoke contraction of the muscles. Each anterior and each posterior extremity is supposed to have its own special centres, the two anterior and posterior extremities having each a special centre, whilst all the four limbs together have one in common.

My own experience makes it impossible for me to accept such observations without considerable question, for all that I have seen justifies the belief that Horsley and Clarke are correct in considering that the cortex of the cerebellum is inexcitable, and that such movements as result from electrical excitation are the outcome of spread of the stimuli to the cerebellar nuclei.

All the facts that have been best established in regard to the cerebellum are in accord with the view that its cortex is concerned with the reception of afferent impressions which are derived from deeper structures like the muscles and joints, as well as those which the organ receives from the labyrinth, and that efferent impulses are thus evoked from its muscles which are responsible for that degree of tonus in the general musculature of the organism which is essential for the maintenance of attitude, and which makes it possible for co-ordinated movements to be executed.

Thus Probst's conception of the cerebellum is in harmony with the best ascertained facts both as regards the anatomical relations of the organ and as regards its functions. According to his view, which is in harmony with the results of Luciani, Thomas, and myself, the cerebellum represents a regulating apparatus for the muscular system in regard to locomotion generally, the position of the body, and voluntary, automatic, and reflex movements. The muscles are placed in a condition of tension, which tonic state is automatic and independent of the will, and provides that the directions proceeding from the cerebral cortex can be properly carried out.

Effects of Unilateral Ablation.

Since the time of Flourens experimental investigators have been agreed that destructive lesions of the cerebellum are responsible for disorder of co-ordination, so that such disorders of function are correctly ascribed to affections of the cerebellum when they are met with in our clinical work. From the clinical standpoint, however, it is often even more important to be able to decide whether the organ as a whole is affected, or whether the disease is limited to one part of it, and experimental investigations have done much to assist us to determine which side of the cerebellum is at fault when a morbid process is limited to one half of the organ. The results of experiments have taught us that each half of the cerebellum is most concerned with the homolateral parts of the body, so that after destructive lesions of one half of the organ the inco-ordination and other defects that result are mainly evident on the homolateral as opposed to the contralateral side, as obtains when the cerebrum is similarly under consideration.

After what has been said of the results of stimulation of the cerebellum, we are prepared for ocular defects as a consequence of destructive lesions of the organ. Moreover, as excitation results in turning of the eyes to the homolateral side, we are prepared for what obtains after destructive lesions—namely, turning of the eyes to the contralateral side after "skew deviation" has disappeared. The latter is an immediate and transitory effect of ablation of half of the cerebellum, whereas the other defect continues for some time, although it also ultimately results in recovery. Associated with this abnormal position of the eyes is a coarse form of nystagmus, which occasions jerking of the globes in a lateral direction. The head assumes a fixed position, in which the ear is approximated to the shoulder on the homolateral side, while the chin points in the opposite direction. The trunk is also curved, with the concavity to the homolateral side, and among the evidences of disordered co-ordination which result the animal rolls over on its long axis towards the affected side, a consequence of cerebellar lesions that is more pronounced when the middle peduncle is divided than when one half of the organ itself has been destroyed. The homolateral limbs reveal a greater degree of ataxia than do those of the contralateral side, and since

Luciani first called attention to the fact others have confirmed his observation that the muscles are in a hypotonic condition, while asthenia results in diminished force of contraction. My own results of destructive lesions of the organ are in accord with Nothnagel's view that lesions of the vermis result in much more severe symptoms than do those of the hemispheres, for while my results do not accord with those who have maintained that no disturbance of function results from ablation of the lateral lobe, the increase in the severity of the symptoms which resulted when part of the middle lobe was removed, as opposed to the lateral lobe alone, was out of proportion to the extra amount of cerebellar tissue that was thus put out of action. My results are also in accord with those who, like Marrassini, find that lesions of the median portion of the cerebellum caused disturbances of equilibrium, in which forward or backward oscillations occurred, whereas lesions of the lateral portions result in lateral oscillations to the right or left, as the case may be.

EFFECTS OF LESIONS OF THE LABYRINTH.

What has been said of the important connexions which exist between the labyrinth and cerebellum prepares us for the fact that destructive lesions of the labyrinth result in disorders of equilibrium which are similar to those the outcome of lesions of the cerebellum. Thus it is that lesions of the semicircular canals or section of the vestibular nerve result in disorders of equilibration, in which the animal rotates to the side of the lesion and its homolateral limbs are extended and abducted, as if in the attempt to prevent the rotation, while its contralateral limbs are flexed and adducted. Moreover, the connexions which the vestibular nerve forms with the ocular nuclei prepare us for evidences of disordered innervation of the eye muscles of a similar kind to those which follow lesions of the cerebellum, including abnormal position of the eyes and nystagmus. The similarity between the effects of lesions of the cerebellum and labyrinth is further evidenced by the conclusions of J. R. Ewald and others that the labyrinth exerts a tonic influence on many muscles, while Sherrington points to the fact that the "knock-out" blow, in which the concussion is conveyed by the lower jaw to the labyrinth, reduces "a vigorous athlete to an unstrung bulk of flesh."

BIBLIOGRAPHY.

Horsley and Clarke: *Brain*, 1905, p. 13; 1906, p. 446.
Van Gehuchten: *Nevräge*, vii, 1905.
Sherrington: *Brain*, 1906, p. 467.
Ferrier: *Functions of the Brain*, 1886, p. 187.
Hughlings Jackson: BRITISH MEDICAL JOURNAL, November 4th, 1871; *Brain*, 1906, p. 425. See also *Brain*, 1905, p. 356; and BRITISH MEDICAL JOURNAL, 1898, vol. i, p. 64.
Marchi: *Riv. Sper. d. Fren.*, etc, 1886, 1887, 1891.
Biedl: *Neurolog. Centralbl.*, 1895, p. 434.
Ferrier and Turner: *Phil. Trans. Roy. Soc.*, 1894, B, part ii, p. 719.
Risien Russell: Ibid., p. 819; 1896, p. 633.
Leonard Hill: Ibid., 1900, cxciii, p. 106.
Horsley: *Brain*, 1906, p. 446.
Sherrington: *Journ. of Physiol.* and *Schäfer's Physiol.*, 1900, vol. ii.
Thiele: *Journ. of Physiol.*, 1905, xxxii, p. 358.
Adamkiewicz: *Neurol. Centralbl.*, 1904, p. 546.
Prüss: *Polnisches Arch. f. Biol.*, etc., 1901, Bd. I.
Probst: *Archiv f. Psychiat.*, xxxv, p. 692.
Luciani: *Il Cerveletto*, 1891.
Thomas: *Le Cervelet*, 1897.

THE annual report for 1909 of the Library Committee of the College of Physicians of Philadelphia states that the number of bound volumes is 81,018, and of unbound reports, transactions, theses, and dissertations is 31,913. There are in addition over 70,000 unbound pamphlets. The cost of transferring the whole collection from the old to the new building amounted to about £165 for boxes, vans, and labour.

THE fifth annual dinner of the Sheffield Edinburgh University Club was held at the Royal Victoria Station Hotel on February 5th, Dr. W. S. Kay, President of the club, in the chair. A company of 108 members and guests assembled to meet Sir Thomas Fraser, the guest of the evening. Dr. Gordon proposed the Alma Mater, and Sir Thomas Fraser replied in characteristic fashion. Amongst the guests were Drs. Sinclair White, Burgess, Dyson, Favell, and Mr. Pye-Smith. A very enjoyable evening was spent

Remarks
ON THE
EFFECT OF BACTERIAL VACCINES ON NUTRITION.

BY LEWIS CAMPBELL BRUCE, M.D.,
MEDICAL SUPERINTENDENT, PERTH DISTRICT ASYLUM.

IF I were asked what is the most common bodily disorder to be noticed in patients suffering from nervous diseases of the type of neurasthenia and the insanities, I would reply, failure of nutrition. There are exceptions to this statement, but it may be taken as a fact that 90 per cent. of the sufferers from functional nervous disorders are thin and poorly nourished. Some of these cases actually die of starvation in the midst of plenty, while others linger on from year to year obstinately resistant to all forms of dietetic treatment. The subject of nutrition, therefore, is an important one for the physician, and any observations which may throw light upon this question are of interest.

In physiological nutrition there appears to be a definite ratio between the nitrogen ingested in the food and the nitrogen excreted in the urine and faeces. When the daily average of nitrogen in the food is reduced, the nitrogen in the excreta also falls, and the body weight is reduced; eventually, however, the body accommodates itself to the altered food supply, a new nitrogen balance is struck, and the weight remains constant.

In acute diseases, notably those associated with fever, the nitrogen balance is upset, the excretion far exceeds the ingestion, and as a consequence there is loss of body weight. When recovery takes place, this condition of affairs is reversed, nitrogen is conserved, more is ingested as the appetite returns, and at the same time the body weight increases, and when recovery is complete a condition of nitrogen balance is again resumed.

In many of the acute insanities, notably maniacal states, the relation of the nitrogen excreted and the urea-nitrogen value of the food ingested conforms to that noticed in acute febrile diseases.

In neurasthenics and cases of chronic insanity, however, there is an entirely different state of affairs. As a rule, the excretion of urea nitrogen is much less than the urea-nitrogen value of the food ingested. If a chart of the nitrogen excreted and the nitrogen ingested in a case of chronic insanity with malnutrition be compared with a

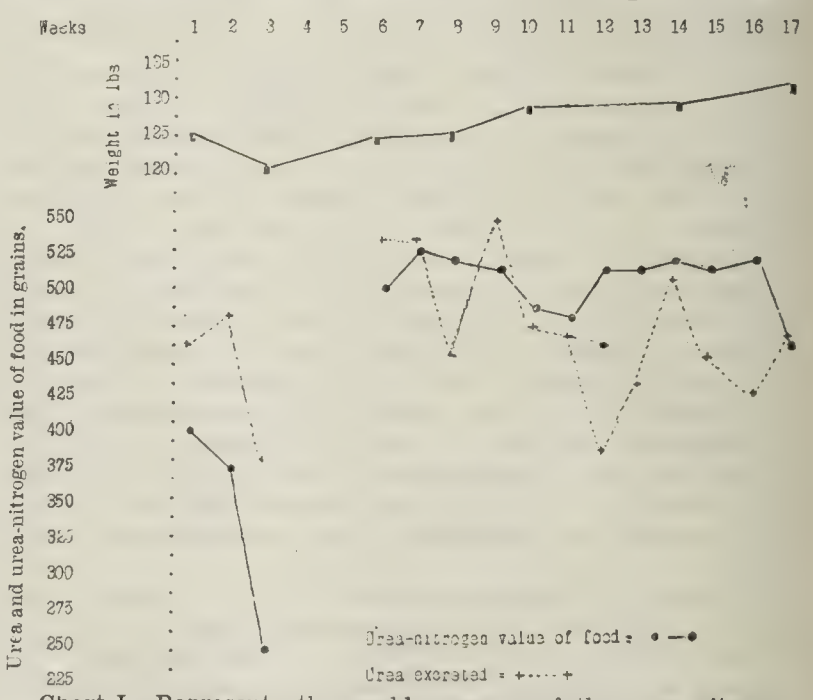


Chart I.—Represents the weekly average of the urea nitrogen excreted, the urea-nitrogen value of the food ingested, and the body weight in a case of acute mania. During the first three weeks, when the patient was acutely maniacal, the excretion exceeded ingestion, and body weight was lost. The latter part of the chart shows the excretion and ingestion during the period of convalescence and recovery, during which period weight was gained.

similar chart of a patient recovering from acute mania (Chart I), they at first sight appear somewhat similar, but a comparison of the body weights at once denotes a

* Delivered at the annual meeting of the Perthshire Branch of the British Medical Association.

difference. While the patient recovering from mania ingests more nitrogen than he excretes in his urine, and gains weight, the chronic case also ingests more nitrogen than he excretes, but either loses weight or does not gain weight. In the one case the nitrogen is being used to form new tissue, in the other the nitrogen is not being absorbed, and is probably largely excreted with the faeces. Chart II shows the result of observations in such a case of chronic insanity with malnutrition. The patient died apparently as the result of inanition, although taking daily a sufficient quantity of food to preserve life. At the *post-mortem* examination no obvious pathological lesion of the intestines or digestive organs was discovered. In such a case there must have been some more general disorder in the nature of an arrest of metabolism.

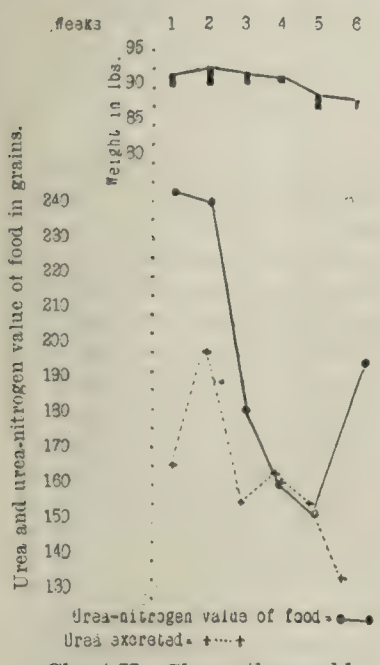


Chart II.—Shows the weekly average of the urea nitrogen excreted, the urea-nitrogen value of the food ingested, and the body weight in a case of chronic insanity with marked malnutrition. Throughout the observation, although excretion was less than ingestion, the patient lost weight and finally died of inanition.

In maniacal states I have previously recorded that the blood as a rule contains agglutinins to certain streptococci, which agglutinins are not often present in the blood of healthy persons. The streptococci which these patients agglutinated were obtained either from the blood, urine, or faeces. It occurred to me that it might be well worth while to try vaccine treatment in such cases if no improvement followed the usual methods of treatment. As the streptococci isolated from different cases differed slightly from one another in their sugar reducing reactions, I made a polyvalent vaccine from seven different varieties of streptococci and treated 11 cases of mania with injections of from 7 to 10 million cocci given at intervals of a fortnight. Of these patients 8 had been ill for over a year, and of the remaining 3, 1 was a recent admission, while the other 2 had been resident for more than three months without showing signs of improvement. Of the 8 chronic cases 2 recovered, and of the 3 more recent cases 2 also recovered. The fact, however, which most impressed me was that the injections of vaccine apparently stimulated nutrition, as 8 out of these 11 cases markedly increased in

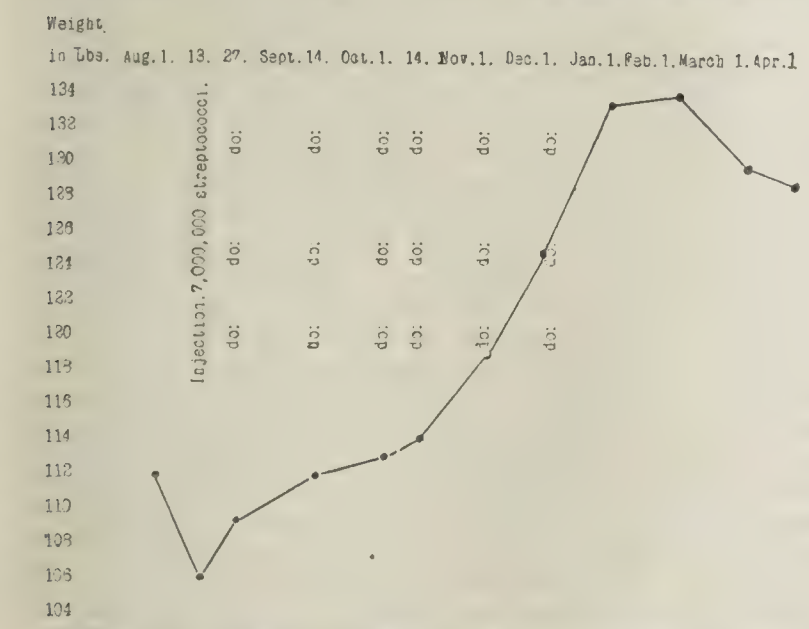


Chart III.—Shows the increase in weight in a case of chronic mania which occurred while the patient was undergoing a course of vaccine treatment. The first injection was given on August 13th and the last on December 1st. The stimulation of nutrition was only temporary in character. Three months after the injections were discontinued the weight fell rapidly.

weight. This point is illustrated by Chart III, that of a case of chronic mania. The weight began to increase after the first injection and continued to increase for a considerable time after the doses of vaccine had been discontinued; after their stimulating effect had passed off weight was again lost.

Chart IV shows the increase of weight in one of the chronic cases which recovered. It will be noticed that from May, 1907, to December, 1907, the nutrition did not alter, but almost immediately after the first injection the

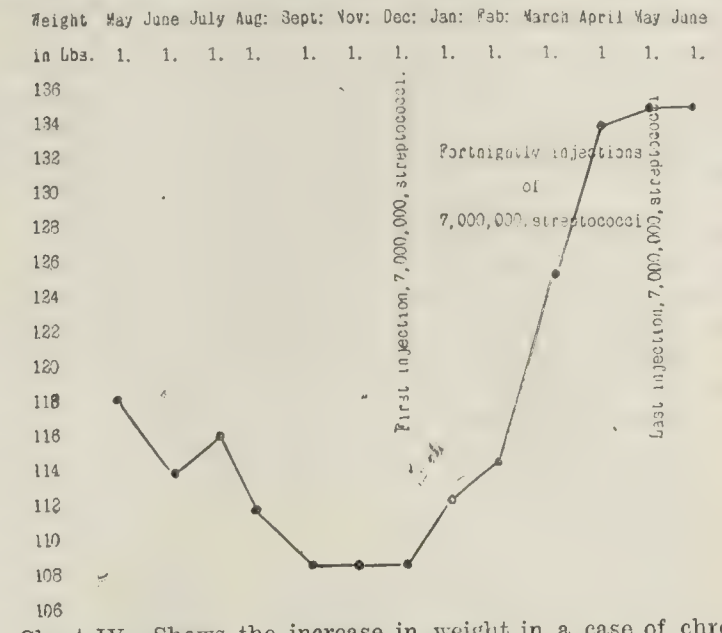


Chart IV.—Shows the increase in weight in a case of chronic mania which occurred while the patient was undergoing a course of vaccine treatment. The chart shows the body weight for a period of six months prior to the commencement of treatment. The first injection of 7,000,000 streptococci was given on December 1st. The body weight immediately began to increase; the patient made what was apparently a good recovery, and was discharged on July 1st, 1909.

weight began to increase, and the further increase of weight was steady and continuous.

In a series of 11 cases it can hardly be a coincidence that 8 gained weight under vaccine treatment, and to explain the action one must examine the changes which occur in the human body following upon the injection of dead bacterial cultures.

When a bacterial vaccine is injected, Nature produces a specific bacteriolysin, and, if toxins are also included in the injection, a specific antitoxin. There is also a specific substance formed, which enables the leucocytes to ingest the bacteria. This substance, first described by Wright, was called by him an "opsonin."

In addition to all these, however, there is a further action, which is not specific in character and which is always associated with an increase in the polymorphonuclear leucocytosis. This action consists in a raising of the general resistive power of the body to any bacterial infection. This factor has been taken advantage of by surgeons, who, by injecting various leucocyte stimulating substances, raise the resistive powers of their patients in preparation for operative procedure.

When my colleague, Dr. C. J. Shaw, and I were working at opsonic indices, we found that in healthy persons it was possible to raise or depress the index to the tubercle bacillus by injecting staphylococci vaccine. A small dose of staphylococci vaccine raised the tuberculous index, and an excessive dose lowered it. The same results were obtained when testing the streptococcal indices of maniacal patients. These findings appear to be contrary to the teachings of Wright, who maintains that there are specific opsonins for all forms of bacteria, and that the quantity of any one opsonin is not affected by the injection of any other organisms to which that one opsonin is not specific. This statement of Wright has been proved to be correct, and my explanation of the variations in the opsonic indices of the patients mentioned above is that a small dose of staphylococci vaccine raised as a whole the resistive powers of the body, and an excessive dose temporarily depressed it. The staphylococci vaccine, in other words, did not actually increase or diminish the quantity of the opsonic bodies normally present in the serum, but only relatively increased or diminished their efficiency for the time being. I mention these facts because it is by no means proved that the vaccines I used in the treatment of my cases of mania were made from organisms causing the disease. I personally believe that maniacal states are always due to a condition of streptococcal toxaemia, but I must admit that the most careful examination of the serums of maniacal patients, even when treated for long

periods with streptococcal vaccines, never contained the slightest trace of bacteriolytic substance when tested *in vitro*.

To explain the stimulation of nutrition, therefore, it is necessary to look for some action more general than a specific action. According to Ehrlich's theory of cell nutrition, there exists in the protoplasm of an active cell a nucleus with which the special functions of the cell are associated. This nucleus has attached to it a number of atomic groups or side-chains which play an important part in the work performed by the cell. These side-chains readily enter into combination with suitable group atoms presented to them, and it is in this way that the nutrition of the cell is maintained. When toxin molecules are introduced they also can enter into combination with the side-chains and for the time being exhaust the supply. As side-chain molecules are, however, in some way necessary for the life of the cell, the cell is stimulated to further production until finally the side chains are produced in excess. As has already been stated, these side-chain molecules are there not merely for the purpose of combining with toxin molecules, and so forming antitoxins, they are there for some definite purpose in the cell's nutrition, and therefore, if present in excess, they will combine with other suitable group atoms.

This theory, I believe, explains the improvement in nutrition which in some cases follows upon the use of bacterial vaccines. We may take it that in cases of persistent malnutrition the cells are unable of themselves to produce a supply of side-chain molecules to carry on healthy nutrition. When toxin molecules in the form of vaccines are introduced in suitable quantities the cells are stimulated to produce an excess of side-chains which not only combine with the toxin molecules but also combine with suitable food atoms presented to them by the blood plasma.

That vaccine injections do alter the nitrogen balance can be readily demonstrated by observing the amount of urea nitrogen excreted and comparing it with the urea-nitrogen value of the food ingested. In the cases of five patients who each received $\frac{1}{500}$ mg. T.R. there was a marked increase in the urea nitrogen output in four of them during the week which followed the injection.

Since making these observations on the patients labouring under mania I have had several opportunities of noting the effects of various vaccines on the body weight of the patients under treatment, and I am satisfied that in some cases of obstinate malnutrition vaccine injections do improve the general nutrition. To obtain the best results, the dose of vaccine must not produce a constitutional reaction. When a constitutional reaction is produced there is a loss of body weight. The dose should therefore be too small rather than too large. Secondly, the injections must be sufficiently spaced. In my observations I found that fortnightly injections gave the best results.

MR. JOHN D. ROCKEFELLER, having learnt of the distinguished services to medical science which have been and are being rendered by the researches of Professor Paul Ehrlich of Frankfurt, Germany, has presented to the Board of Directors of the Rockefeller Institute for Medical Research the sum of ten thousand dollars, to be placed at the disposal of Professor Ehrlich for furthering his investigations into the chemical therapy of the protozoon diseases.

THE annual report of the Trained Nurses' Annuity Fund for the year 1909 tells a simple but eloquent story. During the year, the total amount received in the form of subscriptions and donations exceeded that which had been collected in any previous twelve months; but the council is anxious with regard to the future on account of the loss by death of several generous helpers, including the Earl of Hardwicke, the late chairman. In 1901 the number of applicants was so large that it was found that the fund would have to be "closed" until all these claims had been dealt with. It is now reported that these claims have been satisfied, the last three annuities having been granted during 1909 in highly deserving cases. There are nineteen nurses receiving support, and the sum of £219 6s. 3d. was distributed between them during the year. The fund is administered in a most economical manner, no salaried officers being employed, the only expenses being those of printing, postage, transfer, and audit fees. The Honorary Secretary of the fund is Dr. Ogier Ward, 73, Cheapside, E.C.

Introductory Address

ON

SOME OF THE USES OF X RAYS IN DIAGNOSIS AND TREATMENT.

DELIVERED BEFORE THE BRADFORD DIVISION OF THE BRITISH MEDICAL ASSOCIATION,

BY JAMES METCALFE, M.D.,

CHAIRMAN OF THE DIVISION; HONORARY SURGEON TO ST. CATHERINE'S HOME FOR CANCER AND INCURABLES, BRADFORD.

I HAVE taken as my text some reflections on the present position of the *x* rays in diagnosis and treatment. For the past six years I have devoted a great deal of my time to this subject. Considering that Roentgen only discovered the peculiar physical qualities of the *x* rays at the end of the year 1895, and that it was only during the next two or three years that it was suspected that they had any therapeutic qualities whatever, it is really astounding to think of the elaborate technique evolved during the short period since that time. The diagnostic value of the rays is not now a question of argument—the scope of their use is becoming greater year by year. The therapeutic value of the rays is more open to discussion. They have been tried in almost every conceivable disease, and while it is necessary for the practitioner in this speciality not to allow his imagination to outrun his discretion, yet for certain conditions their application is of indubitable advantage. In some diseases the benefit derived is most unexpected. It seems to me that the results are often astonishing in what I may call the medical derelicts. I mean by that term those unfortunate individuals who have been subjected to every possible and impossible form of medical treatment.

DIAGNOSTIC USES.

To consider, first, some of the diagnostic advantages of the rays, I suppose every one will agree that in fractures and dislocations they are of incalculable value; they do not, however, necessarily make one happier in looking at the results of the treatment of fractures. This is a danger if radiograms fall into the hands of the lay public. They are misread. Only those with a medical education can comprehend the actual position of the parts shown in the radiogram and allow for the distortion produced by the method. But we can see the nature of our fracture, its extent, and the best position to retain it in. Near joints where there is either a dislocation or a fracture, or both, the rays are especially useful.

In all examinations by *x* rays we can use two methods—the fluorescent screen, in which the picture is shown instantly, or a photograph, which is a permanent record. It is obvious that there are advantages in both methods. Where the parts are very dense, as at the hip-joint, and for the examination of renal calculi, screen examinations are of somewhat limited utility. Radiograms are procurable of almost every part of the body. It is simply a question of the form and quality of the Crookes's tube and the amount of current put into it. Most dislocations can be seen on the screen, and their reduction is assisted if performed at the time of examination. It is a great consolation to be able to see at once that the joint is in its correct position. The examination of bones for inflammatory swellings and new growths is very easy, and a good deal of information in regard to the nature of these conditions can be obtained from a satisfactory *x*-ray picture. In the examination of spinal malformations, the nasal sinuses, the antrum of Highmore, the pharynx, larynx, and trachea, the *x* rays can give a great deal of information. Bony abnormalities, foreign bodies, pus, and other things, can often be diagnosed. Abnormalities in the bony parts behind the eye and foreign bodies in that organ can be seen and localized. Foreign bodies can, of course, be seen in any of the soft tissues of the body. The diagnostic value of *x* rays in many diseases of the thorax is now well known.

In the examination of the chest the fluorescent screen is of the greatest utility. The tube can be placed behind the chest and the screen to the front, or vice versa, for anterior and posterior examinations respectively; but

e are some conditions which do not show well in er of these ways. Lateral views have to be obtained, what are known as the right anterior oblique, the left erior oblique, or the left lateral methods have to be ted. In the right anterior oblique position the tube aced at the left side and the screen to the front and t side, and in the left posterior oblique position the nination with the screen takes place at the left side rds the back, and the tube is placed at the right side rds the front. In the left lateral the tube is placed at right side and the screen at the left side of the ent.

oss of elasticity in the lung tissue is quickly shown by back view of the diaphragmatic excursion. This may liminished in extent or jerky and erratic. Anteriorly posteriorly the lung tissue may be lighter, as in em- sema, or darker, as in early tuberculous deposit. The will lighten up on full inspiration if normal, but any hes to which air is not freely admitted remain more ss dark. Loss of elasticity in the lung tissue, as seen the screen, is one of the earliest possible means of gnosing commencing phthisis—earlier than ausculta- , percussion, or the usually applied methods. New wths in the lung may often be seen by the screen, and fluid, such as pus, or pleuritic effusion. Cavities in lung can be seen with comparative ease. If they are d with air they appear as light areas, but if with pus broken-down material, as darker patches. A peculiar ng about tuberculous conditions in the chest is the tive size of the heart to the other organs. It is usually ller and placed more vertically in the earlier stages, becomes hypertrophied and dilated in the later ones. berculous lung conditions have sometimes been ascribed his heart condition, but I should think it more probable t the loss of lung elasticity has restricted the area of rt movement. A falling together of the ribs on the cted side, producing what is known as a roof-tile earance, is often pathognomonic of lung disease.

he movements, size, and position of the heart can lily be made out by radioscopy. Pericardial effusions some conditions of the heart proper, such as mitral osis, can be observed. But the greatest advantage is bably in the diagnosis of aneurysms of the aorta. The dow of the heart vessels is greatly altered in appear- e, and can be easily seen, especially in the right erior oblique position.

With regard to the *x* rays, examinations for some ominal and pelvic conditions are now an absolute essity. Nearly all oxalate of lime and phosphatic culi, and many of the uric acid calculi, can be seen. It always necessary to control any one picture of a posed calculus by a second. If the control picture es a similar shadow in the urinary tract, it is probably alculus. Mr. Hurry Fenwick, in his excellent work *Urinary Calculi*, has given a very useful and definite ition in which these calculi can be located. He draws imaginary line upwards from the centre of the crest the ilium to the last rib, which he names the mid- tical, and shows how the kidney or ureteral shadow is rly always found between that line and the trans- se processes of the vertebrae. Faecal concre- ns, phleboliths, and calcified glands sometimes ulate calculi, and one has always to be on rd to avoid falling into error. It is, of course, quite sible to miss a urinary stone, and a negative print is no olute guarantee that one is not present; but after eful examination and consideration of the possible acies, if a positive result is obtained it cannot fail to be he greatest service to the surgeon. Gall stones are not dily seen except when very large, as cholesterin is very meable to *x* rays. Some intestinal conditions may be erved, especially after the patient has had a quantity of cilage of bismuth subnitrate given as a meal some time viously.

THERAPEUTIC USES.

The great field for the therapeutic use of the *x* rays has herto been in the domain of skin diseases; to my mind y have almost revolutionized the study of dermatology. the effects produced on the more superficial tissues be obtained on the deeper parts by adequate and scientific thods of filtration. *X* rays are of various kinds—some on the superficial tissues, some immediately below the n, and some penetrate through the whole mass of a part of the body. The superficial rays can be filtered out by lint treated with a saturated solution of sodium tungstate and dried; layers of felt, sheets of leather or aluminium, thin lead, and other substances. These filters have not yet been placed on any scientific basis, but in time, no doubt, we shall be able to know precisely the kind and amount of filtration required to treat any diseases in the deeper parts of the body. I think there is little doubt that by accurate methods of filtration the inhibitory effects of the *x* rays on malignant diseases in the internal organs of the body will most certainly be very effective. According to Scholtz, the pathological action of the *x* rays on the healthy skin is the following:

(1) They cause a slow degeneration of the cellular elements of the skin, in which not only the epidermal cells but also the mesoblastic cells of the corium and the cells of the epidermal appendages participate. This degeneration affects the nucleus as well as the cell protoplasm. They also cause (but to a far less extent) a degeneration of the fibrous elements, the collagen, elastin, and the muscles. (2) As soon as the cellular degeneration reaches a certain degree an inflammatory reaction occurs in which the blood vessels become dilated, and there is an extravasation of serum and leucocytes. The latter seem to act as phagocytes, and completely destroy the degenerated cells.

It appears to be a fact that all pathological cells are more readily prone to degeneration than normal cells. Consequently the dosage of *x* rays sufficient to inhibit and finally to destroy these cells is much less than that required to destroy the physiologically healthy cells of the part. The *x* rays have therefore an apparently selective action, the disease cells in the neighbourhood under treatment undergoing degeneration and becoming absorbed. Where this degeneration is produced in internal organs toxic effects may be, and sometimes are, produced, as I have seen on several occasions. One has, therefore, to some extent to be guided by the general condition of the patient under treatment. It is very likely that the effect produced by *x* rays on the tissues is due to their actinic energy. Chemical changes are produced in the tissues which profoundly affect their condition.

The cases that usually come under this form of treatment are rodent ulcers, lupus, tinea, malignant growths, and eczema. Occasionally one has to treat cases of favus, psoriasis, acne, enlarged tuberculous glands, old sinuses, hypertrichosis, and some other conditions.

Rodent Ulcers.

Rodent ulcers readily respond to *x*-ray treatment. They quickly scab over, the scabs drop off, and the ulcer heals up. If the applications are continued at somewhat long intervals for a considerable time after the growth has apparently been cured the result is permanent, but if treatment is stopped as soon as healing appears to have taken place there is sometimes a recurrence. For some reason or other it appears to be very difficult to get the ulcer to heal up a second time with the *x* rays. In such cases, if the ulcer be small, healing may be promoted more readily by the application of radium. I have treated a good many of these cases during recent years, but have not used measured doses of the *x* rays. Short-period applications of five to ten minutes' duration with a tube of proper penetration have in the majority of cases healed up the ulcer in from twelve to fifteen applications.

Lupus Vulgaris.

Cases presenting large patches and those with ulcerated surfaces are especially suitable for *x*-ray treatment. Far more applications are, however, required than in rodent ulcer, and when the ulceration is healed I have found that the application of the Finsen light has in many cases acted much more quickly in causing a return to a state of healthy tissue than the continuation of the Roentgen rays. Some cases of lupus do not improve at all with the *x* rays but readily respond to the Finsen light. A case in point suggests itself to me. A widow, aged about 65, had an ulcerated lupus at the end of the nose. She was sent to me for treatment, but failed to keep her appointment. She came back at the end of fifteen months with the nose eaten away at either side and the central tip hanging in rather a precarious condition above the septum. She had had *x*-ray applications during the whole of that period. I gave her light applications with a Finsen-Reyn apparatus, and was pleased to see her nose heal up absolutely. The result, in fact, was so remarkable that I found shortly

afterwards that she had been able to find a second husband. I think that in obdurate cases it is of distinct advantage to have the opsonic index taken and gradually raised by injections of tuberculin. Dr. Eurich has on several occasions carried out this part of the treatment for me.

Lupus Erythematosus.

I have treated two or three cases with indifferent results, though one which had been coming to me for a long time appears now to be nearly cured. She is a farmer's wife, typically healthy in every other way, who has for some years had a batwing condition, extending across the front of the nose. I have applied *x* rays, Finsen light, and the ions of some of the metals, but without any great amelioration of the condition. Some months ago I began using a small high-frequency glass electrode with small sparks, and to my great pleasure the condition at once began to improve. I think now it will soon be quite cured, the skin appearing to be almost normal in appearance over the portions formerly attacked.

Tinea.

As is generally acknowledged now, the most effective treatment of tinea is by *x* rays. In favus, removal of the hairs by forceps is possible; but in tinea the brittleness of the hairs prevents this, the hair giving way at the most diseased part, leaving the parasite in the roots. Too much emphasis cannot be laid on the fact that the *x* rays do not kill the parasite. What they do is to cause some withering of the hair follicles, with an epilation commencing a fortnight to three weeks after the irradiation. The parasite and its spores come out with the hair root, but it is necessary to use antiseptics to the treated area until the part is completely denuded of hair. By the application of a carefully measured dose of the *x* rays, as introduced by Sabouraud, the epilation is nearly always certain. A point of some importance frequently raised by parents is whether the irradiation has any action on the child's brain. This question was discussed at the recent meeting of the British Medical Association in Belfast, and the consensus of opinion was that the applications were absolutely innocuous. Sycosis can be very successfully treated in a somewhat similar way. A complete alopecia is produced, which eventually leads to a rapid recovery from the irritative pustular condition.

Hypertrichosis.

Many women who are afflicted with an unusual growth of hair on the upper lip or chin desire its removal. Where the hairs are comparatively few in number and coarse, my practice has been to employ electrolysis, by which the individual hair is destroyed permanently, and as any small new ones have sprung up I have attacked them in a similar manner. The results are, as a rule, satisfactory. But even with a previous anaesthetization with cocaine by electrical osmosis the process is somewhat painful and is extremely tedious both for the practitioner and the patient. *X* rays, on the contrary, are neither tedious nor painful. The dose required to cause epilation is not sufficient to cause permanent alopecia. Smaller doses have to be applied at intervals of two or three months for one to two years, when a complete atrophy of the hair papilla is produced. But there is some danger of an acute erythema and of pigmentation occurring in the course of the treatment. Personally I have not had much trouble, and I think most women would rather run this risk than endure permanently an unsightly disfigurement.

Malignant Disease.

Malignant diseases of the skin can be frequently treated successfully by the *x* rays. Some cases of epithelioma on the face are best treated in this manner. Here permanent disfigurement results from any operative interference and the probability of recurrence is greater than after *x*-ray treatment. But the after-treatment of cases in which malignant growths have been removed by surgical procedure is one of great importance. It appears to me that the time is coming when it will become a routine method to apply *x* rays after the removal of malignant growths. It is quite impossible even in the most extensive removals to be quite sure that some malignant cells have not been left in the surrounding tissues. The selective destructive influence of the Roentgen rays on these cells is surely worth the expense and trouble involved in their appli tion. It is scarcely desirable to wait until nodules appe in the cicatrix or surrounding tissues before their appli tion. To my mind it is imperative at once to be applying them occasionally to the suspected parts. Ev when nodules and masses have appeared the rays c tainly have, under favourable conditions, a power action in retarding or even destroying them. In certa cases of inoperable growths the rays have a tendency make the progress of the tumour slower and to relieve t symptoms. Take such a condition as malignant disea of the rectum. I have in mind a gentleman of advanc years in whom the condition was considered inoperable several distinguished surgeons. It was thought that would be impossible for him to exist for more than a ve short period without the performance of colotomy. means of a lead glass speculum I was able to introduce t rays directly to the diseased part, and after a number applications he was able to pass his motions with co parative comfort. He continues in this condition, whi I think any one who knows the discomforts suffered by t person operated on by colotomy will appreciate as a gr boon.

Sarcomata are more amenable to *x*-ray applicatio than epitheliomata, and I have seen sarcomatous growt gradually diminish under a prolonged course of treatme In all malignant growths a distinct retardative influen is exerted, and I believe that when the methods filtration and technique of the application of the rays ha been more carefully worked out the results will marvellously better.

Eczema.

It is astonishing how quickly many cases of eczem improve under the application of the *x* rays. It has be suggested to me on several occasions that where t eczema is due to some constitutional condition, as g or rheumatism, no permanent result could be produc I do not think this theory holds good. I believe that t constitutional condition in the course of a long period s up some irritative condition in the skin, and the diseas skin cells react to every little external influence allow to come in contact with them, and that they often rema in this peculiar condition even when the constitutio condition has been cured. The *x*-ray applicatio stimulate the growth of the healthy cells and retard t growth of the pathological cells, and quickly bring t part into a more normal condition.

Psoriasis.

Patches of psoriasis often respond to *x*-ray treatme but I should like to mention especially cases of t peculiar condition known as psoriasis vulgaris unguiu The thickened hoofy nail substance, in which there sometimes a good deal of pain from pressure symptor is gradually reduced in bulk and the opacity mu diminished. After applications extending over a consid able period, I have been able to get a cure, with healt nails, in several cases which had resisted all other for of treatment.

Enlarged Cervical Glands.

If it be undesirable to operate, or if there be a prejud against operation, *x*-ray treatment should be tried. I ha treated many cases of this class, and by covering t glands with sodium tungstate lint, and giving repeat applications, have been able to reduce the gland to a m core of atrophied fibrous tissue. Old broken-down glan and tuberculous sinuses have often healed up remarkal well.

CONCLUSION.

I have only dealt with some of the more importa conditions in which I have myself found the *x* rays practical utility. I do not suggest for one moment th we should rush into *x*-ray treatment for every conditio have mentioned. Where surgical interference is possib or when ordinary medical means are applicable, I belie these should be used. But after all has been done that possible by the classical methods, and the results are perfectly satisfactory, then I think the judicious use *x* rays is advisable.

[A large number of radiograms were shown, some which were kindly lent by Dr. F. Howard Humphris London, and some lantern slides of instantaneo radiography by Messrs. W. Watson and Sons, Limit London]

REE CASES ILLUSTRATING THE SURGERY OF THE JEJUNUM.

E. ROCK CARLING, M.B.LOND., B.S., F.R.C.S.,

TANT SURGEON, WESTMINSTER HOSPITAL; SENIOR ASSISTANT SURGEON, SEAMEN'S HOSPITAL, GREENWICH; DEAN OF THE WESTMINSTER HOSPITAL MEDICAL SCHOOL, ETC.

RATIONS upon the jejunum for conditions arising in part of the intestinal tract are by no means frequent. ne three conditions illustrated by the following cases ure is probably the commonest; carcinoma occurs so om that not more than half a dozen successful resec- s for cancer appear in the literature; and no exact llel to the congenital stricture—if congenital it be— been found in an extensive search through published rts. The two latter cases are to be looked upon st as curiosities, but their rarity is sufficient ification for their publication.

CASE I.—*Traumatic Rupture.*

J. L., aged 29, on October 2nd, 1908, at 6 p.m., had a meal ippers, bread-and-butter, and tea. At 6.30 he went to the g school of his regiment of Yeomanry, where, at 6.50 p.m., as kicked by a horse. He lay down for three-quarters of an , and was then brought to hos- in a cab. He walked into the ery, and appeared so well that house-surgeon was in some doubt ther it was necessary for him be detained. Whilst under rvation, however, he vomited e, and, being sent to the ward, psed as he was being got into about 8.15 p.m. By 9 p.m. e symptoms were well developed. here was a slight abrasion over left lower ribs in the nipple ; no fracture, no haematoma. abdomen was extremely rigid, and tender. The left flank hypochondriac region were quite on percussion; the liver dull- was normal. He had passed r naturally, and there was no d in it. The respirations, which 24 on admission, had risen to the pulse similarly from 72 to the "abdominal facies" was developed.

Operation.

10 p.m. the abdomen was ied in the left linea semi- aris; there was a little slightly id fluid in the cavity, but no ence of gross particles of stomach ntestinal contents, or of blood. oil of small intestine was found collapsed, and upon following upwards a longitudinal rup- of the jejunum about 6 in. the duodeno-jejunal flexure exposed. The opening, which about an inch and a quarter in th, gaped from three-quarters of inch to an inch transversely, the mucous membrane ing. No contents were escaping; in fact, though the lenum was distended, the jejunum justified its name in emarkable emptiness.

he opening was closed by two rows of sutures, the abdomen ged out, and a tube passed to the bottom of the pelvis ugh a suprapubic opening. Massive injections of saline e given per rectum.

After-History.

here was some vomiting for four days after the operation, the temperature never rose above 99.6°, and he was harged to a convalescent home on November 13th.

e returned to see me a month or two later, complaining ccasional pains in the neighbourhood of the wound, which eared to be due to adhesions; a course of massage relieved , and he declared himself in perfect health. In a letter d January 4th, 1910, he stated that he felt as well as ever lid, and asked permission to take up riding again.

he only point of interest in this case is that the ture occurred in an empty coil of gut. It is possible t it might have been distended with gas, but there was clinical evidence of free gas in the peritoneum. It is ly improbable that in this instance, at any rate, the ture was a "bursting" rupture. It is noteworthy that ough the duodenum was distended the paralysis of the inches of gut intervening above the rent, was com- ent to prevent passage of the contents for at least three hours. The percussion dullness in the flank is a curious clinical feature, and was due, presumably, to the empty state of the underlying intestine. The uneventful recovery illustrates the enormous importance of early operation and the innocuous nature of the bacterial content of the upper part of the healthy gastro-intestinal tract.

Fig. 1.—Case II. Stricture of jejunum: parts removed. The lumen admitted a probe with difficulty. D, Duodenum; J, jejunum.

CASE II.—*Stricture of the Jejunum, Probably Congenital.*

E. L., a married woman, aged 47, had had sixteen pregnancies, the last three years ago. Three of the children died in infancy; there were two miscarriages. When first "taken bad" at Christmas, 1907, she declared it was the first illness of her life. There was a sudden attack of abdominal pain followed by vomiting, and it may be said that until the operation, six months later, neither of these features was long absent. She was admitted to another hospital in February, 1908, and remained till the middle of April. I am informed that the principal symptoms were pain and vomiting; there was a good deal of pigmentation of the skin; Calmette's reaction was positive. She was thought to be suffering from Addison's disease.

On admission to the Westminster Hospital, July 3rd, 1908, under the care of Dr. R. G. Hebb, she described the pain, which was in the left hypochondriac and umbilical regions, but radiating to the groin, as "coming on gradually like labour pains." It was worse about a quarter of an hour after food. It was relieved by vomiting, which was copious. The heart, lungs, and kidney showed no signs of abnormality. There was some pigmentation of the skin of the abdomen; there was no distension, no evident peristalsis, and no palpable tumour. The teeth were carious, and there was pyorrhoea alveolaris.

She stated that her original weight was 11 st. 12 lb.; on admission she weighed 7 st. 8 lb. A test meal on July 7th gave no reaction for free HCl; it was acid to litmus; there was a good reaction for lactic acid; pus was present. On July 13th lavage was commenced, and in about a week had relieved the vomiting considerably; loss of weight, which had continued at about 1½ lb. a week, was temporarily interrupted, and for one week she gained 2 lb. The temperature occasionally rose to 101° or 102° F. A blood count showed:

Serum to corpuscles ...	1—1	
Haemoglobin	88 %	
Red blood corpuscles ...	5,690,000	
White blood corpuscles..	5,300	
Polymorphs, coarsely granular	3 %	51 %
Polymorphs, finely granular	48 %	
Monomorphs, large ...	7 %	49 %
,, transitional	29 %	
,, small ...	13 %	
Platelets	a few.	

A stomach wash on July 31s gave, on microscopical examination, mucus, oily material, fat crystals, débris; many minute blastomycetes and bacteria; cancer cells not observed. Acid to litmus; no reaction for free HCl; lactic acid present.

Operation.

A diagnosis of obstruction at the pylorus was made, and in spite of the blood count it was thought probable that it was malignant; the absence of any palpable tumour suggested the possibility of removal, but the laparotomy, performed on August 12th, was in the first instance exploratory.

The stomach was withdrawn and found healthy; it was not notably dilated. On turning up the great omentum what appeared to be another "stomach" came into view, and it was thought for a moment an hour-glass viscus was being dealt with. It was recognized, however, that the second pouch was in fact the immensely distended duodenum, and upon tracing it towards the jejunum a lump was felt immediately beyond the flexure. This had precisely the appearance of a malignant stricture of the colon, looking, that is to say, as if a piece of string had been tied tightly round the gut. There were no adhesions, but it was not without considerable difficulty that the parts were arranged for excision and repair. A piece of gut about 7 or 8 in. in length was removed, the open ends were closed, and a junction was made by lateral anastomosis between the jejunum and the remainder of the duodenal pouch.

After-History.

Constant saline infusion per rectum was instituted immediately after the operation; there was some vomiting, easily controlled by a hypodermic injection of morphine; she was fed by nutrients for two days and then began feeds by the mouth. The temperature never rose above 100° after the operation. She

was discharged on the thirtieth day. When seen on August 13th, 1909, exactly a year later, she said she was quite well. She never had any vomiting, and she had regained her normal weight, having put on more than 4 st.

In January, 1910, this patient was seen again. She complained that she was "getting very large in the stomach," but this seemed to be due merely to adiposity; she had been sick on one or two occasions and had now and again noticed "gurglings" in the abdomen, traceable it appeared to indiscretions in diet. She had also one or two other symptoms quite unconnected with the abdominal trouble. She seemed in good general health.

It is of interest, from the point of view of diagnosis in this case, that although the vomit was sometimes "green," no evidence of bile was afforded by the test-meal result or by the stomach washings. In the great majority of cases of stricture, malignant or benign, below the papilla, the presence of bile in the stomach has been an important feature. The blood count, too, was deserving of more attention than it received. An observation of one of the clinical clerks, that he had felt an indefinite swelling in the epigastrium on one occasion, though it was not confirmed, was probably correct; for the distended duodenum, when contracting, might easily have been felt. Nothing in the surgical procedure calls for remark; the only difficulties were those dependent on the depth and fixity of the duodenal remainder, and the necessity for rapidity due to the condition of the patient. The anaesthetic was admirably administered by Dr. Vivian Orr.

Fig. 2.—Case III. Cancer of the jejunum: parts removed.

Upon cutting open the gut no "tumour" appeared; the mucosa for about an inch and a half above the stricture (which, when fresh, would only admit a probe, and actually held water) was atrophied and irregular of surface. During the process of hardening, for which purpose the lumen of the stricture was stuffed with wool, the mucosal surface suffered some damage, but the microscopical examination showed no evidence of malignancy, or of acute or chronic inflammation; there was no cicatrix, at any rate in the part examined, of old ulceration. A gland from the mesenteric parts removed exhibited no sign of malignancy.

As to the origin of this stricture, one can do no more than hazard a guess. The history points strongly to acute ulceration, but even an expectant eye cannot trace evidence in the microscopical appearances. In this opinion I have the support of Dr. Hebb, who kindly made the examinations. There were no attached bands, there was no specially well-marked retroduodenal fossa, and the situation of the stricture practically precluded its incarceration in such a pouch. It was beyond the track of the superior mesenteric vessels; there was no evidence of syphilis or tuberculosis. On the other hand, the situation at the duodeno-jejunal flexure does suggest the possibility of a congenital origin, and to this opinion I am inclined.

CASE III.—*Cancerous Stricture of the Jejunum.*

Mrs. S., aged 58 (for the notes of whose case I am indebted to Dr. H. T. Barron, of Tooting, by whom I was asked to see her), had always been delicate but very active; she had an illn some years ago for which lavage was proposed and attemp but excited such distress that it was abandoned. She was to have suffered from "obstruction" on one occasion, but been relieved by an enema. Dr. Barron says: "What properly be called the 'present illness' commenced about end of February, 1909, with distressing abdominal colic. ascribed this to a meal of tinned lobster taken the previous The pains were relieved by treatment, but in the next w returned occasionally, being worse at night. Examinatio the abdomen revealed nothing of importance save enteropt and some dilatation of the stomach, which, on percussion, see to reach about an inch and a half below the umbilical le Five days later when travelling in a motor 'bus there wa return of acute abdominal pain, worse in the epigastrium, nausea. She vomited in the street, and her husband 'thou she must have brought up several quarts.' Two hours lat found her collapsed and still in very great pain. She has a w marked susceptibility to opium and its alkaloids, verified more than one occasion, so that I was not justified in admi tering it. For the next three or four weeks, spent more or in bed, she had intervals of freedom from pain succeeded exacerbations of pain and sometimes sickness. There never any jaundice. Peristaltic movements were now vis in the upper zone of the abdomen and in the course of ascending colon, and at my advice Sir William Allchin called in. He sidered that t was obstruction the large intes and probably also or near the pylo presumably due adhesions. The tient was extrem thin, but I had kn her for three ye and did not appreci any alteration in facies other than immediate sympt would account The stools were taceous."

Exploratory Oper ion.

On April 24th, 1 the patient, who been carefully pared by scrupul attention to diet by numerous e mata, was anaest tized by Dr. C Hughes. On open the peritoneum ab the umbilicus a br band of adhesi constricting the co just beyond t hepatic flexure found uniting the to the whole len of the gall blad which was small shrunken, but c tained no ston The same mass of hesions also drag upon, kinked, partly constric the first part of duodenum. The of the abdomen cause of obstruct presenting offered explanation of the symptoms, when they had been dealt w the abdomen was closed.

For three days there was a great deal of pain, then rel A week later, when she had been taking solid food for two three days, there was a recrudescence of pain and again visi peristalsis, this time in the lower zone of the abdomen. A f night after the operation a severe attack of vomiting co menced at 1 p.m. By 9.30 p.m. she had vomited over 100 oz fluid, although in the previous twenty-four hours she had tak less than 50 oz. by the mouth. The patient was collapsed.

Second Operation (for Acute Obstruction).

The patient was anaesthetized by Dr. N. W. Bourns. U reopening the abdomen, the coils of gut, which at the previ operation were all empty and contracted, were now shar differentiated, and a coil of distended small intestine led at once to a small annular tumour, which proved to be in jejunum approximately 24 in. or less from the duodenal flexu About 9 in. of intestine, including the growth and the co sponding mesentery, were excised, the open ends closed, an lateral anastomosis performed.

The subsequent progress was uneventful, and I am inform that she is now able to get about comfortably, and takes f

she has, however, not put on flesh, and occasionally has in the abdomen, but they have not been bad enough to e her to seek advice.

is case is of interest, in the first place, because there nly some 70 cases of carcinoma of the whole small ine below the papilla available in the literature. From oint of view of diagnosis, moreover, it presents note- ıy features. The characters of the vomitus were stive of dilatation of the stomach, but unfortunately were not specially tested for bile. The character of tools is difficult to account for; no evidence of disease e pancreas was forthcoming, yet it is improbable that dhesions around the gall bladder, extensive as they modified to any extent the amount of bile reaching ıtestine. At the first operation the ascending colon greatly distended, whilst the transverse was collapsed ıd the adhesions. The stomach was not as much ɔd as was anticipated, and, although the whole nen was explored manually, the little tumour, sub- ɔntly found, was not then discovered. Two facts may leaded in extenuation of this failure. First, the sions formed such an obstruction to the pyloric region e duodenum and to the colon as seemed adequate to ınt for the symptoms; and, secondly, the great care h had been expended upon clearing out the intestines ved one of the help afforded by contrast of dilated contracted small intestine. At the second operation feature led one at once to the site of the mischief.

ıe growth, as will be seen from the photograph, closely nbles in its macroscopic appearance the ordinary lar carcinoma of the colon, and microscopically proves a columnar or cylinder-celled cancer. A gland from nesentery showed no evidence of metastasis. Inspec- of the site of the previous operation showed that the sions had not re-formed, and that the colon was st completely free from constriction where previously ɔressed.

REMARKS ON THYROIDECTOMY:

WITH ILLUSTRATIVE CASES.

By F. P. STURM, Ch.B.Aberd.,
LEIGH, LANCS.

paper is based upon 100 cases of the various varieties itre. Twenty-six of these cases underwent operation ıe hands of the writer, with one death, giving a ality at the rate of a little less than 4 per cent. It is ıitted that this is not a high mortality, since no ınt has been operated on who was not suffering from ɔtoms of thyro-toxaemia which had defied medical ıment, or from some other condition of the thyroid ious to life or health. The operation when performed ıy of these circumstances may be a comparatively ghtforward procedure, or it may be, and frequently is, ɔf the most difficult operations in surgery.

ıe chief difficulties are from haemorrhage, shock, and sions. Haemorrhage and shock are mostly to be ɔd when dealing with the subjects of Graves's disease. condition of so-called "acute thyroidism," said to have responsible for so many deaths in the early days of operation, is mentioned only to be doubted, and any problematic danger is efficiently met by drainage ıg the first twenty-four hours. Adhesions, on the r hand, are a very real difficulty, and are apt to be cularly firm and numerous in old-standing cystic ɔurs of the thyroid, where they give rise to difficulties h are often almost insuperable. Shock frequently ws these operations, and though it is often called ıte thyroidism" it is not different from ordinary ical shock. Danger from sepsis can practically be red in these days.

Indications for Operation.

is my practice to refuse to operate in all cases of soft nchymatous goître in young girls, no matter how the goître may be, provided there are neither urgent sure symptoms nor symptoms of hyperthyroidism. y such cases have been sent to a medical colleague, have got quite well without operation. If there is apparent connexion between the enlargement in the and the menstrual functions, then some preparation of thyroid material seems to have done most good. In the majority of such cases the enlargement of the gland is a sign of thyroid inadequacy, not of hyperthyroidism.

No case of Graves's disease is operated on until adequate medical treatment has failed to bring about any amelioration. By adequate medical treatment is meant six weeks in bed and a course of belladonna and strophanthus, or, better still, ammonium picrate. My attention was first drawn to the latter drug by Dr. F. E. Wynne, of Leigh; and the only case in this practice that ever recovered without operation did so after two months upon ammonium picrate. If there are no signs of improvement at the end of six or eight weeks the more vascular lobe is removed through a modified Kocher's incision, always under local anaesthesia, with the occasional addition of scopolamine-morphine in very restive subjects. If both lobes are greatly enlarged both are removed, particular care being taken to preserve the isthmus with an efficient blood supply. I have removed both lobes for adenomatous disease upon six occasions, and have seen no ill results.

All cystic goîtres should be removed as early as possible, for they never improve under medical treatment, and are apt to give great trouble after middle life; as also goîtres of whatever variety having retro-sternal or retro-clavicular outgrowths, or giving rise to dyspnoea from tracheal stenosis, as all these are apt to cause sudden death.

A rapidly growing goître in any person over 30, especially if there is neither high temperature pointing to acute thyroiditis, nor rapid pulse suggesting Graves's disease, should be removed *en bloc*, as it is probably malignant. Fortunately such cases are extremely rare.

I feel some doubt about ever again performing thyroidectomy upon the subject of breast disease. In order to relieve pressure upon the brachial plexus and tracheal stenosis, I removed a large goître weighing over 2 lb. from a patient of Dr. E. A. Doyle, now of Colne. The wound healed under one dressing, and the patient, a woman of 48, was up on the seventh day. Six weeks later it was discovered that a long-standing adenoma of the breast had become actively malignant. A radical operation was at once performed, and so far, fourteen months later, there is no sign of recurrence. The connexion may be merely coincidental, but it cannot be ignored. That there is some relation between the thyroid and the functions peculiar to women is a matter of common observation. In another case, also a patient of Dr. E. A. Doyle, the removal of a diseased ovary was followed by the disappearance of a soft goître which had been for months associated with symptoms of moderate hyperthyroidism.

Haemorrhage.

Trouble from haemorrhage is most often met with when operating upon the subjects of Graves's disease. Here one has to deal with enormous plexuses of enlarged, baggy veins, or rather sinuses, very easily torn. When confidence has been gained by frequent performance of the operation the wisest plan is to waste no time in clamping veins, but to control haemorrhage by packing in strips of sterile gauze, and then to isolate and ligature the superior thyroid artery as rapidly as possible, when the severest venous haemorrhage usually stops.

In dislocating the tumour forwards the superior thyroid artery is put very severely upon the stretch, with the result that when the artery is divided it retracts into the depths, and can hardly be found again. If the ligature happens to slip the resultant rush of blood is likely to disquiet the coolest operator. This accident happened to me about a year ago while operating upon a patient sent by Dr. Wynne. The deep cervical fascia had been split in the mid-line and the tumour was being freed from its numerous adhesions when copious haemorrhage took place from the deep accessory veins. This was controlled by gauze strips, and the superior thyroid artery found, ligatured with a single thickness of No. 2 chromic gut, and divided. Upon removing the plug the venous haemorrhage did not cease, as it usually does, but became so vehement that the neck muscles in front, as well as the sterno-mastoid, had to be divided and dissected back in order to find and clamp the torn vessels. The tumour was then removed, the inferior thyroid artery being secured without difficulty, but no sooner was this accomplished than the ligature upon the superior thyroid gave way, and such

violent arterial haemorrhage took place that the patient collapsed. The bleeding artery had retracted far up behind the angle of the jaw, and spouting into the enormous cavity left by the removal of the tumour, filled it with a churn of blood and foam. Dr. Sackville Martin, who was assisting, managed to secure the vessel, but not before the patient was practically bloodless. The wound was then closed and drained and the patient given large quantities of isotonic saline by the rectum. She made an uninterrupted recovery.

ADHESIONS.

During the time that a thyroid tumour is undergoing cystic degeneration two changes are concurrently taking place in the cyst wall. 1. Scaly deposits of calcareous material gradually line the inside of the cavity, which may be filled with a clear or light brown fluid, perhaps containing oily globules, or with a sterile substance in appearance like oily pus, or more rarely with a gluey fluid, which is probably changed colloid. These deposits render the walls rigid, and difficult to manipulate. 2. The cyst wall, stimulated to a slow inflammatory activity by this deposit of insoluble and irritating salts, begins gradually to form adhesions with surrounding structures. As the tumour grows the muscles of the neck are stretched out in thin layers upon its surface, to which they adhere, gradually becoming part of the cyst wall. The great vessels of the neck, especially the internal jugular, also become adherent, and before long the vein, if not actually calcareous, becomes so brittle that any attempt to dissect it away from the tumour almost certainly results in a tear. In time the oesophagus, trachea, vertebrae, and even the dome of the pleura, also suffer. The following case very adequately illustrates these difficulties:

A gentleman, aged 52, a patient of Dr. Sephton, of Culcheth, was operated on in January, 1909. Eighteen months previously a left-sided thyroid tumour of twenty-five years' standing had begun rapidly to enlarge, giving rise to very warrantable suspicions of malignancy. The patient had been advised against operation, for he was stout and plethoric, with intermittent action of the heart, but the pain became so constant and the pressure symptoms of dyspnoea and dysphagia so urgent that surgical interference was a matter of necessity. Under eucaine-morphine-adrenalin anaesthesia the growth was exposed by a long incision from the mastoid process to the sterno-clavicular joint. The muscles were indistinguishable one from another and cut like raw ham, which they much resembled in texture and appearance. No sooner had the deep aspect of the cyst been reached by an exploring finger than it burst, flooding the wound with about a pint of curdy yellow fluid mixed with drops of oil. The patient then vomited a quantity of the same material through an opening into the oesophagus. This opening was closed by a single suture of chromic gut. The cyst wall was adherent to the vertebrae, the oesophagus, the trachea, the angle of the jaw, and the clavicle. It was dissected away piecemeal amid much haemorrhage, which fortunately was easily controlled by Dr. Auden, who was assisting. A portion of the wall, deep behind the clavicle, had to be left. It was probably adherent to the dome of the pleura, as it rose and fell with respiration. Four long-handled artery forceps had to be left on vessels situated too deeply behind the sternum to be ligatured. These were removed in forty-eight hours. The patient made an excellent recovery, and is now in the best of health.

TECHNIQUE.

Certain practical points may briefly be touched upon. Kocher's "collar incision," while excellent in many ways and giving good cosmetic results, does not allow of a sufficiently wide field of manipulation in difficult cases. I find it useful to prolong the ends of the incision upwards for a couple of inches towards the angle of the jaw, thus permitting the all-important superior thyroid vessels to be secured at an early stage.

The material chosen for a ligature is a matter of personal predilection. Kocher uses and recommends silk for all aseptic surgical work, and especially for thyroidectomy; English and American surgeons prefer catgut; but ordinary Irish linen thread, well boiled and stored in an alcoholic solution of phenol, provides a cheap and trustworthy ligature. I have used linen thread very extensively in general surgical work, and have had no reason to regret the choice. For the radical cure of hernia it is, I may mention in passing, perhaps the ideal material.

The question of anaesthesia has been settled by the almost unanimous preference of surgeons for local infiltration methods. The use of the weak eucaine-adrenalin solution recommended by Mr. Barker gives perfect results from the point of view of the surgeon, and, if preceded by an injection of scopolamine-morphine, from the point of view of the patient also. I have never seen post-operative vomiting in cases in which scopolamine-morphine had been used either alone or together with a local or general anaesthetic.

The preparation of the field of operation is a matter of the utmost importance. The skin of patients with bronchocele is usually so tender that irritating lotions and dressings must be rigidly eschewed. Mercurial preparations in particular are to be avoided. A boric fomentation the night before operation, another in the morning, and a light washing of the skin with 1 in 40 alcoholic solution of phenol immediately before the incision is made will be found to give the best aseptic results. The wound is dressed with sterile xeroform or iodoform gauze. Cases so treated and not requiring drainage have invariably healed under one dressing.

ON THE CAUSES DETERMINING THE PRODUCTION AND DISTRIBUTION OF THE ERUPTION IN TYPHOID FEVER.

BY J. P. H. GREENHALGH, M.D., CH.B.MANCH.,
STAFF SURGEON, R.N.

ACCORDING to Jenner,[1] the eruption in typhoid fever "is due apparently to an increased flow of blood only to detached points, and rupture of the vessels at these points never occurs." The typhoid bacillus has been demonstrated in the spots since the above was written, but there is little else to add.

In the eruptive fevers which are primarily infections of the blood, the eruption is distributed over the whole or greater part of the body. In typhoid fever, which is not primarily an infection of the blood, but has definite anatomical lesions, the eruption is confined with conspicuous regularity to that area of skin which is in direct communication, by means of nerve fibres, with the foci of infection—namely, the small intestine and its lymphatic glands, and the spleen.

The small intestine is innervated by branches from the superior mesenteric, and the spleen by branches from the coeliac plexuses, both of which are direct continuations of the solar plexus. The solar plexus receives the great splanchnic nerves, which take origin from the thoracic ganglia of the sympathetic included between the sixth and the tenth; and the coeliac plexus receives the lesser splanchnic nerves, which take origin from the tenth and eleventh thoracic ganglia, and a portion of the smallest splanchnic nerve, which takes origin from the twelfth thoracic ganglion. The great and lesser splanchnic nerves also have intercommunicating fibres in the thorax.

The thoracic ganglia giving origin to the splanchnic nerves communicate, by means of both afferent and efferent fibres, with the sixth to the twelfth dorsal spinal nerves; and these spinal nerves supply a segment of the body bounded above by a quasi-horizontal line encircling the chest a little below the level of the nipples, and below by a similar line a little above the level of the brim of the false pelvis. The area enclosed by these two lines represents the area to which the eruption in typhoid is, as a rule, confined.

Dr. W. H. Gaskell[2] has shown that the outflow of visceral nerves from the central nervous system into the sympathetic system takes place by means of the white rami communicantes. Each white ramus contains also the afferent fibres for impulses passing from the viscera by way of the sympathetic.[3] The late Professor Ross,[4] Drs. Head,[5] Mackenzie,[6] and others have shown that afferent impulses arising from disordered viscera excite sensations which are referred to the sensory terminations of the spinal nerve or nerves directly in relation with the spinal cells receiving such impulses; and Dr. Head has mapped out the cutaneous areas in which referred pain is felt, by means of a study of cases of herpes zoster. The skin areas in which the herpetic eruption appeared were found by him to coincide with the areas which have increased sensibility to pain in visceral disease.

The cutaneous area which Dr. Head found was associated with disorder of the intestines is that supplied by

ninth to the twelfth dorsal nerves inclusive. He mined this association on clinical grounds, but ex- iental inquiry into the motor nerve supply of the tine bears out his conclusion. In the dog, inhibitory s for the small intestine have been found in the sixth l to the first lumbar nerves inclusive, and principally e ninth to the twelfth dorsal[7]; and vasomotor fibres in ixth dorsal to the second lumbar nerves inclusive.[8]

. Head has not described a tender area in relation the spleen; but, by virtue of its position, it probably he same as that assigned by him to the stomach—ely, the area supplied by the sixth to the ninth l nerves inclusive. The extent of its motor innerva- derived principally from the sixth to the eighth dorsal es inclusive,[9] supports that view.

ius, the skin area having the same innervation as small intestine and spleen coincides with the area to h the eruption in typhoid is, as a rule, confined. For enience of reference this area will be called *the reflex*.

ie phenomena in the reflex zone are different from e which Dr. Head has described in his areas of red visceral pain. In these, increased sensibility for ful stimuli is always present, which is not so in the x zone of typhoid. I have found that moderate sure of one or both points of a pair of dividers on the of the abdomen in typhoid is often not felt at all; the sure having to be increased considerably to excite a ite perception of contact. In only 2 of 23 cases was feeling of pain caused by this experiment. In his s, Dr. Head did not find any alteration in sensibility ouch; but in the reflex zone of typhoid I have found sensibility for touch is diminished. To determine I have estimated the liminal distance for touch, accord- to Weber's method, in 23 cases of typhoid fever in the tive stage—(*a*) within the reflex zone; (*b*) outside the x zone. The results were controlled by similar obser- ons on the same number of patients, selected to orm to the typhoid patients in point of age, duration lness, and height of fever, but suffering from other ases. Care was taken to exclude from both groups s showing hysteria, pain, high fever, delirium, or other which would discount the value of the aesthesiometric rvations. The intrazonal measurements of the liminal nce were taken on the skin over the abdomen, within dius of 3 in. from the umbilicus; the extrazonal surements on the inside of the thigh, 3 in. above the of the knee-joint. The former area is within the ibution of the sensory fibres of the ninth, tenth, and enth dorsal nerves, and the latter within that of the th lumbar nerve. The area supplied by the fourth bar nerve is included in Dr. Head's "lower gap," which t affected in disorder of the viscera.

Dr. Head's areas, the superficial reflexes normally ent are always increased; but in typhoid I have found superficial reflexes in the reflex zone often diminished, absent, during the eruptive stage of the fever. Of ases examined on this point, the epigastric reflex was inished or absent in 21, and the abdominal reflex in same number.

the accompanying table the diminution of tactile sensi- y in the reflex zone of typhoid is expressed in terms of increase (1.6 cm.) in the liminal distance for touch in area, over the liminal distance for touch in the same in other diseases. The equivalence of the liminal nces in the extra-zonal area in the two groups of s goes to show that general diminution of cutaneous ibility for touch is not more characteristic of typhoid of other febrile diseases. [That the percentages relating to the state of the reflexes in the two groups are in inverse proportion is entirely a coincidence.]

The tonus of skeletal muscle innervated from the spinal level of the reflex zone appears to be diminished. Resistance to abdominal palpation is not usual in typhoid, and I regard the fullness of the abdomen seen in ordinary cases as partly due to loss of tonus in the muscles of the anterior abdominal wall. Cognately, these muscles are those most often affected by Zenkerian degeneration.

Impaired nerve control in this area is shown by other signs. Professor Osler has observed lines of atrophy, like those of pregnancy, in the skin of the abdomen in typhoid; and regards them as being of neuritic origin. Sacral bed-sores occur more frequently in typhoid than in other diseases—nervous excepted—where the patient remains on the back for the same length of time. After laparotomy for perforating ulcer of the intestine, suppuration at the site of the incision often occurs; the wound shows a tardy disposition to heal; and a hernia is sometimes formed.[10] Typhoid spine, which Professor Osler regards as a neurosis, usually implicates the lower dorsal region.

Dr. Mackenzie[11] has pointed out that the pilomotor nerves, over areas of skin corresponding to Dr. Head's painful areas, are rendered abnormally sensitive by visceral disease; a goose-skin reflex is more readily brought about than in health. The uncovering of a patient's abdomen, and the application of a hand often colder than the patient's skin, are likely to excite the pilomotor reflex; but in the few cases of typhoid fever in which my attention was directed to this point, the reflex was not observed.

The loss of vascular tone in the skin of the reflex zone is striking. In the pre-eruptive stage of the fever, the skin of the abdomen is often uniformly flushed (Jenner, Dreschfeld, Professor Osler). Marey's sign—the *tache cérébrale*—is always vivid in typhoid fever, especially on the abdomen; and I have come to look upon the *tache cérébrale*, and the diminution or absence of the epigastric and abdominal reflexes, as signs of decided value in the clinical diagnosis.

The long latent period, persistence, and slowness in fading of the *tache cerebrâle* point to its being a vaso-dilator reflex: one may assume that the tonic influence of the vaso-constrictors is in abeyance, and that these nerves suffer the same depression in function as the pilomotors, nerves for touch, and nerves supplying the muscles of the abdominal wall.

Some other considerations support this view:

(*a*) The vaso-constrictors follow the same course as the pilomotors, and innervate similar histological elements; it is, therefore, not unreasonable to suppose them similarly affected.

(*b*) The pre-eruptive flush and the branny desquamation sometimes seen over the chest and abdomen during defervescence are signs of vasomotor and trophic disturbance.

(*c*) Perspiration, and the eruption of sudamina, are frequently confined to the abdomen and chest. The secretion of sweat is brought about directly, by the passage of an increased volume of blood through the sweat glands; and unless it be that the sweat-secreting nerves are specially active—an assumption which has nothing in its favour, and which the prevailing state of neural tonus opposes—the eruption of sudamina in the reflex zone is a result of local hyperaemia.

(*d*) Dicrotism of the pulse is very common in typhoid. Curschmann[12] states that it is more common in typhoid than in all the other infectious fevers combined, and is a valuable diagnostic sign. The fall in arterial tension

Table of Observations.

	Average.			Abdominal Reflex.		Epigastric Reflex.			Average Liminal Distance.	
	Age.	Day of Disease.	Temperature.	Normal.	Diminished or Absent.	Normal.	Diminished or Absent.		Intra-zonal.	Extra-zonal.
				Per cent.	Per cent.	Per cent.	Per cent.			
phoid (27 cases) ...	21.9 years	15 9	101 9°	22.2	77.7	22.2	77.7	23 cases	5.64 cm.	3.74 cm.
her febrile diseases (27 cases)	21.6 years	12.6	102.4°	77.7	22 2	77.7	22.2	23 cases	4.01 cm.	3 70 cm.

which it denotes is probably due to reflex paresis of the splanchnic vaso-constrictors in the abdominal cavity.

(*e*) The frontal headache of ingravescent typhoid is not referred intestinal pain. Dr. Head has found that frontal headache of visceral origin arises from disorder of thoracic viscera, and he does not mention the headache of typhoid in his enumeration of visceral headaches and other pains referred to the distribution of the cranial nerves. The frequent occurrence of epistaxis during the onset of the fever suggests that the headache is congestive; and its automatic subsidence in the second week of the fever agrees in point of time with the appearance of dicrotism in the pulse.

The *tache cérébrale* reaches its greatest intensity about the beginning of the second week, and continues in that phase during the eruptive period. As the rose spots cease to appear, the *tache cérébrale* becomes less vivid; during the decline of the fever it tends to disappear. It can, however, often be elicited in a modified degree after the temperature has become normal.

In his Croonian Lectures,[13] Dr. Cayley says that he has "long looked on the persistence of the *tache cérébrale* as indicating that the intestinal lesions have not yet healed;" which is tantamount to what I wish to maintain—that the inhibition of the vaso constrictor and other nerves in the reflex zone in typhoid fever is due to the reflex incidence on them of specific impulses originating in the small intestine, mesenteric glands, and spleen. The bearing of this proposition on the production of the rose spots may be briefly discussed.

The rose spots do not appear until the depression of the vaso-constrictor fibres has become well established, and the specific agglutinins in the blood have become demonstrable by the Gruber-Widal reaction. As the arterioles relax, the blood pressure in the terminal capillaries becomes increased, and the circulation retarded. It is also possible that, the endothelial cells of the capillaries being weakened by the depression in function of their intrinsic nerves, the increase in blood pressure brings about some passive dilatation.

The influx of a greater volume of blood to the skin in the reflex zone brings a correspondingly greater number of bacilli to the cutaneous capillaries, where the sluggish flow of blood, and the impaired resistance of the endothelial cells, permit them to loiter in the capillary network. There they are joined by others; the agglomeration being due partly to the inherent tendency of the bacilli to compose themselves into groups whenever possible, but chiefly to the clumping power of the blood as the agglutinins come to be liberated therein. The assembly of bacilli thus formed sets up inflammation, which becomes visible as the circular, slightly raised rose spot, fading on pressure. Bacteriolysins continue the work begun by the agglutinins, and, in a little time, the assembled bacilli are devitalized, dispersed, and disintegrated; the point of inflammation subsides, and the rose spot fades.

REFERENCES.

[1] Goulstonian Lectures, i, March, 1853. [2] *Journ. Physiol.*, vol. vii, No. 1, January, 1886. [3] Langley, Schäfer's *Textbook of Physiology*, vol. ii, 1900, p. 688. [4] *Brain*, vol. x, 1888. [5] *Brain*, vol. xvi, Parts I and II, 1893; vol. xvii, Part III, 1894. [6] *Med. Chron.*, August, 1892. [7] Bechterew and Mislawsky, *Arch. de physiol. norm. et path.*, 1889, Supplement, p. 243. [8] François-Franck and Hallion, *Arch. de physiol. norm. et path.*, 1896, pp. 478 and 921. [9] Schäfer and Moore, *Journ. Physiol.*, vol. xx, 1896, p. 1. [10] Shepherd, *Montreal Med. Journ.*, January, 1903. [11] *Brain*, vol. xvi, 1893, p. 129. [12] *Typhoid and Typhus Fevers*, 1902. [13] On Some Points in the Pathology and Treatment of Typhoid Fever, 1880.

THE American Association for the Study and Prevention of Infant Mortality, organized at the convention recently held in New Haven, Connecticut, has established permanent head quarters at the Medical and Chirurgical Faculty Building in Baltimore, where it will begin active work. We learn from the *Boston Medical and Surgical Journal* that the president of the association is Dr. J. H. M. Knox, of Baltimore. Dr. William H. Welch, of Baltimore, is chairman of the section on federal, State, and municipal prevention; Dr. L. Emmet Holt, of New York, chairman of the medical section; Dr. Helen C. Putnam, of Providence, of the educational section; and Dr. Hastings H. Hart of the section on philanthropic prevention. Membership in the association is not limited to doctors, but will be open to teachers, publicists, philanthropists, and sociologists.

A NOTE ON THE VALUE OF BALL'S OPERATION FOR PRURITUS ANI.

By PATRICK LEIGHTON, M.D.,

HONORARY MEDICAL OFFICER, ELTHAM COTTAGE HOSPITAL.

I VENTURE to record the following two cases, on which I operated this year, as since endless remedies have been tried for this horrid affection none are a certain cure.

Before recommending the operation devised by Ball, I take it for granted that any local cause has been excluded, such as eczema, paralysis, etc. It is just those cases, as we all know, where we can find no local cause, that are the most difficult to cure. I am aware that there are some surgeons who maintain that there is a cause in every case, and that we have overlooked it in our examination.

The malady is looked on as a neurosis, and the interesting point is that if we give the nerve terminations in the skin a rest by dividing the trunks, the vicious circle is broken, and the itching does not come back even after sensation is re-established.

Some authors state that the operation should not be lightly undertaken, and it is to encourage other men in general practice like myself to cure their patients by it that this note is written.

The two main complications that may follow the operation are sloughing of the flaps and sepsis. The first may with care be avoided; the second is difficult to prevent, but does not in any way interfere with the result.

The cases were prepared as for a pile operation. The first came into hospital four days, and the second two days, before operation. Frequent bathing of the anal region in weak Jeyes' fluid was used in both cases. The parts were shaved, and 2 grains of opium given the night before. The rectum was washed out with boric lotion the following morning. In Case II there were some cracks and excoriations which I think had something to do with the sepsis that followed, even though pure carbolic acid was applied to them when the patient was on the table. Sir Charles Ball's method was followed, as is described in his book on the rectum.

The following details seemed to be of value:

(*a*) After putting the patient in the exaggerated lithotomy position, the covering of the table was folded so as to raise the pelvis, the end of the table being also a little raised. This position was a great help in undercutting the posterior pedicle (the only difficult part of the operation).

(*b*) A plug of gauze on a string in the rectum to prevent soiling if the patient strained, as they both did, the anaesthetic, C.E., being badly taken by both.

(*c*) In cutting the flaps care should be taken to include a layer of subcutaneous tissue in order to ensure the vitality of the skin, and thus avoid sloughing; buttonholing the anal canal leading to fistula is also avoided. The sutures of fishing gut were left long and twisted in a bunch on each side to prevent pricking.

The dressing was cyanide gauze. I intend in my next case to use a picric acid dressing to dry up the skin, as I am sure the moisture of the region encourages sepsis. The bowels were kept confined for four days, and not much food given.

In one case the wounds healed by first intention, the sutures were taken out in a week, and at the end of a fortnight he was able to sit. Considerable ecchymosis appeared on the third day over both buttocks, but in no way interfered with the healing. In the second case suppuration occurred in both wounds, but was healed in three weeks.

Both were men about 40 years of age, and the itching had persisted for three years. One had had his sphincter overstretched, with no benefit. They were unable to sleep at night, and were looking wretched in consequence.

One man is a harness maker, of a very placid disposition; the other has a good position in a bank, as well as being a tenor of no mean ability, but, like many tenors, very neurotic. He was losing his memory and completely demoralized by his complaint.

The result in both cases was more than gratifying—immediate relief. The second patient told me that the night after the operation was the first peaceful one he had

had for two years. Both told me the parts felt quite numb when I last saw them.

In conclusion, I wish to thank Drs. Sandford Smith and Milton, who kindly gave the anaesthetics, also the Matron (Miss Fry) and the nursing staff, for their able assistance at the time and in after-treatment, which is most important.

THE USE OF ADRENALIN IN ACUTE ASTHMA.

BY

CRAUFURD MATTHEWS, M.B., CH.B.VICT. AND LEEDS,

COLWYN BAY.

IN the BRITISH MEDICAL JOURNAL, October 1909, I wrote, in answer to a query by a correspondent, giving shortly my experience of the uses of adrenalin in asthma. Since that date I have had further opportunities for observing the effects of this treatment, and I now feel justified in writing a short account embodying the results I have obtained.

In October, 1907, my attention was first directed to the possible value of adrenalin in acute asthma by the relief quickly afforded by cocaine in this condition; and arguing from the similarity of effect produced by the application of adrenalin solution and that of cocaine on the nasal mucous membrane, I decided to give adrenalin a trial in a very acute case which I then had under treatment.

CASE I.

A young man, aged 23, had been suffering from asthma for several years, and had been in the habit of cutting short the attacks by the use of a preparation containing cocaine, which never failed to afford him instant, though temporary, relief.

On examination I found the heart very much weakened by the repeated attacks, and there was a considerable degree of dilatation; the slightest exertion brought on palpitation and shortness of breath, and he could only with the greatest difficulty get upstairs.

Considering the further use of the preparation to be contra-indicated by the relatively large amount of cocaine contained, I ordered him, during his first acute attack after coming under my care, to spray into the nose a solution of adrenalin chloride, 1 in 2,000. Within ten minutes of the first application of the adrenalin he was completely eased, and remained so for the remainder of the day. Subsequently, during each attack, he used the spray with complete success. If the attack threatened to be exceptionally severe the solution used was of the strength of 1 in 1,000, or if milder, 1 in 4,000 was sufficient. The patient quickly learnt by experience what strength would be needed, and when I last saw him he informed me that he was carrying about with him a bottle of adrenalin solution, 1 in 1,000, in case of further attacks.

CASE II.

Shortly after this I was called to a lady, aged 48, who was in the throes of a very acute attack. I had taken with me a bottle of adrenalin solution and a small spray, and promptly applied the adrenalin in the strength of 1 in 1,000, with the result that the attack, which had been continuous for several hours, was at an end in ten minutes; in a few more minutes the patient was sleeping comfortably. Subsequently this patient informed me that she had on several occasions repeated the spray, and in each case the results had been equally satisfactory.

From that time until the present I have used the adrenalin solution in every case of acute asthma which has come under my care; and in every case, now 13 in all, the results have been immediate relief, lasting for longer or shorter periods. In none of these patients have I observed any undesirable after-effects.

The last two patients on whom I have used the solution have had to continue the treatment at shorter intervals than in any previous instance.

CASE III.

Miss M., aged 21, had suffered from acute asthmatic attacks for fifteen years. The attacks came on nightly, lasting four or five hours, but every fourteen days the attack was of much greater severity and continued for twenty-four hours or longer. The heart was dilated and feeble, and when I first saw her she was very ill. The attack had then lasted from 1 a.m. until 4 p.m., but within five minutes of spraying the nose with a solution of 1 in 2,000 she was much more comfortable, and within fifteen minutes the attack had absolutely passed off.

Subsequently this patient had attacks nightly, which regularly woke her between 1 a.m. and 2 a.m. Dieting and the usual remedies produced no effect, and she used to have within reach a spray ready charged with 1 in 2,000 adrenalin solution, with which she cut short each attack at its commencement and was assured of a good night's sleep. After some weeks the attacks, which had been becoming gradually less severe, ceased entirely.

CASE IV.

Mrs. H., aged 55, a highly-strung gouty and neurasthenic patient, had suffered for years from repeated attacks of acute asthma. She could not take belladonna, and no other drug seemed to produce any effect on the condition, though she obtained some relief from burning ozone papers. Unfortunately the effort of sitting up in bed and lighting the paper made the attack much more severe.

After a very acute attack, during which I used the spray with instant relief, this patient has always slept with a small nebulizer ready charged with the solution. When roused by an attack she immediately uses the spray, and after a few minutes is able to sleep again. She is frequently roused in damp weather three times during the night, but in spite of the frequent use of the adrenalin solution I have observed no ill effects therefrom.

I have never used the spray in any other form of asthma but that which I should call acute spasmodic asthma, but my friend, Dr. W. B. Russell, to whom I mentioned the treatment, informs me that he has employed it in the case of an elderly gentleman in whom the attack was undoubtedly uraemic in origin. In this case also complete, though only temporary, relief resulted.

As to the mode of action of adrenalin in these cases, I must confess that I have so far not arrived at any conclusion. My first two patients both showed some degree of hypertrophic rhinitis, and I was inclined to think that the temporary relief of the local engorgement of the nasal mucous membrane might have caused the sudden termination of the attack by doing away with a source of peripheral irritation. None, however, of my later patients have shown any signs of nasal trouble, so that this theory has had to be abandoned.

In a condition of this sort suggestion undoubtedly plays a considerable part, and I formed the opinion that in a certain number of the cases this might account for the results obtained. This was more especially my view with regard to the last patient, but on one occasion when she complained of pain and irritation arising from haemorrhoids I gave her some adrenalin suppositories; it had escaped my memory that she was in the habit of using adrenalin for her asthma, but at my next visit she informed me that she inserted the first suppository during a mild attack of asthma, and to her surprise not only was the rectal irritation removed, but the asthma abruptly terminated. As the patient had no idea of the nature of the suppository, and as she frequently suffers from rectal irritation without any traces of asthma, there seems to me to be little doubt that in this instance adrenalin absorbed by the rectal mucous membrane acted in the same manner as when absorbed by the nasal mucosa.

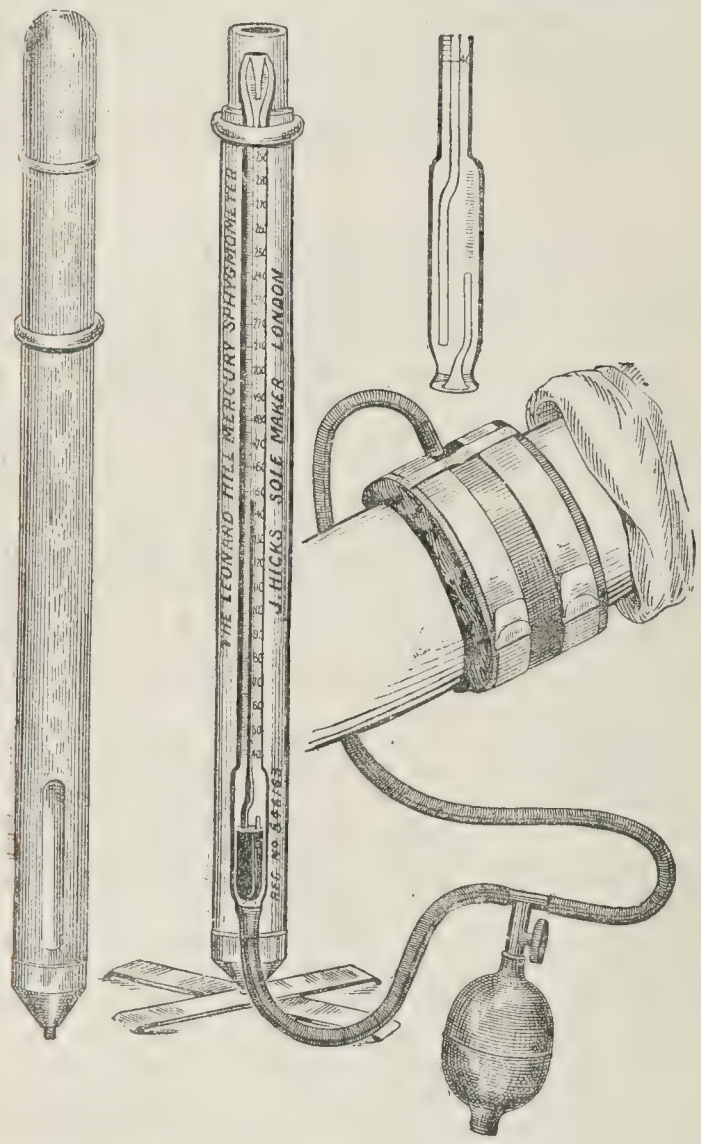
In the *Medical Review*, June, 1909, there appear extracts from an article by N. V. Jagic embodying the results obtained by the subcutaneous injection of adrenalin solution in acute asthma, as practised also in America. He suggests that adrenalin may act by causing a temporary depression of the vagus, whilst stimulating at the same time the sympathetic nervous system. The results obtained by Jagic seem to be very similar to those which I have observed from the nasal spray; and considering the dislike that most patients not unnaturally have for subcutaneous medication, I think the method I employ is less likely to be resented.

AT the meeting of the Zoological Society of London on February 1st, the Secretary read a letter from Captain J. A. M. Vipan, F.Z.S., which suggested that the probable cause of the immense numbers of the freshwater Cyprinodont fishes known as "Millions" (*Girardinus poeciloides*) in Barbados, and their consequent agency in suppressing malaria by destroying mosquito larvae, was the absence of other freshwater fishes in that island. The writer added that in his opinion there was no specific distinction between *G. poeciloides* and *G. guppii* of Trinidad, and that *Poecilia reticulata* (Peters), of Venezuela, was the same fish. The presence of other freshwater fishes in these localities prevented extensive multiplication of these small fishes, with the result that they had no effective action in keeping down mosquitos.

A NEW FORM OF MERCURY SPHYGMOMETER.

By LEONARD HILL, M.B., F.R.S.
LECTURER ON PHYSIOLOGY, LONDON HOSPITAL MEDICAL SCHOOL.

WHILE engaged recently in an investigation of the equality or difference of pressure in the arm and leg arteries—an investigation which showed a marked difference in all cases of aortic regurgitation[1]—I contrived a new and convenient form of mercury sphygmometer. This mercury manometer consists of a single tube, the lower end of which is sealed into a small reservoir, and opens near the bottom of this, as is shown in the enlarged figure of this



part of the instrument. The armlet tube is attached to the end of the glass tube, which is also sealed into the reservoir, and opens into the upper part by a capillary opening. A small quantity of mercury is introduced into the reservoir. When the pressure is increased air is forced into the reservoir, and the mercury is driven up the manometer, and registers the pressure on a scale in millimetres of mercury. The slight fall of the mercury in the reservoir is taken count of in the graduation of the scale.

When in use the manometer is fastened to the wooden thermometer case in which it is carried by a rubber ring, and a simple little brass foot is screwed on the end of the case, and supports it in the vertical position. The brass foot folds up, and goes into the case beside the manometer.

The advantages of the instrument are:

1. A single tube; this halves the errors of reading the ordinary double-tube manometer.

2. Owing to the capillary opening, the mercury does not spill. No rubber caps are required to close the manometer, and it can be carried in its case in any position.

3. Portability. No box is required; the wooden case, armlet, and bulb can be thrown into a handbag, and thus carried conveniently.

Mr. Hicks, of 8, Hatton Garden, made the instrument for me.

REFERENCE.

[1] *Heart*, No. 1, 1909.

THE Society of Laundry Engineers is arranging to hold an exhibition at the Royal Agricultural Hall, London, in April next, to illustrate the advances made in laundry machinery, and in the equipment of public baths and similar institutions.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

CARCINOMA IN THE MALE BREAST.

ON March 29th, 1906, a labourer, aged 57, consulted me as to a tumour, about the size of a marble, in the left breast. He complained of no pain, and the tumour caused him no discomfort, but, as he was then under treatment for a broken arm, and for that reason incapacitated from work, I removed the tumour under a local anaesthetic. It appeared to be an ordinary fibro-adenoma; no glands were to be felt. No microscopical examination was made, and I confess that the possibility of the growth being malignant never crossed my mind. In October, 1909, three and a half years or so after the operation, he consulted me again about the same breast. I found another tumour, about the size of a pigeon's egg. The skin over it was red, oedematous, acutely tender, and adherent. The patient attributed this to friction from his clothes, and under hot fomentations the redness and oedema rapidly disappeared. In the axilla one movable tender gland could be felt. The history was that for the first six months or so after the operation all went well, but he then noticed that the lump was recurring. He, however, continued his work for two and a half years, and it was not until the breast had become acutely painful that he consulted me again. During these intervening years he says he lost about 2 st. in weight, but only latterly had he felt really unfit for work. He was a big, powerful man, and there was not much obvious wasting. Bearing in mind the fact that the tumour had recurred, that it was adherent to the skin and immobile, that one gland could be felt in the axilla, and that the patient said he had lost 2 st. in weight, my suspicions were aroused that the tumour might be malignant. On the other hand, the rarity of carcinoma in the male breast, the length of time—two and a half years—that the tumour had been growing, its comparative smallness, and the fact that all the symptoms, with the possible exception of the loss of weight, might be due to an inflamed fibro-adenoma or other innocent growth, made the diagnosis, in my opinion, indefinite. I removed the tumour widely, and all its surroundings, but, in view of its doubtful nature, did not feel justified in doing more. The Clinical Research Association reported as follows:

> This tumour is a carcinoma composed of epithelial masses in a fibrous stroma. Its general character is that of a scirrhus. It infiltrates all adjacent tissues, but does not actually invade the underlying muscle.

The wound soon healed, and I advised the patient to submit to what I trust will be the last operation, when both pectorals were removed and part of the serratus and rectus muscles, the supraclavicular fossa was explored, but no glands could be found, and the axilla (where was a large mass of glands) was cleared out. The report on specimens of the breast and gland was as follows:

> *Small Pieces.*—Two hard fibrous masses connected by loose tissue. Sections cut of both pieces, and both show dense fibrous tissue with numerous collections of small round inflammatory cells. Also many connective tissue cells containing blood pigment. *No new* growth is to be seen.
>
> *Gland.*—This shows typical carcinoma. The cells are contained in well-marked alveoli, and are spheroidal for the most part.

Caton, Lancaster. F. M. BINGHAM, M.R.C.S., L.R.C.P.

TICK FEVER IN NYASALAND.

REFERRING to a memorandum by Dr. Hearsey on Tick Fever in Nyasaland (October 2nd, 1909, p. 986), I think it well to record its prevalence in the neighbouring district of North-Eastern Rhodesia.

In this small hospital, out of 120 in-patients for one year there were 35 cases of tick fever microscopically diagnosed. Many of these came from travelling caravans from all the surrounding districts. There were three fatal cases, one on the day of admission, which was the third day of the fever; one on the first day of the illness, without rise of temperature, though spirochaetes were very numerous and even in tangles; and one on the fourth day of fever in spite of all treatment.

There were no cases of so-called Tanganyika blindness, to which Dr. Hearsey refers, but one case became totally deaf during a relapse and has not recovered. In the only case occurring during pregnancy abortion took place. Otherwise the symptoms were much as have been described already by others.

JAMES A. CHISHOLM, D.T.M.Liverpool.
Mwenzo Mission Hospital, Fife, N.E. Rhodesia.

FRACTURE OF TIBIA AND FIBULA BY DIRECT VIOLENCE.

THE following case—a fracture of the tibia and fibula—occurred in a young soldier as the result of direct violence through coming down flat on the foot while at physical training (voluntary exercise).

W. G. B., recruit, aged 17, was admitted on the evening of October 4th, 1909, with a history of having come down awkwardly on his feet while doing voluntary gymnastics, and having "sprained" the right ankle. The swelling was very great, and it was impossible to make out any fracture by manipulation. A skiagram was taken at once, but nothing very definite could be made out. Hot foot-baths and lead lotion was used locally. On October 8th another skiagram was taken, from which the accompanying diagram has been made. It showed that the epiphysis and a wedge-shaped piece of the tibia had been separated from the foremost part, and that there was a diagonal fracture of the fibula in the same direction. The force was evidently communicated direct through the astragalus to the posterior part of the articular surface of the tibia. With Croft's splint, massage, hot baths to the foot, and passive movement, a perfect result was obtained.

Tracing taken from skiagram plate.

As the accident seems to be somewhat peculiar, and the ill effect of landing flat on the foot while doing gymnastic exercises is well illustrated, I think the case worthy of publication.

D. MCNABB,
Fleet Surgeon, R.N.
Royal Marine Infirmary, Deal.

LONG INCUBATION IN BERI-BERI.

IN July last I was asked to see a Chinese labourer on a banana plantation in Fiji. On examination I found the knee-jerks absent, ataxic gait, muscular pain on movement of the legs, firm oedema round the ankles, hyperaesthesia of the calves, slight ankle drop; there was no anaesthesia; the arms were weak but not ataxic, and there was no tremor. The eyes were normal. There was no bladder trouble, and the urine, though slightly diminished in quantity and of high colour, contained no abnormal constituent and was of normal specific gravity. The heart was slightly dilated and the first sound was rather prolonged, but there was no definite murmur. There was epigastric, suprasternal, and carotid pulsation. The lungs were normal.

He had been two months in Fiji, and his trouble began three weeks before I saw him, with weakness of the legs. His voyage from China took one month. He had never suffered similarly before, but in Canton, where he had been previously working, many of his fellow labourers had similarly suffered. While he was in China he was in the habit of drinking the water in which the rice was boiled, but had not done so in Fiji.

Assuming as I did that this was a case of beri-beri, a disease which is not endemic in Fiji, and of which there were no other cases, the incubation period must have been at least two months. He was under my care for one month, during which he improved slowly but steadily; but unfortunately his employers—also Chinese—against my advice sent him back to Canton as useless.

PAUL J. VERRALL, M.B., B.C.Cantab.
Late Medical Officer, Fiji Islands.

Reports
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

CHRISTCHURCH HOSPITAL, NEW ZEALAND.

RUPTURED GASTRIC ULCER IN A WOMAN AGED 64.

(By P. CLENNELL FENWICK, F.R.C.S.E., F.R.G.S., Honorary Surgeon to the Hospital.)

M. C., aged 64 years, was admitted on November 19th, 1909. She had suffered from indigestion for several years, but had been in good health for some months previous to this attack.

On November 17th she was seized with a sudden pain in the "pit of the stomach," shooting into the chest and throat. She passed a black motion a few hours later, and vomited three times during the next twenty-four hours. No blood was seen in the motion or vomit.

On admission she was collapsed, the pulse being 102, very thin and thready, temperature 97°, face pale and clammy, expression anxious.

The abdomen was much distended, resonant in front, dull in the flanks; the resonance in the flanks altered on change of position. Great pain was complained of in both flanks, and on pressure on the epigastrium. Dr. Westenra, my colleague, saw the case in consultation with me, and we agreed that there was a perforation of the stomach, and advised immediate operation.

The patient was very stout, and about 2½ in. of fat had to be cut through before reaching the peritoneum. On incising the latter, a gush of foul-smelling liquid escaped. The liver was very large, reaching to the umbilicus, and was covered with thick adherent flakes of lymph. The incision was extended downwards, and the edge of the liver lifted, exposing the stomach, in the anterior wall of which was a perforation the size of a threepenny piece. The peritoneum was curiously oedematous, and hung in folds. All the intestines were covered with adherent flakes of lymph. The perforation was closed with three silk sutures, and a fold of peritoneum was stitched over the stomach wound. Three tubes were inserted into the abdominal wound, one pointing down to the perforation, one upwards in front of the liver, towards the diaphragm, and the third passed down into the right renal fossa. A fourth tube was placed in Douglas's pouch through a suprapubic incision. A great quantity of foul liquid was removed. Saline was given by the vein, as the patient was collapsed.

For the next four days the patient was given nutrient enemata and a few ounces of albumen water by the mouth. She complained greatly of faintness. The bowels moved daily, I supposed by the action of the nutrient. No vomiting occurred, and the pain was not severe.

The tubes were removed on the ninth day after operation, and the patient appeared well over the worst. There was a constant discharge of black liquid through the tubes. The amount of fluid by the mouth was increased daily, as the nutrient enemata caused irritation.

On December 5th, fifteen days after operation, the patient died suddenly in her sleep. Dr. Crooke made a *post-mortem* examination, and found the whole peritoneal cavity the seat of intense peritonitis; the stomach was watertight and the perforation wound healed.

I think this case unusual with regard to the age of the patient, and the great improvement which occurred after operation, despite the continued peritoneal inflammation. There was no intestinal paralysis or vomiting, and death was due apparently to heart failure.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

ULSTER BRANCH.

Belfast, Thursday, January 27th, 1910.

Dr. St. George, and subsequently Sir John Byers, M.D., in the Chair.

Sympathetic Ophthalmia.

Mr. Wyclif McCready (for Dr. W. M. Killen) showed a boy aged 8 years, whose eye was severely injured by a tear across the cornea through the lens and into the ciliary region on November 14th, 1909. The injured eye was enucleated on account of pericorneal redness appearing in the other eye on December 22nd. Sympathetic iridocyclitis commenced in the remaining eye two days after the operation. The treatment adopted was mercurial injections and the free use of atropine drops and ointment till January 11th, 1910. It was found very difficult to keep the pupil dilated, and vitreous opacities in the ciliary region were manifest. Vision deteriorated to about $\frac{1}{4}$. On January 11th Dr. Killen injected 1,500 units of antidiphtheritic serum, in the patient's back, in the hope that an animal serum might give some protection. Twenty-four hours later the eye lost all its scleral redness, and the pupil remained widely dilated, and had remained almost so, till on January 27th the vision was $\frac{6}{18}$ and the vitreous opacities very much less. The only other treatment after injection was increasing the strength of the atropin solution to 8 grains to the ounce. The treatment of sympathetic ophthalmitis by drugs was so very unsatisfactory, and the usual result so dreadful, that one would like to see ophthalmic surgeons try the different antibacterial serums on a large scale.

Epithelioma of the Cornea.

Dr. Cecil Shaw showed a case of epithelioma of the cornea in a man of about 40. It began at the corneal margin shortly after an injury by mortar, and had slowly invaded the cornea for the past two years, now covering about half that membrane.

Coli Infection after Childbirth.

Sir John Byers and Dr. Tom Houston gave an account of a case of *coli* infection occurring in a patient after childbirth. On the thirteenth day after a normal delivery for the first time the patient had a sudden rise of pulse and temperature, which a careful urinary and blood examination showed was due to the presence of the colon bacillus, and which yielded to treatment by injection of a *coli* vaccine. The paper was discussed by Mr. R. J. Johnstone.

Pernicious Vomiting of Pregnancy.

Sir John Byers read a paper based on an experience of eight cases of pernicious vomiting of pregnancy, which he defined as vomiting so severe as to interfere with the taking of food, or so severe as to cause marked progressive emaciation. The cases were classified under three heads: First, reflex, where a careful abdominal and pelvic examination showed the presence of some condition the removal or treatment of which was followed by a cessation of the sickness and vomiting; second, neurotic, or a condition due to a true neurosis, like hysteria; and third, the toxic form, due to some poison as yet undiscovered either as to its character or origin, but which in fatal cases was associated with marked lesions in the liver. Sir John Byers believed in severe types of either the neurotic or toxic vomiting of pregnancy; it was not possible, clinically, to distinguish in a given case to which category it belonged except by a careful and thorough organic analysis of the urine, as to the ammonia coefficient. In the toxic type of vomiting the amount of nitrogen excreted as ammonia is greatly increased, and, instead of being 3 to 5 per cent. of the total nitrogen of the urine, it may rise to 30 or even 40 per cent. He agreed with Whitridge Williams that if this ammonia coefficient rose to 10 per cent. one might conclude the case was toxic, and one should empty the uterus as soon as possible. This urinary test gave the best means of diagnosing a case of toxic vomiting from one of the neurotic type. Nothing was yet known as to the explanation of these toxic cases; they might represent an excessive acid intoxication of the blood, or they might be due to some disturbance in the metabolism of the liver, depending on the absorption of a toxic material from the intestine which prevented the oxidation of ammonia into urea. Such cases showed the value of bringing into consultation with the obstetrician the physiological chemist, and indicated how much such a combination might clear up and crystallize views as to such obscure conditions as pernicious toxic vomiting and eclampsia.

Wharton Hood's Treatment of Fractured Clavicle.

Mr. T. S. Kirk gave a demonstration of this method, which he said he had used since 1902, when it was described in Hood's book on the *Treatment of Injuries.* Sayre's method, and most other methods of treating this injury, worked on the principle of trying to bring the outer mobile fragment into apposition with the inner and more fixed one. In Hood's method the outer end of the inner fragment was pushed downwards and backwards by strapping, the scapula was slightly fixed, and the arm steadied by a sling. Three pieces of strapping were used, each $1\frac{1}{2}$ in. wide, and were applied from before backwards, reaching from just above the nipple to 2 in. below the angle of the scapula. The first piece passed over the seat of fracture and the others overlapped it on each side. The head should be inclined to the injured side and the shoulder pushed up while the strapping was being applied. The bony results obtained by this method were certainly as good as those obtained by any other, and it was an exceedingly simple matter applying and reapplying strapping. With this method the patient could enjoy perfect cleanliness and comfort, the axilla, chest, and arm being easily washed, and passive movements of the elbow and shoulder and massage could be carried out daily, so that no stiffness of the shoulder or arm ensued, and from the first the arm could be put into a loose sleeve.

Treatment of Neuritis.

Dr. W. J. Maguire read a paper on this subject. He wished to draw attention to a few points in the treatment of neurotic conditions by Schlösser's method, being a recent one introduced in 1906. It depended upon the introduction of fat solvents into the sheath of nerve in a state of neuritis, by means of which the pathological non-phosphorized fat was dissolved or rendered more easy of removal. The solution usually employed had the following formula: Beta eucaine gr. ij, alcohol abs. ℥vj, aq. destil. ad ℥j; 2 c.cm. to be used as an injection. The addition of ℥ij of ether to this solution he had found to be an improvement in acute cases of sciatica, lumbago, and peripheral facial neuritis. The syringe which he used was that most frequently employed in the treatment of trigeminal neuritis, with one or two modifications which he had introduced in this instrument. It consisted of a strong needle 10 cm. long, 1.5 mm. bore, and graduated into centimetres up to 5 by alternate marks, extending only halfway round. By this device there was less risk of the needle breaking than if the markings extended round the whole circumference—an accident which might occur by sudden closure of the patient's jaws when operating in the vicinity of the foramen ovale or foramen rotundum A blunt-pointed stylet could be passed through the needle so that its point just projected beyond the extreme end of the needle. He had added a bayonet catch to keep the stylet firmly in position, thereby rendering all the fingers available for guiding the instrument through deep structures. The syringe, which was all glass and of 2 c.cm. capacity, could be fitted on to the needle. The details of the technique were as follows: All antiseptic precautions being taken as to the site of puncture and the instrument, the needle was passed through the skin to the required depth, the syringe, already filled with solution, attached, and the injection slowly made. The injections might be given each day or alternate days, as required, for a week at a time. A few hours after an injection the patient would usually say that the pain was diminished and that the part felt numb, or that there was a tingling sensation. A partial paralysis frequently followed, but this passed off in twenty-four hours. This method of treating neurotic conditions was simple and easy to manipulate. It was

frequently rapid in its curative effects, and, being practically free from risks, it was one which he thought worthy of trial by the general practitioner.

Heart-Block.

Professor LINDSAY read notes of a case of heart-block.

Cardiac Arrhythmia.

Professor LINDSAY also read a note on recent views on the mechanism of cardiac arrhythmia.

The communications were discussed by Drs. CALWELL, FULLERTON, and CLEMENTS; and Professor LINDSAY replied.

Reports of Societies.

MEDICAL SOCIETY OF LONDON.

Monday, February 14th, 1910.

Dr. SAMUEL WEST, President, in the Chair.

Curettage.

Dr. VICTOR BONNEY, in a paper on the diagnosis and treatment of haemorrhage from an unenlarged uterus, said that curettage as a treatment for uterine haemorrhage was a very successful operation when carried out in proper cases, but its illogical use was followed by many failures. Where the cause of the bleeding was a diseased endometrium, its erasion was obviously the rational course, but if the deeper parts of the uterine wall were at fault, or the haemorrhage was due to excessive size of the menstrual area, or where no organic disease existed (functional haemorrhage), curettage was an altogether irrational proceeding. The unauthorized use of the word "endometritis" to cover all cases of uterine haemorrhage not due to new growth was much to be regretted, because it divorced surgery from pathology, to the detriment of the former. It was true that one sometimes saw cases cured by "curettage" where no pathological justification for the operation appeared to exist, but illogical successes in treatment were met with probably more frequently in gynaecology than in any other department of medicine and surgery. Curettage, then, was likely to be successful where definite endometrial hypertrophy, inflammatory or otherwise, was proved to exist. Where the curette removed nothing and scraped hard and rough on the uterine wall the probability of the operation doing any good was slight. In such cases diffuse fibrotic metritis was probably present. Curettage was contraindicated in cases of functional haemorrhage except as a last resort and in full understanding of the empirical nature of the remedy. For myomata it was a bad proceeding, very liable to fail, and associated with a definite risk, both immediate as regards the operation, and remote as regards its effects upon the tumour. In regard to electrotherapy, the older methods appeared to be incapable of influencing organic disease, but the modern zinc mercury ionization treatment was a very definite way of directly applying powerful drugs to a diseased area. In this regard it resembled other intrauterine applications, but with the difference that the penetration of the chemicals was probably far greater. A very interesting paper by Dr. Curtis Webb on this subject had lately been read before the Royal Society of Medicine, and he believed that there was a very definite scope for the use of this treatment in certain cases of endometritis, and particularly in those anomalous forms of uterine haemorrhage without obvious pathological lesion, of which he had made mention. That drugs, applications, or electricity could cure those grosser lesions of the uterus and adnexa which resulted in haemorrhage no one who was accustomed to view them through an abdominal incision could for a moment conceive.

SOUTH-WEST LONDON MEDICAL SOCIETY.

Wednesday, January 12th, 1910.

Dr. M. G. BIGGS in the Chair.

THIS was a clinical meeting at the Bolingbroke Hospital, the following being among the cases shown by members of the staff. Dr. CAMPBELL THOMSON: (1) A man with *Cerebellar tumour*, who had been trephined. The tumour could not be removed, and symptoms had only been partially relieved. (2) A case of *Locomotor ataxia of bulbar type*, which had been shown before the society several years previously, when the only symptoms present were ptosis and weakness of the palate. Diphtheritic paralysis had then been suggested as a diagnosis, but no evidence of that cause could be found. Since then Argyll Robertson pupils, loss of knee-jerks, and "girdle pains" had slowly appeared, and in that order. Lastly, the appearance of "lightning pains" had established the diagnosis. Mr. SAMPSON HANDLEY: A woman, aged 36, who had had very extensive *Carcinoma of right breast*, with enlarged glands in both axillae and in the right supraclavicular region. Some resistance being felt in the lower abdomen an abdominal incision was first made. No growth being found, oöphorectomy was performed, and then the right breast and glands were removed. The glands in the left axilla were left and disappeared gradually. Three years had elapsed since the operation, and the patient showed no signs of recurrence. Dr. E. A. PETERS: (1) Case of *Chronic deafness* in a young woman in whom cicatricial bands could be seen passing from both Eustachian tubes to the wall of the pharynx. The patient had been operated on for adenoids twelve years before. The bands were considered to be due to the incomplete adenoid operation, in which the fossae of Rosenmüller had not been properly emptied, and, indeed, showed adenoid growth still present. The exhibitor believed the clearance of the adenoids out of the fossae and the removal of the bands would cure the deafness. He pointed out that the ordinary curette or finger was inadequate for the removal of these adenoids, and advocated the use of Meyer's ring knife as a routine procedure in the course of every adenoid operation. (2) A child with *Ozaena* much improved after the large nasal cavities had been constricted by injections of cold paraffin into the septum. Mr. T. M. G. SWAINSON: A case of *Abdominal injury* with excessive internal haemorrhage from a blow received on the football field. The patient was admitted to hospital in a state of great collapse; signs of internal haemorrhage rapidly developed. The abdomen being opened by right rectus incision the peritoneal cavity was found free of blood, but the posterior layer was bulged forwards by a dark mass behind it. Mr. Swainson, owing to the state of the patient, proceeded to make an incision horizontally towards the spine, at right angles to the original wound. A large amount of retroperitoneal clot was let out; the kidney was not observed to be obviously ruptured, but a number of small vessels were bleeding. Gauze plugging was packed tightly into the bleeding cavity, and the rest of the wound hastily closed. The patient eventually made a good recovery, but was compelled to wear a belt owing to the extensive incision that had been made. Dr. LAKING: A case of *Facial paralysis* in child of 6, with no evidence of middle-ear disease.

EDINBURGH OBSTETRICAL SOCIETY.

Wednesday, February 9th, 1910.

Dr. LAMOND LACKIE, Vice-President, in the Chair.

Treatment of Uterine Displacements.

MR. E. SCOTT CARMICHAEL, in a paper on vaginal fixation for uterine displacements, said that he had never in his dispensary practice seen a single case of permanent cure of a uterine displacement by means of pessary treatment. From vaginal fixation he had seen many cures. He had carried out the operation on twenty patients. All but two had passed the child-bearing period, but Dr. Martin, in Germany, operated on younger women with no great risks to any succeeding pregnancy. He personally had delivered two patients previously operated on, and in both cases the labour was normal. The dangers during pregnancy and labour had been greatly exaggerated. Anatomically it was difficult to see why the operation should interfere with the expansion of the uterus or the dilatation of the cervix, yet he had not felt justified, in the face of the adverse criticisms, in employing the operation in private or dispensary patients during the child-bearing period. The technique, as practised by Martin, consisted in making a vertical incision through the anterior vaginal wall, or excising a diamond-shaped area when a marked cystocele was present, then pushing up the bladder, opening the utero-vesical peritoneum, and bringing forward the uterus. Even if adhesions existed in

the pouch of Douglas, they often stretched sufficiently to allow the uterus to come forwards. The level chosen for fixation to the anterior vaginal wall was the junction of the cervix and body of the uterus, about 4 cm. below the fundus. If pregnancy supervened the fixation did not interfere with the expansion of the uterus and the dilatation of the cervix. It was different if fixation at a higher level, as practised by many gynaecologists, was performed, but that was not Martin's operation. The procedure was available for all degrees of displacement, but was best suited for medium cases with slight complications. Dr. RANKEN LYLE thought both operative and pessary treatment should be condemned. In the great majority of retro-deviations no symptoms arose. In a few cases haemorrhage occurred. All the other symptoms were neurasthenic. Cystocele was essentially a sequela of neurasthenia. The patient was continually straining, and so manufactured a cystocele. After operation she forced and pressed down again, and often her last condition was worse than her first. For cases of cystocele with dribbling of urine vaginal fixation might do good, but it was difficult to see how it could lead to any improvement in a case of prolapse of the uterus. Noble's criticism of its effects on pregnancy was sufficient to condemn it in young patients. Dr. HAIG FERGUSON said he had obtained a considerable number of cures by pessary treatment. When more than this was required ventrisuspension was the only safe measure during the child-bearing period. A heavy uterus, fixed by a point just above the isthmus to the vaginal wall, soon sagged back again. To keep it forward fixation had to be done at a higher level, thus leading to danger if pregnancy supervened. Adhesions in the pouch of Douglas constituted another difficulty. Through the incision in the anterior vaginal wall they had to be separated in the dark, and serious lacerations and haemorrhage had occurred. He was unable to understand how vaginal fixation could possibly cure a prolapse or benefit a cystocele. For the latter, Wertheim's operation, which brought the bladder above the uterus, was better. Dr. FORDYCE said prolapse was a descent of the anterior segment of the pelvic floor, and could not possibly be cured by vaginal fixation. Dr. RITCHIE said that anterior fixation was usually spoken of unfavourably. Could any one give information about posterior fixation? Pessary treatment sometimes cured sterility due to retroflexion, and even the retroflexion itself. Dr. LACKIE said that when in Germany he had been struck with the frequency with which the operation was performed. He would like to know the percentage of recurrences. Mr. CARMICHAEL, in reply, said if an operation was adopted, the technique of the originator should be closely followed. Dr. Martin had given statistics of 35 patients in whom pregnancy occurred after the operation. In 29 labour was normal, 5 had complications such as placenta praevia and accidental haemorrhage which were not connected with the operation, and 1 required Caesarean section. In 74 cases of subsequent pregnancy reported by Dührssen, 65 were normal, 9 had complications, but they were not in any instance due to the preceding vaginal fixation. He did not agree that cystocele was a result of neurasthenia. Cystocele was the primary condition, and the symptoms secondary. In vaginal fixation the uterus was fixed forwards, that is, in a position in which it never or rarely ever prolapsed. In a mild case the further descent of the uterus was thus prevented. The operation was not suitable in severe cases of complete prolapse.

Perineal Repairs.

Dr. J. W. KEAY read a communication on a simple perineal operation, as used in cases of prolapsus uteri and for perineal repairs. The essential point was the approximation of the torn ends of the levatores ani by a simple method of inserting the sutures. Without the diagrams by means of which Dr. Keay illustrated the operation, the method does not lend itself to description. He then proceeded to read notes of 5 cases of prolapse in which the operation was performed as part of the treatment. The results compared favourably with cases treated by other methods. The operation could be completed in ten minutes. Dr. RANKEN LYLE said that he never operated for incomplete tear of the perineum. Prolapse was not due to the deficient support of the torn perineal body, but was a true ptosis, resulting, like movable kidney, from neurasthenia. Dr. HAIG FERGUSON expressed appreciation of the simple method of introducing the stitches. He agreed with Dr. Keay that the essential point was to secure the levatores ani and the fascia covering them.

Specimens.

The following were among the exhibits: Dr. R. ROBERTSON: A baby, to illustrate the result of immediate operation for depressed fracture of the parietal bone during delivery. The infant at birth was breathing badly and unconscious. No anaesthetic was required. A large incision was made, and a clot cleared out of the scalp tissues. The bone was hard, and he could not penetrate it with the instruments at his disposal. So he continued the incision back to a suture, and inserted through it a Stiles's dissector and raised up the bone. Convulsive seizures occurred on the opposite side of the body for twenty-four hours, but after that the infant made a complete recovery. In two previous cases he had carried out the same treatment, and one child was now 5 years old and healthy. In one case which was not operated on, hemianopia was present, and the patient was an epileptic. Hence it was important to attend to the condition at once. Dr. HAIG FERGUSON showed drawings illustrating the result of immediate operation in a similar case. He made an incision extending it forward to the coronal suture through which he pushed the blade of a dissecting forceps. The bone returned to its normal position with a snap. The infant made a complete recovery. Mr. CARMICHAEL said he had seen two similar cases at the Sick Children's Hospital. The depression was shallow in each, and gave rise to no symptoms. In six weeks the depressions were obliterated without operation. Dr. W. FORDYCE: Large uterus removed by vaginal hysterectomy for severe flooding after the menopause. Pathologically the condition was one of arterio-sclerosis of the uterine vessels. Mr. SCOTT CARMICHAL: Ovary and Fallopian tube strangulated in the inguinal hernia sac of an infant aged 4 months.

LIVERPOOL MEDICAL INSTITUTION.

Thursday, February 3rd, 1910.

Dr. BRADSHAW, President, in the Chair.

Pathological Meeting.

THE following were among the exhibits:—Mr. NEWBOLT: (1) A small *Contracted gall bladder*, with ulcerated mucous membrane, filled with stones and pus, removed from a lady, aged 56, who had chronic dyspepsia; (2) with Dr. M. ALEXANDER: Two cases of *Pylorectomy for carcinoma* of the pylorus; in one case the growth was colloid, in the other it started at the edge of a deep ulcer. Mr. THELWALL THOMAS and Dr. MACKARELL: (1) Specimen of *Adenoma of the breast* removed from a patient of 27 with colloid degeneration of the intracystic growths; (2) a *Chondrosarcoma of the femur*, from a girl of 17, which had commenced in the internal condyle, and consisted of giant and spindle cells, and much cartilage; (3) a section of *Undescended testicle*, to demonstrate the atrophic character of the tubular epithelium, and emphasize the need for the removal of such structures. Mr. JEANS: (1) The wall of an old *Hydrocele* which closely resembled a giant-celled sarcoma; (2) a *Malignant tumour* growing from an improperly removed sebaceous cyst in a man of 43. Dr. R. J. M. BUCHANAN read a note on *Syphilis* as an important factor in the causation of heart disease. He did not think sufficient attention was paid to its possible effects in this direction during the early manifestations of the disease. After classifying the clinical varieties of cardiac syphilis, the author pointed out the fact that valvular lesions with their accompanying murmurs were the least important feature, and that alterations in rhythm, anginal attacks, and toneless sounds were more often present, these with signs of alteration in size. In all cases of heart disease a careful search should be made for signs of past or present syphilis. If diagnosed or strongly suspected, antisyphilitic treatment should be pushed to the limit of tolerance, accompanied by the ordinary measures for combating heart failure. Even albuminuria and dropsy were no contraindication to the use of mercury. The PRESIDENT said that the possibility of a syphilitic origin of heart lesions, specially where there was no

history of rheumatism, ought always to be borne in mind, and the recognition of such cases was a most important advance. In his experience, however, the commonest seat of syphilitic heart lesions was the aortic valves. As regards the treatment of such cases by mercury, he thought the danger of its administration had been greatly exaggerated—in fact, he had known chronic albuminuria to disappear under its administration. Dr. J. HILL ABRAM said he would have liked to hear more definitely the points which justified a diagnosis of syphilis in this case. He knew nothing more difficult than the differential diagnosis between the various forms of chronic granuloma on histological grounds alone. From the diagnostic side he thought it could hardly be accepted that the "silent heart" meant a syphilitic lesion; surely this simply indicated muscular weakness. Mercury was extremely useful in cases with a definite rheumatic causation, and not only in syphilitic lesions of the heart. Personally, when definite signs of nephritis were present, he thought the use of the mercury preparations was contraindicated. Dr. HAY also spoke, and Dr. BUCHANAN replied.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Thursday, February 10th, 1910.

Mr. G. HARTRIDGE in the Chair.

Clinical Evening.

THE following were among the exhibits:—Mr. J. B. LAWFORD: A case of *Optic atrophy* and oculo-motor palsy due to intracranial new growth. It was one of a small group of cases of pressure atrophy, with failure of vision, which began in the left eye, then came on in the other, eventuating in complete blindness. There was no history of causation. The growth was in close contact with, or near, the pons. There was no gigantism, acromegaly, nor undue deposit of fat. In nature it might be sarcoma or endothelioma; he did not think it was gummatous, and the man had not derived benefit from antisyphilitic remedies. The only effect of thyroid extract was to reduce the rapidity of the pulse and to produce faintness. Mr. JESSOP mentioned two almost similar cases which he had had: one in a lady 52 years of age, whose symptoms started with some retrobulbar neuritis. The other case was in a young man aged 22. Mr. DOYNE also mentioned a case in which the blind eye showed no affection of the disc. In the other eye the optic neuritis was well marked. Mr. LESLIE PATON said that in one such case he had cut sections of the disc of both eyes, and found a growth pressing very definitely on one optic nerve. There was no neuritis in the eye which was blind, and vision in the other eye was $\frac{6}{6}$. Possibly the blindness in so-called optic neuritis was not due to any oedematous process in the nerve itself, but to a normal pressure atrophy. Mr. LAWFORD, in reply, said Mr. Jessop's cases did not seem to be median growths affecting both eyes. Mr. E. TREACHER COLLINS: A case of *Lenticonus posterior* with opaque membrane behind the lens, which he regarded as a congenital one. Behind the lens was an opaque membrane, and instead of taking the normal curvature it was depressed into a cone shape. Dr. EDRIDGE-GREEN showed and demonstrated a new form of lantern for testing colour perception, which had now been accepted by the Admiralty. It gave a brighter light than previous patterns, and could be regulated to imitate signals at various distances. Mr. A. C. HUDSON: *Retinal disease* in a boy aged 9 years, who had $\frac{6}{6}$ vision, with full fields. When a month old the patient had a severe illness in which he was unconscious, and two years later he had whooping-cough. In the eye there was some white mottling with white granular material, which seemed to be deep to the retinal vessels; it was chiefly in the macular region. Probably the condition was due to subretinal haemorrhage. Mr. ARNOLD LAWSON mentioned a boy with a similar condition; in this instance it was definitely due to haemorrhage. Nearly all the haemorrhages were lying in the deeper layers of the retina, and in one or two instances the vessels seemed to be buried. Mr. E. BREWERTON: A case of *Bilateral parotitis and cyclitis*, which he believed to be due to some general toxaemia, though he had not been able to find the source of infection. Mr. P. E. H. ADAMS (Oxford) said that in some cases of the condition which he had described he found the infection was from the mouth, the patients having pyorrhoea alveolaris. One patient was aged 20 and the other 56, and in both cases there was keratitis punctata. The eyes subsided simultaneously with the parotitis. Mr. P. FOSTER MOORE: A case of *Hole in the macula*. The vision was $\frac{6}{9}$. Mr. HEPBURN expressed the view that the other eye was already in an earlier stage of the same condition; it might be in the nature of an infarct in the choroidal blood supply. Mr. FISHER thought it improbable that there would be an infarct in the identical pole in each eye.

NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

Thursday, January 13th, 1910.

Dr. E. H. DAVIS in the Chair.

AMONG the many specimens exhibited and described were the following:—Professor STUART MACDONALD: (1) Specimens from a case of general *Streptothrix infection*, showing purulent deposits; also the organs of a rabbit inoculated intravenously with a pure culture of the streptothrix isolated in the foregoing case, the resemblance of the lesions to those of tuberculosis being marked. (2) Micro-specimen from a case of *Delayed chloroform poisoning*, demonstrating the fatty degeneration in the heart muscle, renal epithelium, but more especially the liver. Sir THOMAS OLIVER: An *Aortic aneurysm* which had burst into the pulmonary artery, with micro-specimens of the radial artery from the same case showing the thickening of the tunica intima and tunica media. Dr. T. BEATTIE: Micro-specimens from a case of *Acute yellow atrophy* of the liver. There was a history of illness for five weeks; six months previously the patient had had a stillborn child. Mr. H. B. ANGUS: A large *Fibroma of the sciatic nerve* removed by operation from a woman aged 35. Apparently it had existed for five years; latterly the patient could not sit down with any comfort owing to pain caused by the pressure on the tumour. Mr. J. CLAY: *Ovarian cysts* with twisted pedicle from children aged 3 years and 12 years respectively, and a solid ovarian tumour from a woman 6 months pregnant. In each case the symptoms closely resembled appendicitis. Mr. HAMILTON DRUMMOND: Traumatic *Rupture of the pylorus* removed *post mortem* from a boy who fell 30 ft. in between two ships. There was a large amount of free blood in the peritoneal and pleural cavities, a portion of the liver was completely detached, the diaphragm was ruptured on the right side, and the pylorus was ruptured by a vertical tear through the peritoneal and muscular coats. Mr. T. GOWANS: *Rodent ulcer* of outer canthus, excised with the lower eyelid from a woman aged 48. She had had *x*-ray treatment for months, but a temporary improvement had been succeeded by a recurrence. Dr. RANKEN LYLE: Right half of a *Double uterus* containing a macerated fetus. The left section contained a three months pregnancy, and was not interfered with. The patient, aged 23, had been married three years, and had one child. There was a history of twelve months' amenorrhoea, and she was now seven months pregnant. Mr. A. M. MARTIN: Acute *Inflammation of a Meckel's diverticulum*, with a large enterolith *in situ*, removed by operation from a young man. He was admitted with intestinal obstruction and an abscess just below the umbilicus. On opening the abscess the distal end of a Meckel's diverticulum, completely gangrenous, presented itself; this contained a calculus resembling a gall stone. The proximal end of the diverticulum was found in the region of the gall bladder; it was tightly stretched across a loop of small intestine, causing obstruction. The diverticulum was removed, along with a portion of omentum which was adherent to the distal end, and a good recovery ensued. Mr. RUTHERFORD MORISON: Two cases of pedunculated fibroid with twisted pedicle removed by operation. In both cases there was a definite history of repeated twists. One patient was five months pregnant; both did well.

ROYAL SOCIETY OF MEDICINE.

Clinical Section.

Friday, February 11th, 1910.

Mr. A. Pearce Gould, President, in the Chair.

The following were among the exhibits: Dr. StClair Thomson: Four cases of epithelioma of the larynx after operation to prove the safety of laryngo-fissure. One of them had remained without recurrence for nearly six years; in another both vocal cords were completely removed, and yet the patient had a loud, strong, though harsh voice, and was still free from recurrence two years and four months after operation. In a third case laryngo-fissure had to be followed by complete excision of the larynx, and the patient was enabled to speak and to carry on much of his respiration through his nose and mouth by means of a von Bruns tracheotomy cannula. A fourth case was a male, aged 59, who underwent the operation about a year ago. He was a schoolmaster, who reported that he had been hoarse continually for three or four months, and that his voice had not been good for two or three years. Since the operation he had been able to resume his occupation. He could smoke, and was in good health. Dr. H. Morley Fletcher: Examples of rheumatic nodules in a patient regarded as the subject of gonococcal arthritis. Mr. Arthur E. Barker: A case in which traumatic pancreatic cyst cured by operation was followed twelve years later by medullary leukaemia. Mr. Douglas Harmer: A patient from whom fibrosarcoma of nose had been removed after temporary ligature of both external carotid arteries and laryngotomy.

Laryngological Section.

Friday, February 4th, 1910.

Dr. Dundas Grant, President, in the Chair.

The following were among the cases and specimens shown: Dr. H. J. Davis: (1) A man, aged 53, into whose trachea a piece of bone slipped whilst he was eating ox-tail soup. It found its way into the right lung, and set up pulmonary abscess and empyema; a rib was resected and the abscess drained. Six weeks later the piece of bone was spat out during a fit of coughing. After that his condition improved rapidly, ending in recovery. The case was under the care of Dr. Seymour Taylor. (2) A soldier, aged 30, into whose pharynx a pin 1½ in. long slipped whilst he was sleeping. It became impacted in the oesophagus. It was grasped with forceps but could not be moved; oesophagoscopic examination under anaesthesia proved negative. The pin passed into the stomach and was vomited up the same night on recovery from the anaesthetic. (3) A case of *Laryngeal vertigo* in a man aged 47. Tickling began in the throat; he would then cough for five or ten minutes, become violently giddy, and fall to the ground insensible. The uvula had been removed flush with the palate with some benefit. Though a pipe smoker, the mere smell of cigarette smoke brought on an attack at once. Mr. George Wilkinson: Photograph of an infant 8 months old whose nose was congenitally deformed by a deep depression in the middle line below the nasal bones, with wide separation of the nostrils and flattening and broadening of the whole feature. The splitting process was traceable from the triangular cartilage downwards as a distinct notch affecting upper lip and premaxillary bone. Mr. Stuart Low: *Lupus of the nose*, hard palate, fauces, and epiglottis in a girl aged 10, shown on account of the early implication of the epiglottis. Dr. Dundas Grant: Extensive *Tuberculosis of the larynx* in a middle-aged man affected with pulmonary tuberculosis. It had been treated with the galvano cautery. The punctures were made into an ulcer on the ventricular band and the infiltrated epiglottis and swollen band once every three or four weeks, and gave immediate and increasing relief, so that almost complete dysphagia was gradually removed. Inhaling equal parts of anaesthesin and orthoform helped in this. Eventually all the ulceration and nearly all the infiltration disappeared.

Section of Anaesthetics.

Friday, February 4th, 1910.

Mr. R. Gill, President, in the Chair.

Lymphatism.

On resumption of the discussion on Mr. Bellamy Gardner's paper on lymphatism (see British Medical Journal, December 18th, p. 1753), Dr. Farquhar Buzzard drew attention to the analogy between myasthenia gravis and lymphatism. In both conditions the patient might die suddenly. Although many of the myasthenic patients died from sudden cessation of the respiration only, there were others in whom the heart failed at the same time, and with equal abruptness. In more than 50 per cent. of the cases, moreover, there was some enlargement of the thymus gland, while, in addition, clumps of lymphoid cells were found scattered through many of the tissues and organs of the body, especially in the muscles. Abnormalities of the spleen, thyroid, pituitary, and the liver had also been discovered in some instances, but the indictment of these organs had never been so severe as that of the thymus. Dr. Ralph Vincent considered that the operation was a far more important factor in the causation of death in cases of lymphatism than was the anaesthetic. A mere digital examination of the naso-pharynx was very likely to bring on a convulsion in a child which was subject to convulsions, and an anaesthetic would act rather as a sedative; indeed, really *deep* anaesthesia should actually be a safeguard. The cause of the condition was an error in diet during infancy. Dr. Levy gave an account of some experiments he had made upon animals while they were anaesthetized by means of chloroform. It was suggested that a committee should be formed, consisting of anaesthetists, pathologists, radiographers, and others, to collect evidence which might lead to some definite conclusions as to the causation, symptoms, and treatment of this and allied conditions.

ASSOCIATION OF REGISTERED MEDICAL WOMEN.

Tuesday, February 1st, 1910.

Mrs. Dickinson Berry in the Chair.

The following were among the cases and pathological specimens shown: Miss Garrett-Anderson: (1) A woman from whom, four years ago, she had removed a large *Lympho-sarcoma* of the small intestine. At the original operation the mesenteric glands were found to be much enlarged, but, during an operation performed eighteen months later for appendicitis, they were seen to have disappeared, and the patient was now perfectly well. (2) A woman with *Tertiary syphilitic ulceration* of the forehead. The ulceration had at one time extensively involved the underlying bone, but healing had now largely taken place. The patient had been under treatment for twelve years, and had required large doses of mercury and iodide. At one time, while still being treated, she had developed gummatous ulceration of the leg. (3) (for Miss Hamilton), A patient showing *Multiple synovial swellings* in connexion with the tendon sheaths over the fingers and wrists, and several subcutaneous nodules on the extensor surfaces of the forearms. The case was considered to be rheumatic. There was no evidence of tuberculosis. (4) (for Miss Aldrich-Blake), A specimen and microscopic sections of a large *Intracanalicular fibroma of the breast*, and microscopic sections of the endometrium from an apparently healthy woman who had been curetted for sterility. The sections showed numerous giant-cell systems, and the case appeared to be one of primary tuberculosis of the endometrium. Dr. May Thorne: Drawings and a specimen from a case of *Cyst of the clitoris*. The cyst was of about the size of a turkey's egg; it extended above the clitoris, flattening out the prepuce, and into the right labium minus, which was much hypertrophied. The urethral orifice was elongated, forming a slit about half an inch long. The cyst had been shelled out; it was very thin walled, and contained pultaceous material. Microscopically the wall consisted of fibrous tissue containing in places some tubular glands. Miss Haslam showed a boy aged 9 with deformities of the lower limbs: talipes equino-varus, flexion of the knees, and crossed adduction of the thighs. He was unable to stand, but walked on his hands. He also had a cleft palate and harelip, which had been operated on.

Reviews.

THE MANAGEMENT OF CHILDBED.

The greatest advances that have been made in obstetric medicine of late years are in the treatment of the patient during the time denoted by the term which the public by a euphemism apply to the whole process of childbirth, namely, the "confinement." The means whereby a child can be cut up and its mangled remains dragged through a small pelvis are now much the same as they were fifty years ago. Not only are they not improved, but they are in some places less understood; for have we not reviewed in these columns books on midwifery by authors who were not acquainted with Braxton Hicks's cephalotribe, and did not know how to decapitate? Their deficiencies in this kind of knowledge were to some extent compensated for by a better knowledge of surgical technique. But, childbirth over, our knowledge of how to protect the mother from harm during childbed is the great obstetric achievement of the last half-century; and it consists in the application of the discoveries of Lord Lister, supplemented by the researches of modern bacteriologists. Dr. Fromme has written a book, *Die Physiologie und Pathologie des Wochenbettes*,[1] in which these advances are lucidly set forth. Dr. Fromme's aim is limited. His object is to help the family doctor to a knowledge of modern methods, and to give the student a sound foundation, from which he may advance to more minute studies. He does not profess to give an exhaustive summary of the literature of the subject. If the reader wants that, Dr. Fromme refers him to the huge volumes which Professor Winckel has edited, and jocularly entitled a "handbook" of midwifery. Dr. Fromme keeps clear of all matters in which the general surgeon and the general physician are as much concerned as the accoucheur; such, for instance, as operations for the repair of injuries; heart disease, and lung disease in relation to pregnancy and the puerperium; syphilis and its effects, etc. By excluding all these things Dr. Fromme has produced a practical book on a well-defined subject.

We think we may with advantage to our readers put before them Dr. Fromme's opinions on some important matters. He is a convinced advocate of what Dr. Ballantyne, in a recent communication to the Edinburgh Obstetrical Society, called "The Rational Puerperium." He excludes from his general rule cases of exceptionally long labours, of operative delivery, cases in which fever is present, or any other complication. But in a healthy lying-in after a natural labour he advises that on the first, second, and third day the patient should sit up for about an hour morning and afternoon, and that she should get up on the fourth or fifth day. He does not press this on patients who do not feel equal to it. But experience has convinced him that in a natural puerperium the patient is all the better if she gets up soon instead of keeping her bed a long time.

Methods of procuring asepsis by antisepsis of course receive due consideration. The author by implication, though not explicitly, accepts the views of Sir Watson Cheyne that the effect of pathogenic microbes is largely a question of dosage; that sterilization of the hands and everything else that comes into contact with the patient is a practical impossibility. All that can be done, and in good hospitals is done, is to make the dose so small that the leucocytes can deal with it. The methods of Lord Lister and Sir Watson Cheyne are such that any general practitioner, or any midwife who understands them, can carry them into effect without difficulty. But Dr. Fromme will have him wash his hands for five minutes in flowing hot water with soap and a nailbrush; then dry them with a sterile towel; them wash them for five minutes more in a 70 to 96 per cent. alcohol; then two minutes in 1 to 1,000 solution of sublimate. And after this performance he is to put on sterilized indiarubber gloves. Does he really think that the average German midwife, or German general practitioner, will go through all this performance, and, in addition, afford the expense of indiarubber gloves? Is he unacquainted with the dictum of one of the world's greatest surgeons and most brilliant operators, to the effect that the use of gloves to the surgeon is to keep his hands clean while he is *not* operating, so that he may take them off when the time to operate comes, and touch the patient with clean hands? Insistence on unnecessary detail is a characteristic of incompetence. Dr. Fromme says the hair of the vulva is always to be cut short, and before an obstetric operation is to be shaved. Apart from these antiseptic extravagancies, which only indicate a want of confidence in simple means—or, may we put it, a want of trust in Lord Lister?—Dr. Fromme's advice as to the conduct of childbed is sound and good. He does not advise vaginal douches in a normal lying-in. There is a great deal of information about the different kinds of bacterial infection to which the puerperal woman is liable and their different effects. In the minds of too many writers and practitioners the kinds of illness produced by different microbes are much mixed up. But we have given, perhaps, too much space already to a work in a foreign tongue.

[1] *Die Physiologie und Pathologie des Wochenbettes, für Aerzte dargestellt.* Von Privat Docent Dr. F. Fromme, Oberarzt der Königlichen Universitäts-Frauenklinik zu Halle-a.-S. Berlin: S. Karger; and London: Williams and Norgate, 1910. (Sup. roy. 8vo, pp. 264. Abt. 31; Tafeln 2. M. 8.40.)

HAEMATOLOGY.

The second edition of the work on anaemia by Ehrlich, Lazarus, and Naegeli[2] will be welcome to all who are interested in haematology, for during the ten years or more since the appearance of the first edition not only has much been done in the various directions suggested by investigations carried out at the Frankfort Institute, of which Professor Ehrlich is the director, but, as a perusal of the pages shows, modifications and corrections have had to be made in some of the deductions which this distinguished writer had drawn. Ehrlich, in the preface, says that the groundwork of the volume is in no way altered, and that, though many stones have been removed from the edifice which he had raised in the first edition, on the other hand it has been enriched by newer work. His views in connexion with the doctrine that all anaemic conditions must be referred ultimately to alteration of function of the bone marrow remain unaltered; further, his theory of the dualistic origin of the white corpuscles has, he maintained, triumphed over that which sought to show that all white corpuscles are derivatives of one and the same cell. The observation of Kollmann on lower types of animals like the crab, showing that the granules of white corpuscles disappear with starvation, affords new insight into the significance of these bodies, and Ehrlich expresses the earnest hope that the efforts of physiological chemists will be directed towards solving the riddle of their composition. To Dr. Lazarus has fallen the task of editing the sections dealing with the clinical examination of the blood, the histology of the red corpuscles, of the blood patelets, and of haemoconia; and to Dr. Naegeli the histology of the white corpuscles in health and disease, their seat of origin, the significance of their granules, the morphology of the three main types of granulocytes, and, finally, the section dealing with the two forms of leucocythaemia as defined by Ehrlich, the lymphatic and the myeloid.

No one at all familiar with the problems of haematology would expect a detailed critical review of this volume, for so replete is it with facts elucidating these problems, so elaborate are the inquiries carried out by Professor Ehrlich and his pupils, and so full the statements of the points of view of workers who have arrived at different conclusions, that extended appreciation and criticism is impossible within any reasonable limits. We are glad to welcome the credit given to the methods of estimating the total blood in the body by the carbon-monoxide process advocated by Drs. Haldane and Lorrain Smith, which has led to a correction of the estimate of the relative weight of the total blood in the body from 1 to 13 to 1 to 20.5, and to the work of Biernacki which established the fact that the total iron in the body in chlorosis and some other forms of anaemia may be not merely normal but greater than normal. Reference is also made to the recent important work of Friedenthal tending to show that the biological reactions of the blood and serum hitherto referred to alkalinity are much more readily explained by ferment

[2] *Die Anaemie:* 1 Abth., 1 Teil, *Normale und pathologische Histologie des Blutes.* Second edition. By Dr. P. Ehrlich, Dr. A. Lazarus, and Dr. O. Naegeli. Vienna and Leipzig: Alfred Hölder. 1909. (Sup. roy. 8vo, pp. 161, 5 illustrations in the text and 5 coloured plates. M. 5.20.)

action; alkalinity when artificially increased to but a slight extent checks this action. The methods of "illumination of a dark field" as advocated by Dietrich are also commended for the observation of haemolysis and in the minute study of blood platelets as shown by Pappenheim. The beautifully executed coloured plates show what the text also reveals—that the introduction of Giemsa's stain has greatly advanced our knowledge of the minute structure of the various forms of corpuscles, red and white. Much attention is paid to the punctiform granulations observable in red corpuscles. Dr. Lazarus reiterates the view originally expressed by Ehrlich that the presence of megalocytes is of great importance in the diagnosis of so-called pernicious anaemia, a position which Dr. William Hunter has attacked with so much force and effect. The attribution of a basophilic character to the granules visible in the protoplasm of lymphocytes, as originally described by Ehrlich, is now shown to be an error. Such appearance is merely due to the expression of the condensation of the protoplasmic reticulum which stains with basic dyes. The method devised by Schridde of distinguishing lymphocytes from the large mononuclear cells and from immature myelocytes (called now by Dr. Naegeli myeloblasts) is described and stated to be trustworthy. It consists in the detection of fuchsinophile granules in the protoplasm of lymphocytes. Another alleged reliable means of distinguishing these cells is the demonstration of what are spoken of as azurophile granules; it has, however, been pointed out by Pappenheim that they are not specific for lymphocytes, and they do not always exist in these cells, and, moreover, occur also in the thrombocytes of the frog, and in certain cancer cells. In more than one place reference is made to the fact that by the method of staining introduced by Schridde, not only of blood films but of sections of tissues like the marrow and spleen, it is possible to trace the actual seat of origin of the various white cells met with in the blood stream, so that workers need no longer fear the charge of being mere "peripheral haematologists."

One further theory brought out clearly in the pages of this volume is that the granules present in any one leucocyte are uniformly basophilic, neutrophilic, or acidophilic, any apparent exceptions being attributed to the unequal staining of granules which are not equally ripe.

Finally, we may call attention to the newer work, which has shown that myelocytes can, even in the adult, arise from tissue other than the marrow. There is reason to accept Schridde's contention that they can arise from cells of the vessel walls which are capable of undergoing a metaplasic—or, to use Schridde's own term—a heteroplasic transformation not only into myelocytes, but into myeloblasts and erythroblasts. This almost sounds like a renunciation of the view already expressed by Ehrlich that all granulocytes arise in the marrow, but Naegeli expresses the opinion that probably such an origin is the *exception*, and that even when it takes place can have little bearing on the vexed problem of the origin of white cells in the adult human being! This acknowledgement of the possible origin of such cells from tissue other than marrow is the one example of the almost inevitable result of composite editorship—namely, contradiction—that we have detected in this well-written volume. It will most certainly for some years to come be the standard work of reference on haematological methods.

BIOCHEMISTRY.

THE collection of lectures, on a variety of medical and physiological subjects, which were delivered before the Harvey Society of New York during the year 1907–8, illustrates the growing interest which attaches to the study of the chemistry of the body in health and disease.[3] Dr. EDSALL, of the University of Pennsylvania, discusses investigations of metabolism in their relationship to clinical medicine. "I believe," he says, "that quite as many patients are damaged by faulty use of foods as by faulty orders concerning drugs," and he asserts that, whereas the average practitioner often manifests a desire to acquire and to utilize such accurate knowledge as we possess concerning the action and use of drugs, relatively few of them have taken the trouble to keep themselves up to date in scientific work on dietary standards and food values, the digestion and absorption of foods, their metabolism in the body, and their excretory products. There is, no doubt, a certain amount of truth in this accusation. Medical men only too frequently treat the dieting of their patients in a rule-of-thumb, perfunctory sort of manner; nor do they exercise as much influence as they might, in their capacity as the family advisers, towards promoting more rational ideas as to the choice and apportionment of foodstuffs for the healthy body. Professor Starling, of University College, London, in his lecture on the chemical control of the body, treats the subject from the physiological aspect, and calls attention to the importance of the chemical stimulants which he has termed "hormones." He describes the stimulation of the pancreatic secretion by the chemical action of a product which is conveyed by the blood stream and is derived from the interaction of acid with the cells of the intestinal epithelium. Amongst other well-known instances of selective chemical action in the control of functions of the body, he recalls Haldane's work on the stimulation of the respiratory centre by CO_2, and makes mention of his own researches showing that chemical products which pass from the fetus through the placental circulation stimulate the development of the mamma. Returning to the sphere of clinical medicine, Dr. Folin, of Harvard Medical School, considers the chemical problems which present themselves in hospital practice to the clinical pathologist. Another very important subject in physiological chemistry—the reversible action of ferments in the metabolic processes of the animal body, forms the subject of a lecture by Dr. Taylor, of the University of California. Amongst other valuable lectures in the volume may be mentioned a review of the cancer problem, by Dr. Ewing, of Cornell University, and a recapitulation by Professor Schäfer, of Edinburgh, of his well-known researches on artificial respiration after apparent death by drowning.

Professor EMIL ABDERHALDEN, whose name ranks very high not only as a researcher, but as a most able exponent of physiological chemistry, has earned the gratitude of all workers in this vast and ever-growing branch of study by undertaking the laborious task of editing a textbook of biochemical technical methods.[4] In carrying out this task he has had the co-operation of over sixty physiological chemists whose special knowledge is utilized in dealing with the one or other particular branch of the subject which they have made their own. We have before us the first halves of the first and second volumes, and the work is to be completed in three volumes. The first volume opens with a most useful account of general chemical laboratory methods by Professor R. Kempf. Herein we learn the properties of the materials, such as silica glass, quartz glass, and porcelain, used for laboratory utensils; gutta-percha, cork, etc., information most essential to the scientific worker in his endeavour to avoid the pitfalls of error. Thus we read: "The supposed transmutation of copper into lithium by the emanations of radium as set forth by Sir W. Ramsay and A. T. Cameron, is really due to the lithium content of all glass." The violet colour which appears in most glass under the influence of ultra-violet rays is due to traces of manganese in the glass. The properties of quartz glass are detailed and mention made of the new cheap quartz glass made in the electric furnace, and to the size of 5-litre flasks. The only fault of it is that it is not perfectly transparent. It melts at a temperature 1000° C. above ordinary glass, and stands the most sudden changes of temperature without breaking, on account of its low coefficient of expansion. The article continues with descriptions—and these are fully illustrated—of all the best chemical methods of weighing volume estimation, grinding, mixing, shaking, cooling, and heating (with figures of the new electric lamp hot-water baths), and the arts temperature measurements, filtering, centrifuging, distilling, etc. Succeeding articles deal with such subjects as elementary analysis, nitrogen estimation, ash analysis, physico-chemical methods, optical methods of investigation, etc., each article being written by an

[3] *The Harvey Lectures; delivered under the auspices of the Harvey Society of New York, 1907–8.* London: J. B. Lippincott and Co. 1909. (Demy 8vo, pp. 266; 70 illustrations. 9s.)

[4] *Handbuch der biochemischen Arbeitsmethoden.* Edited by Professor Dr. Abderhalden. I Band, 1 Hälfte, und II Band, 1 Hälfte. Berlin and Wien: Urban und Schwarzenburg. 1909. (Sup. roy. 8vo, I Band, pp. 512, figs. 527; II Band, pp. 496, figs. 42. M.18 each volume.)

authority in his own subject. The first part of the second volume contains articles on the preparation, detection, and estimation of the biologically important lower alcohols, aldehydes, acids, sugars, fats, phosphatides, plant proteins, animal proteins, and the beginning of the treatment of products of protein hydrolysis—the mono-amino acids. The critical acumen of the authors is utilized in selecting the best methods of work in every case, and the directions given are thoroughly practical, so that the experimenter can set to work straight from the directions. The qualities of the book make it, therefore, one which every laboratory worker will delight to have, for it will save him endless labour in searching the archives, and do much to forward him in his researches.

The Vegetable Proteins[5] is another of the monographs on biochemistry which are appearing under the editorship of Drs. Aders Plimmer and Hopkins. It fills a long-felt want, and constitutes the only connected account of the modern chemistry of vegetable proteins which we possess. Those who devote themselves to vegetable chemistry are few in number, and the author, Dr. T. B. OSBORNE, is the most prominent of these few. The mass of information packed within the 99 pages of the text is prodigious, and the fact that over 600 original papers are referred to will show that the compression is great also; in fact, it is so great that the readability of the book is seriously diminished. As a mine of information and a work of reference the book will, however, prove invaluable to the original investigator and advanced student.

Dr. STANFORD has made a translation of Professor EMIL FISCHER'S well-known practical guide to organic chemistry.[6] The book originated as notes with which the professor provided his elementary students at the commencement of their work: since that time it has grown considerably, but even now, in its eighth edition, only contains somewhat less than 200 small pages. This is the first time it has appeared in English dress; the translation has been creditably carried out, and we can hardly doubt that this *Introduction to the Preparation of Organic Compounds* will prove as useful to English-speaking students of chemistry as it has been to their German brethren. The second part of the book will be specially useful to biochemical workers, as it includes the preparations of many of the substances chiefly worked upon by the researchers in Professor Fischer's laboratory, namely, the carbohydrates and proteins, with their cleavage products.

NON-DIABETIC GLYCOSURIA.

THE section of Professor ALBU'S encyclopaedia of diseases of digestion and metabolism by Professor BLUMENTHAL[7] on non-diabetic glycosuria is a little disappointing, as it deals only briefly with an interesting subject, and devotes half its forty pages to laevulosuria, lactosuria, pentosuria, and the various tests for the different forms of sugar. While laevulosuria has occasionally been seen after metallic poisoning, and lactose is commonly met with in the urine of lying-in women, and pentosuria is known as a rare hereditary condition, they have comparatively little clinical importance. But glycosuria in apparently healthy persons is a matter of considerable moment; such cases frequently occur in insurance practice, and it is necessary for the practitioner to know the various conditions which may give rise to this phenomenon. Professor Blumenthal defines diabetes as the excretion of grape sugar dependent upon a diminished capacity of the organism to burn up those alimentary carbohydrates which contain six atoms of carbon or their multiples. This is, of course, a purely chemical definition, and will not stand the clinical test, or it would include every case of transient glycosuria or lactosuria. He says that all glycosurias which are not diabetic are toxic, and instances in support of this a case of acute rheumatism seen by Strauss in which sugar appeared, the glycosuria observed in Pasteur's rabbits suffering from rabies and that seen after poisoning from chloral, morphine, and other drugs. Of these toxic glycosurias the most important is that caused by alcohol, but he believes that only beer and champagne are capable of producing it. Although this limitation cannot be accepted, he tells a story which is worth repeating as showing the close relation between champagne and glycosuria. He says that an actor came to consult him, saying that he had been rejected for life insurance, and would like to know whether his urine contained sugar. He came at three in the afternoon, and his urine was found to be free from sugar, although the previous morning the examining medical officer of a life insurance company had found his urine to contain 0·5 per cent. of sugar. Professor Blumenthal asked him whether he had taken any champagne the night before, and received the answer that he was in the habit of drinking half a bottle of champagne every night before he went on the stage. The urine was examined every day for a week; sugar was invariably present in the morning when champagne had been taken the night before; when the champagne was omitted there was no sugar. Professor Blumenthal quotes the observations of Krehl on the glycosuria of beer drinkers, but he is wrong in restricting alcoholic glycosuria to these two drinks, as it is often seen in this country after drinking whisky. Professor Saundby published in this JOURNAL (April 14th, 1900, p 889) a lecture on non-diabetic glycosuria, and in describing several of the cases there related he wrote: "The form of alcohol taken in these cases has been, I believe, invariably whisky." Professor Blumenthal thinks the glycosuria of Graves's disease is comparable to that caused by overfeeding with thyroid extract, and that the lactosuria of lying-in women is due to the action of an enzyme in the breasts on glucose. Von Noorden found when he fed lying-in women with 150 grams of glucose, the urine contained lactose, and experiments on goats have shown that glucose and not lactose appears in the urine of animals whose breasts have been removed.

[5] *The Vegetable Proteins.* By Thomas B. Osborne, Ph.D. Monographs on Bio-chemistry. Edited by R. H. A. Plimmer and F. T. Hopkins. London: Longmans, Green, and Co. 1909. (Roy. 8vo, pp. 140. 3s. 6d.)

[6] *Introduction to the Preparation of Organic Compounds.* By Emil Fischer, Professor of Chemistry in the University of Berlin. Translated by R. V. Stanford, B.Sc., Ph.D. London: Williams and Norgate. 1909. (Cr. 8vo, pp. 195; illus. 19. 4s.)

[7] *Sammlung zwangloser Abhandlungen aus dem Gebiete der Verdauungs- und Stoffwechsel-Krankheiten.* Von Dr. A. Albu. II Band, Heft 2. *Ueber Nichtdiabetische Glykosurien.* Von Professor Dr. Ferdinand Blumenthal. Halle-a-S.: C. Marhold. 1909. (Med. 8vo, pp. 40. M. 0.75.)

NOTES ON BOOKS.

THE forty-sixth volume of the *Minutes of the General Medical Council and its Various Committees for the Year 1909*[8] has been issued. It contains twelve appendices including the report of the Anaesthetics Committee, and the supplementary report of the Education Committee on various proposals submitted to it referring to the curriculum in medicine. A *General Index to the Minutes of the Council* and its Executive and Dental Committees, and its three branch councils for the years 1903–9 inclusive, volumes xl to xlvi, has also been issued,[8] and will greatly facilitate the work of consulting the volume.

A set of *Skeleton Maps of Tropical Africa showing the Distribution of Tsetse Flies and Sleeping Sickness*[9] has been issued under the direction of the Honorary Managing Committee of the Sleeping Sickness Bureau. One of the maps shows the distribution of sleeping sickness and all species of *Glossina*, the other that of sleeping sickness and *Glossina palpalis* alone. The information charted refers only to undoubted records of the occurrence of the flies, and is thus, to quote the words of the introduction, "little more than a series of blanks held together by a slight framework of records." It is hoped that information enabling the blanks to be filled up will be rapidly received, and if on this account a new edition is called for, five more degrees of south latitude will be added.

The pamphlet in which Dr. LUTAUD describes a method of uretero-vesical anastomosis in the treatment of fistulae,[10] particularly uretero-vaginal and uretero-cervical forms, is a useful compilation of the literature of the subject with short descriptions of various other methods that have been adopted, and case reports. The new method is that of M. Ricard, and consists in freeing the proximal end of the ureter, turning back a cup of mucosa, and then

[8] London: Spottiswoode and Co., Limited. 1910.

[9] London: Sleeping Sickness Bureau. 1909. Free on application to the Director. Maps mounted on linen, 1s. 6d.

[10] *Sur un procédé d'urétéro-cysto-néostomie dans de traitement des fistules.* Par le Dr. Paul Lutaud. Paris: Jules Rousset. 1907. (Sup. roy. 8vo, pp. 129. Illustrated.)

implanting it into the bladder in such a way that at least 2 cm. projects as a papilla into the cavity. The ureter is fixed by a double row of interrupted purse-string sutures, and the risk of disruption of the anastomosis is minimized by fixation of the bladder to the iliac fossa. The bibliography will help any one working at the subject.

The volume entitled *Clinique Hydrologique*,[11] which has been written by several physicians practising at different French watering places, is something more than a guide book or almanack, but in certain respects less useful. It contains a general and historical introduction to the subject of the use of mineral waters internally and externally, a classification of waters, and an exposition of the results of the modern chemical and physical investigations of their qualities. Their therapeutic action is discussed, and we are asked not to judge them by their chemical and physical qualities only, but by the results produced on patients. We do not desire to depreciate the value of mineral waters in the treatment of disease; many are useful therapeutic agents even when taken at home, but more are valuable in combination with local conditions of climate, with special appliances, with the skill and experience of the resident medical practitioners, and with the circumstance that the patient is placed under relatively favourable conditions when away from the cares or worries of business or family. But the various chapters in this book do not supply as much information of the sort required by practitioners as is given in the Medical Index to the Principal Watering Places in France, a book published a few years ago by the general syndicate of physicians practising at those stations; the names of the local medical practitioners are not given, nor any lists of hotels, such as can be found, for instance, in Bradshaw's *Dictionary of Bathing Places*. It may be said, and with justice, that the book before us makes no pretence to give information of that kind, but is a scientific treatise dealing with the therapeutic properties of the various waters, but the facilities to be found at the various stations might have been described. We remark with some surprise the omission of almost all reference to mechano-therapeutics, of which there is an excellent installation at Vichy, for example. Some such reference would be useful in discussing the treatment of nervous diseases, but, except a casual reference under neuritis, we have observed nothing about these means.

[11] *Clinique Hydrologique*. Par les Drs. Baraduc, Felix Bernard, M. E. Binet, Cottet, Furet, Piatot, Sersiron, Simon, Tardif. Bibliothèque de Thérapeutique Clinique a l'usage des Médecins Praticiens. Paris: Masson et Cie. 1909. (Demy 8vo, pp. 646. Fr. 7.)

MEDICINAL AND DIETETIC ARTICLES.

Plasmon and its Compounds as a Source of Phosphorus.

THE importance of administering phosphorus in a form suitable for assimilation has long been recognized, and for this end many attempts have been made to prepare it in various forms of organic combination. There appears to be no doubt that the phosphorus in such a compound as lecithin, which occurs in the yolk of eggs, in the brain, etc., is capable of being assimilated and utilized with satisfactory results. Glycerophosphoric acid, a decomposition product of lecithin, has been much recommended as presenting phosphorus in the same form, while it is more easily prepared and therefore cheaper. Glycerophosphates of various bases are now largely employed but must be regarded as still on trial, for some authorities assert that they have no greater value than inorganic phosphates. There is evidence, however, that the organic compounds of phosphorus which occur in some natural foodstuffs and in the body itself present this element in a form especially favourable for its assimilation. In this connexion attention has been drawn to plasmon as a source of phosphorus. Plasmon, as is well known, is a preparation of the casein of milk containing rather over 80 per cent. of pure protein, but its considerable content of phosphorus in the form of combination in which this exists in milk is perhaps less generally recognized. We have examined a number of plasmon preparations submitted by the International Plasmon, Limited (66A, Farringdon Street, London, E.C.). The amount of phosphorus in plasmon itself proved to be equivalent to 2.66 per cent. of anhydrous phosphoric acid (P_2O_5), and the greater part of this was found not to be present as ordinary phosphate. The precise nature of the combination of phosphorus in milk has never been established, but from the nature of milk it is certain that it is in a highly assimilable form. Plasmon oats, a blend of rolled oats and plasmon for the preparation of a porridge, contained 18.4 per cent. of protein, and phosphorus equivalent to 1.2 per cent. of P_2O_5; a portion of the latter, of course, consists of the natural phosphorus compounds of the oats. Plasmon cocoa, which yields a beverage of much greater nutritive value than ordinary cocoa, was found to contain phosphorus equivalent to 2.32 per cent. of P_2O_5. Beef plasmon, a dry granular material containing extract of beef for the preparation of nourishing beef-tea or the enrichment of gravy or soup, etc., showed phosphorus equivalent to 3.78 per cent. of P_2O_5; doubtless a part of this is derived from the beef extract. Other articles which we examined, intended for use in general cookery or the preparation of special dishes for invalids, are plasmon arrowroot, which contained 10.2 per cent. of protein, corresponding to 12.7 per cent. of plasmon and therefore to 0.34 per cent. of P_2O_5; plasmon custard powder, containing 20.7 per cent. of protein, representing 26 per cent. of plasmon or 0.69 per cent. of P_2O_5; and plasmon blancmange, containing 12.1 per cent. of protein, representing 15.1 per cent. of plasmon, or 0.40 per cent. of P_2O_5.

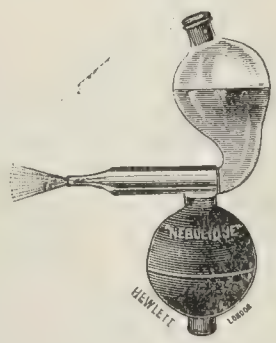
Massolettes.

A preparation of the lactic ferments, which possesses certain advantages over both soured milk and dried preparations of the lactic acid bacillus, is now put forward by Messrs. A. H. Cox and Co. (Brighton) under the name "Massolettes." They are chocolate bonbons somewhat resembling ordinary chocolate creams, but with the "cream" of the latter replaced by a pasty preparation of the organisms. Examination of the samples submitted showed that the ferments had retained their activity in a satisfactory manner; the contents of two "Massolettes" were added to half a pint of sterilized milk and the mixture incubated for eighteen hours, when the contents of the vessel showed 0.4 per cent. of lactic acid (practically none having been developed in a control test without the "Massolettes"), and this was increased to 0.6 per cent. on further incubation. The bonbons are as attractive and agreeable as an ordinary sweetmeat, and being easily portable are very convenient for regular use; the sugar which they contain is sufficient in quantity materially to favour the development of the bacilli in the body.

MEDICAL AND SURGICAL APPLIANCES.

A Spray.

A FORM of spray for nasal, pharyngeal, and laryngeal use has been introduced by Messrs. Hewlett under the name "Nebulique Spray." It is one of the best that we have yet seen, and produces a fine voluminous cloud, with aqueous, spirituous, and oily solutions. It has the distinct advantage that practically every drop of liquid can be used, which is very useful in cases where only a small fixed quantity is ordered by the physician. This renders it also of great service for the consulting room, when a few minims of cocaine or adrenalin may require to be used. Another advantage is that it may be used with one hand only, the other being free to hold down the tongue if required, which is useful to the physician or for self-application. The apparatus is devised so that none of its contents can enter the rubber ball. It is also claimed for it that it can be held in any position; but this is incorrect when only small quantities of liquid are being used, a quality which is one of its chief merits; but the position in which it must be held for this purpose is a perfectly easy and natural one.



A PETITION has been presented to the Federal Council of Berne asking that it be enacted that before any marriage is allowed to take place a medical examination of both parties should be made.

UNDER the will of the late Mr. S. Haldane, a partner in a firm of steam trawlers, the following medical charities in Hull are made legatees to the amounts mentioned against their namas: The Royal Infirmary, £5,000; the Hull and Sculcoates Dispensary, £1,000; the Victoria Hospital for Children, £500; the Hull and East Riding Convalescent Home, £300; and the Blind Institution and East Yorkshire and Lincolnshire Institution for the Deaf and Dumb each £100.

FOOD AND FEEDING.

(Continued from page 390.)

Vegetarianism.

IT is probable that necessity, rather than choice, has determined the diets of most races, as we see a great tendency to depart from customs even of long standing when opportunity arises. Thus we read that the Eskimos, who formerly got all or almost all their non-proteid nutriment from fat, now eagerly barter their furs for flour and tea, while alcohol is too gladly welcomed all over the world. People who are habitual vegetarians, like the natives of Central Africa, gorge themselves with meat when they get the chance, while the people of Thibet took very kindly to our ammunition bread. In the *Voyage of the Beagle* Darwin tells us that during his ride across the pampas he lived for days upon an exclusive meat diet, sharing the meals of the Gauchos who were his guides, and had no other food, but lived on it "for months together." He did not dislike this new regimen, but added that he felt it would only have agreed with him when he was taking hard exercise.

Where choice is possible it is largely, as Major Blackham points out, governed by fashion, custom, and convention, certain articles being highly prized because of their association with wealth, while, on the other hand, others are despised as the diet of the poor.

While the use of the various forms of meat as an ordinary article of diet, combined with bread-stuffs and vegetables, is that generally popular in this country, vegetarianism in its various modifications has found of late years many followers. Among its most effective advocates has been Mr. Eustace Miles, whose success as an athlete afforded a splendid testimonial to the value of his system. By his energy and enterprise in establishing restaurants and by numerous publications he has done a great deal to attract disciples and diffuse a wider knowledge of the advantages of a lacto-vegetarian diet; but as his aim is to make his disciples attain thorough bodily efficiency, he is not content with preaching dietetic principles alone but lays down rules for daily physical exercises and for the cultivation of habits of mind and body which he regards as equally essential. His diet consists of eggs, milk, cream, butter, cereals of all kinds, fruit, vegetables with sugar, pepper, salt, sauces, and other flavourings. He gets the proteid of his diet from cheese, pulses, nuts, eggs, cereals, milk, and plasmon powder. He lays stress upon eating leisurely, but he condemns hurry under any circumstances. His is the gospel of fitness, but it seems to be addressed to readers who have nothing else to do, or at least no serious duties in life—to such persons, for example, as the average daughter of well-to-do parents whose life is too often destitute of any serious duties and who may find great advantages in following his rules. It is noteworthy that he warns his readers only to follow his advice "if it suits them." It is impossible for them to know whether it suits them or not until they have tried it, and perhaps the most important part of the controversy respecting the value of these diets is as to their ultimate effect, an answer to this question being obviously only forthcoming after a long period. Can we say what would be the effect upon the race of such a change of diet as that which vegetarians advocate? If we adopt it, will Englishmen be as capable and energetic as our meat-eating forefathers with all their faults have been? Professor McCay compares the amount of work done by a vegetarian Bengalee with a meat-eating Englishman; he says that in cotton spinning in Lancashire a thousand spindles require 4.2 workers, but in Bengal they require 28; and, although the coal in India is thick, soft, and easily cut, the output per miner is 80 tons against 287 tons in England! There is plenty of evidence that health may be maintained upon a diet containing no meat and a relatively small amount of proteid, and there is reason to believe that the Voit and Atwater standard is too high. Thus, while Professor Otto Cohnheim does not accept Chittenden's conclusions, he admits that there is a good deal of exaggeration of the value of proteid food, and estimates the quantity required by a healthy full-grown man to be that arrived at by Caspari and Loewy—namely, 80 grams. But another difficulty has been suggested by Rubner, who maintains that the proteid derived from different sources is not identical, and that meat albumen is far better than the proteid derived from vegetables, while there is a very marked difference between various kinds of vegetable albumen. According to him, 37 grams of potato albumen is equivalent to 81 grams of bread albumen. It is a well-known fact that the Irish peasantry of a hundred years ago grew up healthy and strong on a diet of potatoes and butter-milk, and that the Highland cotter was a better man on porridge and milk than he is now on tea, bread, and tinned meat. But then, again, comes the question how far a low proteid diet may be suitable for growing boys and girls. Professor McCay, investigating the diet of students in Government colleges in Bengal, found that the average amount of proteid in the diet of the Bengalee students was 67 grams with 548 grams of carbohydrates and 71 grams of fat; but on this diet 42 per cent. of the students lost weight. On the other hand, in a college for Anglo-Indian and Eurasian students, the diet contained 86 grams of proteid, 376 grams of carbohydrates, and 54 of fat; but these students showed an average annual increase of 18lb. in weight. This difference is greater than one would expect from the deficiency of proteid, which was more than made up by the increase in carbohydrates and fats; but it must be remembered that a principal source of the proteid in the diet of Bengalees is derived from pulses, and although when properly cooked they are digestible, yet Professor McCay found that no less than 25.42 per cent. of the nitrogen ingested could be found in the faeces of his Bengalee subjects.

Professor Siegert has carefully studied the dietary of children, which obviously must be upon a different scale from that of adults, quite young children requiring from 80 to 100 heat units per kilogram of body weight, and during the whole growing age the diet should be upon the highest scale for adults—namely, 40 heat units per kilogram; and of this 17 per cent. must be proteid, of which 50 per cent. should be of vegetable origin. With less than 17 per cent. he found that the children lost weight, but he regards a larger amount as not only wasteful but harmful.

A change in the direction urged by vegetarians would undoubtedly have great economical advantages if it were adopted. Without necessarily going so far as Hindhede, who stated at the International Congress of Hygiene at Berlin in 1907 that he had been able to bring up a family on food which cost him about 1½d. per head per diem, there is no doubt that alcohol, meat, and tea absorb a large proportion of the money spent upon food and that cereals and vegetables, particularly potatoes, provide equal quantities of heat units and proteid at a much smaller cost. The comparative disuse of cheese, too, is much to be deplored, as it is an excellent and cheap foodstuff. The fruit and nuts which are so strongly advocated by the particular sect of vegetarians who call themselves fruitarians are more expensive than cereals and potatoes, but are held by Professor Jaffe, an impartial authority, to possess a higher nutritive value than is popularly attributed to them and to be almost completely digestible. The taste for dietetic luxuries receives little indulgence from our modern food reformers, who condemn tea, coffee, and cocoa as rigorously as tobacco and alcohol. Owing to the relation of the xanthin bases to gout and allied diseases and to the economical relationship of those bodies to the alkaloids of tea, coffee, and cocoa, they have fallen under the ban of Dr. Alexander Haig and of those who advocate purin-free diet in the treatment of disease, or in the maintenance of health, so that they are forbidden by Mr. Eustace Miles and his followers. Dr. Charles Fernet in France and Dr. Craemer of Munich in Germany are unsparing in their condemnation; in fact, the latter has not a word to say for any of our dietetic luxuries except beer, for which, as a citizen of the Bavarian capital, he has perhaps a natural tenderness. Our attitude as a profession towards tea, coffee, and cocoa should be that generally maintained towards tobacco—that is to say, we must regard them all as at best indifferent and very often harmful, and we should not hesitate to forbid their use in illness.

There are social evils associated with the use of alcoholic drinks which justify to a great extent the campaign carried on against them, but temperance advocates can hardly be held free from exaggeration when they lay so much stress upon the poisonous effects of alcohol, as if those who take alcoholic drinks neces-

sarily take alcohol in poisonous doses. Carbonic acid gas is a poison, yet aërated mineral waters are not held to be poisonous on that account, and it is no more accurate to describe as poisonous beer or light wines or other diluted alcohol drinks. Dr. Craemer has pointed out that in the Pathological Institute of his own city only 1.2 per cent. of the bodies show alcoholic lesions, owing, as he believes, to the almost exclusive use of beer by the people of Munich; but in Hamburg, where spirits are largely drunk, the percentage is as high as 10.8. Moreover, beer contains a considerable amount of food in the form of malt extractives, and a very large proportion of alcohol is utilized in the body, so that in conditions, such as diabetes, where there is some difficulty in giving a due amount of heat units in the form of ordinary food, a little alcohol may be usefully added, as an ounce of whisky contains 105 heat units.

The Low Proteid Diet; Chittenden's Plan.

Quite distinct from any of the systems which are founded upon the principle of excluding particular articles of diet or classes of food is that which has been advocated by Professor Russell H. Chittenden of Yale, and has been supported by a considerable body of evidence. Professor Chittenden considered that Mr. Horace Fletcher's experience suggested the probability that the ordinary standard diet as accepted by such authorities as Voit and Atwater is too large. As is well known, the proportions are about, protein 120 grams, carbohydrates 400 grams, and fat 60 grams, making up an amount of food containing 30 to 35 heat units per kilogram of body weight. As has been already shown, Mr. Fletcher maintains his health and strength on a dietary consisting of little more than half these quantities. Professor Chittenden, after experimenting upon himself, induced some of his colleagues and a few of the students of the university to join him in testing the value of reduced diets, and finally he had placed at his disposal by the military authorities of the United States a squad of soldiers who were trained and dieted for a period of eight months. The general results of all these experiments were favourable to the smaller quantities; there was generally some slight loss of body weight, but health was maintained, muscular energy and endurance rose considerably, and all the subjects agreed that they had been perfectly happy on the reduced quantities of food, and were willing to continue on the same lines. He does not claim to have established definite numerical standards, but he believes he has proved that athletes can maintain mental and physical vigour upon a daily output of 8.8 grams of nitrogen (as against the customary 16 or 18 grams) representing the metabolism of 55 grams of protein. It is the quantity rather than the quality of the food which Chittenden attacks, and so far he may be said to be following in a more scientific manner the lines of Dr. Dewey's reform.

These conclusions have been criticized very generally, the usual line taken by the critics being that the habits of the people must be regarded as equivalent to their physiological requirements, and that as all the energetic and dominant races of mankind eat largely, their activity and success should be attributed to their liberal diet. This is precisely the argument that is used by the advocates of alcohol, and suggests some confusion between the ability to obtain means for satisfying natural appetite and the unrestrained use of these means. Unfortunately, history shows that the second too often follows the first, but it has not been for the advantage of the races concerned, who have generally fallen into decadence in consequence. Other critics, such as Munk and Rosenheim, have based their objection on experiments with dogs which tended to show that when fed on low proteid diet they lost their health and died, but Chittenden has proved the contrary, and has demonstrated his results to his readers by photographs. It is noteworthy, however, that though only a small amount of proteid was necessary to keep the dogs in health, a little animal proteid was essential, as on a purely vegetable diet they fell away. He lays stress upon this difference, and has drawn attention to the marked differences in the decomposition products of various kinds of proteid, any of which may be needed for what he calls the corner stones in the building up of tissues in a particular kind of animal or for the performance of special functions.

Dr. W. Gilman Thompson, in his recent book on diet, says that the fundamental questions involved are two. Does an excess of nitrogenous food overtax the organs of the body or pave the way to functional or organic disease? and, secondly, does a low equilibrium fit the body better to cope with the emergencies of daily life in those who are not under the favourable influences of a daily training, as was the case with Chittenden's athletes and soldiers? He thinks the first question cannot be decided in the present state of our knowledge. Excess of proteid food certainly does not necessarily and uniformly cause any one disease or group of diseases; and he points to the large quantities of proteid food eaten by Eskimos and by the members of the various recent Arctic expeditions, but he thinks it has been proved that many persons and many existing diseases are benefited by temporary or permanent proteid restriction. The second question he does not think in any way answered by the special conditions under which Chittenden's experiments were conducted; and, while he admits that temperance in eating, as in drinking, should be the aim of a well-regulated life, he hesitates to accept conclusions which would justify a permanent reduction of the total proteid food of man to less than half of that to which heredity, habit, or circumstance has accustomed him.

For ourselves, we are of opinion that the cheap and abundant supply of flesh food now procurable, particularly in England and America, has led to its excessive use, and that it is the duty of the medical profession to preach moderation, and to do what is possible to disabuse the public mind of the belief that three meat meals a day are necessary or even desirable. Further, it should be urged that while during the period of growth and up to middle age a considerable amount of proteid may be consumed without injury, and probably with advantage, during the later period of life these quantities should be considerably reduced. Such conclusions as those drawn by Mr. Seebohm Rowntree from his investigation of the dietaries of the working classes in York, which led him to say that a large proportion of the population was underfed, are unjustified, as they were based solely upon the relatively low proteid content of those dietaries. Up to within the lifetime of the present generation the majority of the working classes of England were able to obtain only small quantities of meat, and in the agricultural districts their proteid supply was mainly derived from cheese; but the Irish peasant, the Highland cotter, and the English agricultural labourer were at least as good men, and in the opinion of many were better men, than their present representatives.

A survey of the dietaries of the different races of mankind shows such wide divergences that it is impossible to state dogmatically that any one diet is the best. It is impossible to eliminate questions of race, climate, and custom from the results as we see them, but we should bear in mind that the dietetic habits of the people of these islands have recently undergone great changes, and it remains to be seen how far these are to their advantage. This question deserves the close attention of the medical profession, which has the care of the public health as its principal concern, and for this reason all these experiments and discussions are of the utmost interest, even although the conclusions to be drawn from them may not seem so clear and conclusive as some enthusiasts suppose.

THE name of St. Mark's Hospital for Fistula and Other Diseases of the Rectum has been changed to St. Mark's Hospital for Cancer, Fistula, and Other Diseases of the Rectum, which it is considered will more fittingly describe the scope of the work, since a large proportion of the patients suffer from malignant disease.

THE Medico-Psychological Association will hold its next quarterly meeting at the Leicestershire and Rutland Counties Asylum at Narborough on Thursday, February 24th. The general proceedings, which commence at 3 p.m., include the presentation of a report on the Pensions Act of 1909, and papers by Dr. G. Scott Williamson on typhoid carrier infection, and by Mr. Mackenzie-Wallis and Dr. E. Goodall on electric bath treatment of 120 cases of mental disorder, illustrated with lantern demonstration of tables. By invitation of Dr. Rothsay Stewart, the members attending the meeting will lunch with him before the meeting, and the same evening a dinner will be held at the Royal Hotel, Leicester.

Nova et Vetera.

RECOLLECTIONS OF AN OLD-TIME DOCTOR'S APPRENTICE.

In looking back to the time when I was serving my apprenticeship in the old-fashioned way to a country surgeon, I am profoundly struck by the change that has come over the scene, not so much in the matter of therapeutics as in what may be called the ethical obligations of the profession. The profession nowadays is much more homogeneous, much better disciplined, and unquestionably stands at a much higher level than it did even so short a time ago as in the early Eighties. Some of my experiences will serve to emphasize this fact, and from this point of view may be interesting to the present generation of students and young practitioners.

I was informally apprenticed to a country surgeon in a small country town when 15 years of age, my first duties being to take messages and dust the bottles, in addition to assisting my principal in dispensing by writing (and licking) the labels, and adding the indispensable "aqua." Things went on swimmingly until I was promoted to the task of filling the dispensing bottles from the stock bottles, but then my troubles began, owing to the fact that I was as yet ignorant of the radical differences between pulv. ipecac. and pulv. ipecac. co., chloroform and spirits of chloroform, and so on. No opportunity was afforded me of confusing Epsom salts with oxalic acid, or treacle with laudanum, otherwise I have no doubt I should have availed myself thereof. Six months passed during which I picked up some knowledge of the physical properties of drugs and became tolerably familiar with their reputed action. One day my principal, who found attending parish labours very tedious, urged me to read up midwifery, explaining incidentally that it meant delivering women of children—a suggestion which made me blush furiously and caused me an embarrassment which I had great difficulty in concealing. I started on the then current textbook, Denman's, but I was unable to make head or tail of it. Dr. Denman was a discursive old soul who chatted away on things in general, but his style was ill-suited to the requirements of an ignoramus such as I was. I may have got through a dozen pages or so when at a pinch I was dispatched to a parturient woman who relied on the Poor Law to see her through her trouble. I went, and was forthwith ejected from the lying-in room, on the ground of my youth—a proceeding which impressed me as unjustifiably harsh, seeing that I was then approaching my sixteenth year. Late in the evening I accompanied my principal back to the house, where he installed me at the bedside, having guided my finger into the vagina and told me in detail what to look out for. He left me in charge while he settled down to a well-earned repose in the kitchen armchair. I found that night tedious. The woman, who, at the onset of labour, repeatedly invoked the aid of the Almighty in tones and terms that inspired respect for her upbringing, gradually lapsed into vulgar abuse, couched in words that made my young ears tingle. Once in a while my principal came up to see how things were getting on. I remember telling him with pride that I had reached the os coccyx, but he "repressed my noble rage" with the remark that at confinements it was not customary to talk of bones. Ultimately, just as dawn was stealing over the tops of the houses, he decided to intervene and sent me off for his bag. From this he extracted sundry odd-looking instruments. One was a pair of what I now know to have been short forceps, in leather casing, in order to give a better grip, as he explained to me. The leather-clad blades had a most uninviting odour, but they proved successful in extracting a stillborn infant amid cries that made my tired hair stand on end. I forget the subsequent history of this woman, whether or not she succumbed to puerperal fever, the more so as on the following day I saw my first big operation—an amputation of the leg for caries, the subject being a young Sister of Mercy. I was entrusted with the task of giving the chloroform, the anaesthetic action whereof excited my deepest interest, this being my first experience. My principal kept an eye on me, occasionally telling me to put more on the towel or asking whether the patient was breathing all right. I had one eye on the patient's face and the other on the leg with which she was so soon to part. What a shiver I felt when the first incision was made, all bloodless though it was, an Esmarch's bandage having been applied from the foot upwards. She survived both the chloroform and the operation.

Events followed each other rapidly in those days, and my next midwifery case happened to be at a distance from the surgery. I confessed to feeling rather nervous, but my principal calmed me by promising to come out, should I send for him, as soon as he returned from a journey to a neighbouring town. I found a robust woman, a labourer's wife, in the throes of labour. She was greatly depressed, there having been an epidemic of scarlet fever in the township, two of her children lying dead in the next room. The pains were frequent and severe, but at no time could I detect anything in the vagina that might be taken to be the advancing head. After some hours, my anxiety was increased by a little stream of blood that began to trickle away, whereupon I sent for my principal, who, however, did not come.

Looking out of window, I caught sight of the qualified assistant of a neighbouring doctor driving through the place, and I asked him to give me the benefit of his experience. He looked at me with a humorous smile and asked me how many labours I had attended. He examined the woman, told me she was doing well, and suggested that I should give her some laudanum and go home. I did not see my principal again until the following morning, and I was giving him my account of the case, coupled with a timid expression of my opinion to the effect that I did not think it was fair to send me to such cases, when the husband came in. "Well, L., how's your wife?" asked my principal. "She's dead, sir," he humbly replied. Naturally we were greatly upset, more, as far as we could judge, than the husband, who was quite broken down by the illness of his children, the death of two of them, followed by the sudden and wholly unexpected demise of his wife. He had no fight left in him, and, although he did incidentally express the opinion that I was "o'er young" to attend such cases, he made no fuss and the woman was buried. Though the husband did not grumble, the neighbours did not fail to comment on the death of an undelivered woman, and for a day or two public opinion was greatly moved. That death has always been a mystery to me. I suppose there must have been a ruptured uterus, but who can tell?

Anyhow, I attended no more confinements after that for a long time; in fact, I never attended any more in that particular town, whence I moved during the following year to become dispensing assistant to a surgeon with a large practice in one of the mining towns of the north of England. I was the junior of three unqualified assistants, and my duties were tolerably onerous. In addition to dispensing about a hundred bottles of medicine daily for club patients and others, I had to attend to emergencies, and they were many. Chopped-off fingers, contused limbs, scalds and burns, fractures and dislocations abounded; in fact, I had more surgical experience than at many a hospital in town. I ligatured arteries, amputated fingers, sewed up huge cuts, or deftly applied Carron oil to singed skin. Surgical cleanliness had not yet become a dogma. It was a time when hospital surgeons, on proceeding to operate, donned their oldest jacket, reeking with accumulations of antique pus and glistening blood stains. Fresh wounds we supposed ourselves to cleanse by the aid of the sponges in general use, which were then handed to the surgery boy to wash out under the tap. Naturally the job rather repelled him, and he merely prodded them guardedly with his finger, so that as aids to cleanliness they left much to be desired. We used to get lots of clean cut wounds from the glass works, and it was an adage with us that they never healed under a month, nor was it likely they would, seeing that every one was inoculated with colonies of pathogenic microbes at every dressing. I began to read up surgery in my spare time, but that did not prevent my occasionally overlooking dislocations of the shoulder. My new principal only attended to serious cases, and devoted his time to visiting the wealthy manufacturers and mine owners, leaving the bulk of the practice

to his three unqualified assistants. As there were on an average a hundred patients a day to be seen, surgical and medical, our time was pretty fully taken up. Those were the "good old times" for the unqualified assistant, who nowadays leads a precarious and undignified existence which he scarcely dare call his own; but the altered circumstances are no doubt to the benefit of the sick public, little though it reck of the change that has taken place. Nowadays every doctor has to see his patients himself or run untold risks. *Tempora mutantur, et nos mutamur in illis.*

LITERARY NOTES.

A. W. SIJTHOFF, of Leiden, is publishing a series of photographic reproductions of ancient manuscripts—*Codices Graeci et Latini photographice depicti*—under the general editorship of M. S. de Vries, head of the Library of the University of Leiden. Thirteen of these have already appeared, among them being the *Sarravianus-Colbertinus Codex*, the Old Testament in Greek, of the fifth century; the Codex Venetus A. of Homer's *Iliad;* the Codex Laurentianus Mediceus of Tacitus; the Codex Ambrosianus H. of Terence; and the *Codex Aniciae Iulianae picturis illustratus, nunc Vinobonensis* of Dioscurides, whose work is a compilation of all that was known about plants and drugs in his day. In supplements to several of these books are phototypes of the coloured miniatures with which they are illustrated. The publisher announces that about the end of the present month there will appear as a supplement (viii) a reproduction of the miniatures of the Latin manuscript of Galen's works in the Royal Public Library of Dresden. The miniatures, twelve in number, together with the title page, will be reproduced in their original colours. The price is 92 marks (about £4 12s.). Applications should be made to A. W. Sijthoff's Uitgevers-Maatschappij, Leiden, Holland.

Epilepsia is the title of an international quarterly review devoted to the study of epilepsy and kindred nervous diseases in their pathological, social, legal, and therapeutic aspects. The periodical, which is published at Amsterdam by Scheltema and Holkema, and Messrs. Williams and Norgate of London, is under the patronage of Drs. W. Bechterew, O. Binswanger, J. Hughlings Jackson, L. Luciani, H. Obersteiner, and F. Raymond. The editor-in-chief for the first year is Dr. V. Göttergasse; the editorial secretary is Dr. L. J. J. Muskens, 365, Overtoom, Amsterdam. Among the collaborators are Dr. Edwin Bramwell of Edinburgh and Dr. T. Grainger Stewart of London.

A meeting in furtherance of a movement to commemorate the centenary of Sir Samuel Ferguson was held in Belfast on February 7th. In moving the resolution that the centenary of Sir Samuel Ferguson be suitably celebrated in Belfast, the city of his birth, Sir John Byers, President of the Natural History and Philosophical Society, said Ferguson was *par excellence* a man of the greatest literary culture—not merely a poet, but a prose writer—and people who could judge in those matters believed that his poetical works, especially his great epic "Congal," entitled him to be called the national poet of Ireland. By his efforts to create modern poetry from the old Irish tales of heroes and saints and histories of places he stimulated students to a more thorough and scientific study of the history, antiquities, and ancient learning of his country, which had culminated in the remarkable modern renaissance in Irish literature. Moreover, Sir Samuel Ferguson, by the work he did in deciphering the Ogham inscriptions (characters belonging to an alphabet used by the ancient Irish until the ninth or tenth century and by some other Celts in the British Isles), placed himself in the very first rank of antiquarians, just as Hincks of Killyleagh did by his unravelling the old Egyptian hieroglyphics. Sir Samuel Ferguson was also a musician, and, as might be expected, was greatly interested in the ancient music of his country, while in the manuscripts recently presented to the Linen Hall Library there were water colours which indicated that he had marked artistic tastes. These facts showed that he was a man with exceptionally varied gifts. The resolution was carried unanimously.

Ash's Quarterly Circular for January contains an interesting review of a translation of Vincenzo Guerini's *History of Dentistry* (Lea and Febiger, Philadelphia and New York, 1909). Dr. Guerini was entrusted some ten years ago by the Organizing Committee of the Eleventh International Congress of Medicine with the duty of reproducing and describing all the appliances of ancient dental prosthesis existing in the museums of Italy. The first volume, which appeared not long ago, comprises the history of dentistry from the remotest ages up to the eighteenth century. The second volume will be devoted to the history of dentistry during the last hundred years. The volume is published by subscription under the auspices of the National Dental Association of the United States of America. Dr. Guerini argues from the number of remedies against toothache that dental caries must have been common among the ancient Egyptians. Yet Professor Flinders Petrie's collection of skulls dug up in Egypt, and computed to be 5,000 years old, show extremely well-developed teeth, including the *dentes sapientiae.* In the Bible there is, according to Guerini, no reference to dental surgery. Captain Dabry's book on Chinese medicine, written in 1863, contains two chapters on dentistry, founded on works one of which was written twenty-seven centuries before Christ by the Emperor Houang-ty, the founder of Chinese medicine. One of the remedies there prescribed for an aching tooth contains arsenic. Guerini's book is said to contain some fine illustrations of appliances for fixing artificial teeth found in Etruscan tombs, to which he assigns a date about 3,000 years ago. He also reproduces dentures in terra-cotta, such as the Etruscans offered to their deities as votive offerings. In addition to the other illustrations, the book contains many portraits.

In the *Transactions* of the "Old Glasgow Club" during session 1908–1909 will be found, says the *Glasgow Medical Journal*, a synopsis of a paper by Dr. James Erskine on "Old Glasgow Pioneers in Philanthropy." The hospitals founded in these early days formed part of, or were closely associated with, the abbeys, the monasteries, or other ecclesiastical institutions of pre-Reformation times. The earliest hospital, St. John's, was situated in the district of Polmadie, and stood on the south side of Rutherglen Road, opposite to the Richmond Park. Neither the name of its founder nor the date of its establishment can be ascertained; but King Robert the Bruce had much to do with the continuance of its existence. By a charter granted to it in 1316, Bruce ordered that the master, brethren, and sisters of the hospital should enjoy all the privileges which they had in the time of his predecessor, Alexander III, who began to reign in 1249. The church and church lands of Strathblane were bestowed upon it in 1316, and four years later the half of Little Govan was granted to it by John, Bishop of Glasgow. The hospital and its property proved a bone of contention between the bishops and the earls, but the rival claims were settled in 1424, and the hospital and church lands were erected into a prebend of the cathedral. Dr. Erskine next draws attention to two philanthropists—Bishop Rae and Lady Lochow—who figured prominently in the middle of the fourteenth century, and both of whom had a hand in the erection of the Stockwell Bridge. At the southern end of the bridge there stood a leper hospital, and this is believed to have been founded by Lady Lochow in 1350. In 1460 St. Nicholas's Hospital was founded and endowed by Bishop Andrew Muirhead. It stood near the cathedral, being to the south of Provand's Lordship, and provided for the maintenance of twelve poor laymen and a priest, who took charge of the institution. The latter was designated "Magister," and it is interesting to note that the title still survives in the office of the Lord Provost. This charitable foundation is the only pre-Reformation one remaining in the city, and its revenues are given in moieties of £3 each to pensioners, there being on the roll, at the time Dr. Erskine writes, three men and eighteen women. About the year 1524, Roland Blacader, Sub-dean of the Cathedral, founded a hospital outside the north port of the city. Its situation would be about the spot where Dobbie's Loan joins Castle Street. This hospital was specially built for the reception of the itinerant poor, and is termed by Dr. Erskine "Glasgow's first Night Asylum for the Houseless." Dr. Erskine briefly refers to the "Back Almons Hous" and its being merged in the Crafts' Hospital (Trades' House), the Merchants' Hospital (Merchants' House), and his paper concludes with mention of Hutchesons' Hospital and the Town's Hospital.

British Medical Journal.

SATURDAY, FEBRUARY 19TH, 1910.

NURSING HOMES FOR THE MIDDLE CLASS.

AT page 466 will be found an article giving some account of proposals which have recently been made in Edinburgh for providing indoor treatment for persons whose financial position is such as not to render them suitable objects of the charity of the medical profession or of the public who support charitable hospitals by their contributions, but are yet not in enjoyment of incomes sufficiently ample to enable them to pay the charges of private nursing homes. Writing without reference to the charges of private nursing homes in Scotland, as to which we have no special information, it can be asserted that charges made by nursing homes are usually high, and often seem exorbitant. In London the high charges are defended on the ground that house rent also is high in London, and the general upkeep of a well appointed home costly. The charges deemed exorbitant are reached by a process of accretion—extra charges for this, that, and the other being made, to any one of which it may be difficult, in the absence of a definite inclusive contract, to take exception. If the home be well appointed, if the sanitation be modern, the food and cooking good, and the nursing first-rate, a man may feel that though he has been called upon to pay a very high price for the services rendered, he has had some return for his money in preservation from complications, and in the enjoyment of some of the comfort and attention he would experience in his own home if he could be allowed to be ill there. When, however, he gets, or somebody near and dear to him gets, none of these things, when the room is small, ill-lighted, and ill-furnished for its purpose, the sanitation and general cleanliness of the home doubtful, the food indifferent, the cooking unappetizing, and the nursing incompetent, he feels not only that he has been bled unmercifully, but has been made to run unnecessary risks. If he expresses himself in very indignant terms to his friends and to his doctor he can hardly be blamed. That a system under which such things can occur should be allowed to continue is not good for the public, and involves some reflected discredit on the medical profession. This may, perhaps, seem a digression, but it will serve to direct attention to a point which we venture to think worthy of consideration. It is that the medical profession cannot divest itself of responsibility for the good administration of nursing homes by leaving them to be managed by lay persons, and leaving their patients to grumble. Some of the grumbling will be directed against the doctor, and not unjustly, for when a patient places his case in the hands of his doctor he may reasonably claim that he should be put under the best conditions for recovery, and it is a truism to say that hygienic surroundings and good nursing are among the means essential to his cure. Therefore, before we begin to consider questions of expense to the patient and possible abuse of any private paying hospital or nursing home at low rates, we already see a reason why the medical profession should actively interest itself in the management of such places.

The scheme originally put forward in Edinburgh at a semi-private meeting called by the Lord Provost last December does not seem to have been well thought out. Its basis was narrow, and it would appear that little or no regard was had to institutions already existing in Edinburgh or to the views or wishes of the medical profession in that city and its immediate neighbourhood. The opinion of the profession, as will be seen, has since been very unequivocally expressed; it is strongly opposed to the foundation of a new gynaecological charity hospital on the lines which the Lord Provost's committee would appear to have contemplated, and equally in favour of the establishment of a paying nursing home open to all medical or surgical patients, male or female, to be attended by any physician or surgeon of the patient's choice. Before arriving at this conclusion the profession in Edinburgh had had an opportunity of considering the views put forward by Dr. Chalmers Watson in the statement which is reproduced at page 466.

It will be useful to recall that at the Representative Meeting last year a definition of "nursing home" suggested by the Hospitals Committee was adopted to the following effect: "A 'nursing home' is an institution in which patients are received for medical care under the attendance of medical practitioners selected by themselves, and where the patients are responsible to the home for charges for maintenance and nursing and to the medical practitioners for their fees." This definition was drawn up in accordance with an instruction given by the Annual Representative Meeting at Sheffield in 1908, when the committee had presented a report on the subject of self-supporting public nursing homes. The Representative body then resolved, as Dr. Watson reminds us, that it was desirable that self-supporting nursing homes should be established for patients who, being ineligible for the voluntary hospitals, are yet unable to pay the customary professional fees as well as the charges usually made in private nursing homes. Definite opinions were also expressed as to the lines on which such institutions should be conducted; it was laid down that a patient should be entitled to select any registered medical practitioner as his attendant in the nursing home, that the suitability of the patient for admission should be vouched for by medical certificate, given preferably by his usual medical attendant, and that when the payment made by a patient was insufficient to cover the entire cost of maintenance, or when any question arose as to reduction or remission of fees for professional services, a statement of the financial circumstances necessitating such consideration should be signed by the patient or near relative, countersigned by the usual medical attendant, or some other responsible householder, and submitted to the committee of management, and that on this committee the local medical profession should be adequately represented. This last provision is of very great importance; it will probably be found that success can only be achieved when the medical element predominates; in fact, good grounds can be advanced for the opinion that the management should be entirely in medical hands.

The profession in Edinburgh has not, as we understand the matter, committed itself to the details of Dr. Watson's scheme, and it is, of course, clear that,

as he himself admits, he has left over a good many points which will require careful consideration. The class which it is desired to help is undoubtedly most deserving of assistance, and it is equally clear that a carefully-drawn constitution and its judicious administration can alone prevent the abuse of the proposed institution by persons for whom it is not designed to cater. Dr. Chalmers Watson assumed that in such an institution there must be a certain number of beds at a higher rate to make up the deficiency on beds for which the charge will be only one guinea a week, as the latter could not be self-supporting. Dr. Watson seems to have regarded this as axiomatic, but we should like to see the matter more fully discussed; it would be far better, if possible, to put the whole scheme on a sound financial basis; provided that the home were not overburdened with house rent, it is open to debate whether it would not be possible to adjust the lowest rate of payment, so that it should be self-supporting. It is not clear whether it is intended to appeal to the public to support the proposed institution in Edinburgh by raising an endowment fund sufficient to make it rent free. If that were done it would be worth while to consider whether it would not be feasible to introduce a uniform rate of payment which would cover the annual expenditure, or to arrange at any rate that the minimum rate should be of such a character. It seems clear also that the management of the institution should be in the hands of the medical profession, or fully controlled by it.

So far as we are aware, the problems which the project raises have not yet been faced elsewhere, and the manner in which they are resolved in Edinburgh will form a precedent which cannot fail to have great influence in determining the character of any similar project elsewhere.

INTESTINAL BACTERIA AND DIGESTION.

IT was a favourite speculation of Pasteur that the presence of bacteria in the alimentary canal was a necessity of animal life, but he never, we believe, put the matter to the test of experiment. Professor Metchnikoff, in a paper on the relation of the digestive processes to the supposed activities of the bacteria normally present in the intestines,[1] observes that Schottelius has maintained that animal life is impossible without the assistance of intestinal bacteria. This opinion was based on the fact that when newly-hatched chickens were fed under strictly aseptic conditions they did not survive for long, but the mere addition of microbes to their food sufficed to restore them to health and enabled them to develop normally. Similarly Bogdanoff, experimenting with flies, found that when disinfected eggs were introduced into vessels containing sterile meat, the larvae which were produced generally developed less well than the controls, which were fed on putrid meat containing bacteria in abundance. But Bogdanoff went a step further. Supposing that the difference was due to the soluble ferments produced by the microbes, he raised larvae under aseptic conditions upon meat to which a sterile solution of trypsin had been added. Then he found that the larvae developed quite as well as the bacteria-laden controls, and gave rise to flies quite as big as those obtained from the latter. Hence he concluded that the bacteria were of real service in furnishing requisite proteolytic ferments which the larvae could not produce for themselves. In subsequent researches, however, Bogdanoff found that there are larvae which, without the addition of trypsin to their food, but with their own unaided ferments, are capable of thriving and attaining normal dimensions under conditions which absolutely exclude bacterial life. These latter results, which are unfavourable to the theory of Schottelius, are supported by the researches of Nuttall and Thierfelder, who kept newly-born guinea-pigs alive under conditions of strict asepsis.

The weak point in experiments on chickens and guinea-pigs such as those referred to is, says Professor Metchnikoff, that they were conducted on newly-born animals. "It is easy to conceive that, in these conditions, there might be a deficiency in the requisite quantity of soluble ferments, particularly if it be remembered that the nourishment provided, being sterilized by heat, is far from being the most appropriate." Adult animals are better able to produce the digestive ferments which they require; and he therefore thinks it permissible to suppose that they may be more easily able than the newly born to dispense with bacterial assistance. This view would be in complete harmony with the fact that the small intestine, where digestion mainly goes on, contains relatively few bacteria, particularly in its upper part.

He has endeavoured to test experimentally the accuracy of this view. As the large intestine, where the amount of digestive work is insignificant, contains the largest number of micro-organisms, it occurred to him that it would be useful for experimental purposes to employ an animal in which the colon was particularly short, and he selected the bat. As the common bat is inconveniently small, he chose the *Pteropus medius* (roussette), which is found in hot climates. A large number of these animals, which feed on fruit, were therefore imported from India, and were investigated by Professor Metchnikoff and his colleagues at the Pasteur Institute. Drs. Weinberg, Pozerski, and Berthelot conducted respectively the anatomical, physiological, and chemical parts of the research, whilst Professor Metchnikoff, in conjunction with M. Distaso, undertook the bacteriological investigations.

In reviewing the general results of this joint research, Professor Metchnikoff remarks that in this species of bat digestion is very rapid, and the dejecta contain some undigested material; consequently, the animals require a very abundant food supply. It might, for this reason, be thought that they merely extracted the nutritive juices of the fruit they ate; but a detailed study of their digestive juices and excreta showed that the greater part of their food is subjected to true digestion, which takes place only in the small intestine. The feature of special interest in their digestive tract is that it contains an extraordinarily small number of bacteria; only a few varieties are found, and these only in scanty numbers. In the small intestine the bacteria only occurred singly, and even in the large intestine and in the faecal matter they were very scanty. Hence it is impossible to attribute to the micro-organisms even a minor part in the digestive process. Digestion is performed solely by the digestive juices, which are highly active. "These juices, which rapidly digest albuminous substances, starches, and fats, are very probably capable of digesting cellulose also." The investigators did not succeed in isolating the ferment of this last substance in their animals, but they

[1] *Annales de l'Institut Pasteur*, December 25th, 1909.

inferred its existence from the fact that the animals digested well fruits rich in cellulose, notwithstanding the absence of bacterial participation. In view of these results they consider it important to revise the study of cellulose digestion in other mammals, and to reconsider the commonly accepted view that digestion of this substance cannot take place without the aid of intestinal bacteria.

The great scarcity of intestinal flora in their animals was found to be associated with an absence of aromatic substances, such as indol, scatol, and the phenols, in their excreta. This result, says Professor Metchnikoff, provides additional confirmation of the fact that these substances, and probably urobilin as well, are not produced by the animal organism, but by intestinal microbes. But the result to which he attaches the highest importance is the demonstration that the animal organism can perform all the natural digestive functions without the co-operation of bacteria. "It is worth emphasizing that this fact has been established for an adult mammal, in possession of its full digestive capacity and placed in the conditions of normal life." There is, of course, nothing in this result which is contradictory to the more artificial experiments showing that newly-born animals, in which the digestive powers are not fully developed, cannot assimilate sterilized food without bacterial aid; but Professor Metchnikoff considers that the results of the research which he has initiated show that it is inaccurate to suppose that former experiments on the newly-born prove the necessity of bacterial life for the performance of the digestive functions in the adult.

THE STATE REGISTRATION OF TRAINED NURSES.

IT is believed—certainly it is earnestly hoped—by all who have been working for the State Registration of trained nurses that the result of the conference held recently will be decidedly to improve the prospects of legislation in the direction they desire. Till quite recently one of the obstacles in the way of placing on the Statute Book the wished-for Act has been the want of unanimity amongst the various bodies advocating registration. During the last Parliament three different bills were promoted which had registration for their object. It has been felt that no Government was likely to take the matter up so long as there was this lack of agreement amongst those who were interested in the subject, and for some months past rumours of compromise have been in the air. Indeed in June last a conference was held, but no result that was definite or satisfactory was reached. The conference recently convened, however, has been more fortunate. Delegates from the following societies, some of which had not been represented at the previous conference, were present, (the names are placed in alphabetical order): The Association for the Promotion of the Registration of Nurses in Scotland, the Fever Nurses' Association, the Irish Nurses' Association, the Matrons' Council of Great Britain and Ireland, the Royal British Nurses' Association, the Scottish Nurses' Association, and the Society for the State Registration of Trained Nurses. Representatives of the British Medical Association also attended the conference, which met in the Council Chamber of the Association, under the chairmanship of Lord Ampthill, who, it will be remembered, successfully piloted one of the bills mentioned above through the House of Lords. Three important principles were agreed upon—namely, the single portal system, three years as a minimum for the course of training, and a uniform State examination. The bill drafted by the conference embodies these principles, and further provides that there shall be a General Council, which shall regulate and supervise all matters relating to the training, examination, and registration of nurses throughout the United Kingdom, but that this Council shall appoint Divisional Committees for each of the three kingdoms, which shall manage certain details of the examinations, subject to the approval of the Council. Provision is made for the admission of existing nurses to the register. Besides the general register of women nurses, there are to be two supplementary registers, one for male nurses, the other for asylum-trained nurses, containing the names of nurses who hold the certificate of the Medico-Psychological Association or have qualified as mental attendants in the Royal Army Medical Corps. Another new feature in this bill is a provision for allowing a nurse, qualified to have her name entered upon the general register, to record the fact of her having received a special training in the nursing of fevers, if she holds the certificate of the Fever Nurses' Association. The fee for the State examination is not to exceed three guineas, and that for registration two guineas, and there is to be a yearly fee of two shillings and sixpence so long as the nurse's name remains on the register. Another clause provides that nothing contained in the Act shall be considered as conferring any authority to practise medicine or to undertake the treatment or cure of disease. The constitution of the Council has always been a subject of much discussion. Under the new bill it would consist of twenty-one persons, as follows: Three to be appointed by the Privy Council, one each by the Local Government Boards of England, Scotland, and Ireland, three by the British Medical Association, one by the Medico-Psychological Association, and one by the medical superintendents of the fever hospitals which may be recognized as training schools for nurses in fever nursing under the Act; eight women nurses would be elected as direct representatives of the registered women nurses, one registered medical practitioner or male nurse similarly to represent the male nurses, and one mental nurse to represent the mental nurses. Until the register is sufficiently advanced to admit of an election, the places of the elected representatives would be taken by persons nominated by various bodies which represent the interests of nurses. Finally the conference formed itself into a permanent committee to promote the bill in Parliament. Lord Ampthill was elected chairman, and Mrs. Bedford Fenwick and Dr. E. W. Goodall honorary secretaries of the committee.

GLARELESS ILLUMINATION.

THE subject of glare—which in its physiological aspect formed the basis of a discussion at the Illuminating Engineering Society a month ago, already reported in the BRITISH MEDICAL JOURNAL—was again brought before that body last Tuesday evening. On this occasion the matter was considered from the point of view of the engineer rather than from that of the physiologist. Nevertheless, Mr. A. P. Trotter, M.I.E.E., in opening the adjourned debate, raised a physiological point when he asked whether the contraction of the iris which causes the reduction in area of the pupil was due to light entering the pupil or to light falling upon the cornea. After carrying out some experiments with an instrument of his own devising, he came to the conclusion that the contraction was almost entirely

due to light falling upon the cornea, and also, being penumbral in character, to some extent upon the iris. In dealing with the question of intrinsic brilliance, Mr. Trotter pointed out that the irradiation effect was a complicating factor. Irradiation might be an optical phenomenon, and very largely subjective, but the illuminating engineer was compelled to make allowance for it. Owing to irradiation the narrow filament of a glow-lamp swelled out into a thick band, uniform in intensity to the eye, perhaps ten times the actual width of the filament. Therefore, in estimating intrinsic brilliance, it was not enough to take the actual width of a filament. In an ideal system of lighting the source of light would be outside the range of vision, but ordinarily this hidden illuminant was too expensive to be practicable. Under these circumstances he thought it desirable that the intrinsic brilliance should not exceed about one candle to a square inch. For years past he had worked with a lamp raised about 4 ft. above his desk table; but, his sight being not quite so good as formerly, he found it necessary to pull the lamp further down, and he had overcome all disagreeable consequences by placing the lamp just below the level of his eyes and covering it with a very dark green shade—a method he found extremely pleasant, although it was condemned by some physiologists. For domestic lighting he used shades of white paper—"the sort of white paper that is used for covering jam jars"—which were held in front of the light by means of a clip and formed a very pleasant diffusing medium. Mr. J. H. Agar Baugh said that for table or desk work he also had found a quite opaque shade better than any kind of opal or transparent one. Some interesting communications again came from foreign members. Professor Grau, of the University of Vienna, urged the necessity of keeping naked lights high up out of the range of vision. If it were necessary to use very powerful illuminants, he preferred to attain the desired illumination by means of a large number of small units rather than by a few powerful sources. An experienced engineer of Berlin gave as a guiding rule the reproduction of the best daylight conditions, but added that it was not wise always to attempt to imitate daylight, because daylight—in the case of bright sunshine, for example, or the reflections that came from snow—constituted an injurious illuminating system. Professor Stockhausen, of Dresden, laid stress upon the harm that was done by very bright lamps outside shops, and thought the present system of lighting streets wrong in principle. We ought to be prepared to sacrifice some degree of illumination, and be content with darker streets, in order that the intrinsic brilliance might also be cut down.

THE LOCAL GOVERNMENT BOARD AND THE CASTLEFORD GUARDIANS.

IT is now almost two years since the Pontefract Guardians terminated the vaccination contracts of the two medical men engaged in the public vaccination service in the Castleford district of the Pontefract Union. It was a case of summary dismissal on twenty-eight days' notice, because the public vaccinators, who were also district medical officers, declined to continue to serve the State by attendance on the sick poor for remuneration which worked out at seven farthings each attendance. To accommodate the only applicant whose services could, owing to the loyal attitude of the local practitioners, be obtained, the guardians combined the two districts, and have been rewarded by a constant succession of troubles, recurring at short intervals ever since. From time to time these troubles have been recounted in these columns. A period of comparative calm appeared to have set in, but this has now been ruffled. From a statement in the *Pontefract and Castleford Express* of February 11th, it appears that a special inquiry into matters arising out of the performance of the public vaccinator's duties has been held by one of the Local Government Board inspectors, and has resulted in a communication from the Local Government Board to the effect that the public vaccinator should not continue to hold that office. A letter was addressed to the Local Government Board by the public vaccinator, but the Board held to its decision. At a recent meeting of the guardians the letters were read, and the public vaccinator was interviewed. It was resolved to ask the Local Government Board to furnish the guardians with a copy of the inspector's report, and a committee of three guardians was appointed to deal with the case, and to seek an interview with the Local Government Board if necessary.

EXCESSIVE SMOKING AND GASTRIC SECRETION.

THE toxic effect of tobacco smoke may be direct or indirect. In the former case the smoke acts as an irritant, as when it sets up conjunctivitis, in the latter case, the poisonous components are absorbed into the blood stream, and exert a deleterious effect on some organ—for example, the optic nerve. Max Skaller[1] has recently directed attention chiefly to the effect of smoking on the gastric secretion. It is well known that in certain persons excessive smoking causes hypersecretion. Hyperacidity has been found to be the most common disturbance, while gastritis acida is not infrequent. Skaller endeavoured to determine experimentally which constituent caused this disturbance. In the first place, he dissolved smoke in distilled water by sucking the smoke from a burning cigar or cigarette through a reservoir containing 20 c.cm. of water, by means of a special apparatus. The solution was injected subcutaneously into dogs, and the gastric secretion was watched through a Pawlow's or Heidenhain's fistula. The smoke from a Brazilian cigar (= 7 grams) produced a considerable rise in the secretion, while the same effect was produced by the smoke of seven cigarettes. When the 20 c.cm. of the smoke solution were injected in four doses of 5 c.cm. each, with an interval of a quarter of an hour between each, no effect took place. Very little effect followed the injection of a solution of three cigarettes. From these experiments he deduced that the action is indirect. Next he employed a solution of 0.02 gram of pure nicotine. The result was practically identical. The smoke from nicotine-free cigars or from cigars which had been artificially freed from nicotine had no effect on the gastric secretion. In deciding that this action is partly nervous and partly parenchymatous, he injected first 0.0025 gram of atropine sulphate and then 0.02 gram of nicotine. No effect was produced. Liebig's extract of meat, however, produced copious hypersecretion when injected in conjunction with atropine in double the doses employed in the nicotine experiments. Skaller concludes, from the comparative effect observed in dogs operated on by the methods of Pawlow, Heidenhain, and Bickel, that the stimulus is peripheral—that is to say, that the nicotine acts on the ganglia. After touching on the question of wasting in excessive smokers and animals used for experiment, he turns to the treatment of nicotine intoxication. In severe cases he regards it as necessary for the patient to give up smoking at once and permanently. In milder cases it is sufficient to stop smoking for one or two days a week. He points out the danger of chewing,

[1] *Berl. klin. Woch.*, December 6th, 1909.

of smoking cigars right down to the stump, and of holding short cigar ends in the mouth for a considerable time. He has found atropine of use in treatment. Finally, he deals with the significance of hypersecretion in nicotine poisoning; this symptom is, in his opinion, an earlier sign than central scotoma. After an unusually heavy meal a strong cigar may be even beneficial in promoting a good flow of gastric secretion. Not every smoker becomes affected by either gastric hypersection or affections of the optic nerve. He has noticed great individual variations with regard to the tolerance of nicotine, and has even seen marked fluctuations in one and the same individual, for which he could not find any cause.

THE PHYSIOLOGICAL APPLICATION OF THE DOCTRINE OF THE PHASES.

A CAREFUL reader of the JOURNAL has asked for an explanation of the application of the doctrine of the phases to physiology, a subject which was dealt with by Zwaardemaker and Dakhuysen in a paper before the International Medical Congress held in Budapest, and reported in the JOURNAL on September 18th, 1909. A full discussion of the subject would occupy a whole number of the JOURNAL, and we can therefore give nothing more than a sketch of the general concept of "phases." A "phase" is intended to express the condition of a system in which the processes undergo periodic or cyclical changes. Astronomically, the term "phase" is used to express certain conditions of periodicity, and these conditions can be determined by mathematical formulae. Zwaardemaker and others have regarded the animal body as a very complicated system of coexisting phases, in some of which the processes constantly tend towards regaining a balance, which has been disturbed either from within or from without; in others the processes may be regarded as stationary, but on minute examination almost always prove to be really cyclical in character. It matters little whether these processes are chemical, or physical or electrical; all must either tend toward restoring a lost balance, or returning to the point from which they started, or they must proceed toward a definite terminal point. Those which do not return to the point of starting are combined to form group processes, of which the first act is dissimilation and the second assimilation. In dealing with cyclical processes, it is necessary to take certain characters into consideration. Thus a period must be governed by the duration, by the amplitude, and by the form of the change in the substance affected. The movements of the heart, for example, may be analysed in the light of this doctrine. In this case, Zwaardemaker considers that there are a number of partial systems or phase groups, of which he recognizes three. The first may be explained as being the site of the electric phenomena, and the work done by this phase in its endeavours to regain the balance is definite. The second depends on the mass of muscle, and may be described as being elastic energy, while the third is a mechanical and thermic form of energy. Attempts have been made to determine the amount and form of energy which is passed over from the one to the other of these groups. In other instances, other forms of energy may be operating. Besides the analysis of the periodicity of individual organs or partial systems, the connexion between the various local periodic movements to one another has to be considered. Those who study these matters frequently attempt to find simple analogies for the form of period concerned. Models, as they are called, are constructed or suggested, which would explain the *modus operandi* of the energy. The whole study depends on the application of thermo-dynamics, physics and chemistry. The question of osmotic tension is dealt with, and measured by physical means, while the processes of life, depending more or less on the separation of two fluids or emulsions existing side by side and possessing approximately the same osmotic tension, require physical, chemical, and other methods of analysis. Lastly, mention should be made of the periodicity of sleep and waking, and of the possibility of analysis, in theory at all events, of the phases comprising these conditions.

COLOUR BLINDNESS AND ITS DETECTION.

ON February 9th Dr. Edridge-Green read a paper on colour blindness before the Royal Society of Arts. A large audience was present, including some representatives of the Board of Trade. Dr. F. W. Mott, F.R.S., presided. Dr. Edridge-Green began by giving a simplified account of his theory of vision and colour vision. He explained how a ray of light, impinging on the retina, liberates the visual purple from the rods, how the photograph is formed, and how the decomposition of the purple by light stimulates the cones and thereby sends an impulse through the nerve paths to the visual centre. The visual centre, having been stimulated, responds by a sensation of light, and the message, passing further on to the colour perceiving centre, stimulates this and produces a sensation of colour. Having dealt with the character of the impulse as determining the colour sensation, he passed on to consider the nerve cells which receive it, and observed that the degree of development determines the power of colour perception. Next he dwelt on the nature of the visual purple, and then turned to defective colour vision, as explained on the basis of this theory of colour vision. He divided colour blind persons into groups according to the number of spectral colours they could distinguish. Normally, a person is capable of perceiving six or seven distinct colours, while those whose colour-perceiving centres are not fully developed see five, four, three, two, or only one. In some cases there is loss of light vision as well as of colour vision. In order to illustrate the colour-perceiving defects of persons who see less than five distinct colours he exhibited lantern slides of coloured pictures and copies of the same pictures coloured by colour-blind persons, illustrating the confusion of definite colours in certain classes of colour-blind persons. A trichromic only sees red, green, and violet. Yellow is not recognized as a colour, and when such a person attempts to reproduce this colour he is influenced by the nature of the colour in its immediate proximity. Yellow placed next to red is copied green, while yellow placed next to green is copied red. Many of the pictures revealed striking and curious colour mistakes, all typical of the defect of colour vision. Dr. Edridge-Green believed that the colour sense had gradually evolved from monochromatic vision, the first step being the splitting up of the one colour perceived into two, then into three, and so on until the average individual can perceive six or even seven colours. This average person can distinguish at least eighteen monochromatic patches in the spectrum when the spectrum is divided up into fields limited by movable screens. The greatest number of monochromatic patches which any individual whom he had examined could distinguish was twenty-nine. In discussing practical methods of testing the colour visions of engine-drivers and mariners, he stated that when he first said what he was now saying, twenty years ago, it was received with derision. For practical purposes a man would only be required to recognize

those colours which were used as signals, but he would have to recognize them under all conditions. He spoke of trichromics, who had been able easily to pass the wool matching test, who called a bright red light, seen in his special lantern, green. He gave instances of mariners who, under ordinary conditions, could distinguish between green and red signals, but when certain atmospheric conditions prevailed confused these colours. On one occasion he tested a mariner with his lantern test and, although he had passed the wool tests, he was quite incapable of seeing red at any considerable distance. That man refused to take advice, and again went to sea in charge of a vessel. The vessel was never heard of subsequently. He gave many instances which proved the inefficiency of the Board of Trade tests, and demonstrated the method of testing colour vision by means of his lantern. This could reproduce not only the colours which the driver or mariner would be required to recognize and name mentally, but also a red, green, or white light, as seen through a mist, fog, or rain. In conclusion he expressed the hope that a committee would soon be appointed to examine the facts fairly and carefully. The lecture was received with prolonged applause. The Chairman, after speaking of the debt science owed to Dr. Edridge-Green for the valuable work he had carried out during the past twenty years, referred to his own colour vision. His attention was first called to the fact that he had defective colour vision when he took up examining specimens for the detection of Koch's tubercle bacilli. He failed to recognize the red-stained rodlets in the blue-stained specimens, although others could see them quite well. Later he noticed that he was unable to distinguish the red flag on the golf course at a distance, although he could see it clearly when near. He was quite able to pass the wool test. He had difficulty in recognizing reds when the illumination was indifferent, and the same applied to greens. On one occasion, he for a long time possessed a tie without knowing that it had any green in it, until he happened to look at it one day under an exceptionally good illumination. With regard to the evolution of the colour vision, he questioned whether the ancient records of the colours of objects were not due to a limitation in the names rather than in the perception of various colours. Mr. J. S. Dow dealt with the theoretical considerations at some length. He could scarcely believe that the colour sense had evolved so rapidly that, since the time of Homer—from whose writings it had been suggested that only a few of the colours of the spectrum were recognized—such radical changes could have occurred. He maintained that the present-day low-type human being had a fully developed sense of colour vision. After analysing Dr. Edridge-Green's theory, he found that all the difficulties which were not explained on the basis of the older ideas were readily accounted for. He considered the introduction of the naming of colours in colour blindness testing as a great advance, and in condemning the Board of Trade tests he bore testimony to the adequacy of Dr. Edridge-Green's lantern test. Mr. Devereux Marshall said that the lantern test was crucial if a proper lantern were used, but there were lanterns on the market which were not good. The wool test, which had been rather forced upon the Board of Trade, was unsatisfactory, for however carefully it was applied, certain people got through who were a great danger to the community, whereas it did not distinguish those people who had slightly deficient colour perception and were not dangerous. Fleet Surgeon W. W. Pryn said that for the last two or three years a candidate had been examined in the following way: The wools were placed in front of him and the light was shown, and he was asked to name the colour and to match it with the wool; when he did not readily name the colour he looked at the heap of wools, and if not colour blind took out the corresponding colour and named it at once. The plan saved much time, and he regarded it as satisfactory. Dr. Harrison Butler, after dealing with the inefficiency of the wool tests, spoke of cases on railways of men who had passed the wool test, but had been shown to be dangerously colour blind. He was of opinion that the Shrewsbury accident was due to colour blindness in the engine driver. Three English railways had now adopted Edridge-Green's method of testing. Mr. T. H. Blakesley, Lieutenant-Colonel A. Cunnington, R.E., and Mr. A. J. Newton also took part in the discussion. Dr. Edridge-Green replied briefly to the various points raised by the speakers, and expressed the opinion that the method recommended by Fleet Surgeon Pryn was a very good practical one.

LONDON CORONERS.

THE London County Council at its meeting on Tuesday adopted a recommendation of the Public Control Committee to the effect that the facts relating to the performance of the duties of the office of coroner of the Central District of London should be communicated to the Lord Chancellor, with a request that he would take such steps under the Coroners' Act, 1877, as he might consider desirable. What particular facts the committee had in its mind we are unable to state, but as the coroner in question is Dr. Danford Thomas, they relate presumably to the bearing of his health upon the performance of his duties. It is true that Dr. Thomas had an attack of paralysis some five years ago, but he overcame its effects. It is also true that he has been ill on other occasions since that date; but it is equally true that a coroner is appointed for life, and that the fact that his duties might have to be performed at times by his deputy was a circumstance definitely foreseen by the Legislature when framing the Coroners Acts. In this particular case the duties of the office have been most efficiently performed by Dr. Danford Thomas's deputy whenever necessary. In addition, though Dr. Thomas was ill at the time when this question originally came up in the autumn, he has since been able personally to discharge the duties of his office. There would not seem, therefore, any particular reason for dispensing with the services of a coroner against whose technical abilities and wisdom in the performance of his functions nothing whatever has ever been said. Still more regrettable does it seem that the question should have been raised at the time when a revision of the general duties of coroners is in progress and arrangements for their superannuation are in view. It may be added, too, that Dr. Thomas as a coroner is held in high esteem by his professional brethren, and on such good grounds that, whatever reason the London County Council may see for bringing his name to the notice of the Lord Chancellor, anything but the most considerate treatment would certainly be widely resented.

A SHORT WAY WITH SYPHILITIC SOLDIERS.

WE have received a letter from a Canadian correspondent who, apparently writing in all good faith, says: "Last Sabbath one of our local ministers asserted in an address to men that in England at Government stations for the military a room was provided in which men hopelessly ill with venereal diseases are poisoned by carb. ox. gas under

the supervision of medical men. Is this true? I did not believe it then and do not now, though he persists in the story privately when it is questioned." Before now, as Burns tells us,

> Ev'n ministers, they hae been kenn'd,
> In holy rapture,
> A rousing whid at times to vend,
> And nail't with Scripture.

Some of their utterances on vivisection, vaccination, and similar matters have upon them a special stamp of virulent mendacity which is seldom found in those of the uninspired layman. But—though it is a strong thing to say—we are disposed to think that this assertion of the Canadian minister is the most monstrous lie we have yet heard. We may say that we here use the word "lie" in the sense of Johnson, who habitually employed it as equivalent to an untrue statement. When he meant that the falsehood was deliberate, he would say, "He lies, and he knows he lies." That the Canadian minister lies is certain, but of course we do not know whether he knows that he is lying. But a minister of the gospel should be particularly careful to tell the truth and nothing but the truth, for he is more likely to be believed than a man professionally less sacred in character. The statement that soldiers of the British army hopelessly ill with venereal disease are disposed of by being placed in a lethal chamber is so absurd on the face of it that the minister should have taken some steps to verify it before charging the medical officers of the army with committing murder, whether with or without the sanction of the Government. Why on earth should such a thing be done, when by a stroke of the pen they can be invalided out of the army? We prefer to consider the Canadian minister as a victim of an overheated imagination rather than as a malicious liar. Or possibly he may only have wished to frighten his hearers against the dangers of exposing themselves to venereal disease, and "in holy rapture" thought that the myth of the lethal chamber would help them to keep the lust of the flesh under control. Preachers in the Middle Ages did not scruple to invent legends, edifying or terrifying as the case might be, to give point to their oratory. Perhaps the Canadian divine may have read Defoe's *A Short Way with the Dissenters*, and taken that grim piece of irony seriously.

HUMOURS OF MAD FOLK.

MAD folk have often a quickness of wit which disconcerts the wise. There are many examples of this in the "fools" of old, some of which are historical. In these days, when almost every detail and incident of human life are under the dominion of some board or other authority, these "fools" would have gone to swell the number of certified lunatics. Of the shrewdness of some of these many instances could be cited. The following two may be quoted, because we have come across them quite recently. The late Lord Monkswell used to tell a very good story illustrating the shrewdness of some lunatics in the institutions under the control of the London County Council Asylums Committee. Among the patients in one asylum (says the *Daily News*) was an old lady of about 85 who had been an inmate for some forty years. To one of the members of the London County Council, Mr. Blank, whom she knew, this lady once remarked: "Don't you think, Mr. Blank, that as I have been for forty years in this asylum, it is about time I was let out?" "Well, my dear madam," replied Mr. Blank, "I will see the superintendent and do what I can for you." She was usually a very mild and pleasant-mannered old lady, but on this occasion she detached herself from his arm, and said, "You—liar." Mr. Blank felt the rebuke was quite merited. The late Mr. Herbert Preston-Thomas, in his amusing book *The Work and Play of a Government Inspector*, tells a still better story: "In another asylum (not in my district) a Visiting Justice was urgently appealed to by a poor fellow who declared that his wife had shut him up in order to amuse herself with his money, and that a few minutes' conversation would show him to be perfectly sane. The magistrate discussed various topics with him, could discover no trace of insanity, was touched with his piteous story, and declared that everything possible should be done to procure his release. 'Swear to me that you will not forget,' said the supposed lunatic, and the magistrate, with tears in his eyes, promised solemnly as he turned to go away. Then he felt a tremendous kick behind, which sent him flying along the passage, while he heard a gentle murmur, 'That will make you certain to remember me.' And it did."

THE PROPHYLAXIS OF TUBERCULOSIS.

A. CZERNY[1] of Breslau urges frankness with patients suffering from any form of tuberculosis. He is of opinion that the majority of persons would take suitable precautions if they were told that the disease from which they are suffering is tuberculosis, that the disease is communicable from man to man, and that its transmission to others can be avoided by careful destruction of all forms of infective material. He strongly objects to misleading terms such as "catarrh of the lung," "scrofula," and the like, and expresses the conviction that since it can honestly be said that tuberculosis is curable, the average person is no longer scared when he is told he is suffering from the disease. The general practitioner can instruct his patients with regard to the preventive measures which should be undertaken in each case, and it is specially important to regard tuberculous affections of glands and joints as possible sources of infection. He points out that while the wet nurse is usually examined with regard to her state of health, mothers rarely trouble themselves about the health of children's nurses, and many a young life has been ruined by infection with tuberculosis from this source. It must further be remembered that children's nurses are usually recruited from girls of the age when the proclivity to tuberculosis is greatest, and are therefore more dangerous than the older women who serve as wet nurses. Everyone who is employed to look after children, or who is allowed to associate intimately with them, should be carefully examined beforehand in order to exclude all forms of tuberculosis. The task is easy for the general practitioner, who is constantly consulted with regard to the health of the family; but unfortunately the employment of a medical man as the real family doctor is, he finds, becoming rare in these days of specialism, and the chief difficulty is met with in those cases in which no regular medical attendant is employed at all, and only when serious illness necessitates medical aid a medical practitioner is called. Czerny hopes that his plea may induce some to deal openly with patients, and thus help to prevent the spread of infection.

THE International Congress of Physiology will hold its eighth meeting at Vienna under the presidency of Professor Siegmund Exner, from September 27th to

[1] *Berl. klin. Woch.*, November 15th, 1909.

30th, 1910. Notice of communications should be sent to Professor Otto Ritter von Fuerth; of demonstrations and the apparatus required to Professor Alois Kreidl. In either case the letter should be addressed to the Physiologisches Institut, Waehringstrasse, 13, Wien IX, Austria.

Medical Notes in Parliament.

[From Our Lobby Correspondent.]

The New Parliament met to commence its labours on Tuesday last, and the first business for the Commons was to attend at the Bar of the House of Lords to hear the Lord Chancellor read the Royal Commission opening Parliament. As the House of Commons has no Speaker at the beginning of a new Parliament, the attendance on this occasion was, according to usage, under the guidance of the Clerk of the Commons, Sir Courtney Ilbert, who, on the return from the Upper House, directed the proceedings until the Speaker was elected. This election of Speaker is the necessary preliminary to the starting of the Commons House as a working machine. On Tuesday the re-election of Mr. Lowther was a foregone conclusion, and was proposed most appropriately by the Father of the House, Mr. Thomas Burt, who discharged the duty in a very felicitous manner. Mr. Chaplin seconded the proposal from the Opposition front bench, and thus we had for the first time a representative of Labour taking the lead in making the First Commoner, and having associated with him in the work another senior member of the House, who represents more completely than any one the older Tory traditions. After Mr. Lowther had thanked the members he was led to the chair by his proposer and seconder, and then added a few words of thanks from the chair. He was congratulated by the Prime Minister and Mr. Balfour in suitable terms, and Mr. Henderson, as leader of the Labour party, also added his congratulations. The House then adjourned, on the motion of Mr. Asquith, after sitting just over one hour.

The Swearing-in of Members, which began in the House of Lords after the Commons had attended to hear the Royal Commission read, went on till after 4 o'clock, and the new form of oath with uplifted hand was mostly observed. In the Commons the ceremony of swearing the members began on Wednesday after the House had attended at the Bar of the Upper House to hear the King's approval of the Speaker as elected by the Commons. In the course of the day some 400 members were sworn in. This oath was taken by the members in various fashions. The Prime Minister, for instance, kissed the Book, but most of them, like the Speaker who first was sworn, took the Book in the right hand and raised it as high as the shoulder and repeated the words. The new Postmaster-General, wearing a silk hat, took the oath Jewish fashion on the Old Testament, while the ex-Postmaster-General affirmed. The incident of the day, however, was the unexpected appearance of Mr. Chamberlain, who was brought in from behind the Chair by his son, Mr. Austen Chamberlain, and Lord Morpeth. He was taken to the Treasury Bench, and there, sitting down and resting on his stick, he bent towards the Clerk, who administered the oath. He repeated the formula in low tones, and then his name was added to the Roll by his son, and Mr. Chamberlain put a cross against his name. Altogether a pathetic episode.

The Course of Business next week, after the formal opening of Parliament by the King and the delivery of the Speech from the Throne, will be mostly confined to the debate on the address, which under the exceptional circumstances of the session as regards the time of commencement and the urgency of the financial business, is not likely to occupy many days. The pressing need to authorize the taxation for the year ending March 31st and the necessity of passing certain estimates for the next year will take up most of the time till the end of March. The contentious business to follow with reference to the House of Lords will make it a most strenuous session, and private members are likely to have less chance than usual for pushing forward their bills. The programme of Government business to be disclosed in the King's Speech must this year be limited to a greater degree than usual, but in addition to the proposals arising out of the Constitutional question, there is one measure that must be passed, and that is the Census Bill to authorize the enumeration of the people in 1911.

SCIENCE NOTES.

The history of the investigation of cancer contains so many shattered theories and so many unsubstantiated remedies that one is inclined *a priori* to look askance at any new pronouncement on the subject. The parasitic theory, or rather theories, have so frequently led to disappointment that they in particular must be subjected to the closest scrutiny before even the slightest reliance can be placed on the facts they profess to offer. The microbic theory of cancer has long fallen into disrepute, but it is little more than twenty years ago since the coccidium theory was first advanced. It was taken up readily, and bodies having the appearance of coccidia were described by several observers in cancerous tumours. Shortly afterwards, however, these bodies were demonstrated to be, not parasites, but epithelial cells in a particular state of development. The theory again revived with the discovery of various intracellular elements, easily interpretable as stages in the life-cycle of sporozoa. These in their turn were shown to be in practically every case intrinsic parts of the cell, modified, perhaps, by peculiar circumstances, but not exclusively connected with neoplasms. Many of them were simply vacuoles, others masses of secreted material, and so on. The blastomycosis theory then found favour for some years, and many of the discoveries of previous observers were reinterpreted in this light. Numerous blastomyces were isolated, but their direct connexion with the causation of the tumour could not be proved; in most cases, indeed, could be disproved. It is true that the injection of a culture could produce a tumour, but this was invariably of the nature of a granuloma, not an epithelioma or carcinoma. Such tumours can be produced by the injection of yeasts isolated from various fruits and vegetables, and frequently death rapidly follows. Dr. Borrel, who has done much to disprove many of these parasitic theories, is himself the latest convert to the possibility of the parasitic causation, or at least transmission, of epitheliomata. Following the trend of the times, it is an acarine on which the somewhat doubtful honour has been thrust. The Acarina have been looming largely in epidemiology of late, and it is not surprising that they should be supposed to have something to do with cancer. Dr. Borrel's remarks, however, carry an air of conviction—a statement, however, which unfortunately could only too frequently be made with regard to previous alleged discoveries. The cases which he describes[1] and the microscopic sections with which he illustrates them show that there is some foundation for his hypothesis. The essential feature of his researches is the study of early cases. In those he hoped to find evidence of the initial cause, or, if not of the actual cause, at any rate of some predisposing factor. The investigation has disclosed *Demodex* occurring with such consistency as to be beyond coincidence. Epitheliomata of the skin—in most cases multiple—form the basis of the work, but the author speculates on the applicability of the theory to intestinal and other carcinomata, granted a suitable parasite—for instance, a helminth. In every one of the 12 cases which Dr. Borrel deals with, acarines were found either in the follicles undergoing cancerous transformation, or in those in the immediate neighbourhood. In the sections it is easy to perceive that the follicles become cancerous

[1] *Annales de l'Institut Pasteur*, xxiii, p. 97–124

uccessively by contamination from the surface. The hypo-hesis which Dr. Borrel is led to formulate is that the carine is only the carrier, or the inoculating agent, of a ighly probable but still unknown cancer virus, and that vhat acarines can accomplish on the skin other parasites nay be able to do in the other seats of cancer. The fre-quent presence of *Demodex folliculorum* in healthy skin is iot against the theory, for it is not to be expected that very parasite carries the infection just in the same way, as every mosquito is not capable of inoculating malaria. According to Dr. Borrel,[2] *Demodex* is also an active agent in the transmission of leprosy. In this case we may assume that the parasite carries the lepra bacillus either on or in its body from an infected person to the sebaceous follicles of another person.

Dr. R. W. Reid, Professor of Anatomy in the University of Aberdeen, recently delivered an address on prehistoric man in Scotland, to the members of the Aberdeen Working Men's Natural History and Scientific Society. He said that in Scotland there seemed to be no trustworthy evidence that palaeolithic man ever existed. In the latter part of the Quaternary period, the British Islands became disconnected with the Continent of Europe, and there was undoubted evidence of the presence at that time of man in Scotland, for not only his weapons and implements but the remains of his bodily structure had been discovered. His weapons and implements were for the most part formed of stone, but as they were more highly-finished than those used by his predecessors, was described as belonging to a newer Stone Age or Neolithic period. In the earlier part of the period there were evidences that man with a rather long type of head existed, and in stature he was a little below that of the present day inhabitant. No special modes of burial could be associated with these people. In the later part of the Neolithic period in Scotland the inhabitants paid more attention to burial and bony remains, with certain of their belongings, had been found in such a state of preservation that a fairly accurate idea could be formed of their appearance and habits. About this time there were evidences of the existence of inhabitants on the east and on the west coast of Scotland of a low stature—about 5 ft. 4 in., but those on the east coast had broad heads, while those on the west coast had long ones. The introduction of bronze into Central Europe began somewhere about 2,000 before the Christian era. It seemed likely that the metal was brought into Scotland by a people who had found their way from Western Asia, through Central France, and across the Channel into England. They were a broad-headed race, and tall, about 5 ft. 9 in. In point of speech—he did not say anatomical in structure—they were the ancestors of the Gaelic-speaking inhabitants of the Highlands of Scotland. They amalgamated with the Neolithic dwellers of the country, as also with tall, fair, and long-haired Teutons who had come at a later period from Continental countries adjoining the North and Baltic Seas and the English Channel. He believed that the Caledonians who were described by the Roman historian Tacitus, who was born A.D. 61, were these same Teutons. The accepted type of the Bronze Age people, or Celts, was a tall, rough, large-boned man, about 5 ft. 9 in. in height, with a broad head, lozenge-shaped face, square sockets for eyes, long and narrow nose, and forwardly projecting jaws. Personal ornaments were found, consisting of stone beads, buttons, discs, pieces of stone shaped in one case as if representing a heart, all perforated as if they had been suspended upon their wearers as amulets or charms. In addition to stone, bone, or ivory ornaments, objects in bronze for the decoration of the person or for superstitious purposes, had been found, such as pins, earrings, necklaces, armlets, pendants, etc. Implements and weapons discovered under conditions similar to those pertaining to personal ornaments exhibited for the most part evidence of highly skilled labour. Traces of the existence of dwellings during the Neolithic and Bronze Age times in Scotland were meagre, and in all probability the early inhabitants during these periods made use of shallow caves or rock shelters. No doubt as time went on wooden huts, and then more elaborately formed "earth houses," "weems," or "Pictish houses" were constructed. The earth houses had a wide distribution throughout Scotland, especially along its eastern side. These prehistoric people built dwellings on islands, both natural and artificial, sometimes on piles driven into lakes as places of safety. The Neolithic people were a pastoral folk, living in clusters of homesteads, cultivating the ground to a slight extent, and having domestic animals which helped to supply them with food, the abundance of game in the forests forming an additional source of support. They might have gone bare-footed, and clothed themselves with the skins of animals, or with knitted or woven garments. In all probability they lived somewhere before 2,000 B.C. The tall, round-headed occupant of the land during the Bronze period possessed a greater amount of culture. He understood the art of working metal, and he erected massive stone monuments and artificial island dwellings. He was skilled in the arts of spinning and weaving, and clothed himself with textile fabrics in preference to skins. He may have been more of a fisher and hunter, and perhaps more of a fighter than the man of the Neolithic time.

[2] Ibid, p. 125–8.

When Mme Curie began the investigation of the mineral pitchblende the only radio-active metal known was uranium. It was found that some samples of pitchblende were from three to four times as radio-active as pure uranium oxide, so that it was obvious that it contained some element much more active than uranium. It contained, in fact, a great number of elements, including lead—an observation proved later to be very significant—bismuth, and barium. The specimens of these last named metals, when isolated, were found to be radio-active, although this is a property that neither possesses in a state of purity. It was ascertained that the radio-activity was due to the presence of two new elements mixed in minute quantities with the bismuth and barium. To that associated with bismuth Mme. Curie, out of regard to her native country, gave the name polonium; to the other, discovered shortly afterwards in association with barium, the name radium. The latter metal, it has now been shown, is derived from uranium by a process of atomic disintegration, attended at certain of its stages by radio-active phenomena; the radio-activity of radium itself is likewise attended by atomic disintegration. The atomic weight of radium is 226; after the alpha rays, which are believed to consist of atoms of helium, have been expelled, the "emanation" left has an atomic weight of 222. This emanation yields radium A (218), then radium B, and radium C (214); the changes from radium A to C are rapid — a matter of hours. Radium C gives off beta and gamma rays, and also alpha rays (helium), changing into radium D (210); its period of change is long, to be measured in years; it yields radium E_1 and E_2, and the latter changes into radium F, which is polonium. These last changes occur in a few days. In chemical characters polonium resembles bismuth, and, as has been said, is found in association with that metal. The radio-activity of polonium is entirely due to the expulsion of alpha rays, and this would reduce the atomic weight to 206. If this be the end of the uranium-radium-polonium course of atomic disintegration, the assumption that the residual substance with the atomic weight 206 must accumulate in the minerals containing the elements of the series, and must therefore be a common element, seems justified. Lead, the atomic weight of which is 207, occurs in considerable quantity in all the common minerals containing uranium, so that it has been thought to be the most probable terminus, the only alternative being bismuth, the atomic weight of which is 208·5. Mme. Curie has this week communicated to the Académie des Sciences in Paris a paper in which she states that she has been able, working in conjunction with M. Debierne, to prepare, by treating several tons of pitchblende with hydrochloric acid, one-tenth of a milligram of polonium, and to observe its properties. Its radio-activity proved to be more intense than that of radium; it cracked a quartz vase in a short time, and decomposed organic bodies with extreme rapidity. It wasted very rapidly, losing 50 per cent. of its weight in 140 days. It emitted helium, as was anticipated; but the exact nature of the residue has not been determined, though it is believed to be lead, and this also would, as has been pointed out, be in accordance with anticipations.

Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

PROPOSED HOME FOR PAYING PATIENTS IN EDINBURGH.

TOWARDS the end of last year a proposal was mooted to establish in Edinburgh a new medical charity for gynaecological patients, with an unpaid medical and surgical staff, the patients admitted to pay a small weekly sum for board. The matter was discussed at a private meeting summoned by the Lord Provost on December 7th, and though reporters were not present, a report of the proceedings was subsequently issued to the press. The Lord Provost said that he believed a need existed in Edinburgh for a small hospital or home for the treatment of women suffering from diseases peculiar to their sex, who were able and willing to pay towards the expense of their board but were not able to pay for an expensive operation, and who did not care to go into a hospital such as the infirmary. In the course of the discussion it was stated that it was intended that the payment to be made by the patients should be at the rate of 10s. to £1 a week. Mrs. Johnston, the Honorary Secretary of the Edinburgh Hospital and Dispensary for Women and Children, which received paying patients, protested in the name of that institution, which, she said, was at present engaged in erecting a gynaecological wing. Dr. Chalmers Watson said that while the promoters of the meeting had done well to bring before the public the needs of a very important section of the community, it was at the same time necessary to see that any institution established should tend to lessen the abuses of hospitals, and should not be detrimental to the interests of a large section of the medical profession. Mr. Cathcart, Surgeon to the Royal Infirmary, mentioned the existence of the Rutland Home, started some years ago to meet the wants of those who did not wish to be in a public hospital, and could not afford the charges of private hospitals or homes. Since it had been managed by a committee of medical men it had been very successful, and he thought that some compromise on that basis might be arrived at. Dr. McGibbon stated that the matter had been under consideration for more than a year, and added, in reply to Mrs. Johnston, that though the highest respect was felt for the women doctors who managed and staffed the Edinburgh Hospital for Women, there was no corresponding institution for women, of whom there were hundreds, who wished to be treated and operated upon by medical men. At the conclusion of the meeting a provisional committee was appointed, and it was announced that a public meeting would be called this month to discuss the matter further. No notice has yet been given, we believe, of the date of this meeting.

Since the nature of the project became known it has been considered by the British Medical Association in Edinburgh, and by the Edinburgh and Leith Medical Practitioners' Association. Dr. Chalmers Watson presented the following statement of his views, partly founded upon his experience of the Rutland Home:

The Advantages to Patients and Practitioners of Paying Hospitals or Nursing Homes for Private Patients Run at the Lowest Possible Rates.

By Chalmers Watson, M.D., Assistant Physician, Royal Infirmary, Edinburgh.

The two questions to be discussed were:

1. The soundness of the principle involved.
2. The practicability of giving effect to that principle.

The following are Dr. Chalmers Watson's observations:

I.

"It is perhaps hardly necessary for me to indicate that I here use the word 'practitioner' in its widest sense, to include all those who are actively engaged in the treatment of disease. For my own part I believe that it is advisable that such hospitals should exist. I would go a step further, and say that their existence is fast becoming a necessity.

"Little or no facilities are at present available for the hospital treatment of that very large and important section of the public that lies between the poor and the rich. I think that one result of this has undoubtedly been the development in an increasing degree of a tendency on the part of a section of the public who are neither very poor nor very rich to take advantage of the medical treatment afforded by charitable institutions which are only intended for the poorer classes. And the development of this tendency has brought two things in its train:

"1. It has interfered to a not inconsiderable extent with the income of the profession as a whole, and, what is still worse,

"2. It has developed in a section of the public an attitude of mind towards free medical treatment which is essentially unsound.

"Who is responsible for this? I submit that we ourselves are to a very great extent responsible. It is surely the duty of those who are engaged in the treatment of disease to see that patients in this large and important section of the public have reasonable facilities for good hospital treatment. By reasonable facilities I mean facilities which commend themselves alike to their purse and to their pride. Personally, when I read about hospital abuse in its various forms, it always strikes me that the fault lies quite as much at the door of the profession as that of the public. And it seems to me that, just as the present position is to a great extent a creation of the profession, so we must look to the profession for its correction. And I submit that one of the directions in which correction is to be sought, is in our acceptance of the principle which we are now discussing and by giving effect to that principle in practice.

"Now, this subject has of late been receiving consideration in various quarters. At the British Medical Association Meeting held in Sheffield in 1908, the question of self-supporting nursing homes was discussed and, under the heading 'Definition and Desirability,' the following finding was passed:

> "That it is desirable that self-supporting nursing homes should be established for patients who, being ineligible for the voluntary hospitals, are yet unable to pay the customary professional fees as well as the charges made in private nursing homes.

"I mention this as evidence of the attention which the subject is now receiving, and of the fact that in the main the principle which I am bringing before you is one which has already commended itself to the British Medical Association. So far as I am aware, however, the principle has not yet been carried into effect, or, at any rate, only on too restricted lines.

"I have made inquiries into the facilities afforded in different places, and find that they are as yet of the most meagre description. I have made inquiries from physicians and surgeons personally known to me engaged in active practice in such centres as London, Glasgow, Manchester, Liverpool, Newcastle, Cardiff, Oxford, and find, as I have stated, that the facilities available are very restricted.

"In Edinburgh one of two courses is open to us with this class of case. We may send the patient to the Chalmers Hospital, an endowed institution, where the patient pays board and gets medical and surgical treatment free; in these circumstances the practitioner has no further direct interest in his patient. Or we may get him admitted to a private nursing home. *ex gratia* rather than *ex jure*, for the minimum rate of 2 guineas or thereby. In these circumstances the patient is getting, or may feel that he is getting, his medical board under the market rate; the medical man is getting a favour. The position is not a satisfactory one, either for patient or practitioner. Is there no better alternative scheme? I believe there is, and this brings me to the second point on which discussion is invited.

II.

"The practicability of forming a hospital on the lines indicated, which would be mutually advantageous to our patients and to ourselves. I will

merely introduce this part of the discussion by submitting in the briefest possible manner my own views, and the data on which they were based.

"I believe that it is desirable in the interests of our patients to have in Edinburgh a private hospital of approximately 50 beds, this hospital to be thoroughly well equipped along modern lines. The hospital should be self-supporting.

" 15 to 20 beds at 1 guinea per week.
" 15 to 20 beds at 2 guineas per week.
" 15 beds at 3 guineas per week.

"There must be a certain number at higher rates to make up the deficiency on the 1 guinea beds, as these beds could not be self-supporting. We must all have experience of a deserving class of the community to whom the sum of 1 guinea a week is equivalent to at least 5 or 6 guineas paid by another class of patient. It is true that there would be a risk, in connexion with beds, say, at 1 guinea, of unfair advantage being taken of them; but I think this difficulty could be overcome. But in any case it is probable that the majority of the patients who would be taking such unfair advantage would be the patients who would otherwise be in the infirmary or similar institution, to the detriment of the charitable institution. If we assume that such a hospital would be kept two-thirds full—and I think this is a fair assumption—it would yield an income of over £3,500 a year, a sum which I believe would be more than sufficient to meet all the charges which would fall to be met.

"Now, it will be said that it is easy to talk of a hypothetical income of £3,500, estimated on a purely theoretical basis. It does at first seem that the assumption I have made is a very large and unwarranted one. It is not, after all, such a large assumption, nor is it, I think, entirely unwarranted. When I say that it is not a large assumption I am assuming that practitioners would accept the principle that the scheme was one which was mutually advantageous to themselves and to their patients. If this principle was accepted, the success of the hospital would, I submit, be assured. I have said that the assumption is not entirely unwarranted; there is some basis for the figures given. I can speak from personal knowledge of a small nursing home of fourteen beds, which has been run on the lines suggested, and it is of interest to note the returns of that home for the past year. The admissions to the home were 148; of these, 120 paid at the rate of 2 guineas a week, 24 at 3 guineas a week, and 4 at 30s. The total income for the year was £1,187; the total expenditure was £1,033, there being an actual profit for the year of £153. These are striking facts, and of some value in the present discussion. If such a result is possible in such a small hospital, with its restricted support, then the figures I have estimated are, I believe, in no way excessive, provided the soundness of the scheme proposed and its mutually advantageous character is generally recognized by practitioners.

"I have purposely avoided any reference to the question of ways and means in connexion with initial capital expenditure for such a scheme. An approximate estimate on this can fairly easily be made. But what from a business point of view is at this stage of greater importance is the question of its annual income. If such figures as I have given are approximately correct, the income would, I feel sure, be ample to meet all the charges on the initial outlay and upkeep. The income has been estimated on the assumption that this scheme recommends itself as mutually advantageous to our patients and ourselves. In an earlier part of my remarks I indicated that such a scheme is in my opinion not only advisable, but is fast becoming a necessity. And I think we should give our most careful consideration to a scheme which I submit would confer signal advantages on our patients, and would at the same time react favourably on existing charitable institutions."

At a meeting of the Edinburgh Branch on January 26th, which was attended by over thirty members, a resolution was adopted by a large majority to the effect that the proposed new hospital on a contributory basis for women in Edinburgh, with a limited staff, was undesirable; subsequently, certain members having withdrawn, a resolution was unanimously adopted approving a scheme for a paying nursing home open to all medical or surgical patients, male or female, to be attended by any physician or surgeon of the patient's choice, and a deputation was appointed to confer with the Charity Organization Society on the subject. Meanwhile the Edinburgh and Leith Medical Practitioners' Association took a plebiscite of its members; 287 voting papers were sent out, and 200 were returned, 2 papers were spoiled, and 12 members did not vote on both questions. The result of the plebiscite was as follows:

175 against the proposed new hospital on a contributory basis, with a limited staff.
19 in favour of it.
178 in favour of a paying nursing home, and
12 against it.

Edinburgh and St. Andrews University Election.

The University election has been lost and won—a distinguished member has been sent to Westminster, and a distinguished physician returns to private life. We in Edinburgh are proud of our member, and we are proud of his late opponent. Both are Doctors of Medicine of the University of Edinburgh; and both, if for that reason only, possessed strong claims upon us.

In the halls of Westminster, on the Conservative benches and on the Radical benches, the number of medical men is conspicuously small, and even this small band is considerably diminished if one seeks for those men who have largely occupied themselves with practical medicine. For the great majority of practical medical men their profession is a mistress who demands of them much time, much labour, and much thought. The science of medicine is old as the human race and young as the newest stain, reaction, or test of to-day; she exacts from her devotees laborious student years of concentrated work, she compels outlook on a panorama of medical lore merging in many directions into the mists of hypothesis and imagination—a panorama the right recognition of whose broad outlines is the first important step in the development of the embryo medical practitioner. Later she calls for the study of individuality, of the inherent characteristics of the individual bodily tissues, of the materialistic nature of the individual; and, further, the relation and reaction of each nature to disease processes and the possible methods of most adequately seconding the efforts of the *vis medicatrix Naturae*.

The profession of medicine apparently offers many enticements to the aspirations and ambitions of the young men and women of to-day. The profession is crowded and competition is keen; the majority of incomes are slender, and he who puts by an adequate competence during middle age is fortunate indeed. Hard work is essential for success—very hard, engrossing work—and success is achieved only in later years. For a favoured few the goal is reached more easily or the pathway is eased by independent means; but looking to the conditions of life of the bulk of medical men, it is easy to see why the band in Parliament is so small.

Is this as it should be? Surely not. The trend of national domestic legislation must at all times be largely guided by the dictates of scientific medicine. The modern developments in domestic legislation and the modern developments of medicine are appreciably tending to more and more influence each other. The stability, the virility of the nation is largely dependent upon the healthy minds and bodies of its people. Lord Rosebery, replying at Glasgow last month to the toast of "The Imperial Forces," includes the "manhood of our people." And the nature of our manhood is largely determined by our mental and physical environment, and these again by the nature of their response to the dictates of modern medicine. The answer to sociological questions of many kinds is, of necessity, largely influenced by medical opinion, and the voice of the medical profession is a force of great

potency. But are medical men taking that prominent place in the treatment of sociological problems which they are entitled to occupy and which their expert knowledge demands of them? Is the body of the great medical profession definitely directing its attention to acting as pioneer and to guiding through the shoals of difficulties those great national enterprises with which to-day we are confronted? Are we medical men fully alive to our own powers, our own possibilities, and our own duties to society in general? Is it not desirable that we should have to represent us in the legislative fount men of our own profession—broad-minded men of practical medical experience, who are an ornament to their profession, and fitted on occasion to voice authoritatively the views of the profession to which they belong? And for such men what more fitting seat than a university? And what seat more fitting than that for Edinburgh and St. Andrews? The Edinburgh medical school is a power in the medical world of no inconsiderable force, her alumni occupy foremost positions in all the great cities of the empire, and every year she adds hundreds of names to the *Register* of medical men. Such a body of men and such a mass of professional opinion demands professional representation in the Imperial Parliament, and not only demands it, but likewise owes it to the university and the Imperial Parliament that the advances in knowledge and the practical medical matters evolving from it should be directly made over as an asset of the nation at large.

SCOTTISH POOR LAW MEDICAL OFFICERS' ASSOCIATION.

The annual meeting of the Scottish Poor Law Medical Officers' Association was held in Glasgow on January 28th.

The report of the committee for 1909 stated that a large amount of correspondence had been entailed in supplying applicants with information with regard to certain appointments declared vacant, and added that thanks were due to the outgoing medical officers who willingly supplied the necessary details. While continuing to advertise when necessary in the medical journals, the committee were glad to be able to state that no case occurred during the year which necessitated the use being made of the warning notices in medical journals; this was a marked improvement on the previous experience, and showed that parish councils did not now so readily treat their medical officers with gross injustice. A large number of members had asked their advice upon very varied subjects, and a few typical cases were quoted. Owing to the general election the committee were not in a position to state whether the Parochial Medical Officers (Scotland) Bill, promoted by the association, would again be introduced into the House of Commons, The committee desired to be guided by the advice of those members of Parliament who had taken an interest in the bill and by the opinion of the members of the association.

The financial report showed that the work of the association is carried on with extraordinary economy, and the committee appeals to every member of the Poor Law medical service to join its ranks.

Attached to the report is a copy of the statement made by the association showing the respects in which, in its opinion, the law of Scotland ought to be altered in the interests of the public and the medical service. The committee congratulated the association on the results of the recommendations of the Royal Commission, every point put forward by the association having, with trifling exceptions, been accepted.

The committee concludes its report in the following words: "Your committee think that our association is to be congratulated on the result of the recommendations of the Royal Commission. Every point, with trifling exceptions, has been agreed to, and it now remains for us to do our best to get the recommendations duly incorporated in any legislative enactment which may be brought before Parliament." Every parochial medical officer in Scotland should become a member of this association, which has done so much good in he past, and still continues to watch the interests of the parochial medical officers, having by the advice given prevented, in many cases, medical men from accepting appointments which had entailed many hardships to the previous occupants. The energetic secretary, Dr. W. L. Muir, 1, Seton Terrace, Dennistoun, Glasgow, still continues in office, and is always willing to give much useful information to applicants for parochial appointments in Scotland.

THE BRITISH MEDICAL ASSOCIATION IN GLASGOW.

The smoking concert organized by the local Branch of the Association proved very successful. It took place in the Grosvenor Restaurant, under the chairmanship of Professor Stockman, and there was a large attendance of medical men. The chief feature of the evening was an excellent address by the Medical Secretary of the Association, who emphasized the great importance of united action on the part of the profession in matters of medical policy. To ensure such unity it was essential that there should be some unifying organization, and the advantages which the British Medical Association afforded in this respect were urged. It possessed the necessary organization, and already had accumulated much experience in the handling of medical questions. After illustrating some of the occasions on which the intervention of the Association had proved successful, the speaker went on to say that one of the crucial questions always put sooner or later when approaching a public body or a Government department was what proportion of the medical profession was represented. The Association already claimed about two-thirds of the total number of medical men as members, and was in a very true sense the most representative body of the general practitioners. But the more members it possessed the more potent it became, and he urged on those present the advisability of gathering in those professional brethren who were not yet members. Of particular interest to the local members, conscious of their recent failure to influence the Glasgow School Board, was Dr. Whitaker's statement that in his experience the first attempts at local concerted action often proved unsuccessful, while later efforts attained success. At a later stage of the proceedings the two local representatives on the Central Council gave a short report of some of their work, which greatly impressed those present with its variety and extent.

DUNDEE TOWN COUNCIL AND SIDLAW SANATORIUM.

At a recent meeting of the Dundee Public Health Committee a letter was read from the directors of the Royal Infirmary explaining their proposals for taking over Sidlaw Sanatorium in accordance with the gift of £10,000 by Mr. J. K. Caird, and suggesting that the Town Council should send a minimum of seven patients, at a cost of £1 10s. each a week, equal to a total contribution of £546 per annum. The Medical Officer of Health expressed the opinion that much good would be effected even by the limited accommodation proposed to be placed at the disposal of the Council. The Lord Provost moved the approval of the arrangement, and said that Mr. Caird's gift had to be exhausted within ten years, but he believed that before that time expired there would be imperial legislation to regulate the action of the Town Council. The proposal was agreed to, and it was decided that the cost should be placed on the public health rate.

AIR PURIFICATION CAMPAIGN IN GLASGOW.

At a largely-attended public meeting convened recently by the Lord Provost, representatives from numerous burghs within the Clyde Valley being present, a Glasgow and West of Scotland branch of the Smoke Abatement League was formed. Organized effort will now be made to educate the public, improve the administration of existing laws, secure fresh legislation, and encourage the use of gas and smokeless fuel for domestic purposes. It is recognized that the smoke evil can be cured in Glasgow, as in other places, by a determined crusade; and the experiences of the health authorities during the past winter have served to bring matters to a crisis.

Two lectures bearing on the subject have recently been delivered under the auspices of the Glasgow Health Culture Society. The first dealt with the lighting and heating of the home, by Mr. Alex Wilson, Manager of Glasgow Corporation Gas Department, and a demonstration of lighting and heating appliances was given. At the second lecture Mr. J. W. Graham, Principal of Dalton Hall, Manchester University, dealt with the smoke evil, its causes and cures. He said that the average age at death in the whole country was 44 years, and in the country districts 52 years, while in the central districts of large cities it was 29 years, owing mainly to pollution, which had to be fought, and the great thing to fight was air pollution.

PROPOSED FREE WATER SUPPLY FOR GLASGOW.

Considerable interest has been aroused in Glasgow by two speeches delivered by the Lord Provost, in which he referred to the question of a possible free water supply for the city. The lower the water rate, he said, the better for the people, and he thought it was quite feasible to have a free supply. The suggestion appears to be that the amount involved, about £37,000, should be paid from the Common Good, and as the tramway department balance is added to this each year, it is said that the Common Good fund may give a surplus of from £50,000 to £100,000. At present a penny rate brings in £9,000 in the city, and the water rate is 4d. Outside the city boundaries the rate is 10d. for burghs supplied by the Glasgow Corporation Water Department. The Lord Provost added that, while jealousy might arise, the case for the amalgamation of the outside burghs with the city would be considerably strengthened. A good deal of discussion has been going on since the project was mooted, but it will be some little time before the matter is ripe for consideration by the Town Council.

GLASGOW MATERNITY HOSPITAL.

A special meeting of the general court of contributors was held last week to consider the new rules and regulations which have been drawn up for the government of the hospital. The new constitution provides for the addition of two working men representatives on the Board of Directors, and Mr. M. Pearce Campbell, Lord Dean of Guild, who presided, stated that from his experience of similar arrangements with regard to other institutions the results would be satisfactory. The constitution as amended was agreed to.

THE MORISON LECTURES.

The Morison Lectures before the Royal College of Physicians of Edinburgh will this year be delivered by Dr. W. Aldren Turner, Lecturer on Neurology at King's College, London, on February 28th. March 2nd, and March 4th, at 5 p.m. on each day. The lectures will deal with epilepsy, its symptoms and causes, its borderland, and its treatment.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

SALARIES OF IRISH DISPENSARY MEDICAL OFFICERS.

In many parts of Ireland attempts have recently been made by the dispensary doctors of the different unions to induce the boards of guardians to establish graduated scales of salaries for their medical officers, with increases every three to five years, until a maximum has been attained. These applications have been favourably received in many instances, more especially in the south and west of Ireland, but some of the guardians still remain unsympathetic. This has been the case up to the present in the Downpatrick and Enniscorthy unions, while in Limerick, where an increase was voted a couple of months ago, a rescinding motion proposed at a subsequent meeting was only defeated by a small majority. At Downpatrick one of the spokesmen for the medical officers pointed out that the average salary they received was £100 a year, or about 5s. 6d. a day, just equivalent to the wages of an ordinary stonemason. Out of this sum the expenses of working the district had to come, and as a single call on a visiting ticket often necessitated the hiring of a car at from 4s. to 5s., the net day's wages on which the doctor was expected to live were reduced to about 6d. After considerable discussion a motion to adopt a graded scale of salaries was lost by 16 votes to 13, the main objection to making any change at present being the expected revolution, to be brought about by legislation, in the Poor Law system. As many of the guardians admitted that the present salaries are inadequate, this objection does not appear to us sufficient to warrant the refusal to deal fairly with their medical officers, more especially as it is possible that if the expected changes are brought about, the present low salaries will be taken as the starting point in fixing rates of pensions or of remuneration in the future. At Enniscorthy, where all the doctors, with one exception, have long service, reaching in some instances to over thirty years, the discussion of their request to fix a graded scale of salaries, has for the present been adjourned by the unanimous wish of the members of the board of guardians.

BELFAST MILK SUPPLY.

The monthly meeting of the Hillsborough Rural Council, held on February 11th, had before it an important communication from the Local Government Board, stating that an application had been received from the Corporation of Belfast for powers of inspection and control of dairies in outside districts from which the milk supply of the county borough was derived. Quotations from the report of the Medical Superintendent Officer of Health for Belfast were given, and the letter ended by stating that while the board would not be disposed to grant such a request, where the rural council had shown itself willing to carry out the Dairies, Cowsheds and Milkshops (Ireland) Order of 1908, the board desired to impress on the council and its inspecting officers the necessity of affording all possible protection to all consumers. A sanitary subofficer said the greatest offenders were the small farmers, who met Belfast milkmen on the road and delivered their milk to them.

RESIGNATION OF AN ASYLUM MEDICAL SUPERINTENDENT.

At a recent meeting (February 10th) of the County Monaghan and Cavan Asylum Board a letter was received from the resident medical superintendent, Dr. R. L. Donaldson, stating that owing to an injury received about twelve months ago from a patient while in the discharge of his duty he found that after several months' leave of absence he was still unfit for work, and he feared that it might not be possible for him to continue to discharge his duties without injury to his health. He was now in the twenty-fifth year of his service, and he asked the committee to take into consideration his superannuation. The members expressed sympathy with Dr. Donaldson in his continued ill health, and testified to the efficiency shown by him in the discharge of his duties. It was decided that the question of superannuation should be considered at the next meeting.

NECROPSIES IN LUNATIC ASYLUMS.

At the monthly meeting of the Committee of Management of the Tyrone and Fermanagh Lunatic Asylum, it was proposed, seconded, and decided:

> That in future *post-mortem* examinations be confined to sudden or accidental death and to cases where the cause of death was uncertain, and not, as at present, on the bodies of all unclaimed persons.

Some boards seem bent on retarding the advance of medical knowledge.

England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

MANCHESTER AND DISTRICT.

THE ADMISSION OF WOMEN TO THE RESIDENT POSTS AT THE ROYAL INFIRMARY.

So great has been the pressure brought to bear on the Board of Management of the Royal Infirmary to appoint women to the resident posts at the infirmary, that the board thought it necessary to appeal to the whole body of the trustees, and after the ordinary business of the annual meeting of the trustees last week, Sir Wm. Cobbett, the chairman of the board, officially proposed a resolution in the following terms:

> That it is not desirable to appoint women to resident medical and surgical posts in the Manchester Royal Infirmary.

He said there had been some misconception as to the attitude of the board. His statement that the board were in sympathy with the desires of the medical women had been interpreted into meaning that the board at one time decided in favour of the appointments, and that the only obstacle was want of accommodation. That was not the case. He also regretted that the university had been put forward as if it had been taking a part in bringing pressure on the board to make the appointments. A letter was read from Dr. Hopkinson, the Vice-Chancellor of the university, stating that questions relating to the internal management of the infirmary should be settled by the board itself, and that it should be clearly understood that the primary work of the infirmary was to afford the best medical and surgical assistance for the poor in cases of illness and accident. Dr. Hopkinson continued: "I am afraid there has been some misconception as regards the position of the university in the matter. The university has not expressed any opinion on the subject under discussion. Whether or not it is right for it to do so is a question for its supreme governing body, namely, the Court, to determine." What has really happened is that the University Convocation passed a resolution asking the Court to use influence with the infirmary board to reconsider its refusal to appoint women, but the Court had taken no action.

The resolution was seconded by Bishop Welldon, Dean of Manchester, and supported by Mr. J. E. Platt, Chairman of the Medical Board, and Dr. Reynolds and others. An attempt was made by Mr. A. Simpson, supported by Professor Schuster, to postpone any decision, and Mr. C. P. Scott moved: "That the question be not now put." This was duly seconded, but, after some remarks by the Chairman, was withdrawn.

Mr. Scott moved to add to the resolution the words "on the same terms as men." The effect of this would have been to recommend the board not absolutely to close the door against women as residents. On being put to the vote, a considerable number of hands were held up for the amendment, but it was lost by a large majority, and the original proposal of the Chairman was then put, and carried also by a large majority.

LONDON.

TREATMENT OF SCHOOL CHILDREN IN WOOLWICH.

AT the meeting of the Education Committee of the London County Council on February 16th further steps to secure the medical treatment of school children in districts remote from hospitals were reported. The Committee of the Woolwich and Plumstead Cottage Hospital, Shooter's Hill, was prepared to undertake the treatment of 1,000 children suffering from eye, ear, nose, and throat ailments, and proposed, pending the building of a new general hospital in Woolwich, to fit up an out-patient department in the centre of Woolwich for the purpose. The medical staff of the hospital would attend this department at specified times for the treatment of school children, it being understood that serious operations would be performed at the Cottage Hospital, Shooter's Hill. The Education Committee understood that the qualifications of the medical men who would treat the children were satisfactory, and that they would be able to avail themselves of a consulting staff when necessary. The terms on which the hospital authorities were prepared to undertake the work were in general agreement with those made with most of the other hospitals—namely, £50 a year for each clinical assistant working one half day per week, and a payment of 2s. for each case treated. The committee recommended that an agreement be entered into for the treatment of not more than 1,000 children during a year, beginning on April 1st, 1910, and that expenditure not exceeding £250 be sanctioned in connexion therewith. The agreement provided that one clinical assistant should be provided for the treatment of eye cases and one for ear cases, and that when an anaesthetist was necessary for cases requiring operations he should be paid at the same rate as the clinical assistants. The recommendations of the report were agreed to.

WORCESTER.

CONTROL OF THE FEEBLE-MINDED.

IN a speech at a meeting at Worcester Shire Hall on February 7th Mrs. Hume Pinsent dealt with the question of the control of the feeble-minded, which she said was at present in a state of chaos, as there were four Government departments dealing with the mentally defective, which disagreed in the regulations they put forward. She dealt with two fundamental ideas—continuity and unity of control. The respectable working man was discouraged in his attempt to make provision for his mentally-defective child, for, if he did what it was his obvious duty to do, he was made a pauper. The need for one authority to look after the mentally defectives was even greater after the children had reached the age of 16 years, when they must be dismissed from school, as all their expensive education would be wasted if control over them was lost at that time. It was almost impossible under the present system to persuade respectable parents to apply to the guardians. The income of such families usually varied from 30s. to £3 a week, and it was impossible to spare from it 8s. or 12s. 6d. a week to maintain a defective child at an institution. In conclusion, Mrs. Pinsent pointed out the urgent necessity of preventing the birth of these people, and that the continuous segregation of the feeble-minded was the only means at present possible. Each year's delay meant a fresh batch of boys and girls mentally defective, a fresh number of criminals, and many additional people who never intended to work, or who would never be fit to do so. It was necessary to secure, first, industrial training, and, secondly, continuous control over the mentally defective. A resolution was proposed by the Dean of Worcester, and was unanimously carried, urging immediate legislation on the lines recommended in the Report of the Royal Commission. Copies of the resolution have been sent to the Home Office, the Local Government Board, the Lunacy Commissioners, the Board of Education, and the local members of Parliament.

THE next meeting of the International Congress of Hygiene and Demography was originally announced to take place in Washington, D.C., in September–October, 1910. In a letter dated January 29th, 1910, the Secretary-General of the Congress, Dr. John S. Fulton, announces that it has been decided to postpone the holding of the congress until 1911 or 1912.

THE meeting of the Royal Meteorological Society on Wednesday, February 23rd, is to take place in the Physical Laboratory of the University of Manchester. The proceedings, which include a paper recording results of hourly-registering balloon ascents from Manchester last June, will commence at 5 p.m. On their conclusion the Fellows will dine together in the University refectory.

MEDICAL MATTERS AT THE LABOUR CONFERENCE.

THE annual Conference of the Labour Party held last week at Newport, Monmouthshire, adopted several resolutions bearing upon matters of interest to the medical profession.

One was a resolution endorsing the unanimous recommendation of the Royal Commission on the Poor Laws that the general mixed workhouses and existing boards of guardians should be abolished, and generally supporting the proposals contained in the Minority Report for the break-up of the Poor Law.

Another resolution adopted was as follows:

> That the conference disapproves of the action of local education authorities in appointing medical officers who are permitted to engage in private practice, and urges the Government to make such amendments of the law relating to the medical inspection of children as would provide that every medical officer appointed by a local education authority shall be precluded during the holding of such appointment from engaging in private practice, and from holding any other office except that of medical officer to a local sanitary authority or to some other local education authority.

Another resolution urged the parliamentary Labour group to press for legislation with regard to the following matters:

(*a*) For the immediate amendment of the Education (Provision of Meals) Act so as to empower a local education authority to compel the attendance at school meals of any child certified by the medical officer to be underfed or badly nourished, and to feed the children during the school holidays.
(*b*) To make it obligatory upon a local education authority to equip every school with efficient baths, such baths to be under the control of the local education authority.
(*c*) To secure that the Education (Provision of Meals) Act, 1906, shall become compulsory.
(*d*) That the cost of the local education services should be more largely assisted by national grants in aid, the basis of such grants being determined by the physical condition rather than the mental attainments of the children.

The last clause was criticized, but the resolution was carried.

A resolution was moved on behalf of the cotton-spinners in favour of amendments in the Workmen's Compensation Act to provide as follows:

(1) That a doctor connected with an institution in which an injured workman is a patient shall not (without the consent of such workman) furnish to or for the employer any report as to the condition of the workman, and that a copy of every such report shall be furnished by such doctor to the workman.
(2) For compulsory insurance by employers against accidents to workmen, and for the fixing of a minimum weekly payment of 12s. during the total incapacity of persons over 21 years of age whose average weekly earnings during the twelve months preceding the accident were less than 24s.

The part of the resolution referring to compulsory insurance by empioyers was resisted mainly on the ground that it would militate against the successful consideration by the Government of proposals for State insurance, and it was deleted.

A resolution to the effect that the liability under the Workmen's Compensation Act should be a charge payable by the Imperial Exchequer was resisted on the ground that to transfer the liability of the employers to the State would remove one of the main checks to carelessness and indifference on the part of the employers. The resolution was defeated on a card vote by 592,000 to 193,000.

THE "Radium Institute of America" has been incorporated; its primary objects are to "discuss and study radium and radio-active substances in the interest of science and humanity." It is proposed to maintain clinics, laboratories, libraries, and meeting rooms for the distribution of the publications of the institute. The institute will have its head quarters in New York, but may also operate in other cities of the United States. Among the directors are Dr. Nicholas Murray Butler, president of the Columbia University; Dr. Edgar F. Smith, of the University of Pennsylvania; Professor Charles F. Chandler, of Columbia University; Dr. Willy Meyer; and Dr. William Hallock, dean of the School of Pure Science, Columbia University.

Special Correspondence.

VIENNA.

Jubilee of Professor Politzer.—Proposed Legislation against Quackery.

THE well-known aural surgeon, Professor Adam Politzer, recently celebrated the fiftieth anniversary of his graduation, and the esteem he commands amongst his brethren was well shown by the manner in which this occasion was made use of to do him honour. The senate of the university presented him with a renewed diploma of M.D., following an old custom which is in use here. The Austrian Otological Society, of which Politzer is the only honorary member, celebrated the anniversary by offering its formal congratulations to the professor in his own house. Professor Urbantschitsch, President of the Society, delivered an address. A golden wreath was presented by the Otological department of the policlinic, and numerous surgeons from all parts of the world were present at the ceremony, amongst them Mr. Cheatle, representing the British Otological Section of the Royal Society of Medicine. Politzer presented his very valuable library, containing some 4,000 volumes, among them being several unique books, to the library of the university. A part of the collection consists of old manuscripts which he had procured with greatest difficulty when compiling material for his *History of Otology*. In spite of advancing age Politzer is still vigorous, and the scientific leader of his speciality in this country.

At a recent meeting of the Medical Councils of Austria, a strong feeling was expressed that legislation was necessary in view of the increasing leniency with which quacks were treated by judges. As the present law is too elastic in this respect, the following amendment was recommended by a resolution to the House of Parliament now sitting:

> Whoever undertakes to treat or cure one or more persons, whether receiving for it any payment or not, without being in possession of a fully recognized diploma granted by a medical faculty of the Austrian Empire, or producing a duly recognized and notified diploma granted by a foreign medical faculty, shall be charged with committing a crime, punishable with imprisonment of at least one month, and not exceeding three months. Only in cases of emergency and on special occasions shall any exception to this regulation be admitted.

Should death follow such unqualified treatment, a charge of manslaughter or murder, according to the circumstances, shall be made against the person responsible for the result. A stricter supervision of the so-called ready-made medicines (we have no patent medicines in strictly the same sense as the English proprietary medicines) was also demanded, especially those dealing with "masculine weakness" and similar conditions. A mysterious poisoning affair, in which a military officer fell a victim to a powder disguised under the mantle of a patent medicine of this kind, has called the attention of the general public to the possibilities of an uncontrolled abuse of public credulity.

Correspondence.

APPENDIX DYSPEPSIA.

SIR,—Mr. Moynihan's reply to my criticisms of his paper is as follows:

> The thoughts which my paper embodies are new to him. . . . I am sorry this should be so, for it is evident that Mr. Bowlby and I are not yet equally equipped for a profitable discussion of this large, intricate, and important subject.

I suppose, Sir, I am correct in concluding that this rather cryptic utterance is a very polite way of saying that I am really too ignorant of the subject of appendicitis in its relation to dyspeptic and other abdominal pains to appreciate any further explanation. But I can assure Mr. Moynihan that not only are the "thoughts which his paper embodies" not new to me, but that I have myself some six years ago (*Lancet*, June 9th, 1904) pointed out in a clinical lecture that so-called "indigestion" and sick-

ness and "stomach attacks" may be due to attacks of appendicitis which are not recognized as such; and in the same lecture I explained how diffuse abdominal pain, remote from the appendix region and consequently misleading, may be caused by distension of the appendix, and may be relieved when the distension is relieved. So I hope that Mr. Moynihan will see that my want of knowledge is not so great as it must have seemed to him to be. There is, indeed, nothing new either in my observations or in Mr. Moynihan's statements that appendicitis may cause epigastric pain and flatulence, and may thus deceive the public into the belief that these are due to "indigestion" or "dyspepsia," and may also draw the inexperienced observer away from the real seat of the trouble, for surely this is all perfectly well known to every surgeon of experience.

What I took exception to was that Mr. Moynihan's description of "appendix dyspepsia" is so "vague and inclusive" that it confused very different conditions, and gave no clear guidance as to which were and which were not cases for operation.

May I also suggest that the name "appendix dyspepsia" is an unfortunate and misleading one in itself, for hitherto the word "dyspepsia" has been applied by the medical profession to stomach and small intestine troubles alone? Mr. Moynihan himself points out in his paper that many cases of what the public call "flatulent dyspepsia" are really cases of gall stones, so it would be equally correct to call these "gall-stone dyspepsia"; and, further, to call the stomach troubles of a loose kidney "renal dyspepsia." But the fact that the public confuse all these different stomach-aches and call them all dyspepsia is no reason for surgeons doing the same.

It is now ten years since I first saw a patient who suffered from typical intractable gastric dyspepsia of long standing, whose appendix was subsequently removed, though not by my advice. He was at first considered to be a very successful case, and believed himself that he was better. Yet time showed that this was not really the fact, and some years later another surgeon performed the operation of gastro-enterostomy on account of the return of all his old troubles. But this is not an isolated instance, and it is with the experience of those disappointing and unfortunate cases in my mind that I am quite unconvinced that serious pains and discomforts referred to the stomach region alone can be due to an appendix which causes no local symptoms, when these are carefully inquired into and sought for by a competent surgeon or physician. And, although the pain of acute or chronic appendicitis may be referred by the patient mainly to the epigastric or other regions, and may cause a flatulent condition simulating dyspepsia, I do not admit that in such cases it is at all as difficult or impossible to diagnose the appendicitis from real gastric trouble as Mr. Moynihan seems to suggest. And I am well aware that such conditions have for long been recognized by most surgeons, and have been given due consideration in the diagnosis of abdominal pains.

But apart from the simulation of dyspepsia by appendicitis, the chief purport of Mr. Moynihan's paper is to contend that a latent appendicitis, which gives rise to no appendix symptoms, can cause all the symptoms of a gastric or duodenal ulcer, including profuse haematemesis; and I am still of the opinion that Mr. Moynihan's published facts are not sufficient to warrant these conclusions, and that his arguments are not convincing.

Take the question of haematemesis by itself for the moment, because it is an objective condition, and can be easily observed. What proof is there that Mr. Moynihan is right in saying of the cases of bleeding from the stomach recorded by Dr. Hale White, "They are suffering from appendicitis"? If it be true, as Mr. Moynihan argues, that the sepsis of a very obscure appendicitis can be the cause of gastric haemorrhage, surely similar bleeding must also be caused by the much more serious sepsis of acute appendicitis, and that in a very appreciable proportion of all such cases. But is it a fact that we do so meet with it? I have never myself seen haematemesis complicating acute appendicitis, and I am not aware that men of the experience of Treves or Kelly have recorded examples of it in the cases observed by them. If it does occur, surgeons and physicians must have noted and recorded it. If it does not occur, what is the explanation of its non-occurrence in acute appendicitis, and its occurrence in latent appendicitis? Or will Mr. Moynihan contend that it does complicate acute appendicitis, although it has not been recorded?

The main facts in Mr. Moynihan's paper which are adduced in support of his contention that an unrecognized appendicitis can simulate all the symptoms of gastric or duodenal ulcers appear to be these: In a certain number of cases he and other medical men have advised an operation upon the stomach, believing that in it or in the duodenum was to be found some cause of the patient's trouble which necessitated an operation on that organ. The operation has revealed that the diagnosis was wrong, so far as any gross lesion of these parts was concerned, and then a further search has resulted in the discovery of an unsound appendix. The removal of this has been followed, for a time not specified, by improvement of the symptoms formerly complained of.

But in order that surgeons in general may be enabled to judge for themselves whether, in their opinion, the conclusion that the appendix was really the cause of the trouble in these cases is correct it is necessary for them to know on how many observations this conclusion is based. We also want to know the complete histories of the patients and the length of time that has elapsed since each was operated upon. And until such detailed information is published I submit that we should not accept Mr. Moynihan's dicta as a basis for advising operations on the appendix when there is no direct evidence to point to the appendix being affected; and, as Mr. Moynihan has himself opened this subject, I think your readers are justified in asking for the facts on which he has based his very far-reaching conclusions.

Finally, may I say that my reason for writing to you at all was to prevent, if possible, the too ready performance of operations on people with chronic dyspepsia, for that seems to me to be the inevitable tendency of the acceptance of Mr. Moynihan's teaching, and of the very wide range of symptoms he refers to a latent appendicitis? As it is, we have all seen patients who have not derived the benefit they anticipated from the removal of the appendix, and a possible addition to their numbers is very undesirable. Mr. Moynihan is also so well known as a skilful surgeon that his advocacy of a certain line of treatment is liable to be widely adopted without waiting for the facts to be published on which it is based.

I must ask Sir Clifford Allbutt and others to pardon me if I refrain from commenting on their interesting communications, as I am unwilling to trespass further upon your space.—I am, etc.,

London, W., Feb. 14th. ANTHONY A. BOWLBY.

SIR,—That sometimes the stomach and duodenum, when examined during life by operation, appear quite healthy, although the patient has had symptoms (even including haematemesis, then called gastrostaxis) which have strongly indicated the existence of an ulcer, has been known for some years.

Further, several observers have known the appendix to be diseased in some of these cases; for example, a woman aged 40, sent to me by Dr. Lewis Reynolds, had had for years the pain and local tenderness characteristic of duodenal ulcer; she had had melaena. An operation showed that the stomach and duodenum were healthy. The appendix, which was chronically inflamed, was removed. But if the diseased appendix was the cause of her duodenal symptoms, they clearly ought never to return, and therefore no conclusion should be drawn for at least five years.

We should be not only slow to conclude that because a diseased appendix is associated with particular symptoms, it is the cause of them, but we should also be cautious in drawing this inference, for other intra-abdominal disease than that of the appendix may be associated with symptoms strongly suggestive of a gastric ulcer. Thus, a man in my wards gave a history—including haematemesis—so indicative of chronic gastric ulcer that the abdomen was opened by Mr. Steward; the stomach, duodenum, and appendix were healthy, but there were nine cicatrizing tuberculous ulcers in the lowest 4 ft. of the ileum.

We know that when symptoms really due to neurotic

dyspepsia have been erroneously attributed to a gastric ulcer, and the patient has been operated upon, often, although he or she is better for a little while after the operation, the symptoms have returned. The same puzzling symptoms may be associated with disease of the appendix; but they can hardly be due to it, for they may return after the appendix is removed. For example, a woman had symptoms of dyspepsia; it was also thought to be probable that the appendix was chronically diseased, and that she was an instance of Professor Ewald's appendicitis larvata or appendix dyspepsia. The appendix was found to be chronically inflamed to a considerable degree; it was removed, but the symptoms of dyspepsia remained. In another case which corresponded exactly to Professor Ewald's description of appendicitis larvata the appendix was removed; for a time the patient was better, but four years after the operation the symptoms were as bad as ever.

One of the first things we have to learn is which are the cases in which permanent benefit is likely to follow excision of the appendix. I know from my own experience that such cases exist, for I have seen several, and one almost exactly like that described by Sir Clifford Allbutt; this patient is still well, although it is fifteen years since a new life was given to her after removal of the appendix. Then, too, one of Professor Ewald's cases described in his original paper was well five years after operation; but, as Mr. Moynihan truly says, much information is necessary.—I am, etc.,

W. HALE WHITE.

London, W., Feb. 14th.

SIR,—In connexion with the present discussion, I think the following case is of considerable interest:

H. O., aged 17, an engineer's apprentice, was admitted to the Liverpool Royal Infirmary under my care on January 15th, 1910, complaining of vomiting and of pain in the region of the stomach, symptoms which had lasted with more or less severity for the past two years, and had been attributed to ulcerated stomach. For the past eight months the patient had been worse than before, and had suffered from persistent frontal headache.

On admission he was moderately wasted. On some days he vomited after nearly every meal; the relief to the pain after vomiting was only slight. Food swallowed was often vomited almost immediately, but the vomited matter was acid. No medicinal treatment seemed to restrain the vomiting.

On January 17th he was ordered nutrient enemata, and from January 19th to 26th no food was administered by the mouth. After that, food was given by the mouth, some solid, some milk. Most of the solid food was retained, but the milk was vomited at once. I began to suspect a nervous origin for the vomiting, either functional or cerebral; but the optic discs were normal, and the *x* rays showed that a bismuth meal was retained five hours in the stomach.

On January 29th Mr. Moynihan's remarks on appendix dyspepsia appeared in the JOURNAL, and it occurred to me that my case might be one of this kind. The patient was anxious for an operation, and I asked my colleague, Mr. F. T. Paul, to perform it. We agreed that he should first examine the stomach, and that if it seemed to be normal he should proceed to examine the appendix. This was done on February 4th. An incision was made above the umbilicus, and the stomach was seen to be quite normal. A second incision was made over the appendix, which was removed, and found to be obviously diseased. Mr. Paul informs me that on slitting it up a ring ulcer was found surrounding it about the middle, partly cicatrized, and forming a stricture. The mucous membrane beyond the stricture was inflamed, and covered with a whitish membranous exudation, resembling a diphtheritic exudation. Of course it is too soon to say whether or not the operation has cured the patient, but the fact that the symptoms, which were entirely gastric, led to the discovery of the diseased appendix is in itself highly significant. Under ordinary circumstances, in such a case one of two things would have been done: either the laparotomy wound would have been closed without any further operative proceedings or gastro-enterostomy would have been performed. The fact that on the stomach being found normal it was left alone and the diseased appendix was removed is entirely due to the teaching of Mr. Moynihan in his address published six days before.—I am, etc.,

THOS. R. BRADSHAW, M.D., F.R.C.P.

Liverpool, Feb. 13th.

SIR,—I have read Professor Ewald's letter appearing in last week's JOURNAL, and my attention was arrested by the case he cites of Mrs. D. of Valparaiso. This case has been under my care since 1906, and, so far from the statement that "the complaints never returned" being correct, I feel it my duty to state that she suffers from all her old symptoms—abdominal pain and distension, vomiting and constipation—precisely as she did before the removal of the appendix; and, furthermore, the patient assures me that the operation was not followed by any alleviation of her troubles, which have persisted off and on for ten years. It is unfortunate that Professor Ewald should have selected such a case to illustrate the success of treatment by removal of the appendix.—I am, etc.,

EDWARD A. ROBERTS.

London, S.W., Feb. 16th.

OPERATIVE TREATMENT FOR HAEMORRHOIDS.

SIR,—I have been much interested in the correspondence that has recently been taking place in the JOURNAL concerning Whitehead's operation for piles. The question as to which is the best method of operating for piles has, for a long time, been a subject of much controversy, some authorities preferring the clamp and cautery, some Whitehead's method or its modifications, and others the ligature. There can be no doubt that each has its merits in certain cases, and that each, in the hands of skilful surgeons, yields excellent results. There is, however, one point upon which I have long since made up my mind—namely, that the operation by ligature can be relied upon to give uniform good results when efficiently carried out; whereas the same cannot be said of either of the other two methods, both of which are liable to be followed by undesirable sequelae, even when the operators possess undisputed skill.

Personally I prefer the ligature operation, because I know that the after-results of more than 1,800 cases in which I have employed the method have been uniformly satisfactory. In fact, I would go further than this, and say that I am prepared to operate upon any consecutive series of 100 cases of internal piles by that method, and obtain 100 good results. Such uniformity can be obtained by any surgeon who knows how to perform the ligature operation properly, and for this reason the method is undoubtedly the best for the patient.

I think the clamp and cautery operation is a good one, and has some advantages over the ligature, but to it there is attached a percentage of undesirable sequelae, such as anal stenosis, which even the most skilful exponents of the method seem unable to avoid, and therefore, to my mind, this operation is not so reliable as the preceding.

In regard to Whitehead's operation, I agree with Mr. Cripps, who says it is the worst operation ever devised for the cure of haemorrhoids. I say this because I have seen bad results follow the method even when the operation has been performed by very skilful surgeons, and in some instances by those who have had considerable experience of it. Therefore, it appears that this operation is followed by a percentage of bad results beyond the control of the surgeon.

During the sixteen years in which I have been practising rectal surgery, I have seen 37 cases of the bad results following a Whitehead's operation performed by various surgeons in London and the provinces. These were as follows: Anal stenosis in 22 instances, extroversion of mucous membrane in 9, and blind internal fistula in 6. All of these sequelae required an operation for their cure, and, therefore, I contend that any operation for piles is a bad one which, in even a small percentage of cases, may require a secondary operation. On these grounds alone I cannot agree with Mr. Wallis, who states in your issue of February 12th that "the radical operation is the best surgical procedure for the complaint." Nor do I agree with his dictum that, "however well the operation is conducted, the ultimate result will be made or marred by the nursing." Surely a bad result following an operation is due either to the operation itself being bad or to the technique of the operator being faulty.—I am, etc.,

W. ERNEST MILES.

London, W., Feb. 15th.

SIR,—I agree entirely with Mr. F. C. Wallis's remarks, with the exception of the quotation with which he prefaces them. My edition of Kipling contains the following version:

> There are nine-and-sixty ways of composing tribal lays,
> And every single one of them is right.

But, with all deference, I do not think there are so many equally good methods of operating for haemorrhoids. I commenced operating by the method of ligature, and by a process of gradual evolution have come to adopt an operation identical with that described by Whitehead. For the last ten years I have "used no other."

I have never seen one case, either in private or hospital practice, in which the ultimate result has been other than completely satisfactory. I have never seen a stricture following it, and I believe, if primary union takes place, stricture is impossible. The only inconvenience has been a slight difficulty in controlling the evacuations, which has never lasted for more than two or three weeks. The operation takes very little time—twenty minutes on an average—and is attended by very little haemorrhage. It has also, so far as my experience goes, been followed by far less pain than the operation by ligature. Generally patients are quite comfortable after the first twenty-four hours.

A recurrence of haemorrhoids is, of course, impossible, and I have never heard a patient regret having submitted to the operation.—I am, etc.,

HERBERT H. BROWN, M.D.Lond., F.R.C.S.

Ipswich, Feb. 14th.

SIR,—Mr. F. C. Wallis's letter (February 12th, p. 415) is admirable as a piece of special pleading, but as a serious argument in favour of Whitehead's operation is hardly convincing. He says: "It is wrong . . . to say any operation is a bad one on account of the failures which may come to one's notice." This seems to me an extraordinary statement. Surely it is only by carefully observing the results of an operation that it is possible to judge of its value or otherwise; it is the one and only test. Many operations that on the operating table have appeared brilliant successes have been subsequently abandoned because the ultimate results were disappointing.

I never denied that excellent results can be obtained by Whitehead's operation in the treatment of piles when it is performed by a skilled operator; but I stated in my letter that recurrence—by which I mean return of the symptoms necessitating a further operation—not only occurs after Whitehead's operation, but is more frequent than after the operation by ligature.

Mr. Wallis evidently agrees with Mr. Richardson in considering that Whitehead's operation, or some modification of it, is the only radical one for piles. But surely this is a misuse of the word. In a surgical sense we generally mean by a radical operation one which removes the cause of the symptoms; in this case the piles. Any operation, therefore, is radical in which all the piles are removed; a radical cure for hernia is none the less radical because the intestines are not removed.

With regard to the removal of the sensitive area of the rectal orifice, it is, of course, obvious that, as a rule, sensation returns after Whitehead's operation, or otherwise the operation would never have been heard of. My point was, that in a certain small percentage of cases it does not return.

Mr. Wallis seems to object to Mr. Cripps and myself criticizing Whitehead's operation on the ground that we have not performed it. But one does not form an opinion as to the value of an operation from one's experience in performing it so much as from the results. While I have seen quite a number of very bad results from this operation, I have seen none after the operation by ligature.

The weakest part of Mr. Wallis's argument is in the end of his letter. He points out that very skilled nursing is necessary to secure good results after Whitehead's operation. Now, skilled nursing is an advantage after any operation, but it is *not* a necessity after the operation by ligature. He seems to admit that Whitehead's operation is liable to go wrong, unless very great care is taken.—I am, etc,

London, W., Feb. 15th. P. LOCKHART MUMMERY.

CONSULTANT, GENERAL PRACTITIONER, OR HALF-AND-HALF?

SIR,—In these days, when keen competition is driving many a general practitioner to great straits, and, only too often, to extinction, it behoves us to look around and see if we cannot find remedies for this condition of affairs.

In the first place, I presume no one will gainsay that the management of the out-patient departments of our hospitals is largely to blame. Cases are treated in those departments which could afford to be dealt with by the general practitioner in the ordinary way, and nearly all could be so dealt with if the people had the opportunity, and, by means of refusal to be attended in the out-patient departments, were compelled to join provident dispensaries; such as could not afford attendance even by that method would naturally come under the Poor Law. The out-patient departments of our hospitals should be made free consulting centres.

The point, however, to which I particularly wish to draw attention in this letter is indicated by my heading. Are not the so-called consultants of to-day acting very largely as general practitioners; in other words, seeing patients not in consultation with another medical man, but "on their own"?

I take it that a consultant should be a practitioner who *only* sees patients in conjunction with another practitioner. How many so-called consultants act up to that definition in the present day? I wot not many.

If the so-called consultant answers, that if he confined his work to that exclusive practice he could not earn a sufficient income, and that the day for such exclusiveness is past, then let him say so straightforwardly and honestly, and admit that he practises half as a consultant and half as a general practitioner. The general practitioners then would choose their consultants with greater care, and avoid those men who robbed them of their patients, and by such robbery also drew from them the connexion that might follow from such patients. The time for plain speaking on this matter has come, and I venture to say there are few general practitioners in this country who have not had patients taken from them by so-called consultants.

Another argument the so-called consultants might bring forward is that it is not fair to the general public that they should be denied their apparent right of consulting independently whom they wished. This is only a fictitious right, and the general public would in no way suffer if consultants were really consultants, and their treatment was carried out by general practitioners. The barrister cannot be approached except through the solicitor. Why should there be access to the medical consultant except in conjunction with the general practitioner? I feel sure it would add to the dignity of our profession if such a procedure were always adopted.

Another reason why so called consultants have ceased to be real consultants is because of late years specialism has run mad. We have specialisms within specialisms—a man, metaphorically speaking, can attend to the big toe, but he cannot attend to the little one. The result of this over-specialism is that you have very many practising as specialists who have no right to the title other than in their own imagination, and so gull the public and rob the general practitioner, whilst at the same time they bring an honourable profession into discredit.

The fact is, so-called consultants are too numerous; and, on the other hand, general practitioners are more capable than they were, and do not need the number of consultations that possibly were needed in the past, when teaching had not been brought to the fine art that it has to-day.

What good is man if he be not practical? Where, then, is the remedy?

Surely, in the first place, that our two Royal Colleges should see to it that their Fellows who profess to be consultants should really be what they pretend to be.

Secondly, that our hospitals should take care, for their own credit, that the members of their staffs should be consultants truly, and not in practice general practitioners.

Lastly, the general practitioners themselves should choose their consultants with greater care, and not recognize so-called consultants who are seeing patients, save than in conjunction with another practitioner.

Sir, I have no axe to grind. I am sufficiently old and

sufficiently successful to prevent these matters affecting me, but I love my profession, and I desire to see it continue in that honourable position it has held in the past, and of which some present-day methods are tending to rob it.

In conclusion, I refrain from signing my name to this communication, not because I am ashamed of anything I have written, but because, should this letter call forth further communications, all personalities should be avoided and the matter discussed on its merits.—I am, etc.,

ENQUIRER.

February 14th.

GENERAL PRACTITIONERS AND POOR LAW REFORM.

SIR,—At a largely attended and highly representative meeting of medical men of Manchester and district assembled to hear an address from the Medical Secretary, Dr. J. Smith Whitaker, on the medical aspects of the Report of the Poor Law Commission, the following resolution was proposed:

> That, in the opinion of this meeting of medical practitioners of Manchester and Salford and district, no reform of the Poor Law Medical Service can be effective without concomitant reform of provident and charitable medical agencies; that no medical service under a Sickness and Invalidity Insurance Act will be satisfactory to the medical profession that is worked on the lines at present adopted by many of the great friendly societies; that, inasmuch as the late Royal Commission on the Poor Laws was not fully equipped for dealing with the details and intimate relations between provident agencies, charitable hospitals, and any public medical service, this meeting calls on the Government to appoint a Departmental Committee, on which the medical profession should be properly represented, to fully consider these matters before legislation is undertaken.

Time did not permit a sufficient discussion, so the meeting was adjourned, and the resolution is to be further considered and voted upon.

It seems to me, however, that the resolution is of such great importance to us all that it should be forthwith placed before all members of the Association, and indeed, of the profession.

Possibly with regard to the first part of the resolution some differences of opinion may arise, but with regard to the second and third parts, I take it most practitioners must approve. A general extension of the pernicious sweating system of cheap contract practice of semi-philanthropic character, such as appears to be contemplated by some "reformers," can hardly be too strongly condemned and resisted by medical men, both in the interests of themselves and their patients. On the other hand, the extension of the present Poor Law medical officerships, to become whole-time officials, and to take over practically all the working-class practice of this country, can surely hardly be faced with equanimity by the most apathetic of general practitioners. One frequently hears it stated that the working class forms the backbone of general practice, and certainly practice would become very *in*vertebrate without this class to most of us, except in a few fashionable residential neighbourhoods.

According to the recommendations of the Poor Law Commission's Majority and Minority Reports, therefore, we are to be cast on Scylla or Charybdis. Is there no safe channel between? I think there is, and that it lies in a system of State-aided medical insurance which would cover every worker for every kind of sickness and accident to which he might be liable, providing all the costs of medical attendance and nursing, and even maintenance of the family, during the period of incapacity. The doctors' fees should be paid by the insurance department direct, and should not be less than the recognized scale of fees at present in vogue—namely, a minimum of 2s. 6d. a visit for an ordinary visit. What a blessing it would be if all medical practice could be paid for in this way—that is, not by the patient, but by an independent insurance department! although, of course, for higher-class patients and in special cases special fees would be charged. If a proper system of medical assurance, under the State, were once inaugurated, there is no reason why every one should not join. It would be a huge mutual benefit scheme, but, of course, those who could not afford to pay their full share of the premiums would have to be assisted by the State.

All patients would, as at present, choose their own medical attendants, and the latter would always be sure of remuneration, and there would be no friction between doctors and patients about bills, etc. Certain safeguards and limitations would no doubt be thought necessary to prevent abuse of such a scheme, but these need not interfere seriously with its proper working; and I foresee that its adoption would promote the best interests both of the profession and the community.—I am, etc,

P. R. COOPER.

Bowdon, Feb. 15th.

SIR,—While agreeing with Dr. Flemming that the chief desideratum of our profession is independence, and that this is equally necessary for the welfare of the public and the practitioner, I must dissent from his views as to how this independence is to be maintained. The very essential of the Public Medical Service recommended by the British Medical Association is that such service must be entirely under the control of the profession. Is there the remotest likelihood of a National Public Medical Service being placed under such control? He says "this service would be practically a great club." Personally, I cannot but view with the greatest apprehension any increase of the present club system with no better control on the part of the profession than at present exists. I am also at issue with Dr. Flemming as to the acceptance of pauper patients on the same terms as other patients in any provident dispensary scheme. Such an arrangement would be most inequitable, as the responsibility connected with the medical care of the destitute is far greater than in other kinds of medical practice. If Dr. Flemming has had any experience in the contract practice connected with benefit societies, I am surprised at his eulogium of the "sheet" inspected by club visitors. Such sheets can never give even an approximate idea of the work done by the club doctor, and they were never intended to. Their object was to show that the sick member was periodically seen by the doctor, so as to prevent imposition on the sick funds of the society, and I doubt whether they are of much value even for that purpose. The present Poor Law Medical Register is infinitely superior to these sheets, as affording a means of checking the work done by the Poor Law medical officer. With regard to Dr. Flemming's arguments in favour of a choice of doctors for pauper patients, with all respect to him, I am compelled to acknowledge that the arguments of the Minority Commissioners against such a choice are far more logical and convincing to my mind.

Before concluding, I should like to draw attention to Dr. Taylor's letter (p. 417). In my opinion it is an admirable letter, and I hope it will be carefully read and considered by all your readers. It shows in the clearest possible manner the imminent danger threatening our profession, and the necessity of union among all general practitioners to protect themselves against by no means imaginary dangers. The present attack upon part-timers imperils all general practitioners. After all, any of their posts are open to every practitioner, and if they cannot be held by all at the same time, they are continually becoming vacant, and passing from one practitioner to another. Many of the proposed schemes tend to take all of them away from the practising profession, and in so doing seriously jeopardize the private practice that remains.—I am, etc.,

MAJOR GREENWOOD,
Honorary Secretary, Poor-Law Medical Officers' Association of England and Wales.

London, E.C., Feb. 12th.

PART-TIME MEDICAL OFFICERS OF HEALTH.

SIR,—Dr. Arthur E. Larking (page 352) makes some sweeping allegations against the large body (over 1,100) of part-time medical officers of health as a whole. It would be interesting to know by what standard he judges them. He has been one himself, and seems to have had some unpleasant experience, both as medical officer of health and general practitioner.

It would also be interesting to know how many medical officers of health make a practice of visiting the patients who are notified as suffering with an infectious disease, except in consultation, and also how many are in the habit of telling their sanitary authority about such cases.

Is it not the usual mode of procedure for the medical officer of health to make inquiries, but *not* to see the

patient, except in consultation, and to report to his sanitary authority at the usual meetings that such and such a number of cases have been notified? Personally, I should not dream of telling my sanitary authority the names of such patients, and I am sure they would never think of asking me.

Regarding the fifth paragraph of Dr. Larking's letter, we all know that any man in a public position is generally pretty carefully watched and his doings noted.

There is often too much idle talk about doing this or that for the good of the public. We part-time medical officers of health are dubbed inefficient, careless, open to influence, etc., by some of our professional brethren; do they do it entirely from a desire to benefit the public, or is it sometimes a case of "dog in the manger"?

As medical officers of health must of necessity be greatly in the minority in any mixed medical association, it is quite easy to pass a resolution affecting them, whether they approve or not; nevertheless, as one of the 1,100 part-timers, I beg to express the opinion that no society has the right to make a rule that will deprive many of their members of a part of their livelihood, provided the work done is of an honourable character.

We hope such will not be the case, but should it come to this—that we have to choose between the British Medical Association and our appointments—many of us would have no choice in the matter. We could not afford it,—I am, etc.,

February 8th. EDWD. G. GIBBS-SMITH, M.O.H., Teddington.

SIR,—There has been a tendency in some of the letters that have appeared in your correspondence columns to use rather strong language. I therefore, in my letter on the above subject, tried to make it as impersonal as possible. Having spent twenty-five years in practice in different places, and having had personal experience of every one of the points dealt with in my letter, I do not approach the subject in a spirit of prejudice at all. I can give instances of every one of the objections to part-time medical officers of health referred to. There is no prejudice about it.

My opinion has been formed from the observation of actual occurrences, common in the practices of every general practitioner where there is a part-time medical officer of health. They are not assertions totally unsupported by evidence, but are everyday occurrences, so common that the vast majority of the members of our Association are of a similar opinion to myself, and have decided against the part-time medical officer of health. It is not a question of "selling their souls" that leads part-time medical officers of health to accept salaries of £20 a year. It is because they know that they are only wanted to do £20 worth of work! Surely this is not for the public welfare?

The letter of Dr. H. E. Gough shows a spirit that I will not try to imitate. He has evidently been very remiss in his attendance at his Division meetings, and has not realized that the British Medical Association does not desire to act inimically to any member of our profession, and is only striving by discussion and friendly intercourse to arrive at a solution of many difficult problems. It is those members who absent themselves from meetings of which they have been given due notice who are now crying out that their interests have been neglected. Whose fault is it, and whom have they to blame for it? Only themselves and their own negligence and want of co-operation with their medical brethren. A regular attendance and a little more converse with his colleagues in the same neighbourhood would convince him that it is not by accusing other medical men of a want of justice, want of consideration for other persons' rights, opinions, and feelings, etc, that a correct decision can be arrived at. Surely Dr. Gough does not imagine that it is the wish of our British Medical Association to deprive any medical man of any appointment with which he himself is satisfied and which he wishes to continue to hold? Nothing of the kind. All that has been done is to express the opinion that the principle of whole-timers for public health work is the one the Association favours. If dissentients bring the matter before their Division it is quite competent to modify this declaration of policy at the next Representative Meeting. But I am confident that if Dr. Gough brings the matter before his Division he will find that his opinion is not that of his brother practitioners, especially if he adopts the same arguments and style as in his letter.

Another objection to part-time medical officers of health is that the work that has to be done is so totally different from ordinary general practice as to need special training and knowledge, and therefore deserves special pay and privileges. What does the ordinary general practitioner know about water analysis, the various kinds of traps, sewage disposal, house construction, water supplies, vital statistics, and suchlike? How many part-time medical officers of health possess the D.P.H.?

I am entirely averse to the suggestion of whole-time district medical officers in connexion with the Poor Law, as this work is a part of general practice; but whole-time medical officers of health are specialists, and their work is nothing akin to general practice.

I agree that it is a pity general practitioners are losing their phthisis cases, their midwifery cases, and that efforts are being made to appoint special whole-time officers for medical treatment of school children; but surely Dr. Gough will acknowledge that it is for the benefit of the public to control phthisis, and that whole-timers, if they have "engineered" this, have done the right thing.

The Midwives Act would not have passed and our midwifery cases would not have been so much curtailed had our Association been alive then as it is to-day. Then it was only the voice of Dr. Rentoul that was raised against the Act and who saw what it would lead to. Whole-time medical officers of health had no connexion with the question whatever!

Who are trying as hard as they can to secure the appointment of general practitioners to treat defective school children? The members of our Association. Immense labour has been entailed and large sums of money have been expended by the Association over this question, as Dr. Gough ought to know had he attended the Division, Branch, and Annual Meetings as he might have done.

These facts prove that the Association is trying to protect the interests of its members and to secure the best results. Dr. Gough may rest assured that the interests of all our members, whether part-time medical officers of health or not, will be jealously and impartially safeguarded.—I am, etc.,

Buckingham, Feb. 15th. ARTHUR E. LARKING.

THE MEDICAL PROFESSION IN INDIA.

SIR,—Your correspondent is disposed to challenge the statement that there is real need for a radical change in the medical service of India, and to look upon criticism directed to that purpose as part of a policy of recent growth mainly designed in "the interests of a political coterie in Bombay actuated by motives of hostility towards the European element in the Indian public services." But this agitation has been going on for about twenty-five years, and the demand for reform has come from the Government of India, local governments of Madras and Bengal, from Lord Wolseley, the late Sir Donald Stewart, the late Dr. Bahadurji, and others, on the grounds of efficiency, economy, and justice to all concerned. Your correspondent fails to see with sufficient clearness the existence at present of a large body of capable medical men trained in European and Indian schools of medicine, outside the Indian Medical Service, chafing under the restraints of a system which practically closes to them the higher grades of the medical service by reserving them for officers of the I.M.S. It is true that the I.M.S. is open to Indians who are below the age of 28 years and are able to come to London for the Competitive Examination. Actual experience, however, shows that very few can do so, owing to the cost, risk, and inconvenience which it entails. Consequently, large numbers can serve their country only in the subordinate ranks, without any hope of rising in the service. It is therefore the duty of the Secretary of State to devise a scheme which will bring the coveted posts within reasonably easy reach of all capable Indians, and thus remove a grave injustice. To this effect suggestions have been made in the memorial of the Bombay Medical Union, without importing into it personal or racial hostility. Under the

isting system, the higher ranks in the civil medical partment are manned by military officers lent to the vil branch till their services are required for war irposes. This means that the civil institutions, as lleges, hospitals, sanitary and chemical departments, ist not for the cultivation of medical science and for the omotion of human happiness, but primarily as war serves. It follows also that they are to be closed when dia is engaged in a war. This war reserve, however, ists, as experience has shown, only on paper, and not in ality, as it is not possible to withdraw these officers from ese institutions in time of war.

Again, the present method of filling all the important nd responsible posts with officers of the Indian Medical ervice only leads to appointments being made on the asis of service qualifications. The fact of their holding pecial posts is afterwards held to prove that they are xperts. This is begging the question. Experts need special capacity and long training, and cannot be made y Government resolutions as vacancies occur—for xample, in answer to a question by Mr. Kettle, M.P., on lay 26th, 1909, the Under Secretary of State said that an rmy doctor who has been surgeon on the personal staff of he Governor of Madras for about ten years was straight way appointed a professor in the Presidency Medical ollege. He teaches medical jurisprudence to university tudents, and is then converted into a Professor of Surgery. fter scarcely two or three years of this experience he ecomes principal of the college and a Syndic member, nd thus the ruling authority upon medical matters in the niversity of Madras.

Let me finally say that in the arts, law, and engineering olleges Western education is given as in the medical chools, and the highest appointments in them are open o students of these institutions. The professors of these olleges are selected from the graduates of European and ndian universities, and when capable and competent ndians are found they are appointed to those places. Why is this practice not followed in the medical faculty?—I am, etc.,

London, S.W., Feb. 7th. V. P. GONSALVES.

BACTERIA AND DISEASE.

SIR,—I do not think the letter of Dr. John Priestley in he JOURNAL of January 29th, p. 293, under the somewhat urious misnomer, "The Pathology of Bacteria," should ass without comment. It is evident from the tone of his etter that, although not entirely dissociating micro-rganisms from disease, he would cast very grave doubts n their causal relationship.

It is perfectly clear to the majority of us who are not iven to "furiously thinking," that in the so-called infec-ive diseases there are at least two primary factors: 1) The presence of the specific germ; (2) the suscepti-ility of the "being" attacked. Dr. Priestley seems to ave entirely overlooked this second factor, which, after all, s the most important. Has he never heard of the terms natural immunity," "insusceptibility," or "invulner-bility," as applied to infective disease? Hewlett says hat no fact in biology is more striking than the differences n susceptibility to disease conditions exhibited by different aces, individuals of the same race, or even at different ges or under different conditions in the same individual, nd this is generally recognized.

Every one knows that we are all exposed more or less to he tubercle bacillus and other germs, but only some pecial vulnerability determines the corresponding disease.

The difficulties of cultivating some micro-organisms and he ease with which others are inhibited alone enable us o surmise what an extremely delicate question immunity nust be, and upon what slender conditions it depends. Hence the existence of healthy "carrier" cases of the germs of diphtheria, typhoid, and pneumonia. With egard to the facts mentioned by Dr. Priestley, I think hey can all find a natural explanation in terms of either mmunity or non-infection, without seriously damaging he case for bacteriology. The small boy mentioned by Dr. Lloyd may have had an acute follicular tonsillitis or ther septic condition, while the elder boy was a healthy carrier" of the diphtheria bacillus, of which there were robably several others at his school.

With regard to the carrier problem, Dr. Vincent's paper peaks for itself.

Again, the low mortality of women in childbed in the East End of London does not lend any support to Dr. Priestley's case against bacteria. Five and a half years' charge of a Poor Law maternity ward in one of the poorest districts in London has sufficed to convince me that the state of filth or of clothing in which a woman is confined bears no relation to sepsis provided no examining hand is allowed to touch these garments or the skin in its introduction. I have had women confined in cabs before entrance, and some have been confined immediately on entrance, and had to be screened off there and then in the grounds; others within a few minutes of reaching the ward, without time to change their filthy garments or be cleansed in any way; yet these cases invariably had a normal puerperium, contrary to what one might have expected. Similar experiences could doubtless be multiplied.

Such cases run no risk of infection, but, with regard to abnormal cases requiring internal manipulation, such as removal of placenta, etc., I am convinced—and here I am voicing the opinion of many—that in midwifery the most scrupulously conscientious regard for asepsis and antisepsis is the only way, and any attitude of relaxation from these rigid principles should be severely condemned. The facts which Dr. Priestley sets forth do not make us doubt for a moment the part played by bacteria in disease, and, if they are worth thinking about at all, are worth thinking about correctly.—I am, etc.,

London, E., Jan, 29th. F. B. SKERRETT.

SIR,—It appears to me that Dr. Priestley has placed bacteria in such an exalted position that he has, for the moment, forgotten the soil upon which they grow—the patient. It is common knowledge that diphtheria bacilli exist in normal throats, and that no symptoms arise from their presence there; but if a person with diphtheria bacilli present develops tonsillitis, then we have present the conditions necessary for the growth of the organism, that is, lowered resistance on the part of the tissues, and the organisms hitherto harmless and inactive become harmful and active. We are all agreed that a diphtherial or pseudo-diphtheritic throat cannot exist. A patient has either diphtheria or he has not diphtheria. There is no half-way condition. The relationship which exists between organisms and disease is that of cause and effect. With regard to Dr. Laetitia Andrew Bird's record, it is necessary that we have much fuller details before we could venture to offer an opinion. We must know whether there was any trauma inflicted during any of the labours. Then we must know whether in these cases the temperature was systematically recorded, as many slight cases of sepsis doubtless escape our notice through inattention to this point. Many other points must be considered before we can express any surprise at the figures. It may interest Dr. Priestley to know that it has been proved that typhoid bacilli vegetate in the gall bladders of patients who have been attacked by this disease. The gall bladder intermittently contracts and ejects them into the intestine. Therefore, although these patients have no symptoms of typhoid, yet they are capable of transmitting the disease to any susceptible person with whom they may come in contact. Such persons are known as typhoid carriers.—I am, etc.,

Bedford, Jan. 31st. S. J. Ross.

PSYCHICAL RESEARCH.

SIR,—Dealing with the investigation of "unusual mental phenomena," the distinguished ex-president of the Psychical Research Society has recently expressed his opinion of medical practitioners in the following terms: "As I understand a doctor's business, it is to cure an abnormality if he can . . . not to investigate it. True, a doctor may be a scientific man in addition, but *qua* physician he is out of his element as a general investigator, and as a leading practitioner he has very little spare time. Were it not so, the record against the profession . . . would be not only pitiful, as it is, but essentially disgraceful."[1]

Such an interpretation of our business, as it appears to me, would with equal force exclude us from other fields of investigation hitherto regarded as legitimate. Whether it

1 *The Survival of Man.* By Sir Oliver Lodge, F.R.S. 1909. Methuen and Co. P. 153.

be intended to thus ostracize all members of the profession from the select company of scientific workers is not perfectly clear. But it is quite clear to me as a general practitioner that under this new régime the lot of the poor general practitioner is to be worse than ever. Up to now he has been urged carefully to investigate natural processes even by those who—not without a spice of self-interest, perhaps—advise him to refrain from doing anything else of any great importance! I think it was Lucretius who, with profound insight, remarked:

Felix qui potuit rerum cognoscere causas.

But the general practitioner, poor man, is now to be deprived of all chance of happiness as indicated by the poet. If he may not investigate, it stands to reason that he has but a small chance of grasping the significance of things and therein finding pure joy, unalloyed by filthy lucre and other mundane considerations.

But, seriously, I suggest that it is because all members of the profession are or ought to be investigators every day, and because it happens to many of them to see natural phenomena direct, and not through other people's spectacles, that the practice of medicine is not the veriest drudgery, but, on the contrary, the most attractive, perhaps, and the most stimulating of the learned professions. It is probably from the same reason that medical men are "characteristically sceptical";[2] they know by hard experience how easy it is to go wrong, and how hard it often is to get right. Many of them know, too, by experience the fascination which results from a first glimpse of a new truth. They know that he who thus sees may wander "blinded by excess of light" from the narrow road of sound deduction into the bypaths of perfervid imagination. Such things happen to medical men, possibly also to members of the Psychical Research Society.

But however that may be, it is seriously suggested by the ex-president of the Psychical Research Society that certain deceased members have been endeavouring to communicate with the society since their death; that they are offering evidence of identity, and that this evidence is "beginning to be crucial."[3] I fancy it will be wiser for medical men to await the publication of this most interesting and (if crucial) epoch-making evidence, before expressing any opinion upon these very occult phenomena. But, in the meantime, I suggest that the question of *telepathy* is ripe for serious discussion.

I may say *en passant* that I have no practical knowledge of such matters; what very limited knowledge I possess has been derived entirely from "book work." But it is evident even to a tiro that if telepathy is to be seriously discussed it must be carefully defined. Public or semi-public exhibitions of such phenomena prejudice thinking men and are out of court. Such experiments as might be explained by "the hypothesis of unconscious sensibility to involuntary muscular action" are also excluded.

If telepathy be defined as the transference of mental impressions from one individual to another without the ordinary intervention of sense organs, it may serve for all practical purposes, though it is open to the theoretical objection that there may be ordinarily and normally X Y Z waves hitherto unsuspected acting upon sense organs, and which, under favourable conditions, in some individuals produce astonishing results.

Of course, experiments for the purpose of elucidating such a point would require to be controlled and conducted by observers of position and eminence whose bona fides would be above suspicion. It seems te me that these conditions are fulfilled in some of the experiments recorded by Sir Oliver Lodge; and that therefore the subject is ripe for discussion and further investigation. If such "thought transference" be a fact, it would appear to be not merely a startling but an important fact. I have not been able to obtain any information *pro* or *con* from any of the standard textbooks on physiology which I have consulted so far.

I suggest, however, that unless we are prepared to relegate the investigation of such alleged brain function to distinguished amateurs, the Association might without impropriety do something towards a definite solution of this question. If it served no other purpose, it might at least enable us to bring a more educated judgement to bear upon the astounding evidence of *post mortem* telepathy foreshadowed by the well-known authority already referred to, and which will doubtless be awaited with some curiosity by many of your readers.—I am, etc.,

Manchester. J. STAVELEY DICK, M.B. (R.U.I.).

[2] Loc. cit., p. 215.
[3] Loc cit., p. 334.

THE TREATMENT OF NEURASTHENIA AND PSYCHASTHENIA.

SIR,—At the conclusion of his remarkably instructive Purvis Oration before the West Kent Medico-Chirurgical Society (reported in your issue of January 22nd), Dr. Herman very definitely limited the use of suggestion in the treatment of certain functional neuroses by stating that—

> In cases of pelvic pain it is most important . . . to distinguish between that which is hysterical and curable by suggestion; that due to neurasthenia, curable by rest and sleep; that due to psychasthenia, benefited by rest and sleep, but not curable by anything; and that due to local disease, to be cured by local treatment.

But I think that those who are familiar with the routine use of suggestive therapeutics will agree with me that such limitation overlooks to a very great extent the usefulness of suggestion in functional neuroses other than hysteria.

In the treatment of neurasthenia, whilst rest and sleep are admittedly of the greatest value in recuperating the exhausted nervous system, they are, alone, surely incapable of curing the great majority of neurasthenics; for in neurasthenia there are as a rule mental and toxaemic factors which cannot be controlled by rest and sleep.

With regard to the mental factor it must be remembered that, apart from the fact that mental strain is directly responsible for many cases of neurasthenia, almost every neurasthenic in time develops a number of subjective symptoms which will yield to no form of treatment in which suggestion does not play an important part. It is obviously as important that we should treat the psychic factor by suggestion, and the toxaemic factor by appropriate means, as that we should seek to remedy the exhaustion present by rest and sleep.

I fully agree that neurasthenia is "curable" under circumstances which duly allow for these points; and the local and toxic causes of the condition having been removed, it will, I think, always be found that in neurasthenia a combination of rest, sleep, and suggestion can be relied upon to bring about recovery.

Dr. Herman further emphasized the important distinction between neurasthenia and psychasthenia (the latter being understood to be a congenital condition characterized by fixed ideas, obsessions, and phobias), and, whilst again laying stress on the importance of rest and sleep in the treatment of psychasthenics, seemed to infer that suggestion has here no place. I can only say that I have personally found suggestion to be a most important factor in the successful treatment of psychasthenia. I admit that this condition is actually "incurable," but, on the other hand, know that it is quite possible, with the aid of suggestion, to give such mental support and self-confidence to psychasthenic persons as to enable them to live their lives in comfort, and under such conditions that they are for all the practical purposes of life "cured" for long periods.

I think that the chief factors in the treatment of the very common functional nervous disorders referred to by Dr. Herman may very well be summarized as follows: *Hysteria*, curable by suggestion; *neurasthenia* (after removal of primary cause) is curable by rest, sleep, and suggestion combined; *psychasthenia*, though incurable, may be benefited by rest and sleep, but still more by suggestion.—I am, etc.,

London, W., Feb. 5th. EDWIN ASH, M.D.Lond.

NORMAL PERISTALSIS OF THE COLON.

SIR,—In the Epitome of Current Medical Literature in the JOURNAL of February 12th it is stated that Holzknecht, in a paper published on November 23rd, 1909, has "opened up the chapter" on the mode in which faeces are propelled along the colon by his observations on human beings with the *x* rays. This is a curious statement to make in view of the large amount of work on the subject which has

een done during the last three years in England. A aper was, in fact, published in the BRITISH MEDICAL OURNAL just two years ago, in which the results obtained p to that time in our study of the movements of the uman alimentary canal by the *x* rays and other methods ere fully described.

In all our observations, including a few in which hourly xaminations were made throughout the day, we have ıvariably found that the faeces move very slowly along ıe colon at an almost uniform speed, except during meals, hen the advance is considerably more rapid. We have ever observed anything like the sudden forward move- ıents described by Holzknecht, except in a case of ob- truction due to cancer of the pelvic colon, where an xactly similar phenomenon was seen to occur with each pasm of pain.

In the diagrams, with which Holzknecht's original aper is illustrated, the ascending colon and descending olon are represented as being visible, but the transverse olon invisible, after the occurrence of the sudden peri- taltic wave. But such an appearance is quite abnormal, continuous shadow of the colon being almost always resent, the only change from hour to hour being the radual appearance of more and more of the peripheral art of the colon. Only after defaecation has occurred is he shadow occasionally separated into two parts, a faint aecal shadow being then sometimes visible simultaneously vith a faint shadow in the neighbourhood of the splenic lexure. Holzknecht has only seen the movement in two ut of a thousand individuals, yet he actually describes it s the "normal peristalsis of the colon." This corresponds o his equally unjustifiable assumption that the form of tomach which he considers is the one best adapted to erform its duties is alone normal, although he admits hat it is very rarely seen in healthy individuals—a state- nent which our observations and those of many others ntirely confirm.—I am, etc.,

London, W., Feb. 14th. ARTHUR F. HERTZ.

The Services.

ROYAL NAVY MEDICAL SERVICE.

EXAMINATION FOR COMMISSIONS.

FIFTEEN commissions will be granted at the next examination of candidates for the Royal Navy Medical Services, which will be held at the Examination Hall, Thames Embankment, on May 2nd and the following days. The regulations for entry and the form to be filled up by candidates can be obtained on appli- cation to the Medical Director-General, Admiralty, 18, Victoria Street, S.W.

R.A.M.C. (TERRITORIAL).

FIRST WESTERN GENERAL HOSPITAL: WEST LANCASHIRE DIVISION.

THE annual dinner and concert of the personnel of the General Hospital took place in Liverpool on Thursday, February 10th, Lieutenant-Colonel Nathan Raw, M.D., Officer Commanding, in the chair. There were present: Colonel Richard Caton, Colonel Damer Harrison, Lieutenant-Colonels Rushton Parker and T. R. Glynn, Major Burns Gemmell (Registrar), Mr. Naldrett (Quartermaster), Lieutenant-Colonel Knowles, Officer Commanding 1st Field Ambulance, Lieutenant-Colonel Dawson, Officer Commanding 2nd Field Ambulance, Lieutenant-Colonel Jackson, Officer Commanding 3rd Field Ambulance, Major Barrow, R.A.M.C., Major Smart, Captain Evans, Major Stevenson, and many other officers in addition. Miss Glover, the principal matron, Miss Purves and Miss Oates (matrons), together with 81 sisters and nurses attached to the hospital, were present, the total company present being 176. After loyal toasts had been proposed, the Commanding Officer reported that the hospital was recruited in all departments up to full strength—namely, 31 physicians and surgeons, 120 nurses, and 47 non-commissioned officers and men.

The fact of so many nurses being present in uniform gave a great charm and grace to the proceedings, and it is worthy of note that it is the first occasion in which hospital nurses have taken part in an official military function in Liverpool.

PAY IN CAMP.

DR. REGINALD SLEMAN, Lieutenant-Colonel, R.A.M.C.(T) (London), writes: With reference to the statement contained on page 299 of the JOURNAL of January 29th, I should like to point out that the pay and allowances of a Major, R.A.M.C (T.), are governed by the special Army Order, "Scheme for the Transfer," of March 18th, 1908, page 51. There is no increased rate or allowance after three years' service as Major. The rates given in the Royal Warrant for Pay and Promotion are for regulars, and would only apply to the Territorial Force on mobilization.

Universities and Colleges.

UNIVERSITY OF OXFORD.

NOTICE has been given that an examination for the diploma in Ophthalmology will commence on Tuesday, July 19th. Information concerning it can be obtained on application to the Assistant Registrar, University Registry, Old Clarendon Building.

The Faculty of Medicine.

The following have been elected to the Board of the Faculty of Medicine: J. R. Magrath, D.D., Provost of Queen's College; F. A. Dixey, D.M., Fellow of Wadham College; A. L. Ormerod, D.M., New College; A. P. Dodds Parker, B.M., Magdalen College; W. Bruce Clarke, B.M., Pembroke College.

UNIVERSITY OF LONDON.

MEETING OF THE SENATE.

A MEETING of the Senate was held on January 26th.

Board of the Faculty of Medicine.

It was resolved that the following scheme for the constitution of a Board of the Faculty of Medicine be approved:

I. The Board shall consist of:
- (*a*) The Dean of the Faculty, who shall be *ex officio* Chairman of the Board.
- (*b*) The Secretary of the Faculty, being a member of the Faculty.
- (*c*) All members of the Faculty who are also members of the Senate.
- (*d*) The Chairman, being a member of the Faculty, of the Board of Studies, in each of the following subjects: Preliminary medical studies, intermediate medical studies, advanced medical studies, dentistry, pharmacy (when constituted), hygiene and public health, physiology and experimental psychology, human anatomy and morphology.
- (*e*) Representatives, to the number indicated in each, of the following Boards of Studies, to be appointed from the members of the Faculty by the Faculty on the nomination of the appropriate board: Preliminary medical studies, 2; intermediate medical studies, 2; advanced medical studies, 4.
- (*f*) Any other member or members of the Faculty (not exceeding six in all) whom the Faculty may appoint, in each case after nomination by at least two members of the Faculty.

II. The Board shall be appointed annually by the Faculty as soon as possible after receiving the reports of the Board of Studies made at their first meeting in each year.

III. No quorum shall be required for a meeting of the Board.

IV. The Board may appoint an honorary secretary.

V. The Board shall report to the Faculty.

Personnel of the Senate.

In accordance with the terms of the statutes made by the King's College, London (Transfer) Commissioners, Dr. Thomas Buzzard, F.R.C.P., has been co-opted to be the representative of the college on the Senate for the remainder of the period 1907–11.

Appointment of Representatives.

Professor H. R. Kenwood has been appointed, in respect of University College, the representative of the university at the Royal Sanitary Institute Congress at Brighton in September, 1910, and at the International Congress on School Hygiene at Paris in August, 1910. Professor W. J. R. Simpson, C.M.G., has also been appointed a representative of the university at the Royal Sanitary Institute Congress.

Chadwick Lecturers.

Dr. E. C. Seaton and Mr. W. H. Maxwell, A.M.I.C.E., have been appointed Chadwick Lecturers in Hygiene and Municipal Engineering for the session 1909–10.

THE UNIVERSITY LIBRARY.

The library at the Central Building of the University of London, South Kensington, S.W., contains 86,500 volumes and pamphlets. The nucleus of the general library was the library of the old University of London, which had been gradually accumulating since about 1839; it was transferred at the reconstitution of the University in 1900 from Burlington Gardens to South Kensington. It includes the very valuable special collections of Augustus de Morgan, George Grote, Shaw-Lefevre, and others as well as a large number of standard books of reference on various subjects. It is especially strong in mathematics, Greek and Latin classics, physiology and history, and includes important sets such as the Calendars of State Papers, Chronicles and Memorials of Great Britain and Ireland, Scottish and Irish Records, Historical Manuscripts Commission, English Historical Review, Corpus Scriptorum Historiæ Byzantinæ, Documents inédits sur l'historie de France, and the publications of the Royal Historical Society, Early English Text Society, Hakluyt Society, Royal Geographical Society, and a number of valuable philological journals and other periodical publications. The Goldsmiths' Library of Economic Literature is intended to serve as a basis for the study of the industrial, commercial and

financial history of the United Kingdom, as well as the development of economic science generally. It is admittedly the finest economic library in the world. The Physiological Laboratory Department Library is a collection of recently published reference books and periodicals on physiology, especially in connexion with the Physiological Laboratory of the University. In view of the many large public and semi-public libraries in London, the Senate wisely decided that the University library should be developed more particularly in the direction of certain subjects which were considered to require further representation, and to the needs of post-graduate students in particular. The subjects in which the University library proposes to specialize are economics and ancillary branches of study, history, bibliography, education, and physiology. It will provide students with the fullest direction and instruction as to what books exist and where they can be found, and in this connexion it has been determined to establish a central catalogue of the books in the various libraries belonging to, and connected with, the University. Since the opening of the library in 1906, considerable advance has been made towards its reorganization, and a steady increase has been made in the number of persons availing themselves of its facilities, both as a reference library where they can read, and as a lending library from which they can borrow books for home study. To house the books adequately, and to provide suitable accommodation in the way of reading rooms, the University has, during the past few years, spent a considerable sum of money, and many munificent benefactions have been received from the Worshipful Company of Goldsmiths. This, of course, leaves little for the purchase of books, or for the upkeep of sets of periodicals; the Library Committee estimate that the minimum requirements are a sum of £250 per annum for the Economic Library, and a sum of £170 per annum for the General Library, in addition to the present annual grant of £180. The University is providing these sums for the current year, but the provision which the University is at present able to make for its library is insufficient if new books are to be added which can be borrowed by those resident in the provinces where the supply of the literature they require is difficult to obtain. In the present straitened financial circumstances of the University the Senate is not in a position to carry out the scheme, and the Library Committee therefore appeal to Members of Convocation to subscribe or to make a small donation towards the upkeep of the University library. Even small sums would materially help towards this end. The General Library is open gratuitously to members of the Senate, members of Convocation, examiners, teachers, graduates and undergraduates of the University; also to persons specially recommended. A large number of books can be borrowed for home use on making personal application or by letter; this privilege is largely confined to members of Convocation and persons nominated by them.

UNIVERSITY COLLEGE.

Proposed New Chemical Laboratories.

An appeal signed by Sir Henry Roscoe, chairman of a special committee, has been issued for a sum of £70,000 to erect new chemical laboratories at University College, London. The existing laboratories were built under the direction of the late Professor Williamson in 1871, but, owing to the increase in the number of students, and in the complexity of the subject itself, these buildings have now become entirely inadequate. In Gower Place, on the north side of the present buildings of the college, a site has been found, with a frontage of about 316 ft., and an average depth of 66 ft., which is considered to be suitable in every way for the erection of chemical laboratories. Sir William Ramsay, the university professor of general and inorganic chemistry, has recently completed twenty-one years' work at the college, and it is the wish of friends and old students to see his desire for adequate and well-equipped laboratories realized as soon as possible. Subscriptions or donations, which may be paid in instalments, may be sent to the chairman or the treasurer of the new Chemical Laboratories Fund, University College, London.

ABERDEEN UNIVERSITY.

Honorary Degrees.

AT a meeting of the Senatus of Aberdeen University, held on February 9th, it was resolved to confer the degree of Doctor of Laws on the following:

Hans Driesch, Ph.D., Heidelberg.

Sir John George Fraser, Member of the Legislative Council of the Orange River Colony, Bloemfontein.

James Mackenzie, M.D., London.

James Niven, M.A., M.B., Medical Officer of Health, Manchester.

Alexander Ogston, M.D., C.M., Emeritus Professor of Surgery in the University of Aberdeen.

Hon. Sir Thomas Gordon Walker, K.C.I.E., C.S.I., Acting Lieutenant-Governor of the Punjab.

William John Watson, M.A., Rector of the Royal High School, Edinburgh.

These degrees will be conferred at the spring graduation ceremony, which takes place early in April.

UNIVERSITY OF GLASGOW.

The John Reid Prize.

THE John Reid Prize, competition for which is open to senior medical students and qualified medical men of not more than two years' standing who are still attached as students to one of the medical schools, has been awarded to Mr. John Cruickshank M.B., Ch.B., of the Pathology Department of Glasgow University. The prize, of the annual value of £25, is for the best original research work conducted in a Glasgow laboratory. Mr. Cruickshank's thesis was entitled, The Histological Appearances occurring in Organs undergoing Autolysis. The prize, which may be awarded for one, two, or three years, has been granted to Mr. Cruickshank for two years, but a prize will be offered next year as usual in addition.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary Council was held on February 10th, Mr. Butlin President, in the chair.

Diplomas.

Diplomas of Membership were granted to 59 candidates found qualified at the recent examination. Diplomas of the Licence in Dental Surgery were issued to two candidates, and in Public Health to twelve candidates.

Committee on Anaesthetics.

The Council approved the report of the Committee on Anaesthetics, which recommended the adoption of the conclusions of the General Medical Council, with the exception of the last five words in Clause 5. The clause in question runs thus:

5. That having regard to existing conditions it is also desirable in the public interest that duly qualified dental practitioners should be authorised to administer certain specified anaesthetics, such as nitrous oxide gas, for the purpose of inducing unconsciousness or insensibility to pain during dental operations, or procedures.

The reason for recommending the omission of the last five words was that, having regard to the fact that the services of a medical practitioner with special experience in the administration of anaesthetics, and equipped with the necessary appliances, are often not available, the Committee believed that it is not to the advantage of the public, or of the medical profession, that dentists should be debarred from administering nitrous oxide gas, and the other anaesthetics to be specified as employable by them, for operations performed by duly qualified medical practitioners. The Committee further recommended the Council to inform the Lord President of the Privy Council that they concur with the conclusions of the General Medical Council with the omission of the last five words of Clause 5.

Court of Examiners.

Mr. Bilton Pollard was re-elected a member of the Court, and was elected a member of the Board of Examiners in Dental Surgery, in the vacancy occasioned by the retirement of Mr. Bernard Pitts.

Central Midwives Board.

Mr. C. H. Golding-Bird was re-elected as representative of the College on the above Board.

CONJOINT BOARD IN ENGLAND.

THE following gentlemen, having been approved at the final examination in medicine, surgery, and midwifery of the Examining Board in England, have had the diplomas L.R.C.P. and M.R.C.S. conferred upon them by the Royal College of Physicians of London and the Royal College of Surgeons of England respectively:

F. S. Adams, F. C. Alton, W. B. G. Angus, C. H. F. Atkinson, A. D. E. Bayliss, H. W. Catto, I. G. Cobb, R. Cock, R. F. P. Cory, F. J. Craddock, A. K. Dalal, J. P. H. Davies, A. Dewar, F. H. Diggle, R. B. Edwards, E. L. Elliott, G. J. French, R. F. Guevara, G. Gushue Taylor, C. Hall, P. K. Hill, G. Hoffmann, J. S. Jobson, N. T. K. Jordan, T. J. Killard-Leavey, S. H. Kingston, J. M. Land, J. A. R. Lee, T. Legge, *J. Macoun, E. MacEwan, A. C. Magerey, R. T. Martin, M. C. Mason, J. H. Meers, S. F. Moore, C. W. Morris, J. F. O'Malley, W. L. Pink, B. A. Playne, E. E. A. T. Rigg, A. L. Robinson, A. C. H. Rothera, B. C. Roy, B. S. Simmonds, E. G. Stanley, E. L. Sturdee, F. S. Tamplin, L. H. Taylor, G. O. Teichmann, K. S. Thakur, A. H. L. Thomas, W. P. Tindal-Atkinson, J. M. Todesco, V. T. P. Webster, C. Weller, C. U. Whitney, J. P. Williams, J. W. Williams, N.S. Williams.

* M.R.C.S. only.

CONJOINT BOARD IN IRELAND.

THE following candidates have been approved at the examinations indicated:

FIRST PROFESSIONAL.—S. Brown, J. C. Cunningham, D. Hearne, J. J. Keyms, D. C. Kelleher, O. J. M. Kerrigan, E. C. Loughrey, F. P. B. McTavish, P. J. Murphy, J. C. Reynolds.

SECOND PROFESSIONAL.—H. J. Burke, T. Dillon, F. E. Fitzmaurice, J. P. Fitzpatrick, R. M. Gordon, R. J. Hennessy, J. M. Horan, W. J. Moloney, M. J. McCormack, H. E. O'Brien, A. A. O'Connor, A. J. Patterson.

THIRD PROFESSIONAL.—*P. V. Crowe, J. B. Barry, H. E. Clarke, J. Fitzgerald, H. D. Gasteen, M. Garry, N. T. Kelly, D. McDevitt, C. MacCormack, C. McDonnell, W. Mulcahy, J. Nally, T. N. Neale, T. J. Nunan, J. K. O'Byrne, W. O'Brien, C. H. Oliver, F. Phelan, C. Roche, H. K. Sparrow, V. White, V. Wallace, F. Webster, P. I. Wigoder.

FINAL.—P. N. Allman, A. E. Browne, R. J. Barlee, F. J. Colgan, J. C. L. Day, T. Duncan, J. F. Gibbons, S. W. Hudson, F. R. Jones, J. H. O. Martin, T. Murray, A. F. Nash, W. P. H. Parker, P. M. J. Power, W. F. Russell, M. J. Saunders, R. H. F. Taaffe, T. J. Williams.

* With Honours.

Obituary.

PETER FRANTZOBVITCH LESSGAFT, M.D.,

PROFESSOR OF ANATOMY, UNIVERSITY OF ST. PETERSBURG.

By the death of Professor Peter Frantzobvitch Lessgaft at Cairo, on December 13th, 1909, in the 73rd year of his age, Russia has lost one of her most learned teachers. On the completion of his studies at the St. Petersburg Military Medical Academy, he began his career as a lecturer at Kazan University. Later he returned to St. Petersburg, and was appointed to the Military Academy under Professor Groober. In 1885 he became Professor of Anatomy at St. Petersburg University. His personality, his capacity for work, his energy, his intense love for science, all united to give him great influence over his hearers.

To this period belong a series of valuable treatises in German and Russian, among which may be mentioned monographs on the circular muscle of the eye, on the different causes which act on the contour of the bones, and the anomalies of the human body and their frequency.

The question of physical development and its bearing on moral training interested Professor Lessgaft deeply, and he has left some works on the subject, among which are *The Relation of Anatomy to Physical Culture*, *The Foundations of Natural Gymnastics*, *The Problems of Anthropology*, and *A Guide to Physical Culture for School Children*. His last years were occupied with his great work, *The Foundations of Theoretical Anatomy*. Professor Lessgaft, who held the degree of Doctor of Surgery, was a highly skilled operator.

From the year 1880, he began to put his educational theories into practice and became one of the organizers and directors of a new type of high school. Every summer the professor visited Germany, England, France, or Switzerland, in order to study the different school systems. He gave the preference to the English schools saying that they "turned out men and women fitted for the battle of life."

Thanks to the generosity of one of his pupils, he was able to erect a building for his biological laboratory and his high school for women (later entitled "Courses for teachers and directors of physical education.") The opening of this school and the struggle to secure its independence brought Professor Lessgaft into continual friction with the Russian Government by whom he and his views were regarded with great suspicion.

Several times the school was closed, reopened, and closed again, and the professor himself was, at one time, compelled to leave St. Petersburg for two years. In 1903 he was allowed to return, but his school was still closed and all the valuable appliances and his laboratory representing the labour of many years remained useless. However, the professor busied himself with his private lectures, his directorship of various societies, his literary work, and last, but far from least, his free consultations for children.

A little, white-haired old man, with a pair of very bright, piercing blue eyes looking out from beneath shaggy brows, very quiet—almost dry—in his manner, such was the man whose name was known all over Russia—in far Siberia, on the banks of the Volga, in sunny Crimea, and bleak northern Finland.

And his study was characteristic of its inmate. A small room with two windows, a few cane chairs, a washhand stand in one corner, a large writing table literally covered with books and papers, book shelves lining the walls, and in one corner a large, low, high-backed divan; near the divan stood the pupils in a semicircle, and the professor himself opened the door into the waiting-room and signed to each waiting sufferer in turn. Quietly he bade the child undress, long and attentively he examined its whole body, feeling every bone and muscle; finally he began to to explain and analyse the case. "Please, no medicines, no corsets, no artificial supports of any kind! Nature herself will heal the injured organism, and it is our part to help her by means of fresh air, good food, and suitable movements—gymnastic movements," that was the key to the whole system.

Each defect of the organism could be remedied by means of different movements, which were to strengthen and develop the defective muscles—whether in the form of games or with different weights attached to the feet and hands.

These movements were to be carried out under the daily supervision (one hour at a time) of one of his pupils. Every two or three weeks the child and its teacher had to present themselves and report progress. Poor children who could not afford to pay for their gymnastics were attended gratis. For thousands of sickly children, now grown or growing into healthy men and women, the little old professor will always remain a loving, grateful memory.

In the autumn of 1909 he again received the official permission to reopen his beloved "high school," and with fresh energy he set to work to sketch out programmes of lectures and attend to the necessary details and arrangements. But—it was not to be.

A neglected attack of influenza was followed by inflammation of the lungs and kidneys. He who had healed so many others had not sufficiently spared himself. Very reluctantly, by the advice of his medical advisers, he set out for distant Cairo, where he arrived only to die.

CECIL ARTHUR REYNOLDS, B.A., M.B., B.CH.OXON.

MEDICAL OFFICER OF HEALTH, BOROUGH OF SHREWSBURY.

DR. CECIL REYNOLDS, Medical Officer of Health to the Borough of Shrewsbury, died in that city at the end of last month as the outcome of an attack of scarlet fever contracted during the performance of his work at the isolation hospital. He had not yet completed his thirty-eighth year, and his early death is the cause of deep regret which will find an echo in many parts of the country. He entered Keble College, Oxford, with a school scholarship, and soon afterwards was given a second one by his college. He graduated B.A. in 1894 with honours, and meantime he had distinguished himself in the world of sport, gaining his "blue" and acting as secretary to the university athletic club. The study of medicine he commenced before leaving Oxford, and continued it at St. Thomas's Hospital. Finally he became M.B., B.Ch., and also took the D.P.H. For some two or three years after graduating he occupied himself in improving his practical knowledge by holding various appointments, including those of Resident Medical Officer at the Brighton Fever Hospital, Resident Pathologist to the Sussex County Hospital, and Assistant House Surgeon at the Shropshire Infirmary. Then he gained some experience of practical health work as assistant to the late Dr. Thursfield, medical officer for the county of Shropshire; and finally, after a short interval spent in private practice in Staffordshire, was selected for appointment as Medical Officer of Health of Shrewsbury. Not long after he took up the post he was appointed Medical Officer of Health to the Education Authority. At the time of his death he had only been in office between two and three years, but the time was more than long enough to convince every one that he was singularly well fitted to the work. In no direction did he create friction, and he was particularly happy in his conduct of his school work and in dealing with the children whom he was called on to examine. He was, despite his somewhat retiring disposition, popular with all classes, and not least with his colleagues and among the officials with whom his work brought him into contact. Dr. Reynolds was married, and leaves a widow and three young children.

DR. WILLIAM SKINNER, of Ballindalloch, Banffshire, died on January 31st as the result of an accident he sustained on January 21st. About 2 a.m. on that morning he was summoned to see a patient at Advie; in the darkness he was thrown from the trap and evidently kicked by the frightened horse which become entangled in the harness. At 5 a.m. a party of workmen found Dr. Skinner lying bleeding and unconscious in the snow. He was removed to a neighbouring farmhouse and attended to by his neighbours, Dr. Sellar, Aberloud, and Dr. Findlay, Glenlivet. The injuries were so severe that little hope could be entertained of his recovery. Special advice was called in, but he only once regained consciousness. Dr. Skinner was a native of Portmahomack, Eastern Ross. He graduated M.B, and C.M.Edin. in 1882, and spent all his professional life in Ballindalloch. He was Parochial Medical

Officer for Inveravon and Knockando. He was a member of the British Medical Association. He was very much esteemed in Speyside; he gave his services ungrudgingly and often without reward to the poor, and he was never known to refuse an appeal for assistance, no matter at what hour or from what part of his wide district it was made. He was a great favourite in the neighbourhood in which he practised, and will be much missed by his many friends. A regular attendant at the meetings of the Northern Counties Branch of the Association, his colleagues will miss his kindly and genial presence at their gatherings. Dr. Skinner is survived by a widow and four children, all of tender years, to whom the sympathy of the doctor's many friends is freely extended.

Medico-Legal.

ACTION AGAINST THE INCORPORATED DENTAL HOSPITAL, DUBLIN.

AN action dealing with the important principle of the power of a teaching institution to refuse to admit any given individual as a student was heard in Dublin in the King's Bench Court on February 8th. The plaintiff, Mr. Myles Keogh, who had served his apprenticeship to a dentist, was a student at the Dental Hospital, Dublin, in 1894, having apparently been admitted as such owing to a mistake on the part of the Dean, who was not empowered to admit any one until a preliminary examination had been passed. The Board of Governors on discovering the mistake returned the entrance fee paid, but the plaintiff sent it back. In 1904, after passing the necessary preliminary examination, the plaintiff again applied to be enrolled as a student and to get credit for his attendance in 1894, but his request was refused, and his fee again returned, which he again returned. In 1908, after passing a preliminary dental examination, a further application to be admitted as a dental student was made, and in reply the plaintiff received a copy of the following resolution: "That Mr. Keogh cannot be accepted as a student at this hospital, the committee having the right by their by-laws to refuse any student without assigning a cause." The plaintiff put on these words the innuendo that he was unfit and unworthy to attend the lectures and was not a proper person to be admitted a student at the hospital, and further contended that the alleged libel had been made public owing to the fact that in his absence the letter containing the copy of the resolution had been opened and read by his clerk. He accordingly sued the Governors of the Hospital to recover £5,000 damages. In defence it was contended that there was no publication of a libel, that the occasion was privileged, and that the resolution was not a libel. The Lord Chief Baron, in giving judgement, said that cases of this kind must be determined by strict rule. Following the strict rule, he held that privilege had been proved, and that there was no evidence that the publication had been with malice. He therefore would direct the jury to give a verdict for the defendants, and would let the matter be further litigated elsewhere.

WORKMEN'S COMPENSATION.

Is a One-eyed Collier Totally Incapacitated?

IN a case heard at Barnsley on January 13th, His Honour Judge Dodd said the question he had to decide was whether getting coal at the face was suitable work for a man who had recently had an eye injury by an accident whilst engaged at work. His answer was that he was of opinion that it was not quite suitable employment for a man so circumstanced. Alluding to the fact that the colliery company was unable to give this applicant employment on the surface, he said: "I remember in one case, when an injured man applied for work at a colliery other than the one at which he was injured, he was told by the official to whom he applied that they had plenty of injured men of their own, and, in thus refusing him, said: 'This is a colliery we are running, not a cripples' home.'"

CONTRACTS NOT TO PRACTISE WITHIN AN AREA.

AN inquirer resident in the United States of America asks "what sort of clause" is to be recommended in a deed of partnership to prevent the incoming partner, after being duly introduced to the patients of a firm, from breaking away from the partnership and setting up for himself in the neighbourhood.

*** In this country such conduct would be restrained by a clause in the partnership deed, whereby the incoming partner covenanted on leaving the partnership not to practise his profession within a certain distance from the place where the partnership business was carried on, for an agreed limit of time, under a specified monetary penalty. But our correspondent would be wise to consult a local lawyer, as the law in the United States may differ from the law in England, and such a covenant might not be enforceable there.

Public Health AND POOR LAW MEDICAL SERVICES

REPORTS OF MEDICAL INSPECTORS OF THE LOCAL GOVERNMENT BOARD.

Axbridge Rural District.—The rural district of Axminster, in the county of Somerset, which has a population approaching 25,000, adjoins the town of Weston-super-Mare, of which some of its parishes may be considered suburbs. In certain portions of the district there appear to be difficulties connected with the provision of an adequate water supply, and last year the district council asked for the assistance of the Local Government Board in the matter. Dr. Reginald Farrar was deputed to make inquiries into this particular question, and at the same time to investigate the general sanitary administration of the district. As a result he has reported in terms which show that it compares favourably with other rural localities. He recommends the adoption of a comprehensive scheme of water supply for five parishes, where there is living an aggregate population of nearly 6,000 persons. Some of these parishes could be supplied by the Bristol Waterworks Company, and one could obtain water from the mains of the Weston-super-Mare Urban District Council. Other recommendations include the adoption of building by-laws; the protection of wells from pollution; the provision of complete systems of sewerage and sewage disposal for the larger villages of the district; the systematic collection of household refuse in certain localities, and the provision of a properly equipped isolation hospital. This is the first report issued from the medical department of the Local Government Board in which the compound word "by-law" has been correctly spelt. With the dropping of the superfluous "e" we may anticipate the throwing over of other antiquated methods.

Easington Rural District.—The colliery districts in the county of Durham have received a considerable amount of attention at the hands of the Local Government Board during past years. The cause has usually been inactivity on the part of a local sanitary authority by the county council, which has on more than one occasion made formal complaint under Section 299 of the Public Health Act, 1875, that a sanitary authority has made default in carrying out its statutory duties. Such a complaint was made with respect to the rural district of Easington, where there is an estimated population of 54,544 persons living in 10,371 houses. The report of Dr. R. W. Johnstone, one of the medical inspectors of the board, upon the sanitary circumstances of the district, has recently been issued; it discloses conditions so unsatisfactory as to make it difficult to reconcile the facts which are set out in the first fourteen pages of the report and the nine recommendations on the last page with the statement of the inspector that "in general it does not appear that the council have been inactive in the sanitary administration of their district. They have devoted considerable attention to the water supply, sewerage, excrement disposal, and housing of their district." The activity of the council with respect to the housing conditions existing in the district must have been of an extremely limited character, for Dr. Johnstone states that during the six years ending 1908 the county council dealt, under the Housing of the Working Classes Act, 1890, with no fewer than 802 houses in the rural district, with the result that 348 were closed, 225 were made properly habitable, and 178 were improved, while 51 were still being dealt with. No opinion is expressed in the report as to whether the county council was justified in its complaint of the default of the rural district council, but perhaps Dr. Johnstone considers that the serious conditions disclosed on nearly every page constitute a justification.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

City of Aberdeen.—In his report for 1908 Dr. Matthew Hay gives an account of an outbreak in November of that year of gastro-enteritis which was shown to have had its origin in a milk supply from outside the town. All the cases recovered, though the severity of the illness varied in different cases. In the majority the patient was confined to bed for two or three days, and in a few instances for a week. There was severe headache, shivering, vomiting, backache, diarrhoea, and a slight rise of temperature. In a few instances cramps in the legs were complained of. Bacteriological examination of the stools and urine of a few cases yielded no definite results. The persons affected were confined to the customers of a particular dairyman who obtained his supply from three different farms, on one of which it was ascertained there were cases of illness of a similar character. The incubation period appeared to be extremely short, at most only two or three days. The supply of milk from the farm in question was stopped, and the outbreak, which had made its appearance with an explosive suddenness, rapidly subsided. In an appendix to his report Dr. Hay gives an account of the inquiry which he made in 1907 and 1908 into the question of infantile mortality in Aberdeen. He expresses the conviction that if the inhabitants of the city are determined to put an end to the present great waste of infant life, and if mothers will act upon the advice now freely available to them through the health visitors and the band of ladies who co-operate with them, nearly the whole of the waste that is not due to sheer poverty should disappear within a very few years. The infantile mortality rate in 1908 was 129 per 1,000 births compared with an average rate of 143 in the previous ten years.

Medical News.

WE are asked to state that Dr. Hugh Ker and Dr. Crosse, Balham, have resigned their appointments as chief edical officers to the South-West London Tradesmen's ovident Society.

DR. JAMES J. THOMSON, Edinburgh, who graduated with st-class honours, gained the Beaney Prize, and acted in e Royal Infirmary as assistant to Professor Greenfield, as been appointed superintendent of the Tuberculosis stitution at Tranquille, Victoria, British Columbia.

THE Mary Kingsley Medal of the Liverpool School of ropical Medicine, which is presented from time to time some person distinguished in research in tropical edicine and allied subjects, has been awarded to rofessor G. H. F. Nuttall, F.R.S., Quick Professor of iology in the University of Cambridge.

A LECTURE on the aesthetics of anaesthetics will be elivered in the clinical theatre of the London Hospital by r. Frederic W. Hewitt, M.V.O., consulting anaesthetist the hospital, on Friday next, at 2 p.m. The lecture is ee to students of the University of London, and to edical men on presentation of their cards.

THE Local Government Board has issued circulars to erks to parish councils and chairmen of parish meetings r the election of parish councillors, calling attention to e fact that the term of office of parish councillors eing three years, the existing councillors will go out of ffice on April 15th next. Directions are giving for the ue holding of parish meetings for the election of ouncillors.

THE lectures at the Royal College of Surgeons of ngland for the year 1910 began on Monday last, when rofessor A. Keith gave the first of four lectures on the natomy and relationships of the negro and negroid races. n Wednesday and Friday next Mr. W. Sampson Handley vill give two lectures on the surgery of the lymphatic ystem; on February 28th and March 2nd Dr. Peter hompson will discuss some embryological problems in elation to medicine. On March 4th and 7th Mr. R. H. aramore will lecture on the functions of the pelvic floor nusculature, and its relation to, and co-ordination with, the ther musculatures enclosing the visceral mass; on March th and 11th Dr. C. Bolton will lecture on the pathology of astric ulcer; and on March 14th and 16th Mr. George oats on congenital abnormalities of the eye. On March 18th Mr. Sydney Scott will give a lecture on the physiology of he human labyrinth. All the lectures begin at 5 p.m.

THE annual dinner of the West London Medico-Chirurgical Society was held on February 16th at the Wharncliffe Rooms, Hotel Great Central, London, with Dr. Neville Wood in the chair. The toast of "The Imperial Forces" was proposed by Mr. Swinford Edwards, and was responded to by Inspector-General Porter, the Medical Director-General of the Navy, who said that the medical service must be ready to expand sufficiently in time of war, and the civilian members of the medical profession would be looked to for help in that direction. He concluded by appealing to those present to join the medical branch of the Navy League. Sir William Church submitted the toast of "The West London Medico-Chirurgical Society," and congratulated those present on the fact that the number of members exceeded 600. There had been a feeling that the Royal Society of Medicine was hostile to such societies, but that was an entire mistake. After a reference to the post-graduate studies introduced into the metropolis at the West London Hospital, he ended with a sympathetic reference to the lamented death of Mr. Keetley, but for whom the society would probably never have come into existence, or would not have been founded so early. This toast was replied to by the Chairman, and his speech was followed by the interesting ceremony of a presentation to Dr. Leonard Dobson, late editor of the journal of the society, and to Mr. J. Pardoe, the late editorial secretary, of silver candelabra and salvers. These gentlemen rendered their thanks in suitable and short speeches. The duties of editorship had been carried out since the resignation of Dr. Dobson by Mr. Herbert Chambers. Mr. W. McAdam Eccles was entrusted with the toast of "Kindred Societies and Guests," which was replied to by Mr. L. A. Bidwell, President of the Chelsea Clinical Society, who finished his speech by proposing the health of the Chairman. After that gentleman had acknowledged the toast, the Hon. Secretary, Dr. W. E. Fry, was congratulated warmly on the success of the dinner.

Letters, Notes, and Answers.

BRITISH MEDICAL ASSOCIATION AND BRITISH MEDICAL JOURNAL.

THE offices of the British Medical Association and of the BRITISH MEDICAL JOURNAL are at 429, Strand, London.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

H. W. desires to hear of a home in the southern counties where a lady of 69, late governess, can spend the rest of her days. She has only a small annuity, and cannot afford more than 21s. per week.

EWING asks for suggestions in the treatment of a white covering on the mucous membrane of the cheek, extending on to the gums and lips, and due to an oïdium. Izal, mercury perchloride, silver nitrate, sulphurous acid, and rectified spirit, etc., have been tried without benefit. Hydrogen peroxide gives temporary feeling of relief.

TATTOOING.

A. B. asks for information as to the correct pigment for tattooing a white scar on a patient's cheek; the uninjured part is high-coloured. Any details as to method would be acceptable.

MALTHUSIANISM AND ITS PHYSICAL RISKS.

A MEMBER writes: In the JOURNAL of February 5th, commenting on the lowered birth-rate and its causes, you suggest that "the doctor could do much by his private teaching to impress the evils of Malthusianism from the point of view of the community as well as the individual whenever the opportunity presents itself." While this is doubtless quite reasonable, yet it is obvious that the subject is a somewhat delicate one to approach unless questions arise on the part of the patient, and, even when this is the case, it is not easy to convince people that the physical, moral, and spiritual dangers of artificial sterility are beyond question from the point of view of the individual. I shall be glad if any of your readers will be good enough to indicate where one can find reliable medical evidence that preventives of conception are attended with physical risks and of what these mainly consist.

ANSWERS.

THE STANDARDIZATION OF A TYPHOID VACCINE.

EASTERN.—In order to prepare an emulsion of typhoid bacilli in physiological saline fluid containing three billions of bacilli per c.cm. it would be necessary to centrifuge the first emulsion made from the agar-agar tube and to pipette off as much of the fluid as possible, in order to leave a thick cream behind. Unless this is done the emulsion may prove too weak. Wright's method is to mix the emulsion with normal blood and to count the ratio between the bacteria and blood cells, assuming that five million blood cells are present in each c mm. of blood. A measured quantity of the emulsion of

typhoid bacilli should be diluted 1,000 times with saline fluid, and a measured quantity of blood diluted with this diluted emulsion. From the mixture smears are made, and the proportion between the bacilli and the blood cells is determined by counting a number of fields under the microscope. It is wise for this purpose to use a square in the eye-piece, in order to limit the field sharply. The original emulsion would contain 600 times as many bacilli as there are blood cells per unit, provided that the desired strength were hit off correctly. The necessary correction can be made by adding fresh saline fluid if this is not so. Thus, if on diluting the original emulsion 1,000 times, it is found that the mixture with blood contains two bacilli to each blood cell, there would be six billion bacilli per c.cm., and the addition of an equal emulsion would yield an emulsion of the desired strength.

HEADACHE AFTER SLEEP.

DR. W. G. WALFORD (South Hampstead) writes, with reference to an inquiry as to a gouty patient suffering from headache after sleep, that his personal experience leads him to suggest that it might be due to wearing neck clothing which is too tight. Dr. Walford's opinion is that attention is often not given to the increase in the girth of the neck, and people continue to wear neck-gear of the same size as when they were younger and slighter. He recommends that the patient should have all clothing for day or night worn above the clavicles let out at least half an inch; further enlargement would probably be necessary after about three months.

RATEABLE VALUE OF DWELLING HOUSE.

MEDICAL TAXPAYER inquires what percentage of the rent is the legal maximum assessment for levying local rates and taxes. He desires to know the rateable value appropriate to a rental of £75.

*** If the rent of £75 be on a yearly or three-yearly tenancy, the owner being liable to repairs, the rateable value should be £63, or one-sixth less than the full rental value. If the rent be a lease rent, and the tenant liable for repairs in addition to the rent, the full rental value would be taken as about 10 per cent. above the lease rent, or say £82, and the rateable value should be £69. Various considerations may, however, affect these figures. These will be examined in an article in an early issue dealing with the question of valuation, and the course to be adopted in appealing against excessive assessments.

LETTERS, NOTES, ETC.

DOCTORS ON SKIS.

DR. ARTHUR G. WILKINS (Glenridding-on-Ullswater, Penrith) writes that he has used the Norwegian ski occasionally in his district during the past four winters as a sporting means of locomotion. During the first week of February this year he found the seven-foot slender plank the only possible means of progress on professional business in a large part of his sphere of influence.

CANCER HOUSES AND DRY ROT.

MR. W. ERNEST HAZELL, F.R.I.B.A. (London) writes: There appears to be a growing belief among the medical profession that cases of cancer are more frequent in certain houses than in others, and, in fact, cases are of such frequent occurrence in some houses that one is almost justified in calling certain houses cancer houses. If this be the case I suppose the only two lines of argument one can follow are: (1) That in some way the second or following case is caused by the first or infecting case, or (2) that the house itself is in some way the cause and origin of both the first and following cases. In the opinion of Behla, I believe, the disease occurs generally in houses with damp basements and cellars. Damp basements and cellars generally mean dry or wet rot in the ground-floor timbers of the house. Can, therefore, cancer be in any way connected with dry or wet rot in the structural timbers of a house? I am led to raise this question by the following case. Some seven or eight years ago I was called in to alter and decorate a house in which two deaths from cancer had just occurred. I found in the house a small damp and dark cellar, in which was an old wood floor which was completely ruined by rot, and, as far as I remember, the cellar was used as a potato store. I put forward the theory for what it is worth, coming from one with no technical knowledge, that the micro-organism of the rot which had affected and destroyed the timber, after having exhausted this source of nourishment, would develop a spore formation which would attack the potatoes, and in the spore formation would not be destroyed when the potatoes were cooked. The same argument would, of course, hold good for any type of food stored in contact with the micro-organism of dry rot, provided that it furnished a suitable nutrient medium for the organism. If this were the case, the suggestion might be made that every one who ate the infected potatoes or other food would develop the disease. The answer to this may be that not every one is susceptible to the infection, as is the case with tuberculous infection.

PULMONARY TUBERCULOSIS TREATED BY CONTINUOUS ANTISEPTIC INHALATION.

DR. T. GERALD GARRY (Cairo) writes: I can testify, after large experience, to the utility of the form of treatment recommended by Dr. Lees in the JOURNAL of December 11 1909. I have used practically identical treatment in cases of pulmonary tuberculosis for twelve years, and would like to emphasize the fact that since I discarded other forms of inhaler for the extremely simple one originally recommended by Dr. Burney Yeo the results obtained have been, without doubt, more satisfactory. In one particular case, which was considered hopeless by four leading physicians, continuous inhalation for six weeks of pure creosote removed all the symptoms, and now, after an interval of twelve years, the patient continues in excellent health.

THE "AUDIO"—A DISCLAIMER.

MR. C. ERNEST WEST, Aural Surgeon, and Mr. Sydney Scott, Assistant Aural Surgeon to St. Bartholomew's Hospital, write: Our attention has been called to an advertisement in certain papers of an apparatus, called the "Audio," said to be designed for the electrical treatment of nerve deafness, and described as "combining in a simple form the treatment as applied at St. Bartholomew's Hospital." We wish to disclaim all association with this apparatus and with the claims made for it. No such treatment is in use in the Aural Department of St. Bartholomew's Hospital. Some years ago trials were made of the effects of electrical treatment on various forms of deafness and were discontinued as being of no therapeutic value.

LIVERPOOL WORKHOUSE HOSPITAL.

DR. FORREST BRECHIN (Liverpool) writes: In the number of the JOURNAL for February 5th there is an advertisement (p. 58) for an assistant on the medical staff here which is apt to mislead. I am at present senior resident here, and on account of various circumstances and the anomalous conditions of the appointment which have led to my voluntary resignation, each of my three resident colleagues, on being approached on the matter, declined to succeed me, and I think that it is only fair that intending applicants should know this before definitely applying. In the usually accepted sense of the term this is not a general hospital but a workhouse with well over 2,000 inmates, with hospital wards containing upwards of 1,000 beds, and the duties of the resident assistants (there are two visiting medical officers), while chiefly in connexion with the hospital wards are largely augmented by workhouse routine in the various divisions. The hospital division to which the advertisement refers is under the charge of the senior medical officer, and is called "the surgical," but comprises cases in the following categories—surgical, medical, maternity, mental, lock, cleansing, etc.—a total generally varying between 350 and 450 patients. It must be obvious that £100 per annum is not adequate remuneration for these duties, as the two further sums of £20 are for extra and well-defined duties (see advertisement). For more particulars regarding the institution one may refer to an article by Sir H. Burdett in the *Hospital* of January 1st, 1910. I shall be pleased to give you, or any intending applicant, any further information you may desire.

A TESTIMONIAL.

Dear Sirs, With heartfelt thanks to you
My bosom thrills;
By these few lines I hope to show
The debt of gratitude I owe
Your splendid pills.

My uncle caught a cold, he was
A millionaire,
Your pills he'd noticed advertised,
And so he took some as advised.

* * * * *

I am his heir!

CHARLES VIVIAN.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page	8	0	0

An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

NOTE.—It is against the rules of the Post Office to receive *poste Restante* letters addressed either in initials or numbers.

A Lecture
ON
CONDITIONS WHICH SIMULATE DYSPEPSIA.

DELIVERED AT THE LONDON POLYCLINIC,
BY RORERT HUTCHISON, M D., F.R.C.P.,
PHYSICIAN TO THE LONDON HOSPITAL.

I HAVE had some difficulty in selecting a suitable title for this lecture. I have called it "Conditions which Simulate Dyspepsia," but perhaps it would have been better had I said "Conditions which simulate primary disorder of the stomach." What I mean is that many patients are believed to be suffering from disease of the stomach in whom there is either no real stomach trouble at all, or in whom the primary disease is so overshadowed by secondary gastric symptoms that it is apt to be overlooked, with the result that a correct diagnosis is not made. This will become clearer as we proceed.

It need not surprise one that such mistakes as I have indicated are common. Two of the chief symptoms of gastric disorder are pain and vomiting, and both of them are deceptive. In such a region as the abdomen, in which several organs are closely packed together, many of them with a common nerve supply, it is not to be wondered at that pain which has its seat of origin in one organ should often be referred to another. Vomiting, again, is a symptom which may arise in a great many different diseases and disorders, owing to the very widespread peripheral connexions of the vomiting centre. This, however, is apt to be forgotten, and the vomiting is put down to disease of the stomach, when its real cause is perhaps situated quite remotely from that organ.

In the present lecture I propose to discuss some of the mistakes in diagnosis which most commonly occur, and I shall deal with (1) cases in which vomiting is wrongly attributed to primary disorder of the stomach, and (2) cases in which pain is attributed to disease in the stomach when it is really due to something else.

THE VOMITING OF PREGNANCY.

A fairly common cause of vomiting which is frequently misdiagnosed is the vomiting of pregnancy. I suppose we have all of us sooner or later in practice fallen into the mistake of regarding a case of the vomiting of pregnancy as if it were a case of primary stomach trouble. I had a lesson in regard to it early. I remember some years ago having under my care a young woman who was anaemic and had gastric pain and a great deal of vomiting, so much so that she had in the course of it some haematemesis. At all events, her symptoms were so urgent as to make it necessary to call in a surgeon. To my disgust the surgeon, on examining the abdomen, was able just to make out the top of the uterus coming up above the brim of the pelvis. He said at once, "Three months pregnancy," and I looked rather foolish.

Cases in which a mistake is more excusable are such as the following. I was consulted by a lady who was suffering from nausea, gastric discomfort, and a certain amount of sickness, especially in the morning. She had had two children and had not missed a period, and I confess I did not think of the vomiting of pregnancy at all. She had been sick in her first pregnancy and it had not even occurred to herself that that was what was the matter with her. She was treated for some weeks with little success. Suddenly she had an attack of acute pelvic pain. It was found that an extrauterine gestation had ruptured, and we had therefore been dealing all the time with stomach symptoms which were the result of pregnancy. If one has in mind the possibility of such an error one ought to be able to avoid it. If one remembers always, in the case of young women, the possibility that gastric symptoms may be the result of early pregnancy, I do not think one is likely to fall often into a mistake of that sort.

URAEMIC AND PHTHISICAL VOMITING.

The second group of cases that I shall mention illustrate two morbid states which may be classed together, as they present certain points of resemblance and are both apt to be regarded as cases of primary gastric disease. I refer to the vomiting which occurs in the course of uraemia and of phthisis. I fully admit that in both of those conditions there is probably gastric trouble present. They are both, I think, to be regarded as conditions in which one gets what is called secondary gastric catarrh. But what I do mean to say is that although the gastric condition is entirely secondary, the stomach symptoms may be so prominent that the main disease is overlooked; in proof of which I may mention that not long ago I saw a patient suffering from nephritis, in whom gastro-enterostomy had been performed under the belief that his symptoms were due to a gastric ulcer.

Uraemic vomiting may arise as the first symptom of anything being wrong with the kidney. I refer especially to cases of chronic interstitial nephritis which occur in men of late or middle life, in whom the first symptom of renal disease may be the occurrence of sickness, and along with that, as in all cases of gastritis, loss of appetite and nausea, but no pain. The gastric disease that such cases are apt to simulate is carcinoma. I can recall more than one case where a patient has been admitted to hospital with a diagnosis of carcinoma, but who, on further examination, has been proved to be the subject of secondary gastritis associated with renal trouble. The diagnosis in those cases is rendered more difficult by the undoubted fact that there may be at the stage of the case when it comes under observation no albuminuria, but merely urine of low gravity. I believe that the absence of albumen sometimes causes the true nature of those cases to be overlooked. One should, therefore, remember that it may be possible for kidney disease to go on so far as to lead to secondary symptoms, such as gastritis, and yet for albuminuria to be absent.

The other disease which I have bracketed with uraemia is phthisis, because it also may cause in its early stage a form of dyspepsia, probably due to gastric catarrh, the symptoms of which may be so pronounced that the phthisis itself quite escapes the observation both of doctor and patient. I remember, for instance, a lad being brought to me by his father for "dyspepsia," the complaint being that he was constantly sick, had no appetite, and had lost a certain amount of flesh. He had been treated outside the hospital for some time as a case of gastric disorder, and without any suspicion having arisen that there was anything wrong with the lungs. On examination of the chest, it was found that there was advanced phthisis in one lung, and it came quite as a shock to his father to be told that it was not really a case of mere stomach disorder, but one of serious organic disease elsewhere. Such a mistake, I think, is particularly apt to occur in young women. In an anaemic young woman the phthisis may often be comparatively latent, and the gastric symptoms unusually prominent. The patient goes to the doctor complaining entirely of the stomach, and very possibly, without the lung being examined, the patient is treated as a case of dyspepsia.

"URO-KINETIC" DYSPEPSIA.

I pass on now to a rarer group of cases, in which mistakes are very apt to occur, and I think I may say quite excusably. I refer to cases in which the gastric symptoms are secondary to disease in the bladder or urethra. These cases are not, I think, very well known. They have been described by Rosenberg[1] under the title "uro-kinetic dyspepsia," which means that the dyspeptic symptoms are due to something wrong with the motor apparatus of the urinary tract. Examples have been published by Dr. Herschell[2] in this country. The patients are often elderly men who suffer from enlargement of the prostate, and in whom the gastric symptoms which are present are relieved only when the prostatic trouble is dealt with. Here, again, it is very possible that we have to deal with a secondary gastritis set up by retention of urine. But whether that be so or not, there can be no doubt that in some patients with enlarged prostate or weakness of the bladder we find loss of appetite, nausea, and possibly a certain amount of vomiting, and frequently, also, some looseness of the bowels—symptoms due not to primary gastric disease, but secondary to the genito-urinary disorder.

To make the nature of these cases clearer I propose to describe briefly a very remarkable example which I had under my observation only a short time ago.

A man, aged 37, complained of abdominal pain and vomiting, which had been present, off and on, for six years, but had been much worse for the two years before his admission to hospital. He stated that he had a good deal of sickness and pain in the morning, but as the day went on he "pulled himself together," as he put it, and the symptoms became less. The pain was situated both in the epigastrium and above the left groin, and it came on a quarter of an hour after food; it was relieved by pressure. He had been treated at a hospital out-patient department for some considerable time under the belief that he was the subject of gastric ulcer—a mistake which no one could be much blamed for making, because of the epigastric pain and vomiting. He did not get any better, and was admitted as an in-patient. On examination it was found that the bladder became greatly distended at times, reaching up to the umbilicus, and forming a prominent tumour in the lower part of the abdomen. It was further found that it was only when the bladder was distended that he had his bad attacks of sickness and retching. In one of these attacks he became absolutely collapsed, and as the symptoms were extremely urgent the bladder was punctured above the pubes and 44 ounces of urine drawn off, with immediate relief to all his symptoms. It was subsequently found that he had a stricture of the urethra, which was dilated, and as long as the urethra remained patent his gastric symptoms did not recur.

I regard this as a typical example of uro-kinetic dyspepsia, although the patient was younger than is the rule in such cases. Certainly in elderly men who complain of gastric symptoms one should always examine for distension of the bladder, for any tumour in the lower part of the abdomen, and for the presence of residual urine, for if there be any obstruction present one can only relieve the gastric symptoms by attending to the state of the urinary apparatus.

Chronic Obstruction in the Colon.

Much commoner than the above are cases in which gastric symptoms are due to chronic obstruction somewhere in the large bowel. Here, again, it is vomiting which is the symptom that leads one astray. As every one knows, chronic obstruction in the large bowel from the growth of a cancer may proceed very insidiously, so insidiously, indeed, that the patient is not actually aware of having any real obstruction of the bowels at all, although he may admit, perhaps, to some degree of constipation. Such an one may come complaining of some abdominal discomfort and vomiting; it is only on careful examination that it is found that these apparently gastric symptoms are secondary to disease much lower down in the alimentary canal. The following is a case in illustration:

A woman, aged 50, had been ill for two months with abdominal discomfort and frequent attacks of vomiting. She had always suffered a good deal from constipation, and this had certainly been more pronounced of late. She became so weak from constant vomiting that she had taken to bed a month before I saw her, and since that time she had had every few days violent fits of vomiting, which had further reduced her strength.

On examination it was found that the abdomen was generally distended, and that there was visible peristalsis in the colon. The conclusion was that she was suffering from some obstruction in the sigmoid, probably malignant, and that the vomiting was entirely a secondary phenomenon. Subsequently she submitted to an operation, and a growth was found in the sigmoid. Fortunately it was capable of being removed, and she has done well.

In younger people vomiting may result from mere accumulation in the colon in consequence of prolonged constipation. I have seen more than one such case in which the gastric symptoms entirely disappeared after some large enemata had been given. Such cases, again, are very apt to be mistaken for primary gastric disease.

Vomiting from Disease of the Nervous System.

The last group of cases which I would mention in which vomiting is a deceptive symptom are those in which the gastric symptoms are really due to disease of the nervous system. I state this in general terms because there are several diseases of the nervous system that are deceptive in this way.

Cerebral Tumour.

First, of course, one should mention cerebral tumour, which is sometimes, although not often, mistaken for gastric disease, especially in children, in whom cerebral tumour is relatively common. Such an error may occur. It is well to remember, however, that children do not often suffer from chronic vomiting of gastric origin. The supervention of paralysis, optic neuritis, and other signs quickly make the diagnosis clear.

Gastric Crises of Tabes.

More apt to be overlooked is disease of the spinal cord such as tabes. The gastric crises of tabes may be very deceptive, particularly when they occur, as they sometimes do, quite early in the course of the disease, and before there are any pupil signs or loss of knee-jerks. The vomiting in such a case may be so urgent and recur so frequently, that one is naturally tempted to suppose that one is dealing with primary gastric disease. The resemblance, indeed, may be so close, that I have heard of no less than four cases in which gastro-enterostomy was performed on the subjects of tabes under the belief that the vomiting was due to gastric ulcer.

I have seen several cases in which the gastric crises of tabes led to error.

I remember, for instance, one in a man aged 26, a very early age to have tabes. He suffered from attacks of vomiting lasting for three or four days at a time, for which he was sent to hospital. On examination it was found that he had no knee-jerks and his pupils were very sluggish. There was no doubt that he was a case of tabes with gastric crises, and not one of gastric ulcer as had been supposed.

I saw another case not long ago, in a man aged 39, who had been ill for six days with severe vomiting, which was specially deceptive in that it had begun immediately after a dinner consisting of beefsteak pudding. He continued to vomit everything for five days until he became collapsed, and in that state was brought to hospital. He had also shooting pains in the legs and back which had started on the same day as the vomiting. He had had a similar but slighter attack three years before. The knee-jerks were absent, the pupils sluggish, and there was paralysis of the bladder. There could be no question that this was a case of well-marked tabes, and that the vomiting was purely a symptom of that disease.

It has been pointed out by some as of diagnostic value that during a gastric crisis the blood pressure is raised, whereas in all other cases of acute vomiting it is greatly lowered. I have not had an opportunity of verifying that statement myself, because one does not often happen to see the patient when the vomiting is actually going on, but it may be worth bearing in mind in a doubtful case.

Nervous or Hysterical Vomiting.

Lastly, I should mention cases of purely nervous or hysterical vomiting—cases that are certainly very misleading. I have seen several in Jewish women in the London Hospital. One of the latest is the following:

A woman, aged 36, who was said to have been ill for twelve months with constant vomiting and some pain in the stomach, aggravated by the taking of food. It was also said that she suffered greatly from flatulence. She had never vomited any blood, but the case was believed to be so bad that she had been kept in bed for two months. Like most of these patients, she suffered from obstinate constipation.

On examination she appeared well nourished, and of course no one is likely to suffer from continuous vomiting, due to organic disease, for the best part of a year and yet remain perfectly plump and well-looking in appearance. I was therefore extremely suspicious that one was dealing with a case of hysterical or nervous vomiting, and not with gastric ulcer as had been supposed. She was carefully watched, and was found to be constantly bringing up watery fluid, but rarely any food. There was some general tenderness over the abdomen, but never anything else abnormal to be made out. A stomach tube was passed with the view of impressing the patient, and she was told that the vomiting would now cease. This immediately happened, and she went out of the hospital after two weeks, a stone heavier than when she came in.

This was evidently a case of purely nervous or hysterical vomiting, and yet it had been so pronounced and so urgent in its symptoms that the patient had been thought to be suffering from some organic disease of the stomach. I think there is no actual rule for diagnosing these cases. They can be diagnosed only by the process of exclusion, but there is often something in the general aspect or behaviour of the patient that will put one on the right track.

Gall Stones simulating Dyspepsia.

I shall now turn to those cases in which pain is the symptom which is misinterpreted—pain arising in some other organ being ascribed to the stomach and leading to mistakes. Perhaps the commonest, certainly one of the most important groups of cases in which the true origin of pain is apt to be mistaken, are those in which it arises in the gall bladder—cases of gall-stone disease.

I think we owe a debt of gratitude to the surgeons, and particularly in this country to Mr. Mayo Robson and Mr. Moynihan, for directing attention forcibly to the fact that the symptoms of gall stones may be for a long time purely gastric, and that the underlying cause is therefore apt to be overlooked. Now there is no doubt that this mistake has arisen in part from the very inadequate description of gall-stone disease which is given in our textbooks. The usual description deals only with the classic form of the disease, in which a stone passes down the cystic into the common duct and produces the typical paroxysm of pain that we know as biliary colic. But these cases are really a minority; in the great majority the stone does not pass down the common duct, but remains in the gall bladder and produces quite different symptoms. Again, I find that what is being constantly cast up to one in practice, if one makes a diagnosis of gall stones, is this: "But the patient has had no jaundice!" Undue prominence has been given to jaundice in the classical or textbook description of the disease. It cannot be too often repeated that a patient may have gall stones for years and never be jaundiced at all.

The pain in gall-stone cases is extremely deceptive, and may absolutely simulate the pain of gastric disease, for it may come on directly in relation to the taking of food, or even after the taking of a certain kind of food. Yesterday, for instance, I saw a patient operated on, and from whom a gall stone was removed. She said she could take fluids, but never solids. Others, again, can take certain kinds of solids only.

In yet other cases the pain may be a typical hunger pain and suggest duodenal ulcer. I was once consulted by a doctor, who thought he had duodenal ulcer because of such a pain. I did not think he had an ulcer, but he insisted on being operated upon, and it was then found that he had a gall stone. There is really no way, I think, of certainly distinguishing, from the patient's description, between the pain due to gall stones in the gall bladder and that of gastric disease. Cases may be rendered still more like gastric trouble from the fact that gall-stone patients often suffer from flatulence. A great many women who in the out-patient department complain of flatulence and "the spasms" are certainly the subjects of gall stones, and not of primary gastric disease. So that one must admit quite frankly that the distinction between cases of gall stone and dyspepsia is in many instances a matter of the very greatest difficulty. If there be definite tenderness on palpation over the gall bladder the difficulties are less, but no physical signs at all may be found. In many cases it is only by watching the case, and seeing that it does not improve under ordinary treatment, and perhaps by the pain beginning to radiate towards the right shoulder, that one can arrive at a correct conclusion. At all events, I am sure it is wise in cases of flatulent dyspepsia attended with a good deal of pain—in middle-aged women particularly—to keep always prominently before the mind the possibility that one may be dealing with gall-stone disease and not with gastric trouble at all.

Angina Pectoris.

A condition of more seriousness which is not infrequently mistaken for dyspepsia—I have seen two cases within the last fortnight—is angina pectoris. Not long ago a gentleman was sent to me said to be suffering from dyspepsia. He certainly had some symptoms which at first sight suggested dyspepsia. He complained of eructations of wind, which came on particularly on exertion after a meal. He lived in one of the suburbs, and when hastening to catch his morning train after breakfast he would be very apt to have an attack of flatulence, attended by some pain in the "chest." It was certainly suspicious that the pain came on with exertion, and that if he sat still after a meal he did not have it. He had also a very high blood pressure, and I obtained a history that his grandfather and father had both died of angina pectoris. A month later I read of his sudden death in the newspapers. I have no doubt at all that, like his grandfather and father, this patient was the subject of angina pectoris, which had simulated dyspepsia and had been treated for some time as a stomach disorder. I saw only yesterday another man, about 65 years of age, who had a similar history of flatulence coming on after a meal, and attended by pain which he thought was due to the wind. He came to be treated for his stomach. But here again it was found on examination that he had an exceedingly irregular heart and a blood pressure of 175. In this case also the pain came on only when he exerted himself. I therefore concluded that one was dealing with the minor form of angina, where flatulence, as it often is, was a marked feature of the attack. It is the flatulence, I believe, which causes these patients to be regarded as cases of gastric disease, and time is lost when the cardio-vascular condition might be amenable to treatment.

Abdominal Angina.

A form of angina which is not so well recognized as ordinary angina pectoris, and which may simulate dyspepsia even more closely, is what is called "abdominal angina," which is due to arterio-sclerosis of the abdominal vessels. The symptoms in such a case may be entirely gastric, the patient getting attacks of gastric pain, which usually, however, come on only after exertion, particularly after a full meal, and are associated with flatulence, the pain being relieved for a time by the belching up of wind. Some of these cases are even attended by haematemesis. In abdominal angina the pain is certainly more severe than it is in ordinary gastric flatulence, and it tends also to radiate upwards into the chest, and possibly down the arms. During the attack there may be a good deal of tenesmus. These cases are not so easy to diagnose as ordinary angina, but here again it will usually be found that the patient is the subject of high blood pressure and thickening of the peripheral arteries, and he will respond to treatment directed to the vascular system, and particularly to the administration of diuretin.

Colitis simulating Dyspepsia.

Passing again to abdominal conditions, you will find that a number of cases of colitis, particularly muco-membranous colitis, with a tendency to spasm of the bowel, simulate dyspepsia very closely. If a patient gets a cramping pain in the transverse colon, you can easily understand that he may refer the pain to the stomach, particularly as the pain is apt to come on when food enters the stomach, owing to the stimulation of peristalsis which this induces. It is a feature of such pain, however, that it tends to be relieved by pressure, whereas gastric pain is aggravated by pressure.

I remember a young girl of 21 being brought to me by her doctor with a history of pain of this sort. She used to get, not long after eating, violent pain across the upper part of the abdomen, and it was therefore suggested that she might be the subject of gastric ulcer. On questioning her about the pain, there could be no doubt about its severity, and she further said that she used to get something hard and press it as tightly as she could into the epigastrium, and that this always gave her some relief, which was very suggestive. It subsequently proved that there was a good deal of membrane and mucus in the motions, and under treatment directed to the colon she lost her symptoms.

These cases of colon pain are rendered still more deceptive by the fact that the transverse colon may be dilated, and give a splash on abdominal palpation, and the combination of pain in that region along with the presence of a splash is apt to lead to an incorrect diagnosis of dilated stomach, and I have seen at least one case in which this conjunction of symptoms and signs nearly led to the performance of an unnecessary operation.

Chronic Appendicitis simulating Dyspepsia.

Akin to these cases are those in which chronic disease of the appendix simulates gastric disorder. It must be remembered that chronic disease of the appendix may produce pain only in the epigastrium, and not in the region of the iliac fossa at all. It may produce also pain which is felt only when the stomach tends to get empty, and which is of the nature of hunger pain.

I remember seeing a man 38 years of age who had some acute abdominal trouble for which, before he first came under my observation, he had already been kept in bed for some time. He had suffered a good deal from pain—indeed it was almost constant—and he lost weight. The pain was felt in the lower right abdomen and also in the epigastrium. He found even liquids increase the pain, and he practically could not take solid food at all. He made no complaint of vomiting and his bowels were regular. There was very little to be made out on the abdominal examination except some slight tenderness in the right iliac region and some thickening and gurgling in the region of the caecum. He was advised to submit to abdominal

exploration. It was found that he had an appendix which was[8] thickened, kinked, and bound down, and after it was removed he lost his pain.

Here, then, was a case in which one was apt to think that one was dealing with gastric trouble owing to the aggravation of the pain by the taking of solids.

EXTRA-ABDOMINAL PAIN SIMULATING DYSPEPSIA.

Of extra-abdominal causes of pain which may simulate dyspepsia, mention should be made of spinal caries and pleurisy. Both of these mistakes are more apt to arise in children. In spinal caries the child sometimes refers the pain to the epigastrium, which is apt to make one think that the case is one of dyspepsia. Pleurisy also, particularly left-sided pleurisy, may easily deceive. Not long ago I saw in one week two patients who believed themselves to be suffering from dyspepsia, but who on examination were found to have malignant disease of the pleura. In both cases it was secondary to mammary carcinoma. The wasting, and weakness, and misinterpreted pain had led the patients to think they were the subjects of indigestion.

ERUCTATIO NERVOSA.

Finally, I should mention a group of cases in which one common symptom of gastric disorder—namely, flatulence—is a course of error in diagnosis. I refer to cases of eructatio nervosa or "aerophagia." These cases are almost always diagnosed as dyspepsia, when really they have nothing to do with dyspepsia at all.

About two hours before I came here I saw a perfectly healthy-looking man, aged about 40, who has suffered for years from what he spoke of as "violent belching up of wind" both day and night. He had consulted about ten different physicians in various parts of the world for this flatulence, and had taken all sorts of diets and stomach mixtures without any benefit. I found that it was a case of air swallowing, or "aerophagia." I saw him for the first time three days ago, and he reported himself again to-day. Since the nature of his case was explained to him he has entirely lost his symptoms by day, and has almost lost them even at night, and I have no doubt that he will soon be quite well.

There are two points by which these cases can be distinguished from gastric disease. First, the flatulence is much worse when the stomach is empty. True gastric flatulence tends to come on after meals. Secondly, the patient can eructate to order. If a patient comes into your room complaining greatly of flatulence, and you say to him, "Have you any wind in your stomach? Let me hear you bring it up," and if he straightway begins to eructate, you can be absolutely certain that he is an air swallower or an air-sucker, and not an example of true dyspepsia. The curious thing is that this is a neurosis which, in my experience at least, is really commoner in men than in women, and it may occur in otherwise perfectly healthy men, such as the patient I have just mentioned. It is usually sufficient in the treatment of these cases merely to explain to the patient what he is doing—that he is unconsciously sucking down air, and that, instead of making violent efforts to bring it up, when the attack comes on he should keep his mouth open, for then he cannot suck down any more air, and this will certainly bring the attack to a termination. It is very striking how, when the true nature of the case is pointed out, the symptoms tend to disappear. Bromides are also useful. They will do the patient far more good than stomach mixtures and diets. So far, indeed, from being strictly dieted, many of them, like most nervous patients, need to be fed up.

It will be apparent to you now what I meant by the title of this lecture. It is an attempt to describe some cases in which the patients are believed to be suffering from gastric disorder when they are either not so at all or only secondarily, the gastric symptoms being due to some other disease. The moral of the whole matter is that when a patient comes before you complaining of gastric symptoms you must not be content with merely examining his abdomen, but you must also investigate all the other organs, for if you do this you are not likely to fall into any of the mistakes that it has been my object to point out to you to-day.

REFERENCES.
[1] *Deut. med. Woch.*, August 17th, 24th, and 31st, 1899. [2] *Medical Press and Circular*, May 31st, 1905.

An Address
ON THE
MEDICAL TREATMENT OF THE POOR.

BY
JOHN C. McVAIL, M.D., LL.D,
MEDICAL OFFICER OF HEALTH, COUNTIES STIRLING AND DUNBARTON; MEDICAL INVESTIGATOR, ROYAL COMMISSION ON THE POOR LAWS.

It will be observed that the title of this lecture,[1] as arranged with the committee, is "The Medical Treatment of the Poor," and not merely the medical treatment of paupers. But my consideration of the subject was approached through investigation, made on behalf of the Royal Commission, into outdoor and indoor Poor Law medical relief in various rural and urban districts in England and Wales. It will therefore be convenient to follow the same line now, and to state briefly the impressions which I formed in the course of my inquiry. The facts can best be grouped according to the period of life of the paupers.

ADULTS.

1. *The Aged.*

A very large number of the cases, both outdoor and indoor, under medical treatment, were aged persons, and relief or palliation rather than cure could be the only object in most of them. Chronic bronchitis, chronic heart disease, chronic Bright's disease, chronic rheumatism, paralysis, cancer, varicose veins, ulcers, and the various debilities of advanced life, were the commoner affections. In the management of such patients, qualities of heart as much as of intellect are required. A little kindly medical attention, a bottle of cough mixture, a pot of ointment, a liniment or plaster, are among the principal needs of such patients, and such needs were being reasonably met, though the supply of surgical dressings, and especially of lint, was often insufficient, and resulted in much discomfort in some instances.

The greatest defect in the management of these old persons referred not to medical treatment but to nursing. This was more notable among the outdoor than among the indoor paupers. Nursing associations are by no means universal throughout England, and they are frequently wanting in rural districts. Skilled attention by professional nurses trained in great medical and surgical hospitals is not usually needed. Housekeeping—the daily routine of cooking and cleansing and bedmaking—is much oftener required, and I was surprised to find that a nurse of this sort is not always easily obtained even where the guardians are quite willing to make reasonable payment.

This question of nursing links itself on to that of compulsory removal of persons who cannot be looked after at home. Not infrequently I found old men and women living in conditions of the utmost filth and wretchedness, but at the same time utterly opposed to going into the workhouse. In country districts that institution is nothing less than abhorred, while outdoor relief, medical and otherwise, is apt to be regarded as a matter of course. Where old people are a danger to themselves and a cause of nuisance and anxiety to their neighbours, there ought to be powers of compulsory removal to a proper institution, not necessarily a workhouse of the present standard type, but something in the nature of an almshouse in which the inmates could be kept clean and comfortable at a reasonable cost. The ill behaved and undeserving should be placed where they could be properly controlled, so that there would be no opportunity for vicious indulgence.

In the sick wards of workhouses and in Poor Law infirmaries, though the nursing is no doubt much better than formerly, there still remains ample room for criticism, and this may be referred to here, though it applies to the nursing of indoor patients of all ages. The staff was in very many cases inadequate. In the country many of the institutions were too small for economical nursing. The number of patients varied greatly from time to time, and a nurse who might have far too much work at one time might be idle at another. The remedy for this defect is enlargement of administrative areas, so that hospitals of a size sufficient for good administration may be provided, say, by the transformation here and there of an existing workhouse

[1] Delivered before a combined meeting of Societies in Sheffield on February 21st, 1910.

2. *The Middle-aged.*

Persons in this category who were receiving medical relief were much less numerous, but inquiry amongst them raised questions of the greatest importance regarding both cause and cure. These had not reached the stage of old-age pauperism, but were directly on the way to it. They included many cases of more or less advanced heart disease, kidney disease, diabetes, cancer, phthisis, and the like. In particular I made inquiry as to the circumstances under which they had first sought for Poor Law medical relief, and very many of the answers pointed to one most serious conclusion. A man suffering from heart disease would tell me that he had been occasionally ailing for years before applying either to the parish doctor or to any other. He had felt short of breath or faintish, or been troubled with palpitation, but he had paid little attention to these symptoms, and had continued at work, perhaps at an occupation involving heavy muscular effort, until failing strength had compelled him to seek assistance. Then when he went to the doctor he was told that he should have come much sooner; that his disease was far advanced and beyond cure. Similarly a man suffering from Bright's disease would tell me that he had applied to no doctor until he had observed that his legs were beginning to be dropsical. He also had then been informed that he should have been under treatment earlier. In diabetes the story was sometimes the same.

But in many instances the condition of a patient suffering from heart disease, or Bright's disease, or the like, had not passed the stage of practical alleviation, and much temporary improvement was resulting from rest and treatment. After such improvement the man would again become temporarily fit for work, and as soon as he began to earn a living he would straightway pass out of the charge of the Poor Law, and usually out of all medical surveillance. Then he would get worse again and require more Poor Law relief, a longer rest with a slower convalescence, and a shorter period of ability to work, and so on till the stage of permanent pauperism had been reached.

Some cases of cancer were particularly sad. When medical advice was obtained the disease had already progressed so far as to make operation impossible, and the patient would just have to linger on until death brought relief. In phthisis, also, the tale was often similar, and the tremendous prevalence of this disease, with its possibilities of spread from advanced cases, very specially makes neglect in the early stages a matter not merely of individual but of national importance.

The reason for not sending earlier for a doctor in such cases of serious diseases as I have mentioned was occasionally want of means, but much oftener it was want of knowledge or forethought. In most instances I was told that the man or woman could quite well have afforded to go to a doctor for examination, but it had simply not occurred to them to do so. They had not even gone to a charitable dispensary, where the cost would have been *nil*. Before the end of the lecture I will revert to this point, but meantime I wish to impress on you (*a*) the importance of unrecognized disease as one of the beginnings of pauperism; (*b*) that failure to call in a doctor is often due not to want of means or want of opportunity, but to want of knowledge; and (*c*) that, according to the principles of the Poor Law, as soon as a sick pauper has temporarily recovered and is again earning a living he is to be left entirely to himself, with the practical certainty that he will fall ill again and again until he becomes a permanent burden on the public funds. In fact, Poor Law medical treatment is essentially curative or palliative, but is not preventive.

CHILDREN.

3. *Medical Treatment of the Young.*

The whole subject of the dealings of the Poor Law with children is of so much gravity that it is difficult to avoid launching into a general disquisition on the question; but I must endeavour to confine myself as strictly as possible to its medical or health aspects. As regards the indoor or institutional relief of pauper children, you have no doubt already heard the objections which have been so strongly urged to the maintenance of children in workhouses. I most heartily agree that no child should be reared in a workhouse. District or "barrack" schools and cottage homes, especially the latter, are much better than workhouses, and have many good and praiseworthy features, but they have also serious defects. They are very costly, the latter more so than the former. Barrack schools, with their great halls and dormitories as large as hospital wards, are unhomelike, and cottage homes provide a hothouse existence which is ill fitted to prepare a child for entering on the domestic or family life of the labourer or artisan. The so-called "scattered homes," where children live in ordinary houses rented by the guardians and in charge of a salaried foster mother, are very much better, and the boarding out of orphan or deserted children, conducted under proper supervision, is best of all.

Whilst, for the reasons just indicated, I have a decided objection to certain essential aspects of life in the barrack schools and even in the cottage homes, yet in respect to health conditions they have exceedingly good features. In particular, the arrangements for dental inspection and treatment were admirable in some of those which I visited. A salaried dentist was on the staff and had an operating room where all the children were periodically passed under review, and where he regularly attended to the preservation of the teeth. Very few of the inmates of these schools and homes would ever have to be rejected as unfit in that respect for active service in the army or navy. In some other similar institutions the arrangements were not nearly so good. There is, indeed, no uniformity, whilst the workhouses, as I saw them, had no kind of systematic dental inspection or treatment.

With regard to ordinary medical, as distinguished from dental, examination, there was nothing in the least so complete and satisfactory. In none of the large institutions for children was there any periodical medical inspection of all the inmates, independently of existing illness. The doctors were not paid for any such thoroughness of work, and were not expected to do it. Any manifest illness or complaint would be brought to their notice by the staff, and where there were an observant master and matron and a good nurse, many cases requiring attention would be picked up. These, if necessary, would be treated in a small hospital or infirmary within the grounds of the institution. But there was much opportunity for cases requiring medical attention passing unnoticed. In the workhouses the practice was still less satisfactory than in the barrack schools and cottage homes. In some scattered homes, however, regular medical inspection independently of existing illness was a most valuable feature of their management. This was being better done in certain of these homes than in any other department of the Poor Law organization which came under my notice. Among boarded-out children the practice varies. Where the boarding out is within the area of the union to which the children belong, it is the duty of the doctor to call four times a year, but if the children live outside the union there need be no such periodical visit.

Looking to the health conditions as a whole of children reared in Poor Law institutions, though there are very glaring defects owing to want of systematic medical supervision, there need be no hesitation in saying that the children are much better physically than outdoor pauper children. In addition to being well fed they have regular athletic exercises in play-fields, swimming baths, and so forth, and their general environment is hygienic. But the importance of family as distinguished from institutional life is so great that in my opinion, while existing barrack schools and cottage homes may remain in use, they should not be extended nor increased in number, especially as the system is a very expensive one.

While questions as to the merits and defects of institutional methods of dealing with pauper children are of importance, they are much less so than those relating to pauper children left in charge of their own parents. Of indoor pauper children there are in England and Wales about 60,000, including nearly 10,000 in establishments not provided by the Poor Law. Of outdoor pauper children there are over 170,000, including 93,000 living with able-bodied widows. The crux of the children's case is to be found here.

4. *The Children of Ins-and-Outs.*

But halfway between the indoor and the outdoor there is a group which requires special notice—the children of the ins-and-outs. This group appears to me to present, perhaps, the most startling of all defects in the existing

Poor Law system. Some large city unions or parishes have established very useful receiving homes, where children are quarantined to prevent their spreading infectious disease, and where they are subjected to a month's thorough cleansing and combing and drilling before they are drafted to cottage or scattered homes. But many of the children of the ins-and-outs have not the good fortune ever to reach these latter more permanent abodes. When the ne'er-do-well parents enter the workhouse the children are taken into the receiving homes. There they are subjected to a régime of cleanliness and kindly control, which, if continued, would be of the utmost benefit to them. But the parents have a right to demand that they themselves shall be discharged from the workhouse whenever they desire it, subject to a certain brief detention of from one to seven days, according to the details of their previous in-and-out history. Whenever the parents leave the workhouse, the children have to be discharged from the receiving homes, and put immediately under the control of the father and mother—a control, needless to say, of the worst possible kind. The parents resort immediately to their old haunts, to the life of dirt and (so far as they can find the means) drink and debauchery which they led when outside the walls of the workhouse-hotel which serves them as a place of recuperation whenever they desire to enter it. In connexion with one receiving home, I was told by the chief resident official that if the parents go to a public-house on leaving the workhouse, the children are left to their own resources, to hang about the streets without food or shelter, or to play in a public park which adjoins the home. In the rain or cold, or in want of food, they may return to the door of the home, and beg for readmission, but this has to be denied them unless the matron has the courage, as I am sure she often has, to defy the law. After a day or a week or more of slum life, the parents, debilitated by their misconduct, return to the workhouse, and are immediately readmitted. The children are at the same time sent back to the receiving home, where their treatment by cleansing and feeding and quiet and refreshing sleep in a clean bed at night is resumed. But before the quarantine is over the father and mother may again have taken their discharge from the workhouse, and the children are again in their power. The books of the receiving home in question show that some children have been in and out no less than twenty-five times in a single year. The system is so unbelievably bad that only unquestionable official testimony could convince me of its existence.

5. *Widows' Children.*

The above scandal, glaring though it be, is, owing to its comparatively limited scope, not nearly so serious in its results as the health conditions under which tens of thousands of the children of pauper widows live. These, indeed, constitute, in my opinion, the most immediately important of all the medical problems presented by the Poor Law. A widow is usually allowed 1s. 6d. or 2s., occasionally 2s. 6d., per child per week, and ekes out a living by charing or washing, or by work in a factory or otherwise. During the day the house is left dirty and unventilated, with beds unmade, slops unemptied, the kitchen table littered with such scraps of food as may be available, and the children sadly neglected. The diet is principally tea and bread with jam or a little butter, and scraps of meat occasionally. There is never any sufficient quantity of milk for growing children, often ½d. or 1d. worth daily, giving only enough for adding to the tea. The cooking of a dinner is commonly impracticable, excepting on Sundays and perhaps on Saturdays. Even if the mother is well behaved and capable, she may be too tired after her day's work to do much for her house or family, and if she is ill behaved or incapable, the case, of course, is all the worse. The house is often in the slum district of a city, where the vilest habits are likely to be ingrained from infancy onwards. There is no medical supervision whatever over the children, unless in the case of illness so obvious or so prolonged as to cause the mother to call in the parish doctor. The weekly dole is handed to her, and she is allowed to spend it as she pleases. Only very manifest drunkenness or immorality is likely to result in official interference. The children are allowed to grow up in dirty unhealthy houses, with unclean skins and rotting teeth and a dietary alike insufficient in quantity and injurious in character and quality. In this way, owing to want of proper control, including want of medical inspection, the houses of pauper mothers are very often the breeding grounds and manufactories of future pauperism, the whole conditions being bad alike in their physical and mental and moral aspects. Where a mother has been left, say, with a family of five, perhaps two of them may be taken by the guardians to a beautiful cottage home, and trained in the hothouse life of which I have already spoken, at a cost of 12s. or 15s. per week each. The other three are left with the mother, who goes out charing, and is allowed 1s. 6d. to 2s. 6d. a week for each, so that the total expenditure for the two children in the institution may be three or four times as great as for the three children at home. Surely it would be better and more economical to give the widow enough money to live on in her own house and look after the whole five children, to select for her perhaps a home in the country where she came from in early life, and to put the family under supervision, so that their dwellings would be sanitary and wholesome, that their dietary would be sufficient in quantity and proper in quality, and that any tendency to disease—to the tuberculous disease, for example, from which in many instances the bread-winner had already died—might under these favourable conditions be controlled and counteracted whilst yet there was time.

I shall not discuss the subject of boarded-out children, but in a single word I would like to say how glad I am to see that the President of the Local Government Board has just added three women inspectors for visitation of these children.

Medical Charities.

Leaving Poor Law medical relief for the moment, just a word must be said about the voluntary medical charities which supplement it in many parts of the country. The splendid hospitals of the great towns are beyond praise in the admirable work they do. Very often, however, their benefits are grossly abused by people who can quite well afford to pay for a private doctor. The great outdoor dispensaries which are attached to these hospitals, or exist independently of them, are subject to similar abuse. Their resources are often so overtaxed that sufficient attention cannot be paid to individual patients. Also, many places, especially in the country, are entirely without hospitals and dispensaries. Even where they exist, they have this fundamental defect, in which they resemble the Poor Law itself, that they possess nothing of a preventive quality. The patient comes to them, perhaps, after a serious and insidious illness has already undermined his health. Otherwise he may cease attending the dispensary after some small degree of relief has been obtained, but before he is really well, or has received anything like the benefit which medical science is capable of yielding to him.

THE REMEDY.

What, then, is the remedy for these very serious defects in the medical treatment alike of the pauper and of the poor man and his family who are not paupers?

As bearing on Poor Law medical relief, strictly so-called, I made a series of recommendations to the Royal Commission, which can be indicated here only in the briefest outline.

If local authorities are to remain as at present, the central authority should be greatly strengthened, and take a much more active part in local management. But otherwise, and preferably, the local authorities themselves should be altered and strengthened, so that they would need not more, but less, interference from head quarters. For this and other reasons the existing areas of Poor Law administration, medical and general, should be much enlarged. The enlargement should be such as to give each local authority control over several institutions, so that the feeble attempts at separation of different classes of inmates in workhouses should be given up, and that there should be a separate institution for each class. Next, there should be increased medical inspection of all such institutions on behalf of the central authority. At the same time, and even more important, systematic medical inspection of all persons in receipt of outdoor relief should be instituted by the central authority. The object of such inspection should be to see that prevention as well as cure was being fully kept in view. The reports of the inspectors should deal with the work of the medical officers and nurses, the sufficiency of the staff, and of its remuneration. Medicines and medical appliances should

be paid for quite apart from the salaries of the medical officers. Midwifery fees should be revised and a uniform sum fixed. Existing institutions should be the subject of special inspection and report by an architect and medical officer in regard to structural defects and their removal. The plans of new institutions should be more thoroughly examined by the central authority than appears to have been the case in past years. All pauper cases of phthisis should be notified to the medical officer of health, and the sanitary circumstances of the houses where pauper phthisis exists should be observed and dealt with. (I am glad to see that by order of the Local Government Board notification of phthisis by the Poor Law medical officers to the medical officer of health has now been instituted.) Boarding out of phthisis cases in country cottages should be encouraged. Colonies for epileptics should be established. Imbeciles should, so far as practicable, be boarded out in the country, and where institutional treatment is necessary the workhouse ought not to be the institution. Cases of curable insanity coming under the Poor Law, such as alcoholic or puerperal cases, should not immediately be sent to asylums, but should be treated for a period in hospital, so that, if possible, the stigma of insanity would not afterwards attach to the patients or to their families. If local authorities send persons requiring medical assistance to general and special hospitals, they should make a proper contribution to the funds of these hospitals with a view to the medical staff being remunerated for their work. Where such hospitals are not reasonably available either in rural or urban districts they should be provided if necessary. Rate-supported outdoor dispensaries should be properly equipped. Maternity wards in infirmaries should be open to married women in poor circumstances though not paupers. Compulsory removal to and detention in institutions should be possible in proper cases and under due restrictions. Many of the present ins-and-outs should be detained for lengthened periods, so that if feeble-minded they would be protected against their own infirmities, and if vicious or lazy would be compelled to work in labour colonies. Dependants of able-bodied persons should be received into institutions if their remaining at home would require that their able-bodied guardian should have to stay off work. The granting of medical orders and of medical extras should be better regulated. All nuisances and insanitary conditions observed by the officers of the Poor Law should be intimated to the officers of the health authority if the two authorities are not to be amalgamated. Where medical relief is afforded, disobedience to instructions should be penalized in some way. Cripples and blind persons should be educated so as to aid them in self-maintenance. Children should not be maintained in workhouses, and institutional life in general should be avoided in their case. Scattered homes and boarding out should be encouraged. The children of widowed mothers should be under sufficient medical inspection, should be sufficiently fed and housed, and should be reared in the country so far as possible.

Such are, in very condensed synopsis, my recommendations so far as within the strict limits of the Poor Law, but entirely exclusive of the very important question of the constitution of the local authority, which would easily take a lecture to itself, and cannot be touched on here.

Any remedy, however, for the existing defects in the Poor Law medical system must, in order to be successful, take cognizance not merely of paupers, but of poor persons who have not reached the stage of pauperism, and whom it is desired so prevent from becoming unfit to maintain themselves owing to ill health.

A Free Medical Service.

One remedy which has been thought of is an entirely free National Medical Service open to all, the medical men being paid out of public funds. At first sight this may seem a tempting prospect, and it need not be denied that the physical health of the country would be improved by everybody having a right to skilled medical assistance whenever he might choose to ask for it. But more than mere physical health has to be kept in view, and it seems to me that there are strong objections to any such scheme.

The common analogy is with free education. It is urged that as the State pays for education because it is desirable that the community should be educated, so ought it to pay for health, because it is desirable that the community should be healthy. But, as I pointed out in my report to the Royal Commission, education is only for the young, to prepare them to fight their own battle in life, while free medical attendance would apply from the cradle to the grave. Also, if medical attendance should be free, so likewise should the supply of medicines without which attendance may be of no use. But it is difficult to distinguish between medicines and food, such as milk, beef tea, butcher meat, and so forth. Both quantity and quality are of moment here and the State should be responsible. Similarly, warm clothing is of value in the prevention and cure of many ailments. Again, a roomy and well-ventilated and sufficiently furnished house does much both for prevention and cure. Likewise, every one should have a summer holiday in order to recuperate after the winter's work. In short, the vista opened up by any proposal for a free State medical service is nothing short of endless.

Such a service would, I think, be found to have a bad influence both on the medical profession and on the public. To place the former at the beck and call of everyone who might choose at any hour of the day or night to demand his help, and to leave him open to the criticism of every crank holding peculiar views as to disease and its treatment, would make the doctor's life not worth living, and would go far to destroy his practical and scientific interest in his work. Medical attendance obtainable in this way would often be little valued by the recipient. Advice so given would be readily neglected. Manifestly, too, the State would be placed in a difficulty, as every faddist in the country would hold that his own bone doctor, or acetopath, or herbalist, or whatever kind of irregular or unqualified practitioner he might fancy, should be provided for him free of charge, and it would certainly be urged that no particular school of medical doctrine, however repugnant to common sense, should be excluded from the State service. Being of opinion myself that, apart from charity, personal payment for personal service is good alike for the man who pays and the man who is paid, I have no hesitation in setting aside any scheme of a complete free medical service as having drawbacks which would very largely neutralize its benefits.

Medical Insurance.

How, then, can the man with a comparatively small income—the clerk, the artisan, the miner, the railway servant, the labourer—pay for medical attendance for himself and his dependants? For all the ills which afflict humanity there is no complete remedy, yet in principle the answer is apparent. The risk of requiring to call in a doctor, and to incur prolonged expenditure too heavy to be raised from ordinary income and too uncertain to be reliably provided against by personal savings, belongs to the great group of contingencies which in civilized life are met by means of a system of insurance. Now, insurable risks may for the present purpose be divided into two classes. Where fire or life or burglary, or loss of vessels at sea, or employers' liability is concerned, only the individual or the firm or company is for practical purposes regarded as being liable to financial injury by incurring loss, and he or it, therefore, is left to pay the whole premium required to cover the risk. But some States are beginning or have begun to act on the doctrine that there are certain other dangers in which the public are very directly concerned jointly with the individual. Workmen's insurance in Germany is of course the leading instance, and there are movements in the same direction in this country in respect of unemployment and invalidity. In such matters the cost of insurance, it is held, should be borne partly by the individual and partly by the public. Undeniably, the health of the population is a matter both of national and of personal consequence, and in my view the principle of subsidized insurance should be applied to the provision of medical advice and attendance for the wage-earning or poorer classes. The individual and the State should bear the joint outlay for the joint benefit.

That is the first point. The next is that, though at present the State does not contribute excepting through the Poor Law, and then only when ill health has resulted in destitution, yet two or three millions of the working classes have themselves made some provision of the sort,

ans of the medical benefits to which they are ed through the great friendly societies. They pay o these when they are well, so that they may be ole without hesitation to send for the doctor when they are ill.

These societies, however, are subject to serious defects. The so-called slate clubs which break up yearly are, of course, quite out of the question, and may be put aside at once. But even the great friendly societies pay their doctors so poorly that there is constant dissatisfaction. Also, as a rule, they admit only men, or men and boys, seldom females of any age. Nor do they exist everywhere, and many who might be willing members are outside the sphere of their operations, especially in rural districts. They provide, of course, not merely medical attendance, but also a money allowance during illness, and sometimes, owing to insufficient contributions in proportion to the benefits given, or to bad management, they become bankrupt. A parliamentary return, obtained in the year 1891, showed that 4,593 paupers at that time had been members of friendly societies which, owing to lack of funds, had ceased payment. Another defect is that the societies provide no choice in the way of medical attendance. Each has its own doctor, and if a member loses faith in him there is constant dissatisfaction, from the patient's point of view and also from the doctor's, for one grumbler will give as much trouble as 100 contented members. Yet the system is right in principle, and only the application of the principle is at fault.

Medical Provident Institutions.

My own view is that medical provident institutions should be established all over the country, and that the State should contribute to their maintenance. The individual should make his own contribution in the interests of his own health. The State should make its contribution in the interests of national health, including the prevention of pauperism, and the united contributions should be such as to afford fair and reasonable payment for the medical services rendered. All medical men within the sphere of work of any such institution should have opportunity of being placed on the list of its doctors. The members should have the selection annually of their medical attendant from this list. Each institution should be managed by a committee representative partly of the members, partly of the doctors, and partly of the State. If the State made no contribution, manifestly it would have no right to share in the control. The committee should have the power of removing from the list any man who might be found endeavouring to attract members by improper methods—such as by underselling, by offering to return to them a proportion of their contributions.

In devising any such scheme, the interests of the great friendly societies would have to be respected. If, in some places, the institutions could be directly connected with societies, such an arrangement might be made. Otherwise, the societies might delete medical attendance from their benefits, their members paying separately into the medical provident institutions for that purpose. It is well known that a friendly society is sometimes found to be actuarily unsound. In such a case, legal provision might be made for its continuing to charge on the existing scale while ceasing to provide medical benefits, so that in this way the income might balance the diminished expenditure.

This is the merest skeleton of a scheme, and as to its details, even as to essential details, a score of difficulties may be suggested, and a hundred questions may be asked. But I altogether object to criticism based on the well-known fact that sick clubs in the past have had many faults and many failures. There is no fair or reasonable analogy between such clubs and the suggested medical provident institutions. Indeed, to argue from the one to the other is to raise an entirely false issue. That medical officers on the institution list would endeavour to attract patients by pandering to a public taste for large quantities of medicine, and would so enter on a degrading competition in excessive drugging, is a suggestion which could easily be deprived of any validity by providing that patients should be charged the wholesale price of medicines supplied to them at the institution's dispensary. A competent committee would soon learn how to deal with any such abuses, and the assumed contribution by the State would involve its right to exercise reasonable supervision over the medical work done by the institution. Even the fact that medical provident institutions have not always been very successful, does not in the least show that, established and managed on the suggested lines, the result would be other than satisfactory. The scheme has to be judged on its merits, not on the demerits of others.

A Voluntary System.

One question of the utmost importance is whether membership should be compulsory or voluntary. Any voluntary scheme would obviously be incomplete; but subject to a reservation which I shall mention later on, compulsion would result in much difficulty, and a new class of conscientious objectors, including faith healers, Christian Scientists, and all who put their trust in quackery, would come to the front. In the absence of compulsion, what would be the inducements to membership? They would be both direct and indirect. The former would include the State contribution, the choice of doctors, the good management which should be looked for from committees so constituted, and the good work which the institutions would quickly prove themselves capable of doing. A very important indirect inducement I would expect to find in a much increased stringency of inquiry by medical charities in general, as to whether applicants for their aid were not in a position to attach themselves to provident institutions. Indeed, the better government of such charities in this respect is practically essential to any such reform, whilst the establishment of medical provident institutions would at the same time make reform much easier. The out-patient departments of the great hospitals would obviously be in a much stronger position than at present to refuse assistance to persons apparently able to become members of provident institutions. But cases requiring very special treatment, such as Roentgen rays or Finsen light, would still probably have to attend at the out-department of great hospitals, though in course of development some provident institutions might themselves make such provision for their members. So also the provident institutions, State aided, might ultimately, if necessary, provide hospitals for their members, or might, in cases in which institutional treatment was required, facilitate their reception into existing hospitals.

No doubt many labourers would find it a heavy burden to provide the member's share on behalf of himself and his wife and family, but charity could quite well step in here as it does in the coal and boot and clothing clubs of many an English village. Entire or partial payment of such contributions would be an admirable purpose to which to devote some part of the funds collected by charity organization societies. At the other end the question of a wage limit would have to be considered, but the limit would depend on the amount of contribution per member.

Control would have to be exercised over the admission of persons already suffering from illness, but the control would have to be reasonable. The admissions woul usually be of families, not of individuals. It would be out of the question to let the head of a household select for admission such of its members as would most likely require medical attendance. On the other hand, a weakly or ailing member could not be excluded if the rest were accepted, and a household could not be shut out on account of a single member. Such difficulties could no doubt be settled on a financial basis. Single individuals withou dependants would, of course, be admitted singly. An entry fee would be advisable, and the annual charge would depend to some extent on the age at entry. Each institution would, as a rule, have its own drug dispensary.

Medical Treatment of Paupers.

As regards paupers (I use the word for convenience), whatever might be the nature of the new local authority, I do not see why their medical treatment should not be obtained through such provident institutions. The local authority would contribute to the institutions in respect of all for whom it might wish to provide medical attendance in that way. And if the pauper were already ill, then, instead of entering as an ordinary healthy member, the amount of the contribution on his behalf would have to be increased. Concerning the choice of a doctor in cases introduced either by public or

private charity, or by the local authority, I am clearly of opinion that it should lie with the contributor and not with the patient, the principle being that he who pays the piper has a right to call the tune. Also, if any such scheme were organized, the existing Poor Law medical officers, who, being in general practice, would no doubt along with other members of the profession, be on the medical provident list, should be selected for attendance on pauper cases. But at the death or resignation of such a medical officer it might perhaps be unnecessary for the local authority to appoint another in his place. They could select from the institution's list as they might from time to time think fit, or else they would make a definite appointment.

But any such relationship of local authorities to medical provident institutions is not an essential part of the scheme. If good reason could be shown for an authority paying a medical officer of its own, it might continue to do so, and the provident institution would exist independently. So far as I can see, however, the suggested connexion would be the better arrangement. The work of attending paupers would be much better paid than at present, and at the same time there would be economy in general management.

It might, indeed, be argued that this linking of rate-supported relief to provident institutions would repel paying members owing to the traditional stigma attaching to the Poor Law. If that fear were well founded, then it would be better that there should be no such association. But whatever be the policy followed in providing a substitute for the existing Poor Law, it will certainly include two general objects—first, the controlling of the vicious and the idler or loafer class by means of detention or labour colonies, so that these persons could not be foisted on provident institutions; and, secondly, the avoidance of any procedure which would deter or degrade the really deserving and unfortunate. I do not myself think that the latter ought to be objected to as members of a medical provident institution.

Attraction and Deterrency.

The very puzzling question of how to make Poor Law medical relief at the same time attractive to the deserving and deterrent to the undeserving has been much debated. A national system of medical provident institutions would greatly favour a solution of the difficulties. Members would not require any medical attendance other than that furnished by the institutions, and the greater the membership the smaller would be the residue. The dimensions of the problem would thus be minimized. The residue could by inquiry be broadly divided into two classes, according as their poverty would be found due to misfortune on the one hand or misconduct on the other. The former could be treated through the institutions, the latter, perhaps, by special officers directly employed by the local authority, if that were thought deterrent. But the medical treatment would have to be as effective in the one class as in the other.

Charge and Recovery.

It may be well to point out that the provision of medical attendance to paupers by means of such institutions would not interfere with the local authority's right of recovery of the cost of such relief from the recipient in so far as he might be found, or might become, able to pay. The powers of charge and recovery would be unaffected. But occasion for exercising such power of charge and recovery would be much less frequent if provident institutions were established and encouraged, than if they were wanting. Surely it is better to aid the poorer classes to make provision against sickness whilst yet they are well, than to invite them to a life of thriftlessness by announcing that all their needs will be equally well met by the State, whether they have saved or squandered their own earnings, and by adding that those who have saved will be mulcted of their savings, whilst those who have squandered will go scot-free. Nor does it need to be pointed out that the amount likely to be recovered from persons who come for relief because they are in ill health must be comparatively small. Some would become quite well again, and whatever they might earn could be taken from them if they were not lost sight of. Others would be partially restored to health, and might maintain themselves, without ability to repay anything. Others, again, would be found permanently incapacitated, and would be a chronic burden on the rates. How vastly better it would be, instead of trusting to such chances as these, if, by means of provident institutions, the cost of medical attendance had been systematically paid for beforehand.

The General Practitioner.

As concerns the very important interests of the medical profession, I am satisfied that they would be greatly advanced by a properly constituted national system of provident institutions. The preservation of the general practitioner from absorption in a system of whole-time officers has been a subject of discussion in the professional journals. His position would be conserved by his connexion with such institutions. He would be paid, not by salary, but exactly according to the number of his provident patients. Also, an immense amount of work which at present is done gratuitously by medical charities owing to laxity of management, would in future be paid for. And so far as the institutions were concerned he would be saved all the worry and annoyance of issuing accounts and endeavouring to recover bad debts.

Invalidity Insurance.

I now return to the reservation referred to in arguing that membership of medical provident institutions would in all likelihood have to be voluntary. If membership is to be by direct individual payment, it must, I think, be voluntary. But if, as appears likely in the near future, a national system of invalidity insurance is established, with contributions by the State, by employers of labour, and by employees, and if, further, this insurance is to cover not merely a money allowance during sickness, but also medical attendance, then it would be quite feasible to pay for the latter into the medical provident institutions out of the invalidity insurance funds. This, though it would apply only to workmen, and not to their wives and families, would, needless to say, make an invaluable beginning to the whole scheme, and would give an immense impetus to its extension to women and children.

Periodical Medical Inspection.

I have left to the last a point which is not essential, but to which I personally attach very great importance. In any such scheme every doctor on the institution list should make a periodical, though not necessarily a frequent, inspection of all the members under his charge. The purpose would be to prevent the onset of disease or to check it at its very commencement. I have already pointed out that pauperism frequently results from unrecognized disease, the beginnings of illness being neglected, and medical advice not sought until after disease has secured firm footing in the system. Parents (including pauper widows with families entered in the institution by the local authority if that part of the scheme were accepted) would be guided as regards the health and dietary of their children, and suitability of occupations for their boys and girls. Fathers would be advised as to their employment so as to prevent heart strain or the like, and in advancing years an outlook would be kept to minimize the troubles which affect old age. This is no impracticable nor unparalleled suggestion. Every owner of a factory has his steam boiler tested periodically. Many a householder thinks it his duty to have his house drains examined at intervals. Most people who can afford it send their children regularly to the dentist so as to preserve their teeth in good order. There is no reason why the whole bodily system, including the principal vital organs, should not also receive a little attention. Any fear that a brief medical examination once a year or once in two years would result in hypochondriasis seems to me quite baseless. Already a somewhat similar system is being followed in elementary schools, without any such danger being heard of. In passing, it may be noted that overlapping would, of course, have to be avoided in such work of periodical inspection. School children would not need to be examined both by the officer of the provident institution and by the school medical inspector, but that could be easily arranged.

As just stated, periodical medical inspection is not essential, yet it seems to me a distinctly useful part of any complete system of medical provident institutions, and in particular it would help to recompense the State for its contributions to the funds, but even without it these institutions ought to be of great value. Supposing

that their membership were at first mainly made up of artisans rather than labourers, there is no reason, but the opposite, why the nation should not do its best to protect the health of its skilled workmen provided that personal independence and family responsibility are maintained. The suggestion of any such national system may be scouted as utopian. The same would have been said ten or a dozen years ago about the medical inspection of school children which is now in actual operation all over England and Wales, and is already regarded as a mere matter of course.

School medical inspection is excellent so far as it goes, but it applies only to school children between ages 5 and 14. It does nothing for the youth or adult, and, still more important, it does nothing for the age period 0–5 years, a period which should receive very special attention. Also as a rule it does not provide, and is not intended to provide, medical treatment. So far as utilized, the medical provident institutions would be free from these limitations.

CONCLUSION.

Concerning the incompleteness of a voluntary scheme, its value is not to be measured apart from other needed reforms. The proper feeding and rearing of pauper children, the control of boy labour, the decasualization of labour, labour bureaux, unemployment insurance, detention colonies for the vicious and the lazy and for weak-willed ne'er-do-wells, the safe-guarding of imbecile or feeble-minded young women by similar detention, the enforcement of every practical check on alcoholic indulgence—all these and other agencies have to be thought of as part of any sufficient plan of reform. Improvement in the general conditions of life and work resulting from such measures would quickly add to the numbers who would be in a position to become paying members of provident institutions. So long as human nature remains what it is, no panacea for all its defects can be found, but the simultaneous operation of agencies regarding whose value there is practically unanimous agreement, will do much in the desired direction. One of these agencies will be better preventive and curative medical treatment of the poor, and in whatever way that be achieved consistently with the preservation of individual responsibility, I am sure that it will play an important part in the advancement of the national welfare.

VACCINATION IN INDIA.

BY
ANDREW BUCHANAN, M.A., M.D.,
LIEUT.-COL. I.M.S.

As has frequently been pointed out for a good many years past, the very success which had attended vaccination in the United Kingdom has obscured to some extent the necessity for its continuance, and in a country in which nearly all the inhabitants are vaccinated it is difficult to obtain recent evidence that would appeal to the general public regarding the value of vaccination. Now in India, where although vaccination is on the whole popular, there are many places in which it has not been well carried out, and such places afford opportunities of studying the subject not available in a country like England, where vaccination has till recently been compulsory. There must be many members of the antivaccination party who, while quite honest in their belief that vaccination is injurious, will be ready to hear and consider evidence in favour of vaccination, and I should like for the benefit of such persons to relate some of my own experiences in India.

Objections to Vital Statistics.

I shall not attempt to convince the antivaccinationist by statistics regarding mortality, because such statistics are often vitiated owing to failure to distinguish between "vaccination" and "protection by vaccination." We know that the adult who has had only one vaccination mark in infancy, and has never been vaccinated again is not properly protected, and a comparison between the unvaccinated and those who have only one vaccination mark does not show fully the benefit to be derived from vaccination and revaccination. If we take a place like Berar, where vaccination is now very popular, and point out that in the years 1869 to 1886 the number of deaths from small-pox was 45,286, while in the succeeding seventeen years (1887 to 1904) the number was only 9,126, the antivaccinator may deny the accuracy of the statistics, or he may say that the diminution of the death-rate is due to improved sanitation, or to some other cause than vaccination. There is, however, a method by which the value of vaccination in India can be demonstrated without reference to vital statistics, and I have often wished that I could have an opportunity of showing to some of the leaders of the antivaccination party the very clear evidence available in some places where vaccination has been neglected.

A School Inspection.

I should set about it in this way. We should go to a school, say, in the Hoshangabad district, in the Central Provinces, and, after examining the boys' arms, separate the boys into two groups—those with and those without vaccination marks. As a rule, the vaccinated have three or four very distinct marks, and there would not be any difficulty in deciding who would be relegated to each group. We should next take each group separately and divide them into three subgroups, according to whether their faces are (*a*) *much*, (*b*) *little*, or (*c*) *not* marked by small-pox. I have among my papers in India a large number of the results of such inspections; but I can give one approximately from memory. It was made in a school in the south of the Hoshangabad district, where there had been some difficulty about vaccination. There were 50 boys in the school, of whom 30 had been vaccinated and 20 had not been vaccinated, and the results of inspection were as follows:

	Small-pox Marks.		
	Much.	Little.	Nil.
Vaccinated	0	5	25
Not vaccinated	10	7	3

That is, among the vaccinated there were none deeply marked with small-pox, while among the unvaccinated there were several whose faces were deeply pitted and only a very small number had escaped from small-pox. I should point out that here was a disease and a preventive, both of which left clear and distinct marks that cannot, except in very rare cases, be mistaken for anything else; that nearly every child was stamped either with one mark or the other, and that there was no other disease and preventive which left permanent and distinct marks in a similar way, so that there would be little room for argument or objection. It would be seen that if the child was not stamped on the arm it would almost certainly be stamped on the face. This same condition of things would be seen not in one school but in many, and the conclusion that vaccination either prevents small-pox or reduces its intensity could not be avoided.

Blindness Due to Small-pox.

I should like also to show the antivaccinationist the effect of small-pox on the eyesight. I remember one day attending a municipal meeting in Seoni in Hoshangabad district and finding that one of the municipal members had lost one eye from small-pox. On the same day I went to inspect a school and was met by the head master who had also lost one eye from the same disease. A few days later near the same place I saw a child, about 15 months old, deeply pitted with small-pox and with both eyes hopelessly destroyed. Shortly afterwards I saw a girl of 16 suffering from a severe attack of small-pox; pus was flowing freely from both eyes which were absolutely destroyed. It was a horrible sight, and I remember my wife, after I came from the hut in which the girl was isolated, said: "It made even you—hardened as you are—turn pale." Has the antivaccinationist ever considered how much blindness in India has been caused by small-pox?

Evidence from Old Men.

I should also like to take the antivaccinationist to some of the villages in which vaccination was not begun till about forty years ago—for example, in the Betul district in the

Central Provinces. The old men would tell how villages had been devastated by small-pox, and how the terrors of small-pox had been almost abolished since the introduction of vaccination. Ask these villagers what are the greatest boons which have been conferred on them by the British Government, and they will reply, first, security of life and property, and, secondly, the prevention of small-pox by vaccination. They have seen the evils of small-pox and they appreciate the benefits of vaccination, but how many of the antivaccination party have seen half a dozen cases of small-pox? How many of them have even seen a single case?

Miscellaneous Objections.

It is sometimes stated that diseases like syphilis have been conveyed by vaccination. That, however, is not an argument against vaccination, but is an argument against carelessness in preparing the lymph, or carelessness in performing the operation; and since the introduction of glycerinated calf lymph dangers of this kind are reduced to a minimum if not altogether abolished. We do not ask for the abolition of railways because a train has run off the line; we merely demand that extra precautions should be taken in future. Then it is well known that parents sometimes object to the vaccination of very young children, and in a country where all are vaccinated there is not the same necessity for early vaccination. The greater the success of the antivaccination campaign, the greater will be the necessity for early vaccination of children.

Conclusion.

The antivaccination party have recently been spreading their literature in India, where it is likely to do much more harm than in England, and I should like to appeal to them to weigh the evidence in favour of vaccination carefully before it is too late. I do not ask the antivaccinationist to accept my statements or figures; but I suggest that before spreading abroad literature in which vaccination is strongly condemned he is bound to ascertain, either by direct personal observation or by inquiry in a country in which vaccination has not been well carried out, what are the results when vaccination has been neglected.

TWO CASES OF AFEBRILE ERYSIPELAS.

BY

W. CAMERON MACAULAY, B.A., M.B.LOND.,

M.R.C.S.ENG., L.R.C.P.LOND.

THE following two cases appear anomalous in that in both the temperature was, for the most part, subnormal and in both the cerebral symptoms were early and profound. The latter manifestation was perhaps due to the fact that there was very little effort on the part of either patient to combat the disease—the one being an elderly man of enfeebled constitution and the other an infant of 3 weeks. The diarrhoea in the first case also appears unusual, constipation being the rule. It probably indicated a profoundly toxic condition.

CASE I.

A meat market clerk, aged 58, short, stout, alcoholic, and gouty, a sufferer from chronic bronchitis and emphysema, complained on December 9th, 1909, of great pain in his right foot and leg. He ascribed this to another attack of gout. His great toe, on which was a bunion surmounted by a corn, was very inflamed and swollen but not very tender; the chief pain was along the front of the tibia, where were several small, irregular, dark red purpuric spots. The temperature was subnormal and the pulse 76 and of good quality. It was ascertained that he had been cutting a corn on his bunion and applying a corn solvent. The urine contained sugar, though the specific gravity was not abnormal. The swelling of the rest of the foot followed, and by December 11th the skin of the whole foot and lower part of the leg was involved. Sensation in the foot was normal, and it remained warm. A bright red blush with distinct and clearly defined, though irregular, margin preceded the swelling by some hours. Vesicles now appeared over the great toe and elsewhere on the inflamed area. Almost from the beginning of his illness the patient was delirious, suffered from delusions, and defaecated involuntarily. He had, however, lucid intervals of very short duration. The stain gradually crept up the leg, and by December 17th was as high as the knee. On December 19th the knee was passed. The temperature still remained below 98° F. On December 20th diarrhoea of a stubborn nature commenced, and coincident with this the temperature rose to 99.8° F., and remained so for three days, when it fell to 97° F. The patient now showed signs of progressive weakness and despondency. A sample of blood taken from the margin of the stain proved to be sterile. Injection of polyvalent anti-streptococcic serum (in 20 c.cm. dose) produced no beneficial effect. The stain spread steadily up the thigh to the buttock, following the lymphatics, and on December 27th the patient died. He was able to take nourishment to within half an hour of the end.

During the last four days the temperature remained subnormal (97° F. to 97.6° F.). In the daytime the patient was in a condition resembling the "typhoid state," and during the night he was almost maniacal, only his weakness preventing him from getting out of bed. During the last twenty-four hours he was constantly picking imaginary small objects from the bedclothes.

CASE II.

A female child, aged 3 weeks, born on December 1st, 1909. There was nothing abnormal about the birth: the umbilicus appeared healthy, and the child was apparently quite well till the present illness. On December 26th, 1909, it was noticed to be drowsy, and was difficult to feed and keep awake. On December 27th it was in a state of profound narcosis; its temperature was 97° F.; the heart and lungs were normal. A minute examination of the body revealed nothing. During Christmas time the mother had taken for a cough a mixture, obtained from a chemist, containing tr. camph. co., and, as it was thought this might in some way account for the condition, the infant was temporarily removed from the breast. It was artificially fed, and a few drops of brandy were administered from time to time. During the night the child roused somewhat; but on the morning of December 28th a rash appeared of bright red-brick colour, commencing round the right ear and spreading over the neck and right shoulder. The margin of the stain was not raised and was quite defined, and showed a very marked and abrupt contrast to the healthy skin. The temperature in the right axilla was 99° F., while that in the left axilla and of the body generally was 97° F. On December 29th the rash had spread over the whole of the thorax and down the arms to the elbows. In advance of the margin were some discrete isolated patches on the arms. The pinna of the right ear was now very swollen, and the external meatus almost occluded. The skin over the right mastoid process and right scapula was somewhat oedematous, but there was no fluctuation. The same night the child died. Twelve hours after death a small area of the skin near the margin of the stain was cauterized and incised, and a small piece of the subcutaneous cellular tissue was removed and submitted to bacteriological examination. A long-chained streptococcus in pure culture was obtained of the variety *S. erysipelatosus*.

Although there was no obvious external lesion, there is no doubt infection started in the neighbourhood of the ear in Case II, and judging from the fact that the cerebral symptoms preceded the cutaneous manifestations by quite forty-eight hours, there is a likelihood that the middle ear was first infected, and possibly from the throat.

My thanks are due to Mr. W. Sampson Handley, M.D., M.S., F.R.C.S., for his kindness in seeing the first case, and for his advice in the second.

THE OPERATION FOR ELEPHANTIASIS SCROTI.

BY F. A. BALDWIN, M.R.C.S., L.R.C.P., L.S.A.,

BATHURST, GAMBIA, WEST AFRICA.

IN marking out the incision of separation in the operation for the removal of elephantiasis scroti, the textbook that I have by me directs that, having made a shallow skin cut across the back of the tumour, "a similar shallow cut is made across the pubes. The corresponding extremities of these two cuts are then united either by a straight cut, or, if there be a little sound skin on the thigh aspect of the tumour, by a semilunar incision."

As no diseased skin should be left behind, the chief difficulty in most operations is to get sufficient healthy skin to cover the penis when the tumour is removed. The disadvantages that may arise are:

1. That when the flap is formed the lower edge may be $1\frac{1}{2}$ in. or much more away from the corona of the penis, to which, if possible, it should be stitched.
2. That when it is possible to get some flap the weight of the tumour has so stretched the skin that the penis may be covered by thick, hairy, pubic skin.
3. That when the wound of the operation has healed up, and all retraction has taken place, the penis is carried in a semi-erect position.

The following method may obviate or lessen some of the above difficulties: After the tourniquet has been applied figure-of-eight fashion round the tumour and round the patient's loins, and the shallow skin incision marking the line of separation of the tumour has been carried across the base of the tumour at the back so far each way that when the tumour is let fall forward on the patient's legs both ends of this cut may be seen, the tunnel leading to the penis should be slit up as far as the tip of the gland. This tunnel should be held open by an assistant using broad retractors, and the condition of the skin should be carefully inspected. It not unfrequently happens that some healthy skin is to be found close to the penis. This skin, which was formerly the inner surface of the prepuce (in the uncircumcised), may be separated by a circular cut across the base of the tunnel, the knife being held almost perpendicular. A thin cuff may then be dissected up and left adherent to the corona of the penis. The ends of the primary incision of separation of the tumour are now brought forward, forming, as far as healthy skin will allow, a U-shaped flap. The testes and penis having been shelled out in the recognized way, this U-shaped flap under favourable circumstances may be sutured round the penis and the cuff at the end adherent to the corona turned back and sutured to it.

It is not always possible to carry this plan into execution, but when it is done it has the following marked advantages: 1. It helps to bridge the gap between the lower end of the flap and the end of the penis. 2. It leaves some natural penile skin at the end of the penis, and not the thick, hairy skin of the pubes, or insensitive cicatricial tissue. 3. When the patient is standing up the penis will hang in a more natural position.

In the patient of whom a photograph is reproduced the tumour when detached weighed 22½ lbs. I found quite half an inch of healthy skin wherewith to form the cuff. The tunnel leading to the penis was 5 in. long.

THE INTESTINAL STITCH.

BY E. KEN HERRING, M.R.C.S., L.R.C.P.LOND.,
HONORARY SURGEON, MAITLAND HOSPITAL, NEW SOUTH WALES.

METHODS of intestinal suturing have been with us for about a quarter of a century, and the sutures of Dupuytren, Lembert, and Cushing have been handed down to us in the succession of textbooks, and so carefully described and fully illustrated by the various famous teachers, that it may seem sacrilegious to criticize them at this hour, whilst to add another method should be the height of absurdity. However, I shall take the risk of defaming the gods and do both.

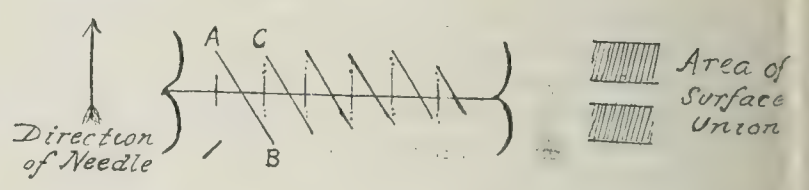
First, let us ask what we aim at in the ideal stitch; and, in answer to this, let me lay down four fundamental principles which must be carried out in every method of stitching which aims at the ideal.

1. The stitches must not tear through.
2. Broad surfaces of union must be brought together evenly.
3. The stitches must be buried.
4. The application must be simple.

The ideal will be the stitch which carries out these principles in the best way. In regard to this we must remember that the internal muscular coat of the intestine has its fibres arranged circularly—the external longitudinally. We must remember also that stitches which are inserted into muscle must, if they are to hold, run transverse to the fibres, and therefore the inner portion of a stitch taking up both muscular coats should run across the circular fibres. As to 2, the broader the surface of union, the stronger and more reliable the union—that goes without saying; but it needs just a little inspection to see which are broad surfaces and which are narrow; 3 and 4 need no comment.

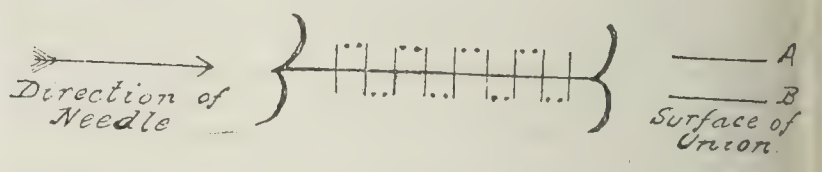
Now let us take from the latest edition of one of our most popular textbooks three standard methods described and figured therein:

Continuous Lembert:



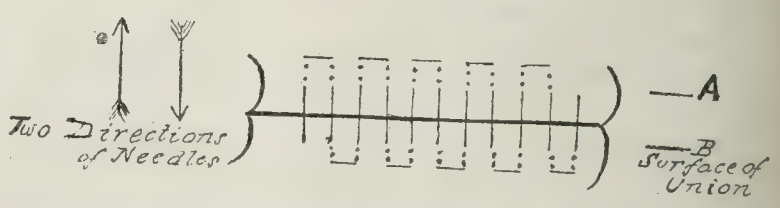
Here we have a simple method giving a broad surface of union, but principles 1 and 3 are not fulfilled, for the inner or deep part of the stitch does not cross the circular fibres, and so cannot hold them; and again, we either have an exposed stitch or a puckered surface of union, because the point B has to be drawn over either to A or to C. If the stitch be drawn tight, then B goes to A, and we have a puckered union; whereas if B goes to C, then the portion of the stitch A B will lie exposed between A C, and the union will be loose.

Cushing's:



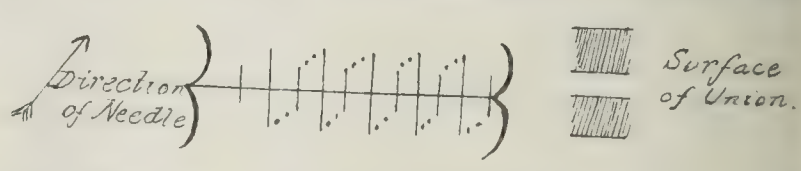
Here principle 2 is not fulfilled, because on tightening the stitch there is only a narrow line of union, the line B being rolled over upon the line A.

Halstead's:



Here every principle is violated; the stitches ought to cut through, the surface of union is only a line, the stitches are exposed, and the application is complicated.

The conclusion, therefore, is that *theoretically* these three standard methods are at fault. Experience teaches that they will each make a good union, but that is not the point. Our textbooks ought to be theoretically correct, and therefore these faulty methods should be banished from them or else put quietly into the background, and some stitch more nearly approaching the ideal given the place of honour. And I submit the following stitch as one worthy to hold the place of honour until supplanted by a better. Here all four principles are complied with.



This stitch may be as old as the hills, and may have been described and figured before, but that should in no way discount the fact that it is the only theoretically correct stitch of the four, and therefore the one that should be given the place of honour in the textbooks.

AT a meeting of the Berwick Board of Guardians, held on February 14th, Dr. Maclagan requested the guardians to take over the cost of the medicines, which at the present time he had to supply out of his own pocket. After some discussion it was agreed by a majority to grant the request of the medical officer.

The Lettsomian Lectures

ON

THE CEREBELLUM AND ITS AFFECTIONS.

DELIVERED BEFORE THE MEDICAL SOCIETY OF LONDON,

BY

J. S. RISIEN RUSSELL, M.D., F.R.C.P.,

PROFESSOR OF CLINICAL MEDICINE AND PHYSICIAN TO UNIVERSITY COLLEGE HOSPITAL; PHYSICIAN TO OUT-PATIENTS AT THE NATIONAL HOSPITAL, QUEEN SQUARE.

LECTURE II.

THE various morbid processes by which the cerebrum is affected may be met with also in the cerebellum, but whereas vascular affections are responsible for such a large number of disorders of the cerebrum these play but a small part in the production of diseases of the cerebellum. In consequence tumours supply the most common form of disease of the cerebellum, and according to Dana, about a fifth of the total number of intracranial tumours occur in this region, which is especially liable to be so affected in children.

SYMPTOMS.

Headache.

The same general symptoms occur as in the case of all intracranial tumours, but the headache is especially liable to affect the occipital region and to extend down the back of the neck. It may, moreover, be accompanied by local tenderness, which may be more marked on the side of the tumour when this occupies one half of the cerebellum, while in children a variable degree of bulging may be detected in the occipital region over the seat of the tumour. The pain is commonly severe, and the patient keeps the head in one position, and is disinclined to move it owing to the increase of symptoms occasioned by movement. The pain is not, however, always confined to this region; it may affect other parts, notably the frontal region, and according to Purves Stewart, the contralateral frontal temporal regions are especially liable to be the seat of a fixed pain, a circumstance to be accounted for by the radiation of stimuli along the fronto-pontine tracts. Grainger Stewart and Gordon Holmes, whose analysis of forty cases of cerebellar tumour, studied at the National Hospital, Queen Square, forms the most valuable clinical contribution to this subject within recent years, could find little to favour this assumption, and they also failed to find justification for Luciani's view, that the pain is due to irritation of the cerebellar tissue.

Vomiting.

Vomiting is a constant symptom, and although it does not differ from what obtains in the case of intracranial tumours that have a different seat, it is nevertheless commonly both frequent and severe.

Optic Neuritis.

I do not propose to enter into any detailed discussion of the vexed question as to whether optic neuritis has any localizing value in intracranial tumours, but cannot refrain from saying what my own experience in this connexion has been. Since the days when I was House-Physician at the National Hospital, when I learnt to regard cerebellar tumours as especially liable to occasion optic neuritis early and in severe degree, leading rapidly to loss of sight and consecutive atrophy, I have never seen reason to alter this belief, which has been emphasized by many writers, and which is now commonly accepted. The late Mr. Marcus Gunn, in a discussion on the localization of intracranial tumours introduced by the late Dr. Beevor at the Neurological Society in 1898, was of opinion that "intense double optic neuritis with much swelling and surrounding retinal change, coming on quickly, suggest the cerebellum." I have also long regarded an eye in which the neuritis begins, or in which it is most intense, as probably corresponding to the side on which the tumour is situated, irrespective of whether the growth be in the cerebrum or cerebellum. Grainger Stewart and Gordon Holmes, after commenting on the intensity of the neuritis, often out of proportion to the general symptoms, and the early impairment of vision that is likely to result, state that in the majority of the cases on which their paper is based the neuritis and swelling of the optic papilla was more intense on the side homolateral to the tumour in the cerebellum, and that blindness due to consecutive atrophy had resulted in that eye first. These observers draw a distinction between intracerebellar and extracerebellar tumours in regard to this point, and find that while the former conform to the above description, the neuritis may be late in appearing in extracerebellar growths, and the greater degree of swelling does not necessarily correspond to the side on which the tumour is situated.

In a paper which was read before the Ophthalmological Society Mr. Leslie Paton adduced evidence which he regarded as opposed to the belief that the greater degree of optic neuritis corresponded to the side of the intracranial growth, but in the discussion which followed Sir Victor Horsley expressed himself as diametrically opposed to this conclusion and Sir William Gowers also considered it at variance with the weight of evidence.

Disturbances of Equilibrium.

After what has been said from the experimental standpoint, it seems superfluous to state here that tumours of the cerebellum occasion vertigo and disturbances of equilibrium and co-ordination. True as this is in the majority of cases at some time or another during their clinical history, this offers a favourable opportunity for calling attention to a feature of cerebellar lesions to which reference was purposely not made at the time when the experimental results were under discussion. I refer to the remarkable provisions for compensation which obtain as long as only partial ablation of the organ is effected, and, according to Luciani, as long as the sensori-motor cortex of the Rolandic region of the contralateral cerebral hemisphere is intact. So complete may be the recovery of the animal within a few months after unilateral ablation of the cerebellum that it may be difficult to believe that it is the same that presented such marked disturbances of equilibrium as the immediate effect of the destructive lesion. This prepares us for what in our clinical work often proves most disconcerting, for it can be readily understood that with the slower destructive effects produced by a tumour compensation may be brought about *pari passu* with sufficient expedition to permit of but little evidence of incoordination resulting. Nevertheless, careful investigation will usually result in the determination of sufficient evidence of disordered co-ordination to permit of our coming to a correct conclusion as to the seat of the tumour. What has just been said prepares us for the fact that actual rotation, such as obtains in animals after ablation of half of the organ, is not met with in man as a result of tumour of the cerebellum, except as a rare event, and then usually in connexion with tumours of the middle peduncle. Vertigo in some degree is a common symptom, but in the majority of cases it only amounts to a degree of disturbance which is described by the patients as giddiness, without its being possible for them to give any more detailed description of the sensation they experience. Others are, however, more severely affected, and experience an actual feeling as if falling in a given direction, or an actual sense of rotation may be experienced, in which either they or the objects surrounding them appear to be moving. Stewart and Holmes found that, irrespective of whether the tumour be extracerebellar or intracerebellar, external objects appear to move in front of the patient from the side of the tumour to the opposite side. The subjective sensation of rotation of the individual, however, differs according to whether the tumour is extramedullary or intramedullary, and this is regarded by them as a diagnostic point that proves most serviceable. In the former class of case the patient experiences a sensation of rotation of the body from the normal to the affected side, whereas in the latter the sensation of rotation is from the side of the tumour to the healthy side. These observers had, however, more than the ordinary clinical course of cerebellar tumours on which to make their observations, for so many patients were those from whom tumours had been removed by operation, that they were enabled to

study the effects of acute lesions in man in a way that may be compared to the study of the results of ablation in animals. This accounts for the fact that they are able to give a detailed account of the forced movements which result after such lesions in man, and to compare them with the subjective sensations of vertigo which may or may not accompany the objective displacement of the body which occurs. The most definite rotation movement which they observed was in a case in which there were cerebellar fits, comparable to those to which your attention was directed in our first lecture as described by Dr. Hughlings Jackson many years ago. The rotation in this case was from the affected to the healthy side. In several of the cases in which there was no actual rotation the patients nevertheless lay on the normal side, and stated that although they experienced no giddiness, they nevertheless felt compelled to roll over to this side. When, however, the auditory nerve or middle peduncle was involved by an extracerebellar tumour, and acute vertigo resulted, they have found that the tendency was for the patients to rotate to the side affected, as well as to fall towards that side. This is in accord with what I was able to determine from the experimental standpoint when I instituted control experiments on the labyrinth and auditory nerve in the hope of excluding the possibility of assigning to ablation of the cerebellum results that in reality belong to accidental lesions of the vestibular nerve. Time will not, however, allow me to enter on any theoretical discussion as to why these results and those which follow section of the middle peduncle should occasion a difference in the direction of rotation or falling to what is observed after ablation of one half of the cerebellum.

On being made to stand with the feet together and eyes closed, such patients most usually tend to fall backwards and to the affected side. It further often happens that a patient can stand on the contralateral limb alone more easily than he can on the homolateral one, a sign that may prove of considerable value, especially when considered in conjunction with others which appear to point to the same conclusion.

The homolateral relations of the cerebellum to the spinal centres, so much insisted on in my first lecture, prepare us for this and other homolateral effects of a tumour or other destructive lesion of the cerebellum in man, as opposed to the contralateral effects which result from lesions of the brain.

Attitude.

From what has been said as to the results of experimental lesions we are prepared for a fixed attitude, both in regard to the head and position of the trunk. It accordingly follows that the patient may show an inclination of the head to one side, so that the ear is approximated to the shoulder, while the chin points in the opposite direction, and one side of the face may be turned upwards. This position would, according to the experimental results, indicate a lesion on the side corresponding to the shoulder to which the ear is approximated. But like my colleague, Dr. F. E. Batten, I have seen cases in which the ear has been approximated to the shoulder on the contralateral side to a tumour of the lateral lobe of the cerebellum, so that I agree with his conclusion that this sign cannot be regarded as one of special value in the localization of cerebellar tumours, but must be only allowed a subsidiary place in our deliberations.

Gait.

When the patient is able to walk, general inco-ordination may be revealed in his gait, which has been described as cerebellar titubation, and which has been likened to the gait of an individual who has taken alcohol in excess. The condition has been very aptly described by Dr. Hughlings Jackson as suggesting that the legs are running after the trunk and attempting to prop it up, in its various over-inclinings. The patient walks on a wide base, largely brought about, it may be, by abduction of the lower limb on the homolateral side to the tumour, which limb may also show inco-ordination in its movements during locomotion. The individual may tend to incline towards the side of the lesion, and thus to deviate from the middle line towards this side, or an actual tendency to fall to this side may be observed. But the knowledge of the tendency leads him to attempt to correct it, with the result that it often happens that over-correction is brought about, so that he deviates from a straight course to the contralateral side, and may even tend to fall to this side.

Ataxia.

In addition to what has been said above, it is necessary to emphasize the homolateral ataxia which results, and which reveals itself even more strikingly in the upper limb on the side corresponding to the tumour. The failure to execute a purposive movement in co-ordinate fashion is not influenced by the aid of vision, and so is not increased when the eyes are closed, as happens in tabes dorsalis. The defective control over the muscular contractions which is responsible for the ataxia accounts for a phenomenon described by Babinski as "diadococinesia," in which, if the patient be made to attempt rapid pronation and supination movements of the forearms, these can be executed in a normal manner in the contralateral limb, but only in a very imperfect, slow, and awkward way in the homolateral one. This phenomenon cannot be regarded as either constant or pathognomonic of cerebellar lesions, but, taken in conjunction with other clinical symptoms which point to the probable seat of the tumour, must be accorded a place in the symptomatology of unilateral lesions of the organ.

Tremor.

What has already been described in connexion with active movements of the limb must be carefully distinguished from what is about to follow in regard to tremor, for whereas the homolateral limb reveals inco-ordination in the performance of purposive acts, it nevertheless may be possible, according to Babinski, for the same limb to be held extended in front of the patient without revealing even that degree of unsteadiness which is evident in the normal contralateral limb. Stewart and Holmes find that this applies only to intracerebellar tumours, and that when the growth is extracerebellar, tremor is often present, and is equally evident in both limbs.

Motor Paresis.

In accordance with what I described as paresis, but which others have preferred to designate asthenia, it has been abundantly proved that although by no means an invariable result, unilateral tumours of the cerebellum occasion a variable degree of paresis, which may be considerable in some cases. Stewart and Holmes were able to determine that this weakness affected the trunk muscles in some cases of operative lesions of the cerebellum in which the weakness of the spinal muscles, with some lordosis, persisted after all evidence of paresis elsewhere had passed off. This reminds us of Dr. Jackson's contention that, "speaking very roughly and neglecting some parts of the body, the cerebellum represents movements of the skeletal muscles in the order, trunk, leg, arm. . . . The cerebrum represents movements of the same muscles in the order, arm, leg, trunk . . ." —a contention the correctness of which became evident to me many years ago when, as one of his house-physicians, I carried out at his suggestion a series of observations on the back muscles in cerebellar tumour and in cases of hemiplegia.

Atonia.

The results of experiments prepare us for a loss of tone in the muscles, which is especially evident in those of the homolateral limbs, and which can often be detected in addition to the asthenia or motor paresis to which we have just referred, and which renders the limbs peculiarly limp and flail-like when they are manipulated by the observer. This hypotonic condition of the muscles serves to distinguish the paresis from that which results when involvement of the pons is responsible for the defect, for in this case a hypertonic instead of a hypotonic condition of the affected muscle is revealed. This hypotonism is supposed by Stewart and Holmes to account for the fact that when resistance previously exerted against a movement is suddenly removed the movement continues to an inordinate degree without recoil.

Tendon-jerks.

In contrast to what obtains in tabes, the hypotonic condition of the muscles met with in cerebellar disease is

compatible not only with the preservation of the tendon-jerks, but even exaggeration of them, so that although the knee-jerks may be abolished, they may be preserved or increased in spite of the hypotonus. One of the effects of unilateral ablation of the cerebellum which I observed, to which time did not permit me to refer in the first lecture, was exaggeration of the tendon-jerks, in which those of the homolateral side were more active than those of the contralateral. There is, however, no such constancy in cases of cerebellar tumour, for although the homolateral knee-jerk may be more active than the contralateral in some cases, this does not by any means always obtain. Indeed, one of the few characteristics in regard to the tendon-jerks in cases of cerebellar tumour is their variability, so that in the same patient, and within short periods of time, the knee-jerks may be increased, diminished, or abolished.

Superficial Reflexes.

Neither the abdominal nor plantar reflexes are altered in cases of uncomplicated cerebellar tumour, but hydrocephalus, or pressure on the cerebro-spinal path, may occasion alterations such as are characteristic of these lesions. Thus it is that the abdominal reflexes may be abolished, or the plantar changed from the normal flexor to the abnormal extensor type of response. It will be readily understood that there is little likelihood of intracerebellar tumours interfering with the cerebro-spinal system in the way that obtains when we are dealing with an extracerebellar tumour, which may so readily press on the pons. Even in this case, however, it is the exception to elicit the abnormal extensor type of plantar reflex, except in the more advanced stages of the clinical history of the cases.

Ocular Phenomena.

As in cases of experimental ablation defective power of movement of the eyes to the homolateral side, with in some cases even a slight tendency to deviation of the globes to the contralateral side in the resting condition, may be observed. It is, however, especially a difficulty in sustaining the movements of the globes to the homolateral side that is most evident. In this defect it commonly happens that the external rectus of the homolateral side shows a greater degree of disability than does the internal rectus of the contralateral eye. This is explained by the fact that whether or no defect of the conjugate movements is determined the external rectus of the homolateral, and even that of the contralateral side to a less degree, gives evidence of weakness due to pressure effects on the sixth nerve. The external rectus paralysis is rarely complete, however, except when the tumour is so situated as to be able to exert pressure directly on the sixth nerve.

Nystagmus.

Another accompaniment of the weakness of conjugate movement of the eyes is nystagmus, which in its most characteristic form behaves in a manner similar to that obtained with unilateral ablation of the cerebellum in animals, for coarse jerks, which are slow and deliberate, occur when the eyes are directed to the side of the tumour, whereas when the eyes are turned away from the affected side the nystagmoid jerks become much smaller in range, though much more rapid in time. Nystagmus in such a characteristic form is not by any means always present, however, but nevertheless lateral nystagmus in some degree is usually present at some time in the course of the case. It is one of the most constant phenomena, and when present in typical form proves a most valuable aid to localization.

Paralysis of Cranial Nerves.

Apart from the effects that have been noted in connexion with the sixth nerve, and which are common to intracerebellar as well as extracerebellar tumours, though more likely to occur and to do so in greater degree in the latter variety, the cranial nerves are not affected by intracerebellar growths. It is otherwise with regard to extracerebellar tumours, as may readily be understood, owing to the position which they occupy in the cerebello-pontine angle, where they can so readily exert pressure directly on several cranial nerves. The most notable of these to suffer are the facial and auditory, and thus the peripheral type of facial paralysis, accompanied by deafness on the homolateral side, proves a most valuable sign, not only as localizing the tumour to the side on which these defects exist, but also in deciding that an extracerebellar, as opposed to an intracerebellar, growth is responsible for these phenomena and the other symptoms that exist. Although these are the nerves that are most commonly affected in addition to those which supply the ocular muscles, others may occasionally be involved, and it accordingly happens that both the motor and sensory divisions of the fifth nerve have been affected in some cases. Cases in which the ninth, tenth, and twelfth nerves have been involved have been observed, but these are rare.

TUMOURS OF THE MIDDLE LOBE.

Time will not allow me to give a detailed description of the symptoms that may result from tumours of the middle lobe of the cerebellum, so that I must content myself with calling your attention to a few of the salient features presented by such cases.

In the main the symptoms are the same as those which result from tumours of the lateral lobes, but they are, of course, bilateral instead of being unilateral, so that the limbs reveal inco-ordination and the other defects that have been described on both sides instead of on one. When made to stand the patient may reveal a tendency to fall backwards or forwards rather than to one side, according to the precise position of the tumour in the middle lobe; and when walking no special tendency to incline to one side is evident, so that the reeling is as much to one side as to the other. The same applies to the condition of the eyes, for instead of any impairment of lateral movement to one side, when it exists the defect is evident on both sides, and the nystagmus that is evoked is as marked when the eyes are turned to one side as when they are turned to the other. This tendency to bilateral defects is even manifest in the paresis which may result in the external recti, as both of them may be affected in this way instead of one, as in the case of tumours of the lateral lobes.

TUMOURS OF THE PONS.

The proximity of the cerebellum to the pons and the important connexions which exist between these two parts of the central nervous system make it important that we should clearly recognize the chief clinical manifestations which distinguish a tumour of the pons from one which affects the cerebellum.

Although vertigo and ataxia are common to tumours in both situations, the outstanding feature which we must keep clearly before us is that in tumours of the pons spastic paralysis, which is commonly bilateral, results in the limbs, and that accordingly ankle clonus may be determined in conjunction with exaggeration of the knee-jerks, while the superficial reflexes are diminished or abolished, the plantar, however, being preserved, and constantly of the extensor type, such as is never seen in uncomplicated cases of tumour of the cerebellum. Defects of sensibility—notably hemianaesthesia—may be determined, which would be contrary to what could result from defect of the cerebellum, but this is not a necessary consequence of tumours which affect the pons, so that we may be obliged to make our diagnosis without its assistance. Any of the cranial nerves that take their origin in the pons and medulla may be affected, and they are especially liable to be involved on both sides, though by no means necessarily in equal degree. Indeed, one nerve may be affected on one side while its fellow escapes on the other, where, nevertheless, some other nerve reveals evidence of defect. It further happens that the paralysis which results may be the outcome of interference with the nuclei of certain of the nerves, in which case a special grouping of the paralytic defects becomes evident, and is characteristic of certain known anatomical relations which exist in the pons. Bilateral conjugate paralysis of the eyes is especially common as a result of involvement of both sixth nuclei, and as the third and fourth nerves are not affected by tumours of the pons, the upward and downward movements of the eyes may be preserved in spite of the fact that their lateral movement to either side has been made impossible. Yet another feature of lesions of the pons must be referred to—crossed paralysis—in

which there is paralysis of one or more of the cranial nerves on the side homolateral to the tumour, while the limbs are affected by spastic paralysis on the contralateral side. This is most likely to result from solitary tumours of a non-infiltrating character, such as a tuberculous mass, whereas the infiltrating gliomas, which are the most common forms of tumours which affect the pons, are responsible for the bilateral defects, both in regard to the limbs and the cranial nerves. One word is called for in conclusion in regard to optic neuritis. Another of the impressions which I formed in my house-physician days at the National Hospital I have never seen reason to alter, namely, that tumours of the pons may run their whole course without causing optic neuritis, or that they may exist for a very long time without doing so. It accordingly often happens that the neuritis only appears after the terminal stages of the patient's illness have been reached. This is in entire accord with the experience of all who have given attention to the subject, and Mr. Paton, in his analysis of cases of optic neuritis occasioned by intracranial tumours, finds that neuritis only occurs in about half the cases of pontine tumours.

ABSCESS OF THE CEREBELLUM.

It is generally recognized that when the source of infection is disease of the middle ear the two most common seats of intracranial suppuration are the temporo-sphenoidal lobe of the cerebrum and the lateral lobe of the cerebellum. The clinical pictures produced by abscess in these two regions may be so entirely different that there is no difficulty in deciding which of them is affected. This is by no means the rule, however, for in reality it commonly happens that, although the symptoms may clearly point to the existence of an intracranial abscess, it may be almost impossible to say whether it is in the cerebellum or in the temporo-sphenoidal lobe. So much has this difficulty been recognized that Dean devised an operation by which both regions could be readily explored from one and the same trephine opening in the skull, instead of its being necessary to expose each of these seats of possible mischief in turn when one or the other has been explored with negative result.

One of the most perfect clinical reproductions of the experimental picture of ablation of one lateral half of the cerebellum that I have ever seen was supplied by a case of abscess under the care of Dr. Acland at St. Thomas's Hospital, to whose kindness I am indebted for the opportunity which I had of seeing the patient. Mr. C. E. Ballance operated, and successfully evacuated an abscess from the right lateral lobe of the cerebellum, after which the patient made a complete recovery. In addition to the ordinary symptoms of intracranial abscess, including double optic neuritis, the patient presented the following manifestations, which clearly pointed to the right lateral lobe of the cerebellum as the seat of the lesion. He lay curled up on his left side with all his limbs flexed. His eyes were deviated to the left and presented lateral nystagmus. The right arm was markedly weak, while both lower limbs were slightly so. The right knee-jerk was brisk, and of course greater than the left.

In the light of the results of clinical investigations which have been based on the experimental results which first led to a clear comprehension of what was to be expected in unilateral lesions of the cerebellum, we find that certain additions may be made to the clinical picture that was presented by the case recorded by Acland and Ballance. No better example of this is to be found than in a case published by my colleague, Mr. Wilfred Trotter:

> A woman with a large extradural abscess, in addition to another large collection of pus in the left lobe of the cerebellum, presented the following localizing signs: Conjugate movement of the eyes to the left was markedly weak. Nystagmus was most marked when the patient looked to the left. The knee-jerks and ankle-jerks were exaggerated on the left side, while the plantar reflex remained of the normal flexor type. There was marked continuation of flexion of the forearm when resistance that had been exerted was removed. Slight weakness of the left arm and leg. Marked diadococinesis and definite ataxy of the left arm.

Although such complete pictures of the cerebellar syndrome are rare, many of the cases of cerebellar abscess that occur present a sufficient number of signs by which they can be recognized and localized. It is nevertheless a fact that in a very large number of recorded cases no mention is made of any of the signs which may be so characteristically seen in other cases. It is not surprising that there should be so many such cases in the records antecedent to the time of the publications of Luciani and others of us who have paid attention to the results not only of total destruction of the cerebellum, but also of unilateral ablation of the organ. It is, however, disappointing to find, on reviewing the cases that have been recorded since these experimental results were published, how few of them are said to have had many, many, of the signs by which an abscess could be located in the cerebellum. I am sure that I shall not be accused of wishing to belittle the powers of observation of members of our profession who have not made a special study of disorders of the nervous system, when I say that it is impossible to escape from the belief that the number of these cases would not be as large as they are if more of them came under the observation of those specially trained in the detection of defects such as are to be looked for, and which may be present only in very slight degree. This belief is forced upon us when we compare the records of cases of cerebellar abscess by those especially trained in the way I have indicated, with others in which aural surgeons, who have not had the same opportunities of studying the symptomatology of cerebellar disease in general, are responsible for the observations. There can be no doubt, however, than even in the hands of skilled observers, cases occur in which abscesses in the cerebellum do not give rise to any of the signs which in other cases may occur in ones and twos, and which in others make up a complete clinical picture that it is impossible to confuse with one produced by disease in any other part of the central nervous system. A study of such cases as these, which unhappily form a very small minority of the total number of cases of cerebellar abscess, shows how closely the experimental picture of unilateral ablation of the cerebellum may be reproduced by disease in man. Although this complete picture is only to be expected in so few of the cases, a clear recognition of what may be looked for will enable the close observer to determine one or more of the clinical phenomena in other cases in which the diagnosis of abscess of the cerebellum is under consideration.

Thus it is that with complaint of vertigo, and the patient too ill to be got out of bed to test his powers of standing and walking, we have to rely perhaps on the presence of nystagmus and its characters, detection of slight inco-ordination in the execution of movements by the upper extremity on one side, which may also reveal a hypotonic condition of the muscles and a certain degree of paresis as compared with its fellow on the opposite side. Moreover, one knee-jerk may be more active than the other, while there is no ankle clonus, and the plantar reflex preserves its normal flexor type of response. Although there is no active rotation, and we are deprived of the possibility of ascertaining whether the patient presents any peculiar attitude in standing or cerebellar titubation in attempts at walking, there may, nevertheless, be an irresistible inclination of the patient to lie curled up in bed, always on the same side, which may prove of considerable significance when taken in conjunction with such other signs as exist, and which makes it probable that the cerebellum is the seat of the abscess.

Attitude.

Very little information can be obtained from the literature on abscess in regard to any special attitude assumed, except that several observers have noted the tendency which there is for the patient to lie curled up in bed on the normal side, as occurred in typical fashion in a case recorded by Betham Robinson, in which with this symptom were associated weakness of the left arm, exaggeration of the left knee-jerk, and marked lateral nystagmus, in a case of abscess of the left lobe of the cerebellum. Voss, however, describes a case in which a boy with an abscess of the left lobe tried to keep his head somewhat rotated to the right. The paucity of information on this subject may in part be due to the fact that so many of the patients suffering from intracranial abscess are too ill to be sat up in bed or to be made to stand with a view to determine any abnormal attitude, such as has been met with as the result of experimental lesions, and the same may be said in regard to the want of information with reference to any reeling

or tendency to fall to one side, for in but few cases are we even informed that the patient presents staggering on attempts at walking.

Nystagmus.

This is naturally one of the most constant signs, and in recorded cases, when the direction of the nystagmus is noted, it is usually lateral; while, when any mention is made as to which lateral movement of the eyes evokes the more pronounced nystagmus, it is usually stated, in accordance with what we expect from the experimental results, that it is when the eyes are turned to the side of the lesion. As labyrinthine disturbance may in itself occasion nystagmus, it is important to be able to distinguish between the nystagmus of one of these sources as opposed to that from the other, so that attention must be paid to such points as have been emphasized by Neumann and Barr. Neumann's view, which is supported by Trotter, is that, in accordance with what has been said, in cerebellar disease the nystagmus is more marked when the eyes are turned to the side of the lesion, whereas labyrinthine nystagmus is usually in the opposite direction. Barr draws the following distinction: In cerebellar suppuration the nystagmus is slight at first and becomes more pronounced as the disease becomes worse, whereas labyrinthine nystagmus is most marked at first, and gradually disappears. How the nystagmus may stand alone as the only localizing sign is well illustrated by a case recorded by McBride, in which there was nystagmus on looking to the left, with an abscess of the left lateral lobe, and one reported by Whitehead, in which, with a left cerebellar abscess, nystagmus on extreme rotation of the eyes to the left was again the only localizing sign.

Conjugate Weakness.

Although actual deviation of the eyes to one side is rare, it may nevertheless be determined that the patient experiences some difficulty in conjugately turning the eyes fully to the side corresponding to the abscess.

Paralysis of Cranial Nerves.

It might be supposed that, as in the case of cerebellar tumour, valuable assistance is to be derived from associated paralysis of certain of the cranial nerves, which may prove so helpful in cerebellar localization. It is otherwise, however, as was only to be expected when we remember that it is only with extracerebellar tumours that we derive such assistance from the cranial nerves, and that with intracerebellar growths, to which an abscess of the cerebellum is to be compared, no such paralysis of these nerves results. Even had it been otherwise, we should yet have been deprived of two of the most valuable of the nerves found affected in extracerebellar tumours, the facial and auditory, for the reason that such impairment of hearing as exists may be the direct outcome of the ear disease, and that the facial paralysis may similarly be produced by involvement of the nerve in the Fallopian canal. The published cases show that there is a general consensus of opinion that, apart from the presence of optic neuritis, the sixth cranial nerve is that most likely to be affected in cases of abscess of the cerebellum, and that it is the nerve on the homolateral side that is liable to suffer. It thus happens that even where there is no difficulty of conjugate turning of the eyes to the side of the lesion, the patient may nevertheless present a weakness of the external rectus on the homolateral side, which either results in an internal strabismus, or more commonly reveals itself by an inability to turn the eye completely outwards. Thus it is that in the absence of basal meningitis as a complication, the case of right cerebellar abscess recorded by Paterson, in which there was paralysis of the left external rectus, is altogether exceptional. As this case recovered after operation, it is of course impossible to be as sure of what actually obtained in the intracranial cavity as might have been possible had the patient died; and as head retraction appears to have been a notable feature, it is permissible to suspect the possibility of some localized meningitis as a complication, although abscess of the cerebellum alone could, of course, account for the head retraction. It is quite the exception to find any other cranial nerves affected in cases of abscess of the cerebellum, except when the aural suppuration has been directly responsible for defects of the facial and auditory nerves, which accords with what we have seen in cases of intracerebellar as opposed to extracerebellar tumours.

Hemiparesis.

A review of the literature impresses the fact that homolateral paresis is becoming more and more recognized as part of the clinical picture that may result from an abscess of the cerebellum, and this motor defect has been especially noticed in the arm on the affected side. In that paresis of the limbs may thus be the outcome of cerebellar as well as of cerebral abscess, too much stress cannot be laid on the fact, so much insisted on already, that such motor paresis, the outcome of cerebellar disease, is homolateral, while that which appertains to the cerebrum is contralateral. Thus it is that when middle-ear suppuration on one side is complicated by symptoms which point to the existence of an intracranial abscess, the detection of any paresis on the homolateral side would indicate the cerebellum as the probable seat of the mischief, whereas with paresis of the contralateral limbs there would be every justification for regarding the cerebrum rather than the cerebellum as the seat of the morbid process responsible for the paresis.

Convulsions.

It is quite an exception to find any suggestion of convulsions that can be regarded as cerebellar fits, either general or unilateral, such as obtained in a case published by Drummond and Hume a good many years ago, in which, with an abscess in the right lateral lobe of the cerebellum, the patient had paralysis on the homolateral side, with convulsions on this side. The spasms commenced in the face, and then spread to the arm and sometimes to the leg, but never became bilateral. An interesting case that deserves attention in this connexion is that recorded by Voss, in which a boy with an encapsuled abscess in the right cerebellar hemisphere presented stiffness of the neck, with head retraction, paralysis of the right upper extremity, nystagmus to the left, tremors in the muscles of the right face, gradually passing into clonus, with simultaneous tremors in the right thumb, which developed into clonus of the arm and leg on this side.

Reflexes.

In spite of the hypotonic condition of the muscles that may obtain in the homolateral limbs there seems no doubt that increased activity of the knee-jerk on this side, in accordance with what obtains after a cerebellar ablation in the laboratory, is another of the signs to be looked for. The number of recorded cases in which the homolateral knee-jerk is stated to be exaggerated is sufficient to suggest that this sign, like the homolateral paresis, will gradually become recognized as of value in the localization of abscess in the cerebellum, even if we are unable to rely on it in cases of tumour. In all recorded instances of the kind the observers are agreed that the plantar reflex has been of the normal flexor type, and has not been altered in the way that is characteristic of a lesion of the pyramidal system. Thus increase of the homolateral knee-jerk should be regarded as supporting the probability that the abscess is in the cerebellum, while increase of that on the contralateral side should suggest the cerebrum as the seat of the mischief, in which case ankle clonus may obtain, and the plantar reflex be of the extensor type.

TEMPORO-SPHENOIDAL ABSCESS.

Before dealing in detail with the symptoms which characterize temporo-sphenoidal abscess as contrasted with the effects of suppuration in the cerebellum, it is necessary for me to recall to your memories certain points connected with the anatomical relations of the temporal lobe, and others which relate to the functions of this part of the cerebrum. In the first place, it is well for us to remember that the hinder part of the upper portion of the lobe abuts on the angular gyrus, which is identified with certain visual processes concerned with speech. We have next to recognize that the temporal lobe is so related to the sensori-motor convolutions of the Rolandic region, and to the internal capsule and basal ganglia, that it is possible for morbid processes in the temporal lobe, which are capable of exerting pressure on other parts, to do so on both of these. Yet another important part which may similarly suffer is the crus cerebri, in which case the third nerve, which is so intimately related to the crus, may of

course become affected by the process. It only remains for me to remind you that in the temporal lobe are centres for the reception of auditory impressions, and that the tip of this lobe is concerned with taste and smell. A large portion of this part of the brain, however, belongs to the so-called silent regions—so called because morbid conditions in such parts evoke no clinical manifestations that enable us to say that these regions are affected. Indeed, in attempts at intracranial localization we have to depend on the negative rather than on the positive in determining whether these parts are the seat of disease. It is by a process of exclusion, then, that we arrive at the probable seat of the mischief in such parts; so that we are led to suspect them because, with other unmistakable signs of intracranial disease, we are nevertheless unable to determine any of those which would justify us in suspecting one of the parts of the brain, disease of which gives rise to a very definite group of manifestations that are readily recognized.

Deafness.

It is, further, necessary for us to remember that, although the temporal lobe is that part of the cerebral pallium which receives the afferent impressions from the auditory apparatus, mechanical destructive processes in one temporal lobe are not capable of producing complete deafness in the contralateral ear, so that we get very little, if any, assistance from this function of the lobe when we attempt to determine if it be the seat of an abscess. So it is with the functions subserved by the tip of the lobe; although Ballance and Acland refer to a case at St. Thomas's Hospital in which an abscess in the right temporo-sphenoidal lobe gave rise to deafness of the left ear, as well as paralysis of the left arm and leg, and a stabile right pupil.

Taste and Smell.

The same may be said of taste and smell, for, although Ballance records a case in which there was loss of smell in temporo-sphenoidal abscess, the usual seat of suppuration in this lobe makes it improbable that these functions would be readily disturbed. I have, nevertheless, had under my care at the National Hospital a young man in whom, as a result of some intracranial complication which followed ear disease, but the precise nature of which was not determined, fits occurred, which began with an aura of an unpleasant taste and smell. He further presented as part of his attacks the dreamy state which has been described by Dr. Hughlings Jackson, and which is so characteristic of temporo-sphenoidal fits. In this condition he imagined he was speaking to a friend whom he sometimes was heard to address by name. It must be noted, therefore, that, although loss of taste and smell do not obtain in abscess of the temporal lobe, nevertheless fits, beginning with an aura relating to these special senses, may occur, and be followed by a peculiar condition which has been described as a dreamy state. Even such discharges, however, are not to be usually expected in abscess of the temporal lobe, for the reason that has already been explained, that the seat of suppuration is, as a rule, too remote from the tip of the lobe. MacEwen and Acland and Ballance refer to two cases in which there was a dreamy state, which may have been of the nature described by Dr. Hughlings Jackson, but in neither of these is reference made to any aura of taste or smell.

Aphasia.

It remains for me to remind you of yet another function subserved by a part of the temporal lobe, which may prove more helpful to us in localizing an abscess in this region as opposed to the cerebellum. I, of course, refer to the part which this lobe plays in connexion with the speech processes, and to the disturbances of speech which result from lesions of it. Unfortunately for us in our attempts to solve the problem now under consideration, the temporal lobe of only one hemisphere subserves this function—the left in right-handed individuals—so that word-deafness, which is the variety of speech defect to be looked for, is not to be expected except when the left temporal lobe is the possible seat of the abscess. Moreover, it does not follow that, because the patient is right-handed and the left temporal lobe is affected, word-deafness or any other form of aphasia must of necessity result, for as only the hinder two-thirds of the superior temporal convolution is concerned with speech, there is left a considerable area of the temporal lobe that may be involved in suppuration without aphasia being a consequence. Enough has been said to make it clear that, as in the case of the cerebellum, so in the temporo-sphenoidal lobe, an abscess may lurk without being compelled to disclose its whereabouts by occasioning any symptoms or signs which are positively characteristic of a lesion in this lobe of the brain. Thus differential diagnosis may be rendered exceedingly difficult. It nevertheless behoves us to call your attention to those signs which may enable us to decide without any degree of uncertainty that the abscess is in the temporal lobe as opposed to the cerebellum. Foremost among these must be mentioned aphasia in any form, for an abscess in the cerebellum is incapable of producing this symptom. A word of warning is, however, made imperative by the fact that aphasia, and especially word-deafness, the variety with which we are most concerned in our present deliberations, is liable to be diagnosed, when in reality all that obtains is that the patient is in a state of general mental obfuscation, partly the result of the toxic state, and partly owing to the general increase of intracranial pressure, which is responsible for the behaviour that leads to the erroneous belief that he is suffering from aphasia. When true aphasia exists some degree of word-blindness may co-exist with the word-deafness in consequence of the proximity of the angular gyrus, and a certain degree of object-blindness has also been noticed. Logan Turner regards the inability to name objects as a diagnostic sign of great value in the differential diagnosis between temporo-sphenoidal and cerebellar abscess. He has seen six cases of abscess of the temporal lobe, in all of which this symptom obtained, and so impressed is he with its importance that he considers that absence of the symptom in a given case favours the probability that the abscess is in the cerebellum. An interesting case of the kind, in which the patient was unable to recall the names of people or objects, and in which an abscess was found in the angular gyrus and posterior part of the first temporal convolution, is recorded by C. K. Russel of Montreal. The patient could read and write, but was unable to understand figures—a condition of things which is regarded as confirming Miller's view that the centre for figures is distinct from that for words.

Hemiplegia.

There remains for our consideration the motor paralysis that may result from an abscess of the temporo-sphenoidal lobe. The hemiplegia may be the chief positive sign on which we have to rely for locating the seat of the abscess, but when the suppurative disease of the middle ear happens to be bilateral an analysis of the characteristics of the hemiplegia becomes necessary before any conclusion can be arrived at. It would be a matter of no difficulty if we always could be certain of the ear from which infection has been derived, and which is responsible for the intracranial process, for with hemiplegia on the contralateral side, as opposed to the homolateral, we should have no hesitation in pronouncing in favour of the temporo-sphenoidal lobe as contrasted with the cerebellum. As we are not always in this happy position, however, and as it often happens that we are uncertain as to which ear has supplied the source of infection, a more detailed analysis of the hemiplegia becomes essential. Were the face always involved in such hemiplegia, we should have in this one feature in which the paralysis differs from that which results from an abscess of the cerebellum, for an uncomplicated abscess in this situation, while capable of producing paresis in the limbs, does not occasion any such defect in the face, except where the facial paralysis has been brought about through involvement of the nerve—a condition of things which we have already recognized to be unlikely to occur except as a consequence of involvement of it by an inflammatory process in the Fallopian canal.

We have seen that there are three possible ways in which the paralysis may be brought about—by the pressure of a large abscess of the temporo-sphenoidal lobe on the sensori-motor convolutions of the Rolandic area, the internal capsule and the crus. In that which results from pressure on the sensori-motor cortex of the Rolandic region the face suffers first and in greatest degree, the arm

next, and the leg last; whereas if the pressure be on the internal capsule the leg would be likely to suffer first, the arm next, and the face last, if at all. But in reality no very definite information is forthcoming as to the production of hemiplegia in this way through pressure on the internal capsule. Where the crus is to be held responsible for the paralysis we may reasonably expect involvement of the third nerve, with as a consequence crossed paralysis, in which ptosis, external strabismus, and the other manifestations which result from paralysis of the oculo-motor nerve are present on the side of the abscess, while paralysis of the face and limbs obtains on the contralateral side.

A further analysis of the hemiparesis may enable us to determine some spasticity or increased tonus of the muscles of the affected limbs, which contrasts with the hypotonic condition to be expected in the muscles in cerebellar hemiparesis, and while the increase of the knee-jerk may differ in no way from that which is met with in cerebellar abscess, it may be possible to evoke ankle clonus, or to elicit a plantar reflex of the extensor type, either or both of which would stamp the hemiplegia as of cerebral rather than of cerebellar origin. As a cerebellar abscess, like an intracerebellar tumour, is not characterized by affection of cranial nerves, it follows that when, as sometimes happens, the third nerve is affected, owing to involvement of the crus, we may take this as positive evidence strongly in support of the temporo-sphenoidal lobe as being the seat of the mischief and not the cerebellum.

Dilated and Stabile Pupil.

Apart from the defect of the pupil which may obtain in conjunction with the other manifestations of paralysis of the third nerve, it has been repeatedly observed that the pupil on the side corresponding to a temporo-sphenoidal abscess has been dilated and stabile, so that there is little doubt that this is a valuable sign in the localization of intracranial abscess. It cannot, however, be said that such a condition of things never obtains in the case of abscess of the cerebellum, for Griffith has recorded a case of abscess of the right lobe of the cerebellum in a boy in whom the right pupil was widely dilated. Both pupils were, however, large in this case, and the knee-jerks were abolished, so that there was evidently marked increase of intracranial pressure, and the defect was evidently a secondary consequence of the abscess rather than a direct result of the cerebellar disease.

Reflexes.

With or without definite hemiplegia, the reflexes may be altered on the contralateral side in the way that has been already described, but in addition to this special attention must be directed to the abdominal reflexes, which may be abolished or diminished on the side contralateral to an abscess of the temporal lobe.

The Value of Negative Points.

In attempting to come to a definite conclusion in a matter that often presents so many difficulties it becomes important that we should pay almost as much attention to negative as to positive points. It thus follows that when in a given patient we are in search of an abscess of which there is evidence from the general symptomatology which characterizes intracranial suppuration irrespective of its precise seat, we must allow certain negative points to favour the temporo-sphenoidal lobe as opposed to the cerebellum, and vice versa. Thus it is that complete absence of vertigo or other evidences of disturbances of co-ordination, and the absence of nystagmus, must be allowed their proper place in our deliberations, and must be regarded as favouring the probability that the abscess is in the temporo sphenoidal lobe and not in the cerebellum. Great care is, however, necessary in making a proper use of such negatives, for, as has already been said, it is often extraordinary how few indications of disturbance of cerebellar function may obtain, in spite of the presence of an abscess in the organ. From the cerebellar standpoint the absence of aphasia is to be regarded as a negative point in favour of an abscess in this organ, as opposed to the cerebrum, but we cannot forget that it is only when an abscess exists in the left side of the brain in right-handed individuals that such disturbances of speech are to be expected, and moreover, that but a limited region of the temporal lobe is concerned with speech processes, so that a considerable area of the brain may be involved in this region, even on the left side, without aphasia resulting.

BIBLIOGRAPHY.

Dana: *New York Med. Journ.*, 1906, lxxxiv, p. 677.
Stewart and Holmes: *Brain*, 1904, xxvii. p. 522.
Luciani: *Ergebnisse der Physiologie*, 1904, Abth. ii.
Gunn: *Brain*, 1898, xxi, p. 337.
Paton, *Trans. Ophth. Soc.*, 1908, xxviii, p. 112.
Horsley: Ibid., p. 136.
Gowers: Ibid., p. 138.
Batten: *Brain*, 1903, xxvi, p. 71.
Hughlings Jackson: Ibid., 1906, xxix, p. 428.
Babinski: *Neurol. Centralbl.*, 1903, xxii, p. 96.
Acland and Ballance: *St. Thomas's Hosp. Rep.*, new series, vol. xxiii, p. 133.
Trotter: BRITISH MEDICAL JOURNAL, 1908, i, p. 612.
Robinson: *Lancet*, 1904, ii, p. 1566.
Voss: *Zeits. f. Ohrenheilk.*, 1906, L. iii, p. 57.
McBride: *Journ. of Laryngol.*, 1908, xxiii, p. 484.
Whitehead: Ibid., 1907, cxxii, p. 108.
Drummond: *Lancet*, 1894, ii, p. 190.
Turner: *Journ. of Laryngol.*, 1908, xxiii, p. 486.
Russel: *Montreal Med Journ.*, 1908, xxxvii, p. 517.
Paterson: *Journ. of Laryngol.*, 1908, xxiii, p. 197.
Griffith: *Scottish Med. and Surg. Journ.*, 1905, xvi, p. 412.
Paterson, D. R.: *Proceed. of Roy. Soc. of Med.*, 1908, vol. i, Otol. Sec., p. 88.
Logan Turner, A.: Ibid., 1908, vol. i, Otol. Sec., p. 137.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

GOUNDOU.

I REPORT this case, as it is probably the first recorded for Nyasaland (British Central Africa), and because of the interest which attaches to its history.

The patient, a girl aged about 14, daughter of a local chief of the Yao tribe, her mother being also a Yao, was sent to me on April 21st by the Mission authorities from Domasi, ten miles from Zomba. Her history was that about a month ago, on waking in the morning, a fly went up one of her nostrils. She compressed the nostril, and on releasing it the fly flew out. A week after this there came a discharge of blood from both nostrils accompanied with about ten "worms," described as being nearly half an inch in length, of a whitish colour and black at one end. The bleeding continued for a day or two longer and then ceased; there was no pus. After this she became aware of a pain over the bones of the nose, later a swelling became apparent, though there was no commensurate increase of pain. She stated that the swelling was gradually growing larger.

The condition was diagnosed as goundou, the nose having an expanded appearance about its middle, giving a false sense of flatness. Externally there was no inflammation or signs of any having previously occurred, the skin being quite natural and not adherent to the bony structure beneath. There was no tenderness; at the situations of the nasal processes of the superior maxillae small exostoses about the size of a pea, though more or less of oval outline, directed downwards and outwards, smooth and symmetrical, were felt on both sides. On examining through the external nares ulceration was observed on both sides of the septum, extending to the sides of the nostrils, but situated chiefly in the mucous membrane covering the upper lateral cartilages. It could not be said that there was a discharge; the nostrils were moist and the ulcers were covered with soft crusts. There was a rather disagreeable odour noticed during examination. The nasal ducts were patent, there was no epiphora. The sense of smell was impaired to a slight degree only. The patient was otherwise in good health.

This tallies with Maclaud's theory of the causation of this disease, and more or less with descriptions of it. There is no reason to believe that the history given by the girl is otherwise than true, though the statements as to length of time must not be taken too literally. The information regarding the larvae was volunteered before any questioning referring to them. The patient stated she had never had yaws, and there were no such lesions.

The fly is said to have been a small one, and not either the *A. luteola* or *Bengalia depressa*, both of which are to be found in this Protectorate, and are familiar to my servant, who acted as interpreter. Whether the fly went in to deposit its larvae, or whether the larvae were discharged by the pressure exerted by the patient, as mentioned above, I do not know, but it is a matter familiar to all that a fly full of larvae requires very little pressure to expel them.

Slides were prepared from scrapings from the nose and stained with thionin blue, carbol-fuchsin, and Gram's iodine. The organisms observed in these were cocci, and could be termed streptococci, though the chains were not long—not more than five or six in a row. They retained the stain with Gram's. These were the only organisms observed.

J. O. SHIRCORE, M.B Edin.,
Medical Officer.

Zomba.

ANASARCA IN AN INFANT.

CONSIDERABLE interest has been of late years exhibited in the question of the excretion of common salt from the body. This fact, supported by Widal's contention that a saltless diet is best in cases of renal disease, is ample excuse for recording the following case.

A boy, aged 10 days, a first baby, presented an appearance of marked anasarca. The arms and legs were much swollen, the skin shining. One eye was completely closed by oedema, and the palpebral fissure on the other side was a mere slit. The skin on the trunk also was distended and pitted on pressure. The umbilical scar was healing nicely. There was no throat trouble, cervical adenitis, or cough. The child was apparently comfortable, did not cry much, and took its food fairly well. The bowels were regular, and he passed water freely.

The history was that the confinement had been uneventful; the mother only having a slight show of milk the baby was bottle-fed on the third day. On the sixth day compliments were passed on its admirable progress. On the eighth, suspicions were entertained that all was not well, and on the tenth I was sent for.

There being no evidence of acute trouble due to chill or infection, for example, diphtheria, or of secondary trouble due to heart lesion (nor did the appearance suggest such), a diagnosis of congenital renal inadequacy was made, and a very guarded prognosis given to the father. He was instructed regarding constant warmth, wrapping in cotton-wool, etc., and also in the preparation of a mixture of barley water, milk, and cream. Hereupon he demanded: "And what about the salt, doctor?" "What salt?" "The salt in the bottle. The nurse always puts salt in the bottle." "You mean sugar." "No, salt, see here's the packet." This was news to me. I have heard of nurses prescribing many weird concoctions, but not salt for a newborn baby. I elicited that the nurse, who came morning and evening, prepared a sufficiency of food for the day, leaving it conveniently placed for the mother to administer when alone. Each time a quantity of salt was added by the nurse, but the amount could not be determined. Stringent orders were given that the food must be made as advised, and a placebo was sent. All attempts to obtain a specimen of urine not unnaturally failed, as the mother was not in a fit condition to arrange mackintoshes and carefully watch the child. During the next two days the rate of swelling diminished, and during the next two there was marked subsidence; when the infant was seventeen days old he presented a pitiable appearance, a mere skeleton with loose hanging skin. Mother and child were then sent to relatives in the country, and at the end of the sixth week the child appeared well and flourishing.

Apparently there can only be one explanation of the case. The absence of any of the usual causes of anasarca, coupled with the speedy recovery without any definite treatment except the cessation of salt administration, point conclusively to the salt having been the cause of the trouble.

Manchester, S. JOHN D'EWART, M.B.Lond., M.R.C.S.

TREATMENT OF SUPPURATIVE OTITIS.

I PUBLISH the following case as it is a fair example of the benefit that may often be derived from a very simple and safe operation. Last year I had occasion to perform several otectomies for the cure of suppurative otitis, and in every case a good result was obtained.

A man aged about 40 had suffered from an infected middle ear (right) for several years, and had been under the care of a well-known specialist. His chief complaint was "stone deafness" on the right side, with a distressing sensation of "deadness" on the same side of the head as well. Both these conditions had continued for some years. He could not hear a watch or fork at meatus. I told him that clearing out the middle ear had improved the hearing in many such cases, and had not infrequently relieved troublesome symptoms referable to the ear disease (one such, vertigo, reported in the BRITISH MEDICAL JOURNAL in 1908). Accordingly I cleared out the middle ear through the meatus in October, 1909, with little or no discomfort after the first few hours. The patient, an officer in the army, was able to resume duty at the other end of the country in two days after the operation.

I saw him again for the first time last week. He assured me he had lost the unpleasant feelings that had so long troubled him, and he could now hear conversation with the right ear, though carried on in a low voice. He could hear the watch at about 3 in. from the right ear.

London, W. FAULDER WHITE.

Reports
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

ROYAL NAVAL HOSPITAL, YOKOHAMA.

SOAMIN IN VIRULENT SYPHILIS: A STRIKING CASE.

(By THOS. D. HALAHAN, F.R.C.S.Edin., Fleet Surgeon, R.N.)

A. B., aged 32, was admitted on April 27th, 1909, suffering from three chancres (non-indurated) and from suppurating inguinal glands. He complained also of headache, facial neuralgia, and pains in the limbs. His temperature was raised at night (100–101°). The chancres were contracted from a Chinese woman, appeared about three weeks after contraction, and had been present about three weeks.

The glands were removed under ether on May 9th, and the wound readily healed. Owing to the sores proving intractable, and the long history of incubation, the patient was placed on mercury; still up to May 18th there was no definite indication of syphilis as regards glands, induration, rash, or otherwise. On May 18th he suddenly developed severe periostitis of the sternum, ribs, clavicles, and the spines of the scapulae; this was followed by a severe pustular eruption, muscular rheumatism, and an aggravation of the neuralgia. The patient developed also deep ulceration of the pharynx and left tonsil, and could hardly swallow food of any kind. On May 25th his hips, ankles, and knees became swollen and painful. On June 7th he was seized with sudden dyspnoea due to pericarditis, a well marked to-and-fro rub being present; there was no recognizable effusion. The rub disappeared in a week, recurred, and then again disappeared. At the end of June he developed rupial sores on the face and a few on the trunk and limbs.

Treatment was most difficult. The varied means adopted for dealing with the formidable local manifestations need not be detailed here; the real difficulty was constitutional treatment. Mercury, even in small inunctions, and combined with internal administration of quinine, salivated him at once, and potassium iodide just as promptly produced coryza and a facial eruption. At last it was determined to try soamin, and the effect was remarkable, though not at first. He was given 8 grains on alternate days by intramuscular injection. The evening temperature came down to normal (from 101°) after three injections, but not much change took place in his symptoms until he had been given 60 grains. Then the patient, who had been racked with rheumatism, neuralgia, and the irritation of the rupial sores, who could hardly stir hand or foot on account of the periostitis, and could barely swallow sufficient food on account of the ulcers in his throat, suddenly began to mend. The rupial sores healed; the rheumatism, neuralgia, and periostitis disappeared; and the ulcers on tonsil and pharynx healed. The soamin was continued up to 100 grains, and in August a second course of 100 grains was commenced. The patient was discharged on August 23rd, being then free from all symptoms except slight alopecia and two ulcers on the arms not quite healed.

The extraordinary virulence of the infection and the striking result obtained with soamin seem to make the case worth reporting. Writing on December 19th, 1909, the patient stated he was then free from symptoms. It should be added that during the latter part of the soamin course he was getting potassium iodide also in 20-grain doses four times daily; whether this contributed to the result I cannot say, but the point is worth noting; and also that the soamin enabled the patient to take potassium iodide, which he could not tolerate at all previously.

Reports of Societies.

ROYAL SOCIETY OF MEDICINE.

OBSTETRICAL AND GYNAECOLOGICAL SECTION.

Thursday, February 10th, 1910.

Dr. MACNAUGHTON-JONES, President, in the Chair.

Post-peritoneal Haematocele complicating Uterine Fibroid.

DR. WILLIAM ALEXANDER read a paper on post-peritoneal haematocele complicating a large uterine fibroid.

A single lady, aged 50, complained of dyspnoea and general weakness. The abdomen was found to be occupied by a large, solid tumour, freely movable, and a little tender. The periods were regular and not excessive, and the functions of the bowels and bladder were normal. The tumour was considered to be a solid ovarian, and on opening the abdomen, it was found to be a large fibroid, weighing 12 lb., and was removed in the usual way. There were no adhesions, but the tumour was observed to project rather unduly forwards. After the removal of the tumour and the pads which had been used to keep the intestines out of the way, a diffused mass consisting of a dark layer of blood was seen extending over the front of the spinal column, and between the layers of the mesocolon as far up as the hilum of the liver. The broad ligaments did not contain any blood at the time the haematocele was first discovered, but they gradually filled up with blood from above. A glass drainage tube was placed in the right broad ligament and the abdomen closed. Before the operation the pulse-rate was 100, and at the end of the operation 108. The rapidity of the pulse was thought to be accounted for by a pre-operative rupture of a vein and the gradually increasing venous haemorrhage, which possibly had been going on for some two weeks before the operation. The pulse-rate remained rather rapid for a few days after the operation, and there was some sickness, but the patient gradually improved, the pulse-rate became normal, and finally she made a good recovery. When seen; seven months after the operation, the patient was well, and no trace of the haematocele could be found.

Dr. Alexander said pelvic haematoceles of a certain size were not uncommon, but were usually limited to the broad ligaments, and were due to the rupture of an extrauterine gestation. In some cases, however, they were post-operative, and due to the puncture of a vein in the broad ligament. When the abdomen was opened the tumour filled the whole space, and was very prominent, the crest of the swelling being on a level with the colon. The danger of the condition was very great, and a bad prognosis was given; fortunately asepsis was maintained throughout, and the mass of blood was gradually absorbed. The author had not been able to find any record of a similar case. It was probable that the insertion of the drainage tube into the broad ligament was not really advisable, and did little good, but for the first few days a small quantity of blood escaped through the tube daily. It was introduced on the spur of the moment, when it seemed desirable to have the patient back in bed before the supposed inevitable collapse occurred. The PRESIDENT said that the largest haematocele he had seen had a traumatic origin. The patient recovered under expectant treatment, but was in a state of invalidism for three years. The most important question in these cases at the present day was that of operative interference.

Modern Methods of Delivery in Contracted Pelvis.

Dr. HASTINGS TWEEDY read a paper on this subject. He remarked that methods were now precise, if they were based on an accurate knowledge of the size of the pelvis in any given case. This accuracy could not be ensured by Müller's method, or by an estimation of the true conjugate from the size of the diagonal conjugate. Skutsch's pelvimeter, in the hands of an expert, could be made to give measurements accurate to within $\frac{1}{6}$ in., and treatment should, therefore, be based on its findings. He divided contracted pelves into five degrees. The first four were separated from each other by $\frac{1}{2}$ in. measurements in the true conjugate, and the fifth degree comprised all pelves less than $2\frac{1}{4}$ in. in the conjugate diameter. Generally contracted pelves should be considered worse by $\frac{1}{2}$ in. than those with simple flattening. A child of abnormally large size could pass uninjured through a normal pelvis; therefore a full-sized fetus might pass through a contracted pelvis of the first or second degree. In contractions of the first and second degree normal delivery should be anticipated. With such contraction a woman might be expected to deliver herself naturally, and interference was warranted only when complications arose. In such cases prophylactic turnings or induction of premature labour were never indicated. In contraction of the third degree classical Caesarean section was the operation of choice, provided the patient was seen early in labour and carried a living child. When performed in favourable circumstances, it could be relied on for the delivery of a living child without subsequent harm to the mother, as exemplified by a total absence of omental or intestinal adhesions, by complete absorption of buried silk sutures, and an absence of visible mark in the uterus to point to the site of incision. All these signs could be verified on patients who had to undergo a subsequent Caesarean section. When such a contraction was encountered in a woman advanced in labour, subcutaneous pubiotomy was an ideal procedure. If the special instruments required for its performance were not available, symphysiotomy yielded almost as good results. With both the haemorrhage was slight; convalescence should be uneventful and painless; the patients were able to turn themselves on the third day, and walked unaided from the seventeenth day. For contractions of the fourth degree and under, neither of these operations was to be considered. In such cases the extraperitoneal Caesarean section was the operation for choice when the classical Caesarean section was not indicated. He summed up as follows:

1. Induction of premature labour is never advisable.
2. Perforation is not permissible unless the child is dead.
3. Version should never be employed as a treatment for contracted pelvis, but may still be performed for complications of labour, such as prolapse of the cord, when associated with contractions of the first and second degree.
4. In the greater degrees of contraction time should not be wasted in an endeavour to obtain natural delivery.
5. In lesser degrees ample time should be given the woman to enable her to deliver herself, if possible. With the first appearance of fetal or maternal distress operative delivery must be undertaken.
6. High forceps should never be applied until preparations are complete for enlarging the pelvis, when they may be tried tentatively.
7. In all obstetrical operations the best results cannot be obtained unless gloves are worn.
8. Finally, it is only a matter of a short time before it will be considered criminal to perforate the head of a living child, and even to permit one to die because of delay in delivery, or from obsolete methods, will rightly be condemned.

Dr. F. H. CHAMPNEYS said that there were certain propositions in this paper which were at variance with his present opinions. For instance, the absolute condemnation of the induction of premature labour. That in suitable cases had always given him good results. Then the results of symphysiotomy related by Dr. Tweedy struck him as being exceptional. He had read of all sorts of disasters, injuries to the soft parts, to the bladder, trouble with union, and a not inconsiderable mortality, both fetal and maternal. Moreover, the limits of their application were quite narrow. Up to the present time he had treated cases of contracted pelvis by the induction of premature labour and Caesarean section, and had been well pleased with the results. Dr. G. HERMAN was interested in Dr. Tweedy's condemnation of Skutsch's pelvimeter; he had used the instrument but had not much success with it. He could not agree with Dr. Tweedy in regarding the size of the child as a negligible factor; he regarded it as of much importance as the measurement of the conjugate. He had found it generally easy to judge of the relative size of the head and pelvis by pressing the head down into the pelvic brim from the abdomen, although he admitted it was not always so. Acceptance of Dr. Tweedy's views involved acceptance of one of two propositions—(1) that the mortality of Caesarean section was not greater than that of delivery through the natural passages; or (2) that the life of the child was to be considered before that of the mother. With regard to the former the most recent statistics of Caesarean section gave a mortality of 8 per cent.; as to the second, he thought the life of the mother was always to be preferred to that of the child. He could not imagine any one acquainted with subcutaneous symphysiotomy preferring pubiotomy. The real objection to methods for widening the pelvis was that for their safe use it was necessary that the relative size of the head and pelvis should be determined with great accuracy. He did not believe that the use of rubber gloves was essential for the attainment of the best results, and was of opinion that they were a

fashion which would pass. Dr. H. SPENCER, on the question of the induction of premature labour, disagreed absolutely from Dr. Hastings Tweedy, and did not think that any evidence had been brought forward for pubiotomy as a substitute for induction, whatever might be said for it as an emergency operation during labour at term. He could not allow that induction of premature labour was an obsolete operation; he had been practising it for twenty-three years, and had never seen any bad results to the mother. In view of his results he held strongly that it was an admirable operation, simple of execution, free from risk to the mother, and giving fairly good results in the case of the children. He had never performed symphysiotomy or pubiotomy, preferring the induction of premature labour or Caesarean section in clean cases. In really infected cases any of these operations, pubiotomy included, was attended with great risk to the mother. He agreed with Dr. Herman that the interest of the mother should come first. In the interests of the child, and in many cases in the interests of the mother, too, Caesarean section was better than pubiotomy. Dr. Tweedy had said nothing of any ill effects to the mother, although records of such ill effects existed in abundance. In the 510 cases of pubiotomy collected by Schäffli, haematoma was observed in 17 per cent.; severe tears in 15.4 per cent., and of these 12 6 per cent. died; injuries to the bladder in 12 per cent.; thrombo-phlebitis in 0.8 per cent. Of 120 cases investigated later, hernia through the gap of the bone was found in 7.5 per cent., prolapse of the vagina in 24 per cent., chronic incontinence of urine in 4 per cent., while of the mothers 4 9 per cent., and of the children 9.6 per cent. died. In 117 cases of premature labour, von Herff had had one maternal death, and 80 per cent. of the children left the clinic alive. The results of 53 cases of pubiotomy in Bumm's clinic given by Kraemer showed that in over 3 per cent. the bleeding was profuse, and in 5 cases haematoma, oedema, and thrombi occurred. In 12 spontaneous deliveries there were 3 unimportant injuries to the soft parts, and the bladder was injured three times by the needle and healed spontaneously, while in the remaining 41 women delivered artificially there were 7 injuries of the bladder or urethra, and in 19 cases the soft parts were extensively torn by the bone; only one mother died, but 54 per cent. had fever in the puerperium, while 86 6 per cent. of the children survived. With such results in Bumm's clinic he did not think that Dr. Tweedy was justified in recommending pubiotomy as a safe and simple method of delivery for the general practitioner. Dr. T. W. EDEN gave the results of the induction of premature labour in 101 cases at Queen Charlotte's Hospital. The time for the induction of the labour was determined by Müller's method, and he thought that this method fulfilled all the requirements. Krause's method of induction was employed, and the fetal mortality was 13 per cent. In five-sixths of the cases the induction was performed at or later than the thirty-sixth week, and the average weight of the infants at birth was 5 to 5½ lb. There was no maternal mortality. Of the cases of contracted pelves which went to term 42 were delivered spontaneously, with a fetal mortality of 4.7 per cent. In 74 cases in which the conjugata vera was 3½ in. or more, and which were delivered by forceps at term, the fetal mortality was 18.7, and there was no maternal mortality. During the same time 35 cases were operated upon by Caesarean section, with a fetal mortality of 11.4 per cent., and a maternal of 5.7 per cent. No doubt if the operation had been performed late in the second stage of labour the mortality would have been higher than this. Neither symphysiotomy nor pubiotomy had been performed during this period. The results of induction of premature labour compared so favourably with the alternative methods of procedure that he was not inclined to abandon the operation. It was important for teachers of obstetrics to retain and to teach the simpler methods so long as they yielded good results. Dr. W. S. A. GRIFFITH said that Dr. Hastings Tweedy in his paper condemned the British adherence to the induction of premature labour in preference to the routine operation of symphysiotomy and pubiotomy, which for many years had been extensively practised on the Continent. He, personally, was satisfied that each operation had its own sphere of usefulness, and was not to be condemned. He was not, however, prepared to accept the teaching that, in all cases where the fetal head would not pass through the brim, symphysiotomy or pubiotomy was necessarily the best and, indeed, the only good method of treatment. The PRESIDENT said that in eighteen years he had had only 2 maternal deaths from sepsis after prolonged and neglected labour. Out of 1,611 cases attended by him or his colleagues during five years in the Cork Maternity (1872–77) 14 mothers died and 64 children—a mortality of 0.8 per cent. of the mothers and 3.9 per cent. of the children. It must always be recognized that classical midwifery among the rich and in hospitals and among the poor were very different matters. It seemed to him essential, in order to arrive at a satisfactory conclusion as to the relation between the size of the child's head and that of the pelvis, that an anaesthetic should be given and Müller's method employed. He was strongly in favour of the induction of premature labour, and he thought that version should be employed in a certain small number of cases as an alternative to forceps; the operation should, however, be performed with the membranes unruptured and the cervix fully dilated. There was no more dangerous operation than the application of the high forceps to the head not engaged in the brim. He considered the day of perforation of a living child's head was past. He did not think that any method of instrumental pelvimetry could ever supersede the use of the hand properly employed.

PATHOLOGICAL SECTION.

Tuesday, February 15th, 1910.

Dr. F. W. MOTT, F.R.S., President, in the Chair.

The Serum Diagnosis of Syphilis.

DR. H. R. DEAN gave an account of an investigation of some of the factors in the serum diagnosis of syphilis. In 158 cases he had compared, he said, alcoholic extracts of normal guinea-pig's heart with watery extracts obtained from syphilitic liver. The results appeared to show that the extract from syphilitic material was a more delicate reagent. Nevertheless, in the majority of cases a good extract of normal organ gave quite reliable results. In the standardization of extract it was necessary to accurately determine: (1) The dose of extract which by itself absorbed the usual dose of complement; (2) the dose of extract which in the presence of normal serum absorbed complement; and (3) the dose of serum which in the presence of syphilitic serum absorbed complement. A good extract was one which, with syphilitic serum, completely absorbed complement in a dose which was much smaller than the dose which absorbed complement in the presence of normal serum. The capacity possessed by many extracts in a marked degree of absorbing complement, in the presence of normal serum, was of great importance, and led to error unless the extract was carefully standardized. In using the original Wassermann method, it was advisable to test the strength of the haemolytic system to be employed. In this way an indication was obtained of the complement content of the guinea-pig's serum. In employing the test two extracts should be employed. The normal amboceptor present in human serum was subject to marked variation in amount. In the Wassermann test, in which a haemolytic serum derived from the rabbit was always added, the question of excess of haemolytic amboceptor was the only one which arose. Several of the serums examined gave marked positive reactions, and were nevertheless found to contain very large amounts of normal amboceptor. In the case of one positive serum 0.1 c.cm. was found to contain ten times the minimal lytic dose. The normal amboceptor was removed from a series of serums by saturation with sheep's corpuscles. After the removal of the amboceptor the serums gave only a slightly more marked reaction. The number of cases in which the normal haemolytic amboceptor was absent was small, but in many cases it was only present in small amount. Bauer's modification relied entirely on the presence of the normal amboceptor. There was a danger that the serum investigated might contain just sufficient amboceptor to produce haemolysis in the control tube, containing serum alone, but might be unable to produce haemolysis in the tube which contained serum + extract, and thus a positive result might be simulated. It must not be forgotten that extract and normal serum possessed considerable power

of absorbing complement. The control of normal serum and extract was not satisfactory, for if the control serum was rich in amboceptor and the serum to be examined poor in amboceptor, the experiment was misleading. The subsequent addition of a further amount of normal serum, in cases where the amboceptor was deficient, was not free from objection, since complement might be fixed by extract and the double quantity of normal serum. In M. Stern's modification the fresh human serum was employed, and the complement of the guinea-pig was not used. The larger percentage of positive results obtained by Stern's method were to be attributed to the fact that unheated serums were known to react more powerfully, or to the well-known variations in the complement content of human serum. There was much evidence that the reaction with unheated serums, although more readily obtained, tended to be non-specific. A series of 87 cases had been examined by Stern's method and by Wassermann's method. The serums were also titrated to determine the complement content; 23 cases were positive by Stern's method and 14 were positive by Wassermann's method. Of the 9 cases which were only positive by Stern's method 4 were shown to be deficient in complement. The object of the experiment was to test the deviation of complement and it was essential that each tube should receive an equal dose of complement. It was possible when the complement content of the serum was small for haemolysis to occur in the control tube, but not in the tube which contained the serum + extract. A positive result was thus simulated. Hecht depended entirely on the normal human amboceptor and the human complement. The objections which applied to the methods of Bauer and Stern applied with double force to that of Hecht. The best method was that in which the conditions of the experiment, especially the dose of complement, were constant in each tube. Although the modifications mentioned gave good results the original method was more reliable and the liability to error was smaller.

Cartilaginous and Osseous Tumours.

Mr. S. G. SHATTOCK, Mr. L. S. DUDGEON, and Dr. C. G. SELIGMANN made an interim report on some attempts to produce cartilaginous or osseous tumours. The whole of the expenses had been defrayed by the Imperial Cancer Research. The attempt to raise a chondroma by the grafting of fetal cartilage had, they said, often been made since Cohnheim enunciated his well-known theory of tumour origin. It was clear that the simple transference of embryonic or of growing cartilage from one animal to another of the same, and *a fortiori* of a different, species was fruitless. The authors had formulated a working hypothesis before commencing the investigation, and which was, that the different tissues of the body tend *per se* to grow without limit, and that the growth of any one tissue in particular was restrained by substances produced by all the rest; the hypothetical substances might be termed "restraining bodies—corpora cohibentia." They were not lysins, for the indefinite growth of a given tissue—for example, cartilage—was not prevented by the lytic destruction of a surplus formation of it. Bashford, Murray, and Haaland's memorable experiment, which showed that an extract of mouse skin inhibited the growth of a subsequently made graft of mouse epithelioma, might be explained by the sum of the bodies which restrain the unlimited growth of skin having accumulated and been loosely fixed, in the skin itself; and, as Bashford and Murray had also shown, that blood had the same power, but in a less marked degree. The work of the authors consisted in grafting the living bones of fetal rabbits beneath the skin of other rabbits, not once, but at regular intervals, and in considerable quantity, with the object of exhausting the "restraining bodies." They had selected for the animals to be grafted young rabbits and does which were kept regularly pregnant, with the object of aiding the projected result. Six or eight fetal long bones were inserted at each sitting. Of the two does used, one had, up to the present, received subcutaneous insertions of fetal bones on ten occasions, and had been pregnant ten times; the other had had fetal bones inserted on five occasions, and had been pregnant seven times. The authors, as they proceeded, had made the important modification of using the progeny of each doe to furnish the grafts inserted beneath the skin of the mother herself. The epiphysial ends of the grafted bones underwent a certain amount of enlargement, but as yet no tumours had arisen. In the case of one of the does, thyroid extract was now being administered, and the authors proposed to test the possibility of the grafting having increased the output of restraining bodies, by injecting the blood of these animals into others, with the object of producing anti-antibodies, which might allow of the growth of fetal bones grafted into the second series of rabbits so prepared.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF ANATOMY AND PHYSIOLOGY.

Friday, January 21st, 1910.

Professor T. H. MILROY, President, in the Chair.

The Influence of the Addition of Calcium Salts on the Coagulability of the Blood in vitro.

PROFESSOR B. J. COLLINGWOOD, in a preliminary communication on this subject, said the coagulation time of blood was largely dependent on the method employed in its withdrawal. For example, the rate at which the blood was shed was a factor of the highest importance. In one individual it was found that when a deep puncture was made and a rapid flow secured the coagulation time was three and a quarter minutes; whilst in the same individual, if a slight puncture only was made and a drop of blood squeezed out, the coagulation time was only twenty seconds. Such an alteration in coagulability as this indicated the necessity of the most careful technique in the investigation of the influence of the addition of calcium salts to blood *in vitro* on its coagulability after disease. In that which he adopted equal bulks of blood were taken from the *same* drop at the *same* moment by two individuals. The following manipulations were performed at the *same* moments of time by *each* of two individuals, A. and B.: (1) A. mixed his bulk of blood with quarter volume of a given strength of $CaCl_2$ solution; B. mixed his bulk of blood with quarter volume of an equi-normal strength of NaCl solution. (2) A., after sealing tube, placed it in an incubator at 37° C.; B. imitated exactly the action of A. (3) After a stated interval of time A. removed tube from incubator, broke off the end of the tube, and blew out contents on to blotting paper and noted whether clots were formed or no; B. imitated exactly the action of A. His general conclusion was that the clinical utility of the administration of calcium in the treatment of haemophilia and allied conditions must depend on other factors than the direct influence of calcium on the blood. In the course of his reply to observations from those present he said that so far as he had gone, in no single instance had the addition of calcium increased coagulability. He did not think ionization of the calcium necessary to producing coagulation. He did not think Wright had proved his case, as milk contained many things besides calcium. It was said to contain thrombokinase, and the proteid might have something to do with it. In typhoid they had a feeble circulation, which would tend to make the blood coagulate when shed on the surface. As regards continuity of action, calcium differed from other drugs, and was regarded as a physiological stimulant for contraction of the heart. He had done a number of experiments on himself, and he had not been able to prove that he had absorbed any calcium. He would try taking a pint of milk instead of a drachm of calcium chloride. He had not been able to get any definite results with regard to the excretion in the urine. Injection of serum seemed to be a more rational treatment for the prevention of haemorrhage than calcium, as the serum contained a fibrin ferment at some stages. A comparison between old and new serum was interesting; serum of four days might not cause coagulation at all, but might be inhibitory. It was a curious fact that men who had given calcium said the bleeding was just as bad as ever, whereas when magnesium was given the results were excellent; and yet one found that magnesium had no power in experiments *in vitro*. He thought that the clinical results must depend on vaso-constriction, and had nothing to do with the direct action of the blood.

SECTION OF STATE MEDICINE.

Friday, January 28th, 1910.

Professor E. J. McWEENEY, President, in the Chair.

Source of Blood Stains.

THE PRESIDENT, in an inaugural address dealing with the precipitin reaction in medico-legal work, said that, up to the year 1900, the difficulties in the way of certainly identifying the origin of blood stains were practically insuperable. It was owing to the labours of Uhlenhuth, Wassermann and Schütze in Germany, and of Nuttall in this country, that this unsatisfactory state of things was changed, and the biological method elaborated. The speaker referred to his own experience of the method which he had been applying in medico-legal cases for the Crown in Ireland since 1902. Quite recently he had had to inquire into a case in which there was one spot of blood and one only on the clothes of a man accused of committing a murder. It was on his cap, and was no bigger than a threepenny piece. By the aid of highly potent antiserums and the capillary tube method he was enabled to satisfy himself that the blood was not of human, but of equine, origin, and reported to that effect. On subsequent inquiry it was found that the accused man had been in the employment of a large horse-dealer, and had frequently to perform, or assist at, operations on horses. In another case, where a man accused of a brutal murder had tried to account for blood stains on his knife by saying that he had been killing a goat, he (the speaker) had been able to show that the stains in question were composed of human and not of goat's blood. The man had since been executed. The address was followed by a demonstration of the mode of determining the precipitating power and specificity of a sample of anti-human serum and the recognition by means of anti-ox serum of the bovine origin of a blood stain that had been over two years dried on boot leather. After various comments had been made by members present and questions asked, Professor McWEENEY, in reply, said the presence of acid or alkali, even in small quantities, completely upset the reaction. He had tried to reactivate inactivated precipitin serum with complement, but had failed. Precipitin serum stood heating better than haemolytic serum. It was evident that its precipitating group was much more stable than complement. He saw that his solution was quite colourless. It should foam briskly and give a slight, but distinct, nitric acid reaction. It should be worked down by degrees until it ceased to give a reaction. Of course, they were reduced to surmise as to what the actual dilution was. It had been found that serum taken from anaphylactic animals had no complement in it; and, inasmuch as complement was a most important constituent of human serum, it seemed to him more natural to account for the symptoms of the animals by the deprivation of an important element in the blood, than by a purely hypothetical splitting of an albuminous substance, which seemed to him to belong to the realm of incompletely ascertained facts. His anaphylactic animals had had first a small dose, and then a second large one; the result was they died inside five minutes.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

Friday, February 4th, 1910.

Professor J. B. HELLIER, President, in the Chair.

Gonorrhoea and Gonorrhoeal Infection.

MR. H. LITTLEWOOD, in opening a discussion on gonorrhoea and the gonorrhoeal infection, said a large number of cases recovered by rest in bed, purgatives, and alkaline diuretics without local injections; if abortive treatment were carried out it should be done by the surgeon and not left to the patient. Joint complications were not treated seriously enough in the early stage; ankylosis, which so often resulted, could be prevented by aspiration and early movements. In the chronic cases vaccine treatment appeared to give much better results than by any other means; probably it would soon supersede all other methods in the treatment of both the acute and chronic conditions. Dr. A. G. BARRS had found certain obscure cases of pyrexia to be due to unrecognized gonorrhoea. Gonorrhoeal infections of the joints and arthritis imperatively demanded local treatment. If aspiration were not successful, then incision and drainage should be attempted. Mr. J. F. DOBSON stated that in cases of chronic urethritis he had not found the urethroscope of great value. Instillations into the posterior urethra were on the whole fairly efficient, but must be carried out daily and by the surgeon himself. The surgical treatment of arthritis should consist in open incision, washing out the joint, and immediate closure. Dr. MYER COPLANS stated that in a recent investigation of 30,000 patients discharged from the navy with reference to simple continued fever, he had been struck with the large proportion of cases who had had gonorrhoea, and had thought that some causal relation possibly existed. He stated that in gleet other organisms were present, so that one might say that no two gleet cases were alike. The best results were obtained by isolating the organisms in a particular case, and treating with the appropriate vaccines prepared from them. In the navy the results had been so far excellent. In affected joints the organisms were in all cases gonococci, and might be treated with a vaccine obtained from an acute case. In acute gonorrhoea variable results had been obtained by vaccine treatment, and some authorities had now given up this form of treatment in the early acute stage. Mr. H. COLLINSON stated that in all cases injections should be made by the surgeon, as when left to the patient they were useless, because injection reached only as far as the compressor urethrae and consequently did not reach the affected part. Dr. E. O. CROFT, speaking of the disease in women, said the detection of gonococci in the discharge was only occasionally useful. In recent acute cases when the gonococci were more easily detected the clinical signs were usually fairly obvious, but in the more chronic cases, where a differential diagnosis was of high importance, the organisms were difficult to find owing to the depth of their lurking places; diagnosis then had to be largely based on clinical signs together with a careful history. In late stages curetting was occasionally useful. Of local applications the organic silver preparations were more effectual than the inorganic silver nitrate. Formalin in suitable strengths had given good results. Dr. A. MACKENZIE stated that he had had a large experience of cases in the military hospitals, and found that the acute cases invariably got well on a milk diet and rest in bed without any other form of treatment. In private practice this good result was not obtainable, because patients would not take the necessary rest in bed. Dr. C. OLDFIELD thought that it was inadvisable to operate in gonorrhoeal peritonitis n the chronic stage.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

Wednesday, February 2nd, 1910.

Mr. A. FULTON, President, in the Chair.

DR. WILLIAM TIBBLES, in a paper on the *Bacterial disturbances of digestion and the consequences thereof*, held that bacteria played a great part in digestion, breaking down complex bodies into simpler substances. Putrefactive organisms split proteins into amino-acids, aromatic bodies, purin bodies, ptomaines, and ammonia compounds. Many of these set up a train of morbid symptoms, and ultimately organic disease. It was chiefly due to antagonism of these poisons that self-poisoning was not constantly in operation. Moreover, the liver destroyed or eliminated several of these poisons. In disease bacteria in the alimentary canal produced (*a*) gases and acids, and (*b*) alkaloids, the first causing flatulence and acidity, and the second autointoxication. The author then described the gases of the alimentary canal, the influence on them of food, and their elimination. CO_2 was eliminated by the lungs, hydrogen by expulsion from the alimentary canal. H_2O was probably the most poisonous gas, causing headache, vertigo, and like symptoms. In treating flatulence and acidity all carbohydrates should be cut off for two or three days, meat and vegetables alone being given then rice, sago, tapioca, and arrowroot with stewed fruit, should be gradually added, and finally bread and potatoes. A mixture containing HCl to promote gastric juice might

also be given. Autointoxication was due to excessive formation or defective elimination of toxins in the alimentary canal; among the commonest results were dyspepsia, constipation, headache, with gout, rheumatoid arthritis, and arterio-sclerosis as chronic sequelae. The chief objects in treating bacterial disturbances of digestion should be to secure: (1) That the food was free from undesirable organisms; (2) that it did not favour bacterial action; (3) that it was moderate in quantity, especially animal food, since intestinal putrefaction was in direct proportion to the consumption of proteins; and (4) that the amount of carbohydrates was restricted. Rice, sago, tapioca, and arrowroot were absorbed almost entirely in the upper part of the intestines, so these articles were more suitable than bread and potatoes, which were carried further down the ileum, and favoured the production of acids and gas. Drug treatment consisted in the use of aperients, cholagogues, and intestinal antiseptics, and sour milk should be added to the diet.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

Friday, February 11th, 1910.

Dr. H. COOPER PATTIN, President, in the Chair.

The Medical Treatment of School Children.

DR. R. A. LYSTER, in a paper on problems connected with the treatment of school children, discussed the vague and general references made in Section 13 of the Education (Administrative Provisions) Act, 1907, to the powers given to education authorities to "make arrangements for attending to the health and physical condition of the children educated in public elementary schools." He could hardly think it was contemplated by the Legislature that education money should be spent upon individual medical treatment, and it was doubtful whether the words of the section legally permitted education money being used for hospitals, for philanthropy, or for carrying out duties which had been legally placed upon the Poor Law authorities. It had been suggested that previous Acts, such as the Blind and Deaf Act, the Defective and Epileptic Act, and the Provision of Meals Act, had imposed upon education authorities some share of responsibility with respect to treatment in other forms; but all of these Acts emphatically declared that the parent was liable for that part of the expenditure which was personal, and not educational. It was difficult to believe that the Legislature intended that Section 13 of the Administrative Provisions Act should stand in direct opposition to the tenor of all previous Acts. To say that because children need medical attention, and because they cannot be educated properly without it, therefore it was the duty of the education authority to provide such medical attention, was merely begging the question. The same argument would apply in favour of the education authority providing sleeping accommodation for those children needing a good night's rest. The parents of children who needed medical treatment could be divided into the two classes of those who could pay for it and those who could not. Such defects as sores (including skin diseases, scabies, sore eyes and eyelids), ringworm, verminous conditions, and discharging ears could be dealt with by the local sanitary authorities. The testing of the sight was not really a part of treatment at all, but was a part of the medical inspection. It could be carried out easily and expeditiously by arranging for the examination of accumulated cases at special temporary centres. Prescriptions could then be issued and spectacles obtained at contract prices. Affections of the tonsils, adenoids, and defective teeth might reasonably be taken over at once by the Poor Law authorities, who were empowered to make special arrangements for operative treatment, and who could undertake this work far more economically than any other body as at present constituted. The attitude that was being assumed by education authorities at the direct invitation of the Board of Education constituted a serious menace to the medical profession. Relying upon the vaguely worded Section 13, to the effect that "the local education authority *may* encourage and assist the establishment or continuance of voluntary agencies," the Board had definitely invited these authorities to contribute to the funds of hospitals and dispensaries, thereby suggesting that this new scheme of national treatment should be at the expense of the medical profession. The Board had apparently decided to alter the law and to change the "may" into "must," for they had endeavoured to make it quite clear that establishment of school clinics would not be permitted until treatment by a hospital had been tried to its fullest possible extent. Dr. Lyster urged that the existing vagueness of the law on the question should be removed by more definite and precise legislation. He considered that the provision of medical treatment by education committees was undesirable, but he was of opinion that such treatment should be included in a national scheme for the treatment of poor persons. He suggested that, in connexion with such a scheme or preceding it, a definite scale of incomes should be drawn up which would decide the question of ability or inability to pay for treatment provided. Mr. F. E. FREMANTLE thought there was no need to force the pace with regard to the treatment of school children, and he urged the appointment of a departmental committee by the Local Government Board to settle the details of a reorganization of the public medical services. Dr. H. MEREDITH RICHARDS, on the other hand, considered that such a course would only result in hanging the question up, and advocated doing all that was possible with their present resources. He had found a school clinic work well in Croydon, and thought there would be little opposition to such institutions if they were confined to dealing with ringworm, eye defects, and dental work. Dr. E. H. T. NASH referred to the undesirable practice of certain societies paying the railway fares of children to enable them to attend at distant hospitals. He approved of the medical treatment being carried out by the general practitioner, who should be paid for the work. Dr. CARRUTHERS alluded to the difficulty of getting the general practitioner to undertake eye work. He had found that in certain districts in England 57 per cent. of the children who required treatment were voluntarily treated by their parents, and that in Germany, where treatment was free, the percentage ranged from 60 to 80 per cent. Dr. A. H. BYGOTT considered that the authorities should pay a rent for the hospitals where treatment was carried out, and that the doctors who did the work should be paid for doing it. Dr. LOCKHART STEPHENS urged that the treatment should be provided by the State, as the State had provided the medical inspection. It was not creditable to the State that children who began life on an equality should receive such different treatment as was at present the case, involving as it did the handicapping of a certain section in the struggle for existence. Dr. SIDNEY DAVIES was strongly of opinion that the corollary of medical inspection was for the State to provide medical treatment. Dr. C. SANDERS feared that there were many objections to the proposal that a scale of incomes should be drawn up in order to decide as to who should be entitled to State medical treatment.

A DISCUSSION on labour in contracted pelves will be opened by Dr. Blacker at the Harveian Society of London on Thursday, March 17th, and will be continued by Drs. Champneys, Dakin, Herman, Griffiths, and others.

THE annual dinner of the Hunterian Society was held on Wednesday, February 16th, at the Café Royal, the President, Mr. T. H. Openshaw, C.M.G., in the chair. There were eighty-five Fellows and guests present, including a fair sprinkling of ladies. The loyal toasts having been honoured, the toast of "The Navy, Army, and Reserve Forces" was proposed by Sir Thomas Crosby, J.P., M.D., and responded to by Surgeon-General W. L. Gubbins, C.B., M.V.O., Director-General, A.M.S. "The Society" was proposed by Mr. Butlin, President of the Royal College of Surgeons of England, and replied to by the President. Dr. Hingston Fox then proposed "The Guests and Sister Societies," Sir Douglas Powell, President of the Royal College of Physicians, and Mr. J. F. P. Rawlinson, K.C., M.P. for Cambridge University, replying; and finally Dr. Newton Pitt proposed "The Orator and Officers of the Society," Dr. Fortescue Fox, this year's Orator, replying. An excellent programme of music had been arranged by Mr. Hugh Lett, and was ably carried out by Mr. Barclay Gammon and Misses Belle Thynne, Audrey Richardson, and Christine Keay.

Reviews.

CLINICAL DIAGNOSIS.

WE have formed a high opinion of Professor WILSON'S *Handbook of Medical Diagnosis*,[1] which is, perhaps, the best publication of the kind that has appeared in the English language. It is divided into four parts, of which the first deals with medical topography and case-taking, the second with methods of examination, the third with symptoms and signs, and the fourth, which is by far the longest, with the application of the preceding sections to the diagnosis of special diseases. The book is well written and fully and admirably illustrated throughout, in many instances with photographs of actual cases. We wish Professor Wilson had dispensed with the scrap of unclassical Latin on the first page, which cannot be called "ancient" either in words or meaning. Diagnosis is quite modern as he defines it—that is to say, it is a systematic, painstaking study of the facts of the case by all the means at our disposal, used with knowledge, that can only be acquired by study and training, of the normal and abnormal conditions of the body and of diseases and their variations, their symptoms, and their histories. It is, as he well says, the result of the combination of observation, knowledge, experience, and judgement. In a book which deals with so many matters it is impossible that there should not be points in which any reader of experience may differ from the writer; but we have gone through it carefully, and can testify to the thoroughness and care with which Professor Wilson has done his work, and it is to be understood that the comments which follow are not to be interpreted as in any way detracting from the high praise the book deserves. On p. 31 the positions of the heart's valves as given in the figure do not correspond with the descriptions in the text. It is a pity that there should not be uniformity in such a matter as the point of maximum intensity for the heart sounds. The differences are not of great impertance, but in three books which have been lately brought under our notice—those of Krause, of Butler, and the present author, no two agree. In describing different methods Professor Wilson takes care to show which he prefers, and his judgement is usually sound; nor does he load his book with useless tables, which can be of no use except for cramming. The terminology errs if anything on the side of redundancy, for he describes no less than eight varieties of tympanitic resonance! We do not think his objections to the Ewald test breakfast are well founded, as it was never intended for quantitative examinations, and within its limits and as put forward by its inventor it has stood the test of numerous clinical examinations. It is also useless for the examination of defective motility, but Professor Wilson does not seem to admit that the stomach, even when dilated, empties itself in less than normal time unless there is some obstruction. We notice that he omits to name the benzidine test for latent blood. His account of Bence-Jones's albumen does not correspond to the original description. The discussion of the use of the *x* rays in diagnosis is brief but good, and well illustrated so as to bring out clearly the cases in which it is of use, and the analysis and description of pain are admirable. Under vertigo there is no mention of the fear of falling experienced by many dyspeptics on looking down from a height, but the association of this with stomach disturbance is undoubted. Amongst the important complications and sequelae of influenza which are omitted are diabetes, dilated heart, spasmodic asthma, and coma. We fear there is no warrant for the statement that cases of sleeping sickness have been cured by the atoxyl treatment. In the diagnosis of obscure lead poisoning the value of analysing the urine for traces of lead should have been considered, and in the differential diagnosis of diabetes the temporary glycosuria that may follow a dose of alcohol is worth mentioning. The differentiation of purpura from scurvy and haemophilia presents greater difficulties than the author admits, but we should have thought that any confusion between purpura rheumatica and haemophilia existed more on paper than in practice. The intestinal indigestion which he describes seems to be a fictitious condition attributed to the suppression of the pancreatic secretion, for in occlusion of the common duct, where this must occur, these symptoms are not alleged to exist. The prognosis of "a year or two of life" in atrophic cirrhosis of the liver seems unnecessarily pessimistic. Among the causes of pericarditis, especially in children, the pneumococcus of broncho-pneumonia comes certainly second, but the author has given it no place at all. In connexion with meningitis he does not mention the "meningismus" observed in influenza, middle-ear disease, and other conditions; but in differential diagnosis it is important, and no proper prognosis can be made without a knowledge of it. It might have been stated that tetany may be a symptom of commencing meningitis. To say that the diagnosis is "easily made" in multiple sclerosis is misleading; for unless the cardinal symptoms are all present—and all may be and some are generally absent—there is no disease which presents greater clinical difficulties.

[1] *A Handbook of Medical Diagnosis.* By J. C. Wilson, A.M., M.D. In four parts. Philadelphia and London: J. B. Lippincott and Co. (Roy. 8vo, pp. 1457; 408 illustrations, 14 plates. 25s.)

Dr. BUTLER'S book on the *Diagnostics of Internal Medicine*[2] has reached a third edition, and is probably well known to most students and the younger generation of practitioners. It is noteworthy that the section on cryoscopy has been omitted and that on *x* rays curtailed in the present issue, changes which indicate that in the author's opinion the value of these means of diagnosis has not risen. To write such a book requires almost encyclopaedic knowledge, and Dr. Butler has acquitted himself remarkably well, but there are sections in which he lays himself open to expert criticism, though where so much is good and where the labour expended has been obviously so great, we would hesitate to point out omissions if we did not think that by doing so we may help to make the next edition more valuable. The illustrations are exceedingly numerous and useful. We are told in a footnote that most of the figures are from "imported photographs," and as our attention has been drawn by it to the matter, we may express the opinion that outlines of classical statuary would have answered the author's purpose as well, and have been in better taste than these photographs of French or Italian models posing for the "altogether." As the book is too long and would be improved by pruning, the scissors might with advantage be applied to the earlier sections, where much space is occupied by matter which in that form is of little use or by statements which are perfectly obvious or are better learnt by the student from his clinical teachers than from books. The long lists of causes of pains localized in particular situations might be omitted, for no one could remember them; where local pain has a special significance it becomes worth mentioning but not otherwise; in spite of the multitude of diseases mentioned in this section the very characteristic midsternal pain of syphilis finds no place. Haemianopsia and wax in the ears may cause vertigo but are not mentioned, undue stress being laid on graver conditions. Such teaching tends to exaggerate the natural failing of the young practitioner who is too apt to find aneurysms and cerebral tumours where they do not exist. In his description of temperaments the author differs from most authorities in describing the sanguine temperament as characterized by "an irritable rapidly exhausted nervous system." Laycock said persons of sanguine temperament have "vigorous and untiring mental powers" which is much more in accordance with the conception generally entertained. To define a delusion as an "absurd and unfounded belief" is not to give a technical definition; in relation to insanity the term should only be applied to unfounded beliefs on matters of objective fact. All superstitions are absurd and unfounded beliefs, but they are not evidences of insanity. Under insomnia a distinction should be made between the inability to get to sleep, characteristic of nervous insomnia, and the sleeplessness of stomach origin when the patient gets to sleep readily, but wakes after a short time and tosses about restlessly for hours. Among forms of coma, those seen in hyperpyrexia and in influenza (*meningismc*) are not mentioned. Pallor is described as always due to anaemia, but there is a distinct form in nervous temperaments not due to

[2] *Diagnostics of Internal Medicine.* By Glentworth Reeve Butler, M.D., Sc.D., LL.D. Third edition. New York and London: D. Appleton and Co. 1909. (Med. 8vo, pp. 1193, 272 illustrations, 5 plates. 25s.)

anaemia, where the mucous membranes are not pale and the blood is normal. Under bronzing of the skin there is no mention of bronzed diabetes (*diabète bronzé*), associated with Hanot's pigmentary cirrhosis of the liver. Under scars morphoea is omitted. Acoria, attributed to hysteria or neurasthenia, is as often present in gouty plethoric people, in whom it is a frequent cause of their polyphagia. The benzidine test should have been given among those for occult blood. Hysterical anuria is remarkable because it does *not* "provoke uraemic symptoms." Cases of fatal epistaxis have generally been associated with chronic Bright's disease, but this is not named among the causes. Grinding of the teeth in adults is often associated with gout. The tongue which has been compared to "France-in-departments" is related to rickets, but that here described as the geographical tongue is often associated with hyperchlorhydria, while local furring of the tongue may be due to loss of teeth. Bilateral abductor paralysis is hardly "most commonly due to aneurysm," in which it is very rare to get compression of both recurrent laryngeals; the usual cause is tabes. "Griffin hand" is a bad translation for "*main en griffe*," which has nothing to do with griffins, but the illustrations of the various pathological deformities of the hand are worthy of praise. We are sceptical of the truth of the statement that an aortic diastolic murmur may be heard in cases of extreme anaemia without valvular defect. It is doubtless true that Flint thought he had met a case in which aortic disease caused a presystolic murmur, but the circumstances must be exceedingly rare, and in a book for students this should be pointed out; further, the statement that a pulmonary diastolic murmur may be caused by increased pressure in the pulmonary artery is misleading without the explanation that under certain conditions the pulmonary valve may give way, and regurgitation into the ventricle take place. Under the causes of bradycardia influenza should be given. Visible peristalsis is not a sign of a "much dilated stomach," but of a stomach in which there is an obstruction to the outflow. A diminution of urea may depend upon diet, but this is not made clear, while it is a mistake to say that its excretion is "constantly" diminished in uraemia. Cyclical albuminuria is not quite correctly described, and the term "orthostatic" should have been given and explained. Boils and carbuncles may be suggestive of diabetes, but it is even more important to teach the student that the glycosuria with which they are frequently associated may be transitory. Renal calculus is said to be associated with strongly acid urine, but, while this is true of uric acid calculi, it is not necessarily true of others—for example, oxalate calculus. These criticisms are by no means intended to detract from the general merits of the work, which is of quite exceptionable value and utility.

The textbook of clinical diagnosis, edited by Professor P. KRAUSE,[3] is the outcome of the co-operation of thirteen German teachers of acknowledged eminence, and may be accepted as an authoritative pronouncement of the views of the German school of medicine. We agree with the editor, who says in his preface that the reproach of unequal merit sometimes brought against books to which many writers have contributed is quite as applicable to those written by one or two, for nowadays no one is equally competent in all departments of so great a subject as clinical medicine has grown to be. The plan followed in this volume differs from that of Wilson and Butler. It begins with an outline guide to the examination of patients derived from those of Struempell and Quincke, which contains all that is needed, and is fuller than it looks; this is followed by a short statement of the objects to be attained in getting the history of the patient and a careful analysis of the symptoms of which the patient may complain or which may be obvious on external examination, such as pain, aspect, state of the muscles and skin, jaundice, or oedema. Professor Wandel deals with the diagnosis of acute infectious diseases, but the other chapters on the different systems are preceded in each case by an account of the methods of examination to be employed written by the same contributor. Professor Gerhardt of Basle deals with the respiratory system, Professors Staehelin of Berlin and Ortner of Innsbruck with the circulatory system, Professor Winternitz of Halle with the urogenital tract, Professor Staehelin again with diseases of metabolism, Dr. K. Ziegler of Breslau with the blood, Professor Lommel of Jena with the technique of puncture and cytology, Professor Mohr of Halle with the digestive system, Professor Jamin of Erlangen with the general diagnosis of nervous diseases, Professor Finkelnburg of Bonn with their special diagnosis, and Professor Hertel of Jena with medical ophthalmoscopy, Professor Krause with *x* rays and clinical pathology, and Professor Esser of Bonn with the diseases of infancy. Professor Staehelen commends the electro-cardiograph for recognizing the movement of the auricle, and Professor Ortner gives no less than nine conditions in which an aortic diastolic murmur may disappear. The latter has heard a diastolic aortic murmur in "aplastic" anaemia and a double aortic murmur in acute exophthalmic goître, although *post mortem* the aortic values were found to be quite normal. He believes in muscular insufficiency and valvo-muscular insufficiency, both of which may disappear when the heart is strengthened by the use of digitalis. With respect to the value of systolic retraction of the precordia in the diagnosis of adherent pericardium, he says that pericardial adhesions only cause this if the pleura is also adherent, and to be significant the systolic retraction must involve several intercostal spaces, but it may occur in other conditions in which the base of the heart is fixed, and there is falling-in of the precordia whenever the heart's apex moves away from the thoracic wall during systole. Professor Winternitz urges caution in accepting the results of the comparison of the urine of the two kidneys, either by cryoscopy or specific gravity, as one kidney may secrete more than the other owing to reflex stimulation, or in early disease there may be no difference. In the quantitative estimation of albumen, he recommends the method of Tsuchiya as being better than that of Esbach. Phosphotungstic acid is used as the precipitant, and the tube tapers towards the lower part. The urine first must be diluted to a specific gravity of 1006 or 1008 and the reagent is composed of 10 grams of crystallized phosphotungstic acid dissolved in 50 grams of concentrated hydrochloric acid and 1,000 grams of 96 per cent. alcohol. It is very much the fashion in Germany to deny that the tongue bears any relation to the condition of the stomach, but Professor Mohr expresses views which are more in accordance with those generally accepted in this country. He lays down clearly that visible peristalsis of the stomach indicates pyloric obstruction, and that simple atonic dilatation of the stomach does not interfere with the due emptying of the organ. His caution to give test meals at the usual time of eating is worth bearing in mind. He speaks doubtfully of Cammidge's pancreatic reaction, which he says is insecure in its theoretical basis, while its clinical value is questionable. The book is well illustrated throughout by diagrams, photographs of actual patients, and beautiful coloured illustrations of the blood and of stained bacteria. The chapter on *x* rays contains many good reproductions of *x*-ray photographs. Compared with the two American works on the same subject which we have recently noted, this book is short—a desirable result attained by leaving out a good deal of superfluous matter and by excluding etiology. The style throughout is brief, and the authors exclude doubtful points, but it is distinctly a book for the advanced student and not for a beginner.

[3] *Lehrbuch der klinischen Diagnostic Innerer Krankheiten.* Herausgegeben von Professor Dr. Paul Krause. Jena: Gustav Fischer. 1909. (Sup. roy. 8vo, pp. 938. M.14.)

HEART RECORDS.[4]

THE fasciculus on the electrocardiogram, by Professor SAMOJLOFF, in the collection of essays edited by Professors GAUPP and NAGEL, is a concise account of the Einthoven string galvanometer and its applications. After a preliminary discussion of the electrical phenomena of muscle, it is stated that the Einthoven instrument fulfils all the conditions of a good galvanometer. The principles of the galvanometer and the precautions which must be observed in using it are concisely stated. There is then a description

[4] *Sammlung anatomischer und physiologischer Vorträge und Aufsätze.* Herausgegeben von E. Gaupp und W. Nagel. Heft ii, *Elektro-Kardiogramme.* Von A. Samojloff, Professor der Physiologie in Kasan. Twenty-two figures in the text. Jena: G. Fischer. 1909. (Roy. 8vo, pp. 37, text fig. 22. M.1.) Heft vii, *Phono-Kardiogramme.* Von Professor Otto Weiss. Jena: Gustav Fischer. 1909. (Roy. 8vo, pp. 37, illustrations 41. M.1.50.)

of the normal electro cardiogram and a full discussion of the various theories which have been put forward to explain the features of the curve. It is shown that the myogenic theory can be made to explain the facts, but that much careful work is required before any conclusions can be accepted. Some illustrations are given of the curves obtained when two individuals are in the circuit, and in this connexion it is mentioned that a tracing can be obtained from the fetal heart *in utero*. It has been suggested that twin pregnancy could be diagnosed, and even the relative positions of the two fetuses! The most interesting section is that on such pathological conditions as mitral stenosis, heart-block, hypertrophy of the ventricles. In mitral stenosis there is an increase in size of the auricular or P wave, and a delay of the ventricular or R wave. This is well shown in an original illustration, whilst there is a copy of one of Einthoven's tracings, showing complete heart-block. There are some peculiar inversions of the curves obtained in hypertrophy of the ventricles, and the inversions are different for the two ventricles—observations which will doubtless afford a fertile field for speculation. There are, unfortunately, no tracings from a case of hemisystole. It is evident that the instrument will give very valuable results when used in conjunction with the polygraph or some modification of it. With regard to its applicability to clinical work the author is rather pessimistic. Great skill and prolonged practice are necessary before reliable results are obtained, and either the patient must be taken to the laboratory (which is impossible in the most serious cases), or the laboratory must be electrically connected with the ward. This is not only very costly, but in large towns the various commercial applications of electricity introduce disturbing factors. The busy man who wishes to keep abreast of modern work will find this little work of great assistance to him in what is rapidly becoming an almost superhuman task.

The essay on the phonocardiogram, by Professor WEISS, in the same series, is an interesting exposition of the various methods which have been used in the attempt to obtain graphic records of the heart sounds. Most investigators have set out to obtain electro-magnetic or photographic records of the movements of a microphone or of a sensitive flame. Whilst previous attempts to record directly the vibrations produced in a sensitive membrane by the heart sounds have not been very encouraging, the author has apparently overcome most of the difficulties by means of an ingenious instrument which he calls a phonoscope. The sounds are conducted to a thin soap film the vibrations of which are communicated to a very fine glass lever suspended in a chamber, where its movements are recorded by means of photomicrography. The arrangement is not unlike that of the middle ear, if we suppose the membrana tympani to be replaced by a soap film and the malleus by the glass lever. A photomicrographic record is then obtained of the movements of the end of the malleus. As the mass of the soap film and the lever together is less than 0.000054 gram, the inertia is almost *nil*. Simultaneous records have been obtained of the heart sounds, the carotid pulse, and the cardiogram. The sound curve does not correspond closely with the cardiogram, but its relations to the carotid pulse tracing are very constant. It was found that most normal individuals give a characteristic curve in which the first sound precedes the carotid pulse by 0.0675 to 0.0775 second. This corresponds to the ventricular systole, and any sound antecedent to this must be ascribed to the auricular systole. A sound corresponding to the auricular systole is sometimes "visible" in health (the "Vorton" of Hürthle). Pathological sounds have also been studied. Many murmurs have been registered, and the reproductions of the curves fully substantiate Professor Weiss's claim that the valvular lesion can often be diagnosed from the sound tracing. Thus the murmurs of aortic and mitral lesions are easily recognized. In mitral incompetence it was noticed that in well compensated cases the first sound was followed at a normal interval by the carotid pulse, whilst in failing compensation the interval was greater. This was ascribed to the hampered ventricle being unable to raise the pressure necessary to open the semilunar valves in the usual time. When the pulse was less frequent this delay was less because then the arterial pressure had fallen. In aortic incompetence the interval was diminished, and the diminution was less marked when the pulse was more frequent. The presystolic murmur of mitral stenosis was found to be in the auricular systolic period. Interesting accounts are also given of reduplicated sounds, functional murmurs, gallop rhythm, and the fetal heart. Very valuable results are anticipated from the study of simultaneous records with this instrument, the Einthoven galvanometer, and the polygraph. Finally, by an extremely ingenious device, the author has been able to reproduce the sounds from his records. Criticism is impossible at this stage, but we can cordially recommend this little work as a most interesting contribution to the study of auscultation.

STAMMERING AND OTHER SPEECH DEFECTS.

A SMALL but capital book on the speech of the child and its disorders,[5] by Dr. PAUL MAAS of Aix-la-Chapelle, contains an excellent opening chapter on the development of speech in the child and a clear account of the structure and functions of the organs of speech; in the five remaining chapters stuttering and "poltering," stammering, deaf-mutism, idiopathic dumbness (*Hörstummheit*), and the speech disorders of children with defective hearing are dealt with. Of the many interesting points on which the author touches we will mention only two. In speaking of the normal "lalling" of the 2 or 3 months old child, Dr. Maas says that, besides all the ordinary vocables of the mother-speech, there occur sounds—for example, *Schnalzlaute*, such as the "clicks" of the Kaffir tongue—which are only to be found among primitive peoples. The point is worthy of mention on account of its Darwinian interest. The second point concerns the large number of words which children are generally supposed to invent themselves. On this matter Maas agrees with several other authorities that this inventive or creative faculty is wrongly attributed, and by interesting analyses of particular cases, shows how the words arise by imitation. Under stuttering and "poltering"—two different errors of speech, the one being increased and the other lessened by attentiveness—the author treats of the numerous causes of each, and mentions facts in support of his opinion that an actual nervous lesion is in many cases the cause of stuttering. At the same time he does not overlook, either in etiology or treatment, the mental factor. After discussing in suitable terms the familiar "tongue-tie" which was the permanent obsession of the old-fashioned midwife, stammering in its numerous forms is next examined. The most important part of the book, however, is that treating of deaf-mutism. After a summary of obtainable statistical information, which shows remarkable variations in different countries as to its frequency—mountainous countries in general showing a higher ratio than flat lands, males more than females, and Jews more than Christians—its relation to heredity is discussed. Here he quotes the figures of Hartmann, Mygind, Bezold, Lent, and others, proving the importance of heredity and consanguineous marriage in congenital deaf-mutism, and, in the acquired form, of factors such as parental alcoholism and syphilis, and in the subjects themselves, cerebral disease and epidemic cerebro-spinal meningitis. Next in importance comes scarlet fever, and, much less in frequency, measles, diphtheria, and mumps. Lent and Hartmann found typhus to be the cause in 23 per cent. and 13 per cent. respectively, but the author considers it probable that many of the cases diagnosed as typhus were epidemic cerebro-spinal meningitis. Dr. Maas refers to a particularly interesting investigation into the hearing of deaf-mutes by means of the "continuous tone series" of instruments which emitted sounds from subcontra C to the highest appreciable tone. Only 30 per cent. were deaf for the whole series, the majority having "tone-lacunae," mostly at the lower end of the scale. As human speech ranges between B^1 and G^2 the importance of the results are obvious. Although the opuscle does not pretend to originality and is not based on personal investigations, it puts in a readable fashion the main results of the researches of others and gives a satisfactory account of therapeutic measures.

---

[5] *Die Sprache des Kindes und ihre Störungen.* By Dr. Paul Maas Würzburg: Curt Kabitzsch. 1908. (Demy 8vo, pp. 137; 16 illustrations. M.2.80.)

Another small book[6] upon the disorders of speech and their treatment is a collection of brief papers contributed by twenty-five authors as a combined congratulation or *Festschrift* to ALBERT GUTZMANN, the Director of the State Deaf and Dumb Institution at Berlin, on his 70th birthday. The separate articles are of unequal length and importance, some being simple expressions of the writer's esteem, whilst others contain interesting accounts of original work. Thus, to take a few examples, Dr. Zwaardemaker of Utrecht and Dr. Bresgen of Wiesbaden both write upon the relations of nasal impediment to speech; Dr. Mielecke of Spandau treats of stuttering and its treatment in school children, whilst Dr. Söder describes the measures employed in the Volkschule in Hamburg; Dr. Schaefer of Berlin gives an account of one or two cases illustrating the psychological meaning of the earliest speech processes in childhood, and Dr. Stern of Vienna, Dr. H. Knopf of Frankfort-on-Maine, Dr. Panconcelli-Calzia of Marburg, and Dr. Nadoleczny of Munich discuss the speech disorders which are found in nervous diseases. The paper by Dr. Nadoleczny, upon the speech disorders of the epileptic, or rather of the pre-epileptic, intra-epileptic, and post-epileptic states, is an excellent summary of information upon a matter of considerable intrinsic importance, which has important bearings also upon the mode of origin of speech disorders occurring in many other diseases. The articles comprising this small book give a general idea of recent work over the whole ground indicated by its title, and will be found of much use, more particularly by reason of the comprehensive bibliographical references and commentaries thereupon of Dr. Panconcelli-Calzia and Dr. Franz Frenzel.

HOW TO USE SOME COMMON REMEDIES.

IN the preface to his useful little volume entitled, *Some Common Remedies and their Use in Practice*,[7] Dr. EUSTACE SMITH asserts that "the new subject of bacteriology has come to occupy a disproportionate space in the mind of the student, and that in his devotion to it he is led to neglect general treatment altogether."

This is, we fear, true, not of students only, but of many young practitioners as well, who, in their enthusiasm for this latest—and, in its proper place, useful—form of treatment, are tempted to despise or belittle the value of drugs and confine their therapeutic activities almost wholly to the exhibition of serums and vaccines. To all who are unduly possessed by these modern laboratory methods of treating disease, we recommend as a wholesome reminder that the older plan of management by drugs is not without substantial value, the perusal of Dr. Eustace Smith's book, which is a reprint of papers contributed to the BRITISH MEDICAL JOURNAL at intervals during 1908 and 1909.

The first chapter is devoted to a consideration of the value of tartrate of antimony as a remedy in catarrhal conditions of mucous membranes as well as in other disorders in which its curative reputation is still defended by those who make use of it in the proper way. Turpentine, iron, opium, and salicylates are similarly dealt with in other chapters, and in the case of each of these valuable remedies the author, out of the fullness of a ripe experience, has suggestions to offer which are worthy of consideration by all who recognize that in the practice of medicine, though accurate diagnosis is of first importance, the cure of his disease is, after all, the incentive which brings the sick person to the doctor. These lectures further inculcate the lesson which the therapeutic teaching of the day fails to convey with sufficient emphasis—that remedies must be suited to the requirements and idiosyncrasies of the individual patient, and that no mere haphazard way of administering them is likely to be followed by satisfactory results. It is utopian to imagine that disease will ever be cured or pain alleviated without the assistance of tried and proven drugs. A volume such as this is an acceptable reminder that the experience in their use of our predecessors is invaluable and cannot be ruthlessly set aside even by those who are most up to date if they wish to understand disease from the view of its widest perspective, and if they desire to give to their clients, in fullest measure, the help that curative medicine is capable of affording.

[6] *Sprachstörungen und Sprachheilkunde. Beiträge zur Kenntnis der Physiologie, Pathologie und Therapie der Sprache.* By numerous writers, and edited by Dr. H. Gutzmann. Berlin: S. Karger. 1908. (Med. 8vo, pp. 194, 15 illustrations. M.5.)

[7] *Some Common Remedies and their Use in Practice.* By Eustace Smith, M.D., F.R.C.P., Senior Physician to the East London Hospital for Children. London: H. K. Lewis. 1910. (Cr. 8vo, pp. 119. 3s.)

NOTES ON BOOKS.

DR. A. S. GUBB of Algiers has had the happy idea of publishing in a handy volume, entitled *The Flora of Algeria*,[8] a long series of photographs of trees and flowering shrubs which the visitor will most often see, and as to the names of which he will probably feel some natural curiosity. The book is, indeed, designed to be the companion of rambles in the neighbourhood of Algiers, and does not pretend to be a work of science, although the scientific as well as the popular names are given, and as the nomenclature has been verified by Lieutenant-Colonel Prain, F.R.S., Director of Kew Gardens, the volume may be taken to be in this respect beyond criticism; further, in the selection of typical specimens the author had the advice of M. Rivière, director of the experimental garden at Algiers. The photographs all do credit to the author's skill and taste, but the best seem to be those showing the whole tree or shrub in its habit as it lives, and those of some of the larger flowers and of fruit.

It is with much pleasure that we welcome the appearance of a new textbook on parasitology,[9] by Professor GUIART of Lyons. In this subject there is not the same overwhelming multiplicity of books that one finds in other branches of medicine; in fact, it is doubtful if we have hitherto had a really comprehensive, and at the same time compact, volume on the subject. At any rate, the number of reliably up-to-date works on parasitology is exceedingly limited. We venture to think that the present volume will be acceptable to all whose work necessitates a knowledge of parasites. There are four sections—the first being devoted to a short general consideration of the history and nature of parasitism; the second dealing with vegetable parasites; the third with animal parasites; and the fourth with pseudo-parasites and the rather unusual subject of parasites of the dead body. Each division is treated in a systematic and fully-detailed fashion. Professor Guiart seems to have struck the happy mean in the amount of matter he has introduced, and in his manner of dealing with it. Each description is sufficiently exhaustive for taxonomic purposes, and at the same time irrelevant details are not dragged in. The pathology, diagnosis, and treatment are all dealt with in a succinct manner. The illustrations are for the most part clear and accurate, and several, particularly those dealing with flies, are coloured. The nomenclature is exceptionally up-to-date, and many new names are met with which have hitherto not found their way into textbooks. For instance, we find *Discomyces bovis* in place of the more familiar *Actinomyces*, *Endomyces albicans* in place of *Oidium*, *Malassezia furfur* in place of *Microsporon*, *Trichuris trichiurus* in place of *Trichocephalus*, *Uncinaria duodenalis* in place of *Ankylostoma*, and so forth. Under each species a fairly exhaustive list of synonyms is given, but there is frequently not sufficient explanation for change in name. The synoptic tables are usually extremely serviceable, but unfortunate errors have crept into one or two of these—for example, that on p. 332. There are a few misprints, but these need not be detailed. On the whole, we can congratulate Professor Guiart on the production of a most useful and opportune book.

Mr. WHERRY's volume entitled *Notes from a Knapsack*[10] ought to have been mentioned long ago, because it will appeal to every man (and woman) who, in these wheeling days, retains a love for man's original mode of progression. It is true that Mr. Wherry has something to say about climbing mountains and trees, and other things which it is vandalism to climb, but the most characteristic passages in his book are about walking, and perhaps the best of these is the account of the walk from Cambridge to Linton, which, though the distance be but ten miles, fills two chapters very pleasantly. Mr. Wherry here makes a most interesting digression on firehooks, which, in the seventeenth and eighteenth centuries, were used to pull down the roof of a house or cottage in case of fire. Perfect

[8] *The Flora of Algeria.* By A. S. Gubb, M.D. Algiers: Imprimerie Algerienne; and London: Baillière, Tindall and Cox. (Roy. 8vo, pp. 102. 5s.)

[9] *Précis de Parasitologie.* Paris: Librairie J. B. Faillière et Fils. 1910. (Fr. 12.)

[10] *Notes from a Knapsack.* By George Wherry, M.A., M.C.Cantab., F.R.C.S., Surgeon to Addenbrooke's Hospital. Cambridge: Bowes and Bowes. 1909. (Pp. 322.)

examples exist at St. Ives, Linton, and Longstanton in Cambridgeshire, and Mr. Wherry believes that rings still to be observed firmly fixed in the roof plates of certain old houses were put there for the hooks to catch when the dread emergency arose. Among the excellent pen-and-ink drawings by Miss Beatrix Wherry which the book contains is one of two firehooks at Linton. The plan probably had its origin in the frequency of thatched roofs, and the want of any means of throwing water so high. Among the subjects which have interested the author is the spiral form in nature, and readers may remember an essay on the horns of animals published in the BRITISH MEDICAL JOURNAL and reprinted here.

VITAL STATISTICS IN ENGLAND AND GERMANY.

AT a meeting, over which Sir JERVOISE ATHELSTANE BAINES presided, of the Royal Statistical Society, held at the rooms of the Royal Society of Arts on February 5th, Mr. A. W. FLUX, M.A., delivered a lecture on urban vital statistics in England and Germany. He showed first by means of tables that the increase of the urban population during the past thirty years had been more rapid in Germany than in England. A comparison revealed, however, that while in 1905 about 19 per cent. of the population of Germany lived in towns, in 1901 about 35 per cent. of the population of England and Wales lived in towns. Limiting his consideration to towns of over 20,000 inhabitants, and grouping these towns into those of more than 250,000, those of more than 100,000, those of more than 50,000, and those of more than 20,000 inhabitants, he showed that migration into the towns had been responsible for the increase. More than one-half of the population of German towns of over 100,000 had been born elsewhere than in the town in which they resided. The increase was found to be largely due to an excess of young males of between 20 and 45 years of age. With regard to those born in the towns, it was noted that about one-fifth lived outside the limits of the towns. The speaker showed that immigration into towns was of much older date in this country than in Germany, a fact which accounted for the less striking degree of increase. The population of English towns showed a smaller deviation from the normal, with regard to age and sex distribution, than German. A factor which obviously contributed to a considerable extent to produce the migration in Germany, and was perhaps the chief reason why the increase affected males more than females, was compulsory military service.

The mortality of children under 5 was much greater in Germany than in England, so that the first five years of life in Germany were as effective in reducing the number of survivors as the first twenty-five years of life in England. A higher birth-rate was set off against this, but even the high birth-rate in Germany failed to increase the working population at the same rate as in England. The birth-rate in England was higher in the towns than in the country at large, if London were excluded, while the reverse held in Germany. The infantile mortality-rate in English towns was from 25 to 30 per cent. below that of German towns of equal size, while the death-rate among adults was approximately the same in both countries. A curve was shown of the vitality (*Lebenskraft*) of the population of England and Wales, Germany and Berlin. By this is meant a curve representing the number of persons living in relation to each death. The peculiarities of the curves, which were drawn separately for the two sexes, were: (1) The extraordinarily narrow rise in the second to third decennia for all countries, and (2) the sudden drop, forming a kink in the curve, for males in Germany in the third decennium. This kink was not present in the curve for Berlin only. In German towns the average number of children to a family was smaller than that in English towns of corresponding size, and this was especially true of the largest towns. Statistics showed clearly that the unfavourable tendency of the infantile death-rate in England which was marked in the Nineties had now yielded to better conditions.

In proposing the vote of thanks, Dr. DUDFIELD challenged the reader of the paper to define what an urban district was, and spoke at some length of the migration of population into suburban areas. With regard to the infantile mortality in South Germany, he believed that consideration should be had to the variations between legitimate and illegitimate births. Marx gave the figure as 12.59 per 1,000 for Bavaria, 7.32 for Baden, and 8.6 for the whole empire. The illegitimate birth-rate was much higher in Bavaria than in other parts. Regarding the towns as grouped by the speaker, the mortality among legitimate infants for the first group was 203, as against 287 among the illegitimate; and 187 among the legitimate, as against 333 among the illegitimate, for the second group. He thought this factor was evidently different in Germany to what it was in England.

In seconding the vote, Mr. BERNARD MALLET, the Registrar-General, addressed himself chiefly to the remarks which the reader of the paper devoted to the statistics issued by his department. With regard to infantile mortality, he raised the question whether a high mortality had a good effect by weeding out the physically weakly members of the community or a bad effect by producing weakly survivors. In this country the rate had fallen for 1909 in a marked manner. In 1907 it was 118; in 1908, 120; while in 1909 it was only 109.

Mr. HOOKER pointed out that the increase of population of towns must be largely modified according to the size of what he termed the municipal net. In Liverpool the core was a comparatively small one, while in Chicago it was immense. He regarded Berlin as a peculiar town in this respect, and stated that he had anticipated that as the town showed a birth-rate of 26 per 1,000, Charlottenburg would have been higher. But this was not the case. Marked variations in the industrial centre of Germany was well exemplified by the birth-rates of Krefeld and Dortmund, which were 28 and 42 respectively, and similar variations were found in the death-rates in these towns. He asked the lecturer whether it would not be possible to calculate a corrected birth-rate in a manner similar to that of the corrected death-rate.

Sir SHIRLEY MURPHY believed that the returns of infantile deaths might be artificially distorted by a laxness in discriminating between stillbirths and deaths during the first minute of life. It was clear that unless a definite rule were applied, the returns in Germany, where stillbirths were notified and registered, might be misleading.

Mr. NOEL HUMPHREYS emphasized the necessity of a quinquennial census in this country, as in Germany.

Dr. MAJOR GREENWOOD, jun., cited Vogel in respect to the infantile mortality in South Germany. In Bavaria it was 285, in Würtemberg it was 274, and in Baden 222. On analysis by means of correlation tables, he found that there was no relation between infantile mortality and density of population. With regard to the kink in Mr. Flux's curve, he pointed out that Schjerning had found the same fall in the French males at the same age period. He raised the question whether this might not be due to the effect of conscription.

The Hon. T. A. COGHLAN believed that the high infantile mortality in Germany was greatly due to the want of proper nourishment of mothers, and consequently of the infants. The women were forced to go back to the fields to work almost immediately after the birth of their babies, and fared on poor food. The conditions of the adult male population in England and Germany did not show any marked difference. With regard to the high birth-rate, he believed that religion was in part responsible. He stated that a high rate of illegitimacy need not be an index of high immorality. At all events, where a high illegitimate birth-rate obtained, there would be a corresponding low rate of destruction of unborn life.

Mr. G. UNDY YULE and the PRESIDENT also made a few remarks, and after the vote of thanks had been heartily passed, Mr. FLUX replied to the various questions and criticisms.

DR. ANDERSON, of Chapel-en-le-Frith, who, after thirty-two years of arduous practice in a country district, has suffered a serious failure of health, has been presented by his friends and neighbours with an illuminated address accompanied by a cheque for over £400. This remarkable tribute was only proposed a fortnight before the presentation, and the subscriptions came from all classes, the donations ranging from 1s. to £20. The spontaneity of the tribute was due to the widespread appreciation of the fact that but for his unselfish devotion to duty and to his fellow men Dr. Anderson might still be in robust health; he has loved his fellows and for others has sacrificed himself.

REVALUATIONS FOR RATES AND TAXES.

THERE is now in progress the Quinquennial Revaluation of all rateable properties in the metropolis to determine the annual values on which local rates, income tax, Schedule A (Property Tax), and inhabited house duty will be levied during the ensuing five years.

Within a few weeks a start will also be made with a revaluation of all properties outside the metropolis for the purposes of income tax, Schedule A, and Inhabited House Duty only. This revaluation outside the metropolis is not accompanied by a revaluation for local rating purposes, the latter being made independently at irregular intervals often of a great number of years.

In order that our readers may be in a position to test the accuracy of the assessments that will be made, and to make any appeal that may be necessary, it is proposed to set forth briefly the proper basis of assessment, and to explain the procedure followed in making the assessments, and the method of appealing.

THE QUINQUENNIAL REVALUATION IN THE METROPOLIS.

The valuation of properties in the metropolis is carried out by committees of the borough councils. The Valuation Committee obtains returns of rentals and other particulars from the occupiers, and determines a "gross estimated rental" and "rateable value" for each property, subject to the approval of, and subject to appeal to, the Assessment Committee. The Assessment Committee revises the valuations thus made, and after due notice has been given to the occupiers concerned, hears objections and makes any necessary adjustments, the objector having a further right of appeal to Special Assessment Sessions or to Quarter Sessions.

In view of the fact that the valuation list, when made, remains in force for five years, and is not subject to variation unless there is some change of value in a particular hereditament due to causes that do not similarly affect the values of the other properties in the borough, it is very necessary that the valuation should be checked and the proper steps taken to obtain redress in due time if it be excessive. To this end it is necesasry to understand the significance of "Gross Estimated Rental." This is defined by the Valuation (Metropolis) Act, 1869, as

> The annual rent which a tenant might reasonably be expected, taking one year with another, to pay for the premises, if the tenant undertook to pay all usual tenant's rates and taxes and if the landlord undertook to bear the cost of the repairs and insurance, and the other expenses, if any, necessary to maintain the premises in a state to command that rent.

The Rateable Value is arrived at by deducting from the Gross Estimated Rental a sum not exceeding one-sixth, to represent the "probable annual average cost of the repairs, insurance, and other expenses necessary to maintain the hereditament in a state to command the rent."

In the case of properties held under agreements for not more than three years the rent is, as a rule, taken as the gross value if there are no exceptional conditions attaching to the agreement and if the landlord bears the cost of repairs, insurance, etc. In the case of properties held on an ordinary repairing lease, taken up within a few years, an addition is made to the rent in order to arrive at the gross value. This addition represents the estimated cost of the repairs borne by the tenant, and is, by common practice, one-tenth of the rent. Where, in addition to payment of rent, the tenant has paid a premium or consideration for the lease, or has incurred outlay under the lease or has expended money on improvements, these factors are taken into consideration in arriving at the sum to be fixed as gross estimated rental.

It is impossible to enter in detail into the extent to which such varying considerations are taken to affect the calculation of gross value, but the general rule in the case of premium, consideration, or outlay under the terms of the lease is to divide the sum paid (with an addition for interest) by the number of the years of the lease and to regard the quotient as an addition to the annual rent paid under the lease. Where there is voluntary expenditure on improvements, an addition to the rent of 5 or 6 per cent. on the sum expended should be made to represent the extent by which the annual value is increased by reason of the expenditure. In the case of freehold and long leasehold property the rental value must be estimated by reference to the rentals of adjoining properties, though where the property has been recently acquired the gross valuation should not ordinarily exceed 5 per cent. of the purchase price (to be added to the ground rent, if any).

It is to be observed that only rent paid exclusively for the premises is required to be taken into account in arriving at the gross estimated rental, any part of the rent that is paid on account of furniture, or of fittings not usually found in a house, or of other such subjects, should be excluded from the calculation, as also should any sum that can be shown to be paid for "goodwill."

If, for example, a rent of £150 be paid by a medical man to a predecessor in practice for a house not worth more than £100 a year, the balance being in fact part payment of the value of the predecessor's practice, the valuation should be based on a rental of £100 only. On the other hand, the fact that an unusually high rent is paid to an outside landlord on account of the exceptional suitability of the house for professional purposes will not as a rule be accepted as a reason for basing the gross value on a lower sum.

It should be borne in mind that the rent payable at the moment is not necessarily final and conclusive evidence of the rent that a hypothetical tenant might reasonably be expected to pay, taking one year with another, and both the occupier and the rating authority are entitled to have all the circumstances affecting the rent taken into consideration.

In order to ensure due consideration by the Valuation Committee it is essential that the form of return, requiring particulars of the rent, etc., already issued, should be filled up without delay, if this has not already been done. No further step can be taken until notice of the proposed assessment is received from the Borough Council in May, or earlier; and in this connexion it may be remarked that individual notice is not required to be served unless it is proposed to increase the assessment on the property, the only notification otherwise of the completion of the "valuation list" being by public notice on the doors of chapels and churches and of the town hall. Those who consider their present ratings excessive will accordingly be well advised to request the town clerk to notify them specially when the list is completed. In case it is desired to make objection to the assessment, notice of the intention to do so should be given to the town clerk either by letter setting forth the ground of the objection and the correction desired, or on a form provided for the purpose.

At this point (that is, in the month of June) the valuation list is deposited at the town hall, and is open for the inspection of ratepayers. An intending objector will do well to examine the list, in order to see how the valuation of the property in his occupation compares with that of adjoining properties.

After receipt of a notice of objection the Assessment Committee gives notice of the day and hour when it will meet to consider the objection, and the aggrieved person is then required to put in an attendance either personally or through a friend or agent in order to explain the grounds of the objection. In ordinary cases a capable estate agent can be trusted to conduct the application for a small fee, but where a medical man considers that he can put his own case more satisfactorily he should make a special application to the town clerk at the time of giving notice of objection, asking that his case may be taken at a definite hour in order to obviate the great waste of time that attendance before Assessment Committees is apt to involve. In the presence of the committee it is well to bear in mind that the committee is dealing perhaps with some thousands of objections, and accordingly welcomes the appearance of an objector who puts his points clearly and concisely. The information required to be furnished will include particulars of the rent, conditions of lease (the lease itself should be produced unless it is a ground lease), the amount of premium paid for the lease, or the sum expended on purchase or improvement of the property. These considerations, combined if possible with material for comparison of the premises with neighbouring premises, will enable the committee as a rule to come to a quick decision. This decision must be accepted, unless the objector is prepared to contest it before the

justices in special assessment sessions or quarter sessions, in which case the matter should be put into the hands of a solicitor.

After hearing the objections the Assessment Committee revises the list, and *may* raise any valuation that experience gained during the hearing of the appeals has shown to be insufficient. In such a case notice of the increase is given to the occupier, who has right of objection as in the first instance.

EXTRA-METROPOLITAN REVALUATION FOR INCOME TAX AND INHABITED HOUSE DUTY.

This valuation is carried out by local assessors of taxes and by the surveyors of taxes. Returns will be called for probably in April next and notice of the assessments given some time during the summer. The basis of assessment is to all intents and purposes the same as that for the metropolitan valuation described above, the principal difference being in regard to deductions from the gross assessment. No deductions whatever are allowed from the gross assessment for the purposes of inhabited house duty, while for the purposes of income tax (Schedule A) the allowance for repairs is one-sixth, provided that such allowance does not bring the net assessment below the rent in cases where the landlord is *not* responsible for repairs. If it is desired to appeal against the assessment notice should be given to the surveyor of taxes, who will usually be able to arrange for the adjustment of any overcharge.

If the surveyor does not agree to the desired reduction, personal appeal must be made to the Commissioners of Taxes, who will in due course give notice of the time fixed for hearing appeals. The evidence required by these Commissioners is similar to that required by Assessment Committees in the metropolis, but it is not possible to get any official information as to the assessments of adjoining properties for comparative purposes. The decision of the Commissioners on the question of value is conclusive and not subject to appeal, and the valuation determined by them remains in force for five years or until a new general revaluation is made, unless there be in the meantime any addition to the property or reduction in its value.

It is to be observed that whereas in the metropolis the same gross valuation holds for local rates and for imperial taxes, this is not so outside the metropolis. It will usually be found that outside the metropolis the rateable value for local rates is less than the net income tax assessment; if it should be higher, it will be well to make inquiries of the assistant overseer with a view to obtaining a reduction of the local assessment by application to the Assessment Committee of the guardians.

ENGLISH LITERATURE AND LONDON MATRICULATION EXAMINERS.

EVERY one knows that the youth of this country can obtain a "young age" pension of half a crown a week by buying the necessary coupons, and successfully filling in missing letters or word competitions, or acquire even the freehold of a five-roomed villa, or £100 a year for the life of the paper that pays it, for giving the most successful last line to an incomplete limerick, but it is not, we believe, a matter of general knowledge that a course in such coupon-filling pursuits is the best training for a candidate who wants to satisfy the examiners in English, one of the obligatory subjects at the London University Matriculation Examination.

The number of subjects now demanded of the candidate who desires to pass this examination is quite reasonable, and he is afforded a wide and proper choice of subjects. The obligatory subjects are: (1) English, and (2) elementary mathematics. Three other subjects must be taken in addition—Latin or some other modern or ancient language, and two subjects chosen from a list including history, geography, elementary sciences, etc. The student who wishes to graduate in medicine, science, or engineering can thus qualify to pass in modern languages, elementary sciences, and mathematics, so long as he satisfies the examiners in English. It is generally admitted that the mathematical papers, which used to be absurdly tricky and pedantic, have been improved recently, and it would seem that it is now the English paper which keeps students from qualifying, or delays them from commencing their professional studies. The reason for this is to be found in the latitude allowed by the syllabus introduced in 1907 a syllabus based, we believe, by those who drew it up on the supposition that the examiners appointed would be persons of wide sympathy and culture, men who gripped the essentials of life.

How far this expectancy has been fulfilled is shown by the papers set during the last year. The absurdity and injustice of the questions demonstrate not only the incapacity of the examiners, but the futility of the Board of Moderators, appointed to consider and "moderate" or keep within reasonable limits the vagaries of examiners by whom the questions are set.

The syllabus is as follows:

(*a*) A subject for an essay to be chosen by each candidate from several subjects set. Those proposed may include some having reference to geography and history, and some involving an acquaintance with English authors, as well as more abstract subjects, the main object being to test power of expression, thought and arrangement, general reading, and knowledge.

(All candidates will be expected to attempt the essay, to which special importance is attached.)

(*b*) Questions testing knowledge and command of English. These may include questions on *précis* writing, paraphrase, and analysis of sentences.

(*c*) Questions testing general reading and knowledge of English books.

No one can find fault with (*a*); in fact, no better or fairer test could be set; (*b*) and (*c*), on the other hand, allow a foolish examiner ample latitude to ask silly questions. Who is to say, among the countless good English books where the limits of miscellaneous reading are to be set? If we examine the papers we find there is no limit, and that the student is driven by the very nature of the questions not to read and think, not to master and enjoy a few of the masterpieces of our tongue, not to cultivate a taste for the highest and noblest, but to go to the crammer to be taught the snippets of information which are the stock-in-trade of him who aspires to win the so-called competitions—in truth, the lotteries got up by the press.

To give a few examples:

January, 1909:

(*a*) Mention (with the names of the authors) standard historical novels in which any of the following characters are introduced: Mary, Queen of Scots; Queen Elizabeth; James I; Oliver Cromwell; the Old Pretender; the Young Pretender; Savanarola; Erasmus; George Washington.

(*b*) Describe a notable scene from one of the works you name, in which the character of one of the above-mentioned historical figures is portrayed.

June, 1909 (Shakespeare characters):

(*a*) Name the plays in which the following appear: Caliban, Jessica, Hubert, Banquo, Edgar, Horatio, Volumnia, Fluellen, Dogberry.

(*b*) Describe the part taken in the action by any two of the above.

June, 1909:

Name three of the most distinguished living English authors, and briefly describe the general character of the work of one.

September, 1909:

Classify and describe the most important periodical publications of the present day.

January, 1910:

Mention the books in which the following characters appear, and describe any two of them (one to be taken from each group).

(i) Will Honeycomb, Beau Tibbs, Mrs. Malaprop, Mr. Hardcastle.

(ii) Elizabeth Bennet, Joseph Sedley, Dinah Morris, Dick Swiveller, John Silver.

Write an account of the friends of one of the following: Addison, Dr. Johnson, Lamb.

Now the syllabus says the questions set are to test "the general reading and knowledge of English books." From the scope of these questions the student, who is a lad with perhaps no taste, and who certainly has had little time, for novel reading, is expected to have read the whole of Shakespeare's plays, and, if Shakespeare, why may not the examiners another time set questions concerning the works of Marlowe, Ben Johnson, and Dryden? he must be intimate with the chief novelists of the eighteenth century—Fielding, Smollett, Sterne; and the authors of that century—Swift, Addison, Steele, Fanny Burney, Johnson, Goldsmith, Gray, Blake, Burke, Pope, Walpole,

Chesterfield, Sheridan; no less must he be ready with the chief novelists of the nineteenth century—Jane Austen (the consoler of middle age), Scott, Thackeray, Dickens, George Eliot, Charlotte Brontë, Mrs. Gaskell, Wilkie Collins, Lytton, Disraeli, Trollope, Charles Reade, Charles Kingsley, Meredith, Stevenson; in order that he may place a critical estimate of their relative worth, he must have acquaintance with some score of the most distinguished, or so-called distinguished, authors of the day—Hardy and Kipling, W. W. Jacobs and Hall Caine, Bernard Shaw and Silas Hocking, Alfred Austin and Marie Corelli. In addition he is to know all about the English periodicals, and be able to classify them, from the "Thunderer" to the "Pink 'Un," from the *Church Times* and *Engineering* to *Comic Cuts* and the *Daily Liar*.

Nor does it stop at this, for the candidate is required to know not only the works, but the friends, of great or distinguished authors. Seeing that he has been asked to describe the friends of Addison, Johnson, and Lamb, why not another time the life-history and entourage of Sir Philip Sidney, of Milton, of Dryden, of Pope, of Shelley, Byron, and Keats? Why not of Thackeray, Dickens, and Wilkie Collins? And why not of Hall Caine and Silas Hocking?

Now, we do not want to be misunderstood. It is very well that a man or woman should have read all the plays of Shakespeare, even those in which his hand counted for little, and the poets of the eighteenth century, and Boswell and Johnson, and biographies of the later poets and the standard English novelists, including even some of those of to-day or yesterday; but it is quite certain that if he or she reads the books themselves, and not elegant extracts or "analyses of plots," he or she could not have covered this enormous field by the age of 16 or 18, even if he or she had nothing else to do; whereas much time must have been given to mathematics and Latin, or some other language, and to elementary science.

The student who has a taste for science, medicine, or engineering, and desires to matriculate and get on with his life's work, and has read for interest and culture sake here and there among some of the great English authors, cannot expect to cope successfully with the demands of the examiners. The examiners inevitably drive him to the "Who's Who" of English literature, to the "World's Great Books Bovrilized," "The Northcliffe Nutshells." "Why lavish money on the Bible when for a halfpenny a day you can get its essence and that of 999 other books?" say the distinguished authors of *Farthest from the Truth*. Why, indeed?

We may now turn to a still worse feature of these so-called tests of English. It offends all right-minded people to witness a crude and vulgar dissection of a perfect and noble work of art. The object of an examination ought to be to increase the desire to learn, and to discover if this desire has borne fruit, if the gaining of knowledge has been attended by the training, and the ennobling of the mind which the pursuit and acquirement of knowledge should bring with it. But what do we find? In every paper questions are set in which some of the most perfect and splendid examples of art are given, and the student is asked to produce a prose version or a modern rendering. In other words, he is deliberately set to debase what is most noble and perfect in form and turn it into the current vulgar language, which he may have picked up from the lesser daily press.

For example, in June, 1909, the candidate was set to debase that most splended sonnet of Shakespeare, which begins with the lines:

> When in disgrace with fortune and men's eyes,
> I all alone beweep my outcast state,
> And trouble deaf heaven with my bootless cries,

to describe the metre in which the poem is written, pointing out any irregularities that are introduced, and to describe any other variety of this metrical form.

The candidate might as well have been given a print of Botticelli's "Venus arising from the Sea," and told to re-draw it, with the figures draped in accordance with the fashion plates of the day, or to put the Venus of Milo in stays. Every word of a real poem is the right word. It appeals to the intellect and emotion just in so far as it is right; just as in a great picture the composition, lighting, and colour scheme could not be other than it is, because it is right, and exactly corresponds to the artist's sense of harmony. In a poem we feel the word here, the descriptive expression there, must be as it is. Why, therefore, ask an unfortunate and uninspired student to turn what is perfect, inspired, and inspiring into bathos? The enthusiasm and fine appreciation of the young should not be so destroyed.

In the paper of January 10th, 1910, a magnificent passage is given from Burke's reflections on the French Revolution, and the candidates are asked to "express the substance of the passage clearly in simple language in about a third or a fourth of its present length." It is an insult to Burke to suppose that any boy or girl examinee could write clearly and simply in one quarter of the length a passage which no real lover of literature could find verbose, or containing one word too much, one word not telling and absolutely necessary to the artistic form and perfection of the passage. Can the ordinary student better Burke or improve Shakespeare? Why belittle the dignity of inspired language by suggesting to the candidate that he can render it in another form?

Beside this outrage to artistic feeling, the fact that there is no mention of prosody in the syllabus is a minor grievance, although nevertheless the examiners make it a stock subject for questions. In relation to prosody the height of folly is perhaps to be found in the following type of question (September, 1909), which we may recommend to the prize press in place of the "Missing Line" Competitions:

Prosody.

(*a*) Rewrite the following stanzas in verse form, with the proper punctuation, dividing the lines according to the rhymes, without changing the order of the words:

(i) All I believed is true I am able yet all I want to get by a method as strange as new dare I trust the same to you.

(ii) And still in the beautiful city the river of life is no duller only a little strange as the eighth hour dreamily chimes in the city of friends and echoes ribbons and music and colour lilac and blossoming chestnut willows and whispering limes.

(iii) Forlorn the very word is like a bell to toll me back from thee to my sole self adieu the fancy cannot cheat so well as she is famed to do deceiving elf adieu adieu thy plaintive anthem fades past the near meadows over the still stream of the hillside and now 'tis buried deep in the next valley glades was it a vision or a waking dream fled is that music do I wake or sleep.

(*b*) Explain the metres used.

The despairing candidate might very well answer the question by citing the old nursery rhyme:

> I would if I could if I couldn't how could I I couldn't unless I could could I could you unless you could could ye could ye could ye you couldn't unless you could could ye.

Indeed, old nursery rhymes may be recommended to the attention of the examiners as a new field for cultivating monkey-puzzlers. Why not set this, for example:

> Rewrite the following in verse form, and explain the metre used:
> Oneery twoery Ziccary Zan hollow bone crack a bone ninery ten spittery spot it must be done twiddleum, twaddleum twenty one hink spink the old witch winks the fat begins to fry there's nobody at home but jumping Joan father mother and I stick stock stone dead blind man can't see every knave will have a slave you or I must be he.

Here is another puzzler, which we confess we have tried to solve in vain:

> Rewrite the following passage in three sentences, avoiding semicolons and the use of the word *and*:
> The Greeks had been besieging Troy. The siege had gone on for ten years. It was all in vain. One of the Greeks contrived a device. He made a horse of wood. It was to be filled with armed men. The Greeks were to pretend to return home. They were to hide behind an island. It was hoped the wooden horse would be taken inside the walls of Troy. The Trojans found that the Greeks were gone. The Greeks seemed to have returned home. The Trojans dragged the wooden horse inside their city. They were told it had been left as a peace-offering. They were told it was an offering to Minerva. They were warned by one of their priests. The priest said they should leave the wooden horse alone. He said the Greeks were to be feared, even when they were offering a gift. The Trojans held a feast that night. They rejoiced. Then they went to sleep. The armed men issued from the horse. The Greeks had returned. The armed men opened the gates. The Greeks entered. They took the inhabitants by surprise. They slew many of them. They possessed themselves of the city.

In January, 1909, the following question was set:

Complete nine of the following passages (not giving more than a line or two in any case), and name the poems from which they are taken:

(i) When pain and anguish wring the brow . . .
(ii) God made the country . . .
(iii) And fools, who came to scoff . . .
(iv) None but the brave . . .
(v) To me the meanest flower that blows . . .
(vi) Where ignorance is bliss . . .
(vii) Kind hearts are more than coronets . . .
(viii) And coming events cast . . .
(ix) A thing of beauty . . .
(x) He prayeth best who loveth best . . .
(xi) Hope springs eternal . . .
(xii) And how can man die better . . .

No doubt they are all familiar tags to be found in every dictionary of quotations, but the question is one which gives all the advantage to the parrot learners, those with strong auditory memories, not visualers and observers. It does not promote the loving study of a few great books, which properly chosen and read would mould the character of the man. It does everything to make the aims of young men and women petty, and nothing to make them noble. How many men of science of general culture and of character would be able to name offhand and in the stress of an examination a third of the poems from which these quotations are taken?

In January, 1909, we find this:

Mention as many uses as you can of the following words in proverbial or other figurative expressions: dog, bird, fire.

—a question typical of newspaper competitions, tempting or compelling the future candidate to cram up lists of proverbs.

Turning to the Matriculation Directory of the University Correspondence College, a private enterprise which claims to have pushed through over 19 per cent. of all the candidates—one out of every five—who passed last year, we find it stated that in the list of London University examiners there appear the names of no less than eight gentlemen who have at one time or another been tutors of this correspondence college! The directors of this enterprise recommend for the English paper the study of their *Tutorial History of English Literature* (2s. 6d.).

This may be supplemented for general reading in English poetry by *An Anthology of English Verse* (2s.), which contains a brief history of English poetry, biographies of all the poets represented, and a glossary. Some reading of standard English authors will be desirable, and here most candidates will need the advice of a competent and experienced tutor. Considerable help may be derived from the study of *Matriculation Model Answers in English* (2s.).

In these model answers we find examples of how to turn a Shakespeare sonnet into correspondence college prose, and so on.

During the negotiations which have taken place between the University and the Royal Colleges as to the establishment of an internal degree which all the London medical students could take, the University has, we believe, insisted on the matriculation as the minimum entrance examination. The object of a matriculation examination ought to be the selection of those who can profit by the subsequent training, and worthily fulfil the duties of the profession they seek to follow. The aim, or at any rate the achievement, of the English examiners and their moderators is to belittle the nobility of our language, to drive candidates to crammers and cram books, to deprive the students of a training which ought to be valuable, and shut out some of the best of our students from a university degree.

The cure for this state of affairs obviously is to recast the syllabus, to limit the examination to the essay, and the intimate study of two or three set books chosen from the great English writers, with perhaps some test of a candidate's acquaintance with the elementary facts with regard to the origin of the language.

THE Local Government Board inspector, Mr. A. W. Brightmore, has held an inquiry at Leamington concerning the application of the Town Council for leave to borrow £1,000 for improvements and alterations at the Pump Room. It is intended to pull down the old cooling-room and to erect a larger and brighter room to be used as an annexe to the pump rooms and baths, where visitors may drink the waters and read the newspapers. No one objected to the scheme, and the inquiry was closed.

LITERARY NOTES.

Hippocrates is the name of a new medical journal recently established in Constantinople, which is said to be the first published in the Greek language in Turkey. Dr. Achilles Rose, of New York, is one of the contributors. One part of the new periodical is to be specially devoted to ancient Greek medical literature; in this part will be published original studies and researches in this field by the Greek physicians of Greece, Turkey, and Egypt.

The two previous numbers of *L'Hygiène* have taught us already to look forward with pleasure to its monthly reappearance, and the February number fully justifies our expectations. Science and art, together with a high degree of literary skill, combine to make this magazine something unique of its kind, and the present issue comes up to the standard of the two others both in interest and in beauty. The list of this month's contributors includes several well-known names. Dr. Albert Calmette, of the Institut Pasteur at Lille, strongly urges that hygiene should have a prominent place in the curriculum of every school, and that the child should be taught how to be healthy exactly as he is taught history or geography. In his opinion, that is the only way to exterminate disease, the only means by which "the adolescent, boy or girl, can begin life fully armed for the fight against the causes of premature death." Another way of avoiding disease is by a strict regulation of diet, as is shown by D. G. Linossier, whose article, entitled, "What Ought we to Eat?" is marked throughout with sound common sense and moderation. Dr. Linossier is no apostle of modern food fads; on the contrary, he maintains that it is impossible to lay down hard and fast rules for diet. Moreover, whilst fully recognizing the fact that most people eat too much, he fears that "we go too far in the crusade against over-feeding." In experiments made in conjunction with Dr. G. H. Lemoine, Professor of Hygiene at Val-de-Grâce, he proved that guinea-pigs kept on strict diet, whilst exhibiting every appearance of flourishing health, succumbed more quickly to inoculation by pathogenic microbes than others which were receiving a supplementary dose of albumen or sugar. "Restriction in diet," he says, "has another drawback; it leaves our nervous system more fragile and prone to neurasthenia." The close connexion between health and beauty, and the importance of both in contributing to the happiness of mankind, is the subject of an interesting article by Dr. Lucien Jacquet, of the Saint-Antoine Hospital; and some space is devoted to advice as to the means of avoiding the dangers of infectious disease caused by the recent floods in Paris. But other than purely medical matters are treated in the pages of *L'Hygiène*. André Maurel has contributed the first of a charming series of articles on The Art of Travelling in Italy, and there is another of M. Georges Vicaire's delightful essays on Littérature Gastronomique. "Culinary matters were so much thought of in the eighteenth century," he says, "that an *officier de bouche*, named Le Bas, wrote a treatise in verse on cookery: 'The Joyous Banquet; or, Musical Cookery.'" In the preface Le Bas informs his readers that his book will be an amusement at once pleasant and useful, since they will be able to teach those under them to make ragoûts in singing his verse, and at the same time to enjoy themselves. "Certainly," says M. Vicaire, "there is something unusual in the idea of the receipt for white sausages being sung to the tune of 'Laissez paître vos brebis,' for eel pie to that of 'On verra régner l'innocence,' and for cutlets to that of 'Bacchus est aimable.'" One cannot help wondering if M. Vicaire has had the courage to try these musical dishes as he confesses he has experimented with mediaeval recipes. Madame Augusta Moll-Weiss contributes a valuable paper on the way in which a woman with child should spend her day. It is full of sound advice, applicable to poor women as to rich. Not the least interesting and useful part of the periodical is the correspondence, in which counsel is asked by people on various questions relating to health, and given by experts. The illustrations, always a striking feature of *L'Hygiène*, are, as usual, beautifully reproduced, and include portraits by Titian and Nattier, nature studies by Rubens and Snyders, two lovely bas-reliefs of children by Donatello and Luca della Robbia, and some exquisite photographs of Rome.

Nova et Vetera.

THE PRIVATE TREATMENT OF THE INSANE A CENTURY AGO.

In the newly-opened Historical Cabinet of the Museum of the Royal College of Surgeons of England are now exhibited a chain and belt of the kind formerly used for the purpose of securing lunatics. These contrivances seem to have been in frequent use up to the beginning of the nineteenth century, and must have added not a little to the sufferings endured by the insane in ages when unsoundness of mind was treated punitively and often torturingly.

The horrible history of the early lunatic asylums has been frequently dealt with, not only by medical historians and writers of Blue Books, but by pamphleteers and even novelists. Charles Reade's *Hard Cash* (first published as a separate work in 1863) will at once occur to the recollections of readers, with its perhaps somewhat exaggerated revelations of the atrocities still possible in private lunatic asylums at a date long subsequent to the inception of the movement for lunacy reform. The practice of chaining up violent madmen may quite conceivably have lingered on in holes and corners for years after its disuse in public asylums. Writing as late as 1827, Sir Andrew Halliday gives it as his opinion that, in addition to the 4,782 insane persons known to be in existence in England and Wales, "there is a number, if not equally great, at least nearly so, of whom the law takes no cognizance and whose existence is only known to their relatives and friends. These consist of individuals placed in solitary confinement, with persons who take only one patient."

To coerce and confine such solitary individuals, the chain and belt now in the College Museum seem to have been used. It is said to have been found in a dark attic in one of the oldest houses in Church Street, Stoke Newington. It was one of two similar belts, and is supposed to have been used to chain up a lunatic or idiot. The chain is attached to the belt, and together they were probably made fast to the wall of the room, the prisoner or patient being kept standing. In the "Minutes of Evidence taken before the Select Committee appointed to consider of Provisions being made for the Better Regulation of Madhouses in England," there is much curious information as to the use of chains and other methods of repression. The committee, otherwise known as the Right Hon. George Rose's, began its sittings in May, 1815, and already at that date the practice of chaining was being superseded by the use of the strait-waistcoat. In his evidence, however, Mr. Thomas Bakewell, keeper of a private asylum at Spring Vale in Staffordshire, confesses to using a chain, or, as he terms it, "locks to the feet," "with a connexion," in the case of some of his violent patients. This was done "merely to prevent escape." At night such a patient would be chained to his bed by one arm and one leg. Mr. Bakewell was supposed to be a fairly humane specimen of his class, and his evidence does not go to prove him a torturer in any sense of the word. But we can imagine how chains thus used could be made instruments of terror in dark attics such as those in Stoke Newington. The mad were often treated as mere nuisances, and were left to themselves in solitude, and often, too, in cold and darkness. Asked if he knew that in private families persons were often kept "in situations entirely unfit for them," owing to the want of public asylums, he replied with a string of gruesome instances as follows:

> A poor woman died upon the breaking up of the hard frost the last winter but one, after existing ten years in an old house inhabited by no other person but herself, in a state of perfect nakedness; without bed-clothes; with nothing but straw to lie upon: She was grown double, and her body covered with hair, in consequence, as it is supposed, of cold: She was a wife and a mother; her husband and children were living. She was confined as a lunatic?—She was. There is a poor woman now living in a country village near to me, who, it is reported, is in a most dreadful situation as to accommodation and bed, and so on; and she has been in that state twelve years without any relief. I knew an instance of a person of very respectable family, who became insane soon after giving birth to a son: Such cases are generally supposed easy of recovery . . . that it is merely a temporary irritation. She was packed up in a back garret, where she was coarsely fed and coarsely clothed, while her husband enjoyed every luxury that money could purchase in the house below, till that son became of age, and had her released. I know another family who have kept a brother for seven years in confinement, without any means of recovery, for the sake, as I fully believe, of his property, though they are all in opulent circumstances. I have known an instance of a son very evidently taking measures to prevent the recovery of his father; and have known several instances of people in opulence taking measures to prevent the recovery of their own brothers. I have seen evident proofs of vexation and disappointment in a wife on the unexpected recovery of her husband; the same in a husband on the unexpected recovery of his wife; and in a mother on the unexpected recovery of a son. I have now in the house a woman, who has been confined in a dark garret, without the comforts of a fire, for the best part of twenty years: her husband confessed to me, that he had not seen her for many years: the servant told me, that nobody saw her but herself; and she only to take her food, and take away the necessaries: the woman was perfectly inoffensive.

The witness in this recital was only citing a few of the instances of cruelty to lunatics which had come under his observation. But volumes might be filled with the testimonies of his contemporaries. An undated pamphlet, published by Benbow at Byron's Head, which probably made its appearance a hundred years ago—for it contains the announcement of *English Bards and Scotch Reviewers*—is entitled *A Description of the Crimes and Horrors in the Interior of Warburton's Private Madhouse at Hoxton, commonly called Whitmore House.* It is libellous and somewhat pornographic, but when viewed in the light of Blue Book evidence, it seems scarcely exaggerated in its assertions. Warburton seems to have been a villain, and his employees no better. Many of their victims appear to have been "put away" by wealthy relations, whose object it was to keep them out of sight. Often only temporarily deranged, or perhaps merely excited, eccentric, or intemperate, they were goaded into a condition of permanent insanity, or imbecility, by the treatment meted out to them. Thus we read of an ex-member of Parliament whose vicious proclivities Warburton pandered to and intensified till the man became really insane. A young girl comes on the scene whose ruin suggests some horrible episode in the pages of Zola. Her parents, wealthy people, are represented as daily and hourly expecting her recovery, while the mad asylum authorities are aggravating her malady of set purpose. She is, of course, a rich prize to them, but she is grossly maltreated none the less—"beaten on the bosom with a broomstick," "ordered to her den," and so on. Many of the patients are helpless wives, in perfect possession of their faculties, whom profligate husbands keep immured; others have been guilty of crime and are in hiding by the connivance of their keepers. Flogging is common; clothes are stolen; there is a system of gross peculation, practised by every warder and wardress. In fact, the place is a hell upon earth, yet the anonymous author of the pamphlet is forced to confess—

> I have some reason to fear that this house, bad as it appears in these pages, is one of the best regulated near the metropolis. Imagine to yourself, reader, something worse, if you can.

Memoirs of lunatics—for such have been written on more than one occasion—do not throw much light on their treatment, for they are manifestly the work of persons still labouring under excitement. One of the best known autobiographies of a madman is *A Narrative of the Treatment experienced by a Gentleman during a State of Mental Derangement.* The patient, who published his book in 1838, was still labouring under delusions, and half his grievances are in the nature of *lèse majesté*, and are the result of his insane vanity. Son of a well-known statesman, he was apparently carefully looked after, and in 1831–3 lived under conditions far removed from those said to have existed in Whitmore House. But even he mentions the custom of chaining up violent lunatics as still in existence in the asylum where he was confined. They were chained in niches of the patients' living-room, and were often scandalously neglected. The author writes with much eloquence, his wish being, as he declares in his preface, "to stir up an intelligent and active sympathy on behalf of the most wretched, the most oppressed, the only helpless of mankind, by proving with how much needless tyranny they are treated—and this in mockery—by men who pretend, indeed, their cure, but who are, in reality, their tormentors and destroyers." There can be no doubt that, though

somewhat exaggerated and vehement, writings such as this greatly assisted the revolution which during the last sixty years or so has taken place in the popular or even professional attitude towards insanity.

SCIENCE NOTES.

THE third part of Dr. Gordon Hewitt's monograph[1] on the common house-fly completes a work of much value at the present moment. It is many years since the house-fly was branded with the stigma of disease-carrier, but not until comparatively recently has the accusation been strictly judged. The evidence already accumulated seems more than sufficient to justify the reproach, and to condemn the fly as a most potent bearer of evil. At the outset of such an investigation as this it was essential that the structure and bionomics of the fly should be thoroughly elucidated, and this is what Dr. Hewitt has sought to do. Much of the earlier work was vitiated by the failure to realize such fundamental facts as the exclusively suctorial nature of the fly's proboscis and the mode of life and development of the larvae. Dr. Hewitt's exhaustive treatise contains a clear statement on all such points, and it has the additional merit of concentrating available knowledge within a serviceable compass. The latest part deals with a large variety of subjects, chief of which is a consideration of the part played by *Musca domestica* in the dissemination of pathogenic bacteria. The distribution of the house fly is coextensive with that of man; it has been found everywhere from the subpolar regions to the tropics. In this country *Musca domestica* is not the only fly which occurs in houses; there are two other species—*Homalomyia canicularis* and *Stomoxys calcitrans*, frequently met with, but seldom in large numbers. *Stomoxys*, however, is a "biting" fly, and is almost exclusively confined to rural districts. Several other species (amongst them the familiar "blue bottle") are occasional visitants to houses. Although rapidly killed off by any severe or long-continued frost, flies are able to withstand a temperature under freezing point for a short time. It is not the cold which causes the death of so many flies towards the beginning of winter; it is a parasitic fungus, *Empusa muscae*, which is extremely common, and which grows into and throughout the body of the fly, destroying its tissues. A relatively small number of flies escape and pass the winter in a semitorpid condition in dark corners and crevices. In places, however, which are kept at a certain temperature night and day throughout the winter, flies continue to live and breed almost as actively as during the summer. Besides *Empusa muscae* the house-fly harbours a few other parasites, none of which, however, are common in this country. The most interesting of these is a flagellate protozoon, *Herpetomonas musca domesticae*, which is closely allied to *Leishmania donovani*, the parasite of kala-azar. In the section dealing with the part played by *M. domestica* in the dissemination of disease Dr. Hewitt has followed the excellent example of Professor Nuttall, and under the head of each disease with which flies are believed to be associated gives a digest of the most important papers bearing on the subject. These diseases are typhoid fever, anthrax, cholera, tuberculosis, ophthalmia, and plague. To these might be added infantile diarrhoea, but the author has preferred not to discuss this, chiefly owing to the present state of ignorance of the specific cause or causes. In any case the conditions are much the same as for typhoid fever. With regard to the latter there appears to be little more than a shadow of doubt that the house-fly is a most active factor in its causation. So much has this view gained ground that in America *M. domestica* is frequently referred to as the "typhoid fly." Overwhelming testimony to this effect is forthcoming from the Spanish-American war and the Boer war. We have experimental evidence also to show that flies can carry about typhoid bacilli in a virulent state, not only externally, but also in the alimentary canal for some days. In the case of cholera the evidence is hardly less conclusive. The transmission of anthrax by Musca is doubtful, but the possibility, if not the probability, cannot be ignored. There will be little objection to the statement that various conjunctival affections might readily be spread by flies, but in this connexion there has been little investigation. There is a fairly general agreement that *M. domestica* plays only a subsidiary part, if any, in the dissemination of plague and tuberculosis, but a certain amount of importance must be attached to the experimental demonstration that flies can ingest the tubercle and plague bacilli, and convey them in a virulent state from one place or animal to another. Were it on account of typhoid fever alone, however, *M. domestica* must be declared *hostis humani generis*, and means of defence provided against it. Offensive measures directed towards the extermination of flies seem almost hopeless, although much might be done in the way of destroying larvae and pupae by means of shale oil and similar substances. It is in efficient sanitary arrangements that we must chiefly hope for safety.

[1] The Structure, Development, and Bionomics of the House-fly. *Musca domestica* (Linn.). Part I, The Anatomy of the Fly; Part 2, The Breeding Habits, Development, and the Anatomy of the Larva; Part 3, The Bionomics, Allies, Parasites, and the Relation of *M. domestica* to Human Disease. *Quart. Journ. Micros. Science*, li, pp. 395-448; lii, pp. 495-545; liv, pp. 347-414.

The crabs at Cavalière on the Mediterranean have been found to be the victims of a most unusual form of parasitism. Gregarines are not infrequent parasites of the intestine of crabs and other crustaceans, and in this particular case we find the gregarine, *Frenzelina conformis*, in the crab, *Pachygrapsus marmoratus*. That is in the nature of things, and in itself would give rise to no further comment, but here we have a retribution of justice, and the "biter is bitten." A still smaller actor, a microsporidian, *Nosema frenzelinae*, appears on the scene and plays parasite on the gregarine. The situation recalls the well-known couplet of the "big fleas and lesser fleas." This interesting fact has been brought to light by MM. Léger and Duboscq,[2] who have studied the curiously intermingled life-histories of the two parasites. The gregarine, under normal conditions, inhabits the long caeca of the crab, but may spread throughout the tissues of various organs. The encysted stages are met with in the intestine, on their way to the exterior. The microsporidian lives in the cytoplasm of the gregarine, and is most abundant in those that are getting on in years—that is, approaching the stage of encystment. In multiplying in the vegetative state the microsporidian progressively invades the cytoplasm, but always leaves the nucleus untouched. In spite of the malady, the gregarine continues to grow, and eventually encysts. As soon as this has happened the microsporidian in its turn begins to sporulate. In the cyst the nuclear division of the gregarine runs a normal course, but the resulting gametes are seriously impaired; there is, in fact, destruction of the sexual gametes, which might be interpreted as the phenomenon of castration in a protozoon. In this way the cyst, which was destined to produce gregarine gametes, becomes filled with the spores of Nosema. These spores are liberated on the ejectment of the cyst, and, contaminating the food, are swallowed by other crabs. Apparently the crab does not derive much material benefit from this curious arrangement, but the unfortunate gregarine is distinctly a loser. The case is interesting as being the first recorded of a microsporidian attacking a gregarine; several cases are reported of infection in ciliated infusors, but with doubtful accuracy.

In 1866 a number of Scandinavian objects were discovered at Island Bridge, Dublin, and later similar objects were discovered in the neighbourhood of Kilmainham. These objects, which included a number of skeletons, iron swords, spears, knives, and ornaments, were studied by the late Sir William Wilde, who suggested that they might perhaps have been buried where they were as the result of a skirmish with the native Irish, and that the bodies of the slain had remained on the gravel beds to the south of the Liffey, and had become gradually covered with an accumulation of soil. This suggestion has recently been criticized by Mr. E. C. Armstrong and Mr. George Coffey, who adduce reasons for believing that the place where the discovery was made was an old burying ground of the Norsemen. Among the grounds for this belief are that the skeletons are both male and female, and the improbability that the bending and breaking of certain of the swords could have been done either in battle or at the time of finding; it was probably a survival of the well-known and widely distributed custom of destroying or injuring objects placed with the dead.

[2] *Comptes Rendus Assoc. France*, cxlviii, 1909, p. 733-4.

British Medical Journal.

SATURDAY, FEBRUARY 26TH, 1910.

THE MEDICAL TREATMENT OF THE POOR.

DR. MCVAIL'S lecture at Sheffield on the "Medical Treatment of the Poor" (p. 488) gives in a concise form the main results of his investigations for the Royal Commission on the Poor Laws, and undoubtedly embodies the most serious attempt yet made to present in a workable form a scheme for a public medical service on provident lines. Dealing in order with the aged, the middle-aged or adult paupers, and children of all conditions, he shows the problems to be faced in each case, and the defects of the present system of medical relief. He points out that charitable hospitals share one of the greatest defects of the Poor Law service in exercising no preventive influence, and then gives a brief outline of the recommendations he made to the Commission with a view to remedying these defects. Emphasis is laid on the fact that whatever form of public service is adopted, it will have to take account "not merely of paupers but of poor persons who have not reached the stage of pauperism but whom it is desired to prevent from becoming unfit to maintain themselves owing to ill-health." He rejects the idea of a free medical service open to all, with medical men paid out of public funds, and it would be difficult to refute the arguments which lead him to "set aside any scheme of a complete free medical service as having drawbacks which would very largely neutralize its benefits."

He then proceeds to explain his scheme for a medical service on provident lines. Starting with the general principle that the health of the population is a matter both of national and personal consequence, he contends that the individual and the State should bear the joint outlay for the joint benefit, the individual to contribute in the interest of his own health and the State to contribute in the interests of the national health, including the prevention of pauperism. He points out the defects of the friendly societies' medical sections, but deprecates any criticism of his own scheme based on the defects of the existing club system; it is not the system, he says, that is at fault, but only its application. If a State subsidy be given, it will naturally follow that the State should have some control in the management of the service, and a joint management by the members, the doctors, and the State is contemplated. It is here that we imagine some objections will be raised to the scheme, on the ground that on any board or committee of management the doctors would always be in a minority, and could only adopt some method of "strike" if the fees and other conditions of service were not acceptable. We are not among those who look on all public bodies as the natural enemies of the medical profession. Even though it be true that one Government after another has enacted statutes bearing unjustly on medical men, the profession has in many cases had itself to blame, owing to apathy and neglect in stating and explaining its case. There can be little doubt that in the future the profession will have to come into closer contact with public authorities; and for the next few years, until public bodies have been fully convinced that they have to deal with a united and organized profession, there may, and probably will, be constant attempts to sweat medical men. This makes it doubly important that no system should be adopted at the outset that would inherently give any undue power to the lay element in the management of the scheme, and we should be glad if Dr. McVail, whose fertility of resource is so great, would allay the doubts that have been expressed on this head.

So far as we can read it, the position is this: The centre of the problem is not the present pauper but the poor person, often the prospective pauper, who can only afford to pay a small and unremunerative fee for attendance. Free medical service for all comers, or even for the non-pauper working class, at the cost of the State, or any system that might lead to such a free service, is outside the range of practical politics, and would be altogether subversive of the principle that there is a responsibility of the individual towards the State as well as of the State towards the individual.

Further, unless medical fees are so reduced for the working classes just above the stage of pauperism that they would not afford the doctors a living wage, much less an honourable existence, these classes cannot without assistance provide for themselves everything in the way of medical assistance necessary for national and personal welfare. Cheap medical clubs are doomed; the medical profession will not tolerate them much longer, and, what is more, the enlightened part of the public is itself rightly revolting against their inefficiency. Again, charity alone cannot be depended on to supply all the needs, much less can vicarious philanthropy, at the expense of the medical profession.

We are thus reduced to a dilemma from which most people see no escape except by some form of assisted insurance, the assistance, whether from employers or from the State, depending on the status of the insured. Presuming, then, that at no distant future State-aided insurance for medical attendance will be in force, various methods of administration present for consideration. A central Government insurance department, working probably through local authorities, would be a necessity. In the case of paupers who themselves made no contribution to the insurance fund the present district medical officers might, as Dr. McVail suggests, be retained, no choice of doctor being given. But all persons who themselves contributed anything would rightly demand some choice of doctor in recognition of their personal contributions. It has been suggested that the great friendly societies might receive the State subsidy and be responsible for the management of the medical assistance section, engaging their doctors as at present and perhaps being enabled by the subsidy to increase the rate of remuneration. But in addition to the question of the wage limit, which would have to be settled to the satisfaction of the profession, we entirely fail to see why any lay society should come between the profession and the contributing State department. We are confident that any such intermediate interference will be strongly resented, and Dr. McVail's suggestion that the friendly societies should entirely give up providing medical assistance deserves special attention.

Another suggestion is that of the British Medical Association, that the profession should itself establish and manage provident dispensary associations on a wholly independent basis, giving subscribers full choice of doctors, and allowing every local medical man of good repute to be on the staff. We are not aware that any more satisfactory arrangement has yet been evolved. It has worked well at Norwich and other places, and we believe has given satisfaction both to the profession and to the members. Among its advantages is the fact that it eliminates all undesirable intermediate lay dictation. But if compulsory insurance is established by Act of Parliament, certain important questions will arise. Will these professionally managed provident dispensaries be eligible for a State subsidy? If so, what amount of State control will be demanded in return for the subsidy? or, if the subsidy is refused by the profession on the ground that it prefers to retain the whole control in its own hands, will these provident dispensaries be able to compete with other organizations enjoying the advantage of the State subsidy in addition to the members' subscriptions? Wherever the profession is sufficiently united these questions need give no trouble; but in other places it may be necessary to consider one or other of the following arrangements, which we simply mention without at present entering into details. In each case it is assumed that payment would be made by a State insurance department through a local public authority, each person insured, who himself subscribes anything, that is, who is not a pauper, having choice of doctor from all the doctors in the district who are willing to do the work on the terms offered. State inspection would, of course, be necessary in the interests of both doctors and patients, and express stipulations as to what services the fees covered. It might, for instance, be well for the authority to provide dispensaries to which patients could take prescriptions received from the doctors, and in that case the fees would not cover drugs. At least four systems may be mentioned:

1. Payment by the authority of an annual fee for each person on the doctor's list, entitling to medical attendance whenever necessary during the year.

2. Payment for each illness. That is, that any person insured should be able when ill to choose the doctor he wants for that illness, and a fixed sum should be paid to the doctor for all attendance needed until the patient is well. In some of the colliery districts the colliery owners pay a medical officer of their own choice a uniform fee of 12s. to 15s. for each case of accident. This covers all necessary attendance, the slight injuries, needing little attention, balancing those that require longer attendance. For the treatment of the chronic diseases, however, it would probably be found necessary to fix a time limit for the attendance covered by the fee.

3. Payment per visit or consultation. One objection that has been raised to this method of payment is that visits and consultations might be unnecessarily multiplied if the doctor were secure of a fee for however many visits he chose to make. To meet this it has been proposed that the fees should be reduced in proportion if the total fees for the year for a district exceeded the estimate of the municipal budget; and we believe that something of this sort has been tried at Strassburg.

4. The appointment of whole-time medical officers paid by salary. Whatever arguments may be advanced in favour of this for the treatment of paupers, it is fairly certain that persons who themselves subscribe towards their insurance will demand in return greater choice of doctors than could be obtained under any scheme of whole-time medical officers.

We make no attempt at present to enter into details or to assess the relative merits or demerits of these different plans. Some of them may perhaps be at once voted as impractical, but others deserve the most careful consideration. Towards this Dr. McVail's lecture is a most valuable contribution, but we are convinced that the complexity of the whole subject is so great, and the effect of any form of medical insurance on the great medical charities and on private practice will be so far-reaching, that nothing short of a departmental committee of inquiry will ensure proper regard being paid to all the interests that are involved.

THE CAMBRIDGE HOSPITAL FOR SPECIAL DISEASES.

MORE than once we have called attention to the work in the Research Hospital of the Committee for the Study of Special Diseases at Cambridge.[1] But the memory of man is short except for what immediately concerns his own interests, personal and intellectual; and the work of the hospital, important as it is from a scientific as well as a humanitarian point of view, has about it no sensational element that appeals to the public. Moreover, it is carried on in a spirit of such utter self-effacement that it may be said with the fullest truth of the workers that they do good by stealth and would blush to find it fame. This makes it all the more necessary that the profession should from time to time be reminded of what they are doing in the uninviting corner of medicine which they have chosen for their province.

The Committee for the Study of Special Diseases was founded a little more than four years ago, and includes men whose names justly carry the greatest weight with the profession. Among them we need only mention Sir Clifford Allbutt, Professor Osler, Sir William Church, Sir Jonathan Hutchinson, Sir Richard Douglas Powell, Sir Henry Morris, Sir Watson Cheyne, and Professor Howard Marsh, the Master of Downing.

There are certain diseases which, owing to their chronic character and uneventful course, have received comparatively little attention; the clinician passes them by on the other side, while the pathologist dismisses them with a perfunctory word. The general hospital will have none of them, for they cumber the beds which are wanted for acute cases. Some of them find refuge, by favour of fortune or an influential patron, in "homes" of one kind or another, where they tire out the patience of those about them. The attitude of teachers and students alike with regard to them may be expressed in the words of Dante as to the angels who were rejected by God on one side, and by His enemies on the other, *Non ragioniam di lor' ma guarda e passa.* Too often, indeed, they pass without looking. When the sufferers are rich they get more attention, but as a rule equally little benefit. They wander from one watering-place to another and from one oracle to another, bringing rich offerings, but for the most part taking away little but vexation of spirit and a depleted purse. They sometimes make the fortune of the quack and the faith-healer, but to scientific medicine they are a shame and a reproach. It cannot be doubted that this is

[1] BRITISH MEDICAL JOURNAL, November 16th, 1907, p. 1542; December 12th, 1908, p. 1764.

largely due to the fact that as a rule such diseases do not directly threaten life; hence in the press of more stimulating work they have been to some extent neglected by the profession. Yet in them there lie whole worlds waiting for an Alexander of pathology to achieve their conquest.

It is for the investigation of such ailments that the committee was formed, and under its auspices a small hospital accommodating four or five beds was established. This hospital is under the direction of Mr. Strangeways, Huddersfield Lecturer on Special Pathology in the University of Cambridge. He is assisted by Miss Emily H. Morris, M.B.Lond., who holds the scholarship founded by Dr. R. C. Brown, of Preston, in furtherance of the work of the Committee for the Study of Special Diseases. The hospital is managed on the most economical lines, the total cost not exceeding £250 a year. It is greatly to the credit of the medical profession that it is mostly by subscriptions from its members that the institution has so far been kept going. Not only have they given money, but doctors throughout the country have shown the keenest interest in the work and have helped Mr. Strangeways by providing him with cases, both by sending patients to Cambridge and by inviting him to see them in their homes. This readiness to help has doubtless been facilitated by the fact that neither Mr. Strangeways nor any one else connected with the hospital takes any fees from patients. Only a man of the utmost self-abnegation could have given his time and sacrificed his convenience to work which, besides being toilsome, is in a pecuniary sense absolutely unremunerated. We feel compelled to pay this tribute of praise, for not long ago we had an opportunity of seeing his work both at the hospital and in the laboratory, and we were struck not only by the thoroughness with which the research is carried out, but by the scrupulous avoidance of methods of advertisement which are so generally employed in the cause of charity. The enthusiasm of Mr. Strangeways is contagious, for all connected with the hospital seemed to work in the same spirit of unselfish devotion to the elucidation of truth.

Mr. Strangeways and his fellow workers are at present engaged in the investigation of rheumatoid arthritis. This disease is at once one of the most painful and disabling and one of the most intractable with which the doctor has to deal. The cases taken into the hospital have been selected from a large number reported by practitioners in England and Scotland, and observed by Mr. Strangeways or some member of the committee. In the report for 1907 it was stated that they had then notes of over 1,000 cases of various forms of arthritis; since that time the number of observations or records has been largely increased. The scope and methods of the pathological investigation may be gathered from the contents of the second volume of the *Bulletin* issued some months ago.[2]

Dr. J. Lambert contributes an elaborate study of the arterial blood pressure in arthritic diseases. He also supplies a valuable record of observations made during the investigation of 195 cases of rheumatoid arthritis in regard to the etiology and onset of the disease, and an inquiry into some points in the family and clinical history of 125 cases of gout. In a paper on the relation of infective foci to rheumatoid arthritis, Dr. James Lindsay gives an analysis of 172 cases; of these patients 138 were women, and among them no infective focus was found in 65; a vaginal discharge was present in 36; pyorrhoea alveolaris in 19; otorrhoea in 7; gastric ulceration in 5; the disease came on after childbirth in 4; there was rhinorrhoea in 1; and chronic lacunar tonsillitis in 1. Among the 34 male patients no infective focus was found in 19; there was a gonorrhoeal discharge in 10; otorrhoea in 3; rhinorrhoea in 1; while in 1 case the onset of the disease followed severe furunculosis. The figures give a percentage of 52 among females and 44 among males with a definite history of some infective process occurring before the onset of the disease. The proportion with a history of vaginal discharges in women is remarkable. The statistics are, of course, insufficient to demonstrate that rheumatoid arthritis has an infective origin, but we think Dr. Lindsay is justified in saying that "in reviewing the present series it is surely more than a coincidence to find the coexistence of an infective focus along with the rheumatoid arthritis in so many cases."

Dr. Constant Ponder gives a critical review of observations on ten thousand collected ophthalmo-reaction tests of tuberculosis, and concludes that in view of the extraordinarily varying results there must be a factor or factors by which the test is often falsified. This factor, he says, may be inherent in the tissues of the patient, in the preparation and mode of use of the tuberculin, or in the personal equation of the observer. His conclusion is that until the nature of this factor or factors has been determined, and the results of its influence corrected, it is impossible, by means of this test, to give any decisive diagnosis, but only a somewhat broad opinion, based upon the percentages obtained by grouping the figures of many observers. Mr. Strangeways has studied the conjunctival reaction to tuberculin in 340 cases of arthritic diseases, clinically of a non-tuberculous type, including rheumatoid arthritis, gout, chronic rheumatism, acute articular rheumatism, subacute rheumatism, gonorrhoeal rheumatism, Charcot's disease, osteitis deformans, and arthritis of doubtful nature; a positive reaction was noted in 210, or 62 per cent. As Mr. Strangeways says, the final test of the value of the reaction is *post-mortem* evidence, and in six of these cases autopsies were made. In two cases in which the reaction was negative, old tuberculous scars were found in the apex of one lung; in a third, which had given a slight reaction, and in a fourth, which gave a very severe reaction, old tuberculous scars were present, but there was no evidence of active mischief; in a fifth, which gave a moderately severe reaction, no sign of tubercle was found in any part of the body; and in a sixth, which gave a negative result, no evidence of tubercle was found. The author's conclusion is that "in view of the number of observations recorded by other workers, indicating that the test is a specific one, these results are strange and disconcerting." Messrs. Strangeways and Ponder contribute a report of a case of hypertrophic pulmonary osteo-arthropathy; the conscientious way in which this case was followed up is an example to all clinicians. A paper embodying the results of careful observations on purin metabolism is contributed by Dr. H. Ackroyd, who concludes that there is no important change in the purin metabolism of persons suffering from rheumatoid arthritis; and that although an acute or subacute attack of the disease is sometimes accompanied by an increased purin excretion, this does not happen in all cases.

[2] *Bulletin of the Committee for the Study of Special Diseases.* Edited by T. S. P. Strangeways. Published by the Committee and printed at the University Press, Cambridge.

From this brief review of the contents of the *Bulletin* it will be seen that if the investigation on rheumatoid arthritis has not yet led to any very striking results, much spade work has been done, and the ground has been prepared for the sowing of seed which, it may be hoped, will yield a good harvest. Metternich once said of Italy that it was only a geographical expression, and in the same way it may be said of rheumatoid arthritis that it is as yet little more than a clinical expression. By the work of Mr. Strangeways and his able coadjutors it is being mapped out into distinct pathological territories. The specimens in the museum which is being formed show the promise of practical results which lies in this scientific survey and delimitation of boundaries. We make special reference to this in the hope that our readers may be stimulated to help Mr. Strangeways in his work of collecting specimens of variously diseased joints.

The Cambridge Committee has undertaken a task of the greatest importance to medical science and to humanity, for whose benefit that science exists. It may, therefore, justly claim the active help, not only of medical men, but of the public. It is most desirable that the hospital should be placed on a sound economic basis. For that purpose a sum of £10,000 is needed—an amount small in comparison with the vast donations for more showy but not more substantial purposes. As has been said, the medical profession has so far kept the hospital going; but medical men, as a class, are not rich, and the help of a "pious founder" is urgently needed. It is earnestly to be hoped that an institution so modest in its demands, yet so great in its possibilities of usefulness, will not be allowed to fail in its object for lack of support.

THE LONDON MEETING.

THE Annual General Meeting of the British Medical Association in London this year will be held in the University of London and the adjacent collegiate buildings at South Kensington. Owing to the somewhat complex relations of the University to its constituent colleges and schools there has been some inevitable delay in completing the arrangements, although the University authorities early showed their readiness to lend its buildings for the purpose. All formalities have now been completed, and we are enabled formally to announce that the Association will have at its disposal next July the extensive series of rooms occupied by the University at South Kensington, together with the large buildings, including lecture rooms, laboratories, and other apartments, belonging to the Imperial College of Science and Technology, and comprising the new and old buildings of the Royal College of Science and School of Mines, and of the City and Guilds College.

Fifteen years ago, when the Association last held its Annual Meeting in London, the University of London had its offices, examination rooms, library, and theatre, in Burlington Gardens, in the house now occupied by the Civil Service Commissioners. It was almost exclusively an examining body, and its connexion with the colleges of university rank in London was slight and ill-defined, and its influence upon them uncertain. Since then a great deal has been done to consolidate the University, and to bring it into intimate relations with teaching institutions of university rank in London. In addition to University College and King's College, which have now been incorporated with the University, and to the medical schools which are schools of the University in the Faculty of Medicine, and in addition also to certain colleges in the Faculties of Theology and of Arts and Science, the Imperial College of Science and Technology was admitted a school of the University in the Faculties of Science and Engineering in July, 1908. The Imperial College was incorporated in 1907 under a Royal Charter to carry on the work of the Royal College of Science and the Royal School of Mines, and the Central Technical College of the City and Guild of London Institute has become an integral part of the Imperial College under the title of the City and Guilds College. Further, in 1905 the London School of Tropical Medicine was admitted a school of the University in the Faculty of Medicine in tropical medicine, and the Lister Institute of Preventive Medicine a school in the Faculty of Medicine for the purpose of research in hygiene and pathology; and in 1908 the Royal Army Medical College was admitted a school of the University in the Faculty of Medicine for officers of the Royal Army Medical Corps. In the University building there is a large physiological laboratory under the control of Dr. A. Waller, F.R.S., to whose exertions its establishment was largely due, where physiological research is conducted, and where during each term courses of lectures on advanced subjects open to members of the University are delivered by members of a panel of lecturers approved by the Senate; other intercollegiate and university courses, equally open to all members of the University, are given in the colleges and schools of the University as announced from time to time in our columns.

Although much remains to be accomplished before the University can take its rightful place as the centre of the manifold scientific activities of the metropolis, the statement that during the last fifteen years a great deal has been done to consolidate its position and to extend its influence over educational institutions in London is, it will be generally admitted, fully justified. It is very fitting, therefore, that on the occasion of its annual meeting the British Medical Association should be able to look forward to enjoying the hospitality of the University.

There is sometimes a disposition to speak of the part of South Kensington where the University and the Imperial College are now established as rather out of the way; but whatever force this objection may at one time have had, it has now been diminished almost to vanishing point by the great improvements in the means of getting about London quickly and economically that the underground electric railways and motor omnibuses now afford. Once on the ground members will find that all the buildings enumerated are close together in a portion of London mainly given up to science and art, for immediately south of the Imperial College is the Natural History Museum, and even nearer at hand one of the entrances of the fine art galleries of the Victoria and Albert Museum. The reception room for the registration of members attending the Annual Meeting will be in the marble hall of the University, while the reading and writing rooms and the post office will be in adjoining rooms. The annual exhibition will be arranged in the great hall, in the west gallery, and in the galleries overlooking the reception room. The numerous class rooms and laboratories of the Imperial College will afford ample space and all necessary conveniences for the work of the twenty-one Sections.

THE LOCAL GOVERNMENT BOARD CIRCULAR ON THE MIDWIVES ACT.

THE circular just issued by the Local Government Board to boards of guardians calling attention to certain recommendations of the Departmental Committee on the Midwives Act, which is reproduced in full in the SUPPLEMENT, shows very plainly that the Local Government Board is determined as far as its powers allow to impress on the guardians the absolute necessity for taking some steps with regard to medical fees. This is practically the fourth time of asking; there was the circular of the Local Government Board of July, 1907; the circular from the Privy Council of February, 1908; the report of the Departmental Committee, and now the present circular from the Local Government Board, all urging that any medical practitioner summoned by a midwife in cases of emergency should have a secure expectation of payment by the guardians for his attendance on any poor person who is unable to pay a reasonable fee. In spite of all this, many boards of guardians are still practically flouting the advice of these high authorities; in other cases provision has been made which, though in theory in accordance with the request of the Local Government Board, is in practice only an evasion, while in other cases even the niggardly action taken has been taken only after the guardians have received a sort of ultimatum from medical men. It remains, of course, to be seen what the effect of the present circular will be; but things have come to a strange pass when it requires what amounts almost to a strike on the part of medical men to support a Government department in a modest request to boards of guardians to do a simple act of justice. Although the Local Government Board urges so definitely that "it is of immediate importance that medical practitioners should so far as possible feel assured of a reasonable payment for their services in such cases," some scepticism as to the result seems justified. The British Medical Association has contended all along, both in its evidence before the Departmental Committee and in the support it gave to the circular of the Manchester Corporation, that boards of guardians are not the fitting authority for the purpose, but that the Midwives Supervising Committees were the more suitable bodies. This contention was opposed by the Departmental Committee, and the Local Government Board has discouraged supervising committees from making any provision for the payment of medical fees, so that it comes to this: that the more fitting authority for the purpose is hardly allowed to make provision, while the worse authority will not, and between the two, medical men may do the best they can. We appreciate to the full the repeated endeavours of the Local Government Board to do the utmost within its power, but its impotence in the matter is so apparent that it ought to be plain that amendment of the Midwives Act is absolutely essential. In the present position of political affairs, there seems little chance of early legislation, and if any comprehensive scheme for reform of the Poor Law is undertaken, the whole constitution of the Poor Law authority may be changed, even if boards of guardians are not entirely abolished. It is possible that some idea of this sort has weighed with the Local Government Board, but it is greatly to be hoped that some slight response by boards of guardians to the latest appeal of the Board will not be taken as an excuse for delaying legislation any longer than is absolutely necessary. Meanwhile the Divisions of the British Medical Association ought to see to it that they do not accept without protest the inadequate fees that some boards of guardians have offered. The subject of the amount of the fees is now under consideration by the District Nurses and Midwives Subcommittee of the British Medical Association, which will shortly report, and the Annual Representative Meeting will be able finally to decide what it considers to be reasonable. It is to be noted that the Local Government Board thinks that any medical practitioner claiming a fee from the guardians "may properly be asked to state definitely that after making reasonable efforts he had failed to secure payment from the person attended." Much depends on the interpretation of the words "after making reasonable efforts." The question was discussed before the Departmental Committee, and the impression brought away by the witnesses of the Association was that "reasonable efforts" did not involve anything like county court proceedings, and that the authorities ought to be satisfied with a simple declaration by the medical man that he had tried to obtain payment from the patient, but was unable. Thus the guardians themselves are to be responsible to the medical attendant, though "they should be empowered, if they think fit, to charge the fee paid as 'relief on loan.'" It appears from the report of the Royal Commission on the Poor Laws that very little is ever recovered by guardians from patients receiving medical relief on loan, and there may be some practical difficulty in enforcing recovery without a previous agreement with patients, which would not be possible in emergency cases of midwifery. It is plain that legislation on this point will be needed, and it is one of the recommendations of the Commission that "procedure for recovery of relief on loan should be simplified." The other recommendations of the Local Government Board refer to the greater utilization of the maternity wards of Poor Law institutions for the training of midwives and give an important hint as to the supply of midwives for the poor. It is specially to be noted that neither the Board nor the Departmental Committee recommends any general appointment of salaried midwives by guardians. It is regarded as preferable that voluntary agencies should be more utilized, and that the amount contributed by the guardians to nursing associations "should be in reasonable proportion to the services rendered." No doubt the nursing associations will welcome this as a principle that might well be extended to district nurses, as in not a few districts the contributions received have been miserably out of proportion to the services rendered.

VACCINATION IN INDIA.

THERE are indications that India is threatened with a danger the consequences of which might easily prove more disastrous in that part of our empire than either sedition or revolutionary agitations. The medical department of the Government of India has had an enormous task for many years in combating the ravages of small-pox and reducing its prevalence. That these efforts have been crowned with much success is due to the indomitable perseverance of the advocates of vaccination. The accumulated evidence of observers in India points to the same conclusions which similar observations in Europe demonstrate wherever vaccination has been extensively carried out. The obstacles and difficulties attending the introduction and practice of vaccination in a country like India were even greater than have been met with in Great Britain. In this country the comparative absence of small-pox lulls a large section of the community into a feeling of security, which is chiefly responsible for the neglect of vaccination existing at the present time. In India, as stated by Major S. P. James in his work recently reviewed in the

Journal, the great majority of the people are exceedingly childish and ignorant, and opposition to vaccination has been promoted "because it was a measure introduced by the British Government." This fact has provided the National Antivaccination League with an excellent opportunity to scatter broadcast in certain sections of the Indian press their pernicious literature in the form of letters from the pens of writers in England. This is a danger calling for the serious consideration of those in authority. In 1869 nearly 200,000 deaths were registered in India from small-pox. This probably only represents half the deaths actually caused by small-pox in that year, as at that time there was great neglect in the matter of death registration, especially of deaths among infants and children. Even when this neglect of registration is disregarded, and the mortality of the decennial period 1868 to 1877 is compared with the mortality from 1898 to 1907 over half a million fewer persons died of small-pox during the second decennial period. Those responsible for the sanitary administration in India, who are also best able to form a reliable opinion, attribute this great reduction to the protection afforded by vaccination, described by Sir John Simon as "the greatest physical good ever given by science to the world." In another column we publish an article by Lieutenant-Colonel Andrew Buchanan, of the Indian Medical Service, who makes a special appeal to antivaccinists who may without sufficient thought and weighing of evidence contribute to this agitation against vaccination in India, not realizing the dire consequences with which such agitation may be fraught. The evidence he adduces from inspections of school children is surely convincing and altogether unequivocal. Nearly every child was stamped either with small-pox or vaccination. Other object lessons are given for the benefit of the antivaccinator. The terrible sacrifice of life from this preventable disease is not the only aspect for national concern. There is also the disfigurement of those who survive an attack. As Lieutenant-Colonel Buchanan shows, there are many persons still living in India who have seen for themselves the vast contrasts which have been brought about, we might say in the "face" of the nation, since the introduction of what many of the natives regard as one of the greatest boons conferred upon India. If such an ocular demonstration could be given in England, the number of so-called conscientious objectors would soon be reduced to a vanishing point. The influence of the personal appearance argument at home is for the most part in abeyance, but will ere long be revived if a large section of the community are allowed to remain unprotected by vaccination.

THE CARDIFF MEDICAL SCHOOL.

Owing largely to the representations of one of the University Commissioners, Sir Donald MacAlister, a sum of £1,500 a year, out of the Government grant to the University College, Cardiff, was set aside to be applied exclusively to the use of the medical school. Cardiff at the present time possesses only departments of anatomy, physiology, and materia medica, and is therefore not yet by any means a complete medical school. For some years, however, attempts have been made to complete it. The important local asylum has recently been finished and opened, and the staff and authorities of the Cardiff Infirmary have left no steps untried in the direction of making their accommodation sufficiently large for a complete school of medicine. The infirmary has begun the building of a pathological institute, in which not only can the hospital *post-mortem* examinations be made, but in which classes of students can work at pathological anatomy and allied subjects. The name of Colonel Bruce-Vaughan, both as the architect of the new institute and as the collector of the funds necessary for its construction, will always be remembered in this connexion. The Council of University College, Cardiff, has recently, in apportioning the grant of £1,500, acted very wisely. A combined chair of pathology and bacteriology has been created, and the incumbent will not only conduct classes in pathology, but will do the *post-mortem* work for the infirmary, as well as his own original research work. A scheme for the appointment of an additional teacher in pharmacology, submitted by Professor Hepburn, was formally approved; but, inasmuch as this appointment would require a laboratory of pharmacology, for which the funds are not available, it was decided that at present no steps could be taken in this matter. It is, however, hoped that the foundation of a laboratory of pharmacology will be accomplished at no distant date. Also, in addition to a slight increase of the salaries of the Professors of Anatomy and Physiology and that of the Lecturer on Materia Medica, the Council has appointed a special Lecturer in Chemistry to medical students. This is a great advance, for the lectures and practical work necessary for the medical student in chemistry are vastly different from those necessary for an ordinary chemical student or for the mining engineer. The Council will appoint an additional Lecturer in Anatomy, who, in addition to demonstrations on the dead subject, will hold special courses of lectures and demonstrations. In the course of physiology an additional lecturer will also be appointed. The present assistant will also be a lecturer, and will concentrate his attention upon physiological chemistry, while the lecturer still to be appointed will instruct in histology and embryology. The policy of the College Council appears to be sound. It could have completed the school of medicine by a stroke of the pen; but this it wisely refrained from doing. Many schools of medicine have had to struggle against the difficulty of teaching the final subjects adequately, while those of the first three years were badly taught, not only on account of bad laboratory accommodation but because of the paucity of teachers. The Cardiff Medical School is laying the foundations well before it places upon them the superstructure, but to this superstructure it commits itself by the appointment of a Professor of Pathology and by the promises which have been made that pharmacology will be considered. Cardiff is the town in Wales in which a school of medicine can best be developed, and there can be little doubt that the people of Cardiff will themselves furnish the means whereby this development can take place.

THE RIGHT HON. SIR WALTER FOSTER.

The resignation by Sir Walter Foster of the seat for the Ilkeston Division of Derbyshire, which he held by a largely increased majority at the recent general election, will very seriously reduce the strength of the small body of medical members in the present House of Commons. He first entered the House of Commons as member for Chester in the short-lived Parliament of 1885, but was defeated at the general election in the following year. He was, however, not long out of Parliament, for at a by-election in 1887 he won the seat of Ilkeston, which he has ever since easily defended against all assaults. He became Parliamentary Secretary to the Local Government Board in 1892, and in that capacity had shortly afterwards to deal with a risk of the importation of cholera in a more threatening form than this country has seen since that date or for many years before. In 1893 he presided

er the Select Committee on Death Certification, it the Ministry to which he belonged went out office in 1895 before an opportunity for legislation the lines recommended by that committee occurred. is long experience of parliamentary business and rocedure, his wide knowledge of affairs, and the istinguished position he had won in the House of ommons rendered his advice and support invaluable uring the discussion of measures affecting the nterests of medicine and public health. We feel confident that this advice will continue to be given, hough in another capacity, and we think we are ustified in expressing the expectation that his opportunities for influencing the progress of public health eform in the future may turn out to have been increased ather than diminished by his withdrawal at this noment from the House of Commons.

ANTIMALARIA ASSOCIATION IN THE TRANSVAAL.

AN Antimalaria Association has recently been formed n the Transvaal under the auspices of Lady Selborne, who is its President. Lord Selborne presided at the inaugural meeting, which was held on January 25th. Mr. J. C. Smuts, the Colonial Secretary, in a letter of apology for non-attendance referred to the cause as perhaps one of the most beneficent in South Africa: "The most valuable and fertile parts of South Africa, whose climate is otherwise quite suitable for a white population, are to-day rendered unoccupiable by the mosquito." Lord Selborne in his address asked if the day would come when the tropical parts of the world would be able to maintain as vigorous a white race as the temperate climates. He said there were sound and capable people in the world, especially in the United States, who were convinced that that day would come. In regard to South Africa, if such a change came to pass, there was no reason why, in the course of a few generations, the white people of South Africa should not be more numerous than the natives, and the problems which arose around the numerical superiority of the native races would spontaneously disappear. Replying to a possible objection that he had adumbrated ideals which could not be realized, Lord Selborne said that imagination was essential for progress. As an example of what could be done, he referred to the work of Colonel Gorgas, of the United States Medical Service, in Panama, who had reduced the death-rate of a place which a few years ago was deadly to the white man to a figure no higher than that of a similar population in the healthiest localities in the States. The cause of the mortality was malaria, which had been repressed by protective measures. Lord Selborne went on to speak of the importance for South Africa of the movement then started, and added that if they were successful in any degree that meant nothing less than the increase of the white population of South Africa and the better health of those who lived there. Fortunately, in the Transvaal they had a Colonel Gorgas in the person of Dr. Bostock, whose results when in charge of the railway staff in the Kaapmuiden section of the railway line from Komati Poort were in proportion quite as wonderful as his. Dr. Bostock, who proposed a resolution, said if the efforts to reduce malaria in the Transvaal were to meet with their full measure of success it was essential to secure the support of public opinion, and that would only be obtained when the public recognized the danger of mosquitos and understood the part played by these insects in the dissemination of disease. There were other diseases of man carried by insects, such as elephantiasis, carried by *Culex* (filariasis), and tick fever carried by the Tampan tick (spirillosis), and they were threatened in the northern territories with sleeping sickness carried by the tsetse fly, and on the East Coast by yellow fever carried by mosquitos. The latter danger was becoming graver every year owing to the increased facilities for steamship communication. In addition to that, there were numerous stock diseases which were insect-borne, with reference to which the veterinary surgeons had long been setting a good example in the matter of public education. The greatest obstacle to progress in South Africa, the greatest danger to the lives and health of the people, and the greatest cause of financial loss to the farmers was insect-borne disease. He approved of the teaching of the elements of hygiene and the methods to be adopted for the destruction of mosquitos, and suggested the issue of pamphlets, press articles, handbills and posters, and also picture postcards showing the different kinds of mosquitos. If a universal system of such education of school children were adopted, he was convinced that when the next generation of grown men and women occupied the Transvaal, all knowing how easily malaria might be stamped out, the disease would rapidly disappear from the scattered districts of the Colony.

MEDICAL REGISTRATION IN CANADA.

DURING the annual meeting of the Canadian Medical Association at Winnipeg last August, a resolution was adopted instructing representatives of all the provinces of Canada to confer with Dr. Roddick with regard to the legislation which he has promoted for unifying the law as to medical registration in the Dominion. Dr. Roddick entered the Canadian Parliament in 1896 as a member for one of the divisions of Montreal, and was re-elected in 1900 with the express intention of carrying legislation to establish a Dominion Board of Registration, with a council which would deal with all matters relating to the medical profession, so that it should be possible for a graduate, after satisfying the council's demand, to practise anywhere in Canada. A bill was passed in 1902, but there was attached to it the condition that each province should severally agree to the proposal; four provinces passed the necessary concurrent bills, but the remainder stood out. At a meeting held recently in Montreal, under the chairmanship of Dr. Roddick, the matter was discussed with the following representatives: Drs. F. J. Tunstall, Vancouver; R. J. Blanchard, Winnipeg; W. Spankie, representing the Ontario Medical Council; F. N. G. Starr, Toronto; R. W. Powell, Ottawa; Murray McLaren, St. John, N.B.; J. W. Daniels, M.P., St. John, N.B.; John Stewart, Halifax; George M. Campbell, Halifax; T. L. Sinclair, Halifax; S. B. Jenkins, Prince Edward Island; E. P. Lachappelle, Montreal; H. S. Birkett, Montreal; L. P. Normand, Three Rivers, and A. C. Simard, Quebec, representing the Medical Council of the Province of Quebec. Various proposals for the amendment of the Act were fully considered, and the decisions arrived at are such as it is believed will make the project acceptable to all the provinces.

AFTER-CARE ASSOCIATION.

THE annual meeting of this association—established in 1879 to facilitate the readmission into social life of poor persons discharged recovered from asylums for the insane—was held on February 16th at the Royal College of Physicians of London, under the chairmanship of Sir R. Douglas Powell. There was a large attendance, and amongst the speakers were the President, the Bishops of Rochester and of Stepney, Sir W. J. Collins, M.P., Dr. Marriott Cooke and Mr. A. H. Trevor (Commissioners in Lunacy), and Drs. G. H.

Savage, Rayner, Robert Jones, and Hubert Bond. The Secretary, Mr. H. Thornhill Roxby, read the annual report, which stated that during the past year 348 applications were received on behalf of 239 women and 109 men. These had been fully—and many personally—investigated, and, although in some cases relief had to be declined, in the majority assistance in some form was given. The Council was more and more convinced "that personal influence is the essential factor in dealing with cases recovered from mental illness, and of course of this no record can be given"; but it was added that in 1909 about 675 visits were paid and 593 personal interviews held at the office, while more than 4,423 letters had been written with reference to cases. Including a legacy of £45, the total amount received in 1909 was £1,273 7s. 6d. The Bishop of Rochester, in moving the adoption of the report, pointed out that the society covered an area of philanthropy entirely its own, and there could be no fear of overlapping with any other charity. It deserved more public support than its good but unobtrusive work had attracted. All knew the importance of facilities for convalescence in the case of poor patients treated in hospitals for physical ailments, and much money had been given towards the founding and maintenance of convalescent homes. The case of the mental convalescent should appeal even more strongly, for some persons left the asylum without a home to go to, and to others the return to family life needed to be preceded by a period of repose such as the society supplied when necessary. Considering that as many as 8,000 persons annually were discharged from our asylums, there was an immense scope for the society's benevolent operations. Dr. Savage, in seconding, said that unfortunately as soon as persons had recovered from an acute attack of mental disorder they were regarded as well, but though they might be reasonable they could hardly be expected to be able at once to take a responsible part in the work of the world. They needed a period of rest and freedom from anxiety to consolidate their cure, and if this were always possible less would be heard of relapses. Premature return to home duties, and the strain of finding work, were apt to lead to a fresh breakdown, while recurrence need not be feared if time were given for the re-establishment of complete health. He cited instances of permanent cure in old patients of his own who had enjoyed the benefit of the convalescent establishment at Witley (in connexion with Bethlem, where they had been treated for acute attacks), and commended the methods of the society in providing similar means for patients discharged from other asylums, and the personal care exercised by its officials in finding employment suitable for individual needs. Sir William Collins, M.P., in supporting the resolution, said that while there were many institutions for those suffering from marked mental disorder, there were no refuges for those in the transition stage apart from the homes utilized by this society. He thought that most persons after a holiday were troubled with a degree of "agoraphobia"—the fear of strenuous work in the market of the world—and how much more was that so in the case of the mentally afflicted when suddenly thrown out from the comparative shelter of the asylum to the turmoil of everyday life! After Dr. Marriott Cooke had spoken in favour of the society from his own experience as Commissioner in Lunacy, and had announced substantial contributions from colleagues, Sir Douglas Powell, before putting the resolution, expressed his strong personal sympathy with the work of the association. Many an insane person was wonderfully sane on all points outside the purview of his immediate delusion, and could do good work if his delusion were kept in abeyance. If, however, he were "rubbed on the raw," a man just released from the tender treatment of the asylums was very apt to get a relapse; under the shelter of a society like this, whose officers freely offered that loving, personal service which was so necessary on his reintroduction to the outer world, such calamities were avoided. He commended this useful society to the generosity of the public. The adoption of the report having been carried, the election of the officers was proposed by the Bishop of Stepney, who advocated the employment by benevolent persons of those capable of domestic service, seconded by Dr. Robert Jones, and supported by Mr. A. H. Trevor, a Commissioner in Lunacy. The meeting concluded with a vote of thanks to the Chairman, proposed by Dr. Hubert Bond, and seconded by Dr. Rayner. The Secretary of the Association is Mr. H. Thornhill Roxby, Church House, Dean's Yard, Westminster.

REVALUATION FOR RATES AND TAXES.

IN an article appearing elsewhere (p. 515) attention is drawn to the valuation of properties now proceeding for the purpose of arriving at rateable and taxable values for local rates and imperial taxes. These valuations are the usual periodical revaluations and have no immediate connexion with the valuations of *capital* values for the purposes of the land taxes proposed by the deferred Budget of 1909. There is, however, every probability that the latter valuations will to some extent be based on the existing "gross annual value" for income tax purposes, and though the sums to be paid annually for income tax (Schedule A) and inhabited house duty are relatively small it will be well to test carefully the values set upon properties for these purposes with an eye to the further uses that may in time be made of the figures by the taxing authorities.

THE LATE DR. J. HERBERT WELLS.

LAST October we had with sorrow to record the untimely death at the age of 30 of Dr. J. H. Wells, Assistant in the Therapeutic Inoculation Department of St. Mary's Hospital, London, which he had joined after a very distinguished career as a student and as a scientific investigator. He accidentally inoculated himself with a culture of the *Bacillus mallei* with which he was treating a case of glanders. The patient recovered, but he himself died after an illness of eighteen months, borne with admirable fortitude. A fund is being raised to be held in trust for the support of Dr. Wells's widow and two young children, left practically unprovided for. Already the appeal has been before some Divisions of the Association, but it is believed that there must be many other members of the Association who would be willing to contribute, and it is therefore proposed to ask in each Division for subscriptions, great or small, which, when totalled, could be forwarded to the Treasurer of the *Lancet* Fund Committee. Dr. Herbert Tanner, 152, Westbourne Grove, London, W., will be pleased to forward to the honorary secretary of any Division copies of a leaflet setting out the circumstances of the case, which he suggests might be enclosed with notices of forthcoming meetings.

A SOCIAL WELFARE ASSOCIATION FOR LONDON.

A MEETING of representatives of social, industrial, and charitable undertakings in London will be held at the Mansion House at the invitation of the Lord Mayor and the Chairman of the London County Council on March 4th, to consider a scheme for the establishment of a social welfare association for London, the

main object of which would be the promotion of councils of social welfare in each metropolitan borough. The councils which already exist in certain boroughs would be invited to federate with the central association. The association will not, either by its council or local councils, undertake the direct administration of relief in any form, but will seek to co-ordinate existing agencies. It is proposed that the central council should contain representatives of every public authority, of each group of charities, of religious communities, City companies, of the Trades Union Council, and of the National Conference of Friendly Societies. In addition, persons of experience in charitable or social work would be elected, and for consultative purposes officials of public departments or other public authorities would be co-opted. It is proposed that the central council shall work through a number of committees dealing with different problems, such as co-ordination of societies promoting the public health, the welfare of children and young children, rescue, reformatory, and prison work, and medical and surgical aid. Having regard to the last item in this list, it is rather surprising that the proposed association and its council contains no representatives of the medical profession other than Sir John Kirk, G.C.M.G., and Dr. A. H. Downes, one of the inspectors of the Local Government Board. To deal successfully, not only with medical and surgical aid, but with nearly all the problems enumerated, the co-operation of the medical profession will be needful, and it is strange that this has not occurred to the promoters of the scheme. In the metropolitan Divisions of the British Medical Association they had to hand an organization to which application might have been made to nominate representatives who would be in a position to render most useful services; it is to be hoped that it is not too late to remedy this omission.

REPAYMENT OF THE PETROL TAX.

IT may not be generally known that arrangements have been made by which medical men can obtain repayment of the *full* duty (that is, at 3d. per gallon) on all motor spirit that has borne the tax and has been used in the exercise of their profession, so far as it has been received by them during the period from their first using such spirit up to and including December 3rd, 1909. In order to claim such repayment application should at once be made to the local officer of Customs and Excise for the proper form, No. 232 B. In making the application it should be made clear that it is desired to claim the whole duty and not one-half. This is necessary owing to the fact that the form supplied has been drawn up so as to apply to claims for repayment of one-half the duty only. If the officer has not amended the wording before supplying the form the applicant should amend it himself. No arrangement has yet been made for repayment of duty on petrol received subsequent to December 3rd.

THE KING has been pleased to appoint Sir Thomas Myles, M.D., B.C., to be one of the Honorary Surgeons to His Majesty in Ireland, in the room of Sir William Thomson, C.B., M.D., deceased. Mr. E. B. Waggett, M.B., B.C., has been appointed Surgeon in Ordinary to Their Royal Highnesses Prince and Princess Christian of Schleswig-Holstein.

AT the invitation of the University, the Director of the Imperial Cancer Research Fund, Dr. Bashford, visited Utrecht last week, and on February 18th delivered an address before the Medical Faculty of the University on the present position of the cancer problem. On February 20th the inaugural meeting of the Dutch Cancer Committee was held, when Dr. Spronck, Professor of Pathology in Utrecht, was chosen president, and Dr. Bashford gave a second address of a more technical character. Both addresses were delivered in German, and were illustrated by lantern slides.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

The Opening of the New Parliament on Monday was a remarkably brilliant spectacle. Fine weather gave crowds the opportunity of viewing the procession, and the House of Lords presented, in its interior. a more characteristic and splendid sight than of recent years. For the first time for centuries the Peers were seated in the order of their rank, and the Peeresses also sat in the order of precedence. The Ambassadors, Bishops, and Judges in their robes all added to the brilliancy of the array before the King and Court when the Speech from the Throne was delivered. The King's voice was clear and resonant, so that every word was heard; the Speech was short—the shortest on record—but it made up in momentous interest what it lacked in length. After a formal reference to foreign affairs, and the coming establishment of the Union of South Africa it passed to the contentious position in connexion with the financial proposals of the late Parliament, and passed on to the proposals to be made in relation to the differences between the two Chambers. No other legislative measures were mentioned, and thus was it indicated that the two questions of finance and the House of Lords would occupy all the time of the session. It was made clear that no contentious legislation of any other kind could be attempted until these outstanding disputes had found solution. We may therefore look forward to a session full of political and party strife, but likely to be very barren as regards social and sanitary reforms. After the Speech was delivered all interest seemed at once to cease, and the crowded benches, resplendent with the varied colours of official robes and ladies' dresses, were rapidly emptied.

The Debate on the Address was unusually animated in both Chambers, and the movers and seconders in each case were commendably brief. In the Upper Chamber speeches of exceptional importance were made by Lords Lansdowne, Crewe, and Rosebery, dealing with the results of the General Election and their bearing on the constitutional question. The debate closed and the Address was voted before half past seven. In the Commons there was a crowded and anxious House, and the first subject of debate arose over the re-enactment of the sessional orders, when a remarkable alteration in the order with reference to the interference of peers in parliamentary elections was made by limiting the disability hitherto affecting all peers to those who are lord-lieutenants of counties. Then the address was moved and seconded, and the Leader of the Opposition criticized the Speech from the Throne. The Prime Minister replied, defining his position and sketching in outline his plan of business for the opening weeks of the session. The Budget had to be dealt with at once on account of pressing financial needs, but concurrently the questions of the Lords' veto would be opened up by submitting resolutions to the House which would form the basis of bills later in the session. The discussion on Tuesday was opened by a speech from the Labour leader, Mr. Barnes, which, like the speech of the Irish leader on the previous day, showed discontent at the delay in dealing with the Lords' veto. Other speeches followed, and the whole day was spent in a somewhat acrimonious debate till just before the adjournment at eleven. The Fiscal amendment to the Address occupied Wednesday, and was brought to a close on Thursday. The other amend-

ments, some half dozen in number, which might under ordinary conditions be reached, will be shut out by the determination of the Government to vote the Address this week.

Private Members' Bills will have a poor chance this session. The Prime Minister has given notice of his intention to move next week to take all the time till Easter, so that the opportunities for private members will be confiscated till April, and after that there will only be some half-dozen opportunities to press on bills or submit resolutions to the House. There is, consequently, less interest than usual in the ballot for places for bills, and in all probability a much smaller number will be introduced than in recent years. There is, of course, activity on the part of the friends of female suffrage, and the temperance party will seek for places, as will also the Labour members and the Nationalist party. The friends of the Daylight Saving Bill will try once again, and the antivivisectionists will also seek the aid of the ballot. There is one measure of medical interest, the Burial and Death Certification Bill in the charge of Mr. Greenwood, which will be introduced, and then most likely an attempt will be made to introduce an Anaesthetics Bill. The opportunities for private members will, however, be so few this session that much cannot be expected to be done in the way of legislation, and the prospects of any measures affecting the medical profession and public health are unfavourable, both on account of the exigencies of time and the diminished strength of the medical representatives in the House of Commons. The ballot for the introduction of Private Members' Bills took place on Wednesday, with the result that the first eight names drawn were: Sir Robert Price, Mr. Sherwell, Mr. Charles Roberts, Mr. Kerr Smiley, Mr. Hoare, Mr. Gilhooly, Mr. Simon, and Mr. Johnson. The temperance party will be able to introduce their bills by the aid of Mr. Sherwell and Mr. C. Roberts. Mr. Kerr Smiley's bill will deal with Poor Law reform in Ireland, and Mr. Johnson will introduce for the Labour Party a bill to legalize payments by trades unions for Parliamentary representation. Sir Robert Price, who represents an agricultural constituency, may possibly deal with small holdings. The chances of more than three or four bills are very small indeed.

England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

WALES.

RED CROSS SOCIETY.

MR. J. LYNN THOMAS, C.B., made an appeal at the City Hall, Cardiff, on February 19th, for support for the British Red Cross Society. Mr. Thomas is the secretary of the Glamorgan branch of the society, of which the Countess of Plymouth is president, and Earl Plymouth treasurer. In the course of his address, which was followed with keen interest by a large meeting, Mr. Thomas explained that on mobilization a Red Cross general hospital would be established at Cardiff, with 520 beds, including 20 for officers, and convalescent homes at Bassaleg, Porthcawl, Aberystwith, Llandrindod Wells, Llanwrtyd, and other places. It was hoped that the Glamorgan branch would have sufficient funds to place upon the road an efficient ambulance corps of its own. With the aid of diagrams Mr. Thomas showed how the Glamorgan branch would carry on its work in the event of a battle being waged, say, at Merthyr. The Welsh hospital for the Boer war was organized in forty-two days, £10,000 being subscribed; but with the Red Cross Society, supported as it deserved to be supported, such a hospital would in future be ready within a week. The need of the society was emphasized by the striking statement that before the Japanese Red Cross Society was established, 80 per cent. of their soldiers in the Chinese war died from preventable diseases; but in the Russian war (when the society was at work) only 20 per cent. died from preventable diseases. Mr. Thomas concluded by appealing to the Welsh people to assist the Glamorgan branch of the Red Cross Society either by enrolling as members at £1 1s., or as associates at 5s., per year. A donation of ten guineas constituted life membership. Mr. Herbert Lewis, the county director, undertook the formation of the voluntary aid detachments, and would receive the names of those who obtained or possessed first-aid and home-nursing certificates of the St. John Ambulance Association. Mr. Herbert Lewis also addressed the meeting, and the Chairman (Alderman Lewis Morgan, ex-Lord Mayor, Cardiff) expressed his confidence that, after Mr. Lynn Thomas's interesting address, there would be a large enrolment of members in the Red Cross Society.

MINE SANITATION.

An important report on the sanitary condition of mines was presented to the Ebbw Vale Urban District Council on February 15th by its medical officer. A fatal case of glanders had been under treatment at the Beaufort Isolation Hospital in October last. The medical officer stated that the man was a haulier, and as this case was one of several fatal ones which had occurred at various times amongst men working underground in the district, whose deaths were considered to be probably due to the surroundings amongst which they worked, the medical officer applied to the Ebbw Vale Company for permission to visit the pit in which the man had worked, but the request was refused. As the facts which might enlighten the Council as to the cause of these fatalities were therefore not available, the medical officer said he was compelled to give credence to the views current amongst the workmen, which pointed to the great probability that the sanitary conditions prevailing underground were of a most unsatisfactory nature. As this matter involved the health of many thousands of men, it was due to all concerned that a Government inquiry into the causes of the deaths should be held as soon as possible. The medical officer further suggested that the Council should communicate with the Home Office or the Local Government Board. After discussion, it was decided to forward a copy of the report to the Ebbw Vale Company, and to ask that permission be given to the medical officer to inspect the conditions underground before taking the course suggested.

PONTYPRIDD SCHOOLS.

In his report on the health of children in the Pontypridd Council Schools submitted to the education authority on February 8th Dr. E. J. Griffiths, the medical inspector, stated that barely 10 per cent. of the children had perfectly sound teeth. The only way to deal adequately with the amount of dental disease existing among school children was the establishment of school dental clinics and the appointment of one or more part-time dentists. The inspector was instructed to impress upon parents the importance of paying more attention to the state of the children's teeth. As to defective eyesight, a committee recommended the acceptance of the tender of a local jeweller to supply glasses, and that "spectacles be only ordered direct in the case of children whose parents are proved to be too poor to defray the cost." The recommendations were adopted.

ABERSYCHAN CELLAR DWELLINGS.

The Abersychan Urban District Council on February 14th considered the question of closing a number of cellar dwellings. A Labour member said he did not object to closure, but did not know what the tenants were going to do. The sanitary inspector said that some of the occupants had been in hospital on account of the insanitary surroundings, and the chairman added that some of the tenants had been taken to the asylum. The Council decided to issue closing orders as to a number of those dwellings.

MANCHESTER AND DISTRICT.

HOPE HOSPITAL.

AFTER a struggle lasting more than six months the dispute between the Salford Board of Guardians and the Salford Division of the British Medical Association has, it is hoped, been finally settled to the satisfaction of the medical profession. The dispute originally arose out of the resentment felt at the way in which the guardians treated the medical officers. Not only was the hospital seriously understaffed, but the salary of the senior resident medical officer was "miserably inadequate," and he had practically no administrative powers of which he could be sure. Responsibility was divided between him, the matron, and the steward, with the result that chaos reigned throughout the hospital, and was made still worse by the action of the guardians themselves. Taking as opportunity a time when the senior resident had not been reappointed, a warning notice was placed in the JOURNAL, and the Salford Division asked that there should be three whole-time resident medical officers instead of two—not a very great demand considering that the hospital has between 800 and 900 patients—and that the senior resident should have an adequate salary with full administrative control. The guardians refused these requests, but soon found themselves unable to replace the senior medical officer when his time expired, and they were obliged to engage a locumtenent at six guineas a week. Not long afterwards the junior resident also left, and again the guardians were unable to fill his place, as all the applicants, on hearing of the state of affairs, withdrew their applications. A second locumtenent had to be engaged, and the hospital has been staffed, so far as its resident officers are concerned, by two locumtenents for nearly five months. The Local Government Board intervened and held an investigation, as a result of which the guardians decided to do practically what the Salford Division had suggested at first. They obtained the necessary sanction of the Local Government Board to appoint a medical superintendent who, though not to be actually resident, was to devote his whole time to the work and to reside close by the hospital. The salary offered was to be £350, rising by £50 a year to £500, with an allowance for house rent and rates, and he was to have two assistant residents. The sanction of the Local Government Board, however, did not necessarily mean that the guardians would carry out the scheme immediately, and a conciliatory request addressed by the Salford Division was answered by a refusal on the part of the guardians to give any information. For the third time the guardians advertised for two assistant medical officers, but were unable to obtain any. They have now, however, advertised in the public press for a medical superintendent on the terms mentioned above, and, as this is a practical assurance that they intend to carry out the scheme approved by the Local Government Board, the warning notice has been withdrawn.

The loyalty of the profession to the Salford Division has been most marked. Strange as the statement may seem, there is no reason for thinking that the guardians are radically opposed to the medical profession; they have simply stumbled against a new strange fact, which they required several months to assimilate, namely, that public bodies in the future may have to deal with a united profession and not with mere individual medical men, and they have come, perhaps tardily, but it is believed sincerely, to see that a starved and stinted medical service cannot be successful from a public point of view. With the withdrawal of the warning notice, there are now no professional objections to the new system which the Salford guardians are inaugurating at Hope Hospital.

MEETING OF THE MEDICAL PROFESSION ON THE REFORM OF THE POOR LAW.

An important meeting of the medical profession of Manchester and district was held on February 14th at the Midland Hotel, Manchester, to consider the reports of the Poor Law Commission, and especially to hear an address by Mr. J. Smith Whitaker. The chair was taken by Dr. T. Arthur Helme, and there was an attendance of over 100 medical men.

The Chairman said it would be interesting to know how many of those present had read the reports of the Commission, which were of such vital importance to the profession. It was evident that reform was in the air, and drastic innovations were proposed. The suggestions that in the future whole-time officers should take the work of general practitioners ought to make all members of the profession consider the subject, or they might find the matter settled for them, and but scant courtesy shown to the general practitioner by the State. He appealed to them to judge matters in a broad spirit, and to endeavour to obtain unanimity. As a leading article in the BRITISH MEDICAL JOURNAL had recently said, "the mere machinery of the British Medical Association is sufficiently complete for the purpose in hand, but the most perfect machinery will be useless failing the motive power of a united profession, strong enough in its convictions to sink all minor internal differences." In introducing Mr. Whitaker, the Chairman said he had the greatest pleasure in welcoming him to Manchester.

Mr. J. Smith Whitaker, who was received in a most cordial manner, said that the Poor Law Commission was appointed by Mr. Balfour in 1905, and issued its report about twelve months ago. A special committee of the British Medical Association was considering the report, and within the next few months would have formulated its recommendations for the consideration of the Divisions. The reference of the Commission had been interpreted to include all agencies through which persons poor or otherwise were provided with necessaries by any society. The Commission had even gone outside its reference in dealing with provident associations. The interim report to the Divisions recently issued showed how large was the number of agencies providing medical relief. It was important to note that many of these—the sanitary service, for instance—were mostly free, and, though primarily in the interest of the community at large, operated also in the interest of the individual. The Midwives Act was intended to protect the community, but the State had been driven to provide medical attendance. A similar provision was being made for ophthalmia neonatorum in the Potteries, where it had been shown that it would be cheaper for the authority to pay for nursing and medical attendance at first than to neglect these cases and afterwards pay for the education of the blind. In the same way medical inspection of school children had shown the need of medical treatment to follow, and he drew special attention to the policy of the British Medical Association in resisting attempts to throw such treatment on charitable hospitals. The result of all these efforts was an immense amount of overlapping of the agencies. As Dr. McVail had well said, the Poor Law was a cripple resting on two crutches—general hospitals on the one side and the unpaid services of medical practitioners on the other. The four forms in which medical aid was provided were private practice, contract practice, the public services, and medical charities. In private practice the practitioner was often not paid at all. In contract practice, as the Majority Report pointed out, medical men had contracted to give their services "at a lower rate than was desirable from any point of view." As for the public services, the Commission also pointed out that the majority of Poor Law medical officers received salaries which are "miserably inadequate," while the bulk of the staffs of charitable hospitals are not paid at all; and yet, said Mr. Whitaker, "this is an occupation which men take as a means of livelihood!" It was no use to say that the rich paid too highly, for even if it were true, the fees did not go into the same pockets. Mr. Whitaker then gave a brief sketch of the Majority and Minority schemes, pointing out that the essential differences were not so great as was often thought. Broadly speaking, the idea of the Majority was to encourage providence, and much of its scheme for provident dispensaries had been borrowed from the

British Medical Association, while the Minority proposed that the Poor Law and sanitary services should be merged into one, and that there should be an extension of whole-time officers. Speaking of invalidity insurance, probably something on the analogy of foreign systems would be adopted, and insurance would be compulsory, employers, employees, and the State all contributing to the funds. On this the medical profession ought to have something to say, and especially on the question as to how far it ought to be carried out under the friendly societies. It had often been objected that the British Medical Association was not by its numbers sufficiently representative of the profession, but there was no other organization so representative. Instances were quoted of cases in which the Association had been able to obtain better terms and conditions for the profession from public bodies. The prospect of closer contact with the public authorities must be faced. It was not correct to say that public bodies were generally opposed to the profession, nor could it be contended that what public men thought to be necessary for the community should not be allowed, because it was not quite convenient to medical men; the demand of the profession should be that under any scheme medical men should be properly treated, adequately paid, and work under proper conditions. He appealed to members to take an active part in the work of the Divisions; only local Divisions could deal with local authorities, and local Divisions should settle what salaries were suitable for local men. He insisted that the profession should have a well-marked policy with regard to the coming changes, and should organize itself so as to be able to exert its influence in the proper direction.

Dr. E. Vipont Brown congratulated Mr. Whitaker on his impartial summary of the reports of the Commission. For his own part he held a brief for the Minority Report, and had been in communication with the leaders of the Minority scheme. The profession would soon have to choose, not for itself, but for posterity's sake. He agreed with Dr. Downes that the Majority scheme was too complicated, and therefore unworkable. The great objection to the provident dispensaries would be that they would be managed by the enemies of the profession. It was true that the British Medical Association would also be represented, but the old oppressors would be there in force. What guarantee would there be against exploitation of the profession? A wage limit would be refused by the friendly societies, and the medical representatives would be two or three sheep in a pack of wolves; to regard the presence of representatives of the British Medical Association on the Medical Assistance Committee as any guarantee showed a simplicity of faith that ought to qualify for a lunatic asylum. He held that all contract practice ought to be managed by the profession itself. Under the Minority scheme attendance on the poor would be by whole-time well-salaried medical officers, appointed by the Council and under the direction of the chief medical officer, who would have three staffs—domiciliary, institutional, and sanitary; and it was the intention that any official of these three staffs should have the chance of rising to the head post. The Minority ideal was to keep the community in health and to prevent disease. The Majority ideal was to give a bottle of medicine like the provident dispensaries of to-day. The profession had to choose which was the best for the community and the profession, provident dispensary work or a scheme under which every man might rise to a position comparable to that of the medical officer of health of Manchester.

Dr. D. Owen said that, while he admired Dr. Brown's enthusiasm, he thought it was above all necessary to be practical. There was every reason to be proud of the work of the British Medical Association, and the recognition accorded to the Association by the Royal Commission was most satisfactory. It had to be remembered that the provident dispensary in Manchester had been a complete failure and the Medical Guild had really come into existence to oppose it. He sometimes wondered whether it would ever be possible to have a provident dispensary system managed by the profession and yet receiving a subsidy from the State. The Majority Report aimed at justice to every member of the profession and would give every man an equal chance. The Minority proposals, on the other hand, as far as the medical part of the scheme was concerned, emanated mostly from medical officers of health, and that being so, the general body of the profession should form its own opinions on them.

Dr. Russen Rhodes thought the meeting ought to be the first of a series. There was nothing wrong in combinations for self-protection. The interests of the profession ought to be protected for the sake of the public. He gave a summary of the article by the late Dr. Milson Rhodes which appeared in the BRITISH MEDICAL JOURNAL for January 8th. The article described several Continental systems of public medical assistance, and contained a sharp criticism of the Minority Report. It made valuable suggestions for a reorganization of the medical department of the Local Government Board, and recommended that, without interfering with present district medical officers, "all medical men of good habit and repute should be placed on the list of medical officers," that the "extra fees" should be revised, and that the profession should be more fully organized.

Dr. Taylor proposed the following resolution:

> That, in the opinion of this meeting, no reform of the Poor Law medical service can be effective without concomitant reform of provident and charitable medical agencies; that no medical service under a Sickness and Invalidity Insurance Act will be satisfactory to the medical profession that is worked on the lines at present adopted by many of the friendly societies; that, inasmuch as the Royal Commission was not fully equipped for dealing with the details and intimate relations between provident agencies, charitable hospitals, and any public medical service, this meeting calls on the Government to appoint a departmental committee, on which the medical profession should be properly represented, to fully consider these matters before legislation is undertaken.

Dr. Taylor said the Council of the British Medical Association had already approached the Prime Minister with a request for a departmental committee, and his resolution was to support that request. The great danger of the present time was piecemeal legislation; any reform of the Poor Law would be stultified if there were not concomitant reform of the charitable hospitals. At present discontented persons could simply play off one agency against another. It had been suggested that the out-patient departments of hospitals should be confined to casualties, consultations, and cases requiring special equipment, and whether that suggestion were adopted or not, some scheme would have to be devised to delimit the spheres of activity of the various agencies. It was plain that the public medical service of the future would not be confined to paupers; and the profession would soon have to make up its mind whether there should be a free service for all comers, or whether those should pay who can. The Minority Report laid stress on the duty of the community to the individual, while the Majority laid the emphasis on the duty of the individual to the State. Whatever certain doctrinaires might say, reasonable men would demand that every individual should make some self-provision against sickness as far as his means allowed. That, however, was the difficulty, for there was a probability of an extension of club practice, the most abominable form of medical practice as it existed to-day that the ingenuity of the devil, assisted by medical men, ever invented. There was a distinct fear that a Sickness and Invalidity Insurance Act might be worked through or in conjunction with the friendly societies, with their miserable fees, their absence of wage limit, and their wanton power of dismissing their doctors at the whim of a clique. He thought the meeting would only be doing its duty by conveying a strong intimation to the Government that any proposal involving this would not be satisfactory to the medical profession.

Dr. P. Cooper seconded the motion. He thought that every man ought to be insured against sickness, and that the State should help when necessary, while

medical men should be paid for their services by a special insurance department.

As the hour was now late, and many members evidently desired to speak, it was decided to adjourn. A hearty vote of thanks was accorded to Mr. Whitaker for his address and to Dr. Helme for his services as chairman.

HULL.

EAST YORKSHIRE DIVISION.

Address by Sir Victor Horsley: Dinner.

AT a meeting of the East Yorkshire Division of the British Medical Association held in Hull on February 18th, Sir Victor Horsley delivered an address, and in the evening he was the guest at dinner, which was also attended by a number of guests, including the Mayor and Sheriff of Hull; Dr. H. D. Johns, Chairman of the Division, presided.

The toast of Sir Victor Horsley, "Our Honoured Guest," was given by Mr. E. H. Howlett, Senior Surgeon to the Hull Infirmary, who recalled how, when he was a schoolboy in Kent, there lived near by a man who had attained great eminence in the world of art, the late Mr. J. C. Horsley, R.A., the father of the guest of the evening. Mr. Howlett recalled the value and importance of the numerous researches in neurology which Sir Victor Horsley had carried out, and the part he had taken in regard to the official inquiries into vivisection, and, in conclusion, said that their guest had always championed the rights of the medical profession. Sir Victor Horsley, in reply, said that he regarded it as an inestimable privilege that he had been allowed to enter the medical profession, the greatest open to any man, and one which involved inevitably public work, for when a doctor was helping an individual medically he was helping him as one of the pillars of the State. He thought that the profession still failed sufficiently to recognize how much it could help the municipal authorities, and, referring to the work of the British Medical Association in connexion with the medical inspection of children, expressed the opinion that if the medical profession would formulate its opinions on purely medical points, and present them to the Government as a matter of business, they would be accepted. Turning then to the Royal Commission on the Poor Laws, he said that the medical profession held that the system was in a bad state medically, and that the paupers did not receive proper medical treatment. The matter had not hitherto been considered from a scientific point of view; let any particular surgical treatment be thought of, and let it be asked whether the surgery done in workhouses or workhouse infirmaries was exactly the kind of practice which would be carried on in private. At the outbreak of the Boer war the British field hospitals were supplied with sets of amputating knives to perform operations which were now hardly ever done, or were done in a much more precise and refined manner. A very similar state of things existed with regard to the Poor Law; it appeared to be expected that an amputation was to be a common operation. Again, the schedule of fees to be paid to medical officers dated from 1842, thirty years before antiseptic surgery. It was the duty of the medical profession to help the municipal authorities to make the lot of the citizens of the United Kingdom healthier and happier.

Mr. T. Gregson, Chairman of the Executive Committee of the Victoria Hospital for Children, Hull, in proposing the toast of "The Chairman and the British Medical Association," remarked that Dr. Johns had been for some time medically responsible for the convalescent home at Hornsea. After discussing the possibility that in the near future hospitals might be handed over to the State, he expressed the hope that the medical attendants would in that case receive proper and complete remuneration, and concluded with a tribute to medical men for their voluntary services to hospitals.

Dr. Johns, in acknowledging the compliment, gave a short account of the origin of the British Medical Association seventy-eight years ago, and of its spread throughout the United Kingdom and the colonies.

Dr. W. Holder, Past-Chairman of the Division, proposed the toast of "The Mayor, Sheriff, and Corporation of Hull," and, speaking as a Poor Law medical officer of thirty years' standing, bore witness to the consideration which the officers of the service received at the hands of the Corporation; he thought that sometimes the press was inclined to report what he might call the fireworks of a debate, and failed to let the public understand the great work done by the members of the Corporation in committee.

The Mayor, in his reply, said that he recognized the valuable services the members of the medical profession had rendered in the council, especially in connexion with sanitary reform. Personally he would deplore any alteration in the existing system of the medical treatment of school children; it was essential that there should be medical inspection, but to treat the whole of the children of the country out of the rates would, apart from its great cost, seriously interfere with the position of the medical profession.

The Sheriff also responded, and after Dr. Frank Nicholson had proposed and Mr. C. D. Holmes, a member of the Committee of Management of the Hull Royal Infirmary, had acknowledged the toast of "The Visitors," the evening came to an end.

LIVERPOOL.

MEDICAL INSPECTION OF CHILDREN.

AT the City police court lately, before the stipendiary magistrate, summonses were heard in four cases against parents for not taking steps to remedy or provide for the physical defects of their children as revealed by the school medical inspection. These were the first prosecutions under the Act in Liverpool. Three of the children had defects of vision and a fourth had enlarged tonsils and adenoids. The defects were discovered in May last and reported to the parents, who had taken no steps to have them remedied. In some of the cases they pleaded inability to secure the necessary medical aid. Latterly the three visual cases had applied to hospitals; with regard to the other case, which required operation, the parents said they were not aware that they could secure hospital treatment free. The magistrate adjourned the cases for three weeks. Up to the present no definite policy with regard to the treatment of such cases has been adopted by the profession or the authorities, and, except in the case of children whose parents can afford to pay professional fees, the great majority of them are apparently attended to in hospitals. It is to be hoped that the publicity given to these cases will draw attention to the need for some systematic provision for the medical treatment of school children suffering from physical defects.

LIVERPOOL SCHOOL OF TROPICAL MEDICINE.

The Mary Kingsley Medal of the Liverpool School of Tropical Medicine is awarded to two classes of men who have done good work in this connexion, namely, to those who have advanced the cause by administrative efforts, and those who have advanced it not less by scientific researches. The award of the medal for 1909 has been made to the following in the first-named class:

1. Mrs. Pinnock, in recognition of the services rendered to the cause of tropical medicine and sanitation by her brother, the late Sir Alfred Jones, founder and first chairman of the school.
2. Mr. William Adamson and Professor William Carter, for the assistance they rendered in the foundation of the school.
3. Prince Auguste d'Arenberg, President of the Suez Canal Company, for his campaign against malaria at Ismailia.
4. Sir William MacGregor, G.C.M.G., now Governor of Queensland, for his services to sanitation and to tropical medicine while he was Governor of Lagos.
5. Surgeon-General Walter Wyman, Head of the Marine Hospital Service of the United States, for the fine organization which he has given to the service under him, and for the manner in which he has always supported scientific principles in the matter of public sanitation.

6. Sir Alfred Keogh, K.C.B., recently Director-General of the Royal Army Medical Corps, for the fine organization which he has given to the service under him, and for the manner in which he has always supported scientific principles in the matter of public sanitation.

The following have been awarded the medal for valuable contributions to the scientific and educational side of tropical medicine:

1. Professor R. Blanchard, Paris, for his services to medical entomology and parasitology.
2. Dr. Anton Breinl, recently Director of the Research Laboratories of the School at Runcorn, and now Director of the Tropical Diseases Institute in Queensland, for the services which he rendered to the school during his connexion with it.
3. Professor Angelo Celli of Rome, for his long studies of malaria and other parasitic diseases in Italy, and for the campaign against malaria which he has led during the last ten years.
4. Dr. C. W. Daniels, Director of the London School of Tropical Medicine, for his services to scientific research, and to the cause of education in tropical medicine.
5. Surgeon-Colonel King, Indian Medical Service, for his sanitary labours in the Southern Presidency of India, and for his efforts regarding the foundation of the King Institute at Madras.
6. Professor Dr. Nocht, Director of the Hamburg School of Tropical Medicine, for his services to scientific research and to the cause of education in tropical medicine.
7. Professor G. H. F. Nuttall, Quick Professor of Parasitology at Cambridge and External Examiner in Tropical Medicine to the University of Liverpool, for his researches in parasitology.
8. Major Leonard Rogers, Indian Medical Service, for his researches in every department of tropical medicine for the last fifteen years.
9. Professor J. L. Todd, formerly Director of the Research Laboratories of the School at Runcorn, and now Associate Professor of Parasitology at McGill University, for the services which he rendered to the school during his connexion with it.

NEWCASTLE-ON-TYNE.

THE NORTH OF ENGLAND GLASGOW UNIVERSITY CLUB.

IN the County Hotel, Newcastle, on February 17th, the members of the North of England Glasgow University Club held their annual banquet, at which they entertained as guests Dr. John Cleland, Emeritus Professor of Anatomy, and Mr. William Jack, M.A., Emeritus Professor of Mathematics in the University of Glasgow. The chair was occupied by the President, Dr. Frank Russell, who was supported by the Presidents of the College of Medicine and Armstrong College, and by many well-known medical men of Newcastle and neighbourhood. It was a large and representative gathering. The toast of the evening was entrusted to Dr. Inglis of Hebburn, who proposed "Alma Mater" in very appropriate terms, making allusion to the fact that notwithstanding the centuries which had passed over it, the University of Glasgow was still a great institution for teaching, since it had kept pace with modern requirements and methods. Professor Cleland, after thanking the members for the hearty reception given him, alluded to the many changes which had taken place in the professoriate of the university since his connexion with it, and to the improvements in teaching which the last few decades had seen. Warming up to his subject and becoming delightfully reminiscent, he gradually dropped into a speech of a highly interesting and scientific nature, in which the man and his subject were seen to their best. Professor Cleland was much applauded, and similar applause awaited Professor Jack, whose long acquaintance with the university, its professors and students, gave him the opportunity of reminding the members of the many distinguished men who had filled chairs in the Arts and Science Faculties, of whom Lord Kelvin was the greatest. His personal reminiscences of the late Lord Kelvin were pleasantly and kindly given. In Dr. Dickie of Morpeth the toast of "Other Universities and Seats of Learning" had an able and sympathetic proposer, while in Principal Hadow of the Armstrong College was found a racy and interesting respondent. A feature of the annual banquet recently introduced is the inclusion, as associates, of graduates of Aberdeen University. To Professor Wright Duff was therefore assigned the toast of "The North of England Glasgow University Club," which was most suitably and ably responded to by the President. Altogether a most delightful evening was spent, thanks to the excellent arrangements made by the Honorary Secretary, Dr. J. Templeton Dunlop, and the liberality of the President, who provided the music and song.

DINNER OF PAST AND PRESENT STUDENTS.

The annual dinner of the Past and Present Students of the University of Durham College of Medicine, recently held in the College of Medicine, under the chairmanship of Dr. W. C. Beatley, was most successful and pleasant. Many of the old students, now busy men in practice, came from various parts of England. The speech of Lord Durham, one of the guests of the evening, was, as might be expected from that nobleman, one of the events of the evening, and was much appreciated. The speeches made by some of the present students were of an unusually high character.

DUST, FOG, AND SMOKE.

Under the auspices of the Incorporated Institute of Hygiene, a lecture on Dust, Fog, and Smoke and their Effects upon Health was delivered by Sir Thomas Oliver, M.D., to a very large audience, in the Town Hall, Gateshead, on February 16th. As one of the consequences of this lecture it is more than probable that attention will be given on Tyneside to smoke abatement, the necessity for which is more than apparent. Towards the close of the lecture Sir Thomas, through the kindness of Professor Bedson, of the Armstrong College, gave a demonstration of how colliery explosions occurred through the firing of coal dust by means of naked lights. This, the third lecture of the season, reflects most creditably upon the care which the Honorary Secretary, Dr. G. H. V. Appleby, has brought to bear upon the duties he has undertaken.

THE DENTAL SCHOOL.

The need long felt by dental students attending the College of Medicine for a full curriculum there and at the Dental Hospital, Newcastle-upon-Tyne, is now likely to be met. The fact that the Senate of the University of Durham has decided to grant a diploma in dentistry has brought the matter to a climax, and as a consequence a full course of instruction in dentistry has been arranged.

THE CHAIR OF MATERIA MEDICA.

Owing to the resignation of Professor McBean the Chair of Materia Medica has been declared vacant. It is more than likely that the duties of the chair will be divided. The kindly feeling of all old students will accompany Professor McBean into his well merited retirement.

BIRMINGHAM.

SANATORIUM TREATMENT AND AFTER-TREATMENT.

PATIENTS were first admitted to the Salterley Grange Sanatorium belonging to the Corporation of Birmingham on January 7th, 1909, and down to the end of the year 76 in all were taken in. The medical examination of the applicants for admission was commenced by Dr. Douglas Stanley in November, 1908, and from that date to October, 1909, 256 patients were examined. Of these, no fewer than 177 were declined as unlikely to benefit sufficiently from treatment in the institution. Many of the cases were in an advanced stage of consumption, as is shown by the fact that 46 have already died. Down to the end of the year 48 patients had been discharged, after an average stay of 118 days in the case of males, and 109 days in the case of females. Four patients left soon after admission for various causes. Of the remaining 44, in 17 the disease was completely arrested, 18 were much improved, 5 were improved, and only 4 showed no improvement. In January last 35 of the discharged patients were re-examined; the majority were in more or less regular employment, and appeared to be well maintaining the improvement made while under treatment. A few of the patients had found it difficult or impossible to obtain work, and the continued anxiety and faulty nutrition entailed by this lack of employment

had had a prejudicial effect on their health. The question of the after-care of discharged patients, as well as the care of the dependants of persons under treatment at the sanatorium, formed the subject of a conference between representatives of the boards of guardians of Birmingham, Aston, and King's Norton, representatives of the City Aid Society, the Charity Organization Society, and of the Health Committee. These bodies are rendering valuable assistance, both to discharged patients in necessitous circumstances and also, where the circumstances require it, to the families of patients undergoing treatment, so making it easier for these patients to stay in the sanatorium for the requisite time.

TUBERCULOSIS AND THE MILK SUPPLY.

The scheme recommended by the Health Committee for securing milk free from tubercle bacilli has been in force during the past year; it is restricted to herds within 10 miles of the city the milk from which is sold in Birmingham. A circular letter was issued by the medical officer of health, and 20 farmers applied to have their dairy herds tested. The request was complied with in 16 instances, and in 4 others declined, because in 1 instance the farm was outside the area, in 2 the milk was not sold in the city, and in 1 the sheds were unsuitable. In the last case the sheds are in course of improvement. As a result of the measures adopted, tuberculosis has been eliminated from 8 herds, which are now being kept free, only non-tuberculous stock being purchased; 5 herds are in course of being freed. In 3 instances, on account of the high percentage of infected cows, the farmers, after the first test, declined to proceed urther in the matter for the present. Altogether, of 803 cows tested, 567 were found to be unaffected, and 236 were rejected. The cost of this important work has so far amounted to £67. The committee has been considering the salary paid to Mr. John Malcolm, veterinary superintendent, and has recommended that it be increased from £800 to £900. The salary was last increased in 1903.

BRISTOL.

THE UNIVERSITY COLSTON DINNER.

THE annual University Colston Society's dinner had to be postponed from Founder's Day, January 14th, on account of the General Election, but this does not appear to have had any effect upon the success of that held on February 17th. This, the eleventh that has been held, was of special interest, as the guest of the evening was Sir William Ramsay, who was associated with Bristol University College in the early Eighties. The President for the year was Mr. Edward Robinson, late Lord Mayor of Bristol, and he announced during the evening that £477 had been subscribed. This form of honouring the memory of a great philanthropist is probably peculiar to Bristol, and is certainly of very material assistance in this instance to the university. The absence of the Honorary Secretary, Mr. J. W. Arrowsmith, through indisposition was a source of much regret, but in a letter he suggested that the members of the society might endeavour to subscribe annually sufficient to endow a chair in the university. The Bishop of Bristol proposed "The Health of Sir William Ramsay," and in reply the guest of the evening said he had the pleasantest memories of his life in Bristol, and gave amusing instances of how he gained the chair at Bristol and University College, London. It appears he was examined in his knowledge of the Dutch language, in which he had a testimonial, and in his translating powers on a theological treatise. Incidentally he referred to the value or otherwise of testimonials, remarking that the reader of them was prone to pay more attention to omission than to positive statements. Private letters were more likely to be accurate. Sir William also referred to the remuneration of professors, remarking that had a scientific professor given his attention to the business rather than the educational side, his income would be much larger. He doubted whether the public ought to accept the self-sacrifice of such martyrs. Underpayment meant that the chairs would be filled by men of mediocre talents and capacity, with the result that the students would suffer. He did not say that this had happened in England, but it had in America. The qualifications that a professor needed were teaching power, organizing power, and fame as a researcher. To obtain all three was rare, but he gave the preference to research. Referring to the work he had to do in Bristol while connected with University College, he said that it was so arduous, that he was certain he could have done better if he had done less. On the subject of scholarships, Sir William Ramsay said that it would be far better to award them after a confidential inquiry to those who would otherwise be unable to follow out their career. The money stimulus was a wrong one to dangle before the eyes of a youth, a wrong incitement to learn. The Right Hon. Henry Hobhouse proposed "The City of Bristol," which was replied to by the Lord Mayor and Sheriff; and the President of the Chamber of Commerce proposed "The University of Bristol," and Sir Isambard Owen replied. Mr. J. H. Howell was conducted to the chair as President for the year.

LONDON.

TREATMENT OF SCHOOL CHILDREN.

Hampstead.

THE Day Schools Subcommittee reported to the Education Committee of the London County Council on February 23rd as to the permanent provision to be made for the medical treatment of school children in Hampstead, the term during which the local Council of Social Welfare had undertaken to do the work having almost expired. The subcommittee made no comments on the experiment now concluded, but stated that the medical practitioners of Hampstead had formed themselves into an association under the title of the Hampstead Public Medical Service and were prepared to provide treatment for 400 children (the estimated number likely to require it) suffering from eye, ear, nose and throat affections, and from ringworm, at a cost of £155 per annum. The association would provide and fit up a special department to be approved by the Council, and treatment would be arranged as follows: 10 eye cases, 6 ear, nose and throat cases, and 2 ringworm cases, once a fortnight—one clinical assistant being appointed in each department. The subcommittee recommended the acceptance of this offer. A protracted debate took place. To meet the views of members who objected to grants of public money being made to private bodies, a clause was inserted into the agreement with the association securing the council the right of inspection, and the recommendation was then agreed to.

Recovery of Charges.

In a further report on the subject of the recovery from parents of the cost of medical treatment of school children, the Day Schools Subcommittee submitted, in place of the scale of payments approved on December 22nd (BRITISH MEDICAL JOURNAL, January 1st, 1910, p. 47), a scale of remissions to parents of the full cost of treatment, based on net incomes. To this change of method the tentative approval of the Finance Committee had been given. The subcommittee pointed out that although it was obligatory on the Council to make some charge, however small, there was no obligation to take steps to enforce the payment in cases where parents were not in a position to pay owing to circumstances other than their own default. In cases where the net income of a family of five was below 17s. 6d. a week legal proceedings to recover the amount charged would not be taken unless special circumstances justified such action. Considerable opposition was shown to the scale submitted, on the ground that the charges were too high. An amendment that a purely nominal charge be made for ringworm treatment was defeated, and the recommendation of the subcommittee was then carried.

Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

Poor Law Reform.

At a recent meeting of the Statistical Society of Ireland Professor Jones of Belfast delivered a lecture entitled Pauperism and Poverty. After sketching the history of the various efforts that had been made from time to time to grapple with the question, he proceeded to deal with the subject as it affected Ireland, and pointed out that nearly two-thirds of the institutional poor in Ireland were either sick or belonged to the class of aged and infirm. In Ireland, as in England, the qualification of destitution, literally understood, had broken down. The class relieved consisted of farmers, labourers, and tradesmen or their families; but because of the workhouse tradition of deterrence these sick persons, whose restoration to health was of great importance to many, were provided with the roughest beds in unplastered rooms, were attended by unpaid inmates as nurses, and were treated much worse than the lunatics. As remedies for these conditions he presumed that all were agreed that the workhouse should be abolished. In his opinion it was necessary to dissociate the treatment of sickness from the Poor Law, and to deal with it as a health problem, and not as a poverty problem. He urged the cleansing of the out-relief lists, the granting of adequate help after the fullest inquiry, the appointment of women inspectors in the towns, and commended the proposal to place infants in nurseries. For vagrants and casuals he would provide labour colonies. As regards administration, he would enlarge the councils of the counties and county boroughs, and would entrust to a committee of each council what remained of the work of public assistance after handing over the medical work to the public health authority and the aged to the pension authority. Amongst other suggestions he advocated the abolition of the guardians, and the enlistment of voluntary workers to supplement the work of the public health and other officials.

Professor Jones's lecture was discussed by several speakers, all of whom were agreed that reform was necessary. The most important problems, in the minds of some, concerned the treatment of children, the retention of the principle of deterrents for the able-bodied, and the necessity of adopting county as distinct from union rating.

Housing Question in Killiney.

A memorial signed by over eighty residents has been sent to the Urban District Council of Killiney and Ballybrack, calling attention to the houses of the working class in that district, and urging the Council to make a radical improvement by exercising its powers under the Public Health and Housing Acts. The houses, it appears, were condemned on two occasions by Local Government Board inspectors, one of whom described them in 1900 as "of a poor description, defective in construction, ventilation, and lighting, imperfectly drained, with back yards unpaved and undrained." In addition to this heavy indictment, a later report called attention to the defective sanitary accommodation as a menace to public health. Many of the privies are situated too near the dwelling houses, and in one instance there are no less than thirty persons for whose accommodation only one privy is available.

The public action of the present residents is to be commended, and it is to be hoped that their influence will be sufficient to force the Council to take immediate steps to remedy the existing condition.

If ordinary observation may be trusted, similar action is much needed in several of the villages of County Wicklow and County Dublin, and doubtless throughout many parts of Ireland. Common lodging houses also need more supervision. At a recent trial in Tullamore, the evidence given brought to light a condition in some of them in that town which the resident magistrate described as an offence to Christianity. Not one of them, he said, was registered or looked after by the local authority, as required by the Public Health Act, and as a result the grossest abuses existed, and constituted a public scandal which would lead to both physical and moral disease.

Women's National Health Association.

A well-attended meeting in connexion with this association was held in Dublin on February 16th to discuss the question of infant mortality and in aid of the Babies' Club which is conducted by the Dublin Branch of the Association. Her Excellency the Countess of Aberdeen was present. The Honorary Secretary, in presenting her report, attributed the high infantile mortality in the city to the poverty, destitution, and insanitary housing which prevail, and to the widespread unemployment. The death-rate of children under 5 years, which is 150 per 1,000, compares unfavourably with that of seventy-five of the large English provincial towns, in spite of the fact that factory work, which is supposed to contribute so largely to infant mortality, is practically non-existent in Dublin. With a view to enabling the people to learn of the causes of death in infancy and of the means of preventing it, the Women's National Health Association had given in the early summer of 1909 a series of simple lectures to mothers and grown girls in the national schools of the city, and in June, 1909, had established, with the aid of Lady Aberdeen, Lady Arnott, and others, a Babies' Club, open on Tuesdays and Fridays from 4 to 6 p.m. On Friday the babies are examined by a doctor and weighed; the mothers are advised on any point calling for special attention, and general advice on matters affecting children's health is given. On Tuesday a teacher directs a cookery and housewifery class, at which two or more of the mothers prepare dishes chosen with due regard to nourishment, cost, easy cooking, and tastiness. A sewing class has been established, and arrangements have been made for home visiting by a nurse. One of the other speakers laid stress on the fact that it was ignorance and not want of affection in the mothers that was at the root of most of the evils complained of, and stated that it was this inevitable ignorance which the club was fighting against. Lady Aberdeen also spoke, and Sir Andrew Reid bore testimony to the valuable character of the work the association is performing.

Election of House-Physician to South Charitable Infirmary, Cork.

A special meeting of the Committee of Management of the South Infirmary was held on February 18th for the purpose of appointing a house-physician. The matter was before the board at a previous meeting, when three applications for the position were received, the applicants being Dr. T. P. Magner, Dr. T. Barry, and Dr. Forde. All three were proposed and seconded. Drs. Magner and Barry received seven votes each, while Dr. Forde received two. Dr. Forde fell out, and on a second poll Drs. Magner and Barry received eight votes each. The Most Rev. Dr. Browne, who was in the chair, declined to give a casting vote, there being nothing in the rules regarding such. The meeting was therefore adjourned until February 18th, when both candidates were duly proposed and seconded, and supported by various members. Dr. Barry received the largest number of votes, and consequently was elected. Dr. Barry had been recommended to the committee by the medical staff of the hospital, he having taken all his clinical course out at the South Infirmary, whereas Dr. Magner had been a student at the North Charitable Infirmary. It seems only fair and right that students of a particular hospital should have a prior claim to others—in fact, that the position of house-surgeon or house-physician should be reserved for the most deserving students of a particular clinical school.

Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

THE ANNUAL DINNER OF THE ROYAL MEDICAL SOCIETY, EDINBURGH.

IN its annual dinner the Royal Medical Society invariably provides a social function of great interest. Year by year we have distinguished past Fellows of the society coming to give interesting addresses such as can only be obtained from experienced men of the world, highly gifted, and possessed of considerable breadth of view. And year by year also we hear from those distinguished guests of the part in their lives which the Royal Medical Society has played, and of the place which they accord to it in the training and in the development of the Edinburgh medical student.

Sir Lauder Brunton, the chief guest of the society at its dinner on February 15th, was no exception to the rule. In the course of a speech, in which he touched on many of the important medical topics of the day, he ascribed to the Royal Medical Society no small share in the degree of success which had fallen to his lot in life, and extolled the value of its qualities and the importance of its existence in such a medical centre as Edinburgh.

The toast of "The Society" was given by Sir Thomas Lauder Brunton, and Dr. R. C. Alexander, one of the presidents, replied. Dr. R. C. Macqueen gave the toast of "The University and the Royal Colleges," and replies were made by Professor Harvey Littlejohn, Dean of the Faculty of Medicine; Sir Alexander R. Simpson, a former President of the Royal College of Physicians; and Mr. George A. Berry, a former President of the Royal College of Surgeons. The toast of "The Sister Professions" was given by Dr. F. Esmond Reynolds, and replied to by the Moderator of the General Assembly of the Church of Scotland and by Mr. R. R. Simpson, W.S.

The Dean of the Faculty of Medicine voiced the opinion of the faculty that the Royal Medical Society fills a place in the training of the Edinburgh medical student which is complementary to that provided by the university, and which is essential for his satisfactory medical development. In a word, it may be said that the keynote of the work of the society is individuality—the training of individual thought, of individual scepticism and doubt, of the elements of the scientific spirit, and of practical self-reliance. What greater part can any society play in the training of a young man? And what more urgent necessity is there at the present day in medicine, as in many other spheres of work, than the development of individuality?

In the Royal Medical Society of Edinburgh many prominent men all over the world to-day have been encouraged to think for themselves, to systematize their thoughts, and to give expression to them in public in a manner intelligible to the audience. The society is one of the greatest assets of medical Edinburgh, and its continued prosperity is of ever-increasing importance. The continued increase of the mass of medical information necessary for assimilation by the student before the period of graduation, the enlargement and the renovation of curricula, the multiplicity of examinations, and, perhaps not least important, the development of palatial student unions—all such modern conditions press hardly on a society such as the Royal Medical, the valuable characteristics of which are only fully realized in later life.

SCHEME FOR NEW INFIRMARY AT PERTH ADOPTED.

The annual general meeting of the Perth City and County Royal Infirmary was held on February 14th. The annual report showed that during 1909 there were 1,055 in-patients and 699 dispensary patients. The total income amounted to £4,259, and the expenditure to £4,789 12s. 9d., showing a deficiency of £530. The report also dealt at some length with the question of the erection of a new infirmary, which it is proposed to build on ground at Western Avenue, Burghmuir. The total cost of the proposed building is £30,100, and of that sum the directors estimate they have available to meet the expenditure £31,783. The directors recommend that Mr. James Millar be appointed architect, that the plans prepared by him be approved, and that the directors be authorized to proceed with the building. This motion was unanimously agreed to.

PROPOSED COTTAGE HOSPITAL AT BO'NESS.

At a conference held on February 15th, between the Town Council of the port of Bo'ness on the Firth of Forth and the District Nursing Association, the erection of a cottage hospital was strongly advocated. One of ten or twelve beds, at a cost of £150 a bed, maintained by voluntary subscriptions, was suggested. It was agreed to have plans prepared.

DALKEITH FEVER HOSPITAL.

At a meeting of the Dalkeith Town Council held on February 14th, Dr. Mitchell, the Convener of the Public Health Committee, reported on the question of providing increased hospital accommodation, the Local Government Board having intimated that the present building at New Mills was unsuitable and there was no room for extensions. The Duke of Buccleuch had very generously offered a free site of about two acres at White Hill for the erection of a new hospital, and a sum of money towards the cost of the building.

CAUSES OF CRIME.

Dr. James Devon, medical officer of Glasgow Prison, in a lecture before the Toynbee House Literary Society on "Some Causes of Crime," said that it was generally agreed that our prison system did not reform, and pointed out the need for a more elaborate classification of criminals. Crime was largely a concomitant of city life, and more room and more air space were needed. Drink, poverty, and all the other causes of crime would continue to produce it according to the degree in which people were permitted to be huddled and packed together in congested and insanitary conditions.

India.

[*FROM OUR SPECIAL CORRESPONDENT.*]

THE BENGAL VETERINARY DEPARTMENT.

AN advance has been made in the province of Bengal in veterinary administration by creating a separate Civil Veterinary Department for dealing with epizoötic diseases; dispensaries and travelling assistants have been placed under a staff of inspectors to watch and control their proceedings, with Mr. D. Quinlan, I.C.V.D., in chief charge. The Veterinary College remains under the superintendence of Colonel F. Raymond, F.R.C.V.S., who has held the office for many years, and has now been granted an extension of three years. He also remains in charge of the administration of the Glanders and Farcy Act in Calcutta and its suburbs. The report of the college indicates continued success. There were 132 students under instruction at the close of the session; out of 29 examined, 25 passed and obtained a qualification. Various improvements have been made in the college arrangements, the chief of which is the organization of a laboratory (called after the principal), in which research and clinical work is carried on with great advantage. The death of Rajah Sheo Bux Bagla, who contributed so generously to the construction of the institution, is recorded. A useful function performed by the laboratory is the diagnosis and investigation of rabies, which is very prevalent in and around Calcutta. The report of the superintendent of the Civil Veterinary Department gives full details regarding the prevalence of epizootic diseases and the measures adopted for the purpose of dealing with them. The information obtained regarding epizootics is still very defective, but will no doubt improve in time. Interesting notes are given regarding the means taken to improve the stamp of stock, equine and bovine.

Special Correspondence.

PARIS.

After the Floods: The Fear of Typhoid Fever and the demand for Disinfection.—The Health of Paris To-day and the Effects of Former Flood.—The Carrier Problem.—The Dangers of the Colon.

THE floods which have ravaged the valley of the Seine and those of the Saône and of the Doubs, further to the east, have caused serious apprehensions among hygienists and have awakened in the public mind a very general fear of epidemics to follow. The generality fully expect that the wholesale invasion of immense tracts of country and of unnumbered dwelling-houses by an enormous volume of flood waters, bringing down a torrent of mud and flotsam and jetsam of every sort, including the carcasses of animals, must leave behind germs of disease by which the disaster will be complicated and prolonged. Down to the middle of the last century public opinion accused the air of being the chief, almost the exclusive, source of epidemics, and from the very earliest times it was the practice, when plague or cholera prevailed, to light great bonfires to destroy the miasms. Nowadays the incriminated element is water; and since bacteriology has shown the presence in it of the bacilli of typhoid fever, that almost universal disease which has perhaps worked more ill than all other diseases put together, it is water that is dreaded. The very frequency of this disease, so common that the peasants habitually call it simply *les mauvaises fièvres*, brought it about that the public's first thought is the risk of typhoid fever and the need for precautions directed against impure water. Moreover, water is a more manageable element than air, and lends itself more easily to prophylactic measures of a satisfactory kind.

The risk of typhoid fever is the dominating element in the fears entertained at this crisis. A long way after it comes a certain amount of apprehension with regard to intermittent and other paludal fevers, known to the present generation in the inundated valleys only by name. In ordinary country practice we must go back forty years at least to find cases in the basin of the Seine. The drainage of marshes, the systematic dredging of rivers, and improved general hygiene appear to have banished these diseases. The same is true of dysentery. A country doctor may be called upon to treat a few scattered mild cases during a year, but the disease no longer shows itself with the terrible intensity and the overwhelming severity of former days, when whole villages were depopulated by the bloody flux, which was as much dreaded as cholera. Typhoid fever, although it has very sensibly diminished, is still always present, and it is its germs which the public mind pictures carried from wrecked latrines and burst drains, and picked up in unhealthy houses to be distributed broadcast by the flood over fields and crops in the country, and over market gardens in the suburbs. A unanimous and forcible demand was raised for the services of the officials responsible for public disinfection, and they at once took measures to calm fears which, under the stress of the disaster, were perhaps excessive. There is every reason to hope that the contaminating material will be effectively destroyed, and that the places reconquered from the flood will recover their salubrity.

So far as Paris is concerned, its sanitary condition, in spite of the recent floods, is very satisfactory. During the last three weeks the total number of deaths from all causes has been 956, 958, 993, whereas the average weekly number of deaths from all causes in February during the last five years was 1,120. Typhoid fever is also well below the average. During the last quinquennial period the average weekly number of fresh cases in February was 36, with 6 deaths; during the last three weeks the number of fresh cases notified has been 23, 23, 31, and the number of fatal cases has been 2 each week. The extent of the flood can be estimated by the statistics published by the Prefecture of the Seine, which shows that of the 85,000 houses which Paris contains, 14,100 were reached by the inundation either at the surface or below the ground level. The XVth arrondissement (below Eiffel Tower) had 1,944 houses inundated; the VIIth arrondissement (near the Invalides), 1,759; the VIIIth arrondissement (Madeleine and Gare St. Lazare), 1,516; the XIIth arrondissement (where the Seine enters the city), 1,489, of this arrondissement the Quinze-Vingts quarter had 1,239 houses flooded.

M. Bertillon has recently discussed the effects which, during the last half-century, since death statistics have been kept in Paris, floods had upon the public health. Floods occurred in the years 1872, 1876, 1882–3. M. Bertillon compares the deaths from typhoid fever in the arrondissements along the river banks with the deaths in the rest of the city during the flood, and for a period of three months before and after the flood. After the flood in 1872 the number of deaths from typhoid fever fell in all parts of the city, except the riverside arrondissements, where the numbers remained approximately the same—that is, 112 during the three months before and 117 during the three months after the flood had subsided. The flood of 1876, which was higher than in 1872, was followed by a fall in the number of deaths from typhoid fever in both the riverside arrondissements and in the rest of the city. The flood of December, 1882, and January, 1883, was also followed by a marked diminution in the number of deaths from typhoid fever, as the following table shows:

	13 Weeks before the Flood.	8 Weeks that Flood Lasted.	13 Weeks after Flood Subsided.
Totals typhoid fever deaths for the City of Paris	1,513	541	385
Totals for 23 riverside quarters	360	156	96
Totals for 57 other quarters	1,153	385	289

There are strong reasons for believing that the recent flood will prove equally inoffensive. The flood has been greater than any of the preceding ones, but typhoid fever is at the present time fifteen times rarer than it was in 1882, and consequently the typhoid bacillus is fifteen times less frequent in the inundated cesspools than in 1882. Cesspools also are much less common (two or three times) than in 1882, when practically every house in Paris was provided with one or two, whereas there are now but 30,000 cesspools, and 45,000 houses are connected with the sewers, which can only furnish typhoid bacilli to the flood waters if a case actually exists in the house. During the recent flood in the whole of Paris only one main drain was ruptured. The history of former floods proves that they had no bad influence on the public health in general, and especially on the frequency of typhoid fever.

The process of cleaning and disinfection is being very thoroughly carried out, and inspectors pass and examine every house which has been affected to see that the work has been properly done, notice being sent to the landlord in advance giving the date of the visit.

It is a curious coincidence that at this very time doubt should be thrown in the medical press on the usefulness of the official disinfection practised in infectious diseases. Not only is attention directed to the very considerable expenditure which the maintenance of the system involves, but the value of the results it yields is called in question, criticism being based on the belief that the dissemination of infection is chiefly the work of bacillus carriers, and that it is, therefore, puerile to disinfect furniture when the real danger resides in the throat and nasal cavities of patients and convalescents. In existing circumstances, however, these criticisms must not prevent us from following the dictates of common sense. Apart from the fact that no expenditure can be considered unnecessary when it is a matter of human life, the problem is not to stop an epidemic already in progress, but to stop an outbreak which, did it occur, would obviously be due to external influences, since at the moment, the only bacillus carrier is the overflowing river. Moreover, if despising disinfection of the environment, we seek to pursue the pathogenic microbes into the bodies of individual citizens and attempt their destruction there, hoping thus to prevent not only infectious diseases,

but disease in general, then we are landed in some queer consequences. It is not the buccal and pharyngeal mucous membranes alone which are ports of refuge for baneful microbes. The intestines harbour specimens of a bacterial flora at once copious and varied, only waiting, we are told, the opportunity afforded by some momentary weakness on our part to develop their properties and destroy our lives. Bettering the theories of M. Metchnikoff, who has discovered that the large intestine is the cause of arterio sclerosis, some surgeons denounce the organ as an injurious superfluity and a standing danger to the human species. That its systematic extirpation as a measure of general hygienic and surgical propbylaxis, which would seem to be the logical result of these views, is not yet recommended is due only to certain technical difficulties attending the operation. Clearly, however, Nature is very much to blame for having allowed this wretched organ to persist throughout the processes of evolution and selection, and still to encumber our frames. Its size produces the belief that it must be useful, whereas its folds and pouches are merely a piece of bluff, and it traitorously lies in wait for some moment of weakness, when it suddenly repudiates all organic solidarity, and pours innumerable bacteria into our tissues. Very soon it will be necessary to reserve a place in all handbooks of pathology for a chapter on the conspirators in a man's own body, but I very much fear that when pathological processes have no longer any secrets for us, and we no longer have any excuse for neglecting precautions against them; when we have saturated air, water, and earth with antiseptics, overwhelming, perhaps, some of our worst enemies and best helpers in a common destruction; when we have rid ourselves of the superfluous organs which Molière long ago in the *Malade Imaginaire* told us were under suspicion; when we have come to know all the pitfalls our organization digs for us, I very much fear that we shall find it simpler to die at once, than to live on such terms and under the shadow of such fears and anxieties. The fact is that, when in the name of science we are presented with conclusions and theories such as these, it is more than ever necessary to reserve judgement, and always to remember that medicine must never cease to be an art.

BERLIN.

The Treatment of Insane Prisoners.—The Average Duration of Life in Germany.—A School Dental Clinic.—Proposed Women's Hospital Officered by Women.—Ambulance Organization for Extensive Accidents.—Dangers of Raw Minced Meat.

IN the course of a debate on prisons in the Prussian Diet on February 18th, Dr. Liebknecht, a Socialist member, called upon the Government to give more attention to the question of insane criminals. Many of these unfortunate persons, he said, through lack of timely medical examination and certification, remained in prisons when they should be in asylums under medical treatment. Dr. Cassel, a Radical member, alluding to proposed alterations and reforms in the arrangements for the care of harmless lunatic criminals, strongly opposed their detention in ordinary asylums. It was, he said, an unwise measure—one which showed want of consideration for the feelings of the ordinary inmates, one which would be likely to cause excitement and resentment among them, anything but beneficial to their mental ailments. It would also undoubtedly give umbrage to their relatives. The State should not shirk its duty, which was to provide properly equipped separate establishments for the detention of lunatic criminals—establishments in which they would be treated as lunatics and not as criminals. Dr. Liebknecht strongly opposed the plan of separate establishments, for he could not help fearing that the inmates would be treated more from the criminal than from the purely medical point of view. Proper measures would have to be devised for safeguarding the ordinary "blameless" lunatics from molestation by criminals. What these measures were to be he did not, however, suggest.

The new volume of the official statistics of the German Empire contains calculations based on the tables of mortality during the last decades of the nineteenth century, from which it appears that there was a very decided and steady increase in the longevity of the nation. The tables extend from the year 1871–2 to the end of 1900, and show the following increase in longevity: Males, from 35.53 years to 40.56; females, from 38.45 to 43.97. According to the calculations based on these figures, the "probable" length of life increased (during the same period) from 38.1 years to 48.85 years for males, and from 42 5 to 54.9 for females. There is every reason to believe that there has been a further increase in longevity during the last ten years (1900 to 1910).

As yet Berlin can boast only a single school dental clinic, and this has only been in work for about eight and a half months. Nevertheless, it has been thought advisable to publish a report of what was done during the first six months, in order to show the urgent need for the new institution and to stimulate public interest in the subject; 5,278 children (3 242 girls and 2,036 boys) were treated during the six months; the treatment ranged from thorough cleansing to extractions, or the modern protracted methods of preservation, and included no less than 1,225 fillings. The Berlin local committee, which is a branch of the Berlin Central Committee for Dental Supervision in Schools, hopes to open a second clinic very shortly. The Berlin committee has more than 300 subscribing members, and the Berlin Municipality has voted a sum of M 10,000 (£500), and the State Insurance Department (Landesversicherungsanstalt, Berlin) a sum of M.1,500 towards the expenses of the year 1910. These two official donations (which, it is hoped, may become annual subscriptions) are extremely significant, as showing the recognition of the important part which healthy teeth play in the health of a nation.

An appeal for funds to assist the establishment of a woman's hospital under female management is being circulated in Berlin by a committee of women doctors, strengthened by a number of ladies prominent in Berlin society. The hospital is to be a charity institution, and will supply a need the urgency of which is said to be proved by the cases requiring clinical treatment which crowd the Berlin women doctors' consulting rooms in ever-increasing numbers.

Dr. Reicke, second burgomaster of Berlin, has drawn up a set of regulations and instructions for immediate and combined action in case of mass accidents. In these instructions the directions are so precise, and the existing ambulance and other similar Berlin organizations are so skilfully and practically utilized, that all danger either of overlapping or of delay and confusion is avoided. The whole plan, in fact, is in the best sense military in character, and as such, eminently suited to a country where those who will be called upon to carry it out must themselves have undergone a period of military training.

It may be remembered that some time ago the occurrence of numerous simultaneous cases of enteritis among the nurses in the Rudolf Virchow Hospital aroused considerable excitement and even indignation throughout Berlin. By common consent the use of raw minced meat as an article of special diet was held responsible for the outbreak. Town councillors' and magistrates' meetings were the scene of violent interpellations and recriminations, searching inquiries were insisted on, and the municipal hospitals called upon to desist from using any sort of raw meat as food. Since then the Prussian State Medical Department for Medical Science has been occupied with a special research embracing the whole matter, the results of which are now—a little late in the day—made accessible to the public. It is admitted that the epidemic of August 30th, 1908, could be traced to and was caused by the eating of raw mincemeat infected with enteritis bacilli. How this infection came about could not be ascertained. In conclusion, the official report pronounces the use of raw meat, and especially of raw minced meat, as food to be dangerous everywhere, but absolutely inadmissible in all closed establishments, such as hospitals, prisons, etc. By special desire of the Prussian Cultus-minister, this report has been circulated among the provincial Government officials throughout the monarchy, with orders to pass it on to the responsible directors of the State hospitals.

Correspondence.

NURSING HOMES FOR THE MIDDLE CLASS.

SIR,—Although most of us will feel great sympathy with Dr. Chalmers Watson in his wish to supply suitable institutional treatment in Edinburgh for that very large and important section of the public that lies between the poor and the rich (BRITISH MEDICAL JOURNAL, February 19th, 1910, p. 466), there will be many who, because of that sympathy, will desire to make sure that all elements of weakness in the inception of any scheme are eliminated. It is most important to weigh any proposal carefully, as a fault at the outset has a tendency to become accentuated—in any case, it becomes very soon a tradition hard to move; and as there are some points in the scheme suggested by Dr. Watson which I think require reconsideration, I venture to make the following comments.

We are told that besides benefiting the patients it is desired to benefit practitioners, using that term in its widest sense, to include all those who are actively engaged in the treatment of disease, but I cannot think that a large central pay hospital, on the scale suggested, would help on this excellent intention, as it would not be likely to receive the permanent support of practitioners residing beyond a certain radius of, at the outside, a mile from the hospital. It would be manifestly too inconvenient for practitioners in the suburbs or beyond this radius to give to the cases the careful personal attention which would be so often necessary, especially considering the unremunerative character of the practice, and the result would be that in the end such a hospital would only appeal to those living near the centre, which is not desired.

What is required in all large towns is a decentralizing policy with regard to hospitals, and especially pay hospitals. Instead of one large pay hospital a series of moderate-sized homes should be established, very much on the lines of cottage hospitals as approved by the British Medical Association, with, when all patients are to be self-supporting, as in the case under consideration, the omission from the scheme of the free element. One small home might be established in any locality, the number to depend on the population. Thus, for a large city such as Edinburgh and Leith make together, several (I cannot say how many) such institutions might well be run, and would be certain to obtain the support of the local practitioners. It seems to me, from the reports one hears of the success of the Rutland Home in Edinburgh, that Edinburgh possesses an institution already which might serve as a model to be multiplied as occasion requires in other parts of the city.

There are other points which I think require to be made clear with regard to the Edinburgh scheme. I refer to the questions of remuneration of the profession, payments by patients to the home, and generally the control of the home or homes (whichever it may be). Although the fees must not be too high, they should be to some extent remunerative, and it would import an eleemosynary principle to accept individual payments to the home which do not at least cover the outlay on an ordinary case. In both these matters the lay element should not be in evidence, and any financial assistance from the public towards the establishment of a paying home should only be accepted on the clear understanding that such assistance shall not carry with it any right of control over the conditions of service of the profession. In all questions of economic and medical eligibility for admission, the medical profession should be supreme; and, in order to deal with the ethical difficulties which might arise, it seems to me that it is essential that the homes should be run, as public medical services in England are run, under the auspices of an organized body with an ethical code. Such bodies are ready to hand in Edinburgh in the local Divisions of the British Medical Association.

A similar proposal for a large central paying hospital in London was brought forward by Mr. Sydney Holland in 1906, and in a letter published in the BRITISH MEDICAL JOURNAL, March 19th, 1906, p. 711, I entered more fully into the objections to such a scheme and the advantages of the alternative suggestions which I have advanced in this letter.—I am, etc.,

London, N.W., Feb. 22nd. J. FORD ANDERSON, M.D.

CONSULTANT, GENERAL PRACTITIONER, OR HALF-AND-HALF?

SIR,—Under the above heading, in the BRITISH MEDICAL JOURNAL of February 19th, your correspondent "Enquirer" treats the relations of the general practitioner and consultant in a dispassionate way, which must win for him the sympathy of all interested in professional harmony.

But perhaps there may be other sides to the question which he has omitted to deal with.

The consultant is almost invariably on the staff of a large hospital, where he spends a great amount of his time in the study of selected cases, aided by scientific appliances and associated with colleagues among the anatomists, pathologists, biologists, and clinicians of the day. He is thus advancing under the most favourable conditions the general and special knowledge of medicine and surgery continually. This he is bound to impart to his pupils in the fullest manner. Most of these pupils become general practitioners and begin among their patients to apply the results of the consultant's many years of study and experience, during most of which he has made a mere subsistence, for science is not paid in this country. Now, is it in strict ethics fair to the public that a consulting physician, who has spent years in acquiring special knowledge of, say, tuberculous processes and the possible modification of them by tuberculin treatment, should keep all his conclusions to himself until a general practitioner brings an anxious sufferer to him and endeavours to obtain from him in half an hour a necessarily imperfect basis for a treatment *by himself* which can only be safely left in the hands of an expert?

In the case of a surgeon, is he to be asked to refuse to see a patient who comes to him as an expert of large and increasing experience unless sent to him or accompanied by one who presumably knows less, and who wishes to undertake the operative treatment himself with very much smaller experience and far less chance of acquiring judgement and skill? Is the public not to reap the benefit of prolonged study and experience except at second hand through the general practitioner? Is the latter to represent himself as qualified not only for family practice, but also to undertake on equal terms with the consultant from whom he once learnt his work the treatment of cases in any or all of the rapidly advancing special branches? And yet that is growing more and more the custom of general practitioners, especially those associated in firms. They attend in turn post-graduate courses and spend hours as watchful guests in various operating theatres, and then undertake to try to carry out what they have there seen to an extent that was not dreamt of a few years ago. This is a question of ethics in which the public has a large interest.

Indeed, if any complaint is justified, it would be as reasonable for the consultant—or "specialist," as he is dubbed by these gentlemen—to complain that the general practitioner is unwarrantably intruding into the domain of the expert in medicine and surgery as the reverse. Why should he do so? The answer was naïvely given unasked to the writer not long ago by a friend engaged in family practice, who, in apologizing for asking so many questions about an intricate case, used words to this effect: "We must pick our teacher's brains, for we have to undertake such cases ourselves *in order to make a living*." This may be a good reason for him, but what about the sufferer? This is a question of ethics again so long as the man is within reach from whom the patient can obtain that which his family attendant admits that he does not possess. Is it fair, is it right, to exclude the sufferer from the benefits of accumulated experience, judgement, and skill of those who devote their lives to particular branches simply with the object of making a living out of him, and often at considerable risk to him, which might be avoided by an expert?

What we appear to want on all sides is clearer notions as to the rights of suffering human beings to the best that can be obtained for them, and a more kindly mutual feeling in both branches of the profession. I agree with "Enquirer" that the whole subject requires plain speaking, as impersonally as possible, and for the same excellent reasons which he has given only sign myself—

February 21st. ENQUIRER No. 2.

GENERAL PRACTITIONERS AND POOR LAW REFORM.

SIR,—It has appeared to me for some time past that the medical professsion, in connexion with conditions relative to both the Poor Law and Public Health Services, is drifting into a bottomless pit. The difficulties may be placed in three classes:

1. Those of administration;
2. Those connected with the scientific interests; and
3. Those connected with the material interests of the profession.

1. A factor connected with administration appears to be habitually overlooked, and that factor is the capacity of those who administer. An imperfect system may be worked to general advantage by capable administration, but an incapable administration can always wreck the most perfect system which man's ingenuity can devise. I have been in touch with the working of the present system of public health and Poor Law administration for twenty-six years, and I have, therefore, some knowledge of existing conditions. So far as public advantage is concerned, I believe neither system to be bad in itself, but I recognize the fact that those who are responsible for the working of both systems fail or succeed in many districts, in direct proportion to administrative capacity. The question arises, therefore, whether there is any probability of the evolution of any system which will provide a more capable administration. Personally I am very pessimistic on this point.

2. In dealing with the scientific interest of the medical profession, a fact which appears to be entirely overlooked is that red-tape regulations have and will always interfere with scientific advance. The present position of the subtle question as to parasite and host, and the relative position which they occupy with reference to infective disease, is not one which leads an impartial observer to advocate increased powers to the D.P.H. brigade. This brigade has placed enormous burdens upon the shoulders of the ratepayers, and the ratepayers have submitted on the understanding that they will be relieved of the burden of infective disorders. The infective disorders have remained in full force with us, and so have the burdens of the ratepayers. Not only is this so, but there have been the incidental disadvantages of the presence of an implicit belief in old-fashioned methods of thought about and prehistoric methods of preventive treatment of various infective disorders, which is kept alive by the imperfect pronouncements of those who are generally supposed to be most capable of judging, and by thoroughly rotten methods of sanitary administration. Scientific advance has, in fact, been throttled by routine methods and want of pluck in facing the problems when emergencies have arisen. The fault here is not with the administrators, but with those who advise the administrators. The more red tape powers given, the more money will be wasted, and the more will scientific advance be throttled. So much for the scientific position of the public health service. The Poor Law has always been the subject of animadversion, but I do not suppose that any better system will ever be invented; a more expensive one can, no doubt. The objection on the part of those who benefit by it and come into its meshes is really the result of the fact that inquiry by the relieving officer precedes administration of benefits. I have never found the slightest reluctance on the part of those who are in the position of recipients of relief to accept doles from any source when inquiries are not likely to be made, but I have often found great reluctance when it is a question of the arrival of the relieving officer. The new proposal for a public health service will, I presume, entail what are called whole-time appointments. I have never been able to understand the belief existing in some minds that whole-time appointments are beneficial either in the sanitary service, the Poor Law service, or in any other service, judging the matter from the standpoint of the advance of science. Whole-time appointments may be looked on as eminently official jobs. Official jobs of this sort imply red tape by the yard, and standard methods of thought and action. True science abhors both as being oppressive and detrimental to its best interests.

3. As to the material interest of the profession, it is impossible to overlook the fact that a great change has come in the general practice of the medical profession. The change is largely due to the extension of the system of contract practice, and to the free relief afforded by hospitals. The estimation of the value of professional services has fallen, not only on account of the low value which practitioners have agreed to place on their service, but also on account of the methods adopted by practitioners to secure practice. In the last number of the BRITISH MEDICAL JOURNAL, "Recollections of an Old-time Apprentice" are worthy of consideration in connexion with this subject. Doubtless it is possible to state emphatically that such a state of affairs as described is horrible, but it is legitimate to speculate as to the extent of improvement which would have resulted to the material interests of the profession if the system of apprenticeship had been persisted in. No doubt equally bad things might have been written about the workings of solicitors' officers of the same period, but that system has been maintained in the legal profession, and that profession has profited by its retention, and is not face to face with the difficulties at present before our own. The system which has been adopted in the medical profession in lieu of the old one has brought us to the present position. Contract service has become an intolerable yoke on the shoulders of those who have sought it, and it is supposed by many that a State yoke will be more tolerable and more conducive to prosperity. The contract yoke, in my opinion, can be removed, the State yoke never will be.

As these are my sentiments, I venture to advise the profession to deal with the devil that they do know rather than to contract with the devil that many of them do not know.—I am, etc.,

Hatfield, Feb. 20th. LOVELL DRAGE.

SIR,—Dr. Greenwood agrees with me that we should aim at professional independence, yet he wishes to retain the part-time Poor Law medical officer. Now there will no doubt be many more persons than at present provided with medical attendance by any new destitution authority, so there must either be more part-time officers appointed, or more of the same sort of work done by each of the existing officers; in either case more work done under official control, and so less independence. Further he inveighs against a national public medical service. I never suggested such a thing; I wanted a public medical service of our own. He is apprehensive of any "increase of the present club system with no better control on the part of the profession than at present exists," these words are used in criticism of my remark, which he quotes, that the public medical service would be practically a great club, but in that very same sentence I explain that it is to be essentially different from the present system and to be entirely under the control of the profession.

I should like to ask Dr. Greenwood in what way there is far greater responsibility in the medical care of the destitute than in other kinds of medical practice.

He brings forward no argument against the choice of doctor by a pauper further than supporting that of the Minority Report, which is not very flattering to Poor Law medical officers. However, as the loss of choice of doctor might in our public service act as a deterrent, it might quite easily be arranged that the person or authority paying the fee should have the choice of doctor; this need in no way interfere with the working of the scheme of the Association.

I cannot see why there is such a strong desire among many to have a fixed official salary, instead of the same amount of money made up of separate fees. Take a concrete example: A man is paid, say, £30 a year, and for this may be liable to attend 100 paupers; in what way is he worse off if he receives 6s. a year for each of the same 100 paupers if they are members of a public medical service? and if those 100 paupers should increase to 120 or 130, his £30 a year will not increase, whereas if the 100 members of a public medical service increase to 120 or 130, his fees will increase by £6 or £9.

I suppose most of us agree with Dr. Cooper in thinking that the ideal system is payment for work actually done, and if only he will present a practicable and workable scheme I am sure that it will rapidly obtain the support of the great bulk of the profession. The Contract Practice Committee, I believe, gave the idea much careful consideration, but apparently was unable to find any working scheme to carry it into practice.—I am, etc.,

Bradford-on-Avon, Feb. 20th. CHARLES E. S. FLEMMING.

SIR,—It is good to see that the profession realizes the importance of the effects of Poor Law reform on the prospects of general practitioners.

There is a consensus of opinion that we must give a comprehensive, widely representative, and even unanimous verdict at the annual meeting of the Association in London in the summer.

How is this best to be arrived at? We have the advantage of the fund of information which the Medical Secretary places at the disposal of Branches and Divisions, and we have to decide whether it is to the best advantage of the medical profession and the public to form a State medical service under public control, with eventually a Public Health Ministry, or to afford every independent practitioner the opportunity of sharing in the vast extension of medical treatment by the State which looms ahead. We know that conferences and interchanges of views are promised or have occurred between the Association, the Society of Medical Officers of Health, and the Poor Law Officers' Association. We have heard the studied opinions of the Poor Law Commissioners, but what we require to enable us as a profession to come to our final decision is our own expert commissioner or commissioners, who might be appointed to visit and report at home and *abroad*, and give us the very best evidence that can be obtained on (*a*) the comparative conditions of State medical officers (sanitary, Poor Law, school, tuberculosis sanatoriums, fever hospitals, asylums, etc.), whole or part time, as regards their financial and professional status and prospects, with those of general practitioners. Much might be learnt from the position and organization that obtain of State medical officers in all Continental countries. (*b*) The advantage to the profession and to the public of the system of treatment by and payment *pro rata* by the State to independent practitioners not attached to a service. (*c*) As a corollary to medical treatment at the instance of the State, the comparative value of State or rate supported and voluntary hospitals at home and abroad, or a combination of both systems.

Incidentally the effect of the withdrawal of much professional material and experience from the practitioner, and, again, the value to the State of the co-operation of the bulk of the profession as compared with that of a trained service, would be considered apart from the economic aspect of the case.—I am, etc.,

F. G. BUSHNELL,
Former Representative, British Medical Association.

Hove, Brighton, Feb. 21st.

PART-TIME MEDICAL OFFICERS OF HEALTH.

SIR,—Dr. A. E. Larking's reply to my letter is most instructive, and well repays a careful perusal—between the lines.

The general tone of his letter implies that he represents the British Medical Association and that the British Medical Association is going to follow *his* policy, and that I am only a sort of tolerated individual, but by no means a part of the Association; and that had I attended the Division, Branch, and annual meetings, the British Medical Association would not now be acting inimically towards part-time medical officers.

That, Sir, is just my point; the British Medical Association is strongly represented at its meetings by consultants, whole-time officials, retired men, and, in fact, by anybody rather than the working general practitioner—that is, the rank and file of the profession. The average general practitioner is tied to his doorstep by the exigencies of his practice, and is prohibited from attending even his Branch meeting more often than not, and if he is not one of the more fortunate ones who happens to have an assistant to whom he can leave his work he cannot go at all, because in the country it takes a full half-day to attend any meeting in neighbouring towns for most general practitioners. Often, in fact, he has little time to read his JOURNAL, and is in some danger of concluding that as his voice is not heard in the Council of the Association, whether the "game is worth the candle."

Being so closely tied to his work, it is his misfortune and not his fault that he cannot attend the Branch meetings, let alone the Divisional and annual meetings; and because he cannot do this Dr. Larking seems to imply that he must therefore sit down to all the "politics" which those who can attend meetings serve up for his delectation—and disestablishment—without pointing out that he is a partaker of the "mess" and is entitled to a choice in the menu. In fact, the general practitioners are quite as much the British Medical Association as is Dr. Larking and his "officials," whether qualified or not.

Dr. Larking says he will try not to imitate the spirit my letter shows. I wish he would try to emulate the spirit in which it was written, for I can assure him the spirit which animated my letters is one which demands fair play and is prepared to give it. What spirit it shows I of course am no judge.

Dr. Larking compares the knowledge of a general practitioner with that of a medical officer, and seems to think that all the ignorance is with the general practitioner. This is a matter which depends entirely upon the men in question; there are doubtless ignoramuses and geniuses in both ranks, and as Dr. Larking's observation is founded upon personal experience it seems to have been unfortunate.

In referring to phthisis Dr. Larking asks me to admit that "it is for the benefit of the public to control phthisis." I admit it freely; but do not admit that it was necessary to engineer all phthisis treatment out of the hands of the general practitioners, and leave them only the disease to notify and the death to certify.

I also admit that it was not the whole-time medical officers of health who engineered the Midwives Bill, but it certainly was not with the co-operation or consent of the general practitioners that it was worked; in fact, as I contend, they probably knew very little of it until it was sprung upon them. Was it not engineered by consultants who "attended" the meetings of the British Medical Association, and engineered the bill through, while the general practitioners were staying at home to deliver the parturient women? It seems somewhat like it.

Dr. Larking's last paragraph would be very comforting to part-timers; but how can Dr. Larking speak for the policy of the British Medical Association any more than I can? I have been a member of the Association probably quite as long as Dr. Larking, and I can give no such assurance; neither is it right that I should be able to do so. But I ask general practitioners what it means, what it suggests, when a regular attendant at the meetings, and one avowedly against general practitioners holding any public health appointments, tells us that we are quite safe, and that the interests of part-timers will be "jealously and impartially safeguarded"; and yet the order has gone forth that part-timers are to be omitted from the draft bill giving security of tenure to medical officers of health.—I am, etc.,

Northwich, Cheshire, Feb. 20th. HENRY EDWARD GOUGH.

SIR,—In reply to Dr. Larking's further asseverations we have but one remark to make.

There has been as yet no complete explanation of the meaning which Minute 234 was intended to convey. But one thing is certain: it is that, in the opinion of the British Medical Association, the 1,300 and more medical officers of health in Great Britain engaged in private practice perform their duties so inefficiently that, in the public interest, no fresh part-time appointments should be made.

If local authorities accept this verdict of the Association, many of us will lose our present appointments. Our resignations will not be waited for.

If we do not lose our appointments it will be because local authorities have a juster appreciation of the facts than had the Representative Meeting of 1909.—We are, etc.,

D. A. BELILIOS,
F. G. CROOKSHANK,
Acting Secretaries to the Association of Medical Officers of Health.

London, S.W., Feb. 20th.

THE TREATMENT OF SCHOOL CHILDREN.

SIR,—The general medical practitioners of the United Kingdom, through their most representative body, the British Medical Association, have unmistakably declared that they protest against the excision from their practices of the treatment of persons between the ages of 5 and 14 years. They assert that school children should be treated in the first place by general medical practitioners in the same manner as all persons of all ages are treated, and in

like manner that only a percentage of cases should be referred by general medical practitioners to experts or consultants. This settles the question of persons for the treatment of school children. There remains the question of the place of treatment, and this second question involves so many considerations that unless general medical practitioners immediately advance a definite proposition there is a probability that their stand on the first question may be overthrown.

Are the places for treatment to be private surgeries and dispensaries of medical practitioners, provident dispensaries, public dispensaries, out-patient departments of hospitals and Poor Law dispensaries, as at present available for all members of the family, or is it impracticable to devise a system rendering existing places available for school children sent by education authorities with cards, forms, or orders?

If this is impracticable, is it necessary to centralize and to create centres for treatment? and if such centres are created, are they to be available for the treatment of school children only (thus giving away the case against excision from general practice of persons from 5 to 14 years of age), or are they to be available for persons at all ages? If available for all persons they would resemble provident dispensaries, and demonstrate the urgent necessity for organizing such centres for local public medical services.

If general medical practitioners do not immediately organize public medical services with local centres (say, within half a mile radius of each group of schools), education authorities will doubtless establish such centres in their own way on their own conditions—in fact, it is the establishment of such centres that education authorities have under consideration—and denominate school clinics which would be restricted to children of school age and to budding consultants. General medical practitioners have only the choice of an alternative before them—either they must at once set to work to establish medical service centres, or school clinics will be established in spite of their own resolution not to have medical practice mutilated. Unless the profession wakes up promptly, midwives will appropriate the midwifery, school clinicians the children, and club doctors the men, and the last truly general practitioner will soon be reduced to sit upon the ruins of his practice and ponder over his lost opportunities.—I am, etc.,

London, N.W., Feb. 22nd. JOHN F. J. SYKES.

APPENDIX DYSPEPSIA.

SIR,—The discussion on the above subject emphasizes the fact that it is impossible to be *certain* of conditions present in the abdomen.

Those of us who perform a large number of sections are more likely to be correct, but I have met with many surprises, and I expect to meet with many more.

A case of the kind in question occurred in my practice this week. I opened the abdomen with a view to performing posterior gastro-enterostomy for duodenal ulcer. The man had suffered from all the symptoms which have been stated to justify a positive diagnosis of the condition. I found nothing wrong with the stomach or duodenum. I then explored the abdomen, as is my custom, and I discovered an adherent appendix with a constriction and two concretions in it. There were no signs which indicated such a "finding," and I learnt nothing by the operation which will enable me to distinguish a similar case in future.

Surgeons who make positive diagnoses are apt to confirm them at the operation. They know exactly what it is and what they are going to do. Little wonder that under such circumstances gastro-enterostomies and other operations have been performed without benefit.

I do not for a moment suggest that we should cease making a diagnosis, but when we have done so we should not forget the possibility of our being in error, and if an operation is performed we should not neglect to take advantage of the opening we make to explore the abdomen thoroughly.

I do not believe there is much danger of "the too ready performance of operations on people with chronic dyspepsia." It is hardly likely that any number of them will consent unless their lives are miserable. If they fail to obtain relief by medical treatment, and if we are unable to fix the trouble in any organ, I consider that an exploratory operation is the best course to adopt. I could quote many cases in confirmation of this view, including one of partial gastrectomy for cancer, which would not have been discovered otherwise, and as a result of which the subject is alive and well after nine years.

If the correspondence leads to a little less of the "cock-sure" surgery of to-day, it will have served a useful purpose.—I am, etc.,

J. LIONEL STRETTON,
Senior Surgeon, Kidderminster Infirmary and Children's Hospital.

February 20th.

SIR,—I have read the letters on appendix dyspepsia with close attention, and the remark of Dr. Hale White that much information is needed suggested to me that my own case might be of interest.

Three years ago I had an attack of what I took to be "indigestion," referable to some dietetic error. It was accompanied by intense colic, diarrhoea, and vomiting—was, in fact, in no way different from the common "bilious attack." From that time I was a sufferer from dyspepsia: considerable pain and flatulence followed nearly every meal. Nausea was frequent, but, except in acute attacks, of which I had three, there was no vomiting. There was never haematemesis. I could localize the point of most acute epigastric pain with great accuracy, and was under both medical and surgical observation in this hospital for six weeks. Pronounced lienteric diarrhoea was, perhaps, the most distressing symptom, but this to a large extent vanished while I remained at rest in bed. Appendicitis was never suggested by the signs or symptoms, nor did I suspect it myself, although well aware of that possibility. During two years I was never free from the localized epigastric pain already mentioned. At the end of that time I had a typical attack of acute appendicitis, the appendix being, as a matter of fact, gangrenous. From the time of that operation, now more than a year ago, I have had no sort of "dyspeptic" symptoms, in spite, no doubt, of occasional dietetic errors. It is a peculiar fact that for some three months after the removal of the appendix by Mr. Spencer I could elicit epigastric pain by pressing on the scar of the incision. This I cannot now do. I feel that there is no doubt that for two years I was the victim of appendix dyspepsia, without any signs of appendicitis.

May I, in conclusion, refer to Mr. Bowlby's remarks alleging the non-occurrence of haematemesis in acute appendicitis? There have been two cases, both with general peritonitis, recently in this hospital under the care of Mr. Spencer, by whose permission I mention them. In one case it lasted for three days, and the patient was in a most precarious condition. Both, however, recovered, and were discharged feeling in the best of health. It is early yet to trace their subsequent history, but there seems no reason to doubt that these were cases of haematemesis strictly comparable to those of any other acute toxaemia.—I am, etc,,

Westminster Hospital, S.W., Feb. 18th. GORDON R. WARD, M.R.C.S., L.R.C.P.

SIR,—I have been interested and to some extent amused by the correspondence following Mr. Moynihan's paper on appendix dyspepsia.

Surely surgeons as a rule have recognized the fact that a strictured and thickened appendix, representing the chronic form of appendicitis, may be accompanied by the various symptoms of what is known as dyspepsia extending over a period of many years. One has so often heard patients after removal of such an appendix express themselves very definitely as "feeling quite different as to digestion," or as "having better digestion than for many years," and so on. More particularly have I noticed the rapid onset of pain or a vague discomfort in the epigastrium or right iliac fossa after food before the removal of an appendix, and the absence of such symptoms afterwards.

I cannot, however, say that in an experience of hospital and private surgical practice extending over the last eighteen years, that is, practically the whole of the important period in the surgery of the appendix, I have come across a case of persistent vomiting, nor certainly one of

haematemesis, where the symptoms have been fairly and squarely referable to the appendix.

The explanation with regard to the connexion between the appendix and dyspeptic symptoms that has been present to my own mind and I presume to others, although I have not seen it in black and white, is a very simple one.

With a diseased tooth, neuralgia may be entirely referred to the supraorbital or infraorbital nerve or to the ear. With a diseased appendix and persistently recurrent impulses from it, or, indeed, from any other abnormal point in the splanchnic area, the reflex results may appear in distant organs through "overflow" in the various ganglia. Such results may well be demonstrated by the improper secretion of digestive fluids, and the improper contraction of the involuntary fibres in the walls of the hollow viscera affected—in other words, by the symptoms of dyspepsia. As Mr. Bowlby points out, surely this form of dyspepsia is exactly comparable to the various and many symptoms produced by a floating kidney, or a displaced or verted uterus.

It also seems of importance in this discussion not to lose sight of the fact that frequently a reverse process, both acute and chronic, takes place. An acute dyspepsia or gastro-intestinal catarrh is frequently followed on the first, second, or third day of the attack by appendicitis. In a typical case the pain is first noticed in the epigastrium, accompanied by vomiting. Later colicky pains and tenderness are present over various parts of the bowels, accompanied by diarrhoea, and at any time appendicitis may supervene, especially, of course, where the appendix by its formation, position, or previous disease is hampered in getting rid of its contents.

In chronic cases of dyspepsia or gastro-intestinal catarrh, there is also likely to be a chronic catarrhal condition of appendix, as there certainly is in cases of mucous colitis.

In those cases, therefore, in which the appendicitis is the result and not the cause of dyspepsia, one can hardly expect to cure all the symptoms by the removal of the diseased appendix, although one would have removed a very possible source of danger.—I am, etc.,

ARTHUR BUCK,
Surgeon, Sussex County Hospital, etc.

Brighton, Feb. 20th.

OPERATIVE TREATMENT FOR HAEMORRHOIDS.

SIR,—It is of course natural that opinions as to the value of any operative procedure should vary, but it seems a pity that operators of such proved excellence as some of the writers on this subject in the JOURNAL should express such very decided opinions against anything of which, by their own confession, they have no personal experience. Mr. Harrison Cripps, whose reputation as a surgeon carries weight, declares Whitehead's operation to be "the worst operation that has been ever introduced for the cure of haemorrhoids." Surely a very strong statement for a man who has never performed it or apparently seen it performed by a competent operator, but who bases his "prejudgement" upon unfortunate results such as are common in all work which requires skill, when done by those who do not possess such skill, or who do not exercise sufficient care. That such work is done is evident from his own letter, in which he speaks of "a disease far more serious than piles, that is, a fibrous annular stricture" following the operation, and that of another writer who talks of its necessary precursor, "a septic, sloughing, or granulating wound."

I feel sure that Mr. Wallis, whose clear and practical letter is most welcome, and in no way justifies Mr. Mummery's description of it as "special pleading," will agree with me that in a well-performed Whitehead's operation, a sloughing or granulating wound should be almost impossible. If the operator removes *all* the loose skin, or does not sufficiently loosen the mucosa so that it will easily come down to the epidermal edge, or if he uses catgut which is too readily absorbed or loosened, and so allows the mucosa to retract before union is firm, he will, no doubt, get such results, but then he has *not* performed Whitehead's operation, but one of his own, for which neither Whitehead nor we who advocate it can accept responsibility.

Mr. Harrison Cripps says that the operation "may give rise to serious complications whilst offering no balancing advantages." I presume by the "serious complications" he is referring to fibrous stricture and fistula—the latter a natural result of precisely the same error in technique as that to which I have already referred—the admission of faecal or other foreign material into the connective tissue around, and the formation of an abscess there which may burst either externally or internally. But both dangers can and ought to be avoided. Neither will ever occur after an operation properly and skilfully carried out. As to the "balancing advantages," surely the power to be able to promise—

1. No return;
2. Little or no pain, thus contrasting forcibly with the ligature method;
3. Easy and painless defaecation from the first, with
4. Rapid and painless convalescence,

is sufficient answer to this statement.

With reference to Mr. Mummery's remarks as to post-operative nursing, it does not appear that there is anything in Mr. Wallis's letter to indicate that extra good nursing is required; but Mr. Mummery would surely object to leave one of his cases of rectal surgery to a careless or incompetent nurse, one who if an enema were required could not be trusted to pass the nozzle in the only safe direction. Such nurses do exist and have to be reckoned with.

A great deal has been said about free haemorrhage, and Mr. Heygate Vernon more than suggests that so long as the mucosa is not cut across there is none, but that the separation and division of dilated veins can be carried out in a bloodless field.

> In the Whitehead operation the free haemorrhage often makes it difficult to see that the whole of the veins have been removed . . . when there is no haemorrhage time and care can be taken to dissect away all dilated or thrombosed veins.

I confess that this is beyond my comprehension. When performing Whitehead's operation I always separate a distinct cylinder of mucosa, with the veins attached, from the skin and connective tissue outside, up to and within the sphincter muscle, which is clearly defined all round. It is in this stage that most of the bleeding occurs. In parenthesis, I must say that the loss of blood has never been excessive; nothing like so much as I have seen in some operations—about the nose, for example. But it seems impossible that this step, which is also carried out in Mr. Vernon's "bloodless" method, should not be associated with some loss of blood. Not all the veins are thrombosed by any means; they must be cut across and immediately after division they must bleed. If they were all tied before division, not only would the operation last much longer, which might be important, but the space between the skin, mucosa, and sphincter would be left packed full of foreign bodies, which might seriously imperil success. Experience has shown that this is unnecessary; the bleeding quickly ceases, but I repeat that it is in this stage, which is common to both operations, that most of the haemorrhage occurs. When cutting across the mucosa, one or two small arteries may spurt, but these are quickly secured. I should certainly dread to use again the denuded and often damaged mucosa which had previously lined the anal canal, for I should expect it to slough at some point or other. One knows that the upper mucosa, of which there is always plenty, will be amply supplied with blood. And not less with nerve fibres. The idea of loss of a "sensitive area" is, as Mr. Wallis has already pointed out, purely theoretic. In none of my cases, now many hundreds, has any complaint of numbness or want of control from lack of sensation ever been made.

Quot homines, tot sententiae! One cannot hope to convince all, but those who know the operation best and have practised it most speak most highly of it. It is to be regretted that some, either from a preconceived opinion against any but the methods to which they have become accustomed, or because of faulty results following treatment by other men, and due to want of careful attention to small but important details in technique, should thereby deprive their patients of a quick, satisfactory, and permanent cure.—I am, etc.,

E. STANMORE BISHOP.

Manchester, Feb. 21st.

SIR,—I have read with much interest the correspondence with reference to the best operation for piles. For the last nine years I have used, both in the Western Infirmary and in private, the method described by Mr. Coates of

Salisbury, which was first brought under my notice by Professor Ogston of Aberdeen. After dilatation of the sphincter the piles, first on one side, are seized by ring volsellum forceps, after which Coates's clamp, a very neat and efficient instrument, is applied behind the forceps, taking care to have the one limb at the edge of skin and mucous membrane. The clamp is closed and the forceps removed. Catgut stitches—six, seven, or eight, according to the size of the piles—are passed behind the clamp, the ends being held by an assistant between the fore and middle fingers of his two hands. The piles are cut off with a pair of curved scissors, the clamp removed, and the stitches tied. This is repeated on the opposite side. When an assistant is available I begin the stitches at the top of the clamp. When I have no assistant I begin the stitches at the lower end, catching each with a pair of pressure forceps. The usual after-treatment is carried out, and the patients are, as a rule, on the sofa on the eighth day. The results have been most satisfactory.

I have troubled you with a description of the operation as I am surprised how little it seems to be known.—I am, etc.,

Glasgow, Feb. 22nd. J. CRAWFORD RENTON.

SIR,—I did not propose to try and convince Mr. Mummery that he is wrong or that I am right. My letter was meant as a protest against unjust criticism.

The letter of Dr. Herbert H. Brown expresses the attitude of most modern surgeons with regard to the operations under discussion. When I was first attached to St. Mark's Hospital, I was as much prejudiced in favour of the ligature operation as those who now still advocate it. During the last two years I have had to operate on six cases of recurrent haemorrhoids after ligature, and all these cases, save one, had been operated on by surgeons well known in the profession. Of these six cases, three have occurred this year.

Rather over two years ago I had to do with a patient who had been operated on by a well-known advocate of the ligature operation. In this instance there was a stricture, rectal incontinence, and a fistula. This patient was put completely right by bringing healthy mucous membrane to the anal margin and treating the fistula. All these cases occurred in private. In the hospital I have of course had a number of such cases of recurrence after ligature.

As to what I wrote about nursing, which is described as the weakest part of my argument, I wonder whether Mr. Mummery has ever seen a case of infective ulcerative proctitis after the ligature operation? Apparently not, or he would never have written as he did as to skilled nursing not being a necessity in the ligature operation. If he had seen, as I have, healthy men who after an operation by ligature have had this ulcerative proctitis from which after years of distress and suffering they have died miserably, he would never, I should think, make such a suggestion. It was this very process of infective proctitis (of all distressing forms of ulceration by far the worst) which made me seriously take up the operation I now do for haemorrhoids.

The fact is that proper nursing, that is, the proper cleansing and dressing of a wound in the case of the ligature operation, is almost impossible. The operation is done, and the ultimate result is left largely to chance, which, fortunately for those operated on, usually comes off all right. But any one who has seen and made a study of infective proctitis (as I have now done for fourteen years) will not lightly leave to chance the possibility of such a thing as post-operative infective proctitis occurring even once in 1,000 times.

In the radical operation every portion of the wound can be seen, cleansed, and properly attended to, and such a catastrophe as the above is impossible in the hands of a skilled nurse, and has never occurred in my experience as a sequel of this operation.

With regard to this ulceration, I am glad to say that with the aid of zinc cataphoresis which Dr. Ironside Bruce and I have recently been using, we have been able to cure nearly every case which has been sent to us.—I am, etc.,

London, W., Feb. 22nd. F. C. WALLIS.

NORMAL PERISTALSIS OF THE COLON.

SIR,—While sympathizing with Dr. Hertz (p. 478) in the omission of all reference to his valuable work, it is impossible to ignore the results of a thousand experiments by another observer. *X*-ray observations are not always what they seem to be; for a portion of bowel may appear to be empty simply because the bismuth has not penetrated to it. I have read Holzknecht's paper in the *Münchener med. Wochenschrift*, and I find that he does not deny that the large intestine is slowly filling up during the whole twenty-four hours. What he affirms is, that, with two possible exceptions, there was no trace of peristalsis; and he agrees with my view that the intersaccular ridges, far from assisting peristalsis, are downright obstacles to it.[1] I have looked in vain in the writings of both authors to see whether the subjects of the experiments were recumbent or upright. But this makes all the difference; for siphonage is only possible in the upright position, and this explains why there is so little trouble with the bowels in chronic orthopnoea.

Dr. Holzknecht says the movement of the colon contents occupied only a few seconds, and was so sudden that the eye could scarcely follow it. Notwithstanding this, he concludes that this sudden and powerful movement was true peristalsis; but surely contractions so powerful as to concentrate the work of many hours into the space of a few seconds would excite great pain, and necessitate a highly muscular ascending colon. Both these conditions are notoriously absent. The only painless force adequate and rapid enough is siphonage. The large intestine with its short ascending arm and long descending one is, structurally, undeniably a siphon. The other necessary condition—rigid walls, absence under the influence of shock, anaesthesia, and death—is supplied by the tonic contraction of the longitudinal bands. These act partly directly, but chiefly indirectly, through the consequent shortening and therefore thickening of the bowel and the deeper infolding of the intersaccular ridges. Allowing for some defective observation due to the rapidity of the propulsion, I think I am justified in claiming that Holzknecht's experiments confirm my siphon theory.—I am, etc.,

London, E.C., Feb. 23rd. RALPH W. LEFTWICH, M.D.

IS PONOS KALA-AZAR?

SIR,—Dr. Graham Aspland in his communication on this subject in the BRITISH MEDICAL JOURNAL of January 15th, p. 139, has brought forward facts which strengthen the suggestion that ponos is kala-azar; his experience of 20 to 40 cases of kala-azar annually, *entirely* among children, is on all fours with the history of the ponos disease in hydra Spetsai, symptoms the same as in typical kala-azar, but confined to children; and the very name he quotes, "kala-azar infantum," describes the disease "ponos."

The description of the starting point of cancrum oris as in the central incisors may be compared with that given by Dr. Yannakopoulos of Spetsai in his paper in *Galenos* in 1879, which, translated from the original Greek, runs thus:

> Generally the gums round the teeth, being altered to a brownish-black cheesy pulp, become gangrenous; the sockets become very quickly destroyed, and the teeth fall out, a gangrenous odour being given off from the cavities left and from the surrounding altered soft parts. In a few children shedding of the incisors, or eyeteeth, has been noticed, but generally the first molars fall out, and that in the upper jaw rather than the lower.

It is strange to note that as in the Greek Islands so in Peking, syphilis and malaria have been suggested as the causes of the disease, and apparently in China, as in the Islands, this explanation does not meet the facts.

I should like to point out that, even if good results are obtained by the use of arylarsonate compounds, that can hardly be taken as evidence of syphilis exclusively, having regard to the action of these compounds on other protozoa—for example, trypanosomes.

Dr. Graham Aspland in stating that I suggested the name of "ponos" for kala-azar in children has misunderstood my paper in the BRITISH MEDICAL JOURNAL of September 18th, 1909, as it was specially written with the idea of showing that the name "ponos" (which, as Dr. Yannakopoulos says, is the name given to the disease in

---

[1] *On Siphonage in the Large Intestine* (Churchill).

Spetsai, from the gangrene occurring in some patients, for the reason that in Greece we name every kind of sore "ponos" or "ponema") was merely a confession of ignorance, should be given up, the disease being recognized as kala-azar; and this suggestion, which has been favourably received, gains force from the work of Gabbi in Sicily on kala-azar in adults, of Nicolle in Tunis on kala-azar in children, and now of Dr. Graham Aspland in Peking on "kala-azar infantum."—I am, etc,

Larnaca, Cyprus, Feb. 4th. GEORGE A. WILLIAMSON.

ALBUMINURIA AND "RETURN" CASES OF SCARLET FEVER.

SIR,—Many investigations have been made by hospital authorities at different times into the causation of "return" cases of infectious disease, more especially of scarlet fever. While it has frequently been demonstrated that nose, ear, and throat conditions are the most common infecting sources of those "returns" of scarlet fever, yet a small percentage always remains in which no source of infection can be traced.

During 1909, 384 cases of scarlet fever were admitted to this hospital, and of these, 11 cases (or 2.9 per cent.) were "returns," allowing a limit of thirty days after dismissal of the possible infecting case. In looking over the complications those "infecting" cases suffered from in hospital, and disregarding the "non-discharging" complications, I found that 2 had rhinorrhoea, 3 had otorrhoea, 2 had rhinorrhoea and albuminuria, and 4 had albuminuria alone. In 3 of those last 4 cases no history of nasal, ear, or throat affection could be traced after dismissal.

Considering that, if albuminuria be the result of a toxaemia, it should occur more frequently in the more severe types of the disease, I investigated all cases which had exhibited albuminuria after the febrile stage had passed. Counting among the cases those in which albumen was only present for a few days, I found that the complication was as frequent in the mild forms as in the more severe, although the same precautions had been taken in all cases—the recumbent posture being insisted on in the early stages, and no case allowed out of bed before the twenty-first day.

The bacteriology of scarlet fever has not as yet been fully ascertained, although there is strong evidence that the infection is streptococcal. Mervyn Gordon's investigations have shown that while the *Streptococcus pyogenes* is frequently present, there is a second streptococcus, always found, and only found, in scarlet fever, which from its characteristics has been called the *Streptococcus scarlatinae* or *conglomeratus*. A streptococcus has been found in the kidney, and many believe that nephritis is the result of direct germ infection. A diplococcus has been isolated by Class from the throat and desquamation; Mallory considers the disease due to a protozoon—the *Cyclaster scarlatinalis*.

Under those circumstances a study of the bacteriological conditions of the urine in those albuminuric cases would be of service, but the few investigations conducted in this hospital have been negative.

In this hospital the patient is transferred in his fourth week to a convalescent ward, and for a few days before dismissal sleeps in a ward with a lower temperature with the idea of "hardening." Should any discharge or albuminuria occur, he is taken back into the convalescent ward. The patients are bathed on the morning of discharge, and remain in a fresh bed until ready for dismissal.

While it is admitted that the numbers are too small to be of value, that coincidence might account for the results, and that further arguments might be used against them, I would be glad to know whether the urinary condition may not act as a "carrier" in scarlet as in typhoid, and whether any connexion between albuminuria and "return" cases has been noticed in other hospitals.—I am, etc,

A. GILMOUR, M.D., D.P.H.

Infectious Diseases Hospital, Burgh of Paisley, Feb. 8th.

FOOD AND FEEDING.

SIR,—The writer of the articles on Food and Feeding in the BRITISH MEDICAL JOURNAL of February 12th and 19th appears to have missed the "germ of truth" in Mr. Horace Fletcher's statements. While investigating this subject I was able to show[1] that the soft palate formed part of a mechanism for the mouth digestion of starch. Mr. Fletcher, however, maintains that through poltophagy one is enabled to limit not only the starch but the proteid ration to its optimum quantity. In the case of carbohydrate there can be no question that poltophagy can be relied on to give a decided and definite end-point, which varies with either temporary physical states such as fatigue or those produced by climate or disease.

Those who are familiar with Dr. Francis Hare's book on *The Food Factor in Disease* will readily appreciate the importance of avoiding an excessive ingestion of starch in many conditions characterized by faulty oxidation. Poltophagy, on the other hand, cannot be relied on to act as a guide to the optimum proteid ration. There is a decided tendency to take too small a ration. Certain observations recounted in my papers[2] show that an insidious process of denutrition can arise from an inadequate ration continued over a long period of time.

Another most dangerous statement is that it is necessarily advantageous to reduce the bulk of the faeces. It is true that this proceeding may be advantageous as a temporary measure under skilled supervision, but it may result in obstinate constipation, it is to be presumed, from muscular atony through disuse. The letter of mine quoted in the article was not written for publication; it was intented to convey that as the gastric juice only penetrates at the rate of 1 mm. per hour[3] it is clear that the fine division of proteid food favours assimilation, and therefore diminishes the amount of proteid available for bacterial decomposition. A German observer showed that there was an advantage of 20 per cent. in the case of meat when it is finely divided. With regard to vegetarianism, it is worthy of consideration whether its good effects are not largely due to the increased mineral ration. A number of observations supporting this contention will be found in my papers.—I am, etc.,

Pallanza, Italy, Feb 20th. HUBERT HIGGINS.

A SHORT WAY WITH SYPHILITICS.

SIR,—The Canadian clergyman's assertion, though of course, it is unnecessary to say, silly as well as wicked, is by no means extraordinary or unusual. Similar myths are circulated with bated breath by the country people of Scotland even at this time of day, as I can testify. The tales all bear a family resemblance. In all the executioner is a medical man, and he is credited with performing a necessary, merciful, and perfectly justifiable act for the good, sometimes of the patient, sometimes of the community, according to the disease. As a boy I well remember being told, not once but repeatedly, of sufferers from hydrophobia being asphyxiated—not, indeed, by carbonic oxide gas, for that is a modern and "scientific" detail, but between feather beds, in order that their terrible sufferings might be brought to a rapid end. And after I had grown to the estate of a medical practitioner I myself was made the victim (or hero) on one occasion of a similar story, based upon the death of a patient from malignant syphilis. Thus superstition, like history, repeats itself in the New World as well as in the Old, and the foolishly credulous clergyman of Canada was merely making public one of those curious folk-beliefs which still linger on in the minds of ignorant, and sometimes even of so-called educated, people.

Indeed, the subject has a wider bearing. For it raises the question as to what the origin of these stories may have been. Were medical men, or other authorities, in the past entrusted with the responsibility of procuring euthanasia in cases of incurable, painful, or loathsome diseases? There is some reason to suppose that such methods of execution, or perhaps it would be more correct to use the term *lynching*, were in truth employed at one time. At all events, cretins used to be drowned as children of the devil, and, although I cannot at the moment lay my hands upon the book, I remember a reference to smothering

[1] Higgins, Is Man Poltophagic or Psomophagic? *Lancet*, May 20th 1905, p. 1334.

[2] Higgins, Observations on Blood Pressure, Chlorine Retention and Dechlorination, Hyperacidity, and Variations in the Starch Ration, *Lancet*, April 18th, 1908, p. 1136; also Re-mineralization in Faulty Metabolism, February 19th, 1910, p. 483.

[3] Hersen, *Comptes Rendus de la Soc. Biol.*, 1886.

for venereal disease being prevalent in France about the time of Louis le Grand.—I am, etc,

London, W., Feb. 18th. DAN M'KENZIE.

⁂ We are informed by another correspondent that in London it is firmly believed by many who ought to know better that women suffering from syphilis are smothered under mattresses at the Lock Hospital. Is this foolish belief inspired by moral indignation—which in old days used either to deny the shelter of hospitals to venereal cases, or cause the unfortunate sufferers to be treated in the most barbarous fashion? Or is it a confusion of ideas arising from the old stories about the way in which cases of hydrophobia were dealt with?

COLONIAL PRACTITIONERS AND THE BRITISH *REGISTER*.

SIR,—Will you allow me a short space to direct attention to the question of medical registration in Great Britain. If I remember correctly, the fee that I paid for registration was 5 guineas. The advantages thus paid for were medical status and a power by law to recover debts for medical and surgical attendance. For a student fighting against odds to enter the medical profession the fee was certainly heavy. At all events, it should have ensured a protection of the name and registration for the period of the enrolled practitioner's lifetime. It did not so protect myself. It is over thirty years ago, while in practice in Lameth, that, after a serious illness, I had to flee to save my life. I recovered, and for the above period have carried on the practice of my profession for eight or nine years in Victoria, and since that in Queensland, Australia.

In both Colonies I was duly enrolled by the Medical Boards, as I supposed in virtue of and in conjunction with my London registration. In neither instance had I to pay for the same. On returning to London on a visit, I found that my name had been erased from the *Register*, also from Churchill's *Medical Directory*. On appealing, I am informed that a letter sent to me was unanswered, and so my name was struck off. That is according to the law of the Council. First of all, let me point out, that British practitioners pioneering new countries, may easily never receive letters; if sent, I never received this one. Secondly, are not the Medical Council of Registration in touch with the Councils of the Australian States? My name has appeared on the State Roll, and why should it be erased when all along duly registered? Before being reinstated, I had to pay an extra £1, presumably a fine for the easy-going routine of the London centre. The question, in medical as in other departments, whether Great Britain is to be the centre of the great Empire, or are the States Registers looked upon as beneath notice? Such treatment of Colonials is certainly not the way to strengthen the Empire.—I am, etc.,

THOMAS P. LUCAS, M.R.C.S.E., L.S.A.Lond.,

Dulwich, Jan. 27th. L.R.C.P.Edin.

THE DIFFICULTIES OF MODERN PRACTICE.

SIR,—Some united action is needed to safeguard the interests of practitioners (whose living depends on their professional work) in the present day.

For all minor complaints even wealthy and educated people consult prescribing chemists, who perform small operations—for example, extracting teeth, opening whitlows, and removing tonsils. A girl consulted me a little time ago complaining of a "needle in her throat." She had been to a "consulting chemist," who was unable to find the needle, but gave her a bottle of medicine to counteract the "brass poisoning" from the ingestion of the needle!

Serious accidents in big towns are invariably taken to the nearest hospital. Of fractures, dislocations, and sprains the bonesetter has a monopoly. People call him a "specialist" in such cases! The Midwives Act has deprived the young practitioner of half or three-fourths of his midwifery fees, as at present working-class confinements are attended by midwives. This also means a loss of family practice, as the skilful management of a confinement is the best introduction for a doctor starting practice. Vaccination is done by a public officer free of charge. Part-time school medical officers, through their knowledge of the children's health, are often sent for by the parents as the most suitable men when their children are ill. Clubs, private dispensaries, and sixpenny consultations are taken advantage of by all and sundry. Prescriptions, which are now written in English by most men, are handed down from father to son for generations.

These are only some of the difficulties besetting the modern practitioner. Is it impossible to put our house in order before it is too late? Can nothing be done to make unqualified practice illegal?—I am, etc.,

A YORKSHIRE DOCTOR.

THE UNIVERSAL SERVICE PETITION.

SIR,—Members of our profession being closely in touch with the aspirations of the individual, as contrasted with the wishes expressed by the crowd, will have realized that a wave of rational self-consciousness is passing over the country.

To-day men are realizing more fully than they have for a generation their duty towards the nation and the empire. They have become somewhat tired and ashamed of estimating security by the quota of "Dreadnoughts," and they desire to take upon their own shoulders a proper share of the Imperial burden.

This sentiment has during the past eight weeks taken corporate form. A body of citizens, several of whom are members of our profession, have organized a petition for presentation to His Majesty the King, the wording of which purports to bring official discussion of efficient national defence at once upon the *tapis* of practical politics. The purpose of this petition may be summarized in the following sentences:

Recent events make it evident that defence of these islands must be organized now.

It is not advisable tacitly to await the time when Parliament shall consider itself free to devote itself solely to the discussion of defence.

Time will be saved if a decided answer is given by the people to the simple question—"Do you desire universal service for home defence?"

This answer, if it is to be in any degree unanimous, must be dissociated from all party questions, and can therefore be obtained only if the means of giving it is arranged by citizens unassociated with party politics.

No misunderstanding will arise if a petition is organized by the citizens for themselves, and if it is presented by the citizens to the Head of the State.

Opinions differ widely as to the amount of training and length of service which will be of value in a military sense, and possible without dislocation of trade.

Unanimity on these points cannot be arrived at, and they must be settled by Parliament in consultation with military and commercial experts before Universal Service becomes law,

The matter will never be discussed by Parliament until the people have signified their readiness to serve.

The "Universal Service Petition" has been organized by private citizens, uninfluenced by party politics or by any school of military thought, in order to give the individual an opportunity of answering the plain question—"Do you desire that every man should be trained to bear arms, and that he should be rendered liable to serve in defence of his country?"

The words "service" and "defence" are used here as they are understood by the man in the street, and do not necessarily connote service in time of peace or outside the country.

For the military experts the words "service" and "defence" may have a special meaning, but the man who signs the "Universal Service Petition" merely signifies his wish that every man should be armed for his country's defence and be taught to use his arms effectively. He will see to it that his representative in Parliament knows his exact wish before an universal service bill becomes law.

Without doubt the majority of the people are ready to bear arms; the minority should reflect that our shores are no longer invulnerable, and have to be guarded by an immense fleet, which is therefore unable to act on the high seas for the protection of trade routes and outlying parts of the empire.

Universal service, in which men of every class take their share, will restore national cohesion. A soldier thinks first of the welfare of the nation and the empire; the interests of his class and of his person take a second place.

Universal service improves the physique and morale of a nation, and by checking "Jingo" outbursts makes for peace.

If the head quarters of the empire are weak the whole structure may readily crumble.

The colonies are adopting manhood armed service. We can scarcely do less.

In the face of an actual armed menace we should all be clamouring for arms. An armed mob is worse than useless, and, opposed to trained troops, a nation hastily armed is a nation committing suicide.

Let us, therefore, demand arms now, and learn to use them effectively.

This demand is the meaning and purpose of the "Universal Service Petition."

The circulation of the petition papers requires organization; but the "Universal Service Petition" is in no sense a permanent body, and it is hoped that the work will be accomplished by voluntary effort in a period to be estimated in weeks.

The work is supported by numerous members of the existing patriotic organizations, and it has to-day received the official blessing of the "National Service League," of which Lord Roberts is president.

In each parish and village the doctor is the man who is in touch with every individual. He is, therefore, the man to initiate a movement springing from a popular desire, and it is hoped that a very large number of medical men will communicate with the secretary of the Universal Service Petition, 109, Victoria Street, London, S.W., who will furnish information and a scheme for the circulation of the petition papers.—I am, etc.,

ERNEST WAGGETT.

Universal Service Petition, 109, Victoria Street, Westminster, London, S.W., Feb. 19th.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

THE following degrees have been conferred:

M.B.—Alfred Joseph Clark, King's; Oswald Kentish Wright, Christ's; Edward Mellanby, Emm.
B.C.—Oswald Kentish Wright, Christ's.

Research Work in Parasitology.

An appeal is being made by Professor Nuttall for funds for the purpose of purchasing a site and for building, equipping, and conducting a field laboratory on the outskirts of Cambridge. The laboratory will be mainly for the study of protozoal and parasitic diseases. The laboratory and the funds collected will become the property of the University.

Already the sum of £988 has been collected; £1,000 has been promised when the fund reaches £6,000. The Government of Cape Colony has also placed the sum of £500 at the disposal of Professor Nuttall for the purpose of investigating East Coast fever. Copies of the appeal and particulars of the work already done and in contemplation may be obtained from Professor Nuttall, Medical School, Cambridge.

NATIONAL UNIVERSITY OF IRELAND.

UNIVERSITY COLLEGE, CORK.

Allocation of Balance of Fee Fund.

IN pursuance of the Universities Act, the balance of £14,044 of the Fee Fund, mentioned in Subsection 2 of Section 122 of the Local Government (Ireland) Act, 1898, has been already made available, and the details of the allocation of the balance, £2,365, of the sum £2,681 assigned to the credit of Cork University College. The following are the purposes for which the expenditure of the balance is authorized: The provision of additions to the equipment for the pathological department, £600; provision of new arts class rooms and rooms for lady students, £1,000; the purchase of bookcases for the college library and the erection of a staircase within, £250; the purchasing and binding of books for the college library, £200; the provision of furniture and fittings for the college workshop, £250; the provision of equipment for the physiological department, £50.

Compensation of Lecturers and Professors.

The University Committee of the Privy Council of Ireland has had before it appeals from the decision of the Joint Committee of the Dublin and Belfast Commissioners repudiating compensation to medical lecturers who had been attached to the Queen's College, Cork. The following gentlemen in their capacities as lecturers lost office when the Royal University was supplanted by that named the National University. The appellants were Dr. A. W. Sandford, Lecturer in Ophthalmology; Dr. A. E. Moore, Lecturer in Pathology; and Dr. P. T. O'Sullivan, Lecturer in Medical Jurisprudence.

The cases were presented by Serjeant Moriarty, who argued that the charter of the university defined the examiner to be an officer. These gentlemen formed a constitutional part of the board of examiners which framed the course of university studies. It could but be said that the board of examiners were not persons engaged in the business of the university. He insisted that the examiners were in every respect the same as Fellows, and pointed out that similar officers in Belfast Queen's College had been remunerated. Even charwomen had received compensation.

Witnesses having been called in support of the appellants, the Lord Chancellor announced that the Committee were of opinion that no case had been sustained, and therefore the appeals of Dr. Sandford, Dr. Moore, and Dr. O'Sullivan were dismissed.

The cases of Professors Pearson and Hartog were then taken. They petitioned for an increase of compensation awarded to them by the Joint Universities Committee, which they regarded as totally inadequate. The same counsel appeared in support of the claims of these gentlemen. The Lord Chancellor announced the decision that in neither case was there ground for interfering with the compensation already fixed; the appeals were dismissed.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

Examination for Fellowship.

THE examination for the Fellowship is divided into two parts—namely, the Primary (Anatomy, Physiology, and Histology) and the Final (Surgery, Surgical Anatomy, and Pathology). The examinations are held three times in each year in the months of March, July, and November. Examinations at any other time will not be granted under any circumstances.

Obituary.

SIR CHARLES HAYES MARRIOTT, M.D., F.R.C.S., D.L., J.P.,

CONSULTING SURGEON TO THE LEICESTER INFIRMARY.

SIR CHARLES MARRIOTT died at his residence, Kibworth Harcourt, Leicestershire, on February 14th, and by his decease Leicester and Leicestershire have lost the senior member of our profession, and an eminent surgeon.

Charles Hayes Marriott was born at Kibworth in 1834. The son of John Marriott, M.R.C.S., he was educated at Uppingham School. On leaving there he was articled to Mr. Nash of Northampton, and probably attended the practice of the county hospital there. After three years' apprenticeship he proceeded to University College, London, where he had the great advantages of residing in the house of the late Sir William Jenner, and of receiving his personal tuition. From this distinguished master Charles Marriott acquired not only an unusual amount of scientific and medical knowledge, but, as he himself often stated, he also derived a real love of his profession, habits of method and extreme punctuality, and a devotion to duty, thus laying the foundation of that professional success which came later to him in such large measure. Not content, as most students then were, to take only the College and Hall, nothing less than the highest qualifications both in medicine and surgery would content Charles Marriott, and having obtained the above qualifications, he became M.B.Lond. in 1859, F.R.C.S.Eng. the same year, and finally M.D.Lond. in 1863. Having acted as Physician's Assistant at University College Hospital, he determined to return to his native county, and obtained the House-Surgeoncy of the Leicester Infirmary, his connexion with which institution was only to be severed by his death fifty years later. Leicester, like Leeds, has a tradition of surgery. Thomas Paget, jun., son of T. Paget, sen., was still a surgeon at the infirmary when Marriott became House-Surgeon, and his colleagues were T. Macaulay and T. W. Benfield, all Fellows of the Royal College and able surgeons.

After two years' service as House-Surgeon, Charles Marriott started in practice in the town, and was elected surgeon to the infirmary in 1861. In a comparatively short time he obtained a good practice, and before long became recognized as the foremost surgeon of the district. Never giving up general practice, he, as his excellent medical degrees fully entitled him to be, was called into consultation almost as frequently in medical as in surgical cases, and few country practitioners can ever have had to deal with the amount of work that for many years fell to his share. In these days of motor cars, when a surgeon can put a nurse, a portable operating table, and half a dozen bags full of surgical appliances into his tonneau, and race away to an operation or accident twenty miles away in a time measured by minutes rather than hours, it is difficult fully to realize the stress and strain which a very busy country surgeon underwent in the early Sixties, and Marriott was never a robust man. Subject to "chills" at not infrequent intervals, which impaired his vitality and produced a perceptible condition of anaemia, he would rise from his bed after what to most men would have been a very insufficient time for recuperation, and resume his responsible and arduous work.

His connexion with the British Medical Association began early in his life. It is not quite certain at what date he joined the Midland Branch, but he was elected on the General Council of the Association in 1874, and must have been a member for some time at that date. He was a fairly constant attendant at meetings of the Branch, and

contributed papers on such subjects as Ligature of the External Iliac Artery by High Operation (Nottingham, 1876), Three Cases of Foreign Body in the Urethra (1877), Ligature of Femoral Artery under Antiseptic Plan (1879), and many others. In 1877 he was President of the Midland Branch.

At the Nottingham Meeting of the Association in 1902 he read a paper on simultaneous ligature of the subclavian and carotid arteries for innominate aneurysm, and showed the patient completely cured, on whom the operation had been performed nearly two years previously. The patient had previously been under the care of the writer of this notice, who has a vivid recollection of the admirable dexterity with which the operation was performed. The writer can also say from personal observation that Marriott never appeared in the slightest degree perturbed or daunted by the most untoward occurrences during the progress of his operations. On one occasion, after opening the abdomen with a view to removing a large growth, it was found that its base was too large for ligature—it was a sarcoma, and grew from the posterior wall of the abdomen. The retracted skin could not be drawn back over it to close the incision. Mr. Marriott, after a very few seconds of reflection, called for two long pins, with which he transfixed the base of the tumour at right angles to each other. He then wound a stout Esmarch's elastic ligature round beneath the pins, sliced off the greater part of the growth, and was thus enabled nearly to close the wound. Recovery was, of course, impossible, but the end of the patient was much more comfortable than it would have been if the growth had been left protruding.

Leicestershire, as the premier hunting shire, is naturally a locality where many accidents occur, and persons of the highest social standing from all parts of the kingdom, and even of the Continent, will remember Charles Marriott as their surgeon when suffering from the effects of such casualties.

Though during his surgical education in London the principles of asepsis and antisepsis were imperfectly understood, no sooner had Lister made clear to the profession the paramount importance in surgery of the rigid observance of all that goes under the name of Listerism, than Mr. Marriott at once proceeded to introduce the new procedure into his practice, and, having the advantage in the early Eighties of the co-operation of Mr. C. J. Bond as house-surgeon at the Leicester Infirmary, surgery in that institution soon became first antiseptic, and finally aseptic, to a degree unsurpassed elsewhere.

Another modern development in the care of the sick of which he early saw the importance was the scientific training of nurses. The Leicester Trained Nurses' Institution was founded largely owing to his influence and co-operation; he was for many years on its governing body, and always took a most lively interest in its welfare and progress.

Outside his strictly professional work he was an energetic member of the Society for the Prevention of Cruelty to Animals; his affection for animals was always a marked trait in his character. As he became able to devote more time to non-professional subjects, he took no inconsiderable part in the political life of the district in which he lived. Returning to his family home at Kibworth Harcourt while retaining his consulting-rooms in Leicester, he became the Chairman of the Unionist Association of the Market Harborough Division of Leicestershire. He led his party through several contested elections, unsuccessful from his point of view, but, as even his political opponents allowed, not from lack of energy on his part, and his last appearance in public was when he recorded his vote at the recent election. He was a supporter of all manly sports, though unable from stress of work to indulge in them during the best days of his life. He took great interest in cricket, was a Vice-President of his county club, and the writer has seen him when near or past 60 standing at a wicket in his garden withstanding not ineffectually the united assaults of two or three of his sons, no mean performers, and one a 'Varsity Blue and representative of Gentlemen *v.* Players.

He married at the age of 30 the daughter of the late Rev. John Gibson. He was singularly happy in his married life, and leaves a family of four sons and two daughters. One son is a barrister practising in the Midland Circuit, two are solicitors in London, and one succeeds him in practice and as a distinguished surgeon of the Leicester Infirmary.

His professional and political services were rewarded by His Majesty the King, who in 1904 bestowed on him the well merited order of knighthood.

He was buried on February 17th in the churchyard of Kibworth Harcourt, close to his family home, and a large number of medical and other friends attended the funeral.

He was emphatically a strong man—strong in the tenacity of his opinions, strong in his friendships, his likes, his dislikes. Incapacity in any form was abhorrent to him. Nurses trembled before him if conscious of shortcoming, but he was always ready to recognize and approve assiduity and ability. Of somewhat stern exterior, though distinguished in appearance, those who knew him best were aware what kindly feelings and lovable traits lay beneath.

T. KILNER CLARKE, M.A., M.B.CANTAB., M.D.(T.C.D.), F.R.C.S.,

SURGEON, HUDDERSFIELD INFIRMARY.

WE have with deep regret to record the death, on February 14th, of Dr. T. Kilner Clarke, of Huddersfield. Dr. Clarke, who was never of robust constitution, had been in indifferent health for eight or nine months, and the immediate cause of death was Bright's disease. Thomas Kilner Clarke was the son of the late Dr. J. W. Clarke of Huddersfield, who was once spoken of by the late Sir William Broadbent as the best general practitioner he had ever met.

Thomas Kilner Clarke, who was born sixty-six years ago, graduated M.A.Cambridge in 1871, and received his medical education at Cambridge, Paris, and Guy's Hospital. In 1871 he took the degree of M.B.Cantab., and the diploma of M.R.C.S. As a young man he held the offices of House-Physician to the London Fever Hospital, Clinical Assistant to the Evelina Hospital for Children, and Resident Clinical Assistant at the City of London Hospital for Diseases of the Chest. In 1872 he became a Fellow of the Royal College of Surgeons of England, and in 1873 took the degree of M.D.Trinity College, Dublin. At about this period he succeeded to his father's practice; he was appointed Surgeon to the Huddersfield Infirmary, and turned his attention particularly to surgery. He followed the practice of the late Mr. Lawson Tait for six months, and became one of the most successful abdominal operators in the West Riding; he was, we believe, the first surgeon in England to perform successfully the operation of gastro-enterostomy with Senn's approximation plates. The case was reported by him in a short paper which he published in the BRITISH MEDICAL JOURNAL of November 16th, 1889, adding, "No toilet of the peritoneum was needed, and cleanliness was the only antiseptic." About ten years ago he gave up general practice and confined himself to consulting work. Among the subjects of which he wrote was the treatment of tuberculous peritonitis by washing out the abdominal cavity with carbolized water, gastro enterostomy, and extrauterine gestation.

He had served the office of president of the Yorkshire Branch of the British Medical Association, of the West Riding Charitable Society, and of the Leeds and West Riding Medico-Chirurgical Society, and was vice-president of the North of England Gynaecological Society. He was a certifying factory surgeon for the Huddersfield district, and a medical referee under the Workmen's Compensation Act; he was Medical Officer to the Huddersfield Post Office, and to the London and North-Western and Lancashire and Yorkshire Railway Companies. He was placed on the Commission of the Peace for the Borough of Huddersfield in 1903. He was a Conservative in politics, and a loyal member of the Church of England.

In the midst of a busy life he found time to gratify his love of sport; he was a good shot and a great fisherman. Not many years ago he went to the Gulf of Mexico for tarpon fishing, and one of the trophies he brought home from this expedition—a tarpon weighing 136 lb.—is now in the Huddersfield Technical College Museum. He also enjoyed hunting, and his love of horses and detestation of the bearing rein led him to become President of the Huddersfield branch of the Royal Society for the Prevention of Cruelty to Animals. Dr. Clarke is survived by his wife, for whom very wide sympathy is felt, for Dr. Clarke had endeared himself to the people among whom he lived

as not only a brilliant surgeon, but a most courtly and kindly gentleman.

Dr. Reginald G. Alexander (Consulting Physician to the Halifax Royal Infirmary) writes: Dr. Kilner Clarke was the best "all-round man" I ever met. I formed this opinion of him many years ago, when he called me over to see a case of his in consultation, and gave me a most graphic account of its history and progress—a distressing case of aneurysm; but for the comfort and well-being of his patient he had applied every possible means of treatment which human ingenuity could suggest or contrive for amelioration of suffering, and for the possibility also of a spontaneous cure. I returned with the feeling that Huddersfield was most fortunate in the possession of such a practitioner. I speak only of his professional capacity. Of his loyalty to the profession, and his geniality, those who have been constantly with him bear abundant testimony. Our profession would be greatly ennobled if we had more men like Kilner Clarke.

Professor WILHELM KRAUSE,

BERLIN.

Professor Wilhelm Krause, Geheimer Rath, the well-known anatomist, died in Berlin on February 2nd, and is much regretted by all who knew his writings and had the pleasure of his friendship. Krause's father was an anatomist of repute; he wrote an elaborate work on human anatomy, which was afterwards edited by his son, and published in four volumes. Wilhelm Krause came under the influence of Hyrtl of Vienna, and of Henle, and of Karl Ludwig of Zurich, afterwards of Leipzig. He used to tell of his first introduction to Hyrtl. He was ushered into a room where on looking round he discovered Hyrtl on his knees on the floor looking for a small mouse that had escaped from captivity. Much of Krause's life was spent at Göttingen with Henle. There he made many of his histological researches on muscle and nerve, and wrote an elaborate book on the anatomy of the rabbit. This was dedicated to Ludwig of Leipzig. Professor Krause reminds Professor Ludwig that he had obtained the degree of Doctor of Zoology from Leipzig University. Krause went to Berlin eighteen years ago, where the Anatomical Institute, of which Professor Waldeyer was, and is, Director, had already given promise of a wider and more extended field of usefulness. Krause became President of the Laboratorium and Lecturer on Anthropology. He also continued to give lessons on histology. He was much interested in the progress of the work for the new buildings for both men and women students, and participated in the aspirations of the director and his colleagues to have the equipment perfect. When advised to slacken off work, his keenest regrets were that he would not be able to arrange the specimens. It was obvious to all Professor Krause's friends that he was in a whole-hearted manner devoted to his work. He was loyal to his friends, whose interests he identified with his own. Krause was a student all his life; the keynote of his character was accuracy of thought and precision of action. He did not seem ever to be tired working at his favourite science, and was greatly attached to the director, his colleagues, and students. The vivid nature of his writings in manuscript and type was remarkable; the words and sentences appeal at once to the reader; they have the singular properties that the works of Charles Darwin, Huxley, and Carpenter had of stimulating men to action and research. Krause took much interest in the workers in anatomy in all countries. Indeed, he reviewed their writings for special departments in both Schwalbe's and Virchow's *Jahresberichte*.

A few years ago he wrote an account of the revised anatomical nomenclature. He had been secretary of the committee appointed for the revision of this. Professor Krause also wrote, in recent years, an anatomical text to accompany a new book of anatomical plates. His last book was published about a year ago—a volume on the bones of the arm and leg, for the colossal work on anatomy, edited by Professor K. von Bardeleben. He was already growing weaker before this book was completed, but the work shows no signs of abating energy or mental fatigue. This is not the least wonderful feature in the life of this eminent man, who was 76 years of age when the book was published. The work is a crowning monument of a laborious life. Professor Krause belonged to that class of men for which Continental science is remarkable, and which counted Kant and Hegel, Helmholtz, and Kronecker, J. Müller, Kölliker, Ludwig, Cruveilhier, and Hyrtl amongst the number who studied how best to fit themselves for laborious and important work, and to maintain the working machine in the greatest efficiency. Professor Krause's friends in this country will sympathize with the director and his colleagues in Berlin in the great loss they have experienced.

It will be remembered that the international monthly journal of anatomy and physiology founded by Professor Krause published a *Festschrift* in his honour in 1904. This contained contributions from the director and staff of the Anatomical Institute at Berlin and from many old friends and pupils.

Professor Krause leaves a wife and sister to mourn his loss.

We regret to announce the death on February 13th of Arthur William Wheatly, M.B.Durh., M.R.C.S.Eng., L.S.A., of South Kensington, at the age of 54 years. Dr. Wheatly was a student of St. Bartholomew's Hospital, and he was known from the first as industrious and painstaking. In 1880 he obtained the gold medal for Materia Medica of the Apothecaries' Hall and other honours from the teaching and examining bodies. A career which began so well developed into that of a reliable and skilful practitioner. He endeavoured to qualify himself in various special departments, as, for instance, in orthopaedic work, public health, and in ophthalmology. He was specially attracted by the latter, and, having been appointed Assistant Surgeon at the Western Ophthalmic Hospital, became in due course Senior Surgeon, and at the time of his death was Consulting Surgeon. But his friends always regarded him as a most reliable general practitioner. Soon after settling in Kensington some twenty-five years ago he succeeded to the practice of the late Dr. James Lattey, who held him in very high esteem. He was peculiarly successful in diagnosis, and rarely ventured an opinion beyond the facts before him. He understood drugs, and was cautious in their use. He had a high sense of what was due to his professional brethren, who always found him courteous and helpful. He had been in ailing health for a long time, but at the end was laid up only for about a month.

To the great regret of his friends Dr. Samuel Evans died at Dovercourt on February 6th, aged 63 years. He received his medical education at University College, London, and obtained the diplomas of M.R.C.S.Eng., L.R.C.P.Lond., also the diploma of the Apothecaries' Society in 1870. Soon afterwards he settled in Harwich, and resided in that borough until his death. He held the following appointments: Admiralty Surgeon and Agent, Poor Law Medical Officer, Medical Officer to the Post Office and the Trinity House. He held the above appointments up till about three years ago, when, owing to failing health, he retired from practice. He was one of the original members of the Medical Defence Union, and was a few years ago elected to the council of that society. He had also been intimately associated with the municipal life of the borough of Harwich; he served on the town council for three years; in 1897 was elected Mayor, and carried out his duties during his period of office with conspicuous ability. He was also a borough magistrate, and was a constant attendant on the bench, where he was always sympathetic and merciful. Dr. Evans leaves a widow, two daughters, and a son, who is in the Welsh Regiment in Egypt, to mourn his loss.

The death is announced of Deputy Surgeon-General Alfred Eteson, C.B., M.D., late of the Indian Medical Service, in his 78th year, after a short illness. He entered the Bengal Medical Department as an Assistant Surgeon, May 20th, 1854, becoming Deputy Surgeon General December 20th, 1883, and retiring from the service in 1889. He served in the Indian Mutiny campaign in 1857–8, being present at the relief of Arrah, at the capture of Juddespore, and the actions of Amorah

and Khiree; he was several times mentioned in dispatches, and received a medal. He was also in the Afghan war in 1879, receiving a a medal, and with the Akha Expedition in 1883–4. He was made a C.B. in 1907, in connexion with the fiftieth anniversary of the Indian Mutiny. He became a member of the Royal College of Surgeons in 1854, and obtained the degree of M.D. of the University of St. Andrews in 1878.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are: Dr. W. Frank Haehnlen, Professor of Obstetrics in the Medico-Chirurgical College of Philadelphia, aged 50; Dr. Filippo Cerasi, founder and editor of the *Gazzetta Medica di Roma;* Dr. A. Serratosa, Professor of Symptomatology in the Medical Faculty of Montevideo; Dr. C. Gioffredi, Lecturer on Therapeutics and Experimental Pharmacology in the University of Naples; Dr. Franz Windscheid, Professor of Neurology in the University of Leipzig, aged 48; Dr. Emanuel Zaufal, head of the Otological Clinic of the University of Prague, aged 73; and Dr. Sergei Botkin, Physician-in-Ordinary to the Czar of Russia, a son of the famous physician of that name, aged 51.

WITH reference to the notice of the death of Dr. Muskett published in our issue of October 30th, 1909, p. 1310, we are informed that probate for his will was taken out at £15 000, and that the amount to be distributed among the charities mentioned is the interest on £1,000, the first seven hospitals receiving interest on £100 each, and the remaining six interest on £50 each.

Medico-Legal.

WORKMEN'S COMPENSATION.

Pneumonia.

THE case Langley *v.* Reeve, heard in the Court of Appeal on February 9th, by the Master of the Rolls and Lord Justices Moulton and Buckley, was an appeal by the employers from the County Court, Lowestoft, which had made an award in favour of the dependents of the applicant workman. It was admitted that the workman, who was employed to watch smacks and other vessels at Lowestoft, died of acute pneumonia after a short illness. There was no evidence of an accident except deceased's statement that he thought he must have strained himself by hauling a rope, or jumping from one smack to another. There were three questions to consider—whether the statements made by the deceased were evidence; whether, if they were, they were real evidence of an accident having happened; and whether there was evidence of pneumonia resulting from the accident. The County Court judge, finding himself in a difficult position with regard to the medical evidence, which was conflicting, called in a medical referee as assessor, who formed an opinion adverse to the claim, but the County Court judge nevertheless found in favour of the dependents. After argument, the Court of Appeal allowed the appeal on the ground that there was no evidence of any accident arising out of and in the course of the man's employment.

RECOVERY OF CHARGES.

DISGUSTED writes that an agent of an insurance company left a message at his house, requesting him to call and see a man who had met with an accident. He attended the man for six weeks, and he wishes to know who is liable to pay his fees.

*** If our correspondent could prove that the agent was authorized by the company to call in a doctor, the company would be liable to pay, but not otherwise. A medical practitioner should never undertake such a case without having a guarantee in writing from some responsible party for his charges. If urgency makes prompt attendance at the time necessary, a guarantee should be obtained immediately afterwards.

The Services.

ARMY NURSING SERVICE.

THE Secretary of the War Office announces that Miss E. H. Becher, R.R.C., Principal Matron, Queen Alexandra's Imperial Military Nursing Service, has been selected to succeed Miss C. H. Keer, R.R.C., as Matron-in-Chief at the War Office when the latter vacates that appointment on April 5th next.

Public Health
AND
POOR LAW MEDICAL SERVICES.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Metropolitan Borough of Wandsworth.—The infantile mortality-rate in Wandsworth in 1908 was only 98 per 1,000 births, a very considerable improvement upon that recorded in 1898, which was 142 per 1,000. This satisfactory condition is no doubt due in a large degree to the employment by the Borough Council since 1905 of women inspectors. Of the 7,331 children born during 1908 nearly 2,000 were visited by these officers. Although the visits were almost wholly confined to the poorer classes, the deaths among these 2,000 children numbered only 66. The number of mothers giving food, which means bread sop or biscuit, in addition to the breast was found to be much less than formerly, and the use of farinaceous food is on the decrease, while the use of boat bottles is largely on the increase. As many as 80 per cent. of the 2,000 children visited were wholly breast-fed. These results should be gratifying not only to the medical officer of health, Dr. Caldwell Smith, but to the inhabitants of the borough generally, and the members of the Borough Council will be well advised if they place at the disposal of the health department the assistance necessary for developing its work in the direction indicated above.

Medical News.

A WOMEN'S medical college is to be opened at Odessa in August next.

A MOTOR ambulance brougham is being made for the Corporation of Glasgow by Argylls, Limited.

DR. J. MULVANY, who has been a member of the Portsmouth Town Council for eighteen years, was elected an Alderman by the Council at its meeting last week.

SIR JAMES CRICHTON-BROWNE, F.R.S., will preside at the annual dinner of the London School of Clinical Medicine (Post-graduate), at Princes' Restaurant, on March 15th.

THE London County Council on February 22nd decided to increase the salary of Dr. C. J. Thomas, Assistant Medical Officer in the Education Department, from £700 to £750 a year, rising by one increment to £800. It was stated that during the last seven years Dr. Thomas had done work of first-class quality and of an original nature, requiring a capacity of a specially high order.

SURGEON CHARLES F. STOKES has been appointed Surgeon-General of the United States Navy and Chief of the Bureau of Medicine and Surgery, in succession to Surgeon-General P. M. Rixey, who retired on February 4th after thirty-six years' active service. Surgeon-General Stokes, who entered the service on February 1st, 1889, will have the rank of Rear-Admiral.

THE annual banquet of the Institute of Brewing was held on February 18th at the Criterion Restaurant, and among the guests were Sir William Ramsay, Lord Justice Fletcher Moulton, Sir Edward Thorpe, Professor H. E. Armstrong, and Sir Nathaniel Highmore. Lord Justice Fletcher Moulton, in proposing the toast of "The Institute," referred to the valuable work done by the institutes formed by some of the great industries, in which the selfish policy of trade secrets was abandoned, and the results of science were applied to promoting progress. He regarded the Institute of Brewing as second to none in that respect, but of their product he spoke as an outsider, having scarcely ever tasted beer in his life. The application of science to brewing really began with Pasteur's studies of fermentation, and it was, therefore, within the lifetime of some of those present that the whole of the results had been obtained. One of the results—the increasing production of light beers—was of great importance to the nation, and was a most important auxiliary to the growth of moderation. It was only the ignorant who could suppose that the application of science to brewing was to increase adulteration; its real effects were the substitution of economy for waste and of certainty for chance. The President, Mr. H. H. Riley Smith, having replied, Mr. Edwyn Barclay, the retiring President, referred to an extensive course of experiments about to be undertaken jointly by that institute, the Pasteur Institute, and the German Institute of Brewing, with a view to determining the real nutritive value of different beers in comparison with other articles of diet.

Letters, Notes, and Answers.

BRITISH MEDICAL ASSOCIATION AND BRITISH MEDICAL JOURNAL.

The offices of the British Medical Association and of the British Medical Journal are at 429, Strand, London.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted will be found under their respective headings.*

QUERIES.

Spes Meliora asks for a cure for warts on the hands and fingers; he has tried various remedies, including lime water, as recently recommended.

Treponema would be obliged for an opinion as to the likelihood of infection being conveyed to customers through meat supplied—and handled by the servants before cooking—by a butcher, or milk supplied by a farmer, both of whom are suffering from syphilitic tertiary skin lesions of either the hands or arms.

Bacteriological Research.

S. B. W. asks where he may find a summary of recent advances in bacteriology.

*** If the Epitome of the British Medical Journal is not sufficient for his purpose, he should consult the *Centralblatt für Bakteriologie*, published by Gustav Fischer in Jena.

Treatment of Prurigo Senilis.

Nemo asks for advice in the treatment of prurigo senilis in a lady over 70 years of age. This disease has existed for more than a year, and affects the back of the neck, the dorsal and lumbar regions, and the extensor surfaces of the arms, forearms, thighs, and legs. The affected parts are covered with scabs and raw surfaces produced by scratching. There are no pediculi, and gout and rheumatism can be excluded. The urine is free from sugar. The patient is neurotic and difficult to control. Treatment, both internal and external, including various medicated baths, has been tried, but with no relief.

Veronal Poisoning?

W. M. H. writes: Could the following be a case of veronal poisoning? On February 5th I was summoned, late in the evening, to a young lady who had been five days here on a visit; she was suffering from a "cold" which was thought to be influenza. She had been three days in bed but got up on February 5th, and after tea was "seen to be staggering and could not be understood." I found her reclining near the fire, pale, quite cold, and limp. The pulse was slow and hardly to be felt and respiration was very quiet. The eyelids were closed and could not be voluntarily opened; the pupils were widely dilated and irresponsive to light. She was perfectly sensible and tried to reply, but the speech was exactly like that of a very drunken man, and could with difficulty be understood. She complained of vertex headache. The tongue was raw and pointed, the breath had no particular odour. She swallowed stimulants with choking and coughing, as if some could not be kept out of the trachea. She was carried to bed. The lungs were found unaffected. The heart's action was regular and slow, and comparatively much stronger than the pulse. There was no history of pains or debility suggesting influenza. I was now shown "her medicine which she had brought with her," namely, a bottle two-thirds full of phenacetin and caffein tablets, and another of veronal nearly empty. She said she had taken one of the latter, nightly, for some days past, and two on February 5th. She remained in the same listless, drowsy, prostrated state, all night and next day; except that on February 6th the speech was much better, swallowing good, and pupils had some reflex. The tongue was thick, moist, and furred; micturition had not occurred, no distension was felt, though she had taken and retained a large quantity of fluid, and on passing a catheter, not a drop was found in the bladder; only two hours after the bowels had moved in the evening was urine passed (that is, twenty-six or twenty-eight hours); it was unfortunately thrown away. On February 7th she could open her eyes, turn herself, and pass water, was quite rational, and spoke plainly. On February 8th she only complained of great pain in the vertex; she said she had suffered from severe cephalalgia and sleeplessness all her life. She wanted to return to France, and said a friend there recommended the tablets to her. She now asserted that she only took one tabloid on the night of February 4th. On February 10th her whole body was covered with a bright red, blotchy, irritable rash, which appeared the previous evening. It was attended with no constitutional disturbance, and on February 11th had nearly faded. The patient was quite herself and was out-of-doors on February 14th. Whether this was veronal poisoning or not, it proved a useful object lesson to a large household, as to the danger of self-prescribing.

ANSWERS.

Headache after Sleep.

W. A. M. (London) writes: Being interested in the treatment of headache in a gouty male patient, I may say that in my case, contrary to Dr. W. G. Walford's experience, it is not due to wearing tight neck clothing. From boyhood I have adopted loose collars, and for night wear very loose ones. The headache is, in my opinion, due to venous congestion, and I find that the discomfort passes off after a hot morning bath and the exercise involved in dressing. The suggestions I would make are: An open bedroom window, a limited allowance of meat, alcohol, and tobacco, and at meals and before going to bed a liberal allowance of water to drink.

LETTERS, NOTES, ETC.

Cancer Houses and Dry Rot.

Dr. B. C. Stevens, D.P.H. (County Buildings, Ayr) writes: Mr. Ernest Hazell's letter is interesting in so far as it revives an old theory with regard to one of the many-named causes of cancer. Nowadays, however, I do not think many medical men attribute any importance to houses, or even to districts, where cancer is said to prevail. Cancer is, unfortunately, so prevalent amongst all classes and conditions of people, that one must look to other causes than locality. In an essay on cancer written thirteen years ago I laid stress on the "constant irritation" theory of cancer—namely, that cancer shows itself in the majority of cases in situations that are both normally and abnormally the seats of irritation; and that this, happening in subjects whose cell activity is not in a condition of metabolic equilibrium, starts a proliferation of cell growth and activity in the tissues affected. I see no reason to alter or amend this theory so far as our knowledge of the cause of cancer goes at present. As Mr. Hazell admits, he is not a bacteriologist, or he would know that the harmless and feebly resistant spores of a mould such as dry rot could not affect a potato except very superficially; and, moreover, that spores as such cannot attack anything or anybody until they hatch out and become living organisms. Supposing, however, that the potato were affected superficially, the washing and peeling of it prior to cooking would destroy the mould; or, again, suppose the potato were affected through and through, the twenty minutes boiling or roasting or baking required to cook it sufficient to make it edible would probably destroy the most resistant spores or micro-organisms. The professions of architecture and medicine are closely allied in sanitary science, and, writing on behalf of the medical profession, we welcome any interest shown in our work by our allies.

Treatment of Tetanus.

Dr. G. W. Johnstone (Calcutta) writes: Dr. Gill is to be congratulated on reporting his interesting case of tetanus (British Medical Journal, 1909, vol. ii, p. 1798), although his patient died. Dr. Hessert, in a valuable contribution on this subject (*Surgery, Gynaecology, and Obstetrics*, No. 2, vol. ix, August, 1909), naively remarks: "Recoveries will get into literature oftener than deaths." I can recommend a perusal of Dr. Hessert's interesting contribution to Dr. Gill and all interested in a commonly lethal condition unmastered by all our methods up to now. I have no doubt that the carious cavities were the source of the mischief in this case. I have more than once found marked trismus present in severe dental caries, which was relieved by extraction and thorough disinfection of the oral mucous membrane. Could this be done with the elevator or otherwise in spite of the trismus, or the spasm which, as in this case, supervened later, be eliminated? "Spinal injections of magnesium sulphate solution, by eliminating the spasms, will tide many a patient on to recovery who would die under any form of serum treatment alone," when the carious teeth could all be extracted. It is well to know that general tetanic convulsions may follow the initial trismus due to this cause, as no time should be lost in extracting the offending molars. Dr. Hessart's dogmatic assertion that "if there is a fatal dose then on the way—that is, of the toxin—in these various nerves, no treatment, no matter what it is, can save life," may be some consolation to Dr. Gill. Let us hope, however, that time will show that this pessimistic view is too previous.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page	8	0	0

An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

Note.—It is against the rules of the Post Office to receive *poste Restante* letters addressed either in initials or numbers.

Right. Left

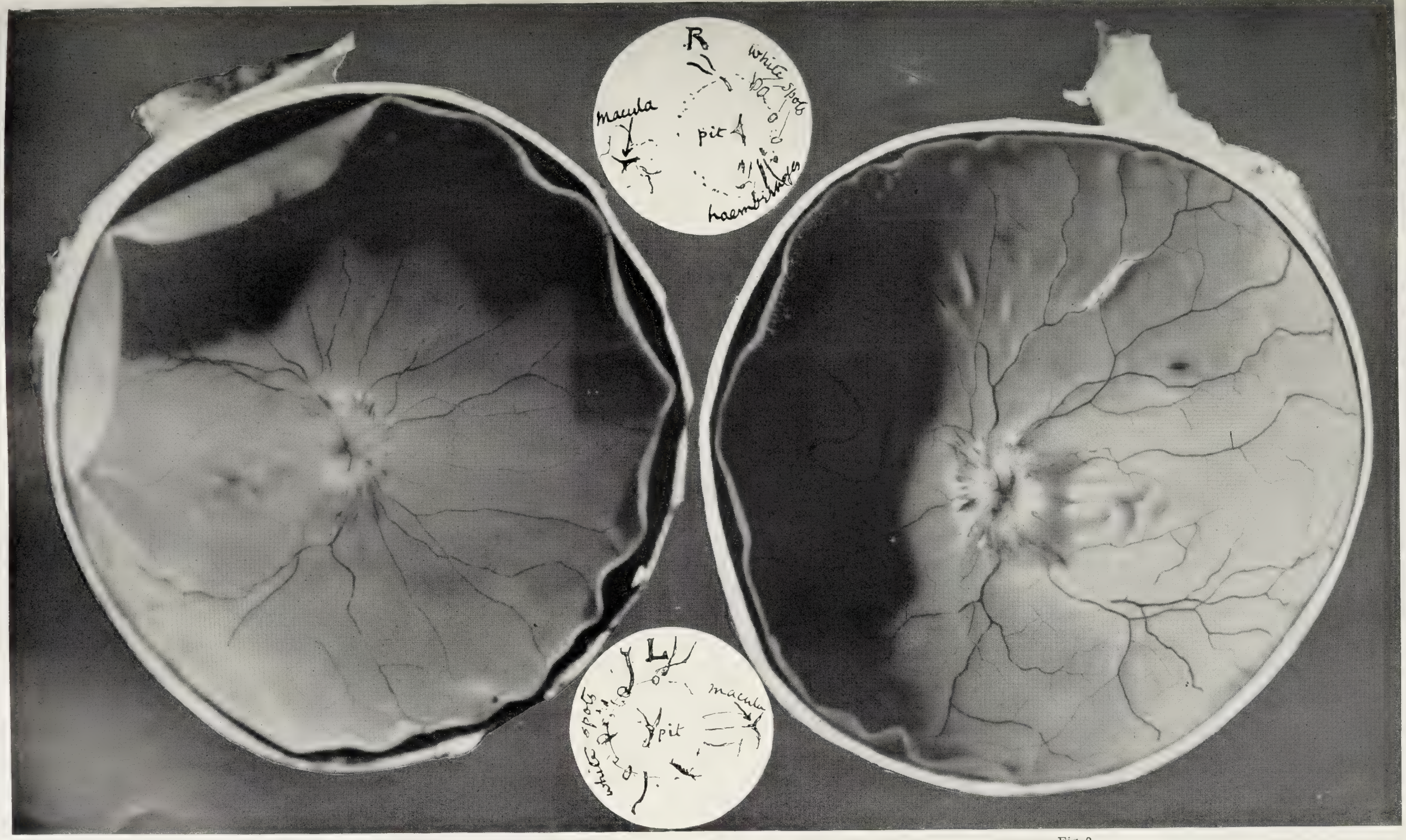


Fig. 1. Fig. 2.

Case III.—P——. *Tumour of Left Temporo-occipital Region.* Note specially the white (degeneration) spots grouped around the nasal disc margin at point of greatest tension. The swelling and changes most intense on the side of the tumour.

Right.

Left.

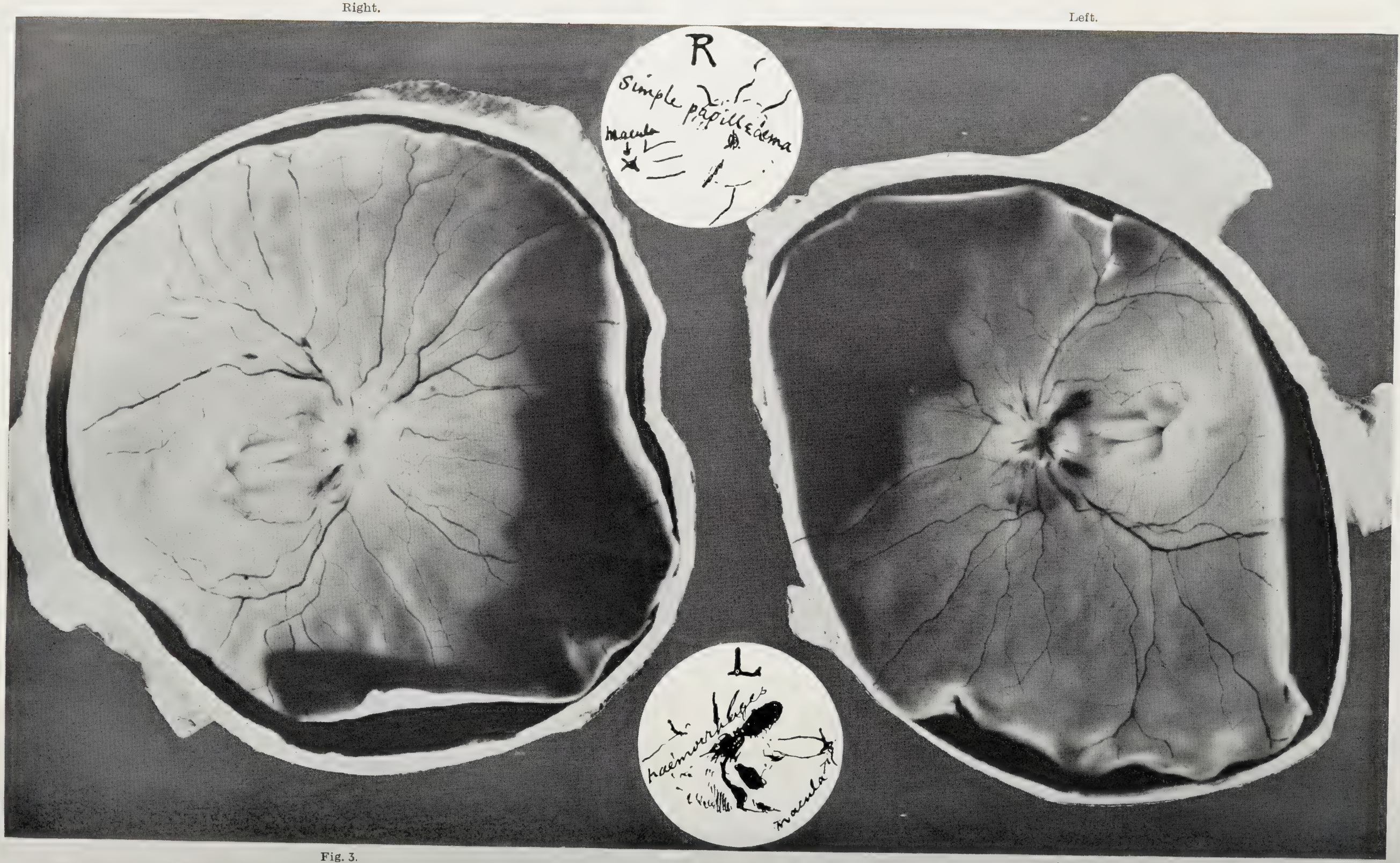


Fig. 3.

Case II.—B——. *Tumour of Left Frontal Lobe.* Haemorrhage shortly before death, causing severer papilloedema and haemorrhages on the ipsolateral side.

Fig. 4.

No degeneration spots, owing to brief clinical duration of neuritis.

Right. Left.

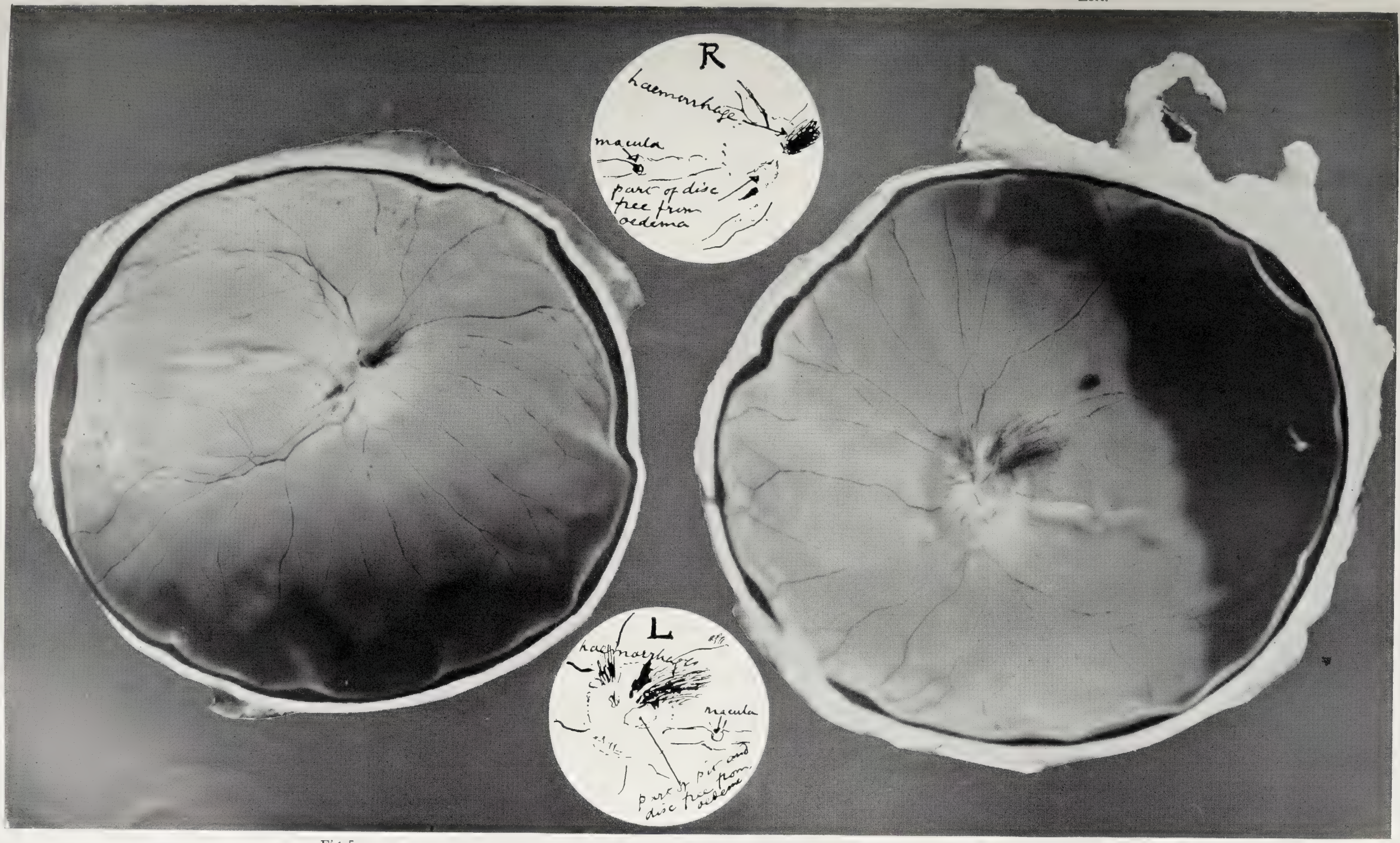


Fig. 5.

Fig. 6.

Y——. *Tumour of Left Lateral Cerebellar Recess; **Marked Ipsolaterality.*** Note topographical distribution of the papilloedema on disc: that is, most at upper border, least at inferior temporal region.

Fig. 7.—Brain from Case II. Mesencephalon divided, shows, besides scattered haemorrhages in the crus and brachium, a large haemorrhage in the right third nerve nucleus.

Fig. 8.—Brain from Case II. Viewed from the front, showing the distension of the left hemisphere by a tumour which has compressed and distorted the corpus callosum, showing that the pressure was severest vertically over the right optic nerve.

Fig. 9.—*Early Optic Papilloedema.* Eyeball and optic nerve from case of lateral recess cerebellar tumour (see Figs 5 and 6). Showing the ampulla due to dilatation of the sheath to be more marked on the dorsum of the nerve.

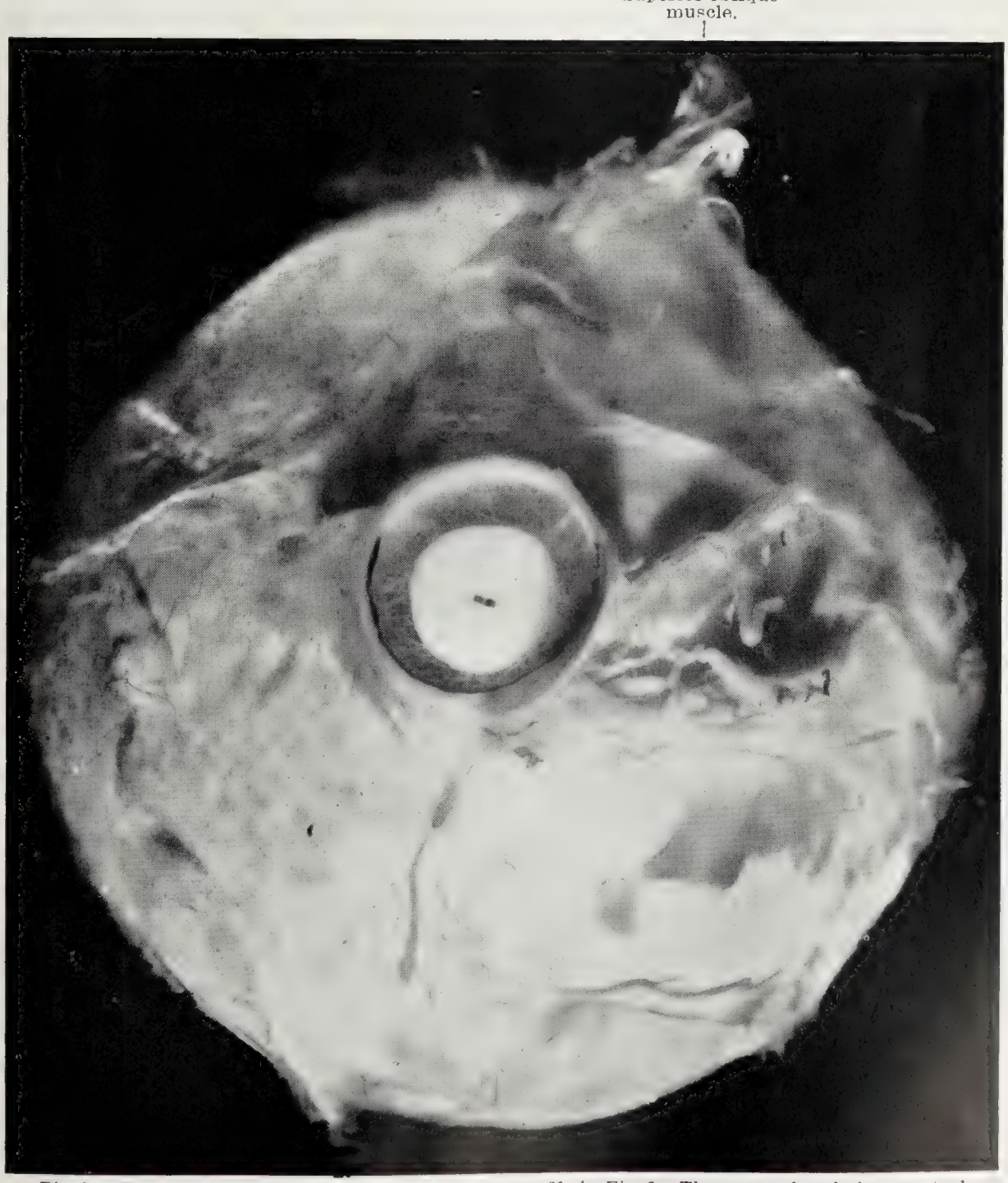


Fig. 10.—Transverse section of ampulla shown in profile in Fig. 9. The nerve sheath is seen to be more distended in the dorsal half. (Magnified 4 diam.) Case of lateral recess cerebellar tumour

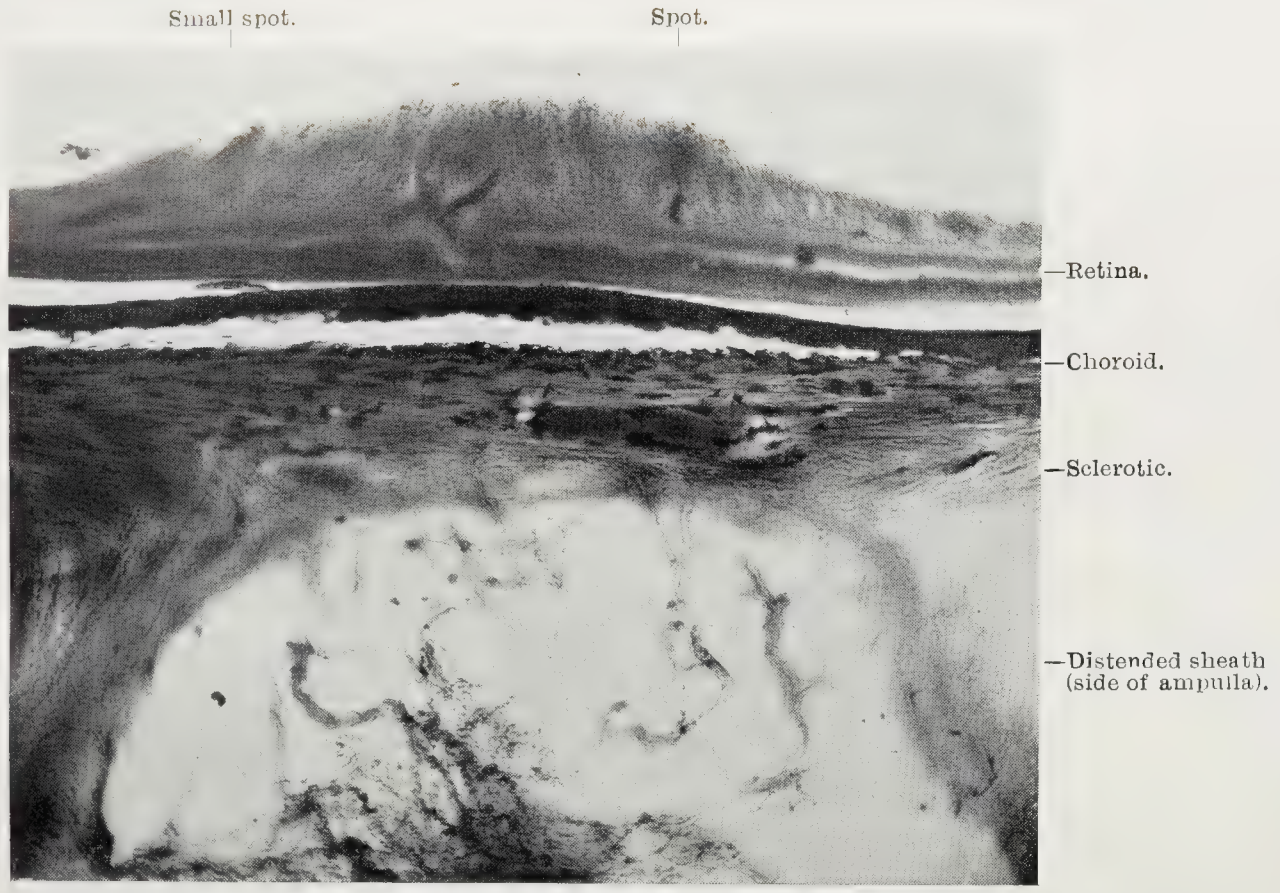


Fig. 11.—*Tumour Papilloedema.* Case III. Vertical section through the nasal border of the right disc. (See Fig. 3.) Osmic acid preparation. Showing two white spots in section stained black.

Fig. 12.—*Tumour Papilloedema.* Case III. Section through the nerve fibre layer at the centre of a white spot. (*Double staining with osmic acid and iron haematoxylin.*) Two large vessels are cut transversely in the ganglion cell layer, and beneath these is the spot, composed of two kinds of phagocytes: (*a*), Connective tissue type, full of black granules; (*b*), nucleated macrocytes formerly supposed to be derived from varicose nerve fibrils.

Fig. 13.—*Albuminuric Retinitis.* Fundus showing oedema of whole retina as well as papilla, numerous haemorrhages, and some white spots. The macula is seen swollen above and to outer side of disc.

Fig. 14.—Brain from Case III. Showing tumour of left temporo-occipital region, comprising pons and red nucleus region of mesencephalon. See Figs. 1 and 2, showing the papilloedema to be severest on the left side.

Fig. 15.—*Albuminuric Retinitis.* This section of the disc in Fig. 13 passes through, on the left side of the pit, a haemorrhage covered by white spot. The fat-containing phagocytes lying between the intima and the haemorrhage are stained black (osmic acid). Central vessels show partial stasis.

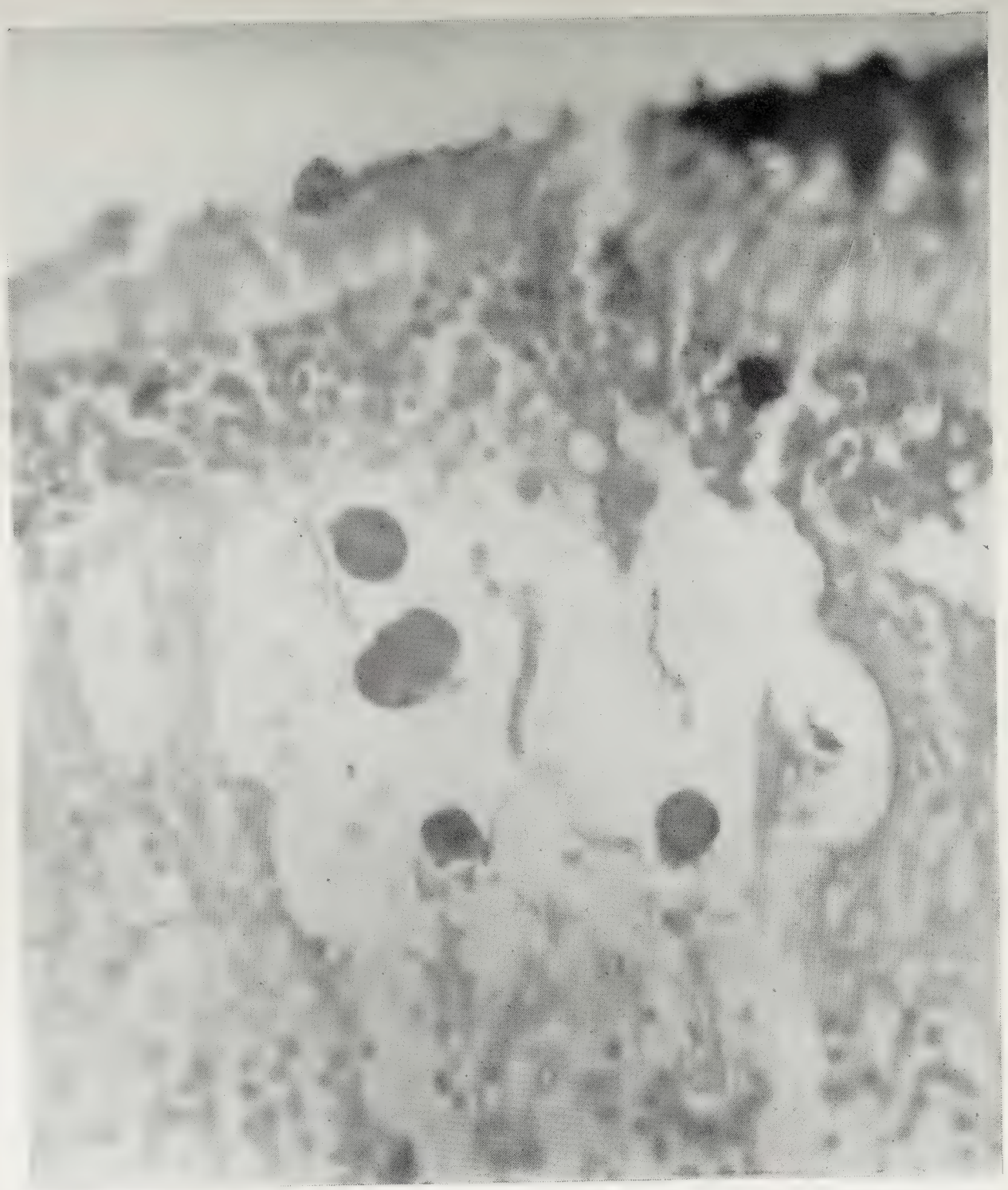


Fig. 16.—*Albuminuric Retinitis.* Showing four macrophages in the oedematous and distorted outer granule layer. Only the lowest shows survival of the nucleus. The corpuscle lying on the cones is a leucocyte.

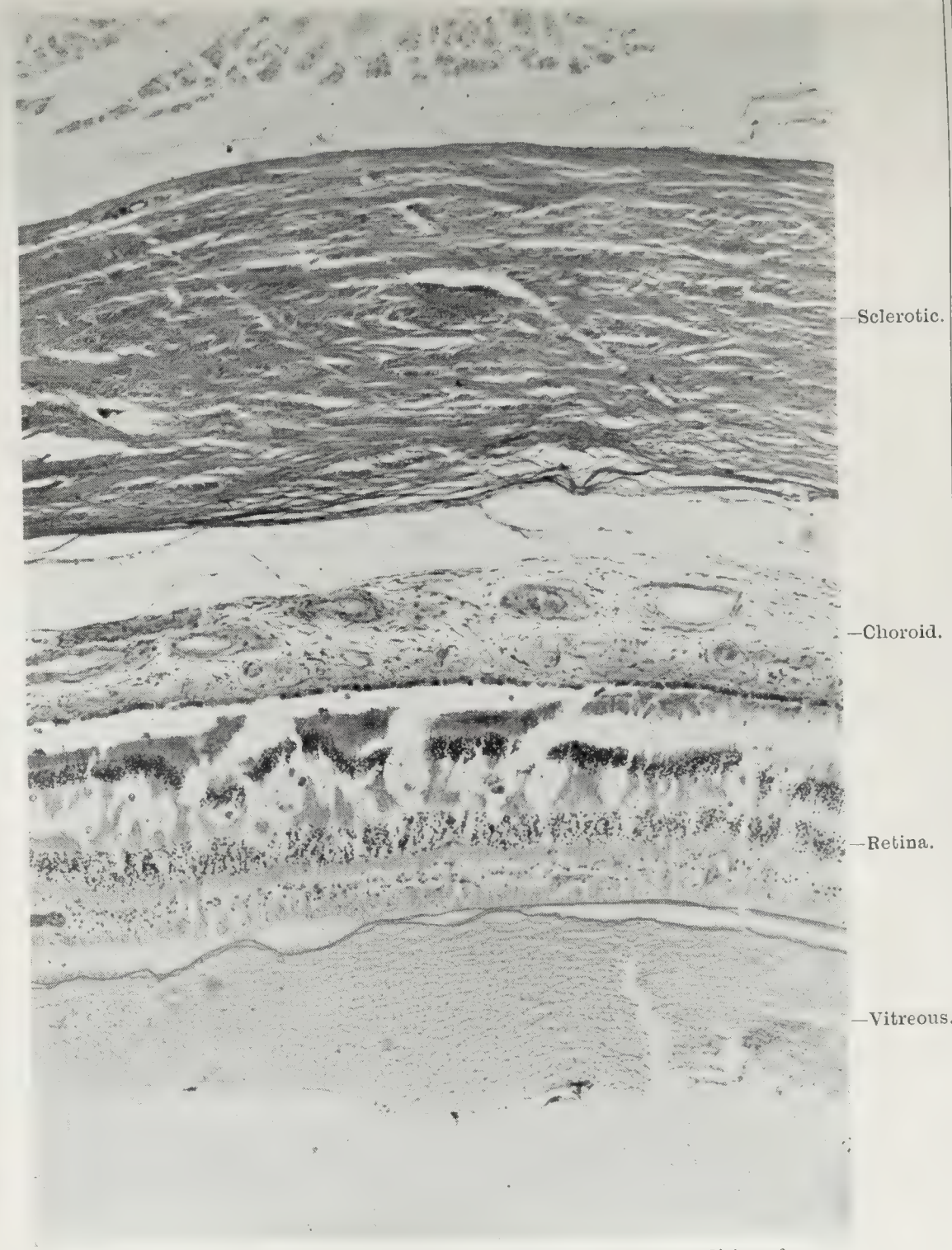


Fig. 17.—*Albuminuric Retinitis.* Low power to show the general condition of retina, etc., in the eye shown in Fig. 13.

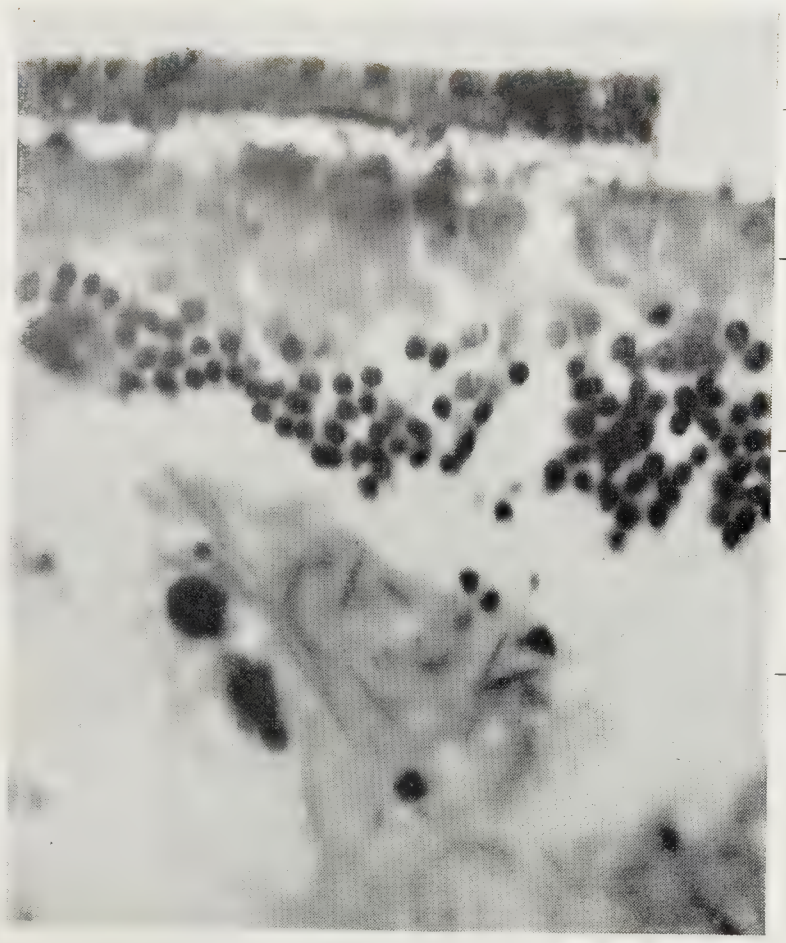


Fig. 18.—*Albuminuric Retinitis.* Iron haematoxylin stain.

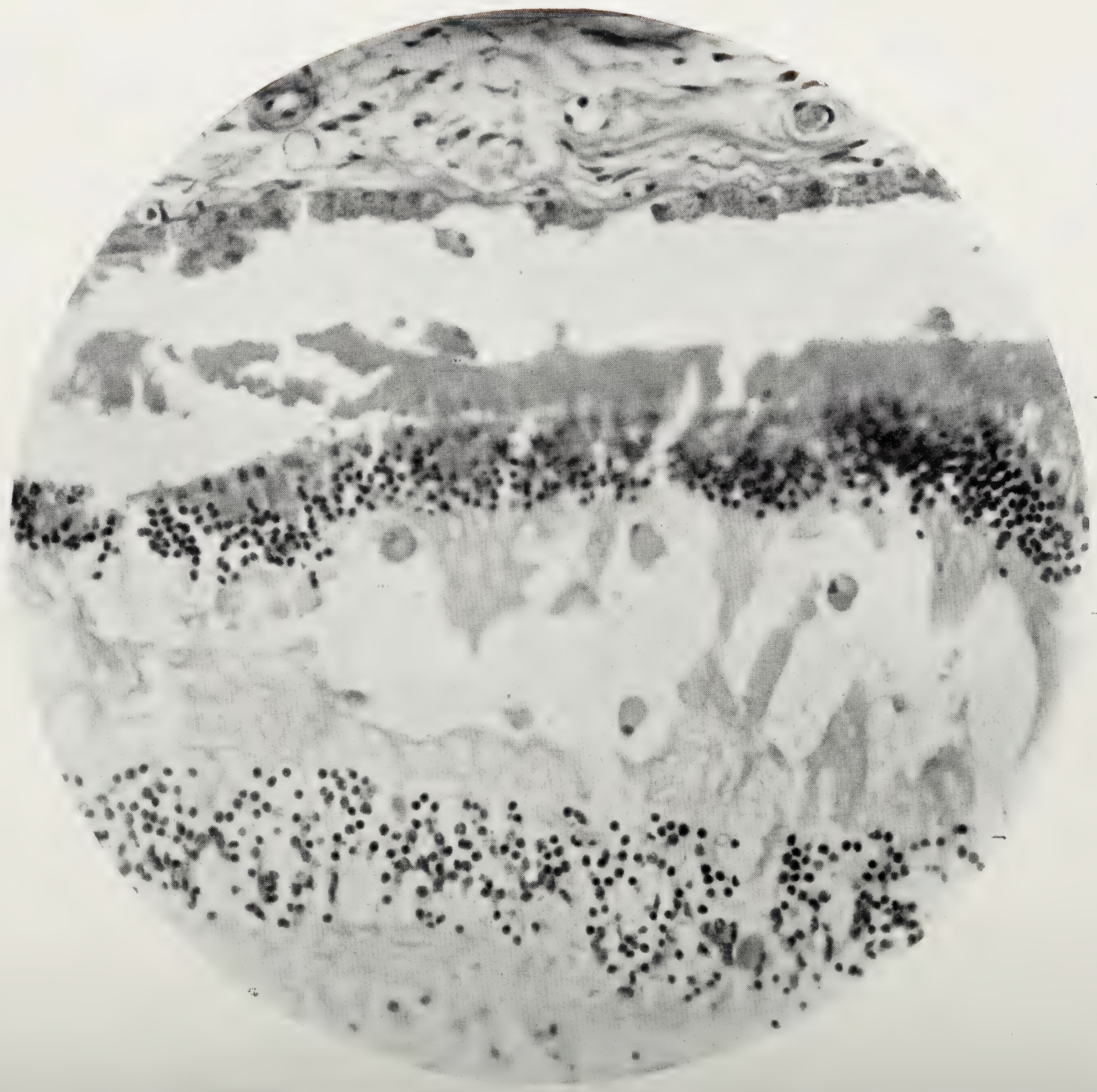


Fig. 19.—*Albuminuric Retinitis.* Left border of Fig. 17, more highly magnified.

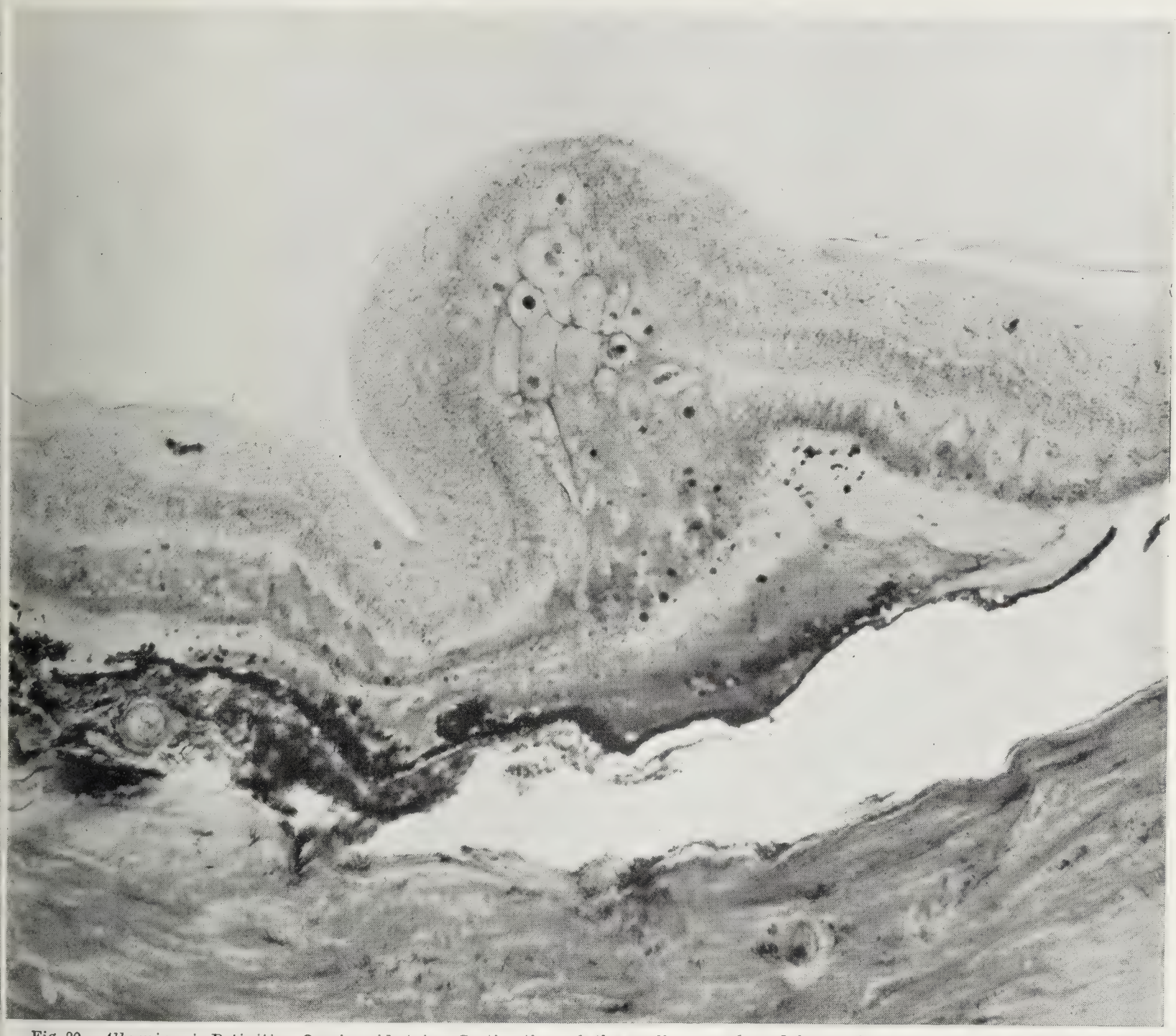


Fig. 20.—*Albuminuric Retinitis.* Osmic acid stain. Section through the swollen macula and fovea of Fig. 13. The oedematous retina shows numerous macrophages in spaces as well as exudate, especially in the cone layer. The smaller corpuscles are leucocytes, containing fat granules or pigment granules.

Fig. 21.—Section of macular side of disc in early papilloedema. The disc was dried to set up tension changes, which produced a macular star figure. The intima is shown thrown into ridges cut transversely.

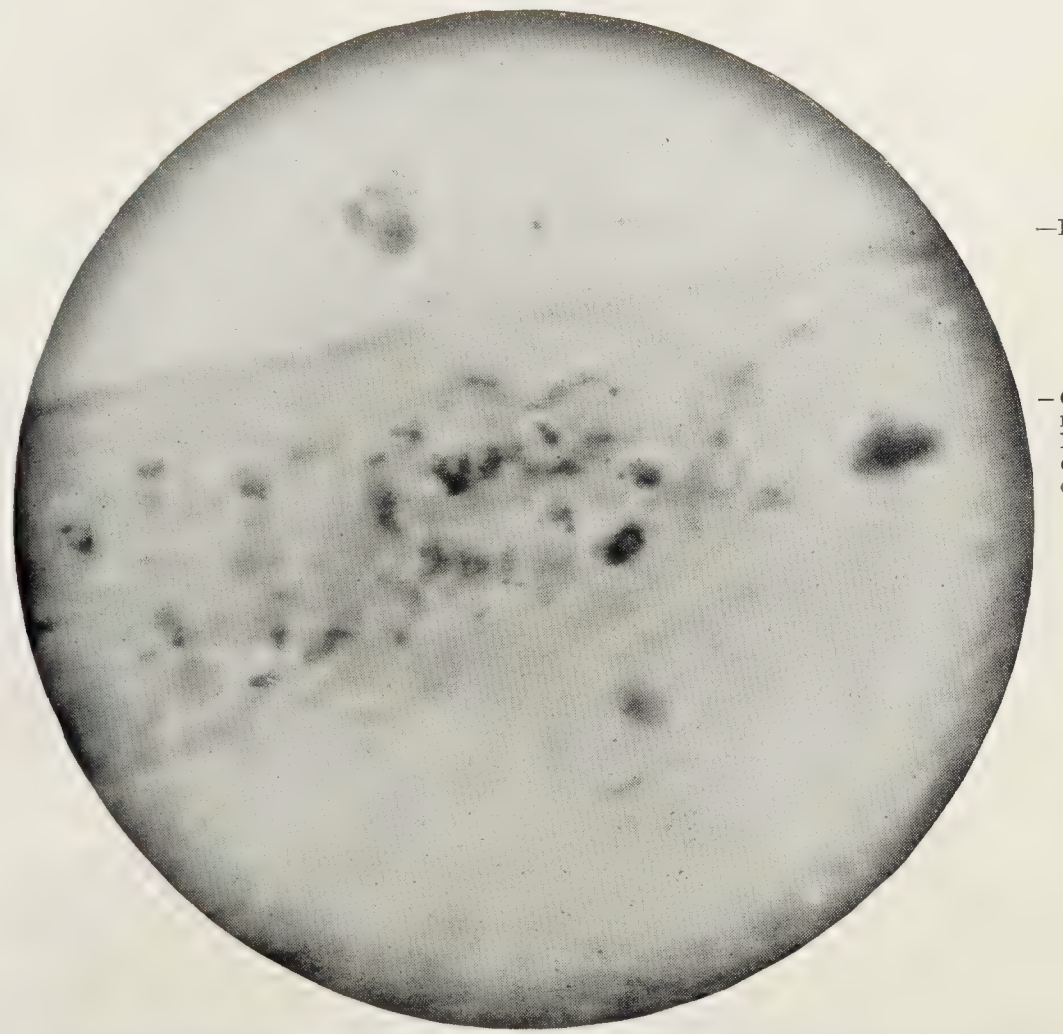


Fig. 22.—*Tumour Papilloedema.* Case III. Section through white spot at upper nasal border of disc. Shown in Figs. 1 and 11. Osmic acid. Obj. D. The fat-containing phagocytes have the outlines of connective tissue corpuscles and not wander cells.

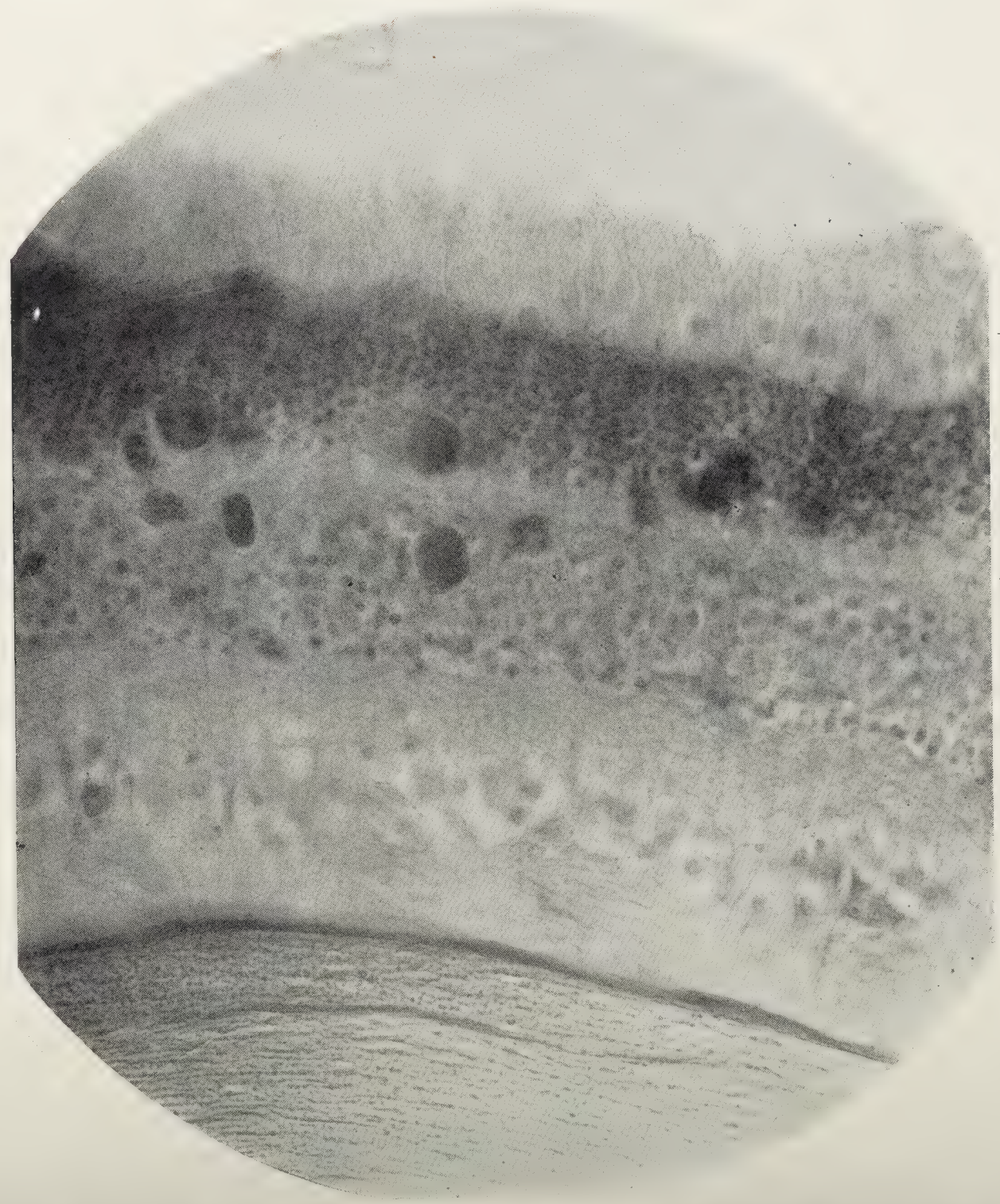


Fig. 23.—*Albuminuric Retinitis.* Showing macrocytic phagocytes in granule layers. Osmic acid stain. The macrocytes here and there show a few black granules, but for the most part the proteid taken up by them from the exudate stains brown.

A Paper
ON
"OPTIC NEURITIS," "CHOKED DISC," OR "PAPILLOEDEMA":
TREATMENT, LOCALIZING VALUE, AND PATHOLOGY.

DELIVERED BEFORE THE SECTION OF OPHTHALMOLOGY OF THE BRITISH MEDICAL ASSOCIATION AT BELFAST.

BY SIR VICTOR HORSLEY, F.R.S., F.R.C.S.,

SURGEON TO THE NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, QUEEN SQUARE, AND CONSULTING SURGEON TO UNIVERSITY COLLEGE HOSPITAL.

[WITH SPECIAL PLATES.]

THE mechanical factor discovered by the injection experiments of Manz[28–30] in 1870 to be the primary cause of papilloedema,* choked disc, or "optic neuritis," has been confirmed by many observers, and now most recently by the researches of Cushing and Bordley.[5]

Clinically, my demonstration[18–25] since 1886, and especially in 1890, at the International Congress in Berlin, that the mechanical release by trephining in cases of increased intracranial tension due to cerebral tumours, etc., causes the disappearance of "optic neuritis," affords, as I then suggested, the converse proof of the same pathological principle, though Sir William Gowers[13] has pointed out that, however correct the facts, this inference is not absolute; and, as Sir Henry Swanzy[43] critically sums up the matter, "a completely satisfactory theory of the causation has not yet been propounded."

Of course, though the mechanical view ought in my opinion to be accepted as established, I have always† admitted that, scientifically speaking, we cannot exclude the possibility of other contributing factors existing and co-operating to produce papilloedema. Moreover, according to Elschnig's[11] view (if I understand him correctly), in the case of papilloedema from brain tumour the mere swelling or oedema might be regarded as *accompanied* or not by a neuritis, as the case may be. Thus, in his first figures (Taf. III, Figs. 1 and 2), which I would regard as a beautiful proof of my view that ipsolaterality of tumour and maximal papilloedema is the rule, he regards the more greatly swollen right disc as "oedematous," and the left as in a state of "neuritis optica." In fact, the heading of the case is stated by him as "hemoglioma cerebri" (right occipital lobe), "rechts frische stauungs papille, links neuritis optica." He also expresses his position very strongly as follows,[6] p. 271: "In not a single case does oedema of the optic nerve or of the papilla exist without inflammation." Of course, this depends on what we are to understand by the term "inflammation." The pathological degenerative changes in papilloedema, the histology of which I deal with later, are, I venture to suggest, not correctly termed inflammatory.

Elschnig's view is essentially an expansion of Deutschmann's[8] original method of regarding the subject, since Deutschmann said, first, that a choked disc is but a higher degree of neuritis.

In the present paper I have no new facts to throw light on this important question of the immediate causation of optic papilloedema, for discussion of which I must refer to Saenger,[40] to v. Hippel's summary,[17] and to Thorner's paper immediately following in the same *Archiv*, but I am anxious to bring forward some considerations respecting the whole process, and particularly on its clinically localizing value, which I believe to be very high.

After 1890, my attention in operating for intracranial disease was directed not only to the obvious need of palliative trephining‡ (see [18–20]) to stop "optic neuritis" and save the sight, but also especially to the further question whether the effects of the raised intracranial tension was more pronounced, and therefore the intensity of the optic neuritis greater, on the side of the lesion or not. That the neuritis should be probably ipsolateral was suggested to me in a case I published in 1884. It was not, however, till I had had the experience, after 1886, in operating on a number of tumour cases that I published[21] in 1895 my view that ipsolaterality of the lesion and neuritis was the rule, and I then for measurements of the swelling, etc., relied on the assistance of my late greatly-regretted colleague, Mr. Marcus Gunn. In 1896 Dr. Middelton Martin[32] commenced a valuable investigation into the subject of the localizing value of optic neuritis. He examined the facts of a very large number of the patients at the National Hospital, Queen Square, including my cases, as well as the records of many others from other sources, 600 in all. As regards ipsolaterality he found that of 55 cases in which the relative point was specifically noted the "neuritis" was greater on the side of the lesion in 39 cases—that is, in 71 per cent.

Also Dr. R. T. Williamson[47] published in 1896 an elaborate study of frontal lesions in which he collected 50 cases from all sources, including the National Hospital for Paralysed and Epileptic. Of these he states that of 35 cases the neuritis was either unilateral or definitely more marked on one side in 7 cases, in 6 of which the marked ocular changes "were on the side of the lesion." It will be seen presently that the three frontal lesions described below as seen by me during the last twelve months fulfil this to the letter, and substantiate the practical value of the indication which has also been expressed by Dr. Purves Stewart[42] in his textbook.

Bruns[2] in 1898 referred to unilateral neuritis as a symptom which was only important with further accompanying evidence.

The conclusions of Dr. Martin and Dr. Williamson were founded on the degree of swelling, but it always seemed to me that the severity of the intracranial pressure could be judged more precisely by the secondary histological changes in the disc, and therefore I have for a number of years based my estimation of the neuritis more upon these appearances than on the simple amount of swelling.

Such a course was also necessarily dictated in advanced cases by the difference in time and degree of the neuritis in the two eyes, that is, leading to subsidence of one into atrophy while the swelling of the other was rising.

All these points I have dealt with before, and need only refer to my previous publications[21–24] on this subject.

I now wish to communicate facts on certain points in the hope of facilitating answers to the practical questions which must be answered in every case, namely, On which side of the head is the operation to be performed, and what will be the amount of recovery or maintenance of sight?

Points for Discussion.

1. The localizing diagnostic value of papilloedema or optic neuritis.
2. The part of the disc which first becomes oedematous as a consequence of increased intracranial tension.
3. Proof of Mr. Marcus Gunn's view of the mechanism whereby the macular or star figure ("stern figur") is produced.
4. The phagocytes of the retina in neuro-retinitis and their origin.

1. THE LOCALIZING DIAGNOSTIC VALUE OF OPTIC NEURITIS.

My view that we have a valuable aid to clinical diagnosis in the fact that the papilloedema begins on the side of a tension lesion, and as a rule is more severe than that on the opposite side, is of course in direct opposition to the brief notice on the point by Deutschmann, who at the end of his well-known tract (p. 67) quotes three cases of uniocular neuritis known to him (curiously enough all from English literature) which, by contradicting each other as to ipsolaterality of the tumour and the "neuritis," in his opinion negatived the possibility of framing successfully any theory whereby the phenomena of papilloedema may be explained.

Last year also my general statement made[23] on the subject at the meeting of the Association at Toronto in 1906 was questioned by my colleague, Mr. Leslie Paton, who formulated[37–38] to the Ophthalmological Society certain

* This term, introduced by Parsons,[35] has been supported by de Schweinitz[3] as a more scientific appellation of a condition now generally regarded as not truly an inflammatory process.

† Cushing and Bordley in their footnote, p. 86, seem to have misunderstood my position on this question.

‡ Now conveniently spoken of as decompression.

conclusions from a statistical survey of our cases at the National Hospital for the Paralysed and Epileptic.

As I pointed out in the discussion[37] of his paper at the Ophthalmological Society, his results were not only vitiated by the well-known error of throwing all clinical cases together, but also by the fact that his conclusions were in the main based on the degree of swelling. This, as I have just stated, is not so instructive as the minuter degenerative changes in the disc, which must be considered as of prior importance, and without the discussion of which in each case with the clinical and the operative or *post-mortem* findings, statistics are useless.

Mr. Paton's last paper, published in *Brain*, July, 1909, deals also with our cases at the National Hospital up to the end of the year 1907.

It is a curiously instructive commentary on the fallibility of clinical statistics that Mr. Paton's conclusions are founded on the records of the National Hospital for the Paralysed and Epileptic, among which are some of my own cases, by the detailed examination of which and of my private patients I had previously arrived at the opposite conclusions to which Mr. Paton has now come. But not only is this the case, but also my cases for 1908 at the National Hospital equally contradict Mr. Paton's figures.

All my cases at the Queen Square Hospital have been repeatedly and carefully examined by my medical colleagues, especially by Mr. Marcus Gunn and Mr. Paton, my ophthalmological colleagues, and by myself. I therefore, since the discussion in April, 1908, have more especially noted my opinion of each case and compared it with that of Mr. Marcus Gunn and Mr. Paton. The result is agreement as to the degree—that is, including age—of the neuritis on the two sides. I have now placed in the following table, in the order of their occurrence, the tumour cases at Queen Square which I have during the past year personally examined and by removing the tumour proved the position of the lesion (I include one simple decompression case, No. 17, for special reasons, *vid. infra*).

As a fact, also, these cases are of far better value than *post-mortem* material, since in the latter case the tension condition of the brain at the time of death by no means corresponds to the pressure conditions existing at the date of onset or observation of the neuritis. The necessity of closely considering the intracranial pressure conditions at the varying periods of any case is naturally not dealt with or met by Mr. Paton's statistics. I shall presently recount in some detail one or two cases which specially bear on this point, but may draw attention meanwhile to Cushing and Bordley's researches in this connexion.[5] Thus of their two artificial tumour cases, in the first, in which they had set up general internal hydrocephalus, the papilloedema began contralaterally, while in the second, in which there was no such universal pressure complication as internal hydrocephalus, the ipsolaterality of the papilloedema and the artificial tumour was complete, and remained so till death eighteen days later. As regards their experiments of the injection of fluid into the subdural space of one side, they say they have "not infrequently seen the oedema of the disc and retina occur first in the opposite eye to be followed later by equal changes in the near eye."

Nothing less could be expected from the Manz method of experimentation they employed—namely, injection of fluids—which, though of the highest importance on the question of the mechanical factor in general, necessarily does not give defined results of localizing value on the subject of laterality.* The experience of the same authors with the clinical evidence offered by growing neoplasms is distinctly in favour of ipsolaterality—namely, 70 per cent. of all cases; while in their series the first swelling was ipsolateral in 80 per cent., and in 72 per cent. the greatest injury resulted to the nerve of the same side.

I now give in brief tabular form a list of the uncomplicated tumour cases in the fortuitous order of their admission to hospital which have been examined during 1908 by Mr. Paton and myself.

* In the discussion on this paper, Dr. Thomson Henderson[16] pointed out that the intracranial contents were often erroneously regarded as offering the physical conditions of a fluid, whereas the dural falx and tentorium by their resistance prevented general hydrostatic diffusion of pressure; and further, that since he had shown that the intracranial and intraocular pressures corresponded to the same capillary venous pressure, ipsolaterality of the effect of raising the former was to be expected.

TABLE OF UNSELECTED TUMOUR CASES UNDER SIR VICTOR HORSLEY, IN WHICH SITUATION OF LESION WAS DETERMINED BY OPERATION DURING 1908.

(From the National Hospital for the Paralysed and Epileptic, Queen Square.)

Extracts from Hospital Notes.

No.	*Date of Admission or Date of Operation.*	*Lesion.*	*Remarks on the Relation of the Papilloedema to the Lesion.*
1	Nov. 15, 1907 (operation, Feb. 18, 1908)	Left Rolandic area tumour	Indeterminate. Mr. Gunn's note: R.+3. L.+2.5. Tiny haemorrhage noted in right eye. Mr. Paton's note: R.+3. L.+3.
2	Feb. 10, 1908	Right frontal tumour	Ipsolateral. Right: Very intense neuritis with haemorrhages and white exudate. Left: No haemorrhages and less exudation. Day before operation left swelling became equal to right, and possibly more. Diagnosis of side of lesion based wholly on the neuritis in this case.
3	Feb. 18, 1908 (operation)	Right subcortical Rolandic tumour	Ipsolateral. Vision: R. $\frac{6}{6}$. L. $\frac{6}{36}$. Mr. Paton's notes: Left fundus more flecked and disc striate. One week after operation left better colour than right.
4	Mar. 9, 1908	Left parieto-occipital tumour	Ipsolateral. L. + 6. R. 5.5.
5	April 21, 1908	Left eighth nerve extra-cerebellar tumour	Ipsolateral. R. + 6. L. + 6. Left, veins more distended and small haemorrhages.
6	May 4, 1908	Left extra-cerebellar tumour	Ipsolateral. L. + 6. R. + 5.
7	May 25, 1908	Left temporo-sphenoidal tumour	Ipsolateral. L. + 8. R. + 7. Neuritis older in left.
8	May 29, 1908	Right frontal abscess	Ipsolateral. R. + 1.5. L. no neuritis. Papilloedema gradually developed in left eye. Patient comatose and impossible to obtain localizing symptoms as to size of lesion except by the neuritis.
9	June 15, 1908	Right temporo-sphenoidal tumour	Ipsolateral. R. + 8. L. + 7. Neuritis more intense right than left.
10	June 26, 1908	Right Rolandic tumour	Probably ipsolateral. Notes not full. Mr. Gunn's note: Globes unsteady. R. + 5. High colour. Edges invisible. L. + 5.5. Physiological pit not filled.
11	Sept. 14, 1908	Right and midline frontal tumour pressing on left optic nerve	Ipsolateral. R. + 7. Intense neuritis. L. retro-bulbar changes. No swelling nor blurring. (See Sir W. Gowers, *Lancet*, July 19, 1909.)
12	Sept. 28, 1908	Right temporo-sphenoidal cerebritis	Ipsolateral. Swelling equal. Changes in right disc older than those in left.
13	Oct. 10, 1908	Right ponto-cerebellar tumour	Ipsolateral. Vision: R. $\frac{6}{5}$, L. $\frac{6}{12}$. Right + 8. Left + 8. Both fundi exhibit white spots. Macular figures. Note kindly furnished by Mr. A. L. Whitehead: "Sept. 18, 1908: Neuritis is more marked in right fundus, where also are some haemorrhages."
14	Feb. 12, 1909	Right fronto-parietal tumour	Ipsolateral. Right + 3. Left 2.5. Haziness and blurring, and converging of vessels more marked on the right. Haemorrhages appeared right before left, and more marked. Vision $\frac{6}{6}$ both eyes. Right disc became whiter earlier than left.
15	Mar. 3, 1909	Left cerebro-pontine tumour involving midline. Limits not determined at operation	Ipsolateral. Left + 4. Right + 3. Left oedema wider spread and redder than right.
16	Mar. 26, 1909	Left Rolandic area tumour	Ipsolateral. Left + 3. Right + 2. Left edge of disc blurred; right ditto, but perceptible. Diffuse haemorrhage left; none right. Left swelling steeper than right.
17	May 7, 1909	Parieto-temporal. ? Left subcortical tumour. Decompression operation, tumour not seen	? Contralateral. Papilloedema began under observation in the right fundus; always more intense right than left. May 17, 1909: R. + 3, few haemorrhages; L. + 2, no haemorrhages.
18	June 17, 1909	Left eighth nerve extra-cerebellar tumour	Ipsolateral. Left papilloedema mottled white and extending further into retina than on right side. L.+5. R.+4. Large haemorrhage in left, tiny ditto in right.

The table speaks for itself, and the results are simply in my opinion typical of the condition, namely, that ipsolaterality of the tumour and the neuritis is the rule, and that contralaterality is the rare exception. The only case, indeed, of apparent contralaterality which occurred among my hospital cases during the year is the decompression case No. 17. I include it because everything pointed clinically to the diagnosis being accurate, but the tumour was not seen at the operation, and therefore even this case remains uncertain. Before examining further into this question of contralaterality I wish to draw attention to the fact that among even these unselected 18 cases, in no less than 2 the correctness of the localization diagnosis depended wholly on the degree of the neuritis. If the responsibility of the surgeon can be thus relieved on the all-important question as to which side of the head he is going to open, what better demonstration of the truth of my clinical position can be offered?

To the facts in the table I desire to add the histories of three cases from my private practice during the past year, not only because they bear directly on the question of contralaterality, but because they illustrate my contention that any discussion of papilloedema to be profitable must include a detailed consideration of the clinical features in each case.

Case I.

The first case, which had been referred to me as an "unusual case of general paralysis accompanied by optic neuritis," had been under observation for a long time, consequently the patient was already blind in one eye. When I examined him I found a highly intelligent man, presenting relative absence of psychical initiation, loss of memory, loss (both nostrils equally) of intellectual appreciation and determination of odours, but absolutely no other symptom. There was consequently no means of localizing the side of the lesion, except by the degree of neuritis. I found the character of the neuritis in the two eyes to be:

Right: Opal-glass-like* swelling of disc.
Left: White spots over oedematous disc.
Vision.—Right: No perception of light. Left: Reads easily small print with correction.

Mr. Harold Grimsdale examined and very kindly reported the case as follows:

Vision.—Central acuity. Right: No P.L. Left: $\frac{6}{9}$ N. with correction. Swelling.—Right: + 3 (was + 4 four months ago). Left: Higher than before.
A copy of Mr. Grimsdale's perimetric chart of the left field is given further on (Fig. 24).

Thus the papilloedema of the right side was subsiding into extreme atrophy, while that of the left was in full development. On the evidence of the neuritis, I made finally the diagnosis of a frontal tumour on the right side, and removed from the right frontal lobe a very large endothelioma which also sent a small tongue of growth around the falx into the left side, thus pressing on both olfactory tracts and bulbs.

Case II.

Another interesting case which exhibited apparent contralaterality I will now briefly detail, as it exemplifies extremely well the futility of quoting one clinical feature —for example, the papilloedema—of a case without regard to other concurrent conditions or the changes in the circumstances of a case especially as regards the intracranial pressure.

The patient was seen by one of my colleagues, who diagnosed cerebral tumour. No neuritis was then present. Within four days, when I first saw the patient, paresis of the right third and sixth nerves developed and papilloedema commenced—right + 3.5, left + 1.5—the oedema changes being distinctly more marked on the right side. The other clinical symptoms also pointed to the right hemisphere being the seat of severest pressure. The patient was extremely stuporous, and this suddenly deepened early in the morning on the day on which a right temporal decompression was performed. The coma was not relieved, but deepened still further, and terminated fatally in three days. The papilloedema had greatly developed with haemorrhages, and, as will be seen in the photographs Figs. 3 and 4, the change was now most severe in the left fundus. The explanation of this reversal was furnished by the autopsy.

As is shown in Fig. 8, the tumour was originally really in the left frontal lobe close to the mid-line, but exerting its most severe pressure downwards on the right hemisphere through the corpus callosum and the anterior third of the ventricle to the base. Further, as shown in Fig. 7, the growth also infiltrated both sides of the mesencephalon, and caused, in addition to other focal haemorrhages, one very precisely limited to the nucleus of the right third nerve.

Thus the greater incidence of the papilloedema and peripheral nerve paralyses on the right side was accounted for. Finally, the cause of the sudden increase of pressure and of the greater development of the left papilloedema during the last few days of life was found to be due to an extensive haemorrhage from the surface of the tumour through the superior frontal gyrus and spreading all over the left hemisphere. The intensity of the papilloedema thus varied directly with the side of greatest pressure.

Case III.

I also desire to give briefly the facts of a third case to show how reliable the papilloedema is among the other clinical symptoms and how it can sometimes afford better guidance than equivocal nerve phenomena.

It was that of a science student who after three indeterminate epileptic fits had become stuporose. The difficulty of examining him was great, but he presented very markedly symptoms of pressure on the right cerebellar peduncle, and occasionally according to his friends speech difficulty (? paraphasia). The papilloedema was most intense, as shown in the photographs of the fundi (see Figs. 1 and 2), on the left side. As the level of pressure was clearly tentorial I decided to make the decompression opening (for no more could be attempted) in the right cerebellar fossa to obtain the maximal drainage.

He succumbed, however, to shock, and at the autopsy it was found that, as shown in Fig. 14, he was suffering from a cystic tumour of the left temporal lobe at the incisura occipito-temporalis, which caused severe distortion of both halves of the mesencephalon and optic thalamus.

If the nerve symptoms had been ignored and the decompression made (as the neuritis suggested) over the left temporal lobe, it is probable that the fatal termination of the case might have been postponed and the chance, however small, of removing the lesion given to the patient.

In this case, therefore, the degree of the neuritis and secondary changes in the fundus were of the first importance in the clinical condition and care of the patient.

The photographs of the fundi in the foregoing cases show that the occurrence and development of haemorrhages is also of notable importance in estimating the degree of papilloedema. In holding this view also I am sorry to find myself in conflict with Mr. Paton's figures (compare also Figs. 5 and 6).

I need not multiply such cases, but they will serve to support my contention that when a case of apparent contralaterality of tumour and papilloedema occurs the pressure conditions of the case must be most carefully reconsidered from every possible point of view to avoid error, for my experience, at any rate, goes to show that where the details of clinical observation are collated the safest guide to follow is the papilloedema. I have little doubt that, provided the circumstances of the intracranial tension at different times in the evolution of the case are adequately inquired into, all apparent anomalies and contradictions of the ipsolaterality rule I have suggested will diminish and ultimately disappear.

2. THE PART OF THE DISC WHICH BECOMES OEDEMATOUS.

Following on the suggestion I made three years ago that the papilloedema always begins at the upper nasal quadrant of the papilla, and not, as has also been suggested, its lower border, further observation has convinced me that this is the rule, and therefore that in suspicious cases the changes in this region of the disc must be carefully and constantly watched. On this point I have this year had the special opportunity of examining *post mortem* two early cases of neuritis.

*A term I use to indicate the intensely atrophic appearance of a still swollen disc which is often seen in unrelieved cases of slow-growing tumours, and in which papilloedema has lasted many months.

On removal* of the eyes in both cases it was noticeable that the retrobulbar ampulla was in both cases most marked on the dorsum of the nerves. This is well shown in the photograph (Fig. 9) of such an eye in profile, and on section (see Fig. 10) the sheath is seen to be most distended in its dorsal region. A converse proof of the same fact is afforded by Mr. Grimsdale's accompanying perimeter chart of the left field (Fig. 24) in Case 1 detailed above. It will be seen that the contraction of the field is most marked in its lower border. Such a result† will probably be only found in severe cases (compare the charts of simpler cases published by Dr. Charles[4]), a good example of which is the chart, Fig. 67 of Mr. Adams Frost's [12] beautiful atlas.

Probably a simple structural explanation of this exists; but whatever this may prove to be,‡ the anatomical fact is, I believe, constant. Quite recently my view has also been confirmed by the experiments of Cushing and Bordley. The two successful cases by these observers,[20 21] in which they introduced sponge tent as a source of elastic compression, are those I would refer to. Even in the first (in which hydrocephalus was also set up) the right eye (contralateral) began first to exhibit choked disc appearances in "the upper part," the left following later.

That, as regards the lateral halves of the disc, the neuritic swelling should be greater on the nasal side was originally discussed in 1879 by Kuhnt, who showed that the specially loose connective tissue lying under the disc in front and to the outer side of the choroidal aperture, forming a transition element between the highly organized tissue of the retina and the connective tissue of the perineurium, was greatly developed on the nasal side and less on the macular side Consequently the disc rises more on the nasal side in proportion as this "intermediary tissue," as Kuhnt called it, becomes tumefied and constitutes the "Wulst" of German authors.

Sir William Gowers has pointed out for many years that the greater mass of nerve fibres of the inner half must afford more scope for the occurrence of greater oedema swelling on the nasal side. The accompanying photographs (Figs. 3 and 4) show not only this, but also, what is of greater practical importance, that the white degeneration spots commence on the nasal side of the disc at the point of greatest tension, namely, the edge of the glacis of the elevation—that is, just beyond the projected border of the normal disc. The spread of the oedema, therefore, is from the top down the nasal half first, and later the temporal half. Consequently the lower outer quadrant is the last to be obscured (Figs. 5 and 6). Conversely I have often watched a disc clear in the opposite order.

In reference to this question of the localization in the disc of the initial changes, especially in considering their mechanical causation, it is necessary to keep in mind the fact that a toxic papilloedema—for example, produced experimentally in animals by extract of filix mas—

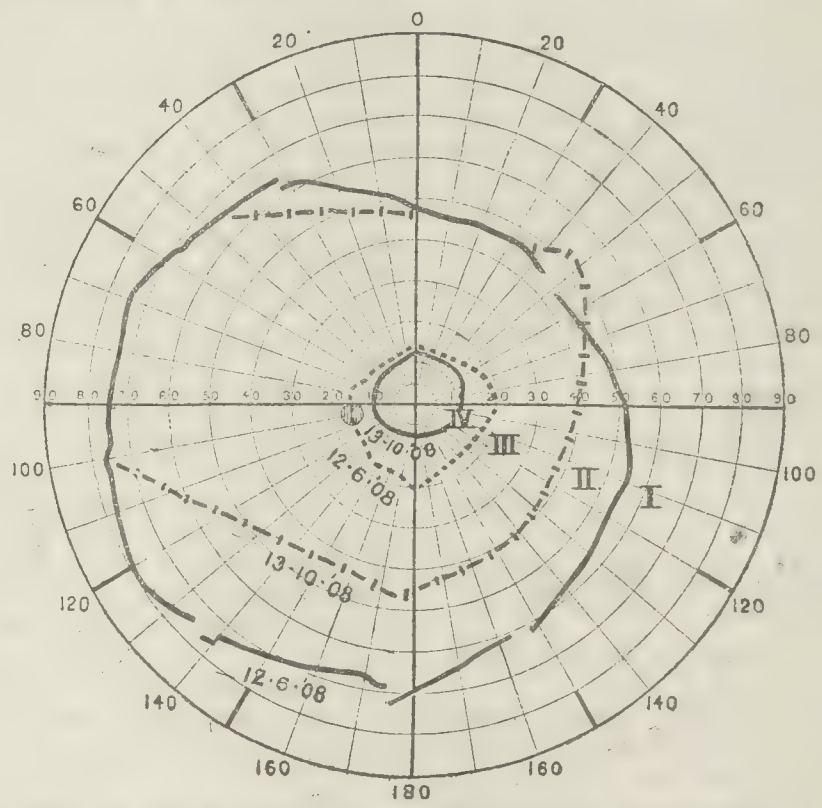


Fig. 24.—Mr. Grimsdale's chart of the left visual field in Case 1.

evokes a swelling of the papilla, according to Nuel[33] presenting for a fortnight or more "absolutely the appearance of a papilla in typical stasis" (loc. cit., p. 18)—that is, choked disc, without producing distension of the sheath. In this connexion Nuel also refers to Parinaud's contention that the distension of the sheath and production of the ampulla is not the prime cause of papilloedema from intracranial conditions.[34]

Distension of the sheath, therefore, is a secondary phenomenon, whatever the cause of a papilloedema may be. In this connexion it is interesting to note that the effects of a local injury to the sheath and vessels of the optic nerve may be more pronounced in the nasal half of the choroid and retina (see Plate X, published 1869 by Hermann Pagenstecher).

3. Proof of Mr. Marcus Gunn's Interpretation of the Production of the Macular Figure.

The fan-shaped radiation in the macular region, and especially between the macula and the neighbouring margin of the disc, so far as the production of its beautifully regular arrangement by oedema has been especially discussed by Mr. Marcus Gunn,[14 15] who in 1894, at the International Ophthalmic Congress (Edinburgh), drew attention to the localized foldings of the retina that occur in consequence of oedema and of what he described as "the pegging-down of the fovea centralis" compared to other regions of the retina. He suggested, therefore, that mechanical tension *plus* degenerative processes in the retina accounted for the figure. In his discussion of the perfection of the pattern, Mr. Gunn pointed out truly that any radial arrangements of Müller's fibres cannot be properly invoked in explanation. The question thus raised is an interesting one, and is associated with the further question of the normal conditions, especially the so-called plica centralis. Hannover said: "The so-called plica centralis does not exist in the human eye," and from his time to that of Ginsberg it has gradually been recognized that this is true. But the scientific demonstration of the fact has now been established by the exquisite photographs of the living fundus by Dimmer.[9 10] (See especially the striking figures of Plate VIII of his monograph.) It is as a consequence of *post-mortem* change that the macular region tends to be raised in a ridged form, the long axis of which is directed horizontally towards the disc. This is well shown in the figures (Figs. 1–6). This folding is practically constant in eyes even when fixed very soon after death. In the monkey the retina also exhibits folds at exactly right angles to the ridge just mentioned, so that the fovea is the central axis of a Latin cross. The same figure may be often seen *post mortem* in the human eye. Conceivably, then, innumerable radiating lines from the macula may be drawn between these transverse axes, and thus the star figure produced. It occurred to me that this might be tested by artificially altering the physical tension in a case of slight papilloedema. I, therefore, in an eye from a case of early optic neuritis, having fixed the fundus not only with formalin and osmic acid, but afterwards with absolute alcohol, exposed the preparation to drying, so as to obtain tension effects. During life no macular figure was present nor any folds observable ophthalmoscopically, but as the drying proceeded the retina began to crinkle in a star-shaped pattern, the centre of which was the fovea. Microscopically, the intima was seen to be raised, or in other words, the effect of the tension makes itself felt first in the nerve fibre layer (see Fig. 21). This last point is important, because there evidently exists

* In all cases I fix the intact eyeball and nerve in 10 per cent. formalin solution, marking the sides and retaining the tendon of the superior rectus. Within two to five days an equatorial section of the globe is made passing through the posterior part of the attachment of the superior oblique muscle. (The orientation of the fundus for photography is thus facilitated.) During the section the bulb is held by the nerve so that some vitreous remains in the cup of the fundus. The specimen is then at once lowered into water and photographed immediately, the camera being inverted and suspended over the object. The photographs in the plates were taken ×5 by means of a Beck-Steinheil anastigmat $f = 3.5''$ and an elongated camera.

† I have since the meeting observed the same loss in the field in a similar case.

‡ Possibly the development of the elastic fibres in the nerve sheath, and to which v. Krüdener has specially drawn attention, may be greater on one aspect of the sheath than the other.

some confusion as regards the anatomy of the white spots in the macular figure and their localization according as to whether the changes in the fundus are due to cerebral tumour or albuminuric toxaemia.

Mr. Gunn, for instance, spoke as though the white spots are necessarily due to changes in the deeper layers of the retina, as in albuminuric retinitis. But both ophthalmoscopically and experimentally it is clear that the white spots, whether on the disc itself or around the macula in cerebral tumour, are in the nerve fibre layer. Since they are the most important of the secondary histological changes of value in estimating the degree and effects of neuritis, I have, in order to estimate better their degree and development, devoted some time to their study and will now discuss their formation under the more general question of the phagocytes of the retina. As being the direct consequence of the destructive influence of the oedema on the nerve fibres and tissue of the retina the spots necessarily occur first near the vessels, but particularly on the nasal half of the disc as stated above. This is specially well shown in the early neuritis photographed in Figs. 1 and 2, where they are dotted round the nasal border of the disc almost solely.

4. The Phagocytes of the Retina.

Excepting the ubiquitous wandering leucocytes, the origin of phagocytes and macrocytes in inflammatory foci in the nervous system has always been a much-contested matter from the time of Gluge to the most recent work by Fritz Marchand, jun.[31] As regards the central nervous system, Clarke and myself have drawn attention to the variations in these cells as occurring in electrolytic lesions. In the retina, however, as I interpret the descriptions given by the textbooks, the question is somewhat complicated by the formation of cell-like bodies which have been regarded from the time of H. Müller as "varicose nerve fibrils," though correctly described as lying in the nerve fibre layer around the bases of Müller's fibres. If I have seen the same structures, then I suggest that the current terminology is not justified (certainly they do not resemble varicose nerve fibres in any other part of the body), and that they ought to be regarded as macrocytes originating from endothelial cells normally lying upon Müller's fibres.

On studying the question in early cases of papilloedema, or choked disc, and comparing the preparations with sections from the fundus of an extreme case of albuminuric retinitis (see Fig. 13) kindly given me by Dr. Janet Lane-Claypon, it seemed clear that, apart from wander-cells (chiefly in cone layer, see Fig. 16), there are three kinds of phagocytes to be considered in the retina, of which the first two are found in the nerve fibre layer in the classical position described—namely, around the bases of Müller's fibres; and the third are the well-known singularly large cells found in the outer granule layer between the stretched and separated processes of the retinal elements and remains of the radial fibres.

(*a*) *Phagocytes of the Nerve Fibre Layer.*

These are the most interesting because by their aggregation and contents of fatty material they constitute the white spots on the disc in papilloedema. As typical specimens sections are shown in the accompanying photographs (Figs. 11 and 12) taken from a series made through the nasal half of the disc shown in photograph (Fig. 1).

Fig. 12 shows that the white spot consists of an opal swelling which, besides a few (1) red blood corpuscles, is principally made up of (2) masses of macrocytes, which, unstained or stained with nuclear dyes, usually exhibit in their centre a large nucleus as figured by Greeff. These macrocytes of the nerve fibre layer, however, do not take up any of the myelinic débris from the nerve fibres. They are "epithelioid" cells, and resemble those described by Nuel as arising in the softened foci of the optic nerve trunk when affected by a toxic neuritis. Stained with osmic acid they remain with clear homogeneous protoplasm, quite different to the analogous macrocytes of the outer granule layer, and in sharp contrast to the smaller black-stained corpuscles immediately to be described.

These (3), the third class of constituents of the white spot, are the phagocytes, to which its colour is really due—that is, those which contain the fatty débris. These cells, it is interesting to note, are of a totally different class; they are not wandering leucocytes, but obviously connective tissue corpuscles, and, in sections stained with osmic acid, are filled with black granules. They have the usual stellate or elongated, flattened, and branching bodies of typical connective tissue corpuscles (see Fig. 22). They lie between and among the oval macrocytes just mentioned (see Fig. 12). They do not appear to take up blood pigment from the haemorrhages, but so far I have not examined any long-standing case from this point of view. To judge from other parts of the body, this duty of absorbing free pigment granules is effected by wander-cells, and certainly, when the retinal pigment cell layer is separated by exudate, leucocytes containing pigment granules can always be found (see Fig. 20). I was much surprised to find in such a highly organized nerve structure as the retina phagocytes resembling true connective tissue corpuscles, but perhaps this is to be attributed to its finally being an ultimate part of the peripheral system. The coexistence of proliferative endothelial cells is, of course, easy to understand.

A further point of interest is that in Kuhnt's "intermediate tissue" of the disc such connective tissue phagocytes lie grouped along the blood vessels, and thus occur scattered throughout the whole depth of the disc. They occur here in albuminuric neuritis as well as in tumour papilloedema cases. In the photograph (Fig. 15) of the disc in the albuminuric case the osmic-stained section shows well the base of a white spot, and that the blackened fat-containing phagocytes lie on its surface—that is, in the nerve fibre layer between the haemorrhagic exudate and the intima.

(*b*) *Phagocytes of the Outer Granule Layer.*

In examining the retina in the very early but marked case of papilloedema shown in Fig. 3, I found that the inner segment of the outer granule layer had already become oedematous. Between the cell processes, separated as Iwanoff[26] originally described, lay a certain number of relatively large corpuscles adherent to Müller's fibres, and apparently of an epithelioid type (see photomicrograph). These cells are, I believe, the same as those which develop into the large phagocytes in this region in such large numbers in albuminuric retinitis (Figs. 16, 17, 18, 19). It is, of course, impossible to furnish strict proof of a statement of this kind, but by following degrees of the degenerative changes it seems justifiable to make such a conclusion. In simple papilloedema the cells in question show a very definite small nucleus near the periphery of the cell, and a body containing a finely granular protoplasm. In albuminuric retinitis the smallest of these cells contains some black granules after staining with osmic acid (Fig. 23). Among such granular cells others may be found in which the body of the cell is occupied by colloidal-looking material which stains light-brown with osmic acid, and intensely with iron haematoxylin (see Fig. 18), as well as with polychrome methylene blue, and is obviously of a proteid nature. As this material increases in the phagocytes the nucleus shrinks, is gradually pushed to the side of the cell, and finally extruded. There finally remains, therefore, a large spherical mass (Fig. 16) very often only barely showing that it is an aggregation of droplets. The origin of these amorphous-looking bodies has given rise to some discussion, but a series of sections through the neighbouring parts of the retina in any given case reveals so many stages as to sufficiently indicate their true origin from the epithelioid cells.

These large phagocytes lie in the oedema spaces artificially formed by the dissociation and destructive separation of the processes of the outer granules and the radial fibres.

Summary.

1. The maximal intensity and age of the papilloedema or optic neuritis in cases of increased intracranial tension is of the highest value in clinical localization of the lesion, and is ipsolateral with the maximal pressure effects of the latter.

2. Papilloedema produced by increased intracranial tension commences at the upper border of the optic papilla, and invades last the inferior temporal quadrant.

3. The macular figure, as Mr. Gunn stated, is caused by tension lines centred at the fovea, the greatest stress being just beneath the intima.

4. The phagocytes of the retina consist of several kinds, as follows: (1) Wander-cells; (2) connective tissue corpuscles; (3) epitheloid corpuscles of the nerve fibre layer; (4) epithelioid corpuscles of the outer granule layer—the two latter varieties being in close relation to the supporting fibres of Müller.

REFERENCES.

[1] Babinski et Chaillous: Société Française d'Ophtalmologie, 1907.
[2] Bruns: *Neurologisches Centralblatt*, 1898, S. 781–2.
[3] Chaillous: *Recueil d'Ophtalmologie*, 1908, T. 30, p. 291.
[4] Charles: *American Journal of Ophthalmology*, 1909, vol. xxvi, p. 161.
[5] Cushing and Bordley: *Bulletin of the Johns Hopkins Hospital*, 1909, vol. xx, p. 95.
[6] Cushing and Bordley: *Transactions of the American Medical Association*, vol. lii, p. 353.
[7] De Schweinitz and Holloway: The Operative Treatment of Papilledema, *The Transactions of the College of Physicians of Philadelphia*, 1908, vol. xxx, p. 140.
[8] Deutschmann: *Ueber Neuritis Optica insbesonderes die sogenannte Stauungspapille*, etc. Jena, 1887.
[9] Dimmer: *Archiv für Ophthalmologie*, 1907, Bd. 65, S. 544.
[10] Dimmer: *Die Photographie des Augenhintergrundes*. 1907. Bergmann.
[11] Elschnig: *Archiv für Ophthalmologie*, 1895, Bd. 41, Abth. 2, p. 179. *Wiener klinische Rundschau*, 1905, No. 1.
[12] Frost, Adams: *The Fundus Oculi*, etc. 1896.
[13] Gowers: *Lancet*, July 10th, 1909.
[14] Gunn: BRITISH MEDICAL JOURNAL, 1907, p. 1126.
[15] Gunn: *Transactions of the International Ophthalmic Congress* (Edinburgh) 1894.
[16] Henderson (Thomson): BRITISH MEDICAL JOURNAL, 1909, vol. ii, p. 878.
[17] v. Hippel: *Archiv für Ophthalmologie*, 1908, Bd. 69, Heft 2, p. 290.
[18] Horsley: *Le Mercredi Médical*, August 27th, 1890, p. 415.
[19] Horsley: BRITISH MEDICAL JOURNAL, 1890, vol. ii, p. 1286.
[20] Horsley: Ibid., 1893, December 23rd, p. 1366.
[21] Horsley: *Clinical Journal*, February 13th, 1895.
[22] Horsley: BRITISH MEDICAL JOURNAL, 1906, p. 412.
[23] Horsley: *Transactions of the Ophthalmological Society of the United Kingdom*, 1908, vol. xxviii, p. 136.
[24] Horsley: *Ophthalmoscope*, 1908. September.
[25] Horsley: BRITISH MEDICAL JOURNAL, 1909, September 25th, p. 877. (Abstract of present paper.)
[26] Iwanoff: *Archiv für Ophthalmologie*, Band 15, Abth. 2, S. 88.
[27] v. Krüdener: *Archiv für Ophthalmologie*, 1907, Bd. 65, S. 69.
[28] Manz: *Archiv für Ophthalmologie*, 1870, Bd. 16, S. 265.
[29] Manz: *Münchener medicinische Wochenschrift*, 1888, S. 531 (original paper).
[30] Manz: *Archiv für Psychiatrie*, 1889, Bd. 20, S. 567.
[31] Marchand, F., jun.: *Ziegler's Beiträge*, 1909.
[32] Martin, Middelton: The Localizing Value of Optic Neuritis in Intracranial Tumour, *Lancet*, 1897, vol. ii, p. 81.
[33] Nuel: *Les névrites optiques. Le Névraxe*, 1901, vol. iii, p. 1.
[34] Parinaud: *Etude sur la Névrite Optique*. Paris: Baillière et Fils. 1877.
[35] Parsons: *Pathology of the Eye*, 1908, vol. iv, p. 1249 et seq.
[36] Paton: *Transactions of the Ophthalmological Society of the United Kingdom*, 1905, vol. xxv.
[37] Paton: Ibid., 1908, vol. xxviii (this paper is of cases observed in the National Hospital during 1906-7).
[38] Paton: *Brain*, 1908, (No. 22 much extended and reprinted with additional tables).
[39] Rowlands: *Guy's Hospital Gazette*, 1898, Nov. 5, and *Medical Press*, 1909, p. 14.
[40] Saenger. For full list of papers on the subject see v. Hippel's paper, p. 353.
[41] Schmidt: *Archiv für Ophthalmologie*, Bd. 15, Abth. 2, S. 193.
[42] Stewart, Purves: *The Diagnosis of Nervous Diseases*, 1908, p. 414, 419.
[43] Swanzy: *Eye Diseases and Eye Symptoms in their Relations to Organic Diseases of the Brain and Spinal Cord* (Norris and Oliver), 1900, vol. iv, p. 539.
[44] Taylor: *Transactions of the Ophthalmological Society of the United Kingdom*, 189.
[45] Thorner: *Archiv für Ophthalmologie*, 1909, Band 69, Heft 3, S. 391.
[46] Wilbrand u. Saenger: *Neurologie des Auges*, Bd. 4, pp. 310–322.
[47] Williamson: *Brain*, 1896, vol. xix, p. 346.

MINER'S NYSTAGMUS.*

BY T. HARRISON BUTLER, M.D. OXON.,

HONORARY OPHTHALMIC SURGEON TO THE COVENTRY AND WARWICKSHIRE HOSPITAL.

IN all colliery centres miner's nystagmus is a very common disease. It is scheduled under the Act of 1907 as a condition for which a miner may claim compensation, and so a knowledge of its leading characteristics is essential to all medical men practising in such a district. The average ophthalmic textbook devotes only a few lines to the affection, and even the meagre information given is apt to be somewhat dogmatic and inaccurate.

The symptoms in a severe case are very characteristic. The eyes oscillate violently, the eyelids twitch, and the man appears to be, and often is, in a state of great nervous agitation. When his visual acuity is tested with the types it will generally be found to be as low as one-tenth of the normal. He is quite unable to read or to continue at his work, and will frequently complain that he cannot see his way about in the dark. But such a violent attack is uncommon, and it will be, therefore, proper to consider in detail the more usual manifestations of the affection.

The history is typical. The miner has almost invariably worked some years in the pit, and has in most cases been a "holer," one who lies on his side and undercuts the seam of coal. He first notices that at the end of a day's work the lights begin to "dance." They may dance vertically, horizontally, or in a circular fashion like a Catherine-wheel. He can for a time overcome this oscillation by looking down and resting his eyes. Soon, however, the dancing commences earlier in the day, and he more frequently has to "steady" his eyes, and finally the lights begin to dance as soon as he enters the mine, and work becomes impossible. At this period the subjective sense of movement may cause vertigo.

In the early stages of miner's nystagmus the sufferer is free from trouble when he leaves the pit, but as the disease progresses nystagmus is present when it grows dark and the street lamps are lighted. Eventually nystagmus is always noticed, even in daylight.

At the beginning of the case nystagmus only commences when the eyes are considerably raised, then it appears as soon as the gaze rises above the normal plane, and later it only ceases when the subject looks down. In fact, the severity of the attack can be accurately gauged by the angle above or below the primary position at which nystagmus can be elicited. The position of the head, however, has nothing whatever to do with the matter; nystagmus can be demonstrated just as easily in the supine posture if the eyes be directed towards the brows as it can in the erect. Peters is quite incorrect when he states that nystagmus ceases if the head be thrown back. It does so in many cases if the patient looks at the same object, but if he move his eyes back *pari passu* with his head nystagmus does not cease.

In a slight case, or one which is in process of cure, it may often be impossible to detect any nystagmus by simply raising the eyes. Reid has taught us that if we rotate the patient several times, until he is a little giddy, and then direct his eyes to the ceiling, nystagmus may appear. If we can produce no nystagmus by this method it is safe to assume, either that the case is not one of nystagmus, or that it has been cured.

The direction of the nystagmus may be vertical, horizontal, or circular. In my own practice the vertical variety has been rare. One eye may have a different kind of nystagmus from the other.

Hemeralopia may be present. Court found it in 127 cases out of 164; Dransart detected it in 5 per cent. of his patients. Romiée states that he has never seen this symptom, although he has examined several thousand individuals. My own experience has been that night blindness is undoubtedly a symptom of the disease. Probably at least 25 per cent. of all cases are unable to see in the dusk.

Visual acuity is unaffected when the eyes are at rest. If the types be placed on the floor level and the miner stand upon a chair, he may read the last line; if he sit down and the types be hung on the wall, he may fail to read the top line.

I shall now present my case to you:

T. R., aged 45, was a miner in the Newdigate Colliery, a lamp mine; had been a miner all his life.

About six months ago he began to notice that the lamps were dancing up and down. He had to sit down and "steady" his eyes. Three months ago, when he was examining the roof, a piece of coal fell upon his nose and cut his face. Had he not had violent nystagmus he would have seen that a large fragment was loose and would have avoided it. After the accident the nystagmus got much worse. He sees very badly at night, not only because everything is in motion, but because there is a "sort of mist before his eyes." He sees a little better if he looks down, but not so well as his mates do. In fact, he has slight hemeralopia.

Condition when First Seen.—Violent nystagmus and twitching of lids. Vision = $\frac{6}{60}$. Advised to give up his work underground entirely and permanently.

Condition a Month Later.—The eyes were normally at rest, but if he looked at an object fixedly for a few seconds his eyelids began to blink and twitch violently and he looked away as though shielding his eyes from a dazzling electric arc. As soon

* Read to the Coventry Division of the British Medical Association.

as he looked upwards violent twitching and vertical nystagmus commenced.

$$R.V. = \tfrac{6}{60}\, c\, \frac{-3.5}{-2}, \text{ axis horizontal.} = \tfrac{6}{9}$$

$$L.V. = \tfrac{6}{60}\, c\, \frac{-3}{-1}, \text{ axis horizontal.} = \tfrac{6}{9}$$

The fundus was normal but could only be seen with great difficulty on account of the twitching of the lids. He was unable to read even when he looked down.

The patient subsequently improved considerably, but he cannot do any work, for as soon as he looks fixedly at an object the oscillations commence.

This is a most instructive case. In the first place, it shows the classical symptoms—symptoms which have been ameliorated but not cured by rest. Before the Compensation Act this miner would have been discharged and left to starve; now the colliery responsible for his disease has to keep him!

Again, the nystagmus conduced to an accident and the accident aggravated the disease. Dransart and Romiée have shown conclusively that nystagmus often starts after an accident, and that it is frequently aggravated by an accident.

It is worthy of note that in this case the nervous agitation becomes evident as soon as the eyes are fixed upon an object. This has an important bearing upon the etiology of the disease. An analogous symptom is the inability of many sufferers to read, even though they have good vision and have no nystagmus in the reading position.

The etiology of the complaint is very obscure. The textbooks say that it is strictly comparable to scrivener's palsy, due to cramp of the elevator muscles of the eye. This is the theory enunciated by Snell, by Nieden, and by Dransart; it was for long accepted without criticism or challenge, and has been copied from book to book, rather as a proved fact than a hypothesis. To be brief, the view that the miner is always straining his eyes upwards, producing muscle fatigue, which results in nystagmus, does not account for the facts. First, the miner does not strain his eyes upwards; like other sensible mortals he makes himself comfortable and moves his head, not his eyes. Secondly, there is no proof that any muscle fatigue exists, and conclusive proof that it does not; and, finally, if muscle fatigue did exist, it would produce a tetanic and not a clonic spasm.

Nystagmus is essentially a disease of the collier; it is not found in metal mines, where men work under similar conditions to those obtaining in coal mines, but with one great difference—the metal mine is not bounded by glittering black walls.

The disease was first described at the time when the Davy lamp was introduced into mines, and as soon as the use of safety lamps was enforced by law it became very frequent—that is to say, as soon as the illumination of the miner's candle, which gives 0.5 candle power, was replaced by that of the Davy lamp with its feeble glimmer of 0.28 candle power, cases of nystagmus became increasingly frequent. The miner's lamp has been improved now, and the disease is much less common than it was. The ordinary lamp used to-day has a candle power when clean of 0.44, but as it gets covered with dust and the wick chars, its light falls off rapidly.

But darkness cannot be the sole cause of nystagmus. The employees in photographic factories who work for hours in absolute darkness, do not contract nystagmus, nor do boiler makers and other artisans who work by feeble light.

The only theory which can explain the disease is that suggested by Reid of Nottingham and Nuel in Belgium. It is a disordered cerebration, a defect in the brain, not of the eye muscles. It is produced by the peculiar work of the miner, long-continued rhythmic movements of the pick in comparative darkness. I have given the facts and reasoning which lead to this conclusion in greater detail in an article which I contributed to the *Ophthalmoscope* for August 1909. There also will be found the references to the various papers on the subject.

Snell attempted to show that compositors and other workmen do at times get occupational nystagmus, but a critical examination of his cases will lead to the conclusion that these men did not suffer from true miner's nystagmus; this disease always was and still is the special disease of the colliery.

The treatment is simple. The miner must leave the mine, and must not return to it.

The prognosis must be guarded. Many cases recover completely, but on the other hand some never entirely lose their symptoms. In any case, no miner who has once suffered from the disease must ever return to work underground.

A CASE OF MUSCULAR DYSTROPHY (ERB'S JUVENILE FORM) OCCURRING IN AN ADULT.

By H. L. McKISACK, M.D., M.R.C.P.,
PHYSICIAN TO THE ROYAL VICTORIA HOSPITAL, BELFAST.

THE premature death of certain selected muscles, which seems to constitute this disease, occurs without regard to the position of the trophic centres of the respective muscles in the cord. In the segments of the spinal cord groups of actions of muscles are represented rather than groups of muscles themselves; for example, elevation with abduction of the arm are accomplished by the trapezius, deltoid, and supraspinatus, these muscles being chiefly innervated from the fifth cervical segment. In the following case the absence of trophic influence of the segmental centres may be observed, only one of the muscles involved in elevation and abduction of the arm being atrophied.

A "plater" in a ship-building yard, aged 28, had been accustomed to severe muscular exertion, particularly of the arms and back. In spite of careful inquiry, no instance of a similar affection can be discovered among his relatives, past or present. He was a total abstainer, and had had no serious previous illnesses except a suppurating inguinal gland, which he attributed to an injury; he denied having had any venereal disease.

About two years before admission he noticed some weakness of his arms, and soon afterwards observed that his neck seemed smaller than before. These defects steadily progressed until his condition on admission to hospital on October 13th, 1909, had become as follows:

The mental faculties and the sensory apparatus are unchanged; the pupil reflexes are normal; the left knee-jerk is brisk, while the right is defective, and the wrist-jerks are absent; the fundus oculi is normal; the blood shows a positive Wassermann reaction. In the muscles of the arms and shoulders atrophy and weakness are to be found. I have drawn up a list of the muscles affected in tabular form, showing the segments of the cord from which the nerves supplying the diseased muscles spring, and have included for comparison sake some unaffected muscles connected with the same segments.

Segment of Spinal Cord.	Muscles.	Condition.
Cervical 2 to 5...	Trapezius...	Atrophied (except right upper fibres).
,, 4 and 5	Rhomboids	Atrophied.
,, 5 and 6	Deltoid, supraspinatus, and infraspinatus	Normal (possibly hypertrophied).
,, 5 to 7...	Serratus magnus and biceps ...	Atrophied.
,, ,, ,, ...	Pectoralis major (clavicular portion)	Normal.
,, 7 ...	Latissimus dorsi	Atrophied.
,, 4 to 8...	Triceps and supinator longus ...	Atrophied.
,, ,, ,, ...	Other forearm and hand muscles supplied by musculo-spiral and median nerves	Normal.
,, 8 / Dorsal 1 ...	Forearm and hand muscles supplied by ulnar nerve	Normal.
Cervical 8 / Dorsal 1 ...	Pectoralis major (sternal portion)	Atrophied.

The condition of the muscles above mentioned exists on both sides of the body, except in the case of the trapezius.

There are no fibrillary twitchings. The condition of the muscles has been verified by Dr. J. C. Rankin, who finds

merely diminished electrical response in the affected muscles, but no reaction of degeneration.

The atrophy of the latissimus dorsi, lower part of the pectoralis major, and supinator longus, with escape of the

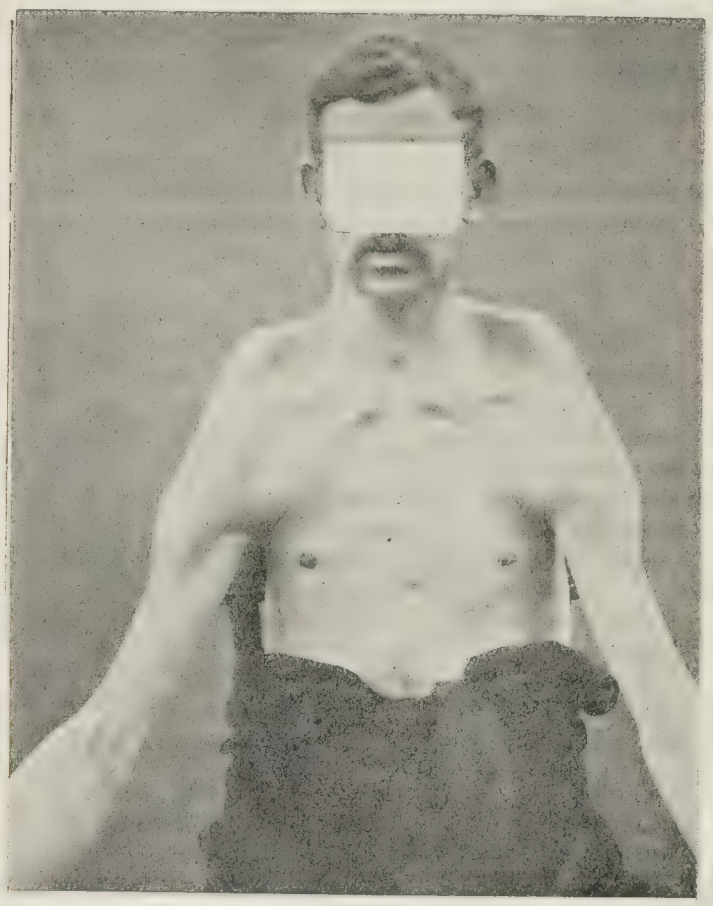


Fig. 1.—Showing the apparent lengthening of arms by elevation of scapulae and atrophy of trapezius, especially on left side, as indicated by sharp angle between neck and shoulder.

deltoid, infraspinatus, and hand muscles, form a characteristic picture of the juvenile type of muscular dystrophy; the muscles of the legs, pelvic girdle, and lower back are so far intact. Landouzy and Déjerine's type may be excluded by the complete absence of face lesion. The

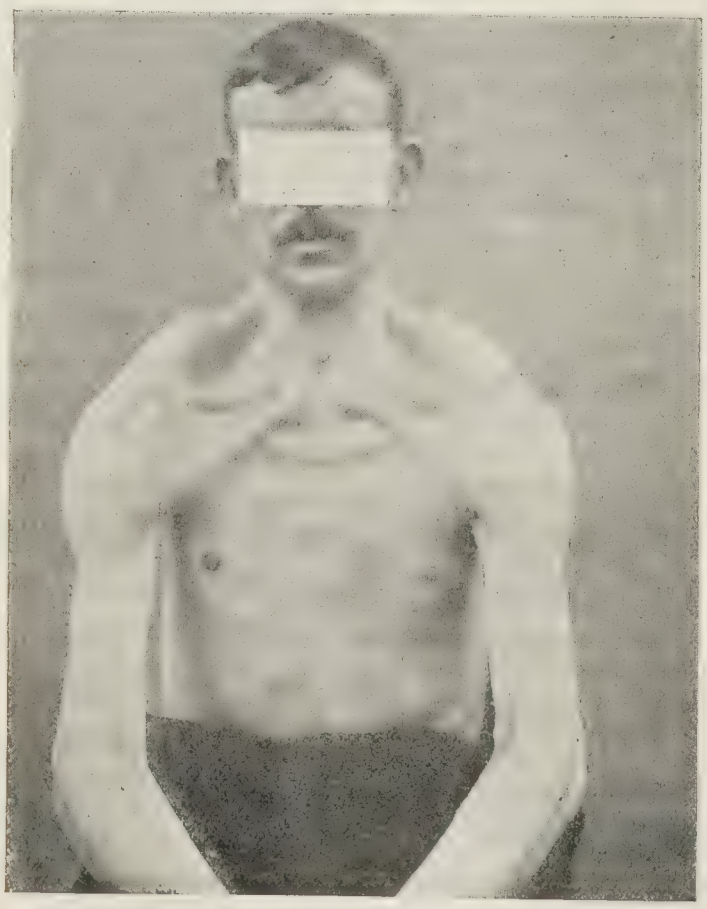


Fig. 2.—The patient presses his hands together, showing the atrophy of the sternal fibres of pectoralis major.

deltoids and infraspinati may possibly be regarded as hypertrophied, but this is probably a genuine hypertrophy from overwork rather than the degenerative false enlargement, so that the group of pseudo-hypertrophic paralysis may also be rejected. Absence of fibrillary contractions and of characteristic electrical changes, together with the distribution of atrophy, remove this case from the group of spinal muscular atrophies. In spite, therefore, of the comparatively advanced age (26 years) at which the disease commenced, and of the absence of hereditary influence

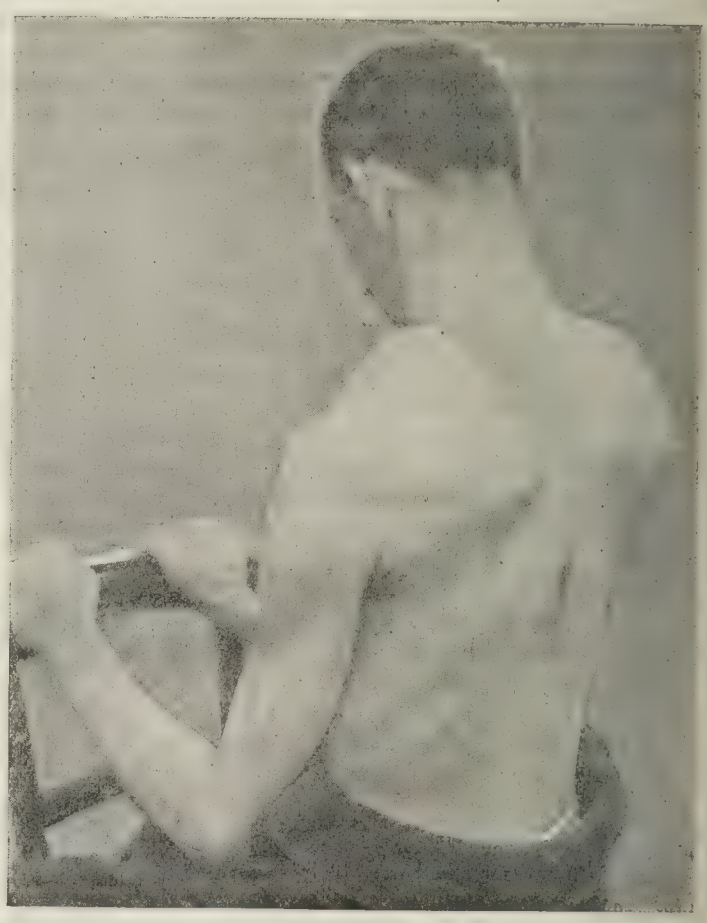


Fig. 3.—Demonstrates atrophy of the serratus magnus.

this case may be regarded as an instance of Erb's juvenile form of muscular dystrophy.

The premature decay of certain muscles in cases of this description may possibly bear some relation to the amount of work the muscles have had to perform. In this instance the atrophied muscles have had an excessive amount of exercise during the adolescent and adult life of the man. The fact that no other occurrence of the disease can be discovered among his relatives may indicate a comparatively slight degree of vulnerability, hence the late period of onset of the disease, which usually commences in boyhood or adolescence.

THE ACTION OF CUTANEOUS ANAESTHETICS.

BY

A. RENDLE SHORT, M.D., B.S., B.Sc., F.R.C.S.,

DEMONSTRATOR OF PHYSIOLOGY IN THE UNIVERSITY OF BRISTOL, SURGICAL REGISTRAR TO THE BRISTOL ROYAL INFIRMARY.

AND

WALTER SALISBURY.

In this investigation we have endeavoured to determine whether the various drugs applied to the unbroken skin with a view to the relief of pain have the action attributed to them, and thus to obtain rational indications for their use. We have not concerned ourselves with the administration of local anaesthetics by the hypodermic method, but only with liniments, lotions, ointments, and other means of introducing drugs by absorption through the skin itself.

The following preparations for this purpose are contained in the *British Pharmacopoeia*:

Linimentum belladonnae	Linimentum opii
Emplastrum belladonnae	Emplastrum opii
Unguentum belladonnae	Linimentum aconiti
Unguentum atropinae	Unguentum aconitinae
Unguentum gallae cum opio	Unguentum cocainae

We have no hesitation in saying that none of these have any anaesthetic effect on the unbroken skin. Belladonna liniments and plasters have been ordered for generations, and glycerine of belladonna finds a place in the casualty room of most hospitals, but when tested by accurate methods they are quite unable to prevent or relieve pain except in so far as that effect may be produced

by the support of any plaster, or the counter-irritation and massage obtained by the use of any simple liniment. Further, we claim that the time-honoured custom of giving opium or belladonna suppositories after operations on the rectum is founded upon a misconception. Any effect they may have is due to the general action of the drug, not to its influence on nerve-endings in the bowel. It could with greater precision be given hypodermically or by the mouth.

There is no drug in common use capable of acting as an anaesthetic on the unbroken skin, except the ethyl-chloride spray, which freezes it. In the treatment of sprains, bruises, and neuralgia we must trust to other methods, such as counter-irritation, massage, and analgesics given hypodermically or by the mouth if necessary.

METHODS OF INVESTIGATION.

We studied the effects of the drugs under consideration both on the skin and on a mucous membrane. For the former purpose we generally used a finger, freely and vigorously applying the substance to the back and front as far as the middle phalangeal joint. For the latter purpose we generally applied the substance in question to the tongue, rubbing it in thoroughly for several minutes. All experiments, except when otherwise stated, were independently confirmed by each of us.

We always tried the effect of a drug twice, once three minutes after application and again after the lapse of a quarter of an hour. In some cases we tried again after one hour. The tests used were as follows:

SKIN.

The Pain Sense.

It is not easy to devise a quantitative test, suitable for detecting small differences in the pain sense. It is important that any such test should be as physiological as possible. The method of electrical stimulation which we used is possibly open to criticism in this direction. We used three tests of the pain sense.

(*a*) *The Intolerable Temperature Test.*—We have found that for each observer there was a certain constant temperature of hot water in which it was too painful to hold the finger for half a minute. For one of us (W. S.) this critical temperature was 55° C., 54° being tolerable. The constancy of this temperature was verified before each experiment. The finger was moved gently about in the hot water, being immersed up to the middle phalangeal joint. After the drug had been rubbed in thoroughly, the intolerable temperature was again determined. Though constant for the individual, the intolerable temperature varies widely in different persons. In the other observer (A. R. S.) it was 51°.

(*b*) *The Faradic Pain Test.*—The point was determined, before and after the application of each drug, at which the damp finger first found electrical stimulation, by means of electrodes led off from a faradic coil, actually painful. In this case we utilized the "threshold" of the pain sense. If care was taken that the battery did not run for more than a few minutes at a time and that exactly identical points on the back of the finger were tested, quite constant results were obtained after a little practice by both of us. The strength of the stimulus was increased by pushing up the secondary coil, and the distance at which the sensation of pain first appeared, after repeated verification, was read off on the scale.

(*c*) *Pin-prick Test.*—This, of course, was not a quantitative method, and was merely employed in a general way to verify the accuracy of the two methods just described.

Thermal Discrimination Test.

We found that we were able, by immersing the finger first in one beaker of warm water and then in another, to detect a difference in temperature of not less than 1° C. We worked with temperatures of 29° and 30°, prepared by the other experimenter not in the sight of the one tested. It was determined in each case whether the finger was as sensitive after applying the drug in question to it.

Tactile Sense.

This was tested in a general way by stroking the finger with a wool pencil, and also by measurements with the aesthesiometer before and after applying drugs to the fingers, elbow, tongue, and forehead.

TONGUE.

Further, we tested the effects of drugs on the tongue. It is evident that if they have no effect on a mucous membrane it is futile to expect them to act on the unbroken skin.

In some cases a characteristic sensation was produced on the tongue. This was especially true in the case of menthol, the action of which we investigated in some detail.

(*a*) *Taste.*—This was tested in the ordinary way by applying drops of sweet, acid, saline and bitter fluids to the extended tongue after rubbing in drugs.

(*b*) *Faradic Pain Sense.*—This was determined in the same way as in dealing with the finger, with equally constant results.

(*c*) *Thermal Discrimination.*—This was tested by applying two warm metal points taken out of warm water at two different temperatures. We found that the normal tongue could distinguish a difference in the temperature of the water of not less than 3° (38°–41°).

(*d*) *Aesthesiometer Test.*—As on finger.

DRUGS TESTED.

The following drugs were put through most or all o the foregoing tests.

Belladonna and Atropine.—We first tried a long and vigorous application of the linimentum and unguentum (*British Pharmacopoeia*). Neither had any effect in altering the sensibility of the skin. Thinking that possibly the solutions were too dilute, we rubbed in a 10 per cent. solution of atropine in absolute alcohol, but it had no effect. The application of a 2 per cent. solution to the tongue produced, indeed, a dryness of the throat, but did not in the least alter the sense of taste or of pain. It is surprising that belladonna should still have such a reputation as a local analgesic. It is well known that it paralyses the terminals of sympathetic and autonomic nerves, but there has never been any evidence that it could affect sensory nerve terminals. It may be objected that although its application does not yield any quantitative evidence of relief from pain, yet that in conditions of tension from bruising or thrombosis, in which it is so extensively used, preparations of belladonna may nevertheless be of service. For instance, it might conceivably act upon the arteries, but it is very doubtful if it ever reaches these. Cocaine is a reliable anaesthetic for the tongue or eye, yet cocaine ointment has no effect on the healthy skin, because the alkaloid is not absorbed. We do not deny that belladonna liniment can obtain sufficient entrance, by means of the sweat ducts, to reduce, though not to abolish, sweating over the area to which it is applied. It will be remembered that atropine has no anaesthetic power over the eye when drops are applied, although it is undoubtedly absorbed. We cannot find that the inunction of atropine produces local vaso-dilatation.

Aconite.—Here again we found that neither the liniment nor the ointment of the *British Pharmacopoeia* had any effect on the unbroken skin. Even a 3 per cent. solution of aconitine in absolute alcohol—a concentration far too dangerous for general use—was quite without result. The effects of a 0.5 per cent. solution on the tongue were more interesting, but scarcely more valuable. A very peculiar and characteristic sensation of tingling was produced, lasting for so long a time as five hours. (It was this tingling which furnished an important clue to the nature of the poison used in the famous Lamson case.) Taste was rendered a little uncertain, but the answers were, on the whole, correct. We had considerable difficulty in deciding whether there was any analgesia shown by the "faradic pain test" on the tongue. On six occasions (in four observers) a stronger current was necessary to produce the "threshold" pain sense (usually about 5 mm. nearer the primary coil). On four occasions no change could be found after applying aconitine. Probably there is some slight numbing of the pain sense.

Opium.—Although lotio plumbi cum opio is still used every day, and laudanum is dropped into aching ears, and morphine suppositories are given for piles, it is becoming increasingly well known that opium is not a local anaesthetic. In our experimtnts a 5 per cent. solution of morphine tartrate in water had no effect on the tongue, where it is absorbed. No tingling was produced, and taste was not affected. Therefore, presumably, a preparation

of morphine tartrate suitable for the skin would also be without effect.

Chloroform.—This had no anaesthetic effect on the skin, nor had aqua chloroformi on the tongue.

Carbolic acid has had a reputation as a local anaesthetic, and certainly it makes the fingers feel numb after long soaking in a lotion of 1 in 20; also it is well known that it relieves the pain of aching teeth and raw surfaces, probably by killing irritated nerve endings. We found, however, that so far from allowing of more painful stimuli to the fingers, it induced a real hyperaesthesia. The intolerable temperature fell 3° in one case, and the faradic stimulus became painful at a greater distance from the primary coil. These effects were evidently due to the destruction of a superficial layer of protecting epithelium, which a few days later flakes off.

Cocaine.—The anaesthetic effect of this alkaloid on nerve endings is unquestioned, and furnished a useful criterion of the validity of our methods. A 10 per cent. solution applied to the tongue produced a feeling of pressure and numbness; taste was abolished; the faradic pain sense was considerably diminished ("threshold" pain at 7.2 cm. instead of 8.2 cm.), the compass points were judged to be single at 4 mm. instead of 1 mm., and the thermal discrimination was much less exact. Stroking with a wool pencil could still, however, be felt. Nevertheless, neither a 10 per cent. solution of the hydrochloride in absolute alcohol, nor a 10 per cent. ointment of the alkaloid itself in lanoline, reputedly the best medium for absorption, had any effect on the unbroken skin. On damaged skin or mucous membranes there can be no doubt of the efficacy of cocaine ointment. For instance, it will at once relieve the pain of a severe nitric acid burn.

Menthol.—The effects of the application of this drug are very interesting, and must receive a more detailed description. We cannot, however, find in it a reliable local anaesthetic. As a rubefacient and counter-irritant it might relieve pain, just as alcohol would, but it does not paralyse the nerve endings. Rubbed into the skin in saturated alcoholic solution it had no power to alter the thermic, tactile, or pain senses. Rubbing it into the tongue abolished taste, but the faradic pain test was not altered, nor were the thermic and tactile senses.

It is well known that menthol, like oil of peppermint, gives rise to a remarkable sensation of coldness when applied to the skin or mouth. We found that there were certain other characteristic phenomena, which it now remains to describe. The effect differs considerably in various regions of the body, and theoretical conclusions of an important character may probably be drawn from some of the results obtained.

On the skin, the cold effect is exceedingly well marked on the forehead, and becomes apparent without the application of any stimulus, but is perhaps best marked when the spot is touched with cold fingers, which feel much colder than they do elsewhere. (Thermal discrimination by the finger is, however, not altered by applying menthol to it.) The spot is converted into a "cold spot" for the time being. Pressing on hot objects produces no unusual effect. On the abdomen the effect is less marked; the cold sensation is not very apparent unless a feeling of cold is excited in the neighbourhood by fanning. On the thigh and forearm the effect is again less, but is at once made evident by fanning. On the nipple no thermic sensation is produced, but only a feeling loosely described as "burning," quite distinct from either the heat or the pain sense. On the glans penis it first produces the usual cold sense, which rapidly becomes painful; the pain is not increased by pressure, but is made worse by cold, and immediately stopped by warmth. Both the cold and the pain sense persist some time.

On the tongue the cold sensation is but little marked; it is quite perceptible on opening the mouth and inspiring. On the pharynx, however, the cold sensation during such inspiration is exceedingly evident. A remarkable phenomenon is that pressure by any blunt object on the tongue, after rubbing in a solution of menthol in spirit, becomes exceedingly painful, without any excitation of the temperature sense. On the lower lip a very marked cold sensation is produced, and there is also pain on pressure. Sipping either hot or cold water enhances the after-effect of cold on the lip.

We judge that menthol, by its chemical action on the nerve endings specially devoted to the sense of cold, produces that sensation. According to Weber's theory, the sensation of cold is due to the contraction of a sheath or end-bulb having a higher coefficient of expansion upon a nerve core having a lower coefficient of expansion, thus producing a stimulus by pressure. An artificial model might be made by enclosing a thread of glass in a sheath or bulb of copper. The application of cold would cause pressure on the glass. If the pressure on the nerve core were mild, it would be interpreted as cold; if severe, it would become painful. Assuming for the moment that menthol has the power of combining chemically with the nerve endings of cold so as to stimulate them, it might do this in two ways:

(1) By inducing a contraction of the sheath of the end bulb, thus pressing gently on the nerve core; or
(2) By chemically linking itself on to the protoplasm of the nerve core in such a way as directly to irritate or stimulate it.

Pressure, by further squeezing an already contracted sheath, as in (1), or by pressing on a hypersensitive core, as in (2), would naturally still further stimulate the nerve ending, and so set up a pain sense, as in the tongue and lips. If the conducting epithelium were sufficiently thin, cold would also induce a painful sensation, but warmth would relieve it, as in the case of the glans.

We made some investigation with a skin thermometer to find whether the surface temperature of the skin was reduced by the application of menthol. The bulb of the instrument consists of a flat spiral coil of mercury, enclosed in a glass bell, and provided with a vertical index. Some idea of its delicacy may be given by mentioning that in a patient with acute eczema the skin temperature over an inflamed patch proved to be 0·4° C. higher than over normal skin. In one typical experiment (W. S.) the skin temperature before rubbing on menthol was 32.3° C.; afterwards it was 31.6° C. There is, then, a considerable fall. This cannot, however, be ascribed entirely to the influence of the menthol, because if alcohol is rubbed on one patch of skin, and menthol dissolved in alcohol on another, the reduction of temperature is the same. Menthol in olive oil, however, reduces the skin temperature more than does olive oil by itself, so that we must take it that menthol does share with these other substances the power of cooling the skin. Thus in another experiment (A. R. S.) the normal skin temperature was 33.4° C., but after the application of olive oil and menthol it was 32.1° C.

Table I.—*Showing Results of Experiments on the Finger.*

	Pin-prick.	Intolerable Temperature.	Faradic Pain.	Aesthesiometer.	Wool Pencil.	Thermal Discrimination.
1. *Belladonna.*						
(*a*) Lin. bellad. *B.P.* ...	0	*Reduced 1°	0	—	—	0
(*b*) Atropine 10 per cent. in absolute alcohol	0	0	0	—	—	0
(*c*) Ung. bellad. *B.P.* ...	0	0	0	0	0	0
2. *Aconite.*						
(*a*) Lin. aconit. *B.P.* ...	0	*Reduced 1°	0	—	—	0
(*b*) Aconitine 3 per cent. in absolute alcohol	0	0	0	—	0	0
(*c*) Ung. aconitin. *B.P.*	0	0	0	0	0	0
3. *Menthol.*						
Sat. sol. in spirit ...	0	0	0	0	0	0
4. *Opium.*						
Morphin. tart. 5 per cent. aqueous	0	0	0	0	0	0
5. *Cocaine.* (Cocaine hydrochloride)						
10 per cent. in absolute alcohol	0	0	0	0	0	0
10 per cent. cocaine in lanoline	0	0	0	0	0	0
6. Chloroform	—	0	0	—	—	—
7. Carbolic acid 1 in 20 ...	—	Reduced 3 (A.R.S.) 0 (W.S.)	Hyperaesthesia	0	—	0

0 = No effect. * Produces hyperaesthesia.

TABLE II.—*Showing Results of Experiments on the Tongue.*

	Psychical.	Taste.	Faradic Pain.	Aesthesiometer.	Thermal Discrimination.
1. Atropine 2 per cent. in absolute alcohol	0 (throat dry)	0	0	–	—
2. Aconitine 0.5 per cent. in absolute alcohol	tingling 3-5 hours	0	doubtful, q.v.	—	0
3. Menthol, saturated solution in spirit	q.v.	abolish'd	0	0	0
4. Morphine tartrate, 5 per cent. aqueous	0	0	0	0	0
5. Cocaine hydrochloride, 10 per cent. in absolute alcohol	numb	abolish'd	some anaesthesia (8.2-7.2)	some anaesthesia	reduced.
6. Aq. chloroformi, *B.P.*	sweet	—	0	0	—

0 = No effect.

SUMMARY.

Apart from the theoretical conclusions mentioned in speaking of the effects of menthol, we believe that we have been able to obtain definite evidence that none of the drugs at present in use for painting on or rubbing into the skin have any power to relieve pain. The use of belladonna, opium, aconite, menthol, and cocaine for bruises, thrombosis, inflammation, or neuralgia should therefore be discontinued and replaced by more efficacious means, such as rest, massage, and counter-irritation.

The accompanying tables give details of the results of each experiment, repeatedly confirmed by each of two observers. For explanation of terms see the section on above methods.

INFANTILE GLAUCOMA OR BUPHTHALMIA.

BY

WILFRID ALLPORT, M.B, B.S.LOND., F.R.C.S.E.,

HONORARY OPHTHALMIC SURGEON TO THE QUEEN'S HOSPITAL, BIRMINGHAM, AND TO THE WARNEFORD HOSPITAL, LEAMINGTON.

THERE is nothing more painful to a medical man than to be called upon to treat a disease which is considered to be incurable, and which he knows from experience will steadily progress, with dire results to the patient. Such a condition is buphthalmia, the ox-eye of childhood. It is of sufficiently frequent occurrence to ensure the interest of the profession in any means which may alleviate its disastrous course. I have been tempted, on this account, to record a case which has been under my care for nearly two years, and which presents an unusually satisfactory result.

The clinical picture of the disease is sufficiently well known, but a recapitulation of its symptoms may not be out of place. The onset dates from birth, or even before; both eyes are, as a rule, affected, the first signs generally noticed being the reluctance of the child to face the light, and the presence of a certain amount of lacrymation. Soon the eyes become enlarged and prominent, the corneae are increased in size, and the vision obviously impaired. The disease progresses slowly but surely, and ultimately the child's condition is truly pitiful. The eyeballs bulge hideously, the sight is completely destroyed, and frequently one or both eyes have to be excised owing to corneal ulceration and its attendant pain. The symptoms are entirely due to a persistently high intraocular tension, and there is no doubt that the complaint is an infantile form of glaucoma similar in nearly all respects to that occurring in the adult. It differs in its pathology and in the fact that, the coats of the child's eye being distensible, they give way readily under the increased tension, and consequently the effects of that pressure on the retina and optic nerve do not appear so quickly as in the adult eye with its inelastic sclera.

The eye commences to give way at the junction of the cornea and sclera, the so called intercalary region, which is one of the weak parts of the envelope. The consequence is that the cornea is flattened and stretched, and also thinned, especially at its periphery. Opacities frequently occur in it as a result of malnutrition. The sclera generally becomes distended, but, according to many observers, shows no thinning. The eyeball is elongated and oval in shape, and is consequently prominent. The anterior chamber is deeper than normal, and the iris may become atrophic and tremulous, owing to lack of proper support by the lens. The latter is, as a rule, smaller than normal (Fuchs), and is displaced backwards, owing to the stretching of the suspensory ligament. The lens remains transparent for a considerable period, but ultimately opacities make their appearance in its substance as a result of failing nutrition. The pupil is larger than normal, and does not readily react to light. The media are clear, and the retina and choroid show no visible signs of degeneration until the later stages. The acuity of vision gradually deteriorates, the field of vision being contracted in a manner similar to the contraction in adult glaucoma. The optic disc eventually presents marked cupping, and the optic nerve undergoes gradual atrophy, until complete blindness results.

Although the eye is so considerably elongated, it is rare to find it highly myopic; this is due to the flattening of the cornea and the backward displacement of the lens. Astigmatism, however, is frequently present.

The pathology of the condition is of great interest. Leber proved experimentally that defective filtration of the intraocular fluid was the cause of the trouble, showing that in a buphthalmic eye the rate of excretion was considerably below normal. Treacher Collins held the view that the base of the iris was imperfectly separated from the periphery of the cornea, owing to arrested development, so causing blockage to the exit of fluid from the filtration angle into the canal of Schlemm. Later, he pointed out that in the embryo the ligamentum pectinatum iridis is in two layers as in animals; the one layer, being in apposition to the sclera, forms the inner wall of Schlemm's canal; the other layer, the inner, is loose and sponge-like. The latter persists until the sixth month of fetal life, after which it should normally disappear. The abnormal persistence of this prenatal condition of the inner layer is in his opinion the cause of buphthalmia. In support of this theory strands of tissue have been found stretching between the base of the iris and the cornea. The canal of Schlemm is frequently partially or completely obliterated. In the opinion of other authorities the disease is due to intrauterine inflammatory changes at the filtration angle.

Four years ago Freda C., aged 6 months, was brought to see me, suffering from undoubted buphthalmia. The mother had noticed that both eyes had gradually become abnormally large, and that the child cried when made to face the light. Both eyes were constantly "running water." The corneae were large, the globes slightly prominent, and the intraocular tension decidedly high. It was impossible to examine the fundi owing to the intense photophobia.

At that time I considered it to be impossible to cure the condition, and for want of anything better pilocarpine drops were ordered. I had in several previous cases performed iridectomy without the slightest improvement, and had abandoned the method as illogical and dangerous.

Soon after consulting me the parents of the child went to live in a distant part of the country, and I did not see her again for two and a half years, when they returned to the Midlands and brought her to see me once more.

A short time previous to this visit, by the kindness of Mr. Priestley Smith, I had examined a buphthalmic patient of his, upon whom a distinguished Continental ophthalmologist had previously operated. His method of treatment was by a series of punctures of the intercalary region of the sclera, resulting in a considerable improvement in the patient's condition.

When in March, 1908, my patient was brought to see me again, I decided to try a modification of this method. At that time the child was 3 years old, and had marked buphthalmos. The corneae were considerably enlarged, and showed extensive nebulous opacities. The tension was high, photophobia was present, and the sight seriously impaired.

In April I performed anterior sclerotomy on the right eye. A Graefe knife was used, with which a puncture was made about 1.5 mm. from the corneal margin on one side, through the sclera. The knife was carried across the anterior chamber, and the point emerged through the sclera on the other side at a similar distance from the corneal margin. Then by a few sawing movements the intercalary region was incised on both sides of the cornea, leaving, however, a bridge of sclera intact at the upper part. Unfortunately these incisions healed very rapidly and firmly, and the tension soon became as high as ever.

This operation having proved unsuccessful I decided to alter the procedure, and in the following June the left eye was operated upon. As in the other eye, an anterior sclerotomy was performed, but the incision was extended so as to cut entirely through the upper part of the intercalary region. The knife as it emerged through the sclera above the cornea was not allowed to cut through the conjunctiva, but this membrane was undermined for a few millimetres, producing a bridge of tissue which held the flap-like portion of the cornea in position.

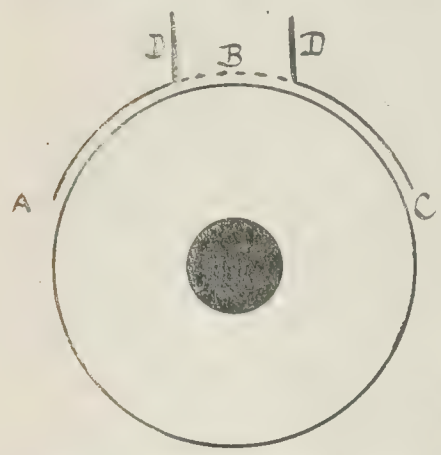


Fig. 1.—Diagram showing extent of incision. A, B, C, Incision through sclera; B, point at which cystoid cicatrix developed; D, D, bridge of conjunctival tissue.

The idea of this operation was to obtain a scar at the filtration angle, which would be sufficiently loose and porous to allow the intraocular fluid to escape through it under the conjunctiva, and so produce a permanent drain. The result more than fulfilled my expectations; a small cystoid cicatrix developed at the upper point of the incision, and a minute fistulous opening in the sclera at this point could be detected. The tension soon became normal, and the symptoms gradually abated.

In September, 1908, a similar operation was performed on the right eye, with an equally satisfactory result, and in December of that year the intraocular tension of both eyes was normal, the photophobia had completely disappeared, and the child could see very much better. She could readily perceive a pin lying on the floor some yards away, and had accurate colour perception. The fields of vision were not markedly contracted.

Fig. 2.—Photograph of Freda C. at the present time.

In January, 1909, tension was still normal in both eyes; there was no injection, and the small cystoid cicatrices caused no irritation or discomfort. The corneal nebulae had nearly disappeared, and the eyes were much less prominent. The fields of vision, as far as they could be investigated, showed no contraction. The optic discs were a little pale, but were not cupped, and the vision was rapidly improving.

Since that time I have seen her periodically, and the improvement has been maintained. In November, 1909, the tension was normal on both sides, and the sight was very good. A small astigmatic error was discovered, corrected by a — 2 D. cylinder 15° from the horizontal in each eye, and with these correcting glasses she could read easily Jaeger 5 at about 6 in. Objects about the room could be distinguished with clearness and precision.

The child presents now an almost normal appearance, the eyes merely resembling the slightly prominent globes of a myope. She is bright, happy, and intelligent, and no longer complains of any eye symptoms.

This result, considering the usually hopeless nature of the disease, warrants me, I think, in recording the case, and will, I trust, lead to the relief of many future cases by a similar operative procedure.

NOTES ON A CASE OF CYCLOPHORIA.

BY

A. ALISON BRADBURNE, F.R.C.S.EDIN.,

SOUTHPORT AND MANCHESTER.

CYCLOPHORIA is the condition which is associated with an abnormal rotation of the eyes. It is therefore a subject which belongs essentially to the sphere of the ophthalmic surgeon, but my reason for drawing attention to it is that it can, when untreated, lead to a state of matters which becomes really serious for the patients and most unsatisfactory for those whose duty it is to treat them. The reason for this is twofold—the absence of signs or symptoms to direct the attention of the examiner or the patient to the true seat of the cause; and also the considerable degree of ignorance which seems to exist, even in the majority of textbooks, concerning even the very existence of such a condition. Further it is important to recognize that it can be brought about by error in the ordering of glasses, and its existence should therefore be borne in mind by those who are in the habit of prescribing glasses.

The following is the statement which a patient I saw last August—a cashier aged 48—wrote concerning himself (names omitted):

In 1894 I consulted Dr. — about my eyes; for a time the glasses were satisfactory, but by the year 1900 I had been to see three eye specialists, and the glasses they prescribed gave little ease or satisfaction for long. Between 1900 and 1907 I consulted an optician two or three times whose modification gave some satisfaction. Trouble then ensued again, and the optician could give me no relief. In the spring of 1907 I first experienced sensation of collapse or unconsciousness after walking two or three hundred yards in the noisy streets of Manchester, after *working at figures and correspondence*, and after railway travelling. In 1907 I again consulted an ophthalmic surgeon, who said: "That there was no trace of disease; that the unpleasant symptoms resulted from overwork; that the glasses last made by the optician were right; that if I persistedly overworked my eyes some form of epilepsy would certainly result." I then consulted my local doctor, who advised me to give up my occupation. I next consulted a heart specialist, who told me that my heart was not responsible for the trouble; that my general condition was very good; that he was certain that my trouble came from my eyes, and urged an effort to find correct glasses. In 1908 I consulted another optician, who tried various lenses, but my condition varied, and tended to become worse. In the same year I consulted a nerve specialist, who said I was simply run down through overwork; that the eye condition was secondary, and that I must take a cruise in the Mediterranean, and if I did he would guarantee a cure. I did this at great expense, but only to find a return of all my symptoms within a few weeks of my return. I then consulted a hydropathic physician, who said that I was suffering from optic neuritis with gouty complications. Tried hydropathic and electric treatment for one month with little benefit. Finally, I consulted another doctor, who sent me to see you.

I experienced at times a dull, aching, intermittent pain about the eyeballs and eyebrows, always finishing in the right eye, leaving a sensation of numbness, always aggravated by near work, followed sometimes by a feeling as if I were going to collapse and become unconscious. It is unaccompanied by noises in the head, though noises aggravate it. Am sometimes left slightly deaf for a time. I never see double, and external objects do not revolve.

Questioned further, he said that after any lengthened period of application to near work he had noticed on getting up from his desk that the ground seemed to slope up towards him. His general medical history was good. His father was alive and his mother lived till 70. He had no brothers or sisters. He was a widower with two healthy children. He was almost a total abstainer as regard tobacco and alcohol. Except for his nerve troubles he enjoyed very good health.

Here, then, was a person who was evidently suffering from a condition which had been more or less present for fifteen years. If we carefully consider the history we see that the intensity of the symptoms has increased much more rapidly since he reached the presbyopic age; this points to a definite relationship to his near work. Again, we notice that his symptoms were always aggravated by near work and that relief followed cessation from such work.

These points taken together with the slowness of onset and the temporary relief only obtained by the various glasses tried, justify the conclusion that the cause must be of a trifling but persistent nature. Persistent because of its effects, and trifling because of its escaped detection.

I found that he was wearing one pair of glasses for near and far work. In front of the right eye he had a simple convex glass, but in the left was a strong convex cylinder placed at an angle of 25 degrees from the vertical. I assumed at once that his trouble arose from the position of this cylinder. If one of these cylinders be held about a foot or two in front of the eyes, and looked through it at, say, the bars of a window, and it then be rotated slowly it will be noticed that the bars seen through the glass become rotated out of alignment with those seen outside the glass. As this is what occurs when the cylinder is rotated, it is easy to see what happens when the eyes rotate and the cylinder is fixed. It is well known that the eyes turn *in* when a near object is looked at, such as a book, as in the act of reading, but at the same time they rotate on a fore and aft axis in such a manner that their vertical meridians become tilted out at their upper ends. This movement is exactly like that which occurs when the steering wheel of a ship is turned.

In the case under consideration I found that he was wearing a cylinder the axis of which was placed leaning 25 degrees from the vertical; this position made all vertical meridians correct when his eyes were directed straight ahead, when in fact no torsion of his visual axes was present. It is plain, then, from what has been said about the rotation which occurs when the eyes are turned in, that this position of the cylinder could not be the correct one when he was looking down and in, for rotation will have taken place behind the lens. This it was quite simple to prove. A plain sheet of paper was placed at the usual reading distance from his eyes; with his distant glasses on a double prism was put in front of his right eye. On the card was a single straight line, to which he directed his attention. He then saw three lines; the upper and lower belonged to his right eye, the centre to his left. If, then any rotation of his eye were present, it was plain that this central line would not be parallel with the other two. As I expected, he stated that this middle line sloped away down to the right. By simply moving the position of the cylinder 10 degrees nearer the horizontal, this line became at once parallel. However, on once more testing, with the cylinder in this new position, with the eyes directed straight ahead, he stated that his vertical meridians were out of truth. Their restoration was effected by putting the lens back to its original position.

It was evident, then, that he needed two pairs of glasses, one for distant use with the cylinder at its old situation and another with it at ten degrees nearer the horizontal for reading and close work. After using these for three weeks he wrote to say that there was already some improvement.

Here, then, was a cause which answered to the hypothesis that the error was trifling, yet constantly and easily overlooked. We have only, then, to explain briefly what caused it to give rise to such symptoms.

It was evident that his glasses for distant use were perfectly correct, but when he came to read with them the rotation of the eyes which then took place would lead to a want of parallelism of the lines of his book. These lines would, in fact, tend to cross when the images were fused, but as the brain will not tolerate double images it would make every effort to correct this want of alignment. This is overcome by a special effort on the part of the oblique muscles of the eyes, whose function it is to rotate the eyes.

Now, this torsional action of the obliques is directed and graduated by the will, and though this effort of the will may be easy and rapid it is none the less an independent action.

This characteristic feature explains how it was that this cause could persist so long before it produced any symptoms. At first the extra exertion would entail little strain on the nervous output of energy, but as time went on, and he approached the age when reading naturally became more difficult, its effects on the general nervous system would become more pronounced.

The phenomenon of the sloping of the ground, which was noticed after near work, is explained by the cramped position into which the oblique muscles had brought the eyes, causing them to become fixed in a position which made them incorrect for the gaze when directed straight ahead. This would also explain the trouble he experienced as he walked home through the "noisy streets of Manchester," as the lines of the buildings, etc., would all be out and his nerves in a highly sensitive condition to any external irritants.

This case is an example of the endless troubles to which such a condition can put both the patient and his medical advisers when it remains untreated and unrecognized.

Patient writes December 28th, 1909: "There can be no doubt that an improvement in my condition has taken place during the last few months . . . but though feeling my physical limitations I can safely say my condition is better than it was."

THE second International Congress on Cancer Research will be held this year in Paris from October 1st to 5th. The President is His Excellency Professor von Czerny; the General Secretary, Dr. G. Meyer. The office to which all communications should be addressed is at 13, Bendlerstrasse, Berlin, W.

ON A TRIAL OF NASTIN.

By J. ASHBURTON THOMPSON, M.D., D.P.H.,
PERMANENT HEAD, DEPARTMENT OF PUBLIC HEALTH, NEW SOUTH WALES.

THE treatment of leprosy is still the opprobrium of therapeutics, and promise of improvement in it has so much importance that the following account of a trial of Professor Deycke's nastin treatment will have interest for many in different parts of the world who have reported on, or who are still conducting, similar trials. It is confined to a summary statement for want of space. Here, for instance, charts of daily temperature extending over a whole year cannot be displayed, but it has been abstracted from my annual official records[1] for the years 1908 and 1909, in which such charts have been published, together with many other details not reproduced here. I would ask the reader to understand, therefore, that the statements made below do not represent general impressions, but result from clinical notes made from week to week. It is the more important to mention this in the case of leprosy, because the character of the disease is tenacity with long duration; even its untreated course is commonly remittent or fluctuating, is frequently interrupted by long terms of quiescence, and, not very rarely, is brought to a close, apparent or real, in a stage which may be accepted as recovery for all practical purposes. These features leprosy has naturally, but when patients are cared for other points have to be borne in mind. It must be generally known, I suppose, that lepers almost invariably improve considerably after having been removed from conditions of poverty, or even of irregular living, to those of a well-ordered hospital, and that often the improvement is not confined to their general state—as shown, for example, by increase of weight—but extends to the visible and tangible stigmata of the disease. Over and above that, I have noticed that the stigmata vary considerably from time to time, independently of all treatment; and, again, that lepers are usually very impressionable, and often benefit remarkably, for a time at least, when interest and hope are excited in them by any new treatment; and, therefore, it is hardly enough for writers to assert that whereas before treatment a patient exhibited such and such signs, these afterwards became favourably modified or disappeared. In order that the mere reader may be placed as far as possible in a position to judge whether the reporter's opinion has been well founded, all the conditions under which the patient lay must be mentioned at the same time.

After having studied Professor Deycke's earlier papers,[2] it seemed to me that his ingenious and interesting observations rested on foundations which were very largely speculative; but, further, that application of the result of his experiments to treatment was a widely different matter. In his opinion, formed after long experience, his clinical results testified that a step towards the scientific treatment of this ancient disease had been taken by him for the first time in its history. On that ground I took nastin into use at the beginning of 1908. My supplies, received from Biebrich, included nastin B 1, nastin B 2, and ketin; they were contained in original packages, and were in good order. The injections were actually administered by the medical superintendent of the hospital to which the lazarets are attached, Dr. R. J. Millard, M.B., D.P.H., who was formerly microbiologist in my department; the syringes were invariably dried by immersion in ether, which was allowed to evaporate before the nastin was drawn into them, and the remains of any partly emptied flask were thrown away. In no case did suppuration occur, but effects were produced at the site of injection—slight pain, which usually passed off in half an hour, with subsequent formation of hard and tender lumps. The latter resembled those caused by Haffkine's plague prophylactic, but were so much more persistent, that at the end of the course each patient had large areas of irregular subcutaneous induration on the outer sides of the arms used; and, in the cases of two patients at least, these areas still persist quite plainly, although a year has elapsed since the last injection was made. Nothing further happened in the third, fourth, and fifth of the cases described below, but in the second there was additionally quite severe pain on three occasions, which persisted for

twelve hours, while on one of those occasions there also occurred a transient oedema of the whole of the upper extremity used; and in the first of them, while prolonged pain was felt about the same number of times, on still two other occasions the injections caused eschars, which separated slowly, and which left indolent ulcers.

From among the patients whom from time to time I had admitted, and who thereafter had continued under my care and weekly observation, I selected the five described below. They were all whites. It will be observed that they were of both sexes, and of ages which varied between 7 years and 70. The duration of their illnesses was between six weeks and sixteen years. Two of them had been newly admitted when the treatment began; the other three had been under my care eleven, five, and four years. Three of them had the disease in its tuberous form. One other was an old case of pure lepra nervorum, but in the midst of a marked remission. The fifth was originally a case of pure lepra nervorum of ten years' standing, but at the beginning of this treatment he was fifteen months advanced in the course of transition to the skin form, and, at the same time, was in about the third week of an exacerbation which was strictly confined to the nerves. Thus the series included three cases of special interest and value in the present connexion: Case I on general grounds—namely, the early stage of the patient's manifest disease, her tender age, the proportionately large doses of nastin she received, the long continuance of the treatment, and the ease and certainty with which accumulation of signs could be watched and distinguished; Cases III and V on grounds furnished by Dr. Deycke's impressive warnings against the exhibition of nastin in nerve leprosy.

It is difficult to ascertain from Professor Deycke's writings what measure of improvement may be reasonably expected from nastin treatment within a certain time, although it must be inferred from them, I believe, that restored sensation and dissipation of tuberosities may be looked for, as a rule, in the course of some months—more or less complete in different cases, and not without a few exceptions in which all response to it will be wanting. But what seems certain from them is this: While normal doses of nastin B 1 sometimes cause immediate reactions, namely, general (or febrile) and local in tuberosities, etc. (or necrotic), the same doses of the same form exhibited every second or third day may be relied upon to produce them. They may even be so violent as to endanger the patient's life. They are especially liable to occur in cases of nerve leprosy, and for that reason nastin B 1 must be exhibited in them with great caution, nastin B 2 not at all. In addition to these evidences of action, Professor Deycke finds that the bacilli become degenerated; he infers this from vacuolated, dotted or moniliform, and granular appearances which supervene. These results have their importance. For if nastin had no immediate effect, but its prolonged, silent exhibition were necessary before abatement of the disease could be looked for, the same doubt would be felt in forming a judgement on its efficacy as in the case of every other remedy for leprosy hitherto advocated, namely, whether the improvement ultimately distinguishable were due to it, or (not being uniformly observed in all cases) were merely attendant on the natural fluctuations of the disease, reinforced by careful general management and attention.

CASE I.—A. R., female, aged 7, came under treatment within six weeks of first appearance of the stigmata of tuberous leprosy; her general health was not disturbed. Her treatment began on January 28th, 1908. After a preliminary injection of 0.5 c.cm. she had nastin B 1, 1 c.cm., every seventh day until June 3rd; from that date she received 1.5 c.cm. every seventh day; from August 23rd she had the same dose every fifth day; from September 25th the same every third day; but almost immediately afterwards it began to be repeated every second day, and was so continued to November 4th, when this medication ceased. On three separate days a single dose of nastin B 2 was substituted for B 1. Thus she had fifty-seven doses in all. There was not at any time any reaction to the injections, either local or general. Her case slowly got worse and worse during the year, in a way which I consider to have been usual.

CASE II.—G. M. S., female, aged 23, married; tuberous form. The first signs had appeared in February, 1903, a few weeks after her confinement with her second child. She was admitted February, 1904. The signs of her disease were from the first marked and prominent, but at no time has her general health been affected; she was and continues to be lively, energetic, and industrious; only towards the end of 1907 did some disturbances of sensation, not recognized by her until pointed out, begin to be observable. Between April 7th and 20th, 1908, she received three injections of 1 c.cm. of nastin B 1 every seventh day, and then ceased. On May 12th she resumed the same quantity at the same interval; on June 17th the dose was increased to 1.5 c.cm.; on August 12th the interval was reduced to five days; on September 12th nastin B 2 was substituted, same dose, same interval; on September 22nd she had nastin B 2, 2 c.cm., and on the 25th returned to nastin B 1, 1.5 c.cm., but repeated every second day, and on December 16th ceased. Thus she had sixty-five doses. Her case remained, and a year after cessation still remains, stationary. Neither local nor any general reaction occurred at any time.

CASE III.—H. W., male, aged 68, pure lepra nervorum. He set the first signs which could be ascribed to leprosy at 1892; admitted 1897. At the end of 1900 his disease appeared to have become quiescent, and so continued till 1907, when blisters began to appear spontaneously on his much-deformed fingers; and during the earlier months of 1908 he presented a number of very large maculae which had newly appeared. He was in the course, therefore, of an active remission, but his general health did not suffer. On March 16th, 1908, he began to receive nastin B 1, 1 c.cm., every seventh day; on August 18th the interval was diminished to five days; on September 12th he had nastin B 2, same dose, same interval; on November 2nd he resumed nastin B 1, 1 c.cm. every seventh day, and on December 28th ceased. His case was altogether unaffected; his temperature did not vary, and it is especially to be noted that there were no local reactions. His very marked and extensive anaesthesia remained, and still remains, exactly what it had been for many years; his maculae are now less brightly coloured, but are still perfectly plain.

CASE IV.—F. P., male, aged 70, tuberous leprosy; had probably suffered for five or six years when he was admitted in January, 1908. From January 28th to August 5th he received 1 c.cm. of nastin B 1 every seventh day, then ceased. At the end of the year, after comparison of his then state with that recorded on admission, it was seen that no changes had taken place except those usually observed in old-standing cases as a result of the regularity of hospital life and feeding. Improvement was not to be expected in this case. The patient was senile on admission, and died of senile decay during 1909. But it is to be noted that there was no reaction at any time, either local or general.

CASE V.—F. E. B., male, aged 32. The first signs ascribable to leprosy were observed by the patient in 1898; he was admitted in 1903, and was then suffering from pure leprosy of the nerves. The disease continued active, as was shown in various ways (prolonged hypersensitiveness of, perhaps, all nerves; a general eruption of maculae, etc.), but mutilations, paralyses, and disturbances of sensation did not much advance, and his general health remained good. During September, 1908, a *léprôme en nappe* appeared on the right buttock; from this bacilli were easily obtained in abundance for the first time in the case. He thus entered on the transition from nerve to skin leprosy, or, rather, the latter became added to the former manifestation. At beginning of April, 1909, when the signs of the skin form of his disease had slowly developed and progressed, he began to suffer from an acute exacerbation, which, however, was strictly confined to the nerves; they became greatly swollen, tender, and developed neuromas. On April 20th, that is to say, after the exacerbation had already lasted two or three weeks, he was given nastin B 1 every seventh day till May 21st, from May 28th to June 26th nastin B 2 every seventh day, thence to July 30th the same every fifth day; and from that date to the end of the year the same every fourteenth day. It produced no general reaction (his temperature remained unaltered till the middle of June; then he began to have some fever, which lasted, though with short intermissions, till the end of August only; but no connexion at all could be traced between this elevation of temperature and the injections, with which, it will be observed, it coincided only in small part). It did not cause any local reaction either. No effect on his disease was produced; the exacerbation followed a quite usual course. Disturbances of sensation and paralyses remain what they were before treatment.

Thus nastin showed itself in my hands an entirely inert body, save for some irritant effects limited to the seat of injection. My experience seems to have been identical with that of Dr. Lenz[3] of Equatorial Africa. Both his and mine differ *in toto* from Professor Ziemann's[4] account of his trial in the Cameroons, which was so favourable that he asked for a special appropriation of £400 for the purchase of supplies for the ensuing year. Both differ also from favourable accounts furnished by several independent observers[5] in India. On the other hand, they would appear to resemble the result of trial in Manila;[6] also in a single tuberous case in London, and of a more general trial in Hamburg, as I have learnt from private communications. On the whole, the only suggestion that Dr. Lenz was able to make by way of explanation of the discrepancy—namely, that his supply for some reason had been at fault—seems unlikely to prove valid. The following experience bears upon it. Towards the end of 1908 I learnt that nastin had been administered to a single white patient, suffering from tuberous leprosy, in the Dominion of New Zealand, and that an injection of

nastin B 2 had been followed in him on one occasion by a reaction of such violence that the form was deemed to be unsafe and was definitively thrown out of use. I had no reason at all for doubting the soundness of my supply; but here, it seemed, was an opportunity of testing such a suspicion as Dr. Lenz has more recently mentioned, and at my request the Chief Health Officer of New Zealand was good enough to turn over to me the remainder of his stock of nastin B 2. I applied it in the following way:

H. F., male, aged 40, lepra tuberosa, duration unascertained (but probably several years), received 1 c.cm. of nastin B 2 (N.Z.) on three days with two intervals of two days each. His temperature remained unaffected and no other result ensued.

Cases I and II (above) each had 1 c.cm. of nastin B 2 (N.Z.) on each of two days; Case III had one such dose; in Case V the nastin B 2 continuously administered on and after May 28th to the end of the year was part of this New Zealand supply.

In none of the patients did it cause any reaction, either local or general. These discrepancies are puzzling. It is possible that they have their psychological aspect.

As regards the bacilli in the cases described above, they had their usual appearances, and no changes could be detected. Professor Deycke's description[7] of the degenerative alterations observed after treatment do not (I think) indicate anything unusual. In cases of leprosy, in which bacilli can be easily obtained from the surface of the body, it is generally found that wholly-stained specimens lie among a larger number of others which are either vacuolated, or dotted, or reduced to mere acid-fast granules. In many situations none wholly stained are found; in some, which perhaps are generally more recent deposits, all may be wholly stained. The imperfect bacilli can take a differential stain.

REFERENCES.

[1] 1909-10. J. Ashburton Thompson: Eighteenth and Nineteenth Annual Reports of the Board of Health on Leprosy in New South Wales.
[2] 1904-7. Deycke: V Internationale Dermatologen-Kongress, Berlin; *Deut. med. Woch.*, 1905, 88. 480, 545; *Lepra*, vii, p. 174.
[3] 1909. Lenz: *Lepra*, ix, p. 19.
[4] 1909. Ziemann: Ibid., p. 23.
[5] 1909. Rodriguez: F. A. Smith and Bissett, Beauchamp Williams: *Trans. of Bombay Medical Congress*. F. Raschid: BRITISH MEDICAL JOURNAL, ii, p. 1343.
[6] 1909. Heiser: *Amer. Journ. of Med. Sci.*, cxxxviii, September.
[7] 1908. Deycke: BRITISH MEDICAL JOURNAL, i, April 4th.

THE SCIENCE COMMITTEE

OF THE

British Medical Association.

REPORT CXX.

PERITONEAL BLOOD TRANSFUSION.

BY A. E. BOYCOTT, B.Sc., M.D.OXON.,
LECTURER ON PATHOLOGY, GUY'S HOSPITAL.

BLOOD injected into the peritoneal cavity is quickly absorbed into the circulation, with the exception of a small quantity which remains entangled in the omentum. The volume of the circulating blood is within a few days adjusted to its proper level, so that the concentration of red cells is increased and a condition of polycythaemia produced. The general phenomena are fully described by Hunter,[1] where an abstract of the older literature will be found.

In previous investigations Boycott and Douglas[2] determined the rate at which the red cells contained in the blood of normal rabbits transfused by direct intravenous injection into other normal rabbits are destroyed. They found that the mean daily amount of haemoglobin destroyed, expressed in terms of oxygen capacity, varied from −0.19 c.cm. to 0.44 c.cm., on an average 0.24 c.cm. It was the immediate object of the present research to see whether the rate of destruction of red cells passed into the circulation via the peritoneum was greater or less than this. In a series of twenty-two experiments a mean daily rate of 0.55 c.cm. was found. From a consideration of the nature of the stimulus which excites a rabbit to destroy the red cells of another rabbit which it may find in its circulating blood, it appeared that the relatively foreign nature of the cells was an important factor. The degree of foreignness of the cells is presumably increased by passing them through an extravascular position (peritoneum) on their way to the circulation, and it is suggested that this is the reason why cells so transfused are destroyed more rapidly than when they are put straight into the blood of the recipient. With intravenous transfusions the rate of daily destruction increases as the process advances, while with intraperitoneal transfusions the rate is much quicker during the first than during the second week.

The red cells are not destroyed by a process of intravascular haemolysis, nor has it been found possible to induce the production of autolytic or isolytic substances in the blood serum of rabbits by repeated intraperitoneal injections of whole or laked blood, nor by destroying a rabbit's red cells inside the body by such a poison as phenylhydrazine. The initial phase of destruction seems to find its morphological expression in abundant phagocytosis of red cells by the endothelial (stroma) cells of the lymphatic glands and spleen pulp. Within these cells the red corpuscles are broken up, and pass gradually to a condition of amorphous pigmented débris, some of which gives the reaction for inorganic iron. This phagocytosis is very much more abundant with intraperitoneal than with intravenous transfusions—an observation in accordance with the view that the cells are made more foreign by passage through the peritoneum.

Apart from the various other reasons which point in the same direction,[3] these observations suggest that intravenous transfusion is to be preferred to intraperitoneal transfusion, as giving a prospect of more lasting benefit to the recipient. This conclusion does not, however, necessarily follow, since experiments show that considerations of whether the red cells are needed in the body can outweigh those concerning the precise degree by which they are foreign to the economy.

REFERENCES.

[1] *Journal of Anatomy and Physiology*, vol. xxi, 1887. [2] *Journal of Pathology and Bacteriology*, vols. xiii and xiv; BRITISH MEDICAL JOURNAL, May 22nd, 1909. [3] Crile, *Haemorrhage and Transfusion*, 1909.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

LYSSOPHOBIA OR HYDROPHOBIA?

IN June, 1903, my orderly—a Mohammedan Sepoy of the Kapurthala Infantry—was bitten by a dog on the outer side of the left leg below the knee. The wounds (two) healed in eight days, and he had forgotten all about the incident until February 9th, 1905—one year and eight months later—when he felt unwell, irritable, and fretful; that evening he had some fear of water, and was evidently thinking about the bites. On the following day (February 10th), when sitting in the quarter guard, he told his comrades the story of the dog, mentioning his symptoms of the previous day and his fear of water. The native officer in charge did not think him really ill, but at 11 p.m. locked him up in an adjoining room, and at 6 a.m., when he opened the door, found that the man had developed symptoms of hydrophobia. His brothers were sent for, and they conveyed him to his house in the city. He was quite conscious, but, as he bit at the sight of water, his eyes were bandaged during the journey. When I saw him at 11 a.m. on February 11th he was sitting on his bed retching and spitting with a brass basin in front of him. His hands were kept down by a pillow placed in front of them. He was biting and snapping, with quiet intervals. His aged mother watched by his side and when he wanted to bite, a pillow was each time thrust toward him and he bit it. He occasionally raised his hand to his mouth as if to bite, but he never closed his teeth over it, nor did he leave any impression of teeth on the skin, although the pillow presented to him was torn to bits. His eyes were wild, ferrety, intensely congested, and the pupils dilated. In the intervals he spoke naturally, and asked his brother to give me a chair. He held up his leg and pointed out the scars of the bites, which had a blue congested look. With great vehemence he declared that he had felt pain in the

bites on the previous day, and that they were severely painful then. He said he would die, and I feared he must. I gave him 10 c.cm. of antitetanic serum which he swallowed, but was sick soon after. I had to leave the town, but at noon he was ordered a pill containing ext. cannabis ind. and cocaine, 1 grain of each; but was sick after, and probably vomited the pill. He retched again at 1 p.m. and 2 p.m., but slept or was quiet in the intervals, and at 5 p.m., when he was seen by Dr. Sadik Ali, the convulsions had ceased, he asked for an orange which he sucked, and soon after he drank an ounce of water; this was repeated several times, and when on my return next day I drove to his house at 11 a.m., he stood up on his cot and saluted me. He was well, his eyes were clear and normal, and the pulse was 96.

Later I ascertained that at 8 a.m. on February 11th a powder had been administered by a local Hakim, who was said to have cured a case of hydrophobia. Violent sickness and retching followed, and at 3 p.m. a second powder of the same kind was given. After much difficulty I procured from the Hakim enough powders to treat 20 cases. Their composition was given as follows:

Powder No. 1.—Potassium bichromate, 4 grains; some mercury and sulphur triturated together; croton seed, say, 1 to 2 grains; cloves, condiments, etc., to make up a powder of 12 grains.
Powder No. 2.—Common salt, 12 grains.

Both powders to be given at the same time.

I have seen three cases of hydrophobia; one in St. Thomas's Hospital in 1864, a second at Guy's in the Sixties, the third in Amritsar in 1882 when civil surgeon there. I have heard and known of numbers, specially when serving in Central India. I had no doubt that this was a true case of hydrophobia. My assistant, Dr. Sadik Ali, had seen thirteen cases of true hydrophobia in Kapurthala, and had no doubt in his mind. The violent vomiting and retching puzzled us, but this symptom can be attributed to the potassium bichromate. If this was a case of hydrophobia, the man was absolutely cured, and within six hours of my first seeing him, when the violence of the symptoms was such that had they not ceased he must certainly have died from exhaustion.

The *Lancet* of July 18th, 1903, p. 160, contains a report of a case of lyssophobia or spurious hydrophobia.

The patient was a Eurasian medical student, aged 20, who had within the previous year seen, and helped to attend, three cases of hydrophobia. On May 15th, 1903, he was deeply bitten on the base of the left thumb by a rabid dog. While under treatment at the Pasteur Institute, Kasauli, India, on May 22nd, or the eighth day after the bite, he suddenly developed symptoms of hydrophobia. His aspect was one of extreme terror, eyes wide open, pupils dilated; he had great dread and spasm at the sight of or on an attempt to drink water. At first sight his case appeared to be typical of hydrophobia, but against this view was the fact of its being impossible for hydrophobia to develop after so short an incubation period as seven days. He was therefore ordered 15 grains of chloral and 20 grains of potassium bromide in water, which, by dint of firmness, he was induced to swallow, and he retained it. He slept for five hours, woke up much better, and was well by the evening.

My own case differs particularly in the long lapse of time before the appearance of the initial symptoms and by the premonitory symptoms on February 9th and 10th, specially local pain in the site of the bites. The man had no doubt been thinking about these bites and hydrophobia, though what started such ideas after a long period of oblivion is not known. Against the case being hydrophobia is the rapidity of the development of acute symptoms on February 11th, the rapidity of the cure, and the fact that he never bit his own hand, while a pillow was torn to pieces.

Guernsey. Joshua Duke, Lieut.-Col. I.M.S. (ret.)

AVULSION OF THE EYEBALL DURING INSTRUMENTAL DELIVERY.

In the Memoranda of the British Medical Journal of January 22nd I read with great interest Dr. Donaldson's case of avulsion of the eyeball, as strange to say only three days before I had a similar case, the first I had seen or ever heard of, although I have been in practice twenty years. The mother was a primipara, of very diminutive stature and deformed, 20 years of age. She had a contracted pelvis, and I had the greatest difficulty in delivering with forceps.

When the baby was born, I was astonished to find the right eye lying on the cheek. I replaced it, but the child was dead. A good account of injuries to the child's eyes occurring during birth is contributed by Stumpf, of Munich, to Winckel's *Handbuch der Geburtshulfe*, III, 3, page 491. He says that there is no form of injury, from simple effusion of blood under the conjunctiva to complete destruction of the globe, which has not been seen even after perfectly spontaneous delivery. Subconjunctival haemorrhages may be observed forming semilunar areas around the corneal edge, and even retinal and choroidal haemorrhages with detachment of retina. Coburn made *post-mortem* examinations on 36 children, either stillborn or dead, within a few days after birth. In 5 there were sclerotic and in 17 retinal haemorrhages (1 with detached retina). In 4 haemorrhage into the optic nerve, in 5 haemorrhage into its sheath. In 4 subhyaloid and in 2 intravitreous haemorrhage. Paul estimated the frequency of retinal haemorrhage in spontaneous births at 20 per cent. and at 50 per cent. in cases of contracted pelvis. Such haemorrhages may be very extensive, and if involving the macula there may be permanent visual disturbance. In recent times retinitis pigmentosa has been referred to haemorrhages at birth. Wolff observed the occurrence of haemorrhage in the connective tissue and retina, and also of strabismus in spontaneous birth, with special frequency in cases of contracted pelvis, face presentations, anterior parietal presentations, and forceps cases; but he referred the lesion not to direct pressure, but to the retinal haemorrhage of asphyxia. Werhli thinks that such congenital retinal haemorrhage may be the cause of glioma retinae.

Very extensive haemorrhage may occur during forceps delivery, especially when the blade of the forceps has been applied over the outer canthus, or on the frontal bone, or over the eye itself. Under such circumstances great sclerotic and conjunctival effusions or haemorrhage into the anterior chamber, or into or behind the globe may be seen. These commonly occur in consequence of fracture of the roof of the orbit, or of the upper orbital margin, or of the lacrymal bone, extensive haemorrhage may lead to corneal opacity. Without any malposition of the blades of the forceps, the increased pressure of the cerebro-spinal fluid on the optic nerve may lead to lymph stasis and compression of the central artery, and thus to functional or atropic disturbances in the globe. Retrobulbar effusion may cause traumatic exophthalmos, although spontaneous delivery may also be followed by exophthalmos. Further consequences are paralysis of the muscles, especially of the abducens, the rectus superior, and the orbicularis palpebrarum. Intracranial haemorrhage also may cause such paralysis. In cases in which the forceps are pressed directly on the eye there have been seen luxation of the lens in traumatic cataract.

Cramer has recorded a case of complete rupture of the globe in difficult forceps delivery in anterior parietal presentation.

It is proper to say that, according to very good authorities, it is sometimes very difficult to avoid getting the blades of the forceps into such dangerous positions, especially in narrow pelves and abnormal presentations, so that it does not follow that the accoucheur is to blame for the damage done to the eye.

The eyes may be injured by careless and violent examination. Wecker gives a case in which the eye was mistaken for the anus, and the eyeball destroyed by the finger. In another case narrated by Bock the eyeball was completely luxated from between the lids, and, in spite of reposition, was lost through suppuration.

Ossett. G. Symers Mill, M.D.Edin.

A NEW VEGETABLE FOR DIABETICS.

I should like to draw attention to a vegetable now offered for sale in our markets which is thoroughly suited for the use of diabetics on strict diet. It is sold under the name of Chinese artichoke, and the price I have been charged for it is 8d. per lb., half a pound making a good dish. The vegetable has been identified by my colleague, Professor West, as the tuberous rhizomes of a plant known as *Stachys tuberifera*, one of the Labiatae closely allied to our native "woundwort." These contain practically no starch, but this is replaced by inulin, which is present in solution in the cell sap.

Birmingham. Robert Saundby.

POISONING BY OIL OF EUCALYPTUS.

IN connexion with the cases of poisoning by oil of eucalyptus recorded by Dr. W. R. Kirkness in the JOURNAL of January 29th, p. 261, the following case may not be without interest.

R. V., a little girl aged 1 year 8 months, was suffering from bronchitis, and was being treated by the application of eucalyptus oil to the chest externally. On the advice of a sympathetic but ignorant neighbour, the mother gave the child a teaspoonful of the oil by the mouth. About twenty minutes afterwards the child became violently sick, and appeared to suffer intense abdominal pain. Very soon, however, she sank into a semicomatose condition.

When I saw her she was much collapsed, respiration was irregular, soft and sighing, and the pulse was intermittent and very feeble. Vomiting had ceased but the bowels moved frequently. The child was pale, and the temperature was subnormal (96.4° F.). The conjunctival reaction was sluggish, and pinching the skin elicited hardly any reaction. The child was put to bed, well wrapped up in blankets, and hot-water bottles were placed in the cot, and a stimulant in the form of brandy was administered, but no emetic was given, nor was the stomach washed out, as it was thought probable that the oil had been already ejected. The child soon improved, and in two days appeared none the worse for her experience.

In this case probably about 1½ drachms of oil of eucalyptus were given, because a "domestic teaspoonful" is, as a rule, more than a "medicinal teaspoonful," which is equivalent to a drachm. Incidentally, it might be mentioned that in prescribing for children it would be a wise precaution to see the spoon that is to be used for measuring, and the "signetur" could be modified accordingly.

Edinburgh. J. ALLAN, M.D.

Reports of Societies.

MEDICAL SOCIETY OF LONDON.

Monday, February 28th, 1910.

SAMUEL WEST, M.D., F.R.C.P., President, in the Chair.

Atypical Pneumonia.

SIR JOHN BROADBENT read a paper on some difficulties in prognosis in cases of atypical pneumonia with prolonged pyrexia. The atypical cases were met with in adults chiefly in association with influenza. The insidious onset, the delay in the appearance of physical signs, the intermittent pyrexia might at the outset render the diagnosis obscure; while the absence of a definite crisis, the continued pyrexia lasting, it might be some weeks, with progressive loss of flesh, would render the prognosis a matter of considerable difficulty, as in some cases empyema, or malignant endocarditis, might develop, whilst in others after a prolonged period of septicaemia recovery took place without further complications. In children, the tendency in apical pneumonia to the supervention of symptoms suggestive of cerebro-spinal meningitis, might cause undue alarm, or the vagaries of a prolonged attack of lobular pneumonia might lead to a suspicion of pulmonary tuberculosis. Broncho-pneumonia complicating enteric in children might also mask the symptoms of the latter affection, which in children often ran an atypical course.

Protracted Pyrexia in Pneumonia in Children.

Dr. REGINALD MILLER read a paper on some cases of protracted pyrexia in pneumonia in children. He said that out of 217 cases of pneumonia in children no fewer than 55 (25.3 per cent.) showed fever for a period extending beyond ten days. Such a percentage could not but be regarded as too high, and was, he supposed, due to the fact that the longer the fever lasted the more likely was the child to be sent to hospital. He divided the 217 cases into primary and secondary pneumonias, including in the former cases of lobar pneumonia and primary broncho-pneumonia, and in the latter such cases as appeared to be due to an extension of bronchitis. These two groups contained 126 and 91 cases respectively. The proportions of the protracted cases in the primary and secondary pneumonias showed little difference, being respectively 26.19 per cent. and 24.17 per cent. When the fever was prolonged beyond ten days the danger to life was considerably increased, the death-rate in the protracted cases being rather more than three times as great as in the unprotracted. That was shown in the following figures. Taking all cases together, the death-rate was 15.20 per cent., being 11.11 per cent. and 20.87 per cent. in the primary and secondary pneumonias respectively; but while in the unprotracted cases only 9.87 per cent. died, in the protracted the mortality was 30.90 per cent.

Dr. W. CAMAC WILKINSON suggested that the injection of tuberculin in adult patients would have cleared up the diagnosis in doubtful cases, where tuberculosis might have been the cause of the disease.

Dr. THEODORE WILLIAMS did not believe that a reaction to tuberculin showed tuberculosis; he would require "a good many reactions" to convince him.

After some remarks by Dr. G. A. SUTHERLAND,

Dr. SAMUEL WEST said that though the tuberculin reaction proved the patient was tuberculous, it did not prove that the inflammation he was suffering from at that time was tuberculous.

THE ROYAL SOCIETY.

Thursday, February 24th, 1910.

Sir ARCHIBALD GEIKIE, K.C.B., President, in the Chair.

The Biochemistry of Growth.

MR. W. CRAMER AND MR. HAROLD PRINGLE contributed two papers on the biochemistry of growth. The first dealt with the total nitrogen metabolism of rats bearing malignant new growths. The nitrogenous metabolism was determined before and after transplantation with a rapidly growing spindle-celled sarcoma. The results showed that less nitrogen was necessary to build up a certain weight of tumour tissue than to build up an equal weight of somatic tissue of the host. No evidence could be obtained that the tumour cells had a higher affinity for nutritive material than the growing cells of the host, or that they secreted substances having a toxic action on the nitrogenous metabolism of the host. The conclusion was that the cells of the new growth derived the nitrogenous material necessary for the building up of new tissue by a sparing of the protein metabolism, so that a smaller amount was utilized as a source of energy and a large amount for the building up of new tissue. The second concerned the distribution of nitrogenous substances in tumour and somatic tissues. Estimations were made of the total nitrogen content of rapidly growing transplanted tumours (carcinoma and sarcoma), and of the tissues of the animals bearing these tumours. The results, which confirm those arrived at by observations recorded in the first paper, showed that the nitrogen percentage of rapidly growing tumours was smaller than that of the tissues of the host or that of the tissues of normal animals. This diminution in the nitrogen percentage was found to be due to the fact that, weight for weight, the cancerous tissue contained only about three-fourths of the amount of protein substances present in the tissues of the host. In other words, with the same amount of protein a bigger mass of tumour tissue than of host tissue could be built up. The simpler abiuret nitrogenous products of cell metabolism, however, were present in slightly greater amount in the cancerous tissue. It was pointed out that these results had a bearing on the mode of growth of cancerous tissue. Since the tissue of a neoplasm could be built up with less protein than the same weight of host tissue, the former must grow more rapidly than the latter under circumstances where both were using up nitrogenous material for mere growth at the same rate.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF SURGERY.

Friday, February 11th, 1910.

J. LENTAIGNE, P.R.C.S.I., President, in the Chair.

Paralysis from Injury to Brachial Plexus.

MR. C. A. BALL exhibited a young soldier who in May, 1908, was driving a wagon, when the horses ran away. Some canvas on the wagon fell on him, and he became jammed between the horses. He fell on his shoulder, and suffered a fracture of the base of the skull and an injury to the left brachial plexus. He had recovered completely from the fracture, but there had been no improvement in the paralysis resulting from the injury to the plexus. The lesion had apparently been localized to the fifth and sixth cervical nerves, but the nerve of Bell and the nerve to the rhomboids were perfectly normal, and the lesion must therefore be below the origin of these. He was anxious to know whether he should leave the patient alone or whether there would be any use in making an anastomosis between the sixth and seventh nerves.

Mr. BALL exhibited for Mr. E. H. TAYLOR a patient with complete tear of the brachial plexus. The patient, a young man aged 19, four months previously had become entangled in a threshing machine. A spindle had gone in above the clavicle just over the subclavian artery. There was now complete paralysis of all the muscles of the left arm, loss of sensation, and the subclavian artery had evidently become obliterated. There was no sign of improvement in sensation.

Mr. H. STOKES exhibited a case of traumatic asphyxia and injury to the brachial plexus in a young man whose coat had been caught in a revolving shaft, which wound up his clothes and collar and strangled him. He recovered consciousness twelve hours after the accident, which occurred a fortnight ago, and two days later he began to show ecchymosis of his eyes. His left arm was flaccid; there was a scar on the skin caused by the clothes. He had a certain amount of paralysis of the left arm. He had had complete loss of sensation all up the left arm, but it was now confined to the fingers.

Dr. MOORHEAD described three similar cases which he had had in a single session three years ago. He did not think there would be any use in doing a nerve anastomosis unless there was some slight reaction to the galvanic current. Mr. W. S. HAUGHTON said his experience of immediate nerve suturing had been very satisfactory; but cases in which he had attempted suturing at intervals of five months to two years had not been satisfactory. He had tried grafting a piece of sciatic nerve from a freshly-killed sheep into a man, but the result was not satisfactory. After some remarks by Mr. W. I. DE C. WHEELER, Dr. PEARSON said the injury in Mr. Ball's case was of the type seen during delivery, where pulling the head away from the shoulder stretched and ruptured the nerve trunks. He thought an anastomosis would be better than implanting into the seventh cervical. In implantations sound nerves found their way to their original distribution, so that in a lateral implantation of the fifth and sixth into the seventh it was possible that the seventh might not supply the others, but keep to its own function. Dr. STOKES quoted a case of fracture of the clavicle and traumatic aneurysm. The man was operated on and was now alive but with complete paralysis of the arm. It appeared that the scar of the aneurysm had involved the nerves, and he suggested that something similar had occurred in Mr. Taylor's case. The SECRETARY had met a case of injury in which haemorrhage occurred in the spinal cord, and the patient was left with a considerable amount of paralysis in sensation and motion. He thought Dr. Ball should make an attempt to find the site of the lesion, and suture the two ends of the nerve together. The CHAIRMAN said that if he had two such cases as Mr. Ball's and Mr. Taylor's he would make an attempt to operate, but he would do so without much hope of success. His own experience of late suturing of torn nerves was not satisfactory; the operation was often an exceedingly difficult one. He thought there was no reason to doubt that the last case would probably recover, as the amount of injury was small compared with the other two cases.

Mr. BALL, in reply, said the muscles in his case reacted to the galvanic current, and he would, if allowed make an attempt to cut down and see what could be found. Mr. STOKES also replied.

Operation for Fractured Femur in a Child.

Mr. W. I. DE C. WHEELER showed a child aged 4 years who suffered an oblique fracture of the femur with marked overriding of the fragments. Treatment by reduction and immobilization in plaster for fourteen days failed to reduce the shortening completely. A long incision on the outer side of the thigh exposed the fracture; the sharp ends were imbedded in the muscles, but extension had little effect in bringing the fractured extremities into apposition. After some difficulty the fragments were replaced and held together by the application of two Lane's plates and six screws. Three encircling aluminium bronze wires passing through hole in the steel plates and round the oblique ends of the fracture completed the operation. Recovery was uninterrupted, with no shortening of the injured limb. He strongly advocated operation in fractures of the femur in cases where by *x* rays it was evident that anything like good apposition of the fragments was impossible by non-operative methods. Pain and discomfort disappeared after the operation, and little or no subsequent treatment was necessary. In a child no splint need be used after the first few days. In about six to eight weeks the patient was allowed to use the limb, the joints being freely movable by that time. Skiagrams were shown to illustrate the condition before and after operation. Mr. STOKES recalled two cases in which he had to remove wire after some years.

Remarks were also made by Dr. HARVEY, Dr. STEVENSON, and Mr. HAUGHTON, and the PRESIDENT said he had himself taken out a good deal of wire, and also screws and plates, but he would not consider that the slight disadvantage of removal counterbalanced the advantage gained by operation.

Mr. WHEELER replied.

Multiple Bone Tuberculosis Two Years after Treatment.

The PRESIDENT exhibited a case of multiple bone tuberculosis two years after treatment. There was tuberculosis of the wrist, elbow, and face, and of the bones of both feet. Treatment had covered about a year, and had ended two years before. The patient was completely cured of the tuberculosis, notwithstanding recent statements that such was an impossibility. He excised the wrist, which was swollen to six times the normal thickness. She was scraped in the different tuberculous foci, and he amputated two toes. The treatment was simple. The wrist was left somewhat stiff, but he believed it could be made much freer by massage and by forcible extension and relaxation under an anaesthetic.

Dr. HARVEY said he had tried fibrolysin in stricture of the urethra and in cicatrization after burns, but was not in a position to know the ultimate result after the patients left the hospital.

Mr. HAUGHTON inquired if the President had used cautery, or carbolic acid, or other corrosive in the treatment of the soft parts.

Dr. STEVENSON asked if tuberculin had been used, or if the scraping had been depended on to act in the same way as tuberculin did in increasing the power to overcome the tuberculous deposits.

The PRESIDENT said he had tried fibrolysin solely in a case, with perfect satisfaction. Another case was still under treatment, and had enormously improved. His method of treatment of tuberculous disease was to scrape first, and then to introduce pure phenol in large quantities. In addition he gave large doses of chloride of calcium. The patient had got two injections of tuberculin.

Fracture of Head of Humerus.

Mr. W. S. HAUGHTON demonstrated a case of oblique fracture through the tuberosities and surgical neck of the humerus treated by plates and screws. A heavy woman, age 50, two months previously slipped on ice, fell back, and tried to save herself by putting out her arm backwards. *X* rays showed that all efforts at reduction had failed. As union in the deformed position resulted in pain, stiffness, and loss of power, it was a type of fracture in which modern methods of diagnosis and modern surgical technique

would achieve great success. The type of fracture alluded to was one near a joint where there was a small piece of bone (the head of the humerus in this case) which cannot be held or controlled by external means; while the rest of the bone (the shaft) furnished a long lever on which the muscles exercised great force, and caused permanent deformity. The older methods failed to produce good results in this class of fracture, and it was in such cases that true mechanical fixation by steel plates screwed in under precise aseptic conditions promised the most brilliant results. This case was so treated, as shown in the skiagrams exhibited, for which he was indebted to Mr. Stevenson. An incision was made along the anterior border of the deltoid, a few of the clavicular fibres were divided, and two plates screwed in. Passive movement of the joint was started five days afterwards, and continued daily since.

The case was discussed by the PRESIDENT, Drs. PEARSON, WHEELER, HARVEY, and HAYES, and Mr. HAUGHTON replied.

ROYAL SOCIETY OF MEDICINE.

SECTION OF MEDICINE.

Tuesday, February 22nd, 1910.

Dr. MITCHELL BRUCE, President, in the Chair.

Pericardial Effusion.

DR. SAMUEL WEST, in the course of a paper on the diagnosis and treatment of pericardial effusion, considered paracentesis in serous pericardial effusion. Paracentesis was rarely necessary, for serous effusions in the course of rheumatic fever usually disappeared spontaneously, and often produced no urgent symptoms. Absorption when it once began was rapid, more rapid than in the pleura. The effusion was, no doubt, removed in the same way, by the lymphatic pump, worked by the respiratory movements on the one side and by the cardiac on the other. Large effusions disappeared spontaneously and recovery was complete, so that there were no signs even of adhesion of the pericardium. With care paracentesis was easy and safe. An exploration should be made first with a small needle. The needle must be sharp, the hand placed firmly upon the chest, and the puncture made by the fingers rather than by a thrust of the hand and arm. That would avoid anything like a jump when the needle penetrated the thorax, which might take it too far and possibly injure the heart. The only fatal result he had ever seen in a case of paracentesis for serous effusion was due to the laceration of the heart by the sudden jump of the needle. The great secret of safety was to have a sharp, hollow needle, and to insert it with a gentle, firm pressure. He had never had any accident himself. Exploratory punctures might be made in any place if the physical signs suggested it. He had tapped, for instance, at the base on the left side and even to the right. In the latter case his punctures withdrew blood only, and the withdrawal of the needle was followed by the immediate formation of a blood tumour under the skin the size of a swan's egg. Nothing further happened, however; the blood was rapidly absorbed, and the physical signs which had suggested the site of puncture disappeared. In an ordinary case, when the diagnosis was clear and there was choice of place given, the sites selected and advocated had been four. In Sibson's notch, namely, in the third left intercostal space near the sternum—a dangerous place on account of the proximity of the left auricle; in Rotch's angle, in the fifth right intercostal space, to the right of the sternum—another risky place, because the right auricle could not be far away, even if the effusion were of large size. Sears, in a paper published in the *Boston Medical Journal*, said he had tapped many times in that position, but generally without obtaining fluid. Schaposinkoff said the third or fourth space on the right side was better and safer than the fifth, but both were risky. The choice of Sibson's notch or Rotch's angle was based upon experimental injections. The fifth space to the left of the sternum was advocated because the puncture was made in the spot which was not covered with lung, and so the pleura was not perforated. Though this might be a good place for trephining the thorax with a view to incising the pericardium, it was not the best place for paracentesis. Nor need the risk of puncturing the pleura with the needle or with a fairly large trocar and cannula be seriously considered. In paracentesis the mere perforation of the pleura on the way to the pericardium did no harm. Dr. West had seen cases in which, where the needle inserted had perforated the pericardium, but the cannula could not be made to penetrate it, the fluid had leaked into the pleura and been absorbed rapidly or subsequently removed from the pleura by tapping, in each case with rapid recovery of the pericardium. The safest place was the fifth or sixth intercostal space outside the left nipple line, but well within the area of dullness; for here, owing to the displacement of the heart upwards and the distension of the pericardium outwards, was the widest space between the heart and seat of puncture. All the fluid that could be obtained should be removed. Often it did not reaccumulate, but if it should a second and third paracentesis might be performed, or as many as necessary. Cases were recorded in which paracentesis had been performed many times.

After Dr. J. B. LEES and Dr. EWART had spoken, the meeting was adjourned to March 3rd.

SECTION FOR THE STUDY OF DISEASE IN CHILDREN.

Friday, February 25th, 1910.

Dr. CAUTLEY in the Chair.

Congenital Oedema of Leg.

MR. MAYNARD SMITH showed a case. There was well-marked oedematous swelling of the right foot and of the leg on its front and outer aspects. The leg was half an inch longer than the left. No history of any similar condition in the family was obtainable. The swelling was noticed at birth. The case was discussed by Dr. ESSEX WYNTER, Dr. SPRIGGS, Dr. PARKES WEBER, and Dr. PERNET.

Uraemia and Diphtheria.

A specimen of the urinary organs of a boy who died apparently from uraemia; diphtheritic membrane being found in the trachea after death was exhibited by Dr. WALTER CARR. Both kidneys were shrunken. The ureters and bladders were considerably dilated, the condition suggesting the existence of some obstruction to the outflow of urine but none could be found. The boy died after a short illness with symptoms of uraemia. At the autopsy, in addition to the changes already described, the lower end of the trachea was found covered with diphtheritic membrane in which the diphtheria bacillus was isolated.

Myelogenous Leukaemia.

Dr. WHIPHAM showed an example of this disease in an infant, aged 18 months. The child was dark-skinned and flat-nosed, with a widely open anterior fontanelle. The lymphatic glands in the neck, axillae, and groins were palpable and somewhat hard. The abdomen was enlarged, and the spleen extended to $4\frac{1}{2}$ in. below the umbilical level. The blood count showed over 20 per cent. of myelocytes. On admission there was a large subcutaneous haemorrhage on the extensor surface of the right arm and a similar patch on the right shin. Further blood counts showed that the number of leucocytes is increasing. The case was discussed by Dr. FORSYTH and the CHAIRMAN.

Non-Cretinous Mental Deficiency with Goître.

Dr. FORSYTH showed a boy, aged $5\frac{1}{2}$, of normal height and weight, who had suffered from fits since the age of 2. He was restless, talkative, and decidedly odd. His expression was vacant. His forehead was narrow and asymmetrical. His eyes had marked epicanthic folds. He showed a moderate non-cystic enlargement of the whole of the thyroid gland.

Chloroma.

Dr. ESSEX WYNTER showed the specimens from a case shown at a previous meeting. The child died in February of asthenia. The specimens showed diffuse chloromatous growth, transforming all the red marrow, and being conspicuous in the flat bones and ends of the long bones. There were deposits also beneath the periosteum. Glands in the iliac vertebral and cervical regions were diffusely affected, and the spleen was of a similar colour. There were no distinct secondary growths. A colour photograph was exhibited.

Dr. LEDINGHAM said that he considered it impossible to divorce chloroma from acute lymphatic leukaemia. There were infiltrates in the long bone which was rather strange, and he regarded the case as a transition type between these two conditions.

Cyst of Humerus.

Mr. HUGH LETT showed a case which had been successfully operated on. The boy, aged 13, was knocked down in an accident in August, 1909. On examination, the upper end of the humerus was much thickened for about 2 in. below the head of the bone. A fracture was discovered a short distance below the surgical neck. A skiagram showed expansion and rarefaction of the upper 3 inches of the diaphysis of the humerus. Two years previously a diagnosis was made of endosteal sarcoma, and amputation advised. This was refused, but an operation was performed. The bone was opened, and a thin mucoid fluid escaped. The affected part of the diaphysis was removed, leaving an interval of 3 in. between the epiphysis and the healthy part of the shaft. The point of an ebony rod was inserted into the epiphysis, and the blunt end into the medullary cavity of the shaft. In this way the epiphysis was firmly connected with the shaft. The periosteum was sutured. At the present time movement of the right upper extremity was perfect, and the muscles were rapidly increasing in size. The new bone was firm and regular. On microscopical examination the condition appeared to be one of cystic fibroma.

The case was discussed by Mr. LOCKHART MUMMERY.

Congenital Absence of Femur.

Mr. P. LOCKHART MUMMERY showed a case of congenital absence of the left femur in a male child aged 2 months. The left femur was absent and there was no thigh. The left leg below the knee was quite normal, but was rotated outwards. The child was the youngest of three, both the others being quite normal; the parents were also normal, and the labour was easy and natural. The *x*-ray photograph showed that the diaphysis of the left femur was missing. The lower epiphysis of the femur appeared to be present, and there was a small island of cartilage just above this; otherwise the femur was absent. The child showed no other congenital defect, and was a healthy baby.

Hypertrophic Stenosis of Pylorus.

Dr. PORTER PARKINSON showed a specimen from a female infant who died when aged 5 weeks. There were no definite symptoms till the infant was 3 weeks old; then vomiting set in, there was visible stomach peristalsis, and a tumour was felt on one occasion. The specimen showed thickening of the wall of the stomach. At the necropsy this displaced $2\frac{1}{2}$ oz. of water, and doubtless it was larger during life. A probe could not be passed through the pyloric opening.

The CHAIRMAN said it was a good illustration of one of the usual results of attempting to cure the condition by medical means. There were still many people who supported the view that a cure could be obtained by that means.

Mr. LOCKHART MUMMERY said that these cases must be operated upon at the earliest opportunity if there was to be any chance of saving the child's life; delay was fatal.

Congenital Thoracic Deformity.

Dr. E. I. SPRIGGS showed a case of congenital thoracic deformity—absence of part of the pectoralis major. The patient was a boy aged 11. The sternocostal part of the pectoralis major and minor were absent on the left side. The nipple was normal in appearance, but higher and nearer the middle line than on the right. Photographs were shown on the screen of a number of thoracic deformities of this nature. In many of these cases the costal cartilages and the anterior ends of the ribs were wanting in the mammary region, only a thin layer of skin and subcutaneous tissue protecting the lung. This condition had been ascribed to pressure of the upper limb of the affected side of the thorax *in utero*.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

Friday, February 4th, 1910.

Dr. NEVILLE WOOD, President, in the Chair.

THE following were among the exhibits; Mr. MCADAM ECCLES: *Retroperitoneal myxo-fibro-lipoma* which he had removed from a woman aged 39. It weighed 19 lb. 11 oz. The patient made an uninterrupted recovery. Mr. ALBAN DORAN mentioned the difficulties and dangers met with in these cases by himself and others. They were due more especially to the vessels coming from the aorta and veins and occasionally to adherence of the capsule to the intestine. In the latter case resection might be imperative. Mr. T. B. LAYTON: (1) A tumour of the submaxillary gland measuring 5 in. in length and 4 in. in breadth and thickness. The patient had noticed some enlargement in this region all her life, but it had been enlarging during the last two years. On microscopic examination it was seen to have the same structure as the mixed parotid tumours. (2) *Embryoma of the testis* removed from a man aged 28 It measured 6 in. by 5 in. by 4 in. Microscopic slides were shown demonstrating a great variety of tissues, some epithelial, others mesoblastic. Mr. T. MCDONAGH: Microscopic sections from nodules in the skin from two cases clinically resembling one another, one a case of a late syphilide, the other of mycosis fungoides. In both lesions the swelling consisted of a plasmona, but the transformations of the plasma cells were quite distinct. Both cases gave a positive Wassermann reaction, but Mr. McDonagh considered them to be histologically distinct. Mr. N. BISHOP HARMAN: (1) A mounted specimen of an eye removed on account of injury. An endeavour should be made to save an injured eye, but if seriously injured and irritation continued for two or three weeks it was better to excise it. (2) A hair from an "albino" negro. The patient was a full-blooded negro, 20 years old, in excellent condition. His father and mother and brothers and sisters were quite black. Mr. CAIRNS FORSYTH: Six gall bladders removed by operation. One of them showed calculous cholecystitis with carcinoma of the neck of the gall bladder, and another hour-glass contraction with carcinoma arising at the stricture and invading the liver. Mr. L. A. BIDWELL: (1) A specimen of carcinoma of rectum, to show that it was necessary to remove the perirectal fat in order to clear away the glands. The sigmoid in this case had been brought down, and complete union with skin at the anus had taken place; both sphincters had been left intact. (2) A large number of gall stones removed from a man aged 43. About 300 were moved from the gall bladder and 50 from the common duct. Dr. BERNSTEIN: A large number of specimens, including one in which oesophageal cancer had perforated a bronchus; ruptured tubal pregnancy showing the fetus; and the organs from a case in which phlegmonous oesophagitis with rupture into the thorax had occurred after a hearty Sunday dinner. The wall of the oesophagus showed the same condition as that common in phlegmonous gastritis.

MEDICO-CHIRURGICAL SOCIETY OF GLASGOW.

Friday, February 4th, 1910.

Professor MUIR, President, in the chair.

DR. JAMES MILLER read notes of cases treated by injections of bacterial vaccines: (*a*) *Tuberculosis of the urinary system.* Case I, male aged 27, with tuberculosis of the left kidney and ureter; treatment by in all ten injections of tuberculin R. along with normal horse serum; complete recovery. Case II, female aged 22, with tuberculosis of bladder; treated by five inoculations of T.R. and normal horse serum extending over three months; marked improvement. (*b*) *Tuberculous glands in the neck.* Two cases, a girl aged 12 and a woman aged 39; the former treated by eleven inoculations of $\frac{1}{15000}$ mg. T.R., the latter by twelve inoculations of $\frac{1}{10000}$ mg. T.R.; in both complete recovery. (*c*) *Gonococcus infections.* Four cases: (1) Gonorrhoea in a male; vaccine prepared from patient's gonococci; complete recovery after three injections. (2) Gonorrhea in a male, treated by mixed

vaccine of gonococci and *Staphylococcus albus* obtained from patient; recovery after four injections. (3) Male with urethritis, arthritis of knees, conjunctivitis, and iritis; treatment as in Case II; recovery after three injections. (4) Female with gonorrhoea (contracted from husband), arthritis, and conjunctivitis; treated by vaccine prepared from husband's gonococci; recovery after four inoculations. (*d*) *Staphylococcus infections.* Four cases. Case I, man aged 60, with carbuncle on neck, numerous abscesses over trunk and limbs, and cystitis, pyaemia, and severe glycosuria. Treated by vaccine prepared from patient's own *Staphylococcus pyogenes aureus;* twenty-four inoculations given. Complete recovery. Cases II, III, and IV had local infections more or less severe, with dyspepsia and slight glycosuria. Treated as Case I with complete recovery. Dr. W. R. JACK read notes on four cases of *Gonorrhoeal arthritis* treated in Glasgow Royal Infirmary by vaccine therapy. Case I, male aged 25, arthritis of both knees; gonorrhoea a year before; gonococci not found but opsonic index low; treated by six injections of a polyvalent vaccine at intervals of four or five days, beginning with about four million cocci and increasing by two million each time to a maximum dose of ten million. Dismissed well in one month. Case II, male aged 28, arthritis of knees, shoulders, and wrist; gonorrhoea two years before; no organism found, but index low. Treatment as in Case I. Dismissed well in six weeks. Case III, male aged 31, arthritis of knee, shoulder, and thumb. No improvement under salicylates; no history of gonorrhoea and no gonococci found, but index low. Treated as Case I; dismissed practically well after seven and a half weeks' vaccine treatment. Case IV, male aged 29, arthritis of left knee; gonorrhoea one month before admission; gonococci obtained from fluid in knee-joint and vaccine prepared. Four injections given and patient dismissed well in eight weeks.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

Thursday, February 10th, 1910.

Dr. GEORGE WILKINSON, President, in the Chair.

DR. SINCLAIR WHITE read a paper based on 114 cases of *Cancer of the large intestine.* He said the sclerosing type of cancer was the one most often met with in the colon. It grew slowly, was late in infecting the glands, and when freely excised was followed by recurrence in a smaller proportion of cases than in almost any other form of cancer. It was important to remember that nearly a third of the cases occurred in patients under the age of 40 years. The symptoms were usually indefinite until the growth had produced narrowing of the bowel. Then the coexistence of colicky pains and exaggerated peristalsis, with ever-increasing constipation, led to a diagnosis. The advent of obstruction should be the signal for colostomy, and advantage should be taken of the parietal wound to examine the growth and the abdominal viscera intraperitoneally. Colectomy should not be undertaken in the presence of obstruction. It was in any circumstances a dangerous operation, and should be reserved for patients who were neither old nor feeble. There was a growing feeling in favour of the operation in three steps, even where obstruction was not imminent. By adopting the triple method the risk was reduced from upwards of 40 per cent. to less than one-half that amount. He also showed a woman, aged 72 years, on whom he had performed *Rhinoplasty.* The entire cartilaginous framework of the nose had been destroyed by a rodent ulcer of seven years' duration. After freely excising the ulcer, a suitably shaped frontal flap which included the periosteum, and had its pedicle over the left inner canthus, was raised, and twisted into position. The large gap on the forehead was filled by a graft of the entire thickness of the skin taken from the chest. The wounds healed kindly, and the aesthetic effect of the operation was remarkably good. Professor J. M. BEATTIE and Dr. A. E. BARNES showed preparations demonstrating the phenomena of haemolysis and its applications in the *Syphilis serum reaction* of Wassermann, Neisser and Bruck. In answer to questions Professor Beattie remarked that the reaction was certainly not specific, but had been found on the Continent to have great empirical value. It was found in scarlet fever, leprosy, trypanosomiasis and some cases of tuberculosis. Dr. J. MOIR MATHIESON showed a series of pathological specimens, among which were (1) brain of an imbecile, showing cystic condition of cerebrum; (2) brain showing left hemiatrophy; (3) the left hemisphere of a brain showing arrested development of the fissure of Rolando; (4) the left hemisphere of a brain showing incomplete porencephaly in paretic dementia; (5) gall stones imbedded in the peritoneum; (6) perforation of aorta and oesophagus by needle. Mr. A. C. TURNER showed a young man with alopecia areata. The chief feature was a red, depressed, glazed, bald patch on the front of the scalp, with great atrophy of the scalp tissues.

LIVERPOOL MEDICAL INSTITUTION.

Thursday, February 10th, 1910.

Dr. BRADSHAW, President, in the Chair.

DR. BUSHBY read notes of two cases in which the prostrate condition caused by *Sea-sickness* persisted after landing; in both cases acetone and diacetic acid were present in the urine. In some previous cases the prostration lasted very much longer than in the two cases related; in these treatment was directed to the relief of the acetonaemia. If the acetone bodies could be credited with a share in the causation of continued prostration, nausea in cases such as he had related, perhaps they played an important rôle in the etiology of prolonged sea-sickness. Mr. COLIN CAMPBELL related (1) a case in which a man aged 21, suffering from bronchiectasis, was treated by the *Intratracheal method.* The fact that the patient had subluxation of the jaw and was tongue-tied introduced special difficulties. He also suffered from vomiting of dense ropy mucus caused by swallowing putrid sputum. Treatment was commenced in November, 1908, and from then till now he had had 4 oz. of a 10 per cent. solution of izal in glycerine. For the past four months there had been no fetor. The discharge had diminished from 30 oz. daily to a dozen small expectorations. The chest expansion had increased from 1 to 3 in., and he could now run 600 yards in two minutes. (2) A note on a case of chronic *Angioneurotic oedema and urticaria* in a lady aged 26, the subject of asthma. Since the age of 7 she had suffered from urticaria of the hands and arms, and from recurrent hard oedematous swellings in various parts of the body. Sauerin tablets were given for two months, and since last October neither skin affection had reappeared. Dr. J. HILL ABRAM mentioned the association of eosinophilia with asthma and with intestinal intoxications of which presumably urticaria was a manifestation. Mr. F. T. PAUL described three cases of *Villous tumour* of the bladder. He advocated early and thorough operation in these cases, and the subsequent cystoscopic examinations to watch for possible recurrence, which should be dealt with promptly. Instruments designed to facilitate the operation were shown. Mr. RUSHTON PARKER related two cases in his own experience in which there had been the rare occurrence of spontaneous detachment of the growth. In one of these the symptoms ceased spontaneously. Dr. BRIGGS reported the complete cure of a villous growth in a spinster aged 68 by suprapubic cystotomy and excision of the growth; the patient lived nine years after the operation, and died from cerebral apoplexy. Under the base of the tumour $\frac{3}{8}$ in. of the ureter was removed in the bladder wall. The specimen was shown. He also exhibited an extensive villous growth treated by removal of the whole bladder per vaginam, and the implantation of the ureters in the vaginal roof. The patient, aged 58, lived for 22 months, and died of surgical kidneys. Dr. Briggs was doubtful if this treatment was to be commended. Mr. NEWBOLT said he had treated several cases in the advanced stages of the disease, and in one instance had removed 8 oz. of growth from the bladder; this gave relief for some years, but the patient died from haemorrhage. In a youth of 18 who died four years after operation the growth had extended through the bladder wall into the pelvis, and was apparently malignant.

HARVEIAN SOCIETY.

AT a meeting on February 17th, 1910, Dr. HANDFIELD-JONES, President, in the chair, Mr. GAY FRENCH read a paper on *Some points in middle-ear suppuration, its sequelae and treatment.* In dealing with the etiology he emphasized the severity of cases following scarlet fever, and also drew attention to oral sepsis as a factor

in its causation. He then exhibited temporal bones showing perforations into the middle fossa and lateral sinus. In a brief account of the bacteriology he drew attention to a group of saprophytic organisms which under conditions of oral sepsis become pathogenic and cause, when they attack the middle ear, a very foul discharge unaccompanied by the formation of any protecting granulations. In dealing with the examination and treatment he protested strongly against the use of the syringe and the insufflation of powders, and directed attention to the importance of treating diseased conditions in the nasal, naso-pharyngeal, and oral cavities, the maintenance of free drainage, and the application of antiseptics, preferably in the form of drops. Where possible, he considered the best plan of treatment to be the passage of hot air medicated by antiseptics through the Eustachian tube into the middle ear, and he showed an apparatus for the purpose. He used air at a temperature of 140° F., repeating the treatment for five minutes daily, and reported 8 cases in which the treatment had cured 5 and greatly improved the remainder, the average duration of treatment being about a fortnight. After a brief reference to vaccine treatment he gave the indications for mastoid operation, and then spoke of some of the sequelae of middle-ear suppuration, mentioning the good results he had obtained by fibrolysin in some cases of deafness and tinnitus. In the discussion which followed Dr. WILLIAM HILL said he thought that Mr. Gay French went too far in his condemnation of the syringe. He failed to see the rationale of the hot-air treatment, and recommended the use of protargol drops. Dr. FITZGERALD POWELL also thought syringing safe provided proper methods were used, and emphasized the importance of treating nasal and post-nasal conditions. Mr. STUART LOW agreed with Mr. Gay French in condemning the syringe, and gave his experience of treatment with steam charged with kelvelin. Dr. ANDREW WYLIE also condemned syringing, and said that he had used hot air, but for the treatment of deafness not suppuration, and gave statistics of 84 cases. Dr. ATKINSON drew attention to the importance of enlarging small openings in the membrana tympani and using a suction apparatus. Dr. DAN MCKENZIE's experience of hot-air treatment had been unfortunate. He believed labyrinthine disease much commoner than supposed, probably due in some cases to careless syringing. Mr. LAMING EVANS congratulated the author, and Mr. GAY FRENCH replied.

ULSTER MEDICAL SOCIETY.

Thursday, February 24th, 1910.

Dr. MAGUIRE, Vice-President, in the chair.

THE fifth meeting of the session was held in the Medical Institute, Belfast.

Coxa Vara.

Dr. J. SINGLETON DARLING (M.O. Lurgan Poor Law Infirmary) read the following notes of cases of coxa vara: A young lady in comfortable circumstances, at the age of 19 helped a cousin to learn to cycle, running alongside and holding her up. She suffered from some pain in the left hip, which she attributed to strain. Soon after, while menstruating, she ascended a mountain, and the pain became worse. It was stated that she was then treated for morbus coxae. When seen a few months later, though there was a slight shortening of the limb, there was little limitation of movement except that of abduction, nor was there flattening of the nates. On standing or attempting to walk there was much pain and lameness. As this happened sixteen years ago, coxa vara was not thought of. The patient was kept in bed, and improved slowly; for five years she remained free from pain, but there was slight lameness and the gait was somewhat waddling. Some six years from the beginning of her trouble she complained of pain in the other (right) hip, and, with further information as to coxa vara, the nature of the case was recognized. The right limb became 1 in. shorter than the left, and the tip of the trochanter reaching the level of the anterior superior iliac spine. At this time the diagnosis was confirmed by Professor Sinclair. Later the left hip became painful, and for two years she was almost wholly confined to bed. She gradually improved, the pain ceased, and she is in good health, but both trochanters reached above the level of anterior superior spine. Forcible abduction only brings the knees 3 in. apart, flexion is practically absent, and she can only waddle from one room to another. Dr. Darling called attention to the recrudescence of the disease after five years' freedom, and to the fact the femur now sound was the first attacked, a point worthy of note in considering the question of operation. The second case was a working woman aged 37, a virgin, small and tea fed. Until five years before she came under treatment she was active; pains then began in the hips, she steadily grew worse, and now can scarcely walk. The knees cannot be separated, slight flexion is possible in the right hip, scarcely any in the left. The right limb is ¾ in. longer than the left, both trochanters are above the level of the anterior superior spine. On vaginal examination the pubic arch was found so narrowed that with difficulty a finger entered, the ramus on the left side reaching the middle line and just within ostium bulging beyond it. On rectal examination the ischium was found to reach the middle line. The right pelvic wall had also fallen in but not to the same extent. The third case was a woman aged 28, presenting scars of tuberculous sinuses in the neck; some years ago Dr. Darling had excised her sister's knee-joint. The patient four years ago had a baby, and soon afterwards was noticed to be lame. She complained of pain, but worked in a factory until shortly before admission. The pelvis was greatly tilted, making the left limb look several inches shorter than its fellow, though it was really but an inch. No complaint was made of the right limb, but the trochanter almost reached the level of the anterior superior spine, its tip being above Nélaton's line. Abduction was somewhat lessened, other movements little impaired. The condition of the left hip was very puzzling. The tip of the trochanter could be felt one inch above Nélaton's line, while above and behind was a large hard mass that did not move with the limb, which was adducted far behind the middle line; flexion was not lessened, the foot was everted. The patient was very desirous of an operation, the adduction being the chief cause of distress. Feeling very doubtful whether improvement could be expected, Dr. Darling refused, but eventually was induced by the mother to operate. The neck of the femur was bent on the shaft until the angle was obliterated, on the dorsum ilii was a large bony mass overhanging the trochanter and locking it in that direction. A wedge was cut out of the neck at its junction with the trochanter permitting wide abduction of the limb which was then kept in that position, but it was too early to state the result. Dr. Darling added that he had seen 3 cases in boys, each unilateral and much less severe than those described. In each case the deformity was confined to the neck of the femur or pelvis, there was no rickets, and all the patients were straight-limbed. In the second case the deformity of pelvis was not characteristic of mollities ossium, but the falling in of the lower part of the pelvis was extreme and points to a profound change in the bones.

Mr. MITCHELL said one of the important points was the early diagnosis from morbus coxae; he thought the presence of actual shortening was of help in the case of coxa vara.

Mr. FULLERTON raised the question of mistaking cases of rheumatoid arthritis.

Mr. MOORE related a case in which no trace of rickets was present.

Sir JOHN BYERS drew an analogy with osteomalacia.

Tuberculous Kidney.

Mr. FULLERTON read a paper on tuberculous kidney, which was discussed by Sir JOHN BYERS, Dr. DEMPSEY, Dr. DARLING, Mr. STEVENSON, Dr. CLEMENTS, and Dr. HICKS.

THE following appointments have recently been made by the governing body of the Lister Institute of Preventive Medicine: Mr. H. R. Dean, M.A., M.B., B.C., M.R.C.P., and Mr. G. H. Macalister, M.A., M.D., D.P.H., to be Assistant Bacteriologists to the Institute; Mr. H. McLean, M.A., M.D., Ch.B., to be Senior Assistant in the Bio-Chemical Department; Mr. Ashley Cooper, B.Sc., Jenner Memorial Research Student; Mr. Roland V. Norris, M.Sc., Grocers' Company Research Student; and Mr. S. G. Paine, F.I.C., Research Student in the Chemical Department.

Reviews.

A NEW TEXTBOOK OF TREATMENT.

THE latest contribution to the literature of medical treatment, *A Textbook of Medical Treatment (alphabetically arranged)*,[1] emanates from Belfast, and is supplied by Dr. WILLIAM CALWELL of that city, the outcome, as the preface informs us, of twenty years' practical expérience, both as teacher and physician. The work is large and well printed; the subjects are arranged in alphabetical order, with numerous cross-references and a full index. In that index, however, there may be noted some striking omissions among the subjects which may be classed as special, but which are at all times liable to come before the practitioner of general medicine, for whom presumably the work is primarily intended. Such matters as tonsillitis, laryngitis, and other common throat affections, diseases of the ear and nose, disturbances of menstruation, and gynaecological subjects generally, are all conspicuously absent, while the most uncommon forms of skin disease find mention and description under various headings. In the description of some disorders and in the account of insanity the aid of a specialist has been enlisted with the most satisfactory result, and doubtless the co-operation of specialists in other branches would have strengthened the work as a practical book of reference. Having said thus much as to the shortcomings of the book as a whole, we can cordially commend the scientific and interesting method adopted in the description of those conditions of which the writer obviously has had abundant personal experience. On some of the more debatable subjects, such as acidosis, he is content to quote accepted authorities, while the more familiar conditions of arterial degeneration are dealt with in the spirit of one who knows. The conditions of life which conduce to healthy old age, and which must be observed by most people after the age of 40, are well indicated, and the difference between healthy old age and prolonged existence is well shown.

The article on insanity is contributed by Dr. W. Graham, and is full of those minor details, so often overlooked, which make for success in the long run. Thus, for instance, the various methods of forcible feeding are fully described and its dangers and difficulties stated to be more apparent than real. The value of hypnotism in those forms of moral insanity in which no organic lesion is present is fully recognized.

Some sections, descriptive of the newer methods of treatment, such as lumbar puncture and stovaine injection, might have been amplified with advantage, as it is most important that the failures as well as the successes of heroic measures should be fully described. The work is well up to date and contains a vast amount of valuable information.

NASAL SKIAGRAPHY.

THE passing of a probe through the nostril and upwards into the frontal sinus undoubtedly calls for skill which can be acquired only by a highly special training and practice. It is, therefore, not unnatural that the beginner should meet with bare bone upon accomplishing this feat, and that he should requisition the services of the radiographer to register his achievement. The seductive skiagram of the head in profile showing a probe passed up the nose into the frontal sinus is becoming so familiar as a stock exhibit, and is so convincing, as to create a general impression that all difficulties in the application of the *x* rays for the diagnosis of disease in the accessory sinuses of the nose have been solved. The profile skiagram showing the nasal probe in the frontal sinus may be as useful to the rhinologist as the papier-mâché model of the eye to the optician, but it is certainly not the "end-all," although it may be the "begin-all," of nasal skiagraphy. A study of Professor A. KUTTNER'S book on the inflammatory diseases of the accessory cavities of the nose as seen in skiagrams[2] shows that the subject is not so simple as the particular skiagram to which we have referred, and which finds no place in the work before us, might suggest. Professor Kuttner presents the subject in a very practical manner in the form of an atlas of twenty plates. Each plate is prefaced with a fly-page, which carries the descriptive matter and also protects the plate. The first two plates are skiagrams showing the appearances presented by the accessory sinuses in the normal state. The relative position of the sphenoidal sinus is demonstrated by means of an injection of quicksilver. The remaining eighteen plates illustrate the appearances presented by the sinuses during inflammatory disease.

Preceding the plates there is a fasciculus of fifteen pages of letterpress. The author, after a brief introductory chapter, proceeds to a consideration of the technique and apparatus required for obtaining successful skiagrams. For diagnostic purposes the profile position of the head is seldom suitable owing to the duplication of the sinuses which are necessarily superimposed in the photograph. This difficulty is overcome by taking the skiagram in the antero-posterior position. After a chapter descriptive of the skiagram of the skull, the author proceeds to consider at relatively greater length the value of radiography in the diagnosis and treatment of diseases of the accessory sinuses. A critical consideration of the views held by various authorities and of the fallacies and the difficulties which the subject presents brings the author to a statement of his conclusions.

Professor Kuttner's work will help both the general practitioner and the specialist out of difficulties. Whilst it is impossible in the present day to acquire a very deep insight into every department of orificial surgery, it is at the same time always unsatisfactory to have to take opinions entirely upon trust, more especially upon matters as to which in the minds of the general public the practitioner is held to be able to form an opinion for himself. The diagnosis of suppurative disease in the accessory sinuses of the nose, apart from the antrum of Highmore, is no easy matter for the specialist, and for the general practitioner it is undoubtedly a difficulty. Furthermore, there is no region of the body in which the anatomy is more variable and treacherous than that under discussion. Herein lies the value of Professor Kuttner's work; it will help both the general practitioner and the specialist out of these difficulties. The benefit to be derived from it depends upon knowing how to interpret skiagrams of these regions. The experienced collector of mezzotint engravings will not expend any considerable sum of money upon a print which he could only examine under glass, and moreover he would not be expected to do so. In the same way it is necessary to learn how to interpret the negatives as well as the photographs.

Although we often read about "a complete and uninterrupted recovery," the treatment of suppurative disease in the nasal sinuses other than the antrum is a veritable bugbear to the rhinologist. The recoveries absolutely conform to the Irishman's definition of the "flue"—"a disease with which one is ill for twelve months after one is cured." The modern textbooks on rhinology, however desirous their authors may be of teaching us everything about the subject, cannot teach us, and never will be able to teach us, two things: one is the number of times the frontal sinus has been opened and found to be free from disease, and the other the true mortality resulting directly or indirectly from operations upon the accessory sinuses of the nose. "Il nous faut de l'audace, et encore de l'audace, et toujours de l'audace." Can the words of Danton, when he urged his fellow-countrymen to snatch Brunswick from the Prussians, be for ever ringing in the ears of the beginner ambitious to satisfy his rhinological vanities? *De l'audace*—one frontal sinus opened and found to be healthy. *Encore de l'audace*—the other frontal sinus attacked but found to be absent. *Toujours de l'audace*—the meningeal cavity thrown into direct communication with the nose. Danton, even in the midst of revolutionary fury, knew when to hold his hand. The study and practice of nasal skiagraphy will save many from that last but unhappy thought—if we may be allowed to paraphrase the last words uttered by the great patriot of France when he mounted the tumbril—"I crave forgiveness of God and man for all these things. Oh, it were better far to be a poor practitioner than to meddle with the sinuses of men."

[1] *A Textbook of Medical Treatment (alphabetically arranged)*. By W. Calwell, M.D., Physician to the Royal Victoria Hospital, Belfast. London: Edward Arnold. 1910. (Roy. 8vo, pp. 634. 16s.)

[2] *Die entzundlichen Nebenhöhlenerkrankungen der Nase im Röntgenbild*. Von Professor Dr. A. Kuttner, Berlin. Berlin and Wien: Urban and Schwarzenberg. 1908. (Dbl. sup. roy. 8vo, pp. 15; 20 photographischen Tafeln. M. 20.)

MEDICAL GYNAECOLOGY.

AT the present time, when the beds in almost every gynaecological department in our great teaching hospitals are filled with cases of abdominal section, a student who does not attend the out-patient department may well conclude that the diagnosis and treatment of the diseases of women consists in opening the abdomen and examining in that way the pelvic organs. A like state of mind may doubtless be produced in the French student. Hence the desirability of a treatise which should instruct the medical student or the doctor as to the extent to which the diseases peculiar to women can be effectively treated without the use of knife or scissors. We therefore judge the book on the medical treatment of diseases of women[3] which Professor ROBIN and Dr. DALCHÉ have written to be excellent in its purpose. But we cannot say that we think the execution is as good as the design. The first 134 pages are allotted to what the authors call *fausses utérines*. This means women who think that they are ill; women with symptoms ascribed by them to the uterus, but really due to disease of some other part; and women who really have some morbid change in the uterus, but are ill chiefly because they are also suffering from much graver disease of some other viscus. We must accept the authors' view as to the necessity for French family doctors of instruction of this kind. But such errors as, for instance, mistaking gall stones or nephritis for disease of the uterus, are not common in English family practice. A hundred years ago all gynaecology was medical. To-day it is hard to define medical gynaecology. Is the dilatation of the cervix for a sterile patient with dysmenorrhoea medical or surgical treatment? What about the insertion of a pessary to correct a displacement; is that medical or surgical? Approaching the matter from another side: the prescribing of iron for amenorrhoea; of a hypnotic for insomnia; these are instances of purely medical treatment, but are they gynaecology? A book on "medical" gynaecology nowadays should be more properly entitled "minor" gynaecology; for if every kind of chirurgical treatment is eliminated little remains but the application of the general principles of medical therapeutics to a small corner of the field of practice. But this small corner might yield a crop of useful practical information if we were only sure that what we are told is the result of the writer's experience, and not either copied from other books or imagined for the sake of completeness. At p. 198, in describing the treatment of amenorrhoea and dysmenorrhoea from atresia or stenosis of the genital canal, Dr. Dalché tells us that union of the labia majora is rare; when it exists they must be stripped asunder, and if this cannot be done, divided by the knife, and reunion prevented by a plug of gauze. Adhesion of the labia minora is more common; they can be separated by simple traction; if union is closer, it is necessary to resort to incision. We have, and we doubt not many of our readers have, had female children brought to us in whom the labia seemed to be adherent, but by pressing them apart the adhesion was separated. But in how many had this condition persisted unnoticed until it obstructed menstruation? Never, in our experience. Nor have we ever known such congenital adhesion require separation with the knife. We have known ulceration of the vulva in childhood produce cicatricial contraction of the vaginal orifice which might, we suppose, be called adhesion of the labia; but such contraction we have not known to be discovered by the menstrual pain it caused. The book would have been far better had the authors contented themselves with describing what they had seen, and not what they suppose may be. The most frequent cause of dysmenorrhoea is said to be stenosis of the cervix; and the treatment is to dilate the cervix and keep it dilated. The reader is given his choice of several different ways of attaining this end. He may pass a laminaria tent every day for a week, and repeat this once a month, and leave a metal stem in the uterine canal for some days afterwards. He is told that he may dilate rapidly with Hegar's dilators, or with a two-branched or three-branched expanding dilator. He is advised to insert a laminaria tent before using Hegar's dilators. He may, if he prefers, divide the external os with a bistoury or scissors in the middle line or laterally. He may also divide the internal os with a probe-pointed bistoury. But this operation is bad. Preference is given to rapid dilatation under anaesthesia with Hegar's dilators of a cervix prepared by the twenty-four hours' presence of a laminaria. Why, then, describe the other methods? The author apparently does not know—for he does not mention it—that moderate dilatation of the cervical canal, done once only, will sometimes cure dysmenorrhoea for life. He gives no adequate directions for selecting the cases of dysmenorrhoea which dilatation will cure. He speaks much of "metritis," and appears to accept the antiquated "pathology," if such it can be called, of Dr. Henry Bennett. The work is not illustrated, except for a few woodcuts taken from an instrument maker's catalogue, showing various abdominal belts and a vaginal douche. The book is swollen by a good deal of repetition. We cannot say we think it a great contribution to medical literature.

[3] *Traitement médical des maladies des femmes.* Par Albert Robin, Professeur de Clinique Thérapeutique; Paul Dalché, Médecin de l'Hôpital de la Pitié. Troisième édition. Paris: Vigot Frères. 1909. (Roy. 8vo, pp. 584. Fr. 12.)

A REVIEW of the first edition of Dr. BANDLER'S *Medical Gynecology* was published in 1908 (vol. ii, p. 1274), but we were not able to say that we thought it a good book. It has now been revised.[4] The chief addition is a chapter on what the author calls "Head zones." May we submit that the word "Head" is not an adjective? Head's zones is what most people would write. The author's description of them is taken from a paper by Elsberg and Neuhof (the reference to which is not given) and not from Head's own writings. The author is still unacquainted with the treatment of dysmenorrhoea by dilatation with metallic bougies. He has not read Dr. William Hunter's work on *The Severest Anaemias*, nor does he know of Dr. Hunter's earlier papers on which his recently published book is based, and therefore his account of chlorosis is inadequate. The author does not realize how completely the electrical treatment of pelvic disease has fallen into discredit among gynaecologists in this country. In one respect Dr. Bandler is beyond us, for he prescribes drugs of which we have not heard. We live and learn.

[4] *Medical Gynecology.* By Samuel Wyllis Bandler, M.D., Adjunct Professor of Diseases of Women, New York Post-Graduate Medical School and Hospital, etc. Second edition. Philadelphia and London: W. B. Saunders Company. 1909. (Roy. 8vo, pp. 702. 150 illustrations. 21s.)

THE GASTRO-INTESTINAL FACTOR IN DISEASE.

IN a series of essays,[5] some of which have already appeared in the French medical periodicals, Dr. P. LONDE, an *ancien interne* of the Paris hospitals, has elaborated his views on preventive medicine—not the preventive medicine which consists in warding off the dangers from without, which are manifest to the ordinary senses, but rather the prevention of the hidden dangers from within, which can only be recognized by symptoms obvious to the physician, but not equally so to the patient or his friends.

In so far as his main thesis is concerned, it may be said to be wound round a very simple basis. In common with another well-known practitioner, the essayist regards the "stomach as the primary cause" of the majority of the ills, specific or non-specific, that flesh is heir to. The alimentary canal, described by Bouchard as the great laboratory of poisons, is held to be the starting-point of the chief disorders to which the body is liable. Hence the early recognition of the first steps on the downward road becomes of vital importance, and the prompt correction of the digestive error must follow in due course. Put in simple form, it implies that attention must be paid to the smallest departure from the normal physiological round in order to avert the possibility of the serious illness of which it may be the forerunner. Such a rule, although admirable in theory, carries with it the disadvantage that it can seldom be strictly carried out without converting the patient into an introspective valetudinarian. It is probably sound doctrine that the minor aches and pains of life are all due to some defective chemical process which has resulted in the circulation of products that cannot pass through the tissues without giving rise to some symptoms of irritation, but it

[5] *Essais de médecine préventive.* By Dr. P. Londe of Paris. Paris: Félix Alcan. 1910. (Cr. 8vo, pp. 352. Fr. 4.)

is only when such symptoms pass from the minor to the major stage that the average man or woman can be got to pay much attention to them. Doubtless, a good many serious illnesses could be warded off if the counsels of perfection advocated by Dr. Londe could be carried out, and although such counsels rarely prevail, his advocacy of the stitch in time is worthy of careful consideration.

The earlier essays are devoted to a consideration of certain symptoms, such as spasm, oppression, asthenia, acquired and constitutional, neurasthenia, and family albuminuria. In a second series he discusses morbid states in general, and especially their prodromal stages. The general unity of disease is insisted upon, and specialism is criticized somewhat severely. In addition to the disorders of the alimentary canal he emphasizes depression of the nervous system as a potent factor in determining the further progress of incipient disease. The third series of essays deal with the questions of prophylaxis as applied to special diseases of the respiratory, renal, cardiac, and other systems.

As an example of the process of reasoning adopted we may instance the initial vomiting and rigor of acute pneumonia, which the author assumes to be the outcome, or rather culmination, of a more or less prolonged disturbance of the alimentary tract. But it is not quite clear how the preliminary stages are to be recognized. He regards the temperature as an after-phenomenon, due to the aggravation of the pneumonic infection by the circulation of the by-products from the disturbed gastric function. In the case of meningitis and other encephalic troubles of babies he maintains that gastro-intestinal irregularity is commonly to be observed before the nervous symptoms declare themselves, and that by proper care in dieting such attacks may sometimes be warded off. The occurrence of epileptiform seizures in young adults may in like manner be held in subjection by proper treatment of the alimentary canal. Rest to the stomach by means of restricted and carefully-selected diet forms the chief point in his treatment, coupled with judicious purging and the use of intestinal disinfectants.

In his peroration the author disclaims any desire to influence the healthy, and addresses himself solely to the actually or potentially ailing; but his recommendations, if carried to their logical conclusion, must of necessity appeal most forcibly to those who imagine themselves to be in health. The essays are full of suggestive matter, and should stimulate thought on many points that are too frequently disregarded in the treatment of familiar forms of disease.

SURGICAL ANATOMY.

THE great difficulty which every compiler of a textbook has to face is that of deciding what to include in the space at his command and what to leave out. This difficulty Dr. WOOLSEY has solved in a generally satisfactory manner in his book on *Applied Surgical Anatomy*.[6] Six years ago, when the book first appeared, we were able to congratulate the author on the general excellence of his work (BRITISH MEDICAL JOURNAL, 1903, ii, p. 661). To-day we can again offer him our congratulations, for the second edition is a distinct advance upon the first; it deals with anatomy from an essentially practical point of view, and draws the reader's attention to those facts which are of the most direct practical interest, omitting or touching but lightly on others which are of less essential importance from the point of view of the surgeon; yet, strangely and, as we think, unfortunately, the author has not seen fit to take any definite notice of the recent additions to the knowledge of the blood vessels and the lymphatics of the alimentary canal, although that knowledge is now playing such an important part in the surgical treatment of diseased conditions. We note also that, although the errors present in some of the figures of the first edition have been corrected, others still remain or have been introduced with new figures. Thus, on page 37, in a diagram intended to illustrate the veins of the head, and amongst them the cerebral veins and their communications, the term "great anastomotic vein" is applied to a communication between what the author calls the middle cerebral vein and the superior petrosal sinus; this is an incorrect application of a well-known term. Again, examination of Fig. 19 would lead an uninitiated person to the belief that the Eustachian tube lies in the interior of the cranium above the second and third divisions of the fifth cranial nerve; and in some other figures details of distinct practical importance are represented in a more or less misleading manner which might easily have been avoided.

[6] *Applied Surgical Anatomy.* By G. Woolsey, A.B., M.D. Second edition. London: Henry Kimpton; and Glasgow: A. Stenhouse. 1909. (Roy. 8vo, 601 pages, 200 figures. 21s.)

In a comparatively small volume on *Surgical Anatomy*[7] Mr. MACEWEN has placed before the public an account of those anatomical facts which, in his judgement, are of most importance to the surgeon, and he has demonstrated at the same time their association with clinical phenomena. It follows naturally from the size of the volume and the magnitude of the subject that the descriptions are necessarily condensed, and that the space at the author's disposal has been occupied to its full extent. The volume is illustrated by a number of figures, some of which are original, whilst others have been borrowed, with full acknowledgement, from various well-known textbooks. It is of convenient size, it contains a large amount of information, and it will no doubt secure readers who will appreciate the author's method of teaching.

SANITATION FOR SOLDIERS.

Military Sanitation for Soldiers Serving in Hot Climates is an expansion of a course of lectures delivered by Major BLACKHAM to officers and non-commissioned officers,[8] and is specially adapted to meet Indian requirements. The first chapter deals with the communicable diseases of soldiers, and in simple language gives a brief description of microbes—how they get into the body, and the means to be taken to prevent their entrance. There is also a table including most of these diseases which shows the mode of infection, duration of infectivity, quarantine periods, preventive measures, and other details. The second chapter deals with air and ventilation; the impurities of air are described, and special attention is called to those due to dust. The natural means of purifying air are mentioned, and stress is laid on the importance of ventilation, and on the means by which it may be carried out. In the next chapter the necessity for pure water and the evil results which follow the use of impure water are pointed out. The reader is told how good water may be distinguished from bad, how pollution may be prevented, and the various ways of rendering impure water innocuous, several simple purifiers and filters being described. The next three chapters deal with the food, the clothing, and the housing of the soldier respectively; the value of the various foodstuffs is discussed, and the best food for soldiers in the field is the subject of several pages. Some attention is given to tinned foods and how to discover whether they are wholesome. The best materials for various articles of clothing are described, and a good deal is said about the important subject of boots. The requirements for good barracks are gone into, and details given of the methods of keeping them wholesome. A short chapter is devoted to The Making of the Soldier, and special attention is called to the harm that may be done by insisting on too violent gymnastic exercises by young soldiers; the banefulness of cigarette smoking by them is also pointed out. The next chapter is devoted to disinfectants and disinfection. Various disinfectants are mentioned and the mode of using them explained. Stress is laid on the fact that deodorants are not necessarily disinfectants. The sanitary duties and arrangements in camp and on the march are the subject of another chapter; and the last describes how the sanitary service should be organized in peace and in war. The book is written in a pleasant and readable style, and will, we think, be found very useful by those for whom it is intended. At the end there are a number of questions on the subject of sanitation, and a reference to the pages in the official manual in which the answers will be found.

[7] *Surgical Anatomy.* By J. A. C. Macewen, B.Sc., M.B., C.M. London: Baillière, Tindall, and Cox. 1910. (Demy 8vo, pp. 492, 61 figs. 7s. 6d.)

[8] *Military Sanitation for Soldiers Serving in Hot Climates.* By Major Robert J. Blackham, D.P.H.Lond., R.A.M.C. London and Bombay: W. Thacker and Co. 1909. (Demy 8vo, pp. 150; 12 illustrations.)

NOTES ON BOOKS.

THE first edition of Professor W. SCHOLTZ'S lectures on gonorrhoea,[1] which was published in 1904, dealt only with that disease as it affects the male, and the general complications such as gonorrhoeal rheumatism were not included in the book. The second edition, which contains some fifty pages more than the first, has been enlarged and improved by the addition of three new lectures—two on gonorrhoea in women and one on the gonorrhoeal metastases, including arthritis, tendo-vaginitis, endocarditis, etc. The first edition was decribed in the BRITISH MEDICAL JOURNAL as being, within its limits, decidedly one of the best of recent works on the subject. In its present complete form the new edition can be recommended with confidence as a trustworthy guide to the pathology and treatment of gonorrhoea and its complications in both sexes.

Ten years ago, when golf was still, in England, supposed to be a game for old fogeys, a book with the title *The Six Handicap Golfer's Companion*[2] would have appealed to a very limited number of readers; but nowadays, when strong young players are as plentiful as blackberries, it will appeal to the large number of those who, hopeless of touching the hard hearts of the handicap committee, must set themselves to live up to the reputation with which they have unwillingly been endowed. It is not a book for the absolute novice, nor is it one for any golfer in any stage to read through. Rather is it a companion to seek in those dark hours when a man is off his game, or when, having reached a certain stage of imperfection, he fails to improve. Usually such an one will have at least a suspicion of the part of his game in which he has gone wrong or fails to become better, and in this book, which is very systematically arranged, he will surely find a prescription for his disorder.

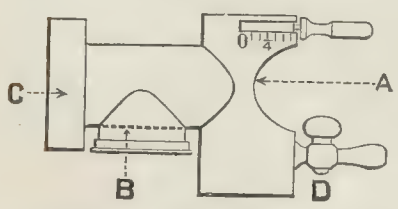
[1] *Pathologie und Therapie der Gonorrhoe in Vorlesungen.* Von Dr. W. Scholtz, Professor an der Universität Königsberg. Second edition. Jena: G. Fischer. 1909. (Sup. roy. 8vo, pp. 206; 2 plates, 22 illustrations. M.4.50.)

[2] *The Six Handicap Golfer's Companion.* By "Two of his Kind." Chapters by H. H. Hilton and H. S. Colt. London: Mills and Boon, Limited. (Cr. 8vo, pp. 128; 15 illustrations. 2s. 6d.)

MEDICAL AND SURGICAL APPLIANCES.

A Valved Angle-piece for Inhalers.

MR. THOMPSON ROWLING, Anaesthetist, Leeds General Infirmary, writes: The annexed engraving shows a new valved angle-piece suitable for use with an ordinary Glover or Hewitt's wide-bore modification. The slot marked A, admitting air, is guarded by a sliding valve which, when opened, shuts off, in an equal degree, the opening to the bag; when fully opened the latter is completely closed. The valve is operated by a lever carrying a pointer over an index, so that the proportion of fresh air being admitted is definitely known. Letter B shows an inspiratory valve of approximately the same area as the bore of the inhaler; it opens at once if the ether bag is collapsed in the slightest degree, the succeeding expiration passing on into the bag; the next inspiration is drawn partly from the bag and partly from the outer air by the lifting of the inspiratory valve, the next expiration passing wholly into the bag, and so on. Thus at each breath the valve lifts less and less until, when the bag is about half full, the valve ceases to act automatically. The presence of this valve renders attention to the state of inflation of the ether bag unnecessary; the bag never needs blowing up and cannot become collapsed. Letter C indicates the expanded rim of the angle-piece, which allows the mouth of a wide-mouthed thin rubber ether bag to rest on it sufficiently tightly to hold it, and yet to allow of its easy removal for cleaning; it moreover tends to hold the bag a little open, which is an advantage, and allows the inspiratory valve B to come into full action before the bag is quite empty. The tap D is so placed that oxygen can be given at any period of the administration, and independently of the position of any of the valves. The clinical advantages claimed for this modification are: (1) The administrator can change from a closed to an open method of administration, or use any intermediate combination of fresh and expired air he wishes, by simply turning the air valve lever. (2) The ether administration itself is continuous, and is not interrupted by the act of admitting fresh air, as must be done with the present



inhalers; the face-piece, once accurately adjusted, need never be removed. (3) The ether bag needs no attention with regard to its state of inflation, and is easily removed for cleaning. (4) The patient's breathing is easier and quieter, and there is a greatly diminished tendency to get frothy, even with deep anaesthesia, on account of the fresh air and oxygen used, and the patient never gets blue. The appliance can be obtained from the sole makers, Messrs. Barth and Co., 54, Poland Street, W.

An Ammonium Chloride Inhaler.

Messrs. Hertz and Co. have placed upon the market a new form of ammonium chloride inhaler, which merits the attention of those who advocate this mode of treatment. It is based upon the principle of Godfrey's well-known inhaler, hydrochloric acid and ammonium being used to produce the gas, which, together with a large volume of air, is drawn into the lungs and expelled through the nose. It has the advantage that, when filled for use, it will work as well upon the second day as upon the first without further attention. The method of filling is as simple as that of Godfrey's, but, on account of the smaller size of the tube which admits air, one cannot inhale so large a volume as in the former. A few drops of menthol, eucalyptus, or other volatile oil at choice may be added, if it is desired, to obtain the further action of these drugs. Messrs. Hertz have also produced a compound under the name of "Lignosulfine" which gives relief in some cases of asthma. A few drops added to the inhaler will give great relief to some sufferers from this erratic disease. The inhaler is portable, has no rubber to get out of order, and is reasonably cheap.

BRITISH MEDICAL BENEVOLENT FUND.

FIFTEEN cases were considered at the February meeting of the committee, and grants amounting to £136 made to thirteen of the applicants. Appended is an abstract of the cases relieved:

Widow, aged 39, of M.D., R.U.I. No income; for several years has acted as housekeeper without salary in return for a home for herself and son—a boy who has recently gone to Epsom College. Is now endeavouring to obtain a paid post. Relieved eleven times, £131. Voted £10.

Widow, aged 63, of L.R.C.P., L.R.C.S.Edin. No income, and finds increasing difficulty both to obtain and to do needlework, by which she has partially supported herself for many years. Relieved eleven times, £117. Voted £12.

Daughter, aged 48, of late M.R.C.S.Eng. No income; dependent for shelter on brother-in-law, whose means are very slender. Has undergone three grave abdominal operations, and is unfitted for any permanent occupation. Relieved once, £10. Voted £12.

Daughter, aged 59, of late M.R.C.S.Eng. Used to be a governess, but now suffers from epilepsy, which quite prevents occupation. Is given a home by a brother, a retired clergyman, who can ill afford it. Relieved twice, £22. Voted £10.

Widow, aged 60, of F.F.P.S.Glas. Quite unprovided for at husband's death. Supports herself and an invalid daughter by selling sweets on commission. Relieved twice, £36. Voted £12.

Widow, aged 43, of M.B., B.Ch.Aberd. Has supported herself by nursing, but at present is incapacitated by ill health, and dependent on a sister and her children, who can ill afford to help. Relieved twice, £15. Voted £10.

Widow, aged 40, of L.R.C.P.Edin. Since husband's death, several years ago, has acted as caretaker to a surgery, living free of rent, but receiving no salary. Is given slight help by relations and endeavours to earn a little by painting. Three children—two at institutions, and the youngest, aged 8, a cripple, living at home. Voted £10.

Wife, aged 47, of L.R.C.P.Edin. Asks for help because of the total incapacity of her husband, whose means have been exhausted by a long illness, and who has been confined to bed for the last six months. Three children, aged 14 to 10 years. Only source of income a small weekly allowance from a medical sickness fund. Voted £12.

L.R.C.P., L.R.C.S.Edin. Has been entirely incapacitated by illness for the last two years, and is dependent on two sisters, who keep a small school. Three children, aged 30 to 28 years, who with difficulty support their mother. Voted £10.

Widow, aged 53, of M.B., C.M.Aberd. Receives a few shillings a week from a small house and earns a few pounds in the summer by taking boarders if obtainable. Is not in good health, and asks for help to obtain a short change, which she is strongly advised to have. Voted £5.

L.S.A., aged 59. Used to practise in South Africa, but, after acting as a civil surgeon during the war, found it impossible to re-establish himself, owing to the influx of medical men. Obtained some temporary work in this country, but contracted *x*-ray dermatitis, and is at present incapacitated. Children only

help to a very slight extent. Voted £10, with leave to apply again if necessary in six months' time.

Widow, aged 70, of M.R.C.S. Supported herself for several years by acting as companion, but finds it increasingly difficult to obtain engagements. No income, no children. Relieved five times, £45. Voted £10.

Widow, aged 61, of L.F.P.S.Glasg. No income, no children. Receives a home from a friend in return for such services as she can render. Health indifferent. Relieved once, £12. Voted £12.

Contributions may be sent to the Honorary Treasurer, Dr. Samuel West, 15, Wimpole Street, London, W.

PROGRESS OF CREMATION.

DURING 1909 the movement in favour of the disposal of the dead by cremation has continued to make slow but steady progress. The number of cremations carried out in Great Britain was 855, an advance of 60 as compared with 1908. The grand total since the opening of the Woking Crematorium in 1885 to the end of 1909 was 8,121. The table given below shows the distribution of the cremations among the places devoted to the purpose in various parts of England. For most of the information here given we are indebted to the courtesy of Mr. H. T. Herring, M.B., Medical Referee to the London Cremation Company.

The Cremation Society of England.

The Cremation Society of England has been very active in its propaganda work, and that people are becoming more interested in the subject is shown by the fact that its energetic Secretary, Mr. G. A. Noble, has answered some hundreds of inquiries about cremation, from the construction of furnaces and the foundations of a crematorium to the most delicate legal points. The society has distributed 10,000 pamphlets; it has issued 10,000 copies of *Cremation in Great Britain*,[1] three-fourths of which have already been disposed of. This pamphlet, which is excellently printed and neatly "got up," contains a brief history of the cremation movement, a description of British crematories, illustrated with numerous views, particulars as to cost, full information as to the law bearing on cremation, and general instructions as to the formalities to be observed, together with the text of the Cremation Act of 1902, and the regulations made by the Home Secretary dated March 31st, 1903. The pamphlet in short is a summary of everything relating to the subject and a practical guide to those who may wish to have their remains cremated, and to surviving friends and executors whose duty it might be to carry their wishes into effect. In the pamphlet the advantages of cremation are briefly summed up, and the opinions on the subject expressed by many well-known persons are collected. The society has also lent magic lantern slides illustrating the working of crematories to lecturers; this it is always pleased to do. Seven thousand people have visited the crematories at Woking and Golder's Green. The membership of the society goes on increasing, and it is hoped that the increase will be maintained and that the society's field of action will be steadily enlarged.

Among the signs that the movement is spreading, mention may be made of the fact that at a meeting of the South-Western Centre of the Sanitary Inspectors' Association, held on February 12th at the Bristol Restaurant, Mr. T. J. Crofts of Bristol read a paper on The Sanitary Advantages of Cremation. After pointing out the dangers and disadvantages of burial, he said it might be taken for granted that cremation had come to stay, for there was a large and increasing section of the public who had a definite and unmistakable preference for that method of disposing of the dead. The demand for cremation existed, and it was right that in large centres facilities for it should be provided. The number of crematories in the country at present is thirteen, five of which are owned by municipal bodies, authorized by the Cremation Act of 1902, while the remaining eight are under the control of private companies.

The Scottish Societies.

Quite recently, as stated in the JOURNAL of February 12th, a cremation society has been formed at Edinburgh. The inaugural meeting was held on February 3rd, under the presidency of the Lord Provost. The object of the society is to promote the practice of cremation and burial reform by means of meetings, lectures, publications, or otherwise. The minimum subscription for members is 2s. 6d. annually. There are about 180 names on the membership roll of persons who are in sympathy with the formation of the society and with cremation. The president is Sir Henry Littlejohn; the vice-presidents, Sir Alexander R. Simpson, Lady Constance Lytton, Lady Steel, Professor Thomas Hudson Beare, M.Inst.C.E., and Dr. T. S. Clouston and Professor Harvey Littlejohn. An executive council, among the members of which are the Rev. George Christie, B.D., the Rev. William Main, and Drs. Claude B. Ker, Burn-Murdoch, Aitchison Robertson, and William Robertson. Mr. J. Dan Easson, B.L., is the secretary and treasurer. The ultimate object of the promoters is to have a crematorium erected in the city, but in the meantime the purpose of the society is to popularize and interest the public in the movement. Subsequently pressure will be brought to bear on the Town Council to induce them to erect a crematorium. Should the society fail to induce the Town Council to do this, the question of floating a company on the lines of the Scottish Burial Reform and Cremation Society, Glasgow, will, it is said, probably be considered.

The Scottish Burial Reform and Cremation Society, Limited, has been in existence for a good many years. A

[1] Published by the Cremation Society of England, 324, Regent Street, London, W. Price 6d.

Table of Cremations Carried out in Great Britain since the Opening of Woking Crematorium in 1885.

	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	Total.
Woking ...	3	10	13	28	46	54	99	104	101	125	150	137	173	240	240	301	273	275	*143	138	95	140	108	119	**105**	**3,220**
Manchester ...	...	...	...	...	...	...	...	3	30	47	58	52	51	62	88	83	96	81	92	98	97	90	98	116	**106**	**1,348**
Glasgow ...	...	...	...	...	...	...	...	...	...	...	1	10	16	12	16	20	18	20	24	19	35	44	30	28	**30**	**323**
Liverpool ...	...	...	...	...	...	...	...	...	...	...	...	2	10	27	23	40	40	54	35	40	35	46	34	32	**46**	**464**
Hull	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	17	13	18	20	15	17	29	37	**15**	**181**
Darlington ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1		1	7	4	13	8	6	**9**	**51**
Golder's Green	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	5	158	220	252	298	290	364	**421**	**2,008**
Leicester ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	5	8	16	12	12	14	**19**	**87**
Birmingham...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	1	19	22	25	33	18	**30**	**148**
Leeds	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	16	15	16	24	**19**	**90**
Ilford	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	9	23	18	19	**24**	**93**
Bradford ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	14	13	6	**13**	**47**
Sheffield ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7	6	18	12	**18**	**61**
Total... ...	3	10	13	28	46	54	99	107	131	172	209	201	250	341	367	444	445	451	477	569	604	743	707	795	**855**	**8,121**

* Golder's Green Crematorium in operation.

crematory and chapel were opened within the beautiful grounds of the Western Necropolis of Glasgow, at Maryhill, in 1895, by Sir Charles Cameron, who, together with the Right Hon. Robert Farquharson, is honorary president of the society. Among the directors are Professor Sir Henry D. Littlejohn, M.D., Professor John Glaister, and Drs. E. Duncan and Johnstone Macfie. At the annual meeting of the society held recently, Dr. Ebenezer Duncan, who presided, in moving the adoption of the annual report, pointed out that it was more favourable than that of last year. He went on to say that there was also evidence all over the country of an increased interest in the movement, and of a greater number of persons taking advantage of this method of disposing of their dead. One reason why progress was somewhat slow was that the corporations had not yet taken advantage of this method for the disposal of unclaimed bodies and the bodies from their parochial institutions. The method adopted in these cases was burial in common ground or pit burial. What that meant was well exemplified by a discussion which had taken place in the Irish newspapers during the past year with regard to the terrible methods in vogue in Glasnevin Cemetery, Dublin. There, on May 28th, a number of spectators standing at a pit burial, saw the bodies of ten men and women introduced into one yawning hole without the religious service of any church, seven of the deceased being Protestant and three Catholics. People in Ireland were horrified on learning of the prevalence of pit burials in the cemeteries there, but in Glasgow they for many years had been aware of the fact that even greater horrors had been perpetrated in their own graveyards. He could say without hesitation, after perusing the report published subsequent to the Government inspection of 1900, that in Glasgow, from Dalbeth to Craigton, there was not a cemetery in which any common ground did not contain as many bodies, and sometimes more, than were interred at the present time in Glasnevin Cemetery. It was quite a common thing in many cemeteries, after a number of years had elapsed, to take up the bodies and convey them elsewhere and use the ground again. That was done over and over again, particularly in common ground. The condition of matters in their city graveyards was now a scandal to the community. Their society had drawn the attention of the authorities to the necessity of legalizing the interment of cremated remains in closed cemeteries, as they thought there could be no objection to urns containing remains being interred. They hoped to get an Act which would enable the authorities to make an order to that effect.

As showing the horrors of pit burial, which, after all, is only the concentration in a small place of the processes of decomposition which go on in all systems of burial, we may recall one or two passages in a paper by Lord Lister on the Effects of the Antiseptic System of Treatment upon the Salubrity of a Surgical Hospital. This appeared in the *Lancet* (vol. i, 1870, pp. 4, 40), and has been republished in the *Collected Papers of Joseph, Baron Lister* (vol. ii, p. 124). Speaking of an outbreak of septic fever in his wards in the Surgical Hospital, Glasgow, he says:

"A crisis of this kind occurred rather more than two years ago in the other male accident ward on the ground floor, separated from mine merely by a passage 12 ft. broad, where the mortality became so excessive as to lead, not only to closing the ward, but to an investigation into the cause of the evil, which was presumed to be some foul drain. An excavation made with this view disclosed a state of things which seemed to explain sufficiently the unhealthiness that had so long remained a mystery. A few inches below the surface of the ground, on a level with the floors of the two lowest male accident wards, with only the basement area 4 ft. wide, intervening, was found the uppermost tier of a multitude of coffins, which had been placed there at the time of the cholera epidemic of 1849, the corpses having undergone so little change in the interval that the clothes they had on at the time of their hurried burial were plainly distinguishable. The wonder now was, not that these wards upon the ground floor had been unhealthy, but that they had not been absolutely pestilential." Referring to the situation of the Surgical Hospital, he goes on to say: "Besides having along one of its sides the place of sepulture above alluded to, one end of the building is conterminous with the old Cathedral churchyard, which is one of large size and much used, and in which the system of 'pit burial' of paupers has hitherto prevailed. I saw one of the pits some time since, having been requested to report upon it by one of the civic authorities who is also a manager of the infirmary, and who, having accidentally discovered what was going on, at once took steps to prevent for the future the occurrence of anything so disgraceful. The pit, which was standing open for the reception of the next corpse, emitted a horrid stench on the removal of some loose boards from its mouth. Its walls were formed, on three sides, of coffins piled one upon another in four tiers, with the lateral interstices between them filled with human bones, the coffins reaching up to within a few inches of the surface of the ground. This was in a place immediately adjoining the patients' airing ground, and a few yards only from the windows of the surgical wards. And the pit which I inspected seems to have been only one of many similar receptacles, for the *Lancet* of September 25th contains a statement, copied from one of the Glasgow newspapers, that 'the Dean of Guild is said to have computed that 5,000 bodies were lying in pits, holding 80 each, in a state of decomposition, around the infirmary.'"

CREMATION IN FOREIGN COUNTRIES.

France.

According to the latest reports obtainable, the number of bodies cremated in France during 1908 was 6,568. In 403 of these cases the cremation was performed at the request of relatives of the deceased persons; the rest of the number is made up of 2,653 bodies from the hospitals and fragments from the dissecting rooms, and 3,512 still-born children. Up to the end of 1909 more than 94,000 bodies were cremated at the Père Lachaise Cemetery, Paris, since the establishment of the furnace there in 1889. Early in 1909 the Society for the Promotion of Cremation, wishing to reduce the length of time required for the process of cremation and to improve the apparatus at present in use at Père Lachaise, offered prizes for the construction of a crematory to be worked by electricity or any other source of heat. The society invited constructors and inventors, both French and foreign, to take part in the competition, the prizes of which will amount to £100. The awards will be made in the course of the present month. The City of Paris has agreed to contribute £40 towards these prizes. There are also crematories in operation at Rouen, Rheims, Lyons, and Marseilles, but they are mainly adjuncts to the municipal cemeteries. Bodies are buried in graves leased for ten years. At the expiration of that period they are dug up and cremated, and the vacated graves used for the next tenants.

Germany.

In Germany there are now 19 crematories in operation. The following figures show the number of cremations carried out at each of them: Baden-Baden, 5; Bremen, 401; Chemnitz, 690; Coburg, 273; Eisenach, 100; Gotha, 639; Hamburg, 587; Heidelberg, 106; Heilbronn, 42; Jena, 315; Karlsruhe, 142; Mainz, 353; Mannheim, 166; Offenbach, 223; Possneck, 56; Stuttgart, 297; Ulm, 275; Zittau, 89; Zariban, 20. This gives a total for 1909 of 4,779, being an increase of 729 as compared with the previous year. In 1908 there was an increase of 36 per cent., the total being 4,050, as against 2,977 in 1907. The total number of cremations carried out in Germany up to the end of 1909 amounts to 23,000. The great strides made in Germany are mainly due to the activity of the Feuerbestattung Vereins, which has its head quarters in Berlin; its eighty-four branches extend over all parts of the German Empire, and the fortnightly journal, *Die Flamme*, keeps the supporters and members in close touch with the central organization.

Belgium.

Cremation is not at present legalized in Belgium, but there is a rapidly increasing movement in favour of its adoption. A monthly journal, *La Crémation*, devotes itself to the propagation of the method, and with a view to its introduction into the country, the Society for the Propagation of Cremation in Belgium is arranging for an International Congress to be held in Brussels during September, 1910. The Honorary Presidents of the Society are MM. E. Goblet d'Alviella, Member of the Senate; Paul Janson, of the Chamber of Representatives; Ernest

Solvay, formerly a member of the Senate. Prominent members of the various European cremation societies and influential public men in Belgium form the organizing committee, and also many distinguished persons have expressed their willingness to be patrons of the Congress. Great Britain will be represented by the Duke of Bedford, Sir Herbert Thompson, and Sir Charles Cameron, who is also a member of the organizing committee.

Italy.

Italy was one of the first countries in which cremation was adopted as a means of disposing of the bodies of the dead. The pioneer was Brunetti, whose first attempts were made at Padua in 1873. Unfortunately the movement was initiated and has been carried on by the anti-clerical party, and has thus acquired a sectarian significance which is a serious obstacle to the progress of the movement. It seems not unlikely, in fact, that, owing mainly to this cause, Italy may fall behind Germany and other countries where cremation was introduced at a much later time. There are crematories at Alessandria, Asti, Bologna, Bra, Brescia, Como, Cremona, Florence, Genoa, Livorno, Lodi, Mantua, Milan, Modena, Novara, Padua, Perugia, Pisa, Pistoia, Rome, San Remo, Siena, Spezia, Turin, Udine, Varese, Venice, and Verona. The total number of incinerations in Italy up to the end of 1906 was 6,251.

Switzerland.

In Switzerland there are crematories at Basel (established in 1898), Zurich (1889), Geneva (1902), St. Gall (1903), and Bern (1908). The total number of cremations up to the end of 1908 is reported as 4,227, distributed as follows: Basel, 403; Bern, 15; Geneva, 696; St. Gall, 484; Zurich, 2,629. For the year 1908 alone the figures given are as follows: Basel, 77; Bern, 15; Geneva, 152; St. Gall, 139; Zurich, 382.

Australia.

A cremation society was established some time ago in Sydney, with the Hon. Dr. Creed, M.L.C., as president. He has addressed a letter to the Hon. C. G. Wade, the State Premier, setting forth the various arguments in favour of the adoption of this practice. No reply to this communication having been received from the Government, the society held a meeting in November, 1909, at which it was decided once more, as stated in the BRITISH MEDICAL JOURNAL of January 29th, 1910, to urge the subject of cremation on the attention of the Government. The following resolutions were passed:

> That, in view of the repeated recommendations of the Board of Health, and in view of the expressed opinions of the medical profession and municipal councils, we again respectfully urge on the Premier the necessity of placing on this year's Estimates a sum of money for the erection of a crematorium.
>
> That it is unnecessary to await new legislation, as under the amended Health Act such regulations may be created and enforced by the Governor and Executive Council.

In Australia the Cremation Society of New South Wales is doing much to arouse public sentiment in favour of cremation as a preliminary to the establishment of a crematorium. The only crematorium in Australia at present is the one established at Adelaide by the Government in 1903. At the quarterly meeting of the society in May, 1909, the report stated that 81 new members had joined during the quarter. The finances were satisfactory. A letter had been written to the Board of Health with the object of securing a resolution in support of cremation, to which the following reply had been received from the secretary of that department:

> I am directed to inform you that the Board of Health has frequently testified its anxiety to secure such measure of burial reform as consists in provision of properly-appointed crematoria for the voluntary use of those members of the community who think, with the board, that burning of the corpse, together with reverent collection and preservation of the ashes, is on all grounds far preferable to the present more general practice of burial. I am desired to point out to you that Part 4, Section 51, of the Public Health Act was introduced at the instance of the board as far back as 1896; it empowers local authorities under the Act (that is to say, municipal and shire councils, as well as the trustees of any burial ground or cemetery) to erect and maintain crematories for the burning of the dead, and to inform you that on several occasions since that date the board has urged the Government to take steps to provide at least one crematorium, the need for which during epidemics has been keenly felt by it.

It was further stated that a great many replies from medical men had been received to the society's circulars, all of which were distinctly favourable to the aims of the society.

New Zealand.

The crematorium established by the City Corporation of Wellington is now completed, and the practical result of this enterprise is being followed with interest by the corporation of the sister city of Auckland, previous to accepting the offer of the Auckland Cremation Society to subscribe £500 towards the cost of providing a municipal crematorium.

United States and Canada.

Mr. Noble informs us that there is no central body in the United States corresponding to the Cremation Society of England; hence it is not easy to get exact statistics. The following figures show the total number of cremations in various places up to 1905: Baltimore, Maryland, 263; Boston, Massachusetts, 2,106; Buffalo, New York, 787; Cambridge, Massachusetts, 819; Chicago, Illinois, 1,744; Cincinnati, Ohio, 1,067; Cleveland, Ohio, 283; Davenport, Iowa, 287; Denver, Colorado, 109; Detroit, Michigan, 689; Fort Wayne, Indiana, 34; Indianapolis, Indiana, 32; Lancaster, Pennsylvania, 106; Los Angeles, California I, 863; Los Angeles, California II, 413; Milwaukee, Wisconsin, 442; New York, New York State, 7,610; Oakland, California, 1,279; Pasadena, California, 371; Philadelphia, Pennsylvania, 1,640; Pittsburgh, Pennsylvania, 323; Portland, Oregon, 327; San Francisco I, California, 1,492; San Francisco II, California, 5,352; Seattle, Washington, D.C., 21; St. Louis, Missouri, 1,846; St. Paul, Minnesota, 145; Swinburne Island, New York, 123; Troy, New York, 249; Washington, Pennsylvania, 41; Washington, D.C., 275; Waterville, New York, 60; Montreal, Canada, 44. The total number of cremations was therefore 31,242. A crematorium was also opened at Linden, New Jersey, in 1908; and at Honolulu, Hawaii Islands.

South America.

It is stated that there are crematories at Buenos Aires and Montevideo, South America.

SCIENCE NOTES.

A PAPER on "A Theory of the Alternation of Generations in the Archegoniate Plants Based upon the Ontogeny,"[1] by Dr. W. H. Lang, has given rise to some discussion. The author recapitulated his views at a meeting of the Linnean Society, and the discussion made it evident that Dr. Lang's hypothesis, ingenious and simple as it may appear, does not meet with universal approval. The essence of the theory is an attempt to explain the alternation of spore-bearing and gamete-producing generations in plants such as ferns and liverworts by a consideration of the environmental conditions attendant upon the various stages of the plant's individual existence. Previous theories, of which there were not a few, had sought an explanation in phylogeny. It is impossible in a few words to give an adequate idea of the standpoint arrived at in these theories, but it may be sufficient for the present purpose to indicate that the spore-bearing generation might be regarded either as an interpolated phase in the life-history of the organism, having its origin in post-sexual complications, or as a homologue of the sexual generation which had undergone modifications to meet peculiar circumstances. In either case, however, the life-cycle is regarded as a homogeneous whole, the individual stages of which impress the growth character upon the succeeding ones. Dr. Lang, on the other hand, considers the spore and the zygote, or fertilized egg cell, as equivalent germ cells; that is to say, that they both possess the same potentiality of development. The factor determining the different courses which their development takes is the environment. The spore is shed on the ground and germinates there freely exposed. The zygote is securely enclosed in the archegonium, nourished by the prothallus, and develops without any direct connexion with the external world. This is, in short, the main consideration which has led to the formulation of Dr. Lang's hypothesis. At the meeting of the Linnean Society, Professor Bower remarked that

[1] *New Phytologist*, viii (1909), pp. 1–12.

Dr. Lang did not probe into the ultimate origin of the two phases of the life-cycle, but dealt with them as already established. Dr. Dukinfield Scott maintained that Dr. Lang's theory did not supersede the older homologous theory any more than natural selection could be said to supersede evolution, and that the former owed its point to the assumption that the latter was true. He thought, however, it was valuable just in so far as it helped to explain the great difference between the two generations. In a more recent paper,[1] on the same subject, Professor Blackman has stated his difficulty in accepting Dr. Lang's theory. He is unable to admit that the different physiological conditions are sufficient to account for the difference between the gametophyte and the sporophyte. According to his view, the various stages in the life-cycle of a given organism, however complicated, are united together by a cyclical correlation, one stage influencing the development of the other. He instances the case of *Puccinia graminis*, in which there are four different kinds of germ cells—teleutospore, sporidia, aecidiospores, and uredospores. If all four are placed on a barberry leaf, the first will form, not an ordinary germ tube, but a special promycelium. The other three will form germ tubes, but only that from the sporidium will penetrate the leaf. Thus, although all these germ cells are placed under the same physiological conditions, each produces the special phase which it is its function to produce. Further illustration may—and, if any comprehensive theory of alternation is to be proposed, must—be drawn from the metamorphosis of insects and other animals. In insects we find that the change from the larva to the pupa and thence to the imago may take place under unchanged external conditions. It would seem also that we have direct evidence that the spore and egg are different, for even before the spore leaves the sporangium it has clearly started on a different line of development from that of the egg. While both remain protected and supplied with nourishment, the spore surrounds itself with a thick two-layered wall, and stores up a certain amount of reserve material, while the wall of the egg remains thin, and no material is stored up. The two cells have clearly become adapted to start life under different environments, and this difference of structure, developed while the cells are under similar conditions, cannot easily be explained, unless we assume internal differences. Professor Blackman makes reference to the parasitic protozoa, pointing out that various stages of the life-cycle may be found in the blood at any one time, but, on being sucked up by a mosquito, only the "crescents" can proceed to further development. There comes a time, too, when another type of cell—the sporozoite—is produced, and this can undergo further development only when retransferred to the blood. Here, again, is an instance of cyclical correlation, each stage giving rise only to that which naturally follows it in the life-cycle. Little help is to be hoped from the results of experimental work on this problem, for the technical difficulties would be great; and, even if successfully overcome, the interpretation would be liable to much ambiguity. It is evident, then, that Dr. Lang's hypothesis, although it can hardly be regarded as a solution, will have been of importance in stimulating inquiry along fresh lines, and in arousing anew interest in what has hitherto been a baffling problem.

In a recent number of *Nature*[2] there is a valuable summary of the advances which have been made within the past few years on the telegraphic transmission of pictures. Though most people are probably familiar with the fact that photographs can now be transmitted over considerable distances by means of an apparatus resembling the telegraph, it is quite possible that our idea of the exact process by which this is accomplished is not very distinct. As has been the case with so many discoveries and inventions of this kind, once even a remote prospect of practicability is apparent, modifications and improvements begin to be suggested and are taken up with almost bewildering rapidity, so that it becomes difficult for those not technically interested to form a just opinion on the state of matters at any particular time. Mr. Thorne-Baker, who has done much work on the subject himself, practically finds it necessary to describe only three types of apparatus. The earliest depended in the main on the sensitiveness to light of the element selenium in a modified form. This was distributed over two coils of platinum wire, wound on a plate of steatite to form a "selenium cell." Light was made to pass through a revolving photographic film and fall on the selenium with intensity varying inversely as the density of the part of the photograph through which it passed. An electric current sent through the selenium cell passed into a string galvanometer at the receiving station. To this was attached a small shutter, which was placed in the path of light directed on to a photographic plate. The shutter actuated by the current passing through the galvanometer cut off amounts of light from the photographic plate proportionate to the strength of current received from the selenium cell and so the photograph was made. Mr. Thorne-Baker points out that the disadvantage of this system is that the current is necessarily very small, and if there is any considerable leakage the shutter is not deflected sufficiently. In Korn's telautograph a copy of the photograph is made with insulating ink on a piece of copper foil, and this is attached to a revolving drum over which a steel stylus is moved laterally. At the receiving station a photographic film is wound on a corresponding drum enclosed in a dark box with a small slit. Light is made to fall on this slit, and, as in the first apparatus, a galvanometer is interposed in the path with, in this case, a silver wire. When no current passes—that is, when the stylus comes to an insulating line of ink—the shadow of this wire falls directly on the slit in the box, and so no light reaches the photographic film. When, however, the stylus is in contact with the copper foil, current passes and deflects the wire, thus allowing light to fall on the film. The telectrograph, which is the third and most recent form, depends on an entirely different principle. Here the original photograph is printed upon lead sheet and fixed to a drum. The stylus in this case is iridium tipped. At the receiver the current flows into two wires which are in contact with two platinum pins, and these lead the current to the receiving drum. The latter is covered with absorbent paper moistened with a chemical. A stylus moving over this drum causes electrolysis of the chemical when the current is passed, and so produces a black mark on the paper. A photograph transmitted in this simple fashion, however, would be unrecognizably blurred owing to the secondary discharges due to the line, and to obviate this it is necessary to introduce a "balance." This consists of two secondary cells shunted on to the line and sending a reverse current into it. By observing the character of the image on the receiving drum during the first few revolutions the line effects can be immediately counteracted by regulation. The possibility of wireless transmission is referred to, but a difficulty pointed out in that the impulses have to be sent through too rapidly in a short space of time.

The possibility of maintaining nutrition upon a diet in which inorganic compounds of phosphorus are substituted for the more complex natural compounds has been the subject of much apparently contradictory experiment. As the result of some recent attempts with rats, McCollum[3] has come to the following conclusions: Palatability is a most important factor; without it the diet may possess all the necessary food ingredients and yet fail to nourish properly. This probably accounts for the failure of previous attempts to maintain animals on mixtures of pure proximate constituents of various foodstuffs. With attention to changing the character and flavour of such simple mixtures an appreciable amount of growth can be induced. Palatability is not so essential in the case of very young animals, for they appear to be able to adapt themselves to a monotonously uninviting diet much more readily than adults. Other conditions being satisfactory, all the phosphorus required by an animal for skeleton, nuclein, or phosphatide formation can be derived from inorganic phosphates. An animal also has the power to synthesize the purin bases necessary for its nuclein formation from some complexes contained in the protein molecule, and does not necessarily use purin bases of exogenous origin for this purpose.

[1] *New Phytologist*, viii (1909), pp. 207–218.
[2] Vol. 82, pp. 309–311.
[3] Nuclein Synthesis in the Animal Body, *American Journal of Physiology*, xxv, 1909, pp. 120–141.

LITERARY NOTES.

IN an article entitled "Friends and Acquaintances," by Mr. William H. Rideing, which appears in the *Cornhill* for March, the following story is told of James Payn, the well-known novelist, who was for many years editor of that magazine:

One day an unannounced caller, who had managed to evade the porter downstairs, opened Payn's door. His hair was long and his clothes were shabby and untidy. He had a roll of papers in his hand. Payn, surmising a poet and an epic several thousand lines long, looked up.

"Well, sir?"

"I've brought you something about Sarcoma and Carcinoma."

"We are overcrowded with poetry—couldn't accept another line, not if it were by Milton."

"Poetry!" the caller flashed. "Do you know anything about Sarcoma and Carcinoma?"

"Italian lovers, aren't they?" said Payn imperturbably.

The caller retreated with a withering glance at the editor. Under the same roof as the *Cornhill* was the office of a medical and surgical journal, and it was this that the caller sought for the disposal of a treatise on these cancerous growths with the euphonious names, which, with a layman's ignorance, Payn ascribed to poetry.

In a reprint from the *Caledonian Medical Journal*, Colonel Kenneth Macleod gives an interesting appreciation of Professor Thomas Laycock, of Edinburgh, who was one of his teachers. Colonel Macleod was clerk and afterwards assistant to the distinguished physician. He describes Laycock as a man of middle height and slender make.

His features were finely modelled and his face decidedly classical; his expression was mild and manner quiet; his temper was amiable and disposition urbane and kindly. As a husband, father, and friend he was exemplary and estimable. His personality was eminently attractive. He was hospitable and genial, full of information, and filled with wide interests and keen sympathies. His intellectual faculties were of a high order. He was observant and reflective, and whatever came under his notice was made the subject of earnest thought. He was prone to abstraction and generalization, and his mind was well stored with well-ordered facts and principles. He was a great reader, and endowed with strong powers of mental assimilation and digestion. His memory was good, and recollection ready. He was fluent without being forcible in speech, and was a facile and prolific writer. His handwriting was neat and nervous. Whatever his theme he arranged his material logically, and marshalled his facts and deductions in a clear and coherent fashion. He was by no means devoid of the sense of "ego," which, according to him, is a fundamental element of human life and thought; was tenacious of his opinions, self-respecting and dignified, and mindful of the honour of his profession and position.

Laycock was not altogether successful in practice in Edinburgh; one gathers that, being a Yorkshireman, he was regarded by the indigenous doctors as an intruder. His lectures were prepared with great care and an elaborate synopsis of each was written on the blackboard. He founded his teaching on the doctrine of temperaments, holding that as men were different from each other racially and individually, owing to climatic and other influencing peculiarities of feature, form, and function, which were transmitted and apt to be intensified in transmission, so they differed in pathological proclivities, which corresponded with their varied temperaments and diatheses, and were capable of being classified. The detection of these proclivities was accomplished by noting external signs proper to each class by physiognomical diagnosis. His views on this subject were briefly stated in his work on *Mind and Brain* (vol. ii, part v, chap. xii, p. 306), and set forth in greater detail in a series of papers published in the *Medical Times and Gazette* (vol. i, 1862). In the wards Laycock was interesting and instructive. He was strong in physiognomical diagnosis, and frequently ventured on a positive opinion regarding the nature of a case before the history was read or the systematic examination made. In these "snapshot" diagnoses he was often right. Laycock's contributions to medical literature are said to have numbered three hundred. In the early days of his professional life he wrote reviews and articles for the *British and Foreign Medical Review*, edited up to 1848 by Sir John Forbes, who highly appreciated his ability. In 1838 and 1839 he published in the *Edinburgh Medical and Surgical Journal* an important series of papers on the Nervous Diseases of Women, which were reprinted, with additions, in the form of a book in 1840. In this work he drew attention to the influence of morbid organic conditions on mental manifestations, and propounded the novel doctrine of reflex cerebration. He showed that processes of thought could be generated and give rise to actions without consciousness. He applied this discovery to the explanation of a large class of morbid mental manifestations, in which, mainly as a result of stimulated and excited attention and suggestion, strange and hitherto inexplicable mental phenomena took place without knowledge or rational control on the part of their subject. Dreaming, somnambulism, mesmerism, hysteria, and some forms of insanity, were attributed to disordered nervous conditions arising from organic influences. On these and cognate subjects he published numerous papers, the most important being a discourse on the Reflex Function of the Brain, read at a meeting of the British Association held at York in 1844, and subsequently published in the *British and Foreign Medical Review* in 1845. In the same year he wrote in the *Lancet* on "the law of design as an effective force in nature," formulated "the law of reflex nutrition," and expounded "the origin of varieties and species." His great work was *Mind and Brain, or the Correlations of Consciousness and Organization*, which was published at Edinburgh in 1860. He was also the author of *Lectures on the Principles and Methods of Medical Observation and Research*, and of many papers on nervous and psychological subjects. Laycock was a philosopher as well as a physician. In the words of Colonel Macleod, Laycock assisted most materially in placing psychology on a more rational and scientific basis. He was the exponent of a revolution in psychology and philosophy which has continued to gain strength and stability.

Under the auspices of the Belfast Natural History and Philosophical Society, Mr. K. T. Frost, Lecturer on Classical Archaeology and Ancient History, Queen's University, recently delivered a lecture entitled "Sidelights on Bible History, with Personal Reminiscences from Palestine and Egypt." Sir John Byers, M.D., President of the society, who was in the chair, said archaeology afforded immense scope for study, because the lines along which it could be followed were so numerous. Some might investigate the matter along the direction of historical research by studying the language and literature of the past; others could look at the bearing which unwritten literature, as found in popular belief and folk lore, had on archaeology; while, again, physical characteristics (as shown by the comparison of various skulls) were of great importance, as well as such relics of extinct nations or communities as remains of art, architecture, inscriptions, monuments, implements, utensils, and weapons, in their bearing on archaic life. Philology, or the investigation of any language and literature in the light they cast upon the character, activity, and history of the human race, was also of the utmost value in its bearing upon archaeology. Ireland was full of many types of antiquities, such as ecclesiastical remains, round towers, cromlechs, forths (or raths), stone monuments, souterrains, cairns, flint implements, and ornaments, like the famous gold Celtic torque found near Limavady, and Ulster had produced a very able school of archaeologists. Among them was John Grattan, whose original work on the measurements of the skulls of human remains discovered within the round towers of Ulster was a marvel of scientific research in craniology.

Sir Henry Morris has called our attention to the following passage in the *Memoirs of the Duchess de Dino*, the niece of Talleyrand, for whom she acted as hostess when he was ambassador to this country. It gives us an interesting glimpse of Sir Henry Halford.

London, May 4th, 1834.—Koreff is a braggadocious creature with a vein of indiscreet curiosity which I have sometimes noticed on the Continent, and which here inspires me with the most profound distrust. His wit and his learning are lost among the bad features of his character, which often make him quite impossible. He lives on gossip of all kinds, public and private, and when he can get nothing else to talk about he talks about medicine. Then he assumes the physician and deifies his art. You hear of patients saved by him when all hope was gone; of his marvellous discoveries, of magnetism, homeopathy true and false, of things natural and supernatural, possible and impossible. Everything serves to magnify his importance, to surround the poor creature with an atmosphere of the marvellous, which covers his want of real dignity.

We had him to dinner with Sir Henry Halford, and I don't think they took to each other. What, indeed, could they have in common? Science, perhaps—if by science they both under-

stood the same thing. Sir Henry is a suave and polished person, measured, discreet, supple, and deferential; a perfect courtier, a man of fortune, highly respected, and a great practitioner. He has never sought to be anything to the great but their doctor, and consequently, without seeking it, he has found himself in all family and State secrets. Koreff, on the other hand, poses as a man of letters and a statesman, and has thus made persons in great places chary of having him as their doctor. This was how he came to grief at Berlin; he will find it difficult to regain his ground at Paris, and he won't, in my opinion, be a success in London.

David Ferdinand Koreff (1783–1851) was the son of a Jewish doctor of medicine. He was born at Breslau, and studied at Halle, Berlin, and Paris. He was baptized after entering the family of Hardenberg, the Prussian Chancellor. Subsequently he spent many years in this country.

Nova et Vetera.

ANATOMICAL DESCRIPTIONS IN SOUTHEY'S POETRY.

Anatomical descriptions are somewhat rare in modern poetry, and it is surprising to find in Southey's *Joan of Arc* passages which are reminiscent of the dissecting room rather than of the Parnassian slopes on which our nineteenth century poets were wont to recline. Here are some instances taken from that poem.

In the fighting round Orleans Conrade works wonders with his battle-axe:

> On Molyn's head,
> As at the Maid he aimed his javelin,
> Forceful it fell, and shiver'd with the blow
> The iron helm, and to his brain-pan drove
> The fragments.

At a later stage in the same fight another incident occurs which leads the poet to describe the arterialized blood's return from the lungs to the heart through the pulmonary veins:

> With wary bend, the foe
> Shrunk from the flying death; yet not in vain
> From that strong hand the fate-fraught weapon fled:
> Full on the corselet of a meaner man
> It fell, and pierced, there where the heaving lungs,
> With purer air distended to the heart
> Roll back their purged tide: from the deep wound
> The red blood gush'd: prone on the steps he fell,
> And in the strong convulsive grasp of death,
> Grasp'd his long pike.

Another soldier falls under a stroke which shivers his helm:

> From his eyes the blood
> Started; with blood the chambers of his brain
> Were fill'd; his breast-plate, with convulsive throes,
> Heaved as he fell.

Another receives an arrow wound in the neck, opening the trachea:

> Through the tube that the pure air inhales
> Pierced the keen shaft; blood down the unwonted way
> Gush'd to the lungs.

Yet another is struck by an arrow; it "fix'd Deep in his liver; blood and mingled gall Flow'd from the wound." Glacidas aims an arrow at the Maid but hits one of his own soldiers, apparently wounding the aorta:

> Through his ribs it pass'd,
> And cleft that vessel, whence the purer blood,
> Through many a branching channel, o'er the frame
> Meanders.

An Englishman is driven to the earth under a ponderous stone:

> Horror the spectators seiz'd,
> For as the dreadful weapon shivered him,
> His blood besprinkled round, and they beheld
> His mangled lungs lie quivering!

Finally, Conrade, one of the heroes of the battle, deals a blow in the region of the diaphragm:

> Conrade the next foe
> Smote where the heaving membrane separates
> The chambers of the trunk.

A study of the life of the poet Southey does not at first yield any explanation of his use of what must be regarded as distasteful references to anatomical details in his earliest epic poem. A scrutiny of the biographical table prefixed to the Oxford edition of Southey's *Poems* (1909) gives no hint of any special interest shown by him in medicine. It is true that he had a younger brother (born in 1783) who became a distinguished physician; this was Henry Herbert, who studied surgery at Norwich, entered the University of Edinburgh in 1803, and graduated M.D. there in June, 1806. But *Joan of Arc* was written by Robert long before his brother began the study of medicine. In Dr. Garnett's life of Southey in the *Dictionary of National Biography* we get an indication of the poet's attitude with regard to anatomy, but it is not such as we might have expected from the ostentatious exhibition of a knowledge of structural details given in the battle scenes of *Joan of Arc*. Speaking of Southey's disinclination to take Orders, Dr. Garnett says: "A doctor's career was equally impossible, owing to his repugnance to anatomical demonstration." Professor Dowden[1] gives further details of this reluctance to study anatomy. Southey apparently was drawn towards medicine, although not towards the dissecting room. In 1792, when he was 18, he had been expelled from Westminster School for his article on flogging in the school newspaper, *The Flagellant;* in the same year came the failure of his father in business, followed by his death just after his son had matriculated at Balliol College, Oxford; and in January of 1793 he entered into residence, his expenses being borne by his mother's brother, the Rev. Herbert Hill, Chaplain to the British Factory at Lisbon. His uncle wished him to become an English clergyman, but Southey felt he could not conscientiously do so. It is in this connexion that we get the missing explanation of the anatomical allusions of *Joan of Arc;* for Professor Dowden writes: "To bear the reproaches, gentle yet grave, of his uncle was hard; to grieve his mother was harder. Southey resolved to go to the anatomy school and fit himself to be a doctor. But he could not overcome his strong repugnance to the dissecting room; it expelled him whether he would or no." While he was in this undecided state of mind, in the year 1793, during the long vacation, he wrote the first rough draft of the twelve books which go to make *Joan of Arc* in the short space of six weeks; his nineteenth birthday (August 12th) came and went while he was thus engaged.

It can hardly be doubted that in these circumstances we have an explanation of the apparent anomaly of the intrusion of the facts of the dissecting room into epic poetry. Anatomy had evidently made a strong and lasting impression upon the young man's mind, and he was unable to exclude it even from his most inspired moods. Its introduction into a poem like *Joan of Arc* was undoubtedly an error of taste; but then it is admitted that *Joan of Arc* is not a good poem—a fact of which the author himself possibly was conscious, for he rewrote it at least three times. At any rate, Southey, although he could not stand the dissecting room, had no dislike for medicine itself; for, some forty years later in life, he chose for that strange literary offspring of his, that "glorified commonplace book" as it has been called, the title of *The Doctor*, and added to the gallery of notable medical men of fiction the figure of the genial Dr. Daniel Dove of Doncaster, with "his gravities and levities." Further, Robert Southey showed in a practical fashion his liking for medicine by helping his younger brother, Henry Herbert, to obtain his M.D. at Edinburgh. Here is a passage from Professor Dowden's *Life of Southey* relating an occurrence which reminds us of what another literary man (Thomas Carlyle) did for his medical student brother (John Aitkin Carlyle): "By *Joan* and the miscellaneous *Poems* of 1797 Southey had gained not far from a hundred and fifty pounds; he might fairly expect a hundred guineas for *Thalaba*. It would buy the furniture of his long-expected house. But he was concerned about the prospects of Harry, his younger brother; and now William Taylor wrote that some provincial surgeon of eminence would board and instruct the lad during four or five years for precisely a hundred guineas. 'A hundred guineas!' Southey exclaims. 'Well, but thank God there is *Thalaba* ready, for which I ask this sum.'" There can be little doubt that Robert Southey had a warm heart towards his doctor brother; but such a poem as *The Surgeon's Warning* makes us wonder whether his affection for the physicians of the profession extended to their surgical brethren.

[1] Southey, *English Men of Letters*, p. 34.

British Medical Journal.

SATURDAY, MARCH 5TH, 1910.

CREMATION.

s will be seen from an article published elsewhere, ıe disposal of the bodies of the dead by burning ontinues to make progress. It might be wished, in ıe interest of the public health, that the progress ere a little more rapid, but sanitarians may find oom for satisfaction in the fact that it is steady. In reat Britain there were sixty more cremations in 909 than in the previous year. Recently a society as been founded in Edinburgh to further the move- ıent. In several of our colonies cremation has been ıtroduced. In the United States, as to which we ave no definite figures later than 1905, it is said to e making headway. In South America crematories ave been established at Buenos Aires and Monte- ideo. In Germany, too, a large increase is reported, hile in Belgium, where cremation is not yet ecognized by law, a society has been formed to btain its legalization, and to impress its advan- ages on the people. These signs, though still like he cloud no bigger than a man's hand, indicate a rowing recognition of the advantages of cremation ver earth burial. We need not here enlarge on these dvantages from the sanitary point of view; our eaders are already familiar with them, and we think ve may say that they are generally admitted. Nor eed we dwell on the economic argument, the ever- ncreasing space required for cemeteries, and the ostliness of burial as compared with cremation ertain objections—prejudices we should call them— et remain. The chief of these are the religious, the entimental, and the juridical.

In an official sense the religious objection is now ve believe, confined to Roman Catholics and Jews. n the case of the former the objection is, as far as ve understand the matter, disciplinary rather than loctrinal. The most recent writer on moral theology, I. Noldin, S.J., in his book which was published at nnsbruck in 1908, says: "Etsi crematio corporis umani *nec ulli veritati religionis Christianae con- raria, nec intrinsecus mala sit* [the italics are ours], x adjunctis tamen, in quibus recenti tempore pro- novetur, *per accidens* mala et propter ecclesiae pro- ibitionem graviter illicita est." Cremation, when it vas introduced in Italy many years ago, was made an outward and visible sign of unbelief—a defiance which naturally brought down on the movement he fulminations of the Church. Cremation has no connexion with Freemasonry or any form of belief or unbelief in this country. If cremation were freed from the symbolic character thus im- pressed upon it in a spirit of needless defiance by he pioneers of the movement in Italy, it seems ikely that the ecclesiastical ban under which it ies would be removed. Among the Jews cremation s forbidden by the law, as interpreted by the Orthodox Synagogue, and also by traditional custom. But many Jews have no objection to cremation, and we understand that it is practised among them, and that a religious service is sometimes read over the ashes of a cremated body. Many clergymen of the Church of England and other denominations are not opposed to cremation, and the remains of some well-known clergymen have been disposed of in this manner. Several bishops have expressed their ap- proval of cremation. At the opening of the Birming- ham crematory in 1903 Bishop Gore wrote: "What I should desire, when I do myself die, is that my body should be reduced rapidly to ashes, so that it may do no harm to the living, and then, in accordance with the Christian feeling, be laid in the earth—'Earth to earth, ashes to ashes, dust to dust'—with the rites of the Church. I do not see that there is any serious Christian argument against such a practice, and, from a sanitary point of view, it has enormous advan- tages." It is, indeed, difficult to see how any reasonable objection to cremation from a religious point of view can arise. The doctrine of the Resurrec- tion cannot be held to present a serious obstacle, for without entering upon the discussion of theological mysteries, it is surely plain that the body can as easily be raised again from the dead whether its component elements have been scattered about as they must be in the final phase of decomposition, or destroyed by fire immediately after death. To those who believe that man was created out of nothing there can be no difficulty in the further belief that he can be created anew out of the elements which once formed the tenement of clay wherein dwelt his immortal soul. Cremation can be celebrated with all the funeral rites demanded by any form of religion. Moreover it would make it possible to revive the beautiful old custom of burial in churches.

With regard to the sentimental objection, while admitting that the sudden reduction of the body of a loved one to the handful of ashes which the Latin poet says is all that is left of the greatest general, is at first something of a shock, it does not need the imagination of Hamlet to convince thinking persons that cremation is far less horrible than burial. Cremation does in an hour or two what the natural processes of decomposition may take years to accom- plish. To us it seems that the inevitable triumph of the grave is much lessened by dissociation from ideas of putrefaction. Tender memory of the dead is more likely to be maintained by the thought that there is no foulness or corruption, but only a small quantity of inoffensive ashes where the remains are buried. Before leaving the sentimental side of the question, we may be allowed to quote the testimony of Guy de Maupassant. That master of verbal artistry, in his striking sketch entitled "Le Bûcher," which appeared in the Paris *Figaro* in 1884, gives an account of the cremation of an Indian prince on the beach at Etretat of which he was an accidental witness. After describing the scene he says: "I have therefore seen a man burnt on a funeral pyre, and that has given me the desire to dis- appear in the same manner. In this way everything is finished at once. Man hastens the slow work of Nature, instead of retarding it by the hideous coffin in which he rots for months. The flesh is dead, the spirit has fled. The fire that purifies disperses in a few hours that which was a human being and throws it to the wind. It makes of it air and ash instead of loathsome corruption. This is clean and wholesome. Putrefaction underground in that closed box wherein the body changes into a black and stinking pulp is repulsive and abominable. The coffin which descends into that muddy hole grips the heart with anguish,

but the pyre which flames under the open sky has about it something great, beautiful and solemn."

It is obvious that cremation, if it is to be carried out on a large scale, could not be done in the way described by Maupassant. Although we must dispense with the open sky, there is the advantage that, as actually carried out, there is nothing revolting about cremation. Having witnessed the process in its minutest details at Golder's Green, we can testify that nothing could be more cleanly and more reverent than the way in which the remains are treated. As showing how cremation appeals to the enlightened mind, we may quote, as one of the most recent testimonies to the same effect, the following clause from the will of the late Mr. W. P. Frith, R.A.: "Believing that the duty of the individual to his kind includes providing for such final disposal of his body as shall be least detrimental to those who survive him, and believing that the modern process of incineration provides the quickest and safest mode of such disposal, I hereby solemnly express to my survivors and executor my earnest desire and request that on my decease my body shall be cremated at such convenient place as shall furnish the proper facilities."

What we have called the juridical objection, based on the possible destruction of traces of crime, is more serious than the others. Every possible precaution has therefore been taken to meet this objection. With the safeguards provided by the Act of 1902 and the Home Secretary's regulations of 1903, and the elaborate official machinery which has to be put in operation before cremation is sanctioned by the authorities, there is less danger of crime remaining undiscovered than under the existing lax system of death certification. During the past year cremation was refused in at least two well-known cases, either because the cause of death was not ascertained, or on account of some other irregularity. It may be added that the precautions insisted upon, as well as the process itself, prevent the possibility of live burial—a danger which, though in our opinion largely imaginary, still darkens many a life with the shadow of a great fear. Medical practitioners, as they become familiar with the regulations, fill up the forms more accurately than before; and it is satisfactory to learn that the profession as a whole is beginning to show more active interest in the movement. Their interest may be quickened by the reflection that the careful medical certification insisted upon must, as cremation comes into more general use, tend to the repression of illegal practice.

In summing up the subject it may not be out of place to recall that one of the earliest pioneers of cremation in England was Miss Honoretta Pratt. She was related to the Hon. John Pratt, sometime Treasurer of Ireland. She died in 1769, and on a tablet erected to her memory in the graveyard of St. George's, Hanover Square, may be read the following inscription: "This worthy woman, believing that the vapours arising from the graves in the churchyards of populous citys may prove harmful to the inhabitants, and resolving to extend to future times, as far as she was able, that Charity and Benevolence which distinguished her thro' life, ordered that her body should be burnt, in the hope that others would follow her example, a thing too hastily censured by those who did not enquire her motives." As far as we know, although cremation was advocated by Sir Henry Thompson in 1874, Miss Honoretta Pratt's wish that her example should be followed was not fulfilled till 1882, when the bodies of Lady Hanham and her daughter-in-law, Mrs. Hanham, were burnt. If w may paraphrase the famous words of Latimer t Ridley, those ladies lit a beacon fire that day whic we hope will in time shine over all the country.

MENDELISM AND SEX.

THERE is a natural tendency amongst the exponen of any new theory to exploit it to the full. With firm faith in its ultimate truth, the enthusiast ruth lessly breaks down seemingly impassable barriers, an fashions filmy hypotheses wherewith to bridge u fathomable gaps. This has occurred in the history all great discoveries, and it is only after muc laborious investigation that the true significance the obstacles is made clear, and rational and sub stantial methods of surmounting them are provide It is hardly accurate to refer to the Mendelian theo as new; it is not a thing of yesterday, yet its resusc tation dates from a comparatively recent year. I importance is vouched for by the effect which it ha had on present biological thought, and by the fa reaching consequences which it involves. It is pr bably of no less moment than Darwin's theory natural selection; the immense application of both practically coterminous. Darwin's theory has r mained a theory for fifty years; its innate truth recognized by every one, yet in a judicial court even moderate strictness it would be dismissed unproven. It is somewhat surprising, then, that n a few disciples of Mendel, forgetful of the slow bu steady progress of science, should show such uncalle for haste in formulating rash speculations, an building unstable edifices on unreliable ground.

Mr. J. T. Cunningham has recently[1] called attentio to the danger of conducting such investigations as l within the province of Mendelism along lines t circumscribed and neglecting consideration of th "many facts which cannot be brought within th Mendelian formula—some because they are incon sistent with it, others because they are altogeth beyond its scope." According to the latest Mendelia theory of sex, male individuals in certain animals a homozygous in respect of sex; that is, they produc only male-bearing spermatozoa, while female ind viduals are heterozygous, producing ova which a either male or female. The impregnation of a ma ovum gives rise to male offspring; a female ovu produces a female. This hypothesis explains mar difficulties, but its confirmation by the effects castration in vertebrates is open to question. Th assumption is based on the appearance or no appearance of the secondary sexual characters; whi castrated females tend to develop those of the mal castrated males do not develop those of the femal The conclusion, accordingly, is that there is male element latent in the female. It is well-known fact, however, proved by repeate experiment, that secondary sexual characters a largely under the influence of an internal secretio from the genital glands. The connexion would appe to be thus almost specifically chemical, and "entirel beyond the scope of Mendelian conceptions an Mendelian experiments," for the secondary sexu characters are not represented by units, in th Mendelian sense, in the gametes, but are the resu of chemical action later in life. Further, a castrate female may be regarded as a neutral *soma*, an if this neutral *soma* regularly developed ma

[1] Sex and Sexual Characters, *Science Progress*, January, 1910.

econdary characters there would be no reason why , castrated male—also a neutral *soma*—should not io the same. Thus, it would be impossible to inderstand the absence of the secondary cha-acters in the castrated male. Now, it is not a act that extirpation of the ovaries regularly causes he appearance of male secondary characters. The vidence at present available on this subject is some-what scanty, but for the authenticated cases in which t has occurred, even without the removal of the ovaries, two possible explanations might be advanced: Either a mutation has taken place permitting the male characters to appear without the necessary testicular stimulus[4] and proofs might be adduced that such mutations do occur; or the individual is a hermaphrodite, which is the view of Shattock and Seligmann, the male element being at first in abeyance, but later acquiring a certain ascendancy. There are several reasons why the corresponding change should be less conspicuous in the male. Female characters in vertebrates are mostly negative—that is, no new characters are added to those present in the immature young. Again, the functional activity of the testes remains even to extreme old age, and thus the male character continues predominant, even although a female tendency were present. The mammary glands, however, are an example of the occasional development of female characters in the male; this, nevertheless, occurs independently of castration. With regard to the essential sexual elements, namely, ova and sperms, evidence tends to show that both, or at least their representatives, are present in each sex. In the lower vertebrates there is direct proof of this. The gonad of the hag-fish (*Myxine*) is hermaphrodite, and it has also been shown that ova occur frequently in the testes of the lamprey (*Petromyzon*), many Teleostean fishes, and several amphibia. In higher vertebrates no such direct evidence is available, but here again both ovary and testis contain peculiar interstitial cells, shown to be derived from the germinal epithelium, and thes may represent the reduced reproductive cells of the opposite sex. There is thus a suggestion that "perhaps all animals were originally hermaphrodite, and that the differentiation of sex was evolved by the reduction of one set of gametes to the rudimentary condition."

It is evident, then, that the present Mendelian theory of sex cannot be accepted in its entirety; forces independent of Mendelian law are to be reckoned with. Many of the Mendelian formulae are not merely theoretical, but metaphysical, and we find the discussion of the inheritance of the qualities of an organ in one gamete, and of the organ itself in another. This may be admissible in pure theorizing, but Mendelism makes pretensions beyond this which are not legitimate, and against which Mr. Cunningham has seen fit to utter this timely protest.

THE INVESTIGATION OF PELLAGRA.

IT was stated in the JOURNAL of February 5th that a committee had been formed for the furtherance of research into the etiology and mode of diffusion of pellagra, a terrible disease which, long known in certain parts of Europe, has now been recognized in many parts of the British Empire and its dependencies. In recent years it has been observed in the Southern States of the American Union, and it has already shown such a tendency to spread that it has attracted the serious attention not only of the medical profession but of the public authorities. A National Association for its study has been formed, and a congress on the subject is to be held at Peoria, Illinois, in June of the present year. The theory of its origin which has till lately held the field is that it is due to the use of unsound maize or Indian corn as food. This had become almost an article of faith, strenuously preached by most of those who had attempted original investigation of the subject, received with otiose acquiescence by the bulk of the profession, and acted upon by the Italian Government. But although there has been some change in the distribution of the disease in Italy, the measures enforced have failed to reduce the mass of the disease. A number of reasons set forth by Dr. L. Sambon at the Leicester meeting of the British Medical Association, and summarized in the article in the JOURNAL already referred to, have given rise to serious doubt as to the truth of the maize theory. Cause has been shown why the accepted doctrine as to the etiology of pellagra must be tested in the crucible of newer knowledge. Whether Dr. Sambon's hypothesis that pellagra is protozoal in origin be true or not, it has strong *a priori* evidence in its favour, and it is important that it should be put to the touch of scientific inquiry. Dr. Sambon's practical demonstration in the Campagna of the truth of the mosquito doctrine of the origin of malaria showed how capable he is of carrying out an investigation of this kind. His theory as to the origin of pellagra has received the support of many men whose opinion on tropical diseases carries the greatest weight, and the importance of the investigation has been formally recognized by the Pellagra Committee. But the appeal for funds has not met with anything like an adequate response in this country. We therefore think it may be well to point out again that it is no mere question of the endowment of abstract research. Pellagra still saps the manhood of certain parts of Northern Italy, where the population is most energetic, and thus, besides the amount of suffering which it causes to the individual, constitutes a serious loss to the State. For this reason it justly excites alarm in the United States, and its existence in some of our colonies and dependencies should arouse the active interest of statesmen in this country. But with few exceptions British politicians care for nothing that cannot be offered to the people as a bait to catch votes; and in the Micawberesque "crisis" to which our finances have been brought by the tactics of party warfare it is vain to look to the State for help in the solution of a problem which at present lies outside the sphere of practical politics. The Colonial Office has, indeed, offered a small contribution, but it is on condition that a much larger amount is got from other sources. So far the chances that this will be forthcoming seem to be remote. There are many men in this country who, apart altogether from humanitarian considerations, should be interested in pellagra as a matter of business. The spread of the disease in our colonies would have a serious effect on the labour market. The time when the investigation should begin is close at hand. The American Government, more enlightened than ours, has commissioned Dr. J. E. Siler, Captain in the Medical Corps of the United States army, to work in conjunction with Dr. Sambon. It will be a reproach to this country if a discovery pregnant with far-reaching possibilities is suffered to be lost, or to pass to another nation for the lack of a little money—the merest fraction of what is thrown away in the formation of a "free library," which encourages a taste for the reading of worthless novels. We hope that the small

sum needed will be provided in time. The Honorary Secretary and Treasurer of the Committee is Mr. James Cantlie, F.R.C.S., 140, Harley Street, W.

SERUMTHERAPY IN CHOLERA.

THOUGH bacteriologists have for a good many years now been seeking curative serums for every recognized bacterial disease, yet it must be admitted that, while undoubted triumphs have been achieved, on the other hand there have been many disappointments. These temporary failures have for the most part been due to the uncertainty which still exists as to the essential differences between endotoxins and true toxins and to the difficulty of applying with safety substances which act on the bacteria, and which, by killing a large number of bacteria at one time, might liberate a lethal dose of endotoxins. It is probable that more difficulty has been experienced in connexion with typhoid fever and cholera than with any other disease of an infective origin. Advances toward a solution of this problem have been made in this country by the work of the late Dr. Alan Macfadyen and Mr. Rowland among others, but there is ample room to day for improved methods and better results. The recent statement by Emmerich, that cholera symptoms are produced by nitric oxide liberated from the nitrites formed out of nitrates by the vibrios, does not appear to have met with general acceptance. The Russian Government some time ago appointed a commission, with Dr. L. Berthenson as chairman, to inquire into the relative values of the various curative serums. The report took the form of a lecture by the chairman, a summary of the evidence given by various experts, and a resolution. Berthenson based his lecture on the expressions of opinion of a number of Continental authorities, including Pfeiffer, Metchnikoff, Kraus, Berestneff, and Schurupow, as well as the published opinions of a number of authors, and dealt chiefly with the serums bearing the name of Denier, Salimbeni, Kraus, and Schurupow. The details of the report are published in the *St. Petersburger medicinische Wochenschrift* (No. 33, 1909). After weighing all the evidence, a resolution was adopted to the effect that "the clinical results obtained hitherto do not justify at present the assumption that Schurupow's serum possesses a definite curative value. In view, however, of the results gained at the Obuchow Hospital, where, apart from the reduced mortality, the clinical course would appear to have been favourably influenced in a very considerable number of cases (187), further observations in suitably equipped hospitals appear desirable, and for this purpose the preparation of a certain quantity of Schurupow's serum by the Institute for Experimental Medicine is necessary." In discussing the same subject, Professor Kolle[1] has arrived a very similar conclusion. He points out that a considerable number of investigators have attempted to obtain a true soluble toxin from the cholera vibrio, but expresses the opinion that Metchnikoff, Roux, Taurelli and Salimbeni were all alike mistaken when they thought that they were working with such a toxin. Carrière and Tomarkin, working on the foundation of Macfadyen's freezing experiments, were able to prove that a properly devised serum might possess antiendotoxic properties. Kolle analyses the figures given in Berthenson's report, and finally comes to the conclusion that cholera serums, and especially that prepared in Berne, possess very definite anti-endotoxic actions. The prognosis of cholera, even in the algid stage, need not be very bad when cholera serum is employed, but he does not go so far as to claim that these serums can really cure cholera. With regard to the Berne serum, he admits that the cases treated are too few to justify far-reaching deductions; these results, however, appear to him to be similar to those obtained in diphtheria by means of diphtheria antitoxin. On the other hand, he is of opinion that further experiment is required in order to devise improved methods for preparing a better form of serum. These conclusions appear a trifle contradictory, and we gather from them that up to the present cholera serums have done nothing more than lower the death-rate to a slight degree, and that it is necessary to look to further laboratory investigations for more potent remedies.

[1] *Deut. med. Woch*, November 25th, 1909.

THE BROWN DOG AND HIS FRIENDS

THERE seems to be some difficulty in disposing of the "Brown Dog," whose removal from the Latchmere Estate was recently decided by the Battersea Borough Council by forty-one votes to four. It was stated that Miss A. L. Woodward had intimated her willingness to endeavour to persuade the Antivivisection Council to agree to the removal of the "Dog" to the grounds of the Antivivisection Hospital. That lady, however, disowned the soft impeachment in a letter addressed to the *Times*, in which she delivered herself in the following oracular terms: "In any negotiations which have been initiated by the Battersea Borough Council through their solicitor the question of any removal to the hospital grounds has never been even suggested by them, much more acquiesced in by us, and I may remind you that the grounds of the hospital are not the property of the Borough Council, and they cannot therefore have made such an offer, nor could it for the same reason have been accepted by us." May we suggest that the most appropriate resting place for the rejected work of art is the Home for Lost Dogs at Battersea, where it could be "done to death," as the inscription says, with a hammer in the presence of Miss Woodward, the Rev. Lionel S. Lewis, and other friends; if their feelings were too much for them, doubtless an anaesthetic could be administered. This would, at any rate, be a more dignified end than "scrapping"—a process which, it was stated, would not bring in £2. In the meantime we do not know whether the "Dog" still, "like some tall bully, lifts his head and lies," or whether he has been confided to the fostering care of Miss Woodward. We were promised an exciting scene when the memorial was removed, a philanthropic alderman having announced that he would take down some living prototypes of the Brown Dog which would show their teeth if there was a chance. Perhaps the alderman did not have a chance of displaying this fine humanity so characteristic of the antivivisectionist. Another touching example of antivivisectionist charity was given by Miss Lind-af-Hageby, who, at a meeting held on February 21st to protest against the decision of the Battersea Borough Council, said in her amiable way that its action amounted to a protection of "these young ruffians the medical students." At a "demonstration" previously held at Kensington under the auspices of the Incorporated Parliamentary Association for the Abolition of Vivisection and the Kensington Animal Protection Society, that gentle Knight, Sir George Kekewich, said he was quite sure that if women had the vote there would be no vivisection. We express no opinion about votes for women; but if Miss Woodward, Miss Lind-af-Hageby, and the late Miss Frances Power Cobbe—who loved animals by nature and human beings only by grace—are to be taken as representatives of their sex, and if Sir George Kekewich is justified in his belief as to the way in which they would use their votes, the welfare of men would have to give way to the comfort of

nimals if the Suffragists prevail. It is a beautiful ision! But if it were realized, what would become f Sir George Kekewich's favourite recreation of torturing" salmon?

RISKS OF ANKYLOSTOMIASIS IN GREAT BRITAIN.

THE last fasciculus of the *Transactions of the Society of Tropical Medicine and Hygiene* contains a very nteresting paper by Sir Thomas Oliver on ankylosto-iiasis. He narrated some exceedingly suggestive xperiments on the power of the embryos of the nkylostome to withstand cold. A series of larvae vere exposed in a vessel placed on the ground to freezing temperature for forty-eight hours from 0.30 a.m. on December 26th to 10.15 a.m. on)ecember 28th during a hard frost, at the time ccompanied by a sprinkling of snow. A watch glass ontaining the larvae was placed so as to swim in a arger basin containing water; the water in the larger asin froze, but that in which the larvae had been laced did not. When the larvae were examined nicroscopically they at first gave no signs of life, but y degrees movement returned. A few hours after hey had regained their normal mobility the glass ontaining them was placed in the snow on the rozen ground on the evening of December 28th; at .0 a.m. on December 29th the water was found frozen, nd the frosted larvae embedded in the ice. The ice vas gently thawed by placing the glass in the labora-ory at a short distance from the electric lamp used or microscopic purposes, and the larvae gradually evived; that evening they were again put out on the rosty ground; the glass was buried in the snow for ix days, but even after this the larvae, though t first immobile, were gradually brought to life nce more. Ova, also, which had been frozen nd gradually thawed, developed later on under uitable temperatures, but their chitinous cap-ule seemed to be extremely brittle. "Are the limatic conditions in England," Sir Thomas asks, 'considered from the point of view of the results which Belger and I have obtained in our experiments with low temperatures, so hostile to the ankylostome as to prevent the transformation of ova into larvae?" He thinks not, and that as larvae could live in low temperatures for the length of time indicated they might quite possibly become a source of infection. Recently 40 cases of ankylostomiasis were reported from the brickfields in Holland in persons who had never worked in mines, and this fact, taken along with the results of these experiments, would seem to prove that the warning Sir Thomas Oliver has sounded is not altogether uncalled for, and that there is a real danger of infection of mines or brickfields in Great Britain should cases of ankylostomiasis be introduced.

SMALL-POX AND VACCINATION IN GERMANY.

IT seems strange that at this time of day it should be necessary for the satisfaction of public opinion to bring forward repeated proof of the efficacy of vaccination, since the facts on which the doctrine is based have never been disproved. But as its opponents still "ingeminate" the fallacies which have been a hundred times exposed, we think it may be useful to give a summary of a reply recently made by Professor W. Lewin of Berlin[1] to a certain gentleman who had expressed his conviction that circumstances rendered it advisable to resift the whole evidence. After stating that he is the only medical man still living who was actively engaged in the great small-pox epidemic which broke out in Berlin after the Franco-Prussian War, Dr. Lewin proceeds: "At that time a barrack for small-pox patients was erected on the Tempelhofer Felde, under the supervision of the late Geheimrat Dr. Guttstadt, and I was appointed assistant. Later a second assistant medical officer was appointed in the person of my recently deceased colleague, Daus. The patients were distributed among thirteen wards, and I had the opportunity of observing and treating 1,300 small-pox patients during about four months—from October 9th, 1871, to January 21st, 1872. It was fairly hard work, since on some days from 20 to to 30 new cases were admitted. Quite apart from the severity of the disease, I shall never forget how many a buxom girl was discharged, after recovering from the illness, so terribly disfigured by the scars that she was scarcely recognizable." Professor Lewin states that all the patients, without exception, affected with "black-pox"—that is, haemorrhagic variola—died. The children who were unvaccinated when admitted also died, while those who had been vaccinated suffered but slightly. The most striking thing, however, was that while the adult mortality from the disease was 20 per cent. it was only 2 per cent. among the soldiers, who are, as is well known, vaccinated on joining the army. "Even if our observations," he continues, "were not the only reasons, they were certainly the most important which determined the introduction of statutory compulsion in the matter of vaccination in 1874. In the meantime bacteriology has gained a commanding position without, it is true, having discovered the causal organism of small-pox. But vaccination has obtained its scientific justification on the basis of the doctrine of immunity, so that the discontinuance of vaccination, which has shown definitely practical results, is inconceivable. More than one generation has passed since then, and the majority of medical men in Germany have probably never had an opportunity of seeing a case of small-pox. From time to time I come across persons who suffered during the last small-pox epidemic of the Seventies, and recognize them in my consulting room by the scars in their faces. The disease has become so rare that the moment a small-pox case is reported in Germany general excitement results; and in these instances the disease invariably has been imported from foreign countries, Austria or Russia, where vaccination is not compulsory. Though the Epidemic Diseases Act of 1900 includes small-pox, it should not be assumed that this implies the recognition of the inadequacy of vaccination. Those who make such statements show that they do not approach this question with an unprejudiced mind. I regard the inclusion of small-pox in the Act as fully justified and a wise precaution on the part of the State. Germany cannot isolate herself hermetically from neighbouring countries, and in the free intercourse which exists between all nations there is a danger of the introduction of such cases. For this reason caution is necessary." After observing that every investigator has the right to subject questions which appear to have been decided to fresh examination, he adds: "But I fail to understand on what ground it can be said that small-pox vaccination could not bear such a critical survey. The fact that since the introduction of compulsory vaccination—that is to say, for a whole generation—small-pox has been a disease unknown in Germany cannot be explained away. I will not deny that some damage may have been produced while vaccination was performed from arm to arm. I have learnt from the literature on the subject that some healthy children have been infected from others through vaccination, and that a generalized vaccinia has occurred in them which may have even run a fatal course. Such occurrences are much to be regretted, but this extremely rare accident can

[1] *Berl. klin. Woch.*, February 14th, 1910.

never be regarded as a proof of the injuriousness of vaccination. In such cases the necessary and easily exercisable precautions were evidently not taken, for infection can be prevented with certainty by such means. I vaccinated many thousand children during the years when I was Public Vaccinator in Friedrichsberg without having met with a single accident of the kind. The chief danger—the transmission of syphilis—however, has been absolutely excluded by the introduction of vaccination with animal lymph." Professor Lewin concludes by saying that the introduction of compulsory vaccination has been an immeasurable blessing to the Fatherland, and that the procedure may await future scientific investigation and criticism with unperturbed composure.

THE TROPICAL DISEASE RESEARCH FUND.

THE report of the Advisory Committee for the Tropical Diseases Research Fund for the year 1909 has been issued [Cd. 4999. 2s. 8d.]. This committee, which was constituted by the Secretary of State for the Colonies in July, 1904, has at its disposal in the form of contributions from the Imperial Government, the Government of India, the Rhodes Trustees, and many Colonial Governments, an annual income of £3,470, and grants are made to the schools of tropical medicine in London and Liverpool, to the University of London (to provide the salary of the Professor of Protozoology), and to the University of Cambridge, partly in respect of a research studentship in medical entomology, and partly as a grant towards the general expenses of the Quick Laboratory in recognition of the assistance rendered to workers from the Colonies by Professor Nuttall. The report contains a series of replies from Colonial governments to the inquiry addressed to them by the Secretary of State in March, 1909, as to measures taken for the prevention of malarial fever. It contains also the report from the Professor of Protozoology, reports from the London and from the Liverpool Schools of Tropical Medicine, and reports on work done in certain Colonial laboratories. To some of these matters we hope to refer in a subsequent issue.

MEDICINE AND MUSIC.

MUSIC and medicine are sisters through their common patron, Apollo; it is natural, therefore, that they should often be found together. There is, we believe, an orchestra composed entirely of doctors in Vienna; lately a similar one has been formed in Paris. The number of members is seventy, and it comprises performers on all the instruments required for a full orchestra, including the cymbals and the big drum. In the list of the Committee of Management we note several well-known names. M. Richelot, Member of the Academy of Medicine, is the President; Drs. R. Blondel and Lebreton, Vice-Presidents; Drs. Destouches and Duchesne, General Secretary and Assistant General Secretary; Dr. Kortz, Treasurer; Dr. Vaucaire, librarian and archivist; and Drs. Daniel and Renard, delegates. The conductor is M. H. Busser, conductor at the Opera, who, though not himself a rose, has lived in close touch with it, being closely related to Professors Demons and Denuce, and several other members of the Faculty. We have many first-rate musicians among the members of the profession here, though we doubt whether we could muster so complete an orchestra as that of Paris. Of performers on the trumpet and the big drum, however, there might be no lack. We have also many sweet singers, though we do not think we have a party of "singing doctors" such as there was at Edinburgh in the first half of the last century. In the *Life of Sir Robert Christison*, edited by his sons (Blackwood, Edinburgh and London. MDCCCLXXXVI), we find it recorded that as a singer, both as a soloist and in part songs, he took a high place among the amateur musicians of Edinburgh. "He was," it is said, "gifted with a bass voice of unusual power and good quality; and, although he never had time to take lessons, constant practice in quartette singing and in small musical societies brought his voice to some degree of cultivation. He had only the most cursory knowledge of the science of music, and used to quote, as a signal proof of the low condition of music in Edinburgh thirty years ago, that people regarded him as an authority on music simply because he was rather prominent as a singer in society. Nevertheless, music in Edinburgh owed a good deal to him, as he was one of the first amateurs to disregard and oppose the absurd remnant of Puritanism which caused the cultivation of secular music by societies or clubs to be considered as a somewhat dangerous accomplishment, allied to dissipation. When a number of young men, with some hesitation, met together about thirty-five years ago to form one of the first choral societies in Edinburgh, Sir Robert encouraged them by his presence, and congratulated them on the changed state of opinion which enabled them thus to come forward, contrasting it with the stricter notions prevalent in his own youth, when no attempt of the kind could have been ventured on." Dr. Peddie contributes an interesting note on the "singing doctors." He says: "Dr. Christison, Dr. Bennett, Dr. Maclagan, and myself were among the first gentlemen amateur vocalists who ventured to perform publicly in Edinburgh. We had sung much together, and were known as the singing doctors at parties, and at dinners of the Harveian Society and of the Colleges of Physicians and Surgeons; but it was not till December 20th, 1851, that we performed in public, at a concert in the original St. Cecilia's Hall, under the patronage of Lord and Lady Murray, for the benefit of the widow of Mr. Mainzer, when about £70 were realized for her. Dr. Christison, Dr. Maclagan, myself, and Mr. John Christison appeared as glee and quartette singers in the Music Hall for the first time on March 27th, 1863, at a concert for the benefit of the Edinburgh Artisan Rifle Companies. This public appearance of professional men as amateur singers made some sensation at the time. We performed subsequently at several of the annual concerts of the University Society. Dr. Christison was one of the most active and enthusiastic members of the Amateur Vocal Club from its formation at Dr. Bennett's house on April 19th, 1852, till the final meeting in 1876." It is added that Sir Robert Christison's voice retained much of its power and quality till he was past 70, and he did not give up taking an occasional share in part-singing for several years afterwards. The last occasion on which he joined in anything of the kind was on the eighty-third anniversary of his birth, when he took the bass part in Bishop's "Mynheer Van Dunck."

REORGANIZATION OF THE EDUCATION DEPARTMENT IN GERMANY.

WE learn from the *Berliner klinische Wochenschrift* that it is proposed to transfer the Education Department of the Prussian Ministry to some other Ministry, possibly to the Home Office. At present the department consists of three offices—for education or instruction, for public worship, and for medical matters respectively. Some years ago it was suggested that the public worship section should be handed over to the Ministry of Justice, but this was opposed on

ground that education and church questions were intimately associated that it would be inexpedient separate the sections. Veterinary medicine has eady been divorced from education, and, together th the veterinary State schools, has been taken by the Minister of Agriculture. It appears likely, however, that the Medical Faculty—that the teaching centres of the universities and ademies—would be handed over to the Home fice, since the faculty deals exclusively with edu- tional matters. The change would therefore ect only medico-sociological questions. The pro- ssion in Berlin is in favour of this change, ovided some guarantee is forthcoming that the wly constituted department shall be either under e direction of medical men, or, if it is found neces- ry to have a legal director, that a medical co-director all be appointed. In Saxony and in Bavaria such arrangement has proved entirely successful. The ficial bodies known as the "Medical Department" id the "Scientific Deputation for Medical Affairs in ussia" would be affected by this change, and since ie latter represents the High Court of Medicine in ermany it is considered essential that it should be aced under medical control. Failing such a con- ssion, the profession in Berlin will strenuously pose the proposed change.

TRUE DISINTERESTEDNESS.

E hear much in these days of the *furor secandi* of urgeons, of the carelessness of physicians, and of the xcessive value placed by both on their services. We re glad, therefore, to be able to record a unique act f disinterestedness which should close the mouths of ur detractors. One of the foremost of French sur- eons is reported, on completing a brilliant operation, o have left his fee—within the patient's abdomen. His modesty would doubtless prevent his publishing he fact, which we give on the authority of the *Tribune Médicale*. We only regret that this sublime ct of charity should have to be credited to a French- nan. How unlike he was to the English physician of less altruistic day, of whom it is told that he was alled to a patient who, before his arrival, had just assed away to a better world without the help of nedicine! Taking the dead man's wrist mechanically, ie found the hand clenched; on opening it he found a guinea. "This," said the doctor, pocketing the coin, was evidently meant for me!" The only reason which historical criticism might advance for question- ng the truth of this story is the almost incredible act that a patient should have been prepared with the fee beforehand.

THE PHASES OF IMMUNITY.

PROFESSOR CHARLES RICHET, in discussing recently the phenomena of immunity,[1] compared the humoral with the cellular or phagocytic theory, and maintained that neither theory is exclusive of the other, but that each contains a partial expression of the truth. Immunity against toxins depends essentially on the difference in the vulnerability of different organisms to the action of different toxins, and particular impor- tance attaches to the nerve cells, which in complex organisms are always the most vulnerable constituents. He distinguishes a primary immunity, which is a relative insusceptibility to toxins, from a secondary immunity, which is due to a destruction of the toxins introduced, either by the liquid constituents of the body or by the phagocytes. He also proposes to dis- tinguish three successive phases in immunity: (1) Im- munity accounted for by impermeability to microbes. This is found in parts which oppose insurmountable barriers against the invasion of the tissues by microbes. Thus the cutaneous epithelium and the coverings of the digestive and pulmonary tracts offer an almost complete resistance against the penetration of microbes into the blood and the tissues. (2) Immu- nity due to inability of the microbes to develop in the juices of the body; (*a*) because these juices possess bactericidal or inhibitory properties; (*b*) because they are unsuitable for the nutrition of the microbes, either owing to their lack of some necessary nutritive sub- stance, or because the phagocytes destroy the microbes which have made their way in. (3) Immunity due to resistance of the cells against bacterial toxins, accom- panied by the elaboration of inhibitory substances or the destruction of the requisite pabulum, the result being that at the end of a certain time the noxious micro-organism disappears of its own accord, without impairing the vital functions of its host. Natural immunity probably depends on these three conditions; but the importance of the nervous system must always be borne in mind, for it is this which controls the nutrition and chemical composition of the tissues.

[1] *La Clinique*, December 10th, 1909.

THE REPORT OF THE VIVISECTION COMMISSION.

WE see it stated that, after the lapse of a considerable time owing to the death of Lord Selby and the general election, the members of the Royal Commission on Vivisection held a meeting on February 26th. Some progress, it is said, was made in the consideration of the draft report of the Chairman. We were under the impression that the report was ready long ago. Surely it is high time it was issued? Scientific men await its coming with equanimity, but in the mean- time the delay in its issue is giving the opponents of research the opportunity of cleaving the general ear with horrid speech full of lies and misrepresentations. They abuse the Commission as a packed body, and threaten, as Sir George Kekewich lately did, to fight any bill founded on the report through the Parlia- mentary Association for the Abolition of Vivisection. This, we suppose, is intended to frighten a Govern- ment which has already more contentious matter on its hands than it can deal with. But if the anti- vivisectionists are to attempt to fight a bill they would be more likely to be victorious if they first settled their quarrels among themselves.

PAPILLOEDEMA AND LOCAL DIAGNOSIS.

WE publish this week the full text of a paper read by Sir Victor Horsley before the Section of Ophthal- mology at the last Annual Meeting of the Association, on the treatment, localizing value, and pathology of that condition of the fundus of the eye to which various names have been applied, but for which he prefers the term "papilloedema." The scientific and clinical importance of this paper will be universally recognized. The subject is one to which the author has given special attention, and to the elucidation of which he has made many contributions during the last five-and-twenty years. Among the points to which he now particularly directs attention, the first is one of outstanding clinical importance, inasmuch as after discussing the arguments of those who have taken a different view, he advances additional evidence in support of his contention that the papilloedema begins on the side of the tension lesion, and is, as a rule, more severe on that than on the opposite side. He is able to bring forward new evidence in support of this opinion, which appears fully to justify his con- tention that when a case of apparent contralaterality

of tumour and papilloedema occurs the pressure conditions must be reconsidered, inasmuch as when all the clinical observations are collated the papilloedema is the safest guide for the operator to follow. Next in importance to a correct localizing diagnosis is early diagnosis, and Sir Victor Horsley in this paper brings forward further evidence supporting the view he expressed three years ago, that the papilloedema always begins at the upper nasal quadrant of the papilla, and therefore that in suspicious cases this region of the disc must be carefully and constantly watched. In the concluding parts of his paper he deals with two interesting pathological questions: the first is the late Mr. Marcus Gunn's interpretation of the production of macular figures, and Sir Victor Horsley confirms that excellent observer's conclusions and shows that the macular figure is caused by tension lines centred at the fovea, the greatest stress being just beneath the intima. The second concerns the phagocytes of the retina, which he shows to be of several different kinds. The points we have here very briefly indicated could be demonstrated only by the study of a long series of pathological specimens, and photographs of the naked-eye and microscopical appearances described are reproduced in a special supplement to the JOURNAL this week. We are compelled in consequence to postpone the publication of the ordinary SUPPLEMENT to the JOURNAL until next week, when a double number will be issued. The notices of Association meetings, and the Calendar of the Association will be found at pages 611 and 612 of this issue.

AT a meeting of the Paris Academy of Medicine held on March 1st Sir Victor Horsley was elected a foreign associate.

THE French Congress of Gynaecology, Obstetrics, and Pediatrics will hold its sixth annual meeting at Toulouse this year from September 22nd to 27th, under the presidency of Professor Kermisson. Among the subjects proposed for discussion are acute curable forms of tuberculosis in children, eczema of nurslings, vertebral osteomyelitis, pyloric stenosis in sucklings, relations between biliary lithiasis and pregnancy and delivery, pathogeny and treatment of severe vomiting of pregnancy.

AMONG the fifteen men of science recommended by the Council of the Royal Society for election into the fellowship are: Dr. F. A. Dixey, of Oxford, President of the Entomological Society; Dr. A. E. Garrod, Physician and Lecturer on Chemical Pathology, St. Bartholomew's Hospital; Lieutenant-Colonel Sir William Leishman, R.A.M.C., Professor of Pathology in the Royal Army Medical College; Mr. H. G. Plimmer, well known for his researches on blood parasites; and Mr. F. Soddy, Lecturer in Physical Chemistry and Radio-activity in the University of Glasgow.

THE scientific societies and universities of Australia are taking steps to arrange that the British Association for the Advancement of Science shall visit Australia in 1913 or 1914. A large and influential deputation, at the head of which was Sir John Madden, Chancellor of Melbourne University, waited on the Federal Prime Minister recently with a request for a Federal guarantee up to the sum of £10,000. The Prime Minister said he would bring the matter before his colleagues with the strongest personal recommendation.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

Notification of Births and Infant Mortality.—Mr. Vivian asked the President of the Local Government Board how many local authorities had adopted the Notification of Births Act, the names of such local authorities and what diminution in the infant death-rate under one year had taken place. Mr. Burns replied that the Act was now in force in 195 areas of local government namely:—(1) The whole of the Administrative County of London, comprising the City of London and the 28 metropolitan boroughs; (2) 46 county boroughs (3) 46 non-county boroughs; (4) 57 urban districts (5) 17 rural districts. (In the case of 4 non-county boroughs, 7 urban districts, and 16 rural districts, the Act was in force by virtue of its adoption by the Worcestershire County Council.) The names of the areas were as follows:

(1) London.

(2) *County Boroughs.*—Bath, Birmingham, Blackburn, Blackpool, Bolton, Bootle, Bradford, Brighton, Burnley, Bury, Cardiff, Croydon, Derby, Dudley, Exeter, Grimsby, Halifax, Ipswich, Kingston-on-Hull, Lincoln, Liverpool, Middlesbrough, Merthyr Tydvil, Newcastle-upon-Tyne, Newport (Mon.), Northampton, Norwich, Nottingham, Oldham, Preston, Reading, Rochdale, Rotherham, St. Helens, Sheffield, Smethwick, Southampton, Southport, Stockport, Swansea, Walsall, West Bromwich, West Ham, Wolverhampton, Worcester, York.

(3) *Non-county Boroughs.*—Ashton-under-Lyne, Aston Manor, Batley, *Bewdley, Burslem, Cambridge, Chipping Wycombe, Chesterfield, Clitheroe, Colne, Darwen, Dewsbury, *Droitwich, Eastbourne, East Retford, Eccles, *Evesham, Folkestone, Hove, Ilkeston, Keighley, Kendal, *Kidderminster, Kingston-upon-Thames, Lancaster, Leamington, Longton, Luton, Macclesfield, Mansfield, Margate, Middleton, Rochester, Shrewsbury, Stalybridge, Stockton, Taunton, Thornaby-on-Tees, Wakefield, Wallsend, Weymouth, Winchester, Wimbledon, Workington, Worthing, Wrexham.

(4) *Urban Districts.*—Acton, Ashton-in-Makerfield, Atherton, Barking Town, Barry, Beckenham, Biddulph, Bilston, Brierfield, *Bromsgrove, Brandon and Byshottles, Brumby and Frodingham, Carshalton, Chiswick, Crompton, Edmonton, Failsworth, Farnworth, Finchley, Friern Barnet, Grays Thurrock, Handsworth (Staffs), Horsforth, Hucknall Torkard, Ilford, Kettering, King's Norton and Northfield, Knutsford, Leek, *Lye and Wollescote, Long Eaton, *Malvern, Middlewich, Nantwich, *North Bromsgrove, *Oldbury, Penge, Penrith, *Redditch, Rhondda, Shildon and East Thickley, Shipley, Southwick-on-Wear, Stanley (Durham), Stone, Stourbridge, *Stourport, Stretford, Swinton and Pendlebury, Teignmouth, Tottenham, Tyldesley-with-Shakerley, Wellingborough, Willesden, Whickham, Woodford, Wood Green.

(5) *Rural Districts.*—*Bromsgrove, *Droitwich, *Evesham, *Feckenham, *Halesowen, *Kidderminster, *Martley, *Pershore, *Rock, *Shipston-on-Stour, *Stow-on-the-Wold, *Tenbury, *Tewkesbury, *Upton-upon-Severn, *Winchcomb, Winchester, *Yardley.

The death-rates of infants during the first year of life published by the Registrar-General for England and Wales showed that the figures for the years 1907, 1908, and 1909 were lower than in any previous year recorded, being 118, 120, and 109 respectively per 1,000 births. The lowest corresponding figures in any previous year was 128 in 1905.

Poor Law Reform, Ireland.—Captain Craig asked the Chief Secretary for Ireland whether he could state the intention of the Government in regard to the reform of the Poor Law in Ireland. Mr. Birrell answered that the question of the reform of the Irish Poor Law was under consideration in connexion with similar reforms for the rest of the United Kingdom. A bill on the lines of the recommendation of the Royal Commission and of the Viceregal Commission was in course of preparation, but in present circumstances he could not say anything as to its introduction. In answer to a further question as to whether Ireland could not be dealt with separately, Mr. Birrell replied in the negative, as he was afraid that if treated separately the question could not be considered otherwise than highly controversial in many of its particulars.

The Sanitary Condition of Osborne College.—Lord C. Beresford asked the First Lord of the Admiralty last Monday what was the nature of the illness amongst the naval cadets at Osborne College; how many were

* By virtue of the adoption of the Act by the Worcestershire County Council.

ffected; were any cases fatal; had any trace of the rigin of the illness been discovered; and would he tate whether the buildings were hastily erected gainst the advice of the civil engineering and ıedical authorities of the Admiralty, who recom- ıended a larger expenditure of money in order to rect more suitable structures. Mr. McKenna said hat the nature of the illness was epidemic influenza; 44 were affected. The disease was epidemic through- ut the country, and had been introduced into the ollege in the usual way. One case proved fatal rom pneumonia and peritonitis. There was no oundation for any of the suggestions contained in the ast part of the noble lord's question. In any event, he Board of Admiralty in 1903 took full responsibility or the course pursued, and it would be irregular to efer to the advice of individual officials in the Admiralty. In reply to further questions as to whether the buildings had not been erected ıpon the original foundations of the Royal stables ınd that some of the boys had suffered from ın equine disease known as "pink eye," Mr. McKenna said that the question should be asked of those responsible in 1903 for the establishment of the college. He accepted full responsibility for the present state, and said that although the word 'temporary" was used as regards the quarters for the cadets, it was intended that the buildings should be used for a longer period than a few years, and that was the reason why more permanent buildings had not been erected.

Chinese Pork.—There was quite a little debate on Chinese pork on Tuesday, which Mr. Fell started by asking the President of the Local Government Board if the whole of the cargo of Chinese pork landed at the London docks in July last had now been inspected; and, if so, how many carcasses were condemned by the inspectors. Mr. Burns said that he understood that the whole of the cargo in question had been inspected, and that the total number of carcasses landed and inspected was 4,643. Of these, 391, or 8.4 per cent., were condemned by the inspectors, and the remaining 4,252 were passed as fit for consumption. Asked as to further shipments, Mr. Burns replied that he had received a copy of a report made to the Port of London Sanitary Authority by their Medical Officer of Health stating that two cargoes of pigs from China had arrived in the port in January last. On preliminary inspection, it was found that the pork did not comply with the requirements of the Public Health (Foreign Meat) Regulations. A notice was therefore served under the Regulations by the Medical Officer of Health, forbidding removal of the meat for any purpose other than exportation. He had no definite information as to what had become of the condemned cargoes. The 4,252 carcases which were passed as fit for consumption were severely tested and passed as clean and pure food. The 8.4 per cent. were rejected because of signs of some disease which, in the opinion of the Medical Officer of Health, did not warrant its being to put into circulation for human food. With regard to the landing of pork at Liverpool, Mr. Burns said that he had not received any formal notice of the arrival of Chinese pork in the port of Liverpool. In the event of such an occurrence, the matter would be dealt with at the port of Liverpool by the Customs officers and Medical Officer of Health, whose action in regard to such a consignment would be governed by the requirements of the Foreign Meat Regulations. These regulations applied to all ports in England and Wales. The condemned pigs were not "scavenger" pigs; they were carcasses of pigs which had been bred in the Yang-tsze Valley, and fed for the most part on rice. The usual diseases from which pigs suffered were trichina and tuberculosis.

Cairo Water Supply.—Sir William Bull asked the Secretary of State for Foreign Affairs last week whether he had received information that, in consequence of the numerous complaints against the existing water supply of the town of Cairo, it was proposed to instal a new system whereby the water would be drawn direct from the river Nile, and not from the tubular system hitherto in force; and whether, for reasons of economy, it was now proposed to instal this new system at Rod el Farag, down-stream of the town of Cairo. Sir Edward Grey replied that he had no recent information on the subject, but would make inquiry.

Milk Legislation.—In reply to Captain Faber, who asked whether any further powers were likely to be given to any local authority by legislation, Mr. Burns stated last week that he was not prepared to make any general statement at the present time.

Vivisection (Report of Royal Commission).—Sir James Yoxall asked the Secretary of State for the Home Department if he could say on what date the report of the Royal Commission on Vivisection would be made public. Mr. Churchill replied that he was informed by the Secretary to the Commission that it was impossible, owing to the change of chairman and to the fresh points which had arisen, to state definitely at what date the report was likely to be presented.

Vivisection.—On Monday Sir F. Banbury presented and read a first time his bill to prohibit experiments on dogs.

Private Members' Bills will be relatively few this session, and, although over 300 members tried their fortune in the ballot-box last week, only six of the eight lucky members introduced bills. Sir Robert Price used the premier position to give notice of a bill for the Prevention of Destitution, which will deal with the whole question of the organization of public assistance; he selected April 8th for the second reading, so that a great Poor Law debate may be anticipated for that day. Mr. Kerr-Smiley, who used his opportunity to introduce a bill dealing with Irish Poor Law, selected April 22nd for the debate on his measure. Mr. Charles Roberts introduced a Temperance Bill for Scotland, which will be discussed on April 15th; while Mr. Sherwell will try to get a second reading for a Parliamentary Elections Bill on April 1st. Of the total of seventeen bills introduced, only two others have any medical interest—namely, Sir Charles Dilke's Shops Bill and Mr. Charles Roberts's Public Health Act (1875) Amendment Bill, down for April 29th, which seeks to empower local authorities to acquire water rights otherwise than by agreement.

Nurses' Registration.—Mr. Munro Ferguson introduced on Tuesday a bill to regulate the qualification of trained nurses and to provide for their registration. The second reading was fixed for March 14th.

The Course of Business.—The House of Commons passed through an acute crisis on Monday, and then, after the Prime Minister's statement had been discussed for some four hours, proceeded to consider Treasury borrowings and Supplementary Estimates in a prosaic fashion. These subjects, with the bills necessary to meet the redemption of the War Loan and the temporary borrowing, will occupy the rest of the week. The Army Estimates will be reached on Monday next, and the necessary votes, it is hoped, will be passed early in the week, so as to enable the Civil Service Vote on account and Army Supplementary Estimates to be obtained. On March 14th the Speaker will be moved out of the Chair to enable Navy Estimates to be taken, and it is intended to get Votes A and I by Thursday, while the votes on account and other financial business will be taken on the following day. The House is to rise on March 24th, and the three preceding days will be occupied in concluding the necessary financial business. When the House meets again on March 29th, the relations of the two Houses of Parliament will be considered, and resolutions submitted for excluding the Upper House altogether from the domain of finance, and limiting the veto as regards general legislation. For the present the Budget is postponed.

THE BEIT MEMORIAL FELLOWSHIPS.

THE first appointments to the Beit Memorial Fellowships for Medical Research were made at a meeting of the trustees on February 23rd. The fund had its origin in a gift by Mr. Alfred Beit of £50,000 for the purpose of founding an Institute of Medical Sciences in the University of London. This proposal was not carried out owing to circumstances already sufficiently explained, and last December it was announced that Mr. Otto Beit, brother of the donor, had increased the amount to £215,000, yielding by investment an annual income of £7,500. The fund is to be devoted to the furtherance of medical research which, with few exceptions, must be conducted in institutions connected with the London University. Ten fellowships are to be awarded each year, each of the value of £250 a year, available for three years.

The trustees received 70 applications—58 from England, 3 from Scotland, 1 from Ireland, 1 from Wales, and 7 from abroad. The following candidates, whose names are arranged in alphabetical order, were elected to Fellowships, the appointment to date from March 1st, 1910:

GEORGE HAROLD DREW, B.A.Cantab., author of papers and researches on parasitic and other diseases of fish, on the development of laminaria, and on marine bacteriology. The nature of the research authorized is the zoological distribution of cancer and a systematic study of an experimental character on the mode of origin of neoplasms (tumours). The research is to be carried out at the Imperial Cancer Research Laboratories; the Zoological Station, Naples; the Marine Biological Station, Plymouth; and the Zoological Station, Roscoff, France.

FREDERICK WILLIAM EDRIDGE-GREEN, M.D., B.S.Durham, F.R.C.S., who has made numerous contributions and researches chiefly to the subject of vision and colour vision. The nature of the research authorized is an investigation of various problems connected with vision and colour vision, especially in relation to the correct reading of signals on land and sea. The research to be carried out in the Institute of Physiology, University College.

EDWARD HINDLE, B.Sc.Lond. (Instructor in Parasitology, University of California), author of papers on the morphology and life-history of protozoic blood parasites and their relation to disease. The research authorized is into the morphology and treatment of protozoic blood parasites, especially *Spirochaeta duttoni* and trypanosomiasis (sleeping sickness). The research is to be carried out at the London School of Tropical Medicine, and Uganda.

THOMAS LEWIS, M.D., B.S.Lond., D.Sc.Wales, author of papers and researches relating chiefly to a new method of investigating the heart. The nature of the research authorized is an inquiry into the mechanism of irregularities of the heart, and the research is to be conducted at University College Hospital Medical School.

G. C. MCKAY MATHISON, M.D.Melbourne (Assistant in Physiology, University College, London), author of papers on the estimation of phosphorus and the output of organic phosphorus in urine, and of researches into the nervous control of respiration. The researches authorized are (*a*) the nervous control of respiration, (*b*) the effect on respiration of changes in the chemical composition of the blood, and (*c*) the mechanism of biliary secretion and its general effect in digestive processes. The researches are to be conducted in the Institute of Physiology, University College, London.

OTTO MAY, M.D.Cantab. (Medical Registrar, Middlesex Hospital), author of papers on physiological and clinical subjects. He is authorized to conduct clinical and experimental researches on lesions of peripheral nerves at University College Hospital Medical School.

E. MELLANBY, M.A., M.B., B.S.Cantab. (Demonstrator of Physiology, St. Thomas's Hospital, London), author of various papers dealing with the subject of the authorized research into the significance of the large excretion of creatin in cancer of the liver and its diminished excretion in cirrhosis of the liver, etc. The research is to be conducted at St. Thomas's Hospital.

F. PARLETT FISHER RANSOM, M.D.Edin., author of papers and researches on tetanus and tetanus antitoxin, immunity, diphtherial paralysis, and antitoxin. The research authorized is into the mode of action of caffeine, theobromine, and allied substances on the muscular and nervous systems. It is to be conducted in the Pharmacological Laboratory, Cambridge, and King's College, London.

SIDNEY RUSS, D.Sc.Lond. (Demonstrator of Physics, Victoria University, Manchester), author of papers and researches on radium, thorium, and actinium. The research authorized is into the association of radio-activity with cancer, and it is to be conducted at the Cancer Research Laboratory, Middlesex Hospital.

IDA SMEDLEY, D.Sc.Lond. (Assistant Lecturer in Chemistry, Victoria University, Manchester), author of papers and researches dealing chiefly with organic chemistry. The research authorized is into the processes involved in the formation of fat in the organism: it is to be conducted at the Lister Institute of Preventive Medicine.

MOTOR CARS FOR MEDICAL MEN.

INSURANCE DURING REPAIRS OR OVERHAULING.

A MEDICAL man who, in response to an inquiry, was recently furnished with the prospectus of the "Red Cross" motor insurance policy subsequently wrote to inquire with regard to insurance of his own car and a hired car during the time that the former was being repaired or overhauled. From a perusal of the prospectus and draft policy he had formed the opinion that he would not be covered against accidents to third parties or car arising during the use of a hired car while his own car was for, say, a month under overhaul. This impression is, strictly speaking, correct, but the "Red Cross" Indemnity Association provide for such a contingency under their policies as follows: Should an owner find it necessary to send his car to a garage to be overhauled he can transfer the policy to the car he hires, provided he gives the "Red Cross" Indemnity Association previous notice of the change. If the hired car is not of greater value or horse-power than the owner's there will be no extra charge, and the owner's legal liability in respect of his driver would still be covered. The policy, however, will not cover the two cars at the same time, and the owner must either make the garage responsible for any loss or damage which may happen to his car while being overhauled, or cover it separately for a short period. If the garage repairers refuse to accept liability—although they are liable unless there is a mutual agreement to the contrary—they will usually arrange an insurance or accept the risk at a small extra charge. In the event of an accident to the owner's car involving serious repairs, when the owner hires another car for a short time, this other car would have to be insured, and provision for the expenses thus incurred is made in the "Red Cross" doctor's policy; as a rule, however, under the hire agreement the person hiring insures and also provides the driver, so that the hirer would not be responsible for any accident.

Particulars can be obtained on application to the Secretary and Agent of the Medical Insurance Committee, 429, Strand, London, W.C.

COUNTRY DOCTORS AND MOTOR CARS.

DR. ALLAN WILSON (Ardrishaig, Argyllshire) writes: That a motor car is a great comfort and convenience to a medical man in a country practice is not denied, but, unless he is in a position to keep a chauffeur, it can scarcely be considered a boon or a blessing to his patients, because, when he is going from house to house on his daily rounds, his thoughts and attention, that should be occupied with the contemplation of the nature and treatment of the diseases which come under his notice are, by necessity, directed to the steering of his car. At one period of my career—now a long one—I conducted a large country practice in a populous part of the north of England, extending into fourteen parishes, and I attribute my success in a great measure to the careful thought and study I was able to devote to my cases while sitting beside the coachman in a dog cart. Doubtless there are hundreds of others who have done, and are now doing, the same, to the benefit of their patients and their own repute; whereas the practitioner who uses a motor car without a chauffeur is obliged to direct his whole attention to steering to avoid accidents, illustrating the adage—don't speak to the man at the wheel.

REPAYMENT OF PETROL TAX.

F. B. inquires what course he is to follow in the following circumstances: He understands that his application for repayment must be accompanied by "Customs certificates" of payment of duty on the actual petrol. He has obtained his spirit in quantities that have represented part only of the quantities withdrawn from bond by the person supplying the spirit, and no separate certificates of payment of the duty on the specific quantities he has purchased are in existence.

*** Our correspondent is apparently under a misapprehension as to the "certificates" that are to accompany the application for repayment of the petrol tax. The certificates required are not certificates by the Customs or Excise authorities, but vouchers from the trader supplying the spirit to the effect that tax has been paid on the stock of spirit from which the supply is drawn. Such vouchers usually take the form of receipted invoices with a certificate written or printed thereon and signed by the trader or responsible person on his behalf. The Excise authorities satisfy themselves as to the accuracy of the certificates so given before making the repayment claimed.

It is not often that a medical practitioner lives out a century of years. We therefore note with interest that, according to the *Temps*, Dr. Jean Charles Boullé, of Saint-Valérien, near Sens, will enter the ranks of centenarians on March 3rd. We congratulate him on the fact, all the more that he is said to be in perfect health. Preparations are being made at Saint-Valérien to celebrate the occasion with due ceremony.

Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

PROPOSED SCHEME FOR NEW LECTURERS AT GLASGOW.

THE University Court at its last meeting had under discussion the important motion sent from the General Council:

> That distinguished graduates who may make application to the University Court to teach classes in the university qualifying for graduation should, when the University Court is satisfied of their ability and fitness, be appointed lecturers in the university, and should be granted class-room accommodation in so far as that is possible.

This motion had already been discussed by the Senate and the various faculties, but has apparently not met with general approval. At the meeting of the court, considerable difference of opinion as to the practicability of the scheme was displayed. By some members it was held that such a scheme would be educationally sound, and would lead to increased efficiency in tuition, while at the same time it would stimulate the interest and retain the services of distinguished graduates. On the other hand, it was urged that the financial difficulties were considerable, and that at present the university finances were not in a very flourishing condition. Some of the members pointed out that if the proposed lecturers were to be paid by the fees of the students they attracted, the success of these lecturers might seriously cripple the financial resources of the university, since the professors would still require their fixed salaries, though a portion of the moneys at present available for that purpose would under the new scheme be diverted to the lecturers directly competing with the professor. According to another view, the proposal to establish such lecturers was contrary to ordinance. In such a conflict of opinions, the court decided to defer its decision till it had had further opportunity of considering carefully the various points brought out in the discussion.

It does not seem likely that the scheme will be adopted in face of the opposition of the Senate. Nor is it easy to foretell how far, if adopted, it would prove successful. At present in Glasgow systematic teaching in medical subjects is entirely in the hands of the professors. The extramural school is, with the exception of one or two classes, unable to attract many students from the university classes. Whether this proposal to institute intramural officially-recognized teachers would prove stronger than the present system of extramural teachers is doubtful. Possibly it might prove a success if some system of short half courses were instituted. Thus a man specializing in nervous diseases might deliver a short course on that subject and so on.

MEDICAL STUDENTS' HOSTEL IN GLASGOW.

An attempt is being made to found in the immediate neighbourhood of the Western Infirmary a hostel for senior medical students engaged in clinical work, so that the residents may be within call in emergency cases and so gain a great amount of valuable experience at present lost. The initial outlay for the erection of a hostel capable of accommodating thirty residents will amount to close upon £3,000. But a fund is at present being raised, and, as this is likely to meet with ready support, the necessary amount should soon be forthcoming.

THE SCOTTISH LOCAL GOVERNMENT BOARD.

The Secretary for Scotland is taking steps to increase the staff of the Local Government Board for Scotland in order to secure an efficient administration of the Housing and Town Planning Act. An engineering inspector and an inspector with special architectural qualifications will be appointed with reference to town-planning work, and the Treasury has also agreed to the appointment of an additional medical inspector. A lady inspector, whose duties will include the inspection of boarded-out children, is to be appointed, and will assist also in the Board's public health and Poor Law administration. The clerical staff of the department will also be increased.

A PAISLEY MEDICAL APPOINTMENT DIFFICULTY.

A somewhat curious case is engaging attention at Paisley. The appointment of a medical officer to the Craw Road parish hospital and lunacy wards has been questioned. The House Committee, at a meeting called for the special purpose of making an appointment, selected Dr. Bruce. The parish council upset this decision. Dr. Bruce claims that the appointment has been given to him. At the meeting of the parish council last week the matter was discussed, and a motion that a committee be appointed to consider the legality of the position was submitted. The chairman, however, ruled the motion incompetent and refused to allow it to be put to the meeting.

Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.

SIR WILLIAM SMYLY has renewed his offer this year of a donation of £20 to the funds of this society on condition that half the medical men in Ireland subscribe to the fund at the rate of 1d. a week (that is, 4s. 4d. a year). The sum asked from each man is not large, and it is hoped that non-subscribers will be induced to contribute to and to take an interest in the fund.

REST FOR THE DYING.

The Rest for the Dying is a small home founded some years ago in Dublin for the purpose of providing for dying patients who might not be suitable cases for admission to the general hospitals. The annual report which has just been issued shows that during the year 1909, 63 patients were cared for, and testimony to the high value of the institution is borne by numerous laymen and doctors. As a refuge for, amongst other cases, those of advanced tuberculosis, its usefulness, both direct and indirect, is great.

MEDICAL OFFICER OF SKIBBEREEN WORKHOUSE.

The Local Government Board has written to the Skibbereen Board of Guardians in reference to the appointments of Drs. O'Meara and Burke conjointly to the medical officership of the Union Hospital, stating that the appointment of a second doctor cannot be recognized until notice has been given to the Local Government Board that the guardians wish to create the position of a second physician with salary and duties defined; the Board, however, sanctioned the appointment of Dr. O'Meara as Medical Officer of the Workhouse at a salary of £50.

A good deal of discussion arose at a special meeting of the guardians, and eventually the following resolution was passed:

> That we refuse to recognize the action of the Local Government Board purporting to sanction Dr. O'Meara as medical officer of the Skibbereen whole workhouse, because he was never elected or appointed to that office by us. We believe that the action of the Local Government Board must be largely due to a misapprehension of our resolution of January 19th. 1910, because by that resolution (1) Dr. O'Meara and Dr. Burke were conjointly appointed medical officers of the workhouse with equal rights and privileges; and (2) that Dr. O'Meara was not elected senior, but styled such, because he was longer in the service of the board; and (3) that Dr. O'Meara was elected to the female department of the workhouse; (4) that the clear purport and intent of the resolution were that unless the Local Government Board sanctioned all the terms the whole arrangement would be void. That, therefore, we call on the Local Government Board to withdraw the sanction by which they purport to sanction Dr. O'Meara as medical officer of our workhouse, because said sanction is *ultra vires*. Meanwhile we adjourn the further consideration of the matter to our next ordinary meeting this day week. That we heard with surprise that Dr. O'Meara had intruded himself into the office and duties of the medical officer of the workhouse without any authority from us. That we appoint Dr. Walsh to continue to perform temporarily the duties of medical officer of the workhouse at usual remuneration till further order, and that we confer on him all the rights and authorities incidental to said office.

GAELIC LEAGUE AND DOCTORS.

The Skibbereen Branch of the Gaelic League is anxious that none but Irish-speaking medical men should be appointed to positions under the guardians. The Secretary of the League, in a covering letter, points out that, according to the census of 1901, the Union contained over 25 per cent. of Irish-speaking people, and that of the rural districts two had been reported as having no knowledge of English. In districts such as Cape Clear and the seaboard to the east of Glandore, Irish is still the everyday language of over half the population, and the committee felt the hardship that these poor people are put to in trying to make "to a foreign-speaking doctor" communications of such a private character as must naturally take place between physician and patient. The letter and accompanying resolution were marked "read."

England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

LONDON.

MEDICAL TREATMENT OF SCHOOL CHILDREN.

THE London County Council on March 1st formally approved the arrangements made by the Education Committee for the medical treatment of school children at the Hospital for Sick Children and other institutions (BRITISH MEDICAL JOURNAL, February 5th, p. 344); the scheme for the recovery of cost of treatment and the Hampstead treatment scheme, reported last week (page 535); the agreement with the Miller Hospital, Greenwich (BRITISH MEDICAL JOURNAL, February 12th, p. 408), and the provision of a special school for tuberculous children at Paddington. It was also decided to hold open-air schools in 1910 on the same sites as those utilized last year, namely, Birley House, Forest Hill; Montpelier House, Upper Holloway; and Shrewsbury House, Shooter's Hill. The appointment of Dr. Shrubsall as additional assistant medical officer (Education) was also approved.

THE HEALTH OF CHILDREN.

The General Purposes Committee reported to the London County Council on March 1st, at its last meeting before the election, as to the necessity which had arisen for the appointment of an officer to carry out the medical inspection of children attending public elementary schools, in accordance with the duty imposed on the Council by Section 13 of the Education (Administrative Provisions) Act, 1907. Subsection (1) of Section 122 of the Children Act, 1908, provided that "a local education authority may direct their medical officer, or his deputy, to examine in any school the person and clothing of any child attending the school." Subsection (7) of the same section defined the "medical officer" as being any officer appointed for the purpose of Section 13 of the Education (Administrative Provisions) Act, 1907, above referred to. The Education Committee inclined to the opinion that both the medical officer of health and the medical officer (Education) should be appointed. The General Purposes Committee considered this course to be hardly consistent with the principles upon which the Council's staff was organized, according to which the proper officer to be appointed would be the medical officer of health only, leaving it to him to delegate such duties as were best carried out by others. After communication with the Education Committee the General Purposes Committee had arrived definitely at the conclusion that the medical officer of health should be appointed, with powers of delegation to the medical officer (Education), and recommended the Council accordingly. The Education Committee, reporting concurrently, offered no objection, provided it was clearly understood that such an appointment did not prejudice Dr. Kerr's position as medical officer (Education), which was now recognized by the Board of Education. The Council adopted the recommendation.

We understand that some discussion has arisen between the various committees of the Council as to whether the health of the school children should be under the care of the Education Committee or of the Public Health Committee. The latter body has urged that the Londoner, from the cradle to the grave, should be watched over by one department, and that the authority of the Public Health Committee should not be interrupted, arbitrarily, for a few years during the school-attendance period, especially as the child is at school only five hours out of the twenty-four. It will be seen that the Council has to some extent endorsed this view. At the meeting of the Education Committee last week it was stated that the enforcement of the Children Act and the summary recovery of the cost of free meals was at a standstill because some London magistrates declined to recognize Dr. Kerr's signature on prosecution forms because his appointment had not been made by resolution of the Council.

CUMBERLAND.

THE CUMBERLAND INFIRMARY, CARLISLE.

AT the annual meeting of the subscribers of the Cumberland Infirmary held under the chairmanship of the Bishop of Carlisle on February 24th, Dr. Henry Barnes, in seconding the adoption of the report which had been moved by the Chairman, announced that after mature consideration he had determined to resign the office of chairman of the Management Committee, which he had held for six years. During that period the financial position of the infirmary had been carefully investigated, and, partly owing to various economies and partly to the result of special appeals, it has been found possible to discontinue the practice of transferring legacies to the current account; further, in 1906 the financial position had become so satisfactory that it was determined to make some much needed structural alterations. A new boiler house for centralizing the heating and hot-water apparatus and new laundry and kitchen blocks had been completed, and a new nurses' home had been erected and was taken into use just before Christmas. A new ophthalmic department had been fully equipped and was occupied, and a bequest of £200 free of duty from the late Mrs. Whitehead had been appropriated for the *x*-ray department. In order to complete the scheme approved by the governors it was still necessary to erect a new west wing, and to extend the out-patient department, and the position of the building fund was sufficiently satisfactory to justify the committee in asking the architect to make an estimate. The Bishop, in the course of his address, spoke of the immense industry and earnest perseverance which Dr. Barnes had shown in improving the financial position of the infirmary, but expressed his regret that some of those who had been in the habit of subscribing had dropped off, and that others had reduced the amount of their subscriptions. It would be in his judgement nothing short of a disaster to the country if infirmaries, hospitals, and similar institutions became municipalized, in the way a large number of institutions originated and maintained by voluntary effort had now become part of the local charges upon the community or upon the commonwealth. While he hoped that no one desired to escape from the obligations of paying rates and taxes, such payment did not appeal to the same part of man's moral and spiritual constitution as the giving of voluntary subscriptions to benevolent and deserving objects. If appeals for such objects ceased, the benevolence and kind-heartedness of the community would become more or less atrophied. For the sake of the progress of the human race, for the sake of the development of the higher attributes and qualities of human nature, he most firmly deprecated the municipalization of medical institutions. It would have the further disadvantage that the doctors would be robbed of their opportunity of developing the generous side of their nature, and the medical profession might become mercenary—a calamity which would afflict both the medical profession and the community at large

LIVERPOOL.

HOSPITAL ANNUAL REPORTS.

THE annual reports of the Liverpool hospitals published up to the present show that there is no falling off in the extent either of the work done in them or of the financial support they receive. At the Infirmary for Children there has been an increase of 286 in-patients in the year 1909 as compared with the previous year, while there was an increase of out-patients amounting to 1,897. The former increase was due to the opening of an additional ward towards the close of the year 1908. A considerable portion of the increase in out-patients is attributed to the new system of school inspection. It was desired to open a fifth ward which is already built, but the financial situation does not at present allow this to be done.

The Northern Hospital shows a good record of work for the year, but has a debt of over £6,000. A marble bust of the late Mr. Benn W. Levy has been presented to the hospital by Mrs. Louis S. Cohen. For some time past the need of a second operating theatre has become apparent, and during the year the money required to adapt one of the existing rooms in the hospital was collected by Mr. Henry D. Behrend and Mr. R. W. Murray, F.R.C.S. The new theatre will soon be ready for use.

At the Royal Infirmary there was a considerable increase in the number of in-patients, due, apparently, to shorter periods of retention. The retiring president, Sir William Tate, Bart, presented £500 on the completion of his year of office. It is understood that the new out-patient buildings will be completed next November.

At the annual meeting of the Hospital for Women, Sir Charles Petrie, one of the speakers, said that he hoped that before long the committee would think of building a new hospital, as the present institution was altogether inadequate to accommodate all who applied for relief.

The Liverpool Dental Hospital is entering on its golden jubilee year, which will be celebrated by its removal from the old premises in Mount Pleasant to the spacious, convenient new building in Pembroke Place, close to the Royal Infirmary. At the annual meeting attention was drawn to the expansion of the work to be brought about by the operation of the Medical Inspection of Children Act. The Honorary Treasurer (Professor A. M. Paterson) presented the accounts. He said the hospital was the only dental institution in the district, and was indispensable. It was of incalculable benefit in relieving pain and protecting and improving the health of the community.

India.

[*FROM OUR SPECIAL CORRESPONDENT.*]

IMPERIAL MALARIA CONFERENCE, SIMLA, 1909.

Publication of Proceedings.

THE papers read at the Malaria Conference held at Simla last October, together with the debates thereon and the resolutions adopted, have just been published by the Government of India in a Blue Book of over 100 pages.

As each province of India was represented by a specially selected medical man, as well as by a member of the Indian Civil Service and an Indian member, the conclusions arrived at may be considered to be thoroughly representative of the experience gained in different parts of this vast peninsula. They are very comprehensive.

The first recommendations relate to the need of further systematic investigation into the distribution and epidemiology of malaria in each province and into the action of quinine. The compilation of vital statistics for smaller areas than at present is advised, to allow of the minute local distribution of malaria being easily recognizable, the figures of the returned fever deaths being checked by test inquiries in typical selected areas to determine how many of them are really due to malaria. Specially selected medical officers are to be appointed in each province to carry out the local investigations, and once a year they will meet the members of a central committee to compare results and prepare programmes of future work. The Government of India has already asked the local governments to select suitable officers, who will shortly attend a course of practical malarial work under Captain Christophers, I.M.S., one of the members of the Royal Society's Malaria Commission, which worked for several years in both Africa and India.

The practical measures recommended by the conference include extirpation of mosquitos by the use of all methods the cost of which is not prohibitive. The first of these is drainage, (*a*) by properly graded surface drains in urban areas where existing surface drains are found to be an important breeding ground of malaria-bearing *Anopheles;* (*b*) in rural areas by improved surface drainage and filling in depressions; and (*c*) under both conditions by lowering subsoil water when practicable at a cost which is not prohibitive, schemes being worked out for highly malarious tracts in each province. Wet cultivation to be prohibited in the vicinity of towns when it is proved to be a cause of malaria. Oiling to be restricted to small collections of water containing *Anopheles* which cannot be filled up or drained. Fish to be introduced into larger collections of water to check the breeding of *Anopheles*.

Quinine treatment and prophylaxis is dealt with, the recommendations of a subcommittee regarding the forms and doses to be employed having been adopted. A system of selling quinine by "treatments," strongly advised by the Assam delegates, as well as by the dose as at present, is to be introduced. The principle is that enough quinine to cure an actual attack of fever is to be sold in a single packet, together with printed directions for its use. The pice packet containing a single dose is to be retained for the sake of the very poor who cannot afford a full "treatment." The agencies through which quinine is sold will be greatly extended and a liberal commission allowed to the vendors. In backward districts itinerant dispensaries will disseminate knowledge of the value of quinine treatment and prophylaxis. Special educative measures will also be adopted, including lectures and leaflets, under the control of district committees such as have been of great service in some of the Punjab districts. Every local government is invited to make a special allotment of funds each year for investigation and for the application of preventive measures relating to malaria. The conference further urged that malarial measures should have a strong claim on all surpluses and increases of revenue.

Altogether the resolutions cover the ground in a satisfactory manner. The formation of a special organization, with a permanent trained medical officer in charge in each province, is a great step in the right direction, as hitherto malarial inquiries and test preventive measures have been spasmodic and lacking in continuity, different medical officers having each year been sent by the Government of India to a new province, of which they had no previous experience, and set to work to inquire into malaria in a given district, often during the non-malaria season. The yearly conferences of the local officers will enable notes to be compared, while if they meet in different provinces, and not always in Simla, they will be able to see for themselves the progress made under various conditions of work.

The question will naturally be asked, Why was not all this done long ago? In fairness to the Government of India it must be admitted that its strictly limited administrative staff have had their hands more than full, during the decade which followed Professor Ross's brilliant discovery, with a titanic struggle with a terrible epidemic of plague; but for that calamity doubtless the ever-present malarial problem would have earlier received the attention which is at length being directed to it. The recent conference bids fair to be a turning-point in the history of antimalarial measures in India.

Special Correspondence.

BERLIN.

Scientific Cinematographs.

"CINEMATOGRAPHY Applied to the Service of Science" was the title of a demonstration given for medical men and women in the "Empress Frederick House for medical post-graduate teaching" on February 22nd. Long before the hour fixed for the opening of proceedings the amphitheatre was crowded, so that the specially invited guests—among whom was Robert Koch, apparently hale and vigorous as ever—found it difficult to get to the seats reserved for them, and Professor Kutner, head of the Empress Frederick House, had to use all his powers of persuasion in order to induce the members, who kept besieging the doors long after every place inside was full, to retire and exercise patience for another ten days, when —so he assured them again and again—the demonstration would be repeated.

All the Berlin medical institutes and establishments, the Medical Department of the Prussian Cultus-Ministry, the Imperial German Board of Health, were represented in the audience, and very probably there was hardly one among them who did not feel his memory stirred when, after a few introductory words by Kutner, the first picture was thrown upon the screen. At the operating table stood von Bergmann, "in his habit as he lived," attended by his assistants, proceeding to the amputation of a foot. The operation lasted about ten or twelve minutes, and its cinematographic presentment was of such amazing clearness and steadiness, and so free from the usual flashes and breaks of continuity that its progress was watched with almost breathless attention.

Then followed a laparotomy by the French surgeon Doyen, reproduced with similar success. Doyen was one of the first to recognize that the cinematograph, which at first had been looked upon as no more than a scientific toy, might be developed into an educational factor of the highest value. By studying the films of his own operations, Doyen became aware that many movements he made were superfluous and time-wasting, and by dint of close observation he succeeded in materially simplifying his methods.

A birth, from its first stage, was then shown; and after this the process of lactation. Then Dr. T. Fraenkel gave some demonstrations from the domain of orthopaedic surgery, and of special gymnastics in scoliosis. Dr. Braun (Vienna) showed the impulse of the heart's apex; a set of films by Professor Cavallo (Paris) showed gastric and intestinal peristalsis in a frog; Professor Rieder showed his films of the human stomach during digestion, and of heart and diaphragm movements during respiration. Heffter, the new professor of materia medica in the Berlin University, roused the liveliest interest and admiration by a series of films showing the toxic action of quinine and nicotine with the antagonistic effect of muscarine-atropine, and also the action both of chloroform and of strophanthin on the frog's heart.

Finally, Dr. Reicher demonstrated microscopic living pictures in the enormous enlargement of the lantern lens. Before the eyes of the spectators cultures of bacteria grew on their nutritive media; typhus bacilli, cholera bacilli, and coli bacilli gambolled about the field; and the trypanosomes of sleeping sickness wriggled in and out of cultures and blood. These remarkable sets of films, the first of the kind yet shown in Germany, had been made by help of microscopic apparatus specially constructed for the purpose by Zeiss of Jena.

BUDAPEST.

Lumbar Anaesthesia.—Death of Dr. Niedermann.—Lithia Waters.—Post-graduate Courses in Hungary.

DR. KÁROLY BORSZEKI, Lecturer in the University of Budapest, has recently published (*Orvosit Hetilap*, January 23rd) his experiences of spinal anaesthesia. Among his conclusions are the following: With the technique now available spinal anaesthesia must be considered as less dangerous than any other method of anaesthetization. The domain of lumbar anaesthesia is the region below the umbilicus; all methods which tend on the extension of the narcosis to operations above that level, are dangerous whatever anaesthetic may be used. The greatest disadvantage of the method is its unreliability, which makes it unsuitable for use in general practice.

Dr. Julius Niedermann, one of the best psychologists of Hungary, recently died in his 71st year. He had been Director of the lunatic asylum at Lipót-mezö, the largest in Hungary, and whatever progress in the treatment of insanity has been made in Hungary during the past four decades is mostly due to him. He was the first in this country who proposed the discontinuance of the strait waistcoat. He also initiated the individual treatment of patients. What this means can be properly understood only by one who knows the overcrowded wards of the Lipót-mezö Asylum. On his initiative several new modern lunatic asylums have been built. He introduced into Hungary the family-care system of attending lunatics. He was popular alike in the highest and in the humblest circles. Our late Queen used to visit him during her solitary walks in the park surrounding the asylum, and Her Majesty was often deeply touched on seeing the proofs of attachment felt for him by his patients.

Hungary, as generally known, is very rich in mineral waters. In fact, we can say that we supply the world with aperient waters. But, besides these, we have excellent lithia waters. But the owners cannot even afford to equip their springs with modern machinery for bottling, etc. Lately several new lithia springs have been discovered, which all contain more or less lithia. However, the words "lithia water" are so freely used in Hungary and the neighbouring countries, that now even waters which contain mere traces of lithia are advertised under that name. This fact has induced the President of the Hungarian Balneological Society to endeavour to have the unjustified use of the word "lithia" forbidden by law. In his memorandum he says: "This element, as is generally known, occurs in many natural mineral waters in the form of hydrocarbonate and chlorate of lithia, but quantitatively it never forms the chief constituent of these waters. If, however, the carbonate of lithia can be shown by analysis to be present in a quantity of 2 to 3 cg. (half a grain) in 1 litre of water, this fact may be mentioned in the analytical report for the characterization and for estimation of its therapeutic value, just as the fact that a water contains iodine, bromine, or other rare salts. This fact alone, however, does not determine the value of a mineral water, because the therapeutic value and action of a natural mineral water is manifested not only in the several constituents present in minute quantities, but depends on all the constituents as well as on their relation to each other. To-day it is a generally accepted opinion that every mineral water must be regarded as a separate compound, for two absolutely similar waters do not exist; consequently, the action of two mineral waters, too, cannot be equal, and if taken rigorously we ought to study and prove the action of every mineral water separately. If, therefore, a certain mineral water contains lithia among other constituents, it is not proper to put forward this constituent and call it a lithia water. In order to prevent the misuse of this name I propose to have a legally protected standard of the amount of lithia contained in each water."

On the initiative of Count Albert Apponyi, late Minister for Public Instruction, a post-graduate medical school has been established in Hungary. The movement has been set on foot in consequence of a resolution passed by the International Committee of Post-Graduate Education of the Sixteenth International Congress that support should be mutually given by different countries to post-graduate education. Count Apponyi expressed a preference for the German system, where the function of the central institution is extended to the provinces. He has charged Professor Emile Grosz with the task of carrying the plan into execution. Dr. Grosz has convoked the Professorial Board of the University, and in setting forth the scheme he said that in Hungary since 1883 the summer vacation courses were the only means providing for the further education of doctors. During the last twenty-five years fourteen courses had been held, which had been attended by about 1,000 physicians. They had been given by some 300 lecturers, and the fees had served only to cover the expenses.

He went on to say that the progress of medical science required not only the aid of voluntary enterprise on the part of the teachers, that not only every fiftieth doctor should have the opportunity of post-graduate study, but this opportunity should be granted to all every five years. He urged that post-graduate instruction should be made compulsory. A central organizing committee has been formed, the members of which are the professors of the university and the directors of the hospitals. The work of this committee will be: (1) To arrange courses of revision lasting two weeks for country doctors; these are to be held in university towns, and primarily with the co-operation of university lecturers. (2) To arrange longer courses in larger hospitals for practitioners in towns. (3) To arrange courses for sanitary officials and army medical officers. The members of the committee are Professors Emile Grosz, Baron Alexander Koranyi, Leo Liebermann, Baron Coloman Mueller.

VIENNA.

The Housing Problem.

THE problem of providing healthy dwellings for the ever-increasing population of this city has given much trouble to the authorities. Quite recently a series of regulations was drawn up by a committee of architects and medical men and presented for approval to the building section of the town council. The principal points were: A fixed maximum of air space of at least 2,000 cub. ft. per room for each inhabitant. Every inhabited space must have windows admitting *direct* light and air from the street or garden or yard, which latter must be at least 12 yards by 8 in dimensions for a two-storied house, or 13 yards by 12 for a three storied house. Overcrowding (more than the above-mentioned air minimum) to be prevented by special rules as regards sub-letting; the width of streets to be built in future should not be less than 10 yards, or equal at least the height of the houses. Compulsory weekly cleansing of all water-closets by servants of the landlord, and separation of kitchens from the vicinity of the closets. But the proposals of the committee were rejected by the majority of the town council, which consists mostly of landlords. But the reform is bound to come some time.

Correspondence.

THE DANGERS OF ARYLARSONATES.

SIR,—In December, 1908, I read a communication at the Medical Graduates' College and Polyclinic, in which a series of twelve cases of syphilis treated by arylarsonates were brought forward. The success of the treatment induced me to continue it, and to recommend it until the middle of last year, when an untoward occurrence compelled me to abandon it, and to regret that I had ever advocated it. A syphilitic patient was treated with injections of orsudan* (Burroughs, Wellcome, and Co.), and at the end of the course of ten injections of that substance, given in 10-grain doses on alternate days, he suddenly became blind, and was found to be suffering from double optic atrophy. This naturally caused me to abandon the treatment at once, and subsequently to make inquiries as to whether any similar disaster had occurred to others. A second case has recently come under my notice in which a syphilitic patient also became blind after a course of about fifteen injections of 5 grains of soamin (Burroughs, Wellcome, and Co.). A third case is that of an elderly patient, with marked arterial degeneration, who was put on a course of injection of soamin (Burroughs, Wellcome, and Co.) for sciatica, but who after the introduction of about 60 grains also met with a similar fate. I am also cognizant of a fourth case, in which a patient suffering from lymphadenoma was treated with soamin (Burroughs, Wellcome, and Co.), and became totally blind.

It is inexpedient to enter more fully into the history of these cases, and I should not have written this communication had not I recently received from Messrs. Burroughs, Wellcome, and Co. a pamphlet commending their preparations, soamin and orsudan, and reproducing amongst others the cases I originally described. In this pamphlet a casual mention is made of the fact that signs of intolerance had been met with after the use of soamin, such as "visual disturbances, nausea, vomiting, gastric pains, dermatitis, nervousness, and insomnia," and that "the appearance of any of the above symptoms should be a signal for withholding the drug." This is the only warning note in this pamphlet, though the manufacturers, through one of their representatives, had been informed by me of one case of total and irremediable blindness which had occurred after the use of orsudan, and knew that I had abandoned the treatment on that account.

Further, in the BRITISH MEDICAL JOURNAL of January 22nd, 1910, Drs. Lundie and Blaikie describe a case of total blindness following upon a course of soamin, and the possibility of causing optic atrophy by the use of that substance is alluded to. In the *Lancet*, vol. ii, 1909, p. 1196, Dr. Bagshawe writes:

> The arsanilates, and especially atoxyl, are not without their dangers; there are many recorded cases of blindness following the use of atoxyl. . . . It seems that loss of vision is less frequent, if it occurs at all, after the use of soamin, which has of course a chemical formula identical with atoxyl.

There was, therefore, in the medical journals some indication that these drugs were not quite so innocent as they had been depicted. In the strict sense of the word, I suppose that total and incurable blindness may be termed a "visual disturbance," and my only object in writing is to point out to your readers the possible gravity of that "visual disturbance" and to put them on their guard against such a disastrous occurrence.—I am, etc.,

London, W., Feb. 21st. J. ERNEST LANE.

* Orsudan is 3-methyl-4-acetylaminophenylarsonate. It is more soluble, and its solutions are stated to be more stable, than those of soamin, which is sodium para-aminophenylarsonate.

CANCER OF THE CERVICAL OESOPHAGUS.

SIR,—In the JOURNAL of February 12th (p. 363) appears a suggestive clinical lecture by Mr. Morriston Davies dealing with primary cancer of the cervical portion of the gullet, and recording three cases in which the cervical oesophagus was cut into by an external incision. The results were not only as unsuccessful in effecting a lasting cure as most if not all previous efforts in this direction, but were more than usually disastrous as regards the immediate mortality, for all the patients died within a few days from the operation. The mortality of mere external cervical oesophagotomy for stricture is admittedly high. Gottstein, writing in 1906, put it at somewhere between 45 and 60 per cent., whilst the operation for *resection of a portion of the cervical oesophagus alone for primary cancer* had no lasting success to its credit down to 1903, although, according to von Hacker, at least 15 such operations had then been recorded; 5 of these patients died from the effects of the operation, and the others succumbed at varying periods from imperfect removal; 3, however, survived for about one year. It is possible that statistics up to date might bring to light one or two real cures, but Mr. Davies is ominously silent on this point.

In view, therefore, of the immediate danger of mere external oesophagotomy, and, further, of the unpromising outlook of the operation for curing a limited primary cancer by excision, many will doubtless be staggered to find that Mr. Davies teaches his students that

> as soon as the condition is diagnosed operation should be undertaken in order at any rate to attempt to excise the growth, instead of waiting until the patient is reduced by the increasing difficulty in swallowing and then doing a gastrostomy, as too often happens.

Now, the soundness or otherwise of this teaching entirely depends on the value attaching to the expression, "as soon as the condition is diagnosed." If the disease has been carefully diagnosed by means of a complete endoscopic examination, and found to be almost certainly well within the limits of the cervical oesophagus, the rest of the viscus being apparently healthy, then Mr. Davies's advice to operate would, it seems to me, be within the range of justifiability, in spite of the unpromising results hitherto recorded. Desperate conditions justify desperate measures, provided always that every precaution be taken to avoid errors in diagnosis and in technique. If a thorough oesophagoscopic investigation showed that the disease appeared to be operable, the surgeon would be justified in advising a patient to take the 1 in 2 or 1 in 3 chance of

surviving the immediate operative risks, provided there was a chance of a radical cure of this otherwise incurable condition.

Everything, therefore, turns on the thoroughness of the diagnostic method employed, before resorting to operative exploration, to determine whether there is every probability that the disease is limited to, say, the middle two-fourths of the cervical oesophagus, the rest of the tube being apparently free from disease when carefully inspected by means of the oesophagoscope throughout its entire length. This means that the only cases in which a fairly accurate diagnosis can be immediately made are those in which the lumen of the tube, though narrowed, is still sufficiently large to allow of the safe passage of a small oesophageal tube through the cancerous area, in order that not only the upper limits of the disease shall be accurately determined, but also to determine the lower limits of the growth, and, in addition, to make certain that there is not another cancerous lesion considerably lower down the gullet—a by no means very unusual complication.

If the cervical stricture is so tight that a small endoscopic tube could not prudently be passed through it, there is a strong presumption that the case is not capable of being dealt with radically by resection; this presumption becomes a certainty if the stricture is dilated immediately by graduated bougies through the endoscopic tube, so that bougies of 7, 8, or 9 mm. diameter are passed and strike another stricture lower down. Even if they do not reveal a lower stricture sufficient to arrest their passage, a presumption of further disease can usually be inferred from the eructation of a large quantity of frothy mucus with small bubbles. The presence of such a second stricture can sometimes actually be demonstrated by observing the passage of bismuth porridge with the aid of the *x* rays.

Supposing that none of these positive signs be evident we are not entitled to exclude early disease lower down the tube, as it may not be so advanced as to cause definite stricture. Oesophagoscopy alone can help us in excluding slight lesions lower down, and an attempt should be made to increase the lumen of the stricture to such an extent as to render oesophagoscopy, by means of a small tube, possible. Sometimes this can be accomplished by immediate dilatation with bougies after applying cocaine and adrenalin; but should this method fail there are other measures by which the lumen of a cancerous gullet may sometimes be temporarily enlarged to such an extent as to render possible the passage of a small endoscopic tube. These methods are all uncertain, and include the application of radium and of the *x* rays, the internal administration of potassium iodide, and the subcutaneous injections of *neoformans* serum, of fibrolysin, of iodopin, etc. In my own practice I have relied entirely on radium for this purpose, using formerly a silver tube containing 50 mg. of pure radium bromide, but latterly a platinum tube containing 63 mg. The time dose has varied in the 10 cases that I have thus treated (in conjunction with Dr. Finzi) from three hours at a sitting, using either a silver or platinum tube-screen $\frac{1}{2}$ mm. thick, to seventeen hours with a lead screen 2 mm. thick. In none of these cases was the cancer limited to the cervical oesophagus, but in 4 of them a tumid stricture impermeable to the endoscopic tube has been rendered permeable by radium treatment; and in 3 others the dysphagia was markedly relieved. In most cases more than one application is necessary, and on some lesions, more especially on some squamous epitheliomas, radium has no appreciable effect.

These methods of diagnosis for ascertaining the limits of the growth are very different from the practice of Mr. Davies, who is content with such an oesophagoscopic examination as enables him merely to see "the form and extent of the upper extremity of the growth and its nature, though not its actual length." To decide on external operation on such insufficient grounds is, it seems to me, to court frequent disaster. The only possible chance of success in this practically unconquered region of surgery depends on the most careful selection of cases based on an expert endoscopic inspection of the entire length of the gullet.

Mr. Davies's courage and admirable frankness in publishing for the assistance of others his initial mistakes and failures is worthy of more frequent imitation, and I trust that his surgical efforts in this difficult region will ultimately be rewarded by the achievement of a lasting cure.—I am, etc.,

London, W., Feb. 28th. WILLIAM HILL.

OPERATIVE TREATMENT FOR HAEMORRHOIDS.

SIR,—I do not wish to enter into controversy as to the relative merits of different operations for haemorrhoids, for I am of opinion that under certain circumstances each of the three main methods has certain advantages over the other two. But, as I have recently read in your columns considerable adverse criticism of Whitehead's method, which comes chiefly from surgeons who do not practise that method, I should like to add my testimony in support of those who, practising the operation, have written in its favour.

Since 1902—when I first learnt Mr. Wallis's method—I have performed the operation, and seen it performed by Mr. Wallis, a good many times—though using the methods of ligature and clamp and cautery as well—and I have followed up in the out-patient room at St. Mark's a large number of patients who had undergone Whitehead's operation.

The majority of the operations performed by Mr. Wallis and myself come to my out-patient room for inspection afterwards. So far as I have been able to judge, it seems to me that this method not only offers a certain cure, but that it offers a more certain cure in severe cases—especially those which are associated with prolapse, fissure, or submucous pouches — than other methods. There is no reason why it should be attended with harmful results. I have never seen recurrence of haemorrhoids after Whitehead's operation, though several after ligature, nor have I ever known any permanent ill effect to follow this method. It may sometimes appear that there is a stricture of the anus after this operation, but a careful examination will always reveal that there is no pathological stricture, but simply a small anus which performs all its functions to the satisfaction of the patient. It may doubtless be admitted that this operation requires some rather special knowledge of its principles, and some very special experience in its practice, as well as special skill in its after-treatment. It may, therefore, not be everybody's operation.

It is difficult to know on what criteria the merits of any particular method of operating are to be judged, without considering the personal factors of the patient and the operator, and also the after-treatment adopted. Failures and recurrences do not always return to the operator. Surgeons have been known to assert that they seldom see recurrences after their own particular method of operation for the radical cure of hernia, but the surgeons of the Truss Society can tell a different tale.

Any one who, like myself, has performed a large number of surgical *post-mortem* examinations at a large hospital, knows that it would be easy to make out a case against almost any operation by using the failures as a lever for wholesale condemnation of the operation "as the worst ever invented."

Mr. H. G. Anderson, a former house-surgeon at St. Mark's, has published[1] a very careful analysis, based on 500 cases of ligature, Whitehead's operation, and clamp and cautery, which came under his care. He has tabulated and criticized very carefully the immediate after-history of these operations. This table forms some basis for comparison and discussion, and should be carefully studied by those interested in the matter.—I am, etc.,

London, W., Feb. 23rd. C. GORDON WATSON.

SIR,—I have read with much interest the discussion on this subject. If my memory serves correctly, a similar discussion occurred in this JOURNAL or in the *Lancet* some ten years ago. The impression left on my memory on that occasion is that the advocates of the operation of ligature came off the best, owing to the able support of the late Mr. Allingham who was a great exponent of this method.

I must admit that the discussion to which I refer did not alter the opinion I had formed as to the merits or demerits of either Whitehead's operation or of the opera-

[1] BRITISH MEDICAL JOURNAL, October 30th, 1909, p. 1276.

tion of ligature. In my opinion I consider we must be guided by the condition which we find when we come to perform the operation; if there are several localized piles, but the intervening mucous membrane is healthy, then I think the ligature, clamp and cautery, or some other method, such as Ball's, gives a perfectly satisfactory result. When, however, the piles are more diffuse, and there is little or no healthy mucous membrane, then I am equally convinced that the ligature is not such a satisfactory method, such a case can only be treated in a radical manner by completely removing the whole ring of affected mucous membrane; if this is done in a competent manner, then I submit with Mr. Wallis that such an operation is permanently curative. I also agree with Mr. Wallis in not regarding the ligature as a radical method, as it leaves untouched a considerable portion of the mucous membrane beneath which the veins may at a later date enlarge and develop into piles, and I have met with several instances in which it has been necessary to perform a second operation.

I cannot understand the limited view of those surgeons who condemn an operation which on their own statement they do not perform. I should have thought that every surgeon had seen failures or indifferent results from every surgical procedure, however simple, and I, for one, am not surprised to hear that this is sometimes the case with Whitehead's excellent method, as it is by no means so easy to perform as the ligature. It has not been my lot to meet with a failure in an experience of over 100 cases, and I have tried to follow up my cases for a lengthy period after the operation.

I have never met with stricture of the anus as the result of Whitehead's method, which, in the experience of those who are opposed to the method, is not infrequent; but I have no doubt that such may be the result if the operation has been improperly performed. The only case of post-operative stricture I have seen resulted from the ligature, and was no doubt due to the too free removal of the mucous membrane.

The operation I usually perform for localized piles differs to some extent from the ordinary operation of ligature in that I excise the pile vertically and suture the edges of the mucous membrane with catgut, which I think has the advantage of more securely arresting the bleeding and facilitates rapid union as the edges of the mucous membrane are approximated. In my opinion, many cases can be treated satisfactorily by the ligature, while there are many others in which ligature would be a very imperfect operation; they can only be dealt with properly by Whitehead's operation.—I am, etc.,

London, W., Feb. 27th. DOUGLAS DREW.

APPENDIX DYSPEPSIA.

SIR,—I am greatly surprised by Dr. Roberts's statement (BRITISH MEDICAL JOURNAL, February 19th, p. 473) concerning the case of Mrs. D. from Valparaiso. It is, indeed, exceedingly unfortunate that among the great number of indubitable cases of appendicitis larvata recorded by myself and many others (Sonnenburg, Lenzmann, Cotard, Dieulafoy, Korach, Walther, etc.) I should have chosen this very case "as of special interest for British readers," which has apparently ended differently than I believed. My error is due to the following circumstance. When I last saw Mrs. D. before her operation I asked her to let me know in case her complaints should return later on. A short time after the operation her husband kindly wrote to tell me that Mrs. D. was quite without pains. Since then I heard nothing, and believed myself justified to assume that her state had remained satisfactory.—I am, etc.,

Berlin, Feb. 26th. C. A. EWALD.

NURSING HOMES FOR THE MIDDLE CLASS.

SIR,—As one who has been associated with Dr. Chalmers Watson for some time in the management of the Rutland Nursing Home in Edinburgh, I have been interested in reading Dr. Ford Anderson's letter (p. 540) bearing on the proposed scheme for a pay hospital in Edinburgh for the middle class.

Dr. Anderson has doubts about the advisability of some of the details of the scheme. There may be other people who, like him, take a friendly interest in this movement, and I shall be glad if you will allow me to reply to some of his objections.

With regard to position, Dr. Anderson fears that a centrally placed pay hospital or home could not be utilized by general practitioners who live beyond the radius of one mile away from it. This fear seems to me groundless. In Edinburgh general practitioners daily cover a much larger radius than that of a mile from the centre of the town. Moreover, this scheme has been discussed by general practitioners on several occasions, and the desire to have the proposed home in as central a position as possible has been unanimous. Further, much of the work done in the home will be operative, and it is considered advisable to have the building within easy reach of those who are likely to have the responsibility of the after-treatment of such cases during their anxious stage.

Dr. Anderson thinks that the Rutland Home might be allowed to continue as it is, while others like it might be opened in the suburbs. Those responsible for its management, however, merely look upon the present establishment as a successful experiment. Many improvements, which are considered necessary, can only be carried out in a larger and better equipped home.

The proposal to have a certain number of beds at £1 1s. a week is considered by its promoters to be an important part of the scheme, but many of the details connected with the organization of the home are still under discussion.—I am, etc.,

Edinburgh, Feb. 27th. CHARLES W. CATHCART.

GENERAL PRACTITIONERS AND POOR LAW REFORM.

SIR,—Dr. P. R. Cooper, in a letter appearing in your issue for February 19th, seems to have hit on what will probably be found to be the only rational reply that the medical profession can make to the persistent demands of sets of individuals and friendly societies, and now of the State, that we should undertake the medical supervision of the working classes at nominal charity fees. What is that reply?

Dr. Chas. E. S. Flemming states in your last issue that the Central Contract Practice Committee of the Association gave Dr. Cooper's proposal much careful consideration, but apparently was unable to find any working scheme.

If our Association does not again, and very shortly, tackle this problem in a masterly way instead of endorsing with its approval clubs run at charity fees, it is most certainly true that within a few years, beyond being useful for the unpleasant duty of settling a few internal quarrels and throwing itself hopelessly against vested interests, the Association will be no catch for the general practitioners, and they will do well to leave it severely alone.

It might be desirable to quote at once this axiom, "that the true interests of the community and those of the medical profession invariably coincide" (interim report of Poor Law Reform Committee).

Take first *the interests of the community* with regard to medical services. Are they not these?

(*a*) That each person should be able to be insured, or to insure himself, against the probability of medical expenses.
(*b*) That no one should be barred from this benefit because of his age, family history, financial position, present or past health, or occupation.

Then take *the interests of the medical profession*:

(*c*) That the payment for medical services should be adequate and in accordance with the professional services rendered.

In order to decide what is "adequate" it would be necessary to take into consideration in each case all the subheads in statement (*b*). In order to elaborate "professional services rendered" it would be necessary to state as shortly as possible in list form all the more probable medical and surgical services. This has been done partly in the Public Medical Service Rules recently issued to the Divisions for consideration.

It might be said that such a table would be bulky and complex, and therefore unworkable. But this should in practice not prove so. Any actuary would be able to prepare a concise, easily workable scheme when given the necessary data. One need not, however, burden this letter with the possible solutions of this portion of the problem.

Having the interests of the community and of the medical profession defined, how is it possible to make the two coincide? Before doing this, it might be useful to

show under what conditions they cannot be expected to coincide. Shortly they are:

1. By unduly insisting on an "age limit" and a "wage limit" without defining clearly what it meant, while at the same time totally ignoring most of the other subheads to (*b*) above.
2. By the willingness of general practitioners not only to become individually an insurance company (without having any capital formed of premiums paid and transferred from a previous medical insurance man; without knowing the acturial value of the services agreed to be given; without having any ordinary business training fitting them to meet members of the business community on their own level), but also to accept premiums far below those any lay insurance company would accept for similar requirements.

If we look at the Majority Report on the Poor Law (Part IX, Section 120), we find this question: Taking a man aged 21, in good health and employed in a healthy occupation, what premium should be paid a week, in case he fell permanently ill, next week, in order to be able to receive 10s. a week for twenty-six weeks and 7s. 6d. a week for the rest of his life up to 65 years of age? The actuaries asked replied, "Between 3¾d. and 4d. a week."

Now these receipts by the man if averaged out would be about what a general practitioner should expect to receive for attending one who is evidently a working-class man. And yet a general practitioner would cheerfully accept a penny a week as premium, issue his policy accordingly, and if he leaves the district transfer the client, keeping for himself not only all the back paid premiums but accepting a bonus as well, although the man may never have been ill up to that date. Such a state of affairs surely shows how the interests of the medical profession and the community cannot be expected to coincide, and therefore that such a scheme of insurance is rotten.

Now can these two classes of interests be made to coincide? The following are suggested as a possible means:

1. The premium to be charged a client should depend on his age, family history, financial position, present and past state of health, and occupation.
2. The premium when settled should not be received by the doctor, but be pooled in some central fund.
3. The insured should also have to place, or have placed for him, in this central fund, but in a separate account, so much a week as private deposit account.
4. The doctor when called in would be paid fees already approved and sanctioned by both parties and dependent on the patient's financial position and the detailed scale of charges for services to be given. The payee of the premium selects the doctor.
5. Part of the fee paid to the doctor would be drawn from the deposit account. This would prevent collusion between the patient and doctor to run up a bill.
6. The control of such a scheme should be in the hands of a central public medical service for England, with local committees; the scheme allowing of transferrence of a member from one district to another without loss of benefits.
7. Such a service the Association with its Branches and Divisions could well inaugurate. Without central help and control, however, no scheme would be launched or prove successful.

It will be seen that this scheme touches on that of the National Deposit Friendly Society.

If such a scheme were in working order, the reply that the general practitioners could give to friendly societies and to any local borough, county, or State body would be: "We will take over the medical care of any one—rich, poor, or pauper—that you like to ask us to look after. We don't care how or by whom the premiums are paid so long as they are paid, and on our scale. These are our terms, and they must be paid; for we intend that the doctor selected shall be paid adequately, and in accordance with the professional services he may have to render."

Can the general practitioners rouse themselves sufficiently to combine now in order to save themselves; and will the Association give up blessing cheap charity club practice and help them? Most certainly, if they do not, then, seeing that social reformers are determined to reform, if not to break up, the Poor Law, and will brush them on one side in forming their plans, it will be their own fault if they and their successors, finding that all receiving wages of £5 and under are in a State-managed invalidity insurance club, become a miserable, poorly-equipped, poorly-paid, looked-down-on crowd of harassed and bullied diagnosticians and dispensers with one foot in the bankruptcy court.

The Majority Report asks, Shall a large place be given to voluntary institutions and voluntary arrangements for the providing of medical attendance on the working classes and those below them?

The Minority Report asks, Is medical treatment of sickness or disease so vitally and peculiarly important from a public point of view that it ought to be taken over by a Public Health Department of the State, largely to the obliteration of the distinction between the public and private doctor?

What will the general practitioners reply?—I am, etc.,

London, S.W., Feb. 26th. E. ROWLAND FOTHERGILL.

SIR,—Dr. Flemming asks me to give reasons why there is a far greater responsibility in the medical care of the destitute than in other kinds of medical practice. As he is a Poor Law medical officer, I am somewhat surprised at the question. Has he forgotten that there is a case on record of a district medical officer being convicted of manslaughter for having neglected to attend to a pauper patient, who had repeatedly sent for him in vain, after he had received the legal order. In the trial it was held that the patient could send for no other doctor, so that a very different responsibility rested on the Poor Law medical officer to that arising in the ordinary relation between doctor and patient? Does Dr. Flemming think that such a responsibility is adequately paid for at the same rate as is paid by an ordinary provident dispensary patient?

It may be that under a reformed system such a responsibility is to be abolished. Indeed, under the recommendations of the Majority and Minority Commissioners, it is difficult to see how the future Poor Law medical officer could be convicted in this manner; and if in the future neglect of a State patient is to rank *pari passu* with neglect of an ordinary patient, I may be unable to maintain my contention, but I was assuming that the destitute poor in the future would obtain the same protection as they have enjoyed in the past, and our ancestors, in my opinion very wisely, thought that in the interests of the destitute a very different degree of responsibility was desirable.

Dr. Flemming further says that I bring forward no argument against the choice of doctor by a pauper than supporting that of the Minority Report. Are any further arguments necessary? I think not. Dr. Flemming thinks it is not flattering to Poor Law medical officers. I would rather say not flattering to human nature. Our Association does not object to the principle of "payment for work actually done," if it could be properly ascertained and was not open to so much abuse. It has been for generations the dream of all Poor Law medical reformers. In my opinion, the payment partly by fees and partly by salary is best in the interests both of the public and the Poor Law Medical Service. I cordially agree with Dr. Drage that it is the administration and want of co-ordination in our present system that is chiefly to blame for most of the evils we suffer from.—I am, etc.,

MAJOR GREENWOOD,
Honorary Secretary Poor Law Medical Officers' Association of England and Wales.

London, E.C., Feb. 26th.

PART-TIME MEDICAL OFFICERS OF HEALTH.

SIR,—I so wholly agree with Dr. Larking's sentiments on this matter that I cannot help saying that it appears to me that many medical officers of health lose sight of the fact that theirs is a speciality, and in the usual course of their work, to speak and act in a totally unbiassed manner is quite beyond the morals of ordinary men; interests are far too conflicting, and the paltry income derived from any part-time medical officer of health appointment is so wholly inadequate to the needs of the case as to be negligible.

Take, now, a not uncommon case. An appointment falls vacant: many local men apply, all well-known and appreciated; a stranger, perhaps almost unknown, is appointed. As soon as the appointment is made the new man begins practice under one guise or another (he is almost sure to be impecunious); he works privately for about half fees, and he gradually undermines some of the practice of the regular practitioners who applied for the appointment and knew local conditions. Now, is a medical officer of health such as this to be permitted any longer as a part-time man—part-poacher, one might say?

The secret and essence of the whole matter lies in practitioners offering costly service for a mere song.

I maintain that the time is ripe for a very careful and complete organization of all the members of the British Medical Association for one common purpose—namely, the systematic rearrangement of fees for the medical working of all provident societies and the limit by wage of those entitled to benefit. For years I have given the matter careful consideration. I find the lowest fee per head should be 8s. 6d. per annum, and that for well-selected lives only; others of an indifferent kind should be super-rated up to twice the amount.

It is idle to talk of fees such as these pressing heavily on the working class. Is the equivalent 2d. of a glass of indifferent beer a week going to handicap any man or any wealthy society, such as the Foresters or any money-making machine, with the unlucky medical man grinding out the time at his own expense?

I have seen many attempts and schemes proposed for dealing with these abuses, but none have fructified as yet.—I am, etc.,

A. L. MARTYN.

Hartland, Feb. 25th.

SIR,—The allegations that are being made against a large body of practitioners who hold these appointments, I feel sure, will do more to damage the list of members of the Association than anything that has ever taken place. The vote of the Divisions in favour of full-time men holding these appointments solely without private practice will flood every district with gentlemen who will only hold the appointments until they see a good opening to start on, or until they can obtain another post with more salary. Again, they could not live upon the salary that is given to a general practitioner who has done the work for many years. The vote given at the Divisions is not the voice of the profession of the district; as any one acquainted with the Association knows very well, not half the meetings are attended by the members. The Divisions are mostly governed or ruled by cliques. Many of my acquaintances have never attended one single meeting.

Again, Dr. Larking states that the part time medical officer cannot make water analysis, statistics, etc. Let me inform him that I, like many other men, have purchased every chemical apparatus necessary, and consider myself not boasting when I claim to make such analysis quite as well as any chemist. Yet, if he does not choose to go to this expense, let him purchase Dr. Thresh's little book, follow the directions given therein, but I grant he will require a little practice to become proficient. The plain facts are that those practitioners who have never studied hygiene are really jealous of one who holds a public health appointment, yet they can hardly earn a decent income, as general practice is so cut up with cheap charges, reduced fees, and quackery, that they wish to curtail the incomes of old men who have done the country a great service besides doing a lot of hard work; those who have some scientific bent delight in the work—I am, etc.,

JOHN SWIFT WALKER, M.D., F.R.C.S.E.,
Late Medical Officer of Health to County Borough of Hanley;
Medical Officer of Health to the Rural District Council of Stoke-on-Trent.

Hanley, Feb. 25th.

CONSULTANTS, GENERAL PRACTITIONERS, OR HALF-AND-HALF?

SIR,—I am glad to see the letter of "Enquirer No. 2" in the JOURNAL of February 26th, for undoubtedly there are two sides to the question raised by the original letter under the above title.

It would be well if, as a result of this discussion, a better understanding could be arrived at between general practitioners and consultants. This would be no difficult matter if practitioners had solely at heart the best interests of their patients.

The obvious working plan is that consultants, on the one hand, should never visit patients at their homes, except in consultation with the regular medical attendant; and, on the other hand, it should be understood that any patient is at liberty to "consult" a consultant at his rooms as often as he pleases. Surely the days are passed when a patient is to be considered the absolute property of his family doctor.

When I began consulting practice in London I sought the advice of one of the foremost physicians of the day with regard to the proper procedure. He told me that any patient was at liberty to consult me as often as he wished. If he brought a letter from another medical man, or told me who his doctor was, I should write at once and explain the treatment I had recommended, but that I should avoid asking the name of any doctor who had attended him previously.

My experience after many years of work in London has taught me that, in order to ensure harmonious work between the various branches of the profession, it is necessary that the consultant should limit his work entirely to his consulting room, except when called out in consultation with another practitioner, and that the general practitioner should allow the consultant to carry out such part of the treatment as in the interests of the patient can best be done by him.—I am, etc.,

EST MODUS IN REBUS.

February 26th.

ENGLISH LITERATURE AND LONDON EXAMINERS.

SIR,—Your violent attack in last week's issue on the London University examiners in English calls for a reply. The questions you select for ridicule appear to me to be admirably adapted to test the knowledge of sound English literature which a youth of ordinary culture should be expected to possess. Any one having a nodding acquaintance with such standard authors as Shakespeare, Goldsmith, Sheridan, Scott, Dickens, Thackeray, Jane Austen, George Eliot, and R. L. Stevenson, and with the better-known poems of such poets as Coleridge, Wordsworth, and Tennyson, could score, without special preparation, 90 per cent. of marks on the questions you have taken as samples of absurdity.

To test the matter I propounded all your questions to my son, a public schoolboy of ordinary intelligence, aged 15 this month. At once he answered offhand quite 90 per cent. of the questions. He has certainly never been "crammed" in literature, but reads English in his holidays, without direction, and for his own amusement.

What "every schoolboy" knows, or ought to know, should be within the compass of candidates for the London "matric."—I am, etc,

OXONIAN.

March 1st.

SIR,—I have been very interested to read the excellent article relating to the English at the London Matriculation, and many of my friends who are engaged in scholastic work are highly pleased to see such useful criticism.

It is most satisfactory to note that you state the lines upon which the examination in English might be wisely remodelled, for you thus relieve the Board of Examiners of a duty which they are obviously incapable of fulfilling. The remedy which you suggest is that which has been adopted in several of the provincial universities—namely, those of Manchester, Liverpool, Leeds, and Sheffield.

Some time ago the University of London resolved to accept the joint matriculation certificate of the above-named universities, and it will be apparent, therefore, that the authorities in London are aware of the thorough utility of the Northern examination in the educational equipment of a student. Whence the question arises, Why is the London Matriculation Syllabus as it is—unconscionable and absurd in respect to its English?

I take it that there is no desire to revise the syllabus in English, because, as it stands, it affords ample scope to the examiners to indulge in their pedantry. From the student's standpoint the question is not considered; and this is quite in harmony with many methods of English education.—I am, etc.,

N. S. GOODYER.

London, S.W., Feb. 28th.

ADAMS *v.* POMEROY.

SIR,—I beg to acknowledge with sincere thanks the very great kindness of those who so generously contributed to the fund for the reimbursement of my legal expenses in the recent lawsuit, Adams *v.* Pomeroy. The sum has now been handed over to my solicitors by the honorary secretary, Dr. L. Garrett Anderson, in order to defray my bill of costs.—I am, etc,

MARTHA ADAMS.

Twickenham, March 2nd.

CHILDREN IN POOR LAW SCHOOLS.

SIR,—Will you please allow me to correct a statement made by Dr. McVail in his address on the "Medical Treatment of the Poor" (BRITISH MEDICAL JOURNAL, February 20th). He states that "in none of the large institutions for children was there any periodical medical inspection of all the inmates, independently of existing illness."

He evidently has not visited, or he could not have included, the Central London District School at Hanwell, W, of which school I am resident medical officer. In order to show how completely every child is inspected, I will give a brief summary of the routine which has been carried out here for many years.

(1) Each child on admission is examined thoroughly, boys and infants stripped completely, and girls stripped to the waist; any defect noted is entered in the register of admissions. They are detained for three weeks in the probationary, and are examined daily there, and again examined before being sent into the main school, and any defect which has been noted is ordered to be treated. (2) The medical officer sees every child in the school once a week during the dinner hour, and once a month every boy and infant is seen stripped completely, and every girl with her shoes and stockings removed. (3) During the holidays opportunity is taken to make a more thorough examination. During the Christmas holidays I examined the heart, nose, and throat of every child in the school—namely, 845—and during the next holidays I intend to examine the hearing and vision of every child in the school. (4) Every boy and girl over 13 years of age is again examined as to their fitness for service, for entering the training ships, and the army regimental bands. (5) Every child is also examined on his or her discharge from the school. (6) The attendants, I find, are most careful to bring the slightest ailment to the notice of the medical officer.

I think these various examinations are more thorough than any other class of children get, and are productive of good, as out of 845 children there are only 25 unable to attend school at the present moment, and their physique is far in advance of any elementary school in any part of London. My opinion is that children are better off in a school of this kind than in any system of "boarding-out."—I am, etc.,

C. R. SALISBURY, L.R.C.P., M.R.C.S., D.P.H.

Hanwell, Feb. 27th.

FOOD AND FEEDING.

SIR,—I was very much interested in your excellent article on Food and Feeding, and especially in your kind reference to myself.

Might I correct one small error? I have not taken plasmon for some years now. I shall be only too glad to send to any of your readers my favourite recipes, and to arrange a free practical demonstration of cookery along non-flesh lines for any members of the medical profession who like to write to me.

I consider your view of the whole subject a model of the judicious caution, together with the sympathy for new points of view, which should characterize the pioneers of public opinion. In fact, I am referring many of my own "health pupils" to your paper.

You are quite right in saying that I only advise people to keep to my sort of diet if it suits them. My idea in preparing quick and easy and economical recipes for substitutes for flesh foods was to make the trial as simple as possible. Most of the recipes take less than five minutes to prepare.

With apologies for taking up your space, and with thanks for the admirable article,—I am, etc.,

London, W.C., Feb. 24th. EUSTACE MILES.

STERILIZATION OF CERTAIN DEGENERATES.

SIR,—Those interested in my proposal will be glad to hear that a bill for the above is being introduced this week into the Ontario Legislature (Canada). Thus two of the U S A. States have legislated, and two have passed bills which await the signatures of their Governors. The Swiss medical press, and also the German journals, are bringing the proposal forward.—I am, etc.,

Liverpool, March 1st. R. R. RENTOUL.

Medico-Legal.

IRVING *v.* BODIE: RESULT OF APPEAL.

LAST week an application for judgement or a new trial was made to the Court of Appeal in the case of Irving *v.* Bodie. The action, which was heard last November by Mr. Justice Darling in the King's Bench Division, was brought for damages for fraudulent misrepresentation, whereby the defendent, "Dr." Bodie, was alleged to have induced the plaintiff to enter into an agreement to pay £1,000 to the defendant. The plaintiff's case was that the defendant, who was described as a hypnotist, bloodless surgeon, and medical electrical specialist, suggested to him when he was a minor that he should become his pupil at a fee of £500. Subsequently, in July, 1906, an agreement was entered into whereby, in consideration of £1,000, the defendant agreed to engage him as principal assistant in his work for three years at £2 a week. The plaintiff alleged and gave evidence at the trial to prove that he was induced to enter into the agreement by false representations that the defendant was a duly qualified doctor, and could instruct him to become one; that he was carrying on an honest business, was skilled in hypnotism, bloodless surgery, and medical electrical work, and had discovered the cure for paralysis by passing through the body electrical currents of 2,000 volts. The jury found for the plaintiff. The defendant appealed on the ground of misdirection. It was contended that the alleged misstatements were contained in a pamphlet which the plaintiff did not read until after he had entered into the contract with Bodie. As for his calling himself "doctor," that was a showman's licence.

In delivering judgement, the Master of the Rolls said the appeal was hopeless. There was no misdirection, and the jury had found against the defendant. Certain diplomas had been produced. One of these described the defendant as a doctor of medicine of North Carolina, another purported to confer on him some title in surgery. The defendant had no qualification here, and he had not even a qualification in America, and to say that he was fully qualified was a gross lie. The jury had heard the evidence and had come to the only conclusion that twelve reasonable men could have come to—that the defendant was a swindler, and that this young man had been swindled.

The Lords Justices concurred.

CONVICTION FOR ASSUMPTION OF MEDICAL TITLES.

IN July last we reported that Adam Melrose Porteous had been charged at Stockton with obtaining sums of money amounting to £81 9s. 11d. and board estimated at £36 by continuous false pretences from the visiting committee of the Durham County Asylum. It was alleged that the accused had personated a registered medical practitioner named William James Porteous, now in New Zealand, had been engaged through a firm of medical agents in London as a locumtenent at the Durham County Asylum, and had attempted to have his name placed on the *Medical Directory*. The accused, who reserved his defence and was liberated on bail, was committed to take his trial at the Durham Assizes.

The case came before Mr. Justice Ridley on February 22nd, when the judge was informed that the accused had in the interval since July gone as a ship's doctor to South Africa and had been wrecked; he now surrendered to his bail, and the counsel who appeared on his behalf stated that he had felt bound to advise the prisoner that there was no defence in law to the charge made against him of obtaining money by false pretences. He submitted, however, that the asylum authorities had full value for the money they had paid the accused, as he was capable of doing the work that came to him. The real essence of the case was that the prisoner had been guilty of acting as a medical man when in fact he was not qualified. Judgement was deferred until the following day, when Mr. Justice Ridley said that the fact that incompetence had not been proved told in the prisoner's favour, but the other part of the case remained unanswered—that he had pretended to be a doctor when he was not, that he pretended to have qualifications which he actually did not have, and obtained money by false pretences. Had the prisoner been ignorant in the duties he had performed a more severe sentence would have been passed. The judge then sentenced the accused to six months' imprisonment in the second division; he refused an order as to costs.

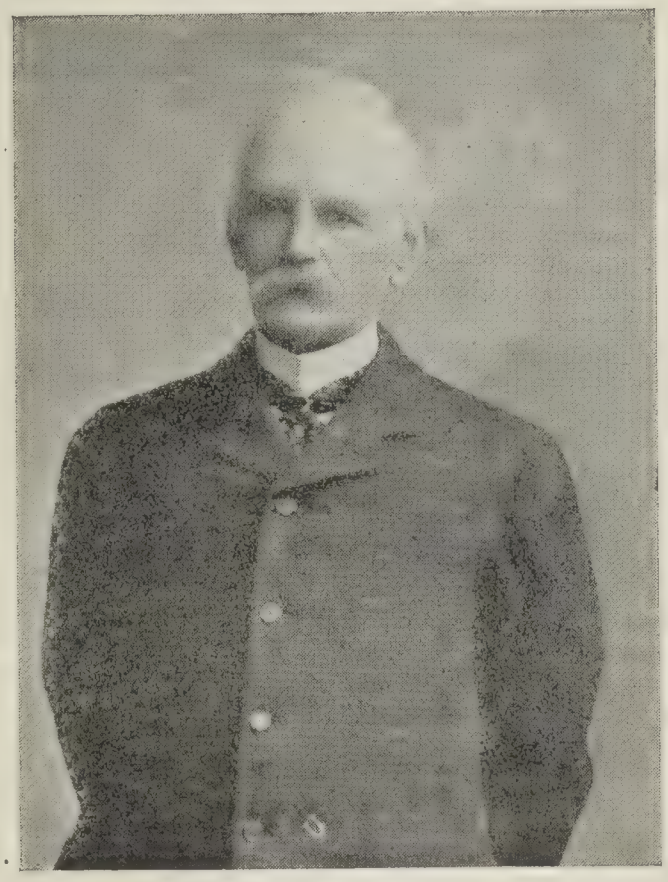
THE usual monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society was held at 429, Strand, London, W.C., on February 18th, Dr. de Havilland Hall in the chair. The business during January had been satisfactory. As is usual at this season of the year, a large number of the members had suffered from the various ailments brought on by exposure; but as the month had been fairly mild, the claims, though numerous, had been for the most part of short duration, but a moderate proportion of the sickness claims incurred this year has been attributed to influenza. Prospectuses and all particulars on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

Obituary.

HENRY JOHN MANNING, B.A.Lond., M.R.C.S.Eng.,

HONORARY SECRETARY AND TREASURER OF THE SOUTHERN BRANCH, BRITISH MEDICAL ASSOCIATION.

It is with deep regret that we record the death of Henry John Manning, Medical Superintendent and Licensee of Laverstock House Asylum, Salisbury, which took place there on February 20th, after a long and painful illness, necessitating a serious operation. He was born in 1835, and received his early education at University College School, Gower Street, graduating in arts at the London University in 1856. He studied medicine at University College, and became a member of the Royal College of Surgeons in 1860. He then made several voyages to Australia as ship's surgeon, and ultimately went to Laverstock House Asylum in 1862 as the coadjutor of Dr. Bushnan, and later of Dr. Stanley Haynes. In 1870 he succeeded Dr. Haynes as Medical Superintendent, a position which he occupied until his death. He rapidly acquired a strong professional and social position, and as a consultant his opinion was highly esteemed by his professional brethren in all cases belonging to his particular department of practice. He possessed in a rare degree the power of making friendships, and had a remarkable gift of bringing men together. He held that much of the jealousy and many of the misunderstandings which occur too commonly among medical men were the results of their not knowing each other sufficiently well. For this reason he was a strong believer in the value of social functions, and he always endeavoured to arrange that medical meetings should be preceded by a simple lunch or dinner. Nor was he slow to offer hospitality himself. At the annual meeting of the Southern Branch at Salisbury in 1905 he and Mrs. Manning magnificently entertained about a hundred members and their wives in the charming grounds of his private residence.



HENRY JOHN MANNING.
Photograph by the Royal Central Photo Co., Salisbury.

He was an excellent classical scholar, had a good knowledge of French literature, and to the last was an earnest student of metaphysical science. He was a member of the Medico-Psychological Association and a contributor to the *Journal of Psychological Medicine* and other scientific periodicals.

It was, however, to the work of the British Medical Association that he was most deeply devoted. He was one of the first to join the Southern Branch when it was formed, but he had been an active member of the old Salisbury Medical Society, and had held the office of President before that society was merged into the Salisbury Division of the Association. On the death of Dr. Trend of Southampton, Mr. Manning was unanimously chosen as Secretary and Treasurer of the Branch. To him this office was the greatest pleasure of his life, and only a few days before his death he dictated a memorandum of what had to be done at a meeting of the Branch Council, which took place after he had passed away. His accurate and methodical habits were invaluable to the Association. He never failed to reply to correspondents promptly, courteously, and legibly, and he kept excellent minutes and records of the affairs of the Branch. In many ways he was an ideal secretary; he took care to arrive in sufficient time to have the room properly arranged and his own papers laid out in order, so that the meeting was able to start with perfect punctuality. He had a thorough knowledge of all the developments of the Association and of the steadily expanding work of its various committees. At each meeting he had a perfectly clear conception of the business to be considered, and had in a high degree the power of explaining it tersely and lucidly. If the question happened to be a contentious one, on which, perhaps, opposite opinions were strongly expressed, he was careful to elicit and record impartially the views of each without forcing his own view on others. In ethical inquiries his quick perception of the points involved, and his scrupulous adherence to the rules of procedure governing such matters, were of the greatest assistance in safeguarding the committee and the Association. The delightful summer excursions that followed the annual meetings of the Branch went off invariably without the slightest hitch; but few knew how carefully the Branch Secretary had gone over the ground beforehand and provided for every detail and possible emergency.

He was a governor of the Salisbury Infirmary, and for twenty years an active member of the Committee of Management and of the House Committee, where his great practical knowledge was of inestimable service to the institution. He took a lively interest in parochial affairs, was chairman of the parish council, and a churchwarden. He was a good all-round sportsman, and in his early days a great athlete. At University College he was a well known boxer, having studied the art of self-defence under the famous Tom Sayers. His lightness of foot, quickness of eye, and excellent bodily formation above the belt, made him a great favourite with his master. Sayers was greatly disappointed when Manning told him he had decided to be a doctor; "Give it up man, stick to the ring, and you will make a fortune," was the ex-champion's advice. The Mannings were a cricketing family, and the five brothers were all in the school eleven. Among their school contemporaries were Sir George Lewis, Sir Edward Lawson, and Sir Ralph Littler, but Henry John Manning usually carried off more than his share of prizes. He was an expert croquet player, and could hold his own at billiards and chess. The solution of chess problems formed a great resource in the last few months of his life. He was an excellent listener; his calm and earnest manner inspired patients with great confidence, and they constantly sought his advice and assistance long after they had passed from his care. Too often a convalescent finds it impossible to regain the confidence of a former employer, or to succeed in getting a fresh start in life after a mental breakdown. To such Mr. Manning was invariably a tower of strength by his encouragement, help, and generosity. He rarely failed to discover some way of lifting them out of their difficulty, and finding them a new foothold in society.

He married Ellen Francis Haynes, elder daughter of the late Mr. Joseph Haynes, J.P., D.L., the proprietor of Laverstock House, and she with two daughters survives him.

On February 22nd a memorial service was held in the beautiful private chapel of Laverstock House. The funeral took place at Laverstock Church on the afternoon of February 22nd, amidst every sign of sympathy and regret. Among the numerous floral tributes that covered the coffin, many were from medical men; but four beautiful wreaths bore the following inscriptions: "A token of deep affection and respect from the Southern Branch of the British Medical Association"; "With deep regret and much sympathy from the Portsmouth Division"; "In affectionate remembrance, from the members of the Winchester Division"; "With sincere sympathy, from the

members of the Isle of Wight Division." Every Division of the Branch was largely represented in the funeral procession, as were also the Cathedral Chapter, the Town Council, the Salisbury Infirmary, the County Magistrates, the Board of Guardians, the Parish Council, and many other public bodies.

Among the appreciations received, the following is from Dr. STANLEY HAYNES: Throughout the village in which he lived so long and continuously he was beloved for his excellencies and kindnesses, while his staff in the institution he managed so well was devoted to him. He was highly respected by all, earned the affection of a large circle of friends and the gratitude of the patients and their relatives. He was a singularly calm, quiet, able, and conscientious practitioner, most industrious and successful in his works, inspiring his *clientèle* with thorough confidence; to sum up, he was a model medical superintendent. A good classic, and knowing French well and English completely, his letter writing, vigorous and terse, was a pleasure to his correspondents; he was affable, most courteous and considerate, and had a keen, pleasant sense of humour, and was a good comrade and friend, without a known enemy. Now the labourer has gone to his well-earned rest, respected and deeply regretted throughout the district.

Dr. JOHN F. BRISCOE (Alton, Hants) writes: As a senior member and a past vice-president of the Branch, it is sad to write these few lines of condolence and affectionate remembrance. But my friend is removed from his worldly cares, and his memory only remains, as a calm, level-headed, resourceful, and genial companion. For many years Dr. Manning devoted his spare time time to advancing the welfare of the British Medical Association. He was faithful, honest, straightforward, and reliable. He gave advice and counsel to every one in the Branch who sought his aid; he organized our meetings; he was never in a hurry to push forward a new idea; he delicately weighed all the details of ethical procedure; he loosened many knotty points; he was versed in the dry and official problems that beset the general practitioner; he carefully arranged social, clinical, and professional gatherings; and step by step, for a long period, he watched the fulfilment of his ambition—the success of the Southern Branch of the British Medical Association; but he knew his time was short, and bravely bore the physical affections which, for so long, pressed him to the shadow of the grave; the courteousness and the graciousness, so characteristic of the man, remained to the last. His was another instance of the power of mind over body which the columns of the JOURNAL frequently chronicle. It will be difficult to find another wholly to fill his office, unless he possesses the same attributes; keeps in touch with the profession and members of the Branch; maintains the dignity of the Association; and, above all, realizes the importance of the great imperial possibilities of the British Medical Association. If such monumental work can be done by one man, how short-sighted and deplorable must he feel who never does his duty by fulfilling the requirements of his membership—at least, by attending the meetings of his Division or Branch, half-yearly or at most yearly I emphasize this inasmuch as there are members so self-centred that they fail to grasp the fact that an army of men, to be successful, must be self educated and move together.

Dr. J. WARD COUSINS writes: Kindly allow me to express in a few words my regard and admiration for our old friend Henry John Manning. He was one of the original members of the Southern Branch, and by his able efforts as Local Secretary he greatly promoted the interests of the Association in Wiltshire. At the first annual meeting of the Branch at Portsmouth in 1873, after its recognition by the Council, he was present, and from that time until his lamented death was a constant attendant at all the meetings. On the retirement of the late Dr. Trend of Southampton from the post of Branch Secretary, he was unanimously selected to succeed him, and shortly afterwards was appointed one of the representatives on the Central Council, a position which he occupied for several years. During the long period of thirty-seven years he diligently laboured to help the progress of our Association in the South, and by his generous efforts he gained the esteem and confidence of all the members. The success and pleasure of our meetings were always enhanced by his genial and kindly presence; and now his absence will be deeply regretted, and must make a gap in our midst which will not be easily filled. From long and personal experience of Mr. Manning's high and estimable character I feel sure that he will ever be remembered as a wise and judicious man. In the special department of medicine to which he devoted all his energies his opinion was eagerly sought and greatly valued in the southern counties, and through his personal qualities and wide attainments he enjoyed the confidence of all his professional friends.

ROBERT SPENCE, M.B., C.M.EDIN,

M.O.H., BURNTISLAND.

DR. ROBERT SPENCE died somewhat suddenly at his residence, St. Ninians, Burntisland, Fifeshire, on February 24th, in his 63rd year. He was one of the best known and best liked medical practitioners in the county of Fife. While visiting his patients on February 22nd he had a fainting attack, but rallied, and was feeling much better when the end came.

Dr. Spence was a member of one of the oldest families in Shetland, which dates its connexion with the islands from 1450, the present representative being his only remaining brother, Mr. T. W. L. Spence, of Urgea, Secretary to the General Board of Lunacy for Scotland. The third son of the late Dr. Basil Spence, of Reafirth, Dr. Spence was a dux of the Royal High School of Edinburgh, and graduated with honours in medicine at the University of Edinburgh in 1870. After acting for a time as Assistant to Dr. Logie of Kirkwall, and later at Lochmaben, Dumfriesshire, he began practice, in 1873, in Burntisland, in succession to Dr. James Carmichael, now in Edinburgh. Dr. Spence was very popular, and was respected and beloved by his patients in the Burntisland and Aberdour districts, while as an excellent surgeon and sound physician he had the confidence and friendship of the leading consultants in Edinburgh. He was a Justice of the Peace for the County of Fife, and Medical Officer for the burgh of Burntisland. He took an active interest in all local affairs, and was Senior Elder of the Parish Church. His wife, an Orkney lady, died some years ago, and he recently lost by death his two elder sons, Dr. Basil Spence and Dr. Alexander Spence. His unexpected and comparatively early death has caused sadness and sorrow in Fife, Orkney, and Shetland, and among a wide circle of the medical profession in Edinburgh, where everybody had a kindly word to say of him.

DR. D. D. ACHSCHARUMOFF, who recently died at Baku, had an unusually variegated career. Born in 1823, he first gave himself to the study of Oriental languages at the University of St. Petersburg, where he took his degree in that subject in 1846. Later he took part in a political conspiracy and was condemned to death. This penalty was, however, commuted to one of hard labour. After working in the mines for four years he entered the Army of the Caucasus as a private. Repeated acts of valour in the field won for him promotion first to the rank of a non-commissioned officer, then to that of ensign, and afterwards to that of a commissioned officer. His civil rights were restored to him, and a year later he left the service and studied medicine at Dorpat, St. Petersburg, Berlin, and Paris. In 1862 he took his doctor's degree in the Medical Academy of St. Petersburg. He settled in the town of Poltawa, where he was Medical Inspector, and remained on duty till his 80th year, taking an active part in the organization of the district, and especially in the development of a local medical service. He wrote on epidemiological subjects (plague, cholera, anthrax, small-pox, diphtheria), and on the repression of syphilis and prostitution. In 1881 he founded the Medical Society of Poltawa.

JOHN WILLIAM TAYLOR, F.R.C.S.ENG., M.D.BRUX., M.SC.BIRM.,

PROFESSOR OF GYNAECOLOGY, UNIVERSITY OF BIRMINGHAM.

ERY great and general regret will be felt at the announcement of the death of Mr. J. W. Taylor, of Birmingham. is health began to fail about two years ago; he died on ebruary 26th as a result of chronic heart disease, and as buried at Northfield, Worcestershire, on March 2nd.

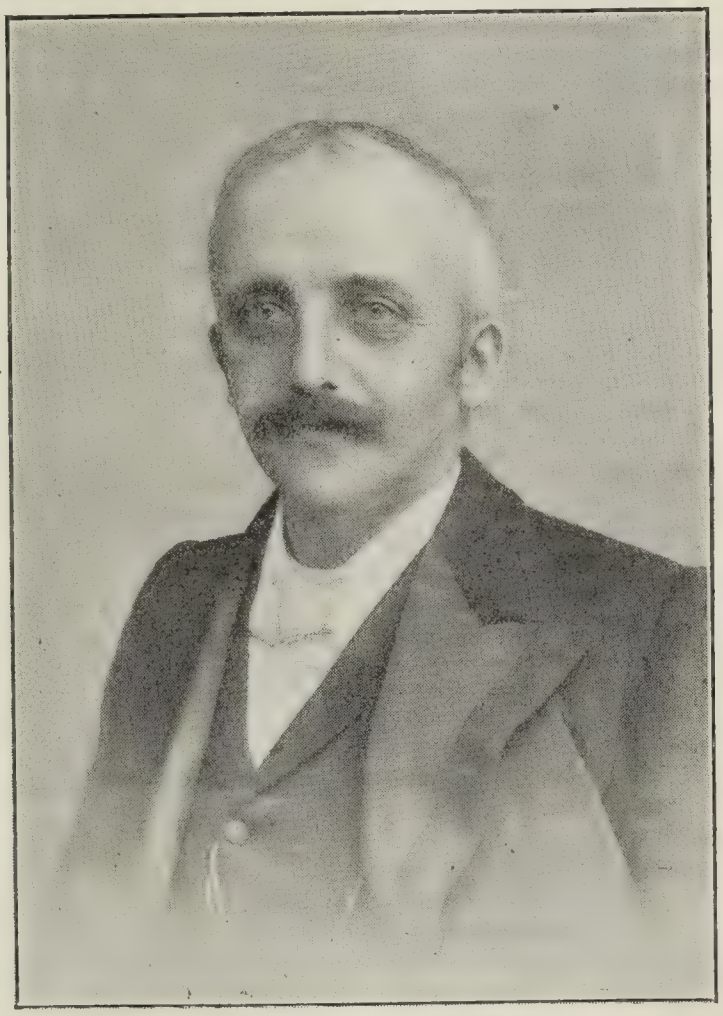
He had long been regarded as one of the foremost ynaecologists in this country, for he was a keen and ccurate observer, a bold and skilful operator, and an iginal thinker, who promoted the advance of surgical nowledge by contributions of the highest value.

John William Taylor, who was the third son of the late ev. Mr. Taylor, of Lewes, Sussex, was born at Melksham, iltshire, in 1851. He received his medical training at haring Cross Hospital, and took the diploma of .R.C.S.Eng. and the degree of M.D.Brux. in 1877. He ettled in Birmingham in the following year. In May, 384, he was appointed Honorary Surgeon to the irmingham and Midland Hospital for Women, and a onth afterwards became Mr. Lawson's Tait's chief ssistant. Thenceforth he devoted himself to the practice f gynaecology and abdominal surgery, laboring with ntiring zeal to make gynaecology more scientific and accurate, and introducing many aluable improvements in chnique and methods of reatment. As an example ay be instanced his investigations into the effect of the rolonged use of small doses f mercuric iodide in the reatment of gonorrhoeal alpingitis.[1]

For a quarter of a century e toiled ceaselessly at the ospital, his work adding reatly to its already high eputation. As a matter of rinciple he aimed at giving s much care and thought to is poor patients as he did o the rich. It was no uncommon thing for him to pend four hours of the forenoon over a series of abdominal sections, and then devote five or six hours of the fternoon to the drudgery of he out-patient department; here is little doubt that this rduous work shortened his ife.

In 1898 he delivered the ngleby Lectures on extrauterine gestation, and his monograph on this subject is a most complete and lucid xposition. In the same year he became President of the Midland Medical Society, and in 1899 he was appointed Professor of Gynaecology, a post which he held for ten ears and resigned only a few months ago.

He delivered the Introductory Address at the opening of he Medical Session at Charing Cross Hospital—his old nedical school—in 1901, and was shortly afterwards ppointed governor of that hospital. He was one of the ounders of the British Gynaecological Society in 1883, nd when President in 1904 delivered a memorable and ourageous address on "The Diminishing Birth-Rate," which ne regarded as a grave national danger.[2] His outspoken lenunciation of the moral evils which underlie this great ocial fact, made a remarkable impression amongst the houghtful laity. In 1895 he translated into English, in onjunction with Dr. Frederick Edge, Dührssen's *Manuals f Gynaecology and Obstetrics*. A mere perusal of the long ist of his contributions to the medical press shows how xtensive was the range of his labours. We may instance he following:



JOHN WILLIAM TAYLOR.

Photograph by H J Whitlock and Sons, Ltd., Birmingham and Wolverhampton.

Acute Hydronephrosis (*Lancet*, 1884); Cholecystotomy (BRITISH MEDICAL JOURNAL, 1885); Electricity in the Diseases of Women (*Birmingham Medical Review*, 1887); on a Method of Dilatation of the Neck of the Womb (BRITISH MEDICAL JOURNAL, 1888); on the Treatment of Perforation due to Gastric Ulcer (*Birmingham Medical Review*, 1888); on Pyosalpinx (*Lancet*, 1889); on Dress in Relation to certain Diseases of Women (*Medical Annual*, 1889); on Typhoid Fever—Perforation, Operation, Recovery (*Lancet*, 1890); on Uterine Displacement (Midland Medical Society, 1891); A Case of Extrauterine Pregnancy—Operation, Recovery (*Obstetrical Transactions*, 1891); on Digital Exploration of the Pylorus (*Lancet*, 1891); on Intestinal Obstruction following Abdominal Section (*American Journal of Obstetrics*, 1892); on Concealed Pyosalpinx (*Lancet*, 1894); on Intraperitoneal Haematocele in its Relation to Tubal Abortion (*British Journal of Gynaecology*, 1894); on Some of the Less Common Diseases of the Vulva (*Birmingham Medical Review*, 1894-5); on Vaginal Fixation of the Uterus (BRITISH MEDICAL JOURNAL, 1895); on Vaginal Hysterectomy for Cancer (Midland Medical Society, 1896); on Excision of the Caecum (*Birmingham Medical Review*, 1897); on Loreta's Operation and Posterior Gastro-enterostomy (*Lancet*, 1897); on Panhysterectomy (*British Gynaecological Journal*, 1897); on the Treatment of Gonorrhoeal Salpingitis (ibid., 1899); on Inversion of the Uterus (*Birmingham Medical Review*, 1899); on Disorders and Diseases of Pregnancy (*Quain's Dictionary of Medicine*, 1902); on Ovariotomy (*Playfair's System of Gynaecology*, 1906); on Recurrent Abortion (BRITISH MEDICAL JOURNAL, 1903).

Apart from his eminence as a surgeon, Mr. Taylor was possessed of definite literary, artistic, and musical ability. He was passionately fond of music, and one of the features of his private hospital was an organ in the hall on which he frequently played. Amongst his musical compositions is the well-known "Gaudeamus," sung annually by the Birmingham University students, who little dream that he also wrote the humorous verse. As a result of various holidays spent in the South of France and Western England, he published in 1906 a volume entitled *The Coming of the Saints*, wherein he discussed with great acumen the legends concerning the travels of Mary, Martha, Lazarus, and Joseph of Arimathea, in France and England. He also wrote poems and hymns of charm and beauty, revealing the depth of his religious belief, which was that of the devout and humble Anglo-Catholic. Throughout his career Mr. Taylor was constantly striving to attain to the highest and best both in work and in character. His colleagues and those who worked under him were inspired by his own high standard. They will never forget his example, nor his teaching that, "so long as we are willing to recognize and learn from our mistakes there is hope for the future."

He married in 1889 Florence M. Buxton (daughter of Mr. J. Holmes Buxton, M.R.C.S., of London), who survives him. He leaves two sons and three daughters.

C. M., M. D. S.

DR. ANDREW KEY, who died on February 18th, was long resident in Montrose, and was one of the oldest practitioners in Scotland. He graduated M.D. at Edinburgh University in 1856, and also took the L.R.C.S. in the same year. He carried on a large practice for many years, retiring some months ago, being succeeded by his son-in-law. He was held in much esteem by his professional brethren. He was Consulting Surgeon to the Montrose Infirmary, and also Surgeon to one or two institutions. Mrs. Key only predeceased her husband by a fortnight.

[1] *British Gynaecological Journal*, 1899.
[2] BRITISH MEDICAL JOURNAL, 1904, vol. i, p. 427.

THE death of Dr. CONSTABLE, of Leuchars, was not unexpected, as he had been in feeble health for some months. He long practised in Leuchars, and on his retirement some years ago was presented with a purse of sovereigns by his patients and friends. Dr. Constable graduated M.D. at Glasgow University in 1862, and was parochial medical officer for several parishes in Fife. He was a past-president of the Fifeshire Medical Association.

ANOTHER Crimean veteran has passed away in the person of Surgeon-Major-General GEORGE LANGFORD HINDE, C.B., who died recently at Reading, aged 77 years. He entered the Army Medical Department as an Assistant Surgeon, May 11th, 1855; was made Surgeon, September 19th, 1868; Surgeon-Major, March 1st, 1873; Brigade-Surgeon, April 15th, 1881; Surgeon-Colonel, April 10th, 1883; and Surgeon-Major-General, January 13th, 1892, in October of which year he retired from the service. He served in the Crimea in 1855, being present at the siege and fall of Sebastopol, for which he received a medal with clasp and the Turkish medal. He was also in the Boer war in 1881, and with the Soudan expedition in 1884–5, for which latter campaign he was mentioned in dispatches, received a medal with clasp and the Khedive's bronze star, and appointed a C.B.

Universities and Colleges.

UNIVERSITY OF OXFORD.

M.B., B.Ch.—In congregation holden on Saturday, February 25th' the degree of Bachelor of Medicine and Surgery was conferred on George Harold Cross, Balliol College, and Henry Pratt Newsholme, Balliol College.

Examination in Preventive Medicine.—The statute relating to the examination in preventive medicine has been amended by Convocation so as to allow of the examination being held twice a year, in Michaelmas and in Easter or Trinity Terms.

SOCIETY OF APOTHECARIES OF LONDON.

AT the examination held in February the following candidates passed in the subjects named:

Surgery.—*†N. L. Clarke, Cambridge and London Hospital; *A. Cordon, Birmingham; *†A. H. C. Dawes, Westminster Hospital; H. P. Jelley, Edinburgh; *†O. R. Kelly, Westminster Hospital; *†J. G. Morgan, London Hospital; *R. Rowlands, Glasgow and Westminster Hospital; *H. S. Tumber, Sheffield; †A. Whitby, Dublin; *G. F. Wilson, London Hospital.

Medicine.—*†N. L. Clarke, Cambridge and London Hospital; H. P. Jelley, Edinburgh; †J. G. Morgan, London Hospital; *J. K. Nariman, Bombay and St. Mary's Hospital; *†E. Newhouse, Leeds; *L. M. Potter, Geneva and Royal Free Hospital; *A. H. Rich, University College Hospital; *H. T. Roberts, St. Mary's Hospital; *†H. S. Tumber, Sheffield.

Forensic Medicine.—N. L. Clarke, Cambridge and London Hospital; R. Eyton-Jones, Liverpool; H. P. Jelley, Edinburgh; L. M. Potter, Geneva and Royal Free Hospital; W. H. Watson, Guy's Hospital.

Midwifery.—N. L. Clarke, Cambridge and London Hospital; J. B. Holmes, Manchester; O. R. Kelly, Westminster Hospital.

* Section I. † Section II.

The diploma of the Society was granted to the following candidates, entitling them to practise medicine, surgery, and midwifery: N. L. Clarke, A. H. C. Dawes, O. R. Kelly, J. G. Morgan, and A. Whitby.

THE first meeting held out of London by the Royal Meteorological Society took place in the Physical Laboratory of the Manchester University on February 23rd, the President, Mr. H. Mellish, in the chair. Dr. Hopkinson, the Vice-Chancellor, who welcomed the society, said that the history of the university showed that it was not merely in expression, but in act, interested in this branch of scientific work, as much had been accomplished in meteorology by the work that had been initiated and so liberally supported by Dr. Schuster. Dr. A. Schuster, who also welcomed the society, said that although meteorology might be regarded by some as a small part of physical science, yet it was intimately connected with a number of other subjects, especially with one large subject which he thought had received far too little attention in the universities—namely, the whole physics of the globe. Dr. W. Makower related the results of the investigation of the electrical state of the upper atmosphere made at the Howard Estate Observatory, Glossop, by himself, Mr. A. J. Makower, and Miss Margaret White. Mr. A. W. Harwood read a paper on twenty-five registering balloon ascents made from Manchester on June 2nd to 3rd, 1909. The balloons were sent up at intervals of one hour, and interesting and valuable results were obtained.

The Services.

ROYAL ARMY MEDICAL CORPS (TERRITORIAL).

THE FIRST SOUTH MIDLAND FIELD AMBULANCE.

AT the annual supper of the First South Midland Field Ambulance, held in Birmingham, the commanding officer, Major C. H. Howkins presiding, the officers of the Field Ambulance present were Captains Craig and Barling and Lieutenants McCall, Sturrock. Lunn, Boedicker, and Kimpton. A large number of non-commissioned officers and men attended, and the guests included Colonel Whitcombe, Lieutenant-Colonel Lister, Majors Robertson, Thompson, Rooker, and Newton, Captains Farrant, Kirkby, Orton, and Goode, Lieutenants Nuthall, Hobling, Webb, Spring, Forrest, and Kingston, and Chief Superintendent Gilbert (St. John Ambulance Brigade). The First Field Ambulance is now at full strength, and the ranks of the special reserve are beginning to be filled in.

THE FIRST SOUTH MIDLAND MOUNTED BRIGADE FIELD AMBULANCE.

The annual dinner and smoking concert of the First South Midland Mounted Brigade Field Ambulance were held at Birmingham on February 26th. The chair was taken by Major W. H. Stephen. the officer commanding, and there were present Colonel W. P. Whitcombe, Majors J. E. H. Sawyer and C. Howkins, Captains Stephens and Craig, Lieutenants Forrest, Hobling, Buchanan, and Spring, and a large number of non-commissioned officers and men. Colonel Whitcombe congratulated the Field Ambulance on the excellent progress it had made, for it was now at full strength, and contained a keen and a superior class of men in its ranks. He complicated Major Stephen on having brought the ambulance to such great efficiency in so short a time, and paid tribute to the splendid services of Captain Stephens, the Adjutant of the South Midland Division of the R.A.M.C.(T.). He also announced that the War Office had made a grant towards the construction and equipment of a new head quarters at Witton.

CHURCH PARADE AT ASTON.

A church parade was held at the Aston Parish Church on February 20th, and there attended the 8th Battalion the Royal Warwickshire Regiment, the 1st Mounted Field Ambulance, the 1st and 2nd Field Ambulances, South Midland Division, and the 1st Southern General Hospital. The R.A.M.C. units were commanded by Colonel Whitcombe, the Administrative Medical Officer of the South Midland Division. Considering the very inclement weather there was a good attendance of officers and men. The sermon was preached by the Right Rev. Bishop Taylor Smith, C.V.O., D.D., Chaplain-General to His Majesty's Forces.

CONDITIONS OF PROMOTION.

WE are asked the following question: A medical officer, whose commission in the Volunteers is dated 1899, was civil surgeon in charge of troops for three years before, and has been in medical charge of recruiting in the town in which he resides for about thirteen years. He is the oldest officer in his regiment, and desires to know whether he is entitled to apply for promotion to the rank of surgeon-major.

*** Presumably this officer has been transferred to the Territorial Force either as Surgeon-Captain in his regiment or as Captain R.A.M.C.(T.) attached to the regiment. When he has served eight years and a half as Surgeon-Captain or Captain (Volunteer service will count) he will probably be promoted if he makes application through the proper channel.

Public Health AND POOR LAW MEDICAL SERVICES.

THE APPOINTMENT OF MEDICAL OFFICERS OF HEALTH.

W.—The appointment of a medical officer of health, one-half of whose salary will be paid out of the Exchequer grants of a county council, must be made in accordance with the terms of the Order of the Local Government Board dated March 23rd, 1891. This Order requires the appointment to be advertised. A town of over 50,000 inhabitants which is a county borough receives the Exchequer grants. The payment of one-half of the salary of the medical officer of health out of the grants would therefore be a mere question of accounts, and if it were not so paid the funds of the town would suffer no loss. It would appear from this that the medical officer of health of a county borough may be appointed in disregard of the Order of March 23rd, 1891. The medical officer of health of a district or a combination of districts with a population of 50,000 or more persons is required by Section 18 (2) of the Local Government Act, 1888, to possess a qualification in public health, or have been for three years prior to 1888 a medical officer or medical inspector of the Local Government Board, or for three consecutive years prior to 1892 the medical officer of health of a district with a population of at least 20,000 persons.

Medical News.

THE Naval Medical Dinner will take place in June, and notice giving details will be issued later on.

THE annual general meeting of the Medical Graduates' ollege and Polyclinic will be held at 22, Chenies Street, .C., on Friday next, at 5.15 p.m.

AT a meeting of the Pharmaceutical Society on Tuesday xt, at 8 p.m., Professor Arthur W. Crossley, F.R.S., ill read a paper, illustrated by lantern slides, on the ilization of atmospheric nitrogen.

THE Secretary of State for the Colonies has appointed r. W. D. Ellis, of the Colonial Office, to be a member of e Advisory Committee on medical and sanitary questions nnected with the British Colonies and Protectorates in opical Africa.

AT a provincial meeting of the Royal Sanitary Institute Newcastle-upon-Tyne on March 11th, at 7.30 p.m., a discussion on sanitary administration, with reference to gislation, past and recent, will be opened by Dr. H. Kerr, ssistant M.O.H. On the afternoon of the same day a visit ill be paid to the new hydrolyzing works at Durham.

AT a meeting to be held shortly at Hounslow, Sir R. ouglas Powell, President of the Royal College of Physians, will deliver an address in connexion with the oposal to establish a consumption sanatorium for iddlesex by private enterprise; the attempt to establish ch a sanatorium under the county authority has failed.

AN association for the repression of quackery has lately en founded at Dresden. At the inaugural meeting an ldress was delivered by Dr. Neustätter, joint editor of the *esundheitslehrer*. Dr. Beythien, head of the Chemical nalysis Office of the City of Dresden, was elected the first esident of the new society.

OWING to the lamented death of Dr. W. B. Ransom, there a vacancy for an honorary physician on the staff of the eneral Hospital, Nottingham. The hospital has within ie last few years suffered many losses through the death Dr. Ransom, senior and junior, and of Dr. Brookhouse, id the appointment of Dr. Handford to be Medical Officer the Notts County Council.

DR. F. W. ANDREW, medical officer of health, has cently made a report upon the vital statistics of the ampstead Garden Suburb. The number of births regisred was 33, being at the rate of 13.5 per 1,000. No death an infant occurred during the year, and 3 of the 4 deaths ere of persons over 65 years of age. The only cases of fectious disease were 7 cases of scarlet fever, a disease hich had been prevalent throughout the district; the ses in the Garden Suburb were traceable to outside ses in school life. The medical officer of health conders that these returns speak well for the health of the mmunity.

THE President of the Board of Education has appointed Departmental Committee to inquire whether the cost of ilding public elementary schools can properly be reced, and whether any alteration in the law is required authorize the adoption of materials or methods of conruction different from those ordinarily employed at esent. The chairman of the committee is Mr. L. A. lby-Bigge, C.B., Principal Assistant Secretary of the lementary Education Branch of the Board of Education, id the other members are Mr. N. T. Kershaw, C.B., ssistant Secretary of the Local Government Board, and r. F. Clay, Architect of the Board of Education. Mr. G. Milne, Senior Examiner of the Board of Education, ill act as secretary.

SIR GEORGE COUZENS presided on February 25th er the annual meeting of the subscribers to the oyal Portsmouth Hospital, held in the Town Hall. The eport stated that there had been an increase in all departents of the institution's work, the number of patients eated being the largest recorded in any single year. wo fresh instalments of the new hospital—namely, the ildren's wards and an out-patient department—had een completed. The latter, which with the equipment st £4,583, was the munificent gift of Mr. Woolmer White. had been found necessary to provide additional accomodation for the nursing staff, and a new nursing home as being built, towards the cost of which an anonymous onor had promised to give £2,000 on condition that £5,500 as raised by the subscribers during three years. Arrangements are being made for a systematic canvass of the wn and district, by which it is hoped to raise this sum nd also to increase the annual income. The excess of xpenditure over the ordinary income for the year 1909 as £2,094 17s. 3d.

Letters, Notes, and Answers.

BRITISH MEDICAL ASSOCIATION AND BRITISH MEDICAL JOURNAL.

THE offices of the British Medical Association and of the BRITISH MEDICAL JOURNAL are at 429, Strand, London.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London*. The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, London*.

TELEPHONE (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

F. H. desires to know whether injections of fibrolysin are likely to benefit a case of fibrous ankylosis of joints (metacarpal) following gonorrhoeal rheumatism of some four months' duration.

J. P. desires to hear of any institution for a lady aged 65, very deaf, and unprovided for, unable to earn her own living, but who could do a little light household duty; a few shillings a week payment might possibly be arranged.

EPIDEMIC JAUNDICE IN CHILDREN.

DR. J. H. POWER asks for information as to the cause of simple jaundice in children living in the same house. He has lately met with four cases in the same family, and has come across several others.

*** Although the occurrence of "infectious" jaundice is fairly generally recognized, little is said regarding it in most of the ordinary textbooks on children's diseases. Emmett Holt merely states that an epidemic had been noted by Rehn (of Frankfort). In the textbook of children's diseases by Williams is a concise account of most that was known of the disorder at that time. Professor Stoos, of Berne, in Pfaundler and Schlossmann's treatise on diseases of children (vol. iii), says that widespread epidemics have been repeatedly noticed in early life. He has seen several in Berne, and refers to others elsewhere. In one epidemic in Berne it was traced to infection of the water supply. The complaint is clearly microbic in origin, but the responsible micro-organism has not been definitely identified. In one epidemic the *Bacillus proteus fluorescens* was considered to be the responsible agent, and in others the *Bacillus coli*. Inconclusive results were obtained from clumping with typhoid and paratyphoid bacilli. Hutinel and Prosper Merklen (*Les maladies des enfants*, Hutinel, vol. iii) state that epidemics would appear to be more common in England than elsewhere. They refer to the account of one by Brunnig in the eighteenth century, and to later ones by Meissner, Holmes, Rehn, and Meinert. They give references to BRITISH MEDICAL JOURNAL, 1894, vol. i; Hermann Flesch, *Jahrb. f. Kinderheilk.*, 1904, Bd. lx; Fringuet, *Presse méd.*, 5 Juillet, 1899; Renon, *Thèse de Paris*, 1895; Lireux, *Thèse de Paris*, 1894. The works of Pfaundler and Schlossmann, and Hutinel contain descriptions of the epidemic form of the disease. Another account will be found in the article by Dr. William Hunter in Allbutt's *System*.

The Internal use of Cocaine.

Dr. J. C. McWalter (Dublin) writes: In a lecture at Belfast on Pharmacological Facts and Fancies, Professor Dixon admitted that the prevalent use of hydrocyanic acid as a gastric sedative in cases of cough or stomach trouble might possibly have a scientific foundation, but he suggested that equally good results were obtained from minute doses of cocaine. Now I have tried cocaine, and have found it an amazing failure, so much so that I hesitate to give it again until fortified with the opinion of others. The cases were ordinary ones of pharyngeal cough, subacute gastritis, and gastric ulcer. In all of them the use of morphine and hydrocyanic acid seemed to relieve, whilst the use of cocaine, which was given in doses of $\frac{1}{6}$ grain to $\frac{1}{4}$ grain internally in solution, appeared to aggravate the condition, actually causing or increasing the vomiting and inducing a vague feeling of nausea and discomfort, which repelled the patient from its use. I should like to learn the experience of your readers on this question of the internal use of cocaine for vomiting, as the references in the textbooks are very vague. For many years I have observed that cocaine given with port wine or coca wine, in doses of $\frac{1}{10}$ grain to $\frac{1}{8}$ grain, was likely to cause nausea or vomiting, unless the patient was moderately strong, but it is, in my experience, by no means so likely to disagree as when given in an ordinary mixture.

ANSWERS.

H. E. T.—The majority of bacteriologists use a 20 per cent. dilution of sulphuric acid for the removal of fuchsin stains from the fingers. Washing with alcohol after may be found advantageous, but is not necessary. The acid does not harm the skin if the process is rapidly carried out and the hands well rinsed afterwards.

Recurrent Mastitis.

Dr. Percy Newell (St. Leonards-on-Sea) writes: I would recommend "P." to try the internal administration of tinct. phytolaccæ decandræ 5 minims, ex aqua ter die; and an ointment of the same with a lanolin basis locally.

Prurigo Senilis.

F.R.C.P. advises "Nemo" to try the effects of swabbing with best lavender water. I have seen ("F.R.C.P." adds) excellent effects follow this application in an elderly man who recently consulted me. The application might be made over a small area as a trial, since the alcohol which lavender water contains causes some little smarting at first.

Urinary Analysis.

A. H.—(1) The method most usually employed for estimating nitrogen existing as ammonia or its compounds in the urine is the magnesium carbonate distilling method, which is performed *in vacuo*. (2) Kjeldahl's method is the best method of estimating total nitrogen in urine, and the nitrogen existing in organic combination may be calculated from this estimation by subtracting the nitrogen values ascertained by the ammonia estimation from the total nitrogen. (3) Although several excellent and comparatively simple new methods of quantitative estimation of acetone in urine have recently been described in the *American Journal of Physiology*, the most reliable method in general use is that described by Messinger in 1888, of estimating it as iodoform

The mode of making these analyses is described in full in Neubauer and Vogel's *Analyse des Harns*, which is the most complete book on the subject with which we are acquainted. Dr. J. Dixon Mann gives useful accounts of the estimation of ammonia, total nitrogen and acetone (*inter alia*), in his *Physiology and Pathology of the Urine* (Ch. Griffin and Co., London, 1904). Speaking generally, our correspondent would probably do well to provide himself with a copy of the last edition of *Clinical Diagnosis*, by Rudolf v. Jaksch, M.D., fifth English edition, edited by Archibald E. Garrod, M.D., F.R.C.P. (London: Griffin and Co. 1905. 24s.)

LETTERS, NOTES, ETC.

Erratum.—In the fourth line of Mr. E. Waggett's letter on "The Universal Service Petition," published last week, p. 547, for "rational" read "national."

A Disclaimer.

Dr. G. E. Halstead (Ramsgate) writes: I have had sent to me from a temperance organization in Sheffield a copy of a tract concerning alcohol. I have no complaint to make about the bulk of its contents, which are mostly extracts from a newspaper article written by me in reply to a criticism in that newspaper concerning an address given here by me. But at the end of the tract are five lines of description of my qualifications, etc.—information evidently obtained from the *Medical Directory*—and an incorrect statement as to authorship. Of the insertion of these five lines in the tract I most strongly disapprove. Until I saw the tract on February 17th I knew nothing of its existence or of the organization which published it. I at once wrote to the secretary, asking him to stop as completely as possible the circulation of the tract in its present form, and in any future copies to black out the personal paragraph to which I strongly object.

Lactic Acid as an Antiseptic.

Dr. Francis Bond (Gloucester) writes: "In common, no doubt, with many of your other readers I was much struck on reading the remarkable article in the Journal of January 22nd last, by Dr. David Watson, Surgeon to the Glasgow Lock Hospital, on the treatment of gonorrhoeal and mixed infections of the female genital tract by lactic acid bacilli. The results obtained by Dr. Watson by the injection of sour whey into the vagina of patients affected with chronic gonorrhoea, in producing a speedy cure, at once suggested to me, as they may possible have done to others, the question, If lactic acid is so effective in destroying the vitality of such a persistent and intractable organism as the gonococcus, why should it not be equally effective in destroying such much weaker organisms as the Klebs-Loeffler bacillus of diphtheria and the specific germ of scarlet fever, whatever that may be? We have learnt from the well-known researches of Metchnikoff and others the power of lactic acid in inhibiting the *Bacillus coli* and other faecal bacteria, and it is, therefore, not unreasonable to assume that it may possess the same influence over all pathogenic germs.

"So impressed was I with the importance of these considerations that I at once instituted, with the kind assistance of Dr. Cossham, the Medical Superintendent of the Cirencester Isolation Hospital, an experiment for the purpose of testing the value of the above assumption, by having the throats and noses of some children, in whom the Klebs-Loeffler bacillus was diagnosed to be in full virulence, systematically sprayed with some acid whey which I had specially prepared for the purpose. The result was so satisfactory as to indicate the desirabliity of repeating the experiment on a larger scale so soon as appropriate subjects and reliable means of applying the treatment could be secured.

"Meantime the experiment is one which any medical officer of health or medical practitioner can easily make for himself, and, if he finds any trouble in obtaining an appropriate form of whey for the purpose, I shall be glad to inform him where he can procure a reliable article."

Dr. Bond also suggests that the lactic acid treatment might be applied in typhoid fever, and we may therefore refer to the paragraph in the British Medical Journal of July 10th, 1909, p. 100, founded on the *Memorandum by the Director-General, Army Medical Service, on the Transmission of Enteric Fever by the "Chronic Carrier"* [Cd. 4,609]. From this it will be seen that the method was used in two army cases in which the bacilli were excreted only in the faeces. One case appeared to be cured, but in the other no very distinct benefit was observed. The idea of treating typhoid carriers with lactic acid bacilli had also occurred to Professor Drigalski, who, in conjunction with Professor Fraenkel, carried out observations on two cases with apparently successful results.

In commenting further upon this subject Dr. Bond says: "I have always maintained the view that it is not the lactic acid bacilli which are the direct sources of the valuable dietetic properties of sour milk, sour whey, sour buttermilk, or sour cheese, but lactic acid itself and possibly some special enzymes which, as Duclaux originally suggested, these bacilli secrete. It is the more important to note this point, for with the fall of the pretty theory about the conflict between the lactic acid bacilli and the saprophytic organisms of the colon collapses also the interested and commercial talk about the importance of securing special forms of these bacilli, to which Metchnikoff unfortunately lent the weight of his name in the somewhat illogical connexion which he traced between the longevity of Bulgarian peasants and the alleged influence of a special form of Bulgarian bacillus.

"I may be allowed to conclude by pointing out that the science of cheesemaking, at least so far as the neutralization of the effect of taints in the milk and the prevention of putrefactive fermentation during the ripening of the curd into cheese are concerned, depends entirely on the recognition of the antiseptic influence of the lactic acid developed during the process from the fermentation of the milk sugar. If it were not for this property of lactic acid cheesemaking would be impossible, for the curd obtained by the action of rennet on the albumenoid elements of the milk would soon become a stinking mass."

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0		0
Each additional line	0		6
A whole column		13	4
A page	8	0	0

An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

Note.—It is against the rules of the Post Office to receive *postes Restante* letters addressed either in initials or numbers.

Association Notices.

RANCH AND DIVISION MEETINGS TO BE HELD.

LANCASHIRE AND CHESHIRE BRANCH.—A meeting of the anch Organization and Finance Committee will be held at e Liverpool Medical Institution on Wednesday, March 9th, 4.30 p.m.—F. CHARLES LARKIN, Honorary Secretary, Rodney Street, Liverpool.

LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION. A special meeting of the Division will be held in the Board om of the Altrincham Hospital on Thursday, March 17th, 4.30 p.m. prompt. Tea will be served at 4 p.m. Further rticulars in future notice.—H. G. COOPER, Honorary cretary.

LANCASHIRE AND CHESHIRE BRANCH: WARRINGTON DIVISION. A meeting of the Division will be held at the Infirmary, arrington, on Tuesday, March 8th, at 4 p.m. Agenda: search Defence Society. Hospitals Board (SUPPLEMENT, pril 10th, 1909). Poor Law Reform (SUPPLEMENT, February h, 1910). The Relation of Homoeopathy to the Association UPPLEMENT, February 12th, 1910). Medical Sociology. Public edical Service. Other correspondence.—T. A. MURRAY, onorary Secretary.

SOUTH-EASTERN BRANCH: MAIDSTONE DIVISION.—The next eeting of this Division will be held on Friday, March 25th, 10, at 3.30 p.m. The Executive meeting will be at 3 p.m. ny member having subjects to bring forward is requested to mmunicate with the Honorary Secretary, as early as possible. GEORGE POTTS, Honorary Secretary, Ophthalmic Hospital, aidstone.

YORKSHIRE BRANCH.—The next meeting of the Branch will held at the Bull Hotel, Wakefield, on Wednesday, March 16th, 4 o'clock. Council meeting at 3.15. Members intending to ad papers, show cases, or propose new members are requested communicate at once with the Honorary Secretary. embers will dine together at 6.30.—ADOLPH BRONNER, radford, Honorary Secretary.

Vacancies and Appointments.

his list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

SHTON-UNDER-LYNE UNION.—Assistant Resident Medical Officer (male). Salary, £130 per annum.

IRMINGHAM: GENERAL HOSPITAL.—Assistant House-Surgeon. Salary at the rate of £40 per annum.

IRMINGHAM: QUEEN'S HOSPITAL.—House-Surgeon. Salary at the rate of £50 per annum.

RADFORD CHILDREN'S HOSPITAL.—House-Surgeon (male). Salary, £100 per annum.

ROMLEY BOROUGH EDUCATION COMMITTEE.—Temporary School Medical Officer (female). Salary at the rate of £20 per calendar month.

ARDIFF: UNIVERSITY COLLEGE OF SOUTH WALES.—Professor of Pathology and Bacteriology. Salary, £450 per annum.

ARLISLE: CUMBERLAND INFIRMARY.—Resident Medical Officer (male), to act as House-Physician and House-Surgeon for six months each. Salary at the rate of £80 and £100 per annum respectively.

ENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—House-Surgeon. Salary at the rate of £50 per annum.

HELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—Clinical Assistant.

ITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—(1) House-Physician (male); salary at the rate of £75 per annum. (2) Physician to Out-patients; honorarium, 40 guineas per annum.

ITY OF LONDON LYING-IN HOSPITAL, City Road, E.C.—Resident Medical Officer. Salary at the rate of £50 per annum.

AST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House-Surgeon (male). Salary at the rate of £75 per annum.

REAT NORTHERN CENTRAL HOSPITAL, Holloway, N.—(1) Senior House-Surgeon. (2) Two Junior House-Surgeons. (3) Senior House-Physician. (4) Junior House-Physician. Salary for senior officers at the rate of £45 per annum and for juniors £35 per annum.

UDDERSFIELD INFIRMARY.—(1) Senior Assistant House-Surgeon. (2) Junior House-Surgeon (males). Salary, £80 and £60 per annum respectively.

ULL ROYAL INFIRMARY.—House-Physician. Salary, £100 per annum.

EEDS TUBERCULOSIS ASSOCIATION.—Resident Medical Officer for the Sanatorium at Gateforth. Salary at the rate of £100 per annum.

IVERPOOL INFIRMARY FOR CHILDREN.—Resident House-Surgeon. Salary at the rate of £60 per annum.

IVERPOOL: ROYAL SOUTHERN HOSPITAL.—(1) House-Physician. (2) House-Surgeon. Salary at the rate of £60 per annum each.

ONDON SCHOOL OF TROPICAL MEDICINE, Royal Albert Dock, E.—Craggs Research Prize. Value, £50.

MANCHESTER CHILDREN'S HOSPITAL, Pendlebury.—Male Resident Medical Officer. Salary for first six months £40, and for second six months £50.

MANCHESTER: VICTORIA UNIVERSITY.—(1) Ashby Memorial Scholarship, value £100. (2) Two Entrance Scholarships in Medicine, value £100 each.

MARGATE: ROYAL SEA BATHING HOSPITAL.—Resident Surgeon, to act as Junior and Senior for six months each. Salary at the rate of £80 and £120 per annum respectively.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—(1) Resident Anaesthetist. (2) House-Physician. (3) House-Surgeon. (4) Assistant House-Physician. (5) Assistant House-Surgeon. Salary at the rate of for (1) £80 per annum and £10 on completion of annual report, for (2) and (3) £40, and for (4) and (5) £20.

MIDDLESEX HOSPITAL, W.—Medical Registrar.

NATIONAL HOSPITAL FOR DISEASES OF THE HEART, Soho Square, W.—Honorary Assistant Physician.

NORWICH: NORFOLK EDUCATION COMMITTEE.—Assistant Medical Officer. Salary, £250 per annum.

NORWICH: JENNY LIND INFIRMARY FOR CHILDREN.—Lady Resident Medical Officer. Salary, £50 per annum.

NOTTINGHAM: GENERAL HOSPITAL.—Honorary Physician.

PRESTWICH: COUNTY ASYLUM.—Junior Assistant Medical Officer. Salary, £150 per annum, increasing to £250.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, E.—(1) Pathological Registrar. (2) Assistant Resident Medical Officer. (3) House-Surgeon. (4) Surgeon in charge for out-patient department. Salary at the rate of for (1) £200 per annum, for (2) £75, and (3) £60.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Dental Surgeon in Out-patient Department.

SALFORD ROYAL HOSPITAL.—(1) House-Surgeon. (2) Junior House-Surgeon. Salary at the rate of £60 and £50 per annum respectively.

SALFORD UNION.—Two Male Resident Medical Officers at the Union Infirmary. Salary, £120 per annum each.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—Assistant House-Surgeon. Salary, £82 per annum.

SURGICAL AID SOCIETY, Salisbury Square, E.C.—Surgeon.

WARRINGTON INFIRMARY AND DISPENSARY.—Junior House-Surgeon. Salary at the rate of £100 per annum.

WARRINGTON UNION.—Assistant Resident Medical Officer (male). Salary, £125 per annum.

WINCHESTER: ROYAL HAMPSHIRE COUNTY HOSPITAL.—House-Physician.

WISBECH: NORTH CAMBRIDGESHIRE HOSPITAL.—Male Resident Medical Officer. Salary, £150 per annum.

CERTIFYING FACTORY SURGEON.—The Chief Inspector of Factories announces a vacancy at Montrose, co. Forfar.

APPOINTMENTS.

ADAMS, W. F., M.R.C.S., L.R.C.P., Certifying Factory Surgeon for the Rayleigh District, co. Essex.

BARON, R. W., M.B., Ch.B.N.Z., District Medical Officer of the Hendon Union.

BARRS, J. W., F.R.C.S.I., Honorary Surgeon to the Walthamstow Hospital.

CARSTAIRS, C. Douglas, M.D., D.Sc., F.R.S.E., Extern Examiner in Medical Jurisprudence and Hygiene in the National University of Ireland.

FREER, R., M.D.Camb., District Medical Officer of the Lichfield Union.

GEOGHEGAN, A. V., M.D., B.Ch.Dub., Medical Officer of the Workhouse of the Risbridge Union.

MCGOWAN, N., L.R.C.P. and S.Edin., District Medical Officer of the Risbridge Union.

MILES, T. G., L.S A., District Medical Officer of the Ross Union.

MOORE, S. G., M.D.Vict., D.P.H., Certifying Factory Surgeon for the West Huddersfield District, co. York.

MORROW, H. L., M.B., Ch.B.Edin., Certifying Factory Surgeon for the Ballylesson District, co. Down.

PRATT, Eldon, M.D.Lond., M.R.C.S., L.R.C.P., Honorary Surgeon, Whitehaven and West Cumberland Infirmary.

ROWLEY, O. F., M.R.C.S., L.R.C.P., District Medical Officer of the Penistone Union.

SMALLWOOD, E., M.D., M.R.C.S., L.R.C.P., L.S.A., Medical Officer for the Norwood District; Medical Officer to the Home for Aged Poor, Norwood.

SMARTT, W., F.R.C.S., L.R.C.P.Irel., District Medical Officer of the Brixworth Union.

WATSON, J. N., M.R.C.S., L.R.C.P., Certifying Factory Surgeon for the Wootton Basset District, co. Wilts.

WHITELEY, H. W., M.B., Ch.B.Vict., District Medical Officer of the Bradford (Yorks) Union.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTH.

TURNER.—On February 27th, at 17, Harley Street, W., the wife of William Turner, M.S., F.R.C.S., of a son (Douglas Hamilton),

DEATHS.

CLARK.—On February 24th, at Lichfield, James Clark (only son of John Clark), M.D.Univ.Aberd., L.R.C.S.E., F.R.C.S.E., aged 75. Friends please accept this (the only) intimation.

PITTS-TUCKER.—On February 23rd, at Sutton, Isle of Ely, suddenly, F. A. Pitts-Tucker, M.R.C.S., L.R.C.P., aged 42.

SPENCE.—At St. Ninians, Burntisland, on February 24th, Robert Spence, M.B., C.M., aged 62 years.

DIARY FOR THE WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 9 p.m.—Third Lettsomian Lecture: Dr. J. S. Risien Russell: The Cerebellum and Its Affections.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Professor R. H. Paramore: The Evolution of the Pelvic Floor in Non-Mammalian Vertebrates and Pronograde Mammals.

TUESDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Second Goulstonian Lecture, by Dr. J. S. Bolton: A Contribution to the Localization of Cerebral Function, Based on the Clinico-Pathological Study of Mental Disease.

ROYAL SOCIETY OF MEDICINE:

SURGICAL SECTION, 5.30 p.m.—Papers:—Mr. Somerville Hastings: Rupture of the Tunica Vaginalis in Hydroceles. Dr. W. Soltau Fenwick: The Clinical Significance of Gastric Hypersecretion, and Its Connexion with Latent Disease of the Appendix. Mr. H. Paterson: Appendicular Gastralgia of the Appendix as a Cause of Gastric Symptoms.

WEDNESDAY.

HUNTERIAN SOCIETY, London Institution, Finsbury Circus, E.C., 8.30 p.m.—Short papers by Dr. J. H. Sequeira, Dr. Ettles, and Dr. Theodore Thompson.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Professor C. Bolton: The Pathology of Gastric Ulcer.

ROYAL SOCIETY OF MEDICINE:

BALNEOLOGICAL AND CLIMATOLOGICAL SECTION, 5 30 p.m.—Discussion on Arthritis Deformans will be opened by Dr. Llewelyn Jones (Bath).

UNITED SERVICES MEDICAL SOCIETY, Royal Army Medical College, Grosvenor Road, S.W., 8.30 p.m.—Paper:—Staff-Surgeon H. C. Adams, R.N.: Treatment of Syphilis by Intramuscular Injection of Metallic Mercury, Notes on Mercurial Creams, etc.

THURSDAY.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 11, Chandos Street, Cavendish Square, W., 8 p.m.—Card Exhibits by Dr. T. H. Butler, etc. Papers:—Mr. M. L. Hepburn: Xerosis of the Conjunctiva and Night Blindness. Mr. R. R. James: A Contribution to the Bacteriology of Panophthalmitis.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—First Lumleian Lecture, by Professor W. Osler, F.R.S.: Angina Pectoris.

ROYAL SOCIETY OF MEDICINE:

OBSTETRICAL AND GYNAECOLOGICAL SECTION, 7.45 p.m.—Specimens: Dr. F. J. McCann: (1) Sarcoma of Cervix Removed by Abdominal Colpo-hysterectomy; (2) Abdominal Pregnancy. Demonstration with Epidiascope: Mr. T. Carwardine: Microscopical Appearances in Tubal Pregnancy. Short Communication: Dr. Russell Andrews: Carcinoma of the Cervix of a Prolapsed Uterus with Contact Carcinoma of the Vulva.

FRIDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Professor C. Bolton: The Pathology of Gastric Ulcer.

ROYAL SOCIETY OF MEDICINE:

CLINICAL SECTION, 8 p.m.—Clinical Cases.

POST-GRADUATE COURSES AND LECTURES.

BROMPTON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, S.W.—Wednesday, 4 p.m., The Relation of Fibrosis to Tuberculosis.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Lectures: Tuesday, 3.45 p.m., Larynx. Thursday, 4.30 p.m., A Summary of Recent Pathological Experience on the Practice of the Hospital. Friday, 3.45 p.m., Larynx.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat at noon and 4 p.m., Monday and noon, Thursday; Skin, at noon and 4 p.m., Thursday, and noon Friday; Eye, 11 a.m., Wednesday and Saturday; Radiography, 4 p.m., Thursday. Special Lectures: Monday, 2.15 p.m., Stricture; Tuesday, 2.15 p.m., The Wasserman Reaction.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week, at 4 p.m. each day: Monday, Skin. Tuesday, Medical. Wednesday, Surgical. Thursday, Surgical. Friday, Ear, Nose, and Throat. Lectures, at 5.15 p.m. each day, will be given as follows: Monday, Treatment of Puerperal Infection. Tuesday, The Treatment of Pulmonary Tuberculosis by Bovine Tuberculin (Results of Treatment). Wednesday, Cancer of the Tongue. Thursday, The Treatment of Some of the Forms of Chronic Rheumatism.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Acute Encephalitis. Friday, 3.30 p.m., Apraxia and Agnosia.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics 2.30 p.m., Medical Out-patient: Nose, Throat and Ear 4.30 p.m., Medical In-patient. Tuesday, 10 a.m., Medical Out-patient Clinic; 2.30 p.m., Operations; Clinics: Surgical, Gynaecological; 4.30 p.m., Lecture, Colitis and Pericolitis. Wednesday, 2.30 p.m., Medical Out-patient: Skin and Eye Clinics; *X* Rays. Thursday, 2.30 p.m., Gynaecological Operations; Clinics: Medical Out-patient; Surgical Out-patient; 3 p.m., Medical In-patient. 4.30 p.m., Lecture: The Clinical Features of Some Unusual Abdominal Tumours. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Eye; 3 p.m., Medical In-patient.

POST-GRADUATE COLLEGE, West London Hospital, Hammersmith Road, W.—The following are the arrangements for next week: Daily, 2 p.m., Medical and Surgical Clinics; *X* Rays; 2.30 p.m., Operations. Monday, Wednesday and Thursday, 2 p.m., and Saturday, 10 a.m., Diseases of the Eye. Tuesday and Friday, 10 a.m., Gynaecological Operations; 2 p.m. (and Wednesday and Saturday, 10 a.m.), Diseases of Throat, Nose, and Ear 2.30 p.m., Diseases of the Skin. Wednesday and Saturday, 10 a.m., Diseases of Children. Wednesday 2.30 p.m., Diseases of Women. At 10 a.m., Monday and Thursday, Demonstration by Surgical Registrar. Friday, Demonstration by Medical Registrar. At 12 noon, Pathological Demonstration. At 12.15 p.m. Wednesday, Practical Medicine. At 5 p.m., Monday, Some Clinical Facts in the Study of Ophthalmic Disease. Tuesday, Clinical Lecture. Wednesday, Medicine. Thursday, Tonsillitis. Friday, Compression Paraplegia.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
MARCH.	
6 Sunday ..	
7 MONDAY ..	LONDON: Standing Ethical Subcommittee, 2 p.m.
8 TUESDAY ..	WARRINGTON DIVISION, *Lancashire and Cheshire Branch*, Infirmary, Warrington, 4 p.m.
9 WEDNESDAY	LANCASHIRE AND CHESHIRE BRANCH, Meeting of Branch Organization and Finance Committee, Liverpool Medical Institution, 4.30 p.m. LONDON: South-Eastern Branch Council, 3 p.m.
10 THURSDAY ..	BIRMINGHAM BRANCH, Medical Institute, Edmund Street, 3.30 p.m.
11 FRIDAY ..	
12 SATURDAY ..	
13 Sunday ..	
14 MONDAY ..	
15 TUESDAY ..	WEST SOMERSET BRANCH, Taunton and Somerset Hospital, 3.30 p.m.

Date.	Meetings to be Held.
MARCH *(continued)*.	
16 WEDNESDAY	CARDIFF DIVISION, *South Wales and Monmouthshire Branch*, Cardiff. RICHMOND DIVISION, *Metropolitan Counties Branch*, Medico-Political Meeting, Royal Hospital, Richmond, 8.30 p.m. YORKSHIRE BRANCH, Bull Hotel, Wakefield, 4 p.m.; Council Meeting, 3.15 p.m.; Dinner, 6.30 p.m.
17 THURSDAY ..	ALTRINCHAM DIVISION, *Lancashire and Cheshire Branch*, Special Meeting, Board Room, Altrincham Hospital, 4.30 p.m.; Tea, 4 p.m. CITY DIVISION, *Metropolitan Counties Branch*, Brooke House, Upper Clapton, 8.30 p.m. LAMBETH DIVISION, *Metropolitan Counties Branch*, Evelina Hospital, 4 p.m. LONDON: Metropolitan Counties Branch Council, 4.30 p.m.

Remarks
ON
HE CAUSES AND TREATMENT OF FUNCTIONAL DYSPEPSIA.*

BY DAVID DRUMMOND, M.A., M.D., D.C.L.,
SENIOR PHYSICIAN, ROYAL VICTORIA INFIRMARY, NEWCASTLE-ON-TYNE.

WISH to make it quite clear at the outset that the bject we have in hand is the treatment of purely nctional cases of indigestion, involving reference to eir causation. This naturally excludes all cases of stric and duodenal ulcer, dilatation from pyloric struction, and malignant disease of the stomach; in ct, all those organic cases which have been swept of te into the surgical net of ever-increasing dimensions, hich net must now be stretched wide enough to include en certain cases of chronic and latent appendicitis.

This is not the moment at which to discuss the question tely brought forward by Mr. Moynihan of Leeds, which as for some time past more or less occupied the minds of bdominal surgeons and all physicians interested in gastric ses, namely, May not distant lesions, and especially sions of the appendix, be responsible for symptoms ferable to the stomach and commonly ascribed to gastric id duodenal ulcer? But I may say that my own experi- nce would support Mr. Moynihan's contention, as I have et with several cases in which the clinical picture was at of gastric ulcer, whereas the only structural abdominal ange found on exploration was in the appendix.

I feel, however, with Mr. Bowlby, and my colleague and -worker, Mr. Rutherford Morison, that the experience practical physicians and surgeons does not warrant the nclusion that cases in which the symptoms of gastric cer are the result of chronic appendicitis are of common currence, and that it is incumbent upon us to approach ith still greater caution the question of an operation in ses in which the symptoms point to chronic functional yspepsia. Before long no doubt we shall view the whole atter in its proper perspective, and be in the position to istinguish on ascertained diagnostic grounds the cases at are suitable for medical from those that are suitable r surgical treatment.

Meantime there still remains to us the vast majority of yspeptic conditions which form a very large proportion of e cases that engage the attention of the general practi- oner. Assuming that organic disease is excluded, I pass n to consider functional gastric disease and its treatment.

First, as to the character of the functional disturbance, fully recognize the importance of distinguishing between e various forms of dyspepsia from the physiological point f view of disturbance of the various gastric functions, but think if we are to treat our patients' cases with success e must also recognize that each dyspeptic individual is able in a peculiar way to some one form of indigestion by irtue of some special inherent weakness or anomaly. In ne there is a tendency to excess of hydrochloric acid and o-called "acid dyspepsia" is the trouble. In another the ecretion is deficient and his case is one of "atonic dys- epsia." In yet another carbohydrate digestion is imper- ct, so starches come to be the bugbear; whilst in a fourth verything is ascribed to disordered hepatic function; or, gain, another class may be labelled "defective motility." do not quarrel with this attempt to lay a finger upon the pecial part of the digestive system at fault, but what I vant to point out is that we do not help our patients a reat deal by thus classifying their complaints, and that it s more to the point to recognize that whatever the special orm of indigestion to which they are liable may be, the ttacks can nearly always be traced to a definite cause vhich in the individual acts with unerring certainty in roducing their own special form of indigestion. In other vords, it is clear that whilst it is a matter of scientific nterest to diagnose accurately the special form of indiges- ion with which we have to deal, it is of much greater ractical importance to discover the cause and point to the lirection in which relief may be obtained.

* Condensed and recast from a lecture delivered at the Post-Graduate College and Polyclinic.

EXCESS OR DEFICIENCY OF HYDROCHLORIC ACID.

When confronted with a case of functional indigestion, it is a common practice to attempt first to ascertain whether the symptoms suggest an *excess* or a *deficiency* of hydrochloric acid—in other words, whether the case belongs to the sthenic or asthenic type of dyspepsia; but to determine this point is often by no means easy.

The former is associated with a more robust and more energetic type of person than the latter, and the subject of excess of acid has usually a fair appetite, which may be excessive, and suffers from epigastric fullness and at times heartburn, pyrosis, etc, which symptoms are generally postponed some hours after food. As a rule, the subject of asthenic dyspepsia is, on the other hand, a weakling with predominating nervous symptoms, lack of appetite, pain or discomfort soon after food, flatulency, etc., which symptoms go on throughout the whole time of digestion. Such patients are afraid of food, which aggravates their trouble, whilst the patient with sthenic dyspepsia is often materially relieved after eating a good meal.

Assuming it is possible to determine the part played in production of the symptoms by an excess of hydrochloric acid, or the want of it, we proceed to make a careful selection of the remedy to be employed. In atonic cases, so often met with amongst poor overworked and nervously prostrate women, we may prescribe an acid and nux vomica mixture with advantage, though it is well to bear in mind the fact that such patients may be suffering at the moment they seek advice from an active catarrhal condition of the gastric mucous membrane—gastritis—when it is advisable to commence treatment by a soothing antacid remedy (bismuth, for example) with very simple soft food. It will not be long before we may resort to a more substantial diet and acid tonic after meals, though the success of our treatment will turn largely upon the management of the diet at the commencement, and of the constipation so often a noticeable feature in cases of the kind.

The sthenic cases—hyperchlorhydria—should of course be treated by antacids. The success of these remedies depends so much upon how they are employed, that we cannot, in instructing our patients, give too much attention to the details. Dispensing chemists will tell you how common it is for the instructions upon a prescription to be incomplete, whilst nearly every doctor has had the experience of receiving a request from the patient, either in person or by letter, for instructions how the medicine is to be taken—before or after meals? It is above all things essential at the outset to secure the patient's whole-hearted co-operation, and it is important that he should understand that a second visit, if possible in a few days or a week, is necessary in order to adjust matters; and this is where the consultant is at a disadvantage, for as a rule he only has one chance, one visit at which to give all particulars.

A judicious combination of soda and bismuth an hour or two after meals, and careful diet, will work wonders, provided our diagnosis is correct, but so great are the difficulties in some cases, that it may be impossible to be quite certain whether we are dealing with a case of excessive secretory activity or one of achylia. I may illustrate by the case of a lady aged 38 the subject of constipation with frequent attacks of indigestion, characterized by pain two or three hours after food, heartburn, retching, pyrosis, etc. An active, clever woman, with a strong gouty history, a highly suggestive type, and presenting the symptoms of excessive acid, yet nothing did her so much good as a strong acid and pepsin mixture after food, whilst antacids, prescribed as I have suggested, did not suit her at all.

The treatment of constipation, very often the fundamental and often a subsidiary cause of the dyspepsia, may also present great difficulties. I do not propose here to enter into these, nor to give detailed attention to the medicinal remedies, because I wish to point out that however successfully the character of the dyspepsia may be diagnosed, and however soundly the remedies may be prescribed, it often happens that we still fail to effect a cure, and for this failure I think both an explanation and another line of treatment may be suggested. Unless we can find out and correct what has brought on the dyspepsia —whatever its character may be—our efforts to relieve the condition itself may be persistently thrown away.

For the patient's benefit, the question of first importance is, What is the cause of the condition? What is it that

has led to indigestion? To discover the cause of the ailment is, as you know, often a very difficult matter. Here the personal factor comes in, and unfortunately it is given to comparatively few to be able to elicit from the patient a clear and truthful story, including statements of a highly personal character, which often are admissions made with great reluctance, but without which the doctor is helpless to aid or relieve his patient. Some men naturally invite confidences, whilst others repel them, but, though the capacity to win confidence is very largely a natural gift, it can in a measure be acquired, and any effort on our part in this direction will be found to be amply repaid.

The other day a lady patient had two small skin growths which needed removal. I got a surgical friend to perform the operation, which he did under local anaesthesia. He was a man whose manner is at times a little abrupt, and whose skill with the knife is not to be measured by his suavity. The novocain employed was not very successful, and the patient called out lustily. "Keep still," said the surgeon. I was sitting by the patient and doing my best to assist my friend by encouraging her to remain quiet, and with a view of attracting her attention, and perhaps also to apologize for his manner, I remarked, "You see, he is a surgeon. I don't think he would make a very good physician"; to which she replied, "No, he wouldn't, and he certainly wouldn't get any of our secrets out of us." This illustrates what I mean, and I would repeat, if we are to treat indigestion with success, we must learn the art of getting our patients' secrets out of them.

The great majority of our functional dyspeptic cases are due to certain obvious causes which I may enumerate as follows: Errors of diet, the bolting of food, dental deficiency and imperfect mastication, irregularity of meals, chronic bacterial intoxication, the abuse of alcohol or tobacco, constipation; or, on the other hand, they may be secondary to Bright's disease, phthisis, or other chronic debilitating disease. Or, again, the cause may be remote; for example, it is not infrequently the case that indigestion forms one of the earliest symptoms of prostatic retention with residual urine, the gastric symptoms disappearing with removal of the cause; or a scarcely recognizable anaemia may stand between us and the successful treatment of our patient. But besides all these, another large class of cases exists in which the cause is to be found in some functional nervous disturbance, and I feel we cannot lay too much stress upon the connexion existing between mental states and the digestive function. So much is this the case that I think it would be well within the mark to say that digestion is carried on at a high state of excellence only so long as mental equanimity is maintained. I will return to this later.

We begin, then, the treatment of a case of indigestion by a very careful inquiry into the cause of the condition; and I wish it to be fully understood that by cause I do not mean the essential pathology of the case, though this also has to be taken into consideration, and an accurate diagnosis should include it; but I refer here to the reason why the patient's symptoms have arisen at this particular time, the act of omission or commission on the patient's part which has determined the incidence of the attack. We have seen that as a rule each patient has his own particular brand of indigestion, the symptoms of each attack varying but slightly from previous ones. One person complains of water-brash and heartburn, another of pain or sense of weight which is always in the chest; another has flatulency in the early morning with distension and depression; in another the pain is referred to the epigastrium and between the shoulders; in another, again, all the discomfort is at night, and insomnia is a prominent symptom. As you know, the symptoms are grouped in endless variety, though repeating themselves in individual cases with wonderful consistency, and my aim is to show that often cases can only be treated successfully when the particular fault or habit upon which they depend has been discovered and corrected. From this point of view cases of indigestion may be arranged in groups, which would have a certain practical utility. Thus we have a series of cases in which dyspepsia invariably follows a lowered state of health from whatever cause, such as overwork and the need of rest and holiday, a severe cold, an attack of influenza, etc. In another, certain articles of diet—a hard-boiled egg, for example—and even certain methods of cooking food stand in a causal relationship the attack; others fall naturally into the group dependi upon faulty mastication; others can be ascribed to c stipation, and this is probably one of the largest grou In others the pernicious habit responsible is overeating, again, excessive smoking, particularly cigarettes and ciga in another group we may place the cases which depe upon the time of meals, and here irregularity comes i and finally we have the important group of nervous mental cases. The causes are very numerous and ha to be worked out carefully in each case.

SOME ELUSIVE CAUSES OF INDIGESTION.

Let me now refer to a few of the causes of indigesti which are especially apt to be elusive, as patients syste atically withhold the information of which we are search, and upon which the success of our efforts largely depends. We are, then, placed on the horns of dilemma—either to remain in ignorance or to risk givi offence by pressing home our inquiry.

The subject of excessive or indiscreet eating and drinki opens a wide field for inquiry, but it is one upon whi people are sensitive, and the true state of the case seldom laid before us. The inquiry has to be approach with the utmost discretion and great care taken to avo the impression that we have taken upon ourselves the ro of detective (which we are often forced to do) and are i quiring into our patient's bad habits. I cannot illustra my meaning better than by reminding you of the difficul we all experience in eliciting a history of alcoholic exces especially in women. As I have elsewhere observed, w all know how futile it is to ask some people, especiall when the patient is a woman, if they have been accu tomed to take stimulants too freely. The habit will b denied indignantly, and it may be our relations with th patient and friends compromised. We are, therefor obliged to approach the subject very cautiously, adjustin the inquiry to the intellect and temperament of th patient; for example, instead of asking the questio directly, we may, perhaps, begin by a cautious inquiry int former illnesses, and refer to the opinion of medical me under whose care the patient has been, and then ask in guileless way what stimulant Dr. So-and-so ordere Then possibly the patient may be induced to discuss th uses and effects of the different varieties of alcohol- brandy, port wine, gin, whisky, beer, etc.—and in this wa evince a comprehensive knowledge of the whole series then we may make a gentle inquiry as to the form tha suits her complaint, at which stage it is, perhaps, just as we to desist from further investigation. Here, of course, ther is ample room for the judicious exercise of the detectiv faculty; but common sense, that supreme guide, will kee us right, and may warn us in certain cases that we mus do without a history and content ourselves with the know ledge that for all practical purposes a certain group o symptoms are always due to alcohol.

The habit of indulging in excessive meals is a commo cause of dyspepsia. The patient is often a highly strun and vigorous person, who exhausts himself by his work and feels stimulated and sustained by food, and eats mor than he can digest, though he often obtains temporar relief by eating. Or he is very fond of the pleasures o the table, and having a good appetite, between his attack he is led to indulge it whenever any dish to which he i specially partial is before him. Many of these people ar not really gluttons, and therefore respond truthfully enough according to their light, when questioned, that they do no eat a large amount, for, in fact, they may not be awar that they are eating more than is good for them. On difficulty is that the generality of people do not know wha is enough and what too much food; the ordinary estimat of the necessary amount is far too high. Another is tha very few realize the fact that the process of digestion use up nervous power; most imagine that the more they ea the more strength they will have, whereas the truth is tha beyond the amount needed by each individual to repai waste in proportion to his expenditure in muscular o mental work, the rest is superfluous, and consumes i disposing of it nervous energy that might otherwise b utilized in more valuable ways.

Indigestion from a plethora of food may reveal itself b unpleasant taste in the mouth, with dry, parched tongu during the night, a congested feeling about the nose

ense of fullness in the epigastrium, a flabby tongue cked by the teeth; or in some cases the tongue becomes e and blistered; and later, should the cause and sym- ms persist, there is loss of appetite, nausea, flatulence h disagreeable breath. No cases of functional dys- sia are more amenable to treatment if taken early, for y usually respond at once to a suitable diet and a gentle ne purgative with some carminative; but it is essential discover the cause, for the patient, though eating less account of loss of appetite, continues because of habit eat too much; and, to be really effective, treatment uld be on starvation lines, so as to secure to the over- ed digestive organs that full measure of rest of which y stand so much in need. Excess of food is also a mon cause of a form of chronic indigestion, which y show itself by symptoms that may scarcely be thought thy of attention—flatulence, distension after food, wsiness, a loss of the wonted energy, etc.; and these ptoms, if the cause be persisted in, may become very onic indeed, and difficult to treat, for the habit of eating much is perhaps as difficult to control as the habit of ing stimulant to excess or smoking too much, and there few who will carry out faithfully the doctor's instruc- is. The truth is, in a chronic case weeks and weeks of e are necessary, and the very best resolutions are ken by the little extra food incidental to a dinner party; he patient is induced to "seek other advice," for all onic dyspeptics discuss their symptoms with their nds, and none have the courage to impart the doctor's nion that they eat too much, but welcome the suggestion t they should see some one else. I have often been ck by the fact that a chronic dyspeptic patient can er be induced to tell you the particulars of the advice has received, but contents himself with the assertion t the doctor under whose care he has been for some eks did not understand his case. *Disobedience to law* y be said to stand out prominently as the cause of rly all dyspepsias, though in none more than in the e of patients who suffer from excess of food.

t must not be forgotten that a patient may be indiscreet the quality of his diet as well as the quantity, and ugh not indulging to excess, may continually eat food t disagrees with him. It is a very difficult question w far we can rely upon a patient's statement under this d, for there is nothing which blinds the intellect more n a preconceived idea, and there are very few accurate servers amongst our patients. They will tell you that lk disagrees, that they cannot eat fried fish, that they suffer en the smallest flavouring of onion has been introduced o a dish, that they can always tell by the after-effects en meat, say in the form of a stew, has been cooked re than once; the fads are endless, and though no doubt ne of the statements of this kind we hear are correct ough, the majority are baseless and are advanced to plain a dislike which should really be regarded as a tter of taste. These cases are usually examples of vous dyspepsia, and should be treated as such, or else y are patients who deliberately fall back upon their osyncrasies in order to explain symptoms that are lly due to some bad habit which it is desired to nceal. But there are many ways in which patients may indiscreet in the quality as well as quantity of their d. For example, quite a number take too much salt th their food, and in this way aggravate the tendency to excess of hydrochloric acid; others are too fond of ghly-seasoned food or of pastry or sweet things; or, ain, the quantity of liquid imbibed at a meal may be too ge. In such cases a very careful revision of the diet is solutely necessary.

DIET.

To this question of diet I can only here refer very iefly. I may of course assume that the mouth has en examined and the teeth and gums attended to, and structions given as to careful mastication and the neces- y of avoiding work or exercise soon after a meal. For e rest, the diet must depend upon the nature of the case, ough the majority of chronic dyspeptics do better on ittle soft and easily digested food, such as tender white h, chicken, or tripe, and a little well boiled rice with lk, than on slops; and we need scarcely be reminded at tea, coffee, sweet stuffs, alcohol, and all indigestible ds, including, amongst vegetables, turnips, carrots, rsnips, cabbage, etc., should be avoided. We are often asked to prescribe a special diet, and no doubt there is a great temptation to skate on the thin ice of quackery in directing our patients how they should diet themselves, for they will insist upon minute details, and many doctors indulge their patients' whims to the fullest extent; and unfortunately it is, I fear, well within the mark to say that some of our most distinguished physicians have lowered both themselves and the profession by undue exactitude in the matter of dietetic details, a practice—I had almost said a trick—upon which many reputations have been established. It is of course our duty to advise in favour of a nitrogenous, or a starchy, or, it may be, a mixed diet, and to offer some hints in the shape of warning against indigestible articles of food, and here there is ample room for skill, as some people can digest certain articles when they cannot digest others of very similar nature—for example, potato may disagree whilst rice may not; or hard-boiled egg may be suitable, whilst a soft-boiled egg may cause nausea; indeed, there is no end to the idiosyncrasies met with amongst dyspeptics. It may be useful in some cases to insist upon all animal and most vegetable food being finely minced or put through a sieve or one of the useful modern nut-mills, so as to eliminate all hard pieces and reduce to a uniform pulp. This is a very useful expedient, and certainly does not savour of quackery. I should like to add that it is most undesirable to encourage any patient to dwell anxiously on details of diet. With dyspeptic neurotics, of course, the very opposite should be our aim; but in all ordinary cases of indigestion it is best to keep as far as possible to broad lines of information and advice, which can easily be applied in detail by the exercise of a little common sense.

THE MENTAL ELEMENT IN DYSPEPSIA.

Now let me return to the part played by mental disturbance in the production of dyspepsia. The class of patients I now have in mind when tracing the nervous or mental origin of their dyspepsia must be distinguished from those commonly recognized as dyspeptic neurotics. With the neurotic the dyspepsia is an abiding trouble; he is obsessed by his gastric symptoms, dwells upon them continually, sits in judgement upon every article of food presented to him, yet it is obvious to every one that if it were not the stomach it would be some other organ; that it happens to be indigestion is really an accident in the case; and, further, the particular symptoms as described by the patient usually bear very little resemblance to the account furnished by the patient suffering from the ordinary forms of functional dyspepsia due to the causes I have already referred to. Let us not, however, forget that the subject of neurasthenia does fail to digest his food and suffers in consequence, a vicious circle being established.

But apart from these victims of neurasthenia there is frequently another connexion between mental disturbance and dyspepsia—a connexion that is almost never recognized by the patient, and is unfortunately seldom observed by the doctor, for it is common for both doctor and patient to attribute depression to the dyspepsia when the dyspepsia is really induced by a depressed state of mind brought about by other conditions. A few cases will illustrate the point. A gentleman whose child met with a serious accident sustained a severe nervous shock when the news was taken to him, and this was followed by months of anxiety, with persistent dyspepsia as the outcome. In another instance a young man had failed to pass an examination, considerable importance being attached to the matter at home. A lady dyspeptic had, it was ascertained, been much worried by servants leaving and the difficulty in finding others. A young lady whose life was spent in the most depressing religious environment was victimized by dyspepsia. A gentleman with literary tastes compelled by force of circumstances to devote his energies to a depressing commercial life had dyspepsia without other cause. In another case a young lady had experienced a matrimonial disappointment; in another a lady was compelled to live under great domestic distress, she and her husband leading solitary lives in the same house; in another a young lady had the unenviable duty of acting as go-between for her father and mother, who were continually quarrelling; in another a trained nurse was greatly disappointed of the promotion she expected; in another a lady's home life was made

wretched by the continual grumbling of a very irritable husband.

Cases of this kind might be multiplied indefinitely, but I only desire to illustrate the type. These patients come to the doctor complaining simply of indigestion, and a careful and tactful search has to be made to discover the cause in the shape of some depressing circumstance of environment. Their cases stubbornly resist the ordinary medicinal and dietetic treatment, but respond to a well-directed attempt to remove the cause. If the environment can be modified—that is, if the circumstances themselves can be reached and altered (in some cases, perhaps, by plain speaking to relatives)—well and good; if not, the patient can perhaps be removed from them for a time, or, better still, may by a strong and encouraging effort be induced to take a different attitude towards them and gain a brighter view of life. A difficult undertaking this may be in some conditions, but the result will often repay the attempt, and sometimes has an effect that appears to be almost miraculous. At any rate, neither drugs nor diet, but a change in some life-circumstance, gives the clue to the successful treatment of very many cases of dyspepsia.

As further illustrating the success attending the discovery of the cause of an attack of dyspepsia and its removal, I may mention a few examples. A gentleman whose dyspeptic symptoms had lasted two or three months, and were apparently the outcome of a long period of anxiety on account of his wife's illness, went to see a surgeon, who, taking the case to be probably malignant and suitable for exploration, hedged over the diagnosis and yet left a very unfavourable impression upon the patient's mind, with the consequence that the symptoms grew worse. A consultation was held and a definite decision arrived at against organic disease and against operation, with the most happy results. A very similar case was that of a medical man who suffered occasionally for years from indigestion. He consulted a brother practitioner, telling him he thought he had a pyloric or a duodenal ulcer, and asked him to advise him on the question of operation, as he felt that a posterior gastro-enterostomy might cure him. They decided to come to me, and I felt justified in regarding the case as functional, dismissed the question of operation, and spoke very encouragingly. Within ten days or a fortnight I had letters from both my friends, the doctor and his patient (for they lived at some distance) conveying the intelligence that the symptoms had quite passed off and ordinary food could be taken.

Another phase of the nervous side of indigestion is to be met with in people who exhaust their nervous energy; and the result is the same whether the exertion be physical or mental, whilst not infrequently the candle is burnt at both ends. Practice amongst all classes of society furnishes many examples which belong to this group, and the fact will at once occur to your mind that one of the most useful of therapeutic measures in stomach cases is *rest in bed*. To this we ascribe the great majority of cures in cases of chronic functional dyspepsia in our hospital patients. That physical exertion, if excessive, will derange the digestive functions to the extent of producing a trying illness cannot be denied; here are some instances. A lady entertaining in her country house a party of friends fatigued herself by a long walk, and in consequence suffered, as she had often suffered before, from indigestion. She was unable to rest, and sought relief in careful diet and stomachic mixtures without success, but the attack soon yielded to rest after the departure of her guests. The wife of a member of Parliament, who was most energetic in furthering her husband's interests at the time of the election, developed a group of symptoms referable to her stomach. These she neglected, as she had suffered from indigestion before, and declined to forego any of her engagements, but sought relief in mixtures and diet, so far as she could exercise care, but with little result. I induced her to diet herself very carefully, and to lie in bed for three weeks, which she did with complete success; the symptoms, which had lasted twelve months, entirely disappeared.

Another example of nervous indigestion cured by rest in bed is the case of a lady who experienced a severe shock when travelling with her husband in an express train. The dress of a fellow passenger, a lady sitting beside the door, was found to be caught in the door. Th train was travelling at a high rate of speed, and n patient's husband attempted to release the dress b opening the door. It at once swung open, a could not be closed on account of the wind. H struggled with it for upwards of half an hour, unt the next stop, and seemed all the time in immine danger of falling out of the carriage. Weeks of ind gestion followed the fright—flatulence with discomfo after food, depression, giddiness, etc.—and there wa little or no improvement until she was induced to res And it is not alone cases that have an obvious nervou origin that are benefited by rest, for many chronic case the cause of which is not easy to determine, that prov most obstinate under dietetic and medicinal treatmen will yield to rest, and it must not be forgotten that a larg number of the neurasthenic cases will respond only to re with isolation from home influences, as treated by We Mitchell.

The limits of my paper prevent more than a very sketch dealing with the subject, but my desire is to put a familia subject in a somewhat novel light that may help t explain why we so often fail to effect a cure. I am myse so convinced of the practical importance of hunting ou the inducing cause in each case of indigestion with a vie to its removal, that I regard investigation of the secretor activity of the stomach, followed by prescription of appr priate diet and acid or antacid remedies, as being valuabl no doubt, for giving relief, but only too often insufficien for a cure; and foremost amongst these perplexing an often highly elusive causes stands mental and nervou disturbance.

An Address

ON

REFLEX PAIN IN DISEASES OF TH ABDOMINAL VISCERA.

DELIVERED BEFORE THE GREENOCK AND DISTRICT FACULTY OF MEDICINE.

BY

A. ERNEST MAYLARD, M.B., B.S.LOND.,

SURGEON TO THE VICTORIA INFIRMARY, GLASGOW.

THERE is nothing actually new in the symptom of refle visceral pain; what is really of importance in connexio with it is that we have come to know more definitel about its origin, and much more clearly about its clinica significance. This has arisen largely from the enormou strides which surgery has made within recent year Previously, it was only through the accidental light throw upon the subject by a necropsy that a certain sympto during life received its correct explanation after deat So that much depended upon the ever doubtful possibilit of a necropsy whether or no a particular sympto would receive its right interpretation. Since, howeve the surgeon has found it possible to operate with suc impunity upon almost every region of the body, an obscure or persistent symptom is never allowed to pursu an uninterrupted course without an effort to afford reli by direct inspection. Thus, then, many a pain whic hitherto had been recognized only as a probable indicatio of a particular disease, has, as the result of operation, com to receive a degree of certainty which renders it a valuab and positive factor in the chain of symptoms that colle tively contribute to a correct diagnosis. I shall limit m remarks to reflex pains as they are manifested in affection of the viscera within the abdomen.

In order properly to appreciate the significance of pain and the reason for its occurrence, I must outlin briefly the normal anatomical and physiological facto which necessarily enter into all considerations of th subject. Pain in itself we must regard as Nature peculiar and special way of indicating that her norm functions are being prejudicially or injuriously disturbe That, at least, is its significance; but whether we are t look upon it as a separate and distinct manifestation a newly awakened sense evoked through a special syste

erves, or simply as the result of an exaggerated ulus acting upon ordinary sensory fibres, is matter h enters into the sphere of the physiologist rather into the domain of the clinician. But whatever be true explanation, it is certain that the association of with the sensory nerves is in many, if not in most, s a very close one. As regards reflex pain more icularly, we must consider it Nature's way of afford- a diseased organ protection against external injury; as we shall see later, it renders so sensitive to tional activity both the skin and muscles, that ediately there is danger from any mechanical its the skin becomes painful to touch and the cles as rigid as a board.

hat may be taken as the normal disposition of the s in their nerve relation to each other is shown rammatically in Fig. 1, representing the brain and al cord. From the organ, *o*, afferent nerve fibres, *a*, to certain nerve cells, *c*, in the spinal cord; to other e cells in close proximity to these, afferent fibres, *a*, e from the skin, *s*, and from other cells efferent fibres to the muscles, *m*. Now, under normal circumstances

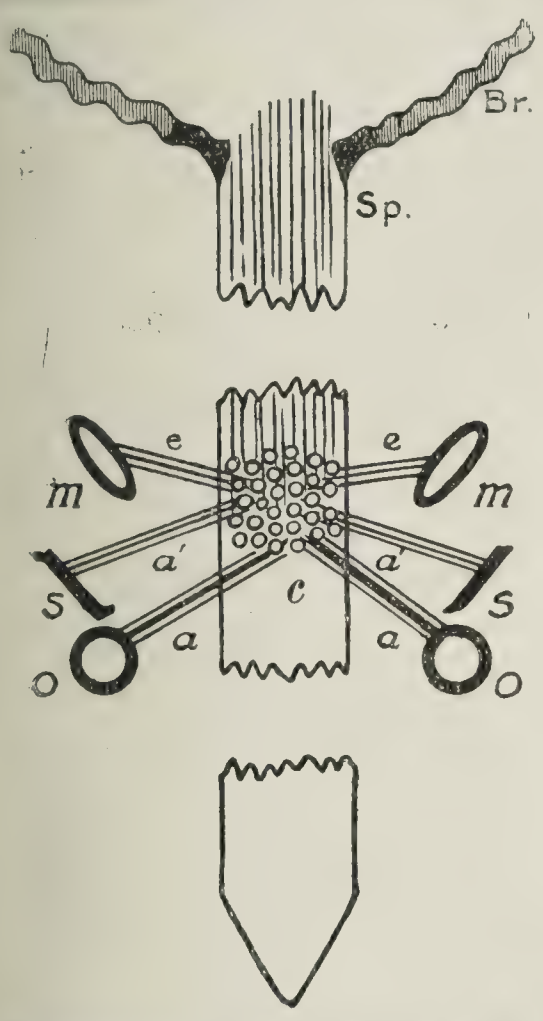


Fig. 1.—Diagrammatic scheme of reflex pain. Br., Brain; Sp., pinal cord; *m*, muscle; *s*, skin; *o*, organ; *c*, nerve cells in spinal ord; *a* and *a'*, afferent nerve fibres; *e*, efferent nerve fibres.

e influences from either the organ or the skin probably nain quite distinct on their arrival at their respective lls in the cord. But supposing from some cause the erent impulses of the organ are abnormally exaggerated, en the stimulus overleaps the boundary of its own cells, d acts upon neighbouring ones—that is to say, upon ose cells to which the afferent sensory fibres come from e skin. Now we know that if any part of a sensory rve is excited, whether at its termination in the cord or its transit to the periphery, a sensation results similar that produced by the actual excitation of the special ceptive nerve endings. So, then, if some powerful and aggerated stimulus arises from the organ, not only are e cells specifically connected with the sympathetic in e cord greatly excited, but also those neighbouring es associated with the sensory nerves. The result the over-excitation of the sensory cells is the oduction of pain; and hence it comes about that in is often felt in the area of the abdominal parietes er the region of the affected organ. But I must go a tle further, and indicate that the stimulus may not only ect the cells in immediate continuity to those directly ceiving the afferent nerves from the organ, but it may cite into abnormal activity other cells more remote, so that instead of the pain being limited, as just indicated, to the sensory nerves arising from the region more or less directly over the affected organ, its distribution becomes more diffuse and distant, and pain is felt over a much wider area. Now this wider diffusion is not only dependent upon the intensity of the local stimulus, but it may be, and indeed very frequently is, materially affected by the sensitiveness of the cells themselves. This hyper-sensitiveness may be due to natural causes within the cells themselves—what we understand by the functional idiosyncrasy of the patient—or to influences exercised upon them through certain conditions of the blood. It must be remembered that while we are reasoning on the assumption that the variations wrought in the production and extension of certain changes are due to influences exercised in the nerve cells of the cord, the real receptive centres for the sense of pain are, of course, in the brain; and that these influences are just as likely to have their origin in the brain as in the cord. In other words, that the same hypersensitiveness which we have assumed to

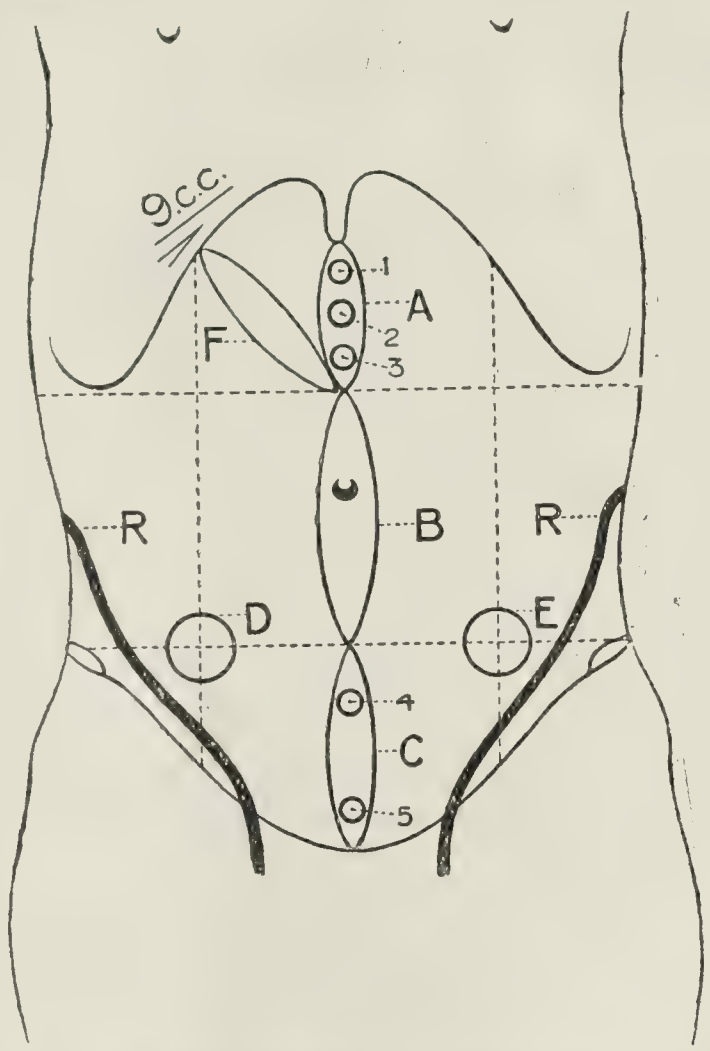


Fig. 2.—Diagrammatic representation of seats of maximum reflex pain in diseases of abdominal viscera. A, Stomach and pancreas; B, small intestine and vermiform appendix; C, large intestine, rectum, uterus, and bladder; D, vermiform appendix, right ovary and tube; E, vermiform appendix, both ovaries and tubes; F, gall bladder, cystic and common ducts, and duodenum; R, kidney and ureters. 1, Gastric ulcer towards cardiac end; 2, gastric ulcer midway between cardiac and pyloric ends; 3, gastric ulcer at pyloric end; 4, large intestine down to splenic flexure; 5, large intestine from splenic flexure to anus (Mackenzie).

exist under certain conditions in the cells of the cord may, under the same conditions, be in the cells of the brain.

And yet another consideration must not be left out of count—the part which the ganglia on the posterior roots of the spinal nerves possibly play in reflex phenomena. Inasmuch as the sensory fibres of the skin, as well as the sympathetic fibres of the viscera, pass into these ganglia, one can quite well understand how in some cases the cells in these ganglia may be the true reflecting media, and not the cells in the spinal cord. However, reflex muscular contraction, such a common concomitant of hyperalgesia of the skin, cannot be explained in any such way, for the efferent nerves of the muscles pass from the cord by way of the anterior primary roots; and so the transmission must take place among the cells of the spinal cord.

I must not pursue this aspect of the question further, for I fear it is carrying me a little out of my depth, and leading me more into the speculative realms of physio-

logical hypothesis than along the surer paths of clinical fact. To return, then, to safer ground, this transmission of symptoms from a viscus deeply seated to a certain area on the surface of the body calling forth sensory manifestations constitutes what is understood by "referred" or "reflex" pain; and is brought about on the one hand by the autonomic or sympathetic nerves, and on the other by the cerebro-spinal nerves. Head, in his investigations, sought to map out the surface of the body into definite areas, which corresponded to equally definite segments in the spinal cord, so that when disease of a given viscus over-excited the cells in a spinal segment a well defined area on the body surface gave the sensation of pain; and that it was often possible to fix on one particular point in that area—known as the "maximum" point—where the pain was acutest and where the skin was most sensitive. I am not going to discuss the truth or not of this investigation. Personally I agree with Mackenzie that the distribution of pain to the surface of the body is dependent more upon the distribution of individual cerebro-spinal nerves than upon any special limited segmentation of the cord; that, as he puts it, "The spread" (of hyperalgesia) "is from one definite portion of a nerve area to another, without completely affecting the whole of one segmental area."

It will have been noted that in the reflexion of pain there is, in addition to the involuntary manifestation, a voluntary exhibition. It is possible to cause pain by certain methods of investigation which is as significant as the unevoked manifestation of it. Both skin and muscles may be hyperalgesic, and this hypersensitiveness is in itself an equally sure indication of a deep-seated lesion. Thus, the patient may not at the time feel pain at a certain place, but any physical measures, such as pin-pricking, pinching, or pressing, will at once cause discomfort. That this condition of both skin and muscle is reflex is almost without doubt, and yet it has been largely the cause of the assumption that where skin and muscle overlie directly the diseased viscus the pain has really been in the viscus itself. This opens up the interesting question, Are the viscera themselves the direct source of pain? Ross, as the result of his investigations, believed they were, and used the name "splanchnic" for visceral pain, as distinguished from "somatic" for pain felt cn the body surface. There is this certainty, at least, about the question, that the same stimuli which cause pain to be felt through the medium of the cerebro-spinal nerves fail to evoke the same manifestation in the viscera; if, therefore, a viscus can itself become a positive pain producer, it probably arises from a source peculiar to the organ in which it has its origin. I have said enough, I think, to indicate wherein the difficulty arises, because, when from without we attempt to manipulate a part, we are bound, in the first place, to influence the terminals of the sensory nerves of the cerebro-spinal nerve system before we can exercise any effect upon the organ which is situated more deeply; and but for the elucidation which the direct exposure of a viscus has admitted, it would certainly have been difficult in many cases to have effected a differentiation. In, however, our operations we frequently have the opportunity of demonstrating that ordinary mechanical irritation of a viscus in a patient whose nerve system is not benumbed by an anaesthetic fails to call forth any sense of pain. As I have said, however, this shows no more than that pain cannot be evoked by the usual methods of producing it in the sensory nerves of the cerebro-spinal system, and by no means negatives the possibility of pain arising in a viscus from a stimulus peculiar to itself.

Again, I must not allow myself to be carried away by considerations of this kind, but come to the essentially practical side of the subject, which concerns the clinical significance of reflex pain in its relation to diseases of the abdominal viscera; and in each instance I shall seek to elucidate the symptom by a reference to those nerve connexions which in a diagrammatic and general way I indicated at an earlier stage in my remarks.

The Stomach.

The afferent nerves of the stomach, consisting of fibres of the sympathetic, enter the spinal cord—as judged by clinical considerations—in the dorsal region at that particular part of it from whence the fifth, sixth, seventh, and eighth spinal nerves proceed. Hence we may look for the production of reflex pains in connexion with diseases of this viscus at the peripheral distribution of these nerves; in other words, pain is felt usually in the middle line between the xiphoid and the umbilicus; and inasmuch as the thoracic branches send off posterior branches to the back we may expect to find occasionally that pain is felt there also. So that you will understand how, when the gastric disease is of a diffuse nature, the pain experienced will be spread over an area which may embrace the whole epigastrium, the back between the shoulder blades, and sometimes the left side. But not only through the sympathetic but through the vagus also we may get reflex pains, and in these instances it is through the sensory fibres of the trigeminal, for pain in some cases of gastric disease is felt in the jaw or in the neck. When we come to a localized lesion like an ulcer, there is some clinical significance in the exact situation where the pain is felt most acutely. Mackenzie has pointed out, and I have verified the correctness of his observation, that an ulcer situated near the cardiac end of the stomach causes pain in the upper part of the mid-epigastric line; and that an ulcer situated at or near the pylorus causes pain in the lower part of the same line; while ulcers situated between these two seats occupy similarly a position midway between the xiphoid and the umbilicus.

While, then, it may be said that the situation of the pain on the body surface is useful as a diagnostic sign of the viscus involved—the stomach in the present instance—and sometimes helpful in determining the particular lesion, it is doubtful if we are yet in a position to derive much from the special character of the pain. We hear complaints of sensations described as "burning," "boring," "gnawing," "aching," etc., but they fail to help any further than to indicate that the patient does suffer pain, though from what exact cause it may be impossible to say.

So far I have only alluded to pain which the patient himself is the sole producer of. But it is within our power under certain conditions to evoke pain, and this in itself is of equal importance from a diagnostic point of view. As can well be understood, if the sensory centres in the cord are under the influence of undue excitation from disease of a viscus, they will be doubly susceptible to any stimuli conveyed to them from their own peculiar peripheral terminals; hence we may find both a cutaneous hyperalgesia and a muscle hyperalgesia in those parietal areas of the abdomen where the patient at times complains of pain. Palpation of the epigastrium at particular parts of it will materially support the diagnosis in the presence of other symptoms similarly suggestive. This mechanical method of irritation may be effected by pricking or gently scratching the skin, when any undue sensitiveness indicates a superficial cutaneous hyperalgesia; this may fail, and soreness be induced by pinching the skin, which constitutes a deeper cutaneous hyperalgesia; or, still further, these two symptoms may be absent, and we may find that it is only by deep pressure upon the muscles that pain is produced, and we have what is termed "muscle hyperalgesia." This latter symptom is manifested by a rigid, board-like contraction of the muscle. One form of hyperalgesia is probably as symptomatic as the other, and any form indicates a reflex condition dependent upon deep-seated disease.

Before dealing with such an acute crisis as perforation of a gastric ulcer, I shall discuss reflex pain in connexion with affections of other parts of the gastro-intestinal canal, for perforation of a gastric ulcer is, in its direct manifestations, indistinguishable from perforations of other viscera where a sudden communication is established with the general peritoneal cavity.

Duodenum.

With regard to the duodenum, I may for all practical purposes limit my remarks to chronic ulcer of the canal. As in the case of the similar ulcer in the stomach, the pain is referred to the middle line, but somewhat lower down, nearer the umbilicus. In addition, however, pain is felt to the right of the middle line below the ribs in what is usually termed the gall-bladder region. One must assume that in all cases where a viscus is laterally placed within the abdomen the sensory terminals in the skin, muscle, and peritoneum immediately over the viscus are

se most likely to manifest the greatest excitation; is but natural, if our original conception of the ole intent of reflex pain be correct. We find in denal ulcer precisely the same expressions used the patient to describe the character of the pain in the case of gastric ulcer; but, as a differential distinction, the pain after the ingestion of d takes place proportionately later—that is to , instead of coming on shortly after food is taken, it s not appear for two, three, or four hours. It has these her peculiarities about it, that it often occurs at night, l, when present, is relieved by the consumption of food; latter peculiarity has earned for it the name of nger pain."

Small and Large Intestine.

As we pass down the canal to the small and large estine we encounter difficulties which render both the lanation and the clinical significance of reflex pain a rce of much perplexity. So far as we know, the cause ain in the intestinal canal is exaggerated or abnormal istalsis; in other words, undue contraction of the scle forming part of the bowel wall. This may be ught about either by the irritating effects of the conts of the canal, by excessive nerve stimulation from re distant parts, or by obstruction to the onward gress of the faeces. The character of the pain y be the same whatever the nature of the cause ducing it; its variation is rather one of degree n of kind. The middle line of the abdomen still nains the seat where the pain is most markedly lected, but it is very frequently diffused over a ch more extended area on both sides. We have s distinguishing feature about intestinal pain—that, like all other intra-abdominal viscera, with the exption of the kidney and ureter, it tends to travel, and y often be felt passing from one point of the abdomen another. The extent, however, of the migration is gely dependent upon the length of the bowel through uch a peristaltic wave passes. Now, the question of st clinical interest is, Does the disease in any part of e bowel manifest itself by pain which will enable us localize its situation? Yes and No. Yes, to this tent, that a pain which arises in affections of the small estine is limited almost entirely to the umbilical gion, whereas in involvement of the large bowel pain felt in some part of the hypogastrium. Further, in ses of a well-defined and distinct seat of obstruction, e pain will travel to a certain spot and there remain, dicating that the peristaltic wave has been brought to point beyond which it does not, or perhaps cannot, tend. In noticing more particularly the spot up to ich the pain works, Mackenzie considers it possible distinguish between obstruction above and below the lenic flexure; thus, he says: "In obstruction at the lenic flexure the pain did not descend below the middle the hypogastric area; while the pain due to peristalsis low the splenic flexure was felt about and below the iddle of the hypogastric area." The negative answer my question concerns chiefly the small intestine, for, far as our present knowledge goes, we are unable, by e simple manifestation of pain, to localize the seat of sease in any particular part of it.

There is one rather striking feature about abdominal in in connexion with bowel disease to which I must aw attention, because I have always felt that it is one ry weak link in, if indeed it does not break, the chain of gument which seeks to explain all pain connected with sceral disease within the bounds of reflex pains. My ief reason for thinking that in bowel disease we have to al with really a splanchnic pain is that one usually fails obtain any evidence of a cutaneous or muscle hypergesia. Now a pain so acute as is sometimes intestinal lic from obstruction ought to excite an excessive ritability of the cells in the spinal cord which should nder the sensory terminals in the skin, muscle, and ritoneum peculiarly sensitive to external stimuli; but e often find that a patient is relieved by pressure or bbing of the abdominal parietes. Perhaps one ought not include muscle tissue, and therefore viscera which are sentially muscular in function and formation, in the tegory of abdominal viscera proper. Nature certainly ems to make an exception in her method of dealing with the bowel when implicated in obstructive conditions as compared with her protective measures in certain diseases of other parts. Instead of rendering the abdomen rigid and the skin tender, which would effectually forbid the application of any external stimuli, it admits of deep pressure and massage being exercised, and thus relief afforded in a way which could not otherwise be. That colonic affections do quite possibly evoke reflex pains seems supported by the fact that patients who suffer from chronic constipation resulting in overloading of the colon sometimes complain of a dull heavy aching pain across the lower dorsal region. The only explanation of this can be that the pain is reflexed through the posterior primary divisions of the lower dorsal spinal nerves which distribute sensory branches to the back.

Before leaving this point, I might add in further support of the existence of splanchnic pain that I think there is something reasonable in the assumption that undue contraction of involuntary muscle tissue should always in itself be a direct source of pain from analogy to the cramp-like pains of hypercontracted voluntary muscle. To discuss this particular aspect of the subject properly, I feel one ought to embrace considerations of such a dssease as angina pectoris; but this would carry me without the limits of my object this evening, which is to deal solely with the abdominal viscera.

The Vermiform Appendix.

Diseases of the vermiform appendix are usually considered after those of the large intestine, although strictly, both pathologically and clinically, they ought to be regarded as midway between affections of the small and large gut, for the viscus itself is really a remnant of that which originally formed the commencement of the large bowel. In both nerve and blood supply the appendix is intimately associated with the lower end of the ileum, and herein will at once be seen the reason for the reflex pain associated with diseases of the organ becoming manifested in the same region as pain arising from affections of the small gut—that is to say, in the umbilical region. But for reasons it is difficult to explain, the pain is sometimes limited from beginning to end to the right iliac region. There is no doubt as to the reflex character of the umbilical pain when it arises; and there seems little doubt that, in most instances at the early stage of the disease, the iliac pain is also reflex. In further support of the latter opinion is the fact that the pain is sometimes felt in the left iliac region. This latter manifestation is of special interest, and will be referred to later in connexion with the consideration of the ovarian and renal reflexes. It indicates the intimate association which must exist in the spinal cord between the cells which control one half of the body with those that control the other. But why the cells on the opposite side of the cord should in certain cases be more readily excited than those on the side on which the disease exists is decidedly puzzling. It is easier of explanation in the case of bilaterally disposed viscera. The only possible explanation seems to be that, the organ being originally a part of the large intestine, the tendency is for the pain to be referred, as in cases of disease of that particular segment of the gut, across the hypogastric region, and, not being complete in its development, it is only at the two sides that it is felt. The skin over the iliac fossa is supplied with sensory branches from the last dorsal nerve. It can be understood, therefore, why it occasionally happens that pain or stiffness is experienced in the lower portions of the erector spinae muscle, for branches of the posterior primary divisions of the spinal nerves supply the part. Subject as the appendix is to inflammatory changes and to obstruction, there is the possibility of distinguishing, through the character of the pain manifested, the one kind of lesion from the other. Obstruction from whatever cause—whether from stricture, from kinking, or from a concretion—produces pain of the colicky, cramp-like type felt mostly in the region of the appendix itself. The similarity is precisely that of obstruction in the large or small intestine, and due to a like cause—the effort of muscle contraction to overcome an obstacle. If unassociated with any inflammatory changes, neither cutaneous nor muscle hyperalgesia may be present over the area occupied by the appendix; but appendicular colic, when of any severity and duration, is more frequently than not

accompanied with a certain amount of inflammation, and then before the inflammation may have extended to the parietal peritoneum there may, and probably will, be reflex hyperalgesia of the skin and muscle. Much diagnostic importance was at one time attached to the elicitation of pain by pressure over what is known as McBurney's point. In the majority of cases, where the appendix is normally placed, this is doubtlessly the point of maximum acuteness; but it would be wrong to rely upon it in all cases, and, with a wider knowledge of the subject and the extreme vagaries in the situation of the organ, the sign is not much relied upon at the present day. Pain which arises from a localized peritonitis—where, for instance, the inflammation extends to the parietal peritoneum—does not come within the scope of our consideration, for the sensory terminals are then themselves engaged in the inflammatory process, and become a direct source of pain. Reflex pain in connexion with perforation of the appendix I shall refer to later, when discussing the subject of perforations generally.

Cholelithiasis.

Gall-stone disease affords some very interesting examples of reflex pains; and if we consider, in the first place, the nerve connexions of the gall bladder, cystic and common ducts, the reason for these will become at once apparent. The afferent branches of these parts pass into the hepatic sympathetic plexus. Now this plexus has entering into it filaments from the right phrenic nerve and from the left vagus, and, indirectly through the solar plexus, it is in connexion with the great and small splanchnics. The phrenic is connected with the fifth and sixth spinal nerves which go to form part of the right brachial plexus; the vagus has connexions with the left trigeminal; and the two splanchnics connect with the fifth, sixth, seventh, eighth, ninth, and sometimes tenth spinal nerves. Thus, then, to express more clearly and succinctly the relation of these particular viscera to the body surface, we may say that affections of the gall bladder and ducts will produce (1) symptoms referable to the back, side, and front of the abdomen, due to the peripheral distribution of the lower spinal dorsal nerves; (2) symptoms referable to the right shoulder and outer side of the right arm, due to the peripheral distribution of branches of the fifth and sixth spinal nerves of the brachial plexus; and (3) symptoms referable to the head and face through connexions of the vagus with the trigeminal. But these anatomical considerations and expressions must be further reduced to terms of simple practical clinical significance. In gall-stone disease, then, we have pain referred to the middle line in the epigastrium, to the anterior right subcostal region below the ninth costal cartilage, to the back between the shoulder blades, and to the right shoulder. But the areas over which pain may be felt are often much more extended; indeed, gall-stone disease affords a very good illustration of the theory propounded at an early stage of my remarks, where, if you remember, I stated that the stimulus which, arriving by the autonomous fibres, excited the receptive cells in the cord, might overleap its own proper bounds and excite neighbouring cells, so that the sensation produced would be that a much wider area on the surface of the body was involved in pain. For we not infrequently find that pain may be felt in the left shoulder or in the left hypochondriac region at a point where it is correspondingly felt in the right. From the epigastrium, also, it may be diffused over the whole abdomen, and sometimes pain reaches as high as the neck and as low as the loins. The peculiar acute colicky or cramp-like character of the pain, sometimes lasting for hours, is probably due to the powerful contraction of the muscle fibres in the parietes of the gall bladder and ducts striving to rid the part of a gall stone. In many instances it is possible to form a tolerably correct diagnosis, from the situation of the pain, of the seat of the stones, whether they are in the gall bladder, in the cystic duct, or in the common duct. In connexion with this differentiation I cannot do better than quote such a good authority as Mayo Robson. When the stones are in the common duct he says

> The frequent attacks of pain are usually less severe than when they are in the cystic duct. . . . The pain also is in the epigastric rather than in the right hypochondriac region, and passes through to the right dorsal lumbar rather than to the right infrascapular region, and the tender point is found between the umbilicus and ensiform cartilage rather than between the ninth costal cartilage and umbilicus, as in ordinary cholelithiasis.

Reflex cutaneous and muscle hyperalgesias are often readily demonstrated by any attempt to irritate or press upon the skin in the right hypochondriac or epigastric regions. The value of these symptoms lies in the fact that they—the symptoms—may be present when otherwise the patient is free from any involuntary exhibition of reflex pain.

Renal Calculus.

I now pass from the subject of biliary calculi to that of renal calculi. The reflex pains connected with the kidney are, so far as we know, entirely limited to the existence of foreign material in the pelvis of the organ. Inasmuch as the parietes of the pelvis contain involuntary muscle fibres, it is probable that the pain is produced by an excessive contraction of this tissue in its effort to rid the cavity of such irritating material as pus, tuberculous débris, or calculi. The same reasoning applies to the ureters, the pain evoked being due to a powerful peristaltic wave striving to force out of the canal that which is foreign and detrimental to its normal function. The same interest attaches to the renal reflexes as to those just depicted in the case of the biliary, for we have pain felt in parts far removed from the actual seat of the cause. Without going into such minute detail with regard to nerve connexions, I may briefly indicate that in the cord centre, at which the autonomic nerves arrive from the kidney and ureter, there are the cells with which the afferent fibres of the eleventh and twelfth dorsal and first and second lumbar spinal nerves are connected. Hence, in accordance with the reasoning previously adopted, we shall expect to find the pains arising from calculous disease referred to the peripheral distribution of these nerves. Through, then, the last two dorsal nerves pain is felt in the loin and extending round to the iliac region; and through the genital branch of the genito-crural derived from the first two lumbar, pain is felt extending down the groin into the testicle. While these may be taken as the typical seats of reflex pain in renal calculus, the area of its distribution is often much more extended. We have, then, to assume, as was done in the case of biliary calculi, that neighbouring cells in the cord are irritated, and so pain felt as if coming from the sensory terminals of nerves supplying parts on the opposite of the body, or over the entire abdomen. The most puzzling feature, however, of pain so referred is that the affected side may remain free and the symptom be excited solely on the unaffected side. This reno-reflex, as it is termed, may unfortunately lead to error in diagnosis, and consequently to mistake in treatment. I have fully described in my book on *Abdominal Pain* a case that came under my own observation where an exploratory operation was performed on the supposed affected kidney. No stone was found: and unfortunately the patient died from suppression of urine. At the *post-mortem* examination a calculus was discovered in the opposite kidney—that is, on the side in which there had been no pain. It is very difficult to understand why pain should be more readily reflexed to the side of the body opposite to that on which the diseased organ is situated. It may be that the cells on one side of the cord are more easily excited than those on the other, so that the impression conveyed is that the pain is derived from the supposed morbid stimulation of the sensory nerves whose afferent fibres enter those particular cells. I shall refer to this particular point again when speaking of ovarian pain.

Pancreas.

I shall not occupy much time in discussing reflex pain as manifested in affections of the pancreas; and for this cogent reason, that it is not so much by pain as by other signs that we diagnose disease of this organ. The pain is usually felt in the middle line of the epigastrium, the most tender spot being about an inch above the umbilicus. It sometimes extends round to the left side, and sometimes passes backwards to the mid-scapular region. It will thus be seen that the situations of the pain correspond very closely to those experienced in diseases of the stomach.

Uterus, Ovaries, and Fallopian Tubes.

Affections of the female reproductive organs afford some very interesting examples of reflex pain, and possibly exhibit a wider distribution of such pains than any other abdominal viscera. This arises from the fact that the sympathetic plexuses—the ovarian, pelvic, and hypogastric—are connected with the eleventh and twelfth dorsal, the lumbar and sacral (particularly the third and fourth) spinal nerves. We therefore get pain referred to the lower part of the hypogastrium, the lumbar and sacral regions behind, and the iliac regions in front, with occasionally extensions down the legs. Now, of all situations for the most frequent exhibition of pain in affections of these organs, the left iliac region is the commonest, and in this region we may indicate as the *lieu d'élection* a point about 2 in. to the inner side of the superior iliac spine. Here pressure at once evokes pain, and both skin and muscle may be found hyperalgesic. It may be asked, Why should the left side be more frequently the seat of pain than the right in uterine disease and in affections, it may be, of the right ovary? We must assume, as was done in the case of the kidney, that the cells on one side of the cord are more susceptible to stimuli than those on the other; but that hardly gets over the difficulty of explaining the constancy of the pain on the left side unless we accept the assumption promulgated by Herman that the lesser strength of the left side of the body renders it capable of offering less resistance to sensory stimuli. In regard to the frequency with which female patients who suffer from affections of the reproductive organs have widely diffused referred pains, one must remember that these patients are often anaemic, neurasthenic, and generally wanting in body tone. As indicated in my introductory remarks, the sensitiveness of the receptive centres is greatly augmented by certain conditions of the blood, so that a stimulus arriving at one group of cells may readily extend to other groups, and so greatly widen the area over which reflex pains will be felt.

Acute Abdominal Crises.

Let me now refer to that most interesting exhibition of reflex pain which is manifested in almost all acute abdominal crises. I allude to the sudden, agonizing, and prostrating pain felt in the mid-line of the body as the result of a gross lesion associated with one or other of the abdominal viscera. It matters not where the viscus is situated within the abdomen nor where the lesion is located in the viscus, the initial acute seizure is most frequently felt in the mid-line, although variations will exist regarding the particular spot in this line. I have said enough not to need repetition of the nerve connexions between the various viscera and the spinal nerves. You will remember that in nearly every instance the pain was referred to the middle line, and that this was explained on the basis that the cells in the cord which received the afferent fibres of the sensory nerves contained in the lower six intercostals were abnormally irritated. The question, then, is really one of degree. These same cells receive a sudden and violent stimulus from an equally sudden and virulent lesion, and the clinical result is an unusually severe attack of pain proceeding as if from the terminals of the sensory nerves implicated. I believe that the acuteness of the initial seizure is largely affected by the relation of the lesion to the parietal peritoneum. This structure, as you know, is supplied by sensory fibres from the spinal nerves, and has within it many sensory nerve endings. Hence, when from the rupture of a viscus irritating material comes in contact with it, a very acute stimulating influence suddenly acts upon these sensory nerve endings; and, if it be not in itself a direct source of pain, one can well understand how it can indirectly augment the reflex symptoms evoked by the lesion in the way already explained. Without attempting to differentiate clinically between lesions causing pain in the same spot, I may give a sort of classified list of the diseases which may be expected to cause reflex pain in certain definite areas. Thus, (1) perforation of a gastric or duodenal ulcer, rupture of gall bladder, acute haemorrhagic pancreatitis, cause acute pain to be felt in the epigastrium; (2) perforation of the appendix vermiformis or of the small intestine, ruptures, strangulations and obstruction from various causes, embolism or thrombus of the mesenteric vessels, etc., cause acute pain to be felt in the region of the umbilicus; and (3) rupture in tubal affections, including extrauterine pregnancy, causes acute pain to be felt in the hypogastrium.

In these few remarks, gentlemen, I can claim to have given you no more than a very cursory review of the subject of reflex pain as exhibited in certain affections of some of the abdominal viscera. I would like to interpose here and emphasize the fact, for the sake of making the drift of my remarks and conclusions quite clear, that while diseases of the abdominal viscera may give rise to reflex pain located in one or other of the anatomical regions into which the abdomen is artificially divided, all reflex pains experienced in these particular regions do not necessarily signify diseases of the abdominal viscera. Without bearing in mind this very important clinical fact, we may be led occasionally into committing egregious blunders both in the matter of diagnosis and, what will be still worse, in treatment.

The subject of reflex pain is one which is, as you will have already gathered from what I have said, fraught with innumerable difficulties—difficulties that involve intricate questions of anatomy, physiology, and pathology; and for want of exact answers to these questions it has often been necessary to base reasons on theories. If, however, even on the somewhat insecure basis of hypothesis, it is possible to formulate a few practical guides and derive some clinical assistance, we may legitimately feel that the ends are not altogether unjustified by the means; and that, until light shine out of darkness, our benighted path must be illumined by such artificial means as will best enable us to encounter and overcome, though it be ever so imperfectly, the many obstacles that at present beset our progress.

A Clinical Lecture

ON

HOW TO OPERATE FOR APPENDICITIS.*

BY R. P. ROWLANDS, M.S., F.R.C.S.,

ASSISTANT SURGEON, GUY'S HOSPITAL.

IN a previous lecture[1] I gave my views about the choice of time for operation. I then submitted that:

1. It is wise to remove the appendix in the quiescent period after one definite attack of appendicitis.
2. The best treatment of acute appendicitis is an operation at the earliest possible moment.

In this lecture I propose to deal with some of the important points in the technique of the operation and after-treatment.

THE INCISION.

The same incision is not suitable for all cases. This could hardly be expected considering the varying conditions under which the operation has to be performed, and the varying position and abdominal relations of the appendix and caecum.

(*a*) *The Valvular or Gridiron Incision of McBurney.*

This incision has the advantages that hernia is very unlikely to follow it even when an abscess has to be drained, and none of the nerves or muscles of the abdominal wall need be divided, so that the abdominal wall is not weakened. It is particularly suitable for those interval cases in which the diagnosis is certain. It is also suitable for acute appendicitis in which an operation is performed before there is any suspicion of spreading peritonitis.

It is, I think, the best incision for appendicular abscess in the iliac fossa, but it is not a good one for pelvic abscess, on account of the difficulty of draining. When the position of the appendix is fairly well known, either by the presence of swelling or rigidity, or from the history of localizing signs in previous attacks, the gridiron incision can be made at the most suitable point. When the appendix is retrocaecal the incision is made unusually high up and far back, and when it is in the pelvis the opening is made low down and far in.

* Delivered at Guy's Hospital.

When the McBurney incision is placed in the usual position, a little above and internal to the right anterior superior spine, it has the serious disadvantage of giving too little room if the appendix be adherent and low in the pelvis, or unusually high and fixed behind the caecum or to the liver. It also hampers the surgeon when he wishes to explore the whole of the abdomen thoroughly, or when he, having made a mistake in diagnosis, has to deal with a perforating gastric ulcer, suppurating gall-bladder, or tubal disease. A good deal more room can be obtained by slitting the anterior wall of the rectus sheath upwards or downwards, and by displacing the rectus muscle inward. It is unsuitable for cases in which there is a suspicion of spreading peritonitis of uncertain origin. A very small incision is sometimes made for the removal of the appendix, but this is inadvisable, however much it may be appreciated by the patient. Some patients seem to judge the surgeon's skill by the shortness of the scar, but these stab incisions do not allow the proper exploration of the abdomen. Moreover, it is not easy to close the deeper layers of the abdominal wall properly in a small incision. A passion for these small incisions has frequently led to the overlooking of a serious condition that could have been found and remedied if a proper incision had been made. For instance, a piece of gangrenous bowel and even a large foreign body in the pelvis have been overlooked with disastrous results.

The transverse incision of Davis is very much the same as the usual gridiron incision, except that the fibres of the external oblique are cut across. This does not materially weaken the abdominal wall, and it allows drainage at the extreme outer end of the wound, where a hernia is very unlikely to develop. It is therefore particularly suitable for the treatment of the common abscess localized in the iliac fossa.

(*b*) *The Incision through the Rectus Sheath.*

Of the various vertical incisions, one near the middle line is not very suitable, because of the great difficulty of getting to the appendix and removing it, especially when it is retrocaecal and high up. It is much better to make the wound over the outer third of the rectus muscle, and then to displace the latter inward or to separate its fibres. In either case the deep layer of the rectus sheath and the peritoneum are incised in a transverse direction, so that none of the nerves need be divided, unless it becomes necessary to enlarge the wound to an unusual extent on account of a wrong diagnosis. I adopt this incision for all cases demanding a thorough exploration of the abdomen, and whenever spreading peritonitis is suspected. It is the best incision for pelvic abscess. The risk of hernia after it is small, even when temporary drainage has to be adopted. It is an advantage to make the opening fairly small at first for exploratory purposes. It can be freely enlarged as may be required, upwards or downwards.

Protection of the Abdominal Wall.

In infective cases it is particularly important to prevent infection of the abdominal wall during and after operation. The sides of the wound can be protected by gauze pads and sterilized waterproof material accurately fixed to the parietal peritoneum. These are not removed until all the infective material has been dealt with. When drainage has to be adopted, infiltration of pus amongst the layers of the abdominal wall can be prevented by accurately suturing the layers together around the drainage tube, thus obliterating all spaces between the muscles.

Protection of the General Peritoneal Cavity.

It is wise to protect the healthy part of the peritoneal cavity by careful packing, so that if during the separation of the appendix from dense adhesions a small abscess be opened, the risk of contamination of the peritoneum is reduced to a minimum. In dealing with an abscess in the iliac fossa it is important to pass gauze packs upwards towards the right loin and inwards towards the left loin, and downwards and inwards towards the pelvis, before attempting to deal with the abscess. When the abscess is adherent to the abdominal wall it can be incised without opening the general peritoneal cavity. Then it is not necessary to pack unless the surgeon is going to remove the appendix. In cases of spreading peritonitis due to appendicitis, it is important to remember that the upper part of the abdomen, especially about the diaphragm and spleen, are generally healthy at the time of the operation. It is therefore important to protect these regions immediately the abdomen is opened. This is done by passing a roll of gauze into each loin. This serves to absorb any fluid that may pass upwards during the manipulations in the lower part of the abdomen. Another gauze roll is then passed into the pelvis and is left there to soak up the fluid while the appendix is being sought and removed. This saves time. One end of each gauze roll is secured to the towels by forceps so that none may be lost. Irrigation of the peritoneal cavity is not so satisfactory as mopping for peritonitis of appendicular origin.

The Removal of the Appendix.

Is it Wise to Remove it in all Cases?

Most surgeons are agreed that it is wise to remove the appendix when it is the cause of spreading peritonitis, and, as a rule, it is an easy matter to do this. There is little or no difficulty in finding it, and the adhesions, if any, are soft. There is more uncertainty about the wisdom of removing the appendix in cases of localized abscess. To save life it is often enough to drain the abscess without removing the appendix. The incision can be so placed in some cases that the general peritoneum need not be opened. It must be remembered, however, that when the abscess is merely opened and drained recurrence of symptoms occurs in about 15 per cent. of the cases, and that the subsequent attacks may be either grave or slight. In some cases a sinus never heals, and in others an induration persists in the iliac fossa. In some there is pain localized in that neighbourhood. It may be either due to persisting disease of the appendix, or to intestinal adhesions or bands interfering with the functions of the lower part of the ileum or caecum. In addition to this it may be urged that a diseased appendix left in the abdomen is a danger to life, for infection is more likely to spread along its veins, giving rise to portal pyaemia, septicaemia, or pulmonary complications. Intestinal obstruction is also more common when the appendix is not removed. Moreover, drainage has to be adopted, and has to be continued for a longer time, and therefore hernia is more likely to develop. When recurrence of symptoms follows and the appendix has to be removed, the operation is usually difficult on account of the extensive and dense adhesions.

During the last six months I have had to operate on four patients for intestinal obstruction secondary to appendicitis. In two the symptoms did not arise for several years; in the third the operation became necessary within three months of the onset of the appendicitis, and in the fourth within three weeks. In two other patients I have had to operate for recurrence of appendicitis long after simple drainage, and in each of these a small abscess was found at the second operation, which was a very difficult one. In another patient, in which a faecal fistula had existed for nine months after simple drainage of an abscess by another surgeon, I operated with a view of closing the fistula, and found the whole of the appendix to be lying free in the general peritoneal cavity, except at its base, which was constricted and formed part of the wall of the sinus. The distended appendix might have burst at any moment, and would probably have given rise to general suppurative peritonitis. In several other patients on whom I have operated for ventral hernia following simple drainage I have found the appendix in a similar state. Some surgeons never remove the appendix except when they find it hanging loose in the cavity of the abscess. This is a rare event. Others maintain that if a calculus is to be found in the abscess it is not necessary to seek the appendix. This is a false doctrine, because a calculus may be discharged into an abscess round the root of the appendix, which in healing becomes more contracted than ever, and the obstruction is a potent cause of future attacks of appendicitis.

Some make it a rule to remove the appendix only when the abscess is quite small, believing that it is more likely to be destroyed when the abscess is large, and that the risk of removing it varies with the size of the abscess. I do not believe that there is sufficient ground for this belief. There is no doubt that patients are occasionally seen with such large abscesses, and so very ill, that simple drainage is the only justifiable treatment, but these cases should become less and less common. For over a year

I have not left the appendix in any of my cases, and this practice has lowered the mortality.

In removing the appendix in these cases it is of vital importance to prevent infection of the general peritoneal cavity. The chief danger lies in spilling pus or infective material into the abdomen without knowing it, and this is particularly liable to happen when the appendix is sought through a small wound made directly into the abscess. Some part of the surface of the appendix is nearly always free in the peritoneal cavity, and its careless removal under these circumstances is apt to be followed by unsuspected leakage downwards and inwards towards the pelvis and general peritoneal cavity with disastrous results. The opening of the peritoneal cavity in these cases does not seem to matter if proper precautions be taken to prevent soiling. The risk of setting up spreading peritonitis can be prevented in one or two ways :

1. By deliberately opening the general peritoneal cavity first, and making a large enough incision to enable the surgeon to pack around the abscess in all directions, thus fully protecting the general cavity before opening the abscess. All the pus is soaked up, and the abscess cavity is cleaned before the appendix is sought.

2. By very carefully mopping away all pus and infective material from an abscess cavity opened extraperitoneally before attempting to remove the appendix.

The first is the better method, although it may seem at first sight to be more risky. The second method is particularly suitable for all large abscesses which have become adherent to the abdominal wall. When the packing and mopping are well done, the appendix can be safely removed, and all adhesions can be broken down, thus lessening the risk of intestinal obstruction and other complications already mentioned. Before removing the protective packs the region of the abscess is thoroughly cleaned by means of moist gauze, and then dried with sterilized gauze.

How to Remove the Appendix.

All the elaborate and fanciful methods of dealing with the appendix deserve to die, for all that is necessary is to clamp the base of the appendix with a pair of strong Spencer Wells forceps, which crush and break the muscular and mucous coats (after Doyen's method). The crushed part is then divided without fear of any leakage, for the cut ends are sealed by the crushing. It is not necessary to tie the stump, nor is it wise, for the ligature is a source of danger, and prevents proper inversion of the stump. The inversion is done by means of a simple seromuscular purse-string suture of catgut. This is placed in the wall of the caecum a quarter of an inch away from the base of the appendix. The meso-appendix is firmly tied and divided before the appendix is removed. This simple method is suitable for all cases of appendicitis except those in which the caecum is so stiff and friable that inversion is not practicable. Then it is enough, when the patient is very ill, to ligature the appendix close to its base, and to remove it and all the mucous membrane on the distal side of the catgut ligature.

Drainage.

There is a good deal of doubt as to when it is necessary to drain the abdomen in these cases. Appendicitis and its complications are so variable that it is almost impossible for any one to tell another what to do under all circumstances. In the quiescent cases with no pus there is, of course, no need for drainage. When a small abscess is discovered in a subacute case, it is a little difficult to decide whether to drain or not. If care be taken to remove all the pus, there is no need to drain the peritoneal cavity, but a wisp of gauze can be placed in the abdominal wound as a precaution against suppuration in the parietes. This can be removed at the end of thirty-six hours.

When an operation is performed during an attack, the question of drainage has to be decided upon the local and general condition. When the operation is done within twenty-four hours of the onset of the attack, it is an exceedingly rare thing for drainage to be necessary if care be taken to get the peritoneum clean and dry. When the infection has not spread beyond the appendix, it is not necessary to drain the peritoneal cavity, and this is true also of those cases in which there is localized plastic peritonitis only about the region of the appendix.

When there is a large abscess, I always leave a drain in the abdomen for at least forty-eight hours, and the same is true of all late cases of spreading peritonitis. In the early cases, where there is only a serous or slightly turbid fluid in the abdominal cavity, it is not necessary to drain; but when the effusion is sero-purulent or sanious, or the infection is virulent, as shown by the absence of lymph and the presence of severe collapse, it is safer to do so. In those suppurative cases in which the abdominal cavity is not drained, suppuration is apt to develop in the abdominal wall unless the latter be temporarily drained. This can be done by passing a small drainage tube or a wisp of gauze to the deep surface of the external oblique or the rectus sheath. If this simple method be adopted, the peritoneum can be safely closed in a great many more cases than we used to consider to be safe even a year or two ago.

But it is a mistake to go to the absurd extreme of closing the abdomen accurately in all acute cases, for unless the resistive power is good, the peritonitis may go on spreading, or cellulitis of the abdominal wall may develop and end fatally. Some say that it is impossible to drain the peritoneal cavity, but this is absurd, seeing the amount of fluid that escapes in these cases of suppurative peritonitis, especially when they are treated by the continuous infusion method. Some surgeons still use Keith's glass tubes, passing them into the pelvis, but I have recently heard of a case in which a part of the wall of the bowel was strangulated in one of the holes of a Keith's tube. I never use a rigid drainage tube, believing it to be a potent cause of faecal fistula and ulceration. Moreover, I think that there is no advantage to be gained by passing any tube into the pelvis or far among the intestines. The practice is fraught with danger of intestinal obstruction from contracting adhesions. All that is necessary is to pass a tube of very wide calibre right through the abdominal wall, its point only projecting about 1 in. into the abdominal cavity. A wick of gauze is passed through it and carried a little deeper than the tube, sometimes to the outer side of the caecum.

A retrocaecal abscess is best drained into the loin. The wound in the anterior abdominal wall can then be completely closed and a hernia avoided. When the disease extends into the pelvis it is much better to drain through the upper end of the vagina, because the abdomen can be completely closed and a hernia avoided. Moreover, the drainage is far more efficient and the patient gets well in a shorter time, often leaving the hospital at the end of three instead of six weeks, as happens when the pelvic abscess is drained above the pubis. When it is necessary to drain through the abdominal incision, I close the greater part of the peritoneal wound by means of a catgut suture, unless there is a grave reason for hurry. Stout salmon-gut sutures are passed through all the other layers and tied, except two or three placed where the tube is inserted. In most cases these are tied after thirty-six hours and a hernia is thus avoided. This plan is safer and simpler than giving a second anaesthetic for closing the wound a few days after the primary operation.

After-Treatment.

Nothing need be said here about the after-treatment of the patients in whom no peritonitis exists at the time of the operation; but when either localized or spreading peritonitis has developed a great deal depends upon the after-treatment. In such cases it is necessary to do all that is possible to keep the intestines at rest, to deal with collapse, and to procure sleep. With these objects in view an injection of morphine and atropine is given before the patient recovers from the anaesthetic. This prevents the pain and restlessness which come on in bad cases as the patient regains consciousness. Only water is given by the mouth for at least twelve hours. A pint of saline is run slowly into the rectum directly the patient is returned to bed. This is more likely to be retained if morphine has been injected. If the patient is very collapsed at the time of the operation 1 pint of normal saline solution is injected into each axilla by means of the Lane apparatus, all of which can be sterilized; this is by far the quickest and simplest way of introducing the fluid. To prevent infection the skin must be thoroughly cleaned, and to avoid haemorrhage the needle should be passed right through the pectoralis major into the middle of the axilla. If the

rubber bag is suspended at a good height the infusion can be completed within ten minutes. The fluid is absorbed very rapidly, so that it is unnecessary to use such an elaborate and comparatively dangerous method as intravenous infusion, still used by those who do not know or who do not appreciate the advantages of the simpler method. In bad cases the initial axillary injection is followed by the continuous rectal saline infusion during the first twenty-four hours. In milder cases I prefer to have a saline enema given regularly every three hours. If carefully given it is generally retained.

To procure sleep the first night after the operation a dose of morphine may be injected subcutaneously, or 30 grains of aspirin may be added to a saline enema.

In the treatment of the shock strychnine is avoided, because clinical experience confirms the statement of Crile that strychnine is the surest method of producing shock. Alcohol is not much better. The effect of adrenalin is very transient, and the same is true to a lesser degree of the various preparations of ergot. Lately I have used subcutaneous injections of pituitary extract, which raises the blood pressure for several hours. Shock is rarely severe when the operation is completed, as it should be, within twenty or thirty minutes. The collapse, which is due to deficiency of fluid, is best treated by giving plenty of water by the mouth, by the rectum, or subcutaneously. It is particularly important not to give any purgative during the first two days after the operation; there is nothing more harmful. There is no need to get the bowels open for the first day or two, because they are generally fairly empty as a result of the vomiting and enforced starvation which usually precede the operation. Moreover, it is of vital importance that the small intestine should be kept at rest, for intestinal movements tend to disseminate the peritonitis. The purgative often fails to act, especially in the worst cases. Under these circumstances the drug is an irritant poison, and generally induces vomiting. The bowels generally act naturally on the third or fourth day, and often there is diarrhoea about this time. An enema given after the third day does no harm, and is useful to empty the lower bowel. If flatulence be troublesome, minim doses of oil of peppermint may be given by the mouth or a rubber tube with several perforations may be passed into the rectum and left *in situ* for an hour or more at a time. It is unfortunate that many people still believe that it is necessary to purge these patients. Some have an idea that if the bowels are not opened soon the patient will die. Others think that an action of the bowel is necessary for the excretion of toxins. There is no foundation for either belief. It is true enough that the bowels are paralysed in the worst cases in which the operation has been too long delayed, but no purgative will make the paralysed bowel act. My experience is that it increases the distension, probably by forcing the contents of the upper and comparatively healthy part of the intestine into the ileum, which is more or less paralysed.

The treatment of paralytic distension of the intestine is a difficult subject. Pituitary extract may be found useful, as suggested by Blair Bell, but in bad cases temporary enterostomy is the only thing likely to succeed. In several cases treated in this way I have been able, three or four days later, to close the fistula under a local anaesthetic. Three or four days after the operation laxatives and purgatives are not so dangerous, and it is often good to give small doses of nux vomica and belladonna, with the idea of keeping the intestines active at this stage to prevent them getting too adherent. The half-sitting position is very valuable to ease the breathing and to lessen the risks of subdiaphragmatic and pulmonary complications.

In the after-treatment of the wound, when drainage has to be adopted, the drainage tube is generally removed about the third day, and is replaced by a smaller one or by a wisp of gauze. In many cases when there is only a little discharge the stitches previously inserted are tied, almost completely closing the wound. When there is much discharge, drainage has to be continued for a longer time. When the discharge has the offensive smell characteristic of the *Bacillus coli*, the wound may be bathed and the dressing soaked with a weak solution of sodium hypochlorite or hydrogen peroxide. Healing is sometimes hastened by the use of *Bacillus coli communis* vaccine. When drainage at the vagina has been adopted the tube is removed on the third day. If the temperature goes up again, the wound at the posterior fornix can be easily dilated with the finger to let out any collection of pus. A vaginal douche is used in these cases.

Reference.
[1] British Medical Journal, January 29th, 1910, p. 245.

THE EFFECT OF ABDOMINAL COMPRESSION IN A CASE OF VERY RAPID HEART,

WITH INSPIRATORY OBLITERATION OF THE RADIAL PULSE, FOLLOWING INJURY: RECOVERY.

By W. GORDON, M.A., M.D., F.R.C.P.,
Physician to the Royal Devon and Exeter Hospital; Physician to the West of England Eye Infirmary.

We know so little of the causes of the conditions at present described together under the common name of "paroxysmal tachycardia" that I may be excused for giving a fairly full description of the following case. Some additional interest attaches to it because, in its course, an inspiratory obliteration of the radial pulse (the so-called "pulsus paradoxus") was observed. I do not think that this inspiratory obliteration has been previously recorded in association with cases of this sort. Abdominal compression is a recognized method of treatment in "paroxysmal tachycardia," and in this instance it appeared to have been the chief means of saving life.

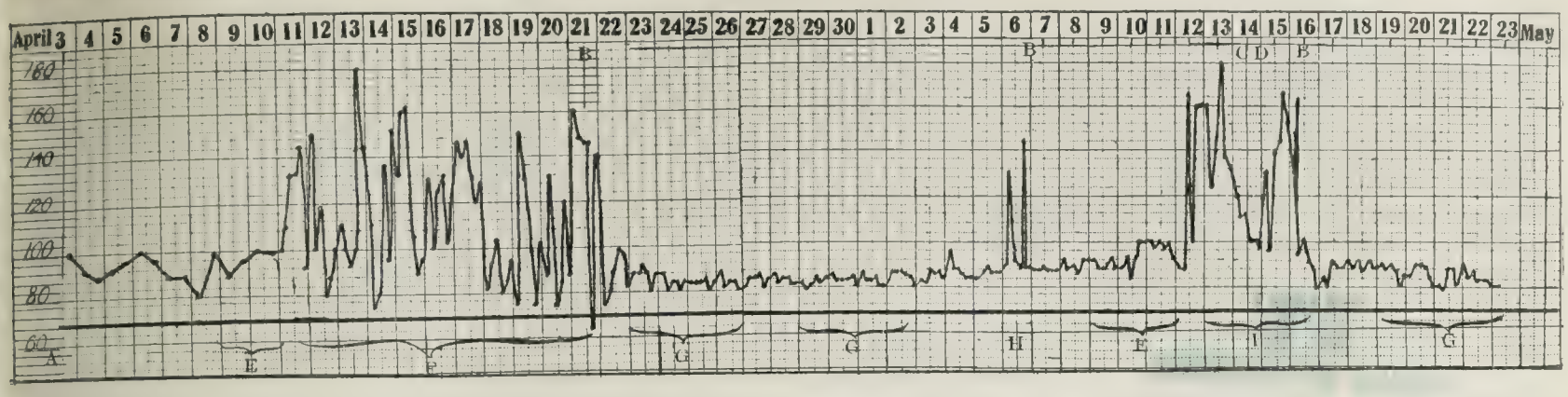
A gentleman aged 68, well built and healthy, was on April 3rd, 1909, thrown down by a large motor car which backed on to him. No bones were broken (as an *x*-ray examination proved), nor was there any cerebral concussion, but his right hip and thigh were bruised, as well as the left side of his face, and probably a certain amount of general shock was sustained. He was attended by Mr. Russell Coombe, removed to Miss Johnstone's Home Hospital, and placed under the best possible conditions. It is not unimportant to state that he seemed in no sense neurotic, being, in fact, very courageous, and, under the circumstances, most philosophic.

His pulse on the day of the accident was counted at 100, and between April 3rd and 10th it varied between 100 and 80. The accompanying chart shows this as well as the subsequent changes in the pulse until after his last attack of tachycardia. The pain in the bruised parts gradually subsided, but on April 5th, two days after the accident, he complained of severe abdominal pain and was sick three times; he had also hiccough and a great deal of flatulence. On April 7th and 8th he was more comfortable, but on April 9th he began to complain of an aching pain over the heart, with a good deal of flatulence and abdominal distension, and his pulse became rather weak, intermittent and irregular. On April 10th, just a week from his accident, Mr. Coombe and I saw him together. We found him in the condition described, with considerable gastric and intestinal distension. The heart was apparently of normal size, free from murmur, but with rather feeble sounds. There was slight pulmonary emphysema but no other lung trouble. The urine was normal. A mixture containing bismuth, soda, carbolic acid, and nux vomica was ordered and a simple aperient.

During the day (April 10th) the pulse became very unsatisfactory, and Mr. Coombe asked me to see him again in the afternoon. The pulse was then very small, irregular, and intermittent, running about 100, and the patient was pale and perspiring. There was no dyspnoea, no distension of the veins in the neck, no sign of cardiac dilatation. There was no murmur or friction to be heard, only rather feeble sounds. He still complained of aching over the heart. He was ordered $\frac{1}{60}$ gr. of strychnine hypodermically every four hours with this four-hourly mixture: ℞ Spt. aetheris nitrosi, spt. am. aromat., tinct. lavand. co., āā ♏ xv, aquam ad ℥j; also a tablespoonful of whisky every six hours. Under this treatment the pulse improved somewhat, remaining, however, very intermittent. Next day (April 11th) it rose further in frequency, and at 2 p.m. was running at 144. Small doses of digitalis were now given, and these reduced the rate as counted at the wrist. But this apparent reduction was only due to the digitalis increasing the number of beats which did not reach the radial artery, so on April 13th strophanthus was substituted, with small doses of ammonium bromide.

On the evening of April 13th the right saphenous vein became thrombosed. The pulse was then counted at 180. Next morning it was counted at 74. Cheyne-Stokes breathing was very marked on April 14th, and occurred occasionally for several days.

From this time until April 21st a very serious condition was maintained, the rate of the pulse varying greatly from time to time, as the chart shows, but being usually excessive, and often very rapid. At no time was there dyspnoea, cardiac dilatation,



PULSE CHART.—A, Accident. B, Binder applied. C, (?) if real rate so intermitting. D Real rate E, Pulse intermitting. F, Pulse feeble, very irregular, and intermittent. G, Pulse regular. H, Pulse irregular and intermittent. I, Pulse feeble, irregular, and intermittent.

or murmurs, distension of veins, or oedema, except in the thrombosed leg.

Nutrient enemata, with limited liquid food by the mouth, were begun on April 11th, and continued until April 18th, the liquid diet being kept up until April 19th, when solids were again cautiously begun. On April 21st he was extremely ill, and then for the first time I observed that during full inspiration the feeble, rapid pulse became absolutely obliterated. Mr. Russell Coombe confirmed this observation. I then decided to try the effect of abdominal compression, and a stout flannel binder was tightly applied all over the abdomen at 11.40 a.m. No other change was made in the treatment. No immediate improvement was noted in the condition; at 2 p.m. the pulse was 150; at 6 p.m., 146; at 10 p.m., 146. But at midnight it had fallen to 88, and was more regular; at 3 a.m. it was much stronger (64), but intermittent; at 5.45 it was again rapid (about 140), and at 10 a.m. it had dropped to 72.

A nearly liquid diet was resumed. From this time forward the pulse returned to an ordinary rate, stronger and not intermitting. On April 26th, the binder was loosened. On April 27th solids were cautiously begun again. On April 29th he was so much better that he was allowed to be propped up in bed for an hour. At first this caused some intermission of the pulse, but the effect soon passed off. On the succeeding days no intermissions were observed. On May 2nd he was propped up for two hours, and on May 3rd for a little over three hours. On May 5th he sat out of bed for nearly two hours, and seemed none the worse for it. His pulse had been excellent for days. On May 6th he was carried (in bed) into a larger room. There was no jolting or indeed any disturbance of the patient, but his pulse rose soon after to 132. There had been a delay in giving him an enema that morning, and the rise of pulse was attributed to that. This rate was maintained till the afternoon, when it again fell to normal. At the same time the patient complained a good deal of "indigestion." At 3.30 a.m. the pulse rose to 146 and remained at that for almost an hour, then falling to 90. At 5 a.m. it was 84, small, and regular. I again applied the abdominal binder, in the hope of preventing further accelerations, and noticed that the pulse at once slightly increased in size. After this the rate remained natural, but the pulse was not so good as before. That day some oedema and pain were observed on the back of the right hand, and a few days later a similar swelling affected the left hand.

The binder was loosened after a few days. On May 10th some venous thrombosis took place in the left leg, below the knee, with a great deal of pain. The tachycardia returned on May 12th, having been heralded for some days by occasional intermittence. He was now again extremely ill, very pale and grey looking, perspiring freely, the pulse very small and flickering, intermittent and irregular. At one time it seemed scarcely possible that he could survive. An enema of strong coffee did some service. So pale was he that I thought it worth while to examine the haemoglobin value of the blood. It was normal, as was the blood in other respects. Digitalin was tried on May 13th, and on May 14th, when he was again desperately bad, digitalis was prescribed with ether and strychnine. This undoubtedly did good, but did not control the tachycardia in the least.

On May 16th, at 5.30 a.m. the pulse was 164—very bad indeed. An enema of strong coffee seemed to pull the patient together, and the pulse gained in strength. At 9.30 a.m., the pulse being then 164, a binder was very tightly applied by Mr. Coombe. In a quarter of an hour the pulse fell to 96, regular and good, with only occasional intermissions.

This was the last attack of tachycardia. At the same time he was put on the following mixture: ℞ Tinct. strophanth. ♏ v, ammon. bromid. gr. v, spt. ammon. arom. ♏ xv, spt. aetheris nitrosi ♏ xx, tinct. lavand. co. ♏ xv, aq. ad ℥j, every four hours; and from this date improvement was continuous.

On May 23rd the patient was well enough to be taken home to London. He had a troublesome attack of boils soon afterwards, but except for occasional very slight pulse acceleration, he progressed slowly and uneventfully. Dr. Harper tells me that he is now "wonderfully well, and beyond occasional slight pulse acceleration, generally connected with indigestion, there has been no attempt whatever at a tachycardia."

About the gravity of the patient's condition during the continuance of the tachycardia there could be no sort of doubt. Mr. Russell Coombe, Dr. Harper (of Rosary Gardens, London, his usual medical attendant), my colleague Dr. Henry Davy, and Sir Clifford Allbutt, who saw him with me at various times, all agreed as to its extreme seriousness.

His attacks seemed clearly in some way consequent on his accident; also on his flatulent indigestion. I fancied that a decrease in the amount of fluid ingested tended to increase his liability to tachycardia. The temperature throughout was normal except at the time of each attack of thrombosis, when, however, it only rose very slightly.

I have refrained from calling the case one of "paroxysmal tachycardia." So many diverse conditions have been described by that name that it has ceased to have any precise significance. It was first applied, and, I venture to think, its use should again be restricted, to those cases in which, without discoverable cardiac lesion, and often without obvious reason, a normal pulse-rate suddenly or almost suddenly rises to a very high frequency, maintains it for minutes, days, or weeks, and then suddenly or almost suddenly returns to its original pace. Such cases are altogether different from the present one.

With regard to the inspiratory obliteration of the pulse, the so-called "pulsus paradoxus" (a term which surely ought to be given up), one cannot be expected to acquiesce in the present attitude of needlessness of explanation. If the phenomenon means anything in a case in which heart and lungs are free from demonstrable disease, it surely must indicate that the left side of the heart is so imperfectly supplied with blood that the intrathoracic suction action of inspiration, resisting outflow from the chest, is sufficient to greatly lessen the outgoing current. It was in this sense that I interpreted it. The pale livid face and hands suggested arteries half empty. The blood itself was normal. Where, then, was the blood? One could only suppose that it was ponded in the splanchnic area, much as most people believe it to be in surgical shock. To determine the state of the blood pressure I used a Potain's sphygmomanometer during his last attack (one recognizes its defects, but a Riva Rocci seemed undesirable in his state), and found that the pressure was only 100 mm. on May 15th.

In surgical shock the pulse-rate may rise to an uncountable point.

The effect of the binder I think can best be explained by its effect on the overcharged splanchnic circulation.

There are a considerable number of cases on record in which treatment directed to emptying the splanchnic vessels—compression of the abdomen in various ways, even inversion of the patient—has reduced the excessive rate of the heart to normal. Sir Clifford Allbutt refers to this in his interesting article on the subject in the last edition of his *System of Medicine*, and references to a number of instances will be found in Professor Hoover's article in Osler and McCrae's *System*.

How great may be the effects of a sudden opening of the splanchnic flood-gates I once had an opportunity of seeing, and, as the case has not been published and the explanation of such cases has not hitherto, so far as I am aware, been given, I may briefly mention it here.

A patient with left-sided empyema—not under my care, by the way—was having the empyema washed out, when he suddenly became faint and quickly died, with the appearance of one suffering from a rapid internal haemorrhage. At the *post-mortem* examination we found no haemorrhage. But the abdominal organs presented an appearance such as I have never seen before or since

—the solid organs swollen and purple with excess of blood content, and, when cut, running out like overfull sponges. The splanchnic nerves, it will be remembered, run down within the thorax.

If paroxysmal tachycardia can be really determined by dilatation of the splanchnic area and the consequent greatly diminished supply of blood to the left ventricle, it is easier to understand the usually sudden manner of its inception and termination.

Other remedies suggested for paroxysmal tachycardia are atropine (by Dr. Herringham) and vascular dilatants (by Sir James Barr). It is interesting to note that, although in this case the blood pressure was low, yet the patient seemed to do decidedly better when on a mixture containing spirits of nitrous ether.

A RED LINE ON THE GUMS.

BY

G. ARBOUR STEPHENS, M.D., B.S., B.Sc.LOND.,

SWANSEA.

DURING the last three years it has been my privilege to examine a very large number of men (about 900) employed at works in which lead ores are handled, and with such an opportunity one would not be surprised at the possibility of finding some new feature associated with the poisoning symptoms classified under the heading of "plumbism."

It is astonishing what a large number of cases have been placed in the category of plumbism since the passing of the new Compensation Act, which, under circumstances associated with fewer temptations, both to the workman and his doctor, would most probably have been put down to alcohol, syphilis, rheumatism, or some such disease.

The workmen are drawn from a stratum of society composed of unskilled persons, who have been brought up amidst surroundings that do not conduce to any mental or moral elevation, with the result that their resistance to temptations of an alcoholic nature is of the feeblest. With a diminished income due to alcoholic excess, this class of workman does not obtain the necessary quantity of proper food to enable him to resist disease, which, if it be associated with the blue line on the gums, is most likely classified as plumbism.

What is this blue line? In a large number of the older "hands" one nearly always see a dark, dirty line, which, with the application of a suitable tooth powder on a good toothbrush would rapidly disappear; this is not the lead line. The typical lead line is seen to be just under the surface of the edge of the gum, and situated in the papillae, and under a magnifying glass presents an interrupted appearance. These papillae in some cases become enlarged almost to the extent of rupture, and the question naturally arises, What is the cause?

The following case is very interesting as bearing on the question:

A. B., aged 29, has been engaged at the same works for about ten years. On August 2nd, 1909, he lost the sight of his left eye, which had only troubled him for a few hours previously by becoming excessively watery. He gave a history of an attack of colic (which may have been due to lead) in May, 1909, but which did not last long.

He is rather anaemic; the left eye is damaged by a haemorrhage into the anterior chamber, which completely interferes with his sight. There is no paralysis. On testing the saliva the potassium sulpho-cyanide reaction is well marked, and to those who have had much experience of this test such a fact will be surprising. On the gum is a marked blue line, with which is associated a line of very enlarged papillae, in many places enlarged to the extent of rupture.

Is this engorgement due to the presence of lead in the system? About two years ago, when examining the men at a works in the district, I was particularly struck with he fact that a large percentage *of their gums showed a distinctly red line*, in marked contrast to the men at other similar works, so much so that I drew the attention of Dr. Legge, of the Home Office, and Dr. Collis, one of the inspectors, to the matter, and the latter has corroborated my observation. This red line is, in my opinion, due to an enlargement of the papillae at the edge of the gum, and, peculiarly enough, was seen in lads who had been only fourteen to twenty-eight days at the works, as well as in the outside men, such as masons, whose contact with the fumes occurred only when the latter were diluted.

The works are situated on the bank of a river, and are nearly surrounded by works of many sorts, so that the atmosphere is most probably charged with particles of an irritating nature, and no doubt it is this source of irritation, especially in the case of boys newly arrived at the works, that causes the engorgement, to which the lead finds its way, and on which it leaves its mark.

The conclusion that one naturally arrives at from such facts is that the so-called lead line is no proof of lead in the system, but that it appears in workers whose gums have been irritated by particles other than lead.

The Lettsomian Lectures

ON

THE CEREBELLUM AND ITS AFFECTIONS.

DELIVERED BEFORE THE MEDICAL SOCIETY OF LONDON,

BY

J. S. RISIEN RUSSELL, M.D., F.R.C.P.,

PROFESSOR OF CLINICAL MEDICINE AND PHYSICIAN TO UNIVERSITY COLLEGE HOSPITAL; PHYSICIAN TO OUT-PATIENTS AT THE NATIONAL HOSPITAL, QUEEN SQUARE.

LECTURE III.

NON SUPPURATIVE ENCEPHALITIS.

NON-SUPPURATIVE encephalitis may occur in adults in association with infective diseases, but has been especially described in children after one or other of the acute diseases to which they are so liable. The mode of development of the acute ataxia in a child previously healthy, with the subsequent gradual improvement, after an attack of measles or some similar disease, are points that are highly suggestive of either encephalitis or acute degeneration, due to the action of some toxin on the nerve elements of the cerebellum. Such evidence cannot, however, be accepted without *post-mortem* confirmation, so that it is satisfactory to find that when some such cases have come to necropsy, although, as a rule, this has been at a remote period from the acute attack, the evidence of sclerotic changes in the cerebellum has been such as to justify the original diagnosis of encephalitis.

Prominent among those who have directed attention to this class of case in children is my colleague, Dr. F. E. Batten, who, in a paper on ataxia in childhood, brings out the main clinical features of the affection as it occurs in children. A child, previously healthy and of good physical and mental development, becomes ill of some acute febrile disease, which may or may not assume a definite recognized type, such as that of one of the exanthems. Loss of consciousness may supervene, but general convulsions are exceptional. After a few days, in which the child appears to be making a normal convalescence, it is sat up, but is found to be unable to maintain itself in this posture owing to loss of balance. The child's hands reveal marked incoordination, and, if supported on its feet, the lower limbs are found to be wildly ataxic. Moreover, some articulatory defect of speech may be noticed. The general health improves in the course of a few days, but the child continues ataxic for a time, after which recovery gradually takes place, and may be completed in a few months, or it may take two or three years before this result is reached.

Although the cases included in Batten's paper are open to the criticism that they are unsupported by any pathological data, in view of the fact that all the patients recovered, it will nevertheless be admitted that they are identical with other cases that have come to necropsy, in which evidences of encephalitis have been established.

No better example of this is to be found than in a case recorded by Clapton.

A child, aged 4 years, who had been previously healthy, was attacked by measles, after which she suddenly became unable to use her limbs or to talk. After remaining in more or less the same condition for about six months she began to improve, but even at the age of 15 her gait was still ataxic, and she could not use her hands properly. Death took place at the age of 33, when the cerebellum was found to be less than a third of the normal weight, and presented neuroglial proliferation, with

almost complete disappearance of the nerve elements of which the normal cortex is composed.

These cases must further serve to illustrate the fact that all cases in which encephalitis affects the cerebellum in childhood do not end in that perfect and complete recovery which resulted in a case published by Dr. Frederick Taylor.

A boy of 4 had fallen downstairs without seeming to be hurt eight weeks before he came under observation, and three weeks before he developed the following symptoms he suffered from whooping-cough. For three weeks his eyes had twitched, he had dropped things out of his hands, and he had been unable to walk. He was unable to stand unsupported, and was unsteady in the sitting posture. Lateral nystagmus was occasionally present. A special feature of the case was a trembling of the limbs and trunk, which resembled that seen in disseminated sclerosis. The tremors of the arms only appeared on attempts at voluntary movement, and were not violent or extensive, but quick and short. Vomiting occurred several times during the first fortnight that he was under observation, but then ceased, and repeated examination of the fundi failed to determine the existence of optic neuritis. During the next two months there was little change, but he subsequently improved, so that about eighteen months later he could walk on level ground, though in a very ataxic manner, his movements resembling exactly those of a drunken man, and not those characteristic of the gait of tabes. His arms were also ataxic. Scarcely any tremor was now noticeable in the head and neck. His speech was hesitating and his voice was not properly modulated, but he looked fairly intelligent, and he was lively and cheerful. Sensation appeared to be normal. In the course of the next two years he had improved so much that he was able to run and to bowl a hoop, although his speech was still a little imperfect, and when seen at the age of 33 so complete was his recovery that he was able to follow the calling of a clerk, and presented no sign of his former complaint, but was an active man, and included hockey among his recreations.

Most of the cases that have come to necropsy have done so at a period so remote from the original illness that sclerotic changes were alone determined, and supply the only justification for the assumption that an encephalitis had existed. A case recorded by Nauwerck, however, affords an illustration of what the acute changes may be in cases of the kind:

A girl of 19, who had been formerly healthy, except that she had previously suffered from otitis media after a transitory cold, with slight pains in the limbs, developed some headache, especially in the occipital region, fainting, and repeated vomiting. Her pupils were contracted and did not react to light, and the discs were normal. There were no cord symptoms, and her urine was free from albumen and sugar. Two days after the onset she had developed jactitations, with constrained positions of the limbs. Respiration became deep and very slow, and ultimately Cheyne-Stokes. There was groaning at times, and she experienced difficulty in swallowing. Death occurred four days after the onset of the illness.

At the autopsy the right cerebellar hemisphere was occupied by a walnut-sized apoplectic focus, consisting of black coagulum, the margins of which were irregular, and the walls formed by a greyish-red softened zone beset by small haemorrhages. The morbid changes extended across the middle line into the left cerebellar hemisphere, where there was a focus the size of a small hazel nut. On the right side the softening infiltrated the cortex over an area the size of a penny. The tympanic cavity was normal, as was the frontal sinus.

Another class of case which may be the outcome of an acute disease earlier in life is that in which there are evidences of chronic meningitis in addition to atrophy and a general sclerotic condition of the cerebellum, and in which epilepsy and mental enfeeblement may form part of the clinical picture. A case recorded by Hammarberg illustrates this:

A child who had previously been quite well fell ill with some form of severe cerebral inflammation at the age of 7. Following on the acute illness, he became ataxic, and presented continuous oscillations of the trunk and limbs, while all of his movements were slow and uncertain. Speech, which was lost for a time, was indistinct and scanning in character after its return. At the age of 24, the patient became subject to fits of mania, developed delusions, had some epileptic attacks, and died. The cerebellum was found atrophied and sclerosed, and the pia mater covering it was thickened all over. The frontal lobes of the brain and the left inferior olive were also the seats of patches of sclerosis.

VASCULAR LESIONS.

In considering the phenomena which characterize tumours of the cerebellum I took the opportunity of referring to the fact that vascular lesions are much less commonly responsible for disorders of function of the cerebellum than of the cerebrum. It must not, however, be supposed that they do not occur in the cerebellum. Nevertheless, in the vast majority of cases they prove of pathological rather than of clinical interest, because death has resulted so rapidly or under such conditions as have not allowed of cerebellar symptoms being determined, or that the lesions have been of such a character as could not be expected to give rise to a characteristic clinical picture.

The first class of case is supplied by haemorrhage, in which the patient dies rapidly owing to rupture of the blood into the fourth ventricle, or if living longer remains comatose, and does not permit of proper analysis of the symptoms in the way that might otherwise allow of information being obtained which might lead to a correct diagnosis.

The latter class of case is usually supplied by thrombosis, in which foci of softening determined on necropsy are so small and insignificant that they could not reasonably be expected to occasion characteristic symptoms during the patient's lifetime. This is to be accounted for by the free anastomosis of the cerebellar arteries, whilst the sources from which the cerebellum receives its blood supply make the occurrence of embolism altogether unlikely in the organ. These remarks are sufficient justification for my asking you to allow me to remind you of the sources from which the cerebellum derives its arterial supply. Not only does the cerebellum derive its supply from the basilar, but it also does so from the vertebrals before they unite to form the basilar sheath; whereas the superior cerebellar artery, which supplies the lower surface of the organ, and the anterior cerebellar, which supplies the inferior surface, are derived from the basilar, the inferior cerebellar, which also supplies the under surface and the posterior part of the upper surface, comes direct from the vertebrals. It will be readily understood that the free anastomosis of the vessels precludes the possibility of large areas of softening resulting from thrombosis as a rule, and that the cerebellar vessels are so fortunately placed in regard to the main trunks from which they are derived, that there is little likelihood that an embolus would become deviated from one of the main channels of the cerebrum to be lodged in the cerebellum.

The following vascular lesions are met with:

1. Haemorrhage.
2. Thrombosis.
3. Arterial degeneration with sclerosis of the cerebellum.

Haemorrhage.

What has been said in regard to haemorrhage must not be taken to mean that extravasations of blood never take place into the organ under conditions that permit of a correct diagnosis during the life of the patient, for this would not be true. The cases are, however, very exceptional in which the uncomplicated cerebellar syndrome is determined, for the reason that it so often happens that the haemorrhage is as much pontine as cerebellar, taking place in one of these seats and extending to the other. Premonitions that have been insisted on are headache, especially occipital, and giddiness; while, according to Nothnagel, haemorrhage in the cerebellum may be suspected if there be repeated vomiting at the beginning of the attack without the occurrence of any obvious motor paralysis. In an old woman, whose case was studied by Touche, vomiting a month before death was the only symptom, and yet there was a focus of haemorrhage in the centre of the left cerebellar hemisphere.

A case that illustrates what the effects may be in a patient in whom the haemorrhage is strictly confined to the cerebellum, without either involvement of the pons or rupture into the fourth ventricle, is supplied by Boldt:

Each cerebellar hemisphere was found to contain a haemorrhage about the size of a walnut, in a man aged 42, in whom severe general spasms were followed by a dazed condition, in which state the tendon-jerks were exaggerated and continuous clonic tremors were observed in the right extremities and lower part of the face on the same side. Two days later the eyes became divergent, there was definite dysarthria, cerebellar ataxia and Romberg's sign. Aphonia, great difficulty in deglutition, and Cheyne-Stokes breathing, preceded the fatal termination of the case, which occurred four days after the onset of the illness.

Another case which supplies an example of what may happen when the haemorrhage occurs into the middle lobe is supplied by Collett:

An extensive haemorrhage occurred into the middle portion of the superior vermis in a girl aged 19, who experienced difficulty in breathing, whose eyes deviated to the left, whilst the left half of her face was in tremor, and her arms and legs in constant movement. Six days later sudden spasm occurred, with cyanosis and arrest of respiration.

Another case, which is an example of how the cerebellar syndrome may result from haemorrhage into one of the peduncles, is one recorded by Porot:

The extravasation of blood was limited to the first part of the right superior peduncle. A man of 50 was attacked by vertigo and transitory diplopia, followed by the cerebellar gait, dysarthria, hemi-asynergy, ataxia and diadococinesia of the right arm, bilateral exaggeration of the knee-jerks, preservation of the superficial reflexes, and slight nystagmus on extreme turning of the eyes to the right.

The more usual state of things, however, is that the haemorrhage in the cerebellum is complicated by haemorrhage in the pons. Inglis and Fenwick met with a case of the kind:

A woman, aged 26, had old blood clot filling a cavity on the right side of the cerebellum, while a cyst the size of a pea, containing clear fluid, was situated in the posterior extremity of the pons on the same side. In this case, as in others of the kind, there was evidence of affection of the pyramidal tracts, as supplied by the extensor type of plantar reflex, while such partial hemiplegia as existed was on the contralateral side to the cerebellar and pontine lesions, as evidenced by the findings at the necropsy. Moreover, numbness of the left side of the face was one of her symptoms. She had frequently repeated purposeless movements which shook the bed, and she lay on her right side, and, when turned on to her back, turned her eyes and head to the right in a way that is contrary to what we know usually obtains in acute lesions of the cerebellum, in which there is deviation of the head and eyes to the opposite side, as obtained in a case published by Laignel-Lavastine and Halbron, in which haemorrhage into the right cerebellar hemisphere resulted in conjugate turning of the head and eyes to the left.

On the other hand, how haemorrhage may occur into the cerebellum without causing cerebellar symptoms is illustrated by a case published by Spiller, Robertson, and Wadsworth:

A woman, aged 37, was found to have a haemorrhage into the vermis and posterior portion of the fourth ventricle, without having had vertigo, convulsions, or any other symptoms to lead to this condition of things being suspected during life.

In a case published by Camille Lian there was generalized muscular weakness without alteration of the tendon jerks and superficial reflexes, but no characteristic symptoms pointing to the cerebellum, in a woman aged 60, in whom haemorrhage in the anterior and internal portions of the quadrangular lobe of the right cerebellar hemisphere existed, and the blood infiltrated the whole of the cortex of the superior half of the hemisphere and part of the cortex of the superior vermis.

Thrombosis.

While it is true that thrombotic lesions in the cerebellum are usually so small that they are discovered on necropsy without having caused any symptoms that could lead to their being suspected during life, exceptions occur, as may be judged from what obtained in a case published by Négel and Théohari:

In a man aged 50 the disturbance of equilibrium was so great that he was unable to stand upright without support, continuous oscillation of the body resulting on his attempting to do so, and there being a tendency to fall backwards. In this case, however, in addition to the chief focus of softening in the left hemisphere of the cerebellum, involving the white substance and nucleus dentatus, there were similar foci on the inner side of the occipital lobe, two on the right side of the pons and one on the left. He, however, presented no clinical evidence that would justify the belief that the pyramidal tracts were affected in the pons or elsewhere.

M. Thomas has also published a case in which, after thrombosis of the right vertebral and postero-inferior cerebellar arteries in a man of 58, there resulted vertigo, a tendency to fall to the right, ataxia of the right arm and tremors of both legs, slight ptosis of the right eye, the pupil of which was smaller than the left, transient lateral nystagmus, and difficulty in swallowing.

Arterial Degeneration with Sclerosis.

Yet another way in which vascular disease may lead to disturbance of cerebellar function is by the occurrence of a more diffuse process, with a great deal of neuroglial proliferation which leads to sclerosis. Few cases of the kind have, however, been proved by the discovery of histological changes in the cerebellum that can be ascribed to such vascular disease. One of the best established is a case recorded by Schultze:

The first symptoms were observed at the age of 39; they progressed rapidly, so that the patient died at the age of 43. A typical staggering cerebellar gait developed without Romberg's sign; there was slight nystagmus, intention tremor of his arms, and his articulation became slow and indistinct. Thus a clinical picture was produced which was similar to that which may result from a progressive degeneration of the cerebellum, in which vascular disease cannot be blamed for the morbid changes or the clinical picture to which they give rise. In reality, however, in this case, as in a few others of a similar kind, abundant evidence of vascular disease and its consequences were forthcoming on necropsy.

The cerebellum was found considerably atrophied, and presented patchy sclerosis. The Purkinje cells were greatly reduced in number, and those which had not disappeared were nevertheless atrophied. The molecular and granular layers were only slightly affected. The central nuclei shared in the changes, and were thus atrophic. The white matter was greatly destroyed, the lesions being both focal and diffuse, with a great deal of sclerosis due to neuroglial proliferation, and the vessels were diseased. The superior cerebellar peduncle was degenerated, and atrophic changes, probably secondary to the disease of the cerebellum, were determined in the olives, middle peduncle, and transverse fibres of the pons, whilst the spinal cord was normal.

Degenerations of the Cerebellum.

Before dealing with the degenerations which may result in the cerebellum it is necessary for me to remind you of a few points in connexion with the structure of the cortex of the organ, in addition to those anatomical details to which I directed your attention in the first lecture, for these, you will remember, only related to the separation of the cortex from the intrinsic nuclei, and to the connexions which exist between the organ and other parts of the central nervous system. No reference was made to the actual minute structure of the cortex.

Structure of the Cortex of the Cerebellum.

The cortex consists of two layers, an inner or granular, which is best considered first, in that the neurons of the small nerve cells of which it is composed, and which are spoken of as granules, send their axons vertically towards the surface to reach the outer or molecular layer, where they are found to be continuous with horizontal fibres which run between the cells of this layer. The cells of the molecular or outer layer are not so small as those of the inner layer, and they are not so numerous, so that they are more scattered. Between the outer and inner layers the cells or corpuscles of Purkinje are to be seen. These are large flask-shaped cells, whose dendrites branch in antler fashion, forming another constituent of the outer or molecular layer.

The following groups of cases of degeneration of the cerebellar system have been established:

1. Parenchymatous degeneration of the cerebellum.
2. Olivo-ponto-cerebellar atrophy.
3. Degeneration of the spino-cerebellar tracts.

Parenchymatous Degeneration of the Cerebellum.

Since Marie's publication in 1893, when he collected certain cases which presented more or less similar clinical features, from which he constructed a clinical picture that was regarded by him as characteristic of a group to which he applied the term "hereditary cerebellar ataxia" (*L'Hérédo-ataxie cérébelleuse*), many writers have followed his teaching, and it has become an accepted fact that a group of cases exists in which primary disease of the cerebellum leads to a very definite and characteristic clinical picture, which is not to be confounded with that of Friedreich's ataxia, in which the clinical phenomena are to be ascribed to changes in the afferent cerebellar tracts in the spinal cord rather than to disease of the cerebellum itself. Much as we are indebted to Marie for his paper, which called attention to the possibility that such a group of cases exists, and odd as it may seem, in only one of the cases on which his description of the affection was based has any morbid condition of the cerebellum been revealed by necropsies subsequently performed in the cases, and even in that case the morbid changes were not strictly limited to the cerebellum, in that there was optic atrophy.

True as this is, it nevertheless happens that investigations stimulated by his contention have resulted in establishing beyond question the existence of cases in which, with a clinical picture of ataxia, primary degeneration of

the cerebellar cortex has been found to account for the condition without any co-existing degeneration of the afferent cerebellar tracts in the spinal cord. No better illustration of this class of case is to be found than that published by Gordon Holmes:

A man aged 53, from a family of eight, of whom four were similarly affected, and in each of whom symptoms of the disease set in between the ages of 33 and 40 years. Two brothers and a sister were the other members of the family affected, and all of them had been in the Marylebone Infirmary under Dr. Lunn's care, where the patient died at the age of 70, and afforded Holmes the opportunity of making a histological examination of his nervous system.

At about the age of 35 he began to be unsteady in walking, and this became progressively worse, while by the time he was 40 his hands were very unsteady and uncertain in their movements, and soon after this his articulation began to be altered. He was small but well built, and, as in the case of the other members of the family affected, the tonsils were small, as were his genital organs, and beyond his eyelashes he had no hair on his face and very little on his head. He had never required to shave. Nystagmoid jerks were evoked on lateral turning of the eyes to either side. His pupils were equal, and reacted to light and accommodation. His optic discs were normal. There was some tremor of his head when unsupported, and his upper limbs also revealed tremor, in addition to ataxia and uncertainty in their movements. His gait was unsteady and reeling, like that of a drunken man. Romberg's sign was nevertheless absent. No disturbance of sensation was reported; the knee jerks were brisk. He ultimately became bedridden, and unable to stand or walk without support. His articulation was slow, jerky, and explosive, and there was marked nystagmoid jerking of the eyes, especially on lateral movements. The facial muscles showed considerable excess of contraction when he spoke, as is so often seen in Friedreich's disease. Volitional movements of his limbs were poorly co-ordinated, though not unduly weak, the ataxia resembling that seen in Friedreich's disease. His tendon jerks were brisk, and there was no disturbance of sensation or of the special senses.

Examination of the central nervous system after death showed marked more or less uniform reduction in the size of the cerebellum, which was unduly firm in consistence. On microscopical examination the molecular layer of the cortex was found markedly reduced in breadth, and the majority of its cells had disappeared, while it had undergone some sclerosis, which was most marked in its deeper part, which borders on the intermediate zone in which the Purkinje cells are situated. These cells had entirely disappeared throughout the greater part of the cerebellum, and even where present they were much reduced in numbers. Neuroglial proliferation and sclerosis replaced the Purkinje cells that had disappeared. The cells of the granular layer had also disappeared to a variable extent, which led to marked rarefaction of this layer. Secondary to the nerve cell degeneration was a slight degree of neuroglial sclerosis. The white matter of the folia was greatly reduced in size, and revealed a considerable amount of sclerosis. The intrinsic nuclei of the cerebellum were about normal in size, and their cells were normal for a man so old as the patient was when he died, so that the well-preserved intrinsic nuclei presented a striking contrast to the degenerated cortex in sections in which both parts were visible at the same time. The superior cerebellar peduncle was intact, and did not show the slightest degree of degeneration or atrophy, a description which applied also to the middle peduncle and transverse fibres of the pons. The restiform body (inferior cerebellar peduncle) was, however, reduced to about half its size, a state of things to be accounted for, in part at any rate, by the fact that the inferior olives were markedly affected, so that the olivo-cerebellar fibres were naturally degenerated, and had disappeared from the restiform body. The affection of the olives was secondary, and had nothing to do with the production of the symptoms, so that the case may be looked on as a typical example of what may be expected from the clinical point of view in a case in which degeneration is limited to the cerebellum. No degeneration or other change was detected in the grey matter of the medulla, where all the nuclei, including those of Deiters and Bechterew, were intact. The cells of the tegmentum of the pons were also unaffected, and no evidence of sclerosis was detected anywhere in the pons or mid-brain. The red nuclei and optic thalami were normal, as were the crura cerebri and internal capsule, while the cerebral cortex was also free from degeneration, except that there was a pigmentation of cells, common to people of the patient's age, and perhaps a slight reduction in the size of Betz's giant cells of the precentral area. The optic nerves presented no sign of degeneration or atrophy. The spinal cord was absolutely intact, except for such changes as may be seen in the cord of any old person affected with arteriosclerosis, as were the dorsal and ventral roots and the dorsal root ganglia, and such peripheral nerves as were examined.

It is clear, then, that a primary and progressive degeneration of the nerve elements of the cortex of the cerebellum was responsible for the clinical picture in this case, and that although the nervous systems of the two brothers and the sister were not subjected to the exhaustive examination which was made by Holmes in this case, the clinical features were so identical in all four of the patients that it is permissible to suppose that the pathological basis was also the same in them all. The familial nature of the disease and the existence of congenital or developmental anomalies in the family are special features to be noted, while these anomalies make it probable that the selective disease of the cerebellar cortex was primarily due to a hereditary defective vital endurance or a tendency to degeneration of these tissues, which began to fail from the middle of adult life.

That such cases of progressive degeneration may date from childhood is suggested by the cases of progressive ataxia met with in children, and is proved by the cases of a brother and sister studied by Fraser.

These patients were affected from early childhood, and became progressively worse as they grew older instead of improving, in the manner seen in so many cases of ataxia in children. They presented a staggering cerebellar gait, with inco-ordination of the upper limbs, tremor of the head, nystagmoid jerking of the eyes on lateral deviation, primary optic atrophy, strabismus that was possibly congenital and articulatory disturbance of speech, while vertigo was a further symptom in one of the cases. Examination of the cerebellum of the male patient showed that the organ was markedly reduced in size, and the cortex was atrophied to about half the normal depth, Purkinje's cells having disappeared in greater part, while the few remaining were shrunken and atrophied. The spinal cord appeared to be normal, but was not subjected to microscopical examination.

Olivo-Ponto-Cerebellar Atrophy.

To Thomas we are chiefly indebted for most of the knowledge which we possess of another type of cerebellar ataxia, which has also been investigated by Déjerine, in which the clinical picture closely resembles that to which attention has just been called, but in which, in addition to degeneration of the cerebellar cortex, there is simultaneous degeneration of the grey matter and fibres of the pons and of the inferior olives. Although there may be slight differences in the clinical pictures of the three cases on which his description of the affection is based, in the main the conditions were the same, and the principal outstanding feature was marked disturbance of equilibrium in the typical cerebellar *démarche ébrieuse*. The individual movements of the lower limbs were not as ataxic, and only one of the cases showed any affection of the arms, intention tremor being the defect noted in this case. Romberg's sign was not present. The articulation was slow and scanning in all of the cases, and two of them presented nystagmus.

The pathological basis determined to account for the clinical picture was the same in all of them, although in one it was complicated by disseminated sclerosis, which was regarded as quite accidental and independent of the other morbid processes. The essential changes consisted in atrophy of the cerebellar cortex, which was severe, though not uniform either in distribution or in degree, practically complete degeneration of the inferior olives, the nuclei of the pons and its transverse fibres, both here and where they constitute the middle peduncle of the cerebellum, while the restiform body (inferior peduncle) revealed only partial degeneration. Nowhere in the degenerated parts was anything but very slight neuroglial sclerosis determined, thus stamping the changes as due to primary degeneration of the nervous elements. The central nuclei of the cerebellum were relatively intact, and the spinal cord revealed no degeneration of the afferent cerebellar tracts nor any other changes, except that in two of the cases the crossed pyramidal tracts were slightly pale. Although, as in the other type already described, the affection does not make itself manifest until an advanced age, and presents no evidence of any hereditary tendency, it differs in further showing no familial tendency, which was so prominent a feature in the other cases.

Degeneration of the Spino-Cerebellar Tracts.

It has long been recognized that the clinical picture of cerebellar ataxia may have as its pathological basis an affection of the spino-cerebellar system instead of disease of the cerebellum itself, and the best established cases of the kind are those included under the title of Friedreich's ataxia, in which the afferent cerebellar tracts, both dorsal and ventral, are degenerated, and in which the cerebellum is intact.

Some observers have, however, suggested that the organ is affected in conjunction with the spinal cord in some of the cases, and there are those who regard this affection as but one variety of a common disease, which may affect the cerebellum or spinal cord. Raymond accordingly considers that various intermediate links can be established between Friedreich's disease and Marie's hereditary cerebellar ataxia.

As has already been explained, however, most of the cases on which Marie based his description of hereditary cerebellar ataxia, and in which defect of the cerebellum was supposed to account for the clinical picture, fall under a group of cases in which the cerebellum is in reality intact, but in which, nevertheless, the dorsal and ventral cerebellar tracts, together with Clarke's column in the spinal cord, are affected in a way that makes the cases more closely linked to Friedreich's disease than to any affection of the cerebellum. The explanation of how Marie's supposed cerebellar ataxia is in reality accounted for by affection of the spinal cord is supplied by the fact that only two of the cases on which he based his description had come to necropsy when his paper was published, and that all of those that have allowed of histological examination since have presented morbid changes in the spinal cord, while the cerebellum has been intact.

In illustration of this I cannot do better than refer you to the well-known cases of Sanger-Brown, as they were included in Marie's description in the type of disease in which the spinal cord was not supposed to be affected, whereas the cerebellum was, and in which in reality those of the cases that have come to necropsy since then and have been examined by Meyer and Barker respectively have all shown the reverse to be true.

Twenty-one cases were observed in four generations of one family, and the clinical manifestations of the malady most commonly appeared between the ages of 16 and 35. Ataxia was the outstanding feature in the symptomatology, and first affected the legs, then the arms, then the muscles of the face, eyes, head, larynx, and pharynx. A reeling cerebellar gait resulted, but Romberg's sign was absent. Attempts to keep the head or limbs in fixed positions by voluntary effort resulted in choreiform movements of these parts. Palsies and subsequent spastic contractures developed, and the tendon-jerks were exaggerated, but sensation was not affected. There were no deformities other than those produced by the spastic contractures. The pupils were defective in their reaction to light, and optic atrophy was present.

In the three cases examined histologically the cerebellum was practically normal, except, perhaps, a slight diminution in the number of Purkinje's cells. Marked changes were, however, found in the spinal cord, in which the dorsal cerebellar tracts and Clarke's columns were completely degenerated, and the ventral tracts of Gowers slightly so. There was, in addition, degeneration of the middle-root zone in the dorsal columns, and ascending degeneration of Goll's columns.

CONGENITAL DEFECTS.

Few morbid conditions of the cerebellum are of greater interest than congenital defects of the organ. These may be conveniently described as falling into one or other of three groups:

1. Cases in which the cerebellum as a whole is small, but otherwise normal in structure.
2. Cases in which the cerebellum is more or less uniformly reduced in size, and in which histological changes can be determined in connexion with its minute structure.
3. Cases in which there are all sorts of gross defects, amounting, it may be, to what is practically absence of the organ, so rudimentary may be its sole representative.

Congenitally Small Cerebellum of Normal Structure.

Cases that fall into the first group are of interest for the reason that a congenital defect of the kind has been held responsible for the clinical picture of cerebellar ataxia, such as is to be accounted for by degeneration of the cerebellum alone or in conjunction with the nuclei of the pons and the inferior olives in some cases, and by degeneration of the spino-cerebellar system of tracts in others. That persons affected in this way should reach adult life without revealing any of the clinical abnormalities by which cerebellar defects are recognized is not in the least surprising, in the light of what may similarly obtain in cases of gross defects of the organ, and in view of the provision for compensation of cerebellar inadequacy to which reference was made in our second lecture. What, however, is difficult to accept in these cases is a congenital inadequacy of the cerebellum which has existed from birth until adult life is reached, should then be held responsible for a clinical picture in which cerebellar symptoms develop and become progressively worse until a fatal termination is reached without evidence of regressive changes in the organ being detected on histological examination. Nevertheless such is held to be the case, as is illustrated by two examples recorded by Miura:

Two brothers suffered from symptoms of cerebellar defect, which commenced at the ages of 25 and 35 respectively. The gait became reeling, articulation explosive and stuttering, the face showing a vacant and stupid expression. Sight became dim, and in one of the cases there was nystagmus. The limbs became ataxic, tremulous, and weak, while the reflexes and sensation remained intact. Only one of the cases was examined *post mortem*, and beyond the fact that the cerebellum was small (only half the normal weight), as was the brain stem and spinal cord, no abnormality in the shape of degeneration or regressive changes could be detected on microscopical examination.

A similar state of things obtained in three brothers, whose cases are described by Nonne:

The cerebellar symptoms commenced at the ages of 10, 14, and 30 respectively, became progressively worse, and were accompanied by optic atrophy. Histological examination of the central nervous system failed to determine any morbid change in any part of the nervous system, which was, however, small as a whole. The cerebellum and brain stem were less than three-quarters of the normal. In one of the cases the spinal cord was abnormally small, but not in the others.

Congenitally Small Cerebellum with Histological Changes.

That congenital abnormalities of the cerebellum may, however, occasion disturbance of function without the defects being of the gross character which obtains when nearly the whole or a part of the organ is absent, is evidenced from what I was once able to determine in a puppy from a litter in which all were similarly affected. In this class of case, although no gross macroscopic defect is evident, microscopical abnormalities can nevertheless be determined, as contrasted with the cases included in the first group, in which no such structural alterations are evident.

There was marked disturbance of co-ordination in the animal, so that attempts at walking resulted in its falling first in one direction and then in the other. There was almost constant oscillation of the head and trunk when the puppy was sitting or standing. It was killed, and its cerebellum was found to be about three-quarters of the normal, but with no gross external defect apart from the general reduction in size. On microscopical examination, however, pronounced changes were found in the cortex of the organ, where Purkinje's cells were absent in a large part of the cortex, and when present were heaped up into masses which extended into the granular layer. The molecular and granular layers were very irregular in breadth, being increased in places and diminished in others, and the appearances generally were difficult to explain, except as the result of a congenital defect.

Southard has met with a somewhat similar condition of things in an imbecile who was epileptic, which he also regarded as a congenital defect. His patient does not appear to have presented cerebellar symptoms during life.

In the absence of pathological evidence it is, of course, impossible to say whether any of the cases described by Batten as congenital ataxia were to be accounted for by such anomalies, or whether a mere delay of development of the cerebellum without structural changes is responsible for the clinical picture. The condition is characterized by marked unsteadiness of the head, trunk, and limbs, with in consequence inability to perform movements, except in an ataxic manner, and as a result inability to stand, but falling at first, while, when able to walk, the gait reveals marked ataxia. Articulatory disturbances of speech, with slowness and difficulty in swallowing, complete the clinical picture, which improves in time, so that a child who at the age of 2 is unable to walk owing to ataxia, can nevertheless do so at the age of 4, although probably not perfectly even then.

Gross Congenital Defects of the Cerebellum.

Cases that fall into the third group, in which there are gross defects of the cerebellum, are chiefly of interest as illustrating how pronounced may be the congenital defect without notable clinical symptoms, as evidenced by the fact that some defects have been discovered *post mortem* when no suspicion of the condition had been entertained during the life of the patient.

I cannot better illustrate this than by reference to a case, the notes and photographs of which Dr. Shuttleworth has very kindly placed at my disposal. He writes that, stimulated by my lectures, he has been induced to look up the records of a remarkable specimen of defect of the cerebellum which he met with at the Royal Albert Asylum twenty-six years ago, and which is described by Dr. Ferrier in his book on *The Functions of the Brain*.

The case was that of a female imbecile, aged 15, the subject of phthisis, of which disease both of her parents had died. There was nothing peculiar in her appearance, and nothing remarkable in the shape and size of her head. Her palate was very narrow and deeply grooved, but not cleft, and to this condition was ascribed an indistinctness of her speech. She had never menstruated or shown any sexual tendencies, and her generative organs, though present, were like those of a child. There was general feebleness of intellect, but her imbecility was of a slight character, and there was every reason to suppose that she would have been capable of considerable education had she lived. The special senses were unaffected. There was no paralysis, and she could walk well and steadily. Moreover, she could sew and knit, although there was some tremor of her hands and inability to thread her needle. She could not carry a vessel containing any liquid without spilling some of it, attempts to pour water from a jug were attended by a similar result, all of which showed that there was some, though very slight, inco-ordination in her upper limbs.

Cerebellar defect was unsuspected during life, but on autopsy an exceedingly rudimentary state of the organ was found. No abnormality could be detected in the cerebrum, which was well developed, but the cerebellum was of the most diminutive character. The left lobe was a mere papilla, the vermiform process a minute nodule obscurely marked with laminae; while the right lobe, which constituted the main portion, was only half a square inch in superficial area and only a quarter of an inch in thickness at its base.

The pons was indicated only by a few transverse fibres, which barely concealed the pyramidal tracts in their course from the foot of the cerebral peduncles. The corpora quadrigemina had a normal size and appearance. The olivary bodies of the medulla oblongata were only obscurely indicated. With the exception of the cerebellum and its peduncles, which were reduced to insignificant dimensions, the rest of the brain and all the cranial nerves were perfectly normal in appearance.

Other cases have, however, presented very distinct cerebellar symptoms, which have permitted of a correct diagnosis during the lifetime of the patient; but even in these they have not been of such severity as we should have been warranted in expecting had we not been prepared for the compensation of cerebellar defects with which we are so familiar. Many such are on record, but the following from more recent literature will serve in illustration:

The case is that of a child 6 years old, who presented disturbances of equilibrium and diminution of vigour of all movements, but Anton, who records the case, considered the functional disturbance but slight when compared to the defects met with on necropsy, and thus concludes that other parts of the brain perform a compensatory function, becoming anatomically hypertrophied to permit of this. In the position of the cerebellum was merely a gelatinous membrane covering the fourth ventricle, microscopical remnants of cerebellar tissue existing only at its margin. The inferior olives were absent, and there were only traces of the red nucleus and superior cerebellar peduncles. The restiform body was very rudimentary, and the direct tracts between the cerebrum and cerebellum in the peduncles were absent. There was excessive development of the funiculi gracilis and cuneatus and the gelatinous substance of the trigeminus, while the cerebral cortex was disproportionately wide and the optic thalamus comparatively large.

Cerebellar Symptoms in General Diseases of the Nervous System.

There remains for our consideration what may be described as the colouring which defects of the cerebellum may give to the symptoms of some general affection of the nervous system, and which may materially alter the usual clinical picture of the malady, even to such an extent as to lead to errors in diagnosis.

Cerebral Diplegia.

An example of how this may come about under circumstances that are unimportant is supplied by cerebral diplegia, in which the ordinary clinical picture of the affection may be materially modified by the addition of cerebellar symptoms. Two cases recorded by Freund as examples of cerebral diplegia illustrate this, for prominent among the symptoms were those which have been described by Batten as characteristic of congenital ataxia. It seems reasonable to suppose, as Batten has suggested, that the cerebellar symptoms that can be determined in such cases are in reality due to the concomitant affection of this organ in addition to the cerebrum, and not to affection of the latter without involvement of the cerebellum. We must, however, be content to wait for pathological proof of this before we can permit ourselves to arrive at any positive conclusion on a subject of the kind, although the cases recorded by Batten—in which, from pure cerebellar ataxia to cerebral diplegia, a variety of transitional forms are traced, in which evidence of affection of the cerebellum and cerebrum can be determined in varying degree—are very suggestive.

Disseminated Sclerosis.

Disseminated sclerosis supplies another example of a general disease of the nervous system whose clinical picture may be considerably modified by the addition of cerebellar symptoms. Indeed, so pronounced may be the cerebellar symptoms that the clinical picture of the malady becomes readily confounded with the progressive ataxia that is due to degenerative disease of the cerebellum or to the spino-cerebellar system. That the opposite mistake of regarding as disseminated sclerosis what is in reality a disease of the cerebellum or of the spino-cerebellar system has been often met with, is abundantly evident from a review of the diagnoses in cases of these affections that have come to necropsy. Except for the importance of scientific accuracy, however, errors of diagnosis are not material in so far as these conditions are concerned, but it is nevertheless most important that we should make a careful study of all such cases, as well as those which present a more typical picture, and are more easy to recognize as produced by one as opposed to the other of these diseases, for it sometimes happens that disseminate sclerosis is diagnosed when cerebellar tumour exists, or vice versa. The importance of arriving at a correct diagnosis under these circumstances is too evident to need further emphasis in the light of the brilliant achievements of modern surgery, where tumours of the cerebellum are concerned.

No lengthy discussion of the differential diagnosis of these two conditions is possible in the time at our disposal, but it may be said that, as in the case of pontine tumours, which were contrasted with those which occur in the cerebellum, the out-standing feature which should guide us is evidence of affection of the pyramidal system in disseminated sclerosis, as revealed by spastic paralysis, ankle clonus, absence of abdominal reflexes, and alteration of the plantar reflex to the extensor type. It is to be admitted, however, that in its early manifestations disseminated sclerosis may affect the cerebellar system to the exclusion of the pyramidal tracts for a time, so that it is fortunate that there are other manifestations that may serve to guide us to a correct diagnosis, of which none is more important than affection of the sphincters, notably that of the bladder, which is liable to occur so early in the course of the disease, and which has no part in the uncomplicated cerebellar syndrome. Subjective and objective defects of cutaneous sensibility must be similarly regarded, while the remissions followed by relapses, so common in the course of disseminated sclerosis, do not occur in cerebellar affections, although we have seen that there are some of the morbid states that affect the organ that permit of marked improvement, even up to complete cure in some cases. Although optic atrophy has formed part of the clinical picture of some cases of cerebellar disease, this is not the rule, except when gross lesions, such as tumours, have occasioned optic neuritis which has resulted in consecutive atrophy, so that the amblyopic defects of vision, with contraction of the fields and central scotoma, with or without optic atrophy, as determined by the ophthalmoscope, must be regarded as in favour of disseminated sclerosis.

When the possibility of cerebellar tumour is under discussion, optic neuritis must be allowed to favour the probability that this, rather than disseminated sclerosis, accounts for the clinical manifestations in general, for although optic neuritis has been determined in disseminated sclerosis by competent observers, it is so uncommon that in a large experience of this disease I have not yet met with a case. Headache of the severe and paroxysmal type, met with in cerebral tumours, is not likely to occur in disseminated sclerosis,

and the same may be said of vomiting, but it is otherwise when we come to consider vertigo, for this symptom may be most pronounced and distressing.

In conclusion I must ask you to allow me to offer an apology to Dr. Charlton Bastian for not including the results of his observations among those which I quoted in support of Dr. Hughlings Jackson's view in regard to the cerebellum, for Dr. Bastian supplied the first proof that muscular tonus is derived from the cerebellum. (Bastian: *Med. Chir. Trans.*, 1890, pp. 207-217; *Paralysis, Cerebral, Bulbar and Spinal*, 1886, pp. 222-228.)

BIBLIOGRAPHY.

Nothnagel: *Topische Diagnostik*, p. 187.
Touche: *Rév. Neurol.*, 1901, ix, p. 278.
Boldt: *Deut. med. Woch.*, 1905, Band xix. p 29.
Collett: *Norsk Mag. f. Lägevidensk*, 1907, S. 7.
Porot: *Rév Neurol.*, 1906, xiv, p. 1097.
Inglis and Fenwick: BRITISH MEDICAL JOURNAL, 1907, ii, p. 715.
Laignel-Lavastine et Halbron: Soc. de Biologie, 1906.
Spiller, Robertson, and Wadsworth: *Univ. of Penn. Med. Bull.*, June, 1901.
Camille Lian: *Bull. Soc. Anat. de Paris*, 1906, Tome lxxxi, 661.
Négel et Théohari: *Rév. Neurol.*, 1903, Tome xi, p. 958.
Thomas, H. M.: *Journ. of Nervous and Mental Diseases*, 1907, vol. vxxiv, p. 48.
Schultze: *Virchow's Arch.*, 1887, Band cviii, S. 331.
Batten, F. E.: *Brain*, 1905, vol. xxviii, p. 484.
Clapton: *Trans. Pathol. Soc London*, 1871, vol. xxii, p. 20.
Taylor, Frederick: *Lancet*, 1904. ii, p. 1416.
Nauwerck: *Deut. med. Woch.*, 1895, S. 393.
Hammarberg: *Nord. Med. Arch.*, 1890, Band xxii (Abstract *Neurol. Centralb.*, 1892, p. 142).
Marie: *La sém. méd.*, 1893, p. 444.
Gordon Holmes: *Brain*, 1905, vol. xxx, p. 466.
Fraser: *Glasgow Med. Journ.*, 1880, vol. xiii, p. 199.
Déjerine et Thomas: *Nouv. Iconog. de la Salpêt.*, 1900, Tome xiii, p. 330.
Sanger-Brown: *Brain*, 1892, vol xv, p. 250.
Miura: *Mittheil. Med. Facult. Univer. Tokio*, 1900, Band iv, S. 19.
Nonne: *Arch. f. Psych.*, 1891, Band xxii, S. 283; and *Arch. f. Psych.*, 1905, Band xxxix, S. 1225.
Risien Russell: *Brain*, 1895, vol. xviii, p. 533.
Southard: *Journ. Med. Research*, 1907, vol. xix, p 588.
Ferrier: *Functions of the Brain*, 1886, pp. 180 and 181.
Anton: *Wien klin. Woch.*, 1903, S. 1, 349.
Batten, F. E.: *Clinical Journ.*, 1903, vol. xi, p. 81.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

SERUM DIAGNOSIS OF SYPHILIS: FLEMING'S METHOD.

IN a paper published in the BRITISH MEDICAL JOURNAL of August 14th, 1909, on the diagnosis of syphilis by some laboratory methods, particularly relating to the complemental fixation method by Wassermann, I brought forward the results of some preliminary trials of the easier methods of Hecht's modification, elaborated by Dr. Fleming—namely, the principle of using both haemolysin and complement for sheep's red blood cells normally present in human blood.

In this first series the results were not very satisfactory, a rather large proportion of bloods normally failed to haemolyse the sheep cells completely, thus reducing the number of positive results that should have been obtained, but at the time I distinctly stated that the numbers were too small to dogmatize upon.

The method, however, appeared to be very valuable, and called for further work; I have therefore made weekly examinations from over 500 cases, controlled by the more elaborate original method, obtaining far more favourable results. This series gave indefinite reactions in only 10 per cent. A positive result was always reliable—in fact, it was obtained in some cases earlier in the disease than with the other methods tried, as shown by several observations taken at different dates from the same case. Consequently I look upon the results given by Dr. Fleming's method as a most valuable check, and if the reaction is definite consider that it should be accepted as final.

The test was almost always applied about six hours after the blood was taken from the patient, so that no deterioration of the complement would have occurred, for it was found that the greater the delay between the time of taking the blood and the test the larger the percentage of indefinite reactions.

I feel that it is due to Dr. Fleming to make this further statement, as some adverse criticisms of his method have been based on my original reference.

P. W. BASSETT-SMITH,
Fleet Surgeon.

The Laboratory, Royal Naval Hospital, Haslar.

A CASE OF FETAL PURPURA.

IN August last I was summoned by a midwife to see a newly-born child of unusual appearance. The mother had always enjoyed good health, and beyond weakness and sleeplessness, and the fact that she was a "shocking, terrible size," she had not suffered from any disease during this pregnancy. She had experienced, however, more discomfort since the date of quickening than with her previous six children. Early in its course, one of her children died from tuberculous broncho-pneumonia. She had a fall six weeks before labour set in, and did not notice fetal movements during the last fortnight. The labour was associated with excess of liquor amnii (about 2 gals.), and there was somewhat excessive haemorrhage during the separation of the placenta. The child was born naturally, and lived for twelve hours. Apart from the appearances to be described, it was a well-formed male child weighing 8 lb. and measuring 23 in. in length. The cord measured 30 in., and showed numerous ecchymoses along its course. The placenta was unusually large. The child's appearance was remarkable. Its skin was dusky, mottled, and covered by ecchymotic areas varying in size from petechial spots to large rounded areas. To the touch they imparted a lumpy feeling, and had a pale raised centre and dark periphery. The colour did not alter on pressure. There were also ecchymoses on the buccal mucosa. On *post-mortem* examination it was found that most of the morbid appearances were confined to the skin. The purpuric areas cut like hard nodes, and showed pale injected surfaces. There were no haemorrhages into the brain substance. Some excess of fluid was present in the right pleural cavity, and petechiae were visible under the pericardium and peritoneum; there were small haemorrhages under the capsule of the right kidney extending into its cortex. The left kidney, spleen, and suprarenal capsules appeared normal. The bladder contained clear urine. Nothing could be found to explain the cause of the condition described except perhaps a history of tubercle in the family of the father. He himself, though stated to be a sufferer from epistaxis and winter cough, was a big healthy-looking man, but his great-grandmother, grandmother, three of his sisters, and one brother had died of phthisis. One of his children had phthisis and one had died of tuberculous broncho-pneumonia. On the mother's side there was no history of tubercle.

NORMAN GLEGG, M.D.Edin.

Datchet.

A CASE OF DIABETIC COMA AT THE AGE OF TEN.

ON December 27th, 1909, I was called to see A. T., a boy a few months over 10 years of age. I found him very restless and complaining of severe epigastric pain; he was also inclined to be drowsy at times, and his mother said he was very thirsty. The boy was very emaciated, and further inquiry elicited the fact that he had been thirsty for some months, and had been passing large quantities of urine. An examination of the urine showed a specific gravity of 1030, a large quantity of sugar, and the presence of acetone was revealed by perchloride of iron. Rectal injections of normal salt solution, and large and frequent doses of sodium bicarbonate in milk were ordered, but the drowsiness rapidly became more pronounced; coma developed on December 29th, and death took place on the following day. Curious to relate, although some neighbours afterwards told me that they had noticed the boy's gradual emaciation, the mother did not seem to have observed it, nor did she set much store on his continued thirst.

Diabetes at this early age is comparatively rare. Amongst 1,360 private patients who consulted Dr. Pavy, diabetes began under 10 years in 8, between 10 and 20 in 57, between 20 and 30 in 97, between 30 and 40 in 224, between 40 and 50 in 339, between 50 and 60 in 428. Even between 60 and 70 the number was 182, very large considering the fewer number of persons living over 60 compared with those between 20 and 40. There were 35 patients in whom the disease began at ages over 70, and 1 over 80; the youngest patient Dr. Pavy had under his care was an infant 12 months old.[1] The proportion of males to females affected with diabetes was 2·5 to 1.

LOUIS E. STEVENSON, B.A., M.B., B.C.Cantab.

Temple Sowerby, Westmorland.

[1] BRITISH MEDICAL JOURNAL, December 5th, 1885.

Reports of Societies.

ROYAL SOCIETY OF MEDICINE.

SECTION OF MEDICINE.

Thursday, March 3rd, 1910.

Dr. MITCHELL BRUCE, President, in the Chair.

Pericarditis.

SIR JOHN BROADBENT reopened the discussion on pericarditis. He observed that effusion was more frequently met with in adults than in children, and that the prognosis was more favourable. Nothing could be more unfavourable than the prognosis in the relapsing pericarditis so frequently seen in rheumatic children, in which effusion was seldom met with, and in which the pericardium became adherent to the dilated heart. The difficulty of diagnosing between pericardial effusion and a greatly dilated heart without effusion was often very considerable. It was now generally recognized that an extreme degree of cardiac dilatation was commonly met with in rheumatic pericarditis, more especially in children, which was frequently associated with general adherence of the pericardium to the heart, whereas effusion to any great extent was comparatively rare, hence mistakes in diagnosis based on rapid increase of area of the cardiac dullness were less liable to be made.

Dr. W. P. HERRINGHAM said that he had seen two cases in which the heart was punctured in the belief that the pericardium was full of fluid, and in neither case did it seem to do any harm.

Dr. PASTEUR expressed the hope that physicians would acquire the habit of making use of the orthodiagraph in the bedside examination of patients. If it could be shown that pericarditis inhibited diaphragmatic movement, this, by inducing massive collapse, would afford an adequate explanation of some of the physical signs occurring at the left base in cases of pericardial effusion.

Dr. PORTER PARKINSON said the difficulty of the diagnosis of pericarditis was well known, especially of those cases that came on insidiously without local pain and without friction sounds being heard. On that account he wished to mention the occasional presence at the commencement of a pericardial effusion of a sign which was usually supposed to be one of late development only—he referred to signs of compression of the lower lobe of the left lung. It was generally acknowledged that the differential diagnosis between pericardial effusion and dilated heart with adherent pericardium was difficult, and sometimes almost impossible. He thought that in cases in which there might be any doubt it was better to call in a surgeon, who could cut down slowly and feel his way, ascertaining the actual condition of things before the pericardium was opened.

Dr. CYRIL OGLE said that whilst observing a patient some years ago, who was subsequently operated upon and was proved to have the pericardium distended with fibrin and pus, he was struck by the condition of the large veins in the neck. The external jugulars were permanently distended, even when the patient was sitting up, and showed no pulsation at all. He thought that this immobile distension might be of value as distinct from the full veins with pulsation which were usually seen with dilated heart, and might indicate an obstruction by pressure of the fluid to the entry of blood into the heart in a case of pericarditis.

Dr. IRONSIDE BRUCE demonstrated by means of *x*-ray photographs that the outline of the shadow of the pericardium thus affected was sharp.

Mr. LYSTER observed that *x* ray examination could be used for diagnosing even small quantities of fluid in the pericardium.

Dr. POYNTON said that in childhood it was difficult to distinguish between pericardial effusion and dilatation, but he was convinced a large effusion was rare. He had never seen a rheumatic case which needed paracentesis.

Dr. ALEXANDER MORISON said that an analysis of 44 cases of acute pericarditis and adherent pericardium showed that the 12 cases which presented no concurrent endocarditic lesion were cases in which the inflammatory process had spread to the pericardium from the neighbourhood, and were the result of tuberculosis, pneumonia, and empyema. The chief point of clinical interest lay in the diagnosis of cardiac dilatation from pericardial effusion. Referring to treatment, he deprecated therapeutic activity in non-purulent cases when the collection of fluid was limited, but in the event of pericardial exploration being indicated, he preferred the removal of a rib cartilage and cautious incision to puncture with a sharp needle. He related a case in which such an operation revealed an adherent pericardium and dilated heart, the examination of which by puncture would probably have been disastrous.

Dr. C. R. BOX and Dr. G. G. BUTLER communicated some remarks on pericarditis with effusion, based on cases collected from the records of St. Thomas's Hospital; and Dr. SAMUEL WEST replied.

SECTION OF ANAESTHETICS.

AT a meeting on March 4th Mr. R. GILL, President, in the chair, Dr. DUDLEY BUXTON opened a discussion on the *Choice of an anaesthetic*. He pointed out that this must be made by considering (*a*) the state of the patient, (*b*) the exigencies of the operation, (*c*) the skill and experience of the anaesthetist. The choice also depended on the method adopted. The safety of the patient must be the predominant aim. The old rules which pronounced for certain anaesthetics for certain ages must be discarded, and each individual case decided by the physique and standard of health, not by the actual age. Both young children and old persons frequently took ether well, and the belief that infants and women in labour enjoyed immunity from risk in chloroform was exploded. Predisposition to after-effects, respiratory, circulatory, renal, or hepatic, had to be recognized, and an anaesthetic selected which did not initiate the dangers to which the patient was most prone. Trivial operations often were attended with special dangers from the anaesthetic—for example, circumcision, which did not require chloroform, since young children took ether well by the open method. Dr. BUXTON deprecated the use of nitrous oxide or ether in obstructive conditions of the upper air passages, such as in goitres; also in lesions of the brain and spinal cord. Morphine, except in certain cases, was dangerous when given before chloroform. Chloroform with oxygen, and given in exact percentages of strength, was safe; given otherwise it was always liable to cause danger. He recommended nitrous oxide or ethyl chloride followed by ether as a routine anaesthetic, while in prolonged operations he preferred to change from ether to chloroform when complete muscular relaxation had occurred.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Wednesday, March 2nd, 1910.

Dr. BYROM BRAMWELL, President, in the Chair.

The Place of Athletics in an Educational System.

DR. BURN MURDOCH said that it could not be disputed that active regulated exercise had a beneficial effect both upon general growth and upon local distortions and displacements. The great value of athletics was unanimously appreciated by the heads of the leading schools of the country; and they now occupied an indispensable place in the education both of boys and girls. In this movement, Dr. Almond, of Loretto, had been the pioneer. The term, "athletics," included games such as football, cricket, and systematic developmental exercises; each department was essential and complementary to the other. Athletics, properly regulated and supervised, were of supreme value in school life. They raised the intellectual standard, as Dr. Morgan's statistics in *University Oars* showed; and above all, they developed those elements of character—self-control, endurance, courage, unselfishness—which made for success in life. It was also the unanimous verdict of head masters that athletics did much to keep a high standard of moral purity in schools. Against these benefits were to be placed the risk of accidents and overstrains; but these were reduced to a minimum by careful medical supervision and by grading the boys according to physique. There was also a tendency to undue interest in press reports to the exclusion of other interests.

The PRESIDENT in opening the discussion, invited non-medical guests present to take part.

Dr. Thomson described the system of physical training introduced by Dr. Almond into Loretto, of which he had a long experience as medical officer. Every boy had a month of preliminary exercise, which was valuable as preparatory for the full system of training. Again, after severe exertions at games, or cross-country runs, physical and mental rest was enforced for the remainder of the day. The benefit was specially marked in the case of feeble and delicate boys. In many cases he had seen dull apices clear up in from six months to two years.

Mr. Smith (Morchiston Castle School) insisted on the two-fold nature of the ideal physical training—games and gymnastics. Games without systematized exercises were dangerous. Proper regulation greatly reduced the risks of games. To abolish these risks entirely was impossible; nor was it desirable, for these had their value in the moral training of games.

Mr. Cathcart, speaking of the average physique in public schools, gave statistics to show that for the boy at entrance this was higher than was the case twenty years ago. This was an indication of a general improvement of physique. As an old Loretto boy, he described the aims of Dr. Almond as, first, character; then, physical vigour; lastly, mental instruction.

Mr. Tillard (Cargilfields School) thought there was a danger in training the younger boys too fine. It was not wise to race a two-year-old colt; and so, also, there was risk in training to a high pitch boys at or about the age of puberty. It was at that period that the risk of overstrain was greatest.

Captain Dunlop (Loretto) said that educational gymnastics must go along with games, and maintained the superiority of the modern developmental exercises over the old gymnastic apparatus of parallel and horizontal bars, etc.

Dr. Strong said that Nature and instinct were the only safe guides for exercise in children. Other young animals—for example, the kitten and the lamb—regulated their exercises entirely in that way. The introduction of compulsion in physical training was, in his view, wrong. He agreed that there should be a gymnasium in every school, but it should be a place where the boys would be free to take exercise as they willed.

Dr. Ritchie said that it was at the period of most rapid growth that there was most danger of overstrain. The age incidence of that period varied, but it was then that medical supervision should be most strict.

Dr. McKenzie Johnston insisted on the importance of regular daily exercise both in the young and in adults.

Mr. Stiles said a regular supervision of the physical training of young boys was of extreme importance, and should have preference over mental training. Those movements that developed trunk muscles and chest expansion were especially necessary, and for that reason the exercise of swimming was of great value. It was, however, rather neglected. A large swimming pond should form part of the equipment of every well appointed school. He also directed attention to the importance of an examination of the boots of young children. Wearing down at certain parts gave indication of commencing knock-knee, bow-leg, etc. These could then be easily corrected by thickening the soles at other parts.

Dr. Wood said that, as medical officer of a school for boys between 8 and 14 years, he had found less illness since the school game had been changed from Rugby to Association football. Personally he had been opposed to the change, but meantime it seemed to have had this result.

Drs. Goodall, Chalmers Watson, Flett, Sloan, and J. V. Paterson also spoke.

Dr. Burn Murdoch replied.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Pathology.

Friday, February 4th, 1910.

Arthur H. Benson, F.R.C.S.I., President, in the Chair.

Pyonephrotic Kidney.

Mr. L. G. Gunn, in exhibiting a specimen of pyonephrotic kidney, said the patient had only one of the symptoms commonly associated with the condition—namely, some tenderness in the region of the kidney. He had been sent for on December 12th, 1909, to see a lady who had apparently some intestinal obstruction. She had had typhoid fever about eight weeks before. During convalescence she had had two or three attacks of vomiting, and the day before he saw her vomiting had recurred with a rise of temperature, and was stercoraceous. At the time he thought the case one of either septic infection of the gall bladder with adhesions in the hepatic flexure of the colon, or a malignant growth in the large bowel. He treated her with olive oil injections. The tumour subsided, vomiting stopped, and she got very much better. In a few days, however, another, attack came on, and he advised an operation. On cutting down on the large bowel they found it pushed out of place by the kidney lying behind it. He freed the bowel to some extent, satisfied himself that there was no definite lesion in it, closed the wound, then turned the patient over and removed the kidney. The pelvis was full of pus, and a stone was seen in the kidney. The ureter was normal. The fact that the urine was normal increased the difficulty of diagnosis. He found it hard to realize that a stone or kink could make the obstruction. The kidney was quite fixed, and he thought the condition in some of such cases was possibly due to a spasm in the upper part of the ureter. They might, therefore, have to look for a nervous origin in a good many of the cases, and there might be a similar condition present in muscular coats of the bowel causing temporary obstruction.

Rare Sequels of Typhoid Fever.

Dr. Day exhibited a specimen of ulceration of the larynx following enteric fever. The patient was a man about 30, who was taken into hospital in advanced enteric, and with a bad alcoholic history. He lived only a few days, but shortly before he died he coughed up a good deal of very fetid mucus, which evidently came from his larynx. He exhibited the specimen because of its rarity. In another case of advanced enteric with bad alcoholic history, the patient improved for about ten days, and then got a rigor, for which no cause could be found. They found the liver dullness increased, and on examination they got some bloody fluid with the needle. Afterwards they got some pus, and thought he was suffering from empyema. Part of a rib was removed, but only about a teacupful of bloody serum was found, and no pus. He sank and died, and they found an infarction in the lower lobe of the right lung.

Professor White said the infarction was very small. From it he got some typhoid bacilli. He also got several kinds of cocci, including a streptococcus, which in its first cultivation was extremely long. His reading of the case was septicaemia following enteric fever. In the specimen of ulceration of the larynx the ulcer was lower than the usual position. There were no bacilli; the organism in the pus was one of the ordinary staphylococci.

Dr. Parsons recalled a case in which a tracheotomy had to be done on account of the patient's difficulty in breathing. Immediately afterwards surgical emphysema developed, and the swelling spread all over his body right down to the groin. The *post-mortem* examination revealed a very similar condition to that shown in Dr. Day's first specimen. He asked if the infarct was embolic, and whether he had cardiac signs.

Dr. Goulding referred to a discussion on the subject of emphysema, at which Dr. Croly, who had performed the operation referred to by Dr. Parsons, said the emphysema was not the result of the operation, but of the condition of the lung.

Dr. Day, in reply, said he had seen three such cases, and in none of them had he seen emphysema. The patient probably died from intense poisoning. The second case had no heart symptoms other than the usual softening associated with bad enteric.

Pulmonary Diphtheria.

Dr. Day also exhibited a specimen showing tracheal and pulmonary diphtheria from a girl aged 7 years, who had been reported three days ill from "croup." It was evident she was suffering from pulmonary diphtheria, and her condition was so bad that they had to operate. She improved considerably for about thirty hours. Then symptoms of further obstruction lower down in the lungs showed themselves, and she died. She coughed up casts of the bronchial tubes. It was peculiar that in spite of

20,000 units of antitoxin the membrane regrew, and had grown over the trachea and down into the bronchial tubes. After the operation the case went through the moist form of the disease, but next day the dry form came, which nearly always terminated fatally. One lung was almost completely blocked.

Professor WHITE said the larynx was completely blocked by the diphtheritic membrane. The lumen of the trachea was almost completely filled with the exudations. The cut surface of the lung showed most of the bronchi quite filled, though some were partly free. Microscopic sections of the accompanying bronchopneumonia showed a great tendency to necrosis.

Dr. DAY, in reply to Dr. Gunn, said they did not go in for large doses, and they apportioned the dose to the severity of the disease rather than the size of the patient. They gave 4,000 units, and repeated sometimes twice, sometimes three times. In reply to Dr. Harvey, he stated that he could not say if any other organism was present; they nearly always diagnosed diphtheria from the clinical aspects. Swabs in bad cases very often gave negative results. The case was one of the first to show him that diphtheria might start in the lungs and work upwards.

Professor WHITE said that in a recent case, which seemed as if an abscess in the tonsil had burst, the culture gave ordinary streptococci. The low temperature, however, still suggested diphtheria. Next day a swab gave an absolutely pure culture of diphtheria bacilli. As regards Dr. Harvey's question of the association of some other virulent organism, he had not investigated that point as the lung sections were full of diphtheria bacilli.

Sarcoma of Femur.

Dr. HARVEY exhibited a specimen of sarcoma of the femur taken by amputation from a girl aged 15. Three months before admission to hospital she had had a cycle accident. Six weeks later she noticed a swelling on the leg, which gradually increased in size, and at the time of admission was slightly painful, with some increase of local heat. The specimen showed a large swelling at the lower end of the femur which seemed to invade the centre of the bone, but the greater part was subperiosteal. At first sight microscopically he thought it looked like a carcinoma, but from the radiograms, which he showed, it was a typical periosteal sarcoma, and histologically alveolar.

After remarks by Mr. GUNN, Dr. STOKES, Professor WHITE, and Dr. HAYES,

The PRESIDENT said that if any analogy could be drawn from the action of sarcomata within and without the eye, he agreed that is was easy to have the walls practically intact. Such sarcomata grew very slowly for a long time inside the eye, but as soon as they got through the sclerotic they grew with great rapidity. The microscopic sections generally determined easily the internal origin of such growths.

Dr. HARVEY, in reply, said he called it a periosteal sarcoma more or less from the clinical point of view, but a true periosteal sarcoma, involving only the periosteum, seemed to be exceedingly rare. It was very difficult to determine in which direction the tumour had broken through.

Valvular Stenosis of Heart.

Dr. MOORHEAD exhibited a heart showing tricuspid and mitral stenosis. The patient, a girl aged 28, had been admitted to hospital about ten days before suffering from symptoms of severe cardiac failure. On first admission she had a distinct thrill, and a distinct presystolic and systolic murmur, the presystolic being extremely loud over the ensiform cartilage. The presystolic murmur and the thrill both disappeared, and only the systolic murmur persisted. There was a suspicion that she might have, in addition to mitral, a tricuspid stenosis. Later on a double murmur was heard, and he regarded the second as due to aspiration by the right ventricle of blood through a stenosed tricuspid orifice in its diastole. The heart was found to weigh 18 oz. On the right side it showed enormous dilatation and hypertrophy of the right auricle. The terminal muscle stood out in a very striking way. Marked tricuspid stenosis was shown: at the necropsy he could only get one finger through the orifice; the right ventricle was dilated and hypertrophied. On the left side there was a good deal of dilatation and hypertrophy of the left auricle, and in the left ventricle extreme mitral stenosis. The mitral cusps were both calcified and extremely rigid. There was no recognizable aortic murmur, although the aortic valves were also sclerosed. There were some pulmonary infarcts. Both kidneys were extremely irregular on the surface, suggesting congenital lobulation. Looking more closely, he thought it might be the result of multiple infarction.

Remarks were made by Professor O'SULLIVAN and Dr. BOXWELL.

Dr. MOORHEAD, in reply, said he considered the tricuspid stenosis directly secondary to the mitral, and did not think pre-existing congenital deformity was to be looked for in every case.

Encysted Haemo-pericardium.

Dr. BOXWELL exhibited a specimen of encysted haemo-pericardium from a man aged 32, who had been sent to hospital in June with what was supposed to be an enormously enlarged liver. He came to the conclusion that the liver was not so much enlarged as displaced. The patient gave a history of an attack of influenza in March, during which he had suffered from a pain in his chest. The acute attack passed off in about a fortnight, but during convalescence a swelling was noticed in the abdomen, and he then became progressively weaker. When admitted he was deeply cyanosed, and could rest only in the sitting posture or leaning forward. The liver dullness extended a handbreadth below the costal margin, while its upper limit was depressed. He had a left-sided pleural effusion, and a large dull area in the middle of his chest. The heart sounds were rapid and feeble, but there were no murmurs or friction sound. There was no fever. Assuming the displacement of the liver, the diagnosis lay between pericardial effusion and intrathoracic tumour. The pleural fluid was blood-tinged, and this suggested tumour. As the patient was becoming rapidly worse, it was deemed advisable to puncture the pericardium with an exploring needle. This was done in the usual situation, and a syringe full of red blood was drawn off, which clotted naturally in a few minutes. Visions of a displaced and punctured auricle prevented further interference. The patient now developed a loud friction rub on the right side, and in the course of a day or two died. At the *post-mortem* examination a huge encysted haemo-pericardium was found. The inner compartment was quite complete, showing a wall of leathery fibrin, with papillary projections on the inner surface, and containing about a quart of red blood. The part of the cyst wall clinging to the ventricle was partially organized. In the outer compartment was a smaller quantity of blood-stained sero-fibrinous fluid. A large haemorrhage was found in the right lung corresponding to the friction rub. The liver was but little enlarged. The case demonstrated once more the futility of exploring the pericardium with a needle instead of resecting a rib.

Professor O'SULLIVAN and Dr. STOKES commented on the specimen.

Tuberculous Spleen from a Pig.

Professor METTAM exhibited a tuberculous spleen of a pig. The normal weight of the spleen was about 140 grams; the specimen weighed 1,410 grams. The condition was one which was usually received as being of the nature of Hodgkin's disease, probably because there was always difficulty in finding the bacillus, but that morning he had found a couple of tubercle bacilli in the film.

SECTION OF MEDICINE.

Friday, February 18th, 1910.

Dr. LITTLE in the Chair.

Types of Imbecility.

Dr. BOYD BARRETT showed the following cases:

1. The first case was one of *Acquired imbecility.*

The patient was a boy, J. B., aged 5½ years, who was unable to speak articulately. He understood everything said to him, and was somewhat obedient. He did not walk until he was 3 years old. He was subject to fits of temper. His face was marked by congenital syphilis, the bridge of the nose was sunken, and his mouth scarred. His mother had had several miscarriages. He was the only child that lived. Syphilis was the most common cause of secondary or acquired imbecility. It was also the cause in childhood of that fatal mental degeneration, analogous to general paralysis of the insane in adults, called "juvenile general paralysis." The latter was a progressive and fatal disease. The boy, however, enjoyed good health. He was getting stronger every day, and what probably occurred in his case was that, owing to the syphilitic virus, a dystrophy, malformation, or anomaly of structure in the brain took place in fetal life.

2. The second case was of the *Genetous type in imbecility, with single ptosis.*

The patient was a girl aged 10 years. She was quiet and diffident. She had a pale, unhealthy colour, her left eyelid drooped, and she showed that type of face and chest which was associated with adenoids. Her expression was vacant, her speech jerky and indistinct. The family history on the mother's side was extremely good. The father did not drink to excess. Both parents and the other children in the family were healthy. However, all the near relations on the father's side drank excessively. The child's paternal grandmother was said to have "died of drink." The stigmata of degeneration present were: (1) Physical stigmata — vacant expression; Gothic palate; winged ears, with deficient helix. (2) Physiological—nocturnal enuresis to age of 9; faecal incontinence to age of 7; slow in learning to walk and talk. (3) Psychological—body restless; rhythmic movement of hands; cannot be taught to read, write, or sew; loses temper easily; loves dirt and mud. With regard to the prognosis, Dr. Boyd Barrett said that from the grosser defects of childhood she had emerged, but further progress was unlikely. It only remained to answer two questions: Would she live long? Would she be able to earn her livelihood? The answer to both must be in the negative.

3. The third case was of the *Mongol type.*

J. O. H., aged 5 years, was a typical case. With the possible exception of umbilical hernia and congenital heart disease, he had all the chief signs and symptoms of Mongolism. He was restless and chattered unintelligibly but ceaselessly. The complexion was fair. The eyes were oriental, and marked epicanthic folds were evident. He used to dribble and protrude the tongue, but in these respects he had improved somewhat. He had a curious incurvation of the little finger. The head was brachycephalic. Although he was 5 years old he could not walk. He was late in sitting up, late in teething, and late in observing. Mongolism was such a serious condition, with such a bad prognosis for life and utility, that it was of the utmost importance to recognize it.

Dr. KIRKPATRICK, referring to the case of Mongolism, said he had been on the watch for the Mongol spots in children. The stigma was fairly common in Europe, but he had not met with any, or seen any recorded, in Ireland.

Dr. DAWSON said the case bore out the modern idea of Mongolian idiocy. The old idea of syphilis was more or less exploded, and it was now held that it was due to malnutrition of the fetus *in utero*, occurring, as it did, when a child was born at the end of a long family. It had been pointed out that the little finger and thumb in such cases were always abnormally short; those symptoms were present in the case. There was also a slightly spotted condition of the child's iris.

Dr. BARRETT replied.

Pseudo-hypertrophic Muscular Paralysis.

Dr. DEMPSEY showed two cases of boys, brothers, aged 11 and 12. There was nothing peculiar about the family history, except that an uncle had had some nervous disease. When the elder boy was 5 or 6 years of age his mother noticed that he commenced to trip, and had difficulty in going upstairs. In a couple of years he had difficulty in walking, and now, about six years after the onset, he had to be carried. The younger boy was in good health up to a couple of years ago, when he commenced to suffer in the same way. He now showed the combination of atrophy and hypertrophy, which was characteristic of the disease.

The Physico-therapy of Sciatica.

Dr. M. ORB, who read a paper on this subject, divided cases of sciatica, for purposes of treatment, into two classes—acute and chronic—and made no distinction between cases as to their pathology. For the former class he relied chiefly on hot applications and very gentle massage combined, of course, with absolute rest in bed. Blistering and acupuncture he never employed. For chronic cases, massage, hot and cold douches alternately applied (Scottish douche), and active and passive exercising of the affected limb. All treatment was directed to an endeavour to increase the rapidity of the circulation through the affected part.

The CHAIRMAN was sure they would all endorse his experience that, among the immense variety of sciatic cases, he had had some that he wished would go to any one else. He knew a lady who had ruined the reputation of several physicians and surgeons He had had an unsatisfactory experience of the surgical treatment of nerve stretching, and his opinion was that in what were called acute cases the one remedy was absolute rest.

Dr. CRAIG was accustomed to deal with neuralgic cases as distinct from the neuritic, and there was no doubt that neuralgia of the sciatic nerve had to be treated in much the same way as neuralgia of any other nerve, and generally yielded to antineuralgic treatment. The neuritic cases, however, gave a great deal of trouble. He had been introduced to Corrigan's button many years ago, and had the greatest belief in it, with, of course, some little medical treatment as well. Nerve stretching was, he believed, associated with considerable danger. A patient of his had had his nerve stretched during his absence, and died subsequently of myelitis. He believed that the hypodermic injection of morphine was one of the few things that gave rest when pain was severe.

Dr. ORB replied.

Acute Leukaemia.

Drs. TRAVERS SMITH and EARL read a paper on this subject.

A servant girl, aged 20, was admitted to the Whitworth Hospital under the care of Dr. Travers Smith on November 2nd, 1909. She had only complained of ill health for a fortnight previously. It was found that the glands on the right side of the neck and left axilla were enlarged, and that she was very anaemic. A blood examination showed signs of so-called acute lymphatic leukaemia. She only lived for twenty days after admission. During that time the spleen enlarged rapidly, as did the glands in the neck. The temperature varied between 101° and 103°. Almost the whole of the interior of the mouth became gangrenous. Moderate diarrhoea persisted. Four days before death the temperature fell by crisis. Dr. Earl made the blood examination and performed the autopsy. The blood when first examined contained 60 per cent. of haemoglobin, 3,024,000 red cells per c.mm., and 192,000 white cells per c.mm. Of the white cells about 8 per cent. were small lymphocytes and 88.7 per cent. were transitional cells. In the course of six days the red cells had diminished to 1,776,000 per c.mm. and the haemoglobin to 30 per cent. The white cells remained about the same as at the first examination till death occurred, but the lymphocytes increased to 22 per cent. of total white cells. At the *post-mortem* examination the spleen was very much enlarged, weighing 1,650 grams; the marrow of the shaft of the femur was reddish-grey and gelatinous in appearance; the glands were not enlarged, except those in the anterior mediastinum and left axilla, which were tuberculous. The marrow of the femur contained mainly cells with a strong resemblance to the transitional cells found in the blood, and few cells containing neutrophile granules. The lymphatic glands contained besides lymphocytes a good many transitional cells. The liver was enlarged, but not increased in weight. On section a frothy fluid escaped, and an anaërobic organism with the characters of *Bacillus phlegmones emphysematosae* was isolated from the organ.

HARVEIAN SOCIETY.

Thursday, March 3rd, 1910.

Dr. HANDFIELD-JONES, President, in the Chair.

Pubiotomy in Contracted Pelvis.

DR. G. F. BLACKER opened a discussion on the treatment of labour in contracted pelves, with special reference to the justifiability of pubiotomy. He said that of recent years there had been a remarkable revival of the operations for enlarging the pelvis, and in view of the distinguished obstetricians who practised and taught these operations, it was necessary that the teachers of midwifery in this country should state their position with clearness, and put on record the reasons which led them to prefer other methods of dealing with these cases. For the purpose of considering the subject Dr. Blacker divided contracted pelves into four classes. The first included pelves with a conjugate diameter of $2\frac{2}{5}$ in. or less, all of which should be treated by abdominal section in all circumstances. The second included pelves with a conjugate diameter of $2\frac{2}{5}$ in. to 3 in., in which the ideal treatment was the performance of Caesarean section either before the onset of labour or in its early stages. In conditions not suitable for the performance of Caesarean section the patient should be delivered, if forceps and version failed, by craniotomy or embryotomy. The results of Caesarean section were so good, when practised as an operation of election, that the indications for its performance should be extended to pelves with a conjugate diameter of as much as $3\frac{2}{5}$ in. The fourth class of pelves included those with a conjugate diameter of $3\frac{3}{5}$ in. or more. In this class the best results were obtained by spontaneous labour at full term. The third and most important class included those pelves with

a conjugate diameter of between 3 in. and $3\frac{3}{5}$ in. It was in this type of pelvis that the greatest difference of opinion existed, and in which they were asked to substitute pubiotomy for the induction of premature labour, the application of high forceps, the performance of version, or the practice of craniotomy. It was said that the induction of premature labour gave bad results. What were the facts? The maternal mortality was practically *nil*; not only that, but the patients recovered even better than after a full-term delivery. The fetal mortality, the great drawback to the operation, was certainly high, and amounted in 81 cases of induction performed in University College Hospital to 25·8 per cent., 61 children leaving the hospital alive at the end of a fortnight. There was no evidence to show that the mortality of premature children during the first year of life was excessive; indeed the figures, as far as they went, tended to show that it was not greater than that of full-term children. The maternal mortality of pubiotomy was, in the best hands, about 2 per cent., and the fetal mortality was 7 per cent., while the maternal morbidity was at least 40 to 60 per cent. of all cases. The ill effects which might follow this operation were many and serious. As compared with Caesarean section performed before the onset of labour pubiotomy presented no advantages either to the mother or to the child. When compared with the induction of labour, however, the problem was a more difficult one. The immediate danger of pubiotomy was greater than that of the induction of labour, and it was likely to be followed by a number of serious complications which were entirely wanting after the performance of induction. On the other hand, pubiotomy had a fetal mortality of not more than 7 per cent., while the induction of premature labour in contracted pelves was likely to be followed by a fetal mortality of at least 25 per cent. Dr. Blacker thought that, in any case where it was deemed inadvisable to perform Caesarean section or in which this operation was refused by a patient in whom the previous induction of premature labour had resulted in the birth of one or more dead children, she might be allowed to go to full term and that pubiotomy might then, if necessary, be performed. There were a small number of pregnant women in whom the performance of even so comparatively safe an operation as Caesarean section would be attended with considerable risk and in whom the risk of pubiotomy, carried out in proper surroundings, would be less than that of an abdominal section. An additional advantage of this plan of treatment would be that in many cases the necessity for pubiotomy would not arise, since spontaneous delivery might occur, a result which was attended with the minimum of risk to both the mother and the child. If the patient was in labour when seen, and the head failed to engage or was arrested at the brim, then if moderate traction with forceps failed for the forcible delivery of the head through the brim—an operation which entailed a fetal mortality of at least 40 per cent.—or for the performance of version, associated as it was with even a higher fetal mortality, Caesarean section should be preferred. If the case was one unsuitable for Caesarean section, then pubiotomy should certainly be done in preference to craniotomy on the living child. Pubiotomy should, however, be performed only when it was certain that the child's life had not been endangered, and, in view of the serious complications which might follow, it was not an operation suitable for private practice. Dr. CHAMPNEYS emphasized the higher value of the mother's life compared with that of the fetus. He considered Caesarean section a fine operation; its risks were slight to the mother, very slight to the child, and its after-effects *nil*. In all these respects pubiotomy compared unfavourably with it. If for any reason Caesarean section was inadmissible, he would prefer craniotomy to pubiotomy, as it had no risks for the mother, the so-called maternal mortality of craniotomy being due, not to the operation, but to the conditions requiring it. He advised the induction of premature labour in slight degrees of contraction diagnosed during pregnancy. As a teacher he thought that to recommend pubiotomy to the body of the profession would be to court disaster. He would like to know how many pubiotomies had been performed in private on intelligent patients who could appreciate what was going to be done to them. All change was not progress, and England was not a country which depended for initiative on foreign work. He pointed out that abdominal surgery had been rendered possible through Lister and Spencer Wells, and that amongst obstetricians there were no greater names than Smellie, Denman, Rigby, and, later, Matthews Duncan. Dr. HERMAN looked for improvement in the mortality and morbidity of childbirth mainly to the improvement of Caesarean section. The mortality attending this operation in 1904 was 8 per cent., but he saw no reason why it should not be reduced far below this. Caesarean section stood alone among abdominal operations in this respect, that all the structures dealt with were healthy and normal. The operator who had to remove a tumour might find difficulties from its vascular supply, adhesions, etc., but in Caesarean section nothing of this kind existed, and there ought to be no mortality where the routine procuring of asepsis was regarded as a religious ritual. He did not agree with Dr. Blacker in thinking that symphysiotomy was about equal to pubiotomy in difficulty. Subcutaneous symphysiotomy was one of the simplest and easiest operations. Pubiotomy seemed to him a difficult and tedious operation. He had never done it or seen it done, and at present did not intend to do so. The real objection to both operations was the injuries to the soft parts involved in the separation of the bones after division. He thought Dr. Blacker gave away the case for pubiotomy when he said he thought it ought only to be performed in hospitals. What was the use of treatment that could not be employed in ordinary private practice? Lastly, he should have liked to hear more stress laid upon methods of ascertaining the size of the child, as he thought that was as important as pelvimetry. Dr. W. S. A. GRIFFITH pointed out the difficulty of obtaining precise measurements of pelves, and gave an account of some experiments he had made. The conclusion he arrived at was that no exact measurements could be taken unless the whole hand was introduced into the pelvis or the pelvis was contracted to 3 in. or less. He considered that practice based on precise pelvic measurements, even if they could be obtained, was a mistake; many other factors were equally important. He recommended Caesarean section where the head would not enter the brim of the pelvis. Dr. HERBERT SPENCER supported the induction of premature labour, and declared that statistics of fetal mortality were unreliable unless similar conditions obtained or cognizance were taken of individual features, such as the method or time of induction. Whether the child grew up depended largely on the care it received from its mother. He had induced labour six times in one woman, and she had as a result five healthy living children; he mentioned many other cases of multiple premature inductions in his practice. He regarded individual cases like these as of more importance than statistics. He thought Dr. Blacker placed the elective Caesarean section a little too high ($3\frac{2}{5}$ in.), thereby excluding some cases suitable for induction of premature labour. He had induced labour at the thirty-fifth week in a woman with a conjugate of 3 in., and the child, which weighed at birth 5 lb., was now a healthy girl of 18. He thought there were risks from scars and adhesions following Caesarean section from which the mother was quite free after the induction of premature labour. The percentage of morbidity following pubiotomy was too high for him, and, unlike other operations, it could not safely be repeated on the same patient. He had never seen any convincing evidence that pubiotomy was superior to symphysiotomy, and most of its advocates agreed that it was only suitable for hospital practice and in non-infected cases. The crucial question raised by Dr. Blacker was, what was to be done in the case of patients in labour when the pelvis was too small to allow the head to pass? His answer would depend upon circumstances. He would not exclude craniotomy; he would prefer Caesarean section if the patient had been skilfully attended, and would remove the uterus or do a retroperitoneal Caesarean section rather than do pubiotomy where there was infection or laceration of tissues. Dr. Gow did not think it possible to measure the pelvis accurately even with the hand inside, and regarded such measurements, even if obtained, as of secondary importance. Induction at the thirty-sixth week, or Caesarean section if labour had started, were better than pubiotomy for the size of pelvis indicated. He could only conceive of one condition in which pubiotomy might be indicated, namely, in a case

that had been many hours or days in labour, with the head jammed in the pelvis, rendering delivery by Caesarean section a matter of great difficulty. He would never do pubiotomy as an operation of choice, and would even prefer to do craniotomy. Dr. AMAND ROUTH thought there was no doubt that, if the woman was seen before full time with a conjugate of over 3 in., induction was the correct treatment. If a mistake of too late a date should be made, and dystocia were still present, the obstetrician could fall back upon Caesarean section, pelviotomy, or embryotomy. If the conjugate was under 3 in. he would prefer to do Caesarean section at full term. Cases seen for the first time at full term should be divided definitely into two classes—those where previous attempts had, and had not, been made to deliver *per vias naturales*. In cases where no attempt to deliver had been made with a conjugate up 3¼ in. and a living child, Caesarean section should be done; but if the child were dead, craniotomy, provided the conjugate was over 2½ in. The difficult cases to decide in this class were those where the child was alive and the conjugate between 3¼ in. and 3½ in.; these were, in his opinion, the only cases where pelviotomy was justifiable, and he preferred the subcutaneous symphysiotomy to pubiotomy, as the former operation could be more safely repeated, if necessary, at a future labour; personally, even in these cases, he would prefer to do Caesarean section. In the second class, where attempts had been previously made to deliver, with resulting bruising and infection, neither conservative Caesarean section nor pelviotomy was justifiable, and he considered embryotomy indicated if the conjugate were over 2½ in., and Caesarean section followed by hysterectomy if under 2½ in. He instanced his last case of Caesarean section in this class, where subsequently sloughs formed both on the child's head and over the mother's abdominal wound. This case had decided him to avoid Caesarean section in future in all possibly septic cases. The PRESIDENT congratulated Dr. Blacker on his paper, and considered, having regard to the results of Continental operators, that English obstetricians had exercised a wise discretion in their attitude to the operation of pubiotomy. Dr. BLACKER replied.

UNITED SERVICES MEDICAL SOCIETY.

AT a meeting of this society on January 12th, Surgeon-General BRANFOOT in the chair, a paper was read by Lieutenant-Colonel J. B. WILSON, R.A.M.C., on *The management of venereal disease at Woolwich*. After admitting the unreliability of statistics, he pointed out that in the past four years there had been a very marked decrease in the number of admissions for venereal diseases at Woolwich, amounting to 50 per cent. of the total in 1905, with an even greater reduction of 87 per cent. if the maximum year of 1902 were taken as the starting-point. He submitted that a considerable proportion of this reduction must be attributed to administrative methods. He detailed these shortly, the main point being the centralization of all venereal disease under one specially trained medical officer, with attempts to limit, as far as possible, the amount of paper work. The actual treatment adopted was that practised at Aix-la-Chapelle—namely, systematic inunction daily for forty days, Sundays excluded, the same underclothing being worn all the time, and careful attention being paid to the teeth and throat. The above formed the staple treatment of all syphilitic patients actually in hospital, but other methods were not, of course, neglected. Arsacetin and soamin had been tried, and, in the case of out-patients, injection. For gonorrhoea irrigation was employed, but did not, in Lieutenant-Colonel Wilson's opinion, do much to shorten the disease; he did not consider that on pathological grounds there was much to be said in support of this form of treatment. Both gonococcus vaccine and staphylococcus vaccine had been used. The former had not given satisfactory results, and it was too soon to speak regarding the latter. The author pointed out that it was a mistake to consider that gonorrhoea was a comparatively trivial disease compared with syphilis, and thought that a great amount of the improvement that had occurred at Woolwich was attributable to the fact that the serious nature of the former disease had been recognized, and its after-treatment systematized, as was universally the case with syphilis. He thought more might be done in the direction of teaching the soldier the truth about the dangers of incontinence, and its possible results. Major C. E. POLLOCK criticized the use of inunction from the service point of view, on the ground of the length of time it was necessary to detain the man in hospital in comparison with that necessary for in treatment by injection. As regards gonorrhoea, he suggested that men should be compelled to report when they had incurred risk of infection, so that by clinical examination of the meatal mucus an early diagnosis might be facilitated. Major W. A. WARD agreed that the serum treatment of gonorrhoea had not been a success. He was strongly opposed to the practice of inunction in the army. He thought that in the case of men passed to the Reserve while undergoing a course of treatment for syphilis some steps should be taken to keep in touch with the case. Captain L. W. HARRISON referred to the value of the Wassermann treatment as an index of the necessity for further treatment. He thought more attention might be paid to the combination of mercury with arsenic in the form of arylarsonates. He considered that serum treatment was advantageous in the case of gonorrhoeal rheumatism. Captain BRANSBURY and Fleet Surgeon CLAYTON also took part in the discussion.

MEDICO-CHIRURGICAL SOCIETY OF GLASGOW.

AT a meeting held on February 18th, Professor MUIR, President, in the chair, Mr. A. ERNEST MAYLARD described two cases of *Sarcoma of the stomach*. The following are notes of the cases:

(1) A man aged 63, operated on successfully in Victoria Infirmary in 1903 for stricture of the rectum; readmitted in 1909 for treatment of prolapse of rectum, much enfeebled, and died after operation. *Post-mortem* examination by Dr. John Anderson showed a large cystic tumour springing from the greater curvature of the stomach, with smooth external wall, unilocular, and filled with blood-stained fluid and soft tumour tissue, which microscopic examination proved to be a spindle-celled sarcoma. The gastric mucosa was healthy. (2) A woman aged 57. No symptoms whatever beyond uncomfortable increase of size of abdomen; tumour regarded as an ovarian cystoma; laparotomy; removal of tumour and pedicle, with excision of portion of stomach wall to which it was attached; recovery. Dr. Anderson reported on the tumour as a large unilocular cystic tumour with smooth external wall and filled with laminated clot. Microscopic examination of the cyst wall suggested a tumour of mesoblastic origin—a mesothelioma.

Dr. J. M. MUNRO KERR read notes of 5 cases of *Disease of the caecum and sigmoid simulating affections of the uterus and adnexa*, with which, as supposed gynaecological cases, he had been asked to deal. In three of these a correct diagnosis of the bowel condition was made by Dr. Kerr before operation; in the fourth case the bowel condition was suspected; in the last case it was not recognized till after the abdomen was opened.

(1) Carcinoma of the sigmoid which simulated an ovarian tumour; removal of sigmoid and rectum by combined abdominal and perineal operation; recovery. (2) Advanced malignant disease of rectum which resembled a fibromyoma of uterus; colotomy; recovery. (3) Chronic inflammation of appendix and caecum simulating fibromyoma of uterus; removal of caecum; recovery. (4) Tuberculous disease of caecum which simulated an ovarian tumour; lateral anastomosis; removal of caecum ten days later; recovery. (5) Cyst of left ovary with carcinoma of sigmoid, which at first presented features of extrauterine pregnancy; removal of ovarian cyst; subsequent resection of bowel; recovery.

Dr. J. S. MCKENDRICK gave a lantern demonstration illustrating the *Use of the polygraph in cardiac disease*. Slides were shown illustrating various forms of venous tracings in health and disease, the auricular as contrasted with the ventricular form of venous pulse, and the effects of digitalis on the failing heart. Tracings taken by Lewis by his electric cardiograph were also shown, and reference was made to experiments by Cushny and Lewis on the dog's heart showing that excitation at definite points of the cardiac musculature caused abnormal contractions similar to those met with in many cardiac arrhythmias.

NORTH OF ENGLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

AT a meeting held at Liverpool on February 18th, Dr. W. K. WALLS (Manchester), President, in the chair, Dr. J. E. GARNER (Preston) read notes of a case in which he had removed two large *Solid ovarian tumours* from

a woman of 28. She was suffering from abdominal pain and vomiting, and there was some loss of flesh. The abdomen contained much ascitic fluid but there were no adhesions. The pathologist thought the growths were endotheliomata rather than carcinomata, and probably of secondary origin. A month later a large quantity of ascitic fluid was removed, and a solid mass could then be felt above the umbilicus. This had not been noticed at the operation. Death occurred two months after the operation. Dr. J. H. WILLETT (Liverpool) showed a uterus containing a *Necrotic submucous fibroid* in process of spontaneous expulsion removed from a multipara of 31, who for twelve months had had profuse menorrhagia, accompanied by labour-like hypogastric pain. At one time the passage of some solid pieces of tissue had suggested to her doctor the possibility that the uterus might contain a mole. But, on microscopical examination, the pieces proved to consist of necrotic muscular tissue. There was thick muco-purulent discharge; total abdominal hysterectomy was therefore performed. Dr. R. M. LITTLER (Southport) reported a case of traumatic *Rupture of a uterine fibroid*, with intraperitoneal haemorrhage. The patient, a spinster of 43, had noticed a gradual increase in the size of her abdomen for four or five years. Menstruation had always been regular though scanty, and, until the last three years, attended with severe pain. She had not consulted a doctor. One evening she tripped and fell heavily on the asphalt walk. She was seized at once with severe abdominal pain, but was able to walk home, a distance of a hundred yards. She felt very faint, vomited, and had an urgent desire to go to stool. Severe pain continued all night. Early next morning a doctor was summoned; he gave her morphine hypodermically, and sent her to the Southport Infirmary, where Dr. Littler, acting on a provisional diagnosis of ruptured ovarian cyst, at once opened the abdomen. It contained a large quantity of free blood—a pint at least. A large pedunculated subserous fibroid, presenting a lacerated wound 3 in. long on its anterior surface, was quickly removed. Recovery was uninterrupted. The tumour weighed 6½ lb. The laceration was superficial, but involved a large vein. Dr. J. E. GEMMELL (Liverpool) reported (1) a case of *Pregnancy complicated by acute intestinal obstruction*. The patient, when five months advanced in her first pregnancy, was seized with abdominal pain and repeated vomiting, which in forty-eight hours was faecal in character. The obstruction was found to be caused by a band as large as a Fallopian tube, which ran between the back of the uterus and the right broad ligament, and constricted the ileum some 6 in. from its lower end. This and some smaller adhesions were divided. The vermiform appendix was represented by a blunt stump, ½ in. in length, and free from adhesions. During childhood and adolescence the patient had had several attacks of obscure abdominal illness. Labour, which had commenced before the operation, terminated the same evening. Convalescence was uncomplicated. (2) A case of *Pregnancy at seven months complicated by appendicitis*. Spontaneous premature labour occurred, and the bowels, which had not been opened for seven days, acted normally next day. For three days the patient was much better, then pain recommenced, the temperature rose, and a week later a large swelling, extending from the right Poupart's ligament to the costal margin, was found. On exploration this was found to consist of a suppurating ovarian dermoid cyst below, and a large appendicular abscess above. A drainage tube was placed at each end of the wound. The patient made a good recovery. The following specimens were also shown:—Dr. A. CUFF (Sheffield): Ovarian cystic teratoma removed from a girl of 10. Dr. A. J. WALLACE (Liverpool): Three solid ovarian tumours. Dr. H. BRIGGS (Liverpool): A uterus, containing a large mushroom-shaped adenoma, removed from a patient of 73 years.

WE learn that a leper station and asylum are being established at Makogai in the Fiji Islands for the segregation of all lepers found in the islands.

A DEPARTMENT of experimental breeding has been established in the College of Agriculture of the University of Wisconsin. Dr. Leon J. Cole, who has been appointed professor, will conduct investigations on experimental breeding with special reference to the laws of heredity and the improvement of animal life.

Reviews.

ENGLISH POOR LAW POLICY.

MR. AND MRS. WEBB'S latest volume, *English Poor Law Policy*,[1] is practically in its earlier portion a history of English Poor Law from 1834 to 1907, showing the lines of evolution of Poor Law policy from the "principles of 1834" to the "principles of 1907," and dealing separately with all classes coming under the Poor Law authorities. This policy, we are told, is embodied in "a bewildering chaos of statutes and orders, circulars and minutes, general reports and official letters," numbering literally tens of thousands, which the authors have classified in order to deduce the principles underlying them for each period. We are told in the preface that the task was undertaken at the suggestion of the late Royal Commission, and formed the subject of a report circulated to the Commission in July, 1907, and it is interesting to note that many pages of the latter portion of the book appear verbatim in the Minority Report for Scotland.

Dealing with the historical portion first, analysis of the earlier documents shows three main principles underlying the report of 1834:

1. *The principle of "national uniformity"*—that is, of identity of treatment of each class of the destitute all over the kingdom. This no longer exists to-day, except for vagrants.

2. *The principle of "less eligibility"*—that is, that the condition of the pauper should be "less eligible" than that of the lowest grade of independent labourer.

3. "*The workhouse system*"—that is, that relief should only be given in the workhouse.

The two latter principles are generally regarded as the root-principles of the reforms of 1834, though in the first instance they were only intended to apply to the able-bodied. During the last seventy years, however, three other principles, which were not known, or rather not considered relevant to the relief of the destitute in 1834, have, the authors consider, come to the front. These three "principles of 1907" are stated as follows:

1. *The principle of "curative treatment,"* which is said to be the direct opposite of the principle of less eligibility, and might even be called the principle of "greater eligibility." This is well seen in the institutional treatment of the sick, and to a much less degree in outdoor medical relief. It also appears in the physical training, mental education, and prolonged supervision of pauper children, the grant of more adequate outdoor relief of the deserving aged, and farm colonies for the able-bodied.

2. *The principle of "universal provision"*—that is, the provision by the State of particular services for all who will accept them, quite irrespective of destitution. This is seen most in the educational and sanitary work of municipal authorities, the provision of municipal hospitals open to all, and old-age pensions for all above a certain age having less than a certain income, all which provisions directly impinge on Poor Law policy.

3. *The principle of "compulsion"*—that is, the treatment of individuals in the way the community deems best, whether the individual likes it or not.

In contrasting the principles of 1834 with those of 1907, the authors say that the former embody the doctrine of *laisser faire*, while those of 1907 embody the doctrine of the mutual obligation between the individual and the community. It is admitted that the principles of 1907 have not been consciously selected in many cases, and that they are not all of universal application; for instance, the aged are not susceptible of "curative treatment," only a few sections such as lunatics, patients suffering from infectious disease, and the incorrigible loafers need "compulsion," whilst in our present civilization "universal provision" will be limited to particular services such as education and sanitation in their widest interpretation. Upon this the following observations are made:

> It is here that the Poor Law Commission of 1905–9 will have its greatest effect. Its criticisms and recommendations will be operative, whatever may be the legislative outcome, in deciding to what extent and in what particular directions there will be an increasing application of the principle of curative treatment,

[1] *English Poor Law Policy.* By Sidney and Beatrice Webb. London: Longmans, Green and Co. 1910. (Med. 8vo, pp. 395, with Appendices. 7s. 6d.)

the principle of compulsion, and the principle of universal provision respectively: or, on the other hand, to what extent and in what direction we shall seek to revive one or other of the principles of 1834.

We are told later that "the economical and efficient administration of these three principles of 1907 involves the acceptance of another principle—namely, the 'principle of prevention'—the principle of 'actively preventing the several causes of destitution, and of arresting their operation in the incipient stage, whether by operating on the individual or the environment.'"

Having deduced the principles of 1834 and 1907 from a critical analysis of all the documents available—a task carried out with the greatest care and ability, and in a way deserving of the highest commendation—the authors devote the later portion of the book to a comparison between the Majority and the Minority Reports of the late Royal Commission, especially as regards their attitude towards the principles of 1834 and 1907. As might be expected, the comparison is altogether in favour of the Minority Report. It is sought to show that the Majority Report professes to accept the principles of 1907, but tries to graft them on a new destitution authority, and "then inevitably finds itself compelled, seeing that these principles are incompatible with the very nature of a destitution authority, to revert in reality to the principles of 1834." We are told that the Minority Report, on the contrary, carries the principles of 1907 to their logical conclusion, "seeing absolutely no need for a Poor Law authority, or for any policy of relieving destitution on any principles whatever," but merging the functions of the Poor Law authority in the ordinary functions of municipal and county administration.

Supporters of the Majority scheme will certainly complain that the principles of their scheme are not properly presented. It is made to appear, for instance, that the Majority would assign all the righteous destitute to the Voluntary Aid Committee, and all the morally depraved and unrighteous destitute to the Public Assistance Authority. The authors go even further, and, seizing on the word "moral," which Professor Bosanquet used in a carefully defined sense, they make such play with the word as to give the impression that the Majority assumes every pauper to be a pauper by his own fault and undeserving. If this is not their intention, it is difficult to understand why the authors exclaim "we have to realize" that pauper infants and children "are human beings rendered destitute not by any action or inaction of their own." The very reminder is an insinuation that the Majority overlooks such an obvious fact, and it is a travesty of the Majority Report to say that the Public Assistance Authority is intended to deal "only with the worthless and undeserving whom the charitable have, because of their character, refused to aid." The truth is that the treatment of the Majority for infants and children, the sick and the aged and infirm, is calculated to remove as far as possible any stigma of pauperism on the ground that these classes are deserving of the highest sympathy and it is somewhat curious to note that the Minority in another place finds fault with the Majority for making its medical service so attractive that "it would lead to a large measure of free medical relief without adequate safeguard either for the medical profession generally or for the ratepayer." It is not easy to see how the service could be both too attractive and at the same time "less eligible." As for the "stigma of pauperism" which it is asserted would attach to medical relief from the Public Assistance Authority in virtue of its being a "destitution authority," would it not also attach to the Sanitary and Education Committees under the Minority scheme? To make the Sanitary Committee the recognized authority for distributing free medical aid to the destitute, or the Education Committee the recognized authority for distributing general relief to destitute children, would practically make these committees into destitution authorities. The fact that they have also other duties makes no difference, for boards of guardians have also other duties. These committees would treat the destitute and therefore would be destitution authorities, and no playing with names—as, for instance, calling outdoor relief "home aliment"—will make it anything but pauper relief. In addition, the strict "inquiry and recovery" by the registrar will make the Minority medical service as "deterrent" and "ineligible" as the similar inquiry and recovery by the Public Assistance Authority. People are not so shortsighted as to care much who it is that inquires and recovers; it is the fact that counts. To call the Public Assistance Authority a destitution authority may be allowed, but to attempt beforehand to tack on to it all the odium of present Poor Law relief simply recoils on the authors' own scheme when it is found that the attacker is in the same boat with the attacked.

Again, it seems to be assumed that the Minority scheme has some monopoly of the "principle of prevention," but, to take a single instance—the treatment of the sick—it is extremely doubtful whether one committee—the Sanitary Committee—could deal with both prevention and cure as efficiently as the two authorities of the Majority scheme—the Sanitary Committee, as now, for general measures of prevention, and the Medical Assistance Committee for treatment and such personal methods of prevention as will necessarily go with personal treatment. It is probable that as good results would be obtained by the present Sanitary Committee, properly co-ordinated, as it must be, with the Medical Assistance Committee, as would be obtained by the Sanitary Committee of the Minority scheme, burdened, in addition to its special duty of prevention, with curative treatment, and with provision of medical extras, food, clothing, and everything that a destitute sick person may require, and which, in virtue of its becoming a destitution authority, the Sanitary Committee would have to supply. The attempt to conceal the one function—relief of destitution—by naming the committee after its other functions, though it may be useful in the same way as it is sometimes useful to call an opium pill a "compound soap pill," is really too transparent a device, and is no better because the Majority uses the same device.

The fact is that in many of the points dealt with in this book there is little to choose between the two reports in their capacity for attaining what is desirable of the principles of 1834 and 1907. The principle of "less eligibility" cannot be wholly abandoned for all classes, though it may not depend on a "workhouse test," and the proper combination of this principle with the principles of 1907 and the principle of prevention will involve no rigid adherence to either the Majority or the Minority schemes alone. So far as the historical portion of the book is concerned, it reflects the highest credit on its authors for their painstaking and evidently accurate presentation of the lines of evolution of Poor Law policy during the last seventy-five years, lines by no means straight, but often bent back on themselves, though in the main leading from a lower to a higher stage of evolution. So far, however, as the object of the book is to prove the superiority of the Minority scheme, the argument depends too much on verbal brilliancies, while its excessive disparagement of the Majority scheme and lavish extolling of the Minority scheme would better suit a party political pamphlet than a sober historical work.

EXERCISES IN HEART AFFECTIONS.

Remedial Gymnastics for Heart Affections Used at Bad-Nauheim is a translation of a book by Drs. JULIUS HOFMANN and LUDWIG PÖHLMAN, of Berlin and Nauheim, undertaken by Dr. J. G. GARSON of Eversley Sanatorium, where the Nauheim methods are practised.[2] The translator's experience abroad and at home has enabled him to supplement the original descriptions of the gymnastics as taught at Nauheim by some comments and explanations of his own which are very much to the point. In his preface Dr. Garson points out that although the Nauheim baths can be imitated by chemical means, such imitations fall very short of the natural springs, where the water is charged with gas under pressure, and, its evolution being continuous, the effect upon the human organism is very much more marked. Hence the need for special knowledge and caution in the use of such baths for cases of enfeebled cardiac power, and as a matter of fact the full carbonic acid stream bath is seldom prescribed at Nauheim. The gymnastics, on the other hand, can be

[2] *Remedial Gymnastics for Heart Affections Used at Bad-Nauheim.* Translation of a work by Dr. Med. Julius Hofmann and Dr. Med. Ludwig Pöhlman of Berlin and Bad-Nauheim, by J. G. Garson, M.D., Physician to the Sanatoriums and Bad-Nauheim, Eversley, Hants. London: Swan Sonnenschein and Co. 1909. (Sup. roy. 8vo, pp. 144, illustrations 51. 5s.)

practised anywhere, but the results obtained from them depend largely upon the intelligence with which they are employed.

In the first few chapters of the book clear indications are given as to the class of case to which gymnastic treatment is not applicable, and as to the means by which such unsuitability may be recognized after treatment has been already begun. The pulse, blood pressure, and physical signs must all be investigated, while a test known as Sommer's analysis of movements may be utilized as a means of gauging the tremulousness of limb muscles after exertion. Excessive tremor is to be regarded as an indication against further exertion. The gymnastic exercises as recommended by the authors and the translator are fully described and well illustrated by full-page photographs showing the relative parts to be played by patient and operator respectively. The handbook, which is admirably presented by the publishers, may be taken as a trustworthy guide to a form of treatment which is often misapplied because it is misunderstood. The writers and their translator have put the case in simple but convincing form, all the more convincing from not being overstated.

OBSTETRICS.

A NOTICE of the first edition of Dr. WALLICH'S lucidly written handbook of obstetrics[3] was published in the JOURNAL of August 24th, 1907. The second differs in that the illustrations are now put with the letterpress that relates to them instead of being all together at the end of the book. This we think an improvement. The characteristics of the book remain as before; it is one of the best productions of the French school. Our business is to criticize, so we may observe that the author tells the reader that gonorrhoea is responsible for about half the cases of purulent ophthalmia in the infant. We should have thought much more than half. For its prevention the author recommends the precaution originally advised by Crédé (whose name, by the way, is not mentioned)—namely, the instillation into the eyes of a 2 per cent. solution of silver nitrate immediately after birth. This, we are told, the French midwife is now officially instructed to do. Here in England and in Germany people are coming to think that 1 per cent. is strong enough. The book brings inside its cover a eulogistic slip from the pen of A. Couvelaire, and with his praise of its merits we heartily agree.

We noticed the second edition of Dr. JARDINE'S *Clinical Obstetrics*[4] in our issue of March 23rd, 1907. We told our readers then that the book was essentially a record of the opinions and experience of an individual. That character it still retains. The third edition is increased in size by the incorporation of more cases and coloured plates. The author is especially interested in the subject of puerperal eclampsia, but the book does not show complete knowledge of the literature of the subject. At p. 397 the author lays down the precept, "If the fits cannot be controlled, the uterus should be emptied by *accouchement forcé*." Some may ask, Why not use English? Why not say, "The uterus should be forcibly emptied"? It does not sound so learned or so pretty, but it suggests the question, Why use force? This question was debated at a meeting of the Medical Society of London in 1902, at which a paper was read by Dr. Herman, who had collected and compared over 2,000 cases recorded in the best hospitals in Europe, and found that forcible delivery neither controlled the fits nor improved the prognosis. The most rapid method of delivery possible—that by Caesarean section—had been followed by a higher death-rate than that of eclampsia in which delivery has been left to Nature, obviously because the mortality of the operation is added to that of the disease. The author's dogmatism surprises us when we read further on (p. 389), "Personally I have had a good deal of experience of immediate delivery, but I have got quite as good results by leaving the uterus alone." Why, then, stimulate the pupil to use force? We are glad to note that Dr. Jardine condemns Caesarean section for placenta praevia. But why injure the memory of a great surgeon—Lawson Tait—by quoting an unfortunate statement concerning a subject he knew next to nothing about, namely, that "the mortality of placenta praevia was 50 per cent."? (p. 245). Lapses of this kind are best forgotten.

Dr. PAQUY'S *Manuel de pratique obstétricale*[5] exhibits the best qualities of French literature. It is graceful, orderly, precise, and sensible. We have not met with any manual for midwives exhibiting these high qualities in the same degree. It is exceptional for a man of large knowledge and long experience to occupy himself in writing an elementary work; but when he does the result is a work much superior to the digests of larger books, which young men without enough experience to make them trust their own judgement, who set to work to write a small textbook, are apt to produce. We recommend this book strongly to nurses and midwives who can read French. We have, however, one thing to grumble at—the book has no index; only a table of contents.

NURSING LITERATURE.

A LITTLE knowledge is a dangerous thing. A little medical knowledge in a nurse may be highly dangerous, and we would recommend to the writers of textbooks for nurses the exercise of a wise caution in the selection and presentation of the subjects which should be taught during the course of training. Miss AIKENS of Detroit, who has put together a volume of *Clinical Studies for Nurses*,[6] appears to hold that the nurse should receive instruction on all branches of medical science, and even goes so far as to place on the nurse's library table books like Professor Osler's well-known textbook. Surely it is sufficient for the nurse to receive some clinical instruction from the physician or surgeon in the course of her practical work and to leave textbooks to the student of medicine proper. But if the nurse must have a textbook on medicine, the book should be arranged systematically, it should be correct, and it should avoid all controversial points. Miss Aikens's book fails in each of these directions. With regard to want of system, a clear example may be taken from the description of methods of examination. Just when the reader would suppose that inspection, mensuration, palpation, and auscultation are to be described, he or she finds that the author has gone off at a tangent into the matter of family history. An example of inexactness in a matter of importance may be taken at random in the definition of diagnosis as "naming the disease." Other examples occur throughout the book. The illustrations, which are borrowed from other sources, are for the most part good.

A book intended to teach the young nurse to read a prescription may be a dangerous weapon, and "J. G. H.," in the *Nurse's Guide to Prescription Reading*,[7] states that the nurse is only to read and not to criticize the prescription. Yet the book contains material which, though clear and elementary, might encourage the undesired criticism. For the rest, it contains some useful lessons for the "young nurse," and some useless ones. We fail to realize why in the list of drugs mineral waters are included, and the statement that P.P. means physiologically pure is odd; it might also be translated into progressive paralysis or prunes and prisms. We suggest that before a matron gives her nurses this booklet she should read it and judge for herself whether she agrees with the methods of teaching and the details.

Miss ISABEL MCISAAC, the authoress of *Bacteriology for Nurses*,[8] is an enterprising lady, and one who is not afraid

[3] *Eléments d'obstétrique.* Par le Dr. V. Wallich, Professeur agrégé à la Faculté de Médecine de Paris. Deuxième édition. Avec 135 figures dans le texte. Paris: G. Steinheil. 1910. (Cr. 8vo, pp. 720, 135 figures. Fr.8.)

[4] *Clinical Obstetrics.* By Robert Jardine, M.D.Edin., Professor of Midwifery in St. Mungo's College, Glasgow. Third edition. London: Henry Kimpton. 1910. (Roy. 8vo, pp. 745; 108 illustrations and 4 coloured plates. 21s.)

[5] *Manuel de pratique obstétricale.* Par Dr. E. Paquy, Ancien Chef de Laboratoire, Ancien Chef de Clinique d'Accouchement à la Faculté de Médecine de l'Université de Paris. Bibliothèque de la Sage-Femme. Paris: F. Alcan. 1910. (Cr. 8vo, pp. 410; 107 gravures. Fr. 4.)

[6] *Clinical Studies for Nurses.* By Charlotte A. Aikens. Philadelphia and London: W. B. Saunders Company. 1909. (Demy 8vo, pp. 510; illustrated. 10s.)

[7] *The Nurse's Guide to Prescription Reading.* By J. G. H. Edinburgh: E. and S. Livingstone. 1910. (Roy. 32mo, pp. 150. 1s. 6d.)

[8] *Bacteriology for Nurses.* By Isabel McIsaac. New York and London: The Macmillan Company. 1909. (Cr. 8vo, pp. 192, illustrated. 5s.)

of getting into deep water. She is impelled to write this book by the desire to inform pupil nurses with regard to the sources of infection and the mechanism of the processes connected with infection. She admits that bacteriological work in the laboratory is no part of a graduate nurse's duty, but believes that a short bacteriological course is necessary to fit her for the various departments of nursing. We are inclined to agree that it is desirable to explain to a nurse the nature of an infection against which she has to protect herself, her patient and others in her vicinity, but this instruction should be elementary and correct. Miss McIsaac attempts to deal with complicated and difficult subjects in a dogmatic manner, and frequently fails to make her meaning clear. She also fails to adhere to facts. In her chapter on venereal diseases, for example, she boldly asserts that paternal infection can take place without maternal infection—a doctrine which is strenuously denied by competent European observers. She adheres to the old belief that the source of infection in scarlatina is in the desquamated epidermis. In her theoretical passages she reproduces in an uncompromising way doctrines which have never been held or no longer obtain. On the other hand, much of the book sets out in a clear manner information which might be of value to a pupil nurse. It is a moot question whether a book on bacteriology should be written by a bacteriologist or by a matron, when intended for nurses, since if written by the expert the descriptions might be too technical. But, on the other hand, if the writer be a matron of nurses, it is conceivable that she may not quite understand the subject on which she is writing, and the result would be, as exemplified in the book before us, an account composed largely of quotations from other writers strung together without sufficient understanding, and connected by statements which neither correspond to common sense nor represent ordinarily accepted doctrines. We therefore prefer bacteriology manufactured by bacteriologists.

NOTES ON BOOKS.

THE fourth volume in the 1909 series of the collection of clinical and other papers, published in Philadelphia under the title of *International Clinics*[9] contains a number of articles which are on the whole well worth reading. The subjects are grouped under treatment, medicine, surgery, Roentgenology (we wonder if the study of sour milk will soon be called "Metchnikoffology"), gynaecology and obstetrics, genito-urinary diseases, paediatrics, parasitology, laryngology and pathology. The majority of the articles are penned by American writers, including Flexner, Wainwright, Carey, and others, while of the extra-American authors, England is represented by Sir Dyce Duckworth, and France by Dr. Fredet, Dr. Guisez, and Dr. Sergent. The volume is carefully edited and the illustrations good. As a form of post-graduate teaching, we can recommend this series.

Vol. III, No. 4,[10] of the *Annals of Tropical Medicine and Parasitology* contains: (1) Reports of the twenty-first expedition of the Liverpool School of Tropical Medicine—Jamaica, 1908–9: Section I. Medical and Economic Entomology. Part I. Ticks and other Blood-sucking Arthropods. (2) Reports of the twenty-first expedition of the Liverpool School of Tropical Medicine—Jamaica, 1908–9: Section II. Malaria. The first section is by ROBERT NEWSTEAD; the second by Dr. PROUT, C.M.G. Ticks appear to be a curse in Jamaica, and Mr. Newstead's report, carefully prepared and clearly written, should prove of great value to the Government of that island. The question of preventive measures is one of great importance, not only for Jamaica, but for many other parts of the world as well. Dr. Prout's exhaustive and intensely interesting report on malaria should also be welcome generally as well as locally. The practical measures recommended by him for mosquito reduction are well thought out and thoroughly up to date. From what he tells us it would appear that a certain degree of laxity and slackness in regard to antimalarial measures had arisen. The report should do an immense amount of good; a visit from the outside like this is always beneficial to a more or less isolated community.

To the fifteenth volume of the *Collected Papers of the Institute of Physiology, University College, London*, the editor, Professor E. H. STARLING, contributes an account of the new institute, which was described in an illustrated article in the JOURNAL of June 12th, 1909, p. 1436 et seq. The remainder of the volume consists of reprints of papers contributed by workers in the institute to various periodicals and societies. They afford str king evidence of the amount and value of the work done there.

[9] *International Clinics.* A quarterly magazine of illustrated clinical lectures and especially prepared original articles. Edited by W. T. Longcope, M.D., with the collaboration of several professors of various countries. Philadelphia and London: J. B. Lippincott. 1909. (Royal 8vo, pp. 320; 3 coloured and 27 black and white plates and 15 figures. Price not given.)

[10] University of Liverpool. *Annals of Tropical Medicine and Parasitology*, November 17th, 1909. Series T.M., vol. iii, No. 4. Issued by the Liverpool School of Tropical Medicine. Liverpool: At the University Press; London: Constable and Company, Ltd. (Price 7s. 6d. net.)

MEDICAL AND SURGICAL APPLIANCES.

A New Leg Rest.

WE had an opportunity recently of testing an appliance known as the "Kumfee," made by the Purpose Manufacturing Company, 35, Park Road, Teddington. It consists of two short metal legs supporting a kind of swinging table-top. The latter is of such height that when placed in front of an ordinary armchair it forms a comfortable leg rest, which adjusts itself accurately to any movements of the body. On the table top are two cushions, one of which can be moved forward or backward so as to suit any length of limb. This has a wooden back, and is hinged so that when the table is not in use as a foot rest, and the top assumes a vertical position, it falls outwards and makes a convenient book rest. When in this position the appliance looks like an ordinary fire screen, and may be used for that purpose. It is upholstered in various colours and can be obtained with the cushions and back covered with dust-proof washable material rendering it suitable for use in hospitals. Its construction is simple and ingenious, and it certainly fulfils its function efficiently. It is already in use, we understand, in the Officers' Convalescent Home at Osborne, and at one or two institutions in London. It is the invention of a medical man.

An Ammonium Chloride Inhaler.

Our attention has been called to the fact that the ammonium chloride inhaler described last week (p. 578) was the subject of proceedings at the City of London Petty Sessions at the Mansion House on February 9th, when Jacob Hertz, trading as Hertz and Co., was summoned under the Merchandise Marks Act for having applied a false trade description to what was called a "perfect" inhaler, inasmuch as he represented it to be patented, and also under the Patents and Designs Act, 1907, for having represented that the inhaler was a patented article. Mr. Tebbs, who appeared to prosecute, said that the real prosecutor was Dr. A. F. Hertz, Assistant Physician Guy's Hospital. The inhaler was described as "Dr. Hertz' Perfect Inhaler, Patent No. 347538." Jacob Hertz was in no way related to Dr. Hertz, but some time ago had called on physicians in connexion with a mineral water, and informed them that he was the father of Dr. Hertz of Guy's Hospital. Dr. Hertz's solicitors had written to the defendant complaining of this.[1] Subsequently the name of the inhaler, previously called "the Simplex" inhaler, was changed to "Dr. Hertz' inhaler," and the defendant, in introducing the appliance to Messrs. Allen and Hanburys, had represented that it was the invention of Dr. Hertz of Guy's Hospital, and that he was Dr. Hertz's father. The firm subsequently sent out to members of the medical profession a large number of circulars referring to the inhaler. Proof was given that the inhaler was not the subject of an English patent. Dr. Hertz gave evidence stating that he was in no way related to or connected with the defendant, Jacob Hertz, whom he had never seen before that day, and had no connexion with the inhaler. The defendant in his evidence said that he had acted only as the agent of the Hamburg agency of the New York American Trading Company, and was informed that the appliance was patented in Germany and was protected in England. He alleged that the inhaler was invented by a Dr. Hertz, formerly of Antwerp and now of Oakland, California. The defendant denied that he had mentioned the name of Dr. Hertz of Guy's Hospital to Messrs. Allen and Hanburys. The alderman, however, was of opinion that the defendant had committed a distinct fraud, and that the fraud was aggravated by the fact that he had represented himself as the father of Dr. Hertz. A fine of £20 and 10 guineas costs was inflicted under the Merchandise Marks Act, and a nominal penalty of 5s. and 2s. costs under the Patents and Designs Acts.

[1] A notice on the subject was published in the JOURNAL of November 20th, 1909, p. 1508.

MEDICAL REPORT OF THE GERMAN CAMPAIGN IN SOUTH-WEST AFRICA, 1904-7.

HE first volume of the medical report of the German mpaign in South-West Africa in 1904–7[1] contains the dministrative portion of the official report issued by the erman Colonial Office. Like most German reports, it is orough, and enters into minute details of every medical pect of the campaign. The matter is divided into the llowing seven sections: (1) The strength of the force d its medical per-nnel; (2) the medical d surgical equipment;) hygiene; (4) the story of the individual edical units; (5) trans-rt of sick and wounded land; (6) transport troops and invalids sea; (7) the work the voluntary aid cieties.

The Strength of the Force.

This was taken from e official report of e campaign published the German general aff. Before the com-encement of the cam-ign the total force in e colony (including lice) only amounted 827; during the campaign 20,111 officers and men ere sent out, making an average annual strength for e whole campaign of 11,240. The monthly and erage annual strengths are shown in diagrammatic rm. When the insurrection began there were only medical officers and 44 medical subordinates in the lony. These were reinforced at different times by 3 medical officers and 727 medical subordinates of kinds. Taking the average for the whole campaign, ere was 1 medical officer to 120 men, and 1 medical bordinate to every 30 men. Of the medical officers, were killed in action and 4 died of enteric fever; while bearers were killed, returned as missing, d 20 died of enteric ver.

Fig. 1.—Main dressing station (that is, field ambulance) during the fight at Hamakari, August 11th, 1904.

Organization of the Medical Service.

As the home regula-ns were found to unworkable in the lony, a fresh set of nding orders had to drawn up to suit e local circumstances. ese are given in full an appendix (6*a*). ving to the military uation, units had to split up into small rties, hence it was nd impossible to here to a system sick returns by units, and the following order was ued: At the end of every ten days each detachment d to send in by telegraph or heliograph the following formation, merely giving the figures, but always in the me sequence: Total number of sick; number of wounded; mber of typhoid patients; number of malaria patients; d the detachment commander's name. This report was nfirmed by letter, with full details, at the earliest oppor-nity. From these reports a general admission and dis-

Fig. 2.—Battalion dressing station during fight at Narus, June 17th, 1905.

charge book for the whole force was kept in the administrative office at Windhuk, and this forms the basis of the medical statistics now in course of preparation.

Medical Officers' Work with Troops in the Field.

One medical officer had to be assigned to each company, as the force usually worked in small detached parties, often at a distance from the line of rail or from any fixed post where medical assistance could be obtained. The fighting was usually at close ranges, and attempts to remove wounded from the firing line had to be abandoned, as this afforded the enemy an excellent target.

Throughout the campaign the military operations were much hampered by an insufficiency of transport and scarcity of water. The medical services suffered greatly owing to the lack of wheeled transport. Most of the equipment, tents, packages of medical and surgical supplies, etc., sent out from Germany were found out to be so heavy and bulky that it was impossible to take them with the mobile column. The field hospitals were accordingly split up into sections, converted into stationary hospitals, and located at the various fixed posts, to which patients were sent in empty wagons returning for supplies. The main dressing station during the fight at Hamakari in August, 1904, is shown in Fig. 1, and the battalion dressing station during the fight at Narus in June, 1905, in Fig. 2, both reproduced from one of the plates with which the report is illustrated. The conveyance of sick and wounded in the earlier part of the campaign was greatly handicapped by the absence of proper medical transport. In April, 1905, a properly equipped sick transport column was sent out from Germany, which greatly facilitated this part of the work; in many parts of the country the absence of roads prevented any wheeled transport from accompanying the troops, and patients had to be carried long distances by hand, till the wagons or some medical post was reached. All woodwork became brittle, owing to the excessively dry, hot climate in the interior, and consequently frequent repairs to wagons and stretchers were necessary.

Hygiene.

This section contains a great deal of information based on the experience of the German colonial forces, and merits careful study on the part of those interested in colonial expeditions. Meteorological tables are given, and show the great degree of atmospheric humidity on the coast, as also the reverse condition, coupled with extreme diurnal variations in temperature, in the interior. When discussing the question of clothing it is stated that the soldiers preferred cotton underclothing, and that little use was made of the coloured glasses issued to protect men's eyes from the glare. The average weight carried by a dismounted soldier was 52 lb., that by a mounted man 31 lb.

The question of rations is very fully discussed. The

[1] *Sanitäts-Bericht über die Kaiserliche Schutztruppe fur Südwest-rica während des Herero und Hottentotten-aufstandes 1 Jan., 1904, bis Marz, 1907.* Bearbeitet im Kommando der Schutztruppen im Reichs-lonialamt. Berlin: Mittler und Sohn. 1909. (11½ by 9 in., pp. 264, appendices, 19 tables, 86 diagrams, illustrations, and maps.)

full ration issued at the commencement of the campaign had a food value equal to 4,725 calories; the meat portion (2.2 lb.) was subsequently reduced by half, leaving the value of the ration 3,788 calories. Great difficulty was experienced in obtaining fresh vegetables, and, in fact, it was only at fixed posts that this issue could be made. In April, 1905, owing to the occurrence of scurvy, certain extras, among which were beer and various fruit juices, were added to the diet. The great fault of the ration was the low proportion of fat, due to the poor quality of the beef.

The advisability of issuing alcohol to the troops is carefully considered. During the greater part of the campaign a daily allowance of $\frac{1}{10}$ litre of rum, cognac, or other spirit was issued; at a later period this was replaced by red wine or fruit juice. The arguments advanced in favour of giving alcohol were:

1. Most of the men had been accustomed to take alcohol in some form, and it was thought that if no issue were made they would be inclined to obtain some inferior spirit surreptitiously.
2. Many medical officers held that alcohol taken at night acted beneficially by preventing stomach chills and gastro-intestinal disorders, and that, moreover, it tended to induce sleep, which tea or coffee did not.
3. It helped to make the alkaline water of the country palatable.
4. It has a certain food value, calculated in this case at 300 calories.
5. In the absence of yeast or baking powder it was found useful when baking bread.

On the other hand, the following objections were raised:

1. The quantity allowed daily was too great.
2. If drunk at once, under the trying conditions of the campaign it tended in many cases to make men either sleepy, irritable, insubordinate, or lazy.
3. There was great temptation to dispose of it to a comrade, who might thus easily become inebriated.
4. Men who were formerly abstainers acquired a taste for alcohol.
5. When troops were without alcohol there was no appreciable increase in the amount of sickness.

Water.

Throughout the colony there was a great scarcity of water and in many places it was strongly saline. The two main sources of supply were deep wells and pools. All the old-standing sources of supply were highly contaminated by natives and cattle, and it was no uncommon experience to find the water turbid, discoloured, and evil-smelling, with one or more dead animals floating in it. In regard to means of purification the troops were liberally supplied with Berkefeld filters; these, however, speedily became choked, were often damaged during transport and on the whole gave little satisfaction. Heat sterilizers could rarely be taken with the columns owing to their size and weight, but in permanent camps they proved very useful. Precipitation by alum, preceded by boiling when fuel and time were available, was really found to yield the most satisfactory results.

Work of Medical Units: Transport of Sick and Wounded.

The work of individual medical units is shown in tabular form.

The section on the transport of sick and wounded in the country is really a more detailed description of the difficulties occasioned by the absence or insufficiency of

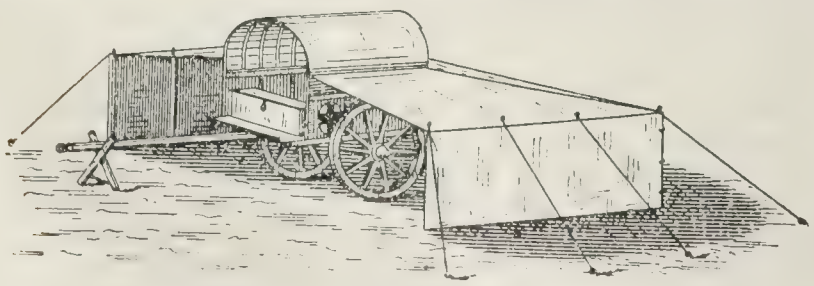


Fig. 3.—Ox-wagon tent, capable of holding from six to eight lying-down cases.

wheeled transport. A stretcher with a folding framework of iron tubing was found more satisfactory in the dry climate than the home pattern with wooden poles. A well arranged ox-wagon tent is illustrated in Figs. 3, 4 and 5. It can, it is stated, be put up by two men in ten minutes, and will protect six to eight men lying down from wind and weather.

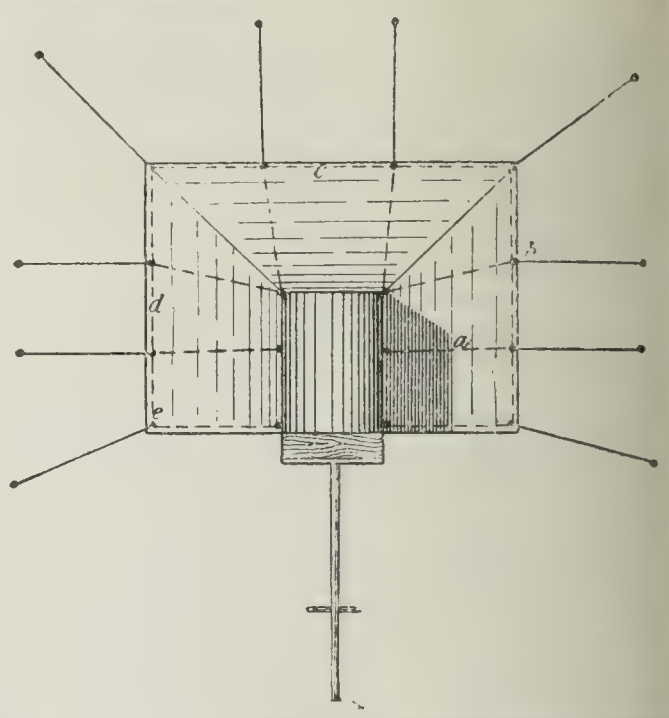


Fig. 4.—Plan of top of ox-wagon tent (for explanation of lettering see Fig. 5).

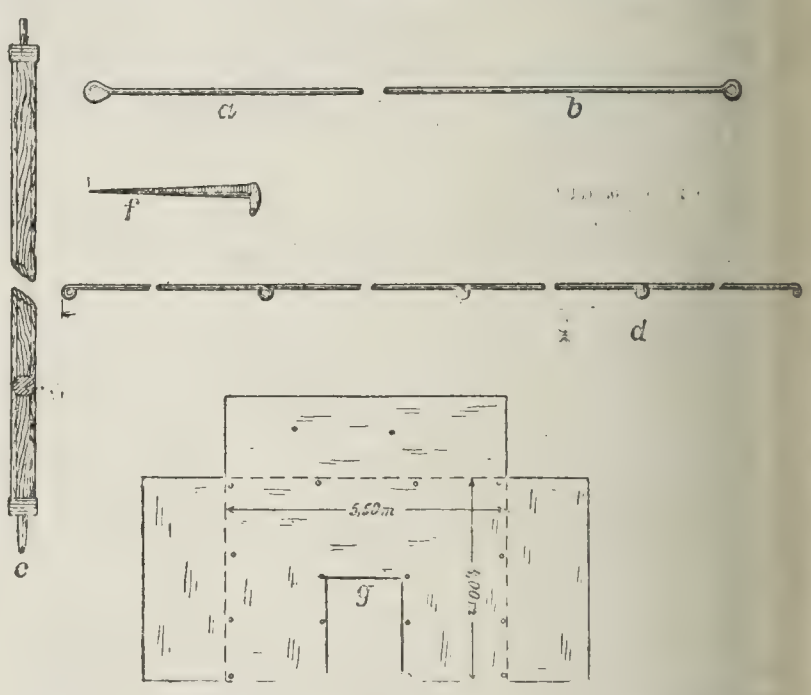


Fig. 5.—Details of supports and awning. *a*, *b*, Supporting rods and crosspieces for top; *c*, *d*, connecting rods, 5.40 m. (17 ft. 9 in.) and 3.95 m. (12 ft. 2 in.); *e*, tent pole, 1.60 m. (5 ft. 3 in.); *Q*, section; *f*, tent peg, 0.30 m. (1 ft.); *g*, canvas spread out.

Sea Transport.

When sending the troops home again precautions were taken to prevent the introduction of disease into Germany. In addition to the usual medical inspection before embarkation, all men who were known to have suffered from typhoid fever or dysentery were bacteriologically examined. Some interesting observations are given on the number of typhoid carriers detected; the percentage in 1,944 men examined was 2.93. These cases were embarked under special precautions to safeguard the other troops on board. Most careful examinations were again carried out on their arrival in Germany.

The Work of the Voluntary Aid Societies.

The German Red Cross Society provided a number of hospital attendants, while the Frauenverein für Krankenpflege furnished 31 war reserve sisters. Some of these in addition to nursing undertook letter writing for the patients in hospital; others superintended the hospital cooking and washing, and thus added very materially to the comfort of the sick.

The Red Cross Society also acted as a receiving and forwarding agency for voluntary gifts sent to the troops, and, in addition, spent some £40,000 on small comforts.

The report shows that the work and difficulties of the German medical services in the South-West African expedition were similar to those experienced by our own

vices in numerous colonial wars; none of our official orts, however, enter so fully into details as does this ort, hence it should prove of great value for future erence.

THE SPECIAL RESERVE, ROYAL ARMY MEDICAL CORPS.

UTENANT-COLONEL E. M. WILSON, R.A.M.C. (R.P.), ivered recently at St. George's Hospital an address on conditions of service in the Special Reserve, Royal Army dical Corps, and in conclusion gave a short account of Officers' Training Corps. He said:

t may be convenient in commencing the description of Special Reserve of the Royal Army Medical Corps to ar the ground by saying what it is *not*, because there now so many branches of the medical profession in nexion with the public services that there may be ne confusion.

t has nothing to do with the method of obtaining a mmission in the regular forces of the Royal Army dical Corps. We should all be glad to see as many George's men as possible competing for commissions in Royal Army Medical Corps, that corps of which John nter was once Director-General, but, as Rudyard pling says, "that is another story." The connexion with regular army will be explained later on. Neither has anything to do with the Royal Army Medical Corps rritorial Forces, the field ambulances, or the general spitals; and here the separation is complete. A commission cannot be held in the Territorial Forces and the ecial Reserve at the same time.

Many St. George's men have served, and are serving, in Royal Army Medical Corps Territorial Forces (formerly litia and Volunteers), and I would strongly urge any ng medical man settling down in practice to consider advisability of joining his local corps, but he should arly understand that the position of an officer of the yal Army Medical Corps Territorial Forces is that of a mber of a complete organization to serve at home in e of invasion, while that of an officer of the Special serve is primarily to serve abroad in case of war.

The situation is this: The establishment of the Royal my Medical Corps (regular army) is about 1,000, of om 400 are usually serving at home in times of peace. mobilization were to be ordered, this number would uire to be enormously increased at once. In round mbers, 600 are required for four divisions and a cavalry ision sent on active service. Where are these men to got? The answer, of course, has always been up till w, "Employ civil surgeons." I do not know whether it ssed the Director-General's mind that, as I was a civil geon myself, I might have something to say on this nt, but the fact remains that rather more than thirty rs ago I went out to South Africa, on the recommendan of Mr. G. D. Pollock in that capacity during the Zulu r, and served for nearly a year before entering the Royal my Medical Corps.

When the South African war began in 1899 I happened be employed at the War Office, and the contracts and ditions of service for the numerous civil surgeons whom vas found necessary to engage were framed on the same es.

t would of course be absurd to suppose that any nation uld maintain a permanent medical corps of trained cers, far more than is necessary in times of peace, on chance that they might be required in time of war; l, on the other hand, the hasty collection of a large mber of young medical men to serve abroad with an ny in the field has not been found in practice to be ogether satisfactory. It has therefore been decided connexion with our profession to create a "Special serve" of officers who will undertake to serve abroad h an army, should their services be required.

The reasons for preferring commissioned medical officers civil surgeons may be considered under two main heads irst, the advantage to the army; and, secondly, the vantage to the civil surgeons themselves.

The State obtains a commissioned officer serving under litary law, and trained to a certain extent in military dical administration. I hope that no one will imagine cause he is a fully qualified medical practitioner there either nothing to learn, or, if there be, that it is all unnecessary routine, what is commonly known as "red tape" or "office work." Though all routine duties are cut down as much as possible in the field and relegated to "the base," where the unfortunate live who do all the work and get none of the glory, a considerable amount of official work must be done in the field, and especially in the hospitals, and I will only instance three subjects affecting our own profession.

First.—The General must know from day to day and from week to week how many fighting men he has at his disposal. This means an accurate daily and weekly statement of sick and wounded in all hospitals. Similarly, the colonels of regiments and corps must be kept informed when any men are coming back to duty or are being invalided.

Secondly.—There is an intense and very natural desire on the part of friends and relations at home to know how their husbands, brothers, and sons in hospital are getting on, and it would be impossible to furnish this information unless accurate records were kept of admissions, discharges, and transfer of all officers and men in all hospitals. This correspondence, official and private, regarding individuals has grown enormously in the last few years and imposes a great amount of labour on every hospital staff, of which every officer has to take his share.

Thirdly.—From these hospital returns the medical history of the campaign has to be written, not only the effects of wounds caused by modern weapons, but the incidence of different diseases, both subjects of the utmost importance as regards future wars. These records and invaliding boards are also most important as regards individuals financially, as by these means the pensions of those disabled are assessed.

Without troubling you with questions of sanitation, hospital supplies, clothing, and equipment, you will, I am sure, agree that there are things to be done in a military hospital in addition to the surgical and medical attendance on the patients.

Besides this, it is a great advantage to the army and to the individual that every one in the position of an officer should have the definite status conferred by a military commission.

It may seem a truism to say that with an army in the field military law is supreme, but perhaps it may not be clearly understood that every one who is not an officer or a soldier is a camp follower, without any authority whatever.

It would not matter so much if all the civil surgeons were in the large hospitals where they would have nothing but professional duties to perform, but this cannot be guaranteed in a big campaign. Our lines of communication are almost always of great extent. From Capetown to Pretoria is nearly 1,000 miles. From Cairo to Khartoum it is 1,400. Small posts are constantly being formed or small columns sent out; convoys must be sent back towards the base, etc, and commissioned medical officers cannot always be spared. Civil surgeons must be employed, and then when on detached duties they feel the want of the authority conferred by a commission.

I well remember being sent down from Maritzburg to Durban in 1879 with a big convoy of sick. There were no railways in those days except for a few miles out of Durban, and the sick were conveyed in wagons. I had no one with me to preserve discipline; the men were convalescent, and as they had already been invalided were a little difficult to control, and I had the cheerful information that the last convoy taken down by a civil surgeon had got out of hand altogether, and one of the men had been actually lost. I felt badly then the want of the mark on the arm or the shoulder, the star or badge denoting the possession of military rank and authority. Still, we got through! I am afraid, like "the little orficer boy with the big drunk draft" in Rudyard Kipling's story, I adopted some unconstitutional methods of preserving discipline but I handed over my convoy at Durban after three four days' march "all present and all sober."

For some time I was alone in charge of a hospital in a detached fort in Zululand with one most inefficient hospital sergeant. I do not think the sick suffered because I looked after them myself, but the returns, of which I, of course, knew nothing, certainly went wrong, and I received a sarcastic letter from the Surgeon-General: "Please be more

careful in your returns," he wrote; "the 99th Regiment of Foot are *not* Irregular Horse." Well, I did not suppose they were, but my fool of a sergeant had made some stupid mistake. Later on the Surgeon-General came through my post, punished my sergeant and took him away, so that I was rather worse off than before.

On occasions like those you must learn and teach yourself, but if I could have had three months' training in a military hospital before I left England things would have been easier.

The New Special Reserve; Conditions of Service.

A candidate must be a fully-qualified medical man under 30 years of age; he is liable to be called up for army service at home or abroad at a time of imminent national danger or great emergency when the army reserve is called out until his services are no longer required. This liability is for one year only, and can be renewed annually up to the age of 40. If he wishes to terminate his liability at any time he must give a month's notice before the end of any year of service, but if in any special case the enforcement of this liability is represented to be prejudicial to his professional prospects, the case will be specially considered by the Army Council.

A candidate makes an application on a special form, makes a certain declaration, and gets a certificate of moral character, and is medically examined as to his fitness. If accepted he will be required to undergo three months' training at Aldershot. This course is similar to that undergone by officers on probation of our own corps and the Indian Medical Service.

There is now a class just joined at Aldershot, but candidates can join at any time convenient to themselves.

On joining a candidate gets a gratuity of £20 for uniform, but has to guarantee to serve four years in the Special Reserve or refund one-fourth for each year if he withdraws before the end of the fourth year. This uniform allowance covers the cost of service dress with greatcoat, mess dress, sword, etc. Full dress is not necessary. Pay during this three months' course is 14s. a day and a servant, or servant's allowance at 1s. a day, lodging allowance at £1 a week if in lodgings, or half allowance if in barracks in unfurnished quarters, are provided. The three months' training consists of drill, stretcher drill, interior economy of the R.A.M.C., military law, work with field ambulances, sanitation and hospital administration at one of the large hospitals at Aldershot. Candidates can also pass through the riding school if they wish. I do not attempt to disguise from any intending candidate that his time during these three months will be very fully occupied, but I am sure that there must be many young men who have just qualified who have more than three months to spare before they finally settle down in practice, and I am quite certain that they will never regret the time they spent at Aldershot. At the end of the three months an inspection or examination (not formal or written) will be held by the principal medical officer by whom the certificate of proficiency will be granted. The candidate will then be entitled to an annual gratuity of £20 for each year in which he remains in the Special Reserve up till 40 years of age. If he wishes to withdraw he can, as I said before, give a month's notice, and then his liability to serve and the £20 both cease together.

The candidate is then a lieutenant R.A.M.C. Special Reserve, and when he wishes to qualify for promotion to the rank of captain, after three and a half years' service he must come up again for training for one month. This month's training is not necessarily at Aldershot. He may come up at the head quarter hospital of any command nearest the place where he is in practice. This may be called a refresher course, and for this he gets the same pay as before and 4s. a day messing allowance. He is then promoted to the rank of captain, and to the rank of major on the completion of twelve years' service without further training. The annual payment of £20 does not continue beyond the age of 40, but an officer can serve until the age of 45 if a captain, or until 48 if a major. Gentlemen holding these commissions will have preference before other medical men for military employment in stations where full-pay R.A.M.C. officers are not employed.

This of course refers to the ordinary procedure in times of peace. If war were declared, officers of the Special Reserve, R.A.M.C., would be called up, and become part and parcel of the army until their services were no longer required. They would be posted to general hospitals, field ambulances, or regiments in the field, or perhaps to military hospitals and dépôts at home, as necessary; and then of course they will receive the pay of their rank and allowances like every one else. They would receive at once £50 for compensation on being called up and to provide kit, etc., and a similar grant of £50 on the conclusion of hostilities.

They would be eligible for permanent commissions in the R.A.M.C., provided that a lieutenant was under 30, or a captain under 40, years of age. Many civil surgeons accepted commissions in this way after the South African war, and no doubt others would do so again in similar circumstances.

The Officers' Training Corps.

I have left to the last a description of the method by which medical students who have not yet qualified can obtain admission to the Special Reserve on modified and advantageous terms, that is, by joining the Officers' Training Corps. All universities, including the University of London, have Officers' Training Corps, and the University of London, like others, has special medical units. If students of St. George's Hospital choose to join this training corps and put down their names to join the Special Reserve of Officers they will be regarded as on probation for a period not exceeding two years. They must obtain (in the Officers' Training Corps) the certificates of proficiency A and B and when they are qualified professionally they must join like the others at Aldershot, but the three months' training will be reduced, by fourteen days if they have got Certificate A, or by six weeks if they have got A and B. They will get an additional gratuity of £35, and their commissions will be antedated with effect from the date of their first appointment on probation. They will thus gain a very considerable advantage over men joining after they have qualified professionally both in seniority and in additional gratuity.

CONCLUSION.

I should like to ask one question. Do not you think, apart from the pay and advantages set forth in the conditions I have just read, that you should as a matter of duty assist in some way towards the protection and defence of your own country? When the greatest living soldier gives up his well-earned leisure to tell us in the House of Lords and on public platforms that all is not well with our army and that we are not safe from invasion, do you think that your whole duty is done when you have paid rates and taxes?

Your seniors do not think so. If you were to look at the Army List you would see the names of many hundreds of medical men, many men in general practice, leading men in our great cities, professors in our universities all willing and anxious to take their share in National Defence; organizing and maintaining Field Ambulances in the Territorial Forces, serving in, or guaranteeing to serve, in the great Military General Hospitals in time of need, giving up their spare time to learn new duties without fee and without reward. Are the juniors going to do nothing even though their services are to a certain extent paid? So far as our own profession is concerned the terms of service have been most carefully considered and have been made as easy and flexible as possible.

UNIVERSITY OF LONDON OFFICERS' TRAINING CORPS.

Medical Units.

The first annual report of the Military Education Committee to the Senate of the University for the year 1909 has been presented. The contingent as at present sanctioned consists of an infantry unit of six companies, an engineer unit of one company, and a medical unit of three sections of a field ambulance. An application has been made, and is under the consideration of the War Office, to organize an artillery unit of one section of field artillery, a transport section of the Army Service Corps, and a fourth section of the medical unit.

The general head quarters of the contingent are at the University of London, South Kensington, where a number of rooms have been set apart. St. Bartholomew's Hospital provides head quarters for "A" section of the medical unit, Guy's Hospital for the "B" section, and University College Hospital for the "C" section. It has been necessary to attach cadets to sections with head quarters at other hospitals than their own. Thus students of London, Charing Cross, and King's College Hospitals are posted to the "A" section of the medical unit (head

quarters, St. Bartholomew's Hospital); students of St. Thomas's Hospital are posted to "B" section of the medical unit (head quarters, Guy's Hospital); and students of Middlesex Hospital are at present posted to "C" section of the medical unit (head quarters, University College Hospital). Subject to the approval of the War Office to the necessary augmentation of establishment, the sixty-four students of Middlesex Hospital who are at present members of "C" section will be organized as a fourth section ("D" section), with head quarters at Middlesex Hospital.

The officers of the medical unit are as follows:

Majors:	
Herringham, W. P., M.D. ...	Physician, St. Bartholomew's Hospital.
Booth, H. H., M.D., C.M.G. ...	Physician, St. Bartholomew's Hospital.
Captains:	
Gray, A. M. H., M.D.	Physician to the Skin Department, University College Hospital.
Davies-Colley, R., M.A., M.C.	Obstetric Assistant and Registrar, Guy's Hospital.
Lieutenants:	
Briscoe, J. C., M.D.	King's College Hospital Medical School.
Clayton, T. B., M.S.	Surgical Registrar, Guy's Hospital.
Johnson, A. E., M.B.	Resident Medical Officer, Middlesex Hospital.
Mathison, G. C. McK., M.B....	Teacher of Physiology, University College.

At the date of the report the total strength of the medical unit excluding officers of the permanent staff was 288, "A" section having 3 officers and 71 cadets, "B" section 2 officers and 92 cadets, and "C" section 3 officers and 117 cadets. Of the total St. Bartholomew's Hospital furnished 49, St. Thomas's Hospital 25, Guy's Hospital 67, the London Hospital 7, the Middlesex Hospital 64, Charing Cross Hospital 2, University College Hospital 52, and King's College Hospital 12.

The University Contingent underwent its first annual training at West Down North, Salisbury Plain, from July 30th to August 13th, 1909. The training of the medical unit included three days' work with ambulance wagons and horses. The annual inspection was held at the camp on August 11th.

SCIENCE NOTES.

THE ingenuity of our most approved fly-traps and cages is crude beside that displayed by the inhabitants of some of the villages in Mexico. They keep spiders to rid their houses of flies, much in the same way as we keep cats to clear the house of mice. The curious custom dates from before the time of Columbus. The spider in question, called the mosquero, is a small one of its kind, and lives in nests, which it builds in the branches of trees, particularly oak trees. At the advent of the rainy season flies invade the houses in great swarms, but the villagers are already prepared. Going out into the woods they select a small oak branch thickly laden with spiders' nests. They hang this from the ceiling of their room, and the spiders speedily proceed to the business of decimating the flies. The nest of the mosquero is rather a curious habitation. The exterior is formed of a web of plaited threads; the interior is filled with a network of simple threads among which numerous spaces and passages are arranged. Throughout the nest a large number of minute beetles are to be found. They play the part of commensal, and their business appears to be to attend to the cleanliness of the nest. They live on the crumbs from mosquero's table, and in return they clear up and remove all the remnants from the passages. This is deposited in special receptacles at the bottom of the nest. In this way not only is the nest kept clean, but the house also in which it is hung. Mosquero herself is a *nonchalant* creature, never seen beyond her own door, preferring the quiet comfort of her back parlour. When a fly calls on business, however, she is very alert, and soon arranges matters to her own satisfaction. When the "fly season" is over all the adults leave the colony in a body and make their way out of doors to pass the winter. The young ones, however, are left behind in the nest, and they begin active operations the following year. For an interesting account of this strange habit we are indebted to M. Léon Bruguet.[1]

Dr. C. J. PATTEN, M.A., Professor of Anatomy at the Sheffield University, recently delivered a lecture at the Railway Institute, under the auspices of the North-Eastern Railway Natural History and Scientific Society, on observations made during a voyage across the Atlantic and across Canada on the occasion of the visit of the British Association to Winnipeg last summer. Wishing to take the opportunity of seeing all the animal life possible on the journey, he has chosen to cross the Atlantic in a comparatively small steamer—the Allan liner, *Pomeranian* a vessel of some 4,000 tons. One of the advantages of a smaller steamer was that it was easier to become friendly with the captain and crew, who would always be of assistance in looking out for singular birds, mammals, or fishes. Moreover, on a small boat it was possible to travel rapidly from stem to stern and keep in view quite easily birds, fishes, etc., around the steamer. The vessel called at Havre, but only the whitethroat was observed there, a specimen alighting on the boat. It was very tame and in excellent plumage. On getting under weigh the fulmar-petrel—a real petrel, not a gull—was seen. The great shearwater, which got its name from the fact that it seemed to "sheer" through the water, was also met with. It was commonly found in the South Atlantic, but was often seen in the North also. The skua was also seen. It earned its livelihood by plunder, and on approaching a flock of gulls singled out a bird which had just had a good dinner—never going near those which had not dined—and setting the bird on the wing followed it about, always keeping underneath, and often making a curious moaning noise. This action caused the gull to disgorge the fish, which was caught by the skua before it reached the water. Professor Patten mentioned the porpoises and dolphins met with, described the Greenland seal, and added that at the entrance to the St. Lawrence River some beautiful icebergs were encountered. Interesting slides were shown of the Red Indians, their squaws, wigwams, etc. The Redskin—who was really more copper-coloured than red—had many characteristics of the American, not the least of which was his love of the almighty dollar. Nearly every group approached were willing to be photographed, provided the necessary fee was forthcoming. The journey from the East Coast to Winnipeg was principally through forest but bird life seemed very scarce. On the prairie, however, life of every description was extremely prolific. The buzzard, met with in numbers, had an extremely interesting and graceful flight as it opened the wing feathers out something like a comb, and the precision showed in following its prey was remarkable. It was no uncommon sight to see four or five of them hunting together. The prairie wolf, sometimes mistaken for the dog, was observed, and marmots, gophers, and squirrels were also met with. The latter animals were larger than the British species, and of an excitable and lively disposition. Professor Patten visited the herds of buffalo in the Government preserves. Views of the fishing station at Naimo were shown, and the life on the great land-locked seas of Lakes Superior and Ontario traversed on the return journey was dealt with. He mentioned that the kitzwater followed the vessel on the homeward journey all the way across the Atlantic—a very unusual occurrence.

AT a recent meeting at Accra, Gold Coast, West Africa, of the Legislative Council of the Colony, on the vote for supplies, when that for the Medical Department came up, one of the unofficial members complained of the fees charged by the Government medical officers for medical attendance on private patients, and urged that some scale of charges should be laid down by the Principal Medical Officer. He suggested a fee of £10 a year for each man for mercantile employees, or a fee of 10s. a day. In the course of his remarks this unofficial member expressed the opinion that medical officers should not be allowed to resort to private practice with a view to increasing their salaries. We are informed that the usual fees for attendance for a short illness is 1 guinea a day; for a long one deductions are usually made. If a retaining fee be agreed upon, £30 a year is the standard charge. Our correspondent considers that in view of the high prices charged by the merchants, especially in inland stations, for European goods, these fees are not excessive. If the contention that the Government medical officers should not supplement their salaries by fees from private patients is to be sustained, then the salaries offered to these Government medical officers should be such as to render them quite independent of private practice, especially in the West African Medical Service. Meanwhile the question of fees is not one with which the Government has anything to do. If the Government medical officer is allowed private practice, he is quite at liberty to charge a fee which shall in the circumstances be adequate. As a retaining fee, in a comparatively unhealthy colony like that of the Gold Coast, £30 per annum certainly does not seem an exorbitant sum.

[1] *Comptes Rendus Assoc. France*, cxlviii, 1909, p. 735–6.

THE TROPICAL DISEASES RESEARCH FUND.

As was stated last week, the report of the Advisory Committee for the Tropical Diseases Research Fund for the year 1909 has just been issued. The fund was started by the Secretary of State for the Colonies in July, 1904, and Sir J. West Ridgeway has been its chairman throughout. At the present time the other members are: Sir Thomas Barlow, Bart., K.C.V.O.; Sir Thomas Holderness, K.C.S.I.; Sir Charles Lucas, K.C.M.G., C.B.; Sir Patrick Manson, K.C.M.G., F.R.S.; Dr. J. Rose Bradford, F.R.S.; Surgeon-General A. M. Branfoot, C.I.E., I.M.S.; Mr. H. J. Read, C.M.G.; Major Ronald Ross, C.B., F.R.S.; and Mr. A. Berriedale Keith (Secretary).

The following tables show the revenue and expenditure of the fund during the four years:

Revenue.

	1906.	1907.	1908.	1909.
	£	£	£	£
Imperial Government	500	500	1,000	1,000
Indian Government	500	500	500	500
Rhodes Trustees	200	200	200	200
Commonwealth of Australia ..	200	200	200	200
Southern Nigeria	200	200	200	350
Southern Nigeria (Lagos) ...	150	150	150	—
Gold Coast	200	200	200	200
Ceylon...	100	100	100	100
Straits Settlements	100	100	100	100
Federated Malay States ...	100	100	100	100
Hong Kong	100	100	100	100
Trinidad	100	100	100	100
Fiji	100	100	100	100
Sierra Leone	100	100	100	100
Gambia	100	100	100	100
British Guiana	100	100	100	100
Grenada	50	50	50	50
St. Kitts-Nevis	—	—	—	25
Dominica	—	75	—	25
St. Vincent	—	—	—	20
Mauritius	100	100	—	—
Total	£3,000	£3,075	£3,400	£3,470

Expenditure.

Grants to:	1906.	1907.	1908.	1909.
	£ s. d.	£ s. d	£ s. d	£ s. d.
London School of Tropical Medicine	1,000 0 0	1,083 6 8	1,333 6 8	1,383 6 8
Liverpool School of Tropical Medicine	500 0 0	500 0 0	1,000 0 0	1,000 0 0
University of London...	750 0 0	750 0 0	750 0 0	750 0 0
University of Cambridge	—	100 0 0	100 0 0	200 0 0
Australian Institute of Tropical Medicine	—	—	400 0 0	—
Royal Society	500 0 0	—	—	—
Total	2,750 0 0	2,433 6 8	3,583 6 8	3,333 6 8

The Committee in allocating the funds placed at its disposal was actuated by the desire of obtaining the establishment of the study of tropical diseases on a secure basis, and with this object in view has endeavoured on the one hand to encourage the provision of instruction in regard to tropical diseases for medical officers employed in the colonies and protectorates, and on the other to encourage research work and investigation as to the nature and causes of such diseases. In fulfilment of both objects the grants made to the London and Liverpool Schools of Tropical Medicine have, as will be seen from the table, been increased to £1,383 in the case of the London and £1,000 in the case of the Liverpool School. Of the amount paid in 1908 to the London School, £1,000 was devoted to the payment of the salary of a teacher and investigator of protozoology, and of the salary of a teacher and investigator of helminthology, and to the maintenance of the laboratories. In 1907 the London School applied to the Committee for an increased grant in order to enable it to establish an entomological post in the school. The Committee responded by making a grant of £1,000, to be spent over three years, on condition that the entomologist should undertake to make a collection of the noxious insects of the colonies, a separate collection to be made of those from each colony, and all the collections to be kept in readiness for reference by colonial officials or doctors. It was provided also that the person appointed should be ready to advise on questions referred to him by the Committee or by colonial Governments. Under this grant Colonel A. Alcock, I.M.S., C.I.E., F.R.S., was appointed arthropodologist.

The grant to the University of London provides the salary of the professor of protozoology. The grant of £100 made in 1907 and 1908 to the University of Cambridge was for a research studentship in medical entomology, and the augmented grant last year was made in respect of general expenses of the Quick Laboratory, in recognition of its importance to workers from the colonies, and of the assistance rendered to investigators by Professor Nuttall.

The grant to the Royal Society made in 1906 for the furtherance of research in sleeping sickness was not repeated, because it was found possible in subsequent years to provide from the funds of the Uganda Protectorate the sums required for the continuation of the researches into sleeping sickness which have been carried on under the supervision of the Society.

The grant of £400 made from the fund in 1908 to the Australian Institute of Tropical Medicine at Townsville, Queensland, was towards its establishment, but it is understood that there can be no doubt that adequate contributions for the maintenance of the institute will be raised in Australia. In this connexion it may be stated that in 1908 the Committee had under its consideration a proposal by Dr. W. M. Strong, acting chief medical officer of Papua, suggesting that a scientific expedition should be sent to that dependency for the purpose of investigating tropical diseases. The Committee, while expressing the opinion that Papua offers a great field for important work on tropical diseases, suggested that the question might more suitably be considered after the establishment of the Institute at Townsville, when it might be possible for the director or his assistant to take part in the expedition.

Appended to the report for each year is a summary of the efforts made in the colonies to combat malaria, and of the results of those efforts. To the report for 1909 is appended a circular dispatch addressed by the Secretary for the Colonies on March 31st, 1909, to all the tropical colonies in which malaria is prevalent, dealing with preventive measures adopted in Italy against the spread of malaria, and inquiring to what extent the same measures could be adopted in those colonies. From the replies received the Committee concluded that, considering their limited resources and the many difficulties to be met, much has been done in the tropical colonies to combat malaria, and calls special attention to the full and excellent statistics furnished from Ceylon. The Committee adds that the report from Mauritius shows how much can be done at a small outlay. Dr. L. G. Barbeau, the Acting Medical Director, had reported that, owing to the limited resources available, the work done had of necessity been confined to individual buildings or small areas, so that the results, though satisfactory in themselves, have had little effect on the general death-rate of the island. In addition quinine had been distributed free to the poor and at a nominal price to those able to pay, from 28 dispensaries and 36 quinine dépôts in the more malarious portions of the island, while itinerant dispensers had been employed when occasion arose to supply the sick with free medicine in certain other districts. It will be remembered that Major Ronald Ross, F.R.S., visited the colony and presented a valuable report. Dr. Barbeau reported that previous to Professor Ross's visit certain Government buildings had been protected against mosquitos by wire gauze screens. It had not been possible, owing to want of funds, to extend mechanical protection

o other buildings, but the following measures had been arried out:

1. With the kind assistance of the Education Department the chool children throughout the colony are periodically examined by the medical officers of this department, and quinine s issued free to the school teachers for the treatment of those ound with an enlarged spleen.

2. Efforts have been, and are being, made, with the co-operation of the Immigration Department, to secure a similar treatment for the children on the sugar estates, and to ensure that abourers affected with malaria should be submitted to a ontinuous course of the drug.

3. A house-to-house spleen census is being made at Port Louis y three of the medical officers attached to this office, who take dvantage of the opportunities thus afforded them to distribute uinine free of charge to all persons requiring and willing to ake it.

4. House-to-house distribution of quinine is also being made n the extra-urban area of Port Louis by the dispenser in charge f the G.R.N. West Plague Lazaret.

5. Government servants receiving less than Rs. 720 per nnum are supplied with the drug free of charge on applying t a hospital or dispensary, or through the head of their lepartment.

6. Minor works are being carried out in extra-urban Port ouis by two moustiquiers and four malaria gangs of three abourers each; in the other districts by the moustiquiers nd gangs under Mr. D. Emmerez, by the sanitary bands of Mahebourg, Souillac, and Rose Belle, and by prison labour in he rivers of Plaines Wilhems, Pamplemousses, and Flacq, while such preliminary work as could be undertaken has been ommenced for the drainage of the swamps of La Louise and he Curepipe Marshes.

7. Major works are being carried out under the supervision of he sanitary engineer at Pamplemousses and centre of Flacq.

The report for 1909 contains a number of appendices, ncluding the report of the professor of protozoology. Owing to the additions and structural alterations in progress at the Lister Institute, the work there had been partially interrupted, and the professor in company with Dr. Woodcock, spent some time at the zoological station at Rovigno, in Austria, and later another period, accompanied by Dr. Thomson, at Mr. Gurney's laboratory at Sutton Broad, Norfolk, studying the blood parasites of fresh-water ishes. In addition to the last-mentioned subject, the rypanosome of the common rat had been investigated, nd, in collaboration with Dr. Woodcock at Rovigno, the lood parasites of the little owl. As the trypanosome of he common rat *T. lewisi* is harmless to those animals, it ffords a very favourable object in which to study the oological aspects of the trypanosome problem. In conunction with Dr. J. D. Thomson, a number of experiments ad been made, the principal conclusions of which were:

1. Can the rat-flea transmit *T. lewisi* from infected to healthy ats? An answer in the affirmative was soon obtained to this uestion, though the results are sometimes negative. I believe hat in many cases tame white rats are refractory to the nfection; it is shown by the ordinary method of intraperitoneal noculation of blood from infected rats that the infection does ot always take effect. Sometimes the rats acquire only a very light and transitory infection, easily overlooked. Hence egative results must be discounted.

2. Is the transmission of the direct mechanical kind, or does t indicate a cycle in the invertebrate concerned? I have ound an interval of about three weeks, more or less, between he removal or death of the infected rat and the appearance of he infection in the previously healthy rat. This result, imilar to that obtained by Professor Kleine in the transmission f pathogenic trypanosomes by tsetse flies in Africa (confirmed by Sir David Bruce), is incompatible with direct infection, and ndicates the existence of a cycle or development in the flea.

3. When the fleas have once become infectious, do they retain his property? In cages in which an infected rat has been laced for a short time and removed, I have had successive nfections of healthy rats introduced and changed, so soon as hey became infected, for other healthy rats. This indicates hat when once the fleas have become infected they retain their nfective power for some time, as Kleine found also with setse flies.

The teaching work done by the professor included a ormal course of twenty-three lectures followed by demonstrations, and informal instruction or help given in the aboratory to workers, or correspondence.

In another appendix are reports from the London School of Tropical Medicine. The arthropodologist reported that collections of insects had been received from the Soudan nd Uganda, and from Calcutta, and a fine collection of enomous snakes from the United States National Museum. The reference collection of selected specimens of authentically-named species was steadily increasing. In each of the two sessions included in the half-year nding April, 1909, courses of lectures and demonstrations on arthropoda and thanatophidia were given; the lectures were repeated in the summer session, and special advanced courses were instituted in medical entomology.

The report of the helminthologist, Dr. R. T. Leiper, stated that in addition to four systematic lectures and a laboratory course, Dr. Arbuckle (Sierra Leone Colonial Medical Service) and Dr. A. C. Parsons (Northern Nigeria Colonial Medical Service) had worked in the laboratory. Gifts of collections of helminths had been received from Dr. Graham (Gold Coast), Dr. Stanton (Malay States), Dr. Pearson (Congo), Dr. Sells and Dr. Bayon (Uganda), and Mr. Foy (Northern Nigeria). The helminthologist had devoted a considerable amount of time to the structure and relations of the filaria, with special reference to the human forms, and had investigated also the parasites of grouse disease. Considerable additions had been made to the collection of helminth parasites of man and of the lower animals. The report of the protozoologist, Mr. C. M. Wenyon, stated that investigations had been directed chiefly to the effect of soamin on *T. gambiense*, to investigations on intestinal protozoa, and on trypanosomes and other blood parasites. During the summer an advanced course was instituted.

The reports of the Liverpool School of Tropical Medicine included a report from Dr. Breinl, at that time Director of the Runcorn Research Laboratories, enumerating the investigations there made chiefly by the Director and Dr. Nierenstein on trypanosomes. Mr. Robert Newstead, Lecturer in Economic Entomology and Parasitology, in his report gave an account of the expedition to Jamaica in November, 1908, and a summary of the work with regard to cattle ticks, insects, and other pests injurious to cultivated crops, and the food of birds in relation to agriculture. Drs. Barratt and Yorke had completed their report on the blackwater fever expedition, and had been able to show that the mechanism of production of blackwater in *Piroplasma canis* and in blackwater fever was similar. Dr. Yorke had failed to confirm Professor Nuttall's conclusions as to the beneficial effect of trypan-blue in the treatment of *Piroplasma canis*.

A further appendix contains reports of the work done in the clinical laboratories in Barbados, in British Guiana —chiefly with regard to leprosy and the effect of nastin— at the Clinic for Tropical Diseases and Bacteriological Institute directed by Dr. Castellani in Ceylon, in the bacteriological department of the East Africa Protectorate at Nairobi, and in the Institute of Medical Research of the Federated Malay States, directed by Dr. H. Fraser at Kuala Lumpur.

In a special appendix is a memorandum by Dr. Clarke, medical officer of Batu Gajah, Perak, on the use of parboiled rice for beri-beri patients, confirming Dr. Braddon's conclusion that the only practical way of preventing beriberi is to prohibit the sale of any rice which is not either freshly made, or has not been cured by boiling or heating in the husk before stripping.

MOTOR CARS FOR MEDICAL MEN.

COUNTRY DOCTORS AND MOTOR CARS.

DR. THOMAS FENTEM (Catcliff, Bakewell) writes: I feel that the somewhat extraordinary statement made by Dr. Allan Wilson under the above heading on p. 594 ought not to be allowed to pass unchallenged. He says a motor car for a medical man "can scarcely be considered a boon or a blessing to his patients, because, when he is going from house to house on his daily rounds, his thoughts and attention, that should be occupied with the contemplation of the nature and treatment of the diseases which come under his notice, are, by necessity, directed to the steering of his car."

As one who has driven horses, sat beside a person driving horses, and who now personally drives himself in a reliable motor car in the conduct of a country practice, also in a fairly scattered district, I can say that, from the point of view of the patient, I find the motor infinitely to his benefit over the two other modes I have indicated. My experience is that one arrives at the patient's bedside much more alert and less jaded after a long round than with horses; and, getting over the ground more quickly, one reaches home earlier than one could with horses. One therefore has more leisure to give to the consideration of the patients' cases in the quiet of one's study and amongst one's books, and that surely is better than trying to do this sitting beside a coachman, even if one's thoughts are stimulated by such accompaniments as blinding snowstorms, driving rain, gales of wind, and such like.

The driving of a car becomes after a short time largely automatic, and this applies, perhaps, most of all to the

steering, the task which Dr. Allan Wilson appears to think requires such deep mental application as to banish all else from one's mind.

I will not believe that he has any experience in the driving of a car unless he assures me that he has, and I trust, for his own reputation, he cannot do this.

Dr. F. L. NICHOLLS (Fulbourn, Cambridge) writes: Dr. Allan Wilson, in a somewhat remarkable letter, says: "The practitioner who uses a motor car without a chauffeur is obliged to direct his whole attention to steering to avoid accident." And he also says: "I attribute my success in a great measure to the careful thought and study I was able to devote to my cases while sitting beside the coachman in a dog-cart."

First, let us consider the qualities necessary to make a skilled horseman or motor driver. Are they not self-reliance, self confidence, a quick eye, and a steady hand? and are not these just the points necessary for a successful practitioner, especially in the country, where he is dependent upon himself in all emergencies? One would almost feel inclined to think that Dr. Wilson had made one or two attempts to handle the ribbons or drive a motor and found it too much for his nerves; and if such is the case he is certainly a wise man to depend upon his coachman to see him safely on his rounds, but I cannot allow the statement that a driver's whole attention must be given to steering to avoid accidents to pass without protest. If such was the case I pity the poor driver, for at the end of a week his nerves would be in such a state that he would be good for nothing but darning stockings or doing patch-work, even if he was lucky enough to keep out of an asylum. Dr. Wilson does not appear to know that all these actions to an experienced and skilled man are almost entirely automatic. The eye and hand do the work, leaving the brain free for the consideration of any matter its owner may desire. I do not speak without experience, for I have for over forty years had the handling of horses, including the breaking-in of young ones, and for over five years I have driven a motor, and I can assure Dr. Wilson that the only time when my brain is "jumpy" is when I have relinquished the reins or wheel into some other person's hands. I am then anything but at ease; but directly I have again resumed my usual and proper place my brain is at ease and ready for the consideration of the most serious subjects connected with my practice. I can only pity Dr. Wilson for the loss of such delightful and soothing hours as an expert with horses and motors enjoys, and I hope these few lines will explode such ideas as are contained in his letter.

LITERARY NOTES.

THE *Chronique Médicale* of February 1st contains an amusing account of the manner in which Claude Bernard's decoration with the Cross of the Legion of Honour was officially announced. Magendie urged the claims of his brother physiologist on the attention of M. de Falloux, then Minister of Public Instruction. Nothing was said to Bernard, who was not a man to solicit honours for himself or to induce others to do so on his behalf. When the *Moniteur* came out and he was told that his name was in the list, however, he was greatly pleased. But his pleasure changed into something like dismay when he learnt that the decoration was bestowed in recognition of his valuable researches on the *musical* properties of the pancreas. The substitution of "musical" for "medical" was rectified in a later announcement; but the fact remains that Claude Bernard was, in an official sense, decorated not as a physiologist, but as a musician.

One of the best-known figures in London during the latter half of the eighteenth and the early part of the nineteenth centuries was the fourth Duke of Queensberry, generally known as "old Q." He lived to a patriarchal age after having warmed not only both hands but the whole of his person at the fire of life. The following account of the regimen which he followed in his old age would scarcely commend itself to latter-day dietetic oracles, but seems to have suited him very well. We take it from Mr. Ralph Nevill's entertaining book, *The Merry Past*.

At seven in the morning he took a warm milk bath, perfumed with almond powder, where he took his coffee and a buttered muffin, and afterwards retired to bed. He rose about nine, and breakfasted on *café au lait*, with new-laid eggs, just parboiled. At eleven he was presented with two warm jellies and rusks. At one he ate a veal cutlet, *à la Maintenon*. At three, jellies and eggs repeated. At five a cup of chocolate and rusks. At half-past seven he took a hearty dinner from high-seasoned dishes, and made suitable libations of claret and Madeira. At ten, tea, coffee, and muffins. At twelve, supper off a roasted pullet, with a plentiful dilution of lime punch. At one in the morning he retired to bed in high spirits, and slept till three, when his man cook, to the moment, waited upon him in person with a hot and savoury veal cutlet, which, with a potation of wine and water, prepared him for his further repose, that continued generally uninterrupted till the morning summons to his lactean bath.

And the old rake lived to the age of 86, sitting at his window in Piccadilly and leering at the women who passed, and sending his servant after any one who struck his fancy! In his last days he kept always about him his French doctor, Père Elisée, formerly physician to Louis XV. He paid the doctor on something like the Chinese plan: he allowed him a large sum for every day he lived, leaving nothing at his death. It speaks wonders for the skill of the physician that he succeeded in preserving to such length of days a man who lived in the way that has been described. He must have died with all the consolations of medicine, for (according to the *Dictionary of National Biography*), after his decease, Mr. Fuller, an apothecary in Piccadilly, made a claim against the executors for £10,000 for professional attendance during the last seven and a half years of the duke's life, during which he said he had paid 9,340 visits, in addition to attending on him for 1,215 nights. A verdict was given for £7,500. Scoffers might say that but for the assiduous attention of his apothecary he might have been a centenarian.

Readers of *Our Mutual Friend* will remember the suggestion made by Captain Joey to the doctor that an apparently drowned man should be hung up by the heels "sim'lar to mutton in a butcher's shop," and then—"as a particularly choice manœuvre for promoting easy respiration"—be rolled on casks; and how Miss Abbey, the presiding genius of the Six Jolly Fellowship Porters, received this "sagacious old-scholastic" suggestion with such speechless indignation that "she instantly seizes the Captain by the collar and without a single word ejects him, not presuming to remonstrate, from the scene." If we may judge from a curious account of well meant attempts made by a French medical practitioner during the Revolution to resuscitate a drowned man, published in *La Province Médicale*, the methods in use in 1796 were a good deal more barbarous. Returning from exile at that time Jacques Bonnefoy, pilot of the town of Hyères, was in hiding. He was discovered, however, and on the point of being captured, he threw himself into the well of a neighbouring house. From this he was pulled out with much difficulty, and citizen Pierre Vérignon, *officier de santé*, was summoned to revive the flickering spark of life still left in the sailor's body. The man was first undressed, and his body was rubbed with great violence with warm cloths. Then by way of stimulation, we suppose, fumigations of tobacco were applied within the anus, and afterwards into the windpipe. This producing no result, the unfortunate man, who was 60 years of age, was bled from the jugular vein, and spirits were rubbed in over the pit of the stomach. Last of all he was rolled in a barrel with the object of emptying him of the water he had swallowed. Even this was of no avail, and the resources of science being exhausted, the civil power was called in to verify the death and order the body to be buried.

In the March number of *Travel and Exploration* Mr. Edmund Forbes writes with intimate knowledge of native life in the little travelled Siamese-Malay Peninsula. He quotes a suggestive extract from a Blue Book which throws a lurid light on the liquor traffic of the peninsula, and incidentally explains how whisky can be bought in Bangkok for 4s. 6d. a dozen. He says: "In a case of adulteration recently heard in Her Britannic Majesty's Consular Court at Bangkok, the medical adviser proved the existence of certain drugs very deleterious to health in the spirit retailed at a certain shop. The Chinese defendant admitted having added something to his liquor, which, he stated, was much improved thereby. Asked how he came to use this particular compound, he explained it was some 'medecine' which he had by him for a bad leg, and, not being able to use it all, he had put the balance in his spirit jar. He added there was a particular demand among his customers for this 'blend'!" This reminds us of a story in Marryat's *Pacha of Many Tales*, in which it is related that the body of a murdered man was hidden in a cask of wine. Some of this wine was accidentally served to the pacha, and its quality was found so exquisite that the pacha insisted on having it and no other, as the advertisements say.

British Medical Journal.

SATURDAY, MARCH 12TH, 1910.

THE PHYSIC OF PERSUASION.

r the London Polyclinic dinner some years ago Mr. lfred Lyttelton said doctors should be the best of all peakers as they were constantly addressing people ho hung upon their words, whereas the member of arliament had to address several hundreds of men l of whom were eager to address him. What may be lled bedside oratory, however, has difficulties of its wn which many worthy practitioners never overcome. ell equipped for their professional work in other spects, they do not know how to talk to their patients. he difference between a successful doctor and another ho, perhaps with greater mental gifts and larger nowledge, fails to win the confidence of patients, is ainly one of personality. The man who impresses fferers and their friends with belief in himself will assuming him to be honest—do far more good an he who, whatever may be his scientific attainents, has not the power of inspiring faith; in word, the miracle of cure—except in one or vo cases in which specific remedies are available id in the greater part of the domain of surgery—is rgely wrought by suggestion. This, vague as is the nnotation of the word, is not quackery; it is a real id most potent influence, though it would be difficult define its nature. Personal magnetism, or whatver else it may be called, is the greatest moving rce in education, in ordinary life, in religion, in olitics, and even in business. The history of the uman race, as far as it has been made by "heroes" the Carlylean sense, is not so much "philosophy aching by example" as a record of manifestations suggestion. What, then, is suggestion? Simply e power of setting in act and use forces that lie dden, and mostly unsuspected, in the depths of the verage man's nature. These may be applied to the aling of disease as well as to the gaining of victories the making of revolutions. That suggestion may open to abuse is no reason for refusing to use it, ill less to deny its reality. The fact that it is the cret of the success of quacks should make us all e more strenuous in reclaiming so useful a force for tional medicine.

In addresses to students stress is often laid on the portance of cultivating a good bedside manner. In edicine, as in life, it is true that "manners makyth an." But what is the manner that is most effective the bedside? Here no general rule can be laid wn, for the manner must be adapted to the patient. ne thing, however, may be said. You may be rude xe Abernethy, genial like Sir Astley Cooper, courtly xe Sir Henry Halford, but like St. Paul, unless you ve charity—that is to say, practical sympathy—you e nothing. Sir William Jenner used to say that it attered little whether a doctor's manner were gged or smooth; to kindle the hope that is more an the nux vomica which Professor Osler mixes ith it, and the faith that moves mountains, e doctor must make the patient feel that he thoroughly in earnest in his efforts to understand the case before him, and doing all that in him lies to give relief. There is nothing the patient resents so much as apparent indifference, or what he calls want of attention, on the part of the doctor. We have known an ill-timed jocularity shake a laboriously built-up edifice of faith to its foundations. On the other hand, a gloomy manner has a disastrous effect on a nervous patient. A famous physician of the past used to relate how, when taken to his first important case by a professional patron, he tried to adapt himself to the situation by assuming an aspect befitting the Knight of the Sorrowful Countenance. The elder physician, observing this, said: "For Heaven's sake, man, don't go into the sick room with that long face; they will think you are the undertaker!" By some people the doctor is regarded as a purveyor of gossip, and it is recorded that Lord Palmerston used his physician, who was in request among the leaders of society, as an indicator of public opinion on political matters. Of one fashionable physician it is related that when he paid his usual call to a fashionable patient one day he was informed, with her ladyship's apologies, that she was too ill to see him that day! One practitioner, very successful in his day, had no power of conversation, but he was a noted Amphitryon, and his table was looked upon by politicians as a neutral ground, where they might meet without any significance being attached to the fact. He made up for his lack of words by minute attention to detail. Other men have inspired faith by silence, uttering only a few oracular sentences, and sending the patient away with his curiosity unsatisfied, but fully persuaded that the physician had seen into the innermost recesses of his being.

The man of few but pregnant words inspires more confidence than one who attempts to explain the case to the patient. No one ignorant of medicine understands such explanations; the clearer they seem to be the more they bewilder the patient. The more cultivated he is in a general sense the more apt he is to form wholly wrong conclusions. A deliverance such as "You have a tired heart," or "Madam, your husband is suffering from a cachexia," is equally enlightening to the patient and much more comforting than a disquisition on the mysteries of indigestion or the effects of disordered nerves addressed to a person who knows nothing of physiology. It must be remembered, however, that at the present day the laity take much greater interest in all matters pertaining to health than was the case when everything relating to the "inside" was considered improper. Every one now has views about food, and drink, and clothing, and many boldly adventure themselves into the deep waters of pathology and healing. The medical profession has lost much of the sacerdotal character with which it was formerly invested. This disappeared with the wig and the gold headed cane. A host of self-constituted authorities on diet and the nature and treatment of disease has sprung up. This is one of the results of the advance of sanitary science, which, it seems sometimes to be forgotten, is the outcome of the work of the profession. Medicine and surgery have, in a sense, become popularized, and the amateur doctor is abroad. A little knowledge is a dangerous thing, and this is the knowledge which is so common at the present day. It forms a soil peculiarly congenial to the growth of quackery. A sound knowledge of physiology, diffused among the people, as we have often had occasion to point out, would create an atmosphere in which

quackery could not live. Unfortunately, the time is still far off when it will be as disgraceful to be ignorant of the functions of the body as to outrage grammar and misuse the letter "h."

In the meantime the doctor has to adapt himself as best he can to his environment. He will best succeed in doing this who to professional skill adds such a knowledge of human nature as will enable him, in the words of Goethe, to enter into the mind of the sufferer and imitate his manner of conceiving; this will give him the power of speaking to each patient in a way that will make him give heed to his counsel. In a word, he must persuade people to do what is best in their own interest. How much should be said to a patient must depend on circumstances, but the doctor should in all cases tell the truth and nothing but the truth. He need not, however, always tell the whole truth, for two sufficient reasons: It might not be for the patient's good; and, again, he may not be sure about it himself, and he has no right to disturb the mind of one who looks to him for comfort by suspicions which may be unfounded.

PATHOLOGICAL LYING.

Just as philosophers distinguish different forms of truth, so there are many kinds of untruth. Between the wilful swearing to a false oath and an angler's tale there are many kinds and shades of falsehood. To define a lie is the converse of Pilate's famous conundrum—and almost as unanswerable. Theoretically the matter is simple, but in practice impossibly complicated. Kant observed that a lie might be external or internal; might be uttered, and so bring the utterer under the contempt of others; or internal, violating a man's own dignity. The internal factor, however, lurks in all lies, and it is the estimation of this factor which offers almost insuperable difficulties to a just conclusion as to the author's moral integrity, for no one but himself can be aware of his belief or disbelief in what he avows. If, as Kant asserted, in order to be veracious, man, as a moral being, or *homo noumenon*, must so use himself as a physical being, or *homo phenomenon*, as to harmonize these two, then many a fantastic falsehood is actually a kind of revealed truth, a Fata Morgana, the unconscious projection of ideational into sensational experience, or, expressed otherwise, of thought into feeling. Hence, in law courts witnesses constantly, albeit often unwittingly, say they saw things happen which never happened, and which, if they had happened, they could not have seen with the eye.

The almost inseparable fusion of fact and phantasy which is characteristic of childhood, individual or racial, distinguishes many who are all too prone to live, as it were, inside themselves, and whose spiritual experiences defy the correction of outer concrete happenings. Thus, Goethe, in his *Wahrheit und Dichtung*, says that he was accustomed in his boyhood to relate to his comrades the fictions he had invented as actual occurrences, and that, if he had not learnt to transfuse these figments, bit by bit, into his poetic creations, the consequences would have been serious for his later life. Not all, however, have this power of self-discipline. In many, through innate mental or moral weakness, the bent to lying is inveterate, and such people, "born liars," drift from public odium into contemptuous indifference, from an infamous notoriety into the obscure backwaters of a worthless and discredited dependence. The lives of Chatterton, with his sham antiques; Villon, the poet-thief, and many another to whom it might be fitly said, "Shame soiled thy song, and song assoiled thy shame," show how curiously knavery and high genius may be blended in one personality; but, as a rule, the gaol, the workhouse, or an eleemosynary penury await those so unhappily constituted that they cannot help deceiving others, since, by some inward compulsion, they must first of all deceive themselves.

Until recognized, however, such people are dangerous to others. Dr. Carl Pelmann has related[1] a case which may be taken as typical of many which have occurred in our own courts, though perhaps with less serious outcome. This was that of the 16 years old daughter of a General Morel, who was discovered in her bedroom bound hand and foot and with many superficial wounds of the thighs. With the greatest apparent reluctance, she admitted that a certain Lieutenant de la Roncières had made an unsuccessful attempt on her honour. Being unable to establish an alibi the lieutenant was sentenced to ten years' imprisonment, and only after the expiration of this term was his innocence proved and the groundless and hysterical nature of the accusation brought to light. A very similar case was tried in the Dublin courts only a few weeks ago.

Notwithstanding Pierre Janet's statement that normal people lie just as often as the hysterical, there can be no doubt that hysteria, either alone, or in combination with one or other of the miscellaneous pathological states collected together into the hotchpotch of "degeneracy," is of considerable forensic importance in this relation. Dr. Bresler, of Lublinitz, in an interesting monograph on "pathological perjury"[2] has gathered from various sources several striking instances of false accusation by hysterical people, and remembering the hyperexcitable imaginations, the deficient powers of attention and observation, and greatly heightened lability of psychic processes of these people, with, in consequence, a marked tendency to falsifications of memory and vivid day-dreams, their unenviable notoriety as at once deceived and deceiving becomes understandable.

The less common and graver forms of what Delbrück, in his able book on this subject,[3] has termed "pseudologia phantastica" occur, of course, in alcoholism, and typically as the "confabulation" of Korsakow's syndrome; it occurs also in the initial stages of paranoia, especially in paranoia quaerulens, and in masked epilepsy. In these, however, the fabulation is only a transitory symptom in the course of otherwise recognizable disease, and therefore lies outside our present purview.

But of all the forms of pathological lying of an ingrained constitutional order, that which is most commonly encountered occurs in the slightly weak-minded or "high-grade imbecile," and among these, in its most striking form, in the itinerant, ergophobic, and weak-minded tramp, beggar, and petty thief. Constantly in and out of prison, this Munchausen of the highways lives when outside by lying—generally of a romantic character—and minor swindling; while inside, he evades labour, and seeks admission to hospital by malingering of all kinds, from grave self-mutilation and ridiculously futile suicidal attempts, to the simulation of an atypical and incongruous group of mental symptoms.

[1] *Psychische Grenzzustände.* Dr. Carl Pelmann. 1909. Bonn: Friedrich Cohen.
[2] *Die pathologische Auschuldigung.* Dr. Johannes Bresler. 1907. Halle-a.-S.: Carl Marhold.
[3] *Die pathologische Lüge*, etc. Dr. Delbrück. 1891. Stuttgart: Enke.

a the great majority of cases the mere detection of ne attempt at deception is a simple matter; as is also n most cases the laying bare of definite mental or ioral defect. The difficulty lies in co-relating the con-itutional or acquired defects of the *homo noumenon* ith the actions of the *homo phenomenon;* that is, in aly apportioning the blame which should be borne y either. Such considerations are still further fluenced by the knowledge, gained from experience other cases of a like nature, that the grotesqueries the apparently conscious and deliberate malingerer e apt to be followed by a fatal declension into patent id pronounced dementia.

It will be seen, therefore, that a judgement, private public, upon the vagaries of these people raises e nicest questions as to their responsibility, and, on s medical side, calls for the most refined methods of ychological investigation. Experimental psychology s supplied us with many such methods, and often it not difficult to demonstrate and even to estimate e presence of defects of voluntary attention, recog-tion, memorial retention, and, more particularly, of rors of memorial reproduction. The reproduction, r example, of a test scene—say a picture, exhibited der experimental conditions—bears often only a gue resemblance to the original, owing to a notable trusion of the subjects' fancied recollections, the esence and form of these latter being probably termined by an individual affected bias.

Yet it is not to be denied that at times habitual and nfirmed lying and deception of the most flagrant scription is to be met with in individuals in whom ch methods disclose no trace of intellectual weak-ss and in whom the diagnosis, for want of a better, driven back to that of moral imbecility. A remark-le case of this kind was recently described in full d instructive detail by Dr. T. Becker.[4] The subject s a young man who for many years had wandered oughout Germany, living at the public cost in rkhouses, hospitals, asylums, and prisons, to which titutions he had secured admission on innumerable asions by counterfeiting diverse diseases or pre-ding crime. On the last recorded occasion he had en himself up to the police as having shot Prince low in his palace at Berlin, and was admitted to fessor Sommer's clinic for observation. There he ved himself to be an inexhaustible and romantic , glorying in his deceptions, which were recounted h an infinity of detail. Although burdened with a rkedly neuropathic heredity, and proving himself e utterly shameless and devoid of any altruistic ling, the most minute psychological tests failed to eal any mental defect, but, on the other hand, a and accurate memory, sharp perceptions, good elligence, and exact memorial reproduction. As Becker and Dr. Bresler both point out in their cluding remarks, no statutory provision is made such cases, for whom, burdened by innate consti-ional defects, punishment appears to be both futile unwarranted and asylum treatment unsuited. ubtless in England the comprehensive scheme alded by the report of the Commission on the ble-minded will provide the lifelong supervision control needed by many. In the meantime, wever, the lesson derivable from recorded cases ns to be that, whilst to Satan is ascribed the erhood of lies, the fecund mother is ever and ays the fertile soil of an inherently defective ital constitution.

[4] Pseudologia phantastica und Simulation. Dr. T. Becker. *Klinik f. p. u. nerv. Krankh.* 1909. Band iv, Heft 3.

THE ASSOCIATION AND THE MEDICAL DEPARTMENT OF THE TERRITORIAL FORCE.

MEMBERS of the Association connected with the Territorial Force will no doubt have observed that the Council of the Association, at its meeting on October 27th, 1909, appointed a Special Territorial Forces Committee, to which matters affecting the Medical Department of the Territorial Force are referred. The Committee commenced its work by making representations, through the Council of the Association, to the War Office, and to the County Associations, on certain matters which seemed to need attention. The reception of the representations made to the County Associations has been of a most gratifying nature. The two points on which the County Associations were approached were the desirability of officers commanding general hospitals having seats on the County Associations, and the urgent need that proper drill hall accommodation should be provided for the medical units. All the County Associations which have so far replied have expressed their agreement with the spirit if not with the letter, of the recommendations made on the first point. Some explained that the officers commanding the general hospitals in their area were already members of the County Association, others that steps had been or would be taken to make suitable representations to the authorities in favour of the suggestion. A few County Associations explained that while due care had been taken to secure adequate medical representation on the Association, the appointment of each officer commanding a general hospital would in their case have the effect of giving the medical department an altogether disproportionate representation. The answers received in reply to the representation as to the urgent need for suitable drill hall accommodation showed that the County Associations are thoroughly alive to this necessity. Some suggest that, so far as they are concerned, the British Medical Association is forcing an open door, and that they are glad to know that the representations on this subject already made by them to the War Office are backed up by the Association. Welcome evidence of the good work the Territorial Forces Committee can do is the fact that a large number of the County Associations in their replies have expressly welcomed the assistance of the British Medical Association, and have stated they will be glad at any time to receive suggestions on subjects of mutual interest. The committee will welcome any suggestions, or subjects for consideration, sent in by members of the medical department of the Territorial Force.

TRADING ON NAMES.

THE exploitation of famous names for trade purposes is unfortunately too common, and the law is sometimes powerless against this form of fraud. Some years ago a leading obstetrician failed in an attempt to prevent the unwarranted use of his name in an instrument-maker's catalogue. Dr. Huchard, the distinguished Paris physician, is at present striving to dissociate his honoured name from certain pills to which it has been attached by some astute persons in South America. A young London physician, whose scientific work has already brought his name into prominence, has recently paid the penalty of fame by being made the unwilling sponsor of an inhaler; elsewhere we have done our best to set the matter in its true light. It may be said that for ways that are dark and for tricks that are not always vain the vendor of medical and surgical appliances and nostrums is peculiar. Nothing can be more annoying to an honourable doctor than to be made the innocent instrument of a fraud upon the public. It is not every one who can afford to treat this kind of abuse of his name with

the indifference of Sir Astley Cooper. In Bransby Cooper's *Life* of his famous uncle we find the following instructive passage: "It would be tedious to mention the variety of other purposes to which his name was publicly appropriated, without any sanction on his part. Spurious certificates were occasionally brought before the notice of the public, as if under his authority. The vendors of secret medicines did not fail to take the opportunity of connecting his name with some of the articles advertised by them for sale. In these instances, the employers of the deception usually attempted to screen themselves from punishment by substituting the Christian name of Ashley for Astley. Mr. Cooper himself never considered it worth the trouble to take any steps to expose the contrivers of these frauds, but used to observe, 'It is of all things what they most desire, that I should bring an action against them, as it would be the best way of advertising the pretended specifics of these rascals.' If he happened to come into contact with any of these persons he never exhibited *hauteur*, but either ironically inquired about the success of their secret remedies or made some of his usual jocose remarks, as if it were not a matter of sufficient importance for him to allow it to disturb his temper." He goes on to tell the following amusing story: "Mr. Travers mentions to me that on one occasion Mr. Cooper was sent for by Dr. G——, an advertising quack in Shoreditch, whose window announced, in capital letters, 'The Universal Remedy under God.' Before examining the injury my uncle began to banter him, suggesting a trial of the 'Universal Remedy.' 'Come, come, Dr. Cooper,' replied G——, '*this* is a serious affair, *this* is no matter for joking!'" Morrison is the only quack of whom we have heard who showed his belief in his own remedy by taking it to the end.

ST. WINEFRIDE'S WELL.

ST. WINEFRIDE'S WELL, which in the days of Charles II had a great reputation for removing from married women the reproach of barrenness, has in more recent times become famous as a shrine of healing. We learn from the *Liverpool Daily Post and Mercury* of February 26th (for no official report has reached us) that a meeting of the Denbigh and Flint Division of the North Wales Branch was held at Holywell on February 25th. According to our contemporary, the Rev. F. Woodlock, S.J., of Leeds Catholic College, read a paper on Modern Miracles of Healing, the main portion of which was devoted to a description of the cures effected at Lourdes, and the means adopted for the medical examination of the patients, with the view of ascertaining the reality or otherwise of the cures. He explained that his object was to get people to investigate these cures for themselves. If they were found to be genuine miracles, then they must regard them as a Divine interference with the ordinary processes of Nature. The Chairman moved a vote of thanks to Father Woodlock for his paper. He said doctors in their practice met with cases they could not explain, and he believed in miracles yet. Dr. H. W. S. Williams, in seconding, said the cases quoted by Father Woodlock, authenticated as they were, should be some help to them in this matter-of-fact age to recognize the possibility of supernatural interference. Dr. James Williams said, as a man born in Holywell, and one who had lived all his life close to St. Winefride's Well, he had known the spring all his life, and he could not help associating what had occurred at Lourdes with what had taken place at Holywell, which was often called "a second Lourdes." Cures had been reported at Holywell time after time, and he gave particulars of two of them which had come under his own personal notice. He thought it would be a good thing if a register were kept of all the cures at St. Winefride's Well, and if Father Ryan could get the co-operation of the local doctors in the matter it might be possible to do so. We live in a time of miracles, and we agree with Dr. James Williams that the subject is worth investigation. A register of "cures" should certainly be kept, under medical supervision. Such a register is kept at Lourdes, and Dr. Boissarie has published an account of some of the alleged miracles in a large book entitled *Les Grandes Guérisons de Lourdes*. Some of the cases are remarkable as illustrations of the influence of the mind on the body, but the evidence of a miraculous factor in such cases as are given in sufficient detail to enable a scientific inquirer to form a judgement does not seem to us very convincing.

ANTIVACCINATION IN PARLIAMENT.

THE great effort of the members of the late Parliament who were supporters of the antivaccination movement was the presentation in January, 1907, of a members' memorial to the Prime Minister, urging the Government to introduce immediately a short bill "repealing the compulsory clauses (29 and 31) of the Vaccination Act, 1867, and leaving vaccination to be voluntarily provided." What was hoped to be a demonstration of force proved to be an exhibition of weakness. Out of a House consisting of 67 members only 174 signatures were obtained, notwithstanding the energy displayed, and the Government did not introduce the short bill. Of the 174 who signed the memorial 74 are no longer members, 43 having suffered defeat at the polls and 31 having died or retired. Only one division on the question of vaccination took place in the late Parliament. This was occasioned by the Vaccination Act of 1907, an Act which was not regarded as an anti-vaccination measure, and was not opposed by members who were ardent supporters of vaccination. On the occasion of the second reading little interest was shown, but the antivaccinators made the best show they could in support of a measure which they thought would reduce the number of vaccinations, and when the division was taken on May 24th, 190 124 members voted for the second reading. Only 16 members voted against. Of the 124 members just mentioned, only 66 are in the present Parliament. Although lamenting their heavy losses, a curious crumb of comfort has been discovered by the *Vaccination Inquirer*, the antivaccination organ, in its current issue. "Despite this serious diminution in the ranks of our parliamentary forces," it writes, "there is ground for believing that our strength in the new House, when compared with the strength of the Government forces, is relatively greater than it was in the last Parliament." This statement immediately follows the recital of the names of 52 defeated "friends" and the statement that 58 others had either died or retired from Parliament!

THE FINANCES OF THE GENERAL MEDICAL COUNCIL.

THE annual financial statement of the General Medical Council is never a document very easily to be understood, and that issued as an appendix to the minutes of the meeting of the Executive Committee on February 21st is no exception to the rule. The obscurity is entirely due to the fact that whereas the General Medical Council as a whole is the chief spending body, the greater part of the receipts are paid to the English, Scottish, or Irish Branch Councils. During 1909 the sums received by the General Medical Council as a whole amounted to £8 and were derived chiefly from the rent of premises

off, the registration of forty-five Colonial and foreign medical qualifications, and the sale of the *Medical Register* and other publications. The sale of the *British Pharmacopoeia*, 1898, and the Indian and Colonial Addendum produced £377, but the amount received annually from this source is earmarked as a contribution towards the cost of preparing a new edition; the balance to the credit of the Pharmacopoeia Fund at the end of the year was £1,180. Excluding receipts and expenditures on this account, the total expenditure of the General Medical Council was, in round numbers, £6,916, the deficiency of £6,034 being met by contributions *pro rata* from the English Branch Council (£3,233), the Scottish Branch Council (£2,096), and the Irish (£705). The fees and expenses of members attending meetings of the Council and its Committees amounted to £2,859, and the cost of the visitation and inspection of the examinations of the Apothecaries' Hall, Dublin, was £87; office and miscellaneous expenses, including salaries and wages, and the cost of shorthand reports of penal cases, amounted to £1,227; printing, including that of minutes and programmes, to £609; and law expenses to £340. The printing of the *Medical* and *Students' Registers* for 1909 cost £398, and the sales of the *Medical Register* brought in £72, and of other publications £9. The Branch Councils derive their incomes from registration fees and, in the case of the English and Scottish Branch Councils, from invested funds. The English Branch Council derived £3,181 from the first source, and £883 from the second, but as to the latter amount, £701 was little more than a book-keeping entry, since it represented the interest at 4 per cent. on a mortgage of £24,764 on the Council's premises in Oxford Street. The Scottish Branch Council received £2,518 in registration fees, and £116 in dividends and interest. The Irish Branch Council received £886 in fees, but has no invested funds. The Dental Registration Fund is in a flourishing condition; it has £9,000 invested in Consols and £904 at the bank. During 1909 it received £882 in registration fees, £29 from sale of the *Dentists Register*, and £237 in dividends. The total assets of the General Medical Council, including the funds of the Branch Councils and the Dental Fund, but excluding the Pharmacopoeia Fund, appear to amount to nearly £50,000, but of this one-half is represented by the estimated value of the freehold site and buildings in Oxford Street.

THE COMING CENSUS.

THE bill to authorize a Census of the population of Great Britain in 1911 was introduced in the House of Commons by the President of the Local Government Board and read a first time on March 4th. The bill provides that April 2nd shall be the Census Day. The clauses of the bill differ but slightly from those in the Census (Great Britain) Act, 1900. The particulars required to be inserted in the Census schedules by or on behalf of the occupiers of dwelling houses or tenements are as follows: (*a*) The name, sex, age, profession or occupation, condition as to marriage, relation to head of family, birthplace, and in the case of a person born abroad the nationality of every living person who abode in each house or tenement on the night of the Census Day; and (*b*) whether any person who so abode was blind deaf, dumb, imbecile, or lunatic; and (*c*) in the case of any person who so abode being married, the duration of the marriage, and the number of children born of the marriage; and (*d*) the number of rooms inhabited; and (*e*) in the case of Monmouthshire and Wales, whether any person who so abode (being aged 3 years and upwards) speaks English only, or Welsh only, or both English and Welsh. The only particulars to be inserted in the schedules at next year's Census, which were not required at the last Census in 1901, are those relating to the duration of marriage and the number of children born of the marriage. The inquiry relating to the number of rooms occupied has, however, also been extended; at the Census in 1901 the occupier, *if in occupation of less than five rooms*, was required to state the number of rooms occupied by him; but at the Census in 1911 all occupiers will be required to state the number of rooms they occupy. There is, however, serious ground for regret that the Census Bill has ignored the most important recommendation made by the Census Committee of the Royal Statistical Society in its memorial to the Local Government Board, namely, that the Census Act should include provision for a simple enumeration of the numbers and ages of the population of the United Kingdom in 1916, in order to give increased value to all statistics of which population is the natural and necessary basis. A Quinquennial Census has long been held in France and in Germany, whereas in the United Kingdom a Census has hitherto only been held decennially, with the result that in the last part of each intercensal decennial period the value of the vital statistics prepared and issued by the three Registrars-General are much depreciated, owing to the impossibility of estimating, even with approximate accuracy, the population of administrative areas, and more especially of rapidly growing urban districts. The importance of thoroughly trustworthy vital statistics in the promotion of health progress can scarcely be over-estimated, and we may still venture to hope that this serious deficiency in the Census Bill may be rectified by amendment in Committee. The Society of Medical Officers of Health is naturally in full sympathy with the Royal Statistical Society in its endeavour to secure statutory provision for a quinquennial enumeration of population, recognizing the present difficulty of estimating the population of administrative areas, and of their component parts, during a ten-year intercensal period. Trustworthy statistics of population are as essential for effective local administration as for national purposes connected with public health, education, and other matters on which the social welfare of the nation depends. It may, therefore, be hoped that medical officers of health will be able to obtain the support of their sanitary authorities in an endeavour to secure Parliamentary support for the amendment of the Census Bill in this respect. The County Councils Association might be able to render valuable assistance in this attempt to obtain provision for an intermediate simple enumeration of population in 1916.

THE ORAL TEACHING OF THE DEAF.

IT is often remarked that deaf persons taught to speak by the oral method are apt to enunciate their sentences in a dead level of monotone. That it is possible to impart to them some degree of modulation of the voice, and even of expression, was the object of a demonstration given last week in London by Mrs. Nina White, of Ipswich. She stated that her system was founded on the fact that by mental concept alone can a stone-deaf child appreciate the difference between modulations on the musical scale, and thus gain control over inflections of the voice. She was accompanied by a girl pupil who, as we understood from Mrs. White, was completely and congenitally deaf, and who, after receiving oral instruction at a well-known school for the deaf, had come under her own special training. By a series of exercises in diaphragmatic breathing, in vocalization, and more especially in the expression of emotion, the pupil had attained a considerable

power, not only of correct phrasing, but of accent, emphasis, and variation in the pitch of her voice. This result had been brought about by certain exercises which Mrs. White claims as her own, though similar ones seem to have been practised also by some Continental teachers, such as Signor Fausto Columbo of Milan and Professor A. L. Hettich of Paris, whereby motor or kinaesthetic impressions are translated into mental concepts, enabling the pupil to form an idea of the modifications necessary correctly to express interrogation, emphasis, surprise, etc. Thus, to convey notions of interrogation, the pupil's attention is directed upwards, of emphasis downwards (with the aid of a bouncing ball), and so on. The girl who was the subject of the demonstration seemed to us (for a congenitally deaf case) exceptionally intelligent and responsive, and no doubt by frequent repetition had become remarkably smart in her exercises. How far the system may be universally applicable is a matter on which we cannot express an opinion, but we have no doubt experts in oral teaching will seriously consider the possibilities of applying Mrs. White's methods in improving the voice modulations and inflexion of their pupils.

FINANCIAL POSITION OF BRITISH WORKMEN.

AT intervals during the last two years the Board of Trade has issued reports on the cost of living to the working classes in the United Kingdom, in German and in French towns. The series has recently been supplemented by a report[1] on the working-class rents, housing, and retail prices, together with rates of wages in the principal industrial towns in Belgium. The earlier part of the report contains comparisons of the Belgian towns among themselves, while in the second part an attempt is made by the compiler, Mr. G. R. Askwith, to compare the results with those previously obtained for England and Wales, in regard to rents and prices, and the wages in certain occupations in the building, engineering, and printing trades, which are practically identical in character in both countries. In the comparison of rents a certain amount of uncertainty is introduced by the fact that the workman in Belgium is almost exempt from local taxation. Mr. Askwith estimates that, excluding that portion of English rents which represents local taxation, the net rent of working-class dwellings in Belgium was, at the date taken, to the net rent of working-class dwellings in England as 74 to 100, and that the cost of the average British working man's weekly purchases of certain standard articles of food and fuel, for an average family at the prices ruling in Belgium, was, to the cost of the same articles at English prices, as 99 to 100. The expenditure of the average British working man with an average family on certain standard articles of food and fuel, and on rent, at the prices and rents ruling in Belgium, would be, it is estimated, to his expenditure on the same items, together with local taxation at the prices and rents ruling in England, as 91 to 100, or excluding local taxation, as 94 to 100. It would appear, therefore, that an English working man living in Belgium and maintaining as far as possible his English mode of life and his English dietary, would find his expenditure on food, fuel, house room, and local taxation, reduced by about 9 per cent. His earning capacity, however, would be reduced in a much greater degree, for the weekly money wages of the working classes in Belgian towns in the widely distributed trades selected for comparison were, to those of the same classes in England, as 63 to 100, whereas the average usual working hours a week were as 121 to 100, so that the hourly rates of money wages for the working classes in Belgium were to those of the same classes in English towns approximately as 52 to 100. The validity of the comparison is limited by the fact that the wages and hours of labour which it was found possible to compare were those of various sections of the building and engineering trades, and one section of the printing trade alone. The comparison of prices is made from the standpoint of the British artisan's ordinary diet, and not from that of the Belgian artisan; and the estimates are not intended to be estimates of the relative well-being of the working classes in the two countries, but only of two important factors, the money earnings of labour during equal times in each country, and the cost in each of some standard quantities of food, fuel, and house room, the standard chosen being that of the British artisan.

[1] Cd. 5,065.

ACADEMIC DRESS AT THE ANNUAL MEETING.

THE Executive Committee of the Annual Meeting in London next July has resolved to request members to wear academic dress or uniform on the three following occasions: on Tuesday evening, July 26th, at the Presidential Address; on Wednesday afternoon at the Church Service in Westminster Abbey; and on Wednesday evening at the Conversazione which will be given in the Guildhall by the Lord Mayor and Corporation of London.

MECHANO-THERAPEUTICS.

ON several occasions recently reference has been made to the value in the treatment of certain forms of disease of the Zander machines when used under proper supervision in an adequately appointed institute. We learn that a Zander institute was opened in Bath in 1904 by the present directress, Miss Allen, who had obtained experience in the treatment mainly at the Berlin Medico-Mechanical Institute. The Bath institute does not contain the motor actuated machines for vibration, etc., as they were considered hardly necessary for use in association with treatment by baths and waters, an association which has always been kept in view. There is a complete installation of all the machines required for active or passive weight-resisted movements of the trunk, neck, and limbs. In the same building there is a well-equipped general gymnasium with the usual apparatus for orthopaedic treatment of spinal and other troubles. We are informed by a physician who holds a leading position in Bath that the institute has always been conducted on the strictest ethical lines, and that, apart from the general gymnastic classes, no patients are received for treatment except under the direction of their medical advisers. Miss Allen, he adds, was formerly assistant gymnastic mistress and games mistress at the Cheltenham Ladies' College, and comes of a family which has distinguished itself in games, especially in football. The paragraphs previously published have brought us the further information that though there is no Zander institute in Liverpool, several joint exercise machines of modified Zander pattern have been included in the equipment of the department of orthopaedics and massage at the David Lewis Northern Hospital. Dr. W. H. Broad, who is the surgeon in charge of the department, states that since its establishment five years ago 984 cases, involving 7,763 attendances, have been treated, and that, as a matter of routine, all cases of joint stiffness resulting from fracture, dislocation or other injury are sent as early as possible for systematic treatment. He considers that in these particular cases the machines are extremely useful

since they can be arranged not only for preliminary passive movement, but afterwards adjusted for active muscular exercise. The period of incapacity from work following accidents of the nature mentioned is materially diminished, and Dr. Broad believes that if all such cases were undertaken early and aggressively there would be a marked diminution in the number of neglected fibrous adhesions upon which bonesetters' successes are mainly founded.

THE Town Council of Preston has conferred on Dr. R. C. Brown the honorary freedom of the borough in recognition of his munificent gifts to the Preston Infirmary and other local charities. Dr. Brown's beneficence has not been confined to the town in which he was born and in which he has spent his life, for some time ago he presented an *x*-ray apparatus and other instruments to Cambridge University, besides founding a scholarship for pathological research on special diseases.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

The Colonial Vote and Sleeping Sickness.—On the Supplementary Estimate last week an interesting medical debate arose on the proposed grant of £1,000 to the Sleeping Sickness Committee of Investigation. Sir William Collins called attention to the modest sum put down in the Estimate as a new departure of a praiseworthy kind. He inquired whether the proposed pathological researches would embrace diseases of animals as well as those of men. He instanced the case of African horse fever, and further inquired as to whether the University of Liverpool, with its School of Tropical Medicine, and the London University and the Royal Society would have some share in administering the grant. He suggested that men of broad philosophic views, and not bacteriologists exclusively, should be employed on the task. After some remarks from Mr. J. A. Grant on the ravages of sleeping sickness, Mr. Churchill, who was in charge of the vote, said he agreed that it was of immense importance to deal with sleeping sickness by all the means in our power. After describing the preventive steps taken in Uganda and admitting that the statistics of mortality had not declined to any marked degree and could not at present, he said the infected were being isolated and the population moved from them. He understood that the committee over which Lord Cromer presided was entirely independent of the two schools of tropical medicine, both of which received grants from the Colonial vote. This was purely a committee of research. A vote of £1,000 per year was proposed to be given to it, and later on there would come another £1,000 from some of the African colonies. The committee would send two very skilled investigators—one to the East Coast and the other to the West Coast—to advise and report on any special points on which it might desire information. The inquiry covered the whole region of the diseases which were conveyed by insects, not only those which affected man, but those which affected animals and plants. Mr. George Greenwood asked whether this money was to be devoted in part to vivisectional research. A series of experiments in regard to sleeping sickness had been carried out by Dr. Andrew Balfour, which involved an enormous amount of suffering to dogs and other animals. No benefit to science, and certainly none to humanity, had been gained in this particular case, and before the money was voted he wanted to know whether it would be used for vivisectional purposes. Mr. Churchill said he did not apprehend that it was intended to use the money for the purposes feared. The methods of research of the Committee would probably be more of a theoretic nature than in the nature of experiments of the kind which Mr. Greenwood disliked so much. He could not possibly make any pledge on this subject which should keep them off from any line of inquiry which they might think it advisable to have, but if they were to embark upon any such experiments, then the matter would come back to him in his capacity as Home Secretary in watching over the working of the Vivisection Act, and he should certainly be guided by a desire to minimize, so far as possible, the sufferings of dumb animals, while at the same time making sure that the advance of science was not impeded. Dr. Addison followed, and said that he was pleased that the hands of the Committee would not be tied, while needless cruelties were checked. He thought the statements made by Mr. Greenwood would not altogether bear close investigation, because sometimes experiments could be carried on for a long time without apparently any hope of successful results, and yet eventually be rewarded by great success. The striking thing about this Vote was the smallness of it. He supposed it would not be fair to compare it with the Vote which preceded it, but it was a striking feature of the British character that here we devote £1,000 to tropical research and £200,000 to policing Somaliland. He would respectfully urge that if we had spent another £199,000 in research in reference to tropical diseases, we should have done very much more to consolidate and expand the British Empire. After referring to the successful work in regard to research done by Americans while constructing the Panama canal, he pointed out the great value of the work the Committee would do in co-ordinating and collecting the results attained in various parts of the world. The vote was agreed to without a division.

The Census of 1911.—The bill for taking the Census next year was presented on Friday last, and is backed by Mr. Burns, Mr. Herbert Lewis, and the Lord Advocate. It fixes Sunday, April 2nd, 1911, as the Census day, and the work will be carried on under the superintendence of the Local Government Board. The bill is framed on the lines of the last Act, but Clause 4, which deals with the preparation and filling up of the schedules, introduces two new requirements in calling for information in case of a married person, as to the duration of marriage, and the number of children born of the marriage. In addition, the number of rooms occupied is to be given in the case of every family, instead of limiting it as formerly to those who occupied less than five rooms. There will be some 40,000 persons employed as enumerators, who will deliver the Census papers a day or two before the appointed day and collect them afterwards. The collection is the difficult task, and the enumerator is not overpaid by his retaining fee of 21s. and 7s. 6d. for every hundred names recorded. The bill when discussed in Committee may be slightly amended.

Poor Laws (Royal Commission).—Mr. Henry Walker asked the Financial Secretary to the Treasury whether the Royal Commission on the Poor Laws and Relief of Distress had held any sitting for twelve months; whether it had long since presented all the Reports required of it; whether it was still in occupation of offices of considerable value, thereby involving other Commissions in expense in hiring accommodation; whether about twenty out of fifty volumes of its evidence, etc., had still to be published, although these volumes had been in type for more than a year; how many clerks and other officials connected with this Commission were still being paid from public funds, and under what supervision they were now working; and whether he could state when the offices would be vacated, when the remaining volumes of evidence, etc., would be published, and when the payments on behalf of this very costly Royal Commission would be brought to an end. Mr. Hobhouse replied that the last meeting of the Commission was held on July 20th, 1909. The existing staff of the Commission consisted of a senior clerk

and two assistant clerks, who performed their work under the supervision of the secretary and subject to the general control of the chairman. Of the eleven rooms originally occupied by the Commission at Scotland House only two and a store room were now being used by the Commission's staff; the remaining eight rooms had been handed over to other Commissions. Since the issue of the English Report in February, 1909, the staff had issued the Commission's separate Report on Ireland, the Commission's separate Report on Scotland (November, 1909), and twenty-seven separate appendix volumes of evidence, reports by special investigators, etc. In all during the year ended March 4th, 1910, the staff of the Commission had been responsible for editing and issuing twenty-nine separate volumes, containing over 10,300 folio pages of printed matter. There remained to be issued a consolidated index of the English Reports and evidence and twenty-three other volumes of evidence, special reports, etc. Although a few of these volumes had been in type in an incomplete form for some time, the majority were in a very unfinished state, and required careful editing before publication. Among the volumes still to be issued were those relating to foreign poor relief systems and to the large mass of special statistics collected by the Commission. It was anticipated that the work of the Commission's staff would be completed in the autumn.

The Society of Apothecaries Bill was brought before the House last week by Mr. Speaker, who said on the order for the second reading that the Bill was one which sought to empower the Society of Apothecaries of London to grant diplomas in sanitary science, public health, State medicine, school hygiene, and tropical medicine, and also for dentistry and dental surgery, and for that purpose to hold examinations. He had considered the matter very carefully, and he had come to the conclusion that this was a bill which ought not to proceed as a private bill, but must proceed as a public bill, as it dealt with public interests; thereupon the order was discharged and the bill withdrawn.

The Mortality of Infants under the Poor Law.—Last week Mr. Wedgwood asked whether the President of the Local Government Board could take steps to obtain the information as to the rate of mortality in Poor Law institutions of children between the age of 2 and 5 years, and the rate of mortality under 1 year of age of infants being maintained on outdoor relief, the absence of which was noted and regretted in the Reports of the Poor Law Commission. Mr. Burns said that the whole question of obtaining more and better statistics on Poor Law matters was receiving attention, but he was not yet in a position to give particulars as to the figures which would be collected with a view to meeting the suggestions of the Royal Commission. He might mention that an inquiry was now being undertaken by Dr. Darwall Smith, on behalf of the department, as to the causes of mortality among new-born babies.

Lunacy Act, 1890 (Fowler v. Grant).—Mr. Pickersgill asked the Secretary of State for the Home Department whether he had now inquired into the circumstances disclosed in the action of Fowler *v.* Grant, tried at the Manchester Assizes a fortnight ago, in which it appeared that a person now admitted to have been perfectly sane was committed to a lunatic asylum, and there treated as a lunatic for upwards of a year; and especially to the observations of Mr. Justice Walton that a man or woman, not a pauper, might be taken to the workhouse, shut up in an imbecile ward, and then declared to be a lunatic and placed in a lunatic asylum, without any public inquiry, any hearing before a magistrate, or any notice of what was going on; and whether he would consider the advisability of making inquiry by means of a Select Committee or otherwise, into the working of the Lunacy Act, 1890. The Under-Secretary for the Home Department said that the Secretary of State had seen reports of the case, and had made inquiry. He was advised by the Lunacy Commissioners that the procedure in connexion with the plaintiff's removal to an asylum was regular throughout. The action was settled by an agreement between the private parties, on which he could express no opinion; but he might say that he agreed with the Commissioners in Lunacy that when there was opportunity for legislation Section 13 of the Lunacy Act, 1890, should be amended, so that a patient admitted under that section should have the same right to see a justice after admission as was conferred upon a private patient under Section 8.

Military Assistant Surgeons in India.—In answer to Mr. Hazleton last week, Mr. Montagu said that the medical diploma held to be sufficient for military assistant surgeons in India was not in all cases sufficient to enable the holder to be registered under the Medical Acts in this country. In reference to the Senior Assistant Professor at the Medical College and the Senior Assistant Surgeon at the General Hospital, Madras, Mr. Montagu referred his questioner to the reply given on October 21st last year, and added that the Government of Madras had doubtless satisfied themselves that the holders of the posts possessed the qualifications necessary to enable them to fill them. Mr. Hazleton then asked whether the attention of the Secretary of State had been called to a resolution unanimously adopted at a meeting of members of the medical profession, held under the auspices of the Bombay Medical Union, submitting that the present system of reserving all important posts in the medical service of India for military officers of the Indian Medical Service had led to the entire exclusion from these posts of Indian civil doctors, however high their qualifications; whether he was aware that the present system caused much discontent and was the occasion of unnecessary expense; and whether he could hold out any hope of early reform. Mr. Montagu replied that the Secretary of State had not seen the resolution referred to. From answers given to previous questions and from the papers presented to Parliament last year, the hon. member was aware that action had been taken with a view to increasing the number of Government medical appointments held by unofficial doctors in India. The process must inevitably be a slow one; and the Secretary of State was not in a position to make any further statement at present.

Alcoholic Insanity (Straits Settlements).—Mr. Rees asked whether the report of the superintendent of the Straits Settlements Lunatic Asylum showed that the substitution of cheap brandy for opium was leading to a rapid development of alcoholic insanity amongst the Chinese. The Parliamentary Secretary to the Treasury replied that the report referred to stated that alcoholic insanity among the Chinese was increasing, but the statement was scarcely borne out by the figures, which showed that in 1908, the year to which the report related, 14 persons were admitted to the asylum suffering from alcoholic insanity, as against 16 in 1907. The superintendent referred to several cases in which insanity was the result of over-indulgence in cheap brandy, but there was nothing to suggest that this liquor was used as a substitute for opium.

Parochial Medical Officers (Scotland) Bill.—Mr. Cathcart Wason introduced on Monday last his bill to amend the law relating to the tenure of office of parochial medical officers in Scotland. The bill was put down for second reading on March 14th.

The Public Health (Provisional Orders) Bill was presented by Mr. George Thorne and read a first time last week, and the second reading put down for March 14th. The object of the measure is to amend the Public Health Act, 1875, in relation to provisional orders.

Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

STATE REGISTRATION OF NURSES.

LORD INVERCLYDE, the President, occupied the chair at a meeting of the Association for the Promotion of the Registration of Nurses in Scotland, held in Edinburgh on March 3rd. There was a large attendance of members. On the platform were the President of the Royal College of Physicians (Dr. Allan Jamieson), Dr. Affleck, Dr. R. McKenzie Johnston, Sir Alexander Simpson, Dr. Playfair, and Dr. D. T. Macintosh (the Secretary).

Lord Inverclyde traced the origin of the association, the objects of which were to promote a system of registration of nurses, to protect the interests of Scottish nurses, and to secure for Scotland such treatment as would enable it to obtain the fullest possible benefit from registration. He had been in communication with Lord Ampthill, who had piloted through the House of Lords a bill which was not acceptable to them. Lord Ampthill welcomed his suggestions, several conferences had been held with satisfactory results, and a draft bill had been agreed on. The bill had been introduced into the House of Commons by Mr. Munro Ferguson, though there seemed little prospect of any progress being made with it.

Dr. D. J. Mackintosh gave an account of the proceedings of the association during the past year. It had been early recognized that a single register for the three divisions of the kingdom was not only desirable, but would be mutually advantageous, providing certain concessions were made to Scotland. The Executive Committee was composed of the matrons and superintendents, as well as representatives from the staffs and boards of management, and nurses of practically all the chief hospitals of Scotland. The association now had 1,785 nurse members. Representatives of the association attended, in January last, a conference in London, on the invitation of Lord Ampthill. The delegates to that conference were instructed to agree generally to the following principles, but had power to modify the same in regard to details:

To promote a system of registration of nurses; to protect the interests of Scottish nurses; although there might be one national register for the United Kingdom and one standard of examinations, there must be a separate Scottish executive council responsible for the entire administration so far as Scottish nurses were concerned; while, subject to the approval of the central council, the following matters in connexion with the register which apply to Scotland should be under the management and control of the Scottish executive council—namely, the minimum period of training of nurses, the recognition of institutions for training, and the conduct of examinations of nurses for purposes of registration. It was to be understood that the Scottish training schools were to be represented on the proposed council, and that two guineas should be the maximum fee permissible for registration. The question of representation was also one of the most important with which the delegates had to deal, and it was resolved that on the provisional council there should be one past or present matron of a Scottish hospital or infirmary, one nurse to be appointed by the association, and one nurse to be appointed by the Scottish Nurses' Association.

Had it not been for the efforts put forward by that association, Scottish nurses might have found themselves left out in the cold in the proposed legislation.

Dr. Allan Jamieson moved, and Dr. John Playfair seconded, a resolution approving of the action of the executive during the past year, including the action of the delegates to the various conferences in London.

Dr. R. McKenzie Johnston moved, and Sir Alexander Simpson seconded:

That it be remitted to the Executive Committee to watch the progress of the United Bill with a view to safeguarding the interests of Scottish nurses, and to secure that the Scottish Divisional Committee provided for in the Bill be of an adequately representative character.

Miss Gill moved, and Miss Thomas seconded:

That this Association is of opinion that State registration would be to the advantage of nurses in general, and urges upon nurses the desirability of joining this Association.

All three motions were adopted.

The annual meeting was held in Glasgow on March 2nd. Lord Inverclyde presided, and Dr. Mackintosh made the same statement as at the meeting in Edinburgh. The first resolution was moved by Sir Hector Cameron, and seconded by Sir George Beatson, the second by Professor Glaister, and the third by Miss Gill and Miss Paterson. Dr. J. M'Cubbin Johnston, honorary treasurer, reported that the subscriptions amounted to £117 2s. 8d., and the expenditure to £155 16s. Dr. Renton, in moving the adoption of the report, expressed the opinion that an effort should be made to raise more money if it was hoped to carry the measure into law. The report was adopted, on the motion of Mr. J. D. Hedderwick.

THE GREAT COLD IN SCOTLAND.

A paper was communicated by Mr. Ralph Richardson at a meeting of the Scottish Meteorological Society on February 25th on the occurrence of great cold throughout Scotland during November and December, 1909, and January, 1910. Considering only records from thermometers exposed in Stevenson screens, it was recalled that exceptionally cold weather had been experienced at the end of October, whilst during the three following months there had been four periods of very acute cold. In November the weather conditions during the third and part of the fourth week were altogether abnormal, a reading of only 3 degrees above zero being recorded at Balmoral on November 18th, and the Royal Caledonian Curling Club, founded in 1847, had, for the first time in its history, been able to play the North *v.* South match during November. In December two cold periods occurred, from the 6th to 9th and from the 19th to 22nd, with a zero reading at Balmoral on December 7th. January opened with very mild weather, which was in extraordinary contrast to the great cold experienced towards the end of the month, when readings as low as 10° below zero occurred at Balmoral and Logiecoldstone on the night of January 27th to 28th. Slightly lower readings were experienced in January, 1881, but with that exception the records were the lowest for that month since observations were organized in 1856.

THE "OPEN SPACES" SCHEME IN EDINBURGH.

A subsidiary and unofficial scheme in connexion with the general public health movement in Edinburgh has for the last season or two been carried on by the Open Spaces Committee of the Outlook Tower Association. This committee is engaged in reclaiming the areas of waste ground which exist in considerable numbers, hidden away among the courts and closes of the Old Town, and turning them into gardens. The hygienic value to the slum dwellers of such a movement is obvious, but it also has an aesthetic aspect and an uplifting moral effect difficult to over-estimate. The children of the adjacent districts are being attracted away from the debasing atmosphere of the streets, and are being instructed in gardening by competent teachers. The results on the physique, manners, and general outlook on life of those children who have had a season of the work are already quite noticeable. The committee, which includes several well-known members of the medical and teaching professions in Edinburgh, usually proceeds on the system of acquiring these derelict areas by lease, having them laid out by its official gardeners, and then handing them over, under certain reservations, to the care of competent local bodies, such as schools, associations of boy scouts, or the like. Scattered areas representing a total of as much as 10 acres of suitable ground exist along the dorsal ridge of the Old Town, and it is hoped to acquire most of these as soon as funds and opportunity permit.

GLASGOW TRAMWAYS EMPLOYEES AND THEIR DOCTORS.

The Glasgow Corporation Tramways Friendly Society adopted a resolution so altering the rules relative to the appointment of medical officers as to place the appointment and dismissal of the medical officers in the hands of the members of each branch instead of in the hands of the committee of management. The

matter came before the Tramways Committee of the Corporation, and it was remitted to a subcommittee, which has reported against the proposal; the parent committee adopted the report by 13 votes to 4. The appointment and dismissal of the district medical officers will therefore remain with the committee of management—a much more satisfactory arrangement from the medical officers' point of view, and more likely to secure fixity of tenure than the proposed alteration.

GLASGOW HOSPITAL SUNDAY FUND.

The annual meeting of subscribers to this fund was held last week. The report submitted showed that the total sum collected from the churches and Sunday schools contributing to the fund was £4,648 17s. 6d., of which £4,430 was available for distribution among the three general hospitals. The money is allocated in proportion to the number of beds fully occupied, and the Royal Infirmary receives £1,895 6s. 9d., the Western Infirmary £1,737 18s., and the Victoria Infirmary £796 15s. 3d. It was stated that the fund has during the seventeen years of its existence contributed over £76,350 to the infirmaries. That the amount contributed in the past year was about £328 less than in 1908 was probably in large measure due to the general dullness of trade, but in part also to the fact that Hospital Sunday proved to be a very wet day. The collection for the hospitals is made on the last Sunday in November, and this date was also adopted for the year 1910, though some of those present suggested that another date could be found more suitable to the working classes who contribute largely to the hospital funds.

CARE OF DEFECTIVE CHILDREN IN GLASGOW.

The annual meeting of the Glasgow Association for the Care of Defective Children was held on February 24th, Sir Samuel Chisholm presiding. The report showed that the work during the year had been very satisfactory. The total number of children in the home was 33, and these had benefited to a remarkable extent, both mentally and physically, from the care and training received.

EDINBURGH I.M.S. DINNER.

The annual Indian Medical Service dinner will be held, as formerly, in the United Service Club, Shandwick Place, Edinburgh, on Friday, May 27th, at 7 p.m. Sir Alexander Christison, Bart., will be in the chair. We are requested to give this timely notice so as to reach officers, in India and elsewhere, who may contemplate coming home on furlough. Arrangements are, as usual, being carried out by Colonel Arnott, 8, Rothesay Place, Edinburgh, who will be glad to hear from those wishing to be present.

Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

POOR LAW REFORM.

POOR Law reform in Ireland was the principal subject discussed at the annual meeting of the Philanthropic Reform Association held in Dublin on March 4th, and as the subject is now being generally discussed and is likely to attract even more attention if Mr. Kerr-Smiley's bill comes before the House of Commons, the conclusions arrived at by the committee of the association deserve consideration. These conclusions have been arrived at after much study of the subject, including the reports issued by the Government Commissions, and may be summarized as follows:

1. That the inmates at present in union workhouses should be placed in special institutions for each class maintained in each county, and be paid for out of the county rate—the sick in hospitals, the aged and the infirm in almshouses, the mentally defective in asylums.
2. That sane epileptics should be cared for in special homes, and that in the absence of such a home the Government should make a substantial contribution towards the maintenance of such epileptics in workhouses.
3. The best policy in dealing with inebriates in reformatories was to commit them for longer periods after each failure to keep sober.
4. That the able-bodied who require maintenance in institutions should be placed—the well-conducted in labour colonies and the ill-conducted in detention colonies.
5. That children should be boarded out as far as possible.
6. That the county councils, enlarged and extended to include women, should be responsible for expenditure and for the control of all institutions, and that in addition local committees should be established in each union.

DUTIES OF SANITARY AUTHORITIES.

A couple of weeks ago we called attention to the difficulty experienced in some parts of Ireland in stimulating the local authorities to attend to the sanitation of their districts. This week we have to record the resignation of the medical officer of health of Castlebar District No. 2 as a protest against the neglect of the sanitary authority to discharge their duty. Dr. C. J. Vahey, the officer in question, states in reference to the insanitary condition of a well in his district, that he has reported on the same *ad nauseam*, but has received no assistance from the members of the Castlebar District Council. Dr. Vahey's resignation was received, but it is hoped that the matter will not end here, and that his public-spirited action will lead to a full inquiry into the conditions of which he complains.

SKIBBEREEN BOARD OF GUARDIANS AND MEDICAL OFFICERSHIP.

At a largely attended meeting of the Skibbereen Board of Guardians on February 28th, most noisy scenes occurred in connexion with the appointment of the medical officer for the workhouse. The Local Government Board had sanctioned the appointment of Dr. O'Meara as senior medical officer, and he had already entered on duty; but as the appointment of Dr. Burke was a new appointment, or, rather, the appointment of a second doctor was a new departure of which notice had not been formally given, the Local Government Board refused to sanction the second appointment until this had been done. After prolonged discussion, the Board decided, in consequence of legal opinions it had received, to regard the election of Drs. O'Meara and Burke conjointly to the medical officership to the union workhouse, made on January 19th, and approved in respect of Dr. O'Meara by the Local Government Board, as null and void, and to hold a fresh election on March 12th of a medical officer to the workhouse, at a salary of £80 a year, rising to £120 by triennial increments. Meanwhile Dr. Walsh was requested to continue to do duty as medical officer, and Dr. O'Meara was warned not to enter the workhouse.

VETERINARY MEDICAL ASSOCIATION OF IRELAND.

The most important part of the report presented to the recent annual meeting of the Veterinary Medical Association of Ireland dealt with the efforts that had been made in connexion with a scheme proposed for the reconstitution of the National Veterinary Association and union of the various veterinary societies. The general feeling of the members of the association was in favour of appointing an executive council representative of the various associations in Great Britain and Ireland for the protection and promotion of all veterinary interests. The council would be called the Council of the Veterinary Medical Association of Great Britain and Ireland, and rules had been drawn up as a working basis.

At the annual dinner the president of the association, Mr. John Holland, who was in the chair, proposed the toast of "The Guests," coupled with the names of Sir Christopher Nixon, Sir Charles Cameron, and Professor Theiler. He spoke in enthusiastic terms of the aid in the establishment of the Veterinary College afforded by the two first-named gentlemen. The diploma of honorary membership of the association was then handed to Sir Christopher Nixon and to Sir Charles Cameron, and Sir Christopher Nixon, in replying, referred to the importance of a veterinary college in a country which was mainly agricultural. He also alluded to the intimate connexion between human and veterinary

medicine, a connexion so marked that the celebrated Talleyrand at one time introduced a bill into the French Assembly which required that students of human medicine should first devote a certain number of years to veterinary medicine. Sir Charles Cameron, who also replied, spoke of an attempt which he had made nearly fifty years ago to found a veterinary college by private enterprise. Later the toasts of "The President" and of "The Veterinary Medical Association of Ireland" were proposed and suitably acknowledged.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

LEEDS.

The General Infirmary.

The statistical tables prepared in the general manager's office of the number of patients treated in the different departments during the year ending December 31st, 1909, together with certain details about these, will prove of interest to those who are concerned in hospital management. In the total number of in-patients there was an increase from 7,137 to 7,357. It was certainly thought that a limit to the number of patients passing through the wards without some increase in the number of beds was reached last year, but here there is seen to be an increase of 220. The cases in the medical wards were 1,146 as against 1,240 in 1908, a diminution of 94, so that the increase was in the general surgical and special departments, all of which show an increase with the exception of the gynaecological department, in which the number of patients has fallen by 25. It is felt—certainly by the physicians—that the length of time spent by patients in the wards might with benefit be increased, and there is no doubt that many more patients suffering from medical illnesses would be admitted if accommodation permitted. The average number of patients in the infirmary was 375, as against 365 in 1908; the average stay in the infirmary was 18.6 days as against 18.7. The deaths amounted to 505, as against 531 for the previous year. This gives a percentage mortality of 6.8, or if those dying within forty-eight hours of admission are deducted—of which there were 159—the percentage works out at 4.7. The out-patient departments show an increase in the amount of work accomplished. The total number of new cases amounted to 48,451, as against 42,371 for 1908. There were 511 maternity cases in the extern department. From the wards there were sent to the Robert Arthington and the Ida Convalescent Hospitals 1,038 patients, a somewhat smaller number than in 1908. On the other hand, there was a great increase in the number of patients sent from the infirmary to other convalescent hospitals, this amounting to 254, as against 177 for 1908. Comment has been formerly made in this paragraph to the remarkably small amount of stimulant used at the infirmary. This is probably general all over the kingdom. The total amount of wine and spirits used in all departments of the infirmary during the year 1909 was 4,191 oz., about one-thirtieth of an ounce per patient per day.

The Medical Inspection of School Children.

In the JOURNAL of March 13th, 1909, the steps which had been taken by the Leeds Education Committee for the medical inspection of school children were commented on, and in some respects criticized unfavourably. It will be remembered that twenty medical men were appointed at a remuneration of £1 1s. for each group of thirty examinations. When the full examination very properly expected is remembered, this remuneration must be regarded as absurdly low. Dr. Wear was one of those appointed, and he was placed in the position of senior. Dr. Wear, who has shown the greatest possible interest in the work, has now been appointed whole-time medical officer to the Education Committee. He gives up his private practice and will receive a salary of £650. This appears to be a step in the right direction. The number of part-time medical officers will be reduced to sixteen, the remuneration remaining at the same inadequate figure as formerly.

The Workpeople's Hospital Fund.

The twenty-third annual meeting of the subscribers to this fund was held on February 23rd, under the chairmanship of Mr. F. R. Shark, the chairman, the originator, and the life, one may say, of the association. Another year's work was reported on, and afforded further evidence of the great success which has attended the efforts of all those associated with the movement. While on the one hand there had been some falling off in the amounts received from the workpeople of some of the firms, the report stated that the deficiencies had been made up by subscriptions from newly-established workshops in the city. The total income for 1909 amounted to £13,084. The largest and most steady amount was from the weekly payments of the workpeople (£9,882). Collections in public houses brought in £576; dramatic performances and football matches, £195; ward carnivals, £203; Sunday concerts, £175; club collections, £143; and school collections, £118. The expenditure amounted to £4,200. This sum, it must be borne in mind, was devoted in large measure to the maintenance of the two convalescent hospitals. The grants made to the various charities were as follows: General Infirmary, £5,250; Leeds Public Dispensary, £800; Hospital for Women and Children, £800; Tuberculosis Association, £315; Leeds District Nursing Association, £250; Leeds Maternity Hospital, £125; Bramley and Stanningley District Nursing Associations, £50 each; Leeds Homoeopathic Dispensary, £15. As special donations, £250 was given to the building fund of the new Maternity Hospital and £50 to the Convalescent Camp for Poor Children at Arnside.

LIVERPOOL.

The Royal Country Hospital for Children at Heswall.

This institution, founded eleven years ago for the treatment of children suffering from chronic diseases necessitating a long sojourn in hospital, has been well supported, and has steadily enlarged its operations. At the annual meeting, just held, the committee announced that the new buildings at Heswall have been opened, and sixty children duly installed. Other wards are in course of construction, and of these two are nearly completed. These two wards will present a novel feature in the respect that they will have only three walls, the whole of the fourth side being open to the air. The inmates will thus live and sleep practically out of doors. A small sum is charged in the case of most of the children, but it is not sufficient to cover the cost of maintenance, and, as the result of last year's working, there is a deficiency of £900. In view of the long sojourn of the children in the institution, negotiations have been opened with the Liverpool Education Committee for the establishment of a special school in connexion with it, and there are good grounds for hoping that some satisfactory arrangements will be made by which the time spent in undergoing treatment will not be altogether wasted as regards education. The King has shown his interest and appreciation of the work done by the institution by authorizing it to use the designation of "Royal," and it will be known henceforth as the Royal Liverpool Country Hospital for Children.

MANCHESTER AND DISTRICT.

The Manchester and Salford Hospital Sunday Fund.

In the annual appeal for the Hospital Sunday Fund it is stated that the total expenditure for medical treatment of the sick poor by the charitable hospitals of Manchester and Salford in the year 1909 was £114,056, and that after including the income from

the Fund the charities showed an aggregate deficit of £9,500. This deficiency will probably be much larger during the present year, as the annual report of the Manchester Royal Infirmary alone shows a deficit of about £8,000, and after taking into account the additional expenditure for cleaning, renewals, and other matters, which will probably amount to £1,000 or £1,500, and the increased expenditure in connexion with the central branch, a deficit of about £10,000 is to be anticipated. The board has expressed the fear that unless a large increase in subscriptions is obtained it may be impossible to work the infirmary to its present extent. At a recent meeting the Finance Committee reported the receipt of a legacy from the late Mr. G. W. Smith amounting to £2,339. This is to be devoted, at the discretion of the medical board, to the assistance of any member of the medical or surgical staff suffering from illness through injuries sustained in the course of *post-mortem* examinations or operations.

The following amounts, making a total of £3,400, were given to the various hospitals from the Hospital Sunday Fund during the year 1909:

Manchester Royal Infirmary	£536
Children's Hospital	533
Sick Poor and Private Nursing Institution ...	345
St. Mary's Hospitals	325
Ancoats Hospital	322
Salford Royal Hospital	256
Hospital for Incurables	232
Hospital for Consumption	210
Royal Eye Hospital	169
Northern Hospital	162
Hospital for Skin Diseases	113
Victoria Memorial Jewish Hospital	57
Ear Hospital	49
Hulme Dispensary	22
Dental Hospital	18
Greengate Dispensary	16
Lock Hospital	13
Chorlton-on-Medlock Dispensary	13

LONDON.

CLASSES FOR CHILDREN HARD OF HEARING.

THE Education Committee of the London County Council on March 2nd considered a report of the Day Schools Subcommittee on the desirability of forming special classes for children who are hard of hearing. Medical inspection had revealed the fact that there was a large number of partially deaf children, and a detailed examination of over 500 children in the schools for the deaf showed the necessity of providing classes for the partially deaf. The educational attainments of such children varied, but as a rule were beyond those of the average deaf child; these children required, for their proper development, not only training in lip reading and articulation, but a more extended curriculum than that provided in a school for the deaf. Moreover, the environment of a class containing totally deaf children was not suitable, for it was desirable that partially deaf children should mix with hearing children as much as possible. The subcommittee proposed, therefore, that pupils in the "hard-of hearing" classes should mix with hearing children during recreation, and that the classes should be carried on in class-rooms in ordinary schools or in schools for the deaf on the same site as ordinary schools. These conditions would be fulfilled at the Ackmar Road School for the Deaf, Fulham, and the subcommittee recommended that, as an experiment, subject to the approval of the Board of Education, a class for partially deaf children be established there. This was agreed to.

SCHOOL CLINIC FOR NORWOOD.

At the same meeting the Education Committee considered the proposals submitted by a committee appointed at a meeting of medical practitioners in Norwood called with the object of assisting the Council in the medical treatment of school children. The committee proposed to obtain premises in close proximity to West Norwood station and within easy access to the tramways, and to establish there a centre for the treatment of 2,000 children suffering from affections of the throat and ear, eye and skin (chiefly ringworm). It was suggested that the Council should provide equipment estimated to cost £175, and arrange for the services of a nurse on six half-days a week. With these exceptions, the terms proposed were in accord with those adopted in the case of the hospitals. The Education Committee agreed to accept the offer in respect of 1,500 children, and to arrange for the attendance of one of the nurses in the public health department, but declined to provide the equipment as suggested. In other respects the agreement drawn up coincided with that entered into with the Hampstead medical men,[1] the right of inspection by the Council being reserved.

SOCIAL WELFARE ASSOCIATION.

A meeting to establish a social welfare association for London, to the proposed objects and constitutions of which reference was made in the JOURNAL of February 26th, p. 528, was held at the Mansion House on March 4th. The Lord Mayor said that the association was to be representative in the widest sense of the word; no one society or interest or group of interests would be allowed to control either the central or local councils. The Archbishop of Canterbury, in moving a resolution to the effect that it was desirable to form a social welfare association for London, said that during the last half-century overlapping had been sometimes the hope and sometimes the despair of men trying to deal with the problems of poverty. So long ago as 1869 Mr. Goschen, who was then at the Local Government Board, called attention to the impossibility of expecting successful work for the poor so long as the work done by the Government and official agencies, and that done unofficially, were in watertight compartments. Something like £7,000,000 a year was being spent through the Poor Law, and he was convinced that it was not spent to the best advantage. Lord George Hamilton, in seconding the motion, said that the Poor Law Commission had found that there was almost as much need to improve the working of charity as to reform the Poor Law administration. The defects in charitable work were due not to want of funds or workers, but to want of co-operation and organization. The Postmaster-General (Mr. Herbert Samuel), in supporting the motion, said that though the State could do much of the heavier work of social reform, much of the finer work could only be done by personal labour and voluntary associations. The Chief Rabbi, Sir Melvill Beachcroft and the Earl of Lichfield, also supported the motion, which was carried unanimously.

SEAMEN'S HOSPITAL SOCIETY.

Sir Ernest Shackleton presided at the annual court of governors of the Seamen's Hospital Society which was held on March 7th. Mr. Nairne read the eighty-ninth annual report of the committee of management, which stated that although the income of the society failed to meet the expenditure incurred, the total receipts from annual subscriptions and donations showed a decided increase, and if it were not for the continued fall in the amount of the legacies received, the finances would be in a satisfactory state. During the year, 34,300 patients had been treated at the society's institutions—3,401 more than in the preceding year. The report was adopted. Sir Ernest Shackleton said that he knew the hardships and anxieties of the sailor, and could realize what was being done for him by the society. The greater part of the shipping of the country—the shipping upon which the people of the country depended for their food—was carried on by the thousand and one tramp steamers which were manned by men who were practically unknown to those on shore. The society did a splendid work, and ought to be thoroughly supported. On the motion of Sir George Vyvyan, seconded by Sir Patrick Manson, Sir Ernest Shackleton was elected an honorary life governor of the corporation, in recognition of the services which he had rendered to the society.

[1] BRITISH MEDICAL JOURNAL, February 26th, 1910, p. 535.

WALES.

TRAINING OF SANITARY INSPECTORS.

A MEETING of the South Wales and Monmouthshire Centre of the Sanitary Inspectors' Association of Great Britain was held at the Town Hall, Newport, Mon., on March 5th. Dr. W. Williams, M.A., D.P.H., County Medical Officer of Health for Glamorgan, presided over the general meeting, and Mr. John T. Quinton, Liverpool, Chairman of the General Council, took the chair at the council and members' meeting. A vote of thanks was passed to the chairman and members of the Education and Secondary Education Committee of the Glamorgan County Council for establishing a course of gratuitous instruction for eligible candidates desirous of qualifying as inspectors of meat and other foods. A further vote of thanks was most heartily given to Dr. Williams, the president, for his generous assistance in connexion with this scheme, mention being made of his readiness at all times to assist in the welfare of the sanitary inspector. The course of instruction above referred to consists of two parts: (1) At Pontypridd, lectures and practical demonstrations of three hours a week for twelve weeks; and (2) London, three weeks for practical instruction at the Metropolitan Cattle Market, Islington, and at the Billingsgate Fish Market, etc. Candidates must have been residents within the Administrative County of Glamorgan for at least one year prior to December 31st, 1909; ard they must also hold the certificate for Inspector of Nuisances of the Royal Sanitary Institute, or the certificate of the Sanitary Inspectors' Examination Board, London. No charge is made for tuition. Third-class return rail fares will be allowed to Pontypridd, and to London provided 80 per cent. of the possible attendances from the commencement of the courses (January 18th, 1910). An allowance of 30s. per week each will be made in respect of the period spent in London, subject to satisfactory conduct and progress, and the candidate undertaking to sit for the Royal Sanitary Institute's Examination for Inspectors of Meat and Other Foods at the end of the course. The estimated cost to the council is nearly £300. These cases create a precedent with regard to technical instruction.

Special Correspondence.

PARIS.

The Practitioners' Congress: The Medical Crisis in France.

ON April 7th the third Congrès des Praticiens will be opened in Paris. As has already been stated in the JOURNAL, the object of its promoters is to bring together, without distinction of grade or standing, all doctors practising medicine in France, and to ask them to discuss their professional interests, to express their views of the part which medicine is called upon to play in social affairs, and to attempt to regulate the by-effects upon medicine as a career which the numerous laws as to medical assistance, hygiene, and prophylaxis passed by Parliament during the last fifteen years have had. If the assertion so often made —that there is a medical crisis in France—be true, then traces of its existence should be found in the programme of this congress. The following are the subjects set down for discussion:

The Public Health Act of 1902, the point at issue being the compulsory notification by doctors of infectious diseases.
The increase of medical fees.
The medico-social aspects of abortion.
Unqualified practice: the employment of medical students as locumtenents.
Hospital administration in France and abroad.
Hospital abuse: the exclusion from hospitals of non-indigent persons.
Workmen's societies and the right of the patient to choose his own doctor.
The restriction of the number of students admitted to medical schools.
The superior medical council.
Medical syndicates and medical education.

In this list of questions proposed for discussion by various practitioners three have to do with the medical crisis: the increase of fees, the exclusion of non-indigent persons from hospitals, and the limitation of the number of entries at the medical schools. The first two mentioned are real, but, in my opinion, are only secondary causes of the malaise from which the medical profession in France is suffering; the third, the excessive number, the plethora of practitioners, would seem to be the chief and most important.

It is undeniable that medicine regarded as a business very rarely enriches those who practise it, that doctors to-day do not derive from their calling alone money enough to provide against old age, that those who have no resources other than the income obtained from practice must go on working indefinitely, and that it is something more compelling than love of their art which causes so many old country doctors to die in harness struggling desperately to retain the favour of a *clientèle* which distrusts their age more than it honours their experience. This is a bitterness which our forefathers did not know, a bitterness bravely and proudly hidden, but not the less touching to those who discover the secret. The causes of this unfortunate state of things are undoubtedly many and complex; a complete and detailed study of each one of them would require many pages; at present they can only be briefly indicated. In the first place there are general causes: in France during the last forty years the cost of living has been nearly doubled, while the interest on saved money invested in securities has diminished by two-fifths; when, therefore, a demand is made that medical fees should be raised, the reason is not that they have, in an absolute or mathematical sense, been diminished as compared with those obtained in the past. There has in fact been no actual fall in fees except in surgery; in that department of practice competition, which has grown more and more keen, has brought about special conditions. But we may justly ask that the price of our services should be augmented in proportion to the increased price which we ourselves have to pay for all the necessaries of life and that our fees should be restored to their relative value. In the second place there are certain special causes, such, for example, as the existence in towns of the abuse of hospitals, which give their advantages either gratuitously or at absurdly low charges. Owing to the facility with which admission can be obtained to hospitals, owing also to the multiplication of clinics and dispensaries open to everybody, a part of the *clientèle* which ought properly to pay ordinary practitioners has grown accustomed to be treated for little or nothing at these institutions. Another factor is that friendly societies, which during the last twenty years have been very considerably developed, usually found their success upon exploiting the doctor, abusing his generosity, which he is always too ready to show, and taking advantage also of the eternal *invidia medicorum*. Most of the friendly societies have endeavoured, and have very often succeeded in the beginning, in imposing on us very low tariffs. In a corresponding way the State has made us the associates of its social charity, and has imposed upon us the duty of attending at half price all the indigent persons for whom the local *bureaux de bienfaisance* formerly paid. Nevertheless, as I have said, all these causes appear to me to be secondary. As a matter of fact the profession has already reacted against them, and a beginning has been made in attenuating their effects, or in obtaining certain compensations. There remains, then, only the last of the three causes I have enumerated—overcrowding—and it is the most effective. There is an over-production of doctors. The number has almost doubled within twenty years. The fees formerly received, therefore, are in fact divided by half, the operation of this single cause. It is not possible to do more here than state the elements of the problem. The overcrowding is due in part to the prestige of the profession with families of the *petite bourgeoisie*, who see in medicine a career for their children at once honourable and remunerative. It is due in part also to the great facility with which the faculties can be entered, and to the assured result due to the easy nature of the examinations. In order to enter a school of medicine it is at the present day only necessary to be a *bachelier*, and this certificate can be obtained at the end of a course of secondary education by everybody or nearly everybody of the most ordinary intelligence. When once a man had

entered a school of medicine it is practically unheard of that he should leave it without the diploma of a doctor. It is very much a matter of time. The examiners have gradually fallen into the habit of not throwing men of 25 or 30 years of age into the street, and they display a lofty or smiling complaisance which covers a multitude of sins. To get rid of a student during his course is a still more delicate matter. In order to remedy this state of things many doctors now propose that there should be an examination for admission into a school of medicine, and that the number of the applicants admitted should be properly adjusted to the needs of the population. This system is, as a matter of fact, already in force at the military and naval schools, the engineering schools, and the veterinary school. It remains to be seen what reception the practitioners' congress will give to this project.

BERLIN.

A Debate on the Imperial Board of Health: Lead Poisoning, Alcoholism, and Mosquitos and Disease.—Dr. Koch on Tuberculosis Hospitals.

DURING last week's debate on the Budget in the German Reichstag, the Imperial Board of Health (which forms a department of the Imperial Ministry of the Interior) came in for a good deal of criticism and advice on the part of Socialist, Radical, and even Conservative members. In answer to Herr Brühne (Socialist), Herr Bumm, the President of the Board, categorically denied that the Government did too little for the protection of workmen engaged in the lead industry. The protective regulations, he said, were as complete and as far reaching as they could be made, and their enforcement was carefully watched over by special inspectors. An inquiry, set on foot and recently brought to a close by the Government of Holland, had once more demonstrated the impossibility of substituting any other white for white lead. Germany was not in a position to prohibit white lead absolutely. Such a prohibition was possible only in countries where no lead mines existed. Dr. Leonhardt (Radical), in the name of his party, demanded that the sale of drugs, such as opium, morphine, etc., except by medical prescription, should be declared illegal. And, further, asked the Government to include in next year's estimates a sum to be devoted to a thorough statistical inquiry into a campaign against alcoholism. This, he felt assured, would materially assist the great fight that was being waged with both tuberculosis and syphilis; or all knew the connexion that existed between these scourges of the nation and alcoholism. A certain proportion of the revenne from spirit duties he thought should be devoted to measures against the spread of alcoholism. He did not deny that of late good work in this direction had been started, and he was specially grateful to the administration of German railways for their excellent and practical new arrangements; but far more remained to be done, for the deaths from alcoholism in Germany still numbered about 15,000 a year. Secretary of State Delbrück replied that the Government was quite at one with the previous speaker in deploring the ravages of alcoholism among the population. But he felt more than doubtful that any practical good could result from State intervention—above all, from a statistical inquiry. Such an inquiry would prove exceptionally difficult and expensive, besides being really superfluous, since the whole question lay open for all to see and judge. Gradual enlightenment of the masses was what must be counted on for bringing about a change for the better, and this enlightenment must proceed from teachers, from employers, from parents and relations. The Imperial Board of Health found plenty of valuable work to do in directing and assisting such endeavours throughout the realm. Again, the Government contributed 10,000 marks (£500) annually to the societies for combating alcoholism. Ministerial rescripts and statistical tables could do no good in a matter such as this. In answer to the question of another member on gnats and disease, Bumm replied that the Imperial Board of Health was at present actively engaged on a research into the question whether the common gnat was or was not a carrier of disease, that the research was nearly completed, and that its results would be published before long.

Dr. Robert Koch, Berlin's Honorary Citizen, to whom the municipal committee entrusted with the preparation of plans for a new tuberculosis hospital had appealed for advice, gave evidence before the committee at the City Hall on March 3rd. He expressed his decided opinion that the best means of combating the spread of tuberculosis lay in increased care for patients suffering from open pulmonary disease, and strongly counselled that the new establishment should be exclusively devoted to consumptives in every stage of the disease. Since the condition in which tubercle bacilli are coughed up and spread was comparatively rare among children, he thought the hospital should be reserved for adults only—three-fourths of the available beds for men, one-fourth for women. As to site, dry air and sunshine were, in his opinion, the great desiderata. The proximity of forest land was not so important a consideration as to outweigh other advantages of a site. The building itself should be of great simplicity, both in construction and decoration; as many rooms, and in each room as few beds as possible. The excellent Moabit municipal hospital, and the plaster-plank pavilions in the Charité hospital grounds were typical examples of what could be achieved with the simplest arrangements even at the present day, when German towns appeared to be vying with each other for pre-eminence in the elegance and first-class comforts of their tuberculosis hospitals.

Correspondence.

THE DANGERS OF ARYLARSONATES.

SIR,—From his letter in the JOURNAL of March 5th Mr. Ernest Lane appears to have been singularly unfortunate in his dealings with the arylarsonate salts—that is, of 12 cases treated thereby by him, 4 were followed by grave toxic signs; whereas at the military hospital at Rochester Row, out of 308 cases so treated, not a single case was followed by any bad effects.

The arylarsonates employed consisted of either atoxyl, soamin, orsudan, or arsacetin, soamin being the most frequently employed. Most of these cases received from three to six courses of 100 grains. During 1909 no fewer than 2,000 intramuscular injections of either soamin or arsacetin were given, not one of which was followed by any untoward symptom.

Now, one cannot help thinking that there must have been some cause for this discrepancy between the two experiences. Mr. Lane does not mention the technique he pursues in carrying out the treatment; but I would point out that in both papers on the subject which I read at the annual meetings of the British Medical Association at Sheffield and at Belfast I pointed out that "solutions of atoxyl, soamin, and orsudan were apt to decompose on keeping, and insisted on the necessity of these solutions being freshly prepared at least daily, otherwise toxic symptoms might follow." Neglect of this precaution has to my knowledge led to unfortunate results, such as described by Mr. Lane. Latterly we have been using arsacetin altogether, as its solutions do not decompose from keeping.

Mr. Lane admits he met with much success with the arylarsonates at one time, which induced him to advocate their employment until he came across those toxic cases, which to my mind were quite accidental; in that case I do not think it quite fair to condemn the arylarsonates *en bloc*.—I am, etc.,

F. J. LAMBKIN,
Col. R.A.M.C.

Military Hospital, Rochester Row, S.W.,
March 8th.

THE LOCALIZING VALUE OF UNEQUAL PAPILLOEDEMA.

SIR,—The extreme importance which Sir Victor Horsley ascribes to the inequality of papilloedema in the two eyes and the great stress he lays on the value of a greater amount of change in one eye as indicative of the side of the causative lesion must be my excuse for writing in reply to his article of March 5th.

I may preface my remarks by saying that I am glad to see a possibility of compromise between the two apparently opposed points of view of Sir Victor Horsley and myself.

In his summary he states that "the maximal intensity and age of the papilloedema or optic neuritis in cases of increased intracranial tension is of the highest value in clinical localization of the lesion, *and is ipsolateral with the maximal pressure effects of the latter*" (italics not in the original). This surely indicates a considerable modification from his position, when, in the discussion at the Ophthalmological Society on March 12th, 1908,[1] he offered "*an earnest protest against the view that the Queen Square records showed that the optic neuritis was not 'worse' on the side of the lesion. If the matter were looked into carefully, it would be found that it was.*" I find myself much more nearly in agreement with the statement in its present form.

The main point on which he criticizes my papers is the value of this difference between the papilloedema in the two eyes. I might suggest that there is a certain element of inconsistency in his criticism. He bases it on the fallibility of my statistics (these were drawn from the 102 cases (out of a total of 200) which showed no signs of subsidence or atrophy at the time of observation), and he mainly supports his criticism by adducing the statistics of 18 cases. Surely, if statistics are so liable to lead one into error, as he would make out, the fallibility is much greater in 18 cases than in 200.

For the benefit of those who have not read my paper in *Brain*,[2] I may quote briefly the principal facts on which I based my statements. "In dealing with the question of the amount of neuritis we can only take those cases in which no signs of subsidence or atrophy had made their appearance. This leads to the exclusion of 58 out of 160 cases in which neuritis developed, leaving 102 cases." In 54 cases the swelling was equal or the difference did not exceed 0.5 D. In 25 cases the swelling was greater on the side of the tumour and in 23 it was greater in the opposite eye. In 3 cases only one eye was affected at the time of death or operation, and in each of these it was the contralateral eye. In 11 cases the difference in the swelling was more than 2 D, and in 7 of these it was the contralateral eye that was most affected. "*In all these cases, apart altogether from the question of measurement, there were definite differences in the ophthalmoscopic pictures presented by the two eyes.*" Again, though I do not lay that stress on the haemorrhagic character that Sir Victor Horsley does—and I have seen fresh haemorrhages developing in a case of neuritis not infrequently after the cranium has been opened and the pressure relieved—yet, even taking this ground, I find that out of 17 cases where haemorrhages appeared in only one eye, 5 showed the haemorrhages only in the contralateral eye. And if we take the ultimate result on vision when the eyes were unequally affected after subsidence of the neuritis, we find that "there were 9 such cases, and in 4 it was the eye on the side of the tumour in which the vision was most affected, and in 5 it was the opposite eye."

With such cases as I have mentioned before me is it astonishing that I should have come to the conclusion that until we know more of the factors which in some cases determine the greater incidence of neuritis on the side away from the tumour, we should not place reliance on inequality of papilloedema as a clinical sign?

De Schweinitz and Holloway,[3] in presenting the report of the committee appointed by the American Medical Association to investigate the effect of operation on "choked disc," give the following data:

> The swelling was practically equal in each eye in 33.3 per cent. of cases; was greater in the eye on the side of the tumour in 46.6 per cent. of the cases, and was greater in the eye on the side opposite to the tumour in 20 per cent. of the cases. The number of cases examined, however, is too small to render these statistics of much value. Moreover, it was not possible to submit them to the requirements on which Mr. Paton very properly insists.

Sir Victor Horsley lays much greater stress on such changes as might be considered indicative of the age of the neuritis. There is one indication of the age of a neuritis which is of indisputable value, and that is direct observation of its commencement. In 30 of the cases reported in my paper in *Brain* the neuritis started while the patients were in the hospital. In 13 of these disc changes were observed simultaneously in both eyes. In 6 the changes appeared first in the eye of the same side as the tumour, and in 11 in the eye on the side away from the tumour. In the pressure experiments of Cushing and Bordley[4] they not infrequently saw oedema of the disc and retina appearing first in the opposite eye. In the first of their two cases of artificial tumour (where the tumour was produced in the left occipital base) it was the opposite eye (the right eye) which first showed changes, and it was in the right eye that the changes remained more marked throughout. In the second case (tumour produced in left parietal region) changes in the discs were noted at the same time in the two eyes, but were greater in the left than in the right, and persisted in a more marked way in the left.

I do not seek to prove that the eye on the side of the tumour may not be more frequently affected than the opposite eye; but I wish to insist that in a very definite percentage of cases it is the opposite eye that is first and most affected, and that the percentage of cases in which this happens is too large to allow us to use the point for localizing purposes. Surely the more scientific plan would be to submit to a critical examination all the cases in which the papilloedema is greater in the opposite eye, and so attempt to gain a knowledge of the circumstances under which this peculiarity is likely to occur.

As Sir Victor Horsley says, I have had the opportunity of seeing most of the 18 cases on which he bases his criticism. In the brief time at my disposal since the publication of his paper I have been able to identify 16 of these, in which I was able to observe the condition and the progress of the neuritis. It is of course impossible to go into these cases here, but I would like to point out one or two misconceptions to which Sir Victor Horsley's short summaries might give rise. In 6 cases he has given the measurement of the highest point on the surface of the disc as the amount of swelling, without taking into consideration the error of refraction in one or other eye, though in one case this amounted to as much as 4 dioptres of hypermetropia.

In the second place, the brevity of the summaries hardly gives a fair representation of the conditions described in the hospital records. One or two examples will show how the fuller notes may alter the aspect of the case, for example:

CASE II.—*Right Frontal.* Classed as ipsolateral.
Two days after admission both discs showed equal swelling with numerous haemorrhages and exudate, the highest point of each disc being seen with + 8 D. A fortnight after admission Mr. Gunn again described the discs as similar with 7½ D of swelling in each. The day before operation the swelling in the *left eye* had increased by 1 D, the right eye remaining the same as before.

CASE III.—*Right Subcortical. Rolandic Area.* Classed as ipsolateral.
Vision in right eye = $\frac{6}{5}$, in left eye = $\frac{6}{36}$.
R.O.D. All edges blurred. Highest point of disc + 6 D. General fundus level + 1 D. Swelling + 5 D. Venous congestion not great. Arteries normal in calibre.
L.O.D. More flecked with white. Highest point of swelling seen clearly with + 8 D, blurred with + 10 D. Numerous tiny capillaries curling over top of swelling. Radiating out from temporal side of disc is a lot of oedema, which tends to run in striae. Whole of retina towards macular area oedematous and swollen, giving a measurement of + 4 D. General fundus measured away from oedematous area (in upper nasal region) between + 2 and + 3 D. Swelling + 6 to + 7 D.

CASE IV.—*Left Parieto-occipital Tumour.*
The discs were in a late stage, subsiding into atrophy, on admission. The swelling after deducting + 1 D, hypermet., present in both eyes, was: Right eye, + 4.5 D; left eye, + 5 D.

In Case No. 8 Sir Victor Horsley quotes the rough note made by the house-physician on his first investigation of the case, and not the fuller note made by Mr. Gunn when the pupils were fully dilated, which showed gross neuritis in both eyes, with haemorrhages and exudate and equality of swelling.

Case 11 presented a most interesting problem in diagnosis, and was the subject of a lecture by Sir William Gowers, fully reported in the *Lancet*.[5] I do not think, considering the fact that the left nerve showed a direct

[1] *Trans. Ophthal. Soc.*, vol. xxviii, p. 138.
[2] *Brain*, 1909, vol. xxxii, p. 65.
[3] *The Therapeutic Gazette*, July 15th, 1909.
[4] *Johns Hopkins Hosp. Bull.*, vol. xx, No. 217, April, 1909.
[5] July 19th, 1909.

pressure atrophy without neuritis, and the right disc showed an ordinary neuritis, that it is fair to use this case as proof of anything more than the existence of direct pressure on the left nerve.

If I were classifying the cases in which I have been able to refer to the full notes, I should exclude two from the list—one because the subsidence into atrophy was so marked in each eye on admission, and the other (Case 11) for the reasons given above. I should say that 5 showed an equal neuritis, or such slight differences that no judgement could be based on them. In 4 the greater papilloedema was definitely ipsolateral, in 3 as definitely contralateral; and of the 2 others, in one it was probably contralateral and in one probably ipsolateral.

The importance of the paper and the great authority that Sir Victor Horsley's name gives to anything he publishes must be my justification for entering into such a lengthy and detailed criticism.—I am, etc.,

London, W., March 7th. LESLIE PATON.

CANCER OF THE CERVICAL OESOPHAGUS.

SIR,—In the clinical lecture dealing with operation on primary cancer of the oesophagus, published by Mr. Morriston Davies in the JOURNAL of February 12th and referred to by Dr. William Hill in a letter on March 5th, the question of a preliminary gastrostomy is not mentioned.

While surgeons will agree with Mr. Davies as to the desirability of early diagnosis, and if practicable, removal of the growth at an early stage in cancer of the cervical portion of the oesophagus, the very heavy mortality that has hitherto attended these operations is a serious factor that must be taken into consideration.

Gastrostomy, as now performed, is an operation attended with extremely little risk, even when done, as is so often the case, when a patient has been seriously starved through inability to swallow, but if properly undertaken at an earlier stage the risk is sery slight.

Might I suggest that in any cases such as Mr. Davies refers to a preliminary gastrostomy would be a useful measure, and would tend to lessen the risk of the more dangerous operation in the neck, seeing that the patient could be adequately fed through the gastrostomy opening during the whole course of the treatment? Should the patient be so fortunate as to have the original disease cured, the gastrostomy opening can be readily closed by allowing the tube to remain out.

In advocating a preliminary or temporary gastrostomy in these conditions, I am only supporting views which have been expressed elsewhere on the subject.—I am, etc.,

London, W., March 8th. A. W. MAYO ROBSON.

APPENDIX DYSPEPSIA.

SIR,—The generic term "dyspepsia" has during the last few years been assailed by surgeons, and the assemblage of symptoms which constitute it has been resolved into several well-known recognizable species. Each species has its particular characteristics: the gastric, the pyloric, the duodenal, the calculi in the gall bladder, the pancreatic, and a combination of two or more; but so far I am not convinced that appendix dyspepsia possesses the variable characteristics depicted by Mr. Moynihan.

I should like to join Mr. Bowlby in warning the profession to be cautious in accepting the diagnosis of appendix dyspepsia even by the analytical process of exclusion.

In my experience the difficult cases of diagnosis of appendix trouble are those in which patients have never been confined to bed, and Mr. Moynihan has very rightly emphasized the importance of further investigation in this particular direction. Surgeons cannot blink the fact that a large number of operations which have turned out to be unnecessary have been performed, through over-confidence in the curative effect of operation *quâ* operation, and I may remind the younger generation of surgeons that not a long while ago ovaries were removed by celebrated men for the cure of certain neurotic conditions. I hope that at present such an operation is never performed without the fullest consideration of its serious consequences.

I have been invited on more than one occasion to support actions against surgeons for performing such operations, the results of which had proved contrary to optimistic prognostications and where the victims had subsequently either drifted into a lunatic asylum or the family life had been broken up.

Obscure cases of dyspepsia, when the services of a surgeon had been requisitioned, should be investigated with a very open mind. The sources of error arising from preconceived ideas are enormous; for example, pain in the region of the ileo-caecal valve may be extremely misleading. I have seen such pain in dyspepsia arise from carcinoma of the transverse colon in a young girl in her teens, and many other instances might be given.

On the other hand, I have seen the so-called "neurasthenics" upon whom I have operated over three years earlier remain well. In one case the neurasthenia originated in dyspareunia, which proved to be due to a long appendix adherent in Douglas's pouch. In another case a gentleman was invalided home from India, and the removal of a small white thread-like band tying down a long appendix about its middle over the brim of the pelvis resulted in cure.

We are indebted to Mr. Moynihan for ventilating the subject and also to Mr. Bowlby for advising the profession to "hasten slowly."—I am, etc.,

Cardiff, March 2nd. J. LYNN THOMAS.

SIR,—Amongst the interesting letters that have been appearing in the BRITISH MEDICAL JOURNAL on the subject of appendix dyspepsia, one explanation of the improvement that may take place after an operation in cases of gastric or intestinal dyspepsia has been overlooked—that is, that the majority of these cases, even if gastric or duodenal ulcer exists, would derive great temporary or even permanent benefit from the rest in bed, careful diet, and regular use of aperients that such an operation as removal of the appendix entails, without this relief being due directly to the removal.—I am, etc.,

Llandrindod Wells, Feb. 28th. W. RINGROSE GORE, M.B.

CONDITIONS WHICH SIMULATE DYSPEPSIA.

SIR,—I am sure that every one has read Dr. Hutchison's lecture on conditions which simulate dyspepsia, published in the BRITISH MEDICAL JOURNAL of February 26th, p. 485, with very great interest. Apart from the lucid manner in which the facts are set forth, the teaching is so true and matter-of-fact that probably every medical practitioner has come across most of, if not all, the conditions which Dr. Hutchison enumerates where at first blush the diagnosis of dyspepsia suggested itself. If I may venture to add to Dr. Hutchison's list, I would also mention Ménière's disease and tuberculous meningitis in children. The latter I have often seen mistaken in the early stages by very eminent people for gastric disturbance, until the onset of paralysis or coma made the diagnosis clear. I have also notes of a couple of cases in which the patients complained of vomiting and the cases were diagnosed as gastritis, until closer inquiry elicited the other symptoms of Ménière's disease—namely, tinnitus, slight deafness, vertigo, and faintness.

Another class of cases—which I used to think was mere speculative theory put into books to perplex the student, until I came across an example myself—is acute glaucoma, which starts with vomiting.

There is just one remark that I should like to make in connexion with hysterical vomiting. The case described by Dr. Hutchison fits in exactly with a case of mine treated by him at the London Hospital, but I should like to point out that even in cases of obvious hysteria the possibility of some coexisting organic disease should not be overlooked. I heard of a case of a young woman who was suffering from vomiting which was thought to be of nervous origin, but who afterwards was operated on for perforated gastric ulcer.—I am, etc.,

London, E., Feb. 28th. W. M. FELDMAN.

MINER'S NYSTAGMUS.

SIR,—I notice that, when discussing the etiology of miner's nystagmus (March 5th, p. 558), Dr. Harrison Butler did not suggest an error of refraction as a possible predisposing cause, although the case which he describes shows this. I mention this because I know that as a body miners systematically neglect their eyesight, this fact

having been forcibly brought home to me during the last few months whilst examining school children in a mining district, the parents simply stating that if their child had to wear glasses he would not be allowed in the pit. I understand that at present no examination of the eyes is required by the owner before a man is employed as a collier; and surely, if evidence could be produced to show that a definite relationship exists between errors of refraction and miner's nystagmus, the owners for their own protection would soon insist on such an examination.

Dr. Harrison Butler states that there is no muscle fatigue (of the eye) when the man is at work; but during such heavy work, when practically all the man's muscles are in use, how can those of the eye escape the general fatigue of the body? If in addition a serious error of refraction exists, which of itself would lead to strain, this would be especially noticeable at the end of the day's work, the time when the nystagmus first appears; and I suggest that the nystagmus is akin to the physiological tremor of the hands which many people have after great physical exertion, but that, of course, it quickly becomes pathological as the condition develops.

It may be asked why, if these arguments are correct, miner's nystagmus does not occur as soon as the man becomes a collier? But then his tissues are young, and can overcome the strain imposed upon them, and it is as he gets older and is still subjected to the same conditions of very heavy work in a poor light and in a bad position that the strain is felt, and nystagmus shows itself.—I am, etc.,

W. D. CARRUTHERS, M.B., D.P.H.,
Assistant Medical Officer of Health,
County of Derby.

Ambergate, March 6th.

ENGLISH LITERATURE AND LONDON EXAMINERS.

SIR,—I am evidently not so fortunate in my son as "Oxonian" is in his. My son, whose age is 17, has been rejected in English at the last London matriculation examination. Of the boys sent up from his school, 50 per cent. have failed. This, I presume, is good, if it is true that 65 per cent. of the whole number who entered have been rejected.

I have always contended that one has a better chance of getting through the London matriculation before leaving school than after, but upon looking down the advertisements of institutions that prepare students for this examination, and comparing their results with the above figures, I feel convinced of my error. In fact, I have taken my son from school this week, that he may have special help, and so stand a better chance of success next time.

It does not do to spend too much time upon an entrance examination when one has a long curriculum to get through before qualifying. Another matter which affects the father is that of expense, for failure at examinations means prolonging the student's time in town, and, may be, at hospital; that, to my mind, is a strong point in favour of choosing another university for obtaining a degree in medicine.—I am, etc.,

AN OLD BOY.

March 7th.

PART-TIME MEDICAL OFFICERS OF HEALTH.

SIR,—Dr. Martyn's letter will, doubtless, consolidate the resistance provoked by Dr. Larking. The Association of Medical Officers of Health was formally constituted by an enthusiastic and influential meeting on March 2nd, in the interests of those who do not devote their whole time to the duties of their primary office. Already nearly 250 subscriptions have been received from all parts of Great Britain, and support and encouragement have been accorded from every section of the profession.

A statement of facts is in preparation, and will shortly be issued to the profession, to members of Parliament and others. In the meantime, while not controverting Dr. Martyn's proposition that to speak and act in an unbiassed manner is beyond the morals of some men, we would point out that the suggestion that the income derived from part-time appointments is negligible is — well, amazing!

Many part-time medical officers of health are paid £200 or more a year, and the aggregate sum paid annually by sanitary authorities in Great Britain to medical officers of health in private practice is very nearly £150,000. We will not be unkind enough to ask Dr. Martyn to substantiate his references to part-time poachers, but we do ask him to indicate six recent instances of unknown strangers being appointed to part-time posts applied for by more competent local men. Such instances are, with the poaching thrown in, according to Dr. Martyn, not uncommon.

What Dr. Martyn really objects to is not the principle of part-time appointments (or else why should he sympathize with local men who fail to obtain "negligible" salaries?), but the possibility of gentlemen being appointed who are not at the time practising in the districts where vacancies occur.

Is this the cat in the British Medical Association bag? If so, to use a vulgarism, where does the "public interest" come in?

F. G. CROOKSHANK, Chairman,
D. A. BELILIOS, Honorary Secretary,
Association of Medical Officers of Health.

Wimbledon, S.W., March 6th.

SIR,—In his forcible letter (March 5th, p. 603) Dr. J. S. Walker, referring to the attitude of the British Medical Association to part-time medical officers of health, says:

> The vote given at the Divisions is not the voice of the profession of the district; . . . not half the meetings are attended by the members. The Divisions are mostly governed or ruled by cliques; many of my acquaintances have never attended a single meeting.

As honorary secretary of a Division whose spare time is largely taken up by efforts to rouse members out of their apathy and stimulate them to show a modicum of interest in matters which concern their welfare almost vitally, I wish to protest against the tone he adopts towards those members of the Association who have the energy to attend meetings and give ungrudgingly of their time and abilities to the service of the profession as a whole. All the Divisional officials with whom I am acquainted up and down the country will, I am sure, be only too delighted to see the end of our sparsely attended meetings, as they mostly are to-day, and will welcome without any regard to the ideas of the "local clique" a big influx to every meeting of these friends of Dr. Walker's who at present never attend any. The constitution of the Association is thoroughly democratic, and all questions of moment are submitted to the individual members in Divisions, and on their pronouncements only action is taken. If those who do not at present attend meetings object to the course taken by those members who do, they have the remedy in their own hands—to come to meetings regularly and make their voices heard and their views known in the usual manner. Their attitude of "I won't play in your yard" is merely childish and petulant, and is the main obstacle to advances in medical politics.—I am, etc.,

A. E. HODDER,
Honorary Secretary, Wigan Division.

March 5th.

SIR,—The discussion on part-time and whole-time medical officers of health has been interesting and instructive. I have held two such appointments in conjunction with private practice, and my sympathies have rather been with the general practitioner medical officer of health.

My attention has, however, been drawn by a friend to the conduct of a medical officer of health (part time), which provides a very strong argument against giving such appointments to men already in competitive practice. This gentleman wrote: "I only suggested that you should send the swabs up yourself because some practitioners prefer that the medical officer of health does not see their cases personally. If you do not care to do this I must do it myself." Such action is, I believe, opposed to the instructions of the Local Government Board issued to medical officers of health a few years ago, and it must necessarily be productive of friction between the official and the medical attendant.

Some few months ago I was acting for my friend, and was called in the night to a boy in an epileptic fit. Next morning, when I visited the case, I was met by the sanitary inspector, who said that he had been sent over by the medical officer of health to see what was the matter, as he had heard that the doctor had been sent for in the night, and there was a case of scarlet fever next door.

Now, such conduct as this induces me to think that perhaps it is better to deprive the general practitioner of these small appointments—always badly paid—than to sow the seeds of dissension broadcast throughout the profession. The occurrence of such cases as I have mentioned—and I am informed they are very numerous—may account for the vote of the Divisions and also justify the same. May I suggest that you reprint, as you did some time ago, the memorandum of the Local Government Board on the subject?—I am, etc.,

Leckhampton, March 7th. WM. MILLIGAN.

*** The document to which our correspondent refers is we believe, a letter addressed by the Local Government Board to a medical officer of health on April 1st, 1903. The part of the letter relating to this matter is as follows:

In the Board's opinion the certifier's statement of a notified case of infectious disease should be accepted unless there is reason to believe that he is not acting in good faith. The Board do not consider that it is ordinarily the duty of a medical officer of health to examine personally patients who have been notified as suffering from infectious disease, with a view to checking the accuracy of the certificate; and where circumstances may render such an examination desirable, it should be made after communication with the medical practitioner in attendance, and, if possible, with his co-operation. . . . The Board regard it as highly improper that an inspector of nuisances should under any circumstances collect throat-swabs from suspected diphtheria cases.

CREMATION.

SIR,—In connexion with your interesting articles on the progress of cremation, in the JOURNAL of March 5th, you may be interested to know that there is now a crematorium at Lausanne, Switzerland, situated at the Montoie Cemetery. It has only been open a short time, for when the body of a near relative of mine was cremated there on September 20th, 1909, the officials told me that it was only the eleventh cremation that had taken place. The side walls are lined with spaces for the reception of urns. —I am, etc.,

Ruthin, North Wales, March 6th. GEORGE A. CRACE-CALVERT.

Medico-Legal.

ACTION IN RESPECT OF A LUNACY CERTIFICATE.

The Trial.

AT the Manchester Assizes on February 16th and following days, before Mr. Justice Walton and a special jury, a female weaver named Florence Fowler claimed damages from Mr. W. P. Grant, M.R.C.S., of Rochdale, on the ground that he had negligently and without reasonable care certified her to be a person of unsound mind, whereby she was committed to the County Lunatic Asylum at Lancaster, under a reception order made by a Rochdale magistrate on December 14th, 1907.

It was alleged that though she had never been insane she was detained in the asylum for over a year without first being taken before a magistrate as a person of supposed unsound mind; she was removed by the relieving officer of the Rochdale Union to the workhouse, and there examined by two medical men, of whom the defendant was one. The latter certified that she was of unsound mind, and it was alleged that one of the grounds upon which he based his conclusions was that the plaintiff was under delusions as to her relations with Dr. Harris, who had attended her in Rochdale. In cross-examination, she said that Dr. Harris had led her to believe that he would marry her.

After the case for the defence had been opened on February 19th the court adjourned until the following day, when counsel for the defendant said that after consultation with counsel for the plaintiff it had been agreed in the interests of their clients and in the general interest that there should be an end to the litigation. On behalf of Dr. Grant he said that after hearing the evidence they had come to the conclusion that the woman was not insane, and it was to be understood that the result of the litigation was to free Dr. Grant from any charge of having acted with negligence. The counsel for the plaintiff said that when Dr. Grant examined the woman she was in the imbecile ward, and that it appeared that without acting negligently he may not have had his mind so directed to the case as it would have been had the proceedings been taken before a different tribunal. He was glad to be able to say that he thought, under the circumstances, Dr. Grant did not act with negligence. He, however, pointed out that it had been shown in this case that a perfectly sane person might be committed to a lunatic asylum and treated as a lunatic for over a year. The proceedings in the case were absolutely wrong, and it was because the proper procedure was not adopted that Dr. Grant had not been able to look at the case as he should have done.

Mr. Justice Walton said that it was now admitted that all reflections on Dr. Grant were withdrawn, and he thought properly withdrawn. The case had brought home to his mind very vividly that the gravest responsibility rested upon constables, relieving officers, magistrates, and medical men, who put into force the machinery of the lunacy law. He was not reflecting upon anything which had been done in this case, but it seemed plain that a man or a woman not a pauper, but perfectly well able to maintain himself or herself, might be taken to the workhouse, shut up in an imbecile ward, and then declared to be a lunatic, and placed in a lunatic asylum without any public inquiry, any hearing before a magistrate, or any notice of what was going on.

Dr. Herbert Harris asked permission to go into the witness box to clear his character. He said there was not a word of truth in the girl's allegations against him. Mr. Justice Walton said that the plaintiff had made statements, and Dr. Harris had repudiated them. As Dr. Harris was not a party to the action it was impossible to carry the matter further.

Meeting of the Rochdale and District Medical Society.

At a specially convened and thoroughly representative meeting of the Rochdale and District Medical Society, held on February 24th, the matter as it affected Dr. Harris was considered, and resolutions adopted expressing the profound sympathy of the members of the society with Dr. Harris, and their regret that, owing to the course which the trial had taken, he had been unable to bring forward the evidence which had convinced the members of the society of his absolute innocence of the charges. The members of the society present were James Melvin (President), W. J. Hodgson, Arthur Jefferson, H. Harris, J. A. Menzies, G. Kincaid Pitcairn, William Stanwell, W. Hirst Bateman, D. Richmond, J. A. Ashcroft, Sam T. Lord, A. Wallace, J. G. Standing, H. H. Hitchon, F. W. Hartley, E. Sugden, George W. Malim, A. B. McMaster, W. E. Jameson, John Rodley, M. J. Mahony, E. Baldwin, E. Harvie Cox, F. H. Mackichan, Hector M Calder, R. Burdett Sellars, Lewis Anderson, A. Dickson, W. P. Grant, W. J. Kerr, W. Pinck, and J. Cuthbertson Walker (Secretary).

SOLICITORS' FEES AND STAMP DUTIES.

PERPLEXED.—Out-of-pocket expenses are never reckoned as part of a solicitor's fees, so that our correspondent can only claim the payment of one guinea under the agreement. It would have been otherwise if all legal expenses had been stipulated.

ASSISTANTS' FEES.

310–7 writes that his assistant gave chloroform for another doctor, and received a fee of a guinea. On various other occasions he has given chloroform for a friend, for which he has been paid half a guinea a case, and these cases would not have been given to our correspondent, who asks whether it is customary to give an assistant the fee, or any part of it, in such cases.

*** An assistant, who is engaged for his whole time, is not entitled to receive any fees for professional work without the consent of his principal. Where the work is introduced entirely by the assistant, as in the second instance stated, it would be an equitable arrangement for the fees to be shared equally between principal and assistant.

THE OBLIGATIONS OF A LOCUMTENENT.

CAECUM.—In answer to the questions submitted to us: (1) and (2) The interval of a year is sufficient to mark the absence of any direct connexion between the attendance of our correspondent as locumtenent and the present request to attend. (3) The fact of being paid makes no difference. If a practitioner attends in an emergency for another at the request of a patient or the patient's friends, and is asked to continue the case, he should decline; if the patient insists, and refuses to see the previous medical attendant again, he may continue to act, considering himself as the other's substitute and offering him half the fees. At the end of the attendance he should endeavour to get the patient to return to his former medical attendant, but if that is impossible, it is, we believe, generally admitted that he may continue in attendance. If, however, he has acted at the request of the medical attendant, he may under no circumstances take the patient as his own. (4) Any obligation of a locumtenent would ordinarily only apply to the individual case, and would not extend to the whole family, although if called in to attend a child, and having thereby obtained an introduction to the family, it would be very unfair shortly after to accept an invitation to attend one of the other children or any other member of the household.

THE Pellagra Committee of the Province of Bologna has offered a prize of £60 for the best plan of hygienic improvement of agricultural labourers' dwellings.

THE Council of the Röntgen Society has appointed Dr. A. Howard Pirie, Chief Assistant in the *X*-ray Department at St. Bartholomew's Hospital, as delegate at the third International Congress of Physic-therapy to be held in Paris at Easter.

Universities and Colleges.

THE GRANTS TO UNIVERSITY COLLEGES.

ON March 4th the Chancellor of the Exchequer, who was accompanied by Mr. Haldane and Mr. Runciman, received a deputation of representatives of the universities and university colleges of England other than Oxford, Cambridge, and Durham, to ask for financial assistance. The deputation, which was introduced by Mr. A. H. G. Ackland, consisted of Lord Reay (London University), Sir Oliver Lodge (Birmingham University), Vice-Chancellor Hopkinson (Manchester), Sir John Brunner, Bart. (Liverpool), Sir Nathan Bodington (Leeds), Dr. Hicks (Sheffield), Sir Hugh Bell, and others.

The deputation pointed out that the students' fees only covered a fourth of the actual capitation cost. Matriculation work having been relegated to the schools, there was more room for post-graduates and post-graduate work, and this had increased the cost. So far from grants from the Government diminishing local patriotism, such official recognition encouraged subscriptions; many localities were willing to provide buildings and equipment, but were unable to guarantee the annual sum for maintenance. The Chancellor of the Exchequer in reply said that the arguments met with his entire sympathy, but the deputation could not have come at a worse time as he had no money. He promised, if full details were sent to him, that they would have his consideration, and a business committee was appointed by the deputation to prepare the required statistics.

UNIVERSITY OF OXFORD.

Philip Walker Studentship, 1910.—The Board of Managers have reported to the Vice-Chancellor that they have elected to the studentship Mr. William Ray, B.Sc.Oxon., M.B.Adelaide, Magdalen College.

UNIVERSITY OF CAMBRIDGE.

THE following degrees have been conferred:

M.B.—L. B. Perry, Queens'; C. F. Searle, Pemb.; H. B. Weir, Trin.
B.C.—G. G. Alderson, Caius; A. L. Singer, King's; G. H. H. Waylen, ing's; H. B. Weir, Caius.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN extraordinary Comitia was held at the College on March 2nd, the President, Sir R. Douglas Powell, in the chair.

Diploma in Psychiatry.

A letter from the Medico-Psychological Association of Great Britain and Ireland, urging the institution of a course of instruction and a diploma in Psychiatry, was read. The following resolution was moved by Dr. Mercier and seconded by Dr. Percy Smith:

> That a committee be appointed to settle the conditions under which a post-graduate diploma in Psychiatry shall be granted by this College.

After a prolonged discussion, in which Drs. Claye Shaw, Coupland, F. Warner, Norman Moore, Craig, and Bedford Pierce took part, Dr. F. J. Smith moved the following amendment, which was seconded by Dr. F. Taylor:

> That a committee be appointed to consider the letter from the Medico-Psychological Association and report to the College.

After further discussion, in which Drs. Herringham, Turney, Archibald Garrod, and Squire joined, the amendment was carried, and the President nominated Sir W. Church, Sir W. Allchin, Drs. Mercier, Percy Smith, Coupland, Norman Moore, and F. Taylor to serve on the committee, with power to add to their number.

Recognition of Schools.

On the recommendation of the Committee of Management, the Eastern District Secondary School, Douglas, Isle of Man, and Haileybury College were added to the list of institutions recognized by the Examining Board in England for instruction in chemistry and physics.

CONJOINT BOARD IN IRELAND.

Diploma in Public Health.—The following candidates have passed the recent examination for the Diploma in Public Health:

M. C. Blair, M.D.Univ. Glasg.; H. M. Cade, M.R.C.S.E., L.R.C.P.Lond.; R. T. Cann, M.R.C.S.E., L.R.C.P.Lond.; D. J. O'Regan, L.R.C.P. and S.I.; B. Khapoorji Photographer, L.R.C.P. and S.Edin.; H. K. Smyth, M.B., R.U.I.; G. Stead, M.R.C.S.E., L.R.C.P.Lond.; R. L. Thomas, L.S.A.Lond.; Lydia K. Towers, M.B.Univ. Edin. (with Honours); N. B. Watch, L.R.C.P. and S.Edin.; Captain J. W. West, M.B., R.U.I., R.A.M.C.; H. O. Williams, M.R.C.S.E., L.R.C.P Lond.

SOCIETY OF APOTHECARIES OF LONDON.

Election of Representatives.

AT a meeting of the Court of Assistants of the Society of Apothecaries held on February 8th Mr. Arthur T. Norton, C.B., F.R.C.S., was elected as the Representative of the Society upon the General Medical Council for the ensuing year. Mr. E. Parker Young, M.R.C.S., L.M., L.S.A., was re-elected as Representative of the Society on the Central Midwives Board.

Payment of Medical Practitioners Called by Midwives.

The Court also passed the following resolution:

> That, inasmuch as the absence of any provision for the payment of medical practitioners when called in on the advice of midwives in accordance with the "Midwives Act" is causing serious injury, the Government be respectfully urged to carry into effect the recommendation of the Departmental Committee on this subject as soon as possible, and that a copy of this resolution be forwarded to the Prime Minister, the Lord President of the Council, and the members for the City.

The Services.

EXAMINATION FOR PROMOTION, HOME STATIONS.

THE following is the list of the successful candidates at the December Examination for Promotion of Majors of the Royal Army Medical Corps in Technical Subjects:

Major N. TYACKE, Technical Subjects. Already passed in (*d*) ii.

Major L. A. MITCHELL, M.B., (*d*) ii; .75. Has yet to pass in Medical History, etc.

Major T. P. JONES, M.B., Technical Subjects. Already passed in (*d*) ii.

Major G. A. MOORE, M.D., Medical History, etc. Already passed in (*d*) ii, in Army Medical Organization in Peace and War, and in Sanitation and Epidemiology.

Major R. C. LEWIS, Army Medical Organization in Peace and War. Already passed in (*d*) ii, in Sanitation and Epidemiology, and in Medical History, etc.

Major C. T. SAMMAN, Technical Subjects. Already passed in (*d*) ii.

Major C. M. FLEURY, Sanitation and Epidemiology. Already passed in (*d*) ii, in Army Medical Organization in Peace and War, and in Medical History, etc.

Major G. DANSEY-BROWNING, (*d*) ii and in Technical Subjects, .75 in (*d*) ii, and .8 in Medical History, etc.

Major K. B. BARNETT, M.B., F.R.C.S.I. (*d*) ii and in Technical Subjects; .75 in (*d*) ii.

Captain G. H. GODDARD, (*d*) ii; .75. Already passed in (*h*).

Captain G. G. DELAP, D.S.O., (*d*) ii. Already passed in (*h*).

Captain A. A. SEEDS, M.D., (*d*) ii; .75. Already passed in (*h*).

Captain E. B. KNOX, M.D., (*d*) ii. Already passed in (*h*).

Captains H. S. ROCH, C. R. EVANS, E. P. SEWELL, M.B., FITZG. G. FITZGERALD, A. D. JAMESON, J. T. JOHNSON, M.D., and P. G. HYDE, M.B., (*d*) ii; .75. Already passed in (*h*).

Lieutenant H. V. B. BYATT, (*h*) iii. Already passed in (*b*), (*d*) ii, and (*h*) ii.

Lieutenant H. GIBSON, (*d*) ii, and in (*h*) ii and iii. Already passed in (*b*).

Lieutenant C. A. T. CONYNGHAM, M.B., (*d*) ii, and in (*h*) ii and iii; .75 in (*d*) ii. Already passed in (*b*).

Lieutenants J. C. L. HINGSTON and J. JAMES, M.B., (*d*) ii and in (*h*) ii and iii. Already passed in (*b*).

Lieutenant R. M. DICKSON, M.B., (*d*) ii and in (*h*) ii and iii; .8 in (*h*) ii and iii. Already passed in (*b*).

Lieutenant A. L. STEVENSON, M.B., (*d*) ii, and in (*h*) ii and iii; .75 in (*d*) ii. Already passed in (*b*).

Lieutenant J. W. HOUSTON, M.B., (*d*) ii; .75. Has yet to pass in (*h*) i, ii, and iii. Already passed in (*b*).

Lieutenant W. J. DUNN, M.B., (*d*) ii, and in (*h*) ii and iii. Already passed in (*b*).

Lieutenant F. B. DALGLIESH, (*d*) ii, and in (*h*) ii; .75 in (*d*) ii. Has yet to pass in (*h*) i and ii. Already passed in (*b*).

Lieutenants M. LECKIE, S. G. WALKER, M.B., and F. M. HEWSON, (*d*) ii and in (*h*) ii and iii. Already passed in (*b*).

Lieutenant A. L. FOSTER, (*d*) ii and in (*h*) ii and iii; .75 in (*d*) ii. Already passed in (*b*).

Lieutenant C. M. RIGBY, (*d*) ii and in (*h*) ii and iii. Already passed in (*b*).

Lieutenant T. S. EVES, M.B., (*d*) ii and in (*h*) iii. Has yet to pass in (*h*) i and ii. Already passed in (*b*).

Lieutenant L. MURPHY, (*d*) ii and in (*h*) ii and iii. Already passed in (*b*).

THE ROYAL ARMY MEDICAL CORPS (TERRITORIAL).

The King's Levée.

AMONG the presentations at the levée on March 1st at St. James's Palace was that of Colonel W. P. Whitcombe, upon promotion to the rank of Colonel, and appointment as Administrative Medical Officer, South Midland Division, Territorial Force. Colonel Whitcombe afterwards presented the following officers of the Royal Army Medical Corps (Territorial Force): Lieutenant-Colonel C. T. Griffiths, on appointment to command of the 2nd South Midland Field Ambulance; Major C. Howkins and Major W. H. Stephen, on attaining Field Rank, and on first appointment to the Territorial Force; Captain

G. W. Craig, Lieutenant C. R. Lunn, M.B.; Lieutenant W. M. Sturrock, M.B.; Lieutenant W. McCall, M.B.; Lieutenant W. A. Holland, Lieutenant J. H. Hobling, Lieutenant A. A. Kingston, M.B.; Lieutenant S. G. Webb, M.D.; Lieutenant H. F. W. Boeddicker, M.B.; Quartermaster and Honorary Lieutenant W. H. Kimpton. The following officers were also presented on the same occasion: Lieutenant-Colonel J. Paul Bush, C.M.G., R.A.M.C. (Territorial), on appointment to command of 2nd Southern General Hospital; Surgeon-Major C. Forsyth, R.G.A. (Territorial); Captain A. MacGregor, R.A.M.C. (Territorial); Lieutenant A. J. Riddett, R.A.M.C. (Territorial); Major A. C. Tunstall, R.A.M.C. (Territorial); Lieutenant-Colonel R. M. West, R.A.M.C. (Territorial); Major F. H. Westmacott, R.A.M.C. (Territorial).

Territorial Head Quarters at Aston.

The War Office has consented to make a grant of £7,000 for the purpose of properly adapting and equipping the buildings and portion of the old Aston Lower Grounds which were purchased two years ago for £13,000 to furnish head quarters for the 8th Battalion of the Royal Warwickshire Regiment and the local units of the Royal Army Medical Corps and the Army Service Corps. The quarters of the Royal Army Medical Corps, formerly the old aquarium, will comprise a fine entrance-hall opening out into the sergeants' mess, together with orderly rooms, waiting rooms, etc., and the company offices of the First and Second South Midland Field Ambulances and the First South Midland Mounted Brigade Field Ambulance. There will be a lecture-room 46 ft. by 23 ft. The men's recreation-room and canteen will be 46 ft. by 37 ft. 6 in. The spacious drill ground was formerly the old skating rink. At one end will be a covered drill shed and wagon store.

Lowland Camps.

The arrangements for the annual camps of the Territorial medical units during 1910 have been issued. The Lowland Mounted Brigade Field Ambulance, Glasgow, goes to Biggar with the Mounted Brigade from June 18th till July 2nd. The First and Second Field Ambulances from Glasgow and the Third Field Ambulance from Edinburgh go to Gailes on July 16th. The Second General Hospital from Edinburgh goes to Netley, while the Third and Fourth General Hospitals from Glasgow will train at Woolwich as last year.

Public Health AND POOR LAW MEDICAL SERVICES.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

County Borough of Leeds.—Although Dr. Spottiswoode Cameron's complete report for 1908 was not issued until the end of 1909, he had submitted a preliminary statistical report some months before. The birth-rate during 1908 was 24.8 per 1,000, the death-rate from all causes 15.5 per 1,000 of the population living, and the infantile mortality-rate 138 per 1,000 births. A large portion of the report is concerned with an account of the action taken by the Leeds Corporation in connexion with the prevention of tuberculous milk being supplied to the city. During 1908 the veterinary assistant to the medical officer of health made 481 visits to dairy farms and examined 7,397 cows. In 46 instances animals were found with udder disease. Of this number 11 were proved on further examination to be suffering from tuberculosis of the udder. In addition to these, 4 other cows whose udders were not obviously affected were under observation, and 1 was found subsequently to have more or less general tuberculosis. When discussing the supply of milk obtained from farms outside the city boundaries, Dr. Cameron considers it probable that nearly one-third of these farms are sending infected milk into the town.

Obituary.

AUGUSTIN A. LE ROSSIGNOL, M.D.ABERD., M.R.C.S.ENG., L.R.C.P.LOND.,

HONORARY CONSULTING SURGEON, JERSEY GENERAL DISPENSARY.

By the death of Dr. Augustin Le Rossignol, which occurred on February 18th at St. Helier, Jersey, as the result of acute broncho-pneumonia, the profession in Jersey has lost one of its senior and most respected members.

Dr. Le Rossignol, who was born in 1842, was educated at Victoria College, Jersey, and in France, where he graduated as B ès Sc. in 1862. He then entered as a student of medicine at the London Hospital, obtained the diploma of M.R.C.S. in 1866 and that of L.R.C.P. in 1867, and took the degree of M.D.Aberd. in 1868. He then began practice at St. Helier, Jersey, where his family had long been well-known and respected residents. There he acquired a good practice. He became Honorary Surgeon to the Jersey Dispensary, and held other honorary appointments. He was one of the founders of the Jersey Medical Society, acted as its Secretary for some years, and was ultimately elected President. He always took the warmest interest in the society, and in his will left to it the sum of £100 to be devoted to a special object.

In 1903 Dr. Le Rossignol received the honour of election as a jurat of the Royal Court of the island. In that position as also as a member of the States he devoted much time and attention to his official duties, and thus found it necessary to reduce, gradually, his private work. His interest in professional matters, however, never flagged. He continued his regular attendance at the meetings of the Medical Society, whilst giving his support also to the Jersey Division of the British Medical Association.

From the very onset of his brief, fatal illness, Dr. Le Rossignol appeared to realize that he would not recover, but he met his end with perfect calmness and entire trust. The interment took place at St. Saviour's Cemetery and was numerously attended, among others by the Lieutenant-Governor of Jersey, the Chief Magistrate, and several members of the medical profession.

Dr. Le Rossignol married Miss Edith Sorel, by whom he had a family of three sons and one daughter. The eldest son, Austin, a young medical man of marked ability and much promise, died three years since, of diphtheria, when a resident officer at the London Hospital. The others, together with Mrs. Le Rossignol, survive to mourn the loss of a most attached and devoted husband and father.

MISS ISLA STEWART, Matron and Superintendent of Nursing at St. Bartholomew's Hospital, died at Chilworth, Surrey, on March 6th. For more than twenty years she had worked consistently for the registration of trained nurses, under the authority of the State, and the present satisfactory position of the movement is due in no small measure to her influence. Naturally tolerant, generous, kindly, and peace-loving, she always stood firm where vital principles were involved, and placed the welfare of the cause she had so much at heart above all personal considerations. As a matron she won not only the respect, but the affection, of those who worked under her, and the spirit she infused into the nursing department under her control was that of the public school, where the scholars themselves are jealous for and maintain its high tone, and teachers and pupils are on the best terms. At the time of her death Miss Stewart was a member of the Nursing Board of Queen Alexandra's Imperial Military Nursing Service, Principal Matron of No. 1 (City of London Hospital) of the Territorial Nursing Service, President of the Matrons' Council of Great Britain and Ireland, and of the Society for the State Registration of Trained Nurses, and Honorary President of the League of St. Bartholomew's Hospital Nurses. Her services to the profession of nursing received recognition in her appointment as an honorary member of the Irish Nurses Association, the German Nurses Association, and the American Federation of Nurses, and a special medal, which she valued very highly, was conferred upon her by the Assistance Publique of Paris. Her memory will long be cherished both in this country and in our colonies and abroad by members of the profession which she loved and served with unselfish devotion.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. Samuel Rona, Professor of Dermatology in the University of Budapest, author of papers on the etiology of rhinosclerma, eczema, gangrene and phagedaena, rodent ulcer, angioneuroses, and of a work on venereal diseases, of which two editions have appeared, aged 52; Dr. Nikolai Kumberg, author of numerous writings on the history of medicine, and of a biographical dictionary of Russian practitioners, which was unfortunately left uncompleted at the time of his death; Dr. Johann Krannhals, one of the editors of the *St. Petersburger medicinische Wochenschrift*, aged 56; and Dr. Follen Cabot, of New York, a lineal descendant of John Cabot, brother of Sebastian Cabot, the famous explorer, a specialist in genito-urinary surgery, in his 40th year.

Medical News.

THE King has been pleased to sanction the following appointments to the Order of the Hospital of St. John of Jerusalem in England :—As Knights of Grace : Robert A. Gibbons, M.D., Lieutenant-Colonel Frederick H. Appleby, M.R.C.S. (from Honorary Associate), Major Robert J. Blackham, R.A.M.C. (from Honorary Associate). As Esquires : Major Charles A. Hodgetts, M.D., L.R.C.P., A.M.C. of Canada (from Honorary Associate), Charles J. Copp, M.D., Major Harry B. Yates, M.D.

ON March 9th the Battersea Borough Council by a large majority decided to proceed at once to carry out the resolution for the removal of the Brown Dog antivivisection memorial.

THE annual report of the Caxton Convalescent Home, Limpsfield, for all connected with the printing industry, presented to the annual meeting on March 5th, stated that 135 convalescents had been restored to health through its agency. A special appeal is being made to liquidate the building debt of £900 incurred in extensions.

THE Orient Line has arranged an Easter sea trip to Gibraltar and Marseilles. The tourists will leave London on March 18th by the *Orvieto*, and will reach London again on April 1st by the *Osterley*, both being 12,000-ton twin-screw vessels. The journey can be broken at Gibraltar by those who desire to visit Africa or the South of Spain.

AMONG the lectures to be given at the Royal Institution after Easter is a course of three on the mechanism of the human voice, by Dr. F. W. Mott, F.R.S., Fullerian Professor of Physiology; Professor C. J. Holmes will give two lectures on heredity in Tudor and Stuart portraits; and Major Ronald Ross, F.R.S., two lectures on malaria. The Tyndall lectures on electric heating and pyometry will be given by Professor J. A. Fleming.

AT the meeting of the Medico-Legal Society at 11, Chandos Street, Cavendish Square, W., on Tuesday, March 22nd, at 8.15 p.m., Mr. J. Howell Evans, F.R.C.S., will read a paper on The Value of the Ear in Identification; Dr. Wynn Westcott will communicate a note on Deodands; and Dr. H. Oppenheimer will made a communication on The Liability for Malpraxis in Ancient Law.

A THREE months' course of lectures and demonstrations in hospital administration for candidates for a diploma in public health will be given at the North-Western Hospital, Hampstead, N.W., by Dr. J. MacCombie, Medical Superintendent, on Mondays and Thursdays, beginning on April 4th. The lectures on the two days in each week will be identical, and a member of the class may attend on either day. The fee for the course is 3 guineas. Further particulars can be obtained from Mr. T. Duncombe Mann, Clerk, Metropolitan Asylums Board, Embankment, E.C.

A COURSE of six lectures on the prevention of destitution will be delivered by Mr. and Mrs. Sidney Webb at St. James's Hall, Great Portland Street, London, W., on Monday evenings, beginning on April 4th, 1910. The Home Secretary, Mr. Winston Churchill, will preside at the meeting on Monday, April 25th. At the close of each lecture answers to questions will be given orally by the non-lecturing partner. Numbered and reserved stalls, 1 guinea for the course of six, or 5s. for a single lecture; and other seats half a guinea for the course, or 2s. 6d. for any single lecture, can be obtained on application to the Secretary of the National Committee to Promote the Break-up of the Poor Law, 5 and 6, Clement's Inn, Strand, W.C.

DR. C. W. DANIELS, of the London School of Tropical Medicine, is delivering a course of lectures in the West India Committee Rooms, 15, Seething Lane, S.E. The first lecture was given on March 10th; the others will be delivered on March 14th, 17th, and 21st, at 4 p.m. The lectures, which are illustrated by lantern demonstrations, are intended to give persons about to reside in the tropics, and especially the representatives and employees of commercial and industrial undertakings, an opportunity of acquiring a knowledge of the cause and spread of tropical diseases and the means of prevention. The lectures are delivered as a sequence to those already given by Professor Simpson at the London Chamber of Commerce. Tickets can be had on application to P. Michelli, C.B., London School of Tropical Medicine, Royal Albert Dock, E., or Mr. Algernon E. Aspinall, Secretary to the West India Committee, 15, Seething Lane, E.C.

THE duties of a sanitary medical officer on the Persian shore of the Caspian Sea appear to be of a most strenuous kind; there was early in December a limited outbreak of cholera at Astara. Dr. Lascaridès, the representative of the Persian Sanitary Council, succeeded in localizing the epidemic, but in taking measures to prevent its dissemination to neighbouring ports he had to forbid the voyage of certain persons until the period of observation had terminated. This action was very much resented; the would-be travellers threatened the doctor with death, and were only induced to refrain from violence on that much-tried official giving them maintenance money out of his own pocket.

THE Princess of Wales opened the new buildings of the Hospital for Invalid Gentlewomen in Lisson Grove on March 7th. The institution, of which Miss Florence Nightingale was first lady superintendent until 1853 when she went to the Crimea, was first started by Lady Canning in Chandos Street, and removed two years later to Harley Street. On the expiration of the lease of the Harley Street premises last year the site in Lisson Grove was secured on favourable terms. Since the foundation of the institution some 5,000 cases had passed through the hospital, many coming from India and the Colonies. After a brief dedicatory service by the chaplain, the Rev. C. E. Harris, the Princess declared the building open and subsequently made an inspection of the premises. There is accommodation for thirty-two patients in small wards and private rooms. The operating room on the fourth floor is well lighted and is reached by a spacious lift.

THE nineteenth annual report of the Nurses' Co-operation, 8, New Cavendish Street, London, W., shows that 468 fully trained nurses, and 27 asylum-trained nurses, belong to the Co-operation, and that there are also 13 nurses eligible for election working on probation for six months. The nurses on the staff receive the whole of their earnings, subject only to a deduction of 5 per cent. in the case of those who joined before the end of 1903, and $7\frac{1}{2}$ per cent. in the case of those admitted since. The fund formed by this percentage is used for upkeep, payment of permanent staff and incidental expenses, and the maintenance of a policy by which nurses are insured against accident, the surplus being invested as a reserve fund. The committee also arranges a policy of insurance against sickness and death, the contributions of the nurses being supplemented from the funds of the Co-operation.

THE Chelsea Clinical Society held its annual dinner on March 3rd at the Gaiety Restaurant, Strand. Mr. Leonard A. Bidwell, president of the society, was in the chair, and there was an excellent attendance of members and friends. The Chairman, in proposing the toast of "The Society," said that though the Chelsea Clinical Society was one of the youngest of the medical societies, its progress was remarkable and was due to the fact that its members were enthusiastic in the work and had never neglected the social side. The popularity of the meetings was enhanced by permitting the members to indulge in smoking. Dr. Barry Ball, in responding to the toast, gave an interesting account of how the society had migrated from different localities in Chelsea till at last it had settled down at the Chelsea Dispensary. Dr. Eric Pritchard proposed the toast of "The Kindred Societies and Guests," which was acknowledged by Dr. Samuel West, President of the Medical Society of London and by the Mayor of Chelsea. The proceedings terminated after Mr. Charles Ryall had given the health of "The President and other Officers," which was acknowledged by the chairman.

SOME idea of the magnitude of the business of industrial assurance in this country may be gathered from the sixty-first annual report of the Prudential Assurance Company recently issued. As the figures are so large, we shall use only round numbers. The total number of policies in force at the end of the year was over $18\frac{1}{4}$ millions, including $1\frac{1}{2}$ millions free or paid up policies; the amount assured was $185\frac{1}{2}$ millions, and the premiums received in respect of these policies amounted to £143,000 a week, or nearly $7\frac{1}{2}$ millions sterling a year. The average duration of the policies in existence exceeded $11\frac{1}{2}$ years, and the average age of the assured was $33\frac{1}{4}$ years. The number of free policies granted during the year to those policy holders of five years' standing and upwards who desired to discontinue their payments was over 150,000, raising the number in force to over $1\frac{1}{2}$ million. The number of free policies which became claims during the year was 41,000, and the total number of claims and surrenders (including 4,545 endowment assurances matured) was 382,000. The claims of the year amounted to over $2\frac{3}{4}$ millions sterling. The results of the actuaries' valuation of the life assurance fund in the industrial branch showed that it amounted on December 31st to $31\frac{1}{2}$ millions, with a net liability of $30\frac{1}{4}$ millions sterling. The company also has an ordinary branch, and its total assets in both branches, as shown in the balance sheet, amount to over 74 millions.

Letters, Notes, and Answers.

BRITISH MEDICAL ASSOCIATION AND BRITISH MEDICAL JOURNAL.

THE offices of the British Medical Association and of the BRITISH MEDICAL JOURNAL are at 429, Strand, London.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

H. wishes to hear of a safe and reliable stove or heating apparatus which will keep in all night and not give off noxious fumes, for use in an invalid's bed-sitting room; gas is not available.

J. D. D. asks for advice in the treatment of soreness of the tip of the tongue in a man aged 40; the papillae appear to be enlarged and show as discrete red spots; there is no ulceration. The patient is of gouty tendency, but temperate, and has excellent general health; he has given up smoking for a month. Local mild stringents and an acid mouth-wash have been prescribed.

THE PRESCRIPTION OF ASPIRIN IN SOLUTION.

G. E. C. asks whether there is any objection to prescribing aspirin in combination with liquor ammonii acetatis, in which it is freely soluble, and what is the chemical resultant in the solution.

*** When acetyl-salicylic acid is dissolved in solution of ammonium acetate it undergoes gradual hydrolysis into acetic and salicylic acids, but the change occurs much more slowly than when it is dissolved in weak alkali; experiments show, however, that the amount of hydrolysis in such a solution is rather considerable in a few hours. There appears no objection, on chemical grounds, to dissolving acetyl-salicylic acid in this way if the medicine is to be taken at once, but if it is to be kept for a day or two more or less ammonium salicylate will be produced, and the advantage of using the derivative of salicylic acid instead of the acid itself will be largely lost.

INCOME TAX.

E. W. A. inquires (1) whether, having omitted to claim before September 30th, he can now appeal for assessment at the rate of 9d. instead of 1s. 2d.; (2) whether, if he pays this year, he can claim next year; (3) whether he can claim allowance for deterioration of motor bicycle, cycle, horse, trap, books, and instruments.

*** (1) The necessary claim not having been made before September 30th, it will not be possible to obtain reduction of the duty to the rate of 9d. in the pound. As to whether, after the passing of the Finance Bill for 1909, it may be possible to claim reduction to the intermediate rate of 1s., no opinion can be expressed until the eventual wording of the bill is known. In the meantime payment should be deferred. (2) Payment for this year forms no bar to a claim for any other year. (3) Allowance can be claimed for wear and tear of motor bicycle, cycle, and instruments, and the claim should be pressed unless it will be to our correspondent's advantage to claim instead the cost of renewals when incurred. With regard to the horse and trap, it is not customary to allow for deterioration in value, but the cost of renewals should be claimed, and in the case of books a reasonable sum for maintenance of the medical library.

ANSWERS.

AN APPEAL TO MASONS.

DR. FRED. J. SMITH (138, Harley Street, W.) writes: May I appeal to any brother Masons who have Masonic votes to spare to send them to Mrs. Knights, 10, Elma Road, West Green Road, Tottenham, or to me?

LETTERS, NOTES, ETC.

A WARNING.

M.D. writes: An American, giving his name as Dr. S. Clifton, called on me recently and begged of me a loan as a confrère, giving his address at Hindhead, Haslemere. On my writing to remind him, the letter was returned through the Dead Letter Office endorsed "unknown."

COLONIAL PRACTITIONERS AND THE BRITISH REGISTER.

WITH reference to the statement contained in the letter of Dr. Thomas P. Lucas (BRITISH MEDICAL JOURNAL, February 26th, 1910, p. 547), that British medical diplomas are registered without fee in Victoria and Queensland, Dr. P. Merrin writes from Dublin to say that the statement is not now correct as to Victoria. In July, 1908, Dr. Merrin was required to pay a fee of three guineas for the registration of diplomas of the Royal Colleges of Physicians and Surgeons of Ireland, and of the Apothecaries' Hall, Dublin.

THE PITUITARY BODY.

DR. V. C. J. VANDERSTRAATEN (Colombo, Ceylon) writes with reference to the paper by Dr. Blair Bell on the pituitary body, on pp. 1609–13 of the JOURNAL of December 4th, 1909: In his researches for the bibliography relating to this organ he does not seem to have found records of papers on the same by my lamented friend, the late W. Lloyd Andriezen, M.D.Lond., sometime of the Lunatic Asylum, Wakefield. Some years ago, long before the discovery of the properties of adrenalin, I received from Messrs. Willows, Francis and Butler and Co. a circular advertising tablets of the pituitary body prepared after the investigation into its properties by Dr. Andriezen.

THE EARPIECES OF STETHOSCOPES.

DR. E. HOBHOUSE (Brighton) writes: I saw quite recently, in the description of a new stethoscope, the advice to make the earpiece small, so that it should fit well into the external auditory meatus. Having suffered a good deal from this very cause in the last year or so, I should like, with your permission, to explain why I think such advice unsound, and likely to prove a source of trouble to many. I have for one or two years suffered from irritation of the auditory meatus, with consequent accumulation of cerumen. After a long day with much use of the stethoscope the itching was very troublesome, and I am sure that it was due to the use of a stethoscope with small earpieces, which sank deep into the meatus. The effect was twofold—the pressure on the meatal walls kept up chronic irritation, and when cerumen was formed that was driven in by the entry of the earpieces and formed a plug. Now, a plug may often be no barrier to hearing; its effects varies according to its position. It may be driven inwards temporarily by the stethoscope, so as to deaden sounds very greatly for the time. Thus, murmurs, etc., which are audible one day may be, though still present, quite inaudible the next, with consequent confusion and annoyance. Owing to the intermittence of the symptoms it was some time before I suspected the true cause, and it was only when I went to consult Mr. A. J. Hutchison, in the fear that I was getting deaf, that I got at the truth. Since then I have only used a stethoscope with large earpieces which fill up the entrance of the meatus and do not enter it; this obviates the trouble. I am going to have made the largest earpieces, which will comfortably fill the orifice of the meatus without entering, and I am sure this is the right principle—at least for those who have any tendency to chronic meatal irritation. Mr. Hutchison, who kindly reassured me as to my hearing, tells me that some trouble of the kind is not at all uncommon among those who use a stethoscope constantly, and I therefore write this in the hope of enabling some of my colleagues to avoid the annoyances of intermittent deafness and the haunting fear of its becoming permanent.

MYSTERIOUS DISEASES.

WE find in the *Manchester Dispatch* of February 22nd a report of an inquest on a miner who, on arriving home from his work with a black eye, complained that "a tree had flown out and hit him." Next day black blisters came out in his mouth and afterwards over his body. In accordance with the medical evidence, as reported in our contemporary, the jury returned a verdict of "Death from *purpuraemorrhagica*, accelerated by injuries received while at work." But this terminological conundrum, though somewhat puzzling at first sight, is simple compared with "Morbus Coeoulem," which stands at the head of an interesting article in the November number of the *Birmingham Medical Review*. Here the printer's devil has surpassed himself.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£ s. d.
Eight lines and under	0 4 0
Each additional line	0 0 6
A whole column	2 13 4
A page	8 0 0

An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

NOTE.—It is against the rules of the Post Office to receive *poste Restante* letters addressed either in initials or numbers.

A Clinical Lecture
ON
GASTRIC AND DUODENAL ULCER.

DELIVERED AT THE LONDON HOSPITAL, FEBRUARY, 1910.

BY

F. J. SMITH, M.D., F.R.C.P.,
PHYSICIAN TO THE HOSPITAL.

GENTLEMEN,—I have elsewhere given at length what I believe to be the correct pathogeny of gastric ulcer. The word "pathogeny," I may say, means simply the pathological origin, as it were, of gastric ulcer; it is just a mixture of pathological physiology and the resultant pathological anatomy; it is the connecting link between the two. I have there stated my belief that in all cases, as met with in ordinary practice, a gastric or duodenal ulcer arises originally as a tiny focus of inflammatory necrosis in one of the numerous, practically innumerable, small collections of adenoid tissue met with in immediate proximity to the epithelial cells in the stomach and duodenum. I told you that I based my belief on, first, the very simple observations, made to fit no preconceived theory, by Dr. Beaumont on St. Martin's stomach; and, secondly, on the microscopical work of Dr. Charles Miller, carried out on stomachs in our pathological department, and given in detail, with drawings of actual specimens, in the BRITISH MEDICAL JOURNAL, volume ii for 1906. I then proceeded to show how Dr. Miller's explanation would fully explain every single one of the clinical and *post-mortem* findings hitherto recorded in connexion with gastric and duodenal ulcer.

I have said, "in all cases met with in ordinary practice." This wants a little explanation. In the first place, it would be an injustice to omit entirely the experimental work that has been done on gastric ulcer, proving that emboli and poisons which cause small patches of local death in the mucous membrane of the stomach are certainly capable of producing the *post-mortem* figure which belongs to the acute peptic ulcer; the clean punched-out "steppy" appearance, an appearance which is in fact produced by the digestion of the embolized spot, or at least disintegration aided by digestive processes. I am not quite sure that it is a question purely of digestion of a piece of dead meat in the stomach, or whether there may not be also some active living inflammatory processes going on as well; these are, at any rate, manifest enough when the ulcer has lasted some time. Dr. Turnbull, the Director of our pathological institute, informs me that he has seen these acute ulcers in cases of septic death, ulcerative endocarditis, etc., due, in his opinion, entirely to minute septic emboli, and he gave me on Monday this particular reference:

P. M. 115, 1910, February 1st. A little child, female, aged 3½, a deep, subacute, duodenal ulcer, ⅔ in. in diameter, with shelving border touching the pylorus on the posterior surface. The case was one of an accidental death from gangrene and purulent ulceration of the right knee, that is to say the right knee was damaged by external violence, and the child died of septic trouble arising from wound infection, the small septic emboli invading the gastric arteries.

That is a case in point indicating how emboli can cause these ulcers. So I have used the words "in ordinary cases"; for though we must recognize that an embolic origin is a possible one, yet I would urge that in the ordinary case of gastric or duodenal ulcer we have generally no evidence that there is any infective endocarditis, or, indeed, any other source from which emboli could arise. But we do have septic matter, whether bits of ordinary food (which are certainly not aseptic) or small doses of pus from the gums, etc., which, as well as the mechanically hard portions of food, are quite capable of setting up the local focus of inflammation which my theory demands. The results are the same whichever cause is at work; there may be an embolus which blocks an artery and so destroys the part by cutting off its blood supply, or, in the more ordinary way, the *materies morbi* comes into the stomach and gets at the part and inflames it by direct contact instead of killing it by the embolic method. The difference is merely in the process.

I feel obliged to labour this point of the origin of the ulcers, because it is a crucial one in my argument, which, briefly stated, runs as follows, namely: That gastric or duodenal ulcer is what we commonly term a diathesis, that is, a natural proneness of the body to a given disease, and that the actual visible ulcer itself is an acute, unusually virulent attack of the disease or outbreak of the diathesis, just as an acute attack of gout or rheumatism is an acute outbreak or attack of gout or rheumatism in a person prone to those diseases. And just as we are ignorant of why one man is more prone than another to gout—we know a good deal about what will induce an attack in one so predisposed—so we are ignorant of why one person, or indeed one sex, should be so prone to an attack of gastric ulcer, or why the duodenal form, primarily at least, should be practically the only form seen in male subjects. (In ten years, 1899–1908, there were 113 duodenal ulcers admitted to the hospital, and of these 97 were in males.) Those of you who were with me in the *post-mortem* room a week or two ago will remember a man with duodenal ulcer who had five or six gastric ones also. The well recognized liability of some people to slight or even severe attacks of tonsillitis is a highly suggestive fact in my favour, and certainly such liability does not cease on removal of portions of the tonsil. There are plenty of analogous diatheses also which, if not supporting my views, at any rate prevent them from being considered ridiculous or far-fetched. I think they strongly support my view, namely, that this tendency to gastric ulcer is definitely a diathesis, attacking some people, or hereditary in some people, and not present, or very slightly so, in others.

We must now pass on to consider what, in my opinion, is the most important point about gastric and duodenal ulcer, if not, indeed, the only question which the patients care about—namely, whether the treatment should be by medicine or by surgery. Last week, you will remember that in order to clear the ground I gave you a complete, full, and detailed account of what medical treatment in my practice means—that is to say, my own methods of treatment.

There can be no question but that certain *results of ulcer* must be treated by surgical means, but it is to my mind equally certain that the diathesis—and, indeed, a simple acute attack of the disease—can be, and indeed must be, treated by the physician; and it is mainly to oppose what I consider the exaggerated claims of surgery recently put forward by Mr. Moynihan that I have taken up your time to-day with the subject. I listened to Mr. Moynihan's paper, and I subsequently read it in print, and also his article on appendix dyspepsia; and whilst I am bound to agree with a great deal of what he has said and written, I feel obliged to protest on general grounds and on experience against his main conclusion, which it is no exaggeration to say amount to this—anyone who suffers from the symptoms of *painful* indigestion should have the abdomen opened. I do not honestly think I am doing him any injustice, judged by his own words, when I say that that is his meaning. If you have painful indigestion you have an ulcer, and if you have an ulcer it ought to be dealt with surgically. I certainly do not agree with that opinion. Equally emphatically must I protest against the decision of my colleague, Dr. Robert Hutchison, who in the discussion admitted in so many words—and I have it from him directly also—a duodenal ulcer diagnosed with certainty must be treated surgically. That is a statement which I for one cannot admit to be correct in any way or shape, and I am going to speak against it and act against it to the utmost of my power. In order to support my protest by stronger means than my own personal instincts and experience I appealed to the registrars and to our pathological department for information with statistical details of the disease as seen in our wards and *post-mortem* rooms over a series of years; and I would like here to express my thanks to Dr. Zundel and Dr. Turnbull for their trouble in the matter.

Taking first the statistics of the wards, I find that for the ten years 1899–1908 we have had in the hospital for treatment a total of 1,255 cases of gastric and duodenal ulcer, out of which there have been 113 duodenal, the remaining 1,142 being gastric. These patients arrived in the hospital as follows: 757 of them came in on the medical side, and of those 757, 141 were transferred to the surgeons

to deal with. The surgeons had 357 originally admitted under their care *plus* 141 transferred to them from the physicians. I maintain that those figures, though not very large in themselves, and certainly not large enough to completely satisfy the statistician, are certainly quite large enough to give us important clinical information. Subtracting 141 from 757 leaves us 616 which were treated entirely by medicine. What happened to those 616? (I may note in passing that through some arithmetical error they are reduced to 606.) Out of 606, then, 57 died, a percentage of 9.4.

I am not concerned, just at this moment, when talking of the distinction between medical and surgical treatment, with the precise cause of death; for, admitting the fact of death, whether they died of exhaustion simply or from vomiting, or from haemorrhage, or from perforation, is more or less immaterial. Now in indicating the fate of the remainder—those who did not die—our residents have three categories wherein to put them on discharge—relieved, unrelieved, and cured. I have no doubt that putting the term "cured" to a case of gastric ulcer rather represents the enthusiasm of youth than a proof of the occurrence of a complete healing of the gut; while "relieved" refers to the more cautious attitude of expectancy adopted by a man who thinks himself more conscientious. I am not very much concerned with the C's and R's, and I have lumped them together, and I find that not one of those 549 left the hospital unrelieved. I am bound to admit—and it may be considered an important admission, but I do not think it is from my present point of view—that the 141 who were transferred to the surgeon might have died; that is a possibility, and indeed a probability, had nothing been done under the circumstance indicating operation. Assuming, as we have a right to assume, that "relieved" means that the symptoms of pain and vomiting had disappeared (when it comes to a question of accurate diagnosis of what is ulcer and what is indigestion, the line is very indistinct, but vomiting and pain are certainly suggestive of ulcer, but I am not concerned to traverse the diagnosis of my colleagues, who in all these cases believed that ulcer was present), we have 549 out of 606, or in other words 90.5 per cent., which were cured of their symptoms. Notice I do not use the term "cured of their diathesis" nor "cured of their ulcers." I say it is impossible to be certain that the ulcer has healed simply because the symptoms ceased. (What the meaning of that cessation of symptoms is I am not clear in my own mind, though I throw out one possible suggestion—namely, that the mucous membrane gets thrown into folds, and that a fold covers in an ulcerated surface, and therefore no fluid or anything else can come in direct contact with the ulcer.) All the same, there is some fairly strong evidence from the *post-mortem* room that these people may be cured of their ulcers, for scars of old ulcers in the stomach and duodenum are met with with sufficient frequency to warrant the statement that ulcers do frequently heal under non-operative conditions—that is to say, under medical treatment. We have a number of cases in the *post-mortem* room in which scars are found and in which it is perfectly certain that operation was not undertaken. Dr. Turnbull furnishes me with the following statistics for the one year 1909 (as a matter of fact, he has given me three years of statistics of perforations, and other facts, but it is only in the year 1909 that his attention has been drawn to the subject, and in that period he was particularly careful to see that every stomach and duodenum which passed through the *post mortem* room was carefully examined for scars): In 1909 he found 10 cases of ordinary still existent duodenal ulcer, in one of which the scar of an old healed second ulcer was present; he also found 5 cases of scars of old ulcers in the duodenum, the possessors of which died of something totally different. Thus, small as these figures may be, they prove to complete demonstration the fact of the possibility of the healing of duodenal ulcer without surgical interference, and that is the one point which I wish to prove and to insist upon: that an ordinary gastric as distinguished from a duodenal ulcer can heal is, I think, admitted by every one without requiring further proof.

Now, think of what I have been proving. I have been combating my colleague Dr. Hutchison's statement that if a duodenal ulcer is present he thinks surgical interference is imperatively called for, if you can diagnose it. My point is that while it may be called for for other conditions, yet simply for the fact of ulceration it is not called for, because I have shown that in one single year we have got 6 cases found on *post-mortem* examination with healed duodenal ulcers that have never been operated upon. I cannot therefore plead guilty to any proved exaggeration when I claim that 90 per cent. of ulcers treated medically are as surely cured as when they are treated surgically. Note the comparison I make, "as surely cured." I am not certain that when we treat them medically ulcers must necessarily heal, but I equally claim that when treated surgically there is no greater proof that the ulcers heal beyond the cessation of symptoms, and I have proved that under any circumstances ulcers can heal.

It is tacitly assumed, at any rate by those who have not specially studied the question, amongst whom must be included every one of your patients, that after medical treatment relapse is the rule, and the patients are really no better, whereas after surgical treatment they are completely cured, and need fear no relapse. It is often stated that if a patient undergoes surgical treatment he will be completely cured; if he be put to bed and treated with medicine he will be relieved of symptoms, but the ulcer will recur. That is definitely a fallacy, as I shall now show by the statistics of relapses. These figures will have to be very much revised, not that they are incorrect, but I cannot positively assert that they represent 606 different persons, how far they may include relapses—a point that must be ascertained before the figures are used for other purposes. But taking them as Dr. Zundel has given them to me, out of 606 cases medically treated, 75, or 12.3 per cent., were known to have relapses at a less or greater interval after the cessation of treatment. What I do not know in connexion with them is how many of these 606 cases would represent relapses from attacks which have occurred before they came to the hospital. So that I must admit that the proportion of relapses under medical treatment may be rather larger, and quite probably is, and I am not concerned to deny it, because I have never raised that point; I have never said that if you will give me a gastric ulcer to treat I will guarantee to cure it so that the patient will never be ill again; that is not my position at all. I am surprised that the number is so low as 12.3 per cent.; I think probably it will be found to be nearer 20 or even 30 per cent. of relapses if one knew the previous histories (Mr. Moynihan's paper was only read last month, and in one month we certainly have not had time, and I could not throw on our registrar the work of investigating all these 1,255 cases from this point of view, because it means reading the history of every one of them, and tabulating the number of times they have been laid up in bed at home or in other hospitals with gastric ulcer, or with symptoms which are those of gastric ulcer). Now out of 321 cases surgically treated, 28, or 8.9 per cent., relapsed; so that after surgical treatment it may be that the liability to relapse is not quite so great, but they do relapse, and in a very unsatisfactory percentage, and the difference between the medical and the surgical treatment is not so great as would lead a patient, or should lead a doctor, to ignore the chances of getting no improvement after submitting to the risks of operation.

I do not want to lay very great stress on those risks of operation, but I do wish to point out that they are not a negligible quantity, because I find, taking the statistics for the years from 1903 to 1907 on the surgical side, that they had 314 cases to operate upon, and I have deducted at once all cases of perforation, because the prognosis of perforation is such that it is not fair to surgeons to include them; but taking the cases which do not perforate, but in which the symptoms are of sufficient magnitude to make it advisable that the surgeon should interfere—and he has had a favourable chance of interfering, a reasonable surgical chance—of the 314 such no less than 55 died; in other words, there was a mortality of 17 per cent. I do not want to say that that is a very big mortality, because it is not, and gastric ulcer, if left to go on after surgical interference seems desirable, is highly fatal; and I think it can fairly be urged by a surgeon, "It is true I have killed 17 per cent., but I have saved the remaining 83 per cent. from

nearly certain death." But my present point is that surgical interference is not without its own risks, and it has to be compared with the death-rate of those who are absolutely left alone, which rate I gave you just now, 9.4 per cent. You cannot strictly compare those by subtracting one from the other.

These statistical details require a great deal of work and elaboration to enable us to arrive at complete answers to many subsidiary questions surrounding the subject of ulceration. I shall get Dr. Zundel to work them out more elaborately in the next six or eight months. But, partly from these statistics and partly from general clinical experience, I feel justified in giving you for your guidance the following propositions as the guiding indications for surgical and medical treatment respectively.

The first point is this: that a first simple attack of ulceration should invariably be treated by medical means for a period of at least a fortnight, to be extended if necessary to a month. You will have gathered the arguments from what I have said. Secondly, I lay it down that if at the end of a month there are no signs of improvement as regards pain when the patient has resumed active life, we may begin to entertain the idea of surgical interference, because we may be reasonably certain that the ulcer has not healed. But even here I would myself repeat the medical treatment with rest in bed for another month, and that is a proposition which I feel certain it is impossible to controvert. My third proposition is that the above two hold, no matter what the age or sex of the patient may be, but that age and sex have a good deal to do with deciding for or against surgery. Considering age alone, there is very little, in fact no advantage in resorting to surgical interference under the age of 30, unless indeed signs of stricture are too evident to be misinterpreted, in which case surgical interference is imperative on account of and to cure or to obviate the stricture. But the chances of cure of the ulcerative diathesis are *nil*, for all the relapses after surgery, or nearly all of them, are in young subjects under 35. We know, however, the evils we are dealing with, and can estimate very nicely the means we have for dealing with them, and can act accordingly—that is to say, the evil we are dealing with is the stricture; we can estimate its extent fairly accurately by observations on the nature and the amount of the vomit, and the amount of loss of flesh. We have the clinical data, and we can wash the stomach out and see how much it will hold, and so on. So that, except for a stricture, do not operate at or under the age of 30. After the age of 30, and the later after 30 the better, the greater the advantage of surgical interference.

We have every reason to believe that as age advances the adenoid tissue spoken of above (and here is the importance of my original thesis) atrophies and becomes less vulnerable. But if an ulcer do occur after 30, the tissue has proved itself to be vulnerable, and it seems to have a less tendency to heal, and the ulcer a greater tendency to spread, and to produce serious results. Hence a greater readiness on our part to consider surgical intervention, because (*a*) there is less tendency to relapse, so that a complete cure may result; (*b*) there is a greater danger of serious results while trying medical treatment; (*c*) we know that medical treatment is less likely to prove of service because of the intractability of the ulcer. After the age of 30, then, I am not by any means averse to operative interference from that point of view; but still, remember what I have said about my first two propositions, that for the first attack, no matter what the age or the sex, do not operate until you have given at least two months' treatment.

My fourth point is obvious to anybody, that for stricture and perforation surgical interference is absolutely imperative. Nothing more need be said about them; the necessity for the surgeon is too obvious. The fifth point has regard to haemorrhage alone as an indication for surgical interference. Here we are on very delicate and debatable ground; but it would seem again that age has chiefly to be considered and the nature of the bleeding. Take the very common case in which a girl of about 20 years of age, anaemic, is suddenly seized with a very profuse haematemesis. Operation is not indicated in these cases as a matter of urgency; it is practically useless to think of it to check the bleeding, because long before her stomach can be opened she will have bled to death if she is going to do so. In these young subjects, I think I might definitely tell you, I have never seen a fatal case of haematemesis. I expect that is not strictly true, as I may have seen such a case and forgotten it, but such cases are so rare that at this moment I do not remember one. Should the case prove rebellious to medical treatment, the fact of this haemorrhage has to be borne in mind when we are considering operation at a later stage. But that is another matter. I say that in young subjects with profuse haematemesis it is no good to call in a surgeon because of the haematemesis. Call the surgeon in later because of gastric ulcer. Taking the other extreme and, I think, equally clear case where surgery is of use, it is the subject between 30 and 50 years of age who has had five or six moderately severe haemorrhages in a week. I have known several cases of that description: sick on Thursday, perhaps a pint of blood; sick again on Friday, with about a pint; sick again on the Saturday, with perhaps rather less than a pint; sick again on Sunday, with another pint; getting very exhausted, repeated haemorrhage, in a middle-aged subject. I say that in that sort of case operation is distinctly indicated and urgent for the haemorrhage; we may hope to get into the stomach and secure the bleeding point, which obviously is prevented from closing by some local process, but is not sufficiently open to cause one big fatal haemorrhage, such as occurred in a man we saw the other day who was under my care with duodenal ulcer, in which we found a hole into which a good big probe could be passed into an artery the size of the radial; he died twenty-four hours after admission—the puzzle is how he lived so long. Those are two extremes—the young girl with her one profuse haemorrhage, the middle-aged person with repeated smaller but severe haemorrhages. Decision in them is easy. But between these you will get a number of intermediate cases, in which I must admit that the balance in favour of or against surgical interference is very nicely arranged, and I can only say you must first of all put the patient to bed and treat her temporarily with complete starvation while you are making up your mind. And then I think you should endeavour to place that patient under conditions in which an operation can be promptly performed, if you make up your mind to do it. I think that your opinion will be in doubt many times. You will, of course, see the patient at least twice a day; that is imperative. On the first haemorrhage you will say, "I will have a surgeon to the case." In the next twelve hours you will find there has been no further haemorrhage, and then you will say, "We will wait a bit, as she is not very bad." You will, of course, estimate the pulse in frequency and volume, the rate of breathing, and so on, as well as the degree of restlessness. In other words, you will see what is the effect of the loss of blood on the patient. During this time you must treat them with the free doses of opium, by which I mean 10 m of the tincture every two hours, until you have the patient somewhat sleepy. This helps both the mental and the vascular condition. You will go the next twelve hours and find the patient tolerably happy and able to talk cheerfully, not looking very pale and not being very thirsty; she does not think she is seriously ill, and is not much frightened. You may say, "The patient is going on nicely, and I think we will wait a bit. I will come back again in another twelve hours." And next time you come you may have a vessel shown to you containing a pint of blood. Then you say, "I must have an operation now." But the parents say, "Do you think it necessary, doctor? We would rather it was not done." You say, "We will wait another twelve hours." You will keep on oscillating in your opinion. The only thing for you to do is to keep a very strict watch on the pulse and respiration. If you find the pulse getting more frequent, over 105, for instance, if you find your patient getting more thirsty, and more alarmed, and readier in her own mind to think of operation, then I say call in the surgeon at once.

The next point has regard to the question of relapses. How many relapses should you allow a person before you call in a surgeon? I would say certainly six or seven, as a working rule; but a good deal depends on the patient, whether she will consent to operation or not. I can tell you of a patient who was under my own care. I brought her here under the hope that she would consent to operation, for I knew that she had had at least seventeen severe attacks of haemorrhage, and had never been free from

indigestion since about 1889. I took her in about four years ago. I tried to persuade her to have an operation done, but she declined. She was very ill, and I said you must have an operation done; but again she lost her symptoms with the rest in bed and medical treatment, and she persistently refused to have the operation. What has become of her since then I do not know; I can give you that as an experience, but it would be very unsafe to trust to her case for laying down rules; and I think six or seven relapses in a period of about five years should be the limit in regard to allowing medical treatment to go on. Unfortunately four or five years' duration and six or seven relapses will not always be allowed you. This is probably the meaning of the death-rate in those medically treated; they have died of perforation or haemorrhage under circumstances in which it was impossible to do anything, and surgeons will say, why do you not, then, have them surgically treated in order to anticipate these catastrophes? I do not hesitate to say, strange though it may appear, that it is absolutely impossible to be certain that one of these catastrophes is going to occur. I go further, and I say that even if the surgeon be called in on the first occasion, you cannot guarantee that the catastrophe will not occur after that, because the death-rate after relapse and after operation has been something considerable. Therefore, lame as the conclusion may seem, the fact remains that you cannot be certain a catastrophe will not occur in any given case of gastric ulcer. Still, provided there is no catastrophe, I say five or six relapses over 30 years of age, and then *qua* relapses only, provided the patient's consent be obtained, operate.

Lastly, is there anything to be felt in the shape of a lump in the abdomen which means either simply a scar without adhesions, or a scar adherent to the anterior abdominal wall, or to the liver, or somewhere else? Shall you operate? I must answer that for you by saying, Yes; generally speaking, you should operate if you find these big organic lumps, because it means chronic ulcer which will not heal without treatment. I should have made this statement without hesitation if it had not been for my experience of a case in the last month.

The patient came to me a month or six weeks ago, when I found a big organic lump, and I said, This ulcer has gone too far for medical treatment; you must come in and be operated upon. She consented and came in. In hospital one is never in a violent hurry; we can always get surgical treatment for any emergency in half an hour or so, and so we were not in a hurry. One cause of delay led to another in this case, and she seemed to be improving very much. We got her teeth removed for one thing, and I believe that they were poisoning her, for she had very bad pyorrhoea alveolaris. The result is she had no operation, but she steadily improved under medical treatment and her hard lump disappeared.

Such a favourable result in such a case is not to be commended to you as a thing to expect, but it certainly should be mentioned to you as a fact; so I shall still have to repeat that if there is an organic lump present, operate. It must be taken as one of the indications for operation, but again I insist that even this is not absolutely infallible. The only infallible indications for operation are stricture or perforation; those are the only ones which I know of to which there is no possible exception. The perforation may, of course, be so bad that the surgeon will not operate, but that does not really affect the point which we are discussing now.

WE learn from the *New York Medical Journal* that on February 1st, 1910, Senator Owen, of Oklahoma, introduced into the United States Senate a bill providing for the establishment of a Department of Public Health under the supervision of a Minister of Public Health, who is to be a Cabinet officer, with a salary of 12,000 dollars a year. The bill provides that all departments and bureaus belonging to any department, excepting those of War and of the Navy, affecting the medical, surgical, biological, or sanitary service, or any questions relative thereto, shall be combined in one department, to be known as the Department of Public Health. The work of the department will embrace every agency of the United States for the protection of the health of the people of the United States, or of animal life. The bill provides that the secretary shall establish bureaus of biology, chemistry, veterinary service, and of sanitary engineering. The bill was referred to the Committee on Public Health and National Quarantine.

A Lecture
ON
DYSMENORRHOEA.

DELIVERED AT THE MEDICAL GRADUATES' COLLEGE AND POLYCLINIC.

BY R. A. GIBBONS, M.D.,
PHYSICIAN TO THE GROSVENOR HOSPITAL FOR WOMEN.

GENTLEMEN,—The subject we have to discuss is one which ought to be of interest to every practitioner of medicine, for this affection is apt to be the cause of suffering from the time a girl is about 12 or 14 during the many years up to the menopause; and although the worst cases come under the observation of the gynaecologist, yet before doing so they pass through the hands of the family physician, so that there is really nothing more important in the ordinary treatment of the diseases of women, or for which advice is more frequently sought, than the pain suffered at the time of menstruation. It so frequently shatters a girl's health before she has become a woman that too much attention cannot be paid to the careful study of this disease. I am certain that the judicious management of dysmenorrhoea prevents, in many cases, girls and women drifting into chronic invalidism. Although many regard dysmenorrhoea as a symptom of something occurring internally, it is certainly a disease. Healthy girls never have pain with menstruation; it occurs practically with no symptoms whatever, and except for its appearance might be disregarded as far as in any way affecting the health or well-being of the individual. Unfortunately, the minority of women menstruate in this manner, suffering no pain. It has been estimated that only about one-third of all women menstruate without pain. This shows how important the subject is.

I propose to deal with the subject principally under the head of etiology before passing on to what is, of course, the most important consideration for us—namely, treatment; but in the first place I shall merely mention the divisions into which dysmenorrhoea has been classified before giving my own view of them. It is usually said that the forms of dysmenorrhoea are idiopathic, congestive, membranous, spasmodic, obstructive, ovarian, and even neurasthenic. Some believe there is a form of dysmenorrhoea which is purely nervous, and which may be due to faulty innervation of the uterus, be it of an anatomic or a functional defect. This variety they speak of as neuralgic dysmenorrhoea.[1] Others think that it is easy to divide the various forms clinically into uterine and extrauterine;[2] and others, again, have classified them into primary and acquired.

The greater the experience one has, the more convinced one is that these divisions are entirely unnecessary. I know of nothing to make me alter the view I have long held—that there is only one form of dysmenorrhoea, that is, spasmodic, and that therefore all other varieties, or so called varieties, merely produce confusion. If the word "dysmenorrhoea" were confined to the disease to which, in my opinion, it ought only to be applied—namely, painful contractions of the uterus during menstruation—confusion could not arise, but because it is so frequently associated with affections of the ovaries, Fallopian tubes, or certain conditions of the nervous system, so many forms of the disease have been described. To speak of neurasthenic dysmenorrhoea means only that a woman suffering from neurasthenia has superadded to her condition dysmenorrhoea, and in such a case it is quite possible that the doctor attending her, or prescribing for her, may think that dysmenorrhoea has supervened in the neurasthenic woman, and that therefore neurasthenic dysmenorrhoea is a legitimate name for the affection. But, as a matter of fact, pain is relative, and anything which lowers the tone of the nervous system, such as the onset of menstruation, is apt to bring on pain in certain parts, or to aggravate the sensation from very slight to severe. The most important division of dysmenorrhoea, and one which demands a considerable amount of attention, owing to the fact that it is always so constantly referred to, is obstructive or membranous dysmenorrhoea. It is considered that membranous dysmenorrhoea produces obstruction on account

of the membranes or shreds which are said to block the cervical canal, thus preventing a free flow and causing spasm of the uterus. As I have already said, I do not acknowledge that there is any real obstructive form. It will be found on examination that many women pass membranes or shreds, which are only known about when inquired into. Anteflexion is also said to produce obstruction, but it is well known that obstruction is not absolutely present. According to a paper by Dr. Gustav Kolischer,[3] who has observed certain cases, the blood normally flows in a steady stream from the external orifice to the posterior fornix of the vagina, only occasionally, and then gradually, increasing and decreasing in volume; but in painful menstruation during attacks the blood is forced out in jets from the external os, evidently by forcible contractions of the uterine body.

All those who have constantly examined cases before operating for dysmenorrhoea know by experience that, although the ordinary uterine sound cannot always be admitted, yet a probe of smaller size can invariably be passed into the cavity of the uterus, showing that there is no actual obstruction in the cervical canal. The late Dr. Matthews Duncan used only to speak of one form of dysmenorrhoea, although he mentions two in his lectures, and Dr. Herman[4] also considers that there is only one form—dysmenorrhoea spasmodica.

It may be here convenient to speak of the ordinary symptoms of dysmenorrhoea. In many cases those women who suffer from it have premonitory symptoms for some days of malaise—slight pain or discomfort in the back, shooting pains, slight or severe, down the thighs, lassitude, disinclination for exertion, abdominal pain, nausea, and headache. These symptoms may last from a few hours to several days, but are only the precursors of the regular pains which occur either before or during the onset, or after the flow has been thoroughly established. The contractions come in waves or paroxysms, and in the most severe form they may affect the bladder and rectum, producing strangury and tenesmus, as well as violent abdominal bearing-down pain. These pains or violent contractions are the same in character as labour pains, and last from one to two or three minutes. There is no regularity, except, as a rule, in the individual herself, in these symptoms. Each case must be judged by itself, for although most can be grouped into those commencing in a certain manner, none are exactly alike. I have divided the cases coming under my observation into slight, severe, and agonizing. In the divisions I have made, those coming under the head of "agonizing" are not common. The word ought only to be applied to those cases actually suffering agony. By these I mean where the woman is evidently in the most excruciating pain—where she cannot keep still for an instant, but rolls about the bed, is covered with perspiration, becomes cold, and, finally, faints from the pain. Of such I have seen a fair number, and only recently a case on which I operated became collapsed each month from excessive pain. In another case brought to me some years ago, a lady about 24 years of age, maniacal excitement developed every month, and the patient was obliged to be provided with two nurses, and invariably became collapsed. In her case complete relief was obtained by dilatation, and she never had any trouble afterwards. Sometimes the usual monthly attack comes on quite suddenly. It is very common for a girl to be awakened by abdominal pain, which increases in severity until it reaches the height to which she is accustomed, when it remains the usual time, and then gradually disappears. When the pain increases in severity, nausea is induced, and very often vomiting follows, in some cases frequent, in some infrequent. I have known persistent vomiting brought on regularly by dysmenorrhoea, lasting for some hours or days, and leaving the patient weak and ill, so that many days passed before regaining strength, again to be reduced by the next attack. In the most severe form I have never known pain to last more than a few hours, but there may be considerable clonic spasms for twenty-four hours or more. A fair estimate may be gained of the severity of the attack by asking the patient if she can fulfil her social or other duties during the time of menstruation. A patient will often talk of "agony of pain," and on further questioning one can ascertain that she will be able to attend a ball or fulfil some engagement which gives pleasure, when it may certainly be said that she does not suffer severely. I invariably ascertain if a patient can keep her engagements during the period of pain. If she cannot, it may be fairly assumed that she suffers. Sometimes there is a sensitive condition of the skin from reflected pain in the region supplied by the sensory nerves from the eleventh dorsal to the second lumbar segments of the spinal cord.

It may here be well to say a few words about the extraordinary difference there is among girls and women of all classes in bearing pain. Some girls, accustomed to every care and luxury, retire to bed every month, saying they have great pain, when, if they were carefully watched, it would be evident that they were not suffering severely. On the other hand, I have known women who have been obliged to make their living, keep at their work unless prevented by actual sickness or faintness from doing so, notwithstanding intense suffering. The test I have for examination in hospital is whether a patient can remain at work during the time of the period. If she cannot it means sick leave, and, after a short time, loss of situation, so that she is driven to the hospital for radical treatment. Doubtless many women, suffering severely, will continue to do their regular work without interruption, but if actual vomiting or faintness be brought on they are obliged to desist.

Some writers divide the symptoms into "uterine" when there is pain in the back with other symptoms supposed to have special reference to the uterus, and "ovarian" when the pain is particularly referred to one or both ovarian regions. Many women complain much more of pain in one or the other side of the abdomen, or in the hypogastric region only, and may not suffer particularly from pain in the back or down the thighs, but I do not regard any refinement of symptoms as necessary. Generally speaking, the pain is pelvic, and, although it would be easy to tabulate a certain number as suffering from sacrache, and others as complaining mostly of aching and pain down the thighs, I do not consider that any useful object is to be attained.

I do not think I need take much time in discussing the diagnosis of the disease. It is so common, and the patient herself is so accustomed usually to the recurring condition that a mistake can hardly be made. Nevertheless, it is well to bear in mind that other conditions may occur at the same time, and possibly be overlooked. Although there may be in some cases of dysmenorrhoea extreme tenderness all over the abdomen, it is hardly likely to be confounded with peritonitis. Absence of any rise of temperature, the characteristic pulse, and the usual symptoms associated with peritonitis, are sufficient for the diagnosis. The cases in which the friends or the patients themselves may be alarmed and in doubt are those in which, although severe dysmenorrhoea is regular, yet for some reason the attack may be intensified and medical advice sought. Under such circumstances, I once saw a patient who was suffering from strangulated hernia, and who was very ill when I saw her. She was operated on successfully. It is well also to bear in mind that in cases of peritonitis absolute rest in the recumbent position is most grateful to the patient, whereas in severe dysmenorrhoea she will not keep still for an instant. In membranous dysmenorrhoea it is not always possible, without a microscopic examination, to say whether the cast is menstrual or not. There are vaginal casts, and decidual, as well as casts of the bladder from inflammation, the former being thrown off in exfoliative vaginitis, and, if this be accompanied by severe pain, it might easily be mistaken for membranous dysmenorrhoea. Of course, it is possible also for the two latter affections to occur together.[5]

Etiology.

I look upon the cause of the pain of dysmenorrhoea as a spasm or cramp of the uterus. Most people know what severe pain may be produced by cramp of the muscles of the calf. The uterine spasm may be tonic or clonic, and I have a theory that when in the severe cases there is a true tonic contraction, it is this which brings about the actual collapse from the severity of the pain. The clonic contractions may continue indefinitely, causing severe pain, but pain which comes and goes, and does not produce the profound impression on the nervous system caused by the tonic contraction. It is important to remember that the painful contractions occur at menstruation, for although

ovulation and menstruation come about the same time, ovulation often follows menstruation, and may occur between menstrual periods. The ovarian changes which precede ovulation, by producing ovarian tension, reflexly excite the uterus and cause menstruation, but may set up much pain before its arrival.[6]

Now what we have to ask is, What can be the cause of these painful uterine contractions? Dysmenorrhoea is a disease, and must have a cause for its production. Many are ready to give various explanations; I confess I know nothing at the present moment which can be accepted as the true explanation of this painful contraction. The most common explanation is the "obstructive dysmenorrhoea" or mechanical theory, to which I have already referred; and if the textbooks are consulted they will be found to give this theory, and to explain it by saying that there is anteflexion which obstructs menstrual flow. It has been suggested that, as the result of anteflexion and consequent obstruction, a little blood is forced through the Fallopian tubes every month into the peritoneal cavity, giving rise to miniature haematocele. These small haemorrhages are considered by some to be the cause of the posterior perimetritis which sometimes accompanies anteflexion.[7] As I have already said, I do not accept this theory of obstruction, for I do not believe, however acute the anteflexion may be, that the flow is hindered sufficiently to influence the uterus in producing pain. The most striking argument to be adduced in support of this is haematocolpos, where we know that there is a complete blocking of the exit from the uterus, and yet no pain in some cases is complained of. In addition to this, we know that more than half the cases of dysmenorrhoea come on in women who have not borne children, after the period has been regularly and painlessly established. Again, I have operated in some cases of sterility when only the finest probe could be passed through a pinhole os, and yet no pain has been complained of at menstruation and there was the usual normal amount. No amount of acute anteflexion or retroflexion blocks the canal sufficiently to prevent gradual flow, however slight it may be, from the cervix, and therefore this cannot be considered a sufficient explanation of the pain at the period. The average amount of blood lost during menstruation is about 4 oz., and if this is distributed over, say, four days, it gives an average loss of one-third of a drop in every minute, which will not be difficult to pass along any cervical canal.

It is quite easy to make a large number of headings under "general" and "local" causes, uterine or extra uterine, primary or acquired, but this serves no practical purpose, for we are no further towards an explanation. It is usual to advance chronic metritis, or pelvic congestions, as the cause, but they are no explanation at all. Women suffering from metritis or endometritis are liable to have pain or discomfort increased at the time of the period, for the whole uterus and adnexa become more charged with blood and the tension is raised. It is, therefore, natural that discomfort and pain should be increased, for we know how much tension in the vessels has to do with pain. In all women, as menstruation comes on, there is a rise in vascular tension, as well as a slight rise in temperature, and because in dysmenorrhoea it may be proved that metritis or endometritis, or acute anteflexion or retroflexion, is present, the conclusion is arrived at by some that it is the cause of the pain. The menstruation only aggravates the pain produced by the congestion, with the origin of which menstruation has nothing to do. This applies to all pelvic affections, whether of the uterus, tubes, or ovaries. But this cause, even if it did exist in married women, could not be adduced as a cause in virgins, for I know of no work on pathology which states that endometritis is common in them, whereas we know that dysmenorrhoea is. If it occurs at all, it must be rarely. In membranous dysmenorrhoea it might be that there was probably some obstruction, and that the spasmodic pain was caused by the efforts of the uterus to expel the membrane. The expulsion of the membranes, or complete casts of the inner surface of the uterus, is frequently associated with dysmenorrhoea, as is familiar to all, and indeed it is often the presence of these membranes, or complete casts, which induces a patient to seek medical advice. That they are not the cause of the pain is proved by the knowledge that these casts may be expelled without any pain at all. If certain questions are put with reference to menstruation, it will frequently be found that shreds or membranes are passed quite commonly without the least pain. I have had cases which have come before me only because a complete cast of the inner surface of the uterus has been passed on one occasion, and although the patient has known that she has regularly passed shreds, she has paid no attention to them until alarmed by the presence of the cast.

In membranous dysmenorrhoea much depends upon the period of degeneration in the menstruation, which I need not go into now, but it may be shortly said that the mucous membrane of the uterus exhibits (1) the period of growth in the five days preceding menstruation, characterized by a rapid increase of the stroma, blood vessels, epithelium, etc., of the membrane; (2) four days of menstruation, or period of degeneration, during which capillary haemorrhage takes place, and the epithelium suffers degenerative changes and is cast off more or less; (3) the seven days' period of regeneration, during which the mucous membrane returns to its normal state; (4) the twelve days period of rest, during which the endometrium remains in a quiescent state.[8] Gellheim explains the pain as being caused by dragging on the peritoneum[9]—an explanation which will not suffice in a normal pelvis, but may serve when the mechanism of the dragging process is considered in those cases in which direct or indirect adhesions between the uterus and parietal serosa are found.

According to Dr. Mathes,[10] there is a causal connexion between dysmenorrhoea and enteroptosis. Kermanner says that it is nearer the truth, and consonant with the opinions held by Lennander, to seek the source of dysmenorrhoeic pain not in the uterus but in the pelvic tissues, and in those divisions of it rich in nerves, the sacro-uterine ligament for example. Tobler[11] remarks that as regards the significance of menstrual pain in nulliparae, it is important to ascertain whether it has existed from puberty (primary dysmenorrhoea) or whether it has developed later (secondary dysmenorrhoea), the latter being more frequent—as much as 58 per cent. Both primary as well as secondary dysmenorrhoea are found with extraordinary frequency in girls with constitutional affections (chlorosis). He considers it is probable that the most important seat of origin of the pain is just where the most extensive vascular and nervous plexuses are present, namely, in the subperitoneal connective tissue. In this way the kind of dysmenorrhoeic pain, certainly that which is most present in nulliparae, may be attributed to stretching and tearing of the subperitoneal nerves, as has lately been maintained in the case of other pains in the abdominal cavity.

It must be borne in mind that all uterine contractions are not painful. It is now known that there are contractions continually going on in the unimpregnated uterus, and that these are intensified at menstruation. They are sufficient to get rid of blood, degenerated mucous membrane, or complete casts of the uterine cavity, without causing pain, but the contractions with which we have now to deal must be considered to be morbid. In some these contractions are intensified by a small or large fibroid in the wall of the womb, or by a polypus in the cavity setting up irritation, and acting as a foreign body. It is most important to remember that if a woman who has menstruated regularly and naturally for many years seeks advice because of increasing dysmenorrhoea, it is extremely suspicious, and at once a fibroid or a polypus must be thought of as the cause. This is one of those affections classed under "obstructive dysmenorrhoea," but, as already pointed out, in my view it ought not to be so spoken of. All who are in the habit of seeing many cases of dysmenorrhoea have doubtless some theory to account for these morbid contractions. Herman,[12] whose writings are always admirably clear, says that his theory is "that dysmenorrhoea exists because the centres in the spinal cord or in the sympathetic system which regulate the movements of the genital canal are imperfectly developed." In the normal painless menstruation there are contractions of the body of the uterus and dilatation of the cervix, so that the menstrual fluid is expelled without pain or difficulty. His theory is that in dysmenorrhoea this natural dilatation of the cervix is absent, and in consequence the contractions of the uterine body are morbidly violent and painful. I agree with Herman in

thinking that the pain of dysmenorrhoea is caused by painful contractions of the body of the uterus, and that the dilatation of the cervix which normally ought to take place does not occur, but I do not think that his theory can be altogether accepted, although it is nearly right, for otherwise, I do not believe that the disease could be cured by dilatation, or the relief would be so temporary, that constant dilatation would have to be undertaken because of the undeveloped nerve centre. But the strongest argument against it is that dysmenorrhoea may be induced or occur long after the flow has been regularly and painlessly established—what has been called by some secondary dysmenorrhoea, in contradistinction to primary dysmenorrhoea, beginning with the onset of menstruation, and about this I shall speak later; but I may here say that if the spinal centre were imperfectly developed, then the onset of the flow must be painful, and continue to be so, but we know that this is not always the case, and that the most severe cases of dysmenorrhoea may have remissions. If the imperfectly developed centres became gradually developed, and the dysmenorrhoea ceased, then it would be difficult to explain why there should be a recurrence of the pain. My own theory of this disease is that it is caused by the circulation in the blood of some bio-chemical material acting on the hyperaesthetic mucous membrane of the uterus, and possibly also upon the nerve centres regulating the genital canal, and that this material is due to faulty secretions of the ovaries. My ground for this is that, if any ordinary healthy woman is examined with a uterine sound, directly it passes into the region of the internal os and beyond she complains of discomfort, or at any rate it is disagreeable to have the mucous membrane, which is normally very sensitive, touched, but she can bear the examination perfectly well. Now, if you examine a woman who suffers from dysmenorrhoea with a probe, directly it passes into the internal os she will say that it is extremely painful, and, if you continue to introduce the probe so that it touches the uterine mucous membrane, the patient may declare that it is intolerable. Now afterwards, on withdrawal of the sound, she will say that the pain she complains of is exactly the same as at the time of the period, and this same kind of pain may continue for some time after the examination. The touching of the mucous membrane by the sound produces apparently a reflex action, and a painful contraction of the uterus ensues. Anything which acts as a foreign body will do the same, and this, in my opinion, is the explanation of the painful contraction in membranous dysmenorrhoea—the shreds or casts irritate the hyperaesthetic mucous membrane. It seems to me that, as the onset of menstruation occurs and an increased secretion commences, which is sufficient, in a condition of hyperaesthesia, to irritate the mucous membrane in such a manner that reflex painful contractions occur, these spasms continue until the mucous membrane becomes adapted to the continued irritation; or, in other words, until the irritability of the uterus is exhausted and pain no longer occurs, or the source of irritation in the circulation is no longer present, when the reflex action ceases. As in this disease there is this irritable mucous membrane, which is the only part we know must be morbidly affected, it seems reasonable to assume that in some way it accounts for the spasm of the uterus.

It is not, however, easy to explain what causes these changes of the mucous membrane to bring about this hyperaesthesia—whether the irritation is due to some secretion or altered blood it is impossible to say. We know from Gautier and Douser[13] that menstrual discharge contains four times as much iodine as normal blood, and an amount of arsenic equal to the whole quantity normally present in the thyroid gland.[14] It is, therefore, possible that this is sufficiently irritating to act on the hyperaesthetic mucous membrane. But, in any case, there evidently seems to be an irritant which, acting on a morbidly hyperaesthetic mucous membrane, or directly on the nerve centres, produces painful contractions of the womb. Matthews Duncan likened this disease to spasmodic asthma, where there is also doubtless a hyperaesthetic mucous membrane, in this case of the bronchial tubes, difficult of explanation.

It is well known that at the onset of the period there is an alteration of the blood pressure. After rising, it falls slowly, the minimum being coincident with the appearance of the flow.[15] This may be due to the action of the ovarian secretion influencing the spinal centre for the genital canal or region and vasomotor areas. It is possible that this ovarian secretion, which undoubtedly has a powerful influence on the blood, may, under certain conditions of health, contain an irritating material which acts on the mucous membrane of the uterus. When the amount or properties of the ovarian juice or secretion is absolutely normal no alteration takes place in the regular menstruation, but when it contains some abnormal constituent, or its elements are not duly proportioned, then the action on the blood causes the secretion preceding menstruation to irritate the uterine mucous membrane, and give rise to the reflex action leading to painful contraction. It is probable that in time we shall know more of the functions of this ovarian secretion, but at present we can only theorize as to its possibilities. It certainly seems reasonable to believe that the proper action of the ovaries and their secretion must have everything to do with menstruation being carried on in a perfectly normal manner. We now know that upon the equilibrium of the blood glands depends our health; and as our knowledge becomes extended, we may hope to ascertain exactly the action of the ovarian secretion.

Fellner says[16] that the uterus secretes internally, that this secretion forms a part of those toxins which affect the increase in the wave, so that the ovary becomes poisoned, and that between secretion and organs a relationship of dependence exists. That ovarian secretion is discharged is supported by the fact that calcium is secreted by the uterus,[17] and, on the other hand, that the functional activity of the ovary proceeds concurrently with the excretion of calcium. Riebold[18] considers that, concurrently with the strictly periodical fulfilment of the process of ovulation, certain secretions obtain access to the circulation. These, under physiological conditions, cause, first, an increase in nervous and psychic irritation, and secondly, an increase in the blood pressure and vital energy, the general heightening of the process of metabolism, and consequently the more generally severe hyperaemization of the internal organs, and a more active secretion of fluids. These processes may be set up independently of uterine haemorrhage. He mentions what he calls "recurrent rheumatoid ovulation fever" occurring in young girls, accompanied by more or less severe disturbance of the general condition, at the time of menstruation. He considers that ovulation has the effect of storing up an infective focus of rheumatic material, present in the body but latent, or else that a functional defect of the secretory activity of the ovaries may underlie a diseased condition.

There is another explanation of what is termed by some "ovarian dysmenorrhoea," when all the pain seems to be limited to one or the other ovarian region or to both, and there is sometimes a thickened capsule of the ovary found, with small cysts in the ovary itself, or it may be a tuberculous ovary. It seems that as the increased congestion takes place during menstruation, the ovary swells, the capsule becomes tightened, and great neuralgic pain is set up owing to tension and compression of nerves. This pathological condition is certainly found in some cases of dysmenorrhoea, but is not the cause of the real painful contractions—the spasmodic dysmenorrhoea of which I speak. I believe, when this pathological condition exists in the ovary, there is often severe neuralgic pain, lasting many hours, but it is not of the character of that which we have been discussing as spasmodic dysmenorrhoea, although of course it may be associated with it.

With spasm or intense contraction, all the muscular fibres squeeze the nerves supplying the uterus, and so cause pain. In some cases it is possible that actual neuritis of some of the nerves may take place, leading to continued discomfort in the region of the womb long after the period is over, and Lawson Tait believed that there are nerves from the tubes to the sympathetic system, and these he called "menstruating nerves." It is probable that the continued contraction of the uterus causes a slight amount of hypertrophy of muscular tissue; at any rate, the cavity tends to become elongated. In nearly all cases of well-marked dysmenorrhoea on which I have operated, the sound measured an increase of $\frac{1}{4}$ in. to $\frac{1}{2}$ in. This enlargement is more likely to be due to repeated severe contractions of the uterine muscular tissue than to anything else, and is analogous to the ordinary hypertrophy of muscular tissue

from overuse. I do not believe that a small uterus—the so-called infantile uterus—has anything to do with dysmenorrhoea. No doubt it is frequently associated with dysmenorrhoea, but I believe that the cause of dysmenorrhoea is exactly the same as in patients with a normally developed uterus, and the actual ill-developed uterus follows the same laws in this disease as the well-developed one. I have so frequently found hypertrophy associated with this disease that I cannot agree with Theilhaber's theory that the pain is due to a badly-developed uterine muscle.

Prophylaxis.

I have seen enough to know that there are many girls suffering from severe dysmenorrhoea who have started the period in an ordinary painless manner, who have been quite healthy, and who have developed dysmenorrhoea apparently from causes which might have been averted. I could relate many cases bearing on this, but I need only mention one in illustration of what I mean. A young lady, aged 23, was brought to me on account of dysmenorrhoea, dating from about a year before. She commenced her period at 13, and was always regular, suffering no pain, and never being troubled in any way by it. She was staying at a country house in Scotland, and on the first morning of her period started a drive of four hours in an open dogcart. Rain fell, and continued heavily during her drive; she was soon cold and wet, and told me that for more than two hours she was sitting in a pool of water. Pain came on within a few hours, and this attack was followed by regular and severe dysmenorrhoea. This case alone shows that dysmenorrhoea may be induced, and I have had many similar severe cases brought on by cold travelling. It is only prudent to advise girls to be careful of themselves without making any fuss at the time of the period. I see no reason to advise a healthy girl to remain in bed for the first day, but I know that many brought up in luxury are made by their mothers to do so. If a girl is really healthy, beyond giving directions for sensible care at the time of the period, nothing more need be done. It is a mistake to educate healthy girls to the belief that it is necessary to look upon the period as an illness. There are unfortunately only too many who are really delicate, and who are obliged to look upon themselves as invalids for so many days of every month, but those who do not suffer, and who enjoy good health, may go about their lives as usual, merely taking care to avoid any violent exercise. It is also important to avoid, if possible, passive chill, and for girls to remember to clothe warmly during cold weather.

One other cause which I believe will induce dysmenorrhoea in those who have not previously suffered from it is overfatigue, often most difficult to avoid, but cold and overfatigue together are, in my opinion, a fertile cause of the onset of dysmenorrhoea. If a girl who has a good family history, who has health to start with, lives an ordinary healthy life, with plenty of fresh air, attending to hygienic laws, she apparently ought not to become subject to dysmenorrhoea. About this, however, strangely enough, nothing positive can be said, for sometimes the most healthy looking girls gradually develop dysmenorrhoea, and others who are delicate, anaemic, and feeble, pass through each period without any trouble. It is impossible to forecast the future menstrual history of any girl who is commencing womanhood, however well she may be at the onset. I have very frequently observed that there is a family history of dysmenorrhoea for several generations. In ordinary slight cases of this disease, where a girl is complaining of malaise and headache, with only a little pain, rest and warmth will probably be sufficient. The application of dry heat in the form of hot-water bottles, and simple hot drink will probably be all that is required for relief. As to the drink, it may be hot barley water, milk and water, or the old-fashioned mulled wine, or hot spirit and water. In the slight cases hot fluid is sufficient, whatever it may be, and the addition of alcohol is unnecessary, especially if the patient is not in the habit of taking any. If the pain is not rapidly overcome by this, then some ordinary analgesic medicine may be given.

Treatment.

In the severe cases the patient does not need to be asked to go to bed, for, as a rule, she must be there. In some cases I have already referred to, in which, although the pain is very severe, it is not sufficient to cause sickness or faintness, the patient may be able to keep about. This entirely depends upon the nervous system of the individual and the power of self-control. As a rule, it is impossible to keep about during the whole time, and retirement for an hour or two at least is necessary. In such cases the pain may be overcome by immediate treatment. As soon as the first indication of pain occurs, if it be by day, and it is possible to do so, a hot sitz bath, of ten or fifteen minutes' duration often gives great relief. An ordinary hot bath is of no use; the patient must immerse the middle of the body in the bath, the legs and upper part of the body being still covered. It is best to add hot water as the water cools, so that the temperature is kept up, and the patient may have it as hot as she can comfortably bear it. After this, if she is put into a well-warmed bed, with an india-rubber hot-water bottle to the back, and one on the abdomen, great comfort will be given. It is of importance to let the patient lie on a hot-water bottle, because there is usually so much sacral pain, and the dry heat affords immense relief. Sometimes the abdomen is so tender that the hot-water bottles cannot be borne. In these cases I advise a very thick layer of wool, which has previously been baked in the oven until quite hot (this can be done in an ordinary tin box), to be applied all over the abdomen, sometimes sprinkled with laudanum. It is light and can be easily borne. If the abdomen is very tender, the application of equal parts of liniment of aconite and liniment of belladonna is particularly soothing, combined with the heat. At the same time I order a teaspoonful in a wineglassful of water of granular effervescing phenacetin, containing either 5 or 10 grains to the drachm, according to the severity of the pain. If not better in twenty minutes, this is to be repeated with 1 drachm of brandy, and if in another twenty minutes relief does not come I give a third dose, with another drachm of brandy. The pain is usually relieved after two or three doses. It is best to give a little alcohol with the phenacetin to prevent the depressing effects on the heart. Should it be necessary, a dose can be given every four hours after the second or third doses have been given.

In a certain number of cases vomiting comes on early with the pain, and whatever is ordered may be rejected. It is usually better to order the effervescing mixture wherever there is a tendency to nausea or sickness, as it seems to be more easily borne, but some may prefer it in the form of cachet or powder. Should vomiting be frequent, mustard to the epigastrium may be applied, often with good results. It is well to bear in mind that when the pain is soothed and vomiting has ceased the patient should not be allowed to get up, or make any effort too soon, or the pain and nausea or sickness may recur immediately on exertion. Should no vomiting or nausea be present, nourishment in some easily digested form should be given during the period of pain. Sometimes, if the pain comes on before the flow, much relief may be obtained by a pint of hot saline solution given per rectum with 30 or 40 grains of bromide of sodium or ammonium added; it must be retained to be of service. There are certain cases in which this seems to answer well, but if relief can be obtained by other means I prefer them. A hot saline injection with a fair dose of phenacetin may be given if the patient is too sick to take anything by the mouth. Fifteen grains may be given, and repeated later should it be necessary, but brandy ought to be given mixed with the injection to counteract the depressing effects of the phenacetin.

The old-fashioned foot-bath, with a little mustard, is often invaluable in certain cases. Emmett recommended in addition a hot mustard plaster about 3 in. in width, reaching from the cervical region of the spine to the sacrum,[19] and also dry-cupping when the flow is delayed, which I have seen give great relief.

For the agonizing form, if large doses of phenacetin or such-like drugs do not afford relief, the only remedy is morphine hypodermically. Fortunately these cases are rare, and recourse to large doses of morphine is unnecessary, but it is well always to remember the danger of giving morphine to a patient suffering from dysmenorrhoea, for the habit of taking morphine is easily established, and as the pain recurs every month, the temptation to increase the dose is ever present. In giving it for these

most severe cases it is better to combine it with atropine, to avoid the risk of sickness. For phenacetin may be substituted aspirin, antipyrin, antifebrin, novaspirin, castor, chloretone, or any similar drug, and occasionally amyl nitrite or nitroglycerine, but it must be remembered that all these drugs only soothe the pain and tide over the attack. What we have to study is the cure of the disease, and none of the drugs I have named will do this. Unfortunately, this disease has no tendency to become cured without treatment. We must endeavour to find a drug which will so act as to prevent the onset of this severe pain, or at any rate greatly mitigate it, so that when the period occurs the patient will not suffer much. One of the drugs most commonly used is guaiacum; the late Dr. Matthews Duncan, with whom I often discussed this affection, placed it before everything; and Dr. Herman speaks well of it. It is no doubt often excellent, and it is best given at least a week before the period is due, in doses of 10 grains three times a day. I have not found it of as much service as tannate of cannabin, which, in my experience, seems to have done more good than anything I have tried. I give it in the form of a pill three times a day after meals, for seven days before the period is expected. It may be given in doses of from 2 to 3 or 4 grains, and, if preferred, may be continued through the period in increased doses. I usually stop it when the pain comes on, if at all bad, and give one of the coal-tar analgesic remedies, but if the pain is not severe the tannate of cannabin may be continued until all chance of recurrence of the pain has disappeared. With it I frequently give ovarian substance. The treatment ought to be continued for some months before discarding it. The only disagreeable symptom I have known, and that has been quite rare, has been a certain amount of looseness of the bowels, which has made it necessary to stop the drug, but this is the only point worth mentioning about its administration. I used cannabis indica for a considerable time, and although it was often of great service, I frequently found that it produced a mild form of delirium or excitement, and as this was sometimes alarming to the friends I gave it up, and now never use it. Bromides are often of great service, but they ought to be commenced some time before the onset of the period, and are apt to cause in some patients a certain amount of depression. Amongst other drugs, I have often found viburnum prunifolium of service, as well as sodium salicylate. It would be useless to enumerate all the drugs which have been advocated in the treatment of this disease. I have had better results from the use of cannabin tannate than from any other drug. I believe it acts, as all drugs which benefit do, by soothing the hyperaesthetic mucous membrane.

I must merely mention the treatment by Fleiss of the application of cocaine to the "sexual spots" on the nasal mucous membrane. In a paper by Dr. Koblanck[20] on nasal reflexes, he advocates the application of cocaine to the so-called sexual spots in the nasal mucous membrane in some forms of dysmenorrhoea. I will not discuss this treatment, for I have had no experience of its use. Kolischer[21] attributes good results to suggestion.

In many cases I have certainly done good by the administration of ovarian substance, and I have found that when used with girls who appeared anaemic, it answered well when combined with iron or arsenic. It may be that my theory of the disease explains its action. The administration of ovarian substance must be watched, for sometimes it causes nausea. I usually give tablets of 5 grains (containing 0.32 gram) two or three times a day after food.

Before passing to operative measures, I must refer to Boult's[22] opinion that there is an antagonism between the physiological function of the ovary and mammary gland, and that menstruation is to be conceived of as a process which is set going by the biological power of the ovary. He has attempted to overcome the intensity of the pathological conditions of menstruation, and above all of dysmenorrhoea, by artificial stimulation of the mammary gland. He has employed a breast pump, and has produced, some days before menstruation and during it, engorgement of the mammary gland. He states that he has seen good results follow this treatment, both in the abatement of the pain and in the diminution of the flow of blood.

Surgical or operative treatment may be briefly divided into dilatation of the cervix and removal of the ovaries—the latter not to be undertaken without the most serious consideration. Now dilatation is, on the whole, a most successful operation, and all those who have had special experience in the treatment of this disease are favourably impressed by the results. It imitates Nature's cure, which is pregnancy, for then thorough dilatation of the cervix is secured; but unfortunately we know that dysmenorrhoea is frequently associated with sterility, so that this natural cure is often denied the patient. Some prefer to incise the os laterally before dilating, or to cut out a wedge-shaped piece from the cervix all round the canal.[23] Others divide the cervix, stitching back the angles, so as to ensure their remaining permanently patent. In my own practice, I hardly ever incise the cervix. It need only be done at the time of dilating if the os is extremely small. Incision of the internal os, which involves unnecessary risk, is practically never done now. It used to be much in vogue, and gave relief probably by dividing the circular fibres and giving them rest from spasm. This object is, of course, gained by slow dilatation of the cervix. As a rule, I use the ordinary Hegar's metal dilators, and do the operation at once under an anaesthetic. If the patient has no time to devote to rest afterwards, it is better not to do it at all.

The operation of dilatation should be accompanied by the same precautions as any other surgical operation. There ought to be no such thing as a minor operation in surgery, because every operation undertaken ought to be carried out with scrupulous care. After thorough dilatation it is best to keep the patient warm in bed for a few days. Some advocate the use of electricity in the treatment of dysmenorrhoea,[24] or the intrauterine application of the galvanic current,[25] and by others the stem pessary is lauded. I have used neither, and I do not advise the use of the stem pessary, for it cannot be altogether free from risk. It may be that I am prejudiced against it on account of the unfortunate results I have seen from its use. In cases of dysmenorrhoea, where there is continued pain over one or both ovarian regions, it is found sometimes on opening the abdomen—the operation being possibly undertaken for something else—that the ovaries have small cysts all over them. If these cysts be punctured and the fluid allowed to run out, the ovarian pain will sometimes disappear, because presumably the tension is relieved. When intense pain over one ovary, or both, is invariably complained of at the onset of or during each menstruation—pain sufficient to incapacitate and prevent the patient from making her living—it may be justifiable to explore. In certain cases the ovary may be found to be cystic, as above mentioned, and in some cases I have seen adhesions from previous local peritonitis. If these are thoroughly broken down without doing anything further, the patient may be cured.

I believe some resort to gradual dilatation—that is, passing a dilator increasing in size every two or three days until the full size is reached. I do not recommend this proceeding. It is tedious and somewhat risky, and certainly very painful. I have known parametritis to follow in the practice of more than one who passed the dilators in his own house. It is best to operate under an anaesthetic, and to pass each dilator slowly, so that the cervix may be slowly and steadily dilated and not torn. My own experience is that if the dilators pass with considerable difficulty, there is a much better prospect of a cure than if they enter the cervix easily.

And, finally, there is oöphorectomy. This is a matter upon which the patient, and she alone, ought to be the judge. It must, of course, be most strongly condemned unless done only after the most serious consideration. If the woman is of a certain age, shattered in health, with no prospect of relief in spite of all kinds of treatment, and if she is willing to relinquish the chance of child bearing, then I think that her request for the operation which will stop menstruation and cure her pain ought to be attended to. I would say this, however, that her statements as to her sufferings ought to be corroborated by the relations or friends with whom she lives. No one would undertake this operation without feeling satisfied that the patient had had everything for and against placed before her; and, above all, it is essential that absolute certainty should prevail as to the diagnosis of the disease.

I have already referred to dysmenorrhoea and the cure of neurasthenic patients. Be certain, before undertaking an operation of this kind, that the patient is really suffering from genuine spasmodic dysmenorrhoea, and that she is not a neurotic woman, with pain intensified at the time of menstruation.

In conclusion, I would say with much regret that I do not consider we know any more about dysmenorrhoea which will enable us to speak positively as to its etiology or pathology than we did years ago, but I cannot help feeling that further observations concerning the secretions of the ovary may open up a wide field of knowledge. The exact relation between the ovary, the thyroid, and the other ductless glands is still obscure,[26] but we must earnestly hope that the time is not far distant when we shall be enabled to speak positively about the action of their important secretions, and that a true explanation of the occurrence of dysmenorrhoea may be forthcoming.

REFERENCES.

[1] Kelly and Noble: *Gynaecology and Abdominal Surgery*, 1908, p. 235, vol. i.
[2] Sir Halliday Croom: Allbutt's *System of Gynaecology*, p. 95.
[3] *Amer. Journ. of Obstet.*, 1909, p. 644.
[4] An Address on Dysmenorrhoea, BRITISH MEDICAL JOURNAL, April 17th, 1909.
[5] Kelly: *Med. Gynaec.*, 117.
[6] Edgar: *Practice of Obstetrics*, p. 25, 1906.
[7] Sir Halliday Croom: Allbutt's *System of Gynaecology*, p. 97.
[8] Howell: *Textbook of Physiology*, 1908.
[9] Die Erklaerung der Dysmenorrhoea durch Bauchfellzerrung, *Monatsschrift für Geburtshilfe und Gynäkologie*, 1908, xxvii.
[10] Ueber Aetiologie und Therapie der Dysmenorrhoea, *Monatsschrift für Geburtshilfe und Gynäkologie*, 1908. xxvii, pp. 73-77.
[11] Ueber primaere und sekundaere Dysmenorrhoea, *Monatsschrift für Geburtshilfe und Gynäkologie*, Berlin, 1907, xxvi, pp. 801-822.
[12] Op. cit.
[13] Académie de Médecine.
[14] Leonard Williams: *Clinical Journal*, March, 1909.
[15] Mosher: *Johns Hopkins Hospital Bulletin*.
[16] Die wechselseitigen Beziehungen der innersektorischen Organe insbesondere zum Ovarium, zugleich ein Beitrag zur Lehre von der Menstruation. Volkmann's *Sammlung klin. Vorträge*, N. F., 508. (Interchangeable Relations of the Normal Secretory Organs, especially of the Ovary. Contribution to the Doctrine of Menstruation.)
[17] Bell, BRITISH MEDICAL JOURNAL, 1907, vol. i, p. 920.
[18] Ueber die wechselbezeichungen zwischen dem Ovulations-Vorgang in der Menstruation und internen Krankheiten, *Münch. med. Woch.*, 1907, xlvii, pp. 1868, 1935.
[19] *Principles and Practice of Gynaecology*, vol. iii, 1884, p. 177.
[20] *Zentralblatt für Gynaekologie*, 1908, xxii, p. 581; Gesellschaft für Geburtshilfe und Gynaekologie in Berlin.
[21] *Amer. Journ. of Obstet.*, vol. xlix, p 804.
[22] Zur Behandlung der Dysmenorrhoea, *Münch. med. Woch.*, 1907, xliv, 1731.
[23] A Type of Operative Dysmenorrhoea, by Gustav Kolischer. *Amer. Journ. of Obstet.*, 1909, lix, 644.
[24] W. B. Sprague: *Amer. Gyn. and Ped.*, 1891, vol. iv, p. 402.
[25] A. Lapthorn Smith: *Amer. Journ. of Obstet.*, 1896, vol. xxvi, p. 161.
[26] Dr. Leonard Williams: *Clin. Journ.*, p. 327, March 3rd, 1909. Dr. T. G. Stevens: Ibid., August 11th, 1909.

SOME CONSIDERATIONS BEARING ON THE SURGEON, THE PATIENT, THE STUDENT, AND THE NURSE,

BASED LARGELY ON THE PERSONAL EXPERIENCES OF THE WRITER*

BY WESLEY MILLS, M.A., M.D.,
PROFESSOR OF PHYSIOLOGY IN MCGILL UNIVERSITY.

I PROPOSE to do this evening what I think is entirely new in this society, to present a paper based on the writer's own experiences as a patient. In doing so I am aware that I am taking some risks, but I know most of the members of the society well, and I believe I shall be accorded the same kind consideration as has always been shown me during the twenty-five years that I have been enrolled among its members. It is not altogether pleasant to have to confess to such a record of physical weakness as I must lay before you; but these experiences, with all the pain and misery associated with them, have taught me so much and produced such deep convictions with a practical bearing that did I not speak I would feel almost guilty of being untrue to myself and to my past as you know me.

I could fill a volume with views based on new conceptions of physiology and another similar one bearing on psychology. Indeed, that I can claim your attention for only a short time on one evening is the chief difficulty under which I labour; for I fear that, in merely touching on subjects that to be adequately understood would require deliberate attention and illustration, I may fail altogether in making my meaning clear. But so many are now anxious to get the ear of the society, and this is so healthy a state of things, that however deeply I may feel the practical importance of some of my views, I must not claim from you more than a little extra time and patience.

Life to be healthy should, in a human being, be made up of reflection and action. The medical man is apt to neglect the former by reason of the numerous calls made upon him; but he himself, and his profession and the public, suffer from this. Action should be based on knowledge. What was once good practice is so no longer because of the increase of knowledge. But so-called knowledge is of very varying degrees of completeness and value. Much that passes as knowledge and even suffices in a fashion for practical life, is worth little in the development of the individual's nature. A man from viewing and handling apples may have what suffices for commercial purposes fairly well, but if he has never tasted an apple his knowledge is of little real value as judged by an educational standard; and no amount of the most graphic description can give a knowledge of an apple that one bite of it will communicate.

To him that has never felt real pain a description of a toothache is mere sound signifying nothing. The man who has been absolutely healthy and vigorous all his life—that is, beastly healthy—is also beastly narrow and ignorant as regards many of those higher things the comprehension of which makes us peculiarly human, such as not a little in literature and art, even much of psychology and philosophy; in a word, much of life in its breadth and depth. The only highest knowledge is realization. A grain of realization is educationally worth a ton of other kinds of knowledge, for it alone is the key that unlocks the real secrets of life. There is no such enviable quality as that which helps one human being to put himself in the place of another. We are born with very varying degrees of capacity to do this. To all, however endowed by Nature, some experience of life's joys and sorrows alike, including physical ills, is necessary; and I am now convinced that most men have much less ability to put themselves in the place of others than they suppose.

When you hear my history as a patient during the past year, I think you will admit that I have some special qualifications to speak on certain matters. On the subject of pain and misery generally you may be ready to admit that I have graduated to the rank of an authority. But it might not occur to you to think that on other subjects, in fields that fall little under the ken of the so-called average man or even average doctor, there has come general enlightenment. On such dark subjects as dreams, obsessions, delusions, illusions, the importance of the fundamental conceptions of time and space, hypnosis, the subconscious, and many others, the world is a new world to me. This enlightenment has not only served to emphasize the ignorance of most of us, but to make me feel how little I even yet understand some of the states of my fellow men. I believe that even those long associated with the insane do in any true sense understand them but very imperfectly.

I have been dealing in abstract statements, perhaps some of them almost truisms, yet truisms of a practical importance that is very imperfectly realized. Before passing on to give the history of my case, allow me to put in a few brief sentences some of the conclusions to which I have been led, based on my past experience as illuminated and largely interpreted by my more recent knowledge gained through so-called misfortune, but which is only so when regarded from the narrower point of view. I shall now keep largely to those convictions which have a practical bearing.

NOTE.—It should, perhaps, be stated that the writer of this paper began his medical career as the interne and medical superintendent of a general hospital, where for more than two years he had a rather wide range of experience; that, after spending considerable time in study and investigation abroad, he entered on private practice as a general practitioner, but soon became a specialist. In about two years he laid aside medical practice to enter on the career of a physiologist, which he took up in 1884. During the intervening period he has, however, frequently attended medical clinics abroad, in addition to working in scientific laboratories, and has always been an active member and regular attendant of the Montreal Medico-Chirurgical Society; so that there has been no period since his graduation when he was not in touch with practical medicine to a greater or less degree.

* Read before the Montreal Medico-Chirurgical Society, January 21st, 1910.

1. Realization is the highest kind of knowledge. Most men are to some extent handicapped in the practice of the medical profession by a lack of experiences of the sort which fall to their patients. Development and the highest preparation for action come from the mind that has felt sorrows and pain as well as joy. Much of what is best in art and literature—that is, much of the best teachings of the world—has come to it from the men of sorrows. The greatest musical symphony ever written, expressing as no words can the joy and the sorrow of life, sprung from the mind and heart of a man of many griefs—the unrivalled Beethoven.

2. The medical education of the day is defective in two respects: (*a*) The student is graduated without certain realizations he might have, and (*b*) without a certain kind of practical knowledge all who practise medicine require. In my opinion a medical man in starting on his career should not only *know* all a nurse does and a great deal more, but be able to *do* all that she can do; and as about 90 per cent. at least of any graduating class are to be general practitioners, and not teachers or employed in scientific research, I would, if necessary, take the time required to give them, when students, a practical knowledge of all that is now required of a well-trained nurse from the time now given to anatomy, physiology, chemistry, pathology, etc.

3. Pain and the misery associated with profound shock are such great evils that they call for special consideration. When a patient is confined to bed his comfort in every respect should receive attention, for it is not only important to get the surgeon's wound healed, but to keep the patient from misery while it is being healed. A life filled with suffering in any form is not in itself worth living, from which certain conclusions follow as regards both nurses and doctors. A nurse who is merely a surgeon's assistant or dresser, as I have by personal experience found some to be, fails greatly in her duty; and the surgeon who never had certain experiences, as, for example, in passing a catheter on himself, can scarcely be considered adequately fitted for his work.

4. Shock is so little understood, so widespread, and so great a source of danger and misery, that the study of its nature, prevention, and treatment should still further engage the attention of the whole profession. I scarcely know any subject so urgently deserving the attention of the profession.

5. Many in the nursing profession are ill adapted to it, while we fail to attract to its ranks many women who would be invaluable, but who seek other avocations. The fundamental remedy is to make the profession more important and honourable in the eyes of the public.

6. Our medical students should be made to realize the importance of the administration of an anaesthetic. They should be trained in producing anaesthesia, general and local, by experts. Much of the administration of anaesthetics on the American continent, as compared with that in England as carried out by professional experts who give their whole time to this, seems to me in comparison barbarous. Is it not time that we encouraged the formation of a somewhat similar class in the profession on this side of the water?

These are a few of the subjects on which, after my trying experiences, I feel very deeply.

Now to give you a very brief history of my case, not for discussion in detail, as my operating surgeon is not present, but rather to indicate to you on what special personal experiences I base the conclusions I lay before you.

The profession is, I am inclined to think, perhaps almost unconsciously to itself, entering on a new epoch—one in which the psychological manifestations in the patient will receive possibly as much attention as the physical, and in some cases more. We are beginning to pass from a condition when as a profession the psychological has been either ignored or treated in the most empirical way. Yet the day has never been when the really great physician ignored the mind. He has been, consciously or unconsciously, given to minister not only to the mind diseased, but to the mind in the diseased subject. We are beginning, however, to recognize that this is not enough, but that psychological science must be applied with all the skill possible in dealing with every patient, because the body is greatly influenced by the mind, and because all sense either of pain or well-being is finally a matter of the mind. Having for some years advocated the introduction of the study of psychology into the medical curriculum, you will be prepared for the importance I attach to noting psychological conditions in myself during all the stages of my illness. Only those who realize two things can possibly understand much that lies deep among my convictions. I believe (1) that the only real possession is appreciation. I may own a beautiful picture, a work of the highest art, but if you appreciate that picture in the sense of feeling its real worth more than I do, this treasure is yours rather than mine. And (2) that pain, when it passes beyond the degree when it serves as a warning, is an unmitigated evil.

It follows that life is valuable to any individual in proportion as his consciousness is free from pain or uneasiness on the one hand, and on the other filled with appreciations—the more numerous and the deeper the better.

Perhaps no one has made so clear a law of compensation that seems to exist in the universe as Emerson. There is no situation that is utterly bad—that is, wholly without compensation. This, however, is only true if we take life as a whole, and believe that existence is continued beyond this present time and state.

Perhaps the best service I can do is to try to show what have been some of the compensations—some of the many—that went with the various stages of experience that fell to my lot last year. These advantages or compensations consisted of new or clearer views on a variety of subjects, a large proportion of which would have been impossible to me apart from my so-called misfortunes. I propose, then, now to give a very brief history of my case, noting some of the compensations associated with each stage of its development.

HISTORY OF THE CASE.

First Stage.

The previous history of the patient was good; he had had only one serious illness (in youth) in the form of bronchitis. For some years micturition had been rather too frequent, especially at night. An acute condition, marked by irritation and very frequent micturition, began early in June, 1908. This was attributed by the patient to an exacerbation, owing to catching cold, of a condition supposed by him to be a hereditary sensitiveness of the bladder. The heredity, as regards the bladder especially, had led to the condition in question, in spite of the patient having lived soberly and physiologically righteously in this present world. The diagnosis of enlarged prostate was made and palliative treatment recommended. As there was at times retention to the extent of over 30 oz. the gravity of the situation can be understood. Catheterization with a soft rubber instrument was carried out, two and sometimes three times daily for a month, the result being relief of urgent symptoms; but there remained residual urine to the extent of 18 to 20 oz.

Operation had been hinted at more than once. The patient learned self-catheterization, and, hoping for further improvement, sailed on July 16th for England. The voyage was very disagreeable, and to this rather than lack of care the patient attributes the fact that the bladder became infected and urethral fever set in.

Compensations.—New ideas as to sensations; on the value of mental treatment; and on the selection and training of nurses.

Second Stage.

Consultation with a London general surgeon who was a specialist in urology. He recommended immediate prostatectomy. This operation was carried out suprapubically on August 18th, the anaesthetic being administered by a specialist, and in a manner that surprised the patient, who had inhaled ether once in Canada at the hands of a house-surgeon. The operation was followed by considerable shock. By a misunderstanding the patient was allowed only very small quantities of water after the operation, and suffered greatly from thirst. The wound where the tube for drainage had been inserted was very slow to heal, not completely closing till the thirty-first day after the operation. During the greater part of this period the bladder had been washed out with an antiseptic solution. Throughout the whole history of the case there had been great difficulty at times in introducing a catheter, which was the cause of much suffering—and, in fact, before the first attempts at passing a catheter after the operation were successful, I was again obliged to submit to ether anaesthesia.

On the twenty-sixth day my surgeon was obliged to take a holiday. On the second day of his term his substitute—in fact his house-surgeon—so passed a catheter that I felt as if a lance were being suddenly thrust into me. The same day urethral fever set in and continued till all use of the catheter and irrigation of the bladder were discontinued. During this period the urine had become very foul, but improved when the local treatment was discontinued. My general health was very bad. To this unfortunate period I trace most of the misfortunes that overtook me later. My surgeon on his return recommended change from the nursing home to my own rooms and going into the fresh air. On the thirty-third day I began to sit up on the side of the bed and to learn, like an infant, to walk again. Two months from the date of operation I left for my London home, my general health being rather poor, and the tone of the bladder distinctly bad. I took exercise, and used mental tonics, in the form of reading, attendance at concerts, etc.

Compensations.—This was one of the most fruitful periods to me of all. New light came on such subjects as dreams; the origin, nature, and importance of our conceptions of time and space; the interdependence of body and mind; on the subconscious; the nature of obsessions; the narrowness of our ordinary view of things; the limitations of the healthy man, etc. On the physiological side I was profoundly impressed with the importance of the study of shock; of the avoidance of following the same routine with all patients; of nurses being trained to consider the patient's comfort, and not to be mere surgeons' dressers; of their being trained in regard to anatomy and physiology in a very practical way, so as to understand the question of bodily tension and relaxation involved in turning patients with abdominal wounds, etc. Of the great value to a medical man of sound judgement, of common sense as applied to medicine. I also became profoundly convinced that in America we should better our administration of anaesthetics.

Third Stage.

Although things went fairly well with me the urine never cleared up, and the tone of the bladder remained unsatisfactory. On February 18th, 1909, my condition grew worse; an abscess formed, and pointed at the site of the part of the surgeon's wound last to heal. After a temporary closure of this bladder fistula, it reopened in a few days. The patient was again taken to a nursing home—a new one, in which things generally were managed in a way much more to my mind.

For the third time an anaesthetic was administered, and a gum elastic catheter tied in the bladder. This failing to drain, was replaced by a metal catheter, which was introduced under cocaine, and in this way the bladder was washed out, the whole process, in spite of the use of the local anaesthetic, being very painful. Soon the metallic catheter was tied in, and the patient enjoined to lie constantly on the back, with as little movement as possible, day and night. During the first period the catheter was kept in two days and two nights. The opening closed, but soon reopened. The surgeon was much discouraged, but resolved to try the method once more before resorting to another operation (cutting into the bladder). This second ordeal lasted three days and three nights, and was successful. You can but faintly realize the suffering involved in this. During this time my general health was bad, and the urine markedly abnormal.

After continuous irrigation, sometimes twice and three times a day, there was decided improvement in vesical and general conditions. The patient then learned to irrigate his own bladder through a soft catheter, which soon had to be changed to a gum elastic one. On May 26th, the patient having again learned to walk, returned to his own rooms.

Compensations.—A world of knowledge regarding reflexes; light on the physiology of locomotion; on anaesthesia; pain; hypnosis; and much generally in regard to the relation of mind and body.

The nurses in this home were not merely surgeon's assistants. They all looked carefully to the physical and mental comfort of the patient, though some were more satisfactory in this respect than others. The head nurse, or lady superintendent, presiding over the department of the house in which my room was situated, was an almost ideal woman for the position she occupied. She worked herself with the nurses, and this explains much. It was worth a great deal to know such a woman.

Fourth Stage.

On June 4th an attack of septic epididymitis necessitated my again entering the home. The treatment consisted in rest, local support, counter-irritation, and pressure. The tenderness disappeared speedily, but the parts long remained enlarged, though this was in no sense troublesome. After about three weeks the patient again returned to his own London home.

Fifth Stage: Convalescence.

On the advice of my surgeon I spent the month of August at a seaside resort—Eastbourne. I lived most of the time in the open air. The change acted most favourably, and this I attribute, not only to physical agencies, but also to psychical ones, especially, after being shut up so long, seeing so many human beings, who were young, healthy, and aesthetically attractive. On September 9th I sailed for Montreal.

To summarize the whole case one might put the matter thus: A patient that had been previously very free from disease had for years shown some symptoms of enlarging prostate. He suffered from a bad bladder heredity, which explains the origin of the condition.

After palliative treatment there was prostatectomy. Out of this and subsequent complications there arose a condition of things that resulted in the patient taking an anaesthetic three times; having to learn to walk afresh three times; submitting to unlimited catheterization by means of the three kinds of instruments; much irrigation for an infective cystitis; formation of a bladder abscess and fistula; and being confined to bed at different times for a period amounting in all to about four months—a vast experience full of new light on many things that it is hoped may be helpful to him in this state of existence and those subsequent ones in which he must now more than ever believe.

I would like to add to those already made a few remarks, especially about some matters that seem to me of great practical importance.

My Montreal surgeon who made the diagnosis of enlarged prostate and carried out the palliative treatment was, I am now convinced, persuaded from the first that only operation would remedy the state of things that existed. But I cannot too much admire the tact and fine feeling he showed. All the preliminary treatment by catheterization was valuable, perhaps essential, in bringing the patient to a realization that there was but one remedy, even if that were a radical one not wholly free from danger to life. Had I been told bluntly at the first interview that such an operation must be performed, the mental shock would likely have been serious, and that this experience was spared me makes me grateful to my surgeon. You all know him and you know him not. I must not fail to pay a tribute to his two house-surgeons, who carried out the catheterization with a care, intelligence, skill, and consideration for the patient worthy of all praise. For twenty-eight days these young men catheterized the patient two, and often three, times a day, giving very little pain, and with no appreciable rise of temperature or other bad symptom, and that in a very sensitive subject; while an English house surgeon so passed the catheter on his second visit that typical urethral fever followed on the same day. True the patient then had a certain amount of cystitis and was not in as good general health as before, but does that account for the difference? I think not. The remark of one of the Montreal house-surgeons to the other when handing over the case to him is noteworthy. When asked how often he used the catheter on this patient, his reply was, "Three times a day, and every time with fear and trembling." This, in my opinion, is the only spirit in which any man should ever take a catheter into his hand for use on a new patient, or for use on any occasion with certain subjects. Brilliancy and rapidity in passing this instrument are not to be encouraged. The hands of my house-surgeons in Montreal moved like snails. Would that I could say the same of the substitute of my London surgeon. On one occasion my London surgeon himself must have occupied at least twenty minutes before the catheter could be got into the bladder, and yet no urethral fever followed. And though this involved much pain for the patient, in

spite of the use of cocaine, I attribute the favourable result to the fact that there were no violent or even rapid movements and no suddenly induced pain. Unless a man uses a metal catheter on himself it is difficult for him to realize how much pain there may be. There is a sort of stretching sensation, even when cocaine has been used freely, and there is a peculiarly disagreeable shock just at the moment a metallic catheter enters the bladder which it is difficult to describe and I am sure impossible to understand without some actual experience.

Our knowledge of general, and especially skin, sensations has recently been greatly enlarged, chiefly by certain English investigators, and so far as pain is concerned I could add to what is already known. Reflex pain or referred pain is characterized by its diffuseness and its massive quality, by its being difficult to locate definitely, and by the fact that it may be far from the seat of the original cause of the pain.

As already stated, on two occasions I had a metallic catheter tied in for several days and nights, and to avoid injury was obliged to remain as nearly absolutely motionless as possible all the time. The whole constituted the most trying ordeal through which I have ever passed. Apart from the local pain in the urethral region and pain in the back from constantly lying on it almost motionless there was severe referred pain. It was impossible for me to say exactly where this was located, but it certainly was either in the scrotum or its contents principally. And in this connexion let me point out that no function of the body may escape the evil influence of such severe and long-continued pain. On both the occasions referred to I vomited in the evening food taken in the morning in an absolutely undigested condition. Here, then, was a case of reflex vomiting, traceable to irritation in the urethra and also a cessation of digestion due to the same cause and to pain. I believe *the urethra to be the most sensitive and most dangerous reflex tract in the whole body.*

You will understand, therefore, putting all these facts together, why I believe that no student should be allowed to graduate till he has had certain experiences, some of them in his own person. Among these I would certainly include the passage, under skilled observation, of a soft rubber and a gum elastic catheter on a subject, and the passage previously of both of these and a metallic catheter on himself. It is difficult for me to believe that, had the London house-surgeon who was my surgeon's substitute had any such personal experience, I would have so suffered at his hands, to which more than anything else my subsequent misfortunes were, in my opinion, due.

Allied to pain, yet very different from it, is shock. One who has been exceedingly weary or utterly exhausted is in a better position than any one else who has not had the actual experience to understand the sensations associated with shock. Pain one can to some extent describe, but shock is beyond words. I would that every member of the medical profession could have this experience for two minutes; it would be invaluable to him. But I would not wish the worst human fiend the experience of two hours of shock. It is very imperfectly understood physiologically. Blood pressure cannot in itself be a final explanation for any physiological condition, though altered blood pressure is undoubtedly associated with many. No doubt there is low blood pressure; but an explanation that refers shock to a profound modification in the structure even of the nerve cells—allied to that which occurs in exhaustion, but much more marked—seems to me to be farmore satisfactory.

That the concentrated wretchedness that the subject experiences is not realized by surgeons generally is the only explanation I can give as to why they are not more deeply concerned about the matter. If they felt as I do, the subject would be set down for discussion at the very next medical or surgical congress. On no subject connected with medicine do I feel so strongly, for I can give no description of my sufferings under shock that would be at all adequate. There was no physiologist, pathologist, or surgeon near to help me in any way. My own regular nurse, an admirable surgeon's dresser, failed me miserably. Then came a good angel in the form of a young woman, a nurse in training, whom I had never seen till that day. Would that time permitted me to describe her and her mental ministrations. She seemed to slowly draw me out of a hopeless slough of awful misery by methods of human sympathetic appeal that perhaps only a woman has at command. Well, it was so, for men are hopeless as nurses, and in many other situations if they could only see it; but as a sex they have an exceedingly good opinion of themselves, and seem to think they are equal to anything and everything that can fall to any human being to do or to understand.

And here again a word about nurses. During the past year I have seen enough of about a hundred who were either graduate nurses or nurses in training to give me ground for some strong convictions. I would rule out at least three classes of women from this profession:

1. Those without the delicate mental touch termed tact. A tactless woman is a sort of monstrosity. I had some slight and unpleasant experience of one such nurse in Canada, and a bad two days of another in England, when the matron at my request replaced her by a very admirable substitute.

2. Those whose hands will never learn delicate handling. One such I could only put up with because she was so well disposed and looked so successfully to my comfort in small matters, which is so important when one has both big and little pains and miseries to endure. Quite a contrary experience was mine with a young nurse who during all the weeks she attended to me after my big operation never on a single occasion caused me the least pain. A wonderful hand had this little nurse, and it was associated with a fine brain.

3. The amorous nurse. She is more or less dangerous for patients, students, and young doctors. Like Liszt, to the charming young lady who failed to please him in piano-playing, I would say: "Get married—get married quick—good-bye."

To my thinking, it would be better for themselves and for all concerned if many nurses in "homes," etc., in England were under less tension. On the other hand, I fear that many nurses in training in Canada do not take their profession seriously enough. They mingle thoughts of work and play too much together. I would not be doing justice to several of the London nurses who looked after me did I not bear witness not only to their professional efficiency and their sympathetic attention to every detail bearing on the comfort and welfare of the patient, but also their high degree of general culture, their refinement, and, what was a great matter for me, the beauty with which they spoke the English language. Some of them could give lessons in speaking to not a few of the London actors and actresses. But nowhere have I met a woman of more tact, better adapted to minister to the needs of the patient, and nowhere a nurse of more ability and general culture than two who were among my attendants in the Royal Victoria Hospital in this city. I again repeat that, in my opinion, the great problem is to attract the best type of woman to this noble profession by making it more and more honourable in the eyes of the public.

To do any sort of justice to the subjects of both psychological and practical interest to which attention has been called in passing would require a separate paper; but a word on a matter of a good deal of practical as well as of scientific interest—namely, hypnotic suggestion.

We are accustomed to invest with importance only that form of hypnosis brought about by some very special means that appeal to the eye. We are in these days rather under the domination of the eye. As a matter of fact, everyone hypnotizes himself by suggestions many times daily. We do it unconsciously, and the doctor hypnotizes his patients also unconsciously. Let me illustrate by a curious case of the latter kind. When taking an anaesthetic for the third time the expert said to me: "Now breathe out. Never mind the breathing in; that will take care of itself." Not only did I follow his directions before I became unconscious, but I found that I was breathing in the manner indicated when I had regained consciousness. The effect of the suggestion had lasted through the whole period of unconsciousness and beyond it. We may all observe that we make suggestions to ourselves that, at a later period when we meant them to be active, cause an uneasiness that is followed by a recurrence of the suggestion. When the metal catheter was in the bladder I hypnotized myself so fully with the idea of lying still that the suggestion seemed to be active in sleep even to a very complete degree. In such a case the value of such a personal hypnosis is obvious.

There is a peculiarity about the patient recovering from anaesthesia that is known, I imagine, to comparatively few—a sense of isolation and loneliness that may be quite foreign, as it was in my own case, to one's natural temperament. After an anaesthetic a patient is to some degree conscious sooner than might be supposed. I do not think a patient should ever be left alone on the supposition that he knows nothing or feels nothing. He feels very soon, and the sympathetic psychic touch of the nurse to whom he is accustomed—not a stranger—or that of an intimate friend, will prove a great comfort to him. After my prostatectomy, before I could speak other than with a thick tongue, I said, "Nurse, talk to me"; but she did it not and went on reading her book, for which I find it rather hard to forgive her, although she was a good surgeon's assistant.

You will by this time infer that my ideal surgeon is a man who, with all the general and special professional knowledge and skill of the day, illustrates, perhaps even more than the physician, that state of mind which results from contact with at least a little of every important department of culture; and who is possessed of that rarest and most valuable of all human gifts—the power to put one's self in another's place.

A MALIGNANT GROWTH OF THE KIDNEY.

By KEITH MONSARRAT, M.B., F.R.C.S.E.,

LECTURER ON CLINICAL SURGERY, UNIVERSITY OF LIVERPOOL; SURGEON TO THE NORTHERN HOSPITAL.

THE following case of malignant growth of the kidney, removed by operation at a comparatively early stage of development, offers some interesting features which seem to make it worthy of record.

A. R., aged 28, a bricklayer, was admitted to hospital on November 6th, 1909.

History.

In May, 1909, his first symptom appeared in the form of painless haematuria. On the third day he had violent pain in the right loin, passing down to the region of the right hip and to the right testicle. The pain was relieved by treatment. Haematuria persisted for a week. In July he went to camp, and while there had a second attack of haematuria without pain; a third painless attack occurred a few weeks later. From this time until November 5th he had no symptoms, but on that day blood appeared again in the afternoon, followed a few hours later by violent lumbar pain. In the course of this attack he was admitted to hospital.

Condition on Admission.

His symptoms were: (1) Severe pain radiating from the right loin down to the right groin and the right testicle; (2) blood in the urine sufficient to give it a deep port wine colour without clots; (3) vomiting. The haematuria steadily diminished during the next few days. It was determined that blood was coming from the right kidney, and as radiography gave a negative result, the diagnosis was renal growth. The right kidney was not palpable.

Operation.

On November 12th the kidney was exposed by an oblique incision in the loin. On palpation *in situ* a firm nodule was felt about the centre of the organ projecting slightly on its anterior face. After passing an elastic ligature round the pedicle the kidney was incised into the pelvis; on the cut face a growth was seen surrounded by cortical substance, and possessing a definite dense white capsule; on inspecting the pelvis a mass of soft consistency was found projecting into it, and the source of the haemorrhage was seen. As the penetration into the pelvis of naked growth pointed to malignancy, the kidney was removed.

The patient left the hospital well on November 25th, and was seen on December 18th in good health.

Description of Kidney after Removal.

The appearance of the organ after removal is shown in the accompanying photograph. Below the centre and surrounded by renal gland tissue a spherical mass is seen on each side which in the fresh state was the diameter of a halfpenny. It possesses a very well-defined capsule, the growth tissue itself being of a grey-yellow colour and soft. In the pelvis on each side a projecting mass is seen and to the summit of that on the right side of the picture clot is adhering. The projecting mass is purple-red in colour. A small clot is seen free in the pelvis.

The growth was examined histologically and presents two types of structure between which there are no lines of demarcation, that is to say single sections show both types though in varying degree. One type is that which is recognized as characteristic of the renal growths which arise in adrenal "rests," the hypernephromata; large cells with clear cell bodies and small spherical nuclei, polygonal in shape and arranged in masses with coarse trabeculae between them. The other type may be described as cuboidal-cell carcinoma; cells, with darkly staining cell bodies and large nuclei, arranged in branching columns atypical and irregular.

If the second type of cell growth alone had been found, the tumour would have been described without hesitation as a cancer of the kidney without special histological peculiarities; the presence of the first growth type shows that it had its origin in adrenal tissue.

The points worthy of note are:

1. A growth of typical carcinoma structure arising in relation with adrenal tissue.
2. The situation of the adrenal "rest," surrounded for the most part by renal cortex.
3. The prominence of haematuria as a symptom.

Dissemination in relation to hypernephromata is known sometimes to take the form of wide distribution of secondary growths showing the typical adrenal-like structure. In this case local malignancy in the form of capsule transgression and infiltration was associated with the growth of a carcinoma type, although the tumour betrayed its origin in adrenal tissue by displaying the characteristic structure of the latter in part. This suggests that a certain number of malignant growths of the kidney now classed simply as carcinomata may commence in adrenal rests, their origin being obscured by the active carcinoma growth soon after transformation has taken place.

Most described adrenal "rests" in the kidney are subcapsular. In this case the encapsuled portion of the growth showed that the "rest" in which it originated was embedded in renal cortex.

Many hypernephromata are latent throughout; a certain number have been discovered accidentally in the *post-*

Photograph of kidney removed, with illustrative diagram. A, Growth in section, showing capsule. B, Growth projecting into renal pelvis. C, Clot free in pelvis. D, Renal pelvis.

mortem room. Many of the described examples have shown no local malignancy, displacing and not infiltrating, and remaining very definitely encapsuled. This has given rise to the statement that absence of haematuria is characteristic of this growth. This statement is, however, much too absolute. Authorities whose records cannot be questioned—Israel, for example—have described series of such cases in many of which haematuria was a prominent symptom.

It appears clear that the renal tumours arising in adrenal "rests" do not belong exclusively either to the group of simple tumours or to that of malignant tumours. Some undoubtedly are simple clinically and "typical" histologically, others malignant clinically and "atypical" histologically.

PERITONEAL PSEUDO-MYXOMA ORIGINATING FROM THE VERMIFORM APPENDIX.*

BY

WILFRED TROTTER, M.S., F.R.C.S.,

SURGEON, EAST LONDON HOSPITAL FOR CHILDREN; ASSISTANT SURGEON, UNIVERSITY COLLEGE HOSPITAL.

THERE is, perhaps, no part of the body which shows so varied a series of morbid processes as the peritoneum. This is in part due, no doubt, to the immense variety in the nature and severity of the injuries to which the peritoneum is subject and its equally inexhaustible versatility in responding to them. In the almost infinitely finely graded series of peritoneal lesions we may make a rough distinction into two classes: First, those which are primarily microbic or in which a microbic process comes secondarily to acquire predominant importance, and secondly, those in which the source of injury is non-microbic and the resulting process of reaction runs its course without microbic complication. The first class includes practically all the forms of peritonitis which are at all commonly met with by the clinician. The second class, which is perhaps more familiar to the pathologist, is, as a whole, very uncommon clinically, and on that account its rare appearances in practice are likely to be the cause of difficulty in diagnosis and prognosis. It comprises the changes which accompany the presence in the peritoneal cavity of foreign substances which are absorbable slowly or not at all, irritating enough to produce some reaction but not enough to produce any extensive transudation of organisms from the bowel, and in themselves relatively or wholly aseptic. Such conditions may, for want of a better name, be referred to—following the custom of German pathologists—as "foreign body peritonitis."

Fig. 1.—Piece of omentum removed at operation. The specimen has lost a great deal of its mucinous material through being stored in alcohol for many months. Still, however, the resemblance to a colloid carcinoma is very close. The lighter parts of the photograph show the normal omental fat, the darker parts are the translucent gelatinous masses of encapsuled mucin incorporated into the substance of the omentum.

Two broadly distinguishable types of this form of peritonitis present themselves. First, that in which the irritating substances are numerous and small, such as the ova of tapeworms, the hooklets of echinococcus embryos, or minute fragments of undigested food left after a spontaneously recovering or successfully treated perforation. In this form the reactive changes are usually much more prominent than the irritant itself, and the resulting picture is that of a pseudo-tuberculosis which may bear to the naked eye, and even to the microscope, the closest resemblance to a true tuberculous peritonitis.

The second type of foreign body peritonitis is that in which the irritating substance is very conspicuous and the reactive changes very slight. The commonest example of this condition is the *Pseudo-myxoma peritonei*, which occasionally follows the rupture of certain ovarian cysts.

Through the movements of the intestinal coils the contents of the cyst are distributed amongst the viscera throughout the whole peritoneal cavity, producing very peculiar and thoroughly characteristic changes, which were first described by Werth[1] as a foreign-body peritonitis. In consequence of the mechanical and chemical irritation of the peritoneum there arises a reactive inflammation which leads to a slow removal of the gelatinous material by absorption, organization, and encapsulation. The last occurs by penetration of the masses of mucinous material by vascular processes derived from the connective tissue of the peritoneum. These processes ramify throughout the gelatinous masses, subdividing them by a fine connective tissue network. This is especially marked, as a rule, in the great omentum, which is hugely thickened, and appears to be transformed into a congeries of translucent cysts (Merkel).[2]

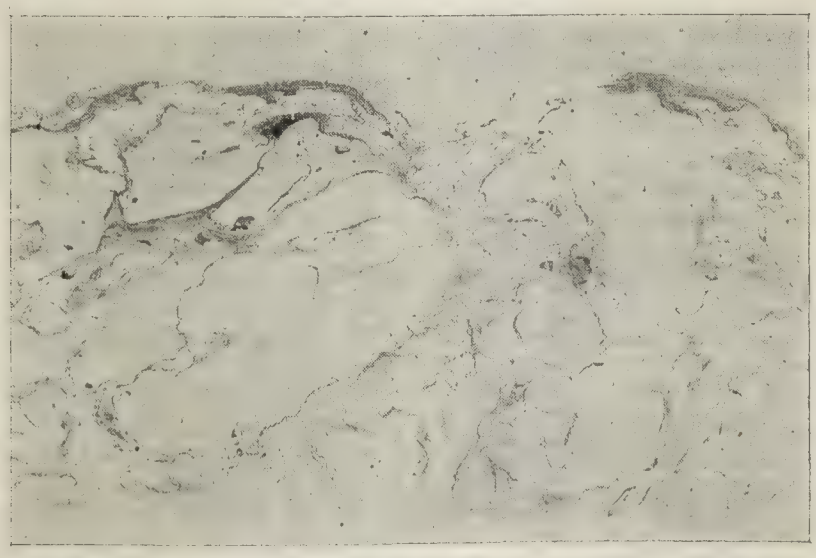


Fig. 2.—Microscopic section under low power of pseudomyxomatous omentum. The delicate stroma-like network of inflammatory exudate and the general resemblance to a colloid carcinoma are well shown.

Following the demonstration of the true nature of this condition by Werth in 1884, there was some controversy as to how far the course of events was as he had described, and how far the result was contributed to by actual metastasis of the original growth upon the peritoneum. Olshausen was able to show that the latter mechanism did at times act, but the original explanation of Werth remained uncontroverted for many cases, and was strengthened indirectly when, in 1901, Fraenkel[3] published the first case in which a similar condition was shown to be due to the rupture of a vermiform appendix distended with mucus. The case was that of a man of 79, who had died of cerebral softening without having shown during life any evidence of an abdominal disease, so that the condition was found quite unexpectedly *post mortem*. Large free gelatinous masses of mucoid material were found in the pelvis and in the right iliac fossa; the peritoneum in contact with the masses showed a peculiar villous condition due to the outgrowth of fine ramified processes covered by endothelium. The case remains unique in the fact that there was no encapsulation of the mucoid material as there has been in all the other cases yet described. There was a cystic dilatation of the appendix, which had ruptured.

* Read before the Pathological Section of the Royal Society of Medicine.

Since this observation of Fraenkel a few more cases have been published, but the total number is still very small. In January, 1908, an interesting and valuable contribution to the subject was published by Neumann of Berlin.[4] He was able to give references to 8 cases, and to add a remarkable and in some respects unique case of his own. In the literature since then I have been able to find no other case, so that the one I shall briefly report below would seem to be the tenth on record. In addition to Fraenkel and Neumann's cases, the other observations have been three by Oberndorfer,[5] and one each by Nager,[6] Merkel,[7] Hueter,[8] and McConnell.[9]

The condition is no doubt in fact a rare one, for a necessary antecedent to it is a distended and aseptic or relatively aseptic appendix which is sufficiently free from surrounding adhesions to allow perforation into the general peritoneal cavity to occur. On the other hand, it seems very unlikely to be so rare as the smallness of the literature suggests. There are indeed two strong reasons for supposing it not very rarely to escape observation or diagnosis. In the first place, several cases have been found unexpectedly *post mortem* in old persons, and show that the condition may run a perfectly symptomless course, while secondly, the appearances met with present an astonishing resemblance to colloid carcinoma, so that doubtless some cases are regarded as primary colloid carcinoma of the peritoneum. It may be mentioned that Nager described his case as a cystic endothelioma.

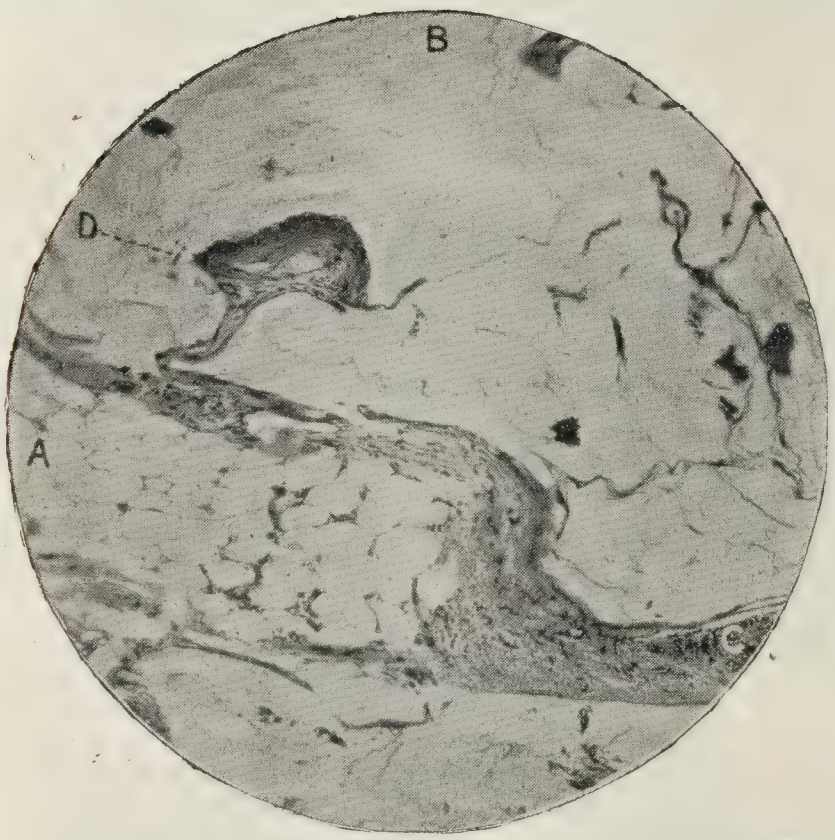


Fig. 3.—Part of pseudomyxoma of omentum under higher power. A, Omental fat: B, mucinous material; C, strand of inflammatory exudate containing many round cells; D, vascular process growing ut from omentum into the mucinous material.

CASE.

The patient was a man aged 36. In the spring of 1907 he had had an attack of pain in the right iliac fossa. It was fairly severe, but did not prevent him from getting about. This pain lasted for about ten days, and during the course of it the patient for three or four days passed dark porter-coloured urine containing blood. The abdomen was repeatedly examined with great care, and beyond some tenderness in the right iliac fossa nothing whatever abnormal was found. The pain disappeared spontaneously, and the patient was quite well for a year, that is, until May, 1908, when he suddenly developed an attack of appendicitis. The onset was abrupt and severe, there was a rigor, and the temperature rose to 104° F. Twenty-four hours after the onset the right side of the abdomen was rather rigid, and a large mass could be felt in the appendix region. In spite of the very alarming invasion, there was at the end of thirty-six hours a distinct decline in all the symptoms; the mass in the iliac fossa could be felt more distinctly, and was at least the size of a man's fist.

The attack continued rapidly to subside; by the fourth day the temperature was normal, and the patient looked and felt quite well. The pulse was slow, the appetite good, and the bowels acted normally. The large swelling was, however, practically unchanged. It was intended to wait for the disappearance of the mass before removing the appendix, but as in a month no diminution had occurred, and the patient began to have pain when he got about, operation was decided upon. The case was regarded as a fairly ordinary example of appendicitis, although the very rapid appearance of the swelling and the persistence of it were recognized as unusual.

At the operation there was a considerable amount of clear free fluid in the peritoneal cavity. The omentum was much enlarged by the presence of large rounded nodules of gelatinous translucent appearance. The parietal peritoneum as far as it could be explored, the caecum, and the ascending colon were thickly set with similar masses. There were many recent filmy adhesions. No trace of the appendix could be made out, but as the condition was regarded as certainly one of inoperable colloid carcinoma, and any manipulation produced free haemorrhage, no extensive search was made. A mass of omentum the size of a man's hand was ligatured off and removed, and the wound was closed.

The patient recovered very rapidly; he left the hospital in less than a fortnight, *and from that time to this has had no abdominal symptoms whatever.* At present—eighteen months after the operation—the most careful examination of the abdomen reveals no abnormal sign of any kind.

The piece of omentum removed (Fig. 1) reproduced with perfect exactitude the appearance of advanced colloid carcinoma. Several pathologists to whom I showed it had no doubt whatever as to its nature. Microscopically, the structure at first sight gives the same impression of a cancer the cells of which have been completely transformed into colloid. More exact observation shows that the stroma enclosing the gelatinous masses is a product of inflammatory reaction rather than a fibrous tissue, and that the gelatinous substance gives the reactions not of colloid but of mucin. The specimen corresponds closely with those described in the other cases.

Fig. 4.—Part of pseudomyxoma of omentum showing a mucinous mass, over the surface of which the endothelial cells of the peritoneum have grown.

MACROSCOPIC ANATOMY.

A.—Distribution of the gelatinous material. Three fairly well marked types of the condition can be distinguished according to the amount of peritoneum involved.

1. Universal dissemination over the peritoneum (McConnell, Nager).
2. Localization to ileo-caecal region and pelvis, usually with involvement of peripheral part of omentum (Fraenkel, Hueter).
3. Localization to immediate neighbourhood of appendix (Oberndorfer's 3 cases).

Most observers mention the extraordinary resemblance to colloid carcinoma.

B.—Condition of appendix. In 2 cases this is not described. In all the others there was distension by mucinous material.

Three varieties have been met with:

1. Simple distension following obstruction by scarring, or in one case by a carcinoma of the appendix
2. Diverticula of the mucous membrane which reached the surface and ruptured.
3. A kind of multiple cystic degeneration of the appendix wall.

In most cases there was an actual perforation. In one it seemed probable that the appendix had burst, and then healed after discharging its contents, which were again accumulating at the time of the examination.

MICROSCOPIC ANATOMY.

The gelatinous substance shows the microchemical reactions of mucin (thionin, mucicarmine, etc.). With the exception of Fraenkel's case the mucinous masses were always encapsuled by recently formed inflammatory tissue, which was usually of extreme delicacy on account of the slightness of the irritation. In one case (Nager) there was evidence that absorption was occurring through the lymphatics. There is a tendency for the peritoneal endothelium to grow over and cover in the foreign substance. On the other hand, the endothelium may persist under cover of a layer of mucinous material, and in this case the cells are apt to become cubical or columnar.

Most observers have found scattered amongst the gelatinous substance chains of cubical or columnar cells of epithelial appearance. Such are present in the sections from my case. Some observers regard these as derived from the epithelial lining of the appendix, others think they are due to transformation of the peritoneal endothelium—a more probable view when we bear in mind the known capacity of these cells to show cubical or columnar forms under abnormal circumstances.

CLINICAL FEATURES.

The cases have come under observation in four different ways:

1. As an unexpected *post-mortem* condition when there had been nothing clinically to suggest its presence.
2. As a cause of slow but pronounced abdominal enlargement, in one case lasting ten years.
3. As an unexpected discovery during an operation for hernia (Hueter's case).
4. During operation for appendicitis. In one case acute appendicitis (Neumann); in one case quiescent appendicitis (case reported here).

In Neumann's case the tumour was found to be localized in the right iliac fossa, and was successfully removed with the appendix. This is the only case which has been treated radically. It and the case I report here are the only ones in which the patient has recovered. The latter case is remarkable in that spontaneous recovery followed abdominal section, with partial removal of the gelatinous material, and without removal of the appendix.

REFERENCES.

[1] Werth, *Archiv f. Gyn.*, Bd. 24, S. 100. [2] Merkel, *Lubarsch u. Ostertag's Ergebn.*, 1903, Abt. 2, S. 327. [3] Fraenkel, *Münch. med. Woch.*, 1901, M. 24, S. 965. [4] Neumann, *Berl. klin. Woch.*, 1909, M. 1, S. 15. [5] Oberndorfer, *Verh. deuts. path. Gesell.*, 1906, S. 235. [6] Nager, *Ziegler's Beiträge*, 1904, Bd. 36, S. 88. [7] Merkel, loc. cit., S. 329. [8] Hueter, *Ziegler's Beiträge*, 1907, Bd. 41, S. 517. [9] McConnell, *International Clinics*, vol. iv, series 17, 1907.

PELVIC HAEMATOMA OF OVARIAN ORIGIN.

BY THOMAS HOLMES, M.S., M.D.LOND.,

HONORARY GYNAECOLOGIST TO THE PORTSMOUTH MATERNITY CHARITY AND THE EMSWORTH VICTORIA HOSPITAL.

IN reading in the JOURNAL of January 29th, p. 262, the report of Dr. Lockyer's paper, the cases he quotes, and those quoted by others who joined in the discussion, remind me of a paper I published some three years ago in the JOURNAL,[1] the title of which was, On the Cause of Acute Illness supervening during Menstruation. In this paper I gave notes of several cases of illness starting during the menstrual period, the cause of which I believed to be excessive haemorrhage into a Graafian follicle; in one case the haemorrhage apparently ruptured through the follicle and became intraperitoneal, forming a haematocele. All these cases occurred in virgins, and there was no suspicion whatever of pregnancy.

Since writing the paper I have seen two cases in consultation, tending to bear out the view I took of their origin, which Dr. Lockyer's paper strongly confirms.

CASE I.

A married nullipara, aged 20, was always menstruating on the 28th of each month, but this time started some little time before. She was seized with intense abdominal pain on the left side, and then commenced to lose blood from the vagina. The pulse was 120, soft and compressible, the temperature normal; there was no pallor, and no shock, but intense and constant vomiting. The breasts were quite virginal, the vaginal discharge was bright red, without clots or shreds in it. There was a little dullness in the left iliac fossa, where tenderness was most marked. The uterus was not enlarged high up, and the cervix not softened. The pouch of Douglas was full of a soft, elastic substance feeling exactly like blood clot, and there was an indefinite mass in the left fornix; rectal examination confirmed this. The patient absolutely refused operation, and was most intractable during convalescence, but was walking about in a fortnight.

CASE II.

I had arranged to operate for another condition; just before the operation she told me of the great suffering she had experienced ever since her last period. On opening the abdomen I found the right ovary enlarged and distended, with blood clot from a Graafian follicle, which was just on the point of rupturing into the peritoneum.

The intense nausea and vomiting, reminding me of an injured testicle, has always struck me as a feature of these cases, as opposed to an extrauterine gestation, and seems to be explained by the injury to the ovary.

I have not referred to modern literature on the subject, but this last week in looking up some of the older writers on diseases of women, I find that Barnes,[2] who distinctly recognized extrauterine gestations, in his article on haematocele quoted Nélaton and Langier, who insisted that a great cause of haematocele arose during the physiological work of ovulation. Churchill[3] does not seem to recognize extrauterine gestations, but says that rupture of a Graafian follicle during its extreme congestion at a menstrual period is the cause of haematocele.

My object in writing three years ago was to draw attention to a class of case which, so far as I knew, was not described in any textbook, or, if the cause were mentioned, was not emphasized sufficiently as the origin of very serious illness. It is not only serious at the time, but, as I hope to be able to show later, may in its minor degrees be one of the determining causes of such chronic sources of trouble as ovarian dysmenorrhoea and prolapsed and adherent ovaries, which often seem difficult to explain in the absence of ordinary infective processes.

Several of my cases occurred a good many years ago, and were not confirmed by operation; but in one case the illness was followed by very disabling dysmenorrhoea. And I believe that, just as in a haematoma of the testicle it may be necessary to remove the organ in some cases, so in some of these cases it may be necessary to do oöphorectomy to prevent chronic invalidism; and that although in married women the diagnosis from an extrauterine gestation may be impossible until the abdomen is opened and the part examined, yet one must always in virgins bear in mind the possibility of this origin of a haematocele.

REFERENCES.

[1] BRITISH MEDICAL JOURNAL, 1907, vol. i, p. 190. [2] *Diseases of Women*, 1878. [3] *Diseases of Women*, 1874.

A CASE OF FAMILY ALBUMINURIA.

BY

J. NEWBERY FERGUSSON, M.B., B.C.CANTAB., M.R.C.S., L.R.C.P.

THE presence of albumen in the urine is not now regarded as an invariable indication of renal disease. Leaving out of consideration those cases in which albumen may enter the urinary tract below the renal tubules, as in pyelitis, cystitis, prostatic abscess, or urethritis, persons in perfect health occasionally pass small quantities of albumen. The great majority of such cases belong to the class of paroxysmal or functional albuminuria, and there is usually some relation between the passing of albumen and excessive physical exertion, excessive ingestion of albuminous food, emotional disturbances, or some other cause.

The case of a man constantly passing large quantities of albumen over a period of many years, without any apparent cause, must be regarded as rare, and the fact that all the members of the same family present the same peculiarity in varying degrees renders the matter the more worthy of notice.

One of the functions of the kidney, while ridding the blood of the waste products of metabolism, is to prevent

the escape of albuminous matter from the circulation, and the explanation of most cases of albuminuria is that disease of one kind or another, either by directly damaging the kidney or by indirectly interfering with its nutrition, has impaired this function in greater or less degree. It is, however, conceivable that some few persons have kidneys in which the albumen-retaining function is only imperfectly developed; indeed, Mörner found that the urine of normal persons contained traces, undetectable by ordinary tests, of albuminous substances, which he believed to have escaped through the kidneys.

The assumption of the possibility of imperfect development of the albumen-retaining function may be, to some extent, justified by the consideration of the following history since we find the abnormality of the parents existing in every one of the eight living offspring.

I will describe the case of one of the sons first, as he is the only member of the family whom I have personally examined.

X. Y. Z., born in 1861, is a civil engineer. In 1886 he went to Central America in the course of his professional work, and there suffered from remittent fever. He came home and consulted a physician, who told him that his urine was full of albumen, and gave the comforting prognosis that he would probably live for a month, whereas a similar case from the same part of the world that the doctor had examined a day or two previously, would probably not last more than three weeks. As the fatal month elapsed uneventfully, and as X. Y. Z. felt quite well, he returned to his work abroad, and has spent the greater part of his time since then in Latin America.

About eighteen months ago, more than twenty-one years after his doom had been pronounced, being at the time on a holiday in England, he consulted me for an attack of dyspepsia of an ordinary type. In the course of examination, I asked for a specimen of urine, and he told me I would find it full of albumen, and gave me his previous history. The result of the urine examination was as follows:

Twenty-four hours specimen, volume 30 oz., medium acidity, specific gravity 1.022. On boiling, a heavy precipitate of albumen was obtained, which, after standing an hour or two, occupied the lower half of the column of urine. Quantitatively, by Esbach's method, albumen was found present to the extent of 3 grams per litre. Microscopic examination revealed no casts or corpuscles, and there was nothing to suggest renal trouble.

The heart was normal in size, the sounds were normal, the blood pressure was within the limits of the normal, and there was little or no arterial thickening. There had never at any time been any oedema of the eyelids or legs, or any other sign of renal disease.

On many subsequent examinations I have always found albumen present, and I think I am justified in believing that it has been constantly present, at any rate since it was first detected in 1886, by the fact that, since then, the patient has frequently had the urine examined, always with a positive result, and that three insurance companies refused him on that ground between 1886 and 1889. During the eighteen months in which I have from time to time seen X.Y.Z., he has maintained his usual high standard of health, and although he has always been thin and spare, he is very tough. I examined the urine some time after I first saw the patient, to find out the exact nature of the coagulable proteid, and it proved to be entirely serum-albumen.

The most remarkable feature of the case, however, is that X.Y.Z. told me that all the members of his family exhibit the same peculiarity. He has, at my request, kindly taken a great deal of trouble to ascertain the facts, and, while I cannot vouch for their accuracy, I have no reason to believe they are not correct, so far as they go. I append a tabulated statement of his investigations.

Father, alive, 87, alb. sl. ...
Mother, alive, 78, alb. badly
=
- F., alive, 56, alb. sl.; 3 ch.
- M., alive, 54, alb. badly.
- F., alive, 53, alb. badly; 2 ch.
- F., alive, 52, alb. sl.; 2 ch.
- F., alive, 51, alb. badly; 1 ch. (dead).
- X.Y.Z., alive, 49, alb. badly.
- F., dead, only lived 1 day.
- M., alive, 47, alb. sl.
- F., alive, 45, alb. badly; 3 ch.

I understand that all the members of the family are perfectly well, and, considering the age the parents have attained, such a case as this should have an important bearing on the question of rejection or "loading" of candidates for life insurance.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

THE LOCAL INJECTION OF SODIUM SALICYLATE IN ACUTE RHEUMATISM.

IN acute rheumatic inflammation of a joint there is much pain, heat, swelling, and an increase of tension, with the production of an excess of CO_2. In whatever form salicylic acid is taken, it is converted into sodium salicylate in the blood, and circulates as such. Its value depends upon the free acid, which is a powerful antiseptic; whereas the salt itself has little or no antiseptic virtue. The sodium salicylate, coming in contact with the nascent CO_2 generated at the inflamed part, is split up into salicylic acid, which exhibits its antiseptic properties. The carbonic acid and the phosphoric acid of the blood are constantly struggling for the possession of sodium. The salts formed by them depend upon their relative masses. If CO_2 is in excess we get sodium carbonate, and the tension of CO_2 in the tissues is at its highest. In fact, Köhler has attained the above condition of the liberation of salicylic acid from a sodium salt in the laboratory by using the blood of a suffocated animal. The action of salicylic acid or salicylate in rheumatism is, therefore, general and local. It might be argued that if the antiseptic property of the acid is the cause of the cure of rheumatism, why do not other antiseptics serve the same purpose? But this drug possesses other qualities which admirably adapt themselves to the treatment of rheumatic fever. It has antithermic, analgesic, cholagogic, and the eliminatory properties. We must take into account, also, the susceptibility of different bacteria to different substances, and there can be no doubt as to the special sensitiveness of the specific micro-organism of acute rheumatism to salicylic acid any more than that of syphilis to mercury and of malaria to quinine.

Considering, therefore, the value of the above drugs as a specific, and that their action is local, the idea of treating these cases of arthritis locally naturally suggests itself. I therefore decided to treat these cases by the injection into the joints of solutions of sodium salicylate, to obtain locally, by the liberation of salicylic acid, the analgesic, antiseptic, and the specific action of the drug. This has been successfully carried out by Santini[1]; he gives no explanation, but he observes that the tendency to relapses was greater; his injections were endoarticular, and in some cases periarticular. Whitla recommends a deep hypodermic injection of carbolic acid in the treatment of synovitis and other joint swellings, and Senator speaks favourably of Kunze's method of injecting 1 per cent. solution of carbolic acid in acute rheumatism. Gillespie has recorded several cases in which 10 per cent. solution had been used with marked success so far as the relief of pain was concerned. It appears to me that the curative value of these methods lies not in the carbolic acid, but in its conversion into salicylic acid, which in the laboratory is prepared by the action of CO_2 upon carbolates; we know that the carbolic acid is transformed into a carbolate in the blood and tissues. Therefore, when carbolic acid is injected into an inflamed joint the carbolate comes in contact with nascent CO_2, the result of local inflammation, with the effect that free salicylic acid is formed which asserts its influence there.

The above, therefore, is the best possible explanation that can be furnished at present for the different methods of treating arthritis locally, by injections of sodium salicylate or carbolic acid.

BIRENDRA NATH GHOSH, L.M.S. Calcutta Univ.,
Lecturer on Materia Medica and Therapeutics,
Calcutta Medical School.

DEATH FROM SPINAL INJECTION OF NOVOCAIN AND STRYCHNINE.

IN the BRITISH MEDICAL JOURNAL for November 13th, 1909, I read the following statement by Professor Jonnesco: "General spinal anaesthesia is absolutely safe; it has never caused death nor any important complications."

I wish to record the following case of death which occurred under spinal anaesthesia in the General Hospital,

[1] BRITISH MEDICAL JOURNAL, October 22nd, 1904.

Madras, in August last. The patient was a native of India, suffering from elephantiasis of the scrotum, aged about 40, somewhat fat, but otherwise healthy. Weight of scrotum over 30 lb.

The spinal fluid flowed freely on puncture between the twelfth dorsal and the first lumbar vertebrae. I injected 3 c.cm. of a solution containing 10 cg. of novocain and 1 mg. of strychnine hydrochloride. The patient sat up for one minute, and then lay down with his head on a low pillow. In five minutes he was anaesthetic to the level of the nipples, and in ten minutes almost to the level of the clavicles.

During the progress of the operation (in which I was assisted by Captain Harley, I.M.S., who has also had considerable experience in spinal anaesthesia) the patient complained of difficulty in breathing. Shortly afterwards he retched once or twice, so the dyspnoea was attributed to a feeling of nausea and faintness, which sometimes occurs, but generally passes off very quickly.

Instead of improving, however, the dyspnoea and distress increased, and presently the patient stopped breathing. Artificial respiration was commenced at once, and it was noticed that the arms and chest were distinctly rigid—so much so, that it was not easy to move them.

At the time of failure of respiration the circulation was active, because I had to jam a sponge into the wound to stop oozing while I abandoned the operation to perform artificial respiration.

The patient never breathed again. Haemorrhage and shock in no way contributed to the fatal result. There had been very little loss of blood. The whole operation had barely lasted half an hour, and the patient had stopped breathing just as the neck of the tumour was about to be severed, so that the main mass remained connected with the pedicle, and there was no cause for shock. The cause of the death was either respiratory paralysis or spasm, due to the action respectively of either the novocain or the strychnine on the medulla. The stiffness of the arms and chest would point to the action of the latter. I have always used novocain for spinal anaesthesia. In 1908 I injected it for some thirty or forty operations by lumbar puncture. This year, after reading Mr. Canny Ryall's paper in the *Clinical Journal*, I added a milligram of strychnine to my novocain solution, and made my puncture between the eleventh and twelfth dorsal vertebrae, or between the twelfth dorsal and first lumbar. I employed the new method in some half-dozen cases, and was very pleased with the results.

I still believe that spinal anaesthesia has a future before it, but it is clear that we have not yet discovered how to free it from danger, and I confess that in future I shall be content with the evils and dangers that I know, and not risk the occurrence of any more tragedies like the one I have related.

If the method could be guaranteed free from danger (1) to life, (2) from post-operative paralysis, I should certainly use it in preference to general anaesthesia; from the operator's—and, I think, usually from the patient's—point of view it would then be almost ideal.

M. GABBETT,
Major I.M.S.

General Hospital, Madras.

P.S.—I prepared the strychnine solution myself. The 5 per cent. novocain solution was obtained in ampoules from the Saccharin Corporation Company, 2 c.cm. containing 0.1 gram with 0 1 gram mannitol.

The seventh International Congress of Criminal Anthropology, which was to have been held at Cologne in August next, has been postponed till October, 1911.

THE late Miss Emma Brandreth has by her will bequeathed £1,000 to King Edward's Hospital Fund for London, £500 to the Royal London Ophthalmic Hospital, and £250 each to Guy's Hospital, Middlesex Hospital, East London Hospital for Children, Shadwell; Poplar Hospital for Accidents, Cheyne Hospital for Sick and Incurable Children, Royal Dental Hospital, London; London Fever Hospital, New Hospital for Women, St. Peter's Hospital for Stone, Royal Free Hospital, Bolingbroke Hospital, and the Royal Sea Bathing Hospital, Margate. The residue of the estate, estimated at about £29,000, is to be distributed amongst charitable hospitals or institutions which the executors may consider most deserving or most in need of help.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

YORKSHIRE BRANCH: LEEDS DIVISION.

Leeds, Tuesday, February 15th, 1910.

DR. NIGHTINGALE in the Chair.

Some Points in Modern Hospital Construction.

DR. E. O. CROFT read a paper on some points in modern hospital construction. A general account of the various departments of hospitals was given, and the advantages of single ward units in separate pavilions were pointed out; large hospitals consisting merely of a repetition of such units, the admission, administrative and other departments, being common to all. The choice of a site depended partly upon geological conditions and sanitary possibilities, and partly upon the class of diseases admitted. Urgent cases generally required central hospitals, but when these were in large towns special care was required in adapting the buildings to the site to ensure sufficient air and light access to the ward units in particular. On a damp soil the artificial drainage must be specially thorough, and the floor level should be well above the ground to allow a free passage of air beneath. The basement should be unoccupied, and constructed of arches or walls with free openings to allow a free passage of air beneath the ward floors, and means must be taken to exclude rubbish. The aspect of the wards and their arrangement upon the site at disposal, was discussed, and the ground plans of St. Thomas's, the Herbert, Netley, University College, the Leeds Infirmary, and other hospitals compared in this respect. The position and relations of the various departments to one another for convenience of access while being sanitarily disconnected were described, and the general requirements of each department mentioned. Referring to details of ward construction, the importance of large linear wall, and superficial floor space per bed as compared with height was emphasized. Undue width diminished the range of penetration of sunshine, and this was pointed out as one of the disadvantages of circular wards which required a large diameter. Artificial ventilation which required the permanent closure of windows was disapproved, and some means of natural cross ventilation approved, aided by fan extraction, and suitable arrangements of double windows to prevent draughts, and means of warming the entrant air by stoves or radiators. Dr. Croft explained, *in situ*, the various features in the construction of the new buildings of the Hospital for Women and Children, in which the meeting was held, and how the architect, together with the staff and committee, had carried out the requirements of modern hospital hygiene and the necessities for modern treatment.

Uses of the Vaginal Pessary.

Dr. OLDFIELD read a paper on this subject. He said that whereas formly gynaecologists differred in their views as to the variety of pessary to be used in any particular form of displacement of the uterus, at the present time the question rather was as to whether the pessary should be used at all. Extremists would operate where the pessary would give complete relief, but most surgeons still believed in the temporary value of the Hodge pessary in uncomplicated backward displacements and in the permanent value of the ring for cases of incomplete prolapse. Pessaries were not suitable in the treatment of young unmarried women. In others they should be removed and operation advised when the symptoms persisted or when for any reason a well-fitting instrument caused discomfort. Operation yielded good results in suitable cases. At the present day there appeared to be fairly general agreement as to the best operation for any particular displacement. When operation was refused, or for any reason contra-indicated, a pessary could usually be fitted to relieve symptoms, and it was in such cases that the pessary found its chief place in gynaecology. In the discussion which followed Dr. STEWART, Dr. CLARKE, and Dr. CROFT took part.

Specimens, Etc.

Dr. ROWDEN showed: (*a*) Radiograph of an hour-glass stomach, and (*b*) radiograph of a vesical calculus. Dr.

Oldfield showed: (*a*) Pyosalpinx, (*b*) fibroid tumour of uterus, and (*c*) malignant disease of cervix uteri removed by Wertheim's operation.

Vote of Thanks.

A vote of thanks was accorded to the authorities of the hospital for the use of the board-room and for their entertainment.

Seventeen members were present.

Reports of Societies.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Thursday, March 10th, 1910.

Mr. G. A. Berry, President, in the Chair.

Xerosis of Conjunctiva and Night Blindness.

Mr. Malcolm L. Hepburn read a paper on xerosis of the conjunctiva and night blindness. He said the theory hitherto accepted regarding the cause of this complaint—namely, torpor of the retina due to general malnutrition—could not be justified, either by the condition of the patients or by the presence of the ordinary signs of defective circulation in the retina. A more probable explanation of the night blindness was that certain rays of light acted prejudicially on the visual purple, causing retardation of the normal metabolism—a theory borne out by the occurrence of this complaint during the months from May to September, when the intensity of the rays of light was presumably at its greatest. The relationship between the xerosis patches and the night blindness presented many difficulties, and while the connexion between the two seemed to be a very close one, a common cause was not easy to find. It was suggested, however, that the same rays of light which influenced the visual purple acted in some way on the conjunctival mucus glands, inhibiting their secretory function; and in support of this it was found that during the continuance of the xerosis patches the night blindness persisted; whereas when the former were removed the latter disappeared also. The treatment usually adopted varied considerably, since it was found that many remedies produced an amelioration of the symptoms, though the time they took to act differed according to the special method employed. Some relied on external remedies alone, while others strongly advocated drugs internally without any local application whatever. Bandaging the eyes for a short time had alone been known to give relief, and whatever treatment might be used must evidently not only modify the action of the special rays of light on the conjunctiva, but also their path through the pupil to the retina, since in no other way could the simultaneous improvement in the two prominent symptoms be explained. Arising out of the discussion on this subject it appeared that there was some reason for thinking that congenital night blindness, xerosis of the conjunctiva and night blindness, and the night blindness of malnutrition might be due to a common cause. Dr. Levy said cases which he saw showed fundi which were paler than ordinary, and he thought the paleness of the fundi had something to do with the disease. But Mr. Hepburn had not borne that out. However, he though albinos did not, as a rule, show night blindness, and they saw better in the night than in the day. He agreed that malnutrition had nothing to do with it. He had not seen xerosis alone. Mr. S. Mayou said that some years ago he examined a number of such cases, and found the changes in the epithelium were in the direction of creatinization, due, perhaps to the fact that the disease occurred during the prevalence of hot dry winds. Mr. Devereux Marshall pointed out that the macula did contain visual purple; it was not thought to because the visual purple bleached quickly in light. It had also been said that the bat's eye did not contain visual purple. This was wrong, for it certainly contained a photo-chemical substance which acted precisely like visual purple. Mr. Mold, Mr. Johnson Taylor, Mr. Sydney Stephenson, and Mr. Harman continued the discussion; and Mr. Hepburn replied.

The Bacteriology of Panophthalmitis.

Mr. R. R. James read a paper entitled, A Contribution to the Bacteriology of Panophthalmitis. He related the case of a labouring man who was admitted into St. George's Hospital in November, 1909, with what appeared at first to be an orbital cellulitis following a wound of the upper lid received a couple of days before. There was marked proptosis and extreme chemosis, with haziness of the cornea, but no hypopyon. Incisions were made in the lids, but no pus was found. Patient's general condition, which was extremely bad on admission, began to improve, but a couple of days later the conjunctival sac was found to be lined with a tough membrane. The eye was still proptosed, the cornea was uniformly yellow in colour, and gas bubbles and pus were observed issuing from a tiny spot at the upper part. The hole was enlarged, and the contents of the globe scraped out, and the man made a slow but uneventful recovery. The bacteriological report by Dr. Slater showed that swabs from the pus yielded a streptococcus and a large gram-positive, immobile, non-sporing bacillus, closely related to, if not identical with, the *Bacillus aërogenes capsulatus*. The results of cultivation on milk, potato, gelatine, and broth were given, and also the results of inoculation of a guinea-pig. The animal rapidly died, and the *post-mortem* findings were similar to those described in a previous paper on acute spreading gangrene, by the writer (Mr. James). The paper was discussed by Mr. Mayou, and Mr. James replied.

EDINBURGH OBSTETRICAL SOCIETY.

Wednesday, March 9th, 1910.

Dr. F. W. N. Haultain, President, in the Chair.

Removal of Uterus in Certain Diseased Conditions of the Adnexa.

Dr. J. M. Munro Kerr read a communication on the importance of removing the uterus in certain diseased conditions of the adnexa. While the principle of conservative treatment of the appendages was approved by every gynaecologist of experience, the mistake was occasionally made of not being radical enough. It was generally accepted that the uterus furnished no internal secretion, and was in the absence of both ovaries and tubes a useless organ. Hence there was no reason for trying to save it in bilateral disease of the appendages. In two diseases in particular it was his custom to remove the uterus—malignant disease of the ovary and pronounced double pyosalpinx. He had twice had to remove a malignant uterus within a year of the removal of a malignant ovary, and he had twice seen coexisting carcinoma of the ovary and adeno-carcinoma of the uterus. But for the routine removal of the uterus as now advocated the latter would not have been discovered. The real practical difficulty lay in deciding when the ovarian growth was really carcinomatous, but his rule was to treat as malignant all that had even the slightest suspicion of malignancy. After removal of pus tubes patients frequently suffered from abdominal uneasiness and pain, and later had to submit to a hysterectomy. Hence he had always removed the uterus also during the last two and a half years. In spite of lacerations and resections of gut, and rupture of the tubes during removal, he had had no deaths. He made use of an extensive incision, packed off the intestine, and then covered all the wound with gauze, as the spilling of pus very frequently led to an infection of the wound. Then he fixed the uterus with a volsella, worked down on the easier side, cut across the cervix, and attacked the more difficult tube from below. Occasionally he had separated each tube in turn, and then dealt with the uterus as in an ordinary hysterectomy. Only twice had he bisected the uterus, and sometimes he had separated down the bladder and cut across the cervix first before freeing the tubes. Of the difficulties in the operation the adhesions to the intestine were the most serious. If only one loop was involved he resected it. The appendix was frequently removed, and on one occasion he had to excise the caecum. As a rule he closed up the abdominal wound. Occasionally he drained through the vagina by means of a glass tube surrounded by gauze. In the after-treatment he was absolutely convinced of the benefits of continuous saline infusion.

Sir HALLIDAY CROOM agreed with Dr. Munro Kerr on all points.

Dr. BARBOUR agreed with the general principles, but asked how far they were to go in carrying them out. He had never had to remove a uterus for malignant disease after the removal of a malignant ovary. With papillomatous growths the secondary deposits were more likely to be found in the peritoneum. In pyosalpinx was the uterus to be removed for fear of leaving septic material, or to make the operation easier, or to prevent subsequent discomfort from chronic endometritis and adhesions? With a large double pyosalpinx they were often forced to remove the uterus. Was the risk of infection in acute cases not increased by opening up the cellular tissue of the floor of the pelvis?

Dr. BREWIS said the procedure in malignant disease should be radical; the end results were better if the ovaries and uterus were removed. Undoubtedly metastatic deposits did occur. In bilateral ovarian carcinoma the prognosis was bad because the disease was often metastatic from the stomach and intestine. In pyosalpinx the majority of cases were gonorrhoeal, and the other sites of the disease were the cervix, Bartholinian ducts, and Skene's tubules; hence removal of the uterus was not so essential. In tuberculous cases, however, the endometrium was liable to be affected, and the removal of the uterus was called for.

Dr. FORDYCE had recognized the benefits of going down on the easy side, cutting across the cervix, and separating the second tube from below. The bowel had great power of recuperation. If a large raw surface was left on the posterior surface of the uterus, it was difficult to obtain a peritoneal covering; in such a case he always removed the uterus also. In malignant disease of the ovary it was not so essential to remove the uterus. The secondary deposits were usually in the peritoneum.

Dr. SCOTT CARMICHAEL said the internal secretion, attributed to the uterus by Bond, Doran, and others, had not been experimentally corroborated. He agreed that the uterus was of no use without the appendages, and its removal greatly facilitated the operation for pyosalpinx. Strongly adherent bowel should be resected owing to the risks of post-operative paresis and even rupture. Continuous saline irrigation, with the patient in the Fowler position, was one of the greatest advances of recent years, and should be practised after all severe intestinal operations.

After the PRESIDENT had, in the name of the society, thanked the author for his paper, Dr. MUNRO KERR said that malignant disease of both uterus and ovary was uncommon. In cases of ruptured pyosalpinx, the operation must be finished as quickly as possible, and the cellular tissue was not to be opened up. In these rare cases the removal of the uterus was contraindicated.

Uterus Bicornis.

Dr. B. P. WATSON read a paper on two cases of uterus bicornis.

The first case was discovered accidentally while he was clearing out an incomplete abortion. The vagina was incompletely divided into two by a fleshy band running from its anterior to its posterior wall. The cervical canal was single, but the os externum was divided into two halves by a mesial band. A finger could be passed into each cavity, and the other hand on the abdomen could be passed down between the two divisions of the body to the os internum. Menstruation had always been regular and no flow had occurred during a previous pregnancy. The second patient had had three full-time children. At her fourth labour the placenta had to be separated by the hand, and then a swelling was found to the left of the pregnant half of the uterus. Again the division extended to the os internum. At a later date the sound was passed into both cavities, one of which lay in front of the other. There was no trace of a vaginal septum.

In both cases the non-pregnant half was enlarged and the os externum patent. As a rule such a condition interfered little with labour, though there might be retardation of the presenting part by the recto-vesical peritoneal band. There was a considerable risk of mistaking the second horn for an extrauterine pregnancy.

Sir HALLIDAY CROOM described one case in which a decidual cast of the non-pregnant horn was passed three days after a hydatid mole had been cleared out. He had twice mistaken the second horn for an extrauterine gestation. The symptoms were the same in both—haemorrhage, pain, and the passing of a decidual cast. In a fourth case, in which he removed an ovarian tumour during pregnancy, he found the uterus bicornuate.

Dr. BARBOUR said it was worthy of note that in neither of Dr. Watson's cases did menstruation occur during pregnancy.

Dr. FORDYCE asked if it was common for pregnancy to go to the full time in such cases.

The PRESIDENT said that he had seen one case in which both horns had been pregnant, and abortion had taken place from one. He diagnosed the second as intrauterine, because it became firmer during examination. In another case, the second horn was blocked and the menses retained; in another, ventrisuspension was done for retroversion; and in a fourth, in which the uterus was imperfectly developed, there was severe dysmenorrhoea, and the uterus had to be removed.

Dr. WATSON said that of 56 women with uterus bicornis who had been pregnant, 12 aborted every time.

Antenatal Lobar Pneumonia.

A paper by Dr. Alexander Don on a case of antenatal lobar pneumonia was read by the SECRETARY. At birth the infant coughed up a brown discharge. Breathing was laboured, and the lower half of the left side of the chest was dull. Death ensued, and a swab taken immediately after death showed pneumococci in large numbers. The mother and father were healthy.

Specimens.

The PRESIDENT showed a large nodulated tumour of the labium majus, partly fatty and partly fibro-cellular. All the lobules were infected and inflamed.

Dr. BREWIS showed: (1) Dr. Tristan's modification of Assilini's forceps; (2) a calculus removed from the bladder of a patient sixteen years after operation for pyosalpinx; the nucleus of the calculus was a silk ligature; (3) a cyst of Morgagni with torsion of the Fallopian tube; (4) double pyosalpinx.

THE ROYAL SOCIETY.

Thursday, March 10th, 1910.

Sir ARCHIBALD GEIKIE, K.C.B., President, in the Chair.

The Causes of the Absorption of Oxygen by the Lungs.

MR. C. GORDON DOUGLAS, B.M., and Dr. J. S. HALDANE, F.R.S., gave a short preliminary account of experiments affording clear evidence of a secretory activity of the lungs in the absorption of oxygen.

Action of Nicotine and other Pyridine Bases.

Mr. V. H. VELEY, D.Sc., F.R.S., and Dr. A. D. WALLER, F.R.S., made a communication on the action of nicotine and other pyridine bases upon muscle, and on the antagonism of nicotine by curarine. Nicotine (mol. wt.=162) as such, or in the form of salt as nicotine tartrate, produces a very characteristic effect upon the contraction of isolated muscle. Its toxic power upon muscle as compared with that of other substances dealt with was of the following order—that is, approximately one-third that of quinine, and considerably greater than that of curarine:

Aconitine	10,000
Quinine	100
Nicotine	33
Strychnine...	12
Curarine	5

The effect on muscle, characteristic of nicotine, was not produced by its parent base pyridine, nor by picoline, nor by piperidine. The order of toxicity upon muscle of these substances as compared with that of nicotine was as follows:

Nicotine	100
Piperidine	50
Pyridine	10
Picoline	10

As had been indicated by Langley, there was an antagonism between nicotine and curare. Using a solution of pure curarine iodide prepared by Professor Boehm, the authors found that the characteristic effect of nicotine upon muscle was abolished when the proportion of curarine to nicotine, reckoned by molecules, was 2 to 1, 30 to 1, and 160 to 1. With this last proportion a trace of nicotine effect could still be detected. In the case of other poisons—namely, strychnine, quinine, and aconitine, of which the effect *per se* upon muscle considerably exceeded that of curarine—there was, in a sense, an antagonism as shown by abolition of the characteristic nicotine effect; but the

abolition required a greater mass of these more powerful poisons than was sufficient in the case of the less powerful poison—curarine. Thus, approximately, whereas 1 molecule of curarine could overpower upwards of 100 molecules of nicotine, it required 1 molecule of strychnine or of quinine to overpower 1 molecule of nicotine, and 1 molecule of aconitine could overpower at most 10 molecules of nicotine. But in these cases the result appeared to be intelligible as an effect of subdivision of muscle stuff between two poisons, similar to the case of the subdivision of an acid between two bases. This explanation, however, was hardly applicable to the case of the antagonism of the strong poison nicotine by the weak poison curarine.

ROYAL SOCIETY OF MEDICINE.

LARYNGOLOGICAL SECTION.

Friday, March 4th, 1910.

Dr. DUNDAS GRANT, President, in the Chair.

Cases and Specimens.

THE following cases and specimens were exhibited: Mr. HERBERT TILLEY showed a case of *Removal of a rapidly growing soft fibroma from posterior wall of left maxillary antrum by Rouge's operation.* H. B., aged 48, complained of left nasal obstruction, increasing for twelve months. During the past six months there was frequent nose bleeding on that side, with discharges of glairy mucus. Examination showed that the posterior half of the left nasal cavity was completely filled by a dark red, very soft, and an easily bleeding mass of growth. Operation: Laryngotomy, plugging lower pharynx; incision under lip from right canine fossa to left malar process; division of anterior half of nasal septum from its lower attachment; turning up of soft parts; removal of left canine fossa and ascending process of superior maxillary; removal of growth and final replacement of soft parts, secured by a few interrupted sutures. The specimen, with sections, was shown. Dr. ALEX. R. TWEEDIE: *Face and mouth of a female infant, aged 3 months,* whom the parents found they were unable to feed properly on account of a deformity in connexion with the mouth. An operation was suggested, but before it could be admitted for such treatment it died in a marasmic condition. There was a complete congenital cleft of the whole soft palate, the left half of which lay in the position usually seen in such circumstances, but the right half was continuous with a membranous structure, which, commencing opposite the posterior border of the hard palate, was attached continuously to the inner side of the right cheek and extended downwards and forwards to the floor of the mouth, where it terminated in front of the right side of the tip of the tongue. MR. SOMERVILLE HASTINGS related a case of "*Bleeding polypus*" *of inferior turbinate,* and showed microscopic sections. On November 8th, 1909, a brass finisher, aged 42, came to the Middlesex Hospital complaining of epistaxis of a month's duration. Every time he blew his nose he was troubled by bleeding from the right nostril, which lasted about a quarter of an hour. When the nose was examined, a pedunculated growth about the size of a pea was seeing growing from the lower border of the right inferior turbinate not far from its anterior extremity. The tumour was purple in colour and smooth on the surface, and blood clot was adhering to it. On section, it was seen to be a soft angio-fibroma, in the delicate fibrous matrix of which were imbedded the characteristic oval endothelioid cells. It was bordered by squamous epithelium, and at one point where ulceration had taken place there was an infiltration with polymorphonuclear leucocytes; no mucous glands were present in the tumour, though abundant in the adjoining mucous membrane of the turbinate. Scattered through the growth were many spaces lined with endothelium, but, unlike the mucous sinuses, devoid of an investment of unstriped muscular fibre, some containing blood cells, others empty and probably lymphatics. Fibro-angeiomatous meshwork was well seen. The histological structure fell closely into line with the loose-textured fibroma type of the small angeiomatous tumours ("bleeding polypus of the septum") fully described by Pegler in the *Lancet,* November 18th and 25th, 1905, wherein that author cites Kreig, and Siefert and Kahn, as authorities for their occasional occurrence in connexion with the inferior turbinate.

[Dr. PEGLER said that the characters described above conclusively distinguished the tumour from a simple turbinal hypertrophy, and regarded the present example as probably the first of the kind recorded in this country.] Dr. E. A. PETERS: *Larynx, four rings of trachea, and part of thyroid gland and gullet removed during an act of suicide.* A painter, aged 29, subject to hallucinations and depression after bouts of alcoholism, cut his throat when sober at 5 a.m. He made a transverse cut down to the spine and two or three vertical cuts, one of which opened the larynx accurately in the middle line. The suicide seized the obstructing larynx, cut away the adherent gullet and trachea at the fifth ring, and threw the fragment exhibited into the garden. He walked 200 yards, and collapsed outside a friend's house, where he was discovered. The two doctors who saw him found it impossible to bring the trachea to the skin. Death of lung suffocation followed at 10 a.m. Dr. STCLAIR THOMSON: (1) Case of complete *Inspiratory stenosis of the larynx* in a man invalided from the army in India. There had been ulceration below the right vocal cord and complete aphonia. Later he became cyanosed, and tracheotomy was performed. The ventricular bands, red and swollen, occlude the larynx, and the larynx is generally bathed in pus. The case is probably syphilitic. (2) A case of unilateral suppuration of all four accessory cavities, which were operated on at one sitting with rapid recovery, in a man aged 21. Dr. D. R. PATERSON showed a cast of an upper jaw from a case of *Congenital occlusion of the right posterior naris.* Mr. NORMAN PATTERSON showed a cast of a woman, aged 23, in whom there was complete *Occlusion of the right anterior naris* by a web extending from the ala to the septum. Dr. WILLIAM HILL: Case of carcinoma of the gullet in a man aged 62, with demonstration of radium apparatus, and its insertion in the gullet by means of a special oesophageal tube designed by exhibitor.

SECTION OF SURGERY.

Tuesday, March 8th, 1910.

RICKMAN J. GODLEE, M.S., F.R.C.S., President, in the Chair.

Rupture of Tunica Vaginalis in Hydroceles.

MR. SOMERVILLE HASTINGS read a paper on rupture of the the tunica vaginalis in hydroceles. He had had three cases of this occurrence himself and had collected some seventy others from the literature. Generally the result of trauma, rupture might also happen as the outcome of muscular action or spontaneously. The ruptured tunica was rarely if ever normal, but was the seat of fibrotic or other pathological changes. As a rule, only the serous sac was torn, but the fibrous tunic might be involved. Diagnosis was pretty clear, as a rule, but extravasation of urine, elephantiasis, or erysipelas might be confused, and haematocele of the tunica vaginalis not only presented points of similarity but might also be ruptured. It was only rarely that cure of the hydrocele resulted from the rupture and in most instances a radical operation was indicated after the subsidence of most of the swelling. The PRESIDENT asked if any disease of the testicle had been noted in these cases; he thought the condition must be rare, and suggested that the condition which used to be known as "inflammatory oedema of the scrotum" was probably in some instances really a result of this rupture, but he thought it much more rarely seen nowadays than formerly.

Mr. HASTINGS replied that there was no disease of the testicle in his cases and no mention of it in reported cases.

Gastric Hypersecretion and the Appendix.

Dr. SOLTAU FENWICK read a paper on the clinical significance of gastric hypersecretion and its connexion with latent disease of the appendix. He had found that chronic hypersecretion existed in a large proportion of intractable cases of dyspepsia. As the result of extensive investigations in hospital and private practice, he had come to the conclusion that this hypersecretion was not a primary functional disorder of the stomach but a reflex expression of an organic lesion of the digestive tract or of some other important organ of the body. Whilst ulcers of the stomach and duodenum, gall stones and pyloric neoplasms were found in a considerable number of cases, many others were

due to associated disease in the appendix. Irritative conditions of the appendix such as ulceration of the mucosa or calculus were associated with hypersecretion, latent affections such as ensue from previous acute inflammations were often associated with a peculiar form of chronic gastritis, in which subacidity and an absence of free hydrochloric acid are the rule. Hypersecretion was also responsible for minute erosions of the gastric mucosa which might lead to severe haematemesis and melaena, and the principal symptoms of duodenal ulcer might be put down to the same cause.

Appendicular Gastralgia.

Mr. HERBERT J. PATERSON drew attention to the class of case with gastric symptoms which, as shown by American surgeons, were due to disease of the appendix. Ewald had described them as "appendicitis larvata." The author had had 24 such cases, in 17 of which gastric analyses had been made. Whilst epigastric pain was a constant symptom, the tendency for the pain to radiate to the lower abdomen served as a useful differential point from those in which the lesion was gastric or duodenal. In only a third of the cases was there tenderness in the iliac region as well as in the epigastrium. Haematemesis occurred in 5 of the 24 cases, melaena in 2, and vomiting in 15. Fifteen of the cases were operated upon under the mistaken diagnosis of gastric or duodenal ulcer. In all, a diseased appendix, but no lesion of the other viscera, was found. In 8 out of the last 9 of his cases he had been able to make a correct diagnosis of the appendix origin of gastric symptoms. Of the 24 cases, 17 were cured, 3 improved, and 4 unsatisfactory.

PATHOLOGICAL SECTION.

Tuesday, March 15th, 1910.

Dr. F. W. MOTT, F.R.S., President, in the Chair.

Gastric Analysis.

DR. W. H. WILLCOX, in a paper on the diagnostic value of the chemical analysis of the gastric contents after a test meal, insisted on the importance of a thorough examination of the gastric contents after a test meal in all cases presenting symptoms referable to the stomach which did not respond to ordinary medicinal treatment. He also was strongly of opinion that in every case on which an operation was contemplated for symptoms referable to the stomach, a preliminary examination of the gastric contents should be made in order that the diagnosis might be placed on a sure foundation, and also for the guidance of the surgeon at the time of operation as to the best course of procedure to be adopted, and as to whether a gastro-enterostomy was likely to be of benefit. Dr. Willcox excepted acute perforative lesions of the stomach and duodenum, since here immediate operation was imperative. Dr. Willcox pointed out that chemical investigations of the gastric contents were of value as supplemental to a careful consideration of the clinical symptoms and physical signs. The first step of the investigation was the careful and thorough clinical examination of the patient. By this means the diagnosis could be referred to possibly two or three conditions. In a large number of cases the clinical examination alone was insufficient for a certain diagnosis. The result of the analysis of the gastric contents in very many cases pointed to the true diagnosis, where by clinical examination alone two or more conditions were possible. Numerous examples were cited in which by means of chemical investigations a doubtful diagnosis was made a certain one, and where the course of procedure which should be adopted was clearly indicated thereby. A large number of analytical results in different gastric diseases were tabulated and shown.

The Pathology of Pernicious Anaemia.

Dr. F. H. THIELE had examined 15 cases of "pernicious" anaemia. He drew attention to the constant macrocytic characters of the red cells which occasionally persisted during periods of freedom from the disease. Megaloblasts were not of frequent occurrence, and were not characteristic. All intermediate varieties between the normoblast and these cells were met with. In two cases the blood, when first observed, had the characters of a secondary anaemia. The marrow in all cases was typical, as described by Professor Muir. From analyses of the liver, spleen, and kidney for the amount of iron, most of these organs showed a great excess. There were a few exceptions, and these had no relationship to the duration of the disease. The cases all showed marked alimentary lesions. Most had pyorrhoea, and changes in the tongue, stomach, and intestines. In a few cases a streptococcus was found in the vomit, spleen, and tongue. He regarded them as confirmatory of Dr. Hunter's views. He also recorded the pathological finding in two cases of aplastic anaemia. In both there was profound anaemia, but no megalocytosis, and no nucleated red cells. The white cells were greatly diminished, and showed a relative lymphocytosis. In both there was pyorrhoea with glossitic lesions. In one there was no excess of iron in the liver. In the other there was a large quantity in the liver, spleen, and kidneys. The marrow of the long bone shafts and epiphyses was yellow; in the ribs it was fatty in patches and contained no megaloblasts. He regarded this latter case as one of Addisonian anaemia of very rapid course without any haemogenesis.

Bile-producing Primary Carcinoma of the Liver.

Dr. F. PARKES WEBER exhibited an example of the above, in which a certain number of green plugs occurred between the cells, consisting of inspissated bile. The chief part of the growth was necrotic. The secretion of bile by a hepatic carcinoma was only what occurred, *mutatis mutandis*, in glandular carcinomata of certain other viscera—now a well-established fact.

Amyloid Degeneration in a Hepatic Adenoma.

Mr. S. G. SHATTOCK exhibited the above specimen, which was of interest as being the first demonstration of the occurrence of this particular degeneration in a new growth. The tumour itself was of large size, and in structure it closely resembled hepatic tissue. The hepatic substance itself, which was displaced over the growth, exhibited the same degeneration, the disease in this, as in the tumour, being confined to the vessels.

CLINICAL SECTION.

AT a meeting held on March 11th, Mr. A. PEARCE GOULD, President, who was in the chair, showed a case of *Detachment of the entire scalp.* The patient was a girl, aged 16, whose hair was caught in a machine and her whole scalp was torn off from the eyebrows to below the occiput; on the right side the loss of tissue included the upper half of the pinna. Repeated attempts at skin-grafting had been made, but with little or no success. There was a slight growth of epidermis over the lower part of the forehead and on each temporal region, but for the rest the entire calvaria was covered with irregular, pale, poorly developed and freely suppurating granulation tissue. Attempts were made to prepare the large, raw surface for grafting by antiseptic fomentations containing cyllin, carbolic acid, or boric acid, but it was not until water only was used that any marked improvement occurred. Since then Thiersch grafts were applied and the surface was now almost entirely skinned over; the patient had lost all her pain, and was now able to close the eyelids, which she could not do before. Three attempts had been made to hasten the repair of the scalp. Once the lining of a dermoid cyst was implanted, on another occasion a large flap of skin from the back of the neck was raised, leaving its ends attached, and after several days, when the circulation of the flap seemed to be assured, one end was detached and the flap laid over the skull; on the third occasion a large granulating surface was covered with skin excised from a large ventral hernia. All those attempts failed. The President called attention to the intolerance of antiseptics of any kind and in any solution and the good effects of the continuous application of sterilized water, and to the success obtained by Thiersch grafts. Two cases of *Obliterative endaneurismorrhaphy (Matas's operation) for popliteal aneurysm* were shown, one by Mr. MAYNARD SMITH and the other by Mr. HUGH M. RIGBY. The following were also shown:—Sir JOHN BROADBENT: A case of *Fibroid lung with displacement of the heart.* Mr. C. GORDON WATSON: A case of *Tibio-calcaneal resection at*

the ankle, with amputation of the foot. Dr. James Galloway: A case of *Spleno-medullary leukaemia with intercurrent erysipelas*, and a case of "*Trophic*" *dermatitis* commencing on the extremities. Dr. F. Parkes Weber and Dr. R. H. Norman: A case of *Bluish haemochromatosis of the skin*, a case of *Exophthalmic goitre in a man with symmetrical telangiectases of the ocular conjunctivae*, and a case of *Congenital tumour in the left parotid region.* Mr. J. Howell Evans: A case of *X-ray carcinoma.* Dr. H. C. Turney: Two cases of *Myatonia atrophica.* Mr. A. E. Barker: A case for diagnosis, the patient being a female with a *Lump on the left upper gum.* It had spread across the hard and soft palate and over the left tonsil. A gland under the left angle of the jaw was enlarged. In spreading the growth could hardly be said to have ulcerated, but its inner border was raised and indurated, and its middle seemed to have lost substance. It looked like an epithelioma, but its long duration and the patient's age seemed to negative that view. Dr. Theodore Thompson: A case of extensive *Myositis ossificans*, and a case of *Cervical ribs.* Dr. E. I. Spriggs: A case of *Acromegaly.*

MEDICAL SOCIETY OF LONDON.

At a meeting held on March 14th, Dr. Samuel West, President, in the chair, the subject of discussion was *Colitis.* Dr. H. P. Hawkins, speaking of mucous colitis, said that the passage of mucus in masses or casts, preceded and attended by severe pain and constipation, with abundant evidence of tight spasm of the colon, generally on the left side, in attacks with long or short intervals of fair health which were marred only by constipation, formed a definite picture of a condition easily recognized. There was no form of colon disease so sharply defined. He was confident that such pure cases occurred in which there was no visible evidence of inflammation. *Post-mortem* observations had certified the absence of any visible lesion. The condition had a striking resemblance in all points to true asthma. The two conditions might occur and alternate in the same patient, and he thought they tended to appear in the same family stock. The real difficulty lay in the treatment of the patient between the attacks, and the difficulty was increased if the attacks occurred only at long intervals. Perseverance in treatment was not a strong feature in such patients. Constipation came first, and it required the usual line of treatment by diet, by a long course of abdominal massage, by exercises, and by the determined diminution and ultimate withdrawal of purgatives. He had faith in the use of olive oil, regulin, and agar-agar. He had never satisfied himself that the stringent coarse cellulose diet of von Noorden could be taken without great discomfort and flatulence. Above all, he felt sure that in those cases colon irrigation of all kinds should be avoided. In many of his cases, where the pain had been on the right side and there had been doubt as to its nature, the appendix had been removed. As far as he knew, there had never been any resulting improvement. But a large part of the treatment must be directed to the general neurasthenic state of the patient. An open-air life and regular graduated exercise under supervision and under the most healthy and cheerful surroundings afforded the best chance of improvement. That was easily provided, if only the relatives would consent to part with the patient for two months. Of one thing he felt sure, namely, that a rest-cure, with all that it meant in the way of isolation and nursing, was not to be recommended. He thought it was invariably a step downwards, and it robbed the patient of what little self-reliance she had. He sometimes saw patients who had had several rest-cures at various hands, and who looked upon a further series with complete indifference. Mr. Stansfield Collier related the details of a case of colitis, in which he converted an appendicostomy into a caecostomy. Dr. Hale White insisted on the importance of the bowels being opened once a day in cases of colitis with constipation. Dr. J. C. Matthews described vaccine treatment; Dr. S. P. Phillips said the haemorrhagic forms, with little ulceration, were the most fatal; Dr. A. Mantle explained the treatment adopted at Harrogate; Dr. de Havilland Hall was not enthusiastic over vaccines or appendicostomy, and Dr. C. W. Buckley, of Buxton, observed that irrigation could be done at home as efficiently as at health resorts.

Reviews.

THE CHEMISTRY OF BALNEOLOGY.

Methods of treatment rarely yield such satisfactory results that the curative effects become evident whenever they are applied. Certain methods, however, yield the most striking results empirically, and are frequently employed by the charlatan. The medical practitioner often regards these with suspicion, with the result that he delivers many of them entirely to the quack. He thereby loses in a double way, because a useful remedy is neglected, and because the unqualified person gains a reputation in the eyes of the public which he, the medical practitioner, might have acquired. It should be the duty of the practitioner to use any and every useful therapeutic agent, both to benefit his patient and to deprive the quack of his illicit means of livelihood. Some of the methods referred to are to be found in the realms of hydrotherapeutics.

Spas are run as business concerns, and during the course of each year the practitioner undergoes a sort of bombardment by booklets, illustrated pamphlets, and other forms of advertisement, in which the claims of certain spas are set forth in most glowing terms. From time to time books dealing with a group of spas are issued by some interested company or body, and in many of these cases the advantages of the spas dealt with in the volumes are brought to the notice of the reader in a more cloaked manner. The illustrations are often works of art and the books are got up in such a way that the average man cannot easily make up his mind to throw them into the waste-paper basket. He keeps them, and after admiring the pictures a number of times, he begins to take a sort of personal interest in the places mentioned in the books, and, when that stage has been reached, the advertisers have gained their end. We have before us such a book on the spas and mineral springs owned by the Royal Prussian Board of Domains.[1] We have no intention of discussing the alleged merits of the few spas dealt with in this volume, and can only express admiration for the beautiful views, pictures and symbolic illustrations, with which the book is richly adorned. It is printed in English carefully, and, we would imagine, laboriously translated directly from the German. The sentences have a heavy rhythm, and in many instances a peculiar word is employed, albeit correctly. It must, however, be pointed out that there is little convincing in the letterpress with regard to the true action of these spas. Save in its bulk the volume does not differ materially from the usual booklets issued for advertisement purposes by the management of spas. There are no special characteristics which could recommend the book on scientific grounds. In vain the reader searches for some fresh evidence of the *modus operandi* of the special baths, waters, and procedures employed at these places; he merely learns that the waters contain so many grams of solid or gaseous constituents per kilogram or litre, and that the geographical, geological, metereological and balneological conditions prevailing yield special results.

Our attention has been directed to another publication, which stands in a totally different light, and contrasts strongly with the volume to which we have just referred. This work is a massive book, unadorned in so far as illustrations are concerned, and containing an almost terrifying amount of printed material. The *Deutsches Bäderbuch*[2] contains substance, while the *Album* contains padding. In the first place, the subject is dealt with from a scientific point of view, and each of its aspects forms the basis of a careful article; these articles are written by specialists, who have, according to the statement of the publishers, given their services gratuitously, in the interest of science. The essential value of the book

[1] *Album of the Spas and Mineral Springs owned by the Royal Prussian Board of Domains.* Described by order of the Minister of Agriculture, Domains, and Forests, by Dr. Stern, Royal Inspector of Baths, Langenschwalbach. Aix la Chappelle, 1909, Aachener Verlags-und Druckerei-Gesellschaft. Translated by Dan. Heuser, London. Coloured illustrations after original paintings and by Georg Geyer, Wiesbaden. Pp. 166. Price not mentioned.

[2] *Deutsches Bäderbuch.* Compiled, with the assistance of the Kaiserliche Gesundheitsamt, by a large number of Authors. Published by J. J. Weber, Leipzig. 1907. (Med. 4to, pp. 535; 13 graphic tables and 2 maps. 15s.)

depends on the treatment of spa waters in accordance with the doctrine of electrons.

The introduction contains several sections. The first, on geology, by Dr. Keilhack, gives interesting information with regard to the origin of the constituents of the spring waters, the cause of the temperature of the different springs, the forces which propel the waters from the interior of the earth to the surface, and the relations between the mineral water and the soil water. A few appendices on this subject are written by other authorities on geology. The second article, by Dr. Paul, deals with the chemical characteristics of the spring waters, to which we shall refer later. An appendix by Dr. Himstedt deals with radio-activity, and information available on this subject is given with all necessary moderation and reserve. The caution displayed is most praiseworthy, inasmuch as the temptation to explain all the obscure effects of the spas as the result of radio-active properties has been too strong for the managers of many spas. Many of them have yielded, and have built up theories which at present, at all events, are scientifically untenable. A further valuable contribution forms a second appendix, written by Drs. Hintz and Grünhut on the classification of spas. The third article is concerned with pharmacological investigations; and here again the modern doctrines in chemistry are accorded their proper significance. The author, Dr. Jacoby, does not hesitate to ascribe much of the good effect to the action of heat, and justifies his opinions by showing what the pharmacological action of the warm, hot, and cold bath, applied in various ways and under different conditions, really is. He also analyses the evidence as to the pharmacological action of the several chemical constituents, such as carbonic acid, acids, iron, sulphur, and other inorganic substances. Dr. Kraus has undertaken the clinical section, and seeks in clinical experience the connexion between theory and practice. His treatment of a highly controversial subject is judicious. The two concluding introductory chapters, by Dr. Kremser and Mr. Kauffmann respectively, on the meterological and national economical aspects of spas, are adequate.

The spas themselves are then dealt with in detail in groups; there is an introduction to each group, and all the analyses are given both in the old manner and in the newer. Lastly, mention must be made of the graphic tables, showing at a glance the composition of the waters of the various springs, and of the maps, one of which gives the geographical distribution of German spas, and the second the average rainfall for the German Empire.

By the newer manner of stating the results of analyses is meant that founded on the doctrine of ions. A substance in solution in pure water reduces the freezing point of the water in a definite manner; 1 mol is the number of grams which corresponds to the molecular weight of the substance dissolved in 1 kilogram of water, which depresses the freezing point by 1.85° C. For instance, 180 grams of grape sugar dissolved in 1,000 grams of water forms a solution with a freezing point of −1.85° C., and 30 grams of urea (having a molecular weight of 60) dissolved in a kilogram of water forms a solution with a freezing point of −0.93° C. In a similar manner the boiling point is raised. But if 1 mol of a salt —for example, sodium chloride—be dissolved in water, the freezing point is depressed to a greater extent. A mol solution of NaCl has a freezing point at − 3.42° C. Now it is found that a solution of an organic substance like sugar does not alter the electric conductivity as compared with pure water. On the other hand, salts act as electrolytes, and conduct electrical currents. It was at first thought that the electric current induced the dissociation of the dissolved salt, thus charging the atoms with electricity. Charged atoms are known as ions, and, to keep to the example of sodium chloride, it was found that the chlorine ions moved toward the positive pole, and were charged with negative electricity, for which reason they were termed anions; the sodium ions, which were charged with positive electricity and moved toward the negative pole, were termed cations. The ions on coming in contact with the electrodes discharge their electricity, thereby assuming their elementary characters. Chlorine is recognizable as a yellow gas, and sodium by its decomposition of water with the liberation of hydrogen. Further investigation, however, showed that this ionic condition of salts in solution is produced without the assistance of an electric current. It can readily be proved that every solution of sodium chloride contains some free Cl ions and Na ions, as well as some NaCl molecules. Arrhenius was able to show that a solution of a salt which possesses a lower freezing point, a higher boiling point, and a greater conductivity for electricity than would be expected from its molecular concentration owes these characteristics to the fact that the molecules are split up into more numerous units, each of which acts like a molecule in determining these changes. The splitting up of an electrolyte into electrically charged ions is spoken of as electrolytic dissociation.

Electrolytes have another highly important and peculiar characteristic. They are capable of precipitating substances out of colloidal solution. For example, if a weak solution of sodium chloride be added to a colloidal solution of a metallic albuminate, precipitation of the colloid takes place. Such a method is at times employed to determine the existence of a true colloidal solution. This characteristic, however, is not of direct importance with regard to mineral waters, but it is possible that it may play some part in the interaction between the waters and the substances comprising the living tissues of the organism.

In the next place, it is necessary to form some idea of the significance of the various anions and cations in the solutions—first, from a chemical or physical aspect; and, secondly, in their relation to life. Both these matters are discussed in the introductions mentioned above, and the reader will feel that at last he is getting nearer to the truth; that at last he can really believe that even very small quantities of a salt in solution may have a definite effect on bodies immersed in the solutions, or bodies investing them. In order to understand as much as can be understood at present, it is necessary to turn attention to the laws of diffusion and osmotic pressure which are intimately associated with the action of salts in the ionic condition. The osmotic pressure of a substance in solution can be calculated from its molecular weight. Thus 180 grams of grape sugar in 1,000 grams of water will have the same osmotic pressure as 60 grams of urea in 1,000 grams of water. But here again the electrolytes take an exceptional position. The osmotic pressure of their solutions is considerably higher than would correspond to their molecular weights. Arrhenius's explanation holds good in this case also.

In the tables given in the book the older analyses have been translated into the terms and values of the newer doctrine. The analyses selected were those which had been accepted as reliable, and the names of Fresenius, Bunsen, von Liebig, and Fehling guarantee many of the figures utilized. It was, however, necessary to attempt to some extent to reduce all the various analyses to a more or less uniform scale, and in this great difficulty was experienced. Hintz and Grünhut decided, after careful consideration, on a definite plan with regard to atomic weights, to units of concentration, to constants for the specific weights of gases and coefficients of expansion, and so on. The tables are constructed so as to show (1) the gram weight per kilogram of each ion, whether these exist as ions or molecules; (2) the milligram-ion weight per kilogram, also applicable to substances in ionic or molecular condition; and (3) dealing only with the actually existing ions, the equivalent weights in milligrams per kilogram of the cations and of the anions. The sum of the last, which are called milli-mols, must be the same for the anions as for the cations. With regard to the anions, it was found necessary to calculate those forms which corresponded to alkali salts possessing a neutral reaction, owing to the fact that the majority of the mineral waters were not alkaline to phenolphthalein, and not acid to methyl-orange. This would mean that the OH ions were approximately equal to the H ions as in distilled water. The anions, therefore, selected were SO_4, HPO_4, HCO_3, HS, $HAsO_4$, etc. When distinct acidity was found, this was interpreted as being due to HSO_4. The authors supply details with regard to the formulae employed in calculating their values, but we must refer the reader to the original, if he desires information on this point. Such acids as boric acid, silicic acid, and titanic acid, were regarded as undissociated, since

measurements of conductivity to electricity showed that the quantity of dissociated ions was not measurable.

Mineral waters regarded in this light assume a different aspect than when viewed in the light of the older analyses. Even if the attention be directed solely to the question of tonicity toward the body fluids, it will at once be seen how many of the waters may exert a considerable effect by means of their special osmotic pressure. But this is, of course, only a part of the action, and while we are already in possession of many details with regard to the effect of charged ions on the living tissue, it is certain that the future will extend our knowledge in this direction and that the physiological action of many spa waters will be explained scientifically on the basis of modern chemical doctrines.

DISEASES DUE TO PROTOZOA.

THE manual of *Tropical Medicine and Hygiene*, Part I, *Diseases Due to Protozoa*,[3] written by Dr. DANIELS and Major WILKINSON, gives in a handy and succinct form a great deal of information, and will be very useful to medical men working in the tropics. Both the authors are men who have had a wide experience in teaching tropical medicine, and are well acquainted with the requirements of the student and the practitioner. The first two chapters deal in a general way with protozoa and sporozoa respectively; the next four with malarial fevers; then come some chapters on blackwater fever, piroplasmosis, and yellow fever, after which a general account of the flagellata is given; this is followed by chapters on human trypanosomiasis, kala-azar, oriental sore, relapsing fever, tick-fever, and diseases due to spirochaetes in the tissues. The last chapter is on intestinal diseases due to protozoa, especially amoebae, and the book concludes with five appendices on dates and measurements and on the classification of diptera and ticks. The work is illustrated throughout by diagrams of protozoa and insects, temperature charts, photographs of patients, and by two coloured plates of blood cells and parasites. Each disease dealt with is fully described as regards distribution, clinical course, etiology, treatment, and prevention.

While this book will doubtless be very useful to the medical men for whom it is primarily or solely intended, it is to be regretted that the portions dealing with protozoa generally contain mistakes, and give the impression of having been hastily compiled. We observe a number of misstatements which, while they do not impair appreciably the value of the work as a whole, are blemishes that should be removed from a later edition. Thus the word "merozoite" is not simply a synonym of the word "spore"; any minute division-products resulting from a process of sporulation may be termed "spores" in a general way, but a merozoite is a spore produced by the sporulation of a non-sexual schizont. It is not clear what the authors mean by the statement that "all parts of the cell enter into the formation of the flagellum." The ookinete of a malarial parasite is not known as a zygote *after* it has become encysted; it, or any other gamete, whether a protozoan cell or a metazoan ovum, is termed a "zygote" the instant it has undergone fertilization or sexual union with another gamete. It is stated of gregarines that their cell contents "have been shown in rare instances to undergo division into spores," but, as a matter of fact, this phenomenon is one of the commonest and most easily observed in the whole range of the protozoa. The neosporidia are dismissed with the remark that "they are not known to cause any human disease," but the authors seem to have overlooked *Rhinosporidium kinealyi*, originally discovered by Major O'Kinealy, I.M.S., in tumours of the septum nasi in Calcutta. In the chapter on flagellata the authors appear to be describing the structure of a trypanosome when giving an account of the organization of flagellates generally; but, even if their description be understood in this limited manner, it is quite incorrect to say that "the nucleus is not vesicular, and contains abundant chromatin, which is diffused throughout it." This statement merely describes the misleading and utterly false appearance produced by the Romanowsky stain; the authors do not appear, however, to recognize the defects of this method of staining, or they would hardly have used it for the specimens of *Amoeba coli* depicted on the first plate, giving what can only be described as caricatures of the structure of this parasite, without exhibiting any of its more characteristic features, such as the eight-nucleate stage, for example. In the varied nomenclature of the smaller chromatic body of a trypanosome the name "kinetonucleus" is not mentioned, though this word is used two pages further on, and frequently afterwards. The statement that *trypanoplasma* has no undulating membrane is erroneous. These lapses from accuracy suggest the reflection that the authors would have done better to have attempted less in the matter of scientific treatment of the protozoa and to have confined themselves more to the main purpose of the book—namely, to provide a useful manual for the medical man.

[3] *Tropical Medicine and Hygiene.* Part I. *Diseases Due to Protozoa.* By C. W. Daniels and E. Wilkinson. London: John Bale, Sons, and Danielsson, Ltd. 1909. (Demy 8vo, pp. 270, 62 text figs., 2 coloured plates. 7s. 6d.)

DIETETICS.

THE pamphlet, entitled *The Value of an Exclusive Proteid Diet in Certain Digestive Disorders*,[4] is a reprint of a lecture that appeared in the *Clinical Journal*, and is devoted to the advocacy of an exclusive meat diet—namely, minced meat and hot water—in the treatment of various digestive disorders. Dr. ERNEST YOUNG is right in saying that its value in this particular class of disease has not been sufficiently recognized by the profession and was almost ignored by its originator, Dr. Salisbury. The quantities he recommends are 2 oz. of minced meat given three times a day, with an interval of five hours between each meal, and at an interval varying from half to three and a half hours after the meals a pint of hot water is to be sipped slowly. He recommends this treatment in marked atony and dilatation of the stomach and in chronic hyperchlorhydria. Although the value of this diet in the management of many cases of stomach diseases is indisputable, we can hardly agree that it contains "a maximum of nourishment with a minimum of weight and bulk," for as a fact the amount of nourishment contained in it is extremely small. One ounce of meat gives about 35 heat units, so that three meals of 2 oz. each would not give more than 215 heat units, and if we double this the amount is still extremely small as compared, for example, with $1\frac{1}{2}$ pints of milk given in small quantities of 2 oz. at a time, as is often done in the treatment of stomach diseases; this would yield 510 heat units. He recommends that this diet should be continued for from one to six weeks before the addition of any starchy food is allowed, but for such an extremely low diet this seems too long, and experience proves it to be unnecessary. We are quite unable to follow him in his remarks about rest, for on such a diet the patient should be in bed. In describing the method of preparation of the diet he lays great stress upon a particular make of mincer and griller. As a rule we do not like to see such recommendations in medical books, and doubt there being any special merit in this case to justify a departure from it. We note "zwieback" is spelt "zweiback," and "Priessnitz" appears as "Priestnitz," and when the author says "the hot water will tend to cleanse away existing catarrh and help to dissolve, and so render easy of elimination, any toxic material *in the blood stream*," we could have followed him better if he had written "in the intestine."

Professor GILMAN THOMPSON'S book on *Practical Dietetics*,[5] first published in 1902 (see JOURNAL, January 17th, 1903, p. 143), has reached a fourth edition. He states in the preface that the present edition has been completely rewritten, and that seventy-five pages have been added to the text together with forty-two new illustrations. The book, as was said seven years ago, is a compendium of useful information gathered from many sources, but it contains little original matter, and the author has not always chosen the best authorities. The most useful part is that in which the dietaries of hospitals and institutions, of the United States army and navy and of various prisons, as well as those followed by athletes at

[4] *The Value of an Exclusive Proteid Diet in Certain Digestive Disorders.* By Ernest Young, M.D. London: Medical Publishing Company, Limited. 1909 (Cr. 8vo, pp. 23. 1s. 6d.)

[5] *Practical Dietetics.* By W. G. Thompson, M.D. Fourth Edition. New York and London: D. Appleton and Co. 1909. (Med. 8vo, pp. 928; 45 illustrations. 21s.)

some of the American universities, are given. Although so much use is made of other writers, there is no bibliography and there are no precise references in the text. As to the revision, we notice that the mistake has not been corrected in the table of the chemical composition of fungi (p. 224), where "non-nitrogenous" should be "nitrogenous"; "seltzers" still stands for "selters"; "Kissengen" for "Kissingen" (p. 245); "Ufflemann" for "Ueffelmann" (p. 330); "Granger Stewart" for "Grainger Stewart"; Dr. A. G. Barrs is given to London instead of Leeds (p. 475), and Sir Andrew Clark has a final "e" to his name (p. 723), while the inaccurate analysis of Soya bread is repeated (p. 752). Attention might have been paid to what Dr. Pavy has published about a diabetic food of Rademann of Frankfort which does not support the statement that it contains only 12 per cent. of carbohydrates. We should have been interested if Dr. Thompson had been able to tell us something about the results of the various systems of diet which have been so loudly advocated in America and appear to be popular there, but on these subjects he is reticent. He does not mention purin-free diets in the treatment of migraine and gout, nor does he refer to the subject in discussing the dietetic value of animal viscera. His drawings of the tea and coffee plants are not good, and in both cases there is a mistake in the lettering. A full table of wines, beer, and spirits, showing their alcoholic and sugar contents would be a useful addition. The table giving household measures and their equivalents in ounces, grams, and calories, is useful, but it might have been fuller.

SURGERY.

THE fourth volume of the *American Practice of Surgery*, edited by Drs. BRYANT and BUCK, consists of the final chapter of Part XIII, on Dislocations; of Part XIV, on Operative Surgery; and of Part XV on Orthopaedic Surgery.[6] The Section on Dislocations reviews the subject in 104 pages, and its illustrations comprise twenty-three radiographs. The discussion of the various methods of reduction is sufficiently full to be of value for reference, and the author, Dr. Emmet Rixford, considers critically the choice of method in each case in a useful manner. Criticism of the author's recommendations is hardly the function of a reviewer in the case of a volume of this kind, but it is necessary to remark that the suggestion that Kocher's method of reduction of a shoulder dislocation is an exceptionally dangerous procedure in average cases is one contrary to the experience of many. This chapter is certainly successful, well balanced, sufficiently illustrated, and practical. Part XIV consists of nine chapters on different matters of technique. It forms a compressed treatise on operative surgery, and as the plan of the *System* is to present a complete survey of surgery, we suppose its inclusion was inevitable. The chapter on amputations and disarticulations seems like an old friend, as the majority of the illustrations are from the textbooks of Treves and Jacobson. Plastic surgery is liberally treated, and the author of the article, Dr. James A. Stone, reviews a large number of formal methods. Excisions of bones and joints, and the ligature of arteries and veins, naturally form the subjects of chapters in this part, and others deal with minor surgery, contraindications to operation, preparation for operations, and local and general anaesthesia. The article on local anaesthesia is the most attractive of the group. By far the most interesting part of the volume, however, is that on orthopaedic surgery. Dr. C. F. Painter writes on congenital dislocations and infantile paralysis, Dr. G. D. Stewart on torticollis, Dr. Royal Whitman on deformities of the lower extremities, and Dr. Clarence Starr on tuberculosis of the vertebrae. All these articles maintain a high level of excellence, and are admirably illustrated. A notice of the fifth volume has already been published (BRITISH MEDICAL JOURNAL, 1909, vol. i, p. 1012). The sixth volume, which has recently been isssued, contains some articles of great value and importance; but there seems to be some tendency to padding, and moreover, a certain displacement of some subjects which, in a work composed of several heavy volumes, is likely to be found inconvenient. For instance, in the article on gonorrhoea urethritis, which takes up nearly 100 pages, we find a full description of urethral stricture and its treatment, and also full notice of both acute and chronic prostatitis. Spinal and thoracic surgery are treated together; and after a study of a series of articles on regional surgery, from diseases of the mouth to the male genital organs, the reader is suddenly brought up by an article on diseases and injuries of the jaws. In the first and second articles, which in some respects may be regarded as the most important in this volume, the prosthetic skill and the devotion to special work of the American expert are well shown by Drs. Turner and Mosher. The latter has contributed an article on the diseases of the nasal cavities and the accessory sinuses, which, from the very able and thorough manner in which it treats a somewhat neglected subject, may be regarded as unique.

The ponderous volume in which Professor LESER's sixty lectures on regional surgery are enshrined has reached its ninth edition.[7] The fact speaks a great deal for the esteem in which his teaching is held by his countrymen. It is the more remarkable because regional arrangement is not suited to textbook requirements unless rigid restrictions are imposed by the author on repetition. It must be admitted that even in the 1400 pages he has allowed himself for his second part Professor Leser has neither achieved completeness nor escaped redundancy. Those are faults inseparable from the compilation of a book out of lecture materials, but the text has, at the same time, the easy flow of fluent speech and is read with almost too great facility. There is, moreover, one quality about these pages seldom found nowadays—namely, a continuity of style and a consistency of idea only to be obtained when the whole of so great a mass is the work of one hand. Many recent advances in surgery, inadequately described in the edition published eighteen months ago, now receive further attention. Peritonitis, although it is viewed in the light of Wegener's researches, is even yet not treated by the methods—the logical outcome of those results—which we owe to the acumen of American surgeons. In describing operative treatment of the enlarged prostate, scant justice is done to the suprapubic route, whilst the method and special tractor devised by Young are still attributed to the "American Surgeon Chould"! The practitioners and students to whom the work is addressed will find the paragraph devoted to modern abdominal and abdominoperineal methods of operating on rectal carcinoma inadequate. The proper function of such a book is to offer a pleasant means of revising one's general knowledge by the light of a distinguished surgeon's wide experience. It is not a book for first reading of a new study. The index is better than in many German textbooks.

NOTES ON BOOKS.

OF the views expressed by Dr. WALTER WALFORD in *Cerebral Congestion and Tight Neck Clothing*,[8] some account has already appeared in these pages (see BRITISH MEDICAL JOURNAL, vol. i, 1909, pp. 1100 and 1336). In the pamphlet with this title his theory is further explained, and the fashion of its origin in a personal experience set forth. He finds reason to believe that many cases of headache, vertigo, sickness, and obscure ill-health, apparently due in some instances to severe functional disorder and in others to serious organic degenerations, are not seldom in reality the outcome of slight cerebral congestion brought about by the wearing of tight neck clothing. He gives a number of interesting examples in which relief was rapidly obtained after adoption of the opposite course, and though perhaps not every reader will be convinced the remedy is so simple that this pamphlet is worth perusal.

The *Bulletin* of the Sleeping Sickness Bureau for February, 1910, edited by Dr. Bagshawe, the Director, is chiefly devoted to technical papers on trypanosomes of animals, but in addition there are three very important papers, (1) on *Glossina palpalis*, a summary of recent information, (2) on the diagnosis of human trypanosomiasis, and (3) the influence of other infections on trypanosomiasis.

[6] *American Practice of Surgery*, vols. iv and vi. Edited by Joseph D. Bryant, M.D., LL.D., and Albert H. Buck, M.D. New York: William Wood and Co 1908-9. (Imp. 8vo, pp. 1010 and 924; illustrations 736 and 433 respectively.)

[7] *Lehrbuch der Chirurgie.* II Teil. *Die spezielle Chirurgie in 60 Vorlesungen.* Von Dr. Edmund Leser. Jena: Gustav Fischer. 1909. (Sup. roy. 8vo, pp. 1418; 435 illustrations. M. 24.)

[8] *Cerebral Congestion and Tight Neck Clothing.* By Walter G. Walford, M.D.Durh. London: H. K. Lewis. (Demy 8vo, pp. 26. Price 1s. 6d. net.)

The study of the life-history, habits, and sites inhabited by the tsetse fly is considered by many to be the chief factor in all preventive methods to be adopted for the stamping out of sleeping sickness, and further work is certainly required on the fly. As regards the spread of sleeping sickness in other regions than Uganda, it is disquieting to note that one or two cases in white people have recently cropped up on the West Coast of Africa. It does not, of course, follow that the disease is becoming more prevalent in these parts; it may be that diagnostic methods have improved, and that cases are now detected that were formerly missed. Still two medical officers are being sent to the Gold Coast Colony on sleeping sickness duty in addition to Dr. Kinghorn, an expert from the Liverpool School of Tropical Medicine, and this certainly must be taken to indicate that there is plenty of work awaiting them there.

MOTOR CARS FOR MEDICAL MEN.

RECOVERY OF TAX ON PETROL.

V. inquires whether he can recover the petrol tax paid during the last twelve months, and, if so, to whom he should apply.

*** Tax can be recovered on all petrol purchased and used prior to December 4th, 1909, provided that a certificate can be obtained from the trader who supplied the spirit to the effect that tax has been paid thereon. Application for the repayment should be made to the local officer of customs and excise, who will supply the necessary form. The tax was levied on all spirit imported after April 30th, or manufactureed in the country after June 1st.

MOTOR CAR FOR TOWN DOCTORS.

A TOWN DOCTOR would be glad to hear what are the advantages and disadvantages of a motor car for town work as compared with those of a brougham. At present he keeps a single brougham, two horses (one for morning and one for afternoon), and a coachman. which cost him, apart from rent and rates, on an average £190 a year. This sum includes renewal of horses. He thinks of changing to a 15-h.p. landaulet. This power would be required, because the roads are somewhat hilly. Apart from initial cost, will the upkeep be more than that of a brougham as stated, it being assumed that the miles run will be 3,500 a year? Do frequent stops—20 to 25 a day—and the turning in narrow streets give trouble? What should the "over all length" of the car be to be most satisfactory? If he changes he would like to go in for a good type of car, one likely to have as few breakdowns as possible, and he will be glad of suggestions as to size and cost.

THE ADVANTAGES OF ONE-CYLINDER CARS.

T. writes: After many years of motoring with all types of vehicles, I should like to urge a plea for the single cylinder car except in those cases where a covered car to hold several passengers is required, or where expense is no object. I have now reverted to a single cylinder two-seater, de Dion engine, and am delighted with the result. I had hitherto believed that single cylinders were difficult to start, that these engines had no flexibility, and that gear changing was frequent. My car starts more easily than most multi-cylinders (frequently at the first pull and always without flooding carburettor), the engine is very flexible, and with moderate gearing gear changing is infrequent. On a main road here in Kent I can do twelve miles in a straight direction on top speed. As to the obvious advantages as compared with multi-cylinder cars, the cylinder can be taken off in half an hour, there is only one pair of valves to attend to, and apart from washing the car, it will run for months without tinkering or adjustments. Finally, when the day of overhaul comes, which in a multi-cylinder car is a thing to dread, the time and money required for such and replacements need not be a serious matter even to the man of very moderate means; also, owing to the light weight, tyres last longer and cost less to replace. In this neighbourhood there is an increasing tendency on the part of men using cars for business to revert to single cylinders, and they can now be purchased up to 12 to 16-h.p., and to do fifty miles an hour and more on level (if required).

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

THE quarterly meeting of the association was held on February 24th at the newly-erected Leicestershire and Rutland Counties Asylum, Narborough, near Leicester, by the courtesy of its Medical Superintendent, Dr. Rothsay C. Stewart. The PRESIDENT (Professor W. Bevan-Lewis) occupied the chair, and there was a good attendance.

Electric-bath Treatment in Mental Disorder.

Mr. MACKENZIE-WALLIS, B.Sc. (University College, Cardiff) and Dr. EDWIN GOODALL (Cardiff Mental Hospital) read a paper on electric-bath treatment in 120 cases of mental disorder, the former discussing the chemical aspect and the latter the method of electrical stimulation employed and the more general clinical results. The treatment extended over a period of nine years. As a result of their experience, the authors expressed their preference for the use of the alternating sinusoidal current in the bath with rhythmic variation, as against the usual faradic and galvanic methods. They described the course of the baths, the kinds of mental disorder treated, the weight of the patients at different stages, the diet, and the results. As a rule those who were mentally improved gained in body weight at the same time; the cases which did not improve remained stationary or lost in weight. For purposes of comparison, particulars of the results in a series of cases, controls, treated by ordinary warm baths, without current, were given. The greater part of the paper dealt with an inquiry into the influence of electric and warm baths upon the metabolism of the body, as shown by excretion of creatinin in a series of patients who were kept during the investigation on a fixed diet. The conclusions were that previous to the treatment the excretion of creatinin in all cases showed a minimum value for the total daily volume. The electric baths were given daily for single and recurrent periods, and during this time the creatinin-figure was markedly increased. Long-continued treatment with the baths tended to cause a marked fall, even below the former value. Warm baths, on the other hand, had little or no influence on the excretion of creatinin. This evidence was believed to be in accordance with the clinical facts as regards the improvements in the patients' mental and physical condition. The excretion of creatinin in the urine showed the normal variations with age, weight, and sex. The variations in the volume of the urine seemed to be very characteristic of the insane, as also was the great proneness of the urine to bacterial contamination.

The PRESIDENT said the authors had taken the hydro-electric treatment of mental disease out of the region of pure empiricism and had placed it upon a plane of scientific investigation. He asked whether it was regarded by the latest authorities that the amido acids were the necessary precursors of urea formation during protein metabolism in the tissues, especially in the muscles, and if the creatinin in the urine was simply the surplus of those precursors, which were eventually converted into ammonia and carbon dioxide, and so passed the liver and the kidney as urea. He wished to know whether there was a more simple mode of splitting off, as has been suggested by Drexell's experiments. He asked whether recent research upheld that possibility, because he had never yet seen a reply to Halliburton's question that if the amido acids were precursors of urea decomposition from proteid metabolism, why did not one find them more freely escaping into the blood, and passing on into the liver in ordinary metabolism in the forms of leucin, glycosin, and creatinin in greater abundance?

Dr. PERCY SMITH said that prolonged tepid baths were used in St. Bartholomew's Hospital many years ago for excited patients, and as a result they nearly always became calmer. Those patients also gained weight and slept better, and they eventually recovered. He was glad to hear that short baths were preferable to long ones. In those days there were no sinusoidal current baths. He would have liked to hear of a larger series of cases not so treated for purposes of comparison—that is, treated by simple warm baths. It occurred to him whether the creatinin was the elusive toxin at the basis of insanity which so many people seemed to be searching.

Dr. SCOTT WILLIAMSON said the attempt was the first of its kind in the annals of British psychiatry to grapple with the question of functional modifications in the insane. Observers were working on it in America, but even there there were not many engaged in the inquiry, so that the present research was supremely welcome. Some time ago he made some observations in cases of phthisis who were all undergoing sanatorium treatment, as a result of which some were increasing in body weight, but the creatinin did not vary at all with that increase in body weight.

Dr. BEDFORD PIERCE said the treatment had been tried at The Retreat, York, on a considerable number of patients, and the general result seemed to be satisfactory. But the creatinin excretion was not scientifically tested,

so that only the general appearance of the patient gave that impression.

Dr. STODDART said that at Bethlem Hospital they were rather behind in that treatment. But he asked whether it was a good thing to get rid of creatinin. Was that substance a poison to the body? Also, did the sinusoidal current increase the creatinin excretion of normal people? His experience of warm baths was practically the same as that of Dr. Percy Smith.

Dr. HUBERT BOND read a communication by Dr. Robert Jones, of Claybury Asylum, in which the author said that he had tried the electric bath mostly for adolescents, chiefly exhibiting melancholia, and the main difficulty lay in getting them fed. It was not a very curable form. After consultation with Dr. Lewis Jones, he tried it upon 18 male and 5 female patients. The latter all improved greatly in health, even though two of them were phthisical. The treatment was also used in several cases of puerperal insanity, and greatly aided their recovery. Of the 18 men 9 had left the asylum, all had gained weight under the treatment, some many pounds. As a conclusion, Dr. Jones recommended the treatment in the melancholia of adolescent and in apathetic cases. The authors replied on the various points raised.

Typhoid Carrier Infection.

Dr. G. SCOTT WILLIAMSON read a paper on typhoid carrier infection, stating the results of his investigation into cases in which patients had had typhoid fever sometime ago, and who were found still to have the bacillus in a motile and active form in the body, these bacilli being capable, on inoculation into animals, of setting up the disease.

The CHAIRMAN alluded to the case of the man mentioned by Deane who, twenty-nine years before, had had typhoid fever, and the bacilli were found in his excreta in a motile form. At one of the asylums an outbreak of typhoid fever was eventually traced to an old woman, aged 75, a dement, very dirty in her habits, who was found to have the bacillus in a virulent form.

Dinner.

In the evening the members of the association dined together at the Royal Hotel, Leicester, where the guests included the Mayor of Leicester, Mr. Blakesley, Mr. C. J. Bond, Dr. McAllister-Hewlings, Dr. Langworthy Laurie, Mr. Rowlatt (Under-Sheriff of the County), and Dr. Astley Clarke.

THE Medical Graduates' College and Polyclinic held its annual general meeting at 22, Chenies Street, W.C., on March 11th. The report and balance sheet for the year 1909 were read, and the President, Dr. Theodore Williams, who was in the chair, said there was no doubt that the work done by the Polyclinic was excellent, and the members were very grateful to the different gentlemen who had contributed so many admirable lectures and demonstrations. With regard to the finance there was a considerable increase in the number of members, and no less than 174 subscribers had increased their subscriptions; a legacy of £300 from the late Mr. Alfred Philipps, who had taken the greatest interest in the library. Dr. C. O. Hawthorne, Chairman of Council, asked the members to contrast the position of affairs at the beginning of 1909 with that at the beginning of 1910, and they would be impressed with the striking change which had come about. In January, 1909, the college was practically closed, no programme of lectures and demonstrations had been issued, and no requests for annual subscriptions had been made, and no Council could be found willing to accept the financial responsibility of conducting the institution. But the Polyclinic was now in full operation, and its activities had been considerably extended. The college wished to provide instruction in the subjects in which the medical practitioner might desire to gain further experience, and had partly succeeded already. Among the practical classes established were two in the use of the cystoscope and sigmoidoscope respectively. The laboratory had been continued, and means for providing and dealing with vaccines had been added. The scheme of the Polyclinic was a most excellent one, and it could meet without dismay competition from any quarter. Dr. Dundas Grant, the treasurer, said the negotiations with Sir Jonathan Hutchinson had been very satisfactory, and a great debt was owing to Dr. Hawthorne for his tact and energy.

LITERARY NOTES.

MR. PUNCH, in his issue of March 9th, delivers himself of the following mild joke:

> A candid critic, says the *Daily News*, comes forward in the BRITISH MEDICAL JOURNAL with strong views on the London Matriculation English.

This critic, says *Punch*, is then quoted as follows:

> The student is driven to go to the examiner to be taught the snippets of information which are the stock in trade of he who aspires to win the so-called competitions.

Our facetious contemporary continues:

> We can mention one snippet of information which this writer might well have been taught.

We can mention another which Mr. Punch himself might profitably learn—that is, to verify his references. The grammar of the passage as it stands in the BRITISH MEDICAL JOURNAL of February 26th, p. 516, is correct enough to satisfy the critical taste of Mr. Punch. We cannot hold ourselves responsible for errors due to passage through the refracting medium of the *Daily News*.

In the JOURNAL of March 12th we gave instances of medical men who were useful to politicians as carriers of gossip or as natural mediums of communication. In the *Retrospections of an Active Life*, by John Bigelow, Envoy Extraordinary and Minister Plenipotentiary to the Court of France from 1865 to 1867, it is stated that Napoleon III and other sovereigns of that time made great use in that way of Dr. Evans, the American dentist of Paris. Mr. Bigelow writes to Mr. Seward:

> I ought to advise you that it sometimes happens when the crowned heads of Europe wish to communicate with one another without any responsibility, they send for Evans to fix their teeth.

It may be remembered that Dr. Evans helped the Empress Eugenie to escape from France in September, 1870. Like everybody else nowadays he wrote his reminiscences, but they give one the impression that all the most interesting experiences of his life are suppressed.

In an extract from a book, entitled *Etudes sur les médecins numismates*, by Dr. Renauldin (Paris, 1851), quoted in the *Echo Médical du Nord* of February 13th, we find a record of an adventure which befell Jean Vaillant. Born at Beauvais in 1632, Vaillant became an enthusiastic collector of ancient coins. So great did his fame become that Colbert invited him to travel in search of rare coins for the King's collection. He visited Italy, Sicily, and Greece, bringing back a number of rare and precious coins. At that period cruising about the Mediterranean in unarmed vessels was unsafe, as Algerian corsairs were always hovering about. This was the cause of the numismatist's mishap. Having embarked with the intention of returning to Rome in 1674, he was captured by pirates and held prisoner in the town of Algiers four months and a half. At the end of that time a score or so of gold medals and 200 silver coins found in his luggage were restored to him, and he was set at liberty. Two days after he left Algiers the captain of the ship told him they were being pursued by pirates, and Vaillant in his eagerness to save at least his gold medals, swallowed the lot. A change in the wind saved them from the pirate, and they reached Marseilles. Then the question arose, What was to be done about the medals? They caused the unhappy numismatist great inconvenience, owing to their weight, which was estimated at 6 oz., equivalent to 21.354 grams. Vaillant consulted two physicians, who—as is said by evil-disposed persons to be the wont of doctors—disagreed as to the right way of dealing with the situation. Nature, however, came to his aid, and by the time he reached Lyons he had got rid of more than half his precious burden. He went to call on a friend, Sylvestre Dufour, himself a great collector of coins, and told him about the case, describing those which still remained locked up in the hiding place he had chosen. Among them was a medal of the Emperor Otho, which Dufour was very anxious to possess. Vaillant promised to give it him, as soon as it was in his power to do so, and a few days later he kept his word. In the old piratical days coins and medals were often swallowed to save them from the hands of robbers.

LONDON SCHOOL OF CLINICAL MEDICINE.

THE "school dinner" of the London School of Clinical Medicine was held at the Hotel Cecil on Tuesday, March 15th. Sir JAMES CRICHTON-BROWNE was in the chair, and there was a large attendance, including most of the members of the medical and surgical staff and a number of guests. Among those present were: Sir Thomas Barlow, Sir William Bennett, Surgeon-General Babtie, V.C., Admiral Sir John Durnford, D.S.O., Sir Archibald Geikie, President of the Royal Society; Inspector-General Porter, Director-General of the Medical Department of the Royal Navy; Surgeon-General W. S. Gubbins, Director-General of the Army Medical Service; Sir Patrick Manson, Sir Malcolm Morris, Captain A. W. Clarke, Mr. Lawrie H. McGavin, Captain Adolphus Bell, Captain Acton Blake, Commander George Hodgkinson, Captain H. B. Hooper, Sir Frederick Bridge, Sir Robert Burnet, Dr. Andrew Duncan, Dr. StClair Thomson, Dr. Henry Head, Professor Tanner Hewlett, Dr. Kingston Fowler, Dr. Fred. Hewitt, Mr. Cantlie, Mr. C. C. Choyce, Dean of the School, Mr. L. A. Bidwell, Mr. Rock Carling, Mr. Sampson Handley, Dr. G. C. Low, Mr. Perceval A. Nairne, Chairman of the Committee of the Seamen's Hospital, Sir Walter Prideaux, Dr. Frederick Taylor, Dr. James Taylor, Dr. Guthrie Rankin, Mr. C. W. Gordon, Sir Henry Burdett, Mr. R. Lake, Dr. Hawthorne, Dr. Lister, Dr. F. Langmead, Dr. Purves Stewart, and Mr. R. E. Bickerton.

After the usual loyal toasts had been duly honoured, the CHAIRMAN proposed "The London School of Clinical Medicine." He dwelt on the need of continuous education for the medical man who did not wish to be left behind in the advance of science. The system of post-graduate study could, he thought, be traced to the work of Lord Lister, whom surgeons from all parts of Europe and America flocked to see at Glasgow, Edinburgh, and London. Proceeding, the Chairman said that the medical man who would keep abreast of his profession in these days must go to school again from time to time, but until lately there was no school in this country for him to go to. It was the great merit of the London Clinical School that it had provided a seminary in which medical men might find the opportunity of carrying on their education in every department of medicine and surgery. To it, too, medical men of all ages might resort from time to time, to acquaint themselves with all the most recent developments in medical and surgical science. There was no place in the world which offered vaster material for clinical study than Greenwich. To the Thames came not only argosies bearing rich merchandise from all quarters of the globe, but examples of maladies that were unknown in this country. The Dreadnought Hospital was, therefore, a sort of Zoological Garden of disease. In the Dreadnought and its affiliated hospitals—the Royal Waterloo Hospital, Bethlem Hospital, and the General Lying-in Hospital—were to be found specimens of every disease known in this country to which man, woman, or child was liable. He did not suppose there was any hospital in the world with a richer and more varied assortment of all the ills that flesh—white flesh, black flesh, red flesh, and yellow flesh—was heir to than the Seamen's Hospital at Greenwich. In referring to the large field of study offered by the London School of Clinical Medicine, he did not wish in any way to disparage the great medical schools of London and other parts of the country. The school was ancillary to these. He went on to say that he was not there to beg. The school did not ask for money, but its feelings would not be seriously hurt if any kind friend handed it a cheque for £5,000. That sum could be applied in paying off a loan of £2,000 for the starting of the school, and in establishing a fully-equipped pathological department. From the opening of the school in March, 1906, up till the end of last year, more than 200 qualified medical men from all the great universities and medical schools of England, Scotland, and Ireland, from Canada, India, and the United States, had joined its classes, and the number of entries had steadily increased year by year. George Eliot has said that philanthropy increased according to the square of the distance, and the speaker wished that his voice might reach the other side of the Atlantic and induce Mr. Rockefeller to apply a trifling fraction of his £60,000,000 in the building of laboratories and the endowment of research fellowships at the school. There was also need of a hostel in which students might live close at hand. In the meantime Greenwich was by no means inaccessible. It could easily be reached by train. The time might come when a special motor service would be established for the convenience of their students. Perhaps they might even look forward to a time when each man might travel thither in his aëroplane. In that case it was not unlikely that the surgical wards would have to be enlarged. The Chairman concluded by pointing out the special advantages which the school offered for post-graduate study to naval and colonial medical officers. Among the students during the past year there were ten officers seconded from the Naval Medical Service for purposes of post-graduate study. He hoped it would soon come to be recognized that the best preparation for service as a medical officer on a *Dreadnought* afloat was refurbishing his knowledge at the Dreadnought on shore. Sir James concluded by coupling the toast with the name of Sir Dyce Duckworth, in company with whom he had entered on his medical studies fifty years ago. The friendship then began had lasted ever since.

Sir DYCE DUCKWORTH, Senior Physician to the Seamen's Hospital, in responding, paid a tribute to the liberal spirit in which the Seamen's Society endeavoured, as far as means would permit, to meet all the needs of the medical staff. He spoke of the great advantages to the patients and all concerned that were to be found in the association of a medical school with a hospital.

Sir MALCOLM MORRIS proposed the health of "The Guests" in felicitous terms, making special allusion to the connexion between the Royal Society and the science and art of healing. He thought an interesting history of that connexion from the beginning of the reign of Queen Victoria might be written. The toast was replied to by Sir ARCHIBALD GEIKIE, by Inspector-General PORTER, Surgeon-General GUBBINS, and Dr. GEORGE OGILVIE. The President of the Royal Society—who seemed to think that there had been no very intimate connexion between the society and medicine till comparatively recent years—spoke of the commissions appointed by the society to investigate sleeping sickness and Malta fever. In the former case notable results had been attained, but no specific cure had been discovered. That, however, was not the fault of the workers, who had given themselves strenuously to their task. In the case of the second, brilliant success had been achieved, a disease which wrought havoc among the garrison of Malta having been practically stamped out. He mentioned that Sir David Bruce had told him that a fever known by different names in different parts of Africa, but presenting the special characteristics of Malta fever, had been observed in Uganda. The identity was established by the discovery of the *Micrococcus melitensis* in goats.

Inspector-General PORTER said the medical, and also the executive, branches of the Navy fully appreciated the work of the London School of Clinical Medicine. The question of provision for the needs of the service in that direction had been studied by Admiral Sir John Durnford, and it had been arranged that in future fifty naval medical officers should be seconded each year and divided equally between the London School of Clinical Medicine and the West London Hospital.

Surgeon-General GUBBINS gave some interesting illustrations of the ravages wrought by malaria in the army, and said an experiment was now being made at Mauritius to which a large number of the little fish known as "million" which was believed to devour the larvae of mosquitos, had been imported from Barbadoes.

Dr. GEORGE OGILVIE also responded to the toast in a speech full of pawky humour and interspersed with good stories which lost nothing in the telling.

The health of the Chairman was proposed by Captain A. W. CLARKE in a breezy speech which kept the audience, composed as it was for the most part of grave and reverend seniors, in roars of laughter. Sir JAMES CRICHTON-BROWNE responded in his happiest vein. The speeches were agreeably diversified by songs admirably rendered by Dr. McCann, Miss Emily Shepherd and Miss M. Hall King, and an amusing marionette entertainment by Mr. Lauri Wylie.

SEVENTY-EIGHTH ANNUAL MEETING
OF THE
British Medical Association
LONDON, JULY, 1910.

POST-GRADUATE SCHOOLS.

WE have already dealt with those general hospitals to which medical schools are attached, and in which important changes have been made during the last fifteen years. Before we pass on to the special hospitals, of which there are so many in the metropolis, we may draw attention to a group of general hospitals which, though they do not possess a medical school in the usually accepted sense of the word, yet provide teaching in the shape of post-graduate classes.

The London School of Clinical Medicine.

The Dreadnought Hospital of the Seamen's Hospital Society at Greenwich is one of the most important of these. The changes in this hospital, which has accommodation for 250 patients, consist chiefly in an enargement of the wards, and the addition of an out-patient department fully equipped with rooms for consultations and operations. Still more important alterations have been made at the Branch Hospital of the Society at Connaught Road, Albert Dock. Previously to 1895 this hospital contained 12 beds only for accidents, but since that year it has been much enlarged at a cost of over £20,000, so that now it contains 52 beds, and is fitted with all the requirements of a modern hospital. Though this hospital does an extremely useful and necessary work in a poor neighbourhood, it derives much of its importance from the fact that in connexion with it has been established the London School of Tropical Medicine. This school, which owes its origin to Mr. Chamberlain when he was Secretary of State for the Colonies, was instituted in the year 1899. Since that date the school has steadily increased in size, and during the past it has been found necessary to enlarge it still further. There is now laboratory and other accommodation for sixty students. Altogether about £23,000 have been spent on the school buildings.

London School of Tropical Medicine: Exterior view, showing extension of General Laboratory, which now affords accommodation for sixty students.

London School of Tropical Medicine: Interior of General Laboratory; seating accommodation for sixty students.

In connexion with the hospital at Greenwich, the London School of Clinical Medicine was formed some four or five years ago, to meet the requirements of which there have been erected two laboratories, a museum, a lecture room, a reading room, and rooms for classes on operative surgery, which is one of the specialities of the school.

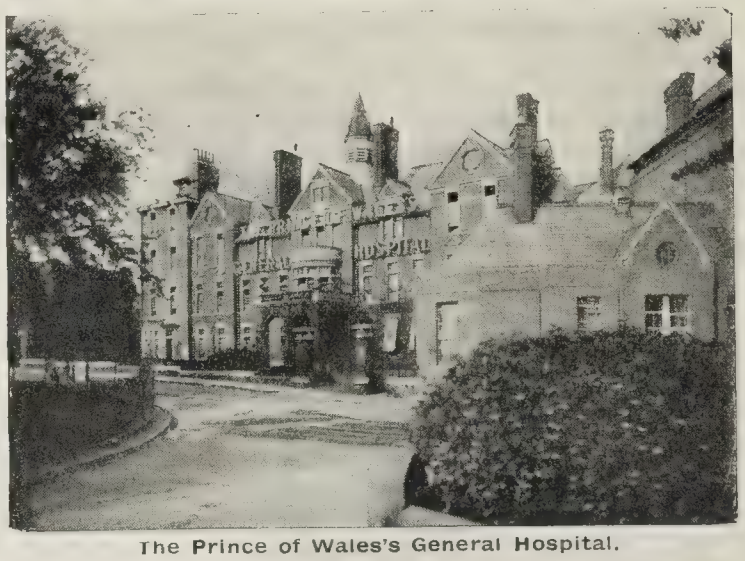
West London Post-Graduate College.

Another important centre for post-graduate instruction is the Post-Graduate College attached to the West London Hospital in the Hammersmith Road. Since 1895 the hospital has been enlarged, so that whereas in that year it could accommodate 100, it now affords room for 156 patients. The out-patient department has been remodelled, and casualty and *x*-ray departments added.

In 1895 the only teaching given in connexion with the hospital consisted of courses of lectures. In 1897, however, systematic teaching was commenced in the wards and out patient rooms. In 1901 a special building was erected for the college, which has been added to on several occasions to meet the increasing popularity of the teaching. The hospital practice is reserved exclusively for qualified men, and the teaching is especially adapted to their needs. Small special classes are held at short intervals in a variety of subjects, and all the instruction is absolutely practical in character; classes for operations on the cadaver are held frequently.

North-East London Post-Graduate College.

The Prince of Wales's General Hospital, to which is attached the North-East London Post-Graduate College, is pleasantly situated on the High Road, South Tottenham, N., and is readily accessible by train or electric tram from all parts of London. It is most easily reached from the West End by the Piccadilly and Brompton tube to Finsbury Park, and thence by the Edmonton electric tram. Having its origin, nearly fifty years ago, in a ragged school and home for orphan girls, the hospital filled a useful place in the life of the district till 1893. Soon after that year, however, for reasons into which it is unnecessary here to enter, its fortunes began rapidly to decline. The dissatisfaction of the public with the management of the hospital led to an inquiry in 1895, as a result of which a scheme of reorganization was put into effect, and in 1899 the hospital began a new career. Since that date it has been from time to time enlarged by the addition of special departments, and it was soon found that to meet the requirements of these the buildings would have to be extended. In 1905 the Drapers' Company gave a sum of £7,050 towards the erection of an operating theatre and two new wards; and it was also decided to enlarge the old wards and erect a new administration block at a cost of £20,000. The new buildings were opened in May, 1907, by the Prince of Wales, who graciously consented to the hospital receiving its present name. The hospital now contains 125 beds, and is provided with a well-equipped out-patient department. There can be little doubt that the progress of the hospital during the past ten years has been aided by the opening of its doors to the post-graduate student. The first step in this direction was the formation in 1900 of the North-East London Clinical Society, which holds its meetings in the hospital. A more important and ambitious step was the foundation in 1902 of the North-East London Post-Graduate College for the purpose of affording opportunities of study for qualified men who wish to obtain the higher professional degrees and diplomas, or who are desirous of keeping themselves up to date in technical knowledge. Besides the clinical and pathological lectures, demonstrations, and classes at the Prince of Wales's Hospital, the student is able to attend courses on fevers, lunacy, etc., at certain special institutions with which arrangements have been made.



The Prince of Wales's General Hospital.

Each of the hospitals with post-graduate schools attached is recognized by the universities and other examining bodies, and by the authorities of the navy, army, and the India and Colonial Offices, as schools of advanced studies.

The Polyclinic.

In writing on the subject of post-graduate instruction, acknowledgement for pioneer work in this direction in London must be accorded to the *Medical Graduates' College and Polyclinic*, even though it is not, strictly speaking, attached to a hospital. It was founded in 1899, to meet the requirements of the practitioner who can either devote only a few hours weekly to studying the latest methods or come up to London for a few weeks at a time with the object of improving his practical clinical knowledge. The college is very conveniently situated at 22, Chenies Street, Gower Street, close to Euston, and to several Underground and Tube stations. The building comprises an excellent set of rooms for clinical demonstrations and lectures, reading rooms, a smoking room, library, laboratory, and museum. The museum contains the unrivalled collection of drawings and plates, illustrative of disease in all its manifestations, collected and prepared by Sir Jonathan Hutchinson, who, we are glad to be informed, still continues to give a clinical demonstration every Thursday afternoon. Arrangements are being made to provide a fully-equipped *x*-ray department. Clinical lectures and demonstrations, in every branch of medicine and surgery, are given every afternoon, to which the members may bring their own patients, if poor, for consultation and advice. Besides these lectures there are practical courses extending over several weeks. On the staff of the college are members of the staffs of all the most important metropolitan and some of the provincial hospitals. The Polyclinic is not attached to any particular hospital, but is affiliated to the London Post-Graduate Association, so that by arrangement its members can attend the clinical practice of most of the large London general hospitals. The laboratory at the Polyclinic is fitted up not only for the purposes of teaching, diagnosis, and treatment, but for original research. There can be no doubt that the institution of the Polyclinic met a demand which nowadays we wonder was not fulfilled earlier.

The Royal Waterloo Hospital for Children and Women, Waterloo Bridge Road, S.E.

HOSPITALS FOR CHILDREN.

From the general hospitals we turn naturally to the more generalized of the special hospitals—namely, the hospitals for children.

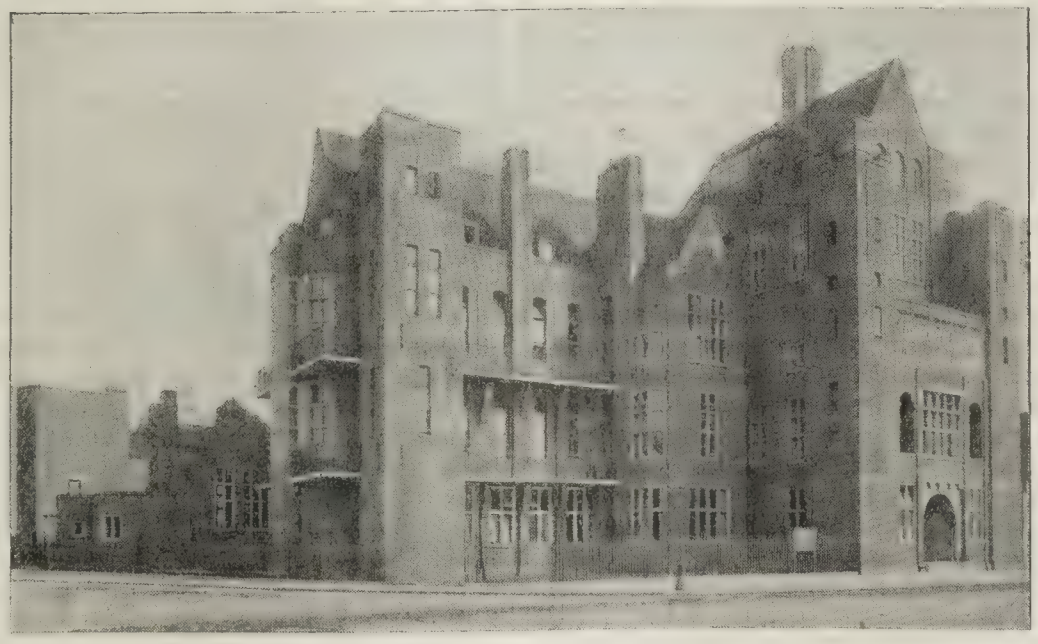
The *Hospital for Sick Children* is situated in Great Ormond Street, not far from the Museum Station of the

Central London Railway. Here there are 220 beds, while there are 40 at Cromwell House, Highgate, which is used as a convalescent home. This house once belonged to John Ireton, brother of Cromwell's son-in-law, Henry Ireton. On the staircase are some figures finely carved in wood, representing soldiers of the Parliamentary army, the models for which were possibly members of Cromwell's "lovely company." A brief account of these figures, with illustrations, will be found in the third volume of Newnes's illustrated edition of Green's *Short History of the English People*. Dr. Mead's house stood where the hospital in Great Ormond Street is now. During the last eleven years very considerable additions have been made to the hospital in Great Ormond Street. In 1898 the neighbouring Hospital of St. John and St. Elizabeth and a convent were bought; the hospital was pulled down and the convent converted into a nurses' home. In 1900 the whooping ward was opened, and in 1906 a new set of isolation wards were added on the top of the hospital. But the most important of the additions is the out-patient and casualty department. To make way for this the Working Men's College was acquired and demolished. Patients entering the department from Great Ormond Street are received in a hall, where they are sorted. Thence they pass to a larger hall behind, where they wait till they are seen by the physicians and surgeons in attendance. Adjoining these halls are the rooms for examination and, if necessary, isolation, and two operating rooms. From the large hall the patients pass to a smaller one, situated under the first, where they receive medicine from the dispensary, and then leave by an exit to Great Ormond Street. "The three halls are on three different levels, but, by an ingenious disposition of sloping passages, there is not a flight of steps in the building down which a mother or child might trip and fall." The whole of this department, which was opened in 1908, was the gift of Mr. W. W. Astor, who erected it as a memorial to his daughter. On one side of the large waiting hall is a beautiful drinking fountain of marble, with figures of St. Luke and St. Nicolas of Bari (Santa Claus), also the gift of Mr. Astor. The cost of the building and the site was £50,000.

Victoria Hospital for Children, Chelsea.

The *Royal Waterloo Hospital for Children and Women*, situated close to the south end of Waterloo Bridge near the station of that name, was entirely rebuilt on an enlarged site in 1903–4. It forms a handsome edifice at the corner of Stamford Street, and accommodates 90 patients. The lower ground floor is occupied by the out-patient department; on the ground floor are placed the administrative offices and quarters for the resident medical staff. The first, second, and third floors are devoted to the wards; each of the large wards is provided with an open balcony, with outside arches, facing the Waterloo Bridge Road. The bath-rooms and sanitary offices are separated from the wards by well-ventilated corridors. The operating theatre is on the third floor. The fourth floor contains the main kitchen, as well as the dining-rooms, sitting-rooms, and bedrooms for some of the staff. A large hydraulic lift for patients, and two small service lifts travel from top to bottom of the building. The building, so far as it has been completed, cost £45,000, including fittings and furniture. It is intended, when funds become available, to complete the design, only two-thirds of which has been carried out; but for this it is estimated that another £30,000 would be required.

The *Victoria Hospital for Children*, Chelsea, S.W., has been entirely reconstructed and enlarged since 1896; the block which formerly contained the wards has been turned into an administrative block, with quarters for the medical officers, matron, and some of the nurses and servants. A new wing has been added which contains six large wards with 16 beds each; an isolation department of three small wards, containing 8 beds; a very efficient operating theatre; and an *x*-ray department and clinical laboratory. A new mortuary and *post-mortem* room have also been added, and what was formerly a small isolation cottage has been converted into an out-patient theatre and recovery rooms, which have added considerably to the convenience of the out-patient department. The hospital contains 104 beds.



Belgrave Hospital for Children, Clapham Road.

The *Belgrave Hospital for Children* was formerly situated near Warwick Square, Pimlico, but a few years ago it was rebuilt in Clapham Road, near the Oval station of the South London Railway. The new hospital, which accommodates 40 in-patients, and is a conspicuous red-brick building, was opened for patients in 1903 by H.R.H. Princess Henry of Battenberg. The main entrance in the Clapham Road opens on to a corridor, with offices on either side, which leads to the central hall. The corridor and hall are paved with marble and furnished with a marble dado some 6 ft. high. Rooms for the house-surgeon and matron adjoin the hall. The kitchen forms a wing on the east; and on the north is a block containing the out-patient department and isolation ward, which are quite cut off from the main building. There are four floors above the ground floor; the first contains two medical and the second two surgical wards. Above are the operating theatre and the nurses' quarters, all

excellent. The staircase and floors are of polished teak, while the walls are mostly tiled. The general appearance is very cheerful. It is proposed at some future date to add a south wing on a vacant plot of ground belonging to the hospital. The present buildings cost about £37,000.

Another children's hospital which has been entirely rebuilt of recent years is the *Queen's Hospital for Children* (formerly the North-Eastern Hospital for Children) in the Hackney Road. It contains 130 beds, and serves an exceedingly populous but poor district.

The most important additions to the *Evelina Hospital*, another well-known children's hospital, are an entirely new out-patient department, complete in every detail, erected at a cost of £14,000, and an additional story for the accommodation of the nursing staff.

SCIENCE NOTES.

The Royal Society of Edinburgh[1] has recently published Dr. Berry Hart's article on the reproductive organs of that mysterious quadruped, the free-martin. The conclusion to which the author comes is that "the free-martin is, according to Mendelian phraseology, a pure or extracted recessive *qua* its genital determinants, and the potent twin a pure or extracted dominant, both of F^2 in the Mendelian scheme." To the reader unskilled in recent embryological theorizing this statement may sound a little less comprehensible than Lewis Carroll's explanatory remark that "the Snark was a Boojum, you see." But a well-defined and ingeniously contrived theory underlies this mysterious definition of the apparent sterile cow born co-twin with a potent bull which is commonly called a "free-martin." In order to get an inkling of Dr. Berry Hart's meaning we must refer back to his own paper on Mendelian action on differentiated sex, published *in extenso* in the *Transactions of the Edinburgh Obstetrical Society*.[2] Beginning with the fact that the human female and male have each not only characteristic sex organs fully developed, but also traces of those of the opposite sex, Dr. Berry Hart reaches the conclusion that the ova and spermatozoa are gametes, and are each of two types; there are two male gametes of unequal value and two female gametes also of unequal value; one male gamete contains the male sex-unit character and one female gamete has the female sex-unit character; and so we may speak of a male sex gamete and a male non-sex gamete, and of a female sex gamete and a female non-sex gamete. A further hypothesis is that the crossing of a male sex gamete with a female non-sex gamete will give a zygote (fertilized ovum), which will develop a male holophyte (fully developed organism), and that the crossing of a female sex gamete with a non-sex male gamete will give a female holophyte; as soon as the zygote is formed the sex is determined and unalterable. Then, turning to the male and female genital units, Dr. Hart regards the female genital unit as made up of (1) a fully developed, evident segment, characteristic of the female sex, comprising the mammae, ovaries, ovarian ligaments, Fallopian tubes, uterus, vagina, hymen, and urino-genital sinus; of (2) a part (the round ligament, labia majora, labia minora, and the glans) potent, normal in structure, less fully developed than in the male, but always analogous to a definite continuous segment of the corresponding male organs; and of (3) a part (epoöphoron and upper portion of Wolffian duct) normally present, made up of developmental portions equivalent to corresponding fully developed organs in the male, but less perfect in structure and not equally functional. The structures in groups 1 and 2 are looked upon as female potent (dominant) elements, and the two placed in group 3 as female non-potent (recessive) elements. In the male genital unit, in its turn, there are male potent (dominant) elements, namely, the testes, phallus, prostate, prostatic urethra, scrotum, Wolffian ducts, Wolffian bodies, gubernaculum, and caudal ligament of the testis, and male non-potent (recessive) elements, namely, the mammae, prostatic utricle, fimbriated ends of Fallopian tubes, and paradidymis. By combining in one theory these two hypotheses, the varietes of gametes and the distinction of the genital organs into potent and non-potent, the explanation of the presence in one sex of rudimentary organs of the other, of the strange structures known as teratomata or embryomata, and of the free-martin is reached. It is not practicable in a short note such as this to follow Dr. Hart in his argument, which is very attractive, although there are doubtless weak parts in it; but it may be said that he believes that the teratoma arises from a non-sex variety of gamete, that the testicular teratoma is derived from an imperfectly reduced non-sex male gamete, and the ovarian one from an imperfectly reduced ovum. Further, with regard to free-martins, the conclusion is that such an animal is not a hermaphrodite, but may be one of two things—the free-martin, born co-twin with a potent bull, which is a sterile male, or the free-martin, born co-twin with a potent cow, which is a sterile female; the second is by far the rarer of the two. The former, according to the Mendelian scheme, would originate in this way: a male sex gamete unites with a female non-sex gamete and gives a male zygote (F^1); this, *if it twins*, may give a bull with equivalent soma and potent genital organs (the dominant) and a bull with equivalent soma and non-potent genital organs, female type (the recessive); these twins constitute F^2 in Mendelian phraseology, and are the potent bull and the free-martin respectively, the former being a pure or extracted dominant, and the latter a pure or extracted recessive. Manifestly the subject is both intricate and difficult, and it requires both close study and a working knowledge of Mendel's law in all its ramifications; but it is a serious attempt to grapple with some of the most mysterious phenomena of generation and its anomalies, and it holds out the hope of ultimate success in reducing disorder to order, and in explaining matters hitherto regarded as inexplicable.

Haemolysis is a subject which has been much studied of late, but its phenomena are as yet imperfectly understood. It is induced by a large number of different substances and under very variable circumstances. An explanation of the action on a chemical basis has recently been offered by von Krogh.[3] Solutions of sodium hydrate produce haemolysis, and the length of time required increases as the strength of the solution is diminished, but not in simple proportion. The action apparently consists in the combination of the hydroxyl group with some component part of the blood corpuscle, resulting in the formation of a substance which causes the haemoglobin to go into solution. In haemolysis by haemolytic serum it is immaterial whether the amboceptor and complement are added separately or together. The union of the corpuscle and the amboceptor takes place almost immediately, but the complement is taken up comparatively slowly. The variation in the time required for haemolysis to be complete can thus be accounted for, and a simple relation can be formulated between the length of time and the amount of complement contained in the serum. Considering these facts in detail, the following theoretical conclusions as to the haemolytic process may be drawn. It must be supposed that in the blood there is a substance whose molecule consists of two similar groups linked by a double bond. The sodium hydrate liberates these bonds, and each unites with a hydroxyl group. The complement, however, does not possess a sufficient degree of affinity to enter into union with the blood corpuscle; but, as has been remarked above, the amboceptor is rapidly taken up by the corpuscle and prepares the way for the complement by liberating the double bonds. The complement unites with those in the same way as the hydroxyl group in sodium hydrate. This view explains why the amboceptor and the blood corpuscles are not united in any stoichiometric relation. The function of the amboceptor in Ehrlich's side-chain theory may thus also be accounted for. The receptor is formed from the molecule containing the double bond, but must first be prepared by the amboceptor before it is ready to fulfil its function. Krogh concludes that there is much to be hoped from a chemical treatment of such subjects, and that the uncertain results hitherto obtained are due, in part at least, to the fact that more attention has been paid to completed action than to the rate at which such actions take place.

[1] *Proc. Roy. Soc. Edin.*, xxx, Part iii, pp. 230–241, 1902–10.

[2] *Trans. Edin. Obst. Soc*, xxxiv, 303–357, 1908–9.

[3] Ein Versuch zu Stöchiometrie der Hämolyse. *Biochemische Zeitschrift*, xxii (1909), pp. 132–148.

A simple practical method of imitating the normal and abnormal heart sounds for teaching purposes is described by Dr. Larned in the *Bulletin of the Johns Hopkins Hospital* for February. The student is made to place his hand over one ear and on the dorsum the teacher percusses with his finger. The various abnormal sounds and rhythms can be reproduced surprisingly well, as may be demonstrated to one's own satisfaction. The closed sounds are made by sharp taps, hard or soft, as the case may be, while a murmur is produced by drawing the finger along the dorsum of the hand. A presystolic murmur is imitated by tapping with each of the fingers in rapid succession, starting with the little finger and finishing with the index. By causing the latter to stroke the hand an accompanying systolic murmur may be reproduced. In this way all the various combinations of sounds and murmurs may be imitated more or less faithfully, depending on the skill of the teacher. Loud sounds may be obtained by tapping on the metacarpals, distant sounds by tapping the intervening muscles. A more accurate imitation is got with a plump hand than with a bony one. It has always been a difficult matter to give junior students a realistic idea of heart sounds apart from actual stethoscopic practice, and this practice is apt to be rather laborious and unsatisfactory unless the student first gets a clear conception of what he is expected to hear. The caligraphic or vocal representations, as commonly employed, are usually very inadequate, and there is no doubt that Dr. Larned's method would prove an efficient substitute.

THE UNIVERSITY OF LONDON: A DEGREE FOR LONDON MEDICAL STUDENTS.

AT the meeting of the Council of the Royal College of Surgeons of England on March 10th, and at the meeting of the Royal College of Physicians on March 14th, a further report, dated February 15th, was presented by the delegates appointed by the Royal Colleges in June and July, 1908, to consider a scheme for establishing joint action with the University of London for the holding of examinations and the granting of diplomas and degrees in accordance with Statute 123 of the University.

ACTION OF THE ROYAL COLLEGES.

The delegates had been instructed to draft a scheme for submission to the Senate of the University of London, and their report, dated December 3rd, 1908, was accordingly communicated to the University at the end of January, 1909, and was published in the BRITISH MEDICAL JOURNAL of March 6th, 1909, p. 607. In the interval, however, the Senate of the University had asked for a Royal Commission, and this request had been granted. The delegates consequently recommended that the Royal Colleges should take steps to secure the representation of their views before the Royal Commission, and that they should also ask the University to appoint delegates to discuss the question with the delegates of the Royal Colleges, so that, if possible, a joint representation to the Royal Commission might be agreed upon. It is in pursuance of this recommendation that the further report has been presented to the two Colleges on the evidence which should be given conjointly by the two Colleges before the Royal Commission. The report, as will be seen, embodies a scheme for joint action by the Colleges and the University, but it appears that the University has not directly replied to the request for a conference between the delegates of the Royal Colleges and the delegates of the University.

Report.

1. The disability under which the London Medical Student labours by not being able to obtain a degree of M.D. on such terms as exist in other universities in the United Kingdom.

The evidence should include an explanation of the reasons why a degree is sought as well as diplomas, among such reasons being (1) the value attached to the title in the estimation of the public; (2) the disadvantage to those who have no degree in competitions for hospital appointments and various local appointments and in general practice; (3) the misunderstanding which arises owing to the double use of the word "doctor."

In support of the evidence of the disability attaching to London students, the following tables have been prepared from the list of registered medical students issued by the General Medical Council, showing:

(1) The average total number of students registered in *England* during the 15 years (1894–1908);
(2) The number of students in *England* who registered on the Matriculation Examination of the University of London;
(3) The number of registered students in *London Schools*;
(4) The number of students in *London* who registered on the Matriculation Examination of the University of London;
(5) The percentage of registered *London* students who are eligible to take the degree of the University of London, as compared with those eligible solely for the diplomas of the Royal Colleges.

TABLE A.
Registered Medical Students in England.
(Men and Women.)

Period.	Average Annual Number of Registered Students in England.	Average Annual Number of Students in England Registered on Matriculation of University of London.	Percentage.
1894–1898... ...	890	252	28 3
1899–1903... ...	683	192	28.1
1904–1908... ...	599	145	24.2

TABLE B.
Registered Medical Students in London.
(Men and Women.)

Period.	Average Annual Number of Registered Students in London.	Average Annual Number of Students in London Registered on Matriculation of University of London.	Per-centage.	Students Eligible for Conjoint Board Only.
1894–1898 ...	450	186	41.3	58 7 per cent.
1899–1903 ...	332	140	42.1	57.9 per cent.
1904–1908 ...	282	108	38.3	61.7 per cent.

These tables show that the University of London has made comparatively little impression on the course of study for graduation in medicine in England, and has hitherto influenced less than half the students who take out their curriculum in London.

It is fair to state, at the same time, that the University has recently considerably increased the facilities for matriculation by the recognition of examinations conducted by other bodies, and by holding its own matriculation examination three times a year. The effect of this new departure has not yet been fully felt, but it may not improbably lead to an increase in the proportion of London students who are eligible to take the University degree.

2. The desirability of an association between the Royal Colleges and the University in a scheme for granting degrees of M.B., B.S., and M.D. with the diplomas of L.R.C.P. and M.R.C.S. for students who have completed at least four of the five years of professional study at a London medical school, and in so far as such degrees are concerned, the establishment of a co ordinated Medical Faculty in London.

(*a*) Evidence should be given on the advantage (i) of a uniform system of education for all students in London, so that one set of general instructions may be issued directing the steps of the student from the outset of his career in a course leading directly to the attainment of the degree and diplomas; (ii) of the course of education of the London University student being brought into relation with the examinations.

(*b*) The importance should be urged of bringing the experience and influence of the Royal Colleges, as the recognized authorities on clinical medicine and surgery, to bear, in conjunction with the University, upon the control of medical education in London—for example, by a joint board, formed for this purpose, consisting of representatives of the Medical Faculty and of the Royal Colleges.

(*c*) The statistics in the following tables should be given in evidence (i) of the proportion of the total number of students in England who present themselves for the Final Examination of the Royal Colleges; and (ii) of the number of graduates in medicine of Universities who take also the diplomas of the Royal Colleges.

TABLE C.

Return Showing the Proportion of Students Entering for the Final Examination of the Royal Colleges, as Compared with the Entry of Students Five Years Previously.

Students Registered in England in (Omitting Women):	Students Entered for Final Examination in:	
1891 ... 1265	1896 ... 623 or 49.2 %	Average 57.3 %
1891 ... 874	1897 ... 559 or 63.9 %	
1893 ... 947	1898 ... 558 or 58.9 %	
1894 ... 938	1899 ... 586 or 62.4 %	
1895 ... 881	1900 ... 484 or 54.9 %	
1896 ... 840	1901 ... 519 or 61.7 %	Average 62 %
1897 ... 771	1902 ... 573 or 74.3 %	
1898 ... 852	1903 ... 489 or 57.3 %	
1899 ... 863	1904 ... 470 or 54.4 %	
1900 ... 702	1905 ... 449 or 63.9 %	
1901 ... 559	1906 ... 395 or 70.6 %	Average 69.9 %
1902 ... 556	1907 ... 384 or 69.0 %	
1903 ... 549	1908 ... 414 or 75.4 %	
1904 ... 605	1909 ... 398 or 64.6 %	

Women are omitted from the number of registered students in the Return for the reason that the Royal Colleges have not hitherto admitted women to their examinations.

TABLE D.

1. During the years 1903 to 1906, both inclusive, 529 male candidates obtained the degree of M.B. or M.D. of the University of London.

Of these, 446 or 84.3 per cent. are also diplomates of the Royal Colleges.

2. During the same period 253 candidates obtained the degree of M.B. of the University of Cambridge.

Of these, 181 or 71.5 per cent. are also diplomates of the Royal Colleges.

3. During the period 1,704 candidates obtained the diplomas of L.R.C.P. and M.R.C.S.

Of these, 885 or 52 per cent. are also graduates of, or candidates for, the degrees in Medicine of the following universities:

London	347 = 20.4	per cent.
Cambridge	274 = 16.1	,,
Other universities in England...	119 = 7	,,
Indian and Colonial universities	103 = 6	,,
Foreign universities	25 = 1.5	,,
Scottish and Irish universities..	17 = 1	,,
	885 = 52	,,

3. The advantages to be gained by adopting a scheme for joint examinations such as the following, which has been drawn up by the delegates as a basis of negotiation.

SCHEME.

MATRICULATION.

Pass Degree and L.R.C.P. and M.R.C.S. for students who shall complete not less than four years of professional study at London medical schools and hospitals.	Honours' Degree (with or without L.R.C.P. and M.R.C.S.) for students from any medical school and hospital, that is, the degree as granted at the present time.
The Matriculation Examination of London or equivalent accepted by the University together with such other examinations as may be agreed upon. Candidates who pass a Preliminary Examination recognized only by the Royal Colleges shall be eligible for L.R.C.P. and M.R.C.S. alone, but arrangements shall be made for such candidates at a later stage of their curriculum to be allowed, by passing in certain special subjects of general education, to be transferred from Conjoint to Pass Degree Candidates.	Matriculation Examination, or equivalent accepted by the University.

PRELIMINARY SCIENTIFIC EXAMINATION.

First Conjoint Examination in Chemistry, Physics, and Biology, conducted by Conjoint Examiners with University Assessors. Candidates must be educated at medical schools or institutions either in London or elsewhere, recognized by the University or the Royal Colleges.	First Examination for Medical Degrees (Inorganic Chemistry, Physics, and Biology). To be conducted by University Examiners only. No conditions as to place of study.

INTERMEDIATE M.B., B.S. EXAMINATION.

Second Conjoint Examination in Anatomy, Physiology, and Practical Pharmacy, conducted by Conjoint Examiners and University Assessors.	Second Examination for Medical Degrees, Part I (Organic and Applied Chemistry), Part II (Anatomy, Physiology, and Pharmacology), conducted by University Examiners only.

FINAL M.B., B.S. EXAMINATION.

First Conjoint Examination in Medicine, Pathology, Forensic Medicine, Hygiene, Surgery, Midwifery, and Diseases of Women, conducted by Conjoint Examiners with University Assessors.	Third M.B., B.S. Examination in Medicine, Pathology, Forensic Medicine, Hygiene, Surgery, Midwifery, and Diseases of Women, conducted by University Examiners only.

[NOTE.—Candidates for the Honours Degree who desire to take also the Diploma of L.R.C.P. and M.R.C.S. may pass the Final Examination for the Pass Degree and Diplomas, and shall undergo such further Examination for the Honours Degree as the University may determine.]

M.D.

Examination conducted by, or thesis approved by, a Board of Examiners appointed jointly by the University and the Royal Colleges.	Additional examination conducted by University Examiners or original research, (Same as at present.)

Such conditions of admission to the degree and diploma, after examination as the statutes of each body may require, shall remain.

If thought desirable by the University, the scheme shall permit of the same papers and the same examination machinery being utilized for the Pass and Honours degrees, with such a higher standard of marks and additional conditions as the University may determine for the Honours degree.

4. The desirability of establishing a wider system of clinical teaching in London so as to utilize to the utmost the unrivalled clinical opportunities of the metropolis.

The advantage of an organized system by which the students of one hospital and medical school may be able to attend the instruction given at others, under certain restrictions, should be pointed out.

5. The desirability of the endowment of medical teaching in London.

6. The desirability of organizing medical research in London.

7. It should be made clear to the Royal Commission that the Royal Colleges cannot accept any position which interferes with their complete autonomy in regard to their own affairs and to the examinations for students other than those who are candidates under the proposed scheme of association with the University.

The report was adopted by the Council of the Royal College of Surgeons, but by the Royal College of Physicians was referred to a large committee of the College with a wide reference to report on the whole subject to a future meeting.

ACTION OF THE MEDICAL FACULTY.

It will be convenient to add here a brief account of the action taken by the Medical Faculty with regard to the proposed changes in the constitution of the University.

In 1905 the Faculty appointed a committee to consider and report as to the best means by which teaching and research in the advanced subjects of the medical curriculum could be promoted in the schools of the University by the action of the University. This committee, of which Dr. Fowler was chairman and Dr. Lauriston Shaw secretary, consisted of thirty-four members; it consulted the medical schools and presented a report dealing with the matter under the following heads:

Development.

The report pointed out that it was generally acknowledged that the active prosecution of research ought to exist side by side with teaching, and expressed the opinion that it would strengthen the University and its medical schools to increase the provision for research in pathology, pharmacology, and clinical subjects. The University already allowed the M.D. degree to be taken by the way of original research, and a certain number of prizes and scholarships were in existence, but did not succeed in producing the desired effect. It was considered that a better plan would be to render the teaching of and research in pathology attractive to the best man, who now worked under great difficulties. If they could find in pathology a good position and sufficient livelihood, they might be trusted both to do good work and to encourage work in others. The committee therefore considered it desirable that the University should create and endow, or help to endow, professorships and lectureships in pathology at the various schools, and should connect itself with any institution apart from the medical schools which now exists, or may exist in the future, for the prosecution of general pathology in London. The last recommendation has to some extent been met by the recognition of the London School of Tropical Medicine, of the Lister Institute of Preventive Medicine, and of the Royal Army

Medical College. The opinion was also expressed that it would be a great advantage, both for teaching and research in the pathology of mental diseases, if the laboratory of the London County Council, now at Claybury Asylum, could be moved to a more central situation in London, since (*a*) it would be to the advantage of each medical school to have within reach a laboratory at which those students who wished to study the pathology of mental diseases would have great facilities at their disposal, and (*b*) it would facilitate research if the available material which the County Council laboratory offers were rendered more accessible to pathologists.

Grouping.

The report stated that the payment of lecturers on advanced subjects at the medical schools of London is very inadequate, and that classes could be increased in size without becoming too large; if two or more of the classes now held separately could be joined, not only would a great saving of labour be effected, but payment of the lecturer would be raised to a higher level. It was, however, considered that there were many objections to the adoption of combined or intercollegiate lectures for the main subjects of the curriculum, but that the plan was feasible for subjects not within the ordinary practice of the acting staff of a general hospital, such as mental diseases, hygiene, and forensic medicine. The committee suggested that in each of the above subjects a few lecturers would be able easily to teach all the medical students in London, and that the stipends, now very inadequate, would be proportionately increased. It was also suggested that such lecturers should be professors or lecturers of the University, appointed by it, and that the chairs should eventually be wholly or partly endowed.

Finance.

The committee believed that the University might do great service to medical education by drawing attention to the striking contrast between the public support given to the advanced subjects of medical education and research in London, and in other university towns in the United Kingdom. Any funds which the University might be able to devote to these subjects might best, it was considered, be expended by increasing the income arising from any endowment or other contributions which the schools might in the future individually secure. The inclusion of the medical schools of London as schools of the University presupposed that they were public educational establishments as defined in the University of London Act in 1898, that is to say, "institutions for a special kind of education or teaching and not carried on for the private gain or profit of the body or persons to whom the institution belongs."

The committee believed that the more clearly this position of the schools could be made manifest, the less difficulty would be met in obtaining public financial support. In accordance with this view the executive bodies of the medical schools should consist of representatives of the teachers of the school and of the governors of the hospital, with a representative of the University, and possibly representatives of other public educational bodies. The particular branches of education and research which most needed pecuniary assistance were, it was considered, pathology and pharmacology; the fact that the work would be carried on in connexion with the clinical schools of the University would ensure that special attention was given to those aspects of these subjects which had a practical bearing on the art of medicine and surgery. Finally, the committee recommended that the University should make it clear that it would be most disposed to offer and influence pecuniary support for projects in connexion with the advanced subjects of the curriculum in which the interests of education and of research were evenly balanced.

Inspection.

The committee recommended that the medical schools of the University should, in accordance with Statute 76, be inspected at regular intervals by the University, reports upon efficiency being made to the Senate; the inspection should extend to all practical work done by undergraduates in each school, with the object of allowing the report of the inspector to carry some weight in the examinations for which the students were preparing. If the marks given for the students' work did not bear too high a proportion to the total obtainable for the examination undue influence on the part of the teachers could not have great weight, while the effect upon the student of feeling that his every-day practical work would have a definite influence upon success in examination could not fail to raise the standard of his work to a higher level.

The Constitution of the University.

The Faculty of Medicine at its meeting on November 1st, 1909, considered the question of the proposed changes in the constitution of the University, and adopted the following recommendations:

1. That the medical degrees of the University of London should be open only to those students who are students in the schools of the University.
2. That all medical questions affecting the University should be submitted to some such body as the Faculty Board recommended by resolution of the Faculty of Medicine on March 26th, 1909.
3. That all Boards of Studies in medical subjects shall be committees of the Faculty, and appointed by the Faculty after receiving a report from the Faculty Board.
4. That the Faculty Board shall report to a body of the character of the present Academic Council, who shall have executive power in all academic matters not involving finance.

Needs of the University.

A meeting of the Faculty was summoned for November 30th, 1909, but there was no quorum present. In view, however, of the urgency of the matters awaiting consideration, the twenty-four members present requested Dr. F. H. Champneys to take the chair, and drew up the following report:

Without expressing any definite opinion on the details of the reports of the Boards of Studies, the members of the Faculty present consider that, in order to secure co-ordination among the medical schools, and improve the efficiency of medical education in London, it is important that the control by the University over the medical schools be increased.

This can be effected by securing to the University the disposal of funds which it can apply for the maintenance of education and research in the London medical schools.

The members of the Faculty present also draw attention to the fact that, unlike many medical schools attached to universities, the medical schools of the London hospitals receive no grant-in-aid from the Treasury, and are almost entirely dependent on students' fees.

The members of the Faculty present recommend that the report of the Special Committee appointed by the Faculty in 1905, which report was adopted by the Faculty, should be re-affirmed.

Nova et Vetera.

PELLAGRA.

ATTENTION has already been drawn more than once in the JOURNAL to the proposed organization of research on the causation of pellagra. It has been pointed out that it occurs in greater or less amount in several of our colonies and dependencies, and that within the past few years it has invaded some of the southern parts of the United States, notably South Carolina, and has spread so extensively as to cause alarm. In the JOURNAL of February 5th, 1910, p. 327, we gave a list of the members of the committee which has been formed to carry out a scheme of research as to the causation of the disease, taking Dr. Sambon's protozoal theory as a working hypothesis. An advisory subcommittee has since been formed which will take an active part in the direction of the investigation. The chairman is Sir Lauder Brunton; the vice-chairman, Dr. F. M. Sandwith; the honorary secretary and treasurer, Mr. James Cantlie (140, Harley Street, W.). In addition to these *ex-officio* members, the advisory subcommittee includes the following: Mr. E. E. Austen; Mr. E. C. C. Bayly, F.R.S., Assistant Professor of Chemistry, University College; Lieutenant-Colonel Sir William Leishman, F.R.S.; Dr. J. M. H. MacLeod, of the London School of Tropical Medicine; Sir Patrick Manson, F.R.S.; Sir John McFadyean, Principal of the Royal Veterinary College; Dr. Mott, F.R.S.; and Professor R. Ross, F.R.S.

The research will be carried out by Dr. Sambon, with whom Dr. J. E. Siler, Captain, Medical Corps, United States Army, will co-operate, with Messrs. Arthur Dawson-Amoruso and G. C. C. Baldini as assistants. Captain Siler is lecturer in the American School of Tropical Medicine, and has already been investigating pellagra in America. In conjunction with Captain H. J.

Mitchells he contributed to the New York *Medical Record* of January 15th, 1910, a paper entitled, "Observations on Pellagra at the Peoria State Hospital, Peoria, Ill." Mr. Baldini is a student at St. Bartholomew's Hospital; his family lives in the North of Italy, and his services will be very useful on account of his knowledge of the places and dialects. Mr. Dawson-Amoruso is a young field naturalist, who has lived for several years in the North of Italy and knows the dialects. The Bergamo Standing Commission for the Investigation of Pellagra have, through Mr. Baldini, offered to help the workers in every possible way.

Little is known of pellagra in this country except by a few specialists who have had the opportunity of studying the disease. In a paper which appears in the January number of the *American Journal of the Medical Sciences*, Dr. Nevins Hyde gives a brief history, from which we take the following facts: The disease has been variously termed Mal de la Rosa, Risipola Lombarda, Lombardy Erysipelas, Lepra Italica, Alpine Scurvy, Mal Rosso, Mal Roxo, Maïdica, Psychoneurosis Maïdica, Maladie de la Teste, Malattia della Miseria, Mal de Sole, Mal de Asturias, Raphania Maïstica, Malattia dell' Insolato di Primavera; and other titles have been employed in its designation. Though vaguely recognized before his time, the first authentic description of the disease was made by a Spanish physician, Gaspar Casal, under the title Mal de la Rosa, the fruit of observation made by him among the peasants of the Asturias in the year 1735. His work was written in Latin, and published after his death by Joseph Garcia in the year 1762. His description of the pellagrous skin shows close observation:

Degenerat tandem in crustam siccissimam, scabrosam, nigricantem, profundis saepissime intercissam fissuris, etc.

Frapolli of Milan, in 1771, is generally said to have first given the name to the disease by which it is now most generally known; but, in fact, he merely reproduced a title current among the people of his day: "Morbus, vulgo Pellagra." In the long list of authors who followed, from Strambio, Marzari, Alibert, Rayer, and Raymond, to Lombroso, Sandwith, Babes and Sion, and Sir Patrick Manson, can be traced the progress of the disease in Europe, from Spain to Southern France, Northern and Central Italy, Corfu, Upper Egypt, and other parts of Africa, Austria, Servia, Bulgaria, Roumania, Asia Minor, India, Mexico, Barbadoes, and portions of North and South America. The prevalence of the disorder in Europe may be estimated to a degree from its ravages in Italy, which has suffered more than any one other country. In Lombardy alone from the year 1770, when attention was first paid to the serious character of the endemic, to the year 1880 the number of *pellagrosi* increased from 20,000 to 104,067. It has been estimated that in a population of 16,689,735, of Northern and Central Italy, the proportion of those affected with the disease rose from 1 in 60 to 1 in 19 of the inhabitants.

The nature and manifestations of pellagra are well summed up in the circular issued by the British Committee: "It is a deadly endemic disease, usually presenting a long, cruel course of three, ten, fifteen, or more years' duration. It is confined almost exclusively to field labourers. It is characterized by a complexity of nervous, gastro-intestinal and cutaneous symptoms. The symptoms make their first appearance during the spring months, and recur year after year at the same season, remitting more or less during the winter months. Clinically, the more distinctive features are: a peculiar skin eruption, not unlike a severe sunburn, which affects the exposed parts of the body, followed by obstinate diarrhoea and profound melancholia, alternating with outbursts of violent excitement or delirium, which often lead to murder or suicide. In the last stages the patient becomes greatly emaciated, paretic, and completely demented. In women pellagra usually causes abortion; when they do have children the offspring are sickly and degenerate." The etiology has been summed up as "peasant life, poverty and polenta"; the symptoms as "dermatitis, diarrhoea, and depression."

A vivid description of the disease will be found in Edmond About's *Maitre Pierre*. That well-known writer visited the Landes of the Gironde in 1857, and gives an account of attempts to drain the swamps and to render the soil fertile made in the middle of the last century. Speaking in 1844, the heroine of the story, Marinette, tells of her childhood, how her father and mother and herself were attacked at the same time by pellagra. She goes on: "You, sir, do not perhaps know what pellagra is. In that case you are as wise as the doctors. It is a disease which comes from no one knows where, but when it leaves this region nobody will trouble to ask news whither it has gone. In the meantime it is computed that there are 3,000 sufferers from the disease in the Landes. Some say it is the air, others it is the water, others it is the food. The blame is laid on the millet seed, on rye, and on maize; even on sardines and salted eels. The fact remains that it is a disease which does not attack the rich. It commences in the stomach, but soon reaches the surface, like a noxious weed which flourishes rankly everywhere. It soon does for a pretty girl, and changes her so much that her lovers run away when they see her. The skin becomes black; then come pimples, and a covering of powdery scales. When the hair is attacked it is much worse. You see that mine is not bad now, at that time you would not have touched it. My mother wasted so quickly that you could have seen the flame of a candle shine through her body. My father went to a doctor . . . who ordered good wine and roast beef, but he could not give us these remedies, and so my mother went out like a poor lamp without oil. My father placed me with a neighbour, and continued to work in the fields ill and tired as he was. Every night he came back weaker, and we tried to eat, but had no taste for anything. In the morning he hardly knew how to keep on his stilts. His nerves were so disordered and his head so weak, that sometimes when he wanted to go forward he took several steps backward. It was like a boat which glides down stream when the oars are no longer worked. I well knew that his courage was dead, and when he sat on the bench with his head between his hands I saw something dark in the depths of his eyes. But I did not know what to say to him by way of comfort, and I wept uselessly on his knees. At last he despaired more than is permitted to a man to do. The stress of his disease decided him to leave me alone in this world, and he forestalled the hour which, nevertheless, was not far off. I awoke as in the middle of a bad dream before his dead body, and for a moment I asked myself what was that phantom hanging from the beam of the roof? The neighbours rushed in on hearing my screams. I was taken away from the house and was very ill." How Pierre nursed the poor little thing back to health by good food and wine, which she often threw in his face, is charmingly told, but the reader may be referred to the original for it. It is sufficient to say that the text of the book is the unhealthiness of the Landes when they were undrained. Pierre says:

"Each time I heard news of any one's death I put it down to pellagra. When I met a funeral I took off my cap to the poor corpse and shook my fist at pellagra. I muttered between my teeth a proverb which says:

Tant que Lande sera lande,
La pellagre te demande.

I defied the hideous disease and wrestled with it in dreams. I felt myself strong enough to upset earth and heaven to drive it away from us. I said to myself, I will not count the cost, and if there is no other means of deliverance I will change the face of the country. The Lande will no longer be *lande*." In 1880 Emile Trélat, in speaking to the Société de Médecine Publique, said pellagra had disappeared from the Landes.

Till recently it was thought that the mystery of pellagra had been solved, and in an obituary notice of the late Professor Lombroso which appeared in the *Times*, his work in elucidating its etiology was trumpeted forth as a great discovery. Yet Creighton in the *Encyclopaedia Britannica* (1885) had called attention to the significant fact that "compared with the maize zone the area of pellagra is a mere spot on the map"; and its continued prevalence in Italy and other parts of Europe and its appearance in America have rudely borne in upon us the fact that we do not know much more about it than the doctors of Marinette's day. The problem has become one of practical importance for those in whose hands are the destinies of our colonies, and we hope the small sum needed for the investigation on foot will be forthcoming.

British Medical Journal.

SATURDAY, MARCH 19TH, 1910.

THE DOCTOR AS PATIENT.

THE doctor is proverbially a "bad patient." He is nervous, and almost always takes the gloomiest view of his own case. It is not that he has less fortitude than the average man, but that he has more knowledge. He can appreciate the significance of apparently trivial symptoms; he knows the possible developments and complications that may be lying in wait for him; he knows, too, better than any one else the limitations of the healing art. Of all these things the ordinary patient is in blissful ignorance, but the doctor broods over them, magnifying them out of all perspective—unless, indeed, his illness has reached that degree when merciful Nature laps the sufferer in an Elysium of indifference. The doctor when smitten with disease is at once sceptical and credulous; he is apt to be doubtful both as to diagnosis and treatment, and from the same cause unreasonably hopeful of benefit from remedies which he fancies more suitable to his case. He is often suspicious of the skill of the professional brother who ministers to him. This characteristic of the doctor as patient was well hit off by Du Maurier many years ago when he depicted a sick doctor as rejecting the suggestion of his anxious wife to call in such or such an oracle of science with the too frank admission, "We all go in for calling each other quacks now." We have known the last days of a poor young man dying of pyaemia embittered by his own baseless belief that he was suffering from acute rheumatism and was being wrongly treated. Yet the observation of the phenomena of disease in his own person by a skilled observer has necessarily a special value. We therefore call attention to a paper, published at page 682, in which Professor Wesley Mills of Montreal relates his own experiences as a patient. He summarizes his case, as follows: "A patient that had been previously very free from disease had for years shown some symptoms of enlarging prostate. He suffered from a bad bladder heredity, which explains the origin of the condition. After palliative treatment there was prostatectomy. Out of this and subsequent complications there arose a condition of things that resulted in the patient taking an anaesthetic three times; having to learn to walk afresh three times; submitting to unlimited catheterization by means of the three kinds of instruments; much irrigation for an infective cystitis; formation of a bladder abscess and fistula; and being confined to bed at different times for a period amounting in all to about four months—a vast experience full of new light on many things that it is hoped may be helpful to him in this state of existence and those subsequent ones in which he must now more than ever believe." It should be added that the operation was performed in England, where also the patient remained during the period of convalescence. Dr. Wesley Mills's experience of surgeons and nurses is, therefore, exceptionally large, extending as it did over a considerable time, but having been gained on both sides of the Atlantic.

From this experience he learnt many things. One of these is that pain—which is sometimes thoughtlessly said by people who try to administer spiritual comfort to a sufferer to have a purifying effect—is, when it passes beyond the degree when it serves as a warning, an unmitigated evil. It has been said that in order to realize the feelings of a patient a doctor should himself have suffered from the disease with which he has to deal. This is rather a hard saying, and, with regard to many conditions, it has no more truth than the famous parody, "Who drives fat oxen should himself be fat." Yet, as far as the sense of pain is concerned, the principle is undeniably sound. Professor Wesley Mills most truly says that "to him that has never felt real pain a description of a toothache is mere sound signifying nothing." In connexion with pain one is naturally led to speak of anaesthesia. Dr. Wesley Mills tells us that the first time he was anaesthetized in this country was a revelation to him. We are surprised to read his statement that much of the administration of anaesthetics on the American continent as compared with that in England, where it is carried out by professional experts, seems to him barbarous. His suggestion that students should be trained by such experts has long been acted upon in our hospitals. In connexion with anaesthesia he speaks of the sense of isolation and loneliness which comes over a patient recovering from the condition—a feeling which he thinks is but little known. We have sometimes seen the manifestation of it, however, and we particularly remember a man who on recovering consciousness after a severe operation clung to the surgeon's hand, exclaiming in piteous tones, "Oh, Mr. ——, I thought you had left me!"

Another thing on which Dr. Wesley Mills justly lays great stress is the manner of passing a catheter. He says brilliancy and rapidity in this manipulation are not to be encouraged. He describes in vivid terms the pain and disagreeable shock caused by the passage of a metallic catheter, and his experience has led him to the conclusion that the urethra is the most sensitive and most dangerous reflex tract in the whole body. He suggests, therefore, that every student should pass both a soft rubber and a metallic catheter on himself. We may mention that this was a point strongly insisted upon by Sir Henry Thompson, who used to say that there was no instrument in his armamentarium, including the sound and the largest-sized lithotrite, which he had not passed on himself. We remember how vigorously this teaching used to be denounced by a colleague of his, and we are disposed to regard it rather as a counsel of perfection than as an essential part of medical training. Dr. Wesley Mills gives a most thrilling description of shock. Pain, he says, one can to some extent describe, but shock is beyond words. He wishes that every member of the profession could have this experience for two minutes, as it would be invaluable to him, but he would not wish the worst human fiend the experience of two hours of shock. We commend this utterance of a man who knows by experience what he is talking about to the antivivisectionists who spare no term of abuse in denouncing the cruelty of the experiments of Dr. Crile, which had for their object the discovery of the nature of shock and the means of preventing this hideous form of suffering. Dr. Wesley Mills thinks that the concentrated wretchedness caused by shock is not realized by surgeons generally, or they would concern themselves more about the matter

In his own dark hour, when every one else about him failed, there came to him a ministering angel in the form of a young nurse in training, who, he says, "seemed to slowly draw me out of a hopeless slough of awful misery by methods of human sympathetic appeal that perhaps only a woman has at command."

This brings us to Dr. Wesley Mills's experience of nurses. In the course of a year he saw enough of about a hundred of them to give him ground for some strong convictions. He would rule out from the profession at least three classes of women—namely, those without that subtle but most vital quality, tact; those whose hands are incurably clumsy; and lastly, the amorous nurse, whom he describes as more or less dangerous for patients, students, and young doctors. He might have added that even elderly men are not always proof against the wiles of these Delilahs. It is gratifying to find Dr. Wesley Mills bearing witness to the professional efficiency and sympathetic attention to every detail bearing on the comfort and welfare of the patient, and also to the high degree of general culture of several of his London nurses. Dr. Wesley Mills's opinion that a medical man on starting on his career should not only know all a nurse does and a great deal more, but to be able to do all that she can do, is worthy of particular attention. On this point we are strongly in agreement with him. We have often had occasion to observe the ill results of a doctor's ignorance of the details of nursing. He ought at need to be able to change a draw sheet or give an enema. If he can carry out his own instructions he will be more implicitly obeyed by the nurse, just as a naval officer who can "haul, reef, or steer" has his men better in hand than one who has only the "bookish theorick." There is one London hospital where the need of such instruction for the medical student is fully realized, and it were to be wished that such instruction were universal—even if, as Dr. Wesley Mills suggests, the time needful for it were taken from that now given to anatomy, physiology, chemistry, and pathology.

There is much else in Dr. Wesley Mills's paper to which want of space prevents reference. The record of his personal experience is full of matter of the most instructive character for all practitioners of the healing art. As we have said before, whatever else a doctor may be wanting in—manners, general knowledge, and even special knowledge of his own craft—one quality he must have if he is to gain the confidence of the suffering man or woman: that is the power of sympathy. Some men can express this better than others, like the famous accoucheur of whom the Parisian lady said, "*Ce pauvre Dubois;* one would think he had had a baby himself!" But all must feel it in some measure if they are to be more than mere prescribers of pills or carvers of human flesh. An unsympathetic doctor is unfitted for the practice of a profession whose function is the relief of suffering. Sympathy will even give the hand of lesser experience the daintier sense. It will also give the power of unconscious suggestion, the effects of which Dr. Wesley Mills recognized in his own person. Perhaps the fruits of his experience cannot be better summed up than in his description of his ideal surgeon as "a man who, with all the general and special professional knowledge and skill of the day, illustrates, perhaps even more than the physician, that state of mind which results from contact with at least a little of every important department of culture; and who is possessed of that rarest and most valuable of all human gifts—the power to put one's self in another's place."

THE MEDICAL TREATMENT OF THE POOR.

BY his article on "The Medical Treatment of the Poor," published in the SUPPLEMENT this week, Dr. Cooper shows that he is to be added to the growing list of medical men who are convinced that the present form of contract medical practice is altogether unsatisfactory, and that the present time, when sickness and invalidity insurance seems about to be made compulsory, is the best opportunity for reform that has ever presented itself. It may be doubted whether the enormous number of persons to be dealt with under any Government scheme is fully realized. Mr. Asquith has estimated the total wages fund of the country at from 700 to 750 millions sterling a year, and there are about 13,000,000 wage earners. In Germany, which has a population of over 60,000,000 compared with our 43,000,000, persons insured under the three insurance schemes for sickness, old age and infirmity, and accident, benefited during the year 1902 to the extent of about 21 millions sterling; of this amount the State contributed in round numbers two millions sterling, employers ten millions, and the insured themselves nine millions, so that the insured received about twelve millions over and above their own contributions. In Germany the old-age pensions from the insurance only amount to about a million sterling, but in England the State itself already pays a sum estimated, for 1909, at $8\frac{3}{4}$ millions in old-age pensions; and we have the Workmen's Compensation Act for accidents. It may at once be granted that the sums allowed for invalidity pensions in Germany would not be thought adequate in England, and there is quite as much dissatisfaction among medical men in Germany with the remuneration they receive for their services under the insurance schemes as there is in England with the remuneration from the friendly societies' medical clubs. It is also necessary to point out that in Germany compulsory insurance only applies to certain classes, and only to those having a total income under (about) £100 a year, though the opinion has been expressed that this limit should be raised so as to include all receiving up to £150 a year. Persons earning more than this could hardly expect to receive anything from employers or from the State towards their insurance premiums. But, whatever limit is fixed, if insurance is made compulsory, there will probably be several million persons not now insured who will have to be insured for medical attendance, and the great question which the profession has now to consider is, How shall this medical attendance be provided?

First of all, it will never be satisfactory for a State insurance department to make any arrangement which would involve a continuance of the present club system on a vastly extended scale. Neither do we see any reason why the medical profession should allow any friendly or other society to come between the profession and the Government insurance department in respect of medical attendance. There would be the greatest objection to any scheme by which the Government practically drove millions of working men to join friendly society medical clubs, if it were left for the societies to arrange for medical attendance on the cheapest possible competitive terms, as is avowedly their policy at present.

Again, isolated local initiative with local combinations among medical men, such as that at Norwich, excellent though their local results may have been in some places, so far only touch the outer fringe of the business, and it is more than doubtful whether local initiative will be sufficient, and even whether local management would be effective in the greater part of the country, especially in the large towns. The apathy of most medical men is not only discouraging to those who appreciate the importance of preparing for action, but is a very real danger. A grumble at the British Medical Association is often the extent of their active interest, and even though a good scheme for a public medical service has been provided by the Central Council of the Association for adoption by any local Division which is active enough, there seems reason to fear that local enterprise is not sufficiently advanced to respond to the necessity that immediately faces us. The friendly societies are everywhere powerful, the medical profession is not; and if the terms were left to be arranged locally, there would be almost certainly places where the profession would get the worst of the bargain as it has in the past. The matter really has two sides; it is not only necessary to take measures to extend the control and influence of the profession over its own work, but to retain the limited amount of control and freedom it already possesses. Some great general scheme managed by the profession as a whole, or by some representative body of the profession covering the whole country and centrally organized, is required; and everything points to the British Medical Association as the only representative body.

Has the time come when the British Medical Association should approach the Government and offer to provide or to arrange for the provision of medical attendance for all persons compulsorily insured for sickness on terms to be arranged for the whole country between the Government department and the profession? The terms of any such offer would have to be very carefully considered, and it might perhaps be advisable to limit it to home and outpatients, with the proviso that satisfactory provision were made by the insurance department for suitable dispensaries, and either for proper co-ordination with existing charitable hospitals, or, failing that, the provision by the department of institutions for the use of the insured. Provision for medical attendance on midwifery cases ought certainly to be included, for in this way the difficulty now being experienced by the Local Government Board in inducing boards of guardians to listen to its appeals would be got over. By a proper adjustment of the proportions of the premium to be paid by the State and by parents, the impending difficulty about the medical treatment of school children might also be overcome. On the other hand, the treatment of paupers who themselves made no contribution to the insurance fund might be dealt with by the Poor Law department as now though on reformed lines, and such a scheme would not necessarily affect the present Poor Law medical service, except indirectly by reducing the number of those who quickly become wholly dependent on the rates when attacked by sickness; at the same time, the inclusion of paupers would not be precluded if it were deemed advisable, the State paying the premium. The British Medical Association could, of course, have nothing to do with the collection of the premiums, but while "sick pay" and infirmity annuities might be managed by the Government department, possibly through the friendly societies, medical attendance might be managed entirely by a special department centrally organized by the British Medical Association.

No better opportunity for inaugurating a centrally controlled medical attendance department under the auspices of the British Medical Association will ever again be offered. Through lack of a great association like our own, similar opportunity was entirely lost by the medical profession in Germany when compulsory insurance was first established. Everything was left to the local initiative of medical men, which largely failed, as there is fear it might fail in England. It is too soon to make suggestions as to fees, either as to their amount or the principles on which they should be paid, and it might not be essential to insist that the medical officers should necessarily be members of the British Medical Association, as the work would be done by the whole profession. The present haphazard work of ordinary sick clubs is wholly bad for the profession and always suspected by the public; to ensure the best possible medical attendance for the sick the work would have to be regularly inspected by inspectors of the Government Department and possibly by inspectors on behalf of the Association. The scheme is by no means the same as the provident dispensary scheme of the Majority Report of the Poor Law Commission. The principle of sickness and invalidity insurance agrees rather with the fundamental idea, claimed by the National Committee for the Break-up of the Poor Law as its own, that the best way of dealing with pauperism is by preventing it; but the insurance proposed aims at preventing it in a way that would not only lessen the poor rates but would have a far better moral influence—that is, by the timely assistance of self-providence. The British Medical Association has an opportunity of aiding in that good work not only with advantage to the profession, but we believe with the greatest advantage to the community. The Association would seek no monetary profit; it asks only that medical assistance for the working classes under any insurance scheme shall be put on business lines instead of on the half business and half sham philanthropic lines of the past.

THE MEDICAL PROFESSION IN SOUTH AFRICA.

A RECENT issue of the *Transvaal Medical Journal* throws a comprehensive light on the present position of the medical profession there, containing as it does an expression of view by that journal itself, a report of an address on the subject delivered by Sir Kendal Franks before the Cape of Good Hope Branch of the British Medical Association, and detailed accounts of meetings of some half-dozen official and unofficial medical bodies. Sir Kendal Franks held, and in a variety of ways, direct and inferential, showed, that at the beginning of the existence of a United South Africa the medical profession in that country finds itself in a condition, socially, ethically, and politically, not only far below its deserts, but below that which is its lot in other countries. For some of these drawbacks the speaker blamed the medical profession itself, but he blamed still more the lack of any means by which it can rid itself of its black sheep, and also the general attitude of other classes towards it, and, among authorities, that of the Colonial Secretary for the Transvaal, General Smuts. It would seem that he is practically the ruler of the profession and its work in that colony, for the post of chief medical officer has been abolished, and, though there is still a Medical Adviser, the Colonial Secretary is not obliged to

consult him. The truth of the views expressed by Sir Kendal Franks is confirmed by some even more outspoken remarks made at the dinner of the Transvaal Medical Society by Dr. W. T. F. Davies, President of the Transvaal Medical Council, in the presence of Lord Selborne and of several of his principal Ministers. On the whole, therefore, it seems reasonable to conclude that, whatever its origin and motive, the Colonial Secretary's attitude towards the medical profession is calculated to be detrimental to its well-being and influence. Among the specific instances quoted by Sir Kendal Franks is his treatment of the medical men forming the honorary medical staff of the Johannesburg General Hospital. He has deprived them even of the advisory voice in the management of its affairs which they formerly possessed. This is a retrograde step as gauged by current opinion elsewhere based on infinitely greater experience in the matter than General Smuts can possess. In this country in particular an increasing degree of influence in the control of hospitals is being yearly accorded to members of the medical profession, and, as is admitted on all hands, with great advantage. A letter referring to Johannesburg General Hospital, published by the superintendent on the instruction of the Colonial Secretary, the actual writer being his assistant, appeared in the *Transvaal Leader* on January 13th this year. It was originally addressed to the chairman of the committee of the hospital, and gives that body instructions to the effect that it must reduce its charges to paying patients, and discourage such paying patients from exercising their right of being treated by their own medical attendants. The avowed object is to make medical treatment in hospital so cheap that the applications for admission to free beds may be reduced to a minimum. In other words, the object is to make the hospital a financial success at the expense of the medical profession. Apart from the coolness of this proposition itself, the whole tone of the letter is one to which the medical profession has a right to take exception. No public authority is justified in writing as if the views of medical men concerned were of no importance. Fortunately in the other South African colonies there would not seem to be any one in high office holding views analogous to those of General Smuts. But nevertheless, in these too the position of the medical profession would seem to stand greatly in need of improvement. Frank recognition of this is desirable, for there could be no more favourable moment for the introduction of a better state of things than that offered by the fusion of the South African colonies. The highest development of the country will be seriously retarded if there is any failure on the part either of the central or divisional governments to recognize to the full the extreme importance to the public weal of securing for the medical profession a position really in keeping with the benefit which it can confer on the body politic, and with the assistance which it can offer in the satisfactory administration of public affairs. Taking the civilized world as a whole, it may be said that Governments show an increasing desire to give practical effect to the old saying, *Salus populi suprema lex*, and the only drawback is that there is some tendency to forget that hygienic golden eggs cannot be hatched unless the bird which lays them is adequately nourished. The task of preventing this foolish oversight has been undertaken in this country by the British Medical Association, and its experiences prove that it is only by the medical profession sinking minor differences, for the sake of presenting to the public and to the Government a united front, and bringing to bear the whole weight of its influence at any desired time and at any desired place, that success can be achieved. By working on similar lines the medical profession in South Africa can achieve its own salvation and that of the public simultaneously.

WHO SHOULD PAY?

THE practitioner who would fain recover fees by suit at law is sometimes troubled at the outset by the question: Against whom must I bring the action? In the case of a regular patient the question does not arise, but where the doctor is called in suddenly on an emergency the zeal of the person who rushes off for medical aid is only equalled by his reluctance to pay fees when the time for payment arrives. Small wonder that the question, Whom shall I sue? is difficult to answer. The decided cases on the subject are few and far between. It is really a question of agency. One who is suddenly taken ill is often incapable of summoning medical aid. Another person has to act for him; but the mere fact that a practitioner attends a patient does not entitle him to sue that patient for fees. Failing the patient, who may take this technical point, the unfortunate practitioner is constrained to sue the person by whom he was actually summoned, and he may be "a man of straw"! Would that our courts might adopt the excellent principle recently laid down in France by the Seventh Chamber of the Tribunal of the Seine! It was there decided that if a doctor's fees are not paid by an invalid who is staying away from home, in lodgings, at a hotel, or under the hospitable roof of a friend, those fees may be recovered from the landlord or the host, as the case may be. Consequent upon this decision, *Le Matin* gives the following advice to its readers: "When you wish to invite a friend to stay with you, in the town or in the country, take care to satisfy yourself on two points: (1) Has he good health? (2) Is he in the habit of paying his doctor?" The sprightly journal goes on to point out that if this decision is not upset on appeal, the master of a household who is not satisfied as to the solvency of a guest who is taken ill at table, will suddenly say to his servants: "*Monsieur manque d'air . . . Transportez-le vivement sur un banc du square voisin!*" In other words, it will be necessary to disown your guest in France if you desire to avoid payment of his doctor's fees. The judgement (to take it seriously for a moment) is probably based on some interpretation of the *Code Napoleon*. The French point with satisfaction to this code, and say: "There is the law of France!" Yet it does not provide for everything, and the French Courts frequently have to interpret it. They found their judgements upon it, and these judgements constitute the case law of France. But the curious thing is that interpretation of the code by one judge does not bind any other judge. His opinion is like the *obiter dictum* of an English judge, which (as Mr. Birrell wrote) "is an individual impertinence which bindeth none, least of all the lips of him that utters it." The profession of medicine in France will not therefore be unduly elated, but we have not even so much as an *obiter dictum* to comfort the English practitioner, who is sent from pillar to post when trying to ascertain whom to sue. If called in suddenly by a stranger his only course is to seek payment in advance. This method, however distasteful and inconvenient, is sometimes effective for reasons which are not immediately apparent. We recall the case of an Irish doctor who had so often been "done" that he decided to venture forth no more without his fee in advance. One night a man came from a distance to get the doctor to see his wife. "I must have £2 2s. first," said the doctor from his bedroom window. He then overheard a

colloquy beneath his window: "Ye'd better pay him, Barney," was the advice of a friend to the afflicted husband; "sure the wake and the funeral would cost ye more than that."

"THE CRUSADE AGAINST DESTITUTION."

THE National Committee for the Break-up of the Poor Law now numbers, it is stated, something over 20,000 members, and the latest sign of its activity is the issue of a new penny monthly journal, *The Crusade*, the professed object of which is to promulgate the proposals of the Minority Report of the Poor Law Commission. In the opening article of the first number, published in February, among other reasons given for the "addition of a new journal to the already overburdened list of periodicals," it is stated that the movement "has no party ties, and cannot rely on the steady and consistent support either of party organizations or of the party press." The scope and purpose of the journal may be gathered from the titles of some of the articles which appear in the first two numbers: Mr. Sidney Webb gives "Reasons why there must be a national authority for the able-bodied unemployed," Mrs. Webb contributes a paper on "The workhouse cradle and who rocks it," and there are two articles on the new Labour Exchanges. In the first issue an attempt is made to gauge the opinions for or against the Minority Report of candidates at the General Election, from which it appears that down to the time of publication the Committee had received 268 replies in favour of the Minority and 33 in favour of the Majority Report, though it is admitted that those in favour of the Minority would be more likely to reply to the inquiries than those opposed to it. In the March number it is noted that Sir Robert Price has been fortunate in obtaining the first place in the ballot for private members' bills, and intends to introduce a "Break-up Bill," though it is not expected that there will be any opportunity for carrying it this year. The same number opens with a not altogether correct representation of the new "National Poor Law Reform Association," formed under the presidency of Lord George Hamilton. It seems to be taken for granted that the Majority Commissioners are prepared to let the Majority Report die. The fact is rather that it is seen that the essential principles of the Majority Report, which are absolutely opposed to those of the Minority, can quite as well be attained in several ways, and it is the principle rather than the machinery that is defended. The Minority Report depends very largely, if not altogether, on its machinery. The journal is supplied free to all members of the National Committee who subscribe 5s. or upwards, or it may be obtained for the special subscription of 1s. 6d. a year.

THE INTERNATIONAL HYGIENE EXHIBITION, DRESDEN, 1911.

A PRELIMINARY meeting was held on March 11th, at the Cecil Hotel, London, for the purpose of forming a British Executive Committee for the International Hygiene Exhibition, which is to be held next year in Dresden. Professor Pannwitz, of Charlottenburg, who is representing the Scientific Department of the Exhibition in Germany, delivered an address with the object of enlisting the interest, sympathy, and co-operation of British hygienists in the venture. After referring to the part which Great Britain and Ireland had played in hygiene, he sketched the history of the undertaking, and pointed out that as Gladstone has said that sanitary teaching is of more importance than the passing of sanitary laws, the German exhibition would attempt to supply this teaching by practical demonstration, and so set people thinking about the subject. He urged those present to take up the work with energy, and suggested that a British executive committee and a British honorary committee should be formed, and should be in regular communication with the Dresden committees. The speech was warmly applauded by an audience which included the Naval Director-General (Dr. Porter), Sir William Church, Sir William Leishman, Dr. Whitelegge (Home Office), Miss Anderson (Chief Inspector of Factories), Dr. Theodore Williams, and Dr. Bashford. Mr. H. W. Armit, who acted as secretary to the meeting, explained what had been done in this country to attempt to secure the co-operation of hygienists, and made allusion to the fact that, after the various Governmental Departments had been privately approached, both by Professor Pannwitz and by himself, the German Government was issuing a formal invitation to the British Government through the usual diplomatic channels to take an active part in the forthcoming exhibition. He further reported that the public offices, universities, and public institutions had already expressed sympathy with the project and had promised assistance. The Naval Director-General expressed his own approval of the manner in which the first steps were being taken, and Dr. Whitelegge asked a number of important questions as to the methods of procedure and limitations of the exhibition. Dr. Bashford and others also made remarks, and Mr. Armit, at Professor Pannwitz's request, replied. Professor Pannwitz then apologized for the extremely short notice which had been given of the meeting, and announced that he would wish to attend a larger meeting in the course of about four weeks, when he would have returned from Teneriffe whither he was conducting an international expedition to study the effect of high altitude and solar radiation on biological processes. Mr. Armit then proposed that the members present should constitute themselves the nucleus of the British Executive Committee, and that the committee should open an office at which the business of the undertaking could be carried out. He further proposed that the formation of the full committee and of the honorary committee should be deferred until the British Government had received, and replied to, the invitation of the German Government. This was seconded by Dr. Theodore Williams, and carried. The meeting broke up after Dr. Theodore Williams had proposed a hearty vote of thanks to Professor Pannwitz. It is understood that Mr. Armit will act as the organizer of the scientific department and Mr. A. H. Sigle as the business manager in the offices of the British Executive Committee.

THE AUSTRALIAN INSTITUTE OF TROPICAL MEDICINE.

AN important stage in the organization of the Australian Institute of Tropical Medicine has been reached, as Dr. Breinl, of the Liverpool School of Tropical Medicine, who was selected for the post of director by a committee consisting of representatives of the Royal Society and the London and Liverpool Schools of Tropical Medicine, arrived at Townsville early in January. The institute is under the general control of a committee appointed by the Universities of Sydney, Melbourne, Adelaide, and the Government of Queensland, and the director's first task will be to organize the institute, which will at first be conducted in an isolated building in the grounds of the Townsville General Hospital. The committee of that hospital has further undertaken to maintain in the wards of the hospital free of charge patients under special observation, and to give the director of the institute every facility for clinical investigation. His main duty will be to conduct

inquiries into the tropical diseases of Australia, to give instruction in tropical diseases, and to superintend research work undertaken in the laboratories. Dr. Breinl was entertained at dinner in Townsville on January 5th, when the chair was taken by Dr. Frodsham, Bishop of North Queensland, who, Dr. Ahearne said in proposing the toast of his health, had been largely instrumental in bringing the tropical institute to its present stage. In proposing Dr. Breinl's health, the bishop said that he looked forward to the time when there would be fine buildings—a second Lister Institute—in Townsville, but the institute already possessed an instrument without which the noblest building would be an empty shell: that was a man capable of directing its operations. He looked forward to a time when the best medical students of the Australian universities would go to the Institute of Townsville for courses of study in tropical medicine, and anticipated a large increase of scientific knowledge, a great alleviation of human suffering, and the better colonization of tropical Australia. To paraphrase the words of a great Frenchman, if the Australian tropics were to be colonized the conditions of life must be made as healthy as possible. There were medical men in North Australia who had already learnt by experience so much about tropical diseases that they desired to know more, and the motto of the institute would be co-operation, and its aim the advancement of medical knowledge. He had himself worked for the realization of the institute for four years, and at first found little support except from Dr. Gordon Ross and Mr. G. H. Pritchard; interest in the project gradually increased, but it would never have been realized without the assistance of Lord Chelmsford, Sir Charles Lucas, and their great benefactor, Mr. D'Arcy of Rockhampton. Dr. Breinl in his reply said that he had promises of support from the Australian universities, the State and Federal Governments, and of everybody in Townsville, especially the authorities of the Townsville Hospital; he could not be grateful enough to Dr. Ross in particular for the kind way in which he had placed everything at his disposal. He was prepared to give enthusiasm and hard work, but the success of the institute most depended upon the collaboration of the medical profession in making it a centre of research.

DR. HYSLOP OF PIETERMARITZBURG.

DR. HYSLOP, director of the Government Lunatic Asylum, Pietermaritzburg, Natal, was presented last month with his portrait by a number of friends as a mark of their appreciation of his services in many capacities to the colony. The presentation was made by the Chief Justice, Sir Henry Bale, who said that he had never been called upon to perform a more pleasing duty, because during the twenty-seven years he had known Dr. Hyslop his influence had ever been uplifting and stimulating. The medical department owed its success largely to him, and Dr. Hyslop had gained the esteem of the members of his own profession, for they had appointed him time and again to the highest offices which it was in their power to bestow. As a volunteer militia officer also Dr. Hyslop had done work which had won for him distinction from his Sovereign and and an abiding place in the memories of colonists. Dr. Hyslop, in expressing his thanks, said that all through his career in Natal he had received the most loyal help, and the same was true of the work he did during the Boer war, because he was fortunate during that time in securing the assistance in the field of some of the best men. Dr. Hyslop, who graduated M.B., B.Ch., at Edinburgh in 1879, was appointed to his present office in 1882. He has been President of the Natal Branch of the British Medical Association, and he has served as delegate to the annual meetings of the Association on numerous occasions. He is President of the Natal Medical Council, and has been President of the South African Association for the Advancement of Science, and of the South African Medical Congress. He is a member, and was at one time chairman, of the Health Board, and is a member also of the Pharmacy Board. He has served for twenty-eight years in the Natal militia, and is now Lieutenant-Colonel on the staff and P.M.O. He was P.M.O. of the Natal volunteers during the South African war, 1899–1901; was present in Ladysmith during the siege; and was twice mentioned in dispatches. He was also P.M.O. of the forces during the Natal native rebellion in 1906. The portrait, which was painted by Mr. Fiddes Watt, of Edinburgh, represents Dr. Hyslop in his uniform as colonel of militia, and Mr. R. D. Clark, chairman of the committee which organized the testimonial, stated that the portrait would not only be a lifelike reminder of Dr. Hyslop to his friends, but would be a valuable addition to the art gallery of the city.

THE MEDICAL BENEVOLENT FUND GUILD.

THE British Medical Benevolent Fund Guild, founded some four months ago to help the British Medical Benevolent Fund by making its objects better known, and by assisting distressed members of the medical profession, their wives, widows, and families who are beneficiaries of the Fund. It seeks, by personal sympathy and help, to get into touch with all the sorrow and trouble of this class, which can only suffer in silence. Its keynote is personal service, and among the cases with which its Associates have to deal are many to whom the gift of clothes would be as good as money, leaving the recipients free to use the dole of 5s. a week for board and lodging only. The Council of the Guild therefore appeals for gifts of clothing, especially, we are told, for women's clothing. Parcels may be addressed care of Miss Ruth West, 11, Chandos Street, Cavendish Square, London, W., and the name and address of the donor should be enclosed, so that an acknowledgement may be sent. The Guild also wants men's clothes, especially morning coats, and those of our readers who have garments which, though serviceable, have, for some reason, lost favour with them, could not dispose of them better than by sending them to the Guild. The Guild is also glad to have other gifts in kind, including books and magazines, coal tickets, and so on. It asks also for convalescent letters, and, it need hardly be said, will gratefully receive donations in money. The ladies who comprise it consist of Members who contribute not less than 10s. 6d. annually, and Associates who, while contributing not less than 2s. 6d. annually, are willing to take an active part in the work of the Guild. A leaflet, giving further particulars, can be obtained on application to the Honorary Secretary, British Medical Benevolent Fund Guild, 100, Harley Street, London, W.

INTERNATIONAL EXPEDITION TO TENERIFFE.

SOME time ago an International Commission for the study of the effect of high altitude and solar radiation on medical and biological conditions was constituted, and Professor Pannwitz of Charlottenburg was appointed President. This commission has sought for some suitable place where the investigations entrusted to it could be satisfactorily carried out, and some little time ago the Peak of Teneriffe was selected. In view of the favourable conditions obtaining in the Canary Islands, and especially at the spot chosen, it was felt that it would be wise to study meteorological and astronomical as well as biological and medical problems. Geh. Rat Professor

Dr. Hergesell, the President of the International Commission for scientific aërology gladly joined in the project, and when the observatory on the Peak of Teneriffe was opened, the German Emperor presented the commission with a transportable house, in which the scientists engaged in the work could live. On Sunday last Professor Pannwitz started from Southampton with the members of the expedition, including Professor Barcroft and Dr. Douglas of Cambridge, Geh. Rat Professor Zuntz of Berlin, and Dr. Neuberg, Dr. J. Mascat, the astronomer and colleague of M. Flammarion of Paris; Dr. Plasse (France), and Professor During and Professor H. von Schrötter of Austria. The programme includes the study of the effect of solar radiation (heliotherapy) in the treatment of pathological conditions; the continuation of the researches on biological processes at high altitudes, commenced by Professor Zuntz on Mont Rosa; and further observation of Halley's comet. A certain amount of preliminary work in meteorology has already been undertaken by Professor Hergesell and his assistants, and in this work the Prince of Monaco has materially assisted by lending his yacht, and by supporting the observatory in many ways. The Peak of Teneriffe offers special advantages for astronomical observations, and the German Emperor has evinced much interest in this aspect of the undertaking. The extraordinarily clear atmosphere at the Peak, which is situated well above the cloud line and stands some 7,000 feet above the sea, renders the observatory a very suitable place for studying the comet. The Spanish Government has shown its interest by undertaking to extend the observatory, and has already provided it with telegraphic communication.

THE "BROWN DOG" IN CHANCERY.

THE friends of the "Brown Dog" are denouncing his removal as an outrage to their tender feelings. An application was made to the Court of Chancery for an injunction against the Battersea Borough Council. But in the meantime the Dog was, to use the expression of one sympathetic paper, "abducted." The Court had to recognize the *fait accompli*, but an action for the restoration of the monument which has cost the sentimental people of Battersea so much is threatened. We should think the "Dog" must be a nuisance to them; but some of his friends evidently see in him possibilities of political capital. The *Star* announced his removal on a poster which could scarcely have been more thrilling if it had recorded the doom of the House of Lords, and made the event a pretext for an attack on the Moderates, who, according to a headline, "hastily get rid of accusing monument." An "accusing monument" it certainly is; it is not, however, the Moderates whom it accuses, but the antivivisection fanatics who put it up and seek to perpetuate a foul slander, of which the people on whom they are striving to thrust it back have become heartily ashamed. We note with amusement that the Swedish lady, Miss Lind-af-Hageby, who is good enough to try to develop the humanitarian sentiment of the British people—with the aid of "chuckers out"—has written to complain that the Battersea Borough Council has shown "the fear of publicity which is characteristic of the defenders of vivisection." We should have thought that the writer of the *Shambles of Science* had had publicity enough to make her wish to retire into private life for the rest of her days.

BRITISH PRACTITIONERS ABROAD.

THE General Medical Council has issued a useful pamphlet, entitled, *A Report as to the Conditions under which Medical and Dental Practitioners Registered or Legally Qualified in their own Country may Practise Abroad.* The information includes particulars as to the regulations in force in the dominions and colonies of the British Empire. The report has been carefully prepared, under the supervision of the Registrar, by Mr. King, a member of the Council's staff, from information in the possession of the Council, supplemented by particulars furnished by many of His Majesty's representatives and other officials in various parts of the world. The report has an index, and is prefaced by a list of the questions to which answers are usually required. In the paragraphs on the several countries the particulars are given under the reference numbers attached to the questions. In every case the address of the official to whom requests for further information should be sent is stated, and the preface points out that as the requirements of various countries are liable to change, it will always be advisable for a British practitioner who thinks of settling abroad to write, before leaving home, to the official mentioned for the necessary information and latest details. In this way trouble and disappointment on arrival will be avoided. The preface further states that while every effort has been made to ensure correctness, the information contained in the pamphlet must not be regarded as official. So far as we have been able to test it, the information is in accordance with that in our possession at the present time. The pamphlet is published by Messrs. Spottiswoode and Co., and can be obtained through any bookseller, price 1s.

THE SECTION OF NAVY, ARMY, AND AMBULANCE.

THE programme of the business of the twenty-one sections of the Annual Meeting of the British Medical Association in London this year is published with certain revisions and additions in the SUPPLEMENT of this week. Of the additions, the most important is that which enumerates the subjects suggested for discussion by the committee of the Section of Navy, Army, and Ambulance. As will be seen, some of the subjects are of interest to all military medical officers, others concern more especially those in the Royal Navy Medical Service, those in the Royal Army Medical Corps, or those in the Royal Army Medical Corps (Territorial). It will also be observed that there are three secretaries, one representing each service, and it is requested that members who desire to contribute to the discussions should communicate with that one of the honorary secretaries who represents the service with regard to which the member proposes to make a contribution.

THE Oliver-Sharpey lectures before the Royal College of Physicians of London will be delivered by Dr. F. W. Mott, F.R.S., on April 22nd and April 29th, at 5 p.m., the subject selected being the cerebro-spinal fluid.

SIR ALFRED KEOGH, K.C.B., who retired recently from the post of Director-General of the Army Medical Service, which he had held since 1905, has been appointed Rector of the Imperial College of Science and Technology. The Imperial College was incorporated under Royal charter on July 8th, 1907, to carry on the work of the Royal College of Science and the Royal School of Mines, and, under the conditions of the charter, the Central Technical College of the City and Guilds of London Institute has become an integral part of the Imperial College, under the title of City and Guilds College. The Imperial College so constituted was admitted a school of the University of London in the faculties of science and engineering in July, 1908. In the buildings of the college at South Kensington some of the sections of the approaching meeting of the British Medical Association will be held.

Medical Notes in Parliament.

[From Our Lobby Correspondent.]

Medical Inspection by Public Vaccinators.—Last week Mr. Ramsay Macdonald asked the President of the Board of Education if sixty-three public vaccinators had been appointed as medical inspectors for elementary schools under the Education (Administrative Provisions) Act by local education authorities; whether the Board agreed that these two offices should be held by the same person; and whether any communication to that effect had been made to local education authorities. Mr. Runciman said that the answer to the first part of the question was, so far as the information of the Board went, in the affirmative. He thought that the second part of the question referred to the Local Government Board, who prescribed the qualifications of public vaccinators, and this part of the question should be addressed to the President of that Board. With reference to the third part of the question, it was the practice of the Board, when it found a reference to vaccination in the schedule of medical inspection adopted by a local education authority, to remind the authority that care must be exercised on this point, and that the information obtained by medical inspection should in no case be used as the basis for action under the Vaccination Acts. He might add that the Board of Education was not in a position to require of local education authorities that members of their medical staffs should refrain from holding other public appointments.

Defective Teeth (Children).—In reply to Mr. Charles Bathurst, Mr. Runciman said that a summary of the information at the disposal of the Board on the subject of the condition of the teeth of those children in public elementary schools who were medically examined in the year 1908 would be found in the recently issued report of the Board's chief medical officer, pages 53 to 57. The report showed that the number of children with defective teeth was considerable, but the information at present at the disposal of the Board was not sufficient to enable it to form a precise estimate of the percentage of children in public elementary schools who were suffering from defective teeth. He was not aware that any medical officers had been so rash as to attribute the defects in children's teeth solely to the consumption of any one particular article of food, such as white bread made of flour from which the germ had been mechanically extracted. Asked as to making inquiry into the cause, Mr. Runciman said that he was afraid this defect was not peculiar to children in elementary schools alone. An inquiry could not be started until the whole of their information on medical inspection had covered the ground. To institute the inquiry suggested would be carrying medical inspection much further than was contemplated by the Act, but it was not outside the bounds of possibility.

The Medical Inspection of School Children was raised in a general question by Mr. France, and Mr. Runciman said that the reports received from local education authorities relating to the work of medical inspection during the year 1908 were reviewed in the annual report of the chief medical officer of the Board for that year, which was issued last January. A few reports had been received in respect of the year 1909, and these would in due course be reviewed in the next annual report of the chief medical officer. The Board had reason to believe that satifactory progress was being made, but he was not in a position to make any statement as to the results of medical inspection beyond that which was contained in the report. As to the action of the local authorities, he said that his information was that all the local education authorities were already fulfilling their duties under the Act, or taking such preliminary steps as would enable them to fulfil them at the earliest possible moment.

Inspector of Medical Services.—Lord Claud Hamilton asked what were the special circumstances which called for the creation of the appointment of Inspector of Medical Services; and what were the particular duties performed by this officer which were not already performed, and had been in the past, by administrative army medical officers of divisions and districts. Mr. Haldane replied that the appointment of Inspector of Medical Services was made on the recommendation of the Inspector-General of the Forces with a view to placing the medical services in line with the other arms of the service in regard to independent inspection. The special duties of the Inspector were to report to the Army Council as to the manner in which the sanitary and administrative work of the army was being carried out and to assist in co-ordinating methods of medical inspection. These duties were fully set forth in paragraph 26, King's Regulations.

X-rays Injuries.—Mr. Bottomley asked the Prime Minister on Monday whether he would consider the advisability of granting a pension on the Civil List to Mr. Cox, who had suffered from his studies in the use of the *x* rays, and had recently had an arm amputated. Mr. Asquith said that a substantial grant from the Royal Bounty Fund was awarded last April, but he would give the most sympathetic consideration to any further representations.

Administrative Medical Officers.—On Monday last Captain Faber asked the Secretary of State for War if he would state whether administrative medical officers would receive any remuneration other than their fifteen days' training pay, seeing that all officers appointed to head quarters except these officers received £150 a year. Mr. Secretary Haldane replied that these officers received no other remuneration than their pay for training; they had a staff officer in receipt of £100 a year. In one or two cases where there was a vacancy for a staff officer they were allowed £80 a year during the vacancy. It was a mistake to suppose that all officers appointed to head quarters except these received £150 a year.

Anthrax Infection.—On Tuesday Mr. Haddock asked the Parliamentary Secretary to the Board of Agriculture whether his attention had been called to the infection of anthrax being conveyed through insufficient disinfection of the holds of vessels and wagons which had carried hides, horns, etc., previous to carrying feeding stuffs and fertilizers; and whether he could take steps to prevent such causes of infection. Sir Edward Strachey replied that he was aware of the possible danger of infection in the manner referred to, and he had issued a notice to shipowners on the subject.

The Public Health (Scotland) Act (1897) Extension Bill—"to extend the powers and provisions of the Public Health (Scotland) Act, 1897, with respect to the construction and carrying of sewers to water mains and pipes of statutory trustees and commissioners of water undertakings"—was presented last week by Sir James Gibson and supported by Mr. Clyde, Mr. George Younger, Mr. Cleland, Mr. Murray Macdonald, and Mr. Barnes.

INSURANCE AGAINST UNEMPLOYMENT.

The *Daily Telegraph* states that the Government's promised scheme of insurance against unemployment will be introduced by the President of the Board of Trade, Mr. Sydney Buxton, in the House of Commons before Easter. The chief points in the scheme are, it is stated: 1. Both workpeople and employers will contribute. 2. Their contributions will be supplemented by a substantial subvention from the State. 3. The system will be one of insurance by trades. 4. Within the specified trades, the system will be compulsory upon all, unionists and non-unionists, skilled and unskilled, workmen and employers alike. The scheme will apply to the following trades: (1) House building and works of construction, (2) engineering, (3) machine and tool making, (4) ship and boat building, (5) vehicles, and (6) sawyers, and will include general labourers working at

these trades, which have been chosen for the first application of insurance as a group in which unemployment is regular and persistent; they are believed to cover half of the field of unemployment. When a worker loses employment he will take his card to the nearest Labour Exchange, which, in conjunction with the State insurance office, will be responsible for finding him a job or paying him the benefit, which will be somewhat lower than that which the trade unions pay. There will be a weekly payment for the period of unemployment, and the benefits will require between 5d. and 6d. a man to be raised weekly.

Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

THE LATE PROFESSOR ALEC FRASER.

OWING to the untimely death of Professor Alec Fraser, his widow has been left in very straitened circumstances. To help her a subscription list has been opened, and the following have either promised or sent in the amounts opposite to their names. Those who have promised and those intending to subscribe should forward their subscriptions without delay to the honorary treasurer of the fund, Dr. William Taylor, 47, Fitzwilliam Square West, Dublin.

	£	s.	d.
John Lentaigne, President, R.C.S.	10	10	0
Robert H. Woods, Vice-President, R.C.S. ...	10	10	0
Sir C. A. Cameron, C.B., Secretary, R.C.S. ...	10	10	0
Sir Thomas Myles, F.R.C.S.	10	10	0
Sir Charles B. Ball, F.R.C.S.	10	10	0
John B. Story, F.R.C.S.	10	10	0
Henry G. Sherlock, F.R.C.S.	10	10	0
William Taylor, F.R.C.S.	10	10	0
Sir Henry R. Swanzy, F.R.C.S.	10	10	0
Sir Arthur Chance, F.R.C.S.	10	10	0
R. Charles B. Maunsell, F.R.C.S.	10	10	0
T. E. Gordon, F.R.C.S.	10	10	0
Edward H. Taylor, F.R.C.S.	10	10	0
R. Lane Joynt, F.R.C.S.	5	5	0
Sir Lambert Ormsby, F.R.C.S.	5	5	0
R. Bolton M'Causland, F.R.C.S.	3	3	0
W. I. Wheeler, F.R.C.S.	3	3	0
D. Edgar Flinn, F.R.C.S.	3	3	0
G. Jameson Johnston, F.R.C.S.	3	3	0
Sir W. Thornley Stoker, F.R.C.S.	10	10	0
A. Francis Dixon, M.D., D.Sc.	10	10	0
S. Horace Law, F.R.C.S.	5	5	0
D. Kennedy, F.R.C.S.	5	5	0
Professor Windle, M.D., F.R.S.	5	5	0
His Honour Judge Shaw	5	5	0
Professor Arthur H. White	4	4	0
Henry Stokes, F.R.C.S.	4	4	0
L. G. Gunn, F.R.C.S.	3	3	0
P. W. Maxwell, F.R.C.S.	3	3	0
David Turner, F.R.C.S.	3	3	0
C. A. K. Ball, F.R.C.S.	3	3	0
Trevor N. Smith, F.R.C.S.	2	2	0
R. R. Leeper, F.R.C.S.	2	2	0
Seton Pringle, F.R.C.S.	2	2	0
A. W. W. Baker, F.R.C.S.	2	2	0
Henry W. Oulton, F.R.C.S.	2	2	0
A. J. Smith, F.R.C.S.	2	2	0
George Sheppard, F.R.C.S.	2	2	0
Arthur H. Benson, F.R.C.S.	2	2	0
W. J. Hepburn, F.R.C.S.Edin.	2	2	0
H. R. C. Rutherford, F.R.C.S.	1	1	0
J. M. Redington, F.R.C.S.	1	1	0
W. L. Murphy, F.R.C.S.	1	1	0
Dr. G. C. Sneyd	1	1	0
D. N. Morgan, F.R.C.S.	1	1	0
C. M. Benson, F.R.C.S.	1	1	0
W. M. Courtenay, M.D.	1	1	0
Charles Greer, F.R.C.S.	1	1	0
Dr. C. B. Pasley	1	0	0
Mrs. Gleeson	1	0	0
Miss Gleeson	0	10	0
Students R.C.S.I., per T. M. Thomson, Esq. ...	11	4	4
Total	263	12	4

DUBLIN UNIVERSITY BIOLOGICAL ASSOCIATION.

The annual dinner of the Dublin University Biological Association was held at the Dolphin Hotel on March 12th. After the toast of "The King" had been suitably honoured, Professor Geddes proposed the toast of "Dublin University," which was responded to by the Provost, who in an interesting speech sketched the political history of Trinity College during the last thirty-five years, and gave some personal reminiscences of the various crises the college has passed through. The toasts of "The Guests," "Dublin University Biological Association," and "The President" were then successively proposed and replied to, and the dinner finally terminated with "Auld Lang Syne." During the evening several songs and recitations were contributed by various members and guests.

BRITISH MEDICAL TEMPERANCE ASSOCIATION.

At a conversazione given by the President and Council of the Dublin branch of this association last week at the X. L. Café, Professor Carpenter delivered a lecture on alcohol and human life. Amongst the numerous facts to which he called attention one of the most interesting was that the lumbermen in Canada, when experiencing extreme cold, break open their stores of whisky and throw away the supply lest they should give way to the temptation to drink it, knowing from experience that the effect would be to reduce the temperature of the body. At the same meeting, the Honorary Secretary of the association deplored the fact that there were only twenty Dublin members out of a total membership of 7,000 throughout the United Kingdom, and expressed the hope that one of the results of the meeting would be a rapid increase in the numbers of the Dublin branch.

FEES OF DISPENSARY MEDICAL OFFICERS' SUBSTITUTES.

A case of some interest to dispensary medical officers was lately heard before Judge Moore at the Quarter Sessions, Tipperary. The plaintiff, Dr. O'Ryan, sued the board of guardians for the full sum of £16 16s., for acting as substitute for Dr. O'Callaghan, the dispensary medical officer. Dr. O'Ryan had been appointed substitute for four weeks, at a salary of four guineas a week, but during his period as locumtenent he fell ill, and Dr. Moloney was then appointed in his place for a period of five days, at a salary of a guinea a day, which the guardians decreed was to be deducted from Dr. O'Ryan's remuneration. The case turned on the question whether a substitute for a dispensary doctor is entitled to the same privileges as the dispensary doctor himself, inasmuch as the board of guardians is legally liable for the payment of a substitute in the case of illness of a dispensary doctor. The judge reserved his decision until the next day, and then gave a decree in favour of the plaintiff for the full sum of £16 16s. It is stated that the guardians intend to appeal.

MEDICAL SUPERINTENDENT'S RESIGNATION.

At the last monthly meeting of the board of the Monaghan and Cavan Asylum an application was read from Dr. R. L. Donaldson, resident medical superintendent, asking to be superannuated after a service of twenty-five years in the institution. About twelve months ago Dr. Donaldson was attacked by a patient, and as a result of the injury he then received in the back, he has since been incapacitated from discharging his duties. A resolution of sympathy with Dr. and Mrs. Donaldson in his continued serious illness was passed, and the full allowance of £400 a year was granted.

AWARD FOR BRAVERY.

At a recent meeting of the Sligo Board of Guardians Dr. P. J. Flanagan, medical officer to the workhouse, was presented by the chairman with an illuminated certificate from the Society for the Protection of Life from Fire, in testimony of the prompt aid rendered by him at a fire. While engaged in household work in the workhouse porter's lodge a girl's clothes caught fire, and she rushed out of the house in terror. Dr. Flanagan saw her, and succeeded in extinguishing the flames by wrapping his overcoat round her.

Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

NURSING HOMES FOR THE MIDDLE CLASS.

IN connexion with the proposal for the establishment of a private nursing home in Edinburgh adapted for patients from whom only a small sum can be asked in the way of charges for maintenance and nursing, a conference has been held under the auspices of the Charity Organization Society. It was attended by delegates from the Edinburgh Branch of the British Medical Association, from the Edinburgh and Leith Medical Practitioners' Association, from the Board of Management of the Royal Infirmary, and from the Charity Organization Society. Professor Lodge, vice-president of the Charity Organization Society, presided. The scheme submitted was one for the establishment of a self-supporting private nursing home of approximately fifty beds, in which the charges would range from one to three guineas a week for maintenance and nursing, the initial expenses to be raised by subscription from the public and from the profession. A full general notice of the scheme was published in these columns on February 19th.

It was arranged that the delegates of the British Medical Association and of the Edinburgh and Leith Medical Practitioners' Association should remit the memorandum for the further consideration of the two bodies which they represented.

ODONTO-CHIRURGICAL SOCIETY OF SCOTLAND.

The annual general meeting of the Odonto-Chirurgical Society of Scotland was held in Edinburgh on March 11th, Mr. J. Morris Stewart, President, in the chair. The society was founded in 1865, and has now a membership of 110. Office-bearers were elected for the ensuing year, after which Professor F. M. Caird read a paper on epithelioma of the jaw.

In the evening the annual dinner took place in the Princes Street Station Hotel, when fifty-six members and guests were present. After the President, who was in the chair, had given the toast of "The King," Mr. C. F. Sutcliffe, L.D.S. (South Shields), gave the toast of "The Imperial Forces," and Mr. Gordon Campbell (Dundee) replied; Mr. Thomas Wallace, F.F.A., F.I.A., gave "The Odonto-Chirurgical Society," and the President replied; Professor Caird gave "The Edinburgh Dental School," and the Dean (Dr. Guy), who replied, said that both as a philanthropic and as an educational institution, the Dental Hospital and School were making great forward strides every year. Mr. R. Lindsay, L.D.S., in giving the toast of "The Royal Colleges of Physicians and Surgeons," said that he looked forward to a time when the dental profession would be more closely linked with the College of Surgeons than now, and even to a time when dentists might become Fellows of the College; the two Presidents replied. Mr. Cotterill referred to the defects of the teaching of dental students, and pointed out that any dentist could come up for the Fellowship of the College now if he were prepared to face the examination, and also that dentistry was one of the special departments of surgery for that Fellowship. Mr. J. Douglas Logan, L.D.S., gave the toast of "The Guests," and Mr. W. M. Cuthbertson replied. Mr. T. E. Johnston gave the toast of "The Chairman," and Mr. Gordon Campbell that of the Secretary. Music, instrumental and vocal, stories, etc., helped to make a pleasant evening.

THE TREATMENT OF CONSUMPTIVES IN EDINBURGH.

A public health subcommtttee of the Edinburgh Town Council agreed on March 3rd to recommend to the full committee that an arrangement should be entered into whereby the information collected by the dispensary of the Royal Victoria Hospital for Consumption as to the conditions of different persons affected should be placed at the disposal of the medical officer of health, the corporation in return contributing £450 per annum. The other proposal, that a limited number of beds in the hospital should be placed at the disposal of the medical officer of health for the treatment of early cases of consumption which came under his observation, at a cost not exceeding £1,000 per annum, was deferred.

THE PROPOSED SCHEME FOR NEW LECTURERS AT GLASGOW.

At the last meeting of the University Court the proposal sent from the General Council, that distinguished graduates who, on application to the Court, should be deemed fitted should be appointed lecturers in the university, was finally thrown out on the ground that, after carefully considering the recommendation of the Council, the Court was of opinion that effect could not be given to it under the ordinances. The nature of the Council's proposal was recently described in these columns, when it was pointed out that the suggested scheme entailed what amounted to the establishment of intramural competitive lecturerships.

PROFESSOR JOHN CLELAND.

The executive committee in charge of the movement for recognizing the long and distinguished services of Professor Cleland to the University of Glasgow, has decided to present his portrait to the university, and a replica to Mrs. Cleland. The work will be undertaken by Sir George Reid, R.S.A., and will be facilitated by the fact that both artist and sitter are now permanently settled in Somerset within a few miles of each other.

GLASGOW AND CANCER RESEARCH.

In the report submitted at the annual meeting of the subscribers to the Glasgow Cancer Hospital, held on the 9th inst., it was stated that a commencement had been made with the work of the research department. The accommodation for this work in the new wing of the hospital included a room for the director of research, a microscopical room, a chemical laboratory, a sterilizing and working room, and a museum, which also served as a lecture room. The expense of such a research department had been heavy, but the directors were hopeful that the public would contribute generously to the upkeep of the department. Already about £1,500 had been subscribed, but at least £5,000 would be needed.

England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

NEWCASTLE-ON-TYNE.

EDINBURGH UNIVERSITY GRADUATES' CLUB.

THE annual dinner of the North of England Edinburgh University Graduates' Club, at which Professor Alexis Thomson was the guest, was attended by about 70 members and friends. The chair was occupied by Dr. Robert Anderson, to whom was entrusted the toast of the evening, "Alma Mater." In a speech marked at times by considerable eloquence, the Chairman reminded those present of his early association with Edinburgh University fifty years ago, and also recalled the names of several of the distinguished professors who had been his teachers, as well as of many fellow students now holding high positions in the world of medicine. Professor Thomson made a masterly reply, his speech being much appreciated. The toast of "Sister Universities" was proposed by Professor Rutherford Morison and responded to by Sir Thomas Oliver. By his old friend, Dr. G. H. Hume, was fittingly proposed the health of the President. Much of the success of the evening was due to the excellent arrangements made by the Honorary Secretary, Mr. T. Gowans.

THE NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

Last week the Northumberland and Durham Medical Society received as its guest Mr. C. B. Lockwood, F.R.C.S., of St. Bartholomew's Hospital. In the afternoon of March 10th Mr. Lockwood lectured in the

College of Medicine on amputations at the hip-joint and shoulder-joint, advocating the ligature of the main vessels in all amputations. In the evening a banquet was held in the large hall of the College of Medicine, and was well attended. The President, Dr. E. H. Davis, of West Hartlepool, occupied the chair. After submitting the Royal toast, the President invited Professor Rutherford Morison to propose the health of "Our Guests." This was done with special reference to Mr. Lockwood, who feelingly acknowledged the kindness of which he had been the recipient that day, paid a high compliment to the surgery of, and to the medical instruction given in, the North of England, and also spoke in appreciative terms of the beauty and equipment of the Royal Victoria Infirmary. Professor G. R. Murray, in rising to propose the toast of the Northumberland and Durham Medical Society, met with a most cordial reception. The toast was acknowledged by the President. An excellent dinner and most enjoyable music were provided by the Honorary Secretaries, Dr. W. E. Hume and Mr. Willan.

LECTURE ON MENDELISM.

On March 9th Mr. W. H. Young delivered a lecture, under the auspices of the Natural History Society, at the Hancock Museum, Newcastle, on Mendelism: The Experimental Study of Heredity. After describing the results of Mendel's well known experiments on garden peas, carried out for eight years in the garden of the monastery in Moravia, of which he was Abbot, Mr. Young said that since that time the theory had been applied to great numbers of plants and animals by Bateson, Lock, Punnett, Biffen, and others, and in a surprisingly large number of cases the law had been found to hold good. One result of Biffen's experiments had been to produce a strain of wheat which was found to be immune to attacks of "rust." This was placed on the market last autumn, and the results of its cultivation were being awaited with interest. The Egyptian Government had granted £2,000 for experiments on cotton on Mendelian lines. In the case of human beings, of course, experimental methods were out of the question, and, therefore, reliance must be placed on pedigrees. Some few diseases or defects, such as eye-colour and colour-blindness seemed to indicate Mendelian succession; but there was as yet no proof of its occurrence in tuberculosis, cancer, insanity, or epilepsy. The study of Mendelian inheritance had reawakened interest in the problems of heredity, and the production of species, which, from an experimental point of view, had languished since Darwin first swept the field. Mr. Young then discussed the mutation theory of de Vries, which seemed to indicate that Nature did not await the slow and imperceptible aggregation of characters going to form a fixed species, but proceeded in leaps.

COLLEGE OF MEDICINE LECTURESHIPS IN SURGERY AND MATERIA MEDICA.

It is now publicly announced that Mr. H. B. Angus and Dr. Thomas Beattie have been nominated by the College of Medicine for the vacant lectureships in surgery and materia medica. Both appointments are most popular, and have given great satisfaction.

MANCHESTER AND DISTRICT.

MEDICAL REPRESENTATION ON PUBLIC BODIES.

NEXT to representation of the medical profession in Parliament, it is felt in Manchester to be most essential that the City Council and the Boards of Guardians should contain members of the profession who can advise on medical matters directly within the province of the medical officer of health, which often seriously affect the interests of general practitioners. It is quite certain that on several occasions in the past, action has been taken by Manchester authorities through sheer ignorance of the damaging effect on the profession, and in no sense from intentional opposition to it. Fortunately, however, during the last few years there have been medical men on the council, general practitioners themselves, well able, and what is more, always ready to voice the opinions of their fellow practitioners. An instance of this occurred in the City Council at its meeting on March 2nd, when Councillor Dr. Skinner complained that the Watch Committee had made a medical appointment without advertising it in the medical press; he thought that just as in advertising for an engineer, the advertisement would certainly be put into the engineering journals, so advertisements for medical appointments ought to appear at any rate in the BRITISH MEDICAL JOURNAL and the *Lancet;* he moved that the appointment be referred back to the Watch Committee for further consideration; though this proposal was lost, the Chairman of the Watch Committee gave an undertaking that future appointments should be advertised in the medical press. The same feeling that medical representation on public bodies is essential actuated the Joint Committee of the Manchester and Salford Divisions in its recent recommendation that two medical men should be nominated as candidates at the next election for the Manchester Board of Guardians.

THE NORTH MANCHESTER MEDICAL UNION.

The annual dinner of the North Manchester Medical Union was held at the Grand Hotel, Manchester, on March 8th, Dr. W. G. Booth, president of the union, presiding. The union consists of about forty medical men of the North Manchester district, many of whom are members of the British Medical Association, and it was formed, several years ago, partly for social and partly for medico-political purposes, largely because North Manchester is a district of itself, with special local interests. In a large city like Manchester, though there are four Divisions of the British Medical Association, each comprises numerous districts with their own distinctive interests, and unions like that of North Manchester may serve a useful purpose in bringing medical men into closer social contact while in no sense being opposed to the Divisions. Suggestions have from time to time been made that the whole of Manchester should form one Division, and there are some undoubted advantages in the proposal, especially when united action in city affairs is under consideration. But if such a union of the present Divisions took place, there would certainly be some necessity for quite a number of local committees to deal with local interests which vary very considerably over so large an area.

About thirty members and guests sat down to dinner, and, after the usual loyal toasts, the President, in a few well-chosen words, proposed the "North Manchester Medical Union," which was responded to by Dr. Lee and Dr. Skinner. Dr. Fraser next proposed "The Visitors," and the toast was acknowledged by Dr. Reynolds, Dr. Taylor, and Dr. Fletcher. The evening was enlivened with a number of songs and recitations and by some remarkable conjuring tricks by one of the medical men present. The health of the President (Dr. Booth), proposed by Dr. Coutts, was most heartily received.

RINGWORM IN SCHOOL CHILDREN.

The Medical Officer of Health for Salford has sent out a circular describing the steps taken by the authorities to diagnose ringworm in children before excluding them from school. It is stated that the school nurses examine the heads of all children and obvious cases of tinea tonsurans are submitted to the school medical officer for diagnosis before the children are excluded. In suspicious cases, hairs are removed and submitted to Professor Delépine for microscopic examination, and on his certificate that the fungus or its spores are present the children are excluded, so that every case is either diagnosed by the school medical officer or by Professor Delépine; full information respecting any case will be given to the medical attendant on his inquiring personally or by post. It is further stated that all cases will be examined by the school medical officer before the children are readmitted to school. The Education Committee has made arrangements for the treatment of ringworm in school children by the *x*-ray apparatus at a fee of 2s. 6d. a case, irrespective of the number of

applications required, and the medical officer of health announces that any practitioner desiring this treatment for any of his cases is requested to acquaint the medical officer, who will make the necessary arrangements.

WEST YORKSHIRE.

The Bradford School Clinic.

A large meeting of medical men and dentists took place under the auspices of the Bradford Division of the British Medical Association on March 8th, to consider the school clinic. Dr. Metcalfe, Chairman of the Division, after welcoming the attendance of the dentists of Bradford, who, he said, were looked on as professional brothers by the medical profession, pointed out that it was the intention of the Education Committee to appoint a dentist in connexion with the school clinic, and the dentists were interested in endeavouring to see that if such an appointment took place the professional abuses which the medical practitioners in the city had found to their cost were associated with the medical portion of the work were not introduced into the dental. The position of the medical men in Bradford was rather difficult, as the school clinic was originated and medical inspectors who also undertook treatment were appointed before the British Medical Association had taken any action in the matter. If the policy of inspection separated from treatment had been adopted, as advised by the British Medical Association, friction would not have arisen. The Bradford Division had on repeated occasions considered the question. Special committees, watching committees, and deputations to the Education Committee, had been appointed. It was felt that the treatment of the minor ailments, such as verminous heads, running ears, sore eyes, and some skin diseases, especially ringworm, must in the last resort be left to the school clinic, but the contention of the medical men was that patients should always be first recommended to see their own doctor, and only if they were not in a position to pay for medical treatment relegated to the school clinic. The doctors held that although in theory the Education Committee said that this was done, as a matter of fact children whose parents were well able to pay for medical treatment were being constantly treated at the public expense. The certificates, too, of the medical practitioners were not accepted as sufficient evidence of the child's fitness to return to school without further examination by the school medical officers. Dr. Wherry Willson gave numerous examples of cases which ought not to have been treated at the school clinic. He urged that the way in which the clinic was managed was a great injury to them, both as medical men and as citizens. Mr. Matthews, Mr. Thew, and other well-known dentists said that they were in favour of the appointment of a school dentist, but hoped no abuses would arise in connexion with the appointment. Mr. North, chairman of the education subcommittee of the Bradford City Council, who was present, and Dr. Williams, medical superintendent of the Bradford schools, controverted some of the statements put forward. They, however, laid stress on the desire of the authorities to work harmoniously with the medical profession of Bradford. If any cases of abuse were laid before them they would investigate them thoroughly, and do all in their power to meet the wishes of the doctors.

The long and animated discussion will undoubtedly do good, and the members of the medical profession of Bradford are quite willing to wait and see if matters improve. It is sincerely hoped that they will; but if they do not, there is no doubt that some more drastic steps must be taken to prevent the further progress of what is assuredly becoming a serious evil.

Bradford Royal Infirmary.

The report presented to the eighty-fifth annual meeting of the Royal Infirmary drew attention to the fact that the number of patients was continually increasing, and that the infirmary was no longer able to cope with the demands made upon it. The site for a new infirmary had already been acquired—one of the best and most suitable in the country; £67,000 had already been raised, and when the total reached £100,000 operations would begin. The great difficulty appears to be to raise an adequate amount in annual subscriptions. When the new hospital has been built these must be largely increased, and it is hoped that the presence of a modern infirmary may stimulate the generosity of the undoubtedly rich citizens of Bradford.

LONDON.

The British Red Cross Society.

A meeting was held at the Mansion House, under the presidency of the Lady Mayoress, on March 10th, for the purpose of forming a City of London branch of the British Red Cross Society. In opening the proceedings Lady Knill said that the object of the British Red Cross Society was to furnish aid to the sick and wounded by providing additional comfort and help, to complete during peace the necessary organization throughout the country for that purpose, so as to secure the best results; and to undertake the formation of voluntary aid detachments in conformity with the requirements of the Army Council and the Territorial Force Associations. Sir Frederick Treves described the nature of the work, and the necessity of preliminary organization to prevent confusion, waste, and suffering. During the Boer war the society expended £162,000 in aid of the sick and wounded soldiers and sailors; but as there were four or five different organizations there had been some overlapping and bungling, and the British Red Cross Society desired to perfect the organization during peace by forming branches in every district, so that the women of each could minister to the sick and wounded of their own counties. Those who were willing to give their personal assistance must undergo practical and thorough preliminary training in order to do properly the valuable work that voluntary aid detachments were capable of doing. A formal resolution appointing a committee under the presidency of the Lady Mayoress was moved by the Lord Mayor, seconded by Sir Melvill Beachcroft, and carried unanimously. The meeting ended in votes of thanks to Sir Frederick Treves and the Lady Mayoress.

A similar meeting was held in Kensington on March 14th, under the chairmanship of the Mayor, Sir Walter Phillimore, who said that four voluntary aid detachments had already been started. Sir Frederick Treves explained the organization, and Colonel Valentine Matthews, V.D., late London Counties R.A.M.C., the London County Director of the Society, expressed the hope that each of the twenty-eight boroughs in London would take part in the movement. A resolution approving of the scheme was adopted on the motion of the Bishop of Kensington, seconded by Major-General Sir Coleridge Grove, and an executive committee was appointed on the proposal of Lord Justice Buckley.

Feeding of Necessitous School Children.

The Education Committee submitted to the London County Council on March 1st a supplemental estimate of £10,000 in respect of the cost of feeding necessitous children. The sum was withheld in December last by the Finance Committee, which reported unfavourably on the Education Committee's administration of the Act, expressed alarm at the fact that the number of meals provided had increased from $4\frac{1}{2}$ to $7\frac{3}{4}$ millions, and, in calling attention to an item of £26 as the sum recovered from parents in one year, expressed the view that recovery of cost should be "the rule, and not the exception." The Education Committee took the opportunity of defending itself, pointing out that it had not availed itself to any extent of the power to feed non-necessitous children, on prepayment. Only really necessitous children were being fed, and therefore the recovery of anything more than a comparatively small amount could hardly be hoped for. As to the larger number of meals provided, the committee

stated that this only meant that individual children had received more meals a week; only about 2,000 more children had been fed weekly than last year. The committee reported various modifications in the procedure for selecting the recipients of meals, made in order to meet the suggestions of the Finance Committee. The estimate was approved.

Special Correspondence.

PARIS.

Académie de Médecine: Sir Dyce Duckworth on the Peculiarities of the Gouty Diathesis.

SIR DYCE DUCKWORTH, Bart., before a very full meeting of the Académie de Médecine, has just made a communication on The Peculiarities of the Gouty Diathesis, the fruit of forty years of clinical work and teaching.

The doctrines of the diatheses, which were established early in the last century, especially in the Paris Medical School, had, he said, been gradually neglected in recent years, and even Laycock of Edinburgh, who adopted them many years ago, was ridiculed for doing so. The institutes of pathological histology, and the extended use of the microscope did much to draw away the attention of teachers and students alike from the individual patient, and to fix it rather on the particular tissues involved by morbid processes. Minute researches in organic chemistry still further enlisted the devotion of clinical observers, and so patients became cases rather than individuals with distinct habits of body and special tendencies. At the present moment the study of bacteriology occupied a still larger share of attention, so that the specific microbe had almost become the unit of all medicine—the seed became all-important; the soil was of no importance. Sir Dyce Duckworth emphasized the supreme importance of particular habits of body pertaining to individuals, the study of which he considered fundamental, and absolutely essential for the best clinical practice, for each individual possessed a special tissue endowment with specific proclivities, and the personal equation had to be taken into consideration in each case. The soil was therefore quite as important as the seed. He recognized four distinct diatheses:

1. The *strumous* or *scrofulous*.
2. The *arthritic*, with proclivity, especially in early life, to rheumatic infection, and to gouty manifestations in later life.
3. The *nervous*, with instability of nerve centres; and
4. The *bilious*.

Owing to heredity, blends of these diatheses were met with, and were easily found, if carefully studied, in various families. He recognized that rheumatism (proper) was a distinctly infective disorder, therefore exogenous in origin; but true gout was an endogenous malady, arising from errors of metabolism in those arthritically disposed, but also dependent in some of its phases on nervous disturbance. He then described in detail the various manifestations of the gouty diathesis in the different periods of life in both sexes, and concluded by expressing the hope that the doctrine of the diatheses might never cease to be taught in the French schools of medicine, and that with continued research they might ever aid in the advance of our art for the benefit of suffering humanity.

BERLIN.

The Organization of Relief and Preventive Agencies.—The Prevention of Venereal Disease.

AT a meeting convened by the central committee of the Berlin Assistance and Advice Bureaux for consumptive, alcoholic, and cancerous patients (*Fürsorgestellen für Lungen, Alkahol, und Krebskranke*), Geheimrath Puetter, chief manager of the Charité and President of the Bureaux Committee, submitted a plan for centralizing the work of twenty-four different organizations for combating alcoholism, and reported on measures already taken. The meeting was attended by delegates from the chief police commissioners of Berlin and its suburbs, from the Berlin and Charlottenburg municipalities, from the State Insurance Department (*Landes versicherungs anstalt*), from the Society against the Abuse of Alcohol, and the Salvation Army. The Prussian Cultusministry and the chief lunatic asylums likewise sent representatives. Herr Puetter's plan is to make the Advice and Assistance Bureaux, with their permanent staff—spread over the city and suburbs as they are—into the centre and meeting-point of the various crusades. Thus he proposes that the nurses and "sisters" who work for the bureaux among the consumptive poor, should in future give a share of their attention to the unhappy families of dipsomaniacs, and wherever they find children touched with the hereditary taint, should bring these for examination and treatment to the out patient department for nervous diseases at the Charité. It must be remembered that in Germany *female* inebriety is practically non-existent. The State Insurance Department has already begun to pass on the habitual drunkards and dipsomaniacs on their lists to the bureaux. Early and comparatively hopeful cases are sent to the Good Templars' organization, while advanced cases with delirium, total loss of energy, etc., are transferred to the Salvation Army, to the Blue Cross Society, or to Herr von Bodelschwing's work colonies. The Salvation Army has declared itself willing to gather up and bring home, or temporarily house, persons found drunk in the streets, and this will no doubt materially lighten the work of the city ambulances. All such arrangements—and Puetter's plan contains many more than can be enumerated in a short letter—are comparatively easy to put in force, and are bound to have a certain measure of success. Far more difficult, however, as well as infinitely more important from the national hygiene point of view, will it be to get into touch with the initial stages of alcoholic disease. The Poor Law guardians and the large sick clubs have been approached, and some of the latter have already directed their doctors to notify early stages to the committee, which will then do its best to induce these persons to place themselves under the care of the bureaux. By treating the craving for alcohol, not as a vice, but as a disease admitting of cure, it is hoped that other inebriates may gradually come forward voluntarily. Obstinate resistance may be met by the threat of interdiction. Only where there is real danger to life and limb will police aid be resorted to. In order to carry out this huge organization efficiently considerable funds will be required, and the State Insurance Department, the Poor Law Guardians, and other authorities—the various sick clubs, charitable organizations, private subscribers—will all be laid under contribution.

The German Society for Combating Venereal Disease held its annual meeting last week in the hall of the Empress Frederick House, Professor Neisser (Breslau), presiding. Professor Blaschko (Berlin) read the report and commented on the society's work during the past year. The touring exhibition of wax models, statistical tables, and hanging boards with pictures and explanatory text had, he said, aroused much interest in the various towns. Efforts to make teachers acquainted with important facts connected with the work were steadily continued. The ways and means for arriving at a correct computation of the actual extent of sexual disease in Germany were being actively studied. Professor Neisser was able to inform the meeting that in the forthcoming Dresden Hygiene Exhibition in 1911, the department for venereal disease would be put in the hands of their society. He hoped this would prove a splendid opportunity for propaganda on a large scale. Professor Blaschko then read a paper on the supervision of prostitution as sketched in the first draft of the new Imperial Penal Code. He commended the position taken in the draft towards prostitution as towards an existing evil that cannot be stamped out by prohibitive measures, but must be met by wider and wider dissemination of a knowledge of hygiene. So long as punitive measures against prostitution exist, he said, they served only to increase its hygienic evils; nor can State registration and close medical supervision be commended as having given good results. In England and in Scandinavia official regularization had been abolished, and, nevertheless, venereal disease had materially decreased in both countries. Finally, the meeting unanimously adopted the following resolution:

> The German Society for Combating Venereal Disease welcomes the changes in the First Draft of the Imperial Penal Code, and determines on calling a conference of experts to exchange views on the principles for the supervision of prostitutes, and to submit the result of its considerations to the Imperial Government for its use.

Correspondence.

THE EFFECT OF ABDOMINAL COMPRESSION IN VERY RAPID HEART.

SIR,—Dr. Gordon's important communication in the JOURNAL of March 12th, p. 624, suggests a hope that we may be coming within sight of definite progress in the pathology and the treatment of tachycardia. There is much in the clinical case and in the arguments which he adduces to lead us to conclude that paroxysmal tachycardia is not in reality a cardiac affection, but rather a vasomotor upset of the circulation. Every clinician has wondered why so sudden and intense a disturbance of the cardiac rate should be conspicuously characterized by the patient's almost complete immunity from cardiac distress during the attack, and should be compatible with a no less rapid recovery of cardiac efficiency and of cardiac endurance under exertion for prolonged intervals or for good. Dr. Gordon's reading of the mechanism of the upset seems to afford a better explanation than any previously proposed for the various paradoxes presented by the patient's symptoms, and also by the hitherto unaccountable effect of various measures of treatment, some of which might have been regarded as the very last to be fit to recommend, and as the least likely to succeed. Among other mysterious aspects which needed clearing up was the remarkable peculiarity that, alone among cardiac attacks, the paroxysm of tachycardia should not of necessity materially disturb the respiration. It may set up (apart from any purely *cardiac* effects of exertion during the paroxysm) neither *respiratory* dyspnoea nor any noteworthy *respiratory* tachypnoea. The inference to which we had held, that neither the lungs nor the heart could be primarily at fault, would now be getting more substantial confirmation. And, assuming as a further inference that we may be really dealing with a vasomotor storage congestion, Dr. Gordon's splanchnic theory would also be deriving considerable collateral support from the fact that it is certainly not the pulmonary reservoir which is the seat of the storage, as in many cases there is no essential interference with respiratory rate and respiratory efficiency such as any severe pulmonary congestion must inevitably have involved.—I am, etc.,

London, W., March 14th. WILLIAM EWART.

THE DANGERS OF ARYLARSONATES.

SIR,—The vendors of these dangerous compounds should most undoubtedly exercise the greatest care in issuing their booklets.

That atoxyl is dangerous is evident from the fact it turns yellow and decomposes in an hour or two in sunlight, and more quickly still if the solution has been sterilized. These considerations put "sterules" out of court. Soamin solution is more stable than atoxyl solution, but it too decomposes if exposed to sunlight and heat. We are supposed to take it for granted that tabell. soamin and orsudan are safe and that no decomposition takes place, but the onus of proof falls on the makers. An assurance that they have been freshly manufactured is therefore necessary. To supply them in 5 grain tabloids is open to objection, as will appear below.

The brilliant results obtained by Colonel Lambkin, together with the kind of literature Mr. Lane refers to, created the impression that the newer arsenical preparations are almost innocuous, but Colonel Lambkin's patients at the Rochester Row Hospital were mostly fine young men of good physique and healthy apart from the syphilis. In civil hospital practice the condition of the patients is quite different, and to ignore this is to bring the drugs into ill-deserved disfavour.

On looking through the reports of bad results in British and foreign literature, it will be seen that Hallopeau alone distinctly states the desirability of graduating the dose according to body weight. If this rule were followed a patient of 8 st. would be given exactly two-thirds of the dose that would be given to one of 12 st. That this should be a rule of practice would appear to be self-obvious. Moreover, these preparations have been given without any attempt being made to estimate the patient's powers of elimination, and have even been given in full doses to patients with kidney disease, arterial degeneration, and neuritis. Some of the bad results occurred in patients over 65 years of age, and here again full doses were administered. Gaubius's rules for dosage states that after 60 years of age inverse gradation should be observed—that is, if the patient is 64 the dose should be reduced 25 per cent. The directions given with the tabloids are explicit, "Dose one to two tabloids." These instructions are not suitable for every case. If the patient weighs 8 st. and is 64 years of age, the dose should be diminished some 30 per cent. on account of body weight, and an additional 25 per cent. on account of age if the maximum dose applies to a middle-aged person weighing 12 st. It is now many years since the rules of Gaubius were formulated, and in view of the increasing number of powerful drugs coming into use it is to be hoped that some effort will be made to lay down more precise rules for graduating the dose in subjects over 50 years of age.

As regards the new arsenical preparations, my own feeling is the maximum dose should never be given after 50 years of age, even if the kidneys are sound, the pulse not less than 72, and the patient ambulant. To give maximum doses regardless of body weight, age, etc., and especially to patients confined to bed or leading a very inactive life, is dangerous, but the fault is not with the drug but with the method of administration. I have used both atoxyl and soamin fairly extensively, and never had a bad symptom apart from a small nodosity at the point of injection, and that occurred before I discovered the necessity of a freer dilution of the drug. Tabloids I have never used, but have had the salts as required, partly because it seemed safer, but more especially because with tabloids accurate dosage is less easy.

Mr. Lane's communication and the cases of blindness appearing more especially in the foreign literature are calculated to excite nervousness, but there would appear less cause for alarm than for a more rational method of administration. In view of the wonderful results that occasionally follow their use, to throw up the arylarsonates in a panic would be unpardonable from a scientific standpoint.—I am, etc,

London, S.W., March 10th. CHARLES WRAY, F.R.C.S Eng.

SIR,—In his reply to Mr. Ernest Lane's letter on the dangers of arylarsonates, Colonel Lambkin states that 308 cases have been treated at the military hospital, Rochester Row, without any bad effects. In the first place, these negative cases are of no value against the positive cases reported by Mr. Lane and others, in which the administration of arylarsonates was followed by total blindness. Secondly, Colonel Lambkin attributes these disasters to decomposition of the drugs, which he says must be freshly prepared every day. I venture to remark that a drug which requires to be freshly prepared daily should be entirely banned. Lastly, in a recent article,[1] Colonel Lambkin stated his opinion that arylarsonates should not replace mercury in the treatment of syphilis, but that they are chiefly indicated in cases which are intolerant of mercury. Are we to understand that the 308 cases treated at the military hospital were all intolerant of mercury? If so, the proportion of such cases must be extraordinarily high among soldiers; if, on the other hand, they were not intolerant of mercury, it is reasonable to assume that treatment by arylarsonates was not indicated.

As regards the individual drugs, arsacetin is said to be free from the danger of decomposition and less toxic than atoxyl; but one of Mr. Lane's cases was treated with orsudan, which, I believe, is simply a trade name for arsacetin, as soamin is for atoxyl. Personally, I have not yet seen any cases of blindness due to arylarsonates, but I have recently treated two cases of severe syphilis in which they had been used. Whether they aggravated the disease it is impossible to say, but they certainly were not beneficial.

Considering the dangers of arylarsonates, it becomes questionable whether the treatment of syphilis by these drugs is justifiable. It is one thing to administer arylarsonates in sleeping sickness, for which there was no other known remedy; it is quite another thing to experiment with them in syphilis, a disease which is amenable to well known drugs of proved value.—I am, etc.,

London, N.W., March 12th. C. F. MARSHALL.

[1] BRITISH MEDICAL JOURNAL, August 14th, 1909, p. 380.

SIR,—Might I add my word of warning to that raised by Mr. Ernest Lane as to the dangers connected with the use of arylarsonates? I had, unfortunately, not read the paper by Drs. Lundie and Blaikie in the JOURNAL of January 22nd when a gentleman suffering from tabes came to me and requested that I should administer a course of soamin to him, as he had some tertiary skin trouble. I procured a fresh bottle of 100 1-grain soamin tabloids (Burroughs, Wellcome and Co.), and injected first 3 grains, then 5 grains, 7 grains, and finally 10 grains, until 45 grains in all were given (one injection every second day). The skin trouble cleared up, but the drug was stopped owing to increase in ataxic pains. He now suffers, I regret to say, from very impaired vision, the first symptom of which evidently began after 35 grains had been administered. The visual trouble, too, is progressing. As Colonel Lambkin, in his letter (p. 664), mentions technique, I may say that the solutions were freshly prepared at the moment from the tabloids with sterilized water, then boiled, and injected with a sterilized "glaseptic" syringe deeply into one or other thigh. No local trouble was caused.—I am, etc.,

Monkstown, co. Dublin, March 13th. R. LYNN HEARD.

SIR,—I esteem it a high honour that my letter on this subject in your issue of March 5th should have elicited a criticism from so eminent an authority as Colonel Lambkin, but I should have appreciated the compliment more had he not demonstrated that he had not taken the trouble to read my communication. I stated that I had given the treatment of syphilis by arylarsonates a trial, with which I was at first perfectly satisfied, but that ultimately, and not in connexion with the short series of cases I published, I had met with *one* case of double optic atrophy which had caused me to discard the method. In crediting me with having caused four cases of blindness by this treatment, Colonel Lambkin unduly overestimates my powers of perseverance in the method so ably advocated by him at the meetings of the British Medical Association at Sheffield and at Belfast. I stated, as I thought clearly, that I had met with one case of double optic atrophy from arylarsonates in my own experience, but that on reading the panegyrics on this treatment contained in a circular of Burroughs, Wellcome, and Co., received by me early in February, I made some inquiries, and in a very short space of time, and without any particular exertion on my part, I became cognizant of three other cases of the same nature.

As Colonel Lambkin states, I did not mention the technique I pursued in carrying out the treatment, for the excellent reason that there is no technique to be observed except that which is familiar to any one who is accustomed to the treatment of syphilis or other diseases by the intramuscular method. I was as well aware as Colonel Lambkin of the fact that these arsenical preparations were reported to be liable to decompose on keeping, and accordingly had them freshly prepared as they were required. My letter of March 5th was written with the object of warning the *younger* members of the profession from embarking on a treatment which might be fraught with such disastrous consequences, both to their patients and to themselves, if they relied too implicity on the glowing terms in which the treatment was extolled by an eminent firm of pharmacists.

In conclusion, I heartily congratulate Colonel Lambkin on his uninterruptedly successful career in this treatment, and also the British soldier on his immunity from one of the evils to which the rest of human flesh appears to be heir.—I am, etc.,

J. ERNEST LANE,
Senior Surgeon to St. Mary's Hospital and to the London Lock Hospital.

London, W., March 11th.

THE LOCALIZING VALUE OF UNEQUAL PAPILLOEDEMA.

SIR,—I am glad to see that Mr. Paton is clearly coming round to my point of view. As in all other matters of scientific observation, controversy is here out of place, since time will show what is true and what is not.

I will not, therefore, discuss over several pages of the JOURNAL (even if your hospitality permitted it) such further records of my cases as Dr. Paton gives in his letter, although I do not admit his accounts to be either full, or to convey complete pictures of the conditions present.

I must, however, point out that I have never changed my position on the question, and that I believe to-day, as I stated twenty years ago, that pressure is the chief factor in papilloedema, and fifteen years ago that most papilloedema is naturally present on the side of the lesion which causes it.

As I said at Belfast, all seeming exceptions to these rules must be accurately worked out in relation to the clinical conditions existing at the time the eyes are examined, and I quoted two private cases (Cases II, III) in illustrative analysis of apparent anomalies.

I hope that others will now take up the point critically, and trust they will find the rules as useful and comforting in practical work as I have.—I am, etc.,

London, W., March 15th. VICTOR HORSLEY.

CONSULTANT, GENERAL PRACTITIONER, OR HALF-AND-HALF?

SIR,—"Enquirer No. 2" (February 26th, p. 540) asks: "Is it . . . fair to the public that a consulting physician . . . should keep all his conclusions to himself until a general practitioner brings an anxious sufferer to him?" The consulting physician has no need to keep his conclusions to himself, for he can read papers before the different medical societies and publish cases, etc., in the medical journals, in which way his reputation would be enhanced, and general practitioners could avail themselves of the special knowledge of which the consultant thereby shows himself possessed.

"Enquirer No. 2" then refers to a consultation of half an hour. Why should a consultation necessarily be confined to a short period? My opinion is that many consultations should take much longer than this, so that the consultant can explain fully to the general practitioner what treatment he suggests should be carried out. In my opinion the consultant's fees should be raised, and should vary partly with the length of time a consultation takes, and partly, as now, with the means of the patient.

"Enquirer No. 2" refers to treatment which can only safely be left in the hands of a consulting physician. To what medical treatment does he refer that cannot safely be left in the hands of a general practitioner in these days when teaching is so excellent? For instance, does he refer to vaccine treatment? If so, surely this can be carried out by a general practitioner? If a general practitioner does not know how to carry out such treatment, a few minutes' conversation with the consultant will make him acquainted with the technique, which, after all, is little more than that of giving an ordinary hypodermic injection. The vaccine would, of course, be prepared by the bacteriologist, and the doses to be given decided by the consultant or by the bacteriologist.

"Enquirer No. 2" then goes on to say that general practitioners would wish to undertake operations which they are not capable of performing. Here I think the writer, perhaps inadvertently, does an injustice to general practitioners. We are dealing with an honourable profession and with honourable men, and I do not believe that general practitioners would undertake operations that they did not feel competent to carry out. The capabilities of general practitioners vary, but we should treat them as honourable men, and rest assured that none of them would undertake any operation that he was not justified in performing. I never suggested that a general practitioner should undertake every operation in all the special branches of surgery, and, as I said before, I do not believe that he would.

I maintain that every general practitioner should do every operation and every treatment that he is capable of carrying out.

"Enquirer No. 2" concludes by asking, "Is it fair . . . to exclude the sufferer from the benefits . . . of those who devote their lives to particular branches?" I have endeavoured to show that the public would not really be deprived of such benefits, but that in all cases in which the general practitioner felt that he was not justified in undertaking an operation, or certain treatment, he would ask the specialist to carry it out.

"Est Modus in Rebus" (March 5th, p. 603) says "that any patient is at liberty to 'consult' a consultant at his

rooms as often as he pleases," and remarks that the so-called consultant "should avoid asking the name of any doctor who had attended him previously." Personally, I should consider such a proceeding most unprofessional. Surely it is the duty of every practitioner, whether a consultant or not, to ascertain that a would-be patient is not being attended by any other doctor. I have never said that "a patient is to be considered the absolute property of his family doctor." What I maintain is that a consultant should not see a patient except in conjunction with a general practitioner.

Finally, to what treatment does "Est Modus in Rebus" refer, which can be carried out better by a consultant than by a general practitioner, other than such treatment as the general practitioner himself says he is not personally capable of undertaking? I have already asked a similar question in answering the letter of "Enquirer No. 2."—I am, etc.,

March 5th. ENQUIRER.

THE DIFFICULTIES OF MODERN PRACTICE.

SIR,—"A Yorkshire Doctor" is probably an example of many men in general practice—able, well equipped for work, enthusiastic, yet out of his sphere or not needed. The gist of this letter is the question whether most of us general practitioners are not needed.

With the fire of youthful enthusiasm damped and somewhat mellow, yet watchful of current events, I seem to see things in a better perspective than once I did. I see we are living in an age of transition, when the position we once held is severely assailed, when our oracular utterances are criticized, and we are expected to know our work better than formerly, and do more for the fees which we consider suitable.

The public kicks against illness that Providence sends, and, like us, too, feels the injury redoubled when payment to get well again follows. I think the event will be that medical aid will become more and more municipalized and we shall take our positions as properly-paid public servants without the necessity of pandering to unreason or fears for our position. The school inspector, medical officer of health, club doctor, parish doctor will be expected to do more and more, and the group of well-to-do or better-to-do private patients will alone be left for the scope of the general practitioner; and we as a class shall improve; we shall say and do what we think right, without endless talk and waste of time.

The existence of a living thing, apart from certain parasites which flourish exceedingly, or of vestigial remains which are largely pathological, depends upon its utility. If we are needful, with certain alterations we shall survive; conversely, if our utility has departed, we shall exist only as anachronisms. The modern practitioner who, finding himself in the shoes of the old, thinks to go on as did his forebears, will and does find himself grievously disappointed. The old-fashioned parish doctor is a thing of the past, and the club doctor must not regard his services as charity-given. "If he could not do it for so much he should not have taken on the job" is the criticism I often hear and feel. The new nurse, as "Yorkshire Doctor" says, does deprive us of revenue. But of what is she really depriving us? Is it not in most cases of a cheaply-gained reputation by watching dilating cervices, and a rush to prevent a "B.B.A."; of letting the patient think we are helping more than in point of fact we are? Is it not far better that we shall be summoned when help is wanted?

I realize that there is scope and sphere of utility for the well equipped, old fashioned general practitioner, but I seem to see scope and sphere that are, not without reason, rapidly diminishing; that his fees for work which others can do equally well are too high, that many of us (I am one) expect more than the public thinks suitable, that we are too highly educated and too respectable for the present sort of work, and that only men of some capital should become family doctors, realizing that medicine is a good profession but a bad business.

The sphere of the medical men like "Yorkshire Doctor" and myself is rapidly being divided amongst the various officials, and the grouping process is bound to continue, and in my opinion to the advantage of the public, however greatly to the disadvantage of our coterie.

I cannot help seeing the tendency and its probable rightness. Of course, we fight inch by inch, but it is a losing game. We really know terribly little, and it is a sad reflection to me that the confidence reposed in us is to so large an extent not justified. However little we know, of course the public knows still less, and that is a consolation which makes most of us continue in harness and not feel ourselves humbugs.

Out of the present somewhat chaotic state of things our descendants will emerge useful and trusted and less bothered and more scientific. The public will get less kindness and fatherliness from its medical advisers. Meanwhile it seems to me intending candidates for the profession ought to have some sort of idea what is to become of them when they are qualified.—I am, etc.,

Ilminster, Feb. 28th. W. H. MAIDLOW, F.R.C.S.

ST. WINEFRIDE'S WELL.

SIR,—The article on St. Winefride's Well which appears in the issue of the JOURNAL for March 12th conveys the impression that an official report of the proceedings should have been forthcoming, and I would like to state my reasons for withholding it.

It was proposed at a former meeting of the Division to hold the spring meeting at Holywell, and to request a local medical man to read a paper on the history of the wells. The substitution of a paper on Modern Miracles of Healing for the one originally proposed, and of a reverend father for a local medical man, occurred through interventions which I need not enter into.

The Rev. F. Woodlock's paper occupied the greater part of the time at our disposal, otherwise some of the members would have felt disposed to challenge the genuineness and *bona fides* of the cases cited as instances of miraculous cures.—I am, etc.,

Wrexham, March 14th. E. D. EVANS.

PSYCHICAL RESEARCH.

SIR,—Dr. J. Staveley Dick, in his letter (p. 477), says, in effect, that he has just begun to read about psychical research, and is rather impressed with the evidence adduced by Sir Oliver Lodge in favour of telepathy, and, therefore, "the subject is ripe for discussion and further investigation," for if "thought transference" is a fact it is "not merely a startling but an important fact." But he has not been able to obtain any information *pro* or *con.* from any of the standard textbooks on physiology he has consulted so far. He suggests that unless the medical profession are "prepared to relegate the investigation of such alleged brain function to distinguished amateurs, the Association might without impropriety do something towards a definite solution of this question."

Dr. Dick's rather patronizing and superior tone towards the Society for Psychical Research in general, and Sir Oliver Lodge in particular, may be forgiven, as he is evidently ignorant of the immense amount of scientific work, of the highest order, which has been accomplished by that society. But if he is really becoming interested in the subject of psychic research, as I gather from his letter he is, he will be well advised to study the published *Proceedings* of the Society of Psychical Research rather than trouble to search his works on physiology, and he will probably also find it an advantage to join the Society of Psychical Research (address 20, Hanover Square, W.), in which case he will obtain both the *Proceedings* and *Journal* of the society, and he can obtain back numbers at a reduced price.

When he is more familiar with the work of the society he will realize that whilst its active members are certainly distinguished (many of them are Fellows of the Royal Society) they are certainly not amateurs, but in the truest sense experts. He will also realize that it is rather late in the day to discuss whether the medical profession is prepared to relegate the subject of psychical research. For years the medical profession has consistently refused to entertain the study of this subject, and has calmly ignored the laborious spade work done by others. Now that that work is beginning to bear fruit and results being obtained which are attracting the attention of the scientific world generally it is surely rather beside the mark for us to talk about "relegating this work to amateurs."—I am, etc.,

C. KILLICK MILLARD, M.D., D.Sc.Edin.

Leicester, Feb. 22nd.

PART-TIME MEDICAL OFFICERS OF HEALTH.

SIR,—Though I feel reasonably sure that Dr. Martyn (p. 602) is not acquainted with my case, mine is one that might be added to his list. After many years' service as part-time medical officer of health, my council, when last the appointment became automatically vacant, appointed a newcomer of a few weeks' standing, a stranger to the neighbourhood, though nothing could be alleged against my work, which is proved by the fact that the Local Government Board has not sanctioned the appointment. The salary is a very small one; nevertheless, if the district council can defy the Local Government Board, it means that it can appoint a nominee of its own who, in the conduct of his work, can favour councillors who may be large ratepayers. At a small salary, a part-time medical officer of health can be made the slave of a council, and in view of this, there can be no disputing the argument that in certain cases a whole-time medical officer of health would be an advantage to a community. Where a large salary is paid, perhaps a man is above the temptation to subordinate his criticisms to the views of his annual electors. If the Local Government Board is the supreme authority, there is not so very much objection to part-time officers.—I am, etc.,

March 13th. RUSTIC.

GASTRO-ENTEROSTOMY IN ACUTE DILATATION OF THE STOMACH.

SIR,—Mr. Mayo Robson, in an address reported in your issue of January 8th, refers to the question of gastro-enterostomy in the treatment of acute dilatation of the stomach, and says that so far he knows of only one case—in his own practice. May I mention that seven years ago I resorted to this expedient as the last resource I could think of in a rather desperate case, and with the happiest result? An account of the case is given in the *Transactions* of the last Australian Medical Congress, vol. i, page 339.—I am, etc.,

Colac, Victoria, Feb. 9th. W. H. BROWN, M.R.C.S.

THE VALUE OF BALL'S OPERATION FOR PRURITUS ANI.

SIR,—The note by Dr. Leighton on p. 440 of the BRITISH MEDICAL JOURNAL of February 19th is interesting, and I venture to send my own experience, as it illustrates the value of an operation for the relief of "this horrid affection."

I first noticed any trouble about ten years ago, but pain was then the prominent symptom and not itching. This went on for some six years, not improving and not getting any worse, and amenable to treatment by cold lotions. About August, 1906, the itching became more pronounced but still associated with pain. I analyse my symptoms in this way—First I would feel pain about the anus and the surrounding parts, which would then become moist and followed by intolerable itching. My life was miserable, sleep broken every night, and no remedy except anaesthetic ointments gave relief. I tried everything I could think of and everything I saw recommended. There was no local cause and no sugar in the urine. This went on until I was operated on by Mr. McAdam Eccles in October, 1909. The operation was successful; I had immediate and complete relief. The parts were devoid of sensation for some time, but now—February, 1910—sensation has returned. I have had no trouble of any sort, but even slight constipation should be guarded against.

Because some authors state that this operation should not be lightly undertaken I was deterred from submitting to it, but if local treatment fails to relieve I think operative treatment is strongly to be recommended.—I am, etc.,

February 24th. A BART'S MAN.

CREMATION AND THE CATHOLIC CHURCH.

SIR,—Your article on cremation and the attitude of the Catholic Church thereto seems particularly well informed. There appears to be no doubt that the objections of the ecclesiastical authorities to the practice might be withdrawn if sufficient cause were shown. Even now, as I understand, no objection would be made to cremation if urgent necessity arose—as in the case of plague, to prevent contagion after a battle or disaster, or the like.

I suggest that the various Branches of the British Medical Association should lay before each bishop of the diocese the importance of cremation as a means of preventing the spread of disease in crowded communities. Mention might also be made of the fact that this would enable the ashes of the deceased to be preserved in the church, which is quite impracticable at present.

If a strong case were then made out there is little doubt that the ban on the practice would be removed and cremation soon become almost universal.—I am, etc.,

March 14th. D.P.H., M.A.R.U.I.

ON SALE OR RETURN.

SIR,—I have received a copy of the February number for the present year of the *Rivista Italiana di Neuropatalogia, Pschiatria, et Elettroterapia*, directed by Professor G. d'Abundo, for which the annual subscription is 25 lire. The copy has gummed on it a slip on which is written, "Celui qui ne nous renvoie pas cette livraison restera abonné pour toute l'année 1910." I am writing to protest against this method of attempting to force the sale of this journal; I do not see why I should be given the trouble of having to return it, and I doubt very much whether there would be any legal power to enforce the subscription, but in any case I think some public notice should be taken of a very undesirable proceeding which would be an unmitigated nuisance if it were to find imitators.—I am, etc.,

Birmingham, March 12th. ROBERT SAUNDBY.

Obituary.

JAMES RUTHERFORD, M.D., F.R.C.P.EDIN.,

FORMERLY PHYSICIAN SUPERINTENDENT, CRICHTON ROYAL INSTITUTION, DUMFRIES.

BY the death of Dr. Rutherford on March 8th Scotland has lost one of her most capable and notable psychiatrists, one who was widely recognized as a bold and original leader, and endeared to his many friends by admirable qualities of head and heart. He was the son of a Presbyterian minister who served in various parts of Scotland, and was born in 1840, so that he had just attained his 70th year. Although he had been disabled by failing health for some time, and suffered what must have been, especially to a man of his energetic temperament, a serious impairment of his physical powers, his mental capacity and alert outlook were happily conserved, and he could review the long and important work of his life with a brightness and clarity which were always characteristic of his attitude. Dr. Rutherford knew what he wanted, and got it done.

His professional education having been begun at Edinburgh and Vienna, he was well equipped for the work which he undertook. In 1863 he became M.D. and L.R.C.P.Edin., in 1866 he attained the Fellowship of the Royal College of Physicians there, and, in 1875, the Faculty of Physicians and Surgeons of Glasgow also admitted him to its Fellowship. Foreign countries recognized his eminence in the profession, and Dr. Rutherford was an honorary member of American, Belgian, French, and Italian associations for the study of psychological medicine. In 1867, along with the late Dr. Lockhart-Robertson, he produced a translation of Griesinger's memorable *Manual of Mental Diseases*, which was published by the Sydenham Society. His writings, however, were few in number and in words. He was eminently a man of action, and could not be induced to occupy the honourable positions to which his colleagues would fain have called him. Ready always to debate and explain and advise in private, to oblige in detail, Dr. Rutherford would not pass beyond his self-imposed restrictions. It is a distinct loss to the profession that he remained one of those skilled physicians whose knowledge unhappily dies with them.

That knowledge was garnered in various fields. He began as Assistant Medical Officer in the Birmingham Borough Asylum and was appointed Medical Superintendent of the Argyll and Bute Asylum in 1870, in succession to the late Sir John Sibbald. In that remote hospital he found that many new ideas had been adopted in practice, he gained the confidence of the late Sir James Coxe, and Argyll became noteworthy for the abolition of

airing courts, for the open-door system and the enlargement of freedom and useful occupation of patients which Dr. Rutherford advocated and maintained after his promotion to the Lenzie Asylum, which, in 1874, was the latest and most complete example of asylum planning and management. From the agricultural community of Argyllshire he entered on the service of the City of Glasgow with an energy and fearlessness which made Lenzie famous. In 1883 the directors of the Crichton Royal Institution, Dumfries, appointed him to that important hospital, where he had to deal with large numbers of all classes of the insane. Twenty-three years of strenuous labour at Dumfries completed the work of Dr. Rutherford's life. When he took office the property of the institution extended to 150 acres, and the patients were accommodated in the First House, the Second House, and the villa of Maryfield. When he retired the property had extended to upwards of 1,300 acres, and the patients were accommodated in fourteen separate houses, many of them stately and imposing buildings, which will remain a memorial of him in future times. Amongst the additions and improvements which owed their inception to his unbounded energy, special mention may be made of the introduction of the present copious water supply from the famous artesian well of the institution, the installation of the electric light—which was pronounced by Dr. Bottomley, the nephew of the late Lord Kelvin, to be one of the finest private installations in the kingdom—the addition of the handsome dining hall to the First House, the enlargement of the north portion of the Second House, and the erection of Johnston House as a laundry residence, the extensive model farm buildings, the sanatorium for tuberculous patients, the various hospitals and villas for both the private and the parochial patients, and, lastly, the magnificent Crichton Memorial Church of cathedral proportions, which was commenced in the golden jubilee and completed in the diamond jubilee year of the late Queen Victoria, and was erected as a memorial to the revered founders of the institution. The Crichton Church is one of the most beautiful modern ecclesiastical structures in Scotland, and it was fitting that the idea of such a memorial should have emanated from the brain of a reverent and religious man and a son of the manse.

The history of Dr. Rutherford's professional life is a tale of success founded upon an energetic ability that seemed perennial. Largely it was the outcome of his amiability and personal incentive, which made for increased freedom, open-air occupations, recreations, and improved environment directly due to an indomitable trust in his people.

It is hardly three years since Dr. Rutherford retired on a pension of £1,600 a year, and made his home, as his distinguished predecessors Dr. W. A. F. Browne and Dr. Gilchrist had done, in the immediate neighbourhood of Dumfries.

In early life he married Miss Freer, of Melrose, by whom he had a large family. Three sons adopted their father's profession, one being Dr. Rutherford, of Brislington House. Two daughters are married—to Dr. Keay, of Bangour Village Asylum, and to Dr. Gilmour, of Scalebor Asylum, respectively. Many are the medical men who were happily associated with Dr. Rutherford in personal service, and still more numerous are those friends who have reason to remember him with gratitude and now mourn his loss.

The interment took place at Dumfries on March 12th, the coffin being borne from the cemetery gate to the grave by eight of those who had been longest in Dr. Rutherford's service at Lochgilphead, Woodilee, and Dumfries. A funeral service was held on Sunday, March 13th, in the Crichton Memorial Church, and was attended by a large congregation of friends and mourners from the institution and district around.

Dr. CLOUSTON sends us the following personal appreciation of Dr. Rutherford:

He was a man of distinctive personality and great force of character. A boldness of action was his most marked feature. The practice of psychiatry and the medical superintendence of a great mental hospital are full of all sorts of risks which paralyse some men. Caution and the avoidance of those risks come to be dominating motives with some of them. The fear of suicides and accidents, the dread of coroners' inquests and Commissioners' censures, and, above all, the terror of the local newspaper, seem ever present. To escape these disagreeable things becomes almost an obsession. Rutherford was altogether free from this feeling, and he realized that liberty is so strong a feeling in human nature that happiness and contentment cannot be attained if it is unduly restricted, either in a mental hospital or in society. He saw that the mere restriction of liberty in such a hospital, necessary though it may be in many cases, prolongs the disease for the cure of which the patients are sent there. Therefore he deliberately ran many risks for the sake of curing his patients and increasing their happiness. I remember saying to him once, to console him after an accident to one of his patients, "It is a bad asylum which has no accidents," and he fervently concurred with me. The policy of the Scottish Commissioners lay in the encouragement of any new modes of treatment, even if risks were attached to them. They were not too hard on a superintendent when accidents occurred not due to carelessness but to deliberate attempts to increase the contentment and chances of recovery of patients. Rutherford taught us all many lessons by his boldness. He showed us that we might risk more than we had hitherto dared with advantage to our patients. He was a first-rate administrator, and, coming back to his native country in 1870 from England, where more was then done to make the wards of mental hospitals bright and cheerful by means of decorations, pictures, singing birds, and music, than had been done in Scotland previous to the Sixties, he set an example in those respects that was soon universally followed. He was an enthusiast in his work—too much so for health, for he took too few holidays—and a man of a kindly disposition who knew human nature well. I consider mental hospital management in Scotland stands much indebted to Dr. Rutherford.

Dr. C. C. EASTERBOOK, successor to Dr. Rutherford at the Crichton Royal Institution, writes:

Rutherford's work for the insane was well recognized both at home and abroad. With the exception of several original and striking papers in his early graduate days, and his translation of Griesinger's standard work, Rutherford contributed little to the scientific literature of psychiatry, but he used to the full his remarkable gifts of administration in translating theory into practice. He will be remembered, therefore, not so much for his writings as for what he did to advance the care and treatment of the insane. He did not seek the posts of honour in the psychological and neurological societies of the home country, but few of his contemporaries in this country received as much recognition in the speciality abroad as did Rutherford, who was elected Foreign Associate, Corresponding or Honorary Member of various Medico-Psychological Associations in Belgium, France, Italy, and America. When Rutherford decided on his life-work, the modern humane treatment of the insane, which is indissolubly associated with the efforts of Pinel of the Bicêtre at Paris, and Tuke of The Retreat at York, during the close of the eighteenth century, had long been established, and furthered in this country by such workers as Charlesworth, Gardiner Hill, Conolly, Browne, and others, who during the first half of the nineteenth century abolished mechanical restraint from their asylums, and introduced many novel methods of moral treatment, which were based on the principle of extending to the treatment of the insane the same privileges, recreations, and occupations as were enjoyed by their more fortunate sane brethren. Much, however, still remained to be done. Rutherford was not only a strong supporter of the non-restraint system. He went further than this, and warmly advocated the cause of greater liberty for the insane, and this took shape in his practice in the adoption of the open-door system, the liberal prescription of healthy outdoor employment and exercise, and the generous use of parole both within and beyond the grounds of the institution. No man had a kinder heart for the insane than Rutherford; and there can be no doubt that the wide adoption of his methods in this country and abroad has promoted the recovery and conduced towards the greater contentment and happiness of numberless afflicted ones. His Majesty's Commissioner in Lunacy, writing at the

time of Dr. Rutherford's retirement, said of him: "The loss to the institution and to the cause of progressive lunacy administration in Scotland, which Dr. Rutherford's resignation entails, can only be truly estimated by those who have watched his career, and who are interested in the difficult problem of the care of the insane. Dr. Rutherford was a bold and original administrator, who never hesitated, from motives of timidity or self-interest, to introduce new and original methods of care and treatment which he considered to be of advantage to the insane as a class. At a time when the general provision for the housing of the insane in the asylums of Scotland was not so liberal as it now is, he was one of those who, by his example and action, promoted a movement which resulted ultimately in a complete structural renovation of almost all the institutions of the country. This movement was, no doubt, often open to the charge of extravagance, but its general influence for good was unmistakable. In addition, he promoted the industrial employment of the insane, the open-door system in asylums, and liberty on parole to individual patients." Dr. Rutherford was a man of tall and commanding physique, energetic and sanguine, and of great amiability and personal popularity. His kindly heart and genial sympathy endeared him personally to his directors, staff, and patients, and to his many friends both in and outside of the profession. He was for many years a Justice of the Peace for the county of Dumfries, and he leaves a widow and family of four sons and four daughters. Three of the former are in the medical profession, and two of the latter are married to doctors in the speciality.

Dr. J. F. SUTHERLAND, one of the Deputy Lunacy Commissioners for Scotland, writes:

The demise of Dr. James Rutherford, late Physician Superintendent of the Crichton Asylum, Dumfries, leaves a blank in psychiatric and asylum circles not to be easily filled. Among asylums men he was unique in respect that as an able and experienced administrator and organizer he followed methods largely or entirely of his own conception, methods which made the Crichton a success from every point of view, financial and otherwise, and a kind of Mecca for specialists on the look-out for something new and useful. During his reign of twenty-four years at Dumfries, the Crichton acquired a great reputation for the provision it made for paying patients, and attracted hundreds from Ireland as well as Scotland and the North of England. His guiding principle—a most sound one, and one vital to good results—was the segregation and classification of his private patients to the utmost degree which with the funds at his disposal he was able to accomplish in a way and to a degree not possible in district asylums for the insane poor even in the villa asylums of modern times. Thirty-three per cent. of the patients were to be found in detached villas all over the large estates acquired. Thus it came about that there grew up at the Crichton a series of villas graded by payments to which patients after assortment were sent. In these houses there was much family life, and remarkable tranquillity prevailed as the result of the selection. Richly endowed as the Crichton was by the bequest which bears the name, by successful management and good results he added considerably to its resources by attracting paying patients from a wide area of country, and in this way was enabled to lessen the maintenance cost of the chargeable insane for the Border Counties of Dumfries, Kirkcudbright, and Wigtown. His successful financial policy enabled him to erect a beautiful Gothic church—the Crichton Memorial Church—by some critics considered far too costly for its object, and apt to remind one of Lord Rosebery's *bon mot* on a memorable occasion of the "gilded sepulchres of the intellectually dead"—an expression which caused a good deal of favourable and adverse comment at the time. He did much to encourage the employment of the patients in outdoor work and farming. Indeed, the farm, stock, standings, etc., visited by skilled agriculturists came in for warm commendation, and in this department he took a keen personal and untiring interest. A feature of the place was the magnificent artesian well he discovered by boring after much trouble, and from it there pours an unlimited supply of cool refreshing potable water which has quite a cerulean hue as it bursts forth like a fountain. Dr. Rutherford made little or no claim to scientific methods, although he fell in heartily with the establishment of the original research laboratory of the Royal College of Physicians, at the same time setting up a department of the kind in the asylum in which his assistants did good work.

The time is not yet when anything very definite can be claimed for the scientific treatment of the insane; but that treatment, so long followed successfully, which consists in rest, varied labour adapted to the capacity and tastes of patients, healthy, comfortable, and cheerful surroundings, good nursing, good food, etc., found in him a warm supporter. Of a genial and kindly nature, Dr. Rutherford was beloved by his patients, all of whom he knew by head mark, and for all of whom he had a kindly smile and word as they passed him. Others who knew him longer and more intimately than the writer of this brief appreciative notice will be able to speak more fully of his marked administrative qualities manifested through a long series of years at the Crichton, Glasgow, and Lochgilphead. These have been again and again attested in the most ungrudging fashion by the Commissioners in Lunacy, Drs. Fraser and Macpherson.

JOHN R. HUGHES, M.D.EDIN., M.R.C.S.ENG., L.S.A.,

SENIOR SURGEON TO THE DENBIGHSHIRE INFIRMARY AND CORONER FOR WEST DENBIGHSHIRE.

WE regret to record the death of Dr. John R. Hughes, of Denbigh, on March 12th, at the age of 82. His health failed rapidly during the last winter, and about a fortnight ago he was seized with bronchial congestion to which, with heart failure, he succumbed. Dr. Hughes graduated M.D.Edin. with honours in 1851, and was Senior Surgeon to the Denbighshire Infirmary and Coroner for West Denbighshire until he died. He was formerly President of the North Wales Branch of the British Medical Association, and contributed papers on sanitary measures and on diphtheria.

At one time he was a very conspicuous supporter of the Conservative cause which, in such a Radical borough and county, required no little courage. He was one of the oldest and most respected practitioners of his extensive district, and will be much missed by his numerous friends. He had for some time been associated in practice with his nephew, Dr. James Hughes.

IN Dr. JOHN COCKTON of Ulverston, who died on March 7th of pulmonary haemorrhage, North Lancashire has lost a practitioner who was highly esteemed both for his attainments and for his character. Dr. Cockton received his medical education at the University of Edinburgh. While a student he suffered from an attack of croupous pneumonia, the results of which not only retarded his graduation but also left permanent impairment of the lungs, which was no doubt the foundation of the illness to which he has now succumbed. He sought health by a visit to Switzerland, and also by acting as ship's surgeon on several voyages. He graduated M.B., C.M.Edin. in 1888, and shortly afterwards went as Assistant to the late Dr. Abram Thompson at Ulverston, near Maryport. After some years, though still in indifferent health, he began independent practice at Maryport, where his family had long resided; but eleven years ago, on the death of Dr. Fox Jackson, who had succeeded Dr. Abram Thompson, Dr. Cockton succeeded to his practice and to the appointment of Medical Officer to the North Lonsdale Iron and Steel Company. He never held any public office, but won a high place in the town of his adoption on account of his straightforward character and his practical sympathy with the poor and suffering. For some years past he had suffered every winter from bronchitis, accompanied occasionally by pulmonary haemorrhage, but he preferred to continue his work, and, as we have said, died almost suddenly in the 50th year of his age. Dr. Cockton, who never married, resided with his sisters, with whom much sympathy will be felt. The funeral, which took place at Ulverston Cemetery on March 10th, was largely attended.

UNDER the will of Mr. G. H. Swonnell the Bolingbroke Hospital receives £500, and the Norwood Cottage Hospital and the Croydon General Hospital £250 each. The residue of the estate, amounting to about £27,000, is bequeathed to King Edward's Hospital Fund for London.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

Conferment of Degrees.

THE following degrees have been conferred :

M.B.—J. R. Briscoe, H. Selwyn ; E. B. Clayton, Caius ; H. L. Duke, Caius ; B. Hughes. H. Selwyn.
B.C.—J. R. Briscoe, H. Selwyn ; E. B. Clayton, Caius.

UNIVERSITY OF LONDON.

MEETING OF THE SENATE.

A MEETING of the Senate was held on February 23rd.

Physiological Laboratory.

The annual report of the Physiological Laboratory Committee was presented. It stated that during the year four courses of lectures were delivered, one of eight by Dr. Waller on Some Recent Advances in Physiology ; one of eight by Dr. A. Harden on the Chemical Biology of the Yeast Cell ; a third, also of eight lectures, on Chloroform Anaesthesia by Dr. G. A. Buckmaster and Mr. J. A. Gardner, and a fourth, of five, under the Brown Trust, on the Influence of Alcohol, Sugars, and Glucosides on the Growth and Mutation of Bacteria by Mr. F. W. Twort. A lecture on Artificial Pathogenesis was delivered by Professor J. Loeb on June 25th.

M.S. Degree in Dentistry.

Regulations have been adopted for the establishment of Dental Surgery as a second branch, in which the degree of Master of Surgery can be obtained. The examination in this, as in the existing branch, will be open only to candidates who have taken the M.B., B.S. degrees. The first examination will be held in December, and candidates intending to enter for this or for any subsequent examination are required to give four months' notice. Copies of the regulations may be obtained on application to the university.

Staff Examiners.

The following are among the staff examiners appointed for 1910–1911 :

Experimental Psychology.—William McDougall, M.B., B.Ch., M.A., M.Sc.
Forensic Medicine and Hygiene.—Professor H. J. Campbell, M.D., and Henry Franklin Parsons, M.D., D.P.H.
Medicine.—Professor A. H. Carter, M.D., Sidney P. Phillips, M.D., G. Newton Pitt, M.D., and Samuel West, M.D.
Mental Diseases and Psychology.—Robert Jones, M.D., and Charles Mercier, M.D.
Obstetric Medicine.—C. M. Handfield-Jones, M.D., and G. H. Drummond Robinson, M.D., B.S.
Pathology.—Professor A. S. Grünbaum, M.D., and Professor R. Tanner Hewlett, M.D.
Pharmacology.—James Calvert, M.D., and Professor A. R. Cushny, M.D., F.R.S.
Physiology.—J. S. Edkins, M.B., and Professor Francis Gotch, F.R.S.
State Medicine.—D. S. Davies, M.D., D.P.H., and H. Franklin Parsons, M.D., D.P.H.
Surgery.—A. Carless, M.S., F.R.C.S., Raymond Johnson, B.S., F.R.C.S., William Thorburn, M.D., F.R.C.S., and H. J. Waring, M.S., F.R.C.S.
Tropical Medicine.—C. W. Daniels, M.B., and Andrew Duncan, M.D.
Veterinary Anatomy.—O. C. Bradley, D.Sc., M.D.
Veterinary Pathology.—William Bulloch, M.D.
Veterinary Physiology.—Professor W. D. Halliburton, M.D., F.R.S.

Studentship in Physiology.

A university studentship in physiology of the value of £50 for one year will be awarded to a student qualified to undertake research in physiology, and will be tenable in a physiological laboratory of the university or of a school of the university. Application must be sent to the Principal on or before May 31st, 1910.

Advanced Lectures in Physiology.

A course of eight lectures on the physiology and anatomy of the central nervous system will be given by Dr. Gordon M. Holmes in the physiological laboratory on dates to be announced later. The course has been recognized as a course of advanced lectures which a candidate at the B.Sc. examination may name for part of his practical examination.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary Council was held on March 10th, 1910, Mr. H. T. Butlin, President, in the chair.

The Royal Commission on University Education in London.

The President, Mr. A. P. Gould, and Sir Henry Morris were appointed witnesses to give evidence on behalf of the College before the above Commission.

Annual Report of the Proceedings of the Central Midwives Board.

This report, drawn up by Mr. C. H. Golding-Bird, was entered on the minutes, and the Council returned its best thanks to Mr. Golding-Bird. The report ends with the following expression of opinion : "I cannot but feel that the board has during the past year done its utmost to see the provisions of the present Act properly carried out ; and where for want of power to act it has been unable to enforce any step that it considered right, it has still used its influence in that direction to the utmost. The revision of the present Act of Parliament at the earliest date, now that its weak points are recognized, is anxiously awaited."

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN extraordinary Comitia was held at the College on March 14th, the President, Sir R. Douglas Powell, in the chair.

Proposed Joint Action with the University of London.

Sir William Allchin, in proposing the adoption of the report of the delegates appointed by the Royal Colleges to consider a scheme for establishing a system of conjoint examinations in accordance with Statute 123 of the University of London, sketched the history, going back to 1834, of the action taken by the College at various times, with the view to the institution of a degree accessible to London medical students. He pointed out that the report itself (which is printed at page 707) would not be presented to the Royal Commission in that form, but was intended to afford a general indication of the lines to be followed by the witnesses who should give evidence before the Royal Commission on behalf of the colleges, in order that these general lines might receive the approval of the College of Physicians, as they had already received that of the Council of the Royal College of Surgeons.

Sir Thomas Barlow moved an amendment, which was seconded by Dr. Rose Bradford, calling attention to the resolution adopted by the Faculty of Medicine of the University of London at its meeting on November 1st, 1909 (see page 709), with regard to the suggested changes in the constitution of the University, and proposing that the College should support the recommendations of the Faculty.

After a prolonged discussion, in which Dr. Herringham, Professor Starling, and Dr. Spriggs took part, a suggestion by Dr. Norman Moore, to refer the report to a large committee of the College, with instructioas to report on the whole subject at a future meeting of the College, was adopted. The nomination of the committee was postponed.

Communications.

The following communications were received :

1. From the delegates of the Clarendon Press, asking permission of the College to photograph the portraits of Sir Thomas Browne, Sydenham, and Harvey for the book, entitled, *Historical Portraits.* Permission was granted.
2. From the Privy Council, enclosing a further notice of the International Congress of Obstetrics and Gynaecology to be held in St. Petersburg. On the nomination of the President, Dr. Amand Routh was elected to represent the College.
3. From the Home Office, enclosing a letter from the Danish Legation, in which certain inquiries are made respecting the practice of massage. Drs. Sharkey, Ormerod, Batten, Donald Hood, and Lewis Jones were appointed a committee to consider and report to the College.

THE second International Congress on Diseases of Occupation will be held at Brussels from September 10th to 14th. The chief subject for discussion at the congress is diseases of occupation in their relation to accident, with special reference to legislation recently adopted in certain countries and under consideration in others. Other subjects suggested for discussion are, the organization of medical services for industrial workers, the prevention of ankylostomiasis, miner's nystagmus, the prophylaxis of caisson disease, and industrial poisoning. The President of the congress is Dr. A. Moeller, President of the Royal Belgian Academy of Medicine, and the Secretary-General is Dr. D. Glibert. The Brussels National Exhibition will be open during the time the congress is being held, and in it will be displayed models illustrating methods of protection in dangerous trades and the fencing of machinery. A British National Committee to promote the objects of the congress has been formed, with Sir T. Clifford Allbutt and Professor Sheridan Delépine as presidents, Sir Thomas Oliver as president of the executive committee, and Dr. W. F. Dearden, 19, Salisbury Buildings, Trafford Road, Manchester, and Dr. T. M. Legge, Home Office, London, are secretaries. The Home Secretary and Postmaster-General have accepted the office of honorary president of the British National Committee. The subscription of a member of the congress is 16s., and the subscriber is entitled to printed copies of all contributions in advance, and later to a printed report of the proceedings. Members of the families of subscribers will pay 8s., entitling them to all privileges except that of taking part in debates. Membership is not confined to individuals, but also covers societies and associations interested in the study of this branch of medicine, and the support of insurance societies and industrial associations will be welcomed. Forms of adhesion and further particulars can be obtained on application to Dr. Dearden.

Public Health AND POOR LAW MEDICAL SERVICES.

POOR LAW MEDICAL OFFICERS' ASSOCIATION OF ENGLAND AND WALES.

A COUNCIL meeting of this Association was held at 34, Copthall Avenue, E.C., on Thursday, March 10th, Dr. D. B. Balding being in the chair.

Various matters affecting the interests of Poor Law medical officers were considered, among others, whether it was one of the duties of the district medical officer to give certificates gratuitously for the use of education authorities. Dr. Gidley-Moore (Ongar), stated that in his district it was customary for the Education Authority to pay for these certificates. The Council were unanimously of opinion that this was the best and most equitable arrangement. The Honorary Secretary reported that an association of part-time medical officers of health had been formed to protect the interests of part-time officers. One of its chief objects was to obtain the rescindment of Minute 234, passed at the last meeting of the Representative Body of the British Medical Association. He had been asked to bring the matter before the Poor Law Medical Officers' Association with a view to joint action, as their interests were almost identical with those of part-time medical officers of health.

It was proposed by Dr. Toogood, and seconded by Dr. Napper:

> That the Honorary Secretary be instructed to approach the Honorary Secretary of the Association of Medical Officers of Health, with a view to united action in defence of the just rights of the part-time medical officers in both services.

This was carried unanimously, and satisfaction was expressed when the Honorary Secretary stated that he had been elected to the Council of the new Association.

The Honorary Secretary was authorized to make arrangements for the annual meeting at Halifax in June, and the advisability of holding a second meeting in London during the British Medical Association week was considered. The Honorary Secretary said he had received numerous letters from country members urging this course, and it was finally decided to adopt it. The Honorary Secretary was instructed to write to the Medical Secretary of the British Medical Association to ascertain whether such a meeting could be held in conjunction with the meetings of the latter Association.

Medico-Ethical.

The advice given in this column for the assistance of members is based on medico-ethical principles generally recognized by the profession, but must not be taken as representing direct findings of the Central Ethical Committee, except when so stated.

RESTRICTIVE EFFECT OF NEGOTIATIONS FOR PURCHASE.

A. Z., who has been in negotiation with a practitioner about the sale of his practice, but has not examined his books, and has only details of income from the vendor, wishes to know whether, in the event of his offer not being accepted by the latter, he would be entitled to commence practice in the place on his own account. He asks also, in the event of the answer being in the negative, whether the same opinion would hold in the event of the vendor a little later selling the practice to another and leaving the neighbourhood.

*** Our correspondent could not be legally restrained from practising on his own account, but it would be unprofessional to act in this manner. The same reason would not apply at a later period if the practice had been sold to another and the practitioner with whom he had had dealings had left the neighbourhood.

CONTRACT NOT TO PRACTISE.

G. P. writes that nearly nineteen years ago he sold his practice and signed an agreement that he would not practise as a surgeon or medical man in the neighbourhood for a period of ten years. He asks whether there would be anything ethically incorrect in his again residing in that district and practising there.

*** As our correspondent, when selling his practice, only agreed to relinquish practice in that part for the space of ten years, there would seem to be nothing unethical under the circumstances in his resuming practice there.

Medical News.

AT an examination for sanitary inspectors under the Public Health (London) Act, 1891, recently held by the Sanitary Inspection Board, 20 candidates, of whom 13 were women, passed.

THE German Society of Orthopaedic Surgery will hold its ninth congress in the Langenbeckhaus, Berlin, on March 28th and 29th, under the presidency of Professor Georg Joachimsthal.

WE are requested to state that the announcement of our lobby correspondent in our issue of March 12th as to the scale of fees for census enumerators was incorrect. We are informed that no such fees as those indicated have been paid, and that there is no probability that such fees will be paid.

THE library and offices of the Royal Society of Medicine were closed on March 15th for the purpose of packing and removing the society's library, etc., to the temporary quarters which have been secured at 15, Cavendish Square. The library and offices will be opened there on the morning of Monday, April 4th. About 20,000 volumes consisting of the books which it is believed are most likely to be wanted will be available in the temporary library, and the remainder will be stored during the building of the society's new house, which it is hoped will be ready for occupation early next year.

A FABIAN medical conference is to be held at Easter at the Fabian Summer School, Pen-yr-allt, Llanbedr, near Barmouth, North Wales. Papers will be read on March 26th by F. Lawson Dodd, M.and L.D.S., R.C.S., D.P.H., on the present and future organization of the medical service; on March 28th, by Mr. Somerville Hastings, M.S., F.R.C.S., on the proposals of the Minority Report in relation to the medical profession; on March 29th, by Dr. Lionel Tayler, on alcohol and national health; on March 30th, by Dr. C. W. Saleeby, on eugenics and national health; and on April 1st, by Dr. H. Beckett Overy, on evolution and disease in relation to the socialist state. On the evening of March 31st there will be a discussion on the organization and work of school clinics.

THE hundred and thirty-seventh anniversary dinner of the Medical Society of London was held at the Whitehall Rooms, Hôtel Métropole, on March 9th. The President, Dr. Samuel West, who was in the chair, in proposing the toast of "The Society," explained how it was that the society had decided to remain outside the Royal Society of Medicine because it was thought that the Medical Society would have lost its identity by being merged in the proposed amalgamation or association of the special sections of medicine and surgery forming the Royal Society of Medicine. The Medical Society of London had nothing but good will towards the Royal Society of Medicine, and had shown that feeling by the readiness with which it had come forward to help the Royal Society of Medicine in finding accommodation for its sections during the period of transition while that society was changing its quarters from its old building to new premises. The Medical Society was in a flourishing condition, its meetings were well attended, the subjects were chosen wisely, and the discussions had been good. The number of Fellows was increasing, and that was satisfactory because it had been thought that the fact that the Medical Society had not joined the Royal Society of Medicine would have caused a decrease in numbers, but now the Medical Society had a considerable number of new members over and above those who had retired at the time of the formation of the Royal Society of Medicine. The financial report of the society was very satisfactory, and was expressed in clear terms so that any one could understand the accounts, and could see what balance was carried forward from one year to another. Mr. Charters Symonds proposed the toast of "The Guests and Kindred Societies," which was acknowledged by the President of the Royal College of Surgeons, Mr. Butlin, who considered that on the whole the Medical Society did quite right in retaining its independence by not joining the Royal Society of Medicine. Sir John Tweedy, who also responded to the toast, declared that the Hippocratic traditions kept up by the Medical Society fostered the best medical talent of the time, and encouraged and stimulated pathological, practical, and speculative knowledge, and he trusted that the society might continue to do so for another 140 years. The health of the President was proposed by Dr. F. de Havilland Hall, and in replying to this toast the President submitted the toast of the two Honorary Secretaries, Dr. Guthrie and Mr. Warren Low, at the same time paying a high tribute of praise to the librarian, Mr. G. Bethell, for his successful efforts in forwarding the interests of the society.

Letters, Notes, and Answers.

BRITISH MEDICAL ASSOCIATION AND BRITISH MEDICAL JOURNAL.

The offices of the British Medical Association and of the British Medical Journal are at 429, Strand, London.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted will be found under their respective headings.*

QUERIES.

Rusticus asks for information *re* the treatment of diabetes by calcium iodide from one who has used it.

Income Tax.

D. F. inquires whether the expenses attending his removal from one town to another can be claimed as a deduction in arriving at his income tax assessment.

*** These expenses would not be allowed. Under the Income Tax Acts only professional expenses incurred in the course of earning the profits of the year are admissible, a distinction being drawn between such expenses and those incurred in order that the taxpayer may be in a position to earn the profits.

ANSWERS.

Stove for Invalid's Bedroom.

Dr. E. H. Baldock (Hereford) writes: If "H." will make inquiries concerning the "Esse" stoves made by the Columbian Stove Works, he will find just what he wants.

Dr. John Hamilton (Ealing) writes: For one month or longer I used a Roberts's patent asbestos stove in a bedroom. It burns coal. It burns twenty-four hours without attention; it neither gives off fumes nor smoke, and is a most excellent stove for purpose wanted.

Dr. R. M. Fraser (Belfast) writes: "H." will find in a descriptive list of anthracite stoves of W. Kemp and Co., 159, Buchanan Street, Glasgow, one called the "Mistletoe" (heating capacity 2,000 c. ft.), suitable to the requirements of a bedroom. In plain black finish it is cheaper, looks better, and radiates more heat, according to elementary physics than enamelled. If "H." has not had any experience of anthracite stoves he should procure the best quality of anthracite nuts. Combustion is regulated by throttling the inlet and also the exhaust. If the draught in the chimney is strong it will probably be advisable to have some arrangement in the iron sheet which closes the chimney place in the nature of a sliding panel or flap valve to temper the suction in windy weather. "H." will find these stoves economical, saving in domestic labour, diffusing a not unpleasant heat, and presenting—to use an Ulsterism—a "heartsome" appearance when the red glow is seen through the mica front.

Dr. L. W. K. Trubridge (Hoo, Rochester) writes in reply to "H.": For years I have used stoves manufactured by Musgrave, of Belfast and London. They consume anthracite or coke (also cinders). Anthracite is free from fumes. They are most economical, and by their use a room can for months be maintained at an even temperature. At the end of perhaps six months one might have to let it go out to clean the flue pipe, but while alight a moderate sized stove will go unattended for twelve hours, it can be filled to give great or moderate heat, and in the latter case one can within half an hour have a big fire. At all times there is great freedom from draught in the room, which also is kept dry. I should certainly recommend a stove with mica panels in the door.

Food and Physique.

Enquirer.—As the Departmental Committee on Physical Degeneration was not able to come to any positive conclusion, we can hardly hope to supply our correspondent with the sort of evidence that would satisfy him as to the diminished physical robustness of the wage-earning classes. Many things are generally accepted as highly probable that are difficult to prove, especially when, as in this case, a comparison is suggested between the present condition of the population and that of a hundred years ago. Of the latter, we can only have such information as is to be found in literature or in the memory of old people, which may be, as he says, "vague, partial, and second hand," but we know that a hundred years ago we faced the world in arms, and that great battles by land and by sea were fought by men drawn from the rural districts who had been brought up in England on bread and bacon, in Scotland on milk and oatmeal, and in Ireland on potatoes and buttermilk, but who had no tea, coffee, or cocoa, and little butcher's meat. From the tone of our correspondent's letter we gather that he would not consider such evidence conclusive, and so he must be content with the result of his own reading, namely, that "he has found indications of apparent change for the worse."

The "Lebenswecker" Treatment of Sciatica.

Neuritis.—"Lebenswecker" is a term given to a form of acupuncture instrument invented by a "Nature healer" of Bonn, named Baunscheidt. The method is known as Baunscheidtism, and is defined in Gould's *Dictionary* as "a mode of treating rheumatism or other chronic neuralgias by counter-irritation, the latter being produced by pricking the exterior of the part affected with fine needles dipped in oil of mustard, formic acid, or other irritant." The Lebenswecker consists of a number of sharp needles which are driven into the skin by a special mechanism. The small wounds are then rubbed with an irritant, usually croton oil. The action thus depends solely on counter-irritation, which, however, is considerable, in view of the nature of the material applied. Whether this method of treatment yields better results in sciatica than other counter-irritants we are not in a position to state, but, as it is said to be widely used in Germany by the members of the medical profession, it appears to be outside the realm of quack treatments.

LETTERS, NOTES, ETC.

Red Line on Gums.

Dr. Herbert Lucas (Huntingdon) writes: I was much interested in Dr. Arbour Stephens's note on this condition. For many years I have been observing it in cases of tuberculosis; in fact, I look upon it as a diagnostic sign. I should like to hear the experience of others on the subject, and their suggestions as to the cause.

An Appeal to Freemasons.

Dr. William Wilson (Secretary St. Luke's Medical Lodge of Instruction, 184, Goldhawk Road, W.), appeals to medical men, and medical Freemasons in particular, for votes for the Masonic charities. At the forthcoming elections in April and May there are two medical candidates. Votes for any of the Masonic institutions will be equally acceptable, as exchanges can be effected.

The Earpieces of Stethoscopes.

Dr. Charles W. Chapman (London) writes: If Dr. Hobhouse has indiarubber earpieces he will have no more pain from using the stethoscope. The most recent pattern has an enlargement beyond the part which slips over the metal end to prevent the latter "threading" through the earpiece, which is a great advantage. In my work I have frequently to use the stethoscope for three or four hours consecutively, and, although my ears are very sensitive, I have no trouble or inconvenience from it.

Appendix Dyspepsia.

Dr. W. Blair Bell (Liverpool) writes: I was much interested in the obscurer phenomena associated with appendicitis some years ago, before the area of my surgical activities became more restricted by the demands of modern specialism, which would only allow a gynaecologist to remove an appendix on the principle that it is permissible to shoot a fox in Scotland. The recent correspondence has interested me, therefore, not a little, and, if I have read correctly, the whole discussion appears to centre round the differentiation of "appendix dyspepsia" from other forms of indigestion. If this be so, I should like to refer to the paper I read on the subject of "Chronic Appendicitis" before the British Medical Association at Oxford *six years ago*, in which the etiology, pathology, symptoms, diagnosis, and treatment of indigestion associated with chronic appendicitis were fully considered. This paper was published in the British Medical Journal on October 29th, 1904, and is therefore open to the inspection of all who may be interested in the subject, and especially of those who think that "appendix dyspepsia" is a recently discovered symptom complex, and has not been investigated before. It is only too apparent that Mr. Moynihan is fully justified in recalling attention to this important subject.

An Obstetric Tackle.

Lieutenant-Colonel Hugh L. Donovan, R.P., A.M.S., M.D. (South Yardley), writes: In continuation of my letter published on October 30th, 1909, p. 1288, I think the most generally useful form of "director" will be found to be a strip of celluloid 1 in. wide, $\frac{1}{32}$ in. thick, and 12 in. in length, perforated with holes large enough to admit a finger-tip. The holes should be about 1 in. apart, and moulded so as to preserve the strength of the structure. The finger passed through the holes can feel the head and move the "director." Both ends of the "director" can be introduced into the vagina. Celluloid can be softened by heat.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page	8	0	0

An average line contains six words

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

Note.—It is against the rules of the Post Office to receive *poste Restante* letters addressed either in initials or numbers

The Morison Lectures

ON

EPILEPSY.

DELIVERED BEFORE THE ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

BY

WILLIAM ALDREN TURNER, M.D.,

PHYSICIAN TO KING'S COLLEGE HOSPITAL AND PHYSICIAN TO OUT-PATIENTS, NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, QUEEN SQUARE, LONDON.

LECTURE I.—THE PROBLEM OF EPILEPSY.

THE term "epilepsy" refers to a symptom; it is the clinical expression of a group of diseases which may be to a large extent differentiated from each other. They may be divided into four primary divisions:

1. The organic epilepsies.
2. The early epilepsies.
3. The late epilepsies.
4. Idiopathic epilepsy.

THE ORGANIC EPILEPSIES.

Under this heading are included: (*a*) Those forms of epilepsy arising from traumatic lesions of the skull, brain, or membranes. (*b*) Those associated with or sequential to focal organic disease of the brain, such as tumour or thrombosis.

THE EARLY EPILEPSIES.

The epilepsies of infancy and early childhood have been placed in a subdivision, although it is admitted that they may in many instances be difficult to distinguish from idiopathic epilepsy.[1] Moreover, the two tend to fuse and overlap in later childhood. They are, however, tentatively taken out of the great group of genuine epilepsies, owing to the marked degree of mental impairment, amounting to imbecility or even idiocy, found in most cases. Many cases also are attributable to focal lesions—encephalitis, haemorrhage, and thrombosis. A subvariety is that form of epilepsy which is found with infantile cerebral hemiplegia. I have elsewhere shown that the greatest degrees of dementia are found amongst those epileptics in whom the disease commenced before the fifth year of age, a group also in whom structural stigmata of degeneration are most frequent.

THE LATE EPILEPSIES.

Under this heading are included: (*a*) The epilepsy associated with degenerative cardio-vascular disease; (*b*) the intoxication epilepsies, of which alcoholic epilepsy is the most common; (*c*) the epilepsy which occurs in the late stages of some dementing psychoses; (*d*) epilepsy which springs out of eclamptic conditions, such as uraemia, puerperal eclampsia, etc. Puerperal eclampsia is, in many cases, the acute onset of epilepsy, which is continued in a chronic form by the recurrence of ordinary epileptic seizures, of the major or minor type.

When these epilepsies have been eliminated there still remains a large group, which has received the name of "genuine," "essential," or "idiopathic" epilepsy, a malady arising about the period of puberty, usually without any tangible or ascertainable cause.

IDIOPATHIC EPILEPSY.

Idiopathic, or genuine, epilepsy may be defined as a chronic disease of the brain, characterized by the recurrence of seizures in which interference with consciousness is an essential feature, associated either with convulsions or transient psychical phenomena, occurring usually in persons with a hereditary neuropathic endowment, and eventually leading to more or less permanent mental impairment and dementia.

This definition embraces the manifold symptoms usually included under the term "epilepsy"—such as transient jerks or jumps (*petit mal moteur*), aura sensations, incomplete attacks, psychical epilepsy, automatism, the classical fit, and the psychical epileptic equivalents.

The sole feature necessary to establish the existence of epilepsy is sudden, brief loss or impairment of consciousness. Very characteristic of the epileptic attack is the temporary mental confusion which succeeds the loss of consciousness. During this phase semipurposive actions or automatism may be observed.

In any discussion upon the problem or nature of epilepsy the two primary elements of the disease requiring consideration are:

1. The convulsive element, and
2. The psychical element.

1. *The Convulsive Element.*

The chief characteristic symptom of epilepsy is the periodic occurrence of attacks of loss or impairment of consciousness, sometimes accompanied by convulsions.

It has been laid down as a general principle, notably by Herpin[2] in his classical but little known work upon minor epilepsy, that the symptoms occurring during the interval of the major seizures of this disease, such as cramps, "jumps," twitchings, spasms, partial convulsions, vertiginous attacks, cephalic sensations, visual hallucinations, or other subjective phenomena, are the major or complete seizures reduced to their initiatory symptoms or sensations. All gradations of seizures may therefore be found in the same person, from the aura as the sole representative of the fit, through the incomplete attack to the fully developed epileptic fit, with its phases of tonic spasm and clonic convulsion and the after-stage of coma. Let me illustrate my meaning by aid of a simple case:

An epileptic described his attacks as beginning with a sensation in the epigastric region. The sensation was that of spasm or cramp in the stomach, and was sometimes associated with flatulence and nausea, and occasionally with a desire to go to stool. The spasm or sensation then took an ascending course towards the throat. When it reached the pharynx a sensation of choking was experienced and the saliva collected in the mouth. About this period also an arrest of respiration occurred, probably from a tonic contraction of the respiratory muscles. A feeling of suffocation, usually associated with a sensation of fear and a desire to be alone, then came on. If consciousness was not already abolished the patient called out that he was going to have an attack, and was sometimes able to sit down. The sensation then passed rapidly into the head and consciousness was lost, but sometimes not before the convulsion had already commenced in the muscles of the head and neck. Then followed the usual phenomena of the major convulsive seizure (tonic and clonic convulsion, etc.).

In the intervals of such major seizures the patient experienced minor attacks, sometimes of the epigastric sensation alone, at other times of the epigastric warning with a further development towards the complete fit—namely, the choking sensation, the collection of saliva in the mouth, and the feeling of fear and cardiac oppression, but without the loss of consciousness.

I would especially call attention to these minor attacks as they closely resemble attacks which will be described later on. Their epileptic nature is seen by the fact that they form the aura or initiatory symptoms of an epileptic fit, and by their rapid march, the upward passage of the sensation taking only a few seconds to reach the head.

All epileptics whose major fits commence with a definite and constant warning—whether referred to the limbs, the head, the special senses, or of a psychical nature—have minor attacks consisting solely of the aura, or of the aura with a further development towards the complete attack. In other cases the warning is of a purely psychical character. One patient had as his minor fits—the aura of a "horrible sensation" which always preceded the major attacks. In another the minor seizures consisted either of a "terrible feeling of a most disagreeable character," or of this sensation accompanied by obscuration of consciousness and a fall, but without convulsion.

Attacks of this character are not uncommonly associated with what Hughlings Jackson has called "the dreamy state."[3] This may be of the nature of reminiscence, or it may consist of a sense of unreality, as if surroundings were unfamiliar, or of a sensation that what is happening has been previously experienced. The patient is frequently able to predict whether the incomplete or complete seizure is likely to occur from the intensity of the warning sensation. The feeling of intense fear, with brief loss of consciousness, associated with its physical counterpart of running away as the means of escape, may form the whole of the attack.

In about two-thirds of all epileptics there is no warning of the onset of the seizure, a sudden and complete loss of consciousness occurring either immediately before, or at the same time as, the onset of the tonic phase of the complete major fit.

The minor attacks occurring in the intervals of the complete fits in this group of epileptics are common;

as there is no warning, there is, of course, no incomplete minor seizure without interference with consciousness. The varieties of the minor seizures here form common types of epileptic fits.

A not unusual type of fit is temporary blurring of consciousness with muscular relaxation, so that the patient drops what he is holding, or conversation is momentarily suspended, or he falls. In other cases slight and partial convulsion may be observed. Some cases of this type present features of a purely psychical character, the movements noticed during the attack being not convulsive, but automatic or semipurposive.

The deduction drawn from a study of epileptic attacks, as just described, supports the conclusion of Herpin already given, that the minor attacks occurring in the intervals of the major fits are the initial symptoms of these attacks, which are arrested at a period more or less advanced.

From these few remarks upon the general outlines of epileptic attacks, especially of the minor type, it may be concluded: (1) That some minor fits consist of the aura or warning alone, unattended by loss or even impairment of consciousness; (2) that others consist of the warning sensations with a development towards the more complete fit; these present a certain march of subjective symptoms and terminate with or without some blurring or obscuration of consciousness; and (3) others present the complete or major type of fit.

If there is no warning, the minor attacks consist of lapses of memory, giddiness, falls, and "sensations," with or without slight spasm or convulsions, but always with some interference with consciousness.

Although the common clinical type of epilepsy is the combined form or that in which minor or major seizures are found in the same person, yet other types or clinical groupings of fits are by no means unusual. Thus, we find groupings limited to the major or the minor type of seizure respectively. There is also a type in which major or minor seizures occur in series of a score or more from time to time (serial epilepsy). Again, there is the acute form of epilepsy known as the status epilepticus, in which one fit follows another so closely that the after-stage of coma gives place to the succeeding fit, without any return to consciousness.

From a study of these phenomena it would therefore seem logical to conceive the paroxysmal and interparoxysmal symptoms of epilepsy as links of a chain and not as isolated features. There may be found in the same person all stages of the fit, from the simple aura through the incomplete attack to the fully developed epileptic fit.

Whatever explanation, therefore, may be offered as the immediate cause of a convulsive seizure must also explain the interparoxysmal spasms, cramps, and aura sensations.

Applying the same principle to the clinical groupings of fits, all degrees of combination may be studied, from short series of incomplete minor fits through serial outbursts to the picture of the acute status epilepticus. Short series of minor or major fits are stages towards serial epilepsy, which is merely a less acute and more drawn-out form of status epilepticus.

2. *The Psychical Element.*

The recognition of the psychical element as a constituent of epilepsy has materially widened the range of epileptic manifestations. Some writers have gone as far as to relegate the convulsive element to a subsidiary position, and to place "periodic fluctuations of the psychical equilibrium" as the outstanding feature of the disease. It is now generally accepted that certain paroxysmal psychical symptoms occurring in epileptics may replace from time to time the convulsive seizures, and form what are known as psychical epileptic equivalents, and that transient disturbances of consciousness of a psychical character may be the sole evidence of an epileptic attack (psychical epilepsy).

The psychical element in epilepsy may be studied under three conditions:

(*a*) In the epileptic temperament.
(*b*) As the paroxysmal symptoms preceding, succeeding, or replacing the convulsions.
(*c*) In the permanent dementia.

(*a*) *The epileptic temperament* has many features common to epilepsy and the several forms of mental deficiency. Epileptics are on the whole self-opinionated and egotistical, possessing a conceit and assurance out of all proportion to their achievements. Their character is unstable, their mental perspective is disproportioned; they are sometimes conspicuous for their tenacity, which often reaches to obstinacy. Their conversation is usually prolix and pretentious. They frequently exhibit a religious fervour, which contrasts strangely with their actions, as their ideas of right and wrong are often vague. Like most mental defectives, their actions are characterized by indecision and doubt, by an exaggerated self-consciousness, by apprehensions and fears, by feebleness of will power and hesitancy, which prevent resistance to certain impulsions and decisive action.

(*b*) *The paroxysmal psychical phenomena* of epilepsy stand in three ways to the convulsive attacks. Some are found as prodromal symptoms of the seizures, others as immediate sequelae, and a third group, occurring in the interparoxysmal periods, are believed to replace the convulsions, and are in consequence known as psychical epileptic equivalents. The paroxysmal psychical symptoms are grouped under the general term of "epileptic n anity."

The preparoxysmal mental symptoms are in reality prolonged or modified phases of the prodromal stage. They consist of irritability, apprehensions, feelings of unreality, lethargy, and occasionally hallucinations. They may precede the fit by one or more days. On the other hand, they may consist of sudden impulsions, the patient doing some strange thing and then suddenly falling down in a fit.

The post-paroxysmal mental symptoms are the immediate sequelae of either single seizures, or more commonly of serial outburst, or the status epilepticus. They are inseparable from the convulsions, and disappear after a longer or shorter interval, but give in some instances a decidedly psychical character to the paroxysms.

The most frequently observed are: (1) Acute amentia or stupor, which resolves slowly during the course of days or even weeks. (2) Acute mania, or excitement, of shorter duration than the preceding, but often of intense severity. Minor varieties of this are seen in phases of talkativeness, tiresomeness, and exhilaration of spirits. (3) Transitory delusional states, and (4) automatism. Most minor fits are succeeded by some kind of automatic action, such as "exhibition," wandering or confusion of action.

The psychical equivalents are especially interesting forms of epileptic psychical phenomena. The following features may be accepted as a satisfactory reason for regarding them as equivalents of epileptic convulsions:

1. The occurrence in the family history of similar or allied conditions, interchangeable with attacks of genuine epilepsy.

2. Their association in the same person with the classical types of epilepsy, more especially at the catamenial epochs in women.

3 A certain uniformity in the type of attack, recurring paroxysms reproducing the features of former attacks.

In any particular case the psychical equivalents usually correspond to those mental phases which are directly associated with the convulsions. Thus:

1. An epileptic, whose post-convulsive symptoms were irritability, quarrelsomeness, and pugnacity, had occasional transitory attacks of a similar kind without any antecedent convulsion.

2. Another had in the interparoxysmal periods attacks of the "dream state," which usually preceded his fits.

3. A third epileptic, whose post-convulsive symptoms were catatonic rigidity and stupor, showed from time to time in the intervals of his fits catatonic stupor states, unassociated with convulsion.

These are not uncommon types of psychical epileptic equivalents. But there are others; such are epileptic impulsions (*petit mal intellectuel*, of the French writers), acute maniacal outbursts, or *grand mal intellectuel*, and transitory delusional states.

PURE PSYCHICAL EPILEPSY.

There is no doubt that a form of genuine epilepsy exists, characterized by short seizures of purely psychical type. These attacks consist of simple automatic actions performed by the patient in an unconscious state; the face is usually pale, and has a fixed staring expression. There is no subsequent recollection of what has occurred during

the seizure, although in some cases there would appear to be a state of subconsciousness, in which the patient may hear vaguely what is said but yet be unable to reply to questions. The attacks are characterized by sudden onset, and usually occur without warning. They are of short duration, and recovery is rapid.

For example, a woman who was employed in a laundry performed during her attacks the movements of folding clothes, which she was in the habit of doing at her work. Other patients will rise from table and walk into an adjoining room, where they will perform some action entirely different from that which they were doing immediately prior to the attack. Other instances may be given. Thus, Spratling mentions a case of an epileptic whose duty it was to address letters in the office; if an attack came on, she would repeat the same name and address several times during the seizure. Another always got a broom and proceeded to sweep the floors when the attack came on.

They may be regarded as constituting one of the types of minor epilepsy, but differing from the common *petit mal* seizures by the purely psychical character of the fit. In the ordinary forms of minor epilepsy the stage of automatic action is preceded by transient motor spasm or convulsion.

EPILEPTIC DEMENTIA.

In addition to the paroxysmal psychical symptoms, there is observed in all cases of confirmed or old-standing epilepsy an almost constant and characteristic interparoxysmal mental state, presenting features of great uniformity. The general features of this mental condition, or epileptic dementia, consist of all grades of mental deficiency, from a defect of memory, more especially for recent events, up to pronounced dementia. This should be regarded as an integral part of the confirmed disease, modified to some extent by the duration, the frequency and the character of the fits.

The existence of this dementia is of value in the differential diagnosis of epilepsy from some of the allied conditions which will be subsequently described.

COURSE.

Epilepsy is most commonly found in a chronic form, with periodic seizures recurring through many years, sometimes a lifetime, but in some cases showing prolonged and remarkable remissions. The frequency of the seizures may vary from one, two, or three, or even less, in a year, to as many as a score or more in twenty-four hours.

A cure occurs in a small proportion of cases, estimated at from 10 to 12 per cent. These are cases in which the seizures are of infrequent occurrence, in which there is little or no mental impairment and in which the bromide salts are well borne.

Having in this fashion briefly defined what is meant by idiopathic epilepsy, it is necessary now to ascertain whether there are any associated pathological changes in the brain or central nervous system.

PATHOLOGICAL ANATOMY.

It is difficult to obtain *post-mortem* examinations on recent cases of the disease, or on those cases characterized by seizures occurring only at long intervals; but it would appear as if genuine epilepsy was a disease which in its early stages was unassociated with any obvious structural changes in the brain or central nervous system. In old-standing cases, however, the morbid changes found after death are well recognized, and have been described by numerous writers. Dr. John Turner[4] has found atrophy and sclerosis of some part of the central nervous system in considerably more than 50 per cent. of the cases of idiopathic epilepsy. Alzheimer[5] found acute and chronic changes in 60 per cent. of all cases examined.

In the *nerve cells* the changes vary from slight degrees of chromatolysis to advanced atrophic degeneration. The extent of the change would seem to depend largely, if not entirely, upon the mode of death. Certain nerve cells, showing well-marked eccentration of the nucleus, which is usually of a globose character, are stated by Dr. John Turner to be typical of low-grade brains, and to represent an embryonic type of nerve cell. He regards these cells as stigmata of degeneration, and indications of a hereditarily acquired nervous instability.

The *vascular changes* consist of dilatation and atrophy of the blood vessel walls, perivascular infiltrations, and punctiform haemorrhages. The lymph spaces are dilated and contain a foam-like exudate. Hyaline spheres or lobulated bodies are seen lying free in the lumen of the smaller vessels and capillaries, and sometimes large hyaline masses form casts of the vessels in which they lie.

Neuroglia.—There is an increase of the glial tissue, especially that situated in the outer layers of the cortex, and of the cornu Ammonis. The meninges generally show slight fibroid thickening and a moderate leucocyte infiltration. Rupture of the vessels with extravasation of red blood corpuscles and a delicate unorganized foam-like exudate are always present.

The lesions found in the brains of epileptics are of wide distribution. The cerebellar membranes are often more affected than the cerebral. The glial changes are distributed unevenly over the whole surface of the cerebrum, but some regions are more especially involved, namely, the frontal and occipital regions, the cornu Ammonis, and the gyri around the fissure of Rolando.

It is now the generally accepted view that the changes just described are the effects and not the cause of the seizures in epilepsy. The acute or cell changes vary according to the manner of death, and the chronic or glial changes are dependent to a great degree upon the duration and severity of the disease. The most acute changes are found in the brains of persons dying in the status epilepticus (Alzheimer), and the most pronounced degrees of gliosis are observed in the brains of those in whom the disease was of long standing, and characterized by the severer grades of mental deficiency and dementia. Frequent repetition of epileptic fits brings about destructive changes in the nerve cells and fibres, whose place is taken by proliferated neuroglial elements. Hence there ensue, in the later stages of the disease, pronounced mental deterioration, and a slow and slouching gait, so well known to those conversant with the late stages of the confirmed malady.

ETIOLOGY.

In furtherance of the discussion upon the problem of epilepsy, three factors bearing upon the causation of the disease have now to be taken into consideration. These are:

1. The predisposing causes.
2. The exciting causes.
3. The immediate cause of individual seizures.

The Predisposing Causes of Epilepsy.

A statistical investigation of a large number of cases of epilepsy shows equal percentages with and without a history of ancestral neuropathic disorders. Even allowing about 20 per cent. for those in whom the family history may be either unknown, forgotten, or withheld, there still remains about 30 per cent. of all cases of epilepsy in which a history of family predisposition cannot be obtained.

Some explanation ought, therefore, to be forthcoming of so large a proportion of cases in which, on careful inquiry, no obvious heredity is obtainable. The existence of epilepsy in some of these cases may be partly explained by the presence of a diathesis, infective disorder, or intoxication in one or other parent at the period of conception.

It is not unlikely also that the presence of some symptoms, classified under the general term of "nervousness," may be of great importance in the genesis of epilepsy. Inquiries ought to be made into the question of parental neurasthenia, hysteria, migraine, or periodic headache, psychasthenia, obsessions, tics, chorea, and, in particular, those epileptoid symptoms which will be referred to in the account of the borderland of epilepsy. These are symptoms which do not, as a rule, strike the patient or his friends as of any importance in the causation of fits, nor does the physician usually direct his attention towards them.

A further explanation of some of these cases may be found in the presence of small foci of encephalitis or of thrombosis occurring in infancy or early childhood. In many of these cases resolution has so largely taken place that the only permanent defect is some impairment in the finer movements of one or other hand. Defects of this character should always be looked for in cases in which no clear predisposition is ascertained, or where the absence

of well marked "stigmata" suggests that a hereditary influence is not obtrusive. I find it impossible, however, to support the views of Freud, Marie, and others, that all cases of epilepsy are due to organic affections of a focal character occurring in early life, although it is quite clear that a small group of apparently genuine epilepsies arises in this way.

My earlier figures, taken from 676 cases of epilepsy, reveal the fact that the most common predisposing cause of epilepsy is ancestral epilepsy. In a further series of 214 cases, in which parental alcoholism as a predisposing influence was especially inquired into, the same conclusion was arrived at—namely, that ancestral alcoholism was a relatively minor factor compared with ancestral epilepsy in the causation of the disease.

TABLE I.

	First Series.	Second Series.
No heredity known ...	330, or 49.6 per cent.	106, or 49.5 per cent.
Epilepsy	252, or 37.2 ,,	81, or 37.8 ,,
Insanity	37, or 5.4 ,,	7, or 3.2 ,,
Alcoholism...	21, or 3.1 ,,	15, or 7.0 ,,
Other Disorders	36, or 5.3 ,,	5, or 2.3 ,,
	676, or 100 per cent.	214, or 99.8 per cent.

This is a point of especial interest when comparisons are made between figures obtained in different countries. The outstanding feature of Table II is the enormous percentage frequency of alcoholism noted by the French observers, an ancestral disposition far outweighing the combined percentages of epilepsy and insanity, according to Déjerine's figures. The German figures, on the other hand, show the predominating influence of insanity, whilst the American give almost equal prominence to epilepsy and alcoholism.

TABLE II.—*Showing the Percentage Frequency of Epilepsy, Insanity and Alcoholism as Predisposing Factors in Epilepsy.*

	Déjerine.	Binswanger.	Spratling.	Turner.
	Per cent.	Per cent.	Per cent.	Per cent.
Epilepsy...	21.2	11.0	16	37.0
Insanity...	16.8	29.6	7	4.8
Alcoholism	51.5	22.0	14	4.0
No heredity	—	—	—	47.0
Totals	350 cases	150 cases	1,070 cases	890 cases.

Stigmata of Degeneration.

Evidence of a family neuropathic tendency may be found in what are known as "stigmata" of degeneration.

Structural stigmata have formed the subject matter of considerable investigation since attention was directed to their importance by the writings of Morel and Moreau (of Tours). In the most pronounced forms of mental deficiency, such as are seen in imbeciles and idiots, anatomical variations from the normal are frequent and well marked.

In the slighter forms of neuroses, such as neurasthenia, migraine, and simple melancholia, the neuropathic stigmata are less frequent and less pronounced than are seen in the more exaggerated conditions above mentioned.

In epilepsy, as in the other degenerative neuroses, stigmata of degeneration are present, and have received considerable attention. In addition to the cranial asymmetry which Laségue[6] considered to be constant in true epilepsy, Féré[7] has called attention to the frequency of cranio-facial asymmetry amongst epileptics. Among other features of a degenerative character, the configuration of the hard palate deserves special attention. This has been the subject of much investigation and discussion, and its study and relation to the several degenerative neuroses is associated with the names more especially, in this country, of Langdon-Down and Clouston.[8] Deformities of the ears have for long been regarded as important structural stigmata of degeneration. Abnormal implantation of the teeth in connexion with epilepsy and the developmental neuroses has recently been the subject of careful investigation by Talbot.[9]

In addition to the above-mentioned stigmata, Féré has also drawn attention to, and described in detail, various asymmetries of the thorax and pelvis, unequal length and size of the limbs, and syndactylism, found in epileptics. In whatever form they are found, it has to be borne in mind that stigmata of degeneration are deviations from the normal, and occur in those who are subjects of a hereditary degenerative predisposition.

Of the two quinquennial periods in which the onset of epilepsy is more common, that from birth to five years of age is the most fruitful in stigmata. It is during this period that the growth and development of the brain is most active; and it is during this period, as Clouston has shown, that other degenerative neuroses and psychoses develop—such as stammering, backwardness in walking and talking, delayed dentition, and some forms of idiocy and imbecility.

Amongst epileptics in whom the disease commences about the time of puberty, quite a considerable number present no obvious structural stigmata, even when parental epilepsy was given as the probable cause of the disease. The most common stigma observed in epileptics is a deficiency in the physical development. Many epileptics are, on the other hand, physically well formed.

The general conclusions which may be made from a study of the stigmata of degeneration in epilepsy are:

1. That the absence of a family neuropathic history is of little account in face of well-marked structural signs of degeneration.
2. That the early epilepsies, or those commencing under five years of age, show not only the most marked mental defects but also are the most prone to stigmata.
3. That stigmata are most common in that type of epilepsy known as the combined seizure type, which is the most intractable and most dementing form of epilepsy.
4. That stigmata are common in those cases of confirmed disease which go on to marked dementia.

I therefore look upon the presence of well-marked degenerative stigmata in epilepsy as a factor of great importance. The future course of the malady may be gauged to some extent by their study.

Age of Onset.

The age at which epilepsy arises is an important factor in the study of the predisposing causes. Although there is no age-period which may be regarded as entirely exempt, there are certain age-epochs during which the onset of epilepsy is more common.

The first epoch is from birth to 5 or 6 years, or that period corresponding to infancy and early childhood. About 25 per cent. of all cases commence during this epoch. These cases are usually associated with marked mental deficiency or backwardness. Many of them are based upon organic lesions of the brain.

The second epoch is from 10 to 22 or 23 years of age, or that period corresponding to puberty and early adolescence. No less than 54 per cent. of all cases commence during this epoch. It is *par excellence* the age of onset of genuine epilepsy. The mean age of maximum onset is 14 years, but the onset of the disease in young women is later by about two years than in the male sex.

The third epoch embraces the remainder of life. There is a rapidly lessening tendency towards the onset of genuine epilepsy from the age of 30 onwards. Most of the epilepsies occurring in this epoch are founded upon organic lesions, arterio-sclerosis, or intoxications (alcohol, lead, etc.).

From these facts it is obvious that genuine or idiopathic epilepsy is a disease of youth, coming on at a time when the development and growth of the central nervous system and the maturation of the organs of reproduction are taking place. It is during this period that causes, insignificant or insufficient in stable nervous systems, may light up the tendency to convulsion or epilepsy in those hereditarily prone towards it.

The Exciting Causes of Epilepsy.

I have attempted to show that the predisposing cause of epilepsy is, in the majority of cases, an inherited neuropathic disposition, and that epilepsy may arise independently of any exciting or determining cause, being a spontaneous development attributable to the normal processes of brain growth and sexual maturation in predisposed persons.

In a number of cases, however, some exciting influence is at work in the production of the first epileptic seizure. It is a cardinal principle that the cause of epilepsy is that circumstance to which the first fit is apparently due. The instability of the brain, once induced, becomes a characteristic feature, so that further attacks recur quite independently of the original or any other obvious exciting cause.

The common period for the onset of epileptic fits is puberty, and in girls its onset is frequently accompanied by irregularity in the catamenia. There is little or no evidence to support a popular view that the regular establishment of the monthly period is attended by arrest of the seizures in those in whom the disease has arisen a few years earlier. The relation of epileptic fits to menstruation is well established. In most cases the seizures occur immediately before or shortly after the period, and in chronic cases the monthly period is characterized by an increase in their frequency.

The normal process of pregnancy has also some influence in the causation of epilepsy in women. We find that pregnancy may be the exciting cause of the disease in some cases, that it may induce a relapse of the seizures in cases in which a cure has apparently been established or in which a long remission has occurred. On the other hand, pregnancy has been known to produce a temporary arrest or amelioration of fits, and there are well-authenticated cases in which a permanent arrest has been brought about in this way. Accouchement and the puerperium have also an important bearing upon epileptic fits. I have seen a number of cases in which the disease clearly originated at this time in the form of a puerperal eclampsia and persisted for many years as confirmed epilepsy. These cases are interesting, as they argue in favour of the view originally propounded by Féré—that some types of puerperal eclampsia are merely the onset of epilepsy in an acute form in predisposed persons.

Sleep is another physiological condition eminently favourable to the onset of epileptic fits. In many cases fits only occur during sleep, so that a clinical type has been recognized as nocturnal epilepsy. There can be no doubt that cases of nocturnal epilepsy may exist unrecognized for many years, until a convulsion in the daytime establishes the existence of the disease. Voisin mentions the following phenomena as suggestive of the nocturnal form: Intermittent wetting of the bed, occasional periodic and temporary mental dullness and irritability, well-marked lapses of memory, somnambulism, and unexplainable outbursts of temper. Pick has called attention to the frequency of fits during the hours of deepest sleep—namely, during the first hour or two after falling off to sleep, and again before waking. My own observations show that the greatest number of fits occur during the hour or two after falling off to sleep—a period which probably coincides with the greatest degree of cerebral anaemia. Whether these facts are to be explained on the theories of brain anaemia (Pick), of lessened inhibitory control (Clark), of the alkaline tide (Haig), or of increase in the rate of blood coagulation (Turner),[10] are points on which evidence is insufficient.

A second and smaller group of epilepsies is found in which a definite extraneous cause acts as the excitant of the first fit, and, as such, of the disease. These causes may be:

1. *Psychical influences*, such as emotional excitement, fear, shock, anxiety, grief, or overwork. Gowers, in particular, regards this as the most potent of all the immediate causes of epilepsy. It was the ascribed cause in only 4 per cent. of my cases, being twice as common in females as in males. In most of the cases a strong neuropathic predisposition was found.

2. *Infective diseases.* The most frequent is scarlet fever, but measles, pertussis, influenza, and diphtheria, have also been observed. An interesting feature in this connexion is the occasional temporary arrest of the fits in consequence of an attack of pyrexia, probably due to the arrest in the chloride excretion with corresponding retention of bromide salts (Hoppe).

3. *Reflex causes* play an important part as excitants of epilepsy, more especially in children and young adults predisposed by heredity to nervous instability. I would especially call attention to the necessity of a careful examination of the nose (for adenoids, polypi, or foreign bodies), of the eyes (for errors of refraction), of the ears (for chronic otorrhoea), of the teeth, the genital organs, the stomach, and of the intestine (for the presence of worms).

REFERENCES.

[1] Vogt, *Jahresversammlung des deutsch. Vereins f. Psych.*, April, 1907. [2] Herpin, *Les accès incomplets d'épilepsie*, Paris, 1857. [3] Hughlings Jackson, *Brain*, 1898 and 1899. [4] Turner, *Epilepsy*, 1907, p. 175. [5] Alzheimer, *Jahresversammlung des deutsch. Vereins f. Psych.*, 1907. [6] Laségue, quoted by Féré, op. cit. [7] Féré, *Les épilepsies et les épileptiques*, Paris, 1890. [8] Clouston, *The Neuroses of Development*, Edinburgh, 1891. [9] Talbot, *Irregularities of the Teeth*, Philadelphia, 1901. [10] Quoted by Dr. John Turner, *Journal of Mental Science*, October, 1908.

OPTIC NEURITIS AND SUPPURATIVE OTITIS.

A FURTHER INVESTIGATION INTO THE FREQUENCY AND SIGNIFICANCE OF OPTIC NEURITIS AND OTHER VASCULAR CHANGES IN THE RETINAE OF PATIENTS SUFFERING FROM PURULENT DISEASE OF THE MIDDLE EAR.

BY

J. STODDART BARR, M.B., CH.B.,

ASSISTANT DISPENSARY SURGEON FOR DISEASES OF THE EAR, GLASGOW WESTERN INFIRMARY; ASSISTANT SURGEON, GLASGOW HOSPITAL FOR DISEASES OF THE EAR, NOSE, AND THROAT, ETC.

AND

JOHN ROWAN, M.B., F.R.F.P.S.G.,

OPHTHALMIC SURGEON, GLASGOW ROYAL INFIRMARY; OPHTHALMIC SURGEON, GLASGOW HOSPITAL FOR DISEASES OF THE EAR, NOSE, AND THROAT, ETC.

A PAPER by us on this subject, giving the results of the examination of the eyes and ears in 100 consecutive cases of purulent middle-ear disease, appeared in the BRITISH MEDICAL JOURNAL of November 23rd, 1907. Since then we have continued this investigation, and examined a second series consisting of 60 cases, and the results of these, along with those of our first 100 cases, are embodied in the present article; the conclusions arrived at, therefore, are founded upon the examination of the eyes and ears of 160 cases. Where possible, each individual case has been kept under observation until the termination of the ear affection in recovery, either as the result of local treatment or after operation. Of the 160 cases, 100 presented themselves after an interval of several months for a second ophthalmoscopic examination, and quite a number were seen three or four times.

We desire to emphasize the special importance, when examining the eyes in this class of case, of duly considering the effects of age, occupation, eye strain, and errors of refraction. These considerations constituted at first the greatest difficulties we had to contend with, and explain the large residue of 46 doubtful cases. A wider experience of the types met with has to a large extent obviated these difficulties

The plan of this paper is, first, to give the results of the examination of the second series of 60 cases, comparison being made, in tabulated form, with those of the first series of 100 cases; secondly, to present the results obtained from the total number (160 cases); thirdly, to discuss one or two of the more interesting problems in connexion with optic neuritis of otitic origin; and finally, to state briefly the conclusions arrived at as the result of our investigations.

I.—THE EXAMINATION OF THE SECOND SERIES (60 CASES).

As in our first series of cases, the aural examination included: (1) A history of the ear affection; (2) the testing of the hearing distance by a watch normally heard at 36 inches; (3) the application of Rinne's and Weber's tests when the age of the patient permitted, a tuning-fork

of 128 vibrations being used; and (4) the state of the middle ear, especially the tympanum and tympanic membrane, such points as the situation of the perforation, the amount and character of the discharge, the presence or absence of granulation tissue or of cholesteatoma being carefully noted. The results of this examination are given in Table I along with those of the first series.

The examination of the eyes generally preceded that of the ears, and consisted in testing (1) the visual acuity by Snellen's and Jaeger's test types; (2) the eye movements and the pupillary responses to light and accommodation; and (3) the refraction by the shadow test and by direct estimation. The ophthalmoscopic examination was then made, the pupils being dilated when necessary. Before deciding as to the state of the fundus, the possible effects of age, occupation, errors of refraction, and eye strain were in each case carefully considered, so as to eliminate, as far as possible, such common causes of vascular changes in the retina. Even after a liberal allowance had been made for these the frequency of vascular changes—varying in intensity, but amounting in some of the cases even to marked optic neuritis—was surprising.

Results of the First Examination.

It will be seen by referring to Table III, Class 1 (B), that out of 60 cases there were 34 (Division 1) in which the eyes were emmetropic, and of these 16, or 47 per cent., showed evidences of vascular engorgement, varying from marked fullness and tortuosity of the veins with a pinkish condition of the optic disc, to definite optic neuritis. In Division II, which includes only 26 ametropic cases, 8, or 20.7 per cent., were, in spite of the strict censorship, regarded as showing vascular changes of an abnormal character. It will be noted that the percentage of cases in this series showing vascular engorgement is considerably less (38 8 per cent.) than in the first series, where it amounted to 72 per cent. This difference is probably accounted for by the even greater stringency practised in dealing with doubtful cases in the second series. There were, therefore, out of a total of 60 cases examined, 24 in which definite vascular engorgement of the fundi existed. Of these 24, 2 showed marked double optic neuritis, 4 indicated slighter degrees of optic neuritis, and 1 presented the appearance of a neuritis passing into atrophy, while in 17 there were vascular changes of a lesser degree in the fundus.

In Table III, Class II (B), the results of the examination of those which appeared a second time (40 out of the 60) are compared with the first examination, including both the eyes and the ears. These results are strikingly similar to those of the first series (Table III, Class II A). Tables IV and V may also be compared with those of the first series and the remarkable similarity of the results noted.

II.—Results of Examination in First and Second Series Combined (160 Cases).

The results of our examination of the second series of cases, limited though these may have been, have corroborated in a striking manner those of our first series. By combining the two series, thus bringing the total number of cases up to 160, the value of the results is, we think, considerably enhanced.

Frequency of Optic Neuritis.

At the first examination of the series of 100 cases optic neuritis was discovered in 4. In our second series of 60 cases 6 showed definite optic neuritis, and 1 the appearance of a neuritis passing into atrophy—7 in all. Optic neuritis occurred 11 times in the 160 cases of purulent middle-ear disease—that is, in 6.8 per cent. Of these cases of optic neuritis, 1 case, suspected at first of being a mastoid empyema, recovered under conservative treatment in three months; upon 3 the radical mastoid operation was performed, 3 now await operation, and 4 have been lost sight of (one being a case of suspected mastoid empyema). At a second examination of 100 of these 160 cases, made some months afterwards, 3 which had shown simple vascular engorgement at the first examination had progressed to distinct optic neuritis. One[1] of these developed alarming symptoms (headache, vomiting, and paralysis of the sixth and seventh cranial nerves) a radical operation was performed, when a perisinous abscess was found; a second was lost sight of, and the third awaits operation.

Table I.

A.—*Results of the Examinations of the Ears of 100 Patients (First Series).*

Sex.	Age.	Cause.	Symptoms.	Ear affected.
Males ... 52	Under 15 years ... 35	Scarlet fever 13	Otorrhoea ... ... 100 cases	Both ears ... 30 cases,
Females ... 48	Between 15 and 30 ... 45	Measles 8	Impaired hearing ... 99 ,,	Right ear ... 40 ,,
100	Over 30 20	Whooping-cough ... 1	Earache ... ... 28 ,,	Left ear ... ... 30 ,,
	100	Pneumonia 1	Tinnitus ... ... 36 ,,	100 affected ears.
In 71 per cent. the disease commenced under 15 years of age.		Erysipelas 1	Giddiness ... ... 24 ,,	*Evidences of past suppuration in 25 ears.*
		Accident 1	Headache ... ... 43 ,,	
		Foreign body 1		
		26		

Hearing.			
2 inches and under	82 ears	Granulations or polypi ... ... present in	50 ears
Above 2 in. and under 12 in.	28 ,,	Cholesteatoma ... ... ,,	6 ,,
12 in. and over	12 ,,	Perforation in membrana flaccida ... ... ,,	5 ,,
Too young	5 ,,	Nipple-shaped perforation ... ... ,,	1 ,,
Not given	3 ,,		62 ears
	130	Chronic otitis media purulenta in	123 ears
		Acute ,, ,, ,, ...	7 ,,

Tuning-fork Tests.
In 34 cases in which one ear alone was affected, the other being *normal*, Rinne was negative, and Weber referred to the affected side in 30 cases.

B.—*Results of the Examinations of the Ears of 60 Patients (Second Series).*

Sex.	Age.	Cause.	Symptoms.	Ear Affected.
Males ... 36	Under 15 years ... 18	Scarlet fever 10	Otorrhoea ... ... 60 cases	Both ears ... 5 cases.
Females ... 24	Between 15 and 30 ... 29	Measles 11	Impaired hearing ... 60 ,,	Right ear ... 29 ,,
60	Over 30 13	Whooping-cough ... 1	Earache ... ... 21 ,,	Left ear ... ... 26 ,,
	60	Pneumonia 1	Tinnitus ... ... 23 ,,	65 affected ears.
		Cold 3	Giddiness { slight ... 5 ,	
		Sore throat 2	{ marked ... 9 ,,	*Evidences of past suppuration in 31 ears.*
		Burn 1	Headache { slight ... 17 ,,	
		29	{ marked ... 21 ,,	

Hearing.			
2 inches and under	40 ears	Granulations or polypi ... ... Present in	33 ears
Above 2 in. and under 12 in.	19 ,,	Cholesteatoma ... ... ,,	10 ,,
12 in. and over	5 ,,	Perforation in membrana flaccida ... ... ,,	6 ,,
Too young	1 ,,		49
	65	Chronic otitis media purulenta in	63 ears
		Acute ,, ,, ,, ...	2 ,,

Tuning-fork Tests.
In 56 discharging ears, Rinne was negative in 54. In 46 cases of unilateral suppuration, Weber was referred to the affected side in 34, was indefinite in 6, and referred to the unaffected side in 6.

TABLE II.—REFRACTION OF THE 100 CASES (FIRST SERIES).

Examination of 200 Eyes: 108 Emmetropic (Both Eyes), 3 (One Eye).

The Refraction of the Ametropic Eyes was as follows:

Hyperm.	Hyperm. Astig.	Myop.	Myop. Astig.	Mixed Astig.	Refraction not Stated.
26	27	10	5	19	2, i.e., one case

Emmetropic	113
Ametropic	87
Not given	2
Total	200

REFRACTION OF THE 60 CASES (SECOND SERIES).

Examination of 120 Eyes: 68 Emmetropic (Both Eyes), 7 (One Eye).

Hyperm.	Hyperm. Astig.	Myop.	Myop. Astig.	Mixed Astig.	Refraction not Stated.
12	10	8	8	7	0

Emmetropic	75
Ametropic	45
Total	120

TABLE III.

Class I.—A. 100 Cases. Results of First Eye Examination (First Series).

		Number showing vascular changes:—	Normal.
Division I.—Emmetropics	54	39, or 72 2 per cent.	15
Division II.—Ametropics	46	33, or 71.7 per cent.	13
	100	72, or 72 per cent.	28

B. *60 Cases. Results of First Eye Examination (Second Series).*

Division I.—Emmetropics	34	16, or 47 0 per cent.	18
Division II.—Ametropics	26	8, or 30 7 per cent.	18
	60	24, or 38.8 per cent.	36

Class II.—A. 60 Cases. Examined Twice—Ears and Eyes (First Series).

	No.	Normal.	First Examination of Eyes (vascular changes).	Second Examination of Eyes.	Second Examination of Ears.
Division I.—Emmetropics	34	7	27	14 unchanged	10 unchanged or worse.
					4 improved.
				2 improved	1 healed for six months.
					1 no change.
				11 worse	9 unchanged or worse.
					2 improved.
Division II.—Ametropics	26	6	20	13 unchanged	9 unchanged or worse.
					4 improved.
				4 improved	3 improved.
					1 unchanged.
				3 worse	3 unchanged or worse.
	60	13	47		

B.—*40 Cases. Examined Twice—Ears and Eyes (Second Series).*

Division I.—Emmetropics	20	8	12	6 unchanged	4 unchanged or worse.
					1 improved.
					1 radical.
				3 improved	1 improved.
					1 unchanged.
					1 radical.
				2 worse	2 unchanged or worse.
Division II.—Ametropics	20	12	8	3 unchanged	1 radical.
					2 unchanged or worse.
				3 improved	1 radical.
					2 unchanged.
				2 worse	1 unchanged.
					1 worse.
	40	20	20		

TABLE IV.

First Series.

A.—Cases showing distinct vascular engorgement at the First Examination:

20

Progress of the Ear condition subsequent to the First Examination:

15 per cent. healed or improved.
85 per cent. unchanged or required radical.

B.—Cases showing normal fundi at First Examination:

13

61 5 per cent. healed or much improved.
38.4 per cent. unchanged or required radical.

NOTE.—In 40 per cent. of the 38.4 per cent. the treatment was completely neglected.

Second Series.

A.—Cases showing distinct vascular engorgement at the First Examination:

12

Progress of the Ear condition subsequent to the First Examination:

16.6 per cent. healed or improved.
83 4 per cent. unchanged or required radical.

B.—Cases showing normal fundi at First Examination:

20

60 per cent. healed or improved.
40 per cent. unchanged.

TABLE V.

First Series.

EYE.	EAR.
Condition of the fundi at the Second Examination compared with the condition of the First Examination:	Progress of the Ear condition as shown at the Second Examination:
27 unchanged	19 unchanged or worse. 8 improved or healed.
6 improved	3 improved or healed. 3 unchanged.
14 worse	12 unchanged or worse. 2 improved.
Second Series.	
9 unchanged	6 unchanged or worse. 2 improved (1 after radical).
5 improved	3 unchanged. 3 improved (2 after radical).
4 worse	4 unchanged or worse.

TABLE VI.

160 Cases. Results of First Eye Examination (Combined Series).

	No.	Normal.	Results of First Eye Examination (vascular changes).
Division I.—Emmetropics	88	33	55=62.5 per cent.
Division II. Ametropics	72	31	41=56.9 per cent.
	160	64	96

TABLE VII.

	No.	Normal.	First Examination of Eyes (vascular changes).	Second Examination of Eyes.	Second Examination of Ears.
Division I.—Emmetropics.	54	15	39*	20 unchanged	14 unchanged or worse. 6 improved (1 after radical)
				5 improved	3 healed (1 after radical). 2 unchanged.
				13 worse	11 unchanged or worse. 2 improved.
Division II.—Ametropics	46	18	28	16 unchanged	11 unchanged or worse. 5 improved (1 after radical)
				7 improved	3 improved (1 after radical). 4 unchanged.
				5 worse	5 unchanged or worse.
	100	33	66		

* One case has been withdrawn from this list, as owing to defective intelligence no dependence could be placed upon the results of the examination. Vascular engorgement was present in the left eye.

TABLE VIII.

A.—Cases showing distinct vascular engorgement at First Examination:	Progress of the ear condition subsequent to the First Examination:
32	15.8 per cent. healed or improved.
B.—Cases showing normal fundi at First Examination:	
33	60.75 per cent. healed or improved.

TABLE IX.

SECOND EXAMINATION OF EYES.	SECOND EXAMINATION OF EARS.
38 unchanged	25 unchanged or worse. 11 improved (2 after radical).
12 improved	6 healed or improved (2 after radical). 6 unchanged.
18 worse	16 unchanged or worse. 2 improved.
66	

In addition to these 11 cases of definite optic neuritis, there were at the first examination 39 showing vascular changes in the fundus, not actually amounting to well-marked optic neuritis, but of such a pronounced character that they could not be regarded as normal, even when due consideration was given to possible extraneous causes, such as age, occupation, error of refraction, and straining of the eyes. There remained 64 cases in which both fundi were unquestionably normal, and a number of doubtful cases, 46 in all, in which the changes were slight or could probably be accounted for by other conditions.

In Table VIII a comparison is made between the progress of the ear condition in 32 cases which showed the most marked vascular changes in the retinae, and 33 in which the fundus was normal. The striking fact is brought out that in cases of purulent middle-ear disease, in which the fundus is normal, the prospects of recovery without operation are four times greater than when

stinct evidences of vascular engorgement of the fundus e present.

The relationship between the progress of the eye and of ie ear conditions is brought out in Table IX, which con- ains 66 cases, examined more than once, showing evidences vascular engorgement at the first examination. It will e seen that there has been proportionately a much eater improvement in the aural condition (50 per cent.) those cases in which the eyes have shown a corre- onding change for the better than in these in which the ascular engorgement has become still more marked; in iese last only 11.2 per cent. showed improvement. This ct is of distinct prognostic value, showing that with nprovement in the condition of the fundus a favourable rmination to the aural disease may be more hopefully oked for than when the eye condition remains *in statu o* or becomes worse.

In 125 of the 160 cases one ear only was affected. In of these the evidences of vascular engorgement were nfined to or more marked in one eye; in 14 to the eye of ie affected side, and in 7 to the eye of the unaffected de. In all the other cases—104 in number—the ocular ndition was equally marked in both eyes, or the fundi ere normal. It may thus be said, without, however, taching too much importance to the point, that there is greater tendency for the eye on the same side as the ar affection to show vascular changes. The following lustrative case may be cited:

A girl aged 13 had discharge from the *left* ear for eight months llowing pneumonia and from the *right* ear for three weeks; iere were also frequent headaches. In the *left* ear was a large erforation, involving the lower half of the membrane, and in ie *right* a small central perforation with scanty discharge. oth eyes were emmetropic, and a slight degree of optic neuritis as found in both, but more marked in the *left*. Four months ter the right ear (the side on which the retina was least ffected) was found dry, while the left ear (the side on which ie optic neuritis was most marked) showed no improvement. he optic neuritis in the left eye had become distinctly more iarked, while in the right the change, though slight, was in the irection of improvement.

Friedenberg,[2] in an interesting and instructive article, peaks of the value of ocular changes confined to or more iarked in one eye, in the following sentence: "The more ronounced development on one side of the optic nerve nvolvement generally has no special meaning; in sinus hrombosis, however, value may be attached to it." In he course of his article Friedenberg quotes a case of igmoid sinus thrombosis reported by Grüning in which, fter the mastoid cells had been opened and the sinus xposed on both sides, there were no external indications o show on which side the sinus was affected. In both yes there was vascular engorgement, which in the left, owever, rapidly progressed to definite optic neuritis. For his reason alone the *left* sinus was opened and the *left* nternal jugular vein resected, when a septic thrombus was iscovered and removed; complete recovery followed.

The type of optic neuritis met with in this investigation as been usually mild; in 4 cases it was pronounced, and o them the term "choked disc" could be applied. The ision, however, in so far as could be ascertained, has re- nained unaffected and there has been no true secondary trophy. In regard to this last point we wish to emphasize he fact that the optic neuritis associated with pyogenic ntracranial lesions of otitic origin need not be followed y atrophy and blindness, differing in this very important espect from the optic neuritis found in connexion with umours of the brain. Sir Victor Horsley[3] says in regard o optic neuritis resulting from intracranial disease:

Therefore it is now possible . . . to say that in no case of optic neuritis (not of course of toxaemic or anaemic origin) should the process be allowed to continue after it has once been diagnosed, and that if blindness results therefrom the responsi- bility is very heavy on any one who fails to advise such a simple proceeding as opening the dura mater.

Two cases of otitic perisinus abscess with paralysis of he sixth cranial nerve and double optic neuritis (choked lisc) reported by one of us[4] (J. S. B.) demonstrate that optic atrophy does not necessarily follow optic neuritis of otitic origin, even when the dura mater is not opened. Dr. Rowan, who repeatedly examined these two cases when in the acute stage, again examined them on March 25th, 1909, three years and one and a half years respectively after the disappearance of the neuritis. In each case the vision was normal ($\frac{6}{6}$ J. 1), as were also the visual and colour fields, as tested by perimeter. In neither case was the dura mater incised. In the light of these and other cases it seems to us that Sir Victor Horsley's dictum might require some modification, or, at any rate, further investigation.

THE CAUSATION OF OPTIC NEURITIS IN CONNEXION WITH PURULENT EAR DISEASE.

In discussing the question of how these changes in the fundus of the eye are brought about, the great difficulty is the absence of pathological evidence based upon *post-mortem* examinations. In gross inflammatory intracranial lesions, such as lepto-meningitis, brain abscesses, etc., where information from *post-mortem* examinations is obtainable, the most generally accepted view is that increased intracranial pressure plays an important part in the causation of the accompanying optic neuritis. May not intracranial pressure be responsible also for those vascular changes in the eyes in certain cases of apparently simple temporal bone suppuration?

We know that serous meningitis is a not uncommon complication of purulent middle-ear disease. This form of meningitis, when present in a marked degree, may simulate, as regards symptoms, either purulent lepto-meningitis or brain abscess, but it is well known to present more frequently than either of these definite vascular changes in the fundus amounting in most instances to optic neuritis. In fact, judging from published reports of undoubted cases of this affection, optic neuritis is present in a very large majority. This is recognized by such an eminent authority as Jansen.[5] We think we have good grounds for believing that milder forms of serous meningitis occur much more frequently during the course of a chronic middle-ear suppuration than has hitherto been supposed.

We have been impressed, on questioning patients closely, with the frequency of symptoms pointing to the probability of meningeal attacks, such as frequent bouts of headache accompanied in some with nausea, vomiting, or giddiness, and in others with elevated temperature. In over 50 per cent. of our cases headache was complained of. Several of our patients were compelled to lie in bed for a week or even longer during these attacks, and we have also been informed by several parents that their children have been repeatedly sent home from school on account of severe headache and sickness. It may be postulated that in a patient suffering from purulent ear disease these symptoms coming on periodically are highly suggestive of meningeal irritation, probably of the nature of mild serous meningitis.

It is difficult to explain how comparatively mild attacks of serous meningitis may bring about vascular changes in the fundus of the eye. It is probable, however, that localization has, as in other intracranial lesions, an important bearing on the causation of these changes. In marked serous meningitis with very pronounced symptoms the fluid, large in amount and under considerable pressure, is widely distributed over the base of the brain. On the other hand, in the mild type of which we are speaking, it is reasonable to suppose that the serous effusion is more localized; constituting, we may say, abortive attacks cut short for some reason before becoming widely spread. For example, the effusion may take place in those well-known spaces, the subarachnoid cisterns at the base of the brain, and one or other of them may become a reservoir in which the effused fluid collects.

Supposing the anterior cisterna, or even its anterior half where lie the optic chiasma and the commencements of the optic nerves, carrying with them their vaginal sheaths, be the region in which the excess of fluid collects, vascular changes in the fundus amounting even to well-marked optic neuritis may reasonably be supposed to result. No doubt every one is familiar with cases of fatal lepto-meningitis in which the condition has been mainly limited to the anterior cisterna. While believing that pressure exercised in this way has probably a great deal to do with the causation of the type of optic neuritis under consideration, there are at least two modifying influences at work: (1) there may in some individuals be conditions, anatomical or constitutional, specially favourable or otherwise to the onset of optic neuritis—in a word, idiosyncrasy; and (2) the chemical character of the fluid exercising pressure upon such delicate structures as the optic nerves is of importance. In serous meningitis the fluid, while no doubt sterile in so far as pus-forming organisms are concerned, is presumably not free from their toxic products. A very

limited amount of pressure, therefore, may be quite sufficient in some individuals to excite changes in the optic nerves, when the evil effect of the pressure is enhanced by the chemical irritation of the toxins.

We venture to suggest that in many cases of purulent thrombosis of the large sinuses, and in at least a certain proportion of the cases of brain abscess, optic neuritis, when present, is caused by serous meningitis, either accompanying or immediately preceding these grave complications of purulent ear disease.

CONCLUSIONS.

Briefly stated, the following are the conclusions arrived at as the result of this investigation:

1. Optic neuritis may occur in cases of purulent middle-ear disease without obvious signs of an intracranial complication (11 times in 160 cases, or 6 8 per cent.).
2. Apart from optic neuritis, vascular changes of a lesser degree are frequent (39 times in 160 cases, or about 25 per cent.).
3. Cases of purulent middle-ear disease, in which optic neuritis or vascular engorgement of the fundus is present, are much less amenable to local treatment than those in which the fundus is normal.
4. As a general rule, an improvement in the eye condition is accompanied by improvement in the aural condition, while an increase in the intensity of the changes in the fundus or their persistence is associated with less amenability to treatment and greater gravity of the ear condition.
5. The most probable cause of vascular engorgement of the fundus or optic neuritis is serous meningitis (diffuse or localized).
6. Optic neuritis caused in this way is not usually followed by atrophy, and unless there are other symptoms demanding it, opening of the dura mater is unnecessary.

The practical lessons deducible from these are (1) that a case showing these changes in the fundus should be closely watched, and their existence regarded as an additional reason for the early performance of the radical mastoid operation; (2) if, on the other hand, they show a tendency to clear off, especially with improvement in the ear condition, or if the fundus is normal to begin with and remains so, we may with more confidence look for a favourable response to conservative treatment.

Finally, we again plead for a more systematic general use of the ophthalmoscope in cases of purulent disease of the middle ear, as we are convinced that the trouble involved will be more than repaid by the results, both as regards the progress and prognosis of this disease.

NOTE.—Since writing this we have had the opportunity of reading a most interesting paper[6] on experimentally-induced choked disc, by Drs. Harvey Cushing and James Bordley. From an experimental standpoint these two observers come to conclusions very similar to our own, and we quote them here in full:

1. That the occurrence of neuro-retinal oedema is primarily dependent on the passage of cerebro-spinal fluid under tension from the subarachnoid space of the interpeduncular region (anterior cisterna) into the vaginal sheath of the optic nerve, and that cerebral decompression often allows the process to subside, owing to a resultant diminution of tension from release of the confined fluid.
2. That the experimental work corroborates many of the more recent clinical observations in showing that a choked disc, even of considerable height, may be rapid in its formation and, provided it has not gone on to the stage of new tissue formation, may rapidly subside, and thus speaks strongly in favour of a mechanical as opposed to a chemical or inflammatory origin for the lesion.

REFERENCES.

[1] BRITISH MEDICAL JOURNAL, October 10th, 1908. [2] *Arch. . Ohrenheilkunde*, Band lxxiv, S. 45 [3] BRITISH MEDICAL JOURNAL, August 25th, 1906. [4] *Transactions of the Otological Society*, vol. vii, p. 41; BRITISH MEDICAL JOURNAL, October 10th, 1908, [5] *Lehrbuch der Ohrenheilkunde*, Professor A. Politzer, fünfte Auflage, S. 507. [6] *Bulletin of Johns Hopkins Hospital*, April, 1909.

THE Association of German Scientists and Medical Practitioners will hold its eighty-second meeting at Königsberg this year from September 18th to 24th. Among the addresses of medical interest to be delivered in full session are the following: Dr. Cramer, of Göttingen, "Puberty and the School"; and Professor von Monakoff, of Zurich, "Localization of the Functions of the Brain." The combined medical sections will hold eighteen sittings. Communications should be addressed to the Managing Committee, Drummstrasse 25–29, Königsberg, Prussia.

A SHORT NOTE ON THE SCOPOLAMINE-MORPHINE NARCOSIS.

BY R. HILLHOUSE JAMIESON, M.B., F.R.C.S.Edin.

FREELAND BARBOUR SCHOLAR, UNIVERSITY OF EDINBURGH.

(From the Pharmacological Laboratory, University of Edinburgh.)

IN the course of some pharmacological experiments with scopolamine and morphine I found in animals certain effects produced on the respiration similar to those which sometimes attend the clinical use of scopolamine and morphine as an anaesthetic.

The experiments were made on cats, the blood pressure and respiratory movements being recorded in the usual way.

The preparation used was the tablet form of hyoscine hydrobromide (gr. $\frac{1}{100}$) and morphine sulphate (gr. $\frac{1}{6}$) prepared by Duncan, Flockhart and Co., Edinburgh. The dose was calculated as being that for an adult of 70 kg. giving a dose per kilogram of body weight of hyoscine gr. $\frac{1}{7000}$, morphine gr. $\frac{1}{420}$. Accurate dosage was attained by dissolving one tablet in a definite quantity of Ringer's solution, and using intravenously such proportion of the solution as was required.

Fig. 1 (cat 2,850 grams) shows the normal respiratory

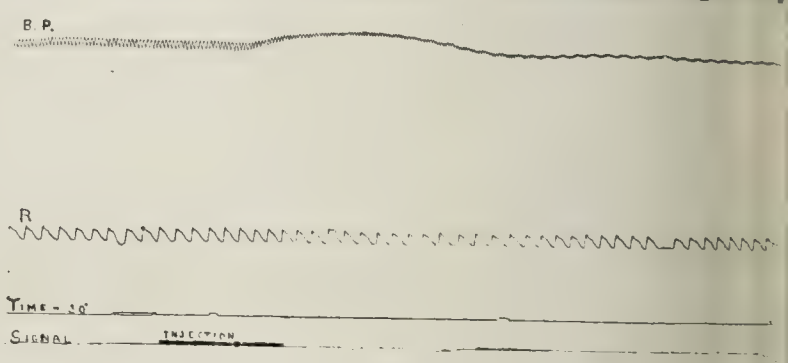


Fig. 1.

and circulatory movements, and the effects thereon of a normal therapeutic dose of hyoscine and morphine intravenously. There is no immediate effect on the respiration rate, but ten minutes later, as shown in Fig. 2,

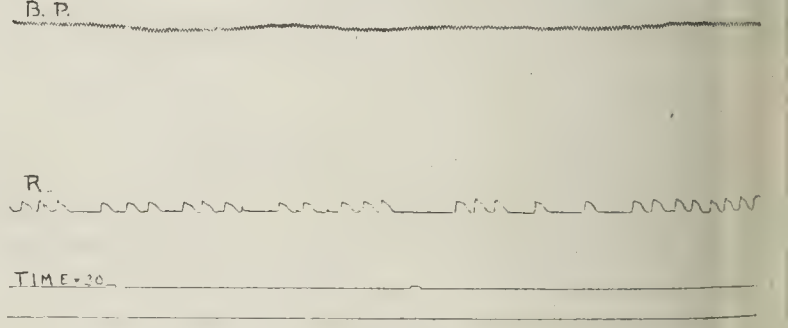


Fig. 2.

the respiratory rate has been reduced from 34 to 20 a minute.

Fig. 3 shows the effect of a second intravenous injection,

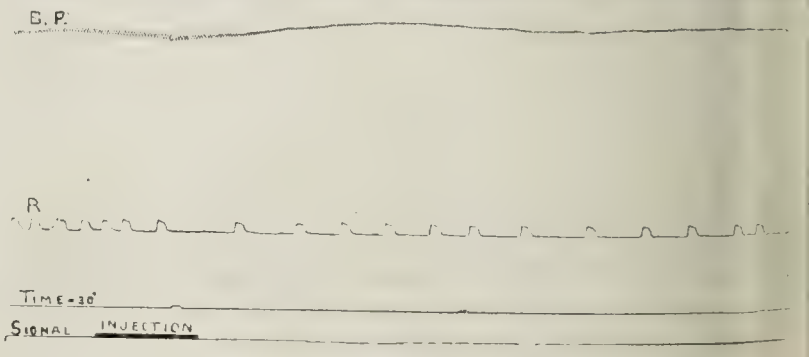


Fig. 3.

given thirty minutes after the first, the dose of hyoscine and morphine being this time equal to only half the previous dose. Yet one notices the immediate reduction in the respiratory-rate of from 26 to 14 a minute, and later to 10 a minute, as shown in Fig. 4, taken three minutes later. Thirty minutes later, when the animal was killed, the respiration-rate was 16 a minute.

In the next experiment a cat of 3,900 grams was taken, and to it was given thrice the normal therapeutic dose

ravenously, tracings of the blood pressure and respira- ns again being taken. Fig. 5 shows the immediate sation of respiration and the transient rise of blood ssure followed by the marked fall. Artificial respira.

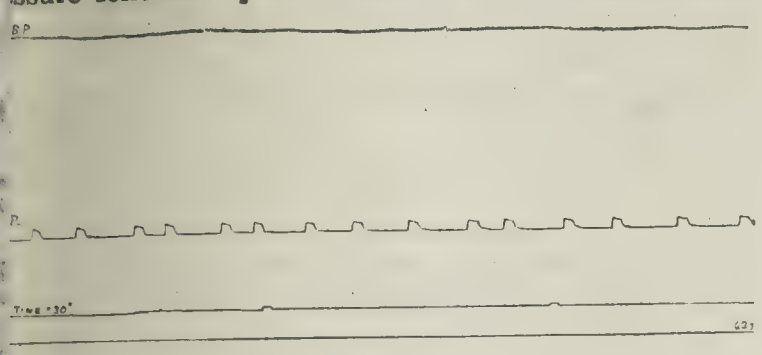


Fig. 4.

n (20 a minute) was used, and slowly the blood ssure rose again, only to slowly fall whenever arti- al respiration was discontinued, as is well shown Fig. 6. The animal was kept alive by artificial re-

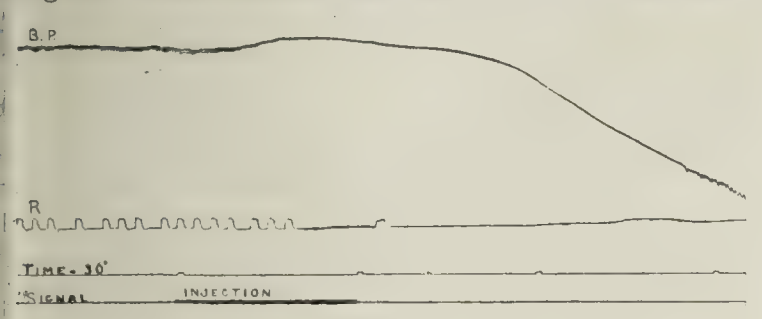


Fig. 5.

iration till in Fig. 7, one hour later, natural respiration d started—slow and shallow, but gradually increasing rate and in depth till the animal was killed two hours ter the initial injection.

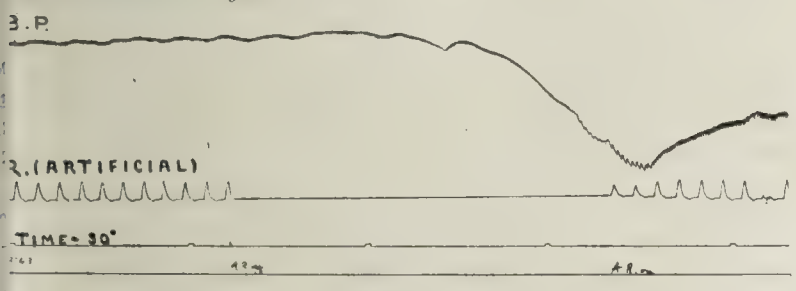


Fig. 6.

Clinically one meets with those apparently alarming ases in which the respiration-rate is greatly reduced to or 6 a minute, and Figs. 3 and 4 demonstrate this linical point in animals. Fig. 5 shows clearly where the

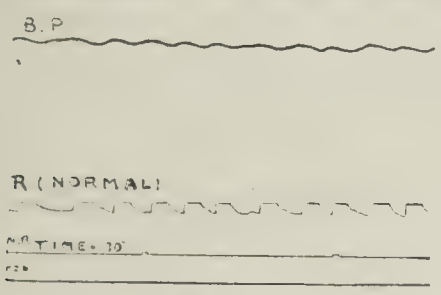


Fig. 7.

anger of the scopolamine and morphine narcosis lies, and qually clearly, in Figs. 6 and 7, is shown the clinical mportance of artificial respiration in cases of an overdose f scopolamine and morphine; and this artificial respira- ion, combined with drugs which stimulate the respiratory entre, such as strychnine, seems to offer the most logical nethod of treatment in cases of an overdose.

AT a meeting of the American Health League recently eld at New York a resolution was passed urging that neasures should be introduced in Congress providing for he establishment of a national bureau of public health.

A COMMITTEE has been formed, among the members f which we note such well-known names as Professors Bouchard, Dastre, Simon Duplay, Laveran, F. Raymond, and Drs. Lermoyez, Moure, and Depierris, General Sec- etary of the French Society of Oto-rhino-laryngology, and Veillard, General Secretary of the Society of the same name, for the purpose of celebrating the jubilee of M. Gellé *père*. A medal will be struck in his honour.

DEATH UNDER SPINAL ANAESTHESIA BY JONNESCO'S METHOD IN A CASE OF ACUTE INTESTINAL OBSTRUCTION.

BY F. VICTOR MILWARD, M.B., F.R.C.S.,
ASSISTANT SURGEON, GENERAL HOSPITAL, BIRMINGHAM.

AT a time when trial is being given in this country to Jonnesco's method of spinal anaesthesia, it would seem advisable that all fatalities should be reported. The following case has occurred in my practice at the General Hospital, Birmingham.

On the evening of January 24th, 1910, a man aged 50 was admitted suffering from intestinal obstruction. He was of moderate build, and had not complained of any symptoms of disease until eight days before admission. Since that time obstruction had been complete, and vomiting had set in and had been persistent. On admission he was found to be much distended, and vomiting of a faecal and regurgitant nature was occurring at intervals of a few minutes. His pulse was 108, and of fair strength. The type of vomiting suggested special dangers for a general anaesthetic, and having recently used Jonnesco's dorsi-lumbar method with marked success in an exactly similar case, I determined to use it again.

The patient was therefore brought into the theatre, and the usual preparations having been made, an injection of 10 cg. of stovaine and 1 mg. of strychnine in 1 c.cm. of water was made in the dorsi-lumbar region. On account of the patient's condition and abdominal distension, it was not possible to employ the sitting position and forward arching of the back to any advantage, and it was only after three attempts that the introduction of the needle was successfully accomplished.

The subsequent sequence of events was as follows:

January 25th, 1 a.m.—Spinal injection of stovaine and strychnine given in dorsi-lumbar region, the patient being on the right side, with the head raised on a thick pillow. After the injection the patient was immediately turned on his back, the pillow being left under the head.

1.6 a m.—The patient, who had been moaning, began to look ill compared with his previous appearance.

1.7 a.m.—Pupils dilating, and commencing failure of the pulse. The patient now looked very ill, and vomited liquid faeculent matter. Inj. aetheris ʒss into thigh. Inj. strych. ɱ10 subcute.

1.10 a.m.—The patient quite unconscious. Giving forth gasping respiration, and vomiting large quantities of the most offensive matter, exactly resembling faeces, without effort.

1.11 a.m.—Respirations very shallow, and dying away. On account of the vomiting, the head, which until now had been raised, was lowered, and artificial respiration was resorted to. The continual stream of vomit seemed, however, to render this proceeding useless. The fauces were repeatedly mopped out, and the tongue drawn forward. Two syringefuls of ether and more strychnine were injected, and hot and cold water alternately applied to the chest.

1.12 a.m.—The pulse was now imperceptible, and all natural efforts of respiration had ceased. The conjunctival reflex was still present, and the pupils were contracted. Inj. adrenalin ɱ20 (1 in 1,000).

1.15.—The conjunctival reflex now lost, and the pupils in mid-way position and fixed. Vomit still continued to pour from the mouth, suggestive of the fact that the gastric sphincters were relaxed. Various means of resuscitation still continued, but the patient had apparently ceased to live.

The artificial respiration was continued for one hour after all signs of life had ceased, and no operative measure was undertaken for the relief of the obstruction.

Necropsy.

A *post-mortem* examination held at the General Hospital on January 26th, 1910, showed the following appearances.

Externally, the body was that of a well-developed man. There was a slight distension of the abdominal parietes, and in the dorsi-lumbar region a considerable swelling caused by a sub-cutaneous haematoma. This was to be accounted for by the needle puncture and by hypostatic congestion.

Internally, the *heart* muscle was firm. The left ventricle slightly hypertrophied and dilated; the right ventricle slightly dilated. There was fibrosis of the musculi papillares in the left ventricle, but none of the valves were thickened or in any way diseased.

Both *lungs* were congested and dark in colour, and in both lower lobes were small areas of commencing broncho-pneumonia. Oedema and emphysema of both lungs was also present.

The *trachea* contained some dark greenish mucoid material resembling the vomit, but not sufficient to have caused asphyxia.

Both visceral and parietal layers of the *peritoneum* were scattered all over with small grey nodules of malignant growth. They were thickest in the pelvic region, and at the mesenteric attachments of the gut. The sigmoid flexure was severely kinked by the attachment of a nodule of growth in the omentum to an epiploic appendix. A little free fluid was present.

The *stomach* contained foul dark brownish-green fluid, which had also stained the oesophagus.

The *small intestine* was distended throughout with the same material as in the stomach. At the *ileo-caecal valve* the lumen of the intestine was completely closed by a growth which had apparently originated in or near the submucous layer and had grown towards the lumen without ulcerating the lining membrane. This was the seat of obstruction, for beyond this point the gut was empty and collapsed. In all probability here was the primary growth.

The *liver* contained a few nodules of growth on the surface and in its substance.

The *kidneys* were slightly fibrosed.

The remaining abdominal viscera presented nothing of interest.

The *spinal cord*. The theca was found to have been punctured between the eleventh and twelfth dorsal vertebrae. There was a puncture in the membranes over the lumbar enlargement at this point, and the blood vessels were engorged over the surface of the cord. No haemorrhage was observed, either outside or inside the spinal theca, except that which had already been seen outside the bony canal in the muscles and subcutaneous tissues of the back.

The external appearance of the *spinal cord* and of the *brain* were perfectly normal, and no injury was observable in the cord itself. It did not appear to have been touched by the needle, and macroscopically its structure was normal.

There can be no doubt that this man's death was directly due to the toxic effects of an intraspinal injection of stovaine and strychnine. Shock caused by traumatism is negatived by the absence of any definite injury to the cord or its membranes, but the sudden and fatal onset of cardiac and respiratory failure was exactly what might be expected of a reagent producing the same changes in the medullary region, as was purposed to be produced in the lower dorsal segments of the cord. Prior to the injection the patient was in the usual bad condition of a man with advanced intestinal obstruction, but except for his vomiting, I should not have hesitated to submit him to a general anaesthetic. As far as his heart and lungs were concerned, a general anaesthetic was by no means contraindicated, though his extreme distension undoubtedly made his chances of ultimate recovery very doubtful.

After the injection had been made, and when I was about to test the skin for anaesthesia, I noticed the unmistakable signs of profound collapse passing over his face, and the events which so speedily led to his death then ensued. Jonnesco advises that the patient be sat up with the spinal column bent forward to admit of the easy introduction of the needle.

This was not possible in the present case, and in view of his statement that a second injection can be given—necessarily in the recumbent position—to prolong the anaesthesia, I did not hesitate to give it in this position. As long as the head is raised there should, I think, be no more danger in so doing than in giving a cervico-dorsal injection.

My previous experience of the dorso-lumbar method in a case of acute obstruction was so satisfactory as to encourage me to think that the perfect anaesthetic in these difficult cases had been found. In this case the absolute analgesia of the whole abdomen, its complete relaxation, together with the entire absence of peristalsis and inclination of the distended bowels to press through the wound—in other words, the abdominal calm—were a new and most satisfactory experience of abdominal surgery. It seems strange that two such similar cases should end so differently—that in the one the higher centres should exhibit such profound toxaemia, while in the other they should be in no way affected.

In his paper on this subject, recently published in the JOURNAL (1909, vol. ii, p. 1396), Jonnesco has extolled the wonderful safety to be procured by combining strychnine with the anaesthetic reagent in the intraspinal method of anaesthesia. In this particular case I do not wish to acquit myself entirely of responsibility in the matter of dosage; for, although Jonnesco utters no *grave* warning against full doses, he does advise that the amount of 10 cg. shall be reduced in cases of severe illness. At the same time, such was the acuteness and rapidity of onset of the toxic symptoms that a much smaller dose (5 cg.) would, I believe, have been attended with great danger, even if nothing worse had happened. It may be that this patient exhibited an idiosyncrasy, but, in view of the serious results that have come to my notice in certain other cases, I shall hesitate in the future before injecting into the dorsi-lumbar region, even of a healthy adult, a larger amount of stovaine than 5 cg.

HAEMOPNEUMOTHORAX WITHOU TRAUMATISM: RECOVERY.

BY

R. BARCLAY NESS, M.A., M.B.,
ASSISTANT PHYSICIAN, WESTERN INFIRMARY, AND PHYSICIAN TO THE ROYAL HOSPITAL FOR SICK CHILDREN, GLASGOW.

and GEORGE A. ALLAN, M.B.,
CLINICAL ASSISTANT AND EXT DISPENSARY PHYSICIAN, WESTERN INFIRMARY, AND LI TURER ON MEDICINE, WESTER MEDICAL SCHOOL, GLASGOW.

CASES of haemopneumothorax are sufficiently uncomm to be worthy of note; while excluding those due to injur the condition is extremely rare. We have only been ab to find records of two cases at all resembling the prese one and both were fatal.

This patient was first seen on September 8th, 1909, in co sultation with Dr. Hamilton Campbell (Partick), when signs hydropneumothorax were present, and on performing par centesis about 5 oz. of fluid, evidently blood mixed with serur but no pus, were withdrawn. He was admitted the same day the Western Infirmary.

History.

He was a clerk aged 31 years. On rising from his bed on th morning of August 27th, when on holiday, he experienced son pain and a sense of tightness in the left side of the chest and the region of the stomach, and was rather breathless. He ha lain without a nightshirt in a damp bed, and to that cau attributed his illness. In spite of his condition he was able travel home, a distance of some ninety miles, and commenc work on August 30th. On September 3rd, when walking to h work, he had a similar but more severe attack of pain in th left chest and shoulder. He felt faint, but managed to get hom by tram and went to bed, where he remained till removed hospital.

Condition on Admission.

He had marked signs of hydropneumothorax. The left side the chest was bulging and did not move with respiratio When lying flat on his back a tympanitic note was obtained p percussion over the whole left front of the thorax, and al on the right side to a line drawn from the suprasternal not to a point 1½ in. to the right of the mid-sternum at the level the fourth cartilage. The respiratory murmur, vocal resonanc and fremitus were diminished over all this area. When th patient was sitting up there was an area of dullness below th level of the fourth rib on the left side, extending down to th costal margin. Behind, dullness reached to the level of th seventh dorsal spine, and this level rose as the patient recline Above this a tympanitic note was obtained, with absence respiratory murmur and vocal fremitus and deficient voc resonance. In addition to the tympanicity and movable dul ness, splashing sounds on succussion and the coin sound we typically present, but there was no metallic tinkling. Th only area of cardiac pulsation was on the right side in th fourth space, with its centre about 3 in. from the middle lin A small area of relative dullness was also made out in th region, extending from the upper border of the fourth rib to th fifth rib, and transversely from 1½ to 3½ in. to the right of th mid-sternum. The heart's sounds were well heard in this are free from murmur; they were quite inaudible in the norm apical region, and only indistinctly heard toward the upper pa of the sternum. The pulse was 108, regular, small, and weal The liver was displaced downwards, relatively more on the le side, as were also the stomach and spleen. The temperature first was of an irregularly remittent type, ranging from 98° 101° F.

Course of the Disease.

Improvement was steady; by September 13th the area cardiac dullness was more definite, and almost reached th middle line, while the liver had risen a little.

On October 2nd, cardiac pulsation was seen in the fifth le interspace 2¾ in. from the mid-sternum. The absolute live dullness reached the sixth rib in the right mid-clavicular lin The signs of hydropneumothorax were, however, still presen On October 16th the heart was beating in its normal situatio and although splashing could occasionally be heard, no othe definite signs of pneumothorax persisted. On October 20th, si weeks after admission, all signs of pneumothorax had disa peared, and he was allowed to go home.

He reported himself on November 4th, and with the exceptio of slight diminution of movement and respiratory murmur a the left base, the signs had cleared up, and no evidence of intr pulmonary mischief could be detected. He expressed himse as feeling very well. Three months later he still looked quit fit and is regularly at his work.

The treatment was symptomatic, and no further attem was made to remove the fluid.

It is difficult, if not impossible, to determine the caus of the condition. There was certainly no injury. He wa not of a specially robust appearance, and thought he migh have lost flesh during the past year, but was always abl for his work, and had often to work late. He had a sligh cough, and when in hospital his expectoration, which wa not at any time copious, was examined for tubercle bacill but always with a negative result. Von Pirquet's test fo

ercle gave a slight positive result. During the first ek his temperature ranged from 98° to 101° F., but for last five weeks it was rarely above normal; the pulse s about 80 and the respirations 20 to 30.

Two points are of interest in the present case and mand an explanation, first, the occurrence of pneumo-rax in a patient without obvious cause, and, secondly, presence of blood along with the pneumothorax apart m injury.

Of all causes of pneumothorax, phthisis is, of course, ich the commonest; of 918 cases compiled by Biach[1] m thirty-eight years' records of three Vienna hospitals was the cause in 715, or 77.8 per cent. Gangrene, pyema, injury, bronchiectasis, and emphysema came xt in order, while 14, or 1.5 per cent., are noted as due uncertain causes. Hall[2] in 1887 collected 31 cases of eumothorax occurring in the apparently healthy, includ-g 21 previously noted by West; he found a strain of ne kind to be the chief exciting cause, and that even if ous effusion followed, recovery in from five to six weeks s the rule. Haemothorax (that is, effusion of blood and t simply blood-stained fluid), on the other hand, is ually due to trauma or rupture of thoracic aneurysm, ile tubercle and malignant disease figure as other ssible causes.

Finlay[3] states that, apart from injury, haemopneumo-rax is extremely rare, and that the cause is altogether ecure. He refers to two cases which may be briefly ted.

Pitt[4] in 1900 made a communication to the Clinical ciety of London "on a rapidly fatal case of haemo-eumothorax apparently due to rupture of an emphy-matous bulla." The patient was a youth, aged 18 years, o was attacked with pain when taking a walk and died xt day. At the autopsy the pleural cavity was found to ntain 8 pints of fluid blood and clot enough to fill the nds three times. Near the apex of the lung a ruptured physematous bulla was found, quite sufficient to account the air, but no evident cause for the blood could be nd, unless it came from an adhesion which extended m the bulla to the pleura, and which had been torn ross. No aneurysmal dilatation or patent vessel could, wever, be seen. There was no trace of tubercle, either cent or old. At that time he examined the records, and uld find no definite case of haemopneumothorax, apart m injury, save one case in the *Guy's Hospital Reports*, e to rupture of an aneurysm in a large phthisical cavity. e remarks, incidentally, on the rapidity with which the ura can deal with effused blood, and also on its power keeping the blood fluid, though not necessarily unaltered, pecially in non-traumatic cases.

It is to be noted in this connexion that the fluid drawn from this patient showed no tendency to clot, though was kept for many days.

Shortly afterwards Rolleston[5] reported to the same ciety "a case of fatal haemopneumothorax of un-plained origin" occurring in a youth aged 21, who ed in six days. There had been no injury and previous pulmonary symptoms. At the autopsy oz. of fluid blood and a few ounces of clot were esent in the pleural cavity, but no cause for either the ood or air could be found, although careful search was ade. The possibility of the blood being due to some emophilic condition was considered, although there were grounds for the assumption, and the question was even ised whether the air might not have been derived from e blood by irregular respiratory movements causing a gative intrapleural pressure. The etiology, however, mained quite unexplained.

We have been unable to trace any case at all comparable curring since these two, and while both of those were amined *post mortem*, the findings do not warrant us in riving at any definite conclusion as to the causation of e case now reported, and one gets little or no guide from e ordinary conditions accepted as causes of pneumo-orax. It must therefore be classified for the present as case of haemopneumothorax of unexplained origin curring in the apparently healthy.

REFERENCES.

[1] Biach: Quoted by Finlay, *System of Medicine*, Allbutt and Rolleston, 09, vol. v, p. 576. [2] Hall, F. de H.: *Transactions of the Clinical Society London*, vol. xx, p. 153. [3] Finlay, D. W.: *System of Medicine*, llbutt and Rolleston, 1909, vol. v, p. 576. [4] Pitt, G. N.: *Transactions the Clinical Society of London*, vol. xxxiii, p. 95. [5] Rolleston, H. D.: *ransactions of the Clinical Society of London*, vol. xxxiii, p. 90.

A CASE OF ACUTE TUBERCULOUS BRONCHO-PNEUMONIA AFTER GASTRO-ENTEROSTOMY.

BY

W. A. MACKAY, M.D.ED., F.R.C.S.E.,
CONSULTING SURGEON TO THE RIO TINTO CO., HUELVA, SPAIN,

IAN MACDONALD, M.D.ED., M.D.PARIS,
CONSULTING SURGEON TO THE UNITED ALKALI AND PENA COS., HUELVA, SPAIN,

AND

HALLIDAY G. SUTHERLAND, M.D.ED.,
MEDICAL SUPERINTENDENT, THE WESTMORLAND SANATORIUM.

THE pulmonary complications after gastro-enterostomy are practically the only immediate dangers to be feared since the disappearance of the vicious circle, and their cause is as yet uncertain, but it seems to be generally admitted that they are most frequent after operations on the gastro-intestinal tract. By careful disinfection of the mouth for some days prior to operation, by avoidance of chill during the preparation of the patient, by the minimum exposure of the viscera, and by the adoption of the elevated position whenever the effects of the anaesthetic have worn off, much can be done to shield the patient from the onset of pulmonary complications.

In a first series of 80 gastro-enterostomies, including cancer cases, we have lost 2 patients—one from vicious circle, the other, a man of 60, from pneumonia. The following case is of interest from the specific variety of broncho-pneumonia which supervened, causing the death of the patient six months later.

A farm labourer, aged 39, complained of chronic indigestion, attended by severe epigastric pain without vomiting, usually most severe in the early hours of the morning.

HISTORY.

The condition had existed for fourteen years, and during the last year the patient had lost weight, and the nocturnal pain was at times so acute that he would pass the night rolling about doubled up in bed. Towards morning the pain became easier, and almost disappeared when he rose at 7 a.m. At 8 a.m. he was accustomed to take a cup of coffee, and an hour later the pain would return more or less continuously until mid-day, when he ate again and felt relieved, only to suffer another attack at 3 or 4 p.m. His next meal was at 6 p.m., after which he immediately felt better, but at midnight the onset of pain would awaken him. He had been in the habit of taking a herb tea in the night which gave relief, and occasionally sodium bicarbonate. The pain was situated in the median line in the epigastrium, and radiated round both sides of the thorax and through to the back. He had no vomiting, unless voluntarily induced, which he did from time to time to empty the stomach and so ease the pain, but he had constant eructations, and an acid taste in his mouth. He would pass three or four days without a motion, and said that on two or three occasions he had passed black motions. He was always worse in cold weather, and had become totally incapacitated for work. A diagnosis of duodenal ulcer was made, and confirmed by a test meal, which showed no stasis but considerable hyperacidity.

OPERATION.

He was admitted to the Clinque Mackay, Huelva, Spain, on January 17th, 1908. The chest was carefully examined and found to show no abnormality, nor was there any history of any chest trouble; the morning and evening temperatures were normal, and the heart and kidneys were sound. Careful disinfection of the mouth was carried out up to the day of operation. On the day before operation the patient was in great pain, and vomited some of the milk on which he was fed for twenty-four hours before operation.

On January 22nd, after five days' observation, the abdomen was opened above and to the right of the umbilicus by pulling the right rectus outwards. On inspection of the pylorus nothing abnormal was seen, but about 1 in. beyond the pyloric venous plexus on the upper surface of the duodenum an irregularly rounded ulcer, the size of a sixpence, with a hard, indurated base, was easily demonstrated to the onlookers. Posterior gastro-enterostomy, with clamps and suture, was performed and the patient put back to bed in good condition.

ACUTE TUBERCULOUS BRONCHO-PNEUMONIA.

(Remarks by Dr. Sutherland.)

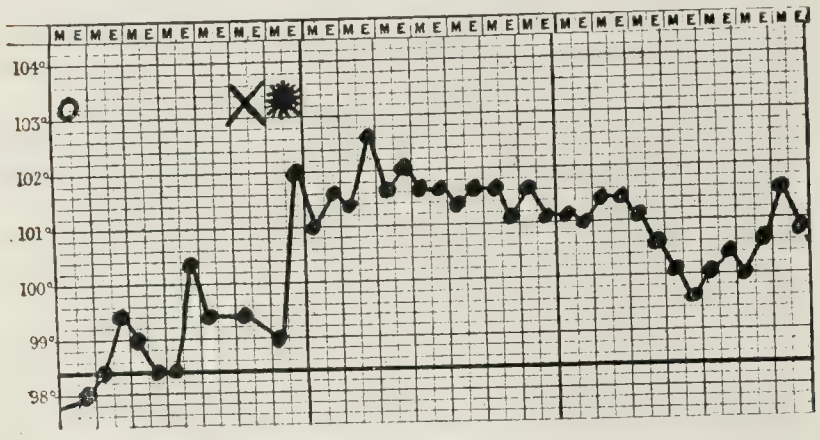
During the first five days following the operation the patient's general condition was good, although he had slight cough and sputum which was attributed to the chloroform. Examination of the chest on the fifth day disclosed neither alterations in the breath sounds nor accompaniments, while the temperature during this period only showed the usual post-operative rise.

The sixth day, however, marked the onset of acute tuberculous broncho-pneumonia. The evening temperature made a sudden rise from 99° F. to 102° F., while auscultation revealed the general signs of bronchitis, which altered at the end of the week to those of broncho-pneumonia; that is to say, the rhonchi

disappeared and the breath sounds were diminished over both lungs, with the exception of the lower right lobe and the upper left lobe, where the breathing was broncho-vesicular, with moist râles on inspiration, and here and there an area of increased vocal resonance. The percussion note was slightly dulled over the left apex, where "tidal percussion" revealed diminished expansion. He was given benzoin inhalations and 6 grains of quinine thrice a day, in the hope that there might be an element of malaria in his condition. During this week he complained of profuse sweats at night and diarrhoea commenced.

During the second week he complained of sharp pain in the right side, where friction was frequent, and the breath sounds underwent further modification. The breathing was harsh and broncho-vesicular all over the chest, with copious musical rhonchi both on inspiration and expiration. Here and there over all lobes were patches, showing bronchial breathing and increased vocal resonance, while the "tidal percussion" showed no expansion at either apex or at the bases behind, where dry inspiratory clicks during inspiration were heard. The sputum contained tubercle bacilli and elastic tissue, but was not copious. After the initial rise, the temperature remained continuously high, between 101° and 102° F., with an absence of remissions. The pulse, following the temperature, showed no remissions, and during the first two weeks averaged 80, but during the third week rose to an average of 94. Respirations ranged between 22 and 24.

It is obvious that in this case we were dealing with the comparatively rare condition in the adult of acute tuberculous bronchopneumonia. Prior to the operation the patient had neither cough nor sputum, while a careful examination revealed no abnormality of the chest. Further, the patient denied the slightest sign of chest disease prior to the present illness, and the family history was good. At the same time, it is probable that he had a latent focus of infection, which only required a lowered resistance to break out into this grave form of phthisis. When we recall the fact that 90 per cent. of normal



O, Operation; X, chest examined, *nil*; ✳, onset of acute tuberculous bronchopneumonia.

persons have had, at one time or another, some focus of infection in the lungs, the etiology of the case is not obscure. In spite of the long period of disturbed nutrition consequent on the intestinal lesion, this patient presented sufficient resistance to hold the disease in check until some condition so weakened the pulmonary resistance that in two weeks the two lungs were infected in every lobe.

Since the operation of gastro-enterostomy has come to be one of the most frequent in abdominal surgery, it has been generally recognized, especially on the Continent, that the danger of the operation itself is nothing compared to the risk of post-operative pulmonary infection, which usually takes the form of bronchopneumonia. In view of the bovine and ingestion theory of tuberculous infection, there is no doubt that the long period of intestinal disease would predispose to the entrance of the tubercle bacillus into the system, but any suspicion of the duodenal ulcer being tuberculous was negatived by the clinical history of the case, the appearance of the ulcer at operation, and a negative result in examining the faeces for tubercle bacilli. The patient died in six months from this acute form of pulmonary tuberculosis. Relief from gastric symptoms was complete.

The incidence of phthisis supervening on chronic gastric or duodenal ulcer is given by different authorities at 20 to 27 per cent. of the complications of the gastric or intestinal lesion; and, in view of the fact experimentally proved that a lesion of the intestinal tract favours the absorption of tubercle bacilli into the lymphatic and circulatory systems, by either of which routes they may reach the lung, there is a clear indication for the earlier resort to surgical measures in cases of chronic ulcers which are not benefited by medical treatment.

A TYPHOID CARRIER.

BY

J. R. HUTCHINSON, M.B., D.P.H.,

ASSISTANT TO THE MEDICAL OFFICER OF HEALTH, MANCHESTER.

THE circumstances of this case are briefly as follows:

CASE I (229, 1908).

J. H. W., aged 36, commenced with enteric fever on or abou September 24th, 1908. Widal's test was positive on October 19th 1908. This patient had been living at the house in which h then was for four days. Prior to this he had lodged for som months at the house of a Mrs. W., a widow, who gets her livin by taking in lodgers. She does all her own housework, an commonly has two or three lodgers.

At the same house in which J. H. W. was presumabl infected, three previous cases (II, III, and IV) of enteri fever had occurred amongst Mrs. W.'s lodgers.

CASE II (130, 1907).

J. W. E., aged 19, commenced to be ill on September 7th, 1907 On September 28th he was removed to the fever hospital. Hi blood gave a positive reaction. He recovered.

CASE III (224, 1906).

A. A., aged 28, commenced to be ill on September 4th, 1906 His blood gave a positive reaction. Death occurred o October 16th, 1906.

CASE IV (135, 1906).

A. W., aged 28, commenced to be ill on May 2nd, 1906. Hi blood gave a positive reaction. Death took place on June 14th 1906.

All these four cases were infected between May, 1906, an September, 1908, at the one house kept by Mrs. W. durin this period. Three further cases were traced to two othe houses at which Mrs. W. had previously taken in lodgers.

CASE V (174, 1905).

H. R., aged 19. Onset of disease, May 20th, 1905. Bloo reaction positive. There is just a chance that this patient wa infected outside Manchester, but this is unlikely. He ha lodged at this house for three months.

CASE VI (118, 1905).

H. P., aged 25. Onset, April 8th, 1905. Blood reaction pos tive. A daughter of H. P.'s too had a prolonged febrile illne about this time; the details of this illness are not forthcoming a blood specimen could not be obtained. Both father an daughter were lodgers with Mrs. W.

CASE VII (388, 1898).

W. D., aged 23. Onset, October 4th, 1898. Removed to th fever hospital, and died November 1st, 1898. For six week prior to October 4th W. D. had lodged with Mrs. W.

The only factor common to all these cases is the pr sence of Mrs. W. No history of contact with know enteric fever cases, or of consumption of food likely to h infected, was obtainable in any of these cases.

Mrs. W.'s medical history is as follows: Up to 1893, when s was about 54 years old, she enjoyed good health, and never h occasion to see a medical man. In this year she had an atta of "influenza and pneumonia," for which she was treated in union hospital. She remembers little about this illness exce that she had severe headaches and pains in the back, and w delirious. She was ill for five weeks, and was fed entirely fluid foods. Since this illness she has suffered from perio attacks of abdominal pain and vomiting. These attacks did n follow immediately on the illness of 1893; there was an interv of five years during which her health was good. A specimen blood obtained in November, 1907, gave a negative reaction.

Five of the seven cases recorded above are also record in the annual report of the medical officer of health Manchester for 1907. The occurrence of a sixth case September, 1908, caused further search to be made, wher seventh was discovered so far back as 1898.

No cases can be found as having occurred at the hou of Mrs. W. prior to 1898. Possibly some may have be overlooked. It was not until 1898 that Mrs. W. began suffer from attacks of abdominal pain and vomiting af her five years of good health. The year she began to ill was marked by the appearance of the first kno case of enteric fever amongst her lodgers. There is doubt that she was ill before her lodger.

It is curious that no further cases should come to lig between 1898 and 1905; certainly none were notif during this period. It is a well-known fact that "carrier" cases the bacilli are excreted in the stools a urine in batches with bacillus-free intervals. Many su batches must have been shed from time to time duri these years. In October, 1908, Mrs. W. was examined

practitioner who usually attended her; he was unable detect any abnormal physical signs—the liver was not larged, the gall bladder could not be felt, there was no idence of gall stones. He had had the patient under atment on and off for years for "indigestion and chronic nstipation." So far as he knew, she had never been ndiced.

On November 4th, 1908, Mrs. W.'s blood gave a positive action in thirty minutes. The same evening she was ven, in accordance with Professor Delépine's method, a se of sulphate of soda, and next morning specimens of r faeces and urine were obtained. Both contained phoid bacilli. A month later (December 3rd) further ecimens were obtained without the administration of a thartic; on this occasion the bacilli were found by ofessor Delépine in the faeces only; the urine was erile. Attempts to obtain further specimens of blood om Mrs. W. were unsuccessful.

It seems highly probable that the influenza and eumonia of 1893 was in reality enteric fever. It is markable that she is not known to have infected any e prior to 1898, particularly so as she was engaged in neral housework, including the preparation of food, etc., her lodgers. Certainly her attacks of abdominal pain, c., do not seem to have troubled her prior to the middle 1898.

She cannot, when her serum gave a positive reaction in ovember, 1908, have been infected by J. H. W., the last se to occur in her house, as not only did her excretions ntain typhoid bacilli at that time, but they were present her faeces on December 3rd, six weeks after J. H. W. d been removed to hospital.

The negative reaction obtained in November, 1907, is t of great importance, for, as Doerr[1] showed in 1905, the rsistence of typhoid bacilli in the bile is unable to eserve the agglutinating properties of the blood.

It has been pointed out also by German observers that is not infrequently occurs. Forster and Kayser[2] suggest at the attacks of abdominal pain, vomiting, etc., which cur from time to time are due to local inflammatory anges in the gall bladder set up by the contained cilli, and that with each attack more agglutinating subances develop in the blood stream. Widal's reaction, en, would probably be obtained with a specimen of blood ken soon after one of the periodic attacks of abdominal ain, etc., but with the lapse of time, and without the ssistance of another attack, the serum would lose its gglutinating properties. Mrs. W. has had "stomach ttacks" at intervals of a "few days" for upwards of ten ears.

None of the patients returned to lodge again at Mrs. W.'s fter recovery; there is no question, therefore, of any one them being responsible for any subsequent case.

It is interesting to find that the last 6 of the 7 cases had een living at the house of Mrs. W. for four, three, two, ree, three-quarters, and one and a half months respecvely before they became infected. No record of the ngth of time that Case 1 had been here prior to infection as made. This calls to mind Kayser's famous case of the trassburg baker.[3]

There appears to be some element of periodicity in the ases infected; this has been previously noticed by Davies nd Walker Hall.[4]

For permission to publish this case I am indebted to Dr. Niven.

REFERENCES.
[1] Doerr, *Centralbl. f. Bakt.*, 1905, v, 39 [2] Forster and Kayser, *Münch. ed. Woch.*, 1905, No. 31. [3] Kayser, *Arbeit. aus dem Kais. Gesund.*, 906, B. 24. [4] Davies and Walker Hall, BRITISH MEDICAL JOURNAL October 17th, 1908.

THE E.M.I. (oeuvre d'Enseignement Médical Complémentaire), which is under the patronage of the French Government, has this year chosen Belgium and Holland as the scenes of its tour of medical study. The tour will last from August 1st to the 20th. The party will start from Lille, returning by way of Luxemburg and Alsace, and separating at Vittel. It will visit Ostend, Middelkerke, Blankenberg, Bruges, Ghent, Brussels, Louvain, Antwerp, Rotterdam, The Hague, Leyden, Amsterdam, the Isle of Marken, Utrecht, Liége, Spa, Bourgoumont, Luxemburg, Strassburg, Munster, Schlucht, and Gerardmer. The Association issues a journal entitled *L'Enseignement Médico-Mutuel International* (published at 12, rue François-Millet, Paris XVIème) in which detailed information is given.

SYPHILITIC LEUCODERMA IN A MALE.

BY
STAFF SURGEON KENNETH H. JONES, M.B.,
ROYAL NAVY.

THE following case is of interest, both because it occurred in a male—an event of considerable rarity—and because of the large area affected.

W. R., aged 21, a newly entered stoker recruit, was on April 20th, 1909, picked out of about 200 men and boys, all stripped to the waist, and awaiting their examination by a medical officer as to personal cleanliness. He stated that previously to enlistment he was employed as a fireman at works in the North of England. He admitted having contracted syphilis about three years before, and the scar of the chancre was very obvious on the glans penis, near the meatus. According to his own account, he had suffered very little from secondary symptoms, and had had no regular or continuous treatment with mercury. With this exception he had always enjoyed very good health.

He was of blonde Saxon type, with very fair hair and blue eyes, well nourished and muscular. The whole of the trunk, both anteriorly and posteriorly, to about the level of the umbilicus, as well as the upper extremities as far down as the insertions of the deltoid muscles, was affected. The skin was to some extent pigmented, and in certain regions very dark indeed; whilst over the whole there appeared whitish rounded or oval mottlings or dapplings, most obvious where the surrounding cuticle was most deeply coloured. The pigmentation was most marked in the region over the outer two-thirds of the clavicles, and more so immediately above than just below them; in the middle line, over the inner thirds of these bones and over the upper edge of the sternum, it paled very markedly. The skin over the outer two-thirds of the clavicles, and for about 1 to 1½ in. above, was a deep brown, like that of a lightly-coloured Indian; that of the rest of the neck was normal. After these areas, the darkest parts were those over the top of the shoulders and over the deltoid muscles, pigmentation being very marked as far down as the insertions of the latter. The very dark coloration did not continue round the back of the neck in the form of a collar. In all the above areas the dappling was exceedingly obvious, the whitish patches being well defined and their edges sharply cut. Over the rest of the trunk, ventrally and dorsally, the condition was well marked but the pigmentation was less, the colour being of a light yellowish-brown; the dapplings in consequence were less obvious, and showed less tendency to be sharply circumscribed. About the level of the umbilicus was a well-marked impression from the wearing of a tight belt, and below this the peculiar skin coloration was absent. The pale areas or dapplings varied from ½ to ¾ in. in diameter, and tended to become smaller as well as less well defined on the chest, sides, back, and abdomen than in the clavicular regions and over the deltoids.

After an interval of six months, when an opportunity again occurred of making observations, the condition was, on the whole, slightly less evident than before, but was still most marked just over the clavicles and deltoid muscles; the whitish dapplings showed a tendency to be less circumscribed, and the pigmented areas to decrease, both in extent and depth of coloration. The dapplings showed a tendency to run into one another, especially on the abdomen. In the region of the nipples and over the scapulae all pigmentation had disappeared, together with the characteristic whitish areas (dapplings). The mark of the belt had gone, but no pigmentation occurred below its former situation. Posteriorly on the left side the condition was most evident along the inner margin of the scapula and below it, whilst beyond the mid-axillary line, passing forward, pigmentation seemed to have cleared towards the middle line of the body. On the right side the condition was not so marked along the inner border of the scapula, but about as well marked below it as on the left; in the mid and anterior axillary lines, and towards the middle line of the body, however, it was well in evidence.

It is interesting that in so marked a case the sides of the neck, usually the parts affected, should escape altogether. It has been observed that syphilitic pigmentation usually, as in this case, clears away very slowly.

In fair Europeans, of the same type as the patient, exposure to the sun in some parts of the world, and especially accidental exposure of a portion of the skin usually protected, may produce a pigmentation as definite and as deep in colour as the syphilitic described above. Such pigmentation is frequently, but not always, preceded by an inflammatory erythema; it is very permanent, like the syphilitic, and may take eighteen months to two years to disappear, although there be no subsequent exposure to the sun.

Again, it is remarkable to what an extent scars and the cuticle round them tend to become pigmented in some moderately dark-skinned races, as, for instance, the Chinese; and also how very permanent is such pathological coloration, whether on an exposed or unexposed part of the body. Obviously, then, permanency is not peculiar to syphilitic pigmentation.

The whitish dapplings have been thought to represent degeneration following a roseolar syphilide, but in this case the man denied ever having had a secondary eruption of any kind.

The term "dappling" is taken from an excellent paper on this subject by Sir Jonathan Hutchinson in the BRITISH MEDICAL JOURNAL of January 9th, 1909, and describes the condition most admirably.

THE RELATION OF THE PAROVARIUM TO CYST FORMATION.

By PERCIVAL P. COLE, M.B., CH.B., F.R.C.S.ENG.,
DEMONSTRATOR OF ANATOMY, BIRMINGHAM UNIVERSITY.

THE parovarium—the rudimentary structure representing the Wolffian system in the female—presents itself as a series of vertical tubules, which below disappear into the ovarian tissue, but above join a horizontal tubule, which courses parallel to, but below the Fallopian tube. At its distal extremity this horizontal tube may have two or three slightly dilated terminations known as Kobelt's tubes, whilst towards the uterus it fades away, and can no longer be traced in the broad ligament. The outermost vertical tubule is in some cases so closely related to the fimbria ovarica that the two appear to fuse.

A striking fact with regard to the parovarium is that the degree of its development varies with the age of the subject, without direct relation to the increase in size of the broad ligament. Thus, in the fetus the parovarium can with difficulty be distinguished by the naked eye. At the age of 12, although the uterus and broad ligament and all the sexual apparatus have considerably increased, the parovarium is still a structure which might easily escape notice. It is most marked from the age of 20 onwards, and the most evident examples are found in women from 40 to 53.

In this connexion it is interesting to observe the clinical fact that cysts, originating in the parovarium, practically never occur before the age of 16. A section through a Kobelt's tube which occurred as a small pedunculated cyst shows that the wall contains a definite amount of muscular tissue, which cannot, however, be differentiated into layers. The lining cells are definitely columnar, an observation which is at variance with Doran's[1] statement, that every cyst connected with the outer portion of the horizontal part of the parovarium is lined with endothelium, and not with ciliated or columnar epithelial cells found in the vertical tubes.

A similar pedunculated appendage sometimes seen in the same neighbourhood is solid and not cystic. In the midst of the fibrocellular tissue, of which the little body mostly consists, are small spaces lined by regular low columnar epithelium. These spaces are undoubtedly portions of Wolffian tubules which have escaped obliteration. Surrounding these spaces a zone of muscle—differentiated by Van Gieson's stain—may occasionally be seen. The drawing (Fig. 1) shows two cell-lined spaces, and illustrates clearly the type of epithelium.

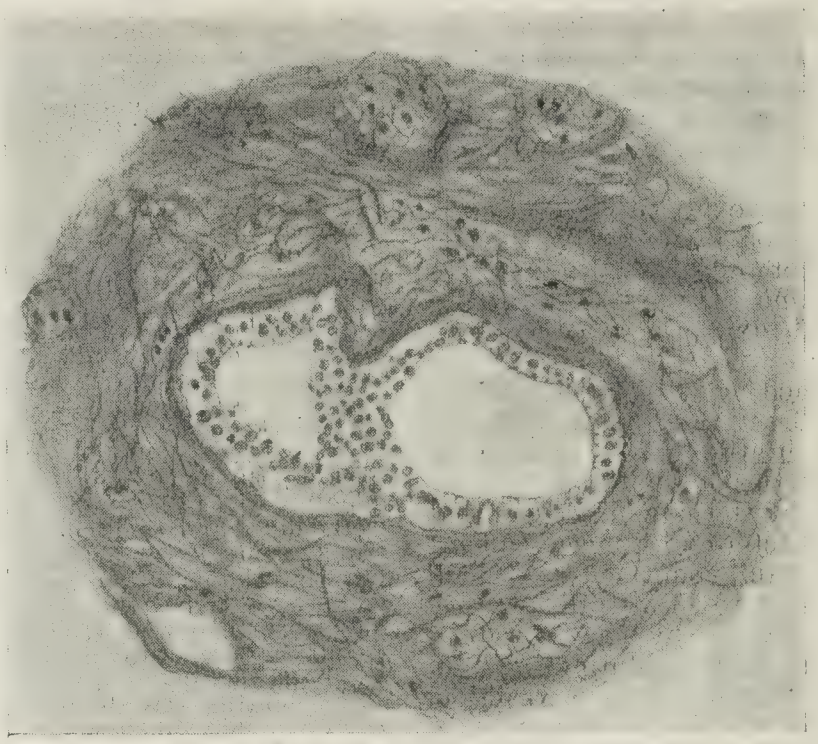


Fig. 1.—Drawing to show partial obliteration of Wolffian tubules accompanied by small cystic dilatations.

A comparison of the two bodies above described is interesting as showing in the one cystic dilatation, and in the other obliteration in progress but not complete, each isolated cell group being itself a potential cyst.

The probable course of events in the life-history of the parovarium is indicated in Fig. 1. Obliteration is probably never complete; the tubes are, to a very large extent, converted into solid cords, but here and there retain a lumen surrounded by characteristic cells.

This hypothesis has been verified by sections of isolated tubules cut transversely and longitudinally. The photomicrograph (Fig. 2) shows the appearance of a transverse section of a single isolated tubule; no trace of lumen is present. It has become a solid cord of fibrous tissue, in which are vessels. It is obvious that such a structure may easily be overlooked, even when careful search is made.

Fig. 2.—Photomicrograph showing transverse section of single isolated tubule, the lumen of which has been completely obliterated.

The photomicrograph (Fig. 3) is of a longitudinal section made through a single tubule which presented a slight enlargement at one point. The section has exposed an irregularly shaped cavity in the wall of which some muscle can be distinguished.

The lining epithelium has become detached, but the lumen is filled with débris and cells. These cells, under a high power, resolve themselves for the most part into groups of well-preserved short columnar epithelium, the appearance of which is shown in Fig. 4. There can be no doubt that this cavity has been formed as a slight cystic dilatation in the course of a Wolffian tubule.

In these two sections (Figs. 2 and 3), taken from a woman aged 53, are seen the two stages of complete and partial obliteration. In this way it becomes possible to distinguish the potential factors concerned in the formation of cysts from the parovarium.

But opinions vary as to the frequency with which broad ligament cysts owe their origin to the parovarium. Formerly all cysts in this ligament were regarded as originating therefrom, whereas at least one observer holds that their source is Müllerian in a large proportion of cases. Meyer, discussing these cysts, quotes Kossman[3] as upholding the theory of their origin from accessory Fallopian tubes. Meyer disagrees with him for two reasons. First, because of the frequency with which small appendages are found, compared with the relative rarity of accessory tubes; and, secondly, because these appendages frequently occur in that part of the meso-salpinx in which the portion of the parovarium adjacent to the fimbriated extremity of the tube is wide and thick, and where, in his experience, the parovarium sometimes ends in small cystic dilatations, most frequently observed

ccording to Meyer, in the newly born. Systematic xamination of broad ligaments confirms this statement, nd proves, moreover, that these small appendages, which may even be tufted, are definitely connected with the parovarium.

Fig. 3.—Photomicrograph showing longitudinal section of single tubule showing slight enlargement at one point.

Kossman's theory is, therefore, not supported by the facts. That a number of broad ligament cysts do originate from the parovarium cannot be doubted, but that all broad ligament cysts do not originate from this structure is equally certain.

Sampson Handley,[2] in 1903, contended that cysts, which could be enucleated and which were situated above the tube, were of Müllerian origin. He was able to prove this contention by demonstrating a communication between the Fallopian tube and the overlying cyst in the specimen 4582, museum of the Royal College of Surgeons of England. He also demonstrated the similarity of the cyst wall to that of a hydrosalpinx, and inferred that, if such a similarity could be demonstrated in the case of a cyst lying above the tube, it was sufficient proof of its Müllerian origin, because the proved existence of a communication in one instance makes it reasonable to assume that such has been present in other similarly constituted cysts, even though at the time of examination it has become obliterated.

Accessory tubes, when present, frequently have no lumen, and, when patent, any communication with the main tube is of extreme rarity.

I am able to illustrate a specimen bearing on this point, for the use of which I am indebted to Dr. Hewetson. The parts removed were taken from a young woman on account of haemorrhage from a ruptured Graafian follicle, and consist of tube, ovary, and broad ligament (Fig. 5).

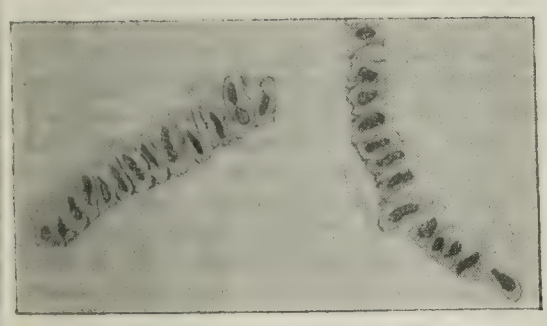


Fig. 4.—Epithelium lying in the lumen of a cystic dilatation of a parovarian tube.

The Fallopian tube measured 4.5 cm. in length, and the accessory tube 2.5 cm. in length. Air inflation was made use of to demonstrate any possible communications, the specimen being held under water. When A was inflated bubbles were seen to emerge at D, the cut end, and at E, the fimbriated end. When these orifices were compressed the bubbles escaped at C. When B was inflated, bubbles escaped at C and at the other orifice, defined in the photograph by a bristle. No bubbles escaped from the fimbriated end of the tube B.

The condition must have been similar to that shown in the diagram, the orifice C being common to the two tubes A and B. It seems probable that the original terminal orifice of the Müllerian duct was at C, corresponding to the site at which the mesothelium became invaginated at the time when the Müllerian duct commenced to develop. Sedgwick and Balfour maintain that three such invagina-

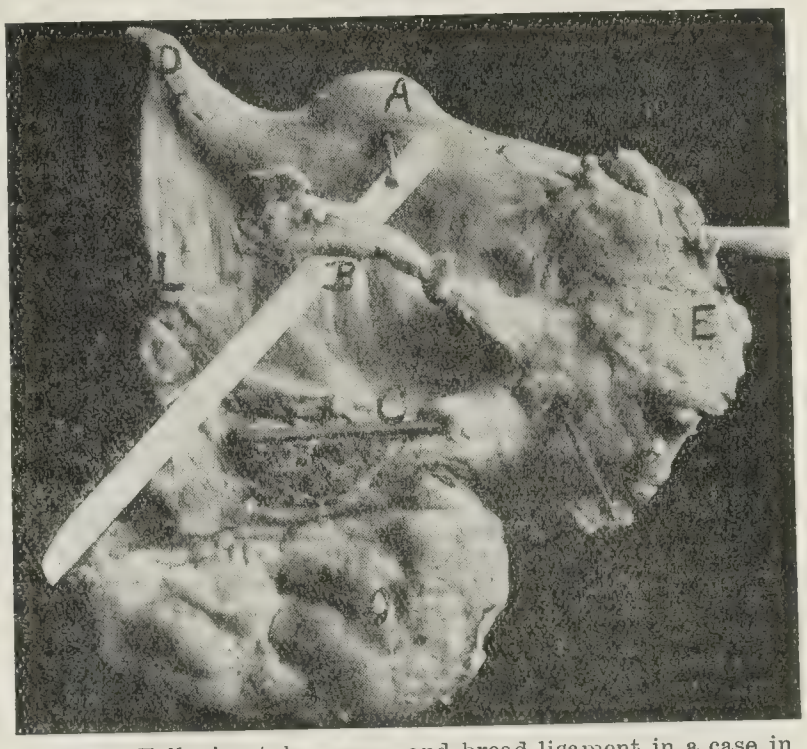


Fig. 5.—Fallopian tube, ovary, and broad ligament in a case in which haemorrhage occurred from a ruptured Graafian follicle. A, Fallopian tube; B, accessory Fallopian tube; C, point at which the air escaped when D and E were closed and when B was inflated; D, cut end; E, fimbriated end of Fallopian tube; L, cut end of broad ligament; O, ovary; S, cut surface.

tions take place. The fusion that subsequently occurs converts these three invaginations into one common orifice —the abdominal ostium.

In this case fusion may have failed, and the three invaginations be represented by the orifice C, the accessory tube B, and the fimbriated opening E. It will be noticed in this connexion that the obviously tubular structure between E and C occupies the position of the fimbria ovarica, and is the only representative of it.

Obliteration of the orifice C, together with the communication with the tube A, and subsequent dilatation of its cavity, would give rise to a cyst occupying a position in which cysts are frequently found, and give little or no clue as to its Müllerian origin. The specimen indicates clearly that, as Handley suspected, cysts below the Fallopian tube may also be Müllerian in origin.

REFERENCES.
[1] Doran: *Observations on Tumours of the Ovary*, 1884. [2] Handley *Journal of Obstetrics and Gynaecology*, 1903. [3] Kossman: *Krankh. der Weiblichen Adnexorgane* (Martin), vol. i. [4] Meyer: Ueber epitheliale Gebilde im Myometrium des foetalen und Kindlichen Uterus.

A PETITION from the Massachusetts State Nurses' Association, asking for the establishment of a State board of registration in nursing, is now before the Massachusetts State Legislature. A similar measure has been passed by the State of New York, and has, it is stated, proved successful.

THE annual meeting of the Association of Certificated Dispensers was held at the Apothecaries' Hall, E.C., on March 10th, Mr. Montagu Smith, Lewisham Infirmary, presiding. The Treasurer, Mr. A. Z. Anderson, Whitechapel Infirmary, presented his balance sheet, which showed a balance of £56 9s. 6d. to the credit of the association. The Honorary Secretary, Mr. A. Howell, Dalston Dispensary, N.E., submitted his annual report, which showed a continual growth in the membership, the association being about 350 strong A great meeting had been held in November last, at which a resolution was passed urging the Society of Apothecaries to use its influence with the Pharmaceutical Society in reference to the making and passing of by-laws for the registration of the assistants by the powers conferred on the latter authority under Section 4 of the Poisons and Pharmacy Bill, 1908. Negotiations are still proceeding. The register kept by the Honorary Secretary had also been the means of many members securing employment as dispensers. The committee for 1910 were then appointed, being, with two exceptions, the same as last year. Mr. Howell, addressing the members, formulated a policy for their guidance in any legal or professional circumstances that might arise during the ensuing year.

THE SCIENCE COMMITTEE

OF THE

British Medical Association.

REPORT CXXI.

ON THE ELECTRO-CARDIOGRAPHIC CURVES YIELDED BY ECTOPIC BEATS ARISING IN THE WALLS OF THE AURICLES AND VENTRICLES.*

BY

THOMAS LEWIS, M.D.LOND., M.R.C.P.ENG., D.SC.WALES,

PHYSICIAN TO OUT-PATIENTS, CITY OF LONDON HOSPITAL, AND ASSISTANT PHYSICIAN, SEAMEN'S HOSPITAL SOCIETY, GREENWICH.

(From the Research Department of University College Hospital Medical School.)

RECENT observations carried out upon a number of patients and upon the heart of the dog beating *in situ* justify the following conclusions.

1. In the dog an artificially excited ventricular contraction yields an electric complex which is distinctive of the area in which it originates. The areas from which specific types of curve may be obtained are numerous. It is not true that there is but a single type for right and left ventricle, and it is equally untrue that certain known types are evidences of hemisystole.

The identification of specific types of curve should prove of considerable value in accurately locating restricted lesions of the heart in clinical work.

2. The type of ventricular complex given by a ventricular beat originating in a single focus is surprisingly constant; it is largely, if not entirely, independent of the phase of diastole in which it occurs, provided that it is not complicated by the complex of a commencing ventricular contraction the result of a normal auricular impulse. Under the last-named conditions very intricate curves are produced.

3. Within a small error of measurement the length of an ectopic ventricular complex is the same as that of the normal ventricular complex (the same feature is noticed in clinical curves, and in the ventricular complex of an auricular extrasystole). This fact is of considerable value in the interpretation of abnormal electro-cardiographic curves.

4. Ventricular ectopic complexes are frequently complicated by the superimposition of normal auricular complexes occurring at the same time. The auricular and ventricular effects may usually be separated. The same statements apply to clinical curves.

5. Many areas of the auricular musculature, when excited, propagate contraction waves of which the electric complexes are distinctive. The auricular complex may be normal in form, diminished or inverted. The type of P variation which most closely resembles the normal P variation is obtained on stimulation of the superior vena cava. Such a type of curve is never obtained from the region of the inferior vena cava. This fact points to the *origin of the normal heart-beat in the neighbourhood of the superior venous inlet.* (That the pacemaker of the heart is constant in position is evidenced by the constancy of the shape of the normal P variation.)

6. The ventricular complex resulting from an ectopic auricular impulse always commences with a base negative effect. There is considerable variation in the type of the complex as a whole, according to the phase of the ventricular diastole in which it occurs. The most conspicuous variations are an increase in the amplitude of R during later diastole (and this may occur to such an extent that it actually exceeds that of the normal R peak), and an inversion or decrease of T according as the ventricular complex commences in early or late diastole respectively. Variations in the R and T peaks of the post-extrasystolic contraction are also seen. Somewhat similar variations are met with in clinical cases.

7. Increase of the P-R interval is not uncommon in instances of early auricular extrasystoles.

8. Many of the clinical curves of single and successive ectopic beats have been duplicated experimentally. They will be reported at a later date.

9. In patients, the constancy of the type of extrasystolic electric complex from day to day, month to month, or even year to year, is often very striking. It indicates the constancy of the exciting agent and the limitation of the area of its influence.

* The expenses of this work have been largely defrayed by grants om the British Medical Association and the Royal Society.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

KALA-AZAR IN THE YANGTSE VALLEY.

FLEET SURGEON P. W. BASSETT-SMITH having very kindly published, with a drawing, in the JOURNAL of December 4th, 1909, p. 1614, the case of kala-azar discovered by Surgeon G. B. Scott, R.N., and the writer amongst the in-patients at the Hospital of St. Vincent, Kiukiang, perhaps a few additional remarks upon the case might prove of interest.

Shortly after we found Leishman-Donovan bodies in liver-puncture material, the boy, aged 11, was placed on soamin injections, grains 5, every alternate day, until a total of 110 grains had been given. He benefited from the treatment, and early in August, about two months after treatment commenced, the spleen, which had reached formerly the pelvic crest, had shrunk to the level of the umbilicus, and the liver from 3 in. below the costal margin to a position where it was scarcely palpable. The anaemia improved, and the child, from being taciturn and dull, became brighter and more intelligent. This improvement continued for about two months, and then the disease showed signs again of making headway. The spleen commenced to increase in size, though the liver remained only slightly enlarged.

A second course of soamin was commenced early in October, and 10 grains were injected every alternate day. After 70 grains had been given diarrhoea set in, and the soamin was stopped. This diarrhoea soon yielded to treatment, but the patient did not improve. Bone marrow, fresh and in tablets, together with tonics and quinine, failed to arrest the extreme anaemia and emaciation. Lung symptoms developed, and the patient died on December 13th, 1909. No *post-mortem* examination was permitted.

It is interesting to note that a case of kala-azar, diagnosed by liver puncture, was under treatment last summer in a missionary hospital in or near Hankow. We are not, however, entirely certain that these cases come from some epidemic centre on the Yangtse. It was found on further investigation that our patient had been brought to this district some two years previously by his father, who had emigrated from Shantung province with his family to work on a local railway. The patient had suffered from fever and swollen belly before leaving Shantung. No other member of his family was similarly afflicted. So far no other cases of kala-azar have been sent in from the railway, though cases of *Schistosomum japonicum* are not at all infrequently seen, and are probably the cases of "big belly" reported to us as occurring in the vicinity of neighbouring waterways. It is not improbable that the endemic centre is in Shantung, from which province reports of cases are often made. Three years ago a terrible famine in Shantung drove numbers to emigrate to the Yangtse provinces. It is likely that the disease will spread along the river, but at present cases would seem to be few and probably imported.

It is interesting to note that cases of kala-azar in Europeans were reported as having occurred amongst those who had taken part in the 1900 campaign against the Boxers. The troops operated for the most part in Chili, which borders on Shantung. Fleet Surgeon Bassett-Smith's patient had been to Tientsin as well as to Yangtse ports, so that a northern origin to his cases cannot be entirely eliminated. The subject is one of extreme interest, and that is my excuse for adding these notes to Fleet Surgeon Bassett-Smith's interesting communication.

Kiukiang. ALEXANDER C. LAMBERT.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

PERTHSHIRE BRANCH.

Perth, Friday, February 11th, 1910.

Dr. LYELL (Vice-President) in the Chair.

Ichthyosis.

DR. LYELL showed a case of ichthyosis in a girl, aged 18, whom he had already shown in 1906. The condition started shortly after birth in a very aggravated form and with unusual distribution, having a number of flexor surfaces involved. At present there was very marked improvement, especially in the hands, which were free from crusts and more movable. The armpits and knees were still very bad.

Disseminated Sclerosis.

Dr. PATON showed a case of disseminated sclerosis in a married woman, aged 27, admitted to the infirmary in October, 1909. Nine years previously she had an ovary removed—reason unknown; at the same time a retroverted uterus was corrected. Six years ago she had a healthy child, and ever since had had what she termed nervous turns and severe headaches, also at times a great hatred to her child and feelings that she would like to kill it; at the same time she took a violent dislike to her husband. Coupled with the mental symptoms were also attacks of marked tachycardia. On admission she complained of severe headache, continuous, but worse some days than others. Optic atrophy, retinitis, and nystagmus were present. The other nerves of special sense were normal. The knee-jerks were markedly exaggerated and Babinski's sign very marked, causing some difficulty in walking. Efforts were made to relieve the headaches by many drugs on admission, such as chloral, phenacetin, salicine, quinine, etc., and to increase the body weight. Later she had the high frequency current and potassium iodide up to 180 grains in a day. The present condition was as follows: Tongue very furred, appearance pale, nystagmus and eye symptoms much improved, knee-jerks and Babinski's sign still well marked. No desire to go home. Prognosis very bad. The disease would probably end in general paralysis; in any case the patient would have to remain under asylum care.

Malnutrition.

Dr. PATON also showed a case of malnutrition in a boy of one year. The infant was nursed by its mother the first two months and did quite well; then it was put on Mellin's food, then Allenbury's, both of which disagreed. Every three weeks the child had a coffee-ground vomiting lasting four or five days. Its weight was now 11½ lb. The child had been treated for gastric catarrh in Edinburgh and Glasgow, *x*-rayed, etc. It was admitted three and a half weeks ago, and so far had had no attacks of vomiting, but had only gained ¼ lb. Washing out of the mouth and nutrient enemas of Carnrick's liquid peptonoids had been tried, and later albumen water. The father and mother were both healthy, and no tuberculous history could be made out.

Wound of Bladder.

Dr. STIRLING showed a ploughman, aged 22, who was run over by a cart in the region of the pelvis. When seen by the local doctor 2 oz. of blood were drawn off from the bladder. On admission next day 3 oz. of blood were drawn off, and a diagnosis of rupture of the bladder was made. On incising above the symphysis pubis a spicule of bone was found which had penetrated the bladder longitudinally about a quarter of an inch. As there was great difficulty in suturing the wound in the bladder, a tube was put in and the urine siphoned off. After forty-eight hours, as the condition was not satisfactory, a perineal incision was made to drain from below. A catheter had now been kept in, and the wounds were healing up.

Haematoma of Scrotum.

Dr. STIRLING showed a man, aged 44, who had received a blow over the inguinal canal. On admission he had a haematoma and oedema of the scrotum, and was passing a very small quantity of urine. On incising the scrotum urine came away, A catheter could hardly be passed on account of a series of strictures in the urethra. That was gradually being overcome, and the patient was recovering.

Appendicitis.

Dr. STIRLING showed two cases of appendicitis. In the one case the patient was very ill, but there were no symptoms of appendicitis; in the other the symptoms were of perinephritic abscess, but on opening in the region of the right kidney, a pocket of pus was found in the region of the appendix and drained. The kidney was all right. Both cases were recovering.

Other Surgical Cases.

Dr. STIRLING also showed two cases of wounds of the eye, both doing well; and a case after removal of half the tongue for carcinoma.

Apoplexy with Unusual Symptoms.

Dr. TAYLOR showed a case of apoplexy in a man, aged 30, with unusual symptoms. There was paralysis of the right side of the face and body, loss of speech, swallowing was very difficult, and there was loss of control of the bladder and bowel accompanied by a pulse of 36 to 40 per minute. A slight systolic murmur of the heart was heard. The lesion was evidently a mild medullary one extending down into the pons and causing the slowing of the heart's action. After nine weeks both speech and locomotion are quite good.

Reports of Societies.

ROYAL SOCIETY OF MEDICINE.

SECTION OF BALNEOLOGY AND CLIMATOLOGY.

AT a meeting held on March 9th, a discussion on *Arthritis deformans* was opened by Dr. LLEWELYN JONES (Bath). Under this title he contended that three distinct conditions might be recognized, namely, rheumatoid arthritis, osteo-arthritis, and infective arthritis. Etiologically, the salient characteristic of rheumatoid arthritis consisted in the frequency with which it arose in sequence or association with diseases of an infective or toxic nature; hence the strong presumption that this disease was of a similar origin. From an anatomical point of view the primary changes took place in synovial membrane and periarticular tissues, the cartilage being only secondarily involved. Ultimately secondary atrophic changes ensued involving skin, bone, and cartilage, with fibrous and bony ankylosis. Clinically the condition might be defined as a progressive symmetrical polyarthritis running an acute or chronic course, diversified by remissions and exacerbations. As an arthritic disease it was remarkable for the variety of its collateral phenomena, vasomotor symptoms, pigmentation, localized sweatings, severe muscular atrophy, and in some cases glandular and splenic enlargements. Constitutional symptoms were well marked. Etiologically considered, infective or toxic disorders did not seem to be so intimately related to the genesis of osteo-arthritis, whereas the influence of trauma, so inconspicuous a feature in rheumatoid arthritis, was very much in evidence. Anatomically the essential and primary lesions were in the bone and cartilage which underwent enlargement and hypertrophy, the changes in the synovial membrane taking place secondarily. Bony ankylosis never occurred. Clinically, constitutional symptoms were slight or trivial. The character of the joint swellings differed markedly from the smooth spindle-shaped swellings of rheumatoid arthritis, the outline of the joint being broken and irregular owing to the presence of bony outgrowths studding the lines of junction of the articular ends. Osteo-arthritis was

much more a disease of joints, and joints only, than rheumatoid arthritis, where articular lesions formed only one feature in a very varied clinical picture. Infective arthritis he considered chiefly in relationship to the more acute forms of rheumatoid arthritis with which confusion chiefly occurred. After excluding acute articular rheumatism, acute polyarticular gout, acute gonorrhoeal rheumatism, and secondary syphilitic arthritis, he passed on to consider the clinical features differentiating acute rheumatoid arthritis from the large group of infective arthritides hitherto unaffiliated to any special germ. He emphasized the importance of carefully eliciting the previous history for recent occurrence of toxic disorders known to be followed by arthritis, such as dysentery, typhoid fever, and so forth, and thus avoiding their confusion with acute rheumatoid arthritis. Again, in the presence of local foci such as pyorrhoea alveolaris, otorrhoea, etc., he deprecated the too ready assumption that arthritis occurring in such an association was necessarily acute rheumatoid arthritis, as undoubtedly many of these cases were instances of infective arthritis. He laid stress upon the following points of differentiation. In infective arthritis constitutional symptoms were more severe, splenic and glandular enlargements almost invariable, with leucocytosis and secondary anaemia. Only a few joints were attacked, and these at the onset of the malady, by preference the larger articulations, as opposed to the polyarticular distribution in rheumatoid arthritis, with preference for the smaller. Distribution was erratic, not symmetrical, and there was an absence of collateral phenomena distinctive of rheumatoid arthritis. Dr. Fortescue Fox doubted whether there was sufficient evidence for classifying arthritis as atrophic or hypertrophic, or according to its commencement in the cartilages or synovial membranes. The condition was essentially degenerative, and the form and situation depended much on the period of life and the mixture of other causal elements. The infective element was predominant in the earlier decades. In middle life degenerative arthritis was often mixed with gout, and senile arthritis was largely traumatic in origin. A true arthritis might be the result of gout. Dr. Preston King (Bath) said his own experience led him to believe that rheumatoid arthritis was not so much a disease by itself as the result of infection from various centres. Dr. Jones's distinctions between rheumatoid arthritis and osteo-arthritis, with hyperextensions and ankyloses belonging to the former and lateral subluxations to the latter, were somewhat bewildering. Dr. Buckley (Buxton) considered that while the types described were easily recognizable in well-marked cases, they merged one into another, and that hypertrophic arthritis sometimes was a late stage of the atrophic form. He had seen this occur, and believed that it represented an attempt at repair, and was thus in some degree a measure of the resistance of the system to the disease. Admitting an infective origin, it was necessary not to lose sight of other factors or predisposing causes which modified the form of the disease. Dr. Hale White considered that there was a distinct disease, the bacteriology of which was unknown, which should be called rheumatoid arthritis. Sometimes similar symptoms were caused by a known infection, then the name of the offending micro-organism should be prefixed to the phrase "rheumatoid arthritis." Dr. T. Fred. Gardner (Bournemouth) wished to emphasize the fact that many cases of rheumatoid arthritis presented an early history of arrested tuberculosis, most often showing itself as tuberculous lymphadenitis. He agreed that the character of the "soil" as shown in ordinary tubercle was significant. He also pointed out that in long-standing cases symptoms of spinal cord degeneration with features of bulbar paralysis ensued, representing an ascending degeneration in the cord itself. Mr. Gordon Watson said he believed that Dr. Llewelyn Jones divided arthritis deformans into two main classes, the synovial (rheumatoid) and the bony (osteo-). Broadly speaking, he would like to argue that these two main classes were quite distinct in their pathology, the former infective, and the latter traumatic. Of the latter class he had many examples following definitely on injury to a healthy single joint in young people. Dr. F. H. Humphries made remarks concerning treatment by high candle-power electric light placed in a suitable reflector, followed by an administration of static electricity. Mr. Midelton (Bournemouth) said further experience had confirmed his belief in the efficacy of continuous counter-irritation in the treatment of arthritis deformans. He mentioned the case of a patient suffering from this malady complicated by exophthalmic goitre. She had resisted treatment previously, but gained 28 lb. in weight, and her arthritis was greatly benefited during a course of continuous counter-irritation without any attempt at over-feeding. Dr. Luff also took part in the discussion. Dr. Solly (Harrogate) believed that in all cases described as rheumatoid or osteo-arthritis, atrophic or hypertrophic, mixed infection was probably present, and the combined action of various organisms, mixed in different proportions, would explain many variations in the classes of symptoms. Many forms of arthritis cleared up rapidly after the removal of some apparently trivial but constant source of septic infection, such as pyorrhoea alveolaris, or chronic nasal or tonsillar catarrh. Chronic colitis and chronic leucorrhoea seemed to be responsible in cases which had come under his observation. Dr. Ackerley (Llandrindod Wells), though he acknowledged that there was some convenience in using a comprehensive term, thought it would be wiser if, when a case of arthritis was seen, it was called simply an arthritis, and an endeavour were made to discover the cause or causes in that particular case. The arthritis was only one manifestation of the disease. But what was much needed was a more thorough study of the soil. Recognizing the etiological factor played by gonorrhoea, pyorrhoea alveolaris, and other forms of sepsis, what was it that determined an arthritis in one man and not in another? He doubted whether there was a real distinction between acute and chronic cases. Was it not possible that the chronic forms simply depended on a smaller daily dose of the particular toxin, or greater personal resistance to its effects? The discussion was adjourned till April 20th.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

At a meeting held on March 4th Dr. Neville Wood, President, in the chair, Mr. Donald Armour read a paper on the *Treatment of brain tumours*. The paper was illustrated by reference to cases, lantern slides, and specimens. He pointed out the rapid advances of cerebral surgery in the last few years, and regretted also the want of early diagnosis and consequent late recourse to the surgeon, so that he generally had not to deal with an early stage and small size. He disagreed with the classification of Walton and Paul from their statistics as to "operable," "inoperable," and "doubtful," pointing out that by operable they evidently meant curable, and that their statistics were based upon cases in which death was caused by the size of the tumour, and that statistics to be of any value must be derived from the records of cases operated on fairly early. He drew attention to what he considered a lack of clear distinction between the radical and palliative operation. He would describe as operable any case of brain tumour in which the growth could be wholly or partially removed with subsequent benefit to the patient. He pointed out the importance of decompression at an early stage before vision began to fail. As to syphilitic tumours, surgical interference was imperative in those cases where symptoms were increasing in spite of adequate medicinal treatment, and where localization was exact, and he would say that when diagnosis and localization had been arrived at, unless there was decided improvement under medicine in six weeks' time, operation should be recommended, and immediate operation without trying antisyphilitic remedies when the symptoms were urgent and the risk to life too great to try medicinal measures. Before operating, it was impossible to say whether the case would be suitable for a radical or a palliative operation. Whenever possible the growth must be removed. Palliative operations were practically free from risk to life, and were of the greatest value in relieving the distressing symptoms of headache, vomiting, and optic neuritis with its resulting blindness. The classes of cases suitable for palliative treatment were: (1) Those in which

the tumour could not be removed, though localized. (2) Those in which the tumour could not be localized but in which operation was demanded for the relief of symptoms. He discussed other palliative operations, such as lumbar puncture, punctures of lateral ventricle, none of which could compare with trephining. In a decompression operation, the opening should be over as unimportant an area of cortex as possible, and means taken to restrain hernia cerebri. The questions referring to the exploration for subcortical growths were discussed, and also the advisability under certain circumstances of doing the operations in two stages, as was done at the National Hospital, Queen Square. He referred to the dangers arising from interference with the respiratory and cardiac centres. To sum up, he would divide cases of brain tumour into three classes from the point of view of operation:

1. Those in which the tumour is completely removed and the patient cured.
2. Those in which it can be removed in part with marked temporary benefit to the patient.
3. Those in which the tumour cannot be removed at all, but the patient is relieved of the painful symptoms of the disease by the operation.

The paper was discussed by the PRESIDENT and Dr. GRAINGER STEWART.

SOCIETY OF MEDICAL OFFICERS OF HEALTH

AT a meeting held on March 11th, Dr. H. COOPER PATTIN, President, in the chair, Dr. T. W. N. BARLOW, in a paper on *Disinfectants*, said his object in bringing the subject before the society was to review the situation as regards disinfectants and the practice of disinfecting, to provoke discussion, and to bring to bear on the question a little common sense and a due sense of proportion with respect to the value of the process as a means of preventing disease. He considered that the causes of the wide differences of opinion which existed as to the necessity for certain disinfecting work were due to the lack of a sense of proportion, and also to the fact that most of the advocates of more frequent and general disinfection were not medical men, and consequently had no practical knowledge of disease. He suggested that much of the disinfection as now carried out was nothing more than quackery in its worst form, while of the remainder a great deal was useless, owing either to the disinfectant itself or to its manner of use being valueless. Much public and private money was in consequence wasted in the purchase of disinfectants, and the distorted view which the public had of the value of disinfectants and of disinfection constituted a real danger. After referring to the large number of so-called disinfectants on the market, and to what he assumed were some of the methods adopted by the makers of them to draw attention to the value of disinfectants generally, Dr. Barlow enumerated some of the uses to which disinfectants were commonly put. They included the watering of streets, sprinkling of ashpits, sluicing of drains, sprinkling on open places, and the hanging in lavatories, etc., of evil-smelling tabloids or so-called ozone-producing materials, whose smell cloaked that of an uncleanly unwashed urinal. The only rational use of disinfectants was in connexion with infectious fevers, for there was the definite object in view of destroying the germ which caused the disease, and thus preventing the spread of infection. Even in this a great deal of disinfection was done on assumption, for so little was known of the germs causing the common infectious diseases or of the factors concerned in their spread. Dr. Barlow referred to the experience of the medical officer of health of Providence, Rhode Island, who had abandoned house disinfection after diphtheria with no untoward results so far as an increased incidence of recurrent cases was concerned. The dangers of the universal and indiscriminate use of disinfectants were, in the author's opinion, very real. Some persons thought it was not necessary to be ordinarily clean, provided a disinfectant with a strong enough smell was used. Ashpits which were intended to be used for ashes had decomposable material put into them with impunity, so long as the decomposing smell was masked by the smell of the disinfectants, and public urinals and similar places, instead of being properly cleansed, were treated with disinfectants. Dr. WILLIAM BUTLER said that although he had recommended the discontinuance of chemical disinfection, it was recognized that if it were abandoned the public would consider that proper precautions were not being taken to prevent the spread of disease. He disinfected after all cases of erysipelas, a disease which, in his opinion, was a real danger to the puerperal woman. Among some of the advantages of disinfection were the thorough cleansing of the house concerned, and unless a disinfectant was used, the sheet hung before the doorway of an infected room would not be damped. Dr. J. F. J. ALLAN disapproved of the indiscriminate distribution of disinfectants in the form of fluids or powders. The disinfection of schools was a big question, but there ought to be a greater insistence upon greater cleanliness in school buildings. He gave instances of infection being carried by nurses. Dr. S. C. LAWRENCE thought that if disinfectants were ordered only by medical officers of health, much less would be used. He considered that there was a distinct danger of cleanly ways being discouraged by the too free use of disinfectants. Dr. P. CALDWELL SMITH said he insisted upon ordering all the disinfectants in his department, and also on the disinfection being carried out by his staff. He also instanced cases in which infection had been carried by nurses of fever hospitals. Dr. F. E. FREMANTLE considered that until the squire and the parson and the educated classes generally could be induced to regard disinfection in its proper light, it was useless to expect much from the public generally. Dr. EDWARD SERGEANT was not disposed to advise the abandoning of the use of chemical disinfectants, although he considered that much money was wasted through their indiscriminate and injudicious use. Dr. HERBERT PECK had found good resulting from the disinfecting and scraping of pails and the walls of privies after an outbreak of typhoid fever. Dr. HERBERT JONES referred to the harm done by using disinfectants in earth closets, and thereby preventing the bacterial action of the earth.

OXFORD MEDICAL SOCIETY.

AT a meeting on March 11th Mr. H. S. SOUTTAR gave a demonstration of the *Gastroscope* invented by himself. He said the mucous membrane was the all-important element in stomach diseases, and that before the introduction of the gastroscope no method existed for distinguishing the different macroscopic lesions. He then described the appearance of the gastric mucous membrane in various sites; the fundus could easily be distinguished from the pyloric end, and the pylorus, with its radiating folds, formed a most conspicuous object. The walls of the stomach are in constant rhythmical motion. The passage of the instrument ordinarily required general anaesthesia; difficulties were usually felt opposite the cricoid cartilage and at the cardiac orifice, but with gentle pressure the resistance could be overcome. By the courtesy of the staff of the Radcliffe Infirmary, two patients suffering from doubtful gastric disease were then examined by this method, in one of whom the diagnosis of gastric ulcer was established.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

AT a meeting held on February 24th, Dr. GEORGE WILKINSON, President, in the chair, Professor HARVEY LITTLEJOHN, in a paper on the *Medico-legal aspects of death from asphyxia*, dealt first with the general appearances in death of this kind, and showed that none of them were characteristic. Fluidity of the blood, petechial haemorrhages, congestion of organs, etc., were all found in death from a variety of causes. In violent asphyxia such as hanging, strangulation, smothering, drowning, a definite diagnosis could be made only when there was evidence of the asphyxiating medium—that is to say, in hanging, strangulation, and smothering, local marks of violence; and in drowning, proof that water had entered the lungs during life. The mechanism of death by hanging and strangulation were then considered together with the appearances found in such cases. The special difficulties in the diagnosis of overlying were discussed, and it was pointed out how unsatisfactory statistics were in this country as to the frequency of death from this cause. Richter's work on the subject was referred to and his views accentuated, namely, that in the majority of cases of infants found dead

in bed under circumstances suggestive of overlying, careful *post-mortem* examination generally showed that another and sufficient cause of death—such as bronchitis, broncho pneumonia, or gastro-enteritis—was present. The relation of status lymphaticus, enlargement of the thymus gland, rickets and laryngeal spasm, metabolic toxaemia to sudden death in infancy were also discussed in this connexion. As regards drowning, the work of recent investigators was cited, showing the uncertainty of the formerly accepted signs of death from this cause and the fallacies which the entrance of water *post mortem* into the air passages might give rise to. Absolute proof of drowning could be obtained by showing dilution of the blood in the left side of the heart as compared with that on the right side and in the body generally. The means by which this proof might be obtained were indicated. Mr. GRAHAM SIMPSON showed three cases in which the cystoscope had been used: (1) A case of *Perinephric abscess* containing staphylococci, possibly secondary to an acute necrosis of the femur twenty years before. (2) A case of *Vesical calculus*, in which the patient had passed numerous phosphatic stones for the last few weeks; a uric acid stone was removed, but no other cause was found for the formation of phosphates. (3) A case of *Tumour of the kidney*. It had been present for three years and was of large size, but the patient had presented no urinary symptoms; the urine was normal, and cystoscopy (after injection of indigo-carmine) showed the excretion to be similar in amount and colour. The kidney was removed and a large tumour found at its lower end; it had destroyed the lower third of the organ, but had not invaded the pelvis. Mr. MILES H. PHILLIPS showed: (1) A *Uterus containing a papillary carcinoma of the corpus* and a submucous cervical fibroid, the size of a golf ball. It had been removed by the vaginal route from a multipara of 56. She had consulted her doctor on account of a constant watery discharge, which she had supposed to be urine, but which was found to be thin sero-pus. (2) A *Uterus bearing a large submucous fibroid*, half of which showed characteristic sarcomatous change. Discovery of this malignant change prompted removal of the cervix eleven days after the primary operation. The patient was a spinster of 35 years. (3) A corpus uteri in a state of *Subacute metritis and double pyosalpinx*. The left ovary was also removed, as it was closely adherent to its corresponding tube, and contained a fibroma 1 in. in diameter. The patient, aged 29, had contracted gonorrhoea two years previously. In each case the convalescence was uncomplicated.

LIVERPOOL MEDICAL INSTITUTION.

AT a meeting held on February 24th, Dr. T. R BRADSHAW, President, in the chair, Dr. THOMAS BUSHBY read notes of a case of *Acute visceral syphilis* resulting in a permanent cardiac lesion. The patient had come under treatment suffering from a sloughing condition of the soft palate and serious symptoms of chest disease. He was found to be affected with mediastinitis, pericarditis, endocarditis, and right pleural effusion. His general condition rapidly improved under mercurial treatment, but as the case progressed the physical signs of marked aortic stenosis developed, with great hypertrophy of the heart. The PRESIDENT suggested that the case might become one of infective endocarditis. Dr. J. M. BUCHANAN considered that a cicatricial condition resulted in such cases rather than a true valvulitis. Dr. WARRINGTON mentioned that syphilitic disease of the vessels occurred earlier than was usually imagined after the primary lesion. Dr. E. E. GLYNN said that ten years' experience in the *post-mortem* room had shown the great rarity of cardiac syphilis; three true examples had been found, and in all the lesion was in the muscles in the form of gummata. Mr. D. DOUGLAS CRAWFORD read a note on *Chronic prostatitis*, which he suggested was often overlooked or mistaken for other affections. He emphasized the importance of rectal examination in all cases of chronic urethral discharge. Prostatic massage was a valuable means of treatment. His remarks were illustrated by the relation of a number of cases. Mr. F. T. PAUL mentioned a case in which apparently gonococci had continued active for five years. The PRESIDENT mentioned a case in which this condition simulated for a time renal disease, and Mr. PARKER spoke of the value of a bland non-alcoholic dietary. Dr. O. T. WILLIAMS read a paper on *The nature and therapeutic indications of the fat compounds*. Reviewing the work done by Dr. J. Maclean and himself, he showed that the fats in the body were not neutral fats, but to a large extent phosphatides. This explained why fat stains had no effect on the combined fats of the tissues, such stains acting only when these bodies had been disrupted and the fat in them liberated from combination with phosphorus and nitrogen-containing groups. The various organs had various amounts of these bodies which were very unstable. The function of the liver and possibly other organs in desaturating fatty acids was considered. The practical application of these observations was shown in a consideration of the influence of unsaturated fatty acids, such as are contained in cod-liver oil, on the metabolism, especially in phthisis. Four cases were recorded in which the administration of cod-liver oil had a marked effect on the metabolism, the fat absorption being greatly increased, as also was the nitrogen retention. The patients were able to take as much as 3 oz. of cod-liver oil without any ill effects. These observations were carried out in conjunction with Dr. C. Forsyth. Several members spoke about the use of cod-liver oil in phthisis, the general opinion being that small doses were as beneficial as larger ones. Dr. J. HILL ABRAM said that if the virtues of the oil were due to the fatty acids contained, the darker oils should be more useful; that had not been his experience. He advised that the oil should be given apart from meals. After an interesting discussion and remarks by Dr. FRED. WILSON on some researches made by him, Dr. WILLIAMS replied.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

AT a meeting held on February 25th, Professor J. B. HELLIER, President, in the chair, Mr. H. UPCOTT read a paper dealing with *Iso-haemolysis in malignant disease*. He described a technique for carrying out the tests with minimal quantities of serum and corpuscle emulsion. Of 86 persons examined, 34 had carcinoma; 56 per cent. of these were shown to have haemolytic serums. Among 5 patients with sarcoma there was only 1 whose blood was haemolytic; 50 per cent. of the serums from cases of tuberculosis were positive. There were 27 patients suffering from various other affections; only 2 of these were positive—one a youth with a chronic hydrocele, and the other a man with paroxysmal haemoglobinuria. Ten normal persons were all negative. The resistance of red cells to haemolytic serums was discussed, and brief mention was made of Elsberg's cutaneous haemolytic reaction in cancer. Dr. W. GOUGH read a paper on a case of *Malignant disease of the cervix uteri, treated by Wertheim's hysterectomy, with resection of one ureter*. Dr. E. F. TREVELYAN showed (1) a man aged 34 with *Tabes*, who had developed, whilst under observation during the past two years, a paralysis first of the right sixth, then of the left third nerve, and more recently of all the external muscles of both eyes. There remained a very slight external movement of the left eye, accompanied by nystagmus. The knee and tendo Achillis jerks were still present. Gastric crises occurred frequently, and there was a hystory of syphilis. (2) A youth aged 15 with *Habit spasm* of three years' duration. The movements consisted of involuntary raising of the upper lip. The head remained turned to one or other side, and the eyes were partially closed. There were no mental symptoms. He was improving under electrical and exercise treatment. Dr. E. O. CROFT showed a specimen of *Primary epithelioma of the vagina* from a multipara aged 46. The growth was oval, raised, and flattened, hard, and showed early ulceration on the surface. It was situated on the posterior and upper part of the vaginal wall and was free from the rectum. No other disease was present in the uterus or elsewhere. Owing to the small distance between the healthy cervix and the upper margin of the growth it was thought better to remove the uterus together with the growth *per vaginam*. Dr. C. OLDFIELD showed (1) a specimen of *Carcinoma of the cervix uteri* removed four years ago by Wertheim's operation. The patient had remained well and free from recurrence. Though she had well-marked

phthisis at the time of the operation, she now appeared cured of that also. (2) *Carcinoma of cervix uteri* with double salpingo-oöphoritis. The growth was extensive and had been diagnosed seven months before. The patient, though fat and alcoholic, had recovered except for a leakage from the bladder, a piece of the wall having been removed owing to implication in the growth. Dr. T. CHURTON gave an *X-ray demonstration of an extra-cerebellar tumour*. Dr. H. J. ROPER showed a case of *Irreducible intussusception* in a child treated by short-circuiting, with recovery. Mr. LAWFORD KNAGGS showed a patient in whom both *Upper jaws* had been *removed for epithelioma*. Mr. A. L. WHITEHEAD showed a case of *Myopia with progressive choroiditis and detachment of the retina*. The PRESIDENT showed a specimen of *Adeno-carcinoma corporis uteri*. Mr. J. STEWART showed a testicle and sac from a case of *Strangulated hernia with partially descended testis* in an infant three months old. Dr. MAXWELL TELLING showed a case of *Bazin's disease* (erythema induratum). Specimens and cases were also shown by Mr. H. LITTLEWOOD, Mr. W. C. MORTON, Mr. J. F. DOBSON, Mr. H. COLLINSON, Dr. ALEXANDER D. SHARP, and Mr. MICHAEL A. TEALE.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

AT a meeting held on Tuesday, February 15th, at the Royal Infirmary, Dr. WARD-SMITH in the chair, Dr. T. JASON WOOD read a paper on the *Treatment of fractures*. He said he intended his remarks to apply to fractures of the limbs, and, after pointing out that these had assumed an added importance in recent years, owing to the operation of the Workmen's Compensation Act, in that practitioners were frequently asked to express an opinion as to the length of time a patient would be disabled by a fracture, he went on to say that the first essential to successful treatment was a correct diagnosis. It should never be forgotten that there might be a slight fracture in the neighbourhood of a dislocated joint, which might have great influence in the prognosis of the case. The use of *x* rays was of undoubted value. In setting the fracture it was of the greatest importance to avoid rotatory deformity, especially in the lower limb. In cases of impaction at hip and shoulder no attempt should be made to break it down, unless there were rotatory deformity, or in a young patient. An impacted Colles's fracture should always be reduced. In all cases gentle massage should be commenced from the first, and after a week in a favourable case passive movement might be commenced. Ununited fractures in which there was free mobility after prolonged treatment were suitable for operation, freshening up the ends of the bones, and wiring in good position. In about 50 per cent. of cases even this was unsuccessful. The treatment of compound fractures under the antiseptic system was most successful. If the wound were at all extensive it was only reasonable to suture the bones at the time. Primary operation for simple fracture was not advisable. As regards fracture of the patella, primary operation should always be undertaken in a healthy patient under 50 years of age. Fracture of the olecranon should not be operated on at first, as an excellent result could be obtained by ordinary methods, and secondary operation could always be performed if necessary. The paper was discussed by Drs. WARD-SMITH, ROWE, LANKESTER, and GOYDER. Dr. J. H. ROWE read a paper entitled *Some remarks on genius*.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

AT a clinical meeting on March 2nd, Mr. A. FULTON, President, in the chair, Dr. MACKIE showed a case of *Cerebellar disease* in a middle-aged man. The classical symptoms of giddiness, sickness, nystagmus, and unsteadiness of gait, especially when the eyes were closed, were present. The nystagmus was of an outward and cerebellar type; no optic neuritis was present. Mr. WILLIS and Mr. TAWSE showed a boy of about 16 years with a *Carcinomatous growth blocking the nasal cavity*. It was of some months' duration, and blocked the left nasal cavity from the anterior nares in front to the posterior behind. Apparently it did not arise from the antrum. The growth was very vascular, and a section showed it to be a most virulent carcinoma. No abnormal glands could be discovered. Opinion of the members was divided as to the advisability of operation. Dr. JACOB showed a case of *Naevus with a peculiar distribution along the right intercostal nerves*. This was not present at birth, and sometimes the growth discharged. Dr. Jacob demonstrated the treatment of naevi by solid carbon dioxide in this case. The temperature of the frozen mass was about 80° below zero, and he applied this to the growth for 10 seconds. Details of success by this method were given. A demonstration was given of the value of *X rays in a case of aneurysm of the ascending aorta*, where the only clinical symptom was hoarseness. Dr. JACOB showed pathological specimens of *Sarcoma of both suprarenal glands*. The patient had been at work ten days before death, and collapsed very suddenly. There was no bronzing of the skin in this case. Dr. Jacob also showed a child with *Meningitis*. This child was both blind and deaf, and showed choroidal changes typical of congenital syphilis. Besides these, two cases of *Enlarged liver* and one of a *Dilated stomach*, reaching to the pubes, were shown.

MEDICO-CHIRURGICAL SOCIETY OF GLASGOW.

AT a meeting held on March 4th, Dr. ALFRED A. YOUNG in the chair, Dr. T. K. MUNRO showed cases of: (*a*) *Syringomyelia;* (*b*) *Angioneurotic oedema;* (*c*) *Tabid arthropathy;* (*d*) *Progressive muscular atrophy complicated with herpes zoster;* (*e*) *Cerebral diplegia;* (*f*) with Dr. JOHN GUY, a case of *Dissociated anaesthesia*. Dr. ROBERT KENNEDY showed: (*a*) An *Intracranial tumour* which could not be localized during life, with photograph of the patient after a decompression operation; (*b*) a patient who suffered from *Traumatic paralysis* and atrophy of the right deltoid and teres minor muscles, and in whom suture of the divided circumflex nerve was followed by restoration of function; (*c*) a *Gasserian ganglion removed by the trans-zygomatic route*, with photograph of the patient showing area of anaesthesia. Dr. W. K. HUNTER showed: (*a*) A brain from a case of *Pseudo-bulbar paralysis;* (*b*) a case of *Friedreich's disease;* (*c*) a *Brain showing sub-cortical haemorrhage* limited to the post-central gyrus; (*d*) a brain from a case of *Amnesia verbalis*, with word and object blindness. Dr. JOHN M. COWAN showed casts and photographs from cases of *Acromegaly;* and, with Dr. BALLANTYNE, a case of *Hemiplegia with sensory disturbance and hemianopsia*. Dr. ARCH. G. HAY showed a compositor with *Paralysis of the thenar muscles* supplied by the median nerve. Dr. ALEX. MACLENNAN described a case of *Tuberculous meningitis* with unusual symptoms of cortical irritation. Dr. A. W. HARRINGTON showed a patient with *Charcot's disease of the knee joint;* and, with Dr. TEACHER, microscopic sections of the nerves, spinal cord, and medulla from a case of *Extensive peripheral neuritis*, in which paralysis of the larynx, palate, and pharynx were present. Dr. MUIR showed a number of pathological preparations: (*a*) of *Cerebral tumours*, and (*b*) from cases of *Cerebral softening*. Mr. HENRY RUTHERFURD showed: (*a*) Specimen of a large *Cerebral abscess;* (*b*) a *Cerebral tumour* from the neighbourhood of the corpus callosum (sections by Dr. Teacher); (*c*) with Mr. BATTERSBY, a preparation of a *Hydrocephalic head*. Mr. J. H. PRINGLE and Dr. TEACHER showed a preparation from a case in which *Thrombosis of the longitudinal and lateral sinuses*, with cortical haemorrhages, took place shortly after birth. Dr. JOHN H. TEACHER showed specimen and section from a *Cortical cerebral lesion* associated with aphasia.

ASSOCIATION OF REGISTERED MEDICAL WOMEN.

AT a meeting held on March 1st, Mrs. DICKINSON-BERRY, President, in the chair, Dr. MAY THORNE reported on the past year's work of the *Vigilance Subcommittee*. Several cases had been dealt with where advertisements had appeared for medical women for posts of school medical inspectors at salaries below the minimum approved by the British Medical Association. Thanks to the help of the Association and of the BRITISH MEDICAL JOURNAL, which had refused to insert such advertisements

and had published warning notices concerning the appointments, much had been accomplished. The various associations of medical women in England, Scotland, Ireland, and India had co-operated in upholding the dignity of the profession, and the subcommittee desired to express its appreciation of the loyal support it had received from medical women in bringing about the favourable results. Dr. GOWDEY read a paper on the *Medical inspection of school children* under the London County Council, in which she pointed out some of the advantages of medical inspection. It aimed at generally improving the health of the nation, and other objects were the prevention of the spread of infectious disease, the raising of the standard of cleanliness in the children, selection of those suitable for special schools, and education of the parents. The teachers were also greatly helped by a knowledge of the facts revealed by medical inspection. The speaker laid stress on the point that all children should be examined before any physical culture was undertaken. The methods of "routine" and "detailed" inspection were then described as carried out in the elementary schools by the medical officers of the London County Council, and an account was given of medical inspection in secondary schools. It was observed that the object to be aimed at was not the collection of statistics, but the treatment of defects. In the secondary schools scholarships could be terminated if treatment were not carried out by the parents of the scholars. In the discussion that followed Mrs. BERRY referred to the great necessity for the treatment of carious teeth, and referred to the work done in Germany by school dental clinics. Dr. THORNE commented on the poor physique of many London County Council scholarship holders whom she had come across. Miss CORTHORN emphasized the importance of ensuring that scholarship holders were sufficiently nourished, and said that it might be better to award fewer scholarships and spend the money saved on the feeding of the children.

NORTHERN ASSOCIATION OF MEDICAL WOMEN.

A MEETING of this Association was held at Liverpool on February 19th, Miss IVENS, M.S., in the chair; 22 members were present. Dr. MERRY SMITH (Manchester) gave an account of the work done by the Manchester branch of the association to secure the admission of women to the resident posts in the Royal Infirmary, Manchester. Dr. MARGARET DOBSON (Inspector of School Children under the Bradford Education Committee) read a paper on the *Medical inspection of school children.* She described the method by which she examined the children. They were afterwards divided into two groups—(*a*) normal, (*b*) abnormal, including all those children requiring either treatment or watching. The parents, if not present during the examination, were notified of any defect. Two months later the children were seen again. Dr. Dobson disapproved of the examination of children at the age of 13, because, when the time came for re-examination, the children were found to have left. She would prefer examination at the age of 12, a further advantage being that children not fitted for half-timers could be weeded out. Dr. Dobson described the treatment of the different diseases at the Bradford school clinic. She strongly advocated treatment at a school clinic on the following grounds: (*a*) Inadequacy of former methods. The Bradford children had been inspected and the parents notified of defects for nearly fifteen years. It was found that only 33 per cent. had received adequate treatment. (*b*) Government grant influenced attendance at the school clinic, this counting as a school attendance. (*c*) The cases were cured in the shortest possible time, attendance at the school clinic being enforced by the attendance officer. On the other hand, attendance for treatment could not be compelled by a house-surgeon or private practitioner. (*d*) Daily treatment could be given. The special departments of some of the hospitals were open only once or twice a week. The daily cleansing of such conditions as septic ears rendered them no longer a source of danger to the rest of the class. (*e*) By increasing the interest of the work a better class of officer would be attracted to it. The arrangements for the compulsory cleansing of dirty children were described; also the feeding of the hungry. Payment in the latter case was enforced from those parents who upon investigation were found to be able to afford it. The provision of clothing was now under discussion. The open-air school at Bradford was described. The stay of each child was prolonged a sufficient time to permit of complete recovery, as shown by blood counts or other proof. It was not removed to make room for others as soon as some improvement was shown. Dr. FRANCES HARPER (Medical Inspector of Schools under the Lancashire County Council) said that in her opinion great care must be exercised to prevent any lessening of the parent's confidence in the general practitioner, as in many cases the children had been taken to a dispensing chemist in preference to a medical man. In the absence of a school clinic Dr. Harper advocated the use of trained nurses to replace the attendance officer. Too much stress was laid on schedules; more freedom should be given. Great care should be taken to secure the co-operation of the children themselves. The teaching of hygiene was of great importance. The syllabus was too abstract and theoretical. Instruction in cleanliness and decency should be insisted upon. The children should be instructed in the use of the toothbrush and handkerchief. Frequent inspections should be made of their hair by the teacher in class, no remarks to be made in public, and no blame to be attached where pediculi were found. The hair should not be cut; indeed every attempt should be made to encourage a kindly relation between the inspectors and the parents and children. The inspectors should be called by a new name. Skilled dentistry was at present unavailable, but much preventive dentistry could be secured by the proper use of the toothbrush. Dr. KATHARINE DRINKWATER (Medical Inspector of School Children, Wrexham Education Committee) described her methods of examination. She found that only 30 per cent. received satisfactory treatment. Dr. LILIE JOHNSON (Medical Inspector of School Children under the Northumberland County Council) spoke of the greater difficulties encountered in following up the abnormal children in a country district as compared with a town district. Dr. CATHARINE CORBETT (School Medical Officer, West Riding, Yorks) stated that in the case of older girls absent from school on account of ringworm, etc., she had difficulty in securing adequate and persistent treatment, the mothers being well satisfied to keep them at home to help in the house. Many children had been found provided with faulty spectacles provided by quacks. Dr. CATHARINE CHISHOLM (Manchester) considered inspection of the children in high schools quite as important as among children of the poorer classes. In the Manchester High School, courses of instruction were given to the elder girls on the management of infants and allied subjects. Popular lectures in school hygiene had also been given to the mothers of the scholars, and had proved successful. Dr. MARY DAVIES (Liverpool) suggested that while the establishment of a school clinic in every town was desirable, the question should also be considered from the point of view of the general practitioner.

THE sum of £6,000 has been left by the late Mr. H. J. Leggett to be divided equally between the Great Northern Central Hospital, the Royal Free Hospital, and the Wood Green, Hornsey, and Southgate Passmore Edwards Hospital.

THE German Surgical Society will hold its thirty-ninth congress this year in the Langenbeckhaus, Berlin, under the presidency of Professor Bier. There seems to be every prospect that the congress will be one of exceptional interest, as the number of communications already promised is 129, the average number being 70. The subjects proposed for discussion are: The surgical treatment of epilepsy, to be introduced by Professor Krause of Berlin, who will deal with non-traumatic forms, and Professor Tilmann of Cologne, who will confine himself to the traumatic forms; the surgical treatment of stenosis and fixed dilatation of the thorax, to be introduced by Professor Freund of Berlin, who will give a general review of the subject, and Professor Mohr of Halle, who will discuss the indications; the surgical treatment of acute appendicitis, to be introduced by Professor Kümmell o Hamburg, who will treat of the means of lessening the mortality in appendicitis and the prevention of abscess and peritonitis; and Professor Sonnenberg, who will deal with the diagnosis and treatment of the early stage of acute appendicitis.

Reviews.

PERINEOSYNTHESIS.

ONE of the great problems of gynaecology is "perineosynthesis," as KÜSTNER conveniently expresses it. Authorities are not agreed as to the true nature of the supports of the pelvic floor—Halban, Arthur Keith, R. H. Paramore, and others holding different opinions with regard to the vagina, the perineum, and the sphincter and levator ani. Operators disagree quite as much about methods, steps, stages, and sutures, so that each has his own ideal perineorrhaphy, and falsely, as a rule, ascribes to his method that success which is really the result of his skill and special experience. It is not, therefore, surprising that different operators succeed with totally opposite methods. *Die individualisierende Operation* is a rational synthesis of Küstner's method,[1] in which the author endeavours to overcome the evils necessarily following misapprehensions about the principles of perineorrhaphy. He knows full well, as all who read textbooks know, how difficult it is to teach plastic surgery by text and diagrams, and in order to obviate certain difficulties he has given his treatise something of the form of an Atlas, the letterpress consisting of thirty-five pages containing a clear abstract of the principles and steps of a perineorrhaphy as understood by the author. The illustrations are not big plates, but in part large diagrams printed with the text; in part, and more specially, stereoscopic slides of cases of severe perineal lesions, prepared to obviate certain familiar difficulties in the representation of these morbid conditions by the aid of pictorial art.

Dr. Küstner's views are already well known to gynaecologists, as he has written and spoken much on this subject. In this atlas treatise his observations are short and clear and appear in big print. There are hardly any references, but on the other hand no clinical reports, though the photographs supply their place to a great extent, and are without doubt instructive. His principle is that it is necessary to individualize or particularize every variety of the lesion and every step in the operation. He reminds us that the laceration of the perineum, whether complete or incomplete, is never symmetrical, median, and perfectly antero-posterior, as is implied in many educational works; on the contrary, it is always more or less lateral and oblique. Hence the damage done to the muscles and ligaments involved is no simple matter anatomically; the cicatrization further complicates the disarrangement of these structures, and should the perineorrhaphy wound fail to unite by first intention more cicatricial tissue develops, entailing more damage to the important soft structures. The process of cicatrization from the date of the injury onwards must also be considered. As the laceration is never truly median, the structures on each side, unsymmetrical from the moment that they are rent asunder, necessarily become more and more so as the wider side and the narrower side are both involved in the scar, and this asymmetrical cicatrization of necessity varies considerably according to the obliquity of the wound and the health and treatment of the patient. Nor are the muscles equally developed in different women. Several methods followed exclusively by different experts and their pupils are faulty in any case, even were every patient under their treatment subject to the same degree of laceration and cicatrization. Küstner is therefore very severe on certain rule-of-thumb "incisions," utterly condemning Lawson Tait's method where nothing is cut away, not even the cicatricial tissue keeping muscular structures apart. Other "incisions" cut more morbid tissue away but not, he thinks, nearly enough. He compares his diagram of the outline of the H incision on the perineal tissues with his stereoscopic slides showing neglected complete rupture of the perineum, and contends that it is absurd to expect much permanent benefit to follow Tait's operation. On the other hand certain other methods look neat, but really signify an unintelligent sacrifice of normal soft structures, and an insufficient excision of scar tissue. Küstner attaches high importance to free and even dissection with the scalpel, especially in the narrower, deeper parts of the seat of operation. It allows of even coaptation of unbruised surfaces, which can never be ensured when the parts are snicked with scissors. The parts must be restored to their normal condition. If there be much scar much trimming is needed, if little it is otherwise. Next to the removal of the scar tissue union of the parted muscles is necessary; the ends must be dissected up from under the scar and united. We know that when the sphincter ani is simply united by the cicatricial tissue drawn up in the posterior tissues, it may act for a while but tends to become stretched after a short period. Küstner insists on the union of the carefully dissected ends of the sphincter by one or two catgut sutures. Howard, Kelly, and himself were, he insists, the first to practise this special suturing of the sphincter, Berry Hart, Brewis, Fritsch, and Cullingworth following their example. Küstner also reminds us that there are other muscles that require union, and that when operating on a young subject we must make the new perineum fit to resist laceration from the fetal head. In order to ensure success in operations on bad, complete, and old lacerations, the author lays down certain rules which all gynaecologists will study with interest. A sufficient number of buried catgut sutures are required to draw the deep parts, and more especially the muscles together. Wire thread should be used to unite the smooth muscle fibres of the rectal wall, and to bring in apposition the integuments of the perineum. Küstner prefers catgut to wire for the vaginal tissues. He defers an action of the bowels until about the twelfth day (before removal of the sutures).

By this method Küstner assures us that the worst and most neglected lacerations can be made to heal "without the least difficulty." We have heard similar statements made by the advocates of other methods. Those who follow the author's technique must not lose sight of the fact that they do not necessarily possess his skill and experience. Should they fail the fault is more likely theirs than Dr. Küstner's, who has done his best to teach them what he has found to be the safest road to success. On the other hand, it will be interesting to see if the author will arouse controversial statements by other authorities, especially as to the question of the primary incision.

[1] *Die individualisierende Operation der inveterirten Scheiden-Damm-Mastdarm-Risse von Otto Küstner.* Jena: G. Fischer. 1909. (Demy 8vo, pp. 36; mit 7 Tafeln und 10 Abbildungen. M. 3.50.)

THE VARICOSE SYMPTOM-COMPLEX.

To the subject of varicose veins and the associated "symptom-complex" might very well be applied the words of Huxley: its study evokes a "state of stale and flat weariness wherein man delights not nor woman either." The author of *Der Varicöse Symptomencomplex*[2] was well aware of this when he set out to cover the ground; he seems to have addressed his task a little in the spirit of the martyr, and the feeling evidently grew upon him, for he becomes almost pathetic in his preface. But of course we all know and must acknowledge the truth of his word when he points out the misery and distress and suffering that follow in the train of "bad legs." The loss of wage-earning capacity is a serious social problem the solution of which would well repay much weariness of the flesh. It is true, too, that the dermatologist, the syphilologist, and the general surgeon do take only spasmodic interest, and that not in the question as a whole. The worst of it is that Dr. NOBL's book does not really advance the matter materially. As a painstaking record of all that has been said and speculated upon varicose veins and ulcers, and most of what has been done to or for them, the writer deserves thanks, and those who have leisure will read. But though, as he says on the cover, he has drawn upon his own researches, there really is very little in the essay that is new. How could there be?

Dr. Nobl opens with a chapter on anatomical and physiological considerations; then he skips lightly from Hippocrates to Herophilus, from Oribasius to Morgagni, from Paré to Trendelenburg, in a rapid historical "back-glance," and so to consideration of tissue changes. Which came first, the hen or the egg? degeneration or inflammation? Well, the answer to the latter question is easier after all. Sometimes one and sometimes the other. But what about "new growth"? It would seem that unless

[2] *Der Varicöse Symptomencomplex (Phlebectasie, Stauungsdermatose, Ulcus Cruris).* Von Privatdozent Dr. G. Nobl. Berlin and Vienna: Urban and Schwartzenberg. 1910. (Sup. roy. 8vo, pp. 260. Two coloured plates and 68 illustrations, some coloured. M. 10.)

he considered himself bound by his subtitle "phlebectasis" he might have given a little more latitude to the notions about the angeiomatous character of certain types of varicose vein, especially in young people. There is probably a great deal of truth in the remark that one of the most potent factors in the production of varicose ulcers is want of cleanliness; it is universal experience, at any rate, that the one condition precedent to healing is cleanliness, and the incidence of ulcer upon the poorer classes, who are not by any means the only sufferers from varicosity, points in the same direction. It is surprising to find that of nearly 50,000 cases something like 60 per cent. should be men, and that the disproportion holds up to the sixth decennium. The symptoms and course of the disease are fully and minutely described, but there is nothing that could not be matched in every surgical clinic time and time again.

When it comes to diagnosis and classification, the same old difficulties that are always cropping up meet us in these pages. The syphilitic ulcer has not always the proper site or the proper gummatous characters; the true varicose ulcer has a nasty habit of simulation, and sometimes the shield is both golden and silvern. Prevention and treatment do not take us much further than the realization that for preservation of wage earning there is no better means than the application of Unna's paste; some hardly adequate data as to recurrence after operation by various methods are given, but it is not made clear what type of veins is likely to benefit permanently by excision. In the treatment of ulcer everything is mentioned, from carbon dioxide snow to fulguration; to cleanliness, as mentioned before, proper importance is assigned, but the virtues of compression by open-wove canvass bandage, which allows discharges to escape and be washed away without disturbing the ulcer, are not apprehended in Dr. Nobl's clinic. Everybody will admire the author's courage and applaud his efforts, but the time is hardly ripe for clearing surgical craft of this reproach. It remains to be said that there is an ample bibliography, and that the illustrations are good.

TWO HOSPITAL REPORTS.

AMONG the more important contributions to the sixty-third volume of the *Guy's Hospital Reports*,[3] Dr. Herbert French's essay on Sixty-eight Cases of Pernicious Anaemia stands eminent. The series is made up of patients under observation in the hospital between the years 1891 and 1908, both inclusive, and is professedly a continuation of previous records collected by Drs. Addison, Pye-Smith, F. Taylor, and Hale White. The abstracts of the notes of the sixty-eight cases are very complete and will be valuable for reference, and the summary will prove of interest to the entire profession. Although oral sepsis was often present, some of the patients were blessed with apparently perfect teeth. Urobilin was found in urine which was by no means dark, and the colour of the urine varied "enormously" even in the same patient at different times. Retinal haemorrhages were noted in 16 patients, whilst no haemorrhages of any kind were recorded in as many as 24, so that Dr. French declares, "it is clear that pernicious anaemia may prove fatal without at any time leading to serious haemorrhage." The author also found that pigmentation within the mouth of precisely similar character to that seen in Addison's disease may occur in pernicious anaemia cases treated with arsenic. He concludes that what is called "pernicious anaemia" is very possibly only a late and almost incurable stage of a disease which, it is hoped, will some day be recognizable early enough to be cured. Dr. Bergin contributes a good study of over 300 cases of unilateral exophthalmos, recorded and unrecorded. Dr. G. H. K. MacAlister's thesis on paroxysmal haemoglobinuria is reprinted from the *Quarterly Journal of Medicine*. Drs. H. C. Cameron and J. Eyre have prepared in the bacteriological department a report on four cases of glanders in the human subject, admitted into the hospital in 1908. One recovered. Drs. Hale White and Janmahomed's article on the slow decomposition of urine in pulmonary tuberculosis, from another serial, is included in this volume. Another laboratory paper appears in the present issue, consisting of observations on the changes in the blood and bone marrow produced by experimental aniline poisoning, prepared by Drs. Price-Jones and A. E. Boycott. Surgical contributions are in the minority. Mr. Rowlands writes on the treatment of severe talipes, and Mr. W. M. Mollison on a case of congenital defect in the musculature of the abdominal wall, including a table of previously recorded instances of this malformation. Mr. Mollison dwells on the causal relation of the deficiency to obstruction before birth to the urinary outflow. The former, he insists, is by no means always the result of the latter. The last article in the volume is a good pathological essay on kidney tumours, by Dr. G. W. Nicholson, from the Gordon Laboratory; the author concludes that many at least of the so-called "hypernephromata" of the kidney are really renal and not suprarenal tumours.

[3] *Guy's Hospital Reports.* Edited by F. J. Steward, M.S., and Herbert French, M.D. Vol. lxiii, being vol. xlviii of the Third Series. London: J. and A. Churchill. 1909. (Demy 8vo, pp. 423.)

The forty-fifth volume of the *St. Bartholomew's Hospital Reports*[4] includes an illustrated contribution by Dr. Adamson, the physician in charge of the skin department at the hospital, which is illustrated by excellent photographs of neurotic excoriations. The most solid piece of literary scientific work is the report on *x*-ray dermatitis presented by the committee appointed by the medical council of the hospital. The three members of the staff who formed the committee each contributes work from his own department. Mr. Rawling, as assistant surgeon, writes on the surgical aspect, and gives an abstract of thirty cases, with coloured illustrations and skiagrams. His conclusions, like those of other experts, indicate the extreme gravity of this disease; twenty-three of his own series of thirty cases were malignant. Dr. Adamson also demonstrates the dangers of the new malady, but shows that they can be warded off by precautions for the benefit of patient and operator. The danger of deeply seated organs seems to have been exaggerated; Dr. Adamson specially dwells on the brain in children treated for ringworm. Dr. Lewis Jones, in charge of the electrical department, writes on the avoidance of *x*-ray injuries. He shows that in radiography the danger lies mainly in screen examinations, whilst in radiotherapy the danger lies mainly in the duration of the exposures, which is always much longer than for radiography. Dr. Jones considers that dense gloves and other safeguards have proved sufficient protection; the operator should never make screen examinations without gloves, as it is in such procedures that he is most exposed to risk. In conclusion, he remarks that at present there is more *x* ray work done than ever. At the large hospitals the apparatus is hardly allowed time to cool from morn till eve, but happily at the present date the danger of injury to the workers is reduced to comparative insignificance by the use of suitable gloves and screens, and contrivances for fixing the tube. "Cases of chronic *x*-ray dermatitis in the early stages or of recent development are likely to become rarer." Mr. Gordon Watson, in a paper on perforation in enteric fever, includes an analysis of all the cases operated on in St. Bartholomew's Hospital down to the end of 1908; Dr. Hill writes on splenic anaemia, a monograph of high merit; and there are other contributions of importance, so that this volume is undoubtedly above the average of any single volume belonging to hospital archives of this class. The obituary notices of Sir Thomas Smith and Dr. Russell, F.R S., will be read with deep interest by the numerous pupils of the great surgeon and the famous chemist.

THE CASE FOR THE GUARDIANS.

SIR WILLIAM CHANCE'S book, *Poor Law Reform, via Tertia*,[5] is, with a few alterations, and with an introductory chapter by Mr. Edmond Wodehouse and a final chapter on the problem of unemployment by the Rev. P. S. G. Propert, a reprint of a series of articles which appeared in the organ of the British Constitution Association during 1909. The main principles advocated by Sir Wm. Chance are those of that association, which are set out fully in an appendix. The most important of these are that the

[4] *Saint Bartholomew's Hospital Reports.* Edited by H. Morley Fletcher, M.D., and W. McAdam Eccles, M.S., F.R.C.S. Vol. xlv. London: Smith, Elder, and Co. 1910. (Med 8vo, pp. 532.)

[5] *Poor Law Reform, via Tertia: the Case for the Guardians.* By Sir William Chance, Bart. London: P. S. King and Son. 1910. (Demy 8vo, pp. 95, with Appendix. 1s. 6d.)

Poor Law system needs reform, not in principles, but in administration; that it should be independent of municipal government; that both central and local authorities should be appointed *ad hoc*, the local authority being elected on a democratic basis, but with additional members nominated by county councils and some other authorities; that co-operation between the Poor Law and charities should be encouraged, as recommended by Mr. Goschen's Minute of 1869; and that the principles of 1832 should be strictly adhered to—that is, the principle of "less eligibility" and the workhouse test. The central point on which Sir Wm. Chance insists is that boards of guardians should be retained and the powers of the central authority extended. It is shown that many of the reforms advocated by the Royal Commission are already being carried out by some boards of guardians—for instance, the use of trained nurses in infirmaries and classification of indoor paupers. Without going to the extreme of abolishing outdoor relief, it is held that it should be restricted to the narrowest limits.

With regard to outdoor medical relief, it is held that any failure "arises mainly from the employment of part-time officers, who are often very inadequately paid for their work, and from the difficulty of getting proper home nursing, but there is nothing to show that the sick pauper is any worse off in the matter of medical attendance and nursing than the independent poor of his own class; in the infirmaries and sick wards he is indeed far better off." Fear is expressed that free medical relief to all applicants would result from the schemes of either the Majority or the Minority. "This objection," the author says, "will not appeal to the Socialist, and therefore not to the signatories of the Minority Report"; but he has far more confidence in the principle of the old Poor Law reformers that medical relief should be restricted in the same way as ordinary relief, making it "more adequate and efficient for those who require it, but rendering it less rather than more attractive to the poor." Of the Majority scheme for voluntary aid committees we read: "It is a delightful scheme—on paper—but behind it lurks compulsion and organization by Act of Parliament. Has the time come for the country to adopt this policy of despair? I say, emphatically, No." Equally strong are the strictures on the Minority Report, which "will land the country in pure and simple Socialism and universal pauperism." In the final chapter, by the Rev. P. S. Propert, on unemployment, a most gloomy view is taken of the future of the country if either the Majority or the Minority scheme were to be adopted. The Majority scheme would lead to "impoverishment not only of the Treasury but of the national character," while the Minority scheme, in familiarizing the whole community with the idea of State relief, would afford "a powerful motive for idleness and would lead eventually to social dissolution."

Whatever may be thought of these forebodings, the strong point of the book is its argument that by slightly modifying the constitution of boards of guardians and increasing the power of the central authority all the necessary reforms could be obtained without the revolutionary changes advocated by the Commission. The case for the guardians is presented in the very best light. Possibly too much stress is laid on the mere reduction of legal pauperism and too little on the prevention of poverty and disease. Probably the author's reply would be that prevention and relief ought to be in the hands of different authorities, and that he is here only immediately concerned with relief. It is a serious matter for consideration whether there would not be more danger to the State in any scheme "that shifted too many of the responsibilities of the individual on to the shoulders of the community"; but it is impossible to resist the feeling that the author advocates far too much of the old harshness of the Poor Law and has not properly realized the modern standpoint that both in medical and social matters prevention and treatment must be far more closely allied in the future than they have been under the Poor Law.

NOTES ON BOOKS.

THE *Third Appendix to Squire's Pocket Companion to the British Pharmacopoeia* has been issued. It is designed to bring that publication up to date, and also as an appendix to the eighteenth edition of Squire's larger *Companion* published in 1908. The new appendix is designed as a review of therapeutics and pharmacy from 1908 to 1910, and is divided into three parts—the first devoted to the review, the second dealing with special pharmaceutical preparations prepared by the firm of Squire and Sons, and the third giving information as to solubility, and a comparison of the standardized potent preparations of the British, United States, French, and German pharmacopoeias. The volume is a useful guide to novelties and recent advances in pharmacy. It will, we are informed, be presented free on application to members of the medical profession, and to purchasers of Squire's *Pocket Companion*, or the eighteenth edition of Squire's larger *Companion*.

The *Medical Register*[1] for 1910 reached us on March 12th. The Government supplies 1,355 copies gratis; of this number 516 are supplied to county courts, 43 to other law courts, and 356 to coroners in England and Wales; 143 copies are supplied to the sheriffs, clerks of the peace, and procurators-fiscal in Scotland, and 36 to clerks of the Crown and Peace, and 87 to coroners in Ireland. The Medical Council gave away 1,000 copies, 916 being presented to medical practitioners registered in 1909. The total number of persons registered from the beginning of registration in 1858 down to the end of 1909 was 73,000, and the number of names now remaining on the *Register* is 39,818. The number of new names added in 1909 was 1,143, and the number removed 1,688, the result being a decrease of 439 as compared with 1908, although the number is still 120 above the average of the last five years, and 5,545 above the average for the last twenty-four years. In 1899 the number on the *Register* was 35,836, and in 1889 it was 28,348. Of the total number of names removed from the *Register* this year, 713 were so removed on evidence of death, and 960 under Section XIV of the Medical Act of 1858, which requires the Registrar, in pursuance of his duty of keeping the *Register* correct, to erase the name of any registered person who fails to reply within a period of six months to a letter directed to him at an address on the *Register* inquiring whether he has ceased to practise or has changed his residence. Incidentally we may remark that the volume contains the texts of the Medical Acts and of the Dentists Act. By an Order in Council issued in 1901 reciprocity with Italy was recognized, and the degrees of Doctor of Medicine and Surgery of all the Royal Italian universities are registrable in the foreign list; the foreign list contains the names of thirty-one graduates of Italian universities. At the end of 1905 a similar order was issued as to Japan, and the degrees of Bachelor of Medicine (*Igakushi*) and Doctor of Medicine (*Igaku Hakushi*) of the Imperial University of Japan are registrable in the foreign list, but no graduate of the Japanese university has yet taken advantage of the privilege.

The *Dentists Register*[1] has also been issued; it contains 5,037 names, and includes 4 colonial and 22 foreign dentists. Of the United Kingdom dentists, 3,047, or 60.49 per cent., are licentiates or graduates in dentistry, while 16 others were registered as in *bona-fide* practice of dentistry with additional surgical qualifications on the appointed day mentioned in the Dentists Act. The number of persons registered without any additional qualifications as in *bona-fide* practice of dentistry on the appointed day is now 1,948, a percentage of 38.68, as compared with 2,043, a percentage of 40.91, in the *Register* for 1909.

The fine work on *The Birds of the British Islands*[2] by Mr. CHARLES STONHAM, C.M.G., F.R.C.S., senior surgeon to the Westminster Hospital, has now reached its fifteenth part. The illustrations are in black and white. Mr. Stonham in describing each species gives such information concerning habits and plumage as the ordinary reader will require; the plumage is described in such a manner as to enable an unskilled person to identify the bird, but minute details which tend rather to confuse than to help the ordinary reader are omitted. The description of each plate contains average measurements for the bird and a detailed description of the plumage. Measurements of the eggs are given in the text, and are in most instances quoted from Mr. Dresser. The latest fasciculus, part xv, contains admirable drawings of the plovers, of the woodcock, and of the snipes.

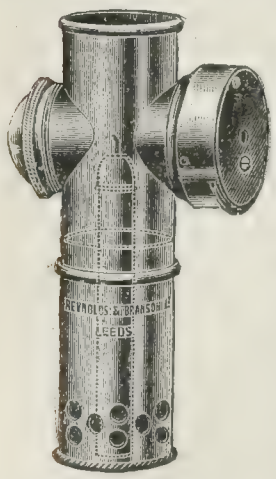
[1] Spottiswoode and Co., Limited. Price of *Medical Register*, 10s. 6d. *Dentists Register*, 3s. 4d.

[2] *The Birds of the British Islands.* By C. Stonham, C.M.G., F.R.C.S., F.Z.S. (In 20 parts.) Parts I to XV. Illustrations by L. M. Medland, F.Z.S. London: Grant Richards. 1906-1909. (Dbl. sup. roy. 8vo, pp. 650, plates ccl. 7s. 6d. a part.)

MEDICAL AND SURGICAL APPLIANCES.

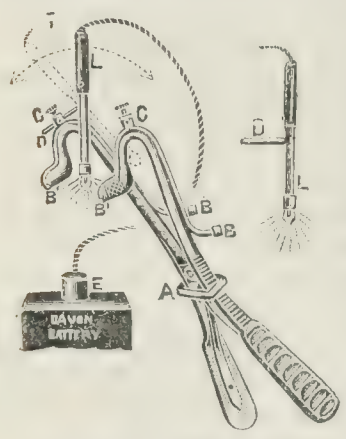
Lamp for Testing Colour Vision.

A LAMP for testing colour vision has been devised by Dr. TODD, of Selby, and made by Messrs. Reynolds and Branson, Limited, of Leeds. In outward appearance it resembles the Priestley-Smith candle-lamp, which has for so long been known to ophthalmologists and surgeons. On one side is placed a bull's-eye, precisely as in this lamp, and it may be used for the same purposes. On the other side of the candle flame is a disc containing four glasses showing in succession red, blue, green, and white. The spot of light shown is $\frac{1}{8}$ in. in diameter, and it is calculated that at $12\frac{1}{2}$ yards it corresponds to a distant signal 6 in. in diameter at 600 yards. The whole is in a nickel-plated case, and its price is 21s. For the testing of colour vision any lamp is better than no lamp at all, but this one is of limited use, because there are only four colours, and if any number of candidates were examined by it they would quickly realize this fact, and the order in which they were exhibited. In addition, no colour-testing apparatus is of much use unless colours can be mixed and modified in intensity by a series of neutral glasses of various densities; without these latter the majority of cases which have shortening of either end of the spectrum could not be detected.



Mouth Gag with Electric Light.

Mr. CECIL H. LEAF, F.R.C.S. (London) writes: Two difficulties with which the surgeon may have to contend when operating inside the mouth are the want of space and light. The first of these is obviated by Hewitt's ingenious device of carrying the chloroform tubes along the arms of the gag, so that a separate tube for the anaesthetic is not required, and the surgeon can therefore have all the space inside the mouth to himself. To overcome the second difficulty I have had fitted to Hewitt's gag (which, not only by virtue of its chloroform tubes, but in other respects, I consider to be the best of all mouth gags) a little electric light. This is so arranged that it can be attached to either arm of the gag, and turned to the right or left side as required, and it enables the surgeon to get a good view of the whole of the inside of the mouth. The light is supplied by the Davon battery, a handy and portable form which lasts about ten hours. Being removable it enables the whole of the gag to be sterilized by boiling. The accompanying illustration shows the main features of the gag as thus modified. Messrs. Davidson and Co., of 29, Great Portland Street, have been most successful in carrying out all my suggestions.



A, Movable ring for fixing arms of gag; BB, tubes for conveying chloroform into the mouth; B¹B, opening of chloroform tubes inside the mouth; CC, sockets with damping screws, into either of which the rod D can be placed, so that the light can be turned either to the right or left; E, connexion to Davidson's "Davon" battery.

MEDICINAL AND DIETETIC PREPARATIONS.

Whiteway's Devonshire Cyder.

WE have previously commented on the importance of cider as a rival of wines and malt liquors; in many cases in which a mildly stimulating light beverage is required the difference in cost between a good cider and a good light wine is usually considerable. We have recently had under examination samples of the "Woodbine Blend" of Devonshire cider, submitted by Messrs. H. Whiteway and Co., Ltd. (Whimple, Devon); this is a dry beverage of delicate flavour, which gave the following results on analysis:

Alcohol	6.24	per cent. (by volume).
Total solids	2.54	per cent.
Invert sugar	0.47	,,
Ash	0.24	,,
Fixed acidity, calculated as malic acid	0.10	,,
Volatile acidity, calculated as acetic acid	0.23	,,

In any case where a slightly alcoholic drink is required this cider will compare favourably with light wines.

INTERNATIONAL CONGRESS ON SCHOOL HYGIENE.

THE third International Congress on School Hygiene will be held in Paris from August 2nd to 7th, 1910. The Honorary President is the Minister of Public Instruction. Among the Honorary Vice-Presidents are Dr. Landouzy, Dean of the Faculty of Medicine of Paris, and Professor Chantemesse. The work of the congress is divided into eleven sections, in which general reports and accounts fixed by the committee will be discussed. General reports, to be discussed in the general meetings, will be presented on: 1. Uniformity of methods for physical examination in schools; 2. Sexual education; 3. The training and selection of the school doctors. The following is the programme of the various sections:

1. *Educational Buildings and Furnishings.*—(i) Hygienic conditions of school buildings; sanitary records of the schools; school baths and shower baths.

2. *Hygiene of Boarding Schools.*—(1) The best hygienic arrangements for boarding schools; health records of residential schools; hygiene in boarding schools for girls.

3. *Medical Inspection of Schools and Individual Health Records; Practical Measures for Actual Application.*—(i) The relations between the school medical inspector, teacher, home, and family doctor. (ii) Organization of medical inspection of rural schools. (iii) Who should carry out inspection of special nature in schools?

4. *Education and Physical Training.*—(i) On the usefulness of playgrounds for the scholars. (ii) School gymnastics according to age and capacity. Manual work in schools (day and residential).

5. *The Prevention of Contagious Diseases in Schools; Diseases caused by to School Attendance.*—(i) Parasitic diseases of the skin in school. (ii) Means of protecting households from contagious school diseases. (iii) The superintendence of infected children when out of school, and the conditions of their readmission to school. (iv) The teaching of prevention of malaria in schools and the protection of scholars against malaria.

6. *Out of School Hygiene; Open-air Schools; Holiday Colonies.*—(i) Open-air schools and the pupils who should benefit from them. (ii) The part played by continuation work of the scholars (associations of amient pupils, mutual help societies, friendly societies, etc.) in the hygiene of childhood and youth. (iii) Time tables and work in open-air schools.

7. *The Teaching Staff: Their Hygiene, their Relations with the Homes and the School Doctor.*—(i) Examination of physical capacity of candidates for the teaching profession. (ii) Relations of teachers to the parents and their practical aspects. (iii) Collaboration of the doctor and teacher in school hygiene.

8. *Teaching of Hygiene to Teachers, Scholars and Parents.*—(i) Teaching of infant rearing to mistresses and pupils. (ii) Temperance teaching in school. (iii) The necessity of giving teachers a sufficient knowledge of school hygiene. (iv) The teaching of domestic economy in schools.

9. *Teaching Methods and Syllabuses in Relation to School Hygiene.*—(i) Fixing of standard time tables for children of different school ages. (ii) The causes and remedies of inattention. Circumstances causing it with regard to time table arrangements and teaching methods. (iii) Advantages and disadvantages of distributing or concentrating lessons in planning time tables.

10. *Special Schools for Abnormal Children.*—(i) The various types of schools for mentally abnormal children; their advantages and disadvantages. (ii) The doctor and teacher and their collaboration in schools for the mentally defective. (iii) The time table arrangements for instruction of mentally defective children in special schools.

11. *Hygiene of Eye, Ear, Mouth, and Teeth.*

Subsection 1: Hygiene of the Eye.—Lighting of schools. Short-sighted scholars. Relations between the troubles of eyesight and school attendance.

Subsection 2: Hygiene of the Ear.—How to measure the hearing power of school children. Prevention of deafness of school children. The part of the teachers, the parents, and the school doctor in the hygiene of the ear of school children.

Subsection 3: Hygiene of the Mouth and Teeth.—Oral hygiene in residential schools. The importance of the hygiene of mouth and teeth for the preservation of the general health of children and adolescents. On half-yearly inspection and treatment of the teeth of school children.

Arrangements will be made for excursions and visits to French schools during the congress. There will also be an exhibition of school hygiene which will be open one month; it is intended to show all that has been done in regard to school hygiene in all countries and will be a true object lesson for pedagogues and school physicians for comparing the improvements realized.

Communications relative to the congress should be addressed to the general secretary, Dr. Dufestel, 10, Boulevard Magenta, Paris. Information as the exhibition may be obtained from Dr. V. H. Friedel, 41, Rue Gay-Lussac, Paris.

THE CREMATION SOCIETY OF ENGLAND.

THE annual meeting of subscribers to the Cremation Society of England was held on March 17th at the society's offices, 324, Regent Street, Sir CHARLES CAMERON being in the chair.

Report of Council.

The report of the council was presented. It stated that amongst those cremated at Woking and Golder's Green during 1909 were Mr. George Meredith, Mr. Frith, R.A., the Ven. Archdeacon H. W. Tribe, Canon Cooper, Mrs. Wilberforce, St. John Hankin, Sir G. William Des Voeux, G.C.M.G., Richard Bowdler Sharpe, Mr. Thomas Wakley, editor of the *Lancet*, and Mr. Felix Cobbold, M.P. for Ipswich.

Chairman's Address.

Sir CHARLES CAMERON, in his address, said that when one looked at the statistics of cremation in other countries the progress in Great Britain was more or less disappointing. In Germany, for example, the annual figures were four or five times as great as ours. In Paris, since the erection of the furnace at Père Lachaise, over 94,000 bodies had been incinerated within twenty years. This arose chiefly from the fact that administrative authorities in the French capital, instead of, as was done in this country, consigning the bodies with which they had to deal to the squalid indignity of a pauper's grave, submitted them to swift, decorous, and economical disintegration by means of the crematory furnace. In this country cremation had been confined to the wealthier and more intellectual classes. As to the question of cremation as a substitute for pauper burial, this society had hitherto deliberately refrained from advocating it: in the first place, because it might jar upon the feelings of a class unfamiliar with the practice, and, in the second, because the association of cremation with pauperism would, it was feared, have a tendency to prejudice against it the well-to-do classes, among which its supporters were to be found. It seemed to him a question, however, whether the practice would not very soon in this country have reached a stage where it could stand on its own merits, if it had not already done so, and whether the society might not now, without any ill effect on the progress of the movement, call the attention of local authorities to the advantages, on sentimental as well as on economic and sanitary grounds, of the practice which has already stood the test of twenty years in Paris. As to the advantages on sentimental grounds, any one who has noted the horror occasioned by disclosures as to the system of "pit" burial whenever some accident has brought it under public notice will require no argument to drive home the superiority of cremation. In point of economy cremation on a scale on which the apparatus could be kept continuously employed would be cheaper than the meanest interment, while, as to the sanitary advantages of the one practice over the other, he thought he might say without hesitation that among authorities on public health there was practically perfect unanimity on the point. In a most interesting and exhaustive paper on the progress of cremation, in the BRITISH MEDICAL JOURNAL of March 5th, he found a quotation from a recently published collection of papers by Lord Lister, which exhibited the dangers of the present system in a clear and practical form. Revelations made during the past year showed that the practice of "pit burial" still existed in different parts of the kingdom. Sir Charles Cameron himself had seen one of those noisome pits, and he remembered a case, regarding which evidence was given before a Select Committee on the Certification of Death, presided over by one of their Vice-Presidents, Sir Walter Foster. The case was that of a woman charged with poisoning her second husband. In the course of their investigations the police discovered that her first husband had also died under suspicious circumstances, and authority was obtained for the exhumation of his body. But he had been buried in a common pit somewhere in the north of England, and when a search was made it was found impossible to identify the coffin containing his body, and, so far as that point was concerned, the case fell through.

The gravest objection which its opponents were wont to urge against cremation was that while in case of death through crime or violence a buried body could be exhumed and examined, all possibility of subsequent examination was destroyed by incineration. Now the society always contended that the point at which the State should take precautions for the detection of fatalities resulting from crime was before a permit is granted for the disposal of the body. That was what had been aimed at in its rules from the very first, and that was what had been insured by the recent legislation regulating the practice of cremation in this country—legislation entailing the most stringent certification, and, in any case of doubt, the evidence of an autopsy, as the indispensable preliminary for permission to cremate. Their burial laws were, on the contrary, of the crudest description, and the certification which they provided for was little better than a farce; and as to the evidence afforded by subsequent exhumation, it was notorious that all trace of many of the most subtle and deadly poisons was rapidly destroyed by the progress of decomposition. The Cremation Society of England was not a trading association. Its object was to educate the public into the adoption of reform in the method of the disposal of the dead, which with each year's increase in the density of the population became more urgently needed. The reason for the erection of the crematory at Woking was to start the movement. For years the Woking establishment alone kept the movement alive, but at length it spread notably—within the last decade—until now they could point to thirteen different crematories within Great Britain; and the comparatively short experience of one of them proved that in London, at any rate, cremation as a business undertaking could be carried on with a good prospect of commercial success. The object of the society was not commercial but educational, although, having the Woking crematorium on their hands and being able to work it at a small profit, they saw no reason for discontinuing it. It was not surprising that a feeling had been manifested among certain members of the council that the time had come when they should endeavour to free themselves from the taint of commercialism and the attention involved in its management and endeavour to negotiate for its transfer to some purely commercial cremation company. If this could be effected, all the energies of the society could be devoted to propagandist work, which at present occupied a large portion of the time of its officials, and which had from the beginning constituted the *raison d'être* of the Cremation Society of England.

Election of Vice-Presidents.

The report and balance-sheet were adopted, and the election of Lord Ronald Sutherland-Gower, Sir L. Alma-Tadema, and Mr. W. Robinson as vice-presidents was confirmed. The retiring members of the council, Mr. F. H. Skrine and the Rev. Charles Voysey, were reappointed.

SECRET REMEDIES AND PROPRIETARY PREPARATIONS.

In recent contributions on the composition of certain secret remedies and specialities, Dr. F. Zernik[1] gives the results of his investigation of nine preparations.

Dealin Powder, a Berlin preparation, is described as an antiseptic medicament for wounds containing "a highly active oxygen combined with a dry fatty substance." On examination no dry fatty substance was found, and the "highly active oxygen" was represented by sodium perborate. The chief constituents of this preparation were: 20 parts of sodium perborate, 10 parts of boric acid, 10 parts of zinc oxide, and 60 parts of a mixture of talc with traces of starch and magnesium carbonate.

Hochfelder Pitch Plaster is advertised by the manufacturers as a porous plaster prepared with gum elastic, and as the best external medicament for the treatment of painful affections which follow cold, blows, over-exertion or other disturbances of the nervous or muscular activity. The examination showed that the preparation did not contain any pitch at all, and that its composition was similar to that of "*Collemplastrum capsicum*," a plaster, which according to an Imperial Order dated November 22nd, 1901, must not be offered for sale in drug shops. As pitch plaster is not included in this Order, the manufacturers considered that they would be safe in applying this description to the plaster.

[1] *Deut. med. Woch.*, Nos. 38 and 47, 1909.

Dr. Richter's Orudon Essence preparation has been introduced at the "Hof-Apotheke" (a pharmacy holding the right of using the affix "Court") in Elbing as a remedy for rheumatic and analogous affections. The directions for use are that the essence should be taken in doses of from 4 to 6 teaspoonfuls according to the severity of the case, diluted in a tumblerful of sugar water. It is claimed that it contains a new chemical substance —namely, *ammonium iodatum salicyl. solubl.*—as well as other ingredients which the medical profession has found to be most useful during the past decades. Among these is mentioned "*diaethyldiamin*," aromatic extract and brandy (cognac). It is sold in bottles, containing 135 c.cm., at 6s. the bottle. The fluid, which is dark brown and bitter, was found to contain ammonium salicylate and iodide, but not a trace of the "new" chemical substance, which Zernik points out has long been recognized in chemistry, piperazin, which is diaethylen-diamin and not diaethyl-diamin, as well as alcohol and some extractives and perfumes, the nature of which could not be identified. *Orudon Salt* is supposed to act well in the same conditions as the essence. A bottle of this powder costs 5s. 6d., and is stated by the manufacturers to contain basic citrate of urea (an imaginary chemical substance!), magnesium, sodium, lithium carbonate, citric acid, sodium sulphate, and extract of almonds. The analysis proved it to be a mixture of about 10 per cent. theobromine-sodio-salicylate, 10 per cent. sodium sulphate, 4 per cent. urea, 16 per cent. magnesium citrate, 4 per cent. sodium citrate, 2 per cent. lithium citrate, and fully 40 per cent. citric acid, together with a bitter extract. No trace of a substance which could correspond to the alleged basic citrate of urea was found.

J. Völlner's World-renowned Rheumatism Cotton-wool is, stated, manufactured by W. Völlner, Hamburg, London, and New York. It is claimed by the manufacturers that it produces five times as much warmth as ordinary cotton-wool, being impregnated with the finest kinds of resins. The packet costs 1s. and contains 86 grams of a cotton-wool sheet, measuring 1 cm. in thickness, 36 cm. in width, and 80 cm. in length. On analysis Zernik found that the cotton-wool was ordinary raw cotton wool, which had been superficially singed on one side and which was not even fat freed. There was nothing else in the wonderful rheumatic wool.

Epocol is advertised by a Vienna firm, as a "new, absolutely non-poisonous creosote preparation, possessing extraordinary disinfecting properties." The dose mentioned is from 1 to 10 grams a day, according to the age of the patient. No details are given with regard to the composition of the preparation, and Zernik concludes from the results of his analysis that this "new" preparation is a mixture of 45 per cent. sodium benzoate, 30 per cent. ammonium sulpho-guaiacolate, and 25 per cent. potassium sulpho-guaiacolate. The ammonium salt of sulpho-guaiacolic acid is not used in medicine, the potassium salt is used under the name of *thiocol*, while the calcium salt and the sodium salt are also used. The action of the sulpho-guaiacolates is sufficiently well known, and the claim of novelty cannot, therefore, be sustained. Zernik does not consider the preparation worth further criticism.

Limosan is vaunted as a certain cure for rheumatism, gout, and "stone." In one of the booklets accompanying the preparation testimonials galore were reproduced. It consists of white limosan tablets and greyish-green laxative tablets; 30 of the former tablets contained in a tube cost 6s., while 15 of the latter cost 6d. Several tubes are required for a course, since the patient is told to take 10 of the white and 4 or 5 of the laxative tablets daily. The composition is given as follows: Aethylenimin, 1 gram; glycocol-para-phenyledin (basic), 4.5 grams; lithium carbonate, 0.1 gram; salicylic salt, 1 gram; and acetic salt, 0.4 gram. The first-named ingredient is merely a synonym for piperazin, the second name on the list is used instead of phenocoll, while the salicylic salt has the same form as the substance usually known as salocoll. The laxative tablets are stated to contain Tinavelly senna, rhamnus purshianus, and frangula, of each 20 parts; liquorice root, rhizoma root, of each 10 parts; peppermint, marigold, and poplar tree leaf, of each 5 parts. The action, therefore, would depend on the senna, cascara sagrada, and frangula. The manufacturers have, it is stated, repeatedly been punished in courts of law for the puffing nature of the advertisements of these limosan preparations.

Oxygar is supposed to be a vegetable preparation saturated with hydrogen peroxide. The vegetable substance is agar-agar. It is supposed to contain about 10 per cent. H_2O_2, but the manufacturers call attention to the fact that the preparation loses in strength after a time. Frerichs found that fresh oxygar contained hydrogen peroxide varying in amount from 0.6 to 14.4 per cent., that the amount decreased within a short time, and after a few weeks even sank to *nil*. In cold water all the hydrogen peroxide was liberated within a few minutes. It thus appears very doubtful whether the peroxide would not be liberated in the stomach, in spite of the fact that the manufacturers claim as an advantage of the preparation that the H_2O_2 is not liberated until the intestine is reached, and then only slowly.

Victoria Asthma Drops are put up by the "Victoria Apotheke" in Berlin, and are supposed to be taken in doses of from 25 to 30 drops during an attack every half-hour, and 25 drops regularly three times a day as a preventive. The bottle contains a brownish-yellow fluid, which was found to consist of tincture of lobelia, tincture of opium, liquor ammonii anisatus, acetic ether, and potassium iodate.

Automors is a widely advertised disinfectant, prepared by Heyl Brothers and Co., Charlottenburg. The advertisements claim that it is a new, strong, and harmless disinfectant, acting five times as strongly as carbolic acid. The analysis showed it to consist of about 3 per cent. phenols and carbohydrates, about 16 per cent. phenol sulphate, with 15 per cent. of free sulphuric acid. It would appear that this is an old preparation under a new name; formerly it was known as sanatol. The free sulphuric acid content renders it not harmless but actually highly poisonous. Its disinfecting power is far weaker than that of carbolic acid, save in a very exceptional circumstance, while its claims to act against flies are also false.

[redacted]

In a recent number of the *Gesundheitslehrer* (No. 10, January, 1910) attention is called to this last preparation, and a paragraph is quoted from the financial magazine, the *Bank*, in which the methods of Heyl Brothers are discussed. It is alleged that this firm, which is in the hands of the family which founded it, has for the past three years been attempting to float the company on the open market. The *Bank* suggests that the extensive advertisements may be a device to raise the sale fictitiously, and that the firm hopes if it can rake in a sufficient sum to justify the statement that the dividends of the company have risen during the previous twelve months, to place the shares in other hands and clear out. If this be the scheme, it has not the merit of novelty, but might be labelled "Made in England"—or America.

MOTOR CARS FOR MEDICAL MEN.

STEAM CARS.

W. B. asks medical motorists for their experience of steam cars; what are the weak points and drawbacks to the steamer? They appear to have many good points, yet are seldom seen. "W. B." has had two petrol cars for the past four years and was never free from trouble and expense with them.

COUNTRY DOCTORS AND MOTOR CARS.

DR. F. C. WRIGHT (Moy, co. Tyrone) writes: I have read Drs. Fentem and Nicholls's letters in reply to Dr. Allan Wilson's opinion of motor cars for medical men without a chauffeur. I entirely agree with Dr. Wilson, after an experience of eight or nine years with motor bicycle and car in an altogether country district, and my opinion coincides with all other motorists with whom I come in contact. Holding the wheel is quite a minor consideration with a chauffeur at your back responsible for the running repairs, but without him your mind is wandering over every nut from the front hub to the tail lamp, and if, perchance, you do get home with a non-stop run you will possibly have to spend hours getting rigged out for next day (I do not refer to the cleaning of the car), not to speak of tyre trouble, which is an inevitable bother to every motorist, no matter how modern or up to date the type of car or tyre may be. With the enthusiasm to which motorists are susceptible, it might be possible with the great majority of chauffeur-doctors, when they get home "so quickly and into that quiet study amongst their books" referred to by Dr. Fentem, to devote much time to the study of motor defects, giving the patient secondary consideration. I shall be surprised if eventually every medical man does not become sick of the greasy mess and consequent filthy hands, and resort to the pleasures of a smart reliable cob for a night in winter. As a pleasure vehicle to those of a mechanical turn of mind the motor is quite another matter.

THE ADVANTAGES OF ONE-CYLINDER CARS.

T. H. B. writes: I entirely agree with your correspondent "T." as to the suitability of a small power one-cylinder car for many medical men. I have a 10-h.p. Cadillac car with a four-seated body, which has for the past eighteen months given the greatest satisfaction. It has required no repairs and very few adjustments, is extremely easy to start, as the engine almost always responds to one single turn of the handle. This to a doctor, who is constantly starting and stopping, is a great advantage. The petrol consumption is low—about 25 miles to the gallon being a good average. The car is a splendid hill climber, and will take all moderate hills without gear changing. The epicyclic form of gearing makes it a very easy and pleasant car to drive.

To sum up the matter, I would say that the Cadillac is built not for speed but for reliability and economical running, and if an owner is content to accept its limitations in speed and power, he will be more than satisfied with its performances. I am always able to look after the mechanism myself and have only a small boy to keep the car clean; beyond the inevitable tyre troubles, I have had no difficulties or delays.

PROFESSOR H. PERCY PICKERILL, M.B., B.D.S., Director of the Dental School and Hospital of the University of Otago, Dunedin, N.Z., informs us that the Senate of the University of New Zealand now requires medical students to produce a certificate of having attended a short course of elementary stomatology (dental surgery) before sitting for the final M.B. examination.

Nova et Vetera.

A QUINTILIAN OF THE SICK ROOM.

IN an article which appeared in the JOURNAL of March 12th we touched the fringe of a matter of the greatest importance—how a doctor should talk to his patients. We only dealt with the subject in a general way. We are pleased, therefore, to be able to refer our readers to a little book in which, in spite of the Welsh look of the author's name, the matter is handled with characteristically German exhaustiveness.[1] The author, Dr. Hughes, was moved to write on the subject by an incident which he relates as follows: "A few years ago I met in a tramcar a lady dressed in black. In the course of conversation she told me that she went once a week from a large town to a little spa to see a well-known sanitary councillor. 'Are you ill?' I asked, full of sympathy. 'Oh, no,' she answered; 'but Herr Sanitätsrat treated my child.' 'Then the child is better now?' I asked, with pleasure. 'No, unfortunately it is dead,' she answered, sadly. 'But why, in Heaven's name, do you go every week to see the Sanitätsrat?' I said, somewhat impatiently. 'Oh, he knows so well how to console me.' she replied, quietly. Ashamed of my impatience, I held my peace; I thought what a mental influence this Sanitätsrat had on his patients; how he could dominate this woman who had under his care lost her dear one." This problem our author set himself to solve, and the result is seen in the booklet under review.

We need not follow Dr. Hughes through his somewhat elaborate divisions and subdivisions, which recall the many-headed sermon constructed according to the formal rules of the older pulpit oratory. He discusses in detail the value of psychical treatment—"objective" and "subjective." The former is somewhat affectedly called "dietetics of the soul." The doctor prescribes a mental diet, telling the patient to vary his mental and bodily work. Every hour of the day is to have its appointed occupation, a due proportion being given to "rest, sleep, recreation, conversation, play, distraction, and reading." This advice is of course excellent, but it is given to few of us to be able to spare the time that would be required to carry out the recreative part of the programme. That, indeed, is the weak point of most schemes of life. The other day an eminent physician said that he had made it a rule never to work after eleven o'clock at night and never to work on Sunday—golden rules truly could one but follow them! But what is the mental diet to be prescribed to him whom the exigencies of practice, the urgency of the printer's devil, or other compelling influence, forces either to break his sleep or to prolong his vigil far into the night, and for whom Sunday is mainly a day of making up arrears of work? Even if such an one does actually snatch a few hours of rest, he is too often haunted by the limping footstep of justice which he knows will overtake him with larger demands on the following day. "Mental diet" which consists in telling one, who knows that the frightful fiend of necessity doth close behind him tread, not to worry but to rest and indulge in "distraction," is like prescribing liberal diet and generous wine to a poor creature who can scarcely afford a twopenny tramfare to seek counsel of the oracle. Some physicians will light-heartedly prescribe a long sea voyage to a young man just beginning to build up a practice, or a winter in the South to a woman with a young family which she cannot leave, and whose husband can just keep their souls and bodies together. If Dr. Hughes or anyone else would tell us how to avoid the stress of overwork, or how to woo the sleep that knits up the ravelled sleeve of care, he would confer an inestimable boon, not only on the profession, but on the countless numbers of men and women who live under the curse, "In the sweat of thy face shalt thou eat thy bread till thou return unto the ground." "Mental diet" of the kind prescribed by Dr. Hughes is a luxury reserved for the few who toil not neither do they spin, or who are in a position to get others to do so for them.

"Subjective" psychical therapy may be described as medical sermons for the sick room. These, which should, we are told, be carefully thought out, are to be directed to awakening the patient's will power. Our author is careful to warn us not to confuse the medical preachments which he includes in his system of psychical therapy with hypnotism. The former, he says, appeals to the imagination or the subconscious mind; the latter to the intellect, or to what he calls the over-consciousness, by which we take him to mean ideals. By means of hypnotism, he says, the patient's will is lulled to sleep, and surrendered to the direction of another; by the eloquence of the doctor it is intended that he should be spurred into activity. It is to be hoped, however, that the doctor's eloquence may not have the opposite effect, and we confess that we are inclined to think from some of the examples given by the author that this might possibly occur. One or two of those chosen at random will serve at once to show what he means, and to enable the reader to judge how far medical oratory is likely to serve its purpose.

First, however, some of the general principles on which it is based may be quoted. Dr. Hughes says the keynote of medical persuasiveness should be: "You can be helped, but you must do something yourself." The patient's self-love should be excited, and he should be urged to take the measures necessary to regain his health. As sick folk are not in a fit state to understand scientific explanations, the doctor's discourse should be as simple as possible. He should always strive to enter into the feelings of the patient, and should meet possible objections at the beginning of his speech, so as not to mar the effect of his arguments. Indeed, the patient's objections sometimes afford the very strongest arguments in favour of the doctor's counsel. The results of disregard of the advice given should be painted in the darkest hues, for it is often easier to move a patient by fear than by hope. But the doctor should never tell a patient that he is descending into the Valley of the Shadow of Death. It is his duty not to extinguish every spark of hope. The family, however, should be fully informed as to the situation. Here we may be allowed to interpolate a hint which we got from a physician of large experience and much worldly wisdom. Whatever had to be said to the relatives he said to them when they were gathered together; otherwise, he said, they would compare notes, and this would certainly lead to misunderstanding.

Dr. Hughes's scheme of a medical discourse is arranged as systematically as Quintilian's instructions to orators. We have the conciliation of the audience, the exordium, the various points and the peroration all complete. First, there is an introduction consisting of three subheads: The winning of the patient's confidence; the narrative of facts; and the setting forth of their significance. Then comes the argument, made up of demonstration, reasoning and the refutation of objections. Last comes the conclusion, with a recapitulation of the doctor's view on the case; a forecast of the future; and an exhortation to follow the line of treatment laid down.

One or two illustrations will suffice. A patient suffering from the consequences of drink is to be addressed as follows:

> Listen, my dear friend. You go too far. You lead an absolutely godless life. You begin drinking early in the morning; you don't come home from the public-house till 1 a.m.
>
> If you drank light beer or light wine it would not matter, but you drink the heavy wine of the South and even grog. You must not drink so much heavy stuff. From one to two litres of beer or a bottle of Rhine wine is quite enough for one day. He who cannot restrain must abstain completely and take the pledge. It is much easier to abstain altogether than to limit oneself. No reasonable man leads such a life as you do. Your position, your future, and your family require an entire change of life. When you go so far you are like Fritz Wagner, who spent his substance in a couple of years and was dead in three. It is high time for you to make a change. The first fortnight will be very hard; then, however, you will feel well and contented; you will feel better than you do now, when you live going from café to café. Pull yourself together! You will be grateful to me if you take my advice.

To a person suffering from heart disease the doctor may say:

> Now I have several times examined you thoroughly. You want to know what is the matter with you. I will tell you the truth, so that you can take proper precautions in future. Your heart is not normal. There is nothing wrong with its beating, no organic trouble, but only a weakness in the muscles, and nervous disorder of the heart. The heart is continually troubled. There is nothing to be done for it. But you must not immediately lose courage. You need not guard yourself

[1] *Aerztliche Bererdsamkeit.* Von Dr. med. Henry Hughes, pp. 59. Arzt in Bad Soden a. T. Wurzburg: Curt Kabitsch (A. Stuber's Verlag).

against every movement, but be careful what you eat, and avoid any strain. You need not always be afraid that your disease is getting worse. These maladies always get well of themselves. Just think of your friend Klaus, who three years ago was entirely unable to work, and now can do anything. Your illness will get worse if you continually brood about it. The heart needs exercise, as well as care. So be bright, and you will see how your heart will get stronger and soon regain the former strength.

An excitable lady is to be soothed in the following strain:

My dear Mrs. X., how can you get so excited over such a little thing? This happens to me sometimes. You are always so nervous and excitable. The slightest accident sends you into a passion. Your heart beats furiously, your whole body shakes, your hands tremble, you become alternately red and white, your voice becomes loud and harsh, you fly about in a distracted fashion. Then you sit down, and then leap up; you can't remain in any place; you throw everything upside down. Now you are busy with this, now with something else. You must not get so excited. It is not so hard if you put your mind to it. First, practise being quiet. Pull yourself together and keep as quiet as possible. Look at everything from a high point of view, from a religious and philosophic aspect. Do not worry over little things; they are mere trifles which are not worth it. Preserve the σωφροσύνη of the Greeks, a firm character, which is the best support against the wrongs of life. You only harm yourself by getting excited. Your heart will suffer. You will weaken your nervous system, you waste your strength. You lose self-reliance, and lose the respect of your servants. So pull yourself together! Remain quiet! Show a little dignity! You will soon see the advantages of it in your mind and body. You will feel better, happier, and able to work. A certain indifference is the best armour for this life.

It is to be feared that in many cases an excitable person, instead of preserving the σωφροσύνη of the Greeks, might be tempted to throw the nearest missile at the head of the orator.

The following is a delicate way of hinting that the patient should make his will:

There is just one thing I would like to speak about. You are so worried. I know it is about the future. You do not know what will become of your family later. So you must arrange your affairs. Not a word! You must send for your solicitor. He will come at once. Two witnesses must be present, your brother and your friend, and in a quarter of an hour you can sign your will. It is only for your peace of mind. I have always found that patients seem more at ease after making their will. You are somewhat superstitious? Two years ago, when I was very ill, I made my will. But if you continue worrying like this it will impede your recovery. So we will set about as soon as possible. Then you will feel much better, and recover quickly. I will go to the solicitor at once, so that he will come to-day.

Other allocutions of which models are given are on dissipation; on overdoing a cure; on self-denial; to a mother who has lost her child; to a young lady whose father was mad and who brooded over the probability of her inheriting the disease; to a man in fear of death; to one about to be operated on.

Many shrewd hints may be found in the little book, though its formalism and pedantry may seem a trifle ridiculous. Good as the advice is, we doubt whether English patients would be much influenced by such sermonizings. It is only fair to say, however, that the author finds the English and Americans far more easy to deal with than half-educated Germans. Notwithstanding its priggishness of tone Dr. Hughes's book is the outcome of experience, and shows that he possesses that *savoir-faire* indispensable to those who have to deal with troublesome patients and inquisitive friends. It will teach a young practitioner how to handle a patient, which is often more difficult than the treatment of a case.

Dr. Waldo recently, at an inquest at the City Coroner's Court on a man who was drowned, referred to the inadequacy of the provision for the restoration of persons recovered from the Thames. The only properly-equipped station was at Waterloo Bridge, where hot baths, hot bottles, and all other requisites for dealing with a person recovered from the water were kept in readiness. This station, however, served only a limited section of the river. He had been acquainted with several drowning cases in the neighbourhood of London Bridge, where persons had been got out of the water almost immediately—under three minutes—but were not resuscitated, although skilled persons had done everything they could with the appliances at hand. In Paris the provision on the Seine was more adequate, and there it would be considered a disgrace if a person who had been in the river not more than three minutes could not be resuscitated.

SCIENCE NOTES.

The origin of consciousness has been one of the great difficulties in the problem of evolution. Between the consciousness of existence and the mere function of existing an apparently great gulf is fixed which, according to most psychologists, is not to be bridged by any of the wonderful faculties possessed by animals, however highly organized they seem to be. Many of the familiar acts of the dog, for instance, give the impression of having their origin in some reasoning faculty; the almost inconceivably intricate, and at the same time systematic, actions of many insects give pause in ascribing them entirely to instinct. Many animal faculties are quite beyond our ken. The migration of birds has long exercised the ingenuity of naturalists to frame a working hypothesis; and this remarkable instinct is not confined to birds, for we find it in greater or less perfection throughout the whole animal kingdom. Instances of dogs and cats finding their way home from great distances are well known. Many insects have the faculty highly developed, but much further down in the scale unmistakable manifestations are frequently met with. Even that dull and pertinacious animal, the limpet, has been credited with the homing instinct and a sense or memory of direction. It would be interesting to ascertain the point of view of such a colourless creature. It spends half its days sticking, and continues to stick as if in the endeavour to immortalize itself as the symbol of pertinacity. It does allow itself a certain amount of relaxation and recreation, wandering about in quest of adventure, but regularly with the fall of the tide it finds its way back to its old hole and home and applies itself with renewed vigour to the labour of glueing itself to the rock. It is from this curious habit of returning to the same spot that we feel justified in crediting the limpet with a certain faculty of memory. Ainsworth Davis and Lloyd Morgan were the first to observe the fact and to study it experimentally. It was found that limpets removed to distances up to 20 ft. almost invariably returned to their old haunts within twenty-four or forty-eight hours, but when removed further only a small proportion returned, and it took most of those three days to perform the long journey. No satisfactory explanation could be given of the mechanism of this accurate return. Tracks on the rock were suggested, but could not be demonstrated; removal of the oral tentacles did not prevent the limpet finding its way back. More recently a lengthy series of experiments was made by Piéron, who came to the conclusion that the phenomenon could only be explained by admitting a certain muscular and locomotory memory. From his observations it is evident that the limpet has a fairly keen appreciation of environment as well as sense of direction. When it has left its hole of its own accord it invariably returns along exactly the same line. Obstacles placed in the path are successfully negotiated, and alterations along the path fail to divert the limpet from its course. Its behaviour is suggestive of a ship at sea. It has the additional sense of orientation, for when removed from its situation and allowed to return, it always takes up exactly its original position. This occurs even although radical changes are made, such as breaking the edges of the depression, or even smashing the entire site. One curious experiment is worth repeating. A limpet was removed from its site to some distance and allowed to find its way back, but meanwhile a limpet of equal size was placed on the site, where it fixed itself. When the first arrived home it seemed extremely disconcerted to encounter the intruder and wandered round and round it, as if to ascertain exactly what had happened. Having satisfied itself that there had been some high-handed act of usurpation, it laid itself against the second limpet and proceeded to push it from the spot. The second, evidently recognizing the justice of its claim, yielded not unwillingly and allowed the rightful owner to take up its abode, which it did in exactly the same position as at first. A similar homing instinct has been demonstrated in the case of several other gastropods. These observations may appear little more than trivial, unless account be taken of the very lowly organized nature of the gastropod nervous system.

An interesting article on the red or precious coral was published by Professor McIntosh in *The Zoologist*

for January. One of the most valuable of commodities, frequently worth more than its weight in gold, red coral has been sought for from time immemorial, and still continues to provide employment for numerous people in various quarters of the globe. In early times around the shores of the Mediterranean it was in great demand, not only as an object of adornment, but as a precious medicinal remedy endowed with mysterious properties. It was worn as a charm against all kinds of evil, and this superstition persists in Italy even at the present day. A great part of the miraculous attributes of red coral was due to ignorance of its origin and nature. It did not appear to be possessed of life, and yet it grew. It was not a mineral, and yet it was neither a plant nor an animal. General opinion held it to be a petrified plant. It was not until the beginning of the eighteenth century that a glimpse was got of its true nature. A young French surgeon, Peyssonnel, discovered that its formation was really due to a plant-like animal with numerous polyps—a zoophyte, in fact. His observations were received with the utmost incredulity by the French Academy of that day. A few members, amongst them the celebrated Réaumur, accepted his views, but the subject led to much wrangling, and, receiving no encouragement to continue his work, Peyssonnel left the country, never to return. The more recent work of Milne-Edwards and Lacaze-Duthiers has shown the correctness of Peyssonnel's original observations. Red coral grows on rocky ground round the shores of the Mediterranean, and is most abundant at depths of from 25 to 50 fathoms, although it may be found much deeper. It is found especially round Sicily and off the Algerian coast. It belongs to the Coelenterate group, the *Alcyonaria*, and consists of a main stem from which irregular branches are given off. Each branch bears a number of polyps, which have eight pinnate tentacular arms. The polyps are of two kinds—autozoids and siphonozoids—only the former of which are sexual. Each colony is generally unisexual, so that there are male corals and female corals. The eggs are developed internally, and the larva finds exit through the mouth of the parent. The breeding season is from May to September. Commercial red coral is the dead skeleton of the animal, which it forms around itself as a support and protection. Coral fishery in the Mediterranean is chiefly in the hands of the Italians. It is carried out in small decked boats with a crew of about ten; the life is very hard and the pay small. The fishing apparatus consists of a stout wooden cross, 3 to 6 ft. in length, having an iron centre or weighted with a stone. To the cross are attached about thirty hempen tangles. Tied to a strong rope the cross is pitched overboard and dragged along the bottom. The heavy cross breaks off the corals, which are caught by the tangles. The coral thus obtained is of very varying quality. The inferior kinds are worth only 2s. to 10s. a pound, but the better qualities fetch about £10. The choicest rose-pink coral, however, may find a market at anything up to £200 an ounce. The annual value of rough coral has been estimated at £2,000,000, but when manufactured it reaches £10,000,000. The industry finds employment for a large number of people both directly and indirectly. The assiduity with which coral fishing has been pursued has led to the exhaustion of certain "banks" or areas, giving rise to fears and complaints and agitations for restriction and a "close season," during the breeding season, but this is not possible, as it occurs in the summer months, the only time when fishing is practicable. It is found in practice that it is sufficient to give the various areas a rest in the course of a period of years. Despite its stationary nature and its limited means of dispersal the coral has a remarkable power of recuperation, so that an exhausted bank may be found after a rest of five or ten years to be richer than ever. Although the Mediterranean is the chief seat of the red coral industry there is a large fishery in Japan. It is of very ancient date, but for a long period such fishing was prohibited. When the interdict was removed in 1868, however, the industry immediately began to thrive, and on the Moroto ground at one time as many as a thousand boats were engaged. Most of the Japanese coral finds its way to Italy, some to China, and but little is retained for home use. Professor McIntosh, in concluding, draws a comparison between the coral industry and the fishing industry. He quotes from a previous utterance on the same subject:

> Nature has been able by her unaided resources to ward off extinction in a species (that is, *the red coral*) so eagerly desired by man for one of the greatest incentives—namely, pecuniary gain—and yet so circumscribed in distribution, and so slenderly supplied with means of dispersion in comparison with many marine animals. . . . If the continuance of the red coral, therefore, has been assured, what difficulty is there in regard to the permanent abundance of the chief food fishes of the open sea-board of our country—set as it is in the midst of an almost boundless ocean—with all the marvellous powers of increase (a thousand-fold greater than the coral) so characteristic of them on the one hand, and all the varied and gigantic resources of Nature in the sea at command on the other? Science as well as experience answers that there is none.

At a recent meeting of the Zoological Society Dr. Leiper exhibited some specimens of the larvae of *Trichostrongylus pergracilis* (Cobbold), which is believed to be the cause of grouse disease. This parasitic nematode has much in common with the well-known *Ankylostoma duodenale*, and its life-history follows a very similar course. The eggs are shed amongst the heather which the grouse frequent, and in a week active larvae are developed which climb up the heather in wet weather, and are there eaten by the birds. The larvae become adult and begin to produce ova in the remarkably short space of four days. Grouse disease has been a source of trouble and anxiety for many years, and several unsuccessful attempts had been made to investigate it. A few years ago a Commission was appointed to deal with the matter thoroughly, and the zoological part of the investigation was assigned to Dr. Shipley. He made a very careful study of all the parasites, both external and internal, which infect the grouse. The results are published in the *Proceedings of the Zoological Society* (1909, pp. 309–368). The parasites comprise a numerous and varied collection, consisting, as they do, of two species of bird lice, a fly, two fleas, a tick, and two mites externally, while internally there are a *Trichostrongylus*, a *Trichosoma*, a *Heterakis*, and a *Filaria* amongst the nematodes, and two species of *Davainea* and one of *Hymenolepis* amongst the cestodes.

LITERARY NOTES.

MEDICAL folklore is always interesting, as it consists largely of religious superstitions, which help to throw light on the manners and mode of the life of the people, or of remnants of practice founded on exploded or forgotten medical theories. In a recent number of the *Revue Médicale de Normandie*, Dr. Masqueray gives a number of examples of such healing methods which are still practised in Normandy, notably in the valley of the Seine and the Varenne. Thus, in cases of jaundice, no matter what may be the origin of the condition, the following remedies are believed to be efficacious. Every morning, on waking, the patient should drink a large glass of the urine of his eldest son. But, it may be asked, What is to be done if there is no son? Then one has a choice of two equally delectable methods. Apply to the pit of the stomach a living trout, which is to be kept there till it is completely putrid; or every morning, during a period of forty days, drink a large glass of plain water in which have been placed three lice taken from the back. For simple catarrhal conjunctivitis there is nothing like the application to both eyes of a slice of a newly-killed calf. For sprain, a salt herring opened in the middle is the best application. A particularly quaint remedy for ulcers of the legs is to get a virgin of eleven—the age is evidently chosen as offering a sporting chance of obtaining the genuine article—to pass water on the sores. For prolapse of the womb the local application of the hand of a man lately dead is strongly recommended, the patient meanwhile saying three *paters* and three *aves*. The tooth of a mole of the masculine gender or the tooth of a dead man carried in the purse is a good preservative against toothache. A dead mole applied to the chest during a whole day helps an infant through the troubles of teething. For the cure of meningitis a living pigeon is to be taken, torn open, and put on the patient's head; Dr. Masqueray says he has seen this done, and, as may easily be believed, it is a horrible sight. In rheumatism, that familiar remedy the potato is used, but it must be a red one, and must be carried inside the corset. One of the

oddest remedies is that recommended for nightmare; the patient should carry in a bag hung about his neck a living toad till the animal departs this life. This would in many cases be more likely to cause than to cure a nightmare, but it is to be presumed the toad acts homoeopathically. It appears that country doctors often meet with serious difficulty in dealing with peasants who insist on using methods of which these are but a few specimens.

In Mr. John Fyvie's recently published book, *Wits, Beaux, and Beauties of the Georgian Era*, there is an account of Catherine, wife of the third Duke of Queensberry, best known to students of English literature as "Gay's Duchess," because under her roof the author of the *Fables* spent his last days. She was dismissed from Court for soliciting subscriptions for her favourite's censored opera, *Polly*, within the precincts of St. James's. She was a woman of strong character, and should be held in honour by the ladies of the present day whose determination to get the suffrage has thrown a good deal of extra work on the police. In March, 1739, she headed a successful attempt to "rush" the House of Lords. Says our author:

The Duchess, with several other ladies, had been present in the gallery of the House of Lords when the merchants of London stated at the Bar of the House certain grievances which they had against the Government of Spain; but when this important matter was to be debated a day or two afterwards, the Lords unanimously resolved that ladies should be excluded and the Gallery solely reserved for members of the House of Commons. But, as we learn from one of Lady Mary Wortley Montagu's lively letters (and her account is confirmed in all essential particulars by Mrs. Delany, who was one of the actors in the scene), a party of noble dames resolved to resist so arbitrary a decree.

These heroines were Lady Huntingdon, the Duchess of Queensberry, the Duchess of Ancaster, Lady Westmoreland, Lady Cobham, Lady Charlotte Edwin, Lady Archibald Hamilton and her daughter Mrs. Scott, Mrs. Pendarves, and Lady Frances Saunderson. I am thus particular in their names, since I look upon them to be the boldest assertors, and most resigned sufferers for liberty I ever heard of. They presented themselves at the door at nine o'clock in the morning, where Sir Charles Saunderson respectfully informed them that the Chancellor had made an order against their admittance. The Duchess of Queensberry, as head of the squadron, pished at the mere ill-breeding of a lawyer, and desired him to let them upstairs privately. After some moderate refusals, he swore by G—— he would not let them in. Her Grace with a noble warmth answered by G—— they would come in, in spite of the Chancellor and the whole House. This being reported, the Peers resolved to starve them out; an order was made that the doors should not be opened till they had raised the siege. These Amazons now showed themselves qualified for the duty even of foot soldiers; they stood there till five in the afternoon . . . every now and then playing volleys of thumps, kicks, and raps against the door, with so much violence, that the speakers in the House were scarce heard. When the Lords were not to be conquered by this, the two Duchesses (very well apprised of the use of stratagems in war) commanded a dead silence of half an hour; and the Chancellor, who thought this a certain proof of their absence (the Commons being very impatient to enter) gave order for the opening of the door; upon which they all rushed in, pushed aside their competitors, and placed themselves in the front row of the gallery. They stayed there till after eleven, when the House rose; and during the debate gave applause, and showed marks of dislike, not only by smiles and winks (which have always been allowed in these cases) but by noisy laughter and apparent contempts.

Nor is the "hunger strike" a new thing; it is mentioned in Pepys's *Diary*, though, to be sure, it is only to the case of a man who threatened it that he refers. Under date May 26th, 1669, there is the following entry:

One Sir Edmund Bury Godfry, a woodmonger and Justice of Peace in Westminster, having two days since arrested Sir Alexander Frazier for about £30 in firing, the bailiffs were apprehended, committed to the porter's lodge, and there, by the King's command, the last night severely whipped; from which the Justice himself very hardly escaped (to such an unusual degree was the King moved therein). But he lies now in the lodge, justifying his act, as grounded upon the opinion of several of the Judges, and, among others, my Lord Chief Justice; which makes the King very angry with the Chief Justice, as they say; and the Justice do lie and justify his act, and says he will suffer in the cause for the people, and do refuse to receive almost any nutriment. The effects of it may be bad to the Court.

It may be added that the Alexander Frazier or Fraizer here referred to was physician-in-ordinary to Charles the Second, and greatly trusted as a political as well as a medical adviser by that shrewd monarch. Clarendon seems to have looked upon the doctor's influence with some jealousy, for he writes to Sir Richard Browne from St. Germain's:

I am glad you have so good a correspondent in Dr. Fraizer, who is grown, God knows why, an absolute stranger to me; he is great with Lord Gerard and Mr. Attorney, but he will speedily leave us and go for England, which truly I am sorry for, for the King's sake; for no doubt he is good at his business, otherwise the maddest fool alive.

At the Restoration he returned to England, and gained a degree of influence with the King, as Munk says in his *Roll of the Royal College of Physicians of London*, "unequalled, perhaps, in the history of the profession." It is more than hinted by Pepys that the secret of his influence was not merely that he was "good at his business," but that he was unscrupulous in the use of his professional skill. Under date of September 19th, 1664, the diarist writes:

Dr. Pierce tells me, when I was wondering that Fraizer should order things with the prince in that confident manner, that Fraizer is so great with my lady Castlemaine and Stewart and all the ladies of the court, in helping them to slip their calves when there is occasion, and with the great men in curing them, that he can do what he pleases with the King in spite of any man; and upon the same score with the prince—they all having more or less occasion to make use of him.

That Fraizer did not always succeed in helping the ladies to "slip their calves" opportunely may be gathered from the misadventure recorded of the lady who "slipped" one at a court ball, to the scandal even of that dissolute assembly. In the *Mémoires de Grammont* the incident is related of a coy maiden who had refused the advances of a country squire as follows:

La dedaigneuse Wasmestré, surprise apparemment pour avoir mal compté, prit la liberté d'accoucher au beau milieu de la cour.

Pepys relates the affair more circumstantially, but gives the story another heroine. Under February 2nd, 1662–63, he has the following entry:

Creed and I and Captn. Ferrers to the Parke, and there walked finely, seeing people slide, we talking all the while; and Captn. Ferrers telling me, among other Court passages, how about a month ago, at a ball at Court, a child was dropped by one of the ladies in dancing, but nobody knew who, it being taken up by somebody in their handkercher. The next morning all the Ladies of Honour appeared early at Court for their vindication, so that nobody could tell whose this mischance should be. But it seems Mrs. Wells fell sick that afternoon, and hath disappeared ever since, so that it is concluded it was her.

Again on the 17th he writes:

Mr. Pickering tells me the story is very true of a child being dropped at the ball at Court; and that the King had it in his closet a week after and did dissect it; and making great sport of it, said that in his opinion it must have been a month and three houres old; and that, whatever others think, he hath the greatest loss (it being a boy, as he says) that hath lost a subject by the business.

The *Western Morning News* in its issue of February 8th devoted an article to John Cunningham Saunders, a Devonshire surgeon, the hundredth anniversary of whose death fell upon February 9th. To his initiative was largely due the foundation of the Royal London Ophthalmic Hospital. Saunders was only 37 years of age when he died on February 9th, 1810, in Ely Place, in London. His early death was a great loss to ophthalmology. He was born at Lovistone, in Devon, on October 10th, 1773. At 17 he was apprenticed to a Barnstaple surgeon named Hill, with whom he served the usual term of five years. In due course he entered Guy's and St. Thomas's, with the latter of which he remained connected till his death. His proficiency in anatomy gained for him within a couple of years an appointment as demonstrator in St. Thomas's Hospital. During that time he had Astley Cooper as "house pupil." John Saunders made a special study of the anatomy of the ears and eyes, and the treatment of the diseases of those organs. He wrote two books: one on the *Anatomy of the Human Ear*, with a treatise on the causes of deafness, and another on *Some Practical Points relating to Diseases of the Eye*. When he helped to establish the Moorfields charity it was designed for the treatment of both ear and eye diseases. The hospital was first opened in 1805. Among those who have spent themselves in the service of humanity, and who have enriched the knowledge of the world, the name of John Saunders deserves a place of honour.

British Medical Journal.

SATURDAY, MARCH 26TH, 1910.

A POOR LAW BILL AND A CIRCULAR.

THE Prevention of Destitution Bill, for which Sir Robert Price drew first place in the ballot at the beginning of the session, has been put down for second reading on April 8th, when a debate will be raised which it is anticipated may disclose the views of the Government and of the leaders of the Opposition with regard to the proposals of the minority of the Royal Commission on the Poor Laws and Relief of Distress. The bill "to provide for the more effectual prevention of destitution and the better organization of public assistance" was issued last week; it is a very voluminous document, containing ninety-five clauses and seven schedules; an analysis of its provisions, together with the text of those clauses which directly touch medical questions, will be found in the SUPPLEMENT (p. 121). It is well drawn, covers very completely the ground it is intended to plough up in England, Wales, and Scotland, and is avowedly the bill of the minority of the Royal Commission. It is probably put forward now not because its promoters have any lively expectation that it will be carried, but as a feeler to ascertain how far and from what quarters the National Committee for the Break-up of the Poor Laws may count on support in its crusade.

The revolutionary character of the bill may be partly gathered from the fact that it proposes to repeal wholly or in part no fewer than seventy-nine Acts of Parliament, while the powers conferred by several score other Acts are to be transferred to other authorities. In its main lines it follows the recommendations of the Minority Report, notably in abolishing boards of guardians and dividing their work for the non-able-bodied among four committees of county and county borough councils, while the able-bodied are transferred to the department of a new Minister for Labour. There is a somewhat important modification of the Minority recommendation in the provisions of the bill dealing with the Registrar of Public Assistance, to whom the Minority Report proposed to give very autocratic powers of revising the decisions of the four committees. The Health Committee, for instance, after making investigations and deciding that an individual should have outdoor medical assistance, might have found its decision overruled by this single permanent official. It would seem to have been recognized that this was an impossible position in which to place any committee, for the right of appeal which the committee would have had against the decision of the registrar made the matter little better. We have several times laid stress on this point, but the justice of the objection has been repeatedly denied by supporters of the Minority Report. In the bill, however, an attempt is made to meet this objection—rather half-heartedly, it is true—by a provision that recommendations for outdoor relief "*shall be* referred" to such committee of the council, not being one of the four committees dealing with assistance, as the council may determine, and the council "*may* appoint" a special committee for the purpose called the Public Assistance Co-ordination Committee. It is still provided that the registrar should have very extensive powers, but they would not be so autocratic as those suggested by the Minority Report. The fact nevertheless remains that no question is more frequently a matter of dispute than whether a particular person shall receive outdoor or institutional relief, and in the future painted by the bill it would undoubtedly be quite a common thing for the Education and Health Committees to find the Co-ordination Committee refusing to grant them the certificates for home relief which they desire, and the dispute would have to be settled by the whole council. All this procedure is simply an attempt to get out of a self-created difficulty; the work of relief is first split up among four committees, which of itself creates more overlapping than exists at present, and to remedy this another special committee has to be appointed. In this way the possibility of serious disputes between the five committees would certainly be introduced, and the council would have finally to be called in to settle differences which would never have arisen if relief had been in the hands of one authority from the first.

There are numerous indications throughout the bill that it is only intended as a first instalment, leading up to a still greater extension of the scope of public assistance. In addition to providing assistance for the destitute, it provides that the councils shall "take such steps as seem to them desirable, within the powers conferred upon them by Parliament, as far as possible to prevent or arrest the operation of the causes of destitution." Even the causes of unemployment are specially mentioned, and "any other cause of destitution" must be dealt with by the councils. This opens out a field of work practically illimitable. For instance, the Minority Report mentions among the causes of destitution boy and girl labour, and recommends that boys and girls up to the age of 18 shall not be allowed to work over thirty hours a week—that is, half time—and shall be obliged to attend, between the ages of 15 and 18, schools for physical and technological training, such training being "provided by the community itself." Now the bill defines a "child of school age" as "a person under 18 years of age attending or being, under any statute or by-law for the time being in force, liable to attend at a school or other educational institution.' This means free education up to the age of 18, not only for the destitute, but for all persons; the want of such education is held by the Minority to be a "cause of destitution," which the council has to deal with.

Again, the Minority Report, in dealing with old age pensions, says that "it will be requisite at the earliest possible date to lower the pensionable age to 65, if not to 60." It is, however, unlikely that this will be done by any amendment of the Old Age Pensions Act for many years to come, if ever; the bill gets over this obstacle by providing, not only for the reduction of the pensionable age, but that a still greater extension of pensions may be brought about out of the local rates for "persons not entitled to pensions under the Old Age Pensions Act of 1908." This would amount, we venture to submit, to the establishment of invalidity pensions wholly out of the rates, though Germany and other Continental countries are content with a State subsidy, and demand that workers should themselves contribute towards an insurance premium for invalidity pensions. It is no wonder that the Minority in its report objected to all insurance schemes for sickness and invalidity pensions, if it intended to provide them

free; the idea of encouraging thrift and self-providence, as under the German scheme, is entirely absent from the bill in this connexion.

In addition to all the other duties with which Health Committees are endowed, they would be required to provide general relief, food, clothing, and lodging for infants below school age; for the sick and infirm and the aged in institutions; to deal with all the infinite number of causes that lead to destitution among these classes, and to provide medical assistance for all classes; in the fourth schedule of the bill is given a list of about forty Acts of Parliament which the Health Committee would have to administer. In every sense of the word it would be a destitution authority for certain classes. A novel provision of the bill which might sometimes prove useful is that the Health Committee would be expected to spend each year at least a certain amount of money, termed the "National minimum of health expenditure," to be determined by the Local Government Board for the whole country as being "the least sum at which under the most favourable circumstances a council can possibly discharge efficiently the duties laid upon them." Parliament is asked to set aside a sum not exceeding £4,000,000 a year for the first seven years, out of which grants would be made for Health Committees, but no grant would be made to any council that had not by its health department spent an amount equal to the national minimum of health expenditure. In addition, the Local Government Board would be empowered to fix a "standard average health-rate," and if the expenses of any Health Committee should not be met by the levy of a rate equal to this standard, the Exchequer would contribute the deficiency. This is called the "primary health grant," and after all primary grants needed by councils had been given, the surplus of the four millions sterling would be used for secondary grants to councils that had received no primary grants. The object of all this, according to a sketch of the bill for which we have to thank Mrs. Sidney Webb, is "to enable even the poorest local body to bring its administration up to the prescribed minimum standard without incurring more than the average rate, and so as to encourage and assist the more energetic councils to be continually increasing the efficiency of their service without undue burden on the ratepayers." It is very doubtful whether the sum of £4,000,000 would go far towards providing for the extra training of children under the proposed new definition of "school age," for the local pensions, for the whole medical service, and all the work entailed in preventing the causes of destitution, but the plan is ingeniously contrived to lull the fears of the ratepayers.

The scheme contained in the bill for unemployment insurance, with a State subsidy to trades unions, would not be compulsory; it does not include unemployment caused by sickness and invalidity, but only that arising from slackness of trade, and, with this single exception, there is not the least attempt to encourage self-providence. On the contrary, the recovery by the registrar of the cost of medical treatment would involve no inquiry before treatment was given, though the experience of every medical man as well as the experience of public authorities in the past shows that inquiry after treatment is often a farce, attempts to recover being generally not worth the trouble and legal costs. The bill, in short, proposes an enormous extension of public medical assistance, not only to the destitute, but to all persons who may, by any stretch of imagination, be thought to be in danger of becoming destitute in the future, from any cause whatever, including even their own thriftlessness. Far more reasonable are th recommendations of the Special Poor Law Committee of the British Medical Association, which deal separately with every class of the non-able-bodied, and suggest that certain classes should have free medical aid in the interests of the community; that for other classes, not needing instant and immediate relief, there should be inquiry before relief, to determine whether relief at the public cost should be refused altogether; and for others, where immediate treatment is urgent, inquiry after treatment, with recovery of cost where possible.

The Local Government Board Circular to Boards of Guardians, the tenor of which is fully stated in the SUPPLEMENT (p. 123), stands out in strong contrast to the Minority Report bill. The circular rightly says that a person may be destitute, not in the sense that he is entirely devoid of the means of subsistence, but that he is unable to provide a particular form of medical attendance or treatment of which he is in urgent need. It points out also that it is not in the interests of the community that such relief should be given as discourages the recipient from striving to regain his independence, or induces others to relax their efforts to maintain their independence. The guardians are reminded, as the Minority Commissioners might well be reminded, that the rates are raised compulsorily, and not by voluntary contribution, and that the authorities are therefore not in a position to dispense charity at will. It is also pointed out that outdoor relief must be adequate to meet the need, but there must be a close and careful supervision of all outdoor cases, full regard being paid to sanitary conditions and close co-operation with the sanitary authorities. Relieving officers are to be sufficient in number and chosen for their experience, and the case-paper system and the general abolition of pay stations are strongly recommended. Co-operation with charitable associations is specially urged on the lines of Mr. Goschen's Minute of 1869. The guardians are also urged to avoid all action which might discourage self-providence against sickness, and the Board promises to give its support to any proposals intended to secure efficient co-operation between charity and the Poor Law.

In short the circular is intended to show that essential reforms may be attained by existing machinery without the revolutionary methods of the Minority Report bill. The bill is the bill of a party that speaks with some disdain of the "irresponsible committees of benevolent amateurs" of the Majority scheme; the circular promises active support to all schemes of co-operation with charitable associations. The bill would finally destroy the guardians, its supporters having already damned them with faint praise, and would set up in their place an intricate and untried machinery including four local destitution committees with a fifth committee to keep them in order, and a new Minister for Labour with six new Government departments under him. The circular admits the faults of the guardians, but suggests feasible methods for reform and the improvement of their work. The bill seems to blame environment for everything, but neglects personal thriftlessness; the circular, while helping all the destitute, would discourage parasites on society. The bill is a brand-new scheme for a completely new engine; while the circular speeds up a working machine.

THE SENSORY PRODROMES OF EPILEPSY.

THE first three numbers of *Epilepsia*, an international quarterly review whose appearance has been already noticed, contain three contributions by Dr. L. J. J. Muskens, of Amsterdam, upon the prodromes, and especially upon the sensory prodromes, of epilepsy. References to Dr. Muskens's observations are to be found in recent works on epilepsy, but, inasmuch as these appear now to have been confirmed by other investigators, and because the phenomena he describes may prove to be, not only of diagnostic importance, but may also, as he maintains, afford valuable indications for treatment, it may be well to give a brief account of the main facts.

In 1902 Dr. Muskens published a paper on the segmental disturbances of sensation in tabetics and epileptics[1] which contained the results of investigations which had extended over five years. He showed, first, that in tabetics—even, in some cases, long before any other signs had shown themselves—a diminished or delayed pain sensibility was present over certain cutaneous areas, most commonly those served by the first, second, third, and fourth dorsal, and in the lower extremities by the fifth lumbar and first sacral nerves; and, secondly, that in epileptics a varying degree of analgesia, ranging from slight hypalgesia to complete analgesia, was to be found over these same areas for some hours or days immediately preceding the attacks, and disappearing, or being replaced by the opposite condition of hyperalgesia over the same areas, immediately after the attacks. Another point which he mentioned in that article, and to which he again refers in his more recent contributions, was that the limiting lines of contiguous skin areas supplied by segments which are not contiguous in the spinal cord—the "mesial lines" of Sherrington—retain a certain amount of sensibility even during complete analgesia of the rest of the body, and that after an epileptic attack these lines were the first to become sensible to pain. Lastly, and to complete this account of the author's original statement, he showed that in tabes dorsalis and in epilepsy there were certain areas which remained unaffected during a general analgesia—namely, the periocular field corresponding to the upper part of the area supplied by the second division of the trigeminus; an area including the ball of the thumb and extending to the styloid process of the radius; and a corresponding area on the sole of the foot.

It would take us altogether too far to follow Dr. Muskens in his discussion of the bearing of these pre-epileptic sensory phenomena upon the mechanism of convulsive seizures and the question of the cortical representation of skin areas—a belief for which Dr. Muskens claims support from recent anatomical researches by Benedict, Straüssler, Balint, Russel and Horsley, and Mills and Weissenburg. It need only be mentioned in passing that these analgesic areas have been found to be present as constant permanent features in diabetes and severe anaemia as well as in metasyphilitic diseases, and as chronic but removable features in alcoholic neuritis. We are here only concerned with the empiric fact of their frequent and fluctuating appearance in epilepsy. With regard to their frequency, Dr. Muskens himself found sensory prodromes of all kinds, including the epileptic headache, in only 44 per cent. of his cases during the four years 1903–1906. Drs. Maes and Claude,[2] however, as the result of a careful systematic examination of an unselected group of epileptics, found the prodromal disturbances of sensation in no less than 80 per cent. of their cases, and there seems to be no doubt that Dr. Muskens was justified in his first contention that post-axial segmental analgesia is a much more common prodromal occurrence than is generally supposed.

Early in his investigations of these phenomena Dr. Muskens was struck by the fact that wherever these disturbances of sensibility were absent, other prodromal symptoms—motor, vasomotor, or somatic—were present, and this fact became of first importance from the point of view of treatment; for, though he does not explicitly state that he considers the several prodromes to be interchangeable, this fact led to the attempt to promote the epileptic discharge along some other track than that of a convulsive attack. The results of treatment with this view have, he says, been entirely successful, the means adopted being the administration of extra doses of the bromides on the first appearance of the sensory prodromes, rest in bed, and drastic evacuation of the intestines. The result of this treatment has always been to diminish the extent of the sensory disturbances and to lessen the proneness to the attacks, a sudden evacuation of the bowel, even where there was no constipation, being regarded by Dr. Muskens as a specific means of bringing about a harmless discharge. These observations have been confirmed by Maes and Claude.

Dr. Muskens claims for these sensory disturbances a definite diagnostic as well as therapeutic value. The fact that in a general epileptic analgesia the sensibility of the periocular and certain other cutaneous areas remains intact sharply distinguishes these from hysterical anaesthesias. He, indeed, goes still further, and contends that only such sudden and pathological phenomena are truly epileptic discharges as cause the segmental disturbances of sensation to disappear. This is true, he says, of major epileptic attacks, of series of motor fits, and of convulsions without loss of consciousness, but it does not hold good for *petit mal* and psychical disturbances. Dr. Muskens therefore considers that the clinical significance of these latter disturbances is entirely different from that of motor discharges, an opinion to which the usual inefficacy of bromide treatment in *petit mal* and psychical disorders lends support.

It remains to be seen to what extent the observations of Muskens, Maes, and Claude will be confirmed by other investigators; but if it be proved that it is possible to foretell by some days the occurrence of convulsive seizures in the subjects of major epilepsy, to mitigate or even avert these attacks, and to vary the treatment according to the indications afforded by these sensory prodromes in such a way as to avoid the unpleasant effects—as, for example, bromide acne—of drug treatment, it is evident that we have here a fact of considerable therapeutic importance.

[1] Studien über segmentale Schmerzgefühlsstorungen an Tabetischen und Epileptischen. By L. J. J. Muskens. *Arch. f. Psychiat.*, Bd. 36 Hft. 2. 1902.

THE DEFINITION OF AN ACCIDENT.

A DECISION of far-reaching importance was given by the House of Lords on March 14th, the decision being arrived at by a majority of three to two. A report of the judgements will be found at p. 787. A man was employed in screwing bolts to make a condenser bath. While so engaged he fell dead. On *post-mortem*

[2] D. Maes and H. Claude. *Annales d'Electrobiologie*. 1907. (F.4.5.)

examination it was found that he had suffered from a large aneurysm of the aorta, and that death resulted from its rupture. It was stated that the aneurysm was so far advanced that it might have burst during sleep, and under any trifling exertion was likely to do so. That the man died from injury was clear, and he was engaged in his employment when it happened. Was it an "accident arising out of his employment"? The county court judge and the Court of Appeal decided that it was. This decision was appealed to the House of Lords. The Lord Chancellor and the majority have held that there was evidence to justify the finding given in the lower courts. What occurred was fortuitous and unexpected so far as the workman was concerned, although to one knowing all the conditions it was a likely result of his engaging in work. The dissenting judges held that if the external conditions which surround and the external influences which act upon a workman at the time of an injury are normal, if it is not shown that anything unlooked-for occurred in relation to the work, and if the physical state of the workman is such that those acquainted with it and capable of judging would regard such an injury as the likely result of his engaging in the work, then it cannot be said that there is evidence to justify a finding that the injury is due to "accident arising out of the employment."

Most medical men would consider that a man suffering from an aortic aneurysm should not have been employed in any work, however light, which would entail the slightest strain or exertion. But the man was unaware that he was suffering from a disease which at any time might prove fatal, whether he was at work or at rest. In these circumstances the finding of the majority appears justifiable, although it may involve consequences which the Legislature did not foresee or intend when the Act was passed. In any case the decision is now binding, and will probably have very important effects on the relations between employers and employees. Employers of labour may find themselves compelled to discharge, or refuse employment to men who are suffering from ailments which may appear to be trifling, but which, by the nature of the employment, render them liable to accident in the course of the employment as now defined within the meaning of the Act. As Lord Shaw, one of the dissenting judges, said, the decision arrived at by the majority adds a new peril to those workmen who, notwithstanding debility and chronic disease, are anxious and willing to work in order to gain a livelihood, but are unable on this account to obtain employment.

The decision may not affect the insurance companies very materially; they will simply increase their premiums. But to hold an employer responsible in the circumstances above stated seems to make the preliminary medical examination of workmen a virtual necessity. It is pointed out by a member of Lloyd's in the *Times* of March 18th that already one of the largest insurance agents of Lloyd's has suggested that two rates shall be quoted to employers—one for cases in which the men are all medically examined and the weak ones rejected, and another rate considerably higher where no such examination takes place. What employer will take a weak man into his service if he can get a strong man for the same wages?

These be some of the consequences of the Workmen's Compensation Act to which its early supporters persistently shut their eyes.

THE PRESIDENT OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

THE presidency of the Royal College of Physicians of London is an annual office, the statute providing that the election shall take place on the day after Palm Sunday. It has always been customary, however, to re-elect the president for several years in succession, the usual period being five years. It therefore excited no surprise when Sir Richard Douglas Powell, who has held office since 1905, intimated his desire not to be re-elected. Any Fellow of ten years' standing is eligible for election to the presidency; no nominations are made, but each Fellow present writes down and places in the urn the name of the Fellow for whom he votes. If the name of one Fellow be thus placed in the urn by two-thirds of the Fellows present he is elected, but on the occasion of the election of a new president this seldom occurs, and the two names having the highest numbers are then balloted for, an absolute majority deciding. On the present occasion a far larger number of votes were cast at the first ballot for Sir Thomas Barlow than for any other Fellow, and at the second ballot he was elected by a very large majority. In a few well-chosen words he thanked the College for the honour it had done him, and promised to give his best services to the maintenance of its honour and dignity and to the advancement of the great interests confided to it in the body politic. We venture to express the confident belief that this promise will be fulfilled, for Sir Thomas Barlow adds to a loyal affection for his College a broad outlook on public affairs and a high ideal of the part the medical profession can and ought to play in them, which will ensure that so far as his influence extends—and by his election it is of necessity much increased—it shall be worthy of its great traditions. He takes office at a critical moment, when on two great questions the profession needs statesmanlike guidance. The one is the relation in which the Royal Colleges and the teaching institutions of London should stand towards the University of London with a view of improving the opportunities for education and research in the metropolis, and of placing within the reach of medical students educated there a degree in medicine. The other is the vast problem of Poor Law reform—the reorganization of the system of preventing disease, and of giving medical relief to the sick and aged. To both questions Sir Thomas Barlow has already given much attention. Thus he brings to the discharge of the duties of his high office the prestige of a great scientific reputation, combined with a knowledge of affairs and practical sympathy with movements for the welfare of the people.

AN EXPERIMENT IN VENTILATION.

THE report for 1909 of that excellent institution, the Yarrow Home for Convalescent Ch dren of the Better Class at Broadstairs, contains a note on a series of experiments in connexion with the heating and ventilation of the home, which is at once a proof of the close interest which the founder, Mr. Yarrow, continues to take in every detail, and an interesting and even amusing contribution to the great and perplexing question of the ventilation of rooms and wards. It appears that when the home was erected a somewhat elaborate system of heating and ventilation was introduced, of a type very familiar in hospitals and public institutions. The idea was to warm the air by bringing it in from outside over numerous radiators, and to extract it by horizontal air ducts in the ceilings of the rooms, communicating

at each end of the building with tall ventilating upcast air shafts. The ventilation did not prove satisfactory, and among other evidences of its defective nature was the occurrence of small epidemics of sore throat; it was established that in some instances the sore throats did not spread from person to person, but broke out in different wards whose inmates had not been in contact. Attention was first directed to the radiators, and it was found that they very soon became covered with dust brought by the in-coming air; as in so many other establishments, some of these radiators were fixed in positions which made it impossible to clean them efficiently, or their design was such that it was impossible to get brushes between the heating tubes. Mr. Yarrow came to the conclusion that a good radiator should be of such a design and so placed that it could be cleaned and dusted daily with facility, and further, that it should consist of polished tubes, rendering any deposit of dust easily visible, and stimulating servants, if they took any pride in their work, to keep the polished surfaces in creditable condition. Instead of introducing new radiators, however, the inlets were closed so that the stream of dust-laden air no longer passed over them. Attention was then turned to the extraction system, and it was found that the difference of temperature between the air in the air ducts and outside the building was so small that the current was sluggish, and consequently easily reversed. Mr. John Sampson, a member of the committee of management, showed by experiment that wind striking the building on one side had a tendency to increase the pressure of air in the rooms on that side, and to diminish the pressure in the rooms on the opposite side, with the result that in these latter rooms there was a tendency for the system of ventilation to be upset, causing the passages intended as upcasts to act as downcasts. It was found that when there was no wind the ventilation acted perfectly and as was intended, but when even a slight wind arose, and at Broadstairs the atmosphere is seldom still, the air, instead of passing away through the extraction passages, was drawn down, owing to the reduced air pressure, into the rooms on the sides of the building opposite to the direction in which the wind was blowing. The air ducts and shafts could not be cleaned, and were known to be full of dust, which was suspected to be full of objectionable organisms. Under the supervision of Dr. Bertram Dawson, honorary physician, and of Dr. E. G. Moon, one of the medical officers at Broadstairs, some interesting bacteriological experiments were carried out by Dr. Adler. Two plates were exposed for five minutes beneath the air-shaft in the ceiling of one of the wards, the medium on the one being placed so that it looked upwards towards the opening, and the medium on the other so that it looked downwards towards the floor. Plates were also exposed within the air-shafts and on the beds in the ward. The plates within the air-shaft, and the plate immediately beneath it, the culture medium on which looked upwards, both showed a rich growth of organisms, whereas the plate under the air-shaft, the medium on which looked downwards, was comparatively free. The plates upon the beds showed only a few colonies. Among the rich groups of organisms found on the plates near the air-shaft were many pathogenic varieties, including staphylococci and the *Micrococcus catarrhalis*, whereas on the plates remote from the air-shaft the pathogenic organisms were exceedingly few. The fact that the plate near the air-shaft which looked upwards was richly covered with organisms, whereas the plate which looked downwards showed very few, proved that the air was travelling into the room through the so-called outlet, and this conclusion was confirmed by the fact that the plates inside the shaft contained the same varieties of organisms as the plate immediately beneath the opening. The experiment was repeated in another ward after the air-shaft in the ceiling had been blocked up, and the plates in every instance showed only a feeble growth of micro-organisms: it was clear that the air in the ward was a great deal purer when the so called ventilating outlet in the ceiling was blocked up. A further objection to the system was found in the fact that the various extracting shafts were in close juxtaposition, so that when a down-draught occurred the air of one ward could be carried into another. The ventilating openings in the ceilings were accordingly closed, the beds were removed from the sides of the dormitories and placed in the centre, and all the windows were always kept slightly open, so that the ventilation of each dormitory depended entirely upon the passage of air across the rooms entering on the side on which the wind blew and finding exit on the opposite side. It was considered that this would be both a simple and efficient means of continuously changing the air, for, at Broadstairs at any rate, there is nearly always more or less breeze. Since these reforms there has been a very appreciable reduction in the number of sore throats, and of the few cases which have occurred, all have been in children with adenoids and enlarged tonsils, or in others who had suffered from repeated sore throats at home. One case of measles and two of chicken-pox occurred, but there was no spread of infection as had been formerly experienced. The medical report concludes by stating that the investigation shows once more that all air-shafts are dangerous unless they are so big and so situated that they can be easily and regularly flushed with water. Unless this can be done the air-shafts collect more and more dust, and the air which passes along them into the ward or room become increasingly dust-laden, and therefore microbe-laden.

THE ASEPTICITY OF BREAD.

IN a recent annotation urging the advantage of machine-made bread,[1] the conclusions of the report of M. Laveran on the question of the possibility of bread containing live tubercle bacilli derived from consumptive workmen were quoted and the reassuring effect of his conclusions noted. These were based upon the work of Dr. Auché of Bordeaux, who had incorporated tuberculous sputa in the dough of loaves of different size, and found that in every instance the bacilli had lost their virulence after baking. Dr. Auché has now extended his observations to other microbes, and has communicated his results to the Biological Society of Bordeaux.[2] He has experimented by introducing into the dough active cultures in bouillon of the *B. typhosus*, *B. paratyphosus*, *B. dysentericus* (Shiga), *B. dysentericus* (Flexner), *B. coli*, *Streptococcus pyogenes*, *Staphylococcus aureus*, and a variety of *proteus*. In all these cases the results were negative—that is to say, culture media sown with fragments of the bread taken from the parts inoculated (indicated by the litmus stain with which each of the cultures had been tinted) remained sterile, a result which was proved not to be due to any reaction of the media modified by the acidity of the bread, as when sown with pure cultures all the tubes grew abundantly, and in fact the reaction of the bouillon remained slightly alkaline. He thinks it possible that microbes which have great resistance to heat, such as the tetanus bacillus, may not give the same

[1] BRITISH MEDICAL JOURNAL, February 12th, 1910, p. 400.
[2] *La semaine médicale*, 1910, No. 9, XXXV.

result, and he considers the point worth investigation; but so far as the above organisms are concerned, he believes that they are completely destroyed in the process of baking, and that apart from any accidental contamination of the surface after it has left the oven, bread may be considered to be a thoroughly aseptic article of diet.

THE ARMY HORSING SCHEME.

IT is estimated that the number of horses which would be required by the army on a general mobilization would be about 200,000, and the Secretary of State for War has issued a scheme for providing a sufficient reserve of trained horses. The fundamental idea of the scheme is that the War Office should supply a horse, to ride or drive, to any suitable person who has a use for the animal, the main conditions being that the animal should be baited and properly taken care of, and held in readiness in case of mobilization. The horse will remain the property of the Crown, must be at all times open to inspection, and must be kept at the address named. The allottee must properly feed and care for it, and keep it shod at his own expense, but may use it for any legitimate purpose, riding or draught, but not for carting heavy loads, for ploughing, or for any other work which the commanding officer may deem likely to interfere with its military efficiency. It must not be let out on hire, and in case of death or accident to the horse due to circumstances which in the opinion of the Army Council have arisen out of neglect or improper treatment, the allottee will be liable to pay such compensation, not exceeding £40, as may be fixed by the Council. The allottee must take out at his own expense, in the name of the Secretary of State for War, a policy of insurance for £40 against the death of the horse from accident or disease, including death from, or on account of, glanders or other infectious disease. The horse must be given up to the military authorities when considered by them no longer suitable for military requirements, if claimed for mobilization, or if in the opinion of the officer commanding it is not keeping in good condition; the allottee may be required to place the horse at the disposal of the military authorities for a period not exceeding one month in each year for military training, subject to not less than fourteen days' notice. The allottee will have one month from the date of the receipt of the horse to decide whether he will retain it or not, and at the expiration of the month the allotment will continue for twelve months certain, but may afterwards be determined by one calendar month's notice on either side. The allottee will not be entitled to retain the horse if demanded by the Army Council, but if it is demanded, though not on the grounds expressed above, the allottee will be entitled to such compensation as may be fixed by the Army Council. The conditions seem reasonable, and there may be many doctors, especially in the country, who will be glad to obtain a second horse on the terms mentioned; an official circular setting them out in full can, we understand, be obtained on application to the Army Council.

CALCIUM CHLORIDE IN ALBUMINURIA.

THE use of calcium chloride in the treatment of albuminuria has been advocated for some time, and three years ago Iscovesco showed that in cases of nephritis calcium salts caused a considerable diminution in the albumen, but not entire disappearance. He suggested that the beneficial action of milk diet was possibly due in part to the calcium which it contains. Shortly afterwards Rénon treated several cases with daily doses of 0.1 to 0.5 gram of calcium chloride over a considerable period. In a quarter of the cases the albumen completely disappeared, without any alteration in diet or occupation, even in cases in which a restricted diet had previously entirely failed to reduce the albumen. In half the cases there was a distinct reduction in the albumen. In the remainder there was no apparent change, and in a few isolated cases there was an increase. Calcium chloride has in addition a marked diuretic effect, which is maintained for some considerable time after administration has ceased. This has recently been the subject of some observation by Imbert and Bounamour, who have shown that the continued increased urine excretion is independent of any concomitant alteration in diet or manner of life. A more important result, however, in their estimation is that the excretion of chlorides is increased out of all proportion to the minimal doses administered, and continues for at least a fortnight after the treatment has been stopped. With regard to the albumen, they consider that the action of calcium chloride is very variable. From a clinical point of view, their results seem to suggest the advisability of administering small doses of chloride, preferably calcium chloride, in such cases instead of restricting the patient to a practically chloride-free diet.

IRISH MEDICAL SCHOOLS' AND GRADUATES' ASSOCIATION.

THE members and friends of the Irish Medical Schools and Graduates' Association dined together on March 17th at the Hotel Cecil, with the President of the Association, Sir Alfred Keogh, in the chair. The Chairman of the Council (Dr. T. Hobbs Crampton), introduced Dr. Alfred Sheridan to the Chairman, and announced that the Council had awarded the Arnott Memorial Medal to Dr. Sheridan for an act of heroism, thus described in the annual report of the Council: "On August 24th, 1909, at 2 p.m., Mr. O'Neil was bathing in the sea near Westport, co. Mayo, when he became exhausted and sank. Some children who were looking on became frightened and gave the alarm, bringing to the beach Dr. Sheridan. The children, however, could only vaguely indicate where Mr. O'Neil had sunk. Dr. Sheridan had to locate him by diving; he eventually found him floating away on the tide midway between the surface of the water and the bottom. With considerable difficulty Dr. Sheridan brought him ashore, and after about an hour's strenuous work, he had him out of danger." The Chairman, in handing the medal to Dr. Sheridan, declared that the association was proud of him. The toast of "Our Defenders" was proposed by Mr. Robert Thompson, M.P., and acknowledged by Sir Charles Cuffe. Dr. Macnaughton-Jones, in proposing the toast of "Our Guests," praised Sir William Church for his efforts in forming the Royal Society of Medicine, and presented him with a shamrock set in glass as a memento of the occasion. Sir William Church, in replying, thanked Dr. Macnaughton-Jones for his assistance in setting on foot the Royal Society of Medicine. Dr. Seymour Taylor, in an eloquent speech, submitted the toast of "The Association," and the Chairman, in responding to it, said that the Irish doctors in England had a distinct grievance in that they were excluded from hospital appointments in this country simply and solely because of their Irish degrees. That was not right, and he believed that Englishmen in the end would see that the injustice was remedied. The

pleasure of the company was enhanced by songs, and Mr. G. W. Dawson and Dr. William Douglas, Honorary Secretaries, received congratulations on the success of the evening.

VACCINE LYMPH IN THE TROPICS.

PROFESSOR L. VOIGT, of Hamburg, has recently made a series of investigations and observations on the production of active cow-pox lymph through the medium of the dromedary.[1] The exposure of glycerinated calf lymph to a temperature of 55° C. for even half an hour was found to render the lymph wholly or partially inoperative, and other preparations of lymph gave no better results. Professor Voigt mentions various methods which have been adopted to overcome this difficulty in the form of special packages of more or less non-heat conducting materials, but these are by no means reliable or successful. Living bearers of the vaccine lymph in the tropical zones have been found satisfactory. In the interior of the German African colonies it is not easy to make use of the calf for this purpose, and it was for this reason that Professor Voigt tested the efficacy of lymph derived by transmission through the dromedary. By permission of Mr. Carl Hagenbeck he was able to make use of two dromedaries in the Zoological Gardens at Hamburg. He made a series of careful comparisons of the results obtained by vaccinations with ordinary calf lymph and with lymph taken from vesicles on the dromedary, and found them practically identical; in some cases even better results followed the use of the latter strains. The lymph was effective both as regards primary vaccination and revaccination. His observations show that the dromedary is in no way detrimentally affected during the process, and Professor Voigt is confident that the animal may be utilized as a bearer of vaccine lymph in the interior of the African colonies. The paper is illustrated by six photographic reproductions showing the nature of his experiments and a comparison of the vesicles obtained by vaccinations with calf lymph and that obtained from the dromedary at the same stages in the same individuals both in vaccinations and revaccinations, the right and left arms being used for the comparison.

THE CLIMATE OF EGYPT AND THE SOUDAN.

AT a meeting of the Royal Meteorological Society on March 16th Captain H. G. Lyons, F.R.S., formerly Director-General of the Geological Survey of Egypt and subsequently of the Egyptian Survey Department, delivered a lecture on the climatic influences in Egypt and the Soudan. After pointing out that from early times the Greeks recognized the marked difference between the climate of the Mediterranean and that of Africa, and that Aristotle indicated correctly the rains of Ethiopia as the cause of the annual flood of the Nile, Captain Lyons said that within the last ten years a network of meteorological stations had been established, and the observation thus made furnished a basis for further investigations. The comparatively low relief of the country, combined with the effect of the north-easterly trade winds which swept over it, produced the hot and dry conditions characteristic of North-Eastern Africa. Modified somewhat in the north by the warm waters of the Mediterranean, and in the south by the rains of the monsoon in summer, the highest temperatures and most arid conditions were reached between Wadi Halfa and Dongola, where northerly winds, clear skies, and a great range of temperature prevailed throughout the year. The important rains were those falling in Uganda, on the southern plains of the Soudan, and on the table land of Abyssinia. Fed by the south-easterly air currents blowing in from the Indian Ocean, these monsoon rains supplied the equatorial lakes, and the tributaries of the Nile. The Abyssinian table land, with its heavy summer rainfall, was the most effective, since it furnished the whole of the Nile flood, and enabled the Nile to maintain itself through 1,500 miles of desert. As the sole source of the flood, the variation of these rains directly determined the abundance or deficiency of Egypt's supply. Hardly less important in these days of intensive cultivation of cotton was the study of the winter storms which occasionally broke in the Soudan and Abyssinia, raising the level of the rivers and increasing the supply of the Nile appreciably at a time when the normal supply was inadequate. The climate of the region not only influenced the water supply, but the great range of temperature rapidly disintegrated the rocks, and the wind removed the finer portion of the material; in this way the deserts were being constantly modified, and vast ranges of sand dunes piled up. The distribution of vegetation was very markedly influenced both by the moisture and by the physical character of the country.

[1] *Centralblatt für Bakteriologie Parasitenkunde und Infektionskrankheiten*, Bd. 53, Heft 3.

NEW HOSPITAL AT SAN FRANCISCO.

THE new City and County Hospital of San Francisco when completed will be, it is said, the finest institution of the kind in the United States. The cost is estimated at £400,000. The site is 866 long by 760 wide and there will be erected on it a general hospital, a hospital for infectious diseases, and one for tuberculous patients. In addition to these there will be a power house, laundry, mortuary, and ambulance sheds and stables, all within convenient distance of the main buildings. The general hospital which will be four stories high, will have accommodation for 512 beds, and will be so constructed that if necessary the number of beds can be increased later to 752. The infectious diseases hospital will consist of two two-story ward buildings. Each floor will be divided into two units, each composed of a nine, three, and two bed ward. Thus there will be eight units of fourteen beds each. The buildings for tuberculous patients will be arranged and equipped in accordance with modern scientific doctrine. The patients will be divided into two classes—incipient and advanced. The incipient cases will be treated in a one-story arcade open on the south but protected from the wind; the advanced cases will be housed in two-story wards provided with shelters, which can be thrown open when this is thought necessary. The mortuary will consist of two autopsy rooms and a demonstration room, which will accommodate between 75 and 100 students.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

The Indian Medical and Nursing Services.—Last week Mr. Kelly put a series of questions to the Under Secretary for India, of which the first related to the resolution passed last September by the Bombay Medical Union, and to the belief among Indians that the main obstacle to a reform of the medical service was the desire to reserve the highly paid posts for the people of this country. Mr. Montagu replied that the Secretary of State for India was not acquainted with the resolution referred to, but if, as stated, it had been sent to the proper authorities in Bombay for transmission to him, it would doubtless reach him in due course. He was not aware of the existence among Indians of any such erroneous belief as that referred to in the

concluding portion of the question. Answers given to similar questions in this Parliament and the last, and the papers laid before Parliament, to which he would refer the hon. member, afforded ample evidence of the efforts that were being made to widen the field in regard to medical appointments. With reference to the opening of the nursing profession to Indian women, Mr. Montagu said that the General Hospital, Madras, was supported entirely from Indian revenue. As this was the principal State hospital in Madras, and received many European and Eurasian patients, it seemed advisable that the matron, assistant matron, and head nurse should be Europeans or Eurasians trained in European hospitals. Such training was hardly available for Indians. The diffusion of a knowledge of medical matters among Indian women, the importance of which was fully recognized, was promoted by schools for the training of nurses attached to this and to other large hospitals in India.

Madras Medical College.—Mr. Kelly asked the Under-Secretary of State for India whether there were under the senior assistant professor at the Medical College, Madras, and the senior assistant surgeon, General Hospital, Madras, Indian civil doctors with university qualifications sufficient to enable them to be registered under the Medical Acts and to be recognized as medical practitioners in this country; whether the present holders of these posts were military assistant surgeons who had only four years' course of studies prior to qualification; whether he was aware that military assistant surgeons were not allowed, according to the Army Regulations, to use the knife, and were allowed to perform only the duties of dispensers and apothecaries as long as they were attached to military hospitals; and what was the number of natives of India who had so far filled these posts. Mr. Montagu replied that there appeared to be no Indian Civil doctors with the qualifications indicated under the senior professor at the Medical College Madras. As regards the status of the latter officers, he referred the hon. member to the answer given by his predecessor to the question by the hon. member for Galway North on October 21st last. It was not possible to state what number of natives of India had filled these posts. He was not aware of any rule forbidding military assistant surgeons to perform operations.

Infantile Mortality.—The President of the Local Government Board informed Mr. Armitage that the rate of mortality amongst children under 5 years of age in England and Wales in 1901–8 was as follows:

Year.	Death-rate per 1,000 living.
1901	54.1
1904	51 6
1905	44.7
1906	45 3
1907	40 9
1908	40.6

Disinfection of Schools.—Mr. Ramsay Macdonald asked the President of the Board of Education whether the practice adopted in Scotland, and set out in the memorandum entitled the Cleansing and Disinfecting of Schools, was enforced in England; and, if not, if he would explain why such precautions should not be observed. Mr. Runciman replied that the Code of Regulations for Public Elementary Schools required that the school premises must be healthy and must be adequately lighted, warmed, ventilated, cleaned, and drained. The Board of Education had not so far put forward any specific recommendations as to methods of cleansing or disinfection. He was confident, however, that adequate precautions would be observed in this respect if the local education authorities acted in co-operation with the local sanitary authorities. In answer to a further question as to whether there were not special instructions given in Scotland as to cleaning after infectious disease, Mr. Runciman said that he was informed that the memorandum issued by the Scottish Office was issued in the form of a recommendation to the local authorities, and was not an ordinary regulation. In so far as it might be wise to issue such a recommendation to the local authorities in England, he would consult the President of the Local Government Board to see if they could act together in this matter.

Lead Poisoning.—Mr. Clynes asked whether the Home Secretary's attention had been called to a case of alleged lead poisoning at Pilkington's tile works, Clifton Junction, Manchester; whether the medical referee heard the medical attendant attached to the works without also hearing the medical attendant of the workpeople, and the judge therefore referred the case back; and what action his department had taken or would take in the matter. Mr. Churchill said that his attention had been called to this case. Where an appeal was made to the medical referee in a case under Section 8 of the Act both parties received notice from the referee of the time and place of the examination, and both were empowered, if they so chose, to send a representative or to make a written statement. In the present case the employer's medical man attended; the worker put in a written statement, but her medical man did not attend. The medical referee was, in these circumstances, acting in accordance with the law in deciding the case; but he understood that, at the request of the judge, he was about to re-open it and to hear the worker's representative. There did not appear to be any grounds on which the department could take action in the matter. On a later day Mr. Clynes asked about a second case of lead poisoning at the same works, and the Under Secretary replied that notification of lead poisoning in a person who was previously employed at these works, but who left in May last, had been received in the Department. The Secretary of State understood that the certifying surgeon refused to give a certificate of disablement under Section (8) of the Compensation Act, but that an appeal against his decision had, on reference to the medical referee, been allowed. On receipt of this decision, Messrs. Pilkington at once arranged to pay compensation. He might add that these were the only two cases that had occurred at their works, and that in both cases the women had left their employment for many months before the claim arose.

Glanders.—Mr. Charles Bathurst asked on Tuesday whether the Board of Agriculture had offical information showing that no case of glanders or farcy in horses had occurred in Ireland since November, 1907; and whether, in view of the fact that there had been no material diminution during the last few years in the large number of horses attacked by the disease in Great Britain, the Board would confer with the officials of the Department of Agriculture and Technical Instruction in Ireland as to the best methods of eradicating the disease in this country. Sir E. Strachey said: The reply to the first part of the question was in the affirmative. No useful comparison could be made between Great Britain and Ireland. The regulations in Great Britain were more stringent than in Ireland. In Great Britain last year there were only 536 outbreaks as compared with 1,066, 854, and 789 in the years 1906–7–8. A comparison of the number of horses "attacked" prior and subsequent to 1908 did not afford any guide as to the prevalence of the disease, inasmuch as "reactors" under the provisions of the Glanders or Farcy Order of 1907 were included in the returns for 1908 and subsequently, but not previously. The officers of the two departments were in continuous communication with one another both on this and other matters in regard to which they had similar duties to perform.

Death from Anthrax (Shipley).—In reply to Mr. Jowett, the Home Secretary said that in connexion with the recent fatal case of anthrax contracted at the works

of Messrs. Campbell and Harrison, woolcombers, of Shipley, a branch of the woolcombers' syndicate, the department had received a report, together with the depositions taken at the inquest. An exhaustive examination of the existing conditions at the works had been directed. The following table showed the number of cases of anthrax that had occurred at Messrs. Campbell and Harrison's factory and at all the factories of the combined firms of Woolcombers, Limited (including that of Messrs. Campbell and Harrison) from January 1st, 1900, to the present time:

Year.	Campbell and Harrison.			Woolcombers, Limited, including Campbell and Harrison.		
	Non-fatal.	Fatal.	Total.	Non-fatal.	Fatal.	Total.
1900	2	2	4	2	2	4
1901	—	1	1	—	2	2
1902	2	—	2	2	—	2
1903	2	—	2	6	—	6
1904	1	—	1	3	—	3
1905	5	6	11	7	10	17
1906	4	3	7	6	4	10
1907	2	—	2	5	—	5
1908	2	1	3	3	2	5
1909	5	—	5	6	—	6
1910 (to date) ..	—	1	1	—	1	1
Total	25	14	39*	40	21	61

*Not including a housewife (non-fatal) in 1903, whose husband, son and sister, all worked in this factory.

Formaldehyde and Chilled Meat.—Mr. Burns stated last week, in reply to Mr. Hamilton Benn, that the use of the formaldehyde process in the preservation of chilled meat was a subject which had been carefully investigated by his department, and detailed information regarding the process was contained in the published Food Report, No. 9, to the Local Government Board. That report showed that the process had been used in such a way as to introduce material quantities of formaldehyde into the meat. To this there was serious objection, but he was advised that it was not essential to the process, and he had been in communition with the importers concerned with a view to a limitation in the amount of formaldehyde employed. Recent samples had shown a marked improvement in this respect. The process remained under careful observation, and in present circumstances it did not seem necessary to take steps to prohibit its use.

Deaths from Camping in Wet Weather.—Sir William Crossley asked the Secretary for War whether he had had any report of the number of deaths from pneumonia and phthisis which had taken place during the past six months amongst the Territorials present at last year's camps owing to peculiarly wet conditions. Mr. Haldane answered in the negative. The deaths of members of the Territorial Force who might die after the closing of camps were not specially reported to the War Office unless they were treated in military hospitals. Only one case had been reported to the War Office of a death from pneumonia. The regulations provided that if, in the opinion of the medical authorities, the conditions prevailing when camps were in progress rendered it necessary to provide tent bottoms, they might be issued. They were not ordinary articles of camp equipment. Waterproof ground sheets were issued when tent bottoms were not supplied.

Sleeping Sickness in the Congo.—In answer to Mr. Rees on Monday, Colonel Seely said that he understood that, after consultation with King Albert, the Belgian Minister of the Colonies had decided to organize an expedition to go to the Congo to study sleeping sickness and to find means, if possible, to remedy it. He had no doubt that the British authorities engaged in the investigation and prevention of the disease would be ready to co-operate, as far as was practicable, with the Belgian expedition.

Typhoid Fever at Funchal (Madeira).—Mr. Staveley Hill called the Foreign Secretary's attention to the outbreak of typhoid at Funchal, and asked whether the authorities at Lisbon had converted the mountain water to relieve the distress caused to British visitors by the neglect of the municipality to provide proper drinking water. Sir Edward Grey replied that, according to information which he had received from Madeira, the cases of typhoid fever had been practically confined to one hotel, there being only four or five other cases in the rest of Funchal. The question of approaching the Portuguese Government with a view to the improvement of the water supply had been brought to his notice and to that of His Majesty's Minister at Lisbon, but it did not appear to be a matter in which he could properly intervene officially.

THE WEST AFRICAN MEDICAL STAFF.

THE Secretary of State has approved the recommendations of the Advisory Medical and Sanitary Committee for Tropical Africa regarding the regulations to be applied to officers who have reached the maximum rate of pay receivable by those in the initial grade of the service, £500 a year. The recent Departmental Committee recommended that for the benefit of such officers a new grade should be created, those appointed to it being entitled first class medical officers, and the scale applied to them being £500, rising by increments of £25 annually to £600 a year. The suggestion of the committee was that admission to the proposed new grade should be on the recommendation of the principal medical officers, who would submit a report concerning all officers approaching the end of the fifth year of their service, stating whether they were recommended for promotion to the new grade. On an officer being thus recommended he should be required to undergo, when he next went on leave, a course of study of not less than three months' duration, and subject to his obtaining a certificate of satisfactory attendance, diligence, and proficiency, should be promoted to the new grade as soon as he had completed five years' service, and had, therefore, reached the maximum pay of his existing rank.

The course of study now officially approved is three months' study either at the West London Post-Graduate College, or the London School of Clinical Medicine, Greenwich (or such other post-graduate course as may be approved by the Secretary of State on the application of the governing body concerned), in clinical medicine, clinical surgery, and pathology, but the following may be substituted:

1. The course of study and examination for a recognized diploma in public health, sanitary science, or State medicine; or
2. The course of study and examination for a further medical or surgical diploma or degree (in this case no fees will be paid by the Colonial Government, and the officer will only be given his railway fare and the ordinary allowance for lodging expenses); or
3. If the governor, on the recommendation of the principal medical officer, approves, a course of study in some special branch of medical or surgical practice—for example, ophthalmology, dentistry, dermatology, genito-urinary diseases, etc.—or an advanced course at the London or Liverpool School of Tropical Medicine.

In regard to the application of these arrangements to existing officers, it has been decided that in making their recommendations as to what officers of upwards of five years standing shall be placed on the new scale, the principal medical officers shall not take into consideration the question whether the officer has already taken his course of post-graduate study of any kind. All medical officers recommended must take the approved course, or one of the approved substitutes for that course, unless they claim exemption and are accorded it by satisfying the Secretary of State that they have already taken such a course.

Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

The Treatment of Consumptives in Edinburgh.

A further stage in the evolution of the antituberculosis organization is marked by the purchase of the mansion house and lands (extending to about 50 acres) of Springfield, near Lasswade, for conversion into a farm colony. Within a month or two it is hoped that 20 or 25 patients drafted from the hospital will be working on the lands and in the gardens of the colony. In those cases in which the progress of the disease has been arrested by treatment in the hospital, the patients will be passed on to the farm colony to continue their cure and fit them for situations in which they may work without injury to their health. The work there will be graduated to the condition of each patient. First, there will be absolute rest, then some easy walking exercise; later, light work in the open air, until the time comes when from three to six hours may be faced. Springfield stands about 280 ft. above sea level, and has a mild climate, as evidenced by the luxuriant vegetation. The estate is well wooded and sheltered. A farm grieve, with practical experience of farming, has been engaged from Lord Rosebery's estate at Dalmeny, and under his guidance a few men from the Victoria Hospital are already at work, preparing the ground for vegetables and fruit trees. It is intended this year to take a crop of potatoes off the ploughed land, extending to about 10 acres, and Lord Rosebery, who is taking the greatest interest in the scheme, has undertaken to provide the necessary supply of seed potatoes. Poultry rearing is to be another part of the work of the colony, and here again Lord Rosebery has lent a hand by sending some fine Buff Orpingtons. These, with several other breeds of fowls already on the ground, are paving the way for future progress. Incubators are in use and a field of not less than 5 acres on a sunny southern slope is to be given up to poultry rearing. About 100 eggs were sent from Springfield to the Victoria Hospital during the past week. Pigs also are to be reared. The mansion house will not require much alteration to fit it for its new purpose. There are large glass houses where it is intended to grow tomatoes. The accommodation for the patients is ample and comfortable.

Dr. A. Macpherson, of Blackhall, a former assistant at the Victoria Dispensary, has been appointed Resident Medical Officer and Superintendent of the Colony.

The Diminution of Infantile Mortality in Edinburgh.

The report by the voluntary health visitors in connexion with the Public Health Department of Edinburgh for the year 1908–9, just issued, touches upon many matters of vital importance in connexion with the prevention of infantile mortality, and is of great interest as showing the measures which the Public Health Department in Edinburgh is developing in order to cope with the scourge.

Organization.

In the beginning of December, 1908, and immediately following upon the appointment of an official health visitor for the city of Edinburgh, an offer made by a subcommittee of the Charity Organization Society to the Public Health Department, for the purpose of organizing a band of voluntary health visitors to assist in the effort to reduce the excessive rate of mortality among infants under 12 months, was cordially accepted. The principles observed in organizing the voluntary help were:

1. The utilizing of visitation as already found; and
2. Co-operation with existing educational, medical, and relief agencies.

The parish areas were used, and the various Church and other agencies invited to share in the effort. Where an area had no means of meeting the demands for this definite service, external aid was introduced. To prevent the effort from taking the form of a new relief agency, each captain of an area was provided with printed details of available medical aid, available food and clothing schemes, and with cards giving full information about charity organization centres for information and help. Working on these principles, the work of organization went forward with gratifying rapidity, forming a bond between all sections of workers interested, from whatever point of view, in social problems.

Method of Work.

The Notification of Births Act, adopted by the city of Edinburgh last year, gives the Public Health Department a knowledge of the birth of children within thirty-six hours. When the notices come from homes where no paid qualified medical man has been in attendance the official health visitor pays an initial visit, notes conditions of homes, etc., and passes on slips with the information to the secretaries of the voluntary visitors. The secretaries receive the notes each week, distribute the cases to the captains of the various areas, and the captains in turn distribute them to the individual visitors. The visits must be paid fortnightly, in cases of illness much oftener, and a short written report is given each fortnight to the Public Health Department.

At fortnightly meetings held in the City Chambers on Saturday mornings, general points of business and development are discussed, and the written reports received. The captains of the areas meet on the first Monday of each month.

Aim and Development.

A large part of the city has already been thoroughly organized. It is believed that concentration on the health of young children will result in the evolution of principle, the gradual uplifting of motherhood to the standard required by the city.

Rules.

I. All cases on a visitor's list shall be seen at least once a fortnight.

Any case which is not thriving or is ill should be seen oftener.

II. A card shall be kept with register of the visits paid, and remarks on the condition of the child and of the house.

III. Once a fortnight a written report of all the children visited shall be given in to the superintendent at the Council Chambers, at an hour to be arranged.

IV. In all cases the visitor shall encourage the mother to nurse the child herself.

If the child is not thriving the visitor may verify this by having the child weighed at the Hospice, 219, High Street, and, if necessary, directions should be given the mother regarding her own diet. In the case of the child continuing to lose weight the family doctor should be called in or the child sent to the Sick Children's Hospital or to a dispensary.

In no case shall a visitor advise a mother to cease nursing her baby without the approval of a doctor.

V. All children on artificial feeding should be weighed regularly at the hospice.

VI. In sending children to the Sick Children's Hospital or to a dispensary, visitors shall, in every case, supply a card to the mother, which shall be shown to the doctor, stating that the child is being visited under the Public Health Department.

VII. Any cases of urgency not referred to in the foregoing rules should be communicated forthwith to the Public Health Department.

Between the end of December, 1908, and November 15th, 1909, 803 babies were placed under visitation; of these 52 died, 55 families removed and were lost sight of, and 9 left Edinburgh.

Education of Health Visitors.

During last session a series of lectures for health visitors by various medical men and women in Edinburgh was organized. The lectures were largely attended, and for the present session courses of lectures, both junior and senior, have again been arranged.

Education of Mothers.

Last winter, by permission of the School Board of Edinburgh, a room in Milton House Public School was placed at the disposal of the executive for a set of lectures to mothers. The meetings were held on Thursday evenings at 8 o'clock, and the attendance varied from sixteen to thirty. As the Social and Sanitary Society has an admirable scheme of health

lectures available for mothers' meetings, the executive felt that this need was already being so fully met that further efforts on this line would lead to overlapping of energy, so it was agreed that, from time to time, intimation of these lectures should be made to the visitors, and that the leaders of mothers' meetings should be urged to utilize them.

This winter the School Board has organized a set of cookery lessons for mothers. The programme has arranged to include four demonstrations, and sixteen practical lessons in the simplest, most nutritious, and economical cookery.

Weighing of Babies and Pure Milk Supply.

In January, 1909, the Medical Committee arranged that infants under the charge of voluntary health visitors, might, when necessary, be weighed at the hospice. In February seven infants were weighed. The numbers thereafter gradually increased, and in November twenty-three infants were sent for weighing. The total number of weighings for the ten months ending November 30th were 301. At the weekly weighings the mothers are given advice as to the feeding of their infants, every effort being made to encourage breast-feeding.

Arrangements have also been made for the weighing at their own homes of infants which cannot be brought to the hospice, and in November six cases were dealt with in this way.

In connexion with the hospice there is a milk dépôt for infants. In the first half of the year the milk used was Buddeised milk, but since the end of July the milk has been undiluted pasteurized milk from tuberculin-tested cows. It is supplied by the company which supplies the City Hospital, and the dairies and byres are subject to the inspection of the Medical Officer of Health of Edinburgh. The milk is put up in sealed bottles in wire baskets. Each bottle contains one feed of milk and the baskets contain a sufficient number of bottles for one day's use. The milk is supplied at the rate of 1s. to 2s. a week.

Sample cradles are sold to mothers for 1s. each, and a "clothing department" has been originated which it is intended shall eventually carry out orders given by the mothers through the visitors and be a means of encouraging the mothers to contribute to a provident fund. In some of the districts bags of baby clothes are made, and are lent in cases of distress.

THE ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN.

The directors' report of the work of this hospital for 1909 contains several items of considerable interest. In this hospital, contrary to the custom of many Continental and most American children's hospitals, infants form a large percentage of the cases treated as in-patients. Of the 2,037 cases admitted to the wards during the year, 432 were under 1 year of age, and 328 were between 1 and 2 years. In the out-patient department the proportion of infants is also high, and as in both classes of cases the success or failure of medical treatment very largely depends upon proper dietetic facilities, the questions of the supervision of the milk supply and the modification of the milk are highly important for the in-patients, while even more for the out-patients is a reliable source of variously modified, bottled milk a necessity. Lacking it, medical advice and medicines must always be woefully insufficient, and though the directors of the hospital, by appointing a lady visitor to superintend the carrying out of instructions in the home have undoubtedly taken a step in the right direction, it is expected that in the near future they will take steps to make it possible more directly and scientifically to treat disease by affording facilities for the securing of satisfactory nourishment for the infant patients. On its more purely scientific side the hospital has been greatly strengthened during the past year by the development of facilities for bacteriological and pathological work and by a considerable expenditure on laboratory equipment.

MEDICAL INSPECTION OF SCHOOL CHILDREN.

The following scheme of the Ross and Cromarty Education Committee was approved by the Scottish Education Department on March 8th, 1910:

1. For the purpose of school medical inspection and supervision the county shall be regarded as one area (including all burghs).
2. The staff shall be *for the present* the medical officer of health for the county, at an honorarium of £50. Two medical officers under him—one for (A) the mainland section of the county (excluding the parishes of Applecross, Lochcarron, Lochalch, Kintail, and Glenshiel); (B) the Island of Lewis, with the mainland seaboard parishes excluded from District A.
3. In the case of District A the duties shall be mainly those of school medical inspection and supervision, and the balance of that officer's time shall be given to public health administration, such co-operation to be arranged between the county council and the district committees, without any further cost as to salary.
4. Both officers appointed to Districts A and B shall be debarred from private practice and parish council appointments, and must give their whole time to their duties.
5. The officer in District B must have the Diploma of Public Health, and the officer in District A, if not having this qualification, must obtain it within three years from the date of appointment.
6. The salary of the officer in District A shall be £250; in the case of the officer in District B £250, rising to £300. Maintenance charges will be 15s. per night of necessary absence from head quarters, and reasonable travelling allowances will be made on a scale to be afterwards fixed.

EDINBURGH SCHOOL BOARD'S SKIN DISEASES SCHOOL.

A considerable amount of feeling has been displayed in connexion with the decision of the Edinburgh School Board to establish in Lauriston Place a special school for children suffering from skin diseases. A public meeting was held in the Oddfellows' Hall on March 8th for the purpose of protesting against the establishment of such a school in the neighbourhood selected. Dr. Michael Dewar presided over a large gathering, and in the course of his remarks said they were not opposed to the establishment of a skin diseases school, in fact they were very much in favour of it; what they objected to was the site which had been selected for it. After some discussion, the following resolution was declared to be carried: "While expressing approval of the School Board's decision to establish a school for children suffering from contagious skin diseases, they strongly protest against the school being located at 41, Lauriston Place, on the ground that Lauriston Place, being one of the busiest thoroughfares in the city, and one of the most frequented by children from many districts, is very unsuitable as a site for such a school, and they are of opinion that any building used for this purpose should be separate from private residences."

GLASGOW ROYAL INFIRMARY CLUB.

At the annual dinner of the Royal Infirmary Club composed of past residents and members of the staff, over which Dr. G. A. Heron, London, presided, the secretary reported that the club was now well established with a roll of 180 members; past residents desiring admittance should apply to Dr. Scott, 103, Hyndland Road. The Chairman proposed the toast of "The Royal Infirmary," remarking on his association with it during the years 1863–1868 and the contrast between the surgery of those days and now. Dr. Wm. R. Sewell replied to the toast, and related incidents of his residence at the infirmary in 1875. Dr. Jas. A. Adams, in proposing "Past and Present Residents," said that the first superintendent in 1830 had to act as physician, surgeon, and even as matron; while Dr. Fergus, who replied, drew attention to the amount spent that same year (1830) on leeches for use in the infirmary. The sum was £77 19s., and as they cost 7s. a hundred the total used was over 22,000.

GLASGOW INFIRMARIES AND THE COMMON GOOD.

A very interesting point is at present before the Finance Committee of the Glasgow Corporation. A request for a contribution from the "Common Good" Fund of the city, for the Glasgow Royal Infirmary, was made by a deputation from the governors of the infirmary on the ground of the great public service rendered by the institution to the whole

community. Should such a grant be made, it is, of course, realized that other similar institutions will lodge similar applications, and the whole question of payments from the city funds towards the maintenance of the charitable and other institutions in the city will come under review.

GLASGOW SAMARITAN HOSPITAL.

The difficulties which the smaller hospitals experience in collecting sufficient funds to meet the ordinary expenditure leads to the adoption of somewhat out of the way methods of raising funds. The Samaritan Hospital last year was exceptionally successful in this respect, as it received over £1,500 as the result of a special fancy dress ball, and £130 from a theatrical production. Even so it was necessary to transfer over £600 from the extraordinary revenue to meet the deficiency of £1,234 in the ordinary income of 1909, and the deficiency of £1,151 carried forward from 1908. Owing to the legacy of £10,000 obtained from the Dick Bequest, the hospital this year was able for the first time to close its financial year with a large sum to the good. Still, the hospital buildings are not yet complete; a new laundry and a properly equipped laboratory for research purposes are required, and it is estimated that they will cost about £6,000. The Muirhead trustees have decided to found in connexion with the hospital a post-graduate scholarship for women graduates willing to undertake original research.

NURSING AND HYGIENE COMPETITION.

The annual competitions for the Hedderwich Cup and Anderson Cup of the St. Andrews Ambulance Association was held in Glasgow on March 12th. The cups are competed for by teams of four from the various sections of St. Andrews Ambulance Corps throughout Scotland, the Hedderwich Cup being for teams of ladies, and the Anderson for teams of men. The subjects of examination are general knowledge of home nursing and hygiene, and also practical work, such as bed making, lifting patients, application of remedies, preparation of poultices, fomentations, etc. The arbiters were Dr. P. F. Shaw, Glasgow, and Miss H. Gregory Smith, Matron of the Western Infirmary, Glasgow. A team from the Edinburgh Women's No. 1 Section secured the Hedderwich Cup, while a team from the Leith and District Section won the Anderson Cup. In each competition an Edinburgh team also obtained second place. Gold badges are awarded to the individual members of the winning teams.

Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

RESEARCH DEFENCE SOCIETY.

THE Dublin Branch of the Research Defence Society held its first annual meeting on March 15th in the theatre of the Royal Dublin Society under the presidency of Sir Charles Ball. The report stated that it was the experience of the Committee that even within the single year of its existence the Dublin Branch had proved of immense use in spreading a knowledge of the truth about experiments upon animals, and of the regulations under which these experiments were conducted, as well as of their importance to the welfare of mankind. The Committee was of opinion that it needed only a more widely-spread knowledge of the facts to counteract the influence which had been gained over so many of the public by those who are opposed to experiments on animals. The adoption of the report was proposed by Professor Symmers, seconded by Professor Culverwell, and unanimously carried. A committee for the ensuing year was then appointed, and the proceedings terminated.

QUEEN'S UNIVERSITY, BELFAST.

The annual dinner, formerly of the college, now of the university, was held on St. Patrick's Day, March 17th, in the large examination hall. This is the first annual dinner of the university. The Vice-Chancellor (Rev. Dr. Hamilton) occupied the chair. After the loyal toasts, Sir John Byers, M.D., who proposed the toast of "The Lord Lieutenant and Prosperity to Ireland," after saying that all sympathized deeply with Their Excellencies in their recent tragic bereavement, went on to observe that Belfast should not try to make the university a replica of any pre-existing one on the other side of the Channel, but should seek so to develop and model it that it might take colour from its environment, and in time have an individuality of its own. He trusted that in that university of Belfast every type of Northern Irishman would commingle, animated with the patriotic desire to advance the reputation of their country in every branch of intellectual effort. One of the most important features of their new university—in the success of which Their Excellencies rejoiced—was their medical school (academic and clinical), and the medical men of the North of Ireland would never forget under what a debt of gratitude Lord and Lady Aberdeen had placed them in not only coming to the late annual meeting of the British Medical Association (of which they were both now honorary members), but for the deep interest they had taken in all its proceedings. Professor Baxter, in reply, said that, as one who had the honour to represent Dublin University, he could say that the foundation of Elizabeth wished well to the foundation of Victoria, for, though Queen's was made a university under Edward, it looked back to Victoria. Professor Henry, in proposing the toast of "The Queen's University," said whatever fears there had been as to the success of the university had been dissipated during the course of the year. The machinery which the Commissioners had given them had worked from the beginning almost without a hitch. The university had embarked upon a voyage which he hoped would be long and prosperous. The toast was coupled with the name of the Vice-Chancellor. It was many years since the Vice-Chancellor first conceived the idea of a university for Belfast. He had held to it through many discouragements that might have made even him depair, but this year he had seen his hopes fulfilled, and in their names and his own he tendered to the Vice-Chancellor his heartiest felicitations.

The toast having been enthusiastically drunk,

The Vice-Chancellor, in responding, said if they were not satisfied with the progress made during the twelve months they would indeed be hard to please. The people of the North of Ireland had shown their confidence in the university by sending their sons and daughters, and now the Building Committee was looked to in the hope that they would provide new buildings. The Students' Union would be enlarged, and the medical buildings would also be added to. The Students' Union, which was at present far too small for the demands made upon it, might be extended and the library accommodation greatly increased, while two great blocks would be erected which would add enormously to the appearance of the western facade, which since its erection was one of the architectural glories of Belfast. During the last year there had been an amount of activity and work shown in the women's hall and other departments which was not known before. He looked forward to seeing in the near future a faculty of applied science, which would enable them to provide for a great manufacturing centre. They were bound not only to educate men and women for the old learned professions, but those who in the future were to be their great captains of industry.

THE PREVENTION AND TREATMENT OF TUBERCULOSIS.

Hospitals' Tuberculosis Committee.

At the second annual meeting, over which Sir John Moore presided, of the Hospitals' Tuberculosis Committee, a series of reports from the doctor and nurses who are occupied in special tuberculosis work in the city and its suburbs was submitted and approved. All these reports make most encouraging reading, and prove how much good can be done over an extensive district by a small number of enthusiastic workers.

In addition to disseminating information concerning the methods of preventing infection, the nurses have been the means of providing food, clothing, and coal to a large number of families rendered destitute by disease of the father. They have also succeeded in obtaining the admission of several tuberculous patients into various institutions. The Holiday Home at Sutton for weakly but non-tuberculous individuals has proved a great boon during the year, several of its inmates having been restored to robust health. The Samaritan Committee also has done good work, and deserves much greater financial support from the public. Although the committee had only a little over £100 at its disposal, it was able to supply nourishment to 107 families, to provide clothing for 98 patients, and to pay the rent for 17 families during the time that the breadwinner was under treatment in a sanatorium. Through its agency also 89 children of parents suffering from tuberculosis were sent for varying periods to the country. The tuberculosis district nurses, three in number, paid over 7,000 visits to patients at their own homes in the last twelve months.

National Hospital for Consumption.

The report of the National Hospital for Consumption, which was presented at the eighteenth annual meeting of the supporters of this institution, stated that during the past year 467 cases had been under treatment, and that only 5 deaths had occurred. In spite of the large number of cases treated, the applications for admission far exceeded the available accommodation, and the Board called attention to the urgent necessity for the establishment by the local authorities throughout Ireland of local sanatoriums, a step which is now rendered possible by the recent Irish Tuberculosis Act. The report also points out that of the cases admitted in the early stage of the disease 96 per cent. showed improvement, while only 53 per cent. of those admitted in a more advanced stage showed any evidence of improvement. Apart from its direct value in individual cases, the Board rightly insist on the importance of a sanatorium as an educating force. During the eighteen years of its existence 3,500 patients have passed out of the hospital, all of whom had learnt the value of sunshine and fresh air, and who, going to different parts of the country, had been in a position to make known to a wide circle the facts of which they had gained a practical knowledge.

Decrease of Tuberculosis in Dublin.

Speaking at a recent meeting of the Terenure Branch of the Women's National Health Association, Lady Aberdeen quoted some previously unpublished statistics of the Registrar-General for Ireland to prove that there has been a striking decrease in the deaths from tuberculosis in the Dublin registration area during 1909. As compared with the previous year the deaths from pulmonary tuberculosis, which numbered 1,049, decreased by 125, and those from all forms of tuberculosis 1,508 in number, decreased by 234. While recognizing the possible significance of these figures and the encouragement that might be gained from them, we think it unwise to draw any deductions from them at present, as to do so would only give the opponents of the Anti-Tuberculosis Campaign an opportunity for effective criticism, if in subsequent years the improvement was not maintained or if any increase in mortality should be recorded.

Tuberculosis Prevention Act.

The Pembroke Urban District Council have decided to adopt the provisions of Part I of the Tuberculosis Prevention Act of 1909—the Act to come into operation on May 1st, 1910.

THE WOMEN'S NATIONAL HEALTH ASSOCIATION.

The Cork branch of the association still continues its active crusade. A series of lectures are being delivered by one of its officers to the poorer classes on the care of the young, and the most gratifying interest is being evinced by the listeners. A special feature of the work of the association consists in addresses to mothers at the Mothers' and Babies' Club which has recently been established in the city as an auxiliary to the National Health Association. Unfortunately the sanitary authorities in the city have not yet taken the necessary step of appointing a woman health visitor, and the duties which might be discharged by such an officer have to be undertaken by voluntary effort.

ST. PATRICK'S NURSES' HOME.

During last year the staff of St. Patrick's Nurses' Home consisted of a superintendent, a district superintendent, from four to seven staff nurses, and from four to five Queen's candidates, and as this number of officers paid over 45,000 visits to 2,309 cases it may be concluded that the Home is being worked in a thoroughly efficient manner. The institution is entirely unsectarian, and by its means numerous incurable cases amongst the poor are systematically looked after. Some months ago Miss Hughes, General Superintendent of Queen Victoria's Jubilee Institute, inspected the Home and the work of the nurses in the district and reported that a high standard was consistently maintained.

England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

LEEDS.

INSTALLATION OF CHANCELLOR.

THE university had for its first Chancellor the Marquis of Ripon, one who from the earliest phases of the Yorkshire College had taken the greatest interest in its development. The Marquis of Ripon was appointed by the Crown on the formation of the university, and the charter provides that all his successors should be appointed by the Court of the University on the nomination of the Council. The choice has fallen on the Duke of Devonshire, and the university is fortunate in having received the cordial consent of His Grace to act in that capacity. It may be remembered the late Lord Frederick Cavendish was president of the Yorkshire College, and every one interested in the university will recognize as singularly fitting and welcome the renewed connexion of the university with the house of Cavendish. The installation of the new Chancellor will take place on June 11th.

CHANGES IN THE SURGICAL TEACHING STAFF AT THE UNIVERSITY.

Consequent on the resignation by Professor Littlewood of the chair of surgery certain changes in the personnel of the teaching staff of the university have come about. A committee of the council of the university having been appointed to discuss the advisability of increasing the amount of clinical instruction and lessening the number of systematic lectures, recommended that a professorship of clinical surgery should be instituted, and that the number of systematic lectures on surgery should be reduced to about forty, which would allow for two lectures a week during the working weeks of the second and third terms. These lectures, it was recommended, should be delivered by the new holder of the chair of surgery, who should carry on the title of professor of surgery. The council, acting on the recommendation of the committee, has appointed Mr. R. Lawford Knaggs, M.D., M.C., F.R.C.S., to this position. Mr. Knaggs has for some years been the lecturer on practical surgery. The duties of the professor of clinical surgery will be to deliver one lecture a week during the first term. These lectures may be given at the school of medicine or at the infirmary, and will of course in no way take the place of the clinical lectures which are at present delivered every week by the various members of the honorary staff of the infirmary. To this new professorship the council, acting on the recommendation of the committee, have appointed Mr. B. G. A. Moynihan, M.S., F.R.C.S. Mr. Moynihan's connexion with the teaching of clinical

surgery in Leeds is, of course, well known, but all his colleagues on the Board of the Faculty of Medicine and on the Senate of the University will welcome the more intimate association with the work of the university which must result from his new appointment. Some years ago Mr. Moynihan was one of the honorary demonstrators of anatomy, and his Arris and Gale lectures were, in part, based on investigations he undertook in that department. As lecturer on practical surgery Professor Knaggs is succeeded by Mr. Walter Thompson, and Mr. J. F. Dobson has been elected to fill the vacancy created by Mr. Thompson's transference in the lectureship on operative surgery.

LONDON.

THE PADDINGTON TUBERCULOSIS DISPENSARY.

THE Tuberculosis Dispensary in Paddington, the first institution of the kind to be established in London, held its first annual meeting on March 17th, when the Mayor of Paddington, Mr. H. H. Fuller, presided over a large meeting, which included Princess Marie Louise of Schleswig-Holstein. The report showed a very satisfactory year's work, 887 patients having been attended at the dispensary in the first twelve months. It is noteworthy that a large proportion of the patients were referred to the dispensary from St. Mary's Hospital and from medical men in the district, showing that the work of the institution is appreciated not only by the public medical charities, but by the private practitioners with whom its aim is to co-operate and not to compete. The main feature of the work of such a dispensary consists in the visits to the homes of the consumptives to encourage and assist them in carrying out directions for treatment, and for safeguarding their families from infection.

After some preliminary remarks by the chairman, the meeting was addressed by Dr. R. W. Philip, of the Royal Victoria Hospital for Consumption, Edinburgh; Sir Malcolm Morris, K.C.V.O., and Dr. Dudfield, M.O.H. for Paddington, chairman of the committee of the dispensary.

Dr. Philip, in an excellent address, sketched the requirements for the campaign against tuberculosis, and emphasized the essential importance of getting at close grips with the disease by visiting the home of the consumptive, where, above all other places, the conditions on which the spread of the disease depends were to be found and combated. He gave the experience of similar work in Edinburgh, which had furnished the inspiration and the model for the work in Paddington, and enumerated the main particulars in which such a dispensary could act with advantage, filling in gaps in the general scheme of prophylaxis, which could by no other organization be so satisfactorily covered.

Sir Malcolm Morris pointed out that in order to achieve success knowledge and confidence were necessary—knowledge of what was required and confidence in the efficacy of the measures recommended to meet these requirements. The Paddington Tuberculosis Dispensary was certain of success, for its organizers possessed both knowledge and confidence. The report of the first year's work already justified that confidence. He expressed the conviction that this dispensary was only the first of a number of similar institutions which would soon be found in every borough in the metropolis. London, because of its huge size, was slow to move and was behindhand in this necessary factor in the prevention of tuberculosis; but having now been given a lead, other boroughs would be compelled to follow when they saw what good work such dispensaries could accomplish.

Amongst those present on the platform were Miss McGaw, the founder and joint secretary; Sir John Broadbent; Dr. Porter, medical officer of health for Marylebone; and Mr. Garland, honorary secretary, Sanatorium for Workers, Benenden.

THE INFANTS' MILK DÉPÔT AT LAMBETH.

The Public Health Committee of Lambeth Borough Council on March 17th recommended the Council—contrary to the advice of the medical officer of health, Dr. J. Priestley—to discontinue the municipal milk dépôt as a council undertaking, and to transfer it to a private firm. The committee pointed out that the establishment of milk dépôts had not yet been legalized, and suggested that the systematic visiting of newborn infants now carried out under the Notification of Births Act made the milk dépôt unnecessary, and further that there was not a sufficiently increased patronage to justify the cost.

Dr. Priestley reported that since February, 1906, when the dépôt was opened, 849 infants and children had been fed upon the milk (which had been humanized). There had been 59 deaths, giving a death-rate of 69.5 per 1,000, but taking only those fed on the milk for as long as six months, the death-rate was 22.7. Making allowance for the limited number of children in respect of whom the statistics had been compiled, it was evident that there had been a large saving of life among them as compared with the rest of the children in the borough, the general infantile death-rate of which varied in the different wards from 110.9 to 199.7 per 1,000. The Council only allowed a sum of £200 per annum, so that the administration of the dépôt had been restricted. The plant was capable of dealing with 400 to 500 children a day without proportionate increase of the expenditure. The excess of expenditure over income had risen from £206 in 1907 to £315 in 1909. In the debate no one—not even the Chairman—defended the Public Health Committee's recommendation, and by a considerable majority it was decided to continue the dépôt.

MANCHESTER AND DISTRICT.

THE DENTAL HOSPITAL AND THE DENTAL SCHOOL.

AT the annual meeting of the Manchester Dental Hospital, Professor Hickson spoke of the importance of the renovated hospital to the Manchester Medical School. It was hoped that through the hospital it would now be possible to establish in Manchester what has long been needed—a thoroughly efficient and up-to-date school of dental surgery. With such an institution and with the increasing number of dental students, there was no reason why the Manchester School of Dental Surgery should not be one of the best in the country.

The annual report of the committee showed that 19,088 patients had received treatment during the year, an increase of 2,368 over the previous year. The new building was opened early last year, and the report pointed out that £2,700 is still needed to free the building from debt. At the close of 1908, there was a deficit on the current account of £233, which had increased by the end of the year 1909 to £581. There are now fifty-four dental students on the books, which is the highest number ever recorded.

THE HOSPITAL FOR SKIN DISEASES.

At the annual meeting of the Manchester and Salford Hospital for Skin Diseases, the medical report stated that there had passed through the out-patient department 7,738 new patients, an increase of 269 on the previous year and of 1,056 on 1907. The figures for the in-patient department were practically stationary. There had been a marked decrease in the number of persons presenting themselves who were unsuitable for treatment, which was due to the fact that it was now becoming well known that strict inquiries were made as to the position and means of all applicants. A striking feature, however, was the great increase in the number of children of school age who had attended. The honorary treasurer stated that there was now a balance due to the bank of £711. It was fortunate that through the matron's efficient management there had been a reduction in the cost of up-keep. They had been able to feed the whole of the patients and staff at a cost of only 7¾d. a head a day. Owing to the Budget there was a great increase in the cost of spirits, which made a considerable item in the expenditure, and the treasurer believed that the Manchester Infirmary authorities had written to the

Chancellor of the Exchequer asking whether the spirits supplied to medical charities might not be obtained untaxed. Dr. Brooke, speaking for the medical staff, said the hospital had, *nolens volens*, become an adjunct of the Education Committees of Manchester and Salford, and there was fear that in time this would seriously tax its resources. The Lord Mayor, who presided, said the shortage of something like £600 a year was a serious matter, though for a comparatively new institution the hospital had done wonderfully well. The new building had been paid for, and the skin hospital was second to none in the world.

BIRMINGHAM.

THE BIRMINGHAM MEDICAL INSTITUTE.

THE annual report shows that the library now consists of 14,589 volumes, and that during the year 176 volumes were added, including 92 gifts, 30 purchases, and 54 bound periodicals. The reading-room is supplied with 65 periodicals; of these 39 are foreign and 26 British, 42 being presented and 23 purchased. During the year 815 volumes were issued to 109 borrowers. The members number 189, which is an extremely small list when compared with the great number of practitioners within the radius of fifty miles of Birmingham who are eligible for election. The expenditure was £495, and the income £469, so that there was an adverse balance of £26.

THE BIRMINGHAM HOSPITAL SATURDAY FUND.

The report for the year 1909 shows that the total receipts amounted to £19,689, which is £943 below the total of the previous year. The number of contributing firms was 2,171, against 2,153 in 1908. The position of the fund is more firmly established than it has ever been, and it is certain that with any improvement in trade the deficiency of last year will be more than made good. In October £10,000 was voted for distribution among the medical institutions of the city. The convalescent homes supported by the fund have done very valuable work during the year. At Tyn-y-Coed, Llanrhos, the convalescent home for men, the number of patients admitted was 1,123, as compared with 1,199 in 1908; but this decrease was due to some structural alterations which had been going on during the year. At Marle Hall, Llanrhos, the women's convalescent home, the number of patients was 1,228, as compared with 1,209 in 1908. At the Red House, Great Barr, the convalescent home for children, 539 children and 96 women were admitted, as compared with 568 children and 98 women in 1908. The total number of patients in 1909 was 2,986, as against 3,072 in 1908. The treatment at special hospitals of patients suffering from consumption is a very important part of the work of the fund; but fewer patients have actually been treated, owing to the limited accommodation available at the Eversfield Chest Hospital, St. Leonards-on-Sea, and the closing against all consumptive cases of the sanatorium at Weston-super-Mare. The committee report that the scheme for providing a consumptive home of their own as a memorial to the late Sir William Cook has made considerable progress, and it is expected that the Memorial Committee will shortly be able to make public their complete scheme. An eligible site not far from Birmingham can be procured on reasonable terms. During the year a number of firms have subscribed, and others have intimated their desire to specially contribute towards this scheme. It is hoped that the chief events of 1910 will be the opening of the new sanatorium and the increase of the fund to over £20,000.

THE next meeting of the Laryngological Section of the Royal Society of Medicine will be held on Friday next, April 1st, at the house of the Medical Society of London, Chandos Street. The temporary offices and library of the Royal Society of Medicine at 15, Cavendish Square, will be opened on Monday, April 4th.

Correspondence.

RISKS OF ANKYLOSTOMIASIS IN GREAT BRITAIN.

SIR,—Sir Thomas Oliver's paper read before the meeting of the Tropical Society in London in January, and commented upon in your issue of March 5th, draws attention to the very real danger of the spread of infection to Great Britain from other countries of ankylostomiasis. Our sanitary arrangements are fortunately more complete than in those tropical and subtropical countries where the disease has every facility for spreading, but there are many loopholes, even at home, which will suggest themselves, by means of which infection can extend; for instance, river-side bathing in summer amongst youths, when the warmth and moisture would be sufficient to hatch out any ova that in the course of nature found their way to earth. School-boys from infected colonies should be examined on arrival in England, and precautions taken against the spread of the disease. A patient of mine, who had become infected in Natal and had been under treatment for ankylostomiasis, returned to England last year, and there must be many other similar cases from infected centres arriving home; granted a favourable opportunity they would easily be the means of spreading infection.

There is no doubt that ankylostomiasis in the colonies has long been responsible for intractable anaemia in many instances, and in the light of Sir Thomas Oliver's recent researches and our increasing knowledge of the subject, it is not improbable that it will also be found here at home to be a serious factor to be reckoned with.—I am, etc.,

JOHN F. ELLIOTT,
Late Indian Medical Officer, Natal.

Rostrevor, March 12th.

CANCER OF THE CERVICAL OESOPHAGUS.

SIR,—As the result of Mr. Morriston Davies's clinical lecture three important practical conclusions already stand out prominently. They are:

1. The need of cautious, thorough, and expert oesophagoscopy to determine the extent of the disease before any excision operation is even entertained. This has been well emphasized by Dr. William Hill, and every practised oesophagoscopist will endorse it.
2. The expediency of early preliminary gastrostomy advocated by Mr. Mayo Robson. This would probably be a great advantage in any such case. It would certainly be so if our patient had survived the septic dangers of the first five or six days.
3. The disastrous results of upper oesophagus excision operations admitted by all.

The marked contrast in results between excision operations on the gullet and those on the (so-called) oesophageal pouches—which Mr. H. T. Butlin has taught us to tackle with such success—can hardly have escaped notice; and I would like to draw special attention to the fact that though such pouches may be of great size and extent in the neck their attachment to the food tube is severed *above* the upper oesophageal sphincter of Professors Killian and Arthur Keith, and that the wounds from such severance are subject to the simpler laws and conditions of mouth and pharynx operations. On the other hand, upper oesophagus excisions, by opening into the food tube *below* the upper oesophageal sphincter, lay open the lumen and walls of the gullet, practically integral parts of the main intrathoracic air pressure and drainage system, although the gullet is, for the time, in the neck at the moment of operation. Upper oesophagus excisions must, therefore, be regarded from the standpoint of the laws, conditions, and potential and essential dangers of intrathoracic operations.

May I attempt to further add to the value of the discussion which has been started by raising a definite question—by no means so simple as might first appear—and not a verbal quibble? What is the cervical oesophagus? I believe it must be conceded that certain corollaries of primary practical importance necessarily follow a correct and exact solution of my question. I have in view:

1. The interpretation of the notorious and widespread fatality of excisions of the oesophagus, with or without adjacent parts, in the past history of surgery.
2. The explanation of the striking practical successes of Professors Glück and von Hacker and their followers in the last few years in these deep throat and neck operations.

3.* The recognition of a true exciting cause of chronic irritation of intrinsic mechanical origin—until lately unsuspected—leading to the supervention of cancerous degeneration in the gullet, pharynx, and larynx.

4.* Terra firma for the foundation of approximately accurate ideas as to the relative frequency of the exact sites of commencement of cancer in the oesophagus, pharynx, and larynx—about which, up to the present, the statistics are in a state of indescribable chaos, as all investigators of the subject know. In the past the inclusion of almost any given case of deep-throat cancer in the oesophageal, pharyngeal, or laryngeal series, in practice, has been quite haphazard, and at the whim of the observer. This is still going on. If we determine accurately which spots or areas are sites of initiation of cancerous degeneration, and agree how such spots are to be named oesophageal, pharyngeal, or laryngeal, we shall soon be in a position not only to better estimate what irritation factors are incident at such individual spots, but we shall also get some true idea of the relative liability of the gullet, pharynx, and larynx to cancer. In both these ways we shall not improbably gain material for advancing our knowledge as to the genesis of cancer.

I will briefly refer to some considerations bearing on the solution of the problem I have propounded.

It is general knowledge that in the dissecting room, in the operating theatre, and in the *post-mortem* room, after free over-extension of the neck by wood blocks or sand-bags—a strained and non-habitual position in the living subject—the upper part of the oesophagus can be seen and excised. Does this prove that in any natural, easy, habitual position there is a cervical oesophagus?

It is quite generally unsuspected how wide are the excursions of the cricoid and larynx in varying states of extension and flexion of the cervical spine in different postures, on swallowing, and on protruding and retracting the tongue. During the last three or four years of my active charge of the Throat Department of St. Mary's Hospital I carried out an extensive series of skiagraphic examinations of boy patients of 10 to 15 years of age to determine this point. The extreme positions vary from the level of the third cervical vertebra to as far as the lower border of the cricoid is concerned—a certain small but indeterminate distance within the thorax.

The radiographer, after extension and rotation of the living neck, is able to produce skiagrams proving tissues between the cricoid and manubrium, among which must be, for the moment, the upper portion of the oesophagus. As soon, however, as the radiographer has taken his plate, and the head, neck, and chest of the subject resume the easy, natural position and relations of the perfect normal orthograde posture, if the finger be placed in the suprasternal notch, palpation of the cricoid will prove that that cartilage is on a level with the upper orifice of the thorax, and that there is very little, if any, oesophagus present in the neck. In fact, in the living human adult, in a natural orthograde posture at rest, with well-poised head and thorax, whether sitting or standing, or in the natural recumbent position in bed, head on pillow and chin on chest, the oesophagus is practically within the thorax, so that the upper oesophageal sphincter not only closes the gullet, but forms a locus on which impinge the stresses and strains of the respiratory fluctuations of intrathoracic air pressures at the thoracic inlet. The descriptive anatomist has, therefore, drawn largely on his imagination for his conception of a cervical oesophagus in any habitual natural resting posture, and the fiction has been accepted without question by the surgeon, most unfortunately, as I shall presently show.

Unlimited licence is freely conceded to the descriptive anatomist for the adequate display and preliminary descriptions of the forms and structures we have to study, and his conventions cannot be entirely dispensed with; but we must remember that "accurate representations of the exterior and interior of the dead body give no adequate idea of the movements and varying positions of those parts during life," and that "in a practical point of view anatomy is of no use unless it can be realized on the living body" (Dr. F. Sibson).

The descriptive anatomist has taken advantage to the full of customary licence in all his works, descriptions, sections, and topographical plates dealing with the anatomy of the head, neck, and thorax. After having unnaturally forced the head and neck into a state of extension which would be unendurable in life, and stuffed the gullet with tow, he has proceeded to conclude that the relations of the parts as seen in his dissections are the same as the relations in the natural living body. On the present occasion, I only wish to controvert the one conclusion that the natural level of the cricoid is at the fifth cervical vertebra, for this has been allowed too long to dominate our ideas in anatomy, physiology, surgery, voice production, physical culture, and drill, and *inter alia* has produced conceptions of a cervical oesophagus of quite exaggerated proportions. As a fact, the *habitual natural* position of the cricoid is much lower down—nearly at the level of the seventh-cervical-first-dorsal junction, where it forms, with the soft tissues, a two-tubed operculum or lid for the thorax, provided with highly specialized sphincters for opening and closing the thoracic orifices of the air tube and food tube, and the cervical oesophagus approaches to vanishing point.

The above are a few of the considerations that lead me to the conclusion that from the point of view of the surgeon there is no cervical oesophagus; and that if, under the influence of the descriptive anatomist, the operator allows himself to excise a cancerous upper oesophagus from a neck in a position of hyper-extension, and closes the wound, the course of events will soon demonstrate that the operation area of the gullet is intrathoracic, and not cervical; for the patient on returning to bed will soon assume the most natural and easy position, and will speedily withdraw the operated area of the oesophagus into the field of influence of the respiratory fluctuations of intrathoracic air pressure and venous and lymphatic suction. The operated area will also participate in every tension and movement fluctuation of the cricoid in respiration, and this more especially if the patient is a belly breather. The microbe-laden air current and buccal and laryngeal fluids will also, in nearly every case, have free access to the operated area. The surgeon will, in short, have created a state of affairs at the upper orifice of the thorax ideal for the production of sepsis, and from which a fatal result is, humanly speaking, unavoidable.

Professor Glück, on the other hand, by bringing out the trachea in the neck, and when necessary the oesophagus, and mooring them there, minimizes the risk of intrathoracic infection; for he cuts off the air current from the operated area and prevents the wound secretions from getting down the windpipe. But more than this, he prevents the retraction of the upper oesophagus and upper trachea wounds within the influence of intrathoracic pressure and suction conditions. I am not aware that he has ever attributed his successes, even in part, to the last-mentioned cause; he may have done so. From personal observation of this class of case I have no doubt that the group of facts I have dwelt upon in this letter are of cardinal importance for continued progress in the comprehension and management of cancers involving the upper oesophagus.—I am, etc.,

ROBT. HY. SCANES-SPICER, B.Sc., M.D.Lond.

London, W., March 13th.

* Having recently placed before the profession suggestions on these points at the Belfast meeting of the British Medical Association, and published in the JOURNAL under "Some Points in Mechanics of Respiration," etc., and "Cancers of the Throat," I need not now repeat what is otherwise available.

THE TREATMENT OF DYSMENORRHOEA.

SIR,—I was somewhat astonished, in reading Dr. Gibbons's otherwise most excellent paper on dysmenorrhoea, to see that he was in the habit of ordering brandy or other form of alcohol to be given with coal tar analgesics in the treatment of this complaint. It seems to me that this is a serious thing both to order and to advocate. During the last few years I have met several cases of chronic alcoholism, all of which began by taking alcohol, chiefly gin, to relieve the pains of painful menstruation. The periodic recurrence of the pain leads to a periodic desire for alcohol which is always taken in increasing quantities. Thus the fatal habit is easily induced, and we all know how difficult or well-nigh impossible it is to cure. I do not think the recommendation of Dr. Gibbons to give alcohol in these cases should pass unnoticed.—I am, etc.,

H. M. COOPER, M.B.Lond.

Hampton-on-Thames, March 19th.

GASTRO-ENTEROSTOMY IN ACUTE DILATATION OF THE STOMACH.

SIR,—The letter from Mr. W. H. Brown in the JOURNAL of March 19th calls for an answer, as it refers to an address of mine reported in the JOURNAL for January 8th,

in which I discussed the treatment of acute dilatation of the stomach.

I am very much interested to know that Mr. Brown successfully performed gastro-enterostomy for acute dilatation seven years ago. This must, I think, have been the first case in which the operation was done, as my own case was later; but in the first edition of *Diseases of the Stomach and their Surgical Treatment* (Mayo Robson and Moynihan, London, 1901, p. 214) may be found the following paragraph:

> We would suggest that in every case of this kind, where stomach lavage has failed, but only then (for the stomach tube is the first indication, no matter at what stage it may be recognized, unless, indeed, the patient be actually dying), the abdomen should be opened, and the stomach emptied and connected with the jejunum, thus providing for continuous drainage into the intestine.

This shows, therefore, that the idea of gastro-enterostomy in exceptional cases of dilatation of the stomach was suggested nine years ago, that is, before Mr. Brown's operation.—I am, etc,

London, W., March 21st. A. W. MAYO ROBSON.

THE TREATMENT OF NEURASTHENIA AND PSYCHASTHENIA.

SIR,—May I thank cordially Dr. Edwin Ash for maintaining that "psychasthenia" can be "for all the practical purposes of life 'cured' for long periods"? The despondent note prevalent in medical literature, especially French writings, at the present time when dealing with this group of symptoms is unwarrantable. If these sufferers are afflicted with fixed ideas and obsessions, then let us see to it that their fixed ideas are sound and their obsessions healthy. Otherwise we must abandon them to Christian Science, whose exponents have devised an effective if immoral method of dealing with this condition.

The late Lionel Johnson struck the keynote of this mode of appeal in his sonnet on the siege of Münster in 1534, when the leaders of the Anabaptists harangued their followers:

> We are the golden men, who shall the people save:
> For only ours are visions perfect and divine;
> And we alone are drunken with the last best wine;
> And very Truth our souls hath flooded, wave on wave.
> Come, wretched death's inheritors, who dread the grave!
> Come! for upon our brows is set the starry sign
> Of prophet, priest, and king: star of the Lion's line!
> Leave Abana; leave Pharpar, and in Jordan lave!
>
> It thundered and we heard: it lightened and we saw:
> Our hands have torn in twain the Tables of the Law:
> Sons of the Spirit, we know nothing more of sin.
> Come! from the tree of Eden take the mystic fruit:
> Come! pluck up God's own knowledge by the abysmal root:
> Come! you, who would the reign of Paradise begin.

Might not this have been as well written of the Christian Scientists as of the Anabaptists? Is not the method the same? Bewilder the senses with a tornado of high-sounding words and phrases which sweep bare the whole mental field and follow with the firm implantation of a simple concept, "Disease is an illusion," and lo! a fresh obsession which transforms the sufferer into an apparently normal and cheerful being—as long as the disease *is* an illusion, and the "seven other devils" are kept at bay.

I admit we are handicapped. Our modesty precludes most of us from adopting a *vox medici*, *vox Dei* attitude. But it is not difficult by insight and sympathy to gain the patient's confidence; he is not usually at all unwilling to give it, except in the more inveterate cases. Many are simply sufferers from an abnormal sensitiveness, and are obsessed with the idea that they are "not like other people," "degenerate," or torment themselves with similar catch-phrases. I have seen surprising results in such cases follow the assurance that their real trouble is that they have a more finely organized nervous system than ordinary people, and that they suffer because society is constituted for, and by, folk of coarser clay than themselves. Seeing their impressionability, a change to a more favourable environment, when it can be effected, is often invaluable. Lastly, one may quote of "psychasthenia" what Dr. Ormerod (in Allbutt's *System of Medicine*) has written of hysteria—few things are more opposed to it than the trustful, patient, altruistic spirit inculcated by Christianity, and few things more conducive to it than the terrorism, revivalism, mysticism, or self-concentration which sometimes pose as religion.—I am, etc.,

London, N.W., Feb. 24th. J. S. MACKINTOSH.

PSYCHICAL RESEARCH.

SIR,—Dr. Millard seems rather troubled that the medical profession has not thrown itself, body and soul, into the study of spiritualism. But had not the profession the example of Faustus?—

> Cut is the branch that might have grown full straight,
> And burnèd is Apollo's laurel bough
> That sometimes grew within this learned man.
> Faustus is gone: regard his hellish fall,
> Whose fiendful fortune may exhort the wise,
> Only to wonder at unlawful things,
> Whose deepness doth entice such forward wits
> To practise more than heavenly power permits.
> (Marlowe's *Faustus*.)

—I am, etc.,

Oldham, March 21st. W. DUNCAN LAWRIE.

METHODS OF THE PSYCHO-THERAPEUTIC SOCIETY.

SIR,—The following account of a very recent investigation into the pretensions of the Psycho-Therapeutic Society (one of the many manifestations of the faith-healing and occult diagnosing craze which is so strange a feature of our days) may be of interest to the readers of the BRITISH MEDICAL JOURNAL.

My attention was first directed to it by a lady who recounted the marvellous skill of a Mr. S., an "operator" of the society, who (at a small charge) had diagnosed her condition with no hint from outside, and prescribed a most practical and successful line of treatment. Diagnosis was declared and treatment suggested, so I was informed, by the said Mr. S. while in a kind of self-induced hypnotic trance. He required to be told no symptoms; he desired to make no physical examination. He merely sat in a chair holding your hand, shut his eyes, and—well, the occult powers did the rest.

This was, at any rate, circumstantial enough. Determined to see what the result of a little independent investigation might be, I wrote to Mr. S., asking to be allowed to bring a patient some afternoon to his clinic, which appeared to be held at a house in Bloomsbury. I did not, of course, disclose the fact that I was a doctor. He sent me an encouraging reply, and the result was that I presented myself, with my patient, at the address which he had given me, on January 12th, at 4 p.m. I had selected one of our Church Lads Brigade lads for the purpose. He was an exceptionally healthy youngster of 16 or 17. I had examined him with scrupulous care, and could find no physical sign of any sort or description suggestive of disease. Nor were there any symptoms whatever. Except for childish complaints and an occasional attack of influenza, he had never had a day's illness in his life. But he *had* had for some years a small bony outgrowth just below the left knee, which had slightly increased in size since it was first observed. It caused no inconvenience, and Mr. Stanley Boyd, when I asked him to look at it for me one day at Charing Cross, advised against interference. Also the boy had strained the adductor tendons on the right side while playing football about a fortnight before.

Mr. S. presented the appearance of an elderly gentleman of benevolent aspect and grave demeanour. He was commendably brief in his procedure. My friend was quite right. It was no part of his practice to ask for symptoms or to make an examination. He sat down in a chair, holding the boy's hand. The lad was seated opposite. The seer closed his eyes and began to recount the "true inwardness of the condition" as follows. (I ought to have explained that I understand that years ago Mr. S. began to study medicine.)

> His blood was poor and thin and in a bad state. It was this which was the real cause of the congestion of the brain of which he complained. [The boy's percentage of haemoglobin is 97, and he has never complained of head symptoms in his life except in connexion with some acute infectious disease.] The nerves were very healthy and the nervous system was all right. The base of the brain was perfectly sound. In the throat there was often mucus and phlegm, but there was no

actual disease of the lungs. The bronchial tubes were in a very fairly healthy state. But the stomach was greatly at fault. The coat was congested and consequently could not assimilate food. The real cause of this were small thread-worms. [I rather suspect that the sage brings in the *Oxyuris vermicularis* whenever he has a patient below a certain age. This boy hardly looks his years.] It was these thread-worms which caused him continual sleepiness, and also gave rise to the excess of uric acid. The heart was free from actual disease. There was no disease of the valves. But it suffered from pressure by the stomach. There was no actual kidney disease, but the kidneys were slightly congested. The bowels were often obstructed, but the real cause of this was the thread-worms. Would we like to ask any questions?

I asked for a little information about "slight congestion of the kidneys," and certainly received it. It was most interesting and had all the charm of novelty. He went on to advise a rather colourless dietary. It was obviously so much more the sort of thing which would appeal to a neurotic woman that I thought the seer was getting a bit lazy and was allowing his imagination to flag. Possibly he finds that his dupes swallow anything so greedily that it is lost labour to take trouble over his flies. Finally he proposed to prescribe medicine. I said that I thought we would not trouble him further. "Oh, but," said a female amanuensis, in a tone of shocked surprise, "this is a pure herbal mixture." I assured her that I felt convinced of it, but the fact was that the boy had nothing the matter with him; his stomach, kidneys, and all the rest of it were in a perfectly healthy condition. What he had got was a small, bony outgrowth below one knee. We retired from a rather silent room.—I am, etc.,

Wimbledon, March 12th. H. G. G. Mackenzie.

ALBUMINURIA AND "RETURN" CASES OF SCARLET FEVER.

Sir,—The subject of "return" cases of scarlet fever is of such importance to the fever hospital physician that any possible source of infection is worthy of careful investigation, but as the organism of scarlet fever has not been definitely determined, reliance must be placed on personal experience and statistics.

There can be little doubt that the toxin, or the organism of scarlet fever, or both, are excreted by the kidneys, during which process these organs are, in a certain percentage of patients, more or less affected. Whether the kidneys are affected or not, and to what extent, depends probably to some extent on the particular "strain" of the organism, but is chiefly a matter of idiosyncrasy. This is borne out by the facts that kidney trouble is more common in some outbreaks than in others, and also is often seen in several members of the same family.

Now, cases of albuminuria or nephritis—for the cause of both is the same—generally arise when the patient is about three weeks ill, and as they usually take some time to clear up and require careful after-treatment, it follows that the period of isolation is long; and even if the existence of these complications is an index of infectiousness, the chances are that the patients will be free from infection on discharge, provided, of course, that there is no other complication—for example, rhinorrhoea or otorrhoea—present.

I have not, during some fifteen years' fever hospital experience, found that patients who have had albuminuria or nephritis are liable to give rise to "return" cases, and the following table confirms my statement. Moreover, I have discharged patients with albuminuria with no untoward results:

Year.	Cases Discharged.	Number of "Return" Cases.	Cases of Nephritis.	Cases of Albuminuria.	Nephritis or Albuminuria in Infecting Patient.
1904	326	8	3	15	0
1905	435	9	8	21	0
1906	433	7	6	13	0
1907	405	4	9	7	0
1908	216	5	5	7	0
1909	444	12	15	14	0
	2,259	45	46	77	0

Thus while out of 2,259 discharges there were 45 "return" cases, in no instance had the infecting patient suffered from nephritis or albuminuria, although 123 cases of kidney trouble occurred.—I am, etc.,

James Fletcher, M.D., D.P.H.,
Bristol, March 3rd. Resident Medical Officer.

THE ORAL EDUCATION OF THE DEAF.

Sir,—In the Journal of March 12th, p. 655, there appears under this heading a notice of a demonstration given by a Mrs. White, of Ipswich, with a deaf girl, and the writer remarks that no doubt experts in oral teaching will seriously consider the possibilities of applying Mrs. White's methods of improving the voice modulations and inflections of their pupils.

It will interest your readers to know that Mrs. White's methods have been tried in the School of the Association for the Oral Instruction of the Deaf, 11, Fitzroy Square, W.—in the first instance during the month of February of last year, and again during the following May, June, and July. A small committee of expert teachers of the deaf and others was formed to appraise the results of the first experiment, and the reports of several members of that committee are to be found in the *Teacher of the Deaf* for May, 1909. In the November issue of that professional journal will be found my report on the May–July experiments.

All I need say here is that Mrs. White is a most energetic and painstaking teacher, but she overstates the value of her method. With regard to the deaf girl with whom Mrs. White is now publicly demonstrating, it should be said that up to last Christmas she was a pupil of this school. She is an exceptionally intelligent and responsive girl, possessing an excellent command of English, wholly gained at Fitzroy Square; indeed, all she knows and can do of practical value she was taught by my teachers. Of course, a few finishing touches may have been given to her speech in the few months since she left school, but no one outside the school has any claim to the credit of having taught her to express herself intelligently in good English and to lip-read what is said to her. Any attempt to underrate the nature and extent of the knowledge gained here will, I am sure, be severely deprecated by all right-minded men.

It should be added that the girl is not a congenital mute, as Mrs. White seems to have stated, for she lost her hearing at the age of 3.—I am, etc.,

G. Sibley Haycock,
11, Fitzroy Square, London, W., March 18th. Director of the School and College.

THE MEDICAL PARLIAMENTARY ROLL.

Sir,—While looking through Dr. Venn's interesting *Biographical History of Gonville and Caius College*, I have come upon the names of two more medical members of Parliament which should be added to the list already published.

Gostlin, John, M.D.Camb. (Barnstaple, 1614). Dr. Gostlin was Master of Caius and Regius Professor of Medicine in the University. On account of his religious principles (Dr. Gostlin was a Roman Catholic) he was expelled the university, but subsequently recalled, reinstated in his posts, and, at the time of his death, was also Vice-Chancellor. During his period of ostracism he went to live in Exeter, and it was while resident in that city that he was sent by the people of Barnstaple to represent them in Parliament. The Borough of Barnstaple is not mentioned in the Parliamentary Return for the time being, this return being singularly incomplete, the omissions far exceeding in number, the insertions.

Brady, Robert, M.D.Camb., F.R.C.P.Lond. (Cambridge University, 1681–1687). Dr. Brady, like Dr. Gostlin, was both Master of his College (Caius) and Regius Professor of Physic in the University. He received the degree of M.D. by Royal Mandate, and was Physician to both Charles II and James II.

—I am, etc.,

London, W. S. D. Clippingdale.

Sir,—Dr. Clippingdale, in your issue of February 12th says: "I have always understood that he (James II or VII) was crowned King of the three kingdoms at Westminster and deposed from the same position at the same place." As far as Scotland is concerned, Dr. Clippingdale is in error. James II of England and VII of Scotland was never crowned King of Scotland nor took the Scottish

nation oath. The Scottish Parliament deposed him quite different grounds from that of England. The tish Parliament sat in Edinburgh. You cannot speak ritannically" before 1707. The present King was wned King of Great Britain and Ireland as one gdom, not three.—I am, etc.,

asgow, March 8th. JOHN BROWN, M.D., F.R.F.P.S.G.

ONSULTANT, GENERAL PRACTITIONER, OR HALF-AND-HALF?

IR,—The naïveté of "Enquirer's" last letter in the RNAL of March 19th, p. 725, is delightful.

o the consultant exists solely for the purpose of ructing the general practitioner, either at the expense he patient, or by publishing papers, etc., whereby "the eral practitioners could avail themselves of the special wledge of which the consultant thereby shows himself sessed."

he general practitioner is now so competent that "a minutes' conversation with the consultant will make acquainted with the technique." But, if necessary, any consultations should take much longer than this lf an hour), so that the consultant can explain fully to general practitioner what treatment should be carried ." This, I presume, is in cases where the general prac-oner is rather less competent; but, alas, the unfortunate ient must pay for this extra instruction, because we told "the consultant's fees should be raised, and uld vary partly with the length of time a consultation es."

f at first the general practitioner is not successful in rying out the treatment of a case (which of course is irely the fault of the consultant's advice!) the experience useful, and after further practice on more or less similar es he may become proficient. If not, he can easily get other consultation at the expense of a patient. I know t man, and when I meet him I wonder how many nsultations he thinks necessary to qualify him to come a consultant himself. Fortunately, he does not present the body of general practitioners.—I am, etc.,

larch th. EST MODUS IN REBUS.

Universities and Colleges.

UNIVERSITY OF OXFORD.

Radcliffe Travelling Fellowship.

E electors have appointed Mr. Ernest L. Kennaway, B.M., A., Hulme Research Student of Brasenose College.

UNIVERSITY OF SHEFFIELD.

E Council has appointed Mr. A. Garrick Wilson, F.R.C.S., to post of Tutor in Surgery, and Mr. Albert E. Bennee, M.B., B.(Edin.), to that of Junior Demonstrator in the Department Pathology.

UNIVERSITY OF DUBLIN.

E following candidates have been approved at the examitions indicated:

INAL MEDICAL EXAMINATION (*Part II, Medicine*).—*Hilgard Müller, *Marius A. Diemont, *W. P. Smiley, H. R. M. Ferguson, Beatrice Hamilton, C. Pentland, J. W. Tomb, Hans Fleming, A. C Hallowes, J. H. Crane, C. Grene, E. P. Allman-Smith, V. W. D M'Gusty, E. W. G. Young, C. D. Hanan.

INAL MEDICAL (*Part II, Surgery*).—J. H. Woodroffe, M. A. Diemont, W. P. Smiley, C. B. Jones, L. Trichard, J. H. Crane, A. C. Hallowes, H. S. Metcalfe, W. R. Watson, C. Pentland, B. H. Moore,

D.P.H. (*Part I.*—H. T. Stack. *Part II.*—W. J. Powell.

* Passed on high marks.

ST. MUNGO'S COLLEGE, GLASGOW.

the annual presentation of prizes to the students of . Mungo's College Medical School Mr. James Macfarlane, o presided, took occasion to refer to the future of the college. e governors believed that the school had still a great work perform, and thought that the changes proposed as the sult of negotiations completed some months ago, and now aiting the sanction of Parliament, would be of much benefit the college. It was impossible to say at present whether e new Professors of Medicine, Surgery, Gynaecology, and thology would begin their duties next winter session or not, the university authorities had still ordinances to adjust. Probably St. Mungo's school would have another session on the old basis, and he felt sure the same efficiency would be maintained. Mr. Brown, the secretary, who also spoke, endorsed the view that the extension of the University School of Medicine at the Royal Infirmary would tend to strengthen St. Mungo's College.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN extraordinary comitia was held at the College on Monday, March 21st; the President, Sir R. Douglas Powell, in the chair.

Membership.

Sir Alfred Keogh was admitted a Member of the College.

Proposed Joint Action with the University of London.

In accordance with a resolution passed at the preceding comitia, the President nominated the following gentlemen to serve on a committee to report on the whole subject at a future comitia: The future President and Sir Wm. Allchin; Drs. Norman Moore, F. Taylor, Ormerod, Sharkey, Hale White. Herringham, Spriggs, Rose Bradford, Wm. Hunter, and Starling.

Harveian Librarian.

A letter was received from Dr. F. Payne, resigning his office as Harveian Librarian. The resignation was received with deep regret, and a cordial vote of thanks passed to Dr. Payne for his valuable services for many years past.

Presidential Address.

The President gave an address in which he referred to the chief events during the past collegiate year, and gave brief biographical notices of the Fellows of the College who had died during that period. In conclusion he thanked the Fellows for their repeated confidence in him during the past five years, and expressed his gratitude to the college officers for their never-failing help and assistance during his term of office.

Sir Wm. Church thanked the President for his address, and moved a resolution requesting him to allow it to be published. A further vote of thanks to the President for his great and valuable services during the past five years was passed with acclamation.

Election of President.

Sir R. Douglas Powell then vacated the chair and voting took place for the office of President for the ensuing year. A first ballot showed that Sir Thomas Barlow had received 57 votes, Dr. Norman Moore 15, Sir Wm. Allchin 14, Dr. Frederick Taylor 12, Sir Clifford Allbutt 10, Professor Osler and Sir Dyce Duckworth 9 each, and that a few other votes were scattered. As no Fellow had received the votes of two-thirds of those present, a second ballot took place between Sir Thomas Barlow and Dr. Norman Moore, when the former received 103 votes. Having taken the chair and given his faith to the College, he received the insignia of his office, and in a brief speech expressed his gratitude to the Fellows for the honour bestowed on him, and his resolve loyally to give his best energies to the work of the College.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

Fellowship Examination.

THE following candidates, having passed the necessary examination, have been admitted Fellows of the College:

Miss E. R. Benjamin, B.Ch.Dubl.; O. St. J. Gogarty, B.Ch.Dubl.; W. E. Hopkins, B.Ch.Dubl.; J. T. Murphy, B.Ch.Melbourne; C. B. Parley, L.R.C.S.I.

The following candidates have passed the Primary Part of the examination:

L. L. Cassidy, B.Ch.Edin.; H. English (student,) R.C.P. and S.I.; M. J. Hillery (student), R.C.P. and S.I.; K. T. Nath, L.R.C.S. Edin.; C. G. Sherlock, B.Ch.Dubl.

THE APOTHECARIES' HALL OF IRELAND.

THE next quarterly examinations will take place on the following dates: First Professional, April 18th; Second Professional, April 21st; Third Professional, April 25th; Final Professional, April 27th.

THE fifth International Periodical Congress of Gynaecology and Obstetrics will be held at St. Petersburg on September 19th to 24th of the present year, under the patronage of the Czar. The President is Professor Dmitri Oskarovic Ott. All the professors of gynaecology and obstetrics in Russia are members of the organizing committee. The following questions are proposed for discussion: (1) Caesarean section; (2) non-operative treatment of cancer of the uterus; (3) comparative value of the various operative procedures for the treatment of displacements and deviations of the uterus; (4) the vaginal route in delivery and in gynaecology. Communications relative to the congress should be addressed to Professor Sadowsky, Wassilie Ostrow, Ligne de l'Université, 3, Saint-Petersburg.

The Services.

ROYAL ARMY MEDICAL CORPS.

EXAMINATION FOR PROMOTION.

Stations Abroad (Except India).

THE following is the list of successful candidates at the December Examination for Promotion of Majors of the Royal Army Medical Corps in Technical Subjects:

Major B. FORDE, M.B., Sanitation and Epidemiology. Already passed in (*d*) ii, in Army Medical Organization in Peace and War and in Medical History, etc.

Major W. E. HARDY, M.B., Technical Subjects. Already passed in (*d*) ii.

Major F. A. SYMONS, M.B., (*d*) ii; .75. Already passed in Technical Subjects.

Major H. V. PRYNNE, (*d*) ii; .75. Has yet to pass in Technical Subjects.

Lieutenant W. J. E. BELL, M.B., (*h*) iii. Already passed in (*b*), in (*d*) ii, and (*h*) ii.

Lieutenant S. FIELD, (*h*) ii. Has yet to pass in (*b*). Already passed in (*d*) ii and in (*h*) iii.

Lieutenant H. M. J. PERRY, (*d*) ii. Already passed in (*b*) and in (*h*) ii and (*h*) iii.

Lieutenant L. A. A. ANDREWS, (*d*) ii and in (*h*) ii and iii, .75 in (*d*) ii. Already passed in (*b*).

Lieutenant W. R. O'FARRELL, (*d*) ii and in (*h*) ii and iii. Has yet to pass in (*b*).

Lieutenant F. WORTHINGTON, M.B., (*d*) ii and in (*h*) iii. Has yet to pass in (*b*), (*h*) i, and (*h*) ii.

Lieutenant W. H. S. BURNEY, (*d*) ii and in (*h*) ii. Has yet to pass in (*b*), (*h*) i, and (*h*) iii.

NOTE.—In accordance with Army Order 216 of 1909, Lieutenants of the Royal Army Medical Corps who have not qualified in (*h*) ii and (*h*) iii will be required to take up the new Subhead (*h*) i in addition at any subsequent examination in Subject (*h*).

ROYAL ARMY MEDICAL CORPS (TERRITORIALS).

EXAMINATION FOR PROMOTION.

THE undermentioned officers have passed as specified in the examination for promotion held in December last:

Fully Qualified in Military Law, in Organization, Administration, and Equipment, and in Sanitation (for Promotion to the Rank of Captain).—Lieutenant S. ENGLISH, M.B., Royal Army Medical Corps, Territorial Force (attached to the East Lancashire Divisional Engineers); Lieutenant T. H. C. DERHAM, Royal Army Medical Corps, Territorial Force (attached to the 4th Battalion Loyal North Lancashire Regiment); Lieutenant F. K. SMITH, Royal Army Medical Corps, Territorial Force (attached to the 4th Battalion Gordon Highlanders); Lieutenant W. E. ALSTON, M.D., Royal Army Medical Corps, Territorial Force (attached to the 24th (County of London) Battalion the London Regiment); Lieutenant H. S. BEADLES, London Mounted Brigade Field Ambulance; Major W. H. STEPHEN, M.B., and Lieutenant T. H. FORREST, M.B., 1st South Midland Mounted Brigade Field Ambulance; Lieutenant D. C. L. ORTON, Welsh Border Mounted Brigade Field Ambulance; Lieutenants E. V. GOSTLING, G. M. HETHERINGTON, and A. C. YOUNG, 1st East Anglian Field Ambulance, East Anglian Division Field Ambulances; Lieutenants J. ROBERTSON, M.D., and J. D. FIDDES, M.B., 1st Highland Field Ambulance, Highland Division Field Ambulances; Lieutenant J. F. MACINTOSH, 2nd Highland Field Ambulance, Highland Division Field Ambulances; Lieutenants J. M. SMITH, M.B., J. H. HUNTER, M.B., and A. M. DAVIE, 3rd Highland Field Ambulance, Highland Division Field Ambulances; Lieutenant W. F. MUNRO, M.B., 2nd East Lancashire Field Ambulance, East Lancashire Division Field Ambulances; Lieutenants C. H. LINDSEY, M.D., J. E. W. MACFALL, M.D., R. S. TAYLOR, M.B., and A. P. H. SIMPSON, 1st West Lancashire Field Ambulance, West Lancashire Division Field Ambulances; Lieutenants C. S. BREBNER, M.D., W. MACDONALD, M.B., and W. L. HAWKSLEY, M.B., 2nd West Lancashire Field Ambulance, West Lancashire Division Field Ambulances; Lieutenant R. E. BICKERTON, M.B., 2nd London (City of London) Field Ambulance, 1st London Division Field Ambulances; Lieutenant B. E. POTTER, M.B., 3rd London (City of London) Field Ambulance, 1st London Division Field Ambulances; Lieutenants J. BUCKNER and P. J. MCGINN, 1st Welsh Field Ambulance, Welsh Division Field Ambulances; Lieutenants D. E. EVANS, E. BRICE, and G. D. E. JONES, 3rd Welsh Field Ambulance, Welsh Division Field Ambulances.

Fully Qualified in Medical Organization of the Territorial Force, in Sanitation and Epidemiology, and in the Laws and Customs of War (for Promotion to the Rank of Lieutenant-Colonel).—Major C. H. HOWKINS, 1st South Midland Field Ambulance, South Midland Division Field Ambulances; Major A. B. SOLTAU, M.D., 2nd Wessex Field Ambulance, Wessex Division Field Ambulances.

THE R.A.M.C. AND I.M.S.

JUSTITIA writes that in comparing the two services—the R.A.M.C. and the I.M.S.—it should be remembered that, whereas officers of the I.M.S. all become lieutenant-colonels after twenty years' service, many, at least a third, of their brother officers in the R.A.M.C. will now never attain to that rank, but will after twenty five years' service be forced to retire as majors. They will have the two-fold chagrin of seeing officers in the I.M.S. much their juniors in point of service their seniors in rank, and perhaps their commanding officers; and also of being forced to retire early on a small pension through no fault of their own, although they may have passed for promotion to the rank of lieutenant-colonel.

Obituary.

ERNEST HERBERT COBB, M.R.C.S., L.R.C.P.,

HONORARY SECRETARY AND TREASURER, BEDFORD AND HERTS DIVISION, BRITISH MEDICAL ASSOCIATION.

ERNEST HERBERT COBB was born on October 10th, 18(at Margate. The eldest son of James Francis Cobb, was a very delicate child, and there were many occasio during his earlier years when his life was almc despaired of. Later he grew stronger, and although was never able to profit by regular school life, he show an early fondness for mechanical and scientific pursui His health, however, again prevented him from serious taking up any profession at the age when most m commence their career. For a few years he lived Margate, and took part in the work of the old-establish family bank founded by Francis Cobb in the middle of t eighteenth century. This work, however, was never co genial to him, and he soon went abroad and studi languages and music at Dresden for three years, maki himself thoroughly proficient in the German languag Returning to England much stronger in health, he dete mined, though then 30 years of age, to prepare himself f the medical profession. He entered St. Thomas's Ho pital and took the diplomas of M.R.C.S., L.R.C.P., in 189 and was House-Surgeon to Mr. Clutton. At the co clusion of this appointment he took up work at tl Victoria Hospital, Folkestone, but, marrying soon afte wards and being of independent means, he gave practice and settled down in Stevenage in 1900. H became a very enthusiastic member of the Bedford ar Herts Division of the South Midland Branch of tl British Medical Association, and in 1907 was appointe Honorary Secretary, in place of Dr. Savory, who ha resigned. He was a most regular attendant at tl meetings, and, indeed, proved himself an ideal secretar He was an enthusiastic motorist, and was well known the district for his courteous consideration of other roa users. On February 4th he developed bronchitis ar subsequently pneumonia and pericarditis, from which h died on February 14th.

Dr. S. J. Ross, Vice-Chairman of the Division, writes As a member of the Division who has had frequent corr spondence with the late Dr. E. H. Cobb on matters co nected with the work of the Division, I should like t testify to the marked ability with which he conducted h secretarial duties. Although not engaged in active pra tice he possessed a keen appreciation of the difficultie which beset the general practitioner. He was an enthusia in the work of the Association. Possessing a kindl genial nature he endeared himself to all the members this Division. The Division has lost a capable office and the Association an enthusiastic member an supporter.

LIEUTENANT-COLONEL J. P. H. BOILEAU, A.M.S.(RET.),

FORMERLY ASSISTANT PROFESSOR OF PATHOLOGY, NETLEY.

LIEUTENANT-COLONEL BOILEAU, A.M.S (Ret.), who wa from 1876 to 1883 Assistant Professor of Pathology at th Army Medical School, Netley, died at his residence nea Trowbridge on March 4th. He was taken ill on March 1s with abdominal symptoms, and, though an operation wa performed, sank from peritonitis.

John Peter Hamilton Boileau was born on April 9t 1841, and was the son of the late Lestock Franci Boileau, R.N, Inspecting Commander of Coastguards. H was educated at Trinity College, Dublin, and graduate B.A. in 1863, M.B. in 1864, and M.D. in 1873. In 1863 h became a Licentiate, and in 1874 a Fellow, of the Roya College of Surgeons in Ireland, and in the last-name year took also the Diploma in Public Health. H had a very successful career as a student, winnin many prizes not only in medical subjects but also i physical science at the Government School of Mines and in geometry at the Royal Dublin Society. H joined the Army Medical Service, and was fo twelve years medical officer of the 29th (Worcestershire Regiment. During his forty-two years in the service h

ved a good deal abroad, among his appointments being t of medical officer in charge of the station hospital, erut; he was afterwards appointed to the medical arge of troops at Trowbridge, an appointment which he ld until 1906, when he finally retired. He was a mber of the Committee of the Council of the British dical Association from 1881 to 1883, a member of the uncil of the Irish Medical Schools' and Graduates' Asso- tion from 1898 to 1902, and a Fellow of the Royal atistical Society. He wrote a work on the sphygmo- aph, and an essay on the statistics of the Army Medical partment, and also contributed many papers to the dical journals.

Colonel Boileau married a daughter of the late Dr. Bond Dublin, and is survived by his widow and three ughters. The funeral took place on March 8th at mpley Stoke churchyard. Colonel Boileau had a large cle of friends not only in the Army Medical Department t amongst members of the British Medical Association, d his career reflected honour both upon himself and on the branch of the profession to which his life was voted.

DR. GARLAND died on the evening of March 11th, at his sidence in Leith. His health had been indifferent for me time, but he was attending to his professional duties til within a few days of his death. The son of the late ilie Garland, of Leith, Ormond Haldane Garland aduated M.B., C M., at the University of Edinburgh in 68 He was admitted a Member of the Royal College Physicians in 1876, and was elected a Fellow in 1886. 1888 he took his M.D. degree. He was Visiting Medical ficer for the John Watt Trust. In the early Seventies was appointed Surgeon to the Leith Police Force, an pointment he held until his death. For nearly a quarter a century he was ambulance instructor to the Leith lice. He was at one time Lecturer on Clinical Medicine the School of Medicine for Women, and was till lately nior Visiting Physician to Leith Hospital. He was held high esteem by his patients in Leith and the Edinburgh strict. He is survived by his wife.

DR. ALEX. CRAIG (Pathhead, Ford), who died on March 1st, as an M.D. of Glasgow, and for the past thirty-five years d a large and varied practice in Pathhead. He was a ilful surgeon, acted as Physician to the Edinburgh hildren's Holiday Home at Humbie, and was medical ficer of health for several parishes. Caring little for blic life, Dr. Craig was of quiet and unobtrusive disposi- on. He recently underwent an operation, from the sults of which he never rallied. He is survived by a idow, four sons, and one daughter. Two of the sons are the medical profession.

BRIGADE SURGEON EDWARD JOSEPH BOULTON, late of the rmy Medical Staff, died in London on March 13th. He as the son of the late Captain Thomas Boulton, 5th ragoon Guards, and joined the Army Medical Depart- ent in January, 1860, retiring from the service with the onorary rank of Brigade Surgeon in 1886. He had, more- ver, served as an Acting Assistant Surgeon during the ussian war in 1855, with the expedition to the Baltic, eceiving a medal. He also took part in the Zulu war in 879, and was present at the battle of Ginginhlovo and at he relief of Etshowe, receiving a medal with clasp.

DEATHS IN THE PROFESSION ABROAD.—Among the mem- ers of the medical profession in foreign countries who ave recently died are Professor Giovanni Bezzi, sometime ead of the Surgical Clinic at Modena; Dr. von Roth, of tuttgart, a well-known orthopaedic surgeon, aged 80; Dr. Ogala, of Osaka, one of the leading practitioners of apan, Physician to the Imperial Family, and founder of he Japanese Red Cross, and of the Medical School and Iospital at Osaka, aged 67; Dr. Eduard Pflüger, the last f the assistants of Johannes Müller, and successor of Ielmholtz in the Chair of Physiology at Bonn, aged 80; Professor de Semo, sometime Senior Physician to the Pisa Iospital, afterwards a leading physician at Alexandria, where he was Secretary of the Egyptian Antituberculosis League; and Dr. J. M. Bandera, Professor of Physiology n the University of Mexico.

Medico-Legal.

WORKMEN'S COMPENSATION ACT.

The Definition of an "Accident."

JUDGEMENT was given in the House of Lords on March 14th in an important appeal under the Workmen's Compensation Act. The appeal was heard by the Lord Chancellor, Lord Macnaghten, Lord Atkinson, Lord Collins, and Lord Shaw.

The appellants were a firm of engineers at Birkenhead, and the respondent the widow of one of their workmen. The question was whether the death was due to an accident arising out of or in course of his employment. Respondent was the wife and sole dependent of Edward Hall Hughes, who was in the employment of Glover, Clayton, and Co., Limited. Hughes on March 9th, 1907, was engaged, with the assistance of a fellow-workman, named Connell, in making a condenser bath, the sides of which had to be tightly screwed together by means of bolts. When Hughes was in the act of tightening a nut with a spanner, pressing down and putting his weight on it, he made an exclamation, fell on his back, striking his head, and on being taken aside was found to be dead. On *post-mortem* examination it was found that there had existed a very large aneurysm of the aorta, and that death had been caused by its rupture. The aneurysm was in such an advanced condition that it might have burst while the deceased was asleep, and a very slight exertion or strain would have been sufficient to bring about a rupture. The judge of the Liverpool County Court made an award of £300 in favour of the widow. The employers carried the case to the Court of Appeal, where the Master of the Rolls, Lord Justice Farwell, and Lord Justice Kennedy upheld the award.

In giving his decision in the House of Lords, the Lord Chancellor said: In what I am about to say I take the facts as the county court judge found them *in extenso* and rely upon them. He has held, and the Court of Appeal have confirmed his decision, that in these circumstances the workman's dependants are entitled to compensation. I agree. The injury must be caused by an accident, and the accident must arise out of the employ ment. We are not concerned here with the course of the employment. What, then, is an "accident"? It has been defined in this House as "an unlooked-for mishap or an untoward event, which is not expected or designed." All the Lords who took part in the decision of Fenton *v.* Morley agreed in substance with this definition in Lord Macnaghten's speech. I take this as conclusive. Next, the accident must be one "arising out of" the employment. There must be some relation of cause and effect between the employment and the accident, as well as between the accident and the injury. Some of the difficulties in applying the Act are due to the fact that courts of law have frequently been obliged to consider, especially in actions on policies of insurance, what is to be regarded as the cause of some particular event. In one sense every event is preceded by many causes. This man died from the rupture of an aneurysm, and "the death was caused by a strain arising out of the ordinary work of the deceased operating on a condition of body which was such as to render the strain fatal." Again, "the aneurysm was in such an advanced condition that it might have burst when the man was asleep, and very slight exertion or strain would have been sufficient to bring about a rupture." The first question here is whether the learned judge was entitled to regard the rupture as an "accident" within the meaning of this Act. In my opinion he was so entitled. Certainly it was an "untoward event." It was not designed. It was unexpected in what seems to me the relevant sense—namely, that a sensible man who knew the nature of the work would not have expected it. I cannot agree with the argument presented, that the court is to ask whether a doctor acquainted with the man's condition would have expected it. Were that the right view, then it would not be an accident if a man very liable to fainting fits fell in a faint from a ladder and hurt himself. No doubt the ordinary accident is associated with something external; the bursting of a boiler, or an explosion in a mine, for example. But it may be merely from the man's own miscalculation, such as tripping and falling. Or it may be due to both external and internal conditions, as if a seaman were to faint in the rigging and tumble into the sea. I think it may be due also to something going wrong within the human frame itself, such as the straining of a

muscle, or the breaking of a blood vessel. If that occurred when he was lifting a weight, it would be properly described as an accident. So, I think, rupturing an aneurysm when tightening a bolt with a spanner may be regarded as an accident. It cannot be disputed that the fatal injury was in this case due to this accident, the rupture of the aneurysm. That of itself does not dispose of the case. It establishes that there may have been an injury by accident caused to the workman. But it does not establish that the accident was one "arising out of the employment." It is in these words that the stress of the case mainly lies. When the man's condition was such that he might have died in his sleep, and the mere tightening of the nut with no more strain than ordinary in such work caused the accident, can it be said that the accident was one "arising out of" the employment? That seems to me to be the crucial point. I do not think we should attach any importance to the fact that there was no strain or exertion out of the ordinary. It is found by the county court judge that the strain in fact caused the rupture, meaning, no doubt, that if it had not been for the strain, the rupture would not have occurred when it did. If the degree of exertion beyond what is usual had to be considered in these cases, there must be some standard of exertion, varying in every trade. Nor do I think we should attach any importance to the fact that this man's health was as is described. If the state of his health had to be considered, there must be some standard of health varying, I suppose, with men of different ages. An accident arises out of the employment when the required exertion producing the accident is too great for the man undertaking the work, whatever the degree of exertion or the condition of health. It may be said, and was said, that if the Act admits of a claim in the present case, every one whose disease kills him when at work will be entitled to compensation. I do not think so, and for this reason: It may be that the work has not, as a matter of substance, contributed to the accident, though the accident happened while he was working. In each case the arbitrator ought to consider whether, in substance, as far as he can judge on such a matter, the accident came from the disease alone, so that whatever the man had been doing it would probably have come all the same, or whether the employment contributed to it. In other words, did he die from the disease alone or from the disease and the employment taken together? Looking at it broadly and free from overnice conjectures, was it the disease that did it or did the work he was doing help in any material degree? In the present case I might have come to a different conclusion on the facts had I been the arbitrator, but I am bound by the findings, if there was evidence to support them. It is found that the strain contributed to the death. There was evidence on which the learned judge was entitled so to find, as I respectfully think, and I, therefore, advise your lordships to affirm the order of the Court of Appeal.

Lord Macnaghten and Lord Collins concurred with the Lord Chancellor.

Lord Atkinson could not concur with the judgements which had been given, and, after reviewing the circumstances of the case, he said: The only two conclusions to which I think any reasonable man could come on that evidence are—(1) That the natural termination of the disease, rupture, was reached unaffected by the work deceased was doing; (2) or that the work accelerated that termination. The strain was very slight; it could not have been slighter, if he was to do any work at all. The rupture was, as I have said, the certain or the highly probable result of the slightest muscular exertion. It may not have been looked for or expected by the deceased, his employers, or his fellow workmen. There is no evidence that he or they knew, or suspected, what his condition was; but the ignorance of such people on this point cannot turn, I think, the inevitable, or highly probable, result of a disease or hidden condition of body into an "accident." Neither can, in my opinion, the fact that the final catastrophe consisted in the rupture of a tissue, if that catastrophe be known to be the certain, or highly probable, result of the malady. In order that the "mishap" should be "unlooked for," or the event "be unexpected," so as to make "an injury by accident" within the meaning of this Act, the mishap must, I think, be "unlooked for," or the "event" be "unexpected" by some person with knowledge of the facts and capable of judging reasonably of them. The death of the deceased was, it appears to me, no more an accident than if, had he been a butler, he had died walking slowly up the stairs of the house in which he served, or, had he been a coachman, he had died while slowly mounting on his box. It may possibly be that it would be better, in the interests of workmen, that they should b entitled to compensation for all injuries which arise out and in the course of their employment however cause though that is far from clear, since it might result in d priving of employment all who were in any way unsoun or past their prime; but while the word "accident remains in the statute, force and meaning must be give to it in construing the statute, and much as one may syn pathize with the claimant, I for my part am unable to se that anything which was not normal and most probabl if not certain, befell the deceased, and that there wa therefore, no evidence upon which the county court judg as a reasonable man, could legitimately find as he ha found. I therefore think the appeal should be allowed.

Lord Shaw, after alluding to the facts of the case an the decisions in the lower courts, and quoting authoritie in favour of his opinion, said: Where disease is a resu brought about by the employment itself—such as that lead workers—those cases are specially and separatel dealt with as diseases, and what I may call liability o the employment is imposed. Nothing could more clearl indicate that in the passing of this Act Parliament did no mean, at least in the ordinary case, to include such case within the category of accidents. In my opinion, in th present case it is impossible for me to attribute thi unfortunate and afflicted workman's death to injury b accident, as such a pronouncement, however prompted b compassion for those bereaved, would be erroneous in fac and involve a liability which is not imposed either by th language or in the intention of the statute. Nor do I thin it altogether without a bearing on the sound constructio of the statute, that if a different interpretation be pu upon the words cited, then a new peril will have bee introduced into the lives of many workers, who, notwith standing debility and chronic disease, are most anxiou and willing to devote their remaining powers to earnin an independent livelihood. Should such persons be hel to carry with them into and upon employment th serious and additional liability alluded to, employmen may become for such persons, often the most needy an deserving of the population, more difficult to obtai I accordingly tender my dissent from the conclusion reached by the majority of your lordships.

The appeal was thus dismissed by three to two.

Finality of Medical Referee's Reports.

A COLLIER injured his back on August 10th, 1908, and was pa compensation at the rate of £1 a week down to April 17t 1909, when the company contended that he had recovere and was fit for his ordinary employment; he was examine by the medical referee, who on October 20th reported tha he was in a sound condition of health and fit for his ordinar work. The man returned to work, but stopped again o November 21st, alleging that he was unable to continue owin to the original injuries he received. The Sheriff of Dunfern line found that while the medical referee's report was conclusiv as regarded the collier's condition on October 20th, 1909, tha did not debar him from proving that he was again incapacitate on November 21st. He awarded him compensation at the ra of £1 a week down to February 7th, 1910, except for the perio in November when he was at work. Being now again at wor as fireman, the collier was entitled to partial compensatio with the expenses of the action.

Neglect of Treatment.

A charwoman broke her arm near the wrist in the course her occupation on December 19th, 1908. She drew compens tion for about a year; an application was then made to th Sheriffs' Court in Glasgow to end it. It was admitted that a the date of the hearing her arm was still too stiff to enable he to resume her full work, and it was contended that the Sheri should consider her condition at that date. Sheriff Mackenz of Glasgow, before whom the case was heard, decided, on th authority of the medical referee, "that the stiffness was due t her having neglected to properly exercise the arm; had sh done so she would have been fit for her full work." He therefor ended the compensation.

Accident or Pleurisy?

In a case heard at Wigan (March 4th) it appeared that a pitmar while engaged with another man in pushing tubs, slipped an hurt his back. Upon his making a claim, it was alleged by th employer that he was really suffering from pleurisy, and tha this was the cause of his disablement. The county court judg said that even if a man had pleurisy, and was weak on tha account, and an accident supervened, and that developed an brought out something which was latent before, he coul recover compensation. In his Honour's view that was wha happened in this case, and there would be an award for th amount claimed with costs.

Accident and Lunacy.

In a case heard at Cardiff (March 4th) it was alleged that th applicant for compensation had become lunatic owing to a accident. It was proved that in August, 1909, he was struck o the head by a heavy weight. As a result he was paid compens

n down to September 14th, when he became insane. Evidence as given at the hearing to show that head injuries caused only per cent. of cases of insanity. In the event the county court dge refused to award compensation for the lunacy, as he held was not caused by the accident.

Alleged Poisoning by Carbon Monoxide.

In a case heard at Crewe (March 3rd) it appeared that the sband of the applicant had been a gasfitter. When he was sting a gas meter there was an explosion. He died a week er. On the hearing of a claim for compensation, Dr. Hodgson d Dr. Martlew attributed death to cerebral haemorrhage used by carbon monoxide poisoning. Dr. Lawrence, how-er, who gave evidence for the respondents, said that death as due to natural causes. The judge found, upon the evidence, at the death was due to natural causes. He was impressed the statement that if the death had been due to carbon noxide there would have been immediate haemorrhage, hereas, in fact, it did not occur until three days after the plosion.

A Claim in Respect of Nystagmus.

In a case recently heard at Sheffield it appeared that the plicant had been working below ground for about ten years. then had to leave the pit, owing to a disease of the eyes, d was subsequently sent to hospital. After three months he urned to the pit, where he worked for about eight months, d then again had to leave, as the complaint returned. Com-nsation was paid for about nine months, when the employers pped it, as they thought the applicant could return to work. . Constable Hayes, F.R.C.S., of Leeds, giving evidence for e applicant, said that if he went back to work the nystagmus om which he was suffering would become much worse, and in ew months he would be wholly incapable. According to his perience, in 50 per cent. of the men who had had the com-aint there was a recurrence after the first attack. Dr. J. oadley, who was called on behalf of the employers, said that hen he examined Vickers he perceived no movement of the es, and thought he was fit to resume work in the mine. If e disease were allowed to go on it would become chronic, but that time the patient might not be inconvenienced by the ovement of the eyes, and might be able to do his work quite ell. He admitted, however, that constant work in the mine ould probably make the disease chronic. Eventually an ward of 10s. a week was made on the footing that the applicant as capable of doing the work of an ordinary labourer at 20s. a eek.

Medico-Ethical.

e advice given in this column for the assistance of members is based on medico-ethical principles generally recognized by the profession, but must not be taken as representing direct findings of the Central Ethical Committee, except when so stated.

THE OBLIGATIONS OF A CONSULTANT.

M.—B. sees X. in consultation with A.; three months later X. asks B. to attend Mrs. X., but he declines except in consultation with A. X. argues that A. has never attended Mrs. X., and that she is therefore at liberty to choose B. as her medical attendant.

*** The answer to X.'s argument is that B. was introduced to the family by A., and that this invitation has arisen out of that introduction as a consultant; therefore he cannot in justice to A. accept any of the household as his patients, at any rate so soon after that introduction. The shortness of the interval is important as indicating the close connexion between B.'s visit as a consultant and the request to attend. It is expressly to prevent consultants or substitutes taking advantage of such introductions that the rule under which B. should decline the case has been established.

CONDITIONS OF INTRODUCTION.

ETA asks the following questions: (1) In the sale of a medical practice what is the usual length of introduction? (2) What is the custom as to the sharing of earnings during introduction? (3) What is the relation between the length of introduction and the amount of premium paid?

*** (1) The length of introduction is very variable, and must be settled in the agreement at the time of sale. A very common period is six months.

(2) During the period of introduction the profits are: (*a*) shared equally between vendor and purchaser; or (*b*) for the first half of the time the vendor takes all the receipts and pays all expenses, and for the last half the purchaser; or (*c*) one of them takes all profits, paying all the expenses, and making an allowance to the other.

(3) There is no necessary relation between the length of introduction and the amount of premium paid, except that where the practice is exceptionally valuable, the time of introduction is usually longer, as the vendor would require a longer time to introduce his successor properly.

Public Health AND POOR LAW MEDICAL SERVICES.

INDUSTRIAL EMPLOYMENT OF WOMEN AND INFANTILE MORTALITY.

DR. JOHN ROBERTSON (M.O.H. Birmingham) has issued an extremely valuable report on the effect of the industrial employment of women upon infantile mortality. Two wards of the city of Birmingham, the conditions of life in which indicated the existence of a high degree of squalid poverty, were chosen for investigation. From January 1st to December 31st, 1908, practically every baby born was visited by Dr. Jessie Duncan, and subsequently at frequent intervals by Dr. Duncan or an experienced health visitor. At one of these visits an elaborate schedule of inquiry was filled in, and at the age of 12 months each baby was weighed. The report is devoted to an analysis of the statistics collected in this way.

The mortality among the infants born n these wards of all mothers employed either before or after childbirth was at the rate of 190 per 1,000 births, among those not industrially employed it was 207 per 1,000 births. These figures would appear at first sight to support the paradoxical conclusion that the industrial employment of the mother was in itself a good thing for the child, but Dr. Robertson shows how little warrant such an inference would have. He remarks:

> I think it is probable that, in considering the class of women dealt with in this investigation, there are other points which have an even greater influence on infant mortality than the working of the mother. In many cases the additional income brought in by the mother had an important influence in the prevention of poverty, which is one great cause of a high infant mortality. Again, a certain natural selection may have operated, many women who go to work being thrifty and energetic, and determined not to get below the poverty line, nor yet to neglect their home duties.

That, other things being equal, industrial employment of mothers is likely to be deleterious to the children seems to follow from the observation that 75 per cent. of the not-employed mothers suckled their children up to the age of 6 months, while only 27 per cent. of the employed did so. The relation between breast feeding and weight is indicated by the following table:

	Number Weighed.	Average Weight at 12 Months.
Breast-fed for six months	466	18.01b.
Partially breast-fed for six months... ...	177	17.2 lb.
Bottle-fed	173	17.2 lb.

It is a pity that the "probable errors" of these means are not given as the differences are not large. If, however, the generally observed higher death-rate from summer diarrhoea among bottle-fed as compared with breast-fed children is maintained among these children, the harmful effect of maternal employment would be established.

The influence of poverty is suggested by the following table, although here again the remark with regard to the "probable error" is applicable.

	Number Weighed.	Average Weight at 12 Months.
Father out of work	107	17.6 lb.
Total income less than 10s. per week ...	52	16.8 lb.
Total income 10s. to 20s. per week	303	17.5 lb.
Total income 20s. to 30s. per week	300	18.3 lb.
Total income over 30s.	39	18.8 lb.
Illegitimate children: no income at first visit	15	18.0 lb.

The general conclusions drawn by Dr. Robertson are that the influence of industrial employment is largely masked by the general state of poverty; but that, so far as the investigation goes, the type of industrial employment in vogue does not appreciably influence the health of the mother or her infant when the standard of comparison is that of women in equally poor circumstances but not so employed.

This interesting study is worthy of close attention by those interested in the problems of industrial life, and is an example of valuable work done by the Public Health Service, and too often disregarded by the politicians and reformers of the market place.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Reigate Rural District.—In estimating the population at the middle of 1909 at 19,720, the medical officer of health, Dr. A. E. Porter, has taken into account the addition to the population of about 740 persons consequent upon the opening of the county asylum at Netherne. The birth-rate was 19.7 per 1,000, and the adjusted death-rate 9.5 per 1,000. The infantile mortality-rate was equal to 56 per 1,000 births. In 1905 this rate was 55 per 1,000. The district council very wisely decided during the year to adopt many of the sections of Part II of the Public Health Acts Amendment Act, 1907. It is to be regretted that they decided, contrary to the advice of a committee of the council, not to adopt section 25, which provides for the paving or covering with some impervious material of back yards. The Local Government Board sanctioned the adoption of the sections selected by the council on condition that section 33 was included. This section exempts from the Act certain buildings belonging to railway companies and other bodies.

Patrington Rural District.—Based on an estimated population of 7,021, the birth-rate in the rural district of Patrington, in the East Riding of Yorkshire, was 26.2 per 1,000 and the death-rate 13.1 per 1,000. The medical officer of health, Dr. W. H. Coates, states that the infantile mortality was 10. By this he apparently means that the number of children who died under 1 year old was 10. The infantile mortality-rate as usually calculated was equal to 54 per 1,000 births—a remarkably low rate. During the year Dr. Coates successfully prosecuted under the Children Act the parents of a child who was sent to school in a filthy condition. The father was sent to prison for three months and the mother for four months. The district council may be well advised if they give effect to the advice of their medical officer of health and provide for the flushing of the drain in the Patrington parish. The drainage system appears to be good, but it must be a menace to the health of the inhabitants if there is no means of flushing.

East Stow Rural District.—The birth-rate in 1909 was 26 per 1,000 and the death-rate adjusted for residents and non-residents was 12.3 per 1,000, the population of the district being estimated at 5,815. The infantile mortality rate was equal to 71 per 1,000 births. Of the 11 children who died under 1 year old as many as 9 only lived 14 days. The medical officer of health, Dr. Charles W. Low, describes the cottage accommodation as very poor, the houses being mostly badly built, damp, and insufficiently ventilated. In the parish of Old Newton there was an outbreak of scarlet fever, lasting from November, 1908, until June, 1909, in which, out of a population of 619 persons, 67 were attacked. There does not seem to be any isolation hospital in the district.

Thedwastre Rural District.—Based on an estimated population of 8,840, the birth-rate in 1909 was 22.3 per 1,000, and the death-rate adjusted for residents and non-residents was 10.9 per 1,000. The infantile mortality-rate was equal to 80 per 1,000 births. Of the 16 children who died under 1 year old, 8 did not live fourteen days. The house accommodation for the working classes is described by the medical officer of health, Dr. Charles W. Low, as, on the whole, very unsatisfactory. Many of the houses have only two bedrooms and are overcrowded. Privy vaults are the usual form of sanitary accommodation and are a fruitful source of evils, chief amongst them being the pollution of water supplies.

DISTRICT MEDICAL OFFICER'S APPOINTMENTS: THE CONSCIENTIOUS OBJECTOR.

Sea Serpent asks: (1) Whether the Local Government Board would confirm his appointment as medical officer to a second district (one adjoining his own) where there is now a vacancy; if appointed he would not be a resident therein. (2) Can a man who is 20 years of age legally sign a conscientious objection form of vaccination for his child?

*** (1) The Local Government Board before confirming such an appointment would, we believe, require the reasons for a non-resident being appointed. If there should be no such resident willing to accept the vacant appointment consent would probably be given, but this might be delayed or refused if the area of the two districts together exceeded 15,000 acres or contained a population exceeding 15,000 persons. (2) We believe that a conscientious objection *properly tendered by the father* would entitle him to claim a certificate of exemption from vaccination for his own child.

Medical News.

The King has been pleased to grant to Mr. Alexand A. W. P. Murison, M.B., of the Deaconesses' Hospita Cairo, permission to accept the Fourth Class of the Ord of the Red Eagle, conferred upon him by the Germa Emperor, and to Mr. Edwin R. Wheeler, M.B., Ch.B formerly Medical Adviser to the Kanagawa Prefectur permission to accept the Third Class of the Order of t Sacred Treasure, conferred upon him by the Emperor Japan.

The Lord Lieutenant has appointed Dr. J. O'Conne Redmond, F.R.C.S.I., to the Commission of the Peace f the Borough of Dublin.

Dr. A. T. Brand, late Public Vaccinator, Driffield Distric Driffield Union, has been awarded the Government extr grant for efficient vaccination for the tenth consecutive tim

In the note published last week on the internation expedition to Teneriffe it should have been stated that o of the members of the expedition is Dr. C. Gordon Dougla of St. John's College, Oxford.

The Japanese Ambassador will unveil a tablet over bed at the Dreadnought Hospital, Greenwich, on Wedne day, April 13th. His Excellency will be received at t hospital by the president, the Duke of Marlborough.

The Partick Medical Society brought its winter sessio to a close on March 10th by the annual business meetin There have been discussions on friendly societies, t medical inspection of school children, the relationship the British Medical Association to local medical societie and other subjects. At the business meeting it w announced that the new debt collectors were conductin their business with conspicuous success. The society funds are in a very satisfactory condition, and the mem bership continues to embrace practically all the pra titioners in the district. A most successful smokin concert was held, and arrangements are being made f a summer outing, which it is hoped will receive t support it deserves.

The programme of the International Congress a Exhibition of Physiotherapy, which is to be held in Par from March 29th to April 3rd, has already been publish in the Journal of November 6th, 1909. It may intere some of our readers to know that reductions of fares w be granted by the railway companies to members associates and their families who attend the Congre The South-Eastern and Chatham Railway will issue the tickets from March 25th until April 2nd at Charing Cro booking office, via Dover and Calais, and via Folkesto and Boulogne, at 58s. 4d. first-class return fare to Pari instead of 95s. 9d., and at 37s. 6d. second-class instead 69s. 10s. The London, Brighton, and South Coast Railw will issue their tickets at Victoria or London Brid Stations, via Newhaven and Dieppe, at 39s. 3d. first-cla return fare to Paris, instead of 66s. 3d., and 30s. 6d. secon class return fare to Paris instead of 47s. 1d. The ticke will be available by day or night services. The tickets both companies will be valid for one month. Full inform tion may be obtained on application to M. H. Saunic delegate, 19, Bartholomew Close, E.C.

Mr. Benjamin Weir, who died in February, 190 bequeathed certain freehold houses in Balham a Streatham and the residue of his estate, the wh amounting in value to over £100,000, for the purpose establishing a hospital or other medical charity, to called the Weir Hospital, for the benefit of the inhabita of the parish of Streatham and the neighbourhoo The trustees, considering it to be impracticable carry out the specific provisions of the will and relyi upon the general provisions, applied to the Charity Truste to settle a scheme for the administration of the chari The commissioners accordingly made an order directi that the house at Streatham should be used as a home a staff of trained nurses whose services would be availa for all the inhabitants of Streatham and the neighbo hood, and the other house as a dispensary, and that t surplus income arising from the remainder of the e dowment not required for the maintenance of the nurs home and the dispensary should be applied to e larging and supporting the Bolingbroke Hospital condition that the name of that hospital was changed the Weir and Bolingbroke Hospital. The Wandswo Borough Corporation applied to the Chancery Division set aside this order, on the ground that the money be intended for a hospital at Streatham the order was a gra diversion of the funds to objects not contemplated by t testator. The court refused the application, holding t the words in the trust deed, "Streatham and the neig bourhood," were sufficiently fulfilled by the order.

Letters, Notes, and Answers.

TISH MEDICAL ASSOCIATION AND BRITISH MEDICAL JOURNAL.

offices of the British Medical Association and of the TISH MEDICAL JOURNAL are at 429, Strand, London.

MUNICATIONS respecting Editorial matters should be addressed to Editor, 429, Strand, London, W.C.; those concerning business tters, advertisements, non-delivery of the JOURNAL, etc., should addressed to the Office, 429, Strand, London, W.C.

EGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of BRITISH MEDICAL JOURNAL is *Aitiology, London*. The telegraphic dress of the BRITISH MEDICAL JOURNAL is *Articulate, London*.

EPHONE (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

GINAL ARTICLES and LETTERS *forwarded for publication are derstood to be offered to the* BRITISH MEDICAL JOURNAL *alone unless contrary be stated.*

IORS desiring reprints of their articles published in the BRITISH DICAL JOURNAL are requested to communicate with the Office, Strand, W.C., on receipt of proof.

RESPONDENTS who wish notice to be taken of their communicans should authenticate them with their names—of course not essarily for publication.

ESPONDENTS not answered are requested to look at the Notices to rrespondents of the following week.

USCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT DER ANY CIRCUMSTANCES BE RETURNED.

☞ *Queries, answers, and communications relating to subjects hich special departments of the* BRITISH MEDICAL JOURNAL *levoted will be found under their respective headings.*

QUERIES.

UMATOID, who lately heard of the treatment of rheumatoid thritis by means of blisters over the spine, asks for details this treatment for personal trial, or for references to any iblication where the treatment is described.

C. R. asks for information on the subject of hereditary taract affecting the horse, and the age it usually makes its pearance. He asks in connexion with a horse 11 years old hich has frequently passed the veterinary examination at rious shows.

UNCLE desires to hear of a soothing application which can used in a very painful case of vesical caruncle in a lady ed 40. On three occasions the growth has been freely moved with knife and cautery, but returns again in three or ur months. The pain is very severe on standing, but is earable in a sitting posture. Cocaine ointment (10 per cent.) as been almost constantly used for a year. It relieves, but ves rise to toxic symptoms.

HOME FOR IMBECILE GIRL.

J. S. L. wishes to hear of a home for an imbecile girl, aged years, whose father died recently; her mother cannot leave er to go out to work, and is quite unable to pay anything wards her keep.

*** If the patient lives in the county of London admission an be obtained for her to Darenth Asylum through the uardians of the parish. Application should be made through ne relieving officer for the district.

NON-CRIMINAL INEBRIATES.

ZZLED asks for advice in the management of a case of a dy addicted to the use of narcotic drugs and alcohol who ves in a flat and refuses to have any relation with her. She as been found on various occasions comatose from drink or rugs, and on one occasion set her bed on fire by upsetting candle. Her present trained nurse is trustworthy, but the atient still obtains narcotics; previous nurses have been ismissed at a moment's notice. Her friends would gladly lace her under control, but the patient, who is sane, will not ive her sanction. Our correspondent asks what he can do.

*** Assuming that all the known relevant facts are stated, he person referred to seems to be, as yet, what is legally ermed a non-criminal inebriate who also refuses restraint. rue, her voluntary reduction to alcoholic coma and once etting her bed afire by an accident to a candle indicate dangers to herself; but if it be correct that she is sane these facts do not seem to legalize forcible interference. Persuasion might possibly succeed. Were she insane, whether from drink or not, interference could be immediately enforced. The case well illustrates the defective reach of the relevant Acts.

CHEAP SURGERIES IN POOR DISTRICTS.

FUTURUS asks for opinions on the following statement: Recent letters are an indication of what many medical men feel with regard to the profession. There is no doubt that general practice is undergoing a great change—an evolution—but there is some doubt as to how it is going to end. I have more than once heard the opinion expressed that the general practitioner is dying out, and that in another generation or so doctors will be of two classes—the specialist or consultant, and the surgery man who charges small fees and sees a great many patients in a poor district. If that be true—and it seems not unlikely, at least in some places—then it follows that the general practitioner, with a diminishing income and no private means, must choose between one of the other two classes, or starve. Now let us look facts in the face, without any false bias as to professional dignity. The hospitals are intended for people who can pay nothing. There are large attendances in the out-patient departments, and the patients receive as much attention as their cases require. Then there is another class, found in abundance in all large centres of population, who can pay a little, but not fees from 2s. 6d. upwards. Who is to attend to their ailments? They do not want charity; they are willing to pay in proportion to their means; and they are able to put their money down.

Now, is there any reason why a private practitioner who is not busy enough in the district where he happens to live should not devote some hours of his day in a surgery in a poor neighbourhood, and make what he can in small ready fees? I was brought up to consider such a practice as beneath the dignity of a respectable man, and was supported in this view by the fact that some such doctors were heavy drinkers, and unfitted for any practice. With the lapse of time and a wider experience I gave up this view, and now I see nothing ethically wrong or practically impossible in conducting such a surgery to the advantage of both patients and doctor. The surgery becomes a private out-patient department; the hospitals are available for such cases as require them; the district nurse for those who can be attended in their own homes; and the doctor himself, besides being successful from a business point of view, has abundant material for the development of his knowledge and diagnostic acumen.

ANSWERS.

LEGES has omitted to verify his communication with his name.

ANTISEPTIC PROPERTIES OF ALCOHOL.

BATHONIAN.—Alcohol is seldom used to disinfect instruments. It is stated that absolute alcohol is inert; some authorities give 96 per cent. as the most useful strength, others 70 to 80 per cent. So far as disinfection of the skin is concerned, full information will be found in Meissner's article on the subject in *Beitrage z. klin. Chir.*, Bd. 58, p. 191. A recent paper on the influence of various antiseptics on various bacteria is to be found in *Desinfection Monatsschrift*, 1909, Hft. 7. Fürbinger has written a good deal on alcohol as a disinfectant. A great many references are to be found in Lockwood's book on *Aseptic Surgery* (Oxford Medical Manuals, 1909).

STOVE FOR INVALID'S BEDROOM.

H. H. writes: If "H." will pack the fire grate with pieces of coal as he would pack a child's bricks into the box, and fill the interstices with coal dust, then light a fire on the top, he will have the ideal fire for a sick room. It will burn without attention for twelve to twenty-four hours if well laid. The process of lighting a slow combustion fire was thus described in the *Daily Chronicle* a few weeks ago: Take some pieces of coal, of a suitable size, and pack the grate with them, as closely as they will lie, having placed one layer on the bottom of the grate, fill the cracks between the coals with coal dust, then put a second layer of pieces of coal, and fill with dust as before, and so do till the grate is full to the top bar; then with paper, wood, and coal, or with a fire lighter, proceed to make a fire on the top of the filled grate, feed this with cinders or pieces of coal till it is well burning. Then the fire will burn for twelve or more hours according to the care with which the grate has been filled. My library grate is an old-fashioned hob grate; when the fire has been lighted in this manner, it has burnt from 10 one day to noon the next; of course it is not a fierce fire, and it should not be poked. The tighter the coal is packed the slower the combustion. Coke and coal dust will make a good fire, but is not so lasting.

LETTERS, NOTES, ETC.

THE COLLEGE REFORM.

DR. H. ELLIOT-BLAKE (Bognor) writes: A degree for London medical students has been accessible for close on 100 years, both the Royal Colleges of Physicians and Surgeons simply stopping all extension of that principle in London, and therefore retaining the unfortunate imposition or popularity of the

colleges. So that is not the question to be pursued, and I will be pardoned for sticking to the real issue—the reform of the colleges. It would, indeed, be foolish, if not a waste of effort, not to occupy this Royal Commission so as to end the colleges. On every side their day and even their influence on teaching is ended. Of course, the movers in this medical reform movement are entirely in the hands of the councils of the colleges and the Senate of the University, but it is to be hoped that these councils will be handed down to posterity as having risen above party spirit and were capable of the broad-minded decision of this reform, and thus alone can the decision of the old and last councils of the old régime be distinguished from those who toyed with less sincere, crude, and abortive efforts. Within the last few years such impression has been made, thanks to our enlightened medical press, that both parties not only desire to benefit by the college question and reform, but they have realized the necessity of joining together. The report of the college delegates shows an enormous advance on the old college degree idea and on that of the separate university scheme. The whole profession, the University of London, and especially the Fellows and Members, will attach great importance and appreciation to the one vital addition, under "*Evidence should be given*": (ii.) "The course of education of the London University student should be brought into relation with the examination." If properly carried out, it covers the whole of my reform suggestions. We have never had anything before approaching that completeness. That would be a real and not a sham junction with the university. We can congratulate them on that broad, unselfish, and careful application to the details of this abused question; and some of us have been roundly abused! Although their position happens to be just the executive power of office, still it might have been selfishly applied; instead, the confidence in their experience has been justified.

Criticism on this good report would be *de trop*, especially from one who must and does know many of their difficulties, and is more of a compliment, considering the chaos of the old situation that those who have busied themselves of yore well remember. With the report, and from an initiatory point of view, the statistics may be availed of for the Royal Commission. But, technically, the set parts of the percentages, like all percentages, are apt to vary according to the variations in taking them over closely similar periods, and a very different inference might be better drawn from and according to the arrangements there. However, the two chief and definite characters stand out deducible and irreducible, and they follow my previous contentions that the medical students in London have much diminished, and in the colleges from 1,265 in 1891 to 605 in 1904. That has nothing to do with the puny relative incidence that so unnecessarily hampers some writers. It is a solid argument in favour of this college reform.

Responsible suggestions that may be useful have to be carefully broached in face of this capable and strong report, but two weak points do require stiffening. It is useless to delay the necessary sacrificial remedy further for a paltry generation at the outside, and for the subsequent trouble of another Royal Commission or agitation, or simply to satisfy the old retention of accreted power. No; immediate action will be welcome between the colleges and the university, and for the junction of the two bodies. Acquisition is one thing, but fruition and marked production transcend both in comprehension and greatness. These accepted reservations refer to (1) "7," the essential cross question, to retain their "complete autonomy"; and to (2) "matriculation," a preliminary examination recognized only by the Royal Colleges. The former would simply be the negation of the complete plan, it would promote the continued negotiation of the separatist policy, and it renders the scheme totally non-assimilable, with the absolute necessity for a stronger medical and university front for our profession in London. Any fear about the other colleges has never shown them to be at all possible rivals of the London. They will either have to follow suit, or the Medical Council may advise their discontinuance when the London advance is accomplished. At any rate, their teaching or position is not what is now expected for the training of medical students. The only other opposition—the bark about the lowering of the standards—has been long drowned by the wave of sense. The question, therefore, is "how" and which, to use a bull, is no reply. The direct way will be an immediate or a gradual protectorial fusion over five years with interchangeable examinations, and after that period only one set of examinations. That would pool the fees first, and provide for State-aid claim on account of performing a public duty. It would be very wanton to lose this great opportunity under the auspices of the Royal Commission, and it should not be spoilt over figmentary contentions about bits of power. I am alive to the higher forms of difficulties, and over past responsibilities and legal obligations, legacies, trusts, the library, and the public museum. But these public obligations provide all the stronger lever to be wielded in the hands of the councils as a consolidation argument for the university. Certainly, for that separate and executive part an autonomic board would have its foundation and recommendation. But for the conjoint teaching and interchangeable examinations there ought to be a direct fusion, and only one University Conjoint Board. Under that collegiate and university reciprocation, and with the object of retaining the epithet "Royal" to the colleges, perhaps the Conjoint Board would be called "The University of London and R Colleges of Medicine Examining Board."

In the second instance, there is still the hesitancy belief in the necessity of the college preliminaries. For thing, it hurts no one but the possessor; so that the uni sity who have woken up to their responsibility to pro teaching for all—or they should do—could hardly serio persevere in an objection against allowing these col students to matriculate for the agreed-upon term in t university, and under the rearrangement, so long as they the sustaining fees and passed in their degree subjects under any other condition. The direct plan would then for the University and Royal Colleges of Medicine Fac Board to issue a circular of intimation and demand to "Preceptors" or other preliminary examining bodies warn them to adjust their examinations to the minimum standa acceptable, their acceptance would assuredly be obtai Considering the close agreements already reached, it woul fatal to the scheme to accept any less policy than combi tion, or to attempt to entice students to London and into university teaching—which must be the projection—and t not allow candidates to go in for any degrees for which t chose to be instructed. The terribly feared leniency in combined examinations would only, at most, extend over first few years. London, there and then, would be furnis as a university centre, for all time, for all medical student London. It would carry out the whole of my object in t reform movement, not only to level the Medical Teach Institution up to a university stamp in London—in eit pass or honours section, at the candidate's free option, not starved out as at present—and so to carry out the nec sary full junction of the Royal Medical Colleges with t University of London, which constitutes the best part of "medical college reform."

THE EFFECTS OF ABDOMINAL COMPRESSION ON VERY RAPID HEART.

DR. T. STRETCH DOWSE (Exmouth) writes: In the interest your readers relative to the very grave question of he failure and abnormal heart rhythm, so well illustrated Dr. Gordon's case—(? bulbar and spinal shock)—treated abdominal compression, I am anxious to draw their m serious attention to the work of Dr. Leonard Hill, *On t Physiology and the Pathology of the Cerebral Circulati* published by Churchill in 1896. In this work they w find the whole question of vasomotor paresis of the splanch area and anaemia of the bulbar centres fully and graphica demonstrated and explained by actual physiological expe ment. How these valuable researches have failed to recognized and reduced to far-reaching practical utility clinicians passes my comprehension.

TWO CASES OF IDIOSYNCRASY.

DR. REDMOND ROCHE (London, S.W.) writes: A male patie aged 33, a *bon viveur*, underwent at my hands three mi operations in the past two years; in each case chlorofo was administered. Within twenty-four hours in each instan jaundice supervened; bile appeared in the urine and stain the conjunctivae. Ultimately the jaundice cleared up co pletely. In this case the same individual presented chlo form jaundice three times. Another patient—male, aged 4 has had administered to him on three different occasions, intervals of about a year, very small doses of a coal-t product—phenacetin once, antipyrin twice; last time o one 5-grain dose was taken. On each occasion almost imm diately a curious condition supervened entirely confined the mouth. The lips were considerably swollen, the mou became very sore, and the gums were tender, but no ulce tion followed. This condition was quite distressing admitted only of soft food being taken, and lasted for seve days.

SCALE OF CHARGES FOR ADVERTISEMENTS IN TH BRITISH MEDICAL JOURNAL.

	£ s. d.
Eight lines and under	0 4 0
Each additional line	0 0 6
A whole column	2 13 4
A page	8 0 0

An average line contains six words.

All remittances by Post Office Orders must be made payable the British Medical Association at the General Post Office, Lond No responsibility will be accepted for any such remittance not safeguarded.

Advertisements should be delivered, addressed to the Manag 429, Strand, London, not later than the first post on Wednesday morni preceding publication, and, if not paid for at the time, should accompanied by a reference.

NOTE.—It is against the rules of the Post Office to receive ano *Restante* letters addressed either in initials or numbers.

A Clinical Lecture

ON

FOUR CASES IN WHICH STONES WERE REMOVED FROM THE URETER.

DELIVERED AT THE MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, FEBRUARY 7TH, 1910.

BY CHARLES A. MORTON, F.R.C.S.,

PROFESSOR OF SURGERY, UNIVERSITY OF BRISTOL; SENIOR SURGEON TO THE GENERAL HOSPITAL AND THE CHILDREN'S HOSPITAL; CONSULTING SURGEON TO THE COSSHAM MEMORIAL HOSPITAL.

I do not propose to lecture on the diagnosis and treatment of stones in the ureter. This has been written about very fully by those who have had a larger experience of such cases. I propose to speak on four cases of the kind which have been under my own care, to discuss the causation of some of the symptoms presented by them, and to refer to some of the difficulties in their diagnosis, and a few points in treatment.

CASE I.

A. J. T., male, aged 33, was sent to me by Mr. Page, and admitted to the General Hospital, November 8th, 1907. He had suffered for six months from occasional pain in the left iliac fossa, and also a slight pain in the penis, as if he wanted to pass urine, but the pain was not associated with micturition. The first severe attack occurred three weeks before admission. The pain was in the left iliac fossa, and extended into the left testis, and was accompanied by retraction of the testis, and then the pain extended up to the left loin. The attack lasted about eight hours, and was accompanied by vomiting. There was some frequency of micturition in the attack, but this was also present at other times. There was no haematuria. There had been two more similar attacks before admission, and one occurred after, but there was no vomiting with the one after admission. The urine passed after this attack was normal. The day after there was slight tenderness on pressure over the left kidney, and sharp pain on jarring the kidney from the loin behind, but it was not tender over the abdominal course of the ureter, nor could any stone be felt in the lower end from the rectum. The urine examined on several occasions was normal. A skiagram taken by Mr. Ellington Jones, the skiagraphist to the hospital, showed a small stone in the course of the pelvic portion of the ureter.

Operation.

On November 15th I first made the usual loin incision to expose the kidney and upper end of the ureter. The kidney appeared normal. I then extended the incision to 1 in. above and internal to the anterior superior spine, but could not feel any stone along the course of the ureter. I then make a minute opening in the ureter, close to the pelvis of the kidney, but when the bougie was introduced through this, it was so high up that it had to curve too much to allow of its passage, and I had to make another opening an inch below. Through this the bougie passed downwards until it met with an obstruction below the pelvic brim, and then, on following down the bougie with my fingers, I could feel the stone, but I could not get at it without carrying my incision in the abdominal wall forwards another two inches, until it reached the outer border of the rectus, making altogether nearly a 12-inch incision. I thought I could work the stone just a little upwards, but this is very doubtful. The part of the ureter containing the stone lay imbedded in fibro-fatty tissue near the bladder, and it was by no means easy to reach it. I cut through the fibro-fatty tissue on to the stone and extracted it. In exposing the ureter I tore a small opening in the peritoneum, but closed it at once with a continuous puckering suture. I endeavoured to suture the ureter, and passed two deep fine catgut sutures, and one outer of very fine silk, through the tissue through which I had cut into the ureter, but whether the sutures actually passed through the ureteral wall I am not certain. They certainly did not diminish its lumen, as I had a bougie in it at the time of suturing. I then sounded the interior of the kidney through the highest ureteral opening, with negative result. Both upper ureteral openings (both minute) were sutured with one deep very fine catgut suture, and one outer one of very fine silk. The end of a rubber drainage tube was placed against the sutured lower end of the ureter, and the other end brought out of the loin wound. The muscles were sutured with No. 2 twenty-day Van Horne's catgut. The stone was irregular in shape, a light colour, and on its surface were some crystals. It only measured $\frac{5}{16}$ by $\frac{3}{16}$ in., or about $\frac{1}{4}$ in. in diameter.

After-History.

The patient had to have two injections of morphine in the first twenty-four hours. During this period there was only a slight brown tinge with the urine passed from the bladder. Urine and blood oozing escaped freely from the drainage tube. In the second period of twenty-four hours the urine passed from the bladder was normal in appearance and greater in quantity, and there was less from the wound. On the third day there was again just a trace of blood in the urine from the bladder. There is unfortunately no note as to when the urine ceased to flow from the drainage tube and when this was removed, but the notes say that on the twenty-second day after the operation the wound was soundly healed, and he was discharged a few days later. In the following year he had attacks of pain in the *right* renal or ureteral region, but I never heard of any recurrence of the pain on the left side.

CASE II.

H. P., aged 48, was sent to me by Dr. Boyce of Wotton-under-Edge in September, 1906, with symptoms of renal colic. The first attack, which had occurred two months before, lasted thirty-six hours. The pain had been in the left loin, extending into the left groin and testes, and the testes had been retracted. He vomited frequently during the attack when the pain was severe. Hypodermic injections of morphine were required to relieve the pain. He said his urine had been black "with altered blood." A month later he had a second attack of the same nature, and morphine was again required. In the fortnight following the second attack there were several slight attacks of the same kind. In the two severe attacks there had been frequency of micturition. Dr. Boyce wrote that "he had passed some blood with the urine once or twice." The patient said that before the onset of the pain in the attacks he had a "bearing-down feeling" in the penis and rectum, and that after the second severe attack, during an act of micturition the urine stopped and then went on again but no stone was passed. For the last fortnight he had been free from discomfort of any kind, though he had been riding in a jolting carriage. He never had had any pain with micturition. This history was very suggestive of renal calculus; almost every symptom was present, and I did not doubt that he had either a stone lodged in the kidney or ureter, or that he had passed one. But that was the question—had he now passed it? He had been free from all discomfort for a fortnight. There had been only two very severe attacks, and the whole period during which he had had the attacks was within two months. I examined his urine on many occasions and it was always normal. There was no renal or ureteral tenderness or rigidity. A skiagram failed to give any shadow of a stone.

After keeping him under observation in the ward for some time I sent him home, with instructions that if the attacks persisted he was to come in again, for then, I told him, I should feel sure the stone was still there. But because further observation was necessary to confirm my suspicions and I did not then operate on him he seems to have made up his mind that he had no stone; and although the attacks persisted, and some were very severe, I saw nothing of him again until June, 1909—three years later—when the severity of his attacks drove him to seek relief. The history he then gave was that he had had many attacks since his previous admission, but had once gone almost, if not quite, as long as a year without a severe one. He had an almost constant pain in the left loin, and this was increased if he happened to slip or when doing laborious work, and sometimes even rising from the sitting position would bring on a sharp pain there. During the few months before his readmission there had been several severe attacks needing hypodermic injections of morphine and accompanied by vomiting. The pain was always through the left loin, shooting into both testes and into the penis. He said that sometimes after an attack the urine had been of the colour of porter, and he had sometimes passed a little slime with streaks of blood from the urethra after the attack. At the commencement of the attack micturition had been very frequent—every ten or fifteen minutes; but when the pain got severe, although there was a persistent desire to micturate, no urine passed, and then as the attack passed off a little urine began to come at frequent intervals. This was his description of what happened. I presume that when the attack was at its height either the bladder was in a state of persistent contraction or the intervals between the contractions were so short that hardly any urine had time to collect. In the intervals between the attacks there was no frequency of micturition or pain with the act—nothing, in fact, to suggest that any stone had passed into the bladder.

His urine was a pale straw colour, quite clear, 1012, with a slight cloud of albumen. He had a muscular abdominal wall, with a fair thickness of fat in it, so that it was not easy by palpation to reach the contents. There was very slight tenderness on pressure over the left lumbar region in front, but on jarring the loin behind he had a sharp pain for a moment. There was no tenderness over the course of the ureter, but, as I have already stated, the condition of the abdominal wall was not favourable to palpation, and nothing abnormal was felt at the lower end of the ureter per rectum.

On the night of July 1st (a few days after admission) he had a severe attack of pain in the left loin, and when I saw his urine next day there were two minute clots of blood in it. As I should certainly have operated even if the skiagram showed no stone, I did not have one taken.

Operation.

The persistence of the attacks in the one loin made me feel almost sure there was a stone in the kidney or ureter, and I explored the kidney on July 2nd by the usual loin incision, 4 or 5 in. in length. The kidney shelled out of the perinephric fat with unusual ease; it could not be brought out on to the loin, but could be brought fairly well down into the wound. An incision was then made in the outer border of the kidney and a finger passed through it into the interior of the organ. It entered a small smooth cavity, which felt like a slightly enlarged pelvis. A smaller cavity leading out of it in

a downwards direction could also be felt. The interior of the kidney was then sounded with a long probe. No stone was discovered either by the finger or probe. It was not found possible to pass the ureteral bougie from the interior of the kidney down the ureter. The incision in the cortex of the kidney was closed with No. 1 twenty-day Van Horne's catgut sutures. I then explored what seemed to me the whole course of the ureter as it lay behind the peritoneum with my fingers, but felt no stone. I then made a minute opening (about $\frac{1}{8}$ in. long) in the upper end of the ureter, and through this I passed the ureteral bougie in a downward direction. It was obstructed near the lower end, and the point of the bougie could be felt to grate against something at the obstruction. It is interesting that the sensation of rough contact was conveyed to the fingers through such a length of flexible bougie. I then passed my fingers along the course of the bougie, and, now guided by it, I readily felt a small stone in the ureter at the point of obstruction. This seemed to be only an inch or two from the bladder. I tried to work it upwards but could not move it. I therefore carried my original incision as far as the outer border of the rectus, obliquely forwards and downwards, until it was 10 inches long. Even then it was extremely difficult to reach the stone. It seemed to lie under the bladder, and the peritoneum was pressed down on it by the weight of the intestines. I think it might have been a help at this stage to have adopted the Trendelenburg position, but there was the complication of the air cushion under the right loin, which it might have been difficult to reinsert during the later stage of the operation (closure of upper ureteral wound) if removed. I cut through the ureteral wall on to the stone and extracted it with a pair of sinus forceps. It was only $\frac{3}{8}$ by $\frac{2}{3}$ in. in size, but very angular. It came out in one comparatively large and two very small fragments. After its removal I could easily pass the ureteral bougie from the upper opening in the ureter, past the opening though which the stone had been removed, on into the bladder. I could not reach the incision in the ureter through which the stone had been removed sufficiently to suture it, but I closed the upper minute opening with one deep very fine catgut stitch, and another of very fine silk through the outer wall. The divided muscles of the abdominal wall were all sutured together with No. 1 twenty-day Van Horne's catgut. The end of a long rubber drainage tube was placed against the unsutured opening in the ureter, and the other end brought out of the loin wound.

After-History.

During the first twenty-four hours after the operation there was only a slight brown tinge in the urine, but there was a free discharge of deeply blood-stained fluid from the wound; in the second period of twenty-four hours urine practically ceased flowing from the loin drainage tube, and he passed several pints. The drainage tube was removed on the fifth day, as there was then only a slight stain on the dressing and no suppuration. I kept him in bed three weeks, and from the time he got up he wore a strong well-fitting belt. But, in spite of this and careful suturing of the muscles, a hernia has formed in the scar. He has got much stouter, and probably there has been a considerable increase of intra-abdominal fat, and this has helped to cause the bulging in the scar. He has had (January, 1910) no return of his pain.

CASE III.

T. M., male, aged 29, was sent to me by Dr. James Young, and was first seen by me on July 3rd, 1907. Two years before that date he began to suffer from severe attacks of pain in the left loin, and at the period at which I first saw him they had occurred almost every week. The pain started in the left loin behind, and extended round to the outer border of the rectus about the same level, and then down the abdominal wall into the testes, and the testes became retracted. Sometimes the pain ceased in the loin but remained in the other situations. These attacks lasted about twelve hours. Sometimes there was vomiting, if not there was nausea. During these two years he had several times what he considered to be haematuria, but it was not specially associated with these severe attacks of pain. There was frequency of micturition, which was very marked on some days, but it also was not specially associated with the severe attacks of pain. Sometimes with an attack, sometimes without, he had rectal tenesmus, passing little bits of hard motion. After the first attack he had great pain at the end of the penis in passing urine for twenty-four hours, and then, when micturating and defaecating at the same time, the pain and obstruction suddenly ceased. He did not hear anything rattle, as if he had passed a stone, but the conditions were not favourable to any sound being produced if one had fallen. Jolting caused severe pain. He was a tram driver, and he dreaded going over any junction on the tram lines, as the jolting of his car brought on severe pain.

He was an in-patient at another provincial hospital two years before I saw him. A skiagram was then taken but no operation was proposed. This was six months after the first attack. I could not make out any tenderness in the renal region either on pressure or percussion. The urine was normal. A skiagram of the kidney and upper end of the ureter was negative.

Operation.

On July 9th I explored the kidney by the usual loin incision. The kidney appeared healthy, and no stone was found in it, on exploration of the interior by the finger passed through an incision in the cortex. The pelvis did not appear dilated. Later on in the operation the interior of the kidney was explored by a sound passed up through an incision in the ureter, with negative result. I could easily feel a stone lying in the ureter 2 in. below the kidney. The ureter was much thickened both above and below the stone, especially below it and for the extent of an inch. I cut into the thickened ureter and removed the stone, which was $\frac{1}{2}$ in. long and $\frac{1}{4}$ in. broad. It was very rough and somewhat irregular, so that, although it fitted tightly, yet probably urine could flow by it without any great difficulty. After the removal of the stone I could pass a bougie into the bladder. I united the incision in the ureter with a few fine catgut sutures through the deep wall and a few very fine silk ones through the outer. I passed a rubber drainage tube down to the sutured ureter, and closed the incision through the muscles of the loin with No. 1 twenty-day catgut.

After-History.

There was a slight brown tinge in the urine passed first after the operation. No urine escaped from the wound. The drainage tube was removed on the fourth day after operation, and the wound healed without any discharge. I saw him last year—that is, two years after the operation—and he was then very well and busy at work on the trams.

CASE IV.

W. S., male, aged 24, was sent to me in January, 1904, by Dr. Aubrey, who was then in practice at Bridgwater. He had begun to suffer from attacks of pain in the right loin two years before; at first they occurred every month or so, but during the previous six months they had occurred every week or two. The pain was always in the back in the region of the right kidney, extending through to the front, but not shooting into the groin or thigh, though he sometimes got retraction of both testes during an attack. He often felt sick, and now and then vomited during an attack, and there was moderate frequency of micturition while the attack lasted. He had never noticed anything like haematuria. Dr. Aubrey had seen him in several attacks, and had never found blood in the urine after them.

He had one attack after admission. It lasted about twenty-four hours. The pain was in the right renal region, and it did not extend in any direction. He felt sick, but there was no actual vomiting. The urine passed at the end of the attack only contained a light flocculent precipitate. It showed no red corpuscles under the microscope, but numerous uric acid crystals were present.

At times, when he was free from any attack of pain, there was some tenderness on pressure over the right kidney, and on sharp percussion of the loin, though not on the other side. There was no swelling or tenderness along the course of the ureter, either on palpation through the abdominal wall or per rectum. He was not fat, but was very muscular. No blood was ever detected in the urine.

Several skiagrams of the kidney and the portion of the ureter in which a stone was eventually found were taken, with negative results.

Operation.

On February 5th I explored the kidney by the usual lumbar incision, which, when I found the stone in the ureter, I enlarged forwards as far as the anterior superior spine. I at once felt a stone lying in the ureter several inches below the level of the kidney, about that of the pelvic brim. It could not be pushed up the ureter before I cut down and removed it. It broke up in removal, but I estimated that it was one-third of an inch in diameter, It was soft and irregular, and apparently composed of uric acid. It was so firmly fixed in the ureter that it was surprising that the urine had flowed by the side. The ureter seemed thickened above the stone. After its removal I passed a bougie down into the bladder, and then closed the incision in the ureter with fine catgut sutures through the deep layer and fine silk through the outer layers. I then explored the interior of the pelvis of the kidney through an incision in the renal cortex. I found the pelvis somewhat dilated, but no further stones. This incision through the renal cortex was closed with three catgut sutures. A drainage tube was placed against the sutured ureter and kidney, and the muscles of the loin were sewn together with catgut.

After-History.

The urine had to be drawn off during the first forty-eight hours. This was probably simply due to the patient's inability to pass urine lying on his back. The urine each time contained a considerable quantity of blood, and blood-stained urine was also present in the dressing within the first twenty-four hours. After this the urine remained free from blood until the eighth day, and there was no further discharge from the loin wound, the drainage tube being removed on the eleventh day. On the eighth day he had an attack of pain in the region of the kidney which had been operated on, and haematuria set in. The red colour of the urine lasted for more than a week, but the urine for part of this time was probably simply coloured with blood clot which had been lying in the bladder, as later on such clot was washed out in a partially decolorized condition. The renal pain did not continue after the 13th, but recurred a month later, and was associated with tenderness over the course of the ureter, and with a rise of temperature. There was also some temporary rise of temperature when the haematuria was present. The retention of clots in the bladder was followed by cystitis, but he was well enough to go to the convalescent home at the beginning of April, about two months from the operation. It is difficult to say what was the cause of the renal pain and haematuria which set in on the eighth day. I am inclined to

hink that some secondary haemorrhage may have occurred om a vessel in the kidney divided in the incision made for its xploration, but haemorrhage from such a cause is very rare. hat the outer part of the wound in the cortex had closed is hown by the absence of discharge of blood from the loin ound, as the drainage tube was still in at the time of the onset f the haematuria. It may possibly have been secondary aemorrhage from some vessel near the pelvis of the kidney. he recurrent pain, and the tenderness along the ureter, may ave been due to the passage of old clots retained within the elvis of the kidney. There may have been some pyelitis also et up by the presence of retained clot, and this would account or the pyrexia which was present.

These four cases seem to me to illustrate some interesting points connected with stone in the ureter. In none of he cases, so far as we were guided by the symptoms, ould we have felt at all sure that the stone (if present at ll) was in the ureter rather than the kidney. The osition of the pain in some suggested the renal seat of he stone rather than the ureteral. Only in one of the our cases was the pain in the iliac region rather than the oin, and in this case, although the pain began in the iliac ossa, it extended up into the loin. Pain, when the stone s in the kidney, may be most marked over the ureter, so hat pain in the course of the ureter rather than the renal egion does not prove that if a stone is present it is in the ureter rather than the kidney. It may be suggested that a stone was also present in the kidney in these cases, but was not discovered at the operation. But in three of the cases the interior of the kidney was explored with the finger passed through an incision in the cortex, and in the fourth case the interior of the kidney was sounded through an opening in the ureter. Moreover, the symptoms subsided after removal of the ureteral stones.

Why should sharp percussion of the loin cause pain when the stone is firmly fixed in the ureter, well below the kidney? Yet it did so in several of these cases. In trying this test, I always compare the effect of sharp percussion of one side with the other, and in these cases I found it only on the side in which the stone was in the ureter. It is supposed to give rise to pain by causing a sudden movement of the stone in the interior of the sensitive kidney. I do not think that in any of these cases it caused any movement of the stone in the ureter. At the time of operation the stone was so fixed that I could not move it. It is remarkable that in one of the cases jolting in a car should have caused such marked pain, when the stone was so firmly impacted in the ureter. As I have already told you, the patient was a tram driver, and he dreaded crossing a tram junction on account of the jolting of the car, as it gave him so much pain.

Only in one case was dilatation of the renal pelvis at all marked, and even in this case it was not great. Although the stones were so tightly fixed in the ureter, and were of a size to block the lumen, they had not a great tendency to produce hydronephrosis. Although they fitted the ureter so tightly, I think they were not smooth enough to prevent urine passing by the side. If they had been round stones the lumen would have been blocked by them. Of course it is not possible to say how long the stones had been so tightly impacted in the ureter. All I can say is that in these four cases I found at operation a stone tightly fixed in the ureter, that symptoms such as were present at the time of operation had been present for at least several months, and that in only one was there any distinct dilatation of the renal pelvis observed. It is interesting how small a channel may suffice to prevent any marked backward dilatation.

As there was no hydronephrosis, at any rate in three out of the four cases, it is interesting to consider what the severe attacks of pain were due to. In some of the cases they were present up to within a very short time of operation, so that there is reason to believe that whatever was found at the operation was the cause. In all cases it ceased after the removal of the stone from the ureter. I think it was not due to the passage of the stone along the ureter, for in every one of the four cases the stone was absolutely fixed there and could not be moved, even backwards. It may be said that it had been moving downwards during the attack, and had by the time of the operation become fixed in the ureter. But it would be very remarkable if I happened to operate on all four cases just at the time when the stone had become fixed. Of course it is impossible to say when it became fixed; but it is probable that the severe attacks of pain were associated with it in its fixed condition. And the great thickening of the ureter, associated with the impaction of the stone in one case, was evidence that the stone had been fixed in the ureter for some considerable time, yet at the time I operated the patient was getting severe attacks of pain almost every week. The great thickening of the ureter below the seat of impaction of the stone would, in this case, have prevented its onward passage. It seems to me that almost certainly from time to time the ureter above the stone contracted very firmly, became spasmodically contracted, and tried, though ineffectually, to force it on, and that the pain was due to this spasmodic contraction of the ureter. The pain of colic is probably usually due more to violent contraction of the muscle of the duct than to the passage of the stone over the mucous membrane. Why this contraction should set in at intervals, when the stone is lying impacted in the ureter, we cannot tell, for we do not understand what starts the contraction in any particular case, seeing that the stone is always there, and that it is firmly fixed. In two of the cases there was a history of haematuria, but in one of these, after a severe attack of pain in the renal region, after the patient was admitted to the hospital, I found two small clots in the urine passed just after the attack. Next day I found a stone firmly fixed in the ureter, and none in the kidney. Where did the blood come from? If the stone had moved down the ureter the day before, it ought to have moved up again with the pressure of my finger and thumb, but it was firmly fixed. The minute clots were not due, then, to the passage of the stone along the ureter. Their presence suggests the view that the contraction of the ureter, although it could not move the stone, yet by pressure of the mucous membrane on it had damaged the mucous membrane enough to cause slight haemorrhage.

I have already mentioned that there was nothing in the pain, in at any rate three of these cases, which could have suggested that there was a stone in the ureter rather than in the kidney. Neither was there any tenderness or swelling along the course of the ureter, as felt through the abdominal wall, or at its lower end, as felt per rectum, in any of the cases (the stone was not low enough to be felt per rectum). Even in the case in which the skiagram showed a stone in the ureter we failed to make out any tenderness along its course. This may be because the stone was in the pelvis, but in one of the cases it was about the pelvic brim, and there was no tenderness in this case. The stones were probably not large enough to cause any swelling which could be felt through the abdominal wall.

Some of these cases show that we should be unwise to rely on the negative result of a skiagram. Of course a skiagram may show the kidney region and not take in the whole course of the ureter. Unless the plate is an unusually large one, it is always well to take one of the kidney region and one of the lower part of the ureter. But even when the part of the ureter which contains the stone is included within the skiagram it may not show the stone. In two of these cases a skiagram was taken which did not show the stone, though the portion of the ureter containing the stone was included in the skiagram. If I had acted on the skiagraphic evidence, I should have failed to relieve these patients. I have removed small stones from the kidney also which did not show in a skiagram. At the present time, with uncertainty as to the reliability of a skiagram, we cannot act on its negative evidence alone. Nor can we with certainty if the skiagram appears to show a stone in the course of the ureter. A skiagraphic shadow in the course of the ureter may be produced by calcareous tubercle within the peritoneal cavity, or in some retro-peritoneal lymphatic gland, or even by an atheromatous patch in one of the large arteries. Last summer I removed a stone from the kidney, and at first I thought I could feel an angular stone in the ureter on passing my finger downwards along the course of the ureter. It turned out to be a calcareous mass in the overlying peritoneum, but it certainly would have suggested in the skiagram a stone in the ureter. Mr. Hurry Fenwick has differentiated such extraureteral bodies by passing a ureteral bougie up the ureter from the bladder, when if the body which causes the shadow is outside the ureter there ought to be no obstruction to the passage

of the bougie, and it will probably be found that the shadow is really not exactly in the line of the ureter, as can be shown by taking a skiagram with a fine metal stylet within the bougie.

In one of these cases there was very marked thickening of the ureter for an inch below the point at which the stone was impacted. This is rather remarkable. One would not be surprised at hypertrophy and dilatation of the tube above, together with a certain amount of inflammatory thickening at the seat of impaction; but why the ureter should be so thickened below does not seem clear. It is possible that at first the stone had a range of movement somewhat further down the ureter than was found at the operation, and that chronic inflammatory thickening set up by the irritation eventually narrowed the lumen both above and below, so as to fix the stone in the centre of the markedly indurated area.

I now propose to say a few words about the operative treatment of these cases. In all the cases the kidney was explored at the same time that the stone was removed from the ureter, in three cases by an incision through the cortex, and in one by sounding the interior through an opening in the ureter. It seems to me that this should always be done. If a stone has passed down into the ureter, it is quite likely there may be another in the kidney. So far as the symptoms can guide us, as I have already pointed out, we cannot say that they are due to stone in the kidney or ureter, and therefore it is as necessary to explore the kidney, even if the seat of pain is over the ureter, as it is to explore the ureter if the seat of pain is over the kidney. I think if a skiagram showed a stone in the ureter, and failed to show one in the kidney, it is very unlikely one would be found there, but I should explore.

My four cases seem to me to show that we cannot expect to be able to push the stone into the upper part of the ureter, though we should always try, and we must be prepared to cut down on it near the lower end of the ureter, where it is certainly very difficult to reach it, even though we carry our incision as far forwards as the outer border of the rectus. I think when the stone is very low down, near the bladder, the Trendelenburg position might help us, as it would be easier to draw the peritoneum aside if the pelvis were emptied of small intestine, but it would be difficult to turn a patient from the loin position which we employ for the renal part of the operation, into the Trendelenburg one in the middle of an operation, with aseptic towels covering the area of operation.

In three of the cases—in all in which I could—I sutured the ureter, using very fine catgut (as fine as fine silk, and kept in alcohol) for the mucous membrane, or, when it was not possible to define the mucous membrane, for the inner part of the tube, and very fine (intestinal) silk for the outer layer. It is interesting to note that in the one case in which I did not suture the ureter it healed at once, and urine ceased to flow through the drainage tube at the end of twenty-four hours. This is encouraging when we cannot suture the ureter, but the good result in this case should not make us abstain from suture when we can use it. It is most important not to contract the ureteral lumen when we suture. If there is a considerable risk of this—if we cannot see the interior of the ureter clearly—I think it would be better not to suture at all. We should pass a bougie down the ureter whilst we are inserting the stitches, and withdraw it before tying the upper one or two, so as to make sure we do not take up too much of the ureteral wall in the suture and in this way encroach on the lumen.

I think after these operations for removal of stone from the ureter, in which the stone is low down in the pelvis and a very long incision may be required, it is very necessary to suture the divided muscles very thoroughly, and with some substance which will last for at least a fortnight, and I always supply such patients with a well-fitting belt, which is likely to adequately support the long line of scar. Even with these precautions a hernia may form in the scar, as it did in one of my cases.

I have considered very carefully the best position for drainage in these cases. This is very important, as, even if the ureter is sutured, some urine may escape. I think the best position is on the side of the operation, with the pelvis tilted up on pillows. This will not suffice to drain the pelvic portion of the ureter, the true pelvis is such a deep cup-like space, the drainage tube dips over the pelvic brim into it, and cannot drain it by gravity. But t pressure of the intraperitoneal contents will probably pre any fluid in the true pelvis along the drainage tube, a the moderate tilting of the pelvis will help in its escape.

I do not propose in this lecture to discuss the question to what route should be employed to reach the ureter. three out of these four cases the stone, though found in t ureter, might, from the symptoms, have been in the kidne and therefore the transperitoneal route could not have be considered. In the case in which we found evidence ureteral stone by the skiagram the stone certainly mig have been removed by the intraperitoneal route and wit less difficulty; but although it has been shown by t published records of a few cases that the stone may b removed through the peritoneal cavity without an disaster, yet, I must say, without any special difficulty to reaching the stone by an extraperitoneal method- whether the one I adopted or the sacral operation- I should hesitate to employ it, for it seems to me ther must be some risk of infecting the peritoneum either at th time of operation or from leakage after. Because w safely evacuate offensive pus through the peritoneu seems to me no reason why we should deliberatel cut into the ureter by this route. The pus is alread there, and there is no other way of evacuatin it. Even in cases in which we have to implant ureter divided in some intra-abdominal operation into th bladder, we have no choice in the matter. If we had t plan such an implantation, we should, I think, prefer to d it, if it were possible, by an extraperitoneal route. Becaus the peritoneum is more tolerant than it was thought to b in the past, we must not be rash in exposing it to infection We cannot be at all sure the urine which may escape whe the ureter is incised, or leaks into the peritoneal cavit afterwards, is aseptic. With a block in the ureter it i very likely not to be so.

I have discussed this question of the advisability o operating by the intraperitoneal route because, althoug condemned by Sir Henry Morris and other surgeons, i has lately been advocated as the operation of choice.

An Address

ON

SOME IDIOPATHIC DISEASES OF THE SKI WHICH MAY SIMULATE SYPHILIS.*

BY

P. S. ABRAHAM, M.A., M.D, B.Sc., F.R.C.S.I.,

DERMATOLOGIST TO THE WEST LONDON HOSPITAL AND LECTURER ON DISEASES OF THE SKIN TO THE WEST LONDON POST-GRADUATE COLLEGE.

THE early syphilographers of the fifteenth and sixteenth centuries, when the great epidemic of syphilis spread ove Europe, seem to have been well acquainted with the fac that the eruptions of that disease often resemble those o other maladies. Special attention was called to the matter by the Italian writers John of Vigo and Massa (1536), and again, two centuries later (1735), by Astruc This tendency of syphilitic cutaneous manifestations t simulate idiopathic dermatoses has always been, and indeed still is, a source of some confusion—not infre quently, even at the present time, leading to error in diagnosis. Our great authority, Sir Jonathan Hutchinson has observed that "there is in fact no single skin disease of constitutional origin which may not be imitated very closely by an eruption which is due to syphilis"; but, as he goes on to say, "the imitation is rarely absolutely correct . . . there is very frequently a mixing of the types of two or more in one."

In point of fact, the practised eye, as Bateman long ago said, can usually recognize a difference between the ordinary diseases of the skin and syphilis; and by carefully noting the form, colour, situation, course, etc., of the eruption, the skilled observer will, in the large majority of instances, very soon feel sure whether he has to do with a case of syphilis or not; and he will often be able to form a definite opinion, even without reference to the other

*Delivered before the Ealing Division of the British Medical Association.

mptoms of the disease, and however much the patient ay be ignorant of, or protest against, possible infection. Cases, however, sometimes present themselves which, om an examination of the skin lesions alone, are not so adily placed in their proper position; and even with the elp of all the objective and subjective information that we an get, the most experienced specialists are occasionally affled, as the diverse opinions expressed about a case om time to time at the various dermatological or other edical societies will abundantly show. Doubt, in reference the diagnosis of a case, is sometimes, indeed, quite xcusable.

It is true that many cases simply, as it were, "shout" at ou: the diagnosis can be made in a second: the form, olour, situation, etc., of the skin lesions may be so typical hat your mind is made up at once. It is not always wise, owever, to "rush" a diagnosis in this fashion, for upon oing more thoroughly into the case, you may have to ithdraw your hurried impression, even though at first ight there seemed to be no possibility of a second opinion. n considering, indeed, the true nature of a cutaneous ffection—in determining whether it be really a syphilide -a great many points have generally to be investigated efore coming to an absolutely sure conclusion.

I propose to refer to certain diseases of the skin which ccasionally may give one the impression of being syphilitic, nd to describe shortly a few cases in illustration, which ave been under my care.

A great many other dermatoses—seborrhoeic eczema, upus, leprosy, bromide eruptions, variola, and a host more —might be included in the list as being sometimes mistak- ble for syphilis; but I shall now only speak of certain ases of psoriasis, pityriasis rosea, impetigo, ecthyma, odent ulcer, mycosis fungoides, pemphigus vegetans and lermatitis herpetiformis.

Psoriasis.

As a student I was taught that when scaly patches occurred on the extensor surfaces of the limbs the affection was "simple psoriasis," and that when they occurred on the flexor surfaces, it was "syphilitic psoriasis"; but when I subsequently began the serious study of diseases of the skin I soon had to give up that idea. Although the term "syphilitic psoriasis" is still loosely used for the scaly macules and papules of the common early syphilitic exanthem, and also for the scaly syphilide of the palmar and plantar surfaces, in point of fact there are in my experience very few syphilitic cutaneous manifestations which are really closely like, or easily mistaken for true psoriasis. I admit that an error in diagnosis is excusable in certain cases of the palmar and plantar syphilide, and even occasionally in the case of a scaly nodular syphilide on the elbows and knees; but on the limbs and body I have seen comparatively few in which the similitude was so great as to lead to any doubt as to the diagnosis.

In recently looking over some notes of a series of 829 hospital cases of early and late syphilis at the West London and Blackfriars Hospitals, I have not found more than about half a dozen in which the eruption is described as essentially resembling true psoriasis.

One of the West London cases, a woman aged 33, exhibited psoriatiform patches on the elbows and knees, and extensively on the backs of the hands. There were typical lesions of syphilis elsewhere, and under small doses of potassium iodide, the psoriatiform, as well as the other manifestations, soon disappeared.

I have perhaps more frequently seen a psoriatiform syphilide appearing late in life, especially on the legs, in patients who must have been syphilized many years previously. There are usually a very few large patches, of livid tint and serpiginous outline, and with less hypertrophy of the horny layers than in the true psoriasis. These cases, too, are more amenable to treatment with potassium iodide than true psoriasis.

Pityriasis Rosea.

Although attention was called to this disease fifty years ago by Gilbert in Paris, it has only been recognized in this country since 1884, when Dr. Colcott Fox wrote a paper on the subject. Although not very common, it is sufficiently frequent to have been seen probably by every medical practitioner. In one of my statistical series at the Blackfriars Hospital it occurred twenty times in 2,175 skin cases, but I believe that I see a proportionately larger number at the West London Hospital, and still more, perhaps, in private. In my experience no idiopathic disease of the skin is more frequently mistaken for an early syphilitic rash. The slightly pigmented spots with fine or furfuraceous desquamation—often exhibiting a roseate bordering ring, rapidly making their appearance on the chest, neck, shoulders, trunk, and limbs, generally spreading from above downwards and sometimes accompanied with but little subjective sensations—are often at first sight very suggestive of syphilis in the early "secondary" stage. But there is no accompanying adenitis, and no throat trouble, or other signs of syphilis, although the patient may have been otherwise "out of sorts," or have had some digestive "upset." There is usually, too, a history of one large macule having made its appearance some considerable time before the outburst of the others. It is really of importance for a practitioner to recognize this affection, for if he mistakes it for syphilis disagreeable complications may ensue. The following case is, in this regard, instructive. A particular friend of mine in large practice in the West of London called me in consultation over the case of a lady in the theatrical profession whom he had been treating with mercury for a rash which certainly had a very strong resemblance to an early specific exanthem. The husband, who knew a little about medicine, discovered what his wife was taking for her eruption, and was greatly perturbed. It required considerable diplomacy on my part to calm down the indignant spouse, and convince him on the one hand that his wife had nothing very serious or anything infectious the matter with her, and at the same time to exonerate my friend the doctor.

Impetigo.

It may seem rather far fetched to suggest that the common and well-known impetigo or impetiginous eczema could be easily confounded with syphilis, but I cannot forget a case which once took me in. A young woman came to the hospital with a rapidly developing and copious yellowish crusted eruption upon the scalp, ears, forehead, and neck, together with swollen glands about the neck, as was only to be expected. After a few days the usual treatment for impetigo had had no effect, the eruption had increased, one of the glands had become enormously enlarged, and there was a rise of temperature. She was so ill that I took her, as an in-patient, into the West London Hospital for operation. Until then I never suspected syphilis, but after a few days in the hospital a typical maculo-papular eruption made its appearance with other phenomena of syphilis. We could never get a definite history, but she had evidently acquired a big dose of the disease, for in spite of the usual treatment, gummatous and other late lesions were developed within a very few months.

Ecthyma.

I have had several cases of a staphylococcic infection causing deep-seated inflammation and ulceration of the skin. These ulcers may be mere erosions, or they may be sharply cut and punched out, coalescing and spreading in a serpiginous manner. They are, indeed, extremely like syphilitic ulcers. A case of the kind is now attending my out-patient department at the West London Hospital—a little girl of 18 months with a number of punched out ulcers in both groins and about the vulva.

There is nearly always in these cases evidence of impetigo elsewhere, and another indication that they are not syphilitic is the fact that they readily heal up with antiseptic lotions and ammoniated mercury ointment, without further specific treatment.

Rodent Ulcer.

The patient I show exhibits an ulceration on the cheek and lower eyelid which might easily, even at this stage, remind one of the specific ulceration. A few weeks ago the likeness was even stronger, for the ulcer was then deep and cavernous, and the edge at one side sharply cut and of irregular outline. It is now healing under the influence of radium, which is being kindly used for her by Dr. Mackenzie Davidson. When she first came to the West London Hospital in 1905 she had a typical rodent ulcer, which had been slowly developing for nine years. Under x rays it disappeared satisfactorily, but after an interval of some months it again made its appearance.

This time it did not respond to the rays, and zinc ionization likewise proved futile. It was obviously increasing, and it became so large that I suggested wide excision and a subsequent plastic operation, with Thiersch grafting. My late lamented colleague, Mr. Keetley, however, thought it advisable to make another endeavour at cure without the knife. The result is, on the whole, encouraging.

The slow development, the hard consistence of the edge, the sites of predilection, and the absence of other specific signs in a large majority of cases sharply differentiate a typical rodent ulcer from the syphilide; but occasionally, it must be admitted, when the ulceration is extensive, a mistake in diagnosis is possible. It must be remembered, too, that a rodent ulcer may, though rarely, be developed on the site of a syphilitic scar.

MYCOSIS FUNGOIDES.

The ulcerating, fungating lesions of this terrible malady may strongly resemble the gummatous ulcers of syphilis, and if the patient happens to give a history, or show signs of former venereal disease, the diagnosis is by no means easy. A case of the kind is now at the West London Hospital. The man presented himself in November last with an extensive pruritic, inflamed, and scaly eruption all over the head, body, and limbs, with several rupia-like lesions, and large ulcers on the back, abdomen, legs, and other parts, and a very large swelling in one groin. There were several scars, apparently syphilitic, on the legs, and he gave a history of having had a sore on the penis and subsequent symptoms some twenty-two years ago, and a wart on his penis seven years ago. At first we thought it was syphilis, and he was put upon specific treatment. I have since come to the conclusion that we have to do with a very severe case of mycosis fungoides.

PEMPHIGUS VEGETANS.

I am indebted to Dr. Timmins for having the opportunity of seeing and of treating this patient, who has kindly come here for you to see. The dried-up, darkly-crusted lesions which she exhibits on her shoulders and back, arms, abdomen and legs, are very different from what they were; but, even in their present state, a passing idea of specific disease might be possible. Her lips and the mucous membrane of the tongue, mouth, and pharynx, and even the larynx, were, some weeks ago, profoundly affected, and she was really in a very serious condition. The blebs of pemphigus which arose on the inflamed areas soon broke, and granulations were developed in their place. Under arsenic she has improved immensely, and she was able to leave the hospital as an in-patient some weeks ago. Microscopic examination and cultivations failed to show micro-organisms in her case, and the Wassermann reaction also proved negative.

DERMATITIS HERPETIFORMIS.

Cases of this disease occasionally call to mind syphilis; and in a patient with severe dermatitis herpetiformis who has been under my observation for some years, I am not at all sure that a syphilitic taint is not at the bottom of it. I think it is rather an example of a syphilitic affection simulating another disease than the converse; and perhaps it hardly comes under the same category with the others to which I have alluded. The patient, a woman aged 30, was admitted to the West London Hospital in June, 1900, with a severe and extensive pustular eruption particularly well developed about the groins, inner part of the thighs, pubis and lower part of the abdomen, and in a less marked form in the right axilla, left side of neck, and the trunk generally. The pustules seemed to arise as small papules, soon becoming vesicular and then pustular, upon a red base. They rapidly became confluent and were very pruritic. From the fact that she had recently had an infant, and from the impetiginous appearance of the eruption in the neighbourhood of the groins and pubis, I was at first inclined to regard it as a case of the rare impetigo gestationis. She left the hospital in about five weeks, somewhat improved, and went to the infirmary for a few weeks. She got quite well and remained so for three years, when she again presented herself at the West London Hospital, with a still more extensive, but more bullous, eruption, which benefited little under treatment, and she left the hospital in about two months. It appears from her statement that the affection then left her for a considerable time, but reappeared badly in 1905 and she had to go several times into the infirmary. In March, 1908, until May she was in St. George's Hospital, and afterwards again in the infirmary and at a convalescent home. She came a third time to the West London Hospital in December, 1908, and I kept her in until August, 1909. The condition now was more typical of dermatitis herpetiformis; there was marked eosinophilia, and cultures showed pure staphylococci. From time to time she had been treated with mercury, iodide, thyroid, tonics, arsenic, soamin injections, and staphylococcic and polyvalent serums, which certainly did some good. Since leaving the hospital she went again to the infirmary, where I am told she was treated with mercury, and I hear that she is now free from the eruption.

While she was under my care last year I had an opportunity of seeing her little girl, aged 9, who was born just before her first attack. The child is a typical congenital syphilitic, with well marked Hutchinsonian teeth and interstitial keratitis. The patient had also had a miscarriage some time before her complaint made its appearance. I regret that the "Wassermann reaction" was not tried in her case, nor any attempt to find the spirochaete. With the assistance of these measures the diagnosis would no doubt be cleared in such a case as this and in other puzzling ones of the kind.

In my opinion, no more important and useful advance in scientific medicine in recent times has been made than the serum reaction for syphilis. Unfortunately it is a process which takes time, and can only be carried out in a pathological laboratory by an expert. The same may be said of the recognition of the *Spirochaeta pallida*, which we are all now agreed is the pathogenic organism of syphilis.

RUPTURE OF THE BLADDER FOLLOWED BY GANGRENE OF THE BLADDER WALLS.

BY P. CLENNELL FENWICK, M.D.,
CHRISTCHURCH, NEW ZEALAND.

THE following case is, I think, interesting as a proof of the resistant power of the peritoneum and from the fact that the patient lived so long—thirty-three days—after such a severe accident.

On April 17th, 1909, a man aged 39 was run over by a light cart when intoxicated. He was assisted to his home and sent for a doctor, who passed a catheter and drew off a large quantity of clear urine. The patient complained of his back and legs, but had no other symptoms. Next morning the catheter withdrew bloody urine, and he was sent into hospital.

On admission the temperature was 99.2° F., pulse 80, and the patient then localized his pain in the right hip and right leg. A catheter was passed with some difficulty, and bloody urine was withdrawn. He remained in hospital thirty-six hours, during which time the catheter was passed at intervals, the urine being always bloody. He then entered a private hospital.

On April 26th—eight days after the accident—he was seen by Dr. Brittin. He was passing exceedingly foul urine. Dr. Brittin advised immediate operation, as the diagnosis of fracture of the pelvis and urinary extravasation was clear.

On May 2nd—fifteen days after the accident—I saw the case in consultation. The temperature was 102° F., pulse 120; the face was sunken and anxious; the abdomen presented the exact appearance of a five months pregnancy, a firm ovoid mass rising from the pelvis as high as the umbilicus. The mass was dull on percussion, tender, and very well defined. The abdomen above this was soft and resonant and quite painless. Jarring of the right foot caused great pain, which was referred to the right hip and right groin. I washed out the bladder after withdrawing a quantity of extraordinarily foul urine loaded with pus. We advised operation, but this was refused.

The patient's condition became worse, and on May 7th a fluctuating mass appeared in each groin, and he consented to operation. I opened the mass in the right groin and liberated several pints of fetid pus. On passing the finger down into the cavity I felt the horizontal ramus of the pubis fractured and projected nearly at right angles into the cavity. On incising the left side a very large quantity of pus escaped, and the finger passed into a large cavity, of which the boundaries appeared to be the pelvic bones.

The temperature fell to normal, and the patient's condition improved, but he passed all the urine through the left wound; only twice were a few drops of pus and blood passed by the urethra. He died on May 20th.

A *post-mortem* examination was made a few hours after death by Dr. Inglis and myself. The right kidney was exposed by the usual oblique incision, and was quite normal. On making the similar incision on the left side a large abscess cavity was found

occupying the renal area; no trace of the kidney or ureter could be found, but a large track led from this cavity downwards into the pelvis.

On opening the abdomen a remarkable appearance was presented; the peritoneal cavity was quite normal, the peritoneum being glistening and unchanged. Between the abdominal cavity and the pelvis a thick roof of peritoneum, shiny on its upper and black on its under surface, was seen. This was the peritoneal covering of the bladder stripped upwards. The pelvis was occupied by several pints of fetid pus. No trace of the bladder could be discovered—merely a black-walled cavity bounded by the pelvic bones remaining. The urethra opened directly into this cavity. The rectum could be seen apparently uninjured. The horizontal ramus of the pubis on the right side was fractured about its middle, the ununited ends projecting into the cavity. The left ureter and kidney could not be found, but in their place an abscess cavity with black walls, and a long track joining the two cavities.

I found two handfuls of blackened slough lying at the bottom of the pelvic cavity, apparently the remnants of the bladder walls. The inflammation, after destroying the bladder, had tracked up the left ureter and destroyed the left kidney.

ON DOUBLE LOOP HERNIA (W HERNIA).

WITH REPORT OF A CASE.

BY

JOHN A. C. MACEWEN, M.B., B.Sc., F.R.F.P.S.,

SENIOR ASSISTANT TO THE REGIUS PROFESSOR OF SURGERY, GLASGOW UNIVERSITY; SURGEON TO THE ELDER HOSPITAL, GOVAN; AND ASSISTANT SURGEON, GLASGOW ROYAL INFIRMARY.

WHILE a case of strangulated umbilical hernia containing two loops of bowel was reported by Benno Schmidt in 1880, the credit belongs to Lauenstein, of Hamburg, of drawing general attention to the subject of double loop herniae by reporting a case of strangulated inguinal hernia containing two loops in 1894,[1] of reporting a first series of cases in 1905,[2] and a further series in 1909,[3] while he has also performed many experiments on animals with a view to elucidating some of the difficulties met with in explaining the formation of such herniae.

Although during the last few years a number of such W herniae cases have been reported (over 30 in all), the condition is not apparently a common one, even when allowance is made for some cases which, as I am aware, have occurred, but have not been published. So far as I have been able to ascertain, all the cases reported have occurred in the inguinal region, with the exception of the umbilical case already referred to and 5 cases which occurred in the right crural region, and, further, both loops of bowel have always been strangulated. The case which came under my care, on the other hand, was one of left femoral hernia and only one loop was strangulated, and both on account of the rarity of the condition and the possibility of its peculiarities throwing light upon some of the theories regarding the formation of such herniae, I consider it worthy of record.

D. B., a man aged 66, a miner, was admitted to the Royal Infirmary, Glasgow, under my care, when acting for Mr. Paterson, on December 14th. The patient was suffering from symptoms which pointed to intestinal obstruction. Five days prior to admission the patient had a sudden attack of pain, which he referred to the umbilicus and which lasted for several hours, and on the day following he had a similar attack. During the next three days, and prior to admission, the pain was almost constant and severe. The bowels moved fairly well with enemata, but no flatus was passed, while he suffered from severe eructations of wind from the stomach. The bowels again moved at 4 a.m. on the day of admission, but still no flatus was passed, and he became sick and vomited faecal matter.

Condition on Admission.

The patient was in a generally unsatisfactory condition and distinctly shaky; the pulse was 100 and the temperature normal. The abdomen presented no distension, rigidity, or tenderness. A large tumour, however, about the size of an ostrich egg, was found projecting from the left groin, and extending from the pubes to within an inch of the anterior superior iliac spine. He seemed to attach little importance to this swelling, and did not refer his present condition to it. When questioned regarding it, he said that the tumour had been present for a very long time, probably from childhood, and that, while it had been slowly increasing in size for some years, it had become markedly larger during the last few months. The tumour was hard to the touch, immovable, not tender, and gave no impulse on coughing. It became, therefore, a question whether this tumour was a very large femoral hernia, containing strangulated bowel, or whether it was, as the history seemed to suggest, a tumour which might or might not be connected with the symptoms of strangulation. As the tumour mass was slightly tympanitic at one point, hernia appeared the more probable diagnosis, and it was decided to operate.

Operation.

A vertical incision was made over the mass through the skin and cellular tissue, exposing first one and then within it a second glistening sac. These sacs were perfectly free from one another, and, when the second was opened, a quantity of dark, blood-stained fluid poured out, while a dark solid mass presented, which still suggested the possibility of tumour. On opening up the sacs more widely, however, a loop of dark, bluish-purple, congested, and considerably distended small bowel about 1 ft. in length was exposed, and easily brought out through the wound. The portions of this strangulated loop which had been opposite the neck of the sac, together with a short portion above the constriction on either side, were found not to have suffered greatly from pressure, and then the loop, which apparently consisted of ileum, was with little difficulty returned to the abdomen. The remaining mass was still very large, and, on careful unravelling, was found to consist of two distinct portions. First, there was a large coiled mass of congested livery omentum, which, when ultimately disentangled and spread out, was found to be some 10 in. long, 6 in. broad, and fully ¼ in. thick. When in position it practically enveloped the second portion of the remaining mass, and to a less extent concealed the loop of bowel already referred to. The neck of this mass was both thin and narrow, rendering its ligature and removal very easy. Probably the size and thickness of the omental mass is accounted for by long presence in the hernial sac, with slight constant pressure at the neck causing venous congestion, and hence hypertrophy, just as is seen in the case of the mesentery of a herniated appendix of some standing.

The second portion of the mass now remained alone in the large cavity, and on introducing the finger and hooking it forward, it was seen to consist of bowel, into which the finger appeared at first sight to have penetrated. On closer inspection, however, it was found that the finger had gone into a little pocket and not into the lumen, and that the mass which now presented, and which was of the size of a large orange, was composed of bowel. The pocket into which the finger had gone was one of many with which the surface was covered, and which apparently represented positions where the original coils of which the mass was composed had not fused as they had done elsewhere. Save for these pockets, the surface was smooth and glistening, as in normal bowel, but here and there, particularly in the neighbourhood of the pockets, traces could be made out of fibrous adhesions running from one loop to another (see diagram).

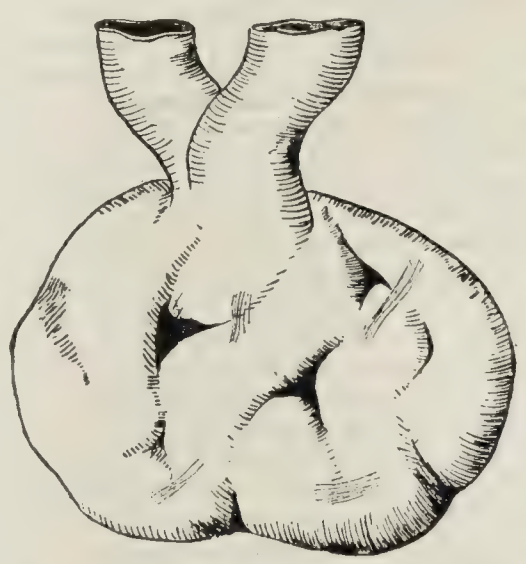


Diagram of the bowel mass which had been long present in the hernial sac, was covered by omentum, and was not strangulated.

An attempt was made to determine the portion of intestine to which this mass belonged, but proved abortive, as neither limb of the loop could be drawn through the ring sufficiently for careful inspection. Both limbs were composed of perfectly healthy but thick-walled bowel, and it was thought that an imperfect longitudinal band could be recognized running along the front of the anterior limb into the bowel mass, but the point could not be definitely decided.

As this mass was perfectly normal in colour and there was no constriction whatever at its neck, the intestinal obstruction was obviously entirely due to the first, strangulated, loop, and as the patient had never experienced trouble from the condition, it was determined to try to reduce it in mass. This proved a comparatively easy proceeding, owing to the very large size of the crural opening, which extended out from Gimbernat's ligament, over the femoral vessels, for a distance of fully 2½ in. The peritoneal sac was next freed from adhesions to within the crural ring, threaded in the ordinary manner, and drawn up behind Poupart's ligament, while the large outer sac, composed presumably of transversalis and iliac fasciae of the crural canal, but enormously enlarged and thickened, was similarly coiled and drawn up in front of the opening beneath Poupart's ligament. The wound was then stitched up.

Save for slight collapse after the operation the patient made an uninterrupted recovery, and he has been well since, regulation of the bowels occasioning no trouble.

It will be noted that the probable period of strangulation in this case was a long one—not less than five days—from which, together with the condition of the bowel as found at the operation, it may be inferred that the strangulation was not complete, but was more of the nature of obstruction of the lumen of the bowel than of marked interference with the blood supply of the affected loop. It is a question whether the loop became strangulated immediately on entering the sac, or whether it had been present for some time previous, as the history of the sac, increasing markedly in size, seems to suggest. As the loop was perfectly free in the sac, and there was not even a constricting band at the neck, I am inclined to think that the loop had become strangulated immediately on its entrance into the sac five days previously.

One theory put forward as to the formation of W herniae is that a single large loop of bowel comes down into the sac, and that subsequently the central portion of the loop slips back into the abdomen, thus forming the W. In favour of this theory is the generally very large size of such herniae, and also the fact that in many cases the connecting loop of bowel, notwithstanding its position in the abdominal cavity, is damaged. If the connecting loop be not damaged while in the sac, how is the damage to be accounted for?

So far as the case under consideration is concerned, this mode of formation is definitely negatived. The one loop had undoubtedly been constantly present in the sac for many years—indeed, enveloped with omentum as it was, reduction would have been impossible, notwithstanding the large size of the ring—while the other loop had equally certainly only been present for a short period. The entire absence of pressure symptoms upon the bowel mass loop is probably to be accounted for by this very long presence in the sac, the bowel having become thickened and easily capable of resisting any pressure upon it. The loop of ileum, on the other hand, being composed of normal thin, easily compressible bowel, was completely obstructed more or less immediately, notwithstanding the absence of any constricting band. It is unfortunate that the patient's condition, and also the impossibility of pulling down the bowel leading from and to the bowel mass prevents a statement being made as to the probable amount of bowel forming the abdominal loop. It is a curious fact that, in a number of the cases reported, this middle loop has suffered severely, even perforation having occurred in it, without the portions of bowel in the sac having suffered proportionately. Lauenstein has performed many experiments on animals with the object of finding out why this should occur, from which it appears that neither undue distension of the intermediate loop, as suggested by de Beule, nor traction on the mesentery can alone be held responsible. Probably both have an effect in diminishing the blood supply to the loop, and of lowering its vitality, thereby permitting undue bacterial action. In the case now reported, apart from its scientific interest, there was little object in bringing out the entire intervening loop, as only one herniated loop was strangulated, and the bowel above it on both sides was quite normal.

Lauenstein suggests as aids to diagnosis in cases of double loop herniae (1) the size of the hernia, which is generally right-sided, scrotal, and of long standing; (2) signs depending upon the condition of the middle loop, such as marked asymmetry of the lower half of the abdomen where the loop is much distended; furrowing of the scrotal tumour, indicating the line of separation between the two loops, which may further yield differences in percussion (for example, one full of fluid, the other of gas); effusion of fluid into the abdominal cavity. In the present case the size and long duration of the condition were the only features present of these suggested, the tumour being uniform in contour (owing probably to its thick envelopes as compared with a scrotal hernia), and the abdomen uniform and free from effusion (owing to one loop only being affected, and there being thus no affection of the middle loop).

In conclusion, it may be stated that one of some three cases of herniae containing three loops of bowel has been reported by Pringle of Glasgow,[4] and in this case one of the loops was less affected by strangulation than the others.

REFERENCES.
[1] *Archiv f. klin. Chir.*, 1894. [2] *Deut. Zeit. f. Chir.*, 1905. [3] *Deut. Zeit f. Chir.*, 1909. [4] *Edinburgh Med. Journ.*, June, 1906.

A CASE OF GLUTEAL ANEURYSM

TRANSPERITONEAL LIGATURE OF THE INTERNAL ILIAC.

BY W. BERNARD SECRETAN, M.B., F.R.C.S.,
READING.

THE following case is of interest on account of the rarity of the condition and the fact that the treatment adopted involved an operation not often performed:

G. S., a farm labourer, aged 64, was admitted into the Wallingford Cottage Hospital in September last with a swelling of the right buttock.

History.

For six or seven years the patient had suffered from unilateral sciatica. The pain had been much more severe during the last two years, and for two weeks before admission had been almost insupportable. It was usually worse at night, and extended from the right buttock over the back of the thigh and calf of the leg down to the heel of the same side. On account of the pain the patient had been compelled to give up work and take to his bed. The swelling had been noticed in the buttock for about three years; it had been very slowly increasing in size during that time. Beyond the fact that the man remembered that when acting as shepherd some twenty years ago he had occasionally been butted in this region of the body by rams, there was no history of trauma, nor was there any of syphilis (though the latter fact is scarcely worth recording, since patients of his class undoubtedly often suffer from this disease in a mild form, and scarcely notice it till tertiary symptoms or nervous diseases supervene). His habits had always been temperate.

Condition on Admission.

A tense pulsating tumour was present in the right gluteal region. The pulsations were expansile, and a marked thrill could be detected at one point. Auscultation revealed a loud bruit. The centre of the swelling was situated above and a little to the outer side of the point of junction of the middle and lower thirds of a line drawn from the posterior superior iliac spine to the ischium. The tumour measured, roughly, 8 in. from above downwards, and 6 in. from side to side; it extended down to the gluteal fold, which was almost obliterated, and, apparently, deeply into the pelvis. The muscle over it was thinned, and the flexors of the thigh were a good deal atrophied (though this does not show well in the photograph). The hip-joint could not be fully extended. Rectal examination revealed the presence of a pulsating swelling in the pelvis. The arteries throughout the body showed slight atheromatous changes, but not to a greater degree than one would expect to find in a man of the patient's age and occupation. It was noted that the right femoral artery commenced 1 in. external to the mid-point between the anterior superior iliac spine and the pubic symphysis. The patient showed some interesting deformities. The thumb and index finger of the right hand were fused together, the middle and ring fingers of the same side were absent, though the metacarpals of each were present, that of the middle finger being, however, rudimentary; the little finger was represented by two complete digits articulating with a common metacarpal.

Owing to the severe pain and the possibility of rupture of the aneurysm, it was decided to tie the internal iliac artery.

Operation.

Having opened the abdomen by an incision 5 to 6 in. in length along the right linea semilunaris, I attempted to obtain an exposure of the division of the right common iliac vessels at the brim of the pelvis by holding the intestines aside with sponges and retractors. Though the arteries could, of course, be plainly

felt pulsating, I found it quite impossible to obtain sufficient view to enable me to pass a ligature. This difficulty was due largely, if not entirely, to the fact that we had been unable to get the patient into a proper Trendelenburg position. The table used had not the necessary adjustment for this position, and attempts to obtain it by raising the pelvis with sandbags and pillows had not been very successful since we did not like to apply much pressure in the neighbourhood of the aneurysm. Moreover, the flexion of the hip tilted up the thigh to an awkward angle when the pelvis was lifted to any great extent. Under the circumstances I was compelled to enlarge the wound by making a short transverse incision, and even then had to withdraw a good deal of intestine from the abdomen before I could obtain a view of the spot where the arteries lay beating behind the posterior peritoneum.

Here the second difficulty presented itself. I found that I was in considerable doubt as to which was the internal iliac artery owing to an abnormal arrangement of the vessels. After a good deal of trouble it was found that the anatomy of these was as follows: The right common iliac divided rather above the lumbo-sacral articulation into its two divisions. Of these, the true external iliac lay at first internal to the other, and disappeared almost at once into the pelvis. It soon reappeared, running forwards along the pelvic brim, and finally curved sharply outwards, almost at right angles, to Poupart's ligament, behind which, as already noted, it passed 1 in. external to its usual position. The true internal iliac was at first placed external to the external, and ran down along the inner border of the psoas above the pelvic brim. Shortly beyond the point at which the external artery appeared out of the pelvis, it crossed in front of this latter and continued its usual course down into the pelvis. All this was very puzzling to make out, as one was working at the bottom of a deep wound, and had to depend as much on one's sense of touch as that of sight. However, having at length ascertained the course of the vessels and confirmed this by noting the effects of compression on the pulsations of the femoral in the thigh, I snipped through the peritoneum covering the internal iliac artery, and with an aneurysm needle passed a double thread of No. 8 silk around it. This required some little care, so as to avoid wounding the vein. The ligature was then tied as tightly as I dared (the artery was somewhat calcareous and rigid), completely stopping pulsations below, though a curious thrill could be felt at the point of the ligature as if from a minute squirt of fluid. The little slit in the peritoneum was next roughly brought together by a single stitch, the intestines returned, and the abdomen closed in the usual way. Examination of the buttock showed that pulsations in the aneurysm had quite ceased.

There was some shock following, necessitating infusions by the rectum, but after the first twenty-four hours the patient's progress was uninterrupted. Recurrent pulsation in the aneurysm commenced, however, two days after the operation. This was almost to be expected in view of the freedom of the collateral circulation. These pulsations were never very marked, though persistent. The patient was given potassium iodide, and the aneurysmal swelling gradually became smaller, and—the most satisfactory point—increasingly harder. The pain was also considerably lessened. The patient left the hospital about six weeks after the operation.

I saw the man at his own home about four weeks later. He was then able to walk about his cottage comfortably, and said that the pain had quite left his thigh, and was only felt to a moderate degree along his leg and foot. The aneurysm could still be felt to pulsate, but not markedly. It was smaller than before the operation, and felt quite hard.

I have called this a case of gluteal aneurysm, though I am not prepared to assert that this vessel was involved rather than the sciatic. Indeed, from the rather low position of the most prominent part of the enlargement, and from the way in which it pressed upon the great sciatic nerve, a sciatic aneurysm is rather suggested. When, however, the swelling has reached the size that this had it is impossible to distinguish between the two, nor is there the least necessity to do so; and the term "gluteal" is a convenient one to apply to anything pertaining to this region.

The diagnosis of aneurysm in this position from a pulsating sarcoma may be quite impossible, but in this case the slow growth, the uniform consistency of the lump, and the marked thrill, made us feel pretty certain we were dealing with the former condition; this was confirmed by the result of the operation, though against this must be quoted a very instructive case recorded by Mr. Bernard Pitts, in which marked temporary improvement was brought about in a vascular pulsating sarcoma in the gluteal region by ligature of the internal iliac.[1]

In performing the operation the transperitoneal method was selected (as, I should imagine, it would always be in these days), as being by far the simpler, easier, and safer way. As Sir Frederick Treves says: "The advantages of this method are obvious. The vessel is fully exposed, and the needle can be passed without risk to vein or ureter. The ligature can be applied accurately at the spot determined upon, and the condition of the artery and the surrounding parts can be made out."[2]

One of my difficulties was to obtain a clear view of the posterior peritoneum covering the vessels, owing to the bulging intestines. On the left side this difficulty might be increased if the sigmoid flexure were fixed by a narrow mesentery, for the mesentery would then have to be incised before exposure could be effected. The importance of the Trendelenburg position cannot, I think, be exaggerated.

The abnormal condition of the vessels which caused my other chief difficulty could not, of course, be guarded against. It must be remembered, however, that an abnormal arrangement of the iliac arteries is not very uncommon. Mr. Bernard Pitts, in operating on the case of sarcoma mentioned above,[1] says that he at first failed as he thought to find the internal iliac artery. He continues, "Having failed . . . I exposed and ligatured what I believed to be the common iliac, but after drawing the ligatures tight it was found that pulsations still continued in the femoral artery. Further examination showed that the external iliac artery was lying just outside the vessel ligatured. The common iliac was very short and the internal was correspondingly long and lying in almost the whole of its course above the brim of the pelvis parallel with the external vessel."

REFERENCES.

[1] *Lancet*, January 21st, 1899. [2] Treves, *Operative Surgery*, vol. i, p. 211.

AMPUTATION FOR DIABETIC GANGRENE.

BY

A. E. JOHNSON, M.B., CH.B.VICT., F.R.C.S.ENG.,

RESIDENT MEDICAL OFFICER, MIDDLESEX HOSPITAL, W.

AMPUTATION for diabetic gangrene is an operation always attended with danger, and is a cause of much anxiety to the surgeon. The following case is reported as illustrating precautions which may be taken to ensure, as far as possible, a successful result.

A married woman, aged 62, was admitted to the Middlesex Hospital under the care of Mr. Sampson Handley on September 3rd, 1908. She was suffering from moist gangrene of the left lower extremity. The gangrene extended above the ankle, the skin had given way at many places, and there was considerable discharge of pus. She was extremely feeble, the pulse was 120, and the temperature 98° F. The arteries were rigid, and the pulse almost impalpable.

For the previous three years the patient had not had complete control over the bowels and bladder, and had suffered from troublesome vomiting. She had had a terrible thirst for three years, had complained of polyuria, and had wasted considerably. The urine had a specific gravity of 1030, and it contained albumen, some pus, and 2 per cent. of sugar.

When Mr. Handley saw the patient he suggested her removal to the ward reserved for septic cases, as he did not consider that she would stand an amputation of the limb, but later he consented to my attempting it, and kindly entrusted the case to my care. Under local anaesthesia I exposed the anterior crural nerve, and Mr. D. Ligat exposed the great sciatic. Into the sheaths of these nerves was injected a solution of novocain, and the incisions were sutured. Dr. F. E. Meadows then administered a mixture of nitrous oxide gas and oxygen for about eight minutes, and I amputated the limb at the junction of the lower and middle thirds of the thigh. The patient at once recovered from the anaesthetic, and was quite comfortable, complaining of no pain. Her pulse was certainly no worse, but, if anything, rather better than before the operation. Drachm doses of sodium bicarbonate were given per rectum as a prophylactic measure against the onset of coma.

There was nothing in the convalescence calling for special notice except that the site where a drainage tube had been inserted showed no attempt at healing for some time; in fact, it was not until October 26th—seven weeks after the amputation—that the stump could be said to be absolutely healed.

Under medical treatment the patient's general condition improved somewhat. Examination of the urine on October 14th showed that there was less than 1 per cent. of sugar, with some pus, and on October 19th that there was only a trace of sugar, though pus was still present.

The patient never recovered sufficient strength to use her crutches, and the circulation in the right lower extremity gave some cause for anxiety. She left hospital on November 11th for her own home, where she was to remain in bed. She was, I am informed, comfortable and happy at home for about three months, when she began to lose ground again. She died of coma on April 17th, 1909—over seven months after the amputation was performed.

NOTE BY MR. HANDLEY.—"The condition of this patient before operation appeared desperate, and the favourable issue of the case affords the clearest possible proof of the value of the methods employed."

The special dangers attending amputation for diabetic gangrene may be classified under three heads—dangers from the anaesthetic, dangers from shock, and dangers of sepsis.

In diabetes there is such interference with carbohydrate metabolism that sugar cannot be used; it is not united with the protein of the tissue cells or blood serum, and being a diffusible substance, this free sugar is immediately excreted in the urine. The interference with carbohydrate metabolism leads to a call for other foods, and the condition described as fatty liver may be produced. The presence of histologically visible fat in the liver cells may be due (1) to the dissociation of fat, which was already in the liver, from its loose chemical union with the protein of the bioplasm, in which form it was histologically invisible but ascertainable chemically; or (2) the fat may have been transferred to the liver from the subcutaneous and other fat stores for the purpose of being prepared for the requirements of those organs and tissues where it is to be used. Possibly both processes occur, but in neither case can the condition be accurately described as a "fatty degeneration." If the extra call on the fats of the body be great, their metabolism is likely to be incomplete, owing to the inability of the bioplasm to make full use of them, and if the lower fatty acids be thrown into circulation, their presence will be shown at once by their appearance in the urine. This statement is made on the assumption that the fat is to be used as fat and that its catabolism is incomplete. If, however, as Pflüger believes, sugar, which cannot be accounted for by the carbohydrates of the foods or tissues, be formed from fat, the presence of the lower fatty acids might be explained by their being provided for the purpose of sugar synthesis.

It is generally acknowledged that it is acidosis, due to the circulation of fatty acids, which is, in some way, responsible for the onset of diabetic coma. Pavy [1] says:

> Sugar, in proportion as it is present in the blood, produces toxic effects of various kinds, which may lead indirectly to death, but it does not, in a direct manner, kill. With regard to the acids belonging to the acetone series, however, the same cannot be said. Their effect in the blood is to interfere with the performance of one of the necessary functions of life.

This vital function is the elimination of carbon dioxide. The alkalis of the blood, sodium carbonate and sodium phosphate, are, to a certain extent, neutralized by the fatty acids, and so there is less available for the conveyance of carbonic acid from the tissues. This leads to a diminution of the carbon dioxide content of the blood and an accumulation of carbon dioxide in the tissues, which, in Pavy's view, leads to the onset of coma. It may be as Pavy states, or, on the other hand, the supervention of coma may be due directly to the acidosis, as maintained by Beddard, Pembrey, and Spriggs.[2]

Since acidosis is in some way responsible for the onset of diabetic coma, and since post-operative coma, according to Ruff, occurs in diabetes in 10·6 per cent. of cases, it is essential that the surgeon should avoid every possible cause of the supervention of acidosis or the increase of it if present.

Special calls leading to increased fat combustion may be very slight, such as the adoption of a too strict dietary or starvation before operation. To quote Pavy [3] again:

> We know how easily through the general state the acetone bodies may be increased. A severe attack of migraine, for instance, may send them up, and influenza, pneumonia, etc., may do so sufficiently to suddenly bring about the supervention of coma.

How much more may a surgical operation prove disastrous especially if performed under the influence of an anaesthetic which may itself lead to the condition of acidosis!

But there are some operations which must be performed on diabetics, and it is the method of their performance that must be looked to to prevent a fatal termination. A certain amount of disturbance of fat metabolism occurs quite commonly after the administration of anaesthetics, as is shown by the frequent appearance of acetone and di-acetic acid in the urine. Acidosis has been noticed after the administration of chloroform, ether, and ethyl chloride, but the disasters have occurred most frequently after chloroform, which has led to the use of the term "delayed chloroform poisoning." The more serious results from chloroform are probably due to the marked effect of that drug on the liver, and also to its effect on the kidneys preventing the rapid elimination of the products of incomplete metabolism, or possibly the materials for sugar synthesis. Fatty changes in the heart, liver, and kidneys have been produced experimentally by the administration of chloroform, and it has been shown that a single prolonged anaesthesia with chloroform induces fatty changes in the liver. Moreover, cases of post-anaesthetic fatty acid intoxication have been noticed especially in conditions associated with fatty changes in the liver, such as diabetes, sepsis, rickets, alcoholism, starvation, malnutrition, and the cyclical vomiting of children.

The anaesthetic, then, is clearly one item in an operation on a diabetic patient which requires careful choice, and chloroform is universally avoided; but since ether also leads to acidosis, it may in the same way be a source of danger, and diabetic coma has been seen to ensue soon after its use. If a general anaesthetic must be given, nitrous oxide and oxygen will prove sufficient for most operations of necessity on diabetics; and if such anaesthesia be not long enough, resort should be had to local, regional, or spinal analgesia. The anaesthetic difficulties and dangers may thus be overcome, and the central nervous system also protected from impulses from below, and shock prevented or diminished.

Though it is now over eleven years since Bier first injected cocaine into the spinal theca, for many reasons spinal analgesia has not been generally adopted. This is a matter for congratulation, for of all the advantages which the younger surgeons of to-day inherit from their seniors and predecessors, there is none which should be so prized and so carefully preserved as the confidence and esteem of the public. That may indeed be said to represent the crowning reward of years of labour. By a wise conservatism this confidence has been gained, and it is a truism to say that nowadays most patients submit themselves to treatment by surgical measures with perfect confidence, looking forward to the operation with hope instead of dread.

Conservatism and old fogeyism must not be confused, however, and no better distinction can be found than that drawn by Professor Osler, who has said, "Conservatism and old fogeyism are totally different things. The motto of the one is 'prove all things and hold fast that which is good'; and of the other, "Prove nothing, but hold fast that which is old.'"

Spinal analgesia has great advantages in certain conditions, but, if only from the very fact that the patient is conscious, it has also grave disadvantages, and it is questionable whether it will ever replace general anaesthesia as a routine practice. No more suitable case could be found for its use, however, than that of an amputation for diabetic gangrene. It is the universal experience of those who have adopted it that there is no shock from operations performed under its influence, and thus the dangers from shock and those from a general anaesthetic may be overcome by the one procedure, though, of course, all the usual precautions against the onset of shock must also be taken. In the case which has just been described, nerve blocking was used, and unconsciousness was induced by the administration of nitrous oxide gas. At the date of the operation there were reports of accidents and even disasters occurring under spinal analgesia which led the writer to prefer nerve blocking. Other inducements to use nerve blocking were the reports of cases where it had been extremely successful, notably in a case of interscapulo-thoracic amputation reported by Rutherford Morison.[4] Spinal analgesia, however, has now become more established, and though there seems no good reason to adopt the method as a routine practice its use in suitable cases is of the greatest value. There is a large field for its employment in cases where a general anaesthetic is contraindicated by some disease of the heart or lungs or in conditions associated with fatty changes in the liver and other organs. Also, as pointed out in a leading article in the BRITISH MEDICAL JOURNAL for January 15th of this year, "there is a class of patient for whom the dread of losing consciousness is itself a bar to all but life-saving operations. Then there is the advantage that, if put to it, the anaesthesia can be induced by the operator even if he be single-handed." This last advantage should make the method especially useful in military work or in cases requiring operation at sea. The possibility of using a

combination of spinal analgesia with a light general anaesthesia must not be lost sight of. Such a plan, like the adoption of nerve blocking and nitrous oxide anaesthesia, would seem to combine the advantages of both methods.

The dangers from sepsis in cases of diabetes lie in the special liability of such patients to septic conditions, due to the poor nourishment of the tissues owing to endarteritis, the interference with the proper nerve supply owing to neuritis, and the presence of free sugar in the blood and tissues forming a good breeding ground for micro-organisms. These dangers require special precautions apart from the ordinary measures taken in every surgical operation. For example, the employment of a tourniquet is best avoided, and every effort should be made to prevent bruising of the tissues from rough handling. The question of drainage is a serious one. In the case reported the drainage opening would not heal for some time and was exceedingly sluggish and indolent in appearance. Sinclair White[5] has recommended that "drainage should be unnecessary if haemostasis has been properly attended to." While considering such a practice to be somewhat risky, since a collection of fluid in the flaps would be a source of more danger than the insertion of a drainage tube, I cannot but think that the insertion of a drainage tube, I cannot but think that the drainage opening should be small, and that a suture should be inserted ready for tying when the tube is removed.

REFERENCES.
[1] Pavy, *Lancet*, December 12th, 1908, p. 1735. [2] Beddard, Pembrey, and Spriggs, *Lancet*, June 19th, 1909. [3] Pavy, *Lancet*, December 12th, 1908, p. 1737. [4] Rutherford Morison, BRITISH MEDICAL JOURNAL, November 25th, 1905. [5] Sinclair White, *Lancet*, November 30th, 1907.

The Morison Lectures
ON
EPILEPSY.

DELIVERED BEFORE THE ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

BY

WILLIAM ALDREN TURNER, M.D.,
PHYSICIAN TO KING'S COLLEGE HOSPITAL AND PHYSICIAN TO OUT-PATIENTS, NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, QUEEN SQUARE, LONDON.

LECTURE II.—THE PROBLEM OF EPILEPSY (*continued*).

TOXAEMIC EPILEPSY.

IT has for a long time been contended that an excitant of epileptic seizures might be found in toxic or autotoxic causes arising in connexion with the body metabolism or gastro-intestinal disorders. The discrepancies, however, in the results of observations by different workers upon urinary and blood toxicity in epilepsy have not afforded satisfactory evidence upon which to found such a theory. It is now generally accepted that the altered condition of the urine and blood which has been found in association with epileptic attacks by many observers is the temporary effect and not the cause of the seizures. Some explanation of these variations may be found in differences in the nature of the cases upon which the researches were carried out. Changes have not been found in the minor, or "petit mal," type of the disease. Those cases which have shown the most pronounced reactions both of blood and urine have been instances of serial epilepsy, the status epilepticus, and fits accompanied by acute mental symptoms—types of the disease in which, from the general constitutional disturbances, there is more reason to suspect an infective or toxic causation.

Binswanger[1] has called attention to a small group of epilepsies which may have a toxaemic basis. This group is characterized by—

(*a*) Well-marked premonitory signs, of which the most common are of a psychical type; irritability, fitfulness, quarrelsomeness, lethargy, somnolence and delusions.

(*b*) Fits of frequent occurrence developing either into serial epilepsy, or the status epilepticus, accompanied by constitutional disturbances, such as furring of the tongue, constipation, acceleration of the pulse and elevation of temperature.

(*c*) More or less prolonged intervals free from attacks between the seizures.

I pass over with a mere reference the observations of Voison and Peron,[2] who found a hypotoxic condition of the urine before and a hypertoxic condition after the fits; of Haig,[3] who laid stress upon the relation of epileptic fits to the normal diurnal variations in the excretion of uric acid; and of Krainsky,[4] who attributed the convulsions of epilepsy to the formation of carbamic acid, one of the derivatives of urea.

The presence of cholin in the blood and cerebro-spinal fluid of epileptics was originally described by Donath.[5] This substance, which was found by Mott and Halliburton[6] in the cerebro-spinal fluid in organic nervous disease, was attributed by them to disintegration of the myeline sheaths of the nerve fibres. Some observers hold that this is the cause of convulsions, owing to its toxic action, as it has also been found in cases of general paralysis with epileptiform seizures. On the other hand, it has been looked upon as the result of the fits. It has been shown experimentally (Dide, Donath) that moderate doses of cholin injected into the circulation do not produce convulsions, but that in large doses both convulsions and paralysis may result. Buzzard and Allen[7] showed that the large doses of cholin necessary to produce convulsions in animals were much in excess of what could be produced under ordinary conditions in man. In a recent paper Donath[8] records the results of his experiments into the convulsion-producing properties of the substances found in the blood and urine of epileptics. He showed that when injected into guinea-pigs and dogs, uric acid, neutral urate of sodium, carbonate of ammonium, kreatin, and lactic acid were entirely innocuous. The only convulsion-producing substances were ammonia and the organic ammonium bases—trimethylamin, cholin, kreatinin, and guanidin; the last body is not found in human urine, but is one of the uric acid products.

A generally recognized feature of infection is increased coagulability of the blood. Dr. John Turner[9] has shown (1) that the average rate of coagulation is quicker in severe cases of epilepsy; (2) that the rate is quickened during the period that the patient is having fits (serial epilepsy); (3) that there is a further quickening of the coagulation rate up to twenty-four hours before a seizure; and (4) that, from twenty-four to forty-eight hours after a fit, there is a rebound and retardation in the rate of blood coagulation.

Intravascular clotting occurs clinically in cases of infection, most probably as a result of the liberation of nucleo-proteid. Dr. John Turner[10] has suggested that just before an attack the leucocytes and blood plates shed their nucleo-proteid. In consequence a hyaline material is found in the smaller arterioles and capillaries, obstructing the free course of the circulation. These appearances are most conspicuous in the brains of persons dying in status epilepticus, as well as in general paralytics in whom epileptiform attacks have occurred. It is, therefore, not improbable that some types of epileptic convulsions, notably serial epilepsy and the status epilepticus, may be associated with nucleo-proteid thrombosis arising from toxaemic influences within the body. A further sign of toxaemia, described by Lewis Bruce as occurring in some forms of acute insanity of toxic origin, is a hyperleucocytosis associated with a high percentage of polymorphonuclear cells. It would appear from the observations of Pugh and Bruce that a hyperleucocytosis was found in cases of serial epilepsy, and those complicated with acute mental symptoms.

The general conclusion, therefore, which might be drawn from these observations, is that the type of epilepsy due to toxic causes may be found in those acute forms of the disease known as serial epilepsy and the status epilepticus. These may, therefore, be regarded as accidental occurrences in the course of the disease.

THE IMMEDIATE CAUSES OF EPILEPTIC SEIZURES.

It has been observed that the onset of an epileptic fit may be accompanied by a temporary cessation of the heart's action and the pulse beat. This transient stoppage is attributed to cardiac inhibition; the loss of consciousness and the fit to the resulting sudden cerebral anaemia. The most recent advocate of the cardiac inhibition theory of the causation of epileptic seizures is Dr. A. E. Russell,[11] who

has collected a quantity of evidence in its favour in his Goulstonian Lectures for 1909. He does not, however, contend that complete cardiac arrest occurs in every epileptic convulsion, for the pulse may persist throughout a fit, although in his opinion an extreme feebleness, short of absolute cessation, might be sufficient to initiate a fit.

It is well known that convulsions may be due to the sudden cutting off or to the prolonged deprivation of the cerebral blood supply. The convulsions of Stokes-Adams disease, the Kausmall-Tenner fits provoked by ligature of the internal carotid arteries, and the spasms consequent upon electrical stimulation of the peripheral end of the cut vagus nerve are all due to this cause. Russell contends that the fundamental factor underlying the epileptic fit is cerebral anaemia, probably associated with vaso-constriction of the cerebral blood vessels. He holds that the sudden and profound loss of consciousness, so characteristic of the major epileptic seizure, is not due to an intense "discharge" from the cortical grey matter, as is commonly stated, but to a sudden cessation of the whole cerebral circulation. This may vary in degree, so as to cause either transient unconsciousness or a severe convulsive fit.

The direct evidence in support of this view is meagre, apart from the temporary cessation of the heart's action sometimes observed at the commencement of an epileptic fit. It would be, therefore, well to look for collateral evidence which might support the vasomotor spasm theory of the origin of epileptic fits. A comparison has been drawn between what occurs in epilepsy and some of the phenomena of Raynaud's disease. The retinal arteries have been found on ophthalmoscopic examination to be narrowed during the paroxysmal attacks of impairment of vision which occur in some cases of this disease. The fundus of the eye has also been examined ophthalmoscopically at the commencement of an epileptic seizure. Sir William Gowers did not observe any vaso-constriction of the retinal arteries under these circumstances. Recurring attacks of transient hemiplegic paralysis have been described by W. Russell, Langwill, and others, as due to intermittent closure of the cerebral arteries—a condition which might, if sufficiently sudden and complete, conceivably give rise to convulsions in predisposed persons. The well-known phenomena of migraine, also are in many ways favourable to the hypothesis of vasomotor spasm as the underlying cause. Leonard Hill[12] produced a typical fit in himself by digital compression of one carotid artery. He says:

> The first effect on applying the compression was a sensation in the eye on the same side: then there followed a sensory march of formication down the opposite side of the body. This began in the fingers, spread up the arm, and then down the leg. Finally, clonic spasms of the head occurred, accompanied by an intense feeling of vertigo and alarm.

The evidence in favour of cerebral anaemia being the cause of convulsions is therefore clear, but as yet there is no direct demonstration of either vaso-constriction or cerebral anaemia being the exciting cause of the recurring seizures of epilepsy.

Paralysis of the vaso-constrictor nerves rendered permanent by removal of the superior cervical ganglion has not led to that favourable outcome which was expected of it when introduced as a means of treating epilepsy, on the theory that the fits were due to cerebral anaemia from vaso-constriction.

Admitting the instability of the vasomotor system as a feature of most epileptics and vaso-constriction and cerebral anaemia as a cause of some fits, we have still to arrive at an explanation of the cause of a periodic tendency to arterial spasm.

Whether the primary excitant of the epileptic attack be a spontaneous "discharge" of nervous energy, or cerebral anaemia induced by vaso-constriction and cardiac inhibition, the fit would seem to originate in some portion of the cerebral cortex. I accept the old view of Hughlings Jackson that epilepsy is a disorder of the highest level, and I contend that the observations of many subsequent workers—anatomical, experimental, and clinical—have placed the highest level between the intermediate precentral and prefrontal zones.

Campbell[13] has shown that in association with each recognized cortical centre there exists a corresponding higher or psychical centre. He has described the psycho-motor, psycho-sensory, psycho-visual, and psycho-auditory centre in close relation to the motor, sensory, visual, and auditory centres, situated respectively in the precentral, occipital, and superior temporal gyri. If a higher olfactory centre exists, it is probably to be found in the lobus pyriformis, but its delimitation is less clear than in the case of the other centres.

The nature of the aura determines the portion of the cerebral cortex in which the fit starts. Warnings of special sense are either crude sensations or sensations of a more elaborate and psychical character. The latter are especially characteristic of idiopathic epilepsy. It is, therefore, conceivable that the "discharge" commences either in the lower or higher portion of a special sense region, according to the nature of the warning sensation.

A noteworthy point is the constancy of the warning in particular cases. As Herpin pointed out, the warning sensations, however diversified they may be, are always, or nearly always, similar in the same subject. There are only few exceptions to this. During the course of the disease the aura of the major seizure may disappear, but the minor attacks retain the character of the original warning.

In the case of the large number of epileptics in whom no warning of the seizure is present, but in whom the fit is ushered in by a sudden and profound loss of consciousness, the discharge conceivably originates in the frontal area. Here the onset of the fit is essentially psychical. The patient is dazed, or stuporous, or drops down suddenly. In many of these cases transient conjugate deviation of the eyes occurs, or a cry is uttered.

The completeness or incompleteness of an epileptic fit—that is to say, whether the attack is an aura sensation, a minor, or a major seizure—depends upon the intensity, duration, and extent of the cortical discharge. Hughlings Jackson's idea of epilepsy was the occasional sudden, excessive, violent discharge of a nerve centre, sensory, motor, or psychical. The conditions which favoured such discharge were congestion and excess of blood in the cortical capillaries, with retarded motion and consequent alteration of the nutrition of the cortical cells. This view has lately been revived by the observations of Dr. John Turner, who has found in the brains of persons dying from epilepsy minute thromboses of the cortical capillaries. He suggests that just prior to the onset of a fit the blood plates shed their nucleo-proteid contents. The result is the formation of granular or hyaline thrombi, which in persons hereditarily or structurally predisposed to cortical instability is sufficient to provoke a cortical discharge and epileptic fit.

Whether in any particular case the morbid condition, which gives rise to the "explosion" is inherent in a cortical centre, common to the whole cerebral cortex, or is attributable to a vasomotor instability or blood condition, are points which still remain mysterious.

It may be asked: What is the cause of the enormous variability in the frequency of epileptic seizures—a frequency which varies from two or three fits in a year to several score in twenty-four hours? Is the same cause at work in both these types of the disease?

In whatever part of the cerebral cortex the discharge arises it rapidly spreads along the association and commissural tracts so as to involve both sides of the brain, although one side is usually more affected than the other. Hence it comes about that the examination of the reflex, motor, and sensory systems after a major epileptic fit reveals evidence of temporary paralysis, and of alterations in the reflexes, indicative of a transient disturbance of the pyramidal system. The knee-jerks are at first abolished and then exaggerated, the abdominal reflexes are lost, and the plantars show a temporary extensor response. These symptoms vary in accordance with the character of the seizure. They are not present after minor attacks; they may be observed on one side only, in cases where the convulsions have been preponderatingly unilateral. They are most obvious, and persist longest after serial outbursts or the status epilepticus. Temporary impairment of motor power (exhaustion paralysis) is observed on one or both sides, but more especially on the side which has shown the greater convulsion. Diminution or loss of cutaneous sensibility may also be found after a fit. It is most marked in the limbs which show the greater motor weak-

ess. Amblyopia, deafness, and impairment of smell and aste may also be of temporary occurrence.

THE BORDERLAND OF EPILEPSY.

I have adopted this term from Sir William Gowers,[14] who has recently described a number of conditions which are near to epilepsy but not of it.

In the sense used by Gowers, the term includes some phenomena which will not be discussed in this lecture, such as the minor seizures of labyrinthine disease, attacks often difficult to differentiate from epilepsy; migraine, which will not receive further consideration here, although the paroxysms of this disease are well worthy of study as they reveal much that is interesting in connexion with epilepsy; and vertigo, a general symptom of intracranial disease, which would lead us too far away from the prime object of the lectures.

Epilepsy and Hysteria.

In any discussion, therefore, of the phenomena on the borderline of epilepsy, brief consideration should, in the first place, be given to hysterical seizures and their differentiation from epileptic attacks.

Both epilepsy and hysteria are diseases founded upon a hereditary degenerative endowment. Both disorders have a common clinical symptom, namely, the periodic occurrence of paroxysmal attacks, characterized by an alteration of consciousness. This is hardly the place to enter into an analytical consideration of the distinction between these two great psycho-neuroses apart from their paroxysmal phenomena.

I have in the preceding lecture attempted to point out what may be regarded as the outstanding symptoms of epilepsy, and have endeavoured to show that although in recent and slight cases it may remain thoughout a so-called "functional" disease, in the severe and the confirmed cases with mental impairment the symptoms become grafted upon an organic alteration of the cortical tissues. Epilepsy, in consequence, is a dementing disorder. Hysteria, on the other hand, remains throughout a purely functional and mainly psychical disease. According to Janet,[15] its fundamental characteristic is a dissociation or severance of some mental processes from the main personal consciousness. It has no pathological anatomy, and no tendency towards dementia.

Clinical study of the attacks which occur in these two diseases has led to difficulty and confusion rather than to simplification in their differential diagnosis. The most recent observations tend to show that there is no such generally recognized condition as "hystero-epilepsy" in the usually accepted sense. Binswanger states that interparoxysmal hysterical symptoms may be added to genuine epilepsy and vice versa. It would also appear probable that a prolonged hysterical attack may terminate with symptoms in no way differing from those of genuine epilepsy. Bratz and Falkenberg found that all their cases were either hysteria or epilepsy, or a combination of the two diseases.

Major hysterical attacks are, as a rule, fairly distinct in character from major epileptic seizures. But the minor attacks of both disorders are sometimes not easy to differentiate. If an attack is being described by an untrained onlooker it may be a difficult matter for a physician to decide whether the paroxysms are those of epilepsy or hysteria, as the duration of the minor seizures in both diseases is almost the same and they may both occur in series. Moreover, the perversion or dissociation of consciousness in the hysterical attack may readily be mistaken for the abolition or impairment of consciousness which is the characteristic feature of the epileptic seizure.

On the other hand, if the attack should be observed by the physician, there is, as a rule, less difficulty. The rolling or squinting movements of the eyeballs, and the oscillations of the head in the hysterical attack, are quite distinct from the tonic conjugate deviation of the head and eyes in the epileptic; the tonic spasm of the limbs inducing flexion of the arms and extension of the legs in the latter are in contrast to the tonic spasm mainly of the muscles of the neck and back in the former; the steady development and eventual yielding of the clonic spasms in epilepsy stand out in striking contrast to the vibratory tremors of the hysterical attack; and the sudden relaxation of the spasm, and the almost instantaneous return to consciousness in the hysterical seizure is a feature of noteworthy importance. The hysterical seizure also differs essentially from the epileptic in the three following additional features:

1. The hysterical seizure does not terminate in psychical disturbance, confusion, or automatism. Hystericals come out of their attacks suddenly, and often express a feeling of relief after the attack is over.
2. As pointed out by Janet, there is a possibility of awakening the phenomena of the hysterical seizure by hypnotism. Epileptics are not at all hypnotizable, and in consequence it is not possible to produce in them a real somnambulistic state with consecutive amnesia.
3. Should it be possible to examine the reflexes of the patient recovering from a seizure, certain changes will be found in most cases of major epilepsy.

The most important transient changes indicating disturbances of the pyramidal system are alteration of the plantar reflex from the normal flexor to the abnormal extensor response, abolition or impairment of the abdominal reflexes, and exaggeration of the knee-jerks.

If, therefore, it is not always possible to distinguish the epileptic from the hysterical seizure during the attack, an examination of the patient at or immediately subsequent to its termination will usually be sufficient.

EPILEPTOID PHENOMENA.

I now enter upon a subject of great complexity. There is no doubt that many people are prone to attacks which cannot be classified either under hysteria or epilepsy. The attacks are in the main purely subjective, but in some cases objective phenomena, chiefly of a circulatory and vasomotor character, may be observed.

Numerous writers, whose special work lies chiefly in neurological practice, have described attacks having features which will be depicted presently. Owing to the absence of any systematic classification, there has been a tendency to group the symptoms under different headings, each author devising his own terminology for the sake of convenience or according to his conception of the malady.

Psychasthenic Attacks.

Oppenheim was the first to describe, under the term "psychasthenic attacks," certain periodic seizures, mainly because they occurred in persons subject to common psychasthenic symptoms, such as fears, dreads, apprehensions, obsessions, and tics. The leading features of these attacks were:

(*a*) That they did not occur during childhood.
(*b*) That there was a special cause for the attacks.
(*c*) That they were of infrequent occurrence.
(*d*) That they were characterized by prolonged unconsciousness without convulsion, and only slight twitching of a few muscles.
(*e*) That there was an absence of mental changes.

Such attacks would seem to be extremely rare, and in my opinion difficult to differentiate from epilepsy.

The Dreamy State.

Janet[16] has described under the term "psycholepsy" conditions characterized by an alteration of consciousness, which favours the development of a "dreamy state," in which a feeling of unreality or of non-existence is the outstanding symptom.

Mention has already been made of the "dreamy states" described by Hughlings Jackson as the warning of some fits with epigastric and olfactory auras. It is important to distinguish between this aura sensation and the condition which is now being described. Patients describe the mental state as a feeling of non-existence, with doubts as to the reality of things, even as to the material existence of their own bodies; they also have doubts as to whether what they see and hear are real. It may more appropriately be termed a "reverie" state, and is frequently associated with feelings of an obsessional or psychasthenic character. Symptoms of this kind are not uncommon in epileptics. Crichton-Browne and Pick (of Prague) have described them as becoming permanent in some cases of confirmed epilepsy, and I have seen and described them as psychical epileptic equivalents.

Other Periodic Seizures.

Sir William Gowers,[14] in his most instructive lectures, has described seizures whose symptoms were referred chiefly to the distribution of the pneumogastric nerve. To these he has given the term "vagal or vaso-vagal attacks."

Finally, Dana[17] has designated under the term "para-epilepsy" seizures of a psychical, vertiginous, or vaso-motor type, occurring in neurotic or psychasthenic individuals, more especially about adolescence. As these seizures, according to this observer, resemble "aura fits," or abortive epileptic attacks, he has classed them in a group of para-epileptic phenomena.

It is therefore clear that observers now recognize a type of periodic seizure, which is neither hysterical nor epileptic, occurring in persons of a neurasthenic or psychasthenic temperament. Attacks of a not dissimilar kind, however, may be observed in subjects of genuine epilepsy, and there are other attacks in which the diagnosis from hysteria is most difficult and uncertain.

These attacks may therefore be provisionally placed in a group by themselves, but it seems to me as if a name is still lacking which will fitly embrace the whole series.

I have suggested the term "epileptoid" as one which seems to include all the symptoms of a paroxysmal and recurring character which lie upon the borderline of epilepsy.

It would seem possible from our present knowledge to subdivide these symptoms into two groups:

(*a*) Attacks having features especially of a vasomotor character.

(*b*) Attacks having symptoms especially of a psychical character.

Vasomotor Attacks.

These seizures are characterized by throbbings, thumpings, and beatings of the heart, flushings of the face and a fullness of the head, dizziness, and frequently sensations of a paraesthetic character in the extremities, such as numbness, tingling, and pricking.

They may be of daily occurrence, and last from a few minutes to several hours. They occur in persons of a nervous temperament. Dana notes that there is usually an associated element of thyroidism. In one case of my own there was a decided tendency towards dermographism.

Gowers also describes seizures characterized by definitely vasomotor symptoms, such as coldness of the limbs, pallor of the face, shivering almost amounting to rigor, tingling and numbness of the extremities, and sometimes a slight tetanoid spasm.

A fuller development of these seizures, bringing them into a relationship more akin to epilepsy, is well illustrated by the vaso-vagal attacks described by Sir William Gowers. The symptoms as given by him are:

1. Sensations referred to the stomach, heart, and respiratory systems.
2. The ascent of the sensation from the stomach to the chest, throat, and head.
3. It is accompanied by a feeling of respiratory distress and cardiac oppression, fear, and a sense of impending death.
4. There is no true loss of consciousness, but the mental operations are slow, and sometimes characterized by a feeling of unreality.
5. The attack ends with a great acceleration of the heart's action.
6. The whole attack lasts for about fifteen or twenty minutes.

Women suffer more frequently from these attacks than men. This, and the fact that the pneumogastric and vaso-motor systems are readily influenced by emotion, have probably led to the frequent submergence of these attacks beneath the vague conception of hysteria!

Psychical Attacks.

These are seizures in which the outstanding features are of a psychical character—usually a sense of apprehension, dread, or fear. They are commonly associated with sensations of nervousness, numbness, coldness, nausea, cephalic sensations, and frequently accompanied by sensations of a vague, indescribable character. Sometimes the feeling of fear is intense, and may be replaced by a sense of impending death.

In the true attacks of this kind consciousness is never abolished, but the mental state may assume a dreamy attitude, with a feeling of unreality. The attacks occur in persons who present other features of a psychasthenic character, such as dreads, fears, and apprehensions. There is usually also a well-marked neuropathic heredity. Although in many cases the attacks are of the kind just described, there are other cases in which they merge into epileptic seizures.

The attacks described here as "psychical" are clearly closely related to those of a more purely vasomotor type, the vaso-vagal attacks of Gowers being seemingly the connecting link between the two types of seizure, as well as between them and attacks of an epileptic nature.

Relation to Epilepsy.

This is a suitable place to draw attention to some of the outstanding features of these attacks, and to compare them with epilepsy.

One of the commonest forms of warning in epileptic seizures is the epigastric sensation, consisting of a subjective sensation referred to the stomach or upper abdominal area. Epigastric sensations are of various kinds. Some are vague and indefinite, others are of an indescribable character, and others are painful, spasmodic, or cramp-like. These sensations may or may not be associated with gastric disturbances, such as flatulence or any abnormal condition of the stomach contents. In the majority there are no signs of local gastric disorder.

Closely allied to the epigastric sensation is the cardiac warning, which consists mainly of palpitation of the heart, and sometimes of pain, and is generally accompanied by a sensation of suffocation, strangulation, or oppression, sometimes with a sensation of impending death. So closely does the condition resemble angina pectoris that a variety of minor epileptic attacks has been designated "epileptic pseudo-angina." A notable accompaniment of the epigastric warning and its allied sensation of cardiac oppression is sensation of intense fear, or apprehension, and sometimes a desire to be alone.

The symptom of fear, in association with fits accompanied by epigastric warning, is well known, and was pointed out by Hughlings Jackson many years ago. But it is not confined to fits with epigastric warning. It is also found as a very characteristic feature in that remarkable group of fits known as "uncinate seizures," or epileptic attacks with a warning of smell and taste, due to organic disease of the uncinate gyrus. In addition to the sense of fear, which has been already mentioned, a peculiar "dreamy state" has been described in which consciousness is lost or perverted.

Whatever may be the explanation, it would appear to be a well-recognized fact that a definite relation exists between epigastric sensations and a sensation of fear or apprehension. This relation is not confined to epileptic attacks. It is also present in other conditions. In many states of fear or alarm a vague sensation is referred to the abdomen. Persons who suffer from melancholia constantly refer to the feeling of weight or oppression in the region of the stomach; and many individuals, obsessed by some fear or panic, refer to a vague and indefinite sensation in the stomach as the source of their discomfort.

If we now apply the principles which have been already laid down when considering the march of an epileptic attack, it is obvious that minor epileptic seizures may occur, characterized by an epigastric or cardiac sensation, accompanied by a sensation of fear, or of oppression or even of impending death, in which consciousness may be retained, or at the most merely blurred or perverted.

I have ventured at some length into this discussion, because, as Dana has shown, the attacks already described as "psychical seizures" have many of the qualities of epileptic auras and abortive epileptic fits; hence the term "para-epilepsy" which he has applied to them.

The close relation between epilepsy and the vaso-vagal attacks has also been emphasized by Sir William Gowers, who regards them as a long-drawn-out or extended epileptic seizure. He says:

> Some of the facts we have glanced at suggest that it is possible that the elements of an epileptic attack may sometimes be extended, and thereby made less intense, though not less distressing. . . .
>
> If we could conceive a minor epileptic attack that is extended, its elements protracted with no tendency to be terminated by loss of consciousness, its features would be so different, that its nature would not be suspected. Swiftness is an essential element of ordinary epilepsy, but this does not preclude the possibility of deliberation.

Dr. A. E. Russell, who has already been quoted as the ost recent supporter of the cardio-inhibitory theory epileptic seizures, interprets these attacks in the llowing way:

A sudden depression of the normal vasomotor tone in the planchnic area leads to a rapid accumulation of blood in the apacious vessels of that region. If only momentary in duration ne result is merely the sudden sinking at the pit of the stomach. f of longer duration this preliminary sensation or aura is succeeded by a faint. . . . The dreamy mental state and the fear f impending death may be due to the vascular depression, hich must of necessity affect the brain. If consciousness is st it shows that the vascular depression has reached a point ncompatible with consciousness, and that this is the missing nk connecting it with epilepsy.

The position of these seizures in the periodic phenomena llied to epilepsy therefore depends upon the view taken f the nature of epileptic attacks. Russell regards the vhole series, from simple syncopal attacks or faints up to pilepsy, as primarily of vasomotor origin. He favours the loctrine that such symptoms are signs of "a vasomotor taxia," a condition in which the vascular mechanism is unable to adjust itself to strain. Whether this is the true xplanation of a remarkable series of phenomena is a point pon which it is difficult to offer an opinion. The theory ust expressed certainly brings a train of not dissimilar eriodic seizures into line.

Epilepsy, however, seems to me to be primarily so much cerebral or psychical disorder that I hesitate to classify t along with faints and syncope as a disease of the vasomotor mechanism. Many of the features of the borderland conditions just described are not psychical, but seem o be the consequences of functional disturbances of the ower centres in the medulla oblongata. I would also emphasize the fact, already referred to in the first lecture, hat the convulsive element is only one feature of epilepsy. True epilepsy is always accompanied by some psychical alteration, apart from symptoms of a psychasthenic kind. I am not aware that the epileptoid conditions just described ever present any tendency to mental impairment or dementia.

Sleep Phenomena.

The physiological condition underlying sleep is especially favourable for the development of epileptic attacks. It was shown in the first lecture that the few hours after falling off to sleep are the hours most favourable for the occurrence of epileptic fits. In consequence of this there is in many cases of epilepsy a striking regularity in the periodicity of the attacks, a fit occurring at or about the same hour on each occasion. This period of deepest sleep is also a favourable time for certain sleep symptoms which appear to be upon the borderline of epilepsy—namely, night terrors in the adult. Night terrors are common in neurotic children, but their significance is merely that of an unstable nervous system. Their occurrence in adults, or their continuance from childhood into adult life, is of greater significance, and may raise the question of their epileptic character in some cases. They usually reveal themselves in the utterance of loud piercing screams, sometimes a single scream, at other times more frequently repeated. Their chief characteristic is that, having occurred at some time during the first few hours after falling off to sleep, they do not occur again during the same night. They have been known to recur every night for many months in succession; on the other hand, they may recur only at long intervals. In most cases the sufferer is entirely unaware of their occurrence, except in those cases in which sleep-walking also occurs, where the patient awakes and finds that something unusual has taken place.

I have known cases in which the attack has been associated with a dream, but these are more likely to be cases of epilepsy.

Sleep-talking and sleep-walking either replace or may be associated with nocturnal screaming. Adult patients subject to these and similar sleep symptoms sometimes present the stigmata, both structural and psychical, which are characteristic of epilepsy. In all there is a well-marked neuropathic heredity. It is well known, however, that attacks in which a patient may wake suddenly from sleep in a state of nervous fear, apprehension, or panic are of temporary occurrence, and indicate a state of nervous stress or strain, induced by overwork or anxiety, and not infrequently excited by some gastric or intestinal disorder.

I wish, however, to point out that sleep symptoms are found from time to time in persons of highly nervous temperament, which should be regarded as symptoms of importance and should be classed as phenomena upon the borderline of epilepsy.

REFERENCES.

[1] Binswanger, *Die Epilepsie*, Wien, 1899. [2] Voison and Peron, *Arch. de Neurol.*, vol. xxiv, p. 178. [3] Haig, *Uric Acid*, 1892, p. 21. [4] Krainsky *Mémoires Couronnés*, 1901. 15. [5] Donath, *Deut. Zeitsch. f. Nervenh.*, 27, Part I. [6] Mott and Halliburton, BRITISH MEDICAL JOURNAL, 1904, ii, p. 1557. [7] Buzzard and Allen, *Review of Neurology*, vol. iii, p. 453. [8] Donath, *Deut. Zeitsch. Nervenh.*, 1907, p. 232. [9] Turner, J., *Journal of Mental Science*, October, 1908. [10] Turner, J., BRITISH MEDICAL JOURNAL, 1906, p. 496. [11] Russell, A. E., *Lancet*, April, 1909. [12] Hill, L., *Cerebral Circulation*, 1898, p. 124. [13] Campbell, A. W., *Localization of Cerebral Function*, Cambridge, 1905. [14] Sir William Gowers, *The Borderland of Epilepsy*, London, 1907. [15] Janet, *Major Symptoms of Hysteria*. [16] Janet, *Les obsessions et la psychasthénie*, Paris, vol. i. [17] Dana, *Epilepsy and Epileptics*, U.S.A., 1906, p. 90.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

RUPTURE OF BOTH QUADRICEPS EXTENSOR CRURIS TENDONS.

THE two cases of rupture of both quadriceps extensors reported by Drs. Chichester and J. Wallace Milne in the BRITISH MEDICAL JOURNAL of November 6th, 1909, p. 1343, and January 22nd, 1910, p. 199, have interested me very much and brought to my mind a similar case which I had in August, 1904.

J. H., aged 60, a coal salesman, slipped while carrying a bag of coals from his lorry to the cellar. He fell forwards, losing all power in his right leg. He tried to get up by putting his left beneath him; this also gave way, so that both legs were completely powerless beneath the knee. He was carried home, and I found both quadriceps tendons ruptured, leaving large gaps above the patellae.

Horseshoe-shaped strips of plaster were applied to bring down the ruptured ends of the tendons, and long splints applied to both legs. The legs were kept rigid for six weeks, when splints and plaster were removed and passive movement and massage applied for four weeks more.

After removing the splints large pads were placed behind the knees for several hours daily, leaving the legs and feet without support, so that their weight assisted considerably in producing flexion of the knee-joints, and in a short time he was able to take walking exercise.

He made an excellent recovery and resumed work twenty-four weeks from the time of the accident. He does not follow his former occupation, but is employed at the present time as coal shedman, and his legs never give him any trouble whatever, although he experiences many heavy lifts in the performance of his duties.

Arbroath, N.B. RICHARD KELLY.

PARACENTESIS OF THE PLEURA.

I HAVE read with interest the abstract of the paper by H. Hochhaus on "Puncture of the Pleura," which appeared in the EPITOME of the BRITISH MEDICAL JOURNAL for January 29th, but so far as the details are given, I am inclined to think that they are less convenient than the method which I first used while resident medical officer at Brompton Hospital, and have been in the habit of employing for the last twenty-eight years.

I described and demonstrated this method before the Medical Society of London (*Proceedings*, vi, 304), but the account published at the time was incomplete, and from the paper now under notice I am led to think that a short description may be useful. Given a sterile trocar and surgically clean skins of surgeon and patient, the apparatus prevents any possible infection from without, or any unintentional introduction of air or liquid. It is also in several respects easier to handle than that referred to by H. Hochhaus or any of those I have seen used or described.

For the indispensable purpose of removing any obstruction in the cannula with the minimum of interference to the operation, I selected a trocar designed and made by Matthews which certainly seems to me much more convenient than that described by Hochhaus. This trocar or

needle is furnished with a blunt probe co-axial with the cannula passing through a stuffing box, while the draw-off tube is affixed to the side. Normally the handle of this probe projects through the stuffing box, and leaves an unobstructed lumen in the cannula. On any obstruction occurring, the probe, without any dismantling of apparatus or interference with the operation, is simply pushed forward into the cannula and withdrawn. If this is ineffective, a momentary suction can be applied as described below. The trocar or needle is also provided with a sheath, which, when the pleura has been entered, is pushed forward to present a blunt and harmless end to the expanding lung.

The charging of the apparatus with antiseptic liquid is effected by an exhausted bottle, and the actual withdrawal of fluid from the patient by a siphon tube, the aspirator bottle and the siphon tube being connected to each other and to the trocar by a three-way cock. By this means the trocar or the siphon tube can be filled, the trocar subjected to the sole action of the siphon tube, or a strong suction applied momentarily for clearing the cannula by merely turning the handle of the stopcock in the appropriate direction. All the parts of the apparatus are readily taken apart and put together, and can be sterilized by boiling.

By either substituting a water manometer for the vacuum bottle or by connecting it to a T-piece on any suitable part of the system, variations of pressure can be followed.

To prevent trouble resulting from coughing, the manometer is furnished with a mercury valve similar in construction to the mercury thermostat. The normal pressure of air in the system passes to the water manometer through two small orifices. On any sudden rise of pressure, such as occurs on coughing, one orifice is stopped by a rise of mercury in the valve.

The use of a manometer is, of course, quite needless in the majority of cases, but for special purposes—for example, observation of expansile power of the lung, or in very chronic cases—it may be desirable, and this automatic contrivance for preventing the interruption which coughing sets up is the most useful I have met. By adding a wash bottle to work under slight pressure, the apparatus can be used equally well for evacuation or for injection of the pleura, the bladder, or any other organ containing, or intended to contain, liquid.

A matter of much importance alluded to in H. Hochhaus's paper is the question of when to operate if fever is present. Over-delay under such a condition exhausts the patient, and the removal of quite a moderate quantity of fluid is followed by subsidence of the fever. The operation, too, can be rendered so painless now by the use of cocaine or its substitutes—all of which were unknown when I first operated—that no patient is likely to be alarmed if a second paracentesis should be deemed advisable.

London. FREDERICK J. HICKS.

TWO UNUSUALLY SITUATED CHANCRES.

THE following two cases are considered worthy of recording on account of their similarity and the somewhat unusual situation at which infection took place. In both cases the sores on admission were hidden in the pubic hair, which leads us to conclude that each originated in a hair follicle.

Private, R.M.L.I., aged 25, was admitted to the sick list on December 21st, 1908, with a sore situated in the middle line of the abdomen, half way between the umbilicus and the symphysis pubis. He stated that it began as a pimple, which he scratched repeatedly until it became a raw surface. On admission the sore had ragged edges and there was a large amount of surrounding induration; there was also a bubo in the right inguinal region. A scraping of the surface was taken and stained with Giemsa's stain and *Treponema pallidum* demonstrated in appreciable numbers. He was placed on continuous treatment for syphilis, intramuscular injections of mercurial cream being employed. On March 20th he developed secondary symptoms, consisting of a well-marked rash and "snail track" ulcers on the fauces. Later he developed an ulcer on the right leg, of typical serpiginous character.

Stoker Petty Officer, aged 39, was admitted to the list on September 1st, 1909, with an unhealthy pustular sore in the right inguinal region. The underlying lymphatic glands were enlarged, indurated, and tender. Since the sore did not react to treatment, but continued to spread and had a sloughing base, syphilis was suspected. A scraping was taken and stained with Giemsa, and *Treponema pallidum* found. In this case the patient was very definite in his statement that there had been no abrasion of the skin previous to the appearance, a few days before admission, of what he described as a "boil." The sore healed rapidly when he was treated with intramuscular injections of mercurial cream. A secondary syphilitic rash appeared four weeks after the case came under observation.

L. KILROY,
Staff Surgeon, Royal Navy.
G. P. ADSHEAD,
Surgeon, Royal Navy.

A PATIENT'S ACCOUNT OF THE CRISIS OF LOBAR PNEUMONIA.

I WAS called on October 21st, 1909, to see a woman, aged 36, who presented well-marked signs of left lobar pneumonia. The illness had begun two days previously with a rigor and general malaise. She was extremely thin and had been in ill health for some months. The attack was severe, accompanied by much pain, and the condition of the heart caused much anxiety. She passed the crisis on the night of October 25th, the temperature falling from 101° to 98°. The resulting depression was severe, and at about 9 a.m. on October 26th her husband came to tell me she was dying, as she was unconscious and had no control over the bladder or rectum. I went at once and found her in a very serious condition, the surface cold, the pupils dilated, and the pulse only 64. Hot brandy and milk was given freely and hot bottles applied to the feet, and in about twenty minutes she seemed to revive, though her condition was very serious. She recovered slowly; the chest cleared well, but there was a good deal of pain and swelling in the left knee and ankle, due, I suppose, to pneumococcal infection of these joints.

The patient herself gave me a much clearer account of her feelings during the crisis than I have ever received, and as it is rarely one can get such an intelligible story of subjective sensations, I requested her to write it down. The following is her account:

After tossing about in bed for a week, with a feeling that my left lung was burning, coughing incessantly, and suffering acute pain in my side, I began to feel weaker, and on the seventh day I felt something really serious was about to happen, and told my husband what to do with the children and home in case I died before morning. Then came a night of intense heat and restlessness. I was frequently delirious and my eyes seemed drawn to the ceiling, which I imagined to be the clouds which were waving to and fro always. In the early morning I felt the fire in my lungs had suddenly gone out and hot vapour was pouring in all directions in my chest almost choking me and making me gasp from time to time. Then I began to sweat profusely, and everything began to fade from my sight and grow dark. At this time the heat was unbearable, and I began to fall as it were from the clouds. As I fell I began to get cold, until I seemed to be far below the earth's surface in a large cave which was dark, cold, and very damp. . . . I knew I was dying and was quite ready to go. Next I remember my husband asking how I was, but I could not speak neither could I see. . . . Soon after this I heard some one sobbing violently, then again a little later I heard some one breathing hard, which I thought was a large dog and wondered why it was there; this was the doctor, who had been hastily summoned and who had just entered the room. Then I heard some one calling loudly, which disturbed me as I had been praying for rest and sleep all night long, and I felt I had just got the most perfect peace and rest it is possible to have when somebody called me by name and asked me if I could hear, and I replied "Yes," and from that time I slowly recovered.

OSCAR B. TRUMPER, M.B., B.Ch.(Vict.),
Aston, Birmingham. F.R.C.S.E.

THE Mission to Lepers in India and the East has received an urgent appeal from the native state of Hyderabad for assistance in building an asylum near Nizamabad. There are said to be 2,000 cases of leprosy within forty miles of that town; the bakers were recently expelled from the town itself, as the disease was rife among them, and the mission doctors discovered cases among the butchers. A local Hindu merchant has offered a site and a substantial contribution towards the cost of the building. The organizing secretary of the Mission is Mr. John Jackson, 33, Henrietta Street, Strand, W.C.

Reports
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

GYMPIE HOSPITAL, QUEENSLAND.

TWO CASES OF PELVIC TUMOUR.

(Reported by W. SIDNEY SWEET, B.Sc., M.D., B.S.Lond., M.R.C.S.Eng., late Medical Superintendent and Resident Surgeon.)

THESE two cases present features of special interest pathologically, and illustrate difficulties met with during operation, the first one on account of its large size and the second on account of its unusual shape and the consequent alteration of the anatomical relations.

CASE I.

Elizabeth L., a married woman aged 55, and a nullipara, sought advice for enlargement of abdomen, progressive and of five months' duration, and pain and tenderness for two months. Six months ago she was 24½ in. in circumference, and now she is more than 32 in. She had been losing flesh rapidly, was constipated, and the left foot and ankle had been swelling. She had been married twice, but had had no children nor any miscarriages. Menopause four years ago. She had never had an illness of any moment. The patient was a little, slight woman, with a dark and sallow complexion. The abdomen was enlarged and protuberant, especially the lower part. A large, firm tumour could be felt, the bulk of which was on the right side, but it spread right across the abdomen. It extended upwards into the right hypochondrium and downwards into the pelvis. It was moderately regular in outline, but rounded lumps could be felt. One on the extreme right was very tender on pressure. Free fluid was present in the left flank, which was thought to be localized by adhesions, as there was no shifting dullness on change of position. Dilated veins were visible on the surface, running upwards from the right groin.

Per vaginam: The vagina itself was quite soft. In its roof anteriorly could be felt two lumps and posteriorly another lump pushing down towards Douglas's pouch. These were solid but not hard. On pressing firmly upwards movement was communicated to the tumour. The cervix could not be identified.

The edge of the tumour was well defined. Percussion over it was absolutely dull. Below the umbilicus it was almost in contact with the abdominal wall, but above, the elastic stretched wall had to be depressed by the fingers before the upper edge could be felt.

The heart was normal, but there were signs in the lungs. Bronchial breathing right side in front, dullness at both bases, absolute over the left base with absence of vocal resonance and breath sounds, and very definite crepitations. There were also crepitations at the right base, but less distinct. The pulse averaged 100, and the temperature, which was occasionally slightly raised, about 98.8°.

Subsequent Course.—She had some difficulty with the bowels, but passed urine normally, quantity between 30 oz. and 40 oz. daily, the specific gravity being moderately low, but containing nothing abnormal. Her chief complaint was pain, which was very severe at times, especially at night, and usually on the right side of the abdomen, but there were intervals when she was quite free from pain. The abdomen increased in size, and the superficial veins became more apparent. The diagnosis was easy, except as to the exact nature and origin of the tumour; it was malignant growth of right appendage with secondary deposits in lungs. The bad nights became more frequent, and dyspnoea began. The patient begged that something might be done to relieve her of the weight of the tumour, and prayed that she might die on the operating table rather than continue as she was. It was on this account that operation was agreed upon, and also on the slender chance that the tumour might prove to be innocent and the condition of the lungs due to fluid at the bases, an extension from the abdomen. She was operated upon three and a half weeks after admission.

Operation.—The bladder was sounded, the sound passing 3¾ in. An incision was then made midway between umbilicus and pubes. On opening the peritoneum there was an escape of dark, clear, blood-stained fluid; then the tumour presented itself. It was smooth, solid, and with rounded nodules on the surface; it was softening in parts. The hand was introduced, but it could not pass right around the tumour on account of a large adhesion on the left side. The wound was now enlarged upwards almost to the xiphisternum and downwards to the pubes, and the hand passed around the tumour above. Even then considerable retraction of the lax abdominal wall was necessary before the large diameter of the tumour could be got out over it. Adhesions on the right were then separated piece by piece after ligaturing, and adhesions and large entering vessels on the left. One very large thick adhesion united the tumour to the sigmoid colon. An encircling incision was then made through the peritoneum above the thick pedicle of the tumour, the centre of which came from the right broad ligament near its junction with the uterus, and with some difficulty the peritoneum was stripped downwards, and the pedicle ligated in sections and snipped across with scissors. This was a very difficult procedure, since the tumour was practically sessile, and owing to its great size it overhung, and interfered with the work going on beneath. The haemorrhage was only moderate, but owing to the patient's condition, and on the advice of the anaesthetist, it was found necessary to accelerate matters. The peritoneum was accordingly drawn over the stump, and a large drainage tube having been inserted, the abdomen was rapidly closed by through-and-through stitches of silkworm gut. It was noticed during the operation that the ovaries were enlarged, and that there were small miliary growths like sago grains along the small intestine. Also that there were purple patches of congestion in the parietal peritoneum.

The tumour weighed 12½ lb., but this does not convey a fair impression of its size. On section a number of rounded areas were observable of a darker colour than the rest, and slightly raised above its surface, and there was a medium-sized cavity full of gelatinous semifluid material. A portion was sent to the Government pathologist, who examined it microscopically, and reported it to be a spindle-celled sarcoma.

For the first two days after the operation there was little complaint of pain and only a little clear blood-stained fluid came from the tube; then atony and distension of the small intestine took place, and patient had at times alarming dyspnoeic attacks. She died in one of these on the fourth day after.

Post-mortem Examination.—Pedicle wound in good condition; very little free fluid in abdominal cavity; recent adhesions of small intestine. Uterus and ovaries adherent to surrounding structures behind and at the sides of the pelvis, so that the fingers could not be pushed down into the pouch of Douglas. The right ovary was about three times its normal size, and on section was white and firm, without any trace of normal glandular tissue. There were small lumps in the broad ligaments and at the back of the uterus. Small sago grain deposits in small intestine. Liver small, pale, and firm, but no growths. The right lung had recent adhesions. The left lung was consolidated near the base, and the pleura coarse, rough, and thickened.

CASE II.

Adeno-carcinoma of Uterus.

Margaret W., a married woman aged 42, and a nullipara, was admitted as an urgent case for profuse haemorrhage from the uterus. She said that she had been losing blood at times—between the periods—for over a year. She had been treated medically with some success and had menstruated regularly until two weeks ago. Since then she had been bleeding slightly until 4 o'clock in the morning of admission, when she had a considerable haemorrhage. She had been married fourteen years, without children or miscarriages.

She was a well nourished woman, pale, but not very anaemic. Her pulse was 64 and of good tension, but soon quickened up to 106. Shortly after admission she vomited copiously. On examination blood was oozing from the vagina, which was full of clot. The vagina was narrow and short, and in its roof a rounded smooth firm tumour could be felt, which filled up the hollow of the sacrum. The finger could be just swept around it, and it had very much the same feel as the presenting occiput at full term. The external os could not be defined. The continuity of the tumour with the uterus was made out bimanually. By abdominal examination the uterus was found to be enlarged to about half-way between umbilicus and pubes, with a small firm lump on the right side. The bleeding was much lessened by hot douching with a solution containing tinct. hamamelidis and calcium chloride. The vagina was then plugged with iodoform gauze and ergotinin citrate gr. $\frac{1}{50}$ injected hypodermically. This checked the bleeding completely, but next day the mucous membranes were very pale and the pulse moderately accelerated, and some permanent measure had to be considered. It was thought most probable that fibroids were present and it was decided to operate. She was first examined in the lithotomy position. The vagina was so small that it would only admit one finger, and a small dilatable speculum was inserted and the vagina dilated before anything could be seen. No external os was then visible, but a rounded tumour which appeared to form part of an enlarged cervix. Manipulation started the bleeding, and on swabbing the bleeding point could be identified on the front aspect of the tumour, which was apparently breaking down. This was plugged again and the patient laid on the table in the Trendelenburg position. The skin of the abdomen had already been well prepared. A 3-in. incision was made in the middle line between umbilicus and pubis, the peritoneum opened, and the small intestine pushed up and packed off with gauze. The uterus was then examined. The fundus was little larger than the normal size except for a small firm round subperitoneal growth on the right side. The lower pole was uniformly enlarged and blocked up the pelvic canal. It measured 3½ in. in diameter and was solid. The uterus had the shape of a pear with the head hanging downwards. It was decided to remove it. There was also a single smooth-walled cyst about the size of an orange attached to the right broad ligament close to the right ovary. The wall was thin, moderately tense, and it fluctuated freely. The broad ligaments were clamped and the ovarian and uterine arteries ligatured on each side in the usual way, except that, owing to the inverted pear shape of the uterus, the clamps

pointed outwards instead of inwards, which rendered the operation much more difficult. After securing the main uterine artery on the left side, some difficulty was experienced in picking up and ligating a branch which came off from the main artery above the ligature; but this was eventually done without much bleeding. The crux of the operation was the removal of the enlarged lower pole of the uterus. The peritoneum was stripped off with some difficulty. It was adherent to the uterus, which was tough and fibrous. On account of its bulk the structures on either side were crowded together and their anatomical relations altered. The scissors were used freely, but the greatest caution had to be maintained for fear of injuring the ureters and other structures. The separation of the bladder in front was easier. Finally, just before entering the vagina some soft broken-down material was met with, and this was thoroughly removed with a sharp spoon. A large rubber drainage tube was then pushed into the vagina, and a single catgut suture fixed this. The peritoneum was drawn over it and united with continuous catgut suture. The cyst of the right broad ligament was removed in the usual way, and the whole operation site carefully swabbed over with normal saline solution and dried with gauze. The packs were then removed and the abdomen closed.

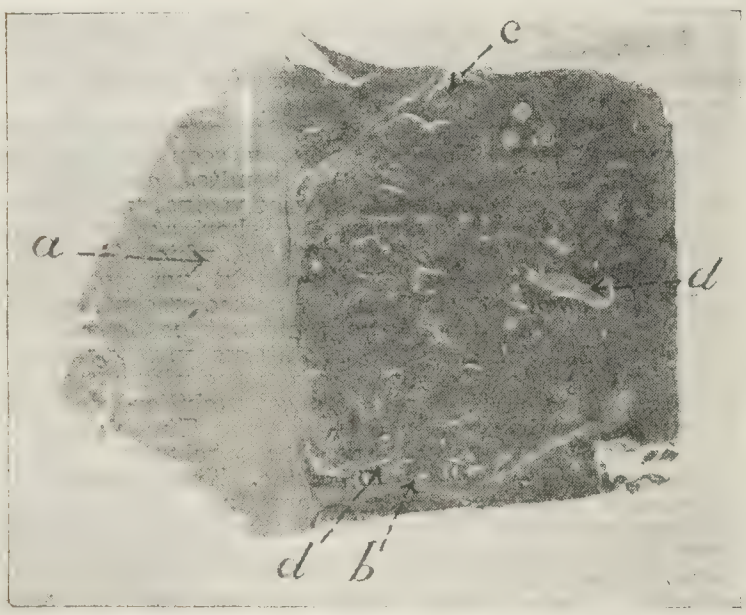
The patient made an excellent recovery, and gave no anxiety from the first. The temperature remained practically normal throughout, and the pulse, which was never weak, gradually fell from 108 to 80. A very little bloodstained discharge came from the vaginal tube for the first day or two. On the third day the tube was removed, and the vagina douched daily with warm boric solution for a week. The urine remained clear throughout, and there was no trace of blood. About a week after there was a deposit of mucus and some pus cells in the urine: urotropin and salol were given in turn, and it cleared up. The stitches were removed from the abdominal wound on the tenth day. It was quite healed.

On making a section through the uterus it was found that there was no cervical canal. The growth formed a solid mass, which was breaking down in its lower part. The cyst contained clear yellow fluid.

The report from the Government pathologist was as follows:

Sections show advanced adeno-carcinoma.

The section here reproduced illustrates the oft-repeated statement that there is no sharp distinction morphologically between simple adenoma and adeno-carcinoma.



Photograph of microscopical section of adeno-carcinoma of uterus, magnified about four times. *a* is dense fibromyomatous tissue extending from the peritoneal investment inwards. The dark area represents alveoli of all sizes and shapes lined with cells, which, especially at *c*, have broken through the basement membrane and invaded the stroma; *d d* are alveoli; *b* a fibrous band. The section was taken at the junction of the body and cervix of the uterus.

At one end of the section the epithelial cells are arranged in alveoli, and do *not* invade the surrounding tissue. At the other end they are more irregular, and have broken down, losing their outline and individuality, while the alveoli are wanting in definition, and there is no so-called basement membrane apparent.[1] Note the dense fibromyomatous tissue on the outer side, suggestive of premyomatous formation with subsequent invasion of the tumour. Undoubtedly some of the degenerations of fibroids first described were of this nature. The section was cut from the upper part of the cervix, at its junction with the body of the uterus.

[1] This can only be seen in the large scale drawings.

Reports of Societies.

ROYAL SOCIETY OF MEDICINE.

OBSTETRICAL AND GYNAECOLOGICAL SECTION.

Thursday, March 10th, 1910.

Dr. MACNAUGHTON-JONES, President, in the Chair.

MR. T. CARWARDINE gave a demonstration with the epidiascope of a series of photomicrographs from a case of *Ruptured tubal pregnancy* in a patient, aged 29, who was operated upon about twelve hours after the rupture. One specimen of a chorionic villus revealed the origin of multinucleated wandering cells from the fetal epithelium having cell processes, which, where not coagulated together by the hardening reagent, were of a delicate silken character embracing a red blood corpuscle at one place. Some of the wandering cells were attached, others free. A section near the point of rupture showed indications of the "cell sheet," also numerous cells derived from the trophoblast invading the blood clot and undergoing amitotic cell division. They resembled the invading cells seen in the tissues outside a chorion-epithelioma. Villi in contiguity showed great diversity in the characters of the epithelial coverings. Dr. RUSSELL ANDREWS described a case of *Carcinoma of the cervix* of a prolapsed uterus in a patient aged 86. Its special point of interest was that on the right labium, where it was touched by the carcinoma of the cervix, was a contact carcinoma. Vaginal hysterectomy and excision of the carcinoma was performed. The patient made a good recovery in spite of her advanced age. Dr. MCCANN said that he had not seen an example of cancer of the cervix associated with prolapse of the uterus. He had, however, seen examples of "contact infection" in the labia and posterior vaginal wall. In the latter position a cancerous cervical growth, polypoid in character, had produced infection at its point of contact with the vaginal wall, a portion of sound tissue existing between the contact growth and the cervix. It was difficult to assert with confidence that contact infection was the correct explanation in many cases, for it was more probable that direct spread along the lymphatics was the real cause. Indeed, what was most remarkable was that contact infection was so rare when all the conditions favourable for its occurrence were present. Dr. G. BLACKER had seen one case of prolapse of the uterus in which there was a carcinoma of the cervix so extensive that the cellular tissue was involved to a considerable degree, and the uterus could not be replaced. In view of the important part that chronic irritation had been shown to play in the production of carcinoma, it was a most curious fact that carcinoma of the cervix was so uncommon in cases of prolapse. He had never seen any adequate explanation of this fact. Might it be associated with the very poor and sluggish circulation through the vessels of the cervix, which was a condition present in bad cases of procidentia uteri?

LIVERPOOL MEDICAL INSTITUTION.

PATHOLOGICAL SECTION.

Thursday, March 3rd, 1910.

Dr. T. R. BRADSHAW, President, in the Chair.

DR. DOUGLAS CRAWFORD showed: (1) A *Fractured axis* from a man who had fallen down a staircase, head foremost, death being instantaneous. The fracture had passed through the odontoid process. The transverse ligament was intact. (2) A *Left cervical rib*, removed from a man aged 24, the first sign of which was nerve irritation following an injury to the shoulder. A skiagram showed that this rib articulated with a buttress of bone springing from the first rib, and that there was a small right cervical rib also. Operation removed all symptoms. Mr. THELWALL THOMAS and Dr. MACKEREL showed: (1) A specimen of *X-ray dermatitis and epithelioma* in the finger of a worker in *x* rays. The trouble lasted many years, an ulcer appearing in the middle finger above the joint. On the other hand there was an ulcer which also proved epitheliomatous. (2) A loop of small intestine, 10 ft. in length, removed from a patient of 48, who had suffered for some time with *Intestinal obstruction*, culminating in

two previous operations, when many bands had been removed. At the third operation a matted mass with shortened mesentery was removed, the ends of the gut being joined by a lateral anastomosis, and the patient made a good recovery. (3) *Carcinoma of antrum.* (4) *Carcinoma of testicle.* Dr. R. W. MURRAY showed the sac of *Femoral hernia*, at the fundus of which were small bundles of muscular tissue, which were believed to be gubernacular fibres. Mr. THELWALL THOMAS ventured to suggest that the fibres of the gubernacular fibres should be non-striped. Mr. PAUL showed a section of *Recurrent breast cancer exposed to x rays* for some months. The shrunken character of the malignant cells was compared with those of the original tumour. A small *Ivory exostosis removed from a frontal bone*, which had only penetrated the outer table. Two specimens of *Hypernephroma*, or renal cancer: (1) from a lady aged 56, which was fatal from recurrence in nine months; (2) from a servant, aged 40, who was in good health a year after operation. Mr. RUSHTON PARKER showed a *Papillomatous carcinoma of the upper jaw and nasal septum.* Dr. PERCY MARSH and Dr. T. J. WILLIAMS showed (1) tubercle bacilli in large numbers, obtained from the cerebro-spinal fluid, removed by *Lumbar puncture* in a case of tuberculous meningitis. (2) A *Thymus gland* from a case of cerebro-spinal meningitis. The patient was a boy aged 11, who died on the fourth day of the disease, with a temperature of 108°. The gland weighed 336 grains. Dr. BUCHANAN and Dr. ERNEST GLYNN showed an *Aortic aneurysm* which had burst into a left lung. The PRESIDENT and Dr. ERNEST GLYNN showed: (*a*) (1) The intestines from a case of *Acute entero-colitis* with a membranous deposit in the ileum; (2) *Chronic ulcerative colitis* with nodular hyperplasia of the glands in the mucous membrane. (*b*) A specimen of *Bronchiectasis with cerebral abscess.* Dr. BUSHBY mentioned the case of a woman who suddenly became hemiplegic and died with coma. At the autopsy a large abscess was found in the parieto-frontal lobe, and a small bronchiectatic cavity in the apex of the left lung. Dr. ERNEST GLYNN showed the wall of a *Hydrosalpinx*, containing numerous large cells, which he regarded as foreign body giant cells. Mr. PAUL read a paper on the pathology of *Prostatic enlargement.* He criticized the chronic inflammatory and neoplastic theories, and gave reasons, physiological and pathological, for believing that the enlargement was the result of an involution change, comparable with involution hypertrophy of the breast in the female at the climacteric period. The paper was illustrated with lantern slides. Mr. THELWALL THOMAS thought that there were three classes of enlarged prostate: (1) Fibrous, due to inflammatory trouble; (2) true overgrowth; (3) adenomatous masses. Dr. ERNEST GLYNN and Dr. ABRAM also spoke.

Thursday, March 10th, 1910.

Dr. T. R. BRADSHAW, President, in the Chair.

Ureteral Calculi and X-Ray Diagnosis.

MR. THURSTAN HOLLAND read a short paper on ureteral calculi and *x*-ray diagnosis. He laid stress on the importance of an *x*-ray examination covering the whole area of kidneys and ureters. He cited cases in which ureteral calculi were present in addition to kidney stone. He emphasized the importance of *x*-ray examination immediately before operation on account of the movements of ureteral calculi. Cases were related illustrating anomalous symptoms. An analysis of cases with statistics of hospital cases was given and the technique of examination was described.

Dr. ORAM considered that the surgeon should, in all cases, himself inspect the photographic plates, and cited a case where a mistake had occurred owing to the omission of this precaution, one stone only being removed from the kidney in which the plate clearly demonstrated the presence of three.

Dr. T. R. GLYNN related a case of anuria persisting for three days; a stone was removed from one ureter and was followed by an excellent recovery.

Mr. DAMER HARRISSON recalled the case of an old man seen *in extremis*; rectal examination revealed stones in both ureters.

Serums and Vaccines in the Treatment of Disease.

Dr. NATHAN RAW read a paper on the value of serums and vaccines in the treatment of disease. The paper was based on an observation of the effects of such treatment in 628 cases occurring in hospital and private practice. The serums employed included antistreptococcic serum, antidiphtheritic serum, antitetanic serum, and Maragliano's serum for tuberculosis. Antidiphtheritic serum was employed in 69 cases, and in definite cases of diphtheria the results had been excellent. The author had treated 8 cases of tetanus (acute and subacute) with antitetanic serum, on the whole with good effect. The effect of Maragliano's serum on 14 cases of pulmonary tuberculosis had been difficult to estimate; 28 cases had been treated by a single strain of antistreptococcic serum, and 182 cases by means of the polyvalent serum. The cases included such infections as puerperal septicaemia, acute erysipelas, malignant endocarditis, streptococcic cellulitis, acute tonsillitis, and septicaemia. The author found that the treatment of acute erysipelas by the serum was always attended with success, and one successful result in the treatment of malignant endocarditis was recorded. Amongst the vaccines employed by the author, tuberculin, pneumococcic, typhoid, and staphylococcic were considered. The action of Coley's fluid in 9 cases of inoperable cancer and sarcoma was recorded; in only 2 cases had there been any successful result. The effect of the typhoid and pneumococcic vaccines was uncertain. The treatment of carbuncles, boils, and pustules by staphylococcic vaccine had proved satisfactory. The author considered that in a great many cases of tuberculosis the treatment by means of tuberculin had been of very decided value. He employed tuberculin prepared from both human and bovine sources. He believed that local forms of tuberculosis, such as occurred in glands and joints, were chiefly due to the bovine type of bacillus, and that pulmonary tuberculosis was due to bacilli of the human type. He considered that in the local forms of tuberculosis the administration of tuberculin prepared from human sources had the most beneficial effect, and vice versa.

After remarks by the PRESIDENT, Dr. ERNEST GLYNN said he was surprised that Dr. Raw should consider that local forms of tuberculosis, as in glands and joints, were mostly due to bacilli of the bovine type, for the following reasons:

1. Recent observations by Smith, Oehlecker, Duval, Park, Lewis, and the German Imperial Health Office have shown that 34 out of 56 cases of cervical gland tubercle were caused by bacilli of the human type.
2. The Royal Commission has found that 16 out of 30 cases of gland tubercle, and 9 out of 9 cases of joint tubercle, were also of the human type; though Dr. Raw claimed "that their findings entirely corroborated" his views.

Dr. Glynn was also surprised that Dr. Raw should treat glands and joint tubercle, assumed by him to be of bovine origin, with tuberculin made from bacilli of the human type, because recent work indicated that a vaccine should be prepared from the *same* type of organism as that causing the infection, and should even be autogenous if possible.

Dr. HILL ABRAM said that his experiences with these remedies, excluding diphtheria, had on the whole been unsatisfactory. Dr. Raw's successful treatment of pulmonary tuberculosis with a remedy derived from a bovine source confirmed the old position, which Dr. Abram had never given up—namely, that there was no vital difference between bovine and human tuberculous disease. In fact, the matter stood pretty much where it did before Professor Koch's startling statement at the London meeting.

Dr. PERMEWAN thought there was a real risk of ordinary surgical principles being lost sight of in the eager rush to vaccines in certain cases. He instanced cases of chronic suppurative ear disease where much time had been wasted and danger incurred by the useless injection of vaccine, and he entered a protest against the growing practice of trusting to vaccines instead of resorting to surgical treatment. A little healthy scepticism was sadly required in these days of almost universal scientific credulity.

Dr. WARRINGTON said that impressions formed from a large number of cases were valuable, but that it was desirable to obtain, when possible, detailed analyses, since, as far as he knew, no single case of septicaemia had yet

been proved to have been cured by these means; for local infection the vaccines of *coli*, gonococcus, and staphylococcus were of approved benefit.

Dr. Mackenna said he had been disappointed in tuberculin. He had found no improvement in cases of lupus from the use of Koch's T.R, and his colleagues at the Skin Hospital had had the same experience. He had had a large experience in staphylococcic vaccine from various sources, and in many cases the most gratifying results had followed treatment. A pustular acne in a patient past the acne age would rapidly yield to vaccine therapy, but vaccines were not "cure-alls."

Dr. Oram stated that he had never seen any improvement from the administration of tuberculin in the treatment of cases of lupus. He thought that vaccines were unsuitable in acute cases, and that their use should be limited to those cases in which there was reason to believe that the toxin from the focus of infection was not obtaining access to the system. He related a case of furunculosis where ill effects had followed the injection of vaccine during the negative stage, and repeated temporary improvement followed each injection of serum.

Dr. Henry Clarke gave reasons founded on practical experience at the Consumption Hospital against Dr. Raw's practice of administering bovine tuberculin in cases of tuberculosis of the lung. The practice could not be defended in theory nor was it justified by his experience.

Dr. Crace Calvert thought that the hypodermic and oral methods of administration were better than the rectal. He did not agree that it was necessary to treat cases regarded as arising from the human type of bacillus by a tuberculin of bovine source and vice versa. He had had successful cases of each type treated with a tuberculin of human source.

Dr. O. T. Williams was of opinion that, in view of the magnificent results in the treatment of diphtheria and epidemic cerebro-spinal meningitis, antidiphtheritic serum and Flexner's meningococcic serum should be regarded as a class apart. In a series of cases successfully treated by Flexner's serum he had made a careful analysis of the resulting phenomena and had been greatly impressed with the value of this serum. He regarded treatment by means of vaccines as entirely empirical.

NORTH OF ENGLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

Friday, March 18th, 1910.

Dr. W. K. Walls (Manchester) in the Chair.

Diffuse Intraperitoneal Haemorrhage.

Dr. A. W. W. Lea (Manchester) reported a case of diffuse intraperitoneal haemorrhage, probably due to rupture of an early ovarian pregnancy. The patient, a multipara of 29, was seen by Dr. Lea eight hours after the sudden onset of severe abdominal pain, with vomiting and faintness. She was extremely pallid, with a barely perceptible pulse, exceeding 130 beats in the minute. The abdomen was somewhat distended and extremely tender. There were signs of free fluid in the abdomen. The menstrual history showed nothing abnormal. A natural period had occurred three weeks previously. Vaginal examination revealed indistinct fullness in the pouch of Douglas, but no obvious swelling of the appendages. There was no uterine haemorrhage. Within an hour the abdomen was opened. A large quantity of fluid and clotted blood was found free in the peritoneal cavity. There was no enlargement of the Fallopian tubes. From the surface of the left ovary projected a thin-walled blood cyst, which had obviously ruptured, and was collapsed. The left appendages were removed. The right Fallopian tube appeared perfectly healthy. The patient recovered without any complication. The menstrual period commenced four days subsequently, and continued for three days, being of the usual type, without pain. The specimen and a number of microscopical sections were shown. The Fallopian tube was quite normal in appearance and on section. One pole of the ovary had been distended by a blood cyst, which was partially destroyed during its removal. Careful examination of the blood clot revealed a small area in which the presence of chorionic villi could be clearly demonstrated in microscopical sections. Sections of the ovary showed marked dilatation of blood vessels with many areas of haemorrhage in the stroma. The specimen excited considerable interest, and members were unanimously of the opinion that it would prove to be another example of ovarian pregnancy. Dr. Lea stated that further microscopical investigations would be made in order to determine the exact nature of the specimen.

Accessory Lobes to the Liver.

Mr. R. Favell (Sheffield) showed an accessory lobe of the liver which he had removed from a woman of 30. The patient had never been well since a septic abortion six years ago. For about six months she had had pain in the right side, and had noticed a lump. She had not been sick, and there had been no jaundice. She was pale and of a rather neurotic type. The abdomen was somewhat distended, and in the right iliac fossa there was a freely movable swelling the size of an orange. On bimanual examination the swelling could be felt at the pelvic brim. The left ovary was normal in size. The tumour was thought to be the right cystic ovary with a long pedicle. On palpating the abdomen under anaesthesia it was noted that the tumour had the pendulum movement of a gall-bladder tumour, and that it could not be pushed into the true pelvis. The abdomen was opened below the umbilicus, and an elastic globular tumour the size of a large Jaffa orange was seen to be attached to the liver by a short, broad pedicle. The tumour was dark purple in colour, in marked contrast to the colour of the liver, and its surface was marked by milky-white bands running in its capsule. Large vessels ran from the pedicle over the surface of the tumour. The pedicle was attached to the thin anterior margin of the right lobe of the liver. After clamping, the pedicle was cut through, and the bleeding was controlled by a double layer of mattress sutures of catgut. The whole operation was performed outside the abdomen through an incision whose upper end was 1 in. below the umbilicus. There was considerable ptosis of the liver. The patient made an uninterrupted recovery. On bisection, after hardening in formalin, the tumour was seen to be of a mottled greenish-yellow colour, and irregularly lobulated by fibrous bands and blood vessels. The colour quickly changed to an olive-green. Microscopical section showed liver tissue undergoing fatty degeneration.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

Wednesday, March 16th, 1910.

Mr. A. Fulton, President, in the Chair.

Gastric and Duodenal Ulcers.

Dr. Stanley Green, in opening a discussion on the treatment of gastric and duodenal ulcers without operation, said that, owing to the care with which the symptoms had been described, duodenal ulcers were now more frequently diagnosed than formerly. It was not quite clear why duodenal ulceration was so much more common in the male. In the male, too, these ulcers became much more chronic, because a man had neither the patience nor the time to complete his cure that a woman had. Among the exciting causes of ulceration were anaemia, oral sepsis, the bolting of food, and especially the hurrying off to business immediately after meals. Worry was a potent cause of recurrence, and he was inclined to think hereditary influence played an important part in alimentary ulceration. In many cases all symptoms lay latent until perforation took place. The immediate dangers were perforation and haemorrhage, while the remote were pyloric obstruction, hour-glass constriction, adhesions about the bile ducts, and cancer. As regards treatment, in bad cases he commenced with albumen water for forty-eight hours, and by very gradual steps added to the diet until after about three months the patient was having a fairly generous diet; at the same time he gave a mixture of bismuth and morphine with papain. Bread was tolerated badly, and was about the last article to be added to the diet. He had not found rectal feeding necessary. Dr. Cattle's experience taught him that surgical treatment was generally necessary, owing to the tendency to relapse. In supporting this view Mr. Willis pointed out that old healed ulcers so frequently led to pyloric obstruction. Gastro-enterostomy afforded the

nly complete relief. Mr. ANDERSON mentioned two cases f severe haemorrhage from duodenal ulceration which ad completely recovered on medical treatment. He only dvised operative treatment where medical methods were nsuccessful. Dr. PURVES thought the patient was more uickly and completely cured by surgical than by medical reatment. Men were especially intolerant of the slow edical treatment, and were likely to be failures. Dr. BLURTON considered any case might be cured by medical neans alone. Dr. PARRY JONES considered surgical treatment should be secondary to medical. He considered that nedical treatment should be more thorough than as ketched by the author, and regarded rest in bed as essenial in bad cases. In severe cases also he cut off everyhing, including medicine, by the mouth for the first few ays.

PATHOLOGICAL SOCIETY OF MANCHESTER.

Wednesday, March 9th, 1910.

Dr. W. E. FOTHERGILL, President, in the Chair.

DR. POWELL WHITE gave a lantern demonstration of xperiments on *Cell proliferation*. They consisted in the ojection of fatty acids subcutaneously into the external ars of rabbits and the mammary glands of guinea-pigs. he acids used were oleic and palmitic acids. The injecion set up aseptic suppuration, with the formation of an bscess. When such an abscess, he said, came in contact vith any epithelium, such as a hair follicle or a sebaceous land, the epithelium proliferated and grew over the urface of the abscess, forming a complete lining of quamous epithelium. In two cases in which oleic acid aturated with carbonic acid was used the epithelium howed more active proliferation and penetrated into the ubjacent connective tissue, forming columns and isolated roups of epithelial cells. In two cases in which the oleic cid was saturated with methyl oxalate emboli of quamous epithelial cells were found in the lymphatics, nd in these two cases also there were found multiple artilaginous nodules growing from the auricular cartilage. The abscesses formed by injecting oleic acid into the nammary glands became lined with squamous epithelium lerived by metaplasia from the mammary epithelium. Dr. MILLIGAN, in some observations on the pathology and reatment of *Otitic meningitis*, pointed out the usual hannels of infection, the various types of meningitis, and he organisms responsible for its incidence. Lumbar uncture was of value, he said, both as a diagnostic and as a therapeutic measure; early operation should be pracised, and be combined with frequent lumbar puncture to elieve intracranial tension. Among some *Tumours of the yelid* shown by Dr. HILL GRIFFITH was a lipoma, a ondition stated in the textbooks not to occur.

UNITED SERVICES MEDICAL SOCIETY.

Wednesday, March 9th, 1910.

Surgeon-General A. M. BRANFOOT, President, in the Chair.

Mercurial Injections.

STAFF SURGEON H. C. ADAMS, R.N., read a paper putting forward a plea for a uniform method of treatment of syphilis in the navy by the intramuscular injection of metallic mercury. This method, he claimed, was the most generally reliable, because it was extremely difficult to induce men to carry out a prolonged treatment by the ingestion method, owing to the traditional objection to taking mercurial pills, and to men tiring of continually visiting the sick bay when they had no active reminder of their disease. By the intramuscular method only a weekly visit was necessary; the medical officer had absolute control as to dosage, and digestive trouble was obviated. Inunction was obviously impossible for the service afloat. A short history of the use of mercurial creams in the navy was given, the various formulae from time to time adopted were described, and the essential points for an ideal cream discussed. The statements were supported by a series of samples and photomicrographs of cream, which showed that the main points in an ideal cream were: (1) The mercury must be in an extremely fine state of subdivision; (2) the basis should be sufficiently fluid at ordinary temperature to work freely in the syringe and needle, but sufficiently viscid to suspend the metal; (3) there should be no abrupt transition on warming from the fairly solid to the liquid state. The formula held to be the most generally useful contained: Mercury, 20 parts; anhydrous lanolin, 30 parts; chlorbutol, 2 parts (all by weight); and liquid paraffin up to 100 parts (by measure). Such a cream contained 1 grain of mercury in m v. A special all-glass syringe was shown fitted with a needle entirely of steel, including the socket; the use of platino-iridium needles had been abandoned owing to their liability to leak along the seam. Untoward results could be avoided by attending to the following points: (1) Absolute sterility of needles and materials; (2) choice of suitable site; (3) introduction of the needle at right angles to the skin, well into the muscles, detaching the syringe from the needle to make sure that no blood vessel had been entered; (4) keeping the needle track perfectly clear of cream by ensuring that the eye of the needle was free from cream before introduction, and waiting for a second after injection before withdrawing the needle.

Reviews.

ABDOMINAL SURGERY.

THE first part of the second volume of Professor HOCHENEGG'S textbook of special surgery is devoted to abdominal surgery.[1] The size of the volume, consisting as it does of over nine hundred closely printed pages, testifies to the completeness with which the various subjects are treated. The only respects in which it transgresses its subtitle is in the inclusion of affections of the male and of the female genital organs. Professor Hochenegg himself contributes largely to the volume, beginning with the first section, on the abdominal parietes and peritoneum. This section illustrates well the fullness of treatment which the different affections receive. It begins with chapters on the anatomy and the physiology of the peritoneum and general considerations on laparotomy. After a short chapter on diseases of the parietes, thirty pages are devoted to peritonitis in its various forms, and a chapter on tumours of the peritoneum, omentum, and mesentery follows. The section is completed by the consideration of abdominal injuries, which occupies forty pages. The second section, on the surgery of the stomach, is also from the pen of Professor Hochenegg in collaboration with Dr. Exner and Dr. Hans Lorenz. The authors speak emphatically on the value of gastro enterostomy in several types of gastric disease, including ulcer. The method recommended is the posterior-retrocolic, the opening in the jejunum being made as close as possible to its commencement. They have never seen regurgitant vomiting or peptic ulcer after this operation. The excision of gastric ulcers is not favoured. Affections of the intestine occupy the third section, in which, as in the others, a detailed description of operative technique is included. Among the ulcerative and inflammatory processes appendicitis naturally occupies a prominent place. In regard to treatment, Dr. Hans Lorenz adopts the position which, after many years' discussion, has now become widely accepted—that when a patient is seen within the first forty-eight hours of the onset of an attack immediate operation is always the best course. As stated here, the operation is as easy as, or easier than, the interval operation, is attended by a very low mortality, and saves the patient from all the numerous risks entailed by the policy of leaving things alone. Professor Hochenegg's work on rectal surgery is well known, and we turn, therefore, with particular interest to this part of the book. Under haemorrhoids he gives the following methods of operation—canterization, elastic ligature, Whitehead's operation and injection. Excision with haemostatic suture is an alternative of which we would have expected mention. The discussion of rectal cancer is based on 243 personal cases, the particular method of operation depending on the site of the growth. Professor Hochenegg's method of choice is the dorsal, and he finds the risks of the abdominal method much greater. The mortality of his series was 11 per cent. Of 217 cases 42

[1] *Lehrbuch der speziellen Chirurgie.* Edited by Professor J. Hochenegg. Vienna: Urban and Schwarzenberg. 1908. (Sup. roy. 8vo, pp. 922, figures 374. M. 15.)

remained free from recurrence for over three years; of these, 2 died from late recurrence, the permanent recoveries being thus about 19 per cent. The fifth chapter of the book is on hernia, the sixth on the liver, spleen, and pancreas. The chapters on liver surgery are much more compressed than is usual in other parts of the book, the only subject adequately discussed being gall stone disease; the chapter on the pancreas is, on the other hand, admirable. Dr. Zuckerkandl writes two of the final sections on diseases of the urinary organs and of the male genital organs, while Dr. Keiler is responsible for that on the female genital organs. The scheme of the whole book is ambitious. The sections are written by men with special knowledge and training, and with few exceptions the discussion of the subjects is very full. Diagnosis is dealt with in a particularly thorough manner. The work forms a splendid testimony of the value of the surgical teaching at Vienna.

Mr. JONATHAN HUTCHINSON has revised the well-known Treves's *Manual of Operative Surgery*[2] to so great an extent that he has made it in reality a new work. The six years since the appearance of the second edition have seen many changes in operative practice and in no branch more than that with which the first volume is concerned. In its present form it is characterized by conciseness in description and careful selection of the methods worthy of record. It exactly meets the requirements of the surgeon who wants direction and instruction without elaborate discussion and an indiscriminate description. Mr. Hutchinson has, however, enhanced the value of the book by including considerations of the indications for operation where the question presents some peculiar difficulty. As in previous editions a description of the normal anatomy introduces each chapter; new coloured plates and other new figures have improved these useful sections, and we know no textbook of operative surgery so well equipped as this on points of surgical anatomy. Part I is concerned with general principles, and the most illuminating chapter is the first, on the condition of the patient. Mr. Hutchinson accords only a qualified approval to the use of rubber gloves, holding that for the surgeon they lessen delicacy of touch and precision; he cuts short the sterilized operating coat at the elbow; why leave the forearms bare? The second part commences with a chapter of considerable length on abdominal section. The writer seems somewhat to exaggerate the disadvantages of the Trendelenburg position during operation, and neither in this chapter nor elsewhere do we find any reference to the advantages of the semi-upright position after operation for general peritoneal infection. After operation for perforation of gastric ulcer it is advised that the pelvis be raised and the head lowered, although a pelvic drain is recommended. The second chapter is concerned with operations on the liver, gall bladder, and bile ducts, and of course contains many things that are new. The indications for cholecystectomy and the operation itself are described in a very instructive manner. The ten succeeding chapters deal with the abdominal viscera proper—the stomach, pancreas, intestines (including hernia), and the spleen. Throughout they reflect the best modern surgical opinion, and are marked by moderate views lucidly expressed. The author is at the same time quite definite in his directions—as, for example, in his discussion of operation in acute appendicitis. In describing the methods of dealing with the sac in inguinal hernia, Kocher's invagination method—which has much to recommend it—is not mentioned. A description of four gynaecological operations follows this part, and then those on the genito-urinary system. Mr. Hutchinson speaks with some favour of partial bladder resection for cancer; we are glad to meet with such an opinion, as until recently statistics have shown discouraging results. The four final chapters are on rectal operations. The volume gives throughout an eminently sound exposition of principles and practice, and surgeons may confidently commit themselves to its guidance.

BIOCHEMISTRY.

WE have received two volumes of the valuable textbook of biochemical methods, which Professor ABERHALDEN is editing.[3] The second part of Volume II completes t discussion of the products of protein hydrolysis, and dea further with amino-acids and polypeptides, and t synthesis of the latter, which synthesis in the hands Emil Fischer and his pupils is leading us on towards t elucidation of protein structure. The next part of t work treats of nucleic acid and its decomposition produc and the purin bases of plant origin, caffein, etc., a then of haematin and its derivatives, bile pigment chlorophyll, and its derivatives, and animal pigments general. Then comes a chapter on the lipoids of ner matter. This is followed by a very interesting article Professor St. Faust on poisons of animal origin, includi the discussion of adrenalin and bile acids, of the poisons snakes, lizards, amphibia, fish, scorpions, spiders, bee ants, beetles, parasitic worms, jelly fish, etc. Nex Professor J. Schmidt discusses the methods of preparati of alkaloids, and then we have a full treatment of saponin etherial oils, and tannins. The end of this volume occupied by articles by Dr. Ackermann on the isolati of poisonous bases produced in putrefaction and in path genic bacteria, and on the bases which may be extract out of muscle—creatin, carnin, etc. Finally, there is a addendum on the quantitative analysis of glycogen b Professor Pflüger. The first half of the third volun deals with the preparation of ferments (Profess Michaelis) and the qualitative and quantitative invest gation of their action; next with the operative techniq used in the study of digestion and resorption (Profess London), and the methods of studying the products digestion (Dr. E. Zunz). The last part of this volun is devoted to the study of the stages of metabolism b the methods of artificial circulation of "surviving organs preparation and study of organ extracts, of autolysi of the ferments engaged in carbohydrate, fat, and protei metabolism, and the respiration of the tissues. Eac section is dealt with by a specialist, and the whole wor is of the greatest value to the research workers in bi chemical problems. The extent of the work is shown b the fact that these two parts contain some 1,500 page The technical methods are illustrated by excellent figur of apparatus.

Professor HALLIBURTON has issued the seventh edition his *Essentials of Chemical Physiology*.[4] The popularity this work is justified by the judicious selection of th material and by the simplicity and clearness of th author's style. In this edition we find a new lesson adde "on some typical organic compounds which will serve remind the student of the properties and reactions examples of a few important groups of organic substance a knowledge of which is absolutely essential for th intelligent comprehension of physiological proximate pri ciples." The substances dealt with in the experiment exercises in this chapter are ethyl alcohol, acetaldehyd formic acid, acetic acid, oxalic acid, and phenol; while i the theoretical part a short account is given of types the hydrocarbons, aldehydes and ketones, the fatty acid ethers, esters, amino acids, and aromatic compound This lesson will be very helpful to the student. In th lesson on fats we note a section added on the lipoids, wit an account of cholesterine, on which much work ha recently been done, so that it no longer is left to figure a mere word in the student's mind. In rearranging th lessons on respiration the author has had the help Mr. J. Barcroft. Loewy's aërotonometer is figure therein, a simple and ingenious apparatus for determinin the tension of the blood gases. The vacuum pump i relegated to the appendix, and the chemical method blood-gas analysis of Haldane and Barcroft is given in it place, and Barcroft's table of the respiration of some the chief organs is added to the section on tissue respira tion. Some practical exercises on respiration are appende to this chapter, including the Haldane-Priestley method collecting for analysis the alveolar air. To the appendi has been added a short but excellent account of the pro perties of colloids and colloidal solutions. The book ha

[2] *A Manual of Operative Surgery.* By Sir Frederick Treves and Jonathan Hutchinson. Third edition. Vol. i. London: Cassell and Co., Limited. 1909. (Med. 8vo, pp. 787; 17 plates; 193 figs. 18s.)

[3] *Handbuch der Biochemischen Arbeitsmethoden.* Herausgegebe von Prof. Emil Abderhalden. II Band, 2 Hälfte, and III Ban 1 Hälfte. Berlin: Urban and Schwarzenberg. 1910. (Sup. roy. 8v II Bd., 2 Hälfte, pp 497-1101 + xxviii, Abb. 11; III Bd., 1 Hälfte, pp. 47 Abb. 121. Mk.24 = Kr.28 80, and Mk.18 = Kr.60 respectively.)

[4] *Essentials of Chemical Physiology.* By Professor Halliburto F.R.S. Seventh edition. London: Longmans, Green, and Co. 190 (Demy 8vo, pp. 292 71 figures. 4s. 6d.)

been kept within its former bounds by the leaving out of antiquated matter, and we suggest that in the appendix only one form of haemocytometer, the Thoma Zeiss, and one form of haemoglobinometer, the Haldane-Gowers, need be given, and thus some valuable space saved for other matter.

PATHOLOGICAL HANDBOOKS.

Medical Morbid Anatomy and Pathology, by Drs. Thursfield and Branson,[5] is a guide to the study of museum specimens illustrating medical diseases. The book will be especially useful to students of St. Bartholomew's Hospital, the school to which the authors belong, as the descriptions have direct reference to specimens contained in the extremely valuable and comprehensive museum of that hospital, and the catalogue numbers of typical examples in the collection are given at the margin of the text. The book opens with an account of inflammatory and degenerative changes which is meagre and cannot be regarded as suitable for any more valuable purpose than supplying the unambitious student with the very minimum of knowledge requisite for scraping through his examination. This is followed by a common-sense and eminently useful classification of tumours (after Dr. Andrewes), and a good general account of the commoner parasitic worms. After these matters, which occupy the introductory chapter, have been disposed of, the various diseases of medical interest are treated in succession, the descriptions of morbid anatomy being supplemented by copious references to the museum catalogue. The authors write with a sound practical knowledge of their work, and the lucid way in which they group their facts shows that they are experienced demonstrators and know the art of fixing essentials upon the student's mind. The treatment of the heart, pericardium, lungs, and liver, may be mentioned as being particularly good, and indeed evidence of care and accuracy is to be found in the descriptions of all the organs and tissues. The book may be recommended as a safe guide, well calculated to help the student to acquire the knowledge of morbid specimens demanded of him in the medical part of his examination.

The popularity of Professor Kaufmann's special pathological anatomy[6] is shown by the appearance of a fifth edition two years after the publication of the fourth It is a very bulky volume, containing nearly fourteen hundred pages, and on this account is hardly suitable as a first textbook for the medical student, but the mass of detail which it contains renders it valuable for all who desire to consult a work of reference. Its title sufficiently defines its scope as a systematic treatise on the macroscopic and microscopic pathology of the various organs of the body. Though the text is brought up to date by incorporation of references to recent literature, the general character of the book is very much on old-fashioned lines, and does not possess the attractiveness of many recent publications. If we want, for example, to turn up a point about the pathology of the blood, we find here sundry details together with a few very crude, uncoloured illustrations in the text. Most of us would prefer to appeal to one of the special works on haematology, or to an article in a good English textbook of pathology, where the details of modern blood-staining methods are reproduced with the highest skill of the lithographer's art. Similarly, if we turn to the section on the nervous system, and want to find out something about tracts of degeneration in the spinal cord, the descriptions, though accurate, and the diagrammatic sketches, though useful, do not satisfy us. We are accustomed nowadays to find such lesions demonstrated by faithful reproductions of what is actually seen under the microscope. But while the book as a whole suffers from this lack of attractiveness, we wish it to be understood that in raising this criticism we have no intention of disparaging the value of Professor Kaufmann's work as a laborious compilation of accurate data.

[5] *Medical Morbid Anatomy and Pathology.* By Hugh Thursfield, M.D., F.R.C.P., and William P. S. Branson, M.D., M.R.C.P. London: H. K Lewis. 1909. (Crown 8vo, pp. 270. 6s.)

[6] *Lehrbuch der speziellen pathologischen Anatomie.* Von Dr. Eduard Kaufmann. Fünfte Auflage. Berlin: Georg Reimer. 1909. (Sup. roy. 8vo, pp. 1394; 686 illustrations in the text and two plates. M. 23.)

In writing his useful little pocket-book guide to the doctrine of immunity[7] Dr. Friedemann might with advantage have omitted the first thirty-two pages, which are devoted to the theoretical part of the subject. It is impossible in such brief space to present anything like a satisfactory digest of the numerous and complicated theories concerning the many and diverse subjects comprised under the term "immunity." The rest of the book, which is concerned with practical technique, is much better, and may interest many workers on immunity who find it convenient to carry about in their pocket a brief digest of the laboratory methods and formulae which have been adopted by important authorities. The descriptions deal with work on haemolysins, agglutins, precipitins, and kindred subjects; they also include accounts of the serum diagnosis of syphilis and the determination of the opsonic index.

Dr. Prowazek has brought out a second and revised edition of his pocket-book of microscopic technique for the investigation of protozoa.[8] His description of staining methods is concise and practical, and has been carefully brought up to date. The book may be recommended as a useful little laboratory guide for those who are engaged in examining the varieties of protozoa commonly met with in tropical countries. At the end of the volume is a short description of staining methods for demonstrating the peculiar bodies met with in vaccinia and variola, rabies, and other diseases attributable to infective organisms the nature of which is obscure.

In his *Aids to Microscopic Diagnosis*[9] Captain E. B. Knox seeks to supply students preparing for examinations with a compact and brief handbook suitable for revision purposes. We note that the volume pays particular attention to tropical diseases, a feature which will prove attractive to those preparing for medical work in the army. The diagnosis both of tropical diseases and of diseases common to this country is carefully described, and we find that more information is provided than is usually to be found in works of such small compass. The book ought to prove distinctly useful for the purpose for which it is intended.

THE PROBLEMS OF LIFE ASSURANCE.

Although every educated man knows that an actuary is a scientific worker upon the trustworthiness of whose results the stability of modern systems of life assurance depends, few have any clear idea of the real nature of his work. The sphere of medical practice has, however, enough points of contact with that of the expert in life assurance for it to be desirable that knowledge should be made accessible to members of our profession. The standard treatises on the theory of life assurances are, we think, without exception, of so technical a character as to be unintelligible to the majority of medical men who do not regard mathematics as a recreation. Mr. Whittall's little book, *An Elementary Lecture on the Theory of Life Assurance*,[10] should, therefore, command a large public. The way in which the price of an annuity is calculated, the nature and use of a life table, the calculation of premiums, some methods of valuing the assets and liabilities of an insurance office, the determination of surrender values, and the special points to be considered in connexion with endowment assurances, are all clearly explained. No ordinarily intelligent person with a fourth-form knowledge of algebra and arithmetic will find any difficulty in understanding the book. There are numerous problems connected with assurance which have special interest for the medical statistician. Thus, a satisfactory system of "loading" lives must depend on a statistically adequate knowledge of the changes in case-mortality when the incidence of the more important diseases is

[7] *Taschenbuch der Immunitätslehre: mit besonderer Berücksichtigung der Technik.* Von Dr. Ulrich Friedemann. Leipzig: Johann Ambrosius Barth. 1910. (Fcap. 8vo, pp. 146. M.4.)

[8] *Taschenbuch der mikroskopischen Technik der Protistenuntersuchung.* Von Dr. S. von Prowazek. Zweite Auflage. Leipzig: J. A. Barth. 1909. (Fcap. 8vo, pp. 87. M 2.50.)

[9] *Aids to Microscopic Diagnosis (Bacterial and Parasitic Diseases).* By Ernest Blake Knox, B.A., M.D., Captain, R.A.M.C. London: Baillière, Tindall and Cox. 1909. (Fcap. 8vo, pp. 163. 2s. 6d.)

[10] *An Elementary Lecture on the Theory of Life Assurance.* By W. J. H. Whittall, F.I.A., F.A.S. Second edition (revised). London: C. and E. Layton. 1909. (Demy 8vo, pp. 43, with tables. 2s. net.)

delayed. This is well known in some important cases—for instance, pulmonary tuberculosis, but it cannot be said that even in this case any really adequate medico-statistical inquiry has been published. It may fairly be hoped that, in view of the growing interest taken in medical statistics, some medical inquirers will turn their attention to these matters. In order to do so profitably a knowledge of actuarial work is necessary; no better introduction to the subject than this pamphlet could be asked for, and we hope it will have the success it deserves.

INFANT FEEDING.

If the subject of infant feeding was neglected in the past, present-day writers have amply atoned for the shortcomings of their predecessors. The literature on the subject has assumed appalling dimensions, and the fear arises that it is being overdone. The third edition of Dr. ERIC PRITCHARD'S work on *The Physiological Feeding of Infants*[11] has been rewritten and enlarged, and now contains nearly 500 pages. In the introduction the author sums up a discussion on "Physiological Feeding" as follows: "Physiological feeding may, then, be defined as a system which aims at adapting the food to the digestive, nutritional, and educational requirements of each individual infant." The first two of these objects are the aims of every attempt at infant feeding, however imperfect the means adopted may be. The "educational" requirements, it may be said, are generally forgotten. In dealing with maternal feeding the author lays great stress upon what he terms "test-feeds"—that is, on ascertaining the exact amount of milk consumed by weighing the infant before and after each lactation. That such a test might occasionally be useful is obvious enough, but we would not have thought the advantages claimed for such "test-feeds" as a routine practice were sufficient to compensate mothers for the trouble involved in weighing their babies before and after each lactation, both day and night, as the author suggests. In regard to the artificial feeding of infants Dr. Pritchard is a firm believer in the percentage methods advocated by Rotch and others. In the interval since the publication of the last edition of his work percentage methods have not gained in favour, but on the contrary have been largely abandoned as being unnecessarily intricate and complicated. On the other hand, the very antithesis to these percentage methods, that of Budin, according to which infants are fed from the start with whole sterilized milk, the quantity given being adapted to the age and weight of the child, is finding increasing support. Moreover, Dr. Pritchard's own methods are not in accordance with those of the system he advocates. He gives very numerous diets with their supposed percentage compositions, along with the various quantities of milk, cream, milk sugar, etc., for their preparation. Now, for his percentages to be approximately correct, milk should be a substance of staple and unvarying composition. Careful analyses of the milk from one of the largest dairy companies show that the fat varies from a little over 3 to nearly 5 per cent., according to the time of the year and the hour of milking. On many days the afternoon milk contains nearly a third as much fat again as the morning supply. The percentage of the total solids, again, varies almost as widely as the fat. These considerations show that, if Dr. Pritchard's directions be carried out, the resulting percentage composition of the diet must in numerous instances, if not most, be different, often very different, from what he supposes or intends. Any successes, then, gained from his directions go to prove that percentage methods are unnecessary. The author seems overfond of minutiae, for, in addition to these numerous elaborate directions for the dieting of healthy infants, he gives special rules for "gouty infants," "infants born of tuberculous parents," "infants who have developed tuberculous lesions," "infants of alcoholic parents," "syphilitic infants," infants with "functional nervous disorders," infants with "hyperchlorhydria," and for infants prematurely born at "the twenty-eighth week," "the twenty-ninth week," "the thirty-second week," and the "thirty-sixth week or later." This list, indeed, is far from exhausting the cases and conditions for which Dr. Pritchard deems special instructions for dieting advisable. Whilst there is much that is excellent in his writings on such subjects as the physiology of infantile digestion, and the composition and care of milk, the bulk of his work would seem to us a marked example of what Dingwall Fordyce, writing on infantile feeding, has described as "scientific theorizing carried to an extreme."

[11] *The Physiological Feeding of Infants.* By Eric Pritchard, M.A., M.D.Oxon., M.R.C.P. Third edition. London: Henry Kimpton; and Glasgow: A. Stenhouse. 1909. (Demy 8vo, pp. 485. 7s. 6d.)

The merits of sixpenny books on medical subjects are usually commensurate with their modest price, but an exception to this rule is Dr. JOHNSTON'S little work, *Health in the Home*,[12] which contains an unexpected amount of useful and accurate information. Although it is well written, we would have thought simpler language would perhaps, have more easily conveyed the author's meaning to the Lancashire mothers and nurses for whom the work is primarily intended. As a whole, the advice contained is sensible and to the point. In a work, however, intended for lay readers it would have been well to have omitted two or three of the prescriptions, such as the one for a lotion for alopecia areata containing blistering fluid and strong ammonia. Throughout his pages are glimpses of a "pawky" humour suggestive of the author's birthplace having been north of the Tweed. In the hands of the right people his little work should prove of service.

It might well be deemed a piece of presumption for a lay person to write a work on the feeding of children intended not merely for mothers and nurses, but for physicians as well. In her little book, *How to Feed Children*,[13] however, Mrs. HOGAN is careful to insist that her object is not to supplant the physician, but to assist in the carrying out of his instructions. Part of the section on infant feeding is rightly devoted to emphasizing the extreme importance of the subject, and the rest to some of the details involved in the percentage methods of Rotch and others. There are separate chapters on such subjects as cereals, bread, biscuits, and cake; broths and soups; meat, eggs, fish, oysters, etc.; vegetables, fruit, etc.; laxative foods; fat in diet; and several others. Chapter XIII is occupied with dietaries and menus for children from the age of 12 months to 5 or 6 years. In Chapter XVI there is a long list of recipes for the preparation of articles of diet suitable for infants and children. That the book has proved eminently useful is evidenced by the fact that it has reached a ninth edition in the course of a dozen years.

[12] *Health in the Home: Children and their Ailments.* By J. Johnston, M.D.Edin. London and Manchester: John Heywood, Limited. 1909. (Demy 8vo, pp. 163. 6d.)

[13] *How to Feed Children: a Manual for Mothers, Nurses, and Physicians.* By Louise E. Hogan. Ninth edition. Philadelphia: J. B. Lippincott Company. 1909. (Post 8vo, pp. 257. 5s.)

NOTES ON BOOKS.

DR. MARIE BRA, in his monograph on cultures *in vitro* of cancer cells,[14] argues that cancer is an infection determined by a micro-organism of vegetable nature which implants itself in the animal organism and then "by a species of mimicry assumes the different aspects of the tissue cells at the expense of which it lives and which it replaces." He claims that he has succeeded in cultivating the cancer parasite on artificial media, and reproduces remarkable illustrations of the resultant growths. We prefer to await corroborative evidence from other sources before pronouncing an opinion upon Dr. Bra's work.

The volume by Dr. RONALD CAMPBELL MACFIE upon *Air and Health*[15] is readable and interesting. As a synopsis of much that is known in regard to air and its influence upon health it may be commended to those who wish to make themselves familiar with the general aspect of an extensive subject which cannot possibly be dealt with in detail within the compass of any one volume of moderate size. This is specially true of Dr. Macfie's book, because he does not confine himself to air and its influence upon health only, but also considers it in its therapeutic capacity as a cure for disease. His volume would, in our opinion, have been improved by the omission of the last chapter, on the "open-air treatment of consumption and open-air schools"; it is too discursive to be of practical use to

[14] *Cultures in vitro des cellules cancéreuses* Par le Dr. Marie Bra. Paris: A. Poinat. 1909. (Demy 4to, pp. 57, 79 figures. Fr 5.)

[15] *Air and Health.* By Ronald Campbell Macfie, M.A., M.B., C.M. The New Library of Medicine. Edited by C. W. Saleeby, M.D., F.R.S.E. London: Methuen and Co. 1909. (Demy 8vo, pp. 353. 7s. 6d.)

medical men, and is at the same time more technical than the general public care for. Dr. Macfie has written his book for the New Library of Medicine, but its contents are familiar to every practitioner who has read a book on public health; on the other hand, it is, except for the last chapter, well suited for the general public, who will find in the story it unfolds reliable information upon the physical conditions of air and their relationship to health, upon the impurities with which the atmosphere is apt to become charged, upon the difficult question of ventilation, and upon the still more difficult problem of climate. The author's views on climate are sound, and so clearly formulated that they offer a working scheme whereby may be gained a rough knowledge of the factors which go to make one place bracing and another relaxing, one place more desirable than another under certain conditions and at certain seasons of the year. The reader will also learn something of the principles by which he should be guided in the choice of a spot at which to enjoy that "change of air" which seems to possess such mysterious powers of reinvigoration, and which we all regard as a periodic necessity to the strenuous life of the present day.

The authoress of *When No Man Pursueth*,[16] Mrs. BELLOC LOWNDES, is a keen psychologist and a decided artist in the portrayal of character. It is in this respect rather than plot-weaving that her strength as a novel-writer lies. Without any obvious effort and in remarkably few words she manages to make each of her characters, their environment, their difficulties, and their temptations, stand out clearly, and their actions and conduct, whether wise or foolish, good or bad, always seem the natural outcome thereof. The result is that her books are always interesting, though their tone is sometimes unpleasant. To the present volume no such exception can be taken, there being a normal admixture of quite likeable people among her characters. Among these the three principal men ostensibly belong to the medical profession, but one, the pleasant-spoken, plausible villain of the piece, appropriately hails from some unknown place abroad. His wife is a patient of the two other doctors, and his medical knowledge, whencesoever derived, is sufficient to enable him to create for them a very pretty problem in medical ethics and clinical diagnosis. It is on the fashion in which the two English medical men respectively deal with the matter that the whole plot turns. It is neatly worked out, and the interest is sustained from beginning to end of the volume.

The purpose of SWANSON'S *Handbook of Scotch Sanitary Law*,[17] the third edition of which has just been issued, is, as the preface states, to provide in a concise form a synopsis of the various sanitary laws of Scotland. It is intended for the use of students preparing for the sanitary inspectors' examinations. Blank leaves are provided for notes. In the sixty odd pages which the handbook covers it presents in a condensed form the principal features of the Public Health Acts as applying to Scotland, defining the terms used under the different clauses. The author refers in figures within brackets to the sections of the various Acts mentioned in the text. On the whole, this small book will be useful to students going up for the sanitary examination; the principal clauses of the various Acts are clearly stated, and should efficiently serve the purpose intended. One fact is brought out in perusing the handbook—namely, the number of different Acts bearing on matters connected with public health and sanitation; besides the main Act there are no less than sixteen other Acts dealing with questions which should for purposes of administration be embodied in a single Act. Evidently the writer hails from south of the Tweed, thus accounting for the word "Scotch" instead of the more correct form "Scottish" on the title page.

The mode of dealing with a subject by the catechism method of definite question and answer has not very much to recommend it. At its best it can only be used to supplement the ordinary form of textbook. There are some, however, to whom this means of acquiring knowledge or of fixing that already acquired must appeal, for the series on *Public Health*, by Dr. W. ROBERTSON, has now reached a second edition.[18] The subjects dealt with are: I, *Water;* II, *Air and Ventilation, Warming, Lighting, Climate;* III, *Sewage and its Treatment;* IV, *Vital Statistics, Dwellings, Meteorology;* V, *Epidemiology, Food, Burial, Water-Closets, Disinfectants, Heating, Hospitals.* The author has put the necessary questions in a very concise and at times a very telling form, and the answers are quite in accordance with the views held by teachers of public health at the present day. Among the few omissions is one in the section dealing with earth closets, where mention might appropriately have been made of the bacterial effect of surface earth upon excrement.

[16] *When No Man Pursueth.* By Mrs Belloc Lowndes. London: Heinemann and Co. (Post 8vo, pp. 352. Price 6s.)

[17] *Handbook of Scotch Sanitary Law.* Third edition. By Thos. W. Swanson Assoc. R. Sanit Institute, Mem. San. Assoc. Cert., Victoria University. London: Sanitary Publishing Co., Ltd. (Cr. 8vo, pp. 69. 2s. 6d.)

[18] *Public Health.* By W. Robertson, M.D., D.P.H. *The Catechism Series.* Parts I, II, III, IV, and V. Second edition. Edinburgh: E. and S. Livingstone. (Cr. 8vo, pp. 49, 53, 56, 50, and 42 respectively. 1s. each; 5 parts, bound, 4s. 6d.)

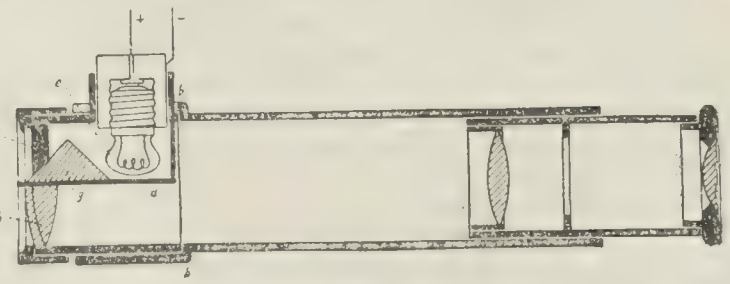
MEDICAL AND SURGICAL APPLIANCES.

Projection Lanterns.

A USEFUL form of projecting lantern is the subject of a catalogue issued by the Bausch and Lomb Optical Company (19, Thavies Inn, E.C.). The principal feature of instruments of the type described is their rapid convertibility, and with the minimum of extra adjustment or loss of time they can be used for projecting not only ordinary lantern slides, but also opaque objects, written and printed matter, and photomicrographs. We have had the opportunity of witnessing a demonstration of these lanterns, and the ease with which they are worked, and the remarkable clearness of the picture thrown on the screen, even in a room only semi-darkened, clearly entitle them to favour. In its more elaborate form the instrument, which bears the trade name of "Balopticon," is suitable for college and educational use; while the portable pattern, weighing only some 20 lb. in its case, has obvious uses for the travelling lecturer.

Ophthalmo-fundoscope.

Some years ago nearly every one who aspired to become an ophthalmic surgeon seemed to think it necessary to introduce an ophthalmoscope which should henceforth bear his name, and many and varied were the modifications devised of the instrument Helmholtz introduced in 1851. In principle these were all identical, though it might be more convenient to use one than another. The ophthalmo-fundoscope which has lately been invented by



Dr. Fritz Baum, of the Royal University of Rome, is a totally different instrument. It is shaped like a telescope, and the observer looks through it as he does when using that instrument; it is, however, only 10 cm. long. In it is a small electric lamp with a prism and a series of lenses. The observer must focus the instrument for his own sight by using it exactly like a telescope, and observing some distant object. As soon as this is done the light is turned on, and one end is placed close to the patient's cornea, while the observer looks through the other. The fundus of the observed eye is then seen. To obtain a magnification of from 10 to 15 diameters the lower portion of the instrument is detached, and the objective lens is removed, with the result that an erect image of the fundus is obtained without any light reflexes from the cornea to interfere with the clear view of the picture. It is quite easy for a novice to see the fundus in this way, without the necessity for the eye being put under the influence of a mydriatic. In order to obtain higher magnifications the lens is inserted and the instrument again made complete, when by using it in a similar manner an enlargement of some 70 times is obtained, though naturally when such high powers are used only a very small portion of the fundus is visible at one time, and the instrument must be held very steady; further, it is desirable that the patient's pupil should be dilated. A disc containing lenses is also attached, and by its means a measure of the patient's refraction is obtainable. It is thus seen that this instrument may be used for all purposes for which the ordinary ophthalmoscope is applicable, but in addition it enables the fundus to be very much more magnified without the disturbance caused by corneal reflexes. It may be used by any one in broad daylight, and with little or no previous practice. It is small enough to be easily carried about, and a patient's eyes may be examined when he is lying down or in any other position. Mr. K. Schall, of 75, New Cavendish Street, W., is the agent for the ophthalmo-fundoscope in England. Its price is £6 15s., and with extra attachments £7 5s.

THE HOSPITAL ALMONERS' COUNCIL.

THE Hospital Almoners' Council exists to provide for the training and provision of hospital almoners. It has its head quarters at Denison House, 296, Vauxhall Bridge Road, in offices lent by the Charity Organization Society, whose secretary, Dr. C. S. Loch, brought the council into existence. It has now been at work for some two years, and having emerged successfully from the experimental stage a new constitution has been drawn up with the idea of making it more representative of the hospitals and various interests involved.

The objects to be kept in view are described as follows in a report of the work done so far; they are:

1. To select and arrange for the training of suitable candidates for posts as hospital almoners.
2. To recommend trained almoners to hospital authorities.
3. To grant certificates to such persons and to keep a register of their names.
4. Generally to take any steps which may be desirable for extending and developing the work of hospital almoners.

The duties which ought to be performed by such persons are described in the following terms:

1. To interview new patients after they have been seen by a member of the staff, and, with the assistance of visitors and charitable societies, to make adequate inquiries.
2. To arrange for the provision of surgical instruments, convalescent treatment, etc., recommended by the medical staff, and, in cases where the patients are unable to pay, to secure assistance from the Samaritan Fund of the hospital or other charitable agency.
3. To ensure that the home conditions of the patients should be suitable, so far as possible, and that the directions of the physicians or surgeons as to diet, fresh air, exercise, or rest should be carried out.
4. To encourage thrift and urge the necessity of providing for the future by joining clubs and friendly societies.

The council has had a very large number of applications for training, but the selection of really suitable candidates has not been easy. The successful supervision of an out-patient department, the establishment of satisfactory relations with charitable bodies outside the hospital, the maintenance of a good understanding with the managers and staff of the hospital itself, call for a variety of qualities not always found in combination. Every candidate for training not obviously unfit for the work is sent to a hospital to learn for herself what the actual work of an almoner is. If after this experience she still desires to be trained, she is interviewed by the council, which, if it approves of her, then makes arrangements for her training. The latter is divided into three parts:

1. Instruction in charitable work of a general nature, including interviewing applicants, visits among the homes of the poor, the business routine of an office, correspondence, keeping accounts, etc., practical instruction in the work of the Poor Law, visits to institutions, and experience of the various agencies which exist in London for the distribution of relief and for the assistance of those in distress.
2. Theoretical instruction by means of lectures in social subjects, elementary hygiene, and physiology.
3. A course of training in an out-patient department under an experienced hospital almoner.

The first part of the training is carried out in a district office of the Charity Organization Society, where every facility is offered the candidate for acquiring a thorough training in social work. The second, or theoretical, part of the training is carried on concurrently with the first by lecturers and tutors of the School of Sociology. The age of candidates at the date of their acceptance for training must be less than 35 years of age, and the training usually lasts from twelve to eighteen months. Its continuance is conditional on the reports received from time to time as to the candidate's work. The council has already supplied several London hospitals with almoners trained under its auspices, and seems to anticipate that the demand for persons whose suitability and knowledge of their work it is prepared to certify will become large. The secretary of the council is Mr. E. S. Kemp, who will see by appointment any one interested in the work and desirous of further information respecting it.

THE Good Service reward of £100 a year, vacant by Surgeon-General Hinde's death recently, has been awarded to Surgeon-General G. J. H. Evatt, C.B., than whom no medical officer has a better claim.

SICKNESS AND INVALIDITY INSURANCE.

THE reference to the Royal Commission on the Poor Law included two main subjects—first the working of the Poor Laws, and second, the methods outside the Poor Law of meeting distress arising from want of employment. The Commission found itself unable to do justice to either of these subjects without investigating distress arising not only from unemployment but from accident, sickness, invalidity, and old age, and this involved inquiry into all methods—municipal, charitable, and provident—used in this or other countries to meet distress.

Of the provident methods, insurance was of course the most obvious, and for the information of the Commission the Board of Trade presented a memorandum, which has not yet been published, dealing with systems of insurance both at home and in foreign countries. After fully considering the foreign systems, the Commission decided that none of them could be recommended for adoption in England, either for unemployment or for sickness and invalidity.

Unemployment insurance is only indirectly related to the subject to be discussed here, but it may be useful to state the general conclusions of the Commission. The Majority Report states that practically the only form of unemployment insurance in England is by means of trade union "unemployed benefit," but the friendly societies give a considerable amount of "travelling benefit" and charitable grants to members, which are occasionally used for the relief of unemployment not due to sickness. Though the Majority do not recommend any existing system for general adoption, the subject is considered so important as to justify under specified conditions contributions from public funds to existing trade organizations or to institutions of a similar character which may be brought into existence. The difficulties of the subject were, however, felt to be so great that the Commission recommended the appointment of a smaller commission or departmental committee to frame a scheme to form a part of a permanent system of public assistance for the able bodied. The Minority Commissioners also found themselves unable to recommend any plan of Government or compulsory insurance against unemployment, but they favoured the Ghent system, and in the Minority Report Bill, which Sir Robert Price has introduced in the House of Commons under the title of the Prevention of Destitution Bill, the new Minister for Labour would be empowered to grant subsidies to any society such as a trade union providing, by way of insurance, payments to persons out of employment. The grant would not exceed "one-half the sum expended by the society during the last preceding year in payments to persons out of employment otherwise than in consequence of any labour dispute," and the aggregate would not exceed £500,000 for each of the first three years, and "thereafter such sum as may from time to time be voted by Parliament."

The close connexion between unemployment and sickness insurance is shown in a not very creditable way in some parts of Germany, where the absence of unemployment insurance has had the effect of causing a great amount of malingering among men insured for sickness. It is stated that the normal sickness in the sickness insurance associations at Cologne was in normal times 2 to $2\frac{1}{2}$ per cent. of the members, but as soon as the "out-of-work season" began the sickness-rate rose to as much as 4 or $4\frac{1}{2}$ per cent. In a high proportion of the cases the workmen complain of "rheumatism," as the men have come to believe that its existence cannot definitely be disproved by the doctors. There seems, therefore, some reason to think that sickness insurance is often used to support men out of work through bad trade.

In England there is, of course, strictly speaking, no legally compulsory insurance, but there is a practical compulsion on employers to make some provision against claims under the Workmen's Compensation Act, which has largely superseded the Employers' Liability Act. The Act provides that where there is total or partial incapacity for work as the result of an accident the employer shall either pay a lump sum or a weekly payment during the incapacity, amounting to not over 50 per cent. of the average weekly earnings during the previous year; if death results from the injury there is payable to the dependants a sum equal to the earnings in the employment of the same employer

during the previous three years, or a sum of £150, whichever is the larger, but not exceeding £350 in any case; for partial dependants such smaller sum as may be agreed or determined on. No compensation is payable if "serious or wilful misconduct" is proved. Though there is no subvention from the State, disputes are tried in the Arbitration courts or in the ordinary courts at reduced costs. Most employers insure against this liability with one of the many companies which seek business of this kind, but it appears that many of the larger firms are finding it cheaper to set aside a reserve fund of their own as they can make a fairly accurate calculation of the average yearly amount of claims and thus save the administration costs of the insurance societies. Again, a few of the large firms and corporations are beginning to set up schemes of their own in the form of workmen's clubs, towards which both the employer and the workmen contribute. The employers are, of course, liable as before for the full compensation provided by the Act, but their subscription to the clubs is intended to provide further benefits over and above those provided by the Act, such as medical attendance, extra sick pay, old age grants, and the waiver of the condition as to serious or wilful misconduct. In one such club the employers contribute 3d. a week for each man, and the men contribute 2d. a week; this allows benefits in excess of the maximum given under the Act.

Again, in considering the amount of subsidy that might be expected from the State to sickness and invalidity insurance, it should be remembered that while in Germany and several other countries the employers and the employed each contribute half the insurance premium towards old age pensions, the State only adding a subsidy to each pension granted, in the United Kingdom the central Government finds the whole of the old age pensions without any contribution from employers or employed. It is calculated that the cost to the State for the year 1909 will be over 8½ million sterling. The pension is given to all over 70 years of age whose weekly income is 12s. or less. Those who have £21 a year—that is 8s. a week—receive a pension of 5s. a week to make a total income of 13s.; while those who have between £21 and £31 10s. receive a pension of from 1s. to 4s., so that their total income may reach 13s. in all. Receipt of poor relief, other than medical relief, since January, 1908, is a disqualification, though probably this will soon be removed; and a person is disqualified also if it be proved that he has habitually failed to work according to his ability for the maintenance of himself and his dependants. Every effort is made to prevent any connexion between old age pensions and the Poor Law.

With the exceptions above mentioned and the provision of the Poor Law, no responsibility is undertaken by the Government or imposed on employers for the provision of sick pay and invalidity pensions for wage earners; they are left to make provision for themselves by means of self-supporting sick clubs such as the friendly societies. There is, however, a distinct tendency on the part of many municipal corporations to provide outside the Poor Law for all comers free hospital or sanatorium treatment for infectious diseases including tuberculosis. Some corporations would even provide medical treatment for school children, and the recent departmental committee on the Midwives Act recommended that the community should provide medical attendance in serious cases of midwifery for persons who are just above the stage of pauperism, but not able to pay ordinary medical fees. In this and other ways it is being more and more recognized that though it may be the duty of the wage-earners themselves to make what provision they can to prevent future pauperism, many of them are unable without assistance to make satisfactory provision, that charity is too uncertain to depend on, and that either the State or employers ought to come to their assistance. As we shall see, in Germany employers are called on to pay one-third of the premium for sickness insurance, one-half for old age and invalidity insurance, and the whole premium for accident insurance, while the State only gives a subsidy for each invalidity and old age pension that is granted. The total State subsidies in Germany only amounted to a little over 2¼ millions sterling in the year 1905, so that the British Government by its provision for old age pensions contributes not far from four times as much as the German Government. On the other hand, the total contributions from employers in Germany amounted to over 16 millions sterling, more than half of which was for sickness, and invalidity and old age insurance, towards which employers in England contribute nothing at all, except indirectly by taxation for old age pensions.

COMPULSORY INSURANCE IN GERMANY.

The three forms of compulsory insurance in Germany owe their origin to the great socialist movement that began soon after the Franco-German war of 1870. For several years stern repressive measures were employed, but in 1878 there were two successive attempts on the life of the Emperor, and in 1881 Bismarck introduced the first of his insurance schemes for the working classes; this was for accident insurance. The bill was at first rejected, but in November, 1881, Bismarck communicated to the Reichstag a letter from the Emperor William I, in which schemes for accident, sickness, invalidity, and old age insurance were all urged on the attention of the German people. The effect of this letter was very great, and in 1883 the bill making sickness insurance compulsory was passed by a large majority. Compulsory accident insurance followed in 1884 and compulsory invalidity and old age insurance in 1889. The three forms of insurance are kept separate for the obvious reason that employers pay different proportions of the premiums to each insurance. At the same time this separation of the three forms of insurance has often serious disadvantages, and has caused considerable discontent in individual cases.

Sickness Insurance.

The law of 1883, with its later modifications of 1893, makes insurance for sickness compulsory on all persons over 16 years of age earning under 2,000 marks (about £98) a year who are employed in mines, quarries, factories, building operations, mechanical trades, in the office of a lawyer, in establishments where steam or other motors are in use, in post and telegraph offices, and in the administration of the army and navy. It may also be extended by communal statute to those engaged in agriculture and domestic occupations, and to persons temporarily engaged. Persons in business on their own account are under no compulsion, but those not included in the above list whose incomes are below 2,000 marks may voluntarily join the insurance, and it was certainly intended ultimately to extend it to all workmen and workwomen.

Organization.

The insurance is carried out by means of local organizations based on the principle of mutual help and self-government, the idea being that local organizations can provide relief most promptly, though to meet the case of men who may remove from one place to another there are certain clubs with intercommunal organization. Miners are compelled to belong to their own associations, but other persons may join any legally recognized association. The employer is bound to give notice to the association in his district best suited to his trade of every workman he engages or dismisses unless the workman proves by a card of membership that he is a member of a friendly society that provides the legally recognized minimum benefits. The employer deducts the workman's contribution from his wages, adds his own share, and pays both into the club, and the workman is *ipso facto* a member. In the year 1905 the total number of sick insurance associations was about 22,868; of these, 21,356 were compulsory clubs and 1,512 voluntary. Persons compulsorily insured for sickness numbered 11,008,000, and those voluntarily insured 855,000, a total of nearly 12,000,000. The population of Germany was about 60 million, and it was calculated that about 15 million of these could be called wage-earners.

The following are the associations recognized by statute:

1. *Gemeinde kranken versicherung* (communal—district or township—organizations). These are not strictly associations, but are a part of the communal administration managed by the town authorities, though the funds are kept separate. They comprise all persons under compulsion to be insured who have not joined another association. It is anticipated that the communal organizations will be extended in the future, especially

if the three forms of insurance are in any way consolidated.

2. *Ortskrankenkassen* (local sick associations). These are the most important of all, as they comprise over 40 per cent. of the insured, and with them are often affiliated some of the other associations for workers in factories, building trades, etc. Their management is very elastic, and the members enjoy a large amount of freedom.

3. *Betriebskrankenkassen* (factory sick associations). Employers of over fifty men may form associations of their own, and if their trade is a risky one may be compelled to do so in order that the risks may be thrown as far as possible on the group to which the risks are peculiar, for, as will be seen further on, the accident insurance and the sickness insurance are closely connected. Nearly a quarter of the total number insured belong to the factory associations.

4. *Baukrankenkassen* (building sick associations) are for workers on roads, railways, canals, and buildings. Employers are here put under special obligations, as their workmen are often engaged in dangerous work, and the commune may compel an employer to form such an association.

5. *Innungskrankenkassen* (guild sick associations) are founded under the trades regulation law by the guilds, which must keep separate funds for insurance and must be under Government supervision.

6. *Knappschaftskassen* (miners' sick associations). These are the oldest form of club, and generally combine other objects with the insurance. All miners must belong to one of them. They are controlled by a committee of employers and workmen, the miners themselves having a voice in the framing of rules.

7. *Hilfkrankenkassen* (free sick associations, friendly societies). For a long time the friendly societies were rather discouraged by the Government as possible centres of political agitation. They must be registered, and are compelled to pay the minimum benefits which the law prescribes. As a matter of fact the free associations often give larger benefits than required by law, in spite of the fact that employers are not compelled to pay any part of the members' subscriptions to them, nor do they get any help from State officials in the way of service. In many of the friendly societies the members have a free choice of doctor, while in many of the local associations the choice is restricted, as it is said that malingering cannot be so well detected where there is free choice of doctor. In other cases a number of the free associations join together for the purpose of getting doctors and medicines more cheaply. The absence of the employers' subscriptions of course puts the friendly societies at a great disadvantage compared with the other associations, and they have by no means the strong position that they have in this country.

Contributions.

Of the total contribution to the insurance, two-thirds is paid by the workpeople and one-third by the employers, the latter being held responsible for the proper amount being paid in, but subtracting the workman's share from his wages. The contributions are regulated, so that in the communal associations the workpeople contribute between one and one and a third per cent. of their wages —that is, about 2½d. in the £. For members of the factory and local associations the contributions are higher, being between 2 and 3 per cent.—that is, from about 5d. to 7d. in the £. Thus, for a labourer getting 24s. a week, the master pays about 3d., and the workman about 6d. a week. There is no subsidy from the State for sick insurance. In the friendly societies the contribution depends on the benefits offered, which must not be below the legal minimum, but, as already stated, there is no assistance from employers.

Benefits.

The benefits during sickness vary above a minimum fixed by law, but normally are about the following:

(*a*) Free medical attendance and medicines (spectacles, trusses, bandages, etc., free).
(*b*) After a *waiting-time* of two days, for a period of twenty-six weeks during incapacity, *either*—
  1. Sick pay at home, amounting to half the daily wage on which the contribution was calculated, *or*—
  2. Free hospital treatment and half the sick pay for the family.
(*c*) Similar relief for women for six weeks after confinement.
(*d*) In case of death, funeral expenses equal to 20 times the daily wage.

Taking an average over the twenty years 1885 to 1905, it is calculated that out of every £100 paid out in benefits by the sick insurance about £45 was for sick pay, £21 for the doctor, £16 for medicines, etc., £12 for hospitals, £3 for burial, and 25s. for confinements. In the case of the workman earning 24s. a week, who himself pays 6d. while his employer pays 3d., the sick pay would amount to about 12s. a week, and the cost to the insurance fund for medical attendance and medicine averages about 6s., so that the workman gets value in money and attendance equal to 18s. a week; if he dies, funeral money amounting to about £4 is paid. But the figure, 6s., for medical attendance and medicine, must not be misunderstood; it does not mean that the doctor gets anything like this amount, as the amount is arrived at by taking into account the doctor's fees, medicines, dressings, various surgical appliances, and hospital expenses. Medicines are supplied by pharmacists according to prescription, and though the clubs pay fairly reasonable contributions to hospitals, the club doctors are no better off than in England. Every possible advantage is taken of the competition among young, newly qualified medical men who, in order to get a start in practice accept the clubs at absurdly low rates. Seeing that about 20 per cent. of the whole population is insured for medical attendance, the field of private practice has been seriously contracted, and there has been a strong movement on the part of medical men in some towns in favour of free choice of doctor for the insured. The employers have vigorously resisted this on the ground that it encourages malingering. Taking Chemnitz as an example, where there was a list of thirty-two doctors for the workpeople to choose from, it was said on behalf of the employers that the men "always went to the physician who had a good heart rather than a severe sense of duty," and that they chose the doctors who lavishly ordered spirits while they avoided the doctor who was quick in detecting malingering. On the other hand the workmen strongly support the free choice of doctor: "I have had my physician for sixteen years," said one workman, "and now they want to turn him off for a man I never saw in my life before and whom I don't want in my house"; it is alleged that where the choice is restricted to one or two doctors, complaints of harshness and inadequate examination soon arise. In a few towns such as Heidelberg, Leipzig, Jena, and in several of the large Berlin local sick associations, after a severe struggle the medical men have succeeded in getting the free choice of doctor recognized; according to the *Frankfort Gazette* the results in Berlin have been far better than had been expected. On the whole, compulsory insurance in Germany has distinctly worsened the position of private practitioners, but this has largely been owing to the fact that there has been no widespread organization among medical men. The local medical societies have not been strong enough to resist the powerful insurance associations. There is every fear that the same thing might happen in Great Britain were sickness and invalidity insurance made compulsory, as seems likely. It is calculated that out of the total population in Great Britain of 43 000 000, there are 14,000,000 wage-earners, and probably 12,000,000 would have to be insured if the wage limit were the same as in Germany. This would not only lessen the field of private practice but would greatly increase the power of the sick clubs, and it is extremely doubtful whether local medical organizations would be strong enough to insist on adequate terms of remuneration for medical attendance. The experience of the profession in Germany affords a most powerful argument in favour of a centrally controlled medical service under the auspices of the British Medical Association, as was suggested in the leading article of the BRITISH MEDICAL JOURNAL for March 19th.

Statistics of Sick Insurance.

The following statistics of sickness insurance in Germany may be of interest. (One mark equals a little under a shilling):

Population of Germany in 1905 ...	about	60,000,000
Wage workers	,,	15,000,000
Sick clubs	,,	22,868
Total number of persons insured for sickness		11,903,794

Persons in receipt of sickness benefits ...	4,848,610
Total receipts of the sickness insurance about	288,000,000 mk.
Total expenses ... ... ,,	272,000,000 mk.
Average yearly contribution per person insured	17.21 mk.
Average yearly contribution by employers	5 24 mk.
Average yearly contribution by employed	11.97 mk.

Accident Insurance.

Accident insurance is closely connected in Germany with the other forms of insurance. Compulsory accident insurance dates from 1884, though the law has since been extended and amended. Four classes of occupation are covered—namely, persons engaged in (1) industries or general trades in a wide but well-defined sense, (2) agriculture, (3) building, and (4) marine occupations, always provided that the yearly wages are not above 3,000 marks, roughly about £150. By special rules the insurance may be extended to those having above 3,000 marks and to small employers. The insurance is effected by means of trade associations of employers covering larger or smaller districts, and having considerable powers of self-government; every employer of men liable to be insured for accident is a member of the local association for his special trade. In 1905 there were 114 such associations, in which over 19,000,000 persons were insured.

Contributions.

The workmen make no contribution to accident insurance, the whole premium being levied annually on the employers in proportion to the extent of their business—that is, the amount of wages paid or the number of hands employed, and also according to the risk of accident in the various occupations.

Benefits.

The benefits from accident insurance only begin with the fourteenth week after the accident, the sickness insurance funds being drawn on during the first thirteen weeks. Thus, if the workman is able to resume work before the fourteenth week, the accident insurance is not drawn on at all. The benefits are as follows:

(*a*) Either (1) free medical attendance at home and pension up to 66⅔ per cent. of the year's ordinary earnings; or (2) free hospital with relief to the family up to 60 per cent. of the earnings.
(*b*) If death result from the accident, funeral expenses up to twenty times the daily wage and pension to dependent survivors up to 60 per cent.

It is to be specially noted that all accidents are compensated, even if caused by negligence if it were not intentional, and provided that the resulting incapacity lasts over thirteen weeks. This last proviso has been the cause of much dissatisfaction. It is to be remembered that the accident insurance premium is paid altogether by the employers, but the men get no advantage from it for the slighter accidents not causing incapacity for thirteen weeks. In other words, the sickness insurance towards which the men themselves subscribe two-thirds of the premium, has to bear the brunt of every accident up to thirteen weeks and the accident insurance only after that time; the men complain that this is a trick to throw a great part of the expenses off the masters' fund and in reality that a great part of the compensation is thus caused to fall on the men themselves. The masters, on the other hand, say that the accident insurance is only intended for serious cases, and that it would be intolerable that the masters' fund should be responsible for all sorts of trivial accidents which the men would take no trouble to avoid.

Still further complications are introduced by the invalidity insurance. If a man entitled to the benefits of the invalidity insurance becomes permanently incapacitated as the result of an accident, and if the incapacity is covered by the accident insurance, his contributions to the invalidity insurance are refunded, and his claim for a pension under the invalidity insurance is valid only in so far as it exceeds the allowance granted by the accident insurance. Matters may thus become extremely complicated. An arbitration court is provided to settle disputes, but there is often the greatest dissatisfaction, and there can be no doubt that the inter-relations of the three forms of insurance are in urgent need of revision and consolidation. It must also be evident that the German system would have to be very greatly modified before it could be adapted to existing British systems of legal compensation under the Workmen's Compensation Act and the sick insurance of the friendly societies.

Invalidity and Old Age Insurance.

Invalidity and old age insurance came into force in 1891 and was extended in 1900. Its object was to secure to wage-earners legal provision for circumstances not covered by the sickness and the accident insurance. Dr. Bulstrode, in his report to the Local Government Board on sanatoriums for consumption, states that compulsory invalidity insurance arose out of the fact that the invalidity statistics showed that of the workers engaged in mining, metallurgy, and building who became invalided before 30 years of age, more than 50 per cent. suffered from pulmonary tuberculosis.

Invalidity insurance is compulsory on all persons over 16 years of age whose yearly earnings are below 2,000 marks (about £98) and who belong to one of the following groups: (*a*) All working for wages in every branch of trade; (*b*) managers, foremen, clerks, apprentices (except to apothecaries), teachers, domestic servants, sailors, and others specifically named.

In addition, small employers having only one assistant, and those engaged in home industries, may be compelled to insure by special order of the Bundesrath, while workmen earning from 2,000 to 3,000 marks (roughly, from £100 to £150), casual workers, and some others may voluntarily join up to their fortieth year; all persons who were formerly under compulsion but have left their situations may continue their insurance. Persons not under compulsion are officials of the State, soldiers, and all who are unable to earn at least one-third of the ordinary average wages of a common labourer, while the Federal Council may also exclude those receiving an accident pension.

Organization.

The insurance offices are formed by the Government, Germany being divided into thirty-one districts, each with an office, and the officers are nominated by the district authorities. The management is by a committee representing employers and employed in equal numbers. There may also be a supervisory council and for each local office a Government commissioner is appointed to attend the meetings and protect the interests of the empire. A reserve fund is formed for each office, and for the settlement of disputes there must be a Board of Arbitration, with a president, who is a State or town official, a vice-president, and two members representing the employers and two the employed. The working expenses are mostly borne by the State, especially the cost of the imperial department, and of paying pensions through the post office.

Contributions.

Employers and employed each pay half of the premium, the employers being responsible, but deducting the workmen's share from wages. The contributions are paid weekly, the employers buying special stamps at the local office, and affixing them to the receipt cards of the insured. Every person insured must have one of these receipt cards which has on it spaces for fifty-two weeks, and when full the card is given in at the office, and the insured gets a certificate for the contributions and a new card for the next year. If the employer prefers, he may pay in the full amount in cash at the office, and the stamps are affixed to the cards by the insurance officials. A good deal of needless irritation has been caused by this necessity for sticking on stamps. Persons not under compulsion, but who join the insurance voluntarily, have to pay the whole of the subscriptions themselves, and presumably get no subsidy from the State towards an annuity. The amount of contribution depends on the annual amount of wages, and the insured are divided into five classes, which, by an arrangement in force up to the end of 1910, contribute as follows, the employer paying half these premiums in each case:

Class 1,	earning up to £17 10s.,	pays weekly 14 pf.,	roughly about	1½d.
Class 2,	,, ,, £27 10s.,	,, 20 pf.,	,,	2½d.
Class 3,	,, ,, £42 10s.,	,, 24 pf.,	,,	3d.
Class 4,	,, ,, £57 10s.,	,, 30 pf.,	,,	3½d.
Class 5,	,, over £57 10s.,	,, 36 pf.,		4½d.

Benefits.

The benefits provided are:

1. A State subsidy of 50 marks (about £2 10s.) for each annuity.
2. A pension for invalids, only payable after 200 contributory weeks.
3. An old age pension, only payable after 1,200 contributory weeks.
4. Free medical cure, and, during the cure, relief to the family, in order to prevent invalidity.
5. Reimbursement of contributions:
   (*a*) To women who marry before a pension is payable.
   (*b*) In case of death before a pension is payable, contributions already made are refunded to the survivors.
   (*c*) In case of invalidity caused by accident which is covered by the accident insurance.

The conditions for an old age pension are, first, that the contributions shall have been paid for 1,200 weeks, and, secondly, that the insured shall have attained the age of 70, whether he be infirm or not. The amount of old age pension varies for the different classes, Class 1 receives £5 10s.; Class 2, £7; Class 3, £8 10s.; Class 4, £10; Class 5, £11 10s. These are the maximum pensions, which are less than the old age pensions given by the English Government, but it is stated that the purchasing power of money is greater in Germany.

The conditions for invalidity pensions are (1) that the contributions shall have been paid for 200 weeks, and (2) that there has been incapacity to earn a living for at least twenty-six weeks. The minimum invalidity pension is: For Class 1, £5 16s.; Class 2, £6 6s.; Class 3, £6 14s.; Class 4, £7 2s.; and Class 5, £7 10s., but the pensions increase according to the number of weekly contributions that have been paid, until at the end of fifty years, or 2,500 contributory weeks, the following maximum invalidity pensions are paid: Class 1, £9 5s.; Class 2, £13 10s.; Class 3, £16 10s.; Class 4, £19 10s.; and Class 5, £22 10s. The pensions are paid monthly in advance through the post. Claims for a pension have to be made in writing, and the insured may appeal to the Arbitration Court if he is dissatisfied, and there is a further appeal to the Imperial Insurance Department. For the purpose of a pension, invalidity does not mean total inability to earn anything, but it is defined as inability to earn one-third of the average previous earnings. The age of the insured makes no difference, but a claim is annulled if the disability were brought about intentionally or by criminal action or by disobedience to the doctor's orders. Those who have an accident pension are at liberty to claim instead of it an invalidity pension, but they cannot have both.

An insured person who has been unable to work for a continuous period of twenty-six weeks, during which he will have been receiving sick pay from the sickness insurance, receives an allowance from the invalidity insurance for a further period of disability, and the invalidity insurance is compelled to provide such medical attendance in a hospital or sanatorium as seems necessary to prevent permanent invalidity; while a patient is thus under treatment his family and dependants receive a relief allowance. Many cases of incipient phthisis are thus sent to sanatoriums, and ample provision is made for their families while they are away, so that they have no anxiety and no reason to leave the sanatorium before they are fully convalescent. This is an excellent arrangement, and something of the sort is greatly needed in this country. The sickness insurance organization may also send persons to convalescent homes, the invalidity insurance only taking up the case when there is fear of permanent invalidity. Moreover, if there is any fear of permanent invalidity, the waiting period of 200 weeks before an invalidity pension is payable does not prevent the invalidity insurance providing such medical attendance as seems necessary to prevent such permanent invalidity. The accumulated funds are quite sufficient to provide the best possible treatment at sanatoriums, and any specialist treatment such as "air-cure" establishments, agricultural colonies for convalescents at sanatoriums, and anything that medical science advocates.

All kinds of prophylactic measures are undertaken by the invalidity insurance on the ground that the pension fund is thus saved. For instance, the insurance officials visit the insured at their homes, and take note of defects in housing, lighting, drainage, overcrowding, unwholesome conditions of work, which are brought under the notice of the proper authorities. Literature relating to hygiene is freely distributed, and the Imperial insurance department puts the most liberal interpretation on its regulations. Official statistics show that the invalidity insurance organization has spent out of its surplus funds, after paying all pensions, over £9,000,000 in the construction of hospitals, sanatoriums, convalescent homes, public baths, etc., and over £6,500,000 in building wholesome dwellings for the working classes. In 1903 between seventy and eighty sanatoriums, containing about 7,000 beds, were provided by the invalidity insurance, and the insurance is in fact the centre of the antituberculous campaign in Germany. Whether the saving in invalidity pensions is commensurate with all these prophylactic measures can hardly be decided, and on this point reference should be made to Dr. Bulstrode's report on sanatoriums for consumption, where the question is fully discussed.

It must not be supposed that the using of the insurance funds for these purposes has not met with opposition. Contributors claim that if the funds are in such a good position, either the contributions should be lessened or the old age and invalidity pensions increased, and that it is not equitable that the contributions of employers and working men earning under £100 a year should be used for objects for which provision should be made from other sources. The existence of the State subvention of £2 10s. for each annuitant may be regarded as a good answer to such complaints. It is true that the work done by the invalidity insurance is for the good of the whole community and not solely for the good of the insured, but it is equally true that for the contributions paid the benefits are far greater, as far as the workers are concerned, than would be provided by any private insurance office, owing to the employers' share in the premium and the State subsidy.

Statistics of Invalidity and Old Age Insurance.

The following are the statistics for the year 1905, the latest at present available to us:

Persons insured...		13,948,000
Persons pensioned		1,286,000
Total receipts in marks	about	250,000,000
Total expenses in marks		125,000,000
State subsidies to annuitants in marks		47,000,000
Total funds in marks	... about	1,237,000,000

The enormous extent of the operations is shown in the following table:

GENERAL STATISTICS OF GERMAN COMPULSORY INSURANCE (1905) (*1 mark reckoned as about 1s. in round figures*).

	Sickness Insurance.	Accident Insurance.	Invalidity and Old Age Insurance.	Totals for All Insurances.
Persons insured... ...	11,903,794	19,384,803	13,948,200	45,236,797
Persons compensated...	4,848,600	1,034,800	1,286,000	7,169,400
Total receipts, round figures, in £ sterling	14,406,000	8,948,200	12,515,600*	35,869,800
Receipts from employers	4,350,100	7,891,100	4,032,300	16,273,500
Receipts from workpeople	9,384,600	None	4,032,300	13,416,900
Total expenses, round figures, in £ sterling	13,614,800	7,876,900	8,658,800*	30,150,500
Expenses for compensation	12,865,800	6,807,400	7,911,000*	27,584,200
Expenses for administration	748,950	1,069,600	747,850	2,566,400
Accumulated funds, round figures, in £ sterling	11,305,300	12,930,100	61,877,000	86,112,400
Compensation per case	£2 13 0	£6 10 0	£6 3 0*	—
Charges for person insured	£1 2 0	0 8 0	0 15 0*	—
State subsidies	—	—	£2,367,500	£2,367,500

* In the column for Invalidity Insurance these amounts for total receipts and expenses, etc., are inclusive of the State accounts.

A BILL is now before the Senate of the State of Ohio providing for the appropriation of £200 to organize and equip a Pasteur Institute for the treatment of hydrophobia at the Ohio State University, Columbus, and for the appropiation of £200 annually for its maintenance.

THE UNIVERSITY OF LONDON'S REGULATIONS FOR DEGREES IN SCIENCE.

DR. H. E. ARMSTRONG, F.R.S., Professor of Chemistry at the City and Guilds College, South Kensington, has long been insistent, in season and out of season, in his criticism of the English system of education in science, and especially in chemistry. He has raised the subject again by a long and interesting letter published a few weeks ago in the *Times*, and as his criticism is pointed by reference to the regulations of the University of London, and the manner in which they are interpreted, it cannot be said that on this occasion, at any rate, he speaks out of season when a Royal Commission is sitting and taking evidence into the working of the present organization of the University of London and other facilities for advanced education — general, professional, and technical — in London, and is instructed to make recommendations as to the provision which should exist in the metropolis for university teaching and research.

Professor Armstrong pointed out that—

> The Germans excel in research work, because research is an integral part of their degree examination, a thesis describing some piece of research work being the necessary preliminary to the examination. The German student, in fact, proceeds to the university with the definite idea in his mind that his main occupation will be research; his outlook is a forward one. Our method, on the contrary, has involved nothing more nor less than the training of parrots, no attempt being made to establish a forward outlook in the student's mind.

Professor Armstrong tells us that a deputation from the City and Guilds of London Institute urged on the last University of London Commission the desirability of including in the statutes a regulation which would make it possible for the university to grant degrees by research, much as it is done in Germany. With the aid of the late Sir Michael Foster such a provision was secured.

> "What we urged," says Professor Armstrong, "was that opportunity to make a real experiment should be given to London schools, so that it might be possible, after a few years, to institute a comparison between the old system and our proposed new one. That opportunity has never been granted in any proper manner; the B.A. and coaching elements have always set their faces against us. Students from my department desiring to become qualified in research methods have been treated with gross unfairness."

Last October Professor Armstrong directed eight of his best students to apply for leave to take their B.Sc. by research. On January 28th they all received notice of refusal. The Senate cited the following regulation:

> The B.Sc. degree by research shall be permitted only as an exceptional and strictly supervised means of access to the honours degree, and not as an alternative to the pass examination.

Professor Armstrong therefore charges the university with having broken faith. The statute allows research to be accepted in place of the whole or part of the B Sc. examination, subject to any conditions contained in any regulations to be made by the Senate. It says nothing about a limitation to the honours degree, and it seems clear that Professor Armstrong has reason to feel aggrieved.

> At present [he says] the London B.Sc. degree denotes cram and nothing more; the able men who take and who remain of some worth after taking it are severely maimed in the operation, whilst the weaklings are all ruined for life, as they become veneered with prejudice, having never learnt to think for themselves or to work unaided.

An efficient research chemist is one who on entering industrial works is able to exercise a trained reflective and analytic habit of mind on the numerous problems which present themselves. The assistants trained under the London system are mere precedent worshippers, and Professor Armstrong urges parents to shun the London degree in every shape and form if they wish their sons to be of service to their country and to succeed in life.

> Those of us who are intimately acquainted with industrial requirements know that our one and only chance of competing with Germany and America is to follow German methods of university training—there is no other way of developing intelligence.

While pointing out difficulties, Sir William Ramsay on the whole heartily endorsed Professor Armstrong's letter. "The traditions of London University," he wrote "have been such that far too much stress has been laid on examination ability. . . . The tendency now is to make a fetish of examination."

We have heard it asserted, as if it were a truism, that no one should be admitted as a recognized teacher of the university who had not taken a first class. Sir W. Ramsay agrees that such a contention is absurd. He says:

> The standard required for first class honours is very high in my opinion, far too high, and it demands on the part of the student an exceptional memory and great application and diligence. Such qualities sometimes accompany originality, but the two do not necessarily run together; and my experience has been that graduates who have been awarded third class—that is, the lowest class of honours in many cases—subsequently prove as good, and sometimes even better, assistants than those whose memorial powers have gained for them the highest place.

Can we hope that the academic pedant will ever recognize that men of genius will go their own way and work in their own manner, will be intolerant of learning orthodox ideas, will have times of idleness alternating with extraordinary and fruitful activity, will want to think out everything to the end, and refuse to learn parrot-like a mass of textbook details?

Professor Ramsay agrees that candidates for a research degree should pass some equivalent to the German Verbandsexamen, an examination mainly conducted by the teachers. It is imposed by private arrangement between the professors in the German universities. It is held privately by the professor in each school, and serves a twofold purpose—to spur the laggards and give the professor the opportunity of declining to find subjects for those not competent to undertake higher work. No fee is charged.

> In London the candidate for a degree is heavily fined as well as heavily examined at every stage. At the German university matriculation is a formal matter, the school leaving examination giving the right of entry; there is only one public examination for the degree. Happy is the German student—he is not forced to coach and cram, his wits are not examined out of him, his professor is trusted to teach him and to care for him at all times. From the days of Liebig onwards the system has bred large numbers of real chemists, who have made German chemical industry admired of all the world. Our system is a proved failure.

Professor Armstrong scouts the unworthy suggestion that any teacher worth his salt would ask that the degree should be given on improperly easy terms. The teachers are simply asking for conditions that will promote efficiency and the fulfilment of a statutory promise. Opposition comes from those who are the product of the incriminated system, and believe in it more or less—men who have been through the cram and grind of it, and would make others do the same, looking at things from the vested interest point of view. "We had to go through the Slough of Despond to reach the money-making fields of Elysium, and so must you. The harder it is made, the fewer the successful competitors, and the better for us." Opposition also comes from the great army of those who desire pecuniary advantage from examinations; as Professor Armstrong says:

> Examining is one of the most thriving of British industries—one of the few that will be left us probably, at no distant date, if we continue much longer to regard it as the true and only means of educational salvation. . . . In the near future, to cope with the evils of unemployment, which must increase as competition becomes more severe, our industries will need only men of ideas, not those whose imaginative power has been educated out of them by an examination system administered on Chinese lines. My own deliberate opinion is that we are at the parting of the ways in London, and that if continued in its present form, the university will be our ruin, because it is debasing every branch of education.

Dr. E. J. PARRY, who has recently relinquished his practice at Hurstpierpoint, Sussex, has been presented by his friends in the neighbourhood with an illuminated address, and a book containing the names of the subscribers, together with a cheque for £100. The presentation was made by the Rector of Streat, and was suitably acknowledged by Dr. Parry.

PAYMENT OF TAXES UNDER THE BUDGET.

As the situation in regard to the payment of the taxes dealt with in the suspended Finance Bill of 1909 and of other taxes with which the Finance Bill is not concerned is not generally understood, some description of the position may be useful.

The taxes that it was proposed to include in the Budget of 1909 were, with the exception of the new land taxes and the super-tax, originally collected on the strength of resolutions passed by the House of Commons prior to the discussion of the Budget. The acceptance of such resolutions by the House of Commons, carrying with it as was supposed the practical certainty of ultimate confirmation by the Finance Act, has hitherto usually been regarded as affording sufficient authority for the collection of taxes from the commencement of the fiscal year up to the date of the formal imposition of the taxes. When, however, in November last the Finance Bill failed to pass the House of Lords, the resolutions were considered to have lost what virtue they had by reason of representing the ultimate provisions of the Finance Act, and this view was emphasized on the dissolution of Parliament in December. A difficult situation was thus created, particularly in regard to those duties directly payable, not by the person on whom it was intended that the incidence should fall, but by a manufacturer or importer, removed from the actual consumer, perhaps, by two or more intermediaries.

In examining the position of affairs as affecting the payment of the various taxes, it should be understood that the Finance Bill includes three classes of taxes: (1) New duties; (2) existing duties, where sanction is required for proposed increase or revision; and (3) duties that require to be reimposed annually in order to remain in force. There are other taxes not dealt with in the Finance Bill, but collectable year by year without special legislation so long as there is no change. To this class belong the inhabited house duty, the existing land tax, the duties on carriages, male servants, and patent medicines, gun licences, etc., all of which are leviable without reference to the Finance Bill or its suspension.

The new duties in the Budget were those on land values, the super-tax, and the special duties on motor spirit; the duties increased or revised were those on liquor licences, the death duties, the stamp duties and duties on spirits, beer, tobacco, and motor cars; while the income tax and the tea duties, apart from the changes in the rate of income tax and in other matters affecting the tax, are of necessity included in each Budget to secure their continuance.

Of the proposed new duties, those on land values and the super-tax must be assessed before they can be paid; and as the Finance Bill itself provides for the setting up of the machinery for assessing, it is clear that no payment can be required or made until the Finance Bill passes into law, nor, in fact, has any attempt been made to secure such payment. It is, however, worthy of note that the provisions of the Finance Bill, if and when passed, will in all probability have retrospective effect so far as these taxes are concerned, and payment will be required as from April 30th, 1909.

The new customs and excise duties on motor spirit are on a somewhat different footing. The machinery for charging and collecting these duties was already in existence, and there is practically no doubt that the Finance Act will eventually impose them in the precise form in which they appeared in the resolutions. As a consequence the duties were collected from the importers and manufacturers by virtue of the resolutions up to the date of the dissolution of Parliament, and since then have been voluntarily paid by the traders and added to the price of the spirit in order that they might protect themselves against the possibility of having eventually to pay duty that had not been recovered from the consumer. It may here be remarked that for the year 1909 medical men are entitled to repayment of the tax paid by the manufacturer or importer on the petrol used by them in cars used for professional purposes, and can now obtain such repayment up to December 4th last on application to the local officer of customs and excise. The application must be accompanied by vouchers from the trader supplying the spirit to the effect that tax has been paid on the stock of spirit from which the supply is drawn. Such vouchers usually take the form of receipted invoices with a certificate written or printed thereon, and signed by the trader or responsible person on his behalf. The excise authorities satisfy themselves as to the accuracy of the certificates so given before making the repayment claimed.

As regards the duties proposed to be increased by the Budget, the death duties and duties on tobacco and motor cars have in most instances been paid voluntarily on the new scale, though the authorities have been prepared, and are still prepared, to accept duties on the old scale subject to due guarantees for payment of any excess that may eventually prove to be due; but brewers, distillers, and licensed victuallers have in many cases preferred to retain the licence duties in hand in the hope that the provision of the Finance Act as ultimately passed may be more favourable to the trade. The stamp duties were not to come into force until the passing of the Act, so that no payments will be required under this head for the fiscal year 1909–10.

The question of the collection of the income tax presented greater difficulties and anomalies. While a Finance Act is necessary for the legal levying of the tax year by year, the Income Tax Acts provide the machinery for the assessment and collection—machinery controlled to a large extent by local bodies of commissioners more or less independent of the Treasury. In many instances the ordinary course had, when the deadlock arose in November, been followed so far as to the computation of the duty due from each person, and when it became a question of the collection of the duty, some bodies of commissioners authorized their collectors to issue the usual demand notes, while others declined to do so, or even to allow them to accept payment until the Finance Act should be passed. A considerable number of the collectors are under the direct control of the Treasury; these have, it is understood, been instructed not to accept any payment for the time being. In the present state of affairs, then, payment of income tax is in no case insisted upon, but in some districts it is open to the taxpayer to pay, while in others it is not.

Where income tax has been collected it has been at the new rate of 1s. 2d. on unearned incomes and at the rate of 9d. on earned incomes, no effect having as yet been given to the provisions of the Finance Bill for charging the earned incomes of people with incomes between £2,000 and £3,000 at the rate of 1s. in the £. Income tax is deductible from dividends paid by companies and from interest on stocks paid through banks; tax has almost invariably been deducted at the rate of 1s. 2d., regardless of whether the tax so deducted has been paid to the revenue. In the extremely improbable event of the rate of 1s. 2d. not eventually being enforced, the recipients of the dividends and interest so taxed by deduction would have a claim against the person or corporation deducting the tax.

In this connexion it is worthy of note that income tax, Schedule A, commonly known as property tax, and usually deducted by tenants from the rent payable at Lady Day, is not deductible from the rent until it has been paid to the collector of taxes, so that in those cases in which the collector declines to accept the duty it will be necessary for the Lady Day rent to be paid in full, and for the tax to be deducted from the instalment of rent paid next after the date when the tax is actually paid.

To sum up the position as regards the taxes most likely to concern members of the medical profession, it may be said that, pending the passing of the Finance Act, the licence duty on carriages and male servants must be paid as heretofore, the licence duty on motor cars must be paid on the old scale if demanded, the petrol tax is compulsorily paid in the form of increased price, but may be reclaimed as explained, while the income tax need not be paid and should not be paid if the person concerned will be entitled to but has not been allowed the rebate for children (allowable to those whose total incomes do not exceed £500), or the reduction of duty to the rate of 1s. in the £ applicable to persons with incomes from £2,000 to £3,000. Death duties need not be paid on the new scale for the time being, but it will be advisable to pay them in ordinary cases to avoid the inconvenience of reopening the matter in the future.

A COURSE of four Gresham lectures on elementary domestic hygiene will be given by the Gresham Professor of Physic, Dr. F. M. Sandwith, at the City of London School, Victoria Embankment, E.C., on Tuesday, April 5th, and the three following days, at 6 p.m.

THE MIDWIVES ACT, 1902.

APRIL 1ST, 1910, marks a new era in the history of the professional midwife. From and after this date no woman shall habitually and for gain attend a woman in childbirth otherwise than under the direction of a qualified medical practitioner unless she be certified under the Midwives Act.

There used to be certain fictitious characters known to the law as John Doe and Richard Roe. Any one who has read *Ten Thousand a Year* may claim acquaintance with them. Mr. Joshua Williams, in his *Law of Real Property*, wrote that, upon the passing of a certain Act, "the earthly career of John Doe and Richard Roe came to an end."

We venture to hope that Section I (2) of the Act of 1902 may be the funeral dirge of "Sarah Gamp," and that a few years hence we may be able to say, as Betsy Prig said of Mrs. Harris, that we "don't believe there's no sich a person." "Sarah" has not yet quite disappeared from amongst us. We seem to catch a glimpse of her in a paragraph of the report of the Departmental Committee which was issued last year.

> The difficulty of replacing the unqualified woman by a superior order of practitioner is not unfortunately altogether a question of supply, as, apart from the feeling of medical men in the matter, the reluctance of a certain class of the poor themselves has to be overcome; we were told that in many cases they prefer the old type of attendant, who is probably well-known to them and is usually more helpful in the house, although she is often uncleanly and inexpert. Sometimes, too, the preference may be due to her companionable, not to say convivial qualities, and occasionally, but we hope rarely, to the more sinister reason, as a medical officer put it, that she is believed to enjoy, "a lot of churchyard luck." In commenting on this, the witness said, "they do not want the children to live."

It is clear from a consideration of the rest of the report and from the evidence upon which it is founded, that while it was right to postpone the full operation of the Act until this year, there was no reason to give any further days of grace to the uncertified midwife. The Committee was unanimous in thinking that there was no occasion to delay any further the operation of the penal section which provides that:

> From and after the first day of April, 1910, no woman shall, habitually and for gain, attend women in childbirth otherwise than under the direction of a qualified medical practitioner, unless she is certified under this Act; any woman so acting without being certified under this Act shall be liable on summary conviction to a fine not exceeding £10; provided that this section shall not apply to legally qualified medical practitioners, or to any one rendering assistance in a case of emergency.

This is a remarkable piece of legislation from more than one point of view. In the first place, it goes much further than the penal sections of the Medical Act, 1886, or the Dentists Act, 1878. Those enactments merely prohibit the use of misleading titles. A man may practise medicine or surgery so long as he does not assume a title which leads people to believe that he is legally qualified. Again, the practice of dentistry by an unqualified person is not illegal. But, subject to the exceptions mentioned in the section, it is unlawful to attend a woman in childbirth, although questions such as: What is habitual practice? What is attending a woman in childbirth under the direction of a qualified practitioner? will probably arise and will have to be decided in the courts.

In the second place, the Legislature has obviously assumed that by April 1st, 1910, there would be enough certified midwives in the country to satisfy requirements. As it has been the fashion in recent legislation to define the end without providing the means, it is profitable to inquire whether, in this instance, the days of grace which have elapsed since 1902 have been sufficient to call into being an adequate number of certified midwives. Much useful information is to be found in the report of the Departmental Committee. That body was asked to consider the working of the Act, the supply of midwives and the cost of training, and the remuneration of medical men summoned on the advice of midwives in pursuance of the Act. A glance at the findings of this Committee shows that the Legislature were fully justified in passing the Act. There was no criticism of the Act in its main provisions. The number of certified midwives increased (from 956 in 1906 to 5,934 in 1909), and there has been a notable reduction in the death-rate from puerperal septic diseases since the Act came into operation. Figures are dull reading, but the following passage from the report is worth reproducing: "During the 15 years preceding 1903, the highest death-rate from these causes per million females living was 202 in 1893, and the lowest was 109 in 1898. In 1902 it was 118. In 1903, the year in which the Midwives Act came into operation, this death-rate dropped to 97. In the three following years it was 94, 98, and 93 respectively, and in 1907 it declined to 81."

The fact that there have been large additions to the roll of midwives during the last three years fully justifies the hope that a shortage in the supply will not long be a source of trouble. The Committee was of opinion that there could only be a shortage in some 15 counties out of 50, and in 12 county boroughs out of 71. It also considered that as the provision and maintenance of an adequate supply of midwives was mainly a question of organization and distribution, there was no need of any subvention from the State. County nursing associations working in co-operation with the local supervising authorities, and affiliated wherever possible, could do what was necessary. It may be presumed, therefore, that this objection—that there are not enough certified midwives—if it has any real substance, is one that will soon be got over.

With regard to the remuneration of medical men called in by certified midwives, the Committee expressed a unanimous opinion that the Act should be amended by giving the practitioner summoned by a midwife in cases of emergency a secure expectation of payment; that the local authority charged with the administration of the Poor Law should be made the authority responsible, and should be empowered, when it saw fit, to charge the fee paid as "relief on loan" to the patient; that the amount of the fee should be fixed by order of the Local Government Board on a systematic basis, having due regard to local conditions; and that the system of a uniform fee had so much practical advantage that it should be adopted, a distinction being drawn between the fee for emergency cases which involved immediate attendance at any hour of the day or night and other cases not of immediate urgency. The objections to placing this duty upon the Poor Law authorities have been fully stated on behalf of the British Medical Association, which has pointed out that the duty is undertaken more in the interests of the public than in the interests of the individual, and that the matter of payment should be dealt with through the local health authority, and not through the Poor Law. In any case, before applying to the local authority the doctor should state that he had been unable to obtain payment of the fee from the patient or her representative.

It is manifest that the smooth working of the Act, now that it is in full force, depends in large measure upon the adoption of this recommendation of the Committee. The public are apt to say, "The doctors are playing for their own hands," but it is not so. If the practitioner is to be at the beck and call of the midwife at all hours of the day and night, he may have to neglect his own patients. Moreover, the layman is rather apt to expect too much from the doctor, a large part of whose time is devoted to the gratuitous relief of suffering.

By adopting the principle which is expressed in the section that has just come into force the State has accepted a position of special responsibility towards parturient women and new-born infants; and as this attitude has been taken up for the benefit of the community it is just and right that the burden of properly administering the Act shall be borne by the public as a whole.

A DISCUSSION on alcohol and life insurance will be opened by Mr. William Bingham, managing director of the Sceptre Life Association, at a meeting of the Society for the Study of Inebriety, to be held at 11, Chandos Street, W., on Tuesday, April 12th, at 4 p.m.

AT a meeting of the Royal Sanitary Institute to be held at the institute's house, 90, Buckingham Palace Road, London, S.W., on Wednesday next, at 5 p.m., Dr. A. J. Martin, Inspecteur-Général des Services d'Hygiène de la Ville de Paris, will read a paper on the sanitary aspects of floods, and measures to be taken to prevent epidemics arising therefrom.

CORONERS COMMITTEE.

THE Departmental Committee appointed to inquire into the law relating to coroners and coroners' inquests, and into the practice in coroners' courts has just issued the first part of its second report.[1] The warrant of appointment of the Committee is dated December 15th, 1908. Its members are Sir Mackenzie Dalzell Chalmers, K.C.B., C.S.I., Sir Malcolm Morris, K.C.V.O., F.R.C.S.Edin., Sir Horatio Shephard, T. A. Bramsdon, M.P., now Sir Thomas Bramsdon, and William H. Willcox, M.D. Sir Mackenzie Dalzell Chalmers was appointed Chairman, and Mr. John Fitzgerald Moylan, Secretary.

The Committee has held thirty-three meetings, and has examined sixty-nine witnesses. Before commencing to take evidence they addressed a number of questions to the coroners of England and Wales, inviting their opinions on certain points. They received answers to these questions from 275 coroners. We can only give here a summary of those parts of the report which are of special interest to medical men.

The report states that the law relating to coroners is antiquated:

> The judges of the High Court are coroners by virtue of their office, but there appears to be no instance of an inquest being held before a judge. The duties of the coroner are discharged by three classes of coroners, namely, county coroners, borough coroners, and franchise coroners. The total number of coroners at present, taking individuals and not jurisdictions, is 330, made up of 200 county coroners, 76 borough coroners who are not also county coroners, and 54 franchise coroners who are not also county or borough coroners. The total number of coroners' jurisdictions is 360, but several coroners hold two or more coronerships.

Franchise coroners and Admiralty coroners are next dealt with. It is recommended that both these offices be abolished.

As to Section 12 of the Coroners Act, 1887 (50 and 51 Vict., c. 71), under which a coroner for a county is required to have "land in fee sufficient in the same county whereof he may answer to all manner of people," it is pointed out that no particular amount of land is specified, and it is said that this provision is satisfied if a coroner possesses the freehold of a grave in a cemetery in the county. It is recommended that the requirement as to the holding of land by county coroners should be abolished.

Dealing with the professional qualifications of coroners, the Committee says that the office is one for which, as the law now stands, no professional qualification is required. The majority of coroners at present are solicitors, some are barristers, a good many are medical men, and a few have both a medical and a legal qualification, whilst others have no professional qualifications at all. Having regard to the nature of a coroner's duties, the Committee thinks that a professional qualification should be prescribed, and that in future no one should be eligible for the office who is not a barrister, solicitor, or a medical man.

In regard to remuneration, the Committee is of opinion that the system of payment by fees should be abolished, and that all coroners should be paid by salary. When salaries are substituted for fees, they think that all work imposed on coroners should be taken into account, and that there should be the same power of quinquennial revision as in the case of county coroners. In fixing salaries, the number of preliminary inquiries as well as actual inquests should be taken into account. In connexion with the remuneration of coroners, it is pointed out that the law at present makes no provision for clerical assistance. The Committee thinks that in the larger courts a regular clerk ought to be provided, and that in the smaller courts an allowance ought to be made for clerical assistance.

With regard to age limit, it is pointed out that a coroner holds office during good behaviour. He may be removed by the Lord Chancellor for inability or misbehaviour, and, in the case of conviction for certain offences, he may be adjudged by the court to be removed from his office. Practically, a coroner holds office for life, unless, or until, he chooses to resign. The Committee thinks there should be an age limit at which retirement is compulsory, and that compulsory retirement at the age of 65 should be enforced in the face of all future appointments, save where the Lord Chancellor for special reasons may extend the term of office for a further period not exceeding five years. If the suggestion as to an age limit is approved, it is urged that the office of coroner should be pensionable in every case in which it is a whole-time office. There would then be no hardship in calling on a coroner to retire when he reached the age limit. In districts where the number of inquests is large, it is desirable that the coroner should be required by the terms of his appointment to be a whole-time officer. To attach a pension to the office of coroner would not materially increase the burden on the rates out of which the coroner is paid. A pension is in the nature of deferred pay, and experience shows that a prudent man will take a pensionable office at a considerably lower salary than he would a non-pensionable office. The Civil Service superannuation rules under the Superannuation Act of 1869 would perhaps furnish a basis for the calculation of pensions in the case of coroners.

Deputy Coroners.

The Coroners Act, 1892, provides for the appointment of a deputy by every coroner and borough coroner. A coroner should certainly, the Committee thinks, have power to appoint a second deputy to act in case of emergency.

Coroners as Justices of the Peace.

There has been no judicial decision that a coroner is *ex officio* a justice of the peace and can act as a justice generally. The Committee thinks that all doubt on the point should be cleared up, and that if its suggestion as to requiring a professional qualification for the office of coroner is approved, the name of every county and borough coroner should be included in the commission of the peace for his county or borough, unless for some personal reason he desires to be excused. This recommendation is confined to the coroner; it is not suggested that a deputy coroner should be a justice of the peace.

Fire Inquests.

The Committee has come to the conclusisn that the system of fire inquests established under the Act of 1888 has worked well in the City of London, and that the benefit of the system ought to be extended to the country at large. The opinion is expressed that it might be well to begin with an adoptive Act, empowering any county or borough council to adopt for its own district provisions framed on the lines of the City of London Act.

Post-mortem Examination without Inquest.

On this subject the Committee says:

> A coroner at present has no power to order and pay for a *post-mortem* examination except as part of an inquest. We are convinced that it is most desirable that the coroner should, without holding an inquest, have power to order and pay for a *post-mortem* in cases of sudden death where the cause is unknown, and there is no reason to suspect that the death is unnatural or violent. An inquest is always a painful ordeal for friends and relatives of the deceased. There are many cases in which it is impossible to say definitely what is the cause of death until a *post-mortem* has been held, but the *post-mortem* makes everything clear, and removes all need for a public inquiry. If an inquest could be dispensed with in such cases, trouble, inconvenience, and expense would be saved all round; the burial order could be given at once by the coroner, and distressing delay obviated. A good example of the case we have in mind is where a person, not under medical treatment, dies suddenly at a railway station, and no doctor arrives until life is extinct. It is possible, of course, that he may have died from poison, or from heart disease, or from apoplexy, or from any other cause of sudden death. If the coroner on inquiry finds that there is nothing suspicious about the case, and the *post-mortem* shows that death was due to (say) heart disease, why need an inquest be held? An inquest should, of course, be held where the inquiry and *post-mortem* examination disclose not merely sudden death, but unnatural or violent death, or any grounds for suspicion.
>
> It has been urged before us that if the coroner had this power of directing a *post-mortem* without an inquest, illegitimate pressure would sometimes be put upon him to exercise it. We cannot admit the force of this argument. In a large number of cases, at present, the coroner holds a preliminary inquiry and then dispenses with an inquest. The result of our suggestion would merely be to add to the number of these cases. Estimates as to the extent to which inquests would be diminished vary, but we think there is no room

[1] London: Wyman and Sons, Ltd.; Eyre and Spottiswoode, Ltd., East Harding Street, E.C.; or Edinburgh: Oliver and Boyd; or Dublin: E. Ponsonby. 1910. Price 2½d.

for doubt that there would be a considerable reduction, and that many unnecessary inquests would be avoided. We would, however, point out that it would be unfair to throw this new responsibility on coroners without making proper provision for the remuneration of no-inquest cases, particularly in the case of a borough coroner who is paid by fees per inquest. Either the coroner should have a fee for a case in which he directed a *post-mortem*, but held no inquest, or, as we have already suggested, all coroners should be paid not by fees, but by salary covering inquiries as well as inquests.

Deaths under Anaesthetics.

With regard to deaths under anaesthetics the Committee says:

We propose to report elsewhere on the general question of deaths under anaesthetics, but one matter in relation thereto requires to be dealt with in connexion with the law of coroners. Most coroners, it appears, hold that, when a person dies under an anaesthetic given for the purpose of a surgical operation, the death is an "unnatural death" within the meaning of Section 1 of the Coroners Act, 1887, and that the coroner is bound to hold an inquest. Others, however, consider that they have a discretion if, after preliminary inquiry, they are satisfied that the administration of the anaesthetic was necessary or proper, that it was properly given by a competent person, and that death was due to inevitable accident. In the public interest we think that the coroner ought to have this discretion. Every case of death under an anaesthetic ought to be reported to the coroner, whether it occurs in a public institution or a private house. If the coroner on inquiry is satisfied that all due care and skill has been used, we think that it is undesirable that there should be an inquest.

Rules of Procedure.

The coroner's court is a court for which there is no authority with power to make rules of practice and procedure and to prescribe forms. The Committee thinks it essential that a wide and flexible power to make rules should be given by statute to some central authority, and it suggests that the rule making authority might be the Lord Chancellor and the Home Secretary, assisted by a small advisory committee of coroners. In London and in big provincial towns the number of inquests is large, but the coroner's district is comparatively small and compact. He can easily obtain expert medical advice, and he has properly equipped mortuaries and *post-mortem* rooms. He is in the vicinity of large hospitals, with chemical and pathological laboratories. In the country, on the other hand, inquests are relatively few, but the expenditure of time per inquest is very much greater than in towns, as the coroner may have to travel long distances. If a difficult case arises the country coroner usually has to obtain his expert advice from some distant big town or do without it. Hence rules which are appropriate to large cities and towns would often require much modification to adapt them to the exigencies of rural districts.

Scales of Costs.

The fees payable to medical witnesses for attendance at coroners' inquests were fixed by statute more than seventy years ago, and have remained unaltered to the present day. With the exception, however, of the statutory fees to medical witnesses, every local authority for a county or borough, under Section 25 of the Coroners Act, 1887, fixes its own schedule of fees, allowances, and disbursements in respect of witnesses, juries (in cases where juries are paid), and any other expenses incidental to an inquest. There is neither uniformity nor principle in the various scales adopted. The Committee thinks that the Home Secretary should prescribe scales of costs for coroners' courts in the same way as for other criminal courts. The costs should, therefore, be uniform, and should be fixed on similar lines to those in other courts of justice.

Exhumation.

In cases in which it becomes necessary for the coroner to cause a body to be exhumed, he frequently applies to the Home Secretary for a licence under Section 25 of the Burial Act, 1857 (20 and 21 Vict., c. 81), for the removal of the body. It appears to the Committee that the coroner has sufficient power at common law to order the disinterment of a body of his own motion when necessary for the purposes of an inquest, and that probably the only case where an application to the Home Secretary for a licence is requisite is when the exhumation of the body upon which the inquest is to be held may cause interference with other bodies, as, for instance, when the deceased person has been buried in a common grave containing several bodies. In these circumstances it is thought that it might be well to make rules regulating the conditions under which applications should be made to the Home Secretary for his licence.

Removal of Body.

There is, says the Committee, some doubt as to the power of a coroner with regard to a dead body, but the probability seems to be that for all purposes incidental to an inquest the coroner has the legal custody of the body on which the inquest is to be held. In support of this it may be noted that the body cannot be buried until the coroner has given his order authorizing the burial. It would, however, be well that this point should be made clear. The report proceeds:

Section 24 of the Coroners Act, 1887, which reproduces a provision of the Public Health Act, 1875, is limited in its terms. It enacts that where a place has been provided by a sanitary or nuisance authority for the reception of dead bodies during the time required to conduct a *post-mortem* examination, the coroner may order the removal of a dead body to and from such a place for the purpose of the *post-mortem* examination, and the costs of the removal are to be deemed to be part of the inquest expenses. It seems to us that this power to order the removal of a dead body for the purpose of a *post-mortem* might with advantage be extended. In many places, especially in a rural district, no proper accommodation for the holding of a *post-mortem* may be available in the district itself, but there is often a hospital within reach where the *post-mortem* could be properly and decently conducted. We think that a coroner ought to be able to take advantage of the accommodation provided by hospitals, even though the hospital may be situated outside the local limits of his jurisdiction. There is every possible objection to a *post-mortem* examination being conducted in a private house, particularly if room be limited. We further suggest that adjoining districts might, with the sanction of the Home Secretary, be allowed to combine for the purpose of having a joint coroner's court, mortuary, and *post-mortem* room.

Perverse Verdicts.

On this subject the Committee says:

If twelve of a coroner's jury agree on a verdict, it seems that the coroner is bound to accept their verdict, however insensate it may be. Instances of extraordinary verdicts which coroners have felt compelled to accept are cited in the report of the Select Committee on Death Certification, 1893, for example:

> "The man died from stone in the kidney, which stone he swallowed while lying on a gravel path in a state of drunkenness."
>
> "A child three months old found dead, but no evidence to show whether born alive."

It is to be noted that the jury are to inquire of and find the particulars required by the Registration Acts to be registered concerning the death (Coroners Act, 1887, s. 4 (4)), and that a coroner who alters the verdict of the jury may be guilty of forgery.

The Committee thinks the coroner should take the jury's verdict, whatever it may be, but that he should be empowered, if necessary, to apply to a judge in chambers to set the verdict aside and authorize a new jury to be summoned.

Riders to Verdicts.

It is pointed out that it sometimes happens that the jury wish to add an unreasonable or mischievous rider. The Committee thinks that riders should be required to be separated from the verdict, and endorsed on the back of the inquisition, and the coroner should be at liberty to record his dissent from the jury's rider, and his reasons for so doing.

Medical Witnesses Summoned by Jury.

It is pointed out, under Section 21 (3) of the Coroners Act, 1887, that if the majority of the jury are of opinion that the cause of death has not been satisfactorily explained by the evidence of the medical practitioner or other witnesses brought before them, they may, in writing, require the coroner to summon as a witness some other qualified medical practitioner named by them, and, further, to direct a *post-mortem* examination, with or without an analysis of the contents of the stomach or intestines, by such medical practitioner. It appears to the Committee that the majority of a coroner's jury should not have the power to select a medical expert, and that this provision should be repealed. If the coroner does not conduct an inquest properly, there is an adequate remedy in an application to the High Court, under Section 6 of the Coroners Act, 1887.

View of the Body.

On this subject the Committee's conclusion is that, as a rule, the view by the jury should be dispensed with, but that the coroner should have power in special cases to require the jury to view. The view would then, of course, be directed to a special object, and would not be a perfunctory march past. The coroner should have a discretion to direct a view at any stage of the inquest, and not merely at its commencement.

Fees to Medical Witnesses.

With regard to fees to medical witnesses, the Committee says:

The fees payable to medical witnesses at inquests are regulated by Section 22 of the Coroners Act, 1887, which reproduces the provisions of an Act of 1836. The scale of fees allowed is inadequate, having regard to the scale allowed in other courts. There is great, and we think justifiable, dissatisfaction in the medical profession with the scale of fees in coroners' courts and the mode of their allocation. We think that the whole matter should be dealt with by regulations, and not by the iron-bound provisions of an old statute.

At present the fee for attending to give evidence at an inquest is one guinea, and, if the inquest is many times adjourned, and the medical practitioner has to attend on several days, no additional fee is payable. If a *post-mortem* examination, with or without an analysis of the contents of the stomach, is made, another guinea is allowed. These fees are clearly, in many cases, wholly insufficient, and should be revised when a new scale is made.

In the opinion of many coroners and local authorities the Act contemplates only one medical witness being called, and makes provision for the payment of only one guinea for a *post-mortem*, if required, and one guinea for evidence at the inquest. But the medical practitioner who attended the deceased, or was called in at, or immediately after, death, may or may not be the proper person to make the *post-mortem* examination. In many cases the *post-mortem* examination can be made effectively only by a pathological expert, but, if such expert is called in, he can at present receive only a guinea for the examination. For expert examinations both skill and practice are required, and the expert who makes them ought to be paid an adequate fee, not only for the examination, but also, separately, for attending to give evidence. On the other hand, a *post-mortem* examination made by a skilled pathologist will often give no result unless it is supplemented by clinical evidence, and therefore there should be power to summon and pay the medical practitioner or practitioners with clinical knowledge of the case in addition to expert. The provision of Section 21 (2) of the Coroners Act, 1887, which includes the chemical analysis of the contents of the stomach or intestines as part of the *post-mortem*, is ridiculous, and should be repealed. Except in the simplest cases an analysis is useless unless it is made by a toxicologist with all the appliances of a modern laboratory at his command.

In some cases the local authority includes in its schedule of fees, etc., under Section 25 of the Coroners Act, 1887, a fee for an expert analysis, and, where provision is made for such a fee, a coroner may obtain an expert analysis on applying beforehand to the local authority for permission to incur the expense. Other local authorities apparently hold that they have no power to include a special fee for an expert analysis in their schedule, and then the coroner has no alternative but to make application to the Home Office for expert assistance. This, of course, involves delay, which is often prejudicial. We think that the conditions under which a coroner may order an expert analysis should be determined by Home Office regulations, under the Costs in Criminal Cases Act, 1908. Our suggestion is, of course, not intended to limit the powers of the Home Secretary to direct a special analysis by an expert named by him in special cases.

Selection of Medical Witnesses.

With regard to the selection of medical witnesses, the Committee says:

Under Section 21 of the Coroners Act, 1887, where the deceased was attended at his death, or during his last illness, by any legally-qualified medical practitioner, the coroner *may* summon such practitioner as a witness. If, however, the deceased person was not so attended, the coroner may summon any legally-qualified medical practitioner in practice in or near the place where the death occurred, to give evidence as to the cause of death.

It has been urged that the coroner is bound to summon the medical practitioner who attended the deceased, or was called in to see him after death, and that, if a *post-mortem* examination is required, the coroner is also bound to employ that medical practitioner to make it. We cannot accede to that contention. The medical practitioner who was called in to see the deceased may or may not be the proper person to make the *post-mortem* examination. It is a matter which must be left to the absolute discretion of the coroner, who is the only person who can determine the fitness of the medical practitioner in question to make the examination. Moreover, as we have already pointed out, clinical evidence may be essential to supplement the evidence as to the *post-mortem*. The coroner is in a difficulty because, if the Act is strictly interpreted, he cannot pay both the medical witness who gives clinical evidence and the medical witness who makes and gives evidence as to the *post-mortem* examination. Every coroner should be empowered to call such medical witnesses as may be necessary for the proper determination of the case. In Scotland the procurator fiscal has a much freer hand as regards medical costs. In the first place he gets a formal written report from the medical practitioner in attendance, for which the fee of one guinea is paid. This very often disposes of the whole case without requiring the medical practitioner's attendance. If a *post-mortem* is required, he can order anyone he likes to perform it, and can pay him two guineas. If a criminal charge is likely to be involved, two medical men are always present at the *post-mortem*. If the medical witnesses are afterwards required to come and give evidence they are paid for for so doing. We are of opinion that these features of the Scottish system should be adopted in England. We further think that to give to coroners a somewhat wider discretion as to costs—a discretion possessed by all other courts—would go far to remove the friction which sometimes arises between them and the medical profession, and would, on the whole, be conducive to the efficiency of inquests and the public interest.

Medical Fees in case of Institutions.

On this subject the Committee says:

Under Section 22 of the Coroners Act, 1887, where an inquest is held on the body of a person who has died in a county or other lunatic asylum, or any public hospital, infirmary, or other medical institution, whether the same be supported by endowment or by voluntary subscription, the medical officer whose duty it may have been to attend the deceased person as an officer of such institution is not entitled to any fee or remuneration for attending to give evidence at the inquest or for making a *post-mortem* examination. Considerable doubt exists as to what institutions fall within this provision, and the practice of local authorities differs as to allowing or disallowing fees to officers of medical institutions.

We have been unable to obtain from any one who has appeared before us a defence of this provision on its merits. In the case, at any rate, of the London hospitals, not only the visiting staff, but also the house-physicians and surgeons, give their services to the hospital without remuneration. We fail to see why a man who gives his services out of charity should be penalized for so doing, by being required to perform a public duty, wholly outside the objects of the charity, without receiving the fee paid to other persons performing the same public duty. In all other courts a medical witness gets costs according to the scale, irrespective of the fact that he may be attached to an institution of a charitable or quasi-charitable nature. We think that this inequitable provision in Section 22 of the Coroners Act, 1887, ought to be repealed, and, whatever may have been the original motives of policy for placing officers of medical institutions in a separate class and debarring them from receiving the fees payable to any other medical practitioner, we cannot see any reason whatever at the present time for continuing to deprive them of fees.

Cremation Cases.

In reference to this subject, it is stated that Mr. Herring, the Medical Referee of the London Cremation Society, called attention to certain difficulties in the working of the Cremation Act, 1902 (2 Edw. VII., c. 8). His chief point was that when a person dies abroad and the body is brought into England, it cannot, under the existing regulations, be cremated unless the coroner considers himself justified in holding an inquest, and certifies in the prescribed form. He further complained of delay in communications with the coroner and the difficulty he had in getting certain original documents returned. The Committee thinks these difficulties could be disposed of by means of the regulations under the Cremation Act which are made by the Home Secretary. The attention of the Home Office was therefore called to Mr. Herring's evidence, and the Committee suggests that the matter should be left to be dealt with by the Home Office.

Certification of Deaths.

On the subject of death certification, the Committee called attention to the report of the Select Committee of 1893, to the representations of the London County Council, and to the evidence given on behalf of the Registrar-General. Certain aspects of the question of death certification came before it in evidence as bearing directly on the functions of the coroner. One witness suggested that there was reason to fear that, under the present lax system, a certain number of persons might be buried alive, but no authentic cases were brought before the Committee to bear out this suggestion. Still, the report states, it is no fault of the law if premature burials do not take place. The present law of death certification offers every opportunity for premature burial and every facility for the concealment of crime. The Committee thinks that a certificate of death should not be accepted from a medical practitioner unless it states

that he has by personal inspection of the body satisfied himself as to the fact of death. At present he may certify merely on the information given by the relatives, and evidence has been given before the Committee that many certificates have been carelessly or even recklessly given. The opinion is also expressed that in every case in which a medical certificate is not given, the death ought to be reported to the coroner. It does not follow that the coroner would hold an inquest, but he ought to be informed of every uncertified death, for the purpose of making inquiry. Under the instructions of the Registrar-General, it is usual now for registrars to report uncertified deaths to the coroner. This, in the opinion of the Committee, ought to be made a statutory duty.

Verdict in Cases of Suicide.

In regard to the verdict in cases of suicide, the Committee thinks that the verdict of *felo de se* should be abolished.

The only effect of retaining this verdict is to induce juries to find a verdict of "temporary insanity" without any evidence to justify it. The verdict of "temporary insanity" is open to the objection that when a man is dead it is impossible to say whether his insanity was of a temporary character or not. The Committee thinks that in cases of suicide the verdict should simply be that the deceased died by his own hand (stating how). The jury should be at liberty to add to their verdict that there is no evidence to show the state of his mind, or that at the time of taking his life he was of unsound mind.

Conclusion.

In conclusion, the Committee points out that it attaches special importance to three recommendations—namely, the abolition of franchise coroners, the payment of all coroners by salary instead of fees, and the bestowal on a central authority of power to make rules of practice and procedure.

A memorandum by Sir Thomas Bramsdon is appended to the report, in which, among other things, he says that

The main points in the report are, undoubtedly, that if coroners are given the power of ordering *post-mortem* examinations without the necessity of inquests following thereon, and also, if all coroners hereafter are paid by salary instead of fees, a great many inquests will be avoided, without in any way impairing the efficiency of the system. This, he feels sure, will be welcomed by the public, and he thinks importance attaches to the fact that the great majority of the coroners of England and Wales who were appealed to for their views upon the advisability of being empowered to order *post-mortems* without holding inquests cordially agreed with the proposed alteration. Whilst he concurs in the advisability of the extension throughout the country of the City of London Fire Inquests Act, he does not concur in the suggestion that, if the system is to be so extended, it would be best to begin with an adoptive Act. His view is that, if the system is a valuable one, which he believes it is, it ought to be universally adopted throughout the country.

BRITISH MEDICAL BENEVOLENT FUND.

AT the March meeting of the Committee 27 cases were considered and grants amounting to £253 made to 23 of the applicants. Appended is an abstract of the cases relieved:

1. Widow, aged 48, of M.B.Durh. Endeavours to support herself by taking boarders, but has not been successful so far. Two children, aged 18 and 16, the latter at Epsom College. Relieved twice, £24. Voted £10.
2. M.D.Cantab., M.R.C.P., aged 72. Quite incapacitated by paralysis and dependent on a small weekly allowance from a son and three shillings a week as old age pension. Voted, £12.
3. Daughter, aged 67, of late M.R.C.S., L.S.A. Lost part of the provision made by father through the failure of a bank and the rest in the endeavour to establish a boarding house. Voted £12.
4. M.R.C.S., aged 65. Retired about ten years ago owing to ill health, but lost all his savings through unfortunate investments, and now endeavours to support himself by taking lodgers. Voted £12.
5. Daughter, aged 32, of late M.D.Edin. Has a small weekly pension, but is incapacitated by serious illness and is unable to meet unavoidable expenses. Voted £10.
6. Wife, aged 36, of M.R.C.S., L.R.C.P., who for eighteen months has been confined to a county lunatic asylum. No income; lets lodgings. Three children, aged 13 to 4. Relieved once, £5. Voted £10.
7. Widow, aged 61, of L.R.C.S., L.R.C.P.Irel. Provision made by husband lost through the failure of a bank, and applicant having bad health is now dependent on a sister obliged to earn her living as a companion. Relieved three times, £36. Voted £12.
8. Daughter, aged 55, of late L.R.C.P.Edin. Used to be a dressmaker and endeavoured to start on her own account, but was unsuccessful, and lost her savings. Receives a few shillings a week from a friend, and earns a little occasionally by needlework. Health indifferent. Relieved five times, £46. Voted £6.
9. Widow, aged 65, of M.B., C.M.Glasg. Is in very feeble health and practically dependent on the help given by this Fund and another charity. Only son is a signalman earning small wages. Relieved ten times, £114. Voted £10.
10. Widow, aged 86, of M.R.C.S., L.S.A. Only income a pension of £25 per annum from the United Kingdom Beneficent Association. Children only able to help with a few shillings occasionally. Has been bedridden for several years. Relieved once, £5. Voted £12.
11. Daughter, aged 61, of late M.R.C.S. Had to give up situation to nurse her mother and sister, both since deceased, and now endeavours to support herself by taking boarders. Relieved three times, £52. Voted £10.
12. Widow, aged 52, of L.R.C.P., L.R.C.S.Edin. No income; health very indifferent. Earns a few shillings a week as caretaker; no children. Relieved six times, £58. Voted £12.
13. Widow, aged 71, of M.R.C.S. Dependent on 5s. a week as old age pension and slight help from a daughter. Relieved seventeen times, £183. Voted £12.
14. Widow, aged 52, of M.D.Edin. Capital used to pay husband's debts, and now takes charge of a branch surgery, living rent free. Children unable to help. Relieved four times, £40. Voted £12.
15. Daughter, aged 58, of late L.S.A. No income; endeavours to maintain herself by letting lodgings; health very feeble. Relieved twice, £22. Voted £12.
16. Widow, aged 59, of M.R.C.S. No income, and dependent on two sons who can ill afford to help. Relieved five times, £45. Voted £10.
17. Daughter, aged 40, of late M.D.Edin. No income; is a daily governess, but at present has no post. Relieved eight times, £32. Voted £5.
18. Widow, aged 85, of M.D.Aberd. No income; dependent on two daughters who are governesses. Relieved once, £18. Voted £18.
19. Daughter, aged 50, of late M.R.C.S. No income, and health will not allow of any occupation. Relieved once, £10. Voted £10.
20. Widow, aged 69, of M.R.C.S. Income £14 a year, and receives occasional slight help from two sons who can only support themselves with difficulty. Relieved once, £10. Voted £12.
21. Daughter, aged 53, of late M.R.C.S. No income, and owing to continued ill health which prevents employment is dependent on small weekly allowance from sister. Relieved twelve times, £137. Voted £12.
22. Widow, aged 59, of M.B., C.M.Edin. Supported herself for some years after husband's death by taking charge of mental cases, but is now incapacitated by heart disease and dependent on a son whose earnings are small. Relieved six times, £72. Voted £12.
23. Widow, aged 36, of M.R.C.S. Quite unprovided for at husband's death a couple of years ago, and obliged to keep a small home for the sake of the children; slight help from friends. Relieved twice, £15. Voted £10.

Contributions may be sent to the Honorary Treasurer, Dr. Samuel West, 15, Wimpole Street, London, W.

SCIENCE AT THE JAPAN-BRITISH EXHIBITION.

SIR HENRY MORRIS, Bart., F.R.C.S., Chairman of the Scientific and Surgical Instrument Section of the Japan-British Exhibition to be held in the Shepherd's Bush grounds this summer, has issued a circular letter inviting the co-operation of all interested in making the British part of the section a success. The Japanese, he states, are entering upon the enterprise of this exhibition with the energy and thoroughness characteristic of their nation, and from their point of view success is already assured. The following is a classification of the medical and surgical appliances and instruments desired; all must be of British manufacture, and they will be displayed in building No. 11 of the Liberal Arts Palace:

Medicine and Surgery.

Appliances, instruments, and apparatus for work in anatomy, histology, and bacteriology. Anatomical models, normal and pathological: histological and bacteriological preparations.

Apparatus for sterilizing instruments and appliances for dressing wounds.

Instruments for general and special medical research.

Instruments and apparatus for general, special, and local surgery; anaesthetics, antiseptics, obstetrical instruments, etc.

Appliances for dressing wounds.

Prosthesis; apparatus for correcting deformities, artificial limbs.

Apparatus for plastics and mechanical prosthesis; orthopaedic apparatus; apparatus for hernia; apparatus for medical

gymnastics; materials, instruments, and apparatus for therapeutics.

Instruments for physical diagnosis, clinical thermometers, stethoscopes, ophthalmoscopes, etc.

Instruments used in the practice of dentistry.

Appliances for the use of the infirm, of invalids, and of lunatics.

Chests and cases of instruments and medicines for the use of surgeons of the army and navy; appliances for rendering aid to the wounded on the field of battle.

Appliances for rendering aid to persons apparently drowned or asphyxiated.

Instruments and appliances for veterinary surgeons.

SCIENCE NOTES.

AT the Royal Society of Edinburgh, Dr. R. J. A. Berry, Professor of Anatomy in the University of Melbourne, recently gave a lantern demonstration on the place in Nature of the Tasmanian aboriginal as deduced from a study of his cranium, and gave an account of the method of investigation which he had instituted. He pointed out that there were two conflicting opinions as to the origin of the Australian indigenous inhabitants. One of these, chiefly German, held the Australian to be a pure or homogeneous race; the other, the English school, adhered to the dual or heterogeneous character of the race. In order to see what light could be thrown by modern scientific methods on the Australian problem, several independent lines of research, all leading up to the one ultimate object, had been devised. As the Australian problem could not be solved until the place in Nature of the Tasmanian had been determined, his address was to be regarded as the fulfilment of the first or basal part of this undertaking —the determination of the relationship of the Tasmanian to the anthropoid ape and to primitive and modern man. The various skull types employed for comparison with the Tasmanian were shown, and the methods adopted in the Melbourne School for the correct placing of the Tasmanian in relation to the objects of comparison were described. One of the Tasmanian crania, from the 1909 Berry-Robertson discovery of 42 Tasmanian skulls, was exhibited, and this was followed by a detailed analysis of 53 Tasmanian crania, constituting by far the largest number of Tasmanian skulls ever hitherto handled by any scientist in any part of the world. From the study of the figures, together with those for the skulls of primitive and recent man, a diagram was constructed, which showed the relative positions of the 14 objects of comparison under every one of the 27 morphological counts of the investigation. These figures had been worked out mathematically, and from an exhaustive analysis of the entire work Professor Berry concluded that of recent man the Tasmanian stood nearest to *Homo fossilis*, but morphologically had progressed a very long way from *Homo primigenius* and the anthropoid ape —very much farther than most writers would seem to believe. Quite irrespective of the relationship of the Australian to the Tasmanian, the present work, as far as it had gone, proved that the latter had progressed a very long way from the Neanderthal-Spy man, who, as well as the man of Gibraltar, stood more nearly related to the *Pithecanthropus erectus* and the anthropoid ape. It was clear that the morphological evolution of the Tasmanian had progressed, at the time of his extinction, on its own independent lines and to a higher plane than was generally either admitted or supposed. That his mental culture was on such a primitive plane was fully explained by his complete and total isolation for countless years, and not to the fact that his physical organization was incapable of attaining a more improved degree of culture.

The agility with which a spider manipulates its thread and makes use of it as a means of locomotion is a marvel. Equally remarkable but less well known is the fact that many marine molluscs emulate the spider in this matter of thread-making. This thread, too, is of surprising delicacy, but is formed from the slime secreted by the animal's foot. In numerous shellfish such threads take the form of the familiar "byssus," which forms a prehensile organ of exceeding tenacity. Others, however, find a different use for the slimy secretion. It is not uncommon to observe small molluscs, apparently floating foot uppermost, at the surface of still water; yet, as they are heavier than water, this cannot really be the case. The explanation is that the slimy secretion from the foot glues them, as it were, to the surface. It is not difficult to detach them from this position, and if too much force is not employed they may be seen to hang suspended 2 in. or 3 in. below the surface by an almost invisible thread. After a time they proceed to make strenuous efforts to climb this thread. Considerable muscular exertion is required, and the feat is accomplished by bringing the head into contact with the thread, contracting the foot, and so advancing little by little. The precise mechanism, however, is difficult to determine. This interesting habit forms the subject of a series of observations by Mr. N. Colgan,[1] who has found it of more common occurrence than hitherto supposed. He has watched several species make use of these gossamer-like threads to suspend themselves from the surface, and has calculated the various rates at which they climb. Some take as long as three minntes to mount an inch, while others do it at the express speed of fifteen seconds. As showing the comparative strength of the slime thread an interesting observation may be quoted. A single *Rissoa cingillus* was put into a dish of water with six specimens of *Limapontia nigra*. After a short time the Rissoa was observed suspended by a thread. Three of the Limapontias were at the surface but the other three were found adhering to the Rissoa. The latter was making desperate efforts to climb, but its progress was slow. Hereupon one of the Limapontias set out to climb the thread on its own account, but it had only got a short distance "when it fell back on Rissoa's foot and so hampered its action that the animal soon gave up its laborious efforts to reach the surface and sank slowly with its burden to the bottom." In view of the energetic struggle that was made and the fact that the Limapontias were little smaller than the Rissoa, it may be understood that the thread was subjected to rather a severe strain.

LITERARY NOTES.

HAS any one ever attempted to compute what the world owes to misers? Guy's Hospital stands as a monument of the niggardliness of a man who would not waste a halfpenny candle when a matter of business could be settled by talking. The British Museum may perhaps be counted as another concrete instance of the great effects of avarice, which Byron called a good old gentlemanly vice. Sir Hans Sloane was excessively parsimonious, his usual dinner being a boiled egg. In Mr. Ralph Nevill's recently published book, *The Merry Past*, it is related that Sir Hans was once told by Dr. Mortimer, when he complained of being deserted by his friends, that people were probably rather disappointed to go all the way to Chelsea to find such slight refreshment as his house offered. The old man flew into a rage at this, and exclaimed: "Keep a table! Invite people to dinner! Would you have me ruin myself? Public credit totters already, and if, as has been presaged there should be a national bankruptcy, or a sponge to wipe out the national debt, you may yet see me in a workhouse." His landed interest was at that time very considerable, and the descendants of his heirs have become rich beyond the dreams of avarice. His museum was worth much more than the £20,000 which, under the terms of Sloane's will, Parliament paid to his family.

The experiences of the first white women to penetrate to Lake Manasarowar (the Sacred Lake of Tibet) is told very naturally by one of the two enterprising travellers, Miss E. C. M. Browne, in the April number of *Travel and Exploration*. The unpleasantly primitive habits of the Tibetans are amusingly described:

It is a solemn fact that some Tibetans never bathe from the cradle to the grave. Once in treating a Tibetan lama, who was suffering from dropsy, Miss Sheldon recommended a bath on a warm day. The wife held a consultation with our Tibetan Christian woman as to the effect of such heroic treatment. He had never had a bath in his life, she said, and she was not quite sure whether he would survive one! Their prejudices were overcome, the man was bathed, and eventually recovered. Since then there have been other similar cases, and a few days before the penning of this article a sick Tibetan woman, who came to the Mission, was in such a filthy condition that vermin seemed to be consuming her. She was too far gone, and succumbed in a very short time. Others of her family were also ill, but were cleaned up and gradually recovered. Their former garments had to be burned or buried.

[1] *Annals and Magazine of Natural History* (8), III (1909), pp. 354–362.

British Medical Journal.

SATURDAY, APRIL 2ND, 1910.

A NATIONAL EMERGENCY.

THE report of the proceedings of the deputation representing the British Medical Association, and in particular the Metropolitan Counties Branch, which last week had an interview with Dr. Newman, the medical officer to the Board of Education, published in the SUPPLEMENT to this issue, is of far more than local interest. For the problem which has been grappled with in London is one which will have to be dealt with all over the country, and one which in its main features is practically identical in all large centres of population. The views which the deputation presented embodied the considered opinions of the Association reached after full investigation of the subject in all its aspects.

When medical inspection was determined upon, it was recognized that the duty of treating the defects disclosed must be undertaken by the State, but, as so often happens, the problem was not fairly faced either by the central or local authorities. Instead of handling the subject in a thorough and comprehensive manner, they adopted the usual half measures, and, anxious to evade responsibilities—more especially as they involved expenditure—they turned to existing voluntary hospitals with a view of seeing how much could be got out of them and out of the medical profession for nothing. The first move in this direction was, we believe, made by the Sheffield authorities, and there, unfortunately, the honorary staffs of the hospitals agreed, probably before the full importance of the question was adequately appreciated, to treat children referred to them by the Education Authority free. The general subject was taken up by the Medico-Political Committee of the British Medical Association, and thoroughly examined by a special subcommittee, which formulated principles which have been approved by the Representative Meetings of the Association. The London Education Authority appointed a special subcommittee, on which the British Medical Association was represented, "to inquire into the whole question of the medical treatment of children attending public elementary schools." This subcommittee reported[1] strongly against resort being made to charitable institutions, and recommended that the Council should establish school clinics at suitable centres in the metropolis for children suffering from teeth defects and simple diseases, eye defects and simple diseases, skin diseases, and ear defects and simple diseases. These classes, it was shown, would include the very large mass of cases revealed by medical inspection—cases, that is, of physical deficiencies and disorders, which could be readily and economically treated at suitable centres conveniently situated in regard to the schools.

This report was rejected, and the County Council, without consulting the medical profession, resolved to resort to the charitable hospitals, and succeeded in persuading some of them to undertake responsibilities which belong to the Council itself, and for the discharge of which the hospitals are not adapted or designed.

Any scheme which proposes to meet the newly recognized obligation of the State to safeguard the health and growth of children by subsidising the voluntary hospitals is obviously wrong in principle, because it seeks to turn hospitals from their proper purpose. The hospitals are magnificent examples of the working of charity in this country; first, of the public charity which gives money, and secondly, of the professional charity which gives the service by which alone the hospitals are of use to the community. To attempt to use them to relieve the State of any part of the expenditure necessary to meet the obligation upon it to maintain national efficiency by preventing the individual deterioration or imperfect development of the youth of the country, which in sum means the deterioration of the nation, is to strike at the root idea of their foundation.

As the scheme of the London County Council is founded on a wrong principle, it is not surprising to find that in the hands of its inventors it proves to be inadequate in scope and inefficient in execution. It is inadequate in scope because the hospitals in London are not evenly distributed throughout the great area of that province of houses, and because the hospitals, being already fully occupied with their proper work, being in fact strained to accomplish it, are not in a position to take over the work of the County Council, even in return for subsidies. Even if this latter objection did not exist, the former would be sufficient to rule the scheme out of court, as was shown when the point was fully discussed in these columns some fifteen months ago, when the actual distribution of hospitals in the metropolitan area was demonstrated by a spot map.[2] The map proved the point up to the hilt, and ought really to have put an end to any serious prosecution of such a grossly faulty scheme by a public body. It no doubt convinced everybody who was not a determined opportunist resolved to clutch at any temporary expedient which might serve to postpone the uncomfortable necessity of dealing in a logical and statesmanlike way with the urgent needs of large numbers of children in the metropolis.

The scheme of the London County Council is inefficient in execution not only because it does not reach more than a small minority of the children, since the vast majority live far out of the limited area in which hospitals were accumulated by our forefathers, but because even in respect of the children it may reach it provides for the treatment of only a very short list of disease conditions, excluding many of the most important, and of only a few children each week. The most remarkable and scandalous exclusion from the County Council's scheme is the care of the children's teeth; this has been done in spite of the fact that the statistics already accumulated, meagre as they are, prove that the amount of dental disease is enormous. We need not enlarge on the evil effects of this on the health and growth of the children. The point was well made by Dr. Harvey Hilliard, but the total failure to deal with it illustrates the inefficiency of the scheme, which from beginning to end makes no serious attempt to cope with the urgent and elementary necessities of our future citizens.

Sir Victor Horsley, after dealing with some of the points to which we have already referred, and stating

[1] BRITISH MEDICAL JOURNAL, December 26th, 1908, p. 1869, and January 9th, 1909, p. 96.

[2] BRITISH MEDICAL JOURNAL, 1909, vol. i, pp. 100-101.

that in the opinion of the Metropolitan Counties Branch the State, through the local authorities or the County Council, should organize a regular school medical service wholly independent of the existing charitable institutions, went on to point out that the Association, after fully considering the principles involved, had wholly condemned the employment of public medical charities, and had approved as a method of dealing with these national requirements the establishment of a school medical service staffed by practitioners resident in the area which the schools served, with the addition of dentists, and where necessary the assistance of specialists. Dr. Howard explained to Dr. Newman the organization which is being established at Norwood, and it was pointed out that a similar scheme has been prepared by the Wandsworth Division, and is in process of evolution at Woolwich, while at Hampstead it is arranged that the treatment of school children shall be part of a larger scheme for a public medical service. The scheme for Wandsworth is published in full in the SUPPLEMENT this week, and a study of its principles and methods will doubtless prove valuable to those who will have to organize school services in other populous places.

All these carefully-thought out plans, which completely meet the needs of the metropolitan elementary schools, were laid by the representatives of the Association before Dr. Newman, who in reply rather laboured the point that under any other scheme of district school clinics a certain number of medical men in each district must be left out, and that, therefore, there would always be a certain number disappointed. But this argument seems to involve a logical fallacy; there is a suppressed middle—the assumption that all the medical men in a district would wish to serve on the school clinic; some might not wish to serve at all, being otherwise fully engaged; others might not wish to act continuously, but would be willing to take the work in rotation for a definite period of weeks or months. However this may be, this is really not a question for the Board of Education at all; it is a question for the medical profession, which objects to having a scheme for the provision and execution of medical work settled behind its back or over its head. Of such an attempt the scheme of the London County Council is an example on a wholesale scale, and the disappointment of some practitioners which Dr. Newman suggested was an objection to the statements of the Metropolitan Branch is on the proverbial scale of the gnat and the camel, when compared to the injury done to the public and the profession by the London scheme provisionally approved (for a year) by the Board of Education.

Dr. Newman, further, seemed to assume that the scheme of the London County Council consisted of three parts—namely, the resort to hospitals willing to receive a subsidy, the resort to other hospitals which did not demand a subsidy, and school clinics. But as a matter of fact the report of the subcommittee (already mentioned) of the London Education Committee, which recommended the establishment of district school clinics, was rejected by the County Council in favour of the opportunist charitable institutions scheme, the failure of which was foretold to the authorities and is now apparent. The scheme of district school clinics staffed by the local practitioners is really the scheme of the medical profession, as represented by the British Medical Association. The principle with necessary modifications would appear to be perfectly applicable to all populous places; London is a particular case, and the Metropolitan Counties Branch is setting a valuable example by its active protests to the staffs and committees of the London hospitals during the past year, and by the specific organizations established in Hampstead and Wandsworth, and about to come into existence at Norwood and Woolwich. The fundamental principle of the Association has been first to ascertain by a general meeting of the profession in the district what are the local requirements, and what are the views of the profession in the locality; when this has been done, it is found that all the difficulties disappear. The profession has shown itself most ready and willing to organize an adequate system, but it claims the right to organize it in the best way, and equally declines to accept a scheme or schemes thrust upon it from outside.

The scheme of the London County Council has already broken down in the attempt to deal with a very small part of the work which must be done. We can only regret that it has received the sanction of the Board of Education even as a temporary measure, and even for the short period of twelve months. It is true that the Board, in the letter quoted by Mr. Selby-Bigge, explains that it has only sanctioned it with the view of ascertaining how far the proposal embodies, or may be regarded as leading up to, a scheme for attending to the health and physical condition of school children which will be effective, adequate, and economical. The Board has promised to endeavour to form a considered opinion upon the question whether the arrangement is suitable with or without modification for continuation after the experimental period of one year. We submit that the proposal contains none of the principles of an adequate scheme, and cannot lead up to the evolution of such a scheme.

TEACHING, EXAMINATION, AND RESEARCH.

IN recent discussions as to the relative prosperity of English and German workers, as to tariffs, and as to the nutritive and economic value of white and black bread, we heard too much of political nostrums, and too little from those who recognize that success depends on research and method, on training and application of intellect. The whole economic history of Germany has been changed by "blood and iron," not, however, in the Bismarckian sense, but by the discovery in 1878 by the British inventor, Mr. Sidney Thomas, of a method of utilizing phosphoric iron ore—a method which made the German iron industry by bringing into use the enormous German deposits of phosphoric ores, and so established Germany as a great manufacturing nation. National wealth and prosperity may be modified in a positive or negative sense by a system of tariffs, but cannot be won thereby, any more than health can be secured by the taking of pick-me-ups and tonics. Wisdom in living and working is the basis of the health of the nation as of the individual, and the ability to live and work depends on the industrial wealth of the land and on the inherited racial qualities of the stock. In the invention of new dyes and synthetic drugs, in the making of microscopes and scientific instruments, the Germans have excelled because their Government has established an admirable system of national education, and because their manufacturers have had the foresight to employ in their works regiments of research physicists and chemists.

We reproduce elsewhere some extracts giving the pinions of Professor H. Armstrong and Sir William amsay on research chemists, because the principle y which they are inspired has a very direct applica- ion to medical education. The opinions of these two xperienced teachers and eminent men of science ould, we believe, be echoed by every leader of cientific research, and by all men of open and enerous mind who recognize that the aim of educa- ion is the formation of character and intellect. In nedical education, how much better off than British re German students and professors! The student nters his university after passing a school-leaving xamination, and in possession of the excellent train- ng given by his gymnasium. He works at his reliminary and intermediate sciences, and passes an ral and written examination in each science con- lucted by the professor of that science. He has to atisfy each professor that he has adequately studied his subject. There is no cramming up three or four subjects at one time, no appearance before outside examiners who know nothing of the student's tem- perament, character, or devotion to work; no element of lottery or chance in his success, no payment of heavy fines in examination fees, no sinking of the teaching down to one cram level. The professor's influence and enthusiasm are left to mould the character and mind of his students. The student is not forced to learn in a superficial and parrot-like manner in order to fulfil the conventional amount of information put in textbooks and required by examiners, but may be trained in honesty and integrity of work. A physiologist at one of the London schools of medicine told us the other day how at a lecture on glycosuria he prepared demon- strations of the qualitative and quantitative tests for sugar, and put up the polarimeter, with lamp and test solutions all ready on the lecture table. Not a single "conjoint" student took the trouble to stay behind and look through the polarimeter; "it did not pay" for the examination in view. The pathologist on the same occasion told us how he had cut an extra series of sections of a malignant pustule which showed the advancing lines of anthrax bacilli and leucocytes in a wonderfully striking manner. Of his class not one took the trouble to mount a specimen; they either thought they were not likely to be asked to "spot" such a section in their examination, or, more probably, they had become so overwhelmed by the names of textbook stuff that they no longer could appreciate, or have enthusiasm for, the best their teacher could give them. The teaching in our schools is lowered to the level of "Does it pay in the exam.?" The question, "Does it make me a wiser man and a better doctor?" cannot with such system be kept in view. If the student were responsible to his teacher, and had to satisfy him by his attendance and by the honesty and care shown in his daily work, he would be far more likely to cultivate a lifelong love of learning and to acquire the essential training in scientific method which the practice of his profession requires. Here is the training which a distinguished railway engineer told us he had passed through from the age of 16 to 21. He spent his daytime in the workshops of Crewe, attending at 6 a.m., and working at the theoretical side of his profession in the Technical Institute from 7 to 10 p.m. He next spent a year firing on an engine, "the best part of his whole training," next two years in the drawing office, and then he was put in charge of wagon works and given the control of the work of testing material. At 25, by a competitive examination against sixty others, he gained the position of assistant locomotive manager in a great Indian railway, and was given control over 6,000 men. Finally, he was made a member of the Institute of Civil Engineers on the merit of his original work.

In such a training the practical side of the profession from the start impels the student, if there is work and character in him, to strive to master not only the technique but the theory and mathematics of his craft. In medicine our students, at the beginning of their career, become the sport of biologists who are not medical men, who use them as the flotsam and jetsam of their seas of learning and oceans of theories; they are taught by physicists who know nothing of the physics required in physiology and practical medicine, and by chemists whose interest does not lie in the problems of physiological and pathological chemistry. The University of London, it is true, has lately tried to establish syllabuses which direct the biology, physics, and chemistry towards the ends of practical medicine. But this is not enough. Biology as taught by non-medical biologists must go. All the biology a student wants can be given him in his physiological and anatomical courses, and in the study of parasitology and helminthology under the patho- logist. Chemistry in the future must be taught by the physiological chemist, and physics by the physio- logical physicist, by medical men who have gone through the whole training and know the needs and aims of practical medicine.

There is, we understand, a movement now in Paris for the abolition of what is called biology from the curriculum, and this is the most imme- diate and urgent reform needed here. We believe that, like our engineer, the medical student should start with some practical work in hospital or in working-class practice, where he would learn the nature of the human and scientific facts and difficulties with which it will be his life's work to grapple. His interest being thus fired, he should go to the scientists to be trained. He should work at physics, chemistry, anatomy and physiology, and at the same time see what clinical work and methods mean, learning why he is required to study the sciences, and how a practical acquaintance with them will help to a comprehension of the nature and treat- ment of disease. The chemistry should be knit together with physiological and pathological chemistry and pharmacology, the physics with experimental phy- siology and instruments of clinical investigation, the anatomy with surgery. In anatomy great reform is needed, for the size of the present textbooks and the mass of useless detail required has reached the limit of pedagogic absurdity.

Great reforms are wanted, and none of them can come about until the teacher is made responsible for his students, until the crammer is done away with, and the student has to qualify by daily work adequately done, not by the lottery of a fifteen minutes' viva voce, and the successful "spotting" of questions. The teachers in the London schools are cursed by the number of examinations for which they have to prepare their students—for the many examinations of the Conjoint Board, for the Fellowship of the College of Surgeons, for the M.B. of London. Proper and thorough teaching is at present inevitably sacrificed to cram courses, and energy and time which might be devoted to practical training and research are wasted in most lamentable fashion. If the two Colleges, acting with or without the University, can only secure

from the present Commission one course of study and the degree which justice demands for all London students, much will be gained.

INVALIDITY INSURANCE AND A PUBLIC MEDICAL SERVICE.

IT was suggested in the JOURNAL a fortnight ago that the time had come when it might be advisable that the British Medical Association should undertake the development of a centrally organized and directed public medical service, and the Special Poor Law Committee, in conjunction with the Contract Practice Subcommittee, is at the present time considering the principles which should guide the formation of such a service. The matter has become urgent, partly owing to the possibility, if not the probability, of legislation at no distant date establishing compulsory sickness and invalidity insurance, and partly owing to the fact that the Minority proposals of the Poor Law Commission will be discussed when the second reading of the Prevention of Destitution Bill, which embodies them, is moved in the House of Commons.

Sir Henry Burdett, in an address given recently before the Home Hospitals Association, has outlined a scheme for a system of co-operation between medical agencies—public, charitable, and provident—which may be taken as the complement of the other suggestion. Looking at the matter as it will affect the interests of the medical profession, it is of paramount importance that in whatever way the co-operative scheme suggested may be organized, negotiations should not be left to be conducted between the State or lay organizations, on the one hand, and individual medical men on the other. The individual would in most cases be pretty certain to get the worst of the bargain, and we feel bound to repeat that there is a fear that isolated local medical societies are not so uniformly strong as to be able to hold their own and to prevent exploitation of the profession. Sir Henry Burdett argues that the free medical relief which the proposals of the Minority Commissioners would entail would undermine and destroy all provident medical clubs and institutions. If that simply meant the destruction of the present ordinary club practice, it would be the best thing that could happen both for the public and the profession, but the Minority proposals would go much further; they are practically incompatible with any form of provident medical service, and it was probably for this reason that the Minority Report declared against any scheme of sickness and invalidity insurance. It is, of course, impossible to compute what the cost of the Minority scheme for a State medical service would be, but the estimate of £15,000,000 a year adopted by Sir Henry Burdett does not appear to be too high. In Germany the cost of sickness and invalidity under the insurance systems, not reckoning old age pensions, and, of course, taking no account of accident compensation, is well over this estimate, in forming which paupers and all whose income is over £100 a year are excluded. Even a slight study of the German statistics must convince anyone that the Minority scheme would entail a burden on the taxpayers and ratepayers so heavy as to be intolerable, for in all probability the proportion of the cost of treatment that would be recovered would be a very small, in fact an almost negligible, quantity.

In an article on the German system of insurance published elsewhere (p. 818) attention is drawn to the wide range of the prophylactic measures undertaken by the invalidity insurance organization. The administration is to a large extent under State management and supervision; everything is done to prevent the undermining of self-providence such as would inevitably follow the realization of the proposals of the Minority Report. In Germany the total cost of invalidity insurance to the State is far less than the expenditure on old age pensions in the United Kingdom. There can indeed be little doubt that with modifications to suit British conditions, and with others shown by German experience to be advisable, some similar system of compulsory State-controlled invalidity insurance would meet all the best requirements of the Minority Commissioners, and would furnish the machinery adequate to secure the co-operation between all medical agencies which is so absolutely necessary to prevent the present wasteful overlapping. Sir Henry Burdett, who has a very extensive experience of hospital administration, agrees with the recommendation that the present out-patient departments of charitable hospitals should be abolished except for casualties and consultations and perhaps, we might add, for cases needing special equipment, which only a large hospital could provide. The hurried treatment given in crowded out-patient departments under the present system is often from a medical standpoint a snare and a delusion, and the way in which the charitable are gulled by the figures advertised by many of the hospitals of the number of patients treated in the out-patient departments does not speak well for the perspicacity of the public and is a reflection on the hospital managers, who profess that they are compelled to resort to this method to attract donations. Though Sir Henry Burdett is opposed to complete municipalization of hospitals and holds that it is "important that we should maintain the voluntary system of hospital support," he at the same time advocates a measure of State aid or State grants to the voluntary hospitals for building purposes and for providing pavilions for paying patients. The burden thus imposed on the State would not be great if the work were done through an insurance department, as it is to a large extent in Germany, and the flow of charitable contributions would not be arrested, as would certainly happen if the hospitals were municipalized. Nothing could possibly be worse than the present system, by which many municipal corporations give a very small donation and expect a very big return in the way of medical assistance to the citizens; the greater part of the return thus demanded is rendered by medical men who are paid nothing for their services. Nor could anything be imagined more demoralizing than the subservience of many hospitals to the heads of large business firms, who in return for a few guineas a year expect that all their workpeople shall receive free treatment for casualties and even in the wards of the hospitals, and who, as not rarely happens, threaten to withhold their donations if such treatment be not given.

The greatest difficulty in bringing about the desired co-operation will probably be with the lay boards of management. Any State aid or assistance from a State insurance department will rightly involve some measure of State control or supervision of the management. It ought to be a requirement that hospital abuse by the well-to-do should be prevented; and that while every case of accident or sudden illness occurring in public places should receive first aid, all who

n afford to pay for adequate treatment should be ferred to private practitioners or to a provident edical service such as might be brought into being connexion with a large scheme of insurance, which l the poorer members of the community, not actual upers, should be compelled to join.

Whatever may be thought of the provident dis- nsary scheme and the voluntary aid committees of ie Majority Report—and we should be the first to cknowledge that they have some serious defects—the ountry will not long tolerate the present state of ffairs. The parlous condition of general hospital inds will sooner or later, and sooner rather than later, ompel boards of management to accept State control n return for State assistance on any terms that the tate chooses to impose; no Government could long esist the strong case made out by the Majority eport for a proper co-ordination of all existing nethods of medical relief, on principles that take full ccount of provident agencies as well as of public and haritable agencies. The organization under the uspices of the British Medical Association of a entrally directed medical service would be a step n the right direction, and would very materially ssist in the realization of the system of co-operation on the need for which Sir Henry Burdett insists.

A BISHOP ON VIVISECTION.

SOME antivivisectionists have lately been bestowing their attention on the members of the clergy who are sufficiently enlightened to appreciate the value of scientific experiment and the missionary work on its behalf done by the Research Defence Society. No more striking example of the philozoic infatuation which learns and forgets nothing could be found than the correspondence between Dr. Frodsham, Bishop of North Queensland, and Mr. Alfred S. Hewlett, Chairman of the Church Antivivisection League, which is published in the *Times* of March 30th. Mr. Hewlett tells the bishop that "the faith of very many men and women is being fatally tried by the contemplation of the rulers of the Christian Church, those whom (*sic*) they feel should be the foremost champions of mercy and kindness, not only countenancing but even helping forward a society whose practice involves the most terrible sufferings to thousands of innocent animals." In proof of this, Mr. Hewlett states that in 1908 "no less than 85,883 experiments were upon animals under certificates exempting the operators from using any anaesthetics at all." Putting aside any question of utility in these "admittedly awful" experiments, Mr. Hewlett goes on to lecture the bishop on the error of his ways, calling the Saviour as a witness against vivisection with the self-opinionated confidence characteristic of a certain type of clerical mind. What must make the thing particularly shocking in this case is that the name of Christ is associated with an untruth. The experiments referred to by Mr. Hewlett (which, by the way, were 85,783, not 85,883, in number) are distinctly stated to have been "mostly inoculations," a few having been feeding experiments, or the administration of various substances by the mouth or by inhalation, or the abstraction of blood by puncture or simple venesection. "In no instance," says the Report on Experiments on Living Animals during 1908, "has a certificate dispensing with the use anaesthetics been allowed for a serious operation." In the face of this we do not see how Mr. Hewlett can be acquitted of wilful misrepresentation when he speaks of "these admittedly awful experiments." He speaks of Christ having "by His own sacrifice upon the Cross showed to eternity that the principle which animated Him was the sacrifice of the higher being for the lower, the exact opposite of the *raison d'être* of vivisection." Surely this is the very frenzy of philozoism. Pushed to its logical conclusion, Mr. Hewlett's argument would imply not only that Christ died for beasts as well as for men, but that a horse, for instance, should be sacrificed for a tsetse fly. But we leave these questions to theologians. The bishop shows himself well able to take care of himself. He points out that the Research Defence Society was founded "to make known the facts as to experiments on animals, the immense importance to the welfare of mankind of such experiments, and the great saving of human life and health directly attributable to them." He goes on to say that it was the "rhetorical licence" indulged in by antivivisectionists, and the unfair position in which it placed scientific medical men that led him to accept the position of a vice-president of the society. He adds that he lives in a part of the world where men are attacked by diseases the nature of which is obscure, and that since he has identified himself with the study of tropical diseases he has constantly been approached by sufferers asking whether anything more is known about their maladies. The bishop takes occasion to record the fact that he was, as stated in the JOURNAL of March 19th, largely instrumental in founding an Australian Institute of Tropical Medicine. Of this Dr. Frodsham is justly proud. Pushing the point home, the bishop reminds his correspondent that the position taken up by the League is that of men and women living in England, and therefore not subject to tropical diseases. He asks if in these circumstances they are qualified to sit in judgement upon those whose hearts are stirred by the daily sight of little children wasting with diseases like ankylostomiasis and men and women suffering hopelessly from what might be cured by greater knowledge. Dr. Frodsham concludes by saying that he will be sorry if his actions try the faith of the weakest brother, but he declares that he cannot abandon a position which he believes to be right because certain good people whom he thinks swayed by prejudice and error are offended thereby. May we supplement the bishop's *apologia* by the expression of our own opinion that a faith which is "fatally tried" by the fact that a "ruler of the Christian Church" prefers the welfare of human beings to the comfort of a few animals, must, indeed, be a frail thing. It is, as Rousseau said of cloistered virtue, a thing not worth keeping. For ourselves, we should think the faith of most people more likely to be tried by the readiness to bear false witness against their neighbours displayed by clergymen who preach charity to beasts rather than to men.

MEDICAL EDUCATION IN THE UNITED STATES.

IT is clear from the latest volume of the *Transactions of the Association of American Medical Colleges* that there is a close analogy between the questions chiefly agitating persons interested in the promotion of sound medical education in the United States and in this country, namely, what degree of general education is essential to a medical student and how much professional education can be got into a curriculum of a stated length. There, too, as here, the preliminary sciences seem the chief stumbling-block. Nevertheless, the external differences are very considerable In America even a B.A. degree, it is said, often means "training which is of no account whatever except in the locality in which it is received, and very little there"; while in medical matters every State is a law

unto itself, and in none is there anything on all-fours with the General Medical Council in this country. The Association of American Medical Colleges is a voluntary organization which only co-opts those whose equipment and requirements are deemed of sufficiently high standard. About 40 per cent. of all medical schools in the United States belong to it, and few of the remainder would, it is considered, be eligible for admission should they apply. The minimum requirements are a certificate of not less than four years' education in a high school, followed by a four years' professional curriculum. Some schools, though little content with present conditions, are unwilling that there should be any alteration lest medical students should be tempted to enter institutions imposing a very low standard of general and professional education; but the majority seem to admit that either a better general education must be exacted or the professional curriculum lengthened, or both. The suggestions for improvement are various. One is that no student shall be admitted to an associated college unless he holds a degree in arts; a second that every student besides holding a high-school certificate shall show that he has followed a college course for not less than a year. These suggestions are based on the supposition that students may then prove better capable of absorbing the necessary amount of medicine and surgery in the present prescribed period of four years. A third is that a fifth year shall be added to the curriculum and be devoted to the study of the preliminary sciences, chemistry, physics, and biology. It would appear to be clearly recognized in America that the present tendencies of the development of medical and surgical art demand not less but more knowledge of these subjects than formerly; and it seems fairly certain that whatever other steps are taken, an endeavour will be made to secure this knowledge in students without shortening the time available for anatomy and physiology, and theoretical and clinical medicine and surgery. A further suggestion is that the "Combined course" should be adopted by all medical schools; this was introduced at Columbia University some ten years ago, and is applied not only to medicine but to all the professions. The student, so soon as he has satisfied the authorities in certain compulsory subjects of general education as commonly carried on at universities, is allowed to specialize in any direction he pleases, and eventually is granted both a degree in arts and a degree in the special study taken up by him. In the case of medical students, the combined course covers six years subsequent to the Sophomore, or second year, during which most students complete the compulsory general subjects. Of these, two years are given up to preliminary sciences, and the rest to ordinary subjects of the medical curriculum.

GERMAN RESEARCH ON TUBERCULOSIS.

THE German Imperial Board of Health has recently issued Part X of its investigations on tuberculosis.[1] In the first article Dr. Weber discusses the danger to man of milk and milk products derived from cows with tuberculous udders. He arrives at the conclusion that such danger as exists is very slight in comparison with the risks of transmitting the disease from man to man in cases of open pulmonary tuberculosis. He has investigated the condition of 360 persons (151 children, 200 adults, and 9 persons whose age was not given) who had all been consuming for a prolonged period unboiled milk or milk products derived from cows suffering from tuberculosis of the udder; but in only two families could infection with *Perlsucht* bacilli be demonstrated with certainty. In ea of these cases the youngest child had tuberculos of the cervical glands, whilst the other membe of the two families were healthy, although in th habit of consuming raw milk. Dr. Dieterlen writ on the bacteriological characteristics of the tuberc bacilli found in the sputum of phthisical patient After reviewing the literature, which shows tha tubercle bacilli either definitely bovine in type intermediate between the bovine and human type have occasionally been discovered in human sputun he relates his own investigations. He examined th sputums from 50 cases of early phthisis occurring i patients at ages varying from 17 to 51 years. In ever instance he found that the infective tubercle bacillu was of the human type. Drs. Weber and Titze cal attention to the work of numerous investigators whic shows that experimental infection with tubercl bacilli can be produced much more readily b feeding than by inhalation. As this fact had beer clearly established for guinea-pigs, rabbits, and dogs while precise comparative experiments had not beer performed on cattle, they instituted a series of inhala tion and feeding experiments on calves, using measured doses of bacilli. These experiments yielded the following result: "For infection of a bovine by feeding a dose of at least 10 mg. of *Perlsucht* bacilli is necessary, whereas infection through inhalation was established with one-thousandth part of this dose—namely, 0·01 mg. of bacilli." Drs. Weber, Titze, and Jörn report on protective inoculations as a means of immunizing cattle against tuberculosis. Upon the practical utility of vaccination they are not yet prepared to pronounce a final opinion, but they think that one point has already been made clear: it is impossible to rely on protective inoculation alone if we want to gain the mastery over tuberculosis; preventive measures of segregation and protection against contamination must also be adopted. But these additional requirements nullify the main advantage which was claimed for vaccination—namely, the possibility of eradicating tuberculosis without the permanent separation of the newly-born from the old stock, without the necessity for feeding on sterilized milk, and without the expensive procedure of slaughtering animals clinically tuberculous, or of eliminating all those that react to the tuberculin test. Comparing tuberculins derived from different varieties of tubercle bacilli, Drs. Weber and Dieterlen find that for diagnostic purposes there is no difference between tuberculin prepared from human bacilli and tuberculin prepared from bovine bacilli, provided that the same strength of tuberculin is used in each case.

[1] Sonderabdruck aus *Tuberkulose-Arbeiten aus dem kaiserlichen Gesundheitsamte.* 10 Heft. 1910. Berlin: J. Springer. (Imp. 8vo, pp. 233.)

PROFESSOR CHITTENDEN'S EXPERIMENTS.

A VERY trenchant criticism of Professor Chittenden's work, more especially with regard to his observations on the squad of soldiers, thirteen of whom went through an experiment which lasted six months, is published in the February number of the *North American Review* by Charles E. Woodruff. The results of this experiment were summarized in the JOURNAL at the time.[1] It appeared that at the end of the time the men had improved in every respect, although in a few there had been some loss of weight if the man had been somewhat fat at the start. Mr. Woodruff, in the course of his article, which is a somewhat violent diatribe against what he calls "nitrogen starvation," claims to have interviewed these men, and gives a direct denial to Professor Chittenden's statements. He writes: "One said that he felt badly throughout the test, and that his health

[1] February 17th, 1906, p. 399.

and strength improved immediately on stopping it, and that he did not continue the low diet. The second lost 12 lb. during the test and was always hungry, but he regained his normal weight as soon as he returned to normal diet. The third thought he received some benefit, but he returned to normal diet and normal weight. The fourth said his nervous system was permanently damaged; he continued the diet three months, but stopped it because he became weak, nervous, and dizzy, and had frontal headaches. He lost weight, but upon return to normal diet he regained weight and lost his abnormal symptoms. The fifth did not find the diet beneficial in any way, and it was unsatisfying, although he was not damaged so far as he knew. The sixth and seventh merely stated that they did not continue the diet and were in excellent health. The eighth was so impressed with the harmfulness of the diet that he believed he would have died had he continued it. The ninth continued the diet and was in good condition. Surely this is a record to deter other experimenters in the line of starving human beings." Woodruff also publishes the statement of one of the men who declares that with perhaps one exception the men did not keep to the diet, and that "towards the end the men became so weak that the exercises early exhausted them and sometimes many of them were hardly able to reach their quarters." We have no doubt that Professor Chittenden will make an answer to these allegations, but in the meanwhile we may say that the article does not convey the impression of being accurate or trustworthy; it is written in far too violent a style, and the writer's argument is mainly based on the now discredited physiological theory of Liebig that nitrogen is the only food which can supply muscular waste, for, comparing man to a steamship, he says: "The ship is built of many things, but the basis of all is the element iron; for growth and repair iron is to the ship what nitrogen is to man." Further on he says: "In India there is still an opinion that abscess of the liver is due to overeating, but it is now known to be due to infections, and that the well-fed nitrogen-eaters are less liable to it than the starved,"—a statement which, apart altogether from the question of what is the true etiology of abscess of the liver, is entirely at variance with military statistics, which show that whereas dysentery is much more prevalent in the native army than in the European army, abscess of the liver is much more common in the latter. He repeats the kind of statement we have heard too much of on the political platform, that in Germany there is a chronic meat famine, and that horses and dogs are slaughtered to supply the craving of the people for nitrogen. In order, apparently, to meet the undisputed cases of Mr. Fletcher, Professor Chittenden, and his colleagues, Mr. Woodruff admits that "it is surprising the small amount of nitrogen with which old, sedentary men can retain efficiency; but that is another story, for we are here concerned with the danger of insufficient nitrogen until well along in middle life. It has been reported that within a year two college boys have died while subjecting themselves to low nitrogen diet, and in each case the physicians in attendance were of opinion that the lowered vitality from partial nitrogen starvation was the real cause of death. Names and places have been suppressed, as a matter of course, but there does not seem to be any doubt as to the reality of the facts." Whether these facts be true or not, there can be little doubt that up to the period of maturity a larger amount of nitrogen is required than later in life, as was pointed out in our recent article on food and feeding (February 19th); but the question which Professor Chittenden and others have been trying to determine is how much nitrogen is necessary, and the sum of all their numerous experiments goes to prove that 1 gram of proteid per kilo of body weight is a sufficient allowance, so that the Voit standard of 120 grams is excessive for a man weighing 70 kilos (11 st.), although 100 grams would not be too much for a man weighing 100 kilos (15 st. 10 lb).

ALBUMINURIA IN RELATION TO LIFE INSURANCE.

FÜRBRINGER[1] has studied the question of the prognosis of the various forms of albuminuria for many years, and has recently published the results of his investigations, which are based on the work of others as well as his own. He deals with each form of albuminuria separately. He distinguishes orthotic albuminuria sharply from physiological albuminuria and chronic intermittent albuminuria. Physiological albuminuria, he says, is a harmless condition, but care must be taken to exclude early forms of contracted kidney before recommending a person in whose urine albumen appears after severe exercise for life insurance as a first-class life. Orthotic albuminuria, which recently has often been termed lordotic, in its pure forms has also a favourable prognosis. Heubner has demonstrated that the kidney of a patient suffering from this form shows no pathological changes which can account for the passage of albumen, while Jehle was able to show that in some cases the amount of albumen might be temporarily large, and accompanied by epithelial and granular casts, leucocytes, and red blood cells. These facts, Fürbringer argues, indicate that this form of albuminuria must depend on evanescent renal disturbances. Experience has shown that while a considerable number of these patients lose the albuminuria altogether, this does not always happen, and in summing up his conclusion he advises the rejection of orthotic cases for life insurance purposes, as long as any albuminuria can be detected. Proper treatment frequently gives satisfactory results, and it is fairer and wiser to refer persons applying for a policy to their medical practitioner for a time, and to re-examine them at a later date, when they may be accepted. In chronic intermittent albuminuria, with little albumen and long free intervals, the prognosis is good, while cases with high albumen values, casts, and blood must be included in the category of nephritis. Fürbringer next turns to what is termed mild chronic or superficial nephritis, cases included in the group spoken of by von Noorden as benign albuminuria following on acute nephritis. It is difficult to separate this form from the senile. The condition is described as being characterized by an excretion of albuminous urine containing casts and at times some blood. The albuminuria lasts for years, and may be permanent or intermittent, but there are no constitutional symptoms nor does the process appear to progress. The only *post-mortem* observations on this condition so far described were made in a case of Heubner's, in which small round cell and fatty infiltration of the parenchyma was found. Fürbringer considers that it is unnecessary to reject such persons, but in undoubted cases the life should be loaded. The albuminuria of pregnancy is believed by Jehle to be a form of lordotic albuminuria; it does not always disappear after delivery, and in making a prognosis from the point of view of life insurance, it is necessary to remember the possible connexion with eclampsia. The prognosis of albuminuria connected with metabolic and infective diseases, including the so-called congestion albuminuria, should each be considered according to the circumstances of the case. It is

[1] *Deut. med. Woch.*, November 25th, 1909.

pointed out, however, that even albuminuria dependent on toxic absorption from the gastro-intestinal canal may justify a bad prognosis. Chronic constipation may also lead to albuminuria with or without casts. Mention is made of a form of albuminuria which follows palpation of the kidneys. Traumatic albuminuria may closely simulate a spontaneous nephritis, and if it does not terminate fatally in the acute stage, usually clears up altogether. On the other hand, it must be remembered that trauma may adversely affect an existing nephritis. In conclusion, Fürbringer warns the examiner not to refuse a case without allowing a whole year for the determination of the question whether the albuminuria is really chronic.

THE COLOUR FIELDS IN CEREBRAL TUMOUR.

THE diagnosis of cerebral tumour at an early stage is so often obscure that any new diagnostic method is welcome. It is apt to be assumed that the course of these cases is acute, and that unmistakable signs of headache, vomiting, and optic neuritis are rapidly produced. Such is not the case. These neoplasms may run a course measured by years rather than by months, and it is disconcerting that almost every patient brought for operation after the diagnosis of cerebral tumour has been made by the ophthalmoscope, has at one time or other been regarded as hysterical or the victim of some psychoneurosis. According to Parinaud, hysterical amblyopia was recognized early in the seventeenth century, when it was clearly described by Charles Safois. Graefe in 1865 regarded it as a true anaesthesia of the retina, and a few years later Charcot and Labor pronounced the so-called functional defects of vision cerebral rather than retinal lesions. Like Galezowski they associated dyschromatopsia (reversal of the colour fields) with hysteria, and this impression holds sway to-day. Two conditions are generally regarded as pathognomonic of hysteria—concentric contraction of the field and partial or complete colour reversal, the red field being found outside the blue instead of inside it. Granted that these changes are characteristic of hysteria, it appears from the researches of Bordley and Cushing [1] that they are no less so of cerebral growths. These authors, who began to make conjoint observations of brain tumours in 1902, have come to look upon colour reversal as a most valuable symptom in an early stage of this disease. They found no definite relationship between the contraction of the field for form and that for colours. Some patients showed a concentric contraction with colour reversal such as Parinaud regards as the "essential sign of hysteria"; but the usual early return of the normal relations after the pressure symptoms have been relieved by operation suffices to controvert the view of their being "hysterical" in the usual application of this term. Another group of cases showed not only concentric contraction of the form fields in association with dyschromatopsia, but likewise peripheral limitation of the fields, relatively greater in the form than in the colour fields; in these cases the red was apt to be less affected than the blue. This condition has been stated to be found in hysteria alone, and in no other condition. There have been other cases in which the contraction for form and colours go hand in hand, with the exception that the blue is almost invariably much more affected than the red. In fact, the prominent feature is the contraction in the blue field, a change which may eventually lead to total blue blindness. This blue blindness is apparently brought about by the formation of peripheral scotomata which gradually coalesce. No scotomata for red and green have been seen. It is interesting to note that, as pointed out by Köllner,[2] red and green blindness are the result of lesions in the nerve-conducting paths; blue blindness results from exudative diseases of the retina affecting the light-perceptive elements. Hence in tabes, multiple sclerosis, diseases which cause lesions in the nerve tracts, we get red and green scotomata, and ultimately blindness. Cushing has in a number of cases observed complete colour blindness. He states that the colour disturbances do not seem to depend upon neuro-retinal oedema because in four of his patients they preceded any appreciable ophthalmoscope changes. We would, however, submit that they do depend upon retinal exudation, and a study of another paper by Köllner on acquired violet blindness[3] will support the view. There may be considerable changes in the retina before they become sufficiently pronounced to be detected by the ophthalmoscope. Cushing failed to find any alteration in the visual fields in six cases of cerebral tumour. His paper, which is a very valuable contribution to the subject, is accompanied by reproduction of the visual fields showing the changes which were found to be most typical. In future it will be essential to investigate the colour fields in all suspicious cases, and it will be advisable not only to use the ordinary perimeter, but also the far more accurate scotometer devised by Bardsley of Salisbury.

[1] *Archives of Ophthalmology*, September, 1909.

HOSPITAL ALMONERS.

THE Hospital Almoners' Council came into existence some two years ago to undertake the task of finding suitable persons to act as hospital almoners, and directing and superintending their training. Its aims and methods are described in detail at page 818. It takes a very high view both of the personal qualities desirable in a hospital almoner or supervisor of the legitimacy of the claims of those who apply to any institution for treatment, and of the preliminary education which the candidate should undergo. It is clear, too, though not expressly so stated, that the council considers that the work should be performed mainly, if not entirely, by women, a point on which nowadays, when women are so commonly employed in not very dissimilar work by health and other authorities, there is unlikely to be much difference of opinion. Where the views of the council might possibly not meet with ready acceptance in some quarters is in respect of the scope of the work which it would have a hospital almoner perform—the desire being apparently that she should not be simply an excluding agent, but one who will do something towards securing that the efforts of the medical staff are not wasted by inability or negligence on the part of patients to pay attention to the advice given. It might be argued that, unless provided with a considerable number of assistants, no hospital almoner could well carry on simultaneously the two duties. If this combination is, however, possible, the results would no doubt be beneficial, and every one will approve the desire of the council that the work of a hospital almoner should lessen the overlapping of effort, and bring about greater co-operation between charitable enterprises of corresponding aims.

POOR LAW REFORM.

IN accordance with the recommendation of the Royal Commission on the Poor Laws and Relief of Distress that the Poor Law Orders which have been issued from time to time by the Poor Law Commissioners, the Poor Law Board, and the Local Government Board should be revised and consolidated, the Presi-

[2] *Zeitschrift für Augenheilkunde*, September, 1908.
[3] *Zeitschrift für Augenheilkunde*, Ergangungs Heft, 1908, and March and April, 1908.

dent of the Local Government Board has appointed a Departmental Committee to assist him in this matter. The Committee consists of Sir S. B. Provis, K.C.B., Mr. J. S. Davy, C.B., Mr. W. T. Jerred, and Mr. Thomas Smith, with Mr. F. L. Turner and Mr. H. W. S. Francis, of the Local Government Board, as joint secretaries. The first work which will be undertaken by the committee is the revision of the orders relating to the administration of outdoor relief. This is work very necessary to be done, and may perhaps be taken as a first step towards realizing the recommendations of the British Medical Association, that a Departmental Committee should be appointed for the consideration of the organization of medical assistance as a separate problem, and specially the co-ordination and systematization of the work of the various agencies now administering medical assistance to persons in sickness.

We regret to record the death on Good Friday of Dr. W. B. Cheadle, consulting physician to St. Mary's Hospital and the Hospital for Sick Children, London.

Medical Notes in Parliament.

[From Our Lobby Correspondent.]

The Water Supplies Protection Bill came on for second reading in the Lords last week; Lord Desborough reminded the House that the bill was read a second time last year but made no further progress. He understood that the Government now took a more favourable view of the measure. Its first principle was that no water company should sink wells or construct works for obtaining a supply unless those wells and works and the sites thereof had been expressly approved by Parliament. The second principle was that compensation should be due to owners of private supplies injured by the abstraction of water for a public supply by means of future works; and the third principle was that districts whence water might be taken and through which it might be conveyed by means of future works should have a right to a share of the water upon terms to be agreed upon or fixed by the Local Government Board. The Earl of Verulam said that experience gained in Hertfordshire of the results of the depletion of local and private sources of water supply as a result of the works of large water companies led him to support the motion. The Earl of Liverpool said that the Government had no objection to the bill being read a second time on the understanding that it would be referred to a committee of both Houses of Parliament to consider the subject generally. The points at issue were of great importance, and it was hoped that the consideration of them by a joint committee would lead to some practical proposals being made with a view to putting matters on a satisfactory footing. The bill was then read a second time and referred to a joint committee.

The Public Health (Provisional Orders) Bill got an unexpected chance of coming on for second reading on Tuesday night, and was moved by Mr. W. Thorne; but Sir F. Banbury wanted an explanation of the objects of the bill, and pointed out the necessity for a thorough explanation of its provisions. He was speaking at 11 o'clock, and so the debate stood adjourned and the chance was lost.

The Public Health Acts Amendment Act, 1907, and Rural Districts.—Last week Colonel Rawson asked the President of the Local Government Board whether, having regard to Section 3 of the Public Health Acts Amendment Act, 1907, the Local Government Board would introduce legislation to repeal Section 19 of the said Act, on the ground that it was not generally applicable to the circumstances of a rural district, or whether the Board had taken or would take any steps to amend the said section so as to make it applicable to the circumstances of a rural district. Mr. John Burns replied that it was not to be inferred from Section 3 of the Public Health Acts Amendment Act, 1907, that every section of that Act was to be regarded as applicable to the circumstances of a rural district, and at the present time he did not see any adequate reason for proposing legislation to amend Section 19 of the Act, as suggested.

The Death Certificates (Charges) Bill, which provides for a reduction in charges for death certificates in certain cases was introduced by Mr. Gill last week, and put down for second reading on April 5th. The bill is backed by Mr. Arthur Henderson, Mr. John Taylor, Mr. Parker, Mr. Shackleton, Mr. Tyson Wilson, and Mr. James Haslam.

The Salary of an Inspector of Nuisances.—On Tuesday last, in answer to Sir Fortescue Flannery, Mr. Burns said that the area of the Tregaron Rural District was 121,545 acres, and the population, according to the last Census, was 7,947. The inspector of nuisances, who was required to devote the whole of his time to his duties, was paid a salary of £50 a year. The appointment had been sanctioned by the Local Government Board. The salary was more than was previously paid to the officer, but he could not say that he regarded it as adequate remuneration for an inspector of nuisances devoting his whole time to his duties.

Anthrax.—Mr. Barnston asked the Parliamentary Secretary to the Board of Agriculture whether, in view of the increase in the outbreaks of anthrax throughout the country, the Board would institute an inquiry as to the best means of exterminating the disease. Sir E. Strachey said that the Board's veterinary officers were continuously engaged in making inquiry as to the causes of the spread of this disease, and as to the measures that could most usefully be taken to control it. The Board was also considering what steps could be taken to bring about a more uniform and efficient method of diagnosis. He did not think that a general inquiry on the subject at the present time would be likely to be attended with any beneficial results.

Hospital Equipment for Territorial Force.—Last week Mr. Haldane stated that the whole question of hospital equipment was under consideration. This was in answer to Lord Valentia, who asked whether a grant could not be made for this object, in view of the fact that on mobilization some county associations were ordered to provide within a week a fully-equipped general hospital, the administrator of which was expected to arrange for having a call upon local tradesmen for hospital equipment, drugs, and surgical appliances besides fittings for a building in which to store them; that the local tradesmen appeared unwilling to set aside the requisite stock owing to the inconvenience, to them of locking up the capital required, and that the county associations were precluded by C. M. 221 from incurring any expenditure on purchase, storage, or other provision for equipment.

The Course of Business.—Now the debate on the Veto resolutions of the Government has begun, it will be continued from day to day, with the exception of the time allotted to private members' bills and motions on Wednesdays and Fridays. Next week the division on going into Committee on the Veto proposals is expected to be taken on Monday, and the debate on the first resolution in Committee will occupy Tuesday and Wednesday. On Wednesday evening there will be a debate on Tariffs raised by a motion of Mr. Hamilton Benn, and on Friday the whole sitting will be occupied by the Prevention of Destitution Bill, which is down for second reading. Mr. Ormsby Gore proposes to move that it be read a second time six months hence.

New South Wales.

[*FROM OUR SPECIAL CORRESPONDENT.*]

SYDNEY.

Chest Development in Boys.

THE New South Wales Branch of the British Science Guild recently appointed a subcommittee, consisting of Dr. G. H. Abbott, Surgeon to the Royal Prince Alfred Hospital, Sydney; Dr. Quaife, a specialist in diseases of the ear, nose, and throat; Mr. John Marden, M.A., LL.D., Principal of the Croydon Ladies' College; and the Rev. C. J. Prescott, M.A., the Principal of Newington College for boys, to report upon the provision of open-air space for school children in Sydney and its suburbs. Its report has just been printed and circulated, and states that the committee investigated a number of points in connexion with the physical development of boys in New South Wales, and compared the results with those of other countries. They found: (1) That the average girth of English boys round the chest at the nipple line is roughly 3.6 in. more than that of boys of New South Wales at 17 years of age. (2) Tasmanian boys have always measured rather more than New South Wales boys round the chest, and at the late age of 16 or 17 years they come to approximate the English average. (3) The chest growth of the New South Wales boy is at all ages much less than that of the Washington boy —namely, at 9 years nearly 1 in., at 10 years more than 1 in., between 13 and 15 years 1½ in. or more. (4) As a result of this, the lung capacity of New South Wales boys averages at all ages much less than that of the American boys, and the deficiency varies from 500 c.cm. at 9 years of age to 625 c.cm. or more at 17 years. The committee found it difficult to give a complete estimate of the causes of this devitalizing condition, the factors at the disposal of the committee being too indeterminate, but offer the suggestion that the habit of the young Australian of leaning against lamp-posts and door-posts, or the difficulty with which he can be got to walk for an outing so long as there is a conveyance to be had, or his inveterate custom of supporting the games of cricket and football by leaning across a fence or resting his manly form upon a shaded bench while he bets upon the odds or barracks more or less enthusiastically, have to be considered in this connexion. Whether these habits are causes or consequences of the anatomical condition it was not possible to say. If consequences, they cannot but react unfavourably while unchecked; if causes, they can be obviated by practice and example directed upon the growing child, especially at its earliest years. The committee, therefore, believing that the tendency of Australian youth towards narrowness of the chest is a serious evil in national life, and that it is capable of being greatly relieved, if not removed, by the encouragement of open-air pastimes, in which the children will be induced to exercise spontaneously their intelligence as well as their physical powers, formulated the following proposition:

> Seeing that the chest development (both in cubical capacity and in girth) among the New South Wales boys and girls is much lower than it ought to be, and than pertains in other civilized communities, and seeing that chest measurement is one of those normalities that are a prominent factor in intellectual strength and mental calibre, it is highly desirable that there should be set apart playing fields for children in every suburb of Sydney. These fields should not be less than 3 acres in extent, and should be laid down with a level sward of grass, without trees, save around the boundaries. On these fields children, free from all adult interference, should be encouraged to play all sorts of games in which running is a necessary part. Around every field there should be laid down a running track where boys might regularly train and indulge in running exercises free from all interference. These children's parks should be established in every part of Sydney and suburbs, if possible by the municipal authorities, and should be under municipal control.

At a meeting of the Executive Council of the Guild subsequent to the reception of this report, the following resolutions were adopted:

1. That the attention of the Government and municip councils be drawn to the supreme importance of pr viding areas specially set apart and adapted for the pu pose of healthy games, it being understood that suc areas should be left bare of trees and flowers, save o borders, and should be provided with running tracks an facilities for cricket, football, lacrosse, basket-ball, an similar games.
2. That as the principle of taxing the unimproved value land is a direct discouragement to schools to provide suc areas, representation should accordingly be made to th Government and to municipal councils to allow som substantial concessions to all bona fide schools providin adequate playgrounds, such playgrounds being, lik parks, really a guaranty of the people's health.

Sydney Hospital.

The report submitted to the annual meeting of th subscribers to the Sydney Hospital, while favourabl as regards the amount of work done and even a regards the financial transactions for the year, calle forth strong remarks from some speakers. Over 3,70 patients passed through the wards in the year, an 3,365 operations were performed. In the out-patien department 18,107 new cases were treated, with 72,34 attendances. The proposal to widen Macquari Street would, the board stated, involve the cutting away of most of the front lawns, the removal of th lodges, the bringing of the street up to the front step and much closer to the wards, but as the alteration appeared to be necessary under the general scheme fo the improvement of the city, the board had not ad vanced any objections; it had, however, made an urgen appeal to the Government for more land along the domain frontage of the hospital grounds—which is o little value—as an equivalent for the very valuable land along Macquarie Street of which it is proposed to resume possession. The financial statement showed that for the year the expenditure had amounted to £28,229 as against £27,623 for the year 1908, showing an increase of £606; but the income amounted to £27,722, as against £23,919 for 1908; this improvement in income, however, resulted from a special grant from the Government of £1,000, a larger donation from the Hospital Saturday Fund of £1,250, and £91 obtained by special appeal to the citizens. In commenting upon the report and the financial statement it was remarked that the list of subscribers was very small, and the response to appeals was nothing like what it should be in a wealthy city like Sydney. Unless the response of the public was more generous than it had been the work of the hospital would have to be circumscribed. The nurses were overworked and improperly accommodated, and the public were implored to augment the funds. Lord Chelmsford, the State Governor, in responding to a vote of thanks for presiding, referred to the financial position specially. He noticed from the report that although the revenue had increase last year, the expenditure had gone up also. But while this expenditure had gone on increasing, and had to be faced by the general public, the subscriptions remained a more or less stationary quantity. The balance sheet showed that the hospital had had a specially favourable year, but special efforts had to be made to bring about this result, and the hospital could not live upon special appeals. Meanwhile it had an overdraft of £11,000 at the bank, which had to be met. The policy of drift was not one that should be followed, and the sooner the committees of the large hospitals met to devise some means of overcoming the difficulty the sooner would a sound policy in regard to this great question be evolved. It was a matter that would have to be faced, and it would be infinitely better to take it in hand without delay rather than evade the question until panic legislation had to be resorted to.

Female Medical Inspector under the Factories and Shops Act.

The Public Service Board of New South Wales has recently appointed a lady graduate in medicine of the Sydney University as an inspector under the Factories and Shops Act. Shortly after the Act was passed in 1896 a woman inspector was appointed, and now a second woman inspector—a qualified medical woman—has been appointed. This appointment is a sign of the

growth of the industrial side of the city. At the end of 1897, after the first year's experimental working of the Act, the number of female workers in the city was 7,009. Now, twelve years later, the number of female workers is 201,725. The conditions for women workers in the city have been much improved during the past twelve years, and factory owners find that it pays in the long run to set their hands to work amid pleasant surroundings and favourable conditions. While the responsibility of guarding dangerous machinery and the prosecution for breaches of the law are left in the main to male inspectors, the woman inspector has an abundance of important work. As regards the general laws of health, it is her part to see that in all factories and workrooms where women are employed there is a sufficient amount of air space for each worker, that the rooms have proper ventilation, good sanitary arrangements, that they are kept clean and regularly limewashed, and that the health of the employee is safeguarded in various ways. She has to see that employees receive the proper amount of overtime money, tea allowance, etc., also that overtime does not exceed thirty nights in the year, and that no one is employed in workroom or factory who does not receive the sum of four shillings weekly. All employers are compelled to keep record sheets open for examination at any time by the inspector. No one must employ a child under 14 years of age without a special permit, and no one under 16 years can be employed in a dangerous class of factory without a medical certificate of fitness. Women workers must be provided with seating accommodation, also with a dressing room, where they can change their outdoor for indoor dress. The hours of labour must be strictly observed, and a proper length of time allowed for meals.

Women Graduates in Medicine in Sydney.

At the examinations held last December at the Sydney University for the degrees of M.B. and Ch.M. three women graduated with first-class honours in medicine and surgery, one with second-class honours, and one with credit. Altogether seven women obtained degrees in medicine and surgery. In consequence of the high position obtained by these ladies, they had first claim on the resident appointments at the Sydney and Royal Prince Alfred Hospitals, and they are now actively engaged in the discharge of their duties in these offices. So far they have done admirably from all accounts, and perhaps our Manchester friends, who appear to have taken such a decided stand in opposition to the principle of women residents, would like to learn in twelve months the result of our experience here. On previous occasions we have had women residents, and no exception has been taken to them.

Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

PRESENTATION TO PROFESSOR OGSTON.

THE committee in charge of the presentation portraits of Professor Ogston request intending contributors to forward their subscriptions at an early date to the Honorary Secretary, Dr. Mackenzie Booth, 1, Carden Place, Aberdeen.

EGYPTIAN EXPLORATION.

In an address on recent excavations in Egypt delivered in the Royal Scottish Museum, Edinburgh, Professor Flinders Petrie, explaining the general arrangements of the work in Eygpt, said that Memphis was by far the most important site in the country; it had been neglected hitherto owing to the great difficulties and expense of working it, a large part being under cultivation. Last year, when a beginning was made, £1,000 was spent in direct wages, but compared with what was to be done that was a mere drop in the bucket. The chief result was the finding of the great palaces of Memphis, one on top of the other. Last winter work had been carried on in the northern end of the great cemetery of Thebes. Five or six acres of soil were very carefully turned over, and only one single burial found, but that repaid them for the whole. It was, he thought, the finest single group anywhere in the world. Besides the gold work there were the personal belongings of the lady buried there—the headdress and toilet, alabaster vases, and the food that was buried with her—dates, raisins, bread—the whole personal belongings of a high-class Egyptian. Then there was a unique series of vases in their networks. There was also the funeral furniture buried with the body—the stool on which she had always sat, with one corner worn by use, and the little footstools. These were the things in daily use about 1600 B.C., and were particularly interesting as illustrating the actual life of the people and the things in constant use which served as the regular surroundings of the family life of the time. Professor Petrie afterwards showed a series of limelight views illustrative of the results of the excavations at Memphis. The palace was 400 ft. long and half as wide, and was preserved to 10 ft. or 15 ft. high. A large part of the work had been devoted to the temple of Merenptah in the foreign quarter. The capitals were of the style of the fifth dynasty, and formed of the buds of the rose lotus, a type not found before, and only known from scenes in relief. Another temple of Merenptah had also been found; four whole columns stood upright. The temple of Ptah had also been worked, but mainly to exhaust the chances in some ground before using it to dump upon in future excavations. The building of Si-amen had yielded inscriptions of Osorkon; but, as fragments of much earlier work were found, the clearance awaited some deep pumping at the end of a season. The pottery models of heads of foreigners had again been found this year; Karian, Spaniard or Sardinian, and Bactrian could be identified, also many varieties of Greeks and many other races.

Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

MEDICAL EDUCATION.

THE subject of medical education has received a good deal of attention this year in Dublin, and already two interesting papers dealing with the curriculum have appeared in the *Dublin Medical Journal*, while others, we understand, are in process of preparation. Amongst the schools, the College of Surgeons appears to be the only one so far to have embarked upon any formal discussion of the matter, and to help the college in its deliberations a scheme has been promulgated by its Professor of Anatomy, Dr. Geddes. This scheme is ambitious and contains suggestions not only in relation to the medical curriculum, but also as to how professors should be controlled and, if necessary, made to work. The ideals that should be aimed at in medical teaching are also clearly and dogmatically stated, and a contrast drawn between the aims of the professorial and clinical teachers. Some of the suggestions made by Professor Geddes are interesting; the duties which it would fall to the lot of the professor of anatomy and his assistants to perform are multifarious, for they would include biology, histology, ordinary anatomy—including a fifty hours' course in embryology—and operative surgery, while, if we mistake not, he should be expected also to endeavour to give his pupils an understanding of the facts of life, and possibly a little knowledge of physiology. As a help towards the attainment of these objects Professor Geddes believes in weekly class examinations and making the class work of each student count towards his pass in the final examination in each subject. The physiologist, in addition to his ordinary work, is to teach the student the use of such clinical instruments as the stethoscope and ophthalmoscope. After this preparation the student is to commence in his third year the study of pathology and his hospital work. All systematic lectures in medicine, surgery, and midwifery should, Professor Geddes believes, be

abolished, because they serve no real purpose and absorb time; he would substitute a system of medical and other tutorships; the tutors would examine and question students in the schools on clinical records of cases examined by them, but which, under the system in vogue in Dublin, the tutors would not themselves have seen. In regard to the subsidiary subjects he believes that a great deal of what is called materia medica is obsolete; the therapeutical part could be covered in the class of practical physiology by the professor of physiology, while most of the remainder should be learnt practically in a dispensary. Public health work should fall to the lot of the pathologist, but sanitation and forensic medicine should be dealt with in a separate three months' course. This brief outline gives only a sketch of the important alterations proposed. Its distinguished author is, we believe, quite serious in his suggestions, but the College of Surgeons will probably hesitate long before adopting a scheme which would dissociate the teaching of operative surgery from all contact with clinical work and which would throw into the hands of the physiologist the teaching of therapeutics and the application of clinical instruments.

England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

MANCHESTER AND DISTRICT.

The Ancoats Hospital.

The board of management of the Ancoats Hospital has just issued a special appeal in the form of a pamphlet, well printed and illustrated. The work of the institution, founded in 1828 as the Ardwick and Ancoats Dispensary, steadily increased until in 1885 the building was enlarged and in-patients were provided for. Since then further extensions have been made, and though the board claims to have pursued a course of the most rigid economy, the financial position has steadily grown worse until there is to-day a debt of nearly £8,000 owing to the bank. In 1909 no less than 21,351 accidents were treated, which is an average of 58 fresh cases every day, but during that year the hospital did not receive a single legacy. This is a notable fact, and as the board points out, it seems to prove that although the hospital is placed in the very spot where it is most needed, it is in a district not often visited, and therefore seldom seen, by those who generously give to the support of charitable institutions. The district is without doubt one of the poorest in the city, and there are no rich people living in it now. The removal of the Royal Infirmary to Oxford Road in December, 1908, has had, as was foreseen, the result of causing many serious and urgent cases which would have gone to the old infirmary to be taken to the Ancoats Hospital. This is well shown by the fact that the number of casualty cases has risen during the past year from 14,595 to 21,351. The patients come from all parts of Manchester, and the board claims that it makes a rule of inquiring into the social position of all the patients, and finds that no more than 2 per cent. are able to contribute more than a few pence to the funds. In connexion with the hospital is the Ancoats Convalescent Home at Warford, near Alderley, splendidly situated and well equipped, and with a committee of ladies who are of the greatest assistance. The 136 beds in the hospital and the convalescent home are all occupied, and there are always cases waiting for admission. It is claimed that the *x*-ray and electrical department is perhaps the most complete in the city, while the clinical laboratory and the bacteriological department make the hospital in every way efficient and up to date. The board of management states that to put the finances on a sound footing, in addition to an increased subscription list of £1,200 a year, £20,000 at least is required to repay the debt to the bank and to consolidate the endowment fund.

Hope Hospital.

As was announced in this column on February 26th, the warning notice about Hope Hospital which had been appearing for the previous seven months was then withdrawn, as the Board of Guardians had conceded all the claims of the Salford Division. On three previous occasions when the guardians had advertised in the public press the post of resident assistant medical officer there had been no candidates forthcoming, but no sooner was the warning notice withdrawn than the guardians had a fair number of applicants both for the post of medical superintendent and the two posts of assistant medical officers. Mr. J. Hindshaw, M.B., Ch.B., surgeon of the Ebbw Vale Cottage Hospital, and late senior resident medical officer to the Bagthorpe Infirmary, Nottingham, was appointed medical superintendent, and the two assistant medical officers appointed were Mr. F. M. Boag, M.B., Ch.B., who has been acting as locumtenent at the hospital, and Mr. K. K. Grieve, M.B., Ch.B. A few days before the board met for the appointment the *Daily Dispatch*, in a short article, made the very innocent remark that a settlement of the dispute had been arrived at as an outcome of negotiations with the British Medical Association. This apparently touched the dignity of the chairman of the hospital committee, who denied in the board meeting that there had been negotiations with the British Medical Association, and he asserted that all the communications received from the British Medical Association had been placed in the wastepaper basket as material of no use to the board. Another guardian protested against the assertion of the chairman of the hospital committee that there was not a scintilla of truth in the statement of the *Daily Dispatch*, and pointed out that when the guardians learnt of the withdrawal of the warning notice, which was notified to the Clerk to the Guardians by the Honorary Secretary of the Salford Division, they sent a fresh advertisement which was then accepted by the British Medical Journal, and as a consequence they had been able to obtain candidates which they could not obtain before. It is perfectly true, though it is by no means to the credit of the guardians, that they persistently refused any information to the Salford Division as to their intentions, and the Division has been compelled to make known its demands through the public press. But the chairman of the hospital committee has on several occasions himself replied in the press to these demands, and it is known on the best authority that the opinions of the Division have been fully discussed by the hospital committee. One member of the board claimed that the guardians would have made the present arrangements in any case, but two facts are sufficient to show what probability there is in this statement: first, the fact that after the chairman had very severely criticized and rejected the claims of the Division, the guardians again advertised in the daily press for an assistant medical officer on the terms which the Division disapproved; and, secondly, that only when the guardians were quite unable to obtain candidates did they alter the terms and accept in every particular what the Division had asked for from the very first. This ought to be quite sufficient evidence as to what would have happened if the Division had not persisted in its claims. It is matter for regret that this explanation should have been necessary, as the Division has not the slightest desire to make any public boast of what has been done; but the intentionally insulting remarks of the chairman of the hospital committee, which were reported in the press, were, by suppressing the essential facts of the case, calculated to mislead the public, though it is perfectly evident that the editor of the *Daily Dispatch* fully understands the situation.

LIVERPOOL.

Treatment of School Children.

The annual report of the Stanley Hospital, the forty-third since its foundation, shows a steady advance in the work done. A new *x*-ray apparatus has been

installed, and the president, Sir Percy Bates, has generously undertaken to provide the salary of a pathologist for two years at his own expense. At the annual meeting the question of the treatment of school children found defective by the medical inspectors was raised, and the chairman said that the hospital was not intended for testing the children's sight, which was part of the education authority's work, and ought not to be done for nothing. He hoped to bring the matter before the Voluntary Aid Council with a view to united action being taken by all the hospitals of the city. The Lord Mayor, speaking as a member of the Education Committee, said that when a child was found to be defective in its sight the Education Committee paid for its spectacles, but they ought also to pay the hospital. Sir Percy Bates replied that it was not a question of money, but a question of the time of their medical men which was taken up.

NEW DENTAL HOSPITAL.

The new Dental Hospital, which has been under construction for more than a year, was formally opened on March 21st by the Earl of Derby. The building, which has been built from the designs of Mr. G. de C. Fraser, is a handsome structure, and situated in Pembroke Place, nearly opposite to the entrance to the Royal Infirmary. It is almost ready for occupation, and the removal from the old premises in Mount Pleasant will be completed in a few days. The building has been well planned, and provides all needful accommodation for conservative dentistry and for the provision of dental appliances, as well as for the inevitable extractions. Among the apartments are a large waiting hall, anaesthetic rooms, laboratories and workshops, students' rooms, lecture hall, with a museum and a library, and on the top floor a well-lighted operating room, fitted with dental chairs. The cost of the building will be about £10,000, of which £8,600 has already been subscribed. Lord Derby said that it was impossible for many professions, particularly the army, to do their work satisfactorily unless the teeth were in good condition. Statistics of the number of men invalided home from the South African war, from causes directly and indirectly attributable to bad teeth, showed how great had been the loss to the nation owing to proper provision not having been made for the protection of the teeth of the youth of the country. The same thing applied to the community as a whole. At the Liverpool Dental Hospital about 30,000 cases were dealt with annually, but he was told that that number barely touched the fringe of the situation, so far as concerned the poor people of Liverpool. Professor A. M. Paterson, the Honorary Treasurer, said the people of Liverpool were proud of their new Dental Hospital, which was the best and cheapest dental hospital ever built. He paid a tribute to the Warden, Mr. W. H. Gilmour, for the great services he had rendered during the construction of the hospital. Mr. W. H. Gilmour said that while every provision was made for the extraction of teeth, the staff did not look upon that as their great work. Their main endeavours were for the preservation of teeth. Vice-Chancellor Dale said that of all the institutions carrying on a beneficent work in Liverpool none was doing a more lasting or a more valuable work than the Dental Hospital.

WEST YORKSHIRE.

THE BRADFORD SCHOOL CLINIC.

WE have received the following letter:

Sir,—

Kindly allow me to correct the very erroneous impression of the Bradford School Clinic given in the account of the Bradford Divisional meeting, and may I say the equally erroneous impression of the proceedings at the meeting?

It is quite unfair to state that "cases whose parents are well able to pay are being constantly treated at the clinic"; it is equally unfair to state that Dr. Wherry Willson gave numerous instances of these cases.

What Dr. Willson did was to indulge in a fusillade of invective against the clinic and its staff, embracing every use, misuse, and abuse which this unfortunate institution ever did, can, or may perpetrate, from the terrible consequences to children's brains following *x*-ray treatment of ringworm to the sad, if not so tragic, pictures of little children treated by men, not only incompetent, but devoid of common sympathy. As one of the guilty party, I was naturally impressed and amused by this latter statement of my shortcomings: the result, we were told, of want of any experience in private practice.

As I was at the time absolutely a stranger to Dr. Willson, and have had at least ten years in general practice, I presume he was as careful in his search after truth in this detail as he seemed to be in 90 per cent. of his statements, which, by the way, commenced with the announcement that a school dentist was appointed on the staff—an appointment existing only in Dr. Willson's imagination.

I also note that Mr. North and Dr. Williams controverted "some" of the statements; they would have controverted more had those statements suggested that the smallest trouble had been taken to ascertain whether there was a semblance of fact behind them, and your correspondent omits to state that part of the refutation was the announcement that one member of the school staff had in three weeks sent 350 notices to parents in Bradford requesting them to take their chlldren to a medical man without delay. Surely this might have received mention.

Lastly, Dr. Metcalfe deplores the unnecessary caution shown by the staff in refusing to accept medical certificates as "sufficient evidence of a child's fitness to return to school." Your correspondent, again, omits a statement made in answer to this, that of cases of ringworm certified as cured in 72 per cent. the disease was still present, and that 25 to 30 per cent. of cases of scarlet fever, diphtheria, or contacts certified as free from infection were in an infectious condition.

Your correspondent concludes with the fervent hope, shared by his colleagues, that matters will improve. I am sure we all cordially endorse the sentiment; let us hope that some of the improvement will be in the direction of more accurate representation of other men's work, and perhaps a little more charity in the manner of expressing it.

CHARLES H. W. MCCULLAGH.

Bradford, March 22nd.

BIRMINGHAM.

AN EXPERIMENT IN THE REDUCTION OF INFANTILE MORTALITY.

THE Birmingham Women's Settlement instituted a Guild of Mothers with the object of trying to reduce infantile mortality in its district. The following is an outline of the scheme:

(1) To appoint a paid lady superintendent fully qualified to undertake the work; (2) to organize a band of voluntary lady visitors working under the lady superintendent; (3) the visiting of mothers and expectant mothers in the district to advise them as to the best methods of rearing their babies, and to induce them to adopt those methods; (4) the holding of weekly "at homes" for mothers and babies when a medical adviser was present; (5) the arranging for sewing and working classes; (6) co-operation with municipal and other agencies aiming at the welfare of the mothers and babies, and at the decrease of infantile mortality.

The accommodation at the Women's Settlement for the "at homes" for mothers and babies soon proved very limited, but much useful work was started. No treatment, medical or otherwise, was given, but the mothers were advised as to the best method of dealing with their babies' illnesses, and the help of charities, hospitals, dispensaries, or parish was recommended, according to the case. The lady visitor or the superintendent followed up the cases and saw that the suggestions were carried out, thereby teaching the poor how best to help themselves. In all 402 mothers with their babies came under the influence of the guild in its first year of work. The continued attendance of some of the earliest members and the gradual increase in the number of fresh attendances have been encouraging facts, showing that the efforts of the guild are appreciated by those on behalf of whom the work has been organized.

AT the annual meeting of the Governors of the Charnwood Forest Convalescent Homes, held at Loughborough, Mr. G. C. Franklin (Leicester), Vice-President of the British Medical Association, in the course of an interesting address on the subject of convalescent homes, urged the importance of providing more such homes for young children as a means of preventing and of curing tuberculosis. He pointed out that sanatoriums for adults were numerous, but in view of the large number of children who suffered from tuberculosis in its various forms—a fact becoming more evident with the systematic examination of children in the elementary schools—further provision of homes in the country for such children was urgently needed.

Special Correspondence.

PARIS.

The Suppression of Unqualified Practice.—The Medical Education of the Public.—Meeting of the International Dental Federation.—Memorial Statue to Horace Wells.—The Third International Congress of Physiotherapy.—Inaugural Lecture of Professor Achard.

A French court has just condemned, not however to a very severe penalty, an unqualified practitioner, a cosmopolitan person whose electric belts sparkled on the back page of the newspapers, and who, having been driven from America, England, Russia, and Germany in turn, thought he had finally found in France a safe asylum where a fortune might easily be made. The form which the judgement took was a piquant example of the spirit in which we in this country regard this sort of thing, a spirit which seems to distinguish us from the rest of the world. Even in an atmosphere so enlightened as that of the law courts the hereditary scepticism of the French with regard to official dogmatic medicine, and that love of the mysterious which, owing to their distaste for explanations which are incomplete, renders them secretly full of indulgence for absurdity, found expression. Thus it came about that the person to whom I have alluded, though he was driven out of his earlier countries as an impostor, in France has been found guilty only of practising an art he had not learnt, and has been acquitted by his judges of the charge of swindling. This is really a gross piece of *malice*—a big stone thrown into our therapeutic garden, if I may adapt a proverbial saying. What the judges really wished to convey was that they found it impossible to determine precisely what in medicine is a swindle; that, haying regard to the immense part which suggestion plays in our prescriptions, and the intrinsic insignificance of some of our therapeutic measures, any sort of thing may, when helped by the unconscious cooperation of the patient himself, be the means through which an effective curative influence is exerted, and that in any case it is better to recognize the reality of this mysterious action, even when it is used by quacks, than to be induced to deprive the regularly qualified doctors of the possibility of assistance from this source.

This solicitude for our welfare is a little ironical, and I cannot help thinking that we would do well to reduce to its true proportions the legend of the influence of moral causes in the cure of disease. It would be to our advantage to determine precisely in what neuroses it is efficacious, and to state roundly that it is of no effect in the immense majority of cases. The education of the public will not be an easy task, but when it shall have been accomplished medicine will be relieved of a number of illusory formalities designed to encourage the sick in the virtue of patience, but which during the course of a long illness grow to be as absurd to him as is to a drowning man the excitement of a spectator on the bank who does not know how to swim. When that time comes we shall have the absolute and incontestable right to demand that unqualified practitioners shall be found guilty of swindling, and courts of justice even in their most humorous moods will not refuse.

That the medical education of the public ought to be undertaken in a proper way is evident, if we consider the extraordinary extent of the movement for the vulgarization of medical knowledge during the last twenty years. In France, literature is being invaded by medicine from every side. For two centuries after Molière our literature ignored doctors, but now in the works of modern writers they are given a preponderant place. Innumerable are the novels of which a doctor is hero, or at the least the *deus ex machina*. In not a few plays the doctor's part, scientific and social, is one of the chief; I need mention only *La Nouvelle Idole* of Curel, *Instinct* by Kystemackers, *Le Duel* by Lavedan, and nearly all the plays of Brieux. It is, moreover, to be observed that, far from following the old tradition of ridicule and sarcasm, these writers show our art in its most beneficent and serious aspects. While this has been going on in the world of books and of the theatre the press has opened its columns to the discussion of medical science until there is hardly a single great political newspaper which does not publish a medical *chronique* several times a week; moreover, when a sensational crime is committed it is the doctors who play the part of Sherlock Holmes, and it is their reports that the public awaits with the greatest avidity.

However flattering may be the attentions with which we are nowadays surrounded, there are some among us who are a little disturbed by all this fuss, and would prefer to be left to work in peace. There are two points with regard to the vulgarization of medical science which call for consideration. The more useful and legitimate it may be when it is designed to inculcate ideas of elementary hygiene and prophylaxis, the more dangerous and embarrassing does it become when it pretends to teach doctrines which the public's elementary education does not enable it to understand, or to submit to its judgement theories the value of which it is incapable of estimating. When we think we are giving the public exact ideas, we very often succeed only in creating fresh prejudices. The scientific truth is refracted and decomposed by the prism of their ignorance; it is misled by the few rays it maintains. We are seriously inconvenienced by this sort of thing in practice, for all these who after some superficial reading genuinely believe that they know something about our *métier*, pester us with objections and consider themselves capable of controlling, judging and even suspecting our methods of treatment. When in addition to all this we remember the way in which the drug vendors' advertisements worry the public by their pretensions and how the authors of these advertisments almost always assume, in order to pass off their contraband goods, the style of the vulgarizers the delicate nature of our task will be understood. The patient, possessed by his desire for a cure, knowing that modern medicine has made considerable progress, is ready to believe that nothing is impossible. He knows all about causes, symptoms, and remedies; he will not believe that our art is still imperfect, he grows angry with his doctor for his want of success, disbelieves in the sincerity of his modest protestations, and ends by giving himself up to the quacks.

The result thus brought about is the exact opposite of that which we set out to achieve, and it is clear that the method of education is wrong. We are forced, then, to the conclusion that the medical education of the public can only be achieved through the general education of the reasoning powers, and not through vulgarization. At first sight vulgarization may seem the logical way, but in the last analysis it is seen to be a most dangerous and inefficient method. From this point of view there are a great many things in France which are not only still to be done but to be re-done.

The annual meeting of the International Dental Federation was held at the Sorbonne on March 25th. Professor Dastre of the University of Paris, representing the Minister of Public Instruction, welcomed the members. The President, Mr. W. B. Paterson, F.R.C.S., L.D.S., of London, delivered an address, in which the Federation's work as the permanent bureau of International Dental Congresses was outlined for the ensuing year. Among the subjects set down for consideration were public dental hygiene in connexion with Poor Law schools and the naval and military services, and pedagogics in the medical and dental schools from an international point of view. At the conclusion of the President's address speeches were made by the following representatives of National Dental Societies and Associations constituting the Federation: M. Francis Jean and Dr. Gordon, of Paris; Professor Jessen, Strasburg; Mr. Mummery, London; Dr. Williams, Adelaide, Australia; M. Rosenthal, Brussels; Professor Kirk, Pennsylvania University; Dr. Florestan Aguilar, Madrid; Chev. Vincenzo Guerini, Naples; M. Van der Hoeven, The Hague; Dr. Christensen, Copenhagen; Dr. Lenhardtson, Stockholm. The appointment of Committees on Dental Education, Public Dental Hygiene, and other questions was then proceeded with. During the meeting, which occupied two days, the award of the Miller International Memorial Prize was made to Dr. G. V. Black, of Chicago, U.S.A., for "eminent services to dentistry." In the absence of Dr. Schaeffer-Stuckert, of Frankfort, the report of the Secretary-General was made by Dr. William Guy, Dean of the Edinburgh Dental School. The report, amongst other matters, referred to the question of the

admission of dentists to International Medical Congresses, on which an official communication had been addressed to the Permanent Committee of the International Medical Congress, now in session at The Hague, as follows:

The Executive Council of the International Dental Federation has the honour to ask the Permanent Committee of the International Medical Congress to take into serious consideration its opinion on the question of the admittance of dentists to, or their exclusion from, future International Medical Congresses.

If there is to be a Section of Stomatology or Dentistry, then, as the work of such a section will be to invite, to collate, and to discuss every advance in dental science and art, and, as the great proportion of such advance is made by dentists, it appears obvious that its work will necessarily be incomplete, and its survey greatly limited, if it does not include dentists in its membership. The Council of the International Dental Federation would therefore urge upon the Bureau of the International Medical Congress the wisdom and propriety of admitting dentists to a Dental Stomatological Section, if it is desired that the work of such a Section be authoritative and complete.

The Council of the International Dental Federation further submits the opinion that if the work of a so-called Stomatological Section is to be limited to the discussion of such matters only as are of medical and surgical interest and importance, as distinguished from dental, then it appears to it that a Stomatological Section is hardly necessary, as these matters can be better and more fully discussed in the Sections of Medicine and Surgery.

In short, it considers that scientifically there is no justification for the existence of a Stomatological Section which excludes dentists, and hopes, therefore, that your Committee will decide to strengthen and complete the Stomatological Section by admitting dentists.

On March 27th a memorial statue to Horace Wells, dentist, of Hartford, Connecticut, discoverer of surgical anaesthesia by nitrous oxide gas in 1846, was unveiled in the Place États Unis. The Minister of Public Works presided, and was supported by several chiefs of departments of the municipality of Paris, Professor Dastre, and other representatives of the Medical Faculty, and the members of the International Dental Federation, the American Dental Society of Europe, and the President of the British Dental Association. Eulogistic speeches were delivered, and in brilliant sunshine, and before a great crowd of spectators, the unveiling took place to the accompaniment of the strains of the Marseillaise, played by the band of the Republican Guard. The statue, which is the work of M. Boutée, was generally considered an artistic success. Wreaths and emblems were deposited at the foot of the memorial by representatives of the dental societies present.

The third International Congress of Physiotherapy was officially opened on March 29th at 10 a.m. in the large amphitheatre of the Sorbonne, which was well filled. M. Fallières, the President of the French Republic, occupied the chair, and was supported by Professor Landouzy, the President of the Congress, M. Doumergues, Minister of Public Instruction, Sir Francis Bertie, the British Ambassador, the American Ambassador, representatives of the Ministry of the Interior, the Prefect of Police, the Prefect of the Seine, and Professor Vaquez, the General Secretary of the Congress. President Fallières opened the proceedings with a speech of welcome to the visitors, and was followed by Professor Landouzy, who briefly summarized the scope and work of the Congress, which is divided into eight sections. Professor Vaquez followed, and then introduced the foreign delegates, who each spoke in turn, Great Britain being represented by Dr. Lewis Jones, medical officer in charge of the electrical department of St. Bartholomew's Hospital, and the United States of America by Dr. A. J. Magnin. The President of the Republic afterwards visited the large exhibition arranged in the courtyard of the medical school and in the rue de l'Ecole de Médecine, which is covered in by a large canvas covered structure for the purpose.

Professor Charles Achard, who has recently been appointed to the Chair of General Pathology and Therapeutics on the retirement of Professor Bouchard, recently gave his inaugural lecture in the Faculty of Medicine. This chair was created in 1831, and was first occupied by Broussais. Professor Achard traced the history of the chair and the work of his predecessors, who were Broussais (1831–1839), Audrel (1839–1866), Lasègue (1867–1869), Chauffard (1870–1879), and Bouchard (1879–1910). Professor Achard concluded by explaining his conception of the place of general pathology in medical teaching and its utility, laying stress on the necessity of the laboratory attached to the chair, as it was in the laboratory that new facts arose and experimental methods elaborated which allowed the application to man, without danger or suffering, of the investigations which are of use in recognizing his diseases; in the laboratory also methods of relief and cure were tested.

BERLIN.

Retirement of Professors Olshausen and Senator.—Annual Report on Berlin Hospitals.—A Country Hospital for Tuberculosis.

Two shining lights of the Berlin University, Professors Olshausen and Senator, both close on 75 years of age, have decided to retire from the offices they have held so long and so illustriously. Olshausen, a native of Kiel, came to Berlin as Schroeder's successor in 1887; since then he has been chief of the university hospital for women (Artillerie Strasse), and generations of students—many thousands in all—have sat at his feet. He is the editor of the *Zeitschrift für Gynaekologie und Geburtshülfe*, is honorary president of the Berlin Obstetric and Gynaecological Society, professor in the Kaiser-Wilhelm-Akademie (Pepinière), and member of the Prussian State scientific committee for medical affairs. Senator was born at Guessen in Polish Prussia. His whole life's work has been done in Berlin and its university, where he is the last remaining great pupil of such men as Johannes Müller, Virchow in his youth, Traube, and Schönlein. Since 1881 Senator has been chief of the University Medical Policlinic. When v. Bergmann died Senator was elected President of the Berlin Medical Society, the highest mark of respect and confidence that the Berlin profession can bestow on one of its members. Goldscheider is to succeed Senator in his university offices. Olshausen's successor has not yet been decided on.

The Berlin municipal committee for hospitals and matters relating to public hygiene has published the report on hospital management for 1908. Among the new arrangements a decision that henceforth no married assistants are to be appointed is recorded. The magistrates ratify the appointment of a lady doctor as assistant in the Gitschiner Strasse Hospital, but for the future demand to be consulted beforehand when the intention of appointing a female assistant exists. In pursuance of a decision on the subject, persons not domiciled in Berlin are no longer admitted to the municipal hospitals except in cases in which refusal might endanger the patient's life, or do him certain harm. Consequently, in 1908, the number of patients from beyond the boundaries of Berlin fell to 2,569 as against 4,318 in 1907. The total number of patients who occupied beds in the six municipal hospitals was 54,212, as against 51,840 in 1907, 43,390 in 1906, and 38,429 in 1905. The greatest rise coincided with the period following the opening of the Rudolf Virchow Hospital in October, 1906. The average cost of patients in the municipal hospitals works out at 5 marks, 41 pfennig (5s. 5d.) per day and head, and of this 1.52 (1s. 2¼d.) is covered by payments, the rest being at the charge of the municipality.

Near the little town of Beetz, half an hour by rail from Berlin, the township of Charlottenburg has acquired a forest site of 360 acres on which to erect an establishment for tuberculous patients. Grave cases from the West End Hospital, and bad private cases whose removal from home is desirable in the interests of the public health, are to be received there for permanent treatment. A sanatorium for convalescents, and for the temporary reception of light cases who may be waiting to get in to sanatoriums, will also be erected. The plans make provision for 200 beds, with the possibility of extension to 300 beds.

WE are informed that the issue of army horses to landowners, farmers, and others, in accordance with the scheme noticed in the JOURNAL of last week, p. 772, is at present restricted to cavalry regiments stationed in certain districts.

THE Royal Mail Steam Packet Company announces that it has decided to use the Azores as a port of call for the fortnightly mail steamers on both the outward and homeward journeys. The islands form a natural halfway house between Europe and the West Indies, and offer many attractions to tourists; the climate is equable; the fishing, it is said, good, and the roads excellent for riding and driving. Tickets for nineteen days, including ten days' accommodation in hotels, are issued at £15.

Correspondence.

DYSMENORRHOEA.

SIR,—In an able and suggestive lecture reported in the JOURNAL of March 19th Dr. Gibbons refers to a theory of causation of this disease which has been advanced by Dr. Herman,[1] and which I ventured to criticize in a letter to the JOURNAL of May 15th.

Briefly to recall this theory, its author ascribes the characteristic spasmodic pain to the faulty development of a centre controlling the movements of the genital canal, which centre is assumed by him to exist in the spinal cord or sympathetic system. In my former letter, after calling attention to the cases which developed dysmenorrhoea after years of painless menstruation, I asked for information—and in vain—as to the degree of development of this hypothetical "sexual" centre in such cases. "Their painless history of years' duration effectively debars any association with such a maldeveloped sexual centre."

I was gratified to read of the employment of this argument by Dr. Gibbons, in stating a case against the complete acceptance of Dr. Herman's theory. In like manner, Theilhaber's well-known view of the etiological factor in this condition receives criticism at his hands, but not on the same grounds, which is rather surprising. Instead, Dr. Gibbons emphasizes the occurrence of hypertrophy of the uterine musculature, which he believes to exist, because "in nearly all cases of well-marked dysmenorrhoea in which I have operated the sound measured an increase of $\frac{1}{4}$ in. to $\frac{1}{2}$ in. For this reason, he rejects Theilhaber's theory that a badly-developed uterine muscle is the *fons et origo* of the disease. But surely an increase of a fractional part of an inch in the length of the uterine cavity, as measured by a graduated sound, is not seriously offered as evidence of an existing hypertrophy of its walls. On the contrary, hypertrophy of the musculature of such a hollow spheroidal viscus as the uterus, must be concentric in disposition, and of necessity encroach upon the actual capacity of the contained cavity.

Moreover, within certain limits—depending upon the inherent elasticity of the tissues—the reading obtained from the sound will depend upon the drag exerted on the cervix while the length of the cavity is being determined; pull hard enough upon the vulsellum, and a reading which will repose comfortably in any tables of statistics in course of preparation will be secured. I trust these comments of mine upon an admirable lecture savour not of a piece of destructive criticism. Such, at any rate, was not the vein in which they were penned.—I am, etc.,

Dukinfield, March 22nd. GERALD RALPHS, M.B.Vict.

SIR,—It was with great interest that I read Dr. R. A. Gibbons's lecture on dysmenorrhoea in the JOURNAL of March 19th, and noted carefully his own theory as well as that of others quoted by him regarding the etiology of dysmenorrhoea. Having attended and cured hundreds of these cases of simple dysmenorrhoea, I must say I cannot see why we cannot accept, without looking any deeper, the simple theory that the cause of these spasmodic painful contractions of the uterus at the menstrual period is due to a cervix of small lumen. In such a case, pure and simple, menstruation will take place without any pain if the nervous system is in a normal condition; such a person may have no dysmenorrhoea for some time after that physiological act has become established, but if for various reasons vasomotor nervous disturbances take place, whether from the effects of a chill the result of a severe wetting, illness, fright, grief, shock, or other such causes, this upset to the nervous system interferes with the regulation and control of blood supply to the part, and as a result an *over*-supply at each menstruation, which in cervical canal of normal lumen would have no obstructive effect, in an abnormally small lumen will cause a sufficient obstruction to bring about dysmenorrhoea, the pain of which is not relieved until the flow is fully established, the latter being only brought about by dilatation of the cervix. There is likely to be, of course, in these cases, the highly sensitive mucous membrane of the uterus, which Dr. Gibbons has noticed, and one which becomes turgid on irritation by a foreign body—such as a probe—and producing painful uterine contractions. A single artificial dilatation of such a cervical canal is in some cases sufficient to bring about a cure even if it only causes the minutest increase in the permanent enlargement of its lumen, though I have seldom found such cases to require this latter procedure, provided the nervous system of these patients is properly attended to and for a sufficient length of time, the excessive menstrual turgescence of the uterus being in the meantime kept under control with such drugs as cannabine tannate, ergotin, and cotarnin hydrochlor., etc.—I am, etc.,

Manchester, March 28th. MARTIN J. CHEVERS.

[1] BRITISH MEDICAL JOURNAL, April 17th, 1909.

SIR,—I desire to protest most earnestly against the recommendation, contained in the address on dysmenorrhoea by Dr. Gibbons, to treat dysmenorrhoea by repeated doses of brandy. There is no man of experience in general practice who does not, again and again, see cases where homes are wrecked and families ruined by this treatment.

Then, again, what is the use or meaning of the recommendation to apply a thick layer of wool "*sometimes sprinkled with laudanum?*" I had thought that it was now generally known that opium acts as an analgesic only when it comes into contact with the brain cells. If this is so, to apply it to the abdomen sprinkled on wool is about as reasonable as the Chinese method of treating prolapsus uteri by a blister on the scalp.—I am, etc.,

London, W., March 24th. J. MCNAMARA, M.D.

SIR,—One reader of Dr. Gibbons's lecture on dysmenorrhoea (BRITISH MEDICAL JOURNAL, March 19th) has demurred to his recommendations of brandy in the treatment of this affection. May I be allowed to call attention to another minor point in the treatment of dysmenorrhoea advocated by Dr. Gibbons, namely, the application of laudanum or equal parts of liniment of aconite and liniment of belladonna to the abdomen? These applications, he says, are "particularly soothing, combined with the heat."

This statement is directly at variance with the results of a series of experiments to determine the action of various reputed anodynes on the unbroken skin described in the BRITISH MEDICAL JOURNAL two weeks previously (by A. R. Short, M.D, and W. Salisbury).

As Dr. Hale White says in his well-known *Materia Medica*, "probably it is the heat and not the opium which relieves the pain," and the same presumably may be said of the application of liniment of aconite and liniment of belladonna "combined with heat."

Is it not time that the question of local analgesia should be settled authoritatively, and on a scientific basis? At present the teaching seems to be based mainly on tradition, which—if any value is to be attached to the experiments to which allusion has been made—is for the most part misleading.—I am, etc.,

Brighton, March 26th. E. WEATHERHEAD.

THE DANGERS OF THE ARYLARSONATES.

SIR,—I endorse Mr. J. Ernest Lane's statement, "that there was, therefore, in the medical journals some indication that these drugs were not quite so innocent as they had been depicted." In September, 1908, I wrote[1] that atoxyl has given rise to many cases of toxic poisoning, as well as to many cases of *total blindness* in treating sleeping sickness. This is attributed to *adulteration* of the drug, but the symptoms appear to be those of ordinary arsenical poisoning, namely, "gastro-intestinal pains, nausea, vomiting, painful micturition, and painful sensations in the limbs"—that is, arsenical neuritis, these symptoms possibly being due to intramuscular injections, as can occur with insoluble injections of mercury.

I do not, on the evidence presented, concur in Colonel Lambkin's view:

> That one important fact has been established—that is, that in these salts (arylarsonates) we are now in possession of a *specific* for syphilis, and the importance of this cannot well be exaggerated. . . . Injections of soamin can be looked on as prophylactic in the majority of cases against any further development of the disease, if given early and in sufficient quantities.[2]

[1] *British Journal of Dermatology*, November and December, 1908.
[2] Colonel Lambkin, R.A.M.C., BRITISH MEDICAL JOURNAL, August 15th, 1908, pp. 391-394.

I also questioned, as did others, the value of arylarsonates as opposed to mercury in treating early syphilis in the *Proceedings* of the Royal Society of Medicine in April, 1909.[3]

And again at the meeting of the British Medical Association, in 1909, at Belfast.[4]

The possibility of arsenical *stasis* occurring is, to my mind, undoubted, as atoxyl and soamin (which is purified atoxyl) are both very *insoluble*. We have an analogous condition in the case of mercury:

> The condition known as mercurial stasis involves great risk to the patient. This is especially the case when injections of insoluble preparations are being made use of, as a large quantity may be introduced into the tissues with serious or fatal consequences, when absorption again commences.[5]

In some 20 to 25 deaths on record under injections of the insoluble preparation (grey oil) mercurial stasis commonly occurred before death, and could occur as long as two months after the last injection (vide *Lancet*, July 24th, 1909; September 25th, 1909; January 8th, 1910). A recent expert Committee on Venereal Diseases in the Army, sitting at the War Office, issued a memorandum in January, 1910, to all medical officers in the army, after a prolonged independent trial had been previously given to the arylarsonates (soamin and arsacetin) at certain large military stations. They stated as a result of this evidence:

> That the utility of these preparations (arylarsonates) as a prophylactic against syphilis has not been proved, and does not recommend their administration for that purpose.

For fifty years past Donovan's solution (liquor arsenii et hydrargyri iodidi), a *British Pharmacopoeia* preparation, has been prescribed in England in treating syphilis. I have used it extensively with advantage for seventeen years in treating the late secondary and early tertiary phases of syphilis, and more especially those anaemic cases complicated with malaria in which mercury is often badly borne and which may be so difficult to treat. Marked benefit, together with a gain in weight and lessened anaemia, commonly ensues.

Major Pollock, R.A.M.C., who in 1905–6 wrote the valuable Advisory Board reports on venereal diseases in the army, recently stated:

> That the value of arylarsonates as opposed to mercury in early cases had not been established.[6]

I have used both soamin and arsacetin in treating early syphilis at Woolwich on the plan recommended by Heyman and used also by Colonel Lambkin, and, although there was in some cases, and as a result of its tonic action, a gain of 5 to 7 lb. or more whilst the patient was well dieted in hospital, yet severe relapses with marked loss of weight later occurred in many instances, and the induration of the chancre and lymphatic glands was not nearly so beneficially influenced as is the case with the judicious use of mercurial inunctions, hydrarg. cum creta with opium, by the mouth or with other methods. I endorse Heyman's view that the action of arsacetin (orsudan) is purely temporary.[7]

Whilst injecting the arylarsonates I fortunately did not meet with worse results than albuminuria and slight toxic symptoms. In one case the man had epileptiform seizures and his hair turned from black to auburn, but subsequently regained its normal colour. Such fits, I believe, have been recorded by other observers also.

I think Mr. Lane's letter citing four recent cases of total blindness due to arylarsonates in treating syphilis is most important; the point should not be overlooked. Syphilis is a serious disease, but surely nothing could compensate for blindness. Mr. Lane's evidence is also indirectly endorsed by Colonel Lambkin, who, in drawing attention to the necessity of solutions of atoxyl, soamin, and orsudan being freshly prepared in order to guard against grave toxic signs, states:

> Neglect of this precaution has to my knowledge led to unfortunate results, such as described by Mr. Lane.

I am informed that Professor Neisser has discontinued the use of arylarsonates owing to the occurrence of blindness.

In face of the foregoing evidence, I have no intention of again using these preparations, as we have others better, older, and much safer in the treatment of syphilis. The fact that in the army we ordinarily deal, as pointed out by Mr. Charles Wray, with picked, healthy young men, who are well housed, clothed, and fed in hospital, may explain why we have been more fortunate in escaping accidents, but it may not always be so.

I also think that, in dealing with this question of the arylarsonates, it is important to avoid, if possible, any recurrence of the grave scandals that attended the abuse of mercury a hundred years ago, which for many years led to the disuse of our most valuable remedy in treating early syphilis.—I am, etc.,

H. C. FRENCH,
Major, R.A.M.C.

Malta, March 24th.

SIR,—I have read the correspondence on the above subject with pleasure and profit, and, whilst I think thanks are due to Mr. Lane for drawing direct attention to the already known, but perhaps not fully appreciated, dangers attending the use of arylarsonates, I cannot but think that it is a matter for regret that he has given the weight of his authority in condemning absolutely their further use after a single unfortunate experience about which he gives us no details. To demand an unblemished record, free from untoward results, during the experimental stages in the use of any drug is an attitude incompatible with therapeutic progress, and one which would in the past surely have robbed us of most of our present potent drugs, including mercury.

An unsuitable dose of soamin or arsacetin given to an unsuitable patient may produce optic atrophy, and in the same way chloroform may cause death; and I take it that this is really the stumbling-block in the matter.

The majority of the recorded arylarsonate mishaps have occurred in patients well beyond the prime of life, where perhaps one or more of the many points to be observed in the early use of a new drug have escaped full recognition. If due consideration is given to the age, body weight, state of the urine, and visual fields of the patient and the dose of the drug regulated accordingly, I think in the future we can still hope to derive the good and often wonderful effects of these organic preparations of arsenic.

That there is a place for them in therapeutics, and especially in the treatment of syphilis, I have no doubt, and extending experience confirms this opinion. I have had two cases of intolerance with soamin causing acute abdominal pain, vomiting, and diarrhoea; in both I obtained pleasing results by reducing the dose and more carefully watching the varying states of both soil and seed.

In conclusion, I think the profession and their patients owe a large and deep debt of gratitude to Colonel Lambkin for his work in bringing the arylarsonate, and more recently the combined atoxyl and mercury treatment of syphilis before us, the ultimate results of which it is at present impossible to estimate, and I greatly deplore any attempt to abandon, without full trial, on strictly scientific grounds, a measure which may be, and I believe is, destined to prove eventually of great and far-reaching utility.—I am, etc.,

GEORGE A. CARTER.

Tunstall, Staffs, March 22nd.

⁂ Messrs. Meister, Lucius, and Brüning write to point out that orsudan and arsacetin are not identical:

> Orsudan = 3 methyl, 4 acetylaminophenylarsinic sodium.
> Arsacetin = acetylaminophenylarsinic sodium.
> The difference may also be expressed by the following data:
> Orsudan contains 25.4 per cent. arsenic, and is soluble in water in relation of 1 to 3.
> Arsacetin contains 21.25 per cent. arsenic, and is soluble in water in relation of 1 to 10 parts.

THE DANGERS OF SPINAL ANAESTHESIA.

SIR,—"Voyez comme il sourit en regardant ses intestins." This was the burden of Professor Jonnesco's song at the Royal Society of Medicine, and, beyond photographs depicting this happy state of affairs and his own assurance that his method was perfectly safe, he produced no convincing evidence that it was in any way superior either to general anaesthesia or to the method evolved in this country by Mr. Barker. However, in spite of this,

---

[3] *Proceedings of the Royal Society of Medicine*, Dermatological Section, April, 1909, p. 102.
[4] BRITISH MEDICAL JOURNAL, August 14th, 1909, p. 382.
[5] Major C. E. Pollock, R.A.M.C., First Report of the Advisory Board on Venereal Diseases in the Army, p. 12.
[6] Lieutenant-Colonel J. B. Wilson, R.A.M.C., The Management of Venereal Diseases at Woolwich, *Journal Royal Army Medical Corps*, March, 1910, pp. 295–307.
[7] BRITISH MEDICAL JOURNAL, August 14th, 1909, p. 382, and EPITOME, May 15th, 1909, p. 80.

and in spite of the indifferent results he obtained at the Seamen's Hospital (only one completely satisfactory anaesthesia in three cases), the method was acclaimed by a section of the profession and eulogized by the lay press, the public being beguiled into a belief in its absolute safety. The amount of harm done by this premature endorsement of spinal anaesthesia may be guessed when I mention that a surgeon told me the other day that it was only by firmly refusing to operate under it that he persuaded a patient to have the safer general anaesthetic.

And now we find the patient does not always regard his intestines with a smile. All honour to Messrs. Milward and Gabbett for publishing their fatalities. It is not given to all of us to find time for the perusal of the Continental literature on the subject. As one who has endeavoured to do so I have been impressed by the number of unfortunate accidents attending spinal anaesthesia abroad. British surgeons appear to have been more successful, but fatalities have occurred of which reports in the medical press have been either meagre or absent.

Mr. Milward's case appears to have been one of those particularly calling for spinal anaesthesia. The immediate danger of asphyxia during operations for acute intestinal obstruction under general anaesthesia is too well known, and, although he escape this, the patient may die later of pneumonia set up by the inhalation of small quantities of faeculent vomit.

In conclusion, I venture to think that spinal anaesthesia should be confined to these cases, to emergency operations where proper preparation is impossible, and to cases complicated by serious lung trouble.—I am, etc.,

London, W., March 26th. G. A. H. BARTON.

THE TREATMENT OF GASTRIC AND DUODENAL ULCER.

SIR,—The lecture on gastric and duodenal ulcer by Dr. F. J. Smith (March 19th) raises some points of great interest. He stands out frankly as an opponent of operative treatment.

I am bound to confess that if he bases his opinion on the figures which he has put forward he is entirely justified. He shows clearly that the mortality following operation on simple ulcer or its sequelae (excluding perforation) in the London Hospital is no less than 17 per cent. This mortality is absolutely appalling. If operation involves this risk, then, in my opinion, no physician is justified in seriously considering surgical treatment.

The opinion of every modern surgeon will, I am sure, be that the extreme operative risk should not exceed 3 per cent. In the hands of many operators it does not exceed 1 per cent. If, therefore, 17 per cent. represent the actual operative mortality in the great London Hospital, there must be something radically wrong somewhere. So much for the operative mortality on which Dr. Smith bases his opposition to surgical treatment.

Dr. Smith estimates the prospect of relapse after medical treatment to be 12.3 per cent., whilst after surgical treatment the percentage was 8.9. Assuming these figures to be even approximately accurate for the purposes of this discussion, we must not overlook the fact that the 321 cases on which operation was performed were probably every one of them recognized by the physicians as incurable. If, therefore, the surgeon has succeeded in curing 90 per cent. of cases otherwise doomed to a life of chronic invalidism or even early death, surely the record is highly satisfactory.

This brings me to the point that general surgical opinion is in favour of operation only when a thoroughly efficient course of medical treatment has proved unavailing. I have read all Mr. Moynihan's articles with the greatest care, and I certainly never understood him to convey that "any one who suffers from the symptoms of *painful* indigestion should have the abdomen opened." I have invariably understood him to emphasize the point that he recommended operation when the attacks were recurrent or the disease chronic. The paragraph dealing with haemorrhagic cases is exceedingly interesting; the closing sentence, "You will keep on oscillating in your opinion," seems to sum up Dr. Smith's views fairly accurately.

Finally, this article scarcely appears to me to deal fairly with the relation of physician and surgeon. It is not the function of the physician to decide when an operation is necessary or desirable, and then call in a machine to do the work. The interests of the patient would appear to be best considered by asking a surgeon to talk the matter over and give an opinion based on his own actual experience as to whether the case is one likely to be benefited by an operation, the entire responsibility for which will be thrown on him.—I am, etc.,

Belfast, March 28th. A. B. MITCHELL, M.B., F.R.C.S.I.

WHITEHEAD'S OPERATION FOR PILES.

SIR,—I much regret to have to question the opinions of Messrs. Mummery and Harrison Cripps, particularly in such a presumably simple matter as the removal of piles, but when I read the astounding dogmatic assertion that Mr. Whitehead's method "is the worst operation that has ever been introduced for the cure of this common malady," I cannot help remarking that I attribute such a travesty of fact to the ignorance of the rudiments of the operation. During the past nineteen years I have had an experience of 500 cases without a single death; only 2 developed permanent fibrous stricture, and there was only 1 partial recurrence.

I feel confident that the famous Manchester surgeon will not consider it presumptuous on my part if I take the liberty of referring anyone who wishes to learn a simple method of doing his operation to my paper published in the *Boston Medical and Surgical Journal*, February 26th, 1903.—I am, etc.,

J. O'CONOR, M.A., M.D.Univ.Dubl.,
Senior Medical Officer, British Hospital, Buenos Aires.

March 29th.

HUMAN SERO-THERAPY.

SIR,—In the BRITISH MEDICAL JOURNAL of February 12th (p. 410) your Paris correspondent, in writing of human sero-therapy, asks, "Why has this simple way of preserving mankind not been thought of before?" Kindly allow me to say that the idea of blood-therapy occurred to me more than twenty-five years ago (1884); and in that year I asked the then editor of the *Lancet* whether it would be justifiable for me to inject the blood, or any constituent of the blood, taken from a patient recovered from an infectious disease (for example, scarlet fever) into another patient suffering from the same disease. I purposed to restrict my experiments to the members of the same family, in order to obviate any risk of specific disease; and the reply of the editor to my query was that it would not be justifiable to do so in the present state of our knowledge.

Curiously enough, the same principle of treatment occurred to me in connexion with snake poison, and I contributed two short letters to the *Lancet*, under the *nom de plume* of "Incognito," on February 23rd and March 8th, 1884, which attracted the notice of Mr. C. H. Piesse, F.I.C., who in a letter to the *Lancet* on March 22nd of the same year remarked that "the line of research advocated would be one well worth investigation." In these times there was no such thing as serum-therapy in existence, and I wrote to the *Lancet* with some amount of diffidence.

Defibrinated blood is almost as efficacious as serum; it is easier to prepare but more difficult to preserve than serum. Further, serum is a much cleaner and nicer material to work with, and can be freed from all extraneous germs and particles by filtration through a suitable filter; hence the almost universal use of serum for therapeutic purposes. On the other hand, defibrinated blood is far superior to serum as a *protective* agent in certain protozoal diseases—for example, Texas fever (piroplasma disease) in cattle.—I am, etc.,

GEO. CARRINGTON PURVIS, M.D., B.Sc.Edin.

Grahamstown, Cape Colony, March 7th.

GENERAL PRACTITIONERS AND POOR LAW REFORM.

SIR,—Dr. Pearse, in his paper in the BRITISH MEDICAL JOURNAL of March 19th, says:

> Can we do nothing to avert a condition of affairs that cannot but fail to affect adversely a large majority of us general practitioners, and to make the prospect of providing for our old age more and more visionary?

In the same number Dr. Cooper writes:

(*b*) Indigents; that is, those who have ordinarily not enough to live on . . . I would fix the wage limit of this class at £1 a week. Any one earning on an average less than this . . . is, in my opinion, quite unable to pay anything towards the cost of medical attendance. . . .

Nine-tenths of my patients earn from 15s. to 18s. a week, making a little more in harvest, but losing time whenever the weather is unfavourable. Yet they pay me, and pay well, and readily. And Dr. Cooper would sweep them all, and with them all the agricultural workmen, in to the arms of the Poor Law.

Is the publication of such opinions as these going to help the general practitioner? I doubt it.

Surely it is not too much to ask that when a man is about to put out such ideas in the organ of the profession he should take the trouble to inquire what the effect may be on his poorer colleagues.—I am, etc.,

HENRY HICK.

New Romney, March 22nd.

CONSULTANT, GENERAL PRACTITIONER, OR HALF-AND-HALF?

SIR,—"Est Modus in Rebus" (March 26th, p. 785) has dealt with the above subject in a personal manner. I have no intention to continue the discussion on those lines. My object was to offer a suggestion which I thought, if adopted, would benefit the public as well as our profession. —I am, etc.,

ENQUIRER.

March 28th.

"ON SALE OR RETURN."

SIR,—In reference to Dr. Robert Saundby's protest, anent the copy of the February number of *Rivista Italiana di Neuropatalogia*, etc., sent to him, and to which was gummed a slip, whereon was written, "Celui qui ne nous renvoie pas cette livraison restera abonné pour toute l'année 1910," my recollection is the Irish courts some years ago decided, in an action for the recovery of the subscription under similar circumstances, that if the recipient of the paper opened and read it he was liable for payment for it; otherwise the recipient could, if he chose, request the sender to have the periodical removed, and, on failure to do so, could sue for storage of it. By following these lines, I think Dr. Saundby will find that the receipt of Professor G. d'Abundo's publication would cease, and that he will be in no way responsible for its delivery to him or liable for its return.—I am, etc.,

R. HILL SHAW.

Brighton, March 21st.

Universities and Colleges.

UNIVERSITY OF OXFORD.

THE Board of Faculty of Medicine has co-opted as one of its members Dr. John S. Fairbairn, of Magdalen College and St. Thomas's Hospital; he will hold office for two years from May 1st, 1910.

THE VICTORIA UNIVERSITY OF MANCHESTER.

Address by the Vice-Chancellor.

THE Vice-Chancellor of the Manchester University, Dr. Hopkinson, on March 23rd conferred a number of degrees in medicine in the council chamber of the university.

In the course of his address, he said he was sorry to say that Mr. F. A. Southam's term of office at the Royal Infirmary would soon terminate, and he was resigning his appointment as professor of clinical surgery in the university. He was sure Mr. Southam would continue to display that warm interest in the medical school that had so distinguished his career as professor. An announcement would soon be made as to the appointment of his successor.

The authorities of the university were remodelling the curriculum for medical degrees, and more opportunities for the working out of the practical side of the students' training were to be given. They were making the preliminary training point more directly to practical utility, and the special courses in chemistry would be found eminently suitable for those who would have to use chemistry in their future work.

In the course of further remarks he expressed great regret at the fact that for want of funds the splendid new building of the St. Mary's hospitals had to stand idle. It was to be deplored both in the interests of the sick and of medical education.

Referring to post-graduate work, he said there were three branches to which special attention might be directed. The first was what he might call psychological medicine, and proposals would be laid before the university for special diplomas in this subject. It was also most desirable to have one or two fellowships for special research in particular branches of medicine. Admirable work was already being done on the subject of cancer, and he would like to see research made possible in other branches of medicine. In a third branch, too, he hoped there would soon be further developments—namely, medicine as applied to certain industrial pursuits and trades. He thought much might be done to prevent the deterioration of the race in the great industrial centres. Just as Liverpool had taken a leading part in the subject of tropical medicine, so he hoped that Manchester University, in conjunction with the public health department, might do some useful work in the matter of industrial medicine, or medicine as applied to various trades and industries and to factory hygiene.

Examinations.

The following candidates have been approved at the examinations indicated:

SECOND M.B. AND CH.B. (*Anatomy and Physiology*).—W. Barnes, W. L. Cox, W. C. C. Easton, R. B. Gorst, G. B. Horrocks, A. H. Macklin, H. Sheldon.

THIRD M.B. AND CH.B. (*General Pathology and Morbid Anatomy*).—O. R. Allison, B. Herald, *A. H. Holmes, L. W. Howlett, W. H. Laslett, N. Matthews, F. Oppenheimer, S. Rawlinson, G. E. Sawdon, R. P. Stewart, G. Whitehead.

FINAL M.B. AND CH B. (*Forensic Medicine and Toxicology*).—A. E. Ainscow, R. Briercliffe, C. Davies. H. A. Dunkerley, E. R. Eatock, Gertrude H. Geiler, P. S. Green, H. Heathcote, R. C. Hutchinson, W. Howarth Parkinson, W. Hoyle Parkinson, A. Reid, J. B. Scott, W. A. Sneath, J. P. Stallard, J. Walker, Charlotte E. Warner.

FINAL M.B. AND CH B. (*Medicine, Surgery, and Obstetrics*).—G. M. Benton, C. G. Brentnall, R. A. Jackson, †N. T. K. Jordon, C. Pimblett, A. Porter, W. W. Stacey, A. C. Turner.

D.P.H.—J. Allen, W Bradley, D. Fenton, W. J. Hoyten, R. A. Needham, Capt. I.M.S., R. T. Turner.

* With distinction. † Second class honours.

UNIVERSITY OF LEEDS.

Appointments.

THE following have been appointed External Examiners in the Faculty of Medicine:

In Anatomy.—Professor Fawcett of University of Bristol.

In Physiology.—Professor W. D. Halliburton of King's College, London.

In Materia Medica and Pharmacy, Pharmacology, and Therapeutics.—Professor A. R. Cushny, University College, London.

In Pathology and Bacteriology.—Professor G. Sims Woodhead of Cambridge.

In Forensic Medicine.—Dr. F. J. Smith of the London Hospital.

In Public Health.—Dr. H. T. Bulstrode, Medical Inspector of the Local Government Board.

In Medicine and Mental Diseases.—Dr. L. E. Shaw of Guy's Hospital.

In Surgery.—Mr. L. A. Dunn of Guy's Hospital.

In Obstetrics and Gynaecology.—Dr. J. S. Fairbairn of St. Thomas's Hospital.

Examinations.

The following candidates have been approved at the examination indicated:

SECOND M.B., Ch.B. (*Anatomy and Physiology*).—H. Angel, J. H. Blackburn, L. Ferguson, G. W. L. Kirk, F. H. Kitson, G. P. Mellis, J. C. Metcalfe, M. Peto, S. Samuel, H. W. Symons.

UNIVERSITY OF DURHAM.

THE following candidates have been approved at the examination indicated:

SECOND M.B. (*Anatomy, Physiology, and Materia Medica*).—*J. S. Arkle, R. E. Bell, H. G. Dodd, W. A. Elliott, F. J. H. T. Frere, S. E. Murray, W. S. Murray, C. H. Robson, S. Scott, H. J. Shanley.

* Second-class honours.

UNIVERSITY OF DUBLIN.

Regulations for Degrees.

THE Board of Trinity College, Dublin, has adopted the following resolutions:

1. That no students or graduates of any other university (excluding Oxford and Cambridge) should be allowed to take the B.A., unless they have kept at least two academic years at Trinity College, Dublin.
2. That no student should be allowed to take any of the degrees in medicine, surgery, and midwifery, unless he has attended at least three years of the prescribed curriculum in the School of Physic, Trinity College.
3. That any student who is a Bachelor or Master of Arts of a university recognized by the Board and Council should be allowed credit for the two Freshmen years and the Final Freshman Examination; and that such student should be allowed to have his name placed on the college books as a rising Junior Sophister, upon payment of the final fee of the Senior Freshman year. If it should appear that any such student has not studied, as part of the approved courses in the university at which he has graduated, any of the compulsory subjects for the Final Freshman Examination, then the Senior Lecturer should have power to require such student to pass a qualifying examination in such subjects.
4. That the following universities should be recognized under the foregoing rule—namely, the Universities of Aberdeen, Birmingham, Edinburgh, Glasgow, Leeds, Liverpool, London, Manchester, St. Andrews, Sheffield, Wales.

UNIVERSITY OF ABERDEEN.

THE following candidates have been approved at the examinations indicated:

FIRST M.B., CH.B.—W. H. Brodie, *F. F. Brown, T. G. Brown, J. T. Cameron, A. W. H. Cheyne, R. E. Dastur, W. J. Ewen, W. M. Fowler, A. R. Fraser, C. M. Geddie, G. A. C. Gordon, A. M. Gray, S. Henry, R. Munro, J. M. H. Reid, G. W. Riddel, F. Ritchie, J. F. W. Sandison, E. Tawse, J. Wood.

SECOND M.B., CH.B.—D. S. Badenoch, W. F. Beattie, H. G. Bruce, M. M. Cruikshank, Elizabeth M. Edwards, H. T. Finlayson, Margaret R. Forgan, A. P. Gray, F. Griffith, W. Henderson, W. P. Hogg, W. W. Ingram, *A. F. Legge, N. MacPhail, R. G. Martyn, ** R. R. M. Porter, J. Shaw, H. R. Souper, *C. M. Stephen, **G. Stuart.

THIRD M.B., CH.B.—J. B. Anderson, A. M. Brown, C. C. Chance, R. J. Creighton, *J. Davidson, *R. M. Easton, J. Fettes, C. S. Glass, W. E. Glover, G. Leggat, A. C. Macrae, J. M Mitchell, J. R. Murray, **H. J. Rae, P. Reid, D. O. Riddel, A. Smith, W. G. Thomson.

FINAL M.B., CH.B.—H. Brayshaw, A. J. W. Calder, N. J. Calder, J. P. Cameron, R. M. Chance, C. Clyne, E W. H. Cruikshank, C. E. Greeson, T. C. Halley, R. Kellas, C. M'Kerrow, A. Mitchell, A. D. Reid, W. J. Reid, **R. Richards, H. E. Shortt, C. F. Simpson, R. Sinclair, W. Smith, D. J. S. Stephen, A. W. Webster, S. G. Trail.

* With distinction. ** With much distinction.

SOCIETY OF APOTHECARIES OF LONDON.

THE following candidates have been approved in the subjects indicated:

SURGERY.—*H. R. L. Allott, ‡S. Danziger, *J. A. Laughton, †C. P. A. de L. Pereira, *L M. Potter, ‡C. Pyper, ‡E. Renouf, †R Rowlands, †G. F. Wilson.

MEDICINE.—‡K. Baylis, *M. Graves, ‡A. W. Hansell, †A. Y. Massey, ‡C. P. A. de L. Pereira, †G. F. Wilson.

FORENSIC MEDICINE.—A. W. Hansell.

MIDWIFERY.—H. R. L. Allott, E. G. Brisco-Owen, L. M. Potter.

* Section I. † Section II. ‡ Section I and II.

The diploma of the society has been granted to Messrs. S. Danziger, A. W. Hansell, C. P. A. de L. Pereira, and G. F. Wilson.

The Services.

ROYAL ARMY MEDICAL CORPS (TERRITORIALS).

CONFERENCE OF MEDICAL OFFICERS OF THE WEST RIDING DIVISION.

A WELL-ATTENDED conference of the medical officers of the West Riding Divisional Area Territorial Force was held at Harewood Barracks, Leeds, on March 19th. The chair was taken by Major-General G. M. Bullock, C.B., commanding the West Riding Division, who, in opening the proceedings, dwelt upon the necessity for strict sanitary precautions in camp and the field. His experience had shown him that the maintenance of proper conditions saved life by reducing preventable disease. After Colonel de B. Birch, C.B., had briefly explained that the object of the conference was to introduce uniform methods of sanitation into the camps of the Division, Lieutenant-Colonel A. Wear made a statement of the work carried on by the R.A.M.C.T. School of Instruction in Leeds, of which he is the commandant.

Major W. H. S. Nickerson, V.C., R.A.M.C., Sanitary Specialist, Northern Command, sketched the need for the organization of a sanitary service. He pointed out that the general officer commanding the Division was responsible for sanitation in the Division as a whole, his advisers being the administrative medical officer and the sanitary officer of the Division. The duties of the medical officer attached to a regiment were partly executive, consisting of the care of the sick and taking command of the sanitary squad and men for water duties, and partly advisory as sanitary adviser of the officer commanding the unit, who was responsible for its sanitation and for loyal support being given by all ranks to the advice of the medical officer. The medical officer with a unit was also directly responsible to the administrative medical officer of the division under whom he acted. The sanitary organization of a regiment consists of one non-commissioned officer and eight men (one per company), who will be trained by the medical officer attached in their sanitary duties; they acted as sanitary police and not as scavengers. They should report themselves every morning to the medical officer, who would tell them off to their respective duties—one to visit the cookhouse, another the latrines, the refuse destructors, ablution places, etc., report anything defective, and see that the work of the fatigue parties was properly carried out. The medical officer would then make his inspection, and thereupon make such representations in writing to the officer commanding the unit as might be required. In the same way the medical officer would supervise the work of the men of the Royal Army Medical Corps attached to the unit for water duties. The duties of the men of the sanitary squad were to choose places, under the instructions of their company commanders, whenever a halt permitted time for the men to relieve themselves, and should see that all excreta were covered up by the men themselves. These precautions had all been acted upon in the regular army with most beneficial results. The men of the sanitary squad should wear an arm brassard inscribed "S. P." (sanitary police), and should be trained in their duties before going to camp. The sanitary organization of an army during war was next reviewed, consisting of R.A.M.C. sanitary sections, squads, and watermen, their distribution on the lines of communication, and duties.

Major J. R. Kaye, R.A.M.C.T., Sanitary Officer, West Riding Division, gave a summary of the statistics of modern wars, showing that five men fell through sickness to one from wounds, and how this had been reversed to one from death from disease to three from wounds in more recent instances.

After some observations by Honorary Colonel J. E. Eddison, Dr. Myers Coplans demonstrated his precipitation process for providing larger quantities than hitherto possible of drinking water for troops in the field—a process now under trial at the School of Sanitation, Aldershot.

There was also a demonstration of sanitary appliances such as would be used in the field, of refuse destructors, etc., constructed in the grounds of the barracks under Captain H. S. Roch, R.A.M.C., adjutant of the school, together with methods in operation of purifying water, Griffith heat exchange purifier, stationary type (specially lent by the Director-General Army Medical Service), a filter water cart, and hand filter pump. The medical equipment of a section of a field ambulance and of a battalion of infantry were also on view.

THE TERRITORIAL FORCE RESERVE.

A SPECIAL Army Order has been issued announcing that the King has been pleased to approve the creation of the Territorial Force Reserve. This reserve forms part of the Territorial Reserve to be constituted in accordance with the provisions of Section VII (6) of the Territorial and Reserve Forces Act. The formation of other branches of the Territorial Reserve is contemplated at an early date, and regulations will be published later.

INDIAN MEDICAL SERVICE.

IN the abstract of the minutes of the General Medical Council published in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of March 12th, 1910, p. 98, the list of diplomas of the successful candidates for the Indian Medical Service should have been given as follows: Conjoint Board of England 4, Conjoint Board of Scotland 2, University of Durham 1, University of London 2, University of Manchester 1, University of Edinburgh 3, Royal University of Ireland 2. The two successful candidates who held degrees from the University of London also held diplomas from the Conjoint Board of England, and are included under both heads.

Public Health AND POOR LAW MEDICAL SERVICES.

FEES FOR CERTIFICATION OF WORKHOUSE LUNATICS.

C. S. W., a workhouse medical officer, asks whether he is entitled to a fee of 2s. 6d. each for certifying lunatics remaining under his care in the workhouse; also whether he is entitled to any fee for "signing up a lunatic *for* the workhouse."

*** No workhouse medical officer can claim any fee for certifying any case to *remain in the workhouse*. If, however, at any time he should be called on to certify any workhouse case for removal to asylum, he could claim the fee usually allowed—namely, one guinea.

DISEASES AND ACCIDENTS OF CHILDBIRTH.

ENQUIRER writes: In the tables sent out to medical officers of health for the purpose of the annual report one group of deaths is termed "diseases and accidents of childbirth." Does this apply to the mother or to the child, or to both?

*** To the mother only. In the supplement to *Public Health* for February, 1911, detailed information is given with respect to Table IV of the Local Government Board.

Medico-Legal.

A DEATH FROM HYDROPHOBIA.

AN inquest was held at Hackney Coroner's Court on March 26th on the body of George Edgar Seaman, aged 24, an ex-soldier of the Norfolk Regiment, who died from hydrophobia. It appeared from the evidence that Seaman, when stationed at Gibraltar, was bitten by a mad dog. He and another man who was bitten at the same time were sent to the Pasteur Institute at Paris in September. Seaman's comrade died within a month, but he came home, and no symptoms of hydrophobia displayed themselves until a week before, when he complained of pain in the elbow of the arm which was bitten. The pain spread to the shoulder, and then to the back of the neck. On March 28th Seaman's condition became desperate, and the next day he had to be removed to the Hackney Infirmary. Dr. John Joseph Gordon, Medical Superintendent of the Infirmary, said Seaman was a man of splendid physique, and had been medically examined and passed for the City Police. After his admission to the hospital it was decided to give him a hot bath. He was put into the bath, but jumped out like a cat. When he was about to be put into the bath a second time he jumped out again and became very violent. The mere mention of water started him into a terrible fright and it took the efforts of several attendants to restrain him. The mention of water and a draught from the door brought on a spasm. During all his terrible suffering Seaman was quite sensible and was able to give a collected and rational account of his illness and the treatment he had received in Paris. During the night his condition became worse. He was unable to breathe and he prayed the doctor to cut his throat so that air could be got into his respiratory organs. Morphine was injected in order to quieten him, but his condition was hopeless from the time he was admitted. A *post-mortem* examination was made, but nothing was found except a little inflammation of the brain and kidneys. From the symptoms Dr. Gordon concluded that Seaman died from hydrophobia. The jury returned a verdict of "Death from hydrophobia and from accidental causes."

Medico-Ethical.

The advice given in this column for the assistance of members is based on medico-ethical principles generally recognized by the profession, but must not be taken as representing direct findings of the Central Ethical Committee, except when so stated.

THE OPINION OF A MEDICAL PRACTITIONER ON DISEASES IN HORSES.

W. C. R.—There can be no objection to an expert ophthalmologist giving an opinion as to the state of a horse's eye, and even, if necessary, appearing as a witness in litigation on the subject, although he might quite reasonably decline to pit his opinion against that of an equally competent veterinary expert.

THE COURTESY CALL.

QUERCUS, if he has called upon his professional neighbours, could not be expected to recognize those who do not return his call unless he had made their acquaintance at his visit, but as medical practitioners are unfortunately remiss about returning calls and answering letters, he should not "cut" any one he already knows merely because he has not returned the call.

Obituary.

JAMES ALLAN COUTTS, M.D.,

FORMERLY OF WATERFOOT.

WE regret to record the death on March 23rd at Southport of Dr. J. A. Coutts, late of Waterfoot, near Manchester. He had suffered for a number of years from paroxysms of tachycardia, occurring at irregular intervals, and traceable probably to an attack of rheumatic fever, as dilatation of the heart ultimately ensued and compelled him to give up work about eighteen months ago.

James Allan Coutts was born on August 30th, 1844, at Kincardine O'Neil, Aberdeenshire, and educated at Aberdeen University, where, after a brilliant career, he graduated M.B. and C.M. with highest academical honours in 1867, proceeding to the M.D. degree in 1871. He immediately entered on general practice at Banchory, Kincardineshire, but went to Rossendale in 1875 and settled at Waterfoot, where he succeeded to the practice formerly held by the late Dr. James Ross, of Manchester. Here he carried on for thirty-three years an extensive and varied practice; by his skill, geniality, and devotion to work gained the entire confidence of a large *clientèle*, and his opinion was much esteemed by his brother practitioners.

Dr. Coutts took little part in public affairs, but found time, in the midst of a busy practice, to keep well abreast of modern professional and scientific knowledge. His bright, cheery manner, kindness of heart, and wide knowledge and experience made him an ideal family medical adviser, and much regret was felt when failing health obliged him to relinquish work. His predominant characteristic was devotion to duty and a determination to do the best that lay in his power for his patients; and he may be said to have given his life to his work, as a prudent self-regard would have counselled a far earlier retirement. He was a member of the British Medical Association, Surgeon to the Post Office and Police, Honorary Associate of the Order of St. John of Jerusalem in England, and Examiner for the St. John Ambulance Association. His favourite recreations were travel and reading.

The funeral took place on March 26th at the Rawtenstall Cemetery, and was numerously attended by old friends and patients.

He leaves a widow, three sons, and two daughters to mourn his loss. His eldest son, Dr. J. A. Coutts, jun., is carrying on his father's practice.

Medical News.

THE Society of Medical Officers of Health, at its meeting on March 11th, adopted a resolution expressing the opinion that the enactment of the quinquennial enumeration of the population is essential to the promotion of the public health. The resolution does not necessarily mean that a full census should be taken in 1916 or other corresponding date, the opinion being that a simple enumeration of the population (sex and age) would be sufficient to furnish those checks of intercensal estimates of population which are necessary to make the national vital statistics accurate and reliable.

AT a meeting of the council of the new Association of Medical Officers of Health on March 24th, at the Holborn Restaurant, with Dr. Crookshank in the chair, a cordial vote of thanks was passed to the Poor Law Medical Officers' Association for its resolution, and appreciation of the proposed action of other bodies was expressed. It was reported by the Chairman and Dr. Gough that the Richmond and Altrincham Divisions of the British Medical Association had passed resolutions instructing their representatives at the next Representative Meeting to press for the rescission of Minute 234, and that other Divisions were considering the matter. It was agreed to hold a general meeting in London during the Annual Meetibg of the British Medical Association, and that the meeting should be followed by a dinner, to which influential guests would be invited. The Honorary Secretary (Dr. Belilios) reported that at the last meeting of the Home Counties Branch of the Society of Medical Officers of Heaith, Dr. Crookshank had been nominated for the presidency of the society, in succession to Dr. Cooper Pattin, and it was unanimously agreed that steps be at once taken to support Dr. Crookshank at the election, which would take place at 1, Upper Montague Street, Russell Square, on April 8th, at 5 p.m.

A MEETING of the Pellagra Investigation Committee was held on March 14th, Sir Lauder Brunton in the chair. It was resolved that Dr. Sambon be instructed to proceed at once to Italy. The money actually in hand amounts only to one-fifth of the minimum sum required, but the committee hopes to be able to secure such sums as have been offered conditionally, and for that purpose formed amongst themselves a guarantee fund, which was liberally subscribed to. The donations so far received are: Lord Pirrie, K.P., £5; Sir Charles MacLaren, M.P., £1 1s.; Henry Bubb, Esq., £20; the Countess Caesaresco, £5 5s.; Jeyes Sanitary Compound Company, £20; the Hon. Mrs. Blyth, £1 1s.; the Sanitas Company, £10 10s.; Arthur F. Levita, Esq., £10 10s.; London School of Tropical Medicine, £10; Liverpool School of Tropical Medicine, £10 10s.; Messrs. Oppenheimer, Sons, and Co., £5 5s.; F. G. Lawson, Esq., £1 1s.; Albert Profumo, Esq., £2 2s.; Thomas Holloway, Esq., £1 1s.; W. H. Lever, Esq., £5; G. A. Tonge, Esq., £5; Harry W. Birks, Esq., £1 1s.; B. L. Hue Williams, Esq., £2 2s.; J. B. Hurry, Esq., £2 2s. Captain Siler, United States Army, is a member of the Field Commission, and two assistants, Messrs. Baldini and Amoruso, were appointed to accompany Dr. Sambon. The Field Commission left on March 19th.

Letters, Notes, and Answers.

BRITISH MEDICAL ASSOCIATION AND BRITISH MEDICAL JOURNAL.

THE offices of the British Medical Association and of the BRITISH MEDICAL JOURNAL are at 429, Strand, London.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

F. W. M. P. asks for references to recent books or articles on bookkeeping for medical men. He is anxious to know which is the best form of ledger for a general practitioner.

ALPHA asks the best and quickest means of exterminating bugs that have got into the walls and woodwork of a tenement house.

HERNIA AND ECZEMA.

H., who has a patient aged 71 with an ordinary inguinal hernia who cannot wear an ordinary truss because of severe eczema of the groin, asks for a remedy. If the truss is worn for only two hours, the itching and discomfort are intense. The eczema sometimes seems to be quite cured, but directly the truss is worn it returns.

MOTOR CAR AND SERVANT LICENCES.

HERMIT has been threatened with proceedings unless he pays a compromise fine of 20s. because his licence duties were not paid by March 3rd. He asks if he can be punished for not paying taxes which are not legalized.

*** The licences referred to are "establishment licences," which are leviable without the authority of a Finance Act. If our correspondent has had due notice from the authorities requiring him to pay, or reminding him of the non-payment of the duties, he has incurred the penalties, and will probably find it best to accept the alternative and agree to the proffered compromise.

ANSWERS.

SORE TONGUE.

J. C. H. P. writes: If "J. D. D." (BRITISH MEDICAL JOURNAL, March 12th, p. 672) will look up *Quain's Dictionary of Medicine*, he will find a description of the affection. I have suffered twice myself from it (1909 and 1910). It is most troublesome to treat. On both occasions I found it brought on by eating raw celery. His patient must not only give up absolutely tobacco, but alcohol, raw vegetables, and most cooked vegetables, spices of every description, hot and cold foods and drinks, and, in fact, everything which irritates the tongue. I found cascara and saline purgatives most useful. If, as is at times the case, there is a suspicion of a specific taint, 5 minims of Donovan's solution with 10 minims of tincture of nux vomica once a day in plenty of water will be usually ample.

THE INDUCTION OF ABORTION.

NEPHRITIS.—(1) Induction of labour should not be undertaken before the age of reputed viability—namely, twenty-eight weeks—except as the result of a decision reached at a formal consultation, and even then it is better to obtain the written consent of the patient or her friends. The common view on this point was formally approved by the British Medical Association when the Annual Representative Meeting at Sheffield in 1908 adopted a report on the ethics of consultation submitted by the Central Ethical Committee. Among other things, that report indicated certain circumstances in which it was "especially the duty of the practitioner in attendance to endeavour to obtain the assistance of another opinion." One of them was, "When a question arises of destruction of a fetus or unborn child in the interest of the mother, especially if she is not in labour." (2) The temporary introduction of the point of a soft bougie into the uterus is not certainly effective at any period, especially so early as "about the third month"; and any attempt to perform uterine douching would probably be dangerous. In women who have borne children it is commonly feasible at this early stage to complete the matter at one sitting, the cervix being dilated instrumentally and the uterus cleared with the finger; but in primiparae and many other cases the cervix may be far too rigid at this date to permit of sufficient dilatation without risk of tearing. In such case a little gauze may be introduced into the cervical canal and the vagina packed with the same material. This is likely to lead to more or less complete separation or extrusion of the ovum, the case being thereafter treated as one of accidental abortion. Absolute cleanliness should be observed throughout, and the patient kept in bed subsequently for not less than ten days. The relation of the day on which the operation is performed to that which, in the absence of pregnancy, would have been the commencement of a menstrual period, is not of importance, but there is distinct advantage in choosing a date anterior to that at which the placenta is fully formed.

IONIC MEDICATION.

E. J.—A large number of articles have appeared during the past two or three years dealing with ionic medication. Since the sources of these articles may not be available to our correspondent, it may be sufficient to refer him to Dr. Lewis Jones's excellent paper on The Principles of Ionic Medication, read before the Electrotherapeutic Section of the Royal Society of Medicine and published in the *Proceedings*, vol. i, 1908, pp. 65–82, which also contains a report of the discussion. Two books on the subject were published in 1908: S. Leduc, *Les ions et les médications ioniques* (Paris, Masson and Cie., 1907—translation by Mackenna, published under the title *Electric Ions and their Use in Medicine*, London, Rebman, Limited, 1908), and Tibbles, *The Theory of Ions, a Consideration of its Place in Biology and Medicine* (London, Rebman Limited, 1908). In view of the fact that the whole subject is at present to some extent in the experimental stage, it is impossible to enter into a detailed account of the manner in which the charged anions are supposed to exert an action on the various pathological processes. Our correspondent will find the theories which have been formulated in this connexion in the works mentioned above.

LETTERS, NOTES, ETC.

THE VALUE OF AN EXCLUSIVE PROTEID DIET.

DR. ERNEST YOUNG writes to point out that the 2 oz. of minced meat recommended in his pamphlet would only be a minimum, and that the quantity may be increased up to 8 or 10 oz. of a meal, and therefore it is not such an extremely low diet as our review suggested; but according to our experience there would be some difficulty in getting patients to take more than 4 or 6 oz. at one meal. In the directions for taking hot water, our review should have stated that it is to be taken from one and a half to one and a quarter hours before a meal and three and a half hours after the last meal; by a slip this read "from half to three and a half hours after meals."

THE MEDICAL PARLIAMENTARY ROLL.

DR. S. D. CLIPPINGDALE (London) writes: I do not understand Dr. Brown's assertion that James VII was "never crowned King of Scotland." If Scotland at that time was a kingdom it must have had its king. If that king was not James VII will Dr. Brown kindly say who was? Perhaps the handiest work of reference is *Burke's Peerage*, prefaced to which is a list of all the English and Scottish coronations. In that list James II of England and VII of Scotland is stated to have been "crowned 23 April, 1685" and to have received the same titles as his father and grandfather had received—namely, "King of England, Scotland, France, and Ireland, Defender of the Faith, etc." In the official Blue Book (Parliamentary paper No. 69) dealing with the period, an account is given of "The First Parliament of King James VII held and begun at Edinburgh 23 April, 1685." In the biography of James in the *Dictionary of National Biography* it is stated that the Scottish Parliament voted him an income one-third larger than they had voted his brother Charles. If the Scottish people did not recognize James as their king, why did they vote him an income at all? With regard to Dr. Brown's other statement that one cannot speak "Britannically" before 1707 (in which year the Scottish and English Parliaments fused), it must be pointed out that from the time of James I the sovereigns of all three kingdoms had been crowned at Westminster. There was no recrowning at Edinburgh or at Dublin.

THE STORY OF SAMSON.

M.B., C.M., writes: Some time ago the story of Samson was recalled to my memory by a sermon on the subject, described as beautiful though having little practical application. Samson, a noted athlete, living a somewhat loose life—at Gaza he "saw there an harlot, and went in unto her"—loses his strength and his hair. Happening to-day it would at once suggest that the man had contracted syphilis. Is this not the explanation of what occurred in Samson's case? If so it would give point to the Bible story and afford an admirable subject for a very practical sermon. At the same time it would remove the opprobrium from the Neapolitans, the French, and the Americans of being the originators of the disease. If Samson is the original of Hercules, the illnesses of the latter would to some extent corroborate this theory, though it might not be possible to make much of the fact, according to Lemprière, that Hercules was handed over to Mercury for a three years' course of treatment. They knew a good deal more "down in Judee" than we sometimes give them credit for.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page	8	0	0

An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

NOTE.—It is against the rules of the Post Office to receive *poste Restante* letters addressed either in initials or numbers.

Hunterian Lectures

ON

THE SURGERY OF THE LYMPHATIC SYSTEM.

BY

W. SAMPSON HANDLEY, M.S., F.R.C.S.,

HUNTERIAN PROFESSOR, ROYAL COLLEGE OF SURGEONS OF ENGLAND; ASSISTANT SURGEON TO THE MIDDLESEX HOSPITAL; SURGEON TO THE BOLINGBROKE HOSPITAL.

LECTURE I.

MR. PRESIDENT, LADIES, AND GENTLEMEN,—Although for the sake of brevity I have chosen an inclusive title for these lectures, you will hardly expect a complete survey of such a wide field. I propose to exclude the lymphatic glands from consideration and to deal only with the growing edge of my subject—the surgery of the lymphatic vessels and spaces.

My principal theme will be the surgery of dropsy, using this term as defined by Professor Starling to denote "either an increased amount of fluid in the connective tissue spaces, which is sometimes designated anasarca or oedema, or an accumulation of fluid in the serous spaces of the body, as in the conditions of hydrothorax and ascites."

The subject of lymphatic anatomy, which necessarily forms the basis of lymphatic surgery, is still denied by most teachers of anatomy the prominence due to its practical importance. This is the more surprising since our knowledge of the subject, as embodied in Sappey's great folio, and in the more recent work of Poirier, Cuneo, and Leaf, is extensive and precise, in spite of the numerous gaps which still exist. Quite recently Professor E. H. Starling's work, *The Fluids of the Body*, seems to have placed lymphatic physiology on a basis as secure as that occupied by the anatomy of the subject. On the other hand, the problems presented to the surgeon by disease of lymphatic vessels and spaces have, perhaps, hitherto received less than their share of attention. In the evolution of surgery two phases can often be traced, which may be respectively called the ablational and the conservative phases. The rudimentary condition of lymphatic surgery is shown by the almost exclusively ablational methods hitherto employed. Thus, amputation or excision of the diseased tissue have been the methods of choice for lymphatic oedema, while serous effusions are run to waste through a cannula.

The conservative phase of lymphatic surgery is that to which I shall mainly direct your attention. For the aspect of the subject is being changed by the idea of the internal drainage of serous effusions introduced into it by my senior colleague Dr. Essex Wynter, and by the use of capillary attraction along silk threads as a substitute for destroyed lymphatic vessels in lymphatic oedema, a method which I introduced two years ago.

My material divides itself into three sections: (*a*) The surgery of lymphatic oedema; (*b*) the surgery of serous effusions; (*c*) cancer surgery as a branch of the ablational side of lymphatic surgery. We will first consider the various forms of lymphatic oedema

SOLID OEDEMA DUE TO CANCER.

Dropsy associated with cancer may show itself as a serous effusion in the pleura or peritoneum, or as a local oedema. In the latter form it is most frequently seen in the arm. Less commonly it occurs upon the chest, for, as I have shown, in its early stage *cancer en cuirasse* is simply a lymphatic oedema of the skin, and no cancerous elements are at first present in the thickened skin. I show you two sections which illustrate this fact.

THE BRAWNY OR DROPSICAL ARM OF BREAST CANCER.

A brawny arm develops in 16 per cent. of all cases of breast cancer. Its frequent occurrence depends upon the commencement of the growth in a situation close to the root of the limb, conveniently placed to menace its lines of lymphatic communication. The oedema often commences as a general swelling of the whole limb. In some cases it begins at the wrist and travels upwards; less commonly it begins at the shoulder and travels downwards, or it may first be noticed at the back of the elbow. Sometimes a sharp line of demarcation in the deltoid region separates the swelling from the normal tissues above. In other cases the shoulder shares in the swelling, which may in a late stage extend to the thoracic wall or to the opposite breast.

Of the 15 cases in which I have done lymphangioplasty in breast cancer, 8 have been on the right and 7 on the left side. Among 54 cases of brawny arm of which, apart from my operative series, I possess notes, 34 have been on the left side and 20 on the right side. The condition thus appears to be commoner on the left side. Occasionally in association with cuirass cancer both arms are affected.

Dropsical arm is associated with the more chronic forms of breast cancer. In the cases upon which I have operated an average period of six and a half years elapsed between the first sign of cancer and the development of the swollen arm. In one case the swelling took thirteen years to develop, in two others eleven years. At the opposite end of the scale are two cases in which only six and nine months respectively intervened between the onset of breast cancer and the swelling of the arm. The period of survival which may be expected after a dropsical arm has appeared is difficult to determine, but is not a long one, and probably averages under one year, though in very chronic cases it may exceed three years. Into this short period is usually crowded most of the physical agony caused by the disease. The dropsical arm acquires most of its importance from the excruciating pain which it causes—a pain which in the worst cases almost passes the limits of endurance. This pain is referred to the whole limb, and varies from a dull ache to an intolerable burning agony. It is accompanied by a heavy, leaden drag, due to the weight of the limb. The pain varies in intensity, and there may at first be periods of complete intermission. In several of my cases the pain, though diffuse, has been much worse in the palm of the hand than elsewhere. After a time paralysis of the limb supervenes. The movements of the fingers are the last to be lost. The oedema interferes with passive as well as with active movements of the joints. The elbow is usually held in a position of slight flexion, and can be moved only through a small arc of 30 degrees or less. The wrist and fingers are also stiff, and when the oedema affects the shoulder vertical movements of the scapula upon the chest are prevented. Lastly, the arm may be deeply cyanosed.

PATHOLOGY OF THE DROPSICAL ARM OF BREAST CANCER.

Among the general factors which may contribute towards the appearance of dropsy in cancer is the watery state of the blood plasma demonstrated by Dr. J. J. Douglas, which acts in two ways—by diminishing transudation and by hindering absorption through the capillary walls. It is also highly probable, though not proven, that toxins which injure the vascular endothelium and thus promote transudation are circulating in the blood.

But the strict localization of the area of oedema in brawny arm shows that local, not general, factors are the chief agents at work. It is a common clinical observation that the dropsical arm of breast cancer is accompanied by cyanosis and venous congestion of the limb. Hence, the swelling was formerly considered to be caused by venous obstruction, and to result from the pressure of growth upon the axillary veins. Various considerations show the incorrectness of this belief. Thus, Mr. T. W. Nunn showed that the axillary vessels might be completely enveloped in a cancerous mass, and yet the arm might not be swollen. Excision of a length of the axillary veins has not infrequently proved necessary during the removal of a breast cancer, yet in such cases oedema of the arm is rare. In animals obliteration of the main veins of a limb does not produce oedema. The fact appears to be that the venous obstruction in cases of dropsical arm is not the cause of, but is caused by, the dropsy. It has been shown by Professor Starling that if fluid is injected into the subcutaneous tissues of an animal's leg, obstruction or occlusion of the veins may be produced. The rise of

pressure thus produced in the capillaries tends in its turn to increase the transudation of lymph and to aggravate the dropsy, and thus a vicious circle is set up. The return of the cyanosed limb to its normal colour within a few days of the operation of lymphangioplasty, which I have observed on more than one occasion, is an experimental proof of the truth of the explanation in the cases where this phenomenon is observed. In other cases no doubt the pressure of growth on veins is a minor factor in aggravating the oedema.

If venous obstruction is a consequence of "dropsical arm," or at most a minor factor in aggravating it, some other explanation of the dropsy must be sought. Mr. T. W. Nunn believed that the oedema was due to obstruction of the axillary lymphatic trunks by growth within them. But although an obstruction of this kind must be present in an early stage of most cases of breast cancer, soon after the axillary glands have been attacked by growth, and while the case would still be regarded as operable, at this stage of the disease dropsical arm is never seen. Moreover, the modern operation for breast cancer ruthlessly and habitually divides all the lymphatic trunks during the removal of the axillary glands. Yet after this operation the lymph is easily able to return by collateral routes, and no swelling of the arm occurs. The collateral circulation has presumably been already developed to circumvent cancerous obstruction of the glands.

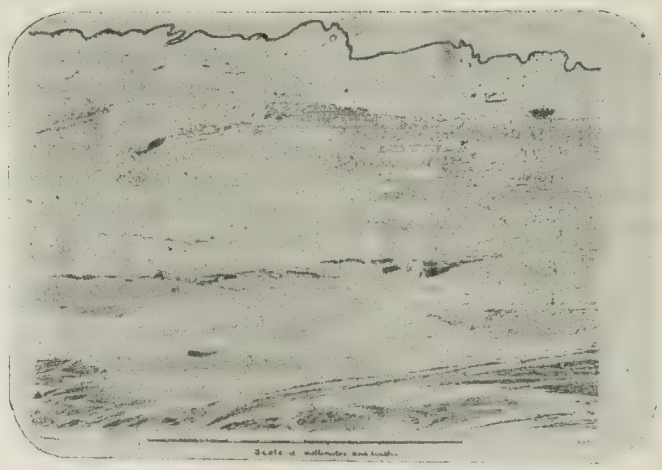


Fig. 1.—The microscopic growing edge of a breast cancer which had reached the deltoid region of the arm Above is seen the skin, below the superficial layer of the muscle. In the plane of the deep fascia permeated lymphatics are seen as dark lines. In the figure the cancer is spreading from left to right. To the right of the asterisk the tissues are free from cancer cells.

In point of fact, the onset of a dropsical arm is determined by the blocking, not merely of the main lymphatic trunks, but also of all the collateral routes about the shoulder by which the lymph could find a passage. The pathology of brawny arm is a corollary to the permeation theory. As I have shown, permeation spreads from the breast in an ever-widening circle, which must ultimately envelop the shoulder completely. I have demonstrated the growing edge of permeation in the deltoid region (Figs. 1 and 2). Perilymphatic fibrosis converts all the permeated lymphatics, small and large, into cords of fibrous tissue, and the arm is entirely cut off from the lymphatic circulation by the destruction of the lymphatic channels, principal and collateral. Thus, as might be expected, the dropsical arm of breast cancer is not met with until the disease has reached a very advanced stage. Often within a few months of its appearance obstruction to the pleural lymphatics shows itself by the appearance of pleural effusion. What is the factor which determines the collection of serous fluid on the pleura of the affected side? It is the choking up of the subpleural lymphatic plexus by permeation, or its obliteration by consequent perilymphatic fibrosis. Of the former process I am able to show you an excellent photograph. Some time after the arm has been cut off from the lymph circulation the process of permeation, at the opposite side of its circle of extension, reaches the pleura, and, though repeated tapping may give temporary relief, death is certain within a few months at most.

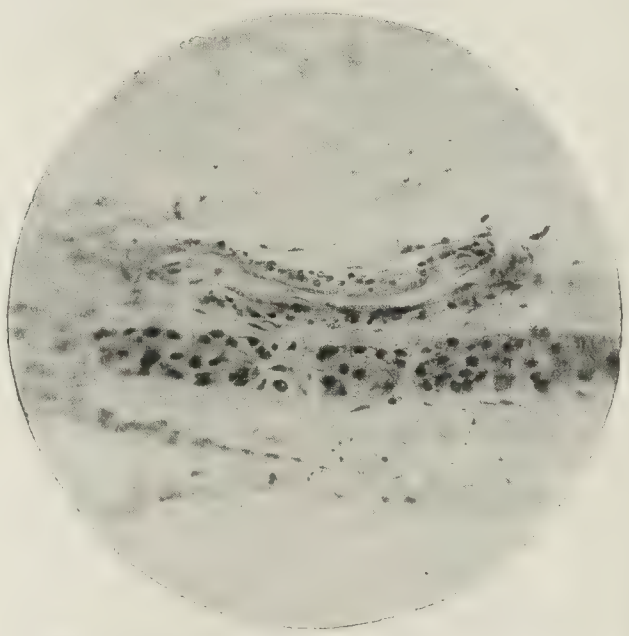


Fig. 2.—A high-power photograph by Mr. R. W. Annison of one of the permeated lymphatics indicated in Fig. 1.

That heart failure alone is not the determining factor in the production of hydrothorax is shown by the fact that out of 28 cases in which pleural fluid was found after death, in 20 the fluid was present only on the same side as the dropsical arm, the other pleura being empty. In 5 cases the fluid was present on both sides; in four of these cases the greater amount of fluid was present on the side of the swollen arm. In 3 cases fluid was present only on the side opposite to the swollen arm. These figures clearly show that the hydropleura, like the dropsical arm, is a local, not a constitutional, condition. Internal lymphatic obstruction, as indicated by pleural effusion, is present at death in 50 per cent. of cases of dropsical arm. In 34 per cent. of cases no pleural fluid is recorded as present, and in 16 per cent. it is definitely stated to be absent. But among the 9 cases which come under the latter heading 4 showed obliteration of the pleural cavity, or marked pleural adhesions, on one or both sides, so that hydropleura was an impossibility. Thus in a majority of chronic cancers which produce brawny arm death is due to internal lymphatic obstruction—a lethal factor the importance of which seems hitherto to have escaped recognition.

Are Bacteria Present in the Brawny Arm of Breast Cancer?

There are certain facts which suggest the possibility of bacterial infection of the tissues as a factor in the production of the swollen arm of breast cancer. M. Doyen in France, Mr. A. Leitch (Director of the Dundee Cancer Research Laboratory), and Messrs. Paine and Morgan in this country, have shown that micrococci are frequently present in cancerous tissues, and the former has given to the organism concerned the name of the *Micrococcus neoformans*. It is probable that this organism has no share in the production of cancer, and that its presence is due to a secondary invasion of the imperfectly vitalized malignant tissues. Such a secondary invasion might conceivably be a cause of obliterative lymphangitis, and of lymphatic oedema. But on two occasions Mr. A. G. R. Foulerton has examined lymph for me from cases of dropsical arm, and in both instances has found it sterile.

Origin of the Operation of Lymphangioplasty.

Until two years ago the only treatment available for cases of dropsical arm, after elevation had ceased to produce any effect, was either amputation of the arm or the use of morphine. The readiness of patients to listen to the suggestion of amputation is the best possible proof of the intolerable agony caused by the disease. Two years ago I was asked to amputate a dropsical arm, the patient's consent to the operation having been obtained. At this time my work in the Cancer Research Laboratories of the Middlesex Hospital had taught me that the condition would be cured if the swollen limb could be provided with a new set of lymphatic vessels. And I bethought me of a section in my possession showing a silk ligature which had been embedded in the tissues for ten years (Fig. 3). Though superficially eroded, the main substance of the thread is intact. Moreover, the interspaces between the silk fibrils are so small that no intrusive

cells have been able to enter and obstruct them. The section, moreover, affords no evidence of any clotting of the tissue fluids in the interspaces of the thread. These facts pointed to a silk thread as affording for the tissue fluid a permanent conduit, sufficiently unabsorbable, and not liable to obstruction by organization or thrombosis. I accordingly buried a number of silk threads in the subcutaneous tissues of the arm, and permanently relieved the pain and swelling during the remainder of the patient's life. I mention these facts to show that the operation of lymphangioplasty was not a casual happy thought, but the end-product of a long course of laboratory work, which seemed at the time to have no practical application to the treatment of lymphatic obstruction.

Fig. 3.—Photomicrograph of cross section of a silk ligature which had been embedded in the tissues for ten years. The main substance of the thread remains intact, and there is no sign of organization in its interior.

BENEFITS TO BE EXPECTED FROM LYMPHANGIOPLASTY.

Before describing the operation I wish to state clearly that it is a palliative only, and that it has no claims to prolong life or to modify the natural downward course of the disease. In favourable cases it has the following effects:

(*a*) Complete relief from pain within twenty-four hours, unless the pain is partially due to some cause—such as nerve pressure—independent of the oedema.

(*b*) A marked and rapid fall in the tissue tension of the whole area drained by the threads. The arm in consequence, instead of being hard and brawny, becomes abnormally soft and flabby. This may sometimes occur even though postural treatment is neglected, and in the absence of any marked diminution of the diameters of the arm.

(*c*) Rapid subsidence of the swelling, commencing immediately in the hand, and extending to the forearm within twenty-four hours. At first the upper arm is unaffected, or its diameters may even slightly increase. But within a week or two the diameters of the upper arm are also markedly lessened. The subsidence is usually permanent, unless and until pleural effusion supervenes to interfere with drainage. These effects are at first dependent upon the adoption of proper postural after-treatment, but after a few months elevation of the arm may be entirely abandoned without any marked increase of swelling.

(*d*) Return of power to the paralysed arm if the paralysis is of recent date. If the paralysis is of more than a few months' standing, no return of power is to be expected.

(*e*) An improvement in the general condition, dependent partly upon relief from pain and its associated symptoms of insomnia and depression, and partly upon the abandonment of sedatives.

Fig. 4.—Lymphangioplasty forceps, with jaws of soft metal specially designed to grasp either end of the probe firmly and to avoid scratching its surface.

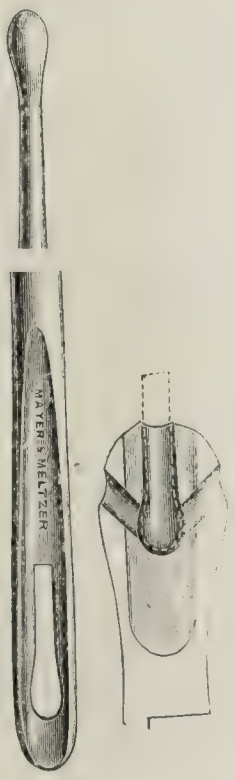


Fig. 5 shows the detail of the jaws of lymphangioplasty forceps, which are hollowed out in such a way that either end of the probe fits firmly in them.

TECHNIQUE OF LYMPHANGIOPLASTY FOR BRAWNY ARM.

The special materials necessary are a set of suitable probes, lymphangioplasty forceps (Figs. 4 and 5), with jaws specially designed to take a firm grip of either end of the probe; and a supply of No. 12 tubular woven silk. These requisites may be obtained from Messrs. Mayer and Meltzer.

The tissues of the arm are drained by two long U-shaped lines of silk, each line composed of two threads of No. 12 tubular silk (Fig. 6). One of these lines drains the front of the arm, the other the back. The bend of each U lies immediately above the wrist, and its two limbs occupy respectively the radial and ulnar side of the limb. Thus, along the whole length of the limb, are found four double lines of silk, spaced out round the limb as nearly as possible at quadrant intervals. Towards the shoulder the lines of silk on the flexor aspect curve outwards around the deltoid muscle, and converge to meet the ascending threads from the posterior aspect at a point near the posterior border of the deltoid. From this point the silk threads again radiate in the subcutaneous tissue of the back, terminating by free ends in the subcutaneous tissues of the scapular region. It is, perhaps, still better to lead some of them to the scapular region of the opposite side, and others to the lumbar region of the same side, if there is any sign of the oedema extending from the arm to the trunk.

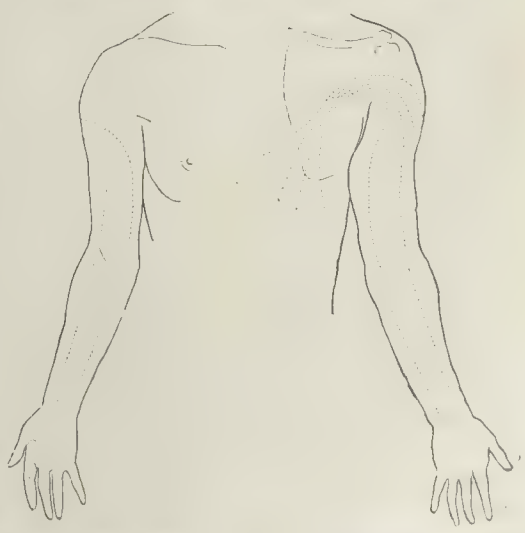


Fig. 6 shows the course of the threads in lymphangioplasty for brawny arm.

The operation is done as follows:

Take a double line of silk, rather more than twice as long as the arm, and mark its mid-point by clipping on it a pair of artery forceps. Wrap up one half its length in gauze. Thread the two free ends of the other half through the eye of a long probe. Make an incision $\frac{1}{2}$ in. long through the skin at the middle of the front of the forearm, just above the wrist-joint. Thrust the probe in the desired line upwards in the subcutaneous tissues well away from the skin towards the region of the elbow, as high as is convenient, and cut down upon its point. Withdraw the probe through the incision last made, and draw the silk after it as far as it will come. Introduce the probe through the incision from which it has just emerged,

thrust it upwards again in the selected line, and repeat the foregoing steps until the point selected for the convergence of the threads is reached. Here an incision 1 in. long is made, through which the probe with its two silk threads is drawn out. The other half of the silk loop is now led upwards in the selected line along the other border of the flexor surface. The limb is turned over and the extensor loop of silk is similarly introduced. When this has been done eight free ends of silk are hanging out from the incision of convergence at the posterior border of the deltoid. Two at a time these are tucked away in various directions in the subcutaneous tissues of the back by the following manœuvre.

Clip a forceps on the selected pair of silk threads just where it emerges from the topmost incision. Take a long probe, cut off the ends of the two threads so that they are 4 in. shorter than the probe, and thread them into the eye. Thrust the probe downwards from the incision in the desired direction until the probe unthreads itself. Withdraw the probe carefully, leaving the two silk threads to occupy its track. When all the threads have thus been tucked away, the operation is completed by sewing up the incisions with horsehair.

The principal difficulties of the operation are connected with the maintenance of the silk in an aseptic condition. Owing to the large area dealt with, extending on to the back, the necessary changes in the posture of the arm, and the length of the silk threads, accidental contact may very easily occur between the silk and the surface of the skin, the edges of the incisions or surrounding objects. I regard the use of masks as essential, and the silk ends not actually dealt with at the moment must be kept wrapped in sterile gauze, which is also useful to protect them from the edges of the incisions as they are being drawn in after the probe. This method contains modifications which my experience has shown to be desirable. My object has been to simplify the operation, to reduce the number of incisions necessary, and as a reasonable precaution to insert the threads in such a manner that they can, if necessary, be withdrawn with a minimum of trouble. All the threads can be withdrawn by reopening the two incisions just above the wrist. Fortunately I have never been obliged to do this. There is no need to fix the upper ends of the threads by knotting them together, as I formerly thought, for the silk soon becomes adherent along its whole length to the tissues in contact with it.

I will now lay before you my clinical experience of the operation in a series of fifteen cases, analysed into five classes.

A. *Cases in which a Dropsical Arm is the Only Manifestation of Active Disease.*

Three of the cases in my series may be regarded as ideal ones for the operation of lymphangioplasty. Each of these had a long history of cancer, the disease having begun respectively fourteen, fourteen, and seven years previously. Evidently, the defensive processes of fibrosis were exceptionally active. In each of these cases no clinically discoverable mass of cancer existed at the time of the operation, and no ulceration was present as a menace to operative asepsis. Under these conditions the operation appears to be uniformly successful. In all these cases pain and swelling were relieved within a day or two of the operation. One of them (Figs. 7–9) remained free from pain and swelling to the day of her death (Case I),* a second survives twenty-one months after the operation without recurrence of the swelling (Case V), but still suffers occasional attacks of pain, due to a palpable axillary recurrence which has now appeared. In the third case (Case VIII), after complete relief lasting about four months, pleural effusion showed itself and pain and swelling in some degree recurred in the arm, owing to consequent impaired lymph circulation in the thorax. The pain, however, was slight, and though morphine had been habitually used prior to the operation, it remained unnecessary until the patient's death from pleural effusion and thoracic growth.

Fig. 7.—Case I before operation.

Fig. 8.—Case I shortly after operation.

Fig. 9.—Another view of Case I after operation. Note the lax fold of tissue behind the upper arm.

Fig. 10.—Case II before operation.

Fig. 11.—Case II after operation. Note the considerable flexion of the elbow which is now possible, and the laxity of the skin.

B. *Cases in which Recurrent Masses of Growth are Present, but Ulceration and Pleural Effusion are Absent.*

Six of my cases come under this heading, and may thus be summarized:

CASE II.—Inoperable recurrences in the axilla, near the scar, and in the right eye. Complete relief of swelling, and considerable relief of pain, persisting till death from internal deposits. (Figs. 10 and 11.)

* The notes of the cases will be found in the Appendix.

CASE IV.—Enlargement of the left supraclavicular glands. Some relief at first, but a rapid relapse, associated with excessive use of the arm and neglect of after-treatment.

CASE VI.—Enlarged glands in the axilla, and thickening adjacent to operation scar. Great relief. Death three months later from advance of the disease. (Fig. 12.)

CASE IX.—Enlarged glands in both supraclavicular regions. Pain chiefly located in the axilla. No relief. Nodular recurrence in the scapular region along the lines of silk.

CASE X.—Recurrence present in the subclavian glands. Pain of a stabbing or shooting character. No relief.

CASE XII.—Enlargement of right supraclavicular glands and suspicious induration along the coraco-brachialis. A small nodule near the scar. Partial relief, slowly increasing to almost complete relief.

In all of these cases recurrent masses of growth were present in the neighbourhood of the brachial plexus. Three of these were successful; in one the period of benefit was very short, and two were failures.

In this class of case the difficulty is to decide how much of the pain is due to nerve pressure and how much to the dropsical arm. Evidently, in view of the successful cases, the mere presence of growth in the axilla or supraclavicular region is not a bar to operation, but the relief obtained may not be complete, and in half the cases no benefit results. My experience teaches that if the pain is referred mainly to the axilla or supraclavicular region, or if it is a lancinating pain shooting down the arm, little or no benefit is to be expected from lymphangioplasty.

If, on the contrary, the pain is a heavy diffuse pain referred to the whole limb, or if it is located in the elbow or the hand, the operation will afford relief, even though there is recurrence above or below the clavicle.

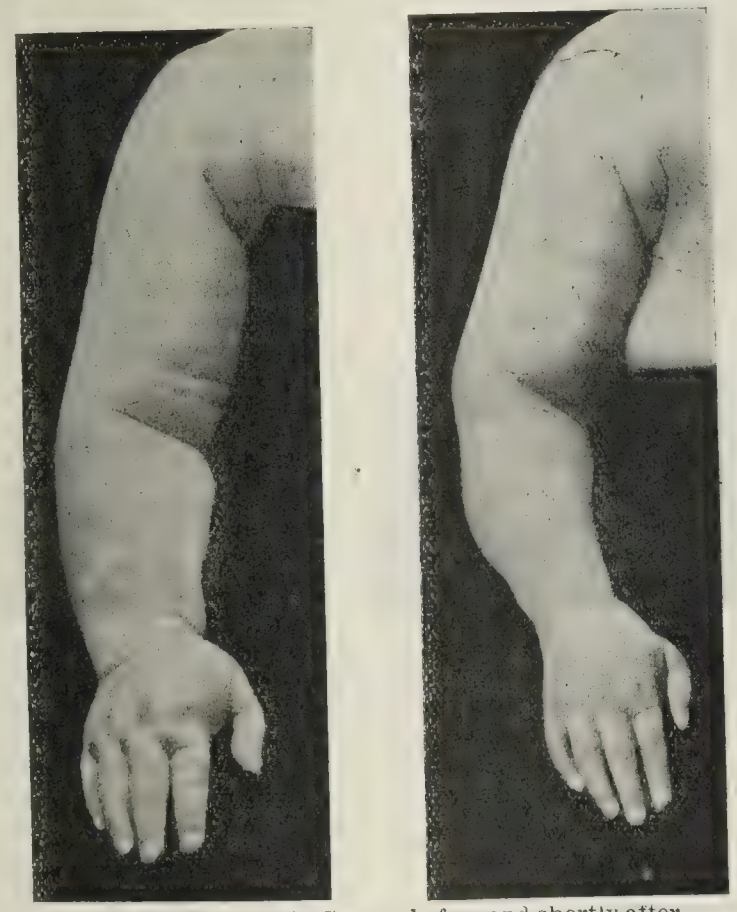


Fig. 12.—The arm in Case VI before and shortly after the operation.

C. *Cases in which Axillary or Thoracic Ulceration is Present, and Pleural Effusion is Absent.*

This is a class of case which I approached with caution and with some reluctance, for I feared that in the presence of a cancerous ulcer upon the thorax or in the axilla, it would be very difficult to prevent contamination of the silk threads.

The first case (Case VII) upon which I operated in the presence of ulcerated growth was submitted for a month previously to ionic medication with mercury in order to cleanse the ulcers. In subsequent cases, antiseptic irrigations, and lately applications of acetone, have been employed.

Thanks to the loyal co-operation of medical and nursing colleagues in these and other precautionary measures, the calamity of suppuration has never occurred. In every case all the incisions have healed by primary union, nor has it been ever necessary in any of the cases under this heading to remove the threads. Repeated success in these cases has increased my boldness in dealing with them. In my latest case (Case XV) the axilla was a gaping chasm pouring out pus, and the ulceration had completely surrounded the arm save for a bridge of normal tissue posteriorly, about 6 in. wide, which afforded the only possible avenue for the threads. In this case primary union of the incisions occurred, and the patient is delighted with the relief of pain and swelling, and the return of muscular power which have resulted from the operation. Dr. A. O. English acted as house-surgeon, and the case may be seen in Stafford Ward, one of the cancer wards of the Middlesex Hospital.

The cases in this class may be briefly summarized:

CASE VII.—Extensive ulceration of the chest and axilla with scattered nodules of growth. Normal convalescence and primary union after lymphangioplasty, with relief from pain and subsidence of swelling. Three weeks after operation intercurrent acute eczema attacked the arm, and pain and swelling recurred.

CASE XI.—Eczematous and crusted area on the left side of the chest, with axillary ulceration; excruciating pain, chiefly referred to the palm of the hand; lymphangioplasty; primary union. Complete relief from this pain and from brawny swelling of the arm until her death from pleuritic effusion and thoracic metastases. The swelling of the upper arm recurred when the chest filled up but did not again become hard and brawny.

CASE XV.—Brawny arm, acute pain, and paralysis of arm. Deep axillary ulceration wrapping round the arm, but leaving a bridge 6 in. wide posteriorly. Profuse suppuration from the ulcer. Acetone treatment. Lymphangioplasty. Primary union. Most marked relief of pain and swelling, and return of muscular power, so that the patient was able to write me a letter of thanks with the hand which had been completely paralysed.

The onset of acute eczema of the arm three weeks after operation in Case VII is a complication unique in my experience, and may fairly be regarded as an unfortunate accident which spoiled a case giving every promise of success. I may remind you that when physiologists wish to increase the production of lymph in a limb, the method they adopt is to scald the skin of the anaesthetized animal. It is easy to believe that acute eczema would have a similar effect. The other two cases in this class were unequivocal successes. It may, I think, be concluded that the presence of ulceration does not appreciably increase the risk of lymphangioplasty, provided means are taken to clean the ulcers and to shut them off effectually from the field of operation. With my present experience I should not hesitate to operate upon cases such as the following.

In October, 1908, I saw at Selkirk, with her medical attendant Dr. J. S. Muir, a lady with the following history:

The right breast had been removed for cancer seven years previously by Professor Caird. A year later the same surgeon excised some cancerous nodules near the cicatrix. Others made their appearance, and were treated with *x* rays by Dr. Dawson Turner with decided benefit. But an intractable ulcer remained, which was two years in healing. Meantime the disease recurred in the surrounding region, involving a large area of skin on the side of the thorax, from the axilla to the ninth rib. The upper arm is now very stiff, there being almost no movement at the shoulder. The arm is swollen from the apex of the deltoid down to the wrist. The extensor muscles of the hand and fingers are atrophied, the latter being flexed. The patient suffers constant and severe burning pain in the arm, and complains far more of this than of the malignant ulceration. Her internal organs appear sound, and her general health good, in spite of sleepless nights and the occasional use of opiates—a condition of things partly due to an open-air country life.

In this case, though the patient was perfectly prepared for operation, I told her that the large ulcerated area on the chest added considerably to the risk, and she decided to defer it. Elevation on a splint was subsequently tried without benefit.

With my present experience I should feel justified in stating in a similar case that the extra risk involved is very small, and should definitely advise operation.

D. *Cases in which Pleural Fluid or other Evidence of Thoracic Cancer is Present, but the Condition of the Patient does not Negative a General Anaesthetic.*

When pleural fluid is present the balance of life remaining to the patient is in any case likely to be a short one. Thus in one case the chest only filled up two days before

death, and 70 oz. of fluid were present in the pleura on the affected side. This is an extreme case. As a rule pleural effusion precedes death by two or three months, occasionally perhaps by a year. Apart from this question of survival, the success of the operation is doubtful, for hydrothorax shows that the lymphatic block extends over a wide area including the pleura. Under such conditions nothing can be promised, but if paracentesis is also done a few weeks' relief may be obtained, and therefore an urgent desire on the patient's part for a brief respite from pain may justify an operation. The necessity of morphine—a drug to which many people have a kind of conscientious objection—may thus be postponed for a while.

Case xiii.—Recurrent mammary cancer with dropsical arm and very severe pain. Pleural effusion. Paracentesis followed by lymphangioplasty. Marked relief of pain and swelling. Recurrent hydrothorax for which several tappings were necessary, and death from advancing disease in the thorax within five weeks. Swelling did not recur in the arm, but oedema appeared in the axilla and extended across the chest to the left breast. The relief obtained during the short remainder of life was marked.

Case xiv.—Recurrent ulcerated mammary cancer with dropsical arm. Impaired resonance at the base on the same side. The patient's sufferings were so great and her dislike of morphine so strong, that she urgently asked for operation, "even if the relief lasted only three days." Lymphangioplasty. Rapid subsidence of swelling and complete freedom from pain for ten days, when recurrence of pain and swelling coincided with the development of hydrothorax.

Fig. 13.

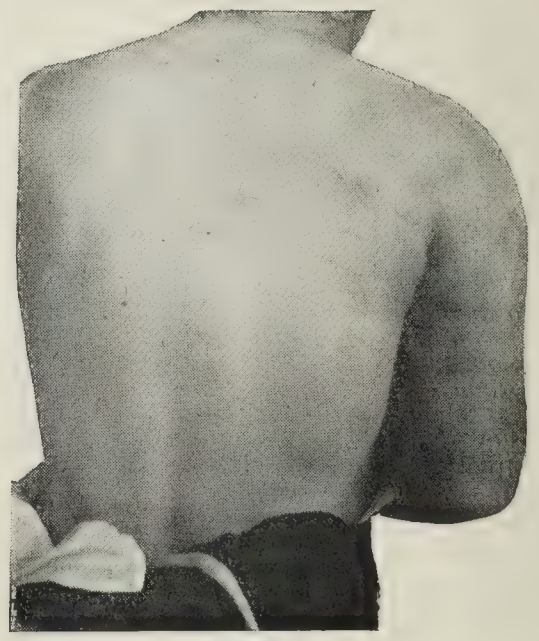


Fig. 14.

Figs. 13 and 14 are two views of a case unsuitable for treatment by lymphangioplasty (Case iii). Note that the shoulder is involved in the swelling and that an area of cancerous induration with a definite edge extends from the arm to the scapular region posteriorly.

E. *Cases in which the Patient is so Ill that the Risk of a General Anaesthetic cannot be faced, or in which the Silk Threads must be led through Cancerous Tissue.*

Assuming the white sheet of penitence, I must now relate to you the remaining case of my operation series (Figs. 13 and 14), which embodied both of these absolute contraindications to the operation of lymphangioplasty. This case (Case iii), one of my earliest, was in an almost moribund condition with thoracic cancer and pleural effusion, and was suffering tortures from a dropsical arm. A general anaesthetic seemed out of the question. Under a local anaesthetic an attempt was made to ease her last days by a rapid partial lymphangioplasty, using a single line of narrow silk ribbon instead of thread. But such pain was caused by the passage of the probe through the subcutaneous tissues above the skin incision that a general anaesthetic had to be given. At the shoulder the ribbon passed through an indurated area of diffuse subcutaneous cancer. No relief followed, and suppuration occurred along the line of the silk. She died about a week later. If the operation shortened her life, it was by a few days at most. I claim for this case the indulgence due to a pioneer mistake.

Mortality of Lymphangioplasty for Breast Cancer.

The case which I have just described is the only one of my series in which primary union has failed, and the only one in which death has followed closely upon the operation. Including this unsuitable case, the operation mortality of my series is 7 per cent.; excluding it, the operation mortality is *nil*. I think an impartial critic will agree that the latter is the fairer estimate, and that my cases show the procedure to be almost free from risk to life when asepsis is maintained. The operation is indeed equivalent merely to a 5-inch skin incision, that being about the aggregate length of the multiple small incisions. Shock and haemorrhage need not be feared. The cradle-splint represented in Fig. 15 will be found very useful during convalescence. It was suggested to me by Dr. J. M. Brydone.

Removal of the Silk used in Lymphangioplasty.

The following are the cases in which I have had to remove silk inserted for lymphatic drainage.

1. L. D. Lymphangioplasty for brawny arm of breast cancer. Primary union. The patient was discharged with the incisions soundly healed. Several months later she was admitted with suppuration extending along one of the threads from the wrist to the elbow. The corresponding incisions had reopened. She had neglected after-treatment, and, as she lived alone, she had used the arm for rough and dirty housework.

The infected length of silk was cut through by subcutaneous tenotomy well above and well below the limit of infection, and was easily withdrawn through one of the reopened incisions. The tract was syringed out with zinc chloride, 10 grains to the ounce. The incisions closed within a few days afterwards.

2. A case of elephantiasis to be described in Lecture II.

The Choice of Cases for Lymphangioplasty.

The preceding analysis of my cases shows that lymphangioplasty is contraindicated in cases where a general anaesthetic cannot be borne, and in cases where the silk threads would have to pass through cancerous tissue. It is also inadvisable to operate where there is growth present about the shoulder, if the pain is mainly an axillary one, or is a lancinating pain shooting down the arm. In the presence of pleural effusion or secondary growths the benefits of the operation are transient, but the shortest period of relief may, under the circumstances, be considered by the patient as worth having.

Minor Degrees of Swelling.

Minor degrees of obstruction to the return of lymph from the arm are not infrequently met with in breast cancer. The operation of lymphangioplasty should not be applied indiscriminately, but should be reserved for the severer degrees of lymph-stasis in which other modes of treatment are powerless.

The axillary scarring which necessarily follows removal of glands may sometimes lead to persistent oedema of the arm, usually slight in amount. In such cases the application of a bandage and the elevation of the arm on an inclined plane for one or two hours a day will usually suffice. In other cases, which ultimately develop into the true brawny arm, the lymph obstruction is partial only. In such cases, although the arm may attain a very considerable size, the oedema is soft, and pits freely on pressure. Postural treatment by elevation will sometimes in this stage reduce the size of the arm considerably, and will, to some extent, relieve the pain. The necessity of operation is thus for a time deferred, but the relief obtained is not to be compared with that resulting from lymphangioplasty. It appears, moreover, to be very transient, and in many cases even before the oedema has

become solid, postural treatment is intolerable because it severely aggravates the pain. This fact is easily explicable, since the lymph from the forearm, flowing easily upwards into the arm and meeting obstruction there, distends the tissues of the upper arm to an unbearable

Fig. 15.—Cradle-splint for use after lymphangioplasty.

extent. In the following case the effects of postural treatment are seen at their maximum.

CASE E. E.—A woman, aged about 60, was admitted into the cancer wards of the Middlesex Hospital at the beginning of August, 1908. She suffered from recurrent breast cancer of the left side in a chronic form. The left arm was much swollen, but it pitted freely on pressure. She was ordered to have the arm elevated on an inclined plane at an angle of about 25 degrees with the horizontal for two hours daily, but, owing to the painful tension produced in the scar tissue of the axilla, she could not bear the elevation for more than one hour daily. The swelling of the forearm at first subsided rapidly, while the upper arm later showed slight improvement. Within a month, however, most of the improvement had been lost. She declined operation. The following are the measurements of the arm:

	Aug. 7th.	Aug. 10th.	Aug. 14th.	Sept. 4th.
	in.	in.	in.	in.
Round hand	8	6¾	6⅝	7¼
At wrist	6¾	6¼	6⅛	6¾
4½ in. above wrist ...	10¾	8¼	9	10
At elbow	14¼	14¼	12¾	13½
1½ in. above elbow ...	13¼	13½	12¾	13¼
4 in. above elbow ...	11	12½	9¼	14

Thus, even in favourable cases, where the affection has not reached the stage of brawny hardness, the effects of posture are temporary and imperfect. If the oedema is marked and progressive, and if postural treatment is painful or ceases to be effective, the stage of brawny hardness should be anticipated and prevented by the performance of lymphangioplasty. The only objection to this course is that the patient will underestimate the benefits she has derived from the operation, for prophylaxis is less striking than cure, and earns less gratitude.

The following case is an instance of the mild post-operative oedema for which lymphangioplasty is unnecessary:

B. F. S., aged 35, was operated upon by me for breast cancer three years ago. She remains (January, 1910) free from any sign of recurrence, but three months after the operation some oedema of the right arm and hand, extending upwards nearly to the elbow, began to show itself, and has since persisted. The upper arm remains comparatively free from swelling. The oedema pits on pressure. Elevation rapidly reduced it as shown in the following table, and no operation was advised. In future the patient is to sleep with the forearm elevated on a splint whose upper end is slung to the head of the bed, an arrangement which in no way disturbs her rest. During the day she is to use the arm as usual.

	Jan. 12th.	Jan. 24th.
	in.	in.
Round the hand	9	8
At wrist	8¼	7¼
Below elbow	10	9½
Above elbow	10½	9

In this case there is evidently no true blockage of the lymph stream, but only a slight insufficiency in the total calibre of the lymph channels, owing to the interference produced by the operation. In such cases lymphangioplasty is usually unnecessary.

ERYSIPELAS AS A CAUSE OF LYMPHATIC OEDEMA.

Lymphatic oedema sometimes, though rarely, supervenes on erysipelas in situations where the subcutaneous tissues are loose and easily distended by serous fluid. Its most common situation is the eyelids, though it may affect more or less the whole of the face. In such cases it is easy to imagine, though impossible to prove, that the lymphatic vessels of the part have been obliterated by an unusually severe lymphangitis which has swept through them like a prairie fire, leaving only fibrous cords to represent the vessels.

No satisfactory treatment has hitherto existed for lymphatic oedema of the eyelids following erysipelas, and I was very anxious for an opportunity to try the effect of lymphangioplasty in such a case. The method I had intended to try was as follows:

Make a small horizontal incision ¼ inch long just outside the outer canthus. Take a suitably curved, fine, sharp-ended probe loaded with No. 8 tubular silk, and pass it from the incision through the thickened subcutaneous tissue of the eyelid parallel to and just below its free edge to the inner canthus. Here the skin is pierced from within by the point of the probe. The probe is completely pulled through, and the end of the silk follows it out through the puncture. The other end of the silk is now threaded through the probe, and its sharp end is pushed from the incision downward through the subcutaneous tissues of the cheek over the parotid gland for about 1½ in. The point of the probe is here made to emerge through the skin, and the probe, carrying with it the end of the silk, is withdrawn and unthreaded. In a similar fashion another thread is placed in position in the lower eyelid lying below the first but emerging at the same points on the skin. The upper eyelid is now dealt with in exactly the same way, its threads entering at the same incision, and emerging at punctures closely adjoining those from which the threads of the lower lid emerge. The ends of the threads are now all shaved off close to the skin, through the thickness of which they are caused to retract by a gentle pull applied to each thread where it lies in the floor of the incision. The incision is now sewn up with a point or two of horsehair, leaving the threads in position as four parallel lines, two in each eyelid, with their outer ends prolonged downwards into the subcutaneous tissue of the cheek.

In the absence of a suitable case I have been unable to try this method of operation. Priority in the application of lymphangioplasty to this class of case belongs to Mr. A. B. Mitchell of Belfast, who in two successful cases used a method differing only in technical detail from the one I intended to employ.

CASE I.—(Mitchell). A man, aged 25, had facial erysipelas in June, 1907. Solid oedema of the eyelids resulted, upon which treatment, including injections of fibrolysin, had no effect. Four threads were introduced in June, 1909, one in each eyelid on both sides of the face. Great improvement resulted within three weeks. One thread caused slight irritation, and had subsequently to be removed. The others still remain in position.

CASE II.—(Mitchell).* A young soldier in 1907 suffered from erysipelas of the left side of the face following an operation upon the cervical glands. Solid oedema of the face and lips supervened, and persisted until May, 1909, when Mr. Mitchell introduced two silk threads leading from the subcutaneous tissues over the masseter muscle downwards to the loose tissue

*A. B. Mitchell. A Case of Lymphangioplasty for Solid Oedema. BRITISH MEDICAL JOURNAL, November 20th, 1909.

behind the clavicle. The result was entirely satisfactory. The threads never gave the slightest trouble, and the face assumed its natural contour.

I am much indebted to Mr. A. B. Mitchell for supplying this conclusive evidence of the value of lymphangioplasty in post-erysipelatous oedema. These cases supply an additional proof, if one were needed, that the effects of lymphangioplasty in the limbs are not primarily due to the elevation which forms a necessary part of the after-treatment. The eyelids tend to drain by gravity either into the face or the scalp whether the patient be standing or lying. Yet until the operation, in each of Mr. Mitchell's cases the oedema had persisted unchanged for about two years.

Appendix of Cases.

CASE I.

The patient, a woman aged 56, was admitted into the cancer wards of the Middlesex Hospital on January 18th, 1908, under my senior colleague Mr. J. Bland-Sutton, who kindly transferred her to me for treatment. In 1894 a portion of the right breast was removed for carcinoma at the Chichester Hospital. In 1896 recurrences in the breast and axilla were removed at St. Mary's Hospital. In 1903 two or three small recurrent growths were removed from the axilla. In 1905 the right arm became swollen; it slowly became paralysed, and has been the seat during the past three years of excruciating pain, which frequently kept her awake at night. On admission, there was no evidence of cancer in the body in the form of palpable tumours. The right nipple still remained intact, and was not indrawn, and there was no lump in what remained of the right breast, nor was there any axillary mass of growth. The chest and abdomen were free from deposits. The growth was evidently an atrophic scirrhus, which had undergone an almost complete process of natural cure. The right hand and arm below the deltoid insertion was greatly swollen. The oedema pitted slightly on pressure, though it approached the solid variety. There was complete paralysis of the limb, save that the third and fourth fingers moved slightly. Sensation was lost in the thumb and first finger, but not in the second, third, and fourth. The hand was warm and of natural colour. Flexion of the elbow was only possible through 15 degrees, or rather less.

On February 1st, 1908, lymphangioplasty was performed. The operation produced no general disturbance of note. On the next day it was obvious that the bandages were loose, and the strapping upon her fingers was in the same condition and had to be frequently replaced. On February 6th it was noted that the arm and hand were quite flabby and much reduced in size. The skin was much wrinkled, and hung awkwardly on the fingers in folds. On February 7th the patient remarked that she "saw her knuckles for the first time for years." The movements of the fingers were beginning to return, and she was able to grasp very feebly. The arm was still quite paralysed. On February 10th the forearm and hand began to present an almost normal appearance, but much swelling of the upper arm remained. On February 19th the swelling about the elbow, which as the patient lay was the lowest point of the limb, had somewhat increased, and the limb was ordered to be put up on an inclined plane in an extended position and to be bandaged during the night. On February 24th the limb was continuing to diminish in size, though less rapidly than at first. Unfortunately measurements of the limb previously to operation were omitted, so that no accurate record remains of its very rapid and marked subsidence in the earliest days after the operation (Figs. 7, 8, and 9). Its slower subsequent subsidence is recorded in the following table.

Circumference of Arm.

	Feb. 6th.	Feb. 13th.	Feb. 18th.	Feb. 19th.	Feb. 21st.	Feb. 24th.	April 6th.
	in.	in.	in.	in.	in.	in.	in.
At wrist	7¼	6⅞	6⅝	6¼	6½	6⅜	6
4½ in. above wrist	8½	8⅛	8¼	8	7¾	7⅜	6¾
Just below elbow	10½	9½*	10¼*	10⅛	9⅜	9⅝	9⅜
8 in. above acromion ...	11	8⅞	10½*	10⅜	9½	9⅜	9¾

* Temporary return of swelling owing to dependent position of elbow.

Note.—The operation was performed on February 1st.

On April 8th it is noted that the patient has lost her pain, and that she is very grateful for the operation. Flexion of the elbow is now possible through about 110 degrees, as compared with about 15 degrees or less before the operation. The movements of the hand continued to improve so that the patient could hold a pin between the finger and thumb, but no return of power took place in the muscles of the arm. She developed signs of a deposit of cancer in the left great trochanter, and died on June 10th without recurrence of the swelling in the arm.

Abstract of Necropsy.

Upon the right arm and in the right pectoral region some fine longitudinal scars were seen. Two incisions were made in the limb, and thence 3 in. or 4 in. of silk were extracted. The silk had undergone hardly any change, and maintained its continuity along the limb. It had become firmly attached to the subcutaneous tissue which lay in contact with it. The right breast had been only partially removed. A mass of new growth, about 2 in. by 1 in., was present beneath the breast tissues, mainly between the ribs and parietal pleura, and besides this larger mass a number of small nodules could be seen beneath the parietal pleura. The fourth rib was invaded near its vertebral attachment.

The right pleural sac was filled with 16 oz. of blood-stained fluid. The right lung was adherent at its apex to the parietal pleura and the region of the new growth. A few small nodules the size of a pea were present. These were in the main confined to the upper lobe. A bronchial gland was enlarged to the size of a walnut, and had been infected. The liver exhibited one small subserous deposit on the right lobe anteriorly. The other organs were normal. The growth was a spheroidal-celled carcinoma.

CASE II.

This patient, E. A., a woman aged about 50, first noticed a small lump in the left breast in 1897. In 1899 the breast was removed at the North-West London Hospital by Mr. Frederick Durham. Operations for recurrence, four in number, have been performed at intervals since. The first of these took place in 1902, the second in 1904, the last in 1906. She was admitted to the cancer wards of the Middlesex Hospital on January 3rd, 1908, for inoperable recurrence in the left axilla and near the scar and for swelling of the arm, and was kindly transferred to me for treatment by my senior colleague, Mr. John Murray. On admission the left arm, and more especially the forearm, hands, and fingers are much swollen, and the limb is completely paralysed. The hand is purple in colour, but the fingers are warm. On account of the swelling of the tissues, the radial pulse cannot be felt. The oedema pits slightly on pressure, although in places it is almost solid. The pain in the arm is occasionally most severe, and in consequence of it the patient suffers much from insomnia. Amputation had been suggested before the patient's admission, and her condition was so miserable that she was prepared to welcome the loss of the limb.

Owing to the axillary recurrence and the consequent absence of loose skin on the thoracic wall in front, it was deemed well in this case to carry the threads up on the posterior aspect of the axilla, and this has since been my routine practice. They terminated in the subcutaneous tissue over the scapula. Four pairs of threads were used, as in the previous case—two on the flexor and two on the extensor aspect of the arm.

Measurement of Arms.

	Right Arm (normal.)	Left Arm.			
		Before Operation.	March 3rd.	March 13th.	March 18th.	April 6th.
	in.	in.	in.	in.	in.	in.
4½ in. above wrist ...	7¼	9¼	7¾	6⅞	6⅝	7
Just below elbow ...	8¾	11¼	9⅜	8⅞	9⅜	9
1½ in. above elbow ...	8¾	12½	10	9⅞	10⅛	10
8 in. below acromion...	9	12	10⅛	10⅜	9⅝	9⅝
Just below fold of axilla	10	10¾	11½	11¼	11	10⅝

The swelling in this case, as in Case I, subsided from below upwards, the subsidence being first noticed in the hand and forearm (Figs. 10 and 11). The excruciating pain has been entirely relieved, and the patient has good nights. She appears to be putting on flesh, and her worn expression has been replaced by a more contented look. She has still a certain amount of axillary pain, due to the recurrent growth in the axilla.

After about two months postural treatment was abandoned, without return of the swelling in the arm and hand. Subsequently she had considerable pain from secondary deposits in the right eye, and in the autumn her condition rapidly changed for the worse, although no swelling returned in the arm. In November there was slight increase in the diameters of the hand and arm, but with no return of the brawny hardness, and she died of secondary deposits on December 5th.

At the necropsy a secondary deposit was found at the back of the orbit, extending into the cranial cavity. The sternum was partly replaced by new growth. The left humerus was fractured at about the juncture of the middle and lower thirds. No other secondary deposits were found, and there was no fluid in the pleural cavity.

CASE III.

This case has already been described in the lecture (Figs. 13 and 14).

CASE IV.

Miss D., aged 68, had her left breast removed for carcinoma at the London Hospital in 1901 or 1902. The growth had been present for three years. Two years after the operation a secondary nodule was excised from the scar. In 1907 another secondary nodule was excised. About April, 1906, she

noticed that her left hand was beginning to swell, and the swelling has gradually extended up the arm. It has caused great pain, and in consequence of it she has had very sleepless nights. She has, however, been able to use her arm until quite lately. Tingling in the fingers has been a marked symptom.

On examination the scar of the operation is sound. No secondary nodules are present, nor could any glands be felt in the axilla, though there appears to be enlargement of the left supraclavicular glands. The left arm is swollen from the middle phalangeal joint to just below the tip of the acromion process, where there is a well-marked line of demarcation. The patient has free movement of her arm, and is able to move her fingers.

On April 18th, 1908, lymphangioplasty was done in the usual manner, except that an additional length of silk was introduced leading from the front of the biceps to the axilla, the better to drain this region.

On April 20th an obvious decrease in the size of the arm was noted, and the improvement was continuous. The wounds healed, and dressings were left off on April 30th. She left the hospital on May 5th, somewhat relieved.

Measurements of Arms.

	Left Arm.				Right Arm (normal).
	April 16th.	April 23rd.	April 27th.	May 4th.	
	in.	in.	in.	in.	in.
Palm	10	8½	8½	8¾	7½
4½ in above wrist ...	12	9¾	9¾	9	8
Elbow	13	10½	10¼	10¼	9
Over biceps	14	12	12	13	10
Below acromion ...	13½	14½	13	12½	12½

The subsequent history of the case is unsatisfactory. The old lady, who lived alone and attended to her own wants, began to use the arm very freely, contrary to the instructions given her. She was readmitted to the hospital on July 1st, 1908. The swelling had to a large extent recurred, a result which is to be expected if the after-treatment is neglected. Moreover, just above the elbow one of the incisions was surrounded by an area of redness, and had reopened, exuding a little pus, and exposing two of the buried silk threads. The skin round several other incisions was in a red and irritable condition. The infection was limited to a single pair of the threads. On July 4th this pair of threads was divided subcutaneously by a tenotome well above the elbow in a region to which the infection had not extended. The lowest incison, at the wrist, was reopened, and the infected length of silk was easily withdrawn. The track in which it had lain was syringed out with zinc chloride lotion, and the incisions were left to granulate. Nine days after operation the patient left the hospital with the incisions healed.

The infection of the silk did not occur at the first operation, for the temperature, though it ran up to 101° in the first twenty-four hours, fell to normal on the fourth day, and was never subsequently above 99°. Chronic irritation of the recently healed incisions by washing and housework appears to have been the infective agent.

I again heard of this patient in July, 1909. At this time the arm was described as enormously swollen, and quite dark in colour at the shoulder. A mass of growth, not giving rise to pain, was present in the opposite supraclavicular region.

The swollen arm was the seat of intense pain of unspecified nature. I did not have the opportunity of questioning or examining the patient.

CASE V.

Mrs. P., a lady of middle age, sent to me in 1908 by Dr. R. S. Armstrong, was operated upon for cancer of the left breast in November, 1894. A portion only of the breast was removed, and the axilla was not opened. An operation for recurrence was done in 1895. There has since been no recurrence. Nevertheless, in August, 1907, the left arm began to swell. The arm has been "very painful indeed," and has kept her awake at night. The swelling is only moderate in amount, but the oedema is almost solid. Movement of the arm is free except when restricted by pain. Lymphangioplasty was done in a nursing home on April 27th, 1908. Since the swelling was only moderate to begin with, the effect of the operation on the measurements of the arm has been almost inappreciable. Some diameters have slightly diminished, others have slightly increased. A most marked diminution of the tissue tension of the arm was, however, manifest in a few days, and this has continued up to the present time, when all the tissues except over the back of the elbow, where there is a comparatively firm area, are remarkably soft and flabby. Although the attacks of pain in the breast, shoulder, and arm have since occurred at intervals, the patient is satisfied that she has derived great benefit from the operation.

An interesting point of the case is that this patient, who had never previously suffered from asthma, developed this disease in a severe and typical form during her convalescence from lymphangioplasty. This fact favours the view of the pathology of asthma held by Dr. Harry Campbell and others that it depends on oedematous swelling of the bronchial mucous membrane. She found that the attacks were made worse by the elevation of the arm, and consequently she has almost neglected this part of the after-treatment.

Quite recently a palpable recurrence has shown itself at the apex of the axilla.

While in this case the operation has not given entire freedom from pain, because part of it is due to pressure of growth upon nerve trunks, it may, I think, be fairly claimed that it has arrested the evolution of what seemed to be an early stage of the typical "brawny arm." This arrest in the morbid process has extended to the present time, a period of twenty-one months, and during this time the pain, instead of increasing with the gradual development of the swelling, has been decidedly less than before. The tissues of the arm are soft and slack, and, in spite of the neglect of postural after-treatment, there has been no return of the very marked oedema of the hand which was formerly present. (This patient was shown after the lecture.)

Measurements of Arms.

	Right Arm.	Left Arm (not taken before Operation).					
		May 17th, 1908.	Jan. 8th, 1909.	Mar. 19th, 1909.	June 21st, 1909.	Sept. 22nd, 1909.	Dec. 31st, 1909.
	in.	in.	in.	in.	in.	in.	in.
At wrist	6$\frac{5}{16}$	7$\frac{1}{16}$	8	6⅝	6⅝	6½	6¾
4½ in. above wrist	8¼	10⅜	11	10¼	10⅛	10	10½
Just below elbow	9¾	12¼	11½	11⅛	11¼	10⅞	11¾
Just above elbow	9⅜	12¾	—	12	12	11¾	12⅜
5 in. below acromion ...	10½	11½	12⅓	12⅜	12¼	12⅜	13¼

This is the only case which I have operated on in such an early stage. Although prevention is better than cure, and although the result in this case is satisfactory, it has to be remembered that cases of mild post-operative oedema of the arm do not always become progressively worse. Since in the present case the original breast operation had been a decidedly restricted one, it can hardly be alleged as the cause of the oedema, and I am confident that lymphangioplasty cut short the development of a typical brawny arm. But such cases will fail to convince a sceptic of the value of lymphangioplasty. They have the further disadvantage that their results cannot be tested by measurements, and that the patient is unable to estimate the amount of pain that the operation has averted. For these reasons, and as a general rule, it is, I think, advisable for the present to defer operating until the pain and swelling have reached the stage when morphine threatens to become necessary for their relief. Prior to this stage the operation may be offered but should not be urged.

CASE VI.

M. A. K., aged 58, in 1906 had the right breast removed for carcinoma. In October, 1907, the patient's hand and arm began to swell. The oedema steadily increased until her admission to the Middlesex Hospital under my care on May 30th, 1908. She suffers severe pain in the affected limb, and is unable to use it for any purpose whatever. Some thickening is present adjacent to the scar of the breast operation and enlarged glands can be felt in the right axilla. There is no sign of visceral deposits. On June 3rd I did a lymphangioplasty. The highest subsequent temperature was 99.4.° The limb was placed on an inclined plane. The same evening the hand had already diminished in size, and by the following morning its girth had lessened by 2½ in. On June 12th all the wounds being soundly healed, the stitches were removed. On June 19th it is noted that the patient has had no pain since the operation, except slightly in the shoulder and thumb. She left the hospital on June 30th, greatly relieved, but died of her advancing disease on the following August 30th. (Fig. 12.)

The following table shows the subsidence of the swelling.

	Right Side.			Normal Left Side.
	June 2nd (before Operation).	June 12th.	June 30th.	
	in.	in.	in.	in.
Hand	10	7½	8	7
Wrist	8¾	7½	7⅓	5½
4 in. above wrist ..	12½	8½	10¾	7½
Elbow	15	12¼	13	8¾
Biceps	16½	14⅓	15½	10¼
Deltoid	19½	18⅓	20	15

The slight increase in the diameters between June 12th and June 30th is due to a diminution of the daily period of elevation.

The operation, which produced hardly any constitutional disturbance, had already more than justified itself when the patient left the hospital.

CASE VII.

Mrs. T. was brought to me on May 13th, 1908, by Dr. J. J. Corkhill of Southport, with the following history. In 1897 she was operated upon for cancer of the right breast by Sir Mitchell Banks. An operation for recurrence was done in 1900; but later a recurrence again took place in the axilla and upon the wall of the chest, and was healed by *x* rays. About the beginning of February, 1908, the right arm began to swell at the elbow. For six months previously there had been occasional burning pain from the elbow to the shoulder and under the arm. Since the onset of swelling, the pain, though more constant, has not been as a rule so severe as to keep her awake. The arm has become completely paralysed, except that slight movement in the fingers remains. Two small ulcers were present in the axilla, and upon the chest there was an extensive eczematous surface with scattered nodules of growth.

For about a month a systematic attempt to get the ulcerated surfaces as clean as possible was made by Dr. Corkhill and by Dr. Stopford Taylor of Liverpool, who applied the method of cataphoresis for this purpose. On June 18th, 1908, I did a lymphangioplasty at the patient's home, with gratifying results at first. A metal spiral splint, suggested by Dr. Corkhill, proved very comfortable as a means of elevating the arm, and I have since used it habitually until quite lately. The temperature returned to normal on the third day, and the arm rapidly subsided, with relief to the pain. On June 28th Dr. Corkhill wrote to congratulate me on the entire success of the operation. But about July 10th lymphangitis appeared, and the skin became red and inflamed. Boracic baths were used and the inflammation subsided, but left the arm as large as before the operation. On July 20th an increase of cancerous growth was noticed. Pleural effusion showed itself shortly afterwards, and the patient died rather suddenly on August 9th.

In this case it is, I think, fair to ascribe the unsatisfactory result to the intercurrent dermatitis of the arm—a complication which I have only met with in this case.

CASE VIII.

At the end of October, 1908, I was asked by Dr. W. Hall Calvert to perform lymphangioplasty at Melrose upon a patient under his care. She was a spare and delicate old lady, upon whom, seven years previously, Professor Caird of Edinburgh had operated for a cancer of the left breast. The result of the operation was satisfactory until the development of a brawny arm towards the end of 1907. When I saw her on October 30th, 1908, there was no sign of local recurrence, nor any glands in the axillae. One slightly enlarged right supraclavicular gland could be felt. There was some thickening of the tissues above the left clavicle, but no definite mass could be felt there. No evidence of visceral cancer could be found, and there was no dyspnoea—a point of considerable importance. Paralysis of the arm was almost complete. It was greatly swollen, and of brawny hardness, and caused agonizing pain, which for some time past had necessitated the habitual use of morphine. The swelling of the arm did not extend to the scapular region. A bridle of skin in the line of the axillary scar prevented free abduction of the arm.

In every particular this case was an ideal one for operation, especially since the disease was latent and signalized its activity only by lymphatic swelling. Evidently the defensive processes of fibrosis were very active—a fact which I believe to be connected with the healthy open-air life led by the patient since her first operation.

With the assistance of Dr. J. M. Brydone and Dr. Calvert, I performed lymphangioplasty at once, all preparations having been previously made. At the same time a simple plastic operation was performed upon the bridle of skin which prevented abduction. As I did not see the patient again, I cannot give a table of measurements, showing the effect produced, and I must therefore quote Dr. Calvert's letters, at the risk of appearing egotistical. On November 3rd, Dr. Calvert wrote that the temperature had never been above 99°, and the pulse, though quick (120), had improved. The patient felt soreness, but the pain in the arm had disappeared, and did not subsequently return. Morphine was discontinued within a few days of the operation, and was not again needed. On November 11th, when the stitches were removed, no swelling remained except at the underside of the elbow. The patient admired her arm, which she said was "like a girl's." Her appetite and sleep were excellent, and her mental condition cheerful. Dr. Calvert concludes, and I may be forgiven for quoting his words, "I congratulate you on the splendid operation your scientific genius has invented."

A month after the operation the residual swelling under the elbow had quite gone, and on November 28th the patient wrote me a personal letter of warm thanks. Unfortunately, the apparent inactivity of the disease proved to be a delusion. About four months after the operation, slight pain returned in the arm, not, however, approaching the former agony, nor requiring morphine. Swelling also began to return. Early in 1909, the left side of the chest filled up with the fluid, and dyspnoea became a prominent symptom. Tapping was necessary on four occasions, and each time it gave marked relief. A large mass of recurrent growth was thought to be present. The patient sank and died about the middle of May, 1909. Dr. Calvert concludes: "She was most grateful always for the relief from the agonizing pain."

CASE IX.

This patient, a Red Cross nurse, aged 54, was admitted under my care with a swollen left arm on September 18th, 1908. In August, 1906, her left breast had been excised for cancer by Mr. Andrew Clark, who subsequently, in November, 1906, removed also the right breast for cancer. In November, 1907, shortly after a motor-car accident in which her right arm was injured, this arm began to swell, gradually increasing to its present dimensions. The swelling commenced at the shoulder, and travelled downwards to the elbow and the wrist. The arm is extremely painful, especially in the axilla. The swelling is greatest in the evening, better in the morning; and the pain is also more intense at night. Secondary glands are present in both supraclavicular regions. The right side of the chest, forming the inner wall of the axilla, is in an eczematous condition. Specimens of blood from the left arm and of lymph from the right arm were both found to be sterile. In this case lymphangioplasty was done on September 2nd, 1908, and the patient left the hospital on September 19th with the incisions soundly healed. The swelling of the arm was, however, practically unaffected.

Measurements of Arm.

	Aug. 29th.	Sept. 2nd.	Sept. 13th	Sept. 18th.	Dec. 7th.
	in.	in.	in.	in.	in.
Hand	7⅛	7¼	7¼	7¼	8⅛
Wrist	7¼	7½	7¼	7⅛	8
4 in. above wrist ...	9½	9¼	9¼	9	10¼
Elbow	12¾	13	12¼	12⅜	12⅝
4 in. above elbow ...	13	12¼	12½	12½	12

About October 10th, 1908, this patient began to feel shortness of breath, and she was admitted to the cancer wards, under Mr. Murray, on November 10th. When I saw her next, on December 10th, closely-set subcutaneous nodules of growth were present round the posterior axillary fold, and lines of small similar nodules radiated thence round the back, definitely following and mapping out the track of the silk threads, at the ends of which the nodules ceased. She had experienced no relief from the operation. The right chest was full of fluid and the dyspnoea was severe. She died before the end of 1908.

Evidently in this case the silk threads had been passed through a region where active cancer cells were present, and had carried with them cancerous infection down the subcutaneous tissue of the back. This is the only case where I have met with such a complication. It is to be avoided by a rigorous selection of cases and by keeping away from the region of the axilla, carrying the silk threads from the arm to the back over the posterior fibres of the deltoid muscle. Under no circumstances must the threads be carried through a region of obvious cancerous infiltration.

CASE X.

Mrs. N., aged 61, was sent to me in August, 1908, by Dr. R. T. Bedford of Fulham. In August, 1904, a cancer was excised from the right breast at Dorchester Hospital. In April, 1908, she began to suffer very severe pain in the right arm. She had previously been able to use the arm quite naturally, and there was no sign of recurrence anywhere. Three weeks after the pain began the arm commenced to swell, and has since gradually increased in size. The patient continued to work hard as usual until July, 1908, when she was compelled to give up. In the following month the pain and swelling diminished to some extent.

The arm, which is much swollen, pits slightly on pressure, though the oedema approaches the solid variety. There is no paralysis. The swelling first began over the triceps and travelled gradually downwards. The hand is even now only slightly affected, though it becomes much puffed towards night. The pain is said to resemble a succession of blows upon the "funny bone" (ulnar nerve). At other times it is like a succession of stabs. It comes on in paroxysms, and sometimes she has a whole night free from it. Decided fullness is present below the clavicle. This appears to indicate recurrence in the subclavian glands. An examination of lymph and blood drawn from the arm shows that micro-organisms are absent from it. On September 5th lymphangioplasty was performed and a normal convalescence followed, the patient leaving the hospital on September 28th. But for reasons which I am unable to explain, the operation failed to benefit either the pain or the swelling. One can only conjecture that, for some reason or other, there was no adequate return flow of lymph from the region to which the silk threads were led.

CASE XI.

Mrs. N., a lady of advanced middle age, consulted Dr. N. Henry Hobart of Cork, on June 1st, 1908, for a carcinoma of the upper and outer quadrant of the left breast, about the size of an orange. The lump had been noticed only ten days previously, and had never caused pain. The skin was somewhat adherent. The breast and pectoral muscles were removed

without delay. Healing took place by first intention, and the patient was moved to her home on the sixteenth day. She was next seen on September 19th, and a small nodule was found to the left of the scar, halfway between the axilla and the line of the nipple. This was removed on September 19th, and the granulating surface left was not completely healed until the middle of November. About this time the left arm commenced to swell, and she began to suffer considerable pain in the arm. The pain, which became very severe, was referred chiefly to the palm of the hand. Her condition became gradually worse, and the arm was closely bound to the side by the contraction of the parts. On December 23rd Dr. Hobart asked me to see the patient with him, and lymphangioplasty was performed at her home on the following day. The subsequent after-treatment was made rather difficult by the very limited abduction and flexion allowed to the arm by the axillary contraction. Owing to the distance of the patient's home from London, I did not see her again, and I am unable to express the result of the operation in measurements. Dr. Hobart has, however, kindly supplied me with details of the further history of the case. The swelling of the hand completely disappeared within eighteen hours and pain in the limb had gone. On January 3rd, 1909, there was a slight return of the swelling in the hand. Two days later it had again disappeared, but there was a certain amount of "pitting" in the upper part of the arm, chiefly in its anterior surface. Elevation and extension of the arm were too irksome to be completely carried out, and after the first week the arm was simply laid on a pillow. Dr. Hobart states at this time: "The patient and her husband are greatly pleased with the enormous relief you have afforded her."

Six weeks after the operation it became impossible, owing to the advance of the growth in the axilla and chest, to move the arm in any direction, all attempts at elevation had to be abandoned, and morphine in small repeated doses became necessary. The forearm began to increase in size again towards the end of January, and later the upper arm, but the hand remained about of normal size until the second week in April, three weeks before death. Swelling then began on the dorsum, but the palmar swelling, which had been so painful, did not recur. Towards the end of February the supraclavicular glands became intensely hard, and caused considerable pain. At the end of March it was evident that the pleura was attacked. About April 8th the patient became suddenly delirious, and in her struggles a large quantity of serous fluid (30 oz. approximately) suddenly poured down the arm from the region of the axilla. Her mental condition remained seriously affected until the end, which came from exhaustion on April 30th, 1909. Dr. Hobart says in conclusion: "I know of course that in this case you were greatly handicapped by the condition of the parts, but I am quite confident that your operation afforded Mrs. —— a very great amount of relief. Her greatest pain, due to swelling, lay in the palm of her hand. She never again suffered from this or the tense fullness of the arm; any pain she had was in the shoulder and chest, which of course was not affected by your operation."

CASE XII.

Mrs. S., aged 57, living in Colorado, U.S.A., was brought to London in December, 1908, by her medical adviser, Professor Lloyd Miller, of Greeley, Colorado.

Her history was as follows: In 1895 Professor Miller successfully removed the right breast for cancer. Recurrence at the end of four years was treated by caustics, and the disease became quiescent. However, in 1907, twelve years after the primary operation, the right arm became brawny and extremely painful. In June, 1908, a Denver surgeon performed lymphangioplasty. Six threads were introduced, and still remain in position. The threads consisted of coarse silk twist, and were led from the wrist and along the inner aspect of the arm to the front of the shoulder, and thence to terminate over the posterior triangle of the neck. The operation temporarily reduced the swelling of the arm, but considerable swelling persisted, and the pain remained sufficiently severe to cause habitual insomnia, to require the habitual administration of morphine, and to induce the patient to cross the Atlantic in the hope of relief.

Upon examining the patient I found the case a favourable one for operation in regard to the absence of pleural effusion and of ulceration over the chest. The arm could be freely abducted, though movement of it aggravated the pain. One small nodule of growth was present on the side of the chest below the axilla.

In the right supraclavicular region the glands were slightly enlarged, especially one behind the sterno-mastoid. At the back the tissues nearly down to the angle of the scapula showed some oedematous hardening, but no nodules were present. It was evident that the lymph drainage provided by the first lymphangioplasty was partial and imperfect. None of the threads were carried along the back of the arm, which remained undrained. It was here accordingly that the principal swelling was located. The threads in front were carried to a region dangerously close to the area of operation. Here, along the coraco-brachialis and in the line of the threads was an indefinite hard band of tissue, which I suspected to be caused by cancerous infiltration along the threads. The pain felt by the patient was sometimes referred to this region, but it was mainly and usually a heavy diffuse pain felt all over the arm. The arm was nearly paralysed.

It appeared to me that some of the pain might depend upon nerve pressure, but that it was mostly due to fluid tension in the tissues. I accordingly advised a more complete lymphangioplasty as promising considerable relief from swelling, pain, and insomnia. The operation was performed on December 27th, 1908, the anaesthetic being given by Mr. H. P. Noble. In view of the possibility of cancerous infiltration in the line of the coraco-brachialis, this region was carefully avoided. Otherwise the operation was performed as usual, save that as there was some oedematous thickening over the scapula some of the threads were led further down than usual, terminating in the lumbar region, while others were led across the middle line of the back to terminate over the opposite scapula.

As usual, marked and fairly rapid subsidence of swelling followed the operation. Relief of pain, however, was slow in coming, and insomnia remained troublesome. These unusual features of the case appeared largely due to the patient's neurasthenic condition, produced by long-continued chronic pain, and aggravated by the morphine necessary for its relief. At times her condition bordered on melancholia, and she temporarily lost the wish to live.

Morphine was only given twice subsequently to the operation. A tablespoonful of vibrona at bedtime and a course of aspirin were substituted for it, and although the accustomed sedative was at first acutely missed, sleep gradually improved and pain diminished. Dr. Lloyd Miller's co-operation in the after treatment of this difficult case was invaluable. A course of *x* rays to the region where growth was suspected was given by Mr. C. R. C. Lyster, and continued later in New York, and this appeared to benefit the pain in the coraco-brachialis region which was still troublesome at times.

The arm subsided slowly and continuously. The patient left the home on January 21st, 1909, to return to America.

The measurements of the arm were as follows:

	Right Arm.		Left Arm.
	December 25th, 1908.	January 11th, 1909.	
	in.	in.	in.
Wrist	6⅛	6	5⅔
4½ in. above wrist	8½	7	7⅛
Elbow	11	9½	7⅝
Just above elbow	10¾	9¾	—
3 in above elbow	10⅛	10 1/16	8⅛

In this case, as in some others, the measurements do not give a fair idea of the effect of the operation. A small diminution in calibre, or even no diminution at all, may be accompanied by a very marked fall in the fluid tension within the tissues, so that the arm which was hard becomes soft and flabby. Such was the case in the present instance.

When Mrs. S. left the home she still had occasional pain in the arm, but on February 27th Dr. Miller was able to write that the swelling of the arm had entirely disappeared with the exception of a slight soft swelling at the shoulder, which caused no discomfort. Pain had all left the arm and hand, and she was sleeping well from night to morning, a thing she had not been able to do for more than a year previous to the operation. Her mental condition was contented and happy. Dr. Miller's letter concluded with a very favourable estimate of the value of lymphangioplasty, which I forbear to quote, leaving the case to speak for itself. On April 26th, in another letter, he said, "Mrs. S. is still doing fine."

CASE XIII.

On April 22nd, 1909, I saw at Norwich with Dr. H. J. Starling, a lady aged 40, and unmarried, with the following history: In July, 1908, she was operated on for scirrhus of the right breast. The following November she was again operated on for a recurrence near the scar. In January, 1909, *x* rays were applied for a month for further recurrence in the scar on the advice of Mr. A. A. Bowlby. About April 8th the case came under the care of Dr. Starling. At this time she had pain all over the right breast, and increasing very painful oedema of the whole of the right arm, with great dyspnoea and deficient air entry to the right lung. The daily use of morphine was necessary, together with inhalations of oxygen.

The case was obviously one in which death was not far distant, and one in which the risk of the anaesthetic could not be overlooked. But as the skilled services of Dr. Starling were available for the anaesthetic, and as the sufferings of the patient were extreme, I felt that the operation could be offered to the patient if the pleural fluid in the right sac could be safely removed. This was done, and the operation performed immediately afterwards. There was considerable shock owing to the patient's weak condition; but the wounds healed by first intention, and pain and swelling disappeared from the arm and hand. Subsequently the pleura had to be tapped on several occasions, and the patient went downhill rapidly. Swelling did not return to the hand, forearm, or lower part of the arm, but it appeared in the axilla, and extended across the chest to the left breast. She died about May 24th. I did not see the patient subsequent to the operation, but in Dr. Starling's opinion, expressed recently in reply to a letter from me, it was "a distinct and undoubted success." He adds: "I should unhesitatingly recommend the operation again in such a condition as was hers."

Case xiv.

This lady, aged 37, was sent to me by a well-known surgeon who had operated for carcinoma of the left breast about two years previously. Closely following upon the shock of the death of a near relative from cancer, recurrence made its appearance on the side of the chest and in the supraclavicular region, while a vague induration appeared in the axilla. Radium treatment was applied in Paris, without much benefit. About the end of April, 1909, swelling of the arm became very marked, and pain and discomfort from this cause began. Radium treatment was recommended by Dr. Louis Wickham for this condition, but the patient herself felt that the applications aggravated the swelling. Radium treatment was continued in England after the patient's return. She continued, in spite of her sufferings, to lead an active life, and although her condition would have confined most women to bed, she frequently spent a whole day in the hunting field, carrying the swollen arm on the saddle in front of her. Her determination to fight and conquer the disease was truly heroic. She had noticed that confinement to the house seemed to quicken the march of the disease—a fact she had observed during an attack of mumps early in 1909—and had lived an active open-air life in consequence. I first saw her on August 28th, 1909. She had then an indolent, ulcerated, or rather eczematous, cancerous area over the front and side of the left chest, one or two very large glands in the supraclavicular region, and a vague induration in the armpit. There was also some impairment of resonance at the base of the left lung. She had had attacks of shortness of breath. The arm was hard, cyanotic ,and very swollen, the swelling extending up to and involving the shoulder, but not at that time covering the scapular region.

I pointed out that the case was not a favourable one for my operation, in view of the activity of the disease and the doubt as to the condition of the pleura. The patient and her husband were, however, most anxious for the performance of lymphangioplasty, even if the relief would last "only three days." The case seemed to be one where the wishes of the patient could be allowed the deciding voice, and on August 29th I operated by the usual method.

The immediate result was most striking and satisfactory. The pain ceased from August 30th, and the hand and forearm rapidly subsided and regained their normal colour, while the tension of the upper arm was much diminished, and it became comparatively flabby. Movement also returned to the fingers, wrist, and elbow. The stitches were removed on September 6th, when all the incisions were soundly healed. The only incident in a smooth convalescence was an alarming attack of dyspnoea, necessitating the use of oxygen, which occurred about the fifth day. The patient went down to dinner on September 6th, and at this time her only trouble was sleeplessness. On September 9th she motored 60 miles into the country, and though rather exhausted everything seemed going well. From this time, however, the swelling in the arm rapidly recurred. On September 18th I found on examination much fluid in the pleural cavity, and drew off a quart of straw-coloured effusion. The cancerous area in front of and at the side of the thorax had rapidly extended and was involving the scapular region, to which the threads had been led, blocking up the new lymphatic drainage system. On September 25th the arm was as bad as before the operation, and there was oedema over the whole front of the chest and the left supraclavicular region. The patient's mental attitude had changed from one of eager fight to one of serene resignation. From this time morphine was administered regularly, and the patient died in December, 1909.

It may be said that in this case the operation was unjustifiable. This opinion would ignore the patient's imperative wish to have it tried and the subsequent period of ease, which, though measured by days, must have been an unspeakable relief after months of torment. The respite could have been obtained by no other method with which I am acquainted. The surgeon who removed the growth went to see the patient some days after the operation, and expressed himself satisfied that the operation had justified itself.

Case xv.

A. T., aged 54, was admitted into the cancer wards of the Middlesex Hospital on September 25th, 1909. In 1899 a nodule was excised from the right breast. In 1902 the breast was removed for local recurrence. In 1904 five nodules appeared near the scar, and ulceration supervened later, but healed under *x* rays in 1908, only to break out again later. Growth and ulceration appeared in the axilla, but pain remained absent until the development of a dropsical right arm about June, 1909.

On admission in September, 1909, she was very ill and cachectic, with extensive nodular growth, in places ulcerated, over the sternum and right chest wall. The axilla was a deeply ulcerated chasm with a floor of offensive sloughy growth. On December 2nd, at the patient's earnest wish, I consented to do lymphangioplasty if the ulcers could be got into a cleaner condition. For this purpose the axillary cavity was filled with acetone for half an hour daily. The application was painful, and on December 18th a severe haemorrhage of about a pint occurred from the axillary cavity, with slight temporary benefit to the swelling of the arm. On January 8th, 1910, the general condition showing some improvement, lymphangioplasty was performed in the usual manner.

The operation caused me a considerable amount of anxiety, for the axillary ulcer, spreading from the front, had left only a bridge of normal skin about 6 in. wide posteriorly, and through this narrow strait the silk threads had to be led. The risk of failure had been fully explained to the patient, and she desired to submit to it rather than remain in her condition of pain and misery. Fortunately, no failure of asepsis occurred, a fact which reflects great credit on the house-surgeon, Dr. A. O. English, and on the nursing staff, and her convalescence was without incident. Although the contraction of the axillary tissues allowed of no abduction and only the slightest elevation, it was noted on January 14th that the hand and forearm had much improved, and the skin of the hand showed marked creasing. The arm had not much diminished in size. On January 19th the registrar notes "There is very great improvement in the condition of the arm. Swelling in the hand and arm has diminished wonderfully." Before the operation the hand and arm and even the fingers were quite paralysed, while the patient can now move both the wrist and elbow, and can grasp firmly with the hand. The patient especially drew my attention to the increased vertical mobility of her shoulder, and to the diminution of swelling behind the shoulder-joint.

On January 23rd, in a letter written tc me with the hand which had been completely paralysed, she expressed herself delighted with the results of the operation, especially in regard to the relief of pain. In order if possible to check the advance of the disease in the direction of the threads, a course of *x* rays is being applied to the region of the scapula.

The measurements of the arm are as follows:

	Right Arm.		Normal Left Arm.
	December 2nd, 1909.	January 19th, 1910.	
	in.	in.	in.
Palm of hand	8¼	7	7
Wrist	7⅜	6½	6¼
Forearm 4 in. below elbow	11½	8¾	7⅞
Arm 4 in. above elbow	12⅞	11¾	9
Arm 8 in. above elbow	12⅝	11⅛	10⅜

Remarks

on a

CASE OF RECURRING JAUNDICE IN FOUR SUCCESSIVE PREGNANCIES, WITH FATAL JAUNDICE IN THREE SUCCESSIVE INFANTS.

By H. D. ROLLESTON, M.D., F.R.C.P.,

Senior Physician, St. George's Hospital; Physician, Victoria Hospital for Children.

A woman who had never had jaundice at any other time had jaundice in her four successive pregnancies, and her first three infants died of jaundice. In the fourth pregnancy the woman was treated with urotropin and sodium salicylate, and, though she became somewhat jaundiced about the sixth month, she had a healthy child.

A married woman, aged 35, two months pregnant, came to St. George's Hospital on December 8th, 1908, in order to see if anything could be done to prevent the sequence of events which had characterized her three previous pregnancies. In each of these pregnancies she had become jaundiced about the sixth month, and subsequently suffered from itching of the skin. Throughout all her pregnancies she has had nausea, but has never had vomiting. She is always constipated, and this is much worse during her pregnancies. Her three children were all born six weeks before term, and, though not jaundiced at birth, rapidly became so, and died; the first, a boy, died at 5 months; the second, also a boy, at 5 months; and the third, a girl, at 16 days. She has not been able to suckle any of her children. She has never had jaundice or pruritus except during these pregnancies; she has not had biliary colic or enteric fever; and, as far as she knows, jaundice has not occurred among her own relations or in her husband's family.

During her fourth pregnancy she was treated with urotropin and salicylate of sodium, with a view of preventing infection and obstruction of the biliary tract, and the occurrence of grave jaundice in her infant. This, however, was not entirely successful, for she became jaundiced about the sixth month, and had pruritus, though she did not feel so uncomfortable as in her previous pregnancies. There was no enlargement of the liver or spleen. On June 3rd, 1909, a healthy 8 months boy was born. He did not show any sign of jaundice; when 2½ weeks old he was admitted into the hospital. There was nothing really the matter with him; the liver, spleen, and urine were healthy. He was seen again on March 1st and 10th, 1910, when he weighed 16 lb., and was in very good health. He has never had any jaundice.

In a number of recorded examples successive infants of healthy parents have become jaundiced and died shortly after birth. Arkwright reported a family of 15 children, 14 of whom had jaundice, with 4 survivals; the mother had had jaundice when 4 years of age, and had a "rather sallow, earthy complexion." Busfield described 9 cases in one family (one necropsy, no changes in liver or ducts). Auden recorded 8 cases of jaundice out of 12 pregnancies in one family; in 4 of his cases a necropsy was made, and failed to show any lesion in the liver or bile ducts. Blomfield reports 5 cases, and Pfannensteil 3 cases in one family.

In this condition the infants are not born jaundiced, and there is not any evidence of syphilis either in the parents or in the infants. It is familial and not hereditary. The only instance, apart from my case, in which the mother had had jaundice was in the family reported by Arkwright. It is noticeable that this condition has been recorded in families characterized by a large number of pregnancies some of which have aborted, miscarried, or terminated before full time or in stillbirth. In Arkwright's series there were 15 pregnancies, in Auden's 12, in Busfield's 10. In Auden's and Busfield's series the first child escaped, and may have done so in Arkwright's, and was very slightly affected in Blomfield's series. The later children seem to suffer rather more severely than the earlier. Both sexes are affected.

The cause of the jaundice is obscure. Pfannensteil, who calls the condition "habitual icterus gravis of the newborn," regards it as an intensified form of the physiological jaundice of newborn infants, and not as a grave infective icterus. As there is no evidence of any structural change in the liver and bile ducts, it is tempting to assume that it is toxic, and is due to some form of maternal toxaemia or infection. In this connexion Blomfield points out that in his series the mother suffered much from vomiting during her pregnancies. The occurrence of abortions, miscarriages, premature and still births in some of the series also fits in with this hypothesis. Against the view that it is due to maternal toxaemia or infection it might be argued (1) that the offspring do not, as a rule, become jaundiced until a day or so after birth, and (2) that the infants suffer far more than the mothers. In reply it may be urged, by way of analogy, that hereditary syphilis may not produce any obvious change until after birth, and that it may, and often does, affect the infant's health much more than the mother's. It has been suggested that the jaundice might be due to toxins contained in the mother's milk; but this is improbable, as the jaundice often appears on the second day of independent existence, and in some cases, as in my own, the infants have not had their mother's milk.

Recurring jaundice during pregnancy has been recorded by Benedict in two sisters; these patients had repeated attacks of jaundice and severe pruritus with hepatic enlargement during pregnancies; these symptoms disappeared after abortion or premature delivery. Their infants were not jaundiced. The condition in my patient was similar except that she did not show any hepatic enlargement, and that her first three infants were jaundiced. It is difficult to avoid the conclusion that this recurring jaundice during pregnancy is toxic.

In the family reported here there is the remarkable, and, as far as I know, unrecorded, association of the recurring jaundice of pregnancy in the mother with fatal jaundice in the offspring. It may, perhaps, be suggested that this association of recurring jaundice during pregnancy in the mother and of grave jaundice in her newly-born infants is the complete form of a disease of which Arkwright's, Auden's, Busfield's, Blomfield's, and Pfannensteil's series on the one hand, and Benedict's cases on the other hand, are incomplete forms.

The most reasonable method of treatment appears to be to treat the mother during her pregnancy with biliary and intestinal antiseptics such as urotropin, salicylate of sodium, small doses ($\frac{1}{20}$ grain) of calomel, tetrachloride of naphthaline, guaiacol; to regulate her diet, and to prevent constipation. The infant's jaundice should be treated on the same lines, and if there are urgent symptoms, by subcutaneous transfusion of saline solution. In view of the probability that the infantile jaundice is due to maternal toxaemia it is probably wise to adopt Auden's suggestion of preventing the mother from suckling the infant. In my case it would not be justifiable to insist that the administration of urotropin and salicylate to the mother during her pregnancy was responsible for the escape of the infant, as she herself had some jaundice.

BIBLIOGRAPHY.
Arkwright, *Edin. Med. Journ.*, 1902, xii, 156. Auden, *St. Barth. Hosp. Rep.*, 1905, xli, 139. Benedict, *Deutsche med. Wochenschr.*, 1902, xxviii, 296. Blomfield, BRITISH MEDICAL JOURNAL, 1901, i, 1142. Busfield, ibid., 1906, i, 20. Duguid, ibid., 1906, i, 319. Pfannensteil, *München. med. Wochenschr.*, 1908, lv, 2233.

PIGMENTATION OF THE BUCCAL MUCOSA IN PERNICIOUS ANAEMIA.

BY
T. GILLMAN MOORHEAD, M.D., F.R.C.P.I., D.P.H.,
PHYSICIAN, ROYAL CITY OF DUBLIN HOSPITAL.

PIGMENTATION of the mucous membrane of the mouth in pernicious anaemia is apparently a very rare condition, and as such pigmentation has until lately been regarded as almost pathognomonic of Addison's disease, it is important to place on record all cases of pernicious anaemia in which it is found. The following case presented the phenomenon in a very well marked form.

The patient, a man aged 28, was admitted to hospital under my care on January 3rd, 1910, complaining of weakness and palpitation. He was employed as a groom, but was for eight years in the army, and during that time suffered, in the summer of 1908, from an attack of moderately severe malaria, for which he was treated at first by quinine, and later for a period of one week by an arsenical mixture. He left the army at the end of 1908, and remained in good health until the commencement of his present illness, three months ago.

On admission he presented the typical appearance of pernicious anaemia, but in addition to the uniform lemon-yellow colour of the body there were present a few scattered freckle-like patches of deep brown pigmentation on the face below the eyes and around the angles of the mouth. The most striking feature, however, was the pigmentation of the lips and mucous membrane of the inner aspects of the cheeks. The lower lip on its inner aspect was of a bluish, inky colour, and this discoloration was prolonged in the inner aspect of the mouth on both sides, principally on a level with the line of junction of the teeth, in the form of scattered inky patches. Similar patches less deep in colour were also present on the inner aspect of the right cheek below the level of the teeth. The teeth, especially those in the upper jaw, were extremely foul, with pus exuding from some of the sockets. The first blood examination showed a diminution in number of the red cells down to 480,000 per c.mm., with a colour index of 1.5; there was extreme variation in the size of the red cells, with poikilocytosis, but nucleated cells were scarce, only two, both of megaloblastic type, being found in a count of 500 white cells. The white cells numbered 5,000 per c.mm.; blood pressure 115 mm. Hg; no HCl in gastric contents; haemic murmurs present; spleen just palpable; von Pirquet's tuberculin test negative.

Under treatment by arsenic the red cells have increased to 1,750,000 per c.mm., with a colour index of 1.4. The mouth pigmentation is, if anything, less marked than before, doubtless owing to the fact that the contrast between it and the remaining mucous membrane is now less sharp owing to the gradual return of the latter to its normal colour.

In addition to this case only four others seem to have been recorded, and that in spite of the careful examination to which the mouth is usually subjected in this disease. Hale White[1] was the first to call attention to the symptom at the Association of Physicians in May, 1907. His case was that of a man, aged 22, who was admitted to Guy's Hospital suffering from increasing weakness, and who on examination was found to present an abnormal pigmentation of the face, trunk, and limbs, partly in the form of small, dark brown, freckle-like spots, and partly in more diffuse brown areas. The diagnosis of Addison's disease was at first suggested, and the presence of well-marked pigmented streaks and spots on the inner aspects of the cheeks seemed to confirm this, but, relying on the other features of the case, Hale White inclined to the diagnosis of pernicious anaemia, and this was confirmed at the *post-mortem* examination. The second case is recorded in the *Guy's Hospital Reports* for 1909 by Herbert French.[2] It is that of a woman, aged 33, who showed the typical symptoms of pernicious anaemia. In this case there was widespread pigmentation of the skin in patches and specks, pigmentation of the buccal mucosa on the inside of the cheeks, and purulent tooth sockets. Here also the diagnosis was later confirmed *post mortem*. In both of these cases, and also in mine, the use of arsenic

ntedated the appearance of the pigmentation, but as in my case, according to the patient's statement, that drug had only been taken for a week prior to my seeing him, there seems little reason to attribute the discoloration to its use, more especially since Rolleston[3] has lately recorded a case in which arsenic had not been taken, and in which there was inky pigmentation along the lower lip and patches on the inner aspect of both cheeks. The only other reference to the condition which I can find is by Lazarus[4] in Nothnagel's *Encyclopaedia;* he states that he has seen one case in which there were present on the tip and back of the tongue and on the mucous membranes of the cheeks circumscribed reddish-brown, mahogany-like discolorations of punctate to dime size, which were undoubtedly the sites of hyperaesthesia, and probably the result of haemorrhages.

The symptom is possibly not so rare as these few observations would seem to suggest, but if so it is all the more necessary that the possibility of its presence should be recognized.

REFERENCES.
[1] Hale White, *Quarterly Journal of Medicine*, vol. i. p. 108. [2] Herbert French, *Guy's Hospital Reports*, vol. lxiii. p. 104. [3] H. D. Rolleston, *Proc. Royal Soc. Med.*, vol. iii, No. 1, p. 9 (Clinical Section). [4] Lazarus, Nothnagel's *Encycl. of Pract. Med.*, Diseases of the Blood, p. 270.

The Morison Lectures
ON
EPILEPSY.

DELIVERED BEFORE THE ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

BY

WILLIAM ALDREN TURNER, M.D.,
PHYSICIAN TO KING'S COLLEGE HOSPITAL AND PHYSICIAN TO OUT-PATIENTS, NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, QUEEN SQUARE, LONDON.

LECTURE III.—TREATMENT OF EPILEPSY.

THE treatment of so multiform and persistent a malady as epilepsy requires to be considered from several points of view. What might be called the hygienic and disciplinary treatment was more seriously carried out in the days before the introduction of the bromide salts than at the present time.

Celsus,[1] who gives a very meagre account of the disease, has some suitable remarks to make upon the general handling of a case of epilepsy. He gives some useful hints upon diet and general hygiene, with special reference to exercise. He says:

> The diet ought to be of the middle kind, for the case requires strength, and crudities are to be guarded against. He should avoid undue exposure, wine, venery, and all business. The body may be gently rubbed in the morning. Then let him take a walk as long and as straight as possible; after the walk let him be rubbed in a tepid place, not less than 200 times; let him eat a little, and then rest.

The French physicians of the early part of the nineteenth century used a large assortment of drugs, and, on the whole, obtained good results, but they also submitted their patients to dietetic formulae and general discipline.

Let me quote the method of treatment prescribed by an English physician during the years immediately preceding the introduction of the bromides in the treatment of epilepsy. Sir Edward Sieveking,[2] in his work on Epilepsy published in 1858, writes:

> If I were to formularize the prevailing mode of treatment which I myself adopt, I should say it consisted in local derivation and counter-irritation directed against cerebral congestion, and in general roborants or tonics. The selection of the special mode in which the latter indication has to be carried out necessarily depends upon the results of the inquiries into the condition of the individual organs.
>
> The great prevalence in epilepsy of headache, either as an habitual affection, as a precursor to the attack, or as a sequel, accompanied by other symptoms indicating a congestion of the head, suggests attacking the head by more or less severe counter-irritants. . . . I am also satisfied that in some of our cases the apparent cure was mainly due to the application of setons.
>
> The air the patient breathes, the water he drinks, and his ablutions, his daily occupation and habits, his amusements, his food and beverage, his clothing, his mental and moral history, and his prospects in life should be inquired into in order to determine whether, or in how far, one or more of those elements require modification.

Since the introduction of the bromides by Sir Charles Locock[3] in 1857 most epileptics at some period in the course of their malady have probably been treated by these drugs. The universal prescribing of the bromides during the past half-century, with more or less success in subduing the convulsions, has to a large extent deprived the patients of the advantages which may be obtained from the hygienic, dietetic, and disciplinary lines of treatment.

As the physical and mental development of epileptics varies as much as in conditions of health, it is obvious that lines of treatment suitable for the physically robust and mentally capable may be detrimental to the physically frail, and impossible in the dementia of the confirmed disease. We have, therefore, in every case of epilepsy to treat the individual and not solely the disease.

1. It is well known that epilepsy may undergo spontaneous cure even after the convulsions have lasted for a number of years.

2. There is a considerable percentage of epileptics in whom the disease is characterized by the infrequent occurrence of fits and the absence of any obvious mental impairment. These cases constitute a favourable type of epilepsy, and may be treated medicinally and dietetically on the lines which will presently be laid down.

3. In a large number of cases the disease would seem to be excited in predisposed persons by reflex irritation of the peripheral organs. I would especially call attention to the value of a careful examination of (*a*) the nose, for foreign bodies or adenoid growths in children, and nasal polypi in adults. (*b*) Of the eyes, for errors of refraction (which are particularly frequent in epileptics), and their correction by suitable glasses. (*c*) Caries of the teeth requires the necessary attention, and I have frequently observed great improvement in the fits after the adjustment of suitable artificial means of mastication. (*d*) All disorders of the stomach and intestines—dyspepsia, constipation, and worms—should be carefully attended to. Epileptics, being notoriously big eaters, require great care in the regulation of their meals and should be encouraged to fully masticate their food. (*e*) Local disease of the pelvic organs in women requires attention, but too much stress ought not to be placed upon those disorders even in predisposed persons, although their treatment by suitable remedies should be carried out.

4. There are many cases of epilepsy in the early stages of which treatment in an institution may be either impossible or inadvisable. Under those circumstances the patient ought to be placed under the care of a capable and properly trained nurse-attendant. The satisfactory carrying out of this instruction will often eventuate in most gratifying results.

5. Epileptics suffer notoriously from lowered vitality and sluggish circulation in the extremities. For those warm baths, spinal douches and massage are desirable. The use of the hot bath is most necessary, not only for the ordinary ablutionary purposes, but to promote skin excretion, which is regarded by some writers as being of a toxic nature. Under all circumstances a certain amount of daily exercise in the open air is necessary; walking, running, tennis, golf, croquet, and football, may all be indulged in freely. It is scarcely necessary to point out that such exercises as bicycling, rowing, swimming, and riding, are to be avoided.

6. An out-of-door life is usually regarded as the most suitable for an epileptic, but this entirely depends upon the physical vigour of the patient; hence farming or market-gardening should only be recommended to those of a robust constitution, while for the frail epileptic, drawing, modelling, book-keeping, and such semi-sedentary forms of work are quite suitable. On the other hand, there are many who are able to continue their professional work or business without difficulty, and with advantage to themselves, and with benefit to their disease.

7. I do not think it right that those subject to even infrequent epileptic seizures should be sent to school along with normally healthy boys and girls. It is neither fair to the epileptic nor agreeable to his or her companions. In all cases private education is to be recom-

mended. In cases with marked mental impairment special methods of teaching ought to be adopted, of which the Sloyd system is one of the best.

8. If the disease develops during a period of mental strain preceding an examination complete abstinence of work should be temporarily enforced; but when the type of the disease has revealed itself education should be resumed on the lines already laid down.

9. The marriage of epileptics should be discouraged. There is a popular belief that if an epileptic girl is married the disease will thereby be cured. I have met with isolated instances of this, but in the majority of cases pregnancy and the puerperium are especially prone to increase fits, or, at the best, to exert no change at all upon them.

It is now necessary to enter with some detail into the medicinal and dietetic remedies commonly adopted in the treatment of epilepsy. In the first place, I wish to emphasize the importance of separately considering the treatment of recent epilepsy from that of the confirmed disease.

THE BROMIDES.

There is no single specific remedy in the treatment of epilepsy, although the alkaline salts of bromine come nearest to this definition. But the influence of the bromides upon epileptic convulsions is variable and uncertain.

I. Bromide medication may arrest the seizures immediately, or within a short period of their administration, temporarily or permanently. In this division most of the curable types of epilepsy are found—cases characterized by an absence of mental impairment and with fits recurring only at long intervals. If any given case is capable of arrest, a satisfactory response will be apparent within a comparatively short period of commencement of the bromide treatment. In 86 cases, in which the fits were arrested for periods varying from two and a half to twenty-two years, rather more than 50 per cent. yielded to treatment within the first twelve months of regular bromide administration. (Out of 366 cases of epilepsy, 86, or 23 5 per cent., belonged to this class.)

II. The bromides may induce a lessening in the severity and frequency of the seizures. This is the common temporary result of bromide treatment, and is what may be confidently expected in the majority of cases in the early stages of the disease. Sometimes the change is effected by the arrest of the major seizures, the minor continuing; or the bromides may change the time-incidence of fits from the waking to the sleeping hours, or vice versa. (In the series of 366 cases of epilepsy in which bromide medication was continued over long periods, 105, or 28.7 per cent., belonged to this class.)

III. The bromides may exert no influence at all upon the disease, or may even augment the frequency or severity of the seizures. (In the series already quoted, 175, or 47.8 per cent., remained unimproved, and became confirmed epileptics.) These numerical facts may be given in the form of a table showing the general results of treatment by the bromide salts in 366 cases of epilepsy.

TABLE.

Cases of arrest	86, or 23.5	per cent.
Cases showing improvement ...	105, or 28.7	,,
Confirmed cases	175, or 47.8	,,
	366, or 100	,,

These statistics are in general harmony with the observations of other writers on the subject; they demonstrate clearly how large a percentage of epileptics derive no benefit from bromide treatment. This is within the knowledge and personal experience of most physicians who have had to treat even small numbers of epileptic patients. A further conclusion drawn from the study of these figures is that, under the influence of the salts of bromine, a considerable number of cases of epilepsy are temporarily "cured," or materially improved. It is, however, within the experience of most observers that no complete record can be obtained of the total number of cases which are relieved by these means, as, more especially amongst hospital patients, there is a tendency, once the fits have been temporarily arrested, for the patient to cease attendance. Notwithstanding the unfavourable results of treatment in many cases, it would be an error to say that bromides are useless in the treatment of epilepsy. If 50 per cent. of the cases derive benefit from the administration of these drugs, then all cases, especially of recent onset, should be given the benefit of the drug for a time. It is not the bromide salts as a remedy, but the method of their administration, which is harmful, and to this attention will be directed immediately.

The physiological action of the bromide salts consists in lessening the irritability of the central nervous system, and in exerting a subduing effect upon reflex activity and cerebral function. The potash salts of bromine also induce a slowing of the pulse and the action of the heart. In medium doses (30 to 60 grains) the bromides produce muscular fatigue, a slowing of the mental processes, dulling of the sexual function, and of the skin sensibility. In large doses (150 to 225 grains) the speech becomes slurred, there is abolition of the palatal and pharyngeal reflexes, while frontal headache and a limitation of the power of thought soon ensue. Salivation, lowering of the body temperature and of the pulse-rate, catarrh of the stomach and of the respiratory mucous membranes, are general bodily symptoms resulting from continual use of large doses of the bromides. It is therefore obvious that the prolonged and injudicious use of the bromides may give rise to toxic symptoms known as "bromism." This condition is characterized by a blunting of the intellectual faculties, impairment of the memory, and the production of a dull and apathetic state. The speech is slow, the tongue tremulous, the saliva may flow from the mouth, the gait is staggering, and the movements of the limbs feeble and infirm. The mucous membranes suffer so that the palatal sensibility may be abolished, and nausea, flatulence, and diarrhoea supervene. The action of the heart is slow and feeble, the respiration shallow and imperfect, and the extremities blue and cold. An eruption of acne frequently covers the skin of the face and neck.

Dosage.

Bromide treatment should be commenced at the earliest possible time after the onset of the fits, as there is a greater prospect of arrest or improvement during the first five than during the second five years of the disease, although arrest of the seizures may occur after a duration of twenty years. The administration of the bromides should be continued for a period the duration of which is to be determined by the study of each case separately, but should not be less than two years. The dose usually given is, I think, too large. If benefit does not follow a daily dose of from 45 to 90 grains of one or a combination of the bromide salts, some other remedy or method of treatment should be sought for and applied. Dr. Clouston long ago pointed out that no lessening in the number of fits occurred when the daily dose of bromide exceeded 75 grains.[4]

The large doses sometimes prescribed—from 100 to 150 grains daily—although no doubt suppressing the seizures for a time, induce other and more serious phenomena—namely, those of bromism, already described Moreover, the bromides have an accumulative action Laudenheimer[5] has shown that an epileptic taking 10 grams (150 grains) of bromide salt daily for eight days only excreted a total of 35 grams, or less than half the quantity ingested during that period. He also showed that no results followed its administration until an equilibrium was established between the intake and the output. This occurs on saturation of the body, and requires about 30 grains of bromide to be given daily for three or four weeks. It is also largely dependent upon the amount of sodium chloride taken in food.

Methods of Administration.

Most physicians have their own methods of prescribing the bromides in epilepsy. As already mentioned, large doses are not necessary, nor are they effectual, but both the amount of the dose and the frequency and time of administration should be gauged by a study of individual cases. When I come to speak of the dietetic treatment in epilepsy reference will be made to the deletion of salt, in the form of sodium chloride, from the dietary. This is an important modification in the treatment of epilepsy, as much smaller doses of the bromide may be prescribed. The potassium, sodium, strontium and ammonium salts are the most usually administered. Each is of value, but the sodium salt is the most efficacious. If the bromides

are prescribed in combination the dose should not exceed 60 grains in the twenty-four hours. The bromide of strontium is less useful, but may be given in smaller doses, or in combination with one of the other salts.

Combinations of the bromide salts with other remedies which may have some influence either upon the nervous or circulatory systems, have been from time to time recommended, and are found useful in some cases. A combination of the bromides and digitalis has been found very satisfactory in cases of low arterial tension, irregular action of the heart, or failing compensation with valvular disease. Chloral hydrate may be added with great advantage in cases of prolonged serial epilepsy, or of the status epilepticus. The bromides and the glycerophosphates form a valuable combination in weak or debilitated cases, more especially in young women with anaemia or neurasthenic symptoms. Bechterew recommends the conjunction of the bromides with adonis vernalis, and sometimes with codein. A combination of a bromide salt with borax has been of service where the bromides or borax, separately, have been of little use.

Bromide, Picrotoxin, and the Arseniate of Antimony.[6]

Of the combinations of the bromides with other remedies I have found Gélineau's formula the most useful and satisfactory. It is prescribed in the form of *dragées* containing 1 gram of the potassium bromide, $\frac{1}{3}$ mg. of picrotoxin, and $\frac{1}{2}$ mg. of antimony arseniate. It has been used extensively in France, but does not seem to have been adopted to any extent in Britain. I have been in the habit of prescribing it during the past two years in those cases of epilepsy in which the pure salts of bromine are either not well borne or have been proved to be ineffective. In large doses picrotoxin is a producer of convulsions, leading to spasms of a tetanic character, with death in coma. In small doses it is theoretically supposed to lessen the tendency to cerebral vaso-constriction, which is believed by some writers to be a fundamental factor in the causation of epileptic fits. I have used the *dragées* in all forms of epilepsy with considerable success. My experience is that they are:

1. A more successful remedy in most cases than a single bromide salt.
2. Less likely to lead to troublesome symptoms—that is, acne or bromism.
3. More easy of administration, being especially convenient when it is desired either to augment or diminish the dose.

The method of prescribing them is simple—one *dragée* is taken either during or immediately after a meal, thrice daily for a week, an additional *dragée* being added weekly until the patient is taking four, five, or six per diem. I have found six *dragées* a day usually sufficient to hold the fits in check, although, according to Gélineau, as many as ten or twelve daily may be taken. My experience of the remedy has not been sufficiently long to say definitely whether it is better in all cases than bromide alone, but with two or three exceptions it has been of great service in diminishing or even arresting fits in cases in which the bromides alone have been of no use.

TREATMENT BY DRUGS OTHER THAN THE BROMIDES.

In the days before the introduction of the salts of bromine in the treatment of epilepsy, many remedies were used, sometimes with marked success, as may be seen from the satisfactory results obtained by Herpin, Reynolds, and others. On account of the not infrequent failure of the bromides to arrest or even to ameliorate epileptic attacks, it will be found necessary to prescribe some other medicinal remedy, and a large number have been from time to time advocated and employed. Perhaps the drug most frequently used as a substitute for, or as an adjuvant to, the bromides, more particularly in England, is *borax* (sodium biborate). Introduced by Gowers many years ago as an antispasmodic, it has met with considerable favour in cases where the bromides have been of little service. Unless in combination with a salt of bromine, I have not found it of particular use. It may be given in doses of from 10 to 30 grains thrice daily, but is apt to induce troublesome gastro-intestinal symptoms. If continued over long periods, it may lead to cutaneous eruptions of a psoriasis-like character.

Belladonna was the chief anti-epileptic remedy of the pre-bromide days, and is still used in some cases with marked benefit when the bromides or other remedies have proved unsuccessful. It formed the chief remedy of Trousseau, Hufeland, Herpin, Reynolds, and others, and in the hands of the first named was mainly used in those cases complicated with nocturnal incontinence of urine. A combination of bromide and belladonna may be found useful in cases of otherwise intractable combined seizure types. It may be prescribed either in the liquid form, as the tincture, in doses of 5 or 10 minims, or in the form of a pill made of the extract or pulvis belladonnae. The zinc salts (oxide, valerianate, and lactate) are old established, and were occasionally successful remedies in the hands of the French physicians. Opium, as a remedy for epilepsy, dates from classical times. It is now only used in the opium bromide method recommended by Flechsig.[7] My experience of the treatment has not been such as to encourage further trial. Strychnine has been recommended from time to time, and used with considerable success by some physicians. In doses of gr. $\frac{1}{16}$ daily, it may be continued over considerable periods. Its *modus operandi* is probably merely as a nerve tonic, although it may have some influence in strengthening the tone of the vasomotor centres. Strychnine finds its most useful application in the treatment of nocturnal epilepsy, especially when there is reason to suppose that the blood pressure is materially lowered. Monobromate of camphor, eosinate of sodium, chloretone, and numerous other remedies have been tried, but without any special benefit. I have seen no particular advantage obtained by the use of bromipin, bromaline, and bromocarpine.

The Calcium Salts.

Recent examinations into the coagulation of the blood in epileptics have led to the suggestion that the salts of calcium may be of use in arresting or diminishing the frequency of epileptic seizures. As already shown, however, considerable discrepancy exists as to whether the blood in epilepsy coagulates more readily during a fit period. A more rapid coagulability during the four-and-twenty hours preceding a major seizure or serial attacks has been demonstrated (to my mind conclusively) by Dr. John Turner[8]; on the other hand, the observations of C. Besta[9] showed a diminished rate of coagulation, the fits apparently exerting no influence upon this. Donath[10] prescribed chloride of calcium to a limited number of epileptics without materially affecting the number of the fits. I have myself prescribed the lactate of calcium in 10 grain doses in combination with bromide of potassium in a few cases with very satisfactory results, and Dr. Littlejohn[11] reports a case in which calcium lactate alone was prescribed with much benefit. It would therefore appear that the salts of calcium, which physiologically increase the coagulation of the blood, are worthy of further study in the treatment of epilepsy. It is not unlikely that the special type of the disease most suitable for treatment by these salts has yet to be defined, as it is obvious that all fits are not associated with increased blood coagulation.

DURATION OF TREATMENT.

The question as to how long bromide or any other form of medicinal treatment should be maintained is not one upon which any rigid statement can be made. Some authorities maintain that treatment should be continuous for a period of at least two years after the last seizure, but our experience at the Queen Square Hospital points to a much longer period as necessary. Epileptics attend there for many years after the arrest of the fits, as they find that stopping the bromide, even for a short time, conduces to a return of giddiness or of "sensations" reminding them of their previous attacks. If nine years' freedom from fits is to be a gauge of a "cure" of epilepsy, then withdrawing the bromide under a period of five years in those in whom the fits are arrested would be injudicious. On the other hand, many persons in whom the disease has been arrested after a year or two of bromide treatment remain free from attacks without the aid of any medicinal remedy. The important practical point in this connexion is that those patients who take bromide well and in whom the fits are thereby kept in subjection ought to persevere with the remedy, and not to stop it. It is just when the fits have been satisfactorily controlled that further treatment is of most use. The withdrawal of medicinal treatment in those in whom the fits have been

arrested should be carried out gradually. Under no circumstances should bromides be withdrawn suddenly after their prolonged use.

MISCELLANEOUS METHODS OF TREATMENT.

It may be useful to refer to some of them in this place, as a case which has resisted one form of treatment may react for a time satisfactorily to another. It should, on the other hand, not be forgotten, what is a well-recognized axiom in the management of epilepsy, that cases of this disease may respond favourably for a time to each and every change of treatment, medicinal or other, and even when active treatment is stopped. As the disease is characterized by spontaneous remissions in the frequency and severity of the seizures, a favourable result may occur, not on account of, but in spite of, therapeutic or other measures.

Of all the recent systems, that which seemed likely to be of most use was the introduction of the organic extracts in the treatment of this disease; but further experience with these preparations has been on the whole disappointing.

Organotherapy.—The administration of extract of the thyroid gland, or of iodothyrin, was at one time strongly advocated, more with a view to counteract the coexistent mental deterioration than as a subduer of convulsions. In a number of cases of confirmed epilepsy, in which preparations of the thyroid gland were given over considerable periods, no appreciable diminution was detected in the frequency of the seizures, and in only a limited number of cases, and for brief periods, was there any lessening of the coexistent dementia. My experience is that thyroid medication tends rather to increase the number of fits, and to produce at times irritability and want of control. Preparations of the thymus gland act injuriously in epileptics by increasing the number of the seizures. Cerebrin has not been found to be of any value.

Serotherapy.—The treatment of epilepsy by the injections of blood serum, either from another epileptic or by reinjection of the blood serum into the same epileptic, was introduced by Ceni,[12] who believed that a soluble epileptogenous poison existed in the blood serum in quantities varying with the severity of the disease. Ceni's view differed from that held by most supporters of the autotoxic theory of convulsions in that the amount of poison circulating in the blood did not change in the different stages of the disease. As the result of a number of observations, Ceni concluded that there exists in the blood of epileptics a soluble latent biochemical substance, an autocytotoxin, which has an influence over the elaboration of epileptogenic toxic agents, and produces its results after repeated injections. The records of these observations show that in some cases a beneficial, and in others an unfavourable, result followed the injection of the blood serum of epileptics into other epileptics. The practical utility of this method in the treatment of epileptic fits has not, even in the hands of its originator, proved sufficiently satisfactory as to render its application general; while later investigations, more particularly those of Sala and Rossi,[13] Gerharz,[14] and others, failed to confirm Ceni's results or to establish any benefit at all from the injection of the blood serum of epileptics into others subject to epilepsy.

TREATMENT OF THE FITS.

To Arrest the Fit.

The first consideration may be given to the question as to whether it is possible to arrest an attack once the warning has commenced. Many methods have been suggested for this purpose, some of which are of old standing and date from the time of Galen. The attacks in which abortive measures are likely to be successful are those commencing with a peripheral aura. The common method of encircling the wrist, for example, with a ligature or tape, and making traction upon it as soon as the aura is felt in the hand, is well known. As great force is sometimes required to arrest the attack, a strap is preferable to a tape or ligature. Sometimes the patient alone is unable to produce sufficient compression, and requires the assistance of a second person. A circular blister was suggested by Buzzard,[15] in order to induce a more permanent effect, sometimes with advantage.

Forced extension or movement in the direction opposite to the warning sensation may be efficacious when compression alone is unsatisfactory. According to Herpin,[16] the most effectual means of arresting such attacks is a combination of circular compression and forced movement in the opposite direction. Friction, or rubbing the extremity of the limb where the sensation starts, has also been of use; and I have known a patient to bite the finger in which the aura commenced, sometimes with a successful issue.

Abortive means are less satisfactory in cases with a visceral aura. Strong pressure by the hands over the epigastrium is resorted to by some epileptics, while others prefer to drink cold water; swallowing a few drops of ether has also occasionally resulted in arresting an attack. Inhalations of ammonia have been used successfully. Other patients refer to a method of auto suggestion, bringing to bear a strong determination to overcome the attack—a method which undoubtedly has been followed by success in some cases.

The inhalation of nitrite of amyl is a method of arrest more especially valuable in fits with cephalic warning, and particularly in those with olfactory sensations (Gowers). Pierce Clark has insisted upon this remedy as a satisfactory means of aborting fits.

Status Epilepticus.

It has been shown that a gradually increasing number of seizures is the usual sign of the onset of the status epilepticus or of prolonged serial outbursts. With this warning the dose of bromide should be increased even up to double the quantity, and chloral (10 to 15 grains) should be added, and the mixture repeated every four hours. Clark recommends the addition of a solution of morphine to the draught.

Should the fits be recurring with great frequency and severity, no remedy is of greater benefit than the inhalation of chloroform given up to complete anaesthesia. On the other hand, in less severe types of status, or in serial epilepsy, a combination of a bromide salt (gr. xx) and chloral hydrate (gr. x) may be repeated frequently (about every two or three hours) for a time with benefit, especially in the latter condition.

The bromides given alone are of little avail, but within recent years their hypodermic administration in sterile solutions of not more than 10 per cent. (Clark) has been recommended. These may be repeated until 60 or 100 gr. have been injected.

Injection of the bromides by means of *lumbar puncture*[17] has also been advised, in sterile solutions of 30 gr. to the ounce, 10 or 15 c.cm. of the cerebro-spinal fluid being withdrawn before 10 c.cm. of the bromide solution are injected. The hydrobromate of hyoscine has also been used occasionally with success (gr. $\frac{1}{75}$ to $\frac{1}{100}$ hypodermically).

In the post convulsive, stuporous stage of status epilepticus the treatment is that of acute dementia—strychnine, digitalis, and alcohol, if there is much cardiac debility. Abundance of nutritious food and careful nursing are essential features in the general management of this period.

Acute Dementia.

During the after-stage of exhaustion following upon ordinary seizures no special treatment is necessary, as the stage passes into that of sleep, from which the patient spontaneously recovers. In the acute dementias following serial or status outbursts, on the other hand, great care and attention is required, the patient having to be nursed as one suffering from acute illness. It is during this stage that death may occur, a circumstance which is as frequently attributable to want of attention as to the clinical condition. During the few days of stupor abundant and nourishing liquid diet, in the form of milk, eggs, and custards, should be frequently given. If the patient is unable to swallow, nourishment should be administered in the form of nutrient enemata. Hypodermic injections of strychnine (liq. strych. ♏ v, or strych. sulph. gr. $\frac{1}{30}$) may require to be frequently administered.

If necessary, alcohol may be given in considerable doses, and the action of the heart steadied and maintained by digitalis or strophanthus. Later on, during the delusional stage, general attention and care is all that is usually needed, while later tonics may be prescribed with advantage.

Acute Mania.

As already described, this form of excitement, whether occurring as a post-paroxysmal phenomenon or as a psychical equivalent, is characterized by the suddenness of its onset, the intensity and violence of its manifestations, and the shortness of its duration, extending usually over a few hours. All that is therefore required lies in protecting the patient, and those attending him, from the effects of the violence and excitement. For this purpose resort may be had to several attendants, or, if a drug be considered advisable, I know of none more safe to administer, or more speedy, certain, and satisfactory in its action, than the hydrobromate of hyoscine in doses of $\frac{1}{75}$ to $\frac{1}{50}$ grain, injected hypodermically. One injection is usually sufficient to induce quiet and repose for a period of several hours.

DIETETIC TREATMENT.

In all cases of recent epilepsy, whatever may be the medicinal treatment adopted, some modification of the diet from that of a person in normal health is desirable.

In the treatment of this disease the primary object is to keep the dose of the bromide salts as small as possible, because, owing to the protracted nature of the malady, a prolonged course of bromide medication is necessary, particularly in those cases in which treatment is most effective. Therefore, any dietetic modification which will permit of this being accomplished is of advantage.

As already pointed out in the first lecture, many causes have been assigned as the immediate excitant of epileptic seizures, but the only certain factor is the unstable condition and proneness to "discharge" of the cortical nerve cells in predisposed persons. In any attempt to formulate the principle which ought to guide the physician in considering the dietetic treatment, there ought to be kept in mind that nervous energy has its source chiefly in the albuminous and nitrogenized principles of foodstuffs.

Merson[18] treated a number of epileptics upon farinaceous and nitrogenous diet alternately over a stated period, and noted the number of the seizures. The results of the treatment were not such as to justify the conclusion that either kind of diet possessed any decided advantage over the other in the treatment of epilepsy. The experience of Alt[19] upon the several forms of diet in epilepsy led him to the conclusion that a diet without meat was the more satisfactory, but that neither a milk diet alone nor a vegetable diet was as beneficial as their combination. It was an old speculation of Hughlings Jackson that the part played by salts and minerals should be investigated in their relation to the building up of structure and the development of function. As the chlorides and the bromides were strikingly homologous in their chemical and physical properties, he suggested that the efficacy of the bromide salts might be due to their replacing with greater energy the more common chloride salts in the blood and tissues of the body. The practical application of this suggestion, however, was not carried out in the treatment of epilepsy until Toulouse and Richet[20] recommended a diet in which the total daily quantity of sodium chloride was limited to one or two grams. It was thought that by diminishing the quantity of the ingested chlorides, mainly in the form of sodium chloride, or common salt, the bromides might be administered in smaller doses, and the risks of bromidism thereby lessened. Hoppe[21] has shown that one-third of the chlorine of the blood serum has to be replaced by an equivalent amount of bromine before any therapeutic result is obtained. When more than this is replaced, bromide intoxication may occur. When less chloride is ingested, saturation takes place sooner. It has been shown that with a diet free from salt saturation takes place in from three to four days. This methed of "salt starvation" in the treatment of epilepsy has been extensively tested, with varying results.

In some cases "salt starvation" has proved a useful adjuvant to bromide medication, while in others little benefit has resulted. Other observers have shown that the dietary is of especial value in cases requiring large doses of the bromides, and in those which show a ready tendency to bromide intoxication. My own experience of the method has been such that, when used in combination with a purin-free dietary, very substantial benefit is derived, and relatively small doses of the bromides may be prescribed. A "purin-free" diet is made up of those foodstuffs in which the "purin" or alloxur bodies are absent, or present only in such small quantities as to be negligible.

Purin bodies exist in all forms of meat extract, in both the white and the red meats, commonly used as food. They are present in large quantities in such substances as sweetbread, liver, and beef steak. They are not present in milk, eggs, bread, butter, cheese, the farinacea, most fruits, some vegetables, and honey. They exist to only a moderate degree in most forms of fish, peas, beans, lentils, tea, coffee, and oatmeal. I append a dietary which will be found of use to those desirous of giving the treatment a trial.

Diet Table.

Milk (fresh, soured, butter-milk, or whey).
Eggs (boiled, poached, scrambled, or raw).
White bread and butter, cheese, macaroni, rice, tapioca, semolina, vermicelli.
Suet puddings with currants, jam and treacle, apple dumplings.
Pastries, pancakes, jellies, tea-cakes.
All vegetables.
All fruit.
Of beverages, weak infusion of China tea is the best.

I have used this diet, or a modification of it, containing, according to the needs of individual cases, a small portion of white fish, either once daily or three times a week, for several years, in conjunction with the bromides or Gélineau's *dragées*. The results have been such that I am led to advise it in all cases of recent epilepsy.

1. In cases in which the bromides alone have been of little or no use, the adoption of the purin-free, saltless diet has at once led to material improvement.
2. By its aid the dose of the bromides has been largely reduced, and it is in cases refractory to relief by bromides that some physicians increase the salts to such an extent that bromism is brought about and maintained.
3. If properly supervised, the symptoms of bromism need never appear.
4. If the patient shows any signs of loss of weight, the addition of cream or cod-liver oil is usually sufficient. If not sufficient, it is advisable to permit fish, or even a little lamb or mutton.

CONFIRMED EPILEPSY.

In cases of confirmed epilepsy with mental deterioration the use of the bromides is of relatively little value. According to Féré, the bromides are only of use when the dose is so large as to produce toxic effects. Their continued administration in these cases does, however, produce a diminution in the number, and perhaps in the severity, of the seizures. With a view to test the efficiency or otherwise of a 30-grain dose of bromide salt administered every evening to a number of confirmed epileptics in an institution, the dose was stopped for one month, and the total number of fits with or without bromide was compared. During this period the fits were increased in frequency by about one-third (278 to 402).

It was long ago pointed out by Esquirol that any change of treatment was temporarily beneficial. Bringing epileptics under the generally favourable hygienic surroundings of a hospital will often conduce to material temporary improvement without the aid of any medicinal remedies. As with medicinal treatment so with dietetic modifications: I have not seen any material benefit obtained in cases of confirmed epilepsy by aid of the salt-free or purin-free diets. The majority of the cases feel better when on the purin-free diet, but there is no marked improvement in the frequency or severity of the seizures, except perhaps in those cases in which the fits occur in series. These observations would bear out what has been constantly noted in the treatment of epilepsy—namely, that in the confirmed disease with mental impairment little, if any, benefit is derived from treatment, either medicinal or dietetic. In other words, those cases in which the disease has become established upon an organic foundation require to be lodged preferably in an institution for epileptics, where they may be prescribed (1) regular and congenial employment, (2) a judicious alternation of work and play, and (3) a suitably arranged and simple mode of life, with avoidance of excitement and abstinence from alcoholic liquors.

REFERENCES.

[1] Celsus, *On Medicine*, Dr. Greive's translation, Bk. III, chap. xxiii, p. 168. [2] Sieveking, *On Epilepsy*, London, 1858, p. 229. [3] Locock, *Med.-Chir. Trans.*, 1857. [4] Clouston, *Journ. of Mental Science*, 1868. [5] Laudenheimer, quoted by Binswanger. [6] Gélineau, *Traité des épilepsies*, Paris, 1901. [7] Flechsig, *Neurol. Centralbl.*, 1893, p. 229. [8] John Turner, *Journ. of Mental Science*, October, 1908. [9] Besta, *Riforma Medica*, 1906, N. 43

[10] Donath. *Epilepsia*, 1909. [11] Littlejohn, *Lancet*, 1909, i, p. 1382. [12] Ceni, *Riv. Sperimental di Freniatria*, 1901, p. 344; and *Neurol. Centralbl.*, 1903, p. 388. [13] Sala and Rossi, *Neurol. Centralbl.*, 1903, p. 852. [14] Gerharz, *Neurol. Centralbl.*, 1904, p. 835. [15] Buzzard, *Brain*, vol. iii, p. 554. [16] Herpin, *Accès incomplet*, 1867, p. 29. [17] Morton, *Trans. Nat. Society*, U.S.A., vol. iii, p. 42 [18] Merson, West Riding Asylum Reports, 1875, vol. v. [19] Alt, *Zeitschr. f. klin. Med.*, vol. liii. [20] Toulouse and Richet, *Acad. des Sciences*, 20, xi. [21] Hoppe, *Neurol. Centralbl.*, 1905, p. 993.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

SEVERE TRAUMATIC *ANTE-PARTUM* HAEMORRHAGE.

THE case of *ante-partum* haemorrhage published by Drs. Purslow and Branson[1] reminds me of one which occurred in my practice a few years ago. Not having the notes at hand I can only give my recollections.

I was called late one evening to a house in the bazar where a woman was said to be bleeding to death. I found the patient, who was almost at full term, lying on the floor in a pool of blood, blanched, and with a very small pulse. I checked the bleeding by hot vaginal douching preparatory to examination, but as the haemorrhage showed no tendency to recur, I then devoted my attention to restoration of the patient. I also ascertained that she was not in labour, as I had been led to suppose, but that she had fallen on to a brass cooking vessel, and haemorrhage had commenced immediately. Further examination revealed a small deep wound at the base of the clitoris. The pulse, which had become imperceptible, having been restored, and no further haemorrhage having occurred, I decided to allow the patient to recover further before treating the wound. I therefore left directions that I should be called at once if any bleeding occurred. As the house was near the hospital I considered this fairly safe. I prepared sutures, etc., expecting to be called up during the night. The next morning I was hastily summoned, as bleeding had recurred. The patient's condition had improved, and I was able to control the bleeding by one or two catgut sutures. My examination of the parts was not very complete owing to deficiencies of light and other drawbacks, and I cannot say whether the vessels were varicose. I did not see the patient again, although she remained for some days under treatment. I was told that she was delivered of a healthy child about a fortnight later. In this case, although the bleeding was profuse, the child was apparently unharmed. Possibly the treatment by injection of saline solution into the cellular tissues, which was carried out soon after the haemorrhage occurred, was instrumental in saving the child.

Nasik, India. E. N. LEA-WILSON, L.R.C.P. and S.Edin.

NOURISHMENT IN ACUTE DISEASES.

THE wail, "If he does not take any food he will soon lose all his strength," is so often heard from persons in attendance on the sick, that one is tempted to ask if we are on the right lines in almost forcing food on people suffering from acute complaints, or whether it would be better to leave them to Nature—that is, to wait until food is asked for. It is quite a common experience to find a patient out of bed for the first time for not more than a quarter of an hour quite depressed, and sometimes in tears, because of the unexpected weakness, and this after a great deal more nutriment has been taken than often happens when in normal health. Physiologically we do not draw our strength from our food; surely the whole of that goes to make good the loss of waste tissue which is always going on in the human economy, dead tissue is constantly being thrown off, and new cells are born and go to make good this loss; hence the popular saying that "we have a new body every seven years." This, I believe, is true, with this exception: that the body is being renewed every day so slowly we are not cognizant of the change, whereas popular rumour credits the transformation with more expeditious methods.

Where, then, does our strength come from? In my opinion, we get this from the exercise we do: a postman's legs are well developed and strong because of the work they do; so with the blacksmith's arms. Of what avail, then, the nutriment in all its varied, alluring, and advertised forms if we do not get any strength from its ingestion? None, I say, except to build up the burnt-out tissues the result of an acute attack of, say, pneumonia; but with a temperature of 104° F., furred, foul tongue, anorexia, constipation, loading up of the bowels with accumulated waste and innumerable micro-organisms of infinite variety and infection, surely it were better to wait for convalescence, with its rested and recuperated stomach, its bowels cleared of accumulations, and a rested mind free from the terrors of delirium. What, then, should be our policy, if not one of feeding? Watch the pulse, and improve this by increasing the blood pressure by means of copious draughts of hot water or saline injections by the rectum, or both, and we shall not need to fear collapse or heart failure.

Darwen. F. G. HAWORTH, M.B., D.P.H.

[1] BRITISH MEDICAL JOURNAL, February 5th, 1910, p. 319.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

YORKSHIRE BRANCH.

Wakefield, Wednesday, March 16th, 1910.

Dr. GODFREY, President, in the Chair.

Vaccine Therapy.

DR. MCLEOD VEITCH (Harrogate) read a paper entitled, Some Remarks on Vaccine Therapy with Reference to Cases. The object of the paper was to show that vaccine therapy, since its introduction, had made very great progress, and whereas, in the first instance, its application had been almost entirely limited to the treatment of staphylococcal infections, it was now applicable in almost every variety of bacterial infection. In support of this statement, a number of cases which had been personally treated by means of vaccine inoculations were cited. These cases comprised:

(1) Case of staphylococcal infection of three years' duration: Four inoculations given; duration of treatment, three weeks; result, cure; no recurrence after one year. (2) Case of well marked pustular acne vulgaris: Six inoculations given; duration of treatment, two months; result, cure; no relapse one year later. (3) Case of lupus erythematosus complicated by mild acne vulgaris: Four inoculations of acne vaccine and six of tubercle vaccine given; duration of treatment, four months; result, cure; no recurrence eight months later. (4) Case of genito-urinary tuberculosis complicated by bacilluria: Twelve doses of tubercle vaccine and seven of bacillary vaccine given; duration of treatment, four months; result, gain of 2 st. in weight, all subjective symptoms disappeared, urine became quite clear and free from pus, no tubercle bacilli discoverable, other bacilli also disappeared; one year later, no recurrence. (5) Case of acute gonorrhoea: Three inoculations of gonococcal vaccine given; duration of treatment six weeks; result, complete cure; there was no gleet after cessation of treatment, although with two previous attacks the same patient had been troubled with gleet for some months after cessation of ordinary injection treatment. (6) Case of bacilluria due to *B. coli* infection of bladder: Three inoculations of *B. coli* vaccine given at ten-day intervals; result, complete cure. (7) Case of subacute rheumatic fever: Attack had persisted for several months, with frequent relapses; before inoculation had been confined to bed practically entirely for five weeks; all the joints affected at different times; no improvement, in spite of vigorous treatment with salicylates and aspirin; vaccine of *Micrococcus rheumaticus* and polyvalent *Streptococcus* used in this case; after the first inoculation the temperature fell to normal, and never again rose; all acute symptoms had disappeared after the second inoculation; subsequently other three inoculations were given for various chronic rheumatic pains which had persisted, and after the last of these inoculations the patient was perfectly well and free from all pain; has remained so for four months. Several other cases of chronic rheumatism were mentioned in which equally satisfactory results were obtained by treatment with a similar vaccine; also a case of sciatica was referred to. (8) Case of acute neuritis of upper arm: One dose of mixed *Micrococcus rheumaticus* and *Streptococcus* vaccine given; result, pain had entirely disappeared at the end of one week; in previous attacks pain had invariably persisted for several weeks. (9) Case of pneumococcal infection, broncho-pneumonia, and pericarditis following influenza: Pneumococcal vaccine injected, with almost immediate result; temperature fell to normal in twenty-four hours, and lung and pericardial conditions cleared up within a week; subsequently there was a relapse, and pericardial friction and temperature again developed; a second inoculation of the same vaccine was given, and in twenty-four hours the temperature was normal, friction had completely disappeared, and the patient made a rapid and uninterrupted recovery.

In conclusion, the great importance and wide application of vaccine therapy was emphasized, and a strong appeal made for its more frequent employment. It was stated that wherever possible autogenous vaccines should be prepared for individual cases. Successful results were entirely dependent on the careful study of each case on its own individual merits, and in the present state of our knowledge it was thought advisable that vaccine therapy should only be resorted to after very careful studying the whole subject, or failing that, under the personal direction of some one who had done so.

Treatment of Chorea Gravidarum.

Dr. E. O. CROFT (Leeds) read a paper in which he emphasized the great importance of providing suitable accommodation in hospitals for the observation and treatment of the diseases associated with pregnancy. In general hospitals such cases were often treated in the medical wards, but, owing to the absence of lying-in wards, patients advanced in pregnancy were not catered for. In the lying-in hospitals, on the other hand, no special provision was often made for pre-maternity cases. Dr. Ballantyne's urgent appeal on behalf of these patients was quoted. Now a few of the general hospitals in London were providing lying-in wards. At the Hospital for Women (Gynaecological) and Children at Leeds, when rebuilt six years ago, a small isolated maternity department was specially equipped, and hence women suffering from pregnancy disease were provided for at any period of gestation. Many such cases were therefore admitted. During the last few years Dr. Croft had treated in hospital 12 cases of chorea gravidarum, and he gave particulars of the series, specially referring to the question of terminating the pregnancy. His experience of these recent cases was decidedly adverse to the induction of abortion or premature labour. He quoted the striking results of a series of cases reported by Dr. Fletcher Shaw, of Manchester, in the *Journal of Obstetrics and Gynaecology of the British Empire*, 1907–8. These cases were treated on the theory of the disease being associated with a toxaemia, and excellent results followed a system of eliminative treatment, the use of narcotics and the termination of pregnancy being avoided. Of Dr. Croft's 12 cases, 2 were under treatment at the present time and were improving, but were not sufficiently advanced for quoting.

In Case I, an earlier case, abortion was induced at the sixth month of the second pregnancy, and the chorea did not clear up for several weeks. This patient had a further attack of chorea during her sixth pregnancy. It was a mild case, and was satisfactorily treated on the usual lines with arsenic, etc. The pregnancy went to term. The result of the treatment of the second attack suggests that the abortion on the first occasion had been unnecessary.

Case II. A severe case, complicated with rise of temperature, rheumatic pains, and cardiac disturbance. The treatment was traditional—iron, arsenic, chloral, salicylates, etc. Spontaneous abortion. There was no improvement apparently after the abortion, and the patient was in bed three months under treatment before convalescence.

Cases III to X inclusive were treated on lines of toxaemic elimination, and five of these may be classed as severe cases, with delirium, delusions, severe restlessness, and the other symptoms. In none of these was abortion induced, and all proceeded to full term after cure of the disease, and were delivered of living children.

All the patients being treated in hospital, the general conditions were fairly identical. The patient was usually isolated, always if very restless, and sometimes kept in a darkened room. The diet was strictly limited to milk and diluents at first. The bowels were cleared by calomel or jalap, and kept free by salines. Diuretic and diaphoretic mixtures were given. No arsenic or tonics were given until convalescence was established. Narcotics and sedatives were avoided as a routine, and only resorted to very occasionally. Morphine was specially forbidden owing to its tendency to check excretion. It was noticed that improvement sometimes occurred rather suddenly—a full night's sleep being the turning point. The estimation of the amount of urine and urea was difficult to determine owing to the impossibility of collecting the whole amount and also to the catharsis, but it was clinically noted that with improvement there was increased diuresis. The chief results to be noted were that of the ten cases not one mother died, and in eight of these the disease was cured without interruption of pregnancy and with the consequent saving of so many infant lives. In Case I the fetus could have been saved, and possibly in Case II, although in that case the disease had been of a rather severe type for two months before admission.

Treatment of the Puerperal Septic Infections.

Dr. OLDFIELD read a paper on this subject. Preventive measures were briefly referred to: the value of abdominal palpation to supplement or even to supplant vaginal examinations, the use of rubber gloves being emphasized, and also prophylactic doses of antistreptococcic serum in cases where frequent examinations have to be made, in operative cases, and in long labours from any cause. The curative treatment by serums, vaccines, and operative measures received most attention, but some items in general treatment were mentioned. In these forms of sepsis, as in so many others, the propped-up position for better drainage and the giving of large quantities of water by mouth, rectum, and subcutaneously were most useful. Quinine, he thought, was overvalued, but ergot in large doses seemed to do good in the early stages of the disease. With regard to specific treatment by vaccines and serums, the former had disappointed him, but from the latter much could be expected if used intelligently. They should be given in large doses, 50 c.cm., repeated not more than twice, and early in the course of the disease. When an abscess had formed serum was dangerous. The writer described a case he had successfully operated upon, and spoke hopefully of the operation when done in selected cases. In the treatment of this disease, while suitable local treatment was of great value, the best results came from supporting the natural defensive processes, and over-doctoring and over-nursing should be guarded against. At the same time a careful and continuous look-out should be established for local lesions, for in the prompt treatment of these good results usually follow. Puerperal septic infections constituted a large class of diseases, and to obtain success in their treatment a complete diagnosis of lesion and of organism was of prime importance. Of the various forms of local treatment, drainage, he said, held the first place, promoted at first by the propped-up position, and assisted by giving of ergot and hot vaginal douches; it should be definitely ensured, in cases where the above measures were not successful, by inserting a drainage tube into the uterus, a malleable metal one being the best. Curettage, though often adopted, and sometimes useful, was a risky proceeding, and, in the later stages of the disease, harmful. Digital exploration with gloves, and after thorough cleansing of vulva and vagina, could be done with little or no risk, and sometimes resulted in removal of the cause of sepsis. This treatment was particularly indicated when the lochia became offensive, and when retention of secundines or clots was suspected. Uterine douching with saline solution might be tried for a few days when the lesion was uterine, and did not extend beyond the uterus. Intravenous injection of collargol and mercuric chloride was useful in the early stages of bacteriaemia. Operative procedures, such as posterior colpotomy, hysterectomy, and ligature of veins, were considered. They offered better chances than expectant treatment in special cases with definite indications. Posterior colpotomy was called for in those rare cases where pus collected in Douglas's pouch, and in general peritonitis; it seemed to do good in some cases of streptococcic metritis. Hysterectomy rarely did any good, except in suppurating myomata, uterine abscess, and uterine perforation. Ligature of veins in chronic puerperal pyaemia gave the patient much the best chance. It was harmful in acute cases. When both sides were thrombosed, the ovarian and internal iliac veins should be ligatured; the ovarian and common iliac when thrombosis was confined to one side.

THE Paris Academy of Medicine has appointed a commission consisting of eleven members to study the question of antityphoid inoculation.

THE Royal Mail Steam Packet Company is arranging special cruises to Spain, Portugal, Morocco, the Canary Islands, Madeira, and the Azores, for Whitsuntide holiday makers.

A BILL to protect the public morals by prohibiting advertisements "of or concerning any means, device, or method for the treatment, cure, alleviation, or prevention of any venereal, sexual, or menstrual disease, weakness, or condition," has been introduced into the Ohio State Legislature.

Reports of Societies.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF SURGERY.

Friday, March 11th, 1910.

Mr. HENRY STOKES in the Chair.

Thrombosis of the Lateral Sinus.

MR. O. GOGARTY described a case in which he had resected the jugular vein on account of thrombosis of the lateral sinus. He reported this case in order to show the importance of considering disease of the middle ear in the diagnosis of obscure cases. The patient had been diagnosed as suffering from gastric disturbance when vomiting was marked, and later from stone in the kidney, when great haematuria occurred, and did not seek admission to hospital until the disease had been present for six days. The temperature on two occasions had been 105°, and rigors had occurred before admission. The prominent feature of the case was the total absence of localizing signs. Oedema over the mastoid, Greisinger's sign, tenderness over the jugular cord, and stiffness of the neck were missing; though the presence of pyaemia made the case all but hopeless, it was decided to give the very slender chance of recovery by operation. A clot nearly 2 in. in length was removed from the lateral sinus after a considerable portion of the internal jugular vein had been resected. The patient lived only two days, dying of pyaemia, with a rash and well-marked jaundice.

Dr. DEMPSEY said they should be grateful to the exhibitor for showing a case which was not an operative success. Lateral sinus thrombosis was much more commonly met with since the radical mastoid operation had come into vogue. The great difficulty was the question of diagnosis in certain cases, and in dealing with such he thought they should be guided by what they met with when treating the case. He had seen a case, in which the diagnosis was typhoid fever, that developed some discharge from the ears. He cut down on the mastoid, and found extensive bone disease. He did the ordinary operation, and the patient was much better for several days. Then came a temperature of 105° and sharp rigor, suggesting lateral sinus disease. He reopened, but found things as at first. The same symptoms recurred for three weeks about four times a week, but further operation was refused, and yet the patient got steadily well, and was now in perfect health. In another case, in which the radical mastoid operation was performed, the patient also developed a high temperature and rigor. The lateral sinus was exposed, and showed a surface greyish, and breaking down, with the emission of pus. The jugular vein was tied in the neck, and the sinus freely opened with free haemorrhage. The patient died, and the trouble was found to be a cerebellar abscess. If one met with a vein clotted down in the neck, it should be cut down on and the vein excised; but if one found the sinus filled with clot in the region of the mastoid, the question arose as to whether the internal jugular should be tied at all or not. Opinions were about equally divided. Cases in which it was not tied had done just as well as if the ligature had been effected. But the test was hardly a fair one, as the cases of tying were practically desperate cases which were given a last chance.

Dr. HARVEY sympathized with Mr. Gogarty in his endeavour to save the patient's life. The procedure adopted was very wise, and he would like to know what were the indications as to when the internal jugular should be opened.

Mr. W. S. HAUGHTON said it was from such cases very often that they learnt most. He had operated on five cases of suspected thrombosis, in three of which the condition was found and death followed. In the other cases there was no apparent thrombosis, and death followed. He did not ligature the internal jugular, but he was inclined to think it should be done oftener than it had been done. In a case which was not septic he adopted a trephine opening, and cut into the lateral sinus. Severe haemorrhage followed, and he was obliged to plug. Six days later he reopened and removed the plug, and no haemorrhage followed. He had, however, given up the trephine, as he found the broad gouge did the work more safely.

Mr. WM. TAYLOR said he had seen the swelling which was found along the jugular vein to be due, not to an infection of the vein, or thickening, or clot, but to be an infection of the glands. Where they could easily recognize on palpation the cord-like swelling described in the books, it was too late; but there was one chance in five hundred which should be given to the patient. Where there was the smallest suspicion of any intracranial complication, operative interference should be undertaken at an early stage. In the combination of two intracranial complications due to ear disease, the difficulty of diagnosis was greatest, and he believed that septic sinus infection predominated. He had seen a case in which the phenomena of cerebellar trouble did not manifest themselves until some twenty-four or thirty-six hours after the lateral sinus had been opened. Cases of sinus infection, where there was not a clot, were, he felt, far more dangerous than those in which there was, and he would be inclined to ligature the jugular, even though the infection might be carried by other channels. He would have no hesitation in doing so where there was clear evidence that the sinus was infected; where there was a doubt he would expose the mastoid and the lateral sinus, and deal with the condition as he found it.

Dr. PEARSON asked what were the indications for operating on obvious ear cases, where pus was found under tension in the mastoid without any definite evidence of other complication at the time. He recalled a case in which the radical mastoid operation was done. After the operation the patient appeared to be very well, but the temperature rose later to 103°, and a blood count showed a marked leucocytosis. The patient became very dull, and answered questions slowly, but there were no other symptoms. The wound was reopened, and a large temporo-sphenoidal abscess was found with pus under very high tension. He felt certain the abscess was present at the first operation, but that it had passed the stage at which it gave the symptoms they were on the look-out for.

Mr. GOGARTY, in reply, referred to the question as to when the jugular vein should be resected in the case of thrombosis of the lateral sinus. In his opinion, although he knew that many thrombi had been successfully removed without ligaturing or resecting the vein beforehand, it was better to ligature the vein if it was decided to open the sinus when the middle ear was diseased; and to resect the vein in cases of thrombosis of the jugular bulb, or whenever it seemed probable that the vessel wall might be itself a carrier of infection.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

Tuesday, March 15th, 1910.

Dr. WARD-SMITH in the Chair.

The Action of Hypnotics.

DR. CAMPBELL, in a paper on hypnotics, said that the most rational theory regarding the cause of natural sleep was that the processes of the nerve cells of the higher centres retracted, so that their arborization separated and formed a series of blocks to the ready passage of impulses. Hypnotics he divided into three groups, according to their mode of action: (1) Bromides, (2) chloral, sulphones and urethanes, (3) opium and its allies. (1) *Bromides* acted in two ways: (*a*) as salines raising the specific gravity of the blood, and causing a rise in blood pressure and diuresis; (*b*) as a depressant to the cells of the central nervous system. Bromides were chiefly of value in cases likely to be prolonged, and where there was not likely to be any great call upon the brain for mental activity. (2) *Chloral, sulphones and urethanes* had certain points in common: (*a*) Power of diffusion into the uninjured cells of the living tissue; (*b*) comparative insolubility in water; (*c*) solubility in fat-like compounds such as brain lipoid; (*d*) they do not act upon the nerve cells; and (*e*) their physiological action had some relationship to their chemical constitution. (3) *Opiates* depressed the sensory nerve cells in the higher centres and also the nerve cells in the sympathetic ganglia.

LIVERPOOL MEDICAL INSTITUTION.

Thursday, March 31st, 1910.

Mr. GEORGE NEWBOLT in the Chair.

Cerebro-spinal Rhinorrhoea.

Dr. J. MCDOUGALL showed a man aged 31 whose illness commenced at the age of 17 with convulsive movements of the right arm and leg, with loss of consciousness. He had also severe frontal headache. Some six years later a discharge of fluid from the nose began and persisted for two years. The present discharge had continued for eighteen months. It continued day and night, and averaged a little over a pint in the twenty-four hours. The nasal cavity was normal. The fluid gave the ordinary reactions of cerebro-spinal fluid. Dr. T. R. GLYNN referred to a case of cerebro-spinal rhinorrhoea published by him in the BRITISH MEDICAL JOURNAL of April 22nd, 1905. The symptoms simulated those of intracranial tumour. Cerebral symptoms developed two months after a blow on the head, and resembled those of cerebellar tumour; in another twelve months the patient had become almost imbecile. Then the rhinorrhoea commenced, and he gradually recovered; the discharge ceased in a few months, and he now remained perfectly well.

The Virulence of Appendicitis.

Mr. R. W. MURRAY, in a paper on 151 cases of appendicitis operated on by him during the last three years, expressed an opinion that in the last twenty years the type of the disease had altered and that the outstanding features of appendicitis as met with to-day were (1) the increased frequency of the disease, (2) the increased virulence of the poison. As soon as the diagnosis of appendicitis had been established arrangements should be made for an operation to be performed; the trouble was thus confined to the appendix, and might be removed with the appendix. The risks attending an operation made under these conditions were known to be few, and those of delay to be many. Mr. RUSHTON PARKER said that in some cases the appendix when removed showed no outward sign of disease, but on slitting it up a stricture or other alteration was found. Though early operation had often been justified by the discovery of even gangrenous change, yet sometimes the refusal to submit to operation had been followed by complete recovery, and without recurrence. Again, symptoms of apparent recurrence due to adhesions, and the resulting tormina and griping sometimes justified waiting, which was rewarded by recovery. At operation signs of spontaneous recovery had been revealed, and amply explained the disappearance of large and indurated swellings, such as were commonly noted in preoperation days. Even disappearance of the appendix by partial or extensive atrophy had been thus observed, and might explain the impossibility of finding it during operation. Mr. DAMER HARRISSON also agreed in considering that the virulence of appendicitis was greater than formerly. Mr. JEANS had met with two cases in which he could not find the appendix. Dr. J. C. M. GIVEN mentioned two instances in which the patient was attacked with violent pains in the region of the appendix; both patients refused operation, and were perfectly well in thirty-six hours.

Traumatic Neurosis.

Dr. T. R. GLYNN, in a paper on the traumatic neuroses, limited the term to neurasthenia, hysteria, and hystero-neurasthenia. Predisposition from inheritance or habit was of great importance. Hystero-neurasthenia was the most common form in his experience. He described in some detail the symptoms of the several varieties, and laid stress upon the period of "premeditation" before the advent in full force of the neurasthenic symptoms. He contrasted the taciturn behaviour and gloomy appearance of the traumatic cases with the loquacity of the ordinary neurasthenic. The stigmata of hysteria were rarely if ever simulated. Dr. W. B. WARRINGTON alluded to the possible organic nature of the symptoms in some cases. He instanced especially the severe symptoms following injury to the head without fracture of the bones, and mentioned that these had in some cases been correlated with small multiple vascular lesions. He also alluded to the development of a true traumatic myelitis, the symptoms appearing some time after the injury and the lesion being of a very different nature to that of the ordinary system diseases. Mr. RUSHTON PARKER said that in cases of purely surgical interest malingering was common. Dr. ALBERT E. DAVIS said that, speaking from a large experience, traumatic neurasthenia was in his practice rare. He regarded these states as largely due to unconscious suggestion on the part of the medical attendant, and thought they were closely allied to malingering. He attached the greatest importance to a thorough examination of the mobility of the spine. When this was perfect, he was inclined to give a cheerful prognosis, and found that this was generally correct. Dr. ROBERT STEVENSON stated that in one firm where regular labour was employed and in which the custom was to continue the full wage with easy work during the disability from an injury, neurasthenia had been unknown in ten years, whereas in another, which employed casual labour and where the half-wage system and no work was adopted, neurasthenia was very common.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

Friday, March 18th, 1910.

Dr. J. B. HELLIER, President, in the Chair.

The Action of Radium.

MR. A. S. GRÜNBAUM and Dr. HELEN G. GRÜNBAUM described some of the results of the action of radium on normal tissues, namely, on skin from a human subject, and on the cells of the liver, gall bladder, and stomach in monkeys. The skin was acted on five, six, twenty-four, and thirty hours respectively. The effects were those of gradually increasing inflammation with subsequent destruction of white corpuscles and apparent proliferation of the surface epithelium. The liver cells after an exposure of nineteen days were affected only in the neighbourhood of the tube. The gall bladder epithelium seemed quite unaffected; the stomach epithelium was in one case replaced locally by fibrous tissue.

The Ferric Chloride Reaction.

Mr. J. F. GASKELL read a paper on the ferric chloride reaction in diabetic urine. He said that it could be taken as a measure of the acidosis present when of mild degree. It indicated by the colour produced the amount of diacetic acid present. The β-oxybutyric acid, which could not be conveniently tested for, was roughly proportional to the diacetic acid present. Coma was always accompanied by a very deep coloration with ferric chloride. The exceptions found in the literature were of doubtful value. The appearance of the reaction was the signal that a benign case of diabetes had become a severe one, and that the tissue metabolism had become profoundly altered. In the early stages the patient was still amenable to treatment and might be reclaimed into the benign class, but if the reaction were strong, treatment would only have a temporary effect in warding off the inevitable end. The direct change to a strict carbohydrate-free diet was both unnecessary and dangerous, as it often gave rise to a ferric chloride reaction when none was present, or increased one already existing. The more gradual reduction was just as efficacious and had not this objection. On these counts it was therefore very important to keep a close watch on this reaction, both as to its presence or absence and also as to the depth of colour obtained. A satisfactory method of influencing the production of acetone bodies they did not at present possess. Baer and Blum had, however, in phloridzinized dogs got results by feeding with certain substances which offered ground for the hope that it might be possible to obtain such a result.

Specimens.

Among the exhibits was an instance of unobliterated Vitelline duct, with umbilico-mesenteric band, in a full-time fetus, shown by Mr. J. KAY JAMIESON.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

Thursday, March 10th, 1910.

Dr. GEORGE WILKINSON, President, in the Chair.

Intracranial Tumours.

DR. ARTHUR HALL, in a paper on intracranial tumours, discussed the clinical differences between tumours in the cranium and those affecting other parts of the body. The varying importance of different tumours in the body

enerally depended on their histological structure, namely, whether they were malignant or innocent, but such a istinction was of much less importance with intracranial umours. The mechanical factors of a closed, practically on-expansile box, and a delicate, easily compressed, and many parts vital organ already filling the box, played large a part that a tumour, innocent histologically, nd small as tumours go, might yet prove as fatal within ne cranium as if it were malignant. As the trouble was ue to increased intracranial pressure, there might be linically included with tumours such different patho- gical entities as tuberculous foci, gummata, cysts, ncluding chronic local serous meningitis, abscesses, neurysms, and even haemorrhages. Although it probably ever happened that an ordinary cerebral haemorrhage as wrongly diagnosed as a tumour, yet the converse was ften true, namely, a tumour with sudden hemiplegic nset was diagnosed as merely a cerebral haemorrhage. s regards treatment, the only drug of any benefit as iodide of potassium, and this should always be iven early and fully, with or without a specific istory; for it was always possible that there ight be a gumma present when no other sym- toms of the disease had at any time presented them- elves. Other conditions, such as chronic serous neningitis, might improve temporarily, even to a remark- ble extent, under the drug, and other unexplained cases pseudo-tumours), apparently showing all the symptoms f intracranial tumours, had been known to benefit or even isappear. It must be remembered before urging operation hat there were cases of tuberculous foci which improved nstead of getting worse owing to their gradual shrinking, nd that some cases of slowly developing tumour, such as steo-fibroma, remained practically quiescent for many ears. As regards operation, in spite of many difficulties nd failures, yet the occasional brilliant result obtained nd the desperate nature of the disease made every careful ffort at localization and removal not legitimate, but trongly to be urged. These two points—namely, the reat suffering in a progressive case when left to itself, nd the occasionally brilliant results of operation even in pparently hopeless cases—should be constantly borne in nind. Professor J. M. Beattie read a paper, entitled, "Further experiments with a streptococcus isolated from ases of acute rheumatism." It dealt with the results of ntraperitoneal and intravenous injections of cultures of his streptococcus in rabbits, and was illustrated by umerous statistical slides.

MEDICO-CHIRURGICAL SOCIETY OF GLASGOW.

Friday, March 18th, 1910.

Professor Stockman in the Chair.

The Use of the Cystoscope.

Dr. J. M. Renton read notes on some cystoscopic cases. In Case I—a woman aged 27, with tuberculous disease of the right kidney—cystoscopic examination, after the injec- ion intramuscularly of a solution of indigo-carmine, showed hat only this kidney was functionating, the other having probably been destroyed by antecedent disease. Treatment with tuberculous vaccine was successful. In Case II—a woman aged 34, with a streptococcal pyelitis—the cysto- scopic examination determined that the left kidney was the seat of disease. Incision of the kidney and drainage resulted in recovery. In Case III—a man aged 29—stone in the bladder had been diagnosed. The cystoscope showed merely a chronic cystitis, which bacterial ex- amination proved to be gonorrhoeal. Case IV—a woman aged 35—presented symptoms of vesical calculus, but the sound failed to reveal a stone. With the cystoscope a small uric acid stone was seen lodged on a shelf of granula- tions. This was extracted per urethram. In Case V—a man aged 63—symptoms pointed to prostatic enlargement, though no enlargement could be felt. Cystoscopic ex- amination showed a marked intravesical projection of the prostate. A suprapubic prostatectomy was followed by recovery. In the last case a woman aged 50 had pain- less haematuria intermittently for three or four years. Cystoscopic examination revealed large numbers of small warty papillomata, which the microscope showed to be simple in character. By suprapubic operation as many as possible were removed. Nine months later bleeding re- curred, and the operation was repeated. Since then eight months had passed without bleeding, but the cystoscope still showed a considerable number of papillomata.

Closure of the Cerebral Arteries.

Dr. George A. Allan read notes on cases illustrating the effects of temporary and permanent closure of the cerebral arteries. In one case, the subject of mitral stenosis, there were recurrent attacks of paralysis without loss of con- sciousness or sensation. Sometimes the paralysis affected only the arm, at times the arm and leg of the same side, or sometimes a hemiplegia was noticed. The recovery after an attack, which usually lasted fifteen to thirty minutes, was always complete. The condition was known to have been in existence for at least three years. A second case had transient loss of memory lasting for eighteen hours, events which occurred during that period being lost to the patient's consciousness. This case had a slight high-tension pulse, but no evidence of organic disease. A third case developed loss of speech and paralysis of an arm a few weeks after labour. She was also the subject of a mitral valvular lesion. Later, paralysis developed in all four limbs and in the face. She became blind, and gangrene occurred in several of the finger tips, the nose, ears, and other sites. The patient died two months later. Dr. E. Haswell Wilson described the *post-mortem* finding. Thrombosis was found in the arterioles of the brain, causing cortical necrosis, and in the peripheral arterioles, where gangrene had developed. At the same time there was an entire absence of any local disease of the vessel wall to account for the thrombosis. The cases were ascribed to angiospasm, in view of the transient nature of the attack, and the complete recovery in the first cases, and on account of the absence of lesion in the arterioles in the last.

Reviews.

GOUT.

We are pleased to see that Professor Lancereaux is still active and able to contribute to medical literature. His book on Gout[1] is based upon long experience, and, like so many who have written on the subject, he has suffered from it in his own person. He takes a broad view of the subject, accepting Sydenham's dictum *totum corpus est podagra* as his motto. He thinks there is a tendency to allow the articular affection to make us forget most of the other phenomena, and this he considers a grave mistake. Some may, however, believe that he goes too far in the other direction, as he includes under gout all that we call chronic rheumatic arthritis or chronic rheumatism, and even "epistaxis, dyspepsia, and chlorosis" are regarded by him as gouty manifestations when they occur in young women, among whom, he says, they "are observed nearly exclusively in those of gouty descent." For Professor Lancereaux gout is a disease of the sympathetic system, characterized by vasomotor and trophic troubles. His main argument against the uric acid theory is that excess of uric acid in the blood has not been found in every case of gout that has been examined. According to him the symptoms of gout are "incontestably subordinated to derangement of the nervous system," which presides over local circulation and general nutrition, and he finds that the sudden appearance of the gouty phenomena, their mobility and intermittence, and the subjective sensations of pain, burning, and itching are "so many proofs of this origin." He admits that the true cause of gout is not known, but he believes heredity to be the efficient cause; without hereditary predisposition there can be no gout, and with this predisposition there may be gout in spite of the absence of all the usual causes, such as excess of animal food, the use of wine and the like, which, in his opinion, only aggravate the disease but do not cause it. He admits that it might be suggested that uric acid is the poison that acts on the nervous system, but he sets this aside at once, on the ground that "gout may exist in the absence of the excess of uric acid in the blood." He sees a great analogy between the arthritis of tabes and that of

[1] *Traité de la Goutte.* Par le Docteur E. Lancereaux. Paris: J. B. Baillière et Fils. 1910. (Demy 8vo, pp. 431. Fr. 10.)

gout, and he asserts that division of the trunk of the sympathetic nerve may cause "fluxions" similar to those of gout, but those fluxions only give rise to diarrhoea; this satisfies him, and he declares that the point is "perfectly cleared up." He denies that any poison can cause gout; he does not deny the existence of saturnine gout, but gets out of the difficulty by saying that this is not really gout, although he says gout may have its origin in some chemical injury to the nervous system, which is transmitted by heredity in the same way as Brown-Séquard's guinea-pigs transmitted their artificially produced epilepsy to their descendants. We may remark in passing that this often-quoted case is exceedingly doubtful, as idiopathic epilepsy is said to be common among guinea-pigs. Since he takes this view of the disease it is not surprising that Professor Lancereaux includes in this book many diseases which would not ordinarily be called gouty. In treatment he recommends temperance in food and drink, but rejects vegetarianism, and does not even mention purin-free diet. He allows alcohol, but says that in his own case abstinence from wine was beneficial. He recommends fresh air, sunlight, and exercise, and speaks well of the general effects of hydrotherapy. The drug upon which he seems to rely most is quinine.

Dr. Falkenstein,[2] who has suffered from gout in his own person for thirty-five years, now at the age of 68 publishes his experience of the disease and its treatment by hydrochloric acid and iodine, dedicating the volume to his children as the "heirs to his affliction." He has small respect for orthodox views and methods, which he says gave him no help. He brought forward his method in 1904, but has since then improved it, and hopes that it may be taken up by younger hands who will make it still better. Without attempting to explain how it arises originally, he is a strong believer in the inheritance of gout; but he is convinced that excessive eating and drinking do not produce it, and can at most precipitate an attack or make it worse. He holds that the gouty do not make more uric acid than the healthy, but that their difficulty is to eliminate the poison; this he attributes to defective or anomalous ferment action arising primarily from deficient gastric digestion. He believes that uric acid is normally converted by oxidation into alloxan and urea, or that some such chemical splitting up takes place. He had his first attack of gout in the form of arthritis in the wrist in 1875 at the age of 32. In 1886, when he was 43, he had a regular sudden arthritis of the great toe joint, and this was the beginning of his martyrdom; the disease remained his companion until he abandoned the teaching of the textbooks and adopted his own line. His experience has taught him that alcohol may precipitate an attack or aggravate it, but that during the interval it has no effect, and even beer and wine may be used without any bad result. To illustrate the fallacy of attributing an attack of gout to eating and drinking, he tells how he went one day feeling perfectly well to a big dinner, but was seized with a sharp pain in the heel just as he was going to take his first mouthful of soup; the pain became so great that he had to leave the table and go home at once. If the attack had come on an hour later it would have been attributed to the dinner. In this way many harmless things are blamed—for instance, strawberries. His treatment consists of large doses of hydrochloric acid taken as acidulated water during meals. He supports his plan of treatment by quoting Van Loghem's experiments on rabbits in which artificial gouty foci were made by injecting a solution of uric acid; some of the animals were treated by hydrochloric acid and some by alkalis administered by the mouth; they were then killed, and in those treated by acid the uric acid was unchanged, with no sign of irritation, but in those treated by alkalis the uric acid had been converted into urate of soda, and was surrounded by a good deal of inflammation. He gives 4 or 5 drops of hydrochloric acid, equivalent to forty or fifty drops of the dilute acid, in a tumblerful of water, a dose much smaller than that given by some.[3] In addition he prescribes a preparation of iodine combined with vegetable albumen called iodglidine, prepared by Dr. Klopfer of Dresden. It is said to increase the nitrogen output and is given in tablets, two daily after meals; later on he reduces the dose to one. His diet is very liberal; he allows meat and meat soups and meat extracts to stimulate the gastric secretion, wine, beer, and cognac, good wine vinegar with salad, spices, tea, coffee, and fruit. He commends early rising, the use of a bath, and lays stress on exercise. He forbids pork and salmon, smoked and salted meats, and thinks glands better avoided. He objects to milk and allows only a little cheese. Sugar and sweet wines are forbidden; tobacco is allowed in moderation. He has no sympathy with vegetarians, and ridicules the argument that as we are descended from frugivorous apes we ought to live as they do, alleging that a monkey will eat meat when he can get it. The dietary allows for breakfast, fruit, coffee with cream but no sugar, bread and butter; at 11 o'clock, fruit again; at mid-day dinner, soup, raw ham, peas, French beans, spinach with eggs, cauliflower, mutton or veal, salad, one or two glasses of water acidulated with 6 to 10 ♏ of hydrochloric acid; one cup of black coffee and a cigar; supper, cold meat, butter, black bread, sardines or anchovy, butter with white bread, one or two glasses of acidulated water and one glass of beer. The food for each day in the week is varied slightly, so that on other days potatoes, light puddings, beef, cheese, stewed plums and apples are taken. During the attack he gives morphine or colchicum to relieve the pain, and aspirin in slighter attacks. He speaks favourably of the hydrochloric acid baths, which he says were recommended by William Rowley in 1792.[4] These baths had a great vogue in Paris a hundred years ago, the crude hydrochloric acid being sold originally as a secret remedy for a louis d'or a bottle until its true nature was discovered. The quantity he uses is 200 to 300 grams (6⅔ to 10 oz.) to a full bath, and 50 to 70 grams (1⅔ to 2⅓ oz.) to a foot or hand bath. Such a bath should be used once a week or once a fortnight. He objects to saline aperients on account of the alkali they may contain, and prefers rhubarb, cascara, or aloes. He quotes in testimony of the good effects of his methods accounts written by patients which remind us of the testimonials given in quack advertisements, but there is no reason to doubt the good faith of the author, although his views are not in accordance with those generally held.

[2] *Die Gicht und die Salzsäure Jodkur.* Von San.-Rat Dr. Falkenstein. Berlin: August Hirschwald. 1910. (Sup. roy. 8vo, pp. 194. M.5.)
[3] Conf. Leo, *Salzsauretherapie.* British Medical Journal, December 7th, 1907.

[4] *Treatise on the Regular, Irregular, Atonic and Flying Gout.* London, 1792.

PUBLIC HEALTH ADMINISTRATION.

The textbook upon *Sanitary Law and Practice*, by Dr. W. Robertson and Dr. C. Porter,[5] is arranged upon an excellent plan. Each branch of the subject is dealt with in a separate section, the first part dealing with the law and the second with the duties of the health official in reference to the special subject under review. For example, among the subheadings of the chapter dealing with nuisances are book-keeping, inspections, house-to-house inspection, service of notices, prosecutions, examination of houses, drain testing, reports. Tables are used in several chapters with the best results; one such gives in parallel columns the chief offensive trades, the nature of each trade, the source of the nuisance caused by it, and the remedies which may be suggested for its abatement. The principal infectious diseases are dealt with in similar fashion in a table which gives the name of the disease, its incidence as regards age and season, period of incubation, its main features, differential diagnosis, period of isolation and of quarantine, mortality, and death-rate, and the recognized methods of prevention. The statement of the authors with regard to the compulsory removal of patients to an isolation hospital is not quite accurate so far as England and Wales are concerned. They state that if the removal of a patient "is urgently called for the medical officer of health will have to inform the householder that a Justice's warrant will be obtained empowering him to carry out forcible removal." Under the provisions of the Public Health Act, 1875, the order of a Justice is addressed to the officer of the sanitary authority. The patient cannot be forcibly removed, but a penalty can be inflicted upon any person who obstructs

[5] *Sanitary Law and Practice: A Handbook for Students of Public Health and Others.* By W. Robertson, M.D., D.P.H., Medical Officer of Health of Leith, and Charles Porter, M.D., D.P.H., M.R.C.P.Edin., Medical Officer of Health of the Metropolitan Borough of St. Marylebone. Second edition. London: The Sanitary Publishing Company. 1909. (Demy 8vo, pp. 714, illustrations 74. 10s. 6d.)

the officer in carrying out the order requiring him to remove the patient to a hospital. Another rather misleading expression is used on page 22, where there is a well-thought-out skeleton report for a medical officer of health. In this the term "corrected" death-rate really means "recorded," or, better still, "adjusted" death-rate—that is to say, adjusted for residents and non-residents. On page 655 the authors explain quite properly the meaning of a recorded death-rate, and on the following page they explain the meaning of a corrected death-rate—corrected for sex and age. This confusion of the two terms is very frequent, and is to be met with in quite unexpected quarters. There are some statements made in the earlier pages of the work which are rather startling, though it is due to the authors to suppose that they have occurred owing to one of them being specially familiar with the administration of the public health laws of Scotland, in which country the sanitary administration differs from that of England and Wales. On page 2 we are told that the local authority in a county borough is the mayor and aldermen, while in a municipal borough the local authority is the municipal council. Every urban district council does not administer the Food and Drugs Acts nor appoint a public analyst, as stated on page 3. We learn on page 29 that, to all intents and purposes, the work of medical officers of health of counties is the same as that of medical officers of health in cities, so that when we reach page 38 we are not so surprised at being told that in "the counties and larger urban districts in England and Wales, where the medical officer of health is the recognized head of the sanitary department . . . the work of the sanitary inspectors is carried out more or less under his direction." We have no desire to be hypercritical, but these are some among of the inaccuracies which we have come across; and as the volume is intended as a textbook for students preparing for examinations it is important that they should be pointed out. They depreciate the value of what is in so many respects a very full and excellent treatise.

Dr. Louis Parkes, who delivered a course of lectures at the University of London in February, 1909, under the trust created by the will of the late Sir Edwin Chadwick, K.C.B., has now presented the views he then expressed to a larger audience in a volume called *House Drainage, Sewerage, and Sewage Disposal*.[6] The lectures contain exactly what Chadwick, that great pioneer of sanitary science, would have desired to have promulgated far and wide. In successive chapters Dr. Parkes deals in well-ordered sequence, and with a charm of phrase to which his former writings have accustomed us, with the causation of disease by excretal refuse, the conservancy methods of excretal removal, modern methods of house drainage and sewerage, and the disposal of sewage. The objections to the conservancy system of excretal removal are admirably put, and the directions for carrying out the system when it must inevitably be employed cannot fail to be of service to those who reside in country districts. It is a pity, perhaps, that even a qualified approval is given to the employment of dry ashes and cinders in earth closets; as they are sterile they can exert no bacterial action on the contents of the earth closet, and every effort should be made to procure the employment of earth which is teeming with germ life. At the time when a departmental committee is engaged in considering the question of retaining the disconnecting trap in our system of drainage, it is of interest to learn that Dr. Parkes would approve its retention. He considers that it permits each house-drainage system to be ventilated separately with its own fresh-air inlet and foul-air exhaust, thus providing that comparatively fresh and pure air is continually circulating throughout the house drains and soil pipes, and has the further advantage of preventing the access of rats from the sewers into the house drains.

PERSONAL HYGIENE.

In his book on the *Laws of Life and Health*, Dr. Alexander Bryce[7] appears to assume that the laws of health are known to us, for he has attempted to codify them in a decalogue, and claims thereby to have rendered them easy of access to all who are interested in conserving their health. He evidently addresses himself mainly to the public, but many medical practitioners will read his book with interest, and we think with profit; for although Dr. Bryce, speaking as one having authority and laying down his laws *ex cathedra*, may not find every one to agree with him in all that he says, he has given a careful account of modern views on metabolism and diet, and has explained in simple language things which are not so familiar to many medical practitioners as they should be. We may summarize his laws briefly thus: (1) Urges three meals a day; under this head metabolism and dietetics are discussed; (2) advocates drinking three pints of fluid a day; (3) lays down the importance of regular work; (4) recommends not less than eight hours' sleep; (5) teaches the value of fresh air; (6) of exercise; (7) of baths; (8) of the need of protecting the body by clothing; (9) of regularity and moderation in habits; (10) of cheerfulness and equanimity. While the rules laid down are good, we doubt whether Dr. Bryce is right in saying that "disease of all kinds and of every degree of severity must have been due to violation of the laws of health by the victim of the disease or his immediate or remote ancestors" (Introduction, p. xvii), if by that we are to understand that the above are the laws referred to, and that if they are followed disease will be banished from the world. No doubt proper hygiene goes far to maintain health, but it certainly does not place mankind beyond the risk of infectious diseases, and these not only cause death but are responsible for a great deal of organic damage that implies impaired health lasting perhaps for years or for the whole of life. We do not know why, in the description of sugars (p. 4), glucose (grape sugar) is described as the result of inversion of cane sugar by acids; the statement is not untrue, but it is not the form of glucose which would be familiar to the lay public. It seems to be absurdly strict to forbid oranges or other sour fruit to be eaten "at the same meal" as starchy food in order that the action of the saliva may not be hindered, and in discussing the action of this secretion it would have been comforting to his readers if he could have told them that food in the stomach is not mixed up, but remains more or less in the relative position occupied by it as it enters, so that the starchy food at the end of the meal has an opportunity of being thoroughly acted upon by the saliva before the gastric juice has time to reach it. Dr. Bryce's rule against drinking at meals is also too much at variance with ordinary practice to be sound. No doubt those who have weak digestions may not be able to dilute their gastric juice without unduly weakening its action, but there are a great many people who find themselves all the more comfortable for drinking a certain amount of fluid at meals, and a practice which is so general should not be lightly condemned. On the other hand there are many people, especially women, who drink too little fluid, but though Dr. Bryce is quite right in urging that a certain minimum quantity should be taken, we question whether an uncomfortable feeling in the head in the morning is so often due to too little fluid having been taken the day before as to too much, especially when it was not pure water. His arrangements for sleeping in the open air without going out of doors are ingenious, but we cannot imagine many people caring to have the head of the bed pushed into a covered balcony such as he sketches, nor do we see the need for putting the bed so near the window as to require the use of an awning to surround the head and shoulders, shown in Fig. 1 (p. 211); a wide open window surely gives all the fresh air that is needed without such devices. We doubt his dictum that work is not exercise, as we find it is frequently necessary to remind patients who are tired by work that they cannot expect benefit or anything but injury if they take exercise in that condition. On page 253 he relates an extraordinary case telling how Professor Eric Lexer of Koenigsberg is said to have "excised the knee of a young woman of 18 and replaced it by that of an old man whose leg had been amputated for senile gangrene; wonderful to relate the worn-out knee-joint of the old man became part and parcel of the young woman and underwent a process of rejuvenescence in her body." We find such a story is so difficult of belief that

[6] *House Drainage, Sewerage, and Sewage Disposal in Relation to Health.* By Louis C. Parkes, M.D., D.P.H. London: H. K. Lewis. 1909. (Cr. 8vo, pp. 150. 2s.)

[7] *The Laws of Life and Health.* By Alexander Bryce, M.D., D.P.H. London: Andrew Melrose. 1910. (Demy 8vo, pp. 441; illustrated. 7s. 6d.)

unless Dr. Bryce is prepared to vouch for the truth of it we do not think he should have included it in a book intended for lay readers who cannot judge of its inherent improbability, to use a mild term. We regret, too, that he should have thought it necessary to give prescriptions for the treatment of skin trouble and baldness, and the book would have been improved by the omission of various facetious remarks attributed to anonymous doctors not generally of a kind to raise our profession in the public estimation; there are two or three stories with which the late Sir Andrew Clark, whose name by the way is always wrongly spelt, is discredited, one of these being about the thirty-two bites from the thirty-two teeth which is usually attributed to Mr. Gladstone; on page 389 is a familiar chestnut which surely never had anything to do with Sir Humphry Davy, who was not a medical practitioner and would have been unlikely to treat a patient with or without a thermometer.

THE EDUCATION OF GIRLS.

THE fact that Dr. CAROLINE LATIMER'S book, entitled *Girl and Woman*,[8] is introduced to the public by a foreword from the pen of Dr. Howard Kelly, the distinguished Baltimore professor, gives it a special claim on the attention of the medical profession, and creates a presumption that the subject matter is dealt with in such a manner as to make it suitable for and commendable to the general reader. The avowed object of the book is to guide young women wisely in the conduct of their lives, in the care of their health, and in the choice of pursuits fitted to their sex. Dr. Howard Kelly expresses his definite opinion that in the training for the work of life, boys and girls ought not be educated upon precisely the same plan, but that certain modifications in conformity with the elementary difference of sex are essential if the average girl is to achieve a normal development of mind and body as permanent and satisfactory as the average boy. He sums up his opinion by saying:

> In their practical, daily human relations the sexes are never precisely alike except during the earliest years of childhood. For the first ten years of life a boy and girl may be looked upon and treated as identical, though even then the foreshadowing of the coming changes are always visible to keen eyes. But with the approach of puberty the fundamental differences, everywhere stamped upon the sexes in nature, become sharply defined, and the breach thus made widens with the succeeding years, until maturity finds the man and the woman two distinct entities, complementary in all their future relations.

Since Dr. Caroline Latimer's book is dedicated to mothers and daughters, it may be assumed that the intention of the authoress has been to make it as little technical as possible. In this she has only partially succeeded. This is perhaps inevitable when the writer is a qualified practitioner whose habits of thought and expression are saturated by an intimate acquaintance with practical and scientific medicine, but there is no excuse for such loose and inaccurate statements in regard to disease as we find scattered throughout this volume. An entirely wrong conception of the seriousness of chorea, for instance, is conveyed by the statement that, "with the exception of a few rare cases of a peculiar nature, the disease runs its course, and recovery takes place spontaneously." Similarly, it is not in accordance with the generally accepted experience to say of epilepsy that "there are areas of actual disease in the brain, though it seems to be doubtful how far these are the result of the epilepsy or its cause." Again, it is difficult to realize what therapeutic value can possibly attach to the addition of "two teaspoonfuls of mustard to a tubfull of water as hot as can be borne." We have no desire to be hypercritical, because the book contains much excellent advice and sound information; but in many minor details, such as those we have referred to, it may be possible to render the text more accurate in a future edition.

The most interesting feature of Dr. Caroline Latimer's treatise, however, and the object for which it has presumably been primarily written, is the discussion which it embodies of the important and difficult question of sexual education. The authoress enters a strong and passionate plea for the better instruction of girls in the duties and responsibilities which Nature imposes upon their sex, as well as upon the evils which may ensue upon an unwise disregard of the physiological limitations which the periodic disturbance of their health entails, or the consequences which are the penalty of sexual unrighteousness. The "let-alone" system, so much in vogue at present, is strongly condemned, and an appeal is made to mothers that they should adopt towards their daughters a more frank and explicit attitude in regard to sexual knowledge, and that they should endeavour to establish a confidence that will bring "the child into the same relations of sympathy and openness in matters of sex that should exist between her and her mother in all respects." To this end it is suggested that the child's mind from its early years should be trained to the knowledge of reproduction in lower animal and vegetable life as one of the natural laws of existence, and that from this initial apprehension she should be gradually led to understand that in human beings the same law of reproduction is a necessary provision for the continuation of the species. Further, the authoress advocates for older girls a course of public school instruction in biology comprising elementary lessons "on the function of reproduction and kindred subjects from the human side, and the questions of health associated with it." She dismisses contemptuously the old-fashioned idea that the natural modesty of the girl will be jeopardized by accurate sexual knowledge judiciously imparted, and argues that greater evil results from the present state of ignorance in which most girls are brought up than can ever accrue from a more intimate acquaintance with the laws of Nature. She does not deny the difficulties that exist in dealing with the subject, but she believes that the introduction of scientific knowledge on sexual matters is the one way of meeting those difficulties and of overcoming the evils arising out of the antiquated reticence which hitherto has made the sex problem an unmentionable mystery to ninety-nine girls out of a hundred.

It will probably be long before the views temperately expressed in this volume are accepted in this country, but even the most ardent adherent to the claims of modesty must admit that there is room for improvement in the education of girls on a subject which so closely concerns the practical affairs of life. The difficulty is to be sure of the lines along which this education can be most effectively and wisely conducted. Dr. Caroline Latimer's book is a praiseworthy attempt to show one way of solving the problem.

[8] *Girl and Woman: A Book for Mothers and Daughters.* By Caroline Wormsley Latimer, M.D., M.A., formerly Instructor in Biology, Woman's College of Baltimore. With an Introduction by Howard A. Kelly, M.D., Professor of Gynaecological Surgery, Johns Hopkins University. New York and London: D. Appleton and Co. 1910. Demy 8vo, pp. 351. 6s.)

BIER'S HYPERAEMIC TREATMENT.

IT is not surprising that a manual of the practical application of *Bier's Hyperaemic Treatment in Surgery*[9] should have a large sale. Undoubtedly there has been a demand for instruction in the technique of a comparatively novel method of treatment, especially as it is one which claims to be based on the utilization of natural recuperative forces, and to minimize the menace of the knife. The authors have a profound—indeed, a touching—faith in the method they expound, but it is not the faith that removes mountains. The little devil, doubt, does creep in even if he has to hide in corners. So long as it is a matter of directions as to practice and descriptions of apparatus the reader is carried unresisting along, but in this volume, at any rate so far as pathological considerations are concerned, the question is begged at the outset. Very likely it is erroneous, but these pages certainly leave the impression that the authors look upon recovery from a local lesion as equivalent to "cure." Not that the Bier treatment is vaunted as a panacea; that is, in fact, directly disclaimed. "Of course, it must not be assumed that now the millennium has come. . . . Far from it. If the rules that are laid down in this book are not followed, if . . . a correct diagnosis . . . does not underlie the treatment, the trouble will get worse." But, gentle reader, you have got the book, so the millennium is not very far off. Be that as it may, there is a great deal of useful information in an easily accessible form in the text, and some of the subsidiary uses to which the suction apparatus may be put will prove interesting. The use of vacuum pressure for gentle

[9] *Bier's Hyperaemic Treatment; a Manual of its Practical Application.* By Willy Meyer, M.D., and Professor Dr. Victor Schmieden. Second revised edition. Philadelphia and London: W. B. Saunders Company. 1909. (Roy. 8vo, pp. 280; illustrations, 103. 13s.)

rrection of joint deformities and for mobilization of stiff ints is ingenious; and if the associated hyperaemia does l that is claimed for it by way of inhibiting pain, must ave extensive applications. Attention is drawn to a ood many pitfalls and dangers, but the suggestion that iction glasses should be applied to the cervix uteri "for ie betterment of amenorrhoea" might give pause to nthusiasm. The book deserves, and no doubt will ave, a great many readers. Though it can be done omfortably, it should not be read at a sitting. One can ave too much even of a good thing, and do it injustice in onsequence. To those whom it may concern we may dd, "ware split infinitives." There is a good bibliography nd an excellent index; the illustrations, too, are extremely ood.

SUPRARENAL TUMOURS.

THE monograph on new growths of the suprarenal capsules, y Professor CARL WINKLER,[10] of the Breslau Royal athological Institute, is an important work, and should e studied by all interested in this department of morbid natomy. It is based upon the study of 24 cases, with the linical history and the *post-mortem* findings, both macro-copically and microscopically, which he gives in detail; is illustrated by four good plates, containing twenty-six gures. His experience is much wider than this account vould suggest, as during the last ten years a very large umber of cases have been observed at the institute, nd in the course of the last year no less than 27, but he cases of the series on which the monograph has been ounded were selected on account of their completeness. He elates 13 examples of primary growths—10 epitheliomata nd 3 sarcomata—and 11 secondary cases. The develop-nent of these glands from the primordial renal blastema is ully described, and is held to explain the structure and the haracteristics of the new growths. Attention is drawn o the fact that there was a history of injury in 4 of the ases, and references are given to several other examples which have been published. In a final chapter the author liscusses the relation of disease of the suprarenal capsules o morbus Addisonii, but is not able to clear up the diffi-culties surrounding this problem. In only 2 of his cases was there any bronzing of the skin, and from various published sources he quotes statistics showing that while, on the one hand, not only primary but metastatic tumours have been found to be associated with bronzing of the skin, on the other enormous tumours of both capsules have occurred without this symptom; nor can any relation be established between the degree of the disease and the pigmentation, and he is not satisfied that the destruction of any one tissue, either cortex or medulla, can be shown to be related to the special symptoms of this complex disease. He can only say that he believes Addison's disease to stand in close relation to the suprarenal bodies and to their chromaffine cells, but his researches do not enable him to decide whether the explanation is to be found in an affection of the cortex or medulla and sympathetic apparatus or both together. He does not lose sight of the fact of the existence of accessory supra-renal glands which undergo hypertrophy when the main organ is destroyed and may vicariously perform its functions and thereby afford a partial explanation of some of these paradoxes.

EPILEPSY IN CHILDHOOD,

LITTLE that is known or has been written about the forms of epilepsy observed in children can have escaped Professor VOGT, and he has set it all down in a most carefully written and exhaustive monograph, *Die Epilepsie im Kindesalter*,[11] the whole being bonded together by numerous reflections and observations of his own. The first chapter deals with the causes and onset of epilepsy in children. In commenting on the frequency with which a history of chronic alcoholism can be obtained from the parents of epileptic children, Vogt gives quotations showing that while congenital mental or physical defects are commoner among the Jews than among the Germans, epilepsy is not half as common, and that chronic alcoholism is very much rarer among the Jews than the Germans. As regards the age at which epilepsy first manifests itself, Gowers and many others have shown conclusively that the three periods of election are infancy, the beginning of school attendance, and puberty. The second chapter deals with the general symptomatology, more particularly from the motor and psychical side, and with the stigmata of degeneration met with in epileptic children; it has been noted that they are particularly resistant to tuberculous infection. The third chapter extends to over ninety pages, and deals with a somewhat heterogeneous collection of interesting questions. Vogt argues that what in this country are often called "teething fits" in infants are commonly distinct from epilepsy, and depend upon a "spasmophil diathesis" set up by improper feeding; one of the best-marked signs of this diathesis is the galvanic hyperexcitability of the muscles shown by its victims, in whom the anodal opening contraction is stronger than the anodal closure contraction, and cathodal opening contraction occurs with a current of 5 milliampères or less. The diagnosis between this spasmophily and epilepsy is discussed at some length. As regards the so-called "organic" epilepsy, dependent upon some local lesion of the brain, Vogt states that the frequency with which it occurs in children has only recently been recognized, and that the status epilepticus is particularly common in these patients. Such cases are not rarely amenable to surgical treatment, and their diagnosis is fully discussed, syphilitic cases being excluded and considered separately. Vogt devotes twelve pages to that rare congenital condition, sclerosis tuberosa of the brain, in which idiocy and epilepsy are observed, and new growths are found *post mortem* in the kidneys (liposarcoma), heart (rhabdomyoma), and skin (adenoma sebaceum). Perhaps the most instructive part of Vogt's book is that dealing with the relations between epilepsy and hysteria, and with the treatment of epilepsy. He urges strongly that each case should be considered and treated on its individual merits, and that no uniform method of treatment (medicinal, dietetic, or otherwise) can be successful. The fifth and sixth chapters deal with the education and social provisions suitable for epileptics, and with their position with regard to the law; some twelve pages are given to a bibliography, and the book closes with a tolerable index. We must congratulate Professor Vogt on the thoroughness with which he has treated his subject from every point of view—clinical, pathological, philosophical, educational, social, jurisprudential. His book is full of good matter, and should prove indispensable to the specialist and the advanced student in nervous diseases.

NOTES ON BOOKS.

THE twenty-eighth volume of the *Medical Annual*[12] has recently been published, and its unnamed editor would seem as fully entitled to congratulation on the result of his labours as usual. As in former years, he has had the advantage of the assistance of contributors all of more or less well-recognized authority in connexion with various points of treatment, their number this year being thirty-two. The net outcome is a work which certainly justifies its subtitle, *A Year Book of Treatment and Practitioner's Index*. So far as can be seen, no suggested new treatment which has been put to practical uses, and whose pretensions have been in any wise supported since the date of the compilation of the last issue, would appear to have been overlooked. Occasionally a passage may be noted in which the writer has contented himself with giving an abstract of one particular paper instead of summarizing the whole of the work done on the subject during the year, but as a rule the task undertaken is thoroughly performed. Information is also given on some subjects about which comparatively little is at present known; the article on hormones, to which Starling drew attention in his Croonian Lectures in 1905, is a case in point. As usual, the volume is well illustrated, among the most striking pictures being those which appear in connexion with a somewhat impressive article by Dr. S. Robert-Simon of Paris, on the therapeutic use of sea water. The utility of the book is, as in former years, increased by short summaries of legal decisions affecting medical men given during the year, and details as to inebriate homes,

[10] *Die Gewächse der Nebennieren.* Von Professor Dr. Med. Carl Winkler. Jena: Gustav Fischer. 1909. (Sup. roy. 8vo, pp. 197, M. 9.)

[11] *Die Epilepsie im Kindesalter, mit besonderer Berücksichtigung erzieherischer, unterrichtlicher, und forensischer Fragen dargestellt.* Von Professor Dr. med. Heinrich Vogt. Berlin: S. Karger. 1910. Roy. 8vo, pp. 231. M. 5.)

[12] *The Medical Annual.* Twenty-eighth year. 1910. Bristol: John Wright and Sons. (Demy 8vo, pp. 840. Price 8s. 6d.)

sanatoriums, spas, new inventions, together with classified lists of books on various subjects which have appeared during the year.

Once more Dr. PRICE has revised and reissued *Hoblyn's Dictionary*,[13] which has for many years been deservedly popular. The editor is always careful about his definitions under headings such as "opsonic index," "psilosis," "skiagraphy," "Roentgen rays," and other subjects more or less novel or specialized about which dictionaries of this class are so often consulted. One or two words or terms associated with medical novelties some of which are of doubtful value, such as "atmocausis," have been overlooked or designedly omitted; yet dictionaries are made use of for information about novelties, and we doubt if the pages of this lexicon are likely to be sought for such subjects as "maltha," "mandrake," and "atlantal aspect," all included in the present edition. Few, if any, new subjects of real importance, however, have been omitted, and Dr. Price has been especially careful about names and terms associated with microbes, admitting in his preface that he has relied in great part on the authority of Crookshank's *Bacteriology and Infective Diseases*. It remains, as we have said of an earlier edition, a useful handbook of reference for the student and the literary worker.

Professor GROSSER, in *Die Wege der fetalen Ernährung*,[14] treats the question of fetal nutrition entirely from the standpoint of comparative anatomy. Commencing with the "embryotrophic" pig, he shows that every transition can be traced from the pig to man, the latter being purely "haemotrophic." The account is illustrated by diagrams. He emphasizes the point that experiments upon animals which have type of placenta so different must not be used in the interpretation of the physiology and pathology of the human placenta. It is interesting to note that the guinea-pig, the commonest experimental animal, has the most complicated placenta which has ever been studied.

Mr. L. B. RAWLING'S *Landmarks and Surface Markings of the Human Body*[15] continues to win popularity, and has become a standard student's handbook. Its popularity has depended largely on its excellent illustrations, and in the third edition several of these have been redrawn and one new plate has been introduced. There are no other alterations in the book, and the author is, we feel sure, wise in keeping its text strictly within the limits defined by its title. We congratulate him on the continued success of the work.

We reviewed Major BASU'S little book on the *Dietetic Treatment of Diabetes* very recently (October 9th, 1909, p. 1073), but he has produced a second edition, which is enlarged and a good deal altered, although still mainly made up of extracts from the writings of others.[16] Major Basu's main point is that diabetes can be successfully treated on a vegetarian diet, and he asserts that the natives of India, who suffer from diabetes and who are vegetarians, live longer than Europeans who are meat-eaters. Unfortunately he does not give us any facts in support of these assertions. It is generally believed that vegetarianism is in itself a cause of diabetes, and the frequency of the affection in India has been attributed to the diet of the people; this view is supported by such observations as those of Charcot and Collins as to the frequency with which glycosuria occurs among the novices in the Monastery of La Trappe. But whether these views are well or ill founded cannot be settled by mere assertion on either side, and Major Basu would be contributing really valuable material to our knowledge of the treatment of diabetes if he would publish cases of diabetes treated on vegetable diet with success. His advocacy of the use of cocoanut is in no way novel, as it has been used for many years in this country for the preparation of diabetic bread substitutes, though it has been given up lately in favour of those made with a casein basis.

[13] *Hoblyn's Dictionary of Terms used in Medicine and the Collateral Sciences.* Fourteenth edition, revised throughout, with numerous additions by John A. P. Price, B A., M.D.Oxon, Surgeon to the Royal Berks Hospital; late Physician to the Royal Hospital for Children and Women. London: George Bell and Sons. 1909. (Cr. 8vo, pp. 880. 10s. 6d.)

[14] *Sammlung anatomischer und physiologischer Vorträge und Aufsätze.* Edited by E. Gaupp and W. Nagel. Heft 3. *Die Wege der fetalen Ernährung.* By Professor Dr. O. Grosser of Vienna. Jena: Gustav Fischer. 1909. (Roy. 8vo, pp. 20; figs 10. Pf.60.)

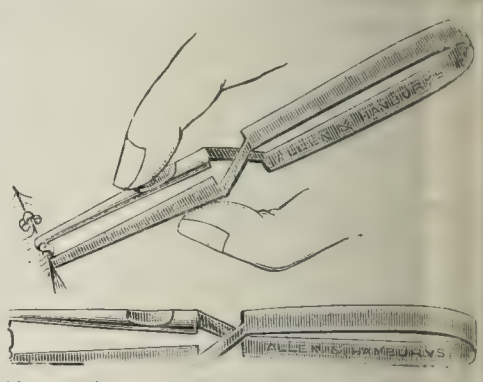
[15] *Landmarks and Surface Markings of the Human Body.* By Louis Bathe Rawling. Third edition. London: H. K. Lewis. 1908. (Demy 8vo, pp. 103; figs. 31. 5s.)

[16] *The Dietetic Treatment of Diabetes.* By B. D. Basu. Second edition. Allahabad: The Panini Office. 1909. (Cr. 8vo, pp. 52.)

MEDICAL AND SURGICAL APPLIANCES.

Forceps for holding Michel's Sutures.

THE forceps figured in the accompanying illustration have been made by Messrs. Allen and Hanburys, Limited, at the suggestion of Mr. E. Canny Ryall. They are intended for holding Michel's clips, and designed to supplant the "magazine" clip-holders, which work so beautifully dry, but so often fail to give satisfaction when actually required in operation. The crossed-spring is applied ingeniously to secure a safe hold of the clip until wanted, whilst affording convenient grip for insertion. The idea is that some half-dozen pairs should be loaded in advance and used in turn when the wound is to be sutured. Whether or not any gain in time over the original method of carrying a supply of clips on the shank of the approximating forceps will be effected remains to be seen.



A Controller for Electric Current.

The outstanding objection to electricity as a means of illumination hitherto has been the absence of intermediate stages between "full on" and "quite off," unless resistances are employed which dissipate in heat the energy withheld from the light. In order to obviate this difficulty, a useful little switch is now manufactured by Messrs. Adams and Company (109, Victoria Street, S.W.), the purpose of which is so to regulate the current as to make it possible to obtain any required intensity of light without wastage. The Watkin Switch works at seven degrees of illumination, and on the lowest stop the reduction is estimated to be equal to a saving of 80 per cent. Even this feeblest illumination, however, as we have had the opportunity of observing, is ample for the purpose of a night light, and from the point of view of the comfort of patients it seems preferable to a few pilot lights left "full on" in the wards at night. A saving is also effected in lamps, especially the delicate metallic filament lamps. It is stated that the switch is already used in a number of hospitals and asylums, and that it can also be employed for controlling electric fans and electrically-driven surgical appliances.

THE PUBLIC TRUSTEE.

THE duty of acting as trustee or executor is accepted by most men with reluctance, and is undoubtedly, as a rule, a thankless task. It is, therefore, not surprising to find that more and more advantage is being taken of the Act passed in 1906 establishing the office of Public Trustee. The Act came into force on January 1st, 1908, and the Second General Annual Report of the new official shows that the nominal value of the investments held by the Public Trustee at the end of last year was approximately 5½ millions. The business transacted has emanated from residents in all parts of England, and from British subjects in all parts of the world. The fees received during the second year more than trebled those received during the first, while the expenses have barely doubled, and a small surplus was shown on the work for the year 1909.

Ordinary Trusts.

In the first year, 1908, the Public Trustee was appointed an ordinary trustee to 248 trusts; last year he was so appointed to 431 trusts, so that he is now trustee to 679 ordinary trusts. A number of trustees have availed themselves of the Act in order to obtain relief from the difficulties anticipated in tracing those ultimately entitled on the death of the life tenant; but various motives, such as personal distrust and inexperience in money matters, have led persons of both sexes, more especially ladies, to make revocable settlements of their property and appoint the Public Trustee to protect it. By such a settlement the settlors are relieved from the responsibility of seeing to the safe keeping and investment of the funds, while at the same time they do not deprive themselves of the right to obtain the repayment of the capital should they at any time require it. In certain cases the Public Trustee has been able to repair grave breaches of trust, in some cases

at the expense of morally innocent but negligent trustees. In other cases the Public Trustee was unable to do more than expose the malpractices of previous trustees and to salve what remained.

The Public Trustee sends to the beneficiaries of each trust periodical information as to the present state of the investments of the funds, the income arising therefrom, and the dates of payment.

Executorial Work.

The Act also empowered the Public Trustee to act as executor, either alone or jointly with personal friends or relations of the testator. As compared with the year 1908 the number of such estates has almost trebled, as has also their value, but as the number of executorships undertaken by him last year was only 57 (31 sole and 26 joint) this business is only in its infancy, although information supplied by the testators themselves shows that the Public Trustee has been appointed executor of estates valued in total at over 29 millions sterling. Several businesses have been disposed of within a few months of the date of death, including two doctors' practices. An appreciable increase is shown in the disposition of executors to renounce probate, and in the willingness of residuary legatees on whom the right of administration then devolves, to stand aside in favour of the Public Trustee. He has also been appointed by the Court as the administrator of the estate of an intestate in 17 cases, as against 5 in 1908; this procedure is particularly convenient in the case of infants. Further, the Act enables executors and administrators to relieve themselves of the responsibility of administration by empowering them to transfer an estate in course of administration to the Public Trustee, provided that the sanction of the Court can be obtained.

Small Estates and Compensation Cases.

The Act made special provision for the cheap and simple administration of the estate of a deceased person, and of compensation cases when the amount involved does not exceed £1,000. It would appear that the poor have availed themselves of this provision to a small extent only, owing no doubt to the fact that the class of person intended to be benefited are the least likely to know of this provision of the Act.

The rules recently made by the Postmaster-General in connexion with the opening of Post Office Savings Bank accounts in the name of the Public Trustee have proved of great value, and it is anticipated that they will be extensively utilized in the case of small estates and compensation cases. A rule made by the Supreme Court, on the recommendation of the Master of the Rolls, provides that all moneys recovered or awarded by or on behalf of an infant, or a person of unsound mind not so found by inquisition, are, in the absence of a contrary order of the Court, to be paid to the Public Trustee, to be held and applied by him in such manner as he shall think fit for the maintenance and education, or otherwise for the benefit, of such infant or person of unsound mind. The procedure, which is simple and expeditious, has only recently been perfected, but a few cases have already been dealt with, and others are in process of adjustment. In view of the increase in the number of children for whose care and upbringing the Public Trustee incurs responsibility, a special department has been established under the supervision of a lady, who, where desirable, visits the children in their homes.

Nature of Investments.

It should be understood that the Public Trustee is only legally bound to invest moneys in what are commonly known as "trustee securities" when the creator of the trust so directs, or when the law, in consequence of his silence on the subject, assumes that the intention of the creator was that his trustee should be so restricted. If the investment clause permits a wider range of investment than that authorized under the Trustee Act, the Public Trustee exercises his discretion, and it appears that the income derived from moneys so invested by him averages 4 per cent.

Fees.

It should be added that the fees charged by the Public Trustee's department are not high, but, on the contrary, so low that it was supposed that they would prove unremunerative. This has not turned out to be the case, since the department has not only paid its way but will also have repaid out of current income expenses which in in any ordinary business undertaking would have been treated as a loan on which interest only was payable.

We have given these particulars because we believe that they will interest many medical men not only in their application to their own affairs, but particularly because the power of the Public Trustee in small estates and compensation cases is one which might more generally be exercised in the class of cases which come under the notice of doctors perhaps more frequently than any other members of the community.

The report (Cd. 5087) can be obtained through any bookseller, price 1d., or from Messrs. Eyre and Spottiswoode, East Harding Street, Fetter Lane, E.C., post free 1½d.

SCIENCE NOTES.

THE magnificent building erected by the Prince of Monaco to receive his oceanographical collections was already sufficiently advanced in 1902 to enable him to assign a very fine hall to the use of the meeting of representatives of the principal medical journals throughout Europe at which the International Committee of the Medical Press was founded. The delegates who then enjoyed the Prince's hospitality were greatly impressed by the immense scale on which the building had been planned, and the singular appropriateness of the site chosen, on the very edge of the sea, and with the harbour close at hand in which lay the steam yacht which the Prince had fitted out for deep sea work; dredges, and sounding and collecting tackle of many kinds were provided, and a large part of the vessel was devoted to laboratories fitted up with all necessary appliances for the immediate examination and for the preservation of the specimens obtained. An idea of the magnitude of the museum may be gained from the fact that it was only at the end of last month that the opening ceremony was held. It is built at the edge of the Rock of Monaco, and the architect, M. Delefortrie, who had to take down his foundations nearly to the foot of the cliff, has provided a number of rooms under the main floor almost down to the level of the sea. The main building of the museum is at the top of the rock, and the floor of the entrance hall is 160 ft. above the sea level. It leads into the great central hall, opening off which on either side are two other halls about 120 ft. long and 42 ft. wide. One of these halls is the conference chamber, the other forms part of the museum proper, and in it are displayed, in addition to specimens, examples of the apparatus and appliances used in oceanic research. On the floor above are two other halls of the same size as those below; these also will be used for the display of the collection. Below the entrance hall is a fine aquarium, part of which is already in use, and on the same level special arrangements have been made for watching and studying various phases of oceanic life. Below this, again, are laboratories for physical, chemical, and biological research. The decorations of the building have been designed to harmonize with its purpose, and above the principal façade are engraved the names of the ships of various nations which have been engaged in deep-sea research, including the *Talisman*, the *Challenger*, the *Valdivia*, and the *Hirondelle*. The opening ceremony was attended by representatives of many European Governments; the British Government was, the *Times* states, owing to some blunder, not included. The English representatives were Mr. J. Y. Buchanan (Royal Society), Dr. H. R. Mill (Royal Society of Edinburgh), Dr. Scott Keltie (Royal Geographical Society), and Professor Herdman (University of Liverpool). The opening address was given by the Prince of Monaco, and in the conversations which took place among the three hundred delegates from various countries present the need for international co-operation in oceanographical work on lines similar to the co-operation which exists among the North Sea powers was insisted upon, and it was suggested that the Prince might take the initiative in arranging for a congress to consider the possibility of such co-operation. It ought to be added that the work done by the scientific men in the Prince's museum and laboratories and in his ship is recorded in volumes of memoirs, with all the

advantages of beautiful printing and type and of the most exquisite illustrations in natural colours.

Minchin and Thomson have published a preliminary communication [1] on the transmission of *Trypanosoma lewisi* by the rat flea. They give an account of a careful and elaborate series of experiments conducted during the past year at the Lister Institute. These have had for their object the determination of the fact that the flea does actually transmit the trypanosome and the exact method in which such transmission is effected. There are two methods by which trypanosomes may be transmitted from one animal to another through the agency of insects, namely, the direct and the cyclical. In the former the process is purely mechanical, the proboscis of the insect becoming contaminated by biting an infected animal and the contamination being transferred to the blood of the next animal bitten. This process has obvious limitations, for the proboscis does not take long to become clean and the infectivity accordingly lasts only a short time or must be constantly renewed. In the cyclical method, however, the insect acts as a true intermediate host. A distinct phase of the life-cycle of the trypanosome is, and in fact must be, passed in the body of the insect. This phase takes a certain time to complete, and thus the infected flea only becomes itself infective after the lapse of a longer or shorter period. Once infected, however, it remains so for a considerable period, even, possibly, for the remainder of its life. Professor Minchin and Dr. Thomson have shown that in the case of *Trypanosoma lewisi* infection takes place by this second method, and that it is very unlikely that infection can occur by the simple mechanical method. After a non-infected flea has bitten an infected rat it takes at least a week before the flea becomes infective, or in other words, that part of the trypanosome life-cycle which occurs in the flea occupies a minimum period of six or seven days. It is further shown that the beginning of this period of the cycle consists in the multiplication of crithidia-like forms in the rectum of the flea. No account is given of the later changes. When a non-infected rat is bitten by an infective flea and the trypanosomes introduced into its blood they continue to multiply there for a period of twelve days. The authors make the rather suggestive remark that it may be only certain individual trypanosomes in the blood of the rat which are capable of producing a permanent infection in the flea. These results with regard to the method of infection agree in the main with those of Kleine in the case of sleeping sickness and tsetse-fly borne diseases of animals.

Many perplexing results have been the outcome of the study of the enteritis group of bacilli. A large number of forms belonging to this group have been isolated, but their properties are so inconstant that it is a matter of difficulty to be certain as to their individual identity. Recent experiments on the bacillus of hog cholera have shown that with the present means at our command it is not possible to make a distinct separation of the members of the group, morphologically, culturally, or by serum reaction, and that their differentiation is best effected by consideration of the pathogenic peculiarities of fresh strains. The possibility of change in the pathogenic character of certain organisms was brought into special prominence at the time when it was suggested that the mouse typhoid bacillus should be employed for the wholesale destruction of those pests. This bacillus was regarded as non-pathogenic in man, but the opinion gradually gained ground that this assumption was not safe, and that it was not justifiable to regard the pathogenic character of this particular organism as constant. The matter was further complicated by the discovery of non-virulent or saprophytic bacteria, indistinguishable from those of the enteritis group, and found in meat, milk, and faeces both of sick and healthy persons. It would appear, then, from consideration of the pathogenic relations of these bacilli that we cannot ignore the impression that the apparently opposed facts, the occasional human pathogenicity of mouse and rat bacilli and the saprophytic occurrence of enteritis bacilli possibly point to a common peculiarity—the inconstancy of the pathogenic properties of the bacilli of the enteritis group. This point has formed the subject of much research, and it has been found that the virulence of virulent strains is rapidly diminished by cultivation on agar, while, on the other hand, the virulence is rapidly increased by cultivation on sterile meat, blood agar, or ox serum. The method of passing cultures through animals has given contradictory results. By this means Trautmann got a decrease in virulence, but Koshe demonstrated an increase, while Xylander showed that there was an increase at first, and then a decrease. More recently Heuser [2] has found that by passing the bacillus of hog cholera through rats a certain degree of adaptability could be acquired and a distinct increase in virulence demonstrated. The rise in virulence and the increase in pathogenicity advance *pari passu*, and a decrease in both takes place at the same rate under unfavourable conditions—as, for instance, on artificial media. The toxins which are given off by the bacilli in culture media seem to facilitate the occurrence of infection with enteritis bacilli. From experimental feeding of mice with sterile meat, it would appear that very various circumstances—such as unsuitable nourishment, external injuries, cold, etc.—have a predisposing influence on susceptible individuals. There is a tendency at present to ascribe many of the effects of the enteritis group to concomitant filter-passing agents, such as have been demonstrated in the case of hog cholera; Heuser, however, does not deal with this aspect of the question.

[1] *Proceedings of the Royal Society*, March, 1910.

[2] *Zeitschrift f. Hygiene und Infektionskrankheit*, lxv, February, 1910.

LITERARY NOTES.

THE *Boston Medical and Surgical Journal* announces that it is proposed shortly to found a new journal wholly devoted to the record of the progress made in physiological therapeutics, including hydrotherapy, electrotherapy, massage, hyperaemia, etc. The *American Journal of Physiologic Therapeutics* will be published bi-monthly at 72, Madison Street, Chicago.

The centenary of the birth of Sir Samuel Ferguson has recently been celebrated in Belfast to the accompaniment of much appropriate oratory. Conspicuous by its literary finish among the tributes paid to his memory is the speech delivered by Sir John Byers at Victoria College on March 9th. He showed, with illustrations, what great men and women in every department of human activity the North of Ireland had produced, and in the field of poetry he mentioned William Drennan, Mrs. Alexander, Mary Balfour—who taught a school in Belfast, and who published translations from Irish—Mrs. M'Manus (who wrote *The Four Winds of Eirinn*), Moira O'Neill (Nesta Higginson, of Cushendun), Frances Brown (the blind poetess), and Sir Samuel Ferguson. Sir John then gave a short account of Ferguson's life, specially in relation to the North of Ireland, and mentioned some interesting new points as to his northern friends—Thomas O'Hagan (afterwards Lord Chancellor of Ireland), Dr. Robert Gordon (a doctor at Bellaghy, who succeeded the famous Lever at Portstewart, where the latter was dispensary doctor), and General Chesney, of Pakolet, Kilkeel, County Down (the man who by his survey of the Isthmus of Suez made practicable the cutting of the canal by De Lesseps). In discussing what Ferguson had accomplished in his life, Sir John referred to him as a man of letters, as an antiquarian, a musician, and as one with a thorough practical knowledge of art. Ferguson as a literary author gained distinction in both prose and verse, while as an antiquarian he was influenced by three important factors—first, his early environment round Donegore, a district rich in antiquarian remains and natural scenery; secondly, by his appointment as deputy keeper of the Record Office (where he had access to the originals of many important old documents); and, thirdly, by his Continental visits, during which he examined the museums and employed his time in discovering remains of the old Irish missionaries and scholars, who as early as the fifth and sixth centuries had gone forth from their native country, Ireland, full of learning of every kind. All these circumstances inspired Ferguson to look into the old and forgotten manuscripts and writings, and by his successful efforts to create poetry dealing largely with subjects taken from these old documents he had inspired amongst others an intelligent study of the history, antiquities, and ancient laws of his country.

SICKNESS AND INVALIDITY INSURANCE.

SECOND ARTICLE.*

FROM the detailed description given last week of the various forms of sickness and invalidity insurance in Germany, it may well be inferred that Germany has for many years regarded insurance as a prophylactic against pauperism. In practice, however, it is hardly possible to prove from statistics that there has been any recognizable decrease in pauperism as a result of compulsory thrift. The percentage of pauperism has in fact risen, and it is unfortunate that the insurance often fails to reach the lowest and least provident classes, especially the casual labourers. In their case there is no regular employer who can be held responsible for the payment of the employers' share of the premiums, and the labourers themselves can hardly afford to pay their own share, while the State subsidy for invalidity and old age pensions is only given when a pension has actually been granted. Thus when sickness or invalidity comes there is nothing left for this class but recourse to the Poor Law. Moreover, the invalidity pension alone is hardly sufficient in many cases, and has to be supplemented by Poor Law relief. Taking the whole country, the rate of wages has risen during the last twenty years, without reckoning the amounts that employers have had to subscribe to insurance for their men, which in a sense must be regarded as an addition to wages. At the same time it seems safe to assume that but for the insurance the rise in the rate of pauperism would have been greater than it has. The explanation of the rise in the pauper rate must be sought in other directions. The German system of insurance is quite unique; other countries have imitated it only to a slight degree for sickness and accidents and old age, but no other country has yet made invalidity insurance compulsory, except in the case of one or two special trades, such as miners and seamen; it has, as a rule, been left to voluntary associations, which are no more successful in reaching the lowest classes of casual labourers than the compulsory insurance.

FRANCE.

The attitude of France towards insurance until recently has rather resembled that of Great Britain than of Germany. Although the French people are naturally more disposed than the English to be thrifty, it must be confessed that the State has made greater efforts to foster thrift in France than in England. Within the last fortnight, however, the French Senate and Chamber of Deputies have passed a compulsory old age insurance scheme on distinctly German lines. It is most significant that the French Socialist party has supported a compulsory contributory scheme quite opposite in principle to the non-contributory system of old age pensions in England. The new French scheme only touches invalidity to a certain extent, and it may be said that France has no compulsory insurance for sickness, accident, or invalidity that deals with more than miners and seamen. The population of France is about 39,000,000, and it is computed that there are about 9,500,000 wage workers. The principle on which France has acted for the bulk of these workers has been rather to offer various inducements to insure rather than to make insurance compulsory, but the recent enactment almost seems to show that it has been acknowledged that nothing short of compulsion is adequate.

Sickness Insurance.

For ordinary wage earners in France sickness insurance is quite voluntary, but since 1894 it has been compulsory on miners and quarrymen earning up to about £100 a year. This is organized mostly by special miners' sick clubs, which number about 200, and have something like 200,000 members. In most cases employers contribute one-third and the workmen two-thirds of the subscription, as in Germany, but the benefits are generally confined to sick pay and funeral expenses, no medical attendance nor hospital treatment being provided by the clubs.

Accident Insurance.

Accident insurance is only compulsory for seamen. The law of 1898 created for the benefit of French mariners a national State-controlled organization, providing for the risks and accidents of the seamen's calling. The employers subscribe half the premium and the men the other half, and the benefits are: Sick pay up to six months after the accident; a pension for those permanently invalided, which varies from about £8 to £12 a year; and in case of death as a result of the accident, surviving dependents may be awarded a pension of from £7 10s. to £10.

For all other classes of workmen accident insurance is voluntary, but, without being actually compulsory, the State has contrived to make it practically universal by several indirect provisions. Under a Liability Act employers may have to pay compensation to workmen engaged in building, factories, mines and quarries, in loading and unloading goods, and in certain other occupations, and by a law of 1906 a similar provision was extended to employees in commercial establishments. Compensation has to be paid if disablement lasts for four days. It has, however, been enacted that employers shall be released from all other liabilities if they insure their workmen in a recognized insurance office which provides medical care and at least half wages. There is a further provision that if the employers do not thus insure their workmen they are compelled to contribute to a State fund, so that in case of insolvency the workmen may not be deprived of legal compensation. Thus the workmen are properly protected, while the employers are allowed to choose their own way of meeting the obligation. The State funds are, however, very little used, and employers' mutual associations or general accident insurance companies have greatly increased. It is to be noted that the employers' associations are worked very economically, the administration expenses being often no more than 5 per cent. of the total expenses. The indemnity for absolute and permanent disablement is two-thirds of the wages, and for temporary disablement one-half the daily wages. A widow gets 20 per cent. till she marries again, and then a lump sum equal to three years' wages, while orphans have 60 per cent. until they are grown up; medical attendance is also provided, and funeral expenses up to about £4.

Invalidity and Old Age Insurance.

As with sickness and accident insurance, the policy of France has been rather by holding out various inducements to encourage invalidity and old age insurance than to make it compulsory. Until recently, indeed, invalidity insurance has only been compulsory for seamen and miners earning up to about £100 a year. This insurance is organized under State control; seamen contribute themselves to the fund, and the State adds a substantial subsidy to the pension which is paid after the age of 50; widows and orphans receive half the pension. For miners there are miners' pension funds to which employers and men pay in equal shares, the pension being provided after the age of 55.

In addition old age pension insurance has been open to all citizens on a voluntary plan administered by the State. The premiums are paid by the insured, but the State adds a subsidy to each pension up to one-fifth of the amount insured. The pension becomes payable after the age of 50, but for earlier disablement there is an invalidity pension; the maximum is about £50, but the amount varies according to the premiums paid; in case of death before the pensions are payable the subscriptions are reimbursed.

The old age pensions bill which has been before the French Parliament for the last three years or more was on February 12th unanimously voted by the Senate in a form very different from that in which it was originally drafted. The original scheme made no satisfactory provision for ways and means, and the Government announced that for financial reasons it was impossible to consider amendments by which farmers and agricultural labourers should be on the same footing as workmen in the towns during the transition period. It seems to have been assumed all along that an increase in the succession duties would be earmarked for the purpose, but the estimated income from the succession duties is only about £4,160,000, and the Government requires about a third of this for other purposes. The Socialists protested against the diversion of any part of these duties

* The first article was published in the JOURNAL of April 2nd, p. 818.

to other purposes, as they considered them the most fitting source of the old age pensions. Objections were made to this earmarking of parts of the revenue for special purposes, but nevertheless the Chamber of Deputies at the end of February modified the bill so as to keep the succession duties for the pensions, and the Government may be compelled to raise another £1,500,000 over and above the sum expected already from these duties. This specialization of the succession duties is significant, as it means that the pensions are partly imposed as a specific charge on the propertied classes of the community. Only on this condition was the Socialist party ready to acquiesce in the scheme being made a contributory one, and the Labour Confederation was by no means satisfied that workmen should be called on to contribute so much as 9 francs a year. As at present arranged, industrial workers in towns will get during the transition period a pension of £4, while farm labourers will only get £1 12s. It was argued that living is much cheaper in the country districts, but the rural representatives demanded that if the funds did not allow of £4 all round, the towns and country should at any rate be on an equal footing, and that £2 8s. all round might be paid. Employers, too, are complaining of the necessity under which they will be put to contribute the same premium as the men contribute, which, even in the case of men earning no more than 1½ francs a day, will amount to 9 francs a year. The Marxist Socialists opposed the contributory system to the last, but the bulk of the Socialists agreed to it on the conditions stated above. These details are given merely to show what appears to be the general feeling in France as to the responsibility for old-age pensions. Germany has recognized for the last twenty years that for this purpose there is a moral responsibility resting on the State, on employers, and on the insured themselves—in other words that self-providence must be insisted on, but that employers have a special responsibility, as they must contribute first directly and again indirectly through the taxes. Exactly the same feeling has been shown in France, as the old age pensions bill was carried on March 31st in the Chamber of Deputies by a majority of 564 votes to 4. The wage earning classes under compulsion to insure will number roughly 11,500,000; they are the workers in every trade, artisans, domestic servants, agricultural labourers, and State servants who do not belong to any superannuation fund. In addition to these about 6,000,000 other workers though not under compulsion may insure if they like and obtain the State benefit. These include peasant proprietors and persons in business for themselves but employing only one or two workmen. The contributions will be for men 9 francs (about 7s. 6d.) a year, for women 6 francs (about 5s.), and for persons under 18 years of age 4½ francs (about 3s. 9d.). Employers will have to pay the same amount for each worker, so that the worker's receipt book will show a total contribution for the year of 15s. for men, 10s. for women, and 7s. 6d. for minors. The full pension to be thus provided will be about 6s. a week after the age of 65, that is about £15 10s. a year, including the subsidy of £2 10s., which the State will provide to each pension. This is far better than the old age pension in England, wholly provided by the Government, which is only at the most 5s. a week after the age of 70. The full pension of 6s. will not be payable until after thirty years' subscription, and in order to show some immediate results, it is provided that in the meantime workers of 65 and over will receive a small annuity of not over £4 in the towns and £1 12s. for agricultural labourers, and to meet this the French Government will have next year to provide about 5½ millions sterling.

Friendly Societies.

The official report of the work of the friendly societies shows that voluntary insurance for sickness is extensively used in France. At the end of 1906, there were 13,575 approved adult friendly societies with nearly three million benefit members, an increase in the year of about 350,000 members. During the last six years the total membership has been about doubled. The average payment per sick person during the year was 22s. 10d., or 1s. 1d. per day of sickness. The number of cases of sickness was 542,897, and the expenditure for these was £385,924 for sick pay, £189,959 for medical fees, and £224,389 for pharmaceutical expenses. The old age pensions provided averaged £3 0s. 6d. a year, and funeral expenses £2 16s. 3d. Pensions are also provided for widows and orphans, and about 4,000 members received a pension for infirmity.

In addition to the adult societies there are 2,298 school societies with 696,465 school children members. These societies also provide sick pay, medical attendance, and funeral expenses, and the subscriptions cover a contribution towards old age pensions.

The National Bank for Old Age Pensions (*Caisse Nationale des Retraites pour la Vieillesse*) provides 55,000 pensions averaging £3 18s. 3d. each out of its common fund, 18,850 averaging £3 1s. 1d. out of the interest on the common fund, and 71,650 averaging £3 0s. 6d. from the unattached funds. The friendly societies are also authorized to establish pensions by "individual books" with the help of the *Caisse Nationale*, and this is largely taken advantage of by the sick societies.

In addition to the above there are also 3,224 free societies, with 415,641 benefit members. These societies provide sick pay, medical assistance, funeral expenses, and distress relief for widows, orphans, and the aged.

The total subventions to friendly societies allocated during the year 1906 by the State, the departments, and the communes amounted to £371,949. This alone shows that though sickness and invalidity insurance is not compulsory in France, except for miners and seamen, it has received the greatest encouragement from the State, the departments, and the communes.

Medical Attendance.

We are here only indirectly concerned with the public provision for pauper relief in France, but in the event of sickness and invalidity insurance becoming compulsory in England, the methods of providing medical attendance used in France under the law for l'Assistance Obligatoire and the law for l'Assistance Médicale Gratuite will deserve careful consideration, and some description will therefore not be out of place.

The law of 1893 for l'Assistance Médicale Gratuite provides that every French sick person who is without resources shall receive gratuitously from the commune, the department, or the State, according to his place of settlement (*domicile de secours*), domiciliary medical attendance, and similar arrangements are made for women at confinements. Hospital treatment is also provided, but great preference is shown for domiciliary treatment, partly on the plea that it is cheaper, and partly because it tends more to make relatives look after their own sick. Accordingly, before hospital treatment is given there must be a medical certificate, countersigned by the president of the Bureau d'Assistance, stating that it is impossible for domiciliary treatment to be given with advantage. Each commune is attached to one or more of the neighbouring hospitals or hospices for this purpose. The authorities are enabled to recover the cost of treatment from all persons or societies or from other public authorities liable to provide it. In each department there is organized under the authority of the prefect a medical service, and the General Council deals with the conditions of the service and determines under the law what part of the expenses shall be borne by the commune and the department respectively. Habitual residence for a year and other conditions have to be complied with to obtain a settlement (*domicile de secours*), which confers the right on indigent persons to claim medical attendance from the commune or department; persons having no such domicile in a commune or a department are treated at the expense of the State. The medical assistance is assured by a Bureau d'Assistance, with an administrative committee formed by the joint committees of the hospices and the Bureau de Bienfaisance. The committee meets at least four times a year, and a month before the first ordinary session of the municipal council makes out a list of persons eligible to receive medical assistance. The committee is assisted in this by the doctor of the district or a delegate of the doctors, if there are several, and the list is revised a month before each of the three other sessions of the council. The council deliberates on the list in private and when sanc-

tioned it has further to be submitted to the prefect of the arrondissement, who satisfies himself that all formalities have been carried out, and when thus finally sanctioned the list remains in force for a year. For cases of urgency, in the intervals between two sessions, the Bureau d'Assistance can admit provisionally any person not on the list for medical attendance; if the bureau cannot meet in time to do this, the mayor can give an order for attendance though he has to explain the case at the next meeting. The ordinary expenses of the service are the fees of the doctors and midwives, the cost of medicines and appliances and the cost of hospital treatment; these are provided by the commune, the department, and the State, in proportions decided by law and depending mostly on the *domicile de secours* of the persons on the list. Extraordinary expenses such as those entailed in building or enlarging hospitals are subscribed to by the State, a lump sum being voted in the budget for each year. The State also, in addition to bearing the cost for all persons who have no communal or departmental *domicile de secours*, defrays all the cost of administering the law.

A later law of 1905 provided, in addition to l'Assistance Médicale Gratuite, assistance for the aged over 70 and for persons under 70 who are suffering from infirmity or incurable disease and who are without resources. Similar formalities have to be complied with as under the earlier law in drawing up the list of persons eligible for assistance. Here, again, home assistance is in all cases preferred; it usually takes the form of a monthly pension of not less than 5 francs nor more than 20 francs; the cost is met by the communes, the departments, and the State, according to the *domicile de secours* of the persons relieved. The measure is a Poor Law measure, and is non-contributory, the Bureau de Bienfaisance being the authority for carrying out the arrangements.

The medical service for l'Assistance Gratuite is organized by the departments, as the communes are too small, and the State is thought to be too remote from local conditions to be able to meet the varying needs. The department is an intermediate unit, and as the prefect can well represent both the communes and the State, the service is placed under his authority. As an example, the rules of the Oise Department may be taken; it has a Departmental Committee, consisting of the prefect (chairman), four members of the General Council, three doctors chosen by the whole of the doctors of the local service, two pharmacists chosen by the pharmacists of the service, and four persons named by the prefect and preferably representing the hospitals and hospices or the Bureaux de Bienfaisance; another important member of the committee is the Inspecteur des Enfants Assistés, who, under the authority of the prefect, acts as a general inspector of the whole district. There is no uniform system of organization imposed by law, as it was thought better to leave details to the general councils of the departments. The three following systems, or combinations of them, are in use: (*a*) La Médecine Cantonale; (*b*) La Circonscription Médicale; and (*c*) the Landais system, or as it is more commonly called, the Vosgien system, as it was brought to the greatest perfection in the Vosges.

La Médecine Cantonale.

Under this system the prefect chooses for each canton a single doctor for the service, who receives an allowance in accordance with the area of the district and the number of poor persons that he may be called on to treat. He is the only doctor to whom patients can apply, and he is under contract to give his services to all the sick poor on the list. He is thus the official medical officer, and all his *confrères* are excluded from the service. This system was first started in Alsace; it received the commendation of the Academy of Medicine in 1833, but in 1845 it was condemned by the Medical Congress. It is to-day an object of the strongest criticism both by the great majority of the medical societies and by a large number of political bodies; at an inquiry in 1872, when an earlier law was in force, only nine departments were in its favour, and it is no less in disfavour under the later law. It is urged against it that it destroys the independence of the doctors and the liberty of the patients; it makes certain doctors servants of the prefects and mayors, and no less servants of the patients, and opens the door to privilege and intrigue. The patients complain that they cannot have the doctor of their choice, but must have one in whom they may have no confidence. The monopoly also destroys professional concord. To ask a doctor to sacrifice a private patient to go and see an indigent at the far end of the canton is to place him between his interests and his duties, and it often asks for an effort to which human powers are unequal.

La Circonscription Médicale.

To get over the difficulties of the cantonal system just described *circonscriptions* were made; that is, districts corresponding as far as possible in their limits to those of the ordinary areas covered by doctors for their private patients; and all the doctors in each *circonscription*, on accepting the terms offered, may be doctors of the service. This gets over the inconvenience of having two jealous categories—official and non-official doctors.

The Vosgien System.

The Vosgien system rests on the following basis:

1. Free choice of doctor by the indigent sick.
2. Freedom of the doctor.
3. Remuneration of the doctor in proportion to services rendered.

In this system all the doctors and pharmacists and midwives who are willing to accept the terms offered can take part in the departmental service. The methods of payment and the rates vary considerably in the different departments.

Methods of Remunerating the Doctors.

Under both Circonscription and the Vosgien systems two methods of payments have been adopted: (1) *Par Abonnement*, and (2) *à la visite;* the latter has for long been preferred by medical men.

1. *Payment par Abonnement.*—This method of payment by contract is not favoured by the profession, but is still retained in some departments. It is carried out in one of two ways, according to whether the authority in making up its budget for medical fees reckons (*a*) so much for each inhabitant, or (*b*) so much for each indigent person.

(*a*) In the first case, a sum of from 10 to 15 cents. is allowed in the communal estimates for every inhabitant, whether indigent or not, on the last quinquennial census roll. Taking, for example, a commnne of 1,000 inhabitants, and allowing 10 cents. a head, we get a sum of 100 francs set aside for medical fees. At the beginning of each year every indigent person who is on the list for free medical attendance has to notify his choice of doctor for the year, and he cannot change during that year, though the doctor can, if he give notice within a certain time, decline to have any particular person on his list. The total sum set aside (100 francs) is then divided among the doctors in proportion to the number of indigents on their lists. Thus, if there are two doctors and 50 indigents in all, and if Dr. X. has 40 of them on his list, he will get forty-fiftieths of the 100 francs—this is, 80 francs; while Dr. Y., having only 10 on his list, will get ten-fiftieths—that is, 20 francs. These sums have to cover all necessary attendance to the persons on the lists during the whole year.

(*b*) Another plan is to reckon only the indigent persons, not the whole of the inhabitants, and to allow a certain sum for each indigent. A commune, for instance, having 100 indigents on its list, will set aside a sum of 3 francs for each, that is a total of 300 francs; and, as in the previous case, this sum is divided among the doctors in proportion to the number of indigents on each doctor's list. Theoretically this might seem a better plan than reckoning for each inhabitant, as some districts have a much higher rate of pauperism than others, and the pauper rate may change considerably without the fee for each inhabitant being changed. But as will be seen from a note from a special correspondent in France published in this issue, some of the mayors of communes only put names of indigents on the list when they actually become ill, so that the sum total for the year was reckoned, not on the total number of indigents, but only on the number of indigents actually sick. The legality of this was very doubtful, but it might be very difficult to prove anything wrong in particular cases, as it would often happen that persons only become indigent when their wages have

ceased through illness. In any case it was very hard on the doctors; it was like having a club in which all the members were sick, and yet each only paying a miserably inadequate annual fee. The fee allowed in some departments was 3 francs—that is, about 2s. 6d. a year each. If this had been actually paid for every indigent person sick or well it would still have been regarded in England as the very cheapest form of club practice; but when, as our correspondent shows, it was only paid for those who were sick to begin with, and might require a whole year's attendance, one can hardly imagine that medical fees could possibly descend much lower. It was only after what amounted to a threatened strike that the system described under (*a*) above was substituted in most departments—that is, the system of allowing a small sum for each inhabitant whether indigent or not; but the system of paying for each indigent is still retained in some districts.

In many departments the prefect names one or two doctors to a *circonscription* for a period of from one to five years, and they are paid a fixed salary according to the size of the district. The salaries are often ridiculously low, 100 to 400 francs being common, and salaries of 1,000 francs, that is, a little over £40, a year extremely rare. Operations are also paid for at specially low rates, and midwifery varies from as low as 5 francs to 20 francs; perhaps the average for all the departments is 10 francs for simple cases and 20 francs for operative midwifery.

2. *Payment "a la visite."*—The system of payment for each visit is generally preferred by the medical men in spite of the fact that the fee is, as a rule, very small. In some places the patients have to choose their doctor at the beginning of the year but in others at the commencement of an illness, and they cannot change without permission of the prefect. In by far the greater number of departments the fee allowed is 1 franc for a day visit with mileage, both fee and mileage being generally doubled for night visits. Consultations in the surgery are often not paid for at all though they have to be given, and it is quite common for only 50 centimes to be allowed. In places where there is a dispensary provided and there are several doctors there may be a rota, and the doctor attending is paid generally "*par vacation*," and rarely for each case seen. Although, as stated above, the average fee for a visit is 1 franc, different departments have different ideas of what is a proper amount, and the way in which mileage is reckoned often makes a considerable difference. In one department only 75 centimes is allowed for a visit (about 7d.), and as mileage an extra 75 centimes per kilometre over the first kilometre, only reckoning distance out and not return; 50 centimes is allowed for consultation at the surgery and double fee for night visits, though night is only reckoned from 10 p.m. to 5 a.m. This is perhaps the worst case of all. In another department 2 francs are paid for the first visit and 1 franc for subsequent visits. Mileage payment is very variable, ranging from as low as 15 centimes to 1 franc per kilometre. Sometimes no mileage is allowed for the first one or two or three kilometres, but in most cases it begins after the first kilometre, or it may be only for cases outside the commune. In some cases it is only paid one way, but in other cases both ways. The authorities, however, are always careful to provide that if there are several patients to be seen at a distance in the same direction, mileage is only allowed for one. Also where patients have choice of doctor, if they choose a distant doctor, he has to sacrifice some mileage if he cares to attend, as the mileage is only from the patient's home to that of the nearest doctor. As stated above, night visits are paid double, both the fee for a visit and the mileage being doubled, but it would seem as if the nights were very short in France, as it is quite common to find night defined as from 9 or even 10 p.m. to 5 a.m. in summer and from 8 or 9 p.m. to 6 or 7 a.m. in winter. The doctors have on several occasions had to submit to a proportional reduction of the fees expected if the funds voted for the purpose were not found sufficient to meet the charges and if the number of visits during the year had been unexpectedly high. The doctors' accounts are verified by a special commission, which includes five members named by the doctors of the service. The department has to pay pharmacists for all medicines supplied on the doctors' prescriptions, and the midwives of the service are paid fees varying from 5 to 15 francs, but averaging about 10 francs, including subsequent visits.

From what has been said it will be seen that the methods of remunerating the doctors under l'Assistance Médicale Gratuite vary considerably in different parts of the country; payment by fixed salary of part-time medical officers, payment by an annual fee for each indigent on the list, payment reckoned at so much a head of the whole population of the canton or other district, and payment for each visit are all in use, though the last is by far the commonest. In a circular to the departments the French Minister of the Interior pointed out that from the public point of view there is an objection to payment *par abonnement* in that the number of cases sent to hospitals tends very seriously to increase, while the objection to payment for each visit has been that the number of visits made may be unnecessarily multiplied, and a satisfactory way of meeting the last objection is much to be desired.

THE PREPARATION OF SOUR MILK.

Insemination in Series.

In a letter published in the Journal of January 1st Dr. T. D. Luke recommended the regular preparation of soured milk by carrying forward a small portion of the previous day's culture, and, in a letter which appeared the following week Dr. G. Herschell expressed strong disapproval of such a practice. It was pointed out at the time that this is the plan regularly followed in Turkey and Bulgaria, and a short account will now be given of some experiments which have been made for us in regard to the point at issue.

In every culture in the whole series of experiments the milk employed was first sterilized by bringing it to the boil over a direct gas flame and boiling for about half a minute, then immersing the vessel containing it in boiling water, and keeping this water vigorously boiling for one hour; the milk was then cooled to about 45° C. (113° F.), the bacterial culture added, and the vessel placed in a large pan of water kept at about 45° C. The pan of water was heated by means of a small gas flame; no thermostat was used, and the temperature was purposely allowed to vary as it would be likely to vary in the domestic preparation of the sour milk, for example, from alterations of gas pressure, changes in the general temperature of the room, and so on; during the course of the experiments variations from such causes amounted to about 7° or 8° C. (12° to 14° F.) The vessels used were glass flasks, closed with plugs of cotton wool; but no more precautions were taken to avoid chance contamination with foreign organisms than can be and should be observed in the kitchen; cultures were often left exposed for a short time, thermometers or glass rods to be dipped in the milk were not sterilized, etc. The reason for not taking greater precautions was, of course, a desire to test fairly the results of continually carrying forward a portion of each day's culture, as it could be performed in the domestic preparation of the product.

The "Sauerin" Tablets supplied by Messrs. Allen and Hanburys were employed for the first culture; the proportion used was four tablets to a pint of milk, and the culture was examined after twenty-four hours. In all the tests mentioned below the amount of acid formed was determined by titrating a portion of the milk with standard alkali, using litmus paper as indicator; neutrality was regarded as having been reached when red and blue litmus paper were equally affected in opposite senses, this amphoteric behaviour being characteristic of a lactate; this was found more satisfactory than the use of phenolphthalein.

In the first culture 0.18 per cent. of lactic acid was found after twenty-four hours' incubation, and microscopical examination showed the presence of abundance of the characteristic rod-like bacilli. Fresh portions of milk were then inseminated with this culture, 1 part of the latter being added to 60 parts of milk; in later cultures (except where otherwise stated) the proportion used was 1 to 70, or about one teaspoonful to half a pint. Curdling was rather slow at first, and the second cultures were

incubated for forty-five hours before testing; two samples of milk were employed, one being obtained directly from a farm, and the other bought from a London dairy company; the amounts of lactic acid developed in these were found to be respectively 1.25 and 1.45 per cent.

Further portions of milk were then inseminated with these cultures and incubated for twenty-four hours, and fresh portions from these again, and so on; the results soon attained a practically constant value, 1.8 per cent. of lactic acid being developed in twenty-four hours. At first two series of cultures were carried on, one with milk obtained directly from the farm, and the other with the milk from the shop; but the small difference at first found soon disappeared, and the products were identical in the two cases. The series was prolonged with the farm milk only, but occasionally the shop milk was used instead without any variation being observed. Each successive culture was incubated for about twenty-four hours and then tested, and 1 part was added to 70 of sterilized milk for the next culture; as there was no attendance in the laboratory on Sundays, the culture put on each Saturday was incubated for forty-eight hours. Thirty successive cultures were made; this series extending over nearly six weeks, but no variation in the character of the product was observed. The amounts of lactic acid formed, without any important variation, were, in twenty-four hours, 1.8 per cent.; in forty-eight hours, 2.25 per cent. A soft thick curd was obtained, which readily mixed with the separated whey on stirring or even on gently shaking the vessel containing it; this was perfectly free from bitterness or any suggestion of rancidity, and was highly palatable; the only alteration in character or taste that was observed was that in two out of three series of tests the *earliest* cultures gave a harder curd with a slight flavour of rancidity, but these undesirable properties disappeared with successive cultivation. The product was examined microscopically from time to time, and the rod-like bacilli were always found in abundance without any other form being observed; the only alteration was that in the later cultures the rods were joined in much longer threads than in the earlier ones.

The results described appear to show that a very satisfactory product can be obtained by the insemination of each day's supply from that of the previous day, provided that (1) the milk is properly sterilized before insemination, and (2) incubation is carried on until a strongly acid product, containing a vigorous growth of the organisms, is obtained. It is probable that if the milk were inseminated with a feeble culture, other organisms which might obtain access to it would have a better chance of developing and possibly ultimately supplanting the Bulgarian bacillus; but if the latter is kept in a vigorous state, it is itself a good safeguard against other organisms.

At one stage of the series of successive cultures described above, the temperature was allowed to rise for a few days to about 48° C. (118°); the formation of lactic acid diminished to 1.13 per cent. in twenty-four hours, and 1.34 per cent. in forty-eight hours. On restoring the temperature of about 43° C. (107° F.) and continuing the successive cultures, the amount of lactic acid rose again to the former figure of 1.8 per cent. in twenty-four hours.

When the dried bacilli contained in tablets are employed, the production of lactic acid is slow, and curdling does not usually occur in less than about twelve hours, but when fresh liquid cultures are employed, curdling occurs after a much shorter time, and in the tests described, where one part of a twenty-four-hour culture was added to seventy of milk, the product was thoroughly curdled after about five hours. In a paper by Mr. E. Quant in the JOURNAL of December 18th, 1909, four hours is mentioned as the time requisite for curdling when a liquid culture was employed, and Dr. T. D. Luke, in the letter already referred to, states that curdling was regularly obtained in about five hours when the milk was inseminated with the previous day's culture. Dr. Herschell, on the other hand, regards curdling in five hours with suspicion, and states that the Bulgarian bacillus takes far longer to produce this result. The actual curdling, however, is merely due to the presence of a sufficiency of acid, and is not directly effected by any organism; and it is obvious that the amount of lactic acid produced in a given time will not be constant for a particular organism, but must depend on the greater or smaller number of organisms present. To prove this by actual experiment, a quantity of sterilized milk was divided into four portions, to which a previous culture (containing 1.2 per cent. of lactic acid) was added in the respective proportions of 1 to 280, 1 to 70, 1 to 30, and 1 to 7. The fourth of these was curdled in less than an hour and a half, and the product then contained 0.15 per cent. of lactic acid; the third was curdled in three hours, and the product then contained 0.16 per per cent. of lactic acid; the second was curdled in four hours, and the product then contained 0.14 per cent. of lactic acid; the first was curdled in seven hours, but the product then contained 0.26 per cent. of lactic acid. The last result appears to suggest that the longer time had allowed some slight change to occur in the casein, so that a rather higher proportion of acid was necessary to induce curdling.

A correspondent of the JOURNAL having stated that he was unable to obtain curdling when fresh milk was treated with "Sauerin" tablets, whereas the same milk which had been kept for twelve hours before treatment gave a satisfactory product, some experiments were made to see if this result could be confirmed. Fresh milk was obtained while still warm from the cow and divided into two portions; one portion was sterilized two hours after milking, and then inseminated with "Sauerin" tablets; the other portion was similarly treated twelve hours after milking. The experiment was repeated with another lot of milk on a subsequent occasion. In both cases the milk which which was treated within a short time of milking showed a larger production of lactic acid than the other, the amounts after twenty-four hours' incubation being:

	I.	II.	
Milk treated two hours after milking...	0.19	0.18	per cent.
Milk treated twelve hours after milking	0.07	0.13	,,

It appears, therefore, that some other explanation must be found for the difficulty experienced by the correspondent in question, and so far as these tests go they indicate a distinct advantage in treating the milk when quite fresh, which is what would be naturally anticipated.

MOTOR CARS FOR MEDICAL MEN.

THE ADVANTAGES OF ONE-CYLINDER CARS.

DR. T. W. HEYWOOD (Darwen) writes: Being the owner of a single cylinder car, I should like to bring before your inquirers the value of my 6-h.p. Rover car, duplicates of which can be bought for £155 complete. I have had one in daily use since June last and it has never failed me. Of course I have the inevitable tyre troubles, but no mechanical trouble. It will go almost anywhere with two passengers. In July I went to Bristol with it, and drove there within a week of purchasing without any knowledge of mechanics. As it is small I have no difficulty in turning in narrow streets. Tyres are cheaper than on a large car and petrol consumption low. A few days ago I went 170 miles with it over the Westmorland Hills in the Lake District, doing over 28 miles to the gallon of petrol, which I think remarkable for the distance. On a good level road I have got 25 miles an hour, and had a little to spare. For any one who wishes a reliable small car I would recommend a 6-h.p. Rover, especially to the man who does his own driving.

THE Health Committee of Glasgow Corporation has resolved to convert a small pavilion at Ruchill Fever Hospital containing two wards into an observation ward capable of accommodating thirty patients.

THE tenth annual report of the Westmorland Consumption Sanatorium at Meathop is a record of continued advance. Two chief additions to the work of the institution are the Home for Advanced Consumptives, built close to the sanatorium, and the provision which has been made for the continuance of school work by the children resident in the sanatorium as patients. The tables showing the present condition of former patients are interesting. Of 120 cases, classified on admission as suffering from an obviously dangerous amount of consumption and yet not too far advanced to be beyond fair hope of recovery, 60 per cent. are now in excellent health, whilst of 75 early cases 90 per cent. are in robust health. Only 1 of the early cases has died in the course of the ten years, and of the 20 deaths which have occurred in that time amongst the more advanced cases, the majority were amongst those admitted during the first three years of the sanatorium's existence. It is noted that nearly all cases of children of school age admitted to the sanatorium show marked benefit from treatment.

British Medical Journal.

SATURDAY, APRIL 9TH, 1910.

THE ASSOCIATION AND THE TREATMENT OF SCHOOL CHILDREN.

IN commenting last week upon the deputation representing the British Medical Association and its Metropolitan Counties Branch which had an interview with the medical officer and other representatives of the Board of Education, we dealt chiefly with general principles, but in the same issue there was published in the SUPPLEMENT the detailed scheme drawn up for Wandsworth by a special committee of the Division and adopted at a meeting of the registered medical practitioners resident and practising in Wandsworth. The scheme has been worked out in accordance with the fundamental principles declared by the Representative Meeting of the British Medical Association to be its policy. One of these principles is that the reference of school children, found upon medical inspection to be defective, to public medical charities for treatment, whether or not accompanied by payment or subsidies, should be opposed, and that their reference to the Poor Law should be equally opposed pending such reforms as may be carried out as the results of the reports of the Royal Commission on the Poor Law. It was further declared that under existing conditions the most satisfactory provision for the treatment of such children is to place them under the care of private practitioners, who should discharge their duties at a convenient centre, payment for such services being made on a scale agreed upon between the local medical profession, as represented by the Division of the British Medical Association, and the local education authority.

The schemes adopted in Wandsworth and in Norwood are nearly identical, such differences as exist being mainly in minor matters of detail. The first point to be noted is that the scheme is to be carried out by committees under the direct control of the Division, and, in order to meet the present arrangements of the London County Council, the treatment will be limited to diseases of the ear, eyes, and throat. At Norwood it is proposed to accept 300 skin cases, chiefly ringworm; among skin diseases, Wandsworth refers only to the last mentioned, which is to be treated only at the houses of local doctors. At present, for the reason mentioned, dental treatment will not be provided, but the scheme is so framed as to allow of the necessary expansion when the London County Council finally resolves to undertake this important part of the curative and preventive treatment of disease and degeneration in childhood. Both the Norwood and the Wandsworth schemes propose a single centre in a convenient situation, but the meeting at Wandsworth expressed the opinion that a single centre would turn out to be insufficient. The number of children which it is estimated will have to be treated annually in both districts is about 1,500, between half and two-thirds in either place being probably cases of eye disorder. The number of the staff will be determined in each locality according to the anticipated requirements. The staff will be appointed annually from the medical profession resident and practising within the area, each member of which will be invited, if he desires to be appointed, to forward an application stating his qualifications for the appointment. If more than a sufficient number of suitable applications are received the Executive Committee of the Division would appoint a special selection committee, consisting of an equal number of members and non-members of the Association not resident in the electoral area, to select the staff, and the selection would be subject to the approval of the medical officer of the Education Department of the London County Council. Each officer would be appointed at the end of the school year (about July 21st); he would hold office for one year, but would be eligible for re-election. If more than a sufficient number of applications were received in the second and following years, those who had not already held a post would, if suitable, have a preference over previous holders. The scheme will be managed by two committees. A House Committee formed of five local doctors not members of the staff, but resident and practising within the area, together with the chairman of the Division and the chairman of the staff committee *ex officio*. The five local doctors would be elected annually in June by the medical men resident and practising in the area by nomination and voting through the post. The election would be conducted by the Executive Committee of the Division. The second committee would be a committee of the staff. When a prescription is necessary, it will be given to the child or its parents, and arrangements will be made for dispensing at reduced charges by approved chemists, who will return the prescriptions to the clinic. In Wandsworth the House Committee, at the request of the London County Council, proposes to obtain the necessary spectacles at the prices now ruling at the Moorfields Ophthalmic Hospital. The London County Council undertakes to arrange for the services of a nurse on six half-days a week. The remuneration of the staff would be £50 each *per annum* for a half-day's work each week during the school year. The London County Council would make payment to the House Committee every quarter at the rate of 2s. for each patient, provided that should a child suffer not only from eye defects but also either from ear, nose, or throat defects, it would count as two patients.

The procedure by which the patient would reach the clinic is fully set out in the Wandsworth scheme. A child found defective on inspection would be given a card notifying in general terms the nature of its defect, and requiring the parent or guardian to consult a doctor immediately, and to return a counterfoil to the head master or mistress signed by a registered medical practitioner, certifying that he was undertaking the necessary treatment. If the doctor to whom the child is taken considers that the parent or guardian cannot afford the necessary expense, a certificate on a prescribed form will be given either by the doctor or the local care committee, referring the child to the clinic for treatment. The Wandsworth meeting expressed the opinion that a medical certificate should be the only pass to the clinic. The clinic undertakes to supply the school inspector each week with a list of new patients in attendance and of those who have failed to attend.

The schemes are only for one year, and their details may have to be amended as a result of experience, but the main principles will no doubt prove acceptable to all concerned. At present the schemes are limited by the restrictions imposed by the County Council as to the kinds of defect and disease which are to be treated. Last week we referred briefly to the strange decision of the London County Council to exclude diseases of the teeth from the list of diseases for the treatment of which it would provide. Our reference was brief, but its defects are amply supplied by the interesting letter from Mr. Norman G. Bennett which we publish elsewhere this week. He puts the matter in a nutshell when he says, with the authority that belongs to a dental surgeon who works both at a special and a general hospital, that "diseased teeth in children are responsible for much pain and misery, loss or waste of school time, disordered nutrition, and secondary disease of other organs," and few would be found to dispute his conclusion that the treatment of dental disease, by reason of its prevalence and far-reaching effects, is a problem of truly national importance. The County Council in limiting the cases for the treatment of which it would arrange to disorders of certain organs, and excluding diseases of the teeth, was no doubt actuated by the fear that the ratepayer might regard the prospective financial burden as too onerous.

On public grounds, for the sake of the children of the nation, such a policy is mistaken, and the financial arrangements suggested by Wandsworth and Norwood involve the Council in pecuniary responsibilities on a scale so modest that the most inveterate champion of economy at any price cannot reasonably object to them. Mr. Bennett, who as Honorary Secretary of the British Dental Association has excellent opportunities of gathering the opinion of the dental profession tells us that the rooms of such institutions as those to be established in Wandsworth, Norwood, and Hampstead could easily be adapted for dental treatment, and that efficiency in such treatment is compatible with simplicity and cheapness; he points out, further, that the magnitude of the work which now appals some education authorities would be greatly reduced in the future if attention were given to dental disorders at an early age. In any case, as he says, the gravity of an admitted evil is a strange reason for leaving it alone, and he is able to promise that the question has so interested the dental profession for many years that it may confidently be expected that a sufficient number of dental surgeons will come forward to help in what they regard as a national work, provided remuneration is given at a reasonable rate.

Mr. Bennett's point that proper attention at an early age will diminish the amount which will be required to be expended in future on the treatment of older children is true also of other diseases, especially those of the throat, ear, and skin. In all probability the amount of work to be done in all departments of the school clinic will, when once the accumulation has been overtaken, tend to diminish rather than increase, and it seems to us that if the schemes at Wandsworth and Norwood err at all it is in respect of the small number of medical men proposed now to be appointed to the staff of the clinic. It is, however, a good point in both schemes that they are easily capable of extension when and where this may prove to be necessary. Mr. Sydney Holland, in his breezy way, said the other day that he would like to have a conference with some "reasonable men." We commend these schemes to his sympathetic attention; we venture to think that he will agree with us that there are reasonable men in the South, and we may make no doubt that equally reasonable men will be found in the East, out of which we know all wisdom comes. There would seem to be no reason why the other Metropolitan Divisions of the Association should not follow the example of Norwood and Wandsworth and offer to the London County Council schemes on the above lines which could be accepted to take the place of the present unsatisfactory arrangements made with voluntary hospitals. The agreements with the hospitals expire in December next, and since, as was pointed out last week, the system they embody is inadequate in scope and inefficient in execution, it is to be hoped in the interests of the children that they will not be renewed. The fundamental principles approved by the British Medical Association are sound, and as the detailed schemes evolved in Wandsworth and Norwood prove, are capable of being worked out in a thoroughly practical way.

EPILEPSY.

PERHAPS no better illustration than that of epilepsy could be selected of the truth of Herbert Spencer's statement that the circle of surrounding nescience grows with every advance of science. A disorder which for ages has riveted attention, it has in these modern days been the subject of the closest anatomical, clinical, and chemical research, with the principal result that the field of investigation has become infinitely extended by the continual appearance of new and unsolved problems. Dr. W. A. Turner, the third and last of whose Morison Lectures on epilepsy we publish to-day, says in his book on epilepsy that notwithstanding the fact that modern investigations into cerebral architecture have revealed in large measure the mechanism of convulsions, the actual nature and essence of epilepsy is as little determined to-day as when Lucretius penned his graphic description of the *grand mal* seizure nearly two thousand years ago. For want of this knowledge, and in the absence of any absolute criterion, it is difficult to say what is an epileptic phenomenon and what is not, and, as is well known, the greatest differences exist among eminent authorities upon this first and essential point of definition. Whilst some regard major convulsive seizures as a necessary feature, others base their diagnosis on purely psychical factors, or, still further, regard periodic fluctuations of emotional tone as the distinguishing characteristic. Dr. Turner, in his definition of genuine or idiopathic epilepsy, of which these Morison Lectures contain an admirably comprehensive account, considers sudden, brief loss or impairment of consciousness to be the sole necessary feature. His definition, therefore, includes within one category the classical fit, *petit mal*, automatism, psychical epilepsy, and the epileptic equivalents. This definition, though wide, finds its justification in the fact pointed out by Herpin that there may be found in the same person all gradations of paroxysms, from the simple aura to the complete fit, and, further, from the fact that psychical attacks without motor expression have their exact counterparts in the pre-paroxysmal and post-paroxysmal psychoses of ordinary epileptics. Even though psychical attacks differ objectively *toto coelo*

from convulsive seizures, and though *petit mal* is said to be unaffected by remedies which operate powerfully in *grand mal*, there appear to be grounds for referring all the diverse manifestations of the groups of symptoms collected together under the term of "idiopathic epilepsy" to a common though as yet unascertained causation.

In discussing causation it is necessary to distinguish between facts belonging to the order of empiric observation and those which furnish a theoretical explanation. To the former order belong such predisposing factors as a neuropathic heredity, the presence in epileptics of the so-called stigmata of degeneration, the most common age of onset of the disease, etc., and, among exciting causes, such factors as irregularity in the catamenia, pregnancy, sleep, psychical influences, and infective diseases. Dr. Turner attaches great importance as predisposing factors to neuropathic heredity, which he has found present in some 50 per cent. of all his cases, and to the stigmata of degeneration, which he regards as proof conclusive of a hereditary degenerative predisposition. Any empiric fact, however, may become part of a theoretical explanation, such as, for example, the observation that the greatest number of fits occur during the first hour or two of falling asleep. Whether this fact, Dr. Turner says, is to be explained on the theory of brain anaemia (Pick), of lessened inhibitory control (Clark), of the alkaline tide (Haig), or of increase in the rate of blood coagulation (J. Turner), are points on which evidence is insufficient. In this relation we would draw attention to Dr. Turner's deeply interesting discussion of the immediate causes of epileptic seizures. Here he quotes Dr. A. E. Russell, who, in his Goulstonian Lectures in 1909, presented a great deal of evidence in support of the view that the sudden loss of consciousness of epilepsy is not due to an intense "discharge" from the cortical grey matter, but to a sudden cessation of the whole cerebral circulation, that is, to cerebral anaemia. The convulsions of Stokes-Adams disease, the fits provoked by ligature of the internal carotid arteries, the fit which Leonard Hill produced upon himself by digital compression of one carotid artery, and the observed fact that an epileptic fit may be ushered in by a temporary cessation of the heart's action and the pulse beat, may all be adduced in favour of this theory. As yet, however, Dr. Turner says there is no direct demonstration that either vaso-constriction or cerebral anaemia is the exciting cause of the recurring seizures of epilepsy, and even admitting these as causes the explanation of the periodic tendency to arterial spasm would still be to seek.

Before leaving this question of causation, the toxic or autotoxic origin of epilepsy calls for mention. Dr. Turner only refers to a few of the great numbers of workers in this field, which a few years ago appeared the most promising of all and which to-day has probably the greatest number of convinced adherents. He has to admit that "the discrepancies in the results of observations by different workers upon urinary and blood toxicity in epilepsy have not afforded satisfactory evidence upon which to found such a theory." We need only recall the fact that whilst Féré found the pre-paroxysmal urine thirteen times more toxic than the post-paroxysmal, Voison and Peron found the reverse condition; that the researches of d'Abundo and Ceni into the blood of epileptics gave completely opposed results; and that, as we mentioned some weeks ago, experiments upon the rate of coagulation of the blood of epileptics are also contradictory, reluctantly to confirm Dr. Turner's opinion. The fact appears to be, as Bianchi says, that it is not a question of specific intoxication, but of a great variety of intoxications giving identical results; that is, that the cause is probably an inherent cerebral anomaly of whose actual nature we are as yet ignorant.

Turning to the surer ground of treatment, Dr. Turner says that there is no specific treatment for epilepsy, though the alkaline bromide salts come nearest to this definition. He points out that the universal prescribing of the bromides since their introduction in 1857 by Sir Charles Locock has to a large extent deprived the patients of the other advantages—dietetic, hygienic, and disciplinary—by which they formerly benefited. Therefore, although he does not speak favourably of any drug as a substitute for the bromides, and, indeed, says that all cases, especially those of recent onset, should be given the benefit of the drug for a time, he is careful to insist upon the rigorous application of general hygienic principles and the treatment of minor disorders which might be instrumental in exciting the disease in predisposed persons.

Although Dr. Turner states that in his experience bromide treatment does good in only a little over 50 per cent. of all cases, we gather that, with the overwhelming majority of other authorities, he is of the opinion that there is no substitute for the bromides. Yet he is careful to say that in some cases they augment the frequency or severity of the seizures, apart altogether from the toxic symptoms, or "bromism," which follow their prolonged or injudicious use. The dose usually given is, he considers, too large, and it should be remembered that they have an accumulative property. A combination of potassium bromide, picrotoxin, and antimony arseniate, which Dr. Turner has found of great use in arresting fits in cases in which the bromides alone had been of no use, is of theoretical interest, because picrotoxin in small doses is said to lessen the tendency to cerebral vaso-constriction, furnishing thus an additional point in favour of the cerebral anaemia theory of epilepsy.

Before leaving this matter of bromide treatment, it is necessary to refer to the "salt-poor" diet introduced by Toulouse and Richet. The effect of this treatment, which has given very variable results, is said to depend on two main facts. The first is Landenheimer's discovery that no therapeutic result follows bromide administration until an equilibrium has been established between intake and output—that is, until a saturation point has been reached. It is known that the bromide salts accumulate chiefly in the blood serum, and Hoppe has shown that no therapeutic action takes place until one-third of the chlorine in the blood serum has been replaced by a chemically equivalent amount of bromine. The less salt that is ingested in the food, therefore, the sooner will the saturation point be reached, and it is maintained that upon a salt-free diet this is attained in three or four days, instead of after as many weeks with an unrestricted diet. The treatment is said to be not unattended with danger. Upon an unrestricted diet, a patient may take considerable doses of bromide for years without toxic symptoms, whereas with a salt-free diet they may appear suddenly after a few weeks, either as the result of changes in diet or in the preparation of bromide employed, or because of some intercurrent affection in which salt excretion is diminished and bromide retention occurs. The margin of permissible error, in fact, is reduced to

a minimum. Dr. Turner says that his own experience of this treatment has been such that when used in combination with a purin-free dietary very substantial benefit may be derived and only relatively small doses of the bromides need be prescribed. Lundborg,[1] however, out of 35 cases treated in this manner, had 25 cases of acute intoxication or "metatrophic bromism," 6 of whom died, and he is strongly of the opinion that, though it has its undoubted advantages, the salt-free diet and bromide treatment ought only to be used when the patient is under continuous observation in a hospital or special institution.

Of treatment by drugs other that the bromides little need be said. One by one Dr. Turner takes them up—borax, belladonna, the salts of zinc, opium, strychnine, monobromate of camphor, chloretone, the much vaunted bromopine, bromaline, and bromocapsine—and drops them one by one. In special circumstances and at certain times they may be of use in combination with a salt of bromine. As to serotherapy, Dr. Turner confirms the general opinion when he says that even in the hands of Ceni, its originator, its practical utility has not been proved, and organotherapy Dr. Turner has found worse than useless. As Bianchi says, the bromide treatment has remained all along the most promising. All the proposed modifications, some of them associated with the names of recognized authorities, have resulted in almost complete disappointment.

In our brief mention of Dr. Turner's admirable lectures, so compact of information and experience that they defy expression in shorter terms than their own, we have only been able to dwell on one or two points of practical interest, and have had to leave untouched many topics of increasing interest on the borderland of epilepsy. The lectures, which are concerned almost entirely with the idiopathic disorder, furnish in themselves sufficient evidence of the immense activities in this field of research. Epilepsy, Professor Binswanger said recently, in its etiological, pathogenetic, and symptomatological relations conceals the greatest riddles, but it is impossible to survey these activities without hoping that Herbert Spencer, when he defined knowledge as enclosed by an ever-expanding circle of nescience, was wrong, that his critics who maintain that knowledge would more properly be compared to a pyramid are right, and that in this matter at least we shall in the end get to the bottom.

"WELTMERISM."

Most of our readers will doubtless ask, What is Weltmerism? We were under the impression that it was one of the innumerable freaks of the charlatan fancy which flourished only on American soil. But our opinion on it has been asked by a correspondent, who has forwarded an *Illustrated Catalogue of the Weltmer Institute of Suggestive Therapeutics*. We should have thought the *Catalogue* bore its character on its face. We can best describe it by the word "Ducdame," which the melancholy Jacques defined as an invocation to call fools in a circle. A few extracts will suffice to show the nature of Weltmerism. The shrine, which is described as a "Pool of Siloam for the sick and afflicted," is at Nevada, in Missouri, and the *genius loci* is one Sidney A. Weltmer, who, after a brief study of medicine under a general practitioner, took a short cut to fortune and set up as a magnetic healer. His institute was founded in 1897, and there he forthwith set about not only treating disease but teaching others "to heal the withered limb, bring back the light to sightless eyes, soothe the weary soul, and restore the hopeless invalids to useful and happy lives." The "course" seems, as Hamlet says, as easy as lying; 40,000 students have already been taught to heal the sick and afflicted without medicine or surgery. As for his teaching, the *Catalogue* states that "psychology is basic in every part of the School. In every branch of study *Mental Force* is the basis from which we work." This is all the more remarkable since we are further informed that "disease is all physical." Yet, although "the mind is never sick, but sometimes through improper or careless expression through the physical, it changes the physical expression, until it is only by careful and determined effort that the mind can again regain sufficient control to express health through the physical organs, which can only be adjusted permanently through harmonious Mental Action." After this luminous exposition, the disciple can scarcely need any further instruction; like Gil Blas, he has learnt the whole art at once. Nevertheless, teaching is held to be necessary, and it must be paid for, the whole four years' course costing £90. Among the textbooks naturally the Sibylline books of S. A. Weltmer occupy a prominent place, but the student is also recommended to study such purely physical books as "Virchew" on the Cell; "Vaughn's" *Physio Physics*, and others on "veneral" diseases, "bactierology," etc. In the history of philosophy he has a wide range of choice, from Zoroaster to "Shakesphere" and "Thackery." Then there is a "psychic class," for which an extra charge of £10 seems to be made; this is cheap, considering that it includes "all Occult, Mind Culture, Telepathy, Spirit Phenomena," besides hypnotism, magnetic healing, vital magnetism, and mesmerism. To get the benefit of the treatment, one need not make a pilgrimage to Nevada. "Distance is no barrier. Professor Weltmer has patients in nearly every civilized country of the earth who have been cured by Absent Treatment." More than 75 per cent. of these are "abandoned cases"—which we suppose correspond to those who figure in the advertisements as having been given up by ever so many doctors. Weltmerism is, in short, a particularly gross form of quackery, which makes its appeal not only to ignorance and superstition, but to greed, as it professes to cure poverty as well as disease. There is said to be a "Concentration Class of about 4,500 people in all parts of the world who concentrate daily with Professor Weltmer for business success. The results are wonderful." We have no difficulty in believing it; the professor himself at least seems to make his system pay. He charges £1 for a quarter of an hour's thinking about an absent patient. Some years ago it was shown that he was in this way receiving £100 a day. A simple sum in arithmetic will show that this is a fraud. Yet when the United States Post Office refused to transmit his circulars on the ground that "magnetic healing" was a sham, the Supreme Court of the United States decided that "it is not possible to determine as a fact that these claims (Weltmer's) are so far unfounded as to justify a determination that those who maintain them and practise upon that basis obtain their money by false pretences"! Naturally Weltmer claims this judgement as the highest testimonial to the virtues of his treatment, and boasts that "No other system of healing has ever undergone such a crucial test since Time began, and the great victory achieved for Weltmerism places it in the front ranks of the greatest discoveries of this or

[1] Herman Lundborg, Ueber die sogenannte metatrophische Behandlungsmethode nach Toulouse-Richet gegen Epilepsie, *Arch. f. Psychiatr.*, Heft 2 and 3. 1908.

any other age." And, indeed, what are even Mrs. Eddy's clouds of "testimonies" beside this amazing deliverance of the highest legal tribunal in the United States! The law is often what Mr. Bumble, in his haste, called it. But is not his irreverent description still more often applicable to its interpreters?

PATHOLOGY AND NOSOLOGY.

As precision and uniformity of terminology are aids to clearness of thinking, Professor Aschoff (*Deutsch. med. Woch.*, February 3rd) thinks a useful purpose may be served by discussing the exact meanings which should attach to the words "pathology" and "nosology." Modern writers are not always consistent in their employment of these terms, so that it is desirable to clear the ground by ascertaining how the words *πάθος* and *νόσος* were employed by the ancients. Professor Aschoff has collected from the writings of Galen many interesting passages which throw light on this question. Disease (*νόσος*) is defined as an abnormal condition (*κατασκευὴ παρὰ φύσιν*) through which direct injury is done to a vital activity (*ἐνέργεια*). Disease is the opposite of health (*ὑγιέια*). From both these terms must be distinguished a *πάθος* or *πάθημα*—a wide term, comprising any sort of "affection" (in the sense of the Latin *affectio*) and including sense impressions. A *πάθος* is a passive change of state, being distinguished by its passivity from an *ἐνέργεια*, which is an active change of state. When the force producing the change ceases to act, the modification which remains in the affected object is termed a *διάθεσις*. In general outline, the ancient conception of the conditions determining health and disease was as follows: We are endowed with a vital power, or potential energy, which is termed *δύναμις*. The active motion, or vital activity, emanating from the *δύναμις* is *ἐνέργεια*, whilst the determining force acting upon any given system or *διάθεσις* is termed *πάθος*. The resultant condition is again termed a *διάθεσις*. A persistently modified *διάθεσις* was also termed by the old Greek physicians a *πάθος*. *Πάθος*, again, was conceived by some of them as a production of change *παρὰ φύσιν*, which accordingly led to a *διάθεσις παρὰ φύσιν*. But a *διάθεσις παρὰ φύσιν*, or *πάθος*, did not necessarily amount to a *νόσος*. The last conception involved the additional idea of an impairment of vital activity. The *νόσος*, being based on an abnormal *διάθεσις*, gives rise to abnormal vital processes, and the course of these is marked by changes in the *διάθεσις*. These recognizable changes in the *διάθεσις* are the symptoms (*συμπτώματα*). Thus the *νόσος* involves active changes of a morbid nature, and in that respect is more than a *πάθος*, which involves merely passive change. In other words, it is the activity of the morbid processes which converts the *πάθος* into a *νόσος*. Hence Professor Aschoff finds that the ancient writers lend no support to the modern view, advocated by Professor Ribbert, that *πάθος* is the narrower and *νόσος* the wider term, the former being the subjective aspect of the latter. The ancients, he maintains, used *πάθος* as the wider term, designative of suffering (*affectio*) in general, and regarded *νόσος* as a specialized kind of *πάθος*; and in support of his opinion that modern terminology should adhere to the ancient usage, Professor Aschoff quotes the following passage from Virchow: "An outwardly produced injurious influence which is immediately rectified, or which only acts as an 'adequate vital stimulus,' is regarded as physiological. A similar injurious influence which is of long duration is pathological. But before elaborating this distinction I must particularly call attention to the fact that every pathological condition does not necessarily determine a disease and does not always stand in relation to a disease. Much larger is the category of ills (*mala*), defects (*vitia*), or sufferings (*passiones*, *πάθη*). Disease (*morbus*, *nosos*) first begins when, through a pathological condition, there are introduced further impairments of vital processes, involving the element of danger."

CURIOSITIES OF ANTIVIVISECTIONIST LITERATURE.

Johnson said to Boswell: "Sir, you have only two subjects of conversation, yourself and me; I am sick of both." Something of the same kind may be said of the antivivisectionist journals. In each of them a large space is given to the glorification of their own particular sect of antivivisectionism and the anathematization of the others. Thus, the *Zoophilist* is mainly devoted to the sayings and doings of Mr. Stephen Coleridge; the *Abolitionist* has the names of Dr. Hadwen and Miss Beatrice Kidd writ large over its pages; now comes the *Antivivisection Review*, in which Miss Lind-af-Hageby has a stage suitable for the display of her peculiar genius. In the February number, which has been kindly sent to us, we find a report of what is called "an enthusiastic and fiery Protest Meeting" against the action of the Battersea Borough Council in removing the Brown Dog. Some idea of the fire and enthusiasm of the proceedings may be formed from the fact that the chairman, Sir George Kekewich, read the following letter, which we reproduce as it stands: "My dear Sir George,—I am sorry I am unable to attend the meeting to-morrow night and support you on the platform, as I should like to do. I can quite understand why the memorial of the Brown Dog is offensive to vivisectors, and I earnestly hope it will remain so. I have already conveyed to Professor Starling that my wife has a favourite Dachshund, a great pet, and that if he or any of his gang touch that dog I will shoot him. I have had no reply from the Professor.—Yours truly (Sgd.) Admiral Sir Wm. Kennedy." The form of signature is remarkable, but that may be attributed to the excitement into which the gallant admiral seems to have lashed himself. If Professor Starling ever received the precious epistle he probably concluded that the writer was mad. The admiral does not in the least mean that he would shoot the professor, because he knows that if he did he would be hanged—a form of "vivisection" that would doubtless be particularly disagreeable to him. If we remember aright, the admiral has the same want of feeling for snakes and such like creeping but sentient things that Sir George Kekewich has for the sufferings of the salmon whom he tortures for his sport. It is, therefore, not humanity that stirs his breast when he challenges Professor Starling and his gang to touch his wife's dachshund. His letter is simply a piece of what sailors, we believe, call "swank." It was unkind, however, on the part of his friends to allow it to see the light.

THE POMEROY PUPIL.

We are not exactly aware, as Mr. Micawber said in reference to gowans, who Mrs. Pomeroy, Ltd., may be, or in what way she is limited. If we may judge from a letter which has been forwarded to us, she certainly does not seem to limit herself to the truth in her statements. She asks: "Have you not found during the dull weather that your eyes suffer a stinging sensation which is unpleasant, and the pupils become red?" Assuming that the "dear madam" addressed has noted this remarkable phenomenon, Mrs. Pomeroy, Ltd., goes on to inform her that "the use of a soothing eye lotion will protect and strengthen your eyes." In the "Pomeroy Eye Lotion" will be found all the soothing and strengthening properties required. "It will render the pupils white

and enable them to withstand any undue strain, whether it be caused by work, reading, or the inclemency of the weather. It costs," etc. But why count the cost when you can get something that will make your pupils white? Mrs. Pomeroy, Ltd., has evidently had frequent occasion to notice something green in the eyes of the people who patronize her establishment, of which, by the way, there appear to be branches in Birmingham, Liverpool, Dublin, Glasgow, and Sheffield. We suppose she hopes to make the Pomeroy pupil fashionable. It would assuredly be conspicuous. But we wonder what the *clientèle* of Mrs. Pomeroy, Ltd., would have to say to her if her mirific lotion really made their pupils white? We fear that some of them would, like the Slasher in Eugene Sue's *Mysteries of Paris*, "see red."

THE GOVERNMENT'S MIDWIVES BILL.

THE Midwives Bill 1910, introduced into the House of Lords by the Lord President of the Council, is founded upon the report and proposes to carry out some of the recommendations of the Departmental Committee appointed by the Lord President in December, 1908, to consider the working of the Midwives Act 1902. A summary of the Committee's report which was issued last August, together with the full text of the recommendations, will be found in the JOURNAL of August 28th, 1909, p. 556. As will be seen from the text of the bill published in the SUPPLEMENT, p. 160, it proposes to increase the number of members of the Central Midwives Board from nine to thirteen by giving representatives to the Local Government Board, the British Medical Association, the Association of Municipal Corporations, and the Society of Medical Officers of Health. The constitution is also slightly altered by requiring that the representatives of the Incorporated Midwives Institute, and of the Royal British Nurses' Association shall be certified midwives. Further, the Central Midwives Board would itself be empowered in the future to make representations to the Privy Council for increasing or diminishing the number of persons representing any body, or conferring on any new body a power of appointment, and of altering the term of office or qualifications of any member. The Privy Council would have power, after the application had been laid upon the table of both Houses of Parliament for forty days, to carry out the recommendations made. Clause 8 would give power to the Central Midwives Board to suspend a midwife from practice, in lieu of striking her name off the roll, and to local supervising authorities power to suspend a midwife pending adjudication on her case. Clause 10 would require a woman whose name was removed from the Roll to surrender her certificate to the Central Midwives Board, and Clause 11 is apparently intended to carry out the recommendation of the Departmental Committee that provision should be made to prevent any evasion of the disciplinary restrictions of the Act by certified women who abstained from giving notice of intention to practise, and claimed merely to be acting as monthly nurses. Clause 17 provides for payment of any duly qualified medical practitioner summoned upon the advice of a certified midwife to render assistance in a case of emergency; he would be entitled to recover from the board of guardians such fee as might be fixed by a regulation of the Local Government Board, and the guardians might, if they thought fit, treat such fee as relief by way of loan and recoverable. With regard to this provision Mrs. Sidney Webb has circulated a letter, in which she declares it to be a great injustice to the woman and her husband, inasmuch as the fee paid by the board of guardians would be regarded by them as parochial relief. Of this she writes: "The woman and her husband are not paupers—they are not even destitute persons. Through the exercise of thrift they have made for themselves the normal provision for childbirth of their class—that is, a midwife. The Government proposes to make them compulsorily into paupers (even if they subsequently repay the full amount it makes no difference in this respect); their homes will be visited by the relieving officer with his hated inquiries, often to the detriment (as any nurse or midwife will testify) of the woman's health; they will be liable to be proceeded against by the board of guardians if (as is intended by Clause 17, subclause 2) the 'relief' is given 'on loan,' and compelled to repay a charge which they have never incurred, but which the State, in the public interest, has chosen to require." Mrs. Webb's statements as to the legal effect of the payment of the fee being made through the guardians are, we believe, accurate, though rather strongly expressed; the husband, however, would not be involved in any political disability. Mrs. Webb's objection is further evidence, if such were needed, of the validity of the recommendation made to the Departmental Committee on behalf of the British Medical Association by the Medical Secretary, Dr. J. Smith Whitaker, who said, "that the matter should be dealt with through the local health authority and not through the Poor Law, as it is undertaken more in the interests of the public than in the interests of the individual."

CRIMINAL STATISTICS.

THE statistics of crime in 1908 were published in a Blue Book last week. It appears that the number of persons tried for indictable offences during the year was 68,116—a higher number than in any previous year for which statistics are given—and the police estimated that on the first Tuesday in April, 1908, there were 4,255 habitual criminals at large. These facts and figures would be more melancholy reading than they are were it not that they are to some extent explained in the rest of the report. In the first place the exceptional increase in crime in 1908 coincided with marked depression of trade and an unusual amount of unemployment. The comparison between crime and unemployment is very forcibly suggested by the localities in which labour disputes and increases of crime principally occurred. Nearly five-sixths of the increase took place in the principal mining and manufacturing counties; less than one-sixth in London and the adjacent counties. That the temporary increase in 1908 was due to some abnormal cause is also shown by the fact that during the last fifty years the proportion of crime to population has been steadily decreasing. During the years 1857–1861 the annual average of indictable offences tried was 265 per 100,000 of population. In 1908 the number was only 192. Finally, with regard to the habitual criminal, an Act of Parliament is now in force which will enable persons of this class to be kept imprisoned for longer periods. Taking the report and the statistics as a whole, it would appear that the number of criminals is growing smaller, in spite of the fact that sentences are much shorter than they used to be. The reason assigned for this beneficent change is that as education advances crime appears to recede. To a man who has acquired but a small degree of culture or refinement the punishment begins long before the door of the gaol is reached, for, as Talleyrand said, "*C'est le crime qui fait la honte, et non pas l'echafaud.*" But education is at work in a still more subtle way. It leads the people along paths where incitement to commit crime is not to be found. No one who has taken part in the administration of the criminal law can have failed to observe that the consumption of liquor is responsible for a large percentage of the

cases which come before the courts. But the desire to drink to excess is abating. It may be remembered that the following statement was published in a Blue Book just before the famous Budget of 1909: "The diminishing consumption of alcoholic liquors, though to some extent attributable to the recent depression in trade, is principally the result of a continuous change in the habits of the people, which has been in progress for some time and seems likely to be permanent."

THE BRUSSELS EXHIBITION.

THE Home Office had upon view this week its proposed contribution to the forthcoming International Exhibition at Brussels. It is chiefly intended to illustrate subjects to which its industrial department has recently given special attention. Though for this reason not exhaustive, it serves, nevertheless, to give a fair idea of the amount of care and ingenuity devoted in this country to protecting the safety and well-being of the working classes during their hours of labour. Moreover, those responsible for getting the collection together have contrived to secure for it a certain number of elements of popular attractiveness. Besides models of apparatus and very many photographs, there are a certain number of actual appliances. These include various hygrometers for use in textile factories where a certain degree of relative humidity has to be secured, constructed in such fashion that the instruments may be read at a distance and by those not scientifically conversant with hygroscopic methods. Among the models are some illustrating stations now in use at certain collieries in Yorkshire, Lancashire, and South Wales, for training men in life-saving operations after mining catastrophes. Methods of dealing with air impurities and the estimation of lead in glazes are also demonstrated. Specimens of the posters issued or authorized by the Home Office for display in factories are also shown; two of them deal with the application of Schäfer's artificial respiration to persons "gassed" by carbon monoxide or in a state of suspended animation owing to electric shock. The diagrams illustrating this did not seem entirely satisfactory, the differences between the expiratory and inspiratory movements not being sufficiently emphasized. Another interesting exhibit is that relating to the detection of ankylostomiasis. Each miner as he comes off work has his thumb pricked, and should the resulting film reveal an excess of eosinophile leucocytes to the extent of 8 per cent. the case is regarded as suspicious, and a search for ova in the faeces follows. It is a quick way of dealing with a large number of miners, but only applicable, of course, in countries where causes of eosinophilia in apparently healthy persons, other than ankylostomiasis, are rare.

CANCER RESEARCH IN AMERICA.

THE annual report of the Cancer Laboratory of the State Department of Health at Buffalo, by Dr. Harvey R. Gaylord, was submitted to the New York State Legislature on February 14th. The report, according to the *Boston Medical and Surgical Journal*, shows that in animals immunity to the Jensen tumour may be secured by the use of a specific serum. It appears that where the resistance of the animal is not awakened by one inoculation of the tumour this resistance can be heightened by repeated doses, and in a considerable proportion of cases immunity can be raised to a point which will bring about a cure. The report goes on to say: "As we strongly urged upon the Legislature in our eighth and ninth annual reports, the time has come when we should begin experimentation with human beings . . . The only basis on which work of this kind can be done is where the patient submits himself for experimental purposes, and it is necessary under such conditions that the State should pay the maintenance of the patient. It is impossible to undertake systematic work of this kind unless a sufficient number of patients can be placed under observation to make the figures sufficiently conclusive to corroborate any conclusions which may be reached. Funds sufficient to enable us to maintain ten patients is the least amount which can be of value if this work is to be undertaken."

A CENTENARIAN DOCTOR.

MENTION was made in a recent issue of the fact that Dr. Boullé of Saint-Valérien was about to complete his 100th year. This he has now done, and a banquet was held in his honour. Moreover, the Minister of Public Instruction conferred upon him the decoration of *officier d'Académie*. Dr. Boullé is described as a little wizened man, but still alert and upright in his carriage. He attended the banquet accompanied by his youngest son, now aged 65, who is himself a member of the medical profession. His father and his grandfather were doctors, and both practised at Saint-Valérien; this forms what may be called a medical succession going back to 1750. Dr. Boullé says that in his father's time they lived like the peasants to whom they ministered, eating more potatoes than meat. Boullé *père* cultivated his land when he had no patients to look after. In this way he was able to bring up a family of six children, all of whom, said the old man, with natural pride, were honest folk. Dr. Boullé began his medical studies under Dr. Rétif of Sens, who, said the centenarian modestly, had no sinecure, as his pupil's head was somewhat thick. In 1828 he went to Paris, where he took his degree. He witnessed the revolution of 1830, but took no part in the disturbances. In 1848 he was elected Republican Mayor of Saint-Valérien, and in 1851 he protested against the *coup d'état*. He was on the point of being arrested, but even his political opponents pleaded on his behalf. Two years ago he took part in saving his papers and furniture when his house was on fire. On that occasion, notwithstanding his 98 years, he climbed a ladder to the top of the building. He has not practised any system of diet or drink; throughout his life he has satisfied his hunger and thirst in accordance with the promptings of his appetite. He attributes his good health and length of days to the pure Burgundian air and to the active life which he has always led.

THE NEW LONDON EXAMINATION HALL.

THE scheme for establishing the Conjoint Board of the Royal College of Physicians of London and the Royal College of Surgeons of England in a new home has progressed so far that plans for the future building have been finally selected by the two bodies concerned. As has already been stated, the new site is on the west side of Queen Square, Bloomsbury, nearly facing the opening of Great Ormond Street, and has already been cleared. The building which is to occupy it has been designed by Mr. A. N. Prentice, but no contract for the actual work of realizing his ideas has yet been signed. In their paper form they are certainly attractive. The frontage of the building is in general keeping with the architectural traditions of the Square, of which unfortunately few traces still remain, and reminiscent of the William and Mary portion of the palace at Hampton Court. Presumably, therefore, the plans will be worked out in dark red brick with stone facings. A strong feature is the central massing of sixteen rectangular windows on the first and second floors

between the two lines of curved architraves above and below and the Corinthian pillars on each side. The latter run up nearly to the top of the building, each bearing by way of capital an allegorical figure in semi-relief. A rough calculation indicates the total elevation to be close on 100 feet, this space being divided between seven stories: a basement partly above street level, a ground floor, four upper stories, and a high-roof attic. The basement is given up to cloakrooms and like accommodation; the ground floor to committee rooms, and the offices of the secretary to the board and his staff. Then come the principal examination rooms, with private rooms for the examiners adjoining. There are two examination rooms on each of the first two upper floors, and together they afford seating space for a total of 540 candidates. The two larger rooms are of fine proportions, their length being over 96 ft., and their breadth 30 ft., while the ratio of window area to floor space is ample. The next floor has special accommodation for examinations in anatomy, physiology, chemistry, and the like, and the remaining two are devoted to the Cancer Research Fund. At each end of the building a staircase runs from top to bottom, and there are two passenger lifts. In planning the internal arrangements the shortcomings of the old Examination Hall on Victoria Embankment—one of the factors in the decision to abandon it—would seem to have been borne in mind. That building was erected in the early days of the Conjoint Board when the requirements were not fully appreciated. In the new building, the undesirability of having to open up the whole premises on a day when very few candidates have to be examined has been kept in view, and the comfort of examiners and examinees, and economy in working, better safeguarded. The arrangements for the work of the Cancer Research Fund also seem excellent. It has at its disposal seventeen separate research rooms, of which only four seem unlikely to be very well lighted, and plenty of accommodation in the attic rooms for animals. At present the latter is marked on the plans "mice," but it may perhaps be hoped that the time will come before long when this will be a misnomer. Eventually these two floors will become ordinary research laboratories, for the capital of the Cancer Research Fund, so soon as its primary object has been fulfilled, reverts to the two colleges.

PROPOSED COMMISSION ON VIVISECTION IN AMERICA.

We learn from the New York *Medical Record* that a bill has been introduced in the New York Assembly by Mr. Goodspeed, "To establish a commission to inquire into the extent and nature of the practice in this State of experimentation on living animals together with a condition of the laws of the State relative to the proper protection of scientific experiments without danger of unnecessary cruelty." By the terms of the bill the Governor is authorized "to appoint a commission which shall consist of seven members, two of whom shall be physicians or scientific men residing in this State, two of whom shall be active members of some organization of this State having for its purpose the prevention of unnecessary cruelty in vivisection, two of whom shall be lawyers practising within this State, and the remaining member of the commission shall be appointed at large. The commission shall choose a member thereof as chairman. Such commission shall serve without compensation, and shall make inquiry, examination, and investigation into the condition of the law for the protection of scientific investigation of this character in this State, as well as the condition and effectiveness thereof for the prevention of abuse in vivisection and of unnecessary cruelty to animals therein. For these purposes the said commission is hereby authorized to send for persons or papers, to administer oaths, and to examine witnesses and papers respecting all matters pertaining to this subject. Such commission may employ necessary clerical or other assistants, and shall make a full and final report to the governor within one year after its appointment, including such recommendations for legislation as in its judgement may seem proper." The same bill was introduced in the Senate by Mr. Bayne. The demand for the appointment of a Commission is a new departure on the part of the anti-vivisectionists. During the past four sessions of the Legislature of New York bills have been introduced for the purpose of placing severe restrictions upon the practice of animal experimentation, but all these bills have been defeated by the action of the medical profession.

NEW BUILDINGS AT McGILL UNIVERSITY, MONTREAL.

It will be remembered that the buildings occupied by the Medical Faculty of McGill University were destroyed by fire in 1907. The structure which has been erected to replace them is rapidly nearing completion, and it will be inaugurated by the Governor-General on June 6th and 7th of this year. The new buildings have been erected at a cost of 750,000 dols., on a site near the old medical buildings; it was given to the University by Lord Strathcona, the Chancellor of McGill University, who has contributed more than half of the cost of the new buildings. An interesting programme has been arranged for the ceremonies, and it has been determined to mark the occupation of the new buildings by a reunion of as many as possible of the medical graduates of McGill. Communications have been received from representatives of forty-five classes to say that it is their intention to attend the inauguration of the new buildings as a class, and it is expected that there will be a unique gathering of McGill graduates from all parts of the world in Montreal on this occasion.

A special meeting of the Medical Society of London will be held on Monday, April 18th, at 8.30 p.m., at which a paper on Inheritance in Haemophilia will be read by Dr. W. Bulloch and Dr. Paul Fildes. Among those who are expected to take part in the discussion are Professor W. Osler, Sir Almroth Wright, Mr. E. Nettleship, Dr. Parkes Weber, Dr. H. D. Rolleston, Professor Karl Pearson, Professor W. Bateson, Dr. Gossage, and others.

Medical Notes in Parliament.

Vivisection.—On Monday Mr. Douglas Hall asked the Secretary of State for the Home Department whether he would direct that in the forthcoming Annual Return under the Cruelty to Animals Act, 39 and 40 Vic., c. 77, the reasons should be set out why, in experiments performed on dogs without the use of anaesthetics, it was necessary to employ those animals to prevent the object of the experiment being frustrated; and whether any steps were taken, and, if so, what steps, to test the soundness of the reasons given in these cases for making the experiments on dogs. Mr. Churchill replied that, in dealing with certificates for experiments on dogs (whether with or without the use of anaesthetics) the reasons given for making the experiments on dogs were always carefully scrutinized by his expert advisers; and, if there were any doubt, special inquiry was made, before the certificate was allowed, as to the possibility of performing the experiments on other animals. He did not think anything would be gained by giving these reasons in the annual report. Mr. Churchill, in reply

to a further question, said that 483 licences were in force during 1909. Of these licences, 94 were new licences granted in 1909; the remainder were renewals. No applications for licences were refused in 1909. As no applications could come before the Secretary of State unless they were first recommended by the highest scientific authorities, a refusal was naturally of rare occurrence. As regards certificates, the Secretary of State did not *grant* certificates; he has only a power of disallowance. He could not at present state the number of certificates in force during the year, but information would be given in the Annual Return, which would probably be published in June. The number of certificates totally disallowed was eight, and in many other cases the Secretary of State disallowed certain procedures that were proposed, or in other ways limited the scope of the certificate.

The Indian Medical Service.—Mr. Kelly put a series of questions on Monday last to the Under-Secretary for India asking if the resolution passed by the medical profession in Bombay had been considered, and what steps were to be taken to allay the discontent amongst Indian medical practitioners who are excluded from the higher grades of medical service. He also asked why military assistant surgeons had been preferred to Indian civil doctors for appointments at Madras, and what higher grade medical appointments reserved for military doctors had been opened to and filled by Indian practitioners since the publication of the scheme of reform adumbrated in papers laid before Parliament. Mr. Montagu answered the three questions together as follows: The resolution referred to was under the consideration of the Government of India in connexion with the general question of the Indian Medical Service. As to the other points, he must refer to the numerous replies already given. In answer to Mr. Rees, who inquired as to undesirability of making any changes at the Madras Hospital, Mr. Montagu said that the Secretary of State was not aware of any intention on the part of the Government of Madras to introduce changes in the administration of the general hospital at Madras; and he was not prepared, therefore, to address them on the subject.

Hospital Stoppages (Royal Navy).—Mr. McKenna, in answer to a question put by Lord Charles Beresford, stated last week that in the case of illness due to wounds or injuries sustained while on duty the pay of officers and men was governed by the same regulations, under which full pay was allowed generally until cured or pensioned. In cases of ordinary sickness, petty officers and men sent to hospital or sick quarters at home were allowed full pay for thirty days and pay, less hospital stoppages (usually 8d. or 10d. a day), for a further sixty-one days, unless invalided from the service. When falling sick abroad, full pay was allowed without deduction until arrival in England, and was then continued under the same limits and conditions as in the case of men falling sick at home. It was true that in cases of ordinary illness not due to the service hospital stoppages were not recovered from officers on full pay, but the regulations governing their pay generally were quite different from those in force for men, and it was considered that no useful comparison could be drawn between them. The Board had recently given the subject of hospital stoppages their careful consideration, and they regretted they did not see their way to introducing any further modification in the existing system.

Sick Berth Staff (Royal Navy).—Lord Charles Beresford asked the First Lord of the Admiralty whether he could see his way to make an improvement in the pay and status of the sick berth staff of the Royal Navy. Mr. McKenna replied that the position of the sick berth staff in the matter of pay and advancement was one of the subjects dealt with by the Committee on the Naval Medical Service, whose recommendations were now under the consideration of the Admiralty.

Asylum Officers and the Superannuation Act.—Sir William Collins asked the Home Secretary whether he had issued any directions as to the classification of officers for the purposes of pension under the Act, and also whether the Home Office had received any information as to action taken by asylum committees and local authorities to give effect to the Act, or by the Lunacy Commissioners, and whether the Home Secretary would hear and determine appeals in regard to classification of officers under the Act. Mr. Churchill replied that no directions on the subject had been issued with the sanction of the Home Office, and that no information had been received by the Home Office; but various questions under the Act were discussed at a conference between the Commissioners in Lunacy and representatives of local authorities, and others, on March 14th. It seemed to him that the Secretary of State could not, under Section 15 of the Act, overrule a decision of a visiting committee in a matter left to their discretion under Section 1 (2).

Metropolitan Asylums.—The President of the Local Government Board has informed Mr. Dawes that the managers of the Metropolitan Asylums Board, on November 23rd last, submitted to his department proposals for certain extensions to the Children's Infirmary at Carshalton. These proposals involved the expenditure of a very large sum, estimated to exceed £50,000 or £60,000. In view of the large margin of spare accommodation in other institutions belonging to the Asylums Board, he was of opinion that the whole question of the accommodation of the various classes of patients in the charge of the Asylums Board needed careful consideration, and he was in correspondence with the managers on the subject.

Lead Poisoning and Coach Making.—Last week Mr. Wedgwood asked the Secretary of State for the Home Department whether, with reference to reported cases of lead poisoning, he could give any reason for the reduction last year of from 117 cases to 58 cases in the china and earthenware industry, or for the increase in the coach making industry from 70 to 95 cases; and whether he had any official information showing that the closer supervision over the cleanliness of the workplaces and of the health of the workers had caused the improvement in the case of the pottery industry. The Under Secretary replied that it was difficult to say to what cause or causes the striking diminution in the number of lead cases in the Potteries was to be attributed, but the depression of trade in the earlier part of the year, the additional inspection provided, and the increased attention to the adoption of precautionary measures, had all contributed to the result. The Secretary of State could not assign any reason for the increase in the coach-making industry. This was one of the industries which had been selected for investigation when the pottery inquiry had been completed.

Medical Officials in the Transvaal.—Last week Mr. O'Grady asked the Colonial Secretary a question relating to the outbreak of infectious disease at Germiston and the incidents leading up to the dismissal of Dr. M. A. Curry, the Medical Officer of Health, and the treatment of medical officials generally, and whether it did not act prejudicially to the health of foreigners and white workers in the mining districts of South Africa. Colonel Seely replied that the matters were for the Transvaal Government to consider, and not for the Secretary of State, who did not exercise any authority in respect of them. No complaints regarding foreign subjects had reached the Secretary of State through the diplomatic channel.

The Report on Infant Mortality.—Mr. Burns informed Mr. Pointer last week that some progress had been made with the report on infant mortality, but that he was not yet in a position to fix a date for its publication.

Grants-in-Aid to Hospitals.—In reply to Mr. Godfrey Collins, Mr. Hobhouse has stated the grant-in-aid of Irish hospitals (Sub-head D of the Vote for Hospitals and Charities, Ireland) was £15,850. There was no grant-in-aid to Scottish hospitals.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

Nursing in the Belfast Poor Law Union Infirmary.

By degrees great improvements have been brought about in the nursing of the workhouse poor; the old system of pauper nurses has disappeared, and in its place a training school for nurses has grown up. This has involved no little increase in expenditure, and Dr. E. Coey Bigger, the Local Government Board's medical inspector, has lately held a full inquiry into the system of nursing and its cost. In his report he points out that twenty-six years ago the nursing was almost entirely in the hands of untrained persons, and most of the work was done by paupers; these untrained assistants had each from 80 to 120 patients under their charge. Nursing, as understood at the present day, did not exist, and the condition of affairs was always a scandal, sometimes a crime. Dr. Bigger gives well-deserved praise to the lady then appointed as superintendent of nurses. "I have never known in connexion with an institution any more self-sacrificing and noble work than that performed by Miss Pirrie. It would be impossible to overestimate the lasting benefits to the sick conferred by the change in the nursing system which commenced in 1884."

Dr. Bigger's words are strong, but they are written by one who had at the time an intimate experience of the evils then existing as resident medical officer, and is now an experienced and trusted inspector of the Local Government Board. Many will remember the fears entertained by Miss Pirrie's friends when she took the post, not merely as to her success and her health in the herculean task of cleansing these augean stables, but at times even for her life. No doubt there was exaggeration, but the task was considered at the time a hopeless one. However, by degrees improvement after improvement was introduced; the medical staff gave their aid, and in 1899 the 94 nurses and probationers were employed at an annual cost of £3,357. At the same time there were 224 pauper attendants in the infirmary and 32 in the fever hospital. A complete training scheme was arranged, and the nurses trained in accordance with it were now recognized by the Local Government Board as "trained nurses." In 1903 the board of guardians decided to dispense with the pauper attendants in the infirmary; the number of nurses was increased to 137, and the annual cost to £5,403. In 1907 the nursing staff had risen to 174, and probationers received fever training at the Municipal Fever Hospital at Purdysburn. In 1909, chiefly owing to the enlarged children's wards called the "Dufferin Hospital," the nurses rose to 193, and the cost to £6,969; the number of paid attendants fell to 8, and pauper attendants in the infirmary to 68. "The increased cost," Dr. Bigger says—and his words will receive universal confirmation—"is far more than counterbalanced by the increased efficiency, a reduced death-rate, more rapid recovery of the patients, more kindly and uniform treatment of the sick, and the stamping out of blackmailing by the pauper attendants—advantages which could not be estimated by a money value." Other matters mentioned by Dr. Bigger as bearing upon the nursing question and its cost are the typhoid epidemic of 1899–1900, the removal of lunatics to the asylum, and the opening of an extern department in 1901 to relieve the congestion of the infirmary. In 1909 the average number of sick rose to 1,780 with an increase in the extern department. The Abbey Sanatorium and the Children's Home are also factors; the average stay of patients has also fallen.

As to reduction in the number of nurses, the average is about one nurse to every ten patients, and this probably could not be lessened. The arrangements for the nurses in the hospital are not up to the standard of other parts of the institution, and should be investigated with the object of making the necessary improvements. Dr. Bigger calls attention to the fact that in July last 107 children, or nearly half the total, were suffering from scabies. "I informed the officers in charge that such a condition of things was simply disgraceful, and reflected discreditably on all concerned." This unhappy condition of affairs has now been much improved.

The report ends with a statement of the satisfaction that must be felt on considering the great improvements and reforms that have been carried out during the last ten years, and the time spent and interest shown by the guardians in the welfare of their sick.

Dying Declarations.

An army pensioner named Kennedy, who died on March 25th in one of the Dublin unions, made a dying deposition on the morning before his death in which he attributed his injuries to a fall caused by being pushed off a tramcar by the conductor on September 15th, 1909. The declaration was taken down by Dr. McNamara, one of the union medical officers, in the presence of a ward master, and was signed by the patient. Owing to this declaration being made the city coroner was informed of the death, and an inquest was held. At the inquiry a letter from an alleged witness of the accident was read, containing a statement to the effect that the writer had seen the tram conductor pushing Kennedy from the tram, but on examination in court the witness denied the truth of this and every other statement contained in the letter. The accused conductor was present, and stated that the accident arose owing to Kennedy, in spite of being warned, insisting on leaving the tram while it was still in motion. After hearing all the evidence, including the results of a *post-mortem* examination, the jury returned a verdict to the effect that death was caused by pneumonia, and that the alleged accident had nothing to do with it.

The interest of the case to medical men lies in the remarks of the coroner, who insisted that it is only when there is not sufficient time to get a magistrate that a doctor is justified in himself taking down dying declarations. To the jurist this declaration made by a man who was mentally sane and who knew himself to be dying—a declaration which was apparently quite unfounded, though made in good faith—should also be of interest.

Dilatory Guardians.

The Cork Board of Guardians have had administered to them a wholesome admonition on their dilatoriness in bringing their nursery up to date. The Local Government Board has issued what may be called an ultimatum to the Cork Board, in which it is stated that unless immediate steps are taken by the guardians to deal with what is called "the lamentable state of things," the board of guardians would be dissolved, and, presumably, paid administrators will be appointed in their stead. In the report issued by the Local Government Board the position is summarized as follows:

> The guardians are aware that for several years the condition and management of this nursery have been pressed upon their consideration by the representations of their own medical officers, and by the reports of the general and medical inspectors of the Local Government Board. In these circumstances, and as the result of the recent inquiry, the Local Government Board have intimated they cannot be a party to any further dealing with evils in the nursing system which have been exposed at the inquiry; and, unless proper and effectual steps are taken to deal with this lamentable state of things, the Board will be obliged to consider whether there is any course open to them but to dissolve the board of guardians in consequence of their most grave default. The Board have directed Dr. Smyth and Dr. Fitzpatrick, Local Government Board inspectors, to place their services at the disposal of the guardians to confer with them and the medical staff of the hospital with a view to advising the best and most expeditious means of carrying into full effect the necessary reforms which have been referred in this communication.

Some years ago the Cork board was dissolved for a period, and paid representatives of the Local Government Board appointed, with great advantage to the community and economical and efficient administration of the workhouse. The case alluded to in the

report was that of a child named Manley. The evidence at the inquiry justified the conclusion that the child—a few weeks old at the time—did not receive proper care or attention, and was not properly fed while in the workhouse nursery, and that the neglect contributed to its death. The Local Government Board also animadverted upon the high mortality which is a consequence of the guardians' neglect.

The mortality of infants during 1909 as stated by the master was 49 in an average daily number of 85 or 90. There is no available standard of mortality with which these figures could fairly or safely be compared, but they may be compared with returns of infant mortality in workhouses which were submitted to the recent Royal Commission on the Poor Laws. Where it was given in evidence that out of an average of 3,710 infants under 2 years of age always in nurseries and lying-in hospitals of 546 English workhouses examined, there had been an average number of deaths per annum during five years of 1,315. This represents a mortality of 35 per cent. annually of the average infant population in these workhouses—a very alarming proportion of deaths among a constantly changing stream of infants.

Cork workhouse infant mortality must still be much more alarming, because it is 57 per cent.

The chairman of the board is evidently a gentleman not disposed to be depressed by this condition of affairs, because he is reported in the daily press to have said: "They were managing the board very satisfactorily, and but for the expected Poor Law reform they would have done much more in the matter of building. He could not understand why those gentlemen from the Local Government Board who knew nothing about their business should dictate to them."

INFANTILE MORTALITY.

The Public Health Committee has recommended the Corporation of Dublin to adopt the Early Notification of Births Act. The Committee points out that the infantile death-rate in Dublin remains high, while it has fallen considerably in English towns, and it believes that the early notification of births has contributed in English towns to this improvement. Three years ago the Corporation was unanimously willing to pay for early notification, but now, though notifications are not to be paid for, it refuses to adopt the Act, although judging from the experience of other towns, the incidental expenses involved are almost negligible.

Scotland.

[*FROM OUR SPECIAL CORRESPONDENT.*]

THE EXTENSION OF THE GLASGOW MEDICAL SCHOOL.

AN inquiry by special commissioners under the Private Legislative Procedure Act was held in Glasgow into the three Provisional Orders promoted by the University, the Muirhead Trustees, and the Governors of St. Mungo's College. The provisional orders were necessary in order to carry out the proposed scheme to extend the teaching facilities by transferring the two Clinical Chairs of Medicine and Surgery to the Royal Infirmary, and founding two new Chairs of Pathology and Obstetrics. The inquiry extended over two days, and, after hearing evidence for and against the scheme, the Commissioners found the preamble of the three orders proved, despite some opposition from the Victoria Infirmary.

RECOGNITION OF A DOCTOR'S COURAGE.

The Carnegie Hero Trust Fund trustees have decided to present a medallion to Dr. Donald Macdonald, Laggan, near Kingussie, in view of the courage which he had shown in exceptional circumstances with the object of saving the life of a patient. On January 9th last he succeeded, under conditions that involved risk to his own life, in visiting, at a distance of twenty-two miles, a patient who was seriously ill. On that date the doctor received a telegram at 7 a.m. After finding that it was not possible to complete the journey by the usual road, inasmuch as the streams which had to be crossed were greatly swollen, he made his way through a forest and over a shoulder of Ben Alder, travelling on foot a distance of about twelve miles, and being under the necessity of wading across many mountain streams which were swollen into torrents. He did not reach the house of his patient till 6 in the evening.

England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

MANCHESTER.

SANATORIUM ACCOMMODATION FOR CONSUMPTION.

AT the annual meeting of the Manchester Hospital for Consumption it was announced that the pressure on the male beds at the Crossley Sanatorium, Delamere, had been so great and so many patients had been waiting for admission that it was proposed to put up a new men's dayroom outside the main building, and to use the present dayroom as a large ward. In this way twelve more beds would be provided at a cost not exceeding £1,000. The report of the Medical Board stated that unless the admission of patients was rendered easier by an increase in beds much of the work done would be lost, owing to sheer despair on the part of the patients and to the doctors' loss of faith in the possibility of getting a patient into the sanatorium within a reasonable time. There were now 40 or 50 patients waiting for admission, and if all who wished were allowed to put their names down there would be 150 at least.

In an address on the prevention of consumption, before the Manchester and Salford Sanitary Association, Dr. A. Lathom dealt with some of the predisposing causes, and referred to the difficulties in the way of providing adequate sanatorium treatment. He said that of the total population of England and Wales about 28,000,000 were unable to pay for sanatorium treatment except by some scheme of insurance, and 13,000,000 wholly unable to contribute to the cost of their own treatment. It had been shown by actuarial calculation that sanatorium treatment could be provided for all if everyone over 15 years of age paid 2s. a year, or ½d. a week, to a central insurance fund. He estimated the number of persons suffering from consumption to be not less than 250,000, while over 100,000 suffered from other forms of tuberculosis. He contrasted the way in which Germany deals with the prevention of the disease through its invalidity insurance with the English method of spending millions of pounds on only half treating it. If we spent the same amount of money intelligently we might stamp out the disease in twenty or thirty years. We could have sufficient sanatorium accommodation for 60,000 patients a year, and could maintain the dependants of the wage earner while he was in a sanatorium for £2,500,000 a year. Dr. Niven said the crux of the difficulty was in the provision for the wife and family while the wage earner was being cured. No private charity could suffice for this, and it would be necessary to work out a scheme which the community and the corporation would accept for dealing with the matter.

SCARLET FEVER AND ISOLATION.

Dr. A. Fraser in an article in the *Manchester City News* has argued that isolation hospitals for scarlet fever are largely a failure, maintaining it cannot be proved that they have done anything to lessen the number of attacks or their severity, but that it is almost exclusively in the hospitals the most virulent forms of the disease are now seen. He concludes that the isolation of scarlet fever as at present practised is a huge and costly mistake, that the Baguley Hospital alone would be quite sufficient for all the cases of dangerous infectious disease in Manchester, and that the Monsall Hospital might then be set aside for the reception of consumptives.

WEST YORKSHIRE.

THE BRADFORD SCHOOL CLINIC.

We have received the following letter:

Sir,—

There are two sides to every question. For some time past there has been a growing feeling of dissatisfaction with the clinic amongst the general practitioners of Bradford, some of whom naturally do not like to see their patients' children, many of whom they have known all their lives, taken from their care and handed over to State or municipal authorities. This feeling culminated in a meeting held under the auspices of the Bradford Division. At that meeting I quite admit that I made a vigorous attack upon the clinic, but I did my best to differentiate between the clinic as an institution and the medical officers who compose its staff; indeed, many of my remarks would have applied equally well to a clinic in any other town.

Perhaps I can best answer Dr. McCullagh's letter by stating exactly what I did say. I prefaced my remarks with these words: "We are pleased to see Dr. Williams (the medical superintendent) here this evening, and I trust that he, and any members of his staff who may be present, will rest assured that anything which may be said to-night, that any strictures which may be passed, any adverse criticism which may be made upon the clinic or its methods, will be directed against the institution and not against the individual, against the system and not against its exponents." Having said this I stated that I believed almost every general practitioner in Bradford was hostile to the clinic—a fact surely of some significance, for I trust we are not all entirely selfish and devoted to our own interests only, and I gave some cases in which, on the advice of teachers or as the result of pressure by the attendance officers, the clinic had been abused. I then said: "Of course, it would be unfair to hold the medical superintendent responsible for all the acts of the teachers or for those of the various officials connected with his department of the council. I mention these facts to show that even under the direction of such an honest, honourable, and conscientious superintendent as we believe Dr. Williams to be, this school clinic is fast becoming a very serious menace both to the liberties of the parents and to the rights of the general practitioner." In view of such remarks as these I do not think that Dr. McCullagh is quite justified in saying that what I "did was to indulge in a fusillade of invective against the clinic and its staff."

After quoting some remarks of Dr. Crowley's (the founder) in reference to the efficiency of the clinic, I proceeded: "I make no reflection upon the conduct or abilities of the medical staff when I say that treatment carried out under the conditions obtaining at the clinic cannot be satisfactory," and I gave several cases which, in my opinion—it may, of course, be at fault—seem to bear out this contention. All of these cases occurred amongst my own patients, and came directly under my own observation, so that I must differ from Dr. McCullagh when he says or implies that in "90 per cent. of my statements I had not been careful in my search after truth," or that I "had not taken the smallest trouble to ascertain whether there was a semblance of fact behind them."

In my concluding remarks I said, "Finally, I condemn this clinic because in the most intimate relations of life, in the treatment of children in disease, it seeks to substitute the official for the personal element; and here let me again remind you (the meeting) that I am making no reference whatever to the present staff, I am dealing with the clinic as an institution with it seems to me grave possibilities of evil in this direction." I never said, as Dr. McCullagh hints, that any member of the staff was "incompetent or devoid of common sympathy." What I did say was—that the tendency of the clinic and all such institutions was to produce a race of routine officials, with all the faults of officials, who knowing nothing of the home lives and conditions of their patients, and having no personal interest in them or in their families, would *eventually* come to regard them not as individuals but as so much clinical material.

In conclusion, there are a few inaccuracies in Dr. McCullagh's own report of the meeting which I should like to point out: First, in reference to private practice, I said that "*whatever may have been their past*, the medical officers have no *present* experience of general practice, and are completely out of touch with the ordinary run of children's ailments." They are not, of course, to blame for this; it is a mere statement of fact, for in virtue of their appointments they are debarred from general practice. Dr. McCullagh states that I commenced with the announcement that a "school dentist was appointed to the staff." From first to last I made no reference whatever to any such appointment. Finally, I did not describe "the terrible consequences to children's brains following *x*-ray treatment of ringworm." I did say that we knew nothing whatever of the effect of these rays upon children's brains.

I agree with Dr. McCullagh in cordially hoping that matters will improve. The clinic, of course, is a public institution, and as such is liable to criticism, but I fail to see why there need be any personal animosity between the members of its staff and the general practitioners of the town.

I am, yours faithfully,

J. WHERRY WILLSON.

Wayside, Bradford,
April 3rd, 1910.

Special Correspondence.

PARIS.

Medical Relief in France.

DOCTORS all over France have just received lists containing the names of poor persons entitled to medical relief. These lists are drawn up in each commune in January by a special commission, consisting of the mayor and the committee of the *bureau de bienfaisance*. They are submitted to the Municipal Councils in February for their approval or correction, and are then registered under the authority of the prefect; in March they are communicated to those doctors who have consented to take a share in the work of the service, and nowadays most doctors accept this duty.

Medical relief in France is governed by the provisions of the law of 1893. At first its administration gave rise to many difficulties, but for some years past the dispute between the medical profession and the communal and departmental administrations to which it gave rise appears to have quieted down, and questions with regard to medical relief have ceased to give rise to discussions at our congresses. A period of stability has come, for though the system is not perfect, it is in a condition of equilibrium.

While it is obvious that in such a matter the rules and regulations first made will probably require revision, and that practical experience alone can afford sure and certain guidance, yet it cannot be denied that a great deal of irritation might have been avoided if the doctors had been invited in the beginning to take part in the establishment of a system the success of which depended upon their co-operation. The law was discussed, amended, and passed by a parliament which had very nearly reached the term of its existence. The Legislature contented itself with laying down general lines and leaving their application to the General Councils of the departments, which defray two-thirds of the cost, the other third being paid by the communes. Two different systems were at once brought into action.

Under one, the system called *à la visite*, the doctors were paid according to the number of visits they paid to patients, the rate being less than one-half the ordinary tariff, but varying a little in different departments. Generally the fee for a visit made during the day in the locality in which the doctor resides is 1 franc; if the patient resides elsewhere, the fee is calculated at the rate of 25 centimes for each kilometer out and home. Thus, for a visit made at the distance of 8 kilometers, a fee of 4 francs is paid. The fee for visits paid at night (from 9 p.m. to 6 a.m.) is double. The argument adduced to justify this low tariff, which made the doctors share with the State, to the extent of one-half, in the cost of medical relief, was that previously the doctors received no fee at all for these visits, and that therefore they ought to be very pleased to be paid half price. The argument, however, was not quite sound, for the *bureau de bienfaisance* had, as a rule, paid the ordinary tariff; from the patient's point of view, however, this was not satisfactory, for the charity given by the *bureau de bienfaisance* depended upon the goodwill of a very small commission; in fact, the mayor himself always decided on his own authority; the grant could at any moment be revoked, and the local authorities decided without appeal and without control. The State relief, on the other hand, gives the right for a year, and poor persons whose names may be omitted from the list by the municipalities can appeal to the cantonal or prefectoral administration. Further, the system *à la visite* leaves them the most complete liberty in the choice of their doctor; they can change whenever they like. Finally, a person whose name in any year is put on the list for attendance as a matter of urgency, incurs no disability. The significance of this will be seen presently.

From the administrative point of view this system presented certain inconveniences. In the first place, it was impossible to make an exact estimate of the sum which should be allotted for the service in the Budget framed at the beginning of the year. It might involve a charge considerably in excess of anticipations. In the second place, the prefects complained sometimes that the doctors paid

an unnecessary number of visits; they were in fact stimulated to do this not only in their own interest and by the demands of patients who had nothing to pay, but also by the desire to make reprisals against the inadequate tariff imposed upon them. Undoubtedly there was a strain upon their conscience.

Under the second system, *système à l'abonnement*, the doctors receive an annual salary under contract; for instance, in a village with two doctors and 500 inhabitants, twenty of whom were entitled to medical relief, each doctor would receive annually for each of the twenty, whether they required medical attendance during the year or not, the sum of 1fr. 50c. The distance between the village and the doctor's house, the number of patients actually attended, and the number of visits paid were not taken into account. The poor person chose his doctor at the beginning of the year, and had no right to change during the year. The estimates for the annual expenditure on medical relief could be exactly settled when the Budgets were drawn up, and the prefects no longer complained that the doctors paid too many visits; on the contrary, they appealed to the doctor's humanity to be prodigal in this respect.

From the administrative point of view this system was ideal. Medically the doctors found it necessary to make the strongest protests. The mayors, since the communes had to defray part of the expenditure, thought it an ingenious idea not to put any names on the lists for medical relief at the beginning of the year; it would be time enough, they said to themselves, to put the name on the list as a matter of urgency when one of the persons entitled to assistance fell ill. On this plan the doctor did not receive 1fr. 50c. a year for each person entitled to medical relief, but only for each sick person he actually had to see. The fees, in any case ridiculously small, became altogether illusory. After a most desperate struggle, and a formal refusal to let ourselves be exploited in this way, our professional syndicates obtained two concessions. The estimate imposed on the communes is now based on the number of inhabitants, at the rate of 10 centimes a head, and is divided among the doctors in proportion to the number of persons entitled to medical relief on their lists. Attendance given to cases admitted as urgent must be paid for at the ordinary tariff, and the department throws the whole of these charges upon the commune. The mayor's little dodge was thus paralysed by a stroke of the pen, and the plan has come to be regarded as satisfactory, and either system, *à la visite* or *à l'abonnement*, thus improved, works well. There are some doctors whose practice extends into two departments who work under both.

Under both systems there is a special tariff for surgery and midwifery. There are still some difficulties with regard to this special tariff as to which a few details may be given. The fee for a confinement and three subsequent visits is 15 francs; for the application of forceps, 15 francs; for an operation for hernia, 20 francs; for the reduction of fracture of the leg, 10 francs, and so on. How, it may be asked, have we been induced to accept such starvation fees? In surgical cases the matter is simple enough, for it seldom happens that we cannot dispose of the patient by sending him to the nearest hospital. As to midwifery, we have to make the best of a bad job. Only I am bound to add that the number of artificial deliveries (for which an extra fee of 10 francs is paid) has in some districts risen to an unusual proportion. It is astonishing how many placentas are adherent when the tariff goes down!

But I must not be taken literally. Only very rarely is the exploitation of the profession by the State met by this kind of "*sabotage*." The immense majority of French practitioners, faced by a law which gives alms by putting its hands into their pockets, are content to follow the advice of their great and good master Potain, who said that it should be a point of honour with doctors to let themselves be dupes, believing that self-sacrifice is the oldest and purest diamond in Hygeia's crown, and that in a modern nation the State has the right to put its name down first in the list for medical relief.

THE United States Public Health and Marine Hospital Service has ordered Past-Assistant Surgeon C. H. Lavinder to Milan, with instructions to investigate pellagra in that district.

Correspondence.

LONDON CHILDREN'S TEETH.

SIR,—The deputation that waited upon Dr. Newman on March 23rd drew attention, among other defects in the scheme of medical treatment of the London County Council, to "the absence of any provision for dealing with defective teeth"; and your leading article entitled "A National Emergency" characterized this exclusion as "remarkable and scandalous" in the face of the statistics that have been accumulated by members of the British Dental Association and others. These epithets would not be too strong if there were any likelihood of the omission of dental treatment being other than temporary, and caused by a desire on the part of the authorities to deal first with those diseases that are less prevalent, and therefore more manageable under the opportunist scheme now being tried in various hospitals.

It is rather curious, however, if the very magnitude of the evil should be held to be a reason for delay. Statistics have shown beyond cavil that from 70 to 90 per cent. of elementary school children suffer from defective teeth. Since the idea first gained ground that diseased teeth and septic mouths were the direct cause of many serious affections, clinical experience and scientific investigation have demonstrated its truth; to enlarge on this point in your pages would be but a waste of space. It may be stated briefly, without fear of contradiction, that diseased teeth in children are responsible for much pain and misery, loss or waste of school time, disordered nutrition, and secondary disease of other organs; the evil effects of insufficient masticating power and of oral sepsis on physical development during the period when growth should be most rapid persist throughout life. Indeed dental disease, by reason of its prevalence and far-reaching effects, is really the most important of the diseases now being considered by Education Authorities and presents a problem of truly national importance.

Surely if there is any object on which the expenditure of public money is justified, it is that of providing that the children who cannot help themselves now, but who must before long join the struggling throng of workers, have a reasonable chance of reaching maturity equipped with such health and strength as inheritance has potentially endowed them with. To try and cram knowledge into the brain of a child with a diseased and stunted body is but a cruel mockery; and to provide food for a child while neglecting the teeth to eat it with is not much more sensible.

Even on the score of economy, it is extraordinarily difficult to make people understand that prevention is cheaper as well as better than cure, and that it costs less to the community to ensure for a child, as far as may be, the ability to earn its own livelihood in later years than to keep it when an adult more or less constantly in hospital, infirmary, workhouse, or even prison, on account of neglect in childhood. It is, I suppose, too much to expect that one public body should spend money in order to save the expense of another department of State or diminish the demands on charity; and this question of the children's teeth affords one more example of the need for the co-ordination of the public health service in place of the existing chaos of divided and independent responsibility.

The deputation to Dr. Newman emphasized very strongly the objections on principle to the present system adopted by the London County Council of subsidising voluntary or charitable agencies. Although I fully agree with the views put forward by the members of the deputation, it is unnecessary for me to enlarge on them in connexion with the teeth, because such a method is not likely to commend itself to the dental hospitals of London; these institutions already have as much work as they can cope with.

The only method of dealing with the teeth is by means of private practitioners or specially appointed dentists. In some cases it may be possible to send the children to the "recognized surgery" of a dentist, but this is not a plan likely to find general acceptance; and the institution of clinics, where one or more dentists might attend to afford treatment at stated hours, is the only ultimate solution of the problem. The deputation referred to the

medical clinics that are being organized in Wandsworth, Hampstead, etc.; it need hardly be said that the rooms of such institutions could be easily adapted for dental treatment.

It is unfortunate that the word "clinic" should have come to connote in the minds of some people elaboration and expense; in reality efficiency is compatible with simplicity and cheapness, and under any system the stipend of the dentist himself must be the greater part of the total expenditure. I may also remark, on the question of expense, that the amount of work to be done, which by its magnitude appals some educational authorities, would be greatly reduced by attention at an early age; the ravages of dental caries would thereby be checked. But in any case the gravity of an admitted evil is a strange reason for leaving it alone.

Dr. Newman, in replying to the deputation, was at much pains to show how aggrieved would be those medical men who might not be appointed to a clinic, and that on this ground the clinic was as objectionable as the subsidised hospital. Apart from the other objections to rate-aided charity, the conditions do not appear to be very similar, and Dr. Newman would be well advised to accept the assurances of the members of the deputation that friction of that kind would be unlikely to occur.

But again I may point out that in the case of the teeth the circumstances are somewhat different. I can safely say that dentists are not likely to complain if they are not appointed for this work; rather might it be expected that trouble would be found in getting enough dentists to do it. But I do not apprehend this difficulty either; the question has interested the dental profession for many years, and I have confidence in a sufficient number of men coming forward to help in what they regard as a national work, provided remuneration is given at a reasonable rate. Medical men who minister to the public health are still underpaid in comparison with other public officials, but the time has fortunately gone by when the hardly gotten skill and knowledge of medical men and dentists can be ruthlessly exploited by public bodies; the well-known charity of the doctor towards the poor is less liable to abuse than formerly; and in the case of these new appointments it is to be hoped that Education Authorities will endeavour to get good work done by offering adequate payment.—I am, etc.,

London, W., April 4th. NORMAN G. BENNETT.

DYSMENORRHOEA.

SIR,—From my somewhat limited experience of the various affections grouped together under the title of "dysmenorrhoea," I have found the most efficient medical treatment to consist of a thick layer of cotton-wool well sprinkled with gin or whisky (51 to 59 per cent. by volume of alcohol), and fastened on with a binder, the patient remaining in bed for awhile.

I notice that in the JOURNAL of April 2nd Drs. Weatherhead and McNamara vigorously condemn the advocacy by Dr. Gibbons of laudanum as an external application in these cases, and apparently all three of these gentlemen have been obsessed with the importance of the opium contained in the preparation, and have overlooked the claims of the familiar "Paddy's eye-water" also contained therein. Dr. Hale White—quoted by Dr. Weatherhead—says, of the external action of alcohol, that "if evaporation is prevented in any way . . . having passed through the epidermis, it dilates the vessels, causes a feeling of warmth, and produces a *rubefacient* effect."

This I have no doubt is also the action of laudanum. I may say that I was taught the value of the external use of alcohol in such cases by a patient who suffered very severely from premenstrual and menstrual pain. She had endometritis, and, I believe, also adhesions of the left ovary, as at occasional menstrual periods there was severe neuralgic pain in that region, superadded to the colicky pains (always present at these times) radiating across the lowest part of the abdomen. Before seeing me she had been in the habit of lying on the bed when the pain was grievous, and occasionally pouring a few drops of gin into her navel. This, combined with a little internally, was sufficient to subdue the pain. I may say that I stopped the internal administration of the drug, and found that, if used externally in the manner indicated above (along with glycerine vaginal plugs), the result was satisfactory.—I am, etc.,

Manchester, April 2nd. ANDREW S. MCNEIL, L.R.C.P.S.E.

P.S.—Although I have travelled a little in China, I have not come across the treatment of prolapsus uteri mentioned by Dr. McNamara, and can only suppose that he gives us this little joke to point the fact that opium acts on the brain cells.

SIR,—I gladly answer the courteous letter of Dr. Ralphs in your issue of April 2nd, and I should like to say that I fully appreciate and entirely agree with his remarks concerning the measurement of the uterus by the sound. But, as I have long since noticed this increase in the size of the uterine measurement in association with dysmenorrhoea, I have for many years been careful in taking it, for all know how easy it is to be inaccurate when dealing with fractions of an inch. The size of the uterus is taken in every case on which I operate immediately before commencing the dilatation, so that the patient is under an anaesthetic, and the measurement can be made with ease and accuracy. I believe there is hypertrophy of the uterine muscle, which I explained by saying, "It is probable that the continued contraction of the uterus causes a slight amount of hypertrophy of muscular tissue; at any rate, the cavity tends to become elongated." It is for this reason—a result of my own clinical observation—that I reject Theilhaber's theory; but, of course, a badly developed uterine muscle may be associated with dysmenorrhoea, although not, in my opinion, the cause of it.

I may say, with reference to the interesting letter of Dr. Chevers concerning the simple theory that the cause of these spasmodic painful contractions of the uterus is due to a cervix of small lumen, I have gone so fully into that in my lecture that I cannot trespass more on your space now.

I would say, in answer to the other letters, that I have ordered 1 drachm of brandy—not a large quantity—only if a second dose of phenacetin is required, on account of the depressing action on the heart, but many patients do not require a second dose, and therefore no alcohol is given. I certainly am as keenly opposed as any one to the treatment of dysmenorrhoea by alcohol, and if coal-tar analgesic remedies are not used no alcohol is required.

As to the ease given by the application of opium or aconite and belladonna to the abdomen, the skin of which is often very sensitive, clinical experience must come before everything else, and I am quite certain from observations made years ago, assisted by an intelligent sister at the Grosvenor Hospital for Women, that such applications, with or without heat, in deep-seated abdominal pain, explain it how we may, afford relief. It is not always convenient to obtain heat, for pain may come on at any time during the night, but if hot applications can be had they are usually soothing, yet the heat can only act on the skin in the same way as applications, the fascia, muscles, etc., being between it and the peritoneum. Dr. Gee, whose accuracy of observation is well known, says in a lecture on "Signs of Acute Peritoneal Diseases":

> As to tenderness upon pressure of the abdomen, is it not a mistake to suppose that it is pressure upon the peritoneum alone which brings on pain? The skin also is tender, and is sometimes tender to the gentlest touch. In bygone days I have attempted to shave the head of a patient suffering from acute meningitis, and have been compelled to desist on account of the exquisite tenderness of the scalp. Indeed, tenderness of the skin is apt to follow great pain of any underlying part, and I commend the consideration of these facts to those who find a difficulty in believing that leeches or blisters applied to the skin can possibly affect a deeply-seated part with which the skin has no obvious connexion.

—I am, etc.,

London, S.W., April 5th. R. A. GIBBONS.

MINER'S NYSTAGMUS.

SIR,—The only excuse I can offer for entering on this subject is that I live in a colliery district. Whether the fact that Dr. Harrison Butler did not mention errors of refraction as a cause directly was simply an error of omission, or whether he considered it a contributing cause, but thought it unnecessary to state, I think matters very little. As in other discussions, one is very apt to believe greatly in himself and his own limited experience—for limited it is.

Dr. Carruthers,[1] so far as I can judge, has simply concluded that miners neglect their eyesight because a few parents have said something about their children and the pit. Now that would lead one to think nystagmus was a modern disease or ailment; but I am certain Dr. Carruthers will agree it is not. As it is, some people avoid glasses because of the Compensation Act. Again, this Act is new (comparatively), and cannot account for nystagmus before the Act, because miners would have no fear about wearing glasses or having their eyes examined. I agree with Dr. Harrison Butler that there is no muscle fatigue of the eye, and disagree with Dr. Carruthers when he suggests that all the man's muscles are in use. I agree that a serious error of refraction may contribute, but I do not believe it to be the cause; personal experience in colliery districts has not taught me so. It is not safe to compare or draw an analogy between nystagmus and a physiological tremor of the hands.

As to the tissues being young and able to resist, I may state that all the cases I have seen have been men under 40; some I have seen over 50, but they are not so numerous.

In conclusion, might I suggest that the cause might as easily be found in the retina as anywhere else?—I am, etc,

Doncaster, March 22nd. T. L. ASHFORTH, L.R.C.P.

GENERAL PRACTITIONERS AND POOR LAW REFORM.

SIR,—I feel sure the great majority of country doctors will agree with Dr. Hick in his reply to Dr. Cooper. In the country a working man averaging £1 a week would feel himself insulted if classed as an indigent; he is very well off, and if he has a careful wife can soon have a nice nest egg. There are few young people who cannot afford a bicycle, and in a fair number of instances the father and mother also. It may surprise Dr. Cooper to be informed that there are cottages with an income of over £100 a year, and yet no one man earning £1 a week. Take for instance a father and two adult sons with £45 a year each; total, £135 a year for one cottage. This is no solitary instance, and I have no doubt that many can improve upon it. Are these people to be encouraged to come upon the ratepayers for their medical treatment? There are too many well-meaning people about who do not understand their subject, and in their desire for the welfare of the poor would destroy their sturdy independence.—I am, etc.,

Fulbourne, Cambridge, April 2nd. F. L. NICHOLLS.

SIR,—Most of us, I should think, will differ from Dr. Hick and agree with Dr. Cooper that the earner of less than £1 a week is quite unable to pay for medical attendance. That such persons do (occasionally—not "readily") pay a doctor is a fact, but at what cost? Certainly at the cost of leaving some other creditor unpaid, or depriving themselves or their children of decent food or clothing.

But Dr. Hick misses the whole point of Dr. Cooper's article, which is a suggestion for compulsory medical attendance insurance which would not "sweep them all into" but keep them all out of "the arms of the Poor Law."

Dr. Hick with more reason might have taken exception to paragraphs (*d*) and (*e*), but objection even here would be beside the point. Life insurance is not restricted by consideration of a man's income, and there is no reason why sickness or medical attendance insurance should be so restricted.

Moreover, it is no concern of ours what the premium in each class of worker should be; this is the business of the insurance company and its shareholders—in this case the nation, of which we are part; but we cannot in medical matters speak as citizens, nor in national matters as doctors except perhaps as expert advisers.

I hope Dr. Cooper's proposals will be taken up by the Association. The scheme, if carried out, would preserve intact the relation of private patient and family doctor, and would simply transfer from the latter to the State the business and risk of our present insurance (private clubs, friendly societies, and all contract and cheap practice, in which the medical man is the insurance company forced by economic pressure to accept the risk at inadequate premiums).—I am, etc.,

Bristol, April 2nd. HARRY GREY, M.D.

[1] BRITISH MEDICAL JOURNAL, March 12th, 1910, p. 666.

SIR,—May I be permitted a few lines in answer to Dr. Hick's letter in the issue of April 2nd, p. 848? He accuses me of endeavouring to deprive him of nine-tenths of his patients. I assure him it is my very last wish to deprive either him or any of my fellow practitioners of a single patient. What I am striving for is that we shall be paid for our work. Does Dr. Hick assert that all, or even the majority, of his patients earning from 15s. to 18s. per week who have wives and families to support pay him his proper fees? If so, his experience is exceptionally fortunate. I thought I was fixing the limit of the indigent class as low even at £1 per week. Mr. Rowntree, in his book on *Poverty*, p. 54, speaking of people with incomes of 21s. and under, says: "Practically the whole of this class are living either in a state of actual poverty—that is, their total earnings are insufficient to supply adequate food, clothing and shelter for the maintenance of merely physical health—or so near to that state that they are liable to sink into it at any moment. They live constantly from hand to mouth. So long as the wage earner is in work the family manages to get along, but a week's illness or lack of work means short rations or running into debt, or more often both of these." Mr. Booth, who has had an even wider experience amongst the poor in London, gives, I believe, similar testimony.

The gist of my proposals was that by a system of State-aided sickness insurance these people would be covered for all forms of sickness or accident, so that adequate fees would be secured for the attending practitioner. It was only in cases where nothing could be paid at all for medical attendance that I reluctantly consented to the patients being handed over to the Poor Law, or else, obviously, the practitioner would have to do the work for nothing. My suggestions were only tentative, however, and I left the details to be threshed out in the Divisions.—I am, etc.,

Bowdon, Cheshire, April 5th. P. R. COOPER.

SIR,—I should have written last week concerning your attack upon the Minority Report in your leading article entitled "A Poor Law Bill and a Circular," had I not felt sure that the matter would have been taken in hand by someone else better qualified than I.

It seems to me unfortunate that our JOURNAL should hold a brief against the Minority Report before the Divisions have had any opportunity of expressing their views on the subject. Surely it would have been fairer had you held an impartial position until the views of the members of the British Medical Association had been ascertained.

Again, it seems to me that prejudice alone could cause you to say that the Minority scheme would set up "an intricate and untried machinery, including four destitution committees"!

Is the local education authority a "destitution committee"? Is the local health authority a "destitution committee"? Is the local lunacy authority a "destitution committee"? Is the local pension authority a "destitution committee"? Are they all new and untried? Far from being "untried destitution committees," they are, for the most part, already doing good work towards the prevention of destitution, and the Minority scheme proposes to make further use of them in order completely to secure this most desirable end.

The Majority Report, for which you seemed to hold a brief a short time ago, did, indeed, set up a destitution authority far more objectionable (because far less democratic) than the Poor Law guardians whom it condemned even more unreservedly than the report of the Minority. But one great object of the Minority has been to prevent overlapping by the abolition of the Poor Law guardians and to transfer the responsibility for the cases now dealt with by them to the authorities dealing with the *causes* of destitution. Thus, the children are handed over to the local education authority, the sick and infirm to the local health authority, the feeble-minded and mentally defective to the local lunacy authority, and the pensionable aged to the local pensions authority; and it will be the duty of the Registrar of Public Assistance or of the specially appointed Public Assistance Co-ordination Committee to prevent a family receiving help from one of

these committees without the knowledge of one or more other committees from whom they were already in receipt of help.

To say that such a scheme "creates more overlapping than exists at present" shows, to my mind, a hopeless failure to realize how much overlapping and waste at present exists.

Whilst the Majority scheme and that of the Local Government Board aim at the alleviation of destitution, the Minority scheme aims at its prevention. This is a large order, I know, and must of necessity cost a great deal of money; but the money so readily available for Dreadnoughts would surely be better spent on the attainment of this consummation so devoutly to be wished.—I am, etc.,

Manchester, April 4th. E. VIPONT BROWN, M.D.Lond.

*** Our correspondent's appeal *ad misericordiam* on behalf of the Minority Report cannot be admitted. However admirable the scheme it embodies may in their opinion be, its friends surely cannot claim that it is faultless. The propaganda of the National Committee to Promote the Break-up of the Poor Law is very active, and the profession must not allow itself to be bluffed. If it is to accept the scheme, it must be after full consideration of all that can be said against as well as for it.

CONSULTANT, GENERAL PRACTITIONER, OR HALF-AND-HALF?

SIR,—I regret to note that "Enquirer" has "retired hurt" from the controversy which he was responsible for starting in the BRITISH MEDICAL JOURNAL under the above heading.

The merits of the half-and-half system had been so clearly and confidently set out by "Est Modus in Rebus" that I had hoped "Enquirer" would feel that a fitting opportunity had arisen for seeking more light by addressing a few pertinent questions to the doughty champion of the cause. Allow me to play the part I hoped "Enquirer" would have taken.

I think I may take it that the great principles underlying the half-and-half cause, as laid down by "Est Modus in Rebus," and practised by a considerable number of medical mem who claim the title of "consultant," are:

1. That when a patient comes to the consulting room of a consultant, independently of his ordinary medical attendant, the consultant is justified in undertaking his independent treatment.

2. That when a patient is sent to the consultant's consulting room by his usual medical attendant or is accompanied by him, the consultant is not justified in undertaking his independent treatment.

3. That under no circumstances is a consultant justified in undertaking the independent treatment of a patient in the patient's own home.

Now, Sir, the questions I should like to put through "Est Modus in Rebus" to those who adopt this method are devised to elucidate the difference in principle which ought to guide us in our behaviour—first, to a patient who comes to us and one who asks us to come to him; and, secondly, to a patient on whose behalf our advice is sought by his medical attendant, and one who seeks for it himself.

I. Why will you treat independently any patient who comes to you and not one who asks you to come to him?

(*a*) Is it because the man who comes to you is likely to be less seriously ill, and, therefore, only in need of one head to deal with his case instead of two?

(*b*) Is it because he is likely to be more seriously ill and therefore requires the unremitting skill and attention which you alone as a result of your special experience are able to give him unhampered by his usual medical attendant?

(*c*) Is it because your fee for going out to see a case is higher than your fee for seeing a case at your house, and therefore the number of cases you lose by refusing to go to them independently is small?

(*d*) Is it because your visits to another man's patient would be easily observed by the other man to the detriment of your reputation as a consultant, while the other man's patient's visits to you are not likely to be recognized?

(*e*) Is this distinction, in fine, determined by considerations having as their basis the benefit of the patient or the benefit of yourself?

(*f*) Is there any argument, such as the right of the patient to be treated by whom he likes, the advantage to the patient of the undiluted special skill of the specialist, which is not equally applicable to the patient lying ill in bed and the patient whose powers of locomotion are still unimpaired?

II. Why will you treat independently the man who comes without his doctor's knowledge and refuse so to treat the man who is sent to you by his doctor?

(*a*) Is it because there is likely to be any difference in the nature of the ailment from which the two classes of patients are suffering which renders a different method of procedure necessary?

(*b*) Is it because the case sent by the doctor is pretty sure to be within your speciality whilst the other as likely as not is outside your range of practice?

(*c*) Is it because the doctor who sends you a case is a "friend" and the other man's doctor may not be?

(*d*) If you feel that you must not be hampered in your treatment by insisting on the unknown doctor being allowed to co-operate, how can you justify to the other patient the fact that you allow such hampering when the doctor sends you the case?

(*e*) Is it because you know that to take the sent case entirely out of the doctor's hands would surely destroy your chance of having any more patients sent by the same doctor?

(*f*) Are you not possibly biassed in thinking that the patient's interest is served by your independent treatment when he comes alone, because thereby you are likely to receive from him more fees, and in thinking that the patient's interest is served by the doctor's co-operation when the case is sent, because by such procedure you are likely to receive more patients from the same source?

I venture to submit these questions in all seriousness to "Est Modus in Rebus" and those who honestly think with him that the half-and-half system is the best for all. Honestly I think that it is not, and must confess myself a "whole-hogging" pure consultant. I believe in a united profession to enable us to do our best for the public, and think that the half-and-half system is very detrimental to amicable professional relationship.—I am, etc,

April 3rd. PROFESSIONAL UNION.

"TRADING ON NAMES." AND "ST. WINEFRIDE'S WELL."

SIR,—Your leading articles of March 12th contain two very interesting paragraphs which at once bring to my recollection two such examples that came under my own observation.

Some years ago it happened that several of my patients who had derived considerable benefit from ungt. pagen. happened to have taken their prescription to a certain chemist and eulogized the treatment to such an extent that he promptly put "Rockliffe's Eye Ointment" on the market. Hearing of this, I sent a servant to procure a sample and to make inquiries, and was informed of the miracles the ointment had performed, and, further, that he had had a tremendous sale, having just sold six boxes. (N.B.—Three to my detectives.) Each box of ointment was labelled in large letters, "Rockliffe's Eye Ointment," and followed by a list of practically every superficial inflammation of the eye, which its contents cured.

A lawyer's letter obtained a public apology in the local press, etc, and the payment of £5 to the Royal Infirmary.

As regards St. Winefride's Well, I have but little doubt that many miracles have been achieved by these healing waters in neurotic patients, but in one case of my own the facts are worth remembering, especially when two qualified medical men champion the "healing waters." The patient was a devout Lady Superior, with traumatic cataract, who, after having been needled and the lens rapidly absorbing, determined to try these "healing waters" I tested her sight prior to her departure, and assured her she would improve as rapidly at home as risking the waters *in November*. Nevertheless, her friends persuaded her to go, and during the month's treatment she derived considerable benefit and was practically healed *by the waters (?)*, but unfortunately she received a severe chill, returned home, and died from double pneumonia

four days afterwards. A similar case, said to have been treated without benefit at Newcastle Infirmary, but of a neurotic nature, occurred (and I believe was reported in the JOURNAL) about the same time. I should be glad to hear of any genuine cures effected by these waters and authenticated by any reasonable medical man.

The day of miracles *non est*, and the sooner the British public grasp this point the better.—I am, etc.,

W. C. ROCKLIFFE,
Hon. Consulting Ophthalmic Surgeon,
Hull Royal Infirmary.

Hull, March 15th.

Universities and Colleges.

UNIVERSITY OF LONDON.

MEETING OF THE SENATE.

A MEETING of the Senate was held on March 16th.

Recognition of Teachers.

The following were recognized as teachers of the university in the subjects indicated:

King's College.—Mr. J. E. S. Frazer (Anatomy), Dr. David Waterston (Anatomy).

Westminster Hospital.—Mr. Stanley Dodd (Midwifery), Mr. J. A. B. Hicks (Pathology), Mr. Dudley W. C. Jones (Medicine).

London Hospital.—Mr. M. W. Flack (Physiology and Pathological Chemistry).

St. Mary's Hospital.—Dr. D. C. L. Fitzwilliams (Clinical Surgery), Dr. R. H. Miller (Clinical Medicine).

Francis Galton Laboratory for National Eugenics.

The cordial thanks of the Senate were voted to Sir Francis Galton for a further donation of £500 for the maintenance of the Francis Galton Laboratory for the Study of National Eugenics during the year 1911–12.

Appointments.

Mr. E. A. Gardner, M.A., Yates Professor of Archaeology, was appointed to the newly-created post of Public Orator.

Return of Examination Fees.

It was resolved that the regulations relating to fees payable by candidates who withdraw from an examination should be amended to read as follows:

> The fees of candidates who withdraw before the last day of entry for any examination will be returned to them.
>
> A candidate whose name has not been so withdrawn but who does not present himself for the examination for which he has entered, will be allowed to enter for the next examination of the same kind on payment of half the ordinary fee, provided that, if the ordinary fee exceed £5, the fee for entering the next examination of the same kind will be £2 10s.
>
> [Candidates who retire after having presented themselves for an examination, or who fail to pass, will be required to pay the full fee when they next present themselves for such examination.]

Appointment of Representatives.

Dr. H. R. Kenwood and Dr. W. J. R. Simpson, C.M.G., have been appointed to represent the university at the International Hygiene Exhibition to be held in Dresden in 1911.

Presentation Day.

The presentation of graduates will take place at the university on Wednesday, May 18th, at 3 p.m.

Advanced Lectures in Physiology.

The following courses of lectures are announced during the third term:

1. Eight lectures at the university, by Dr. N. H. Alcock, on the physiology of the peripheral nerves, on Tuesdays at 5 p.m., beginning on May 3rd.

2. Eight lectures on the chemistry of the chlorophyll, by Dr. S. B. Schryver, at University College, on Fridays, at 5 p.m., beginning on May 6th.

3. Eight lectures on the mechanism of co-ordination in the central nervous system will be given by Dr. Gordon Holmes, at University College, on Mondays at 5 p.m., beginning on May 9th (in place of the course arranged to be given by the late Dr. Page May).

4. Three lectures by Dr. F. W. Mott, at King's College, on the influence of the cerebrum on speech, on Mondays at 4.30 p.m., beginning on May 23rd.

5. Four lectures by Dr. J. S. Haldane, F.R.S., at Guy's Hospital, on secretion of gas, with special reference to the lungs and swim bladder, on Thursdays at 4 p.m., beginning on May 5th.

6. Four lectures on the influence of organic chemistry on physiology, by Dr. F. G. Hopkins, at Guy's Hospital, on Wednesdays, at 5 p.m.

Courses 1, 2, and 3 have been recognized by the Senate as courses of advanced lectures which a candidate at the B.Sc. (Honours) examination in physiology may name for part of his practical examination.

Further information can be obtained on application to the different colleges.

Examination Results.

The following candidates have been approved at the examinations indicated:

SECOND M.B., B.S., *Part II.*—G. S. Applegate, H. W. Batchelor, T. I. Bennett, L. G. Bourdillon, G. J. Bowen, Kathleen M. Cole, B.Sc., P. C. Cole, J. M. Curé, H. W. Davies, *Henrietta F. Davies, R. D. Davy, Gertrude Dearnley, G. R. Dobrasian, I. Feldman, W. B. Foley, D. M. Gibson, C. E. A. Goddard, Una Griffin, T. H. Holroyd, R. L. Horton, F. J. Humphrys, G. W. B. James, C. M. Jones, Charlotte G. Judge, S. Keith, F. H. Kelly, Constance Leetham, Dorothy C. Logan, Margaret J. M'Enery, T. H. Martin, *G. S. Miller, W. J. Morris, J. F. O'Connell, H. W. Parrott, C. L. Pattison, C. J. H. Pearson, J. A. Poole, T. W. Powell, W. W. J. A. Quine, M. Radford, F. H. Rees, J. F. G. Richards, G. F. Rigden, W. Robinson, H. C. Rook, H. Rowntree, W. Salisbury, E. G. Saunders, W. H. P. Saunders, A. L. Shearwood, P. Smith, R. Swyer, H. E. Thorn, A. J. C. Tingey, A. J. Tonkinson, Mary A. van Ingen, J. Vaughan-James, W. H. Vincent, V. D. C. Wakeford, H. Webb, N. T. Whitehead, P. Whitehead, O. R. L. Wilson, J. E. Wood.

* Distinguished in Physiology.

SECOND M.B., B.S. (*Organic and Applied Chemistry*).—W. P. C. Abeyedeera, Elizabeth L. Ashby, G. C. G. Baldini, F. M. Barnes, W. C. P. Barrett, Irene Bastow, F. V. Bevan-Brown, Marjorie A. Blandy, J. Bostock, Alice D. Brooks, F. C. S. Broome, W. Burt, H. G. Chaplin, R. J. Clausen, A. S. Cohen, Dora C. Colebrook, F. Collar, J. K. Davies, P. V. Davies, W. L. G. Davies, W. T. Davies, F. H. Dodd, A. R. C. Doorly, C. H. Edwards, A. F. El-Hakim, Pattie R. Elliott, R. Ellis, P. O. Ellison, H. W. Evans, J. T. E. Evans, H. J. O. Ewing, G. Finch, S. A. Forbes, H. L. G. Foxell, *C. H. Gould, F. A. Grange, M. Gross, *C. F. Hacker, A. C. Hancock, Mary E. Harding, D. T. Harris, J. R. Harris, C. C. Harrison, *S. S. B. Harrison, H. J. Hoyte, C. E. Jenkins, Rosalie Jobson, S. B. King, L. M. Ladell, K. W. Lewis, I. H. Lloyd-Williams, N. P. L. Lumb, R. G. Lyster, *Fede M. Mackenzie, D. M. MacManus, Edith M. Martland, J. N. Mehta, A. N. Minns, J. Y. Moore, H. R. Parsloe, P. T. Patel, J. L. Priston, J. A. Robinson, W. E. R. Saunders, G. D. Shann, H. R Sheppard, R. Silcock, R. H. Simpson, J. S. Sloper, L. M. Smith, F. G. A. Smyth, T. R. Snelling, E. S. Sowerby, C. W. Sparks, J. E. Stacey, Grace Stapleton, J. Stephenson, W. E. Taylor, Naomi Tribe, E. H. Walker, H. J. Wallace, J. G. Wardrop, G. N. Welsford, G. R. C. Wilson, A. G. Winter, H. G. Winter, D. H. D. Wooderson.

* With distinction.

UNIVERSITY OF LIVERPOOL.

THE following candidates have been approved at the examinations indicated:

SECOND M.B., CH.B.—*Part A:* R. G. Barlow, A. W. Bigland, A. V. Glendenning, R. Lee, J. H. Mather, M. T. Morgan, F. C. Plummer, Miss F. M. B. Price, H. Seddon, J. P. Thierens, F. Wilkinson, B. Williams, T. O. Williams. *Part B:* R. Heald, N. P. Laing, and T. H. Martin.

FINAL M.B., CH.B.—*Part I:* G. S. A. Bishop, I. C. Edwards, P. L. F. Nortjé, I. J. Williams. *Part II:* L. Buckley, J. A. Parkes, and J. F. Roberts.

UNIVERSITY OF DURHAM.

THE following candidates have been approved at the examinations indicated:

FIRST M.B. (*All Subjects*).—*W. K. Russell, †E. R. A. Merewether, W. Bell, A. Butterfield, M. H. de J. Harper, R. R. Lishman, G. D. Newton, S. Thompson.

FIRST M.B. (*Elementary Anatomy and Biology only*).—C. Armstrong, W. J. Bowden, P. A. Clements, I. G. Cummings, G. B. Egerton, H. H. Elliot, S. Foskett, D. R. Jones, F. Metcalfe, F. J. Nattrass, E. C. G. Parker, Jane Penman, H. A. P. Robertson, P. Savage, J. C. Spence, R. L. Wright.

FIRST M.B. (*Chemistry and Physics only*).—A. C. Freeth, J. M. Phillips-Jones, F. S. Rood, M.R.C.S., L.R.C.P., E. K. Ryan.

FIRST M.B. (*Elementary Anatomy only*).—L. L. Armstrong, Mary L. Haigh.

THIRD M.B. (*Pathology, Medical Jurisprudence, Public Health, and Elementary Bacteriology*).—†H. Fairclough, †S. P. Bedson, B.Sc. Pass list: J. J. Brown, R. M. Barrow, R. G. Badenoch, J. W. Craven, W. L. Clements, C. Gray, J. K. J. Haworth, C. J. Henderson, W. G. Lidderdale, C. Mearns, B. B. Noble, R. W. Smith, J. A. C. Scott, W. A. Slater, R. V. Steele, Eleanor Walkinshaw.

* First-class honours. † Second-class honours.

The following were among the degrees conferred at a Convocation on April 2nd:

M.D.—H. M. Braithwaite, S. Nix, T. L. Wormald.
M.D. (For Practitioners of Fifteen Years' Standing).—J. B. Bate (West African Medical Staff), W. Black, R. Marshall, C. F. Rudd, P. N. Twomey.
D.Hy.—K. T. Matthews.
M.S.—F. C. Pybus.
M.B.—J. E. Dainty, C. Marks, C. M. Brown, B. G. H. Connolly, W. Sacco, C. S. Thompson, W. R. E. Unthank, C. L. Wigan.
B.S.—J. F. Bridge, B. G. H. Connolly, J. E. Dainty, C. Marks, W. Sacco, C. S. Thompson, W. R. E. Unthank, C. L. Wigan.
B.Hy.—E. C. Braithwaite, A. C. Greene, I. Hodgkinson, A. B. Raffle.

On the same occasion diplomas in public health were handed to the following:

E. C. Braithwaite, J. Buck, A. C. Greene, I. Hodgkinson, W. W. Martin, J. B. Patterson, Agnes M. Pringle, A. B. Raffle, Catherine M. Richardson.

ROYAL COLLEGE OF PHYSICIANS IN IRELAND.

AT a meeting of the Council on April 1st Messrs. Gibbon FitzGibbon and Arthur Norman Holmes were elected to the Fellowship of the College.

UNIVERSITY OF EDINBURGH.

DEGREES.

THE following were among the degrees conferred at a meeting of the Senate on March 31st:

M.B., CH.B.—T. A. Adams, A. Archibald, Janet Armstrong, W. M. Biden, E. O. Bowen, U. F. F. Brown, J. Cathcart, J. P. Charnock, B. R. Chopra, Lizzie M. S. Clark, Gladys H. Cook, H. A. Cookson, G. C. Dalton, F. A. Duffield, J. Eaves, A. H. Elmslie, F. S. B. Fletcher, V. H. Gordon, E. B. Hoffman, B.A., G. de C. Hugo, R. B. Macfie, G. M. Miller, W. A. Miller, Rhoda M. Murdoch, F. H. Noronha, J. E. R. Orchard, P. N. Pedersen, S. Pinion, P. Roytowski, A. C. Russell, M. W. Ruthven, T. C. Smith, J. G. Smyth, M. Stewart, L. W. O. Taylor, Mary M. M. Turpie, T. Welsh, S. Williams.

EXAMINATION RESULTS.

The following candidates have been approved at the examinations indicated:

FIRST M.B., CH.B.—C. W. Aikman, R. C. Aitchison, H. S. A. Alexander, R. H. Alexander, W. W. Anderson, C. Atkinson, J. H. Baird, S. K. Basu, E. G. von B. Bergh, S. E. Bethell, W. Bird, H. J. Brink, R. E. Cameron, F. Chand, S. C. Chatterjee, H. E. Collier, M. K. Cooper, J. W. Darling, W. Duguid, D. E. Francis, B.A., H. R. Friederichs, H. H. Gellert, A. W. Gunn, D. A. R. Haddon, J. H. B. Berry Hart, E. S. Hawkes, C. S. R. Hill, F. W. Hird, S. C. Huddlestone, J. H. G. Hunter, L. F. E. Jeffcoat, P. W. J. Keet, H. B. Kirk, C. G. Lambie, S. J. A. Laubscher, J. J. R. Mackenzie, C. F. Maclachlan, F. G. Macnaughton, G. T. Mowat, F. J. O'Reilly, G. S. Pirie, V. A. Rankin, C. D. Rogers, D. Rosie, A. R. Ross, B. Shires, H. C. Sinderson, C. H. K. Smith, E. T. Solomon, F. E. Stewart, T. J. W. Sveinbjörnsson, F. E. Tillyard, P. du Toit, H. A. Tren, T. B. Truter, J. M. Verster, H. P. W. White, J. B. Young.

SECOND M.B., CH.B.—T. M. Anderson, F. C. K. Austin, A. J. Ballantine, B.A., J. G. Bell, P. N. Berry, J. H. Boag, S. Bolton, W. N. G. Boxer, G. M. Brown, J. B. Cook, O. Cook, A. F. Cowan, Lucy D. Cripps, A. M. Davidson, *A. E. Delgado, Helen C. Dykes, D. O. Fairweather, S. Fenwick, A. K. Forbes, J. J. Gilchrist, J. G. Gill, C. Gordon, J. F. C. Haslam, T. P. Herriott, Julie E. Hoffmann, T. W. Jackson, F. N. Johns, I. W. Jones, *W. S. Lindsay, B.A., G. J. Linklater, Isabella M. Little, R. L. Lloyd, D. M. M. Lyon, M. R. L. Macaulay, E. F. W. Mackenzie, J. M'Kerchar, I. Maisels, J. W. Mathews, A. Mearns, R. W. Miller, S. Osborn, W. W. Phillips, B. Prasad, *E. D. Pullon, E. Sharpe, *A. W. S. Sichel, B.A. D. M. Smith, J. W. Steel, C. V. Thornton, *A. T. Todd, P. G. Tuohy, R. E. Walker, B. Weinbren, G. Wilson, P. C. V. Woudberg.

SECOND M.B. (Old Regulations).—J. P. Blockley, J. R. Bulman, F. G. Power, T. W. Smart.

THIRD M.B., CH B.—W. J. Adie, J. R. Aeria, R. Aitken, A. A. Atkinson, M. L. Bangara, W. R. Bayne, P. W. P. Bedford, *H. Bedingfield, D. Bell, *A. Bennee, A. G. Biggam, H. F. Blacklee, R. B. Blair, A. Bloom, N. H. Bolton, J. R. Boyd, N. H. Brönnum, C. Burnham, *F. D. Cairns, W. Campbell, E. R. Carlos, M.A., B.Sc., A. B. Cheves, Lilian Cook, Effie M. D. Craig, D. H. D. Cran, D. A. Crow, P. L. Davies, J. S. P. Dickey, B.A., R. C. Dickson, R. Dow, J. M. Drew, B.A., A. Eprile, J. Erlank, W. E. FitzGerald, K. A. Gilchrist, J. M. Gillespie, R. G. Gordon, B.Sc., J. V. L. Grant, J. W. Gray, M.A., A. Groenewald, T. Hayhurst, J. Hewat, S. Hodgson, H. F. Holmden, H. J. Hopps, J. L. Huggan, A. Jassinowsky, W. H. Johnston, B.A., H. A. Khin, A. L. Krogh, A. Langwill, S. F. Lee, G. L. Leggat, T. Lindsay, A. H. Louw, *F. R. Luke, Eva M. Lyon, I. Macfarlane, W. S. M'Laren, *P. M'Nab, J. G. MacQueen, C. D. Maitland, B.Sc., *L. B. C. Marksman, J. S. S. Martin, *W. C. B. Meyer, B.A., A. B. Mitchell, A. E. Moore, J. T. Morrison, R. V. Morrison, R. C. Moses, J. M. Murray, T. P. Noble, A. C. Price, H. H. Proudfoot, Mary D. Rankine, G. Richardson, *T. C. Ritchie, B.Sc., H. A. Von Ronn, M. Rougvie, L. Sammy, R. G. Shaw, S. F. Silberbauer, W. D. D. Small, B. M'Call Smith, S. S. Sokhey, B.Sc., B. H. H. Spence, J. J. Stander, H. H. Stewart, R. M. Stewart, S. D. Stewart, W. Stewart, G. Sutherland, J. H. Tennent, C. M. R. Thatcher, F. L. Tulloch, A. L. Urquhart, P. Vieyra, G. H. W. de Vos, C. D. Walker, C. C. Wang, H. W. Webb, H. Whitaker, H. E. Y. White, J. B. Wilkie, L. S. Willox, D. M. Wilson, C. Y. Wong, W. Q. Wood.

THIRD M.B. (Old Regulations).—M. J. Dolan, S. Hodkinson, H. W. Kerrigan, J. Lamberton, A. S. Loutit, B.A., R. M'Adoo, J. T. Mackenzie, R. J. E. Paterson, M. J. Da Rocha, K. R. Shaw, R. B. M. Yates.

FINAL (*Forensic Medicine and Public Health*).—H. H. Brown, W. G. Coltart, R. B. Davidson, H. H. C. Fuller, A. Galletly, R. Govan, M.A., M. Greenberg, E. S. B. Hamilton, A. C. Heard, Hannah M. Irving, B.Sc., W. D. Kirkwood, D. J. M'Afee, P. A. M'Cool, E. W. Richards, T. Singh, J. C. Smith, M.A., D. L. Theron, S. J. A. Hall Walshe.

FINAL (*Midwifery*).—A. Baldie, A. G. Brown, M.A., H. H. Brown, G. J. Carr, B.A., T. Caul, W. G. Coltart, T. F. Craig, J. Danee, R. B. Davidson, R. W. Davies, W. N. Davies, M. R. Drennan, M.A., W. A. Dunn, J. M. Elliot, A. J. Ewing, M.A., Annie G. Fergus, A. G. Forbes, A. Galletly, M. E. Goode, R. Govan, M.A., M. C. R. Grahame, M. Greenberg, E. B. Gunson, E. S. B. Hamilton, K. G. Hearne, Janette T. Hill, D. van V. Hoffman, N. J. Hofmeyr, B.A., C. C. Iles, T. D. Kennedy, J. C. J. Khambatta, W. D. Kirkwood, E. W. Lawrence, D. J. M'Afee, W. V. Macaskie, P. A. M'Cool, J. R. M'Gregor, E. C. Mackay, M.A., D. M'Phail, D. C. Monro, F. L. Moore, B. B. Morgan, D. M. Morison, H. O'H. O'Neill, J. J. Pace, H. F. Panton, C. K. Pole, A. H. Porter, K. A. Rao, F. W. Rayment, E. G. Richards, E. W. Richards, D. T. Richardson, W. R. Ridley, T. R. Sandeman, J. W. Senter, A. Simpson, T. Singh, K. F. Sonntag, N. W. Stevens, R. K. S. Sutherland, R. H. Tait, D. L. Theron, L. R. Thomson, P. H. du Toit, J. Watson, S. H. Wilkinson.

FINAL (*Surgery and Medicine*).—P. Allan, R. M. Allan, F. G. Bell, O. H. Blacklay, C. J. G. Bourhill, W. Brand, B.A., J. C. Brash, M.A., B.Sc., G. S. Brock, J. F. Brown, G. R. Bruce, M.A., G. Burnet, J. Le F. C. Burrow, E. H. Cameron, W. W. Carlow, M.A., W. D. Chambers, A. Cochrane, Lucy E. Davies, J. Drummond, Isabella G. Emslie, W. J. Feltham, E. L. Ferguson, F. P. Fouche, F. R. Fraser, B.A., A. Galletly, Annie C. Greenep, J. D. Gunn, B.A., E. B. Gunson, E. S. E. Hamilton, D. S. Harvey, W. R. Clayton Heslop, D. van V. Hoffman, J. Honeyford, A. Hood, A. J. G. Hunter, J. Hunter, G. J. Joubert, J. C. J. Khambatta, Lina Kurz, E. C. Lang, D. T. M. Large, R. S. Lawson, M.A., J. P. Litt, J. M. Logie, D. Murray Lyon, W. C. Lyons, J. C. MacCallum, M.A., G. Macdonald, J. D. M'Ewen, M.A., K. B. MacGlashan, Marion Macintyre, E. C. Mackay, M.A., P. W. Maclagan, D. J. MacLaren, W. MacNaughton, D. M'Phail, N. F. Mann, H. M. Mills, S. M. Mokand, V. P. Mondon, A. A. Morison, D. M. Morison, M. M. Morrison, O. A. J. N. Muriset, C. C. Murray, W. P. Murray, H. G. G. Nelson, P. J. Olivier, Dora E. Paterson, W. C. Paton, M.A., J. F. Penman, A. Z. Philips, L. T. Poole, A. H. Porter, S. H. Pugh, N. Purcell, A. W. Rattrie, W. D. Reid, D. T. Richardson, Lizzie Rose, W. Russell, T. M. Sellar, W. A. Shafto, Daisy L. Shawyer, B.A., F. M. Sinclair, D. R. Bedell Sivright, A. N. Smith, K. F. Sonntag, G. H. Stevenson, J. Stevenson, J. Taylor, B. C. Tennent, H. C. Todd, J. J. Tough, C. B. Tudehope, R. C. Wallace, S. H. Wilkinson, G. A. Wyon, B.Sc.

* With distinction.

UNIVERSITY OF ABERDEEN.

GRADUATION CEREMONY.

THE graduation ceremony which marks the close of the winter session took place in the Mitchell Hall, Marischal College, on March 31st. Greater interest attaches to the spring graduation than to the summer, not only on account of the larger number of graduates but also on account of the distinguished group of honorary graduands which the occasion brings together. The presence, too, of the new Principal of the University, Dr. George Adam Smith, added an unusual feature to the proceedings. The Principal had a most enthusiastic reception from the crowded audience, which taxed the capacity of the hall to its utmost, and the ceremony passed off very successfully to the usual accompaniment of undergraduate manifestations of high spirits, which, however, were kept within reasonable bounds.

Among those presented for the honorary degree of LL.D. were Dr. James Mackenzie, London, Dr. Niven, M.O.H., Manchester, and Professor Ogston, Aberdeen.

In presenting Dr. James Mackenzie, the Dean of the Law Faculty said he afforded an outstanding example of brilliant work in medical science, carried out by a man engaged in active medical practice. His investigations of diseases of the circulatory and nervous systems, conducted amid the labours and anxieties of everyday professional duties at Burnley in Lancashire, were remarkable alike for their originality and their fruitfulness. In the recent annals of medicine there had been few more striking instances of the successful application of scientific methods to the elucidation of clinical conditions. The results of his observations were set forth in his treatises on *Diseases of the Heart*, *The Study of the Pulse*, and other kindred topics, as well as in numerous contributions to scientific journals. His researches, the importance of which was quickly recognized, had won for him an acknowledged place in the front rank of the profession. The University of Aberdeen cordially welcomed Dr. Mackenzie, and in token of her appreciation of his distinguished and beneficent work desired to enrol him amongst her honorary graduates in law.

In presenting Dr. Niven, the Dean said that Dr. Niven was a member of an Aberdeen family whose exceptional distinction as students in Aberdeen University and at Cambridge, and subsequent eminence in various departments of science, were widely known. Forty years ago he graduated in Arts at Aberdeen, with honours in mathematics. Later, at Cambridge, he held a high place in the list of Wranglers, and was a Fellow of Queen's College. After taking his degree in Medicine at Cambridge, he devoted himself to the special study of the all-important subject of public health. As Medical Officer of Health of Oldham, and afterwards of Manchester, he had performed his administrative duties with conspicuous zeal and efficiency, and had achieved notable success in improving the sanitary condition of these great communities. His investigations of various public health problems, such as the etiology and prevention of pulmonary phthisis, were characterized by thoroughness and accuracy, as well as by openness of mind and sanity of judgement. It would be difficult to name any medical officer of health in this country who occupies a higher place than Dr. Niven in the estimation of hygienists.

In presenting Professor Ogston, the Dean said it was with pleasure and pride that they welcomed him to that hall for the purpose of conferring on him a mark of their admiration and regard. In 1882 their late colleague—for so he must call him—received his commission as Professor of surgery, and for twenty-seven years he had served the university with steadfast devotion. During those years he had not only proved himself an eminently inspiring teacher, but had also built up a world-wide reputation as a surgeon and scientific worker. By common consent he was recognized as one of the most skilful operating surgeons of his time, and it would not be easy to mention any other Scottish surgeon of the past thirty years whose scientific researches had yielded results more valuable in the advancement of surgery. In the Soudan campaign of 1888, and again in the South African war, 1899–1900, his skill and experience had been freely devoted to ministering to the needs of his countrymen in the field. In the name of his former colleagues he asked the Vice-Chancellor to confer upon Professor Ogston the degree of Doctor of Laws in token of their warm appreciation of his manifold and signal services to their university, to science, and to humanity.

The following degrees were also conferred:

D.Sc.—J. C. G. Ledingham, M.A., M.B. (of The Lister Institute, London. Thesis, A Series of Researches on Certain Processes of Immunity).

M.D. A. A. Bisset (of Sheffield. Thesis, Syphilis); A. Deane (of London, W. Thesis, Clinical Observations on Arterial Blood Pressure); F. Hernaman-Johnson (of Bishop Auckland. Thesis, Lower Motor Neuron Palsy of Childhood); J. W. Littlejohn (of Ellon. Thesis, Von Pirquet's Cutaneous Diagnosis of Tuberculosis).

CH.M.—R. W. A. Salmond (of the Great Northern Central Hospital, London, N. Thesis, The Absorption of a Few of the Chemically Prepared Varieties of Catgut, especially Iodized, used in Surgery).

M.B., CH.B.—†W. J. Reid, M.A., B.Sc.; *†R. Richards, M.A.; †C. F. Simpson, M.A. H. Brayshaw; A. J. W. Calder, M.A.; N. J. Calder, M.A.; J. P. Cameron; R. M. Chance; C. Clyne; E. W. H. Cruickshank; C. E. Greeson; T. C. Halley; R. Kellas; C. McKerrow; A. Mitchell; A. D Reid; H. E. Shortt; R. Sinclair; W. Smith; D. J. S. Stephen; A. U. Webster, M.A.; ‡S. G. Trail.

D.P.H.—C. D. S. Agassiz; J. C. Bell; E. Bisset, Captain, I.M.S; D. Murray; P. Nicol; A. C. Profeit.

* Passed Final Professional Examination with "Much Distinction."
† Second Class Honours.
‡ M.B., C.M, under Old Regulations.

University Prizes in the Faculty of Medicine.

Fife Jamieson Memorial Gold Medal in Anatomy.—Richard R. M. Porter, M.A., Aberdeen.

Sizars Gold Medal in Anatomy.—Richard R. M. Porter, M.A.

Keith Gold Medal for Systematic and Clinical Surgery.—Colin F. Simpson, M.A., Fraserburgh.

Shepherd Memorial Gold Medal for Systematic and Practical Surgery.—Robert Richards, M.A., Aberdeen.

Dr. James Anderson Gold Medal and Prize in Clinical Medicine.—Robert Richards, M.A.

Matthews Duncan Gold Medal in Obstetrics.—Colin F. Simpson, M.A., Fraserburgh.

UNIVERSITY OF DUBLIN.

THE following candidates have been approved at the examination indicated:

PRELIMINARY SCIENTIFIC (*Physics and Chemistry*).—D. H. Hall, W. E. Tyndall, G. Buchanan, F. Harris, E. J. Malherbe, A. Brady, W. F. Gibson, J. C. A. M'Calden, R. J. B. Madden, R. S. G. Halpin, W. R. L. Waters, F. C. Fleming, G. A. Bridge, F. A. Roddy, C. G. Sherowitz, T. E. B. Beatty, F. S. Gillespie, C. O'Reilly, W. A. Ryan.

PRELIMINARY SCIENTIFIC (*Botany and Zoology*).—D. S. Martin, W. C. L. Shee, T. J. Kelly, W. L. Bates, R. C. Chapman, C. P. Kelly. E. D. Kinsey, W. A. Ryan, F. P. Mitchell, C. D. M. Buckley, E. Boyers, E. Robinson, R. J. B. Madden, W. Hunt, C. G. Sherowitz.

INTERMEDIATE (*Part I*).—F. Breen. J. A. Maxwell, K. K. Drury, R. Johnson, Rev. T. Brook, R. E. Tottenham, C. W. C. Myles, E. Ll. Nash, B. D. Crichton.

INTERMEDIATE (*Part II*).—*Eileen Hewitt, *J. N. Armstrong, *J. Colgan, *Georgina Revington, *J. H. Powell, *W. P. Croker, *H. G. Trayer, *H. Bates, Dorothy K. Milne, J. H. Counihan, W. O. W. Ball, R. A. Flood, W. E. Featherstonhaugh, J. H. Grove-White, F. B. M'Carter, A. P. Draper, O. V. Burrows, R. H. Lyons, K. K. Drury, C. W. C. Myers, J. Florence Colquhoun, J. N. G. Nolan, R. E. Dunn, E. Evans, E. F. O'Connor, Rev. T. Brook, J. A. Maxwell, B. G. Quinlan, R. Grandy, F. V. Agnew, Marjory Chapman.

FINAL (*Part I*).—J. M. Elliott. T. A. Watson, F. Crosbie, J. Gardiner, W. O. Halpin, R. E. Dunn. M. M'Knight, J. Beckett, O. C. S. Tandy, T. M. Crawford, T. W. E. Henry.

FINAL (*Part II, Midwifery*).—*W. L. English, *A. Stokes, H. de L. Crawford, R. H. Mathews, C. W. M'Kenny, S. R. Richardson, A. A. Louw, H. Fleming, C. M. Finny, Mary G. Caskey, L. Trichard, V. M. Fisher, R. E. Lee, J. G. Ronaldson, V. G. Best, W. M. Johnstone, W. E. Adam, C. D. Hanan, C. Grene.

* Passed on high marks.

APOTHECARIES' HALL OF IRELAND.

THE Board of the Apothecaries' Hall, Ireland, has received the following reply from the Privy Council to the petition of the Hall asking the Council to direct under Sec. 19 Medical Act of 1886 the General Medical Council to re-schedule the Hall's Preliminary Examination in General Education:

[Copy.]

March 22nd, 1910.

Sir,—Referring to your letter of the 10th December last, enclosing a Petition of the Apothecaries' Hall of Ireland praying that the General Medical Council might be directed to re-schedule the Preliminary Examination of the Hall as sufficient for registration in the Medical Students' Register, I am desired by the Lords of the Council to draw the attention of the Governing Body of the Apothecaries' Hall to the fact that the power of the Privy Council, under Section 19 of the Medical Act, 1886, to notify their opinion to the General Medical Council is limited (apart from the specific cases mentioned in the opening part of the Section) to cases in which the Council fails "to exercise any power or perform any duty or do any act . . . imposed on or authorized to be done by the General Council under the Medical Acts," and that, inasmuch as neither the establishment of a Register of Medical Students, nor the recognition of particular examinations in general education as qualifying medical students for registration therein is an "act or thing vested in or imposed on or authorized to be done by the General Council under the Medical Acts," the subject matter of the Petition does not fall within the purview of His Majesty's Privy Council.

I am accordingly directed by their Lordships to inform you that they are unable to comply with the prayer of the Petition.

I am, Sir,
Your obedient servant,
ALMERIC FITZROY.

The Secretary,
Apothecaries' Hall of Ireland,
Mary Street, Dublin.

THE new post of Secretary of the Board of Education for the Science Museum, Geological Museum, and Geological Survey, has been created, and Mr. F. G. Ogilvie, C.B., is its first incumbent. Mr. E. K. Chambers has succeeded Mr. Ogilvie as Principal Assistant Secretary of the Technological Branch, and Dr. H. F. Heath has been appointed Principal Assistant Secretary of the Universities Branch of the Board in combination with his present post.

The Services.

EXAMINATION FOR PROMOTION.

Stations Abroad (India).

THE following is the result of the Examination for Promotion of officers of the Royal Army Medical Corps and the Indian Medical Service in Technical Subjects:

ROYAL ARMY MEDICAL CORPS.

Major N. FAICHNIE, M.B., Army Medical Organization in Peace and War. Already passed in (*d*) ii, Sanitation and Epidemiology, and in Medical History, etc.

Majors E. C. ANDERSON, D.S.O., and A. G. THOMPSON, M.B., (*d*) ii. Have yet to pass in Technical Subjects.

Major T. H. J. C. GOODWIN, D.S.O., Technical Subjects. Already passed in (*d*) ii.

Captain J. FAIRBAIRN, M.B., (*d*) ii. Has yet to pass in (*h*).

Captain T. T. H. ROBINSON, M.B., (*h*) ii. Already passed in (*b*), in (*d*) ii, and (*h*) iii.

Lieutenants E. B. LATHBURY, E. D. CADDELL, M.B., and W. W. BOYCE, (*h*) iii. Already passed in (*b*), in (*d*) ii, and (*h*) ii.

Lieutenant O. C. P. COOKE, (*h*) ii and iii; .8. Has yet to pass in (*d*) ii. Already passed in (*b*).

Lieutenant C. W. BOWLE, (*d*) ii and in (*h*) ii and iii. Already passed in (*b*).

Lieutenant E. J. KAVANAGH, M.B., (*d*) ii and in (*h*) ii and iii; .8 in (*h*) ii and iii. Already passed in (*b*).

Lieutenants A. H. JACOB, J. L. WOOD, and F. T. TURNER, (*d*) ii and in (*h*) ii and iii. Have already passed in (*b*).

Lieutenant J. E. M. BOYD, (*h*) ii. Already passed in (*d*) ii and (*h*) iii. Has yet to pass in (*b*).

Lieutenant O. R. MCEWEN, (*d*) ii and in (*h*) ii and iii; .8 in (*h*) ii and iii. Has yet to pass in (*b*).

Lieutenant J. DU P. LANGRISHE, M.B., (*h*) iii. Already passed in (*d*) ii and (*h*) ii. Has yet to pass in (*b*).

Lieutenant C. F. RUDKIN, (*d*) ii and in (*h*) ii and iii; .8 in (*h*) ii and iii. Has yet to pass in (*b*).

Lieutenant W. B. PURDON, M.B., (*d*) ii and in (*h*) ii and iii; .75 in (*d*) ii. Has yet to pass in (*b*).

Lieutenant F. CASEMENT, M.B., (*h*) ii. Already passed in (*d*) ii and (*h*) iii. Has yet to pass in (*b*).

Lieutenant H. W. FAREBROTHER, (*d*) ii. Has yet to pass in (*h*) i, ii, and iii. Already passed in (*b*).

Lieutenant A. G. WELLS, (*d*) ii and in (*h*) ii and iii. Already passed in (*b*).

INDIAN MEDICAL SERVICE.

Captain P. S. MILLS, M.B., (*d*) ii. Already passed in (*h*) ii and iii.

Captain J. F. JAMES, M.B., (*h*) ii and iii. Has yet to pass in (*d*) ii.

Lieutenant N. N. C. G. MCVEAN, M.B., (*h*) ii. Already passed in (*d*) ii and (*h*) iii.

Lieutenant N. S. SIMPSON, (*d*) ii. Already passed in (*h*) ii and iii.

Lieutenant R. F. HEBBERT, (*h*) ii. Already passed in (*d*) ii and (*h*) iii.

Lieutenant J. SMALLEY, M.B., (*d*) ii and in (*h*) ii and iii.

Lieutenant W. M. THOMSON, M.B., (*d*) ii and in (*h*) ii and iii; .75 in (*d*) ii.

Lieutenant A. P. G. LORIMER, M.B., (*h*) ii. Has yet to pass in (*d*) ii. Already passed in (*h*) iii.

Lieutenant F. H. SALISBURY, M.B., (*d*) ii. Already passed in (*h*) ii and iii.

Lieutenant F. C. FRASER, M.D., (*h*) ii and iii. Already passed in (*d*) ii.

Lieutenant H. H. THORBURN, M.B., (*d*) ii; .75. Already passed in (*h*) ii and iii.

Lieutenant O. A. R. BERKELEY-HILL, M.B., (*d*) ii and in (*h*) ii and iii.

Lieutenant W. P. G. WILLIAMS, M.B., (*d*) ii; .75. Already passed in (*h*) ii and iii.

Lieutenants S. B. MEHTA and A. H. NAPIER, M.B., (*d*) ii and in (*h*) ii and iii.

Lieutenant D L. GRAHAM, M.B., (*d*) ii and in (*h*) ii and iii; .8 in (*h*) ii and iii

Lieutenant E. B. MUNRO, M.B., (*h*) ii and iii. Has yet to pass in (*d*) ii.

Lieutenant P. K .TARAPORE, (*d*) ii and in (*h*) ii and iii.

Lieutenant R. B. NICHOLSON, (*h*) ii. Already passed in (*d*) ii and (*h*) iii.

Lieutenant J. A. CRUICKSHANK, (*d*) ii and in (*h*) ii and iii.

Lieutenant D. D. KAMAT, (*d*) ii and in (*h*) ii and iii; .8 in (*h*) ii and iii.

Lieutenants S. C. CHUCKERBUTTY and W. E. R. WILLIAMS, M.B., (*h*) ii and iii. Has yet to pass in (*d*) ii.

Lieutenants P. M. RENNIE, M.B., and A. N. DICKSON, M.B., (*d*) ii and in (*h*) ii and iii.

Lieutenant A. J. H. RUSSELL, M.B., (*h*) iii. Already passed in (*d*) ii and (*h*) ii.

Lieutenant R. E. WRIGHT, M.B., (*d*) ii and in (*h*) ii and iii.

Lieutenant D. H. RAI, M.B., (*h*) ii and iii; .8. Has yet to pass in (*d*) ii.

Lieutenants F. A. BARKER, M.B., and F. STEVENSON, M.B., (*d*) ii and in (*h*) ii and iii.

Lieutenant S. C. PAL, (*h*) ii and iii. Has yet to pass in (*d*) ii.

NOTE.—In accordance with Army Order 216 of 1909, Lieutenants of the Royal Army Medical Corps who have not

qualified in (*h*) ii and (*h*) iii by January 1st, 1910, will be required to take up the new Subhead (*h*) i in addition at any subsequent examination in Subject (*h*).

ROYAL ARMY MEDICAL CORPS (TERRITORIAL).

CAMBRIDGE UNIVERSITY OFFICERS' TRAINING CORPS.

Medical Unit.

SINCE the beginning of the academic year the medical unit of the Cambridge University Officers' Training Corps, under the command of Captain H. Buckley Roderick, and comprising a Section B of a field ambulance for purposes of training, has carried out a useful and instructive programme.

The Michaelmas term was occupied in preparing the senior cadets for the examinations which took place in the latter part of November for Certificates A and B, whilst the recruits were made acquainted with squad, company, and ambulance drill and the general duties of a medical officer in the field.

On the general field day of the corps in October the field exercises of the medical unit consisted in pitching a dressing station complete, with operating tent, field kitchens, incinerators, and latrines, and the dressing and conveyance of the wounded on stretchers from the firing line to the ambulance wagons and thence to the dressing station.

During the Lent term a series of lectures were given on nursing, the organization of medical units in the field, the conveyance of wounded from the firing line to the base, and the ordinary courses of drills were held. On February 21st the medical unit again took part in the general field day of the corps. The scheme of operations supposed that the Great Eastern Railway from Ely through Cambridge to Saffron Walden was the frontier between two States called Eastland and Westland, which had declared war on February 16th and were mobilizing their troops as fast as they could. The town of Cambridge was represented in the scheme as a small frontier village. The firing line extended over a distance of five miles, and the work of the unit consisted in making all arrangements for the care and removal of the wounded that would have resulted had such a fight been actually in progress. A very low estimate of 10 per cent. was taken for the sake of convenience, involving the working out in skeleton form of all details of the work of a complete field ambulance. Major Begbie, R.A.M.C., officiated as umpire. Captain Roderick, who was in command, sent one section to Fen Ditton under Mr. Alcock, who reported 100 casualties, including 20 killed and 4 too badly wounded to be moved. For these temporary shelters were provided, and a dressing station was established at the Plough Inn. Arrangements were made for the removal of 76 wounded to Lord's Bridge, which was the "railhead," the railway on the Cambridge side of it being supposed to have been destroyed. Mr. Alcock utilized the River Cam for the removal of the more seriously wounded as far as Cambridge, commandeering the *Red Grind* and other ferry boats for the purpose, and made arrangements by telephone for their conveyance from Cambridge to Lord's Bridge in ambulance wagons and motor cars. Another section under Mr. Ballingall established a dressing station at the Caius College Farm where he had 76 wounded to deal with, for the transport of these to Lord's Bridge he arranged for the collection of carts and wagons from the neighbouring farms and conveyed them via Trumpington and Grantchester. Mr. Humphrey was in command of the third second and pitched his dressing station at Trinity Farm, making similar arrangements for the removal of 171 wounded. Mr. Bramwell was in charge of the "railhead" at Lord's Bridge. He had the difficult task of providing for the removal to Bedford, the nearest stationary hospital, of 323 wounded, 51 of whom had to be conveyed lying down. There was an ambulance wagon at his disposal in which he dispatched 46 of the more seriously wounded, the remainder being sent in ordinary passenger trains.

So well did the scheme work out that it would have been possible to have dispatched all the wounded by 6 p.m. to reach Bedford at 6.40. Provision was also made for the feeding of the wounded at Lord's Bridge where a clearing hospital was established.

In June the unit completes the work of the academic year with the annual camp at Aldershot.

Second Home Counties Field Ambulance.

This unit celebrated its second birthday by a conversazione at St. George's Hall, Canterbury, on Easter Monday. Major A. R. Henchley, the officer commanding, in a speech during the evening referred to the officers' training corps, consisting of a senior division recruited at the universities, and a junior division from among the principal public schools, and said that in Canterbury there was the King's School contingent under Captain C. W. Bell, and another at St. Edmund's; the corps supplied, he said, a want long felt in filling up vacancies in the army auxiliary forces. He referred to the admirable results of recruiting during the past year, when 72,000 men had joined the Territorial Force, which had now reached a total of nearly 300,000 officers and men; it had, in fact, nearly 90 per cent. of the establishment required, and 86 per cent. of the officers required. He criticized the objects of the various leagues which had come into existence for the promotion of compulsory training, believing that the response made to Mr. Haldane's admirable Territorial scheme showed that it was along those lines that the needs of the country could best be met with the least dislocation of trade and commerce. The 2nd Home Counties Field Ambulance, he said, had an establishment of 220, but actually numbered 250, the odd 30 belonging to the Territorial Force Reserve.

Public Health AND POOR LAW MEDICAL SERVICES.

PADDED ROOMS AT WORKHOUSES.

THE following circular has been issued to boards of guardians by the Local Government Board for England and Wales:

RECORDS OF DETENTION IN PADDED ROOMS AT WORKHOUSES.

Sir,—I am directed by the Local Government Board to state that their attention has recently been drawn to the need of some record of cases where inmates of workhouses are detained in the padded rooms at those institutions.

The Board have been in communication on the subject with the Commissioners in Lunacy, who state that they agree with the Board that it is highly desirable that a careful record should be kept of such cases.

The Commissioners are of opinion that the records should be kept either in a separate book to be provided for the purpose, or in the Register of Mechanical Restraint. In the latter case the entries should be made in a part of the Register separate from that used for entries of mechanical restraint.

The Board will be glad if, in those unions where there is a padded room at the workhouse, the guardians will give directions for the necessary record to be kept of every case of detention in the padded room. The record should show the date and duration of the detention, the reasons for the treatment, and what directions were given by the medical officer in the matter. Any such entries should be brought to the notice of the Commissioner in Lunacy on the occasion of his next visit to the workhouse.

The Board may add that the Commissioners consider that in no case should a person be detained in a padded room at the workhouse except under the previous order or with the concurrence or approval of the medical officer.

I am, Sir,
Your obedient Servant,
H. C. MONRO,
Secretary.

March 31st, 1910.

Medico-Legal.

WORKMEN'S COMPENSATION CASES.

Refusal to do Light Work.

IN a case at Burslem it appeared that the applicant, who was a collier, lost his eye as the result of an accident. His average earnings were £2 2s. 3d., and he was paid £1 a week until the employers offered him light work as a watchman and messenger. This work he declined, as he was "frightened of losing the other eye." In consequence of this refusal, the employers refused to pay further compensation, and the man made an application to the court. The judge held that he was competent to do light work, and that he should have taken the offer of it when he had the chance; the man was merely trying to put the screw on the employers to make them pay him a lump sum. The compensation was reduced to 10s. a week.

The Duties of a Medical Referee.

In a case in the Court of Appeal (February 11th) the applicant was a miner who alleged that he was suffering from nystagmus, an affection of the eyes, which was an industrial disease to which the Act applied, and the certifying surgeon so certified. The matter was referred at the instance of the employers to a medical referee under Section 8 (I) of the Act. By Clause 16 of the Regulations as to Medical Referees made by the Secretary of State on June 21st, 1907, the medical referee was required to give his certificate in the form prescribed in the schedule, and by that form (15) the medical referee was authorized only to allow or dismiss the appeal against the certifying surgeon's certificate. The certificate of the medical referee did not comply with this form, and did not state in terms whether or not the workman was suffering from the disease in question at the time when the certifying surgeon gave his certificate. The county court judge made an award in favour of the workman. On appeal a settle-

ment was arrived at, but the Master of the Rolls said that he thought it right to call attention to the extreme difficulty of applying Form 15 in the Schedule to the Regulations as to Medical Referees to a case where the industrial disease was of an intermittent character, because according to that form the medical referee was only authorized either to dismiss or allow the appeal. It was almost impossible for the medical referee to say in cases of that kind what was the condition of the man at any particular antecedent date. Possibly the authorities whose business it was to make regulations under the Act would consider the question.

Neurasthenia and Hydrocele.

In a case heard at the Truro County Court recently, the applicant had suffered the loss of an eye owing to an accident, and also suffered from hydrocele, and the theory was set up that the accident and the anxiety resulting from it had produced traumatic neurasthenia, that this had caused disturbance of the vasomotor functions, and this, again, had led to the hydrocele. Medical evidence was called in support of this view. Medical witnesses called for the respondent company, while stating that they had never heard of hydrocele arising from an injury to the eye, admitted in cross-examination that the cause of hydrocele was not known, and that it was impossible to deny that it might be indirectly due to neurasthenia. The judge declined to enter into the point, though he observed that, judging from the cases he had already had, there seemed to be no end to neurasthenia; he awarded the compensation at 9s. 9d. a week, as the medical evidence showed that the man was not in a condition to go back to any except light work, which had not been offered him.

Duty to Use Surgical Appliances.

In Donnachie *v.* United Collieries, Limited, heard in the Court of Session, February 10th, it appeared that a brusher employed in a colliery had his right knee injured on October 16th, 1908. He received compensation at the rate of 15s. weekly; at first it was reduced to 5s. 9d. a week, and all payment was stopped on April 9th, 1909, on the ground that he had entirely recovered. On that date he applied for an award of compensation at the rate of £1 a week. The Sheriff-Substitute found that if the appellant did not wear a bandage the loosening of the knee cartilage was likely to recur, and that if he wore a kneecap he would be able and ought to resume work as a brusher. In the circumstances the Sheriff-Substitute ended the compensation as from August 13th, and ordained the respondents to pay compensation at the rate of 5s. 9d. weekly from April 9th till August 13th. This decision was affirmed on appeal.

The Definition of an Accident.

MR. H. NORMAN BARNETT, F.R.C.S. (Belfast), writes with reference to the case of Hughes *v.* Glover, Clayton and Co., Limited (BRITISH MEDICAL JOURNAL, March 26th, p. 787): It draws attention to the examination of workmen previous to their engagement, the necessity of which I emphasized in my book, *Accidental Injuries to Workmen*. The matter is perhaps not of serious import to the wealthy insurance companies, but the case is altogether different when the "workman" is perhaps the servant, constant or at stated intervals, of a poor man who, from oversight, ignorance, or to save the money badly needed for himself, has not insured. To such an one an adverse judgement would be disastrous, and he should certainly be protected from the injustice of having the death of a seriously diseased man or woman laid on his shoulders as an "accident." The decisions are made by lawyers, many of whom, however eminent they may be, seem incapable of forming the opinion which the medical mind would, or to come to the conclusion to which, as Lord Atkinson stated, "I think any reasonable man could come," that in the case referred to the bursting of an advanced aortic aneurysm, or any such like happening, was not an accident, nor ever intended to be regarded as such by the framers of the Act.

Medico-Ethical.

The advice given in this column for the assistance of members is based on medico-ethical principles generally recognized by the profession, but must not be taken as representing direct findings of the Central Ethical Committee, except when so stated.

BREAKING ONE'S WORD.

CYMRO.—To accept an appointment at a hospital and then refuse to take it up might be justifiable in certain circumstances. Though an action might be brought for breach of contract, this is not likely to be done.

COLLIERY STOPPAGES.

MELFORT.—We are informed that it is usual for employers to retain about 5 per cent. of the deductions for the doctor from the workmen's wages for the purpose of covering the clerical expenses involved. With regard to the second practice which our correspondent believes to exist, it is extremely objectionable and very probably illegal. It would be advisable for the medical men to meet together to discuss the question, and, if no agreement can be arrived at, the matter should be immediately brought before the Executive Committee of the Division.

Obituary.

WALTER BUTLER CHEADLE, M.A., M.D.CANTAB., F.R.C.P.LOND., F.R.G.S.,

CONSULTING PHYSICIAN TO ST. MARY'S HOSPITAL AND THE HOSPITAL FOR SICK CHILDREN, LONDON.

BY the death of Dr. Cheadle our profession has lost a physician of much eminence and a man of commanding personality and great worth. Dr. Cheadle held an almost unique position in the affections of the students of St. Mary's Hospital, for he possessed those attributes which are so greatly appreciated by young men—absolute straightforwardness, high abilities, and a history of athletic prowess. His famous journey across "the Rockies" added to the charm that surrounded him. A striking proof of that affection was given on his last appearance as chairman at the hospital dinner, when the unbounded applause that greeted him expressed the desire that this modest and retiring man must be for once publicly acclaimed with the utmost warmth. A still greater proof was manifested in the concern and regret with which the first news of the illness that proved eventually fatal was received by friends in his own profession and by his patients.

A Yorkshireman by birth, he was the son of the Rev. James Cheadle, Vicar of Bingley. He was born in 1836, and was educated at Bingley Grammar School, and later went to Cambridge, where he was a scholar of Gonville and Caius College. Had it not been for a family bereavement he would have rowed in the boat in 1859, a year in which a particularly heavy crew chose to row in a particularly light boat. Dr. Cheadle, who was a big man, of powerful build, has said that had he rowed that year the boat which was eventually used would not have been chosen, and then in all probability the history of these races would have been deprived of the dramatic episode in 1859, when the Cambridge crew capsized. From Cambridge he went to St. George's Hospital. He took the degree of M.B. in 1861, and in June, 1862, started with Viscount Milton upon the exploration of the then little known western parts of Canada. Upon their return in the next year they published a most fascinating account of their adventures and dangers. This book, *The North-West Passage by Land*, lives in the memory of many who read it as boys, for it was one of the most entertaining books of adventure and travel ever written. It speedily ran through eight editions. A new edition published in 1901 is the more interesting because it contains a postscript written by Dr. Cheadle touching upon the fate of some of the prominent characters of the expedition, and pointing out the realization of many of the forecasts that the explorers had made in 1862. Few adults, and we hope no boys, could fail to be interested even now in the intrepid guide, the Assiniboine, the ludicrous Mr. O'B., and the graphic account of gradual starvation when the trail was lost. Dr. Cheadle was one of the oldest Fellows of the Royal Geographical Society, for he was elected nearly fifty years ago.

Although it is exceptional for one who has tasted the joys of exploration to settle down, Dr. Cheadle proved an exception, and on his return took the degree of M.D. in 1865, and in 1866, upon the retirement of Sir James Alderson, he was elected Assistant Physician to St. Mary's Hospital. At the time of his death he was Senior Consulting Physician to the hospital, and his active service extended over nearly forty years. In 1869 he was appointed Dean, and in the same year he became Assistant Physician to the Hospital for Sick Children, Great Ormond Street. His record of active service at the Children's Hospital extended over twenty-three years, and there he obtained a world-wide reputation for his work in this branch of medicine.

Dr. Cheadle had a high sense of duty to the institutions with which he was connected. The example of his regard for his patients was one of the greatest benefits he conferred upon his students, for they could not fail to appreciate that, however busy or worried he might be, the poor under his care were never neglected. He took an active part in founding scholarships at the medical school, fostered a spirit of *esprit de corps* by presenting to the library portraits of eminent teachers and students connected with the school, and generously supported the

thletic clubs. In 1898 he endowed a Cheadle prize and edal in clinical medicine, to be awarded to students at t. Mary's Hospital.

Another interesting feature in Dr. Cheadle's career was is early support of the claims of medical women. He was ne of the first lecturers at the London School of Medicine or Women, and used to describe with the quiet humour he ossessed the wrath and indignation that this evoked at t. Mary's Hospital among some of his colleagues. Dr. headle took much practical interest also in the training nd education of nurses, and gave a series of lectures on ygiene to the Nursing Institute in Bloomsbury Square.

When we realize the immense clinical experience he ossessed, and associate with it great insight, a fine judgeent, and a broad humanity, we are prepared to find that is writings were intensely practical. His style was terse nd forcible, and he made his p ints abundantly clear to he reader. We should, however, do him little justice if e only claimed these qualities for his medical writings. Iis pioneer work in 1877 on infantile scurvy, and his ctures and articles on rheumatism in childhood stand out s brilliant achievements in English medicine. Among ther of his well-known writings was his book upon *The rtificial Feeding of Infants*, his Lumleian Lectures in 900 on Some Cirrhoses of the Liver, and his occasional ctures on medicine must be mentioned.

Thirty years a Fellow of the Royal College of Physicians, e was Examiner from 1885 to 1888, Councillor and Censor 1892–1893, and 1898, Lumleian Lecturer in 1900.

As a teacher he excelled in demonstrations of the ractical management of disease. His was not that type f mind which weighed laboriously the *pros* and *cons* the diagnosis of a case, but from his ample experience e almost intuitively arrived at the probable explanation f the illness. He always aimed at the attainment of ome practical line of conduct, touching simultaneously on he weak points in the chain of evidence if such existed. Iis pupils learnt from him two very valuable rules of treatent—to acquire the proper use of some of the most reliable rugs, and, if the way was not plain, to be cautious not to do arm by rash measures. Mature experience had taught im the reality of Nature's curative powers, and the value f time as a healer. Yet to the end of his career he voided the dangers of a rigid conservatism, and this ould hardly fail to be the case, for he was a true clinician nd ever alive to the complexity of medical problems. Dr. headle was greatly beloved by his patients, both rich and oor, and with children he was particularly charming. or many years he had a large consulting practice, and erhaps he was a little disappointed to find that the public ooked upon him so often as a children's specialist. In ocial life as in professional life he was dignified, courteous, nd reserved, but deeply affectionate. Many heavy orrows fell upon him, and the loss of his second wife fter a protracted illness was a crushing blow from which e never really recovered.

When in America he had contracted dysentery, which or many years after gave him from time to time considerble trouble. Early in 1909 signs of obstruction developed, ecessitating an operation for its relief. For fifteen months e struggled against increasing illness with wonderful ourage and patience, but at the beginning of March he as unable to leave his bed, and passed away on Good riday.

Dr. Cheadle was twice married, first to Anne, second aughter of Mr. W. Murgatroyd, of Bingley. Secondly, to Iiss Emily Mansel Mansel, daughter of Mr. Robert Iansel, of Rothbury. He leaves four sons by his first wife o mourn his loss.

The funeral took place at Eastbourne on March 30th.

THOMAS WHITEHEAD REID, M.D. ST. ANDREWS, F.R.C.P.EDIN.,

SENIOR SURGEON TO THE CANTERBURY HOSPITAL.

We regret to have to announce the death of Dr. Whitehead Reid, Chairman of the Hospitals Committee of the British Medical Association, which took place on March 31st at his residence in Canterbury. Dr. Reid, who was in his 61st year, suffered from a severe attack of influenza at Christmas; after recovering to some extent, he experienced a relapse in February, from which he never entirely recovered.

Thomas Whitehead Reid was the son of Dr. James Reid of Canterbury, who still resides there, though he has long retired from practice. He was educated at the King's School, Canterbury, and St. Bartholomew's Hospital; he obtained the diplomas of L.R.C.P.Lond., M.R.C.S.England in 1874; he became a Fellow of the Royal College of Physicians of Edinburgh in 1881, and took the degree of M.D. St. Andrews in 1896. After holding the offices of Ophthalmic House-Surgeon and Registrar to St. Bartholomew's Hospital, he was for some time private physician to the late Baron Rothschild; he was with the Baron at the time when the negotiations concerning the Suez Canal were in progress, and he had some share in dispatching the telegram which bought for Great Britain the shares still held by this country in the Suez Canal Company.

Dr. Reid joined his father in practice at Canterbury over thirty years ago, and eventually succeeded him. He was appointed Honorary Surgeon to the Kent and Canterbury Hospital, and at the time of his death was Senior Surgeon to that institution, in the welfare of which he always took great interest. He was also Surgical Lecturer to St. Augustine's Missionary College, and Lecturer on Surgical Nursing to the Kent and Canterbury Institution for Trained Nurses; he was Medical Officer to King's School, and an Examining Lecturer and honorary member of the St. John Ambulance Association; he was also an Honorary Associate of the Grand Priory of the Order of St. John of Jerusalem in England. He contributed to the Report of the Commission of the Royal Medico-Chirurgical Society on Membranous Laryngitis in 1879, and published papers on surgical subjects in the *St. Bartholomew's Hospital Reports*, the *Lancet*, and the BRITISH MEDICAL JOURNAL. He was a member of the council of the Medical Officers of Schools Association, and wrote a paper on school food.

Dr. Reid took a great interest in the British Medical Association, which he joined very early in his career. He had been a member of the Council of the South-Eastern Branch, and held the office of President of that Branch about six years ago. He was elected a Representative of the Branch on the Central Council of the Association last year, and not long ago succeeded Dr. Pope as Chairman of the Hospitals Committee. Unfortunately the early breakdown of his health prevented him from rendering in that capacity the services which he was anxious and very competent to give. He was a man who was always ready to devote time and labour to the service of the profession, and one of his last public acts was to attend a meeting of the Hospitals Committee at a time when he had only partially recovered from the attack of influenza which was eventually to prove fatal.

Dr. Reid married in 1880 the daughter of Colonel Munns of the 74th Highlanders, and leaves two sons, the elder of whom has entered the medical profession, and one daughter. The funeral took place on April 2nd, at St. Martin's Church, Canterbury.

One who was intimately associated with him in the local work of the Association writes that Dr. Reid will be very much missed by the Division. He was a most regular attendant at its meetings, and when he was the President of the South-Eastern Branch gave a most delightful reception, as well as a very instructive address, full of points of local interest, with a vein of quiet humour running through it. On the Branch Council he will also be sadly missed, as his opinion was looked upon as a deciding one. As a brother practitioner he was almost the ideal man, straightforward and considerate—in a word, he was a man who by his character and attainments won the respect and regard of a wide circle of friends and colleagues.

One of Dr. Reid's colleagues on the Central Hospitals Committee writes as follows:

Every member of the Central Hospitals Committee will have received with deep regret the official notice of their chairman's death. It is only a few months ago that the committee were congratulating themselves on having secured the services of so competent a chairman, and were looking forward to receive much assistance in their work from his experience and judgement. Short as has been the tenure of his office, Dr. Whitehead Reid has had the

opportunity of rendering special service to the Association by the sympathetic tact which he invariably showed in his relations with his fellow members; whilst one cannot help fearing that his strong sense of duty in attending an evening meeting in London in his capacity as chairman when hardly convalescent from an attack of influenza may have had some effect in causing his fatal illness. But Whitehead Reid was always ready to sacrifice himself for the public interest. Until one knew him well one hardly recognised beneath his gentle and retiring disposition the keen enthusiasm which he possessed for all that might tend to improve the power and position of the profession. So long as our Association can secure such devoted servants as Dr. Whitehead Reid its future is assured.

FREDERIC VICTOR MILWARD, M.B., B.C.CANTAB., F.R.C.S.ENG.,

ASSISTANT SURGEON, THE GENERAL HOSPITAL, BIRMINGHAM.

WE greatly regret to announce the early death of Mr. Milward, which occurred at his residence in Rotton Park Road, Edgbaston, Birmingham, on March 31st. His death was due to pneumonia following an attack of influenza from which he had not properly recovered. He was only 40 years of age.

Frederic Victor Milward was the son of the late Colonel Victor Milward, M.P. for the Stratford Division of Warwickshire. He was a well-known surgeon in Birmingham, being Assistant Surgeon to the General Hospital and Honorary Surgeon to the Royal Orthopaedic and Spinal Hospital. He graduated B.A. of Cambridge in 1891, and went to St. Thomas's Hospital in the same year, taking the degrees of M.B, B.C. Cambridge in 1895, and passing the final F.R.C.S.Eng. in 1900. At St. Thomas's Hospital he was a brilliant student, and there held the posts of Clinical Assistant in the Ear and Skin Departments, and Demonstrator of Practical Surgery. He then went to Birmingham, where he held resident posts at the General Hospital, being House Surgeon and Resident Surgical Officer. He showed such great promise as a surgeon that in 1903 he was appointed Casualty Surgeon, and in 1908 Assistant Surgeon to the hospital. He also held the posts of Surgical Registrar and Junior Surgical Tutor. He was appointed Surgeon to Outpatients at the Children's Hospital in 1904, but resigned this post in 1908 to become Honorary Surgeon to the Orthopaedic Hospital.

Mr. Milward took great interest in the Royal Army Medical Corps, Territorial Force, being a Captain on the staff of the 1st Southern General Hospital. As Secretary of the Red Cross Society in Birmingham he was energetically engaged, down to the time of his death, in planning the site and making arrangements for the equipment of the 1st Southern General Hospital. He was also organizing the Voluntary Aid Detachments and actively employed in teaching them ambulance work.

Mr. Milward frequently read surgical papers, always very practical and full of interest, at the medical societies in Birmingham. He was the author of two excellent books, *Diseases of the Rectum*, 1906, and *Contributions to the Study of Rectal Diseases*, 1909; his review of 87 cases of tetanus in the *St. Thomas's Hospital Reports*, 1900, is, perhaps, his best-known paper. He also invented an inhaler for administering ether and chloroform.

The early death of Mr. Milward came as a great shock to the medical profession in Birmingham and the midland counties. He was a brilliant surgeon, and although a young man his opinion was greatly valued. He had many friends by whom he was highly esteemed and to whom he was greatly endeared, on account of his ever courteous manner and kindly disposition. His character was noble and his influence ennobling. His personality was such that those who had the pleasure to work with him felt that he was one of those men who could be confidently trusted to do what was right, and who most conscientiously performed the duties of his profession. By his death a career full of promise has been cut short. Of no one can it more truly be said than of Mr. Milward that he was—

> One who never turned his back, but marched breast forward;
> Never doubted clouds would break;
> Never dreamed, though Right were worsted, Wrong would triumph;
> Held we fall to rise, are baffled to fight better—
> Sleep to wake.

He married in 1907, Norah, daughter of Mr. B. B. Tilley, of Edgbaston, and leaves one little daughter. With Mrs. Milward great sympathy is felt in her loss.

The funeral took place at Harborne Church on April 4th, the service being performed by the Archdeacon of Birmingham and the Rev. W. G. Moss, Vicar of the Lickey Besides a large assembly of relations and friends, there were present many medical men, including colleagues from the General Hospital and the Orthopaedic Hospital, many past and present residents of the General Hospital, members of the medical staffs of other Birmingham hospitals, and medical practitioners from near and far, who all came to pay their last tribute to his name.

J. E. H. S.

GEORGE CARPENTER, M.D.LOND.,

PHYSICIAN, QUEEN'S HOSPITAL FOR CHILDREN.

WE regret to record the death, on Easter Sunday, of Dr. George Carpenter, of Welbeck Street and the Queen's Hospital, Hackney, in the fifty-first year of his age. It took place suddenly, and was due to cerebral haemorrhage. He was the eldest son of the late Dr. William Carpenter, and received his general education at King's College School. His medical studies he pursued partly at St. Thomas's Hospital, partly at Guy's Hospital. He was Prosector at the Royal College of Surgeons, and in 1885 became M.R.C.S.Eng. and L.S.A. In the following year he graduated M.B. at the University of London. He received the M.D. degree four years later, and meantime had been admitted a Member of the Royal College of Physicians. On his becoming qualified, chance first led him in the direction of lunacy work, but after holding for a time an appointment at a large asylum in the provinces he returned to London and joined the Evelina Hospital as Resident Medical Officer. Thus began his connexion with the department of medicine to which his professional energies were afterwards almost entirely devoted. The Evelina Hospital he served in turn as Resident Medical Officer, Registrar, Chloroformist, and Physician, and at the time of his death was Physician to the Queen's Hospital, Hackney, an institution likewise occupied with the care of children. He also took considerable interest in ophthalmology. He was a frequent attendant at meetings of professional societies, among those to which he belonged and to whose publications he contributed being the Société de Pédiatrie at Paris, and the Société Française d'Ophtalmologie; while in the affairs of the Society for the Study of Disease in Children he played a specially active part, serving it as Honorary Secretary for several years, and later as Chairman of Council and editor of its reports. Of this society in its present guise—a section of the Royal Society of Medicine—he was President at the time of his death. In the course of his career Dr. Carpenter contributed largely to current literature; he was also author of several books, nearly all his writings relating more or less exclusively to his favourite branch of medicine. His earliest paper dealt with the incubation period of German measles, and his last notable publication—the Wightman Lecture of 1909—with congenital heart disease. He was, too, the founder, as also the editor, of the *British Journal of Children's Diseases*, and at one time took part in editing an Anglo-American journal named *Pediatrics*. Dr. Carpenter married some two years ago a daughter of Henry, Baron D'Este, and is survived by his wife.

THE attenuated ranks of Crimean veterans has suffered another loss in the person of Brigade Surgeon FERDINAND ODEVAINE, F.R.C.S.I., who died at Rathgar, co. Dublin, on March 20th, in his 73rd year. He entered the Bengal Medical Department as an Assistant Surgeon in 1859, becoming Brigade Surgeon in 1884, in which year he retired from the service. He took part in the Crimea campaign in 1855–6 with the Turkish contingent, and had received the Turkish medal.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. Candido Barato Ribeiro, professor of paediatrics in the Medical Faculty of Rio de Janeiro; Dr. Johannes Schiess Pacha, founder and for many years director of the Government Hospital of Alex-

andria, and since 1906 President of the Municipal Council of that city, aged 74; Dr. J. M. Mariani, of Madrid, for many years President of the Academia Medica-Quirurgica; Dr. S. Iglesias, sometime professor of therapeutics in the University of Madrid; and Dr. Wharton Sinkler, of Philadelphia, a former President of the American Neurological Association, and a prominent figure in American medicine, aged 65.

Medical News.

CAMBRIDGE medical men residing in the Manchester district who have not received notice of the formation of a Cambridge Medical Society, and of the dinner to be held on April 27th, are requested to communicate with the provisional secretary, Dr. E. B. Leech, 242, Oxford Road, Manchester.

THE Bethnal Green Board of Guardians includes four doctors—Dr. W. A. Farebrother, J.P., Dr. J. Knox, Dr. R. G. Styles (all old members), and Dr. G. Henderson, who has just been returned second on the poll for the East Ward.

THE annual general meeting of the Medical Defence Union will be held at the Royal Station Hotel, Hull, on Thursday, May 19th, at 5 p.m., when the annual report and audited balance sheet of accounts will be presented and the statutory resolutions brought forward.

A FURTHER series of demonstrations of museum specimens commences on Friday this week at the Royal College of Surgeons; the other dates at present fixed are April 15th, 18th, 22nd, 25th, and May 2nd, at 5 p.m. each day. The demonstrations to be given by Professor Keith deal with displacements and malformations of the kidneys and genital organs; those by Professor Shattock with carcinoma, tuberculosis, and repair.

IN a paragraph which appeared in the JOURNAL of March 5th, p. 590, reference was made to the "Singing Doctors" who won such musical fame at Edinburgh in the middle part of the last century. The tradition is carried on at Gloucester, which rejoices in a vocal quartette composed of the mayor and mayoress and of the city high sheriff, Dr. Dykes Bower, and Mrs. Dykes Bower. Dr. Dykes Bower is a cousin of the late Dr. Dykes, well known as a composer of hymns. It was the sheriff who conceived the idea of the civic quartette. He was formerly house-surgeon at the Leeds General Infirmary and at one time organist at the Leeds Infirmary Chapel, at St. Bartholomew's Church, Armley, Leeds, and at All Saints' Church, Gloucester. Dr. and Mrs. Dykes Bower have often sung in recitals at Gloucester Cathedral, and the quartette has sung carols to the patients in the Royal Infirmary of that city.

MR. WALTER RUNCIMAN, President of the Board of Education, has appointed a Departmental Committee to consider and report upon various questions in regard to the present condition and the future development of the valuable collections comprised in the Board's Science Museum at South Kensington and Geological Museum in Jermyn Street. In particular the committee is asked to advise him (*a*) as to the precise educational and other purposes which the collections can best serve in the national interests; (*b*) as to the lines on which the collections should be arranged and developed, and possibly modified, so as more effectively to fulfil these purposes; and (*c*) as to the special characteristics which should be possessed by the new buildings which it is hoped will shortly be erected on the South Kensington site to house these collections, so as to enable them to be classified and exhibited in the manner most fitted to accomplish the purposes they are intended to fulfil. The committee is as follows: Sir Hugh Bell, Bart., D.C.L. (Chairman): J. J. Dobbie, F.R.S., LL.D.; Sir Archibald Geikie, K.C.B., F.R.S.; R. T. Glazebrook, D.Sc., F.R.S.; Andrew Laing, M.I.C.E.; the Hon. Sir Schomberg McDonnell, K.C.B., C.V.O.; Sir William Ramsay, K.C.B., F.R.S., LL.D.; Professor W. Ripper, D.Eng., M.I.C.E., Hon.M.I.Min.E.; Sir W. H. White, K.C.B., F.R.S., LL.D., with Mr. F. G. Ogilvie, C.B., one of the Secretaries of the Board of Education, as secretary.

THE first of a course of six lectures on the prevention of destitution, which will be given alternately by Mr. and Mrs. Sidney Webb, was delivered by Mr. Sidney Webb at St. James's Hall, London, on April 4th. Professor Gilbert Murray, who presided, said that a highly organized community must tend more and more to apply its knowledge to its needs, and though any step of the kind might be called by its opponents socialism, he looked upon it as a necessity for the advance of civilisation. Mr. Sidney Webb said that between two and three million people in the United Kingdom, nearly one-fifteenth of the population, were in a state of destitution, and that there were more people being maintained outside the Poor Law than by the Poor Law authorities as paupers. The crude socialist believed that in a socialistic state all would be well, but if by that was meant the Government ownership of the means of production, distribution, and exchange, the socialist state would not prevent the existence of destitution in the midst of the wealth. The second lecture—on public health administration as a means of reducing destitution—will be delivered by Mrs. Sidney Webb next Tuesday at the same place, at 8.30 p.m.

THE usual monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society was held at 429, Strand, London, W.C., on March 18th, Dr. de Havilland-Hall in the chair. Of the long list of sickness claims submitted the majority were light and will probably not be of long duration, but in some cases the illnesses noted were serious, and lengthy periods of inability to work—perhaps permanent incapacity—may be expected. During the early months of this year several members on the list of chronic cases have died, and it seemed for a time as if some lessening of the number of those considered to be permanently incapacitated might be looked for; but many serious claims have been received since January 1st, and there now seems to be little reason to anticipate that the list of permanently incapacitated members will show any diminution at the close of the year. The society has now been at work for more than twenty-six years, and the average age of the members is steadily growing. This, of course, makes the claims more likely to be of a serious nature than when the average age was appreciably less. The rate at which this age is growing can easily be measured by the rapid increase in the numbers of those who each year reach age 65 and receive the bonus to which they are then entitled. Large reserves are necessary for the payment of the sickness allowance in chronic cases and of the bonus at age 65, and special sums are set apart for them at each valuation of the society's business. Prospectuses and all further information can be obtained on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, W.C.

THE Bread and Food Reform League has sent us a pamphlet on the Standardization of Bread which urges the need for a statutory standard, as various samples of flour examined for the Council of the League by Mr. C. G. Moor, M.A., F.I.C., have been found deficient in mineral matter. He obtained three samples of ordinary flour sold in Whitechapel, Bethnal Green, and Somers Town, which gave an average of only 36 grains per lb. as against 49 grains per lb., which is the League's standard. This deficiency of mineral matter is regarded as serious, especially for the children of the poor, in whose diet bread plays so large a part; more especially as the mineral matter in bread is present as phosphates and phosphorus is an important element in the building material of the body. While we do not wish to dispute the truth of these statements, and are entirely in favour of food being good and pure, we think it is easy to exaggerate the importance of small variations in the mineral constituents of flour. As bran contains a great deal of mineral matter, any addition of bran raises the percentage, and conversely, the whitest and most carefully refined flours are those in which this component is least abundant. We agree that it would be well for those classes whose staple diet is bread, and who cannot make up for the mineral deficiency by eating meat, milk, eggs, and other foods rich in phosphates, if they could be induced to prefer the coarser bread which food reformers advocate; but so long as coarse bread or black bread is associated with poverty it is idle to expect the hygienic argument to have much weight. Miss Loanes, in her book *Neighbours and Friends*, asserts that the bread eaten by the poor is generally new, that the crust is rarely eaten by the children, that a large part of that received as outdoor relief is wasted, and that people in dire poverty will not spend their money on such cheaper substitutes as oatmeal, in spite of the well-meant advice of district visitors and other mentors of the poor. Therefore it is hardly to be expected that Parliament, so tender of the prejudices of those who have votes, will pass any law to compel constituents to eat bread containing a larger proportion of the coarser elements of flour than they choose. In these circumstances, although its objects are sufficiently laudable, we do not feel warmly interested in the present proposals of the Bread Reform League.

Letters, Notes, and Answers.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

A. T. C. wishes to know the name of the surgeon who he believes has published reports of 35 cases of Dupuytren contraction treated by fibrolysin.

W. F. B. asks for advice in the treatment of a patient, otherwise in good health, who suffers from profuse sweating over an area as large as the hand on the front of the chest and between the shoulders; it is brought on by slight exertion, but sometimes occurs without exertion.

PUZZLED seeks suggestions respecting attacks occurring during twelve years, at intervals of twenty-three to twenty-five days, in a man aged 45, who otherwise seems absolutely healthy in body and mind. They are characterized by profound lassitude, mental depression, and aching of the head and back, and muscular pains in the legs, neck, and scapulae. Exercise is impossible, owing to rapid onset of fatigue and exhaustion. Sometimes the tongue and fauces are slightly sore and inflamed, at others the heart's action is intermittent and irregular. In a general way, and except for their periodicity, and the absence of fever, the attacks resemble influenza; they commence and cease with equal suddenness, lasting four or five days. Balneology, change of air, and such drugs as have been tried have all proved useless.

ANSWERS.

ENQUIRER.—(1) A case of ringworm allowed to run its course without treatment must be a great rarity, and we cannot find mention of any instance in current literature. (2) Undoubtedly dentists recommend that disease of temporary teeth should be treated. The nature of the treatment appropriate must be determined by the circumstances of the individual case.

X. Y. Z. (Johannesburg).—Both funds were closed when our correspondent's contributions were received. The Editor will return the money if notice is received by July 31st. If no intimation is received by that date the amount will be paid to the British Medical Benevolent Fund, which has upon its books a large number of very sad cases of distress among medical men and their families.

M.B. 1897.—Before proceeding to the Edinburgh M.D. degree it would be advisable for our correspondent thoroughly to revise his clinical methods. This should preferably be done by regular attendance for two or three months in the wards of a hospital. As literature, *Physical Diagnosis*, by Da Costa, and *Clinical Methods*, by Hutchison and Rainy, along with any modern system of medicine, may be recommended.

ROYAL NAVY MEDICAL SERVICE.

NAPIER asks as to the advisability of a newly qualified man of average talents entering the Royal Naval Medical Service.

*** This is a difficult subject to give advice upon until the recommendations—if any—of the committee presided over by Sir John Durnford last year are approved and brought into force. One great advantage of the Naval Medical Service is that men who enter and find they are disappointed can leave the service at the end of four years with a gratuity of £500 in addition to any money they may have saved from their pay. They will have seen a good deal of life under pleasant conditions, and it is not too late to enter into practice. Very few young medical officers leave at the end of four years, as for the young man the life is most certainly a pleasant one.

IGNORANT.—(1) Candidates for the medical service of the Royal Navy must not have more than ten deficient or defective teeth, and they must possess some sound opposing molars and incisors on both sides. This rule is not rigidly adhered to if the remaining teeth are in good condition or can be made so. Teeth which can be rendered serviceable by dental repair may be considered efficient. (2) No money is given towards the initial outfit.

COLD HANDS.

DR. A. L. MARTYN (Hartland, North Devon) writes: In answer to "L.R.C.P." (BRITISH MEDICAL JOURNAL, 1909, vol. ii, p. 1508), who asks for a method of keeping cold hands warm when on his visiting round, let him procure two pairs of lambskin wool-lined gloves, loose fit, and always wear a pair each day, the reserve pair to be hung in a moderately drying atmosphere with the fingers down, wrist end up and open. Since adopting this plan the drawback of cold hands has gone entirely even on the coldest rounds. These gloves are equally good for saddle purposes, and are supplied by Andersons, of Victoria Street, E.C.

INSURANCE UNDER THE WORKMEN'S COMPENSATION ACT.

L.—If a nurse employed by a medical man met with an accident while cycling for her own pleasure there would be no liability on her employer, who could not be called upon to pay medical expenses or wages during the time of her incapacity; the insurance company therefore would not be liable, as under the policy it simply agrees to relieve the employer of his legal responsibility. On the other hand, if the nurse were cycling on an errand for her employer, he would be liable, and it would follow that the insurance company would be liable in the terms of its policy. In this answer it is assumed that the inquirer is insured through Medical Insurance Committee, 429, Strand, W.C.

LETTERS, NOTES, ETC.

THE DANGER OF ARYLARSONATES.

DR. S. J. ROSS (Bedford) writes: I think that the profession owes a deep debt of gratitude to Mr. Lane for bringing to its notice the unfortunate case of double optic atrophy following the employment of arylarsonates which occurred in his own practice. Confession is good for the soul! and forthwith, Dr. Heard records a case in which a progressive impairment of vision followed the careful administration of soamin. I also notice that in this case the patient suggested the treatment. Doubtless he has already repented. Last January a patient who was suffering from active syphilis asked me whether treatment by soamin would be a more rapid method of effecting a cure in his case than the measures usually adopted. I told him that I was on sure ground when adopting the usual method of treatment, and that treatment by soamin was still in the experimental stage. Mr. Lane's case has fortified me in the opinion I then expressed, though Colonel Lambkin thinks that these toxic cases are quite accidental. There is, however, a very practical question arising out of this subject. If a gentleman of Mr. Lane's standing draws the attention of a representative of a firm of pharmacists of repute to the fact that a serious disaster has followed the use of one of their preparations, then the fact should be emphatically announced to every member of the profession who has received an intimation of the introduction of the drug as a new method of treatment. One deplores the growing tendency of lay papers to bolster up every new form of treatment even though it is still in the experimental stage. Our motto when dealing with new therapeutical measures must be *Festina lente!*

THE INTESTINAL STITCH.

DR. F. GREGORY CONNELL (Oshkosh, Wis.) writes: Because of the wide circulation and the deservedly authoritative position held by the JOURNAL, I beg leave to draw your attention to what seems to be an oversight of no small import. In an article on "The Intestinal Stitch," by E. Ken Herring, in the JOURNAL of February 26th, p. 496, one finds fundamental principles and methods of carrying these into effect that are strikingly different from those which are generally adopted in America. The principles underlying intestinal suturing may be reduced to the following statement—a *secure* stitch, causing *perfect* sero-serous apposition. A stitch to be secure must include the submucosa. This was first demonstrated by S. D. Gross in 1843, and emphasized by Halsted in 1891. The impracticability of attempting to include but a part of the submucous layer, and therefore the necessity of including all coats of the bowel wall in order to have a secure stitch, was demonstrated by the writer in 1901 (*Journ. Amer. Med. Assoc.* October 12th, 1901). Mr. Herring's close attention to the direction of the fibres of the musculature will not result in a secure stitch unless the submucosa is included in its bite and, under such circumstances, it will be immaterial whether the needle points longitudinally, transversely, or obliquely to the muscular fibres of the bowel wall. A broad serous approximation is unnecessary if the serous apposition is perfect. It is only as a safeguard against imperfect apposition that broad serous surfaces are apposed. This was strongly emphasized in 1894 by J. B. Murphy in the dictum, "A line of approximation is as good as half an inch." The omission of any reference to the submucous coat in speaking of method of intestinal suturing is sufficient to call for this brief communication.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page	8	0	0

An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

NOTE.—It is against the rules of the Post Office to receive *poste Restante* letters addressed either in initials or numbers.

An Address
ON
DEALS IN PSYCHIATRY.

DELIVERED AT A MEETING OF THE CARDIFF DIVISION OF THE BRITISH MEDICAL ASSOCIATION.

BY

OWIN GOODALL, M.D.LOND., B.S., F.R.C.P.,

MEDICAL SUPERINTENDENT, CARDIFF CITY MENTAL HOSPITAL.

scheme and propositions dealt with in this address y to the rate-supported insane. For the purposes of tment and administration the insane may be classified ollows: The recent and curable; the convalescent; s of chronic mania or melancholia, including alternating circular states; cases of systematized delusional nity; of secondary and senile dementia; of congenital ct; of insanity with epilepsy; and, lastly, cases of entia paralytica or general paralysis of the insane. as been increasingly recognized of late years that it mistake to deal with these various classes in a mon building, and this recognition has taken practical n in this country to the following extent: Congenital s are accommodated in separate institutions or in rate blocks of ordinary public asylums. It is well wn that such accommodation is inadequate. The le-minded are boarded out in Scotland, an arrange- nt which does not seem workable in England. Asylums the villa system provide separate blocks for the main ips of the insane—such as the recent and curable, the onic working class, the chronic unemployable, the eptic. One or two of the older asylums have separate cks for acute and recent cases, but I believe that se are not in practice used for the purposes for which y were intended, for reasons which will later be uced.

am amongst those who believe that our method of ling with the insane in the two great groups of recent curable, and otherwise, ought to be, and will in time be, damentally changed. A radical alteration in the then sting arrangements for housing and dealing with these classes was advocated many years ago by Griesinger, o has justly been called the prophet of the new chiatry. He advocated the accommodation of the ent and curable insane in buildings much more ready of ess, nearer the hospitals and clinics, than the usual lum in the country. In advocating and putting into ctice this view, Continental authorities have been uated by two main considerations—the advantage to the ients of being nearer the sources of skilled advice and atment in all branches of medicine, and the advantage medical men and students of having cases available for purposes of study and teaching. How comes it that ent and curable cases of mental disorder have been regated from cases of ordinary disease? I should say, st, for reasons based upon ignorance of the nature of ntal disorders, whence the belief that they could not be luenced by methods applicable to ordinary somatic orders, so that the facilities necessary in the latter uld be dispensed with in the former. Fresh air, food, d *laissez aller* would suffice; for "lunatics" these were od enough, and much cheaper. The importance of ording facilities for instruction of students was doubt- s unappreciated by those responsible for the segregation question. Secondly, doubtless, for reasons based upon gard for the public safety and convenience, it being nsidered that recent and acute cases, if dealt with in rge towns, might be a source of danger to the com- unity. Thirdly, perhaps, on grounds of humanity; the int of view possibly being that the interests of the sane could be better safeguarded were they under a iform system of legal supervision and registration. ence the aggregation of all classes in a given area in the mmon building, which on the other grounds was placed the country.

One may take leave to doubt whether, in this matter of assification and accommodation, medical opinion has en consulted at all. It is probable that lawyers and y Government officials are mainly responsible for the existing state of things, and that medical advice in this, as in many other matters touching the public health and well-being, has only in quite recent times been sought. The medical profession is, I think, partly to blame in such matters for allowing the case, as it were, to go by default. I shall not dwell upon the reasons suggested above for the segregation of recent and curable cases of insanity further than to observe that the treatment of acute mental disorder in the midst of large communities, as at Bethlem, in London, and at the psychiatric clinic at, say, Munich, is not attended with any public inconvenience.

The nature of the change in our methods of dealing with the various classes of mental disorder which I believe is foreshadowed and will take place in this country, and of which I am one of the advocates, is already exemplified on the Continent. It consists in the establishment at all university centres where clinics exist in other branches of medicine, of a psychiatric clinic, with out-patient department—a separate pavilion or building not far from the other ones. In large towns with a general hospital, a ward or wards, or a pavilion, and out-patient department for mental cases. Such a clinic is a feature of a large number of university towns on the Continent, especially in Germany, Austria, and Italy. Among these may be mentioned the clinics at Munich, Greifswald, Kiel, Giessen, Berlin, Heidelberg, Vienna, Rome, Florence, Genoa, Padua, Turin.

As I have already pointed out, a separate block, or reception pavilion, for acute and recent cases exists at certain institutions in this country, as at the West Riding Asylum, Wakefield, which has always been a leading institution in the maintenance of scientific ideals, and at the new London County Asylum at Long Grove. I believe this plan to be nothing better than one of those attempts at compromise which are a feature of our English methods; that it is doomed to failure, because the class of scientific worker, whether in clinical work or laboratory research, which is to be found in the hospitals of great towns and in the Continental psychiatric clinics will not attach himself to institutions of the kind referred to, largely for reasons of locality. Ready collaboration with and immediate advice from workers in other domains of medical science are practically impossible. Instances may and do occur of individual keenness and sporadic enthusiasm, but there is not the pervading scientific spirit of the town clinic. The plan of the acute block of an asylum does not, in short, remove the canker of isolation, which is the root-evil of our asylum system.

I would now outline the chief features of a psychiatric clinic as I conceive them. They consist in suitably designed wards and exercising grounds (these latter are quite sufficient when of modest dimensions), an out-patient department, rooms for hydrotherapy and electro-therapy, massage, and gymnastics, a lecture theatre, a consultation room for the medical staff, where cases as admitted can be discussed, and lines of treatment or research agreed upon, where also there can be medical reunions, with discussion of recent developments in research. There should be a medical library, a laboratory for clinical examinations, and others for pathology, bio-chemistry, and experimental psychology. The medical staff would consist of a director without administrative duties (but the steward who performs these would be subordinate to him); of paid assistants in good proportion; resident physicians upon an honorarium, attached for training in mental disorders, and who would assist in the work generally; experts in charge of the different laboratories. Qualified medical men would be allowed to conduct research in these. There would be the usual lectures and clinical and laboratory courses for students, courses and demonstrations for post-graduates, and courses in forensic psychiatry for the instruction of law students. The nurses should be in high proportion, say, one to five patients.

If an institute such as that here outlined is to answer its purpose, it is, in my opinion, highly important that as few legal formalities as possible be observed in regard to the admission, detention, and discharge of patients, and that the director be accorded a free hand in respect to treatment. More particularly, if he considers such measures as the continuous bath, with the adjunct of a fixed lid to the bath, and the wet pack necessary, should he be free to apply them without the irksome necessity of recording in

books and reporting to a central authority—a necessity which, I affirm, has in this country brought into desuetude a valuable means of treatment. That such a necessity exists at all is, I conceive, mainly due to the unwarrantable preponderance of legal over scientific medical authority, which is tolerated because in this country there is as yet no widespread respect for learning, and no proper confidence in, but still a general disregard of, the "professor" in the various branches of science, mingled, in the case of the alienist, with a certain amount of suspicion.

As regards the class of case to be accommodated in the psychiatric clinic, this need not be strictly limited to the well-recognized forms of insanity. Thus, at the Munich clinic the following morbid states, in addition to the kinds of mental disease usually received at asylums, were dealt with from 1904 to 1907: Brain syphilis, arteriosclerosis, alcoholic mental conditions such as delirium tremens and dipsomania; hysteria, various psychopathies; mental symptoms with chorea, with facial erysipelas, with Graves's disease, with uraemia, with morphine, cocaine, or heroin habit; cerebral abscess and tumour; cases for diagnosis, found not to be insane; cases with various mental symptoms in which the diagnosis remained obscure.

For the purpose of demonstrating chronic cases of insanity and congenital cases either the local asylum would have to be visited or material drawn thence. Cases of mental defect or insanity in prisoners, including criminals, should be available for study and demonstration by arrangement with the prison authorities.

In all cases of doubt and difficulty the psychiatric clinic would have the advantage of the advice and assistance of those in charge of the other clinics of the university or hospital. Such a clinic would be the natural training place for students who proposed to take up mental disorders as a speciality, and for those who seek a diploma in psychiatry, such as many of us are now advocating, and hope will be instituted by the Colleges of Physicians. If at present the junior medical officers of our asylums are mainly young men who have entered upon their work without any more knowledge of it than accrues from the ordinary lectures at the hospital and perfunctory rounds at a neighbouring asylum, gone through with very little interest, chiefly for the purpose of getting "signed up," the reason is to be found in the absence of proper facilities for study and training such as a psychiatric clinic would provide.

The advantages to the medical and nursing staff and to recent and curable cases of mental disease of carrying on work in contiguity to other clinics are obvious. In marked contrast, indeed, are the conditions of segregation under which the work of the average county asylum is carried on. The disabilities from a medical point of view are great; under them medical and nursing ideals tend to fade, and the spirit of research is enfeebled. Furthermore, the proportion of medical and nursing staff to patients is commonly too low to permit of carrying out work or giving individual attention in a manner comparable to that usual in ordinary hospitals. I apprehend this proportion is adhered to as being that which, having regard to the available weekly maintenance-rate, is just adequate to the necessary supervision and control of the patients. One recognizes, in short, the ideal of a workhouse, gaol or reformatory. Tanzi, in his recent work on mental disorders, refers to British asylums as institutions run on philanthropic lines, but suggests that nothing in the way of scientific work is carried on in them; this is the effect of his words. There are notable exceptions to which he, perhaps, does scant justice. And here let me allude to the laudable recent departure of the Commissioners in Lunacy in devoting a portion of their annual report to the subject of scientific research in asylums, a step which cannot fail to encourage and to stimulate. It is greatly to be desired that Government grants should be available on the recommendation of the Commissioners for helping forward such research, the results to be published in the Blue Book.

For the congenital, the chronic and incurable, and the insane epileptic classes plain buildings in the country with farm and garden attached, would suffice. A house in the country for convalescents from the clinic would be a most useful adjunct to the latter.

As this address is concerned with an ideal, it is not incumbent upon me to indicate the methods by which the scheme outlined is to be put into practice. I cannot profess to be a believer in the voluntary princip applied to the maintenance of hospitals, nor, for that m to the maintenance of the machine of national def I do not believe that this principle is successfully ap in practice in either case. I take the view that it i duty of the rulers of a State to impose upon its p military service, and to render obligatory provision fo treatment of the sick poor. Whilst holding these v I must heartily welcome Dr. Maudsley's well kn initiative in the matter of providing a psychiatric c in London, more especially as the completion of institute and its maintenance will, I believe, devolve a public authority. I see no reason why, if a pr individual desires to pay for an addition or improver architectural, curative, or otherwise, to an institution as a psychiatric clinic, maintained by the State, municipality, or the county council, he should not do s

Under existing circumstances, the nearest approac the ideal outlined above can probably be exhibited mental hospital in close proximity to a university city provided with laboratories and with a complete me school. In order to obtain the benefit of such proxi it is essential that the mental hospital be well foun laboratories and all other facilities for work; that i animated by medical ideals; that the governing b recognize that a determination to carry on the work high scientific level, implying, as it does, a higher pro tion of staff, a more skilled staff, expenditure on labora materials, payment for advice and treatment f specialists from the town, is incompatible with the ave borough asylum rate of maintenance. If these essen are non-existent, the institution, however imposing proportions and perfect its architecture, will be one o importance, will mark no step forward, and might as have been located in the depths of the country.

A Clinical Lecture

ON

CARDIOLYSIS.

DELIVERED AT THE ADELAIDE HOSPITAL, DUBLIN

BY

H. T. BEWLEY, M.D., F.R.C.P.I.,

PHYSICIAN TO THE HOSPITAL, AND LECTURER ON FORENSIC MEDI AND HYGIENE IN TRINITY COLLEGE, DUBLIN.

IN considering the heart it is necessary to remember t it is a pump, whose continued efficiency depends on factors: (1) The power available, and (2) the amount work it is obliged to do.

The invariable cause of heart failure is disturbance the normal relation of these factors. The disturbance relation may be one of two kinds—either the power n become deficient while the work remains unaltered; while the power remains normal, or even may increa the work may become excessive.

Dense adhesions between the heart and surround structures are a cause of excessive work; such a con tion exists in indurative mediastino-pericarditis, in wh the heart becomes adherent to the parietal pericardi and it again to the back of the ribs and sternum—firm a unyielding structures. Such adhesions make it diffic for the heart to contract, and so increase the heart's wo at every systole. In order to allow the heart more read to contract, Brauer, in 1902, proposed to remove the pa of the ribs which overlie the heart and, if necessary, a p of the sternum also, so as to replace the bony framewo by a soft membrane, consisting of skin, subcutaneo tissue, and pericardium, and thereby remove the obsta to the heart's systole. This operation has been done, far as I know, about sixteen times, with no deaths as t immediate result of the operation, and with considera benefit to the patients in most of the cases. For details the cases and for remarks on the surgical aspects of t operation I am indebted to a most interesting and valua paper by Mr. Thorburn, who records one case of his own the first reported from the British Islands.[1]

But it is not as a treatment for pericardial adhesio that I want to bring before you the subject of cardiolys

elieve it will be found of use in a much larger and more portant class of cases. In July, 1908, Dr. Alexander rison published a very important paper,[2] based on a se of his, in which the operation was done mainly to ieve anginoid pain in a boy suffering from aortic gurgitation; 4½ in. of the fifth rib and 5½ in. of the sixth were removed. The boy bore the operation well, and weeks afterwards the anginoid attacks were much sened, and the patient felt altogether stronger and tter than before.

Dr. Morison advocates cardiolysis on two grounds—To relieve intrathoracic pressure, both when the mere lk of the heart was the chief feature in the case, and hen, as in irremovable mediastinal tumour, the heart as secondarily involved in the neoplastic growth; and to prevent undue stimulation of the heart. He says e brunt of the heart's beat is normally expended against soft interspace. When, however, the heart is increased size, its apex thrusts against one or more ribs, which e hard and unyielding. He holds that this blow may velop a morbid excitation of the heart, which may cause creased systolic pressure associated with discomfort or ain. "It is reasonable to suppose, therefore," he writes, that providing the enlarged and powerfully pulsating eart with a proportionately large interspace void of seous resistance might prove a means of sparing its nergy."

While I recognize that Dr. Morison's paper constitutes great advance in our views as to the indications for rdiolysis, I think it does not place them quite on the orrect basis. Let me develop my own views in connexion ith a case at present under my care.

A girl aged 12 years suffered a year ago from an attack of horea; otherwise she was never ill. In connexion with the horea she appears to have had acute mitral endocarditis, for he has now come into hospital suffering from great breathlessess and from discomfort and some pain about her heart. There is no dropsy or signs of congestion of the lungs, liver, r kidneys, but the child is incapable of any exertion and looks ery wretched and ill; compensation has evidently broken own. On examining her we find, in addition to a mitral ystolic murmur, signs of considerable hypertrophy both of he left and right ventricles; the apex beat is in the fifth pace, 3¾ in. from the middle line and very forcible, and the hird, fourth, and fifth ribs and the lower half of the sternum re heaved up by every systole of the heart.

Let us trace the sequence of events in this heart. By he mitral regurgitation more work was thrown on the eart; the left ventricle became dilated and hypertrophied, and the right ventricle hypertrophied. The eart increased in bulk; for a time it had room enough nside the thorax to perform its systolic movements, but s it increased still more, room became deficient.

During diastole the heart is more or less flaccid, and ccommodates its shape to that of the space in which it s placed; it encroaches at each side on the soft and ielding lung, and tends to increase laterally; but during ystole, as the pressure rises, the heart becomes more lobular, and increases in size from before backwards. But there is only a limited space between the spine behind and the ribs and sternum in front. When the heart hypertrophies to a certain degree, it comes to press during systole against the spine behind and the ribs and sternum in front. The spine is absolutely unyielding; the heart cannot gain any more space in that direction; so, as it increases further in size, it is forced in its systole to press the ribs and sternum forwards. So in this child we feel the sternum and the ribs rising perhaps one-sixteenth, perhaps one-eighth of an inch with each systole. To raise the lower half of the sternum and the fourth and fifth ribs even one-sixteenth of an inch eighty times a minute constantly day by day and week by week requires an enormous expenditure of energy. If at a *post-mortem* examination one hand is put under the sternum (the ribs being intact) and an endeavour made to raise it one-sixteenth of an inch, it will be found that it presents great resistance. And yet what the hypertrophied heart is called on to do is to raise the ribs or sternum in some cases fully one-eighth of an inch eighty or one hundred times every minute as long as the patient lives.

In the girl whose case I have described we may divide the extra work the heart is obliged to do into two varieties: (1) Internal, the extra work thrown on the heart by the leak in the mitral valve; and (2) External, the work which the heart is forced to perform in raising the ribs and sternum with each systole. We cannot cure the leak; we cannot wholly remove the internal extra work, though by rest and appropriate treatment we endeavour to lessen it; but the external extra work, I think, can be removed by giving the heart space enough from before backwards, so that it may not be forced to move unyielding structures at each systole—that is to say, by resecting several ribs and, if necessary, a part of the sternum. For such cases I believe cardiolysis will be found of very great use, and if the condition of the patient is sufficiently good, I think we should very seriously consider the advisability of the operation.

To sum up. When we find that the ribs or sternum, or both, are distinctly moved up by each systole of the heart, I hold that this movement may be looked on as the heart's prayer for more room.

NOTE.—Since writing the above my colleague, Mr. T. E. Gordon, operated on the girl, and removed the cartilages of the third, fourth, and fifth ribs on the left side. The child bore the operation exceedingly well, and her general condition is somewhat improved, but it is too soon to form any opinion as to its ultimate effects.

REFERENCES.

[1] BRITISH MEDICAL JOURNAL, January 1st, 1910. [2] *Lancet*, July 4th, 1908.

THE BOARD OF TRADE SIGHT TESTS.

WITH TWELVE ILLUSTRATIVE CASES.

BY A. RUDOLF GALLOWAY, M.B., C.M., M.A.,

SURGEON TO THE EYE INSTITUTION, ABERDEEN.

IN March and May, 1908, I published in the *Ophthalmoscope* particulars of eight cases of serious visual deficiency affecting responsible employés in the marine and railway services. Half of these were concerned with colour defects, and at that time I expressed the opinion that the Holmgren test carefully applied by properly qualified medical examiners was sufficient to detect all dangerous cases of colour blindness, although it might be necessary to supplement it by coloured lights capable of being partially obscured, so as to simulate fog, rain, or mist.

Since writing that paper, however, I have had experience of patients who could pass the Holmgren test without making any decided mistake, but who made serious errors when asked the colour of a light. The reason of this new development may possibly be found in the fact that all candidates who now present themselves for Board of Trade sight tests, have previously passed through a course of instruction in a navigation school, where sets of Holmgren's wools are kept.

As an example of this the following case may serve:

CASE I.

Towards the end of last year a navigation officer in one of the large steamship companies came for advice; he stated that he had passed his first examination three years before, his second two years later, but that he had failed to pass his third. With the Holmgren test no decided mistake was made, although it was done slowly; with coloured lights, however, white was called red and also green several times.

The lot of the Board of Trade lay examiners is not a happy one, as may be seen by reference to the "Regulations relating to the examinations of Skippers and Second Hands of Fishing Boats," "Exn. 1 (Fishing)," where it appears that they have to make a difficult medical diagnosis, and where faulty instructions are given in order to enable them to perform this impossible duty. It is stated on page 41 with reference to the form vision tests:

> They also afford a means of detecting whether a candidate is suffering from that form of colour blindness which is caused by the excessive use of tobacco, and by *illness or similar affections. All candidates who are suffering from colour blindness arising from causes of that nature will be found to be incapable of passing the tests for form vision.*

The following case, in addition to illustrating the incorrectness of this statement, demonstrates the necessity for periodic examinations by properly qualified medical men.

CASE II.

A trawl skipper* has been under observation for some time, and now presents all the typical features of acromegaly. In September, 1909, while on full duty, the vision of his right eye

* This man died in the Royal Infirmary on April 1st, 1910. At the *post-mortem* examination a pituitary tumour probably sarcomatous the size of a large walnut was found, which pressed mostly on the left side. Death was due to erosion into the naso-pharynx and resulting left septic basal meningitis.

was $\frac{6}{6}$, but there was a central scotoma for green. The left eye happened to be much more seriously affected, and had vision of $\frac{6}{60}$ only, with central scotoma for form and colour. Even at the present time this man, quite unfit for duty, could easily pass the tests, provided he did not voluntarily elect to take the higher standard of form vision test, which is not compulsory till January 1st, 1914. For, with $\frac{6}{6}$ in one eye, whatever the state of the other, it is not necessary to use the pellet test.

The large number of rejections of candidates with normal colour perception by the examiners may be partly explained by reference to page 43, where Clause (5) states that the examiner "should note any incorrect skeins selected and withdrawn or seriously handled or compared with the test skein by the candidate," and report to the principal examiner. My experience is that the less intelligent class of candidates with normal colour perception always handle and select incorrect skeins, and that it sometimes takes much explanation to prevent this being done. The following is a case in point:

CASE III.

In November, 1909, a lad, who had just been rejected as colour blind in a Board of Trade examination, was brought to me by the family medical attendant, who witnessed the boy make several glaring mistakes in matching the Holmgren wools. Recognizing, however, that the mistakes were due to stupidity, I showed him coloured lights, which he named correctly in every case. On my advice he appealed, and successfully passed the examination in London.

Since November 1st, 1909, two additional test skeins—purple and yellow—have been added to the Holmgren test by the Board of Trade, thus stultifying the statement still given at page 42 that the colour vision is tested by means of Holmgren's wools. The addition of these two colours seems to be a tacit abandonment of the Young-Helmholtz theory of colour vision and the adoption of that of Dr. Edridge-Green. With its added complications, however, my expectation that this "improvement" in the hands of laymen would still further increase the proportion of "normal" rejections has been fulfilled. One of these cases is as follows:

CASE IV.

On January 10th I saw a fisherman who had been rejected for colours. On testing him, I found that he performed the Holmgren test correctly, and that he made no mistake with coloured lights, so I advised him to appeal. On February 15th I received a note from him stating that he had passed the tests in London.

The matching of a blue with the purple skein, or even an orange-yellow with the yellow, would necessitate the rejection of a candidate by a lay examiner who acted according to his instructions!

CASE V.

In January I examined a mate, who obtained his ticket two years ago, and who was about to apply for a skipper's certificate. He matched pink and blue, also yellows, drabs, and greens; he said yellow was green. When tested with coloured lights, he called white green three times, but made no mistakes with red and green.

CASE VI.

The father of this mate, who had been a trawl skipper for twenty-one years and is still on duty, was present at his son's examination. As he evinced no surprise at his son's mistakes, I managed, much against his will, to get him to submit to a superficial test. He also matched pink and blue skeins; moreover, he called a blue light green, and a green blue several times.

CASE VII.

In August last a man who held a second fisherman's certificate was rejected on applying for a mate's certificate. When tested by me with wools, he matched green and grey; pink and blue; red, green, and brown. With lights, he called dull-white green; red was also called green, and green was called red and also white.

CASE VIII.

In August, 1909, a fisherman, applying for a second hand's certificate, was rejected for colours. When tested by me, he matched pale-green with bluish confusion colours. Tested with lights, he called blue green, and green white regularly. Red he named correctly.

The following case, seen in December, 1909, illustrates the importance of the increased stringency of the form vision standard ($\frac{6}{6}$ in one eye and $\frac{6}{12}$ in the other) which was advocated in my paper in the *Ophthalmoscope*, but which is not compulsory till January 1st, 1914. (The old standard is barely $\frac{6}{12}$ with both eyes open and not tested separately.)

CASE IX.

In December, 1909, an A.S., aged 29, failed to pass the s test at a navigation school.

His vision tested by me was:

Right, $\frac{6}{6}$ Hm 2 D. = $\frac{6}{6}$.
Left, $\frac{6}{60}$ Hm 5 D. = $\frac{6}{18}$ 3 letters.

Many hypermetropic cases of this nature could ea pass even the improved standard, and it is only a ma of time for failure of accommodation to cause unfit for duty.

CASE X.

In February, 1909, a trawler went ashore in a snowst shortly after being left in charge of the mate, whose vis after the accident was:

Right eye, $\frac{6}{36}$ and J. 14. Convergence of 25 deg. and amblyo
Left eye, $\frac{6}{18}$ partly — 1 D. = $\frac{6}{9}$ partly.

This eye showed traces of old keratitis; a cycloplegic m no material difference to the refraction. Colour perception normal.

CASE XI.

In February, 1909, I saw a mate who had been taking his t of watch on a trawler until one week before the examinati He had had misty vision for three weeks, worse in sunlig His vision was as follows:

Right eye, $\frac{1}{60}$. Central colour scotoma; disc pale.
Left eye, $\frac{6}{36}$. Central scotoma for green and red.

He smoked $2\frac{1}{2}$ oz. of shag per week.

The following case will make an interesting finish the present series:

CASE XII.

In December, 1908, I saw a fisherman who had obtained mate's certificate, which, however, had been subsequen taken from him on failing to pass an eyesight examinati When tested with Holmgren's wools, with pink he match yellow, with pale green he matched greys and browns. Wh tested with coloured lights, he called blue green, dull wh red, dull red green, also green he called white. Consequent I refused to give him a certificate of fitness. Some time aft he came back and told me the following story:

Being refused leave to appeal, he re-entered for the eyesig examination under an assumed name; he passed all three tes —form, colour perception, and colour ignorance—under different examiner and obtained his certificate; he then wro and informed the officials what he had done, whereup he was summoned to a fresh examination and was rejected, t certificate being taken back.

In view of the undoubted possibility of dangerous colour-blind candidates passing the Holmgren wool tes and also of the frequent calling of white light red or gre by certain classes of the colour blind, greater attentic should be directed in future to Dr. Edridge-Green's woo and lamp, which provide for these and other contingencie

A NOTE UPON PHLYCTENULAR AFFECTION OF THE EYE.

BY

SYDNEY STEPHENSON, M.B., OPHTHALMIC SURGEON, and J. A. JAMIESON, M.B., RESIDENT MEDICAL OFFICER, THE QUEEN'S HOSPITAL FOR CHILDREN, LONDON, E.

THE view that phlyctenular affections of the conjunctiv and cornea are tuberculous is an old one. The earlie writers spoke of the affection as "strumous" or "scrofulou ophthalmia," a name which indicates clearly enough th view held by them with regard to the origin of the disease But with the more or less general abandonment of th vocable "strumous," which marked the era following th discovery of the specific micro-organism of tuberculosis by Koch in 1882, there came a corresponding giving up o the word as applied to those affections of the eye. The suggestion made many years before by the famous Glasgow oculist, William Mackenzie, that for "strumous" the word "phlyctenular" should be substituted, was very generally adopted, except perhaps in Germany, where the disease is usually spoken of as "eczematous" conjunctivitis or keratitis, as the case may be.

The pendulum has now swung in the opposite direction. The tuberculous or para-tuberculous origin of phlyctenular disease, after having been under a cloud for a good many years, is again to the fore. Nobody asserts that the

enule itself is of tuberculous histological structure, t it contains the tubercle bacillus. Nevertheless, it widely believed that, practically speaking, the teristic lesion occurs only in those who are the ts of tuberculosis, latent or otherwise.

main facts that have led to this change of opinion

he frequency with which a family history of le can be obtained from the subjects of phlyctenular e.

he frequent coexistence, along with phlyctenular e, of other manifestations of tuberculosis—as, for le, enlarged glands or joints, otorrhoea with or it mastoid disease, phthisis pulmonalis, dactylitis, rofulodermia.

he fact, as shown by the experimental work of Nias and Leslie Paton,[1] that the blood of patients ing from phlyctenular disease behaves in a manner is typical of a definite tuberculous infection. As esult of examination of the blood in upwards of patients with phlyctenular disease, these authors that their observations of the opsonic index go far port the hypothesis that phlyctenular ulcers are due escape of attenuated or dead bacilli from some it focus, identified or otherwise, of tuberculous se.

The positive result obtained in phlyctenular cases mploying the Koch, Wolff-Eisner-Calmette, von et, or other specific test for tubercle (Stephenson, y, Weekers, etc.).

e observations with von Pirquet's test recently made at the Queen's Hospital for Children, London, con- the view that phlyctenular disease is a tuberculous festation, or, at least, that it occurs in tuberculous cts. During the last few months we have employed von Pirquet vaccination in 20 cases in children, e ages have ranged from 2 to 12 years. The series included five males and fifteen females. Practically kind of phlyctenular disease was experimented on, ing from recent conjunctival or corneal eruptions to standing scars upon the cornea, which had almost inly resulted from former attacks of phlyctenular mmation. The cutaneous reaction, of course, varied as regards intensity, but the important point was a positive result was obtained in every instance. In cases, however, the inoculation was made more than before a positive result was produced.

should be added, finally, that a notable proportion of cases, estimated at 50 per cent., presented more or obvious signs of tubercle, medical or surgical, while ven larger proportion, estimated at 75 per cent., gave nily history of tubercle.

REFERENCE.

rans. *Ophthalmological Society*, xxvi, 1906, p. 232; and *Lancet*, mber 1st, 1906.

A SERIES OF CASES OF NGENITAL OPHTHALMOPLEGIA EXTERNA (NUCLEAR PARALYSIS) IN THE SAME FAMILY.

By HENRY COOPER, B.A., M.R.C.S., L.R.C.P.,

SURGEON, R.N.

s series of cases came under my notice a short time , and is, I think, of sufficient interest for publication.

youth of 21 (son A. in table) came to me with a small ign body in his right eye, which was easily removed. He marked ptosis on both sides, and on further examination I nd that all the external eye muscles were paralysed. The y movement of which the eyeballs were capable was an ost imperceptible tremor when he made an effort to follow oving object across the field of vision. The pupils both cted perfectly to light and accommodation, and his sight was mal. He had served his time as a boilermaker, and had er had any difficulty in doing his work. He stated that he s "born like it," and that his father was similarly affected.

His father I also interviewed, and he gave me all he ew of the family history, which I have embodied in the companying table, in which cases are shown in italics.

The father, T. R., aged 57, a sailmaker, stated that he had en affected from birth, but had always had good eyesight. When working he always held his head on one side, as it came natural to him to use his left eye most, owing to an external squint in the right eye. He had almost complete paralysis of both levator palpebrae superioris muscles and complete paralysis of all the external eye muscles, except the right external rectus, which had enough power to cause a small degree of external strabismus. The eyeballs were quite immovable, there being no tremor even when attempting to follow a moving object across, or up and down, the field of vision. The internal ocular muscles were normal and the sight good. He enjoyed good health, and so far as he knew there was no history of any diseases prevalent in the family.

He stated that his father and grandfather were both born with the same affliction, but had no squint, the paralysis being complete save for the internal ocular muscles (grandfather and great-grandfather in table). He had two uncles, one affected, one not. He had two aunts, neither affected. He had two brothers, one affected and one not; the one who was not affected died some years ago in an asylum. Of his own children he said:

I have had six. The *first* and *third* died in infancy, and so far as I know were *not* affected.

The *second*, my eldest son, is not affected. He is married and has two children who are both unaffected.

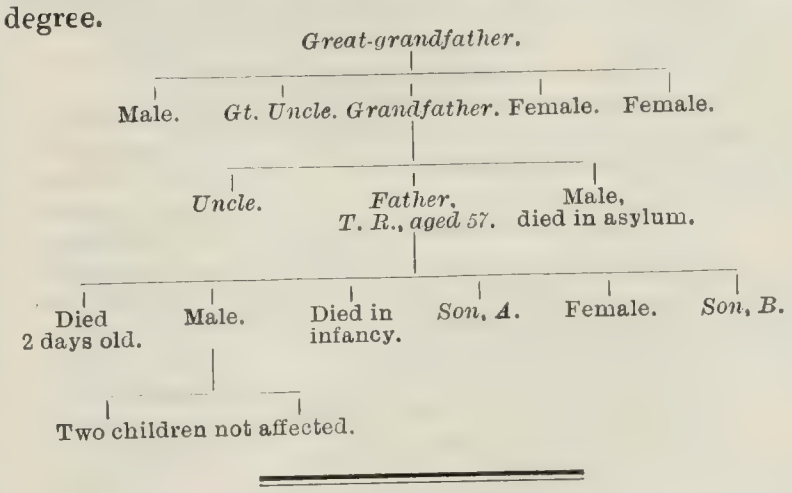
My *fourth* is the boy you have seen. (Son A. in table.)

The *fifth*, a daughter, is not affected.

The *youngest*, a boy, is affected, but not so completely as I am; he can raise his eyelids a little bit, but his eyeballs are fixed. (Son B. in table.)

It is interesting to note that so far as he can remember

1. No female member of the family has been affected.
2. No case has ever developed after birth, but all have been congenital.
3. The ptosis has been almost complete in all cases except that of his youngest son, who is the first of the series in whom the affliction has appeared in a lesser degree.



ON MUCOCELE OF THE NASAL SINUSES, AND ITS COMPLICATION BY OPTIC NEURITIS.

By ROBERT FULLERTON, M.D.,

SURGEON FOR THROAT AND NOSE, OUTDOOR DEPARTMENT, GLASGOW ROYAL INFIRMARY.

DURING the last few years a considerable amount of attention has been given to affections of the nasal sinuses which cause ocular disturbance. In such cases the pathological factor is generally suppuration in the frontal or ethmoidal sinus, or in both, and the symptoms, if not clamant, are tolerably well marked. The three cases which I now record differ from the suppurative variety in that they followed a slow and unobtrusive course; nevertheless, they present points of interest and practical value, especially in regard to the close and important relationship between these sinuses and the eye.

Two of the patients were referred to me from the Ophthalmic Institution; and I have to thank Dr. Maitland Ramsay for supplying notes on the condition of the eyes, and for allowing me to publish the cases.

CASE I.—*Mucocele of the Right Ethmoidal Region causing Optic Neuritis.*

K. G., aged 20, a laundress, was referred to me on May 28th, 1909, from the Ophthalmic Institution by Dr. Maitland Ramsay for nasal treatment. The patient, who looked strong and healthy and gave a good family history, had been employed in a public laundry for the previous six years. For three years she had frequently suffered from headache of the right frontal region, which yielded to powders obtained from her doctor, but she was unconscious of anything being wrong

with her eyes until about three months before, when a prominence of the right was noticed.

I found swelling of the soft tissues of the upper part of the right orbit, with proptosis. There was a moderate amount of adenoid tissue present, but apart from this the naso-pharynx was normal; no difference could be detected between its right and left side, and the posterior end of the right middle turbinal was of the average size and appearance. The left nasal passage was healthy but narrowed by a moderate deflection of the septum to that side. This deflection left the right passage wider than usual, and its ethmoidal region was occupied by a rounded swelling which bulged forwards as well as towards the septum, which it touched. The outline of the middle turbinal could be traced on its inner side; when probed, it felt firm and distended, and its mucous covering, except for polypoid thickening, appeared normal.

On May 30th, with cocaine anaesthesia, the anterior bulging portion of the swelling was opened with cutting forceps, disclosing a thin-walled cyst, tensely filled with a greyish-yellow viscid secretion, which escaped under pressure to the amount of over a fluid ounce. The anterior, and a considerable portion of the inner wall was removed, so as to lay bare the cavity and ensure free drainage. It was lightly packed with iodoform gauze for twenty-four hours, and for a week thereafter the dressing consisted in swabbing out the parts with hydrogen peroxide and wearing a pledget of sterile gauze in the nostril.

Report on the Eye Condition.—"The right eye, which has been prominent for the last two months, is pushed downwards and forwards. Exophthalmos is not reducible. In the exophthalmometer—right eye=17 mm.; left eye=11. Tachycardia and Stellwag's sign are absent, and the pupils are active. Ophthalmoscopic examination shows optic neuritis in the right eye, while the left fundus was normal.

Vision: R. $\frac{5}{24}$ Ċ. + .50 D. sph. = $\frac{5}{10_4}$ } Tension normal.
L. $\frac{5}{10}$ }

After operation the prominence of the right eye immediately disappeared. In the exophthalmometer—right eye=12 mm.; left eye=11. On June 1st the headache was absent; on June 8th the optic neuritis had practically disappeared; and on June 22nd the patient was dismissed. Sections of the cyst wall showed the lining membrane to be largely composed of fibrous tissue, with epithelium practically gone. Cultures of the contents of the cyst remained sterile."

In this case the whole of the ethmoidal region was taken up by the cyst cavity, which extended backwards, upwards, and outwards, evidently terminating in the most posterior ethmoidal cell at a distance of 6.8 cm. from the nasal spine. The lining membrane, except on its posterior wall, where it had a thinned, greyish look, was bright red in colour. The patient, when seen eight months later, was in good health and free from symptoms. The edges where the cyst had been opened into had contracted little, but in the cavity around the opening a considerable development of oedematous granulation tissue had taken place. This granulation tissue had all the appearance of small vascular polyps, such as in my experience commonly follows free opening of the ethmoidal cells. The immediate improvement which followed the opening of the cyst would point to an interference with the vascular supply as the cause of the symptoms. We are familiar with the variability of the mastoid cells and the position of the lateral sinus, and it has been found that this variability has a certain relationship to the type of skull. The skull in this case was of the brachycephalic type. It is conceivable that the shape of the skull may have influenced the contour and relationship of the sphenoid and ethmoid bones so as to predispose the optic foramen to pressure from dilatation of the posterior ethmoidal cells.

CASE II.—*Suppurating Mucocele of the Right Ethmoidal Region, with External Swelling.*

R. McL., aged 44, male, a labourer, was seen by me at the Royal Infirmary on September 19th, 1909. There was a swelling of his nose at the inner canthus of the right orbit, which was red, soft, and tender on pressure, and which had been present for two months. The patient stated that during the last few years a similar swelling had occurred on several occasions in the same position, and had spontaneously disappeared.

A deflection of the septum obstructed the upper part of the right nasal passage, and purulent material was seen escaping from between the deflected portion and the external wall. His eye was in no way affected, nor was there any subjective pain.

In order to get access to the ethmoidal region a submucous resection of the septum was performed. Eight days later the anterior half of the middle turbinal with part of the surrounding tissue was removed. A smooth-walled suppurating cavity, which occupied the position of the anterior ethmoidal cells, was thus opened into. Immediately thereafter the external swelling began to subside, and practically no more pus was seen. On October 2nd the swelling had quite gone.

I regard this case as that of a mucocele of the ethmoid, that had become secondarily infected by pyogenic organisms, and that had periodically discharged parts of its contents into the nose. The external swelling sumably arose from an extension outwards of the i matory process at the junction of the lacrymal bone the ascending process of the superior maxilla, and i it would probably have broken down and discharg this point.

CASE III.—*Mucocele of the Left Frontal Sinus, involving Anterior Portion of the Ethmoidal Region.*

N. C., aged 22, a waitress, was referred to me fro ophthalmic institution by Dr. Wright Thomson on Marc 1908. She was anaemic, but otherwise appeared to be s and healthy. Attention was first drawn to her left ey years before, when it became prominent and bloodshot. G and a lotion which she received at this time had kept i until two months previously, when tears began to come the eye, and a swelling appeared at its inner canthus.

The left eyeball was proptosed and displaced outw and a fullness extended upwards and outwards from internal inferior angle of the orbit towards the supra notch. Closing the eye caused this fullness to become prominent. The skin covering it was unaltered and movable. It was not tender on pressure, but firm and resis and apparently due to bony distension. A good anterio posterior rhinoscopic view was obtained. The right passage was found to be narrower than the left, the naso-pha free and healthy, and no purulent secretion could be seen. anterior end of the left middle turbinal, which was enla and showed polypoid hypertrophy of its mucous covering close against the septum, appearing as if it had been f over by distension of the parts lying external and ant to it.

On March 29th, with cocaine anaesthesia, a vertical inc was made into the thin bulging portion, external to the ant end of the middle turbinal. One blade of a pair of cu forceps was introduced through this, and the anterior en the turbinal and adjoining parts removed to an extent suffi to admit the tip of the little finger. The contents of the ca thus opened into consisted of clear serous fluid, greyish mu material, and thick yellowish secretion like the yolk of These various forms of secretions were distinct the one f the other. A large quantity was evacuated, but, as the pat became very excited, the amount could not be estimated, was an examination made of the contents. The cavity sented an elongated funnel-shaped dilatation which, follow the course of the naso-frontal duct, extended upwards and wards until it merged in the frontal sinus. Its lining m brane looked thin and injected, and a curved probe could readily passed into the sinus beyond the site of the su orbital notch.

Opening into the cyst gave rise to no disturbance, and suppuration was seen at the time or later. When exami eight months afterwards the fullness at the inner side of the was less, but noticeable, and the opening from the nose into cavity had diminished little in size.

Ocular Report.

Vision: R. $\frac{5}{20}$ Ċ. + 1 D. sph. C. + 3 D. cyl. ↓ = $\frac{5}{10}$.
L. $\frac{5}{10}$ Ċ. + 3 D. sph. = $\frac{5}{5}$.

The fact that in this case no particular attention h been drawn to the eye until four years after the fi symptoms is a proof of the slow and insidious way which these cysts develop. The advent of epipho indicates extension of the pressure to the lacryn apparatus. The patient stated that the prominence of t eye when seen by me was less than two months before.

This alteration has been probably due to capilla leakage from the cyst, the contents of which did n escape at the same high pressure as in the first ca recorded. The possibility of the mucocele having form in the anterior ethmoidal cells, and expanded upwar between the floor of the frontal sinus and the roof of th orbit, was considered.

Apart from probing, a fair view of the cavity wa obtained as far as the point where it turned outwards, an I concluded that it was continuous with the frontal sinu The contents of the sinus, in seeking exit by a process gradual distension, appeared to follow an anatomical rou similar to that adopted by Killian, in order to secure fr drainage in his radical operation for frontal sinusitis.

THE following bills are now before the New York Stat Legislature: One, drawn up by a joint commission of th State Bar Association and the State Medical Society regulating expert medical testimony, which failed to pas last year; two bills providing for the further restrictio of cocaine and other "habit-making" drugs; one prohibit ing the practice of medicine, dentistry, or pharmacy b a corporation; and one forbidding advertisements in th public press relating to the treatment of venereal or sexua diseases.

CASE OF SUCCESSFUL RHINOPLASTY IN AN OLD WOMAN.

BY SINCLAIR WHITE, M.CH., F.R.C.S.,
SENIOR HONORARY SURGEON, SHEFFIELD ROYAL INFIRMARY.

NY writers doubt the expediency of attempting to tore a mutilated nose by plastic surgery, holding that distressing deformity can be more satisfactorily dealt th by providing an artificial substitute which is retained position by being attached to the bridge of a pair of ctacles. The sentimental factor in the case, however, nts for much with many people, and will probably ways continue do so.

Mrs. X., aged 72, merly an obtric nurse, came ler my care at Sheffield Royal irmary in the nmer of 1909 a rodent ulcer the nose of en years' duran. It had deoyed the greater ct of the cartiinous framework, but the sal bones and e skin over them re intact. She was transred to the *x*-ray partment, but ling to receive aterial benefit m a prolonged urse of treatent, I decided to cise the ulcer d restore her se by the Indian ethod of displacing a flap from the forehead. The result, as ll be seen from the accompanying photographs, taken two nths afterwards, is remarkably good.

Briefly, the steps of the operation were as follows:

1. The skin covering the root of the nose was raised in a flap th its attached base below, and turned downwards. Its epirmal surface thus formed the lining of the new part of the se, while its raw surface afforded a bed on which to lay the rehead flap.
2. In order to secure sufficient material without encroaching the hairy scalp, and also to reduce as much as possible the gle through which it would have to be displaced, the frontal p was cut obliquely upwards and outwards. Its pedicle correonded to the inner end of the left eyebrow, and contained the rminal branches of the left angular artery. Its base presented ree projections, a central one about ¾ in. square, and two teral ones somewhat smaller. These, folded on themselves ith the raw surface inwards, and so held by mattress sutures, formed the columna and alae nasi respectively. After placing a piece of rubber tubing in each nostril, and anchoring them by sutures to the upper lip, the flap, which included the periosteum, was stitched in its new position. To guard against the effects of subsequent oedema, several superficial incisions were made in its epidermis.
3. The large gap left on the forehead was filled by a piece of the entire thickness of the skin transferred from the side of the chest and sutured to the edges of the wound. Primary union took place everywhere, and, with the exception of a tiny bit at its upper border, the skin graft retained its vitality and natural colour.

Of the various methods of performing rhinoplasty, the one I adopted is probably the best for cases where the destruction is limited to the cartilaginous part of the nose. The objections that have been urged against it fall under three headings.

First, there is the risk of immediate failure from necrosis of the flap owing to undue interference with the blood vessels in its pedicle; and, in the second place, there is the undoubted tendency to subsequent atrophy of its tissues from the same cause, acting in a slighter degree. These dangers may be largely, if not altogether, avoided by following the plan I pursued.

A point worth noting is that by separating the periosteum from the underlying bone around the origin of the pedicle it is rendered much more mobile without its blood supply being in any way interfered with. There should be no necessity for subsequent division and trimming of the pedicle.

The third objection has reference to the unsightly scar left on the forehead. My case demonstrates that it may be wholly avoided by employing the Wolf method of grafting a piece of the entire thickness of the skin from the side of the chest wall. I frequently make use of the Wolf graft, and with almost constant success, in operations on the face and neck; and I am quite sure its value is not properly appreciated by the majority of surgeons.

HE INEQUALITY OF THE PAPILLOEDEMA IN CERTAIN CASES OF INCREASED INTRACRANIAL PRESSURE.*

BY R. LEONARD LEY, M.B.CANTAB,
YARMOUTH.

the first place I will assume that papilloedema is due increased intracranial pressure. There is in support of is view the facts that the swelling rapidly subsides after radical or palliative operation for tumour, or on the lief of acute Bright's disease; that the increase of intraanial pressure can be proved by lumbar puncture; and at there are usually other signs of intracranial high nsion such as the headache and vomiting of tumour, eningitis, or Bright's disease, the headache and epistaxis typhoid fever; and in anaemia, when there is sometimes welling of the disc, there is also swelling of other nsupported parts. I shall endeavour to prove presently at the disc is an unsupported part.

The parts to be considered are the brain and spinal cord in their membranes, the optic nerves, and the eyes. The brain is joined to each eye by a direct prolongation of its substance—the optic nerve—and its membranes form a firm fibrous sheath, which is firmly attached to the margin of the scleral opening which admits the optic nerve. This sheath is closed in part by the lamina cribrosa. The eye is enclosed in a firm unyielding case formed by the sclera behind and the cornea in front, and the only weak, unsupported spot is the space above mentioned for the admission of the nerve. The brain, spinal cord, and their membranes are enclosed in an unyielding case formed by the skull and spinal canal, the only opening being for the entrance of blood vessels and the exit of nerves. While the intracranial pressure is compatible with life the brain must receive a free blood supply, so the blood pressure must rise *pari passu* with intracranial pressure, and we have as evidence of this the slow, full pulse; no relief, therefore, can come from the vascular system. The pressure, then, can only be relieved by exudation along the nerves and lymph spaces. The optic nerves are the largest, and are a direct outgrowth of the brain, and therefore they afford a suitable channel for the exuding fluids.

Now according to the laws of hydrostatics, as the brain

* Extracted from a paper read before the East Anglian Branch eeting of the British Medical Association at Great Yarmouth in ctober, 1909.

is a fluid enclosed in a closed case, any pressure produced at any point is equally transmitted to all points and therefore to the optic nerves in their sheaths. The brain is a viscous fluid and is divided up by prolongations of its membranes forming the falx and tentorium, but as these divisions are not complete and are yielding they do not prevent the transmission of pressure to all parts equally. The transmission of pressure to the optic nerves causes swelling of the discs. Now the swelling of the papilla takes place into the globe of the eye. This brings me to the point of my thesis, and that is: That the degree of swelling depends, not on the irregularity of the intracranial pressure, which I have pointed out should be equal in both nerve sheaths, but upon the intraocular tension being greater in one eye than in the other. We know that the tension is not necessarily the same in both eyes. For instance, acute glaucoma sets in one eye only, and it is common experience to find the tension greater in one eye than the other. This difference is often present, no doubt, in slight degrees, which are not appreciable clinically, and is probably due to slight dissimilarity in the lenses. I believe myopes tend to have a low tension and hypermetropes a high.

I have already shown that the eye is a rigid case, and the optic papilla its weak spot. Now in the normal eye the tension is kept normal and its excess of internal secretions eliminated by filtration through the canal of Schlemm and the spaces of Fontana. What happens if this filtration is obstructed, as in chronic glaucoma, which I believe usually occurs in hypermetropes? Where is the result of this obstruction and increased tension shown? It is shown on the optic papilla, the unsupported point in the eye; for while in the normal eye the papilla in a coronal section is seen slightly depressed, like the depression in a saucer, yet in the eye of chronic glaucoma it forms a second globe leading out of the first. So that, lookir the fundus with an ophthalmoscope, one sees a deep with parts of the vessels completely hidden on accou the globular dilatation that has taken place. For yielding to take place, the intraocular pressure mus greater than the pressure in the nerve sheath, therefore greater than the intracranial pressure.

Now what takes place when the converse holds, and intracranial pressure is raised, with a normal eye? As papilla begins to swell by reason of the pressure tr mitted along the sheaths, the pressure in the eye slightly, but is immediately relieved by the normal fi tion processes, so that the swelling can go on unchec In this case, if both eyes were normal, the swelling w be the same in both eyes. But suppose the filtration cesses were hindered in one eye producing *plus* tension, the swelling of that papilla would undoubtedly be hind by the greater intraocular pressure, while the swellin the other side would go on unchecked. Thus slight quite unappreciable degrees of tension might mater hinder the swelling of the disc (the swelling h measured in dioptres, a very minute measurement).

We have, then, in the optic papilla a weak unprote spot, which when the excess of pressure is intraoc bulges towards the brain, and when intracranial tow the eye, and we have the brain a fluid which transi pressure applied at any point to all parts.

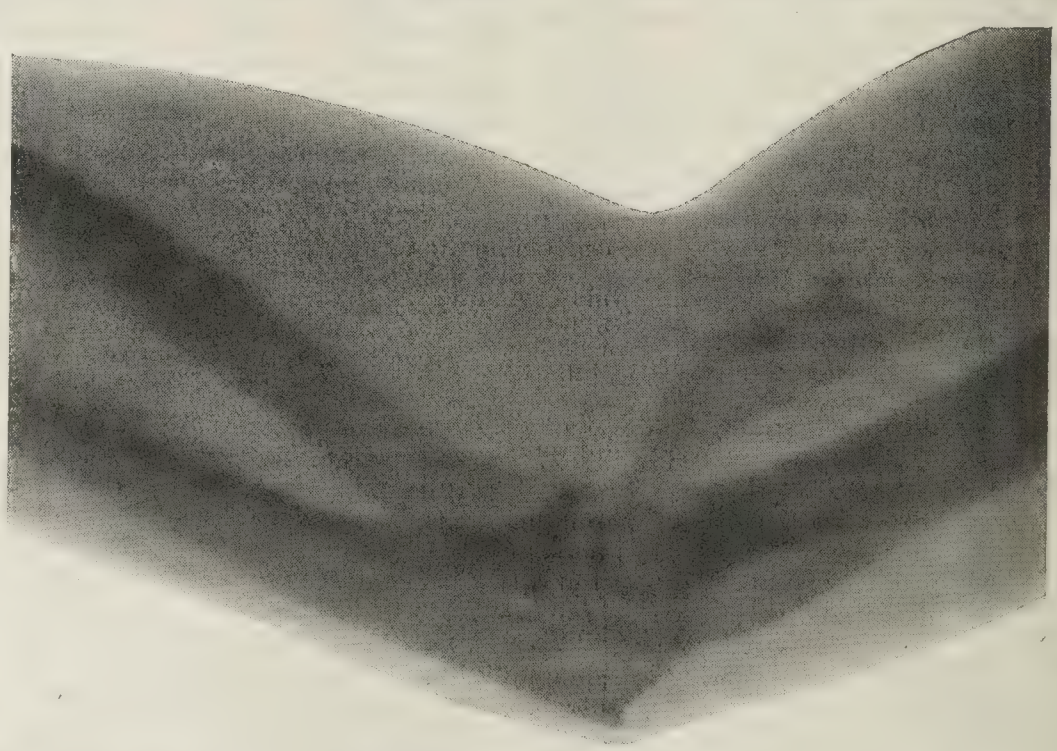
I maintain, then, that the papilla is peculiarly subjec changes in pressure and that the pressure exerted the papilla from the brain side is equal in both papi and that therefore inequalities in the papilloedema fo on ophthalmoscopic examination depend not on differe of intracranial pressure on the papillae, but on inhibiting action of increased intraocular tension on side of the lesser swelling.

OSSIFICATION IN THE BRACHIALIS ANTICUS FOLLOWING INJURY TO THE ELBOW.

BY WILSON TYSON, M.A., M.B., M.R.C.S.,
SURGEON, LOWESTOFT GENERAL HOSPITAL.

THE following case, being a good example of this somewhat rare condition, seems worth reporting:

On December 26th, 1908, R. M., aged 37, a brewer's drayman, when playing football, fell with his right arm doubled under him. As he could not use the arm he went to the hospital three hours after the accident, when he was seen by the house-surgeon, who made an examination with the *x* rays; he found no fracture or dislocation, but much swelling round the right elbow-joint. A right-angled splint was applied for a fortnight, and during this time, and for the next month, the joint was treated by massage and passive movement.



The man resumed work in six weeks, but within four or five months of the accident he felt a lump in front of the elbow, which gradually increased in size.

On October 11th, 1909 (nine months ater), he was moving a barrel of beer weighing 4 cwt., when he felt something give way in the elbow; he again went to the hospital, where I saw him, and found the following condition: He complained of loss of power and of considerable pain in front of the elbow-joint, where a hard mass could be felt in the inner bicipital sulcus and above the level of the bend of the elbow. The relation of the bony points was normal. The skiagram shows the condition present. As the man could not lift any weight or in any way follow his ordinary employment it was decided to remove the mass, which was diagnosed as partial ossification of the brachialis anticus muscle. The operation was troublesome, as the brachial vessels ran in a groove on the anterior surface of the swelling, and were densely adherent to it; the wound he by primary union, and now, three months after the operat there is perfect movement in the joint, and the man can heavy weights as before.

The specimen removed was sent to the Clinical Resea Association, the report being as follows:

This specimen is composed of hard bone, having structure of branching masses of considerable thickn with spaces containing blood-vessels, fat, and what appe to be remnants of muscle. At one end the bone is form in muscle, at the other in dense fibrous tissue. There i active bone formation going on now.

Thomson and Miles[1] refer to this condition as oc sionally following backward dislo tion of the elb and say that "th outgrowths are to displacement bone-forming e ments either at time of injury as "a result of f cible attempts reduction. Acco ing to D. M. Gre they do not velop in the tend of the brachia anticus, but und and are not of t nature of myos ossificans."

In this case fracture or dislo tion was discerni by the *x* rays thr hours after t original accident, but some bone-forming elements we presumably displaced at the time of the original inju It is not easy to determine what caused the loss of pow at the second accident, as no rupture of muscle or tear away of its insertion was discernible at the operation.

I have to thank my colleague Dr. W. L. Bell for h kindly help at the operation, and the house-surgeon, I Hendrie, for notes of the case and for the skiagram.

REFEREN
[1] Thomson and Miles, *Manual Surgery*, vol. i, p. 513.

A CASE OF POISONING BY CAMPHORATED OIL.

BY FREDERIC BARKER, M.B., B.S.LOND., L.R.C.P., M.R.C.S.,
NORTHWICH.

CAMPHORATED oil (Linimentum camphorae, *B.P.*) is a common domestic remedy, often supplied to the public in bottles which do not indicate by shape or label the poisonous nature of their contents. Camphor poisoning, nevertheless, does not appear to be of frequent occurrence, and the following notes may be of interest; but it is my desire to advocate the adoption of suitable precautions by those who sell the oil, for had the bottle in this case shown the need for care in handling, a child's life would not have been lost.

I was called on February 3rd to see a female child, aged 1 year and 4 months. She had been put to bed earlier in the evening, and had been given a bottle of camphorated oil to play with. At 7 p.m. a brother shouted out that the baby was "drinking castor-oil"; the father found the child with its mouth full of the oil. He promptly turned her over and she "vomited on the floor." She remained well until 8 p.m., when she vomited again. The eyes gradually became staring, she moaned, and at 8.20 p.m. convulsions began. She was then given some salt and water, and vomiting occurred.

When I saw her at 9 p.m. there were very marked convulsions, with irregular breathing, flushed face and profuse perspiration; the pulse was rapid, the pupils were moderate and equal in size and inactive to light, and there was no conjunctival reflex. The breath did not smell of camphor, and the mouth was not sore. The baby was put in a hot bath, with cold cloths to the head, while I prepared a glass funnel, some tubing and a soft rubber catheter as a stomach tube. The stomach was washed out with warm water until quite clear of oil and débris, the washings being placed in four successive bowls. The first two contained food remains in small quantity, with a considerable amount of oil floating on the top, smelling distinctly of camphor. The last two showed the merest film of oil and did not smell.

At 10.40 p.m. the pulse was about 200, temperature in rectum (taken twice) 106.4°. Remedies seemed to have little or no effect. Chloral hydrate (3 grains) by the rectum, small doses of potassium bromide by stomach tube and by rectum, hot milk and water similarly given, and brandy were tried. About midnight I gave chloroform very cautiously, and with even the most sparing dosage the fits were to some extent controlled. But they became periodic, and in the intervals the breathing was so markedly stertorous, and the face more cyanosed than before, that I ceased giving the anaesthetic. While giving chloroform the fits were heralded by a flickering of the eyelids, the spasms spreading to the abdominal and back muscles and then to the extremities. There was usually at first conjugate deviation of the eyes and drawing of the mouth to the left, followed by the turning of the eyes and mouth to the right. On ceasing the chloroform the convulsions became more continuous but were not so violent, the breathing was decidedly better, and the face a more natural colour. Later there was a slight return of conjunctival reflex. About 5 a.m. collapse set in, and the baby died about 6.30. I was not present at the end, but the father thought the child was "a bit conscious."

The bottle of oil, which was sold by a co-operative society, contained at the time of the misadventure approximately ten drachms. There remained in the bottle seventy minims, and the total content of the bottle was slightly over thirteen drachms. Over one ounce has therefore to be accounted for, and allowing for what was ejected in the turning over of the baby and some that was spilt on the bedclothes, it is probable that at least half an ounce was swallowed. The child was said to have vomited three times before I saw her, and there was yet a fair quantity (I should say over a teaspoonful) in the stomach washings. The composition of camphorated oil is camphor, in flowers, 1; olive oil, 4; so that about one drachm of solid camphor in solution was probably taken.

The gradual onset is worthy of note; it was not until an hour had passed that any symptoms developed, and there is no doubt that if the stomach had been washed out before absorption had taken place to any great extent the baby would have been saved. Apart from the spasmodic action of the respiratory muscles, which joined in the general convulsions, the poison seemed to me to have affected especially the respiratory centre.

The bottle is of flat shape, in plain glass, and is labelled merely "Camphorated Oil," with the name and address of the wholesale firm.

THE TREATMENT OF VARICOSE VEINS OF THE LOWER LIMB BY AVULSION.

BY H. D. O'SULLIVAN, B.A., M.B., B.C.CANTAB,
BURTON-ON-TRENT.

I DESIRE to describe a method of extirpating varicose veins of the lower extremity which is successful, and which to me at least is entirely new. The concise description of an actual case will make the method clear, and also enable me to call attention to some interesting points in minor surgery.

The patient was a man, aged about 30, who wished safely to engage in a game of football or hockey. The right lower limb exhibited three large, moderately tortuous veins. One extended from the front of the ankle to the inner side of the knee. Another was definitely varicose for two-thirds of the distance between ankle and knee. The third extended over half that distance. Above the ankle the three communicated by large and tortuous cross-channels. The common origin appeared as a single vein in front of the ankle.

Operation.

On the evening prior to the operation the limb was shaved and then washed for half an hour with white soap and water. The veins to be removed were then painted with tincture of iodine (*B.P.*), the site of the proposed incisions being marked by broad square patches of iodine. The limb was enveloped for the night in a household towel fresh from the wash. On the morning of the operation, the washing and marking of the limb were exactly repeated. An elastic bandage was applied to the limb, and a tourniquet above the knee. A local anaesthetic was employed (cocaine hydrochloride, 1 grain in 1 oz.) sterilized by exposure to a temperature of 65° C. for one hour on three successive days. I have, however, strong suspicion that distilled water widely infiltrated is as good as any solution.

The longest vein was first dealt with, and the others in exactly similar fashion. It was exposed, immediately below the knee, by a flail-shaped incision, the lesser limb crossing the vein from above downwards. The upper end was tied and allowed to retract after division of the vein. The common origin of the veins at the ankle was next dealt with in similar fashion, the lower end being tied.

The longest vein was then exposed and divided by two incisions equidistant from each other and from the ankle and knee respectively. The cross channels were also exposed at either end and divided. This is essential.

A silver probe, with an eye threaded with stout silk, was then passed into the vein from below upwards. The probe was then passed along the lumen of the vein till it emerged at the incision next above. The silk was then firmly tied to the free end of the vein. A firm steady jerk then removed the whole functional vein between the two said incisions. The portions of veins between all the other incisions were then dealt with in similar fashion. The total length of the combined incisions was about 7 in. After suture the incisions were painted with tincture of iodine, and covered with pads of plain boiled lint.

On relaxing the tourniquet profuse haemorrhage occurred from each wound, which was easily controlled by the simple pressure of the usual bandage. The blood became diffused throughout the pads and bandage, and the whole quickly set to form a firm and comfortable splint.

The bandage and pads were removed on the fourth day. The limb was perfectly free from extravasation and soiling. The wounds were painted with tincture of iodine, and wool and a bandage applied. The sutures were removed on the tenth day. On the fourteenth day the patient got up and walked.

The patient, who comes of a family of nervous temperament, felt nothing of the operation itself, but during the last quarter of an hour complained a little of the tourniquet.

The novelty of the operation lies in the complete extirpation of the affected veins through small incisions. In this case some 25 in. of vein were removed through incisions of the total length of 7 in.

THE foundation stone of new barracks for British troops has recently been laid in Cairo; the site is between the Abbassia and the Poligon barracks. When completed the new barracks will cover some forty acres, and be available for cavalry and infantry and for married quarters, and will be healthier and more comfortable than those now occupied, which are old and more or less out of repair. The new barracks, which will be built of artificial stone, will consist of detached blocks, each sufficient for a squadron of cavalry or company of infantry, with dining hall, baths, cold and hot water, and other conveniences. Spacious verandahs will be provided, and the artificial lighting will probably be electric. It is stated that the infantry barracks will be ready for occupation in about two years, when the Kasr-el-Nil troops will be moved to them.

Hunterian Lectures

ON

THE SURGERY OF THE LYMPHATIC SYSTEM.

BY

W. SAMPSON HANDLEY, M.S., F.R.C.S.,

HUNTERIAN PROFESSOR, ROYAL COLLEGE OF SURGEONS OF ENGLAND;
ASSISTANT SURGEON TO THE MIDDLESEX HOSPITAL;
SURGEON TO THE BOLINGBROKE HOSPITAL.

[WITH COLOURED PLATES.]

LECTURE II.

MR. PRESIDENT, LADIES, AND GENTLEMEN,—The next of the local lymphatic oedemas which claims our attention is elephantiasis arabum. This affection sometimes, though very rarely, originates in temperate climes. But, if inclined to minimize its importance, we should obey the exhortation to think imperially, and remind ourselves that in parts of India, according to Sir Patrick Manson, one individual in twenty suffers from the disease, while in some of the South Pacific islands half the population are affected.

My own experience of elephantiasis is a small one, mainly restricted to cases originating in this country. It is therefore with some hesitation that I approach the subject, and venture to criticize some of the conclusions of such a master of research as Sir Patrick Manson. In justification of my criticisms and suggestions, I may, however, plead Sir Patrick Manson's own statement that the pathology of elephantiasis is still obscure. The following quotation from his work presents a general picture of the disease in its clinical aspect:[1]

Fig. 1.—Elephantiasis of the left leg; before operation.

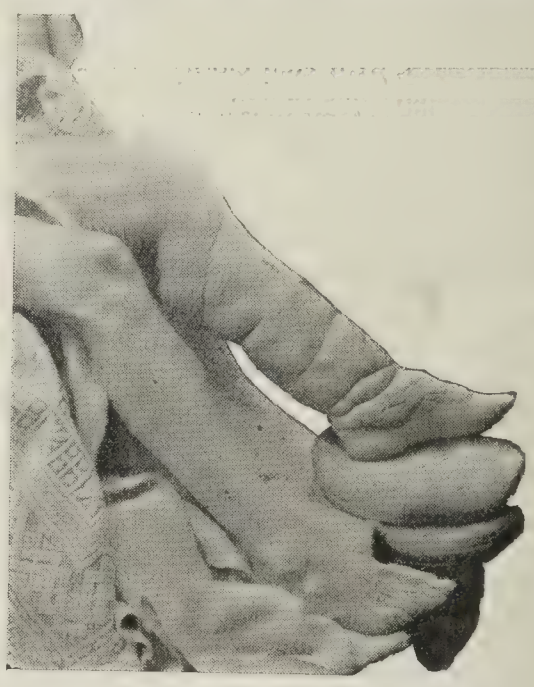


Fig. 2.—The case shown in Fig. 1, three weeks after the operation of lymphangioplasty.

Elephantiasis begins with an attack of lymphangitis and erysipelatoid inflammation of the integuments. Constitutional symptoms are severe, setting in with a sharp and prolonged rigor, followed by high fever, which in the course of a day or two generally ends in profuse diaphoresis, and often in a sort of lymphous weeping from the implicated skin. The inflammatory effusion is only partially absorbed, and some thickening remains. These attacks occur at irregular intervals of weeks or months, each attack leaving the limb or scrotum rather larger than before, until, in the course of years, the skin and cellular tissue has become enormously and permanently hypertrophied, and an unwieldy mass, justifying its name—elephant leg—is formed.

The success of lymphangioplasty in cases of dropsical arm naturally excited my hopes of equal success in elephantiasis, and an opportunity of trying the method occurred in the following case:

The patient, a clerk, aged 46, was sent to me by Dr. J. J. Udale. He had never been abroad, and no filariae were found in his blood. The disease began typically in 1895 with recurrent attacks of lymphangitis in the left leg, associated with swelling of the left testicle. On admission in April, 1908, to the Middlesex Hospital the whole limb was enormously swollen, the circumference of the calf being 25¾ in. (Fig. 1). Some years previously incision into the swollen scrotum had been followed by an attack of acute sepsis, necessitating the removal of the testicle. His subsequent history while in my hands shows that the attack was due to the presence of bacteria in his tissues, not to their introduction from without.

On April 18th, 1908, I performed lymphangioplasty upon th swollen leg, and in five days the ankle diminished in circun ference from 21 to 14½ in. But nine days after operation th temperature rose, and suppuration developed along the thread which were accordingly removed on May 2nd. The situatio looked alarming, but by June 19th, mainly owing to the care o Mr. P. J. Chissell, at that time house-surgeon, the leg ha healed soundly. This experience, duplicating that of th previous operation by another surgeon, convinced me that th patient had a chronic bacterial infection of the tissues o the leg.

On August 1st he was readmitted. On August 4th, th pulse and temperature being normal, micrococci were foun by Mr. Foulerton in the blood of the arm. On August 12t micrococci were seen microscopically in lymph withdrawn fron the leg with due precautions. From a similar specimen take on August 18th a pure cultivation of *Staphylococcus pyogene albus* was obtained. Vaccine treatment was initiated, th opsonic index to the organism rose from 0.6 to 1.3, and o October 5th and 12th lymph from the leg was found to b sterile. On October 17th lymphangioplasty was repeated, an primary union followed. By October 27th the circumference o the ankle had diminished from 21¾ in. to 13½ in., and the whol limb had become soft and flabby (Fig. 2).

The patient was sent out with instructions to wear a bandage to limit the amount of standing and walking, and to sleep with the foot of the bed raised. He has disregarded these injunc tions entirely, and at the present moment his leg is again muc swollen, though not quite to its former dimensions. It is stil much softer than before the operation.

This case, which differed clinically in no respect from tropical elephantiasis, save in the absence of micro-filariae from the blood, raises the question whether the filarial theory of tropical elephantiasis is the whole truth. It proves, so far as one case can prove anything in a world of fallacies, that chronic infection with the staphylococcus alone, in the absence of filariae, may cause elephantiasis.

The occurrence of micrococci in tropical elephantiasis, or more strictly speaking in the attacks of tropical lymphangitis, which precede or accompany elephantiasis, has attracted the attention of certain French observers. Just after the detection of the micrococci in the foregoing case, I made the acquaintance of the work of Dufougeré,[2] who describes an organism, which he calls the lymphococcus, as constantly present in tropical lymphangitis. Dufougeré believes that in the absence of the filaria tropical lymphangitis subsides without leading to elephantiasis. Nor, in his opinion, does filarial infection alone produce elephantiasis, but, if an individual in whose blood microfilariae are circulating becomes infected also with the lymphococcus through some wound or abrasion, the filariae are killed, and their dead bodies accumulate in the lymphatic glands and vessels, producing the obstruction which leads to elephantiasis. Dufougeré found the lymphococcus in three cases of acute lymphangitis, in two of which elephantiasis was already present.

Mr. Foulerton and Miss Whittingham state that "in the short description given of the lymphococcus there is nothing by which the organism could be distinguished from the staphylococcus."[3]

In the year 1907 le Dantec[4] described a diplococcus, which he called the dermococcus, as present in the subcutaneous tissues in elephantiasis in association with streptococci in the circulating blood. He believes that elephantiasis depends on the simultaneous presence of both organisms. Foulerton and Whittingham believe that these organisms are also in reality the *Staphylococcus albus*.

Can these results be ascribed to accidental contamination with skin organisms? Such a view is negatived, at any rate in my own case, by the opsonic observations, by the effects of vaccine treatment in preventing further attacks of lymphangitis, and by the fact that the cocci were observed in stained films of lymph taken from deep punctures.

In my own opinion there is a good *prima facie* case for the belief that micrococci, derived originally from the skin, play an important part in the causation of elephantiasis. At any rate further investigation is desirable, and it may be hoped that an expedition for the study of elephantiasis will add yet further laurels to the London School of Tropical Medicine.

My experience in this case showed me that lymphangioplasty is not a cure for elephantiasis. It still seemed possible, however, that the operation might establish for itself a definite position in the treatment of patients who have sufficient leisure and intelligence to carry out prolonged after-treatment. But even this hope seems doomed to be disappointed, for in a second case of elephantiasis upon which I recently operated, though great temporary benefit resulted (Figs. 3 and 4), within a few months of the operation the swelling of the leg has recurred, although the limb remains considerably softer than before operation. This patient carried out the after-treatment most carefully at home, and the recurrence of the swelling in her case shows to my mind that lymphangioplasty has failed to establish its position in the treatment of elephantiasis.

Fig. 3.—Two views of a case of elephantiasis of the left leg before operation.

Sarah H., cook, aged 44, was admitted to the Middlesex Hospital under my care on November 13th, 1909, for elephantiasis of the left leg. The family history is unimportant. The patient has never been abroad. She had chlorosis and phlebitis of the right leg twenty years ago, and another attack of right-sided phlebitis nine years ago. In 1905 the left foot began to swell, and the swelling extended upwards towards the knee during 1906 and 1907. In the latter year her uterus was removed for fibroids at St. Mary's Hospital. Since this time swelling of the thigh and leg has steadily become worse. There have been no febrile nor erysipelatoid attacks. Bandaging has been the only treatment. The whole limb up to the crest of the ilium is greatly swollen, most in the region of the calf, least as regards the foot. The skin is thick and hard; below the knee it pits on prolonged pressure. The limb is the seat of occasional sharp pain, and its weight is a great source of discomfort and a serious handicap (Fig. 3).

In order to determine the effect of posture, patient was kept in bed for eleven days, with the foot of the bed raised 18 inches. As the table shows, elevation alone had a considerable effect. No organisms were found in a specimen of lymph from the leg.

On November 27th lymphangioplasty was performed by the usual method, the threads being led up to the gluteal subcutaneous tissue. A normal convalescence followed, and a considerable further reduction in the diameters of the leg subsequently occurred (Fig. 4). The thigh, much less swollen to begin with, remained almost unaffected. When she left the hospital the skin of the leg was wrinkled and peeling, and thin supple skin was visible underneath. The tissues of the left leg were much softer and flabbier than those of the sound leg. Those of the thigh were still somewhat hard on palpation, though considerably softer than before operation. The patient was asked to stay in bed most of her time, with the leg elevated, during the succeeding two months, to allow time for the stretched tissues to undergo involution.

The following is a table of measurements:

Table of Measurements.

	Left Leg.					Normal Right Leg.
	Nov. 13, 1909. On Admission.	Nov. 25, 1909. After Elevation.	Dec. 13, 1909. 16 Days after Operation.	Dec. 27, 1909.	Feb. 17, 1910.	
Just above ankle	12½	11½	10¼	9½	11½	8⅝
Round calf	20½	17	16½	15	18	12½
Just above knee	21½	18½	18	17¾	19½	13½
Middle of thigh	23¾	23	22½	23⅛	23¾	17⅜

The subsequent history of this case is as follows: On January 24th this patient wrote to me, signing herself "Yours most gratefully," to say that the leg was "keeping smaller and feeling stronger." She was getting about on it for a short time every day. From her own measurements there appeared to be a small increase in the diameters of both legs since she left the hospital. She was seen again on February 17th, 1910. Although she had not allowed the leg to hang down for more than a short period daily, the diameters of the leg were on this date as large as on November 25th after elevation, but before operation. The case must therefore be considered a failure, except that the limb is still much softer than before operation.

It would appear that in the lower extremity as contrasted for instance with the arm, the strenuous opposition of gravity nullifies the effects of the operation as soon as the limb is allowed to hang down for even a short period daily. The operation does indeed supply the channels which are missing, but as I have always insisted, it does not provide a motive force. It is unable to fight against the full vertical pressure of gravity in the lower limb.

There is, however, another and more hopeful way in which the therapeutic problem of elephantiasis might be attacked, and that is by way of prevention or of arrest in an early stage. As I have shown, there is a body of evidence that micrococci play an important and perhaps an essential part in its causation. And I would suggest, with the modesty becoming my lack of tropical experience, and yet with the emphasis of strong belief, that elephantiasis can be arrested in its early stages by vaccine treatment directed against the micrococci which are present in many, if not all, cases of recurrent tropical lymphangitis—the forerunner of elephantiasis. In support of this belief I can quote my own case, the first case of elephantiasis, as far as I know, in which vaccine treatment has been employed. In this case no further febrile attacks have occurred since the vaccine treatment—a fact upon which the patient himself commented. If it proves to be possible to prepare a *Staphylococcus albus* vaccine which is a reliable safeguard against elephantiasis, the benefit to some tropical communities will be incalculable.

The micrococcal theory of elephantiasis is in no way necessarily opposed to the filarial theory. The parent worm and its host may be equal sufferers from the attacks of the micrococci, and therapeutic measures directed against this organism may save the harmless though

unnecessary worm from abortion, and the man from elephantiasis. Sir Patrick Manson has stated that the filaria Demarquay usually produces no symptoms, and it appears that unless its health breaks down during pregnancy it may add to the community of blood corpuscles a population of 40 million microfilarias without any obvious detriment to the person at whose expense this large family is maintained.

My unfavourable conclusions with regard to lymphangioplasty in elephantiasis probably apply to all lymphatic oedemas of the lower limb, and I am thus absolved from dealing with them in detail. Nevertheless, they may be briefly referred to.

SOLID OEDEMA DATING FROM EARLY LIFE.

Under this heading may be grouped a collection of probably heterogeneous cases, in which there is a more or less solid oedema of one or both feet, extending a variable distance up the limb, tending, if uncontrolled, to become progressively worse, unaccompanied by visceral disease and not due to any traceable infection. The condition may be congenital, or may begin in infancy or childhood. In certain cases of this group the disease is hereditary, and has been given the name of Milroy's disease. Family histories of this type have been placed on record not only by Milroy, but by Dr. H. D. Rolleston, Drs. Hope and French,[5] Dr. G. A. Sutherland,[6] and Dr. W. Bulloch.[7] The disease is generally held to be caused by vasomotor disturbance, and to be closely related to angioneurotic oedema. One of Dr. Sutherland's cases had suffered from purpura and urticaria.

Cases may be met with which differ from Milroy's disease only in the absence of the hereditary element. Two such cases have been submitted to lymphangioplasty, one by Dr. T. P. zum Busch and one by myself (Fig. 5), in both cases without benefit.

Fig. 5.—A case of solid oedema of the legs dating from childhood; lymphangioplasty was performed without benefit.

SOLID OEDEMA FOLLOWING SEPTIC WOUNDS.

Cellulitis following a septic wound is sometimes followed by persistent brawny oedema, presumably due to associated lymphangitis and subsequent lymphatic obstruction. It is very doubtful whether such cases are suitable for lymphangioplasty, for phlebitis and venous obstruction are usually also present.

In March, 1909, Dr. H. R. Mansell, of Hastings, asked me to see a lady with a view to possible lymphangioplasty. On December 24th, 1908, she ran a needle into her hand, and the following day the end of the needle was excised. The wound healed by first intention, but there was acute pain and swelling of the forearm for three weeks subsequently without any pyrexia or suppuration. The back of the hand and wrist assumed a blackish-blue colour. There was some tenderness over the basilic vein, but no definite hardness along it to indicate phlebitis. Pain has now disappeared, but much stiffness and brawny swelling of the fingers and hand remain.

While I agreed with Dr. Mansell's diagnosis of chronic septic lymphangitis following a septic needle puncture, I felt that there was also a phlebitic or cellulitic element in the case. Feeling that the benefit of lymphangioplasty was doubtful, and as the condition was improving, I advised against operation.

Fig. 4.—Two views of the case represented in Fig. 3, taken about three weeks after the operation of lymphangioplasty.

PUERPERAL "WHITE LEG."

Although until recently I hoped that lymphangioplasty would be of benefit in puerperal white leg, I had always felt that the almost invariable presence of an element of venous obstruction made the question a very doubtful one. And although several such cases have been referred to me for the operation I have not found among them one which I considered favourable for the first essay. At the present time, and in view of the failure of the operation for elephantiasis of the leg, I am of opinion that lymphangioplasty is not applicable in such cases.

SOLID OEDEMA DUE TO CHRONIC RENAL DISEASE.

From a pathological point of view it is interesting to note that long-standing oedema from chronic tubal nephritis may produce in the legs many of the changes characteristic of elephantiasis, as in the following case:

G. F., a man aged 22, admitted under my care with a view to the possibility of lymphangioplasty. When 9 years of age swelling of the ankles commenced, and has progressively increased. The legs and feet are now much swollen, but the oedema still pits slightly on pressure. Two years ago the hands began to swell. The face also swells if his head is lowered, and the lumbar region as he lies in bed. Elevation of the part affected soon reduces the oedema. The urine contains 4.5 per cent. of albumen. The skin of the swollen legs shows the characteristic changes of elephantiasis, especially on the feet. Between the toes the skin is in a remarkable condition, being uniformly covered with somewhat pointed papillary eminences like an exceedingly coarse velvet.

SOLID OEDEMA DUE TO SYPHILIS.

My senior colleague, Dr. J. J. Pringle, sent to me last year a case which appears to show that tertiary syphilis may cause lymphatic oedema and all the changes characteristic of elephantiasis. The photograph which I show you (Fig. 6) absolves me from a detailed description of the case. The presence of foul gummatous ulcers upon the thickened skin deterred me from attempting operation, and present experience shows that it would have been useless.

Fig. 6.—Solid oedema of the right leg associated with gummatous ulceration.

THE RELATION OF GUMMATA TO LYMPH STASIS.

Subcutaneous gummata are most commonly found upon the leg, between the knee and the top of the boot, and in

association with varicose veins. Less commonly they extend to the thigh. These facts point to deficient lymphatic circulation as a predisposing cause. In a case to be later described, in the left leg, the one used as a sewage farm to absorb the ascitic fluid, a crop of gummata developed, while the right leg remained free. The maintenance of an active lymphatic circulation by habitual exercise and plain living must therefore be regarded as important in the prophylaxis of tertiary syphilitic lesions.

The Operative Treatment of Ascites.

I now come to the second main division of my subject—the application of conservative surgery to the treatment of ascites. The pioneer in this field of surgery is Mr. Rutherford Morison, who designed and carried out an operation for establishing in cases of portal obstruction a collateral circulation by way of the great omentum, which is artificially implanted in the subcutaneous abdominal tissues. While in some cases this operation has been strikingly successful, such cases form a small minority of the number in which the method has been applied. Thus Greenough, quoted by Jacobson and Rowlands, collected 105 cases of the operation, with a mortality of 29.5 per cent., and only 9 showed improvement after two years. The methods of internal drainage I am about to describe are certainly much safer than the Talma-Morison operation, and present experience indicates that they are much more efficient.

The treatment of ascites by the continuous drainage of the ascitic fluid into the tissues is a suggestion of my senior colleague, Dr. Essex Wynter, whose paper on this subject in the sixteenth volume of the *Archives of the Middlesex Hospital* is undoubtedly one of classical rank. It was my privilege to carry Dr. Wynter's scheme into successful practice, and subsequently to develop the same idea in association with the principles of capillary drainage by means of silk. I can best introduce the subject in Dr. Wynter's own words. He says:

> The treatment of ascites by repeated paracentesis, commonly employed in hepatic cirrhosis, has proved unsatisfactory, inasmuch as in the majority of cases the fluid returns within a few days, and the patient is confined to bed or hospital for the remaining brief period of life, which seldom extends beyond two or three months.
>
> The steady downhill course and rapid loss of strength after paracentesis has been inaugurated indicate that the patient pays dearly for the relief of distension by the sacrifice of so much nutrient fluid, whose speedy replacement drains the blood and tissues and starves the kidneys.
>
> The objects aimed at by the method of subcutaneous drainage are:
>
> 1. The saving of nutrient material to the patient.
> 2. To ensure an adequate outflow of urine from the kidneys and a sufficient supply of fluid to the tissues by draining the stagnant pond of the peritoneal cavity.
> 3. To enable the patient to leave his bed and to maintain the circulation of the body fluids, especially in the portal and lymphatic systems, by means of exercise.
> 4. To relieve intra-abdominal tension, and thus promote lymphatic absorption and the establishment of a good collateral circulation.

To these objects I may add:

5. To diminish the intra-abdominal pressure by slow and gradual stages, thus avoiding the increased transudation of blood fluid and the possible haemorrhage which may result from a sudden drop in the intra-abdominal pressure, such as occurs in the ordinary operation of tapping.

Dr. Wynter adds that in view of the impaired vital resistance and deficient powers of repair found in ascitic patients, a long operation, or one attended by much shock, is not to be thought of.

Femoral Drainage.

He considered the femoral canal as the best spot to choose for making the peritoneal opening, owing to its accessibility and low situation, the fluid being then allowed to flow into the subcutaneous tissues of the thigh, whence it is absorbed by the lymphatic vessels of the part. This operation may be spoken of as femoral drainage. The first case upon which it was performed was transferred to me for the purpose from Dr. Wynter's ward.

Case I.

The patient, a free beer-drinker, after a period of the usual catarrhal symptoms associated with cirrhosis, suddenly developed ascites, with slight jaundice and swelling of the legs, about July 4th, 1907. He was admitted on July 11th. The urine contained a trace of albumen, and the daily output averaged only 10 oz. The ascites increased in spite of the usual medical treatment, and on August 26th 300 oz. of fluid were removed by tapping.

By September 23rd the abdomen was as tense as before, and the operation of femoral drainage was performed on the right side. Several pints of fluid escaped at the time, and as some fluid continued to escape through the femoral wound paracentesis was performed a week subsequently to assist it to heal. Slight oozing of serous fluid through a stitch hole of the femoral wound persisted for three weeks, and showed conclusively the patency of the new opening until October 14th. Ascites did not recur, and by November 20th the abdominal cavity was quite free from fluid.

The patient was allowed to get up and about as soon as the incisions were healed. No oedema of the leg made its appearance. Indeed, on his discharge, the girth of the right thigh, the side operated upon, was an inch less than that of the left, and I have since observed a similar anomaly in another case.

The patient remains absolutely well up to the present date (January, 1910), a period of two and a half years.

Technique of the Operation of Femoral Drainage.

The only difficulty in femoral drainage is that of finding the femoral canal. The tense abdomen bulges downwards over Scarpa's triangle, and the canal itself appears to be drawn up under Poupart's ligament by the tension of the peritoneal fluid, and perhaps by contraction of the peritoneum from chronic inflammation. I have found the following to be the best method. The special instruments required are a large-sized curved trocar and cannula, and a long blunt-pointed seeker, curved so as to pass through the cannula. Messrs. Mayer and Meltzer have made these instruments to my design (Fig. 7). Tap the peritoneal cavity in the middle line about 2 in. above the pubes. Withdraw the trocar, and insert the long seeker through the cannula, which it fits fairly closely. Next, by a flap incision with its convexity directed outwards, expose the region of the femoral ring. With the aid of the seeker find the situation of the femoral ring, and push the seeker into it, thus making the femoral canal bulge into the floor of the femoral wound. With two pairs of artery forceps seize the peritoneum of the femoral canal on either side the point of the seeker, and with a pair of scissors freely divide the peritoneum between the forceps. A certain amount of ascitic fluid escapes, but care should be taken not to empty the abdomen. Now introduce two sutures, one on either side of the opening, each taking up the peritoneum, and passing through Poupart's ligament. The sutures when tied serve to secure the patency of the new opening. Finally, suture the skin incision.

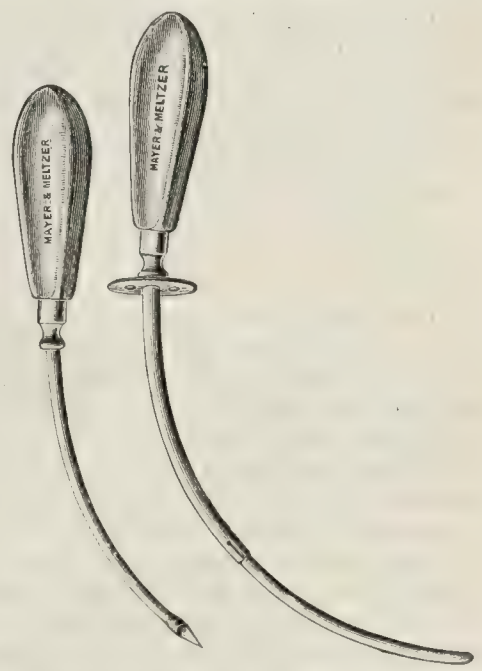


Fig. 7.—Trocar and cannula, with long curved seeker, for use in the operation of femoral drainage.

The defects of this method of operation showed themselves in the failure of the second case to which I applied it.

Case II.

The patient was a man aged 43, with alcoholic cirrhosis and rapidly collecting ascites. On November 20th, 274 oz. of fluid were removed by tapping. Paracentesis had to be repeated only three days later, when 784 oz. of fluid escaped. A week afterwards I performed femoral drainage, with very short-lived benefit. On December 13th, 420 oz., and on January 3rd, 1908, 430 oz. of fluid were removed by paracentesis. On January 11th the operation of femoral drainage was repeated on the left side. Again, three weeks later, drainage ceased, and the abdomen refilled. As a last resort, on February 8th the left femoral wound was reopened, and it was found that the opening in the femoral canal had closed up. It was reopened. A small plug of gauze about an inch in diameter was inserted within the peritoneum on the abdominal side of the ring, while three strands of silk tied to the plug were carried through the ring into the tissues of the thigh, and there fixed.

Paracentesis was again necessary on February 14th to relieve tension, and the patient died on February 16th with suppression of urine, delirium, and coma.

The necropsy showed complete closure of the opening in the right femoral canal, while on the left side a loop of sigmoid flexure was adherent all round the gauze plug, rendering drainage impossible. The liver showed very advanced cirrhosis.

Case III.

In a third case of femoral drainage for alcoholic ascites, operated upon, by Dr. Wynter's request, by my colleague, Mr. John Murray, in November, 1908, a decalcified bone tube was inserted in the femoral canal in order to maintain its patency. Although in this case the abdomen filled up within fourteen days of the only tapping which preceded the operation, the ascites has not since re-collected, and the patient remains perfectly well, and may be seen after the lecture.

Another case illustrates the difficulty which may occur in diagnosis.

Case IV.

A woman, aged 53, with a history of recovery after a series of three paracenteses, performed three years previously, developed jaundice and rapid ascites, and died a week after femoral drainage. The necropsy showed a diffuse primary carcinoma of the liver following on cirrhosis. There were no secondary deposits.

Case V.

A man, aged 55, was admitted, for double inguinal hernia and ascites, on August 8th, 1908. On the same day the right hernia was operated upon, 250 oz. escaping. On August 24th 339 oz., and on September 14th 308 oz. of fluid were removed by tapping. On September 19th Mr. Gordon Taylor operated on the left hernia. The sac was not removed, but was turned up and sewn to the surface of the external oblique. The crural canal was opened, and a bone tube inserted. No further tapping was needed until towards the end of the year, when, after paracentesis, repeated thrice, the patient died at his own house.

In looking at these five cases of femoral drainage for ascites, one case must be excluded as due to carcinoma. Two of the remaining four cases were cured, while in the other two cases the course of the disease was unaffected, or influenced, if at all, in a favourable direction.

These results in the case of a disease which is almost uniformly fatal are striking enough. It is probable that, whatever method of drainage be employed, there will be a not inconsiderable percentage of failure, for in some cases the ascitic fluid seems to be poured out in a cataract with which no drainage channels can be expected to cope. Thus, in one of the cases I have related 784 oz. of fluid collected within three days of paracentesis, a quantity which would appear beyond the carrying capacity of the absorptive vessels.

Effective as the operation of femoral drainage has proved itself, it has certain obvious defects. The new opening is liable to be accidentally blocked by the descent into it of a piece of omentum, or by the adhesion of a loop of intestine over it. It may be closed within a short time by the natural processes of repair.

It occurred to Dr. Wynter that by the insertion in the linea alba of a flanged silver eyelet, with an opening $\frac{1}{4}$ in. in diameter, the peritoneal cavity might be placed in permanent communication with the subcutaneous tissues, at the cost of an operation hardly more severe than that of paracentesis. The skin is sutured over the eyelet, which now remains permanently in position. But this method proved unsatisfactory, and the problem remained as before. It appeared to me that the question of providing a permanent outlet for the ascitic fluid might be solved by a modification of the operation of lymphangioplasty. Since the principle of the method was well tried and successful in the case of lymphatic oedema, I had no reason to doubt that the silk threads would act in the manner desired. The only doubt was whether they would form sufficiently capacious conduits to deal with such large quantities of fluid as are thrown out in ascites. In regard to the manner of their introduction I have not been able to decide what is the best method. Many technical variations are possible, and the operation may not be standardized for some years to come.

Case VI.

Emily B., born 1869, in spite of habitual intemperance for some years past, enjoyed good health until 1906, when she had pneumonia severely. On January 22nd, 1909, she was admitted into the Middlesex Hospital under the care of Dr. Pasteur for alcoholic cirrhosis and ascites. She was discharged on February 23rd much improved by treatment, the abdominal circumference having decreased by $1\frac{1}{2}$ in. Haematemesis had ceased, and the shooting pains of which she complained on the left side of the abdomen had disappeared. But a week later the symptoms returned, and she was readmitted on April 1st. The abdomen had meanwhile considerably increased in size. It was so tense that the ordinary fluid thrill could not be obtained. On April 2nd 10 pints of slightly bile-stained fluid were withdrawn by paracentesis. After tapping, it was found that the cirrhosis was of atrophic type, the dullness not reaching to the costal margin.

In this case I decided to attempt internal drainage by means of silk threads. The abdomen was opened by an incision in the left semilunar line, and a large quantity of ascitic fluid escaped. The peritoneum generally was much congested, more especially the omentum, which oozed persistently when handled. Several ligatures had to be applied to check this bleeding. A stout needle threaded double with lymphangioplasty silk was now passed in and out in a series of loops through the peritoneum and subperitoneal tissues of the right iliac fossa external to the mesocolon. Short loops of the silk were left exposed within the peritoneal cavity, whence they could suck up fluid by capillary attraction. The process was repeated with two other threads. The four threads were conducted in the manner described to a point close to the anterior superior spine. With the aid of a long probe they were then thrust beneath the outer end of Poupart's ligament some way downwards into the subcutaneous tissues of the thigh. The abdominal wound was now closed in such a way that the sutures used provided additional permanent channels for the escape of fluid from the peritoneal cavity. A number of thick silk ligatures were employed, taking up the peritoneum and the muscular layers of the abdomen but leaving out the skin. These were tied, and the skin was then closed over them with a continuous superficial suture.

At first the operation appeared to be a failure. The fluid re-collected and tapping became necessary eighteen days after the operation, when $7\frac{1}{2}$ pints were withdrawn. Two days subsequently the patient was discharged at her own request. She was icteric and grey looking and appeared to have but a short time to live. I felt that if she could manage to get up and about, gravity would assist the abdominal drainage, but even so I had abandoned hope of a favourable result. Her abdomen on discharge was $35\frac{3}{4}$ in. in circumference, and though not tense it contained a large amount of fluid, which appeared to be increasing rapidly. It was therefore a pleasant surprise when, on July 28th, she again presented herself looking much better. The abdomen though full was flaccid, and its circumference had decreased by more than 3 in. Surrounding the region of the scar there was an oedematous area measuring about 8 in. by 4 in., a clear proof that the silk used to suture the wound was acting in the way desired. On the other hand, so far from being oedematous, the thigh and leg were slightly smaller in circumference on the left than on the right side (compare Case I). It seemed as if the silk threads led into the thigh had proved useless.

About November 1st, 1909, a crop of subcutaneous gummata appeared on the left leg below the knee. About the same time the left leg began to swell. On January 8th, 1910, when I again saw the patient, the left leg was markedly oedematous, measuring more than an inch more in circumference than the right one, and presenting numerous gummata, one of them ulcerated. The right leg was very slightly oedematous. The abdominal oedema had disappeared. The abdomen itself measured round the umbilicus $35\frac{1}{2}$ in., almost exactly the same as on her discharge eight months previously, but 3 in. more than on July 28th. It was so flaccid that no definite thrill could be obtained, though evidently a considerable amount of fluid was present. The liver could be definitely felt below the costal margin, although after the first tapping in the hospital it had been noted as atrophic. Her colour was good and her conjunctivae clear and white, her tongue moist and clean, although she had not absolutely given up alcohol. She was free from abdominal pain and tenderness. She was getting about and living an ordinary life, although previously she seemed at death's door.

It is interesting to note that until seven months after the operation no proof was forthcoming of the functional efficiency of the silk threads led into the thigh. Oedema of the leg only appeared simultaneously with a local crop

of gummata. It seems reasonable to infer, first, that without causing oedema, drainage into the thigh had gone on ever since the operation; secondly, that if the absorptive power of the tissues is normal, and if the amount of fluid led into them is not excessive, the appearance of oedema is not to be expected; thirdly, that local lymph stasis favours the onset of gummata in the affected part; and, fourthly, that the gummata in their turn interfere in some way with the return of lymph.

There are several points in which this case is open to criticism. It may, in the first place, be said that the case is one of syphilitic, not of alcoholic, ascites, and specific ascites is known to be amenable to specific remedies. But although the syphilitic element is undoubted, the alcoholic one is equally certain; and, so far as I know, no anti-syphilitic remedies had been given until January 10th, 1910, nine months after the operation. In view of these facts, and of the oedema of the region of the abdominal wound and of the left leg which were observed at different times, it can hardly be denied that the silk drainage operation determined her recovery.

The threads inserted in this case appear to be active and capacious channels while the patient is in the erect position and while the abdominal pressure is high. Under these conditions they appear capable of removing nearly ½ pint of fluid per diem. In bed, or after abdominal pressure has fallen to somewhere near the normal, their action seems to be sluggish. Thus they have failed to remove the considerable amount of fluid which may be present in the peritoneal cavity without distending it.

Cancer Surgery as a Branch of Lymphatic Surgery.

The whole field of the surgery of carcinoma belongs, in the strictest and most literal sense, to the ablational department of lymphatic surgery. When, for instance, an operation is performed for breast cancer, its object is not the extirpation of an organ but, as I have expressed it elsewhere, "the removal intact of the permeated area of the lymphatic system which surrounds the primary growth." This permeated area often extends far beyond the limits of the breast. At its periphery the lymphatic vessels are plugged by cancer cells, while the tissue spaces around are entirely free from cancerous infection. The removal of the infected area demands an accurate knowledge of lymphatic anatomy, and of the mode in which cancer spreads along the lymphatic vessels. To call such an operation "an amputation of the breast" is a dangerous abuse of words which is responsible for many failures in this field of surgery, a field apparently easy to traverse but in reality full of concealed pitfalls. Cancer surgery, then, is essentially a study in the extirpation of a diseased lymphatic area. Such a statement may appear to rest on too narrow a basis of evidence, for the theory of lymphatic permeation which I brought forward in 1904 has only been proved in the case of cancer of the breast and of melanotic sarcoma.

Some years ago I made repeated attempts to demonstrate permeation in the neighbourhood of abdominal cancers, using methods which I have found effective in the case of mammary cancer. These attempts, and similar ones made by at least two other investigators, ended in failure, owing to the difficulty of distinguishing cancerous from normal cells under the microscope.

Owing to the tendency of abdominal cancers to undergo mucoid degeneration, it is very difficult to identify the degenerate cells with certainty when they occur separately or in small groups. But if mucicarmine, a specific stain for mucin, is used to stain the sections, the presence in tissues from which epithelium is normally absent of cells or débris stained red affords conclusive proof of cancerous invasion. In such tissues mucicarmine is a specific stain for cancer cells; not, indeed, for healthy and active ones, but for those which are already dying or dead. Two years ago, from this chair, I was able to bring forward strong if not conclusive evidence, obtained by the mucicarmine method, that cancer of the stomach is disseminated by permeation (Plate I). Some recent work which I have done on rectal cancer demonstrates the working of the same process, and affords a new and convincing illustration of the truth of the permeation theory and of my contention that cancer surgery belongs to the ablational department of lymphatic surgery.

I must preface my remarks on this subject by a brief account of the lymphatic arrangements of the rectum.

The description which Sappey offers of the lymphatics of the large intestine is somewhat lacking in definition on account of the confessed incompleteness of his observations. He describes, however, three lymphatic networks in the large intestine:

(*a*) A plexus situate in or just beneath the mucosa, taking its origin in the solitary follicles of the intestine, but receiving also a few tributaries from the tissue between the crypts of Lieberkühn. The trunks which arise from this plexus run within or just deep to the mucous layer, and do not communicate with the lymphatics of the muscular coat. At the attached border of the intestine they perforate the muscular coat to terminate in the closely adjacent mesenteric glands.

(*b*) An important lymphatic network in the muscular coats of the intestine. The vessels which drain this network leave the muscular coat and pass into the subserous plexus.

(*c*) A third set of anastomosing vessels, the subserous plexus, lying just beneath the peritoneum. Sappey regards this plexus as merely the termination of the muscular plexus. In my own opinion it deserves rather to be regarded as a separate close-meshed plexus, whose main function is the absorption of excess of fluid from the peritoneal cavity. Its vessels run to the mesenteric glands, which lie very close to the attached border of the intestine.

These glands appear to act as an efficient barrier to cancer cells for some considerable time. Their nearness to the place of origin of the growth appears to be one of the two main factors upon which depend the relatively favourable course and slow dissemination of carcinoma of the colon. The other factor is the marked tendency to mucoid degeneration shown by the cells of this form of carcinoma.

With this anatomical preface I may proceed to the case of rectal carcinoma in which I was able to demonstrate a mode of spread of the disease hitherto undetected.

Mrs. G., aged 32, was sent to me by Dr. Mervin Wilson, of Derby, and Dr. G. Kerr Grimmer, in September, 1909, with a typical carcinoma of the rectum a finger's length above the anus. The bowel was mobile and the os-like stricture just admitted the finger-tip. No enlarged glands or secondary deposits could be felt, and the growth had not completely surrounded the bowel, the stricture showing a bridge of normal mucosa about ½ in. wide. The case, therefore, was a comparatively early one. Early in October, 1909, by a combined abdominal and perineal operation, I removed the lowest ten inches of the bowel, including the sphincters and the peri-anal skin. Access to the rectum below was obtained by an incision in the middle line of the posterior vaginal wall. The upper end of the sigmoid was brought out through a separate puncture in the left iliac region just within the anterior superior spine, a method of colotomy which I believe to possess many advantages. Recovery was delayed by cellular suppuration in the pelvis, but the patient is now in excellent health.

A longitudinal strip along the whole length of the excised bowel, measuring 10 in., was submitted to microscopic examination by the haematoxylin-mucicarmine method. Conclusive evidence was obtained that the growth had spread by permeation along the mucous lymphatic plexus of the bowel (Plate II) at least as far as the point of section of the bowel 6 in. above the growth. How much further it had spread upwards, I am, of course, unable to say. A similar spread downwards was traced as far as the region of the sphincters. In the plane of tissue lying between the blind ends of the Lieberkühnian crypts and the underlying muscularis mucosae, at short intervals, cancer cells, isolated or in small groups, or small masses of mucus representing degenerate cancer cells, were clearly recognizable. Some of these groups lay in spaces enclosed by visible endothelium. In a direction away from the growth, whether up or down the bowel, the groups of cancer cells in the mucous coat became gradually smaller, and the intervals between them longer. At several points near the primary growth cancer cells were detected deep to the muscularis mucosae, penetrating from the mucous into the submucous coat. Close to the primary growth the subperitoneal lymphatic plexus showed permeation. Here, too, cancerous invasion of the muscular coat and of the mesorectum was evident. In these situations the cancer cells had taken on the blue haematoxylin stain, not the red mucicarmine. That is to say, while the cancer cells

in the mucous lymphatic plexus had undergone mucoid degeneration, most of the cancer cells in the muscular coat and in the mesorectum were in a healthy state. These facts seem to indicate a difference in food supply. The cells in the mucous plexus are bathed in a fluid which has already provided food for and received excretions from the normal epithelium lining the intestine. The cancer cells in the muscular coat and mesorectum, on the contrary, are "fat and well-liking," because in these situations they have to face no competition with normal epithelium.

Examination of this specimen shows that:

1. Permeation occurs in rectal cancer, as in other forms of carcinoma.

2. Permeation may extend very widely in the mucous plexus above and below the growth, reaching in a comparatively early stage of the disease a point at least 5 in. removed from the edge of the primary growth. The affected length of bowel appears quite healthy to ordinary naked eye and histological examination (Plate II).

3. Permeation of the mucous lymphatic plexus as a factor in dissemination is probably limited in effectiveness by the habitual early degeneration of cancer cells in this situation.

4. In the muscular and peritoneal coats cancerous invasion does not extend far from the primary growth.

5. Effective dissemination probably, as a rule, occurs through the mesorectum or peri-rectal tissue opposite the primary growth, and this is the tissue which requires most careful removal.

6. In view of the extent of mucous permeation revealed, excision of a considerable length of the bowel above the growth, and of the bowel below down to and including the sphincters, is evidently a right practice. This step has been performed frequently, but it has hitherto lacked the pathological foundation supplied by my observations.

7. The lymphatic plexus of the mucous coat of the large intestine is not situated deep to the muscularis mucosae. It lies between the crypts of Lieberkühn and the muscularis mucosae. In this matter the study of pathology has cleared up a doubtful point of anatomy.

I trust, Sir, that you will not consider these observations foreign to the subject of my lectures. They are sufficient to show that in cancer of the rectum, as in cancer of the breast, the problem is not the excision of an organ, but the extirpation of a diseased lymphatic area. The accurate delimitation of the probable limits of this area in each situation where cancer commonly arises within the abdomen is a problem of great practical interest, which has already been approached on the anatomical side by Messrs. Jamieson and Dobson, and on the pathological side by Mr. H. S. Clogg. It is capable of further elucidation by the method I have devised, given an adequate supply of material and sufficient time, patience, and ingenuity. Lack of time and other obstacles have prevented me from penetrating beyond its fringe, but I trust that it may attract the interest of one of the new Beit Fellows during the three years' truce with Fortune procured for him by certain of her favourites. May I say in passing that the old tag, "Ex Africa semper aliquid novum," has recently been new-minted for the benefit of science, and to the givers' lasting honour, by the Rhodes, Hollins, Barnato, and Beit benefactions. To Mr. Richard Hollins, in particular, my own grateful remembrances are due as the first holder of the Research Scholarship, which he founded at the Middlesex Hospital in the year 1903.

CONCLUSION.

The record of these lectures is a mixed one of failure and success, but that is the history of most pioneer efforts. The livery of truth is usually neither black nor white, but a sober grey. Enough has been done to show the soundness of the principles employed. And, as time goes on, experience in the selection of cases will enable more certain results to be achieved, whilst operative technique will doubtless be improved. May I express the hope that the future of the operative procedures to which I have drawn your attention, and of which I have given a full description, may not be clouded by their indiscriminate application to unsuitable cases? I think too, in view of the special difficulties these operations present in the maintenance of rigid asepsis, and of the probably disastrous consequences of any failure in this respect, that they should only be carried out by surgeons in constant daily practice of the operative side of their profession.

In conclusion, Sir, while thanking this College for allowing me again to occupy a Hunterian chair, I regret that my lectures have fallen so much below the very difficult standard of eloquence and literary excellence set by yourself in the past within the walls of this theatre.

ACKNOWLEDGEMENTS.

The expenses of my work on gastric carcinoma have been defrayed by a grant from the Imperial Cancer Research Fund. I am indebted to Mr. F. W. Fletcher, of Enfield, for a generous contribution of £50 towards the expenses of my work on rectal carcinoma; and to Mr. R. W. Annison, of the Middlesex Hospital, for some excellent photomicrographs.

REFERENCES.

[1] Sir Patrick Manson in *Allbutt's System of Medicine*, vol. ii, Part II, 1907. [2] Dufougeré's *L'Elephantiasis*, Paris, 1907. [3] Foulerton and Whittingham, On the Significance of Coccal Infections associated with Elephantiasis, *Centralblatt f. Bakt.*, Band 49, Heft 4. [4] Le Dantec, *Le caducée*, August 17th, 1907. [5] *Guy's Hospital Reports*, 1908, p. 5. [6] *Lancet*, December 26th, 1908, p. 1877. [7] Ibid., December 26th, 1908, p. 1878.

A PRELIMINARY NOTE ON A NEW ASPECT OF THE EFFECTS OF BORIC ACID AS A FOOD PRESERVATIVE.

BY JULIUS BERNSTEIN, M.B., M.R.C.P., D.P.H.,

PATHOLOGIST TO THE WEST LONDON HOSPITAL; LECTURER ON BACTERIOLOGY TO THE POST-GRADUATE COLLEGE AND TO THE WESTMINSTER HOSPITAL MEDICAL SCHOOL; BACTERIOLOGIST TO THE CITY OF WESTMINSTER.

Up to the present, in all discussions on the use of preservatives in foods, the arguments have centred around the effects of the preservatives on the human system. Naturally, therefore, the manufacturers turned their attention to what they believed to be the least harmful of chemical agents, so that in all cases of prosecutions under the Food and Drugs Act there has been much divergence of expert opinion as to whether a certain preservative in a certain amount was or was not harmful, such divergence amounting in some cases to diametric opposition.

Some months ago, whilst attacking the problem of boric acid as a preservative, at the request and suggestion of Dr. Allan, M.O.H. Westminster, an entirely new aspect presented itself, which, if confirmed by subsequent research, must have an important bearing on the subject of food preservatives.

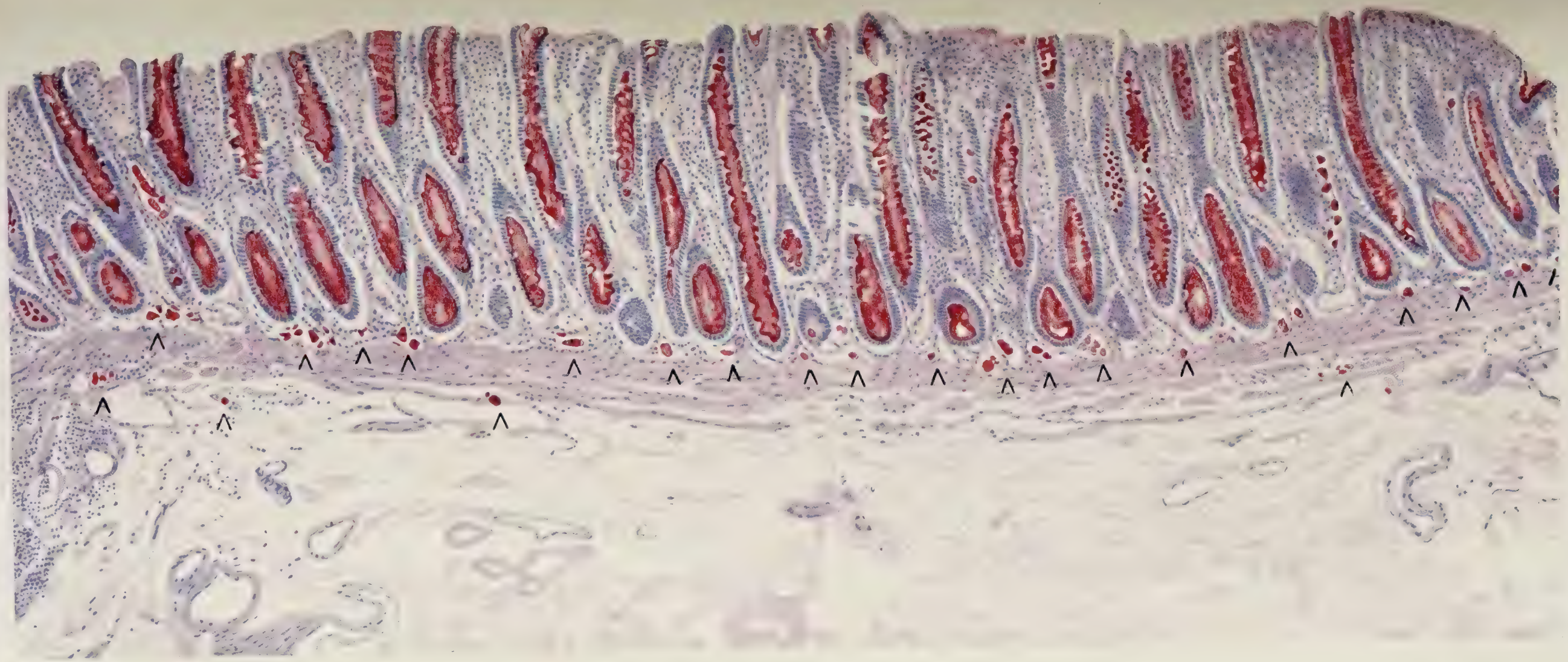
The question centred itself around sausages adulterated with 20 grains of boric acid to the pound. Preliminary experiments showed that this amount of boric acid had a peculiar and unequal effect on the varying processes of putrefaction; it appeared that the saprophytic organisms, including those producing the odours of putrefaction, were inhibited, whilst the coliform group of organism, including Gaertner's bacillus, were affected to a much lesser degree.

Finding from experience that the manufacturers, awake to the effect of the legislation regarding boric acid, had replaced this with other agents not so much in the public eye,* it seemed useless to avail oneself of the kindness of the sausage-makers, who were only too willing to supply us with unlimited amounts of this "pure" sausage meat. The experiments were therefore performed with laboratory-made sausage meats and various admixtures with bread.

From a number of experiments a few alone are here put forth, as the work is still proceeding.

A pound of presumably fresh pork was finely minced and divided into two equal portions. Twenty-four hours afterwards one of these portions was well admixed with 10 grains of boric acid. The two portions contained in glass beakers were allowed

* It seems that in some cases sulphites are being used as preservatives in place of boric acid. One sample of sausage meat (guaranteed free from boric acid) contained sufficient preservative to keep them fresh for a long time, and without any treatment.



M. H. Lapidge.

X 100. PLATE II. PERMEATION OF THE MUCOUS LYMPHATIC PLEXUS IN RECTAL CANCER DEMONSTRATED BY THE MUCICARMINE METHOD. W. SAMPSON HANDLEY.

The section is taken from the rectum, some little distance above the growth, in a situation where the bowel appeared normal to ordinary naked-eye and microscopic examination. Between the crypts of Lieberkühn and the muscularis mucosae are seen at closely-set intervals small groups of cancer cells stained a bright red by the mucicarmine. Each of these groups is indicated by an arrow-head ∧ which points to it. At one or two points cancer cells have penetrated the muscularis mucosae and have reached the submucous tissues adjacent to the muscular coat of the bowel. The red areas seen within the crypts of Lieberkühn are of course the mucus which is normally secreted by these glands.

FIG. 1. × 28.

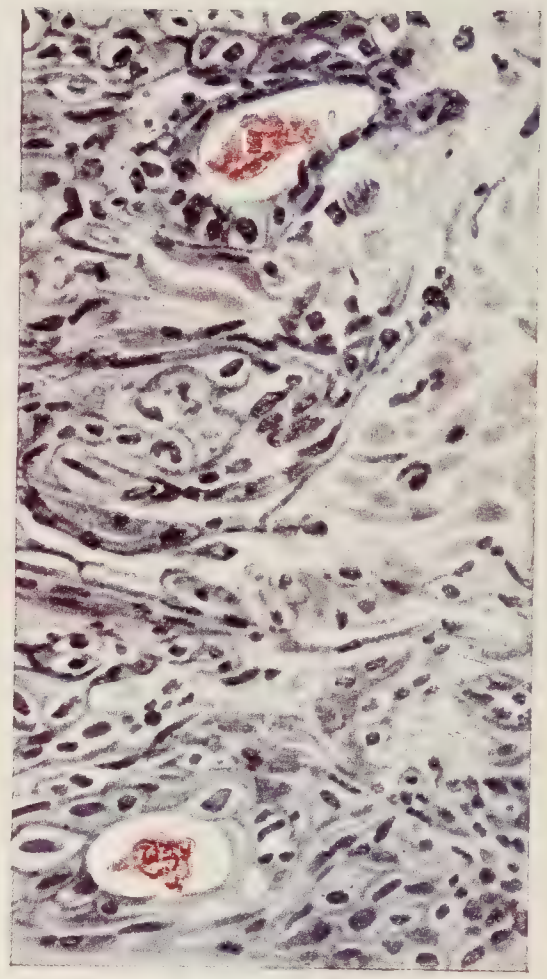


FIG. 2. × 300.

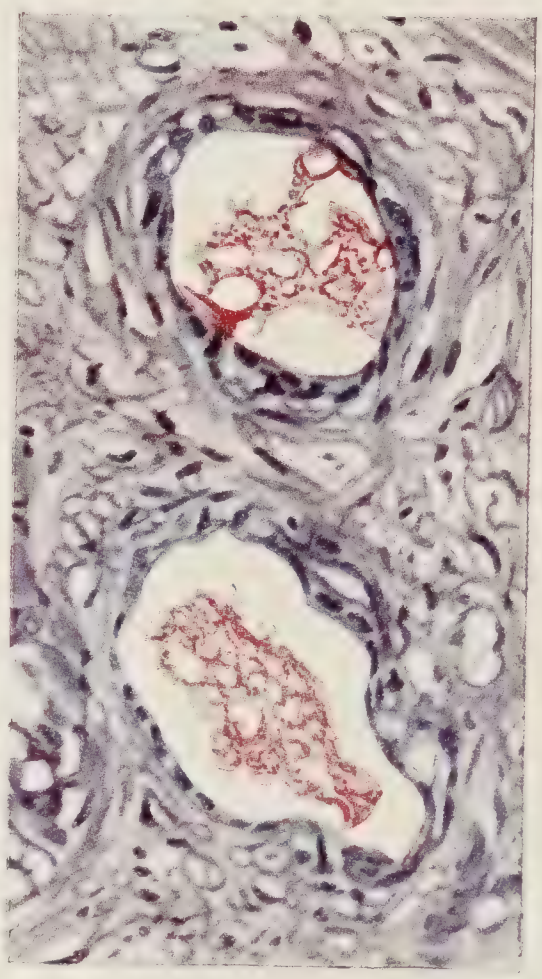


FIG. 3. × 300.

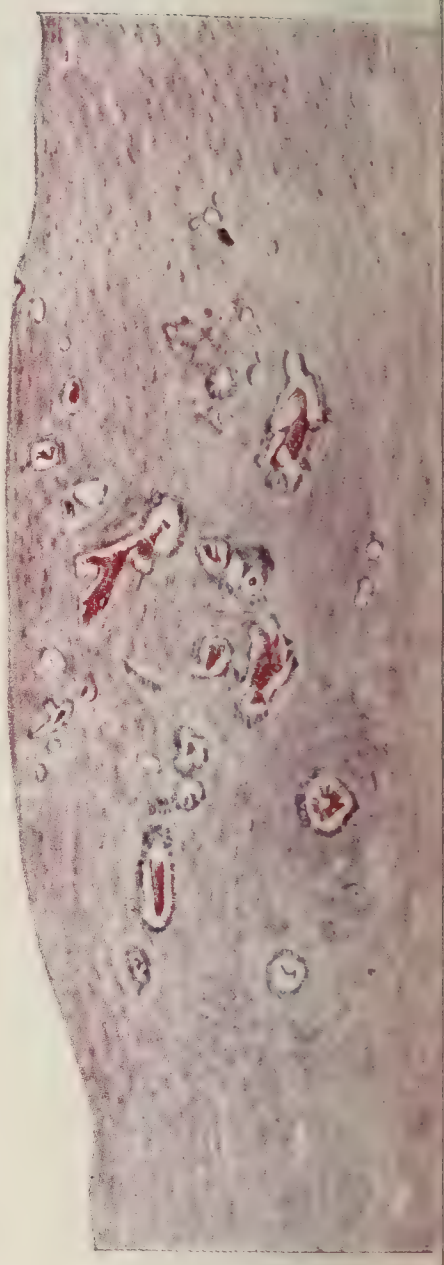


FIG. 4.

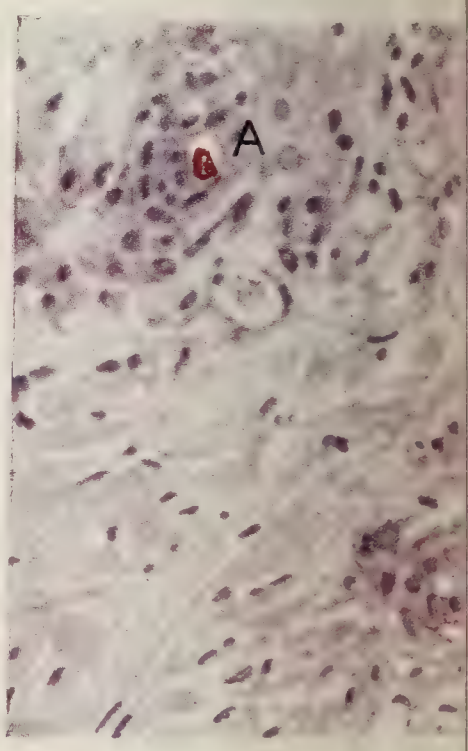


FIG. 5.

PLATE I. PERMEATION IN GASTRIC CARCINOMA DEMONSTRATED BY THE MUCICARMINE METHO

W. SAMPSON HANDLEY. *Drawings by M. H. Lapidge.*

FIG. 1 is a section of the whole thickness of the abdominal wall near the umbilicus. A gastric carcinoma has attacked the sub-peritoneal tissues, i trated the linea alba, and permeated the fascial lymphatic plexus. FIGS. 2 and 3 are magnified representations of the areas enclosed by rectangles in F Wherever a group of cancer cells degenerates, a little mass of mucus is formed which takes the mucicarmine stain. The track of the carcinoma, other unrecognisable, is thus plainly marked in red upon the blue surface of the section.

FIG. 4, from the same case, shows permeation of the sub-peritoneal lymphatic plexus. Cystic spaces are seen, containing mucus, and lined by a s layer of living cancer cells. These spaces are probably dilated lymphatics.

FIG. 5, taken from the abdominal deep fascia in the same case, shows a small red mass of mucus within a group of cells **A** which appear to be inflam tory. The former presence of cancer cells at this point is thus demonstrated, though the cancer cells have been destroyed by the processes of natural Thus the mucicarmine method has the peculiar advantage that, by it, even extinct foci of cancer may be recognized.

to stand in a sunny laboratory at room temperature in April, 1909, and the results were as follows:

	Pork to which 0.3 per Cent. Boric Acid added on April 18th.	Pork Unadulterated (Control).
April 17th ...	—	—
April 18th ...	No apparent change	No apparent change.
April 19th ...	" "	Odour of putrefaction.
April 20th ...	Slight sour odour	Putrid.
April 22nd ...	Sour odour	Putrid.
May 6th ...	No putrefactive odour, but merely sourish and by no means offensive	Putrefaction advanced.
May 18th ...	Ditto; liquefaction commencing; numerous motile bacilli	Highly malodorous; liquefaction advanced.

Apparently, then, boric acid in this strength either inhibits putrefaction or disguises it. Though the specimen preserved with boric acid was comparatively inodorous, it does not follow that bacterial changes were entirely inhibited; in fact, from both specimens numerous bacteria were cultivated in an active condition—from the boric acid mixture motile, acid, and gas-forming bacilli; from the other, large, fat, non-motile bacilli, etc. The boric acid undoubtedly exerted a selective action on the different organisms.

Further experiments were carried out with a view of testing the effect of boric action on already decomposing meat, it being added in the same percentage at different stages of decomposition.

One pound of meat was quartered and minced, and to three of the parts 5 grains of boric acid was added at different dates as denoted by the following table:

¼lb. Pork:	A.	B.	C.	D.
April 20 ...	5 gr. added	—	—	—
April 21 ...	No odour	No odour	No odour	No odour.
April 22 ...	No odour	Smelly, so added 5 gr. boric acid	Smelly	Smelly.
April 23 ...	No odour	Slight odour, certainly no worse, and possibly better, than on 22nd.	Putrid odour, so added 5 gr. boric acid	Putrid odour.
May 5 ...	Just high, but not objectionable. [Motile, Gram-negative, gas and acid-producing bacilli.]	Gamey	Foul	Highly putrid and sulphurous.

In "A" (which had received the boric acid immediately), after fifteen days the changes produced, as far as could be deduced by smell, were only such as could be readily disguised by the flavouring and seasoning agents used in the manufacture of sausages.

In "B," after decomposition became evident by the odour, the addition of boric acid inhibited this process, and I certainly think that twenty-four hours later the odour was much less—and, indeed, it never became very bad, and so could have been disguised in manufacture, as in "A," though undoubtedly at this time putrefractive products must have been accumulated.

"C," which had a putrid odour before being treated with boric acid, was at the end of fifteen days by no means as offensive as "D," which remained untreated, showing that the boric acid inhibited the process even when advanced.

Similar experiments were carried out with well-mixed meat and bread passed through a mincing machine, with very similar results, confirming the view that boric acid had a marked effect on those organisms of decomposition which produce smell.

It then became necessary to work out the effects of boric acid on individual bacteria. Four specimens were prepared on May 11th, 1909, as follows:

1. Meat alone.
2. Meat *plus* 0.3 per cent. boric acid.
3. Meat *plus* bread.
4. Meat *plus* bread *plus* 0.3 per cent. boric acid.

On May 12th equal minute quantities of each were inoculated into various culture media—namely, gelatine plates, bouillon broth, agar, etc.—and incubated.

The gelatine plates of (1) and (3)—that is, the untreated specimens—were rapidly liquefied, and gave off a putrid odour, whilst only slight liquefaction and a very slight odour was present in the plates of (2) and (4)—the treated specimens—in forty-eight hours. Motile bacilli were obtained from all these cultures.

In another experiment on the cultures of fresh pork yeasts almost entirely preponderated, while in a similar culture from a boric acid admixture a prolific growth of the bacilli at once appeared; this latter, however, in a few days was entirely overgrown by yeasts, from which it may be deduced that the yeasts had been inhibited by the boric acid, allowing the bacilli to preponderate; but, on removing the influence of the boric acid, the yeasts again got the upper hand. Frequently, from the various preparations cultures were made at intervals, and prolific growth of the motile, Gram-negative, gas forming, acid-producing bacillus obtained, so that it seems that boric acid did not inhibit these coliform organisms.

To determine the action of boric acid on the various organisms, experiments have been carried out in nutrient media to which has been added boric acid in amounts of 0.2 to 0.6 per cent. The result of the preliminary experiments tends to show that whilst boric acid does inhibit to some extent all the organisms used, there is a marked inhibition of the organisms of the *proteus* group, but a much less effect on the organisms of the *coli* group. With the *Proteus vulgaris* and *Proteus zenkeri* very slight growths were obtained after some days in 0.3 per cent., and practically none in 0.4 per cent., whilst *B. typhosus* grew in diminishing amount up to 0.5 per cent.; but several strains of *B. gaertneri* grew readily in all percentages, though with diminishing prolixity as the percentage increased.

Further experiments are in progress to verify these results, and these will include feeding experiments and the effects of boric acid in milk. Meanwhile, as a hypothesis on which to base this work, I am induced to draw the following conclusions:

Boric acid to the extent of 0.3 per cent. (20 grains to the pound) prevents objective decomposition, such as is detectable by smell. If objective putrefaction has commenced, it inhibits further changes of this kind, possibly leading to diminution in the smell. It has a marked selective activity on the various organisms, inhibiting the growth of yeasts and organisms of the *proteus* group, and possibly other harmless saprophytes, though not the organisms of the *coli* group. Hence it seems obvious that with the aid of boric acid stale meat can be used for the making of sausages, and even meat that has already started decomposing. If, then, to such meats Gaertner's bacillus has obtained access, it will have had several days at least in which to grow, and, what is important, unhindered by the prolific saprophytes.

I have to thank Mr. F. R. Chopping, of the Westminster Hospital Laboratory, for much assistance in the carrying out of these experiments.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

MINER'S NYSTAGMUS.

NYSTAGMUS "against the rule"—that is, elicited when the eyes are turned downwards instead of upwards—does not seem to have been noticed hitherto. I have at present a patient who has been unfit for work as a miner for two months, suffering from lateral oscillations with giddiness. Nystagmus is not present when the usual tests are applied, but if the patient is made to bend downwards and move his head from side to side a very marked oscillation is produced, which persists for a short time after the head is raised. There is a history of a similar condition seven years ago, immediately succeeding an attack of influenza. The patient was then off work for six months, and for three years he did not resume mining. The present recurrence is not associated with any definite illness, although the man was obviously below par and very nervous when he consulted me first.

The visual acuity is normal, no matter in what position the chart is placed relative to the eye level. Both fundi are normal. Hemeralopia is pronounced and giddiness is very troublesome at night.

During one of his visits to me I asked him to assume his usual working position and simulate his ordinary movements when at work. He knelt on the floor, moved his arms and body as if using the pick, and immediately a very marked nystagmus was present. The colliery at which he is employed is very damp, and most of the men work on their knees, instead of on their sides. This fact doubtless explains the unusual nature of the nystagmus. In this case influenza seems to have acted as an exciting cause in the first attack, just as accident is said to do by the authorities quoted by Dr. Harrison Butler on March 5th.

Sanquhar. T. Ritchie Rodger, M.D., F.R.C.S.Edin.

INSPECTION OF SCHOOL CHILDREN.

METHOD OF FINDING THE CORRECT AVERAGE HEIGHT AND WEIGHT FOR SMALL NUMBERS.

The method commonly adopted is to take together all the children of one sex aged so many years at last birthday. This method gives roughly the average at an age half a year older than the specified age, granting that large enough numbers have been considered; further, as each child's age is always stated in its schedule as so many years and months, it appears that the average age as found is short of the true average by an additional half month. These facts will be borne in mind by those who appreciate accuracy of comparison. Accordingly, dealing with a large enough group of children, aged, say, 13 years last birthday, it must be remembered that the age really under notice is 13 years 6.5 months; and when comparing a child exactly 13 years of age with this standard we must allow to this child, for the 6.5 months, a proper handicap of height and weight, say an inch in figure and six or seven pounds. With small numbers of children the true average age may lie very near the limits of the ages included in the group and afford an additional ground of misconception. These considerations have led to the following plan:

The children are grouped (in sexes) between the half years, as between, say, 13 years 7 months, and 14 years 6 months. The average age, height, and weight of the group are then ascertained; thus, a particular group of 120 girls so selected is found to have an average age of 13 years 9.5 months, an average height of 4 ft. 9.5 in., and an average weight of 5 st. 13.3 lb. This differs from the apparent central age of the group (14 years approximately) by 2.5 months, and an addition of height and weight equivalent to that length of time at that particular period of life is made. The basis adopted for the addition in the present absence of a more satisfactory one are the rates at which girls gain height and weight between the ages of 13 and 14, according to the report of the Anthropometric Committee, 1883, using the tables for the "general population"; these rates are 2.03 in. and 9.5 lb. Gaining this much in twelve months, the gain in 2.5 months would appear to be 0.4 in. and 1.9 lb. At the foot of the column, then, of these 120 girls, there appears the following:

	yrs.	mos.	ft.	in.	st.	lb.
	13	9.5	4	9.9	5	13.3
Add	0	2.5	0	0.4	0	1.9
	14	0.0	4	10.3	6	1.2

This appears to be a fair estimate, not far from the truth, of the average height and weight of these girls at the age of 14 years. Should the average age prove to be something more than the central age a corresponding deduction must be made. The necessary corrections can be made very rapidly, and the plan appears to offer no difficulty. Any child's age will, of course, on the average, be half a month more than has been put down in its schedule.

G. C. Barnes, M.B., M.R.C.S., D.P.H.,
School Medical Officer, Southport.

BONE IMPACTED IN THE OESOPHAGUS.

A woman, aged 29, at luncheon at 1 p.m. on February 15th, swallowed a piece of bone. She felt it stick in the throat, and as it continued to cause her discomfort she came to the Cheltenham Eye, Ear, and Throat Hospital at 3 p.m. She was then examined by Dr. Oswald, who observed a wound of the epiglottis, which was bleeding a little. My colleague then telephoned to me to ask whether I would pass a Bruning's tube and examine the oesophagus, as she still felt something there. As she had eaten a meal only two hours before, I thought it advisable to wait till 6 p.m. before administering an anaesthetic. At about 6.30, when I went to the hospital, she informed us that she was much easier, and the opinion was expressed that the bone had probably passed down. However, I thought it wise to explore the oesophagus through a Bruning's tube. I found a large quantity of food, and below this a piece of bone with one end impacted in the posterior oesophageal wall; it was about 4 in. down the oesophagus, was $1\frac{1}{4}$ in. long, very sharply pointed at each end, and had one sharp edge.

This case brings out well the advantages of seeing what one is doing over the older method of using the umbrella probang, which would most certainly have caused considerable laceration of the oesophageal wall, and might possibly have led to a rupture of the oesophagus. I may add that the patient went home next morning feeling perfectly well.

John A. Bower, M.B., C.M.,
Honorary Surgeon, Cheltenham Eye, Ear, and Throat Free Hospital.

Reports
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

MACCLESFIELD INFIRMARY.

PERFORATED GASTRIC ULCER IN A WOMAN AGED 71: OPERATION: RECOVERY.

(By James William Littlejohn, Senior House-Surgeon.)

D. N., aged 71 years, was admitted at 5.45 p.m. on January 11th with the following history. She had been troubled with constipation and dyspepsia for some years, but otherwise was of good health. At 3 a.m. on January 11th she was seized with violent abdominal pain and sickness. Her friends gave her an ounce of castor oil with no effect. The abdomen gradually became distended, and the patient soon showed symptoms of collapse. At about 4 p.m. she was seen by Mr. Marsh, honorary surgeon to this institution, who ordered her immediate removal to the infirmary.

At 8 p.m. the abdomen was opened by Mr. Marsh, and was found to contain a small quantity of darkly-stained fluid. The anterior surface of the stomach was congested, red, and covered with flaky lymph. On its posterior surface, just above and behind the pylorus, in the line of the lesser curvature, and behind the small omentum, a small punched-out perforation was found. This was immediately seized and held up by means of a through-and-through stitch, and the ulcer buried by two rows of Lembert sutures. The post-operative treatment was the same as usually adopted in gastric cases. The patient made an uninterrupted recovery, and is now convalescent and taking her usual diet. It should be added that she had an adherent pericarditis of old standing. She was anaesthetized by Dr. Rae MacRae, who, after putting her under with chloroform, kept her fully anaesthetized with A.C.E. mixture by the open method.

The unusual points about the case are the age of the patient and the position of the perforation, which made its discovery somewhat difficult.

The committee which administers Lady Dudley's Irish Nursing Scheme is anxious to extend the work over a larger number of districts. Unfortunately not only is this impossible owing to want of funds, but the committee may be compelled to curtail the sphere of work. With the object of benefiting the fund, Lord Shaftesbury lately organized three concerts, to take place in Dublin, Belfast, and Cork respectively. That in Dublin was given last week, and proved most successful, both from the point of view of attendance and of the quality of the music.

Reports of Societies.

MEDICAL SOCIETY OF LONDON.

CLINICAL EVENING.

Monday, April 11th, 1910.

SAMUEL WEST, M.D., F.R.C.P., President, in the Chair.

MR. A. E. BARKER exhibited a case of attempted *Bone grafting*. The patient was admitted into University College Hospital in 1908 with a suppurating wound on the left leg, the result of a compound comminuted fracture. After the accident many fragments of bone were removed, with the result that there was a large space between the pointed ends of the remaining bone and complete absence of repair. The sinuses were cleansed by fomentations and the use of Bier's bandage, but they could not be brought to heal. On January 21st, 1909, a graft of bone, 3½ in. in length, was taken from the right tibial crest and transplanted. This failed to grow, and the sinuses remained. On May 2nd, 1909, 3½ in. of tibia from a freshly amputated limb was transplanted between the freshened ends in spite of the sinuses which remained. This appeared to unite with the soft tissues, and the wound made for the purpose healed. The sinuses had remained up to the present, but secreted very little. Union was not complete now, though much callus had formed, apparently from the periosteum of the transplanted tibia, as seen in the radiograms. It was very remarkable that a large mass of transplanted bone, if dead, should produce so very little disturbance and hardly any suppuration. The question what to do now was a difficult one, and Mr. Barker had not come to a conclusion. The patient was anxious to get back to his home in Russia, and wished for amputation. A clinical instrument for consecutive and simultaneous *Graphic records* of the respirations, pulse, and blood pressure over a prolonged period of time was demonstrated on a patient by Mr. H. TYRRELL GRAY and Dr. L. G. PARSONS. The apparatus shown was based on Dr. Gibson's well-known instrument for obtaining a graphic record of the blood pressure. The following were its distinctive features: (1) Provision was made for a continuous tracing over a period of about two hours (50 ft. of paper); (2) additional levers connected with tambours for recording respiratory excursions, apex beat, and the pulse; (3) adjustable lever marking a base line. Mr. DOUGLAS DREW showed radiographs and lantern slides illustrating a case of old-standing *Dislocation of the foot* forwards, with fracture of the neck of the astragalus and displacement of the fibula on the tibia, which he had recently operated on. The injury resulted from violent flexion of the foot on the leg, as the result of an accident while bobsleighing. It was found to be impossible to reduce the dislocation, which had been present more than a month, either by manipulation or by operative means, until the astragalus had been removed. Mr. Drew commented on the rarity of the injuries and on their mode of production. Other exhibitors were Dr. F. DE HAVILLAND HALL, Dr. F. PARKES WEBER, Dr. J. W. CARR, Dr. F. S. PALMER, Mr. D. C. L. FITZWILLIAMS, Mr. W. H. BATTLE, Mr. CHARTERS SYMONDS, and Dr. ADDISON.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF MEDICINE.

Friday, March 18th, 1910.

Dr. WALTER G. SMITH, President, in the Chair.

Bronzing of Skin.

DR. J. MAGEE FINNY exhibited a case of discoloration of the skin in a boy aged 17. It had been first noticed between December and January last. The discoloration was seen very markedly on the neck, trunk, genitals, nipples, and wherever there had been pressure or irritation, such as round the waist. Deep pigmentation had taken place wherever there had been a burn or sore. The knuckles were all very dark, but the face was very little affected. When the boy was admitted to hospital he was filthy in clothes and body. Owing to adverse circumstances he had had to sleep in the stokeholds of steamers at the quays. Dr. Finny therefore thought it might have been the "dirt disease," but on applying a blister the epidermis was quite black when taken away, and was found to contain true pigment. Dark pigment spots were to be seen coming in the patch where the blister had been. The mucous membranes were very little affected, except for a small spot on the lip and two lines on the palate. A number of white marks on the back showed spots which had been torn. The scars, as well as the whole skin, were perfectly soft. The boy was one of a family of seventeen, of whom five were alive. He did not know of what the others had died. His father and mother had both died—one of pneumonia, the other of bronchitis. For some months he had been feeble, probably from want of nourishment. He had no symptoms of vomiting or fainting. He had improved in every way since coming into hospital, though his appetite was not such as they associated with a boy of his age. The kidneys were sound, and the blood count showed no great loss of red corpuscles; the haemoglobin was 60 per cent. Dr. T. G. MOORHEAD exhibited a young man who had been admitted to hospital in January last with the typical symptoms of pernicious anaemia.

The PRESIDENT said the condition shown in both cases was an obscure one, about which very little was understood. They did not know the reason for the difference between the white and dark-skinned races of the human family. The only historical landmark which he knew in regard to the diagnosis of the nature of the discoloration was the discovery in 1846 that the disease now called tinea versicolor was associated with a fungus, and was not a pigmentation in the ordinary sense of the word. Pigmentation met with in connexion with clinical affections fell into five groups: (1) In connexion with the adrenals; but he thought that the diagnosis of Addison's disease was, perhaps, hastily arrived at on the mere ground of pigmentation. (2) In connexion with the liver; it had been observed in connexion with hypertrophic cirrhosis of the liver. (3) Cases of malaria associated with spleen disease were often markedly pigmented, and in Assam there was a disease called the black disease. (4) There was pigmentation associated with the uterus and ovaries, though there was no pigmentation associated with the male sexual organs. (5) There were cases of dark pigmentation, such as in the epidemic of beer-poisoning some four years ago. Some cases of diabetes were associated with very dark brown pigmentation. Their knowledge of the subject was, however, very incomplete, and the section was indebted to Dr. Finny and Dr. Moorhead for exhibiting the cases.

ROYAL SOCIETY OF MEDICINE.

LARYNGOLOGICAL SECTION.

Friday, April 1st, 1910.

Dr. DUNDAS GRANT, President, in the Chair.

THE following were among the cases and specimens shown: Mr. HERBERT TILLEY: (1) A case of healed *Tuberculous laryngitis* treated by galvano-puncture. The patient, a woman aged 27, complained of hoarseness, and was under sanatorium treatment for pulmonary tuberculosis. The left ventricular band was swollen, so that the corresponding vocal cord was invisible. Four deep punctures with the galvano-cautery had brought about the present satisfactory condition. (2) A portion of mutton bone removed from the right bronchus of a lady in whom it had lodged for ten days. Her symptoms were constant irritating cough, numerous râles over the base of the right lung, and temperature 102° F. It was removed under general anaesthesia. Dr. G. C. CATHCART: A girl aged 12, in whom the epiglottis was enormously tumefied, completely obscuring the glottis, suggesting tuberculosis. There were numerous enlarged glands in the neck. She had had diphtheria four years ago. The PRESIDENT thought the condition looked like tuberculosis of a mitigated type, and suggested application of the von Pirquet test. Dr. PEGLER: (1) A case of extreme *Deflection of triangular cartilage*, with crest and adhesions and anterior prickle-shaped spur, treated by septal fissure. The

author's septotomes in different sizes were shown. (2) A young man, aged 19, who complained of recurring attacks of deafness, inability to breathe through left side of nose, constant cold catching, and a disagreeable sniffing, which annoyed both himself and his friends. Examination showed very marked *Deflection of the septum* with ascending crest to left, extending from a thorn-like spine in front to beyond the junction with the ethmoid plate posteriorly. The spur and anterior part of the crest were joined by adhesions to the inferior turbinal anteriorly, the atrophied condition of which still remains. A slight groove in the right side of the septum marked the angle of deflection. The right inferior turbinal was hypertrophied, but breathing was carried on fairly comfortably on that side. Treatment consisted in sawing away the spur and crest under chloroform, followed by septal fissure on Moure's principle with the author's septotome, and, after right partial inferior turbinotomy, inserting a thick india-rubber splint. The septum was forced over by the finger after the incisions had been made, until the two cavities corresponded in capacity as they do now. The splint was worn quite comfortably for one week. The deafness, sniffing, and a troublesome watery discharge from the right or free nostril had ceased, and the breath way was perfect. Dr. DUNDAS GRANT: (1) A case of *Malformation of the soft palate and uvula* in a girl aged 16. There was a perforation above and to the right side of the base of the uvula, but the nature of it was quite undecided. There was no such cicatricial tissue as would accompany a specific perforation, and no history of such traumatism as could have accounted for it. (2) A case of removal of *Hypertrophied anterior lip of the hiatus semilunaris* for long-standing muco-purulent catarrh in the ethmoid cells and frontal sinus. Both middle turbinals were partially resected, but no permanent relief was obtained till the operation was effected. Dr. WILLIAM HILL: A case of *Sarcoma of the right tonsil* in a woman, aged 48, of twelve months' duration.

CLINICAL SECTION.

Friday, April 8th, 1910.

Mr. A. PEARCE GOULD, President, in the Chair.

THE following were among the exhibits: Dr. N. S. FINZI: A case of sarcoma of the ear and mastoid region under treatment by radium in which the growth and neighbouring glands had become smaller and much less tender. Dr. FINZI and Dr. W. HILL: (1) A patient with malignant growth in the neck treated with radium in whom there was recurrence in the mediastinum; (2) a patient with a growth constricting the gullet in the upper thoracic region under treatment by radium. Mr. CHARTERS J. SYMONDS: A case of rodent ulcer which had been treated with radium by Dr. C. E. Iredell, at the actino-therapeutic department of Guy's Hospital: This patient was exhibited to the section on December 10th, 1909, and the improvement then noted had progressed. Mr. C. R. C. LYSTER said that he had never seen a cancer $\frac{3}{4}$ in. from the surface influenced by radium; and Dr. LAZARUS-BARLOW said that the cases shown, except that by Mr. Symonds, were of the indeterminate type, which he defied anyone to distinguish with dead certainty from inflammatory tissue. In regard to treatment of rodent ulcer, he did not know whether there was any notable difference between the action of radium and the action of x rays except the cost. Dr. F. PARKES WEBER and Dr. E. MICHELS: Disappearance of chronic ascites in alcoholic cirrhosis after repeated paracentesis and laparotomy without omentopexy. Dr. W. P. HERRINGHAM: A case of cyanosis with venous obstruction. Dr. A. F. HERTZ and Dr. F. S. ADAMS: Formation of cholesterin gall stones containing typhoid bacilli within sixty-eight days of the onset of typhoid fever. Mr. GWYNNE WILLIAMS: A case of pulsating exophthalmos.

THE professional examination of the Medico-Psychological Association will be held on July 6th, and the Gaskell Prize examination on July 21st.

AT a meeting of the Society of Medical Officers of Health held on April 8th, Dr. W. G. Willoughby, M.O.H., Eastbourne, was elected President for the next session. He received 55 votes against 29 which were given to Dr. W. G. Crookshank, who was also nominated as a candidate.

Reviews.

CONSTIPATION.

THE application of skiagraphy, combined with the use of bismuth meals, is one of the most fruitful of modern developments for the study of diseases of the alimentary canal, and in this work Dr. ARTHUR F. HERTZ has taken a prominent part, so that we welcome his book on *Constipation and Allied Disorders*,[1] and, having read it carefully, can recommend it as one which should be carefully studied by every student and practitioner who desires to understand this department of medicine. Since W. B. Cannon investigated by these means the intestinal movements in cats, knowledge of two new processes in the transit of ingesta from the stomach to the anus has been acquired; these are segmentation in the small intestine, and retro-peristalsis or a churning movement in the caecum and ascending colon. Dr. Hertz has been able to observe the process of segmentation in the small intestine, but so far he is disposed to doubt the occurrence of retro-peristalsis of the colon in man; in fact, he has never been able to observe in healthy people any actual peristaltic waves, as these are evidently too slow to be visible. The advance of the bismuth meal in the colon is very gradual, taking as long to pass from the ileo-caecal valve to the splenic flexure as throughout the whole length of the small intestine. The rapidity and regularity with which the contents of the stomach pass through the small intestine is, indeed, quite remarkable, taking only from three and a half to four and a half hours. Their entry into the caecum can be recognized by auscultation. If we listen over the caecum with the stethoscope early in the morning, when no food has been taken for twelve hours, no sounds are heard, but if we listen again three and a half hours after breakfast trickling sounds will sooner or later become audible. Their appearance is so constant that Dr. Hertz regards their absence owing to reflex stimulation of the splanchnic nerves, which inhibit intestinal movements, as indicating local peritonitis, such as may occur in appendicitis, and as thus affording an additional sign for the recognition of early mischief in this situation. He tells us that intestinal peristalsis is stimulated by various articles of food, chiefly by cellulose, but also by sugar, organic acids, and their salts; peptone is a feeble stimulant; oil increases the movement of the small intestine, but carbon dioxide, marsh gas, and sulphuretted hydrogen produced by putrefaction of proteins actively stimulate peristalsis in all parts of the intestine. The action of bile seems to be limited to the colon, and as it is chiefly reabsorbed before the intestinal contents reach the caecum, it can ordinarily play little part in the movement of the large gut. Solutions of common salt when introduced into the stomach have no effect; according to Otto, the pylorus remains closed until they become isotonic with the blood, but if introduced directly into the intestines they are powerful stimulants. The colon is much less active during the night than in the day, but this appears to be dependent upon want of exercise, as the same thing is commonly observed when patients are kept in bed. Hot applications stop peristalsis; on the other hand, moderate warmth, as in the case of the Priessnitz compress, regulates it, while cold stimulates it and may cause colic, a result which is difficult to harmonize with the fact that ice-water enemata have been extensively used to check diarrhoea. Cellulose, although so important an agent in preventing constipation, hinders the absorption of vegetable protein to such an extent that, according to Voit, 42 per cent. of the nitrogen present in the food of a vegetarian is lost in the faeces, although, if vegetable proteins are extracted and given without cellulose, they are as completely absorbed as animal proteins.

Dr. Hertz classifies constipation into (1) retention of faeces above the pelvic colon, which is the modern name for the part of the descending colon below the crest of the ilium, including the sigmoid flexure; and (2) retention in the pelvic colon, which he calls dyschezia. He defines constipation as retention of faeces beyond forty hours, and suggests a simple test by giving a few charcoal

[1] Oxford Medical Publications. *Constipation and Allied Intestinal Disorders*. By Arthur F. Hertz, M.A., M.D.Oxon., M.R.C.P. London: Henry Frowde, and Hodder and Stoughton. 1900. (Demy 8vo, pp. 360; 34 illustrations. 10s. 6d.)

iscuits, which should be looked for in the faeces, and ight to appear within that time. He discusses the ubject under these two headings, but shows that they an be distinguished with certainty only by the use of ne bismuth meal and the *x*-ray screen; nevertheless, y digital examination of the rectum we can ascertain whether faeces are present there or not, and in heir absence we may conclude that the reten- on has occurred higher up. Dr. Hertz believes that the first class retention rarely occurs higher than the plenic flexure, and regards the loaded caecum as more or ess of a myth. He believes kinking to be a rare cause. He does not share the view of Arbuthnot Lane that hronic peritonitic adhesions are a cause of constipation, s, according to Mollison and Cameron, who investigated he question in the *post-mortem* room of Guy's Hospital, hey were found to be constantly present in all adults and hildren above 5, in 11 out of 17 children under 5 years of ge, and even in one aged 3 weeks! The first kind of con- tipation is due to muscular weakness or to improper food, vant of exercise, and the effect of certain poisons such as ead and tobacco, but the second is chiefly due to neglect- ng the call to defaecate. Enteroptosis he does not find to e a cause of constipation, though it is often associated vith it, both being due to weak abdominal muscles. He elieves that constipation is not so much the cause of nany general constitutional diseases as secondary to them; still, he admits that it does give rise to such symptoms as eadache, drowsiness, and noises in the head. He con- iders that auto-intoxication, or so-called copraemia, though ossible, is not proved, but he recognizes the serious effect of constipation when the kidneys are diseased. He dmits also that it causes such reflex effects as irritability, nd such direct effects as piles, pruritus ani, and sciatica, ut he doubts its being the cause of acute febrile attacks uch as are sometimes attributed to it, chiefly on the round that they are removed by a purge; he suggests hat such cases are really caused by food poisoning, or are produced by colitis due to retained faeces. He also doubts whether obstruction of the biliary passages can ever be caused by a faecal tumour, yet on p. 206 he gives a very good case of the kind, and parallel instances must be within the knowledge of most practi- tioners. He admits that faecal tumour may be the cause of dyspnoea, and that it is a frequent cause of asthma in predisposed persons. It may raise the blood pressure, may give rise to transient albuminuria with casts, and may cause pyelitis, dysuria, and, according to Craemer, to slight glycosuria. He relates a remarkable case of faecal tumour associated with congenital absence of the anal canal. He also gives a very good description of the rare condition of dilated colon which is either congenital or arises in early life, and is known as Hirschsprung's dis- ease; he believes it to be due to constipation followed by kinking, which occurs at the junction of the pelvic colon and the rectum. He describes the various diseases which may be due to, or associated with, or cause constipation, such as diverticula, pericolitis, typhlitis, and appendicitis, but doubts the frequent relation of the last to this condi- tion. He gives a very sensible account of muco-mem- branous colitis, which he regards as a state of nervous spasm with catarrh, analogous to the association of asthma with bronchitis. The section on treatment is full, and will be found generally satisfactory; but our experience of the use of lactic acid sour milk in the treatment of very obstinate cases of con- stipation and of chronic diarrhoea would induce us to speak of it in stronger terms than the slight commendation he gives to it. He omits to mention phenolphthalein, which is being brought very frequently under the notice of medical practitioners and as to the value of which his opinion would have been valuable. We do not think glycerine suppositories should be regarded as equivalent to glycerine enemata, as the quantity of glycerine which can be given in a suppository is decidedly smaller; in delicate nervous persons with constipation, glycerine enemata combined with the use of sour milk are most useful, as they promote an action of the bowels without any of the weakening effects produced by pur- gatives administered by the mouth; this treatment is highly suitable for the cases of depression of the nervous system associated with constipation described in Chapter XI. He condemns colectomy except perhaps for Hirschsprung's disease. He recommends the use of a belt for viscero- ptosis, and speaks favourably of the Plombières treatment for muco-membranous colitis, although he believes irriga- tions with simple warm water would be as good, or we might suggest warm normal saline solution. In an appendix he describes the method of *x* ray diagnosis in cases of constipation.

HYDROTHERAPY.

The introduction to hydrotherapy and thermotherapy which Professor Julius Strasburger of Bonn has pub- lished is based upon summer courses of lectures which he has delivered for several years past to medical students.[2] His object has been to direct attention to the scientific side of the subject, while not losing sight of its practical aspect. He admits that these departments of therapeutics are to a great extent based upon observation and expe- rience, but it is to the advantage of patients, and tends to the improvement of the methods that those who use them should be acquainted with such general principles as govern their employment. Although often spoken of as if they had been recently invented, these therapeutic pro- cedures are of course of great antiquity. The Greeks and Romans used both hot and cold baths, and the Arabs carried on the tradition, although they use hot water chiefly. Hot springs have always been more or less in favour all over the world for the treatment of diseases. In the seventeenth century the use of cold water was recommended by Floyer of Lichfield for rickets, but it was not generally regarded with favour, and the celebrated Boerhaave wrote, "hoc remedium non proponitur nisi in desperatis casibus"! In Italy the Capuchin fathers Bernardo and Todano treated diseases in heroic fashion with snow and iced water. In the eighteenth century Hoffmann recognized the value of these methods, and the medical faculty of Hahn (Hen), nicknamed "Wasserhaehne" (Waterhens), were especially asso- ciated with it; Johann Siegmund Hahn wrote a treatise on the power and effect of cold water. Wright, in the West Indies, and Currie, in Liver- pool, found the value of cold water in the treatment of fevers, but in the early part of the nineteenth century the attention of the medical profession was taken up mainly with progress in anatomy and physiology, pathological anatomy and physical diagnosis, and therapeutics, Pro- fessor Strasburger thinks, were comparatively neglected. The opportunity thus afforded was taken by Oertel, a gymnast; Priessnitz, a peasant; and the pastor, Kneipp. Winternitz of Vienna is, we are told, to be regarded as the father of hydrotherapy in Germany, as he was the first to attempt to put it on a scientific basis, the same service as Bier has rendered to thermotherapy. The first part of the book deals with hydrotherapy, cold and hot. He discusses its effect on the skin, the blood vessels, the heart, and the nervous system, and considers also the effect of dry cold. In spite of the good health which has been maintained by members of Arctic and Antarctic ex- peditions, and by travellers and soldiers in Thibet, where the extremity of cold has had to be endured, he believes that mere exposure to cold is capable of producing acute nephritis and acute myelitis; in the case of infection such as pneumonia he admits that the effect of cold can only be to diminish the resistance of the organism and to prepare a favourable soil for the invasion of the microbe. He also discusses the action of air baths and sun baths, although this would seem to be trenching upon the second part of his book, which is devoted to thermotherapy, and is very much an account of Bier's work described in *Hyperaemia as a Remedy* (see Journal, May 1st, 1909, p. 1071). In this section he describes various baths, the use of Priessnitz's compresses and packs, of brine and CO_2, and oxygen baths, of the mustard pack and bath, bran and malt baths, hydro-electric baths, radium emanation baths, and the value of natural mineral waters. The book is what it pretends to be—a clear and scientific exposition on a subject with which medical students are not usually acquainted, and seems admirably adapted for its purpose. It is illustrated by an adequate number of figures and diagrams.

[2] *Einführung in die Hydrotherapie und Thermotherapie.* Von Professor Dr. Julius Strasburger. Jena: Gustav Fischer. 1909. (Sup. roy. 8vo, pp. 268. Abb. 46. M. 6.)

THE MILK TRADE.

It cannot be asserted with any approach to truth that the unsatisfactory conditions under which a large part of the milk industry is carried on is due to the lack of means for instructing those who are engaged in it. In the past few years many writers have expressed their views on the subject and have dealt with it with varying degrees of lucidity. In the United States the question has occupied quite as prominent a place in the public mind as in this country and very serious attempts have been made to effect such reforms as are acknowledged to be needed. The whole question as it affects the United States is very ably discussed by Mr. Archibald Robinson Ward in *Pure Milk and the Public Health*.[3] He deals first of all with the possible sources of contamination of milk, from the udder to the household milk bowl, and after considering the changes caused by bacteria and the diseases which may be transmitted by milk he describes the manner in which the municipality may effectively control the milk supplies of the community. He is very emphatic in his advocacy of pasteurization of milk. In Washington 10 per cent. of the cases of typhoid fever are attributable to milk, and elsewhere the evidence of the necessity for pasteurization is, in his opinion, overwhelming.

> Certain it is that pasteurization offers the only effective measure that may be immediately put in force against the danger from bovine tuberculosis. That disease is so widely prevalent that the rigid application of measures against the sale of milk from tuberculous cows without the alternative of pasteurization would cause a milk famine.

The chapters on the analysis and the adulteration of milk are from the pen of Mr. Myer Jaffa, Director of the State Food and Drug Laboratory, University of California, who has dealt with the subject in a thoroughly practical manner which adds considerably to the value of the volume.

Although Mr. G. Mayall, M.R.C.V.S., of Norwich, has not treated the subject so exhaustively as Mr. Ward, his little book, *Cows, Cowhouses, and Milk*,[4] should be of assistance, to use his own words, in "spreading knowledge with regard to cows, cowhouses, and milk and its clean production." To the subject of the preservation of milk, either by the application of heat or in other ways, he devotes only two pages; almost the entire volume may be said to deal with the best methods for securing cleanliness. In a work concerning the production of so sensitive a food as milk it ought not to be necessary to remind those who are responsible for the production that it is almost impossible to win a clean milk if cows wade through a manure yard to the byre. But, according to the reports of medical inspectors of the Local Government Board and of medical officers of health, this is quite the usual practice in our dairy farms. In the chapter entitled "Improving the old cowhouse" the author is able to show how a great deal of improvement may be effected in many existing buildings at a comparatively small outlay. To those who are concerned with improving the insanitary surroundings of many of our dairy farms this little work, written as it evidently is by one who has a practical acquaintance with his subject, should be of the greatest service.

PHARMACOLOGY.

Textbooks of pharmacology are no more plentiful in Germany than they are with us, so the present translation into German of Professor Poulsson's well-known book[5] should be welcomed alike by medical men and students. The work has in a short time passed through two Scandinavian editions, and the present German edition has been excellently translated by Dr. Friedrich Leskien.

The classification follows in the main that adopted by Schmiedeberg in the well-known *Grundriss der Pharmacologie*. The subjects dealt with are divided into seven main groups; in the first the organic substances which exert their action after absorption are considered. Considerable space in this section is given up to the study of the anaesthetics and hypnotics which act by virtue of their solubility in fat or fat-like compounds; a short account is also given of the drugs of recent introduction without attempting, as it seems to us, to distinguish between the wheat and the chaff. In this section the author adopts the view that alcohol serves as a fat and carbohydrate sparer.

The book is, perhaps, for its size too dogmatic, and subjects in dispute sometimes receive no reference. This might be well enough were the book of a strictly elementary type, in which case results only might suffice; but in this book, over and over again, authorities are quoted to support a view without reference to others who bring equally important and more recent evidence on the other side. Thus, on the diuretic action of caffeine, the work of v. Schröder and Loewi only is quoted. On the whole a fair division of space is made, though, perhaps, picrotoxin and curare receive more consideration than their practical importance demands.

The second part deals with those organic substances which are employed for their local effects. It includes such different groups of bodies as the bitters, fats, essential oils, vegetable astringents, purgatives, and anthelmintics. This grouping seems to us somewhat crude, and certainly the essential oils, which are readily absorbed from the alimentary canal, would be better considered elsewhere.

The third group deals with the salts of the alkaline metals, the halogens, phosphorus and arsenic, and in parts it is incomplete; much more space might well be given to the explanations of the effects of the iodides. The therapeutic uses of the drugs throughout this book are considered after the description of the action of the drugs or group of drugs. In a textbook of this type it is doubtful whether such a section on therapeutics is desirable, and whether it would not be much better that the practical applications of the drugs in medicine should not follow immediately after the description of each pharmacological action.

The fourth section is concerned with the heavy metals, and contains an excellent monograph on mercury. The fifth is very short, and includes ferments and foodstuffs; under proteins the composition of sanatogen, plasmon, somatose, and many other proprietary substances is given.

Organotherapy is considered in section six, and antitoxins and bacterial products in section seven. Both of these are short, but sufficient, and no undue space has been wasted in considering the host of new products alleged to possess therapeutic value.

Taken as a whole the book is well up to date, and expresses clearly and concisely the modern views on the actions of drugs. It is especially valuable in that at the end of each article a list is given, not only of the official German preparations, but of the various proprietary substances of allied composition. It should form an excellent textbook for the student of medicine who is familiar with German, and should find a place in the library of every teacher. The book is clearly written, and the style is easy to follow.

OPEN AIR TREATMENT AT HOME.

Open Air at Home, by Mr. Stanley H. Bates,[6] gives the experience of a consumptive patient in carrying out the open-air treatment at home, with details of the construction and arrangement of the shelter which he erected in his garden and in which he lived for several months. As suggested by the subtitle, the author was for six months in a sanatorium, and he rightly insists on the value of the training which sanatorium life gives. The purpose of his book is to pass on to those who have to continue the sanatorium treatment at home the knowledge which he gained by experience. This purpose it is well calculated to fulfil, for it is full of practical advice from a patient who has recovered to patients who are striving to attain success by similar means. It will appeal to those who are disposed to criticize and discount

---

[3] *Pure Milk and the Public Health: A Manual of Milk and Dairy Inspection.* By Archibald Robinson Ward, Director of the State Hygienic Laboratory, University of California. Ithaca, N.Y.: Taylor and Carpenter. 1909. (Med. 8vo, pp. 231; 17 illustrations. 2 dollars.)

[4] *Cows, Cowhouses, and Milk.* By G. Mayall, M.R.C.V.S. London: Baillière, Tindall, and Cox. 1909. (Cr. 8vo, pp. 114; 24 illustrations. 2s. 6d.)

[5] *Lehrbuch der Pharmacologie.* Von E. Poulsson. Deutsche Ausgabe von Dr. Med. F. Leskien. Leipzig: S. Hirzel. 1909. (Sup. roy. 8vo, pp. 584. M. 13.80.)

[6] *Open Air at Home: Practical Experience of the Continuation of Sanatorium Treatment.* By Stanley H. Bates. Bristol: J. Wright and Co.; and London: Simpkin, Marshall. 1910. (Cr. 8vo, pp. 62. 2s. 6d.)

he directions of professional advisers, and should give ncouragement to many who are engaged in the same ght for health which Mr. Bates has waged with such uccess. The book is well illustrated with photograph nd sketch plans of the author's shelter, from which it ill be seen that he thought out the details very horoughly. Mr. Bates may be congratulated on having roduced a useful little book which doctors may with dvantage recommend to patients who are obliged to carry ut open-air treatment at home.

Dr. H. HYSLOP THOMSON's little book on the *Prevention nd Home Treatment of Consumption*[7] is somewhat lisappointing. It describes clearly and with knowledge he requirements for the prevention of consumption and or the sanatorium treatment of the consumptive; but in he adaptation of these to the conditions of the home the tamp of experience is not so evident. The first part of he book is excellent, a simple and lucid exposition of ssentials. It is not until we reach the chapter on the equirements for home treatment that we begin to wonder ow successful treatment can be carried on at home—so many of the requirements seem difficult to obtain in the omes of the comparatively well-to-do, and impossible in he homes of the poor. All the directions are good, if they ould be carried out. In spite of this defect (as it seems o us) the book should be very useful to medical practi-ioners, who will learn from it what to aim at in the reatment of consumptives in the patient's home. There eems to be a minor oversight on page 27, where we are old that all milk should be *boiled*, whereas the context uggests that sterilizing without boiling is intended.

THE DICTIONARY OF NATIONAL BIOGRAPHY.

THE reissue, unabridged, of the *Dictionary of National Biography* in twenty-two volumes, in place of the original sixty-six, has been completed by the publication of the Supplement.[8] The production of the dictionary was resolved upon in 1882, the publication was begun in 1885, and the sixty-third volume was issued in 1900; the Supplement, in three volumes, appeared in 1901. These three volumes, reproduced in the twenty-second volume of the present edition, contained 1,000 articles, of which more than 200 represented accidental omissions; but the main purpose of the Supplement is to deal with distinguished persons who, though they died before the date set—the day (January 22nd, 1901) on which Queen Victoria died—beyond which no names should be included, died too late for their names to be inserted in the proper places in the original work. As a period of fifteen years elapsed between the publication of the first and of the last volume, it is not surprising to read that half the 800 supplementary names added on this account belong to the first five letters of the alphabet. The reduction in the number of volumes has been achieved partly by making each volume rather thicker, but mainly by using thinner paper, with the result that each is no heavier, that the total amount of shelf room is not much more than a third of that required for the first edition, and that the series is easier to consult, as must obviously be the case when a single volume contains a longer slice of the alphabet. Of consequent disadvantages we do not hesitate to say there are none, for the type is the same, and the paper, though thinner, is sufficiently opaque, and the volume more agreeable to handle since it opens better. As to the merits of the book, epithets of praise have already pretty well been exhausted. It is really a national work, and was so regarded by the late Mr. George Smith, who determined, as a patriotic duty, to remove a reproach under which British literature and British publishers had previously rested. He was in many respects a remarkable man; he was a good man of business, as the success of the great publishing house he so long directed, and of other undertakings in which he was the moving spirit, sufficiently prove, but he did his business in the grand manner; he treated the men who wrote the books he published fairly, and often generously, and most of them became his friends. Finally he treated himself to the luxury of scheming this great dictionary, and carrying it through. With him as ship's husband, and with Sir Leslie Stephen as skipper, the craft was assured a safe voyage even without the accession of strength which Mr. Sidney Lee brought. The book provided for the first time an encyclopaedia of the biographies of the English, Welsh, Scots, and Irish who, down to the end of the reign of Queen Victoria, had achieved distinction. The net was spread wide, rather small fish were sometimes brought up, but this was a fault on the right side, if a fault at all. Of other faults minute criticism has found some, but so few as to justify the application of the proverbial saying *exceptio probat regulam*—the rule that the statements in the dictionary may be trusted as accurate. It is a book, therefore, for reference, but it is a book also for a leisure ten minutes. *Varium et mutabile* is true in another sense of men also; of "what men dare do, what men may do, what men daily do, not knowing what they do," these twenty-two volumes are packed full—of the great schemes that came to little, and the little beginnings that led to great things. The book is something more than a book—it is a national monument to the men who, often not knowing what they did, built up the great heritage which we are now so much concerned to keep.

[7] Oxford Medical Publications. *Consumption: Its Prevention and Home Treatment; A Guide for the Use of Patients.* By H. H. Thomson. London: H. Frowde, and Hodder and Stoughton. 1910. (Cr. 8vo, pp. 75. 2s.)

[8] Volume XXII. Edited by S. Lee. London, Smith, Elder, and Co. 1909. (Roy. 8vo, pp. 1454. 15s.)

NOTES ON BOOKS.

THE March fascicule of the *Transactions of the Society of Tropical Medicine and Hygiene*[9] records the reading and discussion of three papers. In one of them Mr. E. E. Austen dealt fully with myiasis in man; in another Sir Patrick Manson gave reasons for attributing Calabar Swellings to the periodical and normal emptying of the contents of the uterus of the gravid female *Filaria loa* into the connective tissue of the host. In the third Drs. Fraser and Stanton, both of the Institute for Medical Research in the Federated Malay States, recorded a series of experiments which seemed to them to support Braddon's theory as to a causal relationship between white rice and beriberi. Their net conclusion was that polished rice lacks some substance essential to the maintenance of normal nutrition in nervous tissues, and that so far as the Malay States, at any rate, are concerned, the occurrence of beriberi could be prevented by adding to white rice diet articles rich in those substances which at present are deficient. One such article would be the polishings from white rice. The lacking substance is phosphorus, and it was suggested that by estimating in terms of phosphorus pentoxide the total phosphorus present in any given rice, its beri-beri producing power when forming the staple of diet in man would accurately be indicated.

How to Cut the Drug Bill,[10] the title of a pamphlet by Dr. A. HERBERT HART, is certain to appeal strongly to many a harassed practitioner. Nor will any who buys the book be disappointed. The author's purpose is to show how a saving of 20 to 50 per cent. may be effected in an average dispensing practice, and at the same time to create a greater enthusiasm for the neglected art of pharmacy. These objects are well combined, as it is demonstrated that the promised saving will result from following the author's directions, which certainly involve the cultivation of pharmacy to an extent which has become very rare among practitioners in these days, when ready-made mixtures, and sometimes even therapeutics, are pushed upon us by the glib representatives of the manufacturing druggists. All the directions given are simple, lucid, and practical, and if followed would make the work of dispensing easier and more interesting. Incidentally both the practitioner and his patients would benefit, as there is no better groundwork for a knowledge of therapeutics than a training in practical pharmacy. The book is accompanied by a card bearing a list of the preparations described with their dose, which will be found useful.

Mr. HIME's little book of *Masonic Hints*[11] might well have a wider title and be called "Hints to the Charitable" or "How not to Waste your Money," for it lays down some

[9] *Transactions of the Society of Tropical Medicine and Hygiene.* Vol. iii, No. 5. London: Society of Tropical Medicine and Hygiene, 11, Chandos Street, Cavendish Square. Pp. 255.

[10] *How to Cut the Drug Bill.* By A. Herbert Hart, M.D. London: John Bale, Sons, and Danielsson, Limited. 1909. (Fcap. 4to, pp. 55. 2s. 6d.)

[11] *Masonic Hints regarding our Schools and School Elections.* New edition. By M. C. Hime, M.A., LL.D., 31. Dublin: Hodges, Figgis and Co., Limited. (Post 8vo, pp. 64. 1s.)

golden rules as to the proper way of giving a vote for any object of charity. Its claim to a criticism in these columns must lie in the fact that the profession has a large educational charity, and we would cordially recommend any governor of Epsom College to read Mr. Hime's pamphlet before promising or giving his vote; if he permits himself to be guided by Mr. Hime's hints on masonic charities he will then bestow his vote where it is most needed and not waste it, as we fear is at present too often the case.

SICKNESS AND INVALIDITY INSURANCE.

THIRD ARTICLE.*

INVALIDITY insurance has not generally been understood to cover incapacity arising from accidents occurring during the course of work for an employer of labour, as this is covered by the accident insurance. The distinction is important, because in most countries, following the example of Germany, premiums for accident insurance are paid wholly by the employers, while premiums for invalidity insurance are paid partly by the workmen themselves, and unless the law governing the insurance be very precise disputes may readily arise as to which fund shall bear the cost for invalidity pensions. It may happen that both funds may be liable for the same period, or there may be a time limit for the liability of the accident insurance, and when this limit has been reached, but not before, the invalidity insurance may become liable. Some difficulty has already occurred in Germany in special cases, and the difficulty would have occurred far more frequently but for the extremely liberal interpretation put on the regulations for invalidity insurance by the German Government department. This liberality can, of course, only be exercised because the accumulated funds of the invalidity insurance are so enormous. There has been a constant tendency, especially marked in England during the last two or three years, to extend the range of employers' liability under the Workmen's Compensation Act, and the decisions of the courts have made it difficult to define what is included in the term "accident." The Act of 1906 (Section 8) provided that invalidity, suspension from work, or death due to certain diseases should be compensated as though due to accident. The diseases enumerated in the schedule to the Act are anthrax, lead, mercury, phosphorus, and arsenic poisoning or their sequelae, and ankylostomiasis, but the list of the so-called industrial diseases to which it is desired to extend this provision tends to increase every year. Attempts have been made to include phthisis occurring in knife-grinders or in men engaged in dusty trades. A case occurred in Lancashire, where a grave-digger claimed compensation for pneumonia said to have been caused by inhaling a bad smell from an old coffin which had been accidentally opened in digging a grave. Compensation has even been claimed for long debility following influenza on the ground that the influenza was caused by having to work in a draught. Again, a slight accident happening to a healthy man may have no lasting results, but to a man suffering from hernia or varicose veins, or from certain constitutional diseases, a slight accident may cause permanent invalidity, and the decisions of the courts are making it more and more difficult to decide whether certain cases of this nature should come under the accident insurance or be otherwise provided for. So far as the workman is concerned it often means that if he fails under the Compensation Act to obtain compensation, which, of course, comes out of an accident insurance, he may soon be compelled to resort to the Poor Law, and the judges would hardly be human if mere pity and compassion did not sometimes lead them to strain the Compensation Act. There would be no such temptation if invalidity insurance were compulsory, for in that case every workman who failed to obtain compensation under the Compensation Act would, nevertheless, be provided for under the invalidity insurance so long as incapacity lasted. Allusion has already been made to a similar overlapping that exists in Germany between the sickness and the accident insurances. As stated in our first article, accident cases receive all medical treatment required in the first thirteen weeks from the sickness insurance, and this is the case to a varying extent in other countries where both sickness and accident insurance are compulsory. In Germany proposals are at present before the Reichstag for co-ordinating the three forms of insurance but nothing has yet been settled.

Amid all this overlapping and impossibility of deciding in certain cases which fund shall be held liable, it will be necessary to describe briefly accident insurance schemes in various countries as well as sickness and invalidity insurance, it being understood that the decision as to which fund shall be liable for invalidity pensions must depend in many cases on the view taken by the particular courts, each court within certain limits forming its own guiding rules. Many of the countries of Europe have more or less closely imitated the German system of insurance and as this has already been described in some detail it will be sufficient in many cases, in order to prevent repetition, to point out the particulars in which they differ, dealing more fully with special characteristics only.

AUSTRIA.

In many respects Austria has very closely followed the German model for sickness and accident insurance, and proposals are at present under consideration for compulsory invalidity insurance. Austria has a population of about 27,000,000, of which about 9,500,000 are wage-workers.

Sickness insurance is compulsory on the same classes of workmen as in Germany and with the same wage limit of about £100 a year. The organization is also similar and there are about 3,000 sick clubs, with about 3,000,000 members, a much smaller proportion than in Germany. Employers pay one-third and employees two-thirds of the premiums. The benefits are the same as in Germany except that the time of relief is only twenty weeks, instead of twenty-six, but the sick pay is 60 per cent. of the average daily wages, instead of 50 per cent., as in Germany.

Accident insurance is compulsory for workers up to £100 a year, the limit in Germany being £150. It is organized by territorial associations to which all the industries of a district belong. In Germany similar trades have organizations of their own in each district, but in Austria only the railway workers have their own special associations. The contributions are assessed according to the amount of wages paid, and the risks of the trades. A noteworthy point is that the workers themselves have to pay 10 per cent. of the premiums, the masters paying the other 90 per cent.; whereas in nearly every other country except Switzerland the masters pay the whole of the accident insurance premiums. The Austrian plan was adopted expressly with the idea that it would make the workmen more careful to avoid the dangers of accident if they knew that they themselves had to subscribe to the fund. It is doubtful whether it may not have the opposite effect, as the men are apt to argue that they have more right to the benefits when they subscribe to the funds. The benefits are compensation up to 60 per cent. of the wages, beginning from the fifth week after the accident, burial expenses up to £2 2s., and a pension to surviving dependants up to 50 per cent.

Invalidity insurance is at present voluntary only except for miners, of whom about 150,000 are insured with special miners' relief funds, employers and men each contributing half the premium. The minimum invalidity pensions are £8 10s. for men and £4 5s. for women, while widows and orphans receive up to three-fourths of the pension.

HUNGARY.

Hungary closely resembles Austria in its compulsory sickness insurance, but a much smaller proportion of the workers are insured. The sick pay is 50 per cent. of the daily wage, but with a proviso that it shall not exceed 1s. 8½d. a day. The actual average sick pay is only 1s. 2½d. a day, while in Germany the average is 2s. 7d. and in Austria 1s. 6¼d.

There is no compulsory accident insurance in Hungary, and invalidity insurance is only compulsory for miners, the pension provided being £12 10s. for the insured, £5 5s. for widows, and £1 9s. for orphans.

ITALY.

For sickness there is only voluntary insurance, managed by the registered and free friendly societies, which are in a fairly strong position in Italy. The registered societies

* Previous articles were published in the JOURNAL of April 2nd, p. 818, and April 9th, p. 883.

ave some privileges accorded in the way of State help. he benefits generally do not include medical attendance, it only sick pay and funeral expenses. Accident insurance compulsory for workers earning up to £85 a year, that about 32s. 6d. a week. Employers may insure through tate-managed or private or mutual associations at their noice. The benefits given are: First aid after the accident, ck pay up to 50 per cent. of the daily wage, for invalids lump sum up to six times the yearly earnings or a life nnuity, and for surviving dependants a lump sum up to ve times the yearly earnings.

Invalidity and old age insurance is voluntary for all age-workers, but is managed by the State, which ncourages it by a subsidy of 10s. for each annuity. he premiums vary from 5s. to £4 a year, and the enefits are an invalidity pension for those unable to ork, but only payable after five contributory years, n old age pension for those over 60 years of age, only ayable after twenty-five contributory years, and reimursement of contributions in case of death before the ensions are payable.

BELGIUM.

Sickness insurance is voluntary in Belgium, and the ystem in many respects resembles that of Italy. It is arried out mostly by means of the friendly societies, vhich in 1907 had about 400,000 members. The sick ay averages slightly over 1s. 6d. a day, but as a rule nedical attendance is not given. Accident insurance is ompulsory only for miners, and is organized by the elief clubs in which the workmen participate with ssistance from the State, the province, and employers. or other workers earning up to about £100 a year ccident insurance is voluntary, and its organization esembles the Italian system, but the benefits provided re sick pay up to 50 per cent. of the daily wage, nvalidity pensions up to 50 per cent. of the yearly arning, pension to survivors up to 30 per cent, and also medical attendance and funeral expenses.

Invalidity and old-age insurance has within the last few years received the greatest encouragement from the Government, and, though it remains voluntary, it is stimulated by the offer of considerable bounties. Miners alone are under compulsion to insure, and their insurance is organized by relief clubs, towards which the State, the province, and employers contribute as well as the men themselves. The benefits in these clubs are old-age pension after thirty to thirty-five years' service and relief for widows and orphans.

The Belgian Superannuation Fund (*Caisse des retraites*) was first started in 1850 as a system of deferred annuities, bought by the recipients themselves, but organized under State guarantee and bearing interest at the rate of 4½ per cent. The interest has been reduced to 3 per cent., but to replace the difference extensive subsidies are now given. Since 1890 the Post Office has been placed at the disposal of the fund and all the formalities simplified. The Government has largely advertised the scheme, and pushed it in various ways, especially by appealing to employers to affiliate the workpeople. The better class of workmen have taken it up to a considerable extent, though it still fails to reach the poorest and least provident classes. The regulations provide that any person over 18 may buy an annuity for himself or for another person who is not under 6 years of age. The annuity may be immediate or deferred, and the purchaser may contract for return of the capital at the death of the insured. Sums of not less than 1 franc may be paid into the fund, but small sums are regarded as ordinary savings bank deposits until sufficient has been paid in to purchase an annuity of 1 franc. It is said that the provision allowing such small sums as 1 franc to be paid in has helped to make the fund popular. A deferred annuity may be purchased by single payment or by a series of payments, either of which must suffice to buy an annuity of at least 1 franc. The amount of payment of course depends on the age of the insured at the time the payments begin and the age at which it is desired that the annuity shall commence. Annuities are made payable at the age of 65, but if invalidity occur before that age the annuity may be drawn with a reduction proportionate to the age. No reduction, however, is made if the injured is prematurely incapacitated owing to the loss of a limb or an organ or by other permanent infirmity arising out of his employment. The maximum annuity is 1,200 francs (£48), and the sum of 25 francs (£1) is allowed to indigent relatives for funeral expenses. As a temporary measure, to impress on the workpeople the advantages of the scheme, the law of 1900 provides a pension of 60 12s. for indigent workers already over 65 and for those who were over 55 on January 1st, 1901, as soon as they reach the age of 65. The *comités de patronage* appointed to award these pensions have been so extremely liberal that 40 per cent. of the population over 65 had received a pension in 1901. The annuities cannot be assigned or attached except in accordance with the law of reciprocal obligations of parents, children, and married people, and only if the annuity exceeds £14 8s., when one-third may be assigned or attached if the remainder be not less than £14 8s. In order to popularize the scheme, recognized friendly societies are largely subsidized by the Government in proportion to the number of new subscribers they bring to the fund and the amount of payment made through the society. The number of friendly societies thus subsidized has risen from 232 in 1896 to 4,924 in 1903, and the new accounts opened annually rose in the same period from 10,549 to 114,978. Many of these societies simply serve the purpose of collecting the subscriptions at the homes of the members and receiving the subsidies. The societies also frequently receive donations from honorary members and subsidies from the provinces or communes in which they work. The extent of the various subsidies to the friendly societies is said to be 45 per cent. of the total sum, leaving only 55 per cent. provided by the insured themselves. Over 2,000 friendly societies are working among children in the elementary schools, and in some places the teachers form societies, collecting the smallest sums from the children and receiving a small percentage on what they pay in. The rate of pension to members of the friendly societies depends partly on the arrangements as to return of savings when the pensioner dies; if it is agreed that no capital be returned, the pension is, of course, higher, but the surviving relatives suffer, and most of the insured prefer that at death the capital shall be handed over to their families. In some cases it is agreed that the capital shall be handed over to the friendly society for the benefit of its funds. Statistics show that in 1906 there were 7,079 mutual aid societies, that £66,159 was paid in pensions, and that there was a balance on deposits of nearly £34,500,000, and invested funds amounting to £3 823,000.

The Majority Report of the Poor Law Commission, in discussing the applicability of the Belgian scheme to British conditions, says that the element peculiarly applicable is the utilization of the friendly societies, and that special advantages might be given to members of these societies in return for the services of the society in collecting and remitting payments. By making the fund a centralized one under guarantee of the State, the necessity of interfering with the management of the societies except by registration would disappear. To prevent the societies being used as political agencies, as they are in Belgium to some extent, only those should be recognized that are really mutual benefit societies, providing sick pay for their members, and State subsidy would then be given only to cases of permanent invalidity.

DENMARK.

In Denmark sickness insurance is voluntary only, but the clubs are under inspection. Accident insurance is only compulsory for seamen and ships' officers earning up to 2,700 marks a year (about £130). The insurance is under Government organization and there is a Government subsidy. No compensation is given if the accident be due to great carelessness or if it be intentional. Invalidity insurance is voluntary only, but there is a State provision for old age pensions, the State and the local Poor Law authorities each contributing half the amount. The pension varies according to the needs, and is given to persons over 60 who are unable to maintain themselves and their dependants, or who are in need of medical relief, the Poor Law authorities settling the grants. There is a great tendency for such grants to increase both in number and amount, and about a quarter of the population over 60 is in receipt of pensions, women

especially availing themselves of the facilities. According to a consular report, the aggregate pensions for the financial year 1906–7 amounted to £451,000, and the average pension was £6 11s. for each "principal" pensioner—that is, apart from wives and children dependent on them.

NORWAY AND SWEDEN.

Norway has only voluntary sick insurance through free societies, but accident insurance is compulsory for workers earning up to 1,200 marks (about £60). It is under State control, and the premium, paid altogether by the employers, varies with the amount of wages and the risks of the trades. The benefits begin with the fifth week, and consist of free treatment and a pension up to 60 per cent. of the wages, or free hospital and 50 per cent. of the wages to the family; also £2 10s. towards funeral expenses and pension to surviving dependants up to 50 per cent. Disputes are settled free of cost by a special commission. No compensation is given if the accident were intentional, or if the resulting loss of livelihood is under 5 per cent. Invalidity and old age insurance is voluntary. In Sweden there is no compulsory insurance for accident, and, as in Norway, sickness and invalidity insurance is voluntary.

FINLAND.

Finland has only voluntary insurance for sickness and invalidity, but the latter is under State supervision. There is compulsory accident insurance for seamen and for workmen earning up to about £30. Employers pay the premium, and the benefits, beginning from the seventh day, are sick pay for the insured up to 60 per cent. of the daily wage, or else free hospital, with 40 per cent. to the family; also a pension for invalids up to 60 per cent. of the yearly wage and pension to survivors up to 40 per cent., but there is no compensation if the accident arose from neglect.

SWITZERLAND.

Switzerland has compulsory insurance for sickness for workers earning up to £90, and by special rules this may apply to casual workers. The obligatory sick clubs resemble those of Germany in many respects, but employers and employed each pay half the premium, reckoned as a percentage on the wages. The benefits last for a year, and consist of sick pay—60 per cent. of the average wage—and for funeral expenses from 16s. to 32s., and in the case of women attendance at confinements and for four weeks afterwards. A federal insurance court settles all disputes. Invalidity and old-age insurance is voluntary, but there are special pensions under State supervision for persons engaged on the railways and steamers. Accident insurance is compulsory for workmen earning up to £90. It is managed as a State institution, and employers subscribe 75 per cent. of the premium, the workmen finding the other 25 per cent. There is also a State subsidy amounting to one-fifth of the whole. The benefits, which begin from the sixth week, are medical attendance and sick pay, or else free hospital and relief to the family. Invalids receive a pension up to 60 per cent. of the yearly wage, and survivors a pension up to 50 per cent., with funeral expenses up to 32s.

SPAIN.

Insurance in Spain is voluntary in all cases, but there is a State provision for invalidity insurance in the case of workers and small employers earning up to £120 a year. In addition to the premium paid by the insured, assistance is given by the State, the province, and the commune, and also from the savings banks. Pensions are according to tariff, but with a maximum of £60 a year, and in case of death before the pension is payable there is reimbursement.

LUXEMBOURG.

Insurance for sickness is compulsory, and in many respects like that of Germany, but with a wage limit of £120, and the sick benefit only lasts for thirteen weeks. Accident insurance is also compulsory for workers earning up to £120, and is organized by territorial companies, the benefits being much the same as in Germany. There is only voluntary insurance for invalidity.

NETHERLANDS.

Insurance for sickness and invalidity is voluntary, bu there is compulsory accident insurance for workers earnin up to 7s. a day. It is under the control of a State organiza tion with a number of private clubs, the employers sub scribing according to amount of wages paid and the risk of the trades. Benefits are free treatment and 70 pe cent. of the wage, with a pension for invalids after th seventh week up to 70 per cent. Survivors have a pensio up to 60 per cent., and for funeral expenses a sum equal t thirty times the daily wage. No compensation is provide if the injury were intentional, and only half the ful pension if it arose through drunkenness.

UNITED STATES.

The only protection afforded to workmen is under the common law. Employers are often put under compulsion to comply with certain conditions to secure the safety of their employees, and failure to carry out these conditions makes them liable to actions for damages. Only in one State—Maryland—has provision been made for a system of State insurance to cover the liability of employers, the indemnity for death under this system being fixed at £200.

AUSTRALASIA.

In New South Wales sickness insurance is practically all in the hands of the friendly societies, which at the end of 1907 had 116,985 members, an increase of more than 10,000 over the previous year. The societies provide sick pay, which in 1907 averaged 21s. 5d. a member, in addition to medical attendance and medicine and funeral expenses. In the same year the sum of £110,895 was paid for medical attendance and medicines, which is an average of 19s. 10d. a head of the membership. This added to the sick pay makes a sum of £2 1s. 3d. a year for every member on the books. During the year 1908 the "Subventions to Friendly Societies Act" was passed; it was designed by means of State subsidies to enable the friendly societies to provide sick pay for illness lasting over twelve months, for the sickness of old age, for the payments of contributions to insure funeral expenses in the case of members over 65 years of age who have been unable to continue their contributions, and for the provision of medical attendance free of all cost for members over 65. It is entirely optional whether the societies take advantage of the subventions, but if they do, the subventions are as follows: (*a*) Half the cost to the society for sick pay after twelve months' illness for all male members under 65 and for female members under 60, provided that the subvention shall not exceed 5s. a week. (*b*) The whole cost up to 5s. a week of sick pay to male members over 65 and females over 60; anything over 5s. the society must itself provide. (*c*) The State will pay the whole of the contributions to insure funeral expenses for members after the age of 65 and also the contribution to insure medical attendance after 65. The effect of this will be that in any society that accepts the subvention, all payments by members after the age of 65 will cease if the members are content with 5s. a week sick pay with free medical attendance and funeral expenses. And as to sick pay of members *under* 65, the society need only provide in its contribution rates for the first twelve months' sickness of every member up to the age of 65 and for any sick pay over 5s. a week after twelve months.

In New Zealand the friendly societies have 56,817 members. Accident insurance is voluntary in New Zealand, but there is a Workmen's Compensation Act, as in England, except that it is limited to certain trades, while the older Employers' Liability Act is in force for other trades. Since 1900 the State has established a special insurance division to afford a cheaper method of effecting insurance.

Old Age pensions are provided by the Government in New Zealand, New South Wales, and Victoria. In New South Wales the highest pension is 10s. a week for those over 65, while if both husband and wife are entitled to a pension, each may receive not over £19 10s. a year. In addition, pensions may be given to persons between 60 and 65, who, through bodily incapacity, are unable to maintain themselves. Both New Zealand and New South Wales require unbroken residence of twenty-five years as a condition for the pensions.

GENERAL.

Taking a general view of the whole field of compulsory insurance for sickness and invalidity, we find that the following countries have compulsory sickness insurance: Germany, Austria, Hungary, Luxembourg, and Switzerland, while France makes it compulsory only for miners. The wage limit is £90 in Switzerland, £120 in Luxembourg, and £100 in all the rest. In every case employers contribute one-third the premium and the workmen two-thirds, except in Switzerland, where they each contribute one-half. The amount of premium varies from 2½d. to 7d. in the £ wages for the workmen themselves. Except for the miners' insurance in France, which only provides sick pay and funeral expenses, the benefits in every other case include medical treatment and sick pay, lasting only thirteen weeks in Luxembourg, but as long as twelve months in Switzerland, and in the other countries from twenty to twenty-six weeks. The sickness insurance makes no provision for chronic illness lasting longer than these periods. The amount of sick pay varies from 50 to 60 per cent. of the daily wages. In each case there is an alternative offered of free hospital treatment, with a reduced allowance for the family while the worker is in hospital. In addition, funeral expenses and attendance at confinements are provided for.

Germany is the only country that has compulsory invalidity insurance for general workers. Austria, Hungary, and Belgium make it compulsory only for miners, and France only for seamen and miners. Without being compulsory, invalidity and old-age insurance is encouraged by State assistance in Italy, Belgium, Spain, and New South Wales, and also in France, where it will soon be compulsory.

REPORT OF THE INSPECTOR UNDER THE INEBRIATES ACTS.

IN the introduction to his annual report for the year 1908,[1] Dr. Branthwaite, H.M. Inspector under the Inebriates Acts, gives, first, a brief account of the conditions which brought about the appointment of the three Departmental Committees of 1872, 1892, and 1908; secondly, of the recommendations made by these three committees; and, finally, of the Acts of 1879 and 1898 which followed and to some extent embodied the recommendations of the first two Departmental Committees. Briefly, the Act of 1879 permitted the establishment of retreats into which inebriates who voluntarily desired control could be admitted; whilst the Act of 1898, in addition to simplifying the methods by which consenting inebriates could enter retreats, made provision for the detention in reformatories of inebriates who committed crime as the result of their habit or who were frequently charged in police courts for drunkenness and disorderly conduct. Both the Departmental Committees had recommended the compulsory detention of non-criminal inebriates, while among the recommendations of the first committee was one in favour of the guardianship of non-criminal inebriates; but, possibly because public opinion was not sufficiently advanced, no legislation was attempted so far as these latter recommendations were concerned. The Departmental Committee of 1908, however, confirmed the recommendations both as to voluntary and compulsory guardianship and as to compulsory committal to retreats of inebriates. The unanimity of opinion of three Departmental Committees, composed of different persons and separated by such long intervals of time as twenty years between the first committee and the second, and thirty-six years between the first and third, must serve to strengthen the hands of those who are seeking more thorough and drastic means of dealing with a class of people who by their vicious habits injure not only themselves but others and who, as Dr. Branthwaite shows, have remained entirely uninfluenced either in habits or numbers by the general increase in social temperance.

CERTIFIED INEBRIATE REFORMATORIES.

At the close of 1908 eleven certified inebriate reformatories remained in regular work. During the year 262 persons were admitted to the reformatories, of whom 44 were men and 218 women. In the previous year the total number of committals was 493, the committals for 1908 being less, in fact, than in any other year since 1901, the chief cause of the decrease being a deficiency in the provided accommodation for London cases, a difficulty which has since been removed. The many imperfections of the existing laws, particularly in regard to the application of the Act of 1898 in its bearing on criminal inebriates, police court recidivist drunkards, and the management of certified and State inebriate reformatories, also militated against the employment of reformatory treatment.

Dr. Branthwaite states that since the Act of 1898 came into operation only 443 cases have been committed to reformatories under its first section, which provides that any habitual drunkard who is convicted on indictment of an offence punishable with imprisonment or penal servitude may be committed to a State or certified inebriate reformatory if the Court is satisfied that the offence was committed under the influence of drink, or that drunkenness was a contributing cause of the offence; its limited application is due, the last Departmental Committee found, to two causes: (1) the absence of power to deal with cases summarily, and (2) the failure to include habitual drunkenness in the indictment when offenders are sent from courts of summary jurisdiction to higher courts for trial. In consequence great numbers of cases are sentenced to brief and wholly ineffectual periods of imprisonment, without any attempt at radical treatment of the cause of their offence. During 1908 only two males and forty-one females were sent to reformatories under this section.

Under Section 2, any habitual drunkard convicted of an offence, and who within the preceding twelve months has already been convicted three times for similar offences, may be sent direct from a petty sessional court to an inebriate reformatory; that is, this section is meant to apply to habitual drunkards who, without being actually criminal, are constant offenders against public decency and order. Under this section, 42 males and 177 females were committed to reformatories in 1908, as compared with 59 males and 398 females in the previous year. These numbers, Dr. Branthwaite says, are ridiculously small in comparison with what they might and should be. Of the committals in 1908, under Section 1, the greater number, as usual, were for neglecting children (31), and the remainder were for larceny (4), attempted suicide (4), malicious wounding (2), wilful damage (1), and false pretences (1). Of the 219 committals under the second section, 136 were guilty of disorderly behaviour whilst drunk, 73 were found drunk in a public place, 7 were found drunk on licensed premises, and 3 whilst in charge of a child under the age of 7. Of the total number committed under both sections during the year, 128 were married, 41 widowed, and 93 single. As to age, only 1 was under 21 years, 46 being between 21 and 30 years of age, 102 between 30 and 40, 84 between 40 and 50, 24 between 50 and 60, and 5 over 60 years of age. An exceedingly important point with relation to these committals is the mental status of the subjects. Dr. Branthwaite says that there is no doubt whatever that, to a large extent, the persons sent to these reformatories are feeble-minded, and, although not amenable to any jurisdiction in lunacy, are irresponsible to a material degree. Owing to differences of opinion concerning the value of mental indications, Dr. Branthwaite says it has been difficult to make an exact classification according to mental state, but a statement has been compiled, and is included in the report, embodying the opinions of all those in daily touch with the inmates concerning the total 3,032 committed to reformatories since 1899. Of these, 63 were insane and had to be certified and sent to asylums, and 377 were found to be very defective—that is, were congenitally imbecile, degenerate, or epileptic—giving a percentage of 14.51 of insane and very defective.

In addition, 1,487 were found to be moderately defective—that is, eccentric, silly, dull, senile, or subject to attacks of periodic excitement, giving a total percentage of insane and defective of 63.55. Thus only a little over one-third of the whole number were of average mental capacity, so that the great majority of inebriates committed to reformatories are insusceptible of reform, the probability of producing good results being limited to those of average mental capacity. At present exact statistical evidence as to the results of reformatory treatment cannot be obtained, as no statutory provision is made for the supervision of

[1] The Report of the Inspector under the Inebriates Acts 1879 to 1900 for the year 1908. (London: Wyman and Sons, Limited. 1910. Price 4½d.)

cases after the expiration of their sentence. When the sentence expires the supervision ceases. The only indications at present obtainable are afforded by the numbers of unrevoked licences and by information supplied by persons taking a practical interest in discharged cases. In the nine years ending 1908 there were issued 670 licences, and of these 423, or 63 per cent, were not revoked, showing that for the period during which these cases were out on licence, at any rate, they had not committed an offence as the result of drunkenness, the duration of such licences averaging seven and a half to eight months. Statistics furnished by the Inebriates After-Care Association show that in 52 per cent. of the persons who had consented to avail themselves of its help on discharge or release on licence, the result was unknown, the individuals having been lost sight of; that 28 per cent. relapsed into drunkenness soon after release; and that 20 per cent. became and remained sober and decent members of the community. These results are encouraging and justify Dr. Branthwaite in regarding them as of hopeful augury for the time when cases will be committed earlier in their drunken career.

In confirmation of the belief that earlier committal would result in greater good, Dr. Branthwaite cites the evidence of the National Society for the Prevention of Cruelty to Children. The majority of the cases dealt with by the society are persous who have not been many times in prison—that is, are early cases; and the statistics quoted by Dr. Branthwaite show reformation in 59 out of 133, or 44 per cent. Dr. Branthwaite brings his report to a close by some significant figures concerning the children of inebriate women. The statistics cover the years 1905–8, and relate to the 1,291 women admitted to reformatories during these years. The main facts brought out by Dr. Branthwaite are: First, that 19.5 per cent. were returned as childless, as against the average of 8 5 for the general community, suggesting alcoholism as a cause of sterility; secondly, the high birth-rate—5 for each mother—of the women who were not childless; and, thirdly, a percentage of child deaths to the total number of children born of no less than 46 5. "If 812 women were responsible for 1,899 child deaths," Dr. Branthwaite asks, "what must be the awful total for the thousands of habitually drunken women of the same class?"

STATE INEBRIATE REFORMATORIES.

The State inebriate reformatories, partaking of a penal rather than a reformatory character, only take up one page of Dr. Branthwaite's report. During the year 27 women were received at Aylesbury Reformatory, 22 of whom were sent from certified reformatories, and 5 direct from courts. At the Warwick Reformatory for males 10 were received from certified reformatories, giving a total number of admissions to those reformatories of 37. During the year 3 women were discharged to lunatic asylums, 1 to a workhouse, and 33 women and 34 men were discharged to freedom on expiry of sentence. The average daily population at Aylesbury was 74, and at Warwick 42. Each institution showed a decrease in the daily average population of 14 as compared with the previous year.

RETREATS.

The retreats, institutions established under the Act of 1879 for the treatment of inebriates who voluntarily submit to control for the purpose of reformation, numbered twenty in 1908; they contained 421 inebriates on December 31st, 1907, and 408 on December 31st, 1908—a decrease of 13 for the year. During the year 207 were admitted under the Act (that is, signed the necessary application before a Justice of the Peace), and 286 entered as private patients (that is, entered without attestation before a magistrate and by simple agreement with the licensees).

These numbers approximate the average for the last ten years. During the year, 201 of the 207 admitted under the Act were discharged and 303 private patients. Leave of absence was granted in 72 instances, mostly for short periods, either on account of urgent private affairs or ill-health, and in 31 cases as a reward for good conduct during residence and on trial before discharge.

No statistics are included in the report as to the results of treatment, but speaking generally, Dr. Branthwaite says that the voluntary section of inebriate reform work is not showing very definite progress. The main reason for this is, of course, the difficulty of obtaining the inebriate's consent to detention. Another reason concerns the financial aspect of the situation. About 80 per cent. of all patients now in retreats, Dr. Branthwaite says, are being supported by friends or relatives, as very few can be induced to enter until their situations have been lost and they have fallen into poverty. When this payment is no forthcoming, the patient cannot be kept in the retreat, and notwithstanding the help of many charitable societies great numbers of inebriates who would be willing to enter are unable to do so.

DEATHS UNDER ANAESTHETICS.

THE second report of the Coroners Committee has just been issued.* It deals with the results of an inquiry into the question of deaths resulting from the administration of anaesthetics. The Committee examined, with particular reference to anaesthetics, three leading London anaesthetists—Dr. Hewitt, Dr. Dudley Buxton, and Dr. Silk; some eminent surgeons—as, for example, Sir Victor Horsley, Mr. Pepper, and Mr. Clinton Dent; physicians who had devoted special attention to anaesthetics—namely, Sir Lauder Brunton and Dr. Waller; and leading dentists—namely, Mr. Matheson and Mr. Tomes. It also had the evidence of the Secretary of the Incorporated Society of Extractors and Adaptors of Teeth, Limited—Mr. Butterfield—and of a prominent member of that society—Mr. Bowen. Sir Donald MacAlister, the President of the General Medical Council, gave information as to the steps taken by that body to make the study of anaesthetics a necessary branch of the medical curriculum.

Statistics.

Dr. Hewitt gave the statistics, extracted from the reports of the Registrar-General, as to deaths under anaesthetics for the forty years from 1866 to 1905. They rose from 5 in 1866 to 155 in 1905. In the year 1897 there was a sudden unexplained rise to 126 deaths, as compared with 70 in the previous year. With that exception, there had been a steady progressive increase in fatal accidents during the period in question. According to a return furnished by coroners for the year 1908, the deaths under anaesthetics reported to them amounted in that year to 235. The Committee points out that no absolute deductions can be drawn from these figures for the following reasons:

In the first place, there is no duty imposed on any one to report a death under anaesthetics administered for any surgical or medical purpose. There is therefore no guarantee that every such death is reported to the coroner, or even notified as such to the registrar of deaths. Secondly, there is an important distinction to be drawn between death *from* an anaesthetic and death *under* an anaesthetic. For example, a person under an anaesthetic may die from the action of the anaesthetic, or from surgical shock, or from haemorrhage, or from a combination of these or other causes. So, again, a person under an anaesthetic may die from some accident consequent on its administration—for example, asphyxia through the tongue slipping back, or regurgitation of food. Without a detailed investigation of each case, it is impossible to say how far the anaesthetic was or was not the cause of death, or whether it even contributed to it. Thirdly, we have no statistics to show the ratio between the number of operations performed and the number of deaths under anaesthetics. This much we know—that, thanks to Lord Lister and to the system of aseptic surgery, a vast number of operations are now undertaken with success which a few years ago no one would have dared to do—operations without which patients must inevitably die or linger out their lives often in great agony. Abdominal surgery and brain surgery are both quite modern developments.

The report continues:

Still, when all these sources of error are allowed for, we have the fact that there is an increasing number of deaths under anaesthetics, and that in the opinion of experts a certain number of these deaths are due to preventable causes. A certain number of deaths are inevitable whatever the care and skill may be with which the anaesthetic is administered.

Anaesthetics, like all other poisonous drugs, act differently on different constitutions. The idiosyncrasy of the patient is a factor which cannot be eliminated. Again, a person may be

* London: Printed for His Majesty's Stationery Office by Eyre and Spottiswoode, Ltd., Printers to the King's Most Excellent Majesty, and to be purchased, either directly or through any bookseller, from Wyman and Sons, Ltd., Fetter Lane, E.C., and 32, Abingdon Street, Westminster, S.W.; or Oliver and Boyd, Tweeddale Court, Edinburgh; or E. Ponsonby, 116, Grafton Street, Dublin. 1910. (Price 1d.)

suffering from disease—for example, the status lymphaticus—which a skilled examination may fail to detect but which may greatly increase the risk. But in the interests of humanity it is of the first importance that accidents under anaesthetics should be brought down to the irreducible minimum.

Reports of Deaths to Coroners.

The Committee thinks that every death under an anaesthetic should be reported to the coroner, but the coroner should have a discretion to decline to hold an inquest when he is satisfied on inquiry that the anaesthetic was necessary, and was administered with due care and skill. The certificate of death should always state that the deceased died while under an anaesthetic. It is the usual practice for the medical man in charge of the case to report the death to the coroner direct. In addition to this the Committee thinks that the registrar of deaths should be required to foward to the coroner particulars of all cases of deaths under anaesthetics that come to his knowledge.

Anaesthetics and the Law.

It is pointed out that, as the law stands, the administration of anaesthetics is under no regulation. Apart from any criminal intent, a bonesetter, or a beauty doctor, or a quack of any kind, is as much at liberty to administer an anaesthetic for the purpose of an operation as a qualified medical anaesthetist. If an accident happens as a result of such administration, the fact that the person administering the anaesthetic was not qualified might, of course, be material as bearing on the question of negligence, civil or criminal. The Committee thinks that this state of affairs is a serious menace to the public, and that the administration of anaesthetics should be carefully regulated by law.

General Respirable Anaesthetics.

The Committee proceeds to deal with the different classes of anaesthetics. With regard to the general respirable anaesthetics, the administration of which produces complete unconsciousness, the Committee strongly urges that the administration of them by any person who has not professional qualifications, or is not acting under the personal supervision of a person so qualified, should be made a criminal offence. The public ought to have the guarantee of professional training, and the further guarantee afforded by the administrator belonging to a recognized profession under the disciplinary control of the General Medical Council.

Nitrous Oxide Gas.

As to nitrous oxide gas, the Committee says that, though a very safe anaesthetic, it requires skill in administration and a knowledge of how to deal with certain common causes of danger which may occur, as, for instance, that of the tongue slipping back. Registered dentists have always freely administered it without medical assistance. The Committee thinks it would be impossible to deprive existing registered dentists of their right to use it for dental operations, and, as such, dentists have now to undergo a good preliminary medical training, and the public would be sufficiently protected if provision were made that a course of instruction in the administration of gas should be a compulsory part of the training. The Committee emphasizes the following point:

> We have had evidence that many of the accidents which have occurred in connexion with the use of nitrous oxide gas occurred when the same person both administered the gas and performed the operation. We think that in no case should one person attempt both to administer the gas and operate. If a medical man is not employed to administer the gas the dentist should have the assistance of another registered practitioner for this purpose. When the patient is a woman it is obviously important for the protection of the dentist, as well as for the safety of the patient, that a third person should be present. Single-handed operations under anaesthetics have given rise to several false charges of assault. This, however, is a matter which can be better dealt with by a professional by-law than by direct legislation.

Referring to the representations of the Incorporated Society of Extractors and Adaptors of Teeth, who urged their claim to continue to be allowed to administer anaesthetics, after giving due consideration to the evidence of the secretary of the society—that in England there had been 1,249,167 administrations of general anaesthetics by members of the society with only one fatal accident, and that caused by ethyl chloride, not nitrous oxide gas—the Committee remains of opinion that the public safety requires the guarantee of a professional qualification. The prohibition of the use of general anaesthetics would inflict no hardship on the members of the society, because its members are, to an increasing extent, voluntarily giving up the use of nitrous oxide and are using in its place cocaine and other local anaesthetics.

Ethyl Chloride, Chloroform, and Ether.

With regard to the anaesthetics of longer duration required for the more serious surgical operations the case is different. For such operations ethyl chloride is occasionally used, but the anaesthetics mainly relied on are chloroform and ether or combinations thereof, with or without alcohol. When pushed to any extent they act directly on the respiratory centre and the heart, and a new element of danger is introduced.

After discussing the relative advantages and disadvantages of chloroform and ether, the Committee says that in the administration of these anaesthetics the same principle should apply as in the case of nitrous oxide: the same person should not administer the gas and perform the operation. In the case of urgent surgical operations it is recognized that no hard-and-fast rule can be laid down. In cases of emergency the medical man on the spot must do his best with such assistance as he can get. Dental operations requiring prolonged anaesthesia are never of such urgency that the presence of a medical man should be dispensed with. The anaesthetist must be always on the watch, and must be prepared to use artificial respiration, or even in extreme cases to resort to such an operation as tracheotomy. The Committee is of opinion, therefore, that the administration of anaesthetics the effect of which is of prolonged duration should be confined to qualified medical men.

Local Anaesthetics.

Coming to the question of local or regional anaesthetics, it is pointed out that many accidents have occurred through their administration, and they may be administered in many different ways.

> One form of administration, however, raises no doubtful issue. During the last few years the intraspinal administration of stovaine or cocaine and its analogues has come into use. This method of administration is still in its infancy, and medical opinion is much divided as to the part which will be played in future by this form of anaesthesia. A certain number of fatal accidents have occurred, and in many cases distressing complications have supervened, and it is not always an advantage that the patient should remain conscious during the operation. Most of the experts who gave evidence on this question incline to the opinion that this method of anaesthesia would for a long time to come be confined to a very limited class of cases where there was great risk in administering a general respirable anaesthetic. Whatever may be the future of this new method, we think that it is perfectly clear that no one except a qualified medical man should be allowed to practise it.

The other uses of cocaine and its analogues for operative purposes raise a debatable question. Fatal accidents have from time to time occurred in the administration of cocaine, and it is undoubtedly a dangerous drug, especially in unskilled and untrained hands. Some of the witnesses were strongly of opinion that no one except a qualified medical man or a registered dentist ought to be allowed to practise this method of anaesthesia. But the balance of opinion among the witnesses seemed to be against legislative interference, and with some hesitation the Committee acquiesces in this view. No restrictions on the use of local anaesthetics (except when used intraspinally) appear to it to be practicable or desirable. Morphine (except as an adjunct) is rarely used for surgical operations, and much more harm is done by the self-administration of morphine than by any use that is likely to be made of it for operative purposes.

Instruction in the Administration of Anaesthetics.

In regard to the restrictions which ought to be applied to the persons who are allowed to administer anaesthetics, the Committee thinks a good deal still remains to be done before fatal accidents from this cause can be reduced to a minimum. The report says:

> In the first place, the administration of anaesthetics is by no means as yet an exact science, and a perfect anaesthetic has yet to be discovered. There is no consensus of opinion as to the choice of an anaesthetic, or the conditions under which it is indicated. In Scotland, for example, chloroform is more freely used than in England. Again, we have heard somewhat conflicting opinions as to the depth to which the anaesthetic should

be pushed. Some witnesses were of opinion that the way of safety lay in keeping the anaesthesia light, and that the anaesthetic should be pushed only to the point of abolishing pain; while other witnesses were of opinion that the anaesthesia must be profound, otherwise the danger of surgical shock was increased. The surgeon is between the Scylla of surgical shock and the Charybdis of paralysis of the vital centres. There is need yet for much careful clinical observation, controlled, if necessary, by physiological experiments.

Secondly, we think that both practical and theoretical instruction in the use of anaesthetics should be made an obligatory portion of the medical curriculum. The General Medical Council have recommended that all medical students, before qualifying, should be trained in the administration of anaesthetics, and all medical schools and examining bodies are, we understand, now acting on this recommendation. We think an adequate course of training in anaesthetics should be compulsory. We fully recognize the very special qualifications and capabilities which go to the making of an expert anaesthetist. It is only by long experience, coupled with special aptitude, that a man can attain to that position, but careful instruction can do a great deal to diminish the dangers incident to the administration of anaesthetics.

We would further urge on hospital authorities the importance of keeping up in every way the status of the anaesthetists on their staff. As more attention is given to the teaching of anaesthetics, and an increased prominence is given to the position of the anaesthetists, we think that the general practice in the administration of anaesthetics would improve.

Coroners and Skilled Assessors.

It has been suggested to the Committee that in the case of deaths under anaesthetics the inquest should be held before the coroner with a skilled assessor, either in addition to, or in substitution for, the jury. The Committee thinks it would be impossible to differentiate between deaths under anaesthetics and other deaths involving difficult and delicate and scientific inquiries which the coroner has to conduct. In building accidents and mine accidents, technical and abstruse questions are often involved, and coroners have sometimes voluntarily called in the aid of an expert as assessor. This practice, perhaps, might be formally recognized by law, but they think it would be unwise to attempt to go further. If, in any classes of cases, assessors were made compulsory, there would be the greatest difficulty in getting competent men anywhere outside of a few of the great towns. In many cases expert witnesses are of more assistance than assessors, because their cross-examination elucidates points which might otherwise be overlooked. At the same time, the Committee fully recognizes the importance of scientific investigation when death occurs under an anaesthetic in hospitals, infirmaries, and similar public institutions. But such an investigation, conducted by the authorities of the institution, ought to be held under very different conditions from those necessarily attendant on an inquest where the main question is, whether any one was to blame or not. In some of the larger hospitals such investigations are now carried out, and the Committee trusts that in the future they will be held as far as possible in every case of doubt and difficulty.

Proposed Scientific Committee.

As much remains to be learnt about anaesthetics and their administration, the Committee thinks that the most hopeful way of advancing knowledge would be the appointment of a small standing scientific committee or commission to deal with the subject. The functions of such a committee would be:

(*a*) To collect information from all sources, and to digest it when collected.
(*b*) To report from time to time on any advance made by the discovery of new anaesthetics, or by improved methods of administration.
(*c*) To direct chemical, toxicological, or physiological researches for the purpose of testing new discoveries or elucidating doubtful points.
(*d*) To make their information available to the medical profession in a convenient form, and at small cost.

The committee should be nominated by the Home Office.

The committee should, it is thought, have a grant from public funds, as progress in the science of anaesthetics is a matter which deeply concerns the public at large. Recent benefactions have put a considerable sum of money at the disposal of the medical profession for the purpose of research work, and a portion of that money might well be devoted to researches in connexion with anaesthetics. If this could be arranged the charge on public funds would not be considerable.

Summary of Recommendations.

The Committee sums up its more important recommendations as follows:

1. Every death under an anaesthetic should be reported to the coroner, who, after inquiry, should determine whether it is desirable to hold an inquest or not.
2. In the case of every death under an anaesthetic the medical certificate of death should specify the fact, whether the anaesthetic was the actual cause of death or not.
3. No general respirable anaesthetic should be administered by any person who is not a registered medical or dental practitioner.
4. Registered dentists should be confined to the use of nitrous oxide gas for dental operations, and should not employ the general respirable anaesthetics of longer duration.
5. Intraspinal anaesthesia should be practised only by registered medical practitioners.
6. Practical and theoretical instruction in the administration of anaesthetics should be an essential part of the medical curriculum.
7. Such instruction in the administration of nitrous oxide gas should be an essential part of the dental curriculum.
8. In the case of any death under an anaesthetic in a hospital or other similar public institution, there should be a scientific investigation into the actual cause of death conducted by the authorities of the institution.
9. A small standing scientific Committee on Anaesthetics should be instituted under the authority of the Home Office.

SCIENCE NOTES.

THE much-talked-of international map of the world on the scale of one to a million forms the subject of a report to the Académie des Sciences by M. Alfred Grandidier.[1] The scheme was first projected by Professor Penck at the Geographical Congress at Vienna in 1891, and it gradually gained the approbation of geographers until at the London Congress in 1895 the desire was expressed that the various civilized nations should each take a share in its accomplishment. Two years later France took the first step, and her military geographical department began the construction of several sections of Asia—namely, China, Corea, Japan, Persia, Afghanistan, etc. These have been found of very considerable service. In the following year part of Europe was undertaken, as well as Cuba and the Antilles. It was not until 1901 that Germany, and some time later Britain, followed this example. This country undertook the publication of a map of part of Africa comprising 132 sections. Austria and Italy have also taken the matter in hand. It was found, however, that uniformity was not being attained, and the desirability of this was emphasized at the Geneva Congress in 1908; last year an international committee, to which eleven countries sent representatives, met in London with the object of framing provisions which would obviate discrepancies and prevent overlapping. The scheme in its details is as follows: On the scale of one to a million the Earth would be represented by a sphere of about 42 ft. in diameter and 130 ft. in circumference. This would provide a map surface of over 2,000 square feet. This total surface is to be divided into sections, each comprising 4 degrees of latitude and 6 degrees of longitude, and so arranged that each one fits in accurately with those adjacent. This would give a total of 2,700 such sections, but the number will be considerably reduced owing to the fact that beyond the latitude of 60 degrees the single sections will comprise 12, 18, or even 24 degrees of longitude. It is hoped that as many countries as possible will undertake the mapping of their own sections, together with those of their colonies and dependencies, and the rest of the world will be portioned off as may be most convenient. Heights and depths will be indicated by various colours and shades, as well as expressed in metres, to which may be added figures in the national scale of each country. Names will be uniformly printed in Latin characters, and in such countries as use other characters a standard method of transcription will be employed. These are the main features of this gigantic enterprise, which is estimated to cost at least £200,000. To each country, however, the cost will be insignificant in face of the enormous scientific and commercial advantages which must inevitably result.

[1] *Comptes Rendus*, 1910, January, No. 4.

LITERARY NOTES.

are informed by the General Secretary of the sixteenth rnational Medical Congress, held at Budapest last mn, that members will receive their copies of the ral report during the course of the present month. In rdance with the terms of the congress regulations, y member will receive a copy of the general volume as as of that of the section in which he was inscribed. ddition to these a copy of the work on the protection child life in Hungary will be presented to each gressist by the Royal Hungarian Minister of the rior.

e have received the first number of the *Blätter für trauensärzte der Lebensversicherung*, a journal pub- ed by the German Union of Life Insurance Companies, edited by Dr. Zahnbrecher of Munich. The journal for its object the dissemination among life insurance lical referees of information of various kinds, and it rs these referees a series of articles written by experts natters affecting this special branch of medical activity. journal is circulated gratis to the members of the iety of Medical Referees in Germany, while to others annual subscription (six issues) is 2s. If the new odical fulfils the promise of its first number, it will a useful addition to medical literature. Short articles ling with the after-histories of persons who were cted or whose proposal for life insurance offered cial difficulties, and some statistical matters occupy greater part of the journal, and should prove of rest to all who act as life insurance examiners.

n his amusing book entitled, *Wits, Beaux, and Beauties the Georgian Era*, Mr. John Fyvie has a good deal to about Samuel Foote, whose bones Dr. Johnson once eatened to break if he took him off on the stage. One Foote's most successful plays was *The Devil upon Two cks* which appeared in May, 1768. Foote's devil was rowed from Le Sage's *Diable Boiteux*, but the occa- n of his play was a public quarrel between the Fellows l Licentiates of the College of Physicians, which gave a an opportunity of launching his satire against the ular medical practitioners, as well as against unlicensed acks. We give Mr. Fyvie's summary of the piece: e Devil—a sort of vulgar Mephistopheles—transports lovers from Spain to England. They ask him to give m an idea of the character of the people of the country; he tells them that it is a task too great even for the vil himself. An opportunity immediately arises, how- r, of giving them an insight into the character of one ss of men—namely, the members of the medical pro- sion. Some of its practitioners, he admits, are learned l skilful servants of the community; but many more mere dunces and traders, as mean and ignorant as y are mercenary. Just at the moment there is a great ntention amongst the fraternity; one body is regularly ined and disciplined, and fights under a general called President; the others are the "Hussars and Pandours physic," who contend that they have a right to equal nk with the slaughterers of the regular army. Already, ys the Devil, the infernal regions feel the effects of this astrous feud; for, as the doctors on both sides neglect eir patients in order to fight amongst themselves, there a great decline in the weekly bills of mortality, and new bjects begin to grow scarce in the regions below. Our st glimpse of the dispute is obtained from two apothe- ries, Julep and Apozem, who pass by engaged in scussing the merits of various physicians:

Jul. What have we to do with degrees? The doctor that doses st is the best doctor for us. You talk of the College: there e some of their names I am sure, that I never desire to see on y file.

Apo. Indeed?

Jul. Indeed? no indeed. Why, there's Doctor Diet, that makes eh a dust. He had a person of fashion, a patient of mine, der his care t'other day; as fine a slow fever! I was in hopes making my fortune—

Apo. Yes; I love a slow fever. Was it nervous?

Jul. Ay; with a lovely dejection of spirits.

Apo. That was delightful, indeed! I look upon the nerves and e bile to be the two best friends we have to our back. Well, ay, how did it answer?

Jul. Not at all: the scoundrel let him slip through my hands r a song; only a paltry six pounds and a crown.

Apo. Shameful!

Jul. Infamous! and yet, forsooth, he was one of your College. Well, now, to show you the difference in men: but the very week after, Dr. Linctus, from Leyden, ran me up a bill of thirty odd pounds for only attending Alderman Soakpot six days in a surfeit.

Apo. Ay, that was doing business.

Jul. Ah! that's a sweet pretty practitioner, Apozem! we must do our utmost to push him.

After this, continues Mr. Fyvie, an ignorant fellow named Last comes along, carrying in his hand a pair of shoes he has just made for a tradesman in Cheapside. He has been bred up as a cobbler, he says, but he was certainly born to be a doctor, because he is a seventh son, and so was his father before him. When the Devil asks him in what branch of practice his skill chiefly lies, he answers:

By casting a water, I cure the jaundarse; I taps folks for a ten penny, and I have a choice charm for the agar; and, over and above that, master, I bleeds.

But a jealous apothecary in his neighbourhood has threatened to prosecute him if he continues to prescribe longer, so he has come to London to be made a regular practitioner at once. The Devil then disguises himself as Dr. Hellebore, President of the College of Physicians, and takes his seat at the meeting of the Council. When Last presents himself, this learned body at first have some doubts whether they should admit him, qualifications or no qualifications, because he tells them he has studied physic at Dunstable which they take to be some wretched German university. However, after some discussion, they decide to examine him, and proceed as follows:

Dr. Hell.—Now, sir, with regard to your physiological knowledge. By what means, Dr. Last, do you discover that a man is not well?

Last.—By his complaint that he is ill.

Dr. Hell.—Well replied! no surer prognostic.

All.—None surer.

Dr. Hell.—Then, as to recovering a subject that is ill. Can you venture to undertake a cure of an ague?

Last.—With arra a man in the country.

Dr. Hell.—By what means?

Last.—By a charm.

Dr. Hell.—And pray, of what materials may that charm be composed?

Last.—I won't tell; 'tis a secret.

Dr. Hell.—Well replied! The College has no right to pry into secrets.

All.—Oh, no! by no means!

Dr. Hell.—But now, Dr. Last, to proceed in due form; are you qualified to administer remedies to such diseases as belong to the head?

Last.—I believe I may.

Dr. Hell.—Name some to the College.

Last.—The tooth-ache.

Dr. Hell.—What do you hold the best method to treat it?

Last.—I pulls 'em up by the roots.

Dr. Hell.—Well replied, brothers! that, without doubt, is a radical cure.

All.—Without doubt.

Dr. Hell.—Thus far as to the head. Proceed we next to the middle. When, Dr. Last, you are called in to a patient with a pain in his bowels, what then is your method of practice?

Last.—I claps a trencher hot to the part.

Dr. Hell.—Embrocation; very well! But if this application should fail, what is the next step that you take?

Last.—I gi's a vomit and a purge.

Dr. Hell.—Well replied, for it is plain there is a disagreeable guest in the house; he has opened both doors; if he will go out at neither, it is none of his fault.

All.—Oh no, by no means!

Dr. Hell.—We have now dispatched the middle and head. Come we finally to the other extremity, the feet. Are you equally skilful in the disorders incidental to them?

Last.—I believe I may.

Dr. Hell.—Name some.

Last.—I have a great vogue all our way for curing of corns.

Dr. Hell.—What are the means that you use?

Last.—I cuts 'em out.

Dr. Hell—Well replied! extirpation; no better method of curing can be. Well, brethren, I think we may now, after this strict and impartial inquiry, safely certify that Dr. Last, from top to toe, is an able physician.

The Council agree unanimously that he is a very able physician fully qualified in every way to proceed in his practice; and when he has taken his seat amongst the elect the secretary is called upon to give the doctor his licence, which he first reads as follows:

To all whom these presents may come, greeting. Know ye, that after a most strict and severe inquisition, not only into the great skill and erudition, but the morals of Dr. Emanuel Last, we are authorized to grant unto the said doctor full power, permission, and licence, to pill, bolus, potion, draught, dose,

drench, purge, bleed, blister, clister, cup, scarify, syringe, salivate, couch, flux, sweat, diet, dilute, tap, plaster, and poultice, all persons, in all diseases, of all ages, conditions, and sexes. And we do strictly command and enjoin all surgeons and apothecaries, with their apprentices, all midwives, male and female, and all nurses, at all times, to be aiding and assisting to the said Dr. Emanuel Last. And we do further charge all mayors, justices, aldermen, sheriffs, bailiffs, head-boroughs, constables, and coroners, not to molest or intermeddle with the said doctor if any party whom he shall pill, bolus, lotion, potion, draught, dose, drench, purge, bleed, blister, clister, cup, scarify, syringe, salivate, couch, flux, sweat, diet, dilute, tap, plaster, and poultice, should happen to die, but to deem that the said party died a natural death, anything appearing to the contrary notwithstanding. Given under our hands, etc.

Last seems to be particularly delighted with the concluding sentence of his diploma, and exclaims eagerly:

Then, if a patient die, they must not say that I killed him?

Whereupon the President replies scornfully:

THEY say? How should they know, when it is not one time in twenty that we know ourselves?

It will be noted that this is largely copied from the inimitable graduation ceremony at the end of Molière's *Malade Imaginaire*. Sir William Browne, then President of the College of Physicians, whose dress and manner were closely imitated in Dr. Hellebore, took no offence; but, observing that one characteristic item of attire had been omitted, sent his muff to Foote, in order that the portrait might be complete. Mr. Fyvie goes on to say that this play was instrumental in effecting a great reduction in the number of ignorant quacks who at that time practised on the credulity of the public. Its run at the Haymarket put between three and four thousand pounds into its author's pocket; and when he took it to Dublin, at the end of the Haymarket season, it there brought him in another small fortune.

Nova et Vetera.

THE MADNESS OF DON QUIXOTE.

IT is noteworthy that the study of madness had a singular fascination for Shakespeare and Cervantes, themselves the sanest of men. They were contemporaries, though in all probability unaware of each other's existence. It would be interesting to compare the various types of insanity as portrayed by the creators of Hamlet and Don Quixote, but this would lead us too far from our present purpose. The Knight of the Sorrowful Countenance has been the subject of innumerable studies, scientific as well as literary. It is clear to all the expert critics that he was very mad indeed, but that is about the only point as to which they are agreed. Esquirol saw in him a perfect type of the monomania which prevailed throughout nearly the whole of Europe after the Crusades; Morejon, a Spanish physician who claims to have been the first to make a complete study of the work of Cervantes from a medical point of view, also describes Don Quixote's mental disorder as monomania. Guardia calls it multiple mania; Roussel, monomania with hallucinations. Louveau expressed the opinion that Cervantes put into a single picture the various manifestations, physical and moral, of mania which he had had occasion to observe in a large number of cases, as Rafael in his pictures of saints casting out devils mixed the symptoms of different nervous disorders in one person. Pedro Mata finds in Don Quixote an excellent example of erotic monomania. Pi y Molist, superintendent of the Santa Cruz Asylum, Barcelona, as the result of an elaborate study, arrived at the conclusion that the madness of Don Quixote was the monomania of grandeur, or megalomania with illusions and sometimes hallucinations. Villechauvaix, in a thesis dated 1898, maintained that Don Quixote was suffering from systematized delirium of persecution.

In 1905, on the occasion of the tercentenary of the publication of *Don Quixote*, there appeared a number of essays on the mental condition of the Knight of La Mancha. Revesz, a Hungarian physician, maintained that Cervantes intended to represent a tragic synthesis of the two tendencies of humanity: Don Quixote, full of chivalrous ideas, believing his mission to be the protection of the weak, while in reality he was a paranoiac; and Sancho Panza, whose only longing is for a quiet life, but who, overpowered by his master's personality, comes to see everything through that refracting medium. Ricardo R. Villanova of Saragossa regards Don Quixote as an exam of chronic paranoia, or systematized or partial deliriun the expansive type; the mental disorder belongs to philanthropic variety of monomania. This diagn agrees substantially with that of Comenge and Morini

The distinguished anatomist Ramon y Cajal, in a course delivered at Madrid on May 8th, 1909, dealt w the psychology of Don Quixote. He sees in the Kni the grandest personification of unconquerable individuali and sublime self-abnegation. For him the work is figurative representation of the life of Cervantes hims of his aspirations and disenchantments, and of profound melancholy engendered thereby.

The most complete study of the subject with which are acquainted is contained in a thesis for the degree Doctor of Medicine presented to the University of Pa by M. Lucien Libert in November, 1909. He reprodu the intellectual atmosphere in which Cervantes's book v composed, and gives an account of his life and the sour from which he may have drawn. Cervantes was, as l been shown by Rodriguez Marin, the son of a doctor w practised first at Alcalà, afterwards at Madrid, and Seville. He was not successful in his profession, but son seems to have learnt something of medicine, either fr his father's books or from his teaching. There seems to reason to believe that Cervantes knew Luis Mercado, ph sician to Philip II and Philip III, and author of a numb of medical writings, which were collected into two lar volumes and published at Frankfort in 1608. Long bef that date, however, Mercado had written a book on men disease in which he speaks of a certain type of lunatic " whom credulity, terror—in a word madness—is wrapp up in a single thing created by their imagination, whi in everything else are wholly and entirely reasonabl This might have given Cervantes the idea of his hero.

But Cervantes had abundant opportunities of observi the most diverse types of insanity, for it was in Spain the fifteenth century that the first attempts to treat t disease were made in Europe. Centuries before th the Mohammedans had asylums specially designed f the reception of lunatics, and it has been conjectur that it was from them that the idea was borrowed by t brethren of the religious and military Order of Mer whose efforts to redeem captives brought them into clo touch with the Mussulmans. The Order founded what w till lately believed to be the first lunatic asylum in Euro at Valencia in 1409. Others were founded at Saragossa 1425, at Seville in 1436, at Barcelona in 1442, at Toledo 1483, and at Valladolid in 1489. Recent researches, ho ever, tend to show that the first European asylum, call the House of the Holy Ghost, was founded at Upsala Sweden in 1305. A claim has also been entered on beh of Italy, where it is said an asylum was founded Bergamo in 1325, and another at Florence in 13 However this may be, it appears certain that Cervant visited some of the Spanish asylums. M. Libert discuss the symptoms of Don Quixote's madness in detail, a concludes that he was the subject of the delirium of inte pretation. Although possessed with ideas of persec tion, ambition, and eroticism, he has no hallucination he sees no visions but actual things which his mental di order leads him to misinterpret, taking windmills for giant servant maids for princesses, and so forth. Outside t sphere of his megalomania of chivalry his intelligen and memory are unimpaired, and at the end of his life h recognizes that he has been mad. Byron said, " Cervant laughed Spain's chivalry away "; it would be truer to sa that he wept it away; for as Charles Lamb rightly say the reader who finds nothing but subject for laughter i the Don's follies has " read his book by halves . . . mistal ing his author's purport, which was—tears." In Sanch Panza, as Lamb says, we see " madness at second hand- the contagion caught from a stronger mind infected." W believe Lamb is right in thinking that in the second pa of *Don Quixote* Cervantes was playing to the gallery, an therefore unsealed the eyes of his Squire. But in the firs part, which is more important from a psychological poin of view, we cannot help thinking that Cervantes had i mind his own career of high hopes and lofty sentiment eclipsed by disaster and ending in squalid failure. Th book is a bitter satire on the fate that awaits thos who undertake to better the lot of their fellow men.

British Medical Journal.

SATURDAY, APRIL 16TH, 1910.

THE DEBATE ON POOR LAW REFORM.

The debate on the Prevention of Destitution Bill in the House of Commons last week should be studied by all who are anxious about the future of Poor Law administration. The bill of the Minority Report has come and gone for this session, and probably for this Parliament. The proceedings which put it on the shelf last week with all respect and consideration mark only an early stage in its career, for it is sure to come forward again and be earnestly, if not successfully, pushed by its promoters. It would be a mistake for those who have watched the work of those who seek to "break up the Poor Law" to relax their vigilance for one moment in consequence of the debate, just as it would be a mistake for those who believe in the Minority Report to lose heart because their first attempt to legislate has failed. There are indeed the germs of success in this failure, for the views of the Minority reformers were well put forward by Sir Robert Price and by Mr. Hills, and the argument that a bill based on an attempt to deal with the causes of poverty offered more hope than any other plan of merely relieving destitution, was most skilfully used to attract support from large-hearted philanthropists. In spite of this, it was clear from the opening speeches that it was merely a reconnaissance in force and not a battle that was in progress. As such it was a success, for important announcements were elicited from the Leader of the Opposition and the Prime Minister, as well as from the President of the Local Government Board, disclosing the positions likely to be taken up by leaders in future controversies over this great problem.

The downright opponents of the bill were led by Mr. Ormsby Gore, who described it as an administrative revolution, changing names and changing methods, and leading to a vast expenditure for the purpose of curing evils that are far too deeply rooted in the economic and social conditions of our time to be abolished by new committees and a new Ministry of Labour. It was noteworthy that the Labour Party, through its spokesman, Mr. Roberts, gave a hearty support to the bill; while the Irish Nationalists, through Mr. Farrell, as decidedly opposed it. The explanation of this difference resides really in the fact that the Labour Party, like the promoters of the bill, have drawn most of their knowledge from a study of Poor Law work in great industrial and populous centres, and so have devised a scheme which might suit urban areas; while the Irish members, representing almost entirely rural districts, see that a scheme adapted to towns would be ill suited to meet the very different conditions of country life. However admirable the proposals of the Minority Report may be, there must be some doubt as to their suitability for rural areas, where local knowledge and local management afford the best securities not only for just but for economical administration.

It is obvious, however, that the speeches of the leaders of the two great parties in the House must on this occasion transcend in importance all others. On one of them, and to a large extent on both of them, will depend the form in which this great and pressing problem of Poor Law reform is finally settled, and so the lessons conveyed in their speeches last week are worth much study. No greater tribute could have been paid to the importance of the subject and its far-reaching political and social consequence than the desire of both leaders to show sympathy with the general objects of the bill and their unique demonstration of agreement on the main issues. Mr. Balfour pointed out at once, and in this the Prime Minister strongly supported his argument, that any attempt to reform the existing Poor Law system must be a long and laborious task, not to be successfully undertaken in one Session, not even in one Parliament, except with the good-will of all parties in the State. We have always insisted on the enormous magnitude and complexity of the task, and we congratulate ourselves and all who are anxious as to the future that the two highest authorities support the view that Poor Law reform, although radical, must be evolutionary and not revolutionary in its form.

Then, again, Mr. Balfour, Mr. Asquith, and Mr. Burns all pointed out that after all the existing system has really achieved wonderful results during the last seventy years, and the President of the Local Government Board showed further how, apart from legislation, by administrative Orders much had recently been done and more could be done to remedy defects. We agree with the leaders in the House of Commons that this great social question of poverty and its relief should not be allowed to degenerate into a duel between the Majority and the Minority of the Royal Commission. There has been shown in some quarters too pugnacious a spirit in this respect, and the wiser course, as was pointed out, is to seek the common grounds of agreement in both reports rather than to spend time in the beginning on accentuating the differences. In the same spirit Mr. Balfour and the Prime Minister both endorsed the undesirability of using "labels" in this controversy, such as "bureaucratic" and "socialistic." The unthinking are so easily led astray by such labels, that they ought not to be used by any who seek honestly and industriously to fathom the depths of these social questions with a single view of helping to organize public assistance on the safest and kindliest lines. In the same spirit Mr. Balfour made some excellent remarks condemning the attempts to prejudice reforms by raising the bogie "of intervening in the home and in the family life of our population." With great common sense he pointed out that if our forefathers were entirely free from this, they paid dearly for it in an appalling death-rate. The liberty they enjoyed had its drawbacks, and it was now really a question of practical expediency for the realization of results for the common good. These wise counsels will bear good fruit in making the way easier for the inevitable growth of supervision by experts of the conditions of life and work necessitated by the ever-growing complexity of modern civilization.

Then a word, and a much-needed word, of caution was put in by both speakers, and more emphatically by the Prime Minister, as to local administrators. The boards of guardians had had sentence of death pronounced on them by both reports, but, said Mr. Asquith, "I think you will find that the boards of

guardians will die very hard. They are very powerful bodies." He then passed on to pay a well-merited compliment to the useful and unobtrusive work that stands to their credit. For our own part, we consider that no form of selected committee can ever bring, in rural areas, the same amount of local knowledge to pure Poor Law work, or administer it with the same constant regard to economy. On all sides the enormous cost of the Minority Report scheme as embodied in the Bill came in for criticism, and the moderate estimate of an extra three millions a year put forward by its supporters was received with scepticism all round. Mr. Burns said that he thought it would be nearer 12 millions, and he quoted Lord George Hamilton, the Chairman of the Royal Commission, who estimated that it would cost 18 millions extra, or in all 33 millions, as against the 15 millions now spent in England and Wales. There should be an authorized official estimate to clear up these discrepancies; and as both Mr. Asquith and Mr. Balfour asked for it, we hope the Government will prepare some trustworthy figures as to the probable cost.

Readers who study the special report of the debate published on page 953 will find much to interest them on these points and on others of minor interest. They will on the other hand be disappointed to find little or no reference to the great changes which a law like that proposed in the bill would bring about for the medical profession. Every new step in social reform drags in the assistance of the doctor. In recent legislation as regards children, as regards middle life and industrial supervision, and even as regards old age, it has been so to an increasing degree. In the promised legislation for insurance against sickness and inability it must be the same. The machinery of administration must more and more devolve on the medical element to ensure efficiency. Under these circumstances we regret that no medical member was heard in the debate on Friday last. The medical aspect of Poor Law reform will have to be considered, and it would have been well had it been adequately stated last week.

THE DEVELOPMENT OF SPECIALISM.

To those whose memory goes back a quarter of a century, one of the most remarkable changes in the medical profession is in its attitude towards specialism. What that was in the early Eighties may be gathered from an opening address delivered to the Medical Society of University College, London, by the late Sir John Russell Reynolds in 1881. He denounced specialism as retrogression rather than evolution, and as the survival not of the fittest, but of the charlatan and the quack. He attempted to classify specialism as follows: "First of all there is the distinction between those who deal with men, women, and children; then, secondly, those who treat either of those groups of patients as being sane or insane; thirdly, those who divide certain parts of the human being upon a somewhat regional, anatomico-physiological basis, and take as their field for cultivation the nervous system, respiratory system, digestive system, and the like; fourthly, those who make particular diseased conditions, such as gout, fever, or consumption, their line of study; fifthly, those who take special lines of work, such as medico-legal practice, into courts of law."

On all these the distinguished physician pronounced an impartial anathema. His remarks reflect the general state of the professional mind at that day. The high priests of the profession looked upon specialism of almost any kind as bearing on its face the stamp of quackery. This feeling has not yet wholly passed away. Russell Reynolds expressed his belief that specialism would die out. Prophecy is notoriously a dangerous thing, and this particular utterance is only one out of many illustrations of the danger. Since that confident prediction was made the growth of knowledge has made specialization more and more necessary. But the fact that as late as 1836 no London hospital had an obstetric physician on its staff proves how modern is the development even of special branches which have since been subdivided. The foundation of St. Peter's Hospital for Stone was, we believe, the result of the refusal on the part of one of the teaching hospitals to provide a special department for a surgeon who afterwards rose to the highest eminence in genito-urinary surgery. The same attitude of uncompromising hostility towards what was regarded as an unclean thing led to the establishment of other special hospitals, to the great detriment of medical teaching. Even at the present day the state of things is not satisfactory. As we said not long ago,[1] "although most hospitals now have departments for diseases of the throat, ear, and skin, officered by specialists, the provision for teaching these branches of medicine is in many schools by no means adequate to the needs of the student or satisfactory to the teacher. In subtle ways the specialist is made, in the language of the police court, to feel his position. He is often just tolerated by the physicians and surgeons of the general staff; he has sometimes to be deaf to thinly veiled sneers at his province of work and blind to personal slights; the equipment of his department is insufficient, and improvements in accommodation and apparatus are grudgingly allowed; and he is given men new to clinical work of any kind as his subordinate assistants. In this way his opportunities of usefulness, either as a practitioner or as a teacher, are confined to the lower level, which is considered the proper sphere of a mere speciality."

We have not space to discuss here fully the causes which led to the antagonism of the profession towards specialism. The chief of these was doubtless the inborn conservatism which makes us look with suspicion on any new thing. Perhaps, also, it may be said that the dislike was not so much of specialism as of specialists. Nor need it be denied that this hostility was in certain cases to a large extent justified. But it may fairly be contended that if some of the pioneers of specialism were Ishmaels, this was partly because the profession itself helped to drive them into the wilderness. In this way it threw away opportunities of knowledge and of usefulness to the public. A very distinguished man not long ago gave an amusing account of how, when it was seen that the time had come for the creation of a special department in the hospital to which he was attached, he, as a junior, was pitchforked into the charge of a speciality which he did not care about, and was expected to treat patients whose diseases he could not diagnose, and to teach students the use of an instrument which he could not handle himself. There were other far-seeing men who, while remaining within the sanctuary of general medicine—a shrine which, it should be said in passing, is gradually becoming more and more misty as every consultant, consciously or unconsciously, and whether he like it

[1] BRITISH MEDICAL JOURNAL, December 19th, 1908, p. 1827.

r not, is driven to more or less open specialism—yet ent to sit at the feet of men who by the profession at rge were looked upon as without the pale. They cted on the principle *Fas est ab hoste doceri*.

A striking proof of the revolution in professional opinion as to specialism is afforded by the announcement that the authorities of Guy's Hospital ntend to elect an aural surgeon who shall not, as eretofore has been the case, hold any other appointent on the staff, and to establish a special epartment of genito-urinary surgery. These new ppointments are, we learn from the *Guy's Hospital Gazette* of March 19th, the first outcome f the recommendations of a Committee which was ppointed by the Court of Committees some eighteen months ago to report upon the growth of pecialism in medicine and surgery, and to consider whether any changes in the special departments of he hospital, and any modifications in the existing rinciples upon which appointments are made in pecial departments, are desirable; and to consider whether such a reorganization would result in the mprovement of the treatment of patients and the ducation of medical students. The report of this ommittee is of a character that might make Russell Reynolds and those who sat with him in the Olympus f medicine thirty years ago turn in their graves. It s recalled that for a century after the foundation of he hospital no special departments existed. It was ot till 1824 that the ophthalmic department was reated; in 1833 the electrical department was established; next came the obstetric department in 1842, the hroat department in 1885, and the orthopaedic department, which came into being so recently as 1907. The Committee recommends that forthwith, or as oon as conveniently may be: (1) Pure specialists hall be appointed for diseases of the ear, throat, genito-urinary organs, and for orthopaedics. They point out that in the case of the first three, such pecial skill in the use of instruments for diagnosis nd operative procedure is necessary that it can ardly be expected in one who is also a general urgeon. (2) That special departments shall be reated for nervous diseases and diseases of children, ut that the post of physician in charge of either of hese departments may be held by an assistant hysician. (3) That a rearrangement of the special eds in the hospital shall be effected so as to provide ncreased accommodation for these specialities.

We congratulate the great hospital in the Borough n its recognition of the necessity of providing the needful training for those in whose hands will be the keeping of the public health shown in the recommendations of the Committee. We have for years urged that the growth of specialism is a necessary consequence of the advance of medical science, and that the fact should be faced frankly by hospital authorities as well as by the organizers of congresses. This has to a considerable extent been done, though in a half-hearted sort of way; but it may be hoped that the example set by Guy's Hospital may lead to the extinction of such embers of the old prejudice as still smoulder in some quarters. In a large measure the recognition of specialism has been forced on the profession by the public. But the main cause has been the character of the men who have devoted themselves to the cultivation of special parts of the vast field of medicine. It has been shown that in a speciality a standard of honour can be maintained equal to that of the profession at large. It is to such men that specialism owes its redemption from the position of a prodigal eating husks among swine and its elevation to a place of honour in the Temple of Medicine. They have shown the profound truth of the words of Madame de Maintenon that *il n'y rien de si habile qu'une conduite irréprochable*. Instead of specialism illustrating, in the words of Russell Reynolds, "the survival not of the fittest, but of the charlatan and the quack," it is now coming to be universally admitted that it means progress in knowledge and in efficiency without the slightest sacrifice of professional honour. The very worst form of quackery is that a man should undertake the treatment of cases with which he is incompetent to deal. From this reproach the specialist who knows his work and his limitations is free. But his special knowledge must be built on a broad basis of general medical science. One skilled only in dealing with warts and pimples, or only capable of handling a particular instrument with special dexterity, is not merely intellectually stunted, like the man described by Oliver Wendell Holmes who could not pretend to the title of "entomologist," or even of "coleopterist," and contented himself with the title of "scarabaeist": he is dangerous as a practitioner.

THE REFORMATORY TREATMENT OF INEBRIATES.

THE successive annual reports of Dr. Branthwaite, the Inspector under the Inebriates Acts, dealing as they do with a matter of national importance, always awaken the greatest interest. The report for 1908, recently issued, furnishes no exception to this rule, and, indeed, has an added importance, owing to the fact that it was in that year that the third Departmental Committee was appointed to inquire into the operation of the law relating to inebriates; and also because legislation may be expected to follow the recommendations which the Committee made in December of the same year.

It may be recalled that the first two Departmental Committees were appointed in 1872 and 1892, and that the Acts of 1879 and 1898, which respectively followed the deliberations of these committees, embodied to some extent their recommendations. In certain important particulars, however, the Acts fell far short of the recommendations made, and in consequence, although they have been of experimental value, and have given results which are of hopeful augury for more drastic and comprehensive methods of treatment, their application has been very limited and of practically no effect upon the great mass of misery, ill-health, poverty and crime due directly to habitual intemperance. It is more than satisfactory, therefore, that the findings of the Departmental Committee of 1908 support and confirm throughout those of the first two committees.

Broadly speaking, all countries which have laws dealing with drunkenness have adopted one or more of the following measures: The infliction of short terms of imprisonment; control in prisons for long periods; interdiction, or the prohibition of the selling or giving of liquor to known inebriates; guardianship; and, lastly, control in reformatories (*a*) of inebriates who make voluntary application for admission, (*b*) of ordinary non-criminal inebriates who refuse their consent to detention, and (*c*) of police-court recidivist inebriates—persons who have committed crimes caused or contributed to by drink.

We are here concerned only with reformatory treatment, and on this matter the 1872 Committee proposed legislation for all three classes of inebriates. The 1879 Act, however, entered the Statute Book shorn of all its compulsory features, and merely permitted the establishment of retreats into which inebriates who voluntarily desired control could be admitted. The Act of 1898, although the second Departmental Committee had recommended the compulsory committal of ordinary non-criminal inebriates, made provision only for the worst class of inebriate—that is, those who committed crime as the result of drunkenness, or who were frequently charged in police courts for being drunk and disorderly. The great difficulty encountered is in procuring the compulsory seclusion of inebriates who squander their fortune, ruin their health, and reduce their families to indigence, and yet manage to escape the police court. Strangely enough it is this very class for whom legal provision is made by States other than the United Kingdom; but, whatever the cause of the anomaly—whether a reluctance to interfere with the liberty of the subject or an inadequate appreciation of the magnitude of the evil in question—it certainly seems that until the powers recommended by the three successive Departmental Committees have been granted, no serious attempt at the radical cure or effectual prevention of habitual drunkenness is possible. Dr. Branthwaite points out that twenty years elapsed between the first and second committees, and thirty-six years between the first and third, and we agree with him that "there can be little wrong with the motives and conduct of a work which came into existence as the result of one inquiry, and had been confirmed by the recommendations of two subsequent committees." The recommendations of the last committee include those of the two former, and comprise an extension of the voluntary principle; a system of voluntary and compulsory guardianship; the compulsory committal to retreats of non-criminal inebriates; and, with regard to criminal and recidivist inebriates, facilities for their earlier committal to reformatories.

During 1908 the committals to inebriate reformatories were less by 231 than those of the previous year, the fall in numbers being due partly to insufficient accommodation for London cases, but also in part to the many shortcomings and imperfections of the existing Acts, and to difficulties in administration. Section 1 of the Act of 1898 enables judges of higher courts to sentence any inebriate who commits crime as the result of his habits to reformatory detention; but, owing to the failure to include habitual drunkenness in the indictment, when inebriate offenders are sent to higher courts great numbers are simply punished by a few weeks' imprisonment, without, as Dr. Branthwaite points out, any effort being made to remove or modify the virulence of the cause of the offence.

Under Section 2, which was designed to apply to habitual drunkards guilty only of offences against public decency and order, there were 218 committals. A moment's reflection upon the fact mentioned by His Majesty's Prison Commissioners in their last report, that over one-half of the women and nearly one-third of the men sentenced to imprisonment in this country are committed for drunkenness, numbering in all some 62,000 odd convictions, forces the conclusion that the present Acts merely touch the fringe of habitual drunkenness. Doubtless the prisoners' promises of reformation, and considerations as to their employment and family, influence the committing magistrate; but if it be true that reformatory treatment gives better results than any other, the numbers committed to reformatories seem, as Dr. Branthwaite says, ridiculously small in comparison with what they might and should be.

How great the amount of good done by reformatory treatment may be is a matter which at present eludes any attempt at accurate computation. Unfortunately there are no general means of supervision over the cases after they have left the reformatory. But, accepting the numbers of unrevoked licenses as an indication, Dr. Branthwaite says that out of 670 licenses issued up to the end of 1908, some 63 per cent. were not revoked, showing that during the period they were out on licence—on the average between seven and eight months—the licensees had not committed any offence as the result of drunkenness. It is important in this relation to remember also that the inebriates at present committed to reformatories are the worst cases, a large proportion of whom are mentally defective and a certain proportion actually insane. Dr. Branthwaite estimates that out of the 3,032 committed to reformatories since 1899 only 1,105, or 36.45 per cent., were of average mental capacity.

In the insane and mentally defective inebriate little good is to be expected of reformatory treatment after the period of detention, but the figures quoted by Dr. Branthwaite and reproduced elsewhere justify the assumption that if reformatory methods were extended to greater numbers of the milder cases which now swell the prison population, and still more if the Acts were so amended as to include the non-criminal habitual inebriate, the proportion of good results would be very greatly increased. The figures relating to inebriate women, showing that a large proportion are sterile and that the death-rate among the children of those who are not is very high, deal with an aspect of inebriety which had not, perhaps, yet received all the attention it deserves, and we cannot do better than bring this notice of the report to a close by quoting Dr. Branthwaite's words: "The high mortality of children born of drunken women should appeal to those who are interested in questions relative to the waste of child life. If 812 women were responsible for 1,899 child deaths, what must be the awful total for the thousands of habitually drunken women of the same class?"

THE IRISH POOR LAW MEDICAL SERVICE.

It is pretty generally admitted that the conditions of the Irish Poor Law medical service are unsatisfactory, but opinions differ as to the form the service should take. The recent Royal Commission on Poor Law reported in favour of a county service controlled by the county council, with the appointments in that county as the highest to which any member could look forward and without a uniform standard of salary. The Vice-Regal Commission, on the other hand, was in favour of a national service, with a central professional governing body and with prospects of promotion to any part of the country. With a view to ascertaining the views of the Poor Law doctors the Secretary of the Irish Committee of the British Medical Association recently addressed to each member of the service the following three questions: (1) Are you in favour of a naticnal medical service, to be entered by competitive examination in which there will be promotion and pension, and which will be controlled by an elected board? Or (2) would you prefer a county medical service? Election and management to be in the hands of the county council. Or (3) are you

n favour of continuance of the present system with he addition of compulsory superannuation on retire- nent? Already about one-half of the entire number ircularized have replied, and it is hoped that those who have not as yet expressed their opinion will o so, in order that, should any attempt be made to egislate on the subject, the Association may be in a osition to use its influence in promoting the interests f the profession.

AN ANAESTHETICS MUSEUM.

We are requested to state that it is has been decided by the officers of the Anaesthetics Section of the forth- coming annual meeting of the Association to institute an exhibition of past and present anaesthetic appa- ratus and appliances, under the auspices of the Medical Museum Committee. Miss A. M. Browne, who has been appointed Honorary Curator of the proposed section of the Museum, will work in conjunction with Mr. H. W. Armit, Honorary Secretary of the Museum Committee, and she will be pleased to receive the name and address of any one willing to lend anaesthetic apparatus, appliances, models, engravings, drawings, etc., of historic interest. A Special Com- mittee has been appointed by the officers of the Anaesthetics Section, to select from the vast number of modern anaesthetic appliances those which seem to them worthy of exhibition. This committee will report to the officers of the section, in order that the latter may advise the Honorary Curator as to the best modern apparatus. By this plan it is hoped that the members of the Association attending the annual meeting will be in a position to make themselves acquainted with the most recent and trustworthy modern methods of anaesthetizing. It is anticipated that the proposed section of the museum will be extremely interesting. All communications should be addressed to Miss A. M. Browne, Honorary Curator, Anaesthetics Section of the Medical Museum, 429, Stand, W.C.

THE SALE OF MINOR POISONS.

In another column we publish an account by Dr. F. Barker of a case of poisoning by camphorated oil, in which the death of a child was caused by its having swallowed about half an ounce of this liquid. Poison- ing by camphor is comparatively rare, perhaps owing to the fact that its strong taste and smell make it difficult for any considerable quantity to be taken by accident; but when in the form of a solution in oil both taste and smell are less noticeable, and in this form of camphor liniment or camphorated oil it is one of the commonest domestic remedies. In the case recorded the camphorated oil was supplied by a co- operative society in a plain glass bottle, with nothing either on the label or in the form or colour of the bottle to suggest that the contents were not to be taken internally; it is at least probable that if it had been clearly indicated that the oil was only for external use, it would have been kept out of the reach of the child, and the death would not have occurred. There is at present no compulsion on the vendors of such a substance to send it out with any caution as to its nature, either on the label or in the kind of bottle used; the requirement that in the dispensing and selling of liniments, lotions, and liquid disinfectants containing poisons they shall be sent out in bottles distinguishable by touch from ordinary medicine bottles, and bearing a label showing that the sub- stance is not to be taken internally—which was at first adopted voluntarily by the Pharmaceutical Society, and now has the force of law—only applies to preparations containing scheduled poisons, among which camphor is not included; the fact that, when bought from a pharmacist, camphorated oil is practically always supplied in a bottle distinguish- able by touch from an ordinary medicine bottle and bearing the words "Not to be taken," is only an instance of the usual rule that a qualified seller, who understands something of the properties of the sub- stances he handles, will take precautions against accidents in excess of the legally required minimum. The schedule of substances which are poisons in the eye of the law is notoriously antiquated and in- sufficient; the Pharmaceutical Society has issued an official recommendation that special precautions be observed in dealing with a number of other dan- gerous substances, but such recommendation, though doubtless carrying weight among pharma- cists, has no legal force. Two amendments of the law appear to be desirable: the first, a revision of the poisons schedule so that it should include the many highly dangerous substances that have come into use since it was drawn up, which should only be sold by qualified persons, with the same restrictions as now apply to the substances in the schedule; secondly, a list of less dangerous substances might be compiled, to which the minor regulations should apply, so that wherever purchased they would at least be supplied with the same precautions against accident as are now taken by the more careful retailers. Camphorated oil, liquid ammonia, and many other articles in domestic use would naturally be included in such a list, and, while no difficulty or restriction would be imposed in the way of their being obtained, the manner in which they were supplied would lead the purchaser to take precautions against their being taken internally by mistake, and many unfortunate accidents might thus be prevented.

DENTAL PAYING CLINICS.

A project of considerable magnitude affecting the practice of dentistry in this country was made public in a tentative way in the *Times* on April 11th, and since then accounts of interviews with Mr. B. C. Rayner, who is the Secretary of the British Dental Association, have appeared in various newspapers. We find on inquiry that there is not so far any scheme properly so-called, everything still remaining to be worked out. The primary object is to establish a national dental service, but it is also proposed to instruct the public in the principles of dental hygiene and the cause and effect of bad teeth. It is intended for the benefit of the middle and poorer classes of the community, willing to pay small fees for dental treatment and appliances, but unable to pay the ordinary fees of dentists. The first step would be to start an experimental clinic in London; if successful, similar clinics would be established in every important town in the United Kingdom. The co-operation of the medical and dental professions and the active support of societies interested in national health and hygiene are regarded as essential. To make realization of this scheme possible a person who desires to remain anonymous is ready to place at the disposition of Mr. Rayner any sum not exceeding £200,000, and on the amount, whatever it may be, he is to receive 5 per cent. interest. The offer is at present entirely personal to Mr. Rayner, who is a layman, but the matter will be considered by the Board of Representatives of the British Dental Association. The arguments put forward in favour of the scheme are that at present no dental provision exists for those classes who are neither rich nor necessitous. To this circumstance is inferentially ascribed the excessive prevalence of dental caries in this country, to which attention has been repeatedly drawn of late years. It is an un- gracious task to offer any criticisms upon an attempt

to alleviate the lot of those not fortunately placed in the world, and it is undoubtedly true that, as respects their teeth, those who cannot afford the services of a first rate dentist, but are yet above the grade of those who may properly seek relief at a hospital, are apt to be worse off than the actual poor; but before the scheme outlined to meet the requirements of the class indicated can be unreservedly approved much more needs to be known as to its details. For, be it noted, it is not proposed to find this money as a free gift, but it is to furnish a return in the way of interest at 5 per cent. It is true that 5 per cent. is not an excessive rate of interest in any venture where loss is possible; but at the same time the scheme becomes in a sense a commercial venture, and it is not difficult to see that it might be open to much abuse. Hence we should like to know much more about what is proposed before committing ourselves to an expression either of approval or disapproval of the proposal. If the public availed itself of the opportunity freely, the net outcome would undoubtedly be a material diminution of the gross number of diseased and untreated teeth, but it would clearly be exceedingly difficult to confine the benefits of the conception solely to those for whose benefit it is intended, unless a hard and fast rule in respect of wage limits were imposed, and such rules are not easy to devise and are difficult to enforce in practice. On the other hand, in default of such rule, the public as a whole might suffer rather than gain by the scheme. In any town in which one of the dental clinics was established, dentists at present content to work for low fees would probably lose so many of their patients that in order to live they would have to raise their fees. It is to be remembered, also, that the underlying idea of these dental clinics is capable of indefinite extension. If it were proved that institutions charging very low fees could yet not only be self-supporting, but also pay 5 per cent. interest on capital outlay, they might have many imitators working on the same lines but catering for a somewhat more wealthy class. Another point is whether the establishment of a national dental service would not help to lessen the general attractiveness of dentistry as a profession, and so limit the number of annual entrants. At present there are about 5,000 dentists in all, of whom about 2,000 are registered on their own declaration as having been bona-fide engaged in the practice of dentistry when the Dentists Act of 1878 was passed; it is a question whether there are at present enough unoccupied dentists to start such institutions, or any material likelihood of this ever being the case. To attract men to take up appointments instead of working as their own masters fairly high salaries might have to be paid, and this might prove incompatible with the payment of 5 per cent. interest if the fees were kept well within the limits of the pockets of the people whom it is proposed to benefit.

RESTORATION OF THE APPARENTLY DROWNED.

A LITTLE more than a year ago the adoption by the Metropolitan Police of the Schäfer method of artificial respiration was noted, and by the kindness of the Chief Surgeon, Mr. Clinton Dent, we have now received a report with regard to cases in which artificial respiration was employed by the police during the twelve months ending January 31st, 1910. Of 48 cases, the Schäfer method alone was used in 34; 25 of these were cases of immersion, and 18 were successful; of 9 cases other than immersion, 6 were successful. In the other instances the Silvester method was used, but, as the Chief Surgeon remarks, the number of cases is too small to permit of any comparison of values. The points that have been established appear to be that the Schäfer method is efficient in the hands of persons without special medical training; that the procedure is simple enough, and susceptible of simple enough description to admit of prompt use in the excitement of an emergency; and, finally, that it can be used in the case of children, for of the individuals in the tables given no less than 13 were under 10 years of age, and 10 of them recovered. In one unsuccessful case where it seems probable death had occurred before artificial respiration was begun, it was noted that the air expelled by the movements was in volume enough to blow out a lighted match. In another failure it was found *post mortem* that both lungs were "distended to the fullest extent." One police-constable stated that he had found the method "most effective, and far preferable to the old method." It is clear that the year's use of the Schäfer method has not disclosed any practical reason why the theoretical advantages we pointed out previously should not suffice to ensure a general adoption of a system which has already had the patronage of the Royal Life-Saving Society. We cannot leave this melancholy list of catastrophes, accomplished or averted, without referring to the promptitude, the skill, and the devotion it discloses on the part of the Metropolitan Police.

MEDICAL TERMS IN THE NEW ENGLISH DICTIONARY.

PUNCTUALLY to the day the quarterly part (a double one this time) of the *New English Dictionary*[1] makes its appearance, and carries the alphabetical rubrics from *Round-nosed* to *Ryze*. The last-named mysterious looking monosyllable turns out to be nothing more than a dialectical form of *rice*; whilst *round-nosed* bears its meaning on its face, so to say, but is used chiefly of tools, as Dr. Craigie, the editor of this part, tells us. There are, roughly speaking, two kinds of medical terms with which the *Dictionary* deals—those which are used most often scientifically and which are derived generally from Greek or Latin roots, and those which are popularly employed and take origin in the Teutonic family of languages, although, of course, the classification cannot always be rigidly carried out; and in this part both sorts are represented, but the Romanic elements, so far at any rate as medicine is concerned, are few in number. The first medical term met with is *round-worm*, "a worm of the genus *Lumbricus* or *Ascaris*, especially *Ascaris lumbricoides*"; among the illustrative quotations is a rather alarming one which asserts that "it is calculated one-half of the total number of children have either the round or thread worm," but the date of the work from which the editor quotes is 1829, and it is to be hoped that matters are better now. Next comes the word *roup*, "of obscure origin"; it signifies "a disease in poultry characterized by morbid swellings on the rump;" in a work published about 1858 and called the *Poultry Yard*, the statement occurs that "Baily's roup pills are almost universally known and appreciated." But there is another *roup*, of Scandinavian origin, and related to the Icelandic *raupa*, to boast, and the Swedish *röpa*, to shout; it is used in Scotland and the North of England in a medical sense, and signifies hoarseness or huskiness, or some disease affecting the throat, and it is occasionally employed to signify a form of purulent catarrh attacking domestic poultry. A *roup* in Scotland also means a public auction, and we may sympathetically reflect that doubtless the auctioneer

[1] *A New English Dictionary on Historical Principles.* Edited by Sir James A. H. Murray. *Round-nosed—Ryze* (vol. viii). By W. A. Craigie, M.A., LL.D. Oxford: At the Clarendon Press. London, Edinburgh, Glasgow, New York, Toronto, and Melbourne: Henry Frowde. Double section, 5s. April 1st, 1910.

hoarse before his day's work is over. Further, *oup* has some kind of etymological relation to *roup*, though it is also allied with *croak ;* this association not referred to here, but is taken notice of in earlier volume of the *Dictionary* under *croup.* nother medical word of Scandinavian origin is *ve*, meaning a "scab or the scaly crust of a healed healing wound"; it formerly was used for a scabby scurfy condition of the skin, but is now obsolete that sense; possibly its history is bound up with at of leprosy in northern Europe. *Rowel* has also obsolete medical meaning, namely, kneepan, or metimes a vertebra; it would seem to be connected ith the Latin *rota*, a wheel. To illustrate how even nder unlikely words medical meanings appear, we ay refer to the adjective *royal ;* under special collotions there is *royal evil*, which is the same as king's il; there is *royal preventive*, the name of a quack tion which was nothing more than a solution of ad acetate; the *royal stitch*, an old operation for the re of inguinal hernia; and there is the *royal suture*, ferred to by Brittan in his translation of Malgaigne's *perative Surgery* (1846). *Rubber*, a medical term, as generally been replaced by *masseur* and *masseuse.* ther medical terms are *rubella* and *rubeola*, used for erman measles, and rarely for ordinary measles, ut Dr. Craigie does not regard either of them as aturalized yet. *Rupture*, in its medical sense, is lly dealt with, and copiously illustrated by means f quotations from the sixteenth to the nineteenth enturies; *rupia*, the skin disease, is derived from he Greek ῥύπος, filth or dirt ; and *rumbling*, as a ynonym of borborygmus, is not omitted. Finally, *unning* has three medical meanings, one of which s discharging or suppurating ; another is spreading —for example, from one part of the surface of the ody to another; and yet another is undulating—for xample, the running pulse of extreme prostration; *unning of the reins* is gonorrhoea.

ORAL HYGIENE AND TUBERCULOSIS.

THE fact that defective teeth are in some cases the *ocus minoris resistentiae* through which infective gents attack the body has for a long time been recogized. The medical inspection of schools has given an mpetus to the study of the conditions under which his may occur, and from the famous school clinic at Charlottenburg there has recently appeared an important communication on the relation between oral ygiene and tuberculosis. Professor Moeller of Berlin[1] irst of all relates the details of a case in which it was established by inoculation experiments that in one patient, a boy of 13, there was a tuberculous periostitis around some carious teeth and the corresponding lymph glands in the neck were tuberculous. There was also on the same side pulmonary apical catarrh, which the further course showed to be tuberculous. The sequence of events in this case seems fairly obvious, and systematic examinations of the teeth and the buccal deposit in a series of 53 school children with no pulmonary symptoms were made. Only 12 had relatively healthy oral cavities, and these 12 were of superior intelligence and physique. Further examination showed the presence of the pseudo-tuberculosis bacillus in 9 out of 36 carious teeth. In 41 buccal deposits the tubercle bacillus was present in 6, and the pseudo-tuberculosis bacillus in 18. Among 194 cases of pulmonary disease there were carious teeth in 133; the tubercle bacillus was present in 14, and the pseudo-bacillus in 23. In the 182 buccal deposits in these 194 children the tubercle bacillus was found 35 times and the pseudo-bacillus 42 times. The connexion between the buccal deposit and swelling of the lymph glands was confirmed by the injection of tuberculin, which was followed by a local reaction in the glands. Moeller does not think that the carious tooth is itself the atrium for the bacillus, as he has been unable to show that the bacillus can penetrate even exposed dentine, but he regards the small lesions of the mucosa caused by the irregularities as of the greatest importance. Through these lesions either a lymphogenous or a haematogenous infection could occur. In tuberculous patients there is also an open door for reinfection. These results are interesting, but there appears to be at least one source of fallacy. The morphological differentiation of the pseudo-bacillus from the genuine bacillus by means of staining methods is very uncertain, and we are not told that animal inoculation experiments were performed. In the absence of such evidence some scepticism is justifiable with regard to the statement that 6 out of 41 buccal deposits contained the tubercle bacillus. The question is important also since it throws doubt on the inhalation theory of tuberculous infection; it ought to be answered by animal experiments, which in the case of the diagnosis of tuberculosis form the one and only court from which there can be no appeal.

[1] *Muench. med. Woch.*, 1910, No. 2.

RADIUM IN THE TREATMENT OF X-RAY DERMATITIS.

THE treatment of *x*-ray dermatitis by means of radium was the subject of a short communication made by Dr. Mackenzie Davidson at a meeting of the Roentgen Society on April 7th. He stated that the application of a 29-mg. glass tube of radium for ten minutes upon patches of *x*-ray dermatitis on his own hands had been followed by a remarkable clearing up of the lesions. The curious thing was that when the reaction subsided after a few days the part was soft and pliable, and not cicatricial as it would have been under the cautery. The treatment produced a certain amount of mild discomfort only. As to whether radium would be of any service in the deeper lesions he could express no definite opinion. His experience was that its real province lay in superficial conditions of the epidermis. He had found it also of great value in eye diseases, particularly in "spring catarrh." Its value in *x*-ray dermatitis was placed beyond all doubt. He brought to the meeting an *x*-ray operator, whom he had treated with radium for extensive lesions upon the hands, the result of working with the *x* rays. The tube of radium was applied for ten minutes upon the part, a second application being given three days afterwards, and then an interval of six weeks allowed to elapse. In this way a remarkable improvement was achieved, as was shown by the difference between the present condition of the patient's hands and their condition, judged from a photograph, at the commencement of the treatment. In the course of the discussion Dr. Deane Butcher said that the application of the radium had a soothing effect upon the *x*-ray burns, which was compared by one patient to the experience of having his wounds painted over with cocaine. Radium also would check a spreading ulceration when applied to the edges of the growth, and was unapproachable for relieving pruritus. In reply to a question as to why radium rays, which—assuming that the gamma rays were concerned—were a similar ethereal disturbance to the *x* rays, could, nevertheless, cure a lesion caused by the *x* rays, Dr. Mackenzie Davidson said that he thought the superficiality of the results obtained pointed to the beta and not the gamma rays as being the active agent. He used the radium through glass, which stopped all the alpha rays, but allowed all the gamma rays, and almost all the beta rays, to pass. The beta rays in all probability were the ones con-

cerned. In dealing with the therapeutic action of radium, therefore, it was not a wave disturbance in the ether, but the actual impingement of material particles upon the human body at a high velocity which had to be considered. It was uncertain whether the effect was due merely to the impact of these material particles or to minute forces to which they gave rise once they were within the body, but it was certain and fortunate that the particles appeared to have a remarkable discriminating action between normal and abnormal cells. Yet the beta rays had practically no bactericidal effect.

CIGARETTES AND CEREBRO-SPINAL FEVER.

AT the present moment, when the occurrence in London of three or four cases of cerebro-spinal fever is adding to the cares of medical officers of health, certain views recently expressed by a French medical man[1] become of special interest. They would, too, in any case be worth placing at the disposal of those who share Mr. Barrie's admiration of My Lady Nicotine and desire to secure for her all the credit she deserves. The attention of this medical man, a French army surgeon, was called by one of his assistants to the fact that two patients then under treatment for cerebro-spinal fever were both non-smokers, and he was asked his opinion of the value of tobacco smoke as a bactericide. It seemed to him quite possible that the liability of smokers was less, in view of the circumstance that on the one hand the meningococcus is believed to be carried about in the nasal pharynx and to be of feeble vitality; while, on the other hand, the toxicity of nicotine and the volatile matter of smoke, including formaldehyde, towards low forms of life, is well recognized. He therefore determined to ascertain whether the history of a certain regiment in which several outbreaks of this fever had occurred in the previous three years offered any ground for believing that the habit of smoking affected favourably or otherwise the liability to develop cerebro-spinal fever. His investigation seems to have been conducted with considerable care, and his conclusions, so far as they go, are apparently justified. He was able to obtain precise particulars of the habits of 43 out of 49 cases of cerebro-spinal fever in the regiment in the course of the previous three years. Of these 43 cases, 25.2 per cent. were "smokers," 30.2 per cent. "occasional smokers," and 44 per cent. "non-smokers." Inasmuch as previous investigations had shown him that the smokers in the regiment probably averaged over 94 per cent. of its whole strength, the remarkable number of non-smokers among the cerebro-spinal fever patients seemed to him to justify the conclusion that the smoking members of the regiment must have been more or less effectively protected by their habits. He also found reason to believe that the actual gravity of the disease tended to be less among "smokers." Thus, of 12 deceased patients, he was able to obtain precise details as to 9; only 1 was a "smoker," 4 "occasional smokers," and the rest never smoked. Clearly, before these conclusions can be accepted, they must be tested by experiments with regard to the effect of tobacco smoke on the meningococcus *in vitro* and by other inquiries of a similar kind to those here recorded, but the French surgeon considers that "true smoking" might be substituted for some of the prophylactic measures at present applied to contact cases in military practice in France. By a "true smoker" he means a person who pulls at his cigarette or pipe in such fashion as thoroughly to fumigate the whole of his naso-pharynx. Most of those whom he includes in the first of his three classes of "smokers" would appear to be persons of this kind. His "occasional smokers" are those who at the most smoke two or three cigarettes a day, and often do not smoke at all for several days in succession.

[1] *La Tribune Médicale*, April 9th, 1910.

PROPOSED PASTEUR INSTITUTE FOR EAST BENGAL AND ASSAM.

A PROJECT for creating a Pasteur Institute for Eastern Bengal and Assam is now on foot. The idea was first brought forward by Dr. Macnamara at a meeting of the Tea Association at Mariani in 1906, but was not then found feasible, as there was no station in these provinces with a sufficiently low temperature. Since that time a method of preparing antirabic vaccine which can be carried out at temperatures prevailing in Assam has been elaborated, and the suggestion was taken up again by the Assam Branch of the British Medical Association early last year, a motion in favour of its realization being adopted. The outcome was the appointment by the Branch, at the request of the Assam Tea Association, of a subcommittee to report definitely on the subject. This subcommittee, consisting of Drs. Murray, Macnamara, and Winchester, has now reported to the effect that, owing to the large number of cases of rabies in Eastern Bengal and Assam, an antirabic institution is greatly needed; that the institution ought to be a local one, since Kasauli is much too far away; that the initial outlay would be some 35,000 rupees, and the annual working expenditure (less the salary of the director and his assistant) about 9,600 rupees; that the best site for the institution would be Haflong, and that once started by subscriptions among all classes of the community the Government should be asked to take it over. It is pointed out that such an institution would, apart from the treatment of rabies, be of great value to the community by acting as a research laboratory and enabling medical men in practice in Eastern Bengal and Assam to keep themselves up to date. It would be a centre to which they could resort for a few days' work from time to time without being long away from their work. Shillong, though a cooler place than Haflong, is less central and a considerable distance from any railway. There ought not to be any very great difficulty in raising the amount required, seeing that the value of antirabic treatment is now generally appreciated and that Burmah for a similar purpose recently raised more than a million and a half rupees. The Haflong institution, if it comes into existence, will be the fourth Pasteur Institute in the Indian Empire.

COLONEL J. MAGILL, M.D., C.B., Staff Officer to the Administrative Medical Officer, 2nd London Division Territorial Force, has been appointed Organizing Secretary of the British Red Cross Society. Colonel Magill will be much missed by the officers of the Division, since he was always ready to help, both in and out of camp, by his advice and instruction; and the Society is to be congratulated on having obtained the services of an officer of so much energy and varied experience.

THE Surgical Section of the Royal Society of Medicine will hold a debate on "The Present Position of the Treatment of Syphilis" on Tuesday, May 10th, and Tuesday, June 14th, at 5 30 p.m. It will be opened by Mr. Ernest Lane, and Sir Jonathan Hutchinson, Professor Fleming, and Mr. Arthur Shillitoe are amongst those who have promised to take part. Gentlemen wishing to speak in the debate, which will be held in the botanical theatre at University College, are requested to send their names as soon as possible to the honorary secretary, Mr. Hutchinson, F.R.C.S., 1, Park Crescent, W.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

The Prevention of Destitution Bill.

Prevention of Destitution Bill came on for d reading on Friday last, and, after nearly five ' discussion, was talked out.

moving the second reading, Sir Robert Price, in rst sentence, announced the unreal character of ebate by saying that, if the second reading was ed, he should promptly move that the bill be ed to a Committee of the whole House, "which l be a suitable way of putting it off to a more nient season for further consideration." He ed out that, in following the lines of the Minority rt, the bill dealt with the whole subject of dis- and tried to trace out the causes and stop those s. After sketching the proposals of the bill as ds the abolition of the guardians, the care of the and the treatment of the able-bodied, he specially on the value of the proposals with reference to hildren. Unemployment would be met under the y scientific treatment which would not only seek event the causes which engendered it, but seek to dy it when existing, by suitable agencies and a r distribution of public works. Lastly, he met harge of excessive cost under the bill by arguing two or three millions a year would meet the y, while there would be considerable saving ed in other directions.

. J. W. Hills, who seconded the motion, opened a ghtful speech by pointing out that the Poor Law m had failed because it had been planned on a too narrow for modern developments. The of not relieving a man until he was destitute broken down and had to be extended and sup- ented by other agencies. In the first place, whole education system had been taken of the Poor Law, and the education authority ondon fed more children than the Poor Law. the Public Health Departments had under- work which was now outside the Poor and the same was true as regards the of the insane. Then recently old-age pensions been started, and last of all the labour exchanges local distress committees had been created. e new authorities, to say nothing of private ties, were all doing kindred work; there was con- ently a large amount of overlapping, and a great e of public money. The Home Secretary had tly announced a new departure for clothing ren on lines similar to the Edinburgh and rpool schemes. This multiplication of authorities ed that the Poor Law system of 1834 had broken , and both the Majority and the Minorty Reports ed that the present state of things could not be ved to continue. After dwelling at some length e care of the children, he next referred to the ployment clauses, and showed that the scheme of Bill was plain and coherent, and dealt with unem- ment from top to bottom. It found work for the in his own trade, and if that could not be done it ed him for other work, and if he would not work ovided detention colonies to which he could be after conviction before a magistrate for failing to tain himself and his family. He finally recom- ded the bill as setting up a national standard w which life should not fall. The State insisted on tional minimum in other respects, and the bill osed it for the life of the poor.

. Ormsby Gore, who moved the rejection of the began by criticizing the action of the Minority rters in starting a crusade against the majority of Commission. The bill was really an administra- revolution, but mere changes would not cure social by setting up a Minister of Labour and dividing Law work among several committees. The stry of Labour would be a centralized bureaucracy no local control for its labour and training nies. The Poor Law, on the other hand, would be given to local committees and the county councils, all of which would become Poor Law authorities. These councils and committees were already over-burdened with work, and would be all scattered, whereas one central authority was essential, or there would be more overlapping, which he thought the provisions of the bill would not meet. Instead of having one authority at Whitehall there would be four—the Board of Education for the Children, the Home Office for the Insane and Feeble-minded, the Local Government Board for Health and Adult Poor Law, and the Labour Ministry for the Able-bodied. "It was a bill for altering the area and the whole machinery of the Poor Law without making any real advance towards combating the evil which it sets out by its very name and title to deal with—'the Prevention of Destitution.'"

Mr. Rupert Gwynne, who seconded the rejection, did so because the bill was so sweeping and drastic, the alterations proposed so great, and the advantages were so small. He criticised the bill, first from the point of efficiency. He contended that people like guardians who have local knowledge and represent small areas must have more capacity for dealing with Poor Law problems than a county councillor representing a large area and overworked already by the multifarious work of the council. The result would be that Poor Law work would fall largely into the hands of officials, which would not be so satisfactory as the old system. The expense of administration under the bill, he argued, would be greater. First of all the work-houses, on which 22½ millions had been spent in the last twenty years, would be wiped out and this money practically wasted. Then there would be 3 millions for compensation to officers for loss of office, and instead of one existing authority there would be four with four staffs, to say nothing of the cost of the detention colonies. He thought, moreover, the bill would impose hardship on the people who required assistance, who would be removed to a distance and separated from their friends in some cases. The present system had reduced the pauperism from 57 per 1,000 in 1850 to 22 per 1,000 in 1908, and he thought it might be altered and extended without the drastic proposals of the bill.

Mr. George Roberts supported the bill as a Labour member, and showed how unemployment was at the root of the whole problem and how increasingly difficult the question must become. He showed also that the policy underlying the administration of the Poor Law had broken down and that the labour yard had proved to be no solution of the unemployed problem. This measure, however, applied a course of scientific treatment to this complex problem. It was the first endeavour made to analyse the causes and the effects of unemployment and to provide solutions for them. The bill represented a great charter of social reform. It was scientifically devised and was sound in its proposals and in its aims, and, if enacted, it would in considerable measure effect the purpose they all had in view. It would do something to make this nation what it ought to be—a great and noble example to the nations of the world.

Mr. Farrell, speaking for the Nationalist members, said that they could not support the bill. They were prepared to wait the scheme of reform for Ireland which they hoped would soon be introduced. He thought it was a mistake to destroy the guardian system. Instead of extending local government they were, by the bill, shortening the arm of local government. They were taking from the elected representatives of the people the control of the Poor Law, and putting it into the hands of selected committees, which was an objectionable principle.

Mr. Silvester Horne, who followed, said that both the Majority and Minority Reports were at one with regard to the abolition of guardians and promiscuous workhouses. He thought they all agreed with this. The term "break up of the Poor Law" was an unhappy description of a reform, although there was a precedent for it in the break up of the school board system. They had done a good deal towards the relief of pauperism, but nothing towards its abolition. Now

the two reports gave a hope for the abolition of destitution. We had been spending in this country between £15,000,000 and £20,000,000 a year on a Poor Law system which satisfied nobody. It did not satisfy those who had to administer it. It was regarded with perfect horror by the people who were supposed to benefit by it. With all the improvements of the modern workhouse, and all the attempts to humanize it that have been made, it remained as much an object of hate and horror to the poor people of this country as it did in the old days when poverty was treated practically as a crime. The corner stone of our whole Poor Law fabric at present was the workhouse, and he hoped most of them would live to see the time when the workhouse would be abolished altogether. He was glad to believe that all in the House were in favour of drastic changes, particularly in a direction which would give the child of the pauper some chance to hold its own in the world. Believing that the best foundation of national defence was to make all our people as physically, morally, and mentally stalwart as possible, he supported the bill.

Mr. A. J. Balfour, after referring to the enormous importance of the subject and the impossibility of dealing adequately with it on a Friday afternoon, said he thought Mr. Horne had been a little unjust as to the results of Poor Law administration. He said nothing had been done to lessen pauperism. There might be some branches of Poor Law in which during recent years they appeared to have gone back. That, at any rate, was the opinion of both reports, but pauperism as a whole, he believed, was less now than it was fifty years ago. Again, much had been done for the children. The relation of the proposed changes to the existing system of local government must be also seriously considered. Before throwing new duties on them, they must consider the burdens and responsibilities which already rest on county councils. The supply of gratuitous labour, great as it fortunately was in this country, was not inexhaustible; and he was anxious as to the supply of workers for new burdens. He wished to press upon the House, on both sides, the great expediency of not allowing themselves to be dragged into any controversy as between the two reports. It was almost inevitable that when a Commission of that immense industry and ability had been sitting for all those years, and had found themselves divided into two camps as to the views which they desired to put before the public, they should themselves begin to exaggerate the differences which divided them. The area over which the two reports were agreed was immense. He did not know whether the President of the Local Government Board and other competent critics of those matters would think that either report was impeccable in every respect, or that even the points on which they were agreed would afford at all events a foundation of reform against which no word was to be said. He had his doubts even about that; but, at all events, the amount of agreement was immense. The possibility of dealing legislatively with that problem without introducing that polarity of opinion, that division into parties, surely must be obvious to every one who had given even the most cursory survey to those great and historic contributions to social science. There was in connexion with that advice one particular form of criticism about which it was necessary to be careful, and he thought on the whole those who objected more particularly to the Minority Report were apt to use big words in connexion with it like "Socialism," and other expressions which, in their mouths, as in his, would be, of course, expressions of unalterable hostility. There might be—no doubt there was—a great deal to criticize in the Minority Report; but he did not think the word Socialism was appropriate, and all must be forced to recognize that that or any other modern question could not be dealt with by the simple method of labels adopted in such a light-hearted way by our ancestors whenever they were dealing with these matters. The increased invasion of the home by inspectors was advanced as an objection to the bill, but these invasions already existed, and he did not see how they were to be avoided. It was a kind of invasion f which our forefathers were entirely free. But it only necessary to look at the death-rate from wl our forefathers suffered, to see that the happy sys of family liberty which they enjoyed had its dr backs. A certain number of critics of a scheme Poor Law reform said destitution ought never to dealt with until it reached the point at which Poor Law took account of it, as it did at pres Well, he was not sure that he could subscribe to t doctrine. He did not think he should be consisten he did. After referring to the cost entailed by proposals of the bill and the want of some offi figures as to probable expenditure, Mr. Balf went on to advocate the experimental trial local authorities authorized to test some of theories propounded. He thought it would be a gr advantage. Already, he believed, under the system Poor Law relief, such as had gradually grown up, old uniformity aimed at in 1834 had complet broken down. If he was rightly informed, there w workhouses now in which there was differentiation segregation. In others all the horrors of the mi workhouse persisted. That experiment had gone under the aegis of the Local Government Board. confessed he should like to see those experime carried further. It would be a great assistance carrying out what was going to be the greatest t ever thrown upon a Government—the task of rea trying to remodel this system in accordance w modern ideas, a task which he did not believe co be undertaken in one session—in fact, not even in Parliament, and which he did not think could carried to a really successful issue unless the Minis whose unhappy fate it might be to try the experim had the assistance not merely of one of the gr parties of the State but had the co-operation and good will of all.

The Prime Minister, who spoke next, said he h the almost unique experience of agreeing with alm every word Mr. Balfour had said, and congratulat him in denouncing the doctrine of labels as an illeg mate device by which impoverished controversiali darkened the waters of debate. He agreed that Friday afternoon afforded no adequate time for de ing with so huge a problem, but it was well that t subject should be discussed. He agreed with M Balfour that, urgent and importunate as the proble was, it was well not to be unduly pessimistic. T condition of things, when we compared our o experience with that, say, of our grandfathers, six years ago, showed a very marked improvement. would not weary the House with details, but wou compare the year 1849 with 1909. In 1849 there we 62 paupers per 1,000 of the population; in 1909 the were 26; and, although it was unfortunately true th during that period the proportion of indoor paupe had been very nearly stationary, as regards outdo paupers there had been a decrease from 54 to 15 p 1,000. He did not say that the present was a sat factory state of things; indeed, it was the contra But let us not ignore the enormous advance th had been made owing to wise legislation and st more to the prudent and sympathetic administrati which had prevailed during the last two gener tions. It was true that in the same time o expenditure on Poor Law administration had rise very substantially. In 1849 it amounted to tax of 6s. 8d. a head of the population, and 1909 it had risen to 9s. a head of the populatio He also urged that the matter should not be allowe to degenerate into a controversy between the Majori and Minority Reports. There was a large area ground common to the two. He was not sure whethe it was possible or practicable to carry out the recom mendations. Both had pronounced sentence of deat on boards of guardians. If it were assumed that the were right, yet boards of guardians would be found t die very hard. With all their defects and shor comings they represented an enormous amount gratuitous and public-spirited service rendered b men and women in a long course of years who di not live in the glare of publicity, and received few

ewards which fell to those who occupied more inent positions, and who could ill be spared from work of local administration. He was old- oned, he confessed, in this matter. He noted vith some amount of doubt the substitution of tralized authority with regard to many aspects of Law administration for those who discharged uties aided by large local experience. He should ike to have a rather more accurate estimate of robable cost of the proposed changes. He would however, put a cost of three or four millions barrier if it were certain that value would be got e money. He wished, however, to point out that the report of the Commission was presented steps had been taken both legislatively and nistratively in the directions desired. The em as regards old age had been changed by the of old age pensions, which was to be followed surance against unemployment as well as against idity sickness and other hazards of industrial When those things had been provided for, as he ed they would be with the almost unanimous nt of Parliament and the country, and provided ntirely outside the area of Poor Law administra- as in the case of committees under the Old Age ons Act, and when it was remembered that during st year they had provided by labour exchanges sfactory answer to the recommendation of both Majority and the Minority of the Royal Com- on, and that, by the establishment of Trade ls, they had done something to prevent destitu- in sweated industries—when all those things taken into account it would be seen that problem, large as it was and urgent as it was, been very much curtailed in dimensions, and ry considerable advance had been made to- s dealing with particular aspects of it. He a high compliment to Mr. Burns as President e Local Government Board, who, he said, by his lar letters and orders impressed upon boards ardians and local authorities the necessity of ng with the problem of outdoor relief in the st and most generous spirit. Further, in regard ildren, he had been insisting, with all the strength h a central authority could command in dealing local authorities, on the importance of removing ren from workhouses, and, excluding the sick children under 3 years of age from workhouse eries, there remained to-day in the workhouses a very small proportion of the children charge-

The Local Government Board was pursuing campaign at present, and would pursue it in uture with even greater vigour than in the past. gard to the all-important question, the abolition xed workhouses, that, of course, was not an easy to do. These workhouses had been allowed to ; they had cost a great deal of money; they oyed very large staffs; and sometimes the whole m of local administration for the last fifty years een based upon the assumption that they would nue to exist. No administration could abolish by a stroke of the pen. All that could be was what his right honourable friend had doing for four years—to encourage the lians to adopt a system of classification. In hese ways, first by legislation, next by ad- stration, strenuously and persistently pursued, ought they might fairly claim to have somewhat nished the dimensions of the problem. They had so with practically universal assent. He thought ange of Government or any alteration in the dis- tion of political parties would prevent the prose- n of that work. He recognized to the full that and far-reaching changes must still be made e the treatment of these complicated and inter- dent problems—unemployment, destitution, pro- n for the aged, the sick, and the young—could be ght into harmonious relations and dealt with on d principles which were not sapping independence, ncouraging the resort to public relief, but at the time secured that the community should be saved the scandal of unmerited suffering or misfor- necessitated by humiliating conditions which were of no advantage to the individual concerned, and reflected nothing but discredit on the State. The object and purpose of this bill was to carry out these principles, and he believed that was the intention of its promoters. With them the Government were in hearty sympathy, but he was sure his hon. friends who had been so assiduous in the promotion of this legislation would not expect him to say that a bill with 95 clauses and three schedules ought to receive the assent of the House of Commons that afternoon. He trusted they would continue in the country outside to arouse public opinion in every direction, and to supply facts and arguments which would inform those who were perhaps sluggish in their sympathies or contracted in their knowledge as to the urgency of these problems. So far as he knew the temper of the House of Commons, the moment they were able to address themselves with free hands and full opportunity to the solution of the urgent problems which remained unsolved, he believed they would carry with them not the support of this party or of that, but the practically unanimous support and sympathy of the nation as a whole.

The unusual occurrence followed of a second Minister following the Prime Minister when Mr. Burns rose to speak. He pointed out that the Bill before the House was the legislative expression of the Minority Report, and was diametrically opposed to what the Majority desired. The Majority of 14 required that there should be one public authority for all aspects of public relief or public assistance. The Minority of the Commission, however, were anxious, in their own phrase, "to break up the Poor Law." He thought that expression would do their cause some harm. They wanted to break up the Poor Law, to "scrap" the guardians, and to institute instead what they thought would lead to simplicity, co-ordination, and to economy. As expressed in this bill he thought it would not lead to the desired simplicity, but rather might lead to confusion, to dissipation of public money, and probably to loss of the services of a number of people who were able to give their time to a single public authority dealing with all the different branches of relief. They could not hope to give up time for the Education Committee, the Mentally Defective Committee, the Public Health Committee, and the Pensions Committee. Then there was the Ministry for Labour, whose functions were set out with considerable detail. There was a great difference between one public authority and five committees *plus* the Ministry for Labour. He dissociated himself entirely from the pessimistic criticisms by some of these reformers of the work of the guardians in the past. Now when the Poor Law guardians were, as it were, under the shadow of the guillotine and about to be executed, it was only right and proper that some one should put in a word for what the guardians had been able to do for pauperism. A great deal of nonsense was being talked about this subject. Nightly he was asked to abolish the guardians. He wanted to point out to the House that, after sixty years of the guardians' administration, pauperism had dropped from 62 to 26 per 1,000: outdoor pauperism from 54 to 16, and child pauperism from 26 to 7 per 1,000; able-bodied pauperism had fallen from 12 to 2, whilst indoor pauperism had remained stationary. It must be remembered, too, that all the pauperism of to-day was not the pauperism of the workhouses when they were properly termed "Bastilles." The cost per head of indoor paupers had risen from £7 18s. to £13 5s., while outdoor pauperism had been raised from £3 11s. to £6 1s. 5d. The vast differences between those sums indicated not only greater humanity, but also a number of things which were creditable to the community as a whole. He would give an instance. In 1849 there were only 200 paid professional nurses in the whole of the Poor Law service in England and Wales, and he was afraid some of them must have been of the Mrs. Gamp type. Those 200 nurses had now been expanded into 6,500 paid professional nurses, unequalled in many outside institutions and excelled by few. In London 50 per cent. of the total indoor poor were in special institutions,

such as infirmaries, aged wards, and aged people's homes, while in the provinces 40 per cent. were in special institutions. Mr. Silvester Horne had very properly referred to the child aspect of the problem. To-day, 94 per cent. of the children in Poor Law institutions were outside the ordinary workhouse walls. Out of 66,000 children under the indoor Poor Law system, only 650 were being now educated in workhouse schools. The rest, he believed, were in elementary schools, district or special schools. The extent to which the guardians had gone in ministering to the children was indicated by one simple fact. There was one institution which showed the scale upon which some boards of guardians dealt with the children. This institution originally cost £186,000, and it required £35,000 a year for the maintenance of 723 children. The gross cost per week per child was 19s. 2d. What a difference to the treatment in workhouse schools in the Oliver Twist days! If the question arose whether this expenditure of public money and concentration of energy upon the care of children paid, there was a short answer. Opening a new building for the Anerley Poor Law Schools he learnt—and he had officially confirmed the fact—that of 12,732 London Poor Law children who passed through Poor Law schools in ten years only 55 were returned by employers to whom they were sent. Facts, figures, and statements like these indicated that there was a new atmosphere in which the Poor Law was administered, and there was no longer the want of sympathy that formerly existed. While talking of remedies and palliatives, the causes should be borne in mind. Much of the evil was due to drink, directly and indirectly. A medical officer of a large London infirmary had told him that in twenty-five years' experience he had had over 100,000 men and women passing through his hands, and of the whole he did not think there were more than a dozen teetotalers. We could not ignore the fact that in the seventy-five years in which boards of guardians had been at work only 600 millions had been spent on Poor Law institutions—just about four years of our gigantic drink bill. He trusted that those who approached this question would see that the aged poor problem had been considerably modified by the passing of the Old Age Pensions Act, that the sick poor problem was rapidly being assimilated to the standard adopted by the outside hospitals, and that the Poor Law child problem was on its way to a successful solution. He would it were possible for the Local Government Board to interpose between the parent and the child. The department had no power to do this, though it would be better for all concerned if the parent and the child were separated. He wished it were possible for him to transfer at once some 15,000 or 20,000 Poor Law children to our Colonies, where homes were waiting for them in which they would be treated, not as servants or as drudges, but rather as companions. But he was unable to do that because the consent of the parent was absolutely essential. It was also a matter of regret that there were thousands of parents who never troubled to look properly after their children until they reached a wage-earning age. The problem was a difficult one to solve, but he thought they ought to find out a way to prevent the fine boys and girls who had been educated for eight or nine years in a Poor Law school and brought up in a healthy cottage home being returned to the slums and probably to theft and degradation. Anything he could do to achieve that result, either by administration or by legislative enactment, the House might depend upon him doing. The right honourable gentleman, the Leader of the Opposition, had asked him to give some estimate of what the cost of this bill would be. Personally, he thought it would be nearer ten or twelve than the five or six millions that had been mentioned. Lord George Hamilton, to whom the thanks of the community were due for his five years' devoted labour as Chairman of the Poor Law Commission, had stated that the adoption of the Bill would involve an addition of something like £18,000,000 per annum to the existing expenditure, or, in all, £33,000,000. He knew the Minority members did not accept this estimate, but his own view w that Lord George Hamilton was nearer the truth th were the supporters of this bill. London spent nea £4,000,000 per annum on its Poor Law, but that w a small proportion of the total amount that was spe in public and private charity. Neither the Minor nor the Majority Report made adequate provision the rivalry between outside public charities and t overlapping that ensued to an almost inconceiva extent. There were 1,960 institutions in London w a revenue for public charity of £12,000,000 per annu But much of that charity was used for what w really Poor Law purposes—infirmary and hospi work, special and general relief for many forms destitution, children's homes, aged poor homes, and forth. The King Edward Hospital Fund deserved t thanks of everybody for seeing that the public g better value for the money that was so generou subscribed, and the Association of Subscribers Charity were to be congratulated upon the efforts th were making to prevent the waste of so much of t money that was spent in public and private chari The Local Government Board, the King Edwa Hospital Fund, and the Association of Subscribers Charity ought to act together to see that the generc public were not exploited, and for the prevention fraud, waste, or extravagance. So far as his depa ment was concerned, they would do everything in th power to co-ordinate private and public charity, a to see that charity wisely and properly directed.

Mr. Hicks Beach rose to continue the debate wh five o'clock struck, and the debate was adjourned a the House rose.

Milk Legislation.

Late on Thursday night last week the London Coun Council (General Powers) Bill came on for seco reading, and gave rise to an interesting debate on t milk clauses. The agricultural members in the Hou opposed Part VI of the bill, which deals with mi supply, and is designed to protect the public fro impurity in milk. Last year the battle was foug over the same points, and this year again, aft moving the rejection of the whole bill, the opponen were finally successful in carrying an instruction omit Part VI.

Mr. Courthope defined the position of the opponen as only directed against piecemeal legislation. Th fully admitted that legislation was necessary, b they objected to the form it took in the Lond County Council Bill. The proposals might preve bad milk being sold in London, but it would be se and sold elsewhere, and what was needed w legislation to prevent it being sold anywhere.

Mr. Walter Guinness spoke in favour of the bi and contended that London, on account of i enormous milk consumption, required special a immediate protection.

The President of the Local Government Board sa that legislation was necessary to secure the purity the milk supply of London, and that tuberculo disease was the great source of danger. He believe this could be stamped out in animals more quick than it was being stamped out in human beings, a that in thirty years the disease would be almost scarce as typhus and typhoid now were. He did n regard the power to take samples in transit as at all dangerous power. In the Manchester and Cheshi districts, where milk was subject to inspection, th authorities, instead of harassing the farmers, ha increased the trade in milk, and had diminished fro 28 per cent. to 5.7 per cent. the amount of tuberculos and other infections. He agreed that the question the milk supply should not be treated piecemeal. La year he did everything in his power to bring in a Mil Bill of general application, but last session was take up with other questions, and the time of this sessio was also otherwise fully occupied. The inferenc which London people would draw from the oppositio of agriculturists to dirty and diseased milk being kep out of London would be that it was to the interest the farmers to sell that milk.

Mr. Walter Long attacked the President of the Local Government Board for not promoting general legislation. He had proved that the Government ought to have dealt with it as a whole. He had produced evidence to show that similar clauses had worked well, and he had made it clear that there was widespread necessity for legislation. Yet he could not legislate. Last year there was not time, this session they were otherwise engaged, and he therefore felt that it was a most brazenfaced speech to be delivered by a Minister. Colonel Lockwood and Mr. Courtney Warner objected to the proposed milk clauses, and on an instruction they were finally deleted from the bill by 180 to 81, and the debate stood adjourned.

Death from Starvation.—Dr. Addison asked the President of the Local Government Board last week if his attention had been directed to the death of a child in whose case the medical evidence at the inquest showed that death was due to inanition accelerated by the starvation of the mother, and upon which the jury added a rider to their verdict to the effect that the allowance of food should have been more liberal, and should have been continued longer. Mr. Burns replied that he had been in communication with the Shoreditch guardians about the case. It appeared that on January 13th, two days after the birth of his child, the father applied to the relieving officer for relief, and that bread, sugar, oatmeal, and milk were supplied. On January 17th he made another application, and food was again given by the relieving officer. The father did not apply again for relief. The guardians had again inquired into the case through a committee, which reported that it regretted the circumstances and particularly that more adequate relief was not given in the case, and that it was not watched for a time by the relieving officer, but that blame attached to the father in that he did not renew his application.

Notification of Births Act (Scotland).—In reply to Mr. Vivian the Lord Advocate stated that he was informed that twenty-three local authorities in Scotland had already adopted the Act referred to, while four had resolved to do so this year. The infantile mortality-rate depended so much upon the yearly weather conditions and the incidence of epidemic disease that it was not as yet considered safe to base upon its variations any inference as to the effect of the Notification of Births Act. The names of the local authorities were as follows, the four in which the Act was to become operative this year being marked with an asterisk:

Burghs.—Edinburgh, Glasgow Govan, Stirling, Paisley, Greenock, Partick, Renfrew, Leith, Falkirk, Kilmarnock, Dundee, Govan, Kirkcaldy, Musselburgh, Irvine, Hamilton, Motherwell, Port Glasgow, Aberdeen, Pollokshaws, *Inverness, *Ayr.

County Districts.—Kirkcaldy District of Fife, Lower Ward District of Lanark, Upper District of Renfrew, *Middle Ward District of Lanark, *Dunfermline District of Fife.

Experiments on Living Animals (Licences).—Mr. Vincent Kennedy asked the Secretary of State for the Home Department if he would state what authority issued licences and certificates to experiment on living animals; and what were the respective charges for same. Mr. Churchill answered that licences were granted by the Secretary of State. Certificates were given by the scientific authorities named in Section 11 of the Cruelty to Animals Act, 1876; they were not available until a week after copies had been sent to the Secretary of State, who might disallow or suspend them. There was no power under the Act to charge fees for either licences or certificates.

The Tuberculosis Commission.—Mr. Charles Bathurst asked the President of the Local Government Board whether the Royal Commission on Human and Animal Tuberculosis, which was appointed on August 31st, 1901, was still pursuing its investigations in reference to the communicability of bovine tuberculosis to human beings; and, if so, whether, in view of the urgent importance of the questions referred to the Commission, especially in their bearing upon the production and distribution of milk, and of the fact that no report of the Commission had been issued since the Third Interim Report of January, 1909, he would urge the Commission to present a fourth interim or a final report with as little delay as possible. Mr. John Burns replied that he understood that it was not the intention of the Commission to issue any further interim report; it was now engaged in considering the results of the experimental investigations and drafting the final report, and hoped that it might be possible to present this in the course of a few months.

Sanitation and Water Supply in Wales.—Mr. Rees asked the President of the Local Government Board whether he had in contemplation any scheme for the improvement of sanitation and water supply in villages in Wales. Mr. Burns said that it was not the province of the Local Government Board itself to make schemes for the improvement of sanitation and water supply. Under the Public Health Act, 1875, and other Acts, the necessary powers for these purposes were vested in the urban district councils and rural district councils. The Board had sanctioned many loans for such improvements in villages in Wales, and applications for sanction to further loans were under consideration. The Board was doing what it could to urge and encourage local authorities to carry out such schemes where they appeared to be necessary or desirable.

Cow-pox Outbreak.—Mr. Keir Hardie asked the Secretary of State for the Home Department if he could now state the result of his inquiry into the outbreak of cow-pox at Vale Farm, Pinner Road, Sudbury, as a result of which four persons contracted the disease; and whether he could state the decision he had come to with regard to the advisability of extending the Workmen's Compensation Act to cover this and other diseases of a similar nature. Mr. Masterman replied that the Secretary of State had communicated with the Local Government Board and the Board of Agriculture, and had received reports from which it appeared that the outbreak was one of cow-pox. The effects, however, on the workmen, as described in the particulars which the hon. member was good enough to send to him, seemed to have been exaggerated. The Secretary of State understood that the elder Wigmore was off work three weeks, during which time he received half wages, that he did not go to a hospital, and that he was now recovered, and that the younger Wigmore was only slightly affected and off work for three days. The question of adding this disease to those included in the Workmen's Compensation Act was being considered in consultation with the other departments, but no decision had yet been made.

Hemel Hempstead Workhouse.—Mr. Morton last week put a record question of some 400 words, extending to 28 lines, with only one fullstop at the end. He wanted a public inquiry held into the case of Nurse Bellamy, who had been concerned in a death occurring after a bath at the workhouse, and had, Mr. Morton indicated, been wrongly treated. Mr. Burns said, in reply, that the circumstances connected with the lamentable bathing fatalities which occurred at the Hemel Hempstead Workhouse at the beginning of October were most carefully investigated by officers of his department, and received his close personal attention. The letter addressed by the Board to the guardians and to the Workhouse Nursing Association on December 8th indicated the considered conclusions of the department, and he had seen no reason to depart from them. The guardians had now entirely reconstituted the nursing staff, and he did not doubt that the action which had been taken would prove effective. He was satisfied that no advantage could result from further inquiry into the circumstances, which occurred six months ago, and had already received the fullest investigation, and he was not prepared to direct such inquiry. He had, of course, no jurisdiction or responsibility with regard to the proceedings before the coroner,

nor in connexion with the subsequent prosecution. In answer to further questions by Mr. Morton, Mr. Burns said he had given the case very close and serious consideration, and he did not think, in justice to Nurse Bellamy, that her friends were well advised in pressing for a reconsideration of her case.

WORKMEN'S COMPENSATION AND MEDICAL EVIDENCE.

A PAPER on the first line of defence in the Workmen's Compensation Act, 1906,[1] read by Dr. R. J. Collie before the Life Assurance Medical Officers' Association, has been issued as a pamphlet, and will well repay the time spent in its perusal, for it raises certain questions which must engage the attention of the profession. Dr. Collie is very outspoken, and the very title conveys the suggestion that protection is required for certain people; later on the impression to be gathered is that in his view the employers and assurance companies are the parties whose interests need safeguarding. "Skrimshanking employees" are held to be in want of restraint, and county court judges without understanding of matters medical in want of guidance. A consideration of the Blue Book on "Statistics of Compensation and Proceedings under the Workmen's Compensation Act, 1906," leads Dr. Collie to the conclusion that the employer's chance of success in an arbitration under the Act is five to one against him. In order to diminish the hardships now suffered by the employer, Dr. Collie gives his adhesion to the suggestion that candidates for employment should be required to submit to a physical examination, and that this examination should be repeated at certain stages. The statistics of the number of examinations for entry into the service of the London County Council and Metropolitan Water Board during the five years under review show that out of a total of 5,628 candidates 570 were rejected for various defects; 273 of these were rejected for defects of vision, 57 for albumen in the urine, 46 for hernia, and the remainder for different disorders ranging in numerical importance from heart disease (40 cases) down to goître (2 cases). These figures make out a good case from the employers' point of view for a preliminary medical examination. The objections offered by some bodies of workmen to this examination hardly apply to the public bodies served by the author, as both employer and employee contribute to a provident fund which makes provision for superannuation purposes. Of the 70 workmen's compensation cases in which the London County Council was concerned, 75 5 per cent. were settled out of court and 24.5 per cent. went to trial; of the latter, 81.3 per cent. were determined in favour of the employer and 18.6 per cent. in favour of the employee, a result which Dr. Collie considers satisfactory. He recommends also an alteration of the law requiring the county court judge to call in a medical assessor on the demand of either party to the suit; at present he may do so "if he thinks fit." If the parties were given the power suggested Dr. Collie believes that "much of the wickedness which I have endeavoured to expose would be a thing of the past," and he adds: "Until the law is altered cases will be decided as they now are, to the moral degradation of the working classes."

We have heard of individuals in the higher ranks of society making claims which, to use language less forcible than Dr. Collie's, were exaggerated; but though we may not be able wholly to share his belief that his proposal would bring about the final triumph of justice as between employer and employee, yet we must admit that cases have been brought to notice which go to prove that medical men are sometimes too apt to play the part of advocate for the patient rather than that of impartial expert adviser. Some of the claims set up undoubtedly rest on pathological speculations more ingenious than convincing; and we may sympathize with the judge who, being invited to accept the theory that a hydrocele was traceable to the loss of an eye, congratulated himself on being able to decide the case without deciding the theory. But there are other cases which cann be decided on a secondary issue; and in man if not all of them, the cause of justice would b better served if the county court judge called in th medical referee as assessor. In a case which wa heard recently the claimant alleged that as the result of blow on the chest he suffered from pericarditis from Ma to August, and that his heart was hypertrophied and dis placed. The medical evidence was conflicting; on th one side were two medical men who, after thoroug examination of the heart by the ordinary methods and b the screen, came to the conclusion that there was n evidence of pericarditis, and that the heart was normal a to position and size. The medical evidence on the othe side was to the effect that the heart was hyper trophied and displaced, and if the man attempted to worl he might drop down dead. On which side medica truth lay could at once have been ascertained by the medical referee, but the judge did not think fit t make use of his services, and decided that the man was suffering from the cardiac disorders alleged and therefore unable to work. Yet other cases occu which, *prima facie*, raise the suspicion that the medical man advising the claim is something more than partial and prejudiced. We can only say incidentally that if collusion were proved the matter would be dealt with severely by the courts, with possible consequences to the delinquent practitioner's position which would be disastrous to his future. But apart from deliberate evil doing, there is no doubt that if it became known that a county court judge would make it his practice when a direct conflict of medical evidence arose to call in the medical referee as his assessor, more care would be exercised in preparing and bringing cases before the court, and in the end justice would be better served.

The reading of Dr. Collie's paper, to which we have referred in the beginning of this note, was followed by an interesting discussion, and the following resolutions were adopted:

> In view of the difficulty experienced by judges, counsel, and juries in setting a correct value upon medical evidence, this association is of opinion that in all trials involving medical points a medical assessor, or referee, should assist in the conduct of the court. It is our opinion that by this means injustice would be avoided and time saved.
>
> That it would be advisable that the association should draw up a schedule of payments for permanent disabilities, based upon practical experience of the varying effects of certain definite injuries in different classes of employment.

[1] *The First Line of Defence in the Workmen's Compensation Act, 1906.* By R. J. Collie, M.D., J.P. Reprinted and revised paper read before the Life Assurance Medical Officers' Association. C. E. Gray, Printer, 32, Kennington Park Road, S.E.

THE INTERNATIONAL MEDICAL CONGRESSES.

MEETING OF THE BUREAU OF THE PERMANENT COMMISSION AT THE HAGUE.

To vote in favour of organization and to bring such organization into being are two very different matters. At the last International Congress of Medicine which met at Budapest every one was of opinion that a permanent international body should be elected to manage forthcoming congresses. This was done. The newly-created authority was called the Permanent International Commission of the International Congresses of Medicine. As this Commission was to consist of a delegate from each National Committee, of the Presidents and Secretaries of former congresses, and President of the International Association of the Medical Press, it was obviously too cumbersome a body to meet frequently. Therefore an Executive Bureau was appointed, and this Bureau met for the first time at The Hague on March 29th and 30th last. The capital of Holland was selected at Budapest as the headquarters of the International Organization for the Medical Congresses, and we are now informed that the Dutch Government has promised an annual subvention towards the expenses of the Bureau. The Government also contemplates building at some future period suitable premises for this institution. In spite, however, of such encouragement, it must be confessed that the first meeting of the Bureau was not altogether satisfactory. The General Secretary (Dr. Wenckebach), elected to this post at Budapest, hardly had time to get into harness before he concluded that he had better resign the position. Consequently the first business of the Bureau was to elect a new General Secretary.

Dr. WENCKEBACH said he must resign because the office is at The Hague, and he lived at Gröningen; thereupon Dr. Burger was elected in his stead, though this gentleman lives at Amsterdam, and this scarcely improves matters. Consequently, a residential secretary (Dr. van den Haer), who really does live at The Hague, was also appointed. Having thus overcome this difficulty, the Bureau unanimously decided that French should be its official language, and forthwith proceeded to listen to several speeches delivered in German. Then an enormous amount of time was lost by the Hungarian delegate (Professor von Grosz), who wanted Dr. Wenckebach and Professor Waldeyer (Berlin) to be elected honorary members of the Permanent Commission, though there is no rule that sanctions the election of honorary members. Professor Waldeyer was elected at Budapest as the representative of Germany on the Permanent Commission, but now desires to resign, because of his age and occupations. Professor von Grosz wished to accept the resignation, but to nullify its effects by making Professor Waldeyer an honorary member, thus giving the German National Committee two representatives on the Permanent Commission, while all the other national committees would have but one representative.

The Bureau did not venture to decide many points, but it did reject a proposal that Spanish should be recognized as one of the official languages. Also, and in spite of the strong opposition of the General Secretary, it decided that, generally speaking, only qualified medical practitioners should be admitted as members of the International Congresses of Medicine. This excludes dentists who are not holders of medical diplomas. Then a motion was adopted requesting the British organizers not to hold the next medical congress before the first days in August. Many professors, notably in Germany, are retained in their schools till the end of July. In regard to the Bureau itself, it was proposed that, at the conclusion of each International Congress of Medicine, the National Committees should meet at once and, then and there, elect a representative on the Permanent Commission. The Permanent Commission, thus reconstituted, must also meet and elect its Bureau. If this is to be done properly there must be no rushing away the moment the Congress terminates. Under those circumstances, the closing ceremony should take place in the morning. The afternoon could then be devoted to the meetings of the National Committees and of the Permanent Commissions. Consequently the excursions must not start till the day after the closure of the congress.

Dr. Lucas-Championnière, President of the International Association of the Medical Press, unfortunately could not attend the meeting of the Bureau, but he appointed Dr. R. Blondel, who is the delegate of the French National Committee, to speak on his behalf. Dr. BLONDEL, therefore, introduced the proposal emanating from the British Association of the Medical Press, that the organizers of medical congresses should avail themselves of the existing associations of the medical press in respect to the communications to be made to the press at large and to the general public. Strange to say, however, both the former and the new general secretaries, Dr. Wenckebach and Dr. Burger, offered the most strenuous opposition to any such suggestion. They even went so far as to say they would resign at once if such a proposal was carried. Yet it is obvious that no one in England will believe that Dr. Burger knows exactly what to do when communicating with the British press; and if, through some unlikely chance, he should be especially well informed in regard to journalism in this country, we absolutely refuse to believe he is equally well versed in regard to the press, shall we say, of the Ottoman Empire, of Italy, of Japan, and the United States of America. Obviously it is the organizations in those countries, especially the press organizations where such fortunately exist, that must help. In spite of these obvious facts, Dr. Blondel's proposal was rejected. Yet the newly-elected General Secretary, who professed to know more about the press of the world than the International Association of the Medical Press, an organization about which he spoke in a somewhat rude manner, was quite incapable of dealing with subjects much more closely related to his own special business. For instance, there was an important report by Professors Waldeyer and Posner of Berlin on the composition of the National Committees that prepare for the congresses. The French delegation proposed that there should be only two or three general reports presented to each of the sections at the congress; that all the National Committees should appoint reporters on these questions, and that the conclusions should be printed in three languages. Another motion was to the effect that the Permanent Commission should consult the National Committees before the final issue of new rules to regulate future congresses. There was also a recommendation from the British Association of the Medical Press that the Bureau should possess the right of rejecting papers which were not original or had but little merit. The General Secretary, it was said at Budapest, should be familiar with the three official languages and should have had a lengthy practical experience of international medical and scientific congresses. Therefore the questions enumerated above should be thoroughly familiar to him, as, indeed, they were to the other members of the Bureau. Nevertheless, all these proposals were brushed aside on the ground that there was not time for the General Secretary to study them. In vain did Professor Posner and Dr. Blondel protest that all present were fully capable of dealing with such questions, and had travelled expressly to the Hague for that purpose. The Dutch and the Hungarians, acting in consort, bore down this resistance. The General Secretary only undertook to consider the proposals and prepare a report on them which would be submitted to a general meeting of the Permanent Commission. Now the Permanent Commission should be convoked, it was urged, at an early date and in England. The object of meeting in England is to have the local organizers of the next congress close at hand. The need of an early meeting is due to the fact that, for one reason or another, the Bureau meeting at the Hague did not succeed in getting a proper grip of the business that should have been taken in hand. Perhaps a larger and more representative assembly will manage better.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

THE deaths from plague in India during the following periods in 1909 and 1910 were as follows:—1909, December 18th to 31st, 13,181. During 1910, January, 51,437; February, 67,426; March (to 5th), 15,365. Plague has been particularly virulent in the United Provinces, where during the period from December 18th, 1909, to March 5th, 1910, the weekly mortality from plague numbered 3,582, 3,200, 5,341, 5,492, 5,085, 6,290, 6,601, 6,700, 7,420, 7,936, 8,260 respectively, or a total of 65,907 during the period in question. The Punjab also suffered severely, where between December 18th, 1909, and March 5th, 1910, 27,728 persons died of plague.

CHINA.

During the autumn of 1909 plague was rife in Hankau, but no statistics are available. In Amoy, between October 23rd and 30th, 1909, 40 fatal cases of plague were reported, but on August 31st the epidemic was believed to be over.

JAPAN.

In Kobé, between November 1st, 1909, and February 1st, 1910, 80 cases of plague occurred; and in Osaka, between October 20th and November 30th, 1909, 12 cases were reported. In no other Japanese towns has the outbreak of plague been other than sporadic. In both Kobé and Osaka, however, the disease has gradually lessened in virulence, and only a few cases were reported in Kobé during January, 1910.

INDO-CHINA.

In Saigon, during November, 1909, 3 cases and 3 deaths from plague were reported.

SIAM.

In Bangkok, during October and November, 1909, 5 cases of plague and 5 deaths from the disease were reported.

MAURITIUS.

Between January 1st and April 7th, 1910, the fresh cases of plague in Mauritius numbered 105 and the deaths from the disease amounted to 91.

TURKEY.

From Syria (Alexandrette) 3 cases of plague were reported on November 30th. At Beirut 2 cases of plague were reported during the first week of December, 1909. At Jiddah, between January 5th and 15th, 1910, 2 persons died of plague.

EGYPT.

From the Provinces of Assiout, Beherach, Beni Souef, Menouf, Gizeh, Kena, Fayoum, Galioobeh, and Garbieh sporadic cases of plague have been reported from time to time during the months of November and December, 1909, and January, 1910, but in no instance has the outbreak been severe. In the towns of Cairo, Alexandria, and Port Said a few cases only of plague during the same months were reported.

England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

MANCHESTER AND DISTRICT.

THE ETHICAL RELATIONS BETWEEN CONSULTANTS AND GENERAL PRACTITIONERS IN MANCHESTER.

IT has been felt for a long time in Manchester that the ethical relations existing between consultants and general practitioners ought to be put on a more systematic basis. There is no reason for thinking that Manchester is any worse off in this respect than other large towns where the stress of competition is equally great, but there is no hiding the fact that there does not exist the degree of friendly confidence between the two branches of the profession which is so eminently desirable. Consultants, on the one hand, are often suspected, perhaps without sufficient reason, of not doing anything to prevent that hospital abuse which is so seriously damaging general practice in Manchester and the district. What is still worse, there have been not infrequent complaints that some consultants are too ready to appropriate the patients of other practitioners. On the other hand, consultants complain that general practitioners are often responsible for cases of hospital abuse, as they are apt, when they have a troublesome patient who begins to show dissatisfaction at his progress, or a difficult case where a second opinion is wanted, to send him off to hospital instead of to a consultant, regardless of his pecuniary circumstances. It is further complained that general practitioners have often not the common courtesy to acknowledge or reply to letters from consultants. It would be futile to deny that there is some truth in these charges from both sides; but out of a large number of cases that have been examined, only a small proportion are without some reasonable explanation. It is sometimes said that ethical rules only need to be made for the lowest class of practitioners, who would drive a coach and four through any rule that could be made, but whatever truth there may be in this, it is quite certain that consultants and general practitioners who are most anxious to do the right thing, and who would much rather lose a patient than be guilty of injuring another practitioner, have often caused offence quite unwittingly and from simple ignorance as to the correct mode of procedure under certain circumstances. The Joint Committee of the Manchester and Salford Divisions fully recognized this some time ago, and determined to make an attempt to arrive at a common agreement as to the proper course of action in certain circumstances which frequently occur. Accordingly, each of the five Divisions of Manchester and Salford was requested to appoint three consultants and three general practitioners, and the committee thus formed met several times. The special report of the Central Ethical Committee on the ethics of medical consultation was carefully considered, and all the rules suggested in that report were approved with two modifications. First, with regard to the rule that states that it is the duty of a practitioner to refuse to meet in consultation "any practitioner whose conduct has after due inquiry been declared *by some recognized body of the medical profession* to be detrimental to the honour and interests of the profession," etc. Here the words in italics were altered to read "by the recognized ethical tribunal of the British Medical Association." Again, the rule that if a practitioner receives an application *to act as consultant* from any person other than the attending practitioner of the patient, he shall not see the patient without the consent of the attending practitioner—here the words "to act as consultant" were altered to read "to visit and examine a patient as consultant." This is an important alteration, and necessitated some further rules, which are considered below, but with these two exceptions all the rules suggested in the report of the Central Ethical Committee were adopted without any modification. It was thought, however, that the ru made no satisfactory provision for several frequen occurring cases which perhaps more than any oth had led to trouble. The suggestions of the Cent Ethical Committee about what are called "pure c sultants" were considered, but it was thought th however desirable it might be that consultants shou never see patients except in co-operation with anoth practitioner—that is, that they should always act "pure consultants"—it was impracticable to insist this, at any rate at present. This being agreed unanimously, the question remained, What is the du of a consultant when a patient presents himself at t consultant's rooms without an introduction fro another practitioner? In some cases there may be other practitioner in attendance; there may, perhap be a family doctor, but the patient may have son disease which he is anxious to conceal from his famil and he accordingly prefers to consult a medical ma who is a complete stranger. In other cases the patie is being attended by a private practitioner, but he not satisfied for some reason, and desires a secon opinion without the knowledge of the attending pra titioner. Cases like these are always apt to caus difficulty and trouble between medical men whenev by any chance they become known. The committe did not feel itself to be in a position to recommen that consultants should refuse to see such cases even to insist on communicating with the attendin practitioner, and after careful consideration th following rules were adopted in addition to the rule of the Central Ethical Committee:

1. When a patient who has not previously been seen in con sultation calls on a consultant at his rooms without introductio by a general practitioner, inquiry should be made in every cas as to whether the patient is, or has been, during that illnes under the care of any practitioner.

If it is ascertained that the patient is not at the time unde the care of another practitioner, there is nothing ethically wrong in the consultant prescribing at his rooms for th patient.

But it is inadvisable for any practitioner who wishes recog nition as a consultant to attend any patient at the patient's own home except in co-operation with a general practitioner.

2. It is the duty of the consultant to use every endeavour to persuade the patient to allow him to communicate with any attending practitioner; but should the patient refuse this permission, the consultant has the right to make an examination and to give an opinion, but not to undertake the treatment of the case.

These rules having been adopted by the special committee of consultants and general practitioners, and having also been approved by the joint committee of the Divisions, have been referred to the separate Divisions for final consideration; and it is hoped that if some uniform code of rules can be made for the whole of Manchester and Salford, it may do much to prevent the difficulties that have occurred in the past.

SHEFFIELD.

THE OPEN-AIR SCHOOL.

THE report of the school medical officer (Dr. R. P. Williams) on the open-air recovery school founded by the Education Committee of the city of Sheffield is interesting. The methods employed were similar to those in use at the schools of the London County Council, and the results also have been similar. The school was an old one, situated about four miles from the centre of the city. Its use had been discontinued, and for the purpose of the experiment it was fitted with shower baths and cooking apparatus and a number of deck chairs. The children were selected from schools in slum neighbourhoods in the centre of the city. They were taken to the nearest tram terminus in a city tramcar, thence by chartered wagonettes to the school, a further mile and a half. This distance had to be walked by the children on the return journey; as it was found to involve a certain strain, it influenced the selection of the children in that the feeblest of

could not be admitted. Fifty cases, the bulk hem suffering from malnutrition due to dental ase and generally bad hygiene, were selected. tal treatment was undertaken after the children been admitted, and we note that Dr. Williams ises that in future this should be completed before school is opened. The curriculum was, from the dpoint of ordinary book education, very meagre, y three and three-quarter hours being devoted to alled intellectual work, the rest of the day being oted to nature study, singing, breathing exercises, dening, housewifery, two hours' sleep, and, most portant of all, personal hygiene. Washing and th-brush drill were taught in such a thorough nner that the children became models of cleanli- s, and we are told that it was a great treat and ard for meritorious conduct to be given an extra h. A cheap but liberal diet was provided at a cost only half-a-crown a week. The results were so couraging that the school is to be continued on a ger scale during the coming summer. The average n in weight was 5.9 lb. during the seven months ne to October), against the average gain in weight the child at the ordinary school of 2.4 lb. There s also a great improvement in carriage and in chest asurement. The school mistress reports that there s a most striking alteration in the character of the ildren. They evinced less selfishness during games, d what is, perhaps, even more remarkable, at meal aes. In fact, they showed evidence that, as a result the school life, they would make better citizens the future. Although in half the cases the teachers the city schools reported that on return to ordinary ools the children had lost ground from the point view of educational attainments, yet most of them splayed increased mental alertness. The medical d educational position of these open air schools ems to be placed beyond all reasonable doubt, t it will be more satisfactory when a further port on the permanent results is published as omised.

It is somewhat early to hazard any opinion as to e bearing of these results on the educational ques- on. The cost is likely to prevent a very extensive e of these schools. The total cost of this school was er £366, including £88 for equipment, some of which ill be available for future years. Though the cost heavy, yet it will be noted that it is not spending oney on keeping alive the unfit. Most of the ildren would not die if left alone, but would grow ineffectives and would probably swell the pauper opulation. Although there should be an increase in e number of these schools, yet it is not along these nes alone that the influence of the movement will felt. It will probably assist in the movement gainst the system of "cram," as what is desired from lucation is increased mental alertness and not the esent "educational" attainments. The rational con- equence would appear to be to make all schools as uch like the open air schools as possible, and this will volve some radical alterations in school architec- ure. In the provincial towns with municipal trams might even be found cheaper to take the children at of the city in the morning by the stream of empty ars which have taken the working population to the ty than to build schools on expensive city sites. he open air school movement is one that will be eenly observed by all students of national degene- ation, or, let us hope we may now say, national egeneration.

THE BRITISH ASSOCIATION.

The meeting of the British Association in Sheffield ill begin on Wednesday, August 31st, when the resident, the Rev. T. G. Bonney, F.R.S., Emeritus rofessor of Geology in University College, London, ill give his opening address. The first evening iscourse will be delivered on Friday, September 2nd, y Professor William Stirling, of Manchester, on types f animal movement. The conference of delegates of orresponding societies will meet under the chairman- hip of Dr. Tempest Anderson, of York. The meeting ill terminate on September 7th.

Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

ABUSE OF THE RED TICKET SYSTEM.

AT the last meeting of the Board of Guardians of the Castlebar Union, the dispensary medical officer, Dr. J. Hopkins, in submitting his dispensary books and tickets for inspection, called attention to the unprecedented number of 1,333 cases attended in the last year. He said that many cases of abuse of visiting tickets occurred, and that many persons attended at the Castlebar Dispensary from other districts and obtained tickets by giving bogus names and addresses. After some discussion, Dr. Hopkins added that the blame for this state of affairs really lay with the guardians, who gave tickets to their customers, and that in some shops, if a person bought sixpence worth, a ticket for the doctor was also issued.

This abuse of the red ticket system is by no means confined to Castlebar, and it may be of interest to medical officers to know that fees are recoverable from the issuer of a ticket if it can be clearly proved that the ticket has been negligently issued without due inquiry, or given to a person whom the issuer knew to be an unsuitable recipient in the sense of not being a poor person.

SALARIES OF DISPENSARY DOCTORS.

The movement on the part of the Irish dispensary medical officers to induce boards of guardians to adopt a graded scale of salaries continues, and has, on the whole, been successful. In some unions, however, the guardians still refuse to make any change, and wherever this occurs the plan adopted by Dr. O'Gorman in the Kilkenny district might perhaps be tried with advantage After failing to induce the Kilkenny guardians to vote an increase of salary to their dispensary officers, Dr. O'Gorman convened a meeting of the ratepayers of the Paulstown division of the Gouran district to consider whether the salary of their doctor should be put on the same level as those of the majority of the dispensary doctors in Ireland, or should be left £50 behind them. At the meeting he pointed out that the suggested increase would be more than covered by a levy of nine-tenths of a penny. The meeting unanimously passed a resolution to the effect that the salaries of the medical officers of the Kilkenny Union should be increased from £100 to £130 at once, and further by sums of £5 for every three years' completed service to a maximum of £200, such increase to be retrospective.

FEES OF DISPENSARY MEDICAL OFFICERS' SUBSTITUTES.

Some weeks ago we reported a decision of Judge Moore given at the Quarter Sessions, Tipperary, in a case in which the plaintiff, Dr. O'Ryan, who had been appointed substitute for a dispensary medical officer for a period of four weeks, but who had been ill during a portion of his time as substitute, sued the board of guardians for the full sum of £16 16s. as four weeks' salary. Judge Moore held that a substitute for a dispensary medical officer is entitled to the same privileges as the permanent officer, and in consequence gave a decree in favour of the plaintiff. This decision has now been reversed at the Tipperary Assizes. Judge Gibson, who heard the case, decided that a temporary substitute was not in the same position as a permanent medical officer, and that if he did not perform the duties he was not entitled to be paid, and a doctor who was ill in bed could not be said to be discharging his duty. He did not, however, uphold the guardians in their determination to deduct from Dr. O'Ryan's salary the fees paid to a substitute during his illness, but gave a decree that Dr. O'Ryan should be paid at the rate of £4 4s. a week for the actual number of days that he had performed the duties of his appointment.

MEDICAL OFFICER FOR SKIBBEREEN UNION.

The Local Government Board for Ireland has written to the Skibbereen guardians with reference to the

board's resolution purporting to appoint Dr. Burke as the sole medical officer of the workhouse at an initial salary of £80 a year. The Board states that as it has already, at the request of the guardians, sanctioned the appointment of Dr. O'Meara, as senior medical officer in charge of the female department of the workhouse, it cannot give its approval to Dr. Burke's proposed appointment as sole medical officer at the salary proposed to be allowed to him. As the result of the misunderstanding between the guardians and the Local Government Board legal proceedings were resorted to, the Skibbereen guardians seeking an injunction to restrain Dr. O'Meara from performing the duties of medical officer of the union and from interfering with the deputy appointed by the guardians in the performance of his duty. It appears that on the death of Dr. Jennings, Dr. Walsh was acting as temporary medical officer. Subsequently the guardians, having advertised the election of a medical officer, appointed two doctors conjointly—Dr. O'Meara and Dr. Burke. This arrangement the Local Government Board refused to sanction, but sanctioned the appointment of Dr. O'Meara alone. Then the guardians were advised that their first election was illegal, and they held another. Dr. Burke was then the only applicant, and he was elected. Meanwhile, Dr. Walsh's term as temporary medical officer had, it was contended, not terminated; and the three doctors were thus, by different determinations of the guardians, in the same position. Mr. Justice Barton held that the professional gentlemen concerned had all acted with perfect propriety. Having regard to the serious and unusual questions involved, he did not consider it a case for an interlocutory injunction. He would allow the position to revert to that which existed before the question arose, and leave Dr. Walsh still in the position of temporary medical officer pending the decision of the case.

TYPHUS FEVER IN COUNTY CORK.

The inhabitants of Newmarket, one of the country towns in the county of Cork, are alarmed at the appearance in their midst of typhus fever. The victims were occupiers of some small labourers' cottages in the town, which were insanitary and had been repeatedly condemned by Dr. Verling, the local medical officer of health, as being unfit for human habitation, and even the modest recommendation made by him some years ago—that each of these houses in the present stricken area should be provided with a dry earth closet at the rear of the houses—was not enforced upon the landlord by the board of guardians, lest perchance the tenants should be compelled to leave their homesteads. Six cases in all have been notified in these houses, and they were at once removed to the District Hospital, where four—most old people—succumbed, while two are now on the fair road to recovery. An attendant from the Kanturk Hospital, who went out with the van to accompany the patients from Newmarket, has also contracted the disease, and at present lies in a very precarious condition.

With a view to suppressing the possibility of further outbreaks, it has been decided to raze the houses to the ground and to enlist the services of the Local Government Board in the steps necessary to prevent recurrence.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

EDINBURGH CHILDREN'S SHELTER.

DURING the past year the Edinburgh District Branch of the Scottish National Society for the Prevention of Cruelty to Children has dealt with 1,539 cases, involving the welfare of 4,247 children. In 61 cases it was found necessary to prosecute the parents or guardians of the children, a conviction being obtained in each case; 521 of the 4,247 children involved in the cases dealt with were admitted to the shelter for temporary refuge, being brought there by the inspectors of the society, the police, or the general public. The children were disposed of in various ways: 94 were sent to industrial schools, 73 to the parish council, and 72 to homes and institutions; the rest were returned to their guardians and kept under the supervision of the inspectors. The total receipts for the year amounted to £1,073 14s. 6d., while the expenditure was £1,495 6s., thus leaving a deficit of £421 11s. 6d. This, however, was met by a donation from the League of Pity out of money raised by a pageant. Since the formation of the society 21,009 cases have been dealt with in Edinburgh and Leith affecting the welfare of 55,615 children. These cases are classified under the headings of neglect and starvation, ill-treatment and assault, abandonment, exposure, begging, singing and selling, indecent and criminal assault, immoral surroundings, and other wrongs. During this period 10,567 children have been sheltered, clothed, and cared for in the shelter, and arrangements made for their future, whilst their parents or guardians were being dealt with. Under the new Children Act the shelter will be used as a "place of detention," young children being admitted whilst their case is being dealt with by the authorities. The aim of the society is not punishment by prosecution, but prevention of serious injury to children by timely intervention. A staff of six inspectors, specially picked and trained men, constantly supervize families in Edinburgh and Leith when it is feared the children may suffer from their parents' neglect. Some 300 or 400 visits are paid weekly by the Edinburgh inspectors, and from 40 to 50 by the Leith inspector. Complaints come to the society through the general public, the police, and the inspectors. Sometimes as many as 30 new complaints are received in one week, each of which has to be carefully and tactfully investigated. No child is removed from its home until it has been conclusively proved that to allow it to remain would endanger its physical or moral welfare. The inspectors seek to gain an influence on the people with whom they deal by giving them advice as to the training and upbringing of their children, and they also warn them of their responsibilities towards them.

The shelter is open night and day, ill-used or neglected children being admitted at any time. The nursing staff consists of a matron, who is a fully-trained nurse, and four nursemaids. The shelter has accommodation for over 30 children, and any children suffering from malformation of any description, sores, or physical weaknesses are examined by the shelter doctor, who advises as to their treatment or arranges for them to be treated at a dispensary, hospital, or institution specially suited to their requirements. A difficulty was previously found in dealing with epileptic, consumptive, and imbecile children, but in some cases it has been possible to obtain admission for them to suitable homes, and in every case the committee sees that the child receives proper medical attention. Much good work is accomplished also by the "league visitor," a trained hospital nurse, who supplements the work of the inspectors by visiting mothers, babies, sick children, and young girls in their own homes. This nurse advises the mothers as to the care of themselves and their infants, and, when the children are sick, sees that they receive suitable medical attention.

MEDICAL INSPECTION IN EDINBURGH.

In his report for 1908–9 to the school management committee of the Edinburgh School Board the medical officer, Dr. Meikle, states that medical inspection of pupils has been confined to the newly enrolled infants. The number examined is given as 2,354, and the results are reported to be much the same as last year, especially as regards conditions due to dirt and neglect. During the session 7,832 pupils, about one-fifth of the school population, were absent owing to infectious diseases. In the previous year the number absent on account of infectious disease was 6,159, and the increase in the session under report is attributed chiefly to an epidemic of mumps. Dr. Meikle, in alluding to the school which is to be established in

uriston Place for children suffering from ringworm
l favus, states that there has been a great increase
the number of ringworm cases. It is proposed that
ly cases under medical treatment should be
nitted to the school.

India.

[*FROM OUR SPECIAL CORRESPONDENT.*]

Medicine in India.

RD MORLEY'S dispatches on the subject of the
owth of a civil medical department in India are
t being lost sight of by the Indian representatives
the Viceroy's Council. In the meeting held on
arch 18th Mr. Gokhale, one of the most prominent
dians, a loyalist who is, however, particularly
sistent in putting forward the claims of Indians
a greater share in the government of the country,
ked what steps were being taken to give effect to
rd Morley's dispatches. In his reply Sir Harvey
lamson agreed that there was a desire on the part
medical practitioners in India to be admitted to
overnment medical appointments, but pointed out
at he was unaware of any considerable dissatisfac-
on in the country on the subject. The Government,
said, was at the present moment considering the
ssibility of throwing open a certain number of
spital and teaching appointments to Indian medical
en. Referring to the terms of Mr. Gokhale's ques-
on, Sir Harvey Adamson corrected it, stating that
ord Morley had not recommended the establishment
a civil medical department in India, but had
ecided that the time had arrived when no further
crease in the civil side of the Indian Medical Service
ould be allowed, and that efforts should be made to
educe it by gradually extending the employment of
vil medical practitioners resident in India. Effect,
e said, had already been given to the first of these
recommendations, and local governments were being
approached with a view of considering what steps
could be taken to give effect to the second.

While every sympathy is felt with Mr. Gokhale's wish to throw open the best posts in the medical profession in India to members of his own nation, the effect of this policy on the progress of medicine in the country requires most careful consideration. As it is, the Indian Medical Service has lost much of its old popularity. The great attraction it held out to the best men was that it offered great professional opportunities, while they had an assurance that ability and energy would be rewarded by promotion to responsible posts. The result has been that India has secured a first-rate type of man, who has passed on the best traditions of European practice, and the latest discoveries have been quickly introduced into the hospitals and schools. The reduction of the service and the prospects of advancement must tend to lessen competition for the appointments, and there will be fewer teachers in touch with the most recent European work. On the other hand, it is true the native of India will be spared the duty of serving with a regiment for a few years. That there will be a shortage of trained medical officers in the event of war has apparently not entered into Lord Morley's considerations. It is surprising, however, that he has not realized the value of the object lesson conveyed by insisting that every man in the Indian Medical Service should spend a portion of his time with the troops. It was an illustration of the principle that every citizen must sacrifice his own interests to those of the commonwealth, and it is surely injurious to the growing political sense of Indians that they should be excused from participating in the performance of a political duty that is cheerfully borne by their fellow subjects in the empire. Incidentally, too, it seems hardly fair that the feelings of the white population should not receive the fullest and most sympathetic consideration.

Hong Kong.

[*FROM OUR SPECIAL CORRESPONDENT.*]

Hong Kong University: Foundation Stone Laid.

N March 16th, in the presence of a large gathering epresentative of the European, Chinese, and Indian ommunities, His Excellency Sir Frederick Lugard erformed the ceremony of laying the foundation tone of the Hong Kong University. The weather vas fine and the roceedings were nthusiastic hroughout.

Mr. H. N. Mody, he donor of the niversity building, n briefly sketching he history of the novement towards he foundation of he university, expressed his great egret that Lady ugard was absent rom the colony; e paid a graceful ribute to the great encouragement which she had given him in pushing forward his scheme, and warmly thanked His Excellency the Governor for his untiring perseverance and zeal in bringing it to a successful issue. After referring to the generous donors to the endowment fund in England and the colony, Mr. Mody expressed his conviction that the establishment of this university would have a very beneficial effect on the political as well as the commercial relations of the colony with China.

Hong Kong University: North Elevation.

His Excellency the Governor, in an eloquent speech, pointed out the political and moral advantages which would undoubtedly accrue to Hong Kong by the presence in its midst of the university, which had for its aim not merely the training of students in medicine, engineering, etc., but the high moral development of the character of the students. His Excellency, in referring to the interest taken in the university by His Majesty King Edward and His Majesty's Government, said: "His Majesty's Government has, without precedent so far as I know, founded a permanent scholarship, and, in addition to the letters printed, I know that many leading statesmen of England are greatly impressed by the efforts which this colony is making, and cordially appreciate the great potentialities of the project. You will see that His Gracious Majesty himself, who is ever the first to recognize the far-reaching possibilities of a great scheme, has directed that the holders of scholarships under the Imperial grant shall be called 'King Edward VII Scholars,' as a mark of his personal interest. It affords me the greatest possible pleasure to read to you this telegram which I have received from the Secretary of State, with instructions to keep it secret until to-day: 'His Majesty has been pleased to approve that Mr. Mody be appointed Knight Bachelor.'"

The announcement was enthusiastically received by the audience. Sir Frederick Lugard was then presented with a gold trowel, with which he performed

the ceremony of laying the foundation stone of the university, and declared the stone "well and truly laid."

The ceremony concluded with an address by His Excellency Taotai Wei Han, in which he conveyed the good wishes of the Viceroys of Canton and Nanking for the future growth and prosperity of the Hong Kong University.

Special Correspondence.

BERLIN.

The German Surgical Congress: Early Operation in Appendicitis.

THIS year's Congress of the German Society for Surgery was held at the Langenbeck House, Berlin, from March 30th to April 2nd. The president was Professor Bier of Berlin, and the vice-president Dr. Kümmell of Hamburg. A great number of subjects was treated more or less fully in addresses, discussions, and reports of special committees. Still, as usual of late years, the chief interest centred in the standing dish of surgical congresses—a discussion on appendicitis.

Speaking in the name of the congress, and in protest against Albu's and Sonnenburg's less decided views, Kümmell laid down as a dogma that for appendicitis the only cure, in the true sense of the word, was *early operation*. Internal treatment might and did avert danger in a certain number of attacks, but a disease so prone to recurrence could be permanently cured only by removal of the organ. Exceptional cases which had been treated by the conservative method and had not relapsed were too few in numbers to be considered in laying down a plan of action. No diagnostic aid could be relied on for revealing the true condition of the appendix, nor was there any objective symptom that could justify expectant treatment. Unconditional early operation alone was the one and only specific. Sonnenburg had recommended castor oil as an aid to prognosis in hospital practice, but Kümmell thought it so dangerous a drug in appendicitis that its use should be barred. By strict adherence to the rule of early operation, his own cases showed 0.5 per cent. deaths—a result that could not possibly be achieved by internal treatment. In proportion as the early-operation school gained adherents, operation between attacks would become rarer and rarer—that is, less and less necessary. There was prevalent a notion that after forty-eight hours operation was practically useless. But this idea was entirely without foundation. On the contrary, even at this advanced stage, the best chance of recovery lay in operation—that is, removal of the diseased organ and evacuation of pus from the peritoneal cavity. Physicians treated appendicitis; surgeons cured it. Professor Sonnenburg (Berlin) said that he had not advocated castor oil treatment in appendicitis. Fully aware of the dangers of castor oil, he had employed it—in hospital practice exclusively—for no other purpose than as a test by which to estimate the value of blood examination in diagnosing the degree of infection and the patient's resisting power. His conviction, too, was that the treatment of appendicitis should be surgical from the beginning.

Professor Kocher (Berne) said that he fully agreed with Kümmell's views. If doubts still apparently existed as to the proper treatment, they were due to the purely theoretical views of isolated physicians and pathologists. From even the most circumscribed inflammation of the appendix serious consequences might ensue, and no clinical examination could reveal this beforehand. Professor Küttner (Breslau) spoke in the same sense. In his own hospital early operation had brought down the percentage of deaths from appendicitis from 29 per cent. to 8 per cent. He was strongly opposed to the exhibition of castor oil, which he considered a most dangerous weapon in appendicitis. Dr. Sprengel (Braunschweig) likewise condemned even the most restricted use of castor oil. Early diagnosis of appendicitis was a simple matter, quite as simple as early operation. König (Altona), Meisel (Constance), and Schnitzer (Vienna) spoke in the same sense; in fact, not a single dissentient voice was raised, so that Bier, in closing the discussion, was able to state formally the unanimity of the Surgical Congress in favour of early operation.

Correspondence.

OPHTHALMIC SCHOOL CLINICS.

SIR,—The following notes of an ophthalmic school clinic that has been conducted on voluntary lines for the last three years at Woolwich may be not without interest at the present time:

The organization has been entirely carried out by the Woolwich branch of the Invalid Children's Aid Association, which has provided suitable premises within a minute's walk of Woolwich Arsenal Station. The children who attend are mostly those who have been notified by the London County Council medical inspectors as needing treatment for their eyes, but also include younger children. They come accompanied by their parents or other guardians, and the organizers arrange that about the same number of children attend each day. Once a week, except during holidays, I have attended for about two and a half hours, and the work goes on in very much the same way as in a well-organized out-patient department, the clerical and other necessary incidental work being performed by ladies of the association. Arrangements are made with a London optician, who attends during the later part of each clinic to supply spectacles at contract prices, the collection of money from the parents for this purpose being one of the duties undertaken by the organizing ladies. The majority of the cases, as might be expected, are ordinary refraction, and for them I prescribe atropine ointment, to be used for the three days preceding their second visit. At first I had some difficulty in getting the atropine properly inserted, but soon got over this through co-operation of the District Nursing Association, which allows one of its nurses to visit any of my cases to see that this or any other treatment prescribed is efficiently carried out. Their services are especially useful in cases of blepharitis and corneal disease. The following figures will give a more detailed idea of the work that has been done:

Number of my visits from May, 1907, to March, 1910 ...	115
Number of new cases seen	790
Total number of attendances	3,294
Number of children for whom spectacles were ordered	545

At the second visit of the refraction cases I order the glasses after a careful retinoscopy, and I always see them a third time with the glasses on to be sure that the frames fit correctly.

Every child has had the spectacles ordered except two, whose parents have absolutely refused to have them.

Taking the first 500 of the children for whom glasses were ordered, the following analysis shows the ratio of hypermetropia, myopia, and astigmatism requiring treatment. I should say that, except in special cases, hypermetropia of less than 2.5 D. under atropine, and astigmatism of less than 1.0 D. was neglected:

+ spheres ordered	159	= 31.8	per cent.
− spheres ,, ...	74	= 14.8	,,
+ cylinders or sphero-cylinders	149	= 29.8	,,
− cylinders or sphero-cylinders	77	= 15.4	,,
− sphere with + cylinder, or vice versa ...	41	= 8.2	,,
	500	100.0	,,

Among these refraction cases a very large proportion—132, or just about one quarter of the whole number requiring glasses—were affected with internal strabismus, the obvious nature of this defect no doubt being the cause leading to such a large proportion of these cases coming to a voluntary clinic. In a large proportion of these cases the squinting eye was more or less hopelessly amblyopic, but in some, correction of the refractive error and occlusion of the non-squinting eye was attended with good results. To deal with these cases effectively there should be compulsory inspection of children's eyes from the age of 3 years.

Next to errors of refraction and squints, the commonest conditions were conjunctivitis, blepharitis, and phlyc-

tenular disease, the last named being by far the commonest cause of permanently impaired vision among the poor:

Cases treated for conjunctivitis and blepharitis, 120 out of 800, or 15 per cent.
Cases treated for corneal ulcer and phlyctenular keratitis, 48 out of 800, or 6 per cent.
Cases treated for corneal nebulae, 46 out of 800, or 5.75 per cent.

In 56 cases, or 7 per cent. of those sent for treatment, no treatment beyond temporary atropinization was found to be necessary.

Among the less common affections of the eye encountered may be mentioned optic atrophy (5 cases), nystagmus with and without albinism, diphtherial paralysis, and trachoma (only 1 case).

Many of the cases treated during the first and second years have been seen since, and some cases have required continuous treatment during months, or even years—for example, cases of progressive myopia, interstitial keratitis, and severe phlyctenular disease. The cases requiring operative treatment at a hospital included squints, high myopia, lamellar cataract, and lacrymal abscess.—I am, etc.,

A. Hugh Thompson.

London, W., April 11th.

THE TEETH OF SCHOOL CHILDREN.

Sir,—The letter of Mr. Norman Bennett in the last issue of this Journal and the views expressed in two recent leading articles on the dental treatment of the school children of London constitute a vigorous attack on the negative attitude that the London County Council has taken up in the matter. Moreover, the deputation that waited upon Dr. Newman on March 23rd received from him no answer that could be considered a defence of that attitude.

Now, although the evidence brought forward seems at first sight to be convincing, it is extremely one-sided, and equally strong, if not stronger, evidence can be adduced against the immediate establishment of school dental clinics. In my own opinion, the position the London County Council has assumed can be justified for the following reasons:

1. Though the dental section of the medical profession are still undecided as to what is the exact etiology of the disease, they are, with few exceptions, satisfied that its prevention is one of extreme simplicity, and that it is entirely in the hands of the individual. No better evidence in favour of this belief can be offered than the number of better-class children who are to-day growing up free of this disease. In other words, it is a disease of imprudence.
2. The treatment of dental caries, although radical, is not itself permanent unless it is combined with subsequent preventive efforts of the individual. Failing these it will recur with almost mathematical certainty and render the scheme economically unsound.
3. The cost is excessive. I have carefully worked out the cost of what could only be considered a moderately efficient scheme for London, and I find that at least £60,000 a year would have to be spent.

I may add that after studying the disease for many years, both specially and in its ultimate relation to the individual, I am inclined to agree with those who hold that its importance in relation to the general health, although great, has been somewhat exaggerated.

It seems to me, therefore, that the proper course for any authority faced with this problem to follow is, first of all, to promulgate by every means in its power the methods of prevention, and not to undertake a scheme of treatment that, without the intelligent co-operation of the individual, can only end in failure. It will be time enough when the effect of the teaching of prevention is ascertained to consider how far it is justifiable to use public money in the treatment of this complaint—I am, etc.,

Stanley Colyer, M.D.Lond.,
Assistant to the M.O.H., Southampton.

Southampton, April 11th.

Sir,—Some twenty years ago a gentleman engaged me to investigate for him and tabulate the teeth of a number of schoolboys with a view of determining the extent of decay in them. This philanthropist was struck by the fact that some of these boys, otherwise of good physique and destined for the army or navy, were yet debarred from an honourable calling by a few carious teeth, so he sought to know the facts and provide a remedy. He was beginning to be obsessed by the fear of the physical degeneration of the race so much in vogue at the present day. He "heckled" candidates for Parliament with the question whether if elected they would urge the appointment of a dentist to every school, to the great amusement of the audience. Ever since then I have instinctively examined the mouth of almost every patient, irrespective of the general malady complained of, and also batches of scholars in the elementary schools, always with the approval of the health officer and of the teachers, who are only too happy to be aided in their herculean task in however fitful a manner the help may come.

Now the statistics of dental decay in the teeth of British children show a very serious state of things. Between 80 and 90 per cent. have defective teeth, requiring extraction, or stopping, or regulating. If, then, there is a real decadence in the physical condition of the tooth substance, due perhaps to our food being of such a soft texture as to require no trituration, then we should have to resign ourselves to the ills and pains associated with the manipulations of the dentist awaiting the advent of an edentulous posterity.

But what are the real causes of dental caries? One has only to soak a healthy extracted tooth in some acid, and in about a day or less the hard substance becomes softened by the abstraction of the lime salts. Now acid, chiefly in the form of lactic acid, is produced from the carbohydrates in the food, by the action of bacteria present in the mouth, and exactly the same process occurs there as in the tooth experimented on, the only difference being that the acid fermentation in the mouth takes place in those natural pits and crevices formed by the structure of the teeth, such as between the cusps of the grinding surfaces of molars or in the interval between adjacent teeth, and so the softening occurs in the limited places known as carious cavities. Once this protection is weakened, the peptonizing activity of bacteria carry the decay further inwards, until the acutely sensitive pulp is reached, with symptoms, local and general, familiar to us all as toothache, deranged digestion, abscess, and many other ills.

Now, this process of caries is a purely chemical one, and not due to anything inherent in the dental tissues, such as inflammation or new growth. For we find that it always begins from the surface and proceeds inwards, never the other way. Where bacterial life is much developed, as in congested districts and in the dirty places generally, dental decay is more prevalent, and these are also the places where the cheaper and more putrescible foods are consumed and the débris not brushed away from the teeth.

In those situations where the conditions are not favourable to the lodgement of putrescible material, as upon the cusps or in the front of the mouth, where the tongue in its anterior and more movable portion acts as a sort of natural toothbrush, decay is correspondingly diminished. The lower incisors, as the teeth most directly acted upon by the tongue, aided, no doubt, by the action of the submaxillary gland secretion, are comparatively free from decay.

But the most decisive proof of the extraneous nature of dental caries, and the one most encouraging to believers in the future of the race, is the effect of cleanliness. The axiom, "No dirt, no decay," is amply proved. The Indian and the Japanese eat a soft carbohydrate in the form of rice, vegetables, and sugar, affording ample scope for acid fermentation and decay, but the universal use of the toothbrush or cleaner after food has banished caries from the teeth of these peoples. On a certain occasion when the scholars of an industrial school were examined, the only ones with perfect teeth were gipsy lads. The kindly matron almost excused this condition by saying that they lived like "animals." One would like every British youth to be similarly situated. The healthy animal will not endure any débris about its teeth, and will remove it with tongue and claw. The gipsy at his best, as we know him near Manchester, lives a highly hygienic life in the purest air, is cleanly in his habits, eats the best of food, and is civilized enough to requisition medical aid. Who will venture to say that the British boy is inferior in physique to the Indian or Japanese or gipsy?

If our population could be prevailed upon to brush their teeth after every meal or after the last meal of the day, we should not hear much of the "physical degeneration of the

race." And it is being carried into practice. We have known of little ones of very tender years scrubbing their teeth in play, and of teachers exhibiting the cleansed and wholesome mouths of their pupils as patterns for others to follow. It needs only officials with knowledge to heal, and energy and zeal to infect the people with a desire to help themselves, in order to remove the stigma of the non-existent "physical degeneracy." The British race is passing through a martyrdom of ignorance which knowledge will assuredly dispel.—I am, etc.,

Manchester, April 12th. B. SAUL, D.P.H.

A NATIONAL EMERGENCY.

SIR,—In the report[1] of the interview between the deputation representing the British Medical Association and the Medical Officer of the Board of Education there appears a very noteworthy statement made by Dr. Harvey Hilliard, a statement which I hope has caught the eye of every member of the Association, and the truth of which, if realized by the public in general, and corporate bodies in particular, would smooth out many of the difficulties the Association encounters in dealing with the medical treatment of school children and of the poor generally.

Summarized briefly, Dr. Hilliard's opinion was that hospital treatment of out-patients was *not* the best possible treatment that could be obtained.

> Speaking as a member of the staff of a large London hospital, Dr. Hilliard had experience of the way children were treated at the out-patient department. . . . The work was done under high pressure. . . . It would be better for the children to be treated by practitioners of experience in the areas served by the schools than that they should be operated on by students or clinical assistants.

Now this, I say, is a noteworthy statement, for although it is a truism to every general practitioner, it is, I think, the first time it has appeared in print as emanating from a hospital staff, and will come as a shock to the general public, to education authorities, employers of labour, and all that vast number of corporations and individuals who throw the sprat of a trifling subscription to medical charities in order to catch the whale of the "highest medical skill."

Incredible as it appears, it is yet a firmly rooted idea in the public mind that all medical skill is confined within the walls of the hospitals. Did not even a royal personage present herself lately at the out-patient department of a London hospital to obtain treatment for a trifling injury? It seems to be universally believed that nine or ten years of experience in treating maladies and men serves rather to blunt than sharpen the physician's acumen and the surgeon's skill, whereas the general practitioner himself realizes only many years after he has left hospital how little he then knew, and how poorly qualified he was to be entrusted with the treatment of the sick.

So here we have the London County Council bargaining with the charitable hospitals, and the British Medical Association driven by panic to suggest the alternative of contract work of such an unpalatable character that (Sir Victor Horsley, p. 135, par. 2) "many practitioners would not care to do the work" . . . (par. 9) "at Eastbourne, out of sixty or seventy medical practitioners, only a very few undertook the work" (bona fide medical work—the treatment of disease!), while private practice, contemned by the ignorant, but undoubtedly far and away the most efficient and convenient medical service available, is starving.

With experience of both town and country practice, I say unhesitatingly that the resident of a small village destitute of large hospitals, dispensaries, clinics, and clubs, with at most a cottage hospital of five or six beds staffed by the local practitioners, and having to go or send twenty miles for a "real physician," receives on the whole better medical treatment than his prototype in a city of charities.

The country medical practitioner is a man of resource and experience, ready and able to meet any emergency, self-reliant, and accustomed to follow his cases through every stage, which he makes himself competent to treat. His patient receives the benefit of the doctor's knowledge of his constitution and idiosyncrasies acquired during previous illnesses, while the city worker, driven from pillar to post, now receiving treatment at a dispensary, now at a hospital clinic, now by his factory doctor, now by his society's doctor, each of whom can feel but a partial and transient interest in his health, receives, not medical treatment, but often mere tinkering.

What, then, should be our policy in these changing times?

Granting, first, that the ordinary general practitioner is none the less capable because of his experience acquired since ceasing to be a student, clinical assistant, or hospital resident; secondly, that he has not yet more work than he can get through; and, thirdly, that from most points of view the continued existence of the family doctor is desirable in the interests of the public. Supposing also, first, that certain of the population require medical attention for which they are unable to pay; and, secondly, that the State desires to provide these persons with medical treatment. Perceiving, lastly, that the State, principally or subordinately, is planning to supply this treatment at the expense of the pocket and very existence of the general practitioner. Our general conclusion must be that the British Medical Association, representing the general practitioners of the country, should resent the attack made on them by the State; and, instead of higgling about the form of the yoke that is to be laid on them [instance Sir Victor Horsley, p. 137—"if the medical practitioners were allowed to *vote* upon the matter they would be satisfied"; read in apposition Dr. Newman's sapient remarks on p. 136—"it did not seem to him that the scheme put forward (by the British Medical Association) differed in principle from the London County Council's scheme in the sense of disappointing certain members of the medical profession who were not chosen for the work"] should declare itself opposed to any yoke of contract practice at all.

The answer of the profession to the London County Council scheme must first be given by the hospital staffs in the form of a refusal to treat school children in the hospitals. The answer is continued by the general practitioners (through their Association) refusing to treat the children in school clinics or anywhere except at their own consulting rooms or the children's homes, and refusing to be appointed to do the work.

The result of such an answer would be either payment by the London County Council for each case at ordinary fees to the family doctor concerned, or abandonment or postponement of treatment on the score of expense. With the latter result we have nothing to do, except as experts to warn Parliament of the dire ultimate result to the nation of neglecting the nation's health. With the former result not only would there disappear the school children question, but there would be created a precedent for solving all similar questions in regard to destitute, infirm, or aged persons, and the ordinary wage-earner.

In Dr. Wallace's *Wonderful Century* there is an idea mooted to provide free bread for the destitute; the procedure suggested is very simple. No new bakeries to be established, worked by sweated labour and rendering bankrupt the existing bakeries, but merely a bread ticket given to the needy to be presented at any baker's shop in exchange for a loaf, and redeemable by the corporation at the current price of bread. What more difficulty to give to a destitute school child a medical ticket to be presented to any doctor in exchange for the required treatment, and redeemable by the municipality at the current fees? Costly? Yes, but fair and just.

I cannot understand the temper of those medical men who throw cold water on any scheme because of the cost to the nation. We should undoubtedly laugh at the shipbuilders who should implore the Government to pause before ordering Dreadnoughts; and we should hold them mad or worse who begged to be allowed to supply them at a quarter cost price; but it is quite common at medical meetings for some one to declare that it is useless to tender at ordinary private fees, as the municipalities would not give them, and that therefore we must be prepared to do the work either gratuitously or at starvation rates. The conclusion, I think, we might draw with more dignity is that, if the buyer will not give the price, he must be made to understand that he cannot get the work done; and I would ask those who wish the medical profession to help the nation in this fashion by underselling and contract work, whether, since such underselling is

[1] SUPPLEMENT to the BRITISH MEDICAL JOURNAL, April 2nd.

going to destroy the profession and its usefulness, they are really doing well for the nation after all. All progress in medicine and sanitation and hygiene has originated not in parish, county, and national councils, but in the brains of medical men who have had leisure and freedom to practise and study for the love of their work, and depends for its success on being brought to the touchstone of practice by the general practitioner. Evolve now a complicated doctoring machine composed of home visitors, baby doctors, school doctors and school nurses, young men's doctors, employers' doctors, infectious disease doctors, husbands' doctors, midwives, Poor Law doctors and old-age pensioners' doctors, ringworm doctors, adenoid doctors and vaccinating doctors, pediculi nurses and mother's advisers, all of whom are to work at the high tension Dr. Hilliard speaks of, and, "speeded up" by strenuous competition, develop into one-idead drudges, and ask ourselves whether this certainly marvellously cheap contrivance is not a case of "penny wise, pound foolish," and likely to land us in a very expensive stagnation.

Add to this the grave loss to the individual, not to be calculated in pounds and pence or in years of life, of the feeling of confidence and helpfulness in the extraneous anxieties of sickness inspired so universally by the "family doctor," and I think we shall feel that not for his own sake, but for his patient's sake, is his existence worth fighting for.—I am, etc.,

Bristol, April 5th. HARRY GREY, M.D.

CANCER OF THE RECTUM.

SIR,—I have read with a good deal of interest a paper by Mr. James Swain on cancer of the rectum which appeared in the JOURNAL on February 12th. In this he advocates a combined operation, namely, either an abdomino-perineal or an abdomino-anal as a substitute for Kraske's para sacral excision. He draws a very gloomy picture of the latter operation both as regards immediate mortality and recurrence of growth, and supports his contention by stating that—

> The average mortality of Kraske's operation in the hands of twelve well-known surgeons appears to be over 20 per cent., and the permanent cures after rectal excision, as shown by the average results of nine leading operators, is under 16 per cent.

I am wondering who the twelve well-known surgeons may be! probably foreign—as Bergmann and Rave's names are mentioned in connexion with the statistics of 335 cases. I wish to ask in all humility why Mr. James Swain does not turn to the work of British surgeons for the statistics of this operation, even if only to contrast them with those of our Continental brethren.

Mr. Harrison Cripps, in the last edition of his book on the rectum, reports 4 deaths in 85 cases of excision. I must admit, however, that the majority of these cases were submitted to the perineal operation. In my recent book on *Diseases of the Rectum, Anus, and Sigmoid Colon*, I give the results of 60 cases of Kraske's, or the para-sacral operation. There were 3 deaths, a mortality of 5 per cent; 10 cases were lost sight of on ceasing to attend the hospital; 26 cases were in good health at periods varying between 1 year and 14 years; recurrence took place in 18 cases.

Again, if I may direct Mr. Swain's attention to *A System of Operative Surgery*, edited by Mr. F. F. Burghard, recently published, he will find a chapter by me on the surgery of the rectum, in which further cases are given, making 67 in all of Kraske's operation with 3 deaths, the last 33 cases having all recovered.

Up to the present date I have performed this operation 87 times, with only 4 deaths and 22 recurrences. Many of the cases in which I was able to carry out a rectorrhaphy are now in good health with the use of a normal anus.

For certain cases of high-lying growth—that is, when situated at the junction of the rectum with the pelvic colon or in the lower portion of the latter—I think the combined operation, as described by Mr. Swain, an admirable one, and it is one which lends itself to a very thorough removal of glands and lymphatics; but I am afraid it will be long before it can compete with the sacral operation as regards immediate mortality—and after all, important as is the question of recurrence, this is the main point.—I am, etc.,

London, W., April 6th. F. SWINFORD EDWARDS.

MINER'S NYSTAGMUS.

SIR,—Dr. Ashforth (JOURNAL, April 9th, p. 901) hits the right nail on the head, I think, when he suggests that the cause might be found in the retina. I have had over thirty years' experience in colliery practice, and may claim to be familiar with this disease.

Great stress is laid on the constrained position of the body during work as a cause, and elaborate are the theories to explain this. Working in a bent and twisted position is necessary in many trades, as, for instance, those of joiner, painter, horseshoer, but nystagmus in these is not known.

The occurrence of eyestrain and consequent headache from walking alongside a railing in bright sunshine is a familiar experience, due to the intermittent impaction of waves of light on the retina. In the days of the Davy lamp, when the miner worked by the light of a flame sending its rays through a fine wire mesh, this intermittence was what his retina experienced, and, in addition, the passage of the light rays was not rhythmical, which made it more exhausting to the retina. Then, the occurrence of the disease was frequent; now, the light shines continuously and without interruption, through a cylinder of glass, and the disease is comparatively rare. Is not this clear evidence as to its cause? Further, my cases have almost invariably been cured by changing the occupation to daylight on the surface. I have also found the disease to be more prone to attack men of intemperate habits than those who live soberly.—I am, etc.,

Wingate, co. Durham, April 11th. JAMES ARTHUR.

THE MEDICAL SERVICE OF THE TERRITORIAL FORCES.

SIR,—I wish to bring to notice the manner in which the administrative medical officer of a Territorial division, his staff, and office is treated as compared with the combatant branch of the Territorial Force. The administrative medical officer is a colonel, and is in the position of a brigade commander.

A brigade commander, under Paragraph 32 (2) Territorial Force Regulations, may be appointed from the Territorial Forces, and he gets £150 a year. The administrative medical officer, who has a much larger command and great responsibility, can only draw pay when at annual training.

The staff officer to an administrative medical officer is, like other staff officers, given £100 a year, but when he goes to camp he only gets field allowance of 4s. 6d. a day, but the other staff officers get acting staff pay and allowance of their rank (vide 375, Territorial Force Regulations). This staff pay, servant and groom, and field allowance, amount to about 15s. a day.

The Adjutant R.A.M.C. is a regular, and has to look after the school of instruction as well as act as adjutant for some six or eight medical units scattered over several counties. The medical units suffer in only having such a very small share of the adjutant's time. Adjutants of other arms of the service, I believe, never have so many units to look after.

Under circular memorandum from War Office the administrative medical officer is only to have £20 a year for clerical assistance, postage and stationery, etc., of his office. The infantry brigade commanders are allowed £45 a year for their office.

Now to compare the work. The brigade commander of an infantry brigade has to correspond with the general officer commanding the division—generally one County Association—and the four infantry battalions. (For each of these there is a regular adjutant)

The administrative medical officer (Territorial) has to correspond with the general officer commanding the division, the general officer commanding one or two coast defences, principal medical officer of the district, some six or eight county associations, besides his six or eight medical units and all the regimental medical officers, about 100 of whom come under the administration of the administrative medical officer for appointment, arrangement of examination for promotion, for questions of sanitation, and training of the sanitary police and water duty men, and for attendance at annual camp.

From the above it will be seen that the administrative medical officer (Territorial), his staff, and office are not

treated on a par with the combatant branch, and the medical administration suffers in consequence.—I am, etc,

April 5th. FAIR PLAY.

CONSULTANT, GENERAL PRACTITIONER, OR HALF-AND-HALF?

SIR,—If "Professional Union" would read, mark, learn, and inwardly digest the three great principles he mentions in the first part of his letter, and at the same time properly appreciate the fact that the medical man's chief object is to study the best interest of his patient, he would realize that many of his questions are irrelevant and that some are the reverse of pertinent. He would also discover that any one who adheres to these principles is precluded from being a general practitioner, and so does not come under the category of "half-and-half."

The only question which seems to call for a reply is (*f*) under Section I. A patient who is lying ill in bed is necessarily under the treatment of a general practitioner, and it would obviously be wrong for a consultant to see the case except in consultation with the regular attendant. Under no circumstance, of course, can a consultant undertake the independent treatment of a patient for any complaint which at the time is being treated by another man. This, however, does not interfere with the right of a patient to consult any specialist or consultant and be treated by him for any trouble which is not being treated by another practitioner.

I grant that under certain circumstances the rule that a consultant should not visit a patient at his own home except in consultation with the general practitioner may appear arbitrary, but it is found to be the best working plan, and if consultants would strictly observe it there would be little ground of complaint against them of poaching.

May I give two instances out of many which I could quote to illustrate the failure of "Professional Unity's" and the lamented "Enquirer's" contentions for promoting "amicable professional relationship" and "the welfare of the public"?

1. A friend or mine went to see a leading London consultant, who, after examining him, asked the name of his doctor. The patient replied that he had not seen any doctor for a considerable time, and that he wished to be treated by him. The consultant said that it was impossible for him to do anything except in conjunction with his regular attendant. The patient explained that he had no regular attendant, but, as the consultant declined to prescribe for him directly, he gave the name of a doctor who had attended his family, to whom the prescription was sent. The next day the doctor called and upbraided the patient for having gone to the wrong man. If he had asked his advice he would have taken him to Dr. So-and-So. The result was dissatisfaction all round, and the family doctor has not been asked to the house again.

2. A lady having heard that a doctor in her town had taken a friend of hers to see a specialist in London called to ask him whether it was advisable for her to consult the same man, as she was suffering in a similar manner. The doctor told her it was now quite unnecessary for her to do so, as he had been shown how to carry out the treatment, and was as capable as anyone of doing it. The result of his treatment not being successful, the doctor wrote to the specialist saying he fancied that there must be some points in the treatment which he had not properly grasped, and asking for another consultation. He brought up this lady, when it was evident that he certainly had not properly grasped all the details. Of course everyone takes time to learn, but it was somewhat hard on this patient that she was not allowed to see the specialist in the first instance, as she had expressed a wish to do.

I should like to ask "Professional Unity" what he would do in the not uncommon instance where a patient comes from overseas for special advice? Must the patient go away empty-handed because he omitted to bring his general practitioner with him, or should he engage one here to chaperone him?—I am, etc,

April 9th. EST MODUS IN REBUS.

GENERAL PRACTITIONERS AND POOR LAW REFORM.

SIR,—Dr. Vipont Brown seems to have a strange notion as to the relation between names and the things themselves. Destitution and pauperism, I take it, will be the same thing, whatever names we call them by. Dr. Brown asks three questions, to which he obviously expects the answer, "No," but to which I should unhesitatingly reply in the affirmative. The present boards of guardians are destitution authorities for no other reason than because they deal with the destitute; and it is at least logical to assume that when their work is done by other committees and authorities, to that extent the latter become likewise destitution authorities. He correctly says that "one great object" aimed at by the Minority Commissioners is to prevent destitution, but that is also the object of all Poor Law reformers, many of whom reject the principle of endeavouring to do so by mixing up our present paupers with an unknown number of "poor" persons, and affecting to settle the question of pauperization by giving relief to all through authorities, who hitherto have had little to do with Poor Law relief. It is at least open to question whether such a procedure might not rather increase than diminish the pauperization of the nation.

Dr. Brown appears to think that most of the Divisions hold his opinions. Personally, I should be surprised if they are even held by the Manchester Divisions; but doubtless he should know better than I as to that.

Professor Gilbert Murray, at Mr. Sidney Webb's lecture on April 4th, said that the recommendations of the Minority might be called socialism, but in his opinion they were necessary for the advance of civilization. Socialists naturally think that socialism is necessary for the advance of civilization, but it is open to those who are not socialists to believe that civilization may advance without socialism. Mr. Sidney Webb said there were more destitute people being maintained outside the Poor Law than by the Poor Law authorities. If this statement be correct, by all means let there be reform, and to avoid overlapping, let the whole of the destitute be attended to by a reformed Poor Law authority.—I am, etc,

MAJOR GREENWOOD,
Honorary Secretary Poor Law Medical Officers' Association of England and Wales.

London, E.C., April 9th.

SIR,—I think that the letters in reply to mine bring out extremely well the point I wished to make—that is, that the man living in the town cannot speak for his country brother, nor the man in consulting practice for his neighbour, the poor general practitioner.

It will be noticed that the one letter agreeing with me is from a man in the country, while those opposed to my views are from men in town practice. Dr. Cooper refers to Rowntree and Booth. Rowntree's work was in York, and Booth's in London. Dr. Cooper has his experience in Manchester, but the conditions are entirely different in the country, and I maintain that, before making an assertion like that which I criticized, Dr. Cooper should seek wider knowledge and ascertain how far his theories are applicable generally.

It was in no spirit of hostility that I wrote my letter. There is so much good in Dr. Cooper's scheme that I think it is a pity it should be marred by a partial knowledge of the conditions needing to be dealt with, and I do not think that such an assertion should be allowed to pass unchallenged. I must be allowed to know my patients and what they do, and I do assert that the majority of my patients, having only 15s. to 18s. a week, pay me proper fees, and on more than one occasion have given me more than I thought it right to ask, and I am certain they pay better than any State department would. The difficulty in country practice is not the small fees, but the sparseness of the inhabitants, and if the sanitary appointments and others are taken from the country practitioner, I can see little chance of his being able to live; then the State must provide for the treatment of the labouring classes, but this will not be because they cannot provide for themselves if conditions are favourable.—I am, etc.,

New Romney, April 11th. HENRY HICK.

PROFESSOR LANNELONGUE of Paris has written to the Société de Chirurgie announcing his intention of founding a prize consisting of a gold medal carrying with it a sum of £250, to be awarded to the candidate who has contributed most to the progress of surgery during the ten years before the date of award. The prize is open to surgeons of all nations, and will be awarded every five years during the annual meeting of the Paris Société de Chirurgie. The judges will be a committee of surgeons of various nationalities, grouped as follows: The United Kingdom; Germany; Austria-Hungary and the Balkan States; Belgium, Holland and Scandinavia; Spain, Portugal, and Mexico; United States and Canada; South America; Japan and China.

Universities and Colleges.

QUEEN'S UNIVERSITY OF BELFAST.

THE following candidates have been approved at the examinations indicated:

FIRST M.B. (*Botany*).—A. E. M. Carleton, V. Magee, V. C. Montgomery. (*Zoology*).—R. G. Blair, F. J. Devlin, E. Doherty, J. Duffin, A. Fullerton, T. Grimson, W. H. Hardy, W. S. B. Hay, B. Lyons, W. T. McCurry, A. G. McKee, T. B. McKee, F. McKibbin, R. N. McKinstry, T. P. McQuaid, V. Magee, R. J. Maguire, E. A. Mallon, V. C. Montgomery, W. N. Montgomery, J. J. Murray, G. W. Rea, J. C. Robb, J. S. Savage, A. F. L. Shields, F. A. E. Silcock, F. G. Smyth, J. Tate, R. F. Walker, P. P. Wright, Margaret Gorman, Sylvia Marsh, Miss E. M. Robb. (*Experimental Physics*).—R. G. Blair, W. McN. Chesney, W. W. Dickson, E. Doherty, J. Duffin, A. Fullerton, D. Gaston, W. S. Gibson, T. Grimson, W. H. Hardy, C. C. Humphreys, F. Lamont, B. Lyons, W. T. McCurry, J. McKay, F. McKibbin, R. N. McKinstry, H. F. McNally, T. P. McQuaid, R. J. Maguire, E. A. Mallon, G. R. B. Purce, G. W. Rea, J. C. Robb, W. Russell, J. S. Savage, A. F. L. Shields, F. A. E. Silcock, F. G. Smyth, A. C. Taggart, J. Tate. D. B. L. Walker, R. F. Walker, D. K. Watterson, R. H. Wilson, W. R. E. Wilson, P. P. Wright. (*Chemistry*).—A. W. Bourke, A. E. M. Carleton, W. J. Carson, H. T. Chatfield, W. M'N. Chesney, R. Condy, W. W. Dickson, S. J. W. Donald, D. Gaston, M. Gilligan, G. Gordon, C. C. Humphreys, J. F. D. Hunter, D. Jamison, L. Jefferson, W. J. Lascelles, J. McKay, H. F. McNally, V. Magee, V. C. Montgomery, M. G. Paul, G. R. B. Purce, F. R. Sinclair, J. M. Smith, J. Smyth, J. K. Stewart, J. C. Wilson, R. H. Wilson, W. R. E. Wilson, F. N. Woods, R. Woodside, D. B. L. Walker.

SECOND M.B. (*Practical Chemistry, Old Regulations*).—A. M. Berman, H. Buchanan, J. E. Finlay, Wm. Gault, H. D. Graves, S. A. Montgomery. D. K. Patterson, D. Stevenson.

SECOND M.B. (*New Regulations*).—S. Acheson, *S. R. Armstrong, *S. H. Davison, J.McI. Gibson, F. Jefferson, J. McFadden, M. McGing, E. McSorley, I. W. Magill, H. H. Mulholland, *W. McN. Walker, H. V. Walsh, J. R. Henry, J. Porter.

THIRD M.B. (*Old Regulations*).—W. F. Allgeo, W. W. Allison, †J. H. Beverland, D. Calwell, Miss S. E. Calwell, C. L. Gaussen, N. C. Graham, J. J. Hanratty, J. Hill, J. T. Kyle, J. Lyons, A. L. McCreery, R. McCulloch, ‡R. Marshall, W. Megaw, A. E. H. Reid, S. I. Turkington, S. J. Yeates.

* Passed with Honours and Prize awarded.
† Passed with Honours and gained First Scholarship.
‡ Passed with Honours and gained Second Scholarship.

CONJOINT BOARD IN ENGLAND.

THE following candidates have been approved in the subjects indicated:

FIRST COLLEGE (*Part I and Part II*).—*P. W. L. Andrew, A. W. C. Bennett, W. M. Binning. M. C. Breese, *E. V. Briscoe, *P. R. Chevreau, H. F. Chillingworth, G. E. Chissell, W. L. Cockcroft, S. W. Coffin, E. I. Davies, †C. T. J. Drobig, †H. C. Duggan, *D. T. Evans, P. C. C. Fenwick, *H. P. Gabb, G. C. Gell, †J. A. Gregory, *D. V. Halstead, †A. G. P. Hardwick, D. H. Hargrave, O. R. Horwood, *C. O. Hudson, C. G. G. Keane, F. E. R. Laborda, *A. T. Madin, *N. H. S. Maelzar, L. A. Malik, G. S. Marshall, W. E. Masters, †H. Millett, *G. S. Mitchell, †A. R. Muir, †K. M. Nelson, W. J. Paramore, A. B. Preston, J. W. Rammell, C. A. Robinson, A. F. Rook, *E. S. Rowbotham, *N. H. W. Saw, M. D. B. Tonks, E. M. Townsend, *W. E. Wade, N. J. Willans, E. J. Wright.

FIRST COLLEGE (*Part III*).—W. H. Alderton, W. G. E. Allen, E. Atkinson, C. Bluett, M. C. Breese, N. Briggs, E. Catford, P. Cheal, H. F. Chillingworth, G. E. Chissell, E. S. Cuthbert, G. R. Craig, J. Crétin, G. S. Deane, R. E. B. Denny, J. A. Durante, S. E. Y. Elliott, D. T. Evans, S. W. Fisk, L. H. Garcés, C. de W. Gibb, E. R. G. Greville, H. J. Grimshaw, D. N. Hardcastle, A. H. Harkness, W. L. A. Harrison, N. Hoffmeister, R. A. Holmes, I. S. James, E. G. Jones, G. P. Kidd, T. C. Kidner, H. A. H. Kleberg, F. E. R. Laborda, A. G. Lennon-Brown, J. S. Leslie, J. A. Liley, N. H. Linzee, Louisa Margaret Lister, H. G. Ludolf, H. W. Maltby, G. S. Marshall, G. W. Maw, A. L. Miller, D. S. E. Milligan, G. S. Mitchell, H. G. Moser, W. G. S. Neely, W. J. Paramore, J. M. Parry, E. N. Perham, H. Peters, A. B. Preston, R. Quesada-Jiménez, W. E. P. Rafter, J. W. Rammell, C. R. Reckitt, L. C. S. Roche, G. F. Rowcroft, N. H. W. Saw, H. H. Silley, S. F. Simpson, P. de S. Smith, C. S. Staddon, R. C. W. Staley, J. A. Tippet, M. D. B. Tonks, A. H. Warde, N. J. Willans, T. M. Wood-Robinson.

* Passed in Part I only. † Passed in Part II only.

LONDON SCHOOL OF TROPICAL MEDICINE.

THE following candidates were approved at the examination held at the thirty-second sessional examination of the School:

*P. Harper, *J. C. McPherson, *G. D. H. Carpenter, *W. Morrison, E. D. Shroff, R. Blue, T. B. Adam, A. Onsy, B. R. Vickers, C. G. Kurian, G. Wilson, E. A. S. Carrington, W. Kelly.

* Passed with distinction.

The first four candidates and Messrs. T. B. Adam and G. Wilson are officers in the Colonial Medical Service.

SOCIETY OF APOTHECARIES OF LONDON.

THE following candidates have been approved in the subjects indicated:

PRIMARY EXAMINATION (PART I).—*Biology*: R. W. L. Oke. *Chemistry*: A. U. L. Bennet. *Materia Medica and Pharmacy*: H. H. Gunnell, A. R. Jennings, L. E. Lewis, O. Marshall.

PRIMARY EXAMINATION (PART II).—*Anatomy*: R. B. F. Frazer, A. Griffith-Williams, K. L. Hart-Davis, D. Havard, L. M. Ladell, G. A. Walker. *Physiology*: F. S. Charnock, P. R. Cross, G. E. Cuttle, R. B. F. Frazer, A. Griffith-Williams, K. L. Hart-Davis, D. Havard, L. M. Ladell, G. A. Walker.

Medico-Legal.

WORKMEN'S COMPENSATION CASES.

Refusal of Operation.

THE case of a workman, who sustained an injury in February, 1909, owing to a ladder on which he was at work being overturned, came before the Recorder of Dublin recently. One of the results of the fall was the development of a hernia, for which operation was refused. The Guardians of the North Dublin Union, his employers, admitted liability for the accident, but submitted that the applicant was acting unreasonably in refusing an operation. The Recorder, in giving judgement, said that he could not hold that the applicant had acted unreasonably in refusing to undergo an operation which would be fraught with danger to his life. He awarded compensation at the rate of 10s. a week till further order, with costs of the application.

Epistaxis and Arterio-sclerosis.

At the Salford County Court a miner claimed compensation from October 19th to December 31st in respect of an accident in July last in the Clifton Hall Colliery. The applicant was injured about the back by a fall of metal while engaged in coal getting. He was off work till October 19th, and received compensation of 16s. 7d. a week. He then thought he could do some work, and it was arranged that he should commence on October 19th. On that date, however, he was seized with bleeding from the nose, and one question to be decided was how far that was due to the state of health to which he had been reduced. When the bleeding came on he went to see Dr. Herbert, who gave him a certificate to the effect that he was fit for light work only. He afterwards went to the Manchester Infirmary, where he was an in-patient for about a fortnight. Dr. Owen said he examined the applicant on behalf of the respondents on November 29th, and there were then no signs of the injuries caused by the accident in July, but there were signs of gout, and he thought the haemorrhage was due to arterio-sclerosis. He agreed that the man was not fit for heavy work, but the incapacity was not on account of the accident, but through the constitutional condition. Dr. Smith, as medical referee, then examined the applicant, and on his return to court stated that he agreed with Dr. Owen that the accident had nothing to do with the bleeding. The judge said that the evidence showed that the applicant was only fit for light work in October, and was therefore partially incapacitated and was entitled to something, and he made an award of 7s. a week for a month from October, liability then to cease.

VALUE OF DEATH VACANCY.

YELLOWSTONE asks the following questions: (1) What are the terms on which a death vacancy is purchased? (2) Would it be considered against the price if a former assistant or partner had been allowed to practise in the neighbourhood, and had regularly taken it as locumtenent, on any absence of the principal?

*** (1) A death vacancy is usually purchased on the same terms as another practice, but a reduction is made on account of the greater difficulty in transferring it to the vendor. The amount of the reduction will vary according to circumstances. (2) Such a state of things would certainly tend to lower the value of the practice to a purchaser.

SALE OF SHARE.

VENDOR asks: (1) When a junior partner (one-third share) sells his share in a middle and working-class practice doing £1,200, nearly all of which is "booked," what is the usual term of introduction given to the incoming partner? (2) During this period of introduction how are the "bookings" divided between the vendor and purchaser?

*** (1) Six months is a very usual period, but it varies according to agreement. (2) It is usual to share the profits equally between the vendor and purchaser during the period of introduction, and this would include all book debts subsequently realized.

Medico-Ethical.

The advice given in this column for the assistance of members is based on medico-ethical principles generally recognized by the profession, but must not be taken as representing direct findings of the Central Ethical Committee, except when so stated.

RESTRICTIVE EFFECT OF NEGOTIATIONS FOR PURCHASE.

"CAVEAT EMPTOR" appears to disagree with the opinion expressed under this heading on p. 731 of the BRITISH MEDICAL JOURNAL of March 19th, and considers that all negotiators for the purchase of a practice are ethically bound not to practise in competition with any subsequent purchaser of the same. The sale of a practice is a matter entirely between the vendor and purchaser, the latter can exact no special duties, whether, ethical or legal, from any but the vendor.

Obituary.

THOMAS RICHARDS, M.D.EDIN.,

CONSULTING PHYSICIAN, THE CHILDREN'S HOSPITAL, BIRMINGHAM.

WE regret to announce the death of Dr. Thomas Richards, of Temple House, Bath Row, Birmingham, which resulted from pneumonia on April 4th, while staying at Llandudno. He left home the week before Easter for a holiday, and during the journey he caught a chill.

He was born on July 1st, 1854, at Salisbury, where his father held an important position in the Inland Revenue Department. His medical education was pursued at Guy's Hospital and at Edinburgh University. He became L.S.A. in 1876, and M.R.C.S.Eng. in the following year. In 1878 he took the degrees of M.B., C.M.Edin., and in 1884 that of M.D. He then entered into partnership with Dr. Potts, of Birmingham, and subsequently acquired his practice. He was elected Physician to the Children's Hospital in December, 1883, and rendered good service to the institution in this capacity until 1904, when he was appointed Consulting Physician. He took great interest in the recent plans for rebuilding the hospital. His genial disposition and kindly manner made for him many friends, by whom he is sincerely mourned.

Apart from his medical work, Dr. Richards was especially known for his enthusiasm in connexion with the Volunteer and Territorial forces of Birmingham. He was gazetted a Surgeon in the 1st Volunteer Battalion of the Royal Warwickshire Regiment in 1884, and four years later received his commission as a combatant officer. In 1891 he received his company, and in 1899 was promoted Honorary Major. In September, 1904, after serving the regiment for twenty years, he was awarded the Volunteer Decoration. He joined the Territorial Force, and received the command of C Company of the 5th Battalion of the Royal Warwickshire Regiment. He was President of the Officers' Mess at the Head Quarters of the 5th and 6th Battalions, and his death has cast a gloom among the men of the two battalions. Dr. Richards was a bachelor.

The funeral took place on April 8th at Warstone Lane Cemetery, Birmingham, with full military honours. Besides the chief mourners and representatives from the Children's Hospital and numerous public institutions, there were 300 Territorial rank and file and over 80 officers present. Officers attended not only from the 5th and 6th Battalions, but also from the 8th Royal Warwickshire Regiment, the 3rd South Midland Brigade, R.F.A., the Royal Army Medical Corps, and the Army Service Corps. The parade was commanded by Lieutenant-Colonel Barnsley. The coffin, which was covered by the Union Jack, and bearing the helmet and sword of the late major, was placed on a gun carriage found by the 3rd South Midland Brigade, R.F.A. The firing party consisted of 100 men of C Company, which Major Richards commanded.

The Bishop of Birmingham, as acting chaplain to the 5th and 6th Battalions, conducted the service in the chapel, and gave a brief address, in which he referred to Dr. Richards's devotion to duty and his love for the poor. Besides the friends of his own class, Dr. Richards left many among the very poor, who truly mourned him. Zeal for his profession had not caused him to forget his duty to God, his duty to the poor, or his duty to his country. He was the life and soul of the officers' mess, and was diligent and efficient as a soldier.

COLONEL THOMAS STEPHENSON WEIR, late of the Indian Medical Service, died at Bombay on March 11th. He joined the Bombay Medical Department as an Assistant Surgeon, April 1st, 1870, and became Colonel, April 1st, 1900, retiring from the service in 1906. From the *Bombay Gazette* we learn that Colonel Weir, who was a native of Inniskilling, was educated at Dundalk, and graduated at Trinity College, Dublin. He was well known in Bombay as the executive health officer of the Bombay Municipality for many years. For some time he was Principal Medical Officer of the Quetta Division, and had but recently returned to Bombay in ill-health. He was advised to return home, and purposed doing so after dispatching some urgent private work, but his illness suddenly took a serious turn and ended fatally.

Public Health
AND
POOR LAW MEDICAL SERVICES

THE PUBLIC HEALTH ACT AND UNSOUND FOOD.

THE difficulties and expenses attendant upon the due administration of the Public Health Act in so far as it relates to the sale of unsound food are well illustrated in a case heard by Mr. Justice Channell on March 21st. The facts may be very briefly stated. A butcher was under contract with the War Office to supply meat to the barracks at Winchester. This contract provided for the rejection of unsound meat, for special inspection of meat at certain times, and for fining the contractor for each occasion when the meat was rejected at a special inspection. Certain meat having been rejected by the War Office officials as not being in accordance with the contract, notice was given to the Medical Officer of Health at Winchester. He inspected the meat pursuant to Sec. 116 of the Public Health Act, 1875, and seized it. After this the butcher received notice from the War Office to determine his existing contracts. It was proved that some of the meat was in fact unfit for food, but that the butcher and his assistants were not aware of the fact. A summons against him for exposing improper meat for sale was dismissed. Now the Public Health Act, 1875, Sec. 304, provides that where any person sustains damage by reason of the exercise of any of the powers of the Act, and is not himself in default, full compensation must be paid by the local authority, the amount being settled in a case of dispute by arbitration. An arbitrator was appointed who made an award directing that the butcher was entitled (*inter alia*) to £118 11s. 9d. in respect of costs incurred by him at the abortive prosecution; and to £800 by way of general damages. The matter having come before the court to enforce the award it was held that all these damages were recoverable.

INFECTION AND EMPLOYMENT.

M.O.H.—(1) The uninfected members of a family or other persons in the same house as a person suffering from scarlet fever can be prevented from pursuing their callings or going into shops or public places in those districts in which Section 61 of the Public Health Acts Amendment Act, 1907, is in force, or where similar provisions are made in a local Act. Section 61 enacts that where a local authority has provided a temporary shelter or house accommodation for the purpose, it may, on the appearance of any infectious disease in a house, cause any person, who is not himself sick, and who consents to leave the house, to be removed to the temporary shelter. If the person does not consent, two justices, on the application of the local authority, and on being satisfied of the necessity for removal, may make an order for the removal. Section 109 of the Factory and Workshop Act, 1901, prohibits, under a penalty, the giving out from a factory or workshop of any wearing apparel to be made, cleaned, or repaired, in a dwelling house in which any inmate is suffering from small-pox or scarlet fever. Section 110 of the same Act enables a district council to make an order forbidding any work connected with wearing apparel being given out to a person living in a house in which there is a case of infectious disease.

(2) A medical officer of health can claim a fee for notifying to himself cases of infectious disease which he has discovered on being called to his private patients.

THE Scientific Esperantist Association has decided to form a Congress Section, whose function will be to make arrangements with the organizing committees of international congresses either for the immediate translation into Esperanto of communications in languages not understood by all the members of the congress, or for the publication of a translation of such communications, together with the official reports, immediately after the congress. For this purpose the "Kongresa Sekeio" has instituted an office of Esperantist translators of all nationalities, whose services will be available until the organizing committees of the various nations find among their own members persons competent to do the work. This year will, it is thought, afford a particularly favourable opportunity of starting the Congress Section of the Esperantist Scientific Association. The Universal Exposition which is to be held at Brussels will furnish the occasion for the holding of over sixty congresses of one kind or another in that city, and the Belgian Government intends to make special arrangements for the publication of official records of these gatherings. The General Organizing Committee of the Congresses has expressed itself favourable to the creation of a special office for translation into Esperanto. The Esperantist Scientific Association appeals to all interested in the movement to place themselves in communication with M. Rollet de l'Isle rue de la Bourse, Geneva, who has provisionally undertaken the duties of general secretary.

Medical News.

THE annual general meeting of the London and Counties Medical Protection Society, Limited, will be held at , Craven Street, Strand, W.C., on April 27th, at 4 p.m.

DR. C. C. FINLATOR, D.P.H.(Manch.), has been ppointed Medical Inspector of School Children for the ounty of Clackmannan, at a salary of £325 per annum.

THE late Mr. John William Taylor, F.R.C.S., Professor f Gynaecology in the University of Birmingham, who ied on February 26th, aged 59, left estate valued at 25,294 gross, with net personalty £23,457.

A LECTURE on the public health aspect of food supply in he colonies will be given at the Royal Sanitary Institute, Buckingham Palace Road, S.W., by the Hon. Sir John . Cockburn, K.C.M.G., M.D., on Wednesday next, at .15 p.m.

Dr. F. W. MOTT'S first Oliver-Sharpey lecture at the Royal College of Physicians of London, on the cerebro-pinal fluid, will be given on Friday next, at 5 p.m.; the econd lecture will be given on the following Friday at the ame hour.

THE chief fire officers of Sheffield and Dundee report avourably upon the use of motor propulsion for fire work. n Dundee the cost for the first fifteen months was about qual to that of the upkeep of one horse. The motors were supplied in both cases by the Argyll Company.

THE dinner of the Edinburgh University Club in London will take place on May 28th, when the Right Hon. Sir Robert Finlay, K.C., M.P., will take the chair. Further particulars can be obtained from Mr. J. W. Thomson Walker, F.R.C.S., 30, Queen Anne Street, W., or Dr. Purves Stewart, 94, Harley Street, W.

A NEW departure in the work of the Brighton Municipal Technical College was made on April 5th, when Dr. F. G. Bushnell, D.P.H., commenced a course of lectures on bacteriology. The course is primarily intended for students of Public Health, but has been arranged so as to be a suitable adjunct to the study of Dental Surgery, Veterinary Medicine, Agriculture, and Pharmacy also. The course will be illustrated with lantern slides and demonstrations.

OUR attention has been drawn by the management of the Aix-la-Chapelle (Aachen) spa to a very prevalent belief that this spa is only used for the cure of syphilis. It is stated that, although a very large number of syphilitics undergo a course of treatment at the spa each year, and derive much benefit therefrom, the number of patients suffering from other diseases is many times greater.

THE International (American) Commission for the Control of Tuberculosis among Domestic Animals recently met in Detroit, Michigan. It is composed of fourteen members, representing the Governments of the United States and Canada, and the large breeders and packing houses of both countries. Its chairman is Dr. J. C. Rutherford, Veterinary Director-General and Livestock Commissioner of Canada.

THE eighth International Physiological Congress will be held this year at Vienna, under the presidency of Professor Siegmund Exner. The date has been changed from Whitsuntide to September (27th to 30th). The official languages of the Congress are German, English, French, and Italian. The General Secretary is Professor Otto von Fürth (Physiologisches Institut, Wien IX, Währingerstrasse 13), to whom the titles of communications to be presented should be sent. Notice of demonstrations, with a list of the apparatus required, should be sent to Professor A. Kreidl at the same address. An exhibition of physiological apparatus will be open from September 26th to October 1st. Applications for leave to exhibit should be addressed to Herr Hofrat H. H. Meyer, Pharmakologisches Institut, Wien IX, Währingerstrasse 13.

THIS is an age of "crusades." The latest—up to date—is one against the common house-fly. My Uncle Toby carefully set free the one that got into his eye, saying, "Go, poor devil, why should I hurt thee? This world surely is wide enough to hold thee and me." This is not the opinion of Dr. D. D. Jackson, of New York, who in an address before a meeting of the American Civic Association, held recently at Washington, described the house-fly as the most dangerous animal on earth. A special committee of the association has been appointed to institute a national campaign of destruction against the fly. Among the members of this committee are Dr. D. D. Jackson and Dr. Woods Hutchinson, of New York; Mr. Harlan P. Kelsey, of Salem, Mass.; Dr. Albert Vander Veer, of Albany, N.Y.; and Mrs. Robert S. Bradley, of Boston.

AT an inquest held recently by Dr. Waldo on a case of death from tetanus which occurred at St. Bartholomew's Hospital a medical witness stated that the patient had been treated with antitetanus serum, but that the treatment was not continued as long as would have been desired owing to the fact that the supply available was insufficient; death was attributed to heart failure due to blood poisoning secondary to fracture of the skull, the system having been weakened by exhaustion from an attack of tetanus. A juryman commented unfavourably upon the fact that a great hospital should depend for its supply of serum upon commercial enterprise. We have made some inquiries, and find that there was no deficiency in the supply of antitetanus serum prepared by the Lister Institute of Preventive Medicine, and that in fact the stock in the hands either of the institute or of its wholesale agents, Messrs. Allen and Hanburys, Ltd., amounted to upwards of 3,000 bottles. The institute, we may add, resolved to supply serum through a commercial firm after full consideration, believing that that method was the most convenient, and would most certainly ensure prompt delivery at any time. Messrs. Parke, Davis and Co. also inform us that they had on hand at the time stated, and always keep, ample supplies of antitoxin serum.

THE fact that Dr. A. C. Farquharson headed the poll by a large majority at the recent election of the Bishop Auckland Urban District Council is a matter of some significance and general interest, because it would seem that in placing him in that position the ratepayers desired to express their approval of the action he had taken with regard to the Lady Eden Hospital. This hospital, which contains twenty-six beds, is mainly supported by contributions from miners in the neighbourhood, and its benefits are more or less restricted to these regular subscribers. When it was built, some years ago, it was practically situated in a field, but owing to the rapid development of the neighbourhood it is now completely built round, and the question of making a new street running the whole length of the grounds of the hospital arose; the surveyor scheduled the hospital to pay part of the cost, the sum required being £160. Dr. Farquharson, who is governor and surgeon to the hospital, conceived the idea of inducing the District Council to make the street and charge the cost to the general district rate. This was at first resisted, largely owing to the restriction mentioned above as to the persons admitted to the hospital, but partly on the ground that the council had no legal power to act in the manner suggested. Dr. Farquharson, however, was able to point out that Section 15 of the Private Street Works Act vested sufficient authority in the local council, and, as similar circumstances may arise elsewhere, this fact seems worthy of note. At the first meeting of the new council Dr. Farquharson brought forward his resolution, and the council agreed, with one dissentient, to make the road without expense to the hospital.

THE Postmaster-General has appointed a Departmental Committee to inquire into the prevalence, causes, and means of prevention of telegraphists' cramp. The committee consists of Sir John N. Barran, Bart., M.P. (Chairman); Dr. Harold Theodore Thompson, assistant physician to the London Hospital; Mr. A. G. Leonard, of the secretary's office, General Post Office; Dr. J. Sinclair, second medical officer of the Post Office; Mr. A. W. Martin, engineer-in-chief's department; and Mr. R. H. Davis, ex-president of the Postal Telegraph Clerks' Association. Mr. S. A. Paterson, of the secretary's office, will act as secretary to the committee. The disorder was one of those brought under the notice of the Departmental Committee on compensation for industrial diseases, which reported in 1908. Evidence on the subject was given by Dr. Sinclair, who described it as an occupation neurosis, dating from the introduction of the Morse instrument. This instrument is mainly operated by the first and second fingers, a correct transmission of messages by its means depending largely on the accuracy of the spacing between letters and groups of letters. In default of such accuracy, the message may become unintelligible or its meaning altered. The subjects of telegraphists' spasm or cramp cannot be depended on to exhibit this accuracy, for, though most of the words they transmit may be perfect, a sudden jerk of their fingers at one place may alter or confuse the meaning of some important word. Dr. Sinclair stated in his evidence that he regarded the disease as incurable once it was established. The nature of a developed case was quite obvious, but a commencing one was more difficult of recognition. He calculated that as many as 2.75 per cent. of all the 18,000 telegraphists employed by Government were subject to the disease.

Letters, Notes, and Answers.

BRITISH MEDICAL ASSOCIATION AND BRITISH MEDICAL JOURNAL.

THE offices of the British Medical Association and of the BRITISH MEDICAL JOURNAL are at 429, Strand, London.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

INCOME TAX.

H. E. C. is paying the purchase money of his practice partly in instalments. He inquires whether such instalments are an allowable deduction from his income tax assessment, pointing out that if the recipient returns the instalments as part of his income the tax is liable to be paid twice.

*** The instalments of the purchase money represent capital outlay by our correspondent, and cannot be deducted in arriving at the yearly profits of his practice for assessment to income tax. There should be no question of payment of tax by the recipient, for the instalments do not represent income to him, but deferred payment of a capital sum.

ANSWERS.

T. L., who asks where a confirmed morphomaniac can be treated who can only afford 30s. a week, might apply to the Secretary, National Institution for Persons requiring Care and Control; offices, 14, Howick Place, Westminster, S.W.

TREATMENT OF PROLAPSUS ANI IN THE ADULT.

DR. FLORENCE A. STONEY (London) writes, in reply to "A. B. C." (BRITISH MEDICAL JOURNAL, February 5th, p. 359): The faradic (interrupted) current applied for ten minutes three times a week, as strong as the patient will comfortably stand it, will soon cure the condition. One large electrode is placed over the patient's back, and the second inserted just inside the anus.

BARBER'S RASH.

HONESTY.—Barber's rash is an unfortunate term. In the first place it saddles the barber with occurrences which may not be due to any commission on his part, and, secondly, it does not always mean the same pathological process. The name is sometimes applied to two conditions totally different in origin, namely, (1) a coccogenic sycosis, due to common staphylococcal infection, that is, a pus infection; and (2) a hyphogenic sycosis or *Tinea barbae* due to a ringworm fungus, the *Trichophyton megalosporon ectothrix* usually. Taking it that our correspondent means the former, and answering his questions seriatim: (1) The minimum and maximum limits of incubation are not easy to determine, for there are variations in the virulence of the strain of micro-organism and in the soil. Pustulation would probably develop it in two or three days. This point could only be settled by experimental inoculation of a series of individuals. In the histories of such cases, as in all histories, the "post hoc propter hoc" fallacy must be borne in mind. (2) The ideal methods of preventing pus inoculation, coccogenic sycosis, is to make the shaving brush thoroughly aseptic. As regards hyphogenic sycosis, that is another story.

PARENTAL SYPHILIS.

J. W. T.—The statement made in the review on *Bacteriology for Nurses* (BRITISH MEDICAL JOURNAL, March 12th, p. 641), to the effect that the possibility of paternal syphilitic infection without maternal infection is denied by competent observers, was based on the following considerations: Colles's law and Profeta's law have been disputed within the past five years, and appeared as though no final settlement of the question could be reached, when Wassermann's reaction came to the rescue. Several careful investigations were made, and a highly interesting discussion resulted. The test showed quite clearly that the immunity of the mother which is referred to in Colles's law depends in every case on infection—that is, the mother cannot be infected by her syphilitic child, because she is already syphilitic herself, even though the disease be latent. Baisch was able to demonstrate this in a most striking manner. It would now appear that a syphilitic infection of the embryo by the father directly, without any infection of the mother—leaving aside the question of the maternal infection of the ovum—does not occur. With regard to Profeta's law, recent researches show that the alleged immunity of the mother is not invariable; is, in fact, not even frequent. When it appears to exist the child is, according to Frankl, really syphilitic.

LETTERS, NOTES, ETC.

A TRIANGULAR BANDAGE.

WE have received from Messrs. Cuxson, Gerrard and Co. a new design of triangular bandage. It is very like the bandage originally introduced by Professor Esmarch, but has in addition a chart referring by means of a number to the various modes of its application. It will, no doubt, be found useful for demonstration purposes.

AN EFFECT OF COFFEE.

M.D., D.P.H., writes in reply to a note in the JOURNAL of February 12th: I by no means believe that the mental symptoms described by me are likely to be in every case a result of coffee. I rather think that tea in sufficient strength would have a similar effect, and I am sure that tobacco has on some people an effect which, if not precisely the same, is yet perhaps as unpleasant. It is, however, I think, more likely to produce a more marked melancholia than coffee. The symptoms described in my former note could not in my case have been due to tobacco or alcohol or any drug, and were, I think, the result of the action of some constituent of coffee directly on the brain, or of some new product formed by it in the digestive tract.

THE DOCTOR'S TELEPHONE.

DR. A. W. MONTGOMERY (Seacombe, Ches.) writes: It has occurred to me that as the National Telephone Company's system will become State property at no very distant date, our Association should consider the propriety of approaching the proper authorities, with a view to obtaining a preferential tariff for medical men in active practice. The high charges of the present company under the measured rate system for small consumers—a system in force for some time, and insisted on for all new installations—take a very big slice out of the average man's income. Practitioners in the past, in individual cases, may have gained financially by adopting the telephone in advance of their colleagues; that gain is, however, now eliminated by the universal use of the system, and the benefit is now all on the side of the general public. We had little difficulty, I understand, in obtaining a rebate on the petrol tax, and to my mind we have a still better case to put forward in the matter of telephone charges.

WALSALL COUNTY BOROUGH: A WARNING.

DR. GEOFFREY STEAD (Member of Health Committee, Walsall Council, Vice-Chairman of Walsall Education Committee) writes: Will you permit me through your columns to issue a word of warning to members of the profession likely to become candidates for the position of medical officer of health in the near future? A vacancy has occurred in the County Borough of Walsall, and will be filled up next month by the Town Council. The duties of the office are many and onerous, including, in addition to the usual ones, (*a*) that of police surgeon; (*b*) supervising lady health visitor or visitors; (*c*) *control* and *responsibility* of the medical work under the Education Committee.

The *commencing* salary is only £400 per annum, rising £25 annually to £500. This sum is totally inadequate, and a worse form of "sweating" it would be difficult to find at the present moment in the United Kingdom. All fees received by the medical officer of health for *post-mortem* work and the giving of evidence in the law courts are to be handed over to the borough fund. Young men seeking a post with the object of preferment may be tempted to apply, but I trust the medical profession as a whole will make a protest and refuse to place valuable and trained services at the disposal of the Walsall Council until the latter vote a fairer remuneration for services to be rendered. I shall be pleased to supply further information to any person interested, for it is high time medical men refused to allow public bodies to dictate such unrighteous terms for responsible and important public work. I hope the Local Government Board may decline to sanction such a course; at any rate, their attention will doubtless be called to the necessity of intervention from head quarters. The population of Walsall is 100,000. The salary should begin at £600 and rise to £800 per annum.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page	8	0	0

An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

NOTE.—It is against the rules of the Post Office to receive *postes Restante* letters addressed either in initials or numbers.

A Lecture

ON THE

RGICAL TREATMENT OF CERTAIN CASES OF GLYCOSURIA.

ELIVERED AT THE MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, FEBRUARY 28TH, 1910.

BY

A. W. MAYO ROBSON, D.Sc., F.R.C.S.,

EMERITUS PROFESSOR OF SURGERY, UNIVERSITY OF LEEDS; HONORARY SURGEON, DREADNOUGHT HOSPITAL.

THING was more impressed on my mind by my surgical chers in the early Seventies than the desirability, nay, absolute necessity, of avoiding surgical treatment in y patient whose urine was found to contain sugar; and ave a distinct recollection in those pre-antiseptic days seeing several simple operations to go wrong in which cosuria received the blame that, as one can now ognize it, should have been awarded to sepsis.

Although glycosuria patients are not subjects that a rgeon would choose to operate on if relief could be orded in any other way, yet I have found by considerle experience that patients whose urine contains even a nsiderable amount of sugar may usually be safely ated surgically if due precaution be taken to secure as r as possible an aseptic condition of the wound, and if re be taken in the preparation of the patient by securing ee evacuation of the bowels before operation, and taining by means of carbonate of soda or some other kali a neutral, or almost neutral, reaction of the urine so to avoid acetonaemia.

My purpose now is, however, not simply to prove what already known, but to show that certain cases of iabetes may be materially benefited, and some even may e cured if the glycosuria be of pancreatic origin; and rthermore, to show that a fairly accurate prognosis of ne onset of diabetes may be made by a careful examiion of the urine and faeces in certain cases at a period ng antecedent to the appearance of glycosuria, and that n this early stage the onset of diabetes may be averted by imely surgical treatment.

While the literature of diabetes so far as its pathology s concerned is almost overwhelming in its amount, the tudent soon discovers that the subject of treatment is confined within very narrow bounds, and in fact until quite recently it has been limited to certain modifications f diet and other general palliative measures.

Although it had been noticed by several observers that liabetes was occasionally associated with disease of the pancreas, no definite causal relationship between the two was surmised until 1889, when Mering and Minkowski, as the result of experimental extirpation of the gland, demonstrated the direct relationship of the pancreas to carbohydrate metabolism and its independence both of the nervous connexions and of the secretory functions of the organ. As the result of numerous observations since 1889, it seems to be fairly established that the pancreatic origin holds in from 70 to 80 per cent. of cases of diabetes.

My colleague, Dr. Cammidge, and I have observed together 31 cases of pancreatic diabetes in which the question of surgical treatment has arisen or has actually been carried out, and each of us has carried out observations on other cases independently. In all these 31 cases the pancreatic reaction in the urine has been found associated with glycosuria, and in the greater number of them the accuracy of the diagnosis has been verified by operation or at autopsy. Dr. Cammidge tells me that he has examined 83 specimens of urine from 48 cases of diabetes by his special method, and obtained the pancreatic reaction in 36, or 75 per cent. of the patients. Of the 12 that gave no reaction, the opportunity for *post-mortem* examination occurred in 3, in all of which there was no evidence of disease of the pancreas.

The suggestion that the islands of Langerhans are concerned in the production of the "internal secretion" of the pancreas was first made by Laguesse. This view was subsequently adopted by Schäfer, Diamere, and others. The theory that such a relationship exists is based partly on histological grounds and partly upon the results of experimental work; but the most important evidence in support of it has been furnished by pathological observations, which suggest that pancreatic diabetes is due to a disturbance of the functions of the cell islets. The peculiarity of their structure, their independence of the duct system of the gland, and their comparative resistance to certain morbid changes by which the secreting acini are destroyed, point to their being independent organs with an independent function, while their rich blood supply may be taken to indicate that they are possibly vascular glands engaged in the elaboration of some internal secretion which is poured into the blood stream.

Opie considers that diabetes is peculiarly related to interacinar pancreatitis, and that in the interlobular form it is rare. The difference, he considers, depends upon the relations of the fibrous tissue overgrowth to the islands of Langerhans, which he in common with many observers believes are responsible for the elaboration of the internal secretion by means of which the pancreas exerts its influence upon carbohydrate metabolism. The newly-formed fibrous tissue in interacinar pancreatitis is diffusely distributed within the lobules and between the individual acini, so that the islands are affected at the same time as the other elements of the gland; but in the interlobular form, which is the type following duct irritation or obstruction, the proliferation of fibrous tissue takes place between the lobules and invades them from the periphery, so that the cell islets suffer only when the process is far advanced, and the secreting parenchyma has been replaced by masses of scar-like tissue.

Opie found that diabetes was present in 7 out of 9 cases of interacinous pancreatitis, but only in 1 out of 21 cases of chronic interlobular inflammation, in which case the induration of the gland was far advanced and the islands of Langerhans were fibroid. The two cases of interacincus pancreatitis in which diabetes was absent, were both, he found, in an early stage of the disease.

The pathological changes that have been met with in the interacinar islets in cases of diabetes are hyaline degeneration, necrosis, atrophy with vacuolization and liquefaction of the cell protoplasm, acute and chronic inflammation with haemorrhage, sclerosis, or calcification, and diminution of the number of islets. In 19 cases of diabetes in which Opie investigated the condition of the islands of Langerhans he found hyaline degeneration in 7 (35 per cent.). When I was in Baltimore as a guest of the American Surgical Association I had the opportunity, through Dr. Opie's kindness, of seeing his specimens, which were most convincing.

Fortunately interacinar pancreatitis, which gives rise to diabetes at an early stage, is a much less common disease than the interlobular form.

Opie's description of hyaline degeneration in the islands of Langerhans alone, in diabetes, furnished the most convincing evidence of the association of these structures with carbohydrate metabolism up to that time available, and from the publication of his paper in 1901 may be dated a revival of interest in the pancreatic theory of diabetes, and a more searching and minute inquiry on the part of other observers into the condition of the cell islets in fatal cases coming to *post-mortem* examination.

Chronic interstitial pancreatitis has been frequently observed in association with diabetes, but in the majority of cases where interstitial changes in the pancreas arise from irritation of the ducts by gall stones, or from other causes, glycosuria is not met with as a symptom. In a communication made some time ago I referred to 65 consecutive cases of my own where biliary calculi were found in the common duct at operation, and in which the pancreas was enlarged and hard from the effect of interstitial pancreatitis; sugar was detected in the urine only of 4 (6.1 per cent.). In 3 of these the amount was under 0.2 per cent., and in the fourth 0.4 per cent. After operation the sugar disappeared from the urine in all but the last, in which it slowly increased in amount, the patient dying from diabetic coma ten months subsequently.

Since the interstitial changes arising from the presence of gall stones in the common duct principally affect the head of the gland in the first instance, and the results of experiments upon animals have shown that even a small

portion of healthy pancreatic tissue will prevent the onset of diabetes, or at least delay the appearance of the symptoms, so long as it remains undestroyed by fibrotic changes, the comparative rarity of glycosuria in these cases is not difficult to explain. When, however, a great part of the parenchyma has been destroyed, or is functionally impaired by the progressive changes consequent on repeated or long-continued irritation, either from gall stones or an unrelieved duodenal catarrh, or from the presence of pancreatic concretions, sugar will make its appearance in the urine, first as an alimentary glycosuria, and later as a permanent diabetes.

Although the cause of glycosuria in a considerable percentage of cases is due to pancreatic disease, yet very obvious disease of the pancreas may be unaccompanied by glycosuria; this is particularly noticeable in cancer, which is seldom associated with diabetes. A very striking example of this has recently been investigated and described by Dr. S. G. Scott:

The patient was a man suffering from cancer of the head of the pancreas with occlusion of the duct and secondary atrophy and fibrosis of the body of the gland. There was no trace of sugar in the urine during life, and although *post-mortem* microscopical examination showed that the whole of the secreting parenchyma had been replaced by fibrous tissue, the islands of Langerhans were unaffected.

On the other hand, in the case recorded by Dr. Churton, in which there was complete fibrosis of the gland due to pancreatic lithiasis, the islets of Langerhans were destroyed and a large amount of sugar was present in the urine.

Dr. Cammidge only met with sugar in the urine in 2 out of 48 cases of primary malignant disease, and both of these gave a modified pancreatic reaction, due to the presence of associated chronic pancreatitis. In 2 cases in which the disease invaded the pancreas secondarily sugar was present, and at autopsy there was found to be interacinar pancreatitis in one and advanced fibrosis and calculi in the ducts of the other.

My own experience in over a hundred cases of cancer of the pancreas has been that glycosuria is a very rare complication, not more frequent than 3 per cent., and, needless to say, no treatment can be of any permanent avail, though in the following case of cancer of the common duct the operation of cholecystenterostomy led to a disappearance of the glycosuria.

Cancer of Common Bile Duct involving Head of Pancreas: Deep Jaundice: Glycosuria: Boils: Cholecystenterostomy.

On April 30th, 1909, I was asked by Dr. C. to see Mrs. M., aged 60, who had been subject to attacks of indigestion since influenza a year ago. For nine weeks before my seeing her she had had a severe pain at the epigastrium. Jaundice had been present for five weeks. On examination I found an enlargement of the right lobe of the liver, with some enlargement of the gall bladder. Three weeks before my seeing her Dr. C. had found 3 per cent. of sugar in her urine, and during this time she had been suffering from numerous boils on various parts of the body.

On May 17th, 1909, I operated and found a hard tumour of the head of the pancreas, which felt like a gall stone. The common duct was opened and the finger passed down the duct, but no gall stone could be felt. The common duct was therefore closed, and the gall bladder was connected to the duodenum, so as to short-circuit the obstruction. The abdomen was closed, and then the boils on various parts of the body were laid open and scraped. The patient made a good recovery from her operation, and Dr. C. reported in July that the sugar had entirely disappeared from the urine. From a report that I received later in the year the growth had evidently extended to the hepatic duct, but at that time there was no recurrence of the glycosuria.

The evidence I have thus far brought forward shows that we cannot hope to cure or even materially relieve, except temporarily, pancreatic diabetes depending on extensive destruction of the gland by organic disease, whether that be dependent on growth or on chronic inflammation, if either class of disease has extensively involved the islands of Langerhans; nor can we hope to benefit that form of inflammation that singles out the cell islets, which is known as interacinar pancreatitis. But, fortunately, by far the greater number of cases of glycosuria due to pancreatitis are dependent on inflammation of the catarrhal type in which the gland is invaded by way of the ducts from varying causes, such as gall stones, pancreatic calculi, duodenal catarrh (often associated with duodenal ulcer), typhoid fever, etc.

In this class of cases the disease probably exists a period as a catarrhal inflammation simply, and if cau in this stage it is, I believe, curable by surgical measu in a considerable proportion of cases. At a later sta the inflammation produces an interstitial inflammati which may be arrested and decided relief given surgical means, though the damage already done to t pancreas cannot be repaired. At a still later sta cirrhosis of the gland takes place, and if the cell isl become involved extensively, surgical means are qu useless.

The difficulties that have until recently attended t rational treatment of diabetes have not only been due the obscurity of the etiology of the disease, but even sin diseases of the pancreas have been recognized as the cau of glycosuria in a large percentage of cases, the difficulti attending their diagnosis in an early stage, that is at stage when curative treatment can be adopted, have be insuperable.

These difficulties have fortunately been overcome, f it is now possible to diagnose the catarrhal and inflam matory diseases of the pancreas even in their earlie stages by a careful examination of the urine and faece and by a consideration of the clinical history an symptoms.

As the diagnosis of pancreatic disease giving rise diabetes can be made in an early stage before the onset glycosuria, it seems to me that there can be no reasonab excuse for allowing the condition to progress untreate until the more serious disease supervenes. The resul that may follow the neglect of a warning given by the pa creatic reaction are well shown in a case that I saw i May, 1904, in which I removed the appendix for recurrin appendicitis.

The urine of the patient was examined on June 2nd, an found by Dr. Cammidge to give a well-marked pancreat reaction, which was confirmed by another examination fiv days later.

As an operation had recently been performed, the patient wa averse to further surgical treatment, and it was hoped tha general treatment at home might bring about relief to th affected pancreas.

Two years later (August 30th, 1906) a specimen of urine wa again sent to Dr. Cammidge, when he found not only the pan creatic reaction but also 1.25 per cent. of sugar. On April 11th 1908, the sugar had increased to 4.5 per cent., and within a shor time the diabetes terminated fatally.

I firmly believe that a cholecystenterostomy performe as soon as the pancreatic affection was recognized woul have prevented the onset of glycosuria and that an opera tion undertaken in 1906 would have arrested the progres of diabetes.

The following case, out of several that I could relate affords an example demonstrating that pancreatitis if taken early, when only catarrhal, can be completely cured.

A lady, aged 50, had for several years suffered from attacks o distinct biliary colic, which during the past two months had been followed by jaundice, fever, and collapse. There had recently been loss of flesh. On examining the urine the pan creatic reaction was discovered, and at the operation on April 30th, 1903, 40 gall stones were removed from the gall bladder and cystic duct. None were found in the common duct, though the pancreas, especially the head of the gland, was distinctly swollen and harder than normal. The gall bladder was drained. The patient made a good recovery and is now well. Normal weight has been regained, and there is no longer any evidence of disturbed metabolism.

This is a good example out of many that I could relate of the so-called catarrhal jaundice and catarrhal pancreatitis so frequently associated with gall stones, though the concretions are in the gall bladder or cystic duct, and can therefore not be directly responsible for obstructing the flow of bile into the intestines. The pancreatic ducts become affected at the same time as the bile ducts by the catarrhal process extending from the duodenum, and this leads to swelling of the head of the pancreas and so to pressure on the common bile duct, and to slight or in some cases to serious obstructive jaundice. Had this condition been allowed to persist the prognosis of advancing interstitial pancreatitis ending in glycosuria would have been probably correct. It may be asked, Why are not all cases of gall stones in the gall bladder associated with jaundice and pancreatitis?

explanation, so far as the pancreatic condition is rned, is probably dependent on the power of resist- f the individual to *coli* infection, but, with regard jaundice, it is an anatomical one; in 62 per cent. cases the pancreas embraces the third portion of mmon bile duct—hence, although pancreatic catarrh erstitial pancreatitis may be a frequent concomitant lelithiasis, in only about two-thirds of such cases will ikely to lead to jaundice by pressure on the main bile el, for if the choledochus passes behind and not gh the head of the pancreas, the duct may escape re when the pancreas is congested or otherwise n, whereas, if it pass through the gland, any com- on or swelling of the pancreas will, by pressing on ommon duct, bring on jaundice with its various lae. Thus are also explained many of the cases of led catarrhal jaundice.

early stage of catarrhal pancreatitis, if not asso- l with organic disease, may possibly be cured by al treatment, but it is most important that medical ment, if not giving relief, should not be continued ong, or it may be too late to secure a favourable

s most desirable that the pancreatic disease should be too far advanced before surgical treatment is ed, otherwise relief and not complete cure is all that e hoped for, and for this reason I strongly recommend all cases of cholelithiasis and of duodenal ulcer, if iated with pancreatitis, as shown by the pancreatic ion in the urine, should be operated on with as little as possible, though even in the more advanced itions operation may be undertaken with the hope of ting the disease of the pancreas, and so preventing otherwise inevitable progress of the diabetes.

some cases in which operation has been delayed or nage of the bile ducts not performed, or not long gh continued, the original interstitial pancreatitis persist, as in the following two cases, and lead to an entary glycosuria or to a slight permanent diabetes.

s. C., aged 51, who was suffering from persistent jaundice periodical pains and ague-like seizures that had extended a long period, was operated on by the author in July, 1895, several gall stones were removed and others crushed and ved from the common duct. A tumour of the pancreas felt, which it was feared at the time might be malignant. gall bladder was therefore drained into the duodenum by a ecystenterostomy. The patient recovered and has remained rently well since the operation fifteen years ago, but an ination of the urine by Dr. Cammidge showed a well- ked pancreatic reaction and the presence of dextrose on ember 11th, 1902. This shows that although the patient been relieved by the operation and had apparently enjoyed l health, yet that she is living with a damaged pancreas, operation having apparently arrested the progress of the reatic disease and averted a fatal diabetes.

r. D., aged 42, had an attack of pain in the right hypo- drium in August, 1888, but no jaundice. He had been free pain up to six weeks before seeing me, when he had a re attack in the right hypochondrium, radiating to the t shoulder, accompanied by rigors and vomiting, followed aundice, which had persisted. No swelling could be felt. exploratory operation was performed on October 27th, 1898, n a mass, thought to be growth in the head of the pancreas, discovered. The tumour was freely handled, to try to rtain if any gall stone was impacted in the common duct, no concretion could be felt and the abdomen was closed. enlargement of the head of the pancreas was clearly not cer, and must have been chronic pancreatitis, as the patient le a good recovery, and gradually lost his jaundice. The ipulation may have dislodged an obstruction, leading to the ef of the jaundice.

specimen of his urine was obtained in 1904, and although was reported to be quite well, this was found to give the creatic reaction and to contain sugar in fair quantity.

These cases, along with others that I know of, lead me think it is advisable to drain the bile ducts thoroughly in such conditions, and I consider that drainage ought to be tinued until the bile becomes free from organisms and normal route free from obstruction. Either long- tinued drainage through a cholecystotomy opening or manent drainage by a cholecystenterostomy will meet ese conditions.

In certain cases, even of well-marked glycosuria, re- very doubtless occurs under general treatment without eration, and I have notes of one case where a gentleman advanced age had deep jaundice associated with ycosuria and with a well-marked pancreatic reaction in the urine, pointing to the case being one of pancreatic diabetes. Under general treatment, combined with massage, he not only lost his jaundice and glycosuria, but regained his health, and is now said to be quite well. In this case it is quite possible that the massage dislodged a concretion which was blocking both the common bile duct and the pancreatic duct, or a concretion may have been discharged into the duodenum by ulceration, but as no search was made in the faeces this cannot be proved. As the patient lives abroad, I have not been able to get a specimen of the urine to see if the glycosuria is still absent.

That glycosuria dependent on an early stage of catarrhal pancreatitis, if not associated with organic disease, may be relieved or possibly cured by general means, the following case proves, but it is important that, unless decided relief is being given, radical treatment should not be deferred until the disease is too far advanced for surgical treatment to be adopted.

Catarrhal Pancreatitis: Glycosuria.

Mr. K., aged 62, was sent to me on May 16th, 1908, from South Africa, there being a question as to whether he was not suffering from some internal malignant disease, as for some time he had been steadily losing flesh, having lost a stone in weight within a few months, during which time he had suffered from indigestion and severe head- aches. I could find no evidence of malignant disease, but an examination of his excreta showed that he was passing 0.24 per cent. of sugar in the urine, which also gave a distinct pancreatic reaction, and contained indican and a well-marked reaction for urobilin. The faeces contained a slight excess of fat, but no occult blood. The condition therefore pointed to pancreatic catarrh, which was probably an extension from a duodenal catarrh. I advised that unless he was shortly relieved by general treatment he should undergo an operation.

On September 17th I received a letter from him, written off Teneriffe, to say that he was much better as the result of general treatment, and that an examination of his urine showed it to be quite free from sugar, though there was still a slight pancreatic reaction.

As bearing on the importance of the early diagnosis and treatment of interstitial pancreatitis—which is the form that complicates cholelithiasis and duodenal ulcer—it is clearly established that for some considerable time, varying doubtless in different cases, the disease of the pancreas is local, and confined to the neighbourhood of the head of the gland or of the large ducts, and, as shown by microscopic examination, it does not invade the whole of the organ or the islands of Langerhans until a later stage of the disease.

In these cases which are associated with glycosuria the cause of the glycosuria is not merely the local chronic pancreatitis, but a general catarrhal inflamma- tion of the pancreas involving the whole of the gland, and inhibiting the function of the cell islets. Thus, I believe, can be explained the appearance of glycosuria in some cases of acute pancreatitis and its disappearance after operation, as in Mr. Giffard Nash's case reported in the *Lancet*, November 1st, 1902.

The following is a brief abstract of the case:

History.

Man aged 60. Influenza 1891 and 1892. For seven years "bilious attacks," pain and discomfort at pit of stomach; very severe attacks of pain one and two years previously; no sign of jaundice; urine increased, average 5 pints.

November 5th, 1891. Sugar 8.75 grains per oz.

October 27th, 1901. Acute abdominal symptoms suggesting acute intestinal obstruction, or perforation of stomach or duodenum.

Operation November 17th, 1901. Much fat in omentum, and mesentery unusually hard. Pancreas enlarged. Numerous spots fat necrosis in fat in neighbourhood of pancreas. Large calculus in gall bladder. Gall bladder drained.

December 28th, 1901. Urine 4½ grains sugar per oz.

March 1st, 1902. Urine 4½ grains sugar per oz.

May 17th, 1902. Urine free from sugar.

Urine examined later by Dr. Cammidge showing permanent damage to the pancreas, but progress of disease arrested.

November 11th, 1902. Sugar 0.9 per cent.; pancreatic reaction positive.

February 16th, 1904. Sugar 1.0 per cent.; pancreatic reaction positive.

January 8th, 1906. Sugar 1.0 per cent.; pancreatic reaction positive.

The cases I am about to relate in which pancreatic glycosuria was associated with gall stones or with duodenal

catarrh, and in which the sugar disappeared from the urine after operation at the same time as the pancreatic reaction, can, I think, be explained in the same way by inhibition of the islands of Langerhans, owing to irritation or to a general catarrhal pancreatitis.

Common Duct Cholelithiasis: Pancreatic Catarrh: Glycosuria.

I was asked to see Mr. P. by Dr. K. on March 19th, 1904. He gave me the history that he had suffered from gall stone attacks for ten years, and had passed many concretions the size of millet seeds. He had been slightly jaundiced for some months, and had had repeated pains and rigors. He had lost flesh very considerably. An examination of the urine showed a well-marked pancreatic reaction and 0.2 per cent. of sugar. At operation on March 20th the gall bladder was found to be surrounded by adhesions, after the separation of which seventy-three small gall stones were removed from it. The common duct was exposed and opened, and a large gall stone the size of a pigeon's egg was removed, together with two others from the pancreatic portion of the duct. The common duct was closed and the gall bladder drained. The head of the pancreas was enlarged and hard. The patient made a good recovery, and though I have not seen him since, I have had a report to say that he is quite well, and that the glycosuria has completely disappeared.

Duodenal Ulcer: Cholangitis: Interstitial Pancreatitis: Glycosuria.

On April 15th, 1905, I was consulted by a military officer, aged 35, who gave me a history that he had had typhoid fever in 1890 and had since suffered from malarial fever. For the past three years he had had regular attacks of pain resembling biliary colic together with symptoms of indigestion, pointing to duodenal ulcer, and slight jaundice with occasional attacks of fever. He had lost nearly a stone in weight. There was a tender spot an inch above and to the right of the umbilicus, where an enlargement of the right lobe of the liver could be felt. During the attacks of pain his medical man told me that the projection became more distinct, as if the gall bladder was enlarged. An examination of the urine by Dr. Cammidge showed a well-marked pancreatic reaction with the presence of sugar. There were also traces of urobilin and indican. An operation was performed on April 20th, when the gall bladder was found to be distended, but no gall stones could be discovered either in it or in the ducts. There were numerous adhesions between the gall bladder and duodenum and colon. On separating these the duodenum was seen to be scarred opposite to the site of the ulcer. The head of the pancreas was enlarged and hard. Cholecystenterostomy together with gastro-enterostomy was performed. The patient made a good recovery. On March 26th, 1907, there was 0.5 per cent. of sugar in the urine with a well-marked pancreatic reaction, though his general condition had considerably improved and he was no longer having the attacks of pain. On March 2nd, 1909, there was a mere trace of sugar hardly discoverable, though there was still a slight pancreatic reaction. A later report showed a disappearance of the sugar, and the patient was said to be well.

Gall Stones: Pancreatic Catarrh: Glycosuria.

On March 27th, 1906, Mr. B., aged 62, was sent to me by Dr. K., with a history that he had been suffering from biliary colic for three years, though he had had slight jaundice four years before the colic began. He had lost flesh considerably, and showed a number of small calculi the size of No. 6 to No. 2 shot that he had passed, though one the size of a swan shot had also passed. There was no special tenderness nor any enlargement of the gall bladder. The urine was examined by Dr. Cammidge, and found to contain 0.4 per cent. of sugar, together with a quantity of bile and urobilin. The pancreatic reaction was well marked. At the operation, on April 2nd, 1906, a number of calculi were removed from the gall bladder and cystic duct. The head of the pancreas was felt to be enlarged and hard, but no stones could be felt in the common duct. The gall bladder was drained. He made a good recovery from the operation, and an examination of the urine by Dr. Cammidge on May 5th, 1906, showed that the sugar had entirely disappeared, together with the pancreatic reaction. When heard of two years later, the patient was in good health and had had no recurrence of his trouble.

Mr. P. was sent to me in November, 1907, with a history that he had been subject to flatulency and dyspepsia for years. He also had had pain off and on for five years below and to the right of the umbilicus, not affected by food or relieved by taking a meal. He had a good appetite, and did not suffer from excess of flatulency. He had lost considerably in flesh, and was very depressed. An examination showed rigidity of the upper part of the right rectus, with tenderness above and to the right of the umbilicus, but no tumour could be felt, and there was no dilatation of the stomach. A report received from his medical man stated that sugar had been present in his urine in January, and that it had increased in March. An examination by Dr. Cammidge showed a well-marked pancreatic reaction. At operation on April, 6th, 1908, the pancreas was found to be hard and inflamed throughout its whole length, but there were no gall stones to be found, nor was there any evidence of duodenal ulcer, though there were firm adhesions between the gall bladder, duodenum, pylorus, colon, and liver. These were separated, and as the gall bladder was too small to anastomose to the duodenum, it was opened and drained, the drainage being continued for some weeks. An examination of the urine on April 15th showed that though the pancreatic reaction continued, there was no trace of sugar, acetone, or diacetic acid.

Gall Stones: Glycosuria: Cholecystotomy.

On June 29th, 1909, I received a letter from a medical man asking me if I would see a Mrs. D., aged 58, who was suffering from painful attacks of gall stones, but that she also had diabetes of four years' duration. On examination I found a marked swelling of the right lobe of the liver with dilatation of the gall bladder. Though she had never been jaundiced, there could be no doubt about the diagnosis of gall stones. An examination of the urine by Dr. Cammidge showed 4.8 per cent. of sugar with traces of acetone and aceto-acetic acid, a very marked reaction for indican, and traces of urobilin. There was also a marked pancreatic reaction. She could not make up her mind for operation, having been told that any surgical treatment in her condition would be extremely dangerous. As her sufferings were continuing, she returned for treatment, and was operated on July 21st, when I found the gall bladder and cystic duct filled with gall stones, some of which were as large as small walnuts, others the size of haricot beans; the lowest was impacted at the lower end of the cystic duct, impinging on the common duct. The pylorus was firmly adherent to the gall bladder, and the head of the pancreas was hard, evidently the seat of interstitial pancreatitis. I removed the gall stones, detached the adhesions, and drained the gall bladder. Recovery from operation was uninterrupted, and on July 29 Dr. Cammidge reported that there was no evidence of sugar in the urine, and that the pancreatic reaction had entirely disappeared. On October 27th I heard that the patient was quite well, and that there had been no recurrence of the glycosuria.

I could relate other cases, but these, I think, will be sufficient to show that my propositions are not merely theoretical or the results accidental.

The practical outcome of my experience is:

1. That the early recognition and treatment of interstitial pancreatitis, or of pancreatic catarrh, by drainage of the bile ducts, and thus indirectly of the pancreatic ducts, and the removal of the cause, whether that be gall stones, duodenal ulcer, or other conditions, may be the means of averting diabetes.

2. That in certain diseases of the pancreas, even after the appearance of glycosuria, surgical treatment is well worth considering, as in a number of cases it has led to complete disappearance of sugar from the urine, and in others to an arrest of the disease causing glycosuria.

3. That every case of diabetes should be considered from its etiological point of view, seeing that certain cases of glycosuria of pancreatic origin are curable, and in others the progress of the disease may be arrested by suitable surgical methods that can be carried out with very small risk.

THE Bombay Vaccine-Therapy Institute is a private venture started by Mr. S. P. Shivdas, L.M. and S., in October, 1908. It appears from the first annual report that the founder and director, recognizing the importance of bacterial methods of diagnosing and treating disease, proceeded to London in 1908 and studied the subject practically in the laboratory of St. Mary's Hospital, under Sir A. E. Wright. On his return to Bombay he opened a laboratory on a small scale for the practice of the methods which he had learnt, and subsequently transferred his operations to a larger building. The number of cases treated by the serum method in the year 1908–9 was 118, and included tuberculous diseases, staphylococcus, streptococcus, acne, and gonococcus infection, and three cases of cancer. Some clinical observations are recorded regarding the various diseases dealt with, and the success or otherwise of the proceedings. These remarks, though somewhat inconclusive, give an impression of honesty. Considerable success appears to have been achieved in treating tuberculous glands, early cases of phthisis, scrofula, and various forms of staphylococcus and streptococcus infections. The laboratory is utilized for clinical and diagnostic purposes. Mr. Shivdas is entitled to commendation for his energy in placing advanced methods of pathological and therapeutical practice at the disposal of the profession in Bombay, and we shall watch with interest the further development and results of his undertakings. As the project is a novel and very important one, we would suggest that it would be well for him to submit his proceedings to the inspection of competent critics, such as the scientific gentlemen whose names he mentions as having taken a warm interest in his work, and to publish in future reports the opinions of these observers regarding the value and success of his practice.

An Address

ON

ACTIVITY OF THE CELLS AND FLUIDS OF THE BODY IN THE PREVENTION AND CURE OF DISEASE:

*A PLEA FOR MORE THOROUGH PATHOLOGICAL INVESTIGATION.**

BY

J. MARTIN BEATTIE, M.A., M.D.,
PROFESSOR OF PATHOLOGY, UNIVERSITY OF SHEFFIELD.

advances which have taken place in pathological ıce within recent years have been so great that ialization in certain directions has been forced upon workers on the subject. Such specialization, like ialization in any other direction, has led observers agnify one aspect in the problem of disease and to mize another, which may, after all, be the more ɔrtant. In fact, I do not think it is too much to say the effects, because they are the most obvious and use they lend themselves more easily to the investi- r, are often very fully worked out, whereas no attempt ade to get at the cause. The history of careful blood nination in disease does not go back very many years, yet we find diagnoses made and even new diseases scovered," or, at any rate, new names for these diseases ıed, from blood examination alone. Medical literature ɔecoming burdened with new names, because people not take the trouble to study the fundamental olems on which the cellular and other reactions which racterize disease in general are founded. To take only instance: blood examinations are extremely valuable, unless the interpretation of the changes which are n is based on an intelligent grasp of the processes lerlying them, and unless these changes are regarded rely as an aid to the problem which has to be solved, oneous statements and wrong diagnoses are certain to made.

wish to deal with only one of these problems, that one, wever, which I think the most important and certainly ıt which promises greatest things in both preventive d curative treatment—the activities of the cells and ids of the body.

Phagocytosis.

It is to the work of Elias Metchnikoff that we owe so ıch of our knowledge of the cellular activities of the dy. It is now a well-established fact that many cells e specially active in the destruction of bacteria. There n be no doubt that the bacteria are first ingested and en digested. The actual process by which this ingestion kes place is not fully understood. It has been established at certain chemical substances have the power of tracting leucocytes, while others do not possess this ɔwer. It may therefore well be that the bacteria or the ıcterial products exert a similar action. However the atter be explained, the fact is perfectly definite that ith the introduction of bacteria there is, in almost all ases, an increased number of leucocytes in the circulating lood; and that numbers of these leucocytes pass through ıe walls of the blood vessels, migrate to the area of ıfection, and there become active phagocytes; and that ı minor infections, at any rate, the action of these ɛucocytes is to overcome the bacteria and bring about the epair of any damage which they or their products have ffected.

The importance of this positive chemiotaxis, and the ngestive and destructive power of the leucocytes is ɔbvious, and it is of special interest that these functions ɛan be modified in various ways. It has been shown that n the active immunization of an animal certain bodies ıre produced which at any rate aid in the destruction of ɔhe bacteria, and with the development of these, increased phagocytosis is obvious. Whether this increase is due to the direct action of these bodies on the bacteria themselves or on the phagocytic cells is a matter which has led to a great deal of controversy. Numerous experiments have shown that virulent bacteria—for example, virulent strains of streptococci—are not phagocyted by the leucocytes of the body *in vitro*, but that if certain bodies produced during the process of immunization—such as those contained in antistreptococcic serum—are added to the mixture of leucocytes and streptococci, phagocytosis almost immediately becomes a marked feature. Much recent work, especially that in relation to opsonins, has shown that at any rate one factor in this process is a directly injurious action on the bacteria of these antagonistic substances. There can be no doubt, however, that living and active bacteria are ingested by the leucocytes, and that intracellular destruction of these takes place; but I think we must also recognize that though bacteria may be ingested by the leucocytes, they may not be digested. One cannot imagine that the enormous numbers of gonococci which are found in the cells of gonorrhoeal pus, and which retain their power of infection, are in any way injured by the intracellular activities of the leucocytes. The same may be said of the bacillus of tuberculosis or the bacillus of leprosy. In fact, there seems evidence that an actual multiplication of some of these bacteria takes place in the cytoplasm of the leucocytes.

I have already referred to the non-phagocytic action of the leucocytes to virulent streptococci *in vitro*, but this reaction is also seen in the animal body during life. The experiments of Bordet and of Marchand are of very great interest and importance in this connexion. Bordet noted that streptococci injected into the peritoneal cavity of laboratory animals set up a marked leucocytosis which ended in the ingestion and digestion of almost the whole of the streptococci. There generally remained a few individuals which resisted the action of the leucocytes and were not ingested. Further injections of the organisms showed that the leucocytes were still active, but more streptococci remained free. Thus a new generation of organisms was produced which was able to resist the action of the leucocytes, or, at any rate, which was not actively phagocyted by them. Carrying his experiments further, Bordet established that it was not a weakening of the phagocytic function of the leucocytes which had taken place, for if he injected a rather feeble organism into the peritoneal sac just at the time when the ingestion of the streptococci had ceased, the leucocytes at once became actively phagocytic to these new organisms. They thus appeared to have a positive attraction for one kind of organism and a negative for another.

Marchand, who repeated these experiments with similar results, showed also that it was the more virulent strains of the organisms in which the leucocytes did not act; and he concluded that "an attenuated streptococcus is a streptococcus readily devoured by phagocytes," whilst "a very virulent streptococcus is a microbe that is not attacked by the leucocytes"; and he adds that "a streptococcus is virulent because it is not devoured by phagocytes."

The facts which I have stated and the experiments which I have recorded are only a few of the many evidences we have of the very great importance of phagocytosis, not only in the natural cure of disease, but also in the preventive and therapeutic measures which are so constantly employed. For an active phagocytosis it is essential that there should be a well-marked leucocytosis. Blood examination, therefore, will reveal to the clinician whether this leucocytosis is or is not present, and the simple process of testing the phagocytic power of the leucocytes devised by Leishman may also be of great value in testing the virulence of the offending organism. Leucocytosis is undoubted evidence that the case is one of organismal or of toxic origin, but it may also give much information in regard to prognosis, etc.

It is now a well known fact that in most infective diseases a polynuclear leucocytosis is always to be regarded as favourable, whereas the absence of it is a very grave sign. The positive side is, from the point of view of prognosis, much less important than the negative. It is true that up to a certain point the leucocytosis increases with the extent of the infection, and that a marked leucocytosis may indicate a widespread involvement of the affected organ or organs, but it is always an indication

* Delivered before a combined meeting of the Nottingham Medico-Chirurgical Society and the Nottingham Division of the British Medical Association.

that the leucocyte forming tissues are functioning well. The other side of the picture is much more important, for in infections in which leucocytosis is the rule, its absence or its diminution and disappearance without a corresponding improvement in the symptoms must always be regarded as a very grave sign. The reactive power of the tissues is lost or is in abeyance, and in consequence the toxaemia remains unchecked.

Every clinician knows the grave prognosis of pneumonia in alcoholics, and an examination of the blood of these cases generally reveals an aleucocytosis. Ferguson has shown that in that very fatal disease, haemorrhagic small-pox, aleucocytosis is again a marked feature.

A study of the bone-marrow has afforded an explanation of the leucocytosis and also of the aleucocytosis. The polynuclear cells are formed from the myelocytes in the marrow. In the normal long bones this leucocyte-forming tissue is mainly found near the extremities, but in the majority of infective diseases this tissue is very greatly increased at the expense of the fat; and the whole of the medullary cavity may become converted into a leucocyte factory. But the marrow, like other tissues, may become exhausted or may undergo degenerative changes, and then, no matter what stimulus may be applied to it, it cannot react. I need not enter into the details of these changes.

There are inevitable dangers of applying too rigidly the facts obtained from one source of investigation either in giving a diagnosis or a prognosis. Blood examination, as I have already said, can only be regarded as an auxiliary—truly a valuable auxiliary if we have clear views as to the rationale of it. There are cases, however, in which toxic agents are definitely at work, in which no polynuclear leucocytosis occurs. Of these I need only mention typhoid fever, influenza, measles, and acute tuberculosis, and the onset of leucocytosis in such cases is generally the precursor of some complication by which other bacteria or other toxic substances are called into play.

I have also pointed out, and I would again emphasize the fact, that an abundant leucocytosis may be called forth and yet the leucocytes may have practically no action in the causal organisms. They multiply apparently irrespective of the leucocytosis. For some reason that we do not clearly understand they do not become the prey of the leucocytes.

So far we have dealt principally with the polynuclear cell as a defensive agent, for the obvious reason that we know most about it, and can work out its reactions very readily, but there seems little doubt that all the other cells of the body, and at any rate all the migratory cells, have important functions to discharge. Thus the constant increase of the eosinophiles in the blood as a result of infection by parasites has been largely used as a means of diagnosis in ankylostomiasis and other parasitic conditions, but we cannot conceive that these cells are there simply to aid the clinician. They no doubt have an important function, though at present we do not know what it is. So with many of the mononucleated cells. Proliferation of these takes place very markedly, though usually locally, in many infective and toxic conditions. They often act as direct phagocytes, but there is much evidence that they are more concerned with the production of substances which in various ways aid in the defences of the body. To this subject I shall refer later.

If these cells occupy the important position which I have given them, it is obvious that an increase in their number, or a stimulation of those existing, or an increase of their products, should be of extreme value in the prevention and in the cure of disease. Much has already been done along these lines, and it is only necessary to recall the work of Mikulicz, who, in operations in the peritoneal cavity, produced a preliminary leucocytosis by the injection of nucleic acid. We are all familiar with the rapid healing of an old sluggish ulcer or an old sinus after it has been thoroughly scraped or cauterized, or the healing of an abscess after it has been opened. No doubt, in these cases many of the organisms have been got rid of in one way or another, but there is little doubt that the healing is largely brought about by the influx of fresh cells and fresh lymph to the damaged area.

Little work has yet been done with leucocyte extract, but the results, both in animals and in the human subject, which have been recorded by Hiss and Zinsser are, to say the least, extremely hopeful. It will be a great triumph when the clinician can treat his cases of pneumonia, with drugs that simply keep him going till the cr comes, but with substances which can overcome cause and antagonize the toxic products, and so has the period of crisis. This seems to have been the res if the work of Hiss and Zinsser is to be accept In the light of the facts which careful pathologi research has brought out, it would seem as if we sho have to alter not only our line of attack on many diseas but also revise our conception of the therapeutic action some of our familiar drugs. The whole fabric of treatment by vaccines is founded on the increased activ of the cells of the body which is produced by the injecti The pharmacologist does not tell us how the salicyla act in acute rheumatism. Does the drug act directly the causal agent, or does it act by increasing the defens agents of the body? Strong believer as I am in t bacteriological cause of acute rheumatism, I naturally tu to the leucocyte-producing tissues for an explanation. acute rheumatism there is a marked leucoblastic reacti in the bone marrow, and in the healthy individual leu cytosis is produced by the exhibition of salicylates; have not sufficient evidence to dogmatize, but I thr out the suggestion. May not the beneficial action salicylates in certain cases and its absolute failu in others—a fact which has led to the disuse the drug in certain schools—be explained by a care study of its reactions on the cell activities of t body? It may succeed, when the leucocyte-formi tissues are healthy, either by stimulating them to greater production of leucocytes or by intensifying t activity, phagocytic or chemical, of the leucocytes whi are present; it may fail because the leucocyte-formi tissues have already been over-stimulated or have und gone degenerative changes, and cannot therefore respo to any new stimulus, or it may fail because the leucocyt fail to act upon the causal organism—or, perhaps, being worker in this field and therefore a biassed witness, should say causal agent.

Antitoxin and Bactericidal Fluids.

So far I have dealt with the cells of the body as d fensive agents in the protection against and in the cure disease, and though, strictly speaking, this cellular activi cannot be separated from the antitoxic and bactericid action of the fluids of the body, it is convenient to de with them separately.

It is well known that many of these protective su stances are present in small quantities in the normal bo fluids, and that by the process of immunization or vaccin tion, either artificially or as a result o an attack of so infective disease, they are increased, and may becor curative agents.

It may be stated generally that these protective su stances, whatever their nature, are present normally the serum or in the cells. Some of them can be easi demonstrated, and others are probably present in or combination with the complex protoplasm of the cell They probably have a chemical affinity for particul organic substances, and are formed in excess or secrete in excess when these substances are introduced. Tho which are of importance may for convenience be divide into three groups:

1. Those which have with other substances a combinin affinity only.

2. Those which have not only this combining affinit but which, as a result of the combination, produc physical changes in the medium in which they ar present.

3. Those which, in virtue of their combination wit other substances, are able to bring about destructiv changes.

In the first group we have the antitoxins, which b combination with the toxins produce what is, so far a we know, an inert substance. A toxin saturated with antitoxin is not able to combine with the cells of th body, and therefore can cause no destructive action i these cells. If this toxin-antitoxin mixture is an iner body, and if, as we believe, the antitoxin, at any rat when given for the first time, is also harmless, strong support is given to the school which advocates large dose of antitoxin. The toxin is the destructive agent, and the whole object of the antitoxin is to neutralize that toxin

e amount of toxin in the general circulation may be rmous, and if sufficient antitoxin is not given to tralize the whole of this toxin, then the uncombined in goes on with its destructive work; if, on the other id, the antitoxin is in excess, no harm results.

n the second group we have the agglutinins, pre- tins, etc. With the precipitin combination takes ce, but there is an alteration in the physical condition ducing a cloudiness in the serums to be tested. The glutinins are even more striking examples of this group. ey combine with the bacteria, but also produce clump- , and thus give us evidence of their specific character. is specificity is of extreme importance in diagnosis. us, the agglutinin found in the serum in cases of typhoid er exhibits its most intense effects on the *B. typhosus*, l though on this reaction a definite diagnosis can he de in a very high percentage of cases, yet the specificity not absolute. The agglutinin acts, though to a less ent, on allied bacilli. The probable explanation of s is that the agglutination reaction is a definite emical process, the agglutinin combining with certain the molecules contained in the body of the cilli. The structure of the bacillary protoplasm very complex, and it may well be that the nbining affinities for the agglutinin of typhoid fever e numerous in the typhoid bacilli, but are present, ough in smaller proportion, in the other bacilli of the up. It is, therefore, obvious that if this agglutination , as we have said, a chemical process, the importance of e quantitative factor is very great. By diluting the glutinin we lessen its combining properties, and there- re, if with considerable dilution we still get definite glutination, the reaction becomes the more specific. us a dilution of a typhoid agglutinin to 1 in 5 or 1 in 10 ay give clumping with, say, Gaertner's bacillus, whereas 1 in 20, to a 1 in 50, or 1 in 100 dilution shows no glutinative action on any organism except the *typhosus*. This factor is one on which too little nphasis is placed, and I am convinced that much of the lium which has been cast on the agglutinative reaction a test in typhoid and other infective conditions is due the inaccurate and indefinite methods which are so mmonly used in working out the reaction.

The third group is perhaps the most important. This oup of antisubstances—the immune bodies—combines ith the substances on which the members act, but needs produce its destructive effect the co-operation of a sub- ance normally present in the serum—the complement Ehrlich.

It is now a well-known fact that if the cells of one nimal are injected a few times into an animal of a ifferent species, the serum of this latter animal attains roperties which are destructive to the cells originally jected, and that this destructive action can be prevented imply by heating the serum or even by keeping it xposed for some time, and further that the destructive roperty can be restored by adding some fresh normal erum.

To take a specific example: if the washed red blood orpuscles of a sheep are injected into a rabbit, the serum f the rabbit develops an immune body which in its fresh, nheated condition is capable of haemolyzing the red cor- uscles of the sheep. This property is very soon lost, but he serum can be reactivated by the addition of some ormal unheated serum, say from a guinea-pig. This eactivation is due to the addition of complement, which, s I have already said, is present in the normal serum, nd which is therefore also present in the immune serum when it had been freshly withdrawn. This reaction is an extremely important one—one of very common occurrence n the animal kingdom, and one on which is dependent many pathological changes seen in disease; and on which is based some of the more recent and extremely interesting methods of diagnosis. There is some evidence, for example, that the breaking down of the red corpuscles in cases of pernicious anaemia is brought about by the action of bodies re- sembling these antisubstances. Perhaps of more interest is the Wassermann-Neisser-Bruck reaction in syphilis, which is occupying so much attention at the present time. This reaction is entirely dependent on the inter- action of a specific immune body present in the blood of syphilitics and normal serum, or, rather, normal com- plement.

I have said enough to emphasize the importance of these protective substances, the study of which is still in its infancy. The whole subject of the general treat- ment by vaccines is based upon the fact that these sub- stances are present normally, that they can be artificially increased, and that by this increase the body is protected against the invasion of bacterial and other agents which are causal in disease, or, perhaps we should say more correctly, is protected against the destructive action of these agents when they reach the unprotected body. But not only are they protective agents, they are curative ones as well. Nothing need be said in medical circles of the great protection against small-pox, or of the curative action in diphtheria of these antisubstances. It is yet too early to speak with any definiteness of the cure of tuberculosis by vaccines, or of the cure of cerebro-spinal meningitis by antiserum; but the work of Wright and his school, no matter what may be our views as to the methods employed, or the deductions drawn from them, and the work of Flexner and of Kolle, must be regarded as epoch-making.

To-day advance is being made all along the line by utilizing the facts which have been elicited by a study of Nature's method of dealing with disease. If I might take one more illustration: A study of acute pneumonia has shown us that the cellular reaction is exemplified in the very highest degree. The blood shows a very marked leucocytosis, and the bone marrow exhibits a pronounced leucoblastic transformation. But we find, also, that substances antagonistic to the causal organism and its toxin are developed in the serum, no doubt derived, as we must believe all these substances are derived, from the various cells of the body. The antisubstances, possibly both antitoxic and antibacterial, gradually increase in quantity, as a result of the infection, and it seems highly probable that the crisis occurs when they have reached a sufficient amount or a sufficient intensity of action.

Attempts have been made to increase these protective agents, and though at present we cannot point to great success, still advance has been made, and some extremely hopeful results have been recorded. I would again refer to the work of Hiss and Zinsser, who have been using extract of leucocytes with, to say the very least, some success in the treatment of pneumonia, and also in staphylococcic infections. The basis on which their work is founded is certainly good. The failure in the disease is very often an imperfectly cellular reaction. Phagocytosis is thus lessened, and, what is perhaps of more impor- tance, the protective substances produced by the cells is not in sufficient quantity to overcome the poisons. The rational procedure, therefore, seems to be to increase these protective substances, either indirectly by stimulating the cells, or directly, as Hiss and Zinsser have done, by introducing the products of the activity of the cells.

Conclusion.

I have attempted to sketch some of the main facts which have been occupying pathologists for very many years, and I think I may say that the importance of them justifies my plea for a continued and even more thorough pathological investigation of disease. The pathologist of to-day must of necessity spend a great deal of his time in his laboratory with test tube as well as with microscope; but the pathologist who neglects the *post-mortem* room or even the bedside cannot fully realize the greatest problems of disease. In his work, therefore, he must be assisted by the clinician, and in their hearty co-operation, both in eliciting the fundamental causes of disease and in the application of the most important scientific discoveries, the advance in scientific medicine must be greatly aided. Much has been done, but much remains to be done. A *post-mortem* examination in every case of death, no matter how uninteresting it may seem, is highly desirable. This would, I believe, be easily accomplished, at any rate in our great hospitals, with a little tact and determination. The examination of blood and morbid secretions of various kinds is now undertaken more or less generally, and one rejoices to see the fitting up of clinical laboratories in many of our hospitals; but clinical laboratories will be of little value if they are mere workrooms for dilettanti, and are not at least controlled by men not only enthusiastic in their work, but with a satisfactory training for the proper accomplishment of it.

PALAEOGENESIS AS EXPLANATORY OF CERTAIN FORMS OF DISEASE.

BY

SIR JONATHAN HUTCHINSON, F.R.S., F.R.C.S.,

CONSULTING SURGEON, LONDON HOSPITAL.

IN the BRITISH MEDICAL JOURNAL of January 9th, 1909, p. 85, I ventured, in writing about the condition known as leucoderma colli, to give a novel explanation as to its nature. My suggestion was that the condition thus named is not in any sense an eruption, but simply a revelation, under disturbance of general health, of a pattern which pre-existed in the skin. I have since then given much thought to the subject, with the result not only of confirming the conclusions then arrived at, but of finding good reason to suspect that the same explanation is applicable to many other phenomena of supposed "disease."

The theory which I invoke is that, in the course of hereditary transmission, peculiarities of organization may be perpetuated for quite indefinite periods and under conditions of the most absolute latency. In order to be explicit I have invented (or borrowed, I do not know which) the terms "palaeogenesis" and "palaeogenetic." The latter is applicable to all conditions supposed to be due, wholly or in part, to inheritance from ancestry extremely remote; so much so that in the majority of cases all history of such association has been lost. The possibilities of palaeogenesis are not limited by species or genus, but may be recognized in the most distantly related animals. Thus the condition known as the "dappled" skin occurs both in deer and horses, and I now claim it for human beings. It is simply a spotted skin in which the spots become visible only under certain conditions. Although there is, of course, difference in colour between the ground and the spots upon it, the precise colour of both may vary much, and is a matter of no consequence: a dappled horse may be either brown or grey, but must be well fed and well groomed, or it will not show its dappling. It seems probable that the use of arsenic may develop it, and that the blood changes in secondary syphilis, or the drugs used against it, may be influential.

I do not propose here to offer any further exposition of my theory, for it is very complicated, and I am well aware that at first sight some of its conclusions may appear far-fetched and very improbable. My desire on the present occasion is simply to ask the attention of other observers, and to mention some of the conclusions which have suggested themselves to my mind.

Not only do I hold that we may recognize palaeogenetic structural peculiarities in the dappled skin of leucoderma colli, but a similar predisposition is to be traced in xanthelasma palpebrarum, in the common form of leucoderma, and the very curious congenital conditions which have been recognized under the names of linear ichthyosis, ichthyosis herpetiformis, or Biett's bands.*

The explanations of these in reference to cause and distribution have hitherto been insoluble problems, which have exhausted the ingenuity of many observers. To take, as an example, xanthelasma palpebrarum. I have recently found that crescentic patches, curving round the inner canthus, or on the inner third of the upper lid are common in some deer, in many dogs, in young lambs, and a host of other animals. I accept these facts as evidence that there exists in these regions portions of integument so organized that they are prone to produce hair, etc., of peculiar tint, and I deduce that it is these which under various states of disturbed health, or without any, give location to the washleather patches which Rayer drew our attention to.

Perhaps the simplest example of palaeogenesis which I can adduce is the "linea fusca," which used to be regarded as a symptom attending a first pregnancy, but which obviously is "the abdominal line" conspicuous in many quadrupeds, made visible in a woman by the pigment disturbance which often attends pregnancy. It will be obvious that palaeogenetic influences do in a certain sense affect every fibre of our organism. We are physically as well as morally "the heirs of all the ages." I suggest, however, that it will be convenient to restrict the term to conspicuous and unexpected illustrations of a law which, often overlooked, is really of universal force.

I hope to bring the subject under discussion at the forthcoming meeting of the British Medical Association in London next July, and may state that in the meantime pictorial illustrations of the conditions referred to will be on exhibition on the ground floor of the Clinical Museum at the Polyclinic, and that I shall be thankful for suggestions and criticism.

* Both in the human skin and in those of animals the dappled condition may become much more conspicuous in certain seasons. The Formosan sika stag, which is a relative of the Japanese stag, is, like it, "spotted only in summer." The whiteness of the spots and their contrast with the dark ground are far less marked than those of some other stags which, like the axis, retain their conspicuous spots all the year round. A young lady who was brought to me on account of spots on her hands and forearms showed little that I could observe. It was in January. I was assured that in summer the spots were very conspicuous and annoying.

FAECAL VOMITING DURING ANAESTHESIA A SUGGESTED METHOD OF OBVIATING ITS DANGER.

BY DUDLEY W. BUXTON, M.D., B.S., M.R.C.P.,

ANAESTHETIST IN UNIVERSITY COLLEGE HOSPITAL.

THE extreme difficulty of avoiding fatal consequences when a general anaesthetic is administered in cases in which intestinal obstruction exists and faecal vomiting is liable to occur has led to the adoption of many methods of inducing anaesthesia. None of these has proved wholly satisfactory. It is proposed to consider these methods and to suggest one which, so far as the writer knows is novel and appears to offer a chance of avoiding the dangers incident to all the plans which have been proposed up to the present time. In most cases of complete or almost complete obstruction it is extremely difficult to estimate the danger incident to general anaesthesia. Some are obviously beset with the utmost peril; vomiting is frequent and stercoraceous, and the patient is collapsed. Other patients vomit at intervals, but palliative treatment is adopted and the more grave symptoms appear to be relieved. Vomiting may cease although the abdomen is distended and operative treatment is obviously necessary. In such cases until recently a general anaesthetic was administered as a matter of course, and the selection of its nature was decided by the general state of the patient. Records of deaths under such conditions demonstrate very clearly that grave dangers arise and commonly terminate fatally, either through drowning of the patient with his vomitus or through infection of the lungs causing septic and fatal pneumonia. The Clinical Report on Anaesthetics published by the British Medical Association records three deaths under ether, and there were cases in which the faecal vomiting resulted in suffocation. It is not denied that many cases of this grave condition have been successfully operated upon under a general anaesthetic, but the point of importance is that no one can assure safety even when the greatest skill and care are invoked for the administration of the anaesthetic.

Surgeons both in this country and abroad have become convinced of the danger, and have sought to avoid it by employing local analgesia, or spinal analgesia. Local analgesia is at best an unreliable method in these cases. Even if the preliminary steps of the operation are carried through without causing serious suffering—and often this is not possible—the actual operation, the examination and manipulation of the abdominal viscera, are always associated with great pain and shock. That the gravest danger from the surgeon's point of view is shock, no one who has seen many such cases will deny. For a patient who is conscious to undergo a severe operation, even if severe pain is not felt, taxes the nerve of most persons, even when in good condition, but such an experience for one who has been seriously shocked or is collapsed involves the most grave risk of further shock or fatal collapse.

When subdural injections were introduced, it was at first claimed for the intradural analgesic method that it would prove a valuable alternative to general anaesthesia for all persons whose state appeared to contraindicate the use of general anaesthesia. It was thought that this method, even if it possessed its own dangers, would be found at least safer than older plans. Obviously cases of

estinal obstruction, when faecal vomiting was urgent or s imminent, were those in which this method should be ecially valuable. The experience of surgeons, both e and abroad, has demonstrated that subarachidian ection is far more dangerous than was anticipated; and ny surgeons of special experience with spinal analgesia ve advised restricting the method to normal patients—it is, to those who run no particular risk if a general aesthetic is efficiently administered. Some surgeons, wever, have clung to the hope that for the particular es under consideration the spinal method, with its nitted dangers, presented less danger than a general aesthetic. They extol the facility it offers to the rator by relaxing the abdominal musculature, and so king his work easier and more rapid. The case of death der spinal analgesia[1] recorded by Mr. F. Victor Milward s unhappily shaken our confidence in the method so far safety is concerned. As is pointed out, the case was allel in all ways with similar cases treated on similar es, and yet the result was fatal. It would be quite justifiable to discredit any method because it fails in ne instances; but such failure, provided it can be shown have been due to no lack of skill or knowledge, must re pause, and compels us to regard the method as ngerous in certain cases. The unfortunate fact about e published cases of deaths under spinal analgesia is at they do not appear to obey any rule and so allow correction. Further, as in Mr. Milward's case, the death not always, or even commonly, due to the disease or eration which is being performed, but is the result of new factor introduced into the problem—a factor which, ed to promote safety, resulted in death. The method is, wever, only at present in the stage of inquiry; it would premature to assert either that it is useless, or to extol merits in the cases we are considering; we can only y that at present the method does not always succeed, d is not free from danger.

The general anaesthetic in the cases under review can rtainly be guarded against overdosage, but may, and ten does, lead to a fatal issue through abolishing reflexes hose function is to prevent vomited matters entering the r passages.

The problem is, then, to discover whether it is possible employ general anaesthetics and yet obviate the nger in question. The mechanism of lung flooding is robably explicable as follows: Vomiting as a purely eflex act does not occur under complete anaesthesia, and ntrance of vomited matter into the airways is prevented long as the laryngeal reflex is present. When the atient is put under a general anaesthetic the muscular onus of both voluntary and involuntary muscular tissue lowered, and the pressure *a fronte* allows the intestinal ontents to enter the stomach. When distension of this iscus becomes sufficient its contents are ejected through he cardiac orifice and enter the pharynx. The process a regurgitation rather than vomiting. As the laryngeal eflex is also less able to prevent fluids entering the rachea—if, indeed, it is not wholly abolished—the lungs ecome flooded. It often happens that the regurgitation f a stream of stercoraceous fluid occurs without warning nd without any of the usual signs which indicate to the naesthetist that fluid has entered the pharynx from the tomach. If a closely fitting mask is in use the danger nay be overlooked until the mask is lifted or a stream rickles beneath the pad.

It is suggested that the following method may prove useful in preventing such an occurrence. Lavage may be employed, although experience has demonstrated that emptying of the stomach only makes way for further backward flow of intestinal fluids. It is, however, wise to use it and clean out the stomach and oesophagus with boric acid solution and hot water. The next step is to perform laryngotomy under local analgesia, or even under light anaesthesia, but it is essential in the latter case that the laryngeal reflex should remain active, because vomiting or regurgitation may occur while the larynx is being opened and the stomach tube may be expelled, or vomitus travel beside it into the pharynx. As soon as the larynx is opened, and a cocaine spray used to lessen spasm, chloroform is to be administered through the laryngeal tube to full anaesthesia. The mouth is opened by a gag so soon as the patient is analgesic, and a full-sized oesophageal tube introduced into the stomach. If the preliminary lavage has been carried out by means of a large tube, and if it has not been expelled, the only further step necessary is to pack very carefully both the upper opening of the larynx and the pharynx around the oesophageal tube. As soon as this is done, the free end of the oesophageal tube must be allowed to drain into a vessel containing a deodorant and antiseptic. It is essential that the tube be introduced and maintained in the stomach, and that the packing round it be tight. The packing of the larynx is done in exactly the same way as that carried out before an excision of the maxilla, when a preliminary laryngotomy is performed. Packing round the oesophageal tube is rendered more easy by cocainizing the pharynx, as it is essential that there shall be no leak of fluid around the tube.

It may be urged that a preliminary laryngotomy complicates the operation and increases the shock. Whether the latter allegation is valid more extended trial alone can determine, but as the danger which the suggestion aims at removing is a very real one, only serious and proved objections ought to weigh. If an assistant watched the packing and retained the tube in position and repacked should it become necessary, there is less likelihood of the air passages getting any regurgitated fluid even by leakage. Experience has shown that a laryngotomy is a simple operation and should not entail post-operative risks of lung dangers.

I am unable at present to quote cases, as the procedure until its adoption has been proved to be of real value could hardly be urged except in exceptionally grave cases. If, however, it bears the test of extended trial, it would appear to be a plan which might enter into the technique of all operations for the relief of intestinal obstruction where vomiting is a pronounced symptom. Although laryngotomy is mentioned, there exists one good reason for advising tracheotomy rather than the higher operation. The tracheotomy wound is easily closed, is less liable to be forced open in straining efforts. The great objection to the plan proposed is that it destroys the explosive power of coughing, and so clearing the lungs—a most serious point if bronchitis and pneumonia follow the operation, when the patient's life may depend upon his ability to clear his lungs of mucus. The tracheal opening promises better chances of restoring this power, since it can be more securely sealed than is possible after laryngotomy. The tracheal opening also is further from the seat of infection, and this is all to the good. Experience alone can show whether these advantages outweigh the more serious character of the tracheal operation and the increase of shock. The method suggested appears to be valuable to the surgeon in another way. The constant draining of the stomach and intestines unquestionably renders operation easier by abating the distension of the viscera and the chaotic peristaltic movements which commonly complicate such cases.

REFERENCE.

[1] BRITISH MEDICAL JOURNAL, March 26th, 1910, p. 743.

POST-OPERATIVE SUPPRESSION OF URINE:

RELIEVED ON THREE SEPARATE OCCASIONS BY INTRAVENOUS INFUSION.

BY

L. R. BRAITHWAITE, M.B., F.R.C.S.,

HON. ASSISTANT SURGEON-IN-CHARGE, IDA AND ROBERT ARTHINGTON SEMI-CONVALESCENT HOSPITALS, GENERAL INFIRMARY, LEEDS.

IT has been suggested to me that the following case presents at least one point of considerable interest—namely, that three attacks of complete urinary suppression were recovered from as a result of rapid intravenous infusion of saline.

I do not intend to enter into any discussion as to the cause of the suppression; it will be noted that the urine tested before the operation by the ordinary methods (boiling with acetic acid and the nitric acid test) showed no trace of albumen, and the specific gravity was 1020; it contained a small quantity of bile pigment.

The onset of the uraemic symptoms, accompanied by complete suppression, would indicate some previous renal incompetence not shown by the usual tests, and perhaps the case may well be one of so-called "latent uraemia."

The object I have in publishing the case is entirely that of showing the effect on the kidneys of a rapid intravenous infusion; I believe the result is purely mechanical—namely, a rise of blood pressure in the renal area and a consequent renewal of the process of filtration or osmosis, or whatever the precise mechanism may be, which is temporarily in abeyance. It may be that pilocarpine had some effect, but there is no doubt in my own mind, and in the minds of those who saw the case, that the patient's life was saved on three separate occasions by infusion.

After the first attack of suppression the urine was loaded with albumen (to figure 6 on Esbach's albuminimeter), the specific gravity was 1010, and when he went home on February 3rd there was still almost the same amount of albumen present, and the specific gravity was 1015.

History.

Mr. D., aged 64, sent by Dr. Baker Young, Liverpool. For many years he has had some indigestion after food, but will not admit that he suffered any inconvenience, except on rare occasions. At any rate, he has always taken ordinary food. Twelve years ago he was in bed with influenza, but there was some doubt whether it was not typhoid fever, as he was in the bedroom for seven weeks; three years ago he had another attack of "influenza," less severe than the first one.

He dated the beginning of his present illness from only six weeks ago, when he had a sudden fainting attack, with a "sinking in the body," accompanied by a feeling of sickness, but no actual vomiting. It is probable that he was a little yellow after this attack. He had his first attack of real pain fourteen days ago in the right side of the chest and body, not very severe, but accompanied by vomiting, shivering, and sweating; he was markedly yellow after this attack, and the colour has shown no sign of lessening, if anything, it has rather deepened. During the last ten days or so he has rarely been free from a sense of great discomfort in the upper part of the body and a feeling of faintness, and has been unable to take ordinary food with comfort. He has been constipated, and the motions have recently been of a lighter colour than natural. He has lost weight considerably.

Examination.

He is a stoutish man who has lost some flesh, is fairly deeply jaundiced, and holds the right rectus tightly contracted. Nothing abnormal can be made out.

Operation.

On November 6th, 1909, an incision was made through the right rectus; there were no stones in the ducts, pancreas a little hard. Gall bladder was very large, tightly distended with fluid, and pointed to the left. It was a dull red colour, and had lost its peritoneal gloss; at the fundus was an area (dull grey in colour) where the wall was very thin, possibly a spot of incipient perforation. It was clearly an acutely inflamed gall bladder. Cholecystotomy was performed, and the thinned grey area at the fundus excised. A culture was taken of the bile in the gall bladder, but no growth occurred. The bile was dark brown, and extremely viscid. It was considered inadvisable to remove the gall bladder because the patient's condition under the anaesthetic became serious, and rapidity was thought necessary.

His recovery uneventful up to November 24th.

From November 6th he had a little bronchitis, and the tube from the gall bladder came away on the tenth day. The bile escaping from the sinus caused some superficial erosion of the abdominal wall for a distance of 2 in. from the wound, but he did not complain of this after the seventeenth day, and the surface quickly healed. He passed from 17 to 20 oz. of urine in the day, but on November 23rd he only passed 12 oz. in twenty-four hours. On the night of November 24th he did not feel so well, the pulse was very weak, he vomited copiously and continuously, and complained much of flatulence and headache. Bile was still coming freely from the sinus. He was very ill indeed all the next day: headache, occasional vomiting, bringing up small quantities of mucus and altered blood, complained of twitching in the legs, skin was dry and hot, respirations feeble and slow, pulse 90; he lay in a semicomatose condition, and had to be roused to drink. He was thought to have uraemia, and a catheter passed found the bladder empty. Pilocarpine was given four-hourly, with the result that sweating was profuse; calomel and Seidlitz powders were tried, and enemata. At 6 p.m. 3 pints of saline were put into the right median basilic vein; he did not feel the incision at all. There seemed to be no improvement, and at 11.15 p.m. 2 pints of saline were run in under the skin of the left thigh.

During the night of November 25th he was very bad, and on November 26th at 10.45 a.m. a catheter passed brought 3 oz. of urine away, loaded with albumen. During the morning he became more conscious, and the vomiting was less, and later on he passed a further 12 oz.

On November 27th he passed nearly 40 oz. of urine; he was very comfortable, had no vomiting, and appeared quite well again.

From this time to November 30th he was very fit, but bile was still escaping from the sinus at intervals, each complete closure of the sinus corresponding to the onset of a rigor; it was therefore decided to keep the drainage as free as possible, and a probe was frequently passed down the track. On November 30th he vomited all day, complained of flatulence, and was retching continuously, twitching in the legs was pronounced, and again there was a state of semicoma, from which he was roused to take food, etc. He passed this day only 5 oz. of urine, highly albuminous, with a specific gravity 1015.

On December 1st he passed no urine at all, and a catheter drew none away; the coma and other symptoms were accentuated. At 7 p.m. he was given 4 pints of saline by subcutaneous infusion into both sides of the chest; pilocarpine and the usual purgatives were given. He was extremely ill, and his condition was thought to be hopeless.

On December 2nd, in the early morning, the left median basilic vein was opened and he was given 2 pints of saline rapidly; he did not complain of any pain when the incision was made. Four hours afterwards he passed 4 oz. of urine loaded with albumen and with a specific gravity 1010. His condition again began to improve, and he became rapidly conscious, and passed 22 oz. of urine. He was vastly better. On December 4th he was comfortable, and passed 48 oz. of urine.

On December 5th much depressed; vomited once; urine 40 oz. December 6th, urine 42 oz. December 7th, urine 37 oz.

Up to the end of December he was fairly well, having occasional attacks of great depression. The bile fistula was not closed until the end of the month. All this time the urine was loaded with albumen and he was passing on the average 26 to 30 oz. a day (twenty-four hours).

On January 14th, 1910, he was not so well; passed only 16 oz. of urine in twenty-four hours; he had been up on a couch on the previous day for twenty minutes.

On January 17th and 18th he passed only 16 oz. each day; he was again much depressed and suffered from thirst and nausea, the skin was hot and dry and headache was pronounced.

On January 23rd he passed only 8 oz. of urine loaded with albumen. In the evening he had twitchings in the legs, vomiting, and presented the picture of a man dying from uraemia; he again became semiconscious. Next day he was given rectal salines three-hourly, two pints of saline subcutaneously, and he passed only 1½ oz. of urine.

On January 25th no urine at all passed; another intravenous infusion was performed and two pints of saline were rapidly run into the left median cephalic vein; pilocarpine was again given four-hourly. Again the same result followed. At 10 p.m. he passed 4 oz. of highly-albuminous urine, and although he was very ill through the night, he improved in the early morning. He ceased vomiting and all the symptoms of uraemia disappeared rapidly.

On January 26th he passed 30 oz. of urine, and on the 27th and 28th 40 oz.

When he went home, at his own urgent request, on February 3rd, his urine contained a very large amount of albumen, but he passed 40 oz. in twenty-four hours, and the specific gravity was 1015. His condition was far from satisfactory; he was pale, his tongue was dry and he had great depression at times.

My thanks are due to Mr. Moynihan, who operated on the case, for permission to publish these notes.

FURTHER STUDIES IN HAEMOLYSIS BY WEEVER VENOM.

BY H. MUIR EVANS, M.D.LOND.,
LOWESTOFT.

IN a paper published in the BRITISH MEDICAL JOURNAL, 1907, and in a recent communication to the Pathological Section of the Royal Society of Medicine,[5] I gave the results of a number of experiments with the poison of the weever fish in relation to haemolysis. I showed that with the washed red corpuscles of pigeon, guinea pig, sheep, ox, horse, and man, haemolysis took place without the addition of, and in the presence of, normal serum, with the corpuscles alone, and without the addition of serum heated for an hour at 56° to 60° C.

This was in contradiction to the results obtained by the French school, in particular by Briot.[1] To quote Calmette[2] in his review of the venoms:

> The poison of the weever dissolves the red corpuscles of the horse in the presence of normal serum which has been heated, but it does not dissolve them in the presence of fresh serum. The serum that has not been heated, therefore, contains a natural antihaemolysin of the same nature as that which I have shown to exist in the case of haemolysis by cobra venom.

It seemed important to investigate this matter further, as I did not feel content with the explanation of Preston Kyes[3] in regard to the phenomenon of haemolysis by venoms without added serums—namely, that the toxin (in his case of cobra venom) was an amboceptor which was complemented by the endocomplements of the red cells. Preston Kyes explained the different action of the same venom on the blood of different animals by assuming that there were two groups of blood cells—(1) those that are in themselves dissolved by cobra venom; (2) those

hat are only affected by venom after the addition of ther substances, complements, etc. In the case of veever venom, according to my experiments, there was ut one group of blood cells, belonging to Group I, and herefore we must assume, according to his amboceptor heory of the nature of venoms, that the blood of igeon, guinea-pig, sheep, ox, horse, and man contained ndocomplements to weever poison.

The difference between my results and those of Briot[1] night depend on the method of preparation of the toxic olution or on its freshness, as weever venom seems to e of a very unstable nature. As was pointed out at the ime, it seemed that my method of extracting the venom rom the opercular glands with a syringe was more likely o yield a pure solution than the removal of spines and glands with scissors, maceration in glycerine, and filtering hrough filter paper, the method employed by Briot.

In order to throw further light on the difference between ny results and those of the last-named observer, I have nade a series of experiments, mixing my extracted venom with glycerine, and filtering it through filter paper or hrough a Berkefeld filter. In this way a toxin giving similar reactions to Briot's was obtained.

Experiment I.

In each tube 2 c.cm. 5 per cent. human red corpuscles washed with normal saline three times and centrifuged. The solution of venom was made by extracting the poison with a syringe from 100 fresh weevers, and mixing it well with 30 minims pure glycerine (4 drops of the unfiltered glycerinated venom gave immediate complete haemolysis). The mixture was then filtered through paper.

Incubated Two Hours at 37° C.

1 m. Filtered Glycerinated Weever Venom alone.	1 m. Filtered Glycerinated Weever Venom + Normal Serum.	1 m. Filtered Glycerinated Weever Venom + Serum heated Half-hour at 60° C.
Slight haemolysis	*Very faint* haemolysis	*Almost complete* haemolysis.

This experiment is in almost complete accord with Briot's results, but it is to be noticed that with venom alone there was slight haemolysis. The normal serum acted as an antihaemolysin, and the heated serum acted as a complement. Nevertheless, with the unfiltered venom there was complete and rapid haemolysis.

Experiment II.

Similar solutions were used as in Experiment I, but the first portion of the fluid to pass through the filter was collected and called the first filtrate, and the second portion was called the second filtrate.

Incubated Two Hours at 37° C.

First Filtrate only.	First Filtrate + Normal Serum.	First Filtrate + Heated Serum.
Marked haemolysis	Almost complete haemolysis.	*Complete* haemolysis.

This result is a grade further, so to speak, in comparison with Experiment I. There was complete haemolysis with heated serum, but still marked haemolysis with the corpuscles alone.

Incubated Two Hours at 37° C.

Second Filtrate only.	Second Filtrate + Normal Serum.	Second Filtrate + Heated Serum.
Almost complete haemolysis	Almost complete haemolysis	Complete haemolysis.

Experiment III.

November 25th, 1909. Venom extracted from sixty fish was mixed with 60 m. glycerine. The following day the mixture was filtered through filter paper. On November 27th each tube was filled up with 2 c.cm. washed human red corpuscles.

It had been ascertained that 2 drops of fresh unfiltered venom caused marked haemolysis with 2 c.cm. red cells without added serum, normal or heated.

Incubated Two Hours at 37° C.

10 Drops Only.	10 Drops + Normal Serum.	10 Drops + Heated Serum.	10 Drops + Lecithin.
Slight haemolysis	Slight haemolysis	Marked haemolysis	Marked haemolysis.

In this experiment the glycerine extract, when filtered, gave a result somewhat similar to Briot's—namely, increased haemolysis with heated serum and lecithin—but the antihaemolytic action of normal serum was not so apparent.

Experiment IV.

Experiment IV was made with the venom of 100 weevers mixed with 100 m. pure glycerine. This was put into a Berkefeld filter. The first filtrate was a clear fluid, and of this 20 m. was used in the first part of the experiment.

2 c.cm. 5 per cent. Washed Human Red Corpuscles. Incubated Two Hours at 37° C.

4 Drops alone.	4 Drops + Normal Serum.	4 Drops + Normal Serum.	4 Drops + Serum heated Half an Hour at 60° C.	4 Drops + Serum heated Half an Hour at 60° C.
No haemolysis	No haemolysis	No haemolysis	No haemolysis	No haemolysis

The further filtrate was next used:

Usual Incubation.

2 Drops alone.	2 Drops + Normal Serum.	2 Drops + Normal Serum.	2 Drops + Heated Serum.	2 Drops + Heated Serum Half an Hour at 60° C.
No haemolysis	No haemolysis	No haemolysis	Very faint haemolysis	Slight haemolysis

The further filtrate was next used in larger quantities.

Incubated Two Hours at 37° C.

5 m. Alone.	5 m. + Normal Serum.	5 m. + Serum heated Half an Hour at 60° C.	5 m. + Serum heated Half an Hour.	5 m. + Solution of Lecithin.
Slight haemolysis	*No* haemolysis	Marked haemolysis	Marked haemolysis	Marked haemolysis

The venom in this case acted purely as an amboceptor, and if we assume the presence of a complement in my unfiltered venom, it is quite clear that the complementary body had been lost, since, with the exception of Column 1 in the last series, the venom has acted precisely as the filtered extract of Briot. But we must still note that there is slight haemolysis, with large quantities of second filtrate and washed corpuscles only.

It was necessary to find if this complementary property was left behind in the filter, and to do so 1 c.cm. of salt solution was added to the glycerine remaining in the filter, so as to wash through the remaining glycerine extract. The salt solution carried through the filter a venom producing marked haemolysis without the addition of heated serum.

Experiment V.

Experiment V was made with venom from eighty weevers mixed with 80 m. pure glycerine, which was then filtered through a Berkefeld filter. There was obtained in the first filtrate, after exhausting the vessel, 30 m. of a clear yellowish fluid; 15 m. of this was heated for an hour at 56° C., and the remainder left unheated.

2 c.cm. Human Red Corpuscles in each Tube. Incubated.

5m. Filtered Glycerinated Weever Venom.	5 m. Glycerinated Weever Venom + Normal Serum.	5 m. Glycerinated Weever Venom + Heated Serum.
No haemolysis	No haemolysis	No haemolysis.

The same result was obtained with 5 m. of glycerinated venom heated at 56° C.

The following morning 1 drachm of salt solution was added to the glycerine extract remaining in the filter, and the receiver exhausted; 84 m. of clear fluid was obtained. Half of this was heated for forty minutes at 56° C. The other half was used for an experiment which we will call Experiment V A.

Experiment V a.—Salt Solution Washings of Glycerine Extract. Incubated as usual.

13 m. only.	13 m. + Normal Serum.	13 m. + Heated Serum.
Marked haemolysis	Marked haemolysis	Marked haemolysis

Experiment V b.—Salt Solution Washings of Glycerine Extract heated at 56° C. Incubated.

13 m. only.	13 m. + Normal Serum.	13 m. + Heated Serum.
Marked haemolysis	Marked haemolysis	Marked haemolysis

It would seem that both amboceptor and complement were carried through the filter by adding a small quantity of salt solution.

Experiment VI.

5 per cent. washed human red corpuscles, 2 c.cm. in each tube. The venom used was from ninety fish mixed with 90 m. glycerine, and filtered through a Berkefeld filter. (The original mixture gave marked haemolysis with washed red cells alone.) The second filtrate gave with heated serum and red cells slight haemolysis, and with normal serum *nil*.

One drachm of glycerine was then added to the filter.

Ten drops of this with red cells only gave faint haemolysis.

Ten drops of this with red cells + heated serum gave marked haemolysis.

Ten drops of this with red cells + normal serum gave *no* haemolysis.

We are now in a position to review the results of these experiments, and in order to make the results quite clear I have tabulated them and arranged the tables to show the results first of all with venom glycerinated and filtered through filter paper and then the results obtained by filtering through a Berkefeld filter.

SUMMARY OF RESULTS.

Washed human red cells, 2 c.cm. Incubated 2 hours at 37°C., and allowed to stand in the cold. Serum was heated from 56° C. to 60° C. for ½ to 1 hour in different experiments.

Signs.—Faint haemolysis is denoted by f h.; slight haemolysis by h.; marked haemolysis by H.; almost complete haemolysis by Hc.; complete haemolysis by HC.

Filtered Glycerinated Venom (Filter Paper).

Experiment.		Only	+ Normal Serum.	+ Heated Serum.	+ Lecithin.	
I.	m j	h.	f h.	Hc.	—	100 weevers + 30 m. glycerine.
II.	—	H.	Hc.	HC.	—	Record lost.
III.	m. v	h.	h	H.	H.	60 weevers + 60 m. glycerine.

Filtered Glycerinated Venom (Berkefeld Filter).

Experiment.		Only.	+ Normal Serum.	+ Heated Serum.	+ Lecithin.	
IV	m. j	0	0	f h.	0	100 weevers + 100 m. glycerine.
	m. j	0	0	h.	0	
	m. v	h.	0	H.	H.	
	m. v	h.	0	H.	H.	
VI	m. ij	0	0	h.	—	90 weevers + 90 m. glycerine.
	m. v	f h.	0	H.	H.	

An analysis of the results of these experiments shows the broad facts that the admixture of glycerine and filtration alters the character of the venom, first, as to its virulence, and secondly, as to its character.

With filtration through filter paper, we find that, contrary to what happens with unfiltered venom, heated serum increases the amount of haemolysis in Experiments I, II, and III, and that in Experiment I normal serum diminishes haemolysis, in Experiment III it remains the same, and in Experiment II it appears to have increased it. At any rate we have the uniform definite result of diminished virulence and of an increase of haemolysis by the addition of heated serum.

With filtration through a Berkefeld filter, we found diminished virulence and an *absence of haemolysis* with normal serum, that is to say, a more definite loss of haemolytic power in the presence of normal serum when filtered through a Berkefeld filter than through filter paper. On the other hand, there is a more marked increase of haemolytic power with heated serum when filtered through a Berkefeld filter, as shown in Experiments IV and VI, where we get either slight haemolysis or marked haemolysis.

It would be possible to explain these results by assuming the presence of a complement-like body in addition to an amboceptor in fresh venom. The complement appears to pass through the filter less readily than the amboceptor, and its passage can be encouraged by adding salt solution as shown in Experiments IV and V.

It was also observed that lecithin was able to complement the venom amboceptor in the cases in which heated serum increased the haemolysis.

The results of these observations confirm my original contention concerning the action of fresh venom; they explain how the difference in Briot's results and my own may have been produced, and they also show the possibility of the existence of a hitherto unsuspected body in weever venom—namely, a complementary body that allows haemolysis to take place without the addition of heated serum or lecithin. This complementary body is, however, not a true complement, as it is able to withstand heating for half an hour to 56° C.

If the venom extracted by a syringe be dried *in vacuo*, and, after keeping several days, be dissolved in normal saline and filtered, a solution is obtained capable of dissolving washed red corpuscles without the addition of serum, normal or heated.

In conclusion, it will have been observed that throughout this paper the terminology of Ehrlich's school has been used, and the experiments have been made in the light of the studies on venoms by Preston Kyes, Sachs, Flexner and Noguchi and others. In view, however, of the recent work on the colloidal nature of antigens and their antibodies, especially the researches on haemolysis by colloidal silicic acid by Jagic and Landsteiner,[4] it would seem possible that my results may be readily explained according to this newer theory.

REFERENCES.

1 Briot: *Comptes rendus Soc. de Biologie de Paris*, 1902 and 1904.
2 Calmette: *Les venins*.
3 Preston Kyes, in Ehrlich's Collected Studies on Immunity.
4 Landsteiner and Jagic: *Wien. klin. Woch.*, vol. xvii, p. 63.
5 Muir Evans: *Transactions. Pathological Society of London*, vol lviii, Part I, 1907; and BRITISH MEDICAL JOURNAL, 1907.

A NOTE ON COWPOX IN MAN;

WITH A REPORT OF A RECENT CASE.

BY ROBERT W. CRUICKSHANK, M.B., C.M.,

EYNSHAM, OXON.

THE first distinct description of cowpox was given by Jenner when he published *An Inquiry into the Causes and Effects of the Variolae Vaccinae, a Disease Discovered in Some of the Western Counties of England, and known by the Name of the Cow Pox* (London, 1798). The disease is described as consisting of "irregular pustules on teats, of a palish blue colour surrounded by an erysipelatous inflammation, and characterized by a tendency to degenerate into phagedaenic sores" The communication of the disease to man was no doubt fairly common for a considerable period before the above treatise was written.

The gossip among cowherds of the vague, obscure, but popular belief regarding the possible communication of this disease to the milkers, and the protection from small-pox which this conferred, was the source which first attracted Jenner's attention.

One finds that Jenner cited a number of instances of accidental inoculation occurring on the fingers, hands, wrists, arms, and on the lips. Pearson[1] also cites cases, mostly on hands and arms. One of his cases is, I think, of special interest.

Annie Francis had pustules on her hands from milking cows affected. These pustules soon became scabs, which, falling off, discovered ulcerating and painful sores, which were long in healing. Some milk from one of the diseased cows having spurted on the cheek of her sister and on the breast of her mistress, produced, on these parts of both persons, pustules and sores similar to her own on her hands.

The two latter cases seem to me to be open to the question whether the milk from the animal suffering from cowpox was the infecting source, or whether the fingers of the originally infected case were the immediate inoculating factor.

I was talking to a cowman in a large dairy farm about cowpox recently, and he informed me that some years ago he was himself infected, chiefly about his finger-nails, and that during the course of the disease (to put it in his own words) "he was acting about with his missus one day, and accidentally scratched her forehead." About a week later the disease appeared at the site of the scratch; papule, pustule, and scab followed, with con-

derable constitutional disturbance. The woman bears large white, silvery cicatrix at the present time. Cases ere reported, and a careful description of the disease in e cow given, by Ceely[2] in 1838, 1840, 1841, 1845. Other tbreaks were discovered in 1857, a full description of em being given in Professor E. M. Crookshank's book, *acteriology and Infective Disease*. Mention is also made outbreaks in Italy, France, Germany, Holland, Denark, Russia, and in North and South America. In ecember, 1887, in Wiltshire, Professor Crookshank vestigated and described several cases, one being somehat similar to the case shown in the photograph—oculation of right cheek in a male milker, occurring November, 1887. In June, 1888, Mr. Forty reported ases in Gloucestershire, and in 1894 Mr. Bucknill ported a case in a milkman.

On November 12th, 1909, I was consulted by a farmer in North erkshire, aged 38, for swelling and irritation of the right lower velid. He said that two days previously he had noticed irritaon and redness, with slight swelling. He presented a small, ightly elevated papule, about the size of a split pea, markedly ard on palpation; it merged into considerable swelling and nfiltrated hardness of the areolar tissue of the whole lower lid. he condition puzzled me, and I asked a question I often put n vague cases of skin affections in farm labourers, etc., "Have ou any disease prevalent among your cattle?" His reply was hat some of his cows had "breakngs out on their teats." On November 14th the papule had increased in size, was more elevated, nd had a flattish top of dark ose colour. The infiltration of the ower lid had increased, was markedly ard (did not pit on pressure), and here was slight swelling of the djacent parts of the face. When saw him on November 16th he aid that on the previous day (probably the seventh of the disease) e felt "as if a bad cold were oming on" (headache, pain in ack and limbs, with shivering; ppetite bad and feeling of nausea). The papule had become of a bluishgrey slate colour on its flattened top, very slightly umbilicated, and gave the impression of little fluid contents, much less actual vesication, and less apparent fluid therein than in ordinary vaccination insertion at its height in the arm of a child. Round the bluish-grey central area on the summit of the papule was a ring of about 1½ mm. wide, of a somewhat lighter bluish-grey colour, showing minute venules, crossing and recrossing in a diagonal pattern. I believe that the slight apparent umbilication was due to the somewhat lighter colour of this marginal ring contrasted with the darker shade in the centre, and that the summit of the papule at this stage was practically flat. There was no oozing of lymph. The surrounding swelling was much increased, red, and hot. The sclerotic and conjunctiva of the right eye were injected and oedematous, giving the cornea the appearance of being sunk in a pit, with walls of oedematous sclerotic tissue. The general swelling extended over the whole right side of the face, down to and just under the chin, backwards to the auricle, and over the angle of the jaw. The lymphatic glands in front of the auricle were enlarged and tender, and he complained of pain and stiffness on moving the jaw.

Fig. 1.—Showing appearance of case about fourteenth day of disease. The small, irregular-looking part extending from inner and upper margin towards the edge of lower lid due to dried exudate from under scab.

On November 18th the swelling of the face had considerably subsided. The tissues of the eyelid were still much infiltrated and hard, but the conjunctiva was less oedematous. The central area of the vesiculo-papule was becoming brownish in colour, and now showed some umbilication, the surface of depression having a dryish appearance. The narrow bluish-grey ring had widened to about 3 mm., and was of fainter colour; the venules had disappeared. The skin just beyond was scaly, as if desquamating.

On November 20th the swelling was less in the lower lid, but still peculiarly hard. The scab was now blackish in colour, burnished, and the umbilication well marked. The marginal ring was disappearing into the desquamating area surrounding it. There was still no oozing or detachment of the scab. At this period the scab reached its maximum size; its length was fully 2 cm., and breadth at widest fully 1 cm.

The photograph was taken on November 22nd. Seropurulent, thickish fluid was then exuding from under the upper and inner margin of the scab. This was probably hastened by the scab being raised by a medical friend to whom I showed the case. On exposure to the air and drying this exudation formed a granular deposit like particles of fine Demerara sugar.

On December 1st the scab was somewhat shrunken, the concavity (umbilication) was markedly increased, the edges of the scab were thicker, discharge was still present, and induration marked in the immediately surrounding part of the lower lid. The area of induration was slowly lessened in extent on December 4th. The scab was apparently becoming thickened by successive layers solidifying around and under the original layers of the scab first formed, giving the margin the appearance of concentric superimposed layers. The scab separated spontaneously on December 10th, leaving a small excoriated surface showing healthy granulation tissue. Slight surrounding discoloration and thickening were still present.

On January 8th, 1910, the sore had completely healed, but the skin over the seat of inoculation showed slight swelling and faint redness. The man had only been vaccinated as an infant (thirty-seven years before), and had never been revaccinated. On this date I vaccinated him with reliable vaccine lymph on the upper right arm, making two insertions. The skin was cleansed with soap and water, and afterwards with rectified spirit. The lymph was applied and scratched through with a sterile lancet. The part was covered with sterile gauze and fixed in position with strapping. At the same time the man's infant, aged 3¾ months, was vaccinated with lymph from the same tube, four insertions being made. When I inspected the cases on January 16th there was absolutely no reaction in the man; the minute scarifications were visible, having healed apparently by first intention. In the case of the infant four typical vaccination vesicles were present, showing moderate areola and the usual infiltration of surrounding tissues. Three other infants were vaccinated with the same series of lymph, and all showed four good vaccination vesicles at the points of insertion.

It is interesting to remark that the outbreak of cow-pox occurred in a neighbouring county to Gloucestershire, where Jenner found his early cases. The farmer informed me that the outbreak among the herd of cows in North Berkshire in November, 1909, had been going on for about a month before I saw them. Out of 30 cows, 25 showed evidence of the disease on the teats and the base of the udder. Inquiry since showed that all the milch cows were affected. The pocks were multiple, and some, where the scabs had been knocked off, showed much inflammatory reaction, with sloughing and ulceration. The most marked differences in the cow and man were that in the vesicular stage the unbroken vesicles, of which I only found one or two, gave the idea of more fluid contents in the cow than in the man; most were broken, evidently from milking, the same slate-blue colour was evident, and they were discharging a sanguineous fluid.

The marked umbilication shown in the man in the scabbing stage was generally absent in the cow, and the scab was slightly convex to the surface of the teat; but there was the same formation of superimposed layers. According to the statements of the farmer and cowman, little constitutional disturbance was noticeable in the cows, and the secretion of milk was but slightly reduced. These remarks are only impressions roughly formed by inspecting a few of the cows on two occasions. The cattle being in the fields, only the more docile cows could be approached and examined. The photograph (taken on November 22nd) shows the udder and teats of one of the affected animals. I was unable to trace any other possible infections in man in this epidemic.

The farmer thought the first case occurred in a recently purchased cow. In reply to questions, he said that no disease was present among his farm or other horses (grease). He had changed his cowman and a milker shortly before, but neither had any sore places on their hands or elsewhere, as far as he knew.

The disease is said to be rare, but I am inclined to believe, from inquiries among a few dairy farmers and cowmen in my neighbourhood, that most have had out-

breaks of the disease in their herds during the last ten or fifteen years. I also found that several men, in all probability, contracted the disease on their fingers or wrists, and in one case it was communicated by a cowman to his wife as before mentioned.

I am also impressed by the fact that though the results produced by accidental inoculation direct from a case of cowpox to the human being broadly go through the same stages as those produced by vaccine lymph, yet they differ in the appearances at the various stages, and probably run a more severe and protracted course. This may possibly be due to accidental introduction of organisms producing more intense inflammatory reactions, or the preparation of the lymph for vaccination may modify the activity, and thereby subdue the intensity of results obtained.

Fig. 2.—Showing appearance of cow's teats about twentieth day of disease.

As this disease chiefly prevails in milch cows, and usually affects a whole herd, it should, I think, be made notifiable. For in process of milking the scabs are knocked off, and the contents of the vesicles are sure to contaminate the milk; the scabs and products of secondary inflammation and sloughing must also to some extent find their way into the milk, and the result of drinking such milk, should any small abrasion be present in the mucous membrane of the upper alimentary tract, raises some speculation. Dairy farmers' knowledge of this may perhaps partly account for the apparent rareness of the disease. If notification were made compulsory, and if the disease was confirmed by competent veterinary inspectors as likely injuriously to affect the use of the milk for human food, surely its sale ought to be stopped until danger had passed. As the disease is rare, probably insurance against its occurrence could be made at a trifling cost.

REFERENCES.

[1] *An Inquiry into the History of Cow Pox*, 1798. [2] *Transactions of Provincial Medical Society.* Further Observations on the Variola Vaccinae. Robert Ceely, Esq., Worcester. 1842.

ON MALARIAL FEVERS AND QUININE.*

BY

J. H. WHELAN, M.D., FLEET SURGEON, R.N. (RET.),

MEDICAL SUPERINTENDENT TO THE ROYAL HAMADRYAD SEAMEN'S HOSPITAL, CARDIFF.

As all observers of malarial fevers know, quotidian fever and double and triple fever, and irregular and remittent, may be caused by any of the three well-known parasites, it is supposed by several different broods developing independently. There may of course be mixed infection also. As a matter of fact parasites in different stages will be found in any malarial blood at the same time, but there is generally a preponderance of organisms of the same size. Haemolysis, or breaking down of the blood discs, is more or less rapidly going on during an attack, most rapidly when the sporulation is most complete. But the fever only manifests itself when enough of the poison manufactured by the parasites in the red cells is set free in the blood plasma to cause its physiological action on the nervous system. This poison is probably a protein derivative, and the dose required to cause fever manifestations is large but varies with the individual. We know as a case grows worse the fever anticipates, more cells break down, and more poison is set free. As an attack grows less the fever is postponed, fewer cells break down, and less poison is set free. The development of antibodies is but a small factor in the cure of malarial patients. Immunity to the disease, as we all know, is a thing of very slow growth and very many attacks.

In two or three days, according to the nature of the organisms, the asexual parasites sporulate, but doubtlessly very many infected cells break down before their uninvited guests reach this stage. The parasites doubtlessly, too, die prematurely from many causes. Why should they alone in Nature be free from accident and disease?

We know that in malaria there are profound changes in the quality and composition of the blood. (1) There is a great diminution of the red cells, much greater than can be accounted for by the ratio of cells infected. (2) The haemoglobin content of the discs is much reduced. It has been known to fall as much as 50 per cent. (3) The resistance of the discs is lowered. In normal blood nothing happens to the discs when added to a 0.41 per cent. salt solution, whereas malarial blood discs haemolyze at once. (4) There is a leucopenia, but as pointed out by Christophers and Stephens, there is both a relative and an actual increase of the large mononuclear cells. The meaning of this is unknown.

I think we may take the lowering of the resistance of the blood discs to be Nature's method of cure. If the infected discs break down before the asexual parasites can sporulate, a permanent cure ensues, unless, indeed, Schaudinn's theory be correct, namely, that the gametes may revert under favourable conditions to the asexual type. In other words, he supposed that the gametes are not only sexually perfect parasites but may also act the part of resting spores. It is a plausible theory, but there is no evidence to support it. It is much more likely that some spores may become encysted in certain internal organs and await the favourable turn of the tide when the human body becomes again a suitable habitat.

We come now to the action of quinine. Intimately connected with malignant malaria in the tropics is blackwater fever—acute haemoglobinuria. As pointed out by Koch, it nearly always occurs in patients taking quinine. Quinine lowers the resistance of the blood discs, and so does malaria, but we do not give it to our patients on the principle of *similia similibus curantur*. This action of quinine can easily be demonstrated *in vitro*. The amount of neutral quinine hydrochloride required to haemolyze 1 c.cm. of red cells at 37° C. is from 0.001 to 0.0008 gram. In blackwater fever during an attack it was only 0 0008 (Stephens and Christophers). Doubtlessly the proportion required to cause lysis of inhabited blood discs is very much less than in the case of uninhabited. When quinine is given in large doses for a considerable time to a person the resistance of whose blood has been greatly lowered by frequent attacks of malignant malaria, a time comes when, in spite of the natural safeguards of the system, an explosive breakdown of the blood discs will take place. But when quinine is judiciously given in malarial fever it causes the gradual premature breakdown of infected cells before their guests can sporulate. Thus the cycle of Golgi is cut short, and a cure is effected as far as the patient is concerned, for the time being at any rate. It is doubtful if the drug has any effect in cutting short the cycle of Ross, so that it is possible a patient may be cured as far as he himself is concerned, but still for a time be able to infect mosquitos. In other words, quinine cures malarial fevers by destroying the homes and food of the *Plasmodia malariae* before they can sporulate asexually; but yet the "cured" patient may remain a source of infection to his neighbours for some time. All observers admit that the gametes are practically unaffected by quinine. I have seen crescents very quickly disappear under moderate injections of soamin.

* Being extracts from a paper read before the Cardiff Division of the British Medical Association on December 15th, 1909.

A CASE OF COMPLETE TRANSPOSITION OF THE VISCERA; WITH POST-MORTEM REPORT.

By GEO. A. ALLAN, M.B.Glasg.,

CLINICAL ASSISTANT AND EXTRA DISPENSARY PHYSICIAN, WESTERN INFIRMARY; LECTURER ON MEDICINE, WESTERN MEDICAL SCHOOL, GLASGOW.

MAN, aged 38, a wire weaver, was admitted to the estern Infirmary, Glasgow, on May 13th, 1907, under e charge of the late Dr. Lindsay Steven, whose intention was to have the case put on record.

When admitted he was critically ill, suffering from the ual symptoms referable to failure of cardiac compensa-on resulting from rheumatic endocarditis affecting the itral valve. He ed eight days later. It is unnecessary the present con-xion to detail the mptoms of his car-ac disease; suffice to say that he had ute rheumatism at e age of 18, but as able to work till out a year before s death. In the evious autumn he d received treat-ent in the Royal firmary for cardiac ilure, at which me also the features out to be described ere fully recog-ized.

On making an ex-mination of the tient cardiac pulsa-on was found to be resent in the sixth terspace as far out 7 in. to the right f mid-sternum, hile the dullness xtended from that oint to 1½ in. to e left of mid-ernum at the level f the fifth inter-pace. The liver as palpable below e costal margin on e left side, and tympanitic sto-ach note was ob-ined over the lower ght costal car-lages—correspond-g to Traube's pace—and extend-g well down towards the umbilicus, evidently due to somewhat distended stomach situated on the right de. The spleen was not palpable, but dullness was ade out along the ninth and tenth right ribs extending ell forwards.

Fig. 1.—Transposition of the viscera; organs removed *en masse*. Cotton-wool has been placed round the trachea and between the lobes of the left lung. The right lung has been drawn back. The photograph shows the heart with the arch of the aorta and its branches, lungs, liver with gall bladder, stomach, and spleen.

Necropsy.

The heart, greatly enlarged, was lying on the right side ith the apex pointing to the right. The left ventricle as in front, but functionating as a right ventricle. The ft auricle, also in front, lay to the left of the middle line nd received the venae cavae. The aorta arose from the ght ventricle and passed upwards towards the left side efore curving round to the right, and passed down the ght side of the vertebral column with the vena cava its left side. Three main branches arose from the rch: (1) A large vessel, the innominate, passing ward the left and dividing into left subclavian and carotid; (2) the right common carotid; and (3) the right subclavian.

In the abdomen, the aorta being to the right, the right renal artery was shorter than the left, while the right spermatic vein fell into the right renal vein and not the left as is usually the case. The right recurrent laryngeal nerve wound round the arch of the aorta, while the left passed round the subclavian.

The left lung consisted of three lobes and the right of two lobes.

The liver lay mostly to the left side, with the gall bladder to the left of the suspensory ligament. The spleen was on the right side.

The cardiac end of the stomach was on the right side and the pylorus on the left, the duodenum thereafter curving round to the right side. The caput caecum with the appendix lay in the left iliac region, and the sigmoid on the opposite side.

The right kidney was higher than the left, while the testicle was lower on the right side.

The head was not opened.

Thus in all parts examined confirmation was obtained of a complete transposition of the viscera.

As a boy he recognized the fact that his heart was beating on his right side, but, as was to be expected, he did not at any time suffer in consequence. He knew of none of his relatives or children having a similar condition.

At the necropsy photographs were taken of the viscera *in situ* and of the principal organs after being removed *en masse*. For the use of the accompanying photograph and the pathological notes I am indebted to Professor Muir.

The heart is preserved as a specimen in the museum of the Pathological Institute of the Western Infirmary.

It is of interest that when the patient was in the Royal Infirmary in 1906 Dr. Steven had under his charge a woman with transposition of the viscera presenting symptoms of cardiac disease similar to those of the case above recorded.

M. Louis Martin, Member of the French Senate, has introduced a bill making it compulsory for every foreigner taking up residence in France to produce a certificate of vaccination or revaccination within three months of his settling in the country. Similar certificates in regard to every member of his family staying with him must also be produced.

Under the will of the late Mr. Jacobus Bernardus Gelder, of Stroud Green, the Great Northern Central Hospital and the Institution for the Oral Instruction of the Deaf and Dumb each receives a sum of £1,000. To the former institution an additional sum of £6,000 is to be paid on the decease of a brother of the testator.

A NOTE ON DEFECTIVE NIPPLES.

BY

H. B. BILLUPS, M.A., M.B., B.CH.OXON.,

SANDOWN, ISLE OF WIGHT.

VERY much nowadays is written about excessive infantile mortality, and one of the chief causes alleged is defective artificial feeding. The reasons for the prevalence of artificial feeding have been frequently discussed, but there is one reason on which sufficient stress is not laid—defects in the nipples of nursing mothers. I have seen a number of mothers who, although they had plenty of milk in their breasts, have yet, on this account, been unable to nurse their babies.

The defective nipples present a variety of appearances. In most cases the breasts and areolae are normal, but the nipple is abnormal. There may be an entire absence of any projecting tissue, and it may be replaced by a crack-like depression, or there may be a crack-like depression in the centre of the nipple, although there is some projection of the nipple beyond the surface of the areola. Sometimes the nipple projects somewhat in one part and is retracted in another.

As a rule it will be found that these defects are bilateral, but the character and degree of the defect is not generally the same on both sides. These abnormal conditions of the nipples appear to be common among parish and club patients, but comparatively uncommon among better class mothers.

Where the defect altogether prevents suckling the disadvantage to the baby is obvious, and though in many cases it can eventually obtain milk from one breast in sufficient quantity, there is generally a defective supply at first at any rate. Further, as the nipple does not project properly the normal milking action which comes into play with a well-formed nipple is impossible, and it is only by taking a large grasp of breast tissue and exerting considerably more energy than usual that the baby can get the milk. There is also much difficulty in exerting proper suction, and much air may be drawn into the baby's stomach.

From the mother's point of view, if she cannot nurse her baby at all the drawbacks are obvious, and if she can only use one breast she may have trouble with the other; the side that is used is used twice as frequently as it ought to be, and is treated with more violence than usual, and therefore is much more liable than usual to become tender and sore. This is especially likely to be the case, since artificial means are often used to draw out the nipple to allow the baby to grasp it at all. Some of the forms of suction apparatus used do little harm, but country people are apt to use more violent methods. The method of heating a bottle by putting hot water in it, and then, after applying it to the nipple, rarefying the contained air by pouring cold water over the bottle, may exert too great suction. Recently I was interested to find a common clay pipe with sharp edges being used for suction purposes, and quite successfully.

The retracted nipple is very much more difficult to keep clean and free from external infection than a normal nipple, and it would be interesting to know the proportion of cases of diseases of the breast, such as mastitis, abscess, and even cancer, preceded by a retracted nipple.

I am generally told, and the manuals I have been able to consult agree, that the condition is due to congenital defect or is caused by the pressure of tight corsets. No doubt there is such a condition as congenitally defective nipples, but one would expect it to be as uncommon as congenital defects of other parts of the generative apparatus. I suspect that the absence of any apparent cause and the statement of the mothers, that so far as they can remember the nipples have never been different, are taken as sufficient evidence of the congenital nature of these abnormalities.

The statement as to the effect of the pressure of tight corsets on the nipples seems to be one of those theories which pass from textbook to textbook without criticism or verification. Though the condition is common, it is not so common as would be expected if it were due to such a widely prevailing custom as the wearing of tight corsets. Again, as the women state that the nipples have alwa presented the same appearance, the damage, if due corsets, must be caused before puberty, but until the ons of puberty the female breast remains in a very undevelop condition, and does not project much. Certainly damage can be done during the latter part of gestation, corsets are generally loosened then or so made as not reach to the level of the nipples; further, corsets worn other times do not always reach to the nipple level. Aga when I ask why, if the condition is due to pressure fro corsets, is it not found more commonly among better-cla women, the only answer I can get is that the low class of people wear commoner, harder, and stiff corsets. But from what I have observed of the ill-fitti corsets of the lower classes, this does not seem to r convincing.

That corsets have little or nothing to do with the matt is indicated by the condition of the breasts themselv Pressure of corsets might produce a flattening of t nipples, but it is not easy to see how the crack-li depressions could thus be formed. Again, if the pressu of corsets were the cause, it might be expected to produ symmetrical results, but the defects, although general bilateral, are seldom alike, or of the same degree on t two sides.

We have therefore to seek for another cause, a I think it is easily found. In various parts of t country where I have worked I have found that it the custom of the country midwives of the old-fashion kind to pinch and squeeze the nipples of newbo babies. It is done every day when the baby is wash and is considered most important, and it is continu for weeks; I remember a case where matter was bei daily squeezed from the breasts of a 4 weeks o infant.

I have had some difficulty in ascertaining the reaso for this custom, as the old ladies are very reticent, b there would appear to be two distinct ideas. One is t removal of milk from the breasts, and the women w have this idea squeeze the breasts of both male a female infants. The other is that unless squeezed so "to break the nipple-strings," female children will have nipples when they grow up, and by those who hold th opinion the practice is confined to female babies. In the fe cases in which I have observed this custom critically I ha noticed that the pinching is done in no gentle manner; doubt considerable damage is done to the rudimenta tissues of the nipple and galactophorous ducts. It probable that scar tissue is formed in the neighbourho of the nipple; as time goes on this contracts, and puberty approaches and the breasts begin to develop, t strands of abnormal connective tissue cause retraction the nipple more or less complete according to the exte of the scar tissue. This would produce the conditio observed; it would account for the bilateral occurren without absolute symmetry, and would also account f the condition being more frequent among the low classes who are attended by ignorant midwives. If m explanation be correct this defect should be almo entirely absent wherever the custom of manipulating t breasts of babies is not in vogue. But I can offer evidence on this point.

It is highly probable that the injury caused to t galactophorous ducts and the pressure of scar tissue upo them produce the obstructions of these ducts giving rise the frequently non-suppurative mastitis so common primiparae. I would warn medical men not to judge t hastily that this custom is not practised in their district because the old midwives know medical practitioners di approve of their methods, and therefore the babies' breas are sometimes pinched surreptitiously.

To sum the matter up, I conclude that the pressure corsets does not cause these defective nipples, nor is generally a congenital condition, but that it is probabl due to manipulations by ignorant midwives soon afte birth. This being so, it is the duty of doctors and nurse alike to teach the women the danger of pinching th breasts of infants, and to see that it is not done. It woul be interesting if practitioners would collect evidence con cerning the infancy of the mothers whom they attend; i the last case I had I found no difficulty in finding ou from the patient's mother that the breasts had bee squeezed in infancy.

ERFORATION OF A GASTRO-JEJUNAL ULCER: OPERATION: RECOVERY.

By WILLIAM HENRY BATTLE, F.R.C.S.,
SURGEON, ST. THOMAS'S HOSPITAL, LONDON.

e following case is an addition to the increasing number nstances of perforation of an ulcer which has followed operation of anterior gastro-jejunostomy. The per-tion was into the general peritoneal cavity, and but for promptitude with which the gravity of the case was ognized by Dr. Currie and subjected to operation, would, similar cases when overlooked, have ended rapidly leath from suppurative peritonitis. In the proceedings he Royal Society of Medicine there is a paper by H. J. Paterson (June, 1909) on the subject of jejunal gastro-jejunal ulcer following gastro-jejunostomy. ong the cases recorded in it there are 19 in which this foration into the peritoneum occurred. To these must added a case published in the *Lancet*[1] recently, and case, making 21 in all, but inasmuch as in two of se perforation occurred on two separate occasions at siderable intervals, this accident has been known to pen twenty-three times, and operation has been cessful in saving life on nine occasions (Goepel 2, brinette 1, Maylard 2, Battle 4). In all anterior gastro-erostomy had been performed, in one "En — Y," and in case with lateral anastomosis. A successful result ends more on the time that has elapsed between giving way of the ulcer and the performance of the ration than on anything else; therefore the life of the ient depends on the ability of the medical man who t sees the patient.

man, aged 39, had undergone an operation in 1907 by a geon in Glasgow for a perforated gastric ulcer, and two nths later another operation for the relief of obstruction to passage of food from the stomach.

He had afterwards enjoyed good health until the morning of gust 26th, 1909. That morning, about 8.30, when taking his akfast, he had been seized with a sudden pain in the upper t of the abdomen on the left side, and had felt sick. He had , however, vomited. Feeling himself that his symptoms re something like those which he had experienced at the e of perforation of the gastric ulcer, he immediately sent for . A. S. Currie, who, recognizing the serious nature of the n's symptoms, requested an immediate consultation with a geon. When first seen by Dr. Currie there was comparatively little dullness in the region of the stomach towards the t, where most of the pain was, but by 11.30, three hours after commencement of symptoms, a dull area was evidently reading from this spot, and from the great tenderness which sted down the left side of the abdomen and the rigidity of the t rectus it was considered that fluid was gradually escaping d diffusing itself along this side of the abdomen towards the lvis. It was diagnosed at this consultation that the patient d a perforated jejunal ulcer, because there was a definite story of stomach operations which could only be accounted on the supposition that the man had undergone a gastro-unostomy on the second occasion. He was removed to a rgical home as soon as possible, and operation performed at o'clock. Dr. Currie administered chloroform, and incision as made through the left rectus muscle. There was some e fluid, thin and without odour, in the left side of the domen, running down to the pelvis. A perforation was found the junction of a coil of intestine with the anterior wall of e stomach, being on the jejunal portion of the junction. There as induration round the perforation, and the coil of intestine hich came up to the stomach and formed the loop was a good al distended and much congested. The opening itself was mparatively small, and was only defined on pressure of the testine so as to force gas bubbles through it. It was closed th silk Lembert sutures, the left side of the abdomen oroughly cleansed, some fluid mopped from the pelvis, and e wound in the abdominal wall closed without drainage. he patient made a good recovery, only complicated by a oderate amount of bronchitis.

The amount of fluid free in the peritoneal cavity was comratively small and of a greenish colour without odour, but ve definite evidence of its presence and diffusion, first by the ea which was dull on percussion and the rapid increase of is area as the fluid gravitated towards the pelvis, and secondly the sharp superficial tenderness which accompanied its read and indicated its irritating character. The jejunum had en sutured to the lower border of the stomach—and the loop gut had been joined laterally by some method of entero-astomosis.

The stomach towards the pylorus was lost in somewhat dense dhesions of long standing. No lymph was found on the omach or intestine, but the operation was performed under ve hours after the onset of the acute symp'oms and the erforation was a small one.

The anaesthetic was well borne; during the operation the condition of the patient caused no anxiety, whilst I had the additional advantage of the assistance of Dr. C. Wheen.

In the three other instances of perforation of simple ulcer of the jejunum[2] on which I have been called to operate the ulcers were on the efferent branch of the intestinal loop of attached bowel. In one the ulcer was not far from the junction ($\frac{1}{3}$ in.), but in all of them the perforation was clearly punched out, and well defined. In this instance the ulcer was situated at the gastro-jejunal junction, and the amount of thickening of the base suggested that the process of ulceration had been a chronic one, in spite of the absence of symptoms preceding the perforation. This perforation was not clearly defined, nor was it in any way punched out. It is interesting, therefore, to note the association of the entero-anastomosis with the anterior gastro-jejunostomy, for the bile and pancreatic secretions would thus pass down the digestive tract without going round by the junction where the ulceration developed. It resembled the more common form of gastric ulcer, whilst the others could not be distinguished from some perforations found, and successfully operated on, in other parts of the smaller gut when typhoid fever[3] was present. Similar ulcers have also been met with when there was no evidence of previous operation or of intercurrent disease, as in the most interesting and highly successful cases brought before the Medical Society of London last year by Mr. H. Lett.[4]

These ulcers are so rare after the posterior operations of gastro-enterostomy, that they are likely to become extinct in surgical practice. The posterior "no loop" operation of the Mayos is accepted as the ordinary routine operation excepting when the conditions calling for gastro-enterostomy do not permit of it.

REFERENCES.
[1] Maylard, *Lancet*, 1910, vol. i, p. 497. [2] *Lancet*, 1906, vol. i, p. 276. Paterson, *Trans. Roy. Soc. Med.*, Surgical Section, June, 1909. [3] H. Mackenzie, *Lancet*, 1903, vol. ii, p. 863. [4] *Lancet*, 1909, vol. ii, p. 1143.

RECURRING JAUNDICE IN MOTHER AND INFANT.

By E. N. NASON, M.D.CANTAB.,
SURGEON, NUNEATON AND DISTRICT HOSPITAL.

DR. ROLLESTON'S interesting case of jaundice recurring in mother and infants in four successive pregnancies (JOURNAL, April 9th, p. 864) recalled to my mind a similar case which occurred in my own practice:

Mrs. H., aged 26, after two normal pregnancies had a bad miscarriage. During the latter part of her next pregnancy she became slightly jaundiced and at the onset of labour very deeply so. The jaundice lasted for about a fortnight after confinement. The child was ill developed, and became jaundiced on the second day, and remained markedly yellow up to its death, four weeks later. The mother's milk was of a bright orange colour, so she only nursed the child for one day.

In her next (fourth) pregnancy a similar sequence of events occurred. This time, however, the child was so weakly that she felt obliged to feed it at the breast, although the milk was again of the same orange colour. The child became jaundiced, and died on the eleventh day.

In her next (fifth) pregnancy the same conditions recurred, but this time the child was much better developed, and she did not feed it by the breast at all as the milk was again of the same colour. The child became jaundiced, but lost its yellow colour at the end of a fortnight. It did not, however, thrive, and died after ten weeks. It suffered towards the end from otorrhoea with some obscure cerebral symptoms.

In her next (sixth) pregnancy she again became jaundiced about a month before her confinement, but this time the jaundice disappeared ten days before delivery. The child, however became jaundiced on the second day. The mother's milk was again of the same orange colour, although she herself did not appear to be at all jaundiced. The child was never put to the breast, but was at first very weakly, and at 2 years suffered from otorrhoea, which I am told has persisted more or less up to the present time. The boy is now 18, and in other ways fairly healthy.

In her seventh pregnancy she became jaundiced to a slight extent about a fortnight before her confinement, but the yellow colour had disappeared before delivery. The milk, however, was as yellow as on the previous occasions. The child did not become jaundiced, was not put to the breast, but died from diarrhoea (which seems to have been of the usual summer type) at the age of 5 weeks.

In her eighth pregnancy she was not at all jaundiced, but the child was stillborn.

Her ninth pregnancy was normal and the child was healthy, but a few years later died from measles.

Her last (tenth) pregnancy was normal in every way, and the child, now aged 10, is healthy.

Here there seems to have been a definite relationship between the extent of the jaundice in the mother and the jaundice and feeble health of the child. Again, it does not seem to have made any material difference to the child's condition whether it was fed with the jaundiced milk or not. The extreme orange colour of the milk, even when the mother's skin was free from discoloration, is rather remarkable.

I came to the conclusion at the time that the condition was an infective one, and that the child was infected *in utero* and not from the milk.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

TRAUMATIC ASPHYXIA.

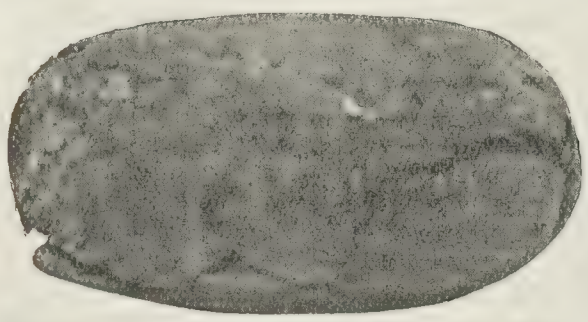
ON April 4th, 1910, whilst H. J , aged 50, was working in a seam 24 to 28 in. in height, he ceased hewing, turned round, and reached for some timber, when a stone 6½ ft. in length, 2½ ft. in width, 1½ ft. to 2 ft. in thickness, estimated weight 1 ton, slipped from the roof and pinned him prone on the small coal on the bottom. According to his mate, working in close proximity, his only exclamation was "Oh, dear!" Liberation of the body was a task of considerable difficulty, as the stone was lying on his back, leaving head, neck, shoulders, arms, and one leg and foot free.

Inspection of the body about three hours afterwards revealed: (1) Numerous indentations (pittings), interspersed with bluish-purple discolorations, of the skin of the thorax and epigastrium, due to the pressure of corners of small coals under superincumbent weight of stone on the body. (2) Suffusion (*a*) of the skin of the front and sides of the face, neck, and upper part of the thorax, of rose-purple tint; and (*b*) of the skin of the back of the neck and head, of a bluish-purple hue. The mucosa of the lips and gums also showed a rose-purple suffusion. (3) No indications of fracture or any injury in head, trunk, or limbs.

Durham. JOHN H. R. GARSON, M.B., D.P.H.

SPONTANEOUS PASSAGE OF GALL STONE.

A PATIENT, aged 69, had been under observation from time to time with gastric symptoms without local evidence of tumour to suggest malignant disease. His last illness was a typical attack of gall stones, with marked tumour. He was seen by Mr. Openshaw, who advised operation. Before this could take place acute haematemesis, melaena, and collapse set in, and the operation for the time being could not be done. Large doses of morphine with atropine were administered hypodermically, with the result that the patient rallied for a day or two, and the tumour vanished. Symptoms of acute obstruction set in, again with collapse. With almost poisonous doses of atropine, followed up by enemata and castor-oil, the patient passed the stone, and after a fortnight's convalescence went to Bournemouth to recuperate.



Photograph of stone, natural size: Length, 2¼ in.; breadth, 1⅛ in.

Hornsey. AMB. ATKINSON.

UNDER the will of the late Mr. Samuel Leeming Haldane, a partner in a firm of Hull steamer trawlers, the Hull Royal Infirmary receives a legacy of £5,000 and the Hull and Sculcoates Dispensary a sum of £1,000.

CARDIAC LESIONS RESULTING FROM ACU RHEUMATISM.

IN examining candidates for life insurance policies h frequently, owing to lesions discovered by auscultati does one have to put the question, "When did you ha rheumatic fever?" This fact has often caused me to a whether we are, as a rule, treating acute rheumatism really correct lines. Statistics, I believe, prove that t mortality in this disease is only 1 per 1,000. We ha therefore, not a fatal termination to fear, but do we treatment recognize the very large percentage of ca (called cured) in which lesions are left which prove fa in many cases, and in others cause endless pain, fe misery, and shorten life? Looking these things fairly the face, I think we cannot but look upon acu rheumatism as one of the most important and seric diseases that flesh is heir to.

I need not enumerate the various remedies in use, b I believe it has been proved that (1) the lactic acid circ lating in the blood, whether from an excessive secreti of it, or from a decrease in elimination of a norn amount, due to liver inaction, "does not deposit itself the white fibrous tissue (its special affinity) on the valv of the heart, while all the excretions of the body have alkaline reaction"; (2) if the valves of the heart do beco affected they do so during the first ten days of the disea Acting on this I some years ago treated a number of ca on plain common sense lines. To neutralize existing ac in the blood I simply gave 3ss doses of potassium bica bonate, freely diluted, every four hours. To eliminate t acid and keep the liver acting, I gave 3 grains of mercu subchloride two or three times a week for the first t or twelve days. Of course, it is a great advantage begin with a case at its commencement. A nourishin easily-digested diet; sedatives, tonics, and local applic tions to relieve pain, if and when necessary.

Whether my tried cases were accidental I know n but I saw them all afterwards at different periods, and can say that any one of them might have applied for life policy without being asked, "When did you ha rheumatic fever?"

Farningham, Kent. W. HENRY HARRIS.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN TH HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

BRADFORD ROYAL INFIRMARY.

PURULENT MENINGITIS SECONDARY TO A LATENT APPEND ABSCESS.

(By SYDNEY HARTILL, B.M., B.Ch.Oxon., House-Physician

A BOY, aged 8 years, was admitted on January 28t 1910, in a semiconscious condition. The history (obtaine from the mother) was that the child was quite well unt January 21st, when, on arriving home from school, h complained of pain in the left knee. There was no redne or swelling, and the pain passed off in a few hours.

He remained apparently well until January 24th, whe he complained of a severe headache, and stayed away fro school. The headache became worse, and on January 26t he appeared to be drowsy, and shouted out when touche From January 26th to 28th he gradually became mo drowsy, and his general condition appeared to be wors As far as the mother knew he never complained of pain i the abdomen. The bowels were regular and stools norma There was nothing of note in the past or family histories.

When admitted at 4 p.m. his temperature was 103 pulse 88, respirations 36. He was conscious, but ver drowsy, cried out when touched, and strongly objected t being disturbed. The head was slightly retracted, an there was some stiffness of the muscles at the back o the neck. Tache cérébrale was marked. The pupils moderately dilated and equal, reacted naturally. Th discs were a little swollen, and the veins dilated. Th mouth was covered with sordes, the lungs and heart wer

rmal. The abdomen was retracted, but there was no parent tenderness on palpation, nor on deep palpation in region of the appendix. The spleen and liver were enlarged. The knee-jerks were a little brisk. Plantar lex was extensor on both sides, and Kernig's sign was rked.

At 9 p.m. he became unconscious and went into consions; the head was very much retracted, legs and nk exceedingly stiff. The left arm was extended, the ht arm flexed, and the right hand pressed against the d. At 9.45 p.m. 12 c.cm. of very turbid fluid were thdrawn by lumbar puncture. The fluid was evidently der pressure. It contained excess of polymorphonuclear cocytes and albumen, but did not reduce Fehling's ution. Numerous Gram-positive cocci were found, and a culture (not examined until six hours after death) *coli communis* and *Staphylococcus aureus*.

On January 29th he was comatose. Râles were heard over the lungs, the pupils were dilated, the right larger an the left, and both eccentric. He died at 7.50 p.m.

The diagnosis of meningitis was evident, but its cause s a more difficult problem. It appeared to run too pid a course to be tuberculous in origin, so it was ought to be pneumococcal from a deep-seated patch of eumonia.

Post-mortem Examination.—Over the whole of the ht cerebral hemisphere was a fairly thick layer of enish pus. Pus was scattered also over the base of the ain, especially around the roots of the second and third rves. The quantity over the left base was much less an over the right. The thorax was normal. There was ich matting around the caecum and appendix, and the pendix was adherent to the posterior surface of the ecum. The distal half inch of the appendix was disded and contained a small quantity of creamy pus; ere was no concretion and no perforation. There were merous enlarged glands in the mesentery.

The primary source of infection was evidently a collecn of pus in the appendix. The inflammation in this gion must have been of some weeks' duration, and had parently given rise to no symptoms.

I have to thank Dr. Wrangham, under whose care the tient was, for permission to publish the case.

Reports of Societies.

THE ROYAL SOCIETY.

Thursday, April 14th, 1910.

Sir ARCHIBALD GEIKIE, K.C.B., President, in the Chair.

Action of Radium on the Skin.

. J. O. WAKELIN BARRATT contributed a paper on the tion of the radiation from radium bromide upon the in of the ear of the rabbit. The ear of the rabbit was posed to the action of the radiation from 1 mg. of dium bromide spread over a circular area of 7 mm. diaeter, and the resulting pigmentation of the skin was died. It was found that pigment was deposited most undantly opposite the edge of the disc of radium salt. e deposit, when viewed under a low magnification, preted a characteristic reticular appearance. The larger aces enclosed by the pigment, which were more or less lygonal, contained hair follicle groups, but the smaller aces were free from hair follicles. A certain amount of gment was also deposited in a diffuse manner, chiefly posite, or a little outside, the edge of the disc. This, hen marked, caused the reticular pattern to be somewhat scured. The deposit of pigment was not quite uniform, t tended to take on a punctate character. Opposite the ntre of the disc of radium salt a varying degree of degmentation occurred, though at the same time here and ere a small amount of pigment, arranged in an imperct reticular pattern, could sometimes be recognized. he pigmentation was chiefly in the epidermis, the cutis ra being less affected. The depigmentation also affected th epidermis and cutis vera, but was, however, more riking in the latter than in the former. No change in e pigmentation of the hair shafts was observed. In a hite rabbit whose pupils presented a red reflex, prolonged exposure to the action of radium bromide caused the appearance of an exceedingly slight reticular deposit opposite the applicator. With this exception, all the rabbits employed had black or mixed black and white coats. Attempts were made to obtain pigmentation by the action of radium upon human skin, but were not successful.

A Physiological Effect of an Alternating Magnetic Field.

Professor SILVANUS P. THOMPSON reported that if in a darkened room, or with eyes closed, the head were placed in an alternating magnetic field of sufficient intensity, there was perceived over the whole region of vision a faint flickering illumination, colourless, or of a slightly blue tint. The period of the flicker was not well defined. It did not seem to be the same over the whole field of vision at the same time, nor was it equally bright over the whole field of vision. Even in daylight, with the eyes open, the observer was conscious of a sensation of flicker superposed on the ordinary vision. It had not yet been definitely ascertained whether there was any relation between the direction of the axis of the field with respect to the position of the skull. No after-effects of any kind had been observed. The alternating magnetic field, the intensity of which (quadratic mean) was about 1,000 C.G.S. units, was produced by sending a current of about 180 ampères through a coil of thirty-two turns formed into cylindrical form about 9 in. in internal diameter, the current having a frequency of fifty periods per second. Several of the observers had noticed a sensation of taste after two or three minutes in the alternating magnetic field.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

Friday, April 8th, 1910.

Dr. H. COOPER PATTIN, President, in the Chair.

MR. C. S. LOCH, D.C.L., Secretary of the Charity Organization Society, addressed the society upon the proposals in regard to *Medical relief* made in the Majority report of the Royal Commission on the Poor Laws and the Relief of Distress. He dealt first with the present position of medical relief and its organizations, then with the general and other recommendations of the Majority Commissioners, and finally with the sufficiency of their suggestions in relation to the organizations of public health. He said that in the first instance medical relief must be considered in relation to the Poor Law infirmary, the public health hospital, the voluntary hospital, and in regard to outdoor medical relief the outpatient departments, the public elementary schools, the free and provident dispensaries, friendly societies, and the large system of sick clubs managed chiefly by general practitioners in different parts of the country. There were the gravest objections to a free system of medical relief paid for by the State, with the consequent transformation of the medical men of the country into a very large State staff; that would run counter to the healthy growth of our social structure. It would weaken social effort, in which lay ultimately the foundation of health and of well-being. The rule should be everywhere adopted that the patient should pay according to his ability. It would follow that at every hospital or infirmary or Poor Law dispensary, or in connexion with all the forms of outdoor medical relief there would be payment. What should be paid, and who should and who should not pay, would be a question for settlement on inquiry. Every centre of medical aid could be used not only for curative and alleviative purposes, but also for preventive. Dr. Philip's tuberculosis dispensary in Edinburgh had shown what could be done in regard to phthisis by specialization and visiting. But the system was applicable to other diseases. It suggested a form of co-operation between persons and authorities which might be introduced into other branches of medical treatment. The Public Assistance Committee, which would take the place of the existing boards of guardians, would have to make careful inquiry into the circumstances and conditions of all persons applying for assistance with a view to ascertaining the cause and nature of their distress. Dr. BYGOTT said that he had noticed gratefully the tender regard shown by the Commissioners for the general practitioner, but after the terrible state of things revealed in the pamphlet published by the British Medical Association on

contract practice, he thought it would be better to let the medical profession make its own arrangements for medical treatment, and protect it by placing at the disposal of the public a skilled salaried service, supported by well-equipped institutions capable of rendering help to the poor or of helping the practitioner at any point, such as providing *x*-ray assistance or indoor treatment, and safeguarding him by charging those able to pay a proper fee—if anything, rather more than was paid for such work nowadays. Mr. F. E. FREMANTLE said that as it was evident both the Minority and Majority schemes relied extensively upon prevention, the realization of one or the other was a question entirely of practicability. The Minority scheme was a clear-cut case of ideals, the Majority a case of building up from existing conditions. Dr. E. H. T. NASH was convinced that before any scheme could be satisfactory invalidity insurance would have to be reckoned with. Dr. F. S. TOOGOOD considered that there was abundance of room for co-operation and harmonious working between the Poor Law medical officer and the medical officer of health, and deplored that there should be any suggestion of rivalry between them. He urged the formation of larger administrative areas and more specialization.

HARVEIAN SOCIETY OF LONDON.

Thursday, April 14th, 1910.

Dr. HANDFIELD JONES, President, in the Chair.

DR. LEONARD WILLIAMS, in a paper dealing with the *Climacteric*, pointed out that the symptoms commonly observed at this period were due to many causes; he had only time to call attention to three—eye-strain, disturbances of blood pressure, and thyroid inadequacy. The minor errors of refraction coming on at this period of life were apt to be neglected even by the oculist, but were a fruitful cause of neurasthenia so common at the menopause. They should always be looked for, and where present corrected with glasses. Disturbances of blood pressure might be said to be normal to the climacteric. Hypertension was relieved by the haemorrhages so commonly present, and these should not be unduly repressed; he considered it due to a disturbance in the equilibrium of the internal secretory glands. In cases where the manometer showed high tension, and haemorrhages were not present, he recommended venesection. In some cases the blood pressure was found to be low, and these were benefited by ergot, strychnine, and pituitary extract; a manometer should always be used. Speaking of thyroid inefficiency, he described a group of symptoms, frequently present at the menopause, which, while falling a long way short of myxoedema, to his mind indicated a certain degree of thyroid inadequacy. These cases did well on thyroid extract, but not in the usual doses; half a grain twice a day, increased very cautiously if at all, was what he advised. In the treatment of the subjective symptoms of the menopause generally he had found one other drug useful—ichthyol. He could offer no explanation of how it acted. The PRESIDENT remarked on the frequency with which the menopause was held responsible for symptoms. He supported blood-letting in suitable cases. He did not agree that thyroid inefficiency was of importance as a cause of symptoms during the climacteric, and pointed out that in these days numbers of women treated increasing obesity with thyroid extract, and yet suffered from the usual symptoms at the change of life. He considered that ichthyol acted as an intestinal antiseptic. Dr. E. I. SPRIGGS, in a paper on the *Treatment of indigestion*, said that from a review of 425 cases of dyspepsia which had been under his care, he concluded that in the majority of these—namely, 364—an exact diagnosis was not to be made from the symptoms and physical examination of the stomach alone. The physician might form a definite view, but analysis of the stomach contents would show that this view was often wrong. Nevertheless, in a large proportion treatment had been successfully applied. He much preferred, whenever possible, to make an exact diagnosis by an examination of the contents of the stomach or of vomited matter. Although the procedure of withdrawing material from the stomach was an extremely brief one, nevertheless many patients, not unnaturally, objected to the discomfort of passing a tube. Treatment founded upon experience might first be applied in these, and would often be successful. In his series of cases benefit had resulted most frequently from one of two kinds of medicines, namely, alkali and a carminative, such as ginger, an hour or an hour and a half after a meal, or when the discomfort came on; or bismuth carbonate in doses of half a drachm or more before meals. Dr. PARKER YOUNG was disappointed at the paucity of remedies mentioned by Dr. Spriggs, and spoke of the value of charcoal and creosote. Dr. E. YOUNG thought that the unpleasantness of passing the stomach tube was exaggerated. He considered the best time to wash out a dilated stomach was before the evening meal. He approved of the plan of giving fluids an hour before meals, and of giving proteid food in cases of hyperacidity. Dr. LEONARD WILLIAMS did not consider tobacco was a cause of dyspepsia. He thought nowadays there was much nonsense talked about diet, and the stomach was pampered. He mentioned eye-strain and nasal obstruction as additional causes of dyspepsia. Dr. SPRIGGS replied.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

Friday, April 1st, 1910.

Dr. NEVILLE WOOD, President, in the Chair.

THE following were among the exhibits:—Mr. LAMING EVANS: A case of *Congenital dislocation* of the hip in a child, aged 6, two years after manipulative replacement. The original condition was shown by a skiagram, the trochanter being $1\frac{1}{4}$ in. above Nélaton's line. A second skiagram showed present condition with the head in the acetabulum. The leg was the same length as the other, and the child could jump and run without anything abnormal being noticed. Mr. D. C. L. FITZWILLIAMS: A case of *Traumatic dislocation of the knee* in a patient who had been knocked down by an engine and had sustained a number of severe injuries. Among others, the left knee was completely dislocated, the head of the tibia being displaced upwards about 3 in., and lying internal to and behind the femur. The subcutaneous tissue was freely displayed in places, but none of the wounds communicated with the joint. After he had recovered somewhat from the shock the dislocation was easily reduced under spinal analgesia, stovaine being used. The patient, who was aged 31, was now walking two miles daily to have his arm massaged. Mr. MCADAM ECCLES: A case of "infective" *Osteo-arthritis* of both knee-joints in a man aged 40, a type-founder, a fairly healthy man. He had had lead colic fourteen years ago, but it had never recurred. There was no history of venereal disease or signs of tabes. There was pain and difficulty in walking, and his gait was that of catching up his centre of gravity. His teeth had been very defective for years. The exhibitor said that if the disease had been only in one knee he would have advised excisions. There was no increase of fluid in the joint. Dr. FREDK. S. PALMER: A case of *Traumatic epilepsy* successfully treated by operation. The right parietal bone was fractured in 1898. In 1904 he fell and struck the same region. In 1905 he entered the army. In February, 1906, in India, he began to have epileptic seizures, and became hemiplegic on the left side. He was trephined; the hemiplegia disappeared, but he had about sixteen epileptic fits after the operation, and was invalided home in November, 1907, and discharged as unfit for service. His fits became frequent and headache became severe. A fit seen began by twitching of the right side of the face and neck, followed by clonic convulsions of the left arm and leg, and then becoming generalized. On February 17th, 1909, a portion of the skull, about 2 in. by $2\frac{1}{2}$ in., was removed, in which were two depressed pieces of bone, evidently the pieces trephined which had been replaced; a flap of dura mater was raised, nothing abnormal was seen on the exposed cerebral surface; the flap of dura mater was sutured, the bone not replaced, and the scalp treated as usual. On May 26th, 1909, the scalp flap was turned down and a platinum plate fixed over the opening in the skull by means of a platinum wire. From the operation until the present there had been no headaches and no epilepsy. The patient was shown at the Medical Society in November, 1909. Mr. ASLETT BALDWIN: A case of *Fracture dislocation* of

right shoulder. The radiograph produced showed a ture through the anatomical neck, with the head of bone beneath the coracoid process. The exhibitor, on ing down, found a fair amount of capsule attached to head, so he reduced the dislocation and wired the es. The wound healed by first intention, and there now a very fair movement in the joint. The head eared to have united to the shaft, and showed no sign casting. Mr. CECIL H. LEAF: (1) A man aged 55, from m he had removed three inches of the transverse n containing a growth microscopically *Myosarcoma*. had been struck in the abdomen one year ago by the of a wagon; symptoms first noticed about four ths ago. The exhibitor thought the growth owed its in to the blow. (2) A man, aged 67, to show what a t amount of comfort and advantage might be derived repeated *Cauterization* in cases of inoperable inoma of the tongue. In this case the tongue and le of the mouth was clean, and the man had had no since the first cauterization.

MANCHESTER MEDICAL SOCIETY.

Wednesday, April 6th, 1910.

Mr. E. STANMORE BISHOP, President, in the Chair.

MILLIGAN, in a paper on the *Surgery of the faucial ils*, with special reference to the operation of enuclea-, laid special stress on the importance of recognizing supratonsillar fossa as a "dangerous zone." He ngly recommended tonsillectomy in preference to illotomy, and advanced reasons for this preference. In rd to the administration of anaesthetics during opera- s upon the tonsils he urged the advantages of general esthesia. Dr. LOVEDAY described some investigations re- ly conducted by him on the *Serum diagnosis of syphilis*. method employed was that advocated by Alexander ning, in which an alcoholic extract of heart muscle le up to 10 per cent. in normal saline was used as gen and sheep's corpuscles (normally haemolyzed by an serum) washed and made up to a 10 per cent. pension in normal saline were used as an indicator. ng this method, 44 out of 45 cases of clinical syphilis e a positive reaction. On investigating controls some s which had almost certainly not had syphilis gave tive reactions. The extract was therefore reduced in ngth and experimentally standardized to give a posi- reaction only in syphilitic cases. The results with standardized extract to date were: Out of 20 cases of ical acquired syphilis, 18 positive, 1 doubtful, and 1 ative reactions were obtained. Out of 52 control cases gave a negative and 1 a positive reaction; this case n inquiry gave a history very suspicious of syphilis. controls embraced, amongst others, cases of bacterial ction — gonococcal — tuberculous and pneumococcal s and cases of anaemia and chlorosis. He considered reaction reliable. Dr. G. H. LANCASHIRE described a of chronic *Cruro-genital eczema* which developed denly while in hospital into an acute gangrenous con- n, the patient dying. The course of events pointed to acute infective process—probably autoinfection. Dr. HUR SELLERS, who had made a pathological investiga- of the organs after death, reported that the *S. pyogenes eus* and *pyocyaneus* were found in enormous numbers he gangrenous skin. The same organisms were also ent in the kidneys, spleen, and liver, but were not id in the blood.

LIVERPOOL MEDICAL INSTITUTION.

Thursday, April 7th, 1910.

Dr. BRADSHAW, President, in the Chair.

s was a pathological meeting, the following being ng the exhibits:—Dr. LLOYD ROBERTS: A section of *lothelioma* under the skin following puncture of pleura. FRANK JEANS: (1) 4 ft. of jejunum, removed from a who had been run over, which had perforated. 3 ft. of ileum removed from a woman with a strangu- d ventral hernia. Lateral anastomosis was performed oth instances, and both patients recovered. Dr. KELLY: A large *Urethral calculus*, measuring 1 in. in diameter, oved from a man on whom peritoneal section had been ormed eleven years previously; (2) a specimen of *Molluscum contagiosum* from the calf of a boy aged 11; it was alleged that the condition was present at birth. Dr. MOORE ALEXANDER: Four sections of *Retained testicles*, removed from subjects aged respectively 8, 13, 24, and 36. They showed the gradual fibrotic changes occurring around the tubules, and the degeneration of the cells lining the tubules. Dr. GULLAN: A specimen of primary *Carcinoma of right lung*, from a woman, aged 46, which had caused solidification of the right lung and obstructed the superior vena cava, and invaded the pericardium. Dr. OWEN and Dr. HICK: A *Contracted stomach*, 5 in. in length; the cardiac half admitted a small finger, obtained from a man, six weeks after taking spirits of salts. Microscopically the mucous membrane was completely destroyed. Mr. DOUGLAS CRAWFORD: (1) A large *Cystic kidney*, probably congenital, removed from a woman aged 42, who had apparently suffered from haematuria and renal colic. There was no evidence of cystic disease of the other kidney. The cysts were filled with colloid material and the walls lined with epithelium, cubical or flattened. (2) A specimen of Meckel's diverticulum in a right inguinal hernial sac, which was adherent to the testicle. Dr. MCDOUGALL: A specimen of *Angioma of the pyriform sinus* of the larynx, which had originated at the site or in the immediate vicinity of a foreign body removed by himself several months earlier. Dr. BUCHANAN and Dr. E. GLYNN: Enlarged tuberculous bronchial glands from a man with mitral stenosis. Dr. ERNEST GLYNN: The lungs from a boy who died of acute pneumococcal septicaemia after an illness of apparently only five hours' duration; there was no pneumonia. Dr. F. P. WILSON read a note on the presence of *Acid-fast bacilli* in the stools in tuberculous conditions, with special reference to lupus vulgaris. He drew attention to recent work which showed that the presence of acid-fast bacilli in the stools was not necessarily due to intestinal ulceration or swallowing of sputum, as they had been found in cases of tuberculous diseases of the joints, glands, and meninges. He had himself examined the faeces of ten cases of lupus vulgaris by means of smears and also by injection into guinea-pigs. In every case the result was negative. He suggested that further research might meet with success in cases of toxic tuberculides.

AT a further meeting on April 14th Drs. STOPFORD TAYLOR and R. W. MACKENNA, in a paper on the *Spirochaeta pallida*, gave a short history of the introduction of syphilis into Europe and of the various attempts which had been made to discover the organism of the disease before the famous discovery of Schaudinn in 1905. The spirochaete was described in detail, and many fine photomicrographs shown of the organism as obtained from the writers' own material. Its life-history was then described, and the gaps in existing knowledge pointed out. Dr. PROUT, alluding to framboesia or yaws, said that some considered this disease to be a form of syphilis. He did not think this view was accepted by those who worked in the tropics. He considered that protozoal diseases were characterized by some similarity of symptoms.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

Friday, April 8th, 1910.

Dr. J. B. HELLIER, President, in the Chair.

Clinical Evening.

THE following were among the exhibits: Dr. E. F. TREVELYAN: A man, aged 46, with *Lymphatic leukaemia* of about a year's duration. There was some anaemia and widespread, though moderate, lymphatic enlargement. The tip of the spleen could be felt. The blood count showed 97 per cent. lymphocytes (small mononuclear) of 180,000 leucocytes per c.mm. The red cells stood at 2,700,000. Dr. TREVELYAN and Dr. ALLAN: A carpenter, aged 53, who had been subject to attacks of painful *Tonic spasm in the hands* in the winter during the past seventeen years, the first attack being noted while he was convalescing from pleurisy. The attitude assumed by the hands was that of tetany, but the signs called after Chvostek, Trousseau, and Erb were all absent. There were no noteworthy gastro-intestinal symptoms. Mr. CONSTABLE HAYES: A boy, aged 17, with *Double glaucoma*.

Three months previously, while working below surface in a pit, he noticed colours around the lights; shortly after sight gradually became affected. When first seen, three weeks ago, there was no injection; tension in both eyes was +1; anterior chambers normal; glaucomatous cupping of both discs; pupils semi-dilated. Under eserin pupils did not contract well. On March 25th iridectomy was performed in the right eye. Tension remained −1 for a week, but had since then gone gradually up again, and was now much the same as before the operation. The patient's father, who became totally blind at 30 from chronic glaucoma, was also shown. Dr. T. WARDROP GRIFFITH and Dr. J. B. HELLIER: A woman suffering from *Leucocythaemia*. The spleen, in addition to being greatly enlarged, was prolapsed and freely movable about the abdomen, being palpable per vaginam. Mr. B. G. A. MOYNIHAN: A specimen of primary *Colloidal carcinoma* of the gall bladder removed for rupture. Dr. C. OLDFIELD: A specimen of pyosalpinx with twisted pedicle removed from a girl, 18 years of age, who had had five or six attacks resembling *Acute appendicitis* during the preceding twelve months. The condition was bilateral, and on the right side there was a pedicle twisted through two complete turns. The ampullary part of the oviduct alone was distended. The macroscopic and microscopic appearances were those of tubercle, but no bacilli were found. The uterus and ovaries were preserved, and the patient made a good recovery. Dr. A. BRONNER: A case of *Hypopyon ulcer* of cornea in an adult treated with pyocyanase, dropped in hourly; the symptoms rapidly improved. The exhibitor said he had treated several cases of ulcer of the cornea in the same way, and they had all improved very rapidly. Dr. E. O. CROFT: (1) A specimen of *Fibrosis uteri* removed by vaginal hysterectomy from a multipara aged 54. Persistent menorrhagia had existed for many years, in spite of much treatment, including curetting. The uterine walls were uniformly thickened, and the microscope revealed an excessive amount of connective tissue especially well marked around the blood vessels. (2) The uterus and appendages removed by abdominal hysterectomy for *Squamous epithelioma* of the vaginal portion of the cervix. The growth was present superficially on the vaginal portion, and had extended somewhat on to the vaginal walls. The cervical canal was healthy. The tissues immediately beneath the ulcer were infiltrated, but there was no deposit in the broad ligaments, and no enlargement of glands. The whole of the palpable disease was easily removed. Mr. C. P. ANNING: Photographs of a congenital *Thoracic deformity* consisting of absence of the left mamma and nipple, and of the sterno-costal part of the pectoralis major.

NORTH OF ENGLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

Friday, April 15th, 1910.

Dr. W. K. WALLS (Manchester) in the Chair.

THE following were among the exhibits at this meeting, which took place at Manchester. Dr. W. E. FOTHERGILL (Manchester) showed a large *Fibroma* of the ovarian ligament and contiguous portion of the ovary. It was markedly infiltrated with blood caused by torsion of its pedicle. This had been associated with symptoms of a subacute nature, and the patient was admitted to hospital two days later. Whilst waiting for the usual operating day she was suddenly taken acutely ill and presented all the signs of internal haemorrhage. The abdomen was opened within half an hour; it contained a large quantity of free blood which had escaped from a vessel at the seat of torsion. The tumour was very easily and quickly removed and the abdominal cavity was filled with saline. Though the patient rallied and improved for some hours she died next day. Dr. E. O. CROFT (Leeds) recorded a case of *Caesarean section* for a post-rectal cyst, which markedly bulged the posterior vaginal wall and displaced the cervix upwards, so that the external os was on a level with the top of the symphysis. Rectal examination showed that the cyst was behind and to the right of the bowel. Pelvic pressure symptoms during the seventh month led to detection of the cyst. Caesarean section was performed at the estimated full time. After the uterus had been sutured the patient was put into the Trendelenburg position. The cyst was found to be the size of an orange. The rectum curved over its surface on the left side, whilst on the right the iliac vessels and the ureter lay in front of it. It was considered unwise to attempt its enucleation from above, so the abdomen was closed. Three weeks later the cyst was opened by an incision through the vagina, a large rectal bougie being placed in the bowel as a guide. Three or four ounces of slightly turbid albuminous fluid were drawn off. It contained neither ordinary dermoid products nor hydatid elements. Finally the cavity was packed with gauze. Ten days later only a slight indistinct thickening could be detected. Dr. BRIGGS referred to two cases in which he had been able to remove similar thin-walled retroperitoneal cysts by a perineal dissection between the anal canal and the coccyx. Dr. FOTHERGILL suggested that such cysts are derived from Wolffian relics. Dr. H. CLIFFORD (Manchester) showed a pregnant uterus containing a *Fibroid*. On four occasions the tumour, which had enlarged during pregnancy, had almost disappeared within a few weeks after its termination, by forceps on the first two occasions, by forceps after induction at the eighth month on the third, and by Caesarean section on the fourth. The same variation in its size was noted in association with two later pregnancies which had ended in early abortions. Finally, when again pregnant, the patient refused to wait for Caesarean section and, enucleation proving impossible, the uterus was removed. Dr. LEITH MURRAY (Liverpool) read a paper on *Red degeneration of fibroids*, and detailed four cases of the condition. Three of these were unassociated with pregnancy, and were producing no symptoms of urgency, while the fourth, occurring in pregnancy, was of a more urgent type. All showed defective nuclear staining—some hyaline and granular changes, and thrombosis in a few small vessels. Two of them were proved sterile, both aërobically and anaërobically. An account of the haemolytic properties of the lipoids extracted from four degenerating fibroids was given, together with a demonstration (1) of a peculiar bleaching which develops when lipoid is added in excess of the quantity required for complete haemolysis, and (2) of the inhibitory effect of blood serum on this process. The conclusions were drawn that red fibroids were not a group by themselves, that thrombosis was not primary, and that many of the old stains in degenerating fibroids, not necessarily red stains, might be due to old symptomless haemolysis.

PATHOLOGICAL SOCIETY OF MANCHESTER

Wednesday, April 13th, 1910.

Dr. W. E. FOTHERGILL, President, in the Chair.

THE PRESIDENT in opening a discussion on the chronic results of septic and *Gonorrhoeal infection* of the female pelvic organs, considered the parts played by the appendix, the rectum, and other portions of the intestinal canal, by the blood stream, and by blood effused into the pelvis. He suggested that septic infection produced lasting results by producing fibrosis of various structures and organs rather than by inaugurating true chronic infection. Thus "chronic septic endometritis" and "metritis" were indistinguishable pathologically from other conditions which were not infective in origin, but in which fibrosis was a leading feature. Gonorrhoeal and mixed infections, on the other hand, might be truely chronic in character. One bar to the spread of gonorrhoeal infection was presented by the vagina, another was afforded by salpingitic closure of the abdominal opening of the tubes. Was there not, he asked, a tendency to neglect cases in which gonorrhoeal infection sealed up the tubes and caused sterility and other symptoms without producing gross lesions such as pyosalpinx? And, gonorrhoea apart, would it not be well to open the abdomen more frequently in old infective cases without strikingly obvious physical signs, in order to separate adhesions, remove diseased portions of ovaries and make new openings in sealed tubes?

Reviews.

EYE ACCIDENTS DUE TO ELECTRICITY.

ITHALMIC surgeons and all who have to do with eye uries in relation to the Workmen's Compensation Act l find Dr. VAN LINT'S report on ocular accidents pro-ed by electricity[1] of very great value. The report, ich was presented to the Belgian Ophthalmological iety, gives a thoroughly up to-date summary of the wledge of these cases, with clear though not always cise remarks on the prognosis and pathology. The idents are considered under six heads, according as y are provoked by

1. Lightning.
2. Short-circuiting of a current.
3. Electric welding.
4. Wireless telegraphy.
5. Electric light.
6. Medical applications of electricity.

n each section, after some general remarks, the history one or more typical cases is related, and then the ious lesions which have been attributed to this class accident are described and the prognosis discussed. e pathogenesis and treatment are dealt with in two pters at the end. In discussing the various lesions cial attention is paid to functional troubles.

n the second variety of accident the occurrence of aract after severe shock is discussed at some length. e well-established cases are recorded, one eye only ng affected in each. The cataract appeared from a tnight to six months after the accident, and matured idly. The diagnosis rests on the history, the uni-erality, the tardy appearance of the cataract, and its id increase when it has appeared. Another variety accident produced by short circuiting of a current is ading by a bright flash, perhaps close to the workman's e. In such cases, of which many examples are given, ion generally returns to normal in a month or less, ugh about 7 per cent. have vision of $\frac{1}{10}$ or less.

n the third section the process of electric welding is cribed very clearly. Here carelessness about wearing proper deeply coloured glasses is generally responsible accidents, but such accidents as a rule only result in ophthalmia which heals in a week or ten days. Acci-nts with electric light are chiefly seen in men employed regulate arc lamps, and here again are due to careless-ss about glasses. The glare may produce some dis-bance, but most of the troubles attributed by the rkers to the light can be traced to other causes, such as liplo-bacillary infection when there is conjunctivitis, or error of refraction when there is a defect of vision. nen genuine, the troubles produced by light are nerally temporary.

The last section deals with accidents with x rays, elec-lysis, and other medical applications of electricity. In cussing electrolysis in detachment of the retina very ak currents are advised, but no indication is given as to nat the author considers very weak.

In the chapter on treatment, prophylaxis is dealt with a most interesting manner, and practical hints are en as to the means by which accidents may be ided.

Finally, a bibliography extending over sixteen pages is en, divided into six sections corresponding to the classi-ation of accidents. The bibliography shows a wide quaintance with English and American as well as ntinental literature.

A TEXTBOOK OF INFECTIOUS DISEASES.

. KER'S book on *Infectious Diseases*[2] is a welcome dition to the considerable number of works on the same bject which have appeared during the last few years. me of these have shown little evidence, either external or internal, of having been written as the result of personal experience. In the present case, however, not only is the author's name an ample guarantee of special knowledge, but the book itself exhibits throughout repeated evidence of the width of his field of observation and of the judgement and care with which he has sifted a multitude of facts for the benefit of his readers. In his preface Dr. Ker apologizes for the somewhat frequent use of the personal pronoun; but we are far from regarding this as a defect, for this personal note is the most valuable feature of the book, and, as it were, the *punctum saliens* by which we are made aware that it possesses life.

The volume does not deal with every infectious disease, nor with all the aspects of infection. The author states that he has confined his attention to those diseases which are treated in the Edinburgh City Hospital. They are the common infectious diseases of the United Kingdom. He also informs us that his object is to place before his readers the practical side of the subject, and that, while he has spared no effort to do justice to the great questions of diagnosis, prognosis, and treatment, he has refrained from more than mentioning bacteriology and pathology, except when they have a distinct clinical application. This intention he has kept well in mind all through, and the three matters referred to are dealt with exhaustively.

On many problems of practical importance he throws a distinctly new light, so that even the specialist in infectious diseases, whose experience of facts and acquaintance with opinion are extensive, will, we are sure, enjoy a sensation of freshness in a perusal of the work. For instance, we have never met with any instances or arguments which convinced us that cold had an influence in the causation of nephritis after scarlet fever; but then we had never met with such cases as those narrated by Dr. Ker on p. 99, in which a douche of cold air, constantly playing upon a patient's back, seemed to have determined the renal trouble. Again, the use of such a purgative as calomel in enteric fever, except in the earliest stages, has been deprecated by most teachers; but after reading Dr. Ker's admirable account of the use of this drug, we are certainly inclined to reconsider the question. We may say here that while treatment is adequately, even elaborately, dealt with throughout the book, the pages devoted to the treatment of enteric fever are specially noteworthy for fullness of information and shrewdness of judgement. In the chapter on diphtheria we are glad to note that the author expresses himself as fully satisfied with intubation as a substitute for tracheotomy in the majority of laryngeal cases, and we trust that this pronouncement will go far towards removing the prejudice that still exists in this country against its more frequent adoption.

Though we have no serious adverse criticisms to offer, we have observed a few omissions and also certain statements which are not, we gather, the outcome of the author's own experience. For instance, on p. 23 he states that "it has been proved that children can be nursed quite safely in a ward in which there are one or two cases of measles, always provided that the latter are attended by a special nurse," etc. Has it? And if so, where and by whom? Evidently not by himself, for in the excellent and novel chapter on fever hospital problems he writes as follows: "Measles is best isolated altogether, although under stress of circumstances I have often treated it safely in a side-room and with the same staff of nurses as attended to scarlatina or diphtheria patients." Amongst the few omissions we note the failure to mention those cases of typhoid fever in which the brunt of the attack falls on other organs than the intestines, varicella bullosa, cutaneous diphtheria apart from wounds, and the latency, and even absence, of the catarrhal stage in whooping-cough. Still these occurrences are rare, even in fever hospitals.

The book contains twenty-four illustrations, of which five are from direct colour photographs. With one or two exceptions the black and white plates are admirable; the prodromal morbilliform rash of small-pox is not very clearly shown in Plate IX, and the illustration of chicken-pox might with advantage have been on a larger scale. The coloured plates are on the whole good, the best being that which shows the blotchy rash on the forearms in certain cases of scarlet fever (Plate VIII). In Plate V, which represents the rash of scarlet fever, the trunk and

[1] *Accidents oculaires provoqués par l'électricité.* Par le Docteur van Lint. Rapport présenté a la Société Belge d'Ophtalmologie. ance du 28 Novembre, 1909. Bruxelles: Imprimerie Médicale et entifique L. Severeyns. 1909. (Med. 8vo, pp. 183.)

[2] *Infectious Diseases: A Practical Textbook.* By Claude Buchanan r, M.D.Edin., F.R.C.P.Edin., Medical Superintendent, City Hospital, inburgh, and Lecturer on Infectious Diseases to the University of inburgh. Oxford Medical Publications. London: Henry Frowde, d Hodder and Stoughton. 1909. (Crown 4to, pp. 567; with 24 plates, of which are coloured, and 66 charts. 20s.)

arms have come out very well indeed; but, at any rate in the copy before us, the pallor round the mouth does not appear at all, and the forehead and face are too red. But these blemishes, if such they can be called, are slight and do not detract from the excellence of the volume, of which we have formed a high opinion. We shall be surprised if it does not take a leading place amongst standard text-books, a position it merits both for the accuracy and fullness of the information it contains and the lucidity and freshness of the style in which it is written. We heartily congratulate the author on having produced a most valuable piece of work.

GENERAL PATHOLOGY.

IN the recently-published fourth edition Professor ADAMI'S excellent treatise on *Inflammation*[8] has been revised, and it now contains some additional matter, though the alterations do not amount to very much. On comparison with the third edition we find that the author has very little fresh evidence to adduce in support of Schridde's claim to differentiate haemal from histogenous lymphocytes by means of his modification of Altmann's stain. It is surprising that this question has not attracted more workers, because if Schridde's method be reliable—and we note that Professor Adami speaks favourably of it—it would establish a highly important point. Professor Adami says he has seen and admired Dr. Schridde's preparations, but he does not tell us whether he has found the method to work well in his own hands. We are glad to note that Professor Adami is doing his best to dispel the confusion and obscurity which has existed regarding "hyaline" cells and "macrophages." He shows that evidence is steadily accumulating which points to the origin of the cells in question from endothelium; if this view becomes definitely established a big stride will have been made towards elucidating the histological details of inflammatory processes.

The popularity of Professor LUDOLF KREHL'S pathological physiology,[4] which has now reached its sixth edition, is evidence of growing appreciation of the need of studying the borderland between the normal and the abnormal. Diagnosis conducted on rational principles, says Professor Krehl, should regard symptoms as a disturbance of function, and should therefore be based on a complete knowledge of physiological processes. This is the ideal to aim at; it may still be far from attainment in medical practice, and it is indeed often impossible, under the present limits of knowledge, to deduce all clinically observed phenomena as the necessary consequence of physiological laws. But it is nevertheless desirable that the physician should endeavour, as far as possible, to keep in touch with the physiologist in so far as physiological research throws light on the interpretation of disease. The utility of Professor Krehl's work in broadening the clinical outlook is already well known, and has been appreciated in our reviews of previous editions. The new edition does not contain any new features calling for comment, but confirms the favourable opinion expressed on the preceding issue (BRITISH MEDICAL JOURNAL, vol. i, 1908, p. 264).

Dr. BENNECKE writes in a diffuse style, overburdened with generalizations and speculations which make it difficult to disentangle his facts from his opinions. Consequently the reader must be possessed of considerable patience if he desires to assimilate the net results of the author's investigations of leucocytosis in scarlet fever and other mixed infections.[5] As a typical example of what has to be encountered we quote the first sentence of the "conclusions" which the author formulates at the end of his book: "Leucocytosis is a symptom which manifests itself in transitory abnormal conditions of the number and composition of the white blood corpuscles present in the blood stream in certain diseases and abnormal conditions." This may be very profound, but we confess it is not alwa easy to discriminate between depth and platitudino verbosity. The reader who is not dismayed by this so of thing will proceed to discover that Dr. Bennecke fin the leucocytosis observed in scarlatina to be the resulta of two factors, namely—(1) the specific cause of the disea which, in itself, produces not a leucocytosis but a leuc penia; and (2) the non-specific, suppurative organisn which produce the lesions in the tonsils. Dr. Bennec has also made some observations on the bacteriology scarlatina cases. He finds that various micro-organisn are not infrequently demonstrable in the blood of patient but the bacteria most frequently encountered are strept cocci. It is also characteristic of the disease to find a abundant growth of streptococci on the tonsils. He co siders, however, that the specific cause of scarlatina h not yet been discovered.

[8] *Inflammation: an Introduction to the Study of Pathology.* Fourth Edition. By J. George Adami, M.A., M.D., F.R.S. London: Macmillan and Co. 1909. (Post 8vo, pp. 272. 5s.)

[4] *Pathologische Physiologie.* Von Dr. Ludolf Krehl. Sechste neu bearbeitete Auflage. Leipzig: F. C. W. Vogel. 1910. (Royal 8vo, pp. 728. M.15.)

[5] *Die Leukocytose bei Scharlach und anderen Mischinfektionen.* Von Dr. H. Bennecke. Jena: Gustav Fischer. 1909. (Roy. 8vo, pp. 80. M. 2 50.)

OPERATIVE SURGERY.

THE favourable opinion of the new issue of Dr. BINNIE *Manual of Operative Surgery*[6] expressed when reviewi the first volume last year can be extended almost heartily to the second. We say "almost" because t branch of surgery dealing with bones, joints, and deform ties does not lend itself quite so kindly to the severe di crimination imperative if the selected material is to crammed into a small volume. It seems that the auth himself had not quite the same confidence in his judg ment, or not quite as extensive an experience, in this fie for he has called in three or four gentlemen to help hi notably Mr. Robert Jones and Mr. Rutherford Moriso The present volume will do exactly what the writ intended for the young surgeon—it will reveal to hi possibilities of refinements on old and accepted practi in the treatment of aneurysm, arterial blockade, arthre tomy, amputation, and the innumerable applications plastic methods, and will give him simple directions f the easy acquirement of first-hand information fro original papers. Scores of quite recent operations, suc for example, as the transplantation of the first metatars phalangeal articulation to replace an excised elbow, a described briefly, step by step, and the reference giv makes further details available. We notice that D Binnie does not share the new-fangled contempt some American surgeons for sarcomata of the bone he considers that where possible all muscles attached the excised bone ought to be removed in their entiret It must be remembered that this is not a student textbook, but a working manual for busy young surgeons

There can now be no doubt that *The Operations General Practice*[7] meets a popular demand, since a thi edition is called for within two years of the secon Judged by the contents of the only new chapter, it is n quite clear what class of medical man makes up th "popular demand." Surely there cannot be a great ma men wanting to know precisely how to excise the u bilicus or to remove the pendulous fat of an adipo abdominal wall, yet those are the only operations add to a list which already contains directions for resection the clitoris. On the other hand, it is useful to have dire tions for the correct performance of axillary infusion, a for the application of an Irving suprapubic dressin Without going through the whole series of paragraphs the new chapter, it is enough to say that they are ev dently a collection of notes made during the last two yea for use when the new edition should be called for, and n very carefully amplified or revised when the time cam It would not be fair, however, to judge the whole book b this chapter, and there is a great deal of useful informatio scattered through its pages, which those who have n had the advantage of holding a house appointment will b thankful for; and any surgeon, however up-to-date, wi be glad to find simple directions for such matters as inte muscular mercurial injections, the application of Bier hyperaemia, local anaesthesia, the method of collectin a sample of blood for examination, of performing urethr

[6] *Manual of Operative Surgery.* By John Fairbairn Binnie. Vol. *Vascular System, Bones and Joints, Amputations.* Fourth editio London: H. K. Lewis. 1910. (Post 8vo, pp. 561; illustrations 550. 14

[7] *The Operations of General Practice.* By Edred M. Corner and J Irving Pinches. Oxford Medical Publications. Third edition (Oxfo Medical Manuals). London: H. Frowde, and Hodder and Stoughto 1910. (Demy 8vo, pp. 374. Illustrations 188. 15s.)

gation, of performing lumbar puncture, and so on, all hin the covers of a small volume. The illustrations for the most part quite satisfactory, and there is an ex.

Ir. WILLIAM S. DICKIE, F.R C.S., of Middlesbrough, is paring a translation of the sixth edition of Professor ARS'S *Traité de chirurgie d'urgence*, reviewed in the volume of the JOURNAL (p. 83), and the first volume[8] been issued. It contains the introductory section on ipment, and the sections on the head, neck, thorax, ie, and abdomen. It is profusely illustrated, and, as s said last July, the illustrations constitute a distinct most useful feature of the book. Mr. Dickie claims it merit that the translation has not been in any way lited," so that it gives a true picture of French technical thods; and, having regard to the personal note which minates Professor Lejars's writing, we think that he has ie well, since the volume in this way not only serves as guide to technique, but also enables an operating geon unable personally to watch Continental practice to pare French methods with his own.

teserving a more detailed analysis of the valuable work the *Surgery of the Brain and Spinal Cord*, by Professor KRAUSE,[9] until the whole book is before us, we may say t the first volume of the translation does credit to its blisher. The wide margins, excellent type, and lavish strations make its perusal an easy and a pleasant k. The translator, who has, in fact, done his work ll, rather takes away the reader's breath by telling n in the preface that he has tried to preserve the olved phrasing of the author, thinking his matter ll worth the difficulty involved in reading it. There no reason to be frightened, however. The illustrations beautiful, but, as might be expected from the work a portrait painter, Max Landsberg, represent rather re than the ordinary person can generally see in the ginal.

A PUBLIC HEALTH YEAR BOOK.

OUT eighteen months ago there was first published a ekly journal for medical men in the Government and nicipal services styled the *Medical Officer*, which has ite justified its existence as the purveyor of current ws and information which is likely to be of service to readers. The editor has shown remarkable skill in ring the heart out of official documents and other erature, so that medical officers have had placed before em a great deal of information which they could not ve found time to dig out for themselves. An equal ility for compilation has been displayed in the production of the *Public Health Service Directory and Year ok*.[10] It contains in successive sections a list of the health thorities and of the education authorities of England, otland, and Wales, followed under separate headings by rectories of medical officers of health and school medical icers, public analysts, dental officers of schools, veterinary icers, sanitary inspectors, women sanitary inspectors d health visitors and school nurses. Very accurate and ll-written articles are included upon the duties of edical officers of health, sanitary inspectors, women nitary inspectors, school medical officers, public analysts, hool dental officers, and veterinary officers. A daily lendar, including the months from April, 1910, to March, 11, shows the dates of meetings of societies with which edical officers are concerned, and detailed particulars e given of nearly fifty of these societies. That the book well up to date is evidenced by the inclusion in the list of cal Government Board officials of the name of Dr. rnwath as an additional medical inspector for housing d town planning purposes. The enterprise of the compiler ought to be sufficiently supported to justify the continuance year by year of what is a most valuable reference ok.

[8] *Urgent Surgery*. By Felix Lejars. Translated from the sixth French edition by W. S. Dickie, F.R C.S Vol. i. Introductory—head—neck—chest—spine—abdomen. Bristol: J. Wright and Sons, Limited; and London: Simpkin, Marshall. 1909. (Sup. roy. 8vo, pp. 631. 25s.)

[9] *Surgery of the Brain and Spinal Cord*. By Professor Fedor Krause. Translated by H. A. Haubold, Professor in Surgery, New York University. Vol. i. London: H. K. Lewis. 1910. (Imp. 8vo, pp. 302; 24 coloured plates, and 63 figures in text. 25s.)

[10] *The Public Health Service Directory and Year Book*. Compiled by the Editor of the *Medical Officer*. London: Hodgetts, Limited. Double crown 8vo, pp. 317. 6s.)

THE BRITISH GUIANA MEDICAL ANNUAL.

THE *British Guiana Medical Annual* for 1908[11] contains some very interesting papers, and may certainly be said to keep up the high standard of previous issues. The editor, Dr. K. S. WISE, contributes two very instructive papers, the first on *Filaria bancrofti*, the second on chylous ascites; Dr. Kennard contributes one on continuous fever, with special reference to the typhoid group; the Rev. J. Aiken, M.A., publishes some notes on the mosquitos of British Guiana; and Dr. de Freitas records the work of the Maternity Ward of the Public Hospital, Georgetown, from June, 1905, to March, 1906, and from January, 1908, to May, 1908. Clinical notes, and the transactions of the British Guiana Branch of the British Medical Association for 1907, 1908, and 1909 are also contained in this volume. Dr. Wise in his paper on *Filaria bancrofti* notes the occurrence, in cases infected by this parasite, of swellings resembling the Calabar swellings caused by the *Filaria loa*, and the pigeon-egg swellings caused by the *Filaria volvulus*. The swellings, however, in his cases were limited to the lymph glands or to the courses of the lymphatic vessels, a fact which certainly favours his suggestion that they are due to the *Filaria bancrofti*. Usually thought to inhabit the lymphatic system alone, Dr. Wise's paper now tells us that these parasites (*F. bancrofti*) may be found in the pelvis of the kidney—a highly interesting discovery. Most of them when found were calcified, but in one instance eight were detected alive. They were also found in seven cases in the lymphatics of the connective tissues binding the lower part of the epididymis to the testis proper. Another very interesting subject discussed by Dr. Wise is the septicaemia associated with, or allied to, filariasis; it is a grave septic condition, all the lymphatics of the affected parts being loaded with purulent matter containing streptococci, which infect the general blood stream. After raising expectation by this preliminary description the author states that this curious condition is the subject of another article elsewhere in the volume, but careful search from cover to cover fails to reveal its presence. The account of chylous cyst of the mesentery, also described by the same author, is another very interesting contribution to tropical pathology. Dr. Kennard's paper on continuous fever is of value. It brings out the fact that in the diagnosis of such fevers the paratyphoids have to be closely considered. Dr. Kennard, in referring to a review of his article on typhoid fever in a previous edition of the *Annual*, is at a loss to know what a statement "it is the leucocytes that are relatively increased" means. "Leucocytes" was an unhappy misprint for "lymphocytes," due to bad handwriting. Every one will not agree with him, nor with the other authorities he quotes, that the large mononuclear leucocytes are increased in typhoid fever; the correct interpretation of the facts—the author gives it at the top of page 59—is, that in typhoid with 40 per cent. or over of small lymphocytes there is no increase in the large mononuclears. Taken as a whole the *Annual* deserves high praise, and Dr. Wise is to be congratulated on its success.

NOTES ON BOOKS.

THE latest fasciculus of the *Annals of Tropical Medicine and Parasitology*[12] completes volume three of this periodical, which some three years ago took the place of the reports formerly issued by the Liverpool School of Tropical Medicine. In addition to matter relating to work emanating directly or indirectly from the school itself memoirs on tropical medicine from other sources are now also included. The present fasciculus contains two reports from the Runcorn Research Laboratories. In the first, which is beautifully illustrated by coloured plates, Messrs. Anton Breinl and Edward Hindle deal with the life-history of *Trypanosoma lewisii* in the rat louse; in the second Dr. Warrington Yorke confirms the accuracy of the observations of Messrs. Hartoch and Yakimoff, that in most cases of experimental trypanosomiasis a marked diminution or total disappearance of the haemolytic complement can be

[11] *The British Guiana Medical Annual* for 1908. Sixteenth year of issue. Edited by K. S. Wise, M.B., B.S., B.Sc.Lond. Demarara: "The Argosy" Company, Limited, Printers to the Government of British Guiana. 1909. (Demy 8vo, pp. 178. 5s.)

[12] *Annals of Tropical Medicine and Parasitology*. Series T.M. Vol iii, No. 5. Liverpool: University Press. (Price 7s. 6d.)

observed for a few hours before the animal's death. In a short clinical paper illustrated by photographs Dr. R. H. Kennan, of the West African Medical Staff, describes craw-craw, showing that some acute cases may bear a strong resemblance to small-pox and chicken-pox. Mr. F. C. Willcocks in another paper reports observations on mosquitos to be found in the neighbourhood of Cairo; and, finally, Sir Rubert Boyce and F. C. Lewis show that the presence of mosquito larvae in water adds greatly to the number of bacteria otherwise to be found therein, and also supplies albuminous matter such as might be expected to favour the vitality and multiplication of typhoid bacilli. The fasciculus also contains an index to the whole volume and a list of those who have hitherto obtained the Diploma in Tropical Medicine of the University of Liverpool from the date of its establishment in 1904. They number 122.

A story of a bishop of a Welsh diocese tells how he once visited a remote village, and how after the due discharge of the episcopal duty which took him there, he was most hospitably entertained by the incumbent. Knowing the extremely modest stipend his host received, the bishop ventured to ask him how he managed to provide a table so well appointed and so amply provided. The answer was, "I keep bees." Ever afterwards when one of his clergy lamented the smallness of his stipend, the bishop would retort, "Why not keep bees?" Mr. GEARY, expert to the Leicestershire Beekeepers' Association, tells us in *Bees for Profit and Pleasure*[13] that it is possible with proper attention to secure an average annual return of 20s. a hive. It is conceivable, therefore, that if not the doctor himself, at least the country doctor's wife, may find it to her advantage to study the handbook, which is issued as one of a series edited by Mr. T. W. Sanders, editor also of the weekly paper, *Farm and Garden*. Mr. Geary, after a brief discussion of the nature, history, and habits of bees (which the fair reader, we assume, might better study in Maeterlinck's *La vie de l'abeille*, or in an English translation, *The Life of the Bee*), proceeds to practical details about the selection of a hive, the establishment of bees therein, their general management, the saving of the honey, the diseases to which bees are liable, and so on. The book, like others of the series, appears to be very practical, and to give just the sort of information the inexperienced require. Another book of the same series is *Tomatoes: and How to Grow Them*, by R. F. CASTLE, a practical grower and exhibitor.[14] The fashion of eating tomatoes is a comparatively new one in this country, and is to be encouraged. We are glad to note that the editor refutes the foolish belief that the consumption of this fruit is conducive to cancer. How this notion originated we have never been able to ascertain, but that it is widespread there can be no doubt; there is not the smallest ground for holding that the belief has any foundation. Mr. T. W. SANDERS is himself responsible for the *Alphabet of Gardening*,[15] the fourth edition of which has just appeared. It is called a primer for amateur and professional gardeners and horticultural students, and, like a good many other primers, contains information which the experienced may find valuable. The editor of another gardening paper, *Garden Life*, has issued in a shilling volume a collection of answers to questions: *1,500 Gardening Questions Answered*[16]; it is provided with an index of the names of the plants, so that reference is easy. The questions are just such as present themselves to the amateur gardener as to the choice and cultivation of ordinary plants, questions which he commonly finds it difficult to answer from the indiscriminating pages of seed merchants' catalogues.

The appearance of a sixth edition of WARWICK and TUNSTALL'S "*First Aid*" *to the Injured and Sick* eighteen months after the last was issued shows that this manual is appreciated.[17] Some new matter and a few more illustrations have been introduced. By the employment of thin paper the book is kept within a convenient size; the price is also not increased. Though there is nothing we would willingly see left out of this book, we note that the first sixty pages are taken up with anatomy and physiology, and the last forty pages with the transport of injured, including military stretcher drill. If it should be necessary in future editions to curtail any portion, these sections may lend themselves to the pruning process.

Volume ix of Medical Monographs issued by Klinkhardt of Leipzig is from the pen of Dr. WILHELM EBSTEIN, and is devoted to the subject of the pathology and treatment of leprosy.[18] It is a general survey of the matter, including a short historical introduction and notes on the geographical distribution. There is nothing in the monograph of any special interest to those working at leprosy, but it gives a fair account up to date, with a bibliography. Dr. Ebstein is a little misleading when he writes: "In *neuester* Zeit hat das Oleum Gynocardiae oder Oleum Chaulmoograe," etc., for chaulmoogra oil has been employed for many years now. The author winds up with an addendum on leprosy in art—a point, by the by, touched upon, with illustrations, in the sixth chapter of Paul Richer's *L'Art et la Médecine* (1902).

[13] *Bees for Profit and Pleasure.* By H. Geary. Edited by T. W. Sanders, F.L.S. London: W. H. and L. Collingridge. (Cr. 8vo, pp. 114; illustrated. 1s.)

[14] *Tomatoes: and How to Grow Them.* By R. F. Castle. Edited by T. W. Sanders, F.L.S., F.R.H.S. London: W. H. and L. Collingridge. (Cr. 8vo, pp. 94: illustrated. 1s.)

[15] *The Alphabet of Gardening.* By T. W. Sanders, F.L.S., F.H.R.S. Fourth edition. London: W. H. and L. Collingridge. (Cr. 8vo, pp. 205. 1s. 6d.)

[16] *1,500 Gardening Questions Answered. A Horticultural "Enquire Within" for Amateur Gardeners.* London: The Cable Printing and Publishing Company, Limited. (Demy 8vo, pp. 220. 1s.)

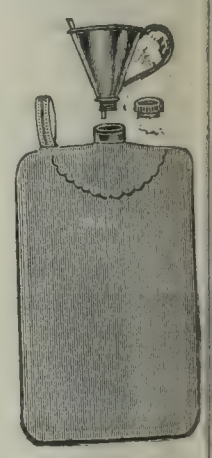
[17] "*First Aid*" *to the Injured and Sick. An Advanced Ambulance Handbook.* By F. J. Warwick and A. C. Tunstall. Sixth Edition. Bristol: J. Wright and Co.; and London: Simpkin, Marshall, 1910. (Fcap. 8vo, pp. 240, Fig. 257. 1s.; leather, 2s. 6d.)

[18] *Die Pathologie und Therapie der Lepra.* Leipzig: Dr. Werner Klinkhardt. 1909. (Med. 8vo, pp. 112. M.3.50.)

MEDICAL AND SURGICAL APPLIANCES.

A Hot-Water Bottle.

DR. C. GRAHAM GRANT (London, E.) has devised, and Messrs. Maw and Sons have made, a hot-water bottle which presents a certain distinct improvement upon the ordinary form. As he says, an ordinary hot-water bottle is apt to get out of order, either because people pour absolutely boiling water into it, when they must take the consequences, or the indiarubber funnel, which in any case requires to be dried, presently wears out, and the neck leaks. The bottle he has devised has a tin funnel which screws into the neck, and a small handle at the top, shown in the drawing, by which the bottle is held until it is filled. Only one funnel is necessary for any number of bottles, and, as it has a vent, the water is not likely to flow or bubble back and scald the fingers. When the bottle has been filled the funnel is unscrewed and replaced by a screw cap, the whole being then covered by a flannel or similar jacket. The bottles, we are informed, are supplied at the usual price of such articles, and the funnel costs only a few additional pence.



A Bed Lift.

There has been brought to our notice a device for use in the nursing of temporarily or permanently bedridden persons which is now being made under the name of "Skeffington's Patent Recumbent Invalid Lifter." It is made in two forms. In the single form it aims at effecting two objects: (1) Preventing a weak patient from slipping to the foot of his bed: (2) raising a patient into a sitting posture and maintaining him in it without exertion on his part for any time desired. The double form fulfils the foregoing objects and also enables the patient to be raised from the mattress altogether, so that the latter can be turned or changed while the patient is still lying on his back. In the single form the appliance consists of a hard beech-wood roller attached by steel stays to the head of the bed; to this roller is fastened a special sheet on which the patient lies. The roller has a ratchet and handle, by turning which the sheet and patient together are drawn up towards the head of the bed. A few turns bring the patient on to the pillow; a few more turns into a sitting posture, in which the whole spine is thoroughly supported. The double form of the appliance has a second roller at the foot of the bed, a certain number of turns of the handle sufficing to lift the patient completely free of the mattress. The rollers are adjustable to any breadth of bed, and suitable sheets are supplied. The device was worked out, assisted by the nurse in charge of the case, by an engineer who had a helpless relative on his hands. It is practical and worthy examination by those who have not hitherto found a bed lift which seems to them to fulfil their requirements. Other information concerning it can be obtained on application to Skeffington's Patent Recumbent Invalid Lifters, 49, Ulundi Road, Blackheath, S.E.

ENDLY SOCIETIES AND THE POOR LAW COMMISSION.

Directors of the Manchester Unity of Oddfellows ved last week two deputations: one consisting of cal signatories of the Majority Report, and another esenting the National Committee for the Break-up of Poor Law.

hen the former deputation was received, a letter was from Lord George Hamilton, who apologized for his nce, and said that the Majority Report was specially ed to encourage provident and contributory efforts.

F. H. BENTHAM said that as one of the signa- s of the Majority Report he could confidently rt that it was based on giving every facility provident effort. It was opposed to the exten- of State assistance beyond what was essential he relief of necessity. If the area of assistance were nded beyond that, individual responsibility, self-help, self-reliance, on which the Majority placed a great deal alue, would be reduced. The Commission had heard h evidence in favour of free medical relief, but the ority came to the conclusion that free medical relief ld weaken the efforts now put forth by the working ses to provide against sickness. If the door were ed to free medical relief, maintenance during sickness ld follow, and would cut at the very roots of the ndly society principle. In deciding on their scheme of ident medical assistance instead of free medical relief, Majority believed it would be to the interest of the king class to contribute in a proper manner to their support in times of sickness.

r. HANCOCK NUNN, another member of the Majority, that the influence of the friendly societies ought to extended in two directions—first, to the labouring class t had been to the artisan class; and, secondly, to the dren of the working class in elementary schools, which thought would make a great difference to the provident its of the next generation.

[r. C. J. HAMILTON, Honorary Secretary of the National ociation for the Reform of the Poor Law, said the blem before the country was whether they should seek secure to every person efficient medical assistance and ntenance allowance by strengthening institutions for ft, or set up a separate branch of local govern- nt charged with the duty of forcing upon all lic treatment and public relief, to be paid for of the rates and taxes, except where the cost ld be recovered by means of inquiry and prosecu- n. In reply to a question whether compulsion to a friendly society would not involve State super- on, Mr. Hamilton said it need not follow. He preferred voluntary to the compulsory method, but they might pel a man to join a friendly society, and the State and employer might then pay a portion of the contribution. ong discussion followed, in which various opinions were ressed—some in favour of and some opposed to any n of State insurance.

The other deputation consisted of Mr. Sidney Webb, the v. J. E. Roberts, Professor Herford, and Alderman des. Mr. WEBB said the deputation represented the tional Committee for the Break-up of the Poor Law. e Minority Commissioners had refrained from ex- ssing any opinion as to any form of State insurance. ere were a large number of persons in the country who re below the wage-earning limit which enabled them to a friendly society, and the proposals of the Minority port would raise the status of these persons to assist m to join a friendly society.

The GRAND MASTER asked Mr. Webb if he did not think t the working classes would be able to provide for mselves if they spent less on sport, drink, and usement.

Mr. WEBB thought that men earning £1 a week were t able to spend money on sport or drink, and the ual labourer, owing to the irregularity of his work, uld not be expected to join a friendly society.

Mr. Webb's reported statement that the Minority rained from expressing any opinion as to any form of ate insurance receives some comment in the following otations from the Minority Report:

n view of its probable adverse effect on trade union member- ip and organization, we are unable to recommend the estab- lishment of any plan of Government or compulsory insurance against unemployment.

The report goes on to recommend Government sub- vention to trade unions or other societies providing out-of-work benefit. Again the report says:

On all these grounds the proposal to supersede the Poor Law medical service by any system of universal medical insurance appears to us not only politically impracticable but also entirely retrograde in policy and likely to be fraught with the greatest dangers to public health and to the moral character of the poor.

This would appear to be a very definite opinion against State medical insurance.

THE FAR EASTERN ASSOCIATION OF TROPICAL MEDICINE.

WE are indebted to Dr. Francis Clark, Secretary of the Far Eastern Association of Tropical Medicine, for the following notes on its first biennial congress held at Manila from March 5th to 14th. Seventy-six medical men engaged in professional work in the Far East were present, including official delegates from the Governments of India, Ceylon, Siam, Netherlands, India, Federated Malay States, Straits Settlements, Hong Kong, Philippine Islands, Tsingtau (Imperial German Government), and Japan.

Beri-Beri.

The most important discussion was that concerning beri-beri. Dr. Fraser and Dr. Stanton,[1] of the Institute for Medical Research, Kuala Lumpur, Federated Malay States, following up the researches of Braddon in connexion with "cured" and "uncured" rice, have shown that tropical beri-beri, so far at least as it affects the natives of the Straits Settlements and the Federated Malay States, is a nutritional disease associated with the continued use, as the staple article of diet, of rice which has been deprived of its phosphates by over-milling (polishing). The production of a white, highly polished rice is a result of over-civilization; the disease is stated to be practically unknown among the rural populations of India, Siam, the Straits Settlements, and China, and is found only in the large cities and along the banks of streams served by native craft which convey the milled grain to these cities, or among gangs of coolies employed in constructional works who are fed by contract.

Dr. Fraser, in explaining his views to the Congress, said that the phosphatic salts are stored within or just below the aleurone layer, and are removed in the processes of milling and polishing, and that the disease can be prevented by the addition of the polishings to the dietary, when such white rice is being used, or by the use of other articles of food rich in phosphates. The experience of Japan in stamping out beri-beri from her navy by the introduction of an improved dietary, and the experience of the Dutch physicians in Java who, according to Osler, have reported that in their prisons the proportion of cases of beri-beri was 1 in 39 when rice was eaten completely shelled, and only 1 in 10,000 when the grain was eaten with its pericarp, have naturally led up to these conclusions, which have been more or less anticipated by a recent pronouncement of Schaumann, which is referred to by Dr. Fraser. It is also interesting to recall the researches of Nocht and Holst on ship beri-beri[2] in which it is asserted that ship beri-beri is a food disease, due to some special form of under-feeding, that is, that it is due to a food containing some but not all the necessary nutritive elements, and the observation of Eijkman who in 1906 cured polyneuritis gallinarum by adding to the injurious food an aqueous extract of rice-bran. The reports of Dr. de Hann, of Netherlands, India, and of Dr. Aron, of Manila, to the Congress, also confirmed in the main Fraser and Stanton's conclusions.

The means of preventing beri-beri, if proved beyond all doubt to be a nutritional disease, would be the prohibition of the importation of such over-milled rice, as the alternative of compelling the native to add to his dietary some article which will supply the necessary phosphates is impracticable. There are, however, strong grounds for believing that the great rice-milling establishments of Siam, Burmah, and elsewhere will be prepared to anticipat-

[1] BRITISH MEDICAL JOURNAL, April 16th, p. 935.
[2] *Journal of Hygiene*, October, 1907.

any such procedure by so amending the processes of milling as not to remove this very necessary constituent of the rice grain. The native will then have to be content with a somewhat redder and duller grain, but will thereby be protected from a disease which at present is responsible for many thousands of deaths annually in the Far East.

Infantile Mortality.

Another subject which aroused great interest was that of infant mortality. Throughout the Far East the infant death-rate ranges from 500 to 700 per 1,000, and many of these deaths are due to diseases of a convulsive type, variously classified as infantile convulsions, tetanus neonatorum, and trismus. Many efforts have been made to isolate the tetanus bacillus in these cases, but without avail, and their pathology has so far remained obscure. Dr. McLaughlin and Dr. Andrews recounted their clinical experiences and pathological findings in a large series of such cases. They found that some 20 per cent. of these deaths were due to cholera—this was at a time when cholera was prevalent amongst the native population, and it is not surprising that acute intestinal irritation should in infants evidence itself clinically as convulsions—while in about 70 per cent. of these deaths they were able to find conditions closely resembling those found in beri-beri—namely, oedema, chiefly of the thighs and abdomen, subserous haemorrhages, and marked dilatation and hypertrophy of the right heart. On further inquiry they elicited the fact that a considerable proportion of the mothers of these infants had presented symptoms of mild beri-beri at the time of the death of the infants, and, as most of these infants were breast-fed, it is not difficult to understand how a nutritional disease affecting the mother would react upon the breast-fed infant.

In Hong Kong a system has been adopted of training native midwives for two years in a maternity hospital, and then for the Government to employ them to attend on the poor native women. There are nine such women at present under the control of an English lady doctor who speaks Chinese; these women not only attend the poor in their confinements free of cost, but exercise a general supervision over both infants and mothers during the year following the birth, with results that have so far proved most encouraging. In 1907 these midwives attended 578 confinements; 22 of the infants were either stillborn or died very shortly after birth; 27 others died during the year; 15 were lost sight of by being taken out of the Colony. The infant death-rate was 81 per 1,000 for these cases, while the general infant mortality for that year was 564 per 1,000.

Further researches are necessary into the true cause of these infantile deaths from convulsions, but if it can be shown that a number of them are due to infantile beri-beri, the task of reducing the death-rate will be simplified, as the prevention of beri-beri among the parents will result in its disappearance among the infants.

Helminthiasis.

A number of interesting papers were read on helminthiasis, and the fact was elicited that not a few of the American (white) troops in the Philippines have ankylostomes in their intestines without any clinical symptoms.

Resolutions.

The following resolutions were passed by the Congress:

Tuberculosis.

That the Far Eastern Association of Tropical Medicine should use its influence to cause the formation of a national antituberculosis society in each political entity represented in the Far Eastern Association of Tropical Medicine. These societies to be formed along the lines of existing antituberculosis societies in other parts of the world, yet revised to facilitate the work under local conditions.

Leprosy.

1. Leprosy is to be regarded as a dangerous communicable disease.
2. Compulsory notification of all cases of leprosy to the authorities is essential.
3. Compulsory segregation of all cases of leprosy is necessary, and preferably in special colonies constructed for the purpose.
4. The entrance of aliens afflicted with leprosy into a country must be prohibited.

Quarantine.

That the Far Eastern Association of Tropical Medicin appreciating the benefit which would accrue from co certed sanitary action on the part of Eastern Gover ments, be empowered officially to approach the followi Governments, namely: Philippine Islands, Japan, Ho Kong, French Indo-China, Siam, Netherlands-India, Strai Settlements and Ceylon, with the view, if possible, obtaining their official support on the following lines:

1. To have a common standard for the term "epidemic when making reports to, or imposing quarantine agains each other. We suggest the following definition consideration:
   "Plague, cholera, small-pox, or yellow fever shall considered to be epidemic when after the first telegraph report of its occurrence, any weekly report thereaft shall show the occurrence of an average daily numb of three cases."
2. To agree to notify each other's territories as infected on when the infectious disease shall have assumed epidem proportions as defined above; and automatically to wit draw such notification when the average number of cas for three successive weeks has fallen below the *stat epidemicus* as above defined.
3. To circulate weekly returns of plague, cholera, small-po or yellow fever amongst each other, and also a telegraph report on the first occurrence of any of these diseases a clean port or territory.
4. To insist on a bill of health being carried by all shi leaving a country declared to be infected which intend proceed to the port of another signatory; such bills health to include a return of infectious disease for t previous forty-eight hours.
5. To report by telegram to the country concerned the depa ture of an infected or suspected ship (as defined by t Paris Convention) which may intend to proceed to a port in the territories of another signatory; and endorse the bill of health of the said infected or su pected ship with a full account of measures taken disinfect or otherwise deal with the said vessel.

Beri-Beri.

That in the opinion of this association sufficient evidenc has now been produced in support of the view that beri-be is associated with the continuous consumption of whi (polished) rice as the staple article of diet, and the associ tion accordingly desires to bring this matter to the notic of the various Governments concerned.

Plague.

In our opinion the only practical measure concerning plag that we can recommend is the advisability of each countr represented agreeing to notify to other countries the occu rence of cases of plague within their borders, the first cas by telegram and afterwards by weekly returns.

Opium.

The following report of a committee appointed t consider the opium question was adopted:

Your committee, appointed to consider the opium questio regret that the time at their disposal precludes the possibilit of giving the subject adequate consideration.

They have reviewed the work done and the resolutions agree on by the International Opium Commission, Shanghai, 190 With these resolutions your committee are in agreement, bu it is to be regretted that the paucity of medical commissioner prevented the question being dealt with fully in its medica aspects. Any measures which are introduced for the contro of opium must be adequate to guard against the danger c secret remedies containing opium and opium derivatives bein substituted. They would suggest that the delegates from th various countries represented at this conference should b asked to arrange that the regulations controlling the sale an use of opium in their respective countries, as well as an observations they may care to make on this subject, b submitted to the next meeting of this association in 1912.

Transactions.

As the funds of the association do not at present permi of the issue of a volume of *Transactions*, the papers rea at this congress, with the discussions thereon, will b published in the Philippine *Journal of Science*, Section B Medical Sciences, during the current year. The subscrip tion to this journal is 3 dols, United States currency per annum, and should be sent to the Director of Printing Manila, P.I.

Next Meeting.

The association decided to hold its next congress in Hong Kong in 1912, and Dr. J. M. Atkinson was elected president, Dr. Francis Clark (Hong Kong) being re appointed secretary.

IE MEDICAL MAN AND HIS INCOME TAX RETURN.

E accurate completion of the income tax return forms a task which presents no little difficulty to those who ve not made a study of the subject. Some advice on e matter may be regarded as opportune now that the posing buff-coloured forms are calling for attention.

Before dealing with the manner in which the amount to returned for professional profits is to be arrived at, the quirements of the form itself may be considered.

In the first place, it is to be observed that it is eminently sirable that every form received should be filled up. It ay be that more than one form is received in cases in hich the practitioner has more than one address; if so, e form only should be completed, and the others urned in the postage-free envelope with a statement at e foot of the front page to the effect that a return of all ofits has been made on the form relating to the prin-pal place of business, giving the address. Unless all ms be returned there is a likelihood of a duplicate sessment being made, involving probably some trouble in taining its removal from the books. Where, however, ue forms (No. 12) relating to Schedule E, which deals th profits from appointments, are received in addition to e usual buff-coloured form (No. 11) relating to Schedule D, hich deals with professional profits generally, particulars the income from appointments should be shown sepa-tely on the blue forms. It is not sufficient to return the ue forms with a note that the return is made on the neral return form No. 11.

How to Complete the Schedule D Form.

There should be entered on page 2 particulars of the ofits of the practice, with the address of all surgeries or aces of attendance, and statements also of all untaxed come received by the practitioner or his wife from any of e sources set out on that page. With regard to such urces of income as interest, annuities, dividends from reign companies and remittances from abroad, care ould be taken before entering the sums on the return to e that British income tax has not already been deducted efore the sums are received. Where payments are ceived "free of income tax" no return should be made the person or company paying the dividends has already ccounted for the tax. No income from public appoint-ents or from property in the United Kingdom should be ntered on this page, except where the person making the eturn habitually lets a house furnished, when the excess f profit above the rental of the house unfurnished is equired to be returned.

In the space immediately above the signature oppor-unity is afforded for expressing a desire to be assessed y the Special Commissioners at Somerset House, a course sually adopted only where the practitioner is unwilling hat his statement should come before the Local ommissioners of Taxes.

At the foot of the page under consideration will be ound a frame to be completed in regard to life assurance remiums or deferred annuity premiums paid on the tax-ayer's own life or on that of his wife. Accident insurance remiums may also be claimed where the policy covers the isk of loss of life. The principal limitations of allow-nce of assurance premiums are that the premiums must be aid to British companies, or companies doing business here, and no greater amount than one-sixth the total net ncome from all sources is allowed.

To Claim Abatement and Reduction on Earned Income.

Varying "abatements" may be claimed where the total ncome from all sources does not exceed £700, and "relief" to the rate of 9d. in the £ on that part of the income that is earned, provided that the total income from all sources does not exceed £2,000. If the proposals of the 1909 Finance Bill are accepted a similar "relief," but to the rate of 1s. in the £, will be claimable where the total income does not exceed £3,000. In order to claim these allowances there should be entered on page 3 of the form a list of the tax-payer's income from all sources, including the general practice, appointments, property, stocks and shares, regard-less of whether income tax has been paid on the various sums or not. This part of the form is not a return for assessment but a general statement to prove that the income falls within the necessary limits. It is to be observed that the joint income of husband and wife is required to be entered as, for income tax purposes, a man's "income from all sources" includes his wife's income if they be living together. Care should be taken to set out in the space marked "No 2" in the statement particulars of all interest, annuities, or ground rent paid and then to deduct the total from the total of the income from the various sources shown above.

The importance of making this claim without delay may be gathered from the fact that if it should escape attention until after September the tax payable on the earned income will be one-and-a-half times the amount otherwise payable.

Particulars Required for Partnerships.

The system of assessment requires the profits of a partnership to be returned in one sum on page 2 by the precedent acting partner, and no other partner is required to make a return of his professional profits on that page. In addition, the precedent partner should show on page 4 of the form how the profits are divided between the partners. Some difficulty arises where the partnership consists of a sharing of the fees after paying only the expenses of a joint surgery, each man receiving patients at his own house and paying his own carriage or other expenses. The correct treatment of such a case may best be shown by an example.

If the average fees of A. and B. in partnership amount to £2,700 after deducting £100 joint surgery expenses, and the individual expenses of A., who is entitled to two-thirds, amount to £500, while those of B., who is entitled to one-third, amount to £300, the return should be made as follows:

On page 2, A. will show the profits of the practice as £1,900 (=£2,700, less £500 and £300), and on page 4 he will show the division of profits thus:

Names of Partners	Share of Profits.	Basis of Distribution.
A. ...	£1,300	Two-thirds profits, less individual expenses (£500)
B. ...	£600	One-third profits, less individual expenses (£300)

Although only the principal partner should make a return of the profits of the practice on page 2, it is important that each partner who wishes to claim abatement or reduction of tax under the "earned income" provision should make a separate declaration on page 3. If any partner has not received a form, it will be well to apply for one to the Assessor of Taxes, as the limit of time for making the claim is September 30th, as explained above. A point that is sometimes overlooked is that the right of a partner to claim the earned income rate depends on the amount of his individual income, and not on the amount of the firm's income.

How to Arrive at the Profits to be Returned.

The return for the year 1910–11 is to be made on the average of the profits of the three years ending on April 5th, 1908, 1909, and 1910, or ending on the day before April 5th in each of the years to which the accounts are most conveniently made up. Three years' figures are not, however, always available, as in the case of a new practice or of a practice purchased from a predecessor who does not hand over his accounts. In the former case a yearly average of profits based on the profits of completed years should be arrived at, while in the case of a succession the returns should be estimated as well as circumstances admit, and a note made that the return is provisional only.

The profits to be returned are the fees earned less the expenses incurred in the course of earning them. The fees earned should in strictness be represented by the total bookings of the year less the amount of debts actually written off as bad during the year (whether relating to the same year or previous years), but the generally accepted system is to deal with the cash receipts only in each year, on the ground that the receipts in a year do in effect represent a year's earnings. This basis is not accepted as a rule in dealing with new practices or successions, as in these cases the actual receipts for the first two or three years are not equivalent to the earnings,

unless in the case of a succession the book debts of the predecessor are purchased and come into the cash receipts. It may be remarked that some Courts of Commissioners refuse to accept the cash receipts as the basis of the return when dealing with appeals, but such a course is unusual.

Where the cash basis is taken no charge should be made for bad debts, for the principal merit of dealing with the matter on the cash basis is that credit is taken only for the fees that are actually received in cash.

Receipts other than Ordinary Fees.

References may be made to certain receipts the treatment of which may present some difficulty:

1. *Money Received from the Sale of a Practice.*—This is not income, and should be excluded entirely from the income tax return, the only exception being when the consideration for the sale takes the form of an annuity, in which case the person paying the annuity should deduct the income tax, and the recipient, although not making a return of the annuity for assessment, should regard the annuity as a source of income to be included in any claim of abatement that he may wish to make.

2. *Receipts from Medical Sickness Assurance Society.*—It is considered that these receipts should not be regarded as taxable income, though the point is, perhaps, not free from doubt.

3. *Resident Patients.*—Payments from such patients have to be brought into the practitioner's accounts and the cost of their care and maintenance charged amongst the expenses.

4. *Qualified Assistant Receiving Board and Lodging.*—The assistant is required to return only his salary. The value of the board and lodging is not assessable.

Expenses.

The principle underlying the admissibility of expenses is that current expenditure incurred in the carrying on of the practice, or in the earning of the profits, is allowed, but not outlay in commencing, purchasing, developing, extending, or winding-up a practice, nor expenditure incurred for private as distinguished from professional purposes. The following are the chief deductions that a medical man may be entitled to claim:

1. *Rent of Professional Premises (Surgery, Consulting Rooms, Stables, etc.).*—When, as is usually the case, the professional premises form part of the private residence, a proportion of the total rent up to two-thirds may be claimed as a deduction. The proportion will be determined by the relative value of the portion used for professional purposes. It is to be noted that a deduction for rental value can be claimed equally when the premises are owned by the practitioner. In such a case the property tax (Schedule A) assessment should be regarded as the rental value.

2. *Local Rates, House Duty, Painting, and Repairs.*—These are allowed in the same proportion as the rent.

3. *Gas, Water, Firing.*—Allowed so far as used for professional purposes.

4. *Drugs.*

5. *Salaries* of assistants, dispensers, and book-keepers; also the cost of their board and lodging if provided.

6. *Servants' wages*, keep, licence duty, and accident insurance. Allowed for servants employed for professional as distinguished from private purposes. The cost of board of servants is usually taken at not more than 10s. a week each. Where servants are employed both for professional and domestic purposes an apportionment of the expense should be made.

7. *Telephone, postage, stationery*, and similar incidental expenses.

8. *Motor-Car or Horse Carriage.*—Cost of upkeep and expense of running, including petrol, repairs, shoeing, fodder, harness, etc, and also chauffeur's or coachman's wages, keep, accident insurance, and car or carriage licence. Where a worn-out car or carriage is replaced the cost of replacement may be charged to an amount not exceeding the cost of the car or carriage replaced.

9. *Travelling.*—Any other travelling expenses incurred in visiting patients.

10.—*Implements, Utensils.*—Cost of upkeep and renewal of articles required in carrying on the practice, including instruments, apparatus, carpets, furniture, etc.

Deductions Not Allowed.

The following are various forms of outlay that are not allowed by the income-tax authorities as deductions in arriving at the profits to be returned, the usual grounds of disallowance being that the outgoing is of the nature of capital expenditure or expenditure personal to the individual rather than arising in the course of earning the profits of the practice.

1. *Preliminary expenses*, such as lawyer's charges in negotiating the purchase and preparing the deeds, alteration of premises to render the house suitable for carrying on the practice, first cost of new car, carriage, instruments, etc.

2. *Interest, Annuities, or Instalments of Purchase Money.*—With regard to the interest and annuities, income tax should be deducted from these when they are paid; so that, although not allowed as an expense, the person paying them does in effect get a corresponding relief.

3. *Income Tax.*

4. *Post-graduate study*, cost of, lecture fees as for obtaining D.P.H., examination fees, books, etc. It will usually be found that a reasonable expenditure in the maintenance of a professional library will be allowed, though in theory the cost of *additions* would presumably be inadmissible.

5. *Locumtenent* during illness. It is usually maintained that no deduction can be allowed, on the ground that the practitioner has the right to deduct income tax from the share of profits taken by the person who for the time being is actually working the practice. If, however, it can be shown that the locumtenent is exempt or himself accounts for his own income tax liability, including the fees, the outgoing is frequently allowed by the Commissioners. The cost of a locumtenent during holidays is apt to be disallowed as being part of the expense to the practitioner of the holiday.

6. *Life Insurance Premiums.*—These should not be deducted as an expense but shown separately at the foot of page 2 of the return.

7. *Depreciation of Motor Car.*—The practice in regard to this matter appears to vary. Instances have been known in which a yearly allowance for wear and tear in addition to the repairs has been made in lieu of allowing the cost of replacement when the car is worn out. As a rule, it will probably be found more satisfactory to accept the full cost of renewal when incurred instead of a possibly insufficient yearly allowance for depreciation.

The Schedule E Return Form.

This form is simpler than that provided for Schedule D. The return should contain the gross emoluments of public appointments, such as those of medical officer of health or public vaccinator. These emoluments are taxable separately, subject to deduction of the expenses incurred in the performance of the duties, the amount of which should be entered in the space provided in the form No. 12. The expenses allowed will be those referred to under Schedule D, so far as applicable, with the addition of compulsory payments for superannuation. Where the expenses cannot be distinguished from those of the general practice, the only course is to make a reasonable apportionment of the expenses between the two classes of work. In such cases care should be taken not to include the fees from appointments in the profits of the general practice returned under Schedule D.

It is not necessary to fill in the statement of total income from all sources for the claim of abatement or relief if such a statement has already been made in the Schedule D form.

At the annual meeting of the Guild of Graduates of the University of Wales held at Aberystwyth on April 16th, Dr. Stephens, of Swansea, moved a resolution requesting the university court to take the necessary steps to form a faculty of nursing for the conferring of degrees in the subject. He argued that if the university took up the control of the education and examination of nurses it would raise their status, and he thought that although no other university authority had taken this course, there was no reason why Wales should not lead the way. Dr. Stephens agreed to substitute the word "diploma" for "degree" in his resolution, and eventually a committee was appointed to place the matter before the Board of the Faculty of Medicine.

BADEN-BADEN AS A HEALTH RESORT.

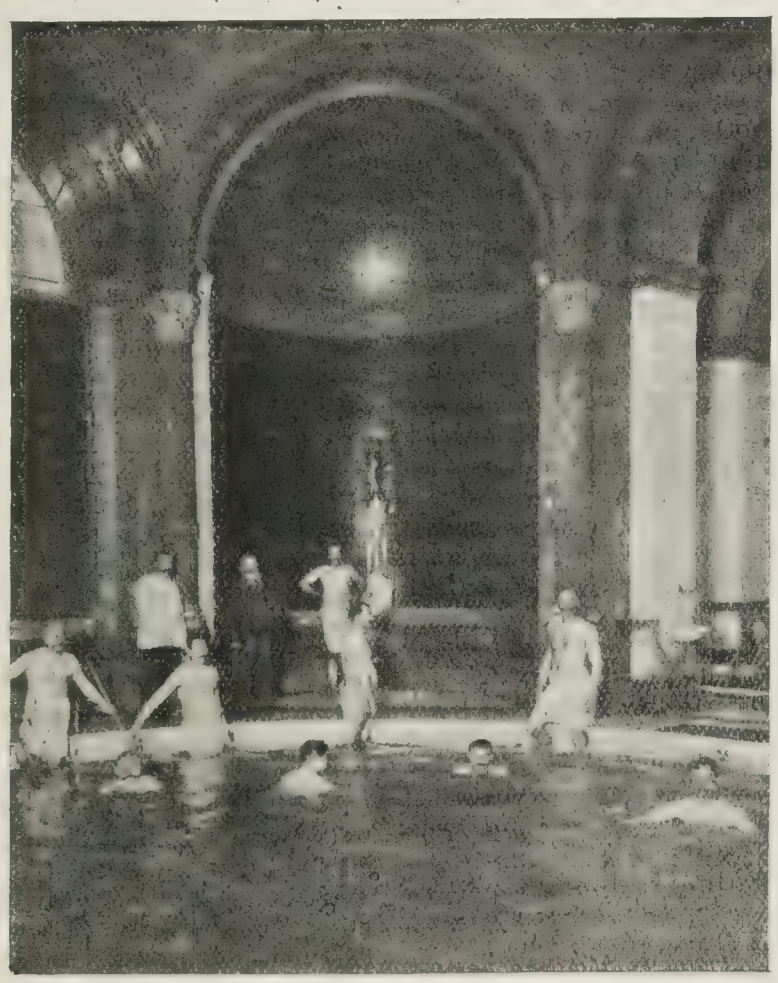
ADEN-BADEN must be regarded as a modern luxury. The sitor with limited means feels himself handicapped to a rtain extent; the commission, under State control, by hich it is managed has sought to provide amusements, stractions, and even temptations, but it costs money to ke part in all at is going on. may, therefore, be pposed that the hysician who lects Baden-Baden r a patient will ke care to inform im that the place ay be regarded ther as a pleasure sort or as a health sort; the advanges and disadvanges of the comnation will be condered later.

The season begins April 16th and nds on October 5th, but the ajority of the initutions are open l the year, and here may be said be a winter as ell as a summer ason. The climate good, but the rainfall is rather high. The average nnual rainfall is 43.5 in., which would mean that if the hole of Europe were divided into twelve areas of varyng rainfall, Baden-Baden would be classified in the eventh. The air is remarkably pure, and the temperare equable; it is neither extremely cold in the winter, or, as a rule, excessively hot summer. The average emperature for the hottest onth (July) is about 64° F. he country around, including as it does the heart of he Black Forest, is beautiful its own way. The town self lies at an altitude of ome 675 ft. above the sea vel, while there are many reater heights in close roximity.

The Pump Room.

The journey from London easy. Of the six routes vailable the quickest is via alais, by the Orient express, tarting from Charing Cross t 10 a.m. and arriving in aden-Baden seventeen and hree-quarter hours later. he fare via Calais is 5 2s. 5d. first-class single; y the Hook of Holland or y Flushing it is £4 4s. 3d., nd via Ostend £3 18s. 4d.

Baden-Baden possesses a onsiderable number of otels, some of which are ood, while others may be poken of as cheap. The rices charged at the best otels are similar to those harged in other fashionble watering places. The atient with smaller means will do well either to seek good small hotel, where he can obtain full pension from bout 8s. a day, or a boarding house. There are also rivate sanatoriums where various forms of disease are reated, and the physician may have reason to prefer to end his patients to one of these.



Swimming Bath in the Friedrichs Bathing Establishment.

The official prospectus states that there is no "Kurtaxe"—that is, subscription to the spa for staying in Baden and drinking the waters, etc.—but in reality the visitor must be prepared to purchase a season ticket for admission to the casino, promenades, concerts, etc. This ticket costs £1 15s. a year for one or £2 5s. for two persons in the same family. Monthly cards are sold at £1 for one and £1 10s. for two persons, and 6s. for each further member of the family. The baths vary in price according to their kind. A simple bath taken between 9 a.m. and 1 p.m. costs 1s. 6d., an electric bath or a single "Wildbad" 3s., a saloon bath 5s., and a saloon Turkish bath with accessories 10s. Fango treatment costs 4s. 6d. each time or £2 for ten treatments, Tallermann's treatment costs 5s. a time, and inhalations cost from 9d. to 4s.

Presuming that a patient visits Baden-Baden for the purpose of undergoing a course of treatment for four weeks, his expenditure on baths and season ticket would probably be about £5. If the treatment necessitates special procedures, such as fango packing of the whole body and massage, his expenditure would be somewhat higher.

"Attractions" and their Disadvantages.

The Baden-Baden *Kur-kommission*, a body of business men who aim at making the spa a popular resort, and therefore a paying concern, has provided rather more in the nature of amusements than is usual in spas. First, there are the usual arrangements. The Casino, very elegantly constructed and furnished, is no longer used as a gambling place, but for daily concerts, evening fêtes, special instrumental and vocal concerts, dances, and other entertainments. The crowd which assembles there is truly international, the French element being perhaps the most striking. It is a well-dressed, perhaps an overdressed, crowd, and it is quite obvious to even an unobservant individual that the majority of these visitors are not ill, and that they are using Baden-Baden as a pleasure resort. Close by there is a theatre where operas and comedies are given. Other popular entertainments, such as variety shows and the like, are provided in various parts of the town. A week in August is reserved for the horse races, when Baden-Baden would not suggest to the tourist that it was a spa at all. There are tennis, golf, croquet, and other clubs (chiefly for the English visitors), while the municipality does its best for the cyclist, motorist, and walker, if, indeed, the latter can be provided with a ground for his pastime while the two

former are about. Fishing and shooting may also be had.

The races and the whole character of the place attracted the Parisian, London, and American visitor to Baden-Baden, and the management had to face a serious problem when it became clear that the man of mundane tastes would favour this beautiful little spot. Should they exclude the "lady of fashion"? It is in a sense unfortunate that they decided, as men of business, not to do so, and the medical men in the town appear to consider it necessary to attempt to gain complete control over their patients, and it is quite a common prescription for a heart or nerve case to insist on the patient being indoors after 7 p.m. In any case, British doctors should know that care may have to be exercised when sending young, and perhaps old, men to Baden-Baden.

The Baths and Springs.

There are eleven springs, of which the Friedrichs spring is the most copious. According to the analyses published by Bunsen, the composition of the waters of these various springs is very similar. The more recent analyses of Engel and Bunte show that the Baden waters contain a large preponderance of sodium cations (35 mg. equivalents), a moderate proportion of calcium cations, and less potassium cations. The anions are represented by chlorine, hydrophosphate, and hydrocarbonate. Compared with Branstedt, Heringsdorf, Rilchingen, Pyrmont, and Königsborn, the concentration of the ions is small, the total milligram equivalents being between 44 and 47. There is very little free carbonic acid gas. The balneologist will naturally wish to be informed whether some other factor is responsible for the reputed curative action of the waters, or whether this concentration of ions is sufficient. In the present state of our knowledge with regard to the action of osmosis and the effect of charged ions, it is impossible to speak with any certainty on this matter. It would certainly appear as if the particular concentration of the ions might exert a physical force which could act beneficially in certain pathological conditions, though how this may be brought about, if it be, is still mysterious. But Baden water does not rely only on its ion concentration for its curative properties. It is a hot spring, the temperature being about 145° F. One of the springs has been found to be especially radio-active, and this, the Bütt spring, which until a few years ago was almost completely neglected, is, it is said, more radio-active than any other spring water in Germany, Switzerland, France, and England. This is the result of the observations of Elster, Geitel, Himstedt, and Engler, who calculated the potential value in volts per litre and hour, after making allowance for the normal loss, at from 6,900 to 10,000. It would be absurd to attempt to associate the curative action of the spring waters with this radio-activity at present, since nothing is yet known with regard to the physiological action of emanation, save that it is absorbed by the respiratory passages and excreted partly by the same passages and partly in the urine. Whether the action is strong enough to exert a therapeutic effect at all or not can only be guessed at.

The other factors in the Baden-Baden course may be summed up as follows. First is general suggestion, produced by the business-like arrangements of the baths, the large number of sick persons who derive benefit from a stay at the place, and the more or less strict attention to details on the part of the medical men prescribing the course and the bath attendants in carrying it out. Next, free use is made of other medical treatment, including the application of heat by means of fango, electric light baths, Turkish and other similar baths, massage and medico-mechanical procedures. Lastly, there are inhalations, which appear to be suitable for use with the spring waters.

The Bathing Establishments.

The Friedrichs bathing establishment for men and the Augusta bathing establishment for women are both modern institutions, and their structure and equipment leave little to be desired. Scrupulous cleanliness, the walls, floors, and at times the ceiling being tiled, and bright spotless baths combine to give an inviting impression. Special mention should be made of the swimming baths and the steam and hot air rooms. The water is heated in copper apparatus, and the rooms themselves are well ventilated. The original "Wildbad" was constructed for several patients bathing together, but those at Baden are adapted for single patients—shallow roomy basins, the floor of which is covered with sand, on which the patient rests, the greater part of his body being immersed in the water; the temperature is lower than in the ordinary thermal bath; the bath lasts twenty to twenty-five minutes. Nickel-plated baths are used for the carbonate acid baths, which, however, play a comparatively small part in Baden-Baden. Tallermann's apparatus and Zander appliances are much used. The douches after the sand and thermal baths are not always of the spring water. The water in the swimming baths is hot spring water, and the patients are usually only allowed to remain in it for a very few minutes. In the male baths there are forty-five attendants, who give as many as 120 baths in a day, while in the female baths there are only fifteen. The latter may be excellent persons, but did not give the impression of being either pleasant or good-natured. The inhalation establishment is well fitted up, and the usual apparatus is employed in the various rooms. A "graduated" structure permits the inhalation of the waters in a state of very fine spray while the patients are in the open air.

There is a bathing establishment called the "Landesbad" for the treatment of poor and club patients; its arrangements are good without luxury. The patients are either treated free of cost—in which case the clubs or Poor Law authorities contribute the necessary sums—or if they are persons belonging to the public services, and whose wages are small, they are housed, fed, and treated for 4s. 6d. a day if residing outside the Province of Baden, 4s. if in Baden, 3s. if the patient shares a room with two others, and 2s. 6d. for club patients. Certain diseases, such as insanity, diabetes, tuberculosis, hysterical affections, etc., are excluded, and any offensive case is also refused. The regulations are fairly strict, but the patients appear to be well cared for and reasonably comfortable. The Zander Institutes in the Friedrichsbad and Kaiserin Augusta are open to the club patients in the afternoon.

Diseases Suitable for Treatment at Baden-Baden.

It is stated that over 100,000 persons visit Baden-Baden each year, but many of these are not ill and therefore do not require medical treatment. Of those who do, the majority are suffering from gout and rheumatism, but almost every other ill to which human flesh is heir finds its way there. Baden, however, does not appreciate syphilitic patients, and indeed offers them no special advantages. For rheumatic affections, especially of a chronic nature, Baden-Baden is certainly a suitable place. Gout may also be treated there with advantage, but much depends on the hotel at which the patient is staying. Catarrhal affections of the nose, fauces, and bronchi also may improve materially. From what has already been said, neurasthenics could do better elsewhere, although if they are staying at a sanatorium benefit may be expected in suitable cases. With regard to disturbances of the circulatory organs, and especially of the heart, there appears to be no reason why Baden-Baden should be chosen in preference to a large number of other spas. In the matter of carbonic acid baths Baden-Baden is not specially well adapted, and it would be better not to include circulatory disorders among the diseases for which Baden-Baden is specially suitable. Claims are made for this spa for a beneficial action in many other conditions, among which anaemia may be mentioned; but, as far as can be ascertained, the results obtained in these conditions are no better than those which could be obtained at home. On the other hand, it may be worth while to send certain patients after acute illnesses, such as influenza, to convalesce at Baden-Baden, provided that care be exercised with regard to excesses.

In conclusion, it may be stated that Dr. Rössler, the chief chemist in the town, has published the estimate that the visitors to Baden-Baden find their stay cost them on an average £20. The estimate may be correct, but it must certainly be accepted with caution. If it is intended to include all the club and pauper persons, who practically spend nothing, it is valueless. It may, however, be said that with economy and full use of the curative advantages of the spa a four weeks' course could be comfortably carried out, including the travelling from London and back again and all extras save the cost of medical attendance and personal luxuries, for from £30 to £35.

THE COMPOSITION OF CERTAIN SECRET REMEDIES.*

A CURE-ALL.

In addition to the many proprietary medicines which are widely and generally advertised, of which we have dealt with numerous examples, a very large number are advertised only or principally in some particular locality, and such preparations sometimes attain a very considerable local sale. The claims made for these medicines do not show any more modest pretensions than those more widely advertised, while the ignorance of the makers is sometimes even more evident. We give here the results of the examination of one of these.

The medicine in question is called "Korpusdoon." It is stated on the label to be "Prepared only by Mrs. Ann Briggs, Health Specialist, (for the Korpusdoon Medicine and Health Food Co.), Darwen, Lancashire." The price is 2s. 3d. per bottle, and the bottle bought for examination contained 25½ fl. oz. The dose is given as, for an adult one teacupful every other morning; for children, half dose every other morning.

The nature of the claims made for it is shown by the following extracts, the first of which is from a newspaper advertisement, and the second from the label on the bottle:

> Why suffer from Influenza when Korpusdoon puts a check on all poisonous acid from which all diseases originate, and cleanses from the system all bad germs.
>
> The Virtues of this Famous Medicine "Korpusdoon."
>
> It kills and clears away from the Stomach and Nasal Passages all the accumulation of poisonous acids—which, after 20 years of keen and careful observation, I find to be the cause of all the ailments the body is liable to, such as Catarrh of the Stomach, Nasal Catarrh, Fermentation of the Stomach, Influenza, Hay Fever, Eczema, Gall Stones, Gout, Goitre, Rheumatism, Lumbago, Neuralgia, Appendicitis, Consumption, Irregularities of the Heart, Loss of Memory and Nerve trouble, Paralysis, Bright's Disease, Whooping Cough, Measles, Scarlet Fever, Typhoid, Diphtheria, and Small-pox. A sure preventative of Tumour and Cancer.
>
> It is a great beautifier of the Skin and Hair.

In the newspaper advertisement the maker's name and address are followed by the words "At Home Mondays and Saturdays," which is presumably an intimation that she can be consulted professionally at those times.

Analysis showed the mixture to contain magnesium sulphate and an extract of liquorice, flavoured with aniseed and sassafras, and further sweetened with a little chloroform. Careful search did not afford any indication of any other constituent. The colour was much darker than the colour which results if the ordinary liquid extract of liquorice is employed, and the latter contains alcohol which was absent from the mixture; but it was found that by taking ordinary "stick liquorice," and boiling it with the Epsom salts, a dark liquor was obtained agreeing closely with the original. Possibly the flavour of aniseed and sassafras is got by boiling these drugs with the Epsom salts and liquorice, but a mixture in which they were added respectively as the water and the essential oil was practically indistinguishable from "Korpusdoon." The quantities of the different ingredients found were as follows:

Magnesium sulphate	624 grains
Extract of liquorice (from "stick liquorice")	550 ,,
Chloroform (= chloroform water 4 fl. oz.)	5 minims
Oil of sassafras	3 ,,
Aniseed water	5 fl. oz.
Water ... ... to	25 ,,

Estimated cost of ingredients, 2¼d.

* Previous articles of this series were published in the following issues of the BRITISH MEDICAL JOURNAL: 1904, vol. ii, p. 1585; 1906, vol. ii, pp. 27, 1645; 1907, vol. i, p. 213; vol. ii, pp. 24, 160, 209, 393, 530, 1653; 1908, vol. i, pp. 833, 942, 1373; vol. ii, pp. 86, 505, 1022, 1110, 1193, 1285, 1566, 1697, 1875; 1909, vol. i, pp. 31, 909, 1128; vol. ii, p. 1419; 1910, vol. i, pp. 151, 213, 393.

SCIENCE NOTES.

ASSOCIATED, apparently, with the modern method of running sewage into rivers and the sea is an enormous overgrowth at places of the common seaweed, *Ulva latissima*. It grows in moderate abundance all round the coast, but it thrives best in brackish water and is thus found in greatest profusion near the mouths of rivers. During storms large masses of it become detached and die, and if these are not swept out to sea they accumulate on and near the shore. Decay sets in, sulphuretted hydrogen is liberated, and the mass becomes obnoxious. If a town is in the vicinity the health of the inhabitants is apt to be affected. The subject has been studied in some detail by Professor Letts, of Belfast, who has found that sewage contamination greatly favours the growth of *ulva*. This curious predilection is not shared by other marine algae, which shun polluted waters and prefer localities where constant and strong waves and currents provide thorough aëration of the water. The habit is correlated with the ability to assimilatate simple nitrogenous compounds such as are found in the later stages of sewage effluents after they have been subjected to the action of bacteria. The latest number of the *Bulletin of the Kew Botanic Garden* (1910, No. 1) contains a short summary of the present state of the inquiry, with suggestions as to the methods and most profitable lines of investigation. The writer, Mr. A. D. Cotton, discusses the possibility of suppressing the weed. To reclaim the land, if a muddy bank were the source of trouble, would be effective, but not always practicable. Chemical poisons might be employed, but would be dangerous, as their action could neither be assured nor restricted. A third plan is suggested—to keep the growth in check by regulating the local conditions. This would involve a greater knowledge of the etiology of *Ulva latissima* than we at present possess, and would accordingly demand considerable research. The condition most obviously in need of regulation is the sewage effluent itself, and the experimental work of Professor Letts has suggested a method which may lead to a great reduction of the nuisance—namely, the mixing of a highly nitrated effluent, such as is obtained by the use of a percolating filter, with the effluent from a septic tank and treating the mixture on a contact bed. By such a procedure the nitrates and ammonia in the effluent are enormously reduced; and as it is on those that the growth of the weed chiefly depends, it is evident that its development would receive a very salutary check.

For a considerable number of years it was accepted without question that the normal habitat of the tetanus bacillus was in the superficial layers of the soil, especially on cultivated ground. It was found, however, that the bacillus does not occur in the soil from forests and uncultivated land, but only in ground which has been well manured. This led to the suspicion that the manure might have something to do with the presence of the bacillus, and eventually several observers succeeded in isolating it from the fresh faeces of various animals. These included the horse, ox, pig, dog, and cat. In 1908 Römer showed that tetanus antitoxin was present in the blood of 50 per cent. of normal cows over 2 years old. It was absent in younger animals. For some time it was uncertain whether the presence of the bacilli in the alimentary canal was constant or merely temporary, but within the past year Joseph[1] has shown that the tetanus bacillus is a permanent inhabitant of the intestine in older cattle, and that it occurs with great frequency. Once it has gained entrance, change of feeding does not cause it to disappear. It may be assumed with some probability that the bacilli occasionally penetrate the intestinal wall and find their way to distant organs. Tarozzi has recently shown that tetanus spores can live for over three months in the liver or kidney in a latent condition, but are gradually destroyed. By artificial trauma he was able to induce these spores to germinate, and this led him to the conclusion that spontaneous tetanus might be due to the existence of spores in a latent condition, stirred into activity by some particular circumstances. Some such process as this, causing a slight

[1] *Zeitschrift für Infektionskrankheiten der Haustiere*, January, 1910.

production of toxin with a corresponding elaboration of antitoxin by the organism, is assumed by Römer to be the explanation of the presence of antitoxin in the blood.

During the course of the past ten years an ever-increasing amount of effort has been directed towards the attainment of a pure milk supply. The fact that milk may serve not only as a suitable medium for the growth of various bacteria but also as an efficient means for their transference has been abundantly recognized. Of especial interest at the present time is the association of milk with the summer diarrhoea of infants. It is but natural that the cause of this disease should have been sought for in milk, but the numerous theories propounded on this question have without exception lacked substantial confirmation. In this connexion the presence of streptococci in milk and the suitability of such infected milk as food have been of late the subject of many contradictory opinions. Numerous workers have found a high percentage of milks infected with streptococci. This was at first regarded as indicating the presence of mastitis in the cows, and it was held responsible for many of the inflammatory intestinal conditions in children. Petruschky in 1904 definitely assumed a causal relationship between the streptococcic and infantile diarrhoea. He obtained the cocci from every sample of milk which he examined, and he maintained that they were pathogenic and the direct cause of diarrhoea. Shortly afterwards Schlossmann, and, later, Sieffert cast much doubt on Petruschky's conclusions. It was shown that these streptococci were non-pathogenic, but Heinemann demonstrated that they could be rendered pathogenic by passing through a rabbit. The latest pronouncement on the matter comes from Bachi,[1] who, at the suggestion of Schlossmann, has conducted a lengthy series of observations on these streptococci. He has found them present in 75 per cent. of samples, and regards them as identical with Kruse's *Streptococcus lactis acidi*. It is a non-pathogenic organism, which can be differentiated from *Streptococcus pyogenes* by its morphology, and in particular by its tendency to form involution forms on solid media and on milk which is turning sour. He considers it is highly improbable that harm to children can result from its presence. There is the danger, however, which is not to be denied, that it may under certain conditions acquire pathogenic properties, but this danger can be avoided by proper precautions in milking and in keeping the milk cool. In only 2 cases out of 81 did Bachi find *Streptococcus pyogenes*, and in one of those the sample came from a cow which had disease of the udder. The explanation of its presence in the other case was not obtained. Dr. Savage, however, in the annual report of the Local Government Board for 1908–9 has shown that even in the presence of actual mastitis in the cow the streptococci (*S. mastitidis*) are not pathogenic in man.

[1] Vorkommen und Bedeutung der Streptokokken in der Milch, *Archiv für Hygiene*, lxxii, February, 1910, pp. 91–160.

LITERARY NOTES.

THE first National Congress of the Italian Society of the Critical History of Medical and the Natural Sciences, which was to have been held in September of the present year, has been postponed till 1911. The third annual meeting will be held at Catania at the time fixed for the ceremonial commemoration of the famous anatomist and medical jurist, Ingrassia. It has been decided to issue every two months a bulletin in which the proceedings of the society will be recorded. The head quarters of the society are in the Palazzo della Sapienza, Rome.

Mr. Thomas H. Bickerton, President of the Liverpool Medical Institution, took for the subject of his inaugural address, delivered on October 7th, 1909, the career of Dr. John Rutter, founder of the institution. This has been reprinted with portraits and illustrations. John Rutter was a member of a family connected with the Rathbones, whose name is writ large in the history of Liverpool. Both families belonged to the Society of Friends. The future physician was born in 1762. He seems to have been apprenticed to a medical practitioner, and afterwards he studied medicine at Edinburgh for three years, taking his Doctor's degree in 1786. In 1788 he settled in practice at Liverpool. Probably owing to his family connexion with the Rathbones, he quickly took a prominent place in the life of the city. In 1790 he succeeded William Roscoe, the historian of Leo X, as President of the Liverpool Library. In 1792 he was appointed physician to the Liverpool Dispensary. How long he remained on the staff there is no evidence to show. He wrote little, and though there is every reason to believe that he was a successful physician, Mr. Bickerton admits that there is no documentary proof of this. But there is evidence of his activity in local affairs. He was the initiator of the scheme for founding a library and news-room, which took shape as the Liverpool Athenaeum. Of that institution Rutter was the first Treasurer, from 1798 to 1801, becoming Vice-President in 1802, and President in 1804. He held the office of President a second time in 1816–17. It is interesting to note that his name appears among the signatories of one of the first medical pronouncements as to the evils of alcohol made in this country; it was published in the *Liverpool Mercury* of November 18th, 1831. In progressive movements for the benefit of the town (says Mr. Bickerton), Dr. Rutter's name almost invariably appears either as benefactor or member of the council. In regard to his own profession, he recognized that in consequence of the want of co-operation the whole system of medical polity was defective. His convictions on this subject led him to become one of the founders of the Provincial Medical and Surgical Association, which before long developed into the British Medical Association. Associated with Dr. Rutter on the Council of the new body were three other Liverpool men of note. These were James Dawson, Surgeon to the Liverpool Infirmary; Dr. Thomas Jeffreys, and Dr. Thomas Stewart Traill, afterwards Professor of Medical Jurisprudence in the University of Edinburgh. How largely the medical men of Liverpool contributed to the success of the Association may be gathered from the fact that of the sixteen essays and "cases" which make up the first volume of its *Transactions*, five were written by Liverpool men—Jeffreys, Traill, Dawson, David Williams and Roger Scott. Dr. Rutter was President of the Liverpool Medical Library in 1809, and again in 1826 and 1827. In 1833, when the site of the Medical Library was required for the railway station, Rutter, who was then President of the newly-formed Medical Society, suggested that a building should be erected which would be suitable not only for a library but "for all meetings of the profession, for medical lectures, or the meetings of medical societies, with a committee room annexed to it, and with a convenient residence for a librarian." Recognizing that he was the right man to deal with the situation, the members elected Rutter President of the Medical Library in 1834, and annually re-elected him to that office till his death four years later. The negotiations with the Corporation were left entirely in his hands. The Corporation met him in a generous spirit, and he contributed some £900 to the fund. He died in 1838. His nephew, Henry F. Chorley, the famous musical critic, pays the following tribute to his work, which is all the more remarkable as coming from one who did not wear his heart upon his sleeve:

> God never created a more noble-hearted generous man than he was; few men have been more zealous in their calling, less pedantic in the task of perpetual self-education and qualification. A dread of the shame of debt, an excellent liberality in the exercise of his profession, the curious mixture of personal modesty and sagacious decision in his medical practice, possibly, too, his handsome person, established him in his birthplace, after years of probation, as first physician; but his ways were as little like the world's ordinary ways as those of the rest of the persons among whom we four Chorley children were brought up. He had remarkable stores of knowledge, which to the last he increased, yet he could not endure intellectual society, the collision and discussion of opinions. . . . At my father's death he came forward to stand betwixt his half-sister, with her four children, and penury; and thenceforward his life seemed to find its duties, and in some degree, I am glad to think, its rewards also, in the family whom he had adopted.

John Rutter was evidently an embodiment of the fine conception of the physician expressed in the old definition, *Vir bonus medendi peritus*.

British Medical Journal.

SATURDAY, APRIL 23RD, 1910.

ICKNESS AND INVALIDITY INSURANCE.

IE series of articles which have appeared in the ;t three issues of the JOURNAL have shown e almost universal tendency there is amongst e nations of Europe to follow the German lead providing a State-aided insurance for the work- g classes. Mr. Winston Churchill has made a claration almost amounting to a promise that n the forefront of the Liberal Government's pro- amme is the policy of national insurance—State- ded insurance against unemployment, sickness, validity, and provisions for widows and orphans ho are left behind." And in the debate on the cond reading of the Prevention of Destitution ll, Mr. Asquith, after saying that it was the tention of the Government to deal with unemploy- ent insurance, added, "We have still to deal with validity, sickness, and other hazards of industrial fe," and expressed his belief that provision for this ould be made "with the almost unanimous consent Parliament and the country, and entirely outside ie area of Poor Law administration." In addition these positive declarations of the Liberal Govern- ent, the whole tone of Mr. Balfour's speech pointed the same direction.

It is dangerous to attempt political prophecy, specially at this moment, when fundamental changes the constitution are under discussion, and may or long almost monopolize the attention of Parlia- ent, but it certainly looks as though we were within easurable distance of legislation for sickness and validity insurance. By a careful consideration of ie various schemes for this purpose in other ountries, and the experience there gained, it ought ot to be difficult to frame a scheme that would suit nglish conditions. The German scheme is, of course, y far the most complete, but there are some points in hich it is certainly capable of improvement. In he first place, it is difficult to see why two separate unds should be retained. At present employers only ay one-third of the sickness premium, but one-half of he invalidity premium, and on this account two funds re necessary; but is there any need for this arrange- ent? It may be said that the German sickness nsurance is more decidedly personal in its application —that is, that the funds are used solely for the benefit f the insured, who may on that account be rightly alled on to contribute a larger proportion of the remium. On the other hand, the invalidity funds re largely used for the general benefit of the com- munity. Indeed, the benefits to the insured are cut lown in order to allow of a large accumulation of unds for more general purposes, such as provision f sanatoriums, sanitary dwellings, baths, and so on, nd this affords some reason for lessening the pro- portion of the premium paid by the insured to this und. But when personal benefits and communal benefits are provided out of the same fund there is sure to be dissatisfaction, even though it can be proved that the total direct personal benefits exceed the total personal contributions of the insured. The statistics for invalidity insurance for 1905 show that the workpeople contributed £4,032,000 and received in benefits £7,911,000; but the total income of the fund, which includes contributions from workpeople, employers, and the State, and interest on accumulated funds, was £12,515,600. Now the workpeople claim that they have a right to the whole of this; but on adding together the £7,911,000 given in benefits, the sum of £747,000 for administration, and what they hold is a reasonable sum of about a million sterling for reserve, there still remains about $2\frac{3}{4}$ millions sterling, which they assert is not devoted as it ought to be to the personal interests of the insured, but is diverted to other more general purposes. The fact that this sum happens to be rather larger than the total amount of the State subsidies lends a semblance of support to the complaint that the State, while contributing professedly in the interest of the insured, yet contrives to divert more than it contributes to other purposes which ought to be provided for out of some other fund. The complaint is not altogether justified, but it seems probable that any similar system would give rise to similar dissatisfaction in this country, and matters should be so arranged that there could be no appearance of making the working classes contribute to a fund which is partly for the benefit of others who do not so contribute.

Again, attention is drawn to the overlapping between the sickness and the accident insurance in Germany. Employers are supposed to be wholly liable for the results of accidents at work, and it is argued that the German system, which throws the victims of accidents on the sickness insurance for the first thirteen weeks, is not fair to the workmen, who contribute two-thirds of the sickness premium. Some delay may often occur before the legal question of liability can be settled, and in the meantime treatment cannot be delayed. In this country medical men treat such cases and take their chances of getting paid, but if sickness insurance were made compulsory it ought to be easy to arrange that, pending a decision, treatment might be given out of the sickness insurance funds, and if it afterwards turned out that the employers were liable, the sickness funds might be reimbursed. The complaints have been so numerous in Germany that the Reichstag is now considering a new insurance law, aiming at the development of social provident legislation and the amalgamation and unification of the existing sickness invalidity and accident insurances. The bill also provides similar benefits for about seven million agricultural labourers who are now only included under special rules. It is not likely that the difficulties that have arisen from inco-ordination in Germany would occur in Great Britain, for there would be no need to interfere with the Workmen's Compensation Act; and, as old age pensions are already provided by the State, only sickness, premature invalidity, and provision for families remain to be dealt with. These could well be brought under a single insurance, which would avoid the trouble and overlapping of two funds, to which employers and men contribute in different proportions.

Much discussion has taken place in Germany as to the wage limit, which is about £100, and there has been a demand that all workpeople earning up to £150 should be compelled to insure. The suggestion has been made that in Great Britain the wage limit should

be £160—that is, that all workers who receive wages below the amount on which income tax is charged should be under compulsion to insure. The returns show that the number of persons assessed for income tax in 1908 was 885,387; and although estimates of the kind are not easy to make, it will probably not be far out to assume that the number of persons in receipt of over £160 a year is, in round figures, about a million. Reckoning five persons to each family—that is, father, mother, and three children—this would represent about five millions out of a total population of forty-four millions. This would leave about thirty-nine millions belonging to families with incomes under £160 a year. If these figures are approximately correct, then, as the children would not come under the insurance, it is probable that there would be from fifteen to seventeen million persons liable to insurance with a wage limit of £160. In Germany, which has a population of 60,000,000, there are about 14,000,000 actually insured for invalidity with the wage limit of £100, and over 19,000,000 insured for accident with a wage limit of £150. The wage-workers in Great Britain with a wage limit of £100 are calculated by the German insurance department to be about 13,000,000, and though we cannot vouch for the accuracy of this figure, it lends some probability to the above estimate of from fifteen to seventeen millions to be insured if the wage limit be £160. The figures are, at any rate, near enough to prove that if the limit be £100, probably from 70 to 80 per cent. of adult working-class patients would cease to be private patients, while, if the limit be extended to £160, private medical practice among adults of the working classes would be at an end.

This is, undoubtedly, a very serious outlook for the profession, but we cannot stand still and lament the fact, we must endeavour to discover how the intellectual and financial independence of the profession may be secured under the new order of things which seems to be at hand. Nearly every civilized country that has not got compulsory insurance is considering the subject, and the demands of the leaders of the working classes and the utterances of statesmen of both political parties make it highly probable, nay, certain, that it will come in this country sooner or later, and probably within the next few years. It may begin with a low wage-limit, or be confined at first to a few trades, but the tendency will certainly be to include more and more trades and a higher and higher wage limit. The enormous growth of the friendly societies is an index of the present tendency. It seems useless to cry that the profession is about to be ruined by the introduction of a form of club practice on a vastly bigger scale; the problem that ought to occupy attention is how all the powers and all the resources of the British Medical Association shall best be used to prevent a continuance and spread under the insurance of an odious form of medical club practice.

The experience of Germany shows the dangers which the Association must be prepared to face, and we cannot afford to wait until some Government introduces a bill before settling, at any rate, the main lines of our policy. The benefits provided by any insurance will be medical attendance, sick pay, invalidity pensions, and provision for families. We are not directly concerned with the methods by which sick pay and pensions should be paid, whether by a Government department with local offices, or indirectly through friendly societies; but it cannot be too strongly insisted on that medical attendance is quite a separate matter. We believe that we express the definite and settled opinion of general practitioners when we assert that the profession will resist to the uttermost any continuance, much more any extension, of the club system for medical attendance under the friendly societies, or of the haphazard and pernicious club system that has grown up under the German insurance. No Act of Parliament will ever be a success that involves anything of the sort, and that being so, it is not demanding more than the medical profession is entitled to ask when it is claimed that before any bill is introduced by Government the British Medical Association should be first consulted as to the way in which medical attendance should be provided for the persons to be insured. If there is to be any sort of contract it should not be left to local medical men to fight for proper terms. The general terms and conditions of the service should be fixed by agreement between the British Medical Association and the Government insurance department, and no beating down or underbidding should be allowed, such as occurs in the various *Krankenkassen* of Germany.

Whatever wage limit is fixed by Parliament, there is not likely to be the same trouble as occurs in provident dispensaries to-day, as it will be to the interest of employers, who will have to subscribe part of the premium, and of the State, which will give a subsidy, to see that only those persons are admitted who are legally eligible. The amount of the premiums to be paid would be a matter for actuarial calculation after the benefits to be given had been fixed; but probably the average pensions and sick pay given in Germany would not be considered sufficient in Great Britain, and it is absolutely certain that the amount to be allowed in any actuarial calculation for medical attendance will have to be far higher than is allowed in Germany. That may be taken as settled, but it is all-important that the British Medical Association should make up its mind as early as possible not only as to the amount, but as to the method of payment for medical attendance. On the other hand, there is hardly the necessity for such enormous accumulations of funds as in Germany, and the insurance would not need to provide pensions after the age of 70, or, at any rate, only small amounts, as the existing old-age pensions provide for ages beyond 70. Nevertheless, it is very probable that the contributions required, both from the insured and from employers, will have to be higher than in Germany unless the State assistance is greatly increased. As to the medical service itself, any duly registered practitioner should be eligible as a medical officer on undertaking to conform to the rules. Free choice of doctor, which the profession in Germany has found to be so essential, should be insisted on for all persons who pay any part of their own premiums. At the same time provision would have to be made to prevent capricious changing of doctor except for reasons satisfactory to the local medical committees which would have to be formed to control the service. The greatest difficulty would be with persons whose earnings are so small or casual that they could not afford to pay anything regularly. In these cases charitable organizations might well be utilized, or in the last resort the Poor Law authorities might pay the premiums. If no such arrangements were made, the insurance would fail to reach the very persons who most require it.

One of the most important questions would be,

ow far and in what respects should the Association ercise central control over any medical service? here are certain legal questions involved in this hich can hardly be here discussed, and difficulties ight arise if there were any attempt to interfere ith the autonomy of the Divisions, which are quite ghtly jealous of their prerogatives. It may be taken r granted that no such attempt is contemplated, and ithout any undue interference there is ample scope r the Association as a body in conducting negotia- ons with the Government department, in organizing id directing local services in conjunction with local ivisions, and in lending the whole weight of its uthority to obtain uniformly fair and honourable rms and conditions for the whole profession.

THE ANTIQUITY OF MAN.

HE dominant feature of modern thought is hope—ope for to-morrow, hope for the future, anticipation f something better, some improvement, or, at the ery least, some change. It is the keynote of progress nd the certain safeguard against decadence. To read he future is the dearest wish of early life, but as the ears pass anticipation yields to action and later to eflection—the solace of old age. These two mental ttitudes of youth and age, seemingly diametrically pposite, have yet much in common; both are con- tructive and both deal with material which is im- erfect, in the one case because it is unknown but onceivable, in the other because it is partly forgotten r its significance altered by the intervening years.

To science, a babe barely able to walk and read, the uture promises everything, but there is much to learn f the past. The ultimate destiny of man may be the nost fitting and important study, yet his primaeval rigin is not without its lessons, for an accurate nowledge of the past is frequently a very safe guide o the future. Of man's recent past there is certain nd reliable knowledge taking us back to five or even en thousand years ago. We can trace in living races he most recent phase of man's existence, the advent nd progress of civilization. We know that there was no essential difference 2,000 years ago—perhaps even 5,000 years ago—except that the balance then was in favour of barbarism. Of what may be termed the pre- barbaric states, however, we know but little. Of that dark period of storm and stress, when man was fighting to establish his place and supremacy amongst other animals, and especially, we may suppose, amongst the higher apes, by means little superior to their own, we have only occasional glimpses. To comparative anatomy we owe much of our scanty information concerning those times; to geology we owe more. It is curious to think of man leading a life akin to that of the lower animals, with un- developed mind and ultra-primitive ideas. The contrast between the mental calibre of the present- day civilized and savage races may enable a vague idea to be formed of the intellectual ability of early man, in comparison with whom our lowest savage would appear gifted. The subject has formed a theme for writers of fiction, but more serious attempts have also been made to portray these wonderful transition stages in man's existence. A large amount of hypothesis is woven round some incontestable facts, founded on acute observation. The whole subject of palaeontology, indeed, is one which calls for the highest degree of scientific acumen. To reconstruct a colossal animal from a single tooth or to rebuild the social life of a tribe from a charred bone are the familiar examples of this wizard-like power. The story of the rocks, read in this way, possesses a charm all its own. The majestic creatures of the past fill us with admiration and astonishment, but chief interest devolves on the central figure, man, the creature of the geological yesterday.

Man's antiquity has formed the subject of much wordy dispute, but successive palaeontological dis- coveries have demonstrated the unjustifiable parsi- mony of our estimates of his past career. At one time ten thousand years was regarded as a generous allowance, but recent investigations have shown that ten times that might be nearer the truth. The latest find of undeniably human remains is that of Dr. Capitan and M. Peyrony in the Dordogne, and it is of more than ordinary impor- tance, as it consists of a complete skeleton. It was found lying on its back and surrounded by numerous remains of various animals, such as bisons and deer, along with hammers, bone breakers, and other implements. Appearances point to the body having been placed where it was found, and covered with stones, earth, and branches. Later years increased the covering, which has accumulated undisturbed for, it is believed, twenty thousand years. Dr. Capitan's preliminary announcement[1] of the discovery is illustrated by an interesting photo- graph of the skeleton *in situ*. Along with M. Peyrony he has for many years been investigating the region in which the skeleton was found, and has been able to determine the existence of at least five successive epochs in the quaternary period, each with its distinct population. The present skeleton comes from the second earliest of these. Much valuable information will doubtless be gained when a complete examination of the remains has been made.

Probably of much older date is the historic Gibraltar skull, which has lately been subjected to a searching examination by Professor Keith. It appears to belong to a stage intermediate between palaeolithic man and transition forms such as *Pithecanthropus*. It is unmistakably human, and yet it displays several dis- tinctly simian characters. Primitive as it is, how- ever, and ancient as it may be, it is still a long way removed from the apes and man's primogenitor.

The secret of man's original descent is shrouded in the mists of the tertiary period. There we find the remains of man-apes, of forms inter- mediate between man and the anthropoids, and of some even more closely allied to the former than to the latter. The now famous *Pithecan- thropus erectus* is one of the most important links. Since its original discovery several expedi- tions have visited the East Indian Islands with the object of gleaning more knowledge, but unfortunately with comparatively insignificant results. In the successive years 1906 to 1908 Frau Selenka, Volz, and Branco severally attempted to shed more light on the matter, but without materially altering the already established facts. Several other forms have from time to time been regarded as lineal ancestors of man, such as the *Pliopithecus antiquus* found by Hofmann in 1893 and the *Dryopithecus fontani* found by Harlé in 1898, but these have been proved to be more closely related to the gibbons than to man. The gibbon is the most primitive of living anthro- poids, and it is believed that man and the gibbon arose from a common stock. *Pliopithecus* and *Dryopithecus*, though near relations of early man,

[1] In *La Nature*, December, 1909, pp. 50–51.

cannot therefore be admitted among his ancestors. Von Branco considered that *Pithecanthropus* should be classed in the same category, and that the ancestor of man had branched off from the stock long before the existence of *Pithecanthropus*. Schlosser, however, while denying with von Branco the lineal ancestry of *Pithecanthropus*, sees in it a closer relationship to man than to the apes, and emphasizes this by including it in the family *Hominidae*. The cranium and femur are more like those of man than any other anthropoid except the gibbon, but the tooth does not show any particular resemblance either to that of man or the anthropoids. It might, however, be an abnormal human tooth, but never that of a gibbon, and in any case is too complicated to have been a developmental forerunner of the human tooth. *Pithecanthropus erectus* resembles man in such essentially human characteristics as the upright gait, the almost straight hallux, the absence of cranial bosses, and the small size of the canine tooth, and in these Schlosser sees justification for his opinion.

PROPOSED SCHOOL OF TROPICAL MEDICINE IN CALCUTTA.

A DISCUSSION has recently taken place in the lay press on a suggestion made by a planter's doctor in Assam that research work on the many important tropical diseases of that, and other, provinces of India would be greatly stimulated by the constitution of a school of tropical medicine. The *Englishman*, in a leading article, takes up this suggestion, and points out the very great advantages which Calcutta offers for the realization of such a scheme. In the Medical College Hospital that city possesses the premier hospital and medical school in the East. The wards contain about 600 beds, including a women's and an eye hospital, while the new surgical block is the last word in hospital construction. The staff are highly qualified specially selected men accustomed to teaching, while there is a special block for cholera and severe dysentery. In addition to this there are two other large hospitals within one mile, and at the other end of the town is the thoroughly equipped and recently rebuilt European Hospital. Altogether there cannot be far short of 1,200 beds in the Calcutta hospitals, and the variety of clinical cases illustrating tropical diseases cannot be surpassed, if it is indeed nearly equalled, by that in any other city in the world, for the population of Calcutta, including that on the Howrah bank of the Hooghly River, exceeds one million. As at first, at any rate, a single course of instruction each year would probably meet the demands, the climate would be no drawback, for the course could be held during the cold weather months when the temperature conditions are as delightful as could be desired. If a second session were subsequently found desirable it could be held in the rainy season, when the conditions of life are so far from disagreeable that many ladies come down from the hills at that time.

Enough has been said to indicate that Calcutta presents unique facilities, as far as clinical cases are concerned, for a school of tropical medicine. The other essential is suitable laboratory accommodation, and in the well-known pathological and physiological laboratories of the Medical College Hospital this already exists. There are two classrooms with splendid north light, each holding over eighty working benches, and also separate large investigation rooms for research work. Since this laboratory is situated in the same compound as the hospital, it possesses exceptional opportunities for combined clinical and pathological work, which is so important at the present stage of research in this direction. The important practical results in the treatment of tropical liver abscess and of cholera which have been worked out in the laboratory during the last few years furnish eloquent testimony to the invaluable opportunities for advancing medical knowledge afforded by this institution. With the increase of staff, in addition to the present single worker, which the formation of a tropical school would necessitate, still more valuable research could be confidently expected. The great benefits which have accrued to medical science by the foundation of a tropical research laboratory in the Philippine Islands, with a larger staff than is to be found in any one laboratory in India, should be sufficient to stimulate the Government of India to found an efficient school of tropical medicine. As the *Englishman* points out, the central research laboratory on the Kasauli hill-top is completely divorced from any large hospital, and its clinical material has to be obtained from many, often distant, parts of India. One other advantage of Calcutta must not be omitted—namely, that the Medical College possesses undoubtedly the finest pathological museum in the tropics. The collection of specimens dates from 1827, while, as a whole-time artist has been employed for many years, a unique collection of beautiful coloured drawings of tropical diseases and pathological processes has been collected, which is much admired by all visitors.

The English schools of tropical medicine have done invaluable pioneer work, and are essential for the training of those about to enter on their labours in hot countries. It says much for the keenness of service men with some years of Indian experience, that they frequently attend the courses at the English schools, but it is felt that the time has now come when they should be provided with opportunities of doing such work in the infinitely larger clinical and pathological field afforded by one of the Presidency towns of India itself. It would also be very greatly to the advantage of officers of the Indian Medical Service if they could go through such a course on, or as soon as possible after, their arrival in India, as their opportunities for professional study in military employ are so slight that they are apt to be disappointed and lose their keenness. If they had an early opportunity of seeing the wealth of material afforded by the Calcutta medical institutions, they would be greatly stimulated and often encouraged to utilize the large amount of leisure military employ affords them to take up some research work for themselves. It is worth while to recall that some thirty years ago Indian Medical Service officers on arriving in India were actually sent to Calcutta for such study, and the resident medical officers' quarters at the European General Hospital contained their mess. If this eminently practical arrangement is reverted to and study leave is liberally granted to officers already in the services, there will be no lack of enthusiastic students, while the number of medical officers in India who have already distinguished themselves in medical research will easily furnish the requisite staff. In short, if only the present far-sighted and influential Director-General of the Indian Medical Service will take up this question, there can be no doubt that India will very soon be possessed of the finest school of tropical medicine in the world.

MICHAEL SERVETUS

Vienne, an ancient city situated on the left bank the Rhone, some seventeen miles from Lyons, an teresting ceremony will take place on August 10th the present year. That day has been fixed for the veiling of a statue to Michael Servetus, physician, eologian, and martyr. The city has granted site and given a contribution to the funds. The eans of all the Medical Faculties of France d a number of Frenchmen eminent in various heres of intellectual activity have helped in the omotion of the scheme. Subscriptions have been ceived from every part of the world, but money is ill required, and further contributions will be gladly ceived by M. Albert Monod, Secretary of the Servetus onument Committee, Hotel de Ville, Vienne (Isère), ance. A most interesting account of Servetus has en given by Professor Osler.[1] Servetus was an Ara- nese, born at Villanueva de Sigena, probably in 1509, ough he also gave 1511 as the date. He was probably ducated at the neighbouring University of Saragossa, d Professor Osler thinks it possible that he may ve studied for the priesthood; at any rate, there is idence that when still very young he was well rsed not only in Latin but in Greek and Hebrew. fter studying canon and civil law at Toulouse, he came Secretary to Quintana, Charles the Fifth's onfessor. In the suite of the Emperor he went Italy, where he got his first impression of the orldliness and mercenary character of the Papacy, atred of which soon afterwards became an ob- ession. In 1530 he was present at the Diet of ugsburg, where Protestantism was first recognized fficially. By this time Servetus had come to the con- lusion that there was something to be said both for nd against both sides. In 1531 he published a small reatise bearing the title, *De Trinitatis Erroribus*, hich shocked not only the Catholics but the eformers. Bucer, whom Professor Osler described as kind-hearted," said the author of such a work should e disembowelled and torn in pieces. Servetus seems o have been a Modernist of a very advanced type. So uch out of harmony with his Protestant surround- ngs was he that he found it convenient to go o Paris, where for further safety he took the name of illanovanus, by which he continued to be known for ome twenty-one years. In Paris he met Calvin, with hom he debated theological questions. Some time ater he went to Lyons, where he edited a splendid folio f Ptolemy's *Geography* for the Trechsels, the famous rinters. He also helped Champier with his French *harmacopoeia*. He returned to Paris to study medi- ine, and there he met Jacobus Sylvius and Andreas esalius. In 1537 he published a small book on yrups. A year or two later he settled at Vienne, here he was physician to Archbishop Paumier, in hose palace he lived. While practising quietly as doctor he continued his theological studies, and ctually had the *Christianismi Restitutio*, the work hich ultimately brought him to the stake, printed t Vienne in 1553 while he was living under the rotection of the Primate of Gaul. It excited he greatest horror, not only among the Catholics, ut among the Swiss Reformers. It is generally aid, and Servetus himself believed, that Calvin lenounced the author to the inquisition at Vienne. Servetus was arrested, but, doubtless with the con- ivance of friends, possibly of his patron the Arch- ishop, he escaped. After a time he went to Geneva, which he seems to have expected to find a harbour f refuge. He soon discovered that he had fallen into he hands of enemies bent on his destruction, and he was burnt at Champel on October 27th, 1553. On the spot there now stands a monument of reparation to his memory. The theological doctrines for which he gave his life have no interest for us. Only two complete copies of the work which was his ruin are known to exist. One of these, which is in the Bibliothèque Nationale, Paris, is thought by some to be the very copy that was bound to his body when he was tied to the stake and snatched from the flames at the last moment by some sympathizer or some collector of relics. But the physiologist must venerate the memory of the man who discovered the pulmonary circulation. It is true he attached so little importance to his discovery that he mentions it only as an illustration in discussing the nature of the Holy Spirit. Attention was called to the passage by Charles Bernard, surgeon to St. Bartholomew's Hospital, as is mentioned in William Wotton's *Reflections upon Ancient and Modern Learning*, published in 1697. Meanwhile the lesser circulation had been rediscovered by Colombo, a pupil of Vesalius, and the fact was also known to Caesalpinus; but beyond all question Servetus described it some years before either of these anatomists, and it is fitting that his name should be held in honour among us. Professor Osler's sketch of him is a worthy memorial of one of the most tragic figures in medical history.

[1] *Michael Servetus.* London: Henry Frowde, Oxford University Press. 1909.

THE LONDON POLICE AND QUACKS.

THE London correspondent of the *Berliner klinische Wochenschrift* gives, in its issue of March 21st, some details of the attitude which the Excise Department and the Police take in this country with regard to the spread of quackery. It is stated that inquiries at the office of the Inland Revenue elicited the fact that the Excise Department is not at all concerned with the nature of the contents of bottles bearing its stamps. The traffic in quack remedies might be highly dangerous and prejudicial to the public weal, but this Department concerned itself with this traffic solely as a source of income. The Department would only prosecute or assist in prosecuting vendors who understamped the packages. With regard to the London police and their methods, a curious tale is divulged. The writer was apparently interested in the doings of one "William Scott," whose name has become notorious in connexion with certain methods of diagnosing and treating disease. This man had been described by Dr. Neustätter of the *Gesundheitslehrer* as the "King of Swindlers," a title which was based on the extent of his quack business. The police were approached in order that the details which were published in the *Gesundheitslehrer* might be verified. The first reply was that information could not be given to private individuals. The writer thereupon showed that he was authorized by a public journal to make these inquiries in the interest of the public, but with no better success. Next he attempted to gain information by approaching the police surgeon, and through his intermediation he asked for the information, and also offered to supply cases of unquestionable fraud in respect to quack remedies, provided that the police would undertake to prosecute when the evidence justified such a course. The reply, filtered through the official channels, was to the effect that the Commissioner of the Police had no information to give. The writer, like a true Briton, would not own that he was beaten. He therefore applied to the Berlin police and received a friendly communication, giving some details and the source whence the rest could be obtained, especially the name of the judge who heard the case in London. Further assistance was promised if it should be required. The judge, "who was less strictly official, gave all the

details required, and even showed a letter from the Commissioner of the Police, dated one day later than the letter received from him by the correspondent." The reticence of the Metropolitan Police is well known, but the usual excuse, that the ends of justice might be defeated if details of cases were made public, could not be pleaded in this instance, since the public are better served by a warning against a dangerous form of traffic than by the prosecution of a rich proprietor, who can carry on his trade in spite of the penalty, and who can find ways and means of gulling the public, even after a trial in a court of law. It would therefore seem that the police do not intend to take any action in checking or helping to check the sale of deleterious or fraudulent quack remedies. The London correspondent of our German contemporary gives an account of the publication of *Secret Remedies*, and refers to the attitude which the daily press adopted towards the booklet. In view of the repeated instances given therein of cases in which the public pay an extravagant price for a worthless, and often dangerous, article, and of the proof that the claims made for many of the remedies are absolutely devoid of foundation, it must strike the reader that the attitude of the police in London is open to criticism. There are cases enough in which a poor man pays dearly for a worthless article in the vain hope that this so-called remedy will free him from an incurable, or even an uncured yet curable, ill, but the police refuse to see the fraud. Again, a child dies of somebody's teething powders or other form of quack medicine, and the police decline to accept any responsibility. Fraud must affect the powerful and wealthy before the Metropolitan Police are stirred to action, and crime in connexion with medicines must be laid at the registered practitioner's door before the protectors of the public feel obliged to move.

THE MIDWIVES BILL, 1910.

THERE appears to be some misconception as to the opinion of the British Medical Association on the question of what authority ought to be responsible for the payment of fees to medical men in midwives' cases. Dr. Fremantle, in a letter which appears in this issue, alludes to the recommendation made to the Departmental Committee on behalf of the Association that the matter should be dealt with through the local health authorities. He states that the phrase "local health authority" could hardly mean the local sanitary authorities, as they are too numerous and often too small; in rural districts they are often the same individuals, and, as health authorities, have nothing to do with supervision of midwives. He concludes by saying, "Presumably it means the councils of counties and county boroughs." In giving its evidence the Association had in mind the fact that under existing laws only two authorities have the power to pay the medical fees—boards of guardians under the Poor Law Amendment Act of 1848, and "local authorities" under Section 133 of the Public Health Act, 1875, "local authorities" being defined as the urban or rural sanitary authorities. The choice thus seemed to be limited, and the Association preferred the sanitary authorities. Some confusion may have arisen as follows: Under Section 8 of the Midwives Act county and county borough councils are the local supervising authorities over midwives, and under Section 9 county councils have the power to delegate their duties to district councils. This power of delegation has been very little used, and even where it was used at first it has commonly been discontinued, and when the Association gave its evidence there were no district councils with delegated powers as supervising authorities, except in Dorset, the Isle of Wight, a part of Lincolnshire, and Aldershot. On the other hand, the great majority of county and county borough councils had delegated their duties as supervising authorities to their own sanitary committees. The evidence of the Association was directed to the existing state of things, which was that in most cases the sanitary committees of counties and county boroughs were the acting midwives supervising authorities, and, as local authorites under the Public Health Act, had the power to pay medical fees. District councils or rural sanitary authorities hardly entered into consideration, partly because, except in the rare cases mentioned, they had no powers delegated to them under the Midwives Act, and partly because, as Dr. Fremantle points out, district councillors are usually guardians also. It may therefore be assumed that the Association's preference was for county and county borough councils, which generally act through their sanitary committees as supervising authorities, and certainly not for rural sanitary authorities. The reasons for this preference were two: first, in the words of one of the Association witnesses, "the whole object of the Midwives Act is to get women to accept assistance at the earliest time, to prevent possible future bad health to themselves and the community, and any deterrent influence should be minimized as far as possible;" and it was felt that the stigma of pauperism which attaches to relief from the guardians would act as a most serious deterrent, which ought to be avoided if possible. In the second place, boards of guardians had in many places treated the medical profession in such a way that it seemed almost hopeless to expect anything better from them, as they were imbued with the idea that their only business was with paupers. At the same time, the Association witnesses made it quite clear that there would not be the same objection to a reformed public assistance authority, provided that it had not the deterrent action that the present Poor Law authority has. Such a reformed authority would certainly have its staff of inquiry officers, and we are inclined to think that Dr. Fremantle rather magnifies the difficulties that county councils might have in making inquiries; in most county boroughs there is a staff of health visitors and inspectors who could quite well investigate cases. Dr. Fremantle, referring to Mrs. Webb's letters, says, "The fact is, that Mrs. Webb's argument is opposed to inquiries of any kind," and he goes on to say that "the fundamental and logical idea of the Minority Report is that medical relief should be free." It was certainly with no such idea that the British Medical Association urged that county and county borough councils should undertake the duty of paying medical fees. It was made quite plain that the Association held that though "the State should guarantee payment of the fee to the doctor, it should recover it from the patient when this is desirable or possible." Inquiry before treatment is of course impossible in these cases, but inquiry after treatment, while it ought to be as thorough as possible to prevent imposition on the rates, ought not to involve anything that would act as a deterrent to the deserving poor. It will always be difficult to deter the undeserving without deterring the deserving, and we must still express a fear that association with the Poor Law may unduly deter deserving poor women from accepting medical assistance when advised by a midwife. This feeling, however, does not prevent us from recognizing that the Midwives Bill, 1910, is an admirable Bill in other respects. It reflects credit on the departmental

mittee whose recommendations it embodies, and receives the sanction of Parliament, as it ought, ill certainly have most beneficial results.

HYGIENE AT THE HAIRDRESSERS'.

YEAR or two ago attention was called in these umns to a subject which affects us all—namely, the iene of the barber's shop. The short article ch appeared then has helped to create an nest desire on the part of hairdressers and of hair-ssers' associations to fall into the line of asepsis, bring their methods up to date. The latest lence of this is the code which the National itute of Trichologists, London, is issuing to nbers and students of the institute. Now, as ady pointed out in the BRITISH MEDICAL JOURNAL r or five years ago), the great carrier of infection to face, be it coccogenic or hyphogenic, is the shaving sh, and not the razor. Therefore it is the shaving sh that should receive special attention. Boiling brush is out of the question; the ideal method of nfection would be dry heat. In default of that, rough washing in hot water and subsequent infection in a carbolic or other reliable iseptic solution is indicated. As pads of cotton-l are not efficient for lathering, as substitutes the shaving-brush, it would be desirable that entors should set their wits to work and find some stance which might take the place of the brush hat is, something cheap, that could be destroyed er using once. The ideal method for hair-brushes to sterilize them by means of dry heat. This is eady in use in one or two London hair-cutting oons. The absurd revolving or machine hair-brush uld have been scrapped long ago. It is curious to this filthy apparatus still in operation, even in quite hionable hair-dressing places. The revolving brush not only bad for the victim in the chair, but it is tinctly bad, too, for the operator himself. After the cess of hair-cutting, the fine hair-clippings and irf are thrown up into the respiratory passages of e barber. Clippers are to be avoided, and their tting offices firmly refused, even though a pained pression should pass over the countenance of the ist. Clippers are not always easy to put together ain when taken to pieces, and are therefore to be perly cleaned only with difficulty. Cutting instru-nts, it is needless to say, should not be placed in tiseptic solutions, but should be put in methylated irits or alcohol, and thoroughly wiped with a rilized piece of gauze. Metallic combs can be pped in spirits and passed through a flame, and turned to spirits before being again required. yptic alum blocks should be done away with once d for ever, and the danger of inoculating syphilis rough a razor-cut thus avoided. As to soap for aving, it should be put up aseptically in powder in all tubes or capsules, one for each customer. In nclusion, the hair-dresser's saloon should be fur-shed much on the lines of an operating theatre, d the hair-dressers should be scrupulously clean in emselves, and wear clean white jackets.

THE INVESTIGATION OF PELLAGRA.

R. SAMBON, in a letter to the Honorary Secretary of e Pellagra Investigation Committee, has announced s arrival at Bergamo. He and Captain Siler were ceived at the station of Bergamo by a numerous ommission, including Professor Balp, the Chief edical Officer of the Province; Dr. Marzocchi, Director the Lunatic Asylum; Commendatore Frizzoni, Vice-hairman of the Bergamo Pellagra Commission; Dr. Pizzini, Chief Medical Officer of the Municipality; Professor Frosini, Director of the Agricultural School; Dr. Perrico, and Mr. Baldini. The Bergamo authorities promised to help them in every possible way. They said that they had arranged to place a few beds at their disposal in the local hospital so that they might have the opportunity of studying any interesting case they found in their excursions. They had also made arrangements for them to use either of the laboratories of the Municipal Sanitary Board or of those of the Lunatic Asylum. A circular had been sent out asking the sanitary officers of the various places to prepare accurate lists of the pellagra cases in their respective districts, so that they might have no difficulty in finding the necessary material. After a short visit to Milan, where they visited the chief medical officer of the province, the Secretary of the Pellagra Commission of Milan, Professor Bertarelli, Senator Facheris, Professor Devoto, Professor Bezzoli, Professor Terni, and gained a considerable amount of information on the work which is being carried out in Italy with regard to pellagra, they returned to Bergamo, which will probably be their head quarters for the next few weeks. An excursion has been made to Trescore, where pellagra is very prevalent. They found the pellagra cases distributed along the course of the torrent Tadone; the stones submerged in the bed of the swift running stream were teeming with the larvae and pupae of *Simulium*, and the *Simulium* larvae collected are being sent to Mr. Austen. They also visited Borgo Boccaleone and other neighbouring districts, from which only very few cases of pellagra are reported. No *Simulidae* were found in the neighbouring water courses. On March 29th they were officially received by the Prefect of Bergamo and by the Bergamo Pellagra Commission. Professor Balp and Dr. Perrico have been appointed to help them in their investigations at the expense of the Bergamo Commission. Dr. Sambon is examining all the farm animals. Most of the cows are greatly emaciated; many are certainly tuberculous; in those of Trescore he found numerous larvae of *Hypoderma bovis*. In Albano rabies is said to be prevalent. Everywhere typhoid fever is raging. Measles and diphtheria are decimating the children. The filth and unhealthiness are said to be beyond description.

FLOCK BEDDING.

IT has never been sufficiently realized in this country that while some portions of bedding, including sheets and blankets, receive periodical cleansing at the laundry, too little attention is paid, even in the best ordered household, to the cleansing of the mattress. This would be sufficiently serious if the mattress were in a thoroughly cleanly condition when used for the first time, and is far more so when, as appears to be the case very frequently, the rag flock with which it is stuffed is filthy to begin with. As long ago as 1885 public attention was drawn to the manufacture of rag flock by a report presented to the Local Government Board by Dr. Franklin Parsons, and from time to time since that date further references have been made to the same subject by public health officials and others, but by far the most detailed investigations are those made recently on behalf of the Local Government Board by Dr. Reginald Farrar.[1] Rag flock, which is used not only for filling mattresses but also for stuffing upholstery, is made from rags torn up by a laminating machine called a "devil." The rags used are collected from all sources in this country, and are imported from abroad. They include old carpets and cast-off wearing apparel, and none of

[1] Reports to the Local Government Board on Public Health and Medical Subjects. New series, No. 27. Wyman and Sons. Price 6d.

the material has undergone any process of cleansing before it reaches the flock manufacturer, and is often indescribably filthy. At the hands of the manufacturer less than one-third of the rags used are subjected to any form of cleansing. In some instances they are sterilized by means of steam, and in others they are washed with water, but in no instance does soap or other detergent seem to be used. Dr. Farrar points out that though steam sterilization may kill most of the organisms present in rags it does not remove dirt, and, having regard to the origin and the filthy nature of the rags used, a large amount of dirt of organic or even excremental origin will be left in the flock even after it has been sterilized. When submitted to chemical analysis by Dr. F. C. Garrett it was found that sterilized flock, as estimated by the amount of solid ash, chlorine and ammonia, contained approximately as much dirt as unsterilized and unwashed flock. The average amount of chlorine found in a litre of seven washed samples of flock was 6.5 mg., and in sixteen unwashed samples the amount was 113 mg. In a sample which was washed with soap and a small volume of water the amount of chlorine was too low to be worth estimating. In the event of any standard of cleanliness for rag flock being prescribed, it would thus be best expressed in terms of chlorine, and in Dr. Farrar's view this should be fixed at 10 mg. in one litre of wash. Professor G. H. Nuttall and Dr. Graham-Smith, who were associated with Dr. Farrar in his investigations, agreed that a bacteriological standard could not be adopted, not only because it would be difficult to prescribe and to apply, but also because any method of treating flock which merely sterilized it without removing the organic dirt it contained could not be regarded as satisfactory, while if the dirt were adequately removed by washing a standard of sterility hardly seemed to be needed. In the public mind dirty bedding is associated with the distribution of fleas, lice, and other vermin, and this aspect of the question was not lost sight of by Dr. Farrar, as was mentioned some time ago. Investigations on the life-history of the body-louse (*Pediculus vestimenti*) were made by Mr. Cecil Warburton, M.A., who found that lice and (*a fortiori*) their eggs might pass through the flock-making machine without being crushed. The lice themselves were incapable of surviving more than three or four days without food, so that it was extremely unlikely that any of them would be alive when the flock was converted into bedding, but the eggs might be present and hatch in about a month. Fleas and bed bugs are believed to be incapable of surviving many days without food; but as living eggs may be present in bedding, the possibility of the transmission of vermin by means of unwashed flock cannot be lost sight of.

INTERNATIONAL POST-GRADUATE ASSOCIATION.

AN International Association for Post-Graduate Medical Teaching has recently been formed. Its headquarters are in the Kaiserin Friedrich-Haus, Berlin. The President is Professor Waldeyer, and the Board of Management consists of Professor E. v. Grosz, of Budapest; Professor R. Kutner, of Berlin; Professor Landouzy, of Paris; Dr. Pavy, of London; and His Excellency Professor von Rein, of St. Petersburg. The members of the Committee for Great Britain are Dr. W. A. Jamieson, of Edinburgh; Dr. F. W. Pavy and Dr. E. B. Pickthorn, of London; with Sir Benjamin Franklin and Sir Havelock Charles representing India. The General Secretary is Professor Kutner. The object of the Committee is to co-operate in all matters relating to medical post-graduate teaching, such as investigations as to the organization of post-graduate courses in the different countries and reports on the arrangements and institutions for such courses; investigations concerning the relations between academic instruction and post-graduate training existing in the different countries; information regarding educational appliances; opportunities for training in the different countries; exchange of eminent post-graduate teachers for the purpose of instructing practitioners on important new methods and discoveries; the holding of conferences in connexion with international medical congresses; statistical work, and the promotion of journeys to foreign countries for the purpose of medical study. The association will meet, as a rule, every three years; at its meeting, which shall, whenever possible, coincide with the International Congress, a report of the work done by the association will be presented. The following is the list of questions proposed as the subjects of collective investigation: A. Academic University Instruction: I. (*a*) Anatomy, physiology, general natural sciences, particularly chemistry, physics, botany, zoology; (*b*) instruction in pathological anatomy, bacteriology, and hygiene; (*c*) instruction in eye diseases, surgery, dietetics, and medical cooking, gynaecology, obstetrics, throat and nose diseases, urinary diseases, skin diseases, hydrotherapy, internal medicine, children's diseases, clinical chemistry, and microscopy, care of patients, light treatment, stomach and intestinal diseases, nervous and mental diseases, ear diseases, orthopaedics, massage and mechanical therapy, radiology, impediments of speech, diseases of the teeth and mouth; (*d*) medical sociology. II. Legal regulations for the course of study and examination. III. Organization of university instruction for military doctors. B. Details on the following questions are to be collected by an information bureau which is to be organized: Post-graduate Courses: I. The organization of the post-graduate courses (including statements in regard to time, place, and fees); (*a*) associations for medical extension courses (statutes); (*b*) medical extension courses at the university. II. Special institute for post-graduate courses; (*a*) clinical institutes and policlinics; (*b*) academies and similar teaching institutes. C. Medical Educational Appliances: I. Aids for practical teaching; (*a*) anatomical and pathological preparations; (*b*) phantoms and plastic models; (*c*) diagrams and maps (including scientific photography and radiography; (*d*) microscopy; (*e*) episcopic and microscopic projection, cinematography and projection apparatuses; (*f*) demonstration apparatus of different kinds. II. Institutes for educational appliances, collections, etc. An extraordinary meeting will be held on the occasion of the celebration of the centenary of the formal opening of the University of Berlin (which was opened in 1809), when the following matters will be dealt with: The organization of collective investigations; and the organization of an international exchange of information in medical instruction and post-graduate courses. The membership fees from the various countries will then be handed over to the International Committee.

THE PREVENTION OF TUBERCULOSIS.

ONE of the main objects of the foundation of the National Association for the Prevention of Consumption and other Forms of Tuberculosis was the education of the people in all matters relating to the prevention of consumption. It has done much in this direction by the distribution of leaflets, the insistence on the danger of spitting in public places, and other ways. Some time ago it estab-

shed a travelling exhibition for the diffusion of information as to the mode of transmission and the methods of lessening the dangers of infection. The exhibition has been held in Whitechapel, Chelsea, and Marylebone, and is now in St. Pancras. Afterwards it is proposed to take it to various provincial centres. But the association is greatly hampered in its efforts by want of funds, and a meeting of the Council was held on April 14th to consider ways and means. It has been stated that Mr. Waldorf Astor has given £500 to form the nucleus of a fund to which the public would be asked to subscribe. Dr. J. J. Perkins, secretary of the association, has written to the *Times* to correct the misconception of what took place at the meeting of the council. He says: "The council has been faced for some time with the necessity of finding funds to enable the educational work of the association to be carried on, and at its last meeting appointed a small committee to deal with this question. Mr. Waldorf Astor has kindly consented to serve on this committee, and has generously offered to defray the expenses of organizing the appeal in its initial stages. The various erroneous statements which have appeared in the press are probably to be traced to this fact." We hope the result of the appeal will be sufficiently successful to encourage the association to continue their educational work and develop its scope. The annual meeting of the association will be held at Edinburgh in June.

THE HONORARY MEDAL OF THE COLLEGE OF SURGEONS.

As will be seen from the report of the last meeting of the Council of the Royal College of Surgeons which appears elsewhere, the Honorary Medal of the College was awarded to Dr. Robert Fletcher, M.R.C.S., of Washington, U.S.A. Dr. Fletcher has rendered conspicuous service to medical literature. In 1876 he began to assist in the charge of the library in the office of the Surgeon-General of the United States Army. He afterwards became associate editor, and subsequently editor in chief of that unique work, the *Index Catalogue of the Library of the Surgeon-General's Office*. He was also editor, at first in association with Dr. Billings and since alone, of that useful publication, the *Index Medicus*. We are glad to claim Dr. Fletcher as a fellow-countryman. He was born at Bristol, eighty-four years ago, and began his medical education at the Bristol Infirmary, completing it, we believe, at the London Hospital. He was admitted a Member of the Royal College of Surgeons of England in 1844. Going to the United States he practised for some time in Cincinnati. He served with credit through the Civil War, being commissioned as Surgeon of the United States Volunteers and breveted Colonel. We heartily congratulate Dr. Fletcher on the distinction which has been conferred upon him; it is one of the highest the Royal College of Surgeons has it in its power to bestow. The Honorary Medal was instituted in 1802. It is a gold medal having on the obverse the armorial bearings, crest, supporters, and motto of the College, and on the reverse Galen contemplating a human skeleton. The leading considerations in awarding the medal are "liberal acts or distinguished labours, researches, and discoveries eminently conducive to the improvement of natural knowledge and of the healing art." It has been awarded only ten times. In the list of recipients are the names of Sir Richard Owen (1883), Sir Erasmus Wilson (1884), Sir James Paget (1897), Lord Lister (1897), and Sir Richard Havelock Charles (1906).

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

Asylum Officers (Superannuation).—Sir William Collins asked the Secretary of State for the Home Department if he could state approximately the number of asylum officers who would be entitled to assured pensions under the Asylums Officers Superannuation Act, 1909; and if he could say approximately what proportion of the total number of officers had been placed in Class I and Class II, respectively, by the visiting committees, as directed by Section 1 of the Act. Mr. Churchill replied that the Commissioners in Lunacy stated that they had no recent information which would enable them to state approximately the number of asylum officers who would be entitled to assured pensions under the Asylum Officers Superannuation Act, 1909. In 1906, however, they obtained a return which showed that for the past five years the average number of attendants and nurses employed in asylums was 10,100. The present number would probably be larger, several new asylums having been opened. The Commissioners could not say what proportion of the total number of officers had been placed by the visiting committees in Class I and Class II respectively, as directed by Section 1 of the Act. It was not known whether all the visiting committees had yet come to a decision as to how the various officers in their employ should be classified.

Forcible Feeding and Heart Disease.—On Monday last Mr. Hugh Law called the attention of the Home Secretary to the case of a man suffering from heart disease who had died after forcible feeding in Portsmouth prison. Mr. Masterman said that the Secretary of State's attention had not been previously called to this case. On inquiry he found that the prisoner was committed on remand on a charge of attempting suicide—his second attempt. He appeared to have been of unsound mind, and could not be persuaded to take food. Food had therefore to be administered by force. His heart was tested first, but artificial feeding was in this case the only alternative to allowing him to commit suicide. According to the medical evidence, death was due to heart disease and not in any way to forcible feeding, which probably prolonged his life. The coroner's jury expressed the opinion that he had received every consideration at the hands of the prison officials.

The Milk and Dairies Bill.—Mr. Courthope last week introduced this Bill in consequence of the discussion which took place previously on the Milk Clauses of the London County Council General Powers Bill. The bill is practically the bill introduced by the Government last year, with some slight amendments proposed by the Chambers of Agriculture. The backers of the Bill are Mr. Walter Long, Mr. Hayes Fisher, Sir Luke White, Colonel Lockwood, Mr. Courtney Warner, Mr. Ryland Adkins, Mr. Charles Bathurst, Mr. Dawes, Mr. Guinness, Captain Jessel, and Mr. Stanier.

Experiments on Living Animals.—Mr. Vincent Kennedy asked the Chancellor of the Exchequer if he would consider the advisability of charging fees for both licences and certificates issued in connexion with experiments on living animals; and would he say whether the particular department which issued these certificates and licences supplied any free certificates or licences for any other purpose, specifying the same, and generally what licences or certificates were issued by any Government Department free of charge. Mr. Lloyd George replied that the licences and certificates in question were only granted when the object of the experiments was to advance knowledge in a way likely to be for the general benefit, and he did not think it would be desirable to impose fees in such cases. He understood that the Home Office issued

certain other licences and certificates free of charge, such as licences to plead, certificates for schools, or for inebriate reformatories, licences for change of name, etc. He was not aware what was the practice of other departments in this matter.

The Cruelty to Animals (No. 2) Bill was introduced under the ten minutes rule last week by Mr. Geo. Greenwood. The bill deals with the traffic in old and worn-out horses, of which some 40,000 are sent annually to Belgium and Holland to be used for human food. It is the cruelty incident to this trade which the bill seeks to prevent by requiring proper inspection and examination of the horses before embarkation, and also makes provision for a certificate being given for each horse, and if necessary for its slaughter on board in cases of illness or accident. The bill is backed on both sides of the House, and has been put down for second reading on an early day.

Ganister Mines (Lung Diseases).—In answer to Mr. Steel-Maitland, who asked how many deaths from pneumonokoniosis, bronchitis, and other lung diseases respectively had occurred in each of the years 1907, 1908, 1909 in those enumeration districts in the valley of the Don above Sheffield in which ganister mines are situated, Mr. Churchill stated that he had communicated with the Registrar-General, who stated that causes of death were not classified for areas less than registration districts, and that while it would be possible to furnish death-rates for the diseases mentioned in the district principally affected during 1907 and 1908, the effect of any special mortality among the miners would be masked by the general mortality of the district, and that the rates themselves could not be taken as reliable in view of the time that had elapsed since the last Census. This would also prevent any mortality figure being prepared. He thought the best course would be to leave the matter to the Royal Commission on Mines, who would be making inquiry into the working of the special rules for rock drilling, and would doubtless consider what statistics could be obtained. He might add that the inspector informed him that there was far less dust, and the ventilation was much better now in these mines, and that workers and officials were agreed that the effect of the special rules had been most beneficial. Subsequently Mr. Steel Maitland asked other questions on this subject, and elicited from the Home Secretary that the Royal Commission on Mines was being reconstituted with a view to deal with metalliferous mines and quarries, and this matter would be referred to them. The special rules were established in May, 1905. The statements referred to in his answer had been statements made orally by officials and workmen at the mines to the inspectors during their inspections; none, he understood, were in writing.

Insanitary Condition.—The President of the Local Government Board has informed Mr. Snowden that he has addressed a letter to the Rural District Council in regard to the insanitary conditions of Keyingham and Patrington which were reported on by the inspectors of the Board. As regards the other twenty-four parishes in the district, he was considering whether it was necessary to direct inspection by one of the Board's inspectors.

Mediterranean Fever.—Mr. S. M. Robertson asked last week whether the Government was about to send another commission to Malta to investigate further the question of Mediterranean fever; and, if so, what was to be the composition of such commission; and whether, in view of the fact that the conclusions of the last Mediterranean Fever Commission had been gravely called in question, steps would be taken to ensure that one or more unprejudiced persons would be included in the new commission, who would be competent and willing to take into serious consideration the sanitary conditions of the island and of the quarters provided for the garrison, and their bearing upon the question of Maltese fevers. Colonel Seely answered that the question of appointing another commission to inquire into Mediterranean fever was under consideration; but the only point which appeared to require further investigation was the manner in which goats, which had been shown to be the main, if not the only, source of the disease in man, became themselves infected. It would not therefore, in the opinion of the Secretary of State, be either necessary or desirable to include within the scope of the commission the matters referred to.

Fish Dietary for Soldiers and Sailors.—In answer to questions put by Mr. Wing, Mr. Haldane stated on Tuesday last that various proposals for the inclusion of fish in the soldiers' dietary had been fully considered, including that of the National Sea Fisheries Protection Association. Trials had been made, but with unfavourable results. Further, it would appear from the reports on the subject that the soldier was averse to fish of any description as a general article of dietary. It was not, therefore, considered advisable to adopt fish as part of the dietary. Answering for the Navy, Mr. McKenna said that it was not necessary to vary the standard ration in the manner suggested, inasmuch as facilities already existed for the supply of fish by the various firms holding canteen tenancies in His Majesty's ships. The meat ration in the daily dietary was for the men's dinner only, and the custom in the service was to use fish for breakfast or supper when obtainable. A money allowance for this was made to the messes.

Vaccination Officers' Superannuation.—In reply to Colonel Rawson, the President of the Local Government Board stated that under the provisions of the Poor Law Officers Superannuation Act, 1896, the superannuation allowances of vaccination officers were based on the average amount of salary and emoluments received during the five years immediately preceding the date of retirement. In the case of officers who had suffered loss by reason of the facility with which exemption from vaccination was now obtained he had been willing to sanction gratuities, and such gratuities would count as emoluments for purpose of pension. In other cases the special circumstances had been met by allowing an addition of years under the provisions of Section 5 of the Act to an officer on retirement.

THE annual general meeting of the Society of Tropical Medicine and Hygiene will be held at Liverpool on Saturday, June 25th, by kind invitation of the Liverpool School of Tropical Medicine. In addition to the usual proceedings of the annual meeting there will be demonstrations in the laboratories and a dinner, at which it is expected that the chairman of the Liverpool School, Mr. W. H. Lever, will preside.

A NEW method of serum diagnosis for syphilis has been described by M. Porges, which is performed as follows: Equal parts of the serum to be examined and of a fresh 1 per cent. solution of glycocholate of soda are brought into contact in a test tube, when precipitation occurs in the upper part of the tube if the patient is syphilitic. Tanton and E. Combe have reported on this method to a recent meeting of the Société de Biologie (March 12th, 1910). They examined 33 serums—20 from syphilitic subjects and 13 from patients with other diseases. In the former group the reaction was positive in 12, negative in 8; in the second group negative in all. In 16 cases Wassermann's reaction was tried simultaneously, and the result coincided in 12; in 4 Porges's test was negative, but Wassermann's positive; in no case was Wassermann's negative and Porges's positive. They conclude that the Porges method is less delicate than Wassermann, but is simpler, more practical, and equally specific.

Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

KING'S PROFESSOR OF PRACTICE OF MEDICINE, DUBLIN.

It is announced that the post of King's Professor of Practice of Medicine in the School of Physic of Dublin University will become vacant on July 10th, Professor John Magee Finny, who has filled the chair during the last twenty-eight years, having announced his intention of not seeking re-election. By an old-standing arrangement, dating from the time of Sir Patrick Dun's will, the election lies in the hands of the Fellows of the Royal College of Physicians in Ireland. The election will take place on July 8th.

AN UNRESPONSIVE CORPORATION COMMITTEE.

The Health Committee of the Cork Corporation at its last meeting had under consideration an important report from Dr. Browne, Local Government Board inspector, who stated that pulmonary tuberculosis was very prevalent in the city. During the year 1908 the death-rate was 3.22 per 1,000. He recommended that Part I of the Tuberculosis Prevention Act, 1908, under which all cases of open consumption are compulsorily notifiable, should be adopted. It would then be possible to adopt the measures necessary in each case to prevent the spread of infection. The causes operating to produce the high death-rate in Cork were, he considered, bad housing and unhealthy areas, especially in the flat of the city; general insanitary conditions; neglect of ordinary hygienic methods, both personal and domestic; improper feeding of infants, particularly amongst the poor. He recommended furthermore the adoption of the Notification of Births Act and the appointment of specially qualified female sanitary officers or visitors to visit mothers after their confinements and give instruction as to the care and feeding of infants and advise as to the sanitation of their houses. Last July Dr. Donovan, the Medical Officer of Health, failed to induce the Corporation to adopt the compulsory notification of consumption, and voluntary notification had been extremely disappointing. Cork possesses, he pointed out, the unenviable notoriety of having the highest consumptive death-rate in Great Britain and Ireland. Belfast had already adopted the Act. The eloquence of the Local Government Board inspector proved of no avail and the Committee, by the casting vote of the chairman, determined to reject the proposals.

DUBLIN SANITARY ASSOCIATION.

At a recent meeting of the above association, the President, Dr. Percy Kirkpatrick, delivered an address on the history of the prevention of small-pox, in which he gave a sketch of the prophylactic measures that have been adopted from earliest times down to the present day. After pointing out that isolation had been early adopted in Tibet, and inoculation practised in India and China, he referred to statistical tables which demonstrated the results of the adoption of vaccination in various countries.

Having regard to the antivaccination campaign still being carried on in co. Wexford this address was peculiarly appropriate, and we hope it will be widely circulated and read. Already the Enniscorthy guardians are less unanimous in their opposition to enforcing the vaccination laws, and at a meeting held on March 24th some of the members of the board spoke in favour of the practice. An amusing incident in connexion with the campaign is a letter from a professor of modern languages in Bavaria, published in the Irish journal *Sinn Fein*, in which he offers his congratulations to the brave men who in connexion with "this damned vaccination affair" elected to go to prison rather than have their children vaccinated. He assures his correspondent that "from this day Wexford will be an honoured and cherished name" to him all his life, and thinks that in a few months he may himself be called upon to endure the penalty of imprisonment for an action similar to that which he extols.

CORK GUARDIANS AND INFANT MORTALITY.

The visiting committee of the Cork Union was engaged last week in the consideration of the alarming conditions under which infant life exists in the workhouse. Dr. Smyth and Mr. Fitzpatrick, Local Government Board inspectors, were present to give the guardians the benefit of their advice. Dr. Smyth suggested that the children in the nursery department should be placed under the charge of one medical officer. The sick infants should be in one ward, the hand-fed infants should be in another division, and all under the care of nurses day and night. As to the third class, the suckled infants with their mothers, it would not be possible to transfer them to the schools, but it would be possible to improve the existing nursery by providing air, light, and sunshine on both sides. No remedy, however, would be satisfactory that did not contemplate the early removal of all children from the workhouse atmosphere. The remedy was an auxiliary workhouse in the country in the neighbourhood of the city. The Rev. Father Ahern opposed the scheme on moral grounds, because he was responsible for the spiritual welfare of the children. Various suggestions having been made, it was decided eventually that the medical staff, the engineer, the chaplains, and the Local Government Board inspectors should confer, and submit a week later the result of their conference to the Board.

Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

THE MILK SUPPLY OF EDINBURGH AND THE INFANTILE MORTALITY.

WITHIN the last few days there have appeared in the columns of the lay press many interesting articles dealing with Edinburgh's Milk Supply, The Milk Standard, The Promise of Purer Milk, and so on, articles treating mainly of the present and of the prospective methods of dairy manipulation, and of the amount and purity—or impurity—of the milk supplied in the town.

There has also been published recently in connexion with the Public Health Department a report for the year 1908–9 in which there appears a notice of work done under the auspices of this department in the direction "of providing a supply of pure milk for infants' use at a moderate price."

The quality of the milk consumed, and even the quality of the milk supplied to the consumer, is usually very different to that of the milk as it leaves the farm or as it leaves the dairy, but it is the quality as consumed that is of the most immediate practical interest to the individual consumer. Both as regards composition and degree of contamination wide variations exist, not only in the milk from different dairies but in the milk at different times from one dairy. Laboratory examination of samples of milk from twenty-five of the largest dairies in Edinburgh and Leith has shown that the variability of composition is most marked, the percentage amount of fat being in one case as low as 1.8 per cent., and in one case as high as 6.2 per cent., while the amount of solids other than fat varied from 6.25 per cent. to 10.95 per cent. Again, the degree of contamination of milk as supplied to the consumer, and more particularly the degree of its bacterial contamination, must inevitably vary widely, and we are forced to realize that cow's milk as consumed by human beings is a form of nourishment of somewhat uncertain value and a dangerously facile vehicle for the conveyance of infection.

Among healthy, or comparatively healthy, human beings, the early years of life, and more particularly the period of infancy if the satisfactory natural sustenance cannot wholly, if at all, be obtained from the mother, is the time when the value and the dangers of cow's milk are of paramount importance. At this age variations of milk composition, which at

a later period of life are practically of little importance, may be fraught with far-reaching consequences, and at this age also susceptibility to infection is marked. The statistics relating to the infant mortality-rate bear a very close relationship to the nature of the nourishment consumed by the infant, and the amount of infection occurring at this period and disclosing itself in later life as impaired health or definite disease is a factor affecting the health of the community in a marked degree; while the quality of the supply of cow's milk is in these respects very important, the protection from infection of the milk in the home is in many respects even more important. In the lower classes of society such adequate protection is often practically impossible; the baby has to take its chance, and we get, not the survival of the fittest, but the survival of the luckiest.

In order to ensure that an infant consumes milk of approximately known composition which is approximately innocuous as regards bacterial contamination expenditure is certainly necessary, and the preparation of such milk for large numbers of infants may necessitate considerable expense. But for our charitable medical institutions money is readily subscribed, money which is frequently spent in healing patients, and specially children, suffering from conditions which they would never have acquired had such precautions as that here treated of been in force. The decoctions imbibed by many infants have an infinitely more baleful influence on them than bad whisky drunk by the labourer has on him, are more direct and dangerous poisons, and, when not producing early death, greatly diminish the probability of a healthy life. The consumers of these horrid decoctions are irresponsible, unthinking human animals, living to eat and eating to live. Each one, from the mere fact of its existence, demands the right of a chance to live a comparatively healthy life, and from the degree of its mental development calls for protection against subtle though definite methods of slow poisoning. Maternal nursing in the early months of life is, of course, the great desideratum. And among the masses of the population maternal nursing is very largely carried out; but any one who knows anything whatever about the conditions obtaining among these families and among these mothers, must recognize that while this maternal duty is usually carried out so far as is possible, in many cases its full performance is practically impossible.

Hospitals, dispensaries, and charitable institutions generally deal with the developed disease, and in their hands lies the task of providing satisfactory opportunities for recovery. But the prophylaxis of disease, the provision of means whereby it may be possible for the individual infant to remain healthy, is outside the scope of such agencies and must be undertaken by the laity under medical supervision.

Within the last two years the work has been initiated in a most praiseworthy manner, but on a small scale. In connexion with the Hospice, a milk dépôt has been originated from which clean whole milk in sealed bottles is distributed at the rate of from 1s. to 2s. per week. A development of this scheme on a larger scale is contemplated. For many infants whole milk is unsuitable, and, as in many cases satisfactory home modification is impossible, the milk must also be distributed of such a composition as to require no home manipulation. A large central dépôt is consequently essential, where milk can when necessary be so simply modified as to meet the needs of various infants. Such necessary modification is comparatively simple, demands but little laboratory equipment, and would therefore be comparatively inexpensive. From this central dépôt the milk, suitably modified and bottled in amounts to serve for one feed each, would be sent to numerous small distributing centres throughout the town. At these distributing centres a physician would attend once weekly, prescribe the milk for the infant for the ensuing week, and on this prescription, or the prescription of any physician, milk would be prepared at the central dépôt and sent to the distributing centres for distribution. The scheme is eminently practical and deserves wide support.

England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

LEEDS.

THE GENERAL INFIRMARY.

Increase in the Number of the Honorary Staff.

IN consequence of the growth in the amount of work done at the General Infirmary, an increase in the surgical staff has recently been decided on. In addition to the members of the consulting staff the honorary surgical staff consisted of four surgeons, two assistant surgeons, and one assistant surgeon in charge of the two semi-convalescent hospitals. This, of course, takes no account of the special departments for the diseases of the eye and ear, which have a separate staff. It has recently been decided to have four assistant surgeons. The duties of the first and second assistant surgeons will be, as heretofore, to conduct the surgical out-patient department, and to act as deputies to members of the full staff during their absence. The third assistant surgeon will have the general supervision of the large casualty department, which under him will be worked by the resident casualty officer and assistants. The third assistant will also act as deputy in the out-patient department during the absence of his immediate seniors, and also as deputy both in regard to in-patients and out-patients for the obstetric physician or surgeon in charge of the gynaecological department, for his work is mainly surgical. The fourth assistant surgeon will be in charge of the Robert Arthington and Ida Convalescent Homes, and will also be responsible for the supervision of the isolation department. It has always been the habit of the members of the full staff, both medical and surgical, to grant to the members of the assistant staff the privilege of admitting a certain number of patients to be retained under the charge of the assistants. Some years ago it was arranged that at the end of five years' service as assistant physician or surgeon every assistant should have the right of using a certain number of beds, and by a recent enactment it has been decided that the two assistant physicians and three of the assistant surgeons should have this privilege from the date of their appointment. Each assistant physician may use four beds and each assistant surgeon six beds. These new privileges, which will very greatly enhance the value of the positions, are, it is satisfactory to note, in complete harmony with the wishes of the members of the full staff, who supported them in the discussion on the subject. Mr. L. R. Braithwaite, M.B., Ch.B., F.R.C.S., who has been assistant surgeon in charge of the two semi-convalescent hospitals, has been appointed third assistant surgeon, and Mr. J. A. Coupland, M.B., B.S., F.R.C.S., has been appointed fourth assistant surgeon.

Department of Clinical Pathology.

In consequence of the increase of the work in this department—a department of recent institution—which has been going on in a geometrical rather than in an arithmetical ratio, the board has decided on a recommendation to the Faculty to appoint an assistant to the curator. In this way it is hoped that the large amount of routine work will be more easily performed, and that a certain amount of the time, both of the curator and his assistant, will be available for research. For some years the work has been carried out in a most efficient manner by Dr. O. C. Gruner, and it is a matter of regret to all the members of the honorary staff with whom Dr. Gruner has worked on such excellent terms that his departure for Canada must bring to an end his connexion with the Infirmary. Dr. Gruner has been appointed Lecturer on Pathology to the McGill University of Montreal and Pathologist to the Royal Victoria Infirmary of that city. Beginning his connexion with the Infirmary as House-Physician to Dr. Churton, Dr. Gruner was appointed Curator of the Department of Clinical Pathology on its being put on a new footing. As

lready said, his work has been of a very high tandard, and he will carry with him to Canada the ıost cordial wishes of every one for his success.

WEST YORKSHIRE.

THE BRADFORD SCHOOL CLINIC.

N account was recently given in this column of a ıeeting of the medical practitioners and dentists of radford to consider the questions of the medical ıspection of school children and the school clinic. wo letters have also appeared relative to that ıeeting. It is not desirable to consider any further ıe questions involved in those letters. But it is leasing to note that a great deal of good will probably e evolved from the discussion of the various points ıised at the meeting. Dr. Newman, of the Board of ducation, recently paid a visit to Bradford and asked ıe Chairman of the Division (Dr. Metcalfe) and the vo secretaries (Drs. Dunlop and Willson) to meet im and try and evolve a *modus vivendi* in school ıedical matters with the Bradford medical practioners. The questions raised were fully discussed, ıd both Dr. Newman and Dr. Williams, Medical ıperintendent to the Bradford Education Authority, ho at a later stage also joined in the discussion, ıowed every anxiety to smooth away all diffiılties. The questions of reference of cases for treatent after inspection, in all instances to their own octors; the discrimination between those able to pay ıd those unable to pay; the conditions of acceptance the certificates of medical practitioners, and other atters were discussed. The points will be placed efore the Bradford Division in due course, and there little doubt that a better feeling will result as a ınsequence of Dr. Newman's thoughtful intervention. In connexion with the subject of the school clinic, is to be observed that the Bradford City Council, at s meeting held on April 12th, decided to appoint a hool dentist at a salary of £300 a year. A good deal opposition was shown to the project, but the ıpport of the local branch of the British Dental ssociation was no doubt a powerful reason for its ceptance.

At the same meeting of the Bradford City Council was also determined that school attendance officers ıould be instructed to inform parents that halfmers (children working in factories, etc., half the y and attending school for the other half) excluded om school on account of suffering from or being in ntact with infectious disease, could not be allowed continue working while they were excluded from hool.

Another important matter was also decided. This as that the school clinic should be removed from the ducation Offices in Manor Row to the Town Hall. pparently this was done chiefly on financial grounds; ıt the accommodation at the Town Hall does not pear so good, and the wisdom of taking infectious ses to the City's central offices is doubtful.

WADDILOVE'S SAMARITAN HOSPITAL FOR WOMEN.

This hospital for women, which was opened in adford on April 10th, raises questions which may of great moment to the general practitioners of the ty. It is a hospital built and partially endowed by e generosity of Mr. Waddilove, of Bradford, for the eatment of women's diseases on a system in which aintenance charges are made to the patients. There also an extern department for those women who are le to attend as out-patients. The rules of the spital are, so far, not definitely known, but only one edical officer has been appointed in connexion with It has been pointed out to its honorary secretary at the British Medical Association at its Belfast eeting passed a resolution that no new public edical charity ought to be established without nsultation with the local medical profession. There no doubt that this institution, although mainly pported by one man, comes within this category. far as can be judged, it will take patients from y part of the surrounding district, and they will not be expected to pay for medical treatment. It will no doubt affect considerably the medical practitioner, especially in the poorer class neighbourhoods. Patients who could pay a small fee for treatment for minor gynaecological operations will be attracted to the hospital. It would have been much better if, before opening the hospital, its scope and functions had been explained to the local profession through the Bradford Division of the British Medical Association.

LEEDS AND DISTRICT MEDICAL PRACTITIONERS' ASSOCIATION.

The first dinner of this association was held at the Great Northern Hotel, Leeds, on April 12th. Dr. A. Hawkyard was in the chair, and over 100 medical men were present. Amongst other guests were the President of the Leeds Medico-Chirurgical Society and the Chairman of the Bradford Division, British Medical Association. Some excellent speeches were made and musical items furnished. The association is no doubt doing good work in bringing the general practitioners of Leeds together, and in working for their common interests. One of the main reasons why it exists as a separate organization, as distinct from the Leeds Division of the British Medical Association, appears to be that only a small (5s.) subscription is required to become a member. Many of the members and officers, however, belong to both organizations. It is rather a misfortune that both bodies cannot work together under the aegis of the Division. There is no doubt whatever that concerted effort, with the aid of a central association and the support of the medical profession of the country generally, is more powerful than any local society can possibly be.

MANCHESTER AND DISTRICT.

MEDICAL INSPECTION OF SCHOOL CHILDREN.

IT would appear that many members of the Manchester Education Committee are coming to the conclusion that medical inspection of school children is being carried too far. The Board of Education is calling for increased medical supervision in the schools, and a subcommittee of the Elementary Education Committee has protested against the burden. The subcommittee points out that though a staff of medical inspectors has only recently been appointed, which was thought to be quite sufficient for all necessary purposes for some time, the fresh demands of the Board of Education will necessitate the appointment of another full-time medical officer. The rates are already high in Manchester, and the Education Committee has just made a call for an extra £25,000, which means the addition of nearly 1½d. in the £ on the rates. A representation is to be made to the Board of Education against the large and increasing expenditure under the head of medical inspection, and it is urged that unless further financial assistance is given from the Imperial Exchequer the committee cannot see its way to incur any additional expenditure.

OPHTHALMIA NEONATORUM.

At a special meeting of the Stretford Urban District Council on April 5th a resolution was passed in favour of adding ophthalmia neonatorum to the list of notifiable infectious diseases. Application was made to the Local Government Board for approval and the Board has now given its sanction. Accordingly, ophthalmia neonatorum will become notifiable in the Stretford Urban District on and after April 25th. It is to be hoped that the district council will make satisfactory arrangements for the treatment of the cases.

NURSING IN POOR LAW INFIRMARIES.

In a return presented at the meeting of the Salford Board of Guardians on Nursing in Poor Law Infirmaries by Mr. Lowry, the Local Government Board inspector for the North-West District, it is stated that on January 1st, 1910, there were 12,114 sick persons in the Poor Law infirmaries of the district, exclusive of imbeciles and epileptics, and 1,111

nurses to attend to them, the average being 10.9 patients to each nurse employed. On the same day there were 3,706 imbeciles and epileptics, with 275 attendants, an average of 13.8 to each attendant. In Hope Hospital (the Salford Union Infirmary) there were 555 sick persons, exclusive of imbeciles and epileptics, 41 nurses being on day duty, and 18 on night duty. The average number of patients to each nurse during the day was 13, and during the night 31, the average number of patients to each nurse employed being 9. The average for the whole district being 10.9, the Salford guardians consider that Hope Hospital is well staffed. But there is another way of looking at the matter. The number of acute cases of illness at Hope Hospital is decidedly high compared with some other infirmaries; and further, there is a very high proportion of probationers compared with trained nurses at Hope; indeed, of all the Poor Law infirmaries specially reported on for the Royal Commission on the Poor Law, Hope Hospital is the worst in this respect. Taking all these infirmaries, there was an average of 2.4 probationers to each trained nurse, but at Hope Hospital there were 5.7 probationers to each trained nurse, and the report says that "the number of trained nurses is too small to allow quite satisfactory supervision of the patients and sufficient leave of absence for the trained nurses. When all the trained nurses are on duty matters may work smoothly, but at holiday times and during illness Hope Hospital must be rather understaffed unless temporary aid is obtained from outside."

Manchester Medico-Ethical Association.

At a meeting of the Manchester Medico-Ethical Association, at which Sir Wm. Sinclair presided, Dr. Margaret Merry Smith opened a debate on the question of the admission of medical women to the resident staffs of general hospitals. The subject is of special interest at present in Manchester in view of the recent decision of the Royal Infirmary not to appoint a woman resident medical officer, a decision which has led to a considerable amount of high feeling in many quarters. It was perhaps unfortunate, as far as the debate went, that it was all one-sided, the meeting being unanimously in favour of the admission of medical women to resident staffs of general hospitals. It therefore fell to the supporters of this view to raise objections for the sake of debate. One objection thus mentioned was that the neurotic element in women doctors makes them less capable in emergencies. This was promptly answed by a retort coming from a man doctor that he had found the neurotic element quite as pronounced in men. Another suggestion was that discipline could not be kept so well by women doctors, and especially that they would not be able to control junior resident medical men. This was said to be contrary to the experience of hospitals where it had been put to the test, as in Liverpool and Glasgow. There was a large attendance and the unanimity of the meeting was remarkable after the recent discussions in the Manchester press.

LONDON.

Registration of Midwives.

The London County Council on April 19th passed the following resolution:

> That the number of certified midwives pursuing their calling in London is sufficient for the requirements of the county, and there is no necessity for the admission to the roll of midwives of any persons who do not possess certificates of training in midwifery, and that the Central Midwives Board be informed accordingly.

The Midwives Act Committee reported that apparently to meet the difficulty mentioned before the Departmental Committee on the working of the Midwives Act, 1902, of an insufficiency in some districts of certified midwives, an Order in Council was issued on March 14th last authorizing the Central Midwives Board to enrol, at the present date and up till September 30th, 1910, any woman who would have been so enrolled previously had she lodged her application within two years from the date of the Act. So far could be ascertained the number of midwives London was in excess of the demand, and the Counc had discontinued in consequence the award of schola ships in midwifery. It seemed very undesirable th insufficiently trained persons should be added the roll.

Glanders and Cerebro-Spinal Fever.

In the four weeks ended March 12th, 51 cases glanders were reported in London, and in the fo weeks ended April 9th, 13 cases of cerebro-spinal fev were notified, making a total of 363 cases since tl notification order came into force on March 12th, 19

BIRMINGHAM.

Hospital Finances.

The financial position of many of the Birmingha hospitals has been causing much anxiety during th last few years to those who are responsible for the administration. The General Hospital's expenditu in 1909 was £27,122, and its income £26,055, so that th deficit which at the end of 1908 was £10,060 has bee increased to £11,427. Its financial difficulties ha been increased by the fact that only £2,500 was r ceived from the Musical Festival last year, as compare with £4,416 in 1906, £4,521 in 1903, and £6,009 in 19 The Queen's Hospital is in a very similar conditio for it has increased its accommodation by building large block, for payment of which its invested capit has been drawn upon to a considerable extent. Th expenditure of the Queen's Hospital exceeds its i come by about £2,000; it has a reserve estimated about £40,000 only. The position of the Children Hospital is even more critical, as it seems impossib to raise sufficient funds for the new building schem and the lease of the present hospital will short expire. The new site has been bought and paid fo but £50,000 is required for rebuilding, and only £3,4 has been promised. The accounts for 1909 show a d ficiency of £466, and the accumulated deficiency at th end of 1909 was £905. At the Women's Hospital the is also cause for anxiety, for last year the expenditu exceeded the income by £1,585. Nearly all the oth hospitals show a deficiency in their incomes for 1909.

Proposed Taylor Memorial Home.

A scheme has been started for the establishment a home for incurables in connexion with the Bi mingham and Midland Hospital for Women. It suggested that the home shall be called "The Tayl Memorial Home," in recognition and commemoratio of the twenty-four years' valued and self-sacrificin services rendered to the hospital by the late Profess Taylor. A statement, signed by Dr. Annie E. Clar Mr. Christopher Martin, Mr. J. Furneaux Jordan, M F. Edge, Dr. Mary Sturge, and Mr. J. T. Hewetson, h been prepared, setting forth the need for the propose home. A provisional committee has been formed, ar it is proposed to begin in a very small way with simple nursing home near the hospital containing s or eight beds. The cost of maintenance is estimate at £300, the friends of patients being expected to co tribute a small sum weekly when able to do s Among the promises of donations received are one £500 from Mrs. William A. Cadbury and another £105 from Mrs. Christopher James.

Jamaica.

[*FROM OUR SPECIAL CORRESPONDENT.*]

Annual Report of Registrar-General.

In the report of the Registrar-General for the yea ended March 31st, 1909, some interesting figures a given. The estimated population of Jamaica o March 31st, 1909, was 848,659; it is, however, on th estimated mean population of the island—that is, o September 30th, 1908—namely, 843,648, that th marriage, birth, and death rates are calculate The marriages during the year numbered 3,526,

umber slightly in excess of that for the previous year. t is refreshing to come across a community whose irth-rate is on the increase. During the year under eview the number of births registered was 31,785, howing a birth-rate of 37.6, against 35.0 for the preeding year. The number of deaths during the year as 18,928; the rate per 1,000 estimated population as 22.4, as against 28 3 in the previous year. The ortality amongst children under 5 years of age conines high; 29.4 per cent. of the deaths registered uring the year were deaths of children under 1 year f age, and 42 2 per cent. were deaths of children under years—a slight increase on the percentage for the revious year. The death-rate among illegitimate as higher than among legitimate children. The egistrar states that the greater number of illegitiate children are born of the poorest and most norant mothers, and in most insanitary surroundgs, while the legitimate children are to a great xtent born of the better off and more educated lasses. Uncertified deaths form a large proportion of e number of deaths registered during the year. In o less than 14,501, or 76.6 per cent., the cause was ot medically certified. This rate, though high, is the west since 1897, when it was 75.5 per cent. The rincipal causes of death in Kingston were phthisis, iarrhoea, enteric fever, and, what bulks very largely the returns, "ill defined, etc.," under which head 4.0 per cent. of the total deaths were entered. The eath-rate of Jamaica compares very favourably with hat of the other West Indian Islands. As stated, the amaica death-rate per 1,000 is 22.4, that of Barbados 29, of British Guiana 36.9, of Antigua 29.98, and of rinidad 22 6. Some of the other islands can, however, show a smaller rate as, for example, Bermuda 8.7, St. Vincent 18.34, and St. Lucia 19.4.

The Registrar mentions in his report that the names f six medical practitioners were added to the Jamaica edical Register during the year, and one death ccurred, leaving a total of 132 names on the Register t March 31st, 1909. The report is furnished with laborate tables of the causes of death at different eriods of life in the whole island for the year under eview. One fact might be mentioned in connexion ith these tables—that no less than 182 deaths were egistered as occurring at 95 and upwards. It ould be difficult, however, to verify the ages in any cases.

Straits Settlements.

[*FROM OUR SPECIAL CORRESPONDENT.*]

Annual Report on Medical Department.

ROM the report for 1908 of the Principal Civil Medical fficer, Straits Settlements, which has recently reached s, it appears that the mean population was estimated t 628,016. The birth-rate for the year was 28.75 per 1,000, s against 26.11 for the previous year. The death-rate, owever, shows an increase on that of the previous ear, being 43.06 in 1908, while it was only 39.07 in 1907. enang is responsible for part of this increase, while alacca comes next. Of the deaths registered in 1908, 110 were amongst infants under one year of age, hich represents a percentage of 21.07 of the total, an crease on that of the two previous years. Of the 5,110 eaths of infants registered, 3,367 were returned as ue to "convulsions." With a view to effecting an nprovement in the heavy mortality amongst infants e Government intend bringing in a Midwives Bill at n early date, making it compulsory for all women ttending childbirth to hold a certificate of competency. Plague was accountable for 12 deaths, all the cases ccurring in Singapore. There were 198 cases of holera with 178 deaths. Enteric fever claimed 117 eaths out of 247 cases reported. Beri-beri seems still to e very prevalent in the Settlements—2,777 cases with 900 deaths, a considerable increase on the previous ear, when only 1,806 cases were notified. Researches re being made by Dr. Fraser on this disease, but so far e causal agent has not been isolated. It is said to ave been demonstrated, however, that people living on parboiled rice do not suffer from beri-beri. The deaths registered from phthisis numbered 2,998, as against 2,709 in 1907, and the disease seems to be steadily on the increase. Malaria claims a good many victims, 3,062 deaths being registered. Evidence of sanitary progress is afforded by an extended water supply and improved drainage. An analyst has been added to the staff of the Municipal Health Department. It would appear that advantage is well taken of vaccination. In 1908 the number of vaccinations was 14,843, an increase of over 1,000 on the previous year. The different hospitals throughout the Settlements continue to do good work, no less than 30,370 cases being admitted during 1908. The medical school continues to give good results, 58 students being on the roll at the end of the year for the full five years' course.

The Principal Civil Medical Officer, Dr. D. K. McDowell, C.M.G., and his staff deserve great credit for the work they have performed in the medical service of the Colony.

Correspondence.

THE TEETH OF SCHOOL CHILDREN.

Sir,—The letter of Dr. Stanley Colyer in the Journal of April 16th, p. 965, seems to call for a reply. He considers that the teeth of school children should remain untreated, on the grounds: (1) That the prevention of dental caries is a matter "of extreme simplicity, and that it is entirely in the hands of the individual"; (2) that "it will recur with almost mathematical certainty and render the scheme economically unsound"; and (3) that "the cost is excessive."

On the first point, I agree with him that a more generally diffused knowledge of the correct diet of young children from 1 to 6 years of age, and regular cleaning of the teeth, would prevent a great deal of dental caries. I emphasized this view at the meetings of the Special Subcommittee on Medical Treatment of the London County Council, and urged that the rising generation should be taught how caries might be largely avoided. But to say that its prevention is a matter of "extreme simplicity" is going a long way, and he would be a bold prophet who would say exactly to what extent prevention might be made to supersede cure under modern conditions of civilization; it will be generally agreed that the attempt to instruct working-class adults in dental hygiene has little prospect of success. The teaching of the children of to-day would give excellent results, in a measure, thirty years hence, but in the meanwhile an incalculable amount of mischief would have been done. Much of the incorrect feeding of young children of all classes is inculcated by the medical profession, I regret to say, and some of the textbooks by recognized authorities here and in America contain some very erroneous information. I have little faith in this dental millennium and counsels of perfection advocated by Dr. Colyer. Dental caries is less a disease of "imprudence," as he says, than of ignorance; but, even if it were so, then many other diseases such as ringworm, cirrhosis of the liver, syphilis, and many gastro-intestinal affections, to name only a few, should remain untreated, except for those who can afford to indulge in those luxuries.

On Dr. Colyer's second point I emphatically disagree with him. The dental profession will, I think, support me in the statement that dental caries is notably a disease of childhood, and that a great number of people who show marked susceptibility in early years need but little attention as adults if treatment has previously been carried out.

It may be, as Dr. Colyer says, that "the importance of dental disease in relation to general health, though great, has been exaggerated." The general appreciation of a hitherto neglected factor is likely to give rise to some exaggeration, but Dr. Colyer himself admits that the importance is great; and when I reflect on the vast amount of permanent harm accruing to the rising generation from septic mouths which simple treatment can easily remedy, I marvel that anyone acquainted with the facts can urge neglect until such time as a problematical

measure of prevention may render treatment more or less unnecessary.

The third point is a natural corollary of the views expressed by Dr. Colyer in the second. If treatment were as ineffectual as he avers, it would not only be very expensive but also wasteful. Experience in Poor Law schools and elsewhere shows, however, that early treatment diminishes to a marked extent the incidence of disease in the later years of school life and afterwards. Dental caries, whatever may be the factors governing susceptibility, is a locally infective disease, and spreads rapidly in a neglected mouth; but prompt attention mitigates the evil.

I am sorry to ask for space in your columns, but the subject is an important one, and it seems to me desirable to show that the views expressed by Dr. Colyer are held by a very small minority among those acquainted, as he is, with the facts and conditions of dental disease.—I am, etc.,

London, W., April 16th. NORMAN G. BENNETT.

THE MIDWIVES BILL, 1910.

SIR,—In one point only I venture to criticize your kindly criticism of this bill. Mrs. Sidney Webb objects to the guardians as the channel by which the fee is paid to any medical man summoned on the advice of a midwife in a case of emergency under Rule 18 of the Central Midwives Board. As you say, such a method of payment would not involve the husband in any political disability; but you consider Mrs. Webb's fear of "the relieving officer, with his hated inquiries," is "evidence of the validity of the recommendation made to the Departmental Committee on behalf of the British Medical Association that the matter should be dealt with through the local health authority."

Does this mean—for it was not explained to the Committee—the local sanitary authorities? Surely not; they are too numerous, often too small; in rural districts they personally are the guardians; they have nothing to do with the supervision of midwives. Presumably it means the councils of counties and county boroughs. Now, the Medical Secretary of the British Medical Association, in his evidence, agreed in the propriety of giving "To some public authority, certainly" (Q. 5529) the duty of deciding the capacity of the patient to pay. Is it conceivable that county councils should institute new and independent machinery for the investigation of the resources of about 200 patients in a year, when these resources are already known in most cases to the relieving officers? Would they not almost certainly employ the same relieving officers for the purpose? If not, would not the inquiries, in order to be efficient, be every bit as much hated as those of the relieving officers? What, then, would be the advantage of dualizing existing procedure for determining the resources of those who benefit by public medical relief?

No, Sir; the fact is that Mrs. Webb's argument is opposed to inquiries of any kind. And although the Minority Report proposes the appointment of a public assistance officer with a staff of inquiry and recovery officers—for which posts I have a shrewd idea that the present relieving officers would be successful applicants—its fundamental and logical idea is that medical relief should be free, in order that there may be no hindrance to its being invoked on every possible occasion to the benefit of the patient and so of the public health. This has been, in fact, except in a few large towns, the virtual result of every Act or regulation that has entrusted the recovery of charges to any authority other than the guardians; the cost and worry of the machinery were not equal to the sum recovered; recovery has been a dead letter.

The profession must consider the advantages and disadvantages of indiscriminate relief. But if discrimination is to be made the inquiries are bound to be hated; they must be limited to one set of officials, and if they are to be efficient they should be entrusted, as the Departmental Committee recommended (Report, Section 75), to "the authority primarily invested with the functions of public assistance." That authority at present is the board of guardians.

In any case, if clause 17 of the bill becomes law the medical practitioner "shall be entitled to recover" his fee, and the main obstacle to the smooth working of the 19 Act is removed.—I am, etc,

April 13th. F. E. FREMANTLE, M.O.H. Hertfordshir

GENERAL PRACTITIONERS AND POOR LAW REFORM.

SIR,—Though, as I pointed out, Dr. Hick's objection Dr. Cooper's scheme is irrelevant, yet, lest inattention his second letter may be construed as acknowledgement error in regard to the point he raised as to the abil of a man earning 15s. a week to pay medical fees, m I give him a little information about rural districts?

It is a fact that in South Devon, a purely agricultu district, a man in full work, if earning less than 1 a week, but blessed with more than two children (a most of the labourers fulfil both these conditions), is *i facto* a pauper, and receives medical relief under t Poor Law!

If Dr. Hick's experience is different from this, it m be because there exist in his district exceptional a peculiarly favourable conditions, and such exceptions a insufficient to vitiate the general statement Dr. Coo made.—I am, etc.,

Bristol, April 18th. HARRY GREY, M.D.

SIR,—I am fully aware that amongst primitive rac of mankind the superstition was held that when one h discovered the name of a person or thing one had there gained a mysterious power over that person or thing; a I am also painfully aware that this superstition still su vives amongst the unscientific and ignorant in the co plete satisfaction that is felt by them when a thing h been labelled. But I cannot imagine what there was my letter to justify Dr. Greenwood in assuming that I a guilty of this strange superstition!

I am perfectly conscious of the fact that the wo "destitution" is a mere label; but it stands for an app ling reality which is a disgrace to our civilization, and t reason why I support the scheme of the Minority because it seems to me to be by far the most statesma like proposal that has yet been brought forward for t removal of this disgrace.

When Dr. Greenwood tells us that he would unhesit tingly call the local education committee and the loc sanitary committee "destitution authorities" he do violence either to etymology or to obvious facts. If will take down a dictionary, as I have done, and look the meaning of the word "destitute," he will find th this adjective will not cover the children for whom t Education Committee is responsible, nor the persons, li ourselves, over whom the Sanitary Committee holds swa But the board of guardians is, and was from the fir intended to be, a destitution authority. It was nev intended that it should deal with the causes destitution.

The guardians are not supposed to give help un destitution is an accomplished fact, and this is an a sufficient reason for calling the board of guardians "destitution authority." No authority suggested by th Minority Report would be a "destitution authority" this sense. The distinction is not merely one of "words as suggested by Dr. Greenwood, but of "things."

I never suggested that most of the Divisions, even Manchester, hold my opinions. What I did suggest wa that it would have been more fitting had our JOURNA which is supposed to represent the views of our Associ tion, found out what are those views before giving i support to either scheme. Until the views of the Divisio have been ascertained it should have remained impartial.

I have no wish to descend to a *tu quoque* argument, b after what Dr. Greenwood says about "the relatio between names and things," it is extraordinarily u gracious that he should try to damn the Minority schem by labelling it "Socialism."—I am, etc.,

Manchester, April 18th. E. VIPONT BROWN, M.D.

SIR,—In answer to Dr. Hick's further letter, I think only fair to say that I fully realize the distinction betwee the conditions of life and medical practice in urban an suburban areas on the one hand, and rural districts on th other, and that the same standards should not be rigidl

applied to both. My provisional scheme was of course based on the former, which certainly includes by far the larger portion of medical practice in this country, and it is here the problem of the medical treatment of the poor is most urgently felt, and presses for solution. I am quite willing to leave the drawing up of a scheme for country districts to Dr. Hick or others better qualified than myself to speak on the subject.

I do not even wish to bind myself to any arbitrary details for town practice. My plea is rather that the principle of what may be termed individual or private sickness insurance as opposed to all forms of official or contract sickness insurance should be very carefully considered by the profession as being, in my opinion, the most satisfactory solution to all concerned.

I gather that Dr. Hick and most of the other medical men who have written on this subject (either through your columns or to me privately), as well as many others to whom I have spoken about it, are agreed as to the principle. If we can agree to the principle, the details can then be carefully threshed out in the Divisions of the Association. It is, however, important that no time should be lost in forming our opinions and taking the necessary steps to give effect to them, or the time for effective action may be lost.—I am, etc.,

Bowdon, April 18th. P. R. COOPER.

CHILD EMIGRATION.

SIR,—While another reform of the Poor Law is under discussion, I beg to suggest that the problem of poverty is almost entirely that of the dependent children—that is, of the children whose parents cannot afford to, or will not, maintain them properly (feeding, clothing, medical care, school, and trade education)—and the solution of the problem that of child emigration. The neglected children of this generation are the unemployed and unemployables of the next, the potential parents of the unemployed and unemployables of the next again. Moreover, they are the inevitable result of our failure to realize or insist that people possess their freedom to do the best they can for themselves in the individualistic State, on condition that they do not bring about poverty by begetting children they cannot entirely maintain—on condition, that is, that they observe the individualistic law of parental responsibility. Must we not, therefore, if possible, maintain the dependent children, and not leave them to be neglected under any deterrent system of relief?

To maintain them at home is impossible. A moment's reflection on the inevitably continuous increase of children to be maintained and continuous decrease of rich to be taxed must show this. They will naturally expect to be provided with work, certainly with maintenance, as they grow up. This popular proposal, in fact, is based on the old individualistic assumption that no man has a right to more property than his neighbours. Besides, its adoption would mean at best only a brief palliation of the chronic poverty evil. To individualists, therefore, it is both illogically and economically unsound.

To maintain them in the Colonies, however, is not only a possible policy, but in several important ways a highly desirable and attractive one. Is it not a fact of great significance that at a moment when our statesmen are desperately endeavouring by what are in effect "schemes of redistribution" to make more room at home for our struggling masses, the legislators of our too scantily populated Colonies should, for strategical as well as economical reasons, be eagerly encouraging British immigration? And are not our safety and well-being and theirs bound up together? Let us, then, adopt a policy of child emigration—a policy to seek out the neglected children, take them from their parents, send them to the Colonies, and maintain them there till they become self-supporting. Surely it were better to pay for their keep abroad for a few years, with every prospect of immediate happiness and of future independence and imperial usefulness, than maintain them at home, indefinitely and discreditably, simply to reproduce their unhappy kind. By such elimination—a regenerating elimination—of these potential parents of dependent children, the production of the latter would fall rapidly to the irreducible minimum; while the inability of parents to contribute as far as possible to the cost of emigration would discourage their birth in some cases and their neglect in others. A Poor Law system that embraced some such policy of child emigration would have the novel satisfaction of being really charitable—that is, of curing poverty as it relieved it. Money spent on what would in effect be the conversion of British slums into Colonial farm-cottages would surely be well and cheerfully spent, and the certain decrease in the annual sum required would be a recurring benediction on the good work that was being done—a work with encouraging promise in it of the continued imperial ascendancy of our race.—I am, etc.,

London, April 18th. BINNIE DUNLOP, M.B., Ch.B.

CARDIOLYSIS.

SIR,—Dr. Bewley's suggestive lecture in the JOURNAL of April 16th deserves careful attention. No fact in cardiac pathology is more generally recognized than that, in many fatal cases of valvular disease, the heart which has failed has done so with an amount of wholesome muscular texture at its command quite superfluous for the mere purpose of coping with what Dr. Bewley terms the "internal extra work" thrown upon it.

In discussing the causes of the exhaustion of muscular energy in such cases in the paper to which Dr. Bewley refers, I looked at the matter more from the sensory than the motor standpoint, as the distress of the patient was, in that case, chiefly of a painful character. I quite agree with him, however, that the motor aspect of the question is of greater importance than the manifestly sensory, and accept his lucidly stated hypothesis as a fuller explanation of one of the factors inducing cardiac failure in many such cases.

The importance of the recognition of the influence of this "external extra work," as Dr. Bewley puts it, upon the factors which collectively find expression in muscular cardiac action cannot be over-estimated, and measures which are calculated to spare the output of such energy are rationally indicated.

Among these a carefully calculated decostation by "cardiolysis," or preferably, as Mr. Thorburn terms it, "precordial thoracostomy," is one which I feel certain will be more frequently resorted to in time coming. In certain cases, indeed, it is a measure which outstrips any other in its beneficial effect.

The results observed to follow precordial thoracostomy in hypermyosis of the heart raise many interesting questions as to the essential nature of cardiac hypertrophy and action which cannot be discussed now, but which, without doubt, will come into prominence as our experience of this measure increases. Dr. Bewley's interesting remarks and the wider principle on which he acted in the case he reports encourage the belief that the measure he advocates is gaining ground in the sphere of practical medicine. It still needs some courage to advocate thoracostomy in eminently suitable cases which at the moment are not suffering acutely. The sudden death which at times overtakes such cases would, I believe, be rendered less probable were a timely operation performed.—I am, etc.,

London, April 18th. ALEXANDER MORISON.

CANCER OF THE RECTUM.

SIR,—I have read with interest both Mr. Swain's paper on this subject, which appeared in the JOURNAL of February 12th, and also my friend Mr. Swinford Edwards's letter, which appeared on April 16th.

I am very surprised to find that he institutes the comparison which he does between operations for removal of rectal cancer by the lower pelvic aperture and those which are performed through the abdomen or by the combined method—that is, the abdomino-perineal. In reality there is no comparison between them. It is obvious that every surgeon would prefer to remove those growths that are well within reach by the lower pelvic aperture.

The abdomino-perineal operation is designed to meet those cases in which no satisfactory removal can be effected below. In many instances the cases thus operated on are entirely out of reach of the finger when a rectal examination is made. I have now performed this operation seven or eight times, and I am surprised at the ease with which it can be done when once one has mastered its technique. I am confident that it will soon

take its place as a well recognized operation, and prove a formidable competitor, so far as mortality is concerned, with the older operation.—I am, etc,

London, W., April 18th. W. Bruce Clarke.

Sir,—Allow me to correct an error which I have just discovered in my letter on the above subject, published in the Journal of April 16th.

In the last paragraph but one I state that I have performed Kraske's excision 87 times, etc. The numerals have been transposed; it should be 78 times. Regretting the mistake, I am, etc.,

London, W., April 19th. F. Swinford Edwards.

MINER'S NYSTAGMUS.

Sir,—I unfortunately did not notice Dr. Carruthers's letter in the Journal of March 12th at the time. It would appear likely that an error of refraction would be a predisposing cause, whether one regarded the disease as a fatigue cramp or as a loss of co-ordination due to partial loss of fixation. But supposition and theory must bow to fact, and the fact is that errors of refraction are found among nystagmic miners in exactly the same proportions as among the rest of the population. Some of the worst cases I have seen have been emmetropic, and have shown no error of muscle balance, so we can only conclude that errors of refraction have nothing to do with the matter. This is not the place to discuss with Dr. Carruthers the etiology of the disease. He will find the whole question argued out in my paper on the subject in the *Ophthalmoscope*, to which I alluded in my article published on March 5th. At the end of this paper there is a full bibliography dealing with the subject. I would recommend him to read Dr. Reid's paper in *Brain*, and then to examine a long series of cases for evidence of muscle strain. The case published in the Journal of April 16th is almost positive proof that cramp of the elevators has nothing to do with the production of the disease. In this highly interesting case nystagmus only appeared when the miner looked *down*.—I am, etc.,

Kenilworth, April 19th. T. Harrison Butler, M.D.

THE CAUSATION OF SEX.

Sir,—This much disputed question has frequently been discussed in the Journal. A reference that appeared about a year ago reasoned that sex was due to a right and left ovary theory—ovulating at different periods and by knowing sex of last child, and thus knowing the ovary that acted, one could state the sex of the coming child by counting the periods that had passed till pregnancy. I have been giving some of my spare time to the subject for the last six years, and have been experimenting with various animals. Two years ago I had a large loft of pigeons at my disposal, and watched them during the mating season. Pigeons are monogamous, at least for one season; the cock pigeon chases the hen and treads the hen, going on doing so till an egg appears in the nest, and then he gives up his amorous discourse. I could bring about this sudden cessation of sexual excitement by simply placing a strange egg in the nest.

My attention was next drawn to the eggs. Each of them was marked so as to know the first from the second, and I watched them being hatched, ringing each bird. I found that invariably the first egg was always a hen and the second a cock. This I put down to the high sexual excitement of the cock bird during his first period of mating. During the last six years I have done on an average 120 cases (midwifery) each year; and, taking into consideration the sexual fitness, physique, and disparity of age of each individual concerned in these confinements, I have been able almost invariably to name the sex of each child before birth. The axiom which I have gone by is: where the male element predominates a female is born, where the female a male. I find that Havelock Ellis, in his *Study of British Genius*, says:

> It has occurred to me as possible that the disparity of age may be one of the factors in the marked prevalence of boys. On the whole it would appear, so far as evidence goes, that the fathers of our eminent persons have been predominantly middle-aged and to a marked extent elderly at the time of the child's birth, while the mothers have been predominantly at the period of greatest vigour and maturity.

Thus I have noticed that if an aged man marries a young woman, if there is any child it is always a male, to the disgust of near relatives if land is involved. After noticing the age disparity in human beings, I found the reason why I was sometimes wrong with the pigeons, as I had mated an old cock with a young hen. The same reasoning is used by breeders of cattle. Thus for fat purposes they use an Angus bull for one season only, and find he throws his own kind; if they use him for a second season, they know from experience that he will not throw what they want, but a cross-breed. Sometimes we meet with cases where the sexual instinct, physique, and disparity of age are not marked in either the husband or wife, but the male element predominates in such cases. Amongst families, a medical man frequently notices a long run of girls, some of whom owe their existence to the fact that the parents expected one of them would have been a boy; but in this case the male element has predominated throughout all the pregnancies. I have been only once mistaken as far as age disparity goes, and in that case a young girl produced twin girls to an old man, and I consoled myself by the theory that two females were pretty nearly equal to a male.—I am, etc.,

Joseph Stark, L.R.C.P.Edin.

Kilmacolm, Renfrewshire, April 16th.

CONSULTANT, GENERAL PRACTITIONER, OR HALF-AND-HALF?

Sir,—There is an ethical rule which ought to be binding on every member of the profession—namely that no medical man, save in emergency, shall see and prescribe for a patient who is under treatment by some other medical man, except with the knowledge and sanction of the latter. Pure consultants and general practitioners obey this rule, but the half-and-half fraternity try to excuse their breach of it by the suggestion that they are acting in the interest of the patient. Such a plea is easily disposed of, thus:

1. In almost every case except the most simple it is impossible in the short space of twenty minutes or so to get a full and correct history of the case and the patient's habits, etc, to examine him thoroughly, test the urine, make a diagnosis, write a prescription, and give full directions as to diet and other important matters. We all know how notoriously inaccurate most patients are as to their habits and history, and therefore one need not wonder at the frequent mistakes that are made by the "half-and-half." On the other hand, if the man in charge had either seen or written to him, he would at any rate have started with a firm foundation on which to build his opinion.

2. Having got his prescription, the patient is in a quandary. Shall he take the medicine prescribed only and pretend to go on taking that sent by his own doctor, or shall he take both? In either case his own doctor is puzzled, and the more so if the "half-and-half" has made a mistaken diagnosis and prescribed something totally inappropriate. Does "Est Modus in Rebus" consider this sort of thing—and it frequently occurs—in the "best interest" of the patient either as regards his health or his pocket? In many cases the patient tardily confesses, and is forgiven for the deception on the ground that he has suffered sufficiently for his folly. In other cases, where the man in charge finds out the facts for himself, he very properly retires from the case, and refers the patient to the "half and-half" who has been the cause of the trouble.

Many of the "half-and-half" class adopt the more straightforward method of immediately writing to the man in charge, stating their opinion and idea of treatment, but such a system is unethical all the same. The man in charge should have an opportunity beforehand of either approving of the consultant or retiring from the case. It is also against the best interests of the patient, because the consultant cannot get a correct history. Moreover, the general practitioner, who may be an older and more experienced man than the consultant, although the latter is on a hospital staff, may reply that his patient and not he sought advice, and that the consultant's diagnosis is wrong, owing, among other things, to his ignorance of material facts in the history. In such a case it will be a serious disadvantage to the patient if the only

ıan who understands his true condition should elect to etire or be asked to retire from attendance.

I am no advocate for the restriction of the liberty of the atient; thus:

1. He may have a family doctor, but he is not obliged go to him for every illness, though of course it is wise do so; and the family doctor has no right to be offended he goes elsewhere, unless it be without notice while nder treatment.

2. He may change his doctor while under treatment, but ust notify the man in attendance before doing so.

3. While under treatment he may at any time request consultation either with a consultant, a half-and-half, or general practitioner, and the man in attendance must gree to such a course or retire from the case.

But he must not on any account be under the treatment two men independently at the same time, and the pro-ssion has clearly studied the best interests of the patient making such a ridiculous and dangerous course unethical.

-I am, etc,

April 16th. General Practitioner.

Sir,—In this controversy we must all endeavour to ppreciate, as "Est Modus in Rebus" urges me to do, that the medical man's chief object is to study the best ıterest of his patient." But the question immediately ises, whose patient is it that we are studying, and what e his best interests?

One serious objection to the half-and-half principle is ıat half the time the half-and-half consultant is con-dering without consultation the interests of some one se's patient, and is thereby often failing to secure the est interests of anybody.

But even granted that the independent treatment of ıother man's patient by a consultant of the highest ıility may in some cases secure at the moment the best ıterests of the particular patient thus treated, I would aintain most strongly that this does not justify the con-nuance of a system of practice which is detrimental to ıe best interests of the general body of patients needing edical treatment. The same argument might be used—deed, is used by many—to justify indiscriminate charity beggars in the street and the disgraceful chaos of our esent system of out-patient medical relief. For the oment the philanthropist is serving the best interests of hungry man or an impoverished invalid, but at what a ıst to progressive civilization!

And what is the cost the public has to pay for the right, hich "Est Modus in Rebus" willingly accords it, "to nsult any specialist or consultant and be treated by m for any trouble which is not being treated by another actitioner"? For all practical purposes this of course eans the right of independent treatment by the con-ltant at all times, inasmuch as "being treated by ıother practitioner" is a condition which can be deter-ined by the patient at any moment. The cost of this ght is without doubt that a very large number of patients ho would certainly profit by it are deprived of the advan-ge that would accrue to them from a consultation. No ıe can blame a general practitioner for being indisposed call in a consultant when he knows that this consultant raised by this act in the eyes of the patient and his iends upon a higher plane than his own in the profes-on, and will not hesitate to take advantage of his posi-on as a competitor for practice, with the single exception at he will not in the future treat the patient on whom e consultation is held. Years ago the legal profession cognized this difficulty, and secured for the public abso-te freedom of consultation on their behalf between licitors and barristers by an unwritten law restrain-g the lawyer consulted from competition with the wyer seeking consultation. The absence of such striction in medicine is a serious hardship to the ıblic, and will be increasingly felt as the develop-ent of specialism makes further progress. If we have ıt a sufficiently strong governing body in our profes-on to secure for the public the advantages which are fered to them in this respect by the lawyers we may least hope that our well-recognized disinterestedness ill lead us to adopt similar tactics on a voluntary basis. so doing we must be prepared to disappoint individual patients, and cause some inconveniences, which will, however, become less as our reformed methods become understood and appreciated.

I now turn to "Est Modus in Rebus's" answer to one out of the fourteen questions I asked in my last letter. I tried to find out on what principle half-and-halfers (which *pace* "Est Modus" I would ask to be allowed to use as a designation for those consultants who undertake independent practice on certain terms in their own consulting rooms) would not undertake independent practice within the patient's home. "Est Modus in Rebus" tells us that it is because the man at home is "necessarily under the treatment of a general practitioner, and it would obviously be wrong to see the case except in consultation with the regular attendant."

The "necessarily" I am not quite sure about, the "obviously" I agree to; but to me it obviously has wider application, if by wrong one means not criminal or immoral, but improper from the point of view of securing the best interests of patients as a class and amicable professional relationship. In the end there seems to be no difference in principle between seeing patients at home and in the consulting room; but "Est Modus in Rebus" states that "not to visit a patient at his own home except in consultation with the general practitioner is found to be the best working plan; and if consultants would strictly observe it there would be little ground of complaint against them of poaching." This statement impels me to ask in a somewhat different form a question I asked before. Would not the ground of complaint be small merely because the poaching could not easily be recognized?

For I would like to express the opinion that an enormous amount of poaching which is unrecognized by themselves or even by the patients' usual doctors is carried on by half-and-halfers in their own consulting rooms. No one who has not systematically refused to treat patients except in co-operation with the usual medical attendant to the stage of absolutely dismissing them if they will not accept these terms can have any idea of how common it is for patients who at first deny having any attendant, ultimately to remember not only his existence, but that they are actually under his treatment at the time.

It is for this reason that I am confident that no permanent success is likely to attend attempts to discriminate in our methods of dealing with patients between those who have and those who have not usual medical attendants, or between patients who are and are not, or who have and have not been, during an existing illness, under the care of any practitioner.

No doubt an honest attempt at such discrimination would be beneficial to amicable professional relations, and would be a step towards the adoption of the position of pure consultants by an increasing number of medical men.

I must confess that I am not much impressed by the examples of the terrible results following attempts on the part of consultants to play the game which are quoted by "Est Modus in Rebus." Such tales have for long been the commonplace of those who desired to find some excuse for taking on other men's patients without saying anything about it. To me they are the surest evidence that the methods of co-operation which ought to exist between the two branches of the profession are faulty—strained relations bring out men's bad qualities—and they supply one of the best reasons for the modifications which "Enquirer" suggested were desirable, and which "Est Modus in Rebus" treated with so much scorn.

In conclusion, it is asked, "What should be done by the pure consultant when a patient comes from overseas for special advice?"

It really makes no difference whether the patient comes by sea or by land; whether he asks you to come to him or comes to you; whether he is sent by his doctor or comes on his own. If once one makes up one's mind not to undertake treatment except in co-operation with a general practitioner, these supposed difficulties in special cases do not arise. The actual nature of the professional co-operation may vary with the proximity of the medical attendant and the nature of the case, but the principle underlying all cases is the same, and difficulties vanish as you meet them.—I am, etc.,

London, W., April 18th. Professional Union.

THE MEDICAL SERVICE OF THE TERRITORIAL FORCE.

Sir,—As a Territorial medical officer the letter entitled "The Medical Service of the Territorial Force" is somewhat interesting to me. I cannot agree with much that "Fair Play" says, as his command is to my mind certainly not a large one; even assuming that three field ambulances and one cavalry field ambulance be added up with a general hospital—the whole number do not muster the strength of one battalion of infantry.

The A.M.O.'s work is usually, to a large extent, handed to his staff officer, R.A.M.C., and only matters of great importance are brought to the notice of the Administrative Medical Officer.

I agree with all the remarks made as to the School of Instruction, and think that in country districts there is great room for improvement here, as to a large extent it exists only on paper, so far as its uses (as laid down in Territorial Force Regulations) to the medical units and regimental officers are concerned.

"Fair Play" is not quite correct in his statement of duties at the bottom of page 967. Appointment of regimental medical officers has to be made on recommendation of the C.O. Unit, through the County Association, vide para. 20, T. F. Regulations.

The arrangements for examination of N.C.O.'s and men is made between the Adjutant of "School" and O.C.'s Units concerned subject, of course, to formal consent of A.M.O. Training of sanitary police and water duty men is entirely done under O.C.'s medical units. The arrangements for attendance at camp O.C.'s medical units again know to their sorrow that the A.M.O. is not unfortunately able to help them in this very heavy task.

I think if any more money is to be handed over to the medical department officers, commanding medical units should be the first to get assistance. They have correspondence with most of the officers named by "Fair Play," and with their own sections, no adjutant to fall back on for assistance as in the case of combatant units, and also the training of their own officers, and arranging and supervising that of the N.C.O.'s and men.

Further, he has the *privilege*, which "Fair Play" has not, of putting his hand into his pocket to support his own unit to the extent of £30 or more a year—I am, etc,

April 15th. Fair Play Secundus.

THE LATE DR. T. D. SAVILL.

Sir,—In view of the valuable work which was done by the late Dr. Savill in connexion with nervous diseases, a scheme has been inaugurated, in furtherance of a wish frequently expressed by him during his life, to found a scholarship at the West End Hospital for Diseases of the Nervous System.

A considerable sum has already been received, and any further donations from professional friends and others will be gratefully accepted. Contributions should be sent addressed to Savill Memorial Fund, London County and Westminster Bank, 1 Connaught Street, Hyde Park, W.—We are, etc.,

Harry Campbell,
J. Henry Chaldecott,
George Davis,
Honorary Trustees to the Fund.

April 20th.

The Belgian Government has given £40,000 to defray the cost of a scientific expedition to Africa for the investigation of sleeping sickness.

The Ordine dei Medice of Rome at a recent meeting decided to institute a black list of persons euphemistically styled *clienti morosi*—that is to say, patients who are backward in paying fees for medical attendance. This list will be open to the inspection of all members.

Under the auspices of the Reading Pathological Society a lecture was given by Mr. Stephen Paget on April 14th in the Town Hall, Reading, before an appreciative audience, on the subject of what we owe to experiments on animals. The lecturer, who was introduced by Dr. Hurry, the president of the society, described in a graphic manner the great strides that had been made in the knowledge of disease during recent years owing to experimental methods of investigation. At the conclusion a local branch of the Research Defence Society was formed, with a strong list of names, both medical and lay, as a provisional committee.

Medico-Legal.

UNQUALIFIED DENTISTS.

On April 16th the case of Bellerby *v.* Heyworth was argued and decided in the House of Lords. An important question was raised as to the meaning of the words "specially qualified" which occur in the Dentists Act, 1878. An action was brought by the appellant as partner in a firm carrying on the business of extraction and adaptation of teeth. The main question was whether by affixing and keeping fixed upon the partnership premises the following notices—namely, "Bellerby, Heyworth and Bowm. Finest artificial teeth. Painless extractions. Advice free. Mr. Heyworth attends here,"—the respondent acted in contravention of Section 3 of the Dentists Act, 1878. Neither the appellant nor the respondents were registered, and the articles of partnership provided that if at any time during the continuance of the business any of them should take or use in any way whatever any name, title, addition, or description or otherwise do anything which shall have offence and in contravention of the Dentists Act, 1878, the other partner might give notice to determine the partnership. The material section of that Act provides that no unqualified person may "take or use the name or title of 'dentist' (either alone or in combination with any other word or words) or of 'dental practitioner' or any name, title, addition, or description implying that he is registered *or* that he is a person specially qualified to *practise dentistry*." It was contended on the part of the appellant (who had given notice to dissolve the partnership) that the words "specially qualified" merely implied general competence and ability, and not the possession of any professional qualification. The Divisional Court, in the case of *Barnes* v. *Brown*, 25 T.L.R. 3, had decided that this was the meaning of the words, but the Court of Appeal in the present case had overruled *Barnes* v. *Brown*.

The Lord Chancellor said that in his opinion the decision of the Court of Appeal was right. In his view, having regard to the preamble to the Dentists Act, the words "specially qualified" did not simply imply that the person using them was a competent and skilled person. The Act did not prohibit a man from practising dentistry, or from the employment of self-laudatory language; but it did prohibit the use of language which implied the possession of the qualifications which would entitle to registration.

The appeal was accordingly dismissed.

Public Health AND POOR LAW MEDICAL SERVICES.

SANITATION AND WATER SUPPLY IN WALES.

Welsh M.O.H. and D.P.H. writes: It came as a great surprise to me to read in the "Medical Notes in Parliament" that the President of the Local Government Board should have given the answer he did to a Welsh member—apparently because of his uncertainty. It was always thought that the "Board" above" were supreme in what they had already sanctioned to carry out schemes, and to do more than to "urge and encourage local authorities to carry out such schemes." This goes for nothing with unwilling authorities, and is very contradictory to the spirit of the paragraph in the directions for making up annual reports, which says that all former recommendations are to be renewed.

THE PLAGUE.

Prevalence of the Disease.

Russia.

In the Astrachan district between December 5th, 1909, and February 6th, 1910, the fresh cases of plague numbered 223 and the deaths from the disease 202.

In the Ural district during the same period the fresh cases of plague numbered 171 and the deaths from the disease 157. On January 7th plague was reported from Dschedda.

South America.

Brazil.—In Bahia, Sao Paulo, Rio de Janeiro, Pernambuco, and Manaos cases of plague were found between November 1st, 1909, and January 31st, 1910; but in every district only sporadic cases occurred. The total cases reported were under 30.

Ecuador.—In Guayaquil a severe epidemic prevailed during October, November, and December, 1909, and January, 1910.

Venezuela, Chili, Peru, and Paraguay were all infected with plague to a slight extent during the last months of 1909 and the first months of 1910.

Obituary.

JOHN SMITH, M.D., F.R.C.S.E., F.R.S.E, LL D., etc.,

SURGEON DENTIST TO THE LATE QUEEN VICTORIA, EDINBURGH.

We regret to have to record the death of the veteran Dr. John Smith, at his residence in Edinburgh, on the afternoon of April 15th. He had been in failing health for some time, but the end came somewhat unexpectedly. His son-in-law and partner, Dr. Guy, had left that morning for London, not then expecting the end.

John Smith was the son of Mr. John Smith, surgeon dentist, of Edinburgh, and was born in that city in the year 1825. After his school education at the Edinburgh Institution, he turned to the study of medicine, graduated M.D. in 1847, and in the same year took the L.R.C.S.Ed. Later, in the company of his lifelong friend, Henry D. Littlejohn, he pursued his studies in London and Paris. During the revolutionary turmoil of 1848 in the streets of Paris the two young Edinburgh doctors gained an extensive knowledge of gunshot, bayonet, and sword wounds, which Littlejohn turned to good purpose in his later career as Crown Adviser. Smith made many drawings of these wounds, and on his return home placed them at the disposal of his old friend and teacher, Professor James Spence, who found them of great value in his teaching.

Photograph by JOHN SMITH. [*Swan Watson, Edinburgh.*

On his return to Edinburgh, Dr. Smith continued to be an enthusiastic student. He acted as prosector to Goodsir and Edward Forbes. During the third European invasion of cholera in 1854–57 — the invasion from which the army of the Crimea suffered, and during which the agency of water in cholera diffusion was clearly established — Dr. Smith gave his services as Clinical Clerk in charge of fever wards in the Royal Infirmary. Smith all through his career showed himself a many-sided man, and he was so in these early days. He assisted the late Dr. Graham Weir, then a noted accoucheur; at another time he acted as temporary Surgeon of Police.

On the death of his father he resolved to take to dentistry as his life-work, and very soon he was the leading dentist in Edinburgh. Ever keen and enthusiastic as regards his profession, he saw the need of systematic instruction in the dentistry department of surgery, and in 1856 he gave a course of lectures on dental anatomy and surgery in the Royal College of Surgeons. In 1857 he was appointed Surgeon-Dentist to the Royal Public Dispensary, and in 1858 he began the Edinburgh Dental Dispensary in Drummond Street, afterwards moved to Cockburn Street, later to Lauriston Lane, and finally expanded into what is now the Edinburgh Dental Hospital and School, an institution now second only, as to the number of students, to the Royal Dental Hospital of London. He was thus the founder of the Dental Hospital, and till the very last he was invariably present at the annual meeting and the students' reception. Nor is that his only claim to gratitude. In his modest note of himself in *Who's Who* he says he was a promoter in founding the Royal Edinburgh Hospital for Sick Children in 1859. As a matter of fact he may with truth be said to have been the originator of that hospital, for it was a letter of his in *The Scotsman* that first drew public attention to the need for such a hospital, and induced the philanthropic to provide means for its beginning. He took a life-long interest in his foundling, and at the time of his death was Consulting Dental Surgeon to it. In his own department he took a chief part in attaining a dental diploma, and in getting the Dentists' Act of 1878 passed into law.

At various times he was President of the Odonto-Chirurgical Society, the British Dental Association, and of the Edinburgh Medico-Chirurgical Society, and he contributed many important papers to the proceedings of these societies. He was twice President of the Harveian Society.

For many years he was a member of the President's Council of the Royal College of Surgeons of Edinburgh, and he was an Examiner for the Triple Qualification, for the Fellowship, and for the Licence in Dental Surgery. At the time of the Tercentenary Celebration of the University of Edinburgh in 1884 he was President of the Royal College of Surgeons, and in that year received the honorary degree of LL.D. from his university. He was devoted to his college and it to him. He was its most popular and most loved Fellow. In 1905 he wrote the Quatercentenary History of the College.

He was the first Dental Surgeon to the Royal Infirmary, the Royal Hospital for Sick Children, and to the Edinburgh Deaf and Dumb Institution, and at the time of his death he was Consulting Dental Surgeon to all three institutions.

In the early days of surgical anaesthesia Dr. Smith was one of the first to practise the administration of ether for surgical and dental operations, and to follow the lead given by Simpson in his advocacy of chloroform as a general anaesthetic. His services as an anaesthetist were at that time frequently requisitioned by Simpson and the other surgeons of the day. He contributed a periscope on ether and chloroform to the *Edinburgh Medical Journal* so long ago as 1855, and afterwards wrote papers on the risks of asphyxia and syncope, and the importance of the recumbent position in anaesthesia from these general anaesthetics, as well as many others dealing with his own speciality and the medical and surgical topics cognate thereto.

In 1871 he published a *Handbook of Dental Surgery*. Besides that he made various contributions to the Royal Society of Edinburgh, to the Edinburgh Medico-Chirurgical Society, as well as medical and literary journals.

In August, 1898, Dr. Smith wrote:

> The distinguishing characteristics of Edinburgh are in many respects unique. In the poetic grandeur of its memories and associations; its stirring, brilliant days; its timeworn, but never-to-be-forgotten tales and incidents; its past and present delightfully confronting each other across the dell where once slept the old Nor' Loch. . . . Another circumstance, and one peculiarly characteristic of Edinburgh, constitutes a further factor which has largely and undeniably conduced within not much beyond a century to promote the spirit of song-writing among its medical practitioners, and that is the existence of its social medical clubs. . . . Of the purely medical clubs, those most prolific in original songs and verses by the members, seem, up to the present day, to be the Aesculapian and the Medico-Chirurgical.

John Smith was one of the most notable song-writers of these clubs, if not the most notable of all. If one refers to *College Lays, Songs of the Edinburgh Angling Club*—

which had its home at the Nest, on the Tweed at Caddonlea, with Ashiestiel opposite—*The Students' Song Book, Nugae Canorae of the N.T.D.*, the minutes of the Aesculapian (founded in 1773), of the Harveian (founded in 1782), the Medico-Chirurgical Club (founded in 1822), the Round Table Club, or the Royal Society Club, John Smith will be found *primus inter pares*. For in song writing he was not only *maximus*, but we sadly fear he was *ultimus Romanorum*. "Our ever green bard and songster," Dr. Joseph Bell called him in his Harveian Oration of 1897. Of the Aesculapian and Medico-Chirurgical Clubs he was Secretary for almost a quarter of a century. In *College Lays* "The Clinical Examination"—which is now rightly described as a medical classic—"The Accoucheur," "The Irish Medical's Complaint," and other twenty-two songs appear from his pen. Next to these in interest and popularity is "The Bilin' o' the Milk when the Kye come Hame," sung at the annual dinner of the Royal College of Physicians, and published in the BRITISH MEDICAL JOURNAL, 1898, vol. ii, p. 1890. It was his last song. The *Songs of the Edinburgh Angling Club* contains six from his pen. Some have never been printed. During the last few years the writer has often urged Dr. Smith to collect his songs and issue them in a volume. They would have been a valuable contribution to the medical history of Edinburgh. "I am too old now for that sort of work," he would say at one time. At another, "Perhaps I will if you will help me." Alas! it was never done. The last time the writer met him he said, "No; I haven't forgotten your wish."

Then, too, he could have done what no one now living in Edinburgh could: he could have written a valuable and charming history of medical Edinburgh. He has left brief indications of what only he could have done in his *Records of the "Aesculapian"* and *Records of the Medico-Chirurgical Club*, both privately printed in 1888, and in Edinburgh Medical Clubs: Their Songs and Song Writers, published in *The Scottish Medical and Surgical Journal* in August, 1898.

Nor was his writing confined to medicine, to songs, and to history. He was still more versatile. Three of the best pantomimes produced in Edinburgh by his friend Mr. Robert Wyndham were from his pen. He wrote, too, the dramatized version of *Waverley* for the Scott Centenary. He was profoundly interested in British drama, and he had seen, heard, and known very many of the noted actors and musicians of the nineteenth century. He was himself an accomplished musician, was a member of the old St. Cecilia Society, the Amateur Orchestral, and the St. George Quartette. He had marked talent as a draughtsman and painter in oil and water colours. During the last two years of his life he painted two large historical subject pictures dealing with incidents in the life of Mary Queen of Scots.

His recreations, he said, were "painting and music, the occasional writing of songs, verses, and dramatic contributions, and much pleasure in fishing and shooting." The "Nest," the home of the Edinburgh Angling Club, was at its best composed of men who were nearly all literary, artistic, or musical, and, as he said, nearly all seemed "to have caught the inspiration of the Wizard of the North."

He was a delightful man, widely gifted as we have seen, amiable, charitable, wise, and courteous, and strongly dominated by the saving grace of humour. Everybody admired him, everybody loved him. He had no enemies. His many friends will ever hold him in affectionate remembrance. He celebrated his golden wedding five years ago, and he is survived by Mrs. Smith, three sons, and two daughters.

In politics he was a Conservative. In religion he was a strong admirer and adherent of the Church of Scotland, and for many years had been Senior Elder of the Parish Church of St. Andrew. He was a member of the Household of the late Queen Victoria, in his capacity of Surgeon-Dentist to the Queen for Scotland.

ARTHUR BLAIR AVARNE, M.R.C.S., L.S.A.,

SURGEON, PONTYPOOL HOSPITAL.

AT the comparatively early age of 48 Dr. Arthur Blair Avarne, of Blaenavon, Monmouthshire, died in Pontypool Hospital on April 10th, two days after an operation for intestinal obstruction, which proved to be due to an irremovable growth. Dr. Avarne, though born in New Zealand, had lived in England from early childhood and received his general education at King's College, London. After studying for some three years at the School of Mines, South Kensington, he became a medical student at the London Hospital; he took the diploma of L.S.A. in 1886, and that of M.R.C.S. Eng. in 1888. After acting for a time as an assistant in London and Derbyshire, he settled down in Blaenavon in succession to the late Dr. Martin Quirk. His connexion with Blaenavon lasted some twenty-three years, during the whole of which he led a very active existence. In addition to private practice and his work as one of the surgeons of the hospital in which he died, he was Medical Officer of Health and Public Vaccinator, Blaenavon, and Surgeon to the Varteg Hill Colliery and the Great Western Railway. As a mining student he had become unusually proficient in chemistry, and as a Fellow of the Chemical Society maintained his interest in that branch of study. He was an active and valued member of the British Medical Association, and until comparatively recently was Honorary Secretary of the Eastern Valleys Medical Association. He was Vicar's Warden at St. Paul's Church. His last illness and funeral brought forth notable evidence of the esteem and respect which his life had won for him among his fellows. Prayers were offered for his recovery on the Sunday of his death in nearly all the churches of Blaenavon irrespective of denomination, while his funeral was attended by special representatives of many of the public bodies with which he had been directly and indirectly connected. Dr. Avarne was married, and is survived by his wife and two children, one of whom has commenced the study of medicine at his father's old school, the London Hospital.

EDWIN JOHN HUNTER, L.R.C.P., L.F.P.S.G.,

M.O.H. GOSPORT AND ALVERSTOKE.

ON April 13th Dr. E. J. Hunter of Gosport passed away in the 61st year of his age, at the end of an illness of some months' duration. A Gosport man by birth, it was in

Gosport that Dr. Hunter spent the greater part of his professional life, and despite his long partial seclusion he will be painfully missed in the public life of the district and by many old friends. He received his professional education at Anderson's College, Glasgow, becoming L.F.P.S. in 1875, and L R C.P.Edin. three years later. He became medical officer of health for Gosport and Alverstoke about twenty-two years ago, his tenure of the medical officership for the town district of the Union dating back to much the same period. Other appointments he held were those of Superintendent of the Isolation Hospital, erected at Elson in 1899, and the Surgeoncy of the Alverstoke Division of the Hants Constabulary. In addition, he carried on a large private practice, and acted as Surgeon to the Gosport Volunteer Fire Brigade, the foundation of which was largely due to his efforts. He was a member of the British Medical Association and a frequent attendant at the meetings of the local Division. Other professional societies to which he belonged were the Incorporated Society of Medical Officers of Health and the Royal Sanitary Institute. At the time of the creation of the Territorial Force he was an officer of long experience with the volunteers, and was naturally selected to organize and command the 5th Southern General Hospital with the rank of Lieutenant-Colonel and Honorary Surgeon-Colonel. He held the Volunteer Officer's Decoration, and during the South African war was in charge of the whole of the troops in the Gosport district. He was also appointed a Knight of the Cross of the Order of St. John of Jerusalem, in acknowledgement of his long and useful labours on behalf of the St. John Ambulance Association. He was Chairman of its Gosport and Alverstoke centre, Medical Officer to the Brigade, and for many years a lecturer and examiner. His professional relations with his colleagues were of the pleasantest character, his attainments and ethical views and practice being of a high order, while in disposition he was generous and kind-hearted. He was a man, in short, who thoroughly deserved the position in public and private esteem which he had attained and whose death spells in consequence a real loss to the district. He was predeceased by his wife, a daughter of the late Major-General Wyatt, of Horsted Keynes.

MR. ALFRED FORREST, M.A., M.B., M.C.Glasg., died on April 6th at the early age of 42. He was Medical Officer of Health and School Medical Officer for the borough of Bridlington, Yorkshire, and Medical Superintendent of the Sanatorium. On the staff of the Lloyd Hospital, and connected with various friendly societies, he was well known in his immediate neighbourhood. A quiet painstaking man of unassuming demeanour, he was much liked and highly respected. He will be greatly missed from his social and professional circle, and by the poor of the town. He leaves a widow and two young children to mourn his loss.

Universities and Colleges.

UNIVERSITY OF GLASGOW.

THE following candidates have been approved at the examinations indicated:

FIRST M.B., CH.B. (B., Botany; Z. Zoology; P., Physics; and C., Chemistry).—G. K. Allan (Z., C.), J. M. Anderson (P., C.), R. Armstrong (Z., C.), G. F. Barr (Z., C.), A. D. Blakely (C.), A. Blashky (Z.), *R. W. Brander (Z., C.), W. H. Brown (Z., C.), W E. A. Buchanan (Z., C.), J. W. Burton (P.), James Campbell (Z., C.), John Campbell (B., P.), J. A. Chrystie (C.), A. La B. Clark (B., P.), A. Climie (Z., C.), G. G. Cooper (P., C.), J. P. Crawford (Z.), W. Cullen (B., P.), W. T. Currie (Z., C.), F. V. Daeblitz (B., C.), G. D. de Kock (B., P.), M. Devers (P.), T. I. Dun (B., C.), D. Ferguson (Z.), J. B. Fotheringham (C.), W. Gibson (Z.), T. Gilchrist (B., Z., C.), *J. A. Gilfillan (Z., C.), P. Gordon (Z., C.), R. M. Greig (Z., C.), A. H. Hall (Z., C.), E. G. S. Hall (B., P.), D. C. Hanson (Z.), D. Hardie (Z.), F. L. Henderson (Z., C.), R. Isbister (Z.), W. Y. Jamieson (B., P., C.), A. C. Jebb (Z., C), *D. Johnston (Z., C.), D. R King (B.), W. F. Kivlichan (Z.), H. Lang (Z., C.), A Lindsay (B.), R. Lyon (B., P.), D. M'Alpine (B.), D. S. M'Bean (Z., C.), G. M'Callum (Z., C.), *A. M. M'Cutcheon (Z., C.), D. F. Macdonald (Z., C.), J. W. Macdonald (Z., C.), *J. B. M'Dougall (Z., C.), G. J. M'Gorty (Z., C.), *C. R. M'Intosh (Z., C.), D. M'Intyre (Z., C.), D. M. M'Intyre (B., P., C.), J M. Mackay (Z., C.), D. Mackie (B. Z.), P. S. Mackie, (Z., C.), N. MacLeod (B.), F. W. M'Millan (Z., C.), R. M. M'Minn (B., C.), D. M'Neill (Z.), J. K. Manson (B., P.), W. Martin (Z., P.), W. M. Matthew (Z.), W. J. May (Z.), W. Meikle (Z., C.), A. D. Moffat (Z., C.), *J. W. Moffatt (Z., C.), T. F. Noble (B.), T. A. O'Brien (C.), J. Paterson (Z., C.). *W. L. Peacock (Z., C.), A. Picken (Z., C.), J. S. Prentice (Z.), F. P. Rankin (Z., P.), A Rankine (P.), R. C. Robertson (Z., C.), Stanley Robertson (Z., C.), Stuart Robertson (Z., C.), S. D. Robertson (Z.), G W. Ronaldson (B., C.), R. Rowan (Z., C.), A. Scott (Z., C.), J. R. Sinclair (Z., C.), N. M'C. Smith (Z., C.), J. B. Stevens (Z., C.), J. S. Stuart (B., Z., P., C.), *R. Tennant (Z., C.), C. R. T. Thompson (C.), R. M. Thomson (Z., P.), R. N. Thomson (Z.), J. Vallance (Z., C.), C. J. van Lingen (B.), J. Walker (Z., P.) R. B. Wallace (B., P.), H. C. Watson (Z., P., C.), J. A. White (B., P.), *C. A. Whittingham (Z., C.), *J. B. Williamson (Z., C.), R. H. Williamson (C.), J. G. Wilson (B., Z.), T. R. Wilson (P.), J. Wylie (Z., C.), T. W. Wylie (Z., C.), A. Young (B., Z., P.), J. M. Young (B., P.).

Women.—D. F. Curjel (Z., C.), M. M. Curtis (P.), E. W. Gompertz (Z., C.), L. B. Hardie (B., P., C.), F. S. Kirk (Z., C.), *G. Montgomery (Z., C.), J. L. Munro (Z., C.), *S. A. Watson (Z., C.), G. B. Whish (Z., C.), M. Wilson (Z., C.), M. F. Wood (C.).

SECOND M.B., CH.B. (A., Anatomy; P., Physiology; M., Materia Medica and Therapeutics).—W. L. Anderson (P.), J. Angus (A.), *R. A. Barlow (A., P.), J. G. Becker (A., P., M.), S. Blumenfeld (A., P., M.), V. Borland (A.), A. Brown (A., P., M.), R. A. Brown (P.), W. Brown (P., M.), J. S. Buchanan (A., P., M.), W. M. Buchanan (M.), E. T. Burke (P.), J. J. Burke (P., M.), J. Cameron (P.), N. Cameron (P.), W. L. Cassells (A., P.), J. A. J. Conway (A., P.), R. Craig, M.A., (A., P.), D. A. Cush (P.), G. Dalziel (A., P.), A. H. Davidson (P., M.), *W. C. Davidson (A., P.), W. T. Davidson (A., P., M.), J. H. Dible (A., P.), *J. Dickie (A., P., M.), *W. B. Drummond (A., P., M.), R. Findlay (A.), J. M. Forsyth (P.), W. Forsyth (A., P., M.). J. E. Fyfe (A., P., M.), A. R. H. Geyer (A.), J. J. Gibb (A., P., M.), A. M. Gibson (A., P., M.), A. Glen (A., P., M.), L. Glushak (P.), J. M'F. Grier, M.A. (P., M.), J. A. Harper, M A. (A., P., M.), D. C. Hayes (A., P., M.), J. W. W. Hewitt (P., M.), A. J. Joubert (A., P., M.), F. A. Kerr (M.). C. J. Kirk (P.), R. P. A. Kirkland (A., P., M.), J. A. Kruger (A., P.), N. V. Lothian, B.Sc. (M.), C. Lundie (A., P.), J. R. M'Curdie (P., M.), C. A. M'Guire (A., P., M.), G. D. M'Lean (A., P., M.), J. M. Macpherson (A., P., M.), J. H. Magoveny (P.), M. Manson, M.A. (M.), T. Martin (A., P., M.), J. Mitchell (A.), W. Montgomery (P., M.), M. Murphy (P., M.), H. L. Neil (M.), J. B. Orr, M.A. (A., P.), R. Parker (M.), A. Peden (P.), J. C. Pyper (A., P., M.), J. F. Quigley (Lambhill) (M.), D. W. Reid (A., P.), J. R. R. Ritchie (A., P.), A. L. Robertson (A., P.), J. G. M'G. Robertson (P.), *J. H. Robertson (A., P.), J. I. Robertson (A., P., M.), A. W. Russell (A., P.), S. Rutherford (A., P., M.), T. Sherar (P., M.), J. F. M'G. Sloan (P., M.), J. Smith (A.), A. R. B. Soga (A., P., M.), M. Somerville (A.), G. Stevenson (A., P., M.), J. A. Stewart (A., M.), R. Stewart (A., P., M.), W. P. A. Stewart (P., M.), W. Taylor (A., P.), W. R. Taylor (A., P.), J. C. T. Teggart (A., P., M.). E. G. Y. Thom, M.A. (A., P.), A. Walker (A., P.), J. C. Walker (A.), *T. Walmsley (A., P.), T. Waterhouse (A., M.). G. M. Whish (A., P., M.), M. White, M.A. (A., P.), W. H. N. White (P.), W. Whitelaw (A., P., M.), *W. B. Wilson (A., P., M.), W. F. Wood (P.), W. P. Yates (A., P., M.).

Women.—C. S. T. Anderson (P.), J. M. Davidson (A., P.), M. L. Kirkwood (A., P.), B. Macgregor (M.), H. B. Orr (M.), L. M. Ross (M.), I. J. Stark (M.), P. Stewart (P.), J. M. Walker (A.).

THIRD M.B., CH.B. (P., Pathology; M., Medical Jurisprudence and Public Health).—*J. W. Anderson (P., M.), C. Averill (P., M.), T. S. Barrie (P., M.), W. E. H. Beard (P.), J. Bower (M.), C. Brash (M.), D. S. Brough (P., M.), A. H. Brown (M.), *J. T. Brown (P., M.), A. D. Buchanan (M.), *C. Cameron, M.A. (P., M.), J. Campbell (P., M.), R. C. Corbett (P., M.), P. Drummond (P.), A. M. Dunlop (M.), K. Falconer (P., M.), J. Findlay, M.A. (P.), H. Forrest (P., M.), A. Fraser (P., M.), T.L. Fraser (P.), L. L. Fyfe (P., M.), A. Gardner (P., M.), A. Garvie (P., M.), *J. Gibson, M.A. (P., M.), W. G. Goudie (P., M.), J. R. Grice, M.A. (P., M.), C. H. Haddow (P.), J. S. Hall (P., M.), A. S. Hannay (P.), J. Hendry, M.A., B.Sc. (P., M.), J. R. Herbertson (P., M.), J. Johnstone (P.), W. Johnstone (P., M.), T. J. Kirk (P.), A. Kirkhope (P.), J. M'C. Lang (P., M.), N. M'Farlane (P., M.), J. D Mackinnon (P., M.), M. Mackinnon (P.), W. MacMurray (P., M.), W. W. MacNaught (P., M.), S. A. MacPhee (M.), G. H. M'Robert (M.), J. P. M'Vey (P., M.), M. Manson, M.A. (P., M.), F. W. Martin (P.), F. Matheson (P., M.), J. Matheson (P., M.), D. Meek (M.), S. S. Meighan, B.Sc. (P.), A. Muir (P., M.), M. J. Murray (M.), A. Naismith (M.), H. L Neil (P., M.), H. Paterson (P., M.), *J. F. Quigley (Rutherglen) (P., M.), A. Rae (P.), H. Y. Riddell (M.), J. L. Scott (P.), W. L. Scott (P.), J. F. Smith, M.A. (P., M.), W. Sneddon (P., M.), R. A. Steven (P.), L. T. Stewart (P.), J. A. H. Telfer (P., M.), W. Tudhope (P.), A. Valentine (P., M.), A. G. Waddell (P., M.), J. D. Walker (P., M.), A. G. S. Wallace (M.), *H. F. Watson (P.), A. S. Wilson (P., M.), D. Wilson (P.), H. G. Wilson (M.), F. H. Young, M.A. (P., M.).

Women.—A. B. Auchencloss (P., M.), M. A. A. Beard (M.), L. E. Dodge (M.), I. Inglis (M.), J. W. Jones (P., M.). K. S. Macphail (P., M.), B. G. Rutherford (P., M.), B. Sutherland, M.A. (P., M.).

FINAL.—T Adam, M.A., *D. R. Adams, A. Aitchison, C. Auld, J. B. Baird, B.Sc., E. Barnes, M.A., C. S. Black, *J. Broadfoot, W. G. Clark, *J. T. Dick, *J. Dunlop, M.A., R. Gilchrist, P. Giuliani, A. B. Hamilton, S. H. Harris, J. W. Jones, H. S. Keer. A. Macaulay, I. Macdonald, *M. A. MacDonald, D. M'Dougall, *W. Macewen, W. M. M'Kie, T. Mackinlay, D. Mackinnon, Agnes M. M'Michael, A. Millar, Margaret Muir, Mary A. Pilliet, Olive Robertson, J. H. N. F. Savy, J. M'A. Scott, M.A., J. M. Scott, M.A., W. W. Scott, G. R. Spence, E. E. Stewart, A. E. Struthers, B.Sc., C. L. Sutherland, D. M. Taylor, A. G. W. Thomson, Jemima Wallace, W. S. Waterhouse, *H. E. Whittingham, W. R. Wiseman, M.A., B.Sc., Marion A. Wylie, M.A., D. Young.

* Passed with distinction in one or more subjects.

UNIVERSITY OF LIVERPOOL.

DIPLOMAS in Tropical Medicine have been awarded to the following candidates:

R. Dowden, W. R. W. James, Vishnu T. Korke, J. W. S. Macfie, M. W. Manuk, Kishavlal B. Nanavati, R. W. Nauss, Thiruchelvam Sabastian, H. T. Shaw, A. B. de Souza, M. F. White.

NATIONAL UNIVERSITY OF IRELAND.

UNIVERSITY COLLEGE, CORK.

THE University College of Cork has just concluded its first series of medical examinations. The arrangements have been carried out admirably, and great satisfaction has been given locally by the change. The extern examiners as well as the intern regard the innovation as most successful.

QUEEN'S UNIVERSITY, BELFAST.

FIRST MEETING OF CONVOCATION.

THE first meeting of Convocation of the new university was held in the large Examination Hall on April 16th. The Chancellor (Lord Shaftesbury) occupied the chair, and four to five hundred graduates attended.

Dr. John Campbell, M.A., F.R.C.S., was appointed vice-chairman of Convocation, and Dr. William Calwell and Dr. Richard W. Leslie were appointed members of a committee to deal with the question of standing orders and regulations.

Professor Benjamin Moore formally moved a resolution urging upon the Senate the pressing need for greater development of post-graduate teaching and research. This resolution was unanimously passed. Dr. R. W. Leslie had given notice protesting against the disability imposed on the university by the statutes, Chapter 33, Clause (1), which prohibited the conferring of honorary degrees in the Faculty of Medicine; but owing to the lateness of the hour this resolution was adjourned.

The main business of the meeting was the discussion of a resolution, proposed by the Right Honourable Thomas Sinclair, seconded by Professor Benjamin Moore, which practically condemned the introduction of the teaching of scholastic philosophy into the university as sectarian, and protesting vigorously against any further developments on the same lines. The debate was keen and vigorous and at times warm. Finally a vote was taken, and the resolution was carried by 238 against 56. Several members had left the hall before this hour, or did not vote.

All the profession—and, indeed, all friends of the new university—regret that such a discussion was necessary. It has, however, aroused an interest in the new university. Formerly the difficulty was to get a quorum for the Convocation meeting of the late Royal University in Dublin, and men were canvassed and begged to go up and attend. On April 16th, in Belfast, the large Examination Hall was barely sufficient to accommodate the numbers.

It can scarcely be hoped that so large an attendance will be common in the future, but there seems little doubt that four years hence, when Convocation is given the right of electing some eight members of Senate, the power will be fully exercised, and that through this means Convocation or the main body of graduates who take an interest in higher education will exercise considerable sway in matters academical.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

QUARTERLY COUNCIL.

A MEETING of the Council was held on April 14th, Mr. H. T. Butlin, President, in the chair.

Anaesthetics Bill.

A letter dated April 3rd was read from the Clerk of the Privy Council transmitting, by direction of the Lord President, a copy of a letter from the General Medical Council communicating the following resolution of the Executive Committee of that body adverse to the proposals of this College to omit certain words from the conclusions adopted by the General Medical Council in regard to the Anaesthetics Bill, 1909, namely:

> That the Lord President be informed that the words proposed to be omitted were inserted advisedly by the Council, and in the opinion of the Executive Committee it is desirable in the public interest that they should be retained. The Executive Committee would point out that cases may occur in which, during the course of medical or surgical operations, commenced under anaesthesia produced by nitrous oxide or other "specified" preparation, it is found necessary at a later stage to resort to more potent anaesthetics such as chloroform or ether. In such a case it might endanger the patient's safety, and the success of the operation, were the anaesthetist unqualified to administer the latter, as under the legislation proposed an anaesthetist possessed only of a dental qualification would be.

The following resolution was adopted in connexion with the foregoing:

"That the receipt of the letter from the Privy Council, communicating the resolution of the Executive Committee of the General Medical Council, be acknowledged, and that the Lord President be informed that the Council of the Royal College of Surgeons of England do not regard the contingency put forward by the Executive Committee of the General Medical Council as likely to arise. The Council of the College does not contemplate, and their experience as operating surgeons does not lead them to suppose, that dentists will be asked to administer an anaesthetic in general surgical practice other than in slight operations and on rare occasions; but they do think it will be opposed to the advantage of the public and prejudicial to the convenience of medical practitioners, especially in country districts, if it is made illegal for dentists to administer nitrous oxide gas (and the other anaesthetics, if any, to be specified as employable by them) for operations performed by duly qualified medical practitioners.

"The Council desire to draw the attention of the Lord President to the fact that their body consists of surgeons actively engaged in operative surgical practice, whereas the Executive Committee of the General Medical Council, which dissented from the alteration proposed by the Council of the Royal College of Surgeons, consisted, with only two exceptions, of members not engaged in the practice of surgery."

Jacksonian Prize.

This prize for the year 1909 was awarded to Mr. W. Girling Ball, F.R.C.S., the subject being "The Treatment of Surgical Affections by Vaccines and Antitoxins."

The subject selected for the year 1911 is "The Diseases of the Pancreas, with Special Reference to their Surgical Treatment."

Triennial Prize.

The subject chosen for the next prize was "The Anatomy and Physiology of the Pituitary Body, and the Relationship with Disease of its Abnormal and Morbid Conditions."

Fellows Elected.

The two following gentlemen, as Members of twenty years' standing, were elected Fellows: John Reuben Lunn, St. Marylebone Infirmary (date of diploma, November 13th, 1878); Andrew Melville Paterson, 21, Abercromby Square, Liverpool (date of diploma, July 17th, 1883).

The Honorary Medal of the College.

This was awarded to Dr. Robert Fletcher, M.R.C.S., of Washington, U.S.A., in recognition of his labours in connexion with the *Index Medicus* and the *Index Catalogue* of the Library of the Surgeon-General's Office, Washington.

Dr. Fletcher, who is now 84 years of age, was born in Bristol, and educated professionally at the Bristol Infirmary.

The Egyptian Medical School.

A report was submitted by Mr. R. J. Godlee, the visitor to the examinations of the Egyptian Medical School for the year 1909, stating that the examinations of the school were in every way satisfactory.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE following is a list of the winners of prizes in the subjects of study during the winter session. The first prize in each subject was a medal and £2 in money; the second prize, a certificate and £1 in money.

Descriptive Anatomy.—W. I. Adams and D. J. Flanagan. *Practical Anatomy (First Year).*—W. Morrow and R. A. Austin. *Practical Anatomy (Second Year).*—G. C. Sproule; W. T. Adams and G. E. Pepper equal for the second prize. *Practice of Medicine.*—J. T. Duncan, T. M. Thomson. *Surgery.*—J. T. Duncan, F. Warren. *Midwifery.*—J. T. Duncan, M. S. Moore. *Physiology.*—J. D. Cherry, A. F. Patterson. *Chemistry.*—J. Lanigan, L. E. Wigoder. *Pathology.*—V. J. White, T. T. Buckley. *Physics.*—A. Merrin, L. E. Wigoder.

The summer session commenced on April 4th.

Medical News.

THE King has conferred the Volunteer Officers' Decoration upon Dr. C. A. Owen Owens, late Brigade-Surgeon-Lieutenant-Colonel, Norfolk Volunteer Infantry Brigade.

THE King of the Belgians has given £500 to the Liverpool School of Tropical Medicine.

THE Chelsea Hospital for Women has received from the trustees of the Zunz Bequest a grant of £2,000 to name a ward the Annie Zunz Ward.

THE annual meeting of the Invalid Children's Aid Association will be held at Sunderland House, Curzon Street, Mayfair, W., on Wednesday next, at 3 p.m.

A DISCUSSION on the teaching of sanitary and domestic science in schools will be opened by Mr. G. N. Woollat, Ph.D., Principal of the Science and Technical School, Worcester, at a meeting of the Royal Sanitary Institute to be held in that city on Friday next. On the following day visits will be paid to some manufactories and historical buildings.

THE list of accessions to the library of the University of London during the first three months of this year has been issued as a supplement to the *University of London Gazette*. The list is classified under general headings, and those books which are available only for reference and cannot be taken out of the library are indicated by an asterisk.

AN extra-biennial dinner of the Brussels Medical Graduates' Association will be held at the Trocadero Restaurant, London, on Friday next, at 7 for 7.30 p.m. Tickets, price 5s., not including wine, can be obtained from the honorary secretary, Dr. Arthur Haydon, 23, Henrietta Street, Cavendish Square, W. All graduates of the University of Brussels will be welcome, and invited to bring ladies.

THE Association Générale des Médecins de France held its fifty-first annual meeting in Paris on April 10th. Professor Lande, of Bordeaux, was in the chair, and more than 250 delegates from the central society and from the provincial associations were present. Pensions were awarded to fifteen doctors over 70 years of age who had been members of the Association for thirty-five years, and increased pensions to eight other members. Several questions concerning the relations of the profession with commercial societies were discussed, and the meeting was brought to an end by a dinner.

THE opening lectures of the new session at the Hospital for Sick Children, Great Ormond Street, London, will be given by Dr. Poynton, on Thursday, May 5th, on pericarditis, and on Thursday, May 12th, by Mr. Arbuthnot Lane, on fractures. The lectures, which will be given at 4 p.m., are free to practitioners. The post of clinical clerk for three months is open to both qualified and unqualified persons for a fee of one guinea.

IT is announced that the conditions obtaining at Bad Gastein have been to some extent altered within the past year. The railway communication to the South is now complete, and the spa is thus linked up with the main lines, rendering it more readily accessible. Extension of the electric light works has served to supply the place with better illumination, and some 140 new rooms have been added to those previously at the disposal of the visitors. It is thought that these and other improvements will make Bad Gastein more popular not only during the usual season, but also as a winter resort.

AN Exhibition of Fractures will be held in Brussels at the time of the meeting of the third Congress of the International Surgical Society in September, 1911. The exhibition will comprise specimens of various types of fractures, especially rare forms; radiographs, drawings, and models of fractures; apparatus for immobilization, extension, etc.; specimens and reports of cases illustrating osteosynthesis. Exhibits should be sent to Dr. A. Depage, general secretary, 75, Avenue Louise, Brussels, from August 20th to 31st. The President of the Congress is Dr. J. Lucas-Championnière. Reductions of freight charges to the amount of 50 per cent. on objects intended for the exhibition have been granted by the German, Austrian, Belgian, Spanish, Portuguese, French, Dutch, Hungarian, Italian, Servian, Swedish, and Swiss Governments, and by the Anglo-Belgian (Ostend and Tilbury) Line and the Anglo-Continental Agency.

A LONG-CONTINUED struggle with regard to the conditions of service in the Cologne sick clubs (*Krankenkassen*) has now reached a stage in which some outside medical men have been imported for the purpose of accepting posts on terms which are deemed wholly unsatisfactory by the profession in Cologne. Naturally these "blacklegs" are not popular with the established practitioners of the town. Last year the Municipal Academy of Medicine again arranged to allow a post-graduate course, organized by the Medical Society, to be held, and Professor Hochhaus was announced to deliver the lectures. The first lecture was fixed for November 18th, and eighty-four members of the Medical Society inscribed their names. Two of the "blacklegs" also entered for the course. Before the lecture began the members of the Medical Society declared that they would not sit in the same hall as the "blacklegs," and as the latter claimed the right as registered practitioners to follow the course, and refused to give way, the eighty-four members left under protest. Professor Hochhaus did not consider that an audience of two was sufficient to justify the delivery of a lecture, and therefore also withdrew. The Mayor of Cologne, to whom this matter was referred, considers that the professor behaved quite constitutionally and courteously, and took no part in the quarrel, but he condemns the attitude of the Medical Society. On the other hand, the profession applauds its action.

THE General Council of New Caledonia has, we learn from the *Australasian Medical Gazette*, passed a new decree providing for the notification by doctors of all cases of leprosy they meet with in their practice. If the person infected is unable or fails to isolate himself to the satisfaction of the authorities, the decree enjoins his compulsory isolation in an institution, which the Government is given the power to establish. A Commission of Examination is established, composed of two doctors, nominated by the Government on the recommendation of the Director of Public Health. The sole duty of this Commission is to state whether or not the person presumed to be infected is really leprous. One or more doctors are to be appointed by the Governor, in order to inquire and make a first examination of every person who is presumed to be infected with leprosy. Within twenty-four hours of this examination the doctors must make a report and transmit the documents to the Government, which will in turn transmit them to the Commission of Examination. A second Commission is to be appointed for the regulation and maintenance of any establishment or building in which leprous subjects are placed, and the interests of those presumed to be infected by the disease are safeguarded by certain rights of appeal. If the leper escapes or refuses to be transferred to the lazaretto, the decree gives the Governor authority to have him taken there by force.

Letters, Notes, and Answers.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

AITCHEN asks for some remedy that will lessen the irritation, itching and formication of disseminated sclerosis. He has tried everything that his experience suggests, and that his books recommend, with practically no alleviation.

HEADACHE asks whether eye symptoms have been noticed during the administration of aspirin. One of his patients who is taking gr. v every four hours for rheumatic headaches with relief informs him that soon after taking the powder (dry, by mouth) she has some aching in the eyes, together with a "film," which interferes with her sight, but passes away in a few minutes. He inquires whether there would be any risk to the eyesight in continuing administration of these moderate doses.

TREATMENT OF ULCERATIVE COLITIS.

H. S. asks for suggestions for the non-operative treatment of a case of ulcerative colitis with daily haemorrhage and discharge of mucus. Two consultants have been visited, many drugs, enemata, and diets tried without result.

BOOKS FOR PART II LONDON UNIVERSITY MEDICAL EXAMINATION.

A CORRESPONDENT asks for the best books to read for the Second Medical Examination, Part II, of the University of London.

*** The following list contains works which would probably answer our correspondent's requirements:—Anatomy: Quain's *Anatomy*. Eleventh edition (in course of publication). In four vols. (London: Longmans, Green and Co. 1910.) Gray's *Anatomy, Descriptive and Applied*. Edited by R. Howden. Seventeenth edition. (London: Longmans, Green and Co. 1909. 32s.) Or Cunningham's *Textbook of Anatomy*. Third edition. (London: H. Frowde, and Hodder and Stoughton. 1909. 31s. 6d.) Practical Anatomy: Cunningham's *Textbook of Anatomy*. Embryology: Keith's *Human Embryology and Morphology*. (London: E. Arnold. 1904. 12s. 6d.) Physiology: Halliburton's *Handbook of Physiology*. Eighth edition. (London: John Murray. 1907. 15s.) Or Starling's *Elements of Human Physiology*. Eighth edition. (London: J. and A. Churchill. 1907. 12s. 6d.) Practical Physiology: Hill's *Manual of Human Physiology*. Second edition. (London: E. Arnold. 1907. 6s.) Alcock's *Textbook of Experimental Physiology*. (London: J. and A. Churchill. 1909. 5s.) Or Stirling's *Outlines of Practical Physiology*. Fourth edition. (London: C. Griffin and Co. 1902. 15s.) Chemical Physiology: Halliburton's *Essentials of Chemical Physiology*. Seventh edition. (London: Longmans, Green and Co. 1909. 4s. 6d.) Histology: Schäfer's *Essentials of Histology*. Seventh edition. (London: Longmans, Green and Co. 1907. 10s. 6d.) Materia Medica: Mitchell Bruce's *Materia Medica and Therapeutics*. Seventh edition. (London: Cassell and Co. 1905. 7s. 6d.) Or Hale White's *Materia Medica, Pharmacy, Pharmacology, and Therapeutics*. Eleventh edition. (London: J. and A. Churchill. 1909. 6s. 6d.) Pharmacology: Dixon's *Manual of Pharmacology*. (London: E. Arnold. 1906. 15s.)

ANSWERS.

PUERPERAL INSANITY.

TWELVE.—Regarding the matter solely in its medical bearings, it is a hard saying, but true, that pregnancy should be avoided in the case mentioned. There are other bearings—ethical, religious, etc.

RINGWORM.

J. K. B. writes in reply to "Inquirer": When I was first in practice in London (1879) I several times heard patients say that Erasmus Wilson said the only cure for ringworm was beef and beet—meaning thereby that feeding up the youth who was the sufferer was of more importance than any local treatment. I well remember patients being under the leading specialists in those days taking three years to effect a cure. The only case I ever saw cured quickly was a boy, not very bad, taken in hand by the late Dr. Frank Hall of Lewes. He attended to the boy himself, using simply spirits of turpentine daily by gentle inunction. As a rule, in private practice, ringworm always seemed to thrive in poorly-fed, poorly-clothed children of weakly constitution. I am quite sure that good food and fresh air would cure those cases quite as quickly as the prolonged local medication of the 1880-90 period.

HOME FOR MENTAL DEFICIENTS.

SUFFOLK.—If the boy in question be certifiable as "imbecile," he could be sent to the Eastern Counties Asylum at Colchester, terms of which can be obtained from the Secretary and Superintendent, J. J. Turner, Esq. If there be difficulty in so certifying him, his admission might be obtained into one of the homes of the "National Institutions for Persons Requiring Care and Control." Offices, 14, Howick Place, Westminster, S.W.

"E. H." also might apply to the organization last mentioned.

MEDICAL BOOK-KEEPING.

DR. W. W. HARDWICKE (London, S.W.) writes: I think "F. W. M. P." will find my combination book, containing list and ledger, most convenient and timesaving. Messrs. Silverlock, of 92, Blackfriars Road, S.E., the publishers, will send a copy on approval. The No. 1 edition is suitable for small practices, but for larger ones the No. 2 edition would be required. Messrs. Silverlock also publish a card index system, which does away with posting up from day book to ledger, only one book being necessary to be kept with it—namely, a receipts and expenses book. Sample cards will be sent, on application to them.

ANOTHER correspondent inquires whether a practitioner who employed the card system of book-keeping would be under a disadvantage in the event of having to make good his claim in a county court.

*** We are bound to say that although this system is an admirable one in some ways, it is to be feared it is open to criticism when an attempt is made to prove thereby the debt of a patient. Where entries are made in a day book at the time and the book can be produced in court, it is legally a much better proof of a debt than any that can be forthcoming under the card-index system.

We have asked Dr. Hardwicke's opinion upon the point. He admits that a medical man would have a stronger case in a county court with a well-kept bound set of books, but he adds that in one case in which he was called as a witness in an accident case the card entry was challenged, but he was able to establish its genuiness without difficulty.

BISMUTH HAIR DYE.

A CORRESPONDENT inquires as to a prescription for a black hair dye mentioned recently by Dr. Ninian Falkiner (*Lancet*, 1910, vol. i, p. 217) made by taking one drachm of bismuth nitrate, in crystals free from uncombined nitric acid, dissolving it in an ounce of glycerine, and making up to 10 ounces with distilled water; this was used at first with ammonium sulphhydrate solution and afterwards with sodium sulph-hydrate as being less offensive, and eventually with sulphurea solution, which has no unpleasant smell. Our correspondent wishes to know whether the glycerine might be left out as objectionable for use with women's long hair, and for particulars as to sulphurea.

*** If bismuth nitrate is mixed with water, it is decomposed to a large extent, bismuth oxynitrate and nitric acid being formed; the former is precipitated, and so rendered useless for the purpose of dyeing, and the latter is of course objectionable in an application which will come into contact with the scalp; this decomposition is largely obviated by dissolving the nitrate in glycerine, and it does not appear practicable to omit the latter. There should be no difficulty in obtaining the crystalline nitrate free from more than traces of uncombined nitric acid. Crystalline sodium sulphide has no odour, and there seems no reason why it should not be used in place of sulpho-urea (thiourea). If the bismuth nitrate solution is made, as suggested, to contain 1 drachm in 10 ounces, a solution containing 40 grains of sodium sulphide in 10 ounces would be suitable, the bismuth solution to be well rubbed into the hair first and the second solution then applied; reaction will take place and bismuth sulphide will be deposited in the hair, darkening it more or less according to the amount used. If thiourea is preferred, the second solution should contain 15 grains of this in 10 ounces.

LETTERS, NOTES, ETC.

A RECTIFICATION.

MESSRS. A. C. S. AND H. CROWLEY (Croydon) write: We recently published with a circular letter to the medical profession, and also in pamphlet form, a report which we had obtained from Dr. E. E. Klein with reference to our oatmeal stout. When we obtained this report we assumed that we were at liberty to publish it in any form that we chose, but Dr. Klein did not understand that we intended to use it for advertising purposes. Having regard to Dr. Klein's position in his profession, we think it fair to him to make this explanation, and to indicate that the publication was made under a misapprehension.

MANURIAL VALUE OF DRY EARTH FROM CLOSETS.

AULD REKIE M.D. writes: I would refer "Reform" (BRIT MEDICAL JOURNAL, January 29th, p. 300) to *Rural Hygiene* the late Dr. Vivian Poore of University College. He sh that human excreta have a high relative value as manu He further proves that the separation of urine from faeces render the latter almost odourless. This idea been turned to practical use by a Melbourne firm of sanit engineers. Their method is to use an iron pan which provided with means of draining out the urine; the la is then received on a circular filter bed; 90 per cent. of water is evaporated, and the residuum of drainage is offensive. The filter bed is revolved automatically at e use to distribute the urine evenly over it. The mechan also automatically throws earth or ashes on to the sol The closet, now installed by many—including members our profession—is highly spoken of by them, and is, in opinion, the best dry closet on the market. No odou perceived, and no disinfectants are needed. It is obvi that, there being no urine to cart, the total excreta to carted is about one-third and the cost of cartage thus redu Although the amount of manure is less, its value, owin no antiseptics being used, is greater. Dr. Poore held t to use disinfectants in closets is a mistake, as the fertiliza of land is a biological process. I would strongly recomm "Reform," or any member interested in this subject, to r *Rural Hygiene*. It is so beautifully written, and is as inter ing as a novel. Should any member wish for further p ticulars of the closet I have mentioned, the name of firm is Messrs. Lawry, Short and Co., 408, Collins Str Melbourne.

THE MEDICAL PARLIAMENTARY ROLL.

DR. JOHN BROWN (Govanhill, Glasgow) writes: Referring your issue of April 2nd, and to Dr. S. D. Clippingda remarks, I have, in the cause of historic truth, to give the following dates:

James VI of Scotland was crowned at Stirling, July 2 1567.
James I of England was crowned at Westminster, J 25th, 1603.
Charles I of England was crowned at Westminster, Ma 27th, 1625.
Charles I of Scotland was crowned at Holyrood, June 1 1633.
Charles II of Scotland was crowned at Scone, January 1651.
Charles II of England was crowned at Westminster, A 23rd, 1661.
James VII of Scotland was proclaimed at Edinbu February 10th, 1685. He was never crowned; he a Roman Catholic, and could not take the Scot coronation oath. The fact that he was never crow is shown in the Coronation records.
James II of England was crowned at Westmins April 23rd, 1685.
William and Mary were crowned at Westmins April 11th, 1689.
William and Mary took the Scottish Coronation oath Whitehall, May 11th, 1689.
Anne was crowned Queen of England at Westmins April 23rd, 1702. No ceremony other than proclama was made in Scotland. The interval between 1702 1707 was taken up by negotiations regarding the Union

No King of Scotland was ever crowned as such in W minster. When he was crowned at Westminster it wa King of England. Since the Union there has been no cor tion of Kings of England or Kings of Scotland, but King Great Britain. As regards Dublin, I must leave that t Irishman to deal with. As regards France, I find Henry VI of England was crowned King of France at P in 1422. All the subsequent Kings of England and King Great Britain up to but not including Queen Victoria w crowned as Kings (or Queens) of France at Westmins The reason why they were not crowned at Paris, the n appropriate place, was, to put it mildly, that it was not venient. Dr. Clippingdale does not seem to recognize coronations are simply public shows. From the above will see that some kings reigned who were never crow and some crowned who did not reign.

*** This correspondence must now close.

SCALE OF CHARGES FOR ADVERTISEMENTS IN T BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page	8	0	0

An average line contains six words.

All remittances by Post Office Orders must be made payabl the British Medical Association at the General Post Office Lon No responsibility will be accepted for any such remittance no safeguarded.

Advertisements should be delivered, addressed to the Mana 429, Strand, London, not later than the first post on Wednesday mor preceding publication, and, if not paid for at the time, shoul accompanied by a reference.

NOTE.—It is against the rules of the Post Office to receive p *Restante* letters addressed either in initials or numbers.

A Lecture

ON

SOME OF THE LESS COMMON ASPECTS OF PNEUMONIA.

DELIVERED TO THE YORK MEDICAL SOCIETY.

BY

SIR THOMAS OLIVER, M.D., F.R.C.P.,

PHYSICIAN TO THE ROYAL VICTORIA INFIRMARY, NEWCASTLE-UPON-TYNE.

PNEUMONIA is no longer regarded as a local inflammation of the lungs attended or followed by a rise of temperature, but rather as the localized expression of a constitutional state and due to the operations of a micro-organism.

Speaking generally, it is a striking fact that although a specific micro-organism is the recognized cause of a particular disease, and that without the microbe the malady is impossible, yet something more than the presence of the micro-organism in the body is required to explain disease. Tubercle bacilli, for example, may be present in the body without giving rise to symptoms. People harbour Eberth's bacillus for years, and go about in apparent health spreading typhoid fever, although they themselves are not suffering from the fever. The pneumococcus is present in the mouth in fully 25 per cent. of men and women, and yet these persons remain free from pneumonia. It would seem, therefore, as if pneumonia was something more than the presence in the body of pneumococci. There are the patient and his idiosyncrasies, the specific micro-organism, the toxins generated by the micro-organism, and the cellular reaction of the individual to the microbe and its toxins. When, therefore, the hitherto harmless diplococci present in the mouth become harmful, either the micro-organisms have become virulent or some inhibitory power previously exercised by the human body has been temporarily withdrawn, and by this removal the microbes assume characters not hitherto displayed. It is interesting to know that while under ordinary circumstances the diplococci in the mouth are not harmful to the host, yet they are just as pathogenic to animals as the diplococci obtained from a culture from the sputum of a pneumonic patient.

While insufflation of the diplococcus from the mouth into lungs previously irritated or weakened may cause pneumonia, it is possible that the microbe may effect an *entrée* by such other channels as the tonsils, the nasal or gastro-intestinal mucous membrane. In the body there are certain sites of selection for micro-organisms. No matter the portal of entry, tubercle bacilli finally make their way to the lungs; Eberth's bacilli reach the lower part of the small intestine; while such of the larger forms of life as the *Ankylostoma duodenale* are found in the upper part of the small intestine. The lungs are the organs of selection, but occasionally pneumococci fail to be entangled there; the micro-organisms reach the membranes of the brain, either through the nasal mucous membrane or blood, and, setting up a primary meningitis, the symptoms are largely cerebral, although the patient's appearance is that of a person suffering from pneumonia.

Mortality.

The opinion has been expressed that pneumonia within the last few years has not only become more frequent, but more fatal. Through the kindness of the Registrar-General, I am able to give the following information bearing upon this point.

DEATHS FROM PNEUMONIA IN ENGLAND AND WALES IN THE YEARS 1901-8.

Lobar Pneumonia.

	Males.	Females.
In 1901	1,437	809
,, 1902	2,184	1,291
,, 1903	2,017	1,191
,, 1904	2,345	1,546
,, 1905	2,982	1,905
,, 1906	3,117	1,874
,, 1907	3,341	2,044
,, 1908	3,030	1,788

Broncho-pneumonia.

	Males.	Females.
In 1901	8,022	6,984
,, 1902	9,974	8,634
,, 1903	9,269	8,156
,, 1904	10,345	9,100
,, 1905	10,022	8,783
,, 1906	9,057	8,219
,, 1907	11,237	10,080
,, 1908	10,270	8,764

These figures show an increase of lobar pneumonia during recent years, but the Registrar-General remarks that "the increase in the number of deaths certified as due to croupous or lobar pneumonia probably indicates increased accuracy of certification rather than increased prevalence of the disease."

Pathology.

That exposure to rapid changes of weather predisposes to pneumonia is shown by the fact that 75 per cent. of the men who suffer have followed an out-of-door occupation, hence the liability of ordinary labourers to the disease. Outdoor work, however, is not *per se* a cause, since pneumonia occurs in men and women who are following indoor occupations. No month of the year is exempt from the disease, but it is in the colder months that it is most frequently met with. In my own cases the right lung had been most frequently affected, and of it the lower lobe. In the larger percentage of cases coming to an autopsy grey hepatization has been found. It would be interesting to know what percentage of patients get safely through the stage of grey hepatization. Because this condition is so frequently found after death it has been maintained that therefore it is one from which recovery never takes place. Since red hepatization rarely extends beyond the seventh or eighth day, and usually occurs as early as the third and fourth, what is the condition of the lung after the fourth day in patients who have a crisis on the seventh or eighth day, and who recover? Has it been only red hepatization? There are no means of knowing. All that is known is that in the majority of patients who die at this period, even as early as the fourth day, grey hepatization of the lungs is found.

Early delirium is by some physicians considered a dangerous sign; while it is probably more pronounced in alcoholic subjects, and lasts pretty well all through the illness, it yet occurs in persons of temperate habits. Within the last few weeks I have seen two patients suffering from acute croupous pneumonia, both young, healthy, and temperate men, aged 20 and 29 respectively, in whom delirium did not appear until the crisis was reached and the temperature had fallen to the normal. The delirium, which under these circumstances is toxaemic, may be of a severe character, and the patient with difficulty be kept in bed, but, after continuing for two or three days attended by insomnia, the patients pass into a prolonged natural sleep; they sleep for twenty-four hours or more, and awake perfectly rational. Delirium with soft rapid pulse, profuse perspiration, and cyanosis coming on in the early stage of pneumonia, are not hopeful signs.

One of the most distressing features in nearly all cases of pneumonia is the want of sleep. The insomnia undermines the nerve energy of the patient and exhausts him, and, as the sleeplessness may last for several days, it partly explains the light-headedness and wandering which are occasionally exhibited towards the sixth and seventh day of the illness. Notwithstanding the fact that insomnia is a distressful symptom, it is not wise to try to overcome it by giving a narcotic such as opium or morphine. The administration of a narcotic has, in my experience, transformed what was otherwise a fairly hopeful case into one of a hopeless character. It is a strange circumstance that, although the breathing is often short and rapid, and the patient appears to be the subject of considerable respiratory distress, he will often not acknowledge that he feels embarrassed in his breathing It is otherwise if there is a swollen or catarrhal condition of the bronchial mucous membrane. This creates a mechanical obstruction to the breathing, throws more strain upon the right side of the heart, and adds considerably to the gravity of the prognosis.

A diplococcus underlies most cases of pneumonia, but other organisms may cause the disease—for example, the influenzal bacillus, the *Bacillus coli*, and Eberth's bacillus.

A short time ago I had under my care a sailor from a French man-of-war on the Tyne who had all the physical signs and symptoms of pneumonia, but the appearance of the patient, even in the absence of signs of intestinal derangement led me to regard and to treat the case as one of enteric fever in which the lesion was on the side of the lungs and not in the intestinal canal. For three weeks the temperature remained high, then fell and remained normal so long as the dieting of the patient was conducted on enteric lines, but after an absence of pyrexia for ten or twelve days the nurse, yielding to the entreaties of the patient for solid food, gave him a good meal of fish and potatoes, with the result that the temperature again rose and the patient passed through another three weeks of fever—a typical enteric relapse, yet with all the physical signs in the thorax and none in the abdomen.

Since several organisms can cause inflammation of the lungs it is difficult to say whether all pneumonias are of the truly fibrinous type and lobar in distribution.

Friedländer's pneumo-bacillus produces a form of inflammation of the lungs in no way differing in physical signs and symptoms from the pneumonia caused by the *Diplococcus lanceolatus* of Fraenkel, yet Fraenkel maintains that the only micro-organism capable of inducing true croupous pneumonia is the diplococcus just referred to, all atypical pneumonias being the result of other organisms.

Many medical men must be familiar with what for the moment may be called the "abdominal type" of pneumonia. A man or woman is suddenly seized with acute abdominal pain, accompanied or not by vomiting; this is followed by a rigor and probably by a rise of temperature. In the chest, on careful examination, nothing is detected, nor is there anything detected in the abdomen except pain on pressure located over the appendix or somewhere else in the abdominal cavity. Patients under these circumstances have been submitted to surgical operation without anything having been found, the after-course of the case indicating that the disease was cruopous pneumonia, and that the pain had been due either to an inflammatory condition of the diaphragm, or, as Head has shown, had been reflected and explained by the lowest six intercostal nerves sending twigs to the abdominal parietes as well as to the lower portions of the pleura, whereby, as in cases where the eleventh thoracic nerve is irritated, pain is referred to the iliac fossa. Some of these abdominal cases exhibit metastasis.

The son of a medical friend left his office one summer afternoon in perfect health, and rode on his bicycle to his rooms up rather a hilly street in Newcastle. On reaching his lodgings he dismounted, but in doing so he was seized with acute abdominal pain followed by retching and collapse. He was seen shortly afterwards by a doctor, who put him to bed, applied warmth to the feet and abdomen, and gave restoratives. The patient had a wretched night, and next day his sufferings were in no way abated. I was called in consultation at midnight to find the youth in a state of collapse, with feeble pulse and retching, and complaining of acute abdominal pain. On examining the chest I heard a few râles, for the most part bronchial but not confined to one half of the chest. As the symptoms were abdominal and suggested perforation and the patient was only in rooms, it was decided to remove him to the infirmary in case abdominal exploration should be called for. Between the time of coming to this decision and his admission to the infirmary, a matter of about three hours, the pain in the abdomen had considerably subsided, the collapse was less, the temperature had risen, and there were unmistakable signs of pneumonia, including dullness and tubular breathing. No operation was therefore performed. The patient was transferred to a small ward, and for days he had all the physical signs and symptoms of pneumonia. All at once, when the illness was apparently running a normal course and the patient seemed to be doing well, he was again suddenly seized with acute abdominal pain. In my absence he was seen by one of the infirmary surgeons, who regarded his condition as extremely critical and calling for abdominal section, but before the preparations for the operation were completed and a telegraphic reply had been received from his parents the patient died. No autopsy was allowed, but the surgeon was of opinion that death had come from some acute abdominal cause and not from inflammation of the lungs.

Epidemics of Pneumonia.

Occasionally pneumonia assumes epidemic characters. While this is specially so during periods of influenza, other conditions may prevail. The epidemic of pneumonia which swept over Middlesbrough a few years ago, with rather appalling results, for a time baffled all attempts at explanation Owing to the fact that many of the men who were affected had been engaged in the ironworks, it was thought that the nature of the employment had something to do with their illness. The epidemic having reached considerable proportions, the Local Government Board sent down one of its medical inspectors, Dr. Ba to inquire into the nature and causes of the epidemic was not until Dr. Foulerton discovered a bacillus unlike the *Bacillus coli communis* that the true natu the disease was determined, and the cause of pneumonia demonstrated to be tainted food which been introduced into Middlesbrough.

While there is not the least doubt that the epidem Middlesbrough was pneumonia, although not due to usual diplococcus, some of the so-called epidemic pneumonia which have occurred in other parts of country have not been pneumonia at all, but enteric f with strong pulmonary tendencies. It is but a step epidemic to endemic conditions, and yet even in t other causes may be in operation than those immedia suspected.

I was called in consultation to a neighbouring t to see a case of pneumonia in a working man; tw three days afterwards I was called by another practiti to see another case of pneumonia in a working man was living only a few doors away from the house viously visited. Within a week I was called by y different practitioner to see a third case of pneumoni the same street. These three cases of pneumonia occu within an area of a hundred yards. How much of was merely coincidence, was the result of the condi of the atmosphere at the time, or of the nature of t men's employment, it is difficult to say. When a sim outbreak occurs in a school there is usually some flaw the drainage. In one such epidemic of pneumonia i school, sewer air was found to be entering a la dormitory by a ventilator in the wall.

Foul air, like dust and smoke, probably only disposes to pneumonia. In Germany, owing to increased quantity of smoke in the atmosphere of large towns consequent upon the recent commer prosperity of that country, acute inflammatory disea of the lungs have more than doubled themselves dur the last ten years. Experiments upon animals carried by Asch have shown that if they are exposed first smoke for a week or two, a certain number of hours da and are afterwards forced to inhale the *Aspergillus fu gatus*, an acute inflammation of the lungs develops m quickly and is more severe than in other animals exposed to smoke, but only to the micro-organism. Johannesburg the mine officials are of opinion that diseases of the lungs which the miners suffer from are due to the nature of their employment underground, to the dust storms which prevail in the town and distr Dust, whatever its source, when inhaled may predisp to pneumonia, but it is more likely to induce bronch irritation. While there is no reason why lobar inflamm tion of the lungs should not, quite apart from occupati occur equally in a gold miner as in another person, still is so much more prevalent in miners, and in them effects are more serious, that there can be no doubt as the greater susceptibility of miners working in hard ro to pneumonia, and their greater mortality from it co pared with other occupied males in the same place. Dou has been expressed as to whether dust is capable causing a true lobar pneumonia. Fraenkel and Aufrec maintain that the lesion is catarrhal and not croupo but a section of the lung of a Kolar gold miner sent to r by Dr. O'Donnell (Mysore, India) reveals true fibrino pneumonia. Lobar pneumonia is known to be a freque cause of death among the miners at Mysore.

While direct injury to the lungs by inhalation of du may predispose to pneumonia, external injury to t chest wall, even where no ribs are broken, is also capab of bringing about the same result. I admit that th statement may lead to unlimited speculation from th point of view of workmen's compensation. The physic signs and symptoms of traumatic pneumonia do not sho themselves until the second or third day after th accident.

Usually pneumonia is not an infectious malady, and y there is sufficient evidence to show that under certa circumstances it is as fatal in its consequences when enters a household as the worst type of cholera. In 188 Dr. Patchett told the story of an outbreak of pneumoni in a lonely farmhouse occupied by four brothers and on sister, all over the age of 60. They had all been in goo health previously. One member after another of tha

amily became ill, and within ten days all had died of neumonia. The shortness of time in which this family vas wiped out suggests that the disease was of the nature f a local epidemic, and that all the members had become l from one and the same source, but there was yet a ufficient length of time for infection or contagion to perate. Pneumococci, virulent to commence with, cquire additional pathogenic powers in passing from nan to man.

One evening Dr. William Slater, of Newcastle, asked me o see in consultation with him a ship's captain who had eturned a few hours previously from Hamburg, and who vas the subject of a severe attack of pneumonia. Within wo days this man died. Rapid decomposition of the body ook place, and was attended by such an evolution of gas hat the lid of the coffin was burst open and the house looded with gas, the odour of which was almost intoler-ble. On the day of the funeral the wife, who had nursed ier husband, and who until then had been quite healthy, leveloped pneumonia; she died on the sixth or seventh lay of the illness. On the evening of her funeral the son leveloped pneumonia with exactly the same physical signs .s the father and mother, but although the attack was evere, he made a good recovery. The different dates of he development of the pneumonia in mother and son do iot permit of our el minating altogether the influence of ersonal contact.

Chill.

As a causative agent of pneumonia the influence f chill has been doubted. In Sir Ernest Shackleton's Antarctic Expedition, although the men were exposed o the intensest cold, none of them suffered from pneu-nonia, but this only shows that in addition to cold there nust be a predisposed state of the body, and the presence f pneumococci in the respiratory passages. Fraenkel is f the opinion that cold is dangerous when, the superficial lood vessels having been previously dilated by severe xertion, an individual is suddenly exposed to some hilling influence.

A fortnight ago I saw with Dr. Jepson, of Durham, a strong, thletic young man suffering from double pneumonia, with narked signs of pretty extensive consolidation of both lungs. Two days before his illness he had been beagling, and had run, e thought, about thirty miles. Fatigued, and in a state of erspiration, he had lain down upon the ground. In this case he possible influence of chill in predisposing to pneumonia ould not be altogether excluded.

Pneumonia and Pregnancy.

Acute inflammation of the lungs may develop at any time during the course of pregnancy, immediately before the commencement of parturition, or after the confine-ment is over. Occurring during the latter months of preg-nancy, it is a serious complication to mother and child, since the enlarged uterus mechanically embarrasses the breathing.

A pluripara, aged 28, whom I saw in consultation with Dr. Taylor of Chester-le-Street, was in the sixth month of pregnancy and the subject of pneumonia. She gave the story of a chill, followed by shivering and pain in the left shoulder. On the following day the breath sounds were altered at the base of the left lung, and on the day succeeding this there were dullness over the left base and a temperature of 103° F. On the fourth day after the chill there were pain over the right costal arch, dullness at base of right lung, rusty sputa, friction over the base of heart, respirations 48, pulse 120, and temperature 103° F. Both bases were now dull, there were tubular breath-ing with small crepitations and exaggerated vocal fremitus. Owing to the lower half of the abdomen being occupied by a pregnant uterus, the breathing was extremely difficult. It was a question whether premature labour should be induced; but even if this had been agreed upon, the urgency of the dyspnoea prevented the patient lying down for the operation to be per-formed. It was decided not to induce labour, but to leave the case to Nature, and in this respect the decision was wise, for three hours after the consultation the patient miscarried. The child, born alive, died shortly after birth. There was no diffi-culty with the placenta or with the lochia; the pneumonia ran its course, and the patient made a good recovery.

Experience of this and other cases rather leads me to believe that the best results are obtained not by inducing labour, but by leaving the case to Nature. It is fortunate that in most of these cases labour is precipitate and the confinement is got over quickly. By this means the strain upon the heart is shortened. According to Wallich, pneumonia interrupts pregnancy in one-third of all cases before the sixth month, and in two-thirds from the sixth to the ninth month. Maternal mortality in pneumonia in pregnancy is very high—it is anything above 50 per cent., and the fetal mortality about 80. When pneumonia occurs in the eighth or ninth month of pregnancy the infant may be cyanosed when born, develop pneumonia the day after birth, and recover; but a large percentage of the infants die. Pneumonia may develop just before parturition, as in the following case:

Mrs. S., aged 30, a pluripara, went shopping on October 30th. On her way home she suddenly felt very ill, was seized with violent headache, and had a slight rigor. On the following day labour came on, one week before the expected time, and although this was quickly got over she had such violent head-ache that the doctor had to give her some medicine to relieve the pain. She slept badly that evening, and on the following day her temperature was 103°, pulse 110, and the headache was still persisting. Two days afterwards, when seen by me in consultation, she had been seized with severe pain in the left chest; temperature was 103° F., pulse 120, and respirations 40 per minute; there was dullness over the base of the left lung posteriorly, the breathing was difficult, and the expectoration viscid but not rusty. The heart was satisfactory and the lochia normal. Salipyrin relieved the headache and steadied the temperature. While taking strophanthus and quinine her crisis came and she made a good recovery, the course of the confinement in no way being interfered with.

It is different when pneumonia develops after a confine-ment, for whether the micro-organism has been absorbed from the utero-tubal or vaginal mucous membrane, or has entered the body from without, there is a greater tendency for the disease of the lung to become septicaemic. This circumstance raises the very important question whether it is not rather the resistance of the individual to patho-genic organisms than the virulence of the organism which determines the type the inflammation of the lung will take. As Edwin O. Jordan[2] says in alluding to experiments with pneumococci, susceptibility is characterized by general septicaemic infection, and resistance by the occurrence of a localized process. Healthy men and women are resistant to pneumococcal infection, but after a confine-ment the resistance of women is reduced, so that pneu-monia developing under these circumstances tends to assume septicaemic characters, which under other conditions would probably not be the case.

I cannot recall a case of acute ante-natal pneumonia, or the case of a child born suffering from the disease, while the mother herself was free from pneumonia. The cir-cumstance, however, is known to occur. Professor Stuart McDonald, of the Newcastle College of Medicine, made an autopsy on an infant one day old, who had died of lobar pneumonia, while the mother had remained quite well. There is perhaps nothing so very unusual in the event when it is remembered that infants are born suffering from infectious diseases, while the mothers show no signs of such. The French obstetrician Mauriceau was born, it is said, with the vesicular eruption of small-pox upon his body, the malady being prevalent in the district at the time, but the mother had never shown the slightest sign of variola or anything to suggest that she had been ill.

Pneumonia in Infants.

It has been my fortune of late to see several cases of pneumonia in young children, and as the conditions in infants differ in some respects from those observed in adults, I will briefly allude to them. Such physical signs as dullness, tubularity of breathing, and previous history, show that the disease I refer to is primary lobar pneu-monia and not an inflammation of the lung a sequel to pre-existing disease. Infants, unlike adults, do not have a rigor, but instead there is vomiting. In many of the patients, even at a comparatively early stage of the malady such as the second or third day, there is a marked tendency to collapse, which, if not immediately dealt with, may be fatal. It is to this collapse I particularly draw attention, as well as to the fact that the face, instead of being flushed as in adults, is oftener pale.

In one of my patients, the 6 months old daughter of a medical friend, whose illness began with signs of a head cold and sickness, followed a few hours afterwards by rapid breathing, there quickly supervened signs of consolidation at the base of the right lung, with crepitations and tubularity of breathing. On the third day of the illness she became suddenly collapsed and passed into a semicomatose condition in which she was unable to swallow. She was given an enema of saline, chicken broth, and brandy, and in a short time afterwards was so restored that she could swallow. On the eighth day of the illness the base of

the left lung became consolidated; on each of the four succeeding days there were fairly sudden and sharp collapses, from which she rallied after the administration of an enema with stimulant. Small doses of nux vomica and digitalis were also given by the mouth combined with an expectorant. After fourteen days, during which this infant, on account of her respiratory distress, had only the briefest snatches of sleep, she fell asleep for four hours. This was the turning point in her illness.

A similar tendency to recurrences of collapse was observed in the following case:

I saw a child, aged 16 months, son of a Brazilian naval officer, in consultation with the doctor of the Brazilian gunboat. Here, too, the lesion first affected the base of the right lung. Occasionally after the third day there would supervene collapse, during which the temperature would fall to 96° F., and remain thus for an hour or two, during which the infant would be in a state of semi-stupor, quite indifferent to his surroundings or what was done to him. By means of hypodermic injections of caffeine at one time, and at another of ten drops or more of camphorated oil, coupled sometimes with a small enema of beef tea and brandy, the child would rally. In this patient, while the base of the right lung posteriorly was the part first affected, about the eighth day the lower and middle portions of the right lung became affected and the patient passed through another attack of pneumonia attended by similar collapses and falls of temperature, but successfully met by means of caffeine, camphor, and stimulating enemata.

The collapses in the pneumonia of young children resemble in some respects the depressions which occur in ptomaine poisoning attended by low temperature, only the semi-stupor is more marked.

Incomplete Recovery.

When pneumonia has not proved fatal, recovery may be complete or incomplete. Setting aside empyema as a sequel of pneumonia, I wish to draw attention to a pathological condition in the lungs—namely, the morbid anatomy of those unresolved pneumonias which end in fibrosis and chronic phthisis, conditions to which both Osler and Babcock in their books allude. The final conditions are somewhat analogous to those observed in lungs irritated by dust. The inhalation of dust causes pneumoconiosis. The effects of dust upon the lungs of dogs and rabbits in the early stages of an alveolitis are shown on the lantern slides by the proliferation of epithelial cells and the presence of large phagocytic cells which have englobed dust particles. The later stages are thickening of the alveolar walls and increase of the fibro-connective tissue of the lung, especially around the small bronchi and the blood vessels, but in some of the other slides loops of capillaries can be seen bulging into the exudate within the alveoli, and inducing organization of the exudate. What would have happened eventually here had the patient lived would have been a marked increase of the fibrous tissue of the lungs, the fibrosis being the result of organization arising within the alveoli and the incorporation of the alveolar wall with it, whereas in pneumoconiosis the fibrosis rather proceeds from the wall towards the alveoli. As a consequence of organization of the exudate in unresolved pneumonias there take place thickening and hardening of the lung, followed by retraction and deformity of the chest wall.

Treatment.

I think the limits of time have already been exceeded. It is sufficient to say that I have not seen any striking result follow the use of pneumococcal serum, nor, although often giving great relief to the breathing, can I recall a case of pneumonia having been saved by the inhalation of oxygen. Strychnine and digitalis have given me, on the whole, the best results; with pneumonia, as with many other illnesses, it is not the disease solely that requires to be treated, but the patient with the disease.

REFERENCES.
[1] *Lancet*, 1882, vol. i, p. 305. [2] *General Bacteriology*, 1909, p. 100.

A VERY successful meeting of the South-Eastern Division of the Medico-Psychological Association was held at Hanwell Asylum on April 26th, and was attended by a large number of the members of the Division. After the wards of the historic building had been inspected, the members were entertained to luncheon by Dr. Percy J. Baily, the medical superintendent. Subsequently, at the meeting of the Division, Dr. Baily read a paper giving an account of the history of the institution, with special reference to the time when Conolly put into practice his humane ideas of non-restraint in the treatment of the insane. Papers were also read by Dr. Devine on Kraepelin's clinic, and by Dr. Phillips on the treatment of melancholia by the lactic acid bacillus.

An Address

ON

SOME POINTS CONCERNING PNEUMON AND PNEUMOCOCCAL INFECTIONS IN CHILDHOOD.*

BY

T. R. C. WHIPHAM, M.D.OXON., M.R.C.P.LO

PHYSICIAN TO THE EVELINA HOSPITAL FOR CHILDREN; ASSISTA PHYSICIAN TO THE PRINCE OF WALES'S HOSPITAL.

I PROPOSE to deal with some points concerning pneum and pneumococcal infections in children as illustrated some cases from the Evelina Hospital. While all agree that bronchopneumonia is the more frequent t in early life, I wish to emphasize the fact that the lo variety is commoner than is often supposed. Thus, am 150 of my own cases I found that 65, or 43.3 per cent., w of the lobar type. The chief clinical distinctions betw the two are these: (1) Lobar pneumonia is almost alw primary, while bronchopneumonia is very freque secondary; (2) the onset of lobar pneumonia is sud and the symptoms are well marked, whereas bronc pneumonia begins insidiously as a rule; (3) the temp ture in the lobar form tends to be more uniformly h and to end by crisis, whereas in the other the course of fever is prolonged and irregular and rarely ends abrup (4) lobar pneumonia usually affects a localized area of lung, at any rate to begin with, while bronchopneumo is bilateral and more extensive; (5) bronchopneumo tends to occur at a slightly earlier age than lobar.

In lobar pneumonia the exciting cause is the pneu coccus, but in the bronchopneumonic form the infectio usually mixed—at all events, in the secondary case though it is true that in some of the primary cases pneumococcus alone is found. Lobar pneumonia, acco ing to my own experience, is most frequent during t second, third, and fourth years, 56.9 per cent. of my ca occurring during those years, whereas bronchopneumo chiefly occurs during the first three years of life, as ma as 70.6 per cent. of my cases being found in infants un 4 years of age.

In lobar pneumonia one or other of the bases is m frequently attacked, most commonly the left, but children it is not unusual for the apex of the lung to affected. It is remarkable that if one apex is involve primarily, and not as the result of the extension of t disease from the lower lobes—it is practically always t right apex which is attacked.

The temperature in lobar pneumonia is usually hi and may remain for a time uniformly about 103° F. 104° F., but, speaking generally, it shows more mark remissions in children than in adults. Occasionally, ho ever, the temperature may be misleading in showing marked rise. The crisis occurs, as in adults, usual between the fifth and seventh days, but in some cases may be delayed until towards the end of the second we or even later. In mild or abortive cases the fever m terminate on the third or fourth day. An ending by ly is more common in children than in adults, and was fou in 15.3 per cent. of my cases. Usually it is of short dur tion, and the temperature reaches the normal between t fifth and eleventh days. In bronchopneumonia, on t other hand, the temperature is generally lower and of intermittent type; in some cases the rise may be on very slight—perhaps not above 100°. The termination by lysis—generally in two to four weeks—but in a numb of cases the temperature does not remain normal unt after, perhaps, ten or eleven weeks, or even longer.

The diagnosis of pneumonia in the early stages is fr quently a matter of difficulty if the pulmonary signs a not in evidence. Indeed, I am of opinion that in som instances the signs of consolidation may never appea possibly owing to the lesion being deeply situated, and y the case run a course consistent with a diagnosis of pneu monia. As an instance, I may quote the following cases:

* Delivered before the Tottenham Division of the British Medica Association.

CASE I.—*Pneumonia without Characteristic Signs in the Chest: Recovery.*

(Under the care of Dr. Charlton Briscoe.)

William R., aged 2 years, had been perfectly well until two days before admission. There was an indefinite history of a fall from his bed while playing, but the accident was not witnessed. Afterwards he was irritable and vomited, but took his food fairly well, and the vomiting did not continue. On admission he was quiet, the temperature was 99.6° F., but quickly rose two degrees, pulse 160, respirations 40. The tongue was furred, the pupils were equal and active, and there was no photophobia. The head was not retracted, and there was no paresis in any of the muscles. The knee-jerks were present, but diminished, the plantar reflex was flexor in type, and Kernig's sign was absent. No abnormal physical signs were found in the chest. The abdomen was flaccid, but both the liver and spleen were enlarged. On the following day the boy was sitting up playing, and the temperature had fallen to normal. The right cheek, however, was noticed to be flushed, and the pulse continued quick, while the respiration-rate remained 40. The percussion note at the right base was slightly impaired, but the breath sounds were normal. At night the temperature rose to 102.2°, and the next morning the child had two convulsions. Later on he was drowsy, and became delirious at night. The temperature continued about 102°, with excursions as high as 105.6°. The respirations varied between 40 and 56, but there were no further signs in the lungs. The blood showed a leucocytosis of 24,200, and Widal's reaction was negative. Lumbar puncture was performed, the fluid being clear and containing a very faint trace of albumen; only very few cells were found after centrifugalization. On the eighth day the temperature fell by crisis and remained normal, the respirations came down to 24, and the pulse-rate to 84. No signs indicative of pneumonia were at any time found in the chest, and the child made a rapid recovery.

CASE II.—*Pneumonia without Definite Physical Signs: Recovery.*

Susan B., aged 9 years, was said to have been quite well until the morning of admission, when she "vomited bright blood." She had had an empyema in the left side of the chest five years previously. She was somewhat dazed; the tongue was furred and the head retracted; temperature 101.4°, rising to 104°; pulse 144, respirations 54. No abnormal physical signs in the chest could be detected. She became very restless and delirious, with occasional cough, laboured irregular breathing, and a bad pulse. During the night she vomited several times, necessitating rectal feeding. On the following morning the temperature was 102°, and the respirations were 56. Slight dullness on percussion was noticed in the right scapular region, but no other signs of consolidation. The heart was considerably dilated, and the pulse rapid and weak. The knee-jerks were absent, and the plantar reflex was extensor. The breath was very foul, and the mouth and gums were dry. Widal's reaction was negative, and no fluid could be obtained by lumbar puncture. On the third day a crisis occurred, and the respirations fell at the same time to 28. The child improved rapidly afterwards, and the knee-jerks returned. She was discharged well in three weeks.

One of the chief difficulties in early diagnosis is to distinguish between pneumonia and meningitis if cerebral signs predominate and pulmonary manifestations are not in evidence—if, that is, the case is one of what is termed the cerebral form of pneumonia. As an illustration of what I mean, I will quote another case of Dr. Briscoe's in which signs suggestive of meningitis were present.

CASE III.—*Lobar Pneumonia: Signs suggestive of Meningitis: Empyema: Abdominal Tuberculosis: Almost Normal Temperature throughout: Death.*

Sarah M., aged 1 year and 8 months, was first taken ill with diarrhoea nine days prior to admission. The diarrhoea ceased, but five days later the breathing became embarrassed, and the child had a constant dry cough. The face was pale, the eyes were sunken, and the breathing laboured The temperature was normal, pulse weak and rapid, respirations 50. The right side of the chest moved better than the left, which, if anything, was the greater in circumference. At the left base, posteriorly, there was an impaired percussion note, with patchy, tubular breathing, increased vocal resonance, and a few dry crepitations; on the right side the note was resonant. The heart was not displaced, and the abdomen was normal. On the morning after admission the temperature was 100.8°—the highest during the child's illness, but in the evening it was normal, and continued so, the physical signs in the lungs remaining the same for the next three days. The child, however, was slightly sick, and the head became retracted, with the eyes fixed and staring, while the limbs showed marked muscular rigidity. At intervals the patient uttered a shrill, high pitched cry. On the sixth day she was retching continually. The measurement of the chest was equal on the two sides, but on the right side near the angle of the scapula the note was impaired, and faint tubular breathing, with crepitations, could be heard when the child cried; there was also an additional small patch at the free margin of the left lower lobe, just internal to the anterior axillary line. The vomiting and retching continued, and lumbar puncture yielded a drachm of perfectly clear fluid. The percussion note over the left lung remained somewhat dull, but the tubular breathing disappeared, and at the right base also the note became slightly deficient. On the tenth day death occurred. The temperature was practically normal throughout; on the second day it rose, as stated, to 100.8°, and subsequently it once reached 100°, and on two other occasions 99°. At the necropsy there was some excess of fluid in the subarachnoid space, but no meningitis. The lungs showed acute bronchitis. There was a little pleurisy over the left lower lobe, which showed pneumonic consolidation. On the right side there was a large empyema, with collapse of the lower lobe of the lung. In the small intestine was one early tuberculous ulcer, and the mesenteric glands were caseating.

In addition to the difficulty of diagnosis when many signs point to meningitis, this case emphasizes the fact that pneumonia, even when associated with empyema, may occur in children with scarcely any rise of temperature, and affords yet another example of how easily an empyema may be overlooked in the absence of any characteristic signs.

Meningitis may sometimes be a complication of pneumonia, and be due to an extension of the pneumococcal infection. In such cases the brain is found to be covered with a thick, greenish, purulent lymph, which is most extensive over the vertex and cerebellum, but frequently extends to the base, and even to the medulla. The following is an instance of this complication:

CASE IV.—*Whooping-cough: Bronchopneumonia: Pneumococcal Meningitis: Death.*

Rosina H., aged 1 year, was admitted under the care of my colleague, Dr. Nestor Tirard. For the previous two months she had suffered from whooping-cough, but for three days had been short of breath, with pain on coughing. She was a somewhat wasted baby, with typical whooping-cough. The face was flushed, and the veins in the neck were full. Signs of broncho-pneumonia were present all over the left lung. The temperature was between 102° and 103°, and continued irregular, but fell to normal after nine days. Four days later it began to rise again at night, and as the signs at the left base did not clear up, paracentesis was performed, when a large empyema was found and evacuated. On the same day there was twitching of the face, and the eyes deviated to the left. The child was continually sick, and general convulsions, with rigidity of the limbs, followed. Death occurred on the following day. *Post mortem* the vertex of the brain was covered with thick greenish lymph, especially on the left side, and extending down deeply into the sulci. A small amount of lymph was present over the cerebellum, but it did not extend to the spinal cord. In the chest there was adhesive recent pleurisy on the right side, and a large localized empyema cavity, which had been successfully emptied, on the left. The left lung was collapsed and studded with bronchopneumonic areas; the right lower lobe was congested. A rabbit which was inoculated with the cerebral exudate died in twelve hours, its blood being found to be teeming with pneumococci.

Occasionally, however, a septic meningitis or septic infection of the brain may follow an attack of pneumonia, the virulence of some septic focus being enhanced by the debility consequent on the pulmonary infection. The following is a case which serves to illustrate this point.

CASE V.—*Bronchopneumonia: Otitis Media: Septic Thrombosis of Cerebral Sinuses: Cerebral Abscesses: Death.*

Albert C., aged 1 year, was admitted under my care. Eleven days previously he was taken suddenly ill with convulsions, and had a constant cough. He continued to be very fretful and restless, and steadily became worse. There was no history of otorrhoea or other illness. The child on admission was of an almost livid hue, the anterior fontanelle was depressed, and a frequent cough added greatly to the general respiratory embarrassment. The respiration rate was 72, and the temperature 103.6°. The chest, however, moved well, and there was no retraction of the intercostal spaces. On the left side there were signs of a patchy consolidation in the lower lobe, and on the right there were a few moist sounds, especially at the base. The knee-jerks were absent. The pulmonary signs became more marked, and the temperature continued irregular. On the fourth day the limbs on the right side suddenly became spastic and the head was retracted. The spasm of the limbs passed off in a couple of hours, but the retraction continued and the child vomited. Repeated convulsions followed, starting on the left side, but later there was universal twitching of the whole body, and the head retraction became more marked. The child died four days after the onset of the cerebral signs. The meningeal vessels were found to be congested, with slight extravasation over the vertex on the right side. A septic thrombus was present in the superior longitudinal sinus, and the veins leading to it were thrombosed. In the right lateral sinus was a recent thrombus, and in the straight sinus was a white, slightly adherent clot. A small abscess cavity was present in the left occipital lobe, and a large abscess in the right occipital lobe containing thick yellow pus, and communicating with the lateral sinus on that side. Both

middle ears contained pus. In the lungs there was acute purulent bronchitis, and the left lower lobe was solid with bronchopneumonia, while the right showed a large area of collapse.

In this case there was evidently a chronic otitis, which had been stimulated into activity as a result of the bronchopneumonia, and had caused a septic infection of the brain and cerebral sinuses.

Although various pneumococcal infections are liable to follow a recent attack of pneumonia, it does not always happen that there is a history of a previous inflammation of the lung. The different serous membranes are at times attacked, apparently primarily. Thus, in another of my cases pneumococcal meningitis associated with cerebral abscesses occurred in an apparently healthy child.

CASE VI.—*Pneumococcal Meningitis: Cerebral Abscesses: Death.*

Cyril E., aged 4 years, was suddenly taken ill with vomiting one night. This was followed by a fit in which all his limbs twitched. He became feverish and lost his appetite, and on the third day was brought to hospital. He had previously had chicken-pox, measles, whooping-cough, and scarlet fever, but had experienced no bad after-effects from any of them. There was, however, a history of an alleged fall on the head about a week before admission. He had an apathetic, vacant look, and was drowsy, resenting any interference. The eyes tended to deviate to the right, and the right arm and leg seemed weak. There were no abnormal signs in the chest or abdomen. The knee-jerks were absent and both plantar reflexes were of the extensor type. Sensation seemed unaffected and there were no changes in the optic discs. The temperature was slightly raised, the pulse-rate 110 and the respirations 40. On the sixth day of his illness he had twitchings on the right side, and was subsequently sick. On the eighth day another fit occurred, but this time on the left side, the face being also affected, and the eyes turned to the left. The fit was easily checked by chloroform, but paresis of the left arm and leg resulted. On the following day the right arm was found to be paralysed. This subsequently recovered to a certain extent, but the vomiting became more frequent. Lumbar puncture, however, failed to yield any cerebro-spinal fluid. The temperature kept for the most part between 99° and 100° until the fourth week, when it suddenly began to rise, with the development of an attack of scarlet fever, the origin of which was obscure; possibly it had been conveyed by the patient's friends. The child was sent to a fever hospital and returned in about a month. He was then pale and drowsy with sunken eyes, and showed paralysis of the left arm and leg. The temperature was normal and the pulse rather slow. He was frequently sick, and the left eye became prominent. Ten days after readmission the temperature began to rise again irregularly to 100.6°. A diagnosis of cerebral abscess being made, Mr. Scott trephined the patient, but failed to discover any pus. The child gradually sank and died a little over two months after being first taken ill. At the *post-mortem* examination the cerebral convolutions were flattened and the base of the brain was covered with greenish pus. In the left temporo-sphenoidal and left frontal lobes were abscesses each of the size of a large walnut. Pus was present in the lateral ventricles especially on the left side, where the anterior cornu was considerably dilated. The ears were normal, and no changes of importance were found in any of the viscera. Cultivations from the pus grew the pneumococcus in pure culture.

Again, a pneumococcal infection of a joint is occasionally met with. The following case, which was recently under the care of my colleague, Mr. Mollison, affords another instance of a serous membrane being primarily affected.

CASE VII.—*Pneumococcal Arthritis: Operation: Recovery.*

Elsie L., aged 1 year and 3 months, was admitted with a six weeks' history of swelling of the right knee, which gradually became painful. The child was said to have been unwell six or eight weeks previously, but there was no history pointing to pneumonia. The joint was swollen, and was at once explored, some turbid synovial fluid being withdrawn, which on cultivation yielded a growth of pneumococcus. The joint was opened, and turbid fluid containing flakes of lymph was evacuated. The temperature was normal on admission, and only slightly raised for a couple of days after the operation. The child made a good recovery.

The origin of infection in such cases where there is no antecedent pneumonia is obscure. The organism must either be in the system and be stimulated into activity by some debilitating disease or injury, or the weakening effects of some illness may predispose the patient to an invasion by the pneumococcus. An instance of a general invasion by this organism as the result of severe illness is the following. The case is remarkable in that there were three distinct morbid processes going on at the same time, which consequently rendered a diagnosis extremely difficult.

CASE VIII.—*Pericarditis: Acute Rheumatism: Tubercle of the Lung: Pneumococcal Septicaemia: Death.*

George N., aged 4½ years, was under the care of Dr. Fenwic The patient had had measles about a year before. He was fi taken ill with "pains in the stomach" nine days previous admission, and had been under a doctor with a consta temperature since. The boy seemed in pain, and scream when touched. The area of cardiac dullness extended fro the nipple line on the left to ½ in. beyond the sternum on t right. The heart sounds were normal, but well-marked pe cardial friction was audible all over the precordium. T percussion note over the base of the left lung was impaire and the breathing at the left apex was deficient. The abdom was rigid and painful in the median line, but nothing abnorm could be felt. The temperature was 103.8°, pulse 112, respir tions 64. The temperature continued hectic for the first thr days, and then fell somewhat, though keeping irregular betwe 96° and 100.5°. The friction became less marked during th time, and finally disappeared on the ninth day after admissio The patient increased slightly in weight and showed som improvement, but a fortnight later the left knee becam swollen and painful, and there was some effusion into t joint without any additional rise of temperature. The joi subsided under the administration of aspirin, but a week late the right knee was similarly affected, the temperature tw days previously having risen temporarily to 103.6°. Sodiu salicylate brought about an improvement, but at the end c another week the pain recurred and the ankles and wrists wer affected, all the joints being swollen. The heart's apex was no ½ in. outside the left nipple line. The salicylate was increase and the true salt substituted with good effect; the temperatur gradually fell, and kept chiefly subnormal for about two weeks It then began to shoot up again, chiefly in the mornings, an the pain returned in several of the joints. The spleen becam enlarged and a transient bright red rash appeared chiefly on th limbs. The temperature again subsided, though it was no quite steady, but in another week again began to show exacer bations to over 104° in the early morning, one of which wa accompanied by a rigor. These rises continued for nearly a month with the exception of two periods of three or four day each when the temperature was almost normal. The erythe matous rash again appeared, but faded after three days, and th spleen increased in size. Ophthalmoscopic examination showe nothing abnormal, and a blood count showed no leucocytosis the white corpuscles numbering 9,600 per c.mm., while the red were 4,720,000 and the haemoglobin 65 per cent. A differentia count of the leucocytes showed that the various forms were present in the normal proportions. On three different occasions cultivations were made from the blood, but no growth was obtained except on one when a sarcina appeared, which was probably due to a contamination from the skin. Between the rises of temperature the patient seemed quite well, and it is noticeable that his body-weight remained steady though it did not increase. With the fever he complained of headache especially in the occipital region. Two further rigors then accompanied rises of temperature, and the patient was not so well. He was rather cyanosed, and was delirious at times, and began to retch and vomit. The knees and elbows again became painful. The temperature became more uniformly raised, and as the signs in the left lung still continued the pleura was explored, but without result. The temperature again fell, but another rigor soon occurred. The feet and hands became swollen and the boy was a good deal troubled with cough. He was sick at times and gradually went downhill, the temperature being continuously very irregular at the last. He finally died, three and a half months after his admission. At the *post-mortem* examination the superficial vessels of the brain were found congested, but there was no meningitis. The pericardium was firmly adherent; the heart and valves were normal. Both pleurae showed recent adhesions. Throughout the left lung were small areas of caseation and larger areas of consolidation; the right was congested, but otherwise normal. The liver was congested and slightly fatty; the spleen was large and soft and the kidneys were cloudy. The pneumococcus was found in the blood within the heart, and a rabbit injected with the serum died suddenly in a couple of days with abundant evidence of pneumococcal infection.

The simultaneous occurrence of rheumatism, tuberculosis, and pneumococcal infection is unusual. The tubercle was probably of some little standing, and the debilitating influence of this and the superadded rheumatism rendered the child susceptible to a virulent invasion by the pneumococcus.

I now turn to some abdominal complications of pneumonia. A rare complication is acute nephritis. Albuminuria is, of course, common enough during the febrile stage, but evidence of an actual parenchymatous nephritis is sufficiently uncommon to justify my detailing this case:

CASE IX.—*Lobar Pneumonia: Acute Nephritis: Recovery.*

Matilda O., aged 4 years, a fat, healthy-looking child, had had a severe "cold" for a fortnight, but suddenly began to get worse three days before admission. She had been delirious, had complained of general and abdominal pain, and had vomited. When seen, she was drowsy and very tremulous; she complained of headache, and there was some retraction. Distant tubular breathing was heard at the right base. The

abdomen was very tender, but the tenderness could not be localized, and nothing abnormal could be felt. The temperature varied between 99.5° and 104.6°, and after three days considerable dilatation of the heart was noticed. The urine was albumen on admission, and on subsequent occasions, but no albumen was found. On the tenth day, however, blood was found to be present, and the spleen at the same time could be easily felt. The blood continued to be present, and the albumen increased to 2¾ per cent. (Esbach), while granular casts were found on microscopical examination. The temperature was irregular up to 102° for another ten days, when it sank to normal, and the renal and pulmonary signs, the latter of which showed considerable delay in clearing up, subsided at the same time. The patient made a good recovery.

Pneumococcal peritonitis is a severe, and often a fatal, condition. It may occur as a complication of pneumonia, or it may have a primary origin, and perhaps be followed by pneumonia, as happened in the second of the two cases which I shall now quote. In the majority of cases occurring in childhood this condition is a primary one, and is generally of the encysted form—that is, the purulent exudate is localized, and is usually found in the lower part of the abdomen. A secondary peritonitis, on the other hand, is, as a rule, diffuse, and is less common. The first of the two peritonitis cases which I have to bring to your notice illustrates the involvement of the pericardium and pluræ, in addition to the peritoneum, secondarily to an attack of pneumonia.

CASE X.—*Double Lobar Pneumonia: Double Empyema: Pyopericarditis: Peritonitis: Death.*[1]

Ethel W., aged 4½ years, came of a family in which there was a history of tubercle and chest troubles. She had had pneumonia following measles two years previously. About five weeks before admission to hospital she passed through an attack of pneumonia, which involved both lungs, the crisis occurring on the fifth day. The signs in the lungs, however, did not clear up, dullness persisting at both bases and moist sounds being audible on both sides of the chest. Towards the end of the second week it was noticed that her abdomen began to swell, and it gradually became larger. The breathing became more embarrassed and the child lost flesh. On admission the temperature was 100.2°, it having been previous to this practically normal after the initial fever, and the pulse was 140. The heart's apex beat could be neither seen nor felt, but the sounds were best heard over the fourth costal cartilage. There was dullness over both lower lobes of the lungs with greatly diminished breath sounds and absence of vocal fremitus. The abdomen was much distended and afforded ample evidence of fluid. Paracentesis of both sides of the chest was performed, pus being withdrawn from the left, but not from the right. On the operating table a little more pus was withdrawn from the left pleura by means of a needle, but on resecting part of a rib no further collection could be found. The patient was very collapsed afterwards, and the cyanosis increased. On the assumption that the respiratory difficulty might have been caused by the pressure of the fluid within the abdomen, the peritoneum was tapped some twenty-four hours later and 13 oz. of pus were removed. The breathing improved, and the abdomen was opened in the middle line below the umbilicus, when 3 to 4 pints of thick yellowish-green pus were evacuated, drainage tubes being inserted into each loin. The child, however, never rallied, and death occurred suddenly two days later. The temperature, except on admission, never rose above 99.6°. At the *post-mortem* examination there was no meningitis. The pericardium was distended by 16 oz. of thick greenish pus. There was generalized pleurisy over both lungs and a small empyema on either side posteriorly. The lungs were oedematous, and the left lower lobe was very congested, but no signs of consolidation remained. The peritoneum was uniformly covered by a thick layer of lymph, which had caused numerous adhesions, shutting off here and there small isolated collections of pus. The lymphatic glands were not enlarged. Cultures of the pus from the pleurae, pericardium, and peritoneum yielded pure cultures of pneumococcus.

The case seems to have been one of primary pneumonia with secondary infection of the other serous membranes. There was no evidence, however, to show that the peritoneum had become infected by direct extension from the pleurae. The diaphragm did not show any signs of disease, and the pelvic peritoneum was more extensively involved than the upper. On the other hand, there was no evidence that the peritonitis was due to an infection from the alimentary tract or from the pelvic organs, which were normal. The pyopericarditis was entirely undiagnosed. The other case is an example of a primary infection of the peritoneum:

CASE XI.—*Pneumococcic Peritonitis: Secondary Pneumonia: Death.*[2]

Edith H., aged 5 years, when 15 months of age had an attack of "inflammation of the bowels." Since then she had been healthy, but for the past few months had had occasional abdominal pain, worse at times after food. There had been no vomiting, and the bowels were regular. Five days before admission she woke with severe pain in the abdomen, and vomited, the temperature being 103°. The pain continued, and diarrhoea persisted after a dose of castor oil, but the vomiting ceased. The abdomen became distended and somewhat rigid, especially in the lower part, and the temperature continued high. When seen the patient's aspect suggested pneumonia rather than peritonitis, the face being flushed and the respirations quickened. The abdomen was distended and only slightly tender; it was resonant, and afforded no evidence of free fluid. There were signs of consolidation over the lower lobe of the left lung, and some crepitations and coarse râles at the right base. A blood count showed a leucocytosis of 15,000. Laparotomy was deferred, as the case did not seem to be one of septic peritonitis, and the presence of pneumonia suggested that it was a pneumococcal infection. The dullness on the right side of the chest became more marked and more extensive, so that fluid was suspected. Exploration, however, was negative. The abdomen continued distended, and some diarrhoea with very offensive stools followed. Antipneumonic serum was given on two occasions without any noticeable benefit. The temperature then fell, and the lungs showed signs of resolving, the abdomen at the same time becoming much less distended and the diarrhoea ceasing. Some induration was felt in the hypogastrium, but operation was further deferred in order that the child might be in a better condition as the lungs improved. A sudden change, however, occurred. The temperature rose and the abdomen rapidly became enormously distended, with signs of intestinal perforation. Laparotomy was immediately performed in the middle line of the hypogastrium, when free gas and 8 oz. to 10 oz. of thick greenish fluid containing flakes of lymph were evacuated. The intestines were extensively matted together, so that it was impossible to find a perforation. Many incisions for the purpose of irrigation and drainage were consequently made, but the child, as was only to be expected, died three days later from septic intoxication. At the necropsy general adhesive peritonitis and small collections of very inspissated green pus were found. Between the liver and the diaphragm was a large abscess entirely shut off from the general peritoneal cavity. No perforation could be found. Both lungs showed areas of collapse and slight pneumonic consolidation. Films from the pus within the abdomen showed the presence of the pneumococcus.

In this case the abdominal infection seemed to be primary, the pulmonary signs not appearing until the third day. As no perforation could be discovered, it is possible that gas-forming organisms gained access to the peritoneal cavity through a damaged intestinal wall.

The cases related cover a wide area, and serve as illustrations of the difficulties at times attending the diagnosis of pneumonia and its complications in childhood, as well as reminders of the extensive ravages which the pneumococcus may bring about.

REFERENCES.

[1] Clogg, *British Journal of Children's Diseases*, 1907, vol. iv, p. 491.
[2] Clogg, ibid., 1908, vol. v, p. 285.

HOSPITAL INFECTION OF TUBERCULOSIS

AS EXEMPLIFIED BY THE RECORDS OF THE RESIDENT STAFF OF THE MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST FOR THE PAST FIFTEEN YEARS *

BY J. EDWARD SQUIRE, C.B., M.D., F.R.C.P.,
SENIOR PHYSICIAN TO THE HOSPITAL.

A RECENT contribution [1] on the infection of consumption by Dr. Theodore Williams raises again the question of hospital infection, and refers to the original figures from the Brompton Hospital on this subject which have been so widely quoted as evidence of the comparative immunity from tuberculous infection of the resident medical and nursing staffs of special chest hospitals.

These figures, and others which have been brought forward, appear, however, to be compiled from the results of inquiries into the health of the former residents and nurses rather than from any actual medical examination of the individuals concerned, and are thus inconclusive. In one case—that of Victoria Park, given by Dr. Andrew in his Lumleian Lectures [2]—the information appears to have been simply obtained from the secretary of the hospital.

As a further contribution to this question, I propose to give some figures from the Mount Vernon Hospital which have at least the advantage of being compiled from actual examination of the individuals. As Dr. Williams's latest article gives particulars of the resident medical officers, I have added to my statistics particulars of the resident

* A paper read before the Medical Section of the Royal Society of Medicine, April 26th, 1910.

TABLE I.

Hospital.	Resident Medical Officers.		Dispensers.		Nursing Staff.		Female Servants.		Porters.	
	Total.	Became Phthisical.	Total.	Became Phthisical.	Total.	Became Phthisical.	Total.	Became Phthisical.	Total.	Became Phthisical.
Brompton, 1846–1867	154	8*	22	4	?	4*	?	1	20	0
,, 1867–1882					107	1	32	0		
,, 1882–1909, including Frimley	201	5†	23	0	—	—	—	—	137	7‡
Victoria Park (Dr. Andrew, 1884) ...	12	1	7	1	259§	1	—	—	34	1
Ventnor (quoted by Dr. Bulstrode, 1906)	—	—	—	—	208	6‖	407	2	—	—
Crooksbury Sanatorium (quoted by Dr. Bulstrode, 1906)	5¶	0	—	—	26¶	0	76	1	—	—
Totals	372	14	52	5	600 +?	12	515 +?	4	191	8

* Only one resident medical officer and one nurse contracted phthisis whilst at Brompton.
† One contracted phthisis from a *post-mortem* wound. The remaining four became consumptive after leaving Brompton.
‡ Five of these porters had to deal with the patient's clothing and bedding; another one was a pathological assistant, who became consumptive after an accidental wound.
§ Nurses and female servants are here included together. Thirty-three, in addition to the one referred to as phthisical, left because of illness, and of these 'some, but certainly not all, were phthisical"
‖ Three of these nurses appear to have had tuberculosis before going to Ventnor.
¶ One resident medical officer and four nurses had been phthisical before they came to Crooksbury.

medical officers, obtained, like those of Dr. Williams, by inquiry only. It will, I think, be seen that the risk of infection in hospital is not entirely a negligible quantity, though the risk is a small one and affects the nurses and servants of the institution rather than the members of the resident medical staff.

The figures I am able to give cannot be taken to show every case of possible infection from hospital work, since they only refer to evidences of infection which were apparent up to the time when the individual left the hospital; it is, of course, possible that other cases may have developed tuberculosis after leaving.

The original report of the Brompton Hospital staff was presented to the British Medical Association by Dr. Theodore Williams at the annual meeting in 1882.[3] As it covered a period of thirty-six years the number of individuals who had been in residence must have been considerable, though it was perhaps impossible to give the actual numbers.

The accompanying table (Table I) will show the nature of the material at present available for judging of the risk of hospital infection in this country.

These figures furnish some curious results, for we find that the dispensers, who come least in contact with the patients, show the highest proportion of consumptives (9.61 per cent.), whilst the nurses and female servants, who are most continuously in the wards, furnish the smallest proportion of consumptives (0 98 per cent.). This does not include those who were in residence at Brompton before 1867, for the numbers are not given in the report.

The resident medical officers (3 76 per cent.) and porters (4.18 per cent.) come between the dispensers and the female staff with a somewhat close approximation in the proportion of consumptives.

The Brompton report of 1882 has been very widely quoted as evidence that infection does not occur in properly conducted hospitals for consumptives.* It may be that other hospitals have felt some diffidence in publishing any cases of apparent infection of members of the staff which might lay the institution open to the presumption of insufficient attention to precautionary details.†

The report does not, it is true, show complete immunity from tuberculosis amongst those who had been in residence, though only one resident medical officer out of 150 is said to have contracted the disease whilst in residence, and only one individual (or perhaps two) out of the many nurses and maidservants who resided in the institution during the thirty-six years with which the report deals. Nevertheless, it shows a surprisingly small incidence amongst those who have worked in the hospital as compared with the known prevalence of the disease amongst young adults in the general population of this country.

Dr Williams, in his most recent report, seems to recognize a possibility of infection in general hospitals, since he states that, though amongst the house-physicians none was affected during residence at Brompton, two subsequently died of acute phthisis when holding resident appointments in hospitals where cases of advanced consumption are admitted.

It is, I think, certain that residence in a well-regulated hospital or sanatorium for consumptives involves no great risk of infection; on the other hand, there are certain duties incidental to the care of consumptives which involve some risk, and therefore necessitate special precautions—such duties, for example, as cleansing sputum cups and flasks, handling soiled handkerchiefs, clothing, or bedding, and the performance of autopsies. Risks of direct infection from patients coughing—droplet or spray infection from sputum—or from general air infection from dried sputum should be practically non-existent in the wards of a well-ordered hospital.

Such as they are, the risks will therefore not be common to all the residents in the institution, but will vary with the special duties of the different members of the staff.

The visiting physicians may be left out of consideration; they are not living amongst the consumptives, and there should be little or no risk in examining the patients.

The out-patient physicians probably run some risk, since they examine a large number of patients at each visit, most of whom have not been instructed in the precautions necessary to minimize any possible danger to others.

The resident medical officers are in less close and less constant relation to the patients than the nurses, and their risk, if we exclude the performance of autopsies, and possibly some danger in laryngoscopic examinations, is also slight.

The nurses are the most exposed to infection, and if there is any risk we should expect to find evidence of it in the incidence of consumption amongst the nursing staff. It is to be regretted that in his most recent communication in reference to the Brompton Hospital staff, Dr. Williams has left the nurses out of consideration. Wardmaids, scrubbers, laundrymaids, and porters have special risks from dried sputum which make precaution in their work necessary; these individuals also do not readily appreciate the need for attention to detail, and soon neglect precautions if supervision is relaxed. We might expect that a certain percentage of residents, nurses, and servants would become consumptive, without therefore concluding that they became infected

* Thus, in the first book which I took at random from my shelves in which reference is made to the matter, I read: "Although Brompton Hospital, London, has treated more than 15,000 cases of tuberculosis during the past twenty years, yet neither a nurse, a physician, nor an attendant has become infected."—*The Diagnosis and Treatment of Pulmonary Tuberculosis.* By F. M. Pollinger. Baillière, Tindall and Cox. 1908.

† Dr F. R. Walters says: "No instance of infection has ever been reported from any modern chest hospital with even elementary precautions about the expectoration."—*The Sanatorium Treatment of Pulmonary Tuberculosis*, p. 34. 1909.

ilst engaged in the institution, and in consequence their work there.

In order to assess the special risk attending work in hospital for consumptives, we must endeavour to show at the incidence of the disease is proportionately greater ongst those engaged in such institutions than it is ongst those fulfilling similar duties in other hospitals, else be able to trace the source of infection in indilual cases, and show at least a probability of a definite ation between their special work and the contracting the disease. The first condition—that is, the statistical mparison between the staffs of general hospitals and ose of the special hospitals in relation to the incidence consumption—is hardly possible; not only are the ta difficult to obtain, but a very large proportion of e medical and nursing staffs of the special hospitals ve been previously engaged in general hospitals, or ss on to the latter. A comparison might easily be made tween the incidence of consumption amongst those who ve been engaged in the special hospitals and amongst e general adult population, but this would be of little lue unless the comparison were restricted to individuals similar social grade and comparable kinds of employent. Even in respect of cases of consumption occurring individuals engaged in special hospitals, whose duties pose them to definite risks, it is necessary to show that ey were free from disease when they commenced their ties before we can reasonably infer that they became fected through their work. The statistics from Mount rnon have a certain value from this point of view, since the case of the nurses and servants every individual as thoroughly examined on entry, and, in the great ajority of those who were accepted, again on leaving. It the rule at the Mount Vernon Hospital that every ember of the nursing staff, every maidservant, and very man or boy employed in or about the hospital ngineers, porters, etc.), shall be examined before being finitely engaged, and again on leaving. The chest is refully examined, under the same conditions as obtain the examination of the patients, by one of the visiting hysicians detailed for this duty. This has been my duty r the past fifteen years, and from the records which ave been kept the following notes and statistics have een compiled. As I also see all members of the staff ho are reported to be out of health, there should be little hance of their developing consumption without it being etected. Nurses naturally shrink from a thorough exmination of the chest by residents with whom they are ily in communication; thus, if they find themselves iling in health, and suspect that their lungs ay have become affected, they may keep the matter themselves, and leave the hospital rather than report ick. Compulsory examination on entry by one of the isiting staff, besides ensuring the physical fitness of new embers of the resident staff, paves the way for similar xamination by the physician on the lightest hint of anger. I have several times been asked to examine urses or servants merely because they or their friends ad got a little nervous about possible infection. The rigin of this practice at Mount Vernon is not without ignificance. A nurse (L. E. D.) came to the hospital rom a provincial consumption hospital, and it was noticed hat she had a hacking cough. She was persuaded to ave her chest examined, and I found active mischief in he lungs, from which she died some six months later. According to her own account she had been off duty for n attack of acute bronchitis, and before she had completely recovered she was put on special duty to look after n advanced case until his death. It seems probable that, being in a condition of special susceptibility on account of her illness, she became infected from this patient. To avoid a similar occurrence in the future I suggested the systematic examination of all nurses and servants on entering on their duties and on leaving, which has now been carried out for over fifteen years. The numbers of which I have kept records comprise: From the Hampstead Hospital, 167 sisters and nurses, 92 maidservants, and 6 men and boys; and for the Northwood Hospital, 68 sisters and nurses, 73 maidservants, and 14 men and boys—a total of 420 persons. A certain proportion of these were rejected on the medical examination, others did not remain more than a few weeks, and some left without notice or were dismissed summarily for breaches of discipline or misconduct, so that the numbers examined on leaving will be considerably fewer than those mentioned above. It will be seen that evidences of past or present tuberculosis of the lungs were detected by medical examination in a not inconsiderable proportion of the applicants for posts as nurses or maidservants, the condition being frequently unsuspected by the individual herself.

In addition to the above, there have been 33 resident medical officers, 3 dispensers, and a porter and caretaker at the out-patient department, about whom particulars are available.

We may divide the inquiry into three parts:

The proportion of those desiring to enter the service of the hospital who have, or have previously had, some tuberculous manifestations.
The evidence pointing to tuberculous infection whilst in residence in the hospital and the extent of the risk.
The evidence of subsequent development of tuberculosis after leaving the hospital.

I.—*Evidence of Previous Tuberculosis in Applicants for Appointments.*

For the purposes of this inquiry we may take all the applicants who were examined on entry as to their physical fitness. Some of these were rejected at once as unfit for the duties required of them, others were allowed to remain though not physically sound, and were kept under observation. These were informed of the condition of the lungs, and were told that they would probably improve under the hygienic conditions observed in the hospital, and given the option of remaining. Most of them improved very considerably, and remained well; one or two did not improve, and left after a few months. It is noteworthy that of those who were found to have signs of tuberculosis, a large proportion were quite unaware of any such mischief, even when the signs showed active lesions. Others were aware that they had tuberculosis—quiescent or arrested—although they generally withheld the information on this point until it had been detected on examination.

The returns for Hampstead extend over fifteen years, those for Northwood only cover a period of five years.

The individuals examined on entry are comprised in the following table:

	Hampstead.	Northwood.	Total.
Matrons, sisters, and nurses ...	167	68	235
Female servants	92	73	165
Men and boys	6	14	20
Total individuals	265	155	420

Amongst these there was evidence on entry of previous infection with tubercle as follows:

	Hampstead.	Northwood.	Total.
In nursing staff	25	7	32
In female servants	6	7	13
In men and boys	0	0	0
Total individuals	31	14	45

This gives a proportion of nearly 14 per cent. of the nurses and 8 per cent. of the maids who had been infected with tuberculosis before they applied for duty at Mount Vernon. There were in addition a few nurses and maids whose lung signs were not entirely satisfactory, and suggested a possible slight attack of tuberculosis; but as the evidence in this direction was by no means conclusive, I have not included them in these returns. Of the 45 individuals who gave evidence of previous infection, 8 nurses and 1 maid had scars in the neck from old strumous glands, and 1 maid had an enlarged cervical gland which appeared to be actively tuberculous; 3 nurses and 4 maids had signs of old pleurisy, and of these, 2 nurses and 1 maid gave a history of repeated attacks—three in each case. Of the remaining 28 individuals, the majority had signs

pointing to arrested or healed mischief in the apex of the lungs, whilst in 10 the signs pointed to still active tuberculosis in the lungs. One nurse had signs in the lungs as well as a scar in the neck.

Of those who, as the result of examination, were considered to have had tuberculous infection of the lungs, some were unaware of anything having been wrong; even those with active mischief—as, for example, the case (Miriam T.) detailed below—seemed to have no suspicion that their lungs were affected. Two or three were known to have been in hospital with pulmonary tuberculosis at some previous date, and some others as the result of inquiries eventually confessed to having been under treatment for consumption.

Some of the nurses and servants included in the above returns as previously infected were rejected as unfit, two were admitted as in-patients instead of being accepted for duty. Only one nurse (L. E. D. referred to previously) is known to have died of the disease, though one maid is still in the hospital as a patient.

Most of those who were taken on duty improved considerably during their residence. Four developed active mischief later, while doing duty in the hospital. It will be noted that 13 6 per cent. of the applicants for appointment on the nursing staff presented evidence of tuberculosis, recent or remote, whilst of the servants applying only 7.8 per cent. showed signs of previous infection. This marked difference demands investigation, especially as tuberculosis is essentially a disease of the poor, and would be more prevalent in the class to which the servants belong than in that from which the majority of the nurses are drawn. Age might possibly have some influence, for some of the maids were younger than any of the nurses, and had not reached the age at which pulmonary tuberculosis is most common. The difference might be to some extent explicable on the supposition that the affected nurses might have selected such a hospital because the conditions of life were specially favourable to their condition, whereas the maids, coming from a more ignorant and prejudiced class, would avoid a consumption hospital if they had any suspicion that their lungs were not sound. In a few of the cases the nurses acknowledged that they had applied for posts at Mount Vernon because they thought it would be a good place for them as they had had their lungs affected, and it is generally known that a certain proportion of both medical officers and nurses in the various sanatoriums for consumptives have previously been patients at similar institutions. It is, however, impossible to overlook the possibility that previous occupation may afford the explanation of the greater proportion of nurses, as compared with servants, who have become affected with tuberculosis. Leaving out the cases of pleurisy and of strumous glands, we have 10 per cent. of the nurses and only 4 per cent. of the servants giving evidence of tuberculous infection. It seems possible that the nurses having been engaged in attending the sick and residing in hospital—at least during their training—may have become infected from their patients or have had their resisting power lessened by the effects of hospital work and residence. Many of the "nurses" were, however, probationers with no experience of nursing and no previous hospital residence, and, on the other hand, some of the maids had been employed in hospitals.

Of the tuberculous individuals, 17 (16 nurses and 1 maid) had had previous hospital residence, being nearly 37 per cent. of all who showed evidence of tuberculous infection. Of the tuberculous nurses alone, 48.5 per cent. had been in hospital.

The probable influence of hospital residence may be seen by the following comparison:

A.—Proportion of those who had previously resided in hospital who showed signs of tuberculosis (excluding cases of strumous glands):

Nurses ...	...	16 out of 70 = 22.75 per cent.
Maids ...	...	1 out of 17 = 5.28 ,,
Both ...	...	17 out of 87 = 19.54 ,,

B.—Proportion of those who had never been in residence in hospital who showed signs of tuberculosis (excluding glands):

Nurses ...	...	17 out of 166 = 10.24 per cent.
Maids ...	...	12 out of 147 = 8.16 ,,
Both ...	...	29 out of 313 = 9.26 ,,

Whether the influence of hospital residence, as shown above, was in the way of direct infection from tuberculous patients, or was due to the effect on the general health rendering the individual more susceptible to infection from any source, or in causing a latent tuberculosis (due to infection before entering the hospital) to become active, it is, of course, impossible to determine. In any case it seems that the influence of general hospital residence cannot be altogether disregarded, since the proportion of tuberculous cases in those who had previously resided in hospital was twice as great as that amongst those who had never worked in hospital.

II.—*The Evidence Pointing to Tuberculous Infection while in Residence at Mount Vernon Hospital.*

The nursing staff of a hospital would seem to be most exposed to any risk there might be of direct infection through the air (by droplet infection, or from the general infection of the air of the wards from dried sputum) since their duties bring them into close personal relation with the patients for many hours a day. They probably have also to collect the soiled handkerchiefs, the used sputum cups and flasks, and to make the beds of the more advanced or febrile patients. Their risk would probably equal that of the near relatives and household of a consumptive patient who is confined to the house, except that the regulations of a well disciplined institution ensure attention to prophylactic detail, which may be neglected in the average household. The maids are not so continuously in the wards or so closely in attendance on the patients, and their risk should be much less, but they might be expected to be less careful in carrying out precautionary regulations. Some of the men have special risks in connexion with the destruction of sputa, the disinfection of clothing and bedding, or in the *post-mortem* room.

If we were to rely upon the account which could be obtained from the individuals themselves we should only have to report a single nurse at Hampstead as having become consumptive whilst in residence, and possibly two at Northwood, who developed tuberculosis—one in the hand and the other in the foot—though these latter may not have been aware of the nature of the mischief. If, however, we look at the results of examination, as shown in Table II (p. 1043), we see reason to doubt whether such a report would furnish a complete record of those who developed tuberculosis during their residence. Several of those recorded in this table had no definite symptoms of ill health, and the majority had no suspicion that they had become infected with tuberculosis.

It will be seen on reference to the table that, excluding doubtful cases,* 14 members of the nursing staff, 5 maid servants, and 2 men developed tuberculosis during their residence in the hospital. Of those, 5 nurses, 3 maids, and 1 man had been found on entry to have signs indicating previous infection. These cannot, therefore, be properly included in estimating the proportion of residents who may have become infected in the hospital. One of the maids who developed tuberculosis, and who ultimately died of the disease, contracted the infection apart from her duties (see case R. H. detailed below).

In calculating the percentage of cases of possible infection, only those members of the staff who remained in residence for three months or longer are included in the total of the residents, except in two cases who developed tuberculosis within three months of commencing their duties.

In making a critical examination of the cases referred to above as having developed tuberculosis during residence, we find that of the Hampstead staff 5 of the nurses may be considered to have developed tuberculosis in the lungs without any reasonable doubt, and of these 2 were recognized as tuberculous on entry. In 3 others the signs suggested pulmonary infection, but were not absolutely conclusive. In the remaining case (W. J.) if the swelling on the ankle was due to tuberculosis it must be considered rather as the development of a latent infection than as an infection occurring whilst in residence, the activity being possibly due to a lowering of the resisting power by hospital work and residence—the influence of the hospital

*Most of the cases which I have called doubtful, both in the list of those who showed evidence of tuberculosis on entering the service of the hospital, and in that of the individuals who developed tuberculosis whilst in residence, had more definite physical signs of changes in the lungs—catarrh, consolidation, or induration—than many patients who are admitted into the wards as cases of pulmonary tuberculosis and sometimes proved to be tuberculous. These "doubtful" cases have not been included as tuberculous in any of the calculations of percentages.

TABLE II.—*Table of Cases Developing Signs of Tuberculosis (Definite or Suspicious) during Residence in Mount Vernon Hospital, 1894 to 1909 inclusive.*

No.	Occupation.	Initial.	Age.	Date of Entry.	When Signs were Noted.	Condition Noted on Examination.	Remarks.
	Hampstead.						
1	Probationer nurse.	E. R.	17	April, 1895	Aug , 1897	Pleurisy left base	Developed cough six months later.
2	Nurse	M. T.	27	?	Sept., 1894	Creaking râles left back	Signs disappeared in about a month ; doubtful.
3	Probationer nurse.	G. A.	19	Oct , 1899	Sept., 1900	Deficient resonance and interrupted breath sounds at right apex ; had lost weight two or three months	Right apex showed quiescent mischief on entry.
4	Nurse...	M. M.	25	Feb , 1900	Nov., 1900	Harsh bronchial breathing and crepitations right apex ; few crepitations left apex	Now well. (See report below.)
5	Probationer nurse.	E. S.	19	Feb., 1903	April, 1905	Deficient resonance ; high pitched breath sounds ; prolonged expiration right apex ; harsh breathing left apex ; temperature, 100.2°	Left apex showed quiescent mischief on entry ; had had pleurisy.
6	Sister...	J. G.	31	Aug., 1904	July, 1905	Inconstant crepitations right lower lobe ; much thinner	Left the hospital ; believed to be well ; doubtful.
7	Probationer nurse.	E. H.	23	March, 1905	Dec., 1905	Fine crepitations right front	Left the hospital ; doubtful.
8	Probationer nurse.	E. D.	18	Feb , 1906	Oct., 1906	Bronchitic râles more marked on left ; pleural friction left side	Seemed well on leaving the hospital, but her health broke down six months later.
9	Nurse	W. J.	20	May, 1906	Nov., 1906	Swelling of left ankle ; no redness	Very bad family history of tuberculosis ; ankle got quite well ; doubtful.
10	Nurse	E. T.	23	April, 1907	Jan., 1908	Harsh breathing with prolonged expiration right apex	Possibly physiolcgical ; doubtful.
11	Wardmaid	R. H.	21	Oct., 1902	April, 1905	Cough a.m. ; creaking râles left supraspinous fossa ; moist crepitations right apex ; tubercle bacilli in sputum	Died 1908. (See report)
12	Between maid ...	C. B.	14	Oct., 1902	April, 1905	Few crepitations right apex	Probably temporary catarrh ; doubtful
13	Wardmaid	J. M.	21	May, 1905	Aug., 1905	Crepitations below right clavicle and in right supraspinous fossa ; disappear on coughing	A delicate girl.
14	Between maid ...	S. A. B.	17	Sept., 1903	July, 1904	Deficient resonance right apex : few post-tussive crepitations suprascapular region ; deficient resonance left apex ; moist crepitations after cough ; tubercle bacilli in sputum	Admitted to wards.
15	Maid	E. D.	18	Nov., 1893	Feb., 1895	Harsh breath sounds and fine crepitations left apex ; temperature 99° to 100.2° p.m.	Father phthisical ; remained till 1897 and kept well.
16	Maid	B. C.	18	?	Feb., 1896	Deficient resonance both apices ; creaking râles right supraspinous fossa ; swollen cervical glands left side	Father died of phthisis ; the lung signs were due to old tuberculosis before entry.
	Northwood.						
17	Nurse...	E. H.	32	Nov , 1905	Jan., 1906	Occasional crepitations below both clavicles	October, 1907 ; creaking râles both apices, constant on right ; had tuberculous cervical glands, aged 15.
18	Probationer nurse.	J. W.	26	Dec., 1907	March, 1908	Tuberculous finger from splinter	(See report) ; still on duty in the hospital.
19	Probationer nurse.	W. E.	21	March, 1905	Oct., 1906	Tuberculous metatarsal joint	(See report.)
20	Probationer nurse.	J. D.	19	May, 1907	Jan., 1908	Acute tonsillitis ; pleurisy left side	Probably rheumatic ; complete recovery ; left April, 1908.
21	Nurse...	G. M.	25	Jan., 1905	Jan , 1906	Deficient resonance left apex ; crepitations in both supraspinous fossae	Had pleurisy and pneumonia two years before entry.
22	Housemaid	L. M.	16	Nov , 1908	Jan., 1909	Tenderness and swelling in palm of hand	(See report.) Lungs showed old mischief on entry.
23	Housemaid	R. S.	16	Aug., 1906	May, 1907	Deficient resonance, prolonged expiration, and some crepitations above left clavicle	Left August, 1908 ; still keeps well ; doubtful.
	Men.						
24	O P. porter and caretaker (Fitzroy Square)	H. J.	40	Oct., 1906	Nov., 1907	Old mischief both apices ; active on left lung	Died in the hospital ; was invalided from army for haemoptysis.
25	Engineer (Hampstead)	W. C.	29	Aug., 1906	May, 1908	Fine crepitations at left apex. Tubercle bacilli in sputum	Still on duty ; now well. (See report)
26	Page (Hampstead)	E. M.	18	Oct., 1908	Oct , 1909	Catarrhal condition right apex	Still on duty ; doubtful.

residence is in this case, at the most, indirect. There are thus only three cases of probable infection amongst the nurses during the past fifteen years which may be attributed to their work and residence at Hampstead.

Of the Northwood staff, two nurses developed signs in the lungs which pointed to tuberculous infection. One of these had suffered from strumous glands at the age of 15, and it is therefore conceivable that she had latent tuberculosis on entry ; if so, the period of latency extended over seventeen years. The case of pleurisy cannot, in my opinion, be considered as an instance of tuberculous infection except on the supposition that all pleurisies are tuberculous. The pleurisy was preceded by an attack of tonsillitis which suggests a possible rheumatic origin. The case of tuberculosis of the finger is interesting, as it seems almost certainly to have been the result of local infection from a splinter of wood from the ward table which she ran into the finger. The case of tuberculosis of the metatarsal joint is less clear, as it is difficult to see how infection occurred, unless it were through the finger which she crushed in the door some weeks previously. (See Case W. E. detailed below.)

Excluding those who were rejected as unfit on the admission examination, or for other reasons did not remain over three months, we have 155 nurses and 62 maids at Hampstead and 60 nurses and 52 maids at Northwood.*

We have, then, the following proportion of cases of probable infection :

	Total.	Developed Tuberculosis.	Excluding Previous Tuberculosis.
HAMPSTEAD—			
Nurses	155	5, or 3.22 per cent.	3, or 1 93 per cent.
Maids	62	4, or 6 42 ,,	2, or 3 22 ,,
Both...	217	9, or 4.14 ,,	5, or 2.30 ,,
NORTHWOOD—			
Nurses	60	4, or 6.6 per cent.	2, or 3 3 per cent.
Maids	52	1, or 1.92 ,,	1, or 1 92 ,,
Both	112	5, or 4.46 ,,	3, or 2 67 ,,
BOTH INSTITUTIONS TOGETHER—			
Nurses	215	9, or 4.18 per cent.	5, or 2 32 per cent.
Maids	114	5, or 4 38 ,,	3, or 2 63 ,,
Both...	329	14, or 4 25 ,,	8, or 2 43 ,,

* The comparatively large number of maids at Northwood is due to the fact that the laundry for both hospitals is at the Northwood branch.

Taking Table I for comparison, it will be seen that, excluding the Brompton returns before 1867, where the total number of nurses and servants is not given, we have:

Nurses 600, of whom 8 became consumptive—1.3 per cent.
Maids 515, ,, 3 ,, ,, 0.58 ,,

It will, I think, be evident that the return of those who became infected with tuberculosis is obviously incomplete, as might be expected if the figures are obtained by inquiry only.

It may be well to point out here that the hospital at Hampstead is an older building than that at Northwood, and that all kinds of chest cases, including some quite advanced cases of consumption, are admitted to the wards, whilst the much newer hospital at Northwood is for early cases of pulmonary tuberculosis, and may be described as a model of the palatial type of sanatorium for consumptives.

Of the maids at Hampstead, 6 developed signs in the lungs suggesting tuberculous infection. In two of these the disease became acute, and one of them (R. H.) died. In the fatal case it will be noted (see case below) that there is sufficiently clear evidence that infection was contracted outside the hospital. In one other case the lungs showed signs of old mischief on entry. Two of the other three cases are open to doubt, and I have failed to trace the girls since they left the hospital. At Northwood two maids appear to have become infected. One of these—L. M., recorded below—is interesting as a case of probable local infection through a cut. She had signs on entry of previous infection of the lung. The other case gave doubtful signs in one lung. She remained at her work, and though she has now left the hospital I have ascertained that she keeps quite well.

Of the men, only two have showed any signs of mischief in the lungs. One of these was a caretaker at the offices in Fitzroy Square and out-patient porter there. He developed active tuberculosis, and ultimately died in the hospital; he had been invalided out of the army for haemoptysis. The other case was the engineer at Hampstead, whose duties included the destruction by burning of the contents of the sputum cups and flasks. He was never obliged to go off duty, though he remained under my care for six months. He is now perfectly well, and is still on duty at the hospital. It may be mentioned that all the men employed in the hospital are periodically examined every three months.

It is hardly possible to form any definite conclusion as to the influence, if any, of hereditary predisposition, since the numbers of those individuals in whom reliable information on this point is available is too small to be of any value. So far, however, as the figures give any indication, it would appear that the evidence points to the conclusion that it is undesirable that those who have a family history of tuberculosis should take work as nurses or maids in a special hospital for consumption. Of the Northwood staff, in whom the family history has been recorded, it appears that out of 71 nurses and 80 maids*—a total of 151—of whom 22 gave a history of tuberculosis in the family, 9 nurses and 8 maids showed signs of previous tuberculosis on entry, and 3 others developed tuberculosis in residence. Thus we have 20 cases of tuberculosis in 151 individuals, or 13.24 per cent. Of these 20 cases of tuberculosis, 5 gave a history of tuberculosis in the family (25 per cent.), and 15 had no family history of tuberculosis (75 per cent.). Putting the figures in another way, we have 129 women with no family history of tuberculosis, and of these, 15 developed tuberculosis before or during residence—a proportion of 11.6 per cent. Of 22 women with a tuberculous family history, 5, or 22.7 per cent., developed tuberculosis. Thus the incidence of tuberculosis was considerably greater amongst those who belonged to tuberculous families. The numbers are, however, too small to be of any value.

The information as to family predisposition is less complete in the case of the Hampstead staff.

The average stay in the hospital is about the same for both nurses and servants, namely, about eighteen months; this is, of course, excluding those who did not stay as much as three months. Individual nurses and maids remained in the hospital several years, one as much as t years and several for five years and over. It should mentioned that a large proportion of the nurses are p bationers who only come for one year, passing t remaining two years of their training in a gene hospital.

III.—*Development of Tuberculosis since Leaving the Hospital.*

I have not made any systematic attempt to estimate t proportionate number of nurses and maids who ha developed tuberculosis since they left the Mount Vern Hospital. In the first place, it has been found almo impossible to get into communication with a large p portion of the former nurses and maids, the mai especially being most difficult to trace after a few yea In the second place, such information as can be obtained not altogether reliable, and cannot be corroborated personal examination. I have obtained information regar ing a considerable number of past nurses, and among those there has not been a single case of tuberculo reported.

I have been the less persistent in seeking informati since I have preferred to restrict this report as f as possible to facts ascertained by personal physic examination.

Resident Medical Officers.

Although I have at different times examined several the resident medical officers at their request, there h not been the same systematic examination of the residents as of the nursing staff and servants. Neve theless, since the other reports which I have quoted f comparison give particulars of the resident medical officer I give similar particulars.

Out of 33 past residents to whom I have written, 27 ha replied, 1 is known to be dead. Of the 27 from who I have recently had communications, all but 4 are able state that they have never suffered from tuberculos either before, during, or since their residence at Ham stead or Northwood. They generally agree that the residence did them good rather than harm, and several them speak of putting on considerable weight whilst i the hospital.

Of the 4 exceptions, 2 had suffered from pulmona tuberculosis before they came into residence, the disea having been arrested. Both of these remain well and work.

One other pricked his finger at a *post-mortem* examin tion, which led to a local infection of the hand. Aft about two years the hand became quite well. He is now some twenty years later, still in good health. The remain ing one developed several so-called tuberculous warts o the hands during residence nearly twenty years ag Most of them have been cut out, and all are perfectl well; his general health has remained good. He write that he quite recently reacted strongly to Calmette' test, but is in perfect health.

The dispensers, the secretarial staff, and the visitin medical and surgical staff furnish no cases of tuberculosi

It would appear from the experience of the Moun Vernon staff that the risk of infection with tuberculosi in a special chest hospital is very small, and is apparentl little, if at all, greater than in a general hospital. It is perhaps, doubtful if there is any greater risk to the worker in any well ordered hospital than amongst the genera mass of town dwellers of similar social position. Infectio with tuberculosis does occasionally occur as a result of th duties of a nurse, but probably not more frequentl amongst the nurses in a hospital for consumptives tha amongst the general body of nurses. Every occupatio has its special risks, and the possibility of infection is on which members of the medical and nursing profession accept as a matter of course. The risk of tuberculous infection, even in a hospital for consumptives, appears t constitute a very slight danger.

ILLUSTRATIVE CASES.

Unsuspected Tuberculosis of Lung Detected by Examination on Entry.

Miriam T., aged 21. Was examined on entry as wardmaid in November, 1908. She had been wardmaid at the Great Yarmouth Hospital. She was found to have active and advanced tuberculosis at the apex of the left lung entirely unsuspected. She was admitted to the wards as a patient.

* Including some nurses and maids who were transferred to Hampstead, and are counted in the Hampstead figures in the other statistics in this paper.

here was impaired resonance with prolonged expiration at the ght apex. Diminished resonance, prolonged expiration, and oist crepitations over the greater part of the upper lobe and the apex of the lower lobe on the left side. Tubercle bacilli re found in the sputum. She remained in the hospital ampstead and Northwood) until October, 1909, when she left uch improved. She has not been at work since, but wrote at ristmas that she felt well and was anxious to get a situation soon as possible.

Apparent Infection during Residence in Hospital.

Probationer Nurse Marie M., aged 25. Examined on entry, ebruary, 1900, and found healthy. In November, 1900, she was ported to me, having got thinner and lost weight. She was sily tired, slept badly, and suffered from headaches. I found the breath sounds harsh at the right apex, where ere were some inconstant crepitant râles. A week later epitations were detected at both apices, and she was put off ity. A month later the signs were more definite, especially at e right apex. She remained under my care for about five ars before I could certify that the mischief was completely rested. During this time she spent three and six months spectively at sanatoriums, the second occasion being in nsequence of activity in the left lung, the right being uiescent.

For the last three years—July, 1902, to July, 1905—she was n night duty at the hospital. During the whole period she ever had any expectoration. She has, since leaving the ospital, held posts at private sanatoriums, and remains well, eporting herself to me for examination at intervals when in ondon.

Nurse M. was engaged for some months before her breakown in charge of the out-patient waiting room, and it seems ossible that she became infected from the out-patients, who re not sufficiently careful in the matter of expectoration until hey have been instructed in the necessary precautions. The ut-patient department at Hampstead has since been closed.

Rose H., aged 21. Wardmaid. Entered the hospital in October, 902, and was then quite healthy. In April, 1905, she was "run lown," had some morning cough, and on examination was found o have harsh breathing and some moist crepitations in the apex f the right lung. Examination of the sputum showed the resence of tubercle bacilli.

She was taken off duty and put under treatment. She remained under treatment at Hampstead and Northwood until her death in 1908. It was found that this girl had become engaged to a patient who had tuberculous laryngitis, and who, when he left the hospital, took rooms at Hampstead. There were thus many opportunities of direct infection.

Jessie W., aged 26. Probationer nurse. Entered December, 1907. Healthy. In February, 1908, she ran a splinter into the left first finger whilst rubbing a ward table. A week later the finger was swollen and brawny, and Mr. Berry laid the track of the splinter open in the Royal Free Hospital, where the condition was pronounced to be tuberculous.

In October, 1908, the finger was practically well, but the nurse was very anaemic and not very strong. After a short time she improved considerably, and is now still on duty in the hospital.

Winifred E., aged 21. Probationer nurse. Entered March, 1905. She was anaemic, the weight was subnormal; she had a somewhat flattened chest but the lungs were healthy.

In the summer of 1906 she crushed one of her fingers in a door, and shortly after the finger showed signs of local suppuration. She went for a holiday to Switzerland, and soon after her return she was found to have lost 3lb. in weight since her holiday; she was anaemic but there were no abnormal physical signs in the chest. In October, two months later, she complained of pain in the foot when walking. Mr. Berry examined the foot, which was slightly discoloured and swollen on the dorsum, and diagnosed tuberculosis of the metatarsal joint. She left the hospital a month later, and is now—October, 1909—perfectly healthy and well.

Lily M., aged 16. Housemaid. On entry in November, 1908, she was noted as tall and slight, with slight lateral curvature of the spine. The chest was healthy, except for a few creaking sounds on the left front. In January, 1909, she cut her hand with a knife. A few days later she broke some crockery, and thinks she got something into the wound of the previous cut. A week later there was swelling in the palm of the hand, which was tender on deep pressure. She was admitted into the Royal Free Hospital under Mr. Berry.

William C., aged 29. Engineer. Entered 1906. Was quite well until May, 1908, when he complained of pains in the chest and general weakness. On examination the only abnormal signs heard in the chest were a few rhonchi scattered throughout the lungs. He quickly improved, and felt well again, but about a month later he felt pain in the sternum and commenced to cough. No history of chest disease in the family. There was prolonged expiration at the right apex with a few crepitant râles. Rhonchi all over the back. At the left apex crepitations were heard both back and front. Tubercle bacilli were found in the sputa. A week later he had some pleurisy (dry) at the right base, and the physical signs at the right apex were more marked. By October 1st the chest was practically clear again, and he has since remained perfectly well. He is still on duty at the hospital.

REFERENCES.

[1] BRITISH MEDICAL JOURNAL, August 21st, 1909. [2] *Lancet*, i, 1884, p. 837. [3] BRITISH MEDICAL JOURNAL, September 20th, 1882.

A Lecture
ON
MENINGITIS IN CHILDREN.

DELIVERED AT THE LONDON SCHOOL OF CLINICAL MEDICINE.

BY GUTHRIE RANKIN, M.D.GLASG., F.R.C.P.LOND. AND EDIN.,
PHYSICIAN TO THE DREADNOUGHT AND ROYAL WATERLOO HOSPITALS.

THERE are three varieties of meningitis to which children are specially liable—tuberculous; posterior-basic; and suppurative. Other forms of meningeal inflammation also occur, but, in comparison with these three, they are rare. It is still doubtful whether posterior-basic and cerebro-spinal meningitis should be differentiated from one another. The diplococcus which is found in the two disorders is apparently the same, the one being, in all probability, an attenuated variety of the other. The symptoms mainly differ in being comparatively mild in posterior-basic cases and in occurring principally in infants under one year of age; whereas in cerebro-spinal cases the manifestations are more acute, children are liable to its influence at all ages, it often occurs in epidemic form, and it is commonly associated with purpuric or other skin rashes.

TUBERCULOUS MENINGITIS.

Tuberculous meningitis in most instances depends upon an extension from an old-standing focus, frequently in the bronchial or mesenteric glands, but sometimes from a tuberculous process in the middle ear. Though it may occur at any age, the large proportion of cases develop between the second and fifth years of life. Where there is no obvious pre-existing tuberculous disease elsewhere, the onset is often so insidious that a definite diagnosis within the first week or two may be impossible. During this time there may be nothing more remarkable about the child than an unwonted peevishness and irritability, with restlessness at night and capriciousness as to food. He may, even thus early, complain from time to time of headache, or may inarticulately manifest discomfort by uneasy movements of his head. He desires to be left alone, and refuses to be amused in the usual way. His bowels become confined, and every now and again, for no apparent reason, he vomits without retching or effort, and independently of a previous meal. The restlessness at night is soon accompanied by startings in which the child wakes himself screaming, and by grinding of the teeth; while during the day he begins to manifest an unnatural drowsiness, and to assume a decubitus which is suggestive; he lies on his side with his hips and knees flexed, his arms close to his sides and acutely bent at the elbows, and his fingers, in a semi-unconscious way, constantly picking his nose or lips. He becomes increasingly irritable, and resents any form of movement. His headache is now more constant, and seems to be paroxysmally increased by light, noise, or any form of disturbance. Under the influence of such an exacerbation of pain he often clasps his head with both hands, and emits a short, sharp scream, which is described as the hydrocephalic cry. He wanders a little at night, and the pyrexia, which was at first insignificant and intermittent, is now continuous and generally higher in the evening than the morning. The pulse, which was at the beginning somewhat accelerated, becomes irregular, of full tension, and sometimes remarkably slow. The tongue is furred, the breath offensive, the urine thick and concentrated, and the bowels still obstinately constipated. The pupils are usually contracted, and slight ptosis of one eyelid or some degree of strabismus may develop. The muscles at the back of the neck stiffen, but there is very rarely any marked retraction of the head such as occurs in posterior-basic cases. Tremors of the head aud limbs on movement are often noticeable. The abdomen may assume the hollowed-out appearance known as the "boat-shaped belly," and the *tâche cérébrale* can readily be elicited on scratching the skin.

Gradually the irritative symptoms characteristic of the invasion period of the disease subside. The child is now completely apathetic; he no longer complains of headache

or resists actively the attentions of his nurse; the respiratoin becomes sighing, the pyrexia lessens, and the retraction of the abdomen increases. The pupils, instead of being contracted, are dilated and often unequal, and a moderate degree of optic neuritis is not uncommon. He rolls his head uneasily from side to side, often waves his arms about, and his face is subject to sudden flushes, which by-and-by become permanent. The physiognomy of this stage is thus graphically described by Trousseau:

> He groans from time to time, opens his eyes wide, which shine as they do in persons who are drunk. His face, which is usually extremely pale, flushes for a second or two, then he closes his eyes again, and resumes his former aspect. Generally, as he thus opens his eyes, and as his face colours up, the child utters a plaintive cry, which is perfectly characteristic.

The stupor deepens and eventually terminates in coma, from which there is no rousing. Both pulse and respiration increase in rapidity; the former is irregular as well as rapid, and the latter is apt to assume the Cheyne-Stokes type of rhythm. Muco-pus accumulates on the corneae and a typhoid state supervenes, in which there is a low muttering delirium, floccitatio, subsultus tendinum, and paralysis of the sphincters. The child now almost invariably assumes a dorsal decubitus, with his limbs extended and all his muscles flaccid. The temperature shoots up again and may reach 106° or 107°, the pulse becomes small and uncountable, the surface of the body cold and cyanotic, and not infrequently death is ushered in by one or more convulsions. It ought to be remembered that it is not unusual, even in an advanced stage of such an illness, for a delusive and temporary improvement to take place. The little patient may suddenly become more active mentally, and in other respects revive so remarkably as even to raise hopes of his recovery; but they are always doomed to disappointment, the apparent betterness being little more than the last flicker of the burned-out candle, which very soon becomes permanently extinguished.

Reckoning from the date of distinct establishment of the disease to the day of death, Gee estimated the usual duration of life at twenty-three days. This is approximately true in the majority of cases, but some die earlier, and many last much longer. Cases of recovery are so rare that many observers believe the disease to be invariably fatal, but Howship Dickinson, who gave the subject special attention, was of opinion that about 2 per cent. of all cases recover.

POSTERIOR-BASIC MENINGITIS.

This is the most common variety of non-tuberculous meningitis in children, and occurs, in the large majority of cases, within the first year of life. But though posterior-basic cases are the most frequent, a vertical type of non-tuberculous meningitis, which will be described under the suppurative variety of the disorder, is also met with in which the inflammation mainly affects the convexity of the brain. In cases of the posterior-basic type, the onset is characterized by headache, irritability, restlessness, and vomiting. The headache is intense and constant, but is subject to acute paroxysms which often elicit piercing cries. Screaming is, in some cases, almost continuous, and always increased in violence if the child is in any way disturbed. In infants, fullness of the unclosed fontanelle within the first few days of illness is fairly common. Retraction of the head is always a prominent and early symptom, and is due to tonic contraction of the posterior cervical muscles. This contraction sometimes extends to the muscles of the back, causing opisthotonos, or to the limbs, which may be either firmly flexed or extended. This tendency to muscular spasm is responsible for Kernig's sign, which is now recognized as such a valuable help to the diagnosis of all forms of meningeal affection. The sign consists in a difficulty or impossibility, when sitting up, to keep the leg and thigh in a straight line. If the patient is placed on his back in bed, the leg can be relaxed and fully extended at the knee, but whenever he is raised to the sitting posture, or the leg is flexed at the hip, so as to bring it at a right angle to the trunk, flexion takes place at the knee and cannot be overcome without the use of considerable force and without causing the patient to cry out. The temperature is more disturbed in vertical than in basic cases, but it is always irregular and is liable to become hyperpyretic before death. The respiration is rapid, often accompanied deep sighing, and eventually becomes rhythmical irregular, if not actually Cheyne-Stokes in charact The pulse is irregular and may be abnormally slow. T abdomen may retain its normal rotundity, but in ma cases becomes retracted. *Tâche cérébrale* is, as a ru well marked, while flushing and other evidences of vas motor disturbance, though not so frequent as in tube culous cases, are sometimes very pronounced. Emaciati is always a striking feature. The pupils are usual contracted and equal; strabismus is not unusual, ar the eyes may remain imperfectly closed from retracti of the upper lid. Optic neuritis is rare, but, on the oth hand, nystagmus is common. Champing or suckin movements of the lips, grinding of the teeth, an paroxysmal yawning are often prominent symptoms. Th bowels are, in most instances, constipated—though never s persistently as in tuberculous cases—and the evacuation are dark and offensive. Exceptionally, diarrhoea occurs a a troublesome complication. As a rule, there is no erup tion on the skin, but in a few cases a temporary erythem is noted. Convulsions may occur at any period of th illness, and are usually bilateral. The knee-jerks ar always present and are often exaggerated. Various form of paralyses may occur, their distribution being regulate by the situation and extent of the inflammation. Hemi plegia or monoplegia are, for obvious reasons, mor frequent in vertical than in basic cases. The earl restlessness and delirium are gradually replaced by stupo and coma; contraction of the pupils gives way to dilata tion; and the sphincters become incompetent. Ultimately extreme prostration is revealed by livid and shrunke features; a rapid, thready, and irregular pulse; shallow breathing; cold, clammy perspirations; and not infre quently oedema of the lungs as a prelude to death. The vertical form of simple meningitis is mostly an acute process, but the basic variety is more chronic, and may last over several weeks. Recovery is not common, and when it occurs is often incomplete. Hydrocephalus is apt to be induced by adhesions closing up the foramina between the cerebral cavities and the subarachnoid space, and this may be responsible for mental and moral defects which remain as a permanent legacy from the illness. Though epidemic cerebro-spinal meningitis has much in common with simple meningitis, its detailed description does not come within the compass of to-day's consideration.

It happens, fortuitously, that I am able to show a case illustrative of this basic variety of meningitis. This child is 3 months old, and was admitted to the hospital, as an emergency, about a fortnight ago. A week before admission the child was unusually fretful, and the head gradually became retracted to the position in which you now see it, while at the same time the infant became first apathetic, then drowsy, and, finally, comatose. The family history is unimportant. The decubitus is such as I have tried to describe; the pupils are equal, and there is no squint; Kernig's sign is well marked; the anterior fontanelle is distinctly bulging; the knee-jerks are active, and the plantar response is extensor on both sides. The bowels are constipated, and there has been repeated vomiting. The abdomen is flat if not actually retracted. The *tâche cérébrale* is easily demonstrated. The temperature has been erratic, but not seriously disturbed; the respirations are rapid and irregular, and the pulse is also small, feeble, and quick. Lumbar puncture has yielded a turbid fluid, which has been found to contain a large number of polymorphonuclear leucocytes, and also diplococci in small but definite numbers. These have been cultivated, and prove to be the true meningococcus.

SUPPURATIVE MENINGITIS.

Suppurative meningitis may follow injuries to the head or be caused by extension of inflammation from neighbouring parts—the middle ear, the mastoid cells, the nasal cavities, etc. It occurs also as a complication in such acute general diseases as pyaemia, scarlet fever, small-pox, and sometimes pneumonia. The symptoms bear a general resemblance to those met with in tuberculous meningitis, but they are usually much more rapid in their development. When meningitis of this type supervenes upon acute disease elsewhere, the symptoms are often masked so completely by those of the primary affection that death may occur without a suspicion being aroused of meningeal implication. In cases secondary to chronic inflammatory lesions like otitis media the symptoms may set in acutely with rigor, headache, and vomiting. The child shuns light and noise, and lies curled up in bed, as

the tuberculous variety. The neck muscles are ff, and the head may be retracted, but never to ch an extreme degree as is met with in pos- ior-basic cases. Convulsions often occur, early as ll as late, and are associated with delirium and owsiness. Various forms of paralysis corresponding the situation of the inflammation are apt to declare emselves, and owing to the fact that the vertex is most quently the seat of disturbance, the cranial nerves are ore likely to escape, while those originating in the motor ea of the brain are more liable to be involved. An arm, leg, or the face alone, may be paralysed, or there may complete hemiplegia or paraplegia. The pupils are ntracted in the early, and dilated in the later, stages of e illness, and optic neuritis is of common occurrence. ne temperature is high from the beginning; respiration sighing and irregular; Kernig's sign is well marked; id, in many cases, the abdomen is retracted and hollow. he drowsiness deepens rapidly into coma, and within vo or three days of the first development of symptoms ie circulation fails and death ensues.

DIAGNOSIS.

The differential diagnosis of these three varieties of eningitis is not difficult, and rests mainly on the follow- ig points. In tuberculous cases the combination in the arly stages of the disease of headache, vomiting, and onstipation should always arouse suspicion. These ymptoms may, it is true, be produced by such innocent auses as dentition, gastro-intestinal catarrh, or an rdinary bilious attack, or they may be due to the onset f one or other of the specific fevers, but it is always ossible, with patience and time, to eliminate, one after nother, these hypothetical explanations of the initial manifestations. Fullness and pulsation of the anterior ontanelle, though not conclusive, adds considerable trength to the initial suspicion. The optic discs should lways be inspected, because, though pronounced changes n them are generally found only in the later stages of the lisorder when the diagnosis is already assured, there are nstances in which it occurs early, and throws a flood of ight on the true nature of the other symptoms. As the illness develops the persistence of headache in the presence of delirium, the decubitus of the child, the avoidance of light, the resistance to movement or disturb- ance of any kind, the presence of Kernig's sign, the development of the characteristic hydrocephalic cry, the retraction of the abdomen, the character of the pulse, the occurrence of ocular palsies, and the tendency to a gradually deepening stupor, constitute the facts upon which it is possible to establish a firm diagnosis. The use of tuberculin, either by the application of Calmette's ophthalmic reaction or of von Pirquet's skin reaction, is valuable as an aid to early recognition of the true nature of the condition.

Posterior basic meningitis repeats many of the characteristics of the tuberculous variety, but it occurs as a rule at an earlier age, and is of more sudden onset. There is no prodromal period of malaise, and from almost the earliest beginning of the illness retraction of the head, together with flexor or extensor spasm of the limbs, is a marked and characteristic feature. The temperature is usually higher, and in some instances the occurrence of a blotchy erythema helps to clear up diagnostic difficulties. Progressive enlargement of the head in infants is distinctive of hydrocephalus, and occurs in basic cases from occlusion of the drainage channels of the cerebral ventricles.

Suppurative meningitis is a more acute process than either of the others. An unexpected convulsion in the course of an infective disease or of some localized inflammation in one of the cranial cavities is sometimes the first indication of meningeal complication. The supervention of headache, increased pyrexia, delirium, hemiplegia or monoplegia, muscular rigidity, Kernig's sign optic neuritis, recurrent convulsions, and coma, all within three or four days, completes a clinical picture which is unmistakable.

In all cases of meningitis, lumbar puncture gives us information which may be valuable. It is only useful when taken in conjunction with the clinical symptoms, but it often serves to clinch a doubtful diagnosis as between one variety of meningitis and another. The needle may be most conveniently introduced into the spinal canal between the laminae of the third and fourth lumbar vertebrae. If it is found that the tension of the cerebro-spinal fluid is increased, the inference is that there is probably some organic disease of the brain. An excess of cells points to inflammatory mischief, and a predominance of cells of the polymorphonuclear variety is indicative of an acute inflammatory process. Bacteriological examination will serve to determine the particular micro-organism upon which the inflammation depends.

The prognosis is grave in all three forms of meningitis; most so in the suppurative variety, slightly less in tuberculous cases, and least of all in those which belong to the posterior-basic type.

TREATMENT.

Time will not permit of any detailed reference to pathology or treatment, but in regard to the latter I wish to mention two posterior-basic cases which have recently been under my care at the Waterloo Hospital, and which have achieved a remarkable recovery. I am aware that in a certain proportion of this class of case recovery takes place under the usual methods of general treatment. I further admit that no reliable conclusions can be deduced from the experience of two fortunate results, but in both these children the illness seemed so desperate and the response to ordinary treatment by drugs and other general methods so disappointing that the improvement under the influence of injections of antimeningococcal serum may be worthy of consideration as a suggestion for the management of similar cases.

The history of these two children, who are here to-day for your inspection, and who are now both perfectly well, is, very shortly, as follows:

Elsie Ward was 5 months old when she was admitted to Waterloo Hospital in June last. She came with a history of vomiting of seven days' duration and the most striking objective feature about the child, on her admission, was extreme retraction of the head. Her pulse numbered 120, the temperature registered 102°, and her respirations were 35. She was abnormally drowsy; Kernig's sign was well-marked, and she had a double internal strabismus. Lumbar puncture was performed on the evening of the day of her admission and the fluid withdrawn was turbid and was found to contain large numbers of polymorphonuclear cells. These cells were crammed with diplococci, as many as fifteen being counted in one cell. The following morning the temperature was 104.5°, but after tepid sponging it fell to 102°; 25 c.cm. of antimeningococcal serum were administered hypodermically. A week later the general condition was distinctly improved. The temperature had fallen, the vomiting was occasional only, and the head retraction was diminished. Another lumbar puncture was done and the diplococci, though still present, were found to be much less numerous. Another injection of 25 c.cm. antimeningococcal serum was administered, and the improvement was maintained for the following five days. Vomiting, pyrexia, and drowsiness then recurred, and were so pronounced that for a fortnight the child was kept going by nutrient enemata and saline injections. A haemorrhagic rash also now appeared on the abdomen. A third injection of antimeningococcal serum was given, and from this time improvement was uninterrupted until the patient was discharged, apparently cured, at the end of July. I now show you the child, who is the picture of health and has been perfectly well since she left the hospital, and I ask you to confirm the foregoing history by hearing from the mother her account of the child's condition when she brought her to Waterloo Hospital at the end of June.

The other child, George Glass, is 5 years of age, and was admitted to the hospital on November 11th, 1909. A few days before admission his mother observed that he was unusually drowsy, and that at times he seemed to become unconscious. He had vomited on several occasions, his bowels were obstinately confined, he screamed loudly when interfered with, and refused all kinds of food. On admission he was apathetic and irritable, was able to answer questions, but took no intelligent notice of his surroundings, and when put to bed assumed a curled-up position on his right side. His head was retracted acutely; Kernig's sign was present; and he had distinct nystagmus. His abdomen was slightly concave, and, though there was no paralysis, the arms—and especially the left one—were notably tremulous on movement. The knee-jerks were active, the left more so than the right. The abdominal and thoracic organs were healthy. The temperature was 102° F., pulse 116, and respirations 35. For four days he was treated with febrifuges, purgatives, ice to the scalp, etc., in the usual way, but the temperature remained high, the screaming attacks continued, the head retraction increased, and altogether the child was obviously getting worse rather than better. Lumbar puncture was now resorted to, and the spinal fluid, which was turbid on withdrawal, was found to contain on centrifugalization a large number of cells, of which 98 per cent. were calculated to be of the polymorphonuclear variety. A small but definite number of diplococci were present within the

polymorphonuclear cells. No tubercle bacilli were to be found. On November 20th, there being still no improvement, 10 c.cm. antimeningococcal serum were injected hypodermically, the dose being repeated on November 23rd, 26th, and 27th, and on December 1st respectively. No definite improvement was apparent until after the last injection, when the temperature began to fall rapidly, consciousness returned, and all the serious symptoms abated. This satisfactory condition of things continued for five days, and then a relapse occurred, lasting for a further period of five days, during which the old symptoms were revived, though less acutely, with the temperature again shooting up to 103° F. It was then decided to inject 10 c.cm. antimeningococcal serum into the spinal canal, but an unexpected amelioration in the child's condition prevented this intention being carried into effeet. From this time on recovery was uninterrupted, and here you see the boy apparently as well and healthy as he ever was. On January 5th another lumbar puncture for confirmatory purposes was done. The spinal fluid was then found to issue nnder a much diminished pressure; when centrifugalized the deposit contained a few blood discs but no excess of leucocytes and no micro-organisms, and media inoculated with the deposit revealed no growth of the *Diplococcus intracellularis*.

I show you here the small flasks of antimeningococcal serum as they are sent out from the laboratory ready for use. Each flask contains 10 c.cm. We propose to inoculate the child we have examined this afternoon, in the first place hypodermically, and later on, if need be, by the intraspinal method.

It may be mentioned that in cases of tuberculous meningitis the fluid withdrawn by lumbar puncture, though turbid, is often sterile, but on centrifugalization tubercle bacilli can generally be demonstrated in the residue. The prevailing lymphocytes are of the small mononuclear type.

In suppurative cases the polymorphonuclear cells are in abundance, and the finding of the streptococcus, staphylococcus, pneumococcus, or other micro-organism in the centrifugalized residue affords confirmatory evidence of the type of meningitis which is under observation.

AN IMMUNIZING SUBINFECTION IN SCARLATINA.*

BY A. D. EDWARDS, M.B., B.S.LOND., B.SC., D.P.H.,
DEPUTY MEDICAL OFFICER OF HEALTH, BOURNEMOUTH.

THE continued investigation of scarlatina has given us proof abundant that the predominant factor in the spread of the infection is direct contact with persons suffering from the fever. It is true that some outbreaks of the disease are traceable to infection-bearing milk, and also that a certain number of cases may be due to infection from clothing—things as distinct from persons; but the predominant factor is usually recognized to be personal contact.

The more extensive supervision of contact cases and the routine examination of school classes in which scarlet fever has occurred have strengthened this belief, for they have resulted in the wider discovery in the affected classes of children who were passing through attacks of scarlatina so mild that they had been missed alike by parents and teachers, but who were acting as a continued source of infection to others.

Missed Cases.

These cases are "missed" because the parent or teacher did not see the rash on the child; the sore throat was so slight that the child was well in a day or so and no medical man was called in; or a medical man may have been called in, and either because the rash was very faint or absent, or because the rash had faded, a correct diagnosis was not made. The attack is a mild one; the child returns to school, and, especially if there is any ear or nose discharge, acts as a means of spreading infection; in about ten days the child is found to be peeling. I would emphasize the importance in class outbreaks of a full inquiry and examination of all children who have been absent from school on account of sore throat. Whether or not peeling is a source of infection is doubtful, the evidence is apparently in the negative; but it at least gives information as to the source of infection in a fresh case which may have puzzled the investigator.

Mention has been made of the evanescent rash with very slight symptoms, and of scarlatina *sine eruptione*. The existence of the latter has been regarded as doubtful, reputed occurrence having been ascribed to the fact th the rash, being slight and evanescent, had been missed.

The Lower Grades of Infection.

But because scarlet fever infection varies so greatly its characteristics as to produce all grades of rash, fr the brilliant and vivid eruptions, haemorrhagic and acco panied by miliary vesicles, to a slight erythema of l punctiform character which is hardly visible, it is illogical to expect that the rash-producing properties of t infection may be traced to vanishing point.

In examining large numbers of children who were sch class contacts of true cases of scarlet fever, I have fou on not a few occasions that some of these children had sign or symptom of scarlet fever except a condition of t tongue in which the papillae are well marked, wi possibly a slight injection of the throat. In some of the children the surface of the tongue was furred, giving t "white strawberry" appearance; in others the "r strawberry" appearance was present. It has been n custom in dealing with school classes affected by scarl fever to exclude any child who had a sore throat or a skin condition which might indicate the early stage of scarlet fever rash, as well as any child who had ear or no discharge. The children who showed this tongue cond tion were not excluded; they were watched, and in no ca was I able to detect any other sign or symptom whic would verify the diagnosis of an attack of scarlet fever. I tracing other cases of scarlet fever which subsequentl occurred in such a class, I found that occasionally th tongue cases were possible, but rarely probable, sources the infection of the fresh case.

The Scarlatina Tongue.

The strawberry tongue of scarlet fever is due to th following sequence of events: First, a thick white fu accumulates on the tongue, due to an excessive prolifera tion of epithelium; then this fur begins to exfoliate, th fungiform papillae showing through as prominent con gested points, giving the appearance of the white straw berry tongue. By the fourth day the fur has exfoliated the papillae are very prominent and congested, and th appearance of the red strawberry tongue so typical o scarlet fever is produced. The white strawberry tongu is by no means diagnostic of scarlet fever. It occurs als in conditions such as measles and diphtheria; but the re strawberry tongue is said to be pathognomonic.

An Immunizing Subinfection.

Many of the contact-children to whom I have referred had the red strawberry tongue, but showed no other sign of scarlet fever at the time; and in none of the cases which were kept under observation was there any subsequent sign to verify the diagnosis of scarlet fever in any of its stages. But all these children had been in contact with scarlet fever cases; and of the other children in the class who had also been in contact with these cases, but who did not show this tongue sign, some developed scarlet fever. It is not unreasonable, therefore, to suppose that these children who had the tongue sign may have had scarlet fever in so low a degree of infection that whilst it was too attenuated to produce any visible effect upon the more opaque and resistant epithelium of the skin, it was concentrated enough to produce an effect on the more delicate epithelium of the tongue; and, further, that the attenuated infection by which they had been attacked had immunized them against the more marked disease.

Another fact which appears to indicate the frequent existence of a scarlatinal infection of very low virulence is the occurrence in every outbreak of scarlet fever of sore throats among contacts who do not actually develop scarlet fever. The prevalence of these sore throats is, I believe, greater at the beginning of an outbreak of scarlet fever. My records are not complete enough for proof, but it is recognized that the autumnal outbreaks of sore throat are coincident with the onset, but not markedly continuous with the progress, of the autumnal rise in scarlatinal infection. This would support the belief that a high percentage of persons in contact with scarlet fever are infected, but many have so slight an infection that it causes no sign but sore throat and may immunize the individual from the greater infection. The infection of

* Read to the Bournemouth Medical Society.

persons, therefore, during the prevalence of scarlet fever may be classed as follows: (1) The well developed cases of scarlet fever; (2) the cases which are mild, but whose infection has resulted in sore throat and a slight, evanescent rash with subsequent peeling; (3) the cases in which there is a still milder grade of infection, not sufficiently concentrated to produce a skin rash, but which produces a sore throat and may produce "exfoliation" of the tongue. I have mentioned that in none of these latter cases which I have followed up has true scarlet fever developed, but the record of a very much larger number of cases is necessary to prove the hypothesis.

Tentatively, therefore, I hold it true that Class III, composed of persons exposed to scarlatina who have developed nothing but a sore throat and an unrecognizable degree of scarlatina, have received an immunizing subinfection which has protected them from the full attack. This subinfection has produced a response in the form of increased resistance, the host becomes better armed with antibodies, and a "positive phase" is produced in the same way as it is produced in vaccine therapy.

The possibility of this increased immunity being produced is strengthened by the fact that in persons exposed to infection, but who do not contract the disease, a definite leucocytosis may be demonstrated.

The Russian Vaccines.

In 1906 Gabritchewsky of Moscow introduced a vaccine made from the *Streptococcus scarlatinae*, which he used with a view to protecting children from attacks of scarlatina. As a result of the injection he obtained in a certain number of cases an erythema resembling that of scarlatina. Zlatogoroff and Langowoy in Moscow obtained similar results, there being in some cases a slight rise of temperature and pharyngeal injection. These results are not conclusive, but at least they are in favour of the specific nature of the *Streptococcus scarlatinae*. The further research going on at the present time should give us more definite knowledge concerning the elusive streptococcus, but, in view of our present lack of knowledge concerning the causative micro-organism, it becomes necessary to seek an analogy in the case of specific bacilli concerning which we know a little.

An Argument from Analogy.

No practical work on the typhoid bacillus can be complete which does not take into consideration the group of closely related micro-organisms including the *B. coli* and the bacillus of Gaertner. There is evidence of a series of bacilli of gradually decreasing virulence, some of which can be surely recognized by definite culture reaction, and there is moreover a slight variation in the type of disease produced which has resulted in the description not only of typhoid fever, but also of paratyphoid fever. Again, a clear analogy is afforded by the variation of the virulence of the diphtheria bacillus, from the most toxic infection through all grades to the vanishing point at which the person harbouring the bacilli becomes merely a carrier.

The variation in the degree of infection produced depends to some extent on the natural resistance of the person attacked, but that it depends also on the absolute virulence of the micro-organism is evidenced by the varieties of the diphtheria bacillus, the pathogenic properties of which are traceable from the Klebs-Loeffler bacillus of high virulence, through the apparently inert Klebs-Loeffler, to the non-toxic or only to become toxic pseudo-diphtheria bacillus.

The Public Health Standpoint.

If the subinfections of scarlatina are immunizing, then they are of advantage to the individual. From the public health point of view it must be asked, "Are they sources of infection to others?" If so, they may be of disadvantage to the community, for the infection which will have only a protective and immunizing effect on one person may, when transferred to other persons of low resistance, result in graver pathological conditions. If these subcases of scarlet fever are infectious, it would appear that usually their infectivity is of low degree; the infection is not likely to produce otorrhoea or rhinorrhoea, but if these discharges are coincident, then the infection is likely to be spread. This would lead to the conclusion that every effort should be made to cure such discharges, especially in school children who come into close contact with each other, and herein, as in so many other directions, there is hope of much benefit from the institution of routine school medical inspection.

ON THE RESULTS OF THYROID TREATMENT IN INFANTILE WASTING.

BY J. W. SIMPSON, M.D., F.R.C.P.E.,
ASSISTANT PHYSICIAN, SICK CHILDREN'S HOSPITAL, EDINBURGH.

ON examination of thyroid glands taken from at least 100 children dying of various diseases, pathological changes were noticed in a large number. The fact that these changes were especially constant in children who had died in a "marasmic" condition led me to inquire if this state of the thyroid might not play some part in the all too common condition of infantile wasting. In a former paper[1] I described the pathological changes seen, and also the results of treatment of 20 marasmic cases with small doses of thyroid extract. These results were decidedly encouraging, but the number treated was too small to make them at all convincing. Since that time I have had the opportunity of treating a much larger number of wasting cases (80), and this second paper deals with the results obtained from these.

In cases of infantile malnutrition the history is usually one of improper feeding, and this being so, one frequently finds that when put on a more suitable diet the children at once begin to improve, without the addition of any drug. All my cases were therefore at first carefully dieted for at least two or three weeks, and thyroid was only given to those who showed no signs of improvement after this time.

In dieting, some modifications of milk, such as peptogenic milk, peptonized milk, milk and cream mixture, whey and milk mixture, etc., according to the conditions present, was first tried. I found, however, that the diet which on the whole gave the best results when thyroid was being administered was a diluted milk and cream mixture treated with sodium citrate (1 to 2 grains to the ounce of milk). Cream was usually added after the first two or three days, beginning with half a teaspoonful to the bottle. Why thyroid reacts better with this diet than with the others it is difficult to say, but it may be due to the alkaline character of this milk mixture, as in cases of wasting there is frequently some intestinal disturbance which leads to the presence of fatty acids, and this acid condition of the intestinal tract may prevent the absorption of the drug.

Results in Cases Treated with Thyroid.

Out of a total of 80 cases treated with thyroid, 72 were infants under nine months, and their history was usually one simply of wasting. In the 8 over this age the wasting had supervened after some acute disease. Out of this total (80), 12 died and 5 did not return to hospital after treatment had been carried on for two or three weeks. Of the 12 cases which ended fatally, 2 were extremely ill when first seen, and probably the stage of their illness was too advanced to allow of the administration of thyroid being beneficial. In both these children the weight was under 4 lb, and both showed evidence of failing circulation, oedema of legs, etc. One died two days, and the other four days, after being first seen. Two others were cases of marasmus due to congenital syphilis; of the other 8 deaths, one of which improved for some little time, but eventually died of tuberculous meningitis, 2 were country cases and were only seen a few times, whilst the remaining 5 did not react to treatment in the slightest degree. The remaining 63 cases, however, all did well. No doubt a number of those infants would eventually have improved on dieting alone, but the fact remains that they failed to put on weight for the first two or three weeks on such treatment, and that on the addition of thyroid (the same dieting being continued) a number of them at once increased rapidly in weight, while some who remained stationary for a week or two showed beneficial results after that time.

In the cases treated some interesting points were noted. One specially instructive was that of the children of a woman who was suffering from well-marked chronic phthisis. Five years ago she brought her infant (aged

5 weeks) to see me. The history was that at birth the child had been big and well nourished, and seemed to thrive satisfactorily for the first two weeks on bottle feeding, but then began to go back and show signs of wasting. Thyroid treatment had not at this time been tried, so careful dieting alone was carried out, but the child grew steadily worse and died. The second child also appeared quite healthy at birth, but it too, after the second week, began to waste, and was brought to see me. I tried dieting alone until the child was 6 weeks old, but as it steadily lost ground, I then gave thyroid (the same dieting being continued). The child almost at once began to gain weight steadily, and is now big and strong. Eight months ago this woman had another infant, and practically the same history as regards wasting was repeated. She came to see me at the hospital, as she said "to get the powders." I dieted this child for three weeks, during which time it lost weight. I then added thyroid, and the result was that the infant began to pick up at once, and has since done excellently. These results are interesting from the point of view of the known condition of the thyroid in phthisical patients, and its probable effect on the thyroid of the infant.

Congenital Syphilis with Wasting.

Five of my cases were syphilitic, in which wasting was a marked symptom. Mercury was at first given, without any effect on the weight, then, along with mercury, thyroid was administered. The result was that 3 out of the 5 cases began to gain and eventually recovered. The other 2 (already noted) did not react at all and death ensued.

Wasting in Older Children.

Of 8 children over 9 months who were suffering from malnutrition, following an attack of an acute disease, 6 improved on thyroid treatment, 1 died of tuberculous meningitis, and 1 was lost sight of. I have only mentioned 8 cases of older children, but in the last six months I have used thyroid frequently for such children suffering from debility after such acute diseases as pneumonia, measles, and whooping-cough. The results have been very favourable, except in those cases which proved to be tuberculous; in such cases thyroid treatment would seem to be contra-indicated.

Dosage.

In the treatment of children under 9 months I begin with $\frac{1}{3}$ grain thyroideum siccum once daily. Formerly I used to give slightly larger doses, but in some cases this seemed to induce diarrhoea. In older children I go up to 1 grain once daily, according to the age of the child. In the giving of thyroid it is advisable to test the faeces to see whether they are acid or alkaline. In two cases in which thyroid appeared to produce no good results I found that the stools were very markedly acid. Sodium bicarbonate was then given three times a day, and shortly afterwards both children began to improve.

Complications.

In no case have I noticed any grave symptoms which might fairly be attributed to the use of the drug. I have already mentioned diarrhoea as sometimes occurring, but, even when this was so, it was impossible always to be sure that it was due to thyroid treatment. The diarrhoea was never either severe or prolonged.

In six cases a bright punctiform rash appeared, mostly on the body. In two cases it was confined altogether to the front of the chest. The rash was usually very evanescent, and disappeared in from twelve to twenty-four hours without any change of treatment. In only one case had I to stop the thyroid for a short time (three days). The rash thereupon soon disappeared, and on thyroid being again administered it did not recur.

In concluding I may mention that I found the result of cases treated in hospital to be not so satisfactory as of those treated at home, provided that in the latter case the mother was anxious and willing to carry out instructions. For instance, three patients under treatment in the ward showed no improvement; it was then decided to try them at home, the same dieting to be strictly carried out. An increase in weight was noticed almost from the first, and rapid progress was made toward recovery. It is difficult to explain why there should be such a difference between home and hospital results; it seems probable, however, that the amount of nursing and general "mothering" that is impossible in a hospital ward is very beneficial in such cases and conduces to a more rapid recovery.

REFERENCE.

[1] *Scot. Med. and Surg. Journ.*, December, 1907.

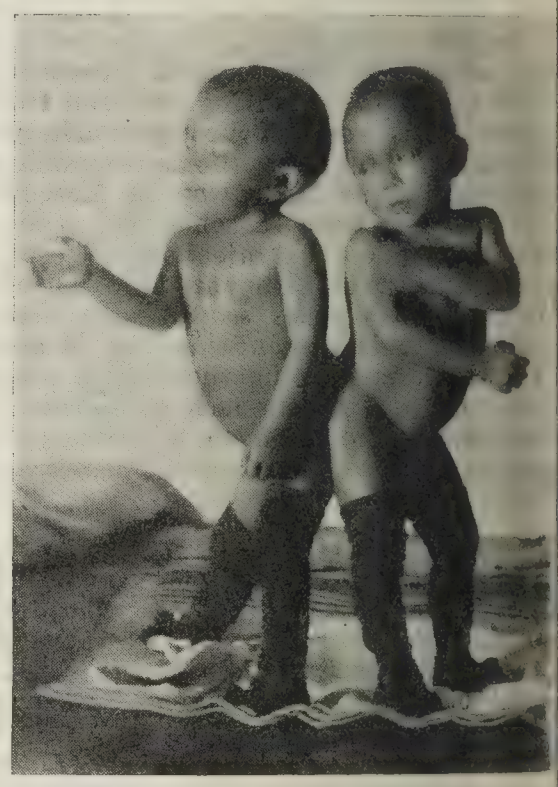
Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL

THE SAMAR TWINS.

IN February, 1910, at Hong Kong, I had an opportunity of examining a remarkable case of united twins. They are natives of the island of Samar, one of the Philippine group, and were passing through Hong Kong on their way to the United States and Europe, where they are to be exhibited.

Two otherwise complete bodies are attached by an external bond, which consists of a union of the right and left buttocks respectively. The twins are of the male sex and when seen were 22 months old. The genital organs are normal in every respect, except that the penis in each case is rather smaller than it should be. The testicles in each twin are in the scrotum. The most remarkable thing about them is the existence of a common anus. As far as I could tell by a rectal examination, the whole rectum is common.



For their age the twins are exceptionally healthy looking; there was no history of any kind of sickness since their birth. The mother is a fine type of a Filipino woman, and was still suckling the children, who are the only children she has had. I was unfortunately unable to obtain a clear account of the confinement, but it did not seem to have been very difficult. The children are able to walk about quite well; owing to their activity, the photograph was taken under great difficulties, and I was unable to obtain another view.

The twins are remarkably healthy, and it seems quite probable that they will live to become as famous as the Siamese twins, who reached the age of 46 years, married, and produced children. It will be remembered that in the Siamese twins the bodies were united by a band of flesh stretching from the end of one sternum to the same point on the opposite twin. As far as I can ascertain, this case of twins with a common rectum is unique.

R. M. RIGGALL, Surgeon R.N.,
H.M.S. *Bedford*.

TREATMENT OF DEPRESSION OF SKULL IN NEWBORN INFANT.

THREE or four cases of depression of skull or depressed fracture in newborn children having been reported in the JOURNAL in the last twelve months or so, it may be of interest to record one in my own experience, which illustrates the simplicity with which such cases can be successfully treated.

After a tedious first labour, the child when born was found to have a depression in the left fronto-parietal region, about $1\frac{1}{2}$ in. or 2 in. in diameter. As it was hoped

at recovery might occur spontaneously and the child emed in no way affected by the condition, nothing yond a fruitless manipulation was done till the tenth y. The child was then taken into our cottage hospital ere, with all needed help, I operated under an anaesthetic follows:

I provided myself with an awl made from a large sized nitting needle and an elevator made of stout wire with wed handle and a point, somewhat flattened, bent to a ght angle, so as to be about $\frac{1}{8}$ in. in length. I dissected ck a small tongue of scalp, including the pericranium, er the centre of the depression, and cautiously bored rough the skull. Inserting my elevator, I then easily ew the part into position. A suture and dressing were plied, and the child sent home in a few hours. Healing ok place in the course of a week without the smallest mplication.

Cirencester. W. R. COSSHAM, M.D.Aberd., M.R.C.S.Eng.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

GUY'S HOSPITAL.

SECONDARY PAROTITIS.

(By W. A. MAGGS, M.R.C.S., L.D.S.Eng., Dental Surgeon to the Hospital.)

HENRY T., aged 40, attended at the dental department on December 9th, 1909, complaining of pain and swelling of the face, and difficulty in opening the mouth.

The roots of the left second lower molar were found to be bathed in pus—an attempt at extraction had been made a week previously—and on the same side swelling of the floor of the mouth, some ulceration of the inner surface of the cheek, and sloughing at the orifice of Steno's duct. The left parotid and submaxillary salivary glands were enlarged and tender. The tongue was thickly coated with white fur and the breath very fetid.

The temperature and pulse being high, and the general appearance and condition of the patient unsatisfactory, I removed, without anaesthetic, the roots of the broken-down tooth, and ordered a mouth wash of formaldehyde (1 in 1,000) to be used every four hours, and hot boric acid fomentations outside the cheek. A mixture consisting of quinine sulphate gr. ij, dilute nitric acid ♏ ij, magnesium sulphate gr. xv, and water ʒj, was ordered to be taken three times daily.

At the end of a week the patient returned apparently in normal health. The mouth and tongue were clean, the swelling of the cheek and floor of the mouth had subsided, and there was absence of ulceration.

He brought with him a mass of friable substance, about the size and shape of an almond, which he said had come away spontaneously from the anterior part of the floor of the mouth. The mass, consisting of soft salivary calculus, had presumably been extruded from Wharton's duct, and the specimen has been placed in Guy's Museum.

Secondary parotitis is well recognized as a result of abdominal lesions, especially after laparotomy, and is generally regarded as being due to an ascending infection from within the mouth. The focus of infection in this case was a tooth, and the inflammation of the salivary glands was evidently due to oral sepsis combined with stasis, the patient for some days previously being unable to use the left side of his jaws, owing, first, to the condition of the broken and jagged tooth, and later to the swelling of the parotid gland. The chief interest in the case is its rarity, and the rapid recovery of the patient in response to treatment.

Oral sepsis being of common occurrence, it seems remarkable that parotitis due to infection from the teeth is not more frequently seen. I can recall one similar case, and it may be that others have been overlooked owing to the great swelling of the cheek which so often accompanies suppuration within the mouth.

Reports of Societies.

ROYAL SOCIETY OF MEDICINE.

MEDICAL SECTION.

Tuesday, April 26th, 1910.

J. MITCHELL BRUCE, M.D., F.R.C.P., President, in the Chair.

Hospital Infection of Tuberculosis.

DR. J. EDWARD SQUIRE communicated a paper based on an inquiry into the extent of the risk of infection from tuberculosis to members of the resident staff of a consumption hospital, which is published in full at p. 1039 of this issue.

Dr. THEODORE WILLIAMS said no nurse was admitted to the wards of the Brompton Hospital without medical examination, and all, while they were there, remained under medical observation, and in many cases for lengthy periods. He deprecated the admission of nurses who had previously had tuberculosis on the nursing staff of a consumption hospital. He emphasized the conclusion that there was very little risk indeed of infection inside a chest hospital.

Sir SHIRLEY MURPHY thought the value of the paper was increased by the fact that the observations were made by the same person all along, but it was much to be desired that similar observations should be made on groups of persons not associated with chest cases. It was possible that the question of age might be of importance in regard to nurses previously employed in other hospitals; there was an increasing incidence of death in the general population up to 35 years. It did not seem to be conclusively proved that even the small rise in the incidence of infection depended on the hospital residence.

Professor W. OSLER remarked that he had often said to persons fearful of contracting consumption that the best place for them in which to live would be a consumption hospital. His impression was that the resident persons in general hospitals were more liable to contract tuberculosis than the public at large. There was no doubt universal infection in all chest hospitals, but the resistance of those belonging to the Mount Vernon and Brompton Hospitals was good testimony to the sanitary and dietetic arrangements in these institutions.

Dr. G. A. HERON held that the condition of infection as regards tuberculosis in the homes of the poor were much more serious than those in hospitals. He referred to the observations he and Dr. Chaplin had published on the infectivity of the dust in the Victoria Park Hospital; only two of the animals treated with the dust developed tuberculosis. His clinical experience in regard to the staff of that hospital was that in 21 years he had known 6 cases of infection among the 35 to 40 nurses constantly employed there; in 12 years as regards the resident medical officers 5 had left the hospital with tuberculosis, and of these one was undoubtedly tuberculous before he undertook office. It was important to take precautions that the publication of such statistics should not be allowed to minimize the general fear of infection among the general public.

Dr. NATHAN RAW said that during the last twenty-two years he had made similar observations to those in the paper, and his conclusions were in agreement with them. Out of 420 nurses and servants 8, and out of 17 house-physicians 2 developed tuberculosis. Nurses, he thought, were more prone to develop phthisis in asylums, next in general hospitals, and least in open-air wards or sanatoriums. The risk of nursing typhoid was greater than that of tuberculosis. He thought there was more tuberculosis among school teachers than nurses.

Dr. F. J. WETHERED said he believed the risk of contracting tuberculosis was greater in a general hospital than in a chest hospital. In this relation the risk was in them chiefly from tuberculous milk rather than from dried sputum.

Dr. SQUIRE, in reply, emphasized the desirability of the routine examination of nurses and others on leaving the hospital. No nurses, he thought, should be accepted who showed signs of active tuberculosis. He thought that age did not completely cover the difference in infection between those who had previously lived in hospital and those who had not.

Section of Balneology and Climatology.

Wednesday, April 20th, 1910.

Dr. Leonard Williams, President, in the Chair.

Arthritis Deformans.

A discussion on arthritis deformans introduced at the preceding meeting by Dr. Llewelyn Jones, of Bath, was reopened. Dr. Garrod supported the opener's view that under the name of arthritis deformans were commonly included several entirely distinct morbid conditions. Osteo-arthritis could not be regarded as merely the later stage of rheumatoid arthritis; since either disease occurred at all ages, it could not be assumed that the distinctive features were due to the age of the sufferer. In cases in which articular lesions of both kinds were simultaneously observed in the same patient careful inquiry would afford evidence that the two diseases had been running concurrently. It was of much importance that the question of the identity or otherwise of osteo-arthritis and rheumatoid arthritis should be settled, since upon the answer would depend not only diagnosis, but also prognosis and treatment. Dr. Latham (Cambridge) referred to a theory advanced by him in 1901 that rheumatoid arthritis was due to irritative and destructive lesions located in the spinal cord, and specially in the cervical and lumbar enlargements. Treatment should be directed, he thought, to the abatement of this spinal mischief, and when the exciting cause had been removed cupping and blistering the spine were useful. Mr. William Armstrong (Buxton) considered that if a specific bacillus originated the disease, vaccines and serums which had been used would have shown some definite results, whereas so far as he could learn they had proved inert. He strongly supported the view laid down by Dr. Latham, and had found it to work out well clinically. Dr. Septimus Sunderland referred to the curious frequency of arthritis deformans in women as compared with men. This had been explained by Oliver Sunderland, of Bexley, who pointed to the fact that women possessed a vagina and uterus wherein germs which could produce the disease might often lurk unsuspected and undiscovered; and that when a vaginal, cervical, or uterine lesion coexisted the incidence of the disease was favoured. These views accorded with the speaker's own views, published in 1898, that gonorrhoeal arthritis, contrary to the usually accepted opinion, was more common in women than in men. Dr. Llewelyn Jones (Bath) replied.

Dr. Leigh Canney (Assouan), in a paper entitled the Climate of Egypt and North Africa and its Influence on Disease, urged that cases of rheumatoid arthritis, and persistent albuminuria after various infections should be sent to Egypt as early as possible before serious damage was done. Many of the illnesses so much benefited by the Egyptian climate, especially the pulmonary and renal cases, were best treated in hotels, and should travel up the Nile by train rather than steamers or *dahabeahs*. Assouan was the driest health resort in the world, 28.2 per cent. drier than Mena, 14.6 than Helouan, and 11.3 than Luxor, and this dryness supplied a great bracing quality.

Section of Diseases of Children.

Friday, April 22nd, 1910.

Dr. Milner Burgess in the Chair.

The following were among the exhibits:—Dr. R. Hutchison: Three cases of *Oxycephaly* in children aged respectively 1, 5, and 4 years. They all showed the typical oxycephalic head. Two had exophthalmos, while the other had the eyes wide apart and divergent. All three showed congenital deformity of the fingers. Dr. Morley Fletcher regarded the condition as due to a developmental defect, and not as secondary to an abnormality of the brain. Dr. Sutherland agreed with this view. Dr. Hutchison, in replying, said that he also believed the condition to be due to bone maldevelopment rather than to a brain condition. Dr. Langmead: (1) A case of *Congenital scoliosis* in a girl aged 10 months, who had a sharp bend to the left in the dorsi-lumbar region of the spine. A skiagram showed this to be due to an additional wedge-shaped bone interposed between the last dorsal and first lumbar vertebrae of congenital origin. (2) A case of *Pigmentation* in a baby; it had blue patches on the buttocks and lumbar region. The exhibitor pointed out that this pigmentation was a racial characteristic in Japanese and half caste babies. The was some doubt as to the nationality of the child's grar father. Dr. Miller: (1) A case of *Juvenile gene paralysis*, with loss of knee-jerk in a boy aged 14, w exhibited the characteristic symptoms. There were signs of inherited syphilis, but a positive serum reacti had been obtained. (2) A case of *Lymphadenoma*, starti at the twenty-fifth month, in a child now 3 years old. S months previously a gland, which on microscopical exan nation appeared to be lymphadenomatous, had be removed from the neck. There had been a steady increa in the size of the glands. The white cells in the blo numbered 6,800, and showed a slight excess of lymph cytes. Dr. Sutherland pointed out the great difficulty distinguishing between this condition and tuberculos Dr. Poynton stated that cases of congenital syphilis we sometimes mistaken for lymphadenoma. Dr. Parson A case of *Congenital acholuric jaundice* in a boy aged who had been yellow from birth. There was no oth case of jaundice in the family, and no specific history. T spleen was uniformly enlarged. The temperature w 100°, and the blood count showed marked anaemia, wi only 28 per cent. haemoglobin. Dr. Langmead read a pap on eighty consecutive cases of wasting infants fed undiluted citrated milk.

Odontological Section.

Monday, April 25th, 1910.

Mr. William Hern, President, in the Chair.

Mr. Hopewell-Smith, in a paper entitled, "Two Odont celes and some other Cysts," described two cases malformations of teeth which had been retained in th jaw, unerupted—in one case of a man, aged 31; in th other of a medical man, aged 41. These had given rise t unilocular cystic tumours of the jaws, which, differin from anything previously noticed and recorded b pathologists, had, in one instance, been diagnosed a a myeloid sarcoma of the superior maxilla. Neithe could be classified as examples of dentigerous cyst or follicular odontomes. The exhibitor, therefore proposed for them the new terms of subcapsular an extracapsular odontoceles respectively. One specime showed absence of portions of the crown of the tooth, th other additions to its crown, in the form of a calcifie capsule—the dental sac or follicle. Epithelium lined th wall of both cysts. Incidentally it was pointed out tha the gum margins near the necks of the teeth are freel supplied with mucous glands on the inner palatal aspec and that they are absent over the *external* surface of th alveolar processes. The life-history of the dental follicl or capsule was briefly narrated, and the opinion expresse that the fluid of dentigerous cysts owed its origin to th breaking down of the stellate reticulum of the ename organ.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

Wednesday, April 20th, 1910.

Dr. A. Fulton, President, in the Chair.

Craniotomy.

Dr. G. A. Robinson, in opening a discussion on Is Crani otomy Justifiable? said that owing to the extremely high mortality with which Caesarean section used to be attended, craniotomy became the operation of choice when one or the other was necessary to effect delivery. It had even been stated authoritatively that the maternal mortality after craniotomy did not exceed that of normal labour. Modern methods, however, had succeeded in reducing the mortality of Caesarean section to 5 to 8 per cent. It was one of the easiest of abdominal sections to perform, and it had the advantage of presenting the mother with a full-term healthy baby; she could be sterilized if necessary, and altogether it provided the best results for the mother. Perforation should never be performed on a living child. With a conjugate of $2\frac{3}{4}$ in. symphysiotomy or pubiotomy provided alternate methods. The speaker quoted 20 cases of Caesarean section with three deaths, but he pointed out that the fatal cases occurred in private practice amid dirty and septic surroundings. These cases should be diagnosed early

removed to an appropriate hospital or home. A. C. REID agreed that when the child was , and circumstances were favourable, Caesarean n should be regarded as the operation of election. as a Poor Law medical officer, he was often called midwives when labour had already lasted twenty- hours and the woman was exhausted. Prompt al to hospital in such cases was difficult, and the al practitioner was forced to rely on craniotomy. wn experience was not encouraging, as he had had ths in 5 cases, two from ruptured uterus and one shock. Still he held that craniotomy was justifiable a living child was impossible, and considered it to e operation of election (1) where the child was non- and the mother's condition was urgent; (2) in the of monstrosities; and (3) where the fetus was excep- ly large, and especially if it was dead. He urged omes should be established in which difficult labours be properly watched. In the discussion which ed, most of the speakers favoured Caesarean n.

Exhibits.

R. G. HOGARTH showed a boy admitted three weeks nto the hospital with symptoms of internal haemor- . A ruptured spleen was discovered at the opera- nd removed. The boy made a splendid recovery. KENNETH BLACK showed a case of wry-neck success- treated by removing the sternal head of the sterno- id, and uniting this to the clavicular portion.

ULSTER MEDICAL SOCIETY.

Thursday, April 21st, 1910.

Dr. MAGUIRE, Vice-President, in the Chair.

SSOR MILROY gave a short account of his investiga- on the question of *Mental fatigue*. The fatigue was ntly in the higher or psychic centres and connected the faculty of attention; relief or rest was not ed by a change of sense as from visual to auditory. ssor LINDSAY, Dr. CALWELL, and Dr. SHAW discussed paper. Dr. J. A. MILROY explained the various ds of estimating the *Oxygen capacity of the blood*, letailed his own method. Dr. W. J. WILSON made remarks on *Carbon monoxide poisoning*, and gave ulars of the varying quantity of this gas in pure coal- nd in the various admixtures with water-gas, as now for illuminating purposes. He quoted figures showing normous increase of accidental deaths since the intro- n of water-gas. Dr. CALWELL moved that the matter, to its public importance in view of the erection of gasworks for the city, be referred to the council of society for consideration. This was seconded by CLEMENTS and passed unanimously. Professor GTON showed some lantern slides of skiagrams e *Development of teeth* of various apes. Mr. CRYMBLE showed lantern slides of (1) the blood y and position of the pelvic colon; and of (2) the nsory muscle of Treitz. Dr. J. S. DICKEY showed illustrating the anatomy of the lung apex. In an ing room there were exhibits and demonstrations, g which were:

Mr. CRYMBLE: Preparation demonstrating the anatomy of ar puncture. (2) Surgeon MCCLOY, R.N.: Specimens of *na palpalis*. (3) Dr. SINTON: Trypanosomes and spiro- es. (4) Captain SEWELL: A new solid medium for typhoid entiation. (5) Captain SPILLER: Specimens of malaria— nign tertian; (*b*) quartan, malignant tertian, trypano- , kala-azar, *Spirillum obermeiri*. (6) Dr. LEONARD KIDD: riosteal sarcoma of femur; (*b*) parts removed in excision lf the tongue; (*c*) small dermoid with twisted pedicle. . DARLING: Sarcoma of caecum, with secondary invasion dominal wall. (8) Mr. R. J. JOHNSTONE: Uterine fibroid sarcomatous degeneration (slides); large recurrent retro- neal lipoma; hydatidiform mole; parts removed from a f volvulus of caecum.

E Hamburg Institute of Tropical Hygiene is to be lt on a larger scale. A hospital will be attached to stitute.

. W. H. LEVER, it is stated, intends to give the ges awarded his firm for libel by various news- s, amounting in the aggregate to £91,000, to the ersity of Liverpool, the Liverpool School of Tropical cine, and other important public services in Liverpool. niversity will be the chief beneficiary.

Reviews.

STREPTOCOCCAL INFECTION.

THE first part of the work upon surgical infective diseases, which Professors KOCHER and TAVEL have projected, deals with the streptococci[1] and will prove of considerable value to surgeons and bacteriologists. The scheme devotes a little more than thirty pages, after a brief historical introduction, to morphology, biology, pathogenicity for animals, and the production of antibodies. The next two hundred pages describe the pathological effects produced in the human body, illustrating all phases and types of streptococcal infection by a wealth of clinical material, which though it makes rather wearisome reading if taken in big doses, should prove of use not only to those who write books, but to those who unhappily are called upon to treat such conditions. About twenty pages at the end of the book are reserved for indications as to the general lines of treatment and the use of the organisms, or their products, as therapeutic agents. It is impossible to do more than indicate a fraction of the observations and assertions put forward, but it should be stated that the evidence upon which they are based is free from obscurity.

From the figures given it would seem quite easy to mistake the *Streptococcus conglomeratus*, in its morphological aspects, for a staphylococcus, but, of course, it is common enough to find that an infection which in smears looks like the latter proves on cultivation a streptococcus. It is interesting that virulence in an animal is no criterion as to virulence in man. Interesting, too, the suggestion that virulence is dependent on biological properties, such as the power to determine coagulation of tissue juices. Whilst it is true that the same organism that produces erysipelas in one individual may give rise to a different type of infection in another, it is not true that *any* streptococcus can determine *any* kind of infection in *any* individual. If the injection of cocci of the strain inducing a given infection causes a phagocytosis, some estimate of the prognosis may be formed. Similarly, the value of a serum may be gauged by testing the agglutinating power of the blood serum of the patient against the strain from which the serum has been prepared. The effect of congestion hyperaemia upon the development of experimental streptococcal lesions hints at the necessity for extreme care and discrimination in its employment in acute cases. The authors are advocates of the use of antistreptococcal serum, and it is notable that they endorse Wright's opsonin theory as against those of Ehrlich and Metchnikoff, and attribute, as he does, the beneficial working of the serum—in part, at least — to the stimulation of phagocytic activity. Their own experiments with serums demonstrate a certain degree of specificity. In discussing the general effects of streptococci they point out that in diagnosis too much reliance must not be put upon the type of temperature curve. Discussing the various ways in which use has been made of streptococci for treating neoplasms, they give examples of cases treated by Coley's fluid; they admit that generally there is a good effect in diminishing pain, and that temporary retrogression is sometimes observed, but they evidently do not regard it as a curative agent. Many of the numerous cases detailed throughout the book to illustrate the protean aspects of the disease well repay reading; many of them the reader will be able to match from his own experience; but gathered together as they are here, a storehouse of reference is supplied which will take a long time to exhaust. There is a bibliography.

PULMONARY TUBERCULOSIS.

DR. BARDSWELL has rendered good service in publishing his inquiry into *The Expectation of Life of the Consumptive after Sanatorium Treatment*.[2] Public opinion, which rushed to the conclusion that sanatorium treatment was to cure most consumptives in three months, is already

---

[1] *Vorlesungen über chirurgische Infectionskrankheiten*. Von Dr. Th. Kocher und Dr. E. Tavel. Erster Teil: *Die Streptomykosen*. Jena: Gustav Fischer. 1909. (Roy. 8vo, pp. 257; 80 illustrations. M. 6.)

[2] Oxford Medical Publications. *The Expectation of Life of the Consumptive after Sanatorium Treatment*. By Noel D. Bardswell, M.D., M.R.C.P., F.R.S.Edin. Edinburgh, Glasgow, and London: H. Frowde, and Hodder and Stoughton. 1910. (Demy 8vo, pp. 130; 3s. 6d.)

swinging towards a pessimistic attitude, and the medical practitioner is seeking some definite estimate of the results which may be expected from treatment in individual cases. A study of Dr. Bardswell's book will go a long way towards helping the practitioner to appreciate the possibilities of sanatorium treatment, and through him to steady the popular view of what this treatment is capable of accomplishing. The general conclusion may be stated in Dr. Bardswell's own words:

> Sanatorium treatment must be regarded as a relative cure only; in relation to the treatment of incipient and moderately advanced cases it can be considered to be curative in a high degree. As regards the advanced cases, it must be recognized as a palliative and as means of prolonging life.

The book consists in a careful analytical study of 241 consecutive cases admitted to two sanatoriums for comparatively well-to-do patients. There has been no selection of cases, but the circumstances of the patients placed them in a somewhat better position to benefit from treatment than is the case with patients of the working class. The figures tend strongly to confirm the experience of all who have followed the treatment of consumptives on sanatorium lines, especially in regard to three points: (1) The essential importance of early recognition of the disease, so that treatment may be commenced before the disease is far advanced; (2) the necessity for prolonged treatment; and (3) the necessity for continued care for some years after the disease has become arrested. Dr. Bardswell considers that the minimum period for residence in the sanatorium should be six months, but recognizes that certain patients are by temperament prone to become morbid and dissatisfied after a few weeks, and expresses the opinion that such patients should be discharged at the first indication of such a condition. As to the need for continued care after leaving the sanatorium, Dr. Bardswell states a fact insufficiently realized in terms with which no one possessing experience on the subject will disagree. He says (p. 30):

> It cannot be doubted that, in the large majority of instances, the robust looking consumptive, when he leaves a sanatorium, has taken but the earlier steps on the road to complete cure. If he is able to maintain his good general health for a year or two absolute cure may be attained; should he fail to do so, there is every likelihood of the disease again becoming active.

The life-histories of the cases which occupy the latter half of the book give point to the commentaries and statistics. No cases discharged since 1905 have been included, so that there has been a sufficient time to get some knowledge of the permanence of the improvement in those who left the sanatorium apparently well. The general conclusion from the statistics is thus expressed by Dr. Bardswell:

> The inference to be drawn from my statistics is: that of every 100 cases of consumption, taking them as they come without any attempt at selection, 50 will die within a period of from four to nine years after their admission into the sanatorium, and the remaining 50 will be for the most part enjoying good health after the same period. In my opinion the further expectation of life of the latter 50 is favourable.

It must be noted that a large proportion of the cases from which these deductions are drawn were "advanced" cases. The tables justify the opinion that the recognition and treatment of consumption in its earliest stages would result in a great increase in the proportion of cures. This is a valuable contribution to our knowledge of the possibilities and the limits of sanatorium treatment of consumptives, and should be widely studied.

The *Fifth Annual Report of the Henry Phipps Institute for the Study, Treatment, and Prevention of Tuberculosis*[3] covers the period from February 1st, 1907, to February 1st, 1908. It is characterized by the same careful and comprehensive statistical analysis which has been the feature of these reports from their commencement. There are also, as in former volumes, records of original inquiries by members of the staff of the institute. During the twelve months under review, 1,475 new patients were admitted for treatment at the institute, and nearly 6,000 patients have been under treatment in the five years covered by this and the preceding reports. In the statistical section, or, as it is called, the "Clinical and Sociological Report," a mass of figures is being gradually accumulated classified which cannot fail to be of value in helping i solution of various etiological problems in connexion tuberculosis. Here and there, amongst the commer the various statistical tables, we come across sugge remarks which open out points for further examinati indicate some general impression produced on the mi the investigator. An interesting note from the sociol point of view is founded on the examination of a showing the employment followed by the various appli for advice at the institute. The report states (p. "It is evident from this table that for some reas other fewer patients work nowadays than in the begi of our service. . . . It would seem that our influence the community has been for idleness . . ."; and furth (p. 44): ". . . One can read that a great many o patients who come to the dispensary become pensi of the institute to some degree." This seems to Philadelphia very near to London The harmful infl of excess in alcohol in the causation of tuberculos now generally accepted, and it seems from this r that we may also have to include indulgence in tob amongst the predisposing causes. It must, howeve borne in mind that statistical tables require to be che by other methods of investigation, and the authors of report are under no misapprehension as to the reli which can be placed on statistics, and discuss their fi in a thoroughly judicial manner. The opinion is expre (p. 20) that "whatever else we may wish to read u morbidity and mortality statistics on tuberculosis quite certain that we cannot read out of them a high of implantation from bovine origin," and that the h thesis of dormant bovine tuberculosis in human be from ingested milk is untenable. Another pronounce based on the records of examination for tubercle baci also worth noting (p. 58). Because tuberculous pe occasionally spit up matter which is full of tubercle b extremists have jumped to the conclusion that all m spit up by tuberculous people is full of tubercle bacilli that the air is permeated with tubercle bacilli spat u consumptives. If there were serious risk in this dire we should not expect to find the prevalence of tubercu decreasing, seeing that every consumptive comes into communication with many people who are thus exp to the effects of any infection of which he may be source. As, however, the case of early tuberculos non-contagious "severe restraint of the movements activities of persons in the early stage of tuberculos unwarranted." Efforts in his case should be for rather than for prevention. For effective preven isolation of the *advanced* case is necessary. "Were e advanced case of tuberculosis humanely isolated, e cases might be safely disregarded without in the sligh degree interfering with a successful campaign aga tuberculosis" (p. 59). The special subjects of investiga include observations on bone marrow in cases dyin tuberculosis; on fibrosis of the lung; on pneumothora pulmonary tuberculosis; and on the opsonic index pulmonary tuberculosis. Drs. Joseph McFarland E. J. G. Beardsley have investigated the question of elimination of tubercle bacilli, and conclude that tube bacilli do not appear in the faeces except in cases in wh they are swallowed in the sputum or enter directly f tuberculous ulcers of the intestine. The report, those which have preceded it, will repay careful study.

The publication of a Roentgen atlas[4] of lung tu culosis offers great possibilities. The photographs mi for example, be utilized to demonstrate the more comm situations and paths of spread of tuberculosis in th organs, or to illustrate the value of the Roentgen rays the diagnosis of the disease; or the progress of indivi cases, and the results of treatment might be recorded b series of pictures taken from the same patients at succes periods. There is, of course, a still further use of m restricted interest—namely, to teach how the skiagram lung disease should be read by explaining the relatio the shadows to the physical signs observed during life to pathological changes found *post mortem*. In the a

[3] *Fifth Annual Report of the Henry Phipps Institute for the Study, Treatment, and Prevention of Tuberculosis.* February 1st, 1907, to February 1st, 1908. Edited by J. Walsh, A.M., M.D. Philadelphia: Henry Phipps Institute. 1909. (Sup. roy. 8vo, pp. 463).

[4] *Röntgenatlas der Lungentuberkulose.* Dr. Otto Ziegler and Dr. F Krause. Zugleich II, Supplement: Band zu *Beiträge zur Klinik Tuberkulose.* Herausgegeben von Prof. Dr. L. Brauer. Würzbu C. Kabitzsch. 1910. (Sup. roy. 8vo, pp. 15, Taf. 51. M.40.)

Ziegler and Krause the arrangement lends itself itly to this last use. There are some sixty extremely entgen-ray photographs of the chest contents from ases of lung tuberculosis, and opposite each picture f outline of the case with the physical signs found mination, and, in some, the pathological conditions fter death. Thus we may learn the shadow read- onsolidation, cavities, etc., and compare the findings arious cases of disease with the skiagrams of the chest. A large proportion of the skiagrams seem aken from cases of advanced tuberculosis which ave been easily diagnosed by the least expert n, and in which, therefore, the assistance of the xpert would hardly have been required. Still, as a of the appearance produced by advanced lung they are interesting. One important point is t out by this series of pictures which deserves some on—namely, the frequency with which the tic glands at the root of the lung are affected. adows of diseased bronchial glands is a feature of a umber of the pictures. Another interesting feature clearness with which the bronchial-tree shadow is many of the photographs. The book is well got the individual plates could not well be better. In t explanatory preface of fifteen pages the authors hat they view their subject in proper perspective. sult of their observations is to suggest that the r root of the lung, rather than the apex, is the most t starting point of tuberculosis. They point out, r, that when tuberculosis commences as a catarrh apex this cannot be detected by the Roentgen rays, it can be by physical examination. If the disease nces with an outcrop of tubercle these may cause a v. The authors recognize the difficulty of distin- g consolidation of the lung from thickening of the and the impossibility of a differential diagnosis in f pulmonary induration or consolidation. We should een glad to see more examples of the picture formed y tuberculosis of the lung, and a systematic arrange- f the plates to show the progressive changes in the w picture as the disease advances; but within the which the authors have set themselves this is a xcellent work.

DIET AND METABOLISM.

olume on diet in Gilbert and Carnot's *Bibliothèque rapeutique* is by Professor Marcel Labbé,[5] who has orated with his brother and Professor Landouzy recent years in a good deal of work on this subject. ook is very complete, and contains a good index, the misprints we have noticed being on page 3, where ams are printed for grams in a table of the t of ash derived from the human body (taken from r, who prints it correctly, the figures being Volk- 's), and on page 75, "raw meat" for "powdered " The general tone of the book is favourable to rianism, which, Dr. Labbé says, has now entered a scientific phase, and receives the support of the ced portion of the medical profession. He is not, ver, an absolute vegetarian, recognizing that mixed s better tolerated, so that he advocates the use of eggs, cheese, and even a limited amount of meat. ondemnation of meat is perhaps excessive, for he that "it cannot be an exclusive diet for human s"; he admits that the Eskimos and Gauchos on the as of South America live on it, but does not explain nconsistency. He points out the fallacy of basing our ates of the physiological requirements of the body he habits of any race, for, as he says, these are often the result of circumstances than of choice. objections to vegetable diet as the diminished tibility and absorbability of vegetable albumen are, onsiders, far outweighed by its advantages. He ates the amount of proteid food required by an adult about 1 gram per kilogram of body weight—a fair ate. During periods of growth or training, or when ody has to supply the demands of another organism, ring pregnancy and lactation, more may be required; he thinks all the facts show that workpeople espe- cially have acquired a deplorable habit of eating too much nitrogenous food, and that they would be in better health, more efficient workers, and be better off if they diminished their consumption of animal food. He gives tables to show the enormous advantage of vegetable diet in its supply of energy and in its cost, affording about ten times the number of heat units at a fourth of the price. He regards the alleged necessity for the addition of salt to food as a fiction; but he quotes some interesting experiments on mice to show that the natural salts of food are essential, for when these animals were fed upon saccharose, butter, and casein from which all salts were removed they died in from eleven to twenty days; even when a quantity of salts supposed to represent the natural equivalents was added they lived only from twenty to thirty days, while on milk containing the salts in a natural condition they lived indefinitely. He accounts for this by assuming that the natural salts are indispensable to the various fermentations of the body. In the consumption of food the human body acts better than the best machines that have been devised—that is to say, whereas the latter can never produce more than 5,525 kilogrammeters (the French equivalent of foot-pounds) for 100 units of heat the human body can produce from 8,500 to 10,625 kg.m. During the recent elections there has been an attempt to create prejudice by speaking contemptuously of horse-meat, yet there is evidence of its growing popularity in France. Labbé says that it is of great value as food and extremely palatable when it is not obtained from overworked old horses; it has a sweet taste due to the presence of glycogen and glucose. The increased consumption in Paris is shown by these figures: In 1867 the amount was 2,122 kg.; in 1887 it was 13,029 kg.; and in 1906, 46,560 kg. He speaks of asses' meat as "tender, nutritious, and agreeable to the taste"; but while this may be true of a well-fed domesticated donkey, travellers in Central Asia do not praise the meat of the wild ass (Kiang). A useful part of the book is that devoted to such subjects as the education of the people in matters of diet; he has summarized very well all that has been done in Belgium, France, and Germany on this subject (see our article, "Cheap Food," March 14th, 1908, p. 639). He condemns the No-breakfast plan, which he says in our cold climate involves burning up the reserves. He thinks the mid-day meal should be the chief and the evening meal less abundant. He gives some account of the official dietaries in the French army, navy, and prisons. That of the French army he considers excessive, and points out the absurdity of making no difference for the small men of the line and the giants of the cuirassier regiments and of giving a more liberal diet in peace than in war! For the navy he urges the need of furnishing the ships with proper refrigerator chambers. The prison diets are too low and too monotonous, and also err by making no difference for individuals. He describes the various dietetic systems used in the treatment of disease, such as those of Weir Mitchell, Oertel, and Schroth, but gives no satisfactory account of the pure proteid diet which has many advocates in England and America, and is undoubtedly useful in suitable cases. The last part of the book is devoted to the dietetic treatment of special diseases, the details of which are naturally influenced by French habits; in many instances the arrangement of meals and dietaries would not be agreeable to English patients. We feel some surprise that after all he has said in the early part of the book in favour of a lacto-vegetarian diet he advocates its use so little in disease—as, for example, in chronic nephritis. Indeed, he says that for nephritis with dropsy and amyloid degeneration, "a mixed diet rich in meat and salt-free is called for," but he recommends the lacto-vegetarian diet in skin diseases and in gout. The book concludes with a chapter on sick-room cookery.

Professor Umber's book on diseases of nutrition and metabolism[6] is a suitable work for students and young practitioners as it contains an adequate account of the subject, but it is in no way distinguished by original ideas or by exceptional clinical experience. Like most modern

bliothèque de thérapeutique. Publiée sous la direction de bert and P. Carnot. *Régimes alimentaires.* Par le Dr. Marcel é. Paris: J. B. Baillière et Fils. 1910. (Post 8vo, pp. 597. 41. Fr. 12.)

[6] *Lehrbuch der Ernährung und der Stoffwechselkrankheiten.* Von Professor Dr. F. Umber. Berlin und Wein: Urban und Schwarzenberg. 1909. (Sup. roy. 8vo, pp. 410. M. 12.50.)

scientific writers on diet, he ranges himself on the side of those who regret the exaggerated value accorded to proteid food, and blames for it Liebig, the great pioneer on this subject, who taught that albuminous food was the sole source of muscular energy. He summarizes the recent work of Voit, Rubner, Atwater, Benedict, and Chittenden, and accepts the view of Rubner that size of the body is the only real cause of difference in the amount of metabolism; differences of age and sex do not depend on any other circumstance but that children are smaller than adults, and men are bigger than women. The other element to which differences can be attributed is muscular exercise. If two men of equal size eat equal amounts of food, but one gets fat and the other thin, he attributes the difference to temperament, as he says the thin man must take a great deal more exercise than the fat one. It is doubtful whether such statements are correct; there are stout persons who are singularly active, and it would seem that they have a greater tendency to form fat. The old view that muscular tissue can only be replaced by albuminous food is now given up; but it was so long taught that it has taken a firm hold on the public mind, and will require much effort to dislodge it. The consequence is that the value of meat is overestimated; it is thought to be the only true food for the man who does hard work. Professor Umber says that in his part of Germany far too much meat is eaten, not only among the well-to-do but even by those who cannot so well afford it; he regards such habits as irrational and in the long run injurious. After a description in his introductory chapters of the present position of the science of metabolism, he gives a short account of the chemistry of food and a chapter on the overfeeding cure, artificial feeding, and nutrient enemata. The remainder of the book is devoted to the pathology and the treatment of such various diseases as obesity, diabetes, gout and oxaluria. He speaks favourably of von Noorden's "oatmeal cure" for diabetes, but restricts it to serious cases with acidosis, and as he has found it to cause diarrhoea not infrequently, combines with it the use of tincture of opium. He follows Klemperer's rules in the treatment of oxaluria, and reports good results with his oxalate-free diet and magnesia. The chapter on gout is illustrated by some good plates.

NEUROLOGICAL TEXTBOOKS.

IN writing their excellent *Textbook of Nervous Diseases*[7] Drs. TURNER and T. G. STEWART have aimed at supplying the wants of general practitioners and senior students; no attempt has been made to compete with the larger manuals on neurology, and references to the literature are sparingly made, but the clinical description of the various diseases is given at some length. The authors have adopted an arrangement of their own in classifying the disorders; the first sections of the book deal with the anatomy and physiology and with the examination of the nervous system, and then follow sections on the special senses, the cranial nerves, and the peripheral nervous system. Next come 120 pages devoted to the diseases of the brain, with a useful table exhibiting the differential diagnosis between cerebral thrombosis, embolism, and haemorrhage. Separate sections are devoted to diseases of the membranes and diseases of the spinal cord; in their account of caisson disease, or diver's paralysis, the authors note that "the prognosis is good, relatively few fatal cases being recorded." Such a statement is, no doubt, true of caisson disease as met with in this country; it must be remembered, however, that Boinet and Audibert, on the other hand, estimate that no less than 100 deaths from this cause occur every year among the sponge divers on the coasts of the Mediterranean. Eighty pages are given to the general diseases of the nervous system; and the last quarter of the volume treats of vasomotor and trophic diseases, familial diseases, various obscure muscular and other diseases, migraine, hysteria, neurasthenia, psychasthenia, epilepsy, and the tics. We can confidently recommend this textbook to the students and practitioners for whom it has been designed. It is well and clearly written and up to date; comprehensive, but not abstruse, or intelligible only to the specialist. The printing and paper are excellent, and the numerous photographs wit it is illustrated, taken largely from patients atten Queen Square Hospital, add much to the value and of the volume.

The therapeutic pocket-book for nervous dise Dr. W. ALEXANDER and Dr. K. KRONER, both of B not concerned so much with the principles of th ment of disease of the nervous system as with of methods for relieving its symptoms. It is some the nature of an index of drugs, especially of coal-tar analgesics. It is questionable whether the at the present time is susceptible of arrangement cussion on what may be called rational lines. So known of the essential nature of nervous disease, th a book almost inevitably deals with the flotsa jetsam, the mere wreckage of the storm, not w mechanism of the storm itself. Even electrical tre —a subject which is very properly elaborated pocket-book—does not touch the nervous disease it in the main merely helps to keep up nutrition of pa muscles, so that time may be saved when the disease recovers of itself, if fortune so wills it. treatment of tabes as given in the handbook is an in It includes such measure as potassium iodide and nitrate administered internally, the method of re-edu after Fraenkel, suspension (surely discredited), and therapy. The general effect of the work, it m admitted, is depressing, yet it is something that nee be done. The special use of the book will probabl afford suggestions to the medical adviser who is, phrase has it, at his wits' end as regards the therap of the particular case. There is a preface by Pro Goldscheider and a meagre index.

BURDETT'S HOSPITALS ANNUAL.

IN all externals the edition for 1910 of *Burdett's Hos and Charities*[9] differs from preceding issues only fact that its price has been somewhat increased. No however, can well grumble at this, for at half a g this reference book remains well worth its cost. information supplied regarding individual institutio as practical as ever, and orphanages, nursing, and pitals in Canada and the United States are dealt more fully than formerly. In the chapter on r extensions and building schemes the King Edward Hospital at Windsor, which when completed will have cost more than £250 a bed, is mentioned as stituting a new and desirable departure. The stat with regard to individual hospitals relate to the year and in the accompanying matter Sir HENRY BUR offers hospital committees good reasons for insistin their secretaries keeping their books and making returns in accordance with the rules of the revised sy of hospital accounts.

In the general chapters dealing with charitable e prise as a whole, the author returns to his favourite ti ring—namely, a statement which appears to have made at some time or other to the effect that there a limit to the philanthropic purse. It is shown that the end of 1907—the survey extends no further volume of charity had been extending for twelve y The total income of all charities, including missions, in that year over £12,000,000. It is a vast sum, wh capitalized at 4 per cent., would be equal to nearly the funded debt of the United Kingdom. Rather r than half of it came from what has been called the "d hand," but even the balance contributed by living per represents a voluntary income tax of about 2d. in the po About one-third of this £12,000,000 went to orphana and homes, rather less than one-third was absorbed missionary societies, and about 38 per cent., or over third, belonged to medical institutions. The author recently, it appears, made a tour of inspection of mos the voluntary hospitals in England and Wales, the outcome being a conclusion that when less than existing hospitals have been scrapped and new buildi

[7] *A Textbook of Nervous Diseases.* By W. A. Turner and T. G. tewart. London: J. and A. Churchill. 1910. (Roy. 8vo, pp. 624, llustrations 188. 18s.)

[8] *Therapeutisches Taschenbuch der Nervenkrankheiten.* Von Dr Alexander und Dr. K. Kroner. Berlin: H. Kornfeld. 1910. (Sup. 8vo, pp. 164; Abb. 6. M. 3.50.)

[9] *Hospitals and Charities.* By Sir Henry Burdett, K.C.B., K.C.V London: The Scientific Press, Limited. 1910. (Pp. 939. 10s. 6d.)

placed them, and when some half-dozen others onsidered their rules and modernized and brought to date, the voluntary hospitals in England will to typify the best form which the world has ever]. This is a conclusion as easily credible as it is but in respect of the future of the system on ospitals depend the author's statements are likely s readily accepted. It may be true, and we hope hat "the outlook for voluntary hospitals was never more promising than it is at the present date." es regarding charities as a whole certainly sup- conclusion so far as they go, but they are not made nvincing by scattering unmeasured abuse over ho take a less happy view of matters. Indeed, rest of the whole of these initial chapters is d by the language used.

NOTES ON BOOKS.

eface to the fourth edition of *Pocket Therapeutics Book*,[1] the author, Dr. MORSE STEWART, says that vour has been made to perfect it, and so justify the edgement which it has received in the past among ns, nurses, and pharmacists. It is a compact ok, but as a guide to treatment would be more to the brief notes on the physiological effects of the ere added information as to how frequently the vised may be repeated. The book is founded on *ted States Pharmacopoeia*, and the doses seem ed in America, their metric equivalents being

OUT's useful little manual, *Lessons on Elementary and Sanitation, with Special Reference to the* has now reached its second edition. This is not g, as the value of the book and its use to the laity est Coast of Africa at large were pointed out in the f the first edition. Originally given as a series of res, the matter of the text was expanded to form entary textbook for the use of schools in the That the work has reached a second edition is at it met a need. Having been brought up to date lified, the little work should go on spreading the s of hygiene amongst the rising generations of in Africa and other tropical countries.

urpose of *Prescription Writing and Formulary*,[3] by N SWAN, would appear to be to supply the informa- of which is accountable for the eccentricities in ing common among the younger generation. This it certainly effects, and on that account is to be ded. Included as examples of correctly drawn tions are about a thousand formulas, all of them and none requiring drugs other than those which cial in the United States. They are classified ne heading of the conditions in which they are

Therapeutics and Dose Book. By Dr. Morse Stewart, jun dition. Philadelphia and London: W. B. Saunders Company p. 32mo, pp. 263. 5s.)
s on Elementary Hygiene and Sanitation, with Special to the Tropics. By W. T. Prout, C.M.G., Hon. Lecturer Tropical Medicine, Liverpool. Second Edition. London: Churchill. 1908. (Demy 8vo, pp. 179. 2s. 6d.)
iption Writing and Formulary. By Dr. John Swan. hia and London: W. B. Saunders Company. 1910. (Pott 8vo, s.)

DICAL AND SURGICAL APPLIANCES.

A Curette for the Eustachian Tube.

CLEOD YEARSLEY, F.R.C.S. (London, W.), writes: otologist has experienced the reinfection of his mastoid operations through the Eustachian tube, ious suggestions have been made as to the best of closing that pathway. I have found the curet- the tympanic ostium of the tube to fail very fre- , and attempts at closure by remnants of the tym- nembrane are equally unsatisfactory. I have , therefore, devised a fine curette, of steel welded per stem, which can be passed with ease into the ic ostium and outer half-inch of the Eustachian r the purpose of thoroughly curetting this outer I have now used this curette, which was made by Messrs. Krohne and Sesemann, in several cases, xcellent results, the curettement appearing com- to close the tube.

SANITARY MATTERS IN CAIRO.

CAIRO has become so popular as a winter resort that on that ground alone every care should be taken by the authorities to ensure that its sanitary arrangements are above suspicion. The death-rate in Cairo is at present notoriously high, even for a town situated as it is on the fringe of the desert.

Calculated on the 1907 census, the death-rate for 1908 was 39.23 per 1,000, and for 1909 44.9 per 1,000. The infantile mortality-rate was in 1908 282 per 1,000 born, while the rate for children under 16 years of age was 71 per 1,000. From these figures it will be seen that 28 2 per cent. of the infants born in Cairo die during the first year of life; and 48.5 per cent., or nearly one-half, of the children born will, if the present death-rate continues, die before they reach the age of 16 years. Although it is hardly a fair comparison, the death-rate for England and Wales might be instanced: in 1908 it was 14.7 per 1,000, and the infantile mortality 121 per 1,000. Cairo has a hot climate, and this might be adduced as a reason for the high mortality; but although this may be a factor in accounting for a high death-rate there must be other causes at work.

In Panama, Rio de Janeiro, and even on the West Coast of Africa, which had in the past a high mortality-rate, the rate has under improved sanitary conditions been very perceptibly lowered, in some respects very remarkably. The death-rate of Cairo during the past ten years has shown no like improvement—in fact, it would appear to have gradually increased.

The time would seem, therefore, to have come when an inquiry should be instituted into the prevailing diseases, so that an estimate may be formed of the influence of each on the excessive death-rate. The difficulties in the way of obtaining exact information may be great. Enough seems to be known about some of them to justify the necessary expenditure for preventive measures. Of some of the diseases occurring in Cairo little or nothing is known, except that they are diseases which destroy life; and until their causes, and the exact way in which these causes are conveyed from one person to another—in fact, their whole natural history—is known, effective methods for their prevention cannot be devised or carried out. It is clear, therefore, that the Government should without delay cause researches to be undertaken by an adequate scientific staff with the view to the discovery of the mode of the transmission and the causes of many of those diseases the etiology and history of which little is understood.

A sanitary organization is indispensable for the prevention of disease, for it is essential in order that those diseases of which the natural history is already known may be prevented; and, therefore, it is probable that it will also be required for those affections of which little is known at present, but whose natural history will become known as research progresses.

An improved sanitary organization will also be necessary for the ultimate care of those sanitary works—such as drainage—which are now in progress, or about to be begun, in Cairo. To it should be entrusted the duty of making a periodical examination of the city to obtain information as to the prevalence of disease, so that the results of the preventive measures, and of the major sanitary works may be ascertained and the expenditure on them watched.

DEATH REGISTRATION.

In Cairo at the present time death registration is in a very unsatisfactory state. In only 27 per cent. of all deaths is the cause certified by qualified medical men who have treated the deceased before death. This means that 73 per cent. of the total deaths occur without previous treatment by doctors, and, although in such cases the corpses are viewed by a Government doctor or midwife, it is impossible in this way to obtain in the majority of cases any accurate information as to the real cause of death. Death certification is the rule in the case of Europeans, but among natives the rule seems to be that the death occurs without medical attendance, or, at all events, without any certificate from a doctor qualified to practise medicine in Egypt. It is even doubtful whether all deaths are registered, although the decree of June 9th, 1891, requires the relatives to register any death which occurs at the nearest public health office, and now, in the case of foreign subjects, at the Consulates also.

BIRTH REGISTRATION.

Birth registration in Cairo, as in other parts of Egypt, is incomplete. The decree of June 9th, 1891, requires the parents to register at the nearest public health office the birth of every child born in the city; but Europeans do not obey, and it seems impossible to compel them. As the various Consulates—doubtless acting under instructions from their superiors—seem disinclined to enforce their own laws concerning birth registration, the Egyptian Government is unable to insist upon it. In consequence the majority of European infants escape vaccination, and there is an epidemic of small-pox in Cairo among Europeans every nine years. It also completely vitiates all statistics of the birth-rate and other figures of economic importance in Egypt.

INFANTILE MORTALITY.

The census taken in April, 1907, enumerated a total population in Cairo of 654,476. Of this number, 25,754 were infants under 1 year of age. But the number of births registered during that year was 28,350, excluding the majority of European births which were not registered. The average infantile mortality in Cairo during the past eight years was 300 per 1,000 births. During 1908 it was 282.

An examination of the annual curve of the infantile mortality shows that it is highest during the early summer months, and that it is related to the humidity. Last year the general death rate reached the astonishing figure of 105 per 1,000. There was a sudden heat wave and great atmospheric dryness, and children died of diarrhoea by hundreds. Of 3 016 infants under 1 year of age who died in Cairo during June and July, 1909:

1,179, or 39 per cent., died of diarrhoea.
625, or 20 per cent., died of marasmus.
79, or 2 per cent., died of measles.

The chief causes of infantile mortality under 1 year of age appear to be infantile diarrhoea, marasmus, inherited syphilis, and measles. Records of 74,281 persons under 16 years of age in Cairo living and dead were in 1908 obtained for two years, and the prevailing diseases which caused the excessive death-rate were in order of incidence: infantile diarrhoea, marasmus and rickets, measles and bronchitis, inherited syphilis. Among older children there prevail three diseases causing fever, anaemia, enlargement of the spleen, sometimes wasting, ascites, and death—they are endemic cirrhosis, malaria, and ankylostomiasis. Endemic cirrhosis of the liver is said to cause death in 4.5 per cent. of the people; the incidence of malaria varies with the locality and other factors. There is also a high "zymotic" death-rate, and tuberculosis is very common. But the diseases mentioned above are the common causes of the excessive death-rate in childhood when the excess is most marked. During adult life tuberculosis, typhoid fever, small-pox, typhus fever, and dysentery occur frequently in Cairo, and seem to be intensified by the insanitation. Cancer is also prevalent as in other parts of the world. Diphtheria is common, while scarlet fever is almost unknown. Endemic cirrhosis of the liver, as it occurs in Cairo, has been described by Drs. Day and Fergusson, of the Cairo medical school, in the *Annals of Tropical Medicine* for November, 1909. They note that 4 per cent of the admissions to the Kasr-el-Aini Hospital suffer from ascites due to hepatic cirrhosis, compared with 0 9 per cent. in the large London hospitals. The alcoholic cirrhosis is very rare in Egypt. Out of a total of 300 patients (natives) admitted to the surgical and eye departments of the hospital, 8 per cent. had chronic splenic enlargements; 3.3 per cent. had enlargement of both liver and spleen; and 2.3 per cent. had definite cirrhosis with enlarged spleen. The existence of this condition, in which hepatic cirrhosis is accompanied with splenomegaly, complicates the regular examination of children for malaria. Drs. Day and Fergusson describe the symptoms of this disease, but as nothing is known yet of its mode of transmission, further research is required before any attempt to prevent it can be undertaken. Possibly it stands in some relation to kala-azar, which is known to exist in parts of the Soudan. Fergusson gives his reasons categorically for distinguishing the two diseases, but it is interesting to note that Nicholle. in the *Archives de l'Institut Pasteur de Tunis*, February, 1908, stated that in a disease existing in Northern Africa, affecting children, producing prolonged fever, intense blood changes, with enlar of liver and spleen, he found parisites similar to t kala-azar.

The diseases mentioned are some of those whicl the excessive death-rate in Cairo, and it is clea duty of the Government to institute researches int etiology and prophylaxis. The experience of tropical and subtropical countries suggests that t step should be the appointment of a scientific comm and the Egyptian Government has already in Cair service, a number of highly trained medical men, vet surgeons, and others, who are skilled in scientific re The commissioners should select the subjects to be gated and determine the mode in which the res should be conducted.

THE WATER SUPPLY.

But with regard to certain other diseases, know their etiology and experience of the effect of propl measures taken in places where conditions are n dissimilar from those existing in Cairo is suffic warrant the Government in acting without further

The water supply of Cairo has long been a ca difficulty; it is derived partly from the Nile and from certain wells sunk at a short distance from th at Rod-el-Farag, which is a little below Old Cai consequence of numerous complaints as to the ha of the water supplied from the wells at Rod-el-Far of the strong preference of the native population fo taken directly from the Nile, the Government ap a Commission consisting of Dr. A. C. Houston, Dir Water Examinations, Metropolitan Water Board of L Dr. Dienert, who holds a similar position in Par Professor Gaertner, Director of the Institute of Hyg the University of Jena. The report of the Commis who were only able to spend a short time in Cairo attention to the fact that the filtration and other p tion processes applied to the water of the Nile at the works of Abassia and Ghizeh were not kept under scientific control, and expressed the opinion that the l of Nile water to become specifically infected with the of persons suffering from typhoid fever and cholera constant source of danger. The Commissioners a that no water, whether derived from wells or river, be supplied to Cairo which had not been brought cesses natural or artificial into a state of undoubted They found from records and the results of their ov periments that the water from the wells at Rod-el was a very much safer source of supply from the epi logical point of view than the artificially filtere water. Though the water is no doubt derived fr Nile, the purification is carried out naturally, and i pendent of the success of any artificial treatment. added that they did not know of any example of distributed in any part of the world in which the ha ammonia, organic matter, iron, manganese, and cren in the amounts present in the Rod-el-Farag wat proved in any way injurious to health. The prese iron and manganese in this water would appear t real difficulty, and its hardness is disliked by the population. Sir Eldon Gorst, in his report as Age Consul-General for 1908, stated that a simple and e method of removing the iron and manganese fro water had been evolved as the result of laboratory e ments, and had proved entirely satisfactory on a scale. The objection, however, still remained th water was much harder than that taken directly fro Nile, and the desired standard of water "approxim character to that of the Nile" did not seem possi attainment.

Another commission consisting of Anis Pasha, Mr. Lord Edward Cecil, and the present Director-Gene the Public Health Department, was appointed, a understood to have recommended the abandonment Rod-el-Farag source and resort to the Nile. To car this recommendation three schemes have been propou the first is to take water from the Nile some seven above Cairo, the second to take it from the river diately above Cairo, and the third is to take it fro Nile at Bulak, below Cairo, after the river has p through the whole town and has received the waters old Ismailia canal (which really serves as a drain, it receives rain water from the streets), after the rive

ed the scourings of Bulak, and after it has been con-
ated by the refuse and excreta from the steamers,
boats, and river vessels which congregate at that

these circumstances it will be learnt with some
se that the Government is understood to be in
r of the third scheme, the reason apparently being
he existence of the pumping station at Rod-el-Farag
ave, at any rate for the moment, the expenditure
would be involved in erecting a new station above
, and mains from it to the city. Early this year a
agreement with the Cairo Water Company for draw-
he water supply of the city from the Nile near
l-Farag was under consideration by the Council of
ters, but no decision was then taken. It is under-
that the water pumped from the Nile would be
d at Rod-el Farag, and that the Director-General of
Public Health Department has recommended the
ion of filters of the Jewel type, estimated to cost
40,000.

ters of this type have been introduced in connexion
the water supply of Alexandria. Before this method
tration was adopted in that city the water was
ed by a system of slow sand filtration, two large
ng tanks, containing one day's supply, or about
,000 gallons, together with twelve filter beds, each
square yards in area, being in use. In 1902
municipality of Alexandria accepted an offer of
Jewel Filter Company of New York to instal,
of cost, a complete Jewel gravity experimental
plant, with all accessories, capable of dealing with
inimum of 22,000 imperial gallons a day. The
m is one for rapid filtration combined with chemical
ication produced by applying to the raw water a
ulant, generally sulphate of alumina. Carbonate of
contained in the water changes this into hydrate of
ina and sulphate of lime, at the same time liberating
onic acid. The hydrate of alumina, which is pre-
ated in loose flakes, fulfils a twofold office. In the
place it carries down with it the suspended particles
e subsidence tanks, and, in the second place, part of
ydrate of alumina passes to the filter bed and aids to
a filtering scum. After this chemical treatment the
r is passed rapidly through sand filter beds, of rela-
y small surface, formed in wooden or steel tanks,
h can be rapidly cleaned by special mechanical
ratus. Dr. H. Bitter, Director of the Egyptian State
itute of Hygiene, Cairo, made a series of experiments
he efficiency of the Jewel Filter Works at Alexandria.
conclusions as regards *clarification* were that the
lts obtained during the whole time the experiments
e carried on were excellent, and not only equalled
e obtained by the best English filter beds, but were
superior to them in the absolute constancy and
larity with which they were obtained. Regarding
result of the *bacteriological* experiments, Dr. Bitter
e to the conclusion that the bacteriological purifica-
of drinking water by the Jewel filter is not only
al to the old English sand filter beds, but distinctly
rior to them. From a hygienic point of view, the
lication of sulphate of alumina might be objected to.
only substance that could possibly be detrimental to
lth is the alumina, which forms only about 20 per cent.
the sulphate of alumina. Such small amounts of
nina may, however, be found in many waters considered
objectionable for drinking purposes, especially in mineral
ers. In addition to the tests employed by Dr. Bitter,
Schreiber, Scientific Member of the Royal Institution
Prussia for the Investigation of Water Supply and
inage, carried out experiments in connexion with a
vel filter erected at the Berlin waterworks near Lake
ggel. He came to the same conclusion as Dr. Bitter
h regard to the action of rapid filtration in purifying
ter. He says: "Summing up the results of tests, we
y say that, bacteriologically, rapid filtration by means
he Jewel filter is equally as efficient as slow sand filtra-
n, provided that the operation of the plant is correctly
apted to the existing conditions; and in the removal of
bidity and colour the Jewel filter is distinctly superior
the old system."

Flies and Mosquitos.

One prophylactic measure which might confidently be
pected to have a considerable general effect in preventing the dissemination of such diseases as infantile diarrhœa, typhoid fever, dysentery, and ophthalmia, could be immediately undertaken, for Cairo suffers at certain seasons of the year a plague of flies, and all these diseases are conveyed by flies. Malaria and some of the other fevers prevalent in Cairo are conveyed by mosquitos, and the results of the experiments carried out in Cairo, Ismailia, and Port Said show that the reduction of mosquitos is an easy matter in Egypt if proper methods are adopted. Those which proved successful at Port Said should be followed in Cairo. It should be publicly announced that a crusade against mosquitos would be instituted in Cairo by the Government, and the methods to be followed indicated. It would be a popular measure, and, if the inhabitants of the city were not asked to pay for it, would arouse no opposition.

The duties of the inspectors should be clearly stated, the reasons of their weekly visits stated, and explanations given as to the diseases conveyed by mosquitos and flies, and of the habits of these insects. These inspections must of course be thorough, and the inspectors should enter every house in the town, inspect the cesspools for mosquitos, and examine the gardens for water collection likely to harbour these insects. It would be their duty to draw the attention of house owners and tenants to collections of manure in stables and cowsheds where flies may breed. After a little training these men should be able to report insanitary dwellings and establishments to the Public Health Department, which might then attempt to persuade the owners of such places to institute reforms. There may be some difficulty at first, as according to the domicile clause of the Capitulations Government servants are not allowed to enter private houses in Egypt, whether occupied by Europeans or natives, and if the Egyptian Government were to apply to the various Consulates for permission to allow its agents to enter the houses of foreign subjects for the purpose of discovering insanitary conditions and enforcing the irritating regulations prescribed by the existing laws, possibly a refusal would result. If, however, the Consuls were approached in a conciliatory manner, they would doubtless consent to allow the weekly visit of the inspectors into the compounds of the houses. If the inhabitants of the town were in favour of the movement, the Consuls would not seriously oppose it.

Sanitary Laws.

As at present administered, the sanitary laws in Egypt are for practical purposes of very little value. Since the decree of June 9th, 1891, requiring the registration of births and deaths is not enforced, it should be amended by a statute controlling cemeteries in Cairo and enforcing the proper registration of births, deaths, and marriages among foreign and native subjects alike.

The law controlling unhealthy trades and establishments, factories, etc., is clumsy, giving rise to many irritating petty regulations, and is a source of annoyance to traders. It should be replaced by a general building law which would control all buildings alike, such as that recently passed in the Soudan. The erection of any building, hut, house, shop, or factory should be prohibited until the plans had been passed by the local engineers and health officers. There are decrees concerning the registration of doctors, dentists, and chemists, but much illicit practice goes on and is difficult to control; this law requires amending.

There is a law which directs the proprietors of houses to empty all cesspools when required by the sanitary authority after notice. This law is almost useless, because, first, the sanitary authority has not the right, without tiresome formality, to enter any house to see whether the cesspool is full or not; and, secondly, because if a tenant does complain of a full cesspool, the condition must continue for eight days after the notice has been served on the proprietor, and in the meantime the cesspool may overflow into the street, or into the garden, or into the cellars of the adjoining houses. Then the fine imposed is only a few piastres, while the cost of emptying the cesspool is about £5. It is much cheaper for the proprietor of the cesspool to continue paying the fine than to abate the nuisance.

As it is evident that sanitary law in Egypt requires considerable amendment, a legal commission should be

appointed to draft a complete code or make the necessary alterations in the existing law. The sanitary and municipal laws thus drafted should be submitted to the local diplomatic agents for their suggestions and support before any attempt was made to approach the governing powers through the British Foreign Office. The English and French sanitary laws should be the basis worked upon, and good sanitary laws will produce little opposition if an endeavour is made to render them popular. All petty and irritating regulations should be avoided as far as possible.

Sanitary Organization in Cairo.

For administrative purposes Cairo is divided into fifteen districts or *kisms*. In each of these there is a public health office with the following staff: one native doctor, one clerk, one midwife, two orderlies. The doctor is registrar of births and deaths, sanitary inspector, police doctor and medico-legal expert in the courts, private practitioner, and dispenser. The average pay is £13 a month. As the average population of each *kism* in Cairo is, according to the recent census, 54,539, it will be seen that this staff is quite insufficient for its duties; as the average pay of the doctor is so low, it is obvious that he must do a considerable amount of private practice in order to live. In consequence the public health work suffers, and it may be said that the amount of sanitary work being done in Cairo is practically *nil*.

The sanitary service in Cairo is under the Director-General of the Public Health Department, and he appoints one of his junior medical staff as "sanitary inspector" of the city. This officer has one native doctor as his assistant and seven clerks and four orderlies; he reports all matters to the director-general.

It will be seen that the present sanitary staff in Cairo is insufficient to enforce the existing laws. At present the sum expended on public health comes to about 1.5 piastres, or 3½d. per head of population. For such a sum it is clearly impossible to undertake serious public health work in a large city in a country where the habits of the natives are the reverse of sanitary, and the standard of education low.

It is evident that some better system is required. By a process of decentralization the whole of the public health work should be placed under a medical officer of health and his assistants. The veterinary surgeon in charge of Cairo districts should be attached to his office, as veterinary work is closely connected with public health work. The medical officer of health should be placed under the Governor of Cairo, and stand to him in a relation similar to that of the commandant of police. The scavenging and watering service and the Cairo branch of the Buildings Department should be placed in a similar position.

In the office of the medical officer of health there should be at least two native assistant medical officers; one to assist in public health matters and to act as chief of the district health officers, and the other to be the chief of the police doctors, and in charge of medico-legal work.

With regard to sanitary work proper, the first important step is to obtain the whole time of the doctors as district health officers. They should receive salaries which would make them independent of private practice. The next step would be the appointment of inspectors of nuisances under the district health officers. Each *kism* should have one or more of these inspectors, whose work would be to inspect the *kisms* every week, reporting any defects in public health matters; he would take his orders from the district health officers. The district health officer, in addition to attending the local health offices for the purpose of registering births and deaths, would take more care in the vaccination of all infants. He would have more time for the examination of those deaths which are uncertified. He would keep under careful observation each case of infectious disease which occurs in the district and is not sent to the infectious hospital. He should visit the houses where children have been newly born and see that the midwives advise the mothers as to the rearing of the children. He would receive every day the reports of the inspectors of nuisances, and would attend to all complaints, and one of his important duties would be the examination of school children. He would also inspect dairies, cowsheds, and unhealthy establishments mentioned in the decree relating to them, and all shops where articles of food are exposed for sale or in store.

All insanitary conditions reported by the sanitary spectors would be dealt with by the health officers, not by the inspectors themselves.

Expenditure.

This addition to the sanitary staff would, of cou mean increased expenditure. At present the amo spent is only £9,791 a year, while under the scheme tailed above a sum of about £15,000 would be require an increase of, say, £5,000. If a mosquito crusade w instituted additional money would be required, vary from £12,000 to £15,000 per annum. It would not possible to exterminate either flies or mosquitos for annual expenditure, but they would be considerably duced. The cost of the whole sanitary budget would about 4 piastres a head of population instead of 2½ piast as at present; this increase would not be excessive better public health is obtained thereby.

Cairo cannot be made healthy for even £27,000 a ye the cleansing of Panama and Rio de Janeiro involved expenditure of millions, and without doubt to do the for Cairo would cost a large sum.

Egypt cannot afford another large sum at the pres time for Cairo improvements. The Cairo citizen is taxed heavily—taxation is controlled by the Great Pow and increased taxes may not be levied—but it is a r town, and there is little real poverty.

The native in Cairo can always get enough to eat drink, and the beggars which are seen during the tou season are members of an ancient Eastern profession. is a pity that the Cairo citizen cannot be taxed more th he is; but he complains of the cost of living, whicl great, and the Powers listen to him and disregard the f that he lives extravagantly. At the present, therefore may be necessary to make the most of a small sum, but any case reform must for other reasons be gradual. Ca is an Eastern city, and civilization marches slowly in East.

MORTALITY FROM CONSUMPTION IN DUS TRADES.

Of modern statisticians dealing with the subject of incidence of disease and accident, their causation a relation to workmen's compensation, no man has brou to bear upon the interpretation of data gathered from sources greater breadth of opinion or wider knowled than Mr. Frederick L. Hoffman, Statistician to t Prudential Insurance Company, Newark, New Jersey. the *Bulletin of Labour*, No. 79,[1] he has collected practica all that is known of the mortality from pulmonary co sumption in dusty occupations. Few persons will de that the pollution of the atmosphere by organic a inorganic dust is the cause of frequent ill-health and premature mortality of workmen in certain occupatio The statistical data from which Hoffman has drawn l facts have been obtained in the United States, and co pared with the statistics in the reports of the Registra General of England and Wales and Scotland. Of t different methods employed to obtain with approxima accuracy the degree of "consumption frequency" different trades, that regarded by Hoffman as the mo satisfactory is known as the "proportionate mortali figure, by which the proportion of deaths from a particular disease, such as consumption, is calculated a percentage of the deaths from all causes occurri during specified periods of life." The Prudential Insuran Company of America has had an unusually large experien of industrial insurance mortality statistics. Hoffman dea with the material ready to hand, and gives the followi as an illustration of proportional mortality figures:

> At ages 25 to 34, out of every 100 deaths from all causes in t registration area of the United States during the seven yea ending 1906, 31.3 deaths were from consumption. The corr sponding proportions of deaths in the industrial insuran mortality experience were 70.8 per cent. for grinders, 66.7 p cent. for compositors, 58.5 per cent. for upholsterers, 52.9 p cent. for potters. The difference between the normal pr portionate consumption mortality for the registration area a whole and the corresponding proportionate mortality fro consumption in the different occupations, considered in deta measure approximately the health-injurious circumstances the different occupations.

[1] Mortality from Consumption in Dusty Trades. By Frederick L Hoffman. *Bulletin of the Bureau of Labour*. Washington Gover ment Printing Office.

In occupations exposing the workpeople to metallic dust, ch as grinding and polishing, the death-rate from all uses is excessive, but particularly in regard to phthisis d respiratory diseases generally, the degree of con- mption frequency being intimately related and almost actly proportional to the extent of exposure to the ntinuous inhalation of metallic dust. Metal grinding therefore one of the most injurious trades viewed from is standpoint. The conditions under which this trade carried on are said to be better in the United States an in England. A comparison is made, for example, tween the deaths from pulmonary consumption in the effield grinders and those in the United States, but the ta in America are too few for accurate deductions. In th countries the industry is extremely unhealthy, dging from the high consumption mortality between e ages of 25 and 34. Metal polishers equally exhibit high death-rate from phthisis and diseases of the spiratory organs. Printers—owing to the closeness of e workrooms, the overheated atmosphere, and the esence of dust—are also prone to phthisis. Few rsons deny that dust, even the cleanest dust without companying bacteria, by irritating the mucous mem- ane of the bronchi and the epithelial lining of the lmonary alveoli predisposes to tuberculosis, a circum- ance which makes it difficult to say how much is due to ne or the other.

The liability of potters to phthisis is fully discussed. foundry men and metal moulders there is a high mor- lity from pulmonary consumption; but the fact that occurs at a later age period than in most trades suggests at the progress of the disease is slow, and that the thisis tends to assume the fibrotic type. Workers in the tton and textile trades generally suffer from the pul- onary effects of inhaling vegetable dust. Scanning the bles in the report it is the same sad state of things which revealed throughout—namely, far too large a percentage deaths in the early years of a workman's life. In some spects the conditions of labour in the cotton mills of the nited States are superior to those in Great Britain. his would appear to be the case with the "sizing" of tton. In the United States, starch, sago, or some vege- ble compound is used instead of china clay, occasionally sed in this country. Estimating the wage earning popu- tion (males and females) of the United States above the ge of 15 at 31,768,943 for 1908, the number of deaths from ulmonary consumption among wage-earners would be pproximately 69,892. Hoffman is very hopeful that by eans of intelligent factory inspection and control, as well s by better ventilation, the consumption mortality figure ill improve. Placing "the economic value or net result f a year's lifetime at only 200 dols., the total average conomic gain to the nation would be 3,080 dols. for every voidable death of a wage-earner from consumption, repre- enting the enormous total of 68,493,000 dols. as the ggregate annual financial value in the probable saving in ears of adult human life." With the possibilities of even pproximately attaining such a desirable result, individuals s well as nations ought to do their utmost to remove a lague which is a blot upon civilization and the industrial evelopment of our time.

LITERARY NOTES.

To many of its readers doubtless the most attractive eature of the March number of *L'Hygiène* will be the ery interesting account of the "Oeuvre Grancher," by Dr. Emile Roux and Dr. P. Armand-Delille, in which the resident and secretary of the "Oeuvre de préservation e l'enfance contre la tuberculose" describe the means ow employed in France to prevent the spread of con- umption. The honour of initiating this method of ealing with phthisis is due to the late Professor Grancher; nd France owes a big debt of gratitude to the man who as taught her how to make a stand against the disease hich has wrought such deadly havoc among her children. This brief sketch shows very clearly the inestimable value f Grancher's work and the benefit which his countrymen ave derived from it already. Thoroughly convinced that consumption is due to contagion, not heredity, Grancher dopted Pasteur's principle, "save the seed," and applied it o the human race. To this end he founded the "Oeuvre le préservation de l'enfance contre la tuberculose," which continues strenuously to carry his ideas into practice. This scheme is a very simple one, and consists merely in preserving the untainted children of consumptive parents from any chance of contracting the disease. With this object in view, the children of the Paris slums, between the ages of 3 and 10, who belong to phthisical families, but who are as yet free from tuberculous symptoms, are sent into the country, and boarded out, at the expense of the society, among peasants of guaranteed health and respect- ability. Here they remain, under constant medical super- vision, during the whole of their school life, that is to say, up to the age of 13, and frequently longer. Every care is taken to ensure both the physical and moral well-being of the little patients, and the success of the treatment is testified in a striking manner by the fact that out of the 800 children rescued in this way from disease and death, not one has developed the smallest symptom of con- sumption, whilst the improvement in health of mind and body has been most marked in almost every case. Grancher's work is equally successful in another direction. Besides lightening the load of human misery by exterminating disease, it offers a solution for one of the most pressing problems of the present day—namely, the overcrowding of the towns and consequent depopulation of the country. For very many of the children who by its means have been given a good start in life, when the time comes for them to make the choice, elect to remain in the country, to grow up healthy peasants, such as make efficient citizens and form the backbone of a nation. The interest of this excellent article is enhanced further by the photo- graphs with which it is illustrated. There are por- traits of Professor Grancher and his widow, the widow and daughter of Pasteur, Madame M. de Fleury, Madame E. Calmettes, together with other ladies who take part in the work of salvation, and several charming groups of the children under treatment with their country hosts. Amidst so much that is good in this excellent periodical it is difficult to select anything for special notice, but mention must be made of Pierre Mille's delightful article on *Cuisines exotiques*, in which the author gives an account of his gastronomic experiences in Madagascar. There is also a short article on the *Ville nouvelle* which has been built between Dieppe and Tréport, with some pretty views of the little town, and a charming sketch by Madame Moll-Weoss of the late M. Emile Cheysson. The pictures are, as usual, beyond praise.

We find the following extract from an old minute book in the March number of the *St. Thomas's Hospital Gazette*:

5 Aug., 1767.

Mr. Marsh having informed this Court of the Iron Bedsteads having been put up in two of the Wards of this Hospital in con- sequence of a voluntary subscription generously set on foot by some of the Governors and of the Beneficial effects they had produced by greatly alleviating the terrible Inconvenience the Patients suffered from the Bugs and of the subscription for extending that salutary plan which had been just made in the Grand Committee, and having received a further subscription for this usefull charity in order that if possible a fund might be raised for supplying all the other wards with such iron bedsteads . . . .

In connexion with this extract it is interesting to note that in a letter from Florence dated April 28th, 1766, Samuel Sharp wrote:

I am much pleased with the contrivance used in the great hospital here to avoid bugs; it is no other than a plain bed- stead of iron, made so simple, that there is not a crevice where a bug can conceal itself. I remember that there have been attempts of this kind made in England, but they have proved ineffectual, because they fastened ticking to the frame, with oilet-holes, and cording, which afforded some harbour to these animals. In this hospital they only lay across the frame about four or five boards, a little longer than the width of the frame, and about a foot broad, upon which they lay the bedding; these are movable, and, if necessary, may be brushed when the bed is made, as easily, and in as short a time, as a man brushes his hat. In the hospitals at London, bugs are frequently a greater evil to the patient than the malady for which he seeks an hospital; and, could I have interest enough with the governors, to bring about an imitation of this frame, I should be exceed- ingly rejoiced in the comfort it will afford to so many thousands of miserable wretches, that are tormented sometimes even to death, by these nauseous vermin.

Sharp was a pupil of Cheselden, and was surgeon to Guy's Hospital from 1733 till 1757. In 1765 he visited Italy, and recorded his observations in racy language in his

Letters from Italy describing the Customs and Manners of the Country in the Years 1765 and 1766. Bugs seem to have been one of the common objects of the hospital bed in the eighteenth century, for in Mr. E. W. Morris's fascinating *History of the London Hospital*, recently published, it is related that in 1749, when Dr. John Sylvester was appointed physician to that institution, all he could say with regard to his future work, and returning thanks for his election, was "that he hoped to acquaint the apothecary with a remedy for killing bugs"!

THE CLINICAL INSTITUTE FOR THE STUDY OF DISEASES OF OCCUPATION, MILAN.

ON March 20th the Clinica del Lavoro in Milan, the first institution in the world set aside for the study of diseases of occupation, was opened with considerable ceremony. It is fitting that this new departure should have been made in Italy, for it was Ramuzzini who over two centuries ago wrote the first textbook upon the subject, and who therefore may be regarded as the pioneer of industrial hygiene. Since the day in which the gifted professor of medicine of Modena gave to the world his experience, the cause for which he strove has made considerable progress.

The opening ceremony was not unworthy of the occasion. In the absence of the Sindago, the Chief Magistrate of the city through illness, his duty was taken by his deputy. Bishops, delegates of the Italian Government, including the Minister of War; Professor Langlois, delegate of the French Government; Professor Rambusck of Prague, representing Bohemia; and Professor Brazine, of Vienna; several professors of the University of Pavia, Maragliani of Genoa; Bozzoli, Perroncito, and Foa, of Turin; and the professors of the institute lent the influence of their presence to the occasion. Britain was not represented at the inaugural ceremony, but since then the institute has been visited by a few American and English scientists, including Dr. Sambon of London, and Sir Thomas Oliver of Newcastle-upon-Tyne.

The Milanese have erected a very handsome building for the scientific study of the causes of industrial diseases. The institute, which is adjacent to that of gynaecology, is well equipped with the most modern instruments of physiological research. Part of the building is set aside for the treatment of out-patients. This contains consulting rooms, secretion rooms, and others set aside for electrical purposes, including the use of x rays. There are two sets of wards on each of the three floors. At present it is only proposed to occupy 24 out of 70 to 80 beds owing to the shortness of that part of the summer session which remains. Every building looks attractive when new, but no one can visit the Clinica del Lavoro without being struck by the excellence of the arrangements made for the reception and treatment of patients. True to their proposed teaching, the sanitary earthenware throughout the building is all stamped "leadless glaze" and has come from England. One bath and two W.C.'s have been provided for each ten patients. The ventilation of the wards has received special attention.

There are chemical, bacteriological, and histological laboratories in charge of Drs. Preti, Monti, Bezzola, Boveri, and Bianchi. To Professor L. Devoto has been entrusted the direction generally of the teaching, while Professor C. Moreschi has been made head of the experimental and therapeutic department, including the diagnosis of disease. In Dr. L. Carozzi the institution is fortunate in having a capable and enthusiastic consulting physician upon whom will largely fall the duty of seeing patients on their arrival. An excellent lecture room, with screen for lantern purposes, provides accommodation for 110 students. The laboratories are extremely well equipped and in every sense of the word well up to date. The professors of the various departments are all, comparatively speaking, young men; each one is enthusiastic and sensible of the value of his appointment. The professors begin work under extremely favourable circumstances. The library is a large and well-proportioned room, towards the equipment of which and the supply of current medical literature the King of Italy has promised a handsome contribution.

The institute has arisen out of the gift of a private benefactor. But for this it would not have been built at present. The City of Milan supported the movement by large grants. The Savings Bank of Milan gave 80,000 lira (£3,200) for the equipment of the building with scientific apparatus. M. Bonacossa, the owner of the land, gave 20,000 lira (£800) to endow a bed in one of the wards.

The instruction proposed will be of the nature of that given in a post-graduate course of study. Medical men will attend from all parts of Italy, and during the next two months several Turkish doctors have intimated that they will take advantage of the opportunities of study offered. As Milan is a large city with a population of 600,000 and is the principal manufacturing town in Italy, there is no reason why foreigners of all nationalities should not visit Milan and attend the post-graduate course. Dr. Carozzi speaks English fluently and most of the other teachers French.

While Milan is the first city to erect a separate institute for the study of industrial diseases it is only right to add that the work had already been begun in Florence by Professor G. Pieraccini, who had devoted the greater part of his wards at the Hospital St. Maria Mora to the treatment of these cases. He has a most helpful and able co-operator in Dr. G. T. Giglioli, the lecturer on industrial diseases at the College in Florence. Both of these gentlemen are the authors of well-known works upon diseases of occupation, and at the present time they largely direct and influence current Italian thought upon questions relating to industrial hygiene and the social reform of the working classes.

We learn from the *New York Medical Journal* that in the message sent to Congress on April 9th, President Taft asked for an appropriation of 50,000 dollars for the establishment of a laboratory in which to conduct investigations into the causes of cancer, and transmitted the recommendations of the Secretary of Commerce and Labour, the Commissioner of Fisheries, and of Dr. N. E. Gaylord, Director of the New York State Cancer Laboratory, for an inquiry into the cause of cancer in fishes. The President said: "The very great importance of pursuing the investigation into the cause of cancer cannot be brought home to the congress or to the public more acutely than by inviting attention to the memorandum of Dr. Gaylord herewith. Progress in the prevention and treatment of human diseases has been marvellously aided by an investigation into the same diseases in those lower animals which are subject to them, and we have every reason to believe that a close investigation into the subject of cancer in fishes, which are frequently swept away by an epidemic of it, may give us light upon this dreadful human scourge."

IE COMPOSITION OF CERTAIN SECRET REMEDIES.*

THE TREMOL TREATMENT.

DER the general name of the "Tremol Treatment," dicines for the cure of "bad legs" are supplied by "The tional College of Health, Limited, Eye, Ear, Throat, l Skin Institute, and Infirmary for Bad Legs," 208, eat Clowes Street, Broughton, Manchester, and an ount is here given of the analysis of some of these.

An attempt to purchase the remedies through one of the ial channels for proprietary medicines only elicited an imation that they were not sold in that way, but were plied in accordance with particulars to be furnished of case for which they were intended. An application to he National College of Health" brought a "Diagnosis rm" to be filled up, with a letter stating that the fee for full course of Tremol treatment is £2 2s. A publication s also sent, entitled *Good News about Bad Legs; or ures by the Cured*," consisting of twelve pages of the e of an ordinary newspaper page, containing portraits patients and letters, etc., about cases, as well as much inted matter about Tremol treatment and "Views of e National College of Health, Limited." Attached to e front page of this was a conspicuous separate slip, rded thus:

Important. The Board of Directors wish it to be distinctly derstood that every Patient who undergoes the Tremol eatment is under the direct supervision of a fully qualified edical Man.

A few extracts from this publication will serve to indite the methods of the National College of Health, imited. The opening paragraphs have a curiously miliar ring, and might be paraphrased from the mphlets of almost any quack-medicine maker; they are follows:

For centuries Bad Legs have ranked with Cancer and Consumption as one of the diseases over which the power of man ould not prevail. For generations thousands of sufferers have ved lives of misery, become thoroughly worn out, and have one down to their graves before their time through sheer haustion: all human skill being powerless to save. Their sources exhausted, ignorant of any agent in Medicine or ature competent to cure, it came to pass that the Medical aculty were reduced to the expedient of ordering sufferers long eriods of rest in bed. This in itself was a confession of failure nd of no avail.

It has been computed that Bad Legs have caused more misery nd suffering than all the wars ever undertaken by the world's ulers. And why? War is but an incident in a nation's history, ut the evil of Bad Legs is ever present, ever constant, ever aking its toll of suffering humanity. In the face of all this, Iedical Science fell back, helpless, baffled, and beaten.

At last, after years of scientific research, after thousands of ainstaking experiments, the Tremol Method of Treatment vas discovered, and the cure of Bad Legs, once for all, established nd placed on a sure and scientific basis.

What modern Astronomy is to the old discredited Astrology, vhat Scientific Chemistry is to the Alchemy of olden times, ven that and more is Tremol System of Treatment to all other o called treatments for Bad Legs. Other treatments are mpirical, this Treatment is scientific; other treatments end in ailure, this System cures to stay cured. Once again has Mother Nature yielded to patient scientific investigation one of her reatest secrets, the secret of how, by means of the Tremol System, to cure Bad Legs with certainty, with rapidity, cientifically, and with no possibility of failure.

Other extracts are:

Universally accepted as the one and only cure for Bad Legs, he Tremol System stands to-day before the world unchallenged nd unrivalled. Men of science accept it. Medical men recommend it. The thinking public endorse it, and the thousands of happy men and women cured by it hail it with a delight words fail to express. . . .

As sure as day follows night, so certain is it that this new and great discovery will cure every case of Bad Leg to which it is applied.

Remember, in all our cases, this System of Treatment has had to begin where others have left off. Sufferers who apply to us for relief and cure are only those whom doctors have finished with, or on whom ointments have proved useless, lotions abortive, pills impotent, and blood mixtures futile.

These last two extracts scarcely seem to be in harmony with the announcement which is made rather conspicuously: "Incurable cases not accepted." On the back page appears in large letters:

There is no Guess-work. No Pain. No Experimenting. No Lying Up. No Operation. No Relapse. NO FAILURE. No matter how Difficult the Case may be. No matter what form it may have Assumed. No matter how many Doctors, Specialists, or Hospitals may have failed to help you. The Tremol Treatment, the New Therapeutic Discovery for Bad Legs, IS CERTAIN TO CURE YOU, AND MAY SAVE YOUR LIFE. No claims or statement is made that is not borne out by Facts and Living Witnesses.

A document was sent with the medicines, marked "Legal Guarantee to Cure." It is worded as follows:

We the National College of Health Limited hereby Agree and Undertake to refund on demand to you the whole of the money paid by you to us for our Treatment, if we fail to cure you after we have applied the Tremol Treatment for a reasonable length of time. This Guarantee is subject to the Conditions set forth on the back hereof.

Then follows a facsimile of the signature of the Governing Director; it is not decipherable with certainty, but might be "E. F. Guest."

The conditions set forth—in quite small type—on the back are as follows:

The Tremol Treatment is only devised to cure bad legs—but if a case is accepted by us for personal treatment, then unless otherwise agreed at the time, this guarantee holds good. To ensure the bona-fides of the patient it is necessary that within seven days of starting the Treatment you give notice in writing to us that you accept the offer contained in this guarantee, and in this respect time shall be of the essence of the contract. This guarantee only applies where the Treatment is personally applied by us. It will be readily understood that we cannot guarantee cures when we have no guarantee that our Treatment is properly applied. We must be the judges of what is a reasonable time. We give no warranties. Warranties may mean anything or nothing. We simply return the money paid to us while we are personally treating you as aforesaid, and this is the limit of our liability. Any dispute between you and us as to any claim under or upon this agreement or as to any question arising hereunder shall be determined by arbitration in accordance with the Arbitration Act, 1889.

Since this "Legal Guarantee to Cure" is sent with the medicines, the person receiving it would naturally suppose that it would apply to his case; and it is only on careful examination that it is discovered that (1) it only applies to cases where the treatment is "personally applied" by the company, and therefore not to a case where the medicine is sent out; (2) even in "personally" treated cases, it does not apply unless the patient gives notice in writing within seven days that he intends to insist on it; and (3) since the company is the sole judge of what is a "reasonable time" within which the cure is to be obtained they can insist on continuing the treatment (as long as the patient will pay for it) in any case in which a claim is made. Not even the most ignorant person could regard such a "guarantee" as of the slightest value if he understood the conditions. It would appear that it is not the "bona fides of the *patient*" that needs to be ensured.

The "Diagnosis Form" sent was as follows; the words in italics are the particulars of an imaginary case that were supplied:

1. Date.
2. Christian name.
3. Surname.
4. Male or Female. *F.*
5. Married or Single. *Widow.*
6. Full Address.
*7. What is your age? *53.*
8. What is your weight? *About 12 stone.*
9. What is your Occupation? *Housekeeper.*
*10. Is it your right leg, your left leg, or both your legs that are affected? *Right.*
11. How long has your Leg troubled you? *About a year.*
12. Does your Leg pain you? *Yes.*
13. Does the pain of your Leg keep you awake at night, or in any way interfere with your comfort. If so, fully explain in what way. (Describe the pain.) *There is a constant acute pain from the open wounds, and a great deal of itching as well; the irritation, in addition to the pain, often causes sleeplessness.*
*14. Is the portion of your Leg affected Itchy or Scaly? *Very itchy.*
15. Have you consulted any person? If so, who, how many, and what did each tell you and what did they advise? *No.*
16. Have you attended any hospital? If so, state which. *No.*
17. Have you ever received an injury to your leg? *It was broken 20 years ago.*

* Previous articles of this series were published in the following issues of the BRITISH MEDICAL JOURNAL: 1904, vol. ii, p. 1585; 1906, vol. ii, pp. 27, 1645; 1907, vol. i, p. 213; vol. ii, pp. 24, 160, 209, 393, 530, 1653; 1908, vol. i, pp. 833, 942, 1373; vol. ii, pp. 86, 505, 1022, 1110, 1193, 1285, 1566, 1697, 1875; 1909, vol. i, pp. 31, 909, 1128; vol. ii, p. 1419; 1910, vol. i, pp. 151, 213, 393, 1005.

18. Is the pain worse when standing up or lying down? *Pain worse when standing; itching worse when lying.*

19. How did you first hear of the Tremol Treatment? *Thro' an acquaintance in Yorkshire.*

20. Name the various remedies you have tried, and the methods you have adopted to effect a cure and the effect each has had upon your leg? *At first cold water bandaging; recently zinc ointment. Practically no effect.*

*21. Are there any ulcers, wounds, or holes in your Right Leg, or is it a red itchy, or scaly patch only? *Three open wounds and a big red itching patch.*

*22. Are there any ulcers, wounds, or holes in your left leg, or is it a red itchy, or scaly patch only? *No.*

Don't fail to Reply to this.

*23. If there are ulcers, wounds, or holes, state how many, and the position and size of each, cut out on pieces of paper and send to us the sizes of the wounds or ulcers on each leg (N.B.—Be careful to distinguish the size of the wound or ulcer from the size of the surrounding redness or inflammation). *The three open wounds are each about ¾ inch across; they are about 2½ inches apart in an irregular triangle; they are in a red itching patch about 4 inches across, on the outer side of the leg about halfway down.*

24. Is there now, or has there ever been proud flesh in the wound? *No.*

*25. Are your bowels habitually costive or free? *Free.*

26. Have you ever suffered from a White Leg. *No.*

27. Did your Leg first begin to trouble you through a hurt, after confinement, or how? *It came on gradually without apparent cause, at first as a small itching red spot.*

28. Has your Doctor advised Rest? *Have not had a doctor.*

29. Have you rested, if so, has it done you any good? *Have rested a good deal, but it doesn't seem to make much difference.*

30. Have you spent much idle time trying to obtain a cure? *No.*

31. Has your leg ever been healed, if so, was it with Skin or with Scab? *Not since the wounds became raw.*

*32. At what portion of the leg is the breaking out? *On the outer side, about halfway down.*

33. Have you been growing worse lately? *Yes.*

*34. Is there much inflammation or fiery redness round the wound? *Yes.*

35. Have you Varicose Veins? If so, state extent, of how long standing, and what caused them? *No.*

*36. Please to give the names and addresses of any persons in your district or elsewhere, whom you may know to be suffering from Bad Leg. This information will be treated as strictly confidential and exclusively private.

Remarks.—Write on a separate piece of paper any facts relating to your case or conditions that have not been indicated by the above questions. Describe your case fully in your own words and all you have suffered and gone through, in short, give us a general history of your case.

This was sent with two guineas to "The National College of Health, Ltd." The medicines sent in return consisted of a bottle of "Tremol Blood Mixture," a bottle of "Tremol Lotion," a box of "Tremol Ointment," and a box of "Ointment No. 2," with two bandages. Two typed sheets of directions accompanied these, headed "Instructions for applying No. 14 course of Tremol Treatment." Each of the four preparations is priced separately at 11s., by post, 11s. 4d.

TREMOL BLOOD MIXTURE.

The bottle contained 8 fl. oz. It bore a printed label, and there was nothing on the label to suggest that it was in any way modified for the particular case for which it was intended. The directions on the label were the same as those given in the paragraph on the typed sheet, which was as follows:

HOW TO TAKE YOUR MEDICINE. It is absolutely necessary for you to take this Blood Mixture prescribed specially for your case, all the time your leg is being dressed with the other preparations. To obtain permanent results it is imperative to continue taking this medicine for your blood, for some time after your leg is well.

Directions:—Take one drachm (one small teaspoonful) morning and evening after your meals, in a wineglassful of water sweetened to taste with one or two lumps of sugar. We strongly advise you to use a Medicine measure instead of an ordinary teaspoon, so that the dose will accurately measure one drachm.

Analysis showed the mixture to contain calcium chloride, ferric chloride, small quantities of free hydrochloric acid and alcohol, peppermint water, and a preparation of a vegetable drug; the latter had a slight flavour of rhubarb, but showed no definite active principle and no characters by which it could be positively identified. The proportions of the definite ingredients were determined, and found to be as given in the following formula. A mixture prepared according to this formula agreed very well in regard to the vegetable drug, and perfectly in other respects.

Calcium chloride	224 grains
Solution of ferric chloride	300 minims
Dilute hydrochloric acid	200 ,,
Concentrated infusion of rhubarb (1–7)	100 ,,
Peppermint water	2 fl. oz.
Water ... ... to	8 ,,

A deposit slowly falls, from which the clear liquid is decanted.

Estimated cost of the ingredients, 1¼d.

TREMOL LOTION.

The bottle contained 8¼ fl. oz.; it bore a printed label, and there was nothing on the label to suggest that it was in any way modified for the particular case for which it was intended. The directions on the typed sheet were the same as those on the label, as follows:

Dilute the Lotion with an equal quantity of water. Cut out a piece of Lint slightly larger than your Ulcer, so that the Lint will cover the surface of the Ulcer as completely as half-a-crown covers a shilling. After a thorough cleansing (see directions for so doing) well soak the Lint in the dilute Lotion for two or three minutes, and then apply to the Ulcer. You are not to apply the Lint containing the Lotion too wet, that is dripping, neither are you to squeeze it out too dry, just thoroughly moistened and on the wet side.

Analysis showed the liquid to consist of solution of chlorinated soda containing 2.9 per cent. of available chlorine (which is slightly above the minimum strength of the official solution) with the traces of impurities usually found in it.

Estimated cost of the liquid, 2d.

TREMOL OINTMENT.

This was in a wooden box containing 14½ oz.; it bore a typewritten label: "The Tremol Ointment. To be used as directed."

The directions on the typed sheet were as follows:

HOW YOU ARE TO APPLY TREMOL OINTMENT. Cut out a piece of soft lint slightly larger in circumference (about ¼ in. larger all round) than the Lint on which the Tremol Lotion is applied. Spread the Ointment thickly on the plain surface, then place it on top of the Lint on which No. 2 Ointment is spread, but over the ulcer, and therefore covering the Lint which is soaked in the Lotion. You will therefore have over the Ulcer three layers of Lint. FIRST, Two layers of Lint containing Lotion. SECOND, The layer of Lint on which the Ointment No. 2 is spread, and covering the red and inflamed part. THIRD, The layer of Lint on which Tremol Ointment is spread and covering the portion where the Ulcer is situated. Therefore over the red inflamed part there is one layer only, that on which No. 2 ointment is spread, but over the Ulcer there are three. When you are dressing your leg do not remove Ointment No. 2 that adheres to the skin. Apply fresh dressing on the top of the adherent ointment.

Analysis showed the ointment to contain:

Prepared chalk	70.3 parts.
Soft paraffin	29.0 ,,
Yellowish-brown colouring matter	traces.

The colouring matter appeared to be one of the coal-tar dyes, but was not present in sufficient quantity for exact identification; the chalk contained the small quantities of impurities usually occurring in it. No other ingredient was found.

Estimated cost of the ingredients, 2½d.

OINTMENT No. 2.

This was in a wooden box containing 10½ oz.; it bore a type-written label, "Ointment No. 2. To be used as directed." The directions on the typed sheet were as follows:

HOW YOU ARE TO APPLY OINTMENT No. 2.—Cut out a piece of Lint large enough to cover the red and inflamed portion of your leg. On this spread pretty thickly the special Ointment labelled No. 2, and apply it; at the same time covering the Lint which is soaked in the Lotion.

Analysis showed the ointment to contain zinc oxide, a lead compound which appeared to be the carbonate, sodium benzoate, sodium acetate, water, lard, and a pink colouring matter which was evidently a coal-tar dye. No other substance was found. The quantities of the different ingredients were determined, and the results agreed with the following formula:

Zinc oxide	19.8 parts
Lead carbonate	3.5 ,,
Sodium benzoate	0.3 ,,
Sodium acetate	0.7 ,,
Water	9.6 ,,
Colouring matter	traces
Lard	to 100 parts.

Estimated cost of the ingredients, 7d.

OPHTHALMOLOGY AT OXFORD.

Advanced Lectures for Ophthalmic Surgeons.

A COURSE of advanced lectures for ophthalmic surgeons will be given at Oxford on July 11th, 12th, 13th, 14th, 15th, and 16th. The subjects are as follows:—July 11th: Mr. Walter Jessop, Differential diagnosis of the rarer disease of the fundus oculi; Mr. Priestley Smith, More recent work on the etiology and treatment of glaucoma; Mr. George Coats, On pathological changes and microscopical demonstrations thereon. July 12th: Dr. Hill Griffith, Some of the more obscure forms of cyclitis. Mr. George Coats, On pathological changes and microscopical demonstrations thereon. July 13th: Mr. Holmes Spicer, Some of the rarer forms of keratitis; Mr. Treacher Collins, On degeneration of the lens; Mr. George Coats, On pathological changes and microscopical demonstrations thereon. July 14th: Mr. J. B. Lawford, Some ocular tumours; Mr. Sydney Stephenson, More recent therapeutic agents; Mr. George Coats, On pathological changes and microscopical demonstrations thereon. July 15th: Mr. R. W. Doyne, Retinitis pigmentosa and family choroiditis; Dr. Risien Russell, Ocular symptoms in general disease; Mr. George Coats, On pathological changes and microscopical demonstrations thereon. July 16th: Mr. R. W. Doyne, "Eye" in sport; Mr. S. Mayou, Bacteriology of the conjunctival sac; Mr. Angus McNab, Bacteriology of ulceration of the cornea.

Post-Graduate Course.

The annual post-graduate course has been arranged from June 27th to July 8th. The main idea of the course is to demonstrate (on actual patients as far as possible) the whole range of ophthalmology, in order to make the reading of a text more profitable than can be the case when relying merely on pictures. The first part will be mainly devoted to demonstrating the practical examination of eye patients, the use of the ophthalmoscope, and the work of refraction. During the second part the work will be more specialized and the lectures delivered by various ophthalmic surgeons.

Diploma in Ophthalmology.

A diploma in ophthalmology is now granted by the University. The first examination for the diploma will be held in the third week of July of this year. Residence in Oxford is not required, but, amongst other things, certificates must be obtained that the candidate has satisfactorily followed out in the University of Oxford courses of instruction on the anatomy, physiology, and diseases of the eye. Arrangements are not yet completed for giving these courses of instruction as fully as it is intended they shall be given in the future. The course for anatomy and physiology extends over two months, that for diseases of the eye over three months, but the course of lectures in this subject will be given in the two months corresponding to those in which the physiological and anatomical lectures are delivered. The remaining month of clinical work can be kept at any other time.

Mr. Doyne has circulated the following letter among ophthalmic surgeons:

In connexion with the diploma there is now arranged at Oxford in the departments of Anatomy, Physiology, and Ophthalmology a course of instruction to take place during the eight weeks of the summer term. But apart from this, it is my desire to organize during this term annually a course of systematic instruction in ophthalmology that shall be the best of its kind. This year advanced lectures during one week have been arranged. I hope that before long a suitable fabric may be endowed and fitted with all the apparatus pertaining to ophthalmology for private study as well as systematic teaching.

The department does not propose to deal with clinical teaching; that is excellently done in various centres throughout the country, but it is hoped that the value of a place fitted with all the requirements for systematic teaching and study will be recognized as a valuable adjunct to what is of course the more important consideration, that of clinical work. There is not, I believe, at the present time in this country any such special provision, and it has to be sought abroad by those who require it.

Further, it is hoped that when funds permit of the employment of a skilled pathologist, the pathological work of those eye hospitals and departments which have not a pathologist of their own may be undertaken, and the specimens be prepared, examined, and returned with reports to the hospitals to which they belong. In this way a large amount of valuable pathological material which is now wasted may be utilized, and each hospital have its own museum. It may be remembered that the late Sir B. Sanderson was very much in favour of such an arrangement.

A great opportunity now presents itself, and I wish to be especially careful to avoid taking any step or doing anything in the matter that might be prejudicial to its success. Such a scheme cannot possibly succeed unless it receives the active support of the clinical teachers of the United Kingdom, and it is my desire to organize the generous support they may be disposed to give, more especially in the way of lectures. I shall be grateful for any advice or criticism, for I wish to support the English School of Ophthalmology, and in no sense to enter into competition with any of the excellent work that is being done.

Oxford Ophthalmological Congress.

The Congress this year will meet on Wednesday evening, July 20th. One hundred and fifty rooms will be available in Keble College for the first applicants, and will be allotted in order of application. The following are the members of the Council: Dr. Darier of Paris, Professor Dufour of Lausanne, Professor Greeff of Berlin, Dr. Wendell Reber of Philadelphia, Sir Anderson Critchett, Bart., Sir Henry Swanzy, Messrs. Brailey, Browne, Collins, Cross, Doyne, Lawson, Mackay, Priestley Smith, Ramsay, Sandford, Stephenson, Walker, Werner. Sir Anderson Critchett is Honorary Treasurer; Mr. R. W. Doyne, Master; and Mr. Sydney Stephenson, Honorary Secretary. About 120 names have already been received as foundation and original members of the Congress, and Mr. Sydney Stephenson, 33, Welbeck Street, W., will receive further names of original members until June 24th. There is no annual subscription, but half a guinea entrance fee and half a guinea on each occasion that a member shall attend the Congress. The programme of the Congress is not yet completed. It will be sent out later to those who have sent in their names for membership. The special features of the Congress will be operations for cataract and glaucoma. Operations will be performed by, amongst others, Professor Lagrange of Bordeaux, Professor Holth of Christiania, Professor Heine of Kiel, Colonel Herbert of Nottingham, who will each perform his operation for glaucoma. Sir Anderson Critchett will operate for cataract, and Major Gidney will perform the intracapsular cataract extraction practised by Major Smith. It is not proposed to have papers and discussions, but a series of demonstrations and exhibitions. Any one who would care to show something, give a demonstration, or perform some operation, should apply to the Master, who will make all arrangements for the purpose. In the case of an operation the surgeon should bring his own patient, who will be accommodated in the hospital.

THE Congress of French-speaking Psychiatrists and Neurologists will hold its twentieth meeting at Brussels and Liège this year from August 1st to 7th. The Congress is under the patronage of the Belgian and French Governments. The following are among the subjects to be discussed: Sleeping sickness and the various forms of narcolepsy; the systematization of skin lesions in mental and nervous diseases; alcoholism and criminality.

THE Calendar of the Hong Kong College of Medicine for the year 1910 contains a brief history of this institution. It was established in October, 1887, its first dean being Dr. (now Sir) Patrick Manson. Most of the lecturers afford their services practically gratuitously. The curriculum lasts five years. Those who undergo the whole of it at Hong Kong have to undertake to serve the Government, if desired, during the whole or any part of the three years immediately following their graduation, in return for certain payments. Four scholarships are annually awarded. Seemingly all those who have so far received the licence of the school are Chinese. They number 39, of whom 3 are dead, 20 are in official or other practice in Hong Kong, 5 in China, 1 in Japan, 2 in Great Britain seeking degrees, and the remainder in Far Eastern colonies with Chinese populations. The school has at present no home of its own, building plans having been abandoned in 1907, when it was resolved to create a University of Hong Kong, and to incorporate the school therein. This project is now in process of realization. Meantime the work is carried on at the Princess Alice Hospital and other institutions in Hong Kong.

THE LEGAL RESPONSIBILITIES OF HOSPITAL AUTHORITIES.

A discussion on the legal responsibilities of hospital authorities towards their patients was opened at a meeting of the Medico-Legal Society, on April 26th, by Mr. Ross Brown. He commenced by reviewing the decision of the Court of Appeal in Hillyer *v.* The Governors of St. Bartholomew's Hospital (1909), 2 K.B., 820. In that case the plaintiff, who was himself a registered medical practitioner, sued the defendants to recover damages for injuries which he alleged he had sustained through the negligent conduct of an operation at the hospital. It was alleged that his arm was burnt while he was on the operating table. The operation was conducted by a consulting surgeon who was attached to the hospital, but was not under the control of the defendants. During the operation he was assisted by members of the medical staff. It was held that the action did not lie. In the course of the judgement it was pointed out that the only duty undertaken by the governors of a public hospital towards a patient treated in the hospital was to use due care and skill in selecting their medical and nursing staff. The physicians and surgeons who gave their services at the hospital were employed to exercise their profession to the best of their abilities according to their own discretion, but in exercising it they were in no way under the orders, or bound to obey the directions, of the governors. Although the nurses employed at the hospital were servants of the governors for general purposes, they were not so for the purposes of operations conducted by the medical staff. Mr. Ross Brown pointed out, in this connexion, that, according to the view of the Court of Appeal, a public body was liable for the negligence of its servants in the same way as private individuals would be liable under similar circumstances, notwithstanding that it was acting in the performance of public duties, like a local board of health, or of eleemosynary and charitable functions, like a public hospital. The next case germane to the discussion was Hall *v.* Lees (1904), 2 K.B., 602. There an action was brought against a nursing home which sent out nurses to attend patients in the Oldham district. One of the nurses so sent out was guilty of negligence in the course of treating a patient. It was held that upon the true construction of the documents in the case—for example, the rules of the association, etc.—the contract of the association was not to nurse the female plaintiff through the agency of the nurses as their servants, but merely to procure for her duly qualified nurses, and that the nurses were not, in nursing the female plaintiff, acting as the servants of the association; and therefore the defendants were not liable in respect of negligence of the nurses supplied by them. Mr. Ross Brown said that having regard to the decision of Mr. Justice Walton in Evans *v.* Liverpool Corporation (1906), 1 K.B., 160, the position of a rate-supported hospital seemed to him rather more favourable than that of an ordinary hospital. The learned judge had then said:

> It would be a very serious burden upon public bodies who carry on similar hospitals. . . . In my opinion they undertake the duties of persons who manage and carry on the business of a hospital. . . . They do not undertake the duties of medical men, or to give medical advice, but they do undertake that the patients in their hospitals shall have competent medical advice and assistance, and it is admitted that Dr. Archer was a competent medical man, and that no blame attaches to the defendants for employing him. Assuming that he made a mistake, even a negligent mistake, I do not think that the defendants are liable for its consequences. . . . It is contended that the doctor was the servant of the defendants for the purpose of discharging the child, and that they are liable for the negligence of their servant, but the terms of his appointment and the rules under which he acted do not bear out this contention.

Having incidentally alluded to the American and New Zealand cases—MacDonald *v.* Massachusetts General Hospital (21 Amer. Rep., 529), Glavin *v.* Rhode Island Hospital (34 Amer. Rep., 675), and the District of Auckland Hospital and Charitable Aid Board *v.* Lovett (10 N.Z.L.R., 597)—Mr. Ross Brown pointed out that the result of the decisions appeared to be that the authorities of public hospitals do not undertake the duties of medical men or to give medical advice, but they do undertake that the patients shall have competent medical advice and assistance. Their obligation was that the patient should be treated only by experts, whether surgeons, physicians, or nurses, of whose professional competence the hospital governors had taken reasonable care to assure themselves. The relation of master and servant did not exist between the governors and the professional staff, and provided reasonable care had been exercised in selecting a competent staff and proper apparatus and appliances, the governors were not liable for the negligence of the staff. The nurses and others assisting at an operation ceased for the time being to be servants of the governors of the hospital, inasmuch as they were under the sole orders of the operating surgeon, who, until the operation was completely finished, was supreme. The contract of the hospital authorities was not to nurse during the operation, but to supply nurses and others in whose selection they had taken due care. It was remarkable, added Mr. Ross Brown, that although some of these great institutions had been actively discharging their philanthropic duties for centuries, and many thousands of the population were medically or surgically treated within their walls every year, the law courts of this country had only of recent years been called upon to discuss the principles governing the relationship of hospital authorities and patients. It was gratifying to find that the result of these judicial decisions was not calculated to discourage or in any way cripple the noble work which our hospitals were performing in the relief of human suffering.

SCIENCE NOTES.

Although the elm can never hope to occupy amongst trees the honoured and enviable position of the oak, yet it has many claims on our regard. It is a stately and graceful tree, and imparts an air of beauty to its surroundings, and for these characteristics it has been chosen to adorn many an imposing avenue. Essentially a lowlander, it is found in greatest profusion along the banks of our main rivers, yet it makes its way up mountain valleys, and the wych elm is most abundant in hilly parts. There are several varieties of elm found in Britain, but authorities have hitherto not been in agreement as to their relative distinctness as species on the one hand, and as to their being truly British trees on the other. The matter is discussed at some length by the Rev. Augustus Ley in the *Journal of Botany* for March. He refers to the confusion in nomenclature resulting from the inadequacy of early descriptions and the absence of type specimens, but considers that the differentiation of the various forms ought to be easy. The mature samara, or seed case, should afford the best means of differentiation, but herein lies one of the peculiarities of the elm tree. It is not alone by seeds that it effects propagation; it has the additional resource of underground suckers. Yet that is not true in every case, for the wych elm (*Ulmus scabra*) possesses no suckers, and reproduces itself entirely by means of seeds. Mr. Ley recognizes five species, one of which, the Huntingdon elm, is universally regarded as a hybrid between the wych elm and the smooth-leaved witch elm (*Ulmus glabra*). We may therefore take it that there are four species of indigenous British elms. *Ulmus glabra* is native only in the southern parts of England, but is common throughout the whole country as a planted tree, and it is the one which is especially suitable for avenues. There are four varieties. The third species, *Ulmus major*, is scattered throughout the lowlands of England and Wales, and extends up the mountain valleys. The fourth is the English elm (*Ulmus surculosa*), and its name is unusually appropriate, for it is found nowhere else in Europe, although it has been planted in a few places on the Continent. It is the most peculiar member of the family, for it propagates only by suckers. It bears seeds, it is true, but not till 40 years old, then only in scanty numbers, and they always abort. It was for this reason that for a long time it was considered not to be indigenous to Britain, but Mr. Ley shows the solution of the mystery lies in the great development of the suckers. The change in the method of reproduction can be traced from the wych elm through the other species to the English elm.

British Medical Journal.

SATURDAY, APRIL 30TH, 1910.

THE MEDICAL COMMISSION OF PRISONS.

IT was perhaps inevitable that the debate in the House of Commons last week (April 22nd) should end as it did, leaving the Home Office impenitent and free from any definite pledge for the future, or rather leaving it in the position of having repudiated the pledge given in 1898. The Departmental Committee on Prisons, over which Mr. Herbert Gladstone presided in 1895, recommended strongly the appointment of a medical member of the Prisons Board. In 1898, when the Prisons Bill was before the Grand Committee of the House of Commons, an amendment, proposed by Mr. Davitt and strongly supported by Mr. John Burns, was carried to the effect that one of the Prison Commissioners should be a medical man skilled in mental disorders. In commenting upon the matter at the time we said: "Mr. Burns had no difficulty in showing with practically unanswerable force that if we wished to treat with due regard to reclamation as well as deterrent seclusion a hapless set of folk, who are only too often hereditarily predisposed to the crime amidst which they are afterwards brought up, we must place among the superintending body some one skilled in physiology and psychology." The proposal was carried in Committee by 25 votes against 7. In the House of Commons itself Mr. Haldane said that it was not sufficient to have a medical expert among the servants of the Commission, but that one of the Commissioners giving instructions should himself be a medical man. Sir Matthew White Ridley, who was then Home Secretary, promised to appoint a medical man as one of the Commissioners, and added that he had no doubt that all his successors would do the same. Responding to appeals from Mr. Asquith and other members of the then Opposition, Mr. Balfour, who was leader of the House of Commons, gave a pledge that the matter should be the subject of a special minute entered upon the Home Office records. These assurances were accepted as a substitute for a binding statutory provision. Dr. Donkin was appointed, and served until the beginning of this year, when he had to retire under the age clause. Promises made to the House of Commons and the minutes in which they were recorded in the Home Office records were on this, the first opportunity, forgotten or set aside. Mr. Herbert Gladstone, who was then about to resign the office of Home Secretary, appointed his private secretary to be one of the Prison Commissioners. The excuse officially offered for this violation of the undertaking, that the administrative work thrown upon the Prison Commission had greatly increased since 1898, and that it was therefore desirable to seek medical advice outside, does not, as Mr. Balfour said, hold water. The contention on the part of the Home Office appears to be that when Dr. Donkin was Prison Commissioner he was not only a medical expert, but had to devote a considerable portion of his time to the administrative work of the Commission, and that under a new arrangement by which Dr. Donkin had been appointed expert medical adviser for five years at a salary of £200 a year he would be able to place his medical knowledge entirely at the service of the Commission. With all respect for Dr. Donkin's attainments and public spirit, we think it unfortunate that he should have accepted this arrangement; he seems to have allowed himself to be used as a pawn in a political game which even politicians find it difficult to defend. The salary is so small that it cannot be supposed that the Home Office expects to command any large part of his time. But, apart altogether from this, the principle involved in the recommendations of the Departmental Committee of 1895, and the undertaking extracted from the Conservative Government in 1898 by leading members of the present Administration have been violated, to the detriment, we cannot but believe, of the inmates of prisons. As Mr. Burns said in 1898, many of those whom we are compelled to shut up are born with wretchedly balanced minds, and are frequently hovering on the border-line which separates the gaol from the madhouse—a point of view pithily expressed by Sir William Collins when he said in the debate last week that the border-line between the mad and the bad was so exceedingly difficult to draw that the presence of a medical man on the Commission was advisable.

Dr. Donkin has apparently accepted the new appointment of Medical Adviser for a period of five years, but that need not, we take it, stand in the way of at once carrying out the principle of appointing a medical commissioner by an increase in the number of commissioners—a suggestion which was made by Mr. Balfour last week, and apparently approved by Mr. Masterman, the Under Secretary of the Home Department. But the real intentions of that department are left a little in the dark. Sir Henry Craik before the debate took place had given notice of a question asking the Home Secretary to state whether in filling the vacancy on the Prison Commission regard was had to the official minute as to a medical commissioner placed on record at the urgent request of members of the present Government. The question, apparently by an inadvertence, got into the papers for last Monday; in consequence of the debate on the previous Friday Sir Henry Craik said he would not ask it, but the Home Secretary, who had not taken part in the debate, wished to answer the question. He had not, however, gone further than to say that some of the statements in the question were inaccurate, when he was stopped by the Speaker, who ruled him out of order, and in spite of a special appeal by Mr. Churchill maintained his ruling. The matter, however, cannot be considered to be closed, and we hope that some further opportunity may be taken of raising the question in the House of Commons.

ON COLOUR VISION.

THERE is probably no subject in the whole domain of ophthalmology at the present time about which so much confusion exists as about colour vision, both as to its theory and as to the practical tests which should be used, yet its study is most fascinating both from the physiological and ophthalmological points of view.

Many theories have been advanced to explain the phenomena, but most of them are based on a pure hypothesis, and the facts as ascertained by observation have usually had to be moulded to fit the theories which for the most part had nothing more to recommend them than the names of the distinguished

physiologists and scientists who first enunciated them.

Few modern physiologists have given the matter the study it deserves, and thus we see the theories of Young, Helmholtz, Hering, and others copied from book to book with scarcely any variation. True, such men as Sir William Abney, Professor Burch, and others have given much thought and study to it, but these, after all, are not men who are acquainted with ophthalmic science.

It is not possible to refer to more than a small fraction of the work which has been done, but a useful result will be attained if more general attention can be drawn to the conditions which exist at the present time, to the opinions held with regard to colour vision and to the tests applied for the detection of colour blindness among those whose duty it is to read signals made with coloured flags or lights.

It is impossible to approach the subject without our thoughts at once going towards one who has, in season and out of season, and with admirable perseverance, constantly been urging upon the profession and the authorities a theory which he believes explains the facts and a practice which gives the key to all tests. Dr. F. W. Edridge-Green first placed his views before the medical public in a thesis for the degree of Doctor of Medicine of the University of Durham in 1889, for which he was awarded the gold medal. He then wrote several papers and pamphlets on colour blindness, but his views were altogether at variance with the theory of Helmholtz, and any one who has followed his efforts knows with what hostile criticism his ideas were attacked.

Curiously enough, his opponents adopted a style of argument which is still all too common, and instead of investigating the facts, they, for the most part, were content to say that these things could not be so, for such a distinguished mathematician and physiologist as Helmholtz had not found them so.

Every one, of course, knows the wave theory of light, and the facts that those rays which are of the less refrangibility and which are of slower vibrations are collected at the red end of the spectrum, while those of higher refrangibility and of more rapid vibrations are at the violet end. In the eye the visual purple—a photo-chemical substance—is secreted by the epithelium, distributed by the rods, and kept in store by them. When light is admitted into the eye the visual purple at once diffuses itself through the retina, and by its photo-chemical decomposition stimulates the cones to a greater or less degree, and thus sends visual impressions up the nerve fibres, of which the cones are specialized endings. These impulses are conveyed to the visual centres in the brain, which distinguishes one impulse from another, one impulse being interpreted as coming from one object of a certain colour, and another impulse as belonging to another colour. Thus we have in the brain an analytical laboratory in which the impulses are separated and sorted out, and we become conscious of the colour and the amount of light reflected by all and sundry objects which form an impression of themselves on our retinas.

Light being the source of all visual impressions, it follows that no object of itself possesses any colour. Take away the light, and the colour and visibility of the object is gone. Look, for instance, on an object which in solar light appears green, and then illuminate it by a pure red light; it no longer appears green, for the simple reason that under ordinary illumination it absorbs all the other rays of the spectrum except those which, by themselves or in combination, are of a certain wave length which we call green; and it likewise follows that we have in spectral light all the colours which can possibly be given to any object in nature, though, by mixture, modifications of the fundamental colours may exist. By the normal human eye six distinct colours are seen in the spectrum—red, orange, yellow, green, blue, and violet; one in every few thousand individuals sees another colour in the spectrum between the blue and the violet, and this is termed indigo. The vast majority of mankind is, however, incapable of seeing indigo at all. Every one, of course, knows what the pigment called indigo is, but that is not the indigo in the spectrum, which, as we have said, is to most people invisible as a colour distinct from blue and violet.

This leads us to the consideration of the development of colour vision. There is a good deal of evidence to show that in earlier ages many colours which we now appreciate were unrecognized; and, in fact, although we know that the wave lengths of the rays at the red end are much larger than those at the violet end, a stage can be imagined in which the whole spectrum assumed a neutral colour representing total colour blindness. As more cells were added to the perception centres, man may be supposed to have in time reached a stage when he was able to see some colour in the spectrum, red at one end and violet at the other, with a large neutral band separating the two. The coloured ends gradually enlarged until they met. In this stage such a person with or without a neutral band might be called dichromic. More cells being still added as development progressed, man became able to distinguish as a separate colour rays whose wave lengths were situated midway between the red and the violet and these were termed green; thus the trichromic stage was reached. Next, the rays between the red and the green assumed a different colour, and these were called yellow, so that man distinguished four colours—red, yellow, green, and violet—and reached the tetrachromic stage. Then a fifth colour, blue, was seen between the green and violet, the pentachromic stage; and, finally, another colour became interposed between the red and yellow—the hexachromic stage was reached, producing the six unit normal-sighted person who sees red, orange, yellow, green, blue, and violet. Very few have developed a seventh colour—indigo, which, as was to be expected, appeared between the blue and violet—the heptachromic stage.

If this be the way in which colour vision developed, it would be in accordance with what is known of other organs and functions to meet with individuals in whom this function had not reached its full development, but had stopped short at one of the evolutionary stages, and this is what happens. Every known form of colour vision and colour blindness falls into one or other of the groups mentioned, and no case has ever been seen which cannot be explained by reversion to a previous stage.

It, of course, follows that if we have to crowd six or even seven colours into a spectrum, each colour must occupy less space than when two or three colours only are present in a space of the same size. As a necessary consequence, the mapping out of the spectrum will vary in each group of persons who has less than the six normal colours present. Take, for example, a trichromic; the spectrum seen by such a person has the same length as that seen by an individual of normal colour vision, but whereas the trichromic has to fit only red, green, and violet into the

space, the other has to put in six distinct colours; consequently the mapping out of the spectrum by the one will not agree with the observations of the other. The trichromic will see red extending right up to his green, and if asked to place a pointer at the line of demarcation, his red and green will meet in the orange yellow, and he will call the region between red and green red-green. His green will likewise include some blue, and his violet and green will meet. In precisely the same manner we find rays of the same wave length appearing as different colours to one class of colour-blind persons as compared with another class. This point is most important, for it really gives the keynote to the whole problem. It goes further than any other fact to prove that the differentiation of colours is really a psychical process rather than one which takes place in the retina itself. A colour-blind person is not less able to appreciate light than one who is not colour blind; if he had some deficiency in the retina, the light sense could hardly fail to be affected. There are also cases in which there is defective sensibility of the retinal nervous apparatus for light of a certain wave length or intensity, or when the image on the retina is diminished in size.

When these facts are realized, the *rationale* of the tests devised by Dr. Edridge-Green is at once seen.

Although the use of the spectrum is perhaps the last word in the examination of the colour sense, ye for practical purposes it is hardly applicable, owing to its expense, and to the fact that experts only can use it, while candidates who have never been accustomed to using a microscope or telescope often find considerable difficulty in looking down the tube of such an instrument and construing what they see. For practical purposes, therefore, a lantern is more useful. In the first place, it is an object with which all railway servants and seamen are familiar, and it is the coloured signal lantern which these men have to name in their daily work. Then, again, it is most useful at times to be able to demonstrate to a patient's friend the mistakes he is making, for common is the colour-blind individual who is so convinced that he answered correctly that he will not believe he has made any error. If his trusted friend, however, assures him that he really has called a green light red, there is some satisfaction to the patient in knowing that his friend confirms the statement of the examiner. In the Edridge-Green lamp all spectral colours can be shown, and the slides are so cunningly arranged that not only is it impossible for the candidate to know what colour is coming up next, but the very colours that are shown are mixed in such a way that while they present no sort of difficulty to the normal sighted, yet they cause the greatest possible confusion to the colour blind. These qualities are absolutely essential in any lantern that is to be of any real use. The whole thing looks so simple that so soon as Edridge-Green showed his lantern modifications were brought out which, though they may have been well made from a mechanical point of view, were yet hopelessly inadequate for the purposes for which they were required, owing to the fact that the inventors had not grasped the essentials of the test, and had not the requisite knowledge to apply it. In this way the test was discredited, but it remains to-day by far the best, and, in fact, the essential, test to be applied to all those whose business it is to read coloured signal lights. Let no one introduce for himself a lantern unless he not only thoroughly understands the requirements, but possesses also the necessary skill with the spectroscope to be able to analyse every particle of glass which he proposes to use in his instrument. If he cannot do this the lantern will only bring discredit on the inventor, and possibly on the test as well. Further, no lantern is of any real use unless it has neutral glasses which can be used to modify and diminish in intensity a light of any colour.

Little need be said regarding the Holmgren wool test. It has been abandoned by every one who really knows anything of the subject. Nobody objects to the use of coloured wools; but when the test consists of matching only, without the use of colour names, it is almost worse than useless, for although it will catch a certain number of colour-blind persons it will cause the rejection of very many normal-sighted people who are tested, as was found by the Board of Trade when between 40 and 50 per cent. of those rejected by it were, on appeal, found to have normal colour perception. This test is most difficult to apply, and even the most skilful examiners cannot in many cases come to a right conclusion. A test which will reject normal-sighted persons and fail to detect abnormal ones ought to be put aside for something far better which is already at hand. If wools are to be used at all, they should be supplemented by coloured silks, cards, and glass, for many a case is detected by these which is overlooked when wools alone are used. It is rather like flogging a dead horse to say anything about the Holmgren test, though it still remains the official test of the Board of Trade, although a man who may be suffering from a central colour scotoma, and be incapable of telling one coloured light from another, will, as a rule, readily pass this test.

The persistency of Dr. Edridge-Green, who for so long has had to fight against the stone wall tactics of officialdom, is worthy of all praise. In an early part of his career he was appointed the expert adviser of the Board of Trade and a member of the International Code of Signals Committee. Owing to the interference of the Royal Society the matter was taken out of his hands, and chaos has reigned ever since. No one would test his facts; but he persevered, and now he has the satisfaction of seeing his views and methods adopted on all sides, simply because independent observers were wise enough to try for themselves, and to tell the opponents that if they also would try for themselves they would find that the facts absolutely and entirely supported the ideas for which Edridge-Green had been held to be next door to mad for proposing. It is to men like him that honour is due for their persistency in fighting a good cause, and in finally conquering the forces of ignorance and ridicule which have been drawn up against them.

THE PROBLEM OF THE FEEBLE-MINDED.

IN another column (SUPPLEMENT, p. 200) will be found notices of the last annual reports of three of the most important establishments in England for the care of young mental defectives, as well as of an appeal for the development, under the auspices of the National Association for the Feeble-Minded, of a comprehensive colony, near Tonbridge, for this class. It may therefore be opportune to take a general survey of the situation as it affects not only the individuals it is sought to aid, but the larger sociological issues involved in attempts in this way to stem the tide of national degeneracy. The monumental report of the recent Royal Commission

on the Care and Control of the Feeble-Minded[1] has attracted a considerable amount of public attention, but so far, unfortunately, has not led to legislative action based upon its recommendations. In the meantime the conditions inimical to the mental vigour of the nation disclosed in the report go on unchecked otherwise than by the voluntary efforts of charitable organizations, which, however praiseworthy, cannot reasonably be expected to overtake the far-reaching necessities of the case.

The Royal Commissioners laid stress on the gravity of the present state of things, and pointed out that their investigations showed that "there are numbers of mentally-defective persons whose training is neglected, over whom no sufficient control is exercised, and whose wayward and irresponsible lives are productive of crime and misery, of much injury to themselves and to others, and of much continuous expenditure, wasteful to the community and to individual families." To meet this there is available from public sources only a system of education in special classes, which is local and "permissive," adopted here and there, without any supplemental provision for subsequent aid and supervision of those who have passed the period of school training, which terminates at 16. The uncontrolled youthful mental-defective is but too apt to pass into the ranks of criminals or of confirmed lunatics, and thus to entail lasting expense upon the community. Worst of all, there is no check on the continued propagation of their kind, and investigation shows that feeble-minded folk are apt to be prolific, so that the evil tends to extend in increasing degree from generation to generation.

The Commissioners estimated the aggregate number of "mentally defective persons" in England and Wales at 271,607, including under that term certified lunatics as well as 149,628 persons not certified but needing control. In the last category were 66,509 for whom special provision either in their own interest or for the public safety was urgently needed. They estimated the number of mentally defective children in the elementary schools of England and Wales at 35,662, and so far not more than 11,000 school places have been provided for their special training.

Space will not permit us to enter upon a discussion of the various recommendations made to meet, as economically as may be, these appalling conditions. It must suffice to state that the Commissioners propose to extend public protection to all classes of mentally defective persons, and recommend the establishment of a central Board of Control to supervise the operations of local statutory committees, whose duty it will be to make suitable provision for such persons in their own districts. It is proposed to utilize existing voluntary homes and institutions to the fullest extent, and in this way it is to be hoped that those charitable organizations which have done such admirable work in the past may be enabled by State aid to extend their field of operations in the future. The great drawback of the system hitherto pursued at such institutions as Earlswood and the Royal Albert Asylum has been the absence of permanent provision for the larger number of trained inmates requiring it; and in this consists the superior advantage of the Colony plan in existence at Sandlebridge and contemplated by the National Association for the Feeble-minded. The older institutions, moreover, are not primarily intended for patients of the pauper class; and the provinces have been slow to follow the example of the Metropolitan Asylums Board, which since 1870 has established a series of asylums for the pauper imbeciles of London, both children and adults, and of late years has transformed that at Darenth into a very serviceable industrial colony. All told, the aggregate special charitable and Poor Law accommodation for imbeciles (as distinguished from lunatics) in England and Wales, other than in workhouses, does not amount to 10,000 beds; in addition nearly 1,000, classed as "feeble-minded," are also provided for in residential homes.

The report of the Poor Law Commission concurs with that on the Feeble-minded in holding that the mentally defective ought primarily to be dealt with not on the ground of destitution, but on that of mental defect. Consequently we may expect some modifications of the pauper classification indicated above. Moreover, the Royal Commission on the Feeble-minded give a somewhat novel classification of those requiring care and control under nine categories, as follows: "(1) Persons of unsound mind (equivalent to *lunatics*); (2) persons mentally infirm (*dements*); (3) idiots; (4) imbeciles; (5) feeble-minded (the last three being *aments*); (6) moral imbeciles; and mentally defective (7) epileptics, (8) inebriates, (9) deaf-mutes and blind"; and institutions appropriate to the several infirmities will be necessary. All these desiderata in dealing with defectives would seem to imply a considerable increase in public expenditure; but it must be remembered that the neglected feeble-minded in our midst are already costing the country a large sum for maintenance in workhouses, prisons, reformatories, and inebriate and other similar institutions, whereas, if "detected early and protected always," they could be trained to honest labour, which would, at any rate, help towards their maintenance, and by segregation the great and costly peril of transmitting to succeeding generations the *damnosa haereditas* of mental defect would be diminished or avoided.

[1] BRITISH MEDICAL JOURNAL, August 8th and 15th, 1908.

THE INTERPRETATION OF THE DENTISTS ACT.

THE decision of the House of Lords in the case of Bellerby *v.* Heyworth, published last week, p. 1026, may have far-reaching and disastrous results. Section 3 of the Dentists Act, after prohibiting the use of the title "dentist" or "dental practitioner" except by those persons who are registered under the Act, goes on to say, "or any name, title, addition, or description implying that he is registered under the Act or that he is a person specially qualified to practise dentistry." The issue turned upon the meaning to be attached to the words "specially qualified to practise dentistry"; it had been decided in lower courts that persons who claimed by advertisements or other means of publication that they were possessed of skill in dentistry brought themselves within the meaning of the expression, "specially qualified to practise dentistry," and convictions had been obtained in cases where the use of the definitely prohibited titles had been carefully avoided. This, which seemed the only obvious interpretation of the Act, placed serious obstacles in the path of the unqualified and unregistered, who found themselves in a difficulty in making any attractive announcements. Although it was pointed out, and admitted, that the words are absolutely redundant unless they are so interpreted, yet the House of Lords has decided that they are to be taken as referring to qualification in the narrower technical sense of a licence granted by a qualifying body; this is tantamount to saying that they are, in fact, meaningless and

redundant, as the question of legal qualification had been already fully dealt with in all its aspects in the preceding part of the section. Neither these words, nor their equivalent, occur in the Medical Acts, which are, therefore, not directly influenced by the decision. Nevertheless, the decision seems once more to illustrate the tendency where there is a possibility of doubt—and here the doubt was sufficient for other courts to have come to the contrary conclusion—to interpret the law in favour of the unqualified. It further emphasizes the fact that nothing short of definite prohibition of all unregistered practice, which is the law in many of our colonies and in many foreign countries, will be efficient in checking the evil of unqualified practice. For here are words which the framers of the Act, and Parliament when it passed the Act may be presumed to have intended to mean something, yet the highest court of the land has decided that they mean nothing whatever beyond what had already been said—in other words, mean nothing at all. Another appeal, Minter *v.* Snow, also came before the House, but did not obtain a full hearing. Although the grounds of the action were different, it turned upon the interpretation of the same words, and so was governed by the decision in Bellerby *v.* Heyworth.

HOSPITAL LETTERS.

SOME time ago an animated correspondence took place in the *Western Morning News* concerning the South Devon and East Cornwall Hospital. The letters make most excellent reading, and to enjoy them it is unnecessary to have inspected this hospital, for it is quite enough to have a knowledge of financial and professional administration of hospitals and acquaintance with the history of the hospital world in general. The correspondence took place between Sir Henry Burdett and various persons more or less directly connected with the South Devon Hospital, the whole of it turning on an article which appeared, under the name of Sir Henry Burdett, in the issue of the *Hospital* for November 27th. This contained a slashing criticism of the South Devon and East Cornwall Hospital as a construction, as an institution, and as an instance of administration; there was also a good deal of fatherly advice, the whole thing ending with a groan that the committee had omitted to obtain the advice of "an authoritative and experienced referee" in hospital matters. Later Sir Henry Burdett's contributions to the correspondence revealed that the foundation of this article was a visit paid in the course of some inspections by which he is trying "to bring light and knowledge into each of our great provincial hospitals," that his expressions of opinion are "authoritative," and that he wishes "to co-operate to the fullest extent which experience, knowledge, and technical facility can bring." A hospital which was open to no criticism whatever would be a truly remarkable institution, and in any case, not having visited this particular institution recently, we are unable to judge on specific points between the controversialists. At the same time, since those in charge of the institution have at their back an excellent staff of professional advisers and co-operators, and the West of England contains quite as many hard-headed men as other parts of the country, it seems improbable that they have anything to learn as to existing defects and possible remedies from their critic. In what may be gathered of Sir Henry Burdett's own views as to how a public charity should be run, there would seem to be much scope for criticism. He appears to hold that if it has a steady income of, say, £4,000 from investments, against a steady annual expenditure of two and a half times that amount, its managers should reduce that steady income forthwith if they can find any ready outlet for the money, and that they should convert their dealings with subscribers into a mere question of exchange and barter. In other words, they should be offered an exact return for any sums they contribute by a promise that they shall be supplied with nurses whenever required and with tickets for in-patient treatment of persons recommended by them to the precise value of their contributions. It is not thus that successful hospitals are run. Indeed, the whole tendency is to abandon subscribers' letters altogether, their use being found detrimental to the interests of the poor, and in no wise really facilitating the collection of funds. The proof of this lies in the decision of the Hospitals Conference a couple of years ago. Nowadays it is chiefly in small country towns where there are few really well-to-do people that the system of hospital letters is still continued by way of complimentary acknowledgement of support. In a town of the importance of Plymouth there can be little excuse for maintaining it, while to extend it into a definite system of *quid pro quo* would be setting the clock back something more than twenty years. The character, indeed, of this suggestion may give ground for the supposition that possibly the rest of Sir Henry Burdett's counsel, if secured, might be found to date in its bearings to from much the same period. On the whole, we think the good people of Plymouth take Sir Henry Burdett as an authority on hospitals too seriously.

INSURANCE FOR MEDICAL MEN.

THE Medical Insurance Committee had before it at its meeting on April 27th a report from the chairman, Dr. Haslip, on the business done during 1909, together with a statement of accounts for the year. Dr. Haslip referred to the lamented death of Dr. Radcliffe Crocker, who had always exhibited great practical interest in the Medical Insurance Committee and enthusiastic confidence as to its ultimate success, and had acted as its chairman from its inception in 1907 until his death last year. His successor was able to report that the business of the Committee had been progressive in all directions; the total premium income had reached £2,411, an increase of £725 over the previous year. In November the Committee was in a position to issue through Lloyd's a satisfactory and comprehensive policy against all motoring risks. These policies had proved highly popular; during the last two months of 1909 the premium income from this source reached £236, and for the current year it has already reached £650. The working expenses of the agency, carried on by Mr. Guy Elliston on behalf of the Committee, are exceedingly low, more especially in view of the fact that the experience gained in the business of personal accident and employers' liability insurance shows that renewals involve much labour in correspondence, as the percentage of variation year by year is considerable. The Committee has been able to return in the form of rebates on premiums to those taking advantage of its agency no less a sum than £500—a result which in itself justifies the existence of such an agency. Having regard to the small proportion of the commission retained by the Committee to cover working expenses, it was not to be expected that any considerable reserve could be built up, but by the strictest economy the Committee is this year in a position to carry out one of the objects which was had in view at its foundation, namely, to assist by occasional contributions the benevolent organizations of the profession. It was able to vote donations of 10 guineas each to the British Medical Benevolent

Fund, the Royal Medical Benevolent Fund Society of Ireland, the Birmingham Medical Benevolent Fund, and to the Ladies Guild of the British Medical Benevolent Fund, and in addition 5 guineas to the last-named guild to assist in defraying the initial expenses. The future prosperity of the work of the Medical Insurance Committee must depend upon the support it receives from the medical profession. Among the members of the British Medical Association itself there are still many who have not taken advantage of the facilities offered by the Committee, and their attention may be specially called to the motor car insurance, as the terms offered are exceptionally advantageous and specially adapted to doctors' needs. By insuring through the Committee they will not only effect considerable saving in their own personal expenditure, but will help the Committee to carry out the other object mentioned, namely, the giving of assistance to medical benevolence. During the year Dr. Frederic Hewitt, M.V.O., has been added to the Committee on the nomination of the Editor of the *Lancet*, and Dr. Mackintosh, M.V.O., of Glasgow, and Dr. Hugh Ker, of London, have also joined it. Full particulars can be obtained on application to the Secretary and Agent of the Medical Insurance Committee, 429, Strand, London, W.C.

THE HOSPITAL FOR BAD LEGS, MANCHESTER.

On another page we give some analyses of the preparations sold by the National College of Health and Hospital for Bad Legs of Great Clowes Street, Manchester, with some account of the methods used to attract patients, and if any further proof were needed of the necessity for further legal control of medical companies, this alone should furnish everything that could be required. The institution has been in existence for several years, but has recently become very active, and claims to have treated some thousands of cases by what is called the "Tremol treatment for bad legs." The methods used to attract patients are open to serious criticism. It is stated that every patient is under the direct supervision of a "fully qualified medical man." Several attempts have been made to find out the name and qualifications of any such medical man, but without success, and it is to be noted that he is called "fully qualified," not "duly registered," and at any rate no duly registered practitioner is known to have anything to do with the place. It would appear that comparatively few of the patients receive any personal examination, and that the great majority are never even seen by the "doctor" or by any of the staff, and anything approaching diagnosis is made simply from perusal of letters sent by patients. On turning up the *Truth* Cautionary List the following note is found: "National College of Health, Great Clowes Street, Higher Broughton, Manchester.—Proprietors of a cure for bad legs called 'Tremol.' The first price for a course of treatment is two guineas, which is reduced to one guinea if the bait is not swallowed. Also endeavours to obtain advertisements on the payment-by-results system, offering 5s. for every patient caught through an advertisement." We may add that if a patient once applies for information, he may expect to be dunned for months until he orders the remedies. This is well shown in letters sent to a person who, after receiving the budget of testimonials, had decided not to order the remedies. The following are typical extracts of the letters he received. "I am truly sorry and much disappointed that you have not yet participated in the benefits of the Tremol treatment. I am personally anxious that you should become a patient of mine, as I know positively that you would derive the greatest of benefits . . . Is it scepticism? Is it doubt? Is it your financial position that stands in the way? Tell me plainly your reason for not ordering the treatment and let me help you as it is my earnest desire to do so. I am anxiously awaiting your reply." This letter of entreaty seems to have had no result, and accordingly in a few weeks another was sent, saying: "I am specially interested in your case and having brought it to the notice of the Board of Directors I am instructed by them to make the following concession to you." The concession was that the full two-guinea course of treatment would be sent for 31s. 6d. on the condition that "when you are cured you will tell all your friends and neighbours that it was the Tremol treatment that cured you and that you do not divulge that the Board has made this concession." The reason for this secrecy is not very obvious, inasmuch as the offer of similar concessions seems to be by no means rare. One of the letters contains the words, "I am personally anxious that you should become a patient of mine," and it might naturally be inferred that the signature was that of the "fully qualified medical man," but we cannot trace the name in the *Medical Register* as that of a person residing in or near Manchester. In November last a special investigator was sent to the institute by the periodical *John Bull*, who came away perfectly satisfied "that the Tremol treatment is an honest one and ably applied," and that "it distinctly merits the praise of *John Bull*." The investigation seems to have consisted in "roaming over the whole of the carefully-kept records of the thousands of cases treated" and apparently accepting everything that was told—not a very scientific method of investigating a treatment on which the health of thousands of patients may depend. The investigator was told, among other things, that the treatment is applied to five classes of diseases of the leg—(1) ulcers of every description; (2) eczema and skin diseases; (3) varicose veins; (4) tuberculous disease (diseased bone); and (5) swollen and painful legs (phlebitis, etc.); and we are told that "the treatment is able to cure all the diseases included in the classes (1) and (2); but of the classes (3), (4), (5), those only are selected which the medical history and circumstances of the particular case convinces the doctor are at least curable." Speaking of the remedies used, *John Bull* says they are secret, but "the composition was freely disclosed to us . . . and the ingredients are not of a harmful nature; indeed, some of the most valuable and beneficial drugs known to the medical faculty are included in them, but this particular combination has never before been used in medicine, and some of them are quite new." One would like to know which of the ingredients revealed by analysis *John Bull* considers quite new; it cannot be the chloride of calcium or the chloride of iron, or the infusion of rhubarb, or the prepared chalk, or the zinc oxide, or the lead carbonate—perhaps it is the peppermint water. As far as our analysis reveals, the combination is a heterogeneous mixture of anything that might possibly be of use, regardless of chemical combinations that may result, and we fail to detect any trace of any new drug. We have only found the very commonest drugs in ordinary use. There can be little doubt that in the interests of the public health it is necessary that there should be a full investigation of the National College of Health and Hospital for Bad Legs. If there is a registered medical man connected with the place, he is certainly acting in a way that makes him liable to be arraigned before the General Medical Council; and, if there is no registered practitioner, then the use of the term "fully qualified medical man" is most misleading to the public.

SODIUM CHLORIDE.

he February number of the *Zeitschrift für Biologie*, uteur gives an account of an interesting series of eriments conducted on himself to determine the litions of sodium chloride metabolism in health. s is a matter which has not engaged much atten-, although Carl Voit, fifty years ago, made austive researches on the subject in the case of dog. Following the usual physiological methods eur put himself on a definite diet, the chlorine tent of which was known. At the same time he ed a certain amount of salt, which varied at the erent stages of the experiment from 0 to 24 grams ay. The daily output of chlorine was estimated in urine and faeces, but no attention was paid to retion through the skin. It would appear, as a ilt of the experiment, that in a healthy individual absolute daily equilibrium in chlorine output does occur, whatever the amount of chloride ingested. at actually happens is that varying small amounts from time to time retained, and at other times creased amounts are given out. When small or derate amounts of salt are taken over an extended iod it is completely excreted, but with larger ounts a certain quantity is stored up; this, how-r, is got rid of again very rapidly. The faeces tain a very small quantity of chloride, and this ies chiefly with the amount of faeces passed. creased ingestion of salt causes increased diuresis, l the increase in the chloride excretion follows sely the increase in water excreted. This loss of id through the kidneys is compensated by a more id consistency of the faeces and a decrease in the isture given off by the skin and lungs. There was this account a certain degree of constipation in the iod during which large amounts of salt were taken. e whole experiment points to the fact that the gestion of a uniform moderate quantity of sodium loride has a certain importance in preserving the lance of metabolism.

WOMEN AND THE UNIVERSITY FRANCHISE.

FLY-SHEET has been issued by a number of male aduates of the University of London inviting signa-res of other graduates—presumably male graduates to a memorial it is proposed to present to the ime Minister, praying him to take every step in his wer to remove the restriction which now prevents omen graduates from exercising the parliamentary anchise. The maintenance of the restriction, it is ged, is inconsistent with the spirit of the constitu-on of the University, where the right to participate the choice of a member to represent it in Parlia-ent is the only privilege now denied to women on e ground of sex. The memorial points out that ery appointment and privilege which the University as power to bestow is now open to women, and that ey take part in the proceedings not only of Convoca-on, but of the Boards of Studies, Boards of Examina-ons, the various Faculties, and the Senate itself. he memorialists express deep regret that these their llow members of Convocation, many of whom have ttained to the highest distinction in the branches of tudy and research to which they have dedicated emselves, should be denied equal rights in the lection of the representative of the University in arliament. Unless it is to be maintained that women re absolutely unfit to exercise the parliamentary anchise there appears to be no reason for confining he representation of the University to male votes. t seems indeed churlish and illogical to refuse them he exercise of this function. The experiment would e interesting because the mode of conducting an lection at a university differs from that at the general olls, inasmuch as there is no ballot at the university, the voting is public, and it is openly declared to whom each person has given his support. A copy of the memorial is to be sent not only to the Prime Minister but to the leader of the Opposition, but it is hardly to be expected that either of these eminent persons, whatever his private sympathies, will give any definite undertaking to introduce the necessary bill. For it is clear that legislation would be required. In 1906, at the first contested parliamentary election for the Universities of Edinburgh and St. Andrews since women were admitted to graduation, it was claimed that being on the statutory parliamentary voting registers established by the Franchise Act of 1868 —namely, the registers of the general councils of the universities—they were entitled to vote; the registrar refused the claim, as did the Court of Session in Edinburgh. An appeal to the House of Lords, ably argued by two of the women interested, met with no better success. The Lord Chancellor[1] said that the disability of women had always been taken for granted, and that there was no room for argument since it was notorious that the right of voting had, in fact, been confined to men. Even if the Prime Minister takes the view indicated above as that which he will probably be disposed to take the memorialists need not be discouraged, for they can still move the Convocation of the University of London to express an opinion favourable to the views of the memorial, and can also move the Senate to take the same course. The University of London was the first to admit all comers to its examinations and degrees without distinction of sex, and it would therefore have special influence and authority in initiating the further movement in the direction of the enfranchisement of women.

THE NOSTRUM NUISANCE.

Who is Silvia? What is she
That all our swains command her?

"ANTIKAMNIA" is not so pretty a name as Silvia, nor will it fit the measure of the song in the *Two Gentlemen of Verona*. But many doctors must at present be asking what it is; and we may be allowed to express our wonder that there has lately been such an outburst of commendation—on the part of the vendors—of that widely advertised nostrum. We have had quite a shower of complaints from medical men to whose wives and lady patients pamphlets, with samples, have been sent. The covering letter begins "Do you ever suffer pain? If so, please try enclosed sample of Antikamnia Tablets! Always prompt and reliable." One pamphlet, of which several copies have come into our hands, sings the praises of the product of the Antikamnia Chemical Company as a pain reliever; an anodyne or sedative, an antipyretic, or anti-neuralgic, an antirheumatic, and generally as a remedy "for any pain (no matter where)." Another, bearing the title "Practical Prescriptions," gives the number of tablets that must be absorbed for the relief of all manner of ailments. Among these figure alcoholism—with the explanatory words "after debauch," which, we suppose, mean what is vulgarly called "a head"—drunkenness, delirium tremens, and "tobacco nerves." We hope the ladies who have received the pamphlet appreciate the delicate insinuations as to their habits of life conveyed by the list of ills for which Antikamnia is offered as the sovran'st thing on earth. The menopause, "miscarriage pains," painful menstruation—with a variant, "period (pain at time of)"—uterine pain (acute), "women's pains," are also among the ailments in which the marvellous tablets give relief. In fact, if we are to believe the vendors, it relieves everything.

[1] BRITISH MEDICAL JOURNAL, December 19th, 1908, p. 1836.

from flatulency to locomotor ataxia; it is even a cure for worry, which has been called the disease of the age. Inside the box containing the sample we find the oracular statement, "When women suffer or men worry—you have 'The Blues,'" followed by the advice to take two tablets. It is particularly recommended for Americans in London, who appear to be subject to "brain fag," and find they cannot fly about and "make things hum" as they did on their native continent. Londoners may think that with motor cars and electric cars they have quite enough humming here without the help of Antikamnia. And what is the stuff that does all these things? According to an analysis made on behalf of the *Journal of the American Medical Association*, and published in the *Propaganda for Reform in Proprietary Medicines*, reprinted from that periodical (sixth edition), it contains the following ingredients approximately in the proportion given: Acetanilide, 68; caffeine, 5; citric acid, 5; and sodium bicarbonate, 20. Charles Lamb said, when he saw a gaily decorated temperance procession pass him, "You are sober—perhaps; but why make such a fuss about it?" In like manner we say to the Antikamnia Chemical Company: "Your tablets may relieve pain—sometimes; but is there any reason to make such a fuss about it?" Most certainly whatever Antikamnia may do in a particular case here and there, and for the moment, it is not the panacea it is represented to be. The pity of it is that several of the testimonials quoted purport to be from "physicians." They are, it is true, American doctors; but are British practitioners guiltless in this matter? One of the greatest obstacles in the way of any reform in the trade in proprietary remedies is that medical men can be found to testify to their virtues. If a Royal Commission were appointed, the makers and sellers of nostrums would have no difficulty in bringing forward medical testimony in their favour, and the result would be that this evidence would be quoted far and wide as an official confirmation of the preposterous claims made by those interested in deluding the public.

ANTIVACCINATORS IN CONFERENCE.

THE National Antivaccination League is failing to attract the measure of public support which it formerly received, and the annual meeting this year was occupied chiefly with "domestic concerns.' A note of sadness was sounded over the losses of parliamentary supporters during the recent elections. According to the report of the League there has been "ceaseless and ofttimes strained activity at head quarters, but apparent apathy in many parts of the country, due to a mistaken idea that our battle has been won." Curiously divergent views were expressed as to the precise time at which the battle will be won. Undaunted by his own defeat, Mr. Arnold Lupton, with a very big "if," suggested that it would not be many months before their efforts were crowned with success. The President, General Phelps, was less sanguine. He did not believe victory would come so soon, and thought the League would have plenty of work to do for the next ten or fifteen years in spreading its "beneficent operations." The failure of the League to accomplish the objects for which it exists has the singular effect of stimulating some of the members each year to attempt an extension of those objects. This attempt at the recent meeting received the usual check from those members who think the League should mind its own business, fearing that it would split upon the rocks towards which the advanced section would steer it. By permission of the Chairman (Mr. Arnold Lupton) a resolution was moved: "That neither vaccination (nor any other kind of inoculation with animal substances) is of any value as a prophylactic against disease; that some of those proposed are dangerous, and have proved fatal when used; and that therefore it is not right that any special declaration should be required of parents in relation to them, or any inspection made of their children without their consent in writing with a view to ascertaining whether such operations shall have been performed upon them or not." Objection was taken to this strangely constructed resolution, and it was ruled out of order and withdrawn. Suggestions were made that a "van mission" should be instituted, and it appears that even mothers' meetings are not to be free from the insidious attack of the League. This latter development should be carefully watched, and if such a raid is allowed it ought to be promptly counteracted.

HISTOPLASMOSIS.

UNDER the name of "histoplasmosis"[1] Dr. S. J. Darling, of the Ancon Hospital, Panama, has described a fatal infectious disease of tropical America resembling the kala-azar of India. It is characterized clinically by splenomegaly, emaciation, irregular pyrexia, leucopenia, and anaemia. The pathological features are the invasion of endothelial cells in the smaller lymph and blood vessels and capillaries by enormous numbers of a small encapsulated micro-organism (*Histoplasma capsulatum*), causing necroses of the liver, with cirrhosis, splenomegaly, pseudo-granulomata of the lungs, small and large intestines, with ulceration of the latter, and necrosis of the lymphatic glands draining the infected viscera. The disease is produced by a small round or oval micro-organism, 1 to 4 μ in diameter, possessing a polymorphous, chromatin nucleus, basophilic cytoplasm, and achromatic spaces all enclosed within an achromatic refractile capsule. The micro-organism differs from the Leishman-Donovan body of kala-azar in the form and arrangement of its chromatin nucleus, and in not possessing a chromatin rod. The mode of infection and the portal of entry of the parasite are unknown, as in kala-azar. Three cases in all were studied during 1905–6, but since that date no further examples have been met with, Darling believing that the vastly improved hygienic conditions in which the labourers now live in the canal zone of the isthmus being responsible for its disappearance.

"DECANISATION" OF CONSTANTINOPLE.

EVERY traveller who has written about Constantinople speaks of the ownerless dogs which roam about in hordes to the terror of strangers and the danger of the inhabitants. It has become a traditional belief in Constantinople that these dogs render a useful service to the community by devouring offal and other filth. Dr. Remlinger, Director of the Pasteur Institute at Constantinople, has rudely shaken this legend in an article recently published in the *Hygiène générale et appliquée*. He estimates the number of dogs prowling the streets of the city on the Bosphorus at 60,000 to 80,000; of these about a hundred die every day. Rabies is relatively rare among them, though more frequent than has been stated; but they disseminate hydatids, tuberculosis, itch, and other diseases. The most grievous charge that is brought against them is that they befoul the streets of the city with their excreta which are full of parasites. It appears that a regular trade is driven in the intestinal products of the dogs of Constantinople, some 12,000 sacks, each weighing 120 lb., being

[1] *Journal of Experimenta Medicine*, vol. xi, No. 4.

orted to America alone for use in the manufacture loves. The price of the excrementitious matter s disposed of averages 28s. per 200 lb., and nearly a usand persons, including collectors and packers, by this industry. To what extent disease is ead in this way it is difficult to calculate. Another plaint made by Remlinger against the dogs is that y tend to deprave youth by the complete freedom h which they perform the ritual of procreation ore the public eye. In view of all these misdeeds, ienic and moral, he calls for their extermination. proposes a systematic "decanisation" of the city. attempt in this direction was made in the reign of tan Mahmoud II, styled the "Reformer," after English visitor had been nearly eaten alive. e dogs were deported *en masse* to an island the Sea of Marmora. But the measure was remely unpopular, and Russia having soon erwards declared war against Turkey, the oulace, excited by the opponents of reform, lared that the reverses of the Ottoman army were e to the removal of the dogs, which were accordingly ought back in triumph. Since then the dogs of nstantinople have never been interfered with. t to the good Mussulman who "'lieveth on hound" the dog is an unclean beast, and the eet dog is never admitted to his house. Yet e people of the poorer class protect the dog, partly t of kindness of heart, partly because they look on it as a sort of outcast to be defended in cordance with the teachings of the Koran. The anine Defence League and the many champions the dog would find a large field for their efforts Constantinople.

EUGENICS AND DIVORCE.

ERY brief consideration suffices to show that the arriage laws of a country must have a distinct fect on the eugenics of the community. What that fect is in the United States, Mr. Newton Crane ndeavoured to show in an address given recently efore the Eugenic Society. He stated that long efore the term "eugenics" was invented, or the leas that the word connotes became common—indeed, s early as the days of the Pilgrim Fathers—a desire o secure healthy offspring underlay the marriage aws of the forty-six States of America. In recent ears this desire has been translated in sundry tates into enactments intended to give it irect effect. The general aim of American egislators would seem to have been to render ntry into the married state as easy as they ould, while the fact that they had rendered xit therefrom much easier than in most coun- ries is common knowledge. Mr. Crane, indeed, places the ratio of divorces to marriages as high as between 1 to 13 and 1 to 15. On the other hand, he claimed that knowledge of the fact that escape from marriage bonds is possible without disgrace to either party tends to increase the frequency of marriages. He also suggested that the easy dissolution of unhappy marriages promoted eugenics by setting free the respective parties to form unions more likely to result in children healthy both in mind and body. This point he did not labour, and obviously it is one on which there is room for more than one opinion. Indeed, until the general subject of eugenics has been more thoroughly studied it must be impossible to state whether its aims and those of persons desirous of promoting stability of the marriage tie are identical, but sooner or later it will probably be found that the same path leads to the attainment of both ends; at any rate, the history of mankind seems to point that way. Meantime, the discovery of a happy *via media* would appear to be the general object of the appointment of the Royal Commission on Divorce and Marriage, which includes two ladies. Probably no one sees more of the evils of ill-assorted marriages than medical men, and, either on this account or for more specific reasons, the Commission has invited the British Medical Association to give evidence before it. The invitation has been referred, we understand, to a committee; and since there is no representative of medicine on the Commission, it is more than ever desirable that any professional evidence heard should be of a thoroughly well-balanced character. From questions which have been directed to sundry witnesses, some members of the Commission would appear to hold strong views regarding the precise equality of men and women in the matter of sex instinct. Another question of a medical character which has been touched upon is the probable duration of mental disorders, including narcomania in the widest sense of the term.

FRENCH CONGRESS OF PRACTITIONERS.

THE third meeting of the French Congress of Practitioners was held in Paris on April 7th and three following days under the presidency of Dr. Gairal. One of the questions discussed was the free choice of a doctor by members of benefit societies. The Congress passed resolutions to the effect that the freedom of choice of a medical attendant should be absolute, and that a member who could afford to pay should be treated as an ordinary patient. Another question debated was the expediency of raising the scale of medical fees; this has been done in Paris, but not in the provinces. Dr. Bresselle proposed that a campaign with this object should be organized by the formation of local groups which should undertake to have nothing to do with benefit societies, but should only deal with members of these bodies as private patients. This proposal was adopted. It was further resolved that a Vigilance Committee should study the means of instituting in every teaching centre courses of instruction intended to imbue students with the corporate spirit. M. Georges Bertillon read a report on abortion from the medical point of view. He laid down as a principle, to which the Congress agreed, that the profession could not discuss the so-called "right of abortion." He gave figures showing the steady increase of abortion. He estimated that in Paris alone the number of criminal abortions was more than 50,000 a year. At Lyons Professor Lacassagne computed that there were 19,000 criminal abortions among 450,000 inhabitants. Many of these were procured by midwives, but a considerable proportion was to be laid to the charge of doctors. After a long discussion the Congress passed resolutions to the effect that the public authorities should be called upon to take steps for the suppression of the evil, that the number of midwives should be limited, that there should be a regularly constituted service for their inspection, and that a miscarriage or abortion, whether natural or otherwise, should be included in the list of notifiable diseases. It was further resolved that the public authorities, municipalities, and infant protection societies should give moral or pecuniary help to women about to become mothers, in order that they should not shrink from the duties of maternity; and that the public authorities should grant to large families assistance proportionate to the number of children. After Dr. C. Levassort, of Paris, had read a paper on the repression of unqualified practice, an animated discussion took place on the question of medical teaching; it ended in the passage of a resolution asking for he suppression of the post of *agrégé*

professor as being opposed to the interests of students, of medical teaching, and of the profession. This is the expression of a widespread feeling that medical teaching should no longer be a monopoly of officialdom. Another lively debate ended in the passage of a resolution asking for the establishment of a Superior Medical Council, to consist of members of the teaching bodies, delegates elected by the various professional associations, and of students' associations, the latter only taking part in consultations. The most important debate was, perhaps, one on hospital abuse, introduced by Dr. Louis Régis of Paris, who urged more complete organization for the defence of the rights of the profession; closer union between hospital staffs and general practitioners, for the purpose of discovering abuses; and the refusal by hospital physicians and surgeons to treat well-to-do patients.

THE HELIOS THERMAPHOR.

WE have not the faintest idea what the Helios Thermaphor may be. The name would seem to imply that it is a machine for the conveyance of heat from the sun. If that is so, it would be a boon to the dwellers on this fog-wrapped island; it might enable us to feel, even if we do not see, the sun. Whatever the apparatus may be, the following letter received by a very eminent surgeon, who has forwarded it to us, may amuse our readers: "As I know very well that you interest yourself of all novelties worth of consideration, and as I appreciate in the highest way your judgement, I beg to send you by separated cover a copy of a notice regarding an apparel which I am putting in these days in commerce under the name of HELIOS THERMAPHOR. This apparel figured on these late days at the Congress of phisical Therapeutic of Paris, and was highly appreciated by the first Doctors. As you will see from the description and from the attests of all doctors and privates who proofed it, this apparel for its greatest advantages is very usefull for the phisical therapeutic, which will find in it a quickest mean to cure so many illnesses for which with the actual remedies a long time would be necessary. It is also of extraordinary simplicity and practice, and usefull espacially for fog-countries. I would consider it a great hounour for me to let you see one of such apparel, in order that by using it pratically, you kann persuade yourself of its practise; and I am consequently to your disposition for sending it to you free of Charge." We do not know if the recipient of this epistle has availed himself of the tempting offer to inspect the "Helios Thermaphor Apparel" and persuade himself on its practise. The "notice regarding the apparel" which is referred to, did not reach its destination; we are therefore unable to enlighten our readers as to its nature and mechanism. All we can say is that the letter bears at its head the name of "Gallo Claudio," who writes from Turin. Of the said classically named gentleman we regret to have to confess that we know nothing.

Medical Notes in Parliament.

The Medical Commissioner of Prisons.

ON Friday in last week on Report of Supply an interesting debate was raised by Sir Henry Craik on the recent appointment of a Prison Commissioner to succeed Dr. Donkin, who retired under the age limit. He contended that if by common consent certain offices had been reserved for those who have medical qualifications, the traditions based on general consent should not be lightly departed from. A very considerable public interest was involved in the fair treatment of a great profession like the medical profession. this case the private secretary of the late Home Sec tary (Viscount Gladstone) had been appointed. H. Craik argued that in the delicate and respo sible duties devolving on prison medical offic it would be of great benefit if one of t Prison Commissioners were himself a medical m He pointed out that in Grand Committee in 18 a provision was inserted in the Prisons Bill that year, providing that one of the Prisons Comm sioners should always be a medical expert. In t subsequent debate in the House the insertion of t provision was only omitted on the understandi that the then Home Secretary would appoint Medical Commissioner, and that his successors wou probably follow that rule. He contended that it w a mere subterfuge to say that the retiring Commi sioner would still advise; the medical element oug to be maintained in the Commission itself.

Mr. Joseph Pease defended the action of the la Home Secretary, and said that he had specially look after medical interests by retaining Dr. Donkin special adviser at a special salary of £200 a year aft his retirement. He would now attend solely medical matters, and so be able to do more tha when his time was largely taken up by othe administrative work.

Mr. Balfour refused to accept the defence offere and made a strong speech against the course pursue which, he said, was not consistent with the attitud adopted by the members of the present Governmen in 1898, when they regarded the appointment of Medical Commissioner as most important.

Mr. Masterman defended the action of the Goverr ment, and objected to the appointment of a mos efficient Commissioner being described as "a administrative scandal."

Dr. Hillier quoted the opinions of Mr. John Burns i 1898 in favour of having a medical expert on th Prison Commission, and the strong reasons he gave especially from the point of view of mental diseases.

Sir William Collins supported this view, and said that there was more reason for a Medical Com missioner now than in 1898 on account of the passing of the Inebriates Act.

As Sir Henry Craik's amendment was out of order no division could be taken, and the matter dropped.

On Monday last the matter came up again at question time. Sir Henry Craik had a question on the Paper asking why the vacancy had not been filled by a medical man in accordance with the official minute made in 1898 on the demand of members of the present Government, but had been filled by a gentleman who acted as private secretary to the late Home Secretary. As a discussion had already taken place, he did not put his question. The Home Secretary said that as the question contained some statements which were inaccurate, he should like to have permission to answer it. Sir Henry Craik retorted that it would have been better for the Home Secretary to have been present when the discussion took place on Friday, and in answer to the Speaker he declined to put the question.

The Speaker ruled that there could be no answer given.

Subsequently the Home Secretary said: May I, Mr. Speaker, with great respect, submit to you a point of Order with reference to question No. 31 on to-day's Order Paper, which stands in the name of the hon. member for Glasgow University (Sir Henry Craik), but which was not asked by the hon. member, and which, having regard to your ruling, could not be answered? May I, with great respect, submit to you the footnote to Rule of Procedure No. 57, which says: "A Minister may, if he thinks fit, on the ground of public interest, answer a question appearing on the Notice Paper although it be not asked"? May I respectfully say that the public interest involved in this question is that it reflects upon the position of my noble friend, Lord Gladstone, my predecessor, and as that reflection appears upon the Paper, I was anxious that a proper answer should be given to it upon the same day? May I ask your ruling again?

Mr. Speaker: We had a debate of considerable ngth on this subject on Friday, when a full state- ent was made by the Under Secretary, and I pre- me the Under Secretary said everything that was be said on that occasion. If he did not say all that uld possibly be said it was his own fault. The House d a full opportunity of discussing it, and the Under cretary had a full opportunity of stating all the asons, and nothing fresh has occurred since.

Medical Treatment of School Children.—Sir William llins asked the President of the Board of Education hether an application had been made by the London unty Council for the recognition of attendances at spitals of school children for medical treatment as tendances at school for grant purposes in the same ay as recognition was given in respect of their with- awal for purposes of medical inspection; and hether he proposed to obviate the loss of grant, hich would otherwise be incurred in carrying it the provisions of the Education (Administra- ve Provisions) Act, 1907, by including in the ode for 1910–11 a provision for such recognition respect of medical treatment similar to that made nder Article 44 (*h*) in respect of medical inspection. he President of the Board of Education replied that ie answer to the first part of the question was in ie affirmative. As regards the second part of the uestion, he was not prepared to extend the scope of rticle 44 (*h*) of the Code, as suggested. He was not atisfied that a case had been made out for such an xtension of the scope of the Article, and he was nwilling to add to the complication of the present ystem of grants.

Vivisection.—A bill to provide for the total abolition f vivisection was presented last week by Mr. Hodges, nd supported by Mr. Brace, Mr. Tyson Wilson, Mr. harles Duncan, Mr. Collins, Mr. Parker, Mr. John Vilson, Mr. Thorne, Mr. Gill, Mr. Hudson, and Mr. lbert Stanley. Friday, June 3rd, was fixed for the econd reading. On the same day Mr. Ellis Griffith resented a bill to empower a court of summary urisdiction to dispose of dogs which have been ll treated. The short title of this bill is Cruelty to nimals (Amendment) Bill.

University of London (Senate).—Mr. Bradford asked the ecretary to the Treasury what was the number of nembers of the Senate of the University of London, nd how many of these held any office or appointment s professor, lecturer, examiner, principal, or provost, ny portion of whose emolument was paid directly or ndirectly by the university. Mr. Hobhouse replied hat the Senate was constituted in accordance with ection 12 of the Statutes made for the University of London by the Commissioners appointed under the University of London Act, 1898, and consisted of the hancellor, the Chairman for the time being of Con- vocation, and fifty-four other persons. He was in- formed that of these fifty-six persons eighteen held office or appointment under one or more of the heads specified in the question, and were in receipt of emoluments paid directly or indirectly by the university.

Vaccination Proceedings (Leicester). — Mr. Crawshay-Williams asked the President of the Local Government Board whether his attention had been called to the fact that in the Leicester borough police court on April 20th, the vaccination officer of Leicester informed the magistrates that he was ordered by the Local Government Board to take proceedings under Section 31 of the Vaccination Act, 1867, even though such proceedings might have been taken under Section 29 of the Act; would he say on what date such order was issued, and whether it was a general order to all vaccination officers. Mr. Burns replied that no order had been issued in regard to this particular matter. He found that the question of procedure under the two sections mentioned had been discussed on more than one occasion when one of the Board's medical inspectors had been inspecting vaccination in Leicester, and that the inspector did not dissent from the view of the vaccination officer that in the circumstances then obtaining procedure under Section 31 was preferable.

Vaccination Act, 1907 (Declarations).—Mr. Pointer asked the President of the Local Government Board if he could state approximately how many declarations were made under the Vaccination Act, 1907, during the year 1909. Mr. Burns answered that the number of declarations received by vaccination officers during 1909 was approximately 190,690.

Poor Law Reform (Ireland).—Last week Mr. Birrell, in answer to several questions as to the introduction of a Poor Law Reform Bill for Ireland, said that nobody was more anxious than he to pass a measure of this kind, but, unfortunately, when it came to be investigated, it contained many particulars of a highly controversial character, although there were many others on which apparently very general agreement existed. It was impossible in this session to introduce a controversial measure of this kind. In answer to Mr. John O'Donnell, the Secretary to the Treasury stated that the expenditure in respect to the Poor Law Reform (Ireland) Commission, which was appointed in 1903, amounted to £3,532. The figure was exclusive of the cost of office accommodation and of the printing of the report for Parliament, which could not be precisely ascertained without further inquiry.

Lead Poisoning.—Last week Mr. Clynes asked the Secretary of State for the Home Department whether the two cases of lead poisoning at Pilkington's Tile Works, Manchester, recently the subject of inquiry, stood alone; and whether he would cause investigation to be made as to the amount of raw lead used in the glazes at Pilkington's. Mr. Churchill said that, besides the two cases referred to in the question, only one of which, however, was found by the medical referee to be a case of lead poisoning, communications had been received calling attention to the cases of two other workers at these works. Both cases had been investigated, and in neither had any grounds been found for regarding them as cases of lead poisoning. With the exception of a case in 1903 of a man who, after a short period of employment at these works, died as a result of disease set up by long-continued work in lead processes in other works, there had been no cases at these works since 1899; and the arrangements at the works were exceptionally good. He saw no ground for issuing any special instructions to the Factory Department in the matter.

Motor Ambulance Service (London).—Sir William Collins asked the Secretary of State for the Home Department whether he was prepared to sanction the co-operation of the police in the manner recommended by the Departmental Committee of 1906–9 in the event of the London County Council establishing a rapid ambulance service, summonable by telephone, in accordance with their powers under the Metropolitan Ambulances Act of 1909. Mr. Churchill answered that he had not any information as to the intentions of the London County Council in this matter, but he need not say he should be happy to give his best consideration to any proposal that might be put before him, with every desire to sanction, as far as may be practicable, the co-operation of the police. In answer to a further question put by Mr. Hay Morgan as to the use of hand-stretchers of conveying injured persons to hospitals, Mr. Churchill said that hand-stretchers had not been used for this purpose by the Metropolitan Police for many years, but wheeled litters of an approved pattern were so used. The London County Council last year obtained Parliamentary powers for the provision of motor ambulances, and he understood this question was now engaging the attention of the Council.

Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

Antivivisection Meeting in Dublin.

The Right Hon. Lord Justice Cherry presided at a meeting of the National Antivivisection Society in Dublin on April 20th, and in his preliminary remarks expressed the opinion that the Research Defence Society had for its object the promotion of vivisection, and should have the courage to take a name indicating what its real object was. He added that another of its objects was to give it out to the public that the members of the Antivivisection Society were opposed to the promotion of science, whereas in his opinion the recommendations of his society would in no way interfere with the advancement of knowledge. He was followed by the Hon. Stephen Coleridge, who elicited applause by asking why, if vivisectors were right in saying that torture did not go on, they should object to a bill for preventing torture. The Hon. Stephen did not, however, have it all his own way, as when he had finished Professor W. H. Thompson rose to combat several of his statements. Professor Thompson said that Mr. Coleridge had made statements reflecting on the humanity of the medical profession, but the profession yielded to none in their humanity. He added that many of his own experiments were performed before a class of from 50 to 100 students, and that, as many of those were most sensitive to cruelty to animals, it was unreasonable to suppose that if cruelty were practised none of them would protest. This was met by the stock argument that such a protest would ruin the student's career, and in consequence apparently all a student can do is to write to Mr. Coleridge, who, of course, as he says, does not give him away. The mental type of the audience present may be judged from the fact that they preferred to accept Mr. Coleridge's views concerning the value of antitoxin for diphtheria, instead of those of the vast majority of the medical profession as expressed by Professor Thompson.

We hope that Professor Thompson's powerful arguments will have impressed some of those who heard him speak, and we commend his action in attending this meeting to the attention of both lay and professional members of the Research Defence Association. Much good might be done if influential laymen would bear testimony in the enemy's camp to the importance they attribute to animal experimentation.

Women's National Health Association.

There was a large gathering of delegates at the third annual meeting of the General Council of the Women's National Health Association, over which the Countess of Aberdeen presided, in Dublin, on April 19th and 20th. The annual report revealed a most flourishing condition, there being now 168 branches of the association and nearly 18,000 members, while the reports of the work done by the tuberculosis caravan, the Pasteurized Milk Dépôt, the Sutton Holiday Home, and the Hospitals Tuberculosis Committee were decidedly encouraging. In commenting on the report, Lady Aberdeen stated that two new institutions, having for their object the prevention and suppression of tuberculosis, would soon be established in Dublin through the generosity of American friends. One of these, to be named the P. F. Collier Dispensary, had been provided for by Mr. R. J. Collier in memory of his father; the second would be used as a hospital for advanced cases of consumption. It would consist of a portion of the Isolation Buildings, Pigeon House Road, which the corporation had permitted to be thus utilized, and would be named the Arthur Ryan Hospital. Already attempts were being made to establish local sanatoriums in other parts of Ireland, notably in Carlow and Kilkenny, and the suggestion had been made that the Local Government Board should insist on every county providing a local consumption hospital in association with the county infirmaries.

After the various reports had been received, a number of important matters were discussed. Following upon a lecture by Professor T. Jones of Belfast on "The Need of Medical Inspection in Schools," a resolution to the effect that it is desirable that the system of medical inspection of school children now established in Great Britain should be extended to Ireland was carried, and later the association decided to petition the Irish universities in favour of the inclusion of domestic science in their curriculums on the same lines as have been adopted in King's College in connection with London University. Attention was also drawn to the danger arising from the law that ships taking out emigrants to America must bring them home free of charge if they develop consumption within three years. Evidence was advanced to prove that the return to Ireland of advanced tuberculous cases often led to extensive dissemination of the disease, and with a view to obtaining more accurate information on the subject, a request has been made to the Registrar-General to add to his returns a column showing when the cases of tuberculosis contracted the disease. The Association and its President are to be congratulated on their record of work done, and on the hopeful energy with which they continue to attack important health problems.

Examinations at University College, Cork.

The series of university examinations which took place during the first fortnight in April in University College, Cork, mark the beginning of a new era in university education in the south of Ireland. Hitherto students have had to travel to Dublin to stand their examination, but now they can be examined in Cork by the college professors in association with external examiners. The same external examiners who come to Cork have also co-operated with the professors in University College, Galway, and this uniform standard between the three colleges has been maintained. The external examiners—who are drawn from Ireland, England, and Scotland—expressed their entire satisfaction with the arrangements made for the examinations. The first ceremony of conferring of degrees will take place on May 11th, 1910, at University College, Cork.

Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

The late Dr. John Smith, Edinburgh.

The funeral of the late Dr. John Smith took place on April 20th, from the Parish Church of St. Andrew's, Edinburgh, in which he had been christened and of which he had been for years Senior Elder. There was a very large congregation of the medical, dental, and legal professions, and of the general public. Among the public bodies represented were the Royal Colleges of Physicians and Surgeons, the Royal Infirmary, the Royal Hospital for Sick Children, the Dental Hospital and School, the British Dental Association, the Odonto-Chirurgical Society, the Edinburgh Dental Students' Society, and the Kirk Session of St. Andrew's Parish Church. The Rev. George Christie and his Assistant conducted the service both in the church and at the grave. The pall-bearers were Dr. Smith's three sons, his two sons-in-law (Dr. Parker and Dr. Guy), his two old friends, Sir Henry Littlejohn and Dr. Claud Muirhead, and Mr. R. Liddle, who had been his butler for very many years. At the weekly meeting of the managers of the Edinburgh Royal Infirmary, on April 25th, a minute of appreciation of the late Dr. John Smith was unanimously adopted.

Medical Teaching in Aberdeen University.

An important question affecting the medical teaching in this university was raised at the meeting of the general council on April 16th by Professor McKendrick, convener of a subcommittee on the draft ordinance of the court relating to degrees in medicine. In submitting its report, he said that he recognized the very great ability and skill shown by the members of the Senate, Medical Faculty, and Court in framing the ordinance, and he had not the slightest hesitation in saying that, even with the modifications suggested, the ordinance would tend to the prosperity and

vancement of the medical school and prestige of university. A similar ordinance had been carried ough by the University of St. Andrews, and heard that the University of Glasgow was sily engaged on an ordinance very much on the ae lines. He had had no communication from inburgh, but he had no doubt they were engaged on same matter. One of the recommendations of subcommittee was designed to relieve the over-wding of the medical curriculum; the committee ommended that the subjects of botany, zoology, ysics, and chemistry be removed from the curri-um, and be passed at a preliminary scientific amination before the student began the study of dicine. The report, with the various alterations opted, was approved and sent to the University urt.

LABOUR COLONIES.

t is interesting to note that His Majesty's Inspector Constabulary for Scotland states in his annual port that it would seem advisable that further steps ould be taken to cope with the large number of mps, vagrants, and professional beggars. According the half-yearly census taken by the Scottish police June, 1908, there were 10,199 vagrants at large, 1,541 whom were children under the age of 14; and in ne, 1909, there were 10,474 vagrants, of whom 1,539 re children. A large proportion of these are enders who commit petty thefts and beg, and cause nsiderable damage by fires when they lie out about ckyards and outhouses at night. They might also a ready means of spreading small-pox and other fectious diseases. Isolated efforts by local authorities uld not succeed. If the matter were dealt with as national question and a scheme of labour colonies vised for the adults, with industrial schools for the ildren, the expense should not be great, if, indeed, the end it might not prove an economical measure, r there would be a large economy in prison and lice accounts. Great expense was now incurred in osecuting, escorting, and maintaining in prison fenders of these classes, and much of the constables' ne was occupied in watching and dealing with them. afers in towns, some of whom were continually in d out of poorhouses and often in prison for petty fences, might be included in the same category for e same treatment. The inspector's observations are keeping with the recommendation of the Royal mmission on the Poor Law, and are deserving of nsideration by the authorities.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

LONDON.

MEDICAL INSPECTION AND TREATMENT OF SCHOOL CHILDREN.

URTHER arrangements for the medical treatment of hool children in the outlying districts of the metro-lis came before the Education Committee of the ondon County Council on April 29th. The Wands-orth scheme, published in full in the SUPPLEMENT to ie BRITISH MEDICAL JOURNAL of April 2nd, p. 142, was pproved. It was pointed out that no provision had een made for the compilation of results in the case f this or of the Hampstead and Norwood schemes, nd the Chairman of the Committee promised to bring p a special report to the Council on the matter.

It was reported that the agreement with the ampstead Council of Social Welfare for the free eatment of children in that district for three onths came to an end in March, 167 children having eceived medical attention. An expression of thanks ad been conveyed to the Council of Social Welfare. will be remembered that treatment in Hampstead now being provided by the local medical men. The ubcommittee expressed no opinion upon the experi-ent now terminated.

A letter was received on March 3rd from the uthorities of the Royal Westminster Ophthalmic Hospital withdrawing the offer, accepted by the Council last July, to provide for one year treatment for 2,000 children free of charge. The scheme was begun in August, 1909. The governing body of the hospital expressed its willingness to consider any suggestion the Council might make. The Children's Care Committee understood that the hospital authorities would be prepared to continue treatment in return for financial aid. In view, however, of the proximity of the Royal Westminster Ophthalmic Hospital to Charing Cross Hospital, where provision had been made for 1,000 cases, and to the provision made at other neighbouring hospitals, the committee thought it would not be possible at present to ensure that sufficient cases would be available to justify entering into a financial agreement. The committee recommended that the authorities of the Royal Westminster Ophthalmic Hospital be thanked for their assistance, and informed that, in the event of additional accommodation being required, the Council would be glad to renew negotiations. This was approved.

The Children's Care Committee reported also the receipt of a letter, dated March 8th, from the British Medical Association, protesting against the arrangements made by the Council with the hospitals for medical treatment, and stating that the experience of medical practitioners showed the insufficiency of inquiries by hospital almoners to establish in all cases the ability or inability of parents to pay for treatment. The committee had informed the Association that the Council's method, before children were referred to hospitals, was that local care committees and head teachers should satisfy themselves that the cases were suitable for hospital treatment. There was therefore a double check against the abuse of hospitals.

The Education Committee decided to issue advertisements inviting applications to fill vacancies for twenty-four assistant school doctors. Hitherto it has been stated in the advertisements that promotions to the posts of school doctors would be made from among the assistant school doctors, but in order to preserve freedom of action the committee proposed to omit this statement. Under the scheme adopted in November, 1908, holders of appointments as school doctors or assistant school doctors are not eligible for re-appointment after three years' service.

At the meeting of the London County Council on April 26th Mr. Hayes Fisher, chairman of the Finance Committee, in introducing the annual estimates of income and expenditure, pointed to the cost of teachers' salaries, the feeding of necessitous children, and medical inspection and treatment as likely to bring about a continued rise of the education rate, which this year was 1s. 8¼d. in the £, an increase of ½d. In respect of medical inspection and treatment £21,000 had been included in the present estimates. Nothing had been included in respect of dental treatment; it must be expected to be an item in future estimates.

HOSPITAL QUESTION AT WIMBLEDON.

At the fortieth annual meeting of the Wimbledon Cottage Hospital subscribers held on April 24th, Mr. J. F. Schwann, Chairman of the Committee, said that the council of the South Wimbledon Institution had resolved to build a new hospital for twenty-four beds at The Rush, Merton, outside the borough, and still farther away from the middle of the town, while the North Wimbledon Committee had resolved to extend the hospital at Copse Hill. He greatly deplored the decision of the South Wimbledon Committee, and said he would have preferred that the funds and interests had been combined, and a large hospital built on the site at North Wimbledon, a receiving room only being kept up in South Wimbledon. He reviewed the negotiations, and said he had been strongly in favour of one hospital, but this was now out of the question. Dr. Bates, one of the committee, remarked that as Wimbledon was not a manufacturing town it did not matter whether the hospital was in the centre of the town or not, and he saw no reason for its being so situated, as most of the surgical cases were not emergency or accident cases.

MANCHESTER AND DISTRICT.

Medical Inspection of School Children in Salford.

At the end of March the Salford Education Authority received a letter from the Board of Education setting forth further requirements in regard to the medical inspection of school children, and stating that, pending the receipt of satisfactory proposals, the Board was not in a position to express satisfaction with the provision made for medical inspection. The subcommittee that deals with the subject reported that, in order to comply with even the present requirements, another part-time medical officer was necessary, while for the prospective requirements another whole-time medical officer would be needed. The subcommittee recommended that if the authority decided to do anything further, a whole-time medical officer should be appointed. A resolution was also passed that representations should be made to the Board of Education in regard to the large and increasing expenditure for education purposes, and stating that without assistance from imperial sources the committee could not see its way to meet the requirements of the Board. It was also decided that the representatives of the council on the Municipal Corporations Association and the Association of Education Authorities be requested to take steps to obtain some joint action on the subject. A member of the committee said that the committee had no objection to this work, though it was not distinctly educational. If the Board of Education made a grant it would want to interfere more, and it would be a great misfortune if the elementary education of the country was controlled by the London authority. The Mayor endorsed these remarks, and said that many additional charges were being imposed on the people at the impulse of the Government which were more national than local, and a medical member said that the work might be of interest to the statistical department of the Board of Education, but was of little interest to the parents of the children of the ratepayers.

According to the latest published report, the arrangements for medical inspection in Manchester for the year 1909 were as follows: The staff was to consist of a school medical officer, one woman assistant medical officer, three men assistant medical officers, each devoting full time to the work, together with one part-time medical officer specially engaged in infectious disease work. To assist these medical officers there were to be five school nurses, and it was calculated that about 18,000 children would have to be examined out of a total school population of 110,000.

In Salford there is a school medical officer, who is the medical officer of health, a whole time assistant medical officer, a part-time ophthalmic surgeon and two school nurses, and while about 25,000 scholars were inspected as whole schools, 1,761 were specially examined at the education offices. The Board of Education, however, said that the scheme for inspection in Salford did not comply with the code "inasmuch as it did not provide for medical examination of the obviously healthy, although it did provide for examination by trained nurses under medical inspection," and a new scheme was therefore submitted providing for medical examination of all children from 5 to 6 and from 12 to 13 years of age, as well as a general inspection of all the scholars.

Opticians and the Medical Profession.

The question of establishing a federation of optical societies in Great Britain, the ultimate aim being to secure a legal status for qualified opticians, was considered at a conference of representatives from eight organizations held at the Albion Hotel, Manchester, on April 20th. The following societies were represented: The National Association of Goldsmiths, the Optical Club, London; Manchester and North of England Optical Society, West Riding Optical Society, Scottish Optical Society, Glasgow Optical Association, Northern Counties Optical Society, and the Midland Optical Society. Mr. J. C. Kidd, President of the Manchester Society, who occupied the chair, said that the conference had been called to consider a resolution passed by the members of his society to the effect that in view of the unsatisfactory condition of the optical industry it was desirable some form of federation should be established between the various optical societies of Great Britain, the ultimate aim being to secure a legal status for qualified opticians. Mr. Kidd said that a more subtle enemy than a Medical Acts Amendment Bill had to be faced. He argued that malicious prosecutions were directly or indirectly instituted by medical practitioners against opticians for alleged unskilful treatment of cases. Unless opticians were prepared to unite and work together for a common purpose he was sure they would be subjected to a great deal of persecution in the future. They had only to consider the influence which was being exercised in the day schools and the hospitals to find how the medical profession were attacking them at every possible point. As it seemed hopeless to expect an amalgamation between the Worshipful Company of Spectacle Makers and the British Optical Association, the time had come for the different optical societies in the country to combine for the protection and advancement of the interests of opticians. It seemed to him absurd they should submit themselves for examination by the two bodies he had named without their having any legal recognition. Mr. Kidd concluded by moving a resolution to the effect that the societies represented by delegates at that conference were in favour of establishing a federated body of the members of the optical craft for the purpose of promoting and advancing their interests, and to secure or help to secure a legal status for British opticians.

Mr. T. S. Baird, President of the Glasgow Optical Society, seconded.

In the subsequent discussion Mr. T. W. Mason, of the Optical Club, expressed the opinion that if the opticians had a federation such as suggested, the medical profession would hesitate before attacking them; and if the societies were linked up he did not anticipate there would be much difficulty in their getting the same legal recognition that dentists now enjoyed.

Mr. E. Beaumont, Vice-President of the West Riding Optical Society, referring to the difficulty created by the rivalry between the Worshipful Company of Spectacle Makers and the British Optical Association, suggested that they should be dropped as examining bodies, and a new council formed to which the societies would send representatives according to membership, such council or central board to elect an examining body.

Mr. D. Buchanan, Past-President of the Scottish Optical Society, argued that the question of legislation could wait, as there were other things to be tackled first.

Mr. Baird felt sure that before a status worth having could be obtained a much higher examination was necessary than that set by the two examining bodies.

Eventually the resolution in an amended form, leaving out the reference to legal status, was adopted unanimously.

The conference next considered a draft constitution for the new federation prepared by the President and Honorary Secretary of the Manchester Society, and this was accepted as a basis to work upon. In order to allow the delegates to lay the draft constitution before the members of their respective societies the conference was adjourned.

WEST YORKSHIRE.

Waddilove's Samaritan Hospital for Women.

We have received the following letter:

Sir,—It seems proper that the profession should be informed à propos of your editorial (British Medical Journal, April 23rd, p. 1019) respecting this new women's hospital, that in-patients will be expected to pay for maintenance while in the hospital. The charges are to be at the rate of from 12s. 6d. to 42s. a week. These charges will not be sufficient to meet the

sts of maintenance, but Mr. Waddilove proposes to make up e deficit which, it is estimated, may amount to between £400 d £500 a year, and he further proposes to capitalize a sum ich at current rates of interest will suffice to meet the deficit en after Mr. Waddilove's own help can no longer be given. iss Waddilove and her father feel that the founding and dowing of this hospital is in the nature of a thank-offering r the prosperity which has come to Mr. Waddilove, and is so to some extent a recognition of the help which has come the Waddilove family through the medical profession. It did ot, therefore, occur to them that there could be any objection i the part of the medical profession to their founding id endowing this hospital. I was present at the opening, and intedly expressed the hope that the new institution would not nflict with the work of any other medical charity in the city Bradford (meaning mainly the noble Royal Infirmary), and at there would be no overlapping. In his speech, which llowed mine, Dr. J. J. Bell explained the views and intentions the donor, and detailed the information which I have already ven you as to how the expenses are to be met. From this ou will see that no subscriptions will be asked from the haritable public towards the maintenance of the hospital, and seems therefore somewhat gratuitous to suggest that any one hould have felt himself or herself called upon to consult the edical profession as to Mr. Waddilove's intentions. It was nd is a free gift on the part of Mr. and Miss Waddilove, con- icting with the interests of no known charity, and was and is rompted solely by their own heart and conscience, in the xercise of which no outsider could consider that he had any ight to interfere.

There is another important point to be considered in this natter, which was also brought out in Dr. Bell's speech. This vas to the effect that while the rich and well-to-do are able to elp themselves in the matter of medical help, and while the oor who are unable to pay for it are assisted by the medical harities of the city, and the very poor by the very efficient workhouse infirmary, the lower middle class have no provision made for them at all in Bradford. For that matter the interests of this class are not much considered throughout the country. There are many people who, though unable to pay the whole cost of operations and medical maintenance, still would like to contribute some part of these costs, and who, further, do not like to become inmates either of the Royal Infirmary or of the workhouse hospital; and it is to meet the wants of this large class that Mr. Waddilove's munificence takes shape. Further, and as if to prove to demonstration that so far from showing any desire to conflict with the interests of the existing medical charities, Mr. Waddilove is, on the contrary, most generously disposed towards them; he has, besides founding and endowing this new hospital, presented the handsome sum of £3,000 as a contribution towards the cost of the new Royal Infirmary which the Bradford citizens are in the act of supplying, and towards the cost of which they have already raised upwards of £70,000.

Your observation that only one medical officer has been appointed in connexion with the new hospital is not quite correct. Dr. Rowe has been appointed anaesthetist with a small honorarium, and Dr. Webb, a brilliant student of St. George's Hospital, has been appointed surgical registrar.

I am, yours faithfully,

Bradford, April 25th. A. RABAGLIATI.

BIRMINGHAM.

THE NURSING SERVICE OF THE FIRST SOUTHERN GENERAL HOSPITAL.

THE annual meeting of the General Committee of the Nursing Service (Territorial Force) of Warwickshire and Worcestershire, was held at the Council House, Birmingham, on April 20th, under the presidency of Lady Jane Carleton. The object of the Committee is to provide the nurses for the First Southern General Hospital. The Honorary Secretary, Lieutenant W. A. L. Holland, in reporting on the work of the Committee, stated that the establishment of a Ladies' Nursing Service Committee allowed in time of peace was 120, and the number required for duty on mobilization was 91. The principal matron, Miss Buckingham, reported that during the first year 115 ladies had been enrolled on the nursing staff, namely, 2 matrons, 24 sisters, and 89 nurses. The two matrons are Miss Musson, Matron of the General Hospital, Birmingham, and Miss Armour, Assistant Matron at the General Infirmary, Worcester.

The badges were presented to the nurses at the Council House, Birmingham, on the same day by the Marquis of Hertford, Lord Lieutenant of Warwickshire, who was received by a guard of honour composed of the Royal Army Medical Corps of the First Southern General Hospital, and of other local units, under the command of Major Sawyer. The Lord Mayor, who presided, explained that the nursing section of the Territorial Force for Warwickshire and Worcestershire was formed about eighteen months ago, when, thanks to the efforts and enthusiasm of the late Marchioness of Hertford, the movement was well taken up, and the full number of nurses enrolled.

The Marquis of Hertford, before presenting the badges, reminded them that the Queen was the President of the Nursing Association, and that when Her Majesty distributed the badges to the nurses in London she intimated that it was her wish that that act should be taken to represent the distribution to all the nurses throughout the country. The badges were then distributed to the principal matron, the two matrons of the hospital, and to about ninety sisters and nurses. Lady Jane Carleton proposed a vote of thanks to Lord Hertford on behalf of the Ladies' Committee of the Territorial Nursing Section.

Lieutenant-Colonel Jordan Lloyd, Administrator of the 1st Southern General Hospital, in seconding the vote of thanks, explained that the scheme of mobilization of the hospital was so complete that it could be called into existence as an active working machine in a very few days should occasion arise, and within a short distance of the centre of Birmingham a general hospital fully equipped and perfectly mobilized, containing 520 beds, would be ready. The medical staff would consist of well known physicians and surgeons, all of whom gave their services willingly, and were ready to do what was required of them at any time. The duties of the nurses would be very much on the same lines they were accustomed to in city hospitals, for not more than half the cases would be gunshot and sword wounds.

Miss Haldane, in proposing a vote of thanks to the Lord Mayor, said that the Territorial Army could not be complete without a most efficient medical service. There was the field ambulance in front, and as the sick and wounded were taken to the rear the Red Cross organization came in to convey them down to the base. But when they got there they must have thoroughly good and efficient hospitals ready for mobilization. Miss Buckingham seconded the resolution, and spoke of the good progress the nursing service had been making.

All the nurses and guests were entertained at tea by the Lord Mayor and Lady Mayoress.

Sydney.

[*FROM OUR SPECIAL CORRESPONDENT.*]

NEW SOUTH WALES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

THE annual meeting of the New South Wales Branch of the British Medical Association was held on March 18th. The report of the council, which was taken as read, recorded another very satisfactory year's work. The number of new members elected was 110; five members died. Good progress is being made with the new premises for the association, and it is expected that the building will be ready for opening about September next. The retiring president, Dr. H. C. Hinder, in his presidential address, after dealing with some of the general business which had occupied the attention of the Branch during 1909, proceeded to give a short review of some of the more important advances made in surgery during the past year. He instanced the newer method of treating septic peritonitis by rectal irrigation only to condemn it as a universal cure for this disease. He reviewed his own experience in operations for appendicitis and gall bladder disease, and concluded by giving it as his experience that a great deal can be done in cases of surgical tuberculosis by rest in bed with the usual

adjuncts of good food and fresh air. A vote of thanks for his address was passed with acclamation, and the President then announced the election of Dr. J. A. Dick as the new President and Dr. H. L. Maitland as Vice-President. Dr. F. P. Sandes was elected the Representative of the Branch at the Annual Representative Meeting in London next July.

THE SANATORIUM TREATMENT OF CONSUMPTION.

The annual meeting of subscribers to the Queen Victoria Homes for Consumptives was held last week. The annual report stated that at Thirlmere—the home for female consumptives—91 patients had been admitted and 91 discharged during the year. The average number of beds occupied daily was 46. The ages of the patients ranged from 9 to 50 years, and 70 per cent. were between 20 and 40. In 40 cases the disease was arrested, 25 were much improved, 10 were unimproved, and 1 had died. At the King's Tableland Sanatorium for male cases there were admitted 119 patients and 122 were discharged. The average number of beds occupied daily was 46.3. The total number of patients under treatment since the opening of the institution in 1903 was 642. Of the 119 cases admitted this year, 97 came from Sydney and suburbs; the occupations of patients showed, as in previous years, an excess of indoor workers. Of those who had been employed wholly in outdoor pursuits, more than one-fourth had been engaged in dusty occupations. The general results of treatment were that 101 were improved and 17 unimproved. The average residence during the treatment of all cases was 142 days; in 39 arrested cases it was thirty-nine days. Nine ex-patients were admited for a second course of treatment after having left the sanatorium for periods varying from one to four years. Five deaths occurred during the year, 3 from advanced tuberculosis and 2 from cardiac disease. The treatment had been continued on the same lines as in previous years, increased use being made of manual labour as a curative agent in suitable cases. It is regretted that many patients had to return to unhygienic surroundings and unsuitable occupations on their discharge from the sanatorium, and the difficulties of the discharged patients were increased by the prejudice existing against the employment of and association with consumptives. The need of an after-care association was again insisted on. The financial aspect of the report was not satisfactory. The receipts showed donations and subscriptions £2,228 13s. 7d.; bed endowments £3,950; subscriptions, £636 17s. 2d.; Government grant for buildings, £2,000; Government subsidy, £1,000. The expenditure included improvements at Thirlmere, £345, and improvements at King's Tableland, £1,157. The Chairman, in moving the adoption of the report and balance sheet, said that the subscriptions and donations had fallen off by £250, and there was a deficiency of £1,580 on the year's working. The Government at present only gave 10s. in the £, and it was intended to approach the Government in the hope of getting an increased subsidy. The Queen Victoria Homes are the only institutions for the open-air treatment of consumption supported by voluntary contributions in the State, and it is a matter for regret, therefore, that more confidence is not reposed in the good work which is being done at these places. The only institution at present in existence for the treatment of advanced cases of consumption in women is the old women's asylum at Newington, but owing to the active interest of Lady Dudley, wife of the Governor-General, and some others, the New South Wales Government has been induced to vote £10,000 for the erection of an additional wing at the Hospital for Consumptives at Waterfall, for female cases. Although this hospital is erected not very far from the sea-coast, on the South Coast Railway line, results thus far obtained in the treatment of the male cases have been very good, especially as the hospital is intended only for advanced and so-called incurable cases.

INFANTILE MORTALITY.

The report presented to the annual meeting of the Royal Alexandra Hospital for Children showed that 13,426 new patients had been treated in the out-patient department, a very large proportion of which were cases of gastro-enteritis. During the months of November, December, and January last it was shown that there were 120 cases of this disease in the wards of whom 44 died, 70 were discharged—34 cured, 22 relieved, and 14 unrelieved. Of the 44 deaths 11 died within twenty-four hours of admission to hospital. These figures are lower than for last year, yet they are sufficiently high to arrest attention. Beside the Children's Hospital, the Department of Public Health—under the direction of Dr. W. G. Armstrong, the City Health Officer—has taken a hand in the task of instructing mothers in the treatment of their infants, especially as regards their feeding. On application mothers can procure a pamphlet taken from the publications of the Lady Talbot Milk Institute in Victoria on the subject of how to take care of their babies during the summer months. This pamphlet deals with the necessity of cleanliness in the home, especially of all vessels in which milk is placed and kept, the best methods of feeding, and the necessity for regularity and punctuality in the administration of food. A woman inspector is employed to visit the homes of women who have been recently confined, and to urge upon the mothers the importance of feeding their infants at the breast.

Special Correspondence.

PARIS.

Pharmaceutical Assistance: The Hospitalization of Assisted Persons: The Extension of Official Medical Practice.

IN my last letter I stated the broad features of the organization of medical assistance in France. I did not pretend to make it a finished picture; I sought merely to provide a general notion, for, if I am to attempt sometimes to explain to British medical men the conditions of medical life in France, it is essential that they should understand the warp upon which it is woven. May I now add a few more lines to the sketch I then gave? for I did not mention the pharmaceutical assistance, which is a necessary complement of medical assistance. Whether drugs are supplied by pharmacists, or, as happens in many country practices owing to the absence of pharmacists, by the doctors themselves, they are paid for by the departments at a reduced rate, equal to about one-third of the usual tariff. The doctor marks his visit to an assisted patient upon a special printed form, notes that he ordered medicine, and leaves a prescription which the pharmacist is required to preserve and attach to the report he sends at the end of the year to a special departmental commission charged with the duty of checking the details.

Neither did I say anything in my previous letter about the hospitalization of assisted persons. The cost of hospitalization falls upon the communes; it is a nightmare for the municipalities, and the fear of seeing their budgets burdened with this expense is one of the reasons which makes them so averse to drawing up really correct lists of persons entitled to assistance. Nearly every canton in France possesses a hospital, generally a very ancient institution endowed by the gifts and legacies of charitable persons. The hospitals thus have at their disposal certain revenues of their own, and usually reserve on an average about twenty beds for the inhabitants of the locality. The State in utilizing them for the reception of assisted persons could not in justice impose on them a heavy charge for gratuitous service, and this is a reason why not many assisted patients are sent to hospitals, and why of those who are, most are surgical cases. The admission of an assisted patient to a hospital is ordered by the doctor, who gives a certificate stating the nature of the illness and the reasons which render proper treatment at home impossible. The arrangements for admission are made under the superintendence of the mayor of the commune. In the hospital the patient is treated by the doctor specially attached to the institution, who receives from the administrative committee an

lusive salary which is not augmented on account of se assisted patients.

f a difficult operation, or if treatment by a specialist be essary, the patient may be admitted into one of the spitals of Paris, the requisition being addressed to the cretary-General of the Assistance Publique. This, how-er, is not very often done, and, owing to the over-wding of the Paris hospitals, involves a long and nplicated administrative procedure; owing to the centralization of surgery it is becoming less and less cessary.

I have now given a short summary account of one of e public services, perhaps the most important, recently posed upon the medical profession in France. It is ry far indeed from being the only fresh duty so imposed on us. The medical profession from a social point of ew is experiencing a tendency, more and more pro-unced, towards its conversion into an army of function-ies. At every turn the State is demanding some new lp from us, and by that I mean not only that it gages some of us in its service for special duties, as, for stance the *médecins légistes*, but that it is setting each ctor within the area over which his private practice tends to do on its account sanitary work, the scope of hich is constantly being extended. Whether we will or t, our relations with the public administration are ultiplying; this is no doubt in conformity with the end of social evolution; nothing so nearly touches human terests as sickness; while, on the one hand, pain ex-ggerates the egotism of the individual, on the other sease spreads to other persons by contagion or through eredity. There is, therefore, no State service for which here is a better justification than for a medical service.

The first public utilization of medicine by the State was o help justice in the discovery of crime. The beginnings f this call upon the services of medicine are lost in the ists of time; during the last century there has been dded to it the duty of certifying mental irresponsibility. ut, as I have already said, medical jurisprudence de-ands the services of only a limited number of prac-itioners, chosen on the ground of their special claims or raining. A second administrative service was instituted y the law of December 23rd, 1874, which provided for he supervision of children under 2 years of age who are eing brought up by nurses elsewhere than in the parents' ouse. This law has involved the employment of about alf the doctors in France. Districts were marked out in elation to the usual areas of practices, and the duty of in-pecting the children was assigned to the doctor of the listrict, or, where there was more than one, to a doctor hosen by the *préfet*, usually upon the recommendation f his predecessor and not on account of any special quali-ication. To this duty was afterwards added that of the supervision and care of infants abandoned by their parents nd placed by the departmental administration in the care f selected individuals. A new law regulating medical ssistance was passed in 1893, and about 1896 its applica-ion became general; every doctor without exception is oncerned in its administration.

It will be observed that there has been a steady progress towards the conversion of doctors into State servants. Nowadays during almost every session new duties are imposed, or proposed to be imposed on the medical profession for the convenience of the commune, the department, or the State. Thus in 1902 vaccination and revaccination against small pox was made compulsory and free; at about the same time compulsory notification of infectious and epidemic disease to the *préfets* was in-stituted. In 1905 free consultations for nurses and mothers were instituted. It is true that this service is as yet imperfect and permissive, but we are invited to hold meetings every month in the *mairies* to which the mothers and nurses are asked to bring their infants for inspection.

Now the sanitary inspection of schools is being organ-ized; it was ordered to be carried out by a law passed in 1886, but its application has been delayed for twenty-four years owing to deficits in the budget. But M. Doumergue, the present Minister of Public Instruction, now proposes to put the law into force.

It may safely be estimated that at the present time an ordinary practitioner must give up one-tenth of his time to the service of public authorities in return for remuneration which is not equal to one-fiftieth of his total earnings. Masses of papers accumulate in his pigeon-holes, for every official duty involves reports, statements, memorandums, and circulars without number, adding to his scientific and professional cares the tedious duties of an office clerk.

To sum up, the medical profession during the last thirty years has been saddled with a new client, the State, which demands much, but up to the present pays hardly anything; a client which has complicated our accounts without adding to our incomes; and a client in dealing with whom it is always necessary vigorously to defend our own interests. Nevertheless, the State is a client we shall be happy to serve for the sake of the public good, if, some day or other, it will consent, without diminishing our independence too much, to recognize our services at their real value.

Correspondence.

SICKNESS AND INVALIDITY INSURANCE.

SIR,—As you point out in your most important article under this heading in last week's JOURNAL, p. 1007, this question will no doubt very shortly be placed amongst the items of practical and urgent politics by whatever Government will be returned to power. That Government will be bound to look to some large organization not only for the elaboration of a scheme but also for its being subsequently carried into effect.

Can our Association create under its auspices a suitable insurance company and so make a bid for the work? If it does not, one or another friendly society will do so and thus further exploit our services for attendance on the whole of the adult working classes. Farewell then to private medical practice on all with £160 or less per annum.

Presuming the medical profession prefers to be under the control of a medical association, there follow two alternative plans for dealing with the premiums received; and here comes by far the most important medico-political question with which the British medical profession has ever been faced.

One plan would be that by which the premium for insuring a working man, entitling him to command all professional services at any time day or night without any further cost, would be paid to a local doctor.

A second plan would be that in which the premiums would be pooled and the doctor would receive remuneration only for actual work done, item by item, there being some deterrent to prevent collusion or abuse.

The first plan would seem to confirm the position of the profession as slaves; the second suggests the recovery of its freedom.

A wrong step at this juncture might prove to be irretrievable and to spell disaster to the rank and file of the profession for all time.

We must be prepared with a scheme before the Government asks for one, so a full discussion in the JOURNAL of the subject is bound to be of the greatest assistance to all of us.—I am, etc.,

London, S.W., April 25th. E. ROWLAND FOTHERGILL.

THE TEETH OF SCHOOL CHILDREN.

SIR,—May I point to certain facts as they appeared to me during the examinations I have been conducting now for many years?

If we would classify the children that attend elementary schools, in regard to the prevalence of caries, we should find first a number of them, fortunately not very many, who are grossly neglected, and who often come under the supervision of the Society for the Prevention of Cruelty to Children. These children have, as a rule, very foul mouths and almost hopelessly decayed teeth.

There is another pitiful number of mentally ill-developed children who stagnate in the lower standards throughout their school career, and who often exhibit striking irregularities in the structure of their jaws and the arrangements of their teeth, and should be better provided in a home apart from the ordinary boys and girls.

Both these classes urgently need dental treatment, but this is outweighed by their more insistent necessities.

At the other extreme we have the children of better-to-do parents, who suffer, perhaps, from an excess of care. They are kept exceedingly clean, tended with considerable anxiety, possess charming manners, so that the process of mastication is not actively executed, and, being given delicate foods, suffer greatly from decay, though their mouths are not foul. These scholars badly require the attention of the dentist, but their parents generally procure those services at their own expense.

Between these smaller categories come the large majority of working and middle class scholars, the bulk, in fact, of our juvenile population. They are kept fairly clean, are much in the open air, given nourishing and not over-refined food, and are not ashamed to show that they enjoy it by a vigorous mastication. As a consequence their teeth are often exceedingly good in quality, with ample space for them in the jaws. But they are for the greater part ignorant of the hygienic necessity of cleansing the mouth, only very rarely have a toothbrush or use a toothpick, and so where there is stagnation of the food débris, as in the crevices and pockets of molars and contiguous incisors, decay soon commences. They only seek dental attention when the pain of an irritated nerve or the unsightliness of an alveolar abscess has driven them to have the offending tooth extracted. They form the bulk of our rejected recruits owing to deficiency and inadequacy of dental organs. It is also a common cause of inefficiency in civil life.

It is clear that any nation which aims at enlightenment by introducing compulsory education should do something to lift the mists of ignorance that surround so simple a subject as the care of the children's teeth, one, too, which lies nearer to their interest and can be begun earlier than the three R's. A very young child can be taught to use a toothbrush intelligently, but there is no provision made to urge its use.

Nor would it tax the resources of the nation unduly to step in at the proper time and perhaps by a simple stopping keep up the efficiency and prevent the suffering that is sure to ensue from neglect. In a vast number of cases we can tell exactly the right time to interfere.

It is scarcely a valid objection to say that because an abscess in the alveolar process of the jaw is not so serious as, say, one in the femur, therefore it need not be prevented. It would rather be a reason for preventing it. For, whereas the result of the successful treatment of a femoral abscess is often a saving of wreckage, in the case of the timely attention to the teeth of school children we are certain of obtaining more efficient citizens.

Moreover, once the ignorance is dispelled, many of the independent working classes, when trade is prosperous, would avail themselves of the services of the private practitioner, and the dentist's art would be much more sought after than it is at present.—I am, etc.,

Manchester, April 26th. B. SAUL, M.R.C.S., D.P.H.

THE LONDON POLICE AND QUACKS.

SIR,—With reference to the note under the above heading (p. 1011), you may perhaps allow me to recall the fact that by a case tried before Mr. Justice Lawrance at the Lewes Assizes in November, 1906, it was clearly proved that the great majority of quack medicine vendors could be brought within reach of the law for obtaining money under false pretences. The prosecution was taken up by the Treasury after the first action of the police. The judge in passing sentence of three months' imprisonment with hard labour said he looked upon it as a sort of test case, and he wished the Treasury every success in taking up cases of the kind. "A great and good work would be done by stopping the sale of quack medicines." Not a single prosecution of the same kind has since taken place.

The explanation is not very difficult. There exists no public prosecutor charged with enforcement of the law in this direction, and the constitution of the police renders it very difficult for them to take action. It is only in the metropolitan district, not including the City, that the police is under the Home Office; everywhere else throughout the country it is virtually under the sole control of local authorities. The authorities are called upon to take samples and exercise vigilance under the Food and Drugs Act and the Merchandise Marks Acts, but are not called upon or instructed to take any notice of quack medicines. A tradesman may be fined or sent to prison for selling cigars with a false label, or for passing off margarine for butter. But he may take the grease out of which margarine is made and sell it as an infallible cure for every external disease, including cancer, and he may press the sale by lying advertisements, the most blatant false pretences, without danger of interference by the police or other public authority.

The laws need amendment, but this will never be brought about until the fraudulent, cruel, and murderous character of the quack medicine trade has been demonstrated incontrovertibly before an authoritative tribunal—a very easy task. You have allowed me to point out on several occasions that no help is to be expected from the newspaper press as a body. The great majority of newspapers are knowingly deriving enormous incomes from quack advertisements; they cannot denounce quackery without grotesquely stultifying themselves, and they cannot, or they will not, publish matter of any kind likely to offend their nefarious customers. During the last session the Home Secretary in the House of Commons stated that he was in favour of the appointment of a Select Committee on "patent" medicines. This marks a step in advance in the way of Government enlightenment on the question, and makes more hopeful the prospect of a Royal Commission to inquire into the whole subject. The traffic in nostrums, cures, and bogus apparatus is being made more and more a cloak for practice by unqualified and ignorant pretenders, and any public inquiry which did not include it must prove largely futile. If the Association cares to take up the matter earnestly it can, I am certain, obtain full inquiry in one form or another. It can be proved that quackery, by injuring the public health, forms a source of gain to the profession which cannot be justly charged with sordid motives. But I would urge it is the duty of the profession for the sake of humanity, and even in spite of misrepresentation and calumny, to force this question to the front, to prove its case, and leave upon statesmen and the Legislature the responsibility for the evils laid bare. The political influence of the profession is deplorably small, but if concentrated in the Association, which is able to speak in the name of 20,000 members, it is capable at least of achieving the essential preliminary step I advocate.—I am, etc.,

Earlswood Common, Surrey, April 23rd. HENRY SEWILL.

CANCER OF THE RECTUM.

SIR,—Having regard to the recent work done in the operative field of rectal carcinoma, it seems a most desirable thing that the correspondence on this serious subject should be continued. I am the more persuaded of this after reading Mr. Bruce Clarke's letter (p. 1023). In the second paragraph he expresses surprise that Mr. Swain should institute a comparison between removal of rectal carcinoma by the lower pelvic route and the abdomino-perineal, and goes on to say:

> In reality there is no comparison between them. It is obvious that every surgeon would prefer to remove those growths that are well within reach by the lower pelvic aperture.

This is the particular point which I am sure needs to be at present thoroughly discussed. In the November number, 1909, of *Surgery, Gynaecology, and Obstetrics*, Dr. William C. Lusk of New York City discusses this very question in a most admirable and exhaustive paper, entitled, A Technique of Resection of the Male Rectum, in which the abdominal route is particularly recommended for low-lying rectal carcinoma. It is a paper which every one who has to operate on these cases will do well to read carefully, and I am sure that much profit will be gained by so doing.

Another most interesting communication recently published in connexion with this important subject is the second Hunterian Lecture on "The Surgery of the Lymphatic System," by W. Sampson Handley. On page 927 of the BRITISH MEDICAL JOURNAL of April 16th, where this lecture is reported, the paragraph headed "Cancer Surgery as a Branch of Lymphatic Surgery" should be carefully read in connexion with Dr. Lusk's paper, and especial attention should be paid to Mr. Handley's admirable coloured plate demonstrating by the mucicarmine method the permeation of the mucous lymphatic plexus in rectal carcinoma.

ıe operation which I have hitherto most frequently
has been either the ano-sacral or ano-coccygeal
hod as described in my *Surgery of the Rectum*, which
r preferable to any attempt at excision with union of
bowel ends. Yet even here, after the removal of six,
t, or more inches of the bowel, I have been disap-
ted by the reappearance of the growth in the brought
n bowel, and on studying Handley's plate I wonder
such a possibility had not occurred to me.

these growths are attacked by the abdominal route,
the main points of Lusk's technique (I do not say all)
observed, a much greater length of bowel can be
ved and carefully examined at the time of operation
e whether any cancer cells are left in the lymphatic
es as demonstrated by Handley, and the free end of
bowel can then be brought to the anus, or a further
on can be removed, and an iliac anus established
rding to what the microscope reveals, and dependent
hether the sphincters are or are not involved.

ıave this week seen a case operated on by another
eon a year ago, and typical of the form of recurrence
hich I am referring. The immediate result of the
ation appears to have been admirable, but the patient
a recurrence at the lower end of the brought down
el, which seems limited to the mucous membrane and
nds up for more than 2 in. There is every probability
the cancer cells extend much further still in the
phatic planes, and it seems to me that the one chance
patient has is to remove this recurrence, although it
ose to the anus, by the abdominal route. And this
pose to do.

andley's coloured plate is a revelation to me. With
practical fact before one and with the practical
nique which Lusk has so carefully worked out, I cannot
thinking that there is a great deal to be said for the
minal operation in *all* forms of removable rectal
inoma, whether situated high up or low down, and
n one takes one's memory back to many disappointing
rrences, one cannot help wishing that this method had
ı sooner adopted.

feel sure that a great stride forward has been made
ıe operative treatment in this form of cancer by the
of the work published by the two surgeons I have
tioned.—I am, etc.,

adon, W., April 23rd. FRED. C. WALLIS.

FAECAL VOMITING DURING ANAESTHESIA.

R,—In his valuable communication in the BRITISH
ICAL JOURNAL of April 23rd, Dr. Dudley Buxton has
self alluded to one formidable objection to the course
ecommends. I refer to the fact that in the cases of
ruction with which he is dealing the condition of the
ent is already perilous, and that therefore anything
ch prolongs the anaesthetic and the operation is to be
ded if possible. My object in writing is to emphasize
opinion that we can obviate the dangers so well
ted out by Dr. Buxton by simpler measures than
e he recommends, and without any addition to the
nt of operation or of time expended. No doubt Dr.
ton is perfectly familiar with the steps to which I am
g to allude, but I am certain that they are often taken
ıout due attention to detail, and that with this atten-
they are perfectly efficient in abolishing the risk of
ılation of vomited material.

he essential points are: (1) A position of head and neck
w the level of the abdomen; (2) a considerable raising
thick cushion or sandbag of one shoulder and side of
t; (3) a continuously well-opened mouth, with the head
ıed away from the raised shoulder. If these points are
pletely attended to it is, I believe, a physical impossibility
material, even the thin black quietly expelled vomit of
-standing acute obstruction, to enter the air passages.
slightly sideways position given to the abdomen by
e arrangements is, no doubt, not perfectly convenient
the surgeon. It loads him, however, with much less
ıble than that required by the tracheotomy, passage of
nach tube, and careful packing called for by Dr.
ton's suggested method. Moreover, the latter proposal
ns to me to necessitate, as Dr. Buxton suggests, a
per degree of anaesthesia than need be maintained
h the arrangements I recommend. This very deep
esthesia would be necessitated, I think, by the con-
ıed presence of the stomach tube. To what extent the close proximity of a tube in the trachea and one in the oesophagus might cause irritation and trouble from coughing or straining I do not know, but I think here also would be another call for very deep anaesthesia, which it is obviously an advantage to avoid if possible in patients already in a condition of collapse or at least of advanced acute illness. I believe the proper cleansing of the mouth and pharynx after these operations, as a preventive of septic pneumonia, is not usually sufficiently attended to, and allusion to this point is another feature of Dr. Buxton's communication for which I venture to thank him.—I am, etc.,

London, W., April 25th. J. BLUMFELD.

BORIC ACID AND APPENDICITIS.

SIR,—One of the modern puzzles of medicine has been the enormous increase in the frequency of appendicitis. Various suggestions have been made to account for this.

Though, in his very interesting paper on "A New Aspect of the Effects of Boric Acid as a Food Preservative," in the JOURNAL of April 16th, Dr. Bernstein does not suggest such a relationship, yet it appears to me that his observations suggest a more likely cause than has yet been pointed out. He shows that boric acid "prevents objective decomposition, such as is detectable by smell"; that "if objective putrefaction has commenced it inhibits further changes of this kind, possibly leading to a diminution in the smell"; and that it "has a marked selective activity on the various organisms, inhibiting the growth . . . of the *Proteus* group and possibly other harmless saprophytes, though not the organisms of the *coli* group."

It is thus obvious, as he points out, that stale meat may be rendered usable for such purposes as making sausages, notwithstanding that organisms of the *coli* group have obtained access to it, and had "several days to grow; and, what is more important," to grow "unhindered by the prolific saprophytes."

Thus it is quite possible for us to ingest in such foods, especially if imperfectly cooked, a more than ordinarily active type of *B. coli*. Milk, to which boric acid is so often added as a preservative, and which is so often consumed raw, would obviously be especially dangerous.

Such a virulent culture, when it enters the little canal of the appendix and finds a halting-place there, would soon set up that violent inflammation of this small organ which goes by the name of "appendicitis," and which has led to so many dire results.—I am, etc.,

Exeter, April 25th. RUSSELL COOMBE.

MINER'S NYSTAGMUS.

SIR,—During seventeen years' colliery practice in Glamorganshire the miners in my care—about 1,000—were as nearly as possible equally divided between "naked light" and "safety lamp." The former worked in the more superficial seams, averaging 2 ft. 6 in. in thickness, and the latter in the deeper or steam coal seams, averaging 4 ft 6 in. in thickness.

The working posture of hewing coal in the former was generally horizontal, and in the latter nearly always vertical. The coal in the steam coal or safety-lamp seams, owing to the squeeze or top pressure, was usually mined with less arduous labour than the naked-light seams.

The naked light gave illumination so much better than the safety lamp that an extra 2d. on the ton was granted for working with the latter whenever a change of illuminant was ordered on account of the presence of gas. There was very little shadow with the candle, but much and complicated with the safety lamp, especially the more modern.

Nystagmus was practically absent amongst the naked-light workmen, but common, especially after influenza and in alcoholics, amongst the safety-lamp men; and the subjects of this disease were generally ordered to work in naked-light seams in slight attacks, or in the open air if the attack was severe. This treatment was generally successful.

The above would be the experience of all the colliery surgeons whom I know.

Miners of long experience in naked-light seams have

told me that they had never heard of the disease excepting amongst those who worked with the safety lamp.—I am, etc,

Brynmawr, Breconshire, April 25th. J. L. THOMAS.

THE MEDICAL SERVICE OF THE TERRITORIAL FORCE.

SIR,—Both "Fair Play" and "Fair Play Secundus" have real financial grievances against the present anaemic Treasury; still I am certain "Fair Play Secundus" does not improve the chances of the corps by belittling "Fair Play's" claim. I have no hesitation in stating that it was the lack of cohesion and *esprit de corps* that retarded the just demands of the old Volunteer Medical Service.

The following points worth noticing occur in the letters of the last two weeks.

1. I much question if the work of the A.M.O. is to a large extent handed over to his staff officer. Personally, I know that replying to the daily correspondence, indexing, copying drafts of letters and circulars take both myself and the staff officer several hours daily. We have to do this amount of clerking, because the annual allowance for rent, typing, stamps, and extra clerical assistance is the very inadequate sum of £20, whilst that for a brigade is £45.

2. As to the size of the command—a mounted ambulance, three field ambulances, a sanitary company, and two general hospitals has an establishment of 998; add the water purifiers and a total of considerably over 1,000 is reached. Each unit requires considerable clerical attention, nearly as much as a battalion.

3. Regulations and certainly experience proves "Fair Play" is right and "Fair Play Secundus" wrong as to the appointing of medical officers to combatant units. Paragraph 20 states the County Associations forward A.F. E 536 to the Secretary of State for War, but then the A.M.O. has to attach the officer to a combatant unit.

4. I question the statement as to examinations—namely, "Subject, of course, to formal consent of A.M.O." Let me take seriatim the points "Fair Play Secundus" raises: (*a*) When candidates are ready the A.M.O. forms a board; after this board has met, examined, and reported, it is the duty of the A.M.O. to critically go through the papers and satisfy himself that he is convinced no one has been over or under marked, and so can honestly confirm the report of the board. That alone takes hours, but by doing this the A.M.O. gets an intimate knowledge of the mental power of the N.C.O.'s. (*b*) Then the successful candidates have to be entered in the divisional records and published in the divisional corps orders.

Perhaps "Fair Play Secundus" does not realize that the A.M.O. of his division is to be a reality—is in a position similar to that of the officer in charge of records of a corps; that the keeping of these records, distribution of corps numbers, general administration, and supervision over the units under his command not only means labour but expense, and yet has no allowance for his daily journey to and from the office.

5. I fail to follow "Fair Play Secundus" in his statement: "The arrangements for attendance at camp O.C.'s medical units again know to their sorrow that the A.M.O. is not unfortunately able to help them in this very heavy task." The G.O.C. decides where the medical units will camp; the A.M.O. draws up a scheme for their training. Surely the interior economy of the unit lies with the O.C., who has nine officers to help him—that is, one officer to twenty-five men.

6. I quite agree with "Fair Play Secundus" that the financial grant is insufficient for efficiency; but I think he would have acted more wisely by adopting the tactics of Oliver Twist and persistently asked for more, instead of advocating his claims by the disparagement of the A.M.O. "Fair Play Secundus," should he become A.M.O., will quickly realize this position may cause him to put his hand into his pocket for more than one unit.

All "Fair Play" asks for is that the A.M.O. and his staff officer should be treated on the same lines as other officers of similar rank and doing similar duties are. As there are only fourteen A.M.O.s at the most, the additional allowance to pay now issued would be under £1,500, and this would satisfy A.M.O.s and their staff officers.—I am, etc.,

Friars House, E.C., April 25th. P. B. GILES.

SIR,—Your correspondent, who writes under the misleading pseudonym of "Fair Play Secundus," can have only a very erroneous idea of the work devolving upon an A.M.O. of a large country division.

This is rather understated than otherwise by your correspondent "Fair Play'" in the JOURNAL of April 16th. I do not know who the writer is, but his concise and clear description is perfectly correct, and, to save recapitulation, I would ask any reader who has not seen it to refer to his letter.

The idea of comparing the units administered by the A.M.O. with an infantry battalion is enough to show the utter unfairness or ignorance of the first-named writer. The medical units under an A.M.O. of a divisional area are as many as eight, scattered, it may be, over six or more counties, and many of these units have several out-stations. They are highly technical and varied in their requirements—for example, the training of the bearer, tent (nursing), and transport sections, of cavalry and infantry field ambulances, and of all the different branches of general hospital staff. The personnel includes in rank and file more men than an infantry battalion, besides some hundreds of nurses. But it is impossible to compare such different bodies by mere numbers. The contrast becomes most marked when we come to officers.

An A.M.O. has to deal with from 100 to 150 medical officers and from 40 to 100 *à la suite* medical officers. In my own case I have had personal correspondence with nearly all of these, in many cases a lot of it. The appointment of all these gentlemen passes through the A.M.O.'s hands, and is mainly carried out by him—not by the C.O. of the combatant unit as stated by "Fair Play Secundus."

The correspondence of the A.M.O. is enormous. Postages alone, in my own case, have cost more than the ridiculously small grant of £20 allowed for my office. This, although we practise strictest economy by delivering by hand whenever possible, by keeping back communications till several can go for one stamp, etc.

Yet this is the unpaid work so little appreciated that even one of our own officers can write the letter of "Fair Play Secundus"! It is to be hoped that before he attains the rank of A.M.O. the overworked and ill-appreciated pioneers of the appointment may have succeeded in getting straw to make their bricks, and that his junior officers may have a truer sense of what is due to their seniors and to our corps.—I am, etc.,

April 26th. A.M.O.

SIR,—In reference to "Fair Play's" letter in the JOURNAL of April 16th, the Adjutant R.A.M.C. of the School of Instruction of the Welsh Division does not act as adjutant for the medical units of the division. His duties are solely in connexion with the school of instruction. In my opinion, neither has this adjutant nor have the three sergeant-instructors attached to the school enough work to do.—I am, etc.,

WILLIAM SHEEN, Lieutenant-Colonel, R.A.M.C.(T.),
Officer Commanding R.A.M.C.(T.) School of Instruction, Welsh Division, Territorial Force, and 2nd Welsh Field Ambulance, R.A.M.C.(T.).

Cardiff, April 20th.

CONSULTANT, GENERAL PRACTITIONER, OR HALF-AND-HALF?

SIR,—Unless care is taken, this correspondence is likely to do more harm than good to "amicable professional relationship." As I said in my first letter, there are two sides to the question raised by "Enquirer's" original letter, and if this fact were recognized some good might be done, but to infer that the main body of consultants, whom "Professional Unity" may incorrectly call "half-and-half's" if he pleases, have no sense of ethical honour, or to ask such a question as "Is it because your visits to another man's patient would be easily observed by the other man, to the detriment of your reputation as a consultant, while the other man's patient's visits to you are not likely to be recognized?" shows how little the real situation is comprehended, and is likely to lead to greater friction.

I have already emphasized the fact that under no circumstances can a consultant undertake the independent treatment of a patient for any complaint which at the time is being treated by another man. Consequently

am not concerned with "General Practitioner's" "half-d-half fraternity who try to excuse their breach of the ical rule by the suggestion that they are acting in the erests of the patient." I simply maintain that any con-tant or specialist has the right to see and treat any ree" patient who consults him, and in many instances, ing to the present attitude of the general practitioner, is in the best interests of the patient for him to do so dependently. Of course very much depends upon the ture of the case. For instance, the majority of cases ich come to a consulting physician are of such a nature at the consultant must have the co-operation of the neral practitioner. In surgery and gynaecology a lesser mber come under this head. In the various specialities, ch as eyes, ears, nose and throat, skins, etc., it is absurd say that in the majority of cases the patient must not seen or treated when unaccompanied by his family ctor. In all cases where it is advisable and practicable, e further treatment can be and is carried out by the neral practitioner. General practitioners in many in-nces greatly add to the difficulty of friendly co-eration (1) by looking upon a consultation solely as lesson for their own instruction in dealing with the sent and future similar cases; and (2) by giving the tient no choice of a consultant, but insisting upon a rticular man, using their old hospital teacher.—am, etc.,

pril 25th. EST MODUS IN REBUS.

GENERAL PRACTITIONERS AND POOR LAW REFORM.

SIR,—Dr. Vipont Brown admits that destitution stands an "appalling reality," and it can scarcely be denied at it is because they have to deal with this "appalling ality" that guardians are destitution authorities. If the nority scheme became law and the Education Com-ttee looked after the destitute during the school age, d the Sanitary Committee attended to the destitute ring sickness, most people would have thought that the ove committees became destitution authorities for the me reason that the guardians are now. Because under ese circumstances I unhesitatingly style the above com-ttees destitution authorities, I am said by Dr. Brown to lo violence either to etymology or to obvious facts."

It is true the present guardians have to deal with the chnically destitute—that is, "poor persons" who must bmit to some test of their poverty; and the new destitu-n authorities would abolish all tests, and treat all "poor rsons" as destitute in order to prevent them from coming technically destitute. There may be the shadow a distinction in this, and I should have thought more of if Dr. Brown had not defined destitution as an appalling ality. On the whole, as all these bodies have got to do e same practical work, in spite of the above shadowy stinction, I prefer to regard them all as destitution thorities in spite of "etymology and obvious facts."

Dr. Brown need not descend to a "*tu quoque* argument"; hatever my views may be on the subject, I did not label e Minority scheme "socialism." If Dr. Brown had ad my letter more carefully he would have seen that it as Professor Gilbert Murray who so labelled it. I ly expressed assent to the correctness of the label.—am, etc.,

MAJOR GREENWOOD,
Honorary Secretary, Poor Law Medical Officers' Association of England and Wales.

London, E.C., April 23rd.

THE INTERNATIONAL MEDICAL CONGRESS.

SIR,—With reference to the report upon the meeting of e Bureau of the Permanent Commission at The Hague, The International Congresses," issued in No. 2572 of the BRITISH MEDICAL JOURNAL, I beg your favour to be given ace for the following rectification:

I did not want Professor Waldeyer to be elected norary member of the committee. On the contrary, opposed to this idea. What I wanted was to persuade ofessor Waldeyer to withdraw his resigning upon the embership in order to keep his person for the committee. am happy to have succeeded in attaining this object. As the question of the International Medical Press Associa-on, I never spoke of the exclusion of the named sociation; I but supported the motion that at the same time when the Press Association gets the reports of the Congress, also all medical news should have them, in order to make the reports spread earlier and on a wider basis among the interested world.

I will not touch the other parts of the report, being in no stricter contact with my person. An official account of the meeting will probably in short be issued by the General Secretary of the Permanent Committee.

With many anticipated thanks, I am, etc.,

Budapest, April 21st. EMIL GRÓSZ.

FOXWELL MEMORIAL.

SIR,—We ask permission to call attention in your columns to a fund which has been opened with the object of perpetuating the memory of our late friend and colleague, Dr. Arthur Foxwell, whose untimely death by accident last year was, and still is, deeply deplored.

It has been decided that the memorial shall take the twofold form of a mural tablet to be affixed within the Queen's Hospital, and of an annual prize for a clinical essay open to residents of several Birmingham hospitals.

Personal friends, colleagues, and past house-physicians of Dr. Foxwell have subscribed for these purposes about £200, of which sum £150 is available for endowment of the prize.

If there are other friends and former associates of Dr. Foxwell who would wish to contribute to this memorial, we beg to intimate to them that the fund is not closed, and that we shall be grateful for any further subscriptions.—We are, etc,

J. T. J. MORRISON,
Chairman of the Medical Committee, Queen's Hospital.

O. J. KAUFFMANN,
22, Broad Street, Birmingham,
A. W. NUTHALL,
89, Cornwall Street, Birmingham,
W. F. HASLAM,
54, Newhall Street, Birmingham,
} Treasurers of the Fund.

Birmingham, April 25th.

Universities and Colleges.

UNIVERSITY OF MANCHESTER.

THE CHAIR OF CLINICAL SURGERY.

MR. F. A. SOUTHAM, M.A., M.B., F.R.C.S., has recently resigned his position as Professor of Clinical Surgery at the Manchester University, in view of the approaching expiration of his term of office as Honorary Surgeon to the Royal Infirmary. The Council of the University has appointed Mr. Wm. Thorburn, M.D., F.R.C.S., to the chair. Mr. Thorburn was appointed Assistant-Surgeon to the Infirmary in 1899 and Surgeon in 1899. He has had a long connexion with Owens College, Manchester University, and the Infirmary, both as student and a member of the teaching staff. In 1891 he obtained the Jacksonian prize of the Royal College of Surgeons, and in 1894 was Hunterian Professor of Surgery and Pathology, and he is now an Examiner in the University of London. His special contributions to surgical literature have been mostly on the diseases and injuries of the spinal cord.

UNIVERSITY OF DUBLIN.

THE following were among the degrees conferred at the Summer commencements on April 19th:

M.D.—H. S. Metcalfe.

M.B., CH.B., B.A.O.—J. H. Crane, M. A. Diemont, A. C. Hallowes, Beatrice M. Hamilton, C. B. Jones, R. E. Lee, H. S. Metcalfe, B. H. Moore, H. Müller, C. J. Pentland, G. P. H. Smiley, G. R. Watson.

CONJOINT BOARD IN SCOTLAND.

THE following candidates have been approved at the examinations indicated:

FIRST COLLEGE.—Florence W. Heyworth, L. J. Hollings, C. J. B. Inglis, T. H. Spence, B. C. Sen, A. O. Olaribigbe, C. M. G. Elliott, J. M. McLachlan, H. A. L. Guthrie, B. S. Bhandarkar, P. G. Bainbridge, H. D. Atherstone. C. T. Darwent, C. Popham, J. Fitzpatrick, J. J. O'Connell, J. J. Mulvie, Violet M. Tracey.

SECOND COLLEGE.—J. J. Dykes, L.D.S., S. E. Jones, E. Spence, W. Ainsley, A. B. Bull, B. M. Lynam, J. A. Whitla, W. Lessey, W. W. K. Duncan, Kathleen Wall, Lilian S. Wilkes, W. Martin, J. G. Lessey (with distinction), R. C. W. Spence, H. W. Ward, C. H. N. Baker, J. M. Hiddleston, H. C. Sutton, M. M'Closky, H. W. Cochrane, G. H. Hodges, W. J. Hogg, J. E. Rees, E. P. Dewar.

THIRD COLLEGE.—R. A. Mirzan, Ida M. Bernard, S. D. Large, W. W. W. Watt, W. L. Coullie, G. A. Macvea, W. W. McCowat, Dorothea L. Schwabe, C. E. H. Smith. H. A. Topalia, V. G. L. van Someren, T. R. G. Melrose, J. N. Robson, P. D. Banerji, D. B. Cama, I. C. Mackenzie, D. A. Evans, B. M. Nanavatty, H. Buksh, V. T. W. Eagles, B. S. Bhandarkar, T. E. Ferguson, B. C. Sen, C. Hunter, D. L. Hatton, K. Nath, J. A. Frost, T. N. Wilthew.

FINAL.—J. W. Hitchcock, G. F. Hegarty, C. J. Arthur, A. V. Heynemann, J. C. Hawkes, P. D. Banerji, H. C. Bankole-Bright, W. Crosse, W. T. Torrance, J. J. O'Callaghan, H. Chatterjee, R. F. Lunn, M. S. Freedman, W. C. L. Malone, H. W. Powell, D. Chand, M. J. Fraser, E. L. Hutchinson, V. Thomas, Ethelina E. M. Heynemann, M R. Dalal, E. P. Ghose, H. H. Scott, J. D. Collins, R. Anderson, G. Wallace, E. A. S. Shaw, H. E. Bond.

SOCIETY OF APOTHECARIES OF LONDON.

THE following candidates have been approved at the examinations indicated:

SURGERY.—*H. R. L. Allott, *M. Graves, †F. F. L. How, B. J. Nolan, *L. M. Potter, *†G. W Simpson.
MEDICINE.—*†C. S. Foster, *M. Graves, †C. Pyper, *L. M. Potter, *A H. Rich, *H. Stanger, †W. H. Watson.
FORENSIC MEDICINE.—K. Baylis, A. Cordon, M. Graves, C. Pyper, F. C. V. Thompson, R. P. Wylde.
MIDWIFERY.—A. Cordon, H P. Jelley, F. C. V. Thompson.
† Section I. * Section II.

The diploma of the Society has been granted to Messrs. K. Baylis, M. Graves, H. P. Jelley, B. J. Nolan, and L. M. Potter.

Medico-Legal.

SALE OF SHARE.

VENDOR objects to the answer *re* "Sale of Share" in our issue of April 16th, p. 969: (*a*) That six months' introduction is far too long under the circumstances, and should be shortened by two-thirds. (*b*) That to share the profits during the introduction would be unfair to "Vendor."

*** (*a*) As was stated in our reply to "Vendor," the length of introduction is always a matter for agreement, and it is difficult to fix any customary time. In his particular case six months might be longer than necessary, but two months' introduction would seem very short. (*b*) The sharing of profits is also objected to, but from his letter "Vendor" would seem to be passing over expenses, which should be deducted before profits are estimated—for example, maintenance of "junior's house and surgery." In Barnard and Stocker's *Manual on Medical Partnerships* the following rules of procedure during introduction are laid down: (1) Profits shared equally between vendor and purchaser; or (2) for the first half of the time the vendor takes all the receipts and pays all expenses, and for the last half the purchaser; or (3) one of them takes all the profits, paying all the expenses, and making an allowance to the other. Perhaps one of these methods would meet with "Vendor's" approbation.

Medical News.

THE Edinburgh District Lunacy Board has raised the salary of the Medical Superintendent (Dr. Keay) from £800 to £1,000.

A NEW nurses' home for the City of London Asylum, near Dartford, Kent, is to be opened by the Lord Mayor and the Lady Mayoress on May 28th.

WE are informed *officieusement* that the fifteenth International Congress of Hygiene and Demography will probably be held in Washington, U.S.A., in September, 1912.

A CONFERENCE under the auspices of the National Housing and Town Planning Council will be held at the Caxton Hall, Westminster, on Friday, May 6th, at 10.30 a.m., to consider town planning in Greater London.

THE Brussels Medical Graduates' Association will hold an extra biennial dinner this day (Friday) at the Trocadero Restaurant, London, at 7 for 7.30 p.m. Tickets, price 5s., not including wine, can be obtained from the honorary secretary, Dr. Arthur Haydon, 23, Henrietta Street, Cavendish Square, W.

PRACTITIONERS and students may attend the in-patient teaching of the physicians of the National Hospital for the Paralysed and Epileptic, Queen Square, W.C., in the afternoon on Monday, Tuesday, and Friday of each week. Further particulars can be obtained on application to the Dean at the hospital.

A SPECIAL meeting of the Royal Society of Medicine will be held on May 18th, at 5 p.m., at Morley Hall, George Street, Hanover Square, W., when Sir Almroth Wright, F.R.S., will open a discussion on "Vaccine Therapy: Its Administration, Value, and Limitations." The discussion will be continued on May 25th, June 1st, June 8th, and June 15th. Any Fellow who wishes to take part in the discussion is requested to communicate with the Honorary Secretaries.

A MEETING of hygienists and others interested in public health will be held at the Hotel Cecil, Strand, on Thursday, May 5th, at 3.30 p.m., for the purpose of forming a British National Committee of the International Hygiene Exhibition to be held in Dresden next year. This committee will arrange for the British participation in the exhibition, which will be open from May to October, 1911. It is hoped that a large number will be present, and that the Government will send representatives of the various departments. All inquiries with regard to the exhibition should be addressed to the offices of the British Executive Committee, 47, Victoria Street, S.W. (telephone No. 3807 Victoria).

A QUARTERLY court of the directors of the Society for Relief of Widows and Orphans of Medical Men was held on April 13th, Dr. Blandford, President, in the chair. Seventeen members of the court were present. Two members of the society had died since the last court, and their widows applied for assistance on behalf of themselves and their children. In both instances they were without any income whatever, and the court voted grants at the rate of £50 a year for each widow and £15 a year for each child. By its by-laws the society can only grant relief to the widows and orphans of its deceased members. Membership is open to any registered medical practitioner who at the time of his election is resident within a twenty-mile radius of Charing Cross. Full particulars and application forms for membership may be obtained from the Secretary, at 11, Chandos Street, Cavendish Square, W. The next election will be on July 13th. Application forms must reach the Secretary on or before June 22nd. The invested funds of the society now amount to £100,550. The annual general meeting will be held on May 26th, at 5 p.m.

AS in the past couple of years, Trinity College, Dublin, has decided on two courses this year. The summer course will begin on June 6th, and the autumn course on September 19th. Each course, as before, will last three weeks. Mr. B. G. A. Moynihan has kindly consented to give a lecture inaugural to the work of the session on Monday, June 6th. Classes will be held in Medicine, Surgery, Gynaecology, Anatomy, Physiology, Pathology, Diseases of the Skin, Eye, Ear, Throat and Nose; Radiology, and Urology. The teachers are members of the professorial staff in the School of Physic, or physicians, surgeons, or specialists connected with the Dublin hospitals. They aim at making the classes as practical as possible and suitable to the needs of doctors in general practice. Arrangements have been made by which a limited number of members of the class can reside in college rooms and dine on commons at an inclusive cost of £1 1s. per week. Any qualified medical man, whether a graduate of the Dublin University or not, may join the course and become entitled to all its privileges. Further details will be found in our advertising columns, or a syllabus can be obtained on application to the Honorary Secretary, 27, Lower Fitzwilliam Street, Dublin.

THE usual monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society was held at 429, Strand, London, W.C., on April 15th, 1910, Dr. de Havilland Hall in the Chair. The accounts showed that during the first quarter of this year the business of the society has been unusually good; as a rule the sickness claims are more numerous than in any other three months of the year, the extra number arising for the most part from bronchial affections, to which medical men, and especially those in general practice, are much exposed; but so far, the records of 1910 are exceptionally good, as the claims received have been both less in number and of shorter duration than usual. The committee were mainly occupied with the examination of the draft of the report of the society's business in 1909, which will be presented to the members at the annual general meeting to be held on May 19th. The year's working has produced "a satisfactory increase in the number of members and the invested reserves." In 1884 the funds of the Society amounted to £1,435 only; a large addition has been made to them every year until, at the end of 1909, the total amount of the society's invested funds was £233,376. The membership has grown from a few hundreds in 1884 to 2,831, and the amount distributed as sickness pay in 1884–5 was £843, and in 1900 £15,115. An appreciable part of the increase in the funds has been produced by the great economy with which the business has been conducted. No agents are employed, and no commission is paid for the introduction of new business. This may perhaps be the reason why the increase in membership has not been so rapid as the increase in wealth of the society, or the increase in the amount of useful work it does. Prospectuses and all particulars on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

Obituary.

STEWART LOCKIE, M.D.EDIN.,

CONSULTING PHYSICIAN TO THE CUMBERLAND INFIRMARY.

It is with great regret that we record the death of . Lockie of Carlisle at the age of 74. He had with-awn from practice in 1901, but continued to reside in rlisle and to interest himself in the affairs of the city d of the medical profession in the district until quite ently, when his failing health greatly limited his ivities.

Stewart Lockie was born in London, but while he was ll a child the family removed to their old home in rwickshire, and he received his early education at rlston and at Kelso Grammar School. After serving period of apprenticeship to a doctor in Kelso he went to the University of Edinburgh in 1854. As a student ckie was much influenced by Simpson, Goodsir, ristison, and Syme, and became a close friend of s fellow-student, (afterwards Sir) Thomas Grainger ewart. He graduated M.D.Edin. in 1858, and became R.C.S.Edin. in the same ar. Shortly afterwards Dr. ckie was appointed resident edical officer to the Carlisle ispensary, where the qualities heart and head which after-ards raised him to a leading sition in the city of his loption were disclosed. He t only discharged his medical ties with assiduity, but, ruck by the ignorance of the ople among whom he prac-sed, he opened night classes the Central Schools, where r over a year he taught read-g and the rudiments of arith-etic to working men. The ppointment at the dispensary as for two years, but at the equest of the committee Dr. ockie continued for a third ear, and then, in 1861, began rivate practice in Carlisle. In 865 he was appointed honorary isiting physician to the dis-ensary, a position he resigned hree years later on his appoint-ent to be physician to the umberland Infirmary.

Photograph by] STEWART LOCKIE. [*B. Scott & Co., Carlisle*

When Dr. Lockie was first ppointed the Infirmary con-isted, to quote his own words, "of the central block nly, with an imposing frontage, it is true, but excessively nconvenient in its internal arrangements. The wards vere all small, and they were overcrowded." Nominally ntended for fifty patients, they would barely accommodate orty. Dr. Lockie was very regular in his attendance at he weekly meetings of the Committee of Management, nd it was largely due to his representations that an xtension scheme was carried out in 1873, providing ccommodation for 100 patients. At this time Dr. Barnes lso was appointed honorary physician to the infirmary, nd the two remained colleagues for a quarter of a century. In the early days the honorary medical staff were elected by the governors, a system which involved an extensive canvass. Dr. Lockie carried a proposal to substitute a committee of election which has since acted for the governors in selecting the members of the honorary medical staff, a plan which has worked very satisfactorily, and is now very general throughout the country. When, in 1897, he resigned the office of Honorary Physician, the governors appointed him Consulting Physician, and in 1901 chose him to be a Vice-President of the infirmary.

When the Cumberland and Westmorland Branch of the British Medical Association was formed in 1868, he became its Honorary Secretary, a position which he retained for two years. In 1877 he was elected President of the Branch, and on that occasion delivered an interesting address on some anomalies of disease. When in 1901 he finally retired, after forty years of active practice, he received many tokens of the esteem in which he was held by his fellow-citizens and professional brethren. From his patients and friends he received a presentation consisting of a silver flower bowl and a cheque for £300, while his professional brethren in Carlisle and the neighbourhood presented him with an illuminated address, and two portraits which now hang, one in the board room of the Infirmary, and the other in the board room of the Dispensary.

Dr. Lockie, as has been said, was very actively engaged in practice throughout his life, but though he wrote little, he kept himself well acquainted with the progress of medicine, and even after his retirement took a prominent part in the establishment of Blencathra Sanatorium for Consumption. He not only gave his influence to the promotion of the movement, but handed over to the fund which was being raised the pecuniary part of the testimonial he had received in 1901 from patients and friends, adding to the sum a personal donation of £100. Dr. Lockie had a very lofty conception of the duties and responsibilities of the physician, and his opinion as a consultant was highly valued, for he had won the confidence and esteem alike of his medical colleagues and of the public. He was thorough in all he did, careful and painstaking in diagnosis, and wholly devoted to his professional work and to his profession. His knowledge of medicine and his conscientiousness in the discharge of the obligations it imposes, combined, with his shrewd and kindly character, greatly to endear him to the young men who came under his influence, and on his retirement from the Infirmary he was entertained at dinner in Carlisle by a large number of old house-surgeons, some of whom travelled long distances to be present. His hosts at this dinner presented him with an epergne and an album containing the photographs of many of the donors.

Although so busily engaged in the many directions already indicated, Dr. Lockie was a well-read man, his habit of early rising affording the needed leisure. In his early days longer escapes from work were devoted to rambles through the Lake country, which he knew from end to end. At a rather later age than most men he became an Alpine climber, and attained considerable skill in that difficult sport. When advancing years warned him to abandon it, he replaced climbing by cycling and golf.

Dr. Lockie married in 1868 Miss Doeg, of Carlisle; there was one child of the marriage, which died in infancy, and Mrs. Lockie herself died after six years of wedded life. Her husband did not marry again, but resided with his sister until his death.

At a meeting of the Committee of Management of the Cumberland Infirmary on April 20th the following resolution was adopted:

> That the committee have heard with deep regret of the death of Dr. Lockie, Consulting Physician to the Infirmary, and a Vice-President of the Institution. They desire to put on record their appreciation of the eminent services which Dr. Lockie has rendered to the Infirmary during a period extending over thirty years. Appointed Honorary Physician in 1868, Dr. Lockie discharged the duties of the office with singular whole-heartedness, zeal, and regularity until his resignation in 1897, and as a member of the Committee of Management gave in addition much valuable time and assistance in all matters connected with the enlargement and improvement of the Infirmary. His work among the patients was invaluable, while his unfailing courtesy and kindness of heart endeared him to all. The committee desires to express to Miss M. A. Lockie and to his other relatives their sincere sympathy with them in their bereavement.

The funeral took place on April 21st, and was attended by a very large number of medical men in Carlisle and the neighbourhood, and by representatives of the Committee of Management of the Infirmary. The first part of the service was held in St. Mary's Church, and the interment took place at Carlisle Cemetery.

PETER YOUNG, L.R.C.S.EDIN.,

DUNDEE.

WE regret to announce the death, on April 19th, from pneumonia, of Dr. Peter Young, the senior member of the medical profession in Dundee. Dr. Young was born in Highland Perthshire in 1827, and, having abandoned theology for medicine, studied at the Andersonian College in Glasgow, and took the diploma of the Royal College of Surgeons in Edinburgh in 1886. After a period of country practice in the Carse of Gowrie he settled in Dundee fifty years ago, and acquired a large general practice. He was in special favour as an accoucheur, and it is one of the honourable traditions of the profession in Dundee that before the days of specialists and antiseptics Dr. Young preserved the life of a mother and child by Caesarean section.

Dr. Young took a full share in public work as a member of the old Parochial Board, but his special enthusiasms were manifested as a Volunteer Medical Officer in the Dundee Highlanders, as Chieftain of the Dundee Highland Society, and in the promotion of total abstinence. About a dozen years ago he retired from active practice, but till within a week his hale figure was familiar in the street, and his kindly greeting welcome to all who knew him. He was formerly a member of the British Medical Association, and his son, Dr. C. S. Young, has just been nominated by the Council of the Dundee Branch as President elect. His younger son is Lecturer on Veterinary Hygiene in Aberdeen University.

JOHN SPARK, M.R.C.S., L.R.C.P.,

KATOOMBA, N.S.W.

DR. JOHN SPARK died at Katoomba, on the Blue Mountains, in the early part of last month. He was born at Twickenham, Middlesex, in 1853, where his father had an extensive practice. He was the eldest of a family of eight, and only one sister now survives. At the age of 14 his father died, and young Spark was educated for the medical profession by some friends. At the age of 18 he was dispenser for a doctor with a large practice in the City of London. He was educated at St. Bartholomew's Hospital, and completed his course with credit. He obtained the qualifications of M.R.C.S.Eng. and L.R.C.P.Lond. After acting as an assistant in High Holborn for seven years, he went to Devonshire, but his health failing, he took several trips to South America and Australia. He went to Katoomba at the end of 1886, and spent the rest of his days there. He married in 1893, and has left a wife and seven children. He was an alderman for several years, and was mayor for one year, but always declined the honour subsequently, although repeatedly pressed to accept office again. He filled several other positions in the town. Practically for all the years of his life at Katoomba he was struggling against pulmonary tuberculosis, but about two years ago he had an attack of cerebral haemorrhage which completely crippled him. Another attack resulted in his death in a few hours. His funeral was the largest ever seen on the Blue Mountains, all business being suspended as the *cortège* passed through the town.

INSPECTOR-GENERAL COPPINGER, R.N.

INSPECTOR-GENERAL RICHARD W. COPPINGER, whose death at the age of 62 occurred at his residence, Wallington House, Fareham, on April 2nd, came of a well-known Irish family. He was educated in Dublin, and graduated M.D. of the old Queen's University in 1870.

After joining the Medical Service of the Navy Dr. Coppinger was appointed Surgeon to the *Alert* and took part in the Arctic Expedition of 1875–6. While serving in the Arctic Dr. Coppinger distinguished himself as scientist in charge of one of the sledging parties, receiving special promotion to the rank of Staff Surgeon and being granted the Arctic medal.

Early in 1889, on returning to England after service as Principal Medical Officer in the *Nelson*, the flagship on the Australian Station, Dr. Coppinger was appointed to the Royal Naval Hospital, Haslar, in charge of the Junior Surgical Section and as Instructor in Naval Hygiene to the surgeons on entry. Here he distinguished himself both by his work in the wards, his knowledge of microscopy and bacteriology being far in advance of his time, and as instructor, his well-known knowledge of mechanics helping him considerably. In the latter post Dr. Coppinger will be remembered with gratitude by generations of naval medical officers, both for his power of imparting knowledge and for his invariable courtesy and kindness.

Promoted to the rank of Deputy Inspector-General, Dr. Coppinger was selected for appointment as Medical Officer in Charge of the Royal Naval Hospital, Jamaica, and he there received early promotion to the rank of Inspector-General. After a period of half-pay Dr. Coppinger returned to the scene of his former labours as Inspector-General of the Royal Naval Hospital, Haslar, serving for the full three years and being placed on the retired list at a comparatively early age as there was no further employment available. This was very keenly felt by him, but it is one of the disadvantages consequent on too early promotion. There is no doubt that by his retirement a very keen professional officer was lost to the service, and it was in the purely professional part of his work, particularly the scientific side of it, in which he excelled.

GEORGE W. SIDEBOTHAM, V.D., M.R.C.S., L.S.A.,

LIEUTENANT-COLONEL R.A.M.C. (TERRITORIAL).

ALL old and new friends of George Sidebotham will regret to hear of his death on April 15th at Bournemouth.

He was a student at the Old Manchester School when it was amalgamated with the Owens College, and all his fellow students will remember the kindly, courteous manner which was characteristic of him throughout his life. He was a diligent youth, and took the diploma of L.S.A. in 1876 and that of M.R.C.S. in 1877. He settled down at his native place, Hyde, Cheshire, near Manchester, and until about fourteen years ago was engaged in busy practice. Then for upwards of twenty years he was the leading practitioner in the town, holding the appointments of Medical Officer of Health, Certifying Factory Surgeon, Medical Officer and Public Vaccinator, Hyde District of the Stockport Union; Medical Officer to Post Office, and Surgeon, Great Central Railway.

For thirty years he had been a member of the British Medical Association, and was present at the meeting at Belfast last July as the Representative of the Shropshire and Mid-Wales Branch. He had resided at Newport since retiring from practice. He had been connected with the Volunteer movement for many years, and was a loyal and enthusiastic officer, and had done much important and useful work in connexion with the organization of the medical branch of the Territorial Forces, and at his death was in command of the Welsh Border Mounted Infantry Brigade Field Ambulance.

Despite the busy life the conduct of a large practice and the above appointments entailed, he was always a keen scientific student, and was a member of the Manchester Literary and Philosophical Society, contributing valuable papers to its proceedings. He was also a member of the British Astronomical Society, and accompanied Sir Robert Ball to the North Cape some years ago to observe the eclipse. He was an enthusiastic Freemason, and Past Master of the Lodge "Industry, 361," Cheshire.

Dr. Sidebotham leaves a widow but no family, and in him passed away a man much beloved by all who came in contact with him, and one of the best types of practitioner.

Dr. G. H. BROADBENT writes: I had the pleasure of meeting him and of reviving our old friendship at the Representative Meeting at Exeter, and it seemed a real pleasure to him to inquire about old friends and talk of old times. He seemed then to be in splendid health, and his death has come as a great shock. All Manchester medicals sympathize with his wife and brother.

Letters, Notes, and Answers.

TISH MEDICAL ASSOCIATION AND BRITISH MEDICAL JOURNAL.

e offices of the British Medical Association and of the ITISH MEDICAL JOURNAL are at 429, Strand, London.

MMUNICATIONS respecting Editorial matters should be addressed to he Editor, 429, Strand, London, W.C.; those concerning business natters, advertisements, non-delivery of the JOURNAL, etc., should e addressed to the Office, 429, Strand, London, W.C.

☞ *Queries, answers, and communications relating to subjects which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

THE DRUG HABIT: TOBACCO.

. Y. S. writes: Will any fellow member give me a prescription, tip, or wrinkle for the cure of the tobacco habit? The vicious circle is simple enough: depression—tobacco—indigestion—worse depression—more tobacco—and so on and so on. Mere will power seems no longer able to control what amounts to an irresistible craving. Platitudes and appeals to reason are not wanted. The former I can devise for myself, the latter I have made only too often. I have also been through the whole gamut of sermons and philosophy, and now require something that will counteract the craving for a while, whilst the blood clears itself of the toxaemic condition induced by the drug and the will has a chance to assert itself. A man in a state of toxaemia from a drug is scarcely likely to be able to exert that vigour of will which will cure himself, and neurasthenia will shortly result unless the drug habit be cured; and it has already itself induced a condition of will so weakened that a cure by mere force of the man's own will is hopeless. He needs something analogous to the gold chloride of the alcoholic.

INCOME TAX.

AMESIS is continuing a practice formerly carried on in partnership, the partnership having been dissolved in March last. He wishes to know how to complete the partnership and private income tax return forms.

*** The partnership form should be returned with a note to the effect that the partnership was dissolved on a certain date and that our correspondent is now the sole practitioner. The private form should be completed with a statement of the average profits of the *firm*, as explained in last week's issue, and a note made on page 2 of the return that the return is provisional only, and that the profits will probably be less on account of the dissolution of the partnership (if this be in fact probable). At the end of the year, when the profits are known, an appeal should be made if the assessment prove to have been excessive.

CAR LICENCE AND PETROL DUTY.

MAJOR I.M.S. inquires what is the tax on a 15-h.p. car, and whether, although not strictly in practice in England but on study leave from India, he can get remission of one-half the licence duty and petrol tax.

*** The full tax on a 15-h.p. car under the 1909–10 Finance Act when passed will be £4 4s. It is doubtful whether our correspondent will be able to satisfy the Commissioners or council that the car is "kept by him for the purpose of his profession," although he may use it to a considerable extent in getting to medical centres. With regard to the petrol tax, if it were admitted by the Commissioners that the use to which the car is being put constituted use for the purposes of his profession, the relief would be restricted to the petrol consumed while the car was actually being used in that way. The best course will be for our correspondent to write in the first place to the Commissioners of Customs and Excise at the Customs House asking for a ruling on the subject.

ANSWERS.

LUNA.—The friends acting in this case should follow the natural plan of first making inquiry of the county or city asylum for the place where the patient's home may be; failing that, of inquiry at the next nearest, and so on, until suited. Many private asylums will take ordinary private cases at one guinea a week. Has applicant consulted the advertisement columns of the BRITISH MEDICAL JOURNAL? The steps to take as regards the Lunacy Laws would be those precisely as for any other private case—different forms from pauper, and *two* medical certificates (not *one*), if the case is of an ordinary type.

THESIS FOR M.D.

NEMO, M.B., M.R.C.S.—In the regulations for the degree of M.D. at Edinburgh University, and concerning the submitting of a thesis, it is laid down: "And the thesis, accompanied by a declaration signed by the candidate that the work has been done and the thesis composed by himself. . . ." Any help consistent with such a declaration is legitimate.

STOVE FOR INVALID'S BEDROOM.

COLONEL R. H. FORMAN, A.M.S. (Bombay), writes: In your issue of March 19th correspondents recommend various stoves to "H.," a previous correspondent. If any of those gentlemen, or any other medical man, wants a thing of this sort, either for the sick room or for general heating, let me recommend them to write to the Secretary, Bastian Electric Heating Syndicate, Limited, 3 and 4, Great Winchester Street, E.C. The Bastian patent is quite a new departure in electric heating, its essential feature being "glowers" of quartz tubing capable of being made red hot in less than half a minute. It is clean, efficient, and, last but not least, cheap.

SOURED MILK.

L. O. S.—Soured milk, when properly prepared and not stirred, consists of a fairly solid but soft curd, with more or less of watery whey; when gently stirred, or shaken and poured from one vessel to another, the curd and whey readily mix, and the mixture is then of the consistence of rather thin custard, or milk thickened with arrowroot as prepared for invalids' food. A hard curd which would not mix with the whey would probably indicate that the souring had been partly caused by other organisms than the Bulgarian bacillus. Unless the milk is very decidedly sour to taste, the incubation with the bacilli has not been carried on for long enough, and the preparation cannot be of much value.

EXAMINATION FOR D.P.H.DUBL.

B. A. J. F. can take out a short revisional practical course in bacteriology and in chemistry for the D.P.H. (Dublin Conjoint) either in the laboratories of the Royal College of Surgeons School, Dublin, or in those of Trinity College, at any period of the year except during the months of July, August, and September. Information concerning such courses can be obtained from the Registrar of the respective schools on arrival in Dublin. For the theoretical part of the examination a private coach might be obtained, but the large majority of candidates rely solely on private reading. The names of private teachers can usually be ascertained by inquiry in the medical schools.

TREATMENT OF ULCERATIVE COLITIS.

DR. GEO. STEELE-PERKINS (London, W.) writes: In answer to "H. S.," I would suggest his trying careful abdominal massage and vaccine treatment.

DR. PERCY NEWELL (St. Leonards-on-Sea) writes: I would mention that Hare says that ammonium chloride in grain doses every five hours is efficacious, especially if it be given in alternation with 3 grains of potassium iodide—for intestinal catarrh. Why not try it for ulcerative colitis? The liquid extract of hysterionica is credited with curative effects in these cases. Chatel-Guyon water is also recommended.

B. B. B. writes: In reply to "H. S.'s" query, I might draw his attention to a native Indian remedy, ispagool, which consists of the seeds of *Plantago ovata*. An infusion is made with a teaspoonful of seeds to a cup of boiling or hot water. The seeds swell and a mucilaginous fluid results. This is drunk *ad lib.* The sediment of seeds also is swallowed in native practice. The drug was investigated by the Indian Government, and was found to contain no active principle, its action being apparently entirely due to the mucilage taken in such abundant quantity, and possibly any other mucilage taken in similar quantity might do. I treated a case successfully on these lines, along with bi. salicyl. gr. xx doses four-hourly. The method is simple, harmless, and worth a trial. Ispagool is mentioned in the Indian and Colonial Addendum of Martindale's *Extra Pharmacopoeia*, and can be got from them, but the decoction must be taken freely, not merely in ʒij doses.

DR. W. FINGLAND (Liverpool) writes: I have treated three cases of this disease successfully, and without recurrence, with fluid extract of aplopappus baylahuen (Parke, Davis), 20 minims, three times a day, in a tablespoonful of cream.

*** *Aplopappus baylahuen* (or *Hysterionica baylahuen*) is a composite herb, a native of Chili. It owes its medicinal qualities to a resin and volatile oil, the former acting chiefly on the bowels and urinary passages, and the latter like the terebinthinates upon the lungs. It is said to possess the advantage that it does not disorder the stomach and bowels. Its use has been recommended in chronic diarrhoea, especially of the tuberculous variety and in chronic cystitis (see Hare, Caspari, and Rusby's *National Standard Dispensatory* and Wood Remington and Sadtler's *Dispensatory of the United States of America*).

LETTERS, NOTES, ETC.

Treatment of Excessive Perspiration.

Dr. Agnes F. Savill (London) writes: In the British Medical Journal of January 1st, 1910, Dr. A. Howard Pirie describes his method of treatment of excessive perspiration by *x* rays. Early in 1907 I had a similar case of profuse perspiration of the armpits occurring in a man over 30 years old. I employed my "ringworm shield" with wooden pegs. The whole armpit was exposed, and half a Sabouraud pastille dose administered at each sitting. Between March 22nd and May 30th he had ten sittings at intervals of about a week. Improvement began about the end of April. On May 30th the hairs began to fall out. I saw the patient a year later; the axillae were slightly pigmented, the hairs had not returned, and the perspiration was almost *nil*, and had never troubled him during the year.

Modern Miracles.

Dr. Chas. R. Chichester (Calabar, S. Nigeria) writes: In your issue of November 27th, 1909, I note an article entitled "Looking Back; or a Glance from Empiricism to Experiment—from Superstition to Research," in which is given an account of an address delivered by Sir Henry Morris, Bart. In it he said "the miracles associated with the career of St. Ambrose looked like impostures"; "the tactics of St. Ambrose . . . recalled the procession of the multitudes one had seen at Lourdes," etc.; "all the ecclesiastical miracles were highly improbable." Might I suggest to Sir Henry, and to others interested in these matters, that they put themselves into communication with Dr. Boissarie, the chief of the Medical Bureau at Lourdes? He and they will hear something that will give them food for thought about cures which have happened at Lourdes within recent years, the subjects of which are still alive. If Sir Henry has been to Lourdes he will doubtless have met Dr. Boissarie, noted the extreme care which is taken by medical men of any or no religious belief in examining the sick, the rigid investigation to which those who are said to have been miraculously cured are subjected, the many cases which have been cured, and the very few which are admitted to have been "miraculously" cured. Nothing would please Dr. Boissarie so much, I fancy, as to see a committee making "a careful scientific investigation" into the cases of people, still alive, who are alleged to have been "miraculously" cured; and I feel sure that every assistance would be given to the committee.

An Effect of Tea.

H. E. B. writes: I have read the correspondence on an effect of coffee with interest, as I have myself an idiosyncrasy to tea, more particularly to Indian tea, which I have never been able to overcome. Whenever I take tea I go through a regular procession of events, most distressing and stultifying. Shortly these are as follows: Within fifteen minutes of walking (movement seems to be essential) I feel hot about the scalp and knees; the former feels as if pepper were dusted all over it; then I partially lose my sight and hearing, and, if in conversation, cannot say more than "Yes" or "No" because I am so faint and listless; then I lose the power of walking quite straight, and choose the wall side of the path; lastly, I break out into a general perspiration, and within forty-five minutes I return to my senses. I have consulted many medical men but have never found any means of relief. The only way is to shun tea. Occasionally I have found patients affected similarly without knowing the reason, and I think that more attention might be given to the peculiar effects upon people of the varied foods now in general use.

The Survival of Bed Bugs.

Dr. W. Habgood, M.O.H. (Sutton, Surrey), writes: In the last five lines of the article on "Flock Bedding," p. 1013, it is stated that "bed bugs are believed to be incapable of surviving many days without food." As this is contrary to my experience, I think you might be interested to learn that on having a house cleansed on September 1st, 1909, my inspector collected for me about twenty-five or thirty bugs and placed them in a clean bottle with a piece of clean white calico and a piece of clean white paper. On October 26th all were alive; on January 21st three or four old ones and one young one were alive; and on February 26th, 1910, that is nearly six months after capture, one large bug was seen to be running actively over the paper after the bottle had been warmed at a fire. I should say that the mouth of the bottle was covered with a piece of clean calico. My object in making the experiment was to see if the statement made by the ingoing tenants of a house that had been empty for months, that the bugs they complained of were in the house before they took possession, could be true.

The Prevention of Destitution Bill.

Dr. A. Stayt Dutton (Oxford) writes: At a time when many kinds of reform, social and otherwise, are suggested, it is certainly advisable to look cautiously before the leap is taken into the question of what is to be gained by altering existing conditions. Of all reforms, that which most requires attention is doubtless of an economic nature, and the remark of a late Premier that some thirteen millions of persons in the British Isles were living on the verge of starvation is a not worthy expression of opinion. However closely or otherwi this estimate may approximate to the exact condition, it evident that in all parts of the kingdom there are lar numbers of individuals, in addition to paupers and u employed, who are receiving remuneration for their work th barely enables them to provide satisfactorily for themselv and their families, to say nothing of making provision for rainy day. The important need is for legislative measur which will increase the demand for labour of all kinds, whe better remuneration will follow; and, with the improv state of things, many of the undesirable social conditions—s pauperism, unemployment, overcrowding, defective housin clothing, and food supply—be to a large extent automatical relieved; but, until such occurs, it is distinctly open to doul whether a rearrangement of the Poor Law system would hav any increased effect in the prevention of destitution.

Consultant, General Practitioner, or Half-and-Half?

Fulham Road writes: As a general practitioner of twent years' standing, whose patients have included the nobilit gentry, and for the most part the middle classes, I shoul like to say most truthfully that I cannot recall a sing instance where I have been treated anything but well by th consultants. I think the crux is this: Should a patien approach a consultant independently? I say, "Certainly h should, if he so wish." If he has been in my care, I hav obviously failed to cure him, or he would not go farther. Nov what does the general practitioner stand to lose should he no attend the consultation?

1. *Financially.* Should he attend the consultation, he pro bably receives a guinea fee. How much of this does he tak home? The general practitioner spends something in reach ing the physician's house. The consultation over, he calls a the club for a bit of lunch. He there meets an old friend, an perhaps has "fifty up" with him, or joins in a little game o "snooker." Very likely loses half a crown. General practi tioner then starts for home. With commendable self-contro he tarries not at the fruit shops in Bond Street, but succumbs at the jeweller's, where he buys a trinket for his deserving wife, whom he remembers he has been worrying for the pas week because this patient did not get well.

2. *Otherwise.* What has he to gain by listening to the con sultant's opinion should he go? What does he have to fea from the physician's criticism? Unless the general practi tioner has been lamentably slack he will have examined his patient by inspection, percussion, auscultation, with the exploring needle, the ophthalmoscope, laryngoscope, urethro scope, sphygmoidoscope, and not have failed to use the sphygmomanometer. He will have counted the corpuscles, determined the opsonic index, and certainly not have for gotten the diagnostic value of the reactions of von Pirquet, Maro, and Calmette, while the patient will carry with him to the consultant the series of excellent skiagrams which have been taken. General practitioner will surely have recommended his patient to take breathing exercises and a course of "physical culture," exhibited all the ordinary drugs, injected him with the arylarsonates to the verge of blindness, and have vaccinated him with the six more familiar vaccines. "High frequency" he will *not* have mentioned, that being "a thing of the past."

Now, Sir, I am sorry for the consultant. The patient expects much from him. But what can he do? Aëroplanes not yet being upholstered sufficiently comfortably for an invalid, the physician will probably suggest a voyage to Egypt, and tell him to buy a box of the Carlton House capsules to eat on the way, should the patient be "well-to-do"; or, if he be but a man of scanty means, the consultant will probably prescribe him the very latest thing in compressed drugs, and advise a meal, three times a day, of sour milk. My only regret is that I have not yet been asked to pay my income tax.

A Schoolboy's Description of the Spine.

A schoolboy being required to describe the spine, said: "The spine is a chain of bones running up and down your back. Your head sits on one end. You sit on the other."

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page	8	0	0

An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

Note.—It is against the rules of the Post Office to receive *postes Restante* letters addressed either in initials or numbers.

An Address

ON

SOME PRACTICAL POINTS IN THE TREATMENT AND CLINICAL HISTORY OF EARLY SYPHILIS.

DELIVERED BEFORE THE MANCHESTER (WEST) DIVISION, BRITISH MEDICAL ASSOCIATION.

BY WILLIAM COATES, C.B., M.R.C.S.

THE study of early syphilis is full of interest, but its range is so vast that it is but a fringe of the subject that can be dealt with to-day. No disease presents more difficult problems for solution, or more complicated symptoms for treatment. These concern not only the family practitioner: every branch of the kingdom of medicine is invaded, and each specialist sees, and must be alive to, its early and remote effects. It respects no class: rich and poor, old and young, peer and peasant, the depraved and the chaste, are alike counted amongst its victims. Its effects may be so lasting as to influence all periods of a man's life, and they bulk as a great factor in determining the vitality, affluence, prosperity, and happiness of a race.

The Curability of Syphilis.

In the large majority of cases, and judged on lines that apply to other diseases, syphilis is curable, and it is unnecessarily cruel to teach otherwise. Occasionally cases occur that resist treatment; and others, apparently immune for years, suddenly break out in symptom. The syphilitic virus sometimes assails a constitution with an idiosyncrasy favourable to its development and multiplication; then, indeed, it is difficult to cure. But by far the larger number of cases of syphilis, if seen early and treated rightly, remain well to all intents and purposes, though the longer the treatment is delayed the more difficult and protracted is the recovery. Small-pox, typhoid and scarlet fevers, or a broken leg leave conditions which sometimes disclose themselves after a lapse of many years, yet none would regard these as incurable. Why should an occasional late reminder of an early syphilis make us class this disease under a different heading?

If after treatment no return of symptoms occurs, and if subsequently the patient marries and brings up a healthy family, a cure surely may be assumed.

Let me recall one out of a number of such cases that have been under my care for many years.

Case illustrating the Curability of Syphilis.

In March, 1884, a business man aged 26 consulted me. He had an indurated sore on the fraenum; hard, enlarged, and painless glands in both groins; an inflamed and ulcerated throat; and a roseolous eruption on the abdomen, back, and sides. He took 1½ grains of grey powder with 1 grain of Dover's powder three times daily continuously for two years. After the first three months of treatment he had no return of symptoms. Three years afterwards he wished to marry. On my advice he renewed his treatment for six months as a precaution. He has now been married twenty years, and has six children—the youngest 8, the eldest 19. Neither in himself, his wife, nor children has any sign of syphilis been observed.

Another point bears somewhat on the curability of syphilis, and introduces a further topic of interest. It has long been taught—and this teaching has been confirmed by the experimental inoculation of apes—that a person suffering from symptoms of syphilis is immune from a second attack; that so long as syphilis exists, primary syphilis, followed by secondaries, will not occur.

A few cases have been recorded which show that this is not an absolutely infallible rule, just as occasionally one attack of scarlet fever or measles may be followed by another; but such cases are exceedingly rare, and for practical purposes may be put aside. Personally I have never seen fresh primary or secondary syphilis occur in a patient presenting any symptoms of the disease.

It is not impossible, however, to see a second attack in a patient cured of a former one. This is rare, and other conditions to be alluded to later, such as recurring chancres and gummata, cause mistakes; but I have notes of seven cases, several of which I will relate.

Primary and Secondary Syphilis occurring a Second Time.

1. A man aged 22 consulted me on November 30th, 1898, with an indurated single sore on the left of the corona, bullet glands in the groin and neck, mucous patches on throat and mouth, and a papular eruption on forehead and body. He took 1 grain of grey powder four times daily for three months, and afterwards three times daily until the end of two years. No symptoms were seen after the first year of treatment. On September 15th, 1903—that is, five years after his first attack and nearly three years after the cessation of treatment—he appeared with an indurated sore on the right side of the prepuce ¼ in. from the corona, and hard enlarged glands in the groins. He had been exposed five weeks before. Though it was apparently an infecting sore, under the circumstances events were awaited. The induration increased, and in fourteen days his throat became affected, a papulo-squamous eruption developed, he lost a large quantity of hair, and passed through a much more severe attack of secondary syphilis than on the first occasion.

2. A man aged 24 came to me on January 10th, 1894, with a Hunterian chancre on the margin of the meatus, enlarged glands, a red throat, and a roseolous eruption. He zealously carried out a two years' course of continuous treatment with Hutchinson's pills and was cured. On March 15th, 1900, he presented himself with an indurated sore just above the corona after frequent exposures. In three weeks his throat became ulcerated, a papular eruption broke out; later his hands showed palmar psoriasis. This was a troublesome case to treat, but ultimately responded to a course of Donovan's solution.

3. J. D., aged 40, consulted me on May 18th, 1906, for an indurated sore on the prepuce. He was married, and might have been infected six weeks before. As he stated that he had had primary and secondary syphilis in 1888, and taken a two years' course of treatment under a well-known London specialist, local treatment alone was given. In a fortnight, however, a scaly papular eruption appeared all over his body, his tonsils were covered with symmetrical ulceration, and he lost much of his hair. His symptoms were troublesome, but after a two years' course of grey powder he has remained well.

The last case that I will mention is that of a man who married after his first cure, and did not infect his wife until he contracted a second attack.

4. A man consulted me on May 1st, 1888, with a primary indurated sore just above the corona, to the right, symmetrical ulceration of tonsils, enlarged and hardened glands, and a roseolous eruption. He took grey powder in small doses for four months, and his symptoms disappeared. Unfortunately he left Manchester and neglected treatment. On December 2nd, 1889, he returned to me with a gummatous ulceration on the right leg and rupial spots on his body. He took a mixture containing potassium iodide and mercury perchloride for two years, and was cured. In 1892 he married a lady whose ovaries had both been removed by a gynaecological specialist, otherwise I doubt not that he would have had children, as both remained well. On August 10th, 1906, he came to me with an indurated sore on the margin of the meatus, with bullet glands, ulcers on his tonsils, and a papulo-squamous eruption. He had been exposed nine weeks before, and had been in contact with his wife. He brought her to me on August 24th, 1906, and she had an indurated sore at the posterior fourchette with bullet glands and a roseolous eruption.

The above four cases illustrate second attacks of syphilis occurring in subjects cured of a previous attack, and in each the second primary sore occurred in a different position to the earlier one, and was followed by secondary symptoms.

Relapsing Chancres.

The existence of an indurated sore in a person who has had syphilis is not, however, in itself alone evidence of a second attack; and this discloses a very interesting clinical phenomenon. Chancres not infrequently relapse, thus indicating, though not always, that treatment is not carried out. These recurrences are always in the site of the original sore. A small gumma in the corona, and an ulceration over a local lymphatic inflammation on the penis, may also resemble a primary sore. But, strange to say, a primary sore may also recur whilst a patient is actually under treatment.

This case, recently under my care, bears on these points:

Chancre Recurring during Treatment.

A man, H. G., aged 34, came to me on February 3rd, 1909, with a hard sore on the right side of the prepuce just above the corona, and well-marked secondary symptoms. He was treated with intramuscular injections of 1 grain of calomel, and afterwards with an intramuscular injection of 1 grain of metallic mercury (Lambkin's cream) fortnightly. He was free from symptoms in four months, but treatment was of course continued. In December he called my attention to the seat of the primary sore, which had returned, was as large as a threepenny piece, indurated, and eroded. He denied fresh exposure. Mercury atoxylate (1 grain) was substituted for the mercury as an injection, and small doses of potassium iodide were given by the mouth. In six weeks the induration had disappeared, and so far it has not returned.

Relapse after Long Immunity.

There is still another class of case which demands consideration when we study our attitude in advising patients who have been apparently cured of syphilis. Unhappily, after an immunity—practically a cure—for many years, a man who has had syphilis, undergone the soundest treatment, married, and begotten healthy children, may develop symptoms. Is this man to be "branded" during all these years as "uncured"? Is he to be deprived of all the blessings of family life? I think not. The longer, as a rule, that marriage is delayed the better—the virus becoming more attenuated, perhaps; but it seems as unreasonable to forbid a man who has had rheumatic fever or diphtheria to marry, as to prevent one who has been properly treated for syphilis, and in whom, after a reasonable lapse of time, no symptoms have appeared. The following cases will illustrate my meaning.

Immunity from Syphilis for Twenty Years, and then an Outburst. Was Marriage justifiable?

On March 1st, 1886, I was called to a man aged 50 who was suffering excruciating pain on the inside of his left knee. He had felt pain for several days, but it had developed acutely during the night. He had never had rheumatism. The knee felt hot, and there was slight effusion into the joint. The temperature was 103°, pulse quick. He was treated for several days with salicylates, and it was necessary to give morphine hypodermically. No improvement occurred, and on March 5th the fact was elicited that he had been treated twenty years previously for primary and secondary syphilis by a specialist. He remembered no symptoms after the first few months. It was remarkable how the severe pain was almost instantly relieved by a few doses of potassium iodide and mercury; he resumed his work in a week, continued treatment for many months, and remained well. He had been married seventeen years; he had four children whose ages ranged from 7 to 16, and in not one of them nor in his wife could I detect any sign of syphilis.

Surely this man had done no wrong in marriage. It is, however, a good illustration of Professor Fournier's final advice to his patients, which is, "If ever you are ill, no matter how far from now, nor whatever the disorder may be, tell your doctor plainly that you have had syphilis; tell him ten times rather than once."

Immunity from Syphilis for Eighteen Years: Its Relation to Marriage.

A man aged 45 consulted me on April 13th, 1909, suffering from a painful swelling of the right foot. It had been noticed for three months, but it was increasing rapidly and now had inflamed. He had been under some treatment. The foot was swollen, red, and oedematous, and a large ill-defined gummatous mass occupied its dorsum. It appeared as if about to break down. He admitted syphilis eighteen years before, and treatment by a London specialist. Under large doses of potassium iodide and mercury and evaporating lotions the whole mass disappeared, leaving a little thickening over the central metatarsal bones, which has now almost gone. This gentleman had been married sixteen years; he had two daughters, aged 12 and 14; in neither could I detect a sign of syphilis, nor in his wife.

When called upon to advise regarding the curability of syphilis and on the subject of marriage after an attack, it is well to recall cases such as these.

Early Diagnosis and Treatment.

It is a well-recognized clinical fact that the earlier syphilis is treated the more amenable it is. Symptoms, both in the earlier and later stages, are less severe, and, if not entirely prevented, they may be greatly modified. The later treatment is begun the more rebellious is the disease, the more frequent are its relapses. The moment the diagnosis is made internal treatment should begin. Every sore is not syphilitic; one is followed in weeks or months by symptoms of constitutional infection—another by none.

In military practice, until the discovery of the *Spirochaeta pallida* and Wassermann's reaction, it was the custom to refrain from the constitutional treatment of any sore until "secondaries" appeared. In my earlier days it was taught that there were two distinct and well-defined local sores—one a hard and one a soft chancre, the former always a forerunner of syphilis, the latter never—the clinical features of each being so characteristic that a few simple rules would distinguish them. Now the doctrine has changed. It is taught that, although a hard sore is usually followed by syphilis, this is not to be relied upon, and that a soft sore may be—in fact, often is—followed by real syphilis. Rollet first demonstrated that the infection of the soft sore and of syphilis might occur together, a mixed chancre or chancres being the result. During a long connexion with the military hospital at the Hulme Barracks I watched the development of early syphilis in many cases, and although it is impossible clinically to foretell whether a non-indurated sore or sores forerun syphilis, it is possible to be reasonably assured that a certain indurated sore will be followed by constitutional symptoms. When the incubation period coincides, and no local caustic has been applied, and if the glands are hard, painless, and enlarged (one rarely sees a chancre without glandular signs), the diagnosis is clear. A gradually increasing, painless, well-defined induration is practically always followed by syphilis.

It is now generally accepted that the *Spirochaeta pallida*, discovered by Schaudinn in 1905, and confirmed later by Hoffman and many others, is the cause of syphilis. This discovery opens out a new field for future investigation, and promises to solve many problems. More than twenty years before this discovery Sir Jonathan Hutchinson wrote:

> The disease depends upon a living and specific microbe; it is contagious or transmissible only so long as that microbe retains its vitality. . . . That this discovery is in reserve for some future investigator I have the utmost confidence in believing.

How true a prophecy, and how gratifying that this great master has lived to see its fulfilment!

Though we must recognize that the *Spirochaeta pallida* is the organism which causes syphilis, and that its demonstration makes immediate internal treatment necessary, and that its presence can be discovered in sores which otherwise could not at the same stage be declared constitutional, still its discovery, and especially its distinction from other spirochaetes which it resembles, require special skill. Until recently it has been the work of the highly trained microscopist, not always available, to prove its existence. Latterly, however, simpler methods of demonstration—"the dark ground illumination"—have been introduced, which will bring more positive diagnosis within reach of all.

But still, the inability to discover the *Spirochaeta pallida* in a primary lesion is not conclusive evidence of the absence of syphilis. During the last twelve months I have seen one case of a doubtful chancre, which later was followed by "secondaries," in which a distinguished bacteriologist failed to discover any signs of the *Spirochaeta pallida*; and two other cases, each with an indurated sore and secondary symptoms, in which the micro-organism could not be found.

The serum diagnosis of syphilis—the so-called Wassermann's reaction, which, if positive, indicates that the individual is suffering from syphilis—is not at the present time to be relied upon to determine the nature of a sore nor to guide the practitioner in its treatment. The reaction is invariably absent in non-syphilitic subjects, but it is also absent in 15 per cent. of syphilitic cases at any stage, and in the first six or eight weeks of the disease it is rarely present at all. I myself have seen a well-marked case of syphilis in an active state in which the reaction was negative, even though sought for by an expert; and as it is during the first few weeks of infection that the practitioner needs experimental help in his diagnosis, much advance in this research is necessary before it becomes of much practical value in early stages.

I contend that although we are not justified in pronouncing any sore or sores as non-syphilitic, we are right in assuming from clinical evidence alone that certain sores will be followed by constitutional symptoms, and in instituting treatment before their development. There are sores which are unquestionably syphilitic; there are others which are doubtful, and in the latter we must be content to watch and wait, unless the *Spirochaeta pallida* be found, or Wassermann's reaction be positive.

The Imprudence of Starting Constitutional Treatment before a Positive Diagnosis of Syphilis is made.

Though a diagnosis can be made, and treatment begun in many cases of primary syphilis, it is equally important to withhold internal treatment in any case of doubt. Hopeless confusion and loss of prestige to the surgeon and injury to the patient follow a contrary course, yet how often a foolish and half-hearted treatment is adopted. The following are two out of many similar cases.

Case showing that Internal Treatment should not be Employed before Certain Diagnosis is made.

A man, aged 22, consulted me on March 29th, 1909. He had ıat grey patches on both tonsils, enlarged submaxillary, sub-ccipital and mastoid glands, and scattered papular spots on ıis body. The penis showed four reddish-brown scars on the ılans, but no induration or sore. He stated that early in the ırevious August, noticing several discharging sores on his ıenis, which had appeared a few days after exposure, he con-ulted a doctor. He was assured that they were soft sores—hat he need not fear syphilis—and a lotion was prescribed. There was no improvement in a fortnight, so pills were given—loubtless mercurial. His symptoms disappeared and in six veeks he was pronounced cured. His present condition had ıeen developing for three weeks. This was obviously a case of lelayed secondary syphilis. The doctor had been uncertain, ;oo hasty in giving mercury, then, doubtful of syphilis, he had ielded the issue to fate.

Case Illustrating Too Early Conclusion from a Sore—and the Value of Mercury Atoxylate in Rapidly Removing Symptoms.

A more striking case will emphasize this point. A man, A.B., aged 30, consulted me on January 5th, 1910. He was to be married the following day. Two months before he had several sores on his penis. His doctor cured them with a lotion and pronounced marriage to be safe. A rash appeared a week ago—which his doctor assured him was simple psoriasis from which his mother suffered. I found he had a coppery squamo-papular eruption all over his body and limbs—symmetrical tonsillar ulcers—and enlarged and painless glands. Unfortunately, against all advice he married, with what result it is too early to say. His own symptoms have disappeared most remarkably under the intramuscular injections of mercury atoxylate.

Complaints are often heard that patients refuse treatment after symptoms have disappeared, but this is exceptional in my own experience. Once win the confidence of your patient, convince yourself of the necessity, and a straightforward statement of the need for long treatment and the consequences of neglect will usually bind your patient to you until he is cured.

Treatment of the Local Sore.

The investigations following the discovery of the *Spirochaeta pallida* will do much to settle one long-fought controversy, namely, whether the excision or destruction of the primary sore has any influence in preventing constitutional symptoms. It was formerly the practice of many surgeons to adopt severe local measures—either by cautery, caustic, acid, or the knife—hoping thereby to abort the disease. I have often applied acid nitrate of mercury or liquid carbolic acid to an indurated chancre, but long since abandoned such local measures in any attempt to check the disease. If a chancre has developed to an extent sufficient to declare it to be an infecting one it seems useless to destroy it. It is questionable whether a chancre can be diagnosed as syphilitic before general infection has occurred, which in some cases takes place coincidently with the earliest formation of the sore. Although it is possible that the blood may be directly inoculated with syphilitic poison, the lymphatics are the usual channel of communication between the place of infection—the sore—and the system. The spirochaete has been found in the glands within a few hours of infection, and before the appearance of any sore. Neisser and others have, in experiments on apes, found the spirochaete in the neighbouring glands before the appearance of any induration in the chancre; and they have infected other apes with syphilis from the products of these glands. What effect, therefore, can excision or the cautery have on the prevention of syphilis, which probably occurs concurrently with the earliest formation of the chancre? Such treatment causes pain and discomfort, and tends to confuse rather than help the issue. It is true that in the French and German armies the number of cases of primary syphilis have been much reduced since it became the custom after exposure to compel the soldier to lubricate the parts concerned with a 20 per cent. calomel ointment, and to take other disinfecting precautions; but to be of any avail this must be carried out within two or three hours of contact.

The best local treatment is the application of a finely-powdered preparation of one of the odourless forms of iodoform with boric acid with which a 15 per cent. strength of calomel is intimately mixed; sometimes the old-fashioned black wash answers better.

Sloughing Syphilitic Phagedaena.

This condition, fortunately of rare occurrence in early syphilis, is sometimes very alarming, and demands prompt treatment. It occurs in the robust quite as often as in the cachectic and weakly subject. It is oftenest seen in cases of chancre concealed under a phimotic prepuce, and, in my experience, in association with an accompanying gonorrhoea. These two maladies not infrequently occur together, and I have on several occasions witnessed the development of a hard sore whilst treating a patient for gonorrhoea. Ulceration of a primary sore is not uncommon, but rapid spreading of the ulceration is a significant sign, and it is often followed by a destructive gangrenous inflammation of surrounding tissues. I have seen a sore, apparently quite benign, become within a week a spreading sloughing inflammation, threatening not only the surrounding skin but destruction of the penis itself. These cases are usually treated with strong caustic and escharotic applications, which, however, cause much anxiety, pain, and depression. I would emphasize the value of treatment by immersion in hot baths, associated, of course, with the internal administration of mercury. The affected part may be immersed in a vessel in bed, although in severe cases I much prefer the use of the hot sitz bath in which some boric acid or other mild disinfectant is dissolved. I have kept patients as long as three weeks in such a bath, although, if desired, a few hours' sleep in bed may be allowed. It is surprising how gratifying the result of this treatment is. Instant comfort is experienced, pain disappears, little inconvenience is felt, and within a short time an improvement in the local condition is seen. A reliable nurse to maintain the supply of hot water and to keep the patient in blankets is essential. I have never seen a case fail to respond to this treatment. Two cases will illustrate it.

Sloughing Syphilitic Phagedaena with Gonorrhoea.

CASE I.—A man, aged 38, was seen in consultation with Dr. H., on October 7th, 1905. He was supposed to be suffering from gonorrhoea and had been under treatment seven weeks. The prepuce had been slit up for phimosis. The temperature had suddenly risen and his penis had become swollen and inflamed. I found him very ill. He was in great mental and physical suffering; his pulse was quick and the temperature 103°. The penis presented an alarming appearance: extensive sloughs involved both the skin, prepuce, glans, and scrotum; there was a hard mass of ulceration, difficult to define, on the right of the glans, evidently a primary sore. Gonococci were afterwards found in a specimen of the discharge taken from the meatus. Masses of painful enlarged glands occupied both groins, and the glands in the axillae and neck were hard and swollen. He had a large painful periosteal swelling on the forehead, symmetrical grey ulceration on his tonsils, and a few scattered papular spots on his body. Potassium iodide and mercury were prescribed in small doses, and he was placed in a hot sitz bath, in which he remained for three weeks. Relief was almost immediate; there was no further spreading, the sloughs came away leaving a healthy granulating surface, and the disfigurement was less than anticipated. In five weeks he was able to walk out of doors.

CASE II.—A man, aged 22, was treated in the Hulme Military Hospital, where he had been an in-patient for six weeks before coming under my care in December, 1900. He had had gonorrhoea, but during convalescence an induration had appeared on the prepuce, causing phimosis, for which circumcision had been performed. When seen by me his penis was engorged, and a spreading, sloughing ulceration involved the glans and a considerable portion of the penis. The inguinal glands were enlarged, the throat was red and inflamed, and he had a roseolous eruption on the body. Immediate relief was afforded by immersion in a hot sitz bath in which he remained night and day for eighteen days, in this way and with intramuscular injections of grey oil, the symptoms were quickly overcome.

The Occurrence of Syphilis without a Local Sore.

Cases of secondary syphilis occasionally occur in which no trace of a primary sore can be found. How this comes about—how the blood becomes directly infected—it is difficult to explain. I have seen several such cases.

Syphilis without Discoverable Chancre.

A man, aged 30, consulted me in January, 1906, for loss of hair and small scaly papules on his scalp. He had no idea of syphilis, and contemplated marriage in three months. Similar spots were found on his body, ulcers in the mouth and on the tonsils, and enlarged painless glands in both groins and in the occipital and cervical regions. The possibility of infection was frankly admitted, but no sign of chancre could be discovered in any part of his body nor in the urethra. The symptoms rapidly declined under a mercurial course.

Secondary Syphilis without Obvious Chancre.

I was consulted on February 12th, 1900, by a man, aged 34, who had mucous patches in the mouth, ulceration on the tonsils, enlarged glands, and a roseolous eruption on the chest. No sign of a primary sore could be found, but he responded readily to mercurial treatment.

Extragenital Chancre.

Cases of extragenital chancres, too, are often very confusing. That they occur on the lip, the eyelid, nipple, finger, tonsil—in fact, wherever there is skin or mucous membrane—is well known; but it is none the less true that when confronted with such cases we are apt to overlook their nature. Several striking illustrations could be given. It is, however, to the "hidden" chancre that I wish to draw attention. Syphilis may be suspected, search made, and yet the chancre remain undiscovered unless great care is taken. It is well in obscure cases to strip the patient entirely. Two cases have recently come under my care:

Cases of "Hidden" Chancre.

CASE I.—A man aged 40 was sent to me by Dr. H. for a troublesome eczema of the scrotum. He was married, and had been well until six weeks before. The scrotum was red, inflamed, and scaly. Small ulcers were noticed on the tongue and tonsils, enlarged glands in the neck and groins, and on stripping a faint roseolous eruption on his body. No sore could at first be found on the penis or elsewhere. On making him bend, however, to see if any condylomata existed, a small indurated, slightly eroded sore was seen on the left side at the junction of the scrotum with the perineum. He is rapidly recovering under intramuscular injections of grey oil.

CASE II.—Another patient, aged 27, saw me on January 12th, 1910, with undoubted signs of secondary syphilis. He admitted exposure, but no local sore could be found. He wore a "body belt," which carelessly I omitted at first to have removed. When this was done a well-marked indurated sore was noticed in the mid-abdominal line 1 in. below the umbilicus.

Difficulties in Treating Malignant Syphilis.

By this term is meant cases of exceptional severity, in which secondary symptoms develop, progress, and succeed one another with alarming rapidity, produce profound illness, and resist ordinary treatment. It is probable that the severe nature of the symptoms is due to an idiosyncrasy in the patient—a peculiar constitutional susceptibility to the poison—rather than to any difference in the virus itself. It is apparently not due to the state of health or to the age of the patient, as it occurs, in my experience, as often in the strong and robust as in the weak and ill-developed—and in the young and old as often as in those of middle life. In some cases it is influenced perhaps by insufficient treatment; but it occurs also in spite of sound treatment vigorously applied. It does not necessarily follow a severe local sore. Some of the most intractable and extensive sores that I have seen have been followed by mild syphilis. The following cases are instructive in this connexion.

Malignant Syphilis Resembling Small-pox.

A man, aged 29, was seen in bed on January 11th, 1897. He had been ill a week with feverishness and headache, and two days before he noticed "spots" on his body. The temperature was 104°: pulse 120. He had intense headache, backache, and pains in the legs. On the face, body, and extremities was a profuse eruption resembling variola; some of the spots were papular, some vesicular, others pustular. Many were of "shotty" hardness, and showed umbilication. The tongue was furred and dry, the throat very red. He was unaware of any exposure to small-pox. Quite accidentally enlarged glands were noticed in his groins, and inspection of the penis revealed an indurated, ulcerating sore on the right side of the prepuce. At first he strenuously denied exposure, but later admitted an indiscretion two months before his illness began. So strong was the resemblance to small-pox that, notwithstanding the evidence of syphilis, I asked Dr. Niven to see him, who agreed that we were justified in dismissing the suspicion. He was at once given Hutchinson's pills, and his acute general symptoms were relieved. His spots, however, crusted over, becoming rupial; and, notwithstanding the mercurial treatment, he developed during the next few weeks severe iritis and several periosteal nodes on the forehead and occiput. It was not until potassium iodide and arsenic were added that any impression was made on the specific symptoms. He remained under continuous treatment for a year, and then foolishly disappeared. In March, 1899, he returned in a shocking state. He was cachectic; there was phagedaenic ulceration of the throat; a considerable portion of the roof of the mouth was ulcerating and bone was laid bare; he had a large gummatous swelling on his head and gummatous ulceration on the right leg. He took potassium iodide and mercury for many months, also arsenic and quinine, before his symptoms subsided and he was able to resume his work. Since then I have lost sight of him. One regrets that this case came under observation before I was familiar with the intramuscular treatment of syphilis. The case also illustrates the early period at which periosteal inflammations occur in secondary syphilis—a condition which happens much more frequently than is generally imagined—and also the value of potassium iodide in such cases.

Case of Malignant Rupial Syphilis.

On May 18th, 1903, I saw a man, H. L., aged 22, who had been under treatment for syphilis for eighteen months previously. During the whole of that time he had been unable to follow his employment. His prescriptions showed that he had taken at different times grey powder, potassium iodide, Fowler's and Donovan's solutions, and other remedies, but he told me that whatever he took disagreed with him, causing either vomiting, diarrhoea, or coryza, and that he had never been able to continue treatment for more than a few weeks at a time. His nose, upper lip, and a portion of the right cheek were destroyed by an ulcerating lupoid-looking mass; half his penis had gone, his body and extremities were covered with rupial sores, his right eye showed extensive iritic adhesions. Under a course of intramuscular injections of grey oil as used by Lambkin, which were well borne, he at once began to improve, and in eighteen months he had resumed work, though of course greatly disfigured. He remained under treatment for several years, and when last heard of had had no further relapses.

This case is a good example of the class which seems quite unable to take specific remedies by the mouth, but tolerates them when administered intramuscularly.

The Need to Prohibit "Alcohol" in Treating Syphilis.

It is well to remember the pernicious effect of alcohol when treating cases of syphilis. It appears almost to be a direct antidote to the usual beneficial effect of mercury. So many cases have come under notice in evidence of this, that it is my custom to insist on abstention, except under exceptional circumstances and for limited periods. Spirits and champagne are especially harmful.

Syphilis carefully Treated: Recovery Retarded by Alcohol.

A patient, aged 24, sent to me by Dr. G. on March 6th, 1909, had contracted syphilis two and a half years before. He had taken continuous treatment for the first eighteen months and intermittent later. He had lost weight and had suffered frequent recurrences. It was elicited that during the whole period of his illness he had taken large quantities of beer and whisky. On the soft palate above and to the right of the uvula was an ulcerating almost phagedaenic condition with irregular edges, and a large hole communicating with the pharynx. He had enlarged glands in the neck and groins. At the seat of the original chancre on the corona was a small hard gumma, and he had a scattered papulo-squamous eruption on his body. As he had albumen in the urine, treatment at first was cautious, but the albumen soon disappeared under treatment. He had four intramuscular injections of 1 grain of calomel, and afterwards weekly and lately fortnightly injections of mercurial cream, which agreed well. He took iodipin tablets and refrained from alcohol. His improvement has been uninterrupted, and he promises to remain well.

A case sent to me by Mr. Jonathan Hutchinson was of a similar nature, but the patient would not discontinue alcohol. Several methods of treatment were tried without any good result, and further supervision had to be declined. Other cases, however, that have resisted treatment have begun to improve as soon as alcohol has been stopped.

The Frequency of Affections of the Nervous System in Early Syphilis.

It is now well known that the cerebro-spinal system is often attacked by syphilis at a much earlier period than was formerly believed. Symptoms due to syphilitic deposits implicating or pressing upon some part of the brain or cord occur during the earlier stages of secondary syphilis. It is well to keep this in mind, and to be prepared to treat such cases vigorously, as they are apt to resist mild treatment; and unless the lesion is rapidly relieved, permanent loss of function will be threatened. Vigorous treatment gives the best chance for the return of normal function. How many cases of such a common condition as hemiplegia have their origin in syphilis, and would recover under severe and well-directed treatment! The following two cases illustrate these points:

Right Hemiplegia and Aphasia occurring in Early Secondary Syphilis.

A man aged 25 came under my care on January 6th, 1906, in consequence of sudden loss of power in the right arm and

partial aphasia which had occurred during the previous night. The right arm was helpless, and he could not grasp; there was an area of impaired sensation on the back of his right forearm and hand, and his speech was affected. There was no albumen in the urine, and the heart was sound. It was ascertained that he had contracted syphilis six months previously, and that he had gone through a course of injections in Paris, a second course being shortly due. Six injections of gr.j calomel were given at intervals of four days intramuscularly, and afterwards each fortnight 1 grain of metallic mercury in Lambkin's cream. Recovery was complete and speedy; in three months all symptoms had disappeared, nor have they returned. Treatment was continued for two years.

Diabetes Insipidus and other Nerve Phenomena due to Early Syphilis Cured by Intensive Treatment.

A man aged 29 consulted me on September 23rd, 1885, complaining of great thirst, frequent and copious micturition, severe headache, occasional vomiting, weakness, and defective vision of the left eye. He had been married seven years, and had two healthy children. He denied syphilis, but admitted gonorrhoea two years before, which was very obstinate to cure, and for which he took much medicine. His present illness began six months ago, with occasional headaches, which now were frequent and severe. Latterly he had passed large quantities of urine, rising hourly in the night; he had inordinate thirst, and had lost weight. When seen he was in bed—dull, apathetic, anaemic, sick, and suffering intense vertical headache. The pulse was 80; temperature normal; respirations sighing and irregular, tongue dry and brown. He was passing between 8 and 10 pints daily of pale, straw-coloured, clear, odourless urine, specific gravity 1003, which contained neither albumen nor sugar. The left disc showed well marked optic neuritis; the right appeared normal. The deep reflexes were exaggerated. The symptoms were regarded as due to gross intracranial syphilitic disease; probably a multiple lesion. The polyuria was looked on as a secondary phenomenon most likely caused by some gummatous deposit pressing upon the floor of the fourth ventricle and implicating the controlling centre. He was treated with gradually increasing doses of potassium iodide and mercury perchloride, but he got worse. In the early part of October a large periosteal swelling developed on the top of his head, thus confirming the specific nature of his illness. Mercurial inunctions were substituted for the perchloride, and the iodide was rapidly increased until he was taking drachm doses three times daily. He became ptyalized early in November, and from that date his recovery began. The headaches subsided, the polyuria and the node gradually disappeared, the optic neuritis cleared up, and by the end of January he was able to resume work. He subsequently took small doses of mercury for two years, and he was quite well fifteen years later when he left Manchester.

This case not only demonstrates the need for the intensive treatment of syphilis when it attacks the nervous system, but is an example of the value of those cardinal rules of Dr. Hughlings Jackson (the greatest of all neurologists), who used so often to say:

> If you see a mixture of nerve symptoms which do not appear to coincide with each other—a medley of symptoms, an incoherent succession or a random association of symptoms, apart from any demonstration of actual syphilis—suspect it and treat it.

Treatment of Early Syphilis.

A study of the few cases that have been related under the previous headings show that the treatment has varied. Each case of syphilis should be treated on its own merits, and if one method causes no ready response, some other line must be adopted. Age, sex, constitution, resisting power, the condition of the various organs, the nature and severity of symptoms; the means, leisure, and the surroundings of the patient; the effect of treatment on the mind, constitution, and on the course of the disease—all these points must be considered in the effort to cure our patient. There is no routine way of dealing with every case.

Mercury remains our sheet anchor. Its continuous administration in small doses over a long period—never less than two years—has in ordinary cases given me the best results. To treat only when symptoms appear is to court disaster—the enemy is at the gates, and may renew his attack with overwhelming strength; why not continue to harass, wound, or destroy him after his first repulse? Neither has it ever been clear to me that the intermittent administration of the drug increases its potency and value, nor that its continuous employment reduces it to impotence; a patient at the end of a long and continuous treatment is as liable to become ptyalized, if his limit is exceeded, as he was at the beginning of his course.

Fortunate in early days in being a pupil of Sir Jonathan Hutchinson, my treatment until the last ten years was entirely on his lines—namely, small doses of grey powder by the mouth given over a long period, supplemented by opium, iron, quinine, arsenic, and potassium iodide, as each individual case required. I never treat for less than two years; often much longer. As a whole the results have been excellent. Reflection, however, brings to mind a few cases, treated years ago, which undoubtedly would have done better had I had the advantage of the knowledge and experience at our disposal now. The intenser effect of the intramuscular treatment in intractable cases has greatly impressed me. A notable illustration of its special advantage is seen in the case of H. L., described in the notes to malignant syphilis. I never hesitate to employ this method now, directly a resistance to oral methods is manifest. It is usually quite safe to give four injections of 1 grain of calomel in four weeks and 1 grain of metallic mercury fortnightly afterwards for a year, and monthly later as long as is necessary. Of course, circumstances may require some modification of this. The urine, weight, gums, and blood require careful watching; nodules must absorb before a second injection is given into the same buttock, and the most scrupulous antiseptic technique must be carried out, otherwise disaster will follow. In over 2,000 injections only 2 cases of ill effects have occurred to me—both severe ptyalism. They occurred in hospital in earlier experience, when injections were repeated oftener, and before the extreme watchfulness necessary had been fully appreciated. No case has caused me anxiety since. The formulae of the creams that I use are those of Lambkin—the creo-camphor in which prevents or greatly relieves the pain; the aseptules supplied by Messrs. Oppenheimer are handy and reliable. This method of administration is desirable in other than refractory cases. It is largely employed in the army, and in private practice it is useful when the existence of the disease must be kept secret; also in dyspeptic subjects, and when mercury given by the mouth, no matter in what combination, causes colic or diarrhoea.

Treatment by Arylarsonates Alone and in Combination with Mercury.

Much has been published lately regarding the exceptional value of arylarsonates or their combination with mercury in the treatment of syphilis. In my own practice these drugs have been held back until lately, partly because from time to time, serious, even calamitous, results have been published as a consequence of their exhibition; also because, although their action on symptoms has in many recorded cases been phenomenal, a period of years must elapse before their lasting curative property is established; and, lastly, because in difficult cases I have been satisfied with the injections of calomel or grey oil alone, or associated with the internal administration of potassium iodide, arsenic and quinine.

No doubt you all saw a letter from Mr. J. Ernest Lane in the BRITISH MEDICAL JOURNAL (March 5th, 1910) in which he describes a case of syphilis in his own practice, in which at the end of a course of ten injections of orsudan, given in 10 grain doses on alternate days, the patient suddenly became blind from optic atrophy, and in the same letter 3 cases are mentioned as experiencing a similar fate after soamin. Again, in the same JOURNAL of January 22nd, 1910, Drs. Lundie and Blaikie relate a corresponding tragedy after a course of soamin; and in the *Lancet*, 1909, p. 1196, Dr. Bagshawe sounds a warning note regarding the danger of atoxyl.

For a detailed account of a remarkable series of cases of amblyopia and blindness following the use of atoxyl and arsacetin, reference should be made to the Bulletin of the Sleeping Sickness Bureau (No. 8, 1909). In this Professor Dr. Max Beck notes that Watermann treated four cases of tabetic optic atrophy with atoxyl, and in each case the vision became markedly worse. He also describes 23 cases of complete and 7 cases of partial blindness out of 1,633 patients treated with atoxyl at Sesse by the members of Koch's expedition. Drs. A. Van Gehuchten and A. Tils describe the case of a man (infected by trypanosomes) who became blind after treatment with atoxyl. Two series of cases treated by Gray with atoxyl are also recorded. In the first 1,135 cases 47 had alterations of vision and 20 became totally blind. In the second series of 1,712 cases 70 had dimness of vision and 10 became totally blind; in 2 of the latter mercury was given with atoxyl. Dr. Paderstein[1] has published 12 cases treated with atoxyl

and 2 with arsacetin, all followed by amblyopia varying in severity from actual blindness to marked contraction of the field of vision. Paderstein's patients were Europeans. Those of Beck and Gray were natives of Uganda.

On the other hand many others have employed the arylarsonate salts without any ill effects and with conspicuous advantage. In the same article from which the above is quoted, Major Ward is reported to have given 18,000 grains of soamin to more than 100 syphilitic patients during the last two years without any ill effects. Colonel Lambkin, so zealous a worker in this field, has treated 308 cases with arylarsonates without any bad effect. During 1909 he gave over 2,000 intramuscular injections of soamin and arsacetin with no ill consequence; and he attributes the toxic symptoms that have been described to the liability to decomposition that occurs when these salts are kept in solution. Beck, however, regards the eye symptoms as due to chronic poisoning dependent on idiosyncrasy, as many patients receiving larger quantities of similarly prepared arylarsonates escape eye symptoms.

Colonel Lambkin is the pioneer in treating early syphilis intramuscularly with the arylarsonates in combination with mercury. He related his earlier results at the Belfast Meeting of the British Medical Association, 1909.[2] Since then he has recorded an interesting series of cases treated with a preparation of atoxyl and mercury made for him by Messrs. Greef of Charlottenburg, Germany, and named mercury atoxylate. He has already treated a large number of cases with remarkable success and without the slightest toxic effect. He gives about 9 grains in eight injections, with three to seven days' interval between each, and repeats the course after one month's rest.[3] Through the courtesy of Colonel Lambkin I was privileged last December to see the technique and effect of this treatment at the Rochester Row Military Hospital. His results were very striking.

Only in exceptional cases have I felt justified at this stage in employing the remedy, but I have done so in 5 cases, in 4 of them with marked benefit. The fifth case is one of general paralysis, and this, too, shows improvement.

The first is one already alluded to (H. G.) in speaking of relapsing chancre. This recurred notwithstanding intramuscular treatment with grey oil, but the chancre disappeared under one course of injections of atoxylate of mercury.

The second case, also already mentioned, was a man (A. B.) with a coppery squamo-papular eruption all over his body, throat implications, and enlarged glands; about to marry. He is improving most strikingly under a course of mercury atoxylate.

The third case is that of a gentleman under treatment by intramuscular injections of grey oil for eight months, who developed a very extensive papulo-squamous eruption on the back, which neither potassium iodide nor Fowler's solution given at the same time as the injections appeared to benefit. It cleared up entirely during one course of mercury atoxylate.

The fourth case is one of very severe secondary syphilis, in which the throat was sloughing, an angry spreading sore existed, and the patient was cachectic and ill. He has improved rapidly under a course of the mercury atoxylate.

The mercury atoxylate* has a wonderful immediate effect on intractable symptoms, and so far I have noticed no ill effects. Further experience will show if it confers equal future benefits. These new remedies should not be abandoned because of untoward accidents alone. The early employment of mercury caused many calamities, but it has outlived opposition. We should rather redouble our efforts and caution and strive to appreciate the class of case in which these new drugs can be administered with additional benefit, and how they can be given without harm.

My experience with the intramuscular injection of the soluble salts of mercury is limited to their administration to patients temporarily resident in Manchester, but under the care of foreign specialists. They appear to cause more pain and depression, and to be less effective in the removal of symptoms, than the methods already described.

Mercurial inunctions alone and in combination with potassium iodide have often served me well, especially in "melting away" those large abdominal masses (called tuberculous, but which I regard as oftener due to hereditary syphilis) so frequently seen in children. It is, however, a dirty and, if skilfully carried out, an expensive performance.

Potassium iodide is a drug we could not do without. Numbers of cases of secondary syphilis respond to its influence which resist mercurial treatment when given alone. Its value in the absorption of large specific masses is incontestable.

In 1898 I saw a young man, aged 22, who had been in the Royal Infirmary under the late Dr. Thomas Harris and discharged as incurable with a growth in the right chest. He was breathing almost entirely with his left lung—the right percussion note in front and behind being absolutely dull—with almost inaudible breath sounds, and no fluid. His right arm was oedematous and veins engorged. In a few months, under rapidly increasing doses of potassium iodide and mercury, the whole malady disappeared. He had not had syphilis himself, but there were reasons to assume hereditary syphilis.

I showed this man subsequently to Dr. Harris, and he was much impressed. Many other successful cases could be cited, especially one of large liver gummata, and another lung mass, which responded to treatment by iodide. In some cases the potassium or sodium iodide agrees badly; in these iodipin, an iodized oil, is a valuable substitute. It is prepared in two strengths—10 per cent. and 25 per cent. It can be given intramuscularly—or by the mouth in the form of capsules, tablets, or in milk. It is well tolerated, and my results justify the reputation that it has earned in other hands.

REFERENCES.
[1] *Berl. klin. Woch.*, March 31st, 1909. [2] BRITISH MEDICAL JOURNAL, 1909, vol. ii, p. 380. [3] Ibid., January 1st, 1910.

* Messrs. Oppenheimer and Son have procured the mercury atoxylate from the German firm and put it up for me in aseptules ready for use with Lambkin's cream basis. They assure me that if the aseptules are not tampered with, and if they are kept in a dark place, there is no fear of decomposition.

THE SURGICAL TREATMENT OF GASTROPTOSIS.

BEING AN ANALYSIS OF A SERIES OF TWENTY CASES, WI SPECIAL REFERENCE TO THE RESULTS OF OPERATIVE TREATMENT.*

BY FREDERIC EVE, F.R.C.S.,
SURGEON TO THE LONDON HOSPITAL.

THE symptoms sometimes associated with gastroptosis are those common to several other affections of the stomach. Hence the diagnosis rests on physical examination and on a process of exclusion, the culminating point of which is in some cases an exploratory laparotomy.

The patient suffers from severe chronic dyspepsia, often of long standing. In two of my cases the symptoms have lasted twenty years, in one for twelve, and in two for ten. There is flatulent distension, a sense of fullness, and pain after food referred to the epigastrium and sometimes radiating under the right costal margin and to the scapula. The pain comes on at various periods after food, usually early, but occasionally after a longer period, even up to three or four hours. Vomiting is often present, and, in exceptional cases, is incessant. The symptoms may be more or less persistent, but commonly the sufferer is subject to periodic attacks or exacerbations of the symptoms which lead to their admission to hospital on several separate occasions. The pain is prone to be made worse by standing or walking about after a meal. During the exacerbations there is in some cases superficial and deep tenderness over the epigastrium. The diet is usually, by force of circumstances, restricted. Meat is often avoided and the worst cases restrict themselves to milk, eggs, and such light diet in small quantities. Haematemesis is present frequently; it existed in nine, and perhaps ten, out of my twenty cases. In seven of these it was considerable in amount—a teacupful or more; exceptionally, it was frequent and small in quantity. The following cases are good examples:

Mary C., aged 46, suffered from pain, usually four hours after food, which was relieved by vomiting. She had repeated attacks of haematemesis "in large amounts" twenty years, seven years, and one year and nine months before admission respectively.

Emily S., aged 23, dairymaid. In 1907 she began to suffer after food with attacks of pain, which passed through to the back, also with nausea and flatulence. Six months later she

* Read before the Medical Society of London.

brought up blood, and next day the motions were dark. In January, 1909, she brought up a teacupful of blood; in May, 1909, she vomited a tablespoonful of blood on several occasions. Free HCl 0.07 Total acidity 56.

I cite this case as the haematemesis was verified by her medical attendants. Another patient, aged 32, informed me that on two occasions she had vomited as much as a quart of blood. The free HCl in this case was 0.05 per cent. Total acidity 23.

The cause of the haemorrhage I do not pretend to explain. Possibly in some cases it is toxic. In others due to rupture during vomiting of minute dilated capillary veins in the mucous membrane of the stomach; for on two or three occasions, on examining the interior of the stomach with a speculum, I observed small red points (looking like dilated venules) towards the cardiac end which bled readily on being touched with a sponge. Possibly when the stomach is prolapsed the venous return is slightly impeded, for the course of the coronary vein is rendered more vertical. I feel tolerably certain that the haemorrhage in these cases did not depend on ulceration, for in 8 of the cases with haematemesis not only were the external surfaces of the stomach carefully examined, but its interior was also examined with a speculum and sometimes with the finger. In no case was an ulcer found — except, perhaps, in that of a man aged 42; at a point on the lesser curvature a small, very superficial erosion $\frac{1}{8}$ to $\frac{1}{4}$ in. in diameter was observed. It looked as if a portion of the sodden mucous membrane had been detached by the speculum; and this is the more likely as he had had no definite haematemesis or melaena. On occasions, however, the vomit had been of a chocolate colour.

In the later stages of the malady the stomach may become dilated. Among my cases dilatation was noticed in three, and in one of these lavage showed definite gastrectasis. Evidence of delay in emptying the stomach was obtained by the use of iodopin, but this was only employed in a few cases. For example, in one case the reaction after administration of iodopin was obtained in three hours before the operation; and sometime after the operation in one and a half hours. In another case, before operation no reaction was obtained after an interval of three hours, and shortly after operation in one and a half hours. The bismuth test I have not yet tried.

At the operation the pylorus appeared in several instances to be suddenly bent upon itself, or kinked. The mechanism of this can be readily understood. The immediate cause of the gastroptosis is stretching and thinning of the gastro-hepatic omentum. This yielding is least at its right edge where it is thicker and reinforced by the common bile duct, hepatic artery, and portal vein lying within it. Consequently while the stomach sags down the pylorus is held up nearly in its normal position, and a sudden bend occurs on the inferior surface of the pylorus. The mechanical disability in emptying tself, entailed by the altered position of the stomach, is in some cases accentuated by spasm of the pylorus, which I have observed on the operating table in at least 3 cases. It is, therefore, not surprising that in long-standing cases the stomach walls yield and become atonic, and the organ dilates.

It may be noted that in some cases the stomach, in contradistinction to being dilated, is of an elongated tubular shape. This is perhaps one reason that many patients with gastroptosis can only take a very little food at a time.

Differential Diagnosis.

It is not my intention to enter fully into the differential diagnosis of gastroptosis, which offers many difficulties owing to other abnormal conditions being often associated with it.

Gastric Ulcer.—Anything like a full consideration of the differential diagnosis of gastroptosis from gastric ulcer would occupy much time, and in the end would, I venture to think, be unsatisfactory. For the symptoms associated with gastroptosis are in some instances so like those of gastric ulcer that the latter can only be excluded by a laparotomy. Allusion has been made to the frequency of haematemesis—that is, in nearly 50 per cent. of my cases. Pain and vomiting after food, superficial and deep tenderness over the epigastrium, and hyperasthenia of the skin to the right of the lower dorsal spines may in exceptional cases be present. An important point of distinction is that the acidity in gastroptosis is rarely increased, and is sometimes low. Free hydrochloric acid was in one or two cases of long standing entirely absent. When a youngish woman is referred to me with suspected gastric ulcer whose acidity is at or below normal, I always examine carefully for gastroptosis, especially if the lower part of the thorax is elongated and narrow. These cases form a distinct type.*

Movable Kidney.—Mobility of the right kidney was present in three of my cases—that is, 15 per cent.

One patient, with indigestion of twenty years' standing, haematemesis to a pint and a half, and melaena, had gastropexy performed first. Her stomach symptoms were relieved, but she returned later with right kidney pain. Nephropexy was followed by a complete return to health, which has lasted to the present time—that is, four years.

A second patient has been relieved of stomach symptoms by gastropexy. The right kidney was examined at the operation, but could not be moved. Now, eight months after the operation, she has definite renal pain, and the fingers can be insinuated above the right kidney.

A third case had suffered with indigestion for three years, and, on account of pain, her diet had been reduced to eggs and milk. The right kidney was freely movable. She has been cured by gastropexy. The kidney is still movable, but produces no symptoms.

When movable kidney and gastroptosis are associated it is advisable to attack first the organ causing apparently the most trouble. If necessary the second organ can be dealt with later.

Cholelithiasis.—This was suspected in a not inconsiderable proportion of my cases, but in only one of the series were gall stones actually found. To clinical observers the ready simulation of cholelithiasis by the gastric symptoms of gastroptosis will at once become apparent by reference to the altered form and position of the liver as a result either of contraction of the thoracic walls or of yielding of the abdominal muscles. A Riedel's lobe is frequently present, which may be mistaken for or be supposed to cover a distended gall bladder. The liver itself may be displaced downwards owing to stretching of its suspensory ligaments. Evidence of tenderness over the gall bladder on deep inspiration is of course absent.

Jaundice may, however, be caused apart from cholelithiasis. It may be due to a gastric catarrh spreading to the duodenum or apparently to stretching of the common duct by the drag on the gastro-hepatic omentum. The following case is an example:

Matilda R., aged 30, suffered with epigastric pain twenty minutes after food. Early in 1909 she had several acute attacks of abdominal pain, with vomiting and either constipation or diarrhoea. A second attack which lasted three weeks was accompanied by icterus. She subsequently had several attacks lasting two to three days each with icterus. A diagnosis of gastroptosis with (?) gall stones was made by my colleague Dr. Bertrand Dawson, and in this I concurred. The edge of the right lobe of the liver was prolonged downwards, and the pancreas could be felt above the lesser curvature. At the operation the lesser curvature of the stomach was found at a level with the umbilicus, and the gall bladder and bile ducts were natural. A Riedel's lobe was present.

In such a case of extreme gastroptosis it is quite possible that the common duct was narrowed as well as elongated by stretching. Nine months after gastropexy she stated that she "felt very well; just a little pain and indigestion, but nothing to speak of." There had been no return of icterus.

Hepatoptosis.—In only two cases was the liver so low that it was thought necessary to fix it by sutures. One patient on whom Beyea's modified gastropexy was performed was quite well four years later; in the other case Duret's operation was done.

Physical Signs.

The position of the stomach is recognized by the fullness at and just below the umbilical region, flattening of the epigastrium, and by palpation and percussion, with or without inflation. In well-marked cases the pancreas is easily felt above the lesser curvature. It may be noted that gastroptosis may be overlooked and mistaken for dilatation of the stomach owing to prolongation downwards of the free edge of the left lobe of the liver. The

* Writing of the virginal type, Rovsing says: "It is this characteristic group of cases of gastroptosis (exhibiting innumerable stomach symptoms) which come to me with a diagnosis of ulcer or of carcinoma ventriculi."

lesser curvature in such a case may be situated just above this free edge, and it is assumed erroneously that the dullness above this point—that is, in the costal angle below the ensiform cartilage—is entirely liver dullness, whereas the stomach is not lying deep to the liver, but is really considerably lower than natural. I have traced the source of this error on the operating table.

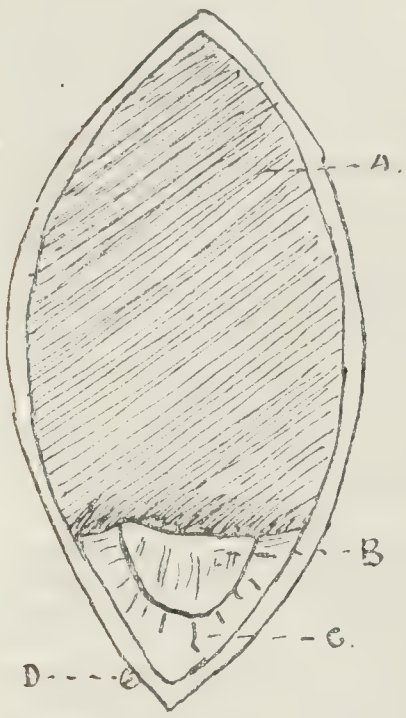


Fig. 1.—First stage. Condition on opening abdomen with liver in position. A, Liver; B, small omentum; C, stomach; D, umbilicus.

Surgical Treatment.

Terrier and Hartmann and Rovsing recommend the employment of trusses or belts in certain cases. The latter orders them in cases of gastroptosis occurring in older women from stretching of the abdominal parietes by repeated pregnancies. I have only prescribed trusses in one or two cases, and therefore have little experience of their utility.

It may here be noted that Rovsing[1] draws an absolutely sharp line of distinction between two types of enteroptosis, or, as he rightly prefers to call it, splanchnoptosis. One type he terms virginal, since it occurs in women who have not been pregnant, and whose abdominal walls are strong. It is produced by alteration in form and constriction of the lower part of the thorax and waist by pressure of the corset and of waistbands.

The second type occurs in multipara whose abdominal walls have become relaxed and hanging by pregnancy, and in whom the intra-abdominal tension is diminished. "The symptoms in the latter group are mostly insignificant, and as a rule can be completely relieved by a good abdominal belt, of which one is figured by Rovsing; but exceptionally operation is required for severe and persistent pain and wasting. On the other hand, in the virginal type the symptoms are usually associated with much pain; the diagnosis is difficult on account of the variability of the symptoms and the difficulty of palpation, owing to the rigidity of the abdominal walls. Operative treatment is usually required. This group includes the majority of the cases. Nephroptosis or movable kidney exists alone, seldomer gastroptosis alone, and still more seldom nephroptosis and gastroptosis. Gastroptosis is always associated with falling of the colon, seldomer with hepatoptosis."

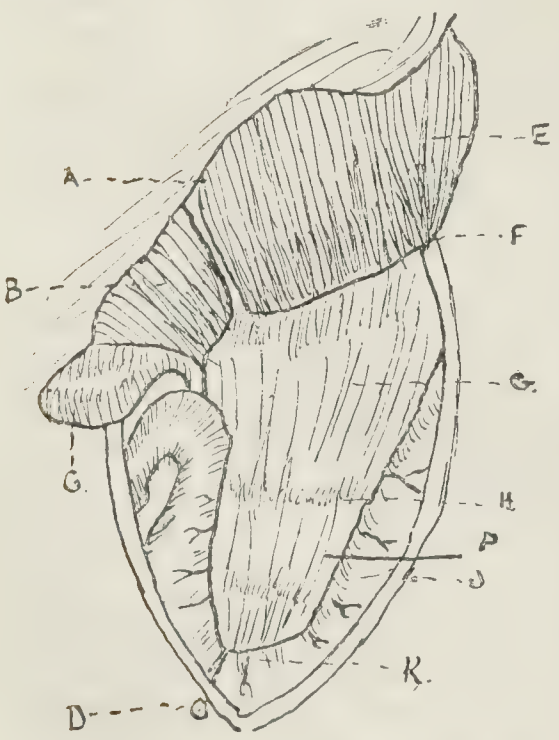


Fig. 2.—Second stage. Condition when liver is turned up. Liver held up and partially covered by gauze. A, Round ligament; B, quadrate lobe; C, gall bladder; D, umbilicus; E, liver—left lobe: F, transverse fissure; G, small omentum, very much thinned; H, pancreas seen through small omentum; J, stomach; K, lesser curvature 1 in. above umbilicus; P, pancreas.

The causes of splanchnoptosis are well known to British surgeons, especially by the writings of Arthur Keith. But Rovsing deserves the credit of having pointed out the clinical importance of the differentiation into types. For convenience I have treated the subject mainly from the point of view of gastroptosis, and have made no attempt to separate my cases into the two groups. In fact, the preceding portion of this article was compiled from the notes of my cases before I had read Rovsing's exhaustive article. As far as can be judged from the data of the notes, among my 20 cases 12, and probably more, were of the virginal type, 6 the multiparous type, 1 doubtful, and 1 patient was a male. It is, however, difficult to draw a hard and fast line of distinction, for a woman with nascent or partially developed virginal gastroptosis would almost certainly be made worse by pregnancy; and I have seen such cases.

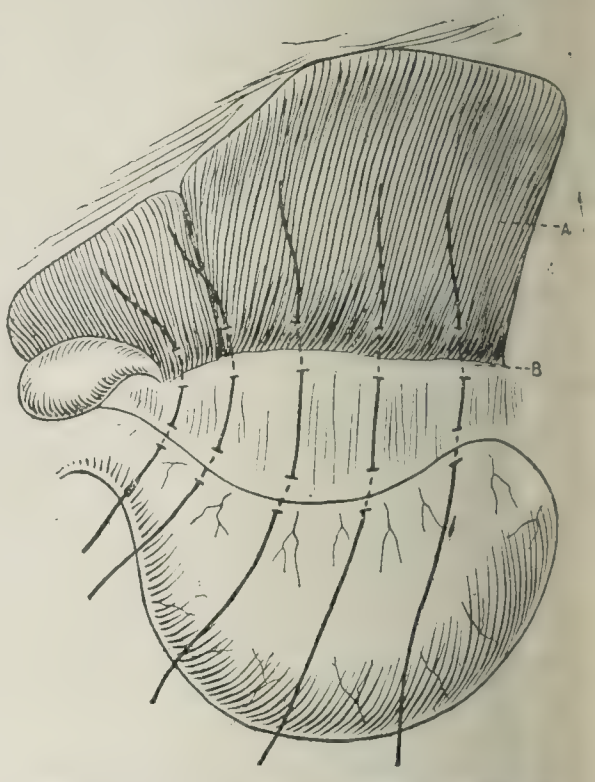


Fig. 3.—Third stage. Sutures in position. A, Liver; B, junction of gastro-hepatic omentum with liver.

Operative Treatment.

The stomach is suspended by its suspensory ligaments, the gastro-hepatic omentum and the gastro-phrenic ligament, attached below respectively to the lesser curvature and to the left of the oesophagus. The remainder of the organ is practically free. Any operation for the cure of gastroptosis should not violate this condition of freedom, otherwise the motility, together with the expansion and contraction, of the stomach are likely to be impaired; or the patient may suffer inconvenience from adhesions resulting from the operation. Many of the operations devised have for their actual object the formation of adhesions between either the anterior wall of the stomach or the lesser or greater omentum and the anterior abdominal wall. They are therefore to a greater or lesser degree open to the above mentioned theoretical objection.

Fig. 4.—Fourth stage. Liver turned up. Sutures shown in Fig. 3 now tied.

Duret, of Lisle, first performed the operation of gastropexy in 1894, suturing the lesser curvature of the stomach to the anterior abdominal parietes just below the ensiform cartilage. This procedure would be impracticable in many cases owing to the position of the left lobe of the liver. Davis modified this by attaching the lesser omentum to the parietes. Coffey suspends the stomach by attaching the great omentum, 1 in. below the greater curvature, to the abdominal parietes by a series of chromicized catgut sutures.

Rovsing's operation aims at attaching the anterior wall the stomach to the anterior abdominal wall. Three k sutures, running parallel to each other in a horizontal ection, are carried through the serous coat of the terior wall of the stomach; the highest is 1 cm. below e lesser curvature, and the other two are placed below it m. apart, so that the greater curvature and the lowest e-third of the anterior surface of the stomach remain e. The ends of the threads are carried on both sides rough the whole thickness of the abdominal wall and ed over glass plates. After three or four weeks e sutures are removed. By this means an "extra- dinarily sure, solid and wide fixation of the stomach" the parietes is obtained. Notwithstanding this wide hesion the results of his operations have been very tisfactory.

Theoretically the procedure of Beyea complies with the quired indications. Briefly, it consists in shortening the stro-hepatic omentum by means of reefs; three rows interrupted silk sutures are introduced so as to form series of three plications in this membrane. Unfor- nately the practical carrying out of Beyea's proce- ure is rendered impossible owing to the extreme tenuity the gastro-hepatic omentum in the great majority of ases.

I can only call to mind one case in which the opera- on as described by Beyea could have been carried out. he membrane is usually so thin in its lower two-thirds hat it will hardly bear touching with forceps, much less uturing. Even if the membrane were capable of being utured in the manner prescribed it would almost cer- ainly yield subsequently. Rovsing's experience coincides vith my own in regard to the thinness of the gastro- epatic omentum.

Since 1905 I have in suitable cases performed a modifica- ion of Beyea's procedure, which can be carried out without difficulty, and which has given satisfactory results. It was described by me in a clinical lecture on the surgical treat- ment of gastroptosis.[2]

Return of the displacement certainly does not occur after it, for I have examined a good many of my cases at considerable periods after the operation, and have never found the greater curvature of the stomach at a lower level than two fingerbreadths below the costal margin in left nipple line.

The operation is performed as follows:

A sandbag is placed beneath the lower part of the thorax as for operations on the liver; the abdomen is opened to the left of the middle line (Fig. 1), and the liver well raised and held up by an assistant, the lesser omentum being thus fully exposed (Fig. 2). If the thorax is very long and narrow a head lamp is advisable. The stomach is suspended by four or five interrupted silk sutures passed above through the upper part of the gastro-hepatic omentum and below through the lesser curvature (Fig. 3).

Advantage is taken of the fact that the gastro-hepatic omentum close to its attachment to the diaphragm and transverse fissure of the liver is much thicker than lower down near its attachment to the stomach; but if the whole membrane is equally thin the sutures are passed above through the liver substance itself, just anterior to the transverse fissure. This is rarely necessary. Below, the sutures are carried through the serous and muscular coats of the stomach just in front of the attachment of the lesser omentum, the vessels, of course, being avoided. The suture furthest on the right is not placed quite up to the pylorus, in order that when the sutures are tied (Fig. 4) the pyloric end of the lesser curvature may be on a slightly lower level than the portion on the cardiac side. A very long needle-holder is required in passing the sutures above under the diaphragm.

Posterior gastro-jejunostomy has also been performed for gastroptosis. It is not, in my opinion, a suitable operation for uncomplicated cases. In the absence of ulcer or stricture of the pylorus, the indications for the formation of an artificial opening between the stomach and the jejunum do not usually exist in gastroptosis; and the operation of gastro-jejunostomy is certainly a more severe one than that of gastropexy.

Nevertheless, I have selected the operation of gastro-jejunostomy in cases of gastroptosis where the stomach showed considerable dilatation and atony; and also in certain cases where repeated haematemesis and incessant vomiting were marked features.

Up to the end of February this year I have operated on 20 consecutive cases of well-marked gastroptosis. In 11 cases the method of gastropexy described above was performed. This may be termed a modified Beyea's operation. In 7 cases gastro-jejunostomy, and in the 2 earliest cases Duret's operation, were carried ont. All recovered from the operation.

RESULTS.

Gastropexy.—Of the 11 cases 2 have only recently been operated on, but were relieved of their symptoms while in the hospital. One was quite well twelve months after the operation, but must be excluded because calculi were removed from the common bile duct at the same time that gastropexy was performed, and the symptoms were probably largely due to cholelithiasis.

Another patient became melancholic shortly after the operation, was sent to an asylum, and has since been lost sight of. This leaves 7 cases. Of these, 6 were completely cured; 3 of them reported themselves between one to four years after operation, and 3 between three and nine months afterwards. The remaining patient, operated on thirteen months ago, was a neurasthenic maid servant, aged 32. She was quite well for some time after the operation, but returned to hospital at the end of a year owing to occasional vomiting and return of pain; but her symptoms entirely subsided while she was in the hospital, and she was able to take ordinary food. Before the operation the iodopin reaction was obtained in three hours, and twelve months after the operation in one hour and a half, indicating that the motility of the stomach had improved.

Gastro-jejunostomy.—Seven cases were treated by this method, and they were mostly my earlier ones. In 3 of them there was dilatation of the stomach in addition to gastroptosis, and 2 of these had also haematemesis. In 3 other cases haematemesis was a conspicuous symptom. Three of the patients were definitely neurasthenics, but gastro-jejunostomy was performed because in 1 case there was distinct dilatation and in the 2 others incessant vomiting with haematemesis. Of the 7 cases 4 were cured; of these, 2 reported themselves twenty months and seven years respectively after the operation, and 2 eight and three months respectively. The 3 remaining cases (all neurasthenics) were slightly improved. None of the cases with haematemesis had any recurrence. In fact I have not yet seen recurrence of haematemesis after gastro-jejunostomy. The stoma of the gastro-jejunostomy probably acts as a safety valve and prevents the distension of the stomach by flatulence, which is one of the chief causes of the haemorrhage. The 2 cases treated by Duret's method were improved at first, but ultimately relapsed more or less completely. In 1 of them gastropexy was subsequently performed with excellent results.

My conclusions are, that an operation on Beyea's plan, as modified above, is indicated in the majority of cases of gastropexy which are not amenable to medical treatment. Gastro-jejunostomy should be avoided, but may be necessary in certain cases of gastroptosis with dilatation and atony, and when haematemesis is present.

REFERENCES.

1 *Sammlung klinischer Vorträge, Chirurgie*, No. 120, 1906. 2 BRITISH MEDICAL JOURNAL, April 7th, 1906.

LORD BEACONSFIELD once, speaking in a political sense, sounded to all voters the trumpet call, "Register, register!" We seem to be nearing a time when the same cry will be addressed to every one whose occupation may have any possible influence, however slight and indirect, on the public health. An ordinance is said to have been recently introduced before the Board of Aldermen of Atlanta, Georgia, providing for the registration and regular physical examination of all laundresses and washerwomen in the city. Any person doing laundry work without a certificate of such examination will be liable to fine or imprisonment. By this means it is expected to diminish the transmission of tuberculosis, small-pox, and other infections from house to house. A similar provision is reported to be working well in Macon, Georgia. But if laundresses are to be registered, why not seamstresses, tailors, and hairdressers?

THE PRINCIPLES OF TREATMENT IN GASTROPTOSIS.*

BY

ROBERT HUTCHISON, M.D., F.R.C.P.,

PHYSICIAN TO THE LONDON HOSPITAL.

I PROPOSE to deal only with the general principles which should guide one in the treatment of gastroptosis, for, if these are agreed to, the details will follow as a matter of course.

The first point upon which it is necessary to lay emphasis is that gastroptosis is not really in itself a disease, and in many cases calls for no special treatment. It must have happened to every one present to discover the existence of displacement of the stomach in the course of the routine examination of a patient who has made no complaint of gastric symptoms. It will be found, I think, in such cases that the dislocation of the stomach has been induced, so to speak, accidentally—most often, perhaps, as a result of weakening of the abdominal wall in consequence of repeated child-bearing. It is true that in a case of this sort there may be a greater or less degree of "pendulous belly" which may cause some mechanical inconvenience; but, apart from that, and assuming the patient to be otherwise vigorous, there need be no symptoms which can be directly referred to the abdominal organs.

I have said that in these cases gastroptosis demands no special treatment, but I believe I might go further and state that in *no* circumstances does mere displacement of the stomach, considered by itself, make such demands, and that it is only because of its tendency to be associated with two other morbid conditions that gastroptosis comes within the cognizance of the physician at all. These morbid conditions are (1) a general state of neurasthenia, and (2) functional disorder of the stomach and intestines. A word or two must be said about the relation to gastroptosis of each of these common concomitants.

Relation of Neurasthenia to Gastroptosis.

Every one will allow that in many, perhaps most, cases of gastroptosis the patient exhibits the general symptoms and signs of neurasthenia, but as to whether the gastroptosis causes the neurasthenia or vice versa, there is by no means the same measure of agreement.

According to some, displacement of the stomach is merely one of the stigmata of neurasthenia—the outward and visible sign of an inward constitutional state. Stiller[1] is, perhaps, the chief exponent of this view, and he has labelled the constitutional state referred to by the special name of "morbus asthenicus" and has given an elaborate description of the features by which it can be recognized.

In the view of others displacement of the stomach is itself a cause—and, indeed, in the eyes of some enthusiasts the chief cause—of neurasthenia. There is perhaps some truth in both views, and the gastroptotic patient may be one condemned to revolve in a vicious circle—the displacement of his stomach favouring (in ways immediately to be described) functional dyspepsia, and the dyspepsia leading to impairment of nutrition and nervous exhaustion, which in its turn perpetuates the dyspepsia, and lessens the tone of the abdominal muscles which should support the stomach. We have thus established a chain of cause and effect, which proceeds on the lines of the fable which describes the House that Jack Built. Be this as it may, there can be no doubt that in the majority of cases the treatment of gastroptosis resolves itself largely into the treatment of a condition of neurasthenia.

Relation of Functional Dyspepsia to Gastroptosis.

Just as patients who exhibit gastroptosis usually show also the signs of nervous exhaustion, so are they prone to suffer in addition from functional disorders of the stomach. But we have already seen that the mere displacement of the stomach does not by itself necessarily interfere with the normal discharge of its functions, and hence the conclusion seems justified that the dyspepsia is in the main the result of the condition of the nervous system. This need not surprise us, for every one knows how prone neurasthenia is to result in gastric derangement even when the stomach occupies its normal situation. As has been hinted above, however, it is possible that this does not cover the whole truth of the matter. It is at least possible that the fact of the stomach being out of place favours, if it does not actually cause, some interference with the performance of its functions. It is unlikely that this should be the case as regards disorders of secretion, but it is at least conceivable that displacement offers some mechanical hindrance to the due performance of the function of motility. Various modes in which this may happen have even been specified, such as the occurrence of a hypothetical kinking at the pyloroduodenal junction, or one is told that there must be a difficulty in the organ emptying itself uphill. For my own part, I do not attach much weight to these imaginings, and am inclined to agree with those who would attribute the disorder of function met with in gastroptosis to the accompanying neurasthenic state rather than to the mere fact of displacement. At all events it is quite certain that functional dyspepsia is a common concomitant of gastroptosis, and may call urgently for treatment, and it therefore becomes of importance to state in rather more precise terms what forms the functional disorder usually assumes.

On this point, fortunately, it is possible to speak with some degree of confidence, and one may say without hesitation that the functional disorders most commonly associated with gastroptosis are disturbance of motility on the one hand and of secretion on the other, and, further, that both disorders often coexist.

The disturbance of motility takes the form of impairment of gastric "tone" and an enfeeblement of expulsive power. It is, perhaps, advisable to state rather more precisely what one means by "tone." I imply by it the power of the stomach to "grasp" its contents in such a way as to maintain the intragastric tension at a constant level. The mechanism by which this is brought about is not fully understood, but I believe that it is usually impaired in cases of gastroptosis. Hence the occurrence of splashing. The diminution of expulsive power is shown by some degree of delay in the onward passage of the contents of the organ, but it is noteworthy that careful observations have shown that this never amounts to actual stagnation.[2] The bearing of this on treatment will be seen later.

The disturbance of secretion usually takes the form of an over-production of acid; more rarely one meets with hypochylia, or even complete achylia.

Although these are the chief forms of functional defect met with, it must be noted that a displaced stomach is apt also to be hyperaesthetic, and, further, that the functional defects may be accompanied by, or even lead to, actual organic disease, of which chronic gastritis is the chief.

Treatment.

From these preliminary observations it will be seen that the treatment of gastroptosis is a complicated matter, and resolves itself usually into three branches: first, and of most importance, the treatment of a general condition of neurasthenia; secondly, the remedying of any functional disorder of the stomach which may happen to be present; thirdly, and of least importance, the correction, so far as is possible, of the malposition of the organ.

In the remainder of this paper I propose to deal briefly with the principles to be observed in carrying out each of these lines of treatment.

The Treatment of the Neurasthenic State.

In the treatment of the neurasthenia, which accompanies if it does not underlie most cases of gastroptosis, our most effective means is a well-planned rest cure. Our object must be to improve nutrition, or, in the words of Weir Mitchell, to make fat and blood. At the outset one *a priori* objection to this plan must be faced. To improve nutrition the patient must be overfed; but will his debilitated stomach permit of this being done? Is there not a danger of over-distending it and of increasing any atonic dilatation which may be present? In practice I do not think this objection holds. Provided the feeds be not too large and the food suitably selected and prepared, such a result need not be feared; and as the general

* Read before the Medical Society of London.

one" of the patient improves one finds that the gestive power improves *pari passu*. Furthermore, one ds that patients with gastroptosis who suffer great gestive discomfort whilst they are going about lose ost of their symptoms so soon as the recumbent posi- n is adopted, and have no difficulty in managing a full et. *Per contra* there is, I am sure, a real danger in cut- g down the diet in these cases in order to quiet the mplaints of the stomach. By so doing one merely sup- esses a symptom whilst really aggravating the com- aint, for the consequence of such a course is that the utrition becomes still further impaired and the neur- sthenic state exaggerated. Here, as always, in pre- cribing dietetic rules one must not sacrifice the whole ody for the sake of any one member of it, or, in other ords, one must diet the patient and not the disease.

Of the accessory measures in the rest cure—massage nd electricity—most importance, I think, is to be tached to massage. It has a threefold use. It pro- otes general nutrition and the laying on of fat; it nproves gastric and intestinal tone, and it strengthens ne abdominal wall—all of which are cardinal objects f treatment. The help of electricity can, in my judge- ent, be dispensed with, but to this point I shall return gain.

Concerning the use of drugs in combating the neur- sthenic state there is little to say; the bromides are erhaps the most generally useful, and will usually be alled for at some period in the case. Strychnine, though ften ordered, is frequently injurious. Of such agents as he hypophosphites and glycerophosphates I have a low pinion. Iron may be helpful if there is pronounced naemia, but that is an exceptional occurrence, and the tate of the digestion will not always permit of its xhibition. In such cases arsenic may come to our ssistance.

The Treatment of any Functional Disorder of the Stomach which may be Present.

I have put the treatment of the condition of "asthenia" irst in describing the management of gastroptosis because I believe it to be far the most important. To be successful one must concentrate one's attention on the patient and not on his stomach, but if, incidentally, one can do any- thing to relieve any disorder of gastric function which may be present, so much the better. We have seen that these may be of three sorts: (1) Impairment of motility and tone, (2) disorder of secretion, (3) increase of sensibility.

A word or two will suffice to indicate the principles to be observed in the treatment of each of these disorders.

In ameliorating the general asthenic condition of the patient by a rest cure we are already doing much to correct any loss of tone or motility in the stomach. This has been already indicated, so I need not stop to labour the point. There is experimental evidence also that massage of the stomach stimulates its movements and so aids its motility. As to the value of electrical means, I am not convinced. I believe that there is no satis- factory evidence that the application of electricity to the abdominal surface has any effect upon the stomach at all, but if any form of it is to be tried the sinusoidal current is probably that which offers the best chance of success. Drugs also, contrary to what might be expected, are probably of little help. We stand much in need of some drug which will act upon the musculature of the stomach in the same specific way as digitalis does upon that of the heart or ergot upon that of the uterus. Physostigmine is perhaps the one from which, on pharmacological grounds, most might be expected in this direction, but its use is open to practical objections, and it has never been generally adopted. Strychnine may possibly increase the tone of the stomach as it does that of most unstriped muscle, but the results it yields are not brilliant, and its action upon the nervous system is sometimes disadvantageous. I am not sure that aloes has not a stimulating effect upon the movements of the stomach, as it has upon those of the colon. I have an impression that it has, but it is difficult to adduce any convincing clinical evidence of such action, and I am not aware whether it has been tested experimentally.

The means to be adopted in the correction of disorders of secretion in cases of gastroptosis differ in no respect from those in use in ordinary cases of functional dyspepsia. Oversecretion is, as has been pointed out, the commonest fault, and is to be met by the free administration of fats and by the judicious use of bismuth and the earthy carbonates. The bromides are also of service here, as they seem to deaden the reflex excitability of the stomach.

In the rarer cases in which diminished secretion or even complete achylia is met with it may be necessary to limit the amount of meat in the diet, or, at all events, to present it only in a finely divided form, and some help may be obtained from the use of artificial substitutes for the gastric juice, such as hydrochloric acid or acidol. The administration of pepsin is, however, in my opinion, of doubtful utility.

In the treatment of *hyperaesthesia* of the displaced stomach there is no measure, I believe, equal in value to the use of local moist heat in the form of poultices or fomentations, and whenever there is general epigastric tenderness such means may be usefully employed during the first week of the rest cure. Gastric sedatives, such as bismuth, bromides, chloroform, and even, in extreme cases, opium, are also of service here. Should the disorder of function have induced or be complicated by some degree of gastritis, as evidenced by a foul tongue, impairment of appetite, and nausea, it is advisable, before treating the underlying disorder of secretion or motility to allay the catarrhal symptoms. The diet in such circumstances should consist of milk only, and judicious use should be made of those well-tried drugs—mercury and rhubarb.

I have said nothing so far of the treatment of the disorders of intestinal function which may complicate a case of gastroptosis, but a few words on this important matter may not be out of place. Constipation is the condition with which in the great majority of cases one has to deal. This is due to several factors. In part it is the consequence of the spare diet on which the patient has usually been living when he comes under treatment; in part it is no doubt due to diminished power of peristalsis, but in a large degree it is not a true constipation, but what Dr. Hertz calls a condition of "dyschezia," or difficult defaecation, the result of a defective power of expulsion which the enfeebled abdominal wall entails.

So soon as the patient is receiving a full diet the first of these factors is abolished; abdominal massage contributes to overcoming the second, but the help of "tonic" aperients may be necessary in addition—at the outset, at all events. The factor of dyschezia is met by strengthening the abdominal wall by the methods shortly to be considered, but in the early stages of treatment the help of enemata may also be required as the most effectual and rational means of overcoming it.

The Displacement of the Stomach.

I have left to the last the consideration of the means to be employed for replacing the stomach in its natural position, because I believe this, for reasons already given, to be a matter of secondary importance. Unquestionably patients with enteroptosis derive great comfort from any effective means of supporting the abdominal viscera, but it is very doubtful whether this is the result of any actual pushing up of the displaced organs. Such support gives relief from those feelings of sinking, emptiness, and exhaustion which are amongst the most bitter complaints of the gastroptotic, but these sensations are probably due to lessened intra-abdominal tension and a tendency to pooling of the blood in the splanchnic area when the erect position is assumed. The relief of these symptoms is, none the less, a legitimate object of treatment, and hence the provision of some form of abdominal support has always to be considered. Now it has been truly remarked that the best belt is a firm abdominal wall, and hence our efforts should be directed to restoring the tone of the abdominal wall and to thickening it by the deposition of a substantial layer of subcutaneous and extraperitoneal fat. The rest cure, if successful, should achieve the second of these objects, especially in men, in whom the deposition of fat in the abdomen seems to take place more easily than in women. By increasing the amount of "packing" in the abdominal cavity, intra-abdominal tension is increased and the tendency to undue mobility of the viscera restrained. I doubt, however, whether the gain in abdominal adiposity really does much towards replacing a seriously dislocated stomach. Certainly I have known cases in which, in spite of a total gain in weight of nearly 20 lb. as the result

of a rest cure, the stomach remained in practically the same position as before.

As regards the development of the abdominal muscles, reliance must be placed upon massage and the practice of "abdominal exercises." Electrical treatment may undoubtedly be of help here, but its results are probably inferior in value to the spontaneous muscular contractions which exercises provoke. Hydrotherapeutic measures—for example, the Scottish douche—are also of service in increasing the tone not only of the abdominal wall, but also, in all probability, that of the blood vessels of the splanchnic area as well. The question of artificial substitutes for the abdominal wall will always arise.

The argument sometimes used against them—especially by masseurs—that they demoralize the abdominal muscles by doing their work for them, is, I believe, fallacious. On the contrary, by preventing over-stretching of the weakened abdominal wall, they are undoubtedly of service, pending the restoration of the natural means of support. They are therefore of great temporary utility, at least. It would be going too far into details to consider the relative merits of the different forms of artificial support which have been devised, but there is certainly no lack of choice—from the simple plaster strapping of Achilles Rose to the latest belt-corset of the artist in orthopaedic appliances. I think it will be generally agreed, however, that the ideal abdominal belt remains yet to be invented. It is simple enough to point out what is wanted—the exercise of pressure from the lower part of the abdomen upwards and somewhat backwards, but the difficulty is to carry this principle into practice. In cases of "pendulous belly" in stout subjects it is quite simple, but most patients with gastroptosis who require treatment are, *ex hypothesi*, thin, with prominent iliac bones which tend to carry off the pressure from the hypogastric region where we most wish to apply it. The problem is a purely mechanical one, and the use of a suitable pad helps to overcome it, but the results often leave much to be desired.

Having by the adoption of the above means restored the patient to a condition of comparative well-being, the next problem is how to keep him so. It is here that our real difficulties begin, for the neurasthenic state, which, as has been repeatedly pointed out, underlies the gastroptosis in the great majority of instances, is due either to an inborn feebleness of constitution or to unfavourable factors in the environment, of which the former is wholly and the latter often very largely beyond our power to alter. Much may be done, however, by suitable regulation of the patient's life and habits. Overstrain—mental, physical, and emotional—must be avoided so far as is possible. The importance of rest must be enjoined, particularly rest after meals, which greatly facilitates the labours of the stomach. Frequent holidays are advantageous. The diet must be so regulated as to contain a maximum of nutriment in a minimum of bulk, and all voluminous and innutritious foods forbidden. It is particularly important, as in all cases of gastric atony, that the meals should be dry. Meanwhile, the further development of the abdominal wall must be persevered with by the persistent practice of abdominal exercises, coupled, perhaps, with the use of auto-massage, and, until a sufficient degree of natural support has been attained, the belt must not be left off.

The use of drugs may be confined to the occasional administration of bromides, or of such as are required for the relief of any particular symptoms. Suitable aperients may be necessary to supplement the use of enemata.

In those cases in which the carrying out of a thorough rest cure is impossible, the above means may be used as best calculated to palliate the symptoms, but it will be readily understood that a patient with gastroptosis whose symptoms have been sufficiently severe to call for treatment is rarely able to return to a condition of full activity. He must walk softly and be sparing of his nervous output, as otherwise a relapse is almost certain to ensue. It would not be an exaggeration, indeed, to say that his whole life must partake of the nature of a more or less modified rest-cure.

Up to this point we have been concerned with the things to be done in the treatment of gastroptosis; may I conclude by enumerating three things which I think should *not* be done? First, patients with gastroptosis should not be overdieted—which, of course, is just the reverse of being overfed. Secondly, their stomach should not be washed out. Thirdly—and *pace* Mr. Ev —they should not be operated upon. They should no be overdieted, because if that is done their nutrition i apt to suffer, and the maintenance of a high degree o nutrition is the first essential of successful treatmen They should not be washed out, because there is no rea gastric stagnation, and the introduction of large quantitie of fluid is apt to overdistend the already atonic stomach They should not be operated upon, because the mer replacement of the stomach, even if this be permanentl possible by operation, is treating a symptom and not th real disease, and because most patients with gastroptosi are neurasthenic, and no operation on a neurastheni subject is advisable without very good reason.

REFERENCES.
[1] *Med. Klinik*, 1909, No. 25. [2] Lockwood, *Med. Record*, July 20th, 1907.

A CASE OF CEREBRO-SPINAL RHINORRHOEA WITH DOUBLE OPTIC ATROPHY.

BY NORMAN H. PIKE, M.B., B.S.LOND.,
SURGEON FOR THE EYE, EAR, NOSE, AND THROAT, THE GENERAL HOSPITAL, CHELTENHAM.

AN undoubted case of the spontaneous escape of cerebro-spinal fluid from the nose, known as "cerebro-spinal rhinorrhoea," is of sufficient interest to record.

A woman aged 22 first attended among my out-patients on June 1st, 1909, complaining of a constant watery discharge from her right nostril.

History.

Up to the age of 12 she was a strong, healthy girl, and could see well. From 12 to 13 she had a severe illness, keeping her bed for nearly twelve months. The chief symptoms were severe headache, vomiting, drowsiness, frequent convulsions in which she was unconscious, and stiffness at the back of the neck. The eyes became prominent, and at the end of the illness she was quite blind.

After getting up she continued to have severe attacks of pain in the head, and fits of an epileptiform character; they were often nocturnal, and occurred about every three weeks to one month, but in the year 1908 they were less frequent—about every three months. Mr. Arthur Cardew, who attended her during her illness, told me that there was some pyrexia for the first few days, but that afterwards the illness ran an apyrexial course.

Family History.

The only interesting fact about the family history that I have discovered is that her younger sister has suspiciously notched incisor teeth and a few scars at the angles of the mouth. Her general expression, too, suggests congenital syphilis.

Present Condition.

She is a moderately well developed girl with a prominent head, measuring round the forehead 55½ cm. Mentally she is dull; her speech is slow and the voice has a monotonous character. She is quite blind and has no perception of light. There is no ocular paralysis, but marked nystagmoid movements of the eyeballs of an ocular character. The pupils are equal, moderately dilated, and react slightly to a strong light. Both discs are white and have slightly irregular edges. The lamina cribrosa is indistinct and the vessels are tortuous, the condition being one of double post-neuritic atrophy.

The nose is somewhat swollen externally at the tip. By anterior rhinoscopy nothing abnormal is seen, except that on the right side, descending between the septum and middle turbinal and extending into the inferior meatus, there is an oedematous polypoid tumour. From this right nostril there is a constant dripping of a clear watery fluid. There is no discharge from the left nostril. With the patient in the Killian position the fluid is seen to collect between the middle turbinal and the septum, and the tumour has probably been formed by the continual soaking of the spongy tissues. There is no suppuration in the nose and no signs of any sinus trouble. Transillumination shows good infraorbital reflexes on both sides.

During the patient's attendances at the hospital the following facts were ascertained about this fluid:

1. It was always from the right side, and was a constant drip, as in epistaxis.
2. It dropped at the rate of from 3 to 8 drops a minute, and was measured on several occasions, the amounts varying from ℥vj to ℥j in an hour and a half—that is, from 12 to 16 oz. in twenty-four hours. It drops faster with the head forward.
3. It was ascertained from the mother that when asleep she makes frequent swallowing movements, the fluid apparently running into the naso-pharynx.
4. She uses many handkerchiefs a day, and these when dried are found to be quite pliable and not at all stiff.
5. Cocaine and adrenalin applied had no effect on the flow.
6. The fluid has never ceased during her attendances, and has now been constant for over nine months. Since its advent the

ad pains have been less and she has only on one occasion ebruary 7th, 1910) had a fit, after which she was unconscious : about two hours.

Treatment.

removed the polypoid tumour, but this has since re-formed ; art from this there has been no intranasal treatment. tassium bromide has been given when the head pains were d.

Report on Fluid.

Dr. Rupert Collins, honorary pathologist to the hospital, very ndly examined several specimens of the fluid, and reported as der:

"Various specimens from the nasal discharge of K. P. have en examined by me at different periods.

"The first specimens contained a considerable amount of ucin, as shown by a precipitate with acetic acid in the cold, d gave no reduction with Fehling's solution. When centri-galized a deposit of leucocytes and nasal epithelium was tained. All this pointed to the condition being a nasal drorrhoea. Later specimens were different, sometimes clear, metimes turbid a few hours after being passed owing to the ormous number of micro-organisms present.

"The analysis of the clear specimens was as follows: Acetic id in the cold yielded no precipitate whatever, showing sence of mucin. Heating and acidulating with acetic acid ve a precipitate showing the presence of proteid. If the fluid as saturated with $MgSO_4$ and filtered it no longer gave any action for proteid, showing that the proteid present was a obulin. The fluid reduced Fehling's solution, and did not rment with yeast. I twice tried to obtain crystals of pyro-techin by evaporating and extracting with alcohol, but failed do so.

"The fluid was quite clear, like water, specific gravity 1006, action alkaline. On centrifugalization a few leucocytes only. was rich in chlorides, and contained a trace of sulphates. wo cultures were taken by letting the fluid drip straight into ulture tubes of agar-agar, and both grew cocci and bacilli uxuriously. The fluid was always collected by letting it drip nto a sterile flask, but it invariably was turbid with micro-ganisms in six hours, and had accordingly to be examined at nce. I found the fluid to be turbid on two occasions as it ripped from the nose when I was present.

"I conclude that this is a case of cerebral rhinorrhoea with a ptic condition of the mucous membrane of the nose which used the presence at intervals of mucin in the fluid. Why ne fluid did not reduce Fehling at first I do not know; there as no difficulty in getting plentiful reduction in later speci-ens, and I can only conclude pyrocatechin was not present n the first two specimens tested."

I also failed to obtain a reduction of Fehling's solution from ne first specimens, but later obtained a definite reduction. With regard to the turbidity, I found that the fluid collected hortly after the use of an antiseptic nasal douche remained lear for several days.

It is due to the excellent monograph, *The Cerebro-spinal Fluid, its Spontaneous Escape from the Nose*, published in 899 by StClair Thomson, that the true nature of these ases has been recognized. He records one case of his wn and twenty others collected from the literature both English and foreign.

He divides them into 9 undoubted and 12 probable ases. In 17 there were cerebral symptoms, and in 8 ye symptoms. The flow was from the left side in 0 cases, right side in 4, both sides in 1; the side was ot mentioned in 5.

The cerebral symptoms presented a great similarity n most of the cases, the most marked being severe head-che, drowsiness, vomiting, delirium, convulsions, and coma. A striking point was that in all the cases there was an absence of fever, and that the headache and other erebral symptoms were relieved by the flow.

In these respects my case agrees, also in the eye sym-ptoms, there being always either a neuritis or a post-neuritic atrophy. The pathology suggested by StClair Thomson is a meningitis serosa, giving rise to idiopathic nternal hydrocephalus, optic atrophy being due to a pressure on the optic chiasma, caused by the dilated third ventricle.

The condition with which "cerebro-spinal rhinorrhoea" will be most easily confounded is that known as "nasal hydrorrhoea." But there are such marked clinical differences in the two conditions that I felt from the first that I was dealing with a true case of cerebro-spinal rhinorrhoea, in spite of Dr. Collins's first reports on the analysis of the fluid, and so, at my request, he very kindly examined further specimens, and our perseverance was rewarded by finding the Fehling-reducing substance in the fluid.

The true nature of the condition is established by the analysis of the fluid, the main characteristics being that cerebro-spinal fluid is a perfectly clear, transparent, tasteless fluid, with no sediment. It has a low specific gravity, contains no mucin, but a trace of globulin, and has a substance which reduces Fehling's solution, but does not ferment with yeast and therefore is not a true sugar. This reducing substance can be obtained in a crystalline form resembling pyrocatechin.

I would suggest that in some of the cases classed by StClair Thomson as "probable," if a repeated examination of the fluid had been made, this sugar-reducing substance would have been eventually found. Notably in two cases recorded by Priestley Smith in the *Ophthalmic Review*, 1883, both with double optic atrophy, and in neither of which was a reducing substance found. In both of these cases StClair Thomson comments that it is "difficult to lay aside the hypothesis of cerebro-spinal fluid, but not tenable in view of analysis."

Anyway my case is of special interest from the fact that some specimens did not show the reducing substance, while others did. One must remember that we are dealing with a diseased condition which may alter the character of the cerebro-spinal fluid; in general paralysis of the insane there is no reducing substance.

The case was shown at a meeting of the Gloucester Branch of the British Medical Association in October, 1909.

THE DIAGNOSTIC VALUE OF THE LEUCOCYTOSIS OCCURRING IN WHOOPING-COUGH.

BY

HUGH T. ASHBY, B.A., M.B.CAMB., M.R.C.P.LOND.

THE following observations on the blood of children suffering from whooping-cough during an epidemic were made in the early part of this year in the out-patient department of the Manchester Children's Hospital. The blood from nearly 100 cases was examined, and a differential count of the white blood cells made in each case. The age of the children varied from about 9 months to 8 or 9 years. The blood was taken from cases in various stages of the disease so far as possible, and the blood of the same case was examined repeatedly during the progress of the disease and during the convalescence. The number of red blood cells and the haemoglobin percentage were estimated occasionally, but yielded no results of special significance; patients suffered from no more than a "slight anaemia." The blood was taken from the ear and was stained by Leishman's method or by eosin and methylene blue after fixing in formalin vapour.

In a fair proportion of cases the number of leucocytes per c.mm. was estimated, and in every case where this was done there was a leucocytosis of between 15,000 and 30,000 white blood cells per c.mm. The number of white blood cells in children suffering from bronchitis and other afebrile chest cases was also estimated, but in only rare instances did the numbers reach such a height as that observed in whooping-cough. The results, therefore, confirm those made by Fröhlich[1] in 1897, who examined the blood of 55 children suffering from whooping-cough, and found a leucocytosis varying from 7,000 to 40,000 white blood cells per c.mm. This leucocytosis in itself is a valuable aid in the diagnosis of a suspicious case of whooping-cough. In examining the blood of a child suffering from whooping-cough the preponderance of lymphocytes over the polymorphonuclear cells is at once noticed, and in nearly every case which had a well-marked whoop the lymphocytes formed about 60 per cent. of the total white blood cells, the rest of the white cells being made up of polymorphonuclear cells with an occasional eosinophile cell. The excessive lymphocytes were nearly all of the small variety, but there was at the same time a greater proportion of large lymphocytes than is found per c.mm. in normal blood, and in some cases these cells amounted to 10 per cent. of the lymphocytes present. This excess of lymphocytes was found in cases which had not reached the spasmodic or whooping stage of the disease, and also in mild cases, when it was difficult to make a definite diagnosis from the history the parent gave.

An interesting example of this happened when I was examining the blood of a child aged $3\frac{1}{2}$ years, who had

anaemia and a slight cough. The blood contained 15,000 white blood cells per c.mm., and on making a differential count of the white blood cells I found that the lymphocytes formed nearly 60 per cent. of the total white cells. The next week the child was brought back to the out-patient department, having started with whooping-cough two days previously, or five days after the blood examination was made. The lymphocytes in this case, therefore, formed an unusual percentage of white blood cells five days before the whooping began. Thus, if a child who has been known to have been exposed to the infection of whooping-cough starts with a cough, a blood examination will very likely show whether it is going to begin whooping-cough, and then isolation can be undertaken early.

On examining the blood of the cases after the whooping stage had been passed it was found that the lymphocytosis persisted for a short time and then gradually diminished, so that by the end of two months after the whooping had stopped the white blood cells had returned to normal proportions.

Blood changes in infants and children develop more easily and more quickly than in adults, so that the leucocytosis with a relatively large proportion of lymphocytes helps in making an early diagnosis of the disease, especially in doubtful cases without a definite whoop; as whooping-cough is a very infectious and serious disease, the early diagnosis is most important. Thus, in the Report on the Health of the City of Manchester for 1909, Dr. Niven[2] says: "This is not only a fatal but a most

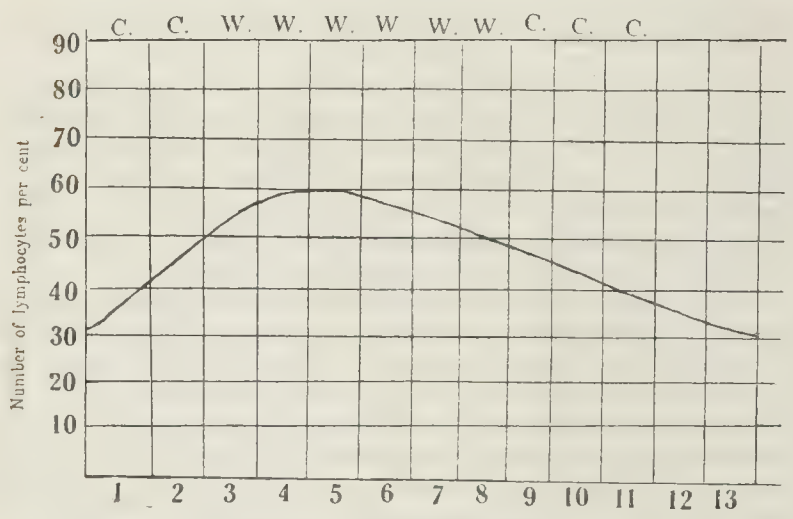


Diagram showing the rise and fall in the number of lymphocytes in a typical case of whooping cough. c, Cough; w, whooping.

distressing disease, and the figures are most disquieting;" in fact, the number of deaths from whooping-cough and its sequelae far exceed the deaths from any other infectious disease except measles.

In infants, however, the lymphocytes normally form between 40 and 50 per cent. of the total white cells in the blood; but even here, if the lymphocytes form nearly 60 per cent. of the white cells and there is a larger proportion of large lymphocytes than normal, it is confirmatory evidence of the existence of the disease. The blood from children suffering from some septic trouble was examined, and here the excess of white blood cells was found to be made up by the polymorphonuclear cells and not by the lymphocytes as in whooping-cough.

If the total number of polymorphonuclear cells and lymphocytes in normal blood and then in the blood of a case of whooping-cough be estimated, it is found that the excess of white cells in the blood of whooping-cough is almost entirely made up of the lymphocytes; the total number of polymorphonuclear cells remaining but slightly increased. Thus, if there are 10,000 white blood cells per c.mm. containing 60 per cent. polymorphonuclear cells and 35 per cent. lymphocytes, there will be 6,000 polymorphonuclear cells and 3,500 lymphocytes per c.mm. Comparing this with the blood of a whooping-cough case containing 25,000 white cells per c.mm. with 40 per cent. polymorphonuclear cells and 60 per cent. lymphocytes, there will be 10,000 polymorphonuclear cells and 15,000 lymphocytes per c.mm. The lymphocytes have thus increased by nearly 12,000 per c.mm., while the polymorphonuclear cells have only increased by 4,000 per c.mm. In septic conditions the total number of polymorphonuclears are increased and the lymphocytes are but slightly increased. Whooping-cough without serious complications is not often fatal, so that the exact state of the blood-forming organs is difficult to study. It is also difficult to say how far there is an excess of lymphoid tissue or hypertrophy of the lymphatic glands, but there is no marked enlargement of the glands to be made out on clinical examination.

REFERENCES.
[1] Fröhlich: *Jahrbuch für Kinderheilkunde und physiche Erziehung*, 1897. [2] Niven: Report of the Health of the City of Manchester, 1909.

CELLULITIS OF THE ARM, COMPLICATED WITH PNEUMONIA, TREATED BY VACCINE.

BY W. OWEN EVANS, L.R.C.S., L.R.C.P., L.M.EDIN., L.F.P.S., L.M.GLAS.,
PONTARDAWE.

THE following is a report of the first case in which I have had occasion to use vaccine treatment (staphylococci and streptococci). The result was sufficiently striking to make it worthy of record.

H. J., a farmer, aged 35, who had enjoyed excellent health, accidentally cut his hand whilst sharpening a cross-cut saw. The wound was very small and was situated over the fourth metacarpal bone of the left hand. He paid no attention to it and continued his work all day without feeling any inconvenience. The following day (February 9th), as he was killing a pig, he began to feel ill, shivering and getting very weak, in fact to use his own words, "I was getting worse and worse every five minutes." He returned to the house and had a foot-bath (hot water and mustard), and went to bed. The shivering continued, and he felt desperately ill. The next day (February 10th) I was urgently summoned to his house, a distance of 6½ miles. He was then complaining of pains in his left side, slight hacking cough, and difficulty of breathing, the temperature was 101.5°. His hand, which was very red and swollen, had become extremely painful. There was, in my opinion, pus in the back of the hand, and I proposed to let it out, but as this suggestion was declined I advised it to be kept in a warm bath constantly; a purgative was given. On my next visit (February 12th) the arm had swollen up to the elbow and the inflammatory process extended. The pain was excruciating and the man had had no sleep from the first day of his illness. I now got his consent to make two incisions on the back and side of the hand, with the result that a good amount of pus came out, and through the opening on the back of the hand the rusty piece of a tooth of the cross-cut saw was extruded. The temperature was 103°, pulse 98, respirations 36. I saw the patient again the following day and found him very weak; the inflammatory process was still extending up the arm, which had swollen to an enormous size. The skin was very red and the whole limb was indurated and most tender. I made another incision near the elbow, but no pus was obtained. I recommended them to carry on the hot baths continuously, night and day. Temperature was 103.5°, pulse 98, respirations 40. On February 14th the temperature fell to 101.5°, pulse 84, and respirations 32, but there was no improvement in the condition of his arm.

I suggested getting another opinion, fearing that it would be necessary to amputate at the shoulder. At the same time I thought of trying what vaccine therapy might do, and to this the patient consented. I asked my friend Dr. Lloyd Smith to see the case with me. We decided that it would be an excellent case to treat by vaccine. On February 16th some stock vaccines were obtained (Wright's, from Parke, Davis and Co.). After taking the necessary preliminary precautions I inoculated the patient with 250 million staphylococcus and 20 million streptococcus in the flank. On my next visit, February 18th, I was told that he became very ill about four hours after the inoculation, and that for some time he was quite delirious. After about ten hours pus oozed out freely, in fact most profusely, through all the three incisions. The arm had considerably diminished in size and there was less pain. The temperature was 100.4°, the pulse 84, and the respirations 18.

I saw the patient on February 21st, and decided to cleanse all the pus pouches with a solution of lysol and give a thorough irrigation. On February 23rd, however, I received a note that the arm was getting much worse, and I found the temperature 99.5°, pulse 84, arm swollen and very painful. I decided to give him a further inoculation of vaccines (150 million of staphylococcus and 5 million streptococcus); this was thirteen days after the first inoculation. After eight hours there was profuse perspiration, free discharge of pus, and a feeling of intense weakness and thirst.

On March 3rd the temperature was normal for the first time, and he began to feel himself improving; the pulse was 72 and the respirations 18.

On March 5th he got up for an hour, but was too feeble to stand and had to be put back to bed.

On March 10th his condition showed marked improvement, and he was downstairs.

The signs and symptoms of the pneumonia were ordinary in character and were treated on general lines

withstanding the fact that rigors took place and that temperature fell by crisis from 103 5° to 101.5° and the pirations from 40 to 32, and also that in the course of lve hours he coughed up two large basins-full of ectoration which cleared the lung in a short time, it is eworthy that with the crisis the temperature did not ne down to normal. The great amount of septic chief in the arm no doubt accounted for this.

regret that the patient lived in an outlandish trict and a most inaccessible place, so that more details not be given. I believe, however, that my thorough gation with lysol of all the wounds and pus pouches uld have been better omitted, for there is no doubt in mind that the subsequent exacerbation was due to s.

The patient consulted me twice during April. His n is in a weak condition, so weak that there was no ponse to slight electrical current, but with a fairly ong current the condition of the arm has greatly proved.

CASE OF ACUTE ABDOMINAL INFECTION IN A TYPHOID CARRIER.

BY T. H. GARDNER, M.B.LOND.,
STREATHAM HILL.

HE following case, which has recently occurred in my actice, may be of interest in connexion with the estion of typhoid carriers—a matter of considerable portance:

J. B. B., aged 56, a prematurely-aged looking man with llow complexion, recently had a severe illness, presently to be scribed.

Past History.

He had enjoyed good health, and had no serious illness until 00, when he had severe peripheral neuritis, with almost complete loss of power in arms and legs. He was at that time siding in Manchester, and the condition was put down to senic or lead in beer, of which he drank a good deal at that me. The arms recovered in three months, but the legs not for n months, and during that time he was confined to bed. uring this illness he had no vomiting or diarrhoea, no aemorrhages, no colic, no mental change. In 1906 he had an ttack of typhoid fever, and was in bed ten weeks. He states at this illness began with diarrhoea, and his temperature rose 103° and 104°. There was no haemorrhage. His wife, who ursed him, states that his motions were always very green.

History of Present Illness.

He states that he felt perfectly well when he left home, and ent to his office on the morning of January 26th. During the ay he began to feel pain in the abdomen and nausea. He ought something he had eaten had disagreed with him, and eing of a bilious nature, he put it down to some pea soup he ad partaken of at dinner the previous evening. Others of the mily, however, had partaken of it, and were in no way ill. The pain in the abdomen gradually got worse during the day, nd became very severe, so that on leaving business in the fternoon he paid a visit to his medical adviser, Dr. Norman inclair, before returning home. Dr. Sinclair informs me that he patient was obviously in very acute pain and looked ghastly"; he thought he might possibly be passing a gall tone. On account of his condition, and the fact that he had ome distance to return home, he withheld morphine, prescribed a stomachic mixture, and applied a very hot fomentation to the epigastric region, which gave considerable relief. The patient returned home feeling very cold, and vomited once n the way. He shivered violently when put to bed, and again omited. Next day he appeared to be very ill, the vomiting ontinued, and the bowels were not relieved.

Owing to his medical adviser being at too great a distance the atient was not seen on this day, and I was called in on the ollowing day, January 28th. He was then in a semi-comatose condition, but could be roused when spoken to loudly, and answered some questions in monosyllables. He was not in ny acute pain. The temperature was 102°; the pulse 120, very mall and feeble. The abdomen was somewhat distended and generally tender, more so in the epigastric region, where there was also a good blister from the hot fomentation, and in the right hypochondriac region, where the liver was felt slightly nlarged and tender. The tongue was coated with a thick rown fur and the breath was very offensive. There was a slight icteric tinge of the conjunctiva, but at no time during the llness was there any marked jaundice. No urine had been passed since he returned home on January 26th, and the bowels had not been relieved. On January 28th ½ oz. only of urine was passed; this was very dark in colour, containing much bile, a large quantity of albumen (half on boiling), and reduced Fehling's solution considerably, but not fully.

Treatment was symptomatic, being directed to the reestablishment of the excretions. Calomel gr. v produced a large, semi-solid, homogeneous, slaty-grey, very offensive motion. Hypodermic injections of pilocarpin nitrate gr. ⅛, and hot wet packs, with copious drinks of barley water and cream of tartar water, produced slight diaphoresis at first, which gradually increased on the following days. Slow but gradual improvement in all the symptoms ensued. The temperature fell to 101° on January 29th, and was normal by the end of the first week. The urine passed on January 29th was 2½ oz.; by February 1st it had reached 10¾ oz.; on February 2nd it had increased to 23½ oz., was much lighter in colour, giving no reaction for bile nor reducing Fehling's, but still containing a fair amount of albumen, which persisted till the end of the second week. The amount of urine on February 8th had increased to 74 oz., after which it decreased somewhat, till finally it remained between 50 oz. and 60 oz. The bowels were kept regular by means of aperients; those used being chiefly calomel and magnesium sulphate and pil. rhei co. During the febrile stage quininae sulph. gr. ij was given every four hours.

So far the case was one of extreme interest from the point of view of diagnosis, but in the light of subsequent illnesses of other members of the household, its interest was increased.

The patient was nursed during his illness by his wife (herself an invalid with disseminated sclerosis), a son, and the housekeeper.

Mrs. E. P., aged 40 years, a widow, with three children, acted as daily housekeeper and nurse, and had been with the family five years, and had helped to nurse J. B. B. in the attack of typhoid four years ago. She came daily, returning to her own home each night to sleep. She was not considered a healthy woman, and suffered a good deal from dyspepsia. On February 26th she came as usual, but complained of feeling unwell, and was sick, but did not return home until the evening. Next day she sent word that she had a bad bilious attack, and would not be able to come. She was subsequently seen by her medical adviser, who diagnosed typhoid fever and had her removed to the Stockwell Fever Hospital on March 9th, where she had very severe haemorrhage, and died on March 15th.

J. T. B., aged 30 years, the son of J. B. B., who also assisted very largely in nursing his father, first complained of not feeling well on March 6th, on which day he had been to see Mrs. E. P. He was first seen by me on March 10th, and typhoid spots appeared on March 14th. He also was transferred to the Stockwell Hospital, where he now is recovering from a moderate attack of typhoid fever.

Under these circumstances it seemed advisable to ascertain whether J. B. B. was a typhoid carrier, especially as the medical officer of health informed me that the source of infection of the two cases could not be traced in either of the boroughs in which they were notified. A specimen of the blood of J. B. B. was therefore sent to the Lister Institute, and a positive Widal reaction obtained. Through the instrumentality of the medical officer of health also, specimens of the urine and faeces were also sent to the same institution, and the report given was that the faeces contained *B. typhosus*, but that the urine was sterile. No cathartic had been given before the specimens were obtained.

In conclusion, with reference to the diagnosis of the primary case, I have described it as one of acute abdominal infection. It seems probable that a gall stone was passed, and an infective condition akin to cholecystitis acuta referred to by Osler, set up by the *B. typhosus*.

THE KNIFE AND ITS POINT.*

BY
A. Z. C. CRESSY, M.R.C.S., L.S.A.,
HONORARY SURGEON, CARSHALTON AND DISTRICT COTTAGE HOSPITAL.

WHY has a scalpel a point? It always has had one, and in times gone by the larger knives had one for a purpose—for instance, the transfixing amputation knife; it has been perpetuated to the present time when the need has disappeared, simply from habit.

It is very usual when opening an abscess to plunge the knife rather than cut, and if the pus is near the surface no harm will result; but if the pus is ½ in. deep or more, a vessel may very easily be cut on the way. Lister saw the danger of this long ago when he advocated his well known method of opening an abscess. In making an incision the point of the knife is pressed through the skin and the blade drawn in the direction the incision is to be made;

* Read before the Croydon Division of the British Medical Association.

now the point at the commencement has penetrated under the skin further than the incision. How often we find there is a vessel wounded at this undermined spot, and how troublesome to catch up with the forceps! first, because more often than not the vessel is punctured instead of being cut through, and secondly, because it is far in under the skin.

In making a deep dissection, say of the armpit with enlarged glands, or an opened abdomen, how many men discard the knife for a pair of blunt-ended scissors. They do this because of the point of the knife. The only purpose for which the point of the knife is used is to scratch, a niggling proceeding and bad for the tissues; by working with the edge of the knife much time and tissue are saved.

Then, why not do away with the point and use a blunt-ended scalpel (as in the accompanying sketch)? There is no undermining and no punctured vessel in the course of the incision, because the ends of the incision slant to the wound, instead of away. In dissecting, the surgeon cannot scratch, but must cut. In the removal of glands he cuts with the edge and blunt dissects with the back, and has no fear of puncturing vessels close by, because there is no point to travel further than he can see. In operating deeper, every cut is fully exposed and is even.

The scissors make an uneven surface, bad to sew together afterwards. In cleaning out an axilla, how often a vessel is punctured by accident by the point of the knife! Here, again, with a blunt-ended scalpel no vessel is punctured, though occasionally one may be cut.

In a splitting operation for appendicitis, the skin incision with a blunt-ended scalpel has no undermined end; in splitting the external oblique, the cross fibres of the internal oblique are not frayed, as so often happens when the point of a knife passes over them. Having retracted the external oblique, the edge of the knife divides the thin fascia over the internal oblique, and, reversing the knife, the back of it now splits this muscle and the transversalis. Now the peritoneum is picked up and the edge of the knife is laid on it; having made a small opening, the knife is inserted edge upwards and a cut made to the right and to the left without any fear of touching the bowel, because there is no point to the knife.

In removing a varicose vein there is no point to puncture the vessel as it is dissected out from the surrounding tissues, and much time is saved; the back of this scalpel on occasion makes a good blunt dissector. I contend that a surgical scalpel has a point for the simple reason that it was first made with one, and we are creatures of habit. I consider the point of a scalpel is in the way, an obstacle to quick operating, and a dangerous companion. I doubt if the best surgeon alive exercises absolute command over the extreme point of his knife.

I have been using blunt ended scalpels for some time, and use them right through an abdominal operation, discarding the scissors; the resulting work is much neater and quicker, and any dread of damaging bowel or other organ in the near vicinity is gone, because there is no point to the knife.

There is much saving of time, and many cases of oozing from punctured vessels are avoided, and the habit of cutting is encouraged. This knife is a little awkward to use at first, as the operator is inclined to hold it in the old fashion. The handle must be depressed; in fact, it must be held much as a violinist holds his bow. The knife must be sharp or there will be a tendency to revert to the only method of using a blunt knife of the older pattern—that is, by the point, and of course this knife is practically a blunt dissector at the end.

These scalpels have been made for me by Messrs. Down Bros., of St. Thomas's Street, who, with their usual attention to every small detail, have fulfilled my idea; as you see they are round at the end and have only a sharp-cutting, straight edge, slightly turned up at the end. The only knife at all approaching this one is Marshall's resection knife for necrosis, but that has not been used for general purposes. I am now quite convinced that we are wrong in using a knife with a point.

I offer these remarks for what they are worth, hoping they are right and will be of use.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

LONDON HOSPITAL.

A CASE OF RENAL CALCULUS PRODUCING NO SYMPTOMS FOR FIFTY YEARS.

(With Special Plate.)

(By Charles Joseph Taylor, B.A.Oxon.)

[Under the care of Mr. Hurry Fenwick.]

The following case seems, owing to the size of the stone and the entire absence of symptoms for a long term of years, to be sufficiently remarkable to be recorded:

A. B., groom and gardener, aged 60, was admitted to the London Hospital on January 8th, 1910, under the care of Mr. Hurry Fenwick, with a letter from Dr. Frank Hind of Aldington suggesting the possibility of a calculus in the right kidney.

Previous History.—When an infant the patient used to have pains and "spasms" in the right side; these continued till he was 7 years old, when they ceased, and he never had any similar trouble until the onset of the present illness.

History of Present Illness.—Two years ago the patient had an attack of bronchitis and influenza. Six or seven weeks later he lost a considerable quantity of blood per urethram, the urine being quite red. The haemorrhage lasted nearly twenty-four hours, and the man was much collapsed; he fainted once. Haematuria continued for nearly a week, when he seemed to recover. Since that time he had seen no blood in his urine, but had had recurring attacks of illness in which the urine contained a considerable amount of pus. These relapses occurred on his going back to work. During the haemorrhage he had an attack of violent shivering. Since then he had had similar attacks, some twelve in all, coming on especially after any exertion. Shortly after the attack of haemorrhage he began to feel sharp pains in the abdomen especially in the right side; these would come on when he got out of bed in the morning. He never had any pain when lying in bed. He had never had any difficulty in micturition. About two months before admission he used to feel a frequent desire to pass water; this occurred more at night than in the daytime; he would have to rise twice in the night to relieve himself. This condition passed off however, and he had not been troubled with frequency for some weeks before admission. He never had any vomiting. He never sweated very profusely, except when at work. He was never short of breath.

Present Condition.—The patient was an elderly-looking man of healthy appearance, but extremely nervous and anxious about himself. Examination of the abdomen revealed nothing. Nothing could be felt, and there was no tenderness, superficial or deep in any region. The lower edge of the liver could be distinctly felt two finger-breadths below the costal margin. Examination of the urine showed the presence of a distinct cloud of albumen and a deposit of pus and a little blood. Reaction was acid and the specific gravity 1019. Urea 1.6 per cent.

A skiagram was taken of both kidney regions and of the pelvis by Mr. Coldwell, and the remarkable shadow seen in the Plate was at once noticed. On the patient's return to hospital after the *x*-ray examination he had one of his shivering fits. His face was of a pinkish-red colour, his hands, arms, legs, trunk, head, and lips were in a state of violent tremor; he had dyspnoea and was gasping for breath, but said that he did not feel cold. The attack lasted some ten minutes until he was safely back in bed with a couple of hot bottles.

Cystoscopy.—On January 10th a cystoscopic examination was made by Mr. Hurry Fenwick. Both ureteric orifices were apparently healthy. The appearance of the right ureteric orifice did not convey the impression that anything was wrong with the kidney. The rest of the bladder was apparently healthy. A rectal examination showed the prostate to be small.

TO ILLUSTRATE MR. HURRY FENWICK'S CASE OF RENAL CALCULUS.

Radiograph of a large kidney stone which had produced no symptoms for fifty years.

ne *x* rays showed the presence of a calculus so nctly that Mr. Fenwick decided to remove it, and, ssible, to spare the kidney in so doing.

peration: Nephrectomy.—The operation was per- ed on January 17th, under chloroform. The usual oar incision was made. The ilio-costal space was small; it was therefore necessary to resect about from the anterior extremity of the twelfth rib. The ey was then exposed lying deeply. The cortex could elt to be very thin and the kidney cystic in condition; spirating needle was therefore introduced, and about z. of stinking, almost al-smelling, brown pus withdrawn. On en- couring to draw the ey into the wound, the is was found to be id down by dense sions, so as to be ost immovable, and siderable difficulty was erienced in breaking n down. The pelvis at length freed and kidney drawn upwards out 1 in. into the nd. The pedicle was ided between two aps and the kidney re- ed. The arterial and ous constituents of the icle were ligatured in- dually with catgut, the ter being closed in like nner. A large rubber inage tube was intro- ed and the wound closed layers.

After-History. — The ient made a good re- ery. There was a good l of foul discharge from wound, which lasted about three weeks after operation, and which as treated by daily inging with hydrogen oxide. He was allowed get up for the first time February 14th, and he the hospital on February 19th, the wound being almost sed. From the day of the operation onwards to the he he was discharged from hospital he passed a large antity of urine each day, averaging 74 oz. a day, whilst one occasion he passed 116 oz. With the object of con- lling the diuresis, he was put on tinct. opii mviij, given intervals of four hours for the first three doses and enceforward twice a day. From the time of admission had been troubled with a cough, which seemed to cause n more anxiety than anything else connected with the ness. This had ceased before he was discharged. Dr. nde writes, under date April 2nd, that the patient is w in the best of health, the wound quite healed, d that he hopes to take on a light place at once.

Photograph of kidney stone removed (actual size). Compare this with shadow in radiograph.

The Stone.—On cutting open the kidney after removal a large, irregular-shaped stone was found occupying the greater part of the pelvis of the kidney, with processes extending down into the calyces. The stone had replaced the kidney tissue, only a very small remnant being left. The size and contour of the stone are shown in the accompanying photograph. The surface is smooth. Subsequent analysis has shown it to be a rather soft calculus, laid down concentrically. Some of the layers are very faintly pigmented. It is composed of phosphates, over 90 per cent. of which are combined with calcium, the remainder with magnesium. There is a minute trace of uric acid, but no oxalate. There is a little organic matter distributed throughout. The calculus now in the dry state weighs 5 oz. Its measurements are: Greatest length, 4 in.; greatest breadth, $2\frac{3}{8}$ in.; thickness, $1\frac{7}{8}$ in. A remarkable feature of the case was the accuracy of the *x* ray picture. Immediately before the operation Mr. Fenwick made a tracing of the shadow as seen in the Plate. When, after removal, the stone was laid on to this traced outline it was found to fit exactly—that is to say, the *x*-ray shadow was exactly of the same size and shape as the stone itself.

REMARKS.—The case presents certain noteworthy features. In the first place, it shows how a very large stone can remain latent for a great number of years even in the kidney of a man following a very active employment. Further, it illustrates how the methods that can usually be relied upon for the formation of an accurate diagnosis may fail in a case where it might be expected that all the classic signs of disease should be present. Though the stone was so large, it gave rise to no tumour which could be felt and to no disease which could clinically be diagnosed. The cystoscope revealed nothing. The *x* rays alone made a sure diagnosis possible.

My best thanks are due to Mr. Hurry Fenwick for permitting me to publish these notes, and for giving me the great advantage of his help in preparing the report; to Dr. Hinde for his courtesy in communicating particulars regarding the present condition of the patient; and to Mr. W. A. Coldwell for kindly allowing me the use of the *x*-ray plates to illustrate this communication.

DORSET COUNTY HOSPITAL, DORCHESTER.

CASE OF PERITONEAL PSEUDO-MYXOMA ORIGINATING FROM THE VERMIFORM APPENDIX.

(By REGINALD M. MOORE, M.R.C.S., L.R.C.P., House-Surgeon.)

Under the care of Mr. W. BURROUGH COSENS, Honorary Surgeon.]

view of the cases recorded by Mr. Wilfred Trotter in e BRITISH MEDICAL JOURNAL of March 19th, 1910, the llowing notes may prove of interest.

A. F., A cook, aged 44, was admitted on March 18th, 10, with a diagnosis of appendicitis.

She stated that she had been in good health until the ening of March 15th, when she was seized with sudden in in the abdomen. The pain was localized to the gion of the right iliac fossa, and was not severe, being sufficiently mild to allow of some sleep that night. On the following morning she vomited once, and there was diarrhoea. The urine she described as thick and very red before the attack. She had a similar attack two years earlier, but on that occasion there was no vomiting, and she was able to perform her work.

Condition on Admission.

The abdomen was distended, and was distinctly fuller on the right side. There was no superficial tenderness to pin prick nor on pinching the skin. Deep tenderness was marked in the right iliac fossa. On percussion, there was a dull area extending to the mid-line and to within 2 in. of the costal margin. The tongue was furred, the temperature normal, and the pulse-rate 120. Within two hours of admission an operation was performed by Mr. W. Burrough Cosens.

Operation.

The usual incision about 2 in. in length over the region of the appendix was made. On opening the peritoneum, a pint or more of light-brown colloid material escaped. The incision was then prolonged downwards and towards the middle line. On examination, it was found that no definite wall enclosed this colloid mass. It was loosely adherent to the caecum, the ascending colon, and to the coils of small intestines in the immediate neighbourhood. The appendix was almost totally disintegrated, and what remained of that structure readily came away when it was examined. Both ovaries were normal. The colloid material was washed out as far as possible, and the abdominal incision closed.

Up to the time of writing (March 26th) the patient has made an uninterrupted recovery.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

A CASE OF BEZOLD'S DISEASE.

THE case of Bezold's disease reported recently in the JOURNAL,[1] in which the injection of antistaphylococcic serum was followed by recovery, reminds me of the improvement that followed the use of antistreptococcic serum in the case of F. H, reported some years ago in the BRITISH MEDICAL JOURNAL.

Last July I was asked by Mr. G. P. Field to see a lady who complained of recent severe pain in the right ear and upper part of the neck. She had had occasional discharge from the right ear, but "took little notice of it." There was swelling of the right side of the face and neck, some tenderness over the mastoid, and great tenderness in the upper part of the neck. There was a small perforation in the right membrana tympani and a small quantity of slightly offensive discharge in the meatus. The temperature ranged from 101° to 102.5° F.

Looking upon the condition as one of blocked middle ear relieving itself by way of the mastoid, I opened the mastoid on August 3rd, and found it to be softened and perforated. It was thoroughly gouged out. At the same time I removed the remains of the membrane and a mass of granulations from the middle ear. No other drainage than that through the mastoid wound and the meatus was provided, though I thought I might have to do so. The after-progress of the case was satisfactory, but the healing process was somewhat prolonged. In the third week some paresis of the facial nerve was noticeable, which gradually passed off. The tenderness in swelling of the neck and face subsided slowly, and from time to time pain was complained of. For this reason I reopened the mastoid wound soon after it first closed. This gave relief. The wound was not kept open by artificial means. When I saw the patient at Christmas the mastoid region and neck were normal in appearance and not tender. The middle ear was dry and sweet, and the hearing decidedly better than before the operation. This patient was, subsequent to the operation, under the care of Drs. A. H. Bindloss, S. H. A. Lambert, and C. M. Pennefather.

My experience of Bezold's disease has led me to think it one of the most dangerous complications of an infected ear. Serums may help sometimes, but in how many cases have they not failed! The important prophylaxis is to cure middle-ear infection as soon as possible, and to remove any possibility of a blocked middle ear.

London. FAULDER WHITE.

PNEUMOTHORAX IN THE APPARENTLY HEALTHY.

A RECENT case of pneumothorax in the apparently healthy will serve further to illustrate the subject discussed in the interesting paper by Drs. Barclay Ness and George A. Allan in the JOURNAL of March 26th, p. 744.

A young clerk of good physique, aged 22, had stayed at home for a few days on account of an ordinary "cold," but had recovered, and for several days had resumed his work. He was going to the station on the morning of February 4th, and walking rather sharply to overtake a friend, when he suddenly felt a severe pain in the left side of his che and a tightness of breathing. He was able to go to tow but returned early owing to shortness of breath a incessant cough.

I found him looking pale, with an anxious expressio and distressed in his breathing. He complained of pain the left chest, and especially in the neighbourhood of t clavicle. The pulse was 100 and small, the temperatu normal. Typical signs of pneumothorax were present immobility of the left side of the chest, tympanitic pe cussion, absence of breath sounds, loss of vocal resonan and fremitus, and the characteristic tinkling sounds. T heart was pushed over to the right, and was inaudible its normal position.

He was put to bed with a firm bandage round the ches and had practically no other treatment. He was kept s weeks in bed, during which time the lung gradual expanded and the heart returned to its normal positio The chest remained resonant throughout, and there w no evidence of any effusion. The temperature nev exceeded 99° F. The cough soon abated, and the was never any sputum obtainable for bacteriologic examination. At the end of seven weeks he had entirel recovered and had put on flesh, and no abnormality of an kind could be found in the lung.

There had been no previous strain nor injury, and wit the exception of one or two rather protracted "colds during the past winter he had always enjoyed goo health, and had suffered from no illness of any importanc There was no family history of tubercle.

Croydon. HERBERT C. MALE, M.D.

PREGNANCY WITH PERFECT HYMEN.

IT is well known that pregnancy may be found where ther has been neither penetration of the vagina nor rupture o the hymen. At the same time the cases on which thos conclusions are based are so difficult to trace that it seem desirable to place authentic instances on record.

Within the past year I was consulted with regard to a young woman of good family, aged 19 years, who com plained of a variety of symptoms which eventuall suggested pregnancy. She absolutely denied intercourse and offered to subject herself to any examination.

In consultation with an obstetrician of considerabl experience a thorough examination was made, whic elicited two facts: the girl was pregnant between five an six months and the hymen was absolutely intact. In fact all the appearances of the vagina were such as would warrant one, ordinarily, in certifying her as a *virgo intacta*.

After some time the patient confessed to certain inci dents which made the case tolerably clear. She had been lodging in the house of a married man, with whom some degree of contact had taken place, but apparently there never had been penetration, and both of the parties absolutely relied on this as negativing the possibility of impregnation.

Most of the recorded cases of pregnancy with intact hymen seem to have been dependent on some elastic condition of that membrane, which permitted penetration without rupture. The conditions existing in the present instance, where the vaginal inlet was extremely constricted, even for a virgin, were such that rupture would almost certainly have taken place if penetration had been accomplished.

One or two medico-legal questions suggest themselves in such a case as this. Could this pregnant, but not penetrated, female be properly described as a "virgin" by a medical man on oath? Further, does such a case constitute rape, assuming that the intercourse was resisted? As we know, there need not be penetration of the vagina to constitute rape, but only some degree of penetration of the vulva. Yet how can this be proved? It is obvious that this girl may have become impregnated by the fecundating fluid without penetration even of the vulva.

The subject is unsavoury, yet is one of pressing importance, for by the custom of the British law every medical practitioner is supposed to be an expert on matters of such vital moment as these, and they are increasing in frequency every day.

J. C. MCWALTER, M.D.Brux., M.A.,
Dublin. Barrister-at-Law.

[1] BRITISH MEDICAL JOURNAL, 1909, ii, p. 1747.

Reports of Societies.

MEDICAL SOCIETY OF LONDON.

Monday, April 25th, 1910.

SAMUEL WEST, M.D., F.R.C.P., President, in the Chair.

Gastroptosis.

. F. S. EVE read a paper on the surgical treatment of troptosis, and was followed by Dr. ROBERT HUTCHISON, o dealt with the principles of treatment of the same idition. The papers will be found published in full at .098 and p. 1102 of this issue.

Ir. SCANES SPICER observed that it had been well said t treatment was causation reversed, and described how, his opinion, gastroptosis was due to faulty action of the phragm. He treated gastroptosis by a process of ysical culture, the object being to secure centrifugal ion of the diaphragm with the spine straight.

Dr. HERTZ said that he had examined twenty normal lividuals leading active lives, and in every single case curvature of the stomach was below the umbilicus, in instance 5 inches below. He agreed with Dr. tchison that many people might have gastroptosis thout suffering from gastric symptoms.

Dr. F. PARKES WEBER said that it would be interesting examine all patients, especially young adults, with hostatic albuminuria, with the object of recording the nditions of the viscera in regard to the presence or sence of gastroptosis.

The CHAIRMAN pointed out that there were many condi- ns covered by the term "gastroptosis" which certainly ght have some relation to each other, but could not be ntical. With reference to the successful cases of eration for gastroptosis, it was necessary to remember at the patients had had a prolonged rest in bed, and ere was no doubt that there was nothing like a long rest bed to cure gastroptosis.

After Mr. EVE and Dr. HUTCHISON had replied, the eeting ended.

LIVERPOOL MEDICAL INSTITUTION.

Thursday, April 28th, 1910.

Dr. T. R. BRADSHAW, President, in the Chair.

HE following were among the exhibits:—Dr. JOHN HAY: girl, aged 10, who for two years had suffered from mplete paralysis of the right arm, hysterical in nature, id accompanied by Charcot's blue oedema. After ten plications of the faradic current complete power had turned to the arm and the oedema had disappeared. r. T. C. LITTLER JONES: A patient from whom he had moved a *Cerebral tumour*, being a two-stage operation. was situated in the right Rolandic region, and in shape id size resembled a normal kidney, measuring 5½ in. in ngth, and weighing over 4 oz. The patient's mental ate had since become normal, and the previously isting optic neuritis had disappeared. Dr. O. T. ILLIAMS read a note on a case of *Multiple myelomata* in man, aged 37, who died two months after the first mptoms appeared. Within one month after the onset ie first and second ribs on each side had become almost mpletely absorbed. The sternum fractured at the iadiola-manubrium junction, the lower portion pressing n the great vessels and giving rise to a murmur which as audible at a little distance from the chest. The gaments of the sterno-clavicular joint on the left side ere absorbed, and the inner part of the clavicle was rawn up into the neck. There was evidence of absorp- ion of bone in the lower cervical and upper dorsal ertebrae. The urine was at first clear, and later was quite ilky when passed. The Bence Jones protein reaction was resent on most occasions, but at times only a phosphorus- ree glyco-protein was observed giving the reactions of mucin. he protein was separated, and found to contain a carbo- ydrate radical and a high percentage of sulphur. The utput of ethereal sulphates varied from day to day. The vidence obtained from a study of the protein isolated howed the probability of it being derived from the hondro-mucoid substance. The calcium in the urine was much increased, and an unusual deposit of sodium urate was found. Dr. E. E. GLYNN stated that the tumour was composed of round cells which were typically myelomatous. Mr. THURSTAN HOLLAND showed a series of radiographs of the bone from the case, which he called osteo-psathyrosis, the changes being due to a disappearance of the opaque bone salts. Radiographs of the right and left kidneys showed calculi in both. The PRESIDENT said that a peculiar protein was present in the urine in this case, but he had not found the reactions indicating the presence of myelopathic albumose in the specimens submitted to him, though Dr. Williams had found them in other specimens. He had long held that cases of multiple myelomata with albumosuria were essentially different from those without it. Cases like the present where its presence was intermittent had not been contemplated. Possibly here there was also the same error of metabolism, but this had been arrested at different stages. Dr. JOHN HAY, in a paper on the *Senile heart*, said that this was a local manifestation of general arterio-sclerosis, which in premature senility tended to be focussed in one or other viscus, not infrequently in the heart. The early manifestations of such a change were of two kinds: (1) Signs of diminished reserve power of the heart; (2) certain varieties of irregular action, such as (*a*) extrasystoles, (*b*) complete irregularity, (*c*) the alternating pulse. The arrhythmia could not be taken as any evidence of the extent of the arterio-sclerosis. It might attack a heart which was only moderately affected by the sclerotic change, while advanced cases might exhibit a regular action even up to death. Dr. HURTER drew attention to the frequency of cerebral thrombosis in patients in whom the nodal rhythm had presumably become established. He had lost three patients from thrombotic hemiplegia within a few weeks of the inception of the abnormal rhythm; a fourth patient had just recovered from such an attack of hemiplegia. The liability to this complication should not be overlooked in prognosis. The PRESIDENT remarked that the use of the polygraph had thrown much light on the real nature and significance of the irregular pulse; it was not desirable, however, nor practicable to use this elaborate instrument in every case.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

Thursdays, April 7th and 21st, 1910.

Mr. GEORGE WILKINSON, President, in the Chair.

THE following were among the exhibits at these meetings: Dr. H. HENRY: (1) A child aged 4 months with *Erb's palsy*. The forearm was markedly hyperpronated. There was no history of injury at birth. (2) A case of *Fracture of the cervical spine* in a man with dislocation between the fifth and sixth vertebrae. The injury resulted from a fall downstairs. Except for some slight local tenderness, no symptoms developed till six weeks after the accident, when the patient complained of stiffness, due to atrophy of the left shoulder muscles. There was now atrophy of the shoulder muscles of both sides and severe nerve-root pains. (3) A case of atrophic *Muscular dystrophy*, in which there was evidence of transmission through the female. Mr. W. S. KERR: (1) A young woman in whom acute frontal sinusitis and *Ethmoiditis* with displacement of the eyeball, had been cured by simple external drainage. (2) A man with *Pansinusitis*. A fistula in the inferior wall of the left frontal sinus communicated with a large orbital abscess. After operations on all the sinuses the nasal discharge had become inconsiderable. (3) A woman in whom acute *Mastoiditis* with a large perisinous abscess, following an acute otitis, had been cured by simple mastoid drainage. (4) A case after perisinous abscess and *Thrombosis of the lateral sinus*. There had been no rigors and the thrombosis was only discovered on operation. The internal jugular was ligatured. (5) A case of *Perceptive deafness* with facial paralysis and anaesthesia of the same side and loss of taste in the anterior two-thirds of the tongue. No vestibular reaction could be obtained on that side. The condition was evidently one of syphilitic pachymeningitis. Mr. G. H. POOLEY: Cases illustrative of congenital *Abnormalities of the eye*, including congenital dislocation of the lens in two sisters, and buphthalmos in two cousins. Dr. A. G. YATES:

(1) A case of *Spleno-medullary leukaemia* showing considerable reduction in the size of the spleen and in the number of leucocytes under *x*-ray treatment. (2) A case of *Lichen pilaris* showing small horny spines surmounting brownish-red papules on the face—an unusual situation. (3) A boy with *Myoclonus* alleged to have been caused by a caning at school. Before the exhibition of cases commenced, the PRESIDENT gave a demonstration of *Barany's labyrinthine tests.*

ROYAL SOCIETY OF MEDICINE.

OBSTETRICAL AND GYNAECOLOGICAL SECTION.

Thursday, April 14th, 1910.

Dr. MACNAUGHTON-JONES, President, in the Chair.

Placenta Praevia and Caesarean Section.

DR. HENRY JELLETT, of Dublin, in a paper on the place of Caesarean section in the treatment of placenta praevia, summed up his conclusions as follows: There does not appear to be any place for this operation in the modern treatment of uncomplicated cases of placenta praevia. In a few exceptional cases with a rigid condition of the cervix or premature rupture of the membranes, associated with an unhealthy atonic condition of the uterine muscle, it may be indicated. Such a condition might be treated by the vaginal plug, and, if internal haemorrhage then resulted, by Caesarean section; but, personally, I should be inclined to treat such a case, if plugging failed, by incision of the cervix and the performance of bipolar version. The fetal mortality of placenta praevia is undoubtedly very high; in the Rotunda cases it amounted to 57.3 per cent. Is there any likelihood of materially reducing this mortality by Caesarean section? Apparently not, if we are to judge by the recorded results, unless we operate in every case, and who is prepared to do this? I am unable to see any place for Caesarean section in the treatment of placenta praevia. What we really require in these cases is an advance in our methods of treating the collapse of haemorrhage, and the shock, and of combating infection, as thus we could reduce the present mortality and save some of the patients who are apparently moribund when they first come under treatment. The PRESIDENT (Dr. Macnaughton-Jones) said that he still believed in the soundness of the principles which he had taught students in the past to follow in the management of the different forms of placenta praevia—the two most important of these being the indication of bipolar version and plugging. The most complete summary of the entire subject was contained in the recently published brochure of Dr. Ludovico Moncalvi, Professor Mangiagalli's assistant in the Institute of Obstetrics and Gynaecology in Milan. It entered fully into the statistics of several of the largest European clinics on such points as the nature of the placental presentation, the size and weight of the fetus and its presentations, and the whole evidence collected appeared to be on the side of those who maintained that only in a very limited number of cases, if the condition had to be treated on scientific obstetrical principles, was Caesarean section called for or justified. Dr. HERBERT SPENCER said that Dr. Jellett had done well to call attention to the small mortality which attended the performance of bipolar version. The cases which terminated fatally did so as the result of severe haemorrhage and infection before the treatment was adopted, and would not be saved, but would be further imperilled, by the performance of Caesarean section. He did not utterly condemn the operation, but thought it justifiable in a very few rare cases of central placenta praevia at or near full term, with an undilated rigid cervix. He called attention to the remarkable series recorded by Krönig and Sellheim of 25 cases of placenta praevia treated by Caesarean section with no maternal or fetal mortality. Dr. CHAMPNEYS thought that in placenta praevia the child must take its chance, and that any special attempt to improve the chances of the child would be at the expense of the mother. Dr. PURSLOW thought that plugging the vagina, if done efficiently, would give good results, and that *post-partum* haemorrhage was a most grave complication of placenta praevia—a complication, moreover, which Caesarean section would not guard against, unless the uterus was removed at the same time. Dr. AMAND ROUTH agreed with Dr. Jellett that there was no place for Caesarean section in the ordinary or routine treatmer of placenta praevia, but it might be advisable where th cervix remained rigid and undilatable. Dr. W. J. Go thought it was only in a central placenta praevia that trea ment by Caesarean section should be considered. In *pos partum* haemorrhage occurring in cases of placent praevia, the bleeding generally came from laceration produced during extraction of the child. Another class c case in which he thought Caesarean section indicated wa when the patient had a purulent vaginal discharge i addition to a central placenta praevia, as this class of cas was very likely to be followed by grave septic infectior Dr. W. S. A. GRIFFITH had performed Caesarean sectio for placenta praevia on one occasion with a favourabl result for the mother and the child, but he thought i monstrous to talk of Caesarean section as the treatmen for placenta praevia except in very rare and exceptiona cases.

MEDICO-CHIRURGICAL SOCIETY OF GLASGOW.

Friday, April 15th, 1910.

Dr. WILLIAM GRANT in the Chair.

Dr. JAS. H. NICOLL, in showing two infants recently treated by operation for congenital hypertrophic *Stenosi of the pylorus*, pointed out that this condition was compara tively common. In its earlier stages its treatment, h said, was necessarily dietetic; such treatment cured a number of the slighter cases, though probably among the recorded cures had been included cases in which the diagnosis had been doubtful. For cases of more severe degree dietetic treatment was useless, and its undue pro longation destroyed the chances of operative success. For well-marked hypertrophic stenosis operative treatment was necessary, and, if undertaken before exhaustion or emaciation had become pronounced, gave satisfactory results. Dr. W. T. RITCHIE (Edinburgh) and Dr. J. M. COWAN gave a lantern demonstration on *Pulsus bigeminus* and Dr. COWAN showed a convenient form of polygraph. Dr. A. J. BALLANTYNE showed illustrations of two cases of *Foreign body* in the interior of the eye. The cases were almost identical in their essential features, but one was quite recent, while the other had received his injury fifteen years ago. In the former there was a small corneal cicatrix and a perforation of the iris below the pupil. When first seen, a few days after the accident, there was considerable opacity of the lens. This rapidly cleared up, and a few days later the foreign body, probably a chip of metal, could be seen impacted in the retina. The object was also detected by radiography, but the large electro-magnet failed to move it. The older case presented a similar perforation of the iris, a small amount of opacity of the lens, and a foreign body in the same situation as in the other case, but in spite of clear transparent media the vision was very defective. It was considered that the deterioration of vision was due to the chemical action of the metallic particle on the retinal elements, and that the condition of the older case might be taken as an indication of the probable course of events in the more recent one.

AN International Congress of Radiology and Electricity will, as already stated, be held at Brussels this year on September 13th and two following days. The work of the Congress will be distributed among three sections. One of these will deal with terminology, and the establishment of a uniform notation; another section will concern itself with fundamental theories and hypotheses, corpuscular rays, electro-magnetic radiation, ions and atoms, radio-activity, electrical and magnetic properties of matter, technical applications of electro magnetic waves. The third section will take for its province the biological sciences and medical radiology. The Congress is under the patronage of the King of the Belgians, and will be held under the auspices of the Société Française de Physique, the Deutsche physikalische Gesellschaft, the Electro-technischer Verein, the Dutch Society of Sciences, the Belgian Society of Radiology, and the Paris Society of Medical Radiology. Communications relative to the Congress should be addressed to the Secrétariat Général du Comité Organisateur, 1, rue de la Prévôté, Brussels.

Reviews.

HEART DISEASE.

THE bibliography on the subject of cardiac and vascular disease has of late years assumed voluminous proportions, but, in spite of this fact, the work published in 1908 by Dr. JAMES MACKENZIE, on *Diseases of the Heart*,[1] appears to have supplied a real want, and the demand for it has necessitated the issue of a second edition within eighteen months. This prompt recognition of its merits and its early translation into other languages are doubtless due to the fact that it presents a faithful record of actual personal observation and thought, amplified by the results of the experimental labours of others, rather than a reiteration of their opinions and quotations. It has long been a standing defect of clinical teaching on circulatory disorders that opinions founded more or less upon guesswork have been too readily accepted as authoritative. The trend of recent study has happily been directed towards patient observation and graphic record. In our review of the first edition in the BRITISH MEDICAL JOURNAL, 1908, vol. ii, p. 1683, we set forth the general scope of the work in detail, and it is evident that our estimate of its great value both to the student and to the practitioner was by no means overstated. Simplicity of statement and clearness of description are essential to any work of reference, and in these qualities Dr. Mackenzie's style is pre-eminent. New experiments and new thoughts on the normal cardiac cycle have followed one another with confusing rapidity of late, and busy men have found it difficult to keep pace with them. A reference to this book, thoroughly indexed both as regards page and paragraph, will enable the reader, even if he be in a hurry, to ascertain the latest intelligence on the point at issue. The author fully recognizes that the goal is still far off, and he does not suggest that his observations are to be regarded as final settlements of disputed questions. He rather invites corroboration or disproof. An incorrect observation or an unsound deduction may yet lead to correct discovery, although both may have to be rejected in the process. To follow with precision the modern lines of thought on cardiac symptomatology it is necessary to obtain a clear understanding of the viscero-sensory and viscero-motor reflexes. The explanation given in some of the earlier chapters, and especially with reference to angina pectoris, is admirably clear. Their significance in diagnosis and the consequent clue which they sometimes give to rational treatment deserve far more attention at the bedside than they usually obtain. However skilled the eye or the hand may become, the information which they afford is incomplete if not corroborated by instrumental demonstration. Improvements in the sphygmograph, its association with the polygraph, the latest form of which is so constructed as to write with ink, have greatly aided the physician in the interpretation of physical signs. A vast number of observations have been made with these instruments, and the tracings of typical conditions are illustrated and explained by Dr. Mackenzie in terse and definite terms. Most of these were included in the first edition of the book, but a new feature appears in the edition before us in the shape of a chapter on the electro-cardiogram. By means of this instrument, which is here described and explained by Dr. T. Lewis, a new field of investigation has been opened up. Its action depends upon the fact that all muscular contraction, whether somatic or visceral, is attended with some electrical manifestation. A band of muscle, stimulated to contract, is found to be electro-negative at its contracting end, each segment of the muscle as it contracts showing the same electric change. When the contraction is over the stimulated end is found to be electro-positive. By connecting the two ends of such a contracting muscle to a suitable recording apparatus, these electrical changes can be graphically demonstrated. It is obvious that direct contact cannot be made with the living heart, but it has been shown that the electrical reactions from basal contractions can be picked up by leads from the right arm, while the apical results can be gathered through the legs or through the left arm. Hence it is possible to gauge to some extent the direction of each contraction wave, and to determine approximately their starting point. Information is further afforded as to the presence and vigour of auricular contractions and their relation to the apical movements. This elaborate method is still in its early stages of usefulness, but it gives promise of future value in early cases in association with other imperfect methods of diagnosis, which too often only suffice to tell the tale of hopeless damage, discovered too late for any curative treatment. Dr. Mackenzie's work fully deserves the success it has achieved.

Professor ROMBERG, of Tübingen, is well known as an earnest student of cardiac and vascular diseases, and the first edition of his large work on the subject,[2] published in 1906, has already found its place in all the best medical libraries. His object in writing it, in the first instance, was to advance the healthy alliance of empiricism with scientific thought. The call for a second edition has shown that his object has been widely appreciated. Much has been done during the last four years in the investigation of blood pressure and the venous pulse, and there is danger, as the author points out in his latest preface, that conclusions may be too easily drawn from one or two lines of investigation only, and that the importance of certain results may be altogether over-estimated. The problem must be examined from all sides, and it must be admitted that in the preparation of this voluminous work before us, Professor Romberg has been true to his text. Much of the matter in the preliminary chapters remains as in the first edition, but the newer observations on blood pressure, mainly those by German observers, are collated; the criticism to which they are subjected is to the effect that there is as yet no positive means of distinguishing for certain the relative parts played by the heart and the vessels respectively in the production of a high tension pulse. The subjective phenomena of heart disease are closely examined; the pain of angina pectoris is attributed to painful excitation of the sensitive nerves of the heart, no attention being paid to the possible aortic origin of it. Much space is devoted to the discussion of the effects produced upon other systems of the body by the circulatory disturbance caused by heart diseases, and also to the converse proposition as to the effects of visceral or zymotic diseases upon the circulatory system. These chapters are full of sound analysis of the work of others, and of practical suggestions from personal experience. The fact that a bibliography covering eight pages is laid under contribution will serve to show how thoroughly the subject has been investigated. A long chapter is devoted to chronic insufficiency of the heart due to changes in the muscular substance of the organ itself, whether produced by sclerosis of coronary vessels, chronic myocarditis, fatty changes, or idiopathic dilatation or hypertrophy, the effects of valvular disease being considered separately. The excessive beer drinking, especially in South Germany, has led to the recognition of a "beer heart," mainly hypertrophic and fatty. Treatment is very fully discussed. The uses and abuses of gymnastic exercises are very closely analysed, and a preference expressed for the system advocated by Herz of Vienna over those of Oertel and the Schotts. The closest supervision is needed in all cases, and especially under the Oertel system, where it is always possible for exhaustion to come on before the patient has reached his home. The subject of pericarditis is not so voluminously treated, but the observations differ in certain points from the common experience in this country. One of these differences is the relative frequency of tuberculous pericarditis; tuberculosis is placed by Professor Romberg next after rheumatism as the commonest cause. The operation of paracentesis as practised by Curschmann is preferred, and the proceeding is fully described. A flat trochar and cannula are used, the point of election for puncture being in the fifth or sixth space, outside the nipple line. The later part of the book is devoted to the subjects of arterio-sclerosis, aneurysm, and phlebitis, and the whole work is concluded by an interesting summary of modern experience of cardiac and vascular neuroses, and a treatise which may be said to be as exhaustive of its subject as it is exhausting to peruse is thus completed.

[1] *Diseases of the Heart.* By James Mackenzie, M.D., M.R.C.P Second Edition. Oxford Medical Publications. London: H. Frowde and Hodder and Stoughton. 1910. (Cr. 4to, pp. 439, illustrated. 25s.)

[2] *Lehrbuch der Krankheiten des Herzens und der Blutgefässe.* By Professor Ernst Romberg, of Tübingen. Second edition. Stuttgart: Ferdinand Enke. 1909. (Sup. roy. 8vo, pp. 600; 69 illustrations. M. 14.)

TUMOURS OF THE BREAST.

Professor Cornil's book on tumours of the breast deserves more than passing notice.[3] It consists entirely of the record of personal investigations of the morbid anatomy of growths submitted to him for examination. Including as it does the consideration of chronic mastitis and tuberculosis, all forms of simple growth and the malignant growths, it forms a connected study of morbid transformation of the breast in general. Chronic mastitis is first considered, and the term is confined to a condition whose chief characteristic is a chronic inflammation of the lactiferous ducts. Professor Cornil does not describe chronic interstitial mastitis as it is envisaged by many other pathologists. He rather includes this lesion among the types of "fibro-adenomatous disease." After a description of tuberculosis and of galactocele, the tumours of the nipple are discussed under the headings "cutaneous papilloma," "papilloma of the lactiferous ducts," and "Paget's disease." Papilloma of the ducts is separately discussed because, although according to the author it resembles histologically the *épithéliome papillaire* of the gland, it is always benign, whereas the latter is included by him among the malignant tumours. With regard to Paget's eczema, he is inclined to look upon the coexistence of eczema and cancer as simply coincidence, emphasizing the fact, which is admitted, that no particular type of cancer is constantly associated with Paget's eczema and that the cancer is never squamous-celled. Chapter IV is devoted to benign growths, chiefly the fibro-adenoma. While three main forms of the latter are described, the interacinous, the intra-acinous, and the papillomatous, the author considers and describes as allied conditions both simple cysts and general cystic disease. No finality in classifying these conditions will, of course, be reached so long as we remain in the dark as to etiology, and Professor Cornil's plan of grouping them together is certainly illuminating from the morbid anatomy standpoint. In all forms there is a new formation of connective tissue and glandular tissue, the connective tissue overgrowth being either interacinous, intra-acinous, or projecting into the culs-de-sac and ducts to form papillomatous buds. Sometimes, however, the epithelial overgrowth predominates when a more purely adenomatous growth develops or the proliferation of epithelium may bring about the formation of cystic dilatations, few or numerous. The author ascribes little influence to the mechanical effects of connective tissue overgrowth in producing cysts in the breasts, and looks upon the process as more active than passive. In Chapter V are described the rare conditions—fatty tumour, myxoma, chondroma, osteoma, and certain infrequent forms of cyst. Chapter VI deals with sarcoma, and following the same plan as adopted for the fibromata, the author describes a sarcoma "*en masse*" and a sarcoma "*papillaire*." On pp. 173 and 185 we find the same illustration doing service for round-celled sarcoma and spindle-celled sarcoma.

The reader will probably turn with the greatest interest to the chapters on "Cancer," or as the French nomenclature has it, "Epithelioma." First is described a "papillomatous cylindrical-celled epithelioma"; specimens are included under this heading in which many pathologists would find no evidence of malignancy. What is usually described as "cystic disease with intracystic growth" is here classed as malignant. Professor Cornil is not very convincing in his distinction between this type and the papillomatous fibro-adenomata. He states that it differs from the pure adenomata in the absence of glandular basement membranes and the abundance of the papillae, from the fibro-adenomata in the delicacy of its papillae, the length of the cylindrical epithelial cells, and particularly in the exuberant production of these cylindrical cells. A rather striking illustration of the difficulty is shown by a comparison of Figs. 33 and 88, which are identical; yet on p. 100 the figure is given to illustrate papillae on the inner surface of a simple cyst, on p. 209 it is used to illustrate "*épithéliome papillaire*," which is placed in the malignant group. The comparison made between this growth and the papillary cysts of the ovary is a suggestive one. It is distinguished by the author from the canalicular epithelioma, or, as we should say, the duct cancer, which receives separate consideration. This duct cancer is divided into two forms—in the one of which the growth is confined to the ducts, in the other is associated with acinous cancer.

Acinous cancer proper is described and figured at considerable length, and in the course of the article many interesting problems are discussed—for example, whether early cancerous changes can be studied in the acini at the margin of a growth, and the process by which cancerous acini transgress their boundaries. Leucocytic digestion of the acinous wall is held to be the chief factor in the latter process. The author does not discuss metastasis in any detail. The statement that secondary growths are extremely rare in the genital organs would not hold for this country, where ovarian metastases are not uncommon. The volume ends with a short discussion of some general problems—the inoculability of cancer and the parasitic theory. Professor Cornil has had the opportunity of personally investigating Doyen's work on the *Micrococcus neoformans*. He states that, in his opinion, no proof has been given that it is a causative agent in cancer. Enough has been said to show that this book is of great interest to surgeons and pathologists; its value is enhanced to the former by the detailed descriptions of the naked-eye appearances of growths, and to the latter by the numerous examples of growths in the mammae of some of the lower animals, particularly the dog and the cat. It will remind both how much is yet unknown about disease which is widespread and common in an organ which is favourably situated for detailed clinical and histological study.

[3] *Les tumeurs du sein.* By V. Cornil. Paris: Félix Alcan. 1908. Sup. roy. 8vo, pp. 342; 169 illustrations. Fr. 12.)

NASO-LARYNGEAL DISEASE.

Dr. J. Garel in his work on diagnosis and treatment of nasal disease[4] has produced a book that will be of service both to specialists and general practitioners, though the latter may find it difficult at times to select the most satisfactory mode of treatment from the multitude described. It shows evidences of wide reading, and is fully up to date, describing, amongst other methods, that of illuminating the larynx and pharynx by means of Hay's pharyngoscope. It commences with a brief but amply sufficient anatomical, histological, and physiological account of the nasal passages and the accessory sinuses. A full description is given of the various methods of nasal illumination, and there is a well-written clinical account of the rhinoscopic picture, with good advice relating thereto. In the chapter on general semeiology is an excellent account of the pseudo-adenoid type of face, the difference between it and the true adenoid type being fully discussed. In the discussion of the reflex neuroses of nasal origin stress is laid upon the fact that small polypi may be a cause of asthma, but the reflex theory is not carried to the wild extremes in which some writers have indulged. The chapter on nasal diphtheria is good, but more stress might have been laid upon the virulence test. The diagnosis and treatment of turbinal hypertrophy are well described, and the necessity for the avoidance of adrenalin and cocaine in their treatment by operation explained. The chapter on post-nasal catarrh is disappointing, only five pages being given to one of the most frequent of nasal troubles. It seems to be treated more as a disease *sui generis* than as a symptom of the most varied intra-nasal lesions. The latest views of the etiology and treatment of ozaena are fully discussed. The views advanced relative to the operative treatment of adenoids would meet with opposition in many quarters. Unnecessary space is devoted to Asch's operation on the septum, now practically abandoned; the author himself advocates Killian's method whenever practicable. The diagnosis of intra-nasal suppuration and the question of transillumination is fully discussed, but the recommendation to treat antral suppuration by the alveolar route would not receive much support in this country. Empyema of the frontal sinus and ethmoidal cells is well described, through Watson Williams's modified Killian operation, referred to later under the treatment of pan-sinusitis, is not mentioned. The book contains numerous illustrations and four plates, including a valuable anatomical drawing. It contains also many useful therapeutic hints, and various kinds of local anaesthetics are admirably dealt with. A clear account is

[4] *Diagnostic et traitement des maladies du nez.* Par le Dr. J. Garel. Third edition. Paris: Vigot Frères. 1910. (Cr. 8vo, pp. 464, illustrations 145, and 4 plates. Fr. 7.)

also given of the uses and abuses of nasal lotions and the differences of action between hypotonic and hypertonic solutions.

In view of the increased attention that is being directed by students and practitioners to the recognition of diseases of the nose and throat, a small volume on hints on rhinology and laryngology for general practitioners by Dr. JOHANN FEIN[5] is a welcome addition to the literature on the subject from a practical point of view. The scope of the book prohibits any attempt at a full and complete differential diagnosis of many of the diseases mentioned, but there is sufficient to enable the practitioner to recognize diseases of these regions at a very much earlier date than is usually the case, and also to enable him to treat successfully many of the minor ailments referred to. There is a full table of contents and a good index. The various clinical methods of examination are fully described, and their rationale is in many cases explained. Space is wisely not taken up with descriptions of operations which are not within the province of the general practitioner, the details of which should be looked for in larger works; but advice as to what may be wisely attempted and what should be left to the specialist is in all cases given. There are about forty illustrations, some of which are useful, while the space taken by others would have been better filled by a fuller description of anatomical details and the relationship of the accessory sinuses to the nasal cavity. The author strongly objects to the use of the term "chronic cold in the head" as if it were a definite entity, and not, as it really is, merely symptomatic of various pathological conditions. The factors of nasal breathing and obstruction are clearly brought forward, and the importance in the latter class of case of a thorough examination of the nose and naso pharynx insisted upon. There is little attempt to distinguish between the various forms of accessory sinus disease, but enough is said to enable a diagnosis of sinus disease to be made. As usual, the author has a few special forms of instrument that he prefers, but these are mainly matters of individual taste, though his preference for a straight tongue depressor in throat examinations is difficult to understand. The same may be said with reference to his choice of nasal speculum (Chiari) which has many disadvantages and no advantages over the ordinary Thudichum. The form of post-nasal curette devised by himself and illustrated seems excellent, but the difficulties that its use is intended to obviate must be uncommon. The removal of tonsils and adenoids in young children without an anaesthetic is recommended as the routine method. Peritonsillar abscess and its treatment are fully and excellently described. The question of the function of the tonsil as a protection against the entrance into the system of germs is discussed, and in the author's opinion there is no ground, anatomical or clinical, for considering them to have much influence in this respect. He considers that an enlarged tonsil projecting much beyond the pillars of the fauces is more likely to aid the entrance of germs than to destroy them, and therefore is better removed. The book shows considerable clinical experience, and should prove of great value to those for whose benefit it has been written.

[5] *Rhino- und Laryngologische Winke für praktische Aerzte.* Von Dr. J. Fein. Berlin and Wien: Urban and Schwarzenberg. 1910. (Pott 4to, pp. 197, Taf. 2, Abb. 40. M.4.)

A TREATISE OF TERATOLOGY.

THE article by Dr. PAUL ERNST upon malformations of the nervous system, and that by Dr. F. KERMAUNER upon malformations of the female generative organs, which together constitute a section of Professor E. SCHWALBE'S textbook of the teratology of man and animals,[6] attain the same high level of excellence which characterized the various articles in the previously published parts of this most interesting and instructive work. Dr. Ernst deals exhaustively with all the various malformations of the central nervous system, and illustrates his descriptions and explanations of the abstract conditions. with numerous well chosen figures and well conceived diagrams which greatly facilitate the comprehension of the many complicated phenomena which the student of malformations of the nervous system must understand. It is quite possible that Dr. Ernst's views regarding causation may not receive unqualified acceptance, but it is impossible not to admire the masterly manner in which he has grouped his facts and formulated his opinions.

Dr. Kermauner also deserves hearty felicitations on his position of the malformations of the female generative organs. The subject he deals with is not so complicated as the morphology of malformations of the nervous system, but the explanation of some of the conditions he describes still eludes investigators, and suggestions regarding causation must suffice till proof is forthcoming. It cannot be claimed that Dr. Kermauner's article is final, nevertheless by its production he earns the gratitude of all who are interested in the teratology of the female generative organs, for not only has he grouped the factors of this subject in a scientific manner, but he has also placed in the hands of all who desire to use it a compendious bibliography, which will prove of the utmost service, and he has furnished excellent figures of many interesting abnormalities.

[6] *Die Morphologie der Missbildungen des Menschen und der Tiere.* Edited by Dr. Ernst Schwalbe, iii Tiel. *Die Einzelmissbildungen*, ii Lieferung. 2 Abteilung, 2 Kapitel. *Missbildungen des Nervensystems.* Von Paul Ernst, 3 Kapitel. *Die Missbildungen der weiblichen Geschlechts organe.* Von P. Kermauner. Jena: Gustav Fischer. 1909. (Sup. roy. 8vo, pp. 167, 338; 150 figs; M. 10.)

THE ULTRA-MICROSCOPE.

DR. PAUL GASTOU, Director of the Central Laboratory at the Hospital of Saint Louis, has produced a useful little volume entitled *L'Ultra microscope.*[7] The earliest application of the ultra-microscope was made by Siedentopf and Zsigmondy, but it was not until some considerable time afterwards that Landsteiner, Hoffmann, and others began to make use of it for clinical and diagnostic purposes. In the *Presse médicale* of April, 1908, Dr. Gastou drew attention to the importance of the use of the ultra-microscope in syphilis. Since that time he and his pupils have been extending their observations, and this volume is the outcome of their labours. Dr. Gastou writes enthusiastically of its advantages; he claims, in fact, that the use of the ultra-microscope is now indispensable in the diagnosis of syphilis and other diseases of an organismal origin. Various forms of apparatus and methods of illumination are briefly described, useful hints are given as to focussing, media to be employed, etc., and some of the more important sources of error in interpretation are noted. The book is full of practical hints, and is clearly and concisely written. Its perusal leaves the impression that manipulation of the ultra-microscope is really quite a simple matter. The present writer consequently made the attempt, but soon found that it requires more practice and delicacy of manipulation than the book would lead one to suppose. There can, however, be little doubt that it is a most serviceable adjunct to biological research and to clinical diagnosis. It should receive a more wide trial in this country, and any one intending so to do will find Dr. Gastou's book very helpful.

[7] *L'Ultra-microscope dans le diagnostic clinique et les recherches de laboratoire.* Par le Dr. Paul Gastou, Directeur du Laboratoire Central et Chef du Laboratoire de radiologie de l'Hôpital Saint Louis. Les Actualités Médicales. Paris: J. B. Baillière et Fils. 1910. (Cr. 8vo, pp. 63; 25 figures. Fr. 1.50).

NOTES ON BOOKS.

THE fourth edition of *An Index of Symptoms*, by Dr. LEFTWICH, which has now appeared, will doubtless make successful appeal to much the same class as its predecessor. In spite of the considerable additions to the number of symptoms considered and to the list of synonyms, explanations of terms, and of reference to laboratory tests, the volume is even more compact than formerly. It is made up of a list of all recognized symptoms of disease entered alphabetically, subclassified under the name of the region in which they are generally noted, and to each of such symptoms is attached a list of diseases in which they may be present. Hence the student or practitioner on recognizing a symptom can find out promptly in what diseases it is ever noted, and by tracking all the symptoms in the same way can arrive, if need be, at a probable diagnosis by a process of exclusion. The book represents an immense amount of labour in comparison with the space occupied, and might often be found useful.

[8] *An Index of Symptoms.* By Ralph Winnington Leftwich, M D. Fourth edition. London: Smith, Elder, and Company. (Pott 8vo, pp. 450.)

THE ROYAL COMMISSION ON THE POOR LAW AND RELIEF OF DISTRESS.

MR. BOOTH'S MEMORANDA.

EVER since the report of the Royal Commission on the Poor Law appeared it has become increasingly evident that the schemes of administration through county and county borough councils recommended by both the Majority and the Minority Reports are not regarded with any great favour in high official quarters. The difficulties of readjustment of areas and properties if the Poor Law areas had to be assimilated to those of counties and county boroughs were pointed out by Dr. Downes in his special memorandum, and he suggested that all the requisite reforms could be attained by groupings of existing Poor Law areas. The Right Hon. Charles Booth, who was a member of the Royal Commission but had to retire through ill health, had submitted several memoranda to the Commission in 1907, and these he has now published, with some additional notes, in a volume, entitled, *Poor Law Reform*.[1] In the main, Mr. Booth agrees with Dr. Downes, especially in opposing the recommendations of the Majority and the Minority Reports that county and county borough councils should be the authorities for dealing with the poor, and in advocating a separate authority to deal with destitution. Mr. Booth now goes fully into details, and presents a complete scheme for the grouping of all existing Poor Law areas. He lays down three principles:

(*a*) That the great urban populations need different treatment as compared with the rest of the country.
(*b*) That the areas of administration should be enlarged by grouping of unions.
(*c*) That there should be increased local autonomy, with more adequate inspection.

The method he recommends is to retain present unions as the units for grouping under district Poor Law boards. Direct *ad hoc* election by ratepayers would be retained, but on each board the Local Government Board is to be represented by nominees whose numbers would be in proportion to the Exchequer grants and who would be chosen from local residents qualified for the work and include enough women, together with those popularly elected, to make the total of women not less than one-eighth of the board. The Local Government Board inspectorate would have to be strengthened by the appointment of assistant inspectors and by the employment of expert assistants for special services and Poor Law work would be under a distinct department of the Local Government Board.

Statistics of Pauperism.

A considerable part of the book is taken up with statistics of pauperism, full particulars being given of every union in England and Wales. In two maps are shown the present union areas and also the areas of the proposed groups of unions, and particulars are given about administrative counties and county boroughs in order to demonstrate that if county and county borough areas were adopted there would have to be no less than 225 adjustments of boundaries, many of which would be very difficult, and, what is worse, would not be final. The following statistics are important to a right understanding of the problem; they refer only to England and Wales, and are exclusive of lunatics and vagrants.

On January 1st, 1905, there were 831,486 persons in receipt of relief, an increase of 80,000 in the last ten years, which is much greater than in the previous decade. Population has, however, increased faster than pauperism, as the paupers were 27 per 1 000 in 1885, 25 per 1,000 in 1895, and 24 per 1,000 in 1905, but the improvement is gradually becoming less marked. Meanwhile the cost of pauperism has increased enormously. In 1882 it was £8,248,000, or 6s. 4d. a head of population; in 1902 it was £12,890,000, or 7s. 11d. a head; and in 1905 £14,025,000, or 8s. 7d. a head of population. These figures are even worse when analysed; fully two-thirds of the population, that is 23 out of 33 millions, now live under urban conditions, and though a marked improvement has taken place in rural districts, a marked deterioration has been going on in the urban districts. In other words, urban conditions are conducive to pauperism. This fact, taken in connexion with the magnitude of the urban population and its rapid and ceaseless growth, is what constitutes the seriousness of the present situation. The cost of relief in London is quite startling; it averages £24 17s. for each pauper, while in the provincial urban districts it is only £13 18s., and in the rural areas only £12 8s. No explanation can be given of the cause which makes the cost in London almost double that in the rest of the country. As to the increase of expenditure, again the mischief is mainly urban. The urban increase in cost is 97 per cent. during the last thirteen years, or from £5,260,000 to £10,340,000, while the rural increase is only 12½ per cent., or from £1,440,000 to £1,620,000. The expenditure has far outrun the growth of population; between 1881 and 1891 there was a great effort to keep down the cost, and it is since 1891 that the figures have become so startling.

In England and Wales there are 645 Poor Law unions, and it is suggested that they should be grouped into about 40 districts, each with its own Poor Law Board, the great urban unions being treated differently from the rest.

The Great Urban Groups.

Mr. Booth recommends that wherever there is a population socially and industrially interconnected and sufficient to justify the provision of a complete set of institutions, the existing unions should be combined into groups for administration, and a common poor rate levied for the group. Present urban unions would only be kept for electoral purposes, the ratepayers in each union electing representatives to the district board. In this way 136 urban unions, with a population of about 20,000,000, would form 13 great urban groups, each with its own board. Among these, London, with its 48 unions and population of about 6,742,000, would form a single district under one board. This may seem inconveniently large, but no subdivision would seem to be quite satisfactory. Another board would manage the 8 unions of Liverpool, Birkenhead and district, and another would comprise the 9 unions of the Manchester district. The other groups would be Mid-Lancashire, Leeds and Bradford, Sheffield, the Tyne and Tees district, Birmingham, Nottingham and Derby, Cardiff, the Potteries, Bristol District, and the Solent district. Each of these 13 great urban boards would have a complete set of institutions, and would take over the duties and liabilities of the present guardians, though it is suggested that any duties not connected with the Poor Law, such as vaccination, registration of births, etc., should be handed over to other authorities so that the new boards would only deal with Poor Law work. Detailed administration of relief would be entrusted by the boards to local committees consisting of members of the board with co-opted nominees, as already explained.

Non-urban Groups.

There remain the 509 smaller urban and rural unions, with a population of 13.000,000, for which a different system is advocated. It is recommended that each union should retain its own board of guardians, elected as at present, but that the number of guardians should be reduced as far as efficiency would allow. For certain purposes, however, contiguous unions would be grouped, about 27 groups being thus formed, each with a population of something like half a million. For each group a joint district board would be formed, consisting of the chairman and one other guardian from each union, together with nominees, including women, chosen by the Local Government Board from qualified local residents. Each separate union would have its poorhouse with receiving home and test house for cases pending classification; also temporary sick wards, and perhaps permanent accommodation for the aged and infirm, and separate provision for children apart from the poorhouse. All other institutions, making a complete set for each group, would be provided and managed by the joint board—for example, special hospitals for serious

[1] *Poor Law Reform.* By Charles Booth. Being memoranda submitted in April and December, 1907, to the Royal Commission on the Poor Laws and Relief of Distress (with some additional notes). (Dbl. fcap. 4to, pp. 130; 2 maps.) An octavo edition containing the complete text (slightly revised), and the two maps and two summary tables (pp. 437 and 454), but omitting the rest of the tables, is published by Messrs Macmillan and Co., price 1s.

surgical and medical cases, and institutions for epileptics and feeble-minded, for midwifery cases, for all children over 5 years of age, and for the destitute able bodied. Each union would levy its own rate, and would pay the joint board at a fixed rate for the care of its paupers sent to the central institutions, the payment being below the cost incurred, and the deficiency being made up partly by grants in aid, and partly by the several constituent unions according to rateable value, the object being that the burthen should be borne jointly. Mr. Booth hopes that from this joint liability would grow up a right of interference by the joint board with any constituent union, or by the Local Government Board, if the action of any district or any union seemed to demand it. The joint board would thus be able to insist on uniform rules regulating admission to institutions, which is especially desirable for the able-bodied. Outdoor relief would be administered by each individual union, but uniformity of action throughout the group would be secured by rules laid down by the joint board, and perhaps formulated in a general way by the Local Government Board, and the observance of these rules would be made a condition of Local Government Board subventions. The improved organization of institutions for enlarged areas would react favourably on outdoor relief, as sufficient institutions would be provided by the district boards for all emergencies, and the excuse that there was no accommodation, so often given for not offering the house, would no longer apply.

Referring to the size of groups, the first essential is a population large enough to justify a full set of institutions and a constant supply of inmates numerous enough to enable the management to combine economy with efficiency. Thus it is a question of population rather than of area. With larger areas a new dignity would be added to the service; and, as the Local Government Board would only have to deal with forty bodies in all, its influence would be far more real and a more uniform and consistent policy would be ensured.

Mr. Booth is strongly opposed to putting Poor Law administration into the hands of county and county borough councils, and thinks that the concentration of local work may easily be overdone. Sanitation, public health, police, and perhaps also education, go well together, as in the last resort enforcement is the basis of action. But the Poor Law, though it stands ready to assist, waits to be asked, and its action is thus fundamentally different in character. Doubt is expressed whether town or county councillors have the special qualities or could give the necessary time to Poor Law work, burdened as they are with other duties. It is also pointed out that, in the case of nearly one-third of the unions, transfer to the county authority would necessitate division of unions, as no less than 108 unions are in two counties, 17 in three counties, and 57 are in one administrative county and one county borough. Many urban unions would also have to be broken up, which would mean a less equitable distribution of the burden of pauperism than now. Moreover, the adjustments would have no finality, being liable to fresh alteration with every borough extension. There are also many cases in which county boroughs are actually smaller than existing unions, and enlarged areas could only be got by extending the borough boundaries—alterations which may cause friction and are often intensely unpopular. Mr. Booth thinks it would be far better to build up from existing unions, so that the populations dealt with by each district board could be sufficiently large. No changes of boundaries would then be needed, and urban and rural administration would be kept distinct as is necessary.

Sickness.

In dealing with sickness, Mr. Booth expresses the opinion that there are distinct spheres of work for the Poor Law, the public health authority, and voluntary agencies. The basis of Poor Law action is destitution, present or impending; its service is only rendered to those who ask for it; its inquiries are searching, and reimbursement of the cost may be insisted on. But with the public health authority the service is a propaganda; it is urged and may be enforced, and is almost necessarily free of charge, and though its scope may be destined to be enlarged, there are limits beyond which it cannot go without entirely changing its basis. Voluntary agencies stand ready to help any one in need of assistance, expecting that those who can pay will do so; but the service is given first, and there is no legal obligation to repay; the resources also are limited, and difficult cases get the preference. Public health institutions are differentiated by the character of the disease dealt with, and it has been suggested that a similar distinction might be drawn between Poor Law work and voluntary work—for example, that acute cases should go to the voluntary agencies, and chronic cases to Poor Law institutions, all patients being treated irrespective of means, and all made to pay what they can afford. Mr. Booth does not abandon hope of a harmonious co-ordination of these three services. The public health authority rests on an absolute legal obligation, and a sufficient field remains for both Poor Law and voluntary work.

> The part played by voluntary agencies will always be uncertain and irregular, but the more definite the lines voluntary institutions lay down for their guidance, the more possible will it become to recognize their special place and function in a general system. . . . Charitable agencies select the cases which they choose to serve, and on the guardians falls the burden of providing for those rejected by charity. But the pressure upon voluntary effort and upon private resources will be affected by the degree of deterrence attached to the methods of Poor Law relief. It may not be easy to find the basis of action under the Poor Law which will yield the required balance of deterrence on the one hand and stimulus on the other, and local rules may rightly vary, but the influence exerted should be progressive, tending always, however slowly, towards depauperization.

It is admitted that in outdoor work the three systems overlap a good deal; the classes treated are not kept as distinct as they should be. The difficulty is mainly in large towns, and might be subjected to regulation by agreement. The distribution of voluntary agencies is very unequal and nowhere sufficient, and though they must be supplemented by the Poor Law, they should not be superseded. Each of the forty new boards would provide suitable accommodation for all forms of sickness, and would collect payment when possible. But Mr. Booth would welcome any developments of municipal or other local action, whether remedial or preventive, in the interests of public health, would leave its appropriate sphere to voluntary effort, and, as regards remedial action, trust to the Poor Law to supply deficiencies, this being the necessary complement to the whole system. It is urged, especially by the Minority Report, that for the sake of cure and to prevent the spread of disease early treatment is essential, and that an authority which seeks out the sick is therefore better than one that waits until application is made. Mr. Booth replies that to get the proper benefit of such an authority "treatment must not only be free but compulsory, which involves a degree of discipline and sacrifice of liberty as yet unthought of." Another solution is that all who can should pay according to their means. But very often the question could hardly be discussed before treatment, and an order to pay afterwards could be disputed and could not be enforced; the charges made would never cover the whole cost, and to exact them would become a sort of test of destitution. Ability to pay would not be the only question to arise, for refusal might be based not on poverty but on principle, if it be admitted that the infectious character of a disease justifies not only free but compulsory treatment. If accident or illness stood alone they might be dealt with apart from the Poor Law, but very often pauperism and the habits that lead to pauperism are inextricably mixed up with the question of health. In any case there must be a residue remaining with the Poor Law, and if there is to be only one authority, it must be the Poor Law reorganized in sufficiently large areas to be able to deal with every kind of need. But it is not necessary to have one authority only, for there is a distinct sphere for all three systems—public health, Poor Law, and voluntary effort—though their functions should be harmonized. Emphasis is laid on the necessity for combined action between all charitable agencies, and it is pointed out that in the great urban communities attempts are already being made to obtain this by guilds of help and committees of social welfare; in many districts, however, blanks would have to be filled up, and in the meantime many cases, not otherwise suited for the Poor Law, would have to be tended in Poor Law institutions. In these cases payment might be exacted, but the amount would have to be moderate, and some cost would fall on the rates, so that it would be necessary carefully to define the class of person entitled to obtain this assistance

without being accounted as paupers. It would probably be the same class as doctors admit to their clubs. In this connexion Mr. Booth evidently recognizes the rightness of the attitude which the British Medical Association is taking up at the present time, for he says:

These medical clubs are found throughout the country generally, and the British Medical Association, after specially studying the subject, came to the conclusion that a scheme could be framed under which the medical men in every locality might agree to work. The essential point with the profession would be that those who could afford regular fees should not be admitted; but the actual price at which the work is undertaken may well vary from district to district, being first decided and then controlled by professional feeling on the spot, but always subject to such centralized influence as medical associations might bring to bear. A similar basis for the admission or exclusion of patients might conveniently be adopted by voluntary institutions, and it is evident how great an impulse the contract provident system of medicine would receive if all who joined the medical clubs thereby obtained in case of need a special claim to hospital treatment on the most favourable terms. . . . The administrators of the Poor Law have to take things as they find them, and to relieve the distress of those who have no other resource; but if voluntary societies and institutions could first see their way to some joint organization amongst themselves, conferences with Poor Law representatives in each district might do much to clear up the position of the Poor Law on the medical side.

A useful chapter is devoted to indoor as compared with outdoor relief, and it is stated that, in spite of the adverse opinion of Poor Law reformers, three-fourths of our paupers still receive outdoor relief. It is held that whenever out relief is given it should be only after searching inquiry, followed by continuous supervision and frequent renewals of application, while the relief should in all cases be adequate.

Allusion is made to the objections to forcible detention, and it is suggested that the difficulty might be overcome by fixing a term in advance for all cases of institutional relief. The first order given would only be for a receiving home until a proper institution could be fixed on, and a term proposed which the person could accept or refuse. At the end of the term he would be discharged unless a fresh application were entertained and another term fixed. In cases of sickness no doubt proper regard would be paid to medical opinion.

It is finally suggested that the same plan of grouping of unions would suit Scotland and Ireland with allowance for local conditions. In Scotland there would be two urban Poor Law boards, one for Edinburgh and Leith and the other for Glasgow and the Clyde. These would embrace 45 parishes and a population of 2,100,000, while the remaining 830 parishes would form 8 or 9 groups with populations varying from about 200,000 to 500,000. For Ireland there would be two urban boards, one for Dublin and the other for Belfast, absorbing 10 of the present unions and leaving 149 to be grouped for institutional purposes into 9 or 10 groups.

There can be no doubt that this book, coming from such a recognized authority as Mr. Booth, will have great influence in deciding the question whether Poor Law administration should be undertaken by specially-elected *ad hoc* bodies, or should be transferred to county and county borough councils. Its statistics alone make it an indispensable book of reference, and its plain business common sense, though often expressed in the curtest way, will carry more weight than sentiment or rhetoric.

Effect of Assistance to the Unemployed.

Scottish Opinion.

There has been issued as an appendix to the report of the Royal Commission on the Poor Law and Relief of Distress a Blue Book containing the result of investigations by the Rev. J. C. Pringle "on the effects of employment or assistance given to the unemployed since 1886 as a means of relieving distress outside the Poor Law in Scotland."

In reply to the question, "Does it forestall normal employment and so tend to throw the better workmen out of work?" Mr. Pringle writes: "This is generally conceded by Scottish authorities, and was strongly urged by the masters of works in Glasgow in 1904. In Leith constant pressure had to be put on the department which laid the tramway system down to prevent them taking on the navvies who pressed for the work and discharging the unemployed who had been sent to them. In Dundee complaints are heard from contractors about 'unemployed' getting work which their men usually get."

In reply to the question, "To what extent is the work provided for the unemployed of public benefit apart from any positive good result on the persons employed?" Mr. Pringle says: "The public benefit may be conceived as possibly accruing in two ways: (1) Work might be done which would not have been done at all had the desirability of providing work not arisen; (2) a better method of performing certain tasks, or a better method of employing men to perform those tasks, might be introduced through the necessity of the community's undertaking to arrange itself for the performance of those tasks. A better article or a better service might be inaugurated through the need of finding work for the unemployed. A production or service hitherto attended by circumstances involving the deterioration of all but the strongest characters engaged therein might be replaced by a system in which the ultimate interests of those employed were safeguarded."

As regards the difference between the actual cost of work provided for the "unemployed" and the cost of the same work supposing it to have been done in the open market under ordinary conditions in 1905–6, Arbroath, Dundee, Dalbeattie, Dunfermline, Edinburgh, Greenock, Leith, Paisley, Port Glasgow, Selkirk, and Stirling found that it was "more costly."

In reply to the question, "Is there any reason for supposing that the work done by the unemployed is inferior in durability to that done in the open market?" the following burghs have found the work "less satisfactory": Paisley, Stirling, Hawick, Edinburgh, and Dalbeattie. The following found the work "quite satisfactory": Ayr, Inverness, Montrose, Forres, Greenock, and Dundee.

MEDICINE IN CANADA.

By Andrew Macphail, M.D.,
Montreal.

The demand for reciprocity in medical degrees between Canada and the other parts of the empire has not arisen out of a dearth of qualified practitioners in Canada. There are in the various provinces seven medical schools—namely, those in connexion with the University of Toronto, McGill and Laval at Montreal, Queen's at Kingston, Dalhousie at Halifax, the Western University at London, and the University of Manitoba in Winnipeg.

At the close of the session of 1909 there were in attendance at these seven schools 1,821 students, and 312 physicians graduated from them. There were in Toronto 674 students and 91 graduates; in McGill, 332 students and 72 graduates; in Queen's, 257 students and 40 graduates; in Laval, 214 students and 43 graduates; in the Western, 104 students and 25 graduates; in Dalhousie, 121 students and 8 graduates; and in Manitoba, 119 students and 33 graduates. Four of these schools—Toronto, McGill, Manitoba, and Laval—require a course of study extending over a period of five years before a candidate can proceed to a degree; Queen's gives a fifth year which is optional, and none demands less than four years.

Upon the quality of the instruction which may be obtained in Canada there is also some evidence. The Trustees of the Carnegie Foundation for the Advancement of Teaching and a Committee of the American Medical Association, as the result of a personal investigation conducted in 1909, reported that at least two Canadian schools were entitled to rank in the first class—that is, with Harvard and Johns Hopkins in the United States. These are the schools of McGill and Toronto.

From this it will appear that the fullest measure of reciprocity would do nothing more than admit practitioners to a field which is already well occupied, in which the native must have a certain advantage on account of local knowledge and intimate association. There are many towns, however, especially in the West, which have sprung into existence within the past few years, others which have doubled in population within the past ten years, and all will more than double in the next five if the present rate of increase is maintained. These are the places in which a well-trained man—that is, one who is competent to diagnose and treat all diseases, and is

qualified to perform all ordinary operations in every department of surgery—may surely hope to succeed.

Up to the present moment the attempt to obtain a full measure of reciprocity between Canada and England, or even between the nine provinces themselves, has failed, although it has been persisted in for the last ten years. This is due to the fact that under the British North America Act of 1867, which governs the Confederation of Canada, all matters pertaining to education—elementary, scholastic, and professional—lie within the authority of the various provinces; and Quebec, which is French and Catholic and in possession of a system of education peculiarly adapted to those conditions, has guarded this right with jealous care.

To all requests for reciprocity the General Medical Council of Great Britain made the obvious reply that the provinces of Canada should first agree among themselves in establishing one standard of entrance to the study of medicine and one standard of final qualification. To this Quebec would not agree. That would be to surrender the inalienable right to the control of education.

To meet this difficulty, the Medical Acts Order of 1906 was passed by the Privy Council, under which each province of Canada was constituted a separate State for the purposes of negotiation. Nova Scotia and Prince Edward Island immediately applied. They granted and received a measure of reciprocity under which their qualifications were registrable in Great Britain, and therefore in each other; and practitioners registered in England were free to practise in those provinces. Quebec also applied for and offered reciprocity. This was mutually agreed to after provision had been made for adequate preliminary education, and to prevent a graduate who had for cause been refused the Quebec licence from registering in England, and so evading the local regulations. Only three persons from Quebec and about a dozen from Nova Scotia have availed themselves of the privilege; but I cannot find that any licensees from England have signified a desire to be enrolled upon the registers of these provinces.

The attempt to secure one register for all Canada has not been abandoned, as it is felt to be an anomaly that each province should have its own system, and that well-qualified men should not be free to move from place to place as they desire. In 1902 the Canada Medical Act was introduced in the Dominion Parliament by Dr. T. G. Roddick, Dean of the Medical Faculty of McGill University and member for the St. Antoine Division of Montreal. It aimed at a "one-portal" system for entrance to the medical profession in Canada, but failed to pass on account of the opposition of Quebec.

During the present session an amendment was sought to the effect that, when five or more provinces agreed upon the terms of the Act, a plan of registration for those provinces could be established. Quebec objected on the ground that she was being coerced by a threat of isolation; but eventually Quebec was satisfied, mainly by the provisions that the matter of preliminary education shall be left in the hands of the provinces, and that the Dominion Council shall relegate to assessors the supervision of the primary examinations, as they are now held in the various universities. In the original Act it was provided that a properly qualified person who had been engaged for six years in the practice of medicine in any one of the provinces should be entitled to registration without examination. The amendment extends this period to ten years, and allows to the Medical Council of any province the privilege of exacting an examination in final subjects, if it sees fit. The scheme of representation on the Dominion Medical Council, originally based on census returns, will now give two representatives to each of the provinces, and, on account of their greater size, one additional to Ontario and Quebec. The universities, as originally proposed, shall each have one representative, and the Governor General in Council shall appoint three members, each of whom shall reside in a different province. In addition there shall be three members elected by such practitioners in Canada as by the laws of the province wherein they practise are now recognized as forming a particular and distinct school of the practice of medicine, and as such are by the same laws entitled to practise in the province. This clause apparently is intended to meet the views of persons who are known as homoeopaths.

Everything was in readiness for the passing of these amendments, which would have consolidated the profession in Canada, when the Council of British Columbia demanded delay, and protested that it was unwilling to proceed before the proposals had been submitted to the entire body of the profession in that province. As the time for presenting bills had already nearly expired, there was no alternative but to postpone the introduction of the amended Act until another year.

This action of British Columbia is not hard to understand. For years the West was the strongest advocate of a single Canadian register, in opposition to Quebec and, in a less degree, to Ontario. But now the West is becoming the predominant partner, and is disposed to scrutinize closely any arrangement under which the number of practitioners west of Lake Superior will be increased, whether they come from Eastern Canada or from across the seas.

For ten years Dr. Roddick has been indefatigable in the labour of reconciling local interests, and he has not yet abandoned the task. The matter will be brought before representatives of all the Provincial Councils at the meeting of the Canadian Medical Association in Toronto on June 1st, and if the objections of British Columbia can be removed his great work may then be said to be accomplished.

THE FINANCE ACT AS IT AFFECTS MEDICAL MEN.

BEFORE explaining those provisions of the Finance Act for the past year which has just become law that more directly concern medical practitioners, brief mention may be made of the portions of the Act that may affect them in their capacity as possessors of real or personal property.

DUTIES ON LAND VALUES.

Most noteworthy amongst the new taxes are the duties on land values, described as the Increment Value Duty, the Reversion Duty, the Undeveloped Land Duty, and the Mineral Rights Duty. These duties are not payable cumulatively on the same property, though a particular property may be liable to bear more than one of them, in which case allowance is made for any duty already paid under another head, if paid in respect of the same benefit.

A valuation is to be made of all land at its estimated value at April 30th, 1909, and where there are buildings on it a separate "site value" is to be arrived at to represent the value of the land itself. The "increment value" will be the amount by which the value at the time the duty becomes due exceeds the value in the valuation roll, and the "increment value duty" to be charged is one-fifth of the increment value, with an allowance of 10 per cent. of the original site value. The duty will be payable in ordinary cases only when the owner transfers the land, grants a lease exceeding fourteen years, or dies. There are certain exemptions, the most important being in favour of agricultural land so long as it has no higher value than its value for agricultural purposes.

Reversion Duty is payable on the value of the benefit accruing to a lessor by reason of the determination of a lease exceeding twenty-one years, and is to consist of £1 for every £10 of such benefit, after taking into consideration the amount of any capital expenditure incurred by the lessor during the lease. The duty is payable when the lease expires and is not to be levied on agricultural land nor in cases where the reversion to a lease with less than forty years to run was purchased before April 30th, 1909.

Undeveloped Land Duty is a yearly tax of one halfpenny for every pound of the value of undeveloped land, that is, land not developed by the erection of dwelling houses or buildings for business purposes, or otherwise used for business purposes. The duty does not apply in any case where the site value of the land does not exceed £50 per acre, and in the case of agricultural land, of which the value exceeds £50 per acre, is to be charged only on the amount by which the site value exceeds the value as agricultural land.

Mineral Rights Duty is a tax of 1s. for every £1 of the rent received for the right to work minerals,

or of the rental value of such right if the minerals are worked by the proprietor. The duty is not chargeable in respect of clay, sand, chalk, limestone, or gravel.

DEATH DUTIES AND STAMPS.

The death duties on estates of from £5,000 to £10,000 have been increased from 3 to 4 per cent., and those on larger estates in an increasing proportion, the duty on estates exceeding £1,000,000 being 15 per cent. New features in connexion with those duties are the power given to the Commissioners to accept part of the property itself in payment of the duty, and the extension from twelve months to three years of the period within which property given away by a testator before his death remains liable to the duties. Stamp duties on the conveyance or transfer of property have been doubled and the duties on contract notes relating to the sale of stock materially increased.

INCOME TAX.

Income tax is charged for the year 1909–10 at 1s. 2d. in the £, and provision made for a super-tax of 6d. in the £ to be paid by individuals whose incomes exceed £5,000. The super-tax is charged only on the excess of the income of the individual over £3,000, and in calculating the income for purposes of super-tax, allowance is to be made for life-assurance premiums, and for the cost of maintenance of property referred to below. The super-tax will be assessed by the Special Commissioners of Taxes at Somerset House, and it is to be observed that the "income" is to be returned at the actual amount of the income as estimated for income-tax purposes for the preceding year—that is, for the year 1908–9 in dealing with the super-tax for the year 1909–10.

Where the total income of an individual does not exceed £2,000, the rate of tax to be charged on that part of the income that is earned remains at 9d. in the £, subject to the necessary claim having been made by September 30th last. Where the total income from all sources exceeds £2,000, but does not exceed £3,000, the rate of duty payable on that part of the income that is earned is to be reduced to 1s. if the relief be claimed before July 31st of this year. For the year 1910–11 the date before which the claim must be made is September 30th, 1910.

A provision of the Act that will be welcome to men of moderate incomes is that granting relief to the extent of tax on £10 for each child or step-child living and under the age of 16 years at the beginning of the year (that is, on April 6th, 1909, for the year 1909–10). This relief will, it is understood, be allowed from the duty charged on the professional income in the first instance; but if there be not sufficient duty charged to admit of the full allowance being made, the balance of the relief can be obtained by repayment of tax paid on any other income, such as rents or dividends, that the practitioner may have.

A further provision, distinguished from most of the other provisions of the Act in that it confers some relief from existing taxation, relates to an allowance to be made to an owner of lands or cottages where the cost of maintenance, repairs, insurance, and management, on the average of the past five years, exceeds the sum already allowed for repairs from the gross rental value for the purpose of income tax, Schedule A—that is, one-eighth in the case of lands and one-sixth in the case of cottages. It is to be noted that the expression "maintenance" includes the replacement of farmhouses, farm buildings, cottages, fences, and other works where the replacement is necessary to maintain the existing rent. The further allowance is to be made by repayment, and is not to exceed tax on one-eighth the rental value in the case of lands and on one-twelfth in the case of cottages, which must not be of a greater annual value than £8 to come within the scope of the section.

MOTOR CARS AND PETROL.

The existing licence duties on motor cars are replaced by duties calculated according to horse power on the following scale:

				Duty.		
Not exceeding 6 h.p.				... £2	2	0
Exceeding 6½, but not exceeding 12 h.p.				... 3	3	0
,, 12	,,	16	,,	... 4	4	0
,, 16	,,	26	,,	... 6	6	0
,, 26	,,	33	,,	... 8	8	0
,, 33	,,	40	,,	... 10	10	0
,, 40	,,	60	,,	... 21	0	0
,, 60	,,	—		... 42	0	0

Medical practitioners are allowed a rebate of one-half of these rates for cars kept by them for the purposes of their profession.

The new duty on motor spirit payable by the manufacturer or importer is 3d. per gallon. Medical men are entitled to repayment of the whole of the tax borne on motor spirit used by them for supplying motive power to cars while being used for professional purposes before January 1st, 1910, and to repayment of half the duty paid on spirit so used by them after that date. It is to be observed that while the relief from licence duty is granted on cars "kept for the purpose of the profession," the rebate on petrol is made to apply to spirit consumed "while the car is being used for the purposes of the profession." It remains to be seen how far, if at all, the Inland Revenue will seek to emphasize this distinction.

THE SPIRIT DUTY.

The additional spirit duty is charged at the rate of 3s. 9d. for every gallon, computed at proof, of spirits imported into or distilled in the United Kingdom. No relief is provided for in the case of spirits used in the manufacture of medicines.

METHOD OF OBTAINING REBATES UNDER THE FINANCE ACT.

Income Tax.—A practitioner whose total income exceeds £2,000, but does not exceed £3,000, should apply to the Surveyor of Taxes for a form on which to claim assessment at the rate of 1s.

Those whose total income does not exceed £500, and who have children who were under the age of 16 years at April 6th, 1909, should apply similarly for the form of claim in respect of children.

Those who possess land or cottages, and are entitled to the further relief in respect of cost of maintenance referred to above, should also apply to the Surveyor of Taxes.

Motor Car Licence.—Care should be taken to see that the rebate of one-half has been allowed before payment of the duty.

Petrol Tax.—Application should be made to the local officer of Customs and Excise for the necessary forms on which to claim repayment of the full tax on petrol used prior to January 1st, 1910, and of one-half the tax on that used since.

THE COMPOSITION OF CERTAIN SECRET REMEDIES.*

THE "CRIMSON CROSS REMEDIES."

THE claims made for the articles of which the analyses are given below are so numerous that it is not easy to class them with other proprietary medicines. Some quotations from the statements put forward will indicate the variety of their professed virtues.

An advertisement in *The Vaccination Inquirer*, headed "A simple solution of the vaccination question," states that:

The Crimson Cross Remedies for fevers, measles, small-pox, influenza, pneumonia, pleurisy, etc., render the patient non-infectious."

The extracts which follow are from circulars sent out with the remedies.

The first of the Crimson Cross Remedies used with unprecedented success was our No. 1 Ointment. This was introduced fifty years ago for Diseased Bones, Joints, and Abscesses. It cures without cutting, scraping, bed, or splints. It has saved hundreds from being hopeless cripples, and thousands of lives and limbs.

As time went on, this valuable remedy was found to be a POWERFUL GERM KILLER, so that its usefulness as a household remedy has been considerably extended, and it now includes "Infectious" as well as most other diseases. There is no foothold for microbes where the Ointment is applied.

One of its best works is the

CURE OF CONSUMPTION.

This much dreaded "White Scourge" can be cured in its incipient or first stage, and even when the mischief is deeper rooted it always gives relief.

* Previous articles of this series were published in the following Issues of the BRITISH MEDICAL JOURNAL: 1904, vol. ii, p. 1585; 1906, vol. ii, pp. 27, 1645; 1907, vol. i, p. 213; vol. ii, pp. 24, 160, 209, 393, 530, 1653; 1908, vol. i, pp. 833, 942, 1373; vol. ii, pp. 86, 505, 1022, 1110, 1193, 1285, 1566, 1697, 1875; 1909, vol. i, pp. 31, 909, 1128; vol. ii, p. 1419; 1910, vol. i, pp. 151, 213, 393, 1005, 1063.

It has been stated that Small-Pox is now extinct in England, it of course may be imported at any time. However that may b, there need be no fear of it if Crimson Cross Remedies are pplied.

The Remedies (No. 1 Ointment and Fever Powder) are qually efficacious for Scarlet Fever which is easily cured in om one to three days, if applied as soon as the patient ckens. If peeling has commenced before the Remedies are pplied, it takes a fortnight to complete the cure, but there is o fear of Infection.

Typhoid or Enteric Fever treated by the Crimson Cross emedies in the first stage is easily cured in a few days. . . .

Internal Diseases of Women can be cured without Operation Examination by our SPECIAL TREATMENT. Full articulars on application.

In a "Brief Treatise on Diagnosis and Treatment" irections are given for the employment of these remedies n a variety of illnesses. The chief feature is a liberal pplication of the ointment, accompanied by internal dministration of one or more of the other preparations. 'he following quotations will serve as examples:

COLDS. On the first appearance of a cold, rub the forehead, hest, and back with Crimson Cross No. 1 Ointment contained n the Fever, etc., packet; take the medicine made from the owder according to directions.

FOR PNEUMONIA, CONGESTION, AND PLEURISY.—Poultice the hest, sides, and back every two hours with hot linseed meal. pread warm No. 1 Ointment on the face of the poultice until ne acute symptoms are gone, then rub the chest, sides, and ound the shoulders with the Ointment once or twice a day ntil quite well. Take the medicine made from the Fever owder according to directions.

TYPHOID OR ENTERIC FEVER. . . . Acute Bright's disease of he kidneys and inflammation of the lungs frequently accom- any or follow typhoid; for the former give CRIMSON CROSS IDNEY CURE, and poultice the lower part of the back with ot linseed meal and Ointment; for the latter see directions iven. If the head is not well soaked with Ointment, an bscess is liable to form on the brain. The FEVER MIXTURE nd KIDNEY CURE may both be taken alternately three times day, if necessary; let two hours elapse between each dose.

DIPHTHERIA. Spread No. 1 Ointment on hot linseed poultices, pply one every hour. As Diphtheria patients are liable to nexpected syncope, it is advisable to have a doctor.

From the following paragraph in one of the circulars, it would appear that "Captain Feilden" does not confine his activities to the *selling* of these preparations:

Please note—All communications should be addressed
Crimson Cross Dispensary,
Strutt's Park, Derby.
Stamped envelope enclosed for reply.

Although we do not now treat cases personally at the Dispensary, we continue to give advice "Free" by letter. Full particulars of the case should be given, and where possible, Captain Feilden will call and see patients in their own homes.

A list is given of ten preparations, varying in price from 7½d. to 2s. 9d. The following were obtained for examination: Fever and Influenza Powder, No. 1 Ointment, Special Ointment, and Kidney Cure.

The first two of these were supplied together for 1s. 3d., post free.

CRIMSON CROSS FEVER AND INFLUENZA POWDER.

This consisted of about 100 grains of a purplish-coloured powder, and was contained in a "chip" ointment box. The directions on the label were:

Add to one pint of cold water, and take—Adults, one tablespoonful three times a day. Children, one to two teaspoonfuls, according to age.

The powder contained 99.4 per cent. of ammonium chloride, and nothing else was found except the colouring matter, which agreed with the reactions given by tincture of cochineal.

Estimated cost, about ⅛d.

CRIMSON CROSS NO. 1 OINTMENT (CAPTAIN FEILDEN'S).

This was also in a "chip" box, and the quantity was about 2¼ oz.

Analysis showed it to contain:

Copper oleate	1.1	per cent.
Anhydrous sodium sulphate ...	0.4	,,
Beeswax	6.5	,,
Resin (colophony)	29.6	,,
Linseed oil	62.4	,,

The sodium sulphate may be due to the copper oleate having been made by double decomposition of copper sulphate and soap, without washing away the sodium sulphate formed, although the amount of the latter found is more than the equivalent of the copper.

Estimated cost of ingredients, ⅕d.

CRIMSON CROSS SPECIAL OINTMENT.

The price of a jar, containing about 3½ oz., was 2s. 9d. A special circular is devoted to this preparation, and the statements made include the following:

This Ointment is prepared from a Special Formula for the Treatment of unbroken substances such as Cancers, Tumours, Bunyons, or Enlarged Toe Joints, Chronic Stiff Joints, Sprains, Heart Disease, etc.

By the blessing of God it has been successful in the treatment of many such cases, and it is hoped that many more may benefit. . . .

An irritable rash may appear, and this is a good sign, though some patients give up using the Ointment because of this irritation. This should not be done—the irritation will die away, though the rash may remain. To relieve the irritation discontinue the Special Ointment for a day or two—bathe with warm water, and apply a little Olive Oil. . . .

CANCERS AND TUMOURS.—Steam the affected part once a day, gently rub a little Special Ointment in, night and morning. Spread Ointment on clean linen, and wear as a plaister during the night and day. If the appetite is not good, take Crimson Cross Liver Mixture, and Crimson Cross Kidney Cure occasionally, to keep the Kidneys in good order. . . .

HEART DISEASE.—Rub the Ointment gently in across the Stomach, round the Heart and Shoulder Blades, night and morning. Great care should be taken to keep the Stomach and Kidneys in good order, and to be on the safe side in this matter, we advise all those suffering from Heart troubles to occasionally take a bottle or two of Crimson Cross Liver Mixture, alternately with Crimson Cross Kidney Cure.

Analysis showed this to contain:

Copper oleate	4.6	per cent.
Anhydrous sodium sulphate ...	1.3	,,
Acetic acid (glacial strength) ...	0.8	,,
Beeswax	3.5	,,
Resin (colophony)	46.8	,,
Oily base, chiefly or entirely linseed oil	43.0	,,

Estimated cost of ingredients 1½d.

CRIMSON CROSS KIDNEY CURE.

The price of a bottle, containing 6½ fluid ounces, was 1s. 1½d.

It is stated on the package that:

This Mixture contains powerful Medicinal Properties for the cure of Kidney, Bladder, Gravel, and all Urinary Disorders, Dropsy, etc.

Dose. Adults.—One tablespoonful every four hours.

Children.—One teaspoonful to one dessertspoonful, according to age, every four hours.

It is thus described in an accompanying circular:

This is a remedy really worthy of the name. It is natural in its composition, it is natural in its action, it does not coerce nature as in the case of poisonous drugs and drastic metallic medicines. It assists and stimulates the recuperative energies of nature in the system, thus enabling her to throw off the effects of this insidious and alarming disease. Every reader of these lines who is troubled with backache, nervousness, dimness of sight, lassitude, or any symptoms of Kidney trouble, should immediately take this remedy, and obtain that relief and cure which seems possible by no other known means at the present time. . . .

The Crimson Cross Kidney Cure may be confidently taken by young and old alike, in full assurance that whatever the trouble, a course of the Crimson Cross Kidney Cure will gently but surely remedy the mischief, and coax the organs back to a natural and healthy action.

NOTE: Whilst taking the Crimson Cross Kidney Cure it will greatly facilitate the cure if the lower part of the back and bowels are gently rubbed with Crimson Cross No. 1 Ointment once a day. The Ointment should be well rubbed in for about five minutes, then wipe down with an old rough dry towel, to prevent the linen from getting greasy.

Analysis showed that this fluid contained glycerine about 5 per cent., alcohol 4 per cent. by volume, methyl salicylate (oil of wintergreen) about 0.05 per cent., and a small proportion of vegetable extractive giving a slight colour to the liquid, but having no characteristic taste or any property by which it could be identified; no alkaloid or other active principle was present, and the ash (0.25 per cent.) contained only the constituents usually found in any vegetable extract.

LITERARY NOTES.

THE "printer's devil" is a convenient scapegoat for mistakes of all kinds. As a rule, when we discover these things, we say with Goethe, when it was shown to him that he had perpetrated a hexameter with seven feet, "*Lass die Bestie stehen.*" But there are cases in which reparation is due, and this week we have to do penance in a white sheet for an outrage on the gracious memory of a lady whose name is married to immortal verse in one of Shakespeare's songs. We printed:

> Who is Silvia? What is she
> That all our swains command her?

This is doubly unfortunate, for the sense was spoiled and the fair fame of "Silvia" besmirched. Need we say the word "command" should have been "commend"? Such guile may lurk in the change of a single letter! Of the shade of gentle Will himself we can only beg forgiveness, and we apologize to all who love him. Of "Baconians," too, we ask pardon, as the involuntary misprint may possibly seem to them a wanton attempt to make the confusion of their cyphers worse confounded.

Professor Osler, as we learn from a communication by Dr. Fielding H. Garrison, of the United States Army Medical Museum, published in *Science* of April 1st, holds that the true begetter of the germ theory of disease is not Athanasius Kircher or Hieronymus Mercurialis, but Fracastorius of Verona, whose name is well known as the author of a poem on syphilis from which the name is derived. Geronimo Fracastorio was born in 1484, studied medicine at Padua, and died in 1553. His work, *De contagione et contagiosis morbis et curatione*, which was published at Venice in 1546, is said to contain the first scientific statement of the true nature of contagion, of infection, of disease germs, and of the modes of transmission of infectious diseases. These diseases he divides into: (1) Those infecting by immediate contact (true contagions); (2) those infecting through intermediate agents, such as fomites; (3) those infecting at a distance or through the air; he mentions as belonging to this class phthisis, the pestilential fevers, and a certain kind of ophthalmia (conjunctivitis). In his account of the true nature of disease germs, or *seminaria contagionum*, as he calls them, he seems to have seen morbid processes in terms of bacteriology more than 100 years before Athanasius Kircher, Leeuwenhoek, and the other men who worked with magnifying glasses or microscopes. These germs, says Dr. Garrison, he describes as particles too small to be apprehended by our senses, but as capable in appropriate media of reproduction, and in this way of infecting the surrounding tissues (*prima enim seminaria, quae adhaeserunt e vicinis humoribus ad quos habent analogiam consimilia sibi alia generant et propagant, et haec alia donec tota humorum massa et moles afficiuntur*). These pathogenic units Fracastorius supposes to be of the nature of colloidal systems, for if they were not viscous or glutinous by nature, they could not be transmitted by fomites (*cujus signum est quod quaecunque per fomitem afficiunt omnia lenta glutinosaque conspiciuntur*). Germs transmitting disease at a distance must be able to live in the air a certain length of time (*non solum in fomite sed in aëre per certum tempus servari*), and this condition, he holds, is possible only when the germs are gelatinous or colloidal systems, for only hard, inert, discrete particles could endure longer (*sed certe, quae lenta sunt et glutinosa, quamquam parvissima sint, possunt quidem si non omnino tantum quantum dura vivere, at paulo minus possunt*). These colloidal particles have the power of resisting forces of small magnitude, but cannot resist such agencies as extremes of hot or cold, which reduce them to phases of dissipated energy (*non solum dura, sed et lenta sese defendunt ab alterationibus multis, si mediocres sint, magnas autem non ferunt; propter quod et ab igne absumuntur seminaria omnium contagionum, et ab aqua etiam frigidissima franguntur*). Finally, Fracastorius conceives that the germs become pathogenic through the action of animal heat, and that in order to produce disease it is not necessary that they should undergo dissolution, but only metabolic change (*quantum quidem sufficit ad putrefactionem faciendam non necesse esse corrumpi particulas ipsas, sed alterari solum . . . nihil tamen prohibet et corrumpi etiam, sed non necesse est, quatenus attinet ad faciendam putrefactionem*). Thus, says Dr. Garrison, Fracastorius seems to have had a clear notion of the causation of disease by micro-organisms, and he appears to have conceived of these organisms as made up of those gelatinous or "dispersed" systems which modern physical chemists call colloidal states of substance. Dr. William A. Riley, writing in *Science* of February 18th on the relation of Kircher to the germ theory of the causation of disease, says he must have seen "the larger species of bacteria" long before Leeuwenhoek's discovery. It is, however, pointed out by Dr. Garrison that neither Kircher nor Leeuwenhoek could have seen bacteria of any kind with the lenses at their command, although Leeuwenhoek undoubtedly saw various animalculae, diatoms, blood corpuscles, and the finer anatomy of the tissues. According to Müller and Prausnitz (*Handbuch der Geschichte der Medizin*, Jena, 1905, ii, p. 805), Kircher saw in the blood of plague patients "a countless brood of worms not perceptible to the naked eye"; these "worms" he also saw in healthy blood. His glass or microscope, says Dr. Garrison, was only 32 power at best, and the worms he thought he saw were simply rouleaux of red blood corpuscles. Garrison sums up the case by saying that a hundred years before Kircher, the first definite statement of the true nature of infection by disease germs was made by Fracastorius. Kircher restated the hypothesis in the light of what he saw through the microscope, but the germ theory was verified by laboratory experiment by Pasteur.

By a recent gift of three rare volumes printed by Edward Raban, Colonel Johnston of Newton Dee has considerably enriched the collection of books by this first Aberdeen printer now contained in the reference room of the public library of that city. Among them are two works of Arthur Johnston, of Caskieben, well known in his day as a physician, and better still as a writer of Latin verse. They were both printed by Raban in 1632. The first is the *Epigrammata*, containing Johnston's pieces on the "City of Aberdeen," in which the city is compared to ancient Rome; "On the Tomb of John Collison, Provost of Aberdeen," which gives the name to Collison's Aisle in St. Nicholas Church; and other pieces. The other volume is Johnston's *Parerga*, containing many of his lighter pieces. The contents of both volumes are now to be found in the two volumes, *Musa Latina Aberdonensis*, issued by the New Spalding Club. Both these beautiful examples of Raban's printing—small octavos—were presented recently to the library by Colonel Johnston of Newton Dee, who has otherwise added most generously to the library set of Arthur Johnston's works. Among other works printed by Raban in the public library is the *Paraphrasis Poetica Psalmorum Davidis*, by Arthur Johnston, which carries the imprint — "Aberdoniae — Imprimebat Edwardus Rabanus, Anno 1637." This book of Arthur Johnston's appeared in the year of his appointment as rector of King's College, after his prolonged residence on the Continent. It is the work which chiefly made him famous as a Latin poet; and it was reprinted in that same year, 1637, in London, again in London in 1652 and 1657, in Amsterdam 1706, and repeatedly afterwards. This is the first edition of this work, printed by the Aberdeen printer, whose work Arthur Johnston probably superintended. Colonel Johnston of Newton Dee, C.B., M.D., LL.D., is a retired officer of the Army Medical Staff, and a noted antiquarian.

ACCORDING to statistics recently issued by the French Minister of Public Instruction, the total number of students in the sixteen universities of France on January 15th, 1910, was 40,131, of whom 3,830 were women. Of the whole number 9,721 were students of medicine.

MESSRS. NEWTON AND CO. (3, Fleet Street, E.C.) are issuing a new catalogue of their electro-medical apparatus. It includes a good deal of useful information about *x*-ray work and high frequency. The firm makes a speciality of appliances for rapid radiography, and a prominent place in the catalogue is given to the "Instanta" coils, and also to the massive Snook-Roentgen machine, which latter, although expensive, is probably the most efficient *x*-ray apparatus at present manufactured. Specimens of results with time and instantaneous exposures, together with full technical data, are given.

EPSOM COLLEGE.

PSOM COLLEGE is, or should be, known to every practi-oner of medicine in these islands, for it is in a special nse a nursery of the profession. Founded by the late r. John Propert in 1853, it has given a large number the men who have entered the profession since en their preliminary education. Many who won dis-ıction in medical science have passed through it; and the present time twelve of its old pupils hold posi-ons on the staffs of the great London hospitals. But psom is much more than an early training ground for ture doctors; it has grown into a public school in the llest sense of the term. There not only doctors but all rts and conditions of men can obtain for their boys an ucation equal in all respects to that to be got at any other hool in the kingdom. This is proved by the success of ose who have been trained there at the universities and various spheres of human activity. A school which n claim among those whom it has sent forth into the orld to move the landmarks of knowledge and to serve e State men like Sir Henry Morris, Bart., Dr. Good-art, Sir H. H. Pinching, K.C.M.G., Sir Augustus William atson Hemming, G.C.M.G.—to mention only a few dis-nguished names—needs no further testimonial to its ucational efficiency. Just as the child is the father of e man, so is it the early training of the child that is e vital factor in education. This is a point as to which ere is general agreement in all the controversies about ucation that, always smouldering, burst every now and ain into fierce flame.

Another sign of success in a school is growth. Epsom ollege, which was already a well-appointed school when representative of the JOURNAL had an opportunity of in ecting it a few years ago, has grown in all directions in e short interval that has elapsed since his visit. Then had 234 boys; now it has accommodation for 350. In l developments of educational activity it has always ne "right forward." During the last three years no ss than £20,000 has been expended in new buildings and rious improvements. The additions have to a large tent been in the form of new laboratories, and here it ay appropriately be said that in Epsom is embodied to a culiar degree the spirit of modern education. The accom-odation and apparatus for the teaching of chemistry, ysics, and biology are better than could have been und thirty years ago in any medical school in London, ith only one or two exceptions. The result is seen in e fact that a number of boys pass the Preliminary cientific Examination of the University of London direct om the school. But when we say that Epsom is excep-onally well equipped for the teaching of science, this ust not be taken by any means as implying that the hool is not equally strong in its provision for the older ethods of training the mind. The efficiency of its teaching classics and mathematics is shown by the large number open scholarships won by its pupils at Oxford and ambridge. At Sandhurst and Woolwich, too, Epsomians ve done well.

In these days it is rightly considered that no school is ing its duty unless the body is trained as well as the ind. The empire needs men, not mere bookworms. Here, o, Epsom compares favourably with many public schools. mong its new buildings is a large gymnasium, with ncing gallery and the appliances required for the wedish exercises. Pupils of Epsom have won medals in e Public Schools Gymnastic Competition, and have ayed in county cricket matches. If no Waterloo has t been won in its playing fields, it is because, fortunately, ere has not yet been one to win; the fields themselves ford ample scope and verge enough for the games that e so important a part of a young Englishman's training.

The high standing of the school is attested by the fact at it is under the patronage of His Majesty the King; at Lord Rosebery is its President; that Sir Henry orris is its Treasurer; that the Bishop of Winchester is s Visitor; that among its Vice-Presidents are Lord pencer, Lord Lister, Sir Trevor Lawrence, Mr. Arthur alfour, and Sir Constantine Holman; while Sir William hurch is Chairman of Council, and among its members e Sir Richard Douglas Powell, Dr. Rose Bradford, Mr. ndrew Clark, Mr. Pearce Gould, and Dr. Frederick Taylor.

Although, as has been said, the school is not intended exclusively for the sons of medical men, it is primarily a medical foundation. Special advantages are offered to sons of doctors, and on this ground, as well as on its excellence as a school, Epsom College deserves the support of the profession to a much larger extent than has yet been given. It is for this reason that we appeal to all our readers. Doctors as a class are far from rich, but there are no men who have a keener appreciation of the value of a sound education as a preparation for the battle of life. Epsom is within the means of most, and nowhere can a boy get a better training for any career than at the beautiful college on the Surrey Downs. Some may in former days have looked askance at it as in some sense a charitable institution. Now it has no trace of the eleemosynary taint about it except in the shape of a few foundations similar in nature, but unfortunately not nearly so numerous, as those which form a part of the ancient public schools which are the pride of our country. Full particulars as to scholarships and all other details will be found in an advertisement which is published in this issue of the JOURNAL.

BRITISH MEDICAL BENEVOLENT FUND.

AT the April meeting of the Committee twenty-seven cases were considered, and grants amounting to £251 made to twenty-four of the applicants. Appended is an abstract of the cases assisted:

Daughter, aged 63, of late M.R.C.S. Has a small weekly allowance from a medical provident society. Mental condition such that, whilst unsuitable for an asylum, a certain amount of supervision is necessary, and the cost of living consequently increased. Relieved eleven times, £108. Voted £12.

Widow, aged 51, of L.R.C.P., L.R.C.S.Edin. Has a little Irish property, but rent is greatly in arrears. Three children, but none able to help, and one in ill-health. Relieved twice, £12. Voted £12.

M.R.C.S., aged 64. Lost a considerable amount in a practice which did not turn out as represented, and is now in feeble health, which prevents anything but light and occasional work. Two sons, aged 21 and 19, who give as much help as possible. Relieved twice, £20. Voted £10.

Widow, aged 88, of M.R.C.S. Receives an old age pension and 5s. per week from a benevolent society. No children; practically bedridden. Voted £6.

Widow, aged 38, of L.R.C.P., L.R.C.S.Edin. Endeavours to maintain herself by nursing, which necessitates boarding out her two children. Relieved four times, £30. Voted £10.

Widow, aged 58, of L.R.C.P., L.R.C.S.Irel. After husband's death took a post as housekeeper, but health has quite broken down, and she is now practically destitute. No children. Relieved twice, £10. Voted £18.

Widow, aged 61, of L.R.C.P.Edin. Has supported herself for many years by taking boarders, but finds them increasingly difficult to obtain. Three children, one of whom has just developed phthisis. Relieved four times, £48. Voted £12.

Widow, aged 45, of M.R.C.S., L.R.C.P. Has a small annuity, but asks for assistance towards school fees of her two children, aged 16 and 13. Health very indifferent. Relieved six times, £85. Voted £5.

Widow, aged 62, of L.R.C.P.Edin. Health too delicate to undertake any occupation, and is entirely dependent on a brother-in-law. No children. Relieved once, £12. Voted £12.

Daughter, aged 35, of late M.D Glasg. Has maintained herself by massage for several years, but is at present incapacitated owing to the results of rheumatic fever. Relieved once, £10. Voted £10.

Widow, aged 62, of L.R.C.P.Edin. No income, and is quite incapacitated by an incurable complaint. Occasional slight help from a son. Relieved four times, £48. Voted £12.

M.R.C.S., aged 71. Quite incapacitated and dependent on children, who make a small monthly allowance. Relieved once, £12. Voted £2, and to be advised to apply for an old age pension.

Widow, aged 49, of M.R.C.S. No income; endeavours to support herself by needlework. Health indifferent and eyesight failing. Children unable to help. Relieved eight times, £83. Voted £12.

Widow, aged 60, of L.S.A. Lets lodgings, but finds difficulty in paying her rent. Slight help from children. Relieved eight times, £90. Voted £10.

Daughter, aged 63, of M.D.Lond., M.R.C.P. Has recently been elected to a small annuity, but the income is insufficient for the bare necessities of life. Relieved three times, £27. Voted £5.

Daughter, aged 60, of late M.D.Edin. Has given music lessons for many years, but finds increasing difficulty in obtaining pupils. Relieved three times, £30. Voted £10.

Widow, aged 69, of M.D.Aberdeen. Only income a small monthly allowance made by a friend. Children unable to help. Relieved nine times, £114. Voted £10.

Daughter, aged 64, of late F.R.C.S. Only income £10 a year from a society for the relief of the blind. Is in bad health, and almost destitute. Relieved five times, £42. Voted £12.

Widow, aged 58, of L.R.C.P.Edin. No income; lets lodgings, but had a very bad season last year, and the receipts are barely sufficient for rent and rates. Relieved seven times, £82. Voted £12.

Widow, aged 61, of M.R.C.S. Lets lodgings but has had some of her rooms vacant for some time. Six children, but only one able to help and one a chronic invalid. Relieved four times, £52. Voted £18.

Widow, aged 47, of L.R.C.P., L.R.C.S.Edin. No income; two sons, both sailors, but only one able to give slight help. Relieved six times, £32. Voted £12.

Daughter, aged 60, of late M.R.C.S. Acts as housekeeper to her brother but receives no salary. Relieved eight times, £120. Voted £12.

Daughter, aged 55, of late L.F.P.S.Glasg. Receives £10 a year from a Fund for Assisting Indigent Gentlewomen, and lives rent free. Health too feeble to allow of any occupation. Relieved three times, £36. Voted £12.

Daughter, aged 26, of late M.R.C.S. Has taken out a course of cookery, and hopes shortly to be able to maintain herself. Relieved three times, £17. Voted £5.

Contributions may be sent to the Honorary Treasurer, Dr. Samuel West, 15, Wimpole Street, London, W.

SCIENCE NOTES.

AT a recent meeting of the Zoological Society, Mr. J. L. Bonhote read a paper on the variation of the black rat, *Mus rattus*, as observed in the different forms of that species met with in Egypt. Taking the length of the hind foot as a distinctive character he measured a large number, and found that the lengths grouped themselves round three distinct sizes. Two of these correspond to the two forms occurring in Egypt, which can be readily identified by other characteristics. Previously he had divided the black rats of the Oriental regions into three subgroups, and it is now found that the length of the feet in these subgroups corresponds to the three maxima as determined in Egypt. From this it is concluded that these three foot-lengths represent centres of variation, and that in all probability they were inherited as Mendelian characters. Were this not the case the least common type would have become swamped, and would be replaced by forms leading up to one or other of the remaining two. As it is, the three varieties maintained their integrity side by side, and at any time one of them might become the dominant form should conditions arise favourable to it and unsuitable to the others. Judged by the same criterion, the existence of three varieties within the species *Mus norwegicus* would be indicated, but owing to the lack of other definite characteristics in this case that could not be confirmed. These facts are interesting as showing how very readily a species might adapt itself to altered conditions. Within it there are, as it were, two or more well-tested models, one or other of which may be expected to meet any emergency which might arise. In a state of equilibrium each is produced in equal numbers, but any slight change causes a slightly increased output of the type most likely to be serviceable, and with a marked change this is ready to take its place in the new environment. From this we may gain some inkling of the subtle way in which Nature works in maintaining the delicate equipose between organism and environment.

Some comprehensive work on the deposition of glycogen in cell nuclei has lately been done by Huebschmann.[1] Nuclei heavily laden with glycogen were found regularly in the liver cells in diabetes and in the presence of circulatory disturbances, principally in the periphery of the lobules, where the liver cells showed slight hypertrophy. In 3 cases of diabetes no glycogen-containing nuclei were found in the liver, but only a scanty deposition of glycogen in the cytoplasm. The author comes to the conclusion that true diabetes involves a disturbance of metabolism, and that the deposition of glycogen in the nuclei is dependent on this. The occurrence is not constant; it is met with in diseases other than diabetes, and on that account there is the presumption that some general pathological phenomenon, especially frequent in diabetes, must be at the root of the matter. To elucidate this Huebschmann examined cases of other disease, and found nuclear glycogen present in the liver in 47 out of 125 non-diabetic cases. It was present for the most part in hypertrophied cells in which the protoplasm itself was free from glycogen. These results were obtained in cases such as hepatic congestion from various causes, in the hypertrophied cell islets in hepatic cirrhosis, in a metastatic carcinoma of the liver, and once in a child which had died of septic scarlet fever. In every case there was a certain amount of atrophy in the centre of the acini, and more or less hypertrophy at the periphery; and only in the latter situation was nuclear glycogen found. In 30 cases only a trace of glycogen could be discovered in the nuclei. In the negative cases the cytoplasm was always full of glycogen. The author also examined various forms of hypertrophic growth—for example, growing tumours, endarteritis, lactating mammae, etc.—with, however, negative results, except very doubtfully in the case of cardiac hypertrophy. Experiments conducted on dogs and rabbits, such as extirpation of the pancreas, artificial production of liver hypertrophy by partial resection, and the action of liver poisons, were also negative. The results which Huebschmann arrives at are these: Glycogen is found in those organs—that is, liver and kidney—which take part in the metabolism of carbohydrates by storing up glycogen. When from any general cause, such as diabetes, the cytoplasm of these organs becomes unable to meet the demands made on it, the function is taken on by the nuclei, but, before the insufficiency of the cytoplasm is complete, hypertrophy occurs. In diseases other than diabetes glycogen is also met with in the nuclei of hypertrophied cells when the atrophy of other cell areas has deprived them of their power of storing up glycogen.

[1] *Frankfurter Zeitschrift für Pathologie*, III (1909), November.

An interesting article appeared in a recent number of *La Nature* on the use of the oxyhydrogen blowpipe as a cutting instrument. Formerly the task of cutting huge pieces of metal, such as the armour plating of a battleship, was herculean, involving much time and enormously powerful machinery. To dismantle an antiquated battleship was the labour of many weeks, necessitating the careful undoing of rivets and laborious chiselling and hammering. Such a work can be accomplished by means of the blowpipe in a much more rapid and effectual way. The principle of its construction is simple and essentially the same as that of the ordinary laboratory blowpipe in which coal gas and air are employed. Two fine-pointed nozzles, which may be either alongside each other and convergent, or one within the other, deliver oxygen and hydrogen under pressure. The hydrogen may be replaced by acetylene or petrol vapour. The blowpipe is connected with the gas cylinders by a long flexible tube, which permits of rapid and ready manipulation in any direction. The hydrogen having been ignited, the jet is made to play upon the material to be cut. Even the hardest steel is rapidly melted, and as the blowpipe is made to work along a fixed line it very soon divides the material completely. Steel-plating even a foot in thickness can be cut through in this way with remarkable ease. Moreover, the cut is surprisingly clean, the metal not being blistered or damaged in anyway, and it is affected only very superficially. The same method can be applied to the cutting of large trees and thick timber in place of the tedious sawing process. The uses of the instrument, however, are not merely destructive. It can be used for making rails, for cutting angled iron, for drilling holes, and for a large number of other purposes for which chisels, drills, and so forth, are at present employed. The delicate precision with which it can be handled render it suitable for shaping various instruments and appliances, and in many cases would obviate the necessity for making those in two or more parts and then soldering the parts together. The disadvantages are few, the chief being the inconvenience of obtaining hydrogen. This can be met by the use of petrol which, although not so efficient, is in most places more ready to hand.

AT the annual meeting of the Royal Institution on May 2nd the annual report of the committee of visitors for the year 1909, testifying to continued prosperity and efficient management, was read and adopted. Thirty-three new members were elected, sixty-three lectures and twenty evening discourses were delivered, and 968 volumes added to the library during the year. The Duke of Northumberland was re-elected president and Sir James Crichton-Browne treasurer.

Nova et Vetera.

E HISTORY AND ETYMOLOGY OF THE FREE-MARTIN.

REST in that strange creature, the free-martin, has revived recently by Dr. Berry Hart's attempt[1] to ain its nature and origin on Mendelian principles; and, e there are facts and speculations regarding it scat- l up and down throughout medical and veterinary ature which seem to have been to some extent looked, it may be useful to give some account of it

ne late Professor Taruffi[2] of Bologna was able to find es of a knowledge of the existence of the free-martin he classic writers. M. Terentius Varro,[3] who died 28, and who was the author of no less than 500 rent volumes, all of which have perished save three ur, including the treatise *De Re Rustica*, and Lucius ius Columella,[4] who flourished about a hundred years r and wrote, among other things, twelve books on culture, both referred to the sterile cow born co-twin a bull calf. It was called *taura*, perhaps on account s great power of doing work; and Facciolati's *Lexicon* ley's edition) has:

URA, ae, f., *a barren cow*, ταῦρα, vacca sterilis. *Varr.*, R. R., c. 5: Quae sterilis est vacca, taura appellatur. .: Tauras vaccas steriles appellabant, ait Verrius, quae non is pariant quam tauri: Sed vero similius sit ex Graeco as, quia Graeci vaccas, ταύρας, appellant. *Colum.*, 1, 6, c. 22: tique taurae, quae locum occupant fecundarum, ablegandae. ud *Serv. ad Æn.* 2, v. 140, dicitur *taurea*.

aruffi stated further that the English called such mals *free-martins*, the French *taures*, and the Pied- ntese *mugne;* and he gave to John Hunter[5] the credit aving discovered (in 1779) the cause of their sterility. y were to be regarded as hermaphrodites. Full details Hunter's observations have been given by Hart,[6] along h microscopical sections of the genital organs, which, the way, are wonderfully good when it is borne in mind t the tissues cut were 140 years old. In view of the ult of the examination of these organs (which has been how them to be testicles), Scarpa's observation,[7] made n after Hunter's (in 1784) and referred to by Taruffi, nes to have a quite peculiar interest. The details, ich do not seem to be well known, were as follow:

cow gave birth to twins—one a male, the other apparently emale. The latter was dissected thirteen months later by rpa. Externally it had an appearance closely resembling t of a bull, but under the abdomen were the mammary nds with teats. The external genitals were smaller than y usually are in a heifer of a year. A small body projected m the upper angle of the labia, which, rising towards the is, turned its point backwards in the shape of a hook. ind the apex of this little body the urethral orifice lay den. The vagina, curved under the urethra, extended in- nally to a distance of three fingerbreadths, and ended adly. Its cul-de-sac was united posteriorly to a cavernous dy, which sprung from the right ischium, and, bending some- at on itself, passed backwards and upwards to form the little dy above referred to. This little body was apparently the oris, although its situation differed from the normal, lying it did above the vagina and under the upper angle of the ia. The testicles were found situated high up in the domen; they were well formed, but were somewhat smaller an they ought to have been in a bull calf of a year. On ing away the cremaster the vas deferens could in each be n rising from the epididymis and descending towards the terior surface of the bladder. There were situated the siculae seminales, with which the vasa deferentia communi- ed and passed downwards as a common duct. A large ndular body, resembling the prostate, embraced the neck of e bladder, and contained at the same time the urethra in the ole of its extent. Having opened the bladder and passed obes into the vasa deferentia, Scarpa saw them appearing in e urethra at the sides of a projection which occupied the sition of the caput gallinaginis (veru montanum). The ethra then buried itself in the body of the prostate, became rrow again, and (still embraced by the prostate) ran upwards ittle and opened at the upper angle of the labia.

This calf, therefore, had male internal genital organs, whilst the external ones were of the female type, differing from the normal only in the position of the clitoris. If the internal glands were testicles—and the description given seems to put this beyond reasonable doubt—then Scarpa's observation showed that his free-martin was an imperfect male calf and not an imperfect female calf. Considering the early date of Scarpa's contribution (1784), the information it gives is of the greatest importance. It is now established that in Hunter's cases as well as in Scarpa's the sexual glands were testicles.

Taruffi also referred to observations on free-martins by Grognier (1834), Ercolani (1856), Longo (1862), Heusinger, and Arnsberg; but he gave no details. He, however, deplored the fact that information was not forthcoming telling whether the twins were in one chorion with a single placenta or not. Another Italian contribution to the subject of the free-martin was made by Parona, who gave a description of the genital organs, and named the animal *vaccatoro*.

The frequency with which an anomalous condition of the genital organs was found to exist in twin calves suggested the inquiry whether in the human subject similar defects were to be found under like conditions. Cribb[8] led the way with an investigation regarding the procreative powers of the woman whose co-twin (*socius in utero*) had been a male; and Sir J. Y. Simpson's researches[9] soon showed that the alleged infecundity of females born co-twin with males would not bear statistical investigation. The latter writer collected the married histories of 113 women born co-twin with males, and found that 103 had families; by adding some triplet cases and 1 quadruplet he got 123 females, of whom 11 only had no offspring. Dr. Allnat[10] had already stated his belief that while women born co-twin with males might prove to be sterile, there was no reason why they should on that account be "consigned to free-martinism." Even in the case of the cow the mere circumstance that a cow calf was born co-twin with a bull calf was not in itself sufficient to warrant the conclusion of infertility; and Moore[11] reported an instance of a free-martin having healthy offspring. The explanation of these facts is, in the light of more accurate knowledge, not far to seek. If the free-martin be really an imperfectly developed animal of the same sex as the co-twin, then it must necessarily be unable to bear a calf when the *socius in utero* is a male. It will probably turn out to be the case that such twins are always uniovular and have only one chorion, and that twins which are really of different sexes (that is, have ovaries in the one and testicles in the other) are binovular or dichorionic. In the latter case infertility does not seem to be more frequent, in the human subject, at least, than in females who are not twins.

Although the statistics showing that women born co-twin with males are not necessarily or even probably sterile have been in the possession of the medical profession for many years, the question is revived afresh now and again. Thus, in 1887, a number of letters appeared in this JOURNAL,[12] among which was one from Mr. C. Roberts, in the course of which he quoted the following interesting statement from a letter written by Dr. Edward Jenner to the Rev. Dr. Worthington (April 5th, 1810):

> Pray don't part with your free-martin. It will be a beautiful animal, and docile and useful in your fields as the ox. I have dissected many; but why this mingling of the sexes should arise under such circumstances eludes all my guesses. I was the first who made the fact known (some thirty years ago) to Mr. Hunter.

Another letter, signed "W.," narrated a case of labour in a woman who had been born co-twin with a male. It was a difficult forceps extraction; the child was living, but the mother died of puerperal mania. It had been said by a Gloucestershire farmer about this woman: "Of course, you never expected her to get over her confinement; why, she was just like a free-martin, and had no hips at all." "W." went on to say that the general view among farmers was that the free-martin did not breed, but that if by any chance she did so she generally died;

BRITISH MEDICAL JOURNAL, March 19th, 1910, p. 706.
Taruffi, C., *Storia della Teratologia*, I, p. 66, 1882; IV, p. 132, 1886.
Varro, M. T., *De Re Rustica*, Bk. II, c. 5.
Columella, L. J., *De Re Rustica*, Bk. VI, c. 32.
Hunter, J., *Philos. Trans.*, 1779, vol. lxix, Pt. 1, p. 285; *Observations Certain Parts of the Animal Economy*, London, 1786, 1792.
Hart, D. Berry, *Proc. Roy. Soc. Edin.*, xxx, Pt. 3, p. 234, 1909–10.
Scarpa, A., Sopra un vitello-vacca detto dagli Inglesi Free-martin, *m. d. Soc. Ital.*, T. II, Pt. 2, p. 846, Verona, 1784.
Cribb, J, J., *Lond. Med. Reposit.*, xx, 213, 1823.
Simpson, J. Y., *Med.-Chir. Rev.*, n.s., xl, 519, 1843-4; *Obstetric Memoirs and Contributions*, vol. i, p. 314, 1855.
Allnat, R. H., *Lond. Med. Gaz.*, xviii, 528, 1836.
Moore, J., *Med. Exam.*, Philadelphia, n.s., viii, 82, 1852.
BRITISH MEDICAL JOURNAL, 1887, vol. i, pp. 47 93, 141, 187.

and he quoted his brother in Australia, who had had great opportunities of making observations, and who said that he had never known one breed. They had heads and necks of the male type, with the hips narrow. When cut up the ovaries were seen to be misplaced, lower in the pelvis, and looking like undescended testicles. Another series of letters appeared in the JOURNAL[13] in 1902, in which instances were given in which both the female and the male twin, in the human subject, had had children. One of these was a somewhat remarkable case. A female twin married and had four children; her twin brother (*socius in utero*) married a woman who had been born co-twin with a male, and she had by him one infant.[14]

These cases are more than sufficient to show that the alleged infertility of the human female born co-twin with a male is not supported by facts; but an interesting line of investigation lies open still as to the state of the genital organs in twins born in a single chorion. It is well known that such monochorionic (uniovular) twins are subject to the most advanced of all the varieties of teratological manifestation, the monstrosities denominated paracephalic, acardiac, acormic, acephalic, and anidean; in such grossly malformed fetuses, the genital organs were often described as anomalous also;[15] and it remains to be shown whether twins which are not externally malformed, but have been nourished by the same placenta and situated within the same chorion, show genital anomalies. It is among such infants that we may most naturally look for the human homologue of the free-martin; thus in monochorionic female twins we may perhaps find that one has the external organs of a female, but possesses testicles instead of ovaries.

But it is time to turn to another vexed question, the etymology of the term "free-martin." The entry under the term in the *New English Dictionary* has this short note by Dr. Henry Bradley: "Of unknown origin; compare with the Irish and Gaelic mart, heifer." This is somewhat discouraging; but let us see if any light can be thrown on the matter.

In the first place it has to be remembered that free-martin is only one of a long series of terms applied to animals of the bovine tribe according to their age, sex, and condition as regards reproduction.[16] Beginning with sire (bull) and dam (cow), there is the calf, when male called a bull-calf, when female named a quey, heifer, or cow-calf; the bull-calf castrated is a stot-calf, and the quey with ovaries obliterated is the spayed quey or heifer; in the second year the progeny are stirks, the male being a steer or stot yearling, and the female a quey or heifer yearling; in the third year, the steer or stot is equivalent to the ox. A castrated bull is a segg. A cow that slips her calf (that is, aborts), or that misses calf (that is, cannot be impregnated) is an eill-cow; when a cow goes dry of milk she is a geld-cow, and when she gives milk she is a milch cow. Finally a free-martin is a quey calf of twins of bull and quey calves. Corresponding terms are used in describing sheep—for example, ram, ewe, lamb, tup-lamb, hogg-lamb, wether-hogg, shearling-tup, gimmer, dinmont, wether, etc. Many of these terms have an etymology almost if not quite as obscure as free-martin—for example, gimmer, dinmont, eill. The name "free-martin," it may be added, is used for sheep as well as calves.

Before considering the meaning of martin, it may be well to inquire into the significance of *free*. Writers on the subject seem generally to have concluded that the word is what it appears, and have sought for explanations on this supposition. Mr. Haxell,[17] for instance, suggested that it meant exempt from breeding, in reference to the infertility of the animal; and of course that may be the solution of the problem. But the adjective "free" is also applied to a horse which is willing, or ready to go; thus the "free horse" of a pair is the conscientious one which does more than his share in drawing a carriage. Perhaps there is here a reference, therefore, to the usefulness of the free-martin in the fields, a fact vouched for by Dr. Edward Jenner (vide supra). But it must be remembered that apparent etymologies are always suspicious, and it may be that "G. P. B."[18] is on the right track when he sugge that free is really a contraction of ferry, ferow, or farr This word is discussed both in the *New English Diction* and in Wright's *English Dialect Dictionary*. Accord to the former, it is of unknown derivation, but b connect farrow cow with the Flemish *varvekoe*—a c that gives no milk—and the W. Flemish *varwekoe* cow that has ceased to be capable of producing offspri Kilian makes the important statement that *verrekoe* equivalent to *taura*. The term *farrow cow* is most co monly used in Scotland and the northern counties England; and both the *New* and the *Dialect Dictionar* give illustrative quotations, one of which is dated 14 If its meaning be a cow that is not with calf, then it not difficult to suppose that *free* in the term *free-martin* simply *farrow* in its Scottish sense; but it would appe that it rather signifies a cow that has had a calf one y and misses having one the next, and this, of course, is what is understood by a free martin.

Doubt also attaches to the word *martin*. It would see to be reasonable to derive it from the Gaelic *mart*, a co but a great deal has been written in the attempt to tra it in some way or another to St. Martin of Tours. At fi sight there seems no warrant for connecting the cow (n known to be an imperfect bull) with this fourth centu saint, so renowned for his charity. It is true that t *Golden Legend* tells how a cow that was tormented of t devil, and was wood (mad), ran against St. Martin and fellowship; and how he said to the devil which sat her back, "Depart thou from this mortal beast, and lea to torment this beast that noyeth nothing, and anon departed; and how the cow kneeled down to the feet this holy man." This incident can hardly serve to ma the Bishop of Tours the patron saint of cows, although must be confessed that various animals and birds (i example, *Chelidon urbica*) are named after him with ev less apparent reason.

Haxell (loc. cit.) suggests that St. Martin was the patr saint of twins and unusual fecundity, and he quotes fr *Hollybrand's Dictionary* (1593) that the expression "S Martin's hammer" was used of a woman that had bor twins. A more plausible connexion is found in t circumstance that on November 11th (Martinmas, important term day in Scotland and the north of Englan it used to be customary to slaughter cattle to be salted f winter provision; *martinmas-beef* was the meat of an salted at Martinmas. In Wright's *Dialect Dictiona* there is a statement emanating from Leicestershire to t effect that the martin "was not a true heifer, but undeveloped male with many of the characteristics of t ox, and generally fattened and killed about Martinmas Holt White[19] hazards the suggestion that the beef of t free-martin was considered better than ordinary ox-bee and was therefore reserved for St. Martin's Day, a gre feast among our ancestors. Finally, the word *ma* (maert, mert, or mairt) is commonly given in Scotlan Northumberland, Durham, and Cumberland to a cow or fattened to be killed and salted or smoked for winter pr vision; and the *Dialect Dictionary* gives a quotation fro Brand's *Popular Antiquities* to the effect that "two more of the poorer sort of rustic families still join purchase a cow for slaughter at this time (Martinmas always called in Northumberland a mart." It will seen, therefore, that reasons are in existence for connec ing the free-martin calf with St. Martin, or at any ra with his day (November 11th); but the possibility of a etymological relationship with the Gaelic *mart*, a co must not be forgotten. If the latter view be taken, and *free* be regarded as a contracted form of *farrow* or *fer* then a free-martin would be simply a "farrow cow." Onl it has now been shown that anatomically it is not a co but an imperfect bull.

By reason of the mystery of its etymology, as well as o account of the uncertainty of its genital conformation, th free-martin bids fair to be of no less interest than th moon-calf, of which we wrote some years ago.[20] By th way, no lexicographic subtlety seems yet to have bee expended upon the thesis that perhaps the free-martin after all a moon-calf.

J. W. B.

[13] BRITISH MEDICAL JOURNAL, 1902, vol. ii, pp. 1691, 1752, and 1940.
[14] Other cases have been reported by P. Thompson and J. P. Phillips, *Notes and Queries*, 2 s., iii. 148, 196, 235, 258, 278, 1857.
[15] Ballantyne, J. W. *Trans. Edin. Obst. Soc.*, xviii, pp. 105, 209, 260 267; xix, pp. 69, 79, 1892–3–4.
[16] See Stephens, H., *Notes and Queries*, 2 s., i, p. 416, 1856.
[17] Haxell, E., BRITISH MEDICAL JOURNAL, 1887, vol. i, p. 187.
[18] G. P. B., BRITISH MEDICAL JOURNAL 1887, vol. i, p. 93.
[19] *Notes and Queries*, 2 s. iii, 196, 1857
[20] BRITISH MEDICAL JOURNAL, 1900, vol. i, p. 780.

British Medical Journal.

SATURDAY, MAY 7TH, 1910.

MR. BOOTH ON POOR LAW REFORM.

:. CHARLES BOOTH'S book on Poor Law reform, a l account of which is given at page 1116, will doubtedly add to his reputation as one of the fore- ıst authorities on all that relates to Poor Law ministration. In many respects his scheme may be d to fill in the outlines sketched in the memo- ıdum of Dr. Downes appended to the reports of the or Law Commission. When Dr. Downes pointed t that no fewer than 225 readjustments of areas uld have to be made if county and county borough ıncils were to supplant boards of guardians, he was oting Mr. Booth's authority. The reply was made at the readjustments were largely matters of rical work, and of the transfer of properties by gal instruments, which, though requiring some ne to arrange, were by no means excessively ficult. Mr. Booth now attempts to show that the ficulties of readjustment have been greatly under- timated, and that the problem is most difficult as ell as most urgent in the great urban districts ıich contain over two thirds of the population. It ll probably surprise many to find how numerous e the unions which extend into two or three different unties, or comprise part of an administrative county ith part or the whole of a county borough, and how ten county boroughs have a large suburban popula- on quite outside their boundaries but still organically nnected with them by social and industrial ties. extend the borough boundaries to include these burban districts would involve not merely readjust- ent of Poor Law areas, but a complete readjustment municipal areas. Again, though the whole Com- ission was agreed that enlargement of areas is eded on grounds of economy and efficiency alike, any county boroughs are actually smaller than the esent Poor Law areas, and far from able to pport a complete set of institutions. On these, nong other grounds, Mr. Booth objects to counties ıd county boroughs as areas for Poor Law purposes. e argues that everything necessary in the way of ılarged areas can be better obtained by the grouping unions, and without any of the trouble and cost ıd irritation that would result from completely olishing boards of guardians.

It will be seen that Mr. Booth's scheme for grouping unions under district boards vitally affects all pro- ision for sickness. It involves keeping the public ealth service of counties and county boroughs quite eparate and distinct from the medical assistance ervice. He supports his contention by the argument ıat the two services differ fundamentally in the ssential character of their work, and that there are istinct spheres of work for the Poor Law, the public ealth authorities, and voluntary agencies. It may be bjected that he has not paid sufficient attention to ıe serious overlapping that exists between the Poor aw medical service and the work now undertaken y public health authorities, leading not only to a great waste of public funds, but turning services which ough to be mutual allies into competitors or opponents It has been pointed out in previous articles that there would be a great advantage in having the whole of the public medical service under one authority, which might form two separate departments—a sanitary department for sanitary and preventive work, and a medical assistance department—the authority itself co-ordinating the work of its own two departments, and thus preventing the present overlapping. Mr. Booth's scheme does not run altogether counter to this idea, but its realization would involve making the Local Government Board, not the local councils, into the co-ordinating authority. Were this done, a strengthening of the position of the Local Government Board would be necessary to enable it to interfere whenever and wherever the medical assistance and sanitary services showed any signs of overlapping—a reform which all reformers are agreed must come sooner or later. As Mr. Booth well says, overlapping must in some way be replaced by dovetailing.

But Mr. Booth evidently feels that the first task to be undertaken is to persuade every kind of voluntary medical agency, including charitable hospitals, provident dispensaries, and medical clubs of all sorts, to define rigorously the scope and sphere of the work which they propose to do. In spite of any Poor Law or public health legislation, voluntary agencies will no doubt continue to claim a large measure of independence, for the very essence of charity is its freedom to do as it likes. It must always overlap to some extent any public service, and any attempts to define by law the area of charity would end in making the charitable public tie up its purse-strings. But while we cannot get away from this fact, there is a natural limit to the freedom, at all events, of medical charity in the fact that charitable persons must depend in the long run on medical men to carry out their benevolent intentions as to the treatment of the sick. No amount of money given to a hospital will be of any avail without medical men to work out the objects of the charity. This, in fact, puts a great responsibility on the medical profession to see that medical charities are not abused. The profession cannot shirk this responsibility; to do so would be to act as an accomplice in the abuse. The allurements and inducements offered to the profession are often very insidious, the object being to obtain its help in working out the aims of benevolent persons, who, unfortunately, often overlook the moral damage that comes from indiscriminate charity; and without a firm resistance on the part of medical men to all such personal allurements and inducements, there is little hope of reform of hospital abuse. Mr. Booth goes to the root of the question when he expresses the opinion that voluntary agencies insist on having the first choice of the patients to be treated, and that the Poor Law must supply deficiencies. It seems impracticable to reverse this and to say that the Poor Law must first define rigidly its own sphere and leave all the rest to charity, for charity leaves serious gaps in its work; there is no power to compel it to fill them up; and in the long run the Poor Law, or some organization which shall replace it, must fill up the gaps. What is needed is that medical charities should voluntarily make for themselves rules, rigid in some directions but flexible in others, and that failure to abide by these rules should in the last resort involve the denial of the indispensable assistance of medical men. We cannot blind ourselves to the fact that the

medical staffs of charitable hospitals are often half afraid of the lay boards and half suspicious that any revolt will simply open the door to other medical men who may have fewer scruples about hospital abuse. In other words, they suspect the unity and loyalty of the profession. Unfortunately there have not been wanting some grounds for these fears in the past, but it is precisely here that the British Medical Association has now the opportunity of exerting its influence. It is to the Association that public men are looking to propose some scheme to prevent hospital abuse, and for a practical plan of carrying it out. We are almost afraid that with many lay boards of management there is no argument but force. This the profession shrinks from applying, preferring persuasion first. But the Poor Law Commission felt, what Mr. Booth now strongly reasserts, that the reform of medical charities lies at the root of all reform of public medical assistance. Delay in reform of the charities has come to be an obstruction to Poor Law medical reform, and thus the duty laid on the medical profession, and on the British Medical Association as representing it, has become urgent.

Similar observations apply to provident dispensaries and medical clubs of every sort. Contract medical practice in its present form is a standing obstacle to all public medical reform. To put contract practice on a proper basis must be a preliminary to any medical reform, not a consequence of it. We would specially draw attention to Mr. Booth's remarks on this subject; he is quite correct in saying with regard to medical clubs that the British Medical Association has come to the "conclusion that a scheme could be framed under which the medical men in every locality would agree to work." He recognizes that local medical men must have a voice in the matter, but he is emphatic that this must "always be subject to such centralized influence as medical associations may bring to bear." In short, without perhaps knowing it, he would seem to approve of the work which is at present engaging the attention of the Special Poor Law Reform Committee of the British Medical Association, the object of which is to formulate a scheme for a centrally organized and directed medical service for the poorer classes above the verge of pauperism. He makes no direct allusion to compulsory sickness and invalidity insurance, but the inclusion of this only alters the problem by making it of wider import. Its hardest part is to find a way of dealing with the class that "occupies ground between relief under the Poor Law and independent self-support," and it is for this class that the medical profession "agrees to work on a co-operative basis." Once let the problem of dealing with this class for medical attendance be solved and the rest will be comparatively easy. Charitable hospitals and medical clubs must first see their way to some joint organization among themselves, and no body is so well fitted to initiate this as the British Medical Association. A beginning has been made in an attempt to centralize the basis of contract medical practice; charitable hospitals must next, and with the least possible delay, be brought into line. Only then will it be possible to secure "by an elastic combination of the Poor Law and voluntary institutions a reasonable measure of equality of opportunity in obtaining medical treatment in all parts of the country, and this without sacrificing, but in as far as possible encouraging, every form of private effort and public spirit working in the same direction."

CARDIOLYSIS.

Now that the records of some twenty operations ha been published and made it plain, since no operati death or untoward complication has ensued, th precordial thoracostomy as a surgical procedure without grave danger, it is worth while consideri what is the legitimate field of the measure and wh results may be expected.

Readers of the BRITISH MEDICAL JOURNAL have h opportunities of becoming familiar with almost eve aspect of the question—anatomical, pathologic medical, and surgical—from the papers of I Wenckebach,[1] Mr. Thorburn,[2] and Dr. Bewley.[3] Th are aware that in cases in which the heart is adhere to the pericardium, and the pericardium to the ov lying chest wall, removal of the rigid or semirig bony and cartilaginous precordium breaks the cha of stresses which embarrasses the heart to a poi beyond long endurance, and relieves a serio mechanical interference with respiration. Th are aware, moreover, that as an advance on th original proposals of Brauer, Morison advocat a similar surgical measure for the relief of intr thoracic pressure, due merely to the size of th heart itself or to its involvement with a mediastin tumour. He suggested, too, that where the contrac ing heart actually makes impact against the bo walls, the persistent abnormal stimulus leads to exhausting expenditure of energy. Dr. Bewley poin out that where the impact of a hypertrophied hea upon the chest wall is powerful enough to raise th sternum and ribs at every systole, the total waste power must be very great.

In cases of adherent pericardium the great difficul of exact anatomical diagnosis is well recognize Textbooks refer to various pathognomonic signs, bu scarcely ever vouch for their reliability. The on one that meets much favour is the occurrence "systolic relapse and diastolic rebound within th region of the apex." Schlayer[4] has recently reviewe 12 cases, admitted to the Tübingen Clinic within th last three years, where this sign was an outstandin feature demonstrable by mechanical record. He find in the first place that the associated clinical picture differ to an extreme degree. In not more than fou or perhaps six, could it be said that the heart occupie the centre of the picture. He was able to show tha many symptoms apparently dependent on cardiac em barrassment or failure, such as cyanosis, dyspnoe oedema, hepatic enlargement, ascites, and so on, wer in fact, not the expression of circulatory failure at a but of a widespread affection of serous membranes i which the pericardium happened also to be affecte In two the process was tuberculous; in one possibl syphilitic; in some there was reason to suspec "rheumatism," for there had been polyarthritis o endocarditis, but in the rest, and in some of th "rheumatic" cases, it could only be said that ther was a susceptibility to chronic inflammation of th serous membranes, pleura, pericardium, peritoneum and so on, what he has the temerity to call a "serositi diathesis." It is probably only another aspect of thos cases of extremely chronic peritonitis which are familia as affecting more particularly the hepatic region an necessitating the Talma-Morison operation. Where respiration is impeded by pleural effusion, where th liver is enlarged and ascites present, where oedema o

[1] BRITISH MEDICAL JOURNAL, 1907, vol. i, p. 63.
[2] Ibid., 1910, vol. i, p. 10.
[3] Ibid., 1910, vol. i, p. 914.
[4] *Muench. med. Woch.*, 1910, No. 14, p. 729.

lower extremities and oliguria are evident, and, ddition, there are signs of adherent pericardium, is easy to see that such conditions would be urally attributed to circulatory failure. The dif- ntial points are few. It is obvious, however, that such a case very little, if any, good could be ected from a thoracostomy, for despite the adhe- ns, it is not the heart that is the seat of the chief. It is very old ground, but it is good footing urging the adoption of operative measures in these umstances only after the most exhaustive study of evidence and complete confidence that the cardiac scle is overstrained or likely very soon to exhaust reserve power, and that there is no overshadowing ease of other tissues.

When it comes to performing thoracostomy for the ief of intrathoracic tension due to mediastinal nour, very definite proof of probable advantage is uired in justification. It appears that the relief of ginoid pain and other symptomatic palliation is in w, but the number of instances in which it is called must be very few. Where the heart is enlarged as result of disease in the endocardium and cannot ain sufficient room, by bulging the precordium, as the case of young children, it sounds reasonable ough to give more room by operation. The aesthetist will, however, require a good deal of ssurance, and the surgeon a certain amount of suasion, that the game is worth the candle. Not at the operation itself is difficult. Most of the rgeons who have reported cases are agreed that moval of the fourth, fifth, and sixth ribs and rtilages, with or without part of the sternum, is npler than they anticipated. The only difficulty ems to be to remove the posterior periosteum with- t injuring the pleura. There are two ways of sur- ounting it. One is not to remove it—and König has own that the risk of regeneration of bone is inimal; the other is to operate under arti- ial pressure conditions. There are cases, more- er, in which there is so much underlying fibrous ssue that the pleura is not endangered by dissec- on of the periosteum after subperiosteal resection the bone. The operation is closely analogous to ose performed under the name "pleuro-pneumo- sis thoracoplastica" for phthisis, and for other lung nditions, but the operation known as "Delorme's," hich proposed to open the pericardium and free the dhesions between the heart itself and the peri- ardium is found to be impracticable. Kocher tried it veral times upon the cadaver, but was unable to void severe damage to the heart. The term "cardio- sis," therefore, though it has got into the textbooks, not very precise. Moreover, the adhesions to the hest wall it proposes to liberate are sometimes con- picuous by their absence, and it is fortunate that evertheless the patients upon whom the operation as been performed have almost all benefited, a few f them to the extent of resuming a laborious ccupation.

TREATMENT OF SCHOOL CHILDREN IN LONDON.

THE conference held by the Metropolitan Counties Branch with reference to the medical treatment of school children on Wednesday last is reported in the SUPPLEMENT for this week. It was held in accord- nce with the scheme of action formulated by a pecial committee of the British Medical Association o carry out the policy arrived at after full discussion at the Annual Representative Meeting in Belfast last year. This policy and the considerations upon which it is grounded were very fully explained by Sir Victor Horsley, and we need not repeat what he said. It may, however, be recalled that while the Association was able at Belfast to lay down general principles, it was fully realized that they must be applied in accordance with local conditions and after full discussion and negotiation in each locality. It is therefore considered advisable that each Division or group of Divisions should call a conference without delay to determine the details of the scheme or schemes which the medical practitioners resident and practising within the area controlled by the education authority concerned would be prepared to support. The novelty of the arrangements which are being made under the Education (Administrative Provisions) Act, 1907, for the treatment of school children gives the Association through its Divisions an opportunity of effective action, such as it cannot possess in dealing with public services of long standing, but this very circumstance creates a danger that some Division may, for want of information as to what has been done elsewhere, and for want of giving timely attention to the matter, assent to arrangements prejudicial to the interests alike of the public and the profession. Already in some places, perhaps in many places, education authorities, following the tendency which seems to affect all public authorities to exploit the labour and skill of medical practitioners, are establishing bad precedents, and, as we have already pointed out, the most serious of these seems to be the acquiescence by the staffs of voluntary charitable hospitals in schemes for providing medical treatment for school children sent to these institutions at the instance of the education authority. As is very well known, this is what the London County Council has done, and the plan received the sanction of the Board of Education. This sanction, however, is only effective for one year, and there is good ground for the hope expressed by Sir Victor Horsley that the scheme may be given up at the end of this provisional year, and that there may be established in each division of the metropolis a proper organization, such as has been established at Wandsworth and Norwood, with the result that children will receive prompt and adequate treatment within reasonable distance of their schools and homes. Mr. Stanley Boyd, who was chairman of the committee appointed to negotiate with the Education Committee of the London County Council on behalf of certain of the London hospitals, urged that the institution of school clinics would inevitably result in the establishment of beds, so that the clinic would grow into a children's hospital, one result of which would be that the general hospitals would, to a very large extent, be robbed of patients necessary for the proper instruction of medical students—a view which would appear to be entertained by the medical staffs of certain other teaching hospitals. This argument seems to involve a justification of the present system of overgrown out-patient departments used for the treatment of all sorts of minor ailments, and not as consultative institutions, and it does not apply in the case of the serious illness of children requiring treatment in the wards. Another contention advanced by Mr. Boyd appears to be that the demand for the treatment of school children is exaggerated, inasmuch as the experience at the London Hospital had shown that the expectation of a large increase of child patients had not been fulfilled, and that after a slight increase the figures had sunk to the normal. This statement appears not to have been accepted by Dr. Sidney Phillips, who, in his

speech, supported and even went far beyond Mr. Boyd. Dr. Phillips seems to have admitted that the figures brought forward show that the hospitals could not receive the children. Further, it must be remembered that it has been clearly proved—and that it is, we believe, generally acknowledged—that the manner in which the hospitals are clustered in the centre of London would prevent them from adequately meeting the requirements. Dr. Beaton, who is a member of the London County Council, spoke strongly against the scheme approved by the majority of the Council, admitting that it was wholly inadequate, but added that the medical profession would not be able to do much unless it made up its mind to be united. In this connexion the observations of Dr. Lauriston Shaw are well worthy to be weighed not only by members of the professsion in London, but also by those in all other great centres of population; while, on the one hand, he expressed the desire to bring home to the staffs of the hospitals that to treat these children was an abuse of charity, on the other he pointed out that the scheme of the London County Council had been evolved before the general practitioner had roused himself to recognize his responsibilities in the matter. We may conclude as we began, by pointing out that the profession now has an unprecedented opportunity of doing a great national service, and establishing this new form of medical assistance on a basis just alike to the children and to the public.

THE ANTIQUACKERY CAMPAIGN IN GERMANY.

LAST month the *Gesundheitslehrer* entered on its thirteenth year of publication, and in offering it our congratulations on this auspicious occasion we find it a pleasant duty to call attention to the mission of this periodical and the way in which that mission is carried out. The journal, which is edited by Dr. Kantor of Warnsdorf and Dr. Neustätter of Dresden, is the official organ of the German Society for the Suppression of Quackery, and appears monthly. It is divided into two parts: one consists of articles on various ailments and medical matters described in a popular style, by means of which the public is taught the significance of symptoms, the importance of hygienic measures, and the effects of neglecting disease, and indirectly the necessity of securing the services of properly trained and responsible medical practitioners to undertake the treatment of all ailments. The other part deals with the quack himself. In Germany and Austria libel actions are not so ruinously expensive to defend as they are in this country, and the editors hope by attacking the quack boldly, by publishing the details of prosecutions, and criticizing the failures of the law to bring these persons to book, to teach the public the true value of quack remedies, and thus to limit the traffic. The *Gesundheitslehrer* has a subscription list of 7,500, and its circulation now amounts to 10,000 copies. In the March number there appears an able article on the booklet entitled *Secret Remedies*,[1] published by the British Medical Association, in which the editor points out how extremely valuable that publication is for the suppression of the sale of nostrums not only in England, but also in Germany and elsewhere. He calls attention to the fact that proprietary medicines like Williams's Pink Pills, Gloria Tonic, Mother Seigel's Syrup, and so on, are not unknown abroad, and that the German as well as the Englishman will find in the book highly useful information with regard to many well-known preparations. The editor states that "the articles do not stop at an exact recital of the contents, but the chemical analyses are critically compared, often with striking humour, with the qualities claimed in the advertisements; the true value and the real quality are set forth side by side with the price at which the nostrums are sold and their supposed virtues."

[1] *Secret Remedies, What They Cost and What They Contain.* To be obtained through any bookseller, price 1s., or direct from the Financial Secretary and Business Manager of the British Medical Association, 429, Strand, London, W.C. Post free, 1s. 3d.

THE ANTIVACCINATION GERM KILLER.

IT is a curious feature of the law as to secret remedies that the State should share the profits arising out of the amazing transactions and the unblushing representations by which a confiding public is so often gulled. A few grains of carbonate of soda delicately tinted and neatly packed could be sold to the public and puffed as a certain cure for all diseases incidental to mankind provided a Government stamp were affixed to the package of a value in proportion to the price charged for the "cure." Without the stamp it is not permissible to utter any of the claims. With the stamp there is no limit upon the exaggeration and fiction in the puffing literature thus licensed which keeps the sales going. "The advertising quack who wearies with tales of countless cures" is still treated seriously by a large section of the public. The vendors have discovered that sweet are the uses of advertisement for which the public unwittingly pays. On page 1120 of this issue we publish a further contribution to the "secret remedies" series. The analysis of the "Crimson Cross Remedies" and the extracts from the statements of the marvellous virtues of these "natural remedies" which do not "coerce" Nature, but gently "coax the organs back to a natural and healthy action," might astonish even an antivaccinator if his mind were open to instruction. The ointment, it appears, was introduced about fifty years ago, but has proved adaptable to the progress in medicine which has taken place since its virtues were first announced. "It now includes," says the circular enclosed, "infectious as well as most other diseases." In fact the patient is rendered "non-infectious." Also, "there is no foothold for microbes where this ointment is applied." We suppose the feet of the microbes are not adapted to the greasy surface formed by the ointment. This remedy, when combined with one of the internal "mixtures," is a cure for almost every ailment known. Consumption, cancer, bunions, enlarged toe-joints, and small-pox, etc., all yield to the magic of the Crimson Cross remedies. In typhoid, "if the head is not well soaked with the ointment, an abscess is liable to form on the brain"! During some six months of last year an advertisement of these remedies appeared on the cover of the *Vaccination Inquirer*, in which figures of the Gloucester epidemic were quoted showing the fatalities under various treatments. Needless to say, the cases which came under Captain Feilden's Crimson Cross Ointment treatment are shown to have had a much lower mortality rate than those otherwise treated. The advertisement states that the figures were "investigated, compiled, and contributed to the medical press by Lieutenant-General Phelps and Dr. Hadwen." A full statement of these investigations would be interesting. We wonder if Dr. Hadwen's investigations extended to an inquiry into the composition of this cure-all and "germ killer" ointment whose advertised virtues include the preposterous claim that in this nostrum we have "a simple solution of the vaccination question."

RANSIENT BLINDNESS DURING PREGNANCY AND LABOUR.

NSIENT blindness during pregnancy and labour condition with which every practitioner should be oughly familiar—is ably described by Mr. Sydney henson in an article in *The Ophthalmoscope* for ch, 1910. He cites two cases examined by him ueen Charlotte's Hospital, reviews the literature he subject, and, finally, summarizes his facts and usses the etiology of the symptoms observed. hort note by Dr. W. P. Herringham concludes paper. Puerperal amaurosis was described as back as 1672 by Segar, and since then the allu- is to it in medical literature have been frequent. henson gives forty-five references, and the list ld easily be increased. The symptoms are typical. vards the end of pregnancy, either in a primipara a multipara, or during actual labour, blindness ervenes. Generally it is absolute, light perception ig absent. Shortly after delivery the sight rapidly irns, and is often normal within a few days. In ew cases the visual defect has been qualitative ier than quantitative; there has been a central toma or hemianopsia. Thus, one woman perceived individuals as without noses although the rest the face was clearly recognized. An examina- n of the fundus shows no changes from the normal, l the pupils react to light. The loss of sight is imonly associated with convulsions—puerperal ampsia; with scanty urine containing at least a ce of albumen, often a large amount; with casts l sometimes blood; with headache which tends be very severe; and with dropsy. In fact, erperal amaurosis is but a symptom of that ieral state of autointoxication known as eclampsia. is frequently a sign premonitory of the onset of nvulsions, and is a danger signal which must never disregarded by the obstetrician. Thomas Denman, iting over one hundred years ago, says, "When men in labour frequently complain of blindness ey are in danger of falling into convulsions." seph Hopkins, writing in 1820, cites "indistinct ion or blindness" among the premonitory signs of erperal convulsions. But it is more common for e loss of sight to follow one or more fits. Finally, some cases there is no eclampsia. There is no oof that the disease is the result of uraemic poison- g; most probably it is not, and the view generally ld by modern pathologists is that puerperal lampsia is an autointoxication *sui generis* totally stinct from uraemic intoxication. Dr. Herringham his note states that in his experience this form of ndness, transient loss of light perception without equate ophthalmoscopic changes, is never found uraemia or associated with chronic interstitial phritis. Dr. Caiger has never seen it among ildren with post-scarlatinal glomerular nephritis. is a symptom associated solely with that state autointoxication peculiar to pregnant women. obably the toxins are always formed, but the rmal kidney eliminates them with sufficient pidity to prevent them causing toxic symptoms. ut in the presence of renal inadequacy they cumulate in the system, and determine the ndrome known as puerperal eclampsia.

DIET AND INTESTINAL MICROBES.

has long been recognized that intestinal bacteria ay a part of some importance in the digestive onomy. A great diversity of forms may occur at fferent times and under different circumstances in ie normal individual. Some apparently produce a neficial effect, while others have the opposite tendency without being, in the usual sense, pathogenic. This idea is the basis of the Bulgarian milk treatment, and the good results are due to the substitution of a beneficial for a detrimental form of intestinal bacillus. The exact causes determining the character of the intestinal flora under normal conditions have not been much studied, but Herter and Kendall[1] have endeavoured to show, by means of feeding experiments, that the character of the intestinal flora is directly connected with the nature of the food. The experiments were conducted on monkeys and cats, which were fed for a certain period on an almost exclusively proteid diet, and for a similar period on a carbohydrate diet, the alternation from the one to the other being made abruptly. Several alternations were made during the course of the experiment and the effects of each carefully studied. It was found that on a proteid diet the bacterial flora was of a strongly proteolytic nature, but that on a change to a carbohydrate diet these organisms were rapidly replaced by others of an acidophilic, non-proteolyzing type. Concomitant with this change, moreover, there was a change in the putrefactive products of the urine and faeces; in the latter a reduction in the indol, skatol, phenol, and bound sulphuretted hydrogen, and a diminution in the indican and aromatic oxyacids of the urine. Clinically, too, the change of diet, and, secondarily, of the intestinal flora, apparently produced a change in the well-being of the animals, taking the form of an improvement in spirits and activity. It was evident from the experiments that each change of diet involved the destruction of the previous bacterial flora, for immediately after the change degeneration forms were isolated in large numbers from the faeces; these rapidly became fewer and eventually disappeared. The application of these facts to intestinal diseases is not without suggestiveness, but the authors do not commit themselves on this point nor do they even affirm that the phenomena they have described may be evidenced in man, although from analogy there is every likelihood. They go as far, however, as to remark that, "It is possible that in conditions of disease of the intestinal tract where undesirable bacteria abound both on a proteid diet and on a carbohydrate diet, frequent alterations in the chemical nature of the diet are beneficial by interfering with the establishment of any one type of bacteria in the intestine."

THE PATHOGENESIS AND TREATMENT OF GOUT.

AN interesting discussion on the pathogenesis and treatment of gout took place recently at the Berlin Society for Internal Medicine and Children's Diseases. It was introduced by Dr. Brugsch, whose researches on gouty metabolism in collaboration with Dr. Schittenhelm are well known. In his opening remarks he assumed it to be established that gout was caused by a disturbance of the nuclein exchanges, but added that analysis of the blood showed that there was no retention of uric acid in gouty subjects, nor any difference in this respect between them and normal persons; in both after the ingestion of nuclein the urine contained only half the uric acid, the other half being transformed into urea by the action of the uricolytic diastase; the same result was seen when ½ gram of uric acid in solution was injected, the sole difference being that in the latter case gouty persons showed a more intense local inflammatory reaction. The formation of uric acid in the body seemed to be the result of the action of three different diastases: first the nucleins were doubled by

[1] The Influence of Dietary Alternations on the Types of Intestin Flora, *Journal of Biological Chemistry*, February, 1910.

the action of nuclease, and the aminopurins thus obtained were transformed into oxypurins by the action of de-amidase; finally, an oxidizing diastase, xanthino-oxydase, converted the oxypurin into uric acid, and this last diastase is unaltered in gouty persons, and the transformation of xanthin and hypoxanthin into uric acid is, in fact, accomplished so rapidly that the absorption of a few decigrams of these substances determines the onset of an attack of gout in predisposed persons with the same certainty as an equivalent amount of uric acid. Aminopurins act very differently, for whereas a normal person can eliminate as uric acid in the course of two days 70 centigrams of adenine, a gouty subject only accomplishes this in four days, while with guanine even longer is required, owing, evidently, to deficiency of de-amidase. But this is not the only cause of gout, for the appearance of the last traces of exogenous uric acid is delayed even more after the corresponding quantity of nuclein, which requires six or seven days; hence there is also a deficiency of nuclease in gout. Cases occur also, though rarely, in which there is a disturbance of uricolysis, as in the case of a patient under the care of Dr. Brugsch in whom nearly the whole (90 per cent.) of the nuclein appeared in the urine in the form of uric acid, while nuclein, aminopurin, oxypurin, and even uric acid had the effect of increasing the percentage of uric acid in the blood to a much greater extent than is usual in gouty persons, so that the slightest departure from a strict regimen invariably caused an attack of gout. Dr. Hesse of Kissingen compared gout with diabetes, both being disorders of nutrition which require dietetic treatment and are uninfluenced by drugs. As he considered the necessary data for constructing a suitable dietary did not exist, he had made a fresh analysis of the chief articles of food by the method of Krueger and Schmidt, and found that veal contained 1.3 per cent. of nuclein, liver, kidney, and brain 0.4 per cent. to 0.2 per cent., butcher's meat and poultry 0.18 to 0.19, pigeon a little less, 0.15 per cent. There was no difference between white and red meats, but fresh water fish (0.20 per cent.) contain more nuclein than salt water fish (0.13 per cent.) Oysters belonged to the former group and caviare to the second. The principal vegetables contained a little, but milk and eggs were practically free. He thought it possible with these data to prepare a suitable diet table, but it proved to be monotonous, and he recommended the addition of a certain amount of nuclein-containing food in accordance with the proved tolerance of each individual, just as carbohydrates are added to a diabetic diet. The strictness of the diet must depend upon the gravity of the case, which should be estimated by taking into account all the general clinical considerations, and should not be allowed to depend upon any single point, such as the result of a uric acid test meal. We would point out in this place that the English edition of Professor von Noorden's *Metabolism and Practical Medicine*, edited by Professor Walker Hall, has a table of the purin-content of certain foodstuffs prepared by Miss Catherine I. Williams, of University College, Bristol. This table, which forms part of a larger table of food analysis, also prepared by her, gives most of the above data, but the figures do not agree entirely. In Miss Williams's table, the purin content of meat and poultry is from 0.09 per cent. (mutton) to 0.2 per cent. (beef), salmon and halibut 0.1 per cent. to 0.11 per cent., cod and plaice 0.05 per cent. to 0.07 per cent., potatoes 0.002 per cent, and peas 0.039 per cent. Haricots, according to Dr. Hesse, are nuclein-free, but Miss Williams found them to contain 0.63 per cent. Miss Williams did not detect any nuclein in milk, butter, egg cheese, rice, flour, and bread. With the aid of he table, it is easy to prepare a purin-free diet tabl which should exclude butcher's meat, poultry, fis tea, coffee, cocoa, and alcohol. One other remar made in the course of the discussion may be quoted Dr. S. Munter deprecated the use of strict diet i atonic gout, recommending rather hydrotherapeuti means, especially hot baths, though in some cases h employed with benefit the local application of cold.

THE MEDICAL PROFESSION IN SOUTH AFRICA.

IN an article published on March 19th, relative to th position of the medical profession in United Sout Africa and the desirability of combination among it members at a time when the institutions of the thre important States are still fusing and consolidating allusion was made to a recent incident at Johannes burg Hospital as an example of the present attitud towards the medical profession maintained by th authorities in one at least of the States. The Colonia Secretary for the Transvaal, General Smuts, ha issued to the Chairman of the Johannesburg Hospita an autocratic instruction that the charges to patient admitted on payment must be reduced and such patients discouraged in sundry ways from exer cising their right of being treated by their own medical attendants. The avowed object was to make medical treatment in the hospital so cheap that the applications for admission to free beds might be reduced to a minimum; or, in other words, to make the hospital a financial success at the expense of the medical profession. This order was the more sur prising, as quite recently the Colonial Secretary, who in present circumstances is the ultimate authority in all medical connexions in the Transvaal, had approved of the recommendations of a committee appointed to investigate the affairs of the hospital in question, and such of them as related to the admission of paying patients were of a kind quite opposite to the dictum in question. To this incident there has been an instructive sequel. The honorary medical staff of the hospital determined to take the matter up seriously, and finally sent a reply intimating that none of its members was prepared to assist in giving effect to the order. They pointed out that their services, both to "free" patients and to those who, although able to pay for their hospital expenses are not in the position to defray the cost of medical attendance in addition, had always been gratuitous, and that, while they had no objection to this, they could not agree to place their skill gratuitously at the service of any one and every one who chose to pay the institution 10s. a day for admission to its wards, quite irrespective of his ability to meet ordinary medical charges. The net outcome of the incident was that the Colonial Secretary recognized that he had taken up an untenable position, and decided to withdraw from it, realizing, apparently, that he could not afford to quarrel with those to whose reputation and continued co-operation the scientific success of the hospital and the smallness of its cost to Government is mainly due. The staff of the Johannesburg Hospital are to be congratulated on their treatment of the matter, more especially as the result is a good example of the value of combination; but it is far from showing that such combination as at present exists in South Africa among members of the medical profession suffices for all purposes. In this instance the point at issue was concrete and narrow, and the number of persons among whom combination had to be secured was small, whereas in most instances in which the medical profession has to defend its interests the

ue is broad and the number of persons whose co-eration must be secured is very large. In short, fore the medical profession in South Africa can nsider itself in a position to guard its dignity and osperity it will have to secure a combination which cludes all medical men in its ranks and is of such aracter that its weight can be brought to bear on y point and on any occasion. The practical utility combination among medical men, it may be noted, n no longer be regarded as a matter of theory. It s been placed beyond dispute by the history of the itish Medical Association, and by what it has hieved despite the fact that sundry defects in its achinery have considerably handicapped its efforts certain localities and directions. In this respect e creation of the new South African Committee ves the South African Branches of the Association decided advantage. The medical profession in South rica, therefore, can scarcely do better than develop e machinery the nucleus of which already exists in midst.

THE LATE DR. COOPER, M.P.

COMMITTEE, of which Sir W. J. Collins, M.P., Sir John nn, L.C.C., and Mr. H. W. Carr-Gomm, M.P., are embers, and Mr. H. J. Glanville, M.P., is treasurer, s been formed to raise a memorial to the late Dr. ooper, M.P. for Bermondsey from 1906 to his death in 09. An appeal signed by Mr. F. T. Pridmore, chairman, the treasurer, and by the honorary secretary, states at the widow of Dr. Cooper is in very straitened rcumstances, and has to support a daughter who has en a helpless invalid for more than twelve years. he fund which it is proposed to raise will be devoted their assistance. Dr. Cooper was strongly imbued ith the belief that all who felt themselves capable of ndering any public service should do so, and he ave himself up to such work with a singleness of urpose and forgetfulness of his own interests which revented him from making adequate provision for is family. He was an original member of the London ounty Council, and served upon it for seventeen ears, only resigning his seat in 1906, when elected .P. for Bermondsey, where he had long resided. s a member of the London County Council he was n active and most useful member of the Asylums ommittee; he strongly supported the pathological aboratory and the *Archives of Neurology*, and he was nstrumental in the foundation of the epileptic colony t Ewell; he also served upon the Public Health Com-ittee, and acted as its chairman for some time. He as most assiduous in attention to his parliamentary uties, and his sudden death last October is attributed the severe strain which the long discussions on the udget put on members who, like him, took their uties seriously. As a Member of Parliament Dr. ooper was always anxious to support the just claims f the medical profession, and its members will no oubt readily respond to the proposal which has been ade by those who worked with him on various public odies for a memorial which will relieve his widow nd daughter from the anxiety they now suffer. Con-ributions may be sent to Mr. G. Oliver, Secretary of he Committee, at 2, Welsford Street, Bermondsey, .E., or to Mr. H. J. Glanville, M.P., at the House of ommons.

THE BRITISH HOSPITALS ASSOCIATION.

T a meeting held at Guy's Hospital under the chair-anship of Mr. H. Cosmo Bonsor the British Hospitals ssociation was resuscitated. Its objects are to acilitate the consideration and discussion of natters connected with hospital management, to take measures to further the decisions arrived at, and also to afford opportunities for the acquisition of a knowledge of hospital administration, both lay and medical. Trustees, members of committees or of the executive, and professional heads of hospitals without reference to sex or title are eligible to be elected members. The council of the association will have power to elect as an honorary member any person whose services, public or private, may be judged to entitle him to such recognition. The association intends to arrange for the reading, discussion, and publication of approved papers, for the delivery of lectures, and for the holding of an annual conference in some large centre in the United Kingdom for the consideration of matters relating to hospital administration and construction, hospital management, medical relief, medical education in relation to hospitals, provident dispensaries and the Poor Law, and other kindred subjects. The President of the association is Mr. H. Cosmo Bonsor, Treasurer of Guy's Hospital; the Treasurer Mr. C. W. Thies, Secretary of the Royal Free Hospital; and the joint Honorary Secretaries Dr. D. J. Mackintosh, M.V.O., Medical Superintendent of the Western Infirmary, Glasgow, and Mr. A. William West, Treasurer and Chairman of St. George's Hospital. The council includes representatives of London and other parts of England, and of Scotland.

DENTAL PAYING CLINICS.

THE representative board of the British Dental Association has had under consideration the scheme propounded a short time ago[1] by an unnamed capitalist for founding dental paying clinics in London and other centres for the benefit of the middle and poorer classes of the community willing to pay small fees for dental treatment and appliances, but unable to pay the ordinary fees of dentists. The representative board decided that until the scheme was presented to it in a definite form it could not express any opinion upon it.

THE Senate of the Queen's University of Belfast has appointed Sir William Whitla to be the representative of the University on the General Medical Council for a period of three years.

ARRANGEMENTS are being made by a specially appointed committee for week end and Sunday trips during the Annual Representative Meeting for members of Central Council and Representatives, as well as ladies accompanying them. It has been decided to organize week end and Sunday trips to Folkestone with day extension to Boulogne, and also a river trip for Sunday from Maidenhead to Henley and back. Most favourable terms have been received from railways, hotels, and others, and in each case some of the cost of the outings will be met from funds placed at the disposal of the Branch by its members. Full particulars will shortly be sent to those interested.

[1] BRITISH MEDICAL JOURNAL, April 16th, 1910, p. 949.

THE eleventh French Congress of Medicine will be held this year in Paris on October 13th and two following days under the presidency of Professor Landouzy. The subjects on the programme for discussion are: Bradycardia; the treatment of symptomatic epilepsies; the relations of the liver and spleen in pathological conditions. The following questions are also proposed for discussion: Accidents of serumtherapy; acute cerebro-spinal meningitis; tuberculin treatment; affections of the pancreas. All communications relative to the scientific work of the congress should be addressed to Dr. Marcel Labbé, 3, Rue de Prony; or Dr. Maxime Laignel-Lavastine, 45, Rue de Rome, Paris.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

Midwives Act (Payments to Medical Practitioners).—Mr. Henry Walker asked the President of the Local Government Board, with reference to the payment of the medical practitioner called in on emergency under the Midwives Act, whether this payment was being made in some places by the local sanitary authority, under Section 133 of the Public Health Act, and in others by the board of guardians, under Section 2 of the Poor Law Amendment Act of 1848; whether any such payment had been disallowed by the district auditor; whether the Law Officers of the Crown had advised that a board of guardians had any authority, in the absence of an application for parochial relief, to make any payment otherwise than under Section 2 of the above-mentioned Act of 1848; whether, when the payment was made under the section, the board of guardians was entitled to recover the amount from the patient or her husband; whether he was aware that some boards of guardians were attempting to recover the amount disbursed under these circumstances, to the great hardship of poor persons; and whether he would make publicly known the fact that boards of guardians were not legally entitled to recover such sums. Mr. Burns replied that he understood that in two or three cases payments of the kind referred to had been made by the local sanitary authority under Section 133 of the Public Health Act, 1875, and he believed some boards of guardians had made similar payment under Section 2 of the Poor Law Amendment Act, 1848. He did not find that any such payments had been disallowed by the district auditor. He had not found it necessary to consult the Law Officers of the Crown on the subject, but he might say that the Board was advised that payments to medical practitioners under Section 2 of the Act of 1848 in such circumstances as were here in question could not be recovered as relief on loan. His attention had only been called to one case of complaint that the guardians were unduly pressing for repayment. The question and reply would no doubt give publicity to the matter, and it did not appear to be necessary to adopt the course suggested in the last part of the question. Sir William Collins also asked the President of the Local Government Board whether, under the Midwives Act, 1902, or under any rules made thereunder, it was obligatory on a midwife in certain abnormal cases to notify a medical practitioner that his attendance was required; and whether in the event of payment of such practitioner by the local authority, such payment was deemed to be parochial relief. Mr. Burns answered that, under Rule 18 of the rules framed by the Central Midwives Board, and approved by Order in Council of April 24th, 1907, it was the duty of the midwife, in certain specified circumstances of danger, to represent to the husband or the nearest relative or friend of the patient that a medical practitioner should be summoned, and to fill in the requisite form to that effect. The question whether payments made by a local authority would be parochial relief would depend largely on the circumstances of the case.

Forcible Feeding (Prisons and Asylums).—Mr. Hugh Law asked the Home Secretary whether he would now favourably consider the holding of an inquiry into the practice of forcible feeding in prisons and asylums. Mr. Churchill said that if the hon. member considered that any improvements could be effected in the methods employed in asylums and prisons for administering food to persons who refused to take food naturally, and would give reasons for thinking so, he would consider whether further inquiry in the matter was desirable, but at present he did not know to what end such an inquiry could be directed. The methods now employed, he believed, were those recommended by the highest medical authorities, and he knew of no reason for modifying them. Mr. Keir Hardie asked if the Home Secretary was aware that quite recently a man who had been forcibly fed subsequently died suddenly, and the cause of death was held to be largely due to the forcible feeding employed. Mr. Churchill replied that he did not recognize in any of the cases that had come before him one that answered to the description given. If he knew of such a case and would give him the facts he would consider it. Mr. Keir Hardie said he would send the facts on.

Medical Schools (Technical Grants).—Sir William Collins recently asked the President of the Board of Education whether any medical schools had made application to the Board for grants as technical institutions; whether such grants had been made; and if he would state the names of such medical schools as had applied, the amounts of the grants, if any, made, and the conditions, if any, attaching to such grants. Mr. Runciman answered that applications had been received by the Board of Education from the following medical schools for grants under the Regulations for Technical Schools, etc. (Cd. 4,736) in respect of the academical year 1909–10:

In London—
- Charing Cross Hospital Medical School.
- London Hospital Medical School.
- London (Royal Free Hospital) School of Medicine for Women.
- St. George's Hospital Medical School.
- St. Mary's Hospital Medical School.
- St. Thomas's Hospital Medical School.
- University College Hospital Medical School.
- Westminster Hospital Medical School.

In the Provinces—
- Bristol University Medical School.
- Durham University (Newcastle-on-Tyne) College of Medicine.
- Leeds University Medical School.
- Liverpool University Medical School.
- Manchester University Medical School.
- Sheffield University Medical School.

In the case of one of these schools, St. Mary's Hospital Medical School, recognition was accorded in respect of the year 1908–9; in the case of all of them grants would become payable after the close of the present academical year—that is, July 31st, 1910, provided that the terms of the regulations were found to have been complied with in each case. The amount of grant which would be made in each case would be calculated in accordance with the terms of the Regulations for Technical Schools, etc., having regard to the work done, and therefore could not be stated until after the close of the academical year.

Dairy, Cowsheds, and Milk Shops (Ireland) Order, 1908.—Last week, in answer to Mr. Horner, who put questions as to the extension of the Order to premises of farmers who manufactured butter for sale and as to the number of district councils in whose areas the Order was in operation, Mr. Birrell said that the Local Government Board did not propose to extend the Order in the manner indicated; that there were 213 district councils in Ireland, of which 129 had put the Order into operation. Its requirements had not, therefore, been found to be impracticable. The Local Government Board consulted the Department of Agriculture and invited criticisms and suggestions from local authorities before issuing the Order, and there was consequently no need for further revision.

Supply of Medicines in Ireland.—Mr. O'Dowd asked the Chief Secretary for Ireland a question with regard to the contract for the supply of medicines to the Tubbercurry Union, co. Sligo; the guardians had unanimously accepted the tender of a local chemist who had previously had the contract, though the tender was higher than that of another firm, but the Local Government Board had refused its sanction. Mr. Birrell said that the Board considered that the more favourable terms offered by a Dublin firm which had contracts throughout Ireland, and had carried them out with general satisfaction, should have been accepted as it was the lowest. In answer to a further

estion, Mr. Birrell said that as part of the money for se drugs was paid for by the public it was very irable that the Local Government Board should ercise control over the contracts that were accepted, d although preference was always given to drugs nufactured in Ireland, in this case the honourable tleman would note that the chief competition was ween Dublin and the local firm. In answer to the ntention advanced in a further question that drugs ld be obtained with greater ease in cases of emer- ncy from a local firm, Mr. Birrell said that he was ite willing to consider this or any other case. But e Local Government Board had found it most neces- y to exercise a very strict revision over contracts at had been accepted when the money was paid out the public purse. They really had to exercise some ntrol over the acceptance of contracts in matters of s sort, but he would look into it.

The Medical Officer, Skibbereen Dispensary.—Mr. Guiney ked the Chief Secretary whether he was aware that e Skibbereen, co. Cork, Board of Guardians, on nuary 19th, 1910, unanimously elected as medical icer of the Skibbereen Dispensary district Dr. chael Burke; whether he was fully qualified for e position; and whether, seeing that the Skibbereen ard of Guardians had twice since the election animously requested the Local Government Board Ireland to sanction the appointment, he would say what reasons the Local Government Board had used their sanction. Mr. Birrell replied that . Burke was at present medical officer of Union all Dispensary, and had been elected to the vacant edical officership of Skibbereen Dispensary. The ard had not sanctioned his transfer, as legal pro- edings were being taken with respect to the medical icership of the Skibbereen Workhouse, to which . Burke also claimed to have been appointed. The ard were awaiting the result of these proceedings, they did not consider that one medical officer ould hold both the dispensary and the workhouse spitals.

Medical Officers and Militia Training at Belfast.—In reply Mr. Patrick White, Mr. Haldane said that no civilian edical officers were at present engaged in connexion th the annual training of the Special Reserve in the lfast District, but about fourteen would probably be quired to assist in the medical examination of the en on their assembly for training. This duty would cupy from one to two days in each case, and was id for at the rate of a guinea a day. There were venteen army medical officers at present serving the Belfast District, and their employment with the ecial Reserve would not entail any extra cost on e public.

Asylum Attendants (Ireland).—In reply to Captain Craig, e Chief Secretary of Ireland stated last week that it as shown in the Sixty-first Report of the Com- issioners of Lunacy, p. 25, that the hours of duty for tendants in county and borough asylums in England id Wales were practically the same as at Omagh sylum. He had no information with regard to cotland. The Inspectors of Lunatics in Ireland formed him that, so far as they were aware, there id been no general feeling amongst attendants in ish asylums that their hours were too long. It was fact that consumption was very prevalent amongst e insane, but it must be borne in mind that the tients affected in asylums were under constant edical supervision, and that efforts were made to ep the insane as much as possible in the open air. he inspectors did not consider that the statement at many attendants died from consumption con- acted from the patients was correct. He understood vo of the female attendants at Omagh Asylum were n sick leave. In one case symptoms of phthisis set after bronchitis. It was doubtful whether the isease existed in the other case. The question of the ours and conditions of work of attendants of sylums was one for the local committees of manage- ment, over whom he had no direct control in such matters.

Chinese Pork.—Last week this subject came up again, and a series of questions was put to the President of the Local Government Board, who told Mr. Hamilton Benn that so far as his information went some 16,800 carcasses which arrived during March did not comply with the foreign meat regulations, and were re-exported, that is, they were refused at the port where they went. Mr. H. Benn then asked if it was to be understood that some 16,000 hundredweight of Chinese pork got into consumption in this country. Mr. Burns answered, No. The hon. member was confusing hundredweights and the carcasses refused, which numbered 16,800. The carcasses arrived in March, 1910, and were refused admission. They were refused, not because they were unsound or unfit for food, but because they did not comply with the foreign meat regulations under the Food Regulations Act, which stipulated that carcasses should be imported whole. It was because the backbones were taken out, and did not comply with that condition, that these carcasses were rejected, and for that reason only. He was still of the opinion that all these pigs were white pigs, and that none of them were the black scavenger pigs of China.

Crews' Provisions on Vessels.—In reply to Mr. Morton, Mr. Buxton said that representations had been made to the Board of Trade from the Port of London Sanitary Committee to the effect that the medical officer of health had on several occasions condemned provisions found on ships within the Port of London, and he understood that such provisions were in almost every case very properly destroyed. The crew of any British ship had a right of complaint and compensation under Sections 198 and 199, Merchant Shipping Act, 1894, in cases where bad or inadequate provisions were supplied to them. It was the desire of the Board of Trade, within the limits of the powers conferred on it by the Merchant Shipping Acts, to deal effectively with this matter. As at present advised, he was not convinced that the powers of the department, taken in conjunction with those of the Port Sanitary Authority, were insufficient for the purpose, but the matter would be carefully watched.

Dogs (Exemption) Bill.—On Wednesday in last week a bill to exempt dogs from painful experiments was presented and read a first time. It is backed by Mr. O'Grady, Colonel Sandys, Sir Francis Channing, Mr. Field, Mr. Weir, Mr. MacNeill, and Mr. Ellis Griffith, and was put down for second reading on May 31st.

Coroners' Law and Death Certification (Amendment) Bill.—This bill, to amend the law relating to coroners' law and the certification and registration of deaths and burials, was presented and read a first time last week. It is backed by Sir Wm. Collins, Colonel Lockwood, Sir Philip Magnus, Sir Luke White, Dr. Hillier, Dr. Chapple, and Mr. O'Grady. The second reading has been fixed for Monday, June 6th.

The Course of Business.—The House of Commons, which rose on April 29th for a spring recess, will reassemble on Thursday, May 26th. On that day a discussion will be raised on the motion that Mr. Speaker do leave the Chair in order to go into Committee on the Civil Service Estimates. Mr. Roberts has a notice down to call attention to the civil rights of Government servants; Mr. Weir will raise the subject of the condition of the Highland Counties of Scotland, and Mr. Pickersgill has intimated that he will call attention to the administration of the lunacy laws. On the following day the Local Government Board Vote will be taken, and an interesting debate may be expected. The first two days of the next week (May 30th and 31st) will be given to some smaller Government Bills, and on the succeeding days supply will be the business.

Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

EDINBURGH POST-GRADUATE VACATION COURSE IN MEDICINE.

DURING August, commencing on Monday, August 1st, a four weeks' course of internal medicine will be held in Edinburgh, the entries for the course being limited to twenty-five. The fee for the course is 10 guineas, and the subjects to be considered are: Diseases of the stomach and kidneys, examination of the nervous system, diseases of the nervous system, examination of the urine and digestive products, clinical bacteriology, general diseases, diseases of the lungs and abdomen, diseases of children, clinical haematology, diseases of the blood and ductless glands, diseases of the heart, and medical applied anatomy.

During September the post-graduate course will extend from Monday the 5th till Friday the 30th. The course will comprise:

1. A general course, including clinical medicine, clinical surgery, and the various specialities. The composite fee for this course will be 5 guineas for the four weeks or 3 guineas for either the first or second fortnight.

2. A surgical course which will include the following classes: Operative surgery, surgical anatomy, and surgical pathology. These classes will be exclusively reserved for those attending the surgical course, the composite fee for which will be 10 guineas. The entries for the surgical course will be limited to twenty-five. So far as possible the same department of regional surgery will be treated of simultaneously in the various classes, while the subject matter of the daily clinics and ward visits will be, whenever possible, arranged to correspond. Entrants for the surgical course may attend any of the classes or clinics included under the general course.

3. Special classes on bacteriology, the blood, ear, nose, and throat, errors of refraction, gynaecology, histological methods, ophthalmoscopy, and *x* rays, the fee for each being 1 guinea. These classes will be confined to graduates who have entered for the surgical course or for the general course during the corresponding period. Each day throughout the course a special lecture, open to all graduates, will be delivered at 5 o'clock upon some subject of general medical or surgical interest.

All the courses are open to women.

PREVENTION OF CONSUMPTION.

The National Association for the Prevention of Consumption and other forms of Tuberculosis will hold its eleventh annual meeting in Edinburgh next July.

The association seeks to attain its object—the prevention of tuberculosis—by the education of public opinion, by the stimulation of local effort, and by influencing Parliament, county councils, municipalities, and other local authorities on all matters relating to it. At the same date as the annual meeting, and under the auspices of the association, a conference will be held regarding consumption, especially the more urgent questions as to its causation and prevention. Professor Osler will preside, and it is expected that many authorities from the United Kingdom, America, and the Continent will take part.

In connexion with the conference there will be a tuberculosis exhibition, including the exhibition of the National Association, which has obtained remarkable success in London, Oxford, and Cambridge. The annual meeting will take place on Monday, July 4th. The conference will be held in the Rainy Hall, New College, on Monday and Tuesday, July 4th and 5th. The exhibition will be held in the New College buildings, and will continue for a week. The annual meeting will be open to the public. The conference will be open to members of the association and (by special card, to be obtained from the secretary) to all medical practitioners and representatives of public health departments and local authorities. The tuberculosis exhibition will be open each day to the public free of charge. Arrangements will be made for conducting school classes and other groups round the exhibition and explaining the various exhibits. It is hoped that members and officials of the local authorities throughout Scotland will avail themselves of this excellent opportunity to acquire the fullest and most recent information regarding the subject.

The Chairman of the Executive Committee is Sir Alexander Christison; the honorary treasurer is Dr. R. W. Philip; the secretaries are Dr. W. Leslie Lyell and Dr. Miller, along with Mr. George A. Mackay, of the Local Government Board. An influential committee is in course of formation.

THE MEDICAL INSPECTION OF SCHOOL CHILDREN.

The Linlithgowshire Education Committee has adopted a scheme for medical examination and supervision of school children. The whole county is to be regarded as a single area, and a duly qualified medical officer or officers and a trained nurse are to be appointed to undertake the inspection, devoting their whole time to the work, and being debarred from private practice. The salary of the inspecting officer is to be £250; the county medical officer is to receive £40 for general supervision; and the nurse's salary is to be £80.

Dr. George Mitchell, Birmingham, has been appointed Chief School Medical Officer for Aberdeenshire at £300 per annum, rising by four annual increments of £25 to £400 per annum, with travelling and other expenses.

THE COMPLETION OF GLASGOW'S DRAINAGE SCHEME.

The official opening of the new Sewage Disposal Works of Glasgow Corporation at Shieldhall by the Lord Provost, on May 2nd, marks the completion not only of the southern section of the undertaking, but of the entire drainage scheme. In view of this a memorandum has been issued by the city engineer giving a comprehensive account of the scheme, its history, extent, areas drained, the system of sewers, the method of treatment of the sewage for purification, and of the methods of sludge disposal.

Previous to the opening of the Dalmarnoch works in 1894 the whole sewage of the city was discharged, without purification, into the River Clyde. The main drainage scheme for the collection and treatment of the sewage of Glasgow and adjacent localities was authorized by special statutes, and, with the exception of the London County Council scheme, is the largest in the world. The area dealt with stretches along both banks of the Clyde for a distance of 15 miles, and covers 41½ square miles. The volume of sewage and proportion of rainfall to be dealt with within the drainage area is estimated at 250 million gallons a day.

The area is divided into three sections, and in each are separate works for the disposal of its sewage. The first section has an area of 11 square miles, and is dealt with at the works at Dalmarnoch. The second has an area of 15 square miles, also on the north bank of the river, and is dealt with at Dalmuir, 7 miles below Glasgow. The third section, of 15½ square miles, is on the south side of the river, and, like the others, includes adjacent burghs and portions of counties. The sewage of this area will be dealt with at the Shieldhall works just completed, and the volume will be about 47 million gallons a day. The system depends mainly upon gravitation; pumping stations have been necessary for the lower levels. The lift at the Partick station is 37 ft. 6 in., while the Clydebank sewage is also dealt with at the Dalmuir works, the lift being 21 ft. In the new southern section there is a pumping station at Kinning Park with a lift of 28 ft., and this low-level sewage is forced an additional height of 17 ft. before it reaches the main outfall. Three pumps at Shieldhall lift the Govan sewage 21 ft. to deliver it into the works.

The completion of the whole undertaking, at a cost of about 2½ millions sterling, will mean much to the purity of the river Clyde, and the next duty of the corporation will be to take the necessary steps to deal

with the pollution of the upper reaches of the river beyond the drainage area, and also the down-stream pollution. A definite understanding with the riparian authorities is essential, and reports on all the sources of contamination are being prepared. The task is gigantic, but when so much has already been accomplished, it should not be beyond the wit of the authorities involved to devise ways and means of completing the purification which is so much desired. By an Act of 1875 the corporation has power to interdict any person or persons from polluting the waterway up-stream, but when all authorities are willing to do their share of the task an amicable working arrangement should be arrived at.

RESCUE WORK IN MINES.

Dr. J. S. Haldane read a paper on the possibilities of rescue work in connexion with mine explosions and fires, at a meeting of the Institute of Mining Engineers held in the laboratory of Glasgow University on April 28th. Recent disasters, he pointed out, tended to show that after an explosion few, if any, of the men were already dead, and the majority could be saved if they could only be protected from after-damp. This protection could be afforded in three ways. Pure air could be got to the men, or they could be got out of the after-damp, or they could get oxygen to breathe till they were again in pure air. The desirable thing after an explosion was to reverse the ventilation, and the provision of means to effect this was advisable. Dr. Haldane referred to the value of small animals as giving timely evidence of danger, and illustrated this by a number of experiments. A bird and two white mice were placed in a noxious atmosphere containing carbon monoxide. The bird died in three minutes, and in the same period the mice were bordering on death, while Dr. Haldane, though breathing the same atmosphere, was not even breathless, though he would have been unconscious in twenty-five minutes.

ANNUAL REPORT OF THE REGISTRAR-GENERAL.

The annual report of the Registrar-General for Scotland on the births, deaths, and marriages registered in Scotland during 1909 has just been issued. It consists of a brief formal statement by the Registrar-General, of a report made to him by Dr. James Crauford Dunlop, in which the annual report on vaccination is incorporated, and of a series of statistical tables. Dr. Dunlop points out that the outstanding feature in the returns was the lowness of the births, deaths, and marriages ; each has the lowest recorded in this series of reports, which now cover a period of fifty-five years.

Population.—The population of Scotland at the middle of 1909 was estimated to have been 4,877,648, the male population being estimated at 2,384,907, and the female at 2,492,741. The estimated increase of the total population between the middle of the year 1908 and the middle of the year 1909 is 51,061; that of the male population being 26,649, and that of the female population 24,412. In making the foregoing estimates, it was assumed that the rates of increase of the male and female populations observed in the last intercensal period 1891 to 1901 continued.

Births.—The total number of births registered in Scotland during the year was 128,582, which was 2,755 less than that of the previous year, 2,647 less than the average number of births registered annually during the previous five years, 3,044 less than the average number of births registered annually during the previous ten years, and was the smallest number of births registered in Scotland in any year since 1895. Assuming the calculations of the increase of population to be correct, the birth-rate for the year was 26.36 per 1,000—a rate which is 0.85 less than that of the previous year. From 1855 to 1893 the Scottish birth-rate ranged between 30 and 35.6 per 1.000; between 1894 and 1903 it ranged between 29 and 30 per 1,000; in 1904 and 1905 it was between 28 and 29 per 1,000; in 1906 it fell for the first time below 28 per 1,000; in 1907 it fell for the first time below 27 per 1,000; in 1908 it was between 27 and 28 per 1,000, but in 1909 it again fell below 27 per 1,000. Of the 128,582 births registered during the year 8,840, or 6.9 per cent., were illegitimate. Of the total children whose births were registered during the year, 65,708 were male and 62,874 female. The ratio of male to female births was thus 104.5 to 100. The birth-rate of male children per 1,000 of the estimated male population was 27.6, and of female children per 1,000 of the estimated female population 25.2. The former is 0.7 and the latter 0.9 less than the corresponding rate for the previous year.

Deaths.—The total number of deaths registered was 74,584, a number which is 3,245 less than the number registered during the previous year (1908), 2,058 less than the mean of the numbers registered annually during the previous five years, and 3,326 less than the mean of the number of deaths registered annually during the previous ten years. The death-rate of the year was the lowest recorded since the institution of national registration, the previous lowest death-rate being that of 1905, which was 15.94. In the year under review it was 15 29 on the estimated population. From 1857 to 1880 the Scottish death-rate was constantly over 20 per 1,000; in 1881 it was below 20, in 1886 it was for the first time below 19, in 1894 it was for the first time below 18, in 1896 it was for the first time below 17, and since then it has been twice below 16—in 1905 and 1909. Of the total deaths, 37,094 were of males and 37,500 of females. The former were 1,796 fewer than the male deaths registered during the previous year, the latter 1,449 fewer than the female deaths registered during the previous year. Deaths of children under one year constituted 17.93 per cent. of the total deaths registered in the eight principal towns; the rate ranged from 25.5 in Aberdeen to 11.7 in Perth.

Weather and its Influence on the Death-rate.—The mean temperature of Scotland, as deduced from observations made at sixty-six observation stations, was 45 4° F., which was 1.6° less than the mean temperature of the previous year. The mean of the rainfalls observed was 39.09 in., which was 1.54 in. more than the average rainfall of the previous year. The weather of the year in Scotland was thus characterized by a comparatively low mean temperature and a comparatively small rainfall. The mean monthly temperature of the eight towns was relatively high in January and October, and relatively low in March, June, July, September, November, and December. The mean rainfall in the eight towns was relatively great in March, April, and October, and relatively small in February, August, September, and November. With these weather conditions there occurred a low mortality, both in the country as a whole and in the eight towns. A striking instance of what was apparently the influence of climatic conditions on mortality was observed in Glasgow during the last two months of the year. There was a prevalence of frosty weather combined with fog, and the monthly death-rates for September and October were 13.5 and 13.0. Under the weather conditions which prevailed the November death-rate rose to 24 9 and in December to 25.1.

Marriages.—Marriages registered in Scotland in the year numbered 30,092; they were 1,491 fewer than those of the previous year, 2,213 fewer than the average number registered annually during the previous five years, and fewer than in any year since 1895.

Vaccination.—In the forty-fifth annual report on vaccination, which deals with 1908, attention is again drawn to the apparent results of the Vaccination (Scotland) Act, 1907, the Act which made conscientious objection on the part of the parents a valid excuse for the non-vaccination of children. A comparison of the vaccination returns of the year under review, 1908, with those of the three years before the passing of that Act, shows that the number of children now remaining unvaccinated is about 20,000 more than it was before the passing of the Act. The number of living children whose births were registered in Scotland in 1908 was 131,406. Of these 12,689 died before vaccination, 90,374 were registered as successfully vaccinated, leaving 28,343 as the number of children for whom certificates

of successful vaccination were not produced. The number of parents who took advantage of the conscience clause was 15,846; in 1907 the number was 7,258; in 1906, 253. The increasing extent to which the provisions of the Vaccination (Scotland) Act, 1907, are being taken advantage of is very apparent. Dr. Dunlop remarks:

> In my last report on vaccination, that dealing with children registered in 1907, I expressed the opinion that the provisions of the Vaccination (Scotland) Act, 1907, were adding to the number of unvaccinated children in the country, not only directly but also indirectly, for the returns of that year showed that the number of children reported to be insusceptible and the number of children unaccounted for were both greater than in the previous years. The returns of the year now under observation support that opinion, for the number reported to be insusceptible and the number unaccounted for are both much larger than prior to the passing of the Act. In the three years before that Act came into operation, successfully-vaccinated children in Scotland amounted to 93.46 per cent. of the children surviving at the time of compulsory vaccination, and unvaccinated children to only 6 54 per cent.; in the year now under review the vaccinated children amounted to 76.13 per cent., and the unvaccinated to 23.87 per cent. On the assumption that the Act alone is accountable for the change, it may, according to these figures, be credited with adding fully 20,000 unvaccinated children to the population in one year.

We have reason to know that the figures quoted by Dr. Dunlop give a correct impression of the facts, and that there is every probability that the number of those taking advantage of the conscience clause will go on increasing with much consequent danger to the health of the community.

Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

Inauguration of the Students' Union in Dublin.

The Students' Union of the Royal College of Surgeons in Ireland was formally inaugurated on April 30th by the President of the College, Mr. Lentaigne. The project of forming a union was first mooted a few months ago, and received enthusiastic support from both graduates and students. The Council of the College has generously handed over the Albert Hall, which has been furnished as a billiard and reading room; while in addition a debating hall has been provided. Mr. Lentaigne, in a happy speech, contrasted the position of the medical student in the past with that in the present. Thirty years ago the student was a worm upon whom everyone trod; his interests were neglected, and his name was odious in the public mind, because every hooligan who got into trouble described himself as a medical student and gave a fictitious name. Nowadays, however, people had begun to realize that the student was the most important part of a medical school, and efforts were being made accordingly to promote his physical comfort and to provide him not merely with information, but with an education in the university sense of the word. In promoting these objects the union would be all-important. Stress was also laid upon the value of a union by Sir Thomas Myles in his reply to a vote of thanks to the Council. He said that its main purpose was to make students feel, when they left College, that they were members of a corporate institution. After a vote of thanks to the President the proceedings terminated.

Use of "Charms."

By the order of the coroner an inquiry was held recently at Banbridge, co. Down, into the cause of death of a woman aged 22, who resided with her parents in the district. The deceased's father, in giving evidence, stated that his daughter took ill on Tuesday, April 12th, with erysipelas, and that in consequence he obtained a "cure" for her, that had saved her five years previously, when she had suffered from the same disease. The "cure," he said, was used by many people after doctors' and nurses' visits in preference to the doctor's medicine, and consisted of a piece of butter, which the witness took to a man in Tandragee, who gave it back to him ready for use. In the present case, as the patient did not improve, he sent some days later for Dr. M'William, who on arrival told the witness that the patient was extremely ill, and would probably not recover. A prescription was ordered, but was not used, and the district nurse who called was refused permission to sponge the patient. The coroner, in directing the jury, strongly denounced the gross and wretched superstition of "charming," and expressed his regret that such methods were believed in by any section of such an intelligent community as Banbridge. The jury, after long deliberation, returned a verdict in accordance with the medical evidence, and disagreed as to adding a rider regarding the treatment of the case.

Dr. Steevens's Hospital, Dublin.

In consequence of the utilization for the building of new wards of the space occupied in Steevens's Hospital by the old chapel, the governors of the institution decided last summer to erect a new chapel, and this building has recently been completed and dedicated. It has been built in early Georgian style, in keeping with the date of the hospital, and contains a pulpit and reading desk presented by Mrs. Colles in memory of her husband, Dr. William Colles, and of his father, Abraham Colles, both of whom were formerly surgeons to the hospital. The remains of Madame Steevens, who founded the hospital in 1717, have been removed to the building, and a tablet to her memory has been placed on its walls. Another tablet commemorates several members of the nursing staff who at one time and another have lost their lives as a result of devotion to duty.

Proposed Royal College of Surgeons' Association

It has been proposed to form an Association of Fellows of the Royal College of Surgeons in Ireland having for its main object the welfare of the college and the safeguarding of the interests of its graduates. At a meeting held recently in Dublin to discuss the matter, it was decided to convene a general meeting of the Fellows at an early date.

Belfast Slums.

Mr. Cowan, chief engineering inspector of the Local Government Board, has been holding an inquiry with regard to a scheme made under the Housing of the Working Classes Act, 1890, by the Corporation of Belfast for the improvement of certain unhealthy areas, and an application for the sanction of a loan of £116,342 for the purpose of carrying it out. Some 750 houses were in question, but there were within a radius of half a mile 860 vacant houses suitable for such tenants. Alderman Dr. King-Kerr, Chairman of the Public Health Committee, said that the committee had come to the conclusion that, instead of tinkering at the matter, it would be better to deal with it in a comprehensive way. There were a large number of double tenancies which gave great trouble, although altogether there were only about 2,500 houses in Belfast occupied by more than two families. A large number of the houses which it was proposed to acquire were unfit for habitation, and the thoroughfares very narrow. A sum of £20,000 was required to erect houses. Dr. Bailie, Medical Superintendent Officer of Health, was examined in detail as to certain houses, and the present condition of the housing throughout the area concerned; he stated that they were dilapidated, the walls kept up by props, the sanitation imperfect, and the streets narrow. The inspector said that from personal observation it was more than bricks and mortar that was wanted; it was an improvement in the tenants; if they were not improved, they would go on making slums. Dr. Bailie explained why in many cases the Corporation did not proceed against the owners for the demolition of the houses; in individual cases he feared it would be difficult to induce the magistrates to make the necessary order. The inspector said he proposed to strike out of the scheme certain areas, and, with modifications, to approve of the rest. With regard to some of the property, it should be dealt with by the magistrates.

England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

LONDON.

PROPOSED RECEIVING HOUSE FOR INCIPIENT MENTAL DISORDER.

HE first draft of the Lunacy Acts Amendment Receiving House, London) Bill, prepared in accordnce with the decision of the London County Council revise the methods of dealing with cases of inpient mental disorder in London, was submitted to ie Council by the Asylums Committee on May 3rd. will be remembered that the committee advocated ie establishment of at least two receiving houses, ut the Council, on the advice of the Finance Comittee, decided only to seek powers for one.[1]

The committee stated that the lines of the bill llowed generally those of previous Lunacy Acts mendment Bills promoted by the Council, but one r two variations had been introduced which were not eferred to in the earlier report. The first variaion provided for the appointment by the Asylums ommittee of medical men to act as certifying ractitioners. The principle of the establishment f receiving houses, which the committee had dvocated for many years, was endorsed in the eport of the Royal Commission on the Care nd Control of the Feeble-minded. Amongst the ecommendations of the Royal Commission was ne (36) for the appointment of certifying medical ractitioners, who should take the place of the rdinary medical practitioner now called in by the ustice of the peace to certify the insane. In the ounty of London, in consequence of the majority of lleged lunatics being brought into the workhouses, a ractice had grown up in most parishes and unions by hich the infirmary or workhouse medical officer was alled upon by the justice of the peace to certify as to he condition of the alleged lunatic, and usually a fee was paid to the medical officer for each certificate he gave. The Royal Commission having come to the conclusion that there should be properly appointed certifying practitioners, the committee had thought it desirable to introduce this provision into the bill. It was also proposed to make it compulsory that every alleged lunatic should go in the first place to the receiving house. In former bills it was made optional for the justice of the peace to order a lunatic to be sent to the receiving house or to the asylum as thought fit. Clause 6 of the bill provided that if the certifying justice thought the person brought before him should be detained at all, he should, instead of proceeding in the manner prescribed by the Lunacy Acts 1890–98, direct such person to be received and detained in the receiving house.

The Asylums Committee vigorously contested the decision of the Council only to seek powers for the establishment of one receiving house, and urged that further consideration should be given to this point. In the report submitted last July the committee expressed the opinion that two receiving houses, one to the North and one to the South of the Thames, each to accommodate 250 patients, would be sufficient for the needs of London, and that the total cost should not exceed £150,000 to £180,000. This suggestion was put forward as the result of long experience of the number and classes of patients received at the asylums, and of some knowledge of the conditions under which alleged lunatics were dealt with at present in the London workhouses and Poor Law infirmaries. The proposal to establish receiving houses should not be regarded as altogether tentative, especially in view of the recommendations of the Royal Commission on the Feeble-minded. The only question was the total accommodation required. One receiving house could not cope with the whole of the 7,000 or 8,000 cases of alleged lunacy dealt with annually in London—some 150 cases a week. It would be necessary, therefore, to schedule a district, more or less extensive, which a receiving house was to serve. In that area there would be a vital alteration in the method of dealing with alleged lunacy; for instance, it would be unlawful for an alleged lunatic to be received in a workhouse (except under the conditions set out in Clause 21 of the bill), and the method of certification would be new. No doubt the Council would wish to provide in due course sufficient accommodation to allow of the whole county having the benefits of the receiving house system, otherwise there would exist the anomaly of one law operating in one part of the county and another in the remainder. The committee thought, therefore, that the Council should not limit its application for powers to one receiving house, but should put itself in a position to provide whatever accommodation might be found necessary. The advantage of the receiving house principle had been recognized so long, and the urgent need for giving practical effect to it had been so strongly urged by the Royal Commission, that the committee believed the Council on further consideration would agree there was no need to treat the proposal to apply for powers as though the application were directed to some end entirely experimental, leading in a direction altogether unknown. The committee asked the Council to rescind the resolution of October 12th, 1909, limiting the application to one receiving house, and to resolve instead:

> That application be made to Parliament in the session of 1910 for powers to enable the Council to establish and maintain receiving houses for alleged lunatics in the County of London.

The Finance Committee, in a report on the same matter, recalled the arguments which induced it last year to oppose a scheme for more than one receiving house. Although the recommendations of the Asylums Committee dealt only with the extension of the powers proposed to enable the Council to establish "receiving houses" instead of "a receiving house," certain variations had been introduced in the bill, notably that making it "compulsory that every alleged lunatic should go in the first place to the receiving house." It certainly was not present to the mind of the Finance Committee that this should form an essential part of the scheme. The committee was still without information which would enable it to advise the Council as to the financial effect of the present proposals. If the bill was approved in the form desired by the Asylums Committee the Council would be definitely committed to a new policy as regards the early treatment and certification of lunatics, and, however desirable the changes might be they would involve considerable expenditure of unknown amount on both capital and maintenance accounts. In the opinion of the Finance Committee, the Council would be ill-advised to agree to the present proposal, or to any extension of its previous decision, until it was in possession of full information as to cost. On general financial grounds the Finance Committee opposed the recommendation.

The report was not reached until the Council had been sitting for twelve hours, and its consideration was postponed.

[1] BRITISH MEDICAL JOURNAL, July 24th, 1909, p. 234, and October 16th, 1909, p. 1184.

WEST YORKSHIRE.

THE BRADFORD MEDICO-CHIRURGICAL SOCIETY.

A SPECIAL general meeting of this Society was held at the Midland Hotel, Bradford, on April 29th, to hear an address from Mr. Harold J. Stiles, of Edinburgh, on the pathology and treatment of tuberculous affections of bones and joints. The lecture was illustrated by lantern slides and some specimens, and was of absorbing interest. The address was followed at 7.30 by the annual dinner, which was largely attended. Amongst the guests were Mr. Moynihan of Leeds and Mr. Brownlow Mitchell of Belfast. Dr. Ward Smith, the President, in introducing the guest of the evening, referred to his great and distinguished services to the art of surgery. Mr. Stiles, in an interesting reminiscent speech, endeavoured to analyse the points making

for eminence in surgery, and thought that heredity had something to do with it. His father and grandfather were both surgeons. He read several interesting extracts from his grandfather's diary relative to his environment and contemporary medical knowledge. Mr. Moynihan made an excellent speech, indulging in some good humoured badinage at the expense of the numerous Scotsmen present, and dilating on the virtues Mr. Stiles (an Englishman) must possess to have been able to establish his position in the very metropolis of Scotland. Mr. Mitchell eulogized Mr. Stiles's address. Several other good speeches were made, interspersed by songs, and in response to calls, Dr. Bronner, who always presides over the gastronomic arrangements of the society, also spoke.

WADDILOVE'S SAMARITAN HOSPITAL FOR WOMEN.

Dr. Rabagliati, in his letter published last week, lays stress on the statement that the hospital will "conflict with the interests of no known charity." Nothing was said in this column from which it could be inferred that it would; but it increases the number of charities maintained greatly at the expense of the medical profession—a most undesirable thing. Mr. Waddilove's munificence will lead to compulsory munificence on the part of certain medical practitioners in the poorer class neighbourhoods who treat the lower middle class. There is no doubt that many of their women patients will be attracted to this hospital by the prestige which always attaches itself to any institution carrying on special treatment. Looking at the question from this point of view, it is certain that on reflection Dr. Rabagliati (whose sympathy with his struggling brethren is so well known) will not insist on maintaining his proposition "that no outsider had any right to interfere." It is quite possible that, if (as suggested in the previous article) the scope and functions of the hospital had been explained to the local profession before opening, a method of safeguarding all the interests concerned might have been evolved. It is not, perhaps, even yet too late to do this. The committee of the hospital know of the Belfast resolution of the British Medical Association, and that the question has been before a committee of the Bradford Division.

LANCASHIRE.

SCHOOL INSPECTION IN THE COUNTY OF LANCASHIRE.

FROM the first annual report of the Medical Inspector of Schools for the Administrative County of Lancashire, it is evident that the system as at present organized can only be regarded as experimental and preliminary. The administrative county has a population of 1,732,000, and is divided for the purposes of elementary education into 35 districts, ranging from Ulverston in the north to the borders of Cheshire in the south. There are 706 schools to be dealt with, and an average attendance of 138,819 scholars, and for the medical inspection of this large number over this large and scattered area there are six inspectors and six nurses. We learn from the report that during the year 49,663 children have been examined, which works out at about 8,200 children for each inspector. Taking into account the great distances that these inspectors must have to travel, often in districts where the means of communication are only poor, it needs no further calculation to show that nothing like adequate medical inspection is possible with such a meagre staff. Moreover, if all the children in the schools are to be examined four times in their school life, which is the aim of the Board of Education, it would be necessary for nearly 70,000 to be examined every year, without allowing for normal increase of numbers. This shows at once how impossible it is for the present staff to do anything like what ought to be regarded as the minimum amount of inspection. Dr. Butterworth finds that, as is the case in the large towns, the chief defects are defective sight, bad teeth, and pediculosis. At the age of 13, about 11 per cent. of the boys and about 15 per cent. of the girls show some defect of vision, and he is unable to give at present any satisfactory reason for this great excess of bad vision in the girls. He suggests that sewing, household work, and consequently less outdoor exercise, may partly account for the difference. It is specially noted that children who have hitherto been regarded as backward or even feeble-minded may often be found to be merely suffering from bad sight or hearing, which may give an appearance of stupidity not really present. In over 8 per cent. of the children of all ages "very bad teeth" are noted. The percentage rises rapidly from the age of 3 to 5, and then remains fairly stationary up to 14, and Dr. Butterworth thinks that the remedy is to be sought in educating the children in the use of the toothbrush rather than in the establishment of costly dental clinics. With regard to pediculosis, the report shows that 2.5 per cent. of the boys and over 30 per cent. of the girls are affected, and in some urban districts the percentage of girls is even higher still. Here, again, the education of the children themselves in the methods of personal hygiene must offer the best hope of eradicating the trouble.

Dr. Butterworth must be congratulated on the work done in the most difficult circumstances, and as this is the first complete year, criticism would be out of place. But it ought not to have needed even a year for the county council to recognize that unless it is content with a general inspection which can hardly deserve the name of medical examination, the staff will have to be at least doubled. The conditions seem eminently suited for the appointment of a number of part-time medical officers who would reside in their own districts and thus save a great amount of time which must now be wasted in mere travelling from one place to another.

CAMBRIDGE GRADUATES' MEDICAL SOCIETY.

A meeting and dinner of the newly formed Manchester and District Cambridge Graduates' Medical Society was held at the Queen's Hotel, Manchester, on April 27th. The aim of the society is to encourage social intercourse between Cambridge medical men in the district, and to further the interests of the university. The annual meetings should afford an opportunity for college friends to renew past friendships. Medical students at Manchester who commenced their course at Cambridge are asked to join as associates. The dinner, at which thirty-nine members, associates, and guests were present, was very successful. It is hoped that all Cambridge medical men resident in the district will join the society.

WALES.

COAL MINERS AND PHTHISIS.

SOME interesting facts with regard to the comparative immunity of coal miners from phthisis are given in the annual report of the medical officer to the Abertillery Urban District Council. The population has increased from about 300 in 1801 to 33,789 in 1909, and the majority of the male inhabitants are employed in the coal industry. As a class, the miners appear to be healthy and comparatively free from serious accidents. Although there are 9,500 miners in the district, during the past year only 3 died from phthisis, and only 9 died from accidents in or about the coal mines. These satisfactory conditions are probably in part due to the fact that the mines are comparatively shallow, safe, and free from dust. It would appear that coal miners do not suffer unduly from phthisis, and it is worthy of notice that the general death-rate is below the average of all occupied males. It has been suggested that inhalation of coal dust actually tends to prevent the incidence of tubercle in the lungs, and some experimental evidence has been adduced to support this hypothesis. The actual number of deaths during 1909 was 113 below that of 1908, and less than the ten years' average. The corrected death-rate for last year was 13.54 per 1,000, which for the first time is lower than the average rate for England and Wales, and practically the same as that of the rural parts of

ıe country. Dealing with the schools inspection, the ›port states that more than a quarter of the children ıd enlarged tonsils, and concludes: "An excessive nount of downy hair on the back is considered to ›note a tendency to tuberculosis. I have recorded › cases of such excessive amount of hair on the ıck."

A PROGRESSIVE COMMUNITY.

The county medical officer (Dr. Rocyn Jones), in his uarterly report to the Monmouthshire County ouncil, gives some interesting information with ›gard to the Panteg district. The population in ›01 was 7,484, whereas at present it is estimated at),117. The area is 5,578 acres; the loans up to March ıst, 1909, £4,627. The district is chiefly an industrial ne, but it has also a not inconsiderable agricultural de. It ranks eighth among the urban districts of the ›unty in acreage, ninth in assessable value, and eventh in population. The district is divided into ıree parishes, the largest of which—Panteg—was ›nstituted an urban district in 1864, and Mr. A. A. Villiams, the chairman then appointed, has con-nuously occupied the chair of the local board and rban district to the present day. According to the ›port for 1909, the birth-rate of the district for the ear was 26.58 per 1,000 of the population, the death-ıte 9.68, phthisis death-rate 0.79, zymotic death-rate 39, respiratory diseases death-rate 2.17, infantile ıortality-rate 77.7. The latter rate is the lowest on ecord for this district. Referring to the housing ccommodation of the district, Dr. Rocyn Jones men-ons the absence of overcrowding on space, and with few isolated exceptions the absence of overcrowding ı individual houses. Dealing with the erection of ew houses, he says: "The workmen's dwellings rected within recent years have, through the watch-ılness of Mr. Orlidge, been built in strict con-›rmity with the council's by-laws, with the result that erry-builders find Panteg an unprofitable hunting round;" and he notes his pleasure in finding that he council has recently appointed Mr. Orlidge perma-ently, thereby giving him security of tenure, and hus strengthening him in his determination to do his uty without fear or favour. Dr. Jones, in conclusion, ongratulates the council upon the progressive policy dopted by the Sanitary Committee.

Special Correspondence.

VIENNA.

lew Tariff of Medical Fees in the Country.—Proposed Legislation as to the Salary of Professors.—Scarcity of Practitioners in Rural Districts.

'HE so-called "social reform," which means compulsory ısurance against sickness, reference to which was made ı the JOURNAL of December 26th, 1908, will before long ecome law, and since its provisions seriously affect the rofession, means have been sought to combat the im-ending evil. Therefore the Medical Council for Styria Southern Austria) has worked out a scale of fees which › called the minimal tariff for all its members. In ases where the patient's own income or the family arnings are not more than £60 a year (the estimate eing based on the rent) the fee for a consultation t the doctor's house is fixed at 1 krone (10d.), a isit at the patient's own home being 50 per cent. more. distance fee of 6d. per mile, or half an hour's loss of ime, will be charged extra. Where the income is £100 o £120 the fee will be at least 1½ kronen (1s. 3d.) for a isit to the doctor's house, or 1s. 8d. at the patient's welling, with the same distance fee. Carriage fare will e counted extra. For persons with an income of £120 to 200 the fee will be 1s. 8d. for a visit at the doctor's ouse, or 2s. 6d. at that of the patient, with a distance fee f 10d. per mile or half-hour. These low figures show ery clearly how very severe is the fight for existence in he medical profession. Compulsory membership of a ick club robs the general practitioner of many possible atients. The Parliamentary Committee which has to ormulate the law as to sickness insurance has stipulated that all persons who earn less than £150 a year, and are in employment for an indefinite time, must become members of the *Krankencassa*. The medical representatives urged that £120 should be fixed as the upper limit, but they were overruled. Therefore at least 170,000 possible patients are lost in Vienna alone in this way. In Vienna, too, endeavours have been made to have a minimal tariff drawn up, but all such experiments are bound to fail, as it is not possible to lay down a hard-and-fast rule for such purposes.

Another bill as to the salaries of university teachers is now under consideration. The professors and *Privatdocenten* of medicine are all in the employment of the State, but the so-called ordinary professors are alone paid by their employer. Their remuneration is low, from £160 to £250 a year, according to the university in which they learn and the length of their service. In addition to the salary they get the students' fees. These are also very low, a student of the surgical or medical class not paying more than about £1 1s. Naturally in smaller towns, where the medical faculty is also small, there are few students. Thus the professors not seldom have an absolutely inadequate State income, whilst their practice may or may not be remunerative. The bill now under consideration provides a minimum payment of 8,000 kronen (£340) for each professor, and further suggests a State payment for the *Privatdocent* who actually lectures. An extra payment of 2,000 kronen (£85) would be made to those professors who hold the post of Dean or any other office of the university hierarchy. An increase of 1,000 kronen (£40) would be given to the professor for each three years of service. There are bureaucratic obstacles to this scheme, but as the influence of the professors is great, and they have a very useful help in the co-operation of all other professors of the faculties of law and philosophy, their demands will perhaps be granted.

The distribution of practitioners throughout the country varies enormously as regards both the area which one doctor has to "serve," and the number of inhabitants who depend on him for medical aid. In a recent publication some exact figures are given which show that, whilst overcrowding unquestionably exists in the cities—1 in 300 to 1 in 750 inhabitants—the towns and larger villages are better off from the doctor's point of view, the ratio being 1 in 1,200 to 2,000 inhabitants. But in the rural districts this proportion goes up to 1 in 5,000, 8,000, even 16,000 inhabitants. In many districts there is only a district officer of health, who has to do general practice too, and this in an area of eight to twenty square miles or more. Naturally both the doctor and the patients are dissatisfied with such conditions. But the population, being either too poor or too apathetic to encourage the settling down of a qualified man, it is hard to see how an improvement is possible, unless the State opens its pockets. The county councils see this, and urge the Government to do its duty towards the population; hitherto, however, their efforts have been without result.

BUDAPEST.

A Museum of Penal Apparatus.—Atropine in Gonorrhoea.—Criminal Abortion.

A MUSEUM of objects relating to prisons was recently opened at Budapest. To medical men the collection is particularly interesting. We see the horrible instruments of ancient judicature, and through these objects gain an insight into the conditions of prison life. The first room contains chiefly instruments of punishment: clasps, iron chests, iron chains, rods. The clasps which tied the hands to the feet are now out of use, while handcuffs and gyves for the feet are still employed in the case of criminals who have once made an attempt to escape. The other exhibits are interesting souvenirs of the past. Among them is a rusty iron gyve almost falling to pieces which was found in the underground corridor of the Szamos-iy-vàr Prison. Within it is a piece of dried-up tibia and fibula. In the same room are the so-called "shame-benches" with rows of upright nails. One wall of the room is ornamented with "neck-ties." These are fiddle-shaped pieces of iron, the two arms of which clasp the neck. These things were used for the punishment of young thieves and slanderous women. With these instruments about their necks they were led

through the streets, escorted by musicians, while the public indulged in the amiable amusement of spitting on them and throwing rotten apples and bad eggs at them. There are neck-and-arm clasps, which are still in use on battleships for the restraint of mutinous sailors. There is an iron ball weighing 700 lb., which some time ago stood on the Szechenyi market place at Dobsina. To this ball were chained rogues, sometimes for three days on end. Rifles, whips, lashes, and scourges are among the other ornaments of the walls. In another room are portraits of notorious rogues. Four or five shelves are filled with the artistic works of the prison warders; statues made of wood, bread crumbs, composition, tin—some of them showing undeniable skill and taste. Here is the collection of skulls made by Dr. Abraham Pattantyús, the prison physician. Anthropometric explanations are supplied, and abnormalities and asymmetry are accurately exhibited. In another room are instruments of torture used formerly in trials—a bench of torment, neck chains made of iron balls studded with nails. The last room contains plans and models of the present Hungarian prisons and workhouses. The exhibits show that even prisons dating from the end of the eighteenth and nineteenth centuries were built with small apertures which did not let in air and light sufficient for a mouse, let alone a human being.

In the *Drvosok Lapja*, February 26th, 1910, Dr. Adolf Erdös of Nagyvárad describes his experience of atropine in the treatment of gonorrhoea. Disappointed at his failure in the treatment of some obstinate cases, he tried atropine, in the hope that this drug, having the property of diminishing discharges, would also check the secretion of the urethral mucous membrane. His experiments have shown that while atropine reduces the urethral secretion, complications are apt to occur which contraindicate the general application of this drug. In two of his cases a chronic discharge stopped at once after the administration of five pills, each containing $\frac{1}{2}$ mg. of atropine. The discharge was also altered in quality by the action of the atropine. It became thick and creamy though very slight in quantity. Under the microscope the gonococci were seen to be lessened in number, probably on account of the want of sufficient moisture in the urethra. After two weeks Dr. Erdös had to give up his experiments because several patients complained, even after taking the single pill, of dryness in the throat and impaired vision.

In a small pamphlet on professional discretion, Dr. Juràn Bódog puts forward the view that "a practitioner ought under no circumstances to notify to the police an intended or accomplished artificial abortion." This expression of opinion has given rise to much discussion among medical men. A good many say that artificial abortion being a crime, we are not only bound to denounce the criminal, but also to inquire by what means abortion has been procured and to inform the police. This is the letter of the law, but it is held that even if the law did not oblige doctors to do so, their ethical feeling should be sufficient to make them give information to the proper authorities. The discussion resulted in the intervention of the "Juridical Medical Advisory Board," which is of opinion that members of the medical profession cannot on their own responsibility alter the provisions of the law.

THE first International Congress on Tuberculosis will be held at Barcelona this year from October 16th to 22nd.

FIFTY years ago an operation course for Bavarian military surgeons was instituted by King Maximilian II. In honour of this event the *Münchener medicinische Wochenschrift* devoted a recent issue to a history of the work of military surgeons. The object for which it was started was for the "post-graduate instruction and practice of military surgeons in operating." In 1893 the school, which in the meantime has been handed over to the War Office, was moved to new quarters, and was then adequately equipped to meet modern requirements. Rooms for *post-mortem* examination, operative surgery (on the dead body), hygienic and chemical laboratories, a lecture theatre, and a library were erected, and every provision was made for efficiency. Toward the end of the Eighties a new order was introduced whereby officers in the medical service of the German army might be ordered to attend special courses at the *Kaiserlichen Gesundheitsamt* or other scientific institutions or clinics. New departments were organized, and new assistants extended the usefulness of each special course. From small beginnings a great institution has developed.

Correspondence.

SICKNESS AND INVALIDITY INSURANCE.

SIR,—Having followed with great interest the corre spondence upon this subject and Poor Law reform I was very pleased to read Dr. Fothergill's letter, whic touches the very point upon which centres the who question, from the practitioner's point of view at any rat

If invalidity insurance is introduced, it seems agree that the medical profession must be prepared with "scheme," and also that if any scheme is to be carrie through by them, it must be unanimously supported b the whole body of our profession. To obtain suc unanimity of purpose it is a *sine quâ non* that th scheme formulated shall not be detrimental to th interests of any section of the profession.

The extension of the present club system as suggeste by the British Medical Association is about the wor system for the average general practitioner which coul be devised: the principle of the thing is wrong, and a man who has "personally" made his living by club wor will be much in favour of such a scheme, no matter ho gigantic the extension may be.

If we consider the various sections of general pract tioners who will be affected by invalidity insurance, the may roughly be classed into three sections: A, Thos who already depend almost entirely upon contract work B, those who depend almost entirely upon private wor amongst those classes who will be compulsorily insured and C, those who have private practices with some sma club or appointment, such as Poor Law, part-time medica officer of health, factory surgeon, post-office medical office works club, or Foresters, Rechabites, etc.

The most cursory examination of these classes wi show that the present British Medical Associatio scheme will probably increase the work of Class A a the expense of B and to some extent C, and will put th bulk of the insurance medical officers on a sweated syste of labour, while depriving many others of even that misera able form of existence. On the other hand, a scheme o payment *for work done*, that is, per visit or per consulta tion, etc., would be acceptable to all three; Class A woul be infinitely better off by it, Classes B and C would b also better off if the fees were adequate, and being s what is to prevent all three classes holding out for th adequate fee which then they will be bound to get?

Is there any scheme which is feasible and workable an acceptable to the public?—I nearly wrote Government but remembered in time that some 13,000,000 of the publi will have a very lively interest in this matter, and I do no think they will be at all enamoured of the "club" scheme There is such a scheme, one by which the public can b served by general practitioners exactly as they are serve now, with freedom to choose their own doctor whenever they wish; in fact, to have the family doctor still with them in exactly the same relationship as he stands to-day

I hope that somebody more competent than I am wil contribute particulars for consideration, but in the mean time it behoves every general practitioner to know very exactly what are the views of the Representative whom he will very shortly be asked to vote for.

The practitioners must make up their minds wha scheme and what system they mean to have, and then see that they get it. It is no use electing Representatives and leaving the choice to them. There are too many Representatives who have not the requisite knowledge o how a general practitioner makes his living to legislate for him.

I am the more concerned about this because at least one of the Representatives of my own Branch (Lancashire and Cheshire) has expressed himself as decidedly in favour o the British Medical Association scheme, and is pushing it as the best thing for practitioners; in this I fancy the other two also support him; and, if so, what of the genera practitioners? We may as well go to the Government and say, "This club work is so excellent for us and the public that please make it bigger, make all who possibly can come into this sweated contract scheme," and then exit the general practitioner.—I am, etc.,

Northwich, May 1st. HENRY EDWARD GOUGH.

SIR,—I understand the chief practical objection to the ayment of medical men "per visit" under a scheme of ckness insurance is the danger of over-attendance by the edical man—that is, of putting in unnecessary visits. It said that if medical men were always sure of a fee, it ould be a great temptation to them to multiply visits, specially in times of general slackness of work. The mount of attendance necessary in any particular case ust perforce be left to the private judgement of the edical attendant, and, it is alleged, his judgement would e biassed in the direction of over, rather than under. ttendance. This argument is difficult to refute, but I ould ask if it is the general experience at present mongst the upper and middle classes, where payment by isit is the rule, for over-visitation to occur? I am inclined think it is only the few who err in this direction, and at the abuse recoils on their own heads, for a man who ets a reputation for "running up bills" is apt to be unned by the public.

But, it may be objected, if a medical man knows that, owever many visits he makes, his patient will not have pay directly for them, he may naturally feel that it is his patient's interest to attend more frequently than he rtainly would if he felt that the patient had personally pay for them. A zealous and conscientious man might, deed, honestly enough, be inclined to put in unnecessary isits. Now although this objection is undoubtedly a rious one, I do not admit that it is insuperable. In the rst place, I cannot think so meanly of my brother practioners as to believe that the principle of payment per isit, which is the fair and logical method, would be bused to any serious extent. However, the public and e authorities will have a right to insist that some ffective checks should be put upon the tendency of any edical men to multiply visits beyond what are strictly ecessary in any particular case. Can such checks be pplied? I think they can, but whether or not they will atisfy the authorities and the public remains to be seen. he checks I should suggest are as follows:

1. A reducing fee for extra visits. Thus for a second isit on any one day, half fee; for a third visit, one-third f fee; but any extra visits beyond not to be paid for. light visits, however, that is, between 10 p.m. and 8 a.m., ould not, of course, be included under the reducing fee; hey would be *double* the ordinary fee, but no night visit ee would be allowed unless made at the urgent request of he patient or his friends. Only one night visit would be llowed (that is, paid for) on any one night. Again, to heck too prolonged attendance, fees for acute cases would e cut down one half after three weeks for more than two isits per week (with possible exceptions for severe cases f typhoid, scarlet fever, small-pox, blood poisoning, hthisis, cancer, etc.), for chronic cases two visits er week would be allowed, and any extra ones only in pecial cases, and then for half fee.

2. To give the patient an interest in his recovery, as ell as to make him watchful of the number of his doctor's isits, the "deposit plan" might be adopted—as suggested y Dr. Fothergill, and as at present used by the National eposit Friendly Society—thus half the patient's conributions being kept as a cumulative deposit in his name, nd half being put to the general insurance fund; if the eposit accumulates beyond a certain amount he can draw pon it for certain capital purposes (for example, to start is boy in business, to emigrate to the Colonies, for funeral xpenses, extra old age or invalidity pension, etc.); it epresents *savings* which can be used by the depositor. He must, of course, always leave a certain minimum eposit behind, beyond which he cannot draw. On the ther hand, when ill half the cost comes out of the deposit, alf out of the general fund, until the deposit is exhausted, vhen of course all the expenses must come out of the eneral fund, and a debit is placed to the deposit, which nust be first wiped out before any accumulation can again ccur. I consider this suggestion most valuable in many ays, most so in that it gives the patient an interest in eeping well, expediting his recovery, and keeping down isits, whilst it promotes independence and self reliance; t is, therefore, a check both to abuse by medical men and atients, and should prove of great practical benefit to oth.

3. The "bonus" principle might be applied somewhat s follows: A careful note would be taken of the number of visits paid per case, and these compared with the general average amongst other practitioners. A man who had treated his patients satisfactorily with *less* than the average number of visits per case would be entitled to a bonus at the end of the quarter or half year. This bonus could be paid in money or could be kept towards a sickness, invalidity, or old age pension fund for the doctor himself. Such a bonus is comparable to the special grants which are now allowed to successful public vaccinators.

4. Lastly, supervisors could be appointed for districts, for example, retired medical practitioners of not less than twenty-five years' experience of general practice, to whom all disputes as regards over or unsatisfactory medical attendance would in the first instance be brought, and if the supervisor considered there was "a case," he would bring it before the local medical committee (for example, Division of the Association), who would consider it *in camera*, with the accused before them, and should a finding of guilty be made, a proportion of the fees would be disallowed. The supervisor might also act as recorder, keeping all the counterfoils of the attendance slips (or tickets) which the doctor has had initialled at each visit by the patient or his representative, so checking the statements of account before they are handed over to the insurance authorities for payment. Each slip would bear the date and time of visit, either a separate slip for each visit, or a sheet with columns for a number of visits, so as to cover, say, a week's or two weeks' attendance; the patient's name, address, and diagnosis being also filled in on the slip or sheet, and any remarks of a special nature. It is obvious, under any system of sickness insurance, careful records will have to be kept of all visits, and although this will involve a certain amount of routine and red tape, the fact that it will render payment of fees practically certain should recompense us for any little extra trouble involved.—I am, etc.,

Bowdon, Cheshire, April 28th. P. R. COOPER.

SIR,—The leaders of the Labour Party have gone to Germany in the interests of those they represent to inquire into the working of State insurance. Why should medical men not do the same in the interests of themselves and their patients? I have on two occasions visited some of the principal towns to inquire into this matter, but am willing to go again with any who, like myself, may be desirous of seeing some definite proposals put forward by the medical profession before any bill for State insurance is brought before Parliament.—I am, etc.,

May 2nd. J. H. K.

MODEL RULES FOR A PUBLIC MEDICAL SERVICE: A CRITICISM OF ITS MAIN PRINCIPLE.

SIR,—The Gateshead Division has for some time past been giving most careful thought and attention to matters relating to a public medical service, and more particularly to the model rules recently laid before it.

The members have long felt that it was likely some such proposition would be made—an anticipation justified to some extent by the Majority Report of the Poor Law Commission, and much more so by the opinion which is obviously held at head quarters and which has found expression in the rules mentioned above.

About 90 per cent. of our practices here are of the purely industrial class, and few of us are without contract practice of some kind; so that we may claim to speak with some authority and considerable experience upon the subject.

First, what do we mean by contract practice? We do not refer to that kind of work where some particular individual is responsible for some particular persons, as with the Post Office medical officer or police surgeons, but to the family, club, or friendly society work, where the lodge doctor contracts to do an unlimited amount of work for a very limited amount of pay.

Now the model rules are based upon this principle, and, though they are a vast improvement upon the suggestions of the Royal Commission, we should not lose sight of the fact that this principle is thoroughly bad.

It is bad from the point of view of the individual medical man, worse from the point of view of the future personnel and educational efficiency of the profession, and, what appears to be more important than either of these in

the eyes of so many of the leaders of our profession, worse in the interests of the general public.

Such a service as that suggested on an "optional" basis would gladly be taken advantage of by the thrifty people who at present pay our bills, leaving the thriftless and destitute to seek attendance from any member of the profession, who will not dare to refuse because of the strong feeling that exists in the minds of the press, the public, and the coroner that we are out to carry on a noble profession for love of a humanity which never hesitates to rob us, and that our living is a minor matter that it is not necessary to consider.

The net result of such an action would be to reduce our incomes one-half to one-third and leave the old parasites to obtain their gratuitous attendance exactly as they do at present.

What of the future of the profession? Would any man in his senses put his son through an arduous and expensive training which will end in his becoming a State or municipal servant, or, what is worse, the servant of an uncontrolled and inconsiderate public, in exchange for the magnificent income of from £200 to £300 a year? The effect of such a state of affairs upon the quality of men entering the profession will, we think, be obvious. With the type of man changing, and the incentive to subsequent professional and educational improvement largely removed, that danger to the public becomes both urgent and obvious.

With human nature as it is—for we cannot alter it—who can imagine this to be a system that holds out prospects of good results?

Can one single good reason be advanced in justification of contract practice to-day, except that, on the principle that half a loaf is better than no bread, it is better to receive half-yearly the miserable payment one gets from a club to help to meet one's liabilities than to attend the same people, receiving no payment from them, and scant courtesy from the county court judge if you are foolish enough to attempt to obtain what is due to you by means of the law.

Because we have found that contract practice is a necessary evil to enable us to live at all, is that any reason why our profession and the State should deem this the best system on which to establish its national medical service?

All who have had experience of it will unite in saying that the system is entirely rotten from every point of view, and that its universal adoption will inevitably bring disaster in its train to all those concerned.

We cannot help expressing our regret that it should be proposed by our Association to establish on a recognized basis a system which for years we have been trying to discourage and which in some instances we have stamped out entirely.

Signed on behalf of the Executive,

W. SMITH,
Chairman.
C. R. STEWART,
Honorary Secretary.

GENERAL PRACTITIONERS AND POOR LAW REFORM.

SIR,—Early in our correspondence Dr. Greenwood emphasized the importance of dealing with "things" rather than "words," and I will endeavour to follow his excellent precept rather than his example.

The difference between the authorities which the Minority of the Commissioners propose to set up and the Poor Law guardians is the difference between a fence at the top of a precipice and an ambulance or a hearse at the bottom. The one deals with the situation before the catastrophe has happened; the other deals with the situation after the catastrophe has happened. Thus, for example, the authorities which the Minority seeks to set up would get hold of a phthisis patient as early as possible, send him to a sanatorium, disinfect his house, provide for his wife and children until he is cured and fit to return to work again. The guardians wait until the man is too ill any longer to support his wife and children, and far beyond hope of recovery, and then support him until he is dead, and the wife and children for an indefinite time.

Now, it is quite possible to argue, as Dr. Greenwood does, that the same adjective may be applied to both these authorities; but if Dr. Greenwood can see no difference between the two he is far more lacking in perspicacity than his letters would lead one to imagine.

In conclusion, I will only add that his fine distinction between putting on a label and endorsing it is equally one of words rather than things.—I am, etc.,

Manchester, April 30th. E. VIPONT BROWN, M.D.Lond.

SIR,—The discussion on Dr. Cooper's paper does not seem to have established anything very clearly. Dr. Hick and others obtain some income from such as he would call destitutes, unable to pay anything for medical attendance. Surely Dr. Hick is right in expecting every workman who earns a living wage to pay for the necessaries of life, in which is included the care of health. An accident requiring amputation, strangulated hernia, an infectious disease, demand more costly treatment than the simple ailments which constitute nine-tenths of ordinary practice. These earners of small wages have in such cases a claim upon the community in the name of common humanity. For the stern Guardian, with a stout stick in his hand and a keep-off-the-grass manner, there will come along the Neighbour willing to give the necessary help—not a Samaritan, for he will wear the badge of the borough council, representative of the ratepayers, not ashamed of their humanity. The borough doctor will then take over the case and the borough inspector will inquire into the family circumstances and see that neither the man nor his family starve, and on recovery help him to find work.

The local committee will settle what circumstances are to be considered necessitous, but this will not be based on a hard-and-fast wage limit, either 15s. or 20s. A line has been put forward. After deducting rent, which of course varies in town and country, 3s. is allowed for every adult member of the family, and 3s. for every two children. Below that they are destitute, or at any rate may be classed as "poor" (I am not quite certain of the figures, however). The acceptance of relief will not then humiliate the man. The whole of the out-patient departments will be swept away, and only those patients will attend who have been sent up for consultation or for operation by the medical men whom they have already called in.

Such I apprehend to be the scheme of the Minority Report. Those who are better off, and who, with wages from 15s. to £2, insure in sick clubs and friendly societies, it leaves alone. Yet, going further than the Poor Law, it advances to the man who is momentarily stranded the very important medical or surgical skill required. There may be some money loss in this, but the funds of voluntary societies will be enabled to find a satisfactory outlet. For the civitas and the benevolent society will work with full knowledge of each other's doings.

A scheme has been issued by the Association, called a Public Medical Service. This is a misnomer, it being a scheme for a trade union of the narrowest type. In suitable localities, small in area, and if adapted to suit varying circumstances, it will no doubt prove beneficial. The relations between doctors and those who demand modified fees under the name of insurance are, it seems to me, very unsuitable subjects to introduce into a new Poor Law, or, indeed, to be regulated by law at all.—I am, etc,

London, W., May 3rd. G. C. CRICHTON, M.D.

CANCER OF THE RECTUM.

SIR,—It is with much interest that I have read the letters which have appeared on this subject, as three years ago I published a paper in this JOURNAL advocating, I think for the first time, the complete removal of the rectum in all cases of rectal cancer.[1]

Mr. Bruce Clarke says that there is no comparison between removal of rectal cancer by the lower pelvic route and that by the abdomino-perineal route. I think that Mr. Bruce Clarke has not exactly expressed his meaning. The question is in reality not as to which is the best route, but whether the rectum shall be removed entire with part of the sigmoid and all the lymphatic neighbourhood, or whether the growth shall be locally resected, leaving part of the rectum and all the lymphatics behind. I think this is what Mr. Bruce Clarke means, and I quite agree with him that such operations as

[1] An Operation for the Removal of the Entire Rectum and Neighbouring Lymphatic Area for Carcinoma, BRITISH MEDICAL JOURNAL, June 1st, 1907.

ke's, in which only a portion of the rectum is removed, ot be compared with complete removal of the lower el.

ıave operated in a number of cases of rectal cancer, by the method I described in 1907 and by the mino-perineal route, and I still think that there are ntages in favour of the perineal route in certain cases. same amount of bowel can be removed by either e. I have removed as much as 10 in. of the rectum pelvic colon, afterwards bringing the stump of the n down to the anus, by the perineal route alone; and is about as much as it is ever necessary to remove. operation by the perineal route can be performed e rapidly and is not quite so serious.

ne of by no means the least advantages of complete oval of the lower bowel, as compared to local resection ıe growth, is that healing by primary union is possible. ve had one case in which healing by first intention place after 8½ in. of the bowel had been removed by perineal route and the colon had been brought down stitched to the anus. The patient walked out of the ing home in three weeks after the operation.

believe that as the technique of these very difficult ations is improved such results will be the rule instead he exception.—I am, etc.,

P. Lockhart Mummery.

ndon, May 2nd.

IR,—I agree with Mr. F. C. Wallis that the subject of cer of the rectum will bear further discussion. Kraske's ıs-sacral operation and other kindred methods of removrectal cancers were a great advance on earlier and less quate operations. Cases which previously had been arded as quite inoperable have been successfully dealt h and the results have compared very favourably both as ards immediate and remote results with cancer operaıs in other parts of the body. Nevertheless, at the pret time I believe that most surgeons are now dissatisfied h their results. Although freedom from recurrence is en secured for many years (often for five to seven years) a well-executed Kraske's operation, the disease in the st majority of cases eventually returns in the upper ct of the pelvic colon or in the pelvic glands. For some ıe surgeons have been feeling their way towards a more lical removal both of the affected portion of the bowel d of the corresponding chain of lymph glands in order bring the surgery of rectal cancer into a line with the ıchings of experience in other regions, such as that of e breast and uterus. The work of Sampson Handley in e former region and that of Wertheimer in the latter int very clearly the direction in which operations for tal cancer must be extended.

The following are some of the pathological and atomical postulates which must be accepted in framing satisfactory radical operation:

. A considerable length of apparently healthy bowel *above* e disease must be removed as well as a sufficient margin of althy tissue around and below it.

2. The whole chain of lymph glands and perirectal tissue, at st as high as the promontory of the sacrum, must also be moved in every case of cancer of the rectum, whether seated gh or low.

3. It is anatomically possible to remove the whole length of e rectum up to its junction with the sigmoid in any given se.

4. It is anatomically possible to mobilize the sigmoid flexure every case sufficiently to bring it out at the anal site, and to tain its blood supply in that position.

5. It is anatomically impossible to preserve an adequate ood supply of the upper segment at any point short of the gmoid loop.

It is obvious from these postulates that no operation erformed from below can be adequate or satisfactory, even hen the cancer is within reach of the finger from the ıus. In other words, a perfect operation absolutely equires an abdominal approach in every case. The ideal peration must therefore be always either abdominal or odomino-perineal. Which of these alternatives is best epends on the position of the growth. If it be not less ıan 3 in. clear above the anus, and not adherent to the ladder or vagina, the sigmoid can be mobilized, the ıperior haemorrhoidal vessels ligatured, and the whole ectum, including the growth and gland chain, with the xception of the unimplicated anal segment, removed ırough an abdominal incision. The end of the mobilized egment, after section of the bowel at its junction with the rectum, can then easily be passed through the anal segment and secured there; or, if preferred, the end of the sigmoid can be seized by forceps, passed through the anus, and drawn outside. A large Paul's tube can be tied in to carry faeces clear of the wound. I have recently operated in this manner in a case where the chain of enlarged glands reached up to the promontory, and the functional condition of the anus afterwards was perfect.

This is undoubtedly the ideal procedure where the position of the growth and the condition of the patient permit. But what of low-lying cancers, within reach of the finger, and perhaps involving the anus? General principles demand the removal of the whole rectum, even in these cases, in order to remove the infected areas above, and this can only be performed abdominally. Free removal of the actual growth and its immediate surroundings are equally necessary, and in such a case this is impossible by the abdominal route. It follows that for such cases both abdominal and perineal or sacral routes are necessary.

There remains the question, Should they be combined or separated? A combined operation has obvious advantages. If the sigmoid can be mobilized and the glands freed from above, and then the whole mass and the mobilized sigmoid withdrawn from below, the whole cancer mass is removed in one piece without even dividing the bowel until it is outside the body. The previous ligature of the superior haemorrhoidal vessels also greatly lessens the haemorrhage. This combined operation has, however, for low-lying cancers, especially for those involving the anus, one grave drawback. The shock of an extensive perineal or trans-sacral dissection, added to that of the previous abdominal procedure, is so severe that it often proves fatal. I am, therefore, reluctantly driven to the conclusion that for these cases one must forego the advantages of the combined operation by dividing it into two stages. This of necessity involves a permanent abdominal colotomy. The sigmoid must be mobilized, the rectum divided as low down in the pelvis as possible and its distal end inverted and closed immediately above the growth. The upper part of the rectum and glands must be drawn out of the pelvis and then removed by dividing the bowel at the commencement of the sigmoid. The end of the latter is permanently fixed in the wound, with a Paul's tube inserted, and the abdominal incision closed. At a later stage the growth and anal segment can be removed from below. This operation is not ideal, but it carries out the essential thing—complete removal of the infected area; and, where the anus must necessarily be sacrificed, an abdominal colotomy is no worse than a sacral colotomy which equally lacks a sphincter.—I am, etc.,

Edward Deanesly, B.Sc., F.R.C.S.

Wolverhampton, April 30th.

Sir,—For some five years past I have advocated and practised the abdomino-perineal method of excision of the rectum to the exclusion of other methods, and I now regard it as the operation of choice, except in aged or debilitated subjects, for all cases, whether the growth is high or low.

In a paper which I read at the Sheffield meeting of the Association[1] I emphasized the importance of abdominal exploration in all cases of cancer of the rectum before proceeding to excision, in order to ascertain whether the case is suitable for radical treatment—that is, free from deposits beyond the range of removal—for unless this be done this all-important question is left to chance, and a useless operation may be embarked upon. I also pointed out that it was by the abdominal route only that the infected area of lymphatics and glands could be thoroughly removed and the best chance given of permanent cure.

I am glad to find that Mr. F. C. Wallis is inclined to think "that there is a great deal to be said for the abdominal operation in all forms of removable rectal carcinoma." It is also gratifying to read that Mr. Bruce Clarke "is confident that it (the abdomino-perineal operation) will soon take its place as a well recognized operation and prove a formidable competitor, so far as mortality is concerned, with the older operations." I ventured to make a similar forecast in the paper to which I refer, and now that the technique of the method has been improved it is even truer.

[1] British Medical Journal, 1908, ii, p. 990.

I do not agree with Mr. Bruce Clarke when he says that 'the abdomino-perineal operation is designed to meet those cases in which no satisfactory removal can be effected from below." It may originally have been intended exclusively for this purpose, but with the advance which has been made in endeavouring to perform a radical operation for cancer of the rectum comparable with the operations performed in other regions for cancer, the use of the operation has been extended to cases situated in the lower part of the rectum.

I have performed the operation in more than one case in which the disease was limited to one side of the rectum and in which it was quite easy to pass the finger well beyond the growth, and yet on opening the abdomen diseased glands were found high up in the mesorectum which could not have been removed by any other method.

With regard to the question of bringing the bowel down to the anus after resection, which Mr. Wallis touches upon, I discussed this point in the paper to which I have referred. Since that was written Mr. Dobson has published a most valuable paper on the lymphatics and anastomosis of the blood vessels of the colon and rectum which will, I think, very largely influence surgeons in their desire to re-establish the continuity of the bowel.—I am, etc.,

London, May 3rd. DOUGLAS DREW.

"A NEW ASPECT OF THE EFFECTS OF BORIC ACID."

SIR,—The contribution by Dr. J. Bernstein in your issue of April 16th concerning the varying effect of boric acid on different micro-organisms can hardly be said to present the "entirely new aspect" of the problem which he claims for it. Nearly ten years ago I drew attention to this point in your columns,[1] from which I may be permitted to quote the relevant sentences.

"The addition of a small quantity of a preservative like borax does not hinder the growth of micro-organisms as a whole, although it does repress the putrefactive ones and interferes with the digestive functions"; and "I consider the occurrence of putrefaction to be a good indicator of when the number of other bacteria is assuming dangerous proportions, and to repress their growth in an article like milk is like sitting on the safety valve of a steam engine."—I am, etc.,

Leeds. A. S. GRÜNBAUM.

PALAEOGENESIS.

SIR,—Sir Jonathan Hutchinson, in his article "Palaeogenesis as Explanatory of Certain Forms of Disease," offers an interesting explanation of the condition known as "leucoderma colli."

In the BRITISH MEDICAL JOURNAL of February 7th, 1903, I tried to explain on similar lines the nature of "intestinal sand" and gout.

With a kindly courtesy which is characteristic, Sir Jonathan ends his article by saying, "I shall be thankful for suggestions and criticism." Instead of criticism, may I give expression to the admiration we all feel for this great and grand old man? He has spent a long life ever adding to the sum of human knowledge. And now, instead of taking a well earned rest, he is still piling up the debt which the scientific world owes him.—I am, etc.,

Kensington, W. J. MCNAMARA, M.D.

THE MEDICAL COMMISSIONER OF PRISONS.

SIR,—With reference to your article on the Prison Commission in your last issue, I beg to be allowed to state the following facts.

On the occasion of my retirement from the office of Commissioner of Prisons I had the honour to be asked by the Home Secretary whether I would continue my services, in so far as they were of a medical nature, for a term of five years. On my acceptance of this proposal Lord Gladstone appointed me Medical Adviser to the Prison Commissioners, and also Director of Convict Prisons, with a seat and voice at the Prisons Board such as I had ever since my first appointment as Commissioner.

The medical work which now devolves upon me is same, both in nature and quantity, as that which I always carried out hitherto. It occupied in the past a one-sixth of the time I devoted to my official duties. occupies at present about two half-days a week, bes causing a fluctuating amount of correspondence. Ha now, however, more time at my own disposal, I am to give voluntarily more attention to any impor general question that may arise, affecting the medical of prison work.—I am, etc.,

London, W., May 2nd. H. B. DONKI

*** In Parliamentary Notes last week, p. 1076, it stated that Sir Henry Craik had a question on the pape April 25th, but, in view of the fact that a discussion on matter had already taken place, he withdrew it; the Ho Secretary, nevertheless, desired to reply, but was ruled of order by the Speaker. We are informed that the ans which the Home Secretary desired to give was as follo

I am informed that the minute in question was fully sidered by my right hon. friend. I cannot do better than its full terms to the House: "On the passing of the Prisons of 1898 through the House of Commons I was urged to ac an amendment to the effect that one of the Prison C missioners should always be a medical man. I resisted this the ground that it was not desirable to tie the hands of Secretary of State. But I gave an undertaking that I woul some way strengthen the medical element in prison adminis tion. There being a vacancy in the summer of 1898 on Prison Board I decided to take the opportunity of fulfil this promise by appointing Dr. Donkin to it. But I de to place upon record that it was not my intention to fe the action of any of my successors, it being conceiva that there might be possibly as effective, or even m effective, a method of carrying out the pledge which I g to the House of Commons in some other way. I entirely ag with the object in view.—M. W. Ridley." Lord Gladstone, wh interest in prison questions is well known and who was ch man of the committee from which the proposal origina emanated, was not likely to overlook this matter. When time came for Dr. Donkin's retirement from his commissio ship he arranged to retain him in a new position in which is relieved from his former heavy administrative duties, an able to devote himself to medical questions; and in this w the medical influence in the prison administration is ma tained and strengthened. Dr. Donkin's retirement would h been a very severe loss to the medical side of the prisons; under Lord Gladstone's arrangement he remains in the positi of medical adviser and director of convict prisons, and he present at all meetings of the Prison Board, and has an eq voice in all its decisions. Having thus carried further t policy embodied in the minute quoted above, Lord Gladsto was able to meet the enormous increase of administrati duties falling on the Prison Commissioners by appointing the vacancy a man who is a conspicuously able administrat and one specially qualified by his previous experience abilities for carrying on the work of prison reform.

VOLUNTARY MEDICAL ATTENDANCE ON PAUPERS.

SIR,—It has occasionally happened with me, as doub less it has happened with many of our members, that son patients, formerly able to pay ordinary fees, have unfo tunately fallen into poverty, and been at length unwillingl forced to seek relief from the board of guardians. After time sickness supervenes, and because of old associatio the poor fellow desires his old doctor to attend him. Fo the same reason that old doctor, unwilling to forsake hi old patient, may perhaps be still willing to do his best t help or ease, even though there may be little or no prospec of ever being paid for such services.

Up to quite recently I assumed that if the docto was thus willing it was a matter for him alone. A fe weeks ago, however, in such a case as this I receive quite a shock. On going to see the patient, his daughte who had been before the guardians the previous night said that she had been told to inform me that the paris doctor *must* attend her father if he was ill. Here was pretty pass. I was at liberty to give the poor man ha a crown, but I must not give him that which he esteeme more highly, my professional help or skill. To make sur that she was reporting the statement correctly I wrote t

[1] BRITISH MEDICAL JOURNAL, 1900, ii, p. 425.

guardian to inquire if she was correct. In a reply by r he admitted the correctness, and affirmed its racy.

submission to such a ruling meant to the poor ont a hateful obligation and the severance of an old dship, and meant the assumption of an authority medical practice which was quite new to me, I laid case before the Local Government Board and asked heir ruling in the matter.

have received the following reply:

Local Government Board,
Whitehall, S.W.,
April 28th, 1910.

,—I am directed by the Local Government Board to advert our letter of the 4th instant, and in reply to state that st there is nothing to prevent an outdoor pauper receiving uitous medical attendance, or charity in any other form, guardians are bound to take into consideration all such urces in deciding whether relief is required or should be inued.

am to add that the Board are sending a copy of this corre- idence to the Guardians of the Oldham Union for their rmation.

I am, Sir,
Your obedient servant,
(Signed) J. S. DAVY,
Assistant Secretary.

J. H. Holt, Esq., M.B.

s is, of course, perfectly satisfactory to me. As it ears to be a ruling not hitherto made public, it l perhaps be of interest to many of our members.

am, etc.,

JOS. J. H. HOLT, M.B., Ch.B., D.P.H.

iddleton, Lancs., May 3rd.

CONSULTANT, GENERAL PRACTITIONER, OR HALF-AND-HALF?

SIR,—I hope you do not share "Est Modus in Rebus's" r that this correspondence runs any risk of doing harm 'amicable professional relationship." The more we can derstand each other's points of view the better it will for everybody; and if your correspondents give each ier some hard knocks in the process of extracting these ws, this will add, let us hope, to the interest of your aders.

"Est Modus in Rebus" appears to think that my ntribution to this controversy is likely to lead to eater friction because I could bring myself to ask a ocking question, which he quotes. I could hardly pect "Est Modus in Rebus" to quote all my questions, they were fourteen in number; but to quote this rticular one without its context is perhaps misleading. y questions were merely designed to extract the point view of a class of practitioners whose methods "Est odus in Rebus" was defending, and the questions viously inferred nothing as to anybody's "sense of nical honour." My inferences were, I hoped, going to drawn from the answers received. Later, if you will low me, I should like to set down some inferences due order. Hitherto "Est Modus in Rebus" has ly answered one question, and to this answer I ferred in my last letter. This week he quotes another my questions without answering it, in order to show w little I comprehend the situation. By re-reading d collating "Est Modus in Rebus's" various letters fancy I am arriving at a comprehension of, at any rate, me of his points of view, although I am not quite sure at they are always consistent.

In his last letter "Est Modus in Rebus" says: "I have ready emphasized the fact that under no circumstances an a consultant undertake the independent treatment of patient for any complaint which at the time is being eated by another man." I suppose by "can" is meant should," for it is part of our contention, which can ardly be challenged, that this calamity for all parties oes actually occur under existing circumstances. Even o, special provision seems here made for two doctors ndependently treating the same patient, provided ney are not treating the same complaint. It would e interesting to know whether it is intended under this estriction to allow the consultant independently to treat a omplaint which he had reason to believe the other doctor as not really treating because of an erroneous diagnosis. or example, if a patient tells the consultant that his octor is treating him for rheumatism and it transpires that the real disease is gout, may the consultant undertake the independent treatment of the gout on the ground that this complaint is not at the time being treated by anybody else? Seriously, I suppose the special wording of this great principle of practice is to allow of the possibility of a specialist undertaking the independent treatment of one part of a man or woman while the general practitioner is, in blissful unconsciousness of the fact, treating another. A most undesirable proceeding, one would think.

Later on "Est Modus in Rebus" goes on to say, "I simply maintain that any consultant or specialist has the right to see and treat any 'free' patient who consults him."

Surely, "Est Modus in Rebus" has forgotten that so recently as March 5th, when he first joined in this controversy, he quoted with approval, and indicated that he was himself always guided by the advice of a foremost physician of the day, who told him "that he should avoid asking the name of any doctor who had attended the patient previously."

I am almost afraid to, but I should like to ask "Est Modus in Rebus" one more question: "Is not this reticence in inquiring as to the doctor who had previously attended the patient dictated by the fear that such inquiries might reveal the fact that the patient is not *free*?" If the answer to this is, as they say in Parliament, in the negative, I should like to ask "Est Modus in Rebus," Why, then, this avoidance?—I am, etc.,

May 2nd. PROFESSIONAL UNION.

SURGICAL INSTRUMENTS: A DISCLAIMER.

SIR,—In the *Lancet* of October 12th, 1907, p. 1011 et seq., an article was published on a surgical instrument, types of which have been in universal use for some thirty years or more. The article dealt with my attempt to construct an instrument which should combine the advantages of most of the types then in use. Although the matter is an experimental one, and consequently certain small but essential measurements in my instrument have since been altered, chiefly at the representation of friends, the main type remains the same, and the original makers (A) have now stamped its measurements and design for purposes of reproduction by means of certain bosses and templets in their possession. In the experimental stages of the work they devoted much time, skill, patience and money to the subject, for which they might reasonably expect some return. Now the originator of any instrument in surgery does not by the etiquette of his profession patent his invention, neither does he make a penny out of it. He places it at the disposal of the profession, and if they back him up in the matter, as to a large extent they do and as I think they should do, they will insist on having the actual article made by the original maker, thereby enabling him to recoup himself. Unless this is done there is no incentive to progress, because it is a losing game from the instrument maker's point of view. At the same time it is recognized that the surgeon should not advertise the firm of instrument makers. The question arises, Can the originator's name under these circumstances be regarded as a trade description or can it not? If the design is registered or patented I believe it can, and as such it could be infringed, but if not, I believe, strictly speaking, it cannot.

It has come to my knowledge that recently another large and respected firm of instrument makers (B) have sent a traveller round the West of England, and doubtless by now to other districts too, showing an instrument with my name attached to it as a trade description. I have examined and measured this pattern of instrument. In the main essential it is 66 per cent. wrong, and this affects two other important factors in the design to the extent of 40 per cent. and 20 per cent. respectively. In one other essential particular it is radically wrong and in five others partially so. In general finish and in several small details it differs from the original. The price is 30 per cent. less. This firm is not the only one which has "pirated" in this manner. At least one other firm (C) has produced an imitation—in fact a much better one of my instrument—that they sell at half the price of the original pattern. Towards the end of last year I wrote to this firm and said that if they sold the instrument as my design they must take steps to guarantee its being exact in every particular,

otherwise my name must be omitted from all their descriptions. They replied that they would omit my name from their catalogue and advertisements. I also said that in any case I would on no consideration whatever authorize more than one firm as a manufacturer of any instrument designed by me.

That a great injustice is done to at least two parties by this state of affairs is clear. The question arises as to whether it can be remedied. If the instrument makers themselves would agree to be agents for one another I believe there would not be any great difficulty. Incidentally I must dissociate myself entirely from any responsibility as to design, measurement, material or method of manufacture in the case of any instrument or appliance bearing my name unless it is made by the firm which I may employ in the first instance. Inasmuch as a scheme is now being tested which, if the results are good, will be worked up into a practical form, I am anxious that this question should be raised and if possible fully ventilated.

This letter is entirely disinterested.—I am, etc.,

April 28th. G. H. COLT.

Public Health AND POOR LAW MEDICAL SERVICES.

POOR LAW MEDICAL OFFICERS' ASSOCIATION OF ENGLAND AND WALES.

A COUNCIL meeting of this association was held at 34, Copthall Avenue, E.C., on April 28th.

There were present: Surgeon-General Evatt (President), Dr. Balding (Royston), Dr. Drury (Halifax), Dr. Holder (Hull), Dr. Gidley Moore (Ongar), Dr. Napper (Cranleigh), Dr. Toogood (London), Dr. Withers Green (London).

The Honorary Secretary said that Dr. Drury had arranged for the annual meeting of the association to take place at Halifax on June 29th. The Mayor of Halifax would open the conference at the Town Hall, the Mayor and Mayoress would entertain the members at afternoon tea, and had accepted the invitation of the association to the annual dinner in the evening. The council decided that invitations should be sent to all members of the Poor Law Medical Service in England and Wales.

The Honorary Secretary reported that the answers to the questions submitted to the outdoor Poor Law Medical Service had been analysed by himself and Dr. Withers Green, with the following results:

1. *Are you in favour of the abolition of boards of guardians throughout England and Wales?*—To this question 37 per cent. of the answers were in the affirmative and 59 per cent. in the negative.

2. *What authority would you propose to set up?*—To this question 12 per cent. of the answers were in favour of an *ad hoc* authority, 22 per cent. for a statutory committee of the county council, and only 3 per cent. in favour of the abolition of any special Poor Law authority. N.B.—Only the answers of those who wished for the abolition of the guardians were counted with regard to this question.

3. *Should any difference be made between medical and other public relief, beyond the disenfranchisement in the case of the former?*—71 per cent. of the answers were in the negative, 8 per cent. in the affirmative.

4. *Should there be any "test" or "deterrent," such as the present medical order, to regulate the granting of medical relief to poor applicants? Or should the latter be permitted to claim public assistance subject to no other liability than having to pay the cost of the same if proved to be in a position to do so?*—83 per cent. were in favour of a test, 11 per cent. opposed to it.

5. *Are you in favour of a public assistance medical scheme based on provident dispensaries, subsidised by the State, and contract practice generally?*—83 per cent. of the answers were opposed to this, and 12 per cent. in favour.

6. *Are you in favour of a public medical service based on an amalgamation of the present Poor Law medical service with the sanitary medical service?*—60 per cent. were opposed to this, and 33 per cent. in favour.

7. *Do you approve of the district medical officer being made relieving officer, so far as medical relief is concerned?*—76 per cent. opposed to it; 22 per cent. in favour.

8. *Are you in favour of "whole-time" or "part-time" appointments in any reformed public assistance medical service?*—17 per cent. were in favour of "whole-time" appointments; 71 per cent. were in favour of "part-time" appointments.

9. *Are you in favour of a reform of the present Poor Law system, or would you prefer a "break-up"?*—11 per cent. in favour of a "break-up"; 82 per cent. in favour of a "reform."

10. *Do you think that a "unified medical service" that attended to all poor applicants, with no other test or deterrent than the liability to be compelled later to pay the cost, would or would not be dangerous to the interests of all general practitioners in poor districts?*—Answers in the affirmative were 90 per cent.; in the negative 6 per cent.

This analysis was approved by the Council, and it decided that resolutions framed on these answers should submitted to the general meeting at Halifax in June, an carried there, should again be brought forward for confirma at the meeting in London during the British Medical Asso tion week in July next.

PRESERVATION OF BODIES IN MORTUARIES.

ALTHOUGH the Local Government Board has power, un Section 141 of the Public Health Act, 1875, to require a l authority to provide a public mortuary, there is a serious l of these buildings in many parts of England and Wales. E where they are provided, little care has been taken in m instances to secure freedom from objectionable or dangerous features, though in some parts of London and many large towns suitably arranged and well-fitted mortua have been provided, and in the City of London Mortuary Golden Lane there has been installed an apparatus for serving bodies. It was designed by Dr. G. de Richter, of Public Health Department of the city of Brussels, and cons of an oblong iron box, a portion of the top and sides be glazed. The body rests upon a wire litter. Beneath the b is a second chamber, in which are placed linen cloths, autom cally kept moist with a saturated solution of formic aldehy The formaldehyde vapour is propelled into the upper cham and is kept in circulation by fans worked by a small elec motor. The Medical Officer of Health (Dr. W. Collingrid reported last year that the body of an unknown man who l been drowned was brought to the City Mortuary on March 10 when a *post-mortem* examination was made; a week later it w placed in the apparatus, where it remained for seven wee It was then removed to the mortuary, and was for many wee in perfect condition for identification. The highest record temperature during the later period was 73° F. Some su method as that described for the preservation of dead bod should be available in the mortuary of every large town.

NOTIFICATION BY MEDICAL OFFICER OF HEALTH

M.O.H.—(1) When a medical officer of health attends or called in to a patient suffering from a notifiable infectio disease he is entitled to the statutory fee of 1s. or 2s. 6d., ev though the certificate of notification is sent to himself medical officer of health. (2) When a medical officer health sees a patient of another medical practitioner wit view to ascertaining whether a suspected case is notifiab and it is considered to be notifiable, the medical officer health is entitled to a fee for notifying the case to himse but we believe that it is not the custom for medical officers health to claim a fee under such circumstances. (3) Wh a medical officer of health, on the request of the inspect of nuisances, or of a school teacher, or of a ratepayer, se a patient with a view to deciding whether the patient suffering from a notifiable disease, the medical officer health is entitled to the statutory fee in the event of h notifying the case. Some medical officers of health clai a fee in the circumstances narrated; others do not ma any claim.

CERTIFICATION OF LUNATICS FOR ASYLUM.

M.O. asks whether, in the event of one of his private patien becoming insane and fit for an asylum, it is *necessary* for suc patient (who, not being a pauper, will yet be unable to pa the full charges of the asylum) to be certified by the distri medical officer, as, if so, he considers such necessity place the medical attendant in a very invidious position.

*** In such cases as our correspondent describes it res with the magistrate who acts in the case to select the pra titioner to certify to the insanity of the patient and fitness f asylum; the magistrate may select either the district medic officer or any private medical practitioner.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

Degrees.

THE following degrees have been conferred:

M.D.—G. F. S. Bailey, Caius; H. C. Cameron, Joh.; A. H. Miller Trin.; W. O. Pitt, Emm.; J. L. Tuckett, Trin.

M.B., B.C.—L. Colledge, Caius; P. K. Gilroy, Selwyn; T. R. Glynn Clare; E. N. Russell, Trin.; R. Svensson, Caius.

B.C.—C. B. Heald, Caius.

Examinations.

The following candidates have been approved at the examina tions indicated:

D.P.H. (Both Parts).—J. H. Acheson, J. B. Alexander, W. Angus, G. A. Auden, M. N. Balsara, H. P. W. Barrow, Major R.A.M.C., C. H. Bowle-Evans, Major I.M.S., A. H. G. Burton, C. E. A. Coldicutt, C. H. Cox, Barbara M. Cunningham, J. F. D'Mello, H. H. B. Follit, T. H. Gloster, Captain I.M.S., F. A. L. Hammond, Major I.M.S., R. F. Johnson, A. T. Mackenzie, A. J. Malcolm, H. H. Marshall, A. T. Nankivell, W. K. Parbury, A. G. Peter B. A. I. Peters, G. H. Stewart, Captain I.M.S., A. E. Tanner O. K. Wright.

next examinations for the M.B., B.C. degrees will be held lows:

t M.B.—June 13th.
nd M.B.—June 13th.
d M.B., Part I.—June 16th.
d M.B., Part II.—June 21st.

UNIVERSITY OF LONDON.

KING'S COLLEGE.

Special Lectures in Physiology.

ORT course of lectures on the relationship of the brain to will be delivered by Professor F. W. Mott, F.R.S., in the ological Laboratory, King's College, on Monday after-, May 23rd, May 30th, and June 6th, at 4.30 p.m. The es are free to all members of King's College, all students dical schools, all internal students of the University, and dical men on presentation of their cards.

UNIVERSITY COLLEGE.

e first of a course of eight lectures on the chief animal and able pigments will be delivered by Dr. S. B. Schryver this Friday) in the Physiological Institute at 5 p.m., and will be nued on each Friday during May and June. The lectures pen to all students of the University, and also to all fied medical men.

UNIVERSITY OF SHEFFIELD.

Anatomical Department.

ALEXANDER WILSON, M.B., Ch.B.Aberd., has been inted Demonstrator in Anatomy, in succession to Mr. arrick Wilson, who has been appointed Tutor in Surgery.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

ordinary quarterly comitia was held at the College on sday, April 28th, the President, Sir Thomas Barlow, in the

Membership.

e following gentlemen were admitted Members of the ge: David Henriques de Souza, M.D.Lond., L.R.C.P.; nas Renton Elliott, M.D.Camb.; David Barty King, .Edin.; Henry Fairley Marris, L.R.C.P.; Geoffrey Eugene s, M.B.Lond.; Sydney Arthur Owen, M.B.Camb., L.R.C.P.; iam Trethowan Rowe, M.D.Lond., L.R.C.P.; Reginald ghan Solly, M.D.Lond., L.R.C.P.; Rawdon Augustus e, M.B.Lond., L.R.C.P.

Licence.

ne Licence of the College was granted to ninety gentlemen.

Fellowship.

n the nomination of the Council the following gentlemen e elected Fellows of the College: Otto Jackson Kauffmann, .Lond.; Charles Hubert Roberts, M.D.Lond.; Edward ur Saunders, M.B.Oxon.; Francis Edward Fremantle, .Oxon.; Robert Dawson Rudolph, M.D.Edin.; Lewis rt Smith, M.D.Lond.; Frederick Craven Moore, M.D.Vict.; n Charlton Briscoe, M.D.Lond.; David Forsyth, M.D.Lond.; iam Henry Willcox, M D.Lond.; Arthur Frederick Hertz, .Oxon.; Conrad Meredyth Hinds Howell, M.D.Oxon.

Communications.

ne following communications were received: (1) From the etary of the Royal College of Surgeons reporting proceed- of the Council on April 14th. (2) From the Clerk to the stees of the London Parochial Charities, dated April 7th, erning the appointment, on new terms, of a representative he College upon the Committee of Management of the sea Physic Garden. Sir William Allchin explained the ions of the College with the Garden, and showed how er the new scheme the College would have a representative n the Committee of Management, to serve for a term of years, instead of sharing a similar representation alter- ly with the Society of Apothecaries. He then moved:

at the altered scheme of the Charity Commissioners in respect to he Chelsea Physic Garden be approved, and its provisions given ffect to so far as relates to this College.

s was seconded by the Second Censor and carried.

Librarian.

n the nomination of the Library Committee, Dr. Norman re was elected Librarian of the College.

Reports.

ne following reports were received:

From the Committee of Management, dated March 22nd, ing: (*a*) "The Committee of Management have considered recommendations of the General Medical Council which e referred to them by the Royal Colleges, and particularly recommendation which relates to a compulsory interval of years between the second and the final examinations. The mittee beg to point out that the Regulations of the Conjoint rd have, since the establishment of the Conjoint scheme, uired an interval of two years between these examinations, but that in the Regulations the two years have been interpreted to mean two winter and two summer sessions." "In view of the Recommendations of the General Medical Council, the Committee of Management now recommend that the Regulation be altered so as to require an interval of twenty-four months between the two examinations." (*b*) "The committee also recommend that the Bedford College for Women, which has been visited by a member of the committee, be added to the list of institutions recognized by the Board for instruction in chemistry, physics, and biology." Both recommendations were adopted.

2. The quarterly report of the Finance Committee and the quarterly report of the Examiners for the Licence on the results of the January examinations were received.

Obituary.

CHARLES BAGGE PLOWRIGHT, M.D.,

CONSULTING SURGEON TO THE WEST NORFOLK AND LYNN HOSPITAL.

WE regret to record the death of Dr. C. B. Plowright, of King's Lynn, which took place on April 24th.

Charles Bagge Plowright was born at King's Lynn on April 3rd, 1849, and was apprenticed to the late Dr. John Lowe, Surgeon-Apothecary to the Prince of Wales and Surgeon to the West Norfolk and Lynn Hospital. As his apprentice Plowright in October, 1865, became a pupil of that institution; he afterwards studied at Anderson's College, Glasgow, and was a dresser under Professor Lister, who was then introducing the antiseptic system of treatment at the Royal Infirmary. Plowright took the diplomas of M.R.C.S.Eng. and L.R.C.P.Edin. in 1870, and after serving as House-Surgeon to the West Norfolk and Lynn Hospital he settled in practice in King's Lynn. He was appointed Medical Officer of Health for the Freebridge Lynn Rural District over thirty years ago, and in this capacity did much excellent work; his reports were admirable, complete, and suggestive. He was Surgeon to the West Norfolk and Lynn Hospital for many years, and was appointed Consulting Surgeon on ceasing to serve on the active staff. He was a magistrate for the borough of Lynn, and took a keen interest in education, being at one time a member of the Lynn Technical Education Committee and a director, afterwards vice-chairman, of the Girls' High School; he was also a governor of the Lynn Grammar School. Dr. Plowright had a high reputation as a skilful and careful surgeon, and had an extensive practice throughout West Norfolk, from which he only retired a few weeks ago.

It was, however, as an authority on fungi that Dr. Plowright was best known; his reputation on this subject was, indeed, European. He was a corresponding member of the Italian Cryptological and of the French Mycological Societies, as well as of the Scottish Cryptological Society. He began the study of the subject when a boy of 14 or 15 years, and while still house-surgeon published a treatise on *Sphaeriacei Britannici*. At various times he contributed numerous papers on his favourite subject, both to the botanical and the medical press. From 1890 to 1894 he was Professor of Comparative Anatomy in the Royal College of Surgeons of England, and a report of his course of lectures on the action of fungi on the human body was published in the BRITISH MEDICAL JOURNAL in 1893.

Plowright began by working on British field fungi, and in 1872 contributed a list of 800 Norfolk fungi to the Norfolk and Norwich Naturalists' Society, of which he was subsequently president. Later he was led on to the study of parasitic fungi producing disease in plants, a subject upon which he became an acknowledged authority. In 1891 he was the first to advocate the use in this country as a remedy against potato disease of the Bordeaux mixture then extensively used in France as a preventive of mildew on vines and tomatoes. In the previous year he had published a monograph on *The British Urideneae and Ustilagineae*. Dr. Plowright was also much interested in archaeology, and wrote papers on neolithic man in West Norfolk, on native dye plants used by our ancestors, on the archaeology of woad and the process by which its blue colour was extracted, and on the origin of the apothecaries' symbols for the scruple, drachm, and ounce. He made an interesting collection of neolithic and palaeolithic implements, which he presented to the

Lynn Museum. He also made a very extensive collection of *Pyrenomycetes*, which, with the rest of his herbarium, has been acquired by the Birmingham University.

Dr. Plowright was a man of whom the profession of this country may well be proud. A thoroughly competent and skilful practitioner of medicine, he brought to the study of his favourite department of science—a department which touches animal pathology at many points—the all-important qualities of perseverance, exactness, and insight. He had a true conception of the functions and responsibilities of science, and dreaded slapdash slipshod work; indeed, it may be said with truth that the modest estimate he put on his own researches stood in the way of the recognition he deserved, and it might have been well for the cause of science itself had he been a little less modest and more insistent. However this may be, he was a man for whose scientific temper of mind every one who had even had a slight acquaintance with him must have conceived the highest respect.

Dr. Plowright leaves a widow, a son who is now surgeon to the West Norfolk and Lynn Hospital, and a daughter who is the wife of Mr. T. Petch, Mycologist to the Government of Ceylon. The funeral took place at North Wootton Parish Churchyard on April 27th, and was attended by, among others, the Mayor of Lynn, the Chairman and other representatives of the Lynn, Downham, and Freebridge Lynn Boards of Guardians, and of the Lynn Education Committee, and by numerous friends.

FRANCIS R. S. GAMAN, M.R.C.S., L.R.C.P.,

CAISTOR.

IT is with much regret we announce the death of Dr. Francis R. S. Gaman, on April 9th.

He was the third son of the late Dr. J. Gaman of Hambledon, Hampshire. Left an orphan at a very early age, he was elected a Foundation Scholar of Epsom College, and eventually he won a six years' Scholarship at University College, London. He obtained the diplomas of M.R.C.S. and L.R.C.P. in 1894. After acting as assistant to the late Dr. Cameron of Caistor, Lincolnshire, he took over his practice in 1898. In the same year he was appointed Medical Officer of Health to the Caistor Council, and Medical Officer to the Workhouse and No. 1 District.

During his fourteen years' residence in Caistor, Dr. Gaman, who was a member of the British Medical Association, by his geniality, good fellowship, and devotion to his professional duties, had endeared himself to everyone who knew him, and was one of the most popular and beloved men in the neighbourhood. He was a staunch Churchman, being at the time of his death acting warden and a member of the church choir. He was a true friend of the poor, by whom he is much missed. He was captain of the Caistor Cricket Club, and joined in all the local recreation sports. As a Conservative he took much interest in politics, and was vice-president of the Caistor Unionist Association. Besides the appointments mentioned, he was surgeon to the Great Central Railway officials, the Post Office, the police, the Druids Lodge, and several others. He was associated with every good movement in the town, and had a wonderful influence for good, especially with young people. Six weeks previous to his death he was apparently in the best of health; but having felt symptoms of some internal complaint, he consulted specialists, who advised an operation. He faced the ordeal bravely, and was bright and cheerful to the end, without a word of complaint. He went to London and a preliminary operation was performed, from which he made an excellent recovery; but the second operation proving far more serious than was anticipated, he gradually sank and died five days later. No more fitting tribute to his memory could possibly have been paid than was shown by the attendance at his funeral on April 13th at Clixby, Caistor. All business was suspended in the town, and the esteem in which he was held was evidenced by the universal sorrow at the loss of a true friend and citizen who had passed away in the prime of his life at the age of 40. Much sympathy is felt for his widow and four young children—three daughters, and one son just a year old.

DR. ALONZO HENRY STOCKER died on April 24th at residence, Craigweil Aldwick, Sussex, in his 81st y Dr. Stocker, who was for many years one of the known specialists in lunacy, held the following qu fications: M.D. St. Andrews 1855, M.R.C.S.Eng. 1 M.R.C.P.Lond. 1862, and L.S.A. 1851. He had a dis guished career at the London Hospital, where, a student, he won the gold medals for surgery, midwif chemistry, anatomy and physiology, materia medica therapeutics, and also the silver prize (senior prize) botany and forensic medicine. He was awarded the honorary certificate for medicine, and the surgical medal presented by the governors of the London Hosp for attention to the patients of that institution. He won the second prize in botany awarded by the Apot caries' Society of London. In 1852, at the age of 22 became medical superintendent of Grove Hall Asyl Bow, at that time the largest private asylum in country. Later he became proprietor of Peckham Ho Peckham, and Northumberland House, Finsbury P He was a life governor of Bethlem Royal Hospital, a member of many medical societies. He retired fr active work about ten years ago.

DEATHS IN THE PROFESSION ABROAD.—Among members of the medical profession in foreign count who have recently died are M. Nestor Gréhaut, Profes of General Physiology in the Museum of Natural Histo member of the Academy of Medicine, and author numerous writings on the poisons of the air, the ga of the blood, carbon oxide, alcoholism, etc.; Dr. He Ricard, representative of the Côte d'Or in the Fre Senate; Dr. C. Botez, Professor of Surgical Pathol in the Medical Faculty of Jassy; and M. Jules Hennequ a well-known surgeon of Paris.

Medico-Legal.

WORKMEN'S COMPENSATION.

Medical Referees as Witnesses.

IN the *East Anglian Evening Star* there is a report of a c under the Workmen's Compensation Act which is interesti The report states that an employer applied to the county co at Woodbridge for a reduction of a compensation order made consent in the case of a man who some time previously "strai the muscles on the side of his back" when lifting sacks of c into a wagon. Compensation at the rate of 7s. 6d. a week paid from January 1st, 1909, and the employer sought relief the ground that the man was not now incapacitated for wo Counsel for the employer called a medical witness, who sta that he could not find any evidence of injury; if there was incapacity it was due to the respondent's age (59); at this ti of life injury was likely to be more difficult to detect and ta longer to cure. For the respondent three medical men w called, who testified that the man was not able to do f labourer's work; though there were no definite objective sig they were strongly of opinion that the case was a genuine o His Honour referred to the difficulty he was in having regard the fact that the medical witness for the employer was also medical referee; as he had given evidence in the case, the co was deprived of his services as referee. Counsel for respond argued that no case had been made out for altering t allowance.

A hasty reading of the learned judge's remarks on lo practitioners might lead to the conclusion that they contain some animadversions on these gentlemen, but the fact that H Honour decided to send the case to a medical referee shows th their opinions were given just consideration. As to the propri of medical referees giving evidence, it may be observed that would be very difficult for the holders of these appointmen who are usually in active practice, to avoid giving evidence court. Inconvenience is rarely caused by this, as there a generally several medical referees attached to each county co district; in addition, the regulations made by the Secretary State apparently contemplate special circumstances und which referees outside the district may be called upon to a The emoluments of these posts are so insignificant that there no inducement for men to refuse cases merely because th are likely to be the subject of an arbitration under the A In cases where the medical referee has given evidence as ordinary medical witness it is, we believe, the usual practice f the judge specifically to exclude that particular referee when has determined to make a reference.

THE second International Conference for the Study Cancer will be held in Paris this year from October 1 to the 5th. Communications relative to the conferen should be addressed to Dr. Ledoux-Lebard, 22, R Clément Marot, Paris. In the matter of official languag the congress will conform to the rules of internation congresses.

Medical News.

E dinner of the Royal Sanitary Institute will be held e Langham Hotel, Portland Place, W., on May 25th, or 7.30 p.m.

E French Minister of Justice has introduced into the ıber of Deputies a law, to be enforced by severe ties, against procuring, or inciting to procure ion.

E friends and patients of Dr. Barclay, of Granton-on- have presented him with a handsome four-cylinder r car, together with a cheque for £250. At the same Mrs. Barclay was presented with a silver salver.

a dinner in aid of the Royal Blind Pension Society on 26th, it was stated that there were now 1,315 pen- rs on the books, of whom some 500 were above 60 of age, while 49 were 80 years old and upwards, and ed 94. The latter had been in receipt of a pension rty-six years.

has been proposed to found a guild for members of ıedical profession in this country somewhat on the of the French Société de St. Luc, St. Côme et)amien. Gentlemen in sympathy with the idea are l to communicate with Surgeon-General Maunsell, roughton Road, Thornton Heath, Surrey.

E Secretary of State for the Colonies has approved proposal that in future the Principal Civil Medical r of Ceylon shall be an official member of the Legis- e Council. The late Sir W. R. Kynsey, C.M.G., acted ıe time as an official member, the late Drs. P. D. onisz and W. G. Rockwood were unofficial members ve and nine years respectively, and Dr. W. G. Vandort ın unofficial member recently for a short period.

a meeting of the council of the Association of Medical rs of Health, the treasurer (Dr. Gibb Smith) reported many new members had joined, and it was resolved commend those members who were also members of British Medical Association to take steps to arrange the Representative of the Division to which each ıged should support the motion of which notice has given by the Salford Division as to "medical intments in public medical services in general" PLEMENT, April 23rd, 1910, p. 174).

IE foundation stone of the Barnato Memorial Hospital onnexion with the Cancer Charity of the Middlesex pital is to be laid by the Princess of Wales on July 14th. ır the ground has only been cleared, and a building ract has not been given out, but plans for a red brick ling in Renaissance style have been passed, and it is cipated that ample progress will have been made re the date mentioned. Of the £250,000 available, one- is to be spent on building, and the rest invested as an wment.

a meeting of the Royal Society on April 28th Professor le Vincent read a paper on the chromophil tissues and adrenal medulla. He gave an account of the gross omy and histology of the chromophil tissues in ımals, and especially in the dog. Descriptions and ings of the groups of cells in the sympathetic ganglia of the chromophil bodies in other regions were fur- d, and comparisons were made between their ture and that of the adrenal medulla. An extract of abdominal chromophil body of the dog had precisely ame powerful effect upon the blood pressure as an act made from the medulla of the adrenal. There ıed no reason why the hypothesis that all the chromo- cells had an internal secretion might not be admitted, gh this process was more completely elaborated in the r chromophil bodies and in the adrenal medulla.

extra dinner of the Brussels Medical Graduates' ciation was held at the Trocadero Restaurant on 29th, and was attended by thirty-three members and guests. The President (Dr. Paramore), in giving the t of "The Visitors," referred to the work which had carried out by Dr. Griffith when President of the ical Defence Union, coupling with the toast also the es of Dr. Ogle and Dr. Wickham. Dr. Griffith, in onding, said that he was frequently called upon to trate in disputes which occurred in difficult cases in country, and, as a rule, with success. The toast of ıe Brussels Medical Graduates' Association" was pro- d by Dr. Ogle. In responding, Dr. Arthur Haydon, Honorary Secretary, said that this dinner had been nized in order to consider plans for holding the annual ting and dinner this year at Brussels in the Brussels ibition of 1910, probably in August, when Professor Rommelaere, the president of the university, would be invited to meet the British graduates. There were now about 800 British graduates of the University of Brussels in all parts of the world, and the number was steadily increasing. An annual meeting in Brussels would no doubt draw the attention of His Majesty the King of the Belgians to the existence of this association and the work it was doing for the university; as Her Majesty the Queen of the Belgians was a lady doctor it might hope that Their Majesties would become patrons of the association. As a result of his visit to Brussels last year to advocate certain reforms with regard to the admission of certain candidates for the degree, all these had since been carried out by the university. The number of colonial and foreign members was increasing rapidly. Dr. Wickham proposed the health of "The President," who suitably responded.

THE proposal to provide a working-class sanatorium for Middlesex appears to be making satisfactory progress. The suggestion is that the buildings should be of simple character and that the total cost should not exceed £100 a bed. The cost of maintenance, it is estimated, should not be more than 25s. weekly for each patient, and only those would be admitted whose maintenance is guaranteed either privately or by local authorities or other bodies. Sir R. Douglas Powell, in an address at a recent meeting in favour of the scheme, expressed his approval of the suggestion that the cost should not be over £100 a bed, and that those admitted should not be paupers; these should be dealt with by the Poor Law, the sanatorium should be for workmen, and there should be no element of charity. There should be a wing for advanced cases which too often had insufficient care, skill, and help given to them. Arrangements must also be made for the care of the wives and families of working men when the wage earner was being treated in sanatoriums. To this end the working class should be induced to take their share in the expenses. To cope with the ravages of phthisis in England and to provide four months' treatment for each patient 20,000 beds were necessary; this would involve a capital expense of something like a quarter of a million, while the annual cost of keeping the patients and allowing £1 a week to their families would be another quarter of a million. By co-ordinating various funds that were wasted annually it should be possible to treat the working man and provide his family with funds. Hundreds of thousands of pounds were frittered away by benefit societies and sick funds, and if these could be saved and devoted to the end which the meeting had in view great good would be done. Several large contributions towards the scheme have been promised, but it is proposed to endeavour to collect the main portion of the sum necessary by 5s. subscriptions.

THE forty-second annual banquet of the French Hospital was held at the Hotel Cecil on March 30th, under the presidency of M. Paul Cambon, the French Ambassador. He was supported by many members of the Corps Diplomatique, by the two Sheriffs of the City of London—the Lord Mayor was unfortunately unable to be present—by almost all of the members of the medical staff, and about 280 subscribers. The treasurer announced subscriptions to the amount of £3,700. Since the last annual banquet a new wing has been added and the interior of the whole hospital has been greatly improved. A new operating theatre has been constructed, with the addition of a room for the administration of anaesthetics, and another room for the sterilization of the surgical instruments. The corridors and staircases have all been lined with white tiles and the wards have been thoroughly brought up to date. Altogether about £5,000 has been spent, and the committee and staff are to be congratulated upon the way in which the work has been carried out. The hospital in London, together with its convalescent home at Brighton, which contains seventy beds, is a striking monument to the sympathy which exists between the two nations. After the toasts of "The President of the French Republic" and "The King" had been duly honoured, the Ambassador proposed the toast of "The Corps Diplomatique, the Sheriffs of the City of London, and the Medical Staff." In referring to the founders of the hospital, His Excellency spoke in feeling and sympathetic terms of the work done by the late Dr. Vintras. Dr. George Ogilvie, the senior physician, who spoke in French, replied on behalf of his colleagues. After referring to the additions and improvements in the hospital, he went on to express his conviction that the doctor must not only have knowledge of his art, but sympathy with the patient he has to treat. The motto of the French Hospital was "Caritas et patria." Dr. Ogilvie concluded by saying he was confident that the good feeling which existed between France and Great Britain would increase and last long after the present generation has passed away.

Letters, Notes, and Answers.

BRITISH MEDICAL ASSOCIATION AND BRITISH MEDICAL JOURNAL.

THE offices of the British Medical Association and of the BRITISH MEDICAL JOURNAL are at 429, Strand, London.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

F. C. H. asks for suggestions in the treatment of a case of what is apparently Dupuytren's contraction in a child aged 2½ years. The onset was noticed by the parents soon after birth. It chiefly affects the little and ring fingers of each hand; on the dorsum of each wrist-joint is also a small swelling of recent origin of the nature of a ganglion. The child is typically healthy in all other respects, and no treatment of any kind has been as yet tried. The degree of flexion is becoming extreme, and complete passive extension cannot be brought about.

ANSWERS.

THE DRUG HABIT: TOBACCO.

L.R.C.S. writes in answer to "M. Y. S." (p. 1091): The patient's condition seems to require the same treatment as that for morphine and other drug habits—that is, weaning from tobacco, such remedies being given during the process as will mitigate to a very large extent the suffering or discomfort involved in the weaning. The causes of the crave or discomfort are, I imagine, almost identical, but not so marked generally as in the morphine crave, namely, cardiac depression, following a general nerve irritability and depression, indigestion from hyperacidity, and restlessness. These can be best met by a mixture of digitalis and strychnine every three hours and a full dose of sodium bicarbonate in hot water an hour before meals, while the tobacco consumption is gradually being reduced. Turkish baths will be of value to remove restlessness and promote sleep. The bowels should be regulated by the use of Hunyadi Janos or some other mineral water taken fasting, and the diet should be light, nourishing, and easily digestible. If the reduction of the tobacco can be carried out under control, the patient should recover without much discomfort by means of this assistance. I very much doubt the patient's having strength of mind to carry out the reduction, however, unless his tobacco is to some extent under control. Hypnotic suggestion would probably be found valuable, and would without doubt be so in preventing relapse after the weaning process is completed.

DR. W. HICKEY (Altrincham) writes: I recommend "M. Y. S." to try a daily limited "close-time." For instance, in the daily twenty-four hours he must not smoke at all during the single hour following 12, 3, 6, and 9 o'clock. He thus precludes himself from tobacco for one-third of the day. At any other time he may have his smoke, but half-an-hour must elapse before each pipeful. Allowing twelve hours for sleep, meals, and outdoor exercise, he thus limits himself to the soothing pleasures of "Lady Nicotine" during four hours daily; and as half an hour must elapse before his second pipeful he absolutely limits himself to eight pipes a dey. I should think his depression is temperamental rather than toxaemic, and therefore a limited indulgence would be beneficial despite the unreasonable croakings of the anti-everything brigade.

DR. R. H. BLAIKIE (Edinburgh) writes to recall an annotation on the subject which appeared in the JOURNAL a few years ago. This described briefly a method recommended by a Russian practitioner, Dr. Kolomeitzeff, Assistant Physician to the Military Hospital, Kasan. It consisted in rinsing out the mouth with a ¼ per cent. solution of nitrate of silver after each pipe, cigar, or cigarette. The effect of a weak solution of this character on the mucous membrane of the mouth is quite innocuous in itself, but so far disturbs the power of appreciating the flavour of tobacco as to create, it is said, a complete, if temporary, distaste for smoking.

DR. J. STGEORGE WHITTY (South Kensington) writes: I had a similar case some years ago, which I treated with complete success by hypnotic suggestion. The suggestions to be made are that the desire to smoke no longer exists, that the taste and liking for tobacco have disappeared, and any attempt to smoke will cause nausea, which if persisted in will produce actual sickness Of course, before proceeding to make these suggestions care must be taken to ascertain that the patient is in a sufficiently deep state of hypnosis, so as to be responsive, and unconscious in the waking state of what passed while in the trance.

TREATMENT OF ULCERATIVE COLITIS.

DR. H. J. THORP (Ipswich) writes: I would suggest abs rest in bed, a diet consisting practically of milk, and as d bismuth subnit. ʒss, pulv. Dover gr. v, t.d.s.

ASSOCIATION TESTS IN MENTAL DISEASE.

M.—The only comprehensive works of which we are av printed in English, dealing with association tests as ap in cases of mental disease, and with the psycho-ana method of Freud, Jung, and others, are: (1) *The Psych of Dementia Praecox*, by Dr. Jung, translated by Drs. Pet and Brill, and forming No. 3 of the Nervous and Mental ease Monograph Series (New York, 1909), and (2) *Sel Papers on Hysteria and other Psycho-Neuroses*, by Prof Freud, translated by Dr. Brill, forming No. 4 of the s series. The following brief papers might also be consu Freud's Theory of Dreams, by Dr. Ernest Jones (*Rev. of and Psychiat.*, March, 1910); a paper on Psycho-Phy Investigation with the Galvanometer and Pneumograp Normal and Insane Individuals, by Peterson and (*Brain*, July, 1907; see also leading article, BRI MEDICAL JOURNAL, October 26th, 1907, The Galvanon in the Study of Mental Disease); and a later contribu by Peterson, Experiments in Psycho-Galvanic Reac from Co-Conscious (Subconscious) Ideas in a Case of Mul Personality (*Journal of Abnor. Psychol.*, June–July, 1 The literature in German concerning association and Freud's psycho-analytic method is very considerabl

LETTERS, NOTES, ETC.

AN EXPLANATION.

DR. A. R. GUNN (Ullapool, Ross-shire) writes: During the week there has been appearing in the lay press a parag which relates a recent experience of mine while paying a fessional visit to the outlying parts of my practice. I hardly say that this paragraph, which contains some accuracies, was inserted entirely without my knowledge consent, and has caused me a great deal of pain and vexa Had the journey been undertaken with another moti would have passed without comment, or excited merely mildest local interest, and I feel very keenly that I shoul made the victim of an attempt to raise the comparati commonplace into the regions of the heroic.

MORTALITY FROM CONSUMPTION IN DUSTY TRADES.

B. S. writes: In two of the articles in the BRITISH MED JOURNAL of April 30th dust is condemned wholesale as ductive of pulmonary tuberculosis. I think a decided excep should be made in favour of lime dust. In my observations t breathing it habitually at limekilns are free from tube losis. A similar observation has been made in France Germany. In my opinion lime dust in abundant quan either by acting on the body or on the tubercle bacillus out the body, is antagonistic to tuberculosis. I would not ex to find lime dust figuring in Mr. Hoffman's statistics.

PALAEOGENESIS.

DR. A. W. GILCHRIST, M.D. (Nice), writes: In the BRI MEDICAL JOURNAL of July 24th, 1909, I made some allus to the presumably evolutionary influences so aptly design Palaeogenesis by Sir Jonathan Hutchinson (p. 980). I referring to the causation of cancer, and had occasion discussing regressive heredity to make the following rema "It tends to confirm the conception that general pathol as is currently held of the relations of ontogeny to phylo is an abridgement, so to speak, of aberrant phylogeny."

Sir Jonathan Hutchinson, in speaking of certain "pal genetic structural peculiarities," says that "the explana of these in reference to cause and distribution have hith been insoluble problems." It was precisely a sense of apparent insolubility that made me remark, in attemptin formulate a theory of etiology: "The conception is admitt speculative, but where else except in these evolution principles would we find so systematic an explanation apparently dissociated processes?"

Like Sir Jonathan Hutchinson, I also have contempl bringing the subject of remote ancestral inheritance to attention of the British Medical Association in London July.

SCALE OF CHARGES FOR ADVERTISEMENTS IN T BRITISH MEDICAL JOURNAL.

	£ s. d.
Eight lines and under	0 4 0
Each additional line	0 0 6
A whole column	2 13 4
A page	8 0 0

An average line contains six words.

All remittances by Post Office Orders must be made payabl the British Medical Association at the General Post Office Lon No responsibility will be accepted for any such remittance not safeguarded.

Advertisements should be delivered, addressed to the Mana 429, Strand, London, not later than the first post on Wednesday mor preceding publication, and, if not paid for at the time, shoul accompanied by a reference.

NOTE.—It is against the rules of the Post Office to receive po *Restante* letters addressed either in initials or numbers.

A Paper
ON
AUMATIC TUBERCULOSIS, TRAUMATIC PNEUMONIA, AND TRAUMATIC PLEURISY.*

F. PARKES WEBER, M.A., M.D., F.R.C.P.,
CIAN TO THE GERMAN HOSPITAL, LONDON; PHYSICIAN TO THE OUNT VERNON HOSPITAL FOR CHEST DISEASES, HAMPSTEAD; AND MEDICAL OFFICER TO THE NORTH BRITISH AND MERCANTILE INSURANCE COMPANY.

Traumatic Tuberculosis.

OLOGICALLY, it would doubtless be correct to assert many cases of local or disseminated tuberculosis in levelopment of which traumatism has been alleged to a more or less important part have not been examples traumatic tuberculosis" at all (the evolution of the se having been quite independent of, and unin-ced by, the trauma in question), and that all real umatic tuberculosis" (excepting that due to direct ilation—see later) may be explained as tuberculosis h, as the result of a trauma, has been converted from atent" case—that is to say, one in which symptoms r did not exist or were not noticed—into a case with cient symptoms to render a diagnosis possible.† ically, cases of alleged traumatic tuberculosis may be led into those due to direct inoculation from cuts, and those due to injuries by which tubercle bacilli d not have been introduced from without.

Traumatic Tuberculosis from Direct Inoculation.

xamples of this are nearly all superficial, and include rculous warts (lupus verrucosus), "necropsy tubercles," other forms of superficial tuberculosis, such as may be ired by pathologists and *post-mortem* room assistants aking necropsies on tuberculous subjects (as some of oubtless have had the opportunity of observing in our persons), and by butchers, etc., from tuberculous le. Similarly tuberculosis may be inoculated by the dental breaking of a glass or porcelain spittoon con-ing tuberculous sputum, if the latter contaminates the nds made by the sharp fragments of the broken sel. Some rare cases may be explained as an infection n the mouth of a tuberculous individual, who has either lied his lips to the wound or to the instruments or tures used at operations (tattooing, circumcision). h inoculation of wounds is, however, not what is erally meant by the term "traumatic tuberculosis," I do not propose to consider it further in this place.

Alleged Traumatic Tuberculosis due to Injuries by which Tubercle Bacilli could not have been Introduced from Without.

ases of this kind may be clinically divided into the owing three groups:

A) Cases in which a decided traumatism of some kind llowed by signs of either acute disseminated miliary erculosis or acute metastatic localized tuberculosis.

B) Cases in which signs of pulmonary tuberculosis ow (or are first noticed) after a supposed injury to the gs.

C) Cases in which an injury to bones or joints or parts he body other than the lungs is followed by signs of erculosis more or less localized to the region of the ma.

(A) *Miliary Tuberculosis.*

The first group includes cases, fortunately rather rare, ich run an acute and often very "dramatic" course. A son (usually a young person) apparently in blooming lth, may receive a chance blow or contusion of some d and die in four or five weeks of acute miliary erculosis.

well-built man, a German, aged 33 years, was admitted er my care at the German Hospital on April 5th, 1897. had fever (temperature 103.6° F.), vomiting, great dyspnoea and cyanosis, intense dryness of the throat, and scanty expectoration in which a trace of altered blood pigment was at one time visible. On examining the lungs no definite signs of consolidation could be made out, but a certain amount of fine inspiratory crepitation was heard over both sides, and the case seemed to be one of acute double pneumonia before the outer parts of either lung had become hepatized. The history was that ten days before admission, when on board ship on his way back from the Transvaal, he received a blow on the left testis which was followed by local and general symptoms. After five days his condition improved somewhat, but two days previously to admission he had a rigor and pains over the whole of the body. Except for some slight improvement soon after admission, due to rest and cessation of the vomiting, his condition underwent but little change. The dyspnoea and orthopnoea increased and the fever remained continuous till he died, practically suffocated, on April 20th, about twenty-five days after receiving the blow on the testicle. In the meantime, owing to the absence of any crisis, and since there were no signs of definite hepatization of the lungs, we had come to suspect that the pulmonary disease was one of acute miliary tuberculosis. The crepitations were variable; on one occasion distinct inspiratory crepitations could be heard below both clavicles. The sputum was examined for tubercle bacilli with negative results. The urine contained a little albumen.

At the necropsy both lungs were found to be engorged with blood and absolutely stuffed with miliary tubercles. There was some fibrosis from earlier disease at both pulmonary apices. The bronchial lymph glands were enlarged, and besides miliary tubercles in the pleurae there was evidence of older pleurisy, especially over one lung. The left epididymis (that is, where he had received the blow twenty-five days before his death) contained a softened, caseous nodule, smaller than a small cherry. The cerebral meninges contained no tubercles, nor were tubercles found in any other organs, except a few minute ones in the renal cortex below the capsule. The liver might, of course, have contained microscopic tubercles though no macroscopic ones were found. The heart was distended with blood, but showed no evidence of disease. The spleen was somewhat enlarged and pulpy; it weighed 9 oz., and contained one small white infarct.

In this case, apparently, the tubercle bacilli were by the injury set free from the caseous focus in the epididymis, and were carried by the venous blood to the right heart. Many of the bacilli were then caught up in their passage through the lungs, and thus gave rise to the miliary pulmonary tuberculosis. This theory explains why the pulmonary tubercles were practically all of about the same size, why they were uniformly distributed throughout every part of the lungs, and why there was not evidence of general miliary tuberculosis in other parts of the body. A few of the microbes had, however, passed through the pulmonary circulation, otherwise we should have found no miliary tubercles in the kidney. Moreover, by careful microscopic examination we might have found evidence of commencing tubercles in other organs. Tubercle bacilli are supposed not to produce anatomical changes until nine to sixteen days after injection or after entering the blood stream. This would correspond, I think, to what was found in the lungs at the necropsy, but in order to understand the whole case one must, I think, assume that the patient's condition at the time of injury was abnormal, namely, that there was something peculiar about his blood and tissues, at all events about his lungs, which favoured the rapid multiplication of the tubercle bacilli set free from the caseous focus in the epididymis.‡

Similar cases were observed prior to the discovery of the tubercle bacillus and gave rise to various inquiries as to the possible relation between the injury and the lung disease. A remarkable example was the following, which I have from my father, and which occurred in Germany long ago.

An apparently healthy student, about 21 years of age, received some injury to one of his ankle-joints. Shortly afterwards he fell ill with an acute pulmonary affection, characterized by frightful dyspnoea and cyanosis, and, like the previously mentioned patient, died practically from suffocation about twenty-five days after the injury to his ankle. At the necropsy both the lungs were shown to be completely stuffed with miliary tubercles.§ and in the ankle some caseous material was found. It was known that during childhood the patient had suffered from a disease of his ankle.

Other examples, though not all quite so typical as the two foregoing, cannot, I think, be excessively rare—that is, cases in which acute miliary tuberculosis of the lungs is set up by injury to some part of the body which

*Read at the Assurance Medical Officers' Association, May 4th, 1910.

†Cf. R. Stern, *Ueber die traumatische Entstehung innerer Krankheiten*, Jena, 1896 (with analysis of published cases); also A. Ascarelli, *Policlinico*, Rome, 1907, vol. xiv (Sezione pratica), p. 1025, and the papers of Honsell and Jordan, to which I shall refer later on.

‡Cf. O. R. Wild, Ueber die Entstehung der Miliartuberculose, *Virchow's Archiv*, 1897, vol. cxlix, p. 65; and H. Ribbert, Ueber die Miliartuberculose. *Deut. med. Woch.*, 1906, vol. xxxii, p. 5.

§ It is possible that the reason why this cramming of the lungs with tubercles is better seen in adults than in very early life is a mechanical one, and that it has to do with more elaborate development of the capillary network in adult age.

happens to be the site of previous tuberculous disease. The wonder is that such cases are not more often observed. I have heard of a case of miliary tuberculosis of the lungs, as rapidly fatal as the case just referred to, following an attempt to break down adhesions in an old tuberculous joint, and I have been told also of a child about 9 years of age who died with general disseminated tuberculosis three or four weeks after an operation on a tuberculous joint. J. Orth[1] refers to surgeons losing patients from fatal acute tuberculosis after operations on chronic localized tuberculous lesions (in bones) in which it might have been difficult to detect the presence of any bacilli. A striking example of the kind is related by Urban.[2]

A healthy-looking girl, aged 19 years, who, on account of adduction from old hip disease of the right side, wished to have a "bloodless" manipulation performed to improve the position of the hip-joint. The surgeon who was consulted yielded, against his own inclinations, to the importunity of the patient and her parents. By manipulation under general anaesthesia the faulty adduction was corrected, but on the following day the patient's temperature rose to 104° F., and in five weeks she died of acute miliary tuberculosis. No old tuberculous lesions were discovered at the necropsy excepting those of the right hip-joint. To explain this case Urban mentions that of a boy aged 12 years, whose knee-joint was ankylosed in a flexed position as a result of old local tuberculosis, supposed to have been cured five or six years ago. The joint was resected, and was found to contain a single encapsuled caseous focus of the size of a pea; a guinea-pig, inoculated with this, died of tuberculosis in three and a half weeks after the inoculation. Had a bloodless manipulation been carried out, instead of the "open" resection of the joint, the boy might have fallen a victim to acute miliary tuberculosis as a result of tearing or crushing of the minute caseous focus in question.

From the pathological point of view, certain cases of death from acute miliary tuberculosis (especially of the lungs) a few weeks after childbirth or abortion may be compared with the preceding cases. F. Weil[3] describes two such cases in young women who died almost exactly four weeks after abortion. In both cases the miliary tuberculosis affected the lungs chiefly, and the necropsy showed the presence of earlier tuberculous caseous foci in the pelvic organs. Weil thinks that in both cases the uterine tuberculosis was the cause of the abortion, and the open blood vessels of the uterus constituted the channel by which the rest of the body, especially the lungs, was "flooded" with tubercle bacilli. He refers to similar cases described by Fischel (1883), Schelling (1885), Hünermann (1893), Davidsohn (1899), and Westenhoeffer (1903). An analogous case is recorded by Hochhaus,[4] in which the patient, a young woman aged 22 years, died forty-seven days after abortion. The necropsy showed the presence of a caseous focus in the uterus, and disseminated miliary tuberculosis of the lungs, peritoneum, etc.

Dr. C. T. Williams[5] refers to the case of a gentleman who was thrown in the hunting field; several of his ribs were injured; acute miliary tuberculosis followed, and proved rapidly fatal. The cases in which a thoracic injury is followed at first by local pulmonary signs and much later by miliary tuberculosis really belong to Group B.

In this connexion also mention may be made of the case of an unmarried woman, aged 31 years, who had a small tuberculous gland removed from the neck. Some months later she appeared to be suffering from pneumonia, but very soon this was found to be an acute attack of pulmonary tuberculosis, from which she died after an illness of three weeks.[6] Two girls, one aged 5 years and the other aged 14 months, died within a month of undergoing laryngeal intubation for diphtheria, and at the *post-mortem* examination in both cases a caseous mass was found in the larynx together with the lesions of acute miliary tuberculosis.[7] In a man, aged 62 years, according to the account of Aufrecht,[8] a tuberculous pneumonia supposed to be of embolic origin supervened after massage of some old tuberculous lymphatic glands in the neck. In another case an injury to the calf muscles led to local venous thrombosis and pulmonary embolism, followed by pulmonary tuberculosis.*

Benda,† in three cases of miliary tuberculosis following operation or injuries to tuberculous joints and found that tuberculosis of blood vessels existed believes that at the operation or injury a few bacilli into the blood stream and lodge on the tunica intima blood vessel. In the intima a tubercle then dev becomes caseous, and finally ruptures, liberating in circulating blood great numbers of tubercle bacilli, are thus distributed throughout the body, and give general miliary tuberculosis. H. Ribbert[9] thinks th such cases the blood stream is not, as Weigert[10] bel all at once, so to speak, "flooded" with tubercle b From the results of his microscopical investigations inclined to suppose that relatively small numbe bacilli reach the circulating blood at a time, but these bacilli are able to multiply quickly, appa because the patient is in some way "predisposed," tissues prove a favourable soil for the bacillary gr "Spontaneous" disseminated miliary tuberculosis m course, result from rupture of tubercles into the lun arteries, veins, or the thoracic duct, but Huguenin,[11] he insists that in such cases the veins in the lungs a usual sites for the irruption of tubercle bacilli int blood stream, has great probability on his side.

(B) *Pulmonary Tuberculosis.*

Cases are certainly occasionally observed in whic injury to the thorax is followed after an interval by s signs of pulmonary tuberculosis. One can readily con that a "contusional injury" to the thorax—for exam blow with a blunt instrument or some violent compre —might bruise or otherwise damage the lung, and so l its resistance as to give rise to a pneumonia or infection, if the specific cause of such an infection ha to be forthcoming. That contusions of the thorax actually injure the lungs and pleura has been well de strated by Külbs in his experimental investigation animals, to which I shall refer later on.

By a contusional injury of that kind a l tuberculous focus (and experience from *post-morten* aminations shows how frequently latent tubercu lesions are present in the lungs and thoracic lymph gl of apparently healthy individuals‡) may be squeeze torn in such a way that tubercle bacilli are mechani disseminated over the neighbouring lung tissue, the vit of which is moreover temporarily lowered by the inju as to render it a favourable nidus for the growth of bacilli. In a case recorded by O. Schrader[12] the pat an apparently healthy man, aged 29 years, was adm to a hospital two days after an injury to his thc and in due course the diagnosis arrived at was pneum of the lower and middle lobes of the right lung. thirteen days after the accident tubercle bacilli found in the sputum, and Schrader discusses the ques whether the tuberculosis was engrafted on a "contusi pneumonia" (see later portion) or whether the disease was a tuberculous bronchopneumonia from commencement. Great improvement in the patient's dition subsequently took place. C. Theodore Willia has recorded the similar case of a mate of a merc vessel who fell from the mast to the deck and fract

* F. Köhler, *Aerztl. Sachverst.-Zeitung*, Berlin, 1908, vol. xiv, p. 154. Köhler (ibid., p. 32) has likewise recorded a curious case of pulmonary tuberculosis developing after an injury to the skull.

† Benda, *Verhandlungen d. deut. Gesellschaft für Chirurgie*, 1899, vol. xxviii, Part I, p. 48. Cf. also W. T. Longcope's description of a case of tuberculosis of the aorta in a child with general miliary tuberculosis, *Johns Hopkins Hospital Bulletin*, 1901, vol. xii, p. 27; H. Toyosumi, "Intimatuberkel in den kleinen Lungenarterien," *Virchow's Archiv*, 1908, vol. cxci, p. 403; and Thorel's communication on miliary tuberculosis with multiple tuberculous foci in the blood vessels (Aerztlicher Verein in Nürnberg, May 4th, 1905).

‡ The statistics on this subject, as is well known, vary consider doubtless to some extent according to thoroughness of examin and according to the criterion of what is to be regarded as constit a tuberculous lesion. Birch-Hirschfeld in 826 *post-mortem* exam tions on persons who had been killed by accidents or who had from acute diseases, found evidence of recent, chronic, or healed monary tuberculosis present in 20.7 per cent. Brouardel, at Pari medico-legal necropsies), found the percentage higher. Various ologists have found evidence of old or fresh tuberculosis in 48 to 9 cent. of all corpses examined. Amongst recent work on the sul see the percentage statistics given by H. Beitzke of the frequenc tuberculosis in *post-mortem* examinations at the Berlin Patholo Institute (*Berliner klin. Wochenschrift*, 1909, vol. xlvi, p. 388). R ences are given by Beitzke to other recent work on the subject must, of course, be remembered that very many cases, though tu culous from the strict pathological point of view, never bec tuberculous in the ordinary clinical sense of the term. The pres of minute latent tuberculous foci is of great importance, though in ordinary course of events they may remain quiescent and bec obsolete. Many of us are doubtless tuberculous from the strict pa logical point of view, even though we enjoy good health, and a tusional injury, if it involves our "weak spots"—that is to say, *tuberculous spots*—may suddenly render us tuberculous from ordinary clinical point of view as well as from the pathological p of view. These considerations serve likewise to explain why musc men, such as athletes, runners, boxers, and persons who live heal open-air lives, and who, owing to their splendid physique, migh supposed to be specially resistant towards tuberculosis (*but ar must be remembered, peculiarly liable to contusional injuries strains*) sometimes surprise every one by more or less sudde falling victims to tuberculous affections, especially of the lungs.

ribs. This injury was followed by the rapid lopment of well-marked symptoms and physical signs thisis (haemorrhage, expectoration and cavity forma- upon the injured side of the chest. He made, how- a quick recovery and returned to his occupation. A. Nogués[14] has described the case of a criminal who v days after having been punished by 150 lashes, red from cough, dyspnoea, and haemoptysis. Pul- ary tuberculosis developed and it is stated that the ior parts of the lungs were very little affected in com- on with the posterior parts, in comparison, that is to with the parts which may be supposed to have been ly affected by the traumatism. Nicoletti[15] tells of a rer, aged 34 years, who after receiving a severe blow e right side of the thorax, suffered from haemoptysis. bout two weeks' time he was able to return to his , but soon developed signs of tuberculosis at the apex e right lung and tubercle bacilli were found in his um. A hammerman, aged 44 years, with tuberculous ly history, whose case is described by J. Weir,[16] loped signs of tuberculosis of the right lung a few s after receiving a blow on the right side of the t, but some months later he seemed to be on a fair towards recovery.

ough many more illustrative cases of this class might eferred to, I am inclined to think that examples of onary tuberculosis which seem surely to be con- ed with an injury to the thorax must, on the whole, very rare. Doubtless cases in which an already ous pulmonary tuberculosis is clearly aggravated by local injury are commoner than cases in which the ry appears to have actually called a pulmonary tuber- sis into existence. R. Link[17] gives the case of a ngly built brewer's drayman, aged 46 years, whose ax was squeezed between two wagons. He remained e days in bed, but on the fifth day after the injury menced work again, though suffering from dyspnoea pains in his back. About six months later attacks of moptysis commenced, and he developed signs of active nonary tuberculosis at the upper part of the left lung; he base of that lung there were signs of old thickened ra. In this case there were grounds for supposing t the injury may have exerted an evil influence on a viously quiescent tuberculosis. E. Mosny[18] mentions case of a workman who whilst at work fell and frac- ed some ribs. This was followed by pleurisy, acute nifestations of pulmonary tuberculosis, and death. But man was known to have had pulmonary tuberculosis ore the accident, and the court naturally took this fact consideration in deciding on the amount of compensa- to be paid to the victim's widow and children. On other hand, had it not been for the accident the man ld have probably lived and earned money for several rs.

(C) *Tuberculosis of Bones, Joints, etc.*

he question of a localized tuberculosis developing in region of, and as the result of, an injury (by which no ect inoculation could have been effected) has been efly discussed with reference to tuberculosis of the es and joints. In these cases great discretion should iously be observed in attaching importance to histories injury, for with regard to such exposed parts as the es, ankles, and long bones of the extremities a history some slight traumatism or other is nearly always thcoming.

t may be remembered that many experiments on mals have been carried out to ascertain whether the alization of the manifestations of artificially produced neral septic conditions could be determined by local umata (without local inoculation)*—that is to say, ether the site of the local septic lesions (when the culating blood contained septic microbes) could be termined by contusions, injuries to bones, etc. The ults of such experiments were to a great extent affirma- e, and have thrown much light on the pathogeny of eases like acute infective or septic osteomyelitis.†

Similar experiments have been carried out with regard to the pathogeny of tuberculous diseases of bones and joints.

Schüller[19] injected tuberculous material (tuberculous sputum, material derived from tuberculous lungs, lymphatic glands, etc.) through a tracheotomy wound into the lungs of dogs and rabbits, and on the same day injured one of the knee-joints of the animal experimented on. In this way he apparently succeeded in producing, not only general tuberculosis, but also tuberculous synovitis of the injured joint, accompanied sometimes by tuberculous osteomyelitis in the neighbourhood. Later on F. Krause[20] injected pure cultures of tubercle bacilli subcutaneously into guinea-pigs and intravenously into rabbits. Directly before, or immediately after, the inoculation, or after a variable lapse of time, a joint was injured or a bone broken. The fractures in every case healed by the formation of bony callus without the development of local tuberculosis, but many of the injured joints became tuberculous (15 out of 44 in guinea-pigs, 14 out of 28 in rabbits); the uninjured joints did not become tuberculous, excepting in a single instance (one of the rabbits).

Lannelongue and Achard[21] found that it was not so easy to determine the site of a tuberculous process by experimental traumatisms as one would surmise it to be from the account of Schüller's experiments. By various methods they inoculated guinea-pigs with tubercle bacilli, and directly afterwards, or later on, produced local injuries of various kinds in joints or bones. The animals died eight to 232 days after the injury, and none of the injured joints were found to be tuberculous. Friedrich[22] introduced cultures of tubercle bacilli of low virulence through the carotid artery into the left ventricle, and thus succeeded in producing a tuberculous joint affection in rabbits, analogous to that in human beings, which took four to nine months to become clinically manifest. But it was remarkable that the tuberculosis in Friedrich's rabbits picked out the joints not subjected to traumatism rather than those in which he had produced an experimental injury. Similarly, B. Honsell,[23] who employed cultures of tubercle bacilli of high virulence, and also some of low virulence, came to the conclusion that in his experiments the localization of tuberculosis was not determined by traumatism.

E. Salvia,[24] however, another of those who made experiments of this nature, injected a virulent culture of tubercle bacilli intravenously into rabbits (by a vein of the ear), and subjected them to different forms of *slight* traumatism. He found that in the thin, flat spongy ribs the trauma always decided a localization of tubercle, which involved the whole thickness of the bone. In regard to the subjacent lung there were more tubercles (and more rapid growth of tubercles) in the parts nearest to the injured ribs. No special localization of tubercles resulted from slight traumata to the bones of the extremities. Definite localization of tuberculous changes was observed in the soft tissues of the articulations after slight chemical injuries.

Jordan,[25] in an excellent summary of the results of experimental investigation of the kind (a summary that I have largely made use of), points out that in animals the positive results of Schüller and Krause were obtained on the basis of a disseminated miliary tuberculosis, whilst in cases of alleged traumatic tuberculosis of joints and bones in human beings there is generally no disseminated miliary tuberculosis present.

We conclude, like Honsell[26] and Jordan conclude, that so-called traumatic cases in man must be explained as the rendering manifest and active of a pre-existing tuberculosis, however limited in extent, quiescent, and latent such pre-existing tuberculosis may have been. Mr. S. G. Shattock in a similar way, I believe, explains the onset of tuberculous bone disease after local injuries in children. He thinks that there is a gradual leakage of tubercle bacilli from tuberculous lymphatic glands, and that some of the escaping bacilli are carried by the blood stream and lodged in the bone marrow, where he supposes they may remain latent until some injury to the bone lowers the tissue resistance, thus favouring the growth of the pathogenic microbes and setting up local tuberculous lesions.

In regard, however, to the possibility of septic organisms being netimes introduced into the body at the time of the traumatism, ough unnoticed abrasions and scratches in the apparently unbroken n, see Durlacher's paper on acute osteomyelitis in the *Muench. med. ch.*, 1904, vol. li, pp. 1689–91.

† For an excellent summing-up of this question see Jordan, *Muench. d. Woch.*, 1901, vol. xlviii, p. 1745. It must be remembered, how- er, that most cases of acute septic osteomyelitis after contusion (or other injury without open wound) might be equally well explained by the awakening to activity of septic microbes previously resting in a quiescent and latent condition in the bone marrow.

By Urban[27] also an explanation of the same kind seems to be accepted.

He relates the case of a labourer, aged 47 years, who was supposed to have previously enjoyed good health. On August 26th, 1895, he slipped and sprained his right ankle. He continued at his work, however, till the end of the month, but had then to give up owing to increasing pain. Excepting this local spontaneous pain and tenderness to pressure, no definite signs of disease were discovered till September, 1896, when an operation was performed on the right foot and the presence of undoubted tuberculous changes discovered. It became afterwards necessary to amputate the right leg.

Urban accounts for the slow development of the signs of disease in this case by supposing that a small tubercle in the middle of one of the bones of the foot, hitherto latent, was disturbed and awakened to activity at the time of the injury, but that no symptoms, excepting pain and tenderness, developed until the tuberculous process reached the outer surface of the bone, about a year later.

E. Pietrzikowsky[28] thinks that about 20 per cent. of all (clinically obvious) tuberculous affections of the joints and bones are causally connected with some traumatism, which is very rarely a fracture or a dislocation, but usually an injury of lesser degree, such as a sprain or a bruise. (Compare the results of bone fractures in Krause's experiments and those of slight traumata in Salvia's series already alluded to.)

In what he regards as genuine examples of such traumatic tuberculosis, the interval between the accident and the development of obvious signs of tuberculosis is neither very short (few weeks) nor very long (not more than a year at the outside). Moser[29] concludes that a traumatic origin of articular tuberculosis can never be accepted as proved, but only as being more or less probable. He thinks the alleged injury should have been a considerable one, and should have been immediately followed by symptoms of some kind, which symptoms, however, need not necessarily persist until the appearance of definite signs of tuberculosis. The interval between the injury and the manifestation of tuberculosis must be at least four to six weeks, and the shorter the interval the less likely is the joint tuberculosis to be traumatic. According to Moser, the pathological explanation may sometimes be that the injury, by lowering the power of resistance, prepares the way for the development of tuberculosis, but is more usually that an old quiescent and latent tuberculous focus is rendered active and obvious as the result of the injury.

Needless to say, an already manifest, but chronic, tuberculous process can be rendered acute as the result of traumatism. Such a transformation (exacerbation) of a chronic local tuberculosis into an acute one may occur within a few days or weeks after an injury, and a very rapid development of signs of acute local tuberculosis should always give rise to a suspicion that a clinically obvious (though chronic and possibly quiescent) tuberculous affection was present before the injury was received.

Tuberculous lesions connected with local traumatism (contusions, etc.) may doubtless occasionally occur also in other parts of the body. Salvia,[30] in his experiments already alluded to, thought that he could localize tuberculous changes in the livers of rabbits (after intravenous injection of a virulent culture of tubercle bacilli) by repeated slight percussion over the abdomen below the costal margin. Similarly, Orth[31] squeezed the kidney of a rabbit, into whose ear he then intravenously injected a culture of tubercle bacilli. After some time a *post-mortem* examination was made on the rabbit and it was found that the tuberculous changes were more pronounced in the contused kidney than in the other. R. Luecke[32] records a rather different kind of case, namely, one of tuberculous peritonitis in a boy, aged 12 years, which was apparently due to local traumatism. The boy fell down whilst skating, and another boy trod on his abdomen. Acute abdominal symptoms followed, and fifteen days later, when a laparotomy was performed, a condition of diffuse tuberculous peritonitis was discovered. A subsequent *post-mortem* examination demonstrated the presence also of caseous mesenteric lymph glands and some old peritoneal adhesions. In a case like that it is of course quite easy to understand how a traumatism of the alleged kind can set up diffuse tuberculo peritonitis.

What Part does Traumatism Play in Particular Cases Alleged Traumatic Tuberculosis?

The answer to this question must often be difficult, a must generally be a doubtful one. We have to admit th in all cases (excepting those in which an inoculation w tubercle bacilli from without occurs—a class which we not now dealing with) tuberculosis of some kind, whetl latent or not, must have been present (that is to s tubercle bacilli must have been present) before the trau was received. In short, cases of contusional trauma tuberculosis may, as I have already pointed out, be roug divided into two classes: those in which obvious tub culosis existed, and those in which no tuberculosis, rec nizable by ordinary clinical methods, existed, previou to the traumatism. In the former class of cases t traumatism merely accelerated the progress of (produc an exacerbation of) an already existing, that is to s clinically manifest, disease, and it is quite likely that t disease would have ultimately progressed even in t absence of traumatism. But in the second class t patient's condition previously to the traumatism is accep as having been just like that of any other apparen healthy person, and (knowing as one does that very ma apparently healthy individuals carry with them, hidd away in their bodies, minute tuberculous foci which ne give rise to serious trouble) one has no right to supp that the latent tuberculosis in question would, unc ordinary circumstances (that is, apart from the results traumatism, etc.) ever have progressed sufficiently become recognizable by ordinary examination or to g rise to any serious trouble. In any particular ca therefore, the questions we have to consider are:

1. Is there evidence that any clinically recogniza tuberculosis was previously present or not? If there w already obvious tuberculosis, what was its probable dist bution, extent, and activity at the time when the trau was received?

2. Is it likely from our pathological knowledge and fr our study of the individual case in question that t alleged traumatism played any part at all in the outbre of tuberculosis?

3. Is the whole of the illness to be regarded as prac cally the direct or indirect result of the traumatism? on the other hand, the injury merely caused an exacerb tion of a previously existing (clinically obvious) tuberc losis a medical estimate of the extent of the actu damage done by the injury should be, as far as possib arrived at; that is to say, the difference between t probable condition without any traumatism and the co dition actually present as the result of the injury shou be estimated.

In order to answer the last two questions a decision regard to the first must be arrived at. Then the natu position, extent, and violence of the traumatism have be investigated; the lapse of time between the injury a the onset of symptoms of tuberculosis has to ascertained; and one has to consider whether the existi tuberculous lesions and symptoms are of a natu pathologically likely to have followed the traumatism question.

I am quite aware that the pathological answer in ma cases will be by no means identical with the medico-leg or rather legal, answer. In every case, however, th exact pathological consideration of the data should required. Of special importance is the knowledge that outburst of traumatic tuberculosis (apart from that due actual inoculation) is, pathologically speaking, accordi to the experimental and clinical evidence already referr to, the result of the disturbance of a pre-existing, thou generally unrecognized and often quiescent, tuberculo focus. It is therefore quite conceivable that a man m have an encapsuled caseous tuberculous nodule not at th site of the main injury but at some distance from it—f instance, on the opposite side of the thorax *—and th the injury may yet be sufficient to rupture it (in the case the lungs violent respiratory movements connected wi the excitement and accident might play a part in this), that the tuberculous disease may first show itself at son

* Cf. Port, Aerztlicher Verein in Nürnberg, July 18th, 1907; *Muenc med. Woch.*, 1907, vol. liv, p. 2013.

tance from the site of the alleged injury.* (I do not, course, here refer to disseminated miliary tuberculosis lowing injuries.)

TRAUMATIC PNEUMONIA, TRAUMATIC PLEURISY, ETC.

shall not stop to discuss such conditions as traumatic eumothorax, haemothorax, pyopneumothorax, haemo-eumothorax, pleurisy, empyema, septic pneumonia, and lmonary gangrene, when obviously due to penetrating unds and their complicating infections, nor shall I al with pneumonia or pulmonary gangrene following erations or injuries to the upper air passages, such as ses due to the introduction into the bronchi of foreign dies or septic particles during dental operations under neral anaesthesia. There are numerous cases known of eumonia-like symptoms following operation on the lvic viscera, herniotomy, operations and injuries to the domen, operations on varicocele and varicose veins of e extremities, fractures of long bones, etc. Some of ese may be examples of ordinary pneumonia due to the tient's diminished resistant power as a result of shock, c. (in the same way psychical shocks may probably vour the development of pneumonia in susceptible indi-duals), others may be due to the sucking in of septic par-cles from the mouth during general anaesthesia, and other ses may be in reality of embolic origin. But I cannot ter upon such cases here. Nor need I consider trau-atic pneumothorax and traumatic haemothorax when viously merely mechanical results of fracture of ribs severe contusional injuries. In regard to cases of traumatic pneumonia" in the most limited sense, that is say, "contusional pneumonia" (which may or may not e associated with fracture of ribs), I shall first of all fer to the results of some recent experiments on animals y Külbs.[33]

Külbs, in a series of dogs, investigated the effects of ore or less severe contusions of the thorax, and found at considerable changes, mostly haemorrhages of greater r less extent, had been produced in the lungs, together ith slight injuries to the pulmonary pleura. In a few ses, after very violent blows on the thorax, the lung issue and pleura were found considerably torn. Some-imes the whole of a lobe was infiltrated with extravasated lood, sometimes the haemorrhagic infiltration was nodular n distribution, mostly in the deeper portion of the obe. In the animals killed some days or weeks after the njury, the process of repair, the development of granulation tissue, and then of ordinary scar tissue, was bserved. The pulmonary changes were not always found imited to the region of the thorax where the blow had been received. This was more noticeable when the front r side of the thoracic wall than when the stronger and ess yielding dorsal portion had been struck. Only in the former case could a "*contrecoup*" effect be obtained—for nstance, haemorrhage in the right upper lobe when the raumatism was applied over part of the left lung. Reineboth's[34] results in rabbits differed somewhat from hose obtained by Külbs in dogs, and Külbs has satisfied himself by actual experiment that in rabbits the ribs are ess elastic and more fragile than in dogs.

Contusional Traumatic Pneumonia.

Though actual pneumonia has not been produced in animals comparable to "traumatic pneumonia" in human beings, nevertheless, as Külbs points out, changes such as he produced in the pulmonary tissue by traumata must favour the local growth of pathogenic microbes, should such find their way to the injured parts. Traumatic pneumonia in human beings may, indeed, be well explained as due to the growth of pneumococci or other microbes previously present in the respiratory organs in a quiescent and latent condition, but awakened to activity as a result of the trauma and the lowered resistance of the patient's tissues. As pointed out by Litten,[35] who in 1881 apparently first introduced the term "contusional pneumonia" (*Kontusionspneumonie*), it does not seem clear that all cases clinically classed as traumatic pneumonia are really examples of typical microbic pneumonia. The signs in some cases may be due to haemorrhagic infiltration, such as Külbs produced by contusion of the thorax in animals, possibly associated with serous or haemorrhagic effusion into the pleura. In cases that I have seen myself (and can refer to through the kindness of my surgical colleagues, Dr. E. Michels and Dr. J. P. zum Busch), I have had considerable doubt as to the precise nature of the change.

A boy, Albert G., aged 8 years, was run over by a cart on the morning of March 13th, 1909, and was brought at once to the German Hospital. On admission his temperature was 97° F., but rose to 101.2° F. in the evening. On the evening of the next day (March 14th) the temperature was 103.4° F., and then began gradually to fall. There was some bruising of the back of the thorax, but no evidence of fractured ribs was obtained either by ordinary examination or by skiagram taken later on. When I saw the boy on March 15th there was a good deal of dyspnoea, general uneasiness, and cough. Resonance to percussion was slightly impaired in the lower part of the right infrascapular region, and there were bronchitic sounds at the bases of both lungs. He complained of pain in the lower left part of the front of the chest. By March 18th the temperature had fallen to normal and he had no pain, but he still coughed, Pulse 116, respirations 34, to the minute. There was then decided impairment of resonance and diminution of breath sounds at the base of the right lung, and occasional dry bronchitic sounds could still be heard at both bases. After that the boy's general condition gradually improved, and he had no further fever excepting on one occasion (100° F. on the evening of March 22nd). For some time there was relative deficiency of the inspiratory breath sounds over the right lung.

The signs in this case might perhaps all (including the fever) be accounted for on the supposition of traumatic haemorrhagic infiltration (as in Külbs's experiments) in both lungs, but especially in the right one.

A little girl, Edith S., aged 4½ years, had her chest run over on September 16th, 1898, and was brought on the same day to the German Hospital, where she was admitted under Mr. R. W. Parker. No ribs were broken, and there was not much external bruising. On admission the temperature was 102° F., and examination of the chest revealed bronchitic signs only. On September 19th, however, there was dullness to percussion, with very clear bronchophony and a few scattered crepitations, over the whole of the lower back portion of the left lung. There was less fever than on admission, but the patient was in a semi-conscious condition, and was often "grinding her teeth." By September 22nd the abnormal signs in the chest had practically cleared up; there was no fever in the morning, and the patient was quite cheerful.

In a little girl, aged 8 years, whose case has been recorded by W. P. Cockle,[36] great pain in the right side was complained of when on one occasion her father suddenly lifted her up by the thorax. She said something had "given way." The temperature two hours later was 100° F., and the breathing was very frequent. Next day the temperature was 103° F., and the pain continued. Later on pleuritic friction developed at the site of the pain. After a week the temperature gradually fell to normal, the friction and pain disappeared, and the child recovered completely.

Here, again, the injury may have produced not a pneumonia in the strict sense of the term, but a pulmonary change similar to those experimentally produced by thoracic contusions in dogs (Külbs). In this connexion it is interesting to note that Sir J. E. Erichsen[37] claimed that cases of so-called "traumatic pneumonia" were either mere bruising of the lung and not dangerous, or else were due to an inflammation of spreading septic character and dangerous to life.

I can certainly instance one fatal case (at St. Bartholomew's Hospital, 1892) in which the *post-mortem* examination showed grey hepatization of part of one lung.

The patient, a man 58 years of age, had several ribs on his right side fractured by being knocked down and run over by a cab. On admission immediately afterwards his temperature was found to be 100° F. He was a gouty and bronchitic subject, and his urine contained albumen. Afterwards there was considerable dullness at the base of the right lung, and later on signs of consolidation of the right apex. He had decided fever (for some time about 102°–104° F., once higher), became delirious, and died on the fifteenth day after the injury. The necropsy showed grey hepatization of the upper part of the right lung.

This seems to have been a case of actual pneumonia supervening on severe contusion of the lung.

E. Bloch[38] mentions the case of a man, aged 41 years, who, when suffering from slight bronchitis, fell down in such a way as to severely strike the lower posterior part of the right half of his thorax. The next day his temperature suddenly rose to 103.1° F., and the physical signs of pneumonia developed at the base of his right lung. A kind of crisis occurred on the fourth day of the illness, and later on some pleuritic signs cleared up spontaneously.

* Vide, Port, loc. cit. Rare cases of acute tuberculous broncho-pneumonia following abdominal operations performed under general anaesthesia may be theoretically explained in various ways. Cf, the case recorded by Mackey, Macdonald, and Sutherland in the BRITISH MEDICAL JOURNAL, 1910, vol. i, p. 745.

C. Rubino[39] speaks of a man, aged 53 years, who, as he was commencing to carry a very heavy stone on his right shoulder, suddenly felt pain in the region of his right scapula. This pain was accompanied by cough and dyspnoea, and forty-eight hours later the first signs of pneumonia appeared on the right side.

Litten[40] attaches special importance to the lifting of heavy weights in the etiology of "contusional pneumonia." He knows of several cases in which fatal pneumonia supervened soon after such exertions.

Thus, when a heavy carriage had just been lifted, one of the men employed in lifting it fell down and had to be carried home. Two days afterwards he was found to have pneumonia, which soon proved fatal. Another man, when helping to lift a heavy stone flag with a lever, complained of pain in the chest, and spat up some blood. Signs of pneumonia developed two days later, and fatal gangrene of the lung followed.

An interesting case of doubtful nature that occurred not long ago in England was that of a man who was violently thrown when hunting and fell heavily on his left shoulder and side. He then rode home wet through. Signs of pneumonia developed very soon afterwards, and he died seven days after the injury.

Many other cases, resembling some of the preceding ones, have been recorded, and a good many papers on the whole subject of traumatic pneumonia have appeared from time to time.*

In regard to the symptoms of traumatic pneumonia, it is probable that in the more favourable cases there is less expectoration than in ordinary non-traumatic pneumonia. Early haemoptysis, due to the mechanical injury of the lung, seems to be a characteristic of some, but by no means of all, cases. External bruising is of course often present, but is by no means necessarily a marked feature, and may be absent altogether. A crisis may occur, as in typical examples of ordinary pneumonia. Recovery is the rule, but the proportion of fatal cases, according to Litten, is considerable. Chronic bronchitis, alcoholism, and degenerative conditions of the blood vessels doubtless act as predisposing causes† of contusional pneumonia, and favour the severity of the attack.

With reference to the diagnosis of contusional pneumonia Litten claims that a traumatism of suitable kind should be ascertained to have preceded the lung symptoms, that there should naturally be no evidence that the patient had pneumonia before the traumatism, and that the time intervening between the injury and the onset of the pneumonia should not be too long. The condition of the patient during the intervening period varies in different cases. Patients brought to the hospital after the injury may go home and may even commence work again before the development of signs of pneumonia. I know of a case in which the patient was first of all brought to a hospital in a drunken condition with a scalp wound. This was seen to and he was sent away, but a policeman brought him back again saying that he complained of a pain in his right side. He was then treated for fractured ribs and allowed to go home, but he could not sleep and the pain in his side continued. On the third day he was admitted and looked like an ordinary case of pneumonia with signs of consolidation of the lower part of the right lung, orthopnoea and rusty expectoration. Recovery took place with a sort of crisis on the seventh day.

The shortest interval between the traumatism and the development of pneumonia, according to Litten, is ten hours; this was the interval in a case he observed himself, and likewise in a case of Aufrecht and in another one of Birch-Hirschfeld. Stern fixed the interval at between a few hours and four days. The average is perhaps about two days. Litten now thinks that an interval of six days is possible, but longer periods have been recorded. For instance, in one case von Leyden regarded an interval of fourteen days as not impossible. The case was that of a workman who fell from a ladder so as to receive a blow on his thorax. He continued at work for fourteen days and then developed pneumonia, from which he died a few days later. In the discussion on Litten's paper, Fürbringer mentioned that in one case he had also recognized a connexion between pneumonia and trauma, though the interval between the two was as long as fourteen days; in the case in question the injury was soon followed by s of pleuritis, though the pneumonia did not appear develop till fourteen days had passed.

Traumatic (Contusional) Pleurisy.

One or two cases in which contusional pleurisy associated with contusional pneumonia have already b referred to. It must likewise be remembered that physical signs of pleurisy may be due to slight tearin the pleura from severe contusions of the thorax, such occurred in some of the dogs experimented on by Küll A very important point is that signs of pleurisy a injuries to the chest may be due to tuberculosis. Pleur with or without fluid effusion, has certainly someti been associated with signs of pulmonary tubercul following thoracic traumatism. Such cases belong re to the first part of my paper, and from the patholog point of view the connexion between contusions of chest and tuberculous pleurisy may be explained in same way as that between contusions and pulmon tuberculosis.[42]

REFERENCES.

1 Orth: *Berl. klin. Woch.*, 1904, vol. xli, p. 337.
2 Urban: *Muench. med. Woch.*, 1899, vol. xlvi, p. 346.
3 Weil, F.: Ibid., 1910, vol. lvii, p. 359.
4 Hochhaus: Allegemeiner Aerztlicher Verein zu Köln, April 2 1903.
5 Williams, C. T.: *Polyclinic*, London, April, 1900, p. 235.
6 Woodcock: BRITISH MEDICAL JOURNAL, 1903, vol. i, p. 490.
7 Primavera, A.: *Giorn. Internaz. delle Scienze Mediche*, 1 vol. xxix, p. 296.
8 Aufrecht: *Deut. Arch. f. klin. Med.*, Leipzig., 1908, vol. xciv, p.
9 Ribbert, H.: *Deut. med. Woch.*, 1906, vol. xxxii, p. 5. Cf. also O. Wild, loc. cit.
10 Weigert, C.: *Virchow's Archiv*, 1879, vol. lxxvii, p. 269, and l vol. lxxxviii, p. 307 (Ueber Venentuberkel und ihre Beziehungen tuberculösen Blutinfection).
11 Huguenin: *Société Médicale de Genève*, July 4th, 1906.
12 Schrader; *Berl. klin. Woch.*, 1897, vol. xxxiv, p. 1001.
13 Williams, C. T.: *Polyclinic*, London, April, 1900, p. 235.
14 Nogués: Annotation in the *Lancet*, London, May 26th, 1888, p. 1 from the *Boletin de Medicina y Farmacia* (Barcelona).
15 See V. Nicolletti, at the Società Lancisiana at Rome, July 2 1904, quoted in the *Muench. med. Woch.*, 1904, vol. li, p. 1939; cf. Raneletti's case, described at the same meeting, quoted ibid., p. 193
16 Weir: BRITISH MEDICAL JOURNAL, 1903, vol. i, p. 1196.
17 Link: Verein Freiburger Aerzte, June 30th, 1905, *Muench. m Woch.*, 1905, vol. lii, p. 2202.
18 Mosny: *Presse Médicale*, Paris, September 6th, 1902, p. 858.
19 Schüller, Max: Experimentelle und histologische Untersu ungen über Entstehung und Ursache der skrophulösen und tul kulösen Gelenkleiden, Stuttgart, 1880.
20 Krause, F.: Die Tuberculose der Knochen und Gelenke, Leip 1891, pp. 80–102.
21 Lannelongue and Achard: Sur le traumatisme et la tuberculo *Comptes rend. de l'Acad. des Sciences* Paris, 1899, vol. cxxviii, p. 1075.
22 Friedrich: *Deut. Zeit. f. Chir.*, Leipzig, 1899, vol. liii, p. 512.
23 Honsell: *Beit. z. klin. Chir.*, Tübingen, 1900, vol. xxviii, p. 659.
24 Salvia, E.: *Il Policlinico*, Rome, 1904, vol. xi (Sezione chirurgic p. 367.
25 Jordan: "Ueber die Entstehung von Tumoren, Tuberkulose u anderen Organerkrankungen nach Einwirking stumpfer Gewal *Muench. med. Woch.*, 1901, vol. xlviii, pp. 1741–1746.
26 Honsell: Loc. cit.
27 Urban: *Muench. med. Woch.*, 1899, vol. xlvi, p. 346.
28 Pietrzikowsky, E.: *Zeit. f. Heilk.*, Vienna, 1903, vol. xxiv (surgi portion), pp. 187–272.
29 Moser: *Aerztl. Sachverständigenzeitung*, Berlin, 1906, vol. x pp. 69, 91.
30 Salvia: Loc. cit.
31 Orth: Gesellschaft der Charité-Aerzte, Berlin, June 27th, 19 *Berl. klin. Woch.*, 1907, vol. xliv, p. 1394.
32 Luecke: *Berl. klin. Woch.*, 1903, vol. xl, p. 409.
33 Külbs: Lunge und Trauma, *Arch. f. exper. Path. u. Pharm.*, Leipz 1910, vol. lxii, p. 39.
34 Reineboth: Experimentelle Studien über Brustcontusion *Deutsch. Arch. f. klin. Med.*, Leipzig, 1901, vol. lxix, p. 144.
35 Litten, M.: Kontusionspneumonie, *Deut. med. Woch.*, 1907, vol. xxx p. 499. (He gives reference to his earlier paper.)
36 Cockle: BRITISH MEDICAL JOURNAL, 1902, vol. i, p. 1333.
37 Erichsen: *Science and Art of Surgery*, London, Ninth edition, 18 vol. i, p. 860.
38 Bloch, E.: *Muench. med. Woch.*, 1898, vol. xlv, p. 967.
39 Rubino, C.: *Gazzetta degli Ospedali*, Milan, 1904, vol. xxv, p. 837.
40 Litten: Loc. cit.
41 Külbs: Loc. cit.
42 See Part I of this paper.

* Souques ("Pneumonie contusive," *Presse médicale*, Paris, March 3rd, 1900, p. 109) refers to much of the older literature on the subject. Amongst older works on the traumatic origin of diseases of the thoracic viscera see especially R. Stern, *Ueber traumatische Entstehung innerer Krankheiten*, Jena, 1896.

† Cf. F. Pancrazio, Acad. Med. di Padova, March 31st, 1907, *Policlinico*, Rome, 1907, vol. xiv (Sezione pratica), p. 781.

IN his annual report to the Aberystwyth Rural Counc Dr. James concludes as follows: Were I to preach in th land of preachers and sermons my text would be "cleanl ness is next to Godliness," and I would according divide my discourse into three heads—first, cleanliness secondly, cleanliness; thirdly and lastly, cleanliness. would dilate upon the necessity of having clean air t breathe; clean, nourishing food to eat, and clean water t drink; a clean house to live in with clean surrounding I would also emphasize the virtues of personal cleanlines and would condemn the mere ablution of hands and fac as hypocrisy, humbug, and fraud. I would end my sermo by impressing on the minds of my hearers the truth tha a damp dwelling house is a safe way to sanitary perditior

STUDY OF VON PIRQUET'S TUBERCULIN REACTION IN THE SURGICAL DISEASES OF CHILDREN.

ANALYSIS OF 223 CASES.

BY PERCIVAL MILLS, M.B., B.S., F.R.C.S.,
LATE HOUSE-SURGEON, HOSPITAL FOR SICK CHILDREN, GREAT ORMOND STREET.

cutaneous tuberculin reaction, which commonly goes he name of von Pirquet, has received less attention e than on the Continent. The failure of Calmette's tion to do all that was hoped of it has possibly pre- ted the cutaneous modification from receiving as fair a l at the hands of clinicians as it deserves, and certain espread errors with regard to the reaction have often vented it from receiving a trial at all. The commonest these is the statement frequently met with that all ividuals over the age of 2 years, whether tuberculous or , give the reaction; this I hope to show to be quite oneous. Wolf-Eisner, in his work on the diagnosis of erculous disease, states that the cutaneous reaction is re delicate, and therefore less reliable when positive, n the ophthalmic, and seems to give the preference to latter. He prefers, however, when possible, to observe h. Having known some unfortunate results from the thalmic reaction, I have confined myself entirely to the aneous form, which at any rate possesses the virtue of nplete harmlessness.

The object of my experiments was to discover whether althy individuals reacted, the effect of a previous re- ion on a second one, the general reliability of the reaction, d, finally, whether or no any prognostic value could be ached to the type of reaction. My experience is limited 223 cases, and to patients under 12 years of age.

Technique.

A small area of skin, conveniently on the arm, is erilized, and a drop of a 20 per cent. solution of och's old tuberculin placed on it. The solution is ually in glycerine, and is kept in small capillary bes similar to those used for vaccination and calf mph. The skin is then lightly scratched through this olution until a slight hyperaemia is produced. The apillary plexus should not be opened, but I have not ound that a small drop of blood interferes with the eaction in any way. A special instrument has of course een invented for this purpose, but I prefer a domestic eedle. A control scratch is made through glycerine or ormal saline, and a small dressing is applied for twenty- our hours.

The common type of positive reaction is as follows: In wenty-four hours the tuberculin scratch shows a slight yperaemia and oedema extending a little beyond the ctual scratches of the needle. The control scratch hould be invisible. In forty-eight hours the spot is edder, and is very definitely raised so as to be palpable o the finger. On the third day it has begun to fade, and n the fourth day it is usually gone.

A.—*Results of the Reaction in Healthy Children.*

The reaction was tried on 48 children who had been arefully examined without any evidence of tuberculous lisease being detected. They were chiefly cases admitted o hospital for radical cure of hernia, fracture, cleft palate, r infantile paralysis. In each case I ascertained that here was no family history of tuberculous disease. Their ages varied from 9 months to 11 years.

In every case the reaction was negative—that is, there was no difference between the tuberculin scratch and the control scratch. This fact is, of course, of primary importance if the value of the reaction is to be established. My first conclusion, therefore, is that in children who show no evidence of tuberculous disease a negative reaction may confidently be expected.

B.—*Results of the Reaction in Cases known to be Tuberculous.*

In all these cases the tuberculous nature of the condition was established by operation or *post-mortem* examination. In cases which were not obvious a microscopical examination was made. It was assumed, however, that lymphatic glands which showed definite evidence of caseation were tuberculous. Cases merely diagnosed clinically as tuberculous are considered in the next section.

Of these cases known to be tuberculous there are 21 in my series.

Of these, 19 gave a positive reaction. They were:

Tuberculous cervical adenitis	...	11 cases
,, joints	...	6 ,,
,, periostitis ...	...	1 case
,, meningitis (following mastoid disease)	...	1 ,,
Total	...	19 cases.

Two cases gave no reaction; they were:

Tuberculous peritonitis.
Tuberculous hydrocele of tunica vaginalis.

In the former of these the reaction was repeated, with a negative result. The fact that tuberculous peritonitis was present here was only discovered on the accidental prolapse of some omentum during the radical cure of a hernia. There were no clinical signs of the disease. From this one case of course nothing can be induced, but it is interesting from the fact that tuberculous peritonitis has always given a negative result with Calmette's reaction.

The tuberculous hydrocele was a case in which a small patch of granulations was found on the tunica vaginalis during a radical cure. On section, typical giant cells were seen.

The association of a tuberculous hydrocele with a similar form of peritonitis in children is fairly common, and this may quite reasonably have been the case here. Consequently all the known tuberculous cases gave a positive reaction with two exceptions, one of which was known to be, while the other probably was, tuberculous peritonitis.

Of the cases of tuberculous cervical adenitis referred to above as giving a positive reaction, one had been operated on two years previously for tuberculous peritonitis. There was no sign of this condition when I saw the case.

C.—*Cases Clinically Diagnosed as Tuberculous.*

Of these, there were 43 in my series, not including those referred to above, in which a pathological diagnosis was possible.

Thirty-four gave a positive reaction; they were:

Tuberculous hip	...	14 cases
,, knee	...	2 ,,
Spinal caries	...	8 ,,
Tuberculous cervical adenitis	...	8 ,,
Lupus vulgaris	...	2 ,,
Total	...	34 ,,

These cases showed nothing in their course or termination to throw doubt on their tuberculous origin.

Nine cases gave a negative reaction. Of these, 8 eventually proved to be almost certainly not tuberculous. They were:

Syphilitic arthritis	...	1 case
Staphylococcal caries	...	1 ,,
Septic infection of cervical lymphatic glands	...	1 ,,
Congenital thickening of epididymis	...	1 ,,
Vesical calculus	...	1 ,,
Non-tuberculous arthritis of doubtful origin	...	3 cases
Total	...	8 cases.

The remaining case was one of spinal caries, and I believe this to be one of the four cases in my series in which the reaction was misleading.

Of the above 8 cases, 2 were diagnosed as "tuberculous coxitis," and their rapid cure by a short period of immobilization was in marked contrast to the progress of similar cases giving a positive reaction.

D.—*Cases Clinically Doubtful.*

Of these, there were 11.

Three of these gave a positive reaction. They subsequently proved to be:

Tuberculous caries of rib ...	...	1 case
Tuberculous coxitis	...	1 ,,
Lymphadenoma	...	1 ,,
Total	...	3 cases.

The case of lymphadenoma is the second of the four referre to as giving a misleading reaction.

Eight cases gave a negative reaction. They subsequently proved to be:

Simple vaginal hydrocele ...	...	2 cases
Septic cervical adenitis ...	...	2 ,,
Septic osteomyelitis	...	2 ,,
Sarcoma of kidney	...	1 case
Septic ext. iliac lymph glands...	...	1 ,,
Total	...	8 cases.

Thus of a total of 123 cases the reaction was misleading in 4 only. Two of these were tuberculous peritonitis, 1 was spinal caries, and 1 was lymphadenoma, in which the reaction was positive. In this connexion it is interesting to remember that some pathologists have considered lymphadenoma to be a form of tuberculous infection.

Reaction on Repetition.

The diagnostic value of the reaction having been established, certain points of more academic interest come up for consideration. Prominent among these is the question of repeating the reaction. It has been stated that the result is always positive on the second attempt, and this has been attributed to the absorption of some of the tuberculin on the first occasion, and its subsequently causing a reaction to the second scratch. This is quite erroneous, as the following 14 cases in which I made the experiment show:

		Cases.
Reaction negative.	Repeated in 24 hours, again negative ...	6
Reaction negative.	Repeated in 48 hours, again negative ...	1
Reaction negative.	Repeated in 5 days, again negative ...	7
Total		14

In 10 cases which gave a positive result I repeated the reaction (often many times), and the result was invariably still positive. The reaction may therefore be repeated without impairing its value, if for any reason it is found desirable to do so.

Reaction after Injection of Tuberculin.

Closely connected with the case of a repeated reaction is that of the reaction after a previous injection of tuberculin. The injection of tuberculin into a healthy person who gives a negative reaction will not cause a positive reaction to appear. This is proved by the following cases:

Eight healthy individuals were given an injection of tuberculin ($\frac{1}{5000}$ mg., and twenty-four hours later von Pirquet's reaction was done on six of them. It was in each case negative. Forty-eight hours after the injection the reaction was tried on the remaining two, and it was negative in these also.

But though the injection of tuberculin will not cause a positive reaction in a healthy individual, it will in certain cases curiously modify the type of reaction given by a tuberculous case. Before discussing this, a few words must be said about the types of reaction commonly seen.

The usual type which was referred to at the beginning of this article appears slightly on the first day, reaches a maximum on the second, and fades on the third and fourth. For convenience of description the intensity of the reaction will be represented by the following symbols: The sign + represents what I came to regard as the average amount of redness and oedema present in forty-eight hours. This is modified by qualifying adjectives written below, which indicate any divergence from the average. The sign — indicates no reaction. Thus, written symbolically, the common form of reaction would read as follows:

First Day.	Second Day.	Third Day.	Fourth Day.
+ Slight	+	+ Fading	+ Nearly gone

In other cases the type of the reaction is similar, but its intensity is much greater. Thus, I have frequently seen the following:

First Day.	Second Day.	Third Day.	Fourth Day.
+ Marked	+ Very marked	+ Marked	+ Fading

Or the reaction may run a perfectly even course, thus:

First Day.	Second Day.	Third Day.	Fourth Day.
+	+	+	+ Fading

Reactions of the above types are commonly seen in the less serious forms of tuberculosis, such as glandular infections, in which the general health and the resisting power of the individual remain good. In more advanced cases and especially in cases of joint disease with septic sinus and evening temperature, the reaction frequently takes an entirely different type. Thus:

First Day.	Second Day.	Third Day.	Fourth Day.
+	+ Nearly gone	—	—

Here the maximum is on the first day, and the reaction has almost disappeared by the second. This condition may be so exaggerated that the reaction may have almost disappeared in twenty-four hours, and in doubtful cases therefore, it is necessary to make an examination in eight or twelve hours, so as to be sure of not missing an early fleeting reaction.

In direct contrast to this is the reaction often seen in cases of old healed tuberculosis; thus:

First Day.	Second Day.	Third Day.	Fourth Day.
+ Marked	+ Very marked	+ Very marked indeed	+ Very marked indeed

Going on and only fading at the end of ten or fourteen days.

Wolf-Eisner regards the type of reaction seen as an important element in prognosis, and quotes a number of cases to prove his contention. My cases are not sufficiently numerous to enable me to speak with certainty on this point, but there is a fallacy in basing a prognosis upon the type of reaction owing to its great variability with the temporary condition of the patient. This variability seems to depend partly on the general health but mainly on injections of tuberculin, by autoinoculation or otherwise. From a prolonged series of observations it was found that an injection of tuberculin caused the reaction to take on the "early fleeting" type referred to, and it only returned to the normal in about seven days. Consequently, if the reaction be tested with a view to prognosis it must not be done within a week of treatment by tuberculin.

Reaction with Bovine Tuberculin.

As it appeared a matter of some pathological interest the reaction was tried on a number of cases, using tuberculin made from the bovine as well as the human form of the tubercle bacillus. In fifteen such cases the reaction to the human and the bovine forms were exactly similar. Occasionally the intensity of the reaction was a little greater to one than the other, but the type was always the same. Moreover, the bovine reaction was similarly affected by injection of ordinary tuberculin. It was concluded, therefore, that as regards this reaction human and bovine tuberculin are substantially similar.

Reaction with Other Vaccines.

The reaction was tried in other forms of microbic infection (staphylococcal, streptococcal, and pneumococcal), using the corresponding vaccine in each case. In no case was any diagnostic reaction obtainable.

Summary and Conclusions.

1. Healthy children up to 12 years of age do not give von Pirquet's tuberculin reaction.
2. Tuberculous cases, with certain rare exceptions, do give this reaction.
3. The reaction has been of value in many doubtful cases.
4. The reaction may be repeated if desired without being modified or altered thereby.
5. A previous injection of tuberculin will not produce a reaction in a healthy patient.
6. An initial injection of tuberculin modifies the type of the reaction in a tuberculous case. The type returns to normal in about a week.
7. Bovine tuberculin behaves in an exactly similar manner to ordinary human tuberculin when used for the reaction. The reaction to bovine tuberculin is similarly modified in type by a subcutaneous injection of human tuberculin.

THE TUBERCULIN SKIN REACTION (VON PIRQUET'S).

J. W. BRIDE, M.B., B.S.LOND., M.B., CH.B.VICT.,
SENIOR RESIDENT MEDICAL OFFICER, MANCHESTER CHILDREN'S HOSPITAL, PENDLEBURY.

I indebted to the kindness of Dr. Hutton and Dr. wood for permission to publish an account of our rience in their wards in the Manchester Children's pital, Pendlebury, with the von Pirquet skin reaction ng the months October, 1909, to March, 1910.

he test was applied in 92 cases, which I have tabu- l below. The procedure we adopted was to make e small scarifications on the forearm, aseptically ared, two above, parallel, and one below. The upper were inoculated with 25 per cent. tuberculin solution ined from Messrs. Martindale. The lower was used control. The appearance of a ring of hyperaemia red papules in twenty-four hours was regarded as tive. In the table below the cases styled "non- rculous" were chiefly chorea or enuresis, in which signs of tuberculosis were discoverable clinically. table contains the clinical diagnoses of the diseases hich the test was applied.

Von Pirquet's Reaction.	Positive.	Negative.	Total.	Positive.
				Per cent.
Undoubted pulmonary tuberculosis	18	4	22	81.8
Doubtful pulmonary tuberculosis	10	1	11	90.9
Bronchitis	4	3	7	57.1
Pneumonia	2	2	4	50.0
Bronchopneumonia	1	5	6	16.6
Pleurisy	4	3	7	57.0
Empyema	—	6	6	—
Abdominal tuberculosis ...	3	2	5	60.0
Doubtful enteric fever ...	2	—	2	100.0
Renal tuberculosis	1	1	2	50.0
Tuberculous meningitis ...	2	4	6	33.0
Cerebral tumour	1	—	1	100.0
Non-tuberculous cases ...	—	13	13	—
Total...	48	44	92	52.1

. *In the Twenty-two Cases of Undoubted Pulmonary Tuberculosis—(a)* In the 18 positive cases all presented definite signs phthisis; 11 gave definite family history of tuberculosis; in y 4 was there pyrexia, the rest were quiescent. *(b)* In the negative cases, all presented definite signs of phthisis. In there had been an attack of pneumonia seven weeks previously (? unresolved pneumonia); another, with definite family tory and definite signs of pulmonary tuberculosis, had ces of a recent attack of chicken-pox upon him; the other ave a marked family history of tuberculosis, no history of eumonia, and both had marked physical signs.

. *In the Eleven Cases of Doubtful Pulmonary Tuberculosis—* In the 10 positive cases, 6 gave definite family history of berculosis, 5 of previous bronchitis or pneumonia, and 6 a tory of measles. There was no pyrexia, the signs were y vague, and the history of loss of flesh and night sweats s variable. The majority of these improved under treatnt. In 2 cases it was thought that the disease might have en freshly lighted up by the application of the tuberculin; t on the whole the test was an aid to diagnosis, and led to rlier and more definite lines of treatment than might otherse have been adopted. *(b)* In the 1 negative case there were finite signs and symptoms of phthisis; no pyrexia was esent. The patient was discharged "cured."

3. *In the Seven Cases of Bronchitis—(a)* In the 4 positive cases, e clinical diagnosis in 3 was bronchitis (? pulmonary tuberlosis); there was a definite history of measles in 3; no family story of phthisis. All presented signs so vague that a finite diagnosis could not be made except from the history chronic cough, expectoration, and loss of flesh. In the urth there was a long history of cough, loss of flesh, and pectoration, and there was a very vivid reaction, and it emed as if the tuberculin might have lighted up the disease re, as definite signs shortly developed at both apices, and did t clear up on discharge. *(b)* In the 3 negative cases, in 2 ere was a definite history of phthisis, in all of measles, and ere were only signs of chronic bronchitis and cough; they ere treated for this and discharged cured.

4. *In the Four Cases of Croupous Pneumonia—(a)* In the positive cases, in 1 the clinical diagnosis was unresolved pneumonia; there was a definite history of phthisis. In the other chronic bronchitis had existed for a year; no family history of tuberculosis. The case improved but still displayed signs on discharge. *(b)* In the 2 negative cases, both were definite cases of pneumonia, and they both cleared up absolutely and were discharged cured.

5. *In the Six Cases of Bronchopneumonia—(a)* In the 1 positive case there was a definite history of phthisis and history of measles and chronic bronchitis. The temperature fell shortly after admission, and the diagnosis of phthisis seemed established. *(b)* In the 5 negative cases there was no family history of phthisis; there was history of measles in 2 cases. All seemed definite cases of bronchopneumonia. The signs cleared up, and the cases were discharged cured.

It is not necessary to summarize the other cases. In pleurisy we found the test of help in diagnosing the cause of the effusion, which we were able to verify in some cases by microscopical examination of the fluid, and by culture methods. The same help was obtained in the cases of empyema. In the diagnosis of suspicious cases of enteric fever we got great help from the test. In the cases of meningitis it is difficult to understand why the test was negative in 4 of the 6, as all had equally pyrexia and the fluid in each case was clear. In both the positive and in one of the negative cases pure cultures of pneumococci were grown from the spinal fluid. All were found definitely to be tuberculous meningitis *post mortem*. The case of cerebral tumour which gave a positive reaction had no pyrexia, and solitary tubercles were found *post mortem*.

We have come to the conclusion that the test is of great help:

1. In the early diagnosis of pulmonary tuberculosis and its distinction from unresolved pneumonia and chronic bronchitis.
2. In the differential diagnosis between enteric fever and abdominal tuberculosis and the early diagnosis of abdominal tuberculosis.
3. In the diagnosis of the cause of pleuritic effusions.

We do not appear to get much help from the test:

1. In cases of tuberculous meningitis.
2. In cases of tuberculosis where some acute infectious disease accompanies it; and
3. Cases of tuberculosis associated with much pyrexia.

We have not yet facilities for applying the test to every case entering the hospital which would give much more satisfactory statistics. From our experience it is not established that the test is quite without risk to the patient, as mentioned above. Up to the present, however, it has been most helpful in diagnosis, and appears to us as not entailing any serious risk to the patient.

SOME POINTS RELATING TO THERAPEUTIC IMMUNIZATION.*

BY J. COURTENAY MACWATTERS,
M.R.C.S., L.R.C.P.,
HONORARY MEDICAL OFFICER, ALMONDSBURY HOSPITAL.

THERAPEUTIC immunization is a method of treatment in cases of bacterial invasion whereby the aid of proved scientific phenomena is brought to Nature in establishing a rising tide of immunity, and thus enabling the human organism to react successfully to the infection, in precisely the same manner as is accomplished by Nature in those cases where spontaneous cure results. I would here remind you that opsonin renders the bacteria vulnerable to the phagocytes, that without its presence in a germ laden tissue phagocytosis cannot take place, and that from the early experiments of Wright and Douglas it is evident that opsonin acts on the bacteria and not on the phagocytes.

In vaccine therapy we are dealing with a method that is capable of giving the most gratifying results—at times beyond the dreams of the most sanguine—yet unless judiciously applied it may lead to dire disappointment, and receive much undeserved condemnation. Where this has occurred I have almost invariably found that the fault lay with the would-be immunizator rather than with the method. It is useless to inject vaccines into a patient,

* Read before the Bath and Bristol Branch of the British Medical Association.

even in the most suitable doses, if the flow of highly opsonized lymph through the diseased tissues is not assured, and it is equally futile to treat a patient with a vaccine prepared from other than the variety of organism causing the disease; or again, it is useless to expect one vaccine to effect a cure in a multiple infection; yet all these errors have been the cause of reputed failures of the method. It is my belief that cure is practically certain in any uncomplicated case of localized bacterial infection if one can succeed in three things—namely, isolating the offending organism, preparing a vaccine from it and administering it in suitable doses, and determining the flow through the attacked tissues of the resulting highly opsonized lymph. I have mentioned localized infections only, for as yet sufficient work has not been done in systemic infections to warrant my speaking dogmatically regarding the treatment of these by vaccines. Much light is being thrown upon the treatment of such infections by Morgan, Freeman, and other workers at St. Mary's Hospital Inoculation Department and elsewhere, and I have obtained most encouraging results in whooping-cough, phthisis, rheumatism, and in some cases of pneumonia and diabetes.

Those who have read Metchnikoff's lectures on the Comparative Pathology of Inflammation will remember his generalization that everywhere in the vertebrate and invertebrate kingdoms, the introduction of bacteria into the tissues is responded to by a determination of phagocytes to the seat of infection, and that this migration of phagocytes is the *only* antibacterial agency, and that therein is the *whole* import of inflammation. Wright and Douglas, Bulloch, and others have since then shown that phagocytes, when unaided by the opsonic power of the blood are impotent. So that to-day we must regard the processes of inflammation as ministering to immunization, on the one hand by the transference of phagocytes and on the other by the transference of antibacterial fluids from the blood to the invaded tissues. In other words, Nature attempts cure in a local bacterial invasion by producing a migration of leucocytes into the infected tissues accompanied by a levelling up of the amount of opsonin in the invading tissues to that in the circulating blood; and it therefore follows that if the opsonic content of the blood is deficient we shall fail to obtain a destruction of the invading bacteria. Herein lies an explanation of the failure of Metchnikoff's original theory in those cases of inflammation where phagocytic migration is unattended by cure.

Spontaneous cure in localized bacterial infection is brought about by the transfer of antibacterial substances, phagocytes, and opsonized lymph, from the circulating blood to the infected tissues; when spontaneous cure fails we can give aid on the one hand by raising the antibacterial content of the blood, and on the other by assisting the flow of these substances through the infected tissues.

With these points in view I would draw your attention to the advisability of relinquishing the use of antiseptic applications to the attacked tissues, for it is very doubtful if they act against bacteria *in vivo;* and their application to tissues whose superficial layers are invaded by bacteria is of very doubtful value. By such applications we paralyse and destroy the chief line of natural attack—the phagocytes, whose action is aided by the presence of opsonin, which even the mildest of antiseptics will destroy. The aim of local treatment should be to promote a migration of leucocytes to the part, and to ensure the bacteria present being kept in a seductively attractive condition by stimulating a good flow of opsonized lymph through the germ-laden tissues. In order to attain this end conditions must be made favourable for the egress of antibacterial agencies from the blood, by raising the hydrostatic pressure in the capillaries of the infected part, and by diminishing the coagulability and viscosity of the blood. A way must also be made for the entrance of these elements into the focus of infection by evacuation, preferably combined with the local application of a chemical lymphagogue. Heat, either by fomentations or by dry hot sandbags, when applicable, will determine a flow of blood to the part, and consequent egress of phagocytes. The leucocytes may be increased in number six or seven-fold by the administration of yeast, which I give three times a day in 5-grain tablets. The hydrostatic pressure in the capillaries may be increased by Bie Klapps's method of constriction or vacuum cup Where there is brawny thickening, signifying tha bacteriotropic elements of the blood are being arrest coagulation, thus choking the tissues, and preventing leucocytes and opsonized lymph from reaching the of infection, the coagulability and viscosity of the must be diminished; this is best accomplished by adn tering citric acid as such, in doses of 1 drachm three a day, or as the juice of lemons, about four or five being necessary.

To effect an entrance of bactericidal elements int focus of infection evacuation is performed by incisio aspiration, and by the application of chemical lym gogues to the attacked tissues. A solution of salt 4 per cent., with sodium citrate 0.5 per cent., provide ideal lymphagogue in these cases; the salt by osm stimulates the flow of lymph, which is prevented coagulating and scab formation by the decalcifying of the citrate.

In localized infection the opsonic indices taken ionization, *x*-ray and electro-radiant heat applicat curettage, and massage, show the regular sequenc "negative phase," "positive phase," and "phas increased resistance" identical with that produced an ordinary vaccine prepared from the invading organ I would therefore contend that the changes which place in these cases are obtained by a process of immu tion analogous to vaccine therapy, these changes b the result of autoinoculation. In vaccine therapy have a natural method of producing immunization less distress to the patient, with greater accuracy, when properly applied, producing better results than o methods. I have been speaking only of localized bact infections; in those cases where there is necrotic tis or a barrier of much cicatricial tissue preventing ac to the lymph, surgical interference must of course sought.

When in any case of localized bacterial infection considered advisable to employ vaccines, it is in the place necessary to discover what organism may be exciting cause of the local infection. If only one organ be isolated it is almost certainly the cause, and vaccine may be straightway prepared; but where or more are present serious consideration is require determine whether one or all are responsible for patient's condition.

In deciding which are the offending organisms in a of multiple infection, the estimation of the opsonic in to each is of undoubted help. Vaccines of each organ to which an abnormal index is obtained should administered. Failing this, it is well to employ a vacc prepared from those bacteria which clinical experie has shown to be the most typical of the lesion. In ca of open infection it is comparatively easy to obtain offending organisms, and in cases of closed infection organism may be at times recovered from the urine. that repeatedly gives a negative cultural result is p bably tuberculous. Speaking broadly, deep skin suppu tions—boils and carbuncles, for example—are, as a r due to *Staphylococcus aureus;* superficial lesions, such eczema, acne, etc., to the *Staphylococcus albus.* Bull conditions, including onychia, are due to streptococc Impetigo usually is due either to a streptococcus, wh the lesion appears at first as a flat vesicle and later a scab, or to a staphylococcus, usually the *aureus*, wh there is scab formation from the first. Chronic sinus including those arising from a tuberculous lesion, are favourable habitat for streptococci, which may be oft found alone, or in conjunction with staphylococci, or coliform organism. A white, sodden, eroded appearan round an ulcer or mouth of a sinus is usually associat with the *Bacillus pseudo-diphtheriae*, and this organi is frequently present in, and is sometimes the cause otorrhoea.

In bronchitis the usual organisms present are t pneumococcus, Pfeiffer's bacillus of influenza, *Micr coccus catarrhalis*, and diphtheroid bacilli.

In pyorrhoea alveolaris I have invariably found streptococcus present in every case, and frequent pneumococci or *Micrococcus catarrhalis.*

Any one who has had much experience with vacci therapy knows how much more prevalent is infection

tubercle bacillus than is generally imagined. If sus-
ted in any case, confirmation or the reverse may
dily be obtained by the estimation of a few tuberculo-
onic indices.

n immunization the question of dosage is often most
icult to decide; on it depends whether we get a
ximum immunizatory response with a minimum toxic
ct or not. If the patient has symptoms of toxaemia—
h temperature and rapid pulse—or is anaemic, in other
ds, has a low resisting power, particularly if his
onic index is markedly reduced to, say, 0.6 or 0.5, the
e of vaccine should be much smaller than that which
ld be given to a more robust person, and obviously
small man should, other things being equal, have a
aller dose than a big man.

The opsonic index, taken before and two or three days
er inoculation, is a most important guide. In many
es this is not a necessity, but if a case does not im-
ve, the dosage will usually be found at fault, and may
increased or diminished, according to the information
orded from the indices. If, for instance, in a case of
ls, a dose of vaccine is followed by increased pustula-
n, discharge, and pain, with the appearance of fresh
ps of boils, and possibly a marked rise in the patient's
nperature, or if in a case of *B. coli* infection of the
ladder, increased frequency of urination, pain, and irrita-
ity follow on inoculation, there has undoubtedly been a
rked "negative phase," and it will probably be some
ys before the tide of rising immunity will set in. In
ch cases the dose has probably been too large, and must
correspondingly diminished when the next is due; this
ll be as soon as any improvement that has accrued
gins to wane, or, in other words, when the index begins
fall after the rise that should follow the "negative
ase." When a dose is followed by immediate improve-
ent, and this improvement lasts but a day or so, being
llowed by retrogression, it is just to assume that the
se was slightly too small, and it may with advantage
increased. The ideal immunizatory response usually
llows a clinical "negative phase" lasting about twelve
urs.

With *Staphylococcus aureus*, *albus*, and *citreus*, and in
e case of superficial lesions such as eczema, acne
stulosa, impetigo, and sycosis, a dose of 50 to 100
illions at intervals of six to eight days is suitable. In
oils and carbuncles, however, to get the best results,
0 to 250 millions may be given with advantage, followed
three or four days by a dose of 400 to 500 millions, after
hich the lesion will usually heal rapidly and incipient
oils abort. Staphylococcic invasion of small skin
rasions associated with lymphangitis and enlargement
the corresponding lymphatic glands usually yield to
ne or two doses of 50 to 100 millions of the *aureus* variety,
peated, if necessary, in three or four days.

Streptococci are very toxic, and, as a rule, a dose of
to 10 millions is sufficient, to be repeated in eight to ten
ays. Pneumococcal invasions call for larger doses, 20 to
5 millions, or even more, being usual.

As regards gonococci, in cases of gleet and secondary
fections—for instance, of joints, or the pelvic organs of
ne female, and in cases of "latent" or chronic gonorrhoea
the male—treatment by doses of 5 to 25 millions every
x to ten days will often be followed by marked relief.
n dealing with a suspected joint, the estimations of a
eries of opsonic indices before and after autoinocula-
on produced by massage of the joint will settle the
iagnosis. The coliform group are also very toxic, and
dose of 10 to 20 millions is sufficient. The *Bacillus*
yocyaneus furnishes a good vaccine, and I have seen
atisfactory results with doses of 25 millions every eight
o ten days.

As to tuberculin, this vaccine is undoubtedly the most
oxic, and therefore requires far more careful handling
han the others; a dose of one ten-thousandth of a milli-
ram is frequently far too large, so that till the effect of
uberculin on the patient is known, it is wise to be satis-
ied with one twenty-thousandth of a milligram. I have
nown one fifty-thousandth of a milligram seriously to
pset an adult case of tuberculosis of the bladder. The
lose of tuberculin should be repeated in from eight to
wenty-one days.

The frequency of staphylococcal invasion in diabetes is
well known, and I would submit that the glycosuria may be the result, and not the cause, of the lowered resistance to these organisms. In one case at present under my care I have on three occasions found copious glycosuria clear up after the administration of an auto-staphylococcal vaccine as soon as the opsonic index became raised, and now, although the patient has been on absolutely restricted diet, sugar has been absent from his urine for the past four months, during which his index has been kept normal by fortnightly doses of 200 millions. I have under observation three other cases of glycosuria, each of which has improved definitely while under treatment on these lines: all have gained weight, and there has been marked diminution in the output of sugar, and reduction in the amount of urine. They have had no additional treatment, and are on an absolutely unrestricted diet. After a dose of 500 millions one patient, during a negative phase, showed increased output of sugar on two occasions, and this was followed by improvement after twenty-four to forty-eight hours.

In several cases of bronchorrhoea following acute bronchitis in old people, I have isolated a long large streptococcus and *Micrococcus catarrhalis*, and have had excellent results following treatment of these by vaccines. The amount of sputum was reduced rapidly in each case to less than half after the first dose, and in one immediate cure followed one inoculation, after the expectoration had averaged half a pint or more daily for three months. Two cases, aged 72 and 65 respectively, in fat people who were going downhill rapidly with dilated, irregular heart, and who seemed to be drowning in their own secretions, and had failed to make any improvement with treatment for three or four weeks by senega, ammonium carbonate, prunus virginica, and tar preparations, etc., recovered rapidly after being given auto-vaccines.

I would like to record one other case:

A nurse, three years ago, was on the nursing staff of a well-known consumption sanatorium; while there her blood was frequently used as a control for estimating some of the patients' opsonic indices to tubercle. After some time it was discovered that her index had dropped to 0.6, and she was not feeling as well as usual. She left shortly after; no chest symptoms were discoverable. About nine months later she began to develop exophthalmic goître, and eventually had to give up her work. When she came under my care she had tremor, tachycardia, had lost 14 lb., had marked proptosis, and the thyroid gland was definitely enlarged; all these symptoms were increasing, in spite of rest in bed and treatment for the previous few months. I found her tubercle opsonic index was 0.6, and gave her one-twenty-thousandth of a milligram of tuberculin. This was followed by very definite increase in cardiac distress, and an increase in the size of the neck by 1 in., accompanied by pain in the thyroid gland. At the end of three days she expressed herself as feeling much better than for some weeks, and by the end of ten days the gland had recovered not only the inch enlargement, but became smaller than before the inoculation. I consequently gave her smaller doses, and each time a negative phase was associated with the same aggravation of symptoms, with increase in size and pain in the thyroid gland, benefit following with the positive phase. Her index rose, and with it her general condition improved, and now, after three months' treatment, she has gained over 1½ st. in weight, tachycardia is a rare symptom, the proptosis is almost gone, and the size of the neck is within ½ in. of the normal.

We know that this disease is often followed by extraordinary, almost spontaneous, recovery, yet I think the sequence of events after inoculation is interesting. Single cases such as these, although they are far from proving beyond doubt the bacterial origin of the disease in question, at least warrant a careful investigation, in the hope of elucidating its etiology and treatment.

Diphtheria and typhoid carriers, who up to the present time are an uncontrolled danger to the community, may yet be rendered useful and harmless members of society by vaccine therapy.

The cicatricial contraction which occurs during the healing of extensive burns is probably due to inflammatory changes set up by invading microbes. I would suggest that all cases of extensive superficial lesions, such as burns, ulcerations, etc., should be frequently examined bacteriologically, and that any invading micro-organisms be eliminated by the use of approved vaccines. I have reason to believe that scar production will thus be reduced to a minimum. I have seen a case of extensive ulceration of the skin, where there had been destruction of all superficial tissues, from the ear to the tip of the shoulder and from the spine of the scapula to the clavicle, healed and covered by a beautifully soft and elastic non-shrinking

skin without the aid of grafting, such as has never fallen to my lot to see in cases treated by methods other than therapeutic immunization.

To sum up the results of my experience of vaccine therapy, I have not in a single instance had any reason to regret the application of the method in question; on the contrary, I am fully convinced that in all cases of localized bacterial infection therapeutic immunization, which, as I have pointed out, includes the determination of the flow of opsonized lymph through the infected tissue, gives better results than any other method.

Lastly, I would point out the simple giving of vaccines does not complete the treatment of every case of localized bacterial infection. The patient's opsonic content may be quite high, and yet, as I have already hinted, unless the richly opsonized lymph can, and does, reach the germ-laden tissues, it is practically useless.

THE CLASSIFICATION OF THE SYMPTOMS OF LEAD POISONING.*

By W. DOWLING PRENDERGAST, M.D., M.Ch., M.A.O., D.P.H.

ARMAND GAUTIER has enumerated seventy occupations in which the workman is subject by his occupation to lead poisoning. We have also to consider the fruits of their industry in the materials for our common and everyday use, all impregnated with a salt of lead. From our earliest age we come in contact with the poison. I have in my hand an ordinary child's toy tea set, which in a child of 4 years under my care produced lead poisoning; the child sucked the paint off it. I had another case of a child of 12 months, who was in the habit of sucking the leather covering of its perambulator; the leather on analysis was found to be impregnated with a salt of lead.

Sir Thomas Oliver, in his Goulstonian Lectures, cites the case of an old gentleman whose symptoms were of a puzzling nature; he consulted a leading London physician, who elicited that he was an inveterate snuff taker; the snuff was found to contain lead; when it was discontinued, the patient soon recovered. He quotes another case in which the symptoms were obscure; he noticed that the patient for her age had very black glossy hair, and found that she was accustomed to dye it with a wash which contained a large amount of lead.

A more remarkable series of cases occurred affecting the French navy in 1878, whilst serving abroad. In the first instance the symptoms were attributed to malaria; so grave was the outbreak that the French Government appointed a commission, which found that the outbreak was due to the large amount of lead used in the paint for the internal decoration of the warships. Since that time only zinc oxide paint is used. The use of tinned foods is prohibited as far as possible, and the distillation of drinking water is no longer conducted by lead pipes. The health of the men has since then improved considerably.

In another case I will cite I saw the patient the day before he died; he was convulsed, and showed to me unmistakable signs of lead poisoning. I will quote his wife's evidence at the inquest:

> Dr. A.'s locum tenens called on January 3rd, and told her that her husband was suffering from typhoid. He was treated for typhoid from that day to his death. The witness added that Dr. A. came the following Sunday, and confirmed the diagnosis of typhoid. Afterwards, the sanitary inspector came, and steps were taken to remove him to the Bradwell Sanatorium, but there was no bed there for him. Deceased gradually grew worse, and the following Tuesday he became insensible, and jumped out of bed. He was convulsed from the Tuesday night until his death on Wednesday.

The man's organs were analysed for me by Professor Bedson of Durham, with the following result:

Bottle 1. Containing kidneys and spleen:	
Total weight of contents	13 oz.
Total lead present	0.259 grain
Bottle 2. Containing brain:	
Total weight of contents	3 lb.
Total lead present	0.176 grain
Bottle 3. Containing liver:	
Total weight of contents	4 lb. 3½ oz.
Weight of liver	3 lb. 9⅞ oz.
Total lead present	0.540 grain

In this case a grave injustice might have been to the widow, as she received £120 compensa I quote these cases to show how obscure and dif it is sometimes to diagnose lead poisoning.

My experience of lead poisoning has been gatl mainly among the potters of this district. Unde Compensation Act any potter suffering from the e of lead is entitled to compensation, so that from a me legal point of view the need of classification is obviou

In the potting industry the lead used is chiefly carbonate of lead, and also the silicate—the glaze composed of the silicate in what is known as the material, which is ground at the mill; the soft carb is added to this. In the different processes of dip ware-cleaning, glostplacing, in the mixing sheds, transfer making, in the colours used in colour dus also in majolica painting, lead is evolved in a fine I have on my clinical notes 405 cases of lead poisonin

170 males, of the average age 37.4 years.
235 females, of the average age 27.6 years.

Occupation.

	No.	Percentage
Males—		
Glostplacers	76	44.
Dippers	74	43.5
Colour	8	4.5
Not stated	12	7.0
Females—		
Ware-cleaners	89	37.8
Colour dusters	56	24.4
Dippers	34	9.8
Majolica paintresses	23	9.4
Not stated	33	14.4

Symptoms.

Males (170)—		
Paralysis	97	57.0
Totally blind	4	2.3
Partially blind	6	3.5
Vision disturbed	17	10.0
Gastric trouble—colic and vomiting	122	77.6
Epilepsy	29	17.6
Encephalopathy	27	15.0
Blue line	105	61.7
Insanity	1	
Rheumatoid arthritis ...	10	5.8
Gout	4	2.4
Females (235)—		
Paralysis	71	30.0
Totally blind	18	7.7
Partially blind	24	10.2
Vision disturbed	33	14.0
Gastric disturbance—colic and vomiting	161	69.8
Epilepsy	40	17.0
Encephalopathy	82	34.9
Blue line	143	60.8
Miscarriages	97	41.2
Insanity	6	2.5
Rheumatoid arthritis ...	3	1.3

Age.

Males—	
Average age for 68 cases	37.4 years
Age of the youngest	16 ,,
Age of the oldest	67 ,,
Females—	
Average age for 80 cases	27.6 years
Age of the youngest	15 ,,
Age of the oldest	53 ,,

Died.

Males	16 = 9.4 per cent.
Females	15 = 6.4 ,,

Two main systems of classification may be made. the one regard is had to the action of lead on (1) t brain and nervous system; (2) the sensori-mo apparatus, including the voluntary muscles; and (3) the involuntary muscles, including the vasomotor syste The other system, that which I propose to adopt in ca of lead poisoning, is classified under two main head (1) Saturnina mitior, and (2) Saturnina gravior.

* Read before the North Staffordshire Division of the British Medical Association.

. Saturnina mitior would include the prodromata and lesser symptoms, namely:

1. Disorders of digestion, such as dyspepsia and constipation.
2. Cachexia.
3. Slight blue line on gums.
4. Slight colic.
5. Anaemia, especially in women, with accompanying symptoms of a minor character.
6. Pains of an undefined character in trunk and limbs.
7. Loss of appetite, and vomiting.
8. Polyuria.
9. Slight albuminuria.

.I. Saturnina gravior would comprise:

1. Cachexia and emaciation of a marked character.
2. Acute colic, prolonged.
3. Fetid breath.
4. Paralysis of arms and limbs.
5. Blue line well marked.
6. Acute pains in the head.
7. Disturbance of vision.
8. Tremors.
9. Suppression of urine.
10. Epileptiform convulsions.

From a clinical point of view, lead poisoning presents o aspects: in one the poison enters daily into the stem in small doses, and is eliminated by the main unctories—the liver, the kidneys, and the skin; in the her, the kidneys and the liver are enfeebled from the tion of the poison, and lose their eliminating functions, d the poison exerts its baneful powers and produces the ajor symptoms.

Armand Gautier, in his work *Le cuivre et le plomb*, ys that a person may take 100 to 300 mg. without owing any acute symptoms of lead poisoning, but the ily absorption of 8 to 20 mg. of lead will in time result a serious deterioration of the health. At the Chateau Claremont 13 out of 34 people were affected with lead isoning through drinking for a short time water which ly contained 1 grain of lead to the gallon.

Again, we have to consider the sex and the idiosyncrasy the patient. Women are more subject to lead poisoning an men. Their nervous and uterine systems show uickly the effects of the poison; this is shown by the omparative table:

Comparative Percentage.

	Males.	Females.
	Per cent.	Per cent.
aralysis	57.0	30.0
otally blind...	2.3	7.7
artially blind	3.5	10.2
yes affected...	10.0	14.0
astric disturbance	77.6	69.8
pilepsy	17.6	17 0
ncephalopathy	15.0	31.9
lue line	61.7	60.8
liscarriages	—	41.2

Saturnina Mitior.

If we take an ordinary case of lead poisoning, we shall be able to see the working out of the classification. An individual in good health continues to absorb daily a certain amount of lead, either by the skin, the respiratory or the digestive organs. He first complains of a feeling of malaise, accompanied by digestive disturbances and constipation. A peculiar cachexia is then developed, owing to the destructive action of the lead on the red blood corpuscles. A sweet taste in the mouth is described, and we may then find a slight blue line appearing at the junction of the teeth with the gums. This is Burton's blue line. It is the most diagnostic sign of lead poisoning, and is formed by the sulphide of lead, the lead being acted on by the sulphuretted hydrogen of the buccal secretions. Personally I think the line produced mechanically, the trituration of the food in the mouth forcing the lead salt into the interstices between the teeth and the gums. If there be no teeth there is no blue line; if there be a marked blue line the "*plaques tatouées*" of Gubler, the tattooed marks on the buccal mucous membrane will be observed. I have always found them present with erosion from a decaying molar tooth. The line may not exist in some cases where lead is not absorbed by the mouth; still, if it is not indicative of lead poisoning, it is the finger-post which directs us to the fact that the individual has absorbed lead in some form or the other. There is no other drug or poison which shows this blue line; carbon may show a black line and copper a green one.

Slight colic is one of the first and most frequent symptoms complained of. It was originally called colica Pictonum, a name derived from a district in France, where wine was made and stored in earthenware receptacles, glazed with galena, or alquifoux—a soft glaze, the earliest of all glazes known to the potter. The wine dissolved the lead in the glaze, and people drinking the wine contracted colic or intestinal cramps. This symptom is complained of in saturnina mitior, but the great nerve centres are not involved.

One other symptom which marks lead poisoning in its early stages is anaemia. Lead has a very destructive action on the red blood corpuscles. Sir Thomas Oliver says: "I have never found the normal number of red corpuscles in a lead worker." Zinn says that the haemoglobin is decreased 50 per cent. Oliver puts it at 45 per cent. to 50 per cent. of the normal. In a paper lately published by him, Kenneth Goadby quotes 10 cases of lead poisoning in which the red blood corpuscles varied in each case from 3,768,000 to 1,334,000, the normal being about 5,000,000. He described a granular condition of the red corpuscles, indicating a destructive tendency. There is no doubt that the uneliminated lead, circulating in the blood, has a most deleterious effect, and is deposited here and there in the tissues. In women lead workers we find in saturnina mitior very often menorrhagia, the symptoms of a minor character being dyspnoea and palpitation. Pains of an undefined character are also complained of, sometimes in the muscles, but more often in the joints. I have found these pains to be due to the amount of uric acid circulating in the blood, for it has been proved that lead favours the retention of uric acid, so much so that Sir William Roberts has described the condition as one of uratosis.

Polyuria and albuminuria are amongst the earliest symptoms we have to deal with. Lead seems to act as an excitant to the kidney cells, at first in saturnina mitior; the albuminuria is of a transient character. The increase in the quantity of urine is marked, the lead being eliminated in the urine, as can be proved by analysis. Bouchard found the urine of a patient in the early stages of lead poisoning to be highly toxic on injection. He again injected the urine when the patient was suffering from the epileptiform convulsions of saturnina gravior, and he found that it had lost this toxic property. Oliver describes a parenchymatous nephritis which as the poisoning advances finally changes into an interstitial nephritis. These are the stages of saturnina mitior as I would classify them.

Saturnina Gravior.

If the individual still continues to absorb lead in minute quantities the system becomes more enfeebled, and the liver and kidneys cease their eliminatory functions. The cachexia which is characteristic of lead poisoning then develops. The countenance assumes an ashen grey colour, different from that seen in the anaemia of the ordinary or pernicious type. Through faulty nutrition the emaciation is marked.

A further stage is marked by the onset of acute colic, the pain being severe and prolonged. This colic, in my opinion, is due to a perverted peristalsis. In health the peristaltic action of the intestines is of a rhythmic character, and goes on unnoticed. The intestines with their circular and longitudinal fibres have the plexus of Meissner between them to carry on and control this rhythmic action. Writers describe this continuous spasm of the intestines in lead poisoning as in parts nearly of the nature of an intussusception. The sympathetic and splanchnic centres become involved, with consequent excessive action of parts of the intestines, without due

correspondence of the parts correlated. The existence of this excessive and perverted peristalsis is proved by the facts that pressure mitigates the pain, and that it is stopped by full doses of opium, which inhibits the peristaltic movements of the intestine. Suddenly, following these acute attacks of colic, we may find the patient paralysed. The paralysis may attack any part of the system, but it is most marked in the forearm, producing the dropped hand of lead poisoning, caused by the paralysis of the extensor muscles of the forearm, the supinator longus, singular to say, remaining intact. The muscles retain voltaic and galvanic, but lose faradic, irritability. Why the flexor muscles and the supinators are not attacked by paralysis is the paradox of lead poisoning. Very often paralysis of the Duchenne-Erb type develops, the deltoid and its corresponding group of muscles being attacked. The muscles of the legs often suffer, the lead selecting the extensors by preference. As to whether this paralysis is central or peripheral, I would observe that we know of two degenerations of nerve tissue—the Wallerian, where the centres are involved, and the other, where the axes cylinders are attacked. Erb and Remak state that the degeneration is Wallerian. In my opinion the degeneration is peripheral, and my reason for making this statement is, a few years ago I selected 50 of my worst cases of lead paralysis, and sent them to Dr. Auriol Armitage, of Wolverhampton, for electrical treatment. Dr. Armitage read the results in a paper to the British Medical Association. Remembering what helpless cripples these patients were, the effects of the treatment were marvellous: 75 per cent. of the paralytics were cured, while 47 out of the 50 were much benefited. The duration of treatment varied from three weeks to three months. I do not for a moment think that these beneficial results could have been obtained if the centres had been involved, as in tabes and infantile paralyses, for example.

The blue line deepens in colour, and in some cases the *plaques tatouées* of Gubler may be seen marked on the buccal mucous membrane. Abortion is prevalent amongst the married women, who work as ware-cleaners, dippers, colour dusters, or litho-transfer makers, ground layers, majolica paintresses. Lead is frequently used in the Potteries as an abortifacient, the ordinary diachylon being scraped off and used in the form of pills. A patient I attended took twenty-four of these pills at once, with for her very happy results.

M. Paul, who has investigated this subject, says that women who work in lead frequently abort. In 123 pregnancies of lead workers, 73 children were born dead. Of these, 64 were abortions, 4 premature births, and 5 full time. Of the 50 born alive, 20 died in the first year, 8 in the second, 7 in the third, and only 14 reached the age of 10 years. Sir T. Oliver also says that lead workers miscarry in much larger proportions than other women. This has also been my experience. Unfortunately I did not segregate the married from the single women on my list, but I find I have a series of 97 abortions, one woman having had as many as 12.

I have mentioned the destructive action of lead on the blood and its consequent interference with the ovarian, the uterine, and nervous functions of a woman; we can therefore easily understand its abortive powers.

Tremors are often complained of as a later symptom of lead poisoning. The kidneys, after undergoing parenchymatous degeneration, are further attacked; Bowman's capsule becomes thickened and laminated, the capillaries in the glomeruli being distended with blood cells. The cells lying between the coils of capillaries undergo extensive proliferation, and are finally destroyed with an extensive production of connective tissue. A true interstitial nephritis is thus produced and causes atrophy of the kidneys.

At a *post-mortem* examination made with Dr. R. Alcock on a case of chronic lead poisoning it was difficult to find the kidneys; we eventually found two small atrophied organs, one weighing $2\frac{1}{4}$ oz. and the other $2\frac{3}{4}$ oz. In such cases the urine is suppressed and the gravest symptoms of lead poisoning ensue, ending in acute mania, blindness, epileptiform convulsions, and death.

Disturbance of vision is a common symptom of lead poisoning. The ordinary symptoms of anaemia and amenorrhoea being present, headache of a severe type is complained of, and suddenly either a partial loss of vision (amblyopia) or a complete loss (amaurosis) ensues. I find amongst the 235 women in my list, 75 had their eyes affected: 18 were totally blind, 24 partially blind, and 33 had disturbed vision. All these cases might be diagnosed as suffering from optic neuritis. I agree with Leber and Deutschmann that lead in the blood acts as an irritant and causes an increase of fluid in the subarachnoid spaces, this fluid increase being conveyed to the vaginal sheath surrounding the optic nerve. All writers on lead poisoning—Oliver, Swanzy, Leber, Deutschmann, and others—describe an engorgement of the retina, the veins being swollen and enlarged and the arteries contracted, finally ending in atrophy of the disc.

Epileptiform convulsions generally mark a grave stage of lead poisoning; they were well marked in the man the inquest on whom I quoted at the beginning of this paper. Lancinating pains in the head are complained of and the urine is suppressed. These convulsions may be either uraemic, or cerebral due to an increase of fluid in the brain ventricles. The convulsions are of a mixed character; the patient is very violent, and if not restrained may jump from his bed. After lasting a few hours, or in others a few days, death ensues.

In 1854 Garrod brought forward his theory that lead poisoning is productive of gout; this has since then been given an accredited place in our textbooks. I am not a believer in Garrod's theory. Out of my 405 cases I find only 4 afflicted with gout. One of these had a family history of gout; the other three were excessive beer drinkers. In the Potteries the male lead workers consume large quantities of beer, no doubt on account of its action on the kidneys and bowels; among these men we should find gout, but we do not. I have never seen a case of gout in a female lead worker. I hesitated to bring forward these ideas in contradiction to such an authority as Garrod without further proof, and wrote to Sir Thomas Oliver asking his opinion, and received the following reply:

We do not see gout associated with lead here, except on the rarest occasions; when I have there has generally been a family tendency to gout, but cases of plumbism are probably too acute to favour the development, and it is just possible, too, that the beverage drunk by the lead workers does not encourage gout and yet in the London hospitals the association of the two is said to be common. Under any circumstances gout is not common here as indicated by attacks of pains in the big toe, etc. We get plenty of degenerated arteries, but from other causes than gout. My experience confirms your own: I cannot recall a case of gout in a female lead worker.

PLUMBISM TREATED BY THE INTERNAL ADMINISTRATION OF CALCIUM PERMANGANATE.

BY G. ARBOUR STEPHENS, M.D.LOND.,
SWANSEA.

LAST year I drew attention in the BRITISH MEDICAL JOURNAL to the value of calcium permanganate in the treatment of gastritis and enteritis—that is, in inflammatory conditions of certain parts of the alimentary tract.

In the JOURNAL of March 12th, 1910, I pointed out the origin of the lead line on the gums as being due to the deposit of lead in the form of the sulphide on a pre-existing red line, which was caused by irritating particles in the atmosphere in which the men worked. This red line is undoubtedly an inflammatory effect, as shown by the enlarged and engorged papillae on the edge of the gum, and it is an inflammatory line that occurs at the anterior or upper end of the alimentary tract.

As I found calcium permanganate to be of value in inflammation of other parts of the alimentary tract, I thought it worth while to test whether it would be of value also with this inflammatory line on the gums, and at the same time with the lead line.

CASE I.

The first patient to whom I administered the drug was a man, W. E., aged 38, whom I saw for the first time on July 20th, 1909. At that time he complained of pains in the arms and legs, and of inability to lift the "rabble" at his work. He had a marked lead line, and the test for potassium sulphocyanide gave a very slight reaction. Paralysis was not present, but there was some tenderness over the lower third of both sciatic nerves.

tenderness, I may say, I have found present in several nts suffering from plumbism, though I would not like to far as to say that this form of sciatica is pathognomonic umbic poisoning.

e next time I saw him was on February 14th, 1910, when dition to the above signs I found both wrists somewhat and suggestive of plumbism. With the permission of his cal attendant I prescribed calcium permanganate, ¼ grain, times a day; after fourteen days I found that the lead had disappeared, as well as the sciatic tenderness, while vrists were decidedly stronger.

CASE II.

F., aged 54, a mason, constantly employed at lead works, cially for repairing the culverts along which the fumes el, fractured his clavicle, but this by December 13th, when I saw him for the first time, had healed well. ad a lead line and was very anaemic, but there was no r sign or symptom of plumbism present. I ordered um permanganate, ¼ grain, mixed with paraffin, and put up e form of capsules by Messrs. Allen and Hanbury. This od of administration does away with the disagreeable of the drug, and it also allows its action to be gradual. the end of three weeks the lead line had disappeared and appearance had distinctly improved, the anaemia having ly disappeared.

CASE III.

P., aged 35, who had been fifteen years at the lead works, very pale and both wrists were rather suggestive of nbic weakness. There was a lead line on the gums and a dark deposit on the mucous membrane of the lower lip. fter three weeks' treatment with the drug (in capsules) the l line disappeared, and there was a considerable diminution he dark deposit on the mucous membrane. The pallor, ch at first was marked, became gradually less, and eventu- he developed quite a healthy appearance, while the wrist kness also disappeared. He observed that the drug had the ct of causing his bowels to act three times a day, instead of ce. All the deposit disappeared by the end of five weeks.

CASE IV.

. S., aged 31, whom I saw on June 9th, 1909, had to give up rk on account of "wrenched back." There was tenderness r the lower third of the sciatic nerves; he also had a lead e, as well as a line of black tartar. After taking calcium manganate for fourteen days, the lead line disappeared, ving the black tartar line, which only required the use of a thbrush.

CASE V.

. W., aged 40, was pale, and the wrists suggested plumbism. e saliva gave a very slight reaction in the test for potassium lphocyanide.

After three weeks' treatment the lead line was very much ss, the wrists better, and the potassium sulphocyanide reaction uch more satisfactory. The man's alcoholic habits consider- ly interfered with the treatment in this case.

Several other cases have responded to the treatment in ich a satisfactory manner as to emphasize the value of lcium permanganate in the treatment of cases of lumbism.

The drug should in all cases be given in capsular or latinoid form, as otherwise it has a tendency to nauseate e patient, and terminate the treatment somewhat bruptly.

On reflection the good result is not surprising, for the rug has been found, not only by myself but also by many ther medical men, to be of great value in inflammatory tates of the alimentary canal, and my original observation hat the lead line is superimposed on a red line is, I enture to think, corroborated by the result of this reatment.

In addition I would draw attention to the fact that the lcoholic habits of the men employed at lead works, ogether with the usually foul state of the mouths and eeth, are more than likely to result in an inflammatory tate of the stomach, on to which inflamed area the lead, s in the case of the gums, is more than likely to find its way and settle.

Calcium permanganate being of value in gastritis acts herefore in the nature of a preventive, and if my results are corroborated it is worth while considering whether it will not be advisable in the future to order the periodic administration of this drug to all the men at the works.

THE French Chamber of Deputies has passed a law giving communes, or portions or groups of communes within whose area there may be mineral springs, power to constitute themselves, after permission obtained from the Government, hydromineral or climatic stations. For the maintenance and development of these stations the communes may be empowered to levy special rates during a season or the whole year. On these rates they may be authorized to raise loans for the purposes indicated.

THE CAUSES OF ABSORPTION OF OXYGEN BY THE LUNGS.

BY

C. GORDON DOUGLAS, B.M., FELLOW OF ST. JOHN'S COLLEGE, OXFORD.

and J. S. HALDANE, M.D., LL.D., F.R.S., FELLOW OF NEW COLLEGE, OXFORD.

(PRELIMINARY COMMUNICATION.)*

IT has for long been a subject of controversy among physiologists whether the absorption of oxygen through the walls of the lung alveoli into the blood occurs simply by diffusion or by an active physiological process analogous to glandular secretion.[1] Pflüger, Fredericq, and, quite recently, Krogh,[2] have brought forward experimental evidence in favour of the diffusion theory, while Bohr, and Haldane and Lorrain Smith have supported the secretory theory, which was originally suggested by Ludwig.

If the partial pressure of oxygen is ever greater in the arterial blood leaving the lungs than in the air of the lung alveoli, it is clear that the simple diffusion theory must fall to the ground; and the experiments hitherto made have been designed to ascertain whether or not the oxygen pressure in the arterial blood is ever greater than in the alveolar air. Bohr, Fredericq, and Krogh have with this object employed improved forms of Pflüger's well-known "aerotonometer," the instrument finally devised by Krogh being very perfect of its kind. Haldane and Lorrain Smith's method depends upon the following facts: When blood is brought into prolonged and intimate contact with a mixture of carbon monoxide and air the haemoglobin of the blood corpuscles combines partly with the oxygen and partly with the carbon monoxide, the final proportions (which can be easily and accurately determined) depending, in accordance with the laws of mass action, on the relative partial pressures of the oxygen and carbon monoxide, and on a constant. Hence, if the final proportions, the constant, and the partial pressure of the carbon monoxide are known, the partial pressure of the oxygen can be accurately deduced. By supplying to an animal air containing a fixed proportion of carbon monoxide, until the final saturation of its haemoglobin with carbon monoxide is reached, the partial pressure of oxygen in its arterial blood can be calculated on the same principle. If the arterial oxygen pressure is greater than that of the alveolar air, the final saturation of the haemoglobin with carbon monoxide will be less than that of blood saturated with the same air outside the body and vice versa. It is, of course, assumed that carbon monoxide diffuses freely through the body, since, apart from its property of combining with the haemoglobin, it is, as was experimentally shown by Haldane, a physiologically indifferent gas, like nitrogen or hydrogen.

Haldane and Lorrain Smith determined the constants required in their calculations, not from experiments at body temperature on blood from the animals experimented on, but on dilute blood solutions or undiluted human blood. This omission, which in the then existing state of knowledge did not seem important, has, we find, seriously affected their estimates of the oxygen pressure in the arterial blood. The constant varies distinctly for the blood of different animals, and even for different individuals of the same species. We have therefore repeated the experiments, using mice, on which most of Haldane and Lorrain Smith's experiments were made, and determining the constant for the blood of each animal experimented on. We find that in general their estimates of oxygen tension were about a third too high. We have also supplied an omission in their experiments by investigating the arterial oxygen pressure in animals breathing a very low percentage of carbon monoxide (less than 0.02 per cent.), so that no physiological disturbance is produced by the gas.

Our results with mice are as follows:

1. When a very low percentage of carbon monoxide is breathed, so that no want of oxygen is produced in the body, the arterial oxygen pressure is slightly *below* the alveolar oxygen pressure. Apparently, therefore, the absorption of oxygen is by diffusion alone, as indicated by the experiments of Fredericq and Krogh and by most of Bohr's experiments.

---

* Communicated to the Royal Society, March, 1910.

The results agree closely with Bohr's recent calculations of the arterial oxygen pressure which might be expected during rest if diffusion alone were in play.

2. When a much higher percentage of CO is breathed (0.2 per cent. or more) the oxygen pressure in the arterial blood rises to nearly double that of the alveolar air, and considerably above that of the external air. With intermediate percentages of CO there are intermediate rises in the arterial oxygen pressure.

It is thus evident that, although under normal resting conditions absorption of oxygen occurs only by diffusion, want of oxygen in the tissues of the body brings into play a supplementary secretory activity by which oxygen is *actively* absorbed from the alveolar air into the blood. This process is presumably analogous to that by which oxygen at a partial pressure of sometimes as much as 100 atmospheres above that in the sea water is secreted into the swim-bladder of deep-sea fishes.

It is satisfactory to find that the results by the carbon monoxide method agree closely with those hitherto obtained by the aerotonometer method. The reasons why Fredericq and Krogh have obtained no evidence in favour of the secretion theory are also evident. Still more satisfactory is it to find that the process of absorption of oxygen by the lungs is regulated, just as is the breathing itself, in accordance with the physiological requirements of the organism. But for the secretory process the blood would be very incompletely saturated during muscular work, when five, or even ten, times as much oxygen is absorbed as during rest. During rest, on the other hand, the secretory process is not required, and would be a waste of physiological effort.

REFERENCES.

[1] A comprehensive account of this controversy is given by Bohr in Nagel's *Handbuch der Physiologie*, vol. i, p. 142, 1905. [2] Skand, *Archiv für Physiologie*, vol. xxiii, pp. 179-278, 1910.

AUSCULTATORY FRICTION:

A LITTLE-USED METHOD OF PHYSICAL EXAMINATION.

BY HERBERT H. BROWN, M.D., F.R.C.S.,

SURGEON, IPSWICH AND EAST SUFFOLK HOSPITAL.

OLD students at University College Hospital will well remember the four methods of physical examination: "First, inspection; secondly, palpation; thirdly, percussion; fourthly, auscultation." To this a fifth should be added, which, for want of a better term, may be called "auscultatory friction" or "auscultatory percussion."

It is a common practice with physicians to make use of a method of auscultatory percussion in mapping out the stomach. By placing the stethoscope over the stomach and tapping lightly with the finger a hollow sound is conducted to the ear as long as the percussing finger and the stethoscope are over the area where the stomach is in contact with the body wall. If the stethoscope is shifted away from this area, the sound becomes notably diminished in intensity, and the same thing occurs if the stethoscope remains in contact with the stomach area and the percussing finger moves off it. In this way it is possible to map out with considerable accuracy the area of a hollow viscus, such as the stomach.

But it is especially in dealing with solid organs that auscultatory friction is so valuable. Information may be obtained in this way which no other method of physical examination can elicit. So far as I know, it is not taught in the medical schools, and is not practised by the generality of practitioners.

By percussion it is only possible to define the outlines of a solid or fluid in contact with a viscus containing air, but by auscultatory friction it is perfectly easy to determine the outline of a solid organ in contact with another solid or with fluid.

For instance, in percussing the heart, the lower margin where it rests over the liver cannot be defined, but auscultatory friction readily shows this. Also to mark out the spleen when there is a pleural effusion on the left side is impossible by percussion alone, and can only be done by the combined method. Again, a pleural effusion of limited extent on the diaphragmatic surface of the right lung is easily overlooked if percussion alone is relied upon; the dullness of the liver is continuous with the dullness of the fluid, and one cannot tell where one begins and the other ends, but by auscultatory friction a sh line of demarcation between the liver and the fluid readily obtained.

It is obvious that it is important to practise a sin and easy method by which such information is availab

Some five or six years ago I found that by placing chest-piece of a binaural stethoscope or phonendosc over the liver or the heart, and gently rubbing the ski the neighbourhood with the tip of the finger, a loud so was conveyed to the ear as long as the finger was over solid organ; as soon as it passed off the area wh covered the organ the sound became almost inaudi the solid organ under the abdominal wall acting a stethoscope in conveying the sound to the ear. If stethoscope is placed over the liver, and gentle fricti made with the tip of the thumb, the upper limit of organ can be defined with the greatest accuracy, e when a layer of fluid is above it, or another solid org such as the heart. If the stethoscope is placed over fl such as a pleural effusion, the sound becomes lost wh the finger passes over a solid or air-containing organ.

I thought at the time I had made an important d covery, but I have since found that the method h already been described and practised. Sir Lau Brunton tells me that he has made use of it for at le ten years, but agrees with me that it deserves wi recognition.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICA

TREATMENT OF TUBERCULOUS MENINGITIS

IN his most interesting lecture on Meningitis in Childr Dr. Guthrie Rankin, in speaking of the tuberculous for says, "Cases of recovery are so rare that many observ believe the disease to be invariably fatal."

Many years ago I was asked to see a little boy in t second week of tuberculous meningitis. As he w extremely emaciated and profoundly anaemic, a mixtu containing potassium chlorate, tincture of ferric chlorid and glycerine was prescribed. The chlorate was given the somewhat empirical hope that it might somehow yie oxygen to the tissues. The mixture was steadily continu for three or four weeks. An improvement was almo immediately evident, and the child eventually made good recovery, although his head remained slightly b distinctly enlarged. I have always felt convinced that th boy owed his recovery to the potassium chlorate. I ha never since had an opportunity of trying it in tuberculo meningitis, and I only venture to mention the case now the hope that some one else may be induced to give th mixture a further trial.

G. H. YOUNGE, F.R.C.S.I.,
Lieutenant-Colonel, R.A.M.C. (R.P).

HAEMOPHILIA IN A FEMALE.

THIS condition is, I think, sufficiently uncommon to b recorded. I merely give the history of the child itself; could obtain no family history of haemorrhages (excep from the lungs in members of the parents' families know to be phthisical) on going back two generations beyond th parents.

Born December, 1907. At birth brown patch over lef eye, which cleared up in a few days, showing disease probably congenital. Mother often noticed that the chil easily bruised on falling.

December, 1908. Sharp attack of bronchitis with melaena much blood being lost.

Spring, 1909. Severe haemorrhage lasting three to fou days from mere scratch on finger.

April 9th and 16th, 1910. Bleedings from mouth, on both occasions stopping spontaneously.

April 18th. Further attack of bleeding from two point in mouth, death ensuing.

Child well nourished, had had a liberal and varied diet No history of swollen joints, or suggesting purpura; no signs of scurvy. One brother, showing no disposition t haemorrhages.

Reading. E W. SQUIRE, M B., B.S.Lond.

Reports

ON

DICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

GYMPIE HOSPITAL, QUEENSLAND.

THREE CASES OF SUBPHRENIC ABSCESS.

eported by W. SIDNEY SWEET, B.Sc., M.D., B.S.Lond., M.R.C.S.Eng., late Medical Superintendent and Resident Surgeon.)

ESE cases were chosen on account of certain special tures. Thus the first indicates that a subphrenic scess may originate from an infection of the influenza cillus at the time of parturition, and also illustrates the gative value of aspiration as pointed out very fully in classical lecture on the subject by the late Mr. Barnard. shows how prolonged these cases may become if tided ough the acute period, and what miraculous conditions y be met with in the abdominal cavity compatible with . Thus the first patient lived for four weeks with a nal of pus slowly extending from the uterus up along descending colon, around beneath stomach and liver, d thence downwards on the inner side of the ascending lon, with the intestine and all the organs in the pelvis d above matted together with adhesions. The second ows how a favourable termination may result after much mage done, resulting from an abscess which probably iginated from gall stones in the right hypochondrium, tended across between stomach and liver (later perrating into the stomach), and passed down along the scending colon, and was opened in the left loin. The ird illustrates the difficulties of diagnosis in a rapid lminating case in which subphrenic abscess was spected from the first but convincing signs were absent til late. It also shows the hopeless nature of the case om the point of treatment, as there were multiple bscesses in the liver, and, incidentally, the result of eglect of surgical treatment in gall stone cases.

CASE I.

Sarah N., aged 23, married and expecting to be confined, had n attack of diarrhoea and abdominal pains, with headache, omiting, and pains in the limbs. This was during an epidemic influenza, and patient thought she had contracted the comlaint. This lasted two days, and on the third, after a very ort labour (one and a half hours) a full-term child was born. he was attended by a midwife. The diarrhoea continued, and t night she had a shivering fit. Next day she was hot and cold y turns. After remaining in this condition for two days she as seen by a medical man, and sent to the hospital. On dmission the patient—a well-developed and well-nourished oung woman—had a temperature of 101.8°, pulse 130, good ten-on, and respirations 36. The tongue was dry and furred. The bdomen was moderately distended, uterus enlarged up to ithin 1½ in. of the umbilicus (normal position for third day), rm and hard, well contracted, moderately tender on examinaon, but more tender on either side over the appendages. ochia only slightly offensive, red in colour. Vulva normal, no ear. Cervix soft and patulous, and shreds could be felt with he finger within the canal. Temperature at night 103°. She lept fairly well after a hypnotic. Next morning her temperare fell to 98°, and pulse to 116. The following night she was ery restless, and pulse and temperature rose again. Next norning she was looking and feeling worse after a sleepless ight, and the uterus was more tender. The lochia were more ffensive, and it was decided to curette. This was done vithout an anaesthetic after a hypodermic injection of norphine. The cervix was found to be soft, devoid of nucous membrane, and covered with superficial ulcers and one noderately deep one. When sponged it had the raw appearance of healthy granulation tissue. A small swab was carefully ntroduced into the uterus from a sterilized tube for bacterioogical examination, and a smear preparation made. The nterior of the uterus was then curetted with a sharp, broadended curette. Several fragments of placenta and membranes were removed and subsequently identified microscopically (decidual cells and chorionic villi, etc., present). The uterus was then wiped out with sterilized gauze and the whole surface swabbed well with pure cyllin on gauze swabs. It was then packed with iodoform gauze. The ulcers of the cervix were treated with pure cyllin also, and the vagina cleansed. This treatment proved most efficacious, and there was no smell or further trouble from the uterus—the infection had passed beyond it.

On bacteriological examination the smear showed short bacilli, often in pairs, and with polar staining identical in appearance with Pfeiffer's influenza bacillus, and although pus cells were seen in numbers no pus cocci or other organisms were present.

At night the patient complained of severe pain in the left side and beneath the breast, and scarcely slept at all. At 8 a.m. next morning I received an urgent call from the nurse. The pulse was very wavy and feeble, and could only just be detected. Stimulants were given, and hypodermic injections of strychnine and digitalin. The pulse improved temporarily. Saline solution was given by the rectum, and two hours later 3 pints of saline subcutaneously. This was repeated during the day. At night the respirations ran up to 70, and the left side of face became flushed. Next morning fine crepitations appeared at the left base, and a patch of tubular breathing in the seventh space in the mammary line. She was now having a regular quantity of stimulant. On the following day she became still worse, and her friends were sent for. Hypodermic medication was continued, and she slowly began to mend. The temperature became normal, and on the eighth night she slept all night. In the interval a patch of bronchial breathing appeared on the right side with pain, and the adventitious signs on the left side cleared up and the dullness at the left base was less apparent. Loose stools with mucus were still being passed, but the uterus was involuting at about the normal rate, and no severe pain or tenderness was complained of in the abdomen. On the twelfth day a pleural exudate appeared at the left base but did not extend beyond the lower third of the lung. At the end of the second week her general condition was much improved, and she was taking food well, but her temperature showed signs of rising again. The uterus was no longer tender.

The next development was pain on passing urine, followed by retention of three days' duration, then meteorism, pain on deep pressure all over the abdomen, and other indications of visceral peritonitis. This continued up to the nineteenth day, when vomiting commenced and lasted for forty-eight hours. There was then tympanites all over the abdomen, but more marked in the epigastric region. The liver dullness began at the fifth space, and continued barely two spaces when the note became tympanitic. In mid-axilla the liver dullness extended lower down, but rose higher when the patient was turned on to the left side. The conclusion was irresistible that there was gas and probably pus in the peritoneal cavity. A small incision was made in the eighth left space, under local anaesthesia, and aspiration tried at various depths up to 4 in. The trocar was pushed slightly backwards and downwards, but no pus or serum was obtained. The left side was chosen because the signs had been more marked on that side all along, and there was still dullness at the left base and pain in the left hypochondrium on deep pressure. The conclusion was that pus had tracked up the left side towards the epigastrium, and events proved this to be correct, but at the time it was discounted by the negative result of the aspiration. The leucocytic count did not help much; it was about 10,000.

I would like to prognosticate here that in the near future new signs will be observed which will render the diagnosis of these cases much more definite and certain. There is not enough stress laid upon the value of auscultatory percussion. Chinking percussion is a useful sign, and very suggestive of free fluid and gas in the abdominal cavity. Another sign sometimes found when there is a localized collection of pus along the ascending or descending colon is a dullness in the flank, which changes to a tympanitic note when the patient is turned on to the opposite side, but does not return to its former dull note when the dorsal position is again assumed, the note now being *intermediate* in quality. Deep tenderness is more constant than superficial tenderness. As the patient's life in these cases depends upon the early recognition of the exact nature of the case, *any* advance in the recognition of physical signs must be a distinct advance in treatment, and result in a lowering of the mortality-rate, which is still far too high. Any slight sign, therefore, which just weighs over the balance of the diagnosis will be a very definite gain.

All these signs appeared about this time in this case; the vomiting continued at intervals, and on more than one occasion lost its bilious colour, assuming a creamy appearance. On the twenty-fifth day it was noticed that the breath had a purulent odour, but there were no fresh signs in the lungs. The abdomen was tympanitic and uniformly distended. She was now sleeping fairly well. On the following day a swelling was noticed in the right leg, the foot and leg were oedematous, and the calf very painful on gentle pressure, and two days after oedema appeared in the left foot. On the next day—the thirtieth after admission—she complained of severe pain in the abdomen, which frightened her very much. On examination there was considerable distension of the coils of small intestine, and a turpentine enema gave complete relief. The urine now began to dribble away. On the night of the thirty-first day the pulse became very rapid (150) and feeble, and she died at midnight, quite conscious to the last.

Post-mortem Examination.—On opening the abdomen there was a considerable escape of gas. Thick, dense adhesions between omentum and parietal peritoneum. Omentum matted over and adherent to small intestine. Very dense and thick adhesions below the umbilicus. On breaking through these there

was a collection of dirty brown fluid, which had gravitated downwards from a perforation in the stomach and collected over the small intestine. Some of this was localized here by dense adhesions, but the rest had filtered down into the upper part of the pelvic cavity. The right lobe of the liver was adherent to the parietal peritoneum by firm adhesions, and there were adhesions between liver and stomach. There was another localized collection of pus in a channel on the left side, extending down towards the sigmoid from the *spleen*, and this channel was continuous with that beneath the stomach, but dense adhesions separated the two at intervals. The *liver* was enlarged but normal on section. The *spleen* was one and a half times its normal size, with a much congested lower pole, where it was attached by a thick adhesion to the parietal peritoneum. There were no infarcts, and the pulp was moderately firm on section. The *stomach* was much enlarged, so that the pyloric end was well to the right of the middle line. Near the pylorus and in the anterior and lower part was a *perforation* ½ in. in diameter. It was funnel shaped from without in, and all the coats were adherent at the margin. It appeared to have perforated *into* the stomach lumen. There was a ring of congestion and adhesions around it. There were dense adhesions in the pelvic peritoneum and that over the uterus, and tubes and small intestines was covered with shaggy lymph with small collections of pus between. *Uterus* about the size of a six weeks pregnant uterus. Cavity free from exudate. Tubes not enlarged. *Appendix* quite healthy. *Heart* practically normal, but increased fluid in pericardium. *Lungs*:—Left: Dense adhesions lower part; some thick creamy pus at base in pleura; base consolidated but resolving; a small collection of creamy pus superficially half-way up lower lobe. Right: A few adhesions and congested.

At the *post-mortem* examination a needle was passed through the aspiration wound in the direction of the original aspiration. It passed through the pleura immediately below the lung and into the phrenico-colic ligament, being separated by only about ⅛ in. from the pus canal.

Nothing, therefore, could be more misleading than the aspiration in this case, and although everybody knows that a negative aspiration does not mean the absence of pus, when the facts are being carefully weighed in the formation of a diagnosis this point may just turn the balance, and the treatment be changed accordingly.

CASE II.

Charlotte A., a married woman aged 45, was first seen by a doctor two weeks before admission, and her case diagnosed as gall stones. Operation was suggested then, but she improved temporarily. A year ago she had several attacks of pain and vomiting. She had had jaundice once many years before. On admission her chief complaint was of pain in the *left* iliac region, which she thought was due to straining while vomiting. She looked fully ten years older than her age. She vomited bile on admission. Her temperature was normal and pulse 96. The abdomen was moderately distended and tympanitic, indefinite resistance in the right hypochondrium, but no jaundice. There was a patch of tubular breathing in the third left interspace in front. Next day there was tubular breathing and bronchophony at the left base, left-sided pain, and a temperature of 102°; then absent breath sounds at both bases; no vocal resonance over the lower half of both lungs, dullness over the lower two-thirds, and crepitations at right inferior scapular angle. Following the basal pneumonia and pleurisy, a gradually growing oedema and discoloration of the skin in the left flank appeared, with much pain and marked tenderness, followed by pain, often very severe, in the left leg and back of knee, with tenderness along the sciatic nerve. The lung signs resolved, and the abdomen became more distended. There was much pain now at one particular spot in the left loin, but no definite fluctuation. The temperature was remittent, but did not rise above 100°, and was often subnormal, while the pulse ranged between 96 and 120. She had restless nights. An incision was made under chloroform in the ward over the tender area, and a very large quantity of pus evacuated (two kidney trays full). On exploring with the finger a large abscess cavity was found following the course of the descending colon, apparently extraperitoneal, and extending down into the pelvis. On irrigating the cavity with sterilized water several large sloughs were washed out. A large drainage tube was put in and stitched to the skin. A bacteriological examination of the pus showed pneumococci, *Bacillus coli*, and numerous other bacilli. The patient had to be changed twice within a few hours on account of the abundance of the discharge. The thick dressings were saturated, and the sheet. The following day, after irrigation, she complained of nausea, and then vomited one and a half pints of matter containing blood. For the next two weeks she remained in a serious condition, the pulse keeping at 120 for days and the discharge of pus soaking through the dressings. Then she rallied, the discharge lessened, the cavity got smaller, and the tube was correspondingly shortened. On the fortieth day from admission she complained of pain in the right side of the sacrum, and the temperature rose to 102 6° F. A small local swelling appeared without discoloration and then subsided. Her convalescence was very slow and protracted, and she did not leave the hospital until the eighty-ninth day. The wound was quite healed and sound. A month after sh sent a message to say she had not been in such good healt for years.

In this case it is impossible to state with accuracy th exact path followed by the abscess. All we know is tha it commenced in the right hypochondrium, passed to th left, infected left and right pleural cavities and lungs i turn, and perforated into the stomach, being partly di charged by the mouth after being opened in the left loi The abscess must have been a very extensive one. Th final result was, therefore, very gratifying.

CASE III.

Helena S., a married woman aged 45, was admitted complai ing of drowsiness, listlessness, and pain at times in the rig shoulder and right side of chest. She had not been well fo some time. Thirteen months before she was in the hospital fo a week with right-sided pain, but without any signs. The pa was amenable to treatment and soon cleared up. She wa pregnant at the time. She had not been well since the birth the child eight months ago and was still lactating. She ha been a bad sleeper, and had had a very poor appetite for thre months. Two days before admission she had wakened with very severe pain in the front of the right shoulder, and withi the last three days she had had two rigors, followed by swea ing and vomiting. In the past she had had a left empyem many years before, and enteric fever six years ago. On admis sion she was found to be well nourished, with a very yellow ski and a heavy appearance, but there was no jaundice. The ski was more than yellow—it was earthy looking. The tongue wa clean and moist. Temperature 98°, pulse 90, and respirations 2 A careful examination was made. The lungs, heart, and abdo men were normal; the liver dullness was normal; there was n tenderness anywhere; the spleen was not enlarged, and th kidney secretion was normal. The reflexes were not exaggerated Next night her temperature was 101°, and the night after 103 with remissions between. The lungs and abdomen were care fully examined each day, and still no signs except severe pai in front of the shoulder, restlessness, and profuse perspiration Next night her temperature was 104°, then 102°, followed nex morning by a rigor and a rise to 105.2°. The pulse had neve been above 100. There were still no signs except an occasiona fine crepitation at the lower border of the right lung in front Deep pressure over the abdomen caused no pain at any point The liver was most carefully examined, and its area of dull ness mapped out. No departure from the normal could b found. The upper limit was in the fifth space. The edg could only be felt on inspiration. The blood was examined but no haematozoa found. Next day she had anothe rigor, the temperature rose to 105.8°, and profuse sweating followed.

Still no signs except increased pain in right shoulder and breast, and an increase of respirations to 44. The next day, the eighth after admission, the first definite signs appeared in the right lung—namely, some tenderness on palpation over lowe ribs, dullness in anterior and lower part of axilla, and bronchial breath sounds above with crepitations below. Bronchophony and nasal intonation near angle of scapula. On the ninth day the lung signs had increased, and there was an area of tubular breathing below the right breast, but nowhere marked dullness On the tenth day the signs began to clear, but the general con dition was not improved. On the eleventh day the patient was very drowsy and the tongue dry and raw. On examination a sudden change was found in the signs. There was now wooden dullness over the right lung behind and tympanitic resonance in front. Tubular breathing, coin sound resonant and suggestive, but not quite bell-like. In the fourth and fifth right inter spaces a curious metallic clicking sound was heard synchronous with the heart beat. It was concluded that there was pus and gas in the pleural space, but there was no definite displacement of the heart, and the apex beat was within the nipple line. Shortly after she had a rigor, a temperature of 105.4° was recorded, and the patient died.

At the *post-mortem* examination the right pleural cavity was full of pus, and the right lung was much compressed. Beads of pus were found in the mediastinum, but none in the pericardium. The stomach was enlarged, and a mass of old tough adhesions connected liver and duodenum. Out of this mass the cystic and common ducts were dissected; it was much distended in two places, and from these two large gall stones were removed, and much dry débris found in the duct beyond. The gall bladder was atrophied. On removing the liver a large quantity of creamy pus escaped from the diaphragmatic surface (subperitoneal subphrenic collection), not covered with peritoneum. There was a hole in the diaphragm where it had burst through into the pleura, and an abscess cavity beneath in the upper surface of the liver about 2½ in. in diameter. On section small multiple abscesses were found in the liver.

THE Orient Steam Navigation Company has arranged for its steamers *Ophir* and *Omrah* to make a series of thirteen day cruises to Norway and the Baltic capitals in June, July, and August, and for the *Otranto* to make a Whitsuntide cruise of seventeen days to Portugal, Spain, and the Mediterranean.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

ULSTER BRANCH.

Londonderry, Saturday, April 30th, 1910.

Dr. THOMAS MCLAUGHLIN, and subsequently Dr. DARLING, in the Chair.

Simulation of Acute Abdominal Conditions.

Dr. COOKE read a brief paper on the simulation of acute abdominal conditions by intrathoracic disease. He narrated 4 cases that had occurred in his own practice—1 of pericarditis with effusion, where the diagnosis was made *post mortem*, 2 of pneumonia, and 1 of pleurisy, where a few hours cleared up the difficulty. He pointed out the extreme difficulty of diagnosis in the early stages of such conditions, and emphasized the necessity for careful examination of the chest in every case of acute abdominal pain. The pulse respiration ratio, the history of the patient, and the presence of tenderness on deep pressure would all help in making the diagnosis. The principal difficulty confronting the surgeon in such cases must be the necessity for deciding for or against operation, delay in abdominal conditions being dangerous, especially when the patient happens to be situated at a distance from the surgeon. Mistakes would be less likely to occur when the medical man recognized the possibility of such a mistake being made. The paper was discussed by Drs. CAMPBELL, CUNNINGHAM, FULLERTON, KIRK, DARLING, and CECIL SHAW.

Stone Impacted in Ureter.

Mr. ANDREW FULLERTON described a method of removing stone impacted in the vesical orifice of the ureter.

Mrs. M., a patient of Dr. A. Jamison of Belfast, was seen by him for the first time in April, 1907, suffering from movable kidney. He made a note at that time that the patient had had severe pain in the opposite (left) side a year and a half previously. The urine obtained from the right side, though the kidney was freely movable, was normal, whereas that from the left side contained a fair amount of albumen, a fair sprinkling of red blood corpuscles, and some epithelium from the ureter or pelvis. He fixed the right kidney to the external arcuate ligament. The patient did very well for at least two years after this, and gained 2 st. in weight. Mr. Fullerton had not decided what was the cause of the small amount of albumen on the opposite side at that time, and as the patient was in excellent health he did not again see her till the present illness, the history of which was as follows: In August, 1909, she was at the seaside, and after walking some distance she had a severe attack of pain in the left side, attended with smoky urine. This subsided in a few days, and she was fairly well until two months before he saw her, when she again had a large haemorrhage after a long walk. Since then she had had almost constant haematuria and pain, which were aggravated by exercise. He cystoscoped her in February, 1910. Catheters were introduced into each ureter. The left-sided specimen contained blood and pus, and the right a trace of albumen. On March 18th he cut down upon the left kidney and found a large branched phosphatic calculus ulcerating its way through the pelvis of the kidney. He removed this through the pelvis of the kidney, the opening in which was ragged and sloughing. No attempt was made to close this opening. It was freely drained. The patient had a rise of temperature beginning on the third day after operation, but this subsided after a few days, and was evidently due to autoinfection. The wound healed by first intention, except in the track of the drainage tube. Urine came from the wound for about ten days and then ceased. She left the nursing home twenty days after the operation feeling fairly well, with a minute sinus in the position of the drainage tube. A week later she was seized with severe pain in the region of the left kidney, and in a few hours all the urine from the affected kidney came through the wound in the loin which had opened up. He saw her two days later, and cystoscoped her once more. The ureteric orifice on the affected side was now swollen up, so as to be hardly recognizable as such, resembling a large soft oedematous nipple with a dimple near the summit. Into this he inserted a catheter, but found the orifice blocked a short way from the surface. Per vaginam he could feel a hard elongated mass occupying the lowest portion of the ureter at its junction with the bladder. The manipulation of the ureter caused a ring of ecchymosis to appear round the orifice of the ureter as viewed from the bladder. He saw a white projection at the orifice which he took to be pus, but the ureteral catheter failed to dislodge it. The patient was now put under chloroform by Dr. Jamison, and Mr. Fullerton introduced a pair of long urethral forceps by the side of the cystoscope into the bladder. He was unfortunately without assistance, but with some patience he was able to introduce the crocodile blades of the forceps, under the direction of the light of the cystoscope, into the orifice of the ureter and extract a small stone therefrom. Banked up against this fragment of stone, which was about the size of a split pea, was a quantity of debris which came away spontaneously later. Dr. Jamison informed him next day that the patient was quite relieved, and that the urine had ceased to come through the wound and was coming by the bladder. The patient was now quite well.

Mr. Fullerton believed this was the first time that this procedure had been carried out. At any rate, he could find no account in the literature at his disposal of any method resembling this having been used. In a future case he should like to have forceps curved like a cystoscope. The instrument he used on this occasion was quite straight, and therefore most difficult to manipulate into position. In addition urine ran out between the forceps and the cystoscope, and necessitated his procuring the assistance of a friend of the patient to hold the urethra tightly round both instruments to prevent leakage. If he had not succeeded in this manœuvre he would have been obliged to cut down on the stone either through the vagina or by way of the peritoneal cavity with a very much greater risk. With a forceps shaped like a small bladder sound, he did not see why the same procedure might not be carried out in the male. He might also suggest that by opening the blades the ureteral orifice could be dilated prior to attempts at removal of the stone. The smallest-sized cystoscope would be quite large enough to use with the forceps.

Secondary Coli Pyelitis.

Mr. ANDREW FULLERTON also read a case of secondary *coli* pyelitis. This patient was under the care of Dr. Cunningham of Londonderry.

A lady aged about 40 consulted Dr. Cunningham towards the latter end of 1907 complaining of sciatica of the left side. Eighteen months previously she had had an attack of influenza followed by right ovaritis and white vaginal discharge. For this she was treated by Dr. John Campbell. In October, 1908, Dr. Cunningham examined her again and found the sciatica much better, but she had severe pain over the right ovarian region radiating over the abdomen and into the back. In June, 1909, she had several rigors, each attended with fever followed by sweating. The periods were irregular and profuse. Dr. Cunningham found on examination that the uterus was considerably enlarged, that there was white-of-egg discharge, and considerable tenderness in the right ovarian region. The urine was acid, specific gravity 1020, and contained numerous pus cells as seen by microscope. About this time she was curetted by Dr. Cooke. A sample of urine was examined by Dr. Houston of Belfast, who found a pure culture of *B. coli* present. From this time until Mr. Fullerton saw her she was treated by a vaccine prepared by Dr. Houston. She had the treatment about every fortnight. The injections did her some good, as she felt lighter and better after them for a few days. In January of the present year she had again to be curetted for prolonged uterine haemorrhage. The urine still contained pus and *coli* bacilli. Mr. Fullerton saw her for the first time on March 15th, 1910. She told him she had pain in the right hip and also in the lower part of the abdomen over the region of the bladder. On palpation there was no tenderness over either kidney, nor could he detect any enlargement on either side. On cystoscopic examination the right ureteric orifice was puffy, but the bladder was otherwise healthy. Catheters were introduced into both ureters, and a specimen was obtained from each. Both specimens had a specific gravity of 1015, and were acid in reaction. The right was, however, cloudy, and contained a fair quantity of pus. The left contained no pus, but there was a small quantity of albumen. On April 5th he explored the right kidney, and found the pelvis almost completely occupied with a large ovoid stone, evidently composed of phosphates. It weighed 1½ oz. He removed this through a longitudinal incision in the kidney pelvis without in any way interfering with the gland itself. The wound was sutured with iodine catgut, not including the mucous membrane, and a tube was put down to it to provide for drainage in case of leakage. The subsequent progress of the patient was satisfactory, except for a few days' rise of temperature, due, as in the last case, to autoinfection. The wound healed *per primam*, except the track of the drainage tube. There was never any leakage of urine from the pelvis of the kidney, notwithstanding the long wound necessary for extraction of the stone. There is still, nearly four weeks later, a little pus in the urine, but in steadily diminishing quantities.

It was intended that the patient should have a few moredoses of vaccine. Mr. Fullerton was not sure if it was a desirable thing to close the pelvis completely in cases of this sort. It might be better to drain it by a tube tied into it for some days at least. He thought there was very little fear of a permanent urinary fistula. In future he should, if possible, remove all calculi from the pelvis of the kidney without cutting into the organ itself.

Puerperal Eclampsia.

Mr. ANDREW FULLERTON related the following case. He saw the patient at the request of Dr. John Campbell, of Belfast. Shortly, the history was as follows:

Mrs. M., aged 27, had been married about a year. She stated that she remembered having had a pain in her left side six years before she was married. When she was about four months pregnant she noticed that her left side was swollen, and that her face, arms, and legs were also swollen. About six weeks before Mr. Fullerton saw her she had convulsions, and was seen by Dr. Campbell, who induced labour at the eighth month. The patient was then quite unconscious. She was admitted to the Samaritan Hospital about April 8th, 1910, with a temperature which ran up to 103° or 104° at night, and fell to 100° or 101° in the morning. She had also a wretched pulse, varying from 128 to 140. On examination he found her wasted and anaemic, and obviously very ill. On the left side there was a large swelling occupying the renal and lumbar regions and reaching down to below the level of the umbilicus. The tumour was tender and elastic. On cystoscopic examination the bladder was quite healthy, with no redness or swelling round either ureteric orifice. The left orifice was, however, rather valve shaped. Catheters were introduced into both. The specimen from the right side was clear amber, acid, specific gravity 1025, loaded with albumen and casts (epithelial, fatty, granular, and hyaline). There were also some blood cells and cells from the kidney and ureter. The catheter which was introduced into the left ureter failed to draw off any urine until it was pushed right up into the pelvis of the kidney, when a succession of drops of muddy fluid began to come. This fluid was neutral, specific gravity 1005, and contained abundant pus cells. He could detect no casts. He was unable at present to say what was the cause of the pyonephrosis on the left side. It was evidently of old standing, leaving the patient with a kidney which was apparently unable to cope with the strain of pregnancy. That the latter could safely occur with one kidney was borne out by cases that had been under his own care and that of other surgeons, but it was reasonable to suppose that the margin of safety was not so wide as in cases where two healthy kidneys were present.

Aneurysm of the Popliteal Artery Treated by Excision.

Mr. ANDREW FULLERTON related the following case:

C. F., aged 43. No history of venereal disease. Seven months before admission, when stepping on to a tram, he twisted his left knee. Two months later he noticed a small lump at the back of his left knee. This had increased in size ever since, but not at a uniform rate. It would remain the same for a short time, and then rather suddenly increase somewhat. These rather sudden exacerbations went on till the tumour reached its present size. On admission there was a firm elongated swelling in the left popliteal space. No inflammatory signs, no pulsation, no fluctuation, no tenderness. The swelling extended the whole length of the space. There was a little numbness and tingling in the left leg and foot. There was congestion of the foot and ankle, and patches of gangrene on three toes. A few days later he cut down on the tumour, and found it to be an aneurysm of the popliteal artery of a fusiform shape entirely filled with greyish blood clot, which extended into the artery above and below for at least an inch. The vessel was tied with catgut above and below the aneurysm, and the latter was removed. Subsequent to the operation gangrene occurred in the fifth toe, necessitating amputation. The adjoining toe became discoloured, but afterwards recovered its normal appearance.

The case, he said, was of interest from the fact that spontaneous cure was in progress, and that the onset seemed to be due to traumatism some months previously. The tumour was removed as it seemed to be causing pressure on the vein and on the internal popliteal nerve.

Cancer Houses.

Dr. JOHN CAMPBELL read a paper on this subject. He said statistics had been compiled and maps drawn up which were apparently pretty convincing that the disease was one which prevailed in certain localities, particularly those that were low-lying and badly drained and situated on the banks of sluggish streams. In other words, it was a disease of areas in which the natural facilities for drainage were bad. It was also shown that high-lying districts, especially limestone areas, were remarkably free from cancer. These findings had from time to time been controverted by observers, who produced some evidence to show that they were not always true. However, making due allowance for occasional localities which appeared to afford evidence inconsistent with that which was adduced in favour of cancer districts, it might be taken as proven that the popular idea was well founded. Such places as the valley of the Derwent were very strongly in favour of the cancer district theory—a theory which had held its ground for many centuries. In the same way the theory that there were certain houses which were capable of transmitting the disease to their inhabitants had ma advocates and many opponents. Whatever view might taken, there was no getting over the existence of ma curious instances of cancer occurring time after time the same house in people in no way related and havi nothing in common but the fact that they inhabited t same house or the same room at different times. Ma interesting examples were recorded in the *Lancet* of Dece ber 6th, 1902; in the BRITISH MEDICAL JOURNAL of July 6 1902; and in the *Practitioner* of February, 1908, a elsewhere. Evidence had also from time to time be brought forward in support of the view that raw fo particularly fruit and vegetables which grow on and ne the soil, and were liable to be contaminated by it, was means by which cancer was distributed. To this vie many opposing circumstances had been advanced. It, few years ago, took a great hold on the popular imagin tion in the shape of a belief that tomatoes were producti of cancer. The fact that it was the raw tomato whi was to be avoided was quite lost sight of in the wholesa condemnation to which that article of diet was subjecte As bearing on this question, it might be noted that th Papuans were reported to be remarkably free from canc and to be in the habit of eating nothing raw. This w reported by the Colonial Medical Officer in the BRITI MEDICAL JOURNAL of April 7th, 1906. It was confirmato of a report from a certain district in Australia that th people who got their vegetables and fruits from the Chine market gardeners of that district were very prone to die cancer. When it was remembered that the Celesti gardener was very fond of using human faeces as manure, the connexion of his garden produce with th spread of cancer was apparent. A vicious circle from th soil to the man and thence back to the soil was probab established. Instances of apparent transmission by o books were also to be found scattered through the medic journals. All these theories had this in common, tha they explained the spread of cancer as being due to som thing which was taken into the body from contact wit or along with an article already contaminated by diseased person. There was good ground for supposin that the alimentary canal was a very frequent rout The cause of the disease might be ingested with uncooke food, or it might be taken in with cooked food, such a bread which had been handled by the victim immediatel after he has been in contact with a polluted book, or piece of furniture, or wearing apparel. Many of the illu trations of the cancer-house theory which had been alread published were much more valuable than his. Howeve the subject had for long had a fascination for him, and h had been able to collect some suggestive cases. A few o these he briefly related:

1. A sea captain owned a house in Belfast. His first wif died of something of the nature of which Dr. Campbell wa unaware. His second wife had cancer of the rectum when h saw her. She had a long illness, and in due course died. A yea or so later he married a third wife. She slept in the same roo and in the same bed in which the one with rectal cancer formerl lay. After about two years' residence in the house she consulte Dr. Campbell about a cancer of the breast. It was removed Later on recurrence in the lung took place and carried her off Here were two women, not related, living in the same room i the same house, and both dying with cancer within a fe years. They were both women below the average cancer age being both in the early thirties. The man himself was fine, strong, healthy fellow, but it must be borne in min that he spent long periods away from home, his voyages takin him to South America, and keeping him there going from por to port for a period of two years or so at a time. His sojourn in Belfast were of only a few weeks' duration, whereas th wives lived continuously in this house, and were very home keeping women, being often never across the threshold for day at a time.

2. Dr. Campbell saw an unmarried lady of about 40, dying of advanced cancer of the breast. After her death the house a fine residence standing in its own grounds, was bough by a wealthy merchant, who took his family to live in it About two years after he took up his abode there he saw his sister-in-law, a lady of about 55, suffering from an advanced and inoperable growth in the caecum; she shortly afterward died. She occupied the same bedroom as the breast case had occupied during her illness. The families were in no way related.

3. A lady of 40 went to reside in a country house in which the previous occupant's wife had died of cancer. Dr. Campbell had been in the habit of seeing her occasionally for some years for chronic metritis, and knew her to be a strong, healthy woman in other respects before her change of residence. About three years after her removal to the new house she consulted

about a tumour in the breast, which was removed and ved to be cancer. She occupied the same room as the vious occupant had done while she was dying of cancer of breast. Again two women with nothing in common but room they occupied; both had cancer of the breast. y immediately succeeded one another in the occupancy of house.

A married lady of about 40 had her breast removed by the l doctor for cancer. Recurrence took place, and Dr. npbell saw her with cancer *en cuirasse*, from which she soon r died. She had occupied the bedroom in which her band's mother had died a few years previously, and ore the husband's marriage, of ulcerating cancer of the ast.

A farmer's wife consulted Dr. Campbell about an inoper- cancer of the cervix uteri. The house in which she lived a new one, having been built about thirty years previously. husband himself was hale and hearty at 73, while the wife about 50. For a time all his inquiries failed to connect the se in which the patient lived or the house in which she had n brought up with any previous victim of the disease. identally, he found that she was the second wife and that knew that the first one had died of cancer of the stomach.

These were a few of the cases he had collected during the t twenty years. They might be mere coincidences, but confessed they gave him a weird feeling about houses which cancer patients had lived and died. He would sider himself wanting in a sense of duty if he knowly allowed his wife or children to live in a house in ich the disease had ever been. Indeed, he could dly rest content to let them inhabit any house the dical history of which he did not know. He had come regard a house in which cancer had occurred as in no y less dangerous than a house in which a case of berculosis had lain. In conclusion, he gave a summary two cases which would seem to support the theory that books might spread cancer.

About ten years ago he saw a gentleman who was approaching end from malignant disease of the liver. This was no ubt secondary to some primary lesion in the alimentary tract, t when Dr. Campbell saw him the liver growth had come to ershadow the other mischief. He was an old bachelor who many years had made a hobby of collecting valuable old oks. These he bequeathed to a friend and neighbour, who s a scholar and bookish man, though not a collector. Eight nine years elapsed, and Dr. Campbell was taken to see the an who had inherited the books. He had a large growth of e transverse colon, which proved to be malignant. He died d left a will consigning his whole library to the flames. He d apparently been reading some articles which appeared in e *Daily Mail* in reference to the spread of cancer by books. fine collection of valuable books had thus to be destroyed.

ntil they awoke some morning to find that the cause of ncer had been discovered, the manner of its spread ust remain as debatable a point as the question of berculous infection was forty years ago. The whole end of scientific advance pointed to cancer as being one the communicable diseases, and indicated that measures r the prevention of its spread would ultimately have to taken. Hence the importance of the cancer house oblem and the kindred questions of transmission by oks, clothes, and raw vegetable foods. He had submitted these remarks to them not because they had any rticular value of their own, but because he should like get more information from anyone who would take an terest in a fascinating biological problem and an important partment of practical medicine. Men practising in country aces and small towns had better opportunities of studying the cancer house theory than those who lived amid constantly shifting population had. He would especially ll attention to rectories and manses as likely to yield aluable information. Bank houses were also worth eeping under observation, and farmhouses were almost rtain to give much help. One man could do but little, hereas a number could produce results worth having. He should be very grateful to any one who would kindly eep him informed as to the past and future history of ny suspected houses in his district. Dr. RANKIN (Newtownunningham) related the history of three cases occurring one house under his observation, and Drs. MCCURDY and ITCHELL BROWNE also spoke.

Results of Chronic Iritis.

Dr. CECIL SHAW read a short paper on the results of hronic iritis. He said that he had been struck with the umber of cases coming up from the country to the Belfast phthalmic Hospital with the sight almost or quite lost hrough chronic iritis, the onset of which was often very nsidious. Some cases complained of nothing but supra-orbital neuralgia for some time, and only careful inspection of the eyes might reveal the pericorneal injection and the fixed pupil. He then described the various directions in which the exudation from the iris or ciliary body might go, and the effects produced by it, varying from slight dimness of sight to complete and permanent blindness. The great point to be aimed at was the early recognition of the affection, followed by early treatment.

Owing to lack of time, discussion on this and the following paper had to be omitted.

Paper.

Mr. R. J. JOHNSTONE read a short paper on Pelvic Pain in Unmarried Women.

Cases.

Dr. J. C. COOKE (Londonderry) showed cases of severe head injury, of suspected tumour of the orbit, and an obscure nervous case.

Demonstration.

Mr. T. S. KIRK demonstrated a method of treating fractures with plaster of Paris splints. Drs. DARLING, FULLERTON, and CUNNINGHAM discussed the communication.

Reports of Societies.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Wednesday, May 4th, 1910.

Dr. BYROM BRAMWELL in the Chair.

Lactic Acid Bacilli.

DR. CHALMERS WATSON gave a demonstration of the bacteriological examination of various commercial preparations sold as containing active lactic acid bacilli. Many of these were absolutely inert, and in cases where active bacilli were present, their number varied much in tablets taken from the same bottle.

Tuberose Sclerosis.

Dr. J. S. FOWLER described a case of tuberose sclerosis lately seen by him in a child aged 1 year. Its parents were healthy persons, and the child had been normal in physical and mental development until the onset of its fatal illness, when epileptic fits occurred in rapid sequence, the condition on the child's admission to hospital closely simulating tuberculous meningitis. On lumbar puncture, the cerebro-spinal fluid was peculiar in the flaky coagulum that developed some time after withdrawal. Empyema supervened, and the child died. The author said that on analysis of the 26 cases of this condition recorded in its literature he found 8 were male and 18 female. Most of these were in children, though in one case the condition was found *post mortem* at the age of 37. Clinically they were characterized by mental dullness followed by epileptic attacks occurring in series. Multiple renal tumours, described as adeno-sarcomata, were found in 17 out of the 26. Heart tumours occurred in 4 cases, but here account must be taken of the congenital heart tumours that produced death before the brain lesions had developed. Adenoma sebaceum occurred in a large proportion of the cases—17 out of 26. This last was an important feature, and might be of value in diagnosis. Dr. CARNEGIE DICKSON briefly described the results of the *post-mortem* examination which he had made. The conditions found were tuberose sclerosis—multiple hard tumours in the cerebral cortex and projecting into the ventricles—and a rhabdomyoma of the heart. He showed lantern slides illustrating the histological structure of these brain and cardiac tumours. Dr. JOHN THOMSON recalled a case of adenoma sebaceum, where there was no mental defect. Dr. NORMAN WALKER also cited a case of a similar condition, where the mental condition was average, and the patient when last heard of was alive and well at the age of 22. Dr. FOWLER, in reply, said that adenoma sebaceum would only be of diagnostic value if accompanied by mental defect and fits.

Passive Hyperaemia in Gonorrhoea.

Mr. ALEXANDER MILES said that injection treatment of gonorrhoea could only be efficient where there was proper supervision. And this factor being generally absent, injection treatment inefficiently carried out was useless. He had adopted Bier's principle of passive hyperaemia in about 300 hospital cases. After exhibiting

the suction apparatus, which was similar to that used for the finger in whitlow, he said the optimum application was for an hour daily, with three intervals of five minutes in which air was again admitted. The vacuum should produce a turgidity of the penis—a condition of priapism as in spinal injury. If there was pain the vacuum was excessive. The results were favourable. Smears of the urethral discharge showed more intracellular cocci after application than before it. The treatment had several advantages. It was more cleanly. Usually in two days pain and scalding had gone, and frequency of micturition had rapidly diminished. As a rule pus had disappeared in two weeks, and the subsequent thin discharge in another week. There was an unusual absence of complications—2 cases of epididymitis, and 2 of gonorrhoeal arthritis out of 300 cases. General dietetic and medical treatment still remained necessary auxiliaries. Professor CAIRD asked the condition of the urine as to threads after six weeks; and also the frequency of subsequent posterior urethritis. Mr. C. W. MACGILLIVRAY did not agree that injection treatment was inadequate. He also asked when the cocci disappeared from the urine. Mr. MILES, in reply, said he had been unable to follow out the cases for more than six weeks; but in that period less than 10 showed acute posterior urethritis.

Ménière's Disease with Facial Paralysis.

Dr. A. BRUCE and Dr. J. S. FRASER described a case of Ménière's disease in a man aged 65. After exposure to cold throughout a day, he had wakened up next morning with the symptoms of Ménière's disease—giddiness, deafness, and noises in the ear, and with left facial paralysis. After death serial sections of the petrous bone revealed a haemorrhage between the epineurium and the seventh and eighth nerves within the internal auditory meatus. Sections of the cranial nerve nuclei showed degeneration confined to the facial nucleus, while the third and twelfth nuclei were healthy. The case was thus important in demonstrating that the latter nuclei did not contribute fibres to the facial nerve.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF SURGERY.

Friday, April 22nd, 1910.

Mr. J. LENTAIGNE, P.R.C.S.I., President, in the Chair.

Nephrectomy.

DR. R. ATKINSON STONEY read an account of two recent cases of nephrectomy. The first patient was a man who was thrown from his bicycle on to his right shoulder; he was rendered unconscious for a few minutes, but was then able to go home. He remained quietly in bed for about a fortnight suffering from a certain amount of pain in the right side, but it was not till he got up and began to go about that he first noticed blood in the urine. He then came to hospital, where he was kept under observation for three weeks. During this time he continued to pass large quantities of blood in the urine; this blood was found by Luys's segregator to come from the right side. At the operation the kidney was found to be torn almost in two at the hilum, and the lower half was in a state of pulp. Owing to adhesions formed to the peritoneum and surrounding parts the operation was rendered extremely difficult. The second case was one of a girl who had been passing blood and tubercle bacilli in the urine for over six months. The urine was segregated by Luys's segregator on two occasions, and both times the urine from the right side was normal; that from the left contained blood, pus, and tubercle bacilli. At the operation the kidney was found to contain a small cavity (about 1 drachm of capacity) in the upper half, representing the base of one of the pyramids. Under the microscope the walls of this cavity showed general round-celled infiltration and masses of red cells, but no definite tubercles. No blood, pus, or tubercle bacilli could be found after the operation, though several examinations of the urine were made. The author commented on the curious discrepancy between the symptoms and pathological findings in the two cases. Mr. SETON PRINGLE thought the cystoscope was a great advance on the segregator in dealing with such cases. In ligaturing the ureter and vessels he had had trouble with silk, as it cut through and came out subsequently. Dr. STOKES had had trouble in using the segregator, the methylene b which he injected returning down the other side. C. A. BALL said he had found the segregator very useful some cases, but if one used a cystoscope the segrega would rarely be required. Mr. W. S. HAUGHTON said ruptured kidneys he had had to deal with generally shov haemorrhage from the start. The weight of opin seemed to be in favour of their removal. The PRESID said he did not think they ought to remove a tubercul kidney without giving tuberculin a trial. Mr. STONEY, reply, said he considered catgut the best material these cases. In respect of the segregator, the mistake the use of it lay in the position of the patient. If patient was put sitting up in a gynaecological chair, that the legs were nearly at right angles with the bo there was no possibility of urine passing from one side the other unless the bladder became over-distended. most cases where there were symptoms of extens injury he thought the sooner operation was done better. In a young patient severe haematuria which v not affected or relieved by continued rest was alm pathognomonic of tubercle. He had not seen a case rupture where suturing was possible, as his cases l always been so extensively injured that it was out of question. The results which he had obtained w tuberculin had not been satisfactory; there seemed to a great tendency to recurrence.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Thursday, May 5th, 1910.

Dr. G. BERRY, President, in the Chair.

Technique of Glaucoma Operations.

COLONEL H. HERBERT (Nottingham), in a paper on t small flap incision for glaucoma, said that two years a he had performed a small operation upon eight glau matous eyes, which had been described already briefly a form of subconjunctival paracentesis. By means o narrow Graefe knife a small rectangular sclero-corn flap was cut subconjunctivally, with its base at the limb This flap might be forced forward a little under t conjunctiva by the intraocular pressure. Probably tended to shrink slightly in volume through bei deprived of its direct blood supply for a time. Fi reunion appeared to have been thus prevented. T results up to date were available in 6 only of the cases. One case was a failure, owing apparently adhesion of the iris to the wound. In the remaini cases the tension had been reduced to normal by mea of linear filtering cicatrices. In 2 of the cases, ho ever, the complete reduction of tension had occupied period of a few months. The leakage of aqueous was first insufficient. Two of the patients were shown at t meeting. During the last five months Mr. Laws u himself had been operating by means of a broader fl usually placed above, owing to the possible need iridectomy, basal or complete, to prevent adhesion of i to the wound or prolapse. These incisions had been ma mostly by means of keratomes and of bent narrow blu ended knives. Flaps also, 2 to 3 mm. wide, had be utilized in some cases with the narrow Graefe knife the outer side of the cornea. It was too early to say mo about the results of his 14 recent cases than that they we very encouraging. Combined iridectomy, peripheral complete, according to the state of the iris, appear advisable, with the broader incision in cases in which t pupil did not contract well to eserine. It had been pe formed in 3 cases only in this series, and seconda iridectomy two days later in 1 case. By this operati an attempt was made merely to secure with certainty a safety the same linear filtering cicatrix which was som times the chance result of an ordinary iridectomy oper tion. In the author's experience a filtering or fistulo cicatrix was the rule after a successful iridectomy, and itself was sufficient to account for the success.

Congenital Word Blindness.

Mr. HERBERT FISHER, in a paper on inability to lea to read, reported four cases which had come under his ow observation in one girl and three boys. In one of the ma cases there appeared to be very suggestive evidence of

ilitary and family tendency to the defect, in another) had been considerable flattening of the left side of cranium at birth, and a remnant of this deformity l still be easily recognized. The author thought it able that as further examples of the defect were cted the cases would be found to range themselves two groups: (*a*) The hereditary group, in which the al memory centre for words residing in the left angular s failed in development; probably in this group a con- able portion of the female cases would be found. group due to limited meningeal haemorrhage over same gyrus, the result of birth injury. This group d account for the well recognized great pre- lerance of congenital word blindness in the male sex, to the greater size of the head in male than in female its at birth. He pointed out that larger meningeal norrhages at the time of parturition resulting in birth les were twice as common in male as in female lren. He urged the necessity for special and private on for children with this defect of congenital word lness, and he thought the phonic method of learning ead, making use of the glosso-kinaesthetic centre to the visual memory centre, less likely to lead to a satis- ory result than endeavours to train a vicarious visual ory centre in the right hemisphere; for such training dvocated the "look and say" method of learning to ; the child should use the "word" as its unit of rvation and study, and not the individual letters. "look and say" system had been practically developed liss Mason, of 56, Romola Road, Herne Hill, S.E., in "Delightful Reading Box" system, which the speaker had used with most satisfactory results in one of the s reported to the meeting.

Pyocyanase.

r. A. BRONNER (Bradford) read notes on 6 cases of opyon keratitis treated by local applications of pyo- nase. Many cases of ulceration of the cornea, especially lderly people, were most difficult to cure, and often ed in complete destruction of the cornea. In some nt cases Dr. Bronner had applied 50 per cent. pyo- nase eye drops every hour. In every case the pain l disappeared in a day or two, and the ulcer had healed more quickly and with less consequent opacity of the nea than under the ordinary method of treatment lvano-cautery, carbolic acid, subconjunctival injections). course, atropine drops and hot fomentations were also d. Pyocyanase was a brownish fluid prepared from th cultures of the *Bacillus pyocyaneus*, as suggested by merich and Lowe, by the Institute of Bacterio- rapeutics at Dresden.

NORTH OF ENGLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

Friday, May 6th, 1910.

Dr. W. K. WALLS (Manchester) in the Chair.

Vaginal Subtotal Hysterectomy.

. A. J. WALLACE (Liverpool), in a note on vaginal sub- al hysterectomy, stated that when removing the uterus vaginam for small fibroids or for persistent uterine emorrhage the idea had occurred to him that removal of whole uterus was an error, because it prolonged the eration and increased the trouble from bleeding. On other hand, removal of the cervix permanently akened the pelvic floor and led to alterations in the ations of the vagina. He therefore adopted the following an of removing the corpus uteri only. The utero- sical pouch is opened and the corpus uteri brought out to the vagina. The posterior vesical peritoneum is then tured to the posterior peritoneum of the cervix uteri; ereby the corpus is rendered extraperitoneal, and the ritoneal cavity is closed. The broad ligaments are next tured and divided as far down as the os internum, and e uterine arteries are ligatured as they bend externally. ne corpus uteri is cut away from the cervix, and the terior and posterior walls of the cervical stump are tured together. The sutured ends of the broad liga- ents are now sewn to the cervix and the vaginal wound osed, a gauze strip being left in the potential cavity hind it.

Eclampsia.

Dr. W. FLETCHER SHAW (Manchester), in a paper on the prognosis of eclampsia, based the following conclusions on the results of 46 cases treated at St. Mary's Hospital during the years 1906–7–8. There are three specially bad prognostic signs in eclampsia: (1) A small amount (less than 10 grams per litre) of albumen during the eclamptic stage; (2) a high temperature (over 100° F.); (3) post-partum onset of symptoms. A very large percentage of cases with one of the two first symptoms end fatally (61 per cent. of 21 cases, and 57 per cent. of 18 cases respectively); with the two symptoms combined the prognosis is the very worst (all 12 cases died); with neither of the symptoms the prognosis is extremely good (all 7 cases recovered). The third symptom warrants a very bad prognosis (only 1 out of 8 recovered).

Kraurosis or Leucoplakia Vulvae.

Dr. BRIGGS (Liverpool) showed a water-colour drawing from a case under his care, taken for the purpose of testing the conclusion of Messrs. Comyns Berkeley and Victor Bonney, that kraurosis and leucoplakia vulvae were two distinct diseases. Neither from naked eye nor microscopic examination of the present case had the exhibitor been able to separate the two diseases.

Complications of Pregnancy.

Dr. LLOYD ROBERTS (Manchester) reported a case of pregnancy complicated by a perinephritic abscess. In spite of free drainage through a lumbar incision and the passage of a satisfactory amount of urine, the patient died six days later. A six months child was born alive during the night after the operation. *Post mortem*, the kidney showed numerous abscess cavities lined by lymph, which contained streptococci.

Pelvic Tumours and Appendicitis.

Dr. W. BLAIR BELL (Liverpool) recorded two cases of pelvic tumours associated with acute appendicitis. In the one case the gangrenous appendix and the body of the uterus, which contained multiple fibroids, were removed; in the other bilateral ovarian cysts and the perforated appendix. Both cases ultimately recovered.

HARVEIAN SOCIETY OF LONDON.

Thursday, May 5th, 1910.

Dr. H. J. MACEVOY in the Chair.

THIS was a meeting at Paddington Infirmary, where cases were shown by Dr. MAURICE SQUIRE, the Medical Superintendent. Among them were some contrasted examples of tuberculous onychia, suppurative onychia with rheumatism, one of haemophilia, of sclerodermia with arterio-sclerosis, of haemianaesthesia in a man, and a patient recovering from facial paralysis sequential to a mastoid operation. Among specimens shown were the main arteries from a case operated on some six years previously for supposed innominate aneurysm. The right subclavian and common carotid had been tied, and the case was regarded as a cure. The specimen showed no sign of any previous aneurysm of the innominate, but the calibre was somewhat enlarged and the walls thickened, and the left common carotid was in close proximity. The right subclavian was occluded at the site of the ligature, but the right common carotid was patent and presented an aneurysm at the site of the ligature.

WE have received a copy of the report issued by Mr. Joseph Baxendell, Meteorologist to the Southport Corporation, setting forth the results of the observations made by him during the year 1909, which is as interesting as its predecessors. Among the many tables contained is one showing the year's values of temperature, rainfall, and sunshine at sixty health resorts in Great Britain and in ten large towns. From this we gather that, as compared with London and Jersey respectively, the mean temperature for the whole year 1909 at Southport was, on the Fahrenheit scale, 47.4°, against 49.5° and 51.2°; the mean temperature of the summer months, 55.7°, against 59.0° and 59.7°; the mean daily range of temperature, 11.0°, against 12.9° and 11.8°; the total rainfall, 35.72 in., against 24.90 in. and 31.70 in.; and the total duration of bright sunshine 1,611 hours, against 1,733 hours and 1,999 hours.

Reviews.

TEXTBOOKS OF GYNAECOLOGY.

DR. COLE, it must be admitted, has produced a handbook which can really be conveniently carried in the hand, for *Minor Gynaecology*[1] is small and made up of light paper in a light cover, whilst the type is good, contrary to the rule in small manuals. It is also totally free from controversies and tables of references, not to speak of other literary elements unsuitable for the pages of a work professed by its author to be a guide to the practitioner. In short, it is the antithesis to the gigantic German *Handbuch*, loosely bound in several volumes, and meant for the study of the expert. The five photographs of specimens illustrating diseases of the female organs, taken from the museum of St. Mary's Hospital, are almost a luxury, whilst the diagrammatic sketches representing reposition of the displaced uterus, sites of uterine fibroids, etc., are more in keeping with the objects of the manual. The text, the most important part of the book after all, is a fair and instructive synopsis of the diagnosis and treatment of the diseases of women. It is doubtful how far the average practitioner would find it worth his while or trust himself to attempt the diagnosis of tuberculous lesions—a problem which occasionally baffles even experienced pathologists; still it is advisable that he should be made acquainted with the principles of such methods, and Dr. Cope is therefore right in adding a short summary of the necessary special methods of diagnosis to his chapter on tuberculous disease. For tubercle is not a very rare cause of disease of the genito-urinary tract, and the Fallopian tubes are specially liable to infection. It happens that tuberculous salpingitis is not an easy disease to distinguish in its earliest stages, whilst it is very rebellious to treatment when well established. Hence all who treat women's diseases should bear in mind the diagnosis and treatment of tubercle in general. Dr. Cope is judicious about instruments and pessaries. He ranks operation for the repair of an old rupture of the perineum as "minor gynaecology," and teaches Lawson Tait's method to his readers, with its H-shaped flap, made with scissors, without any removal of cicatricial tissue. Yet, after all, this method is not only relatively easy, but it seldom fails to heal the rectal and anal wound, if reasonably well performed; the same cannot be said of more complicated methods, which, if they succeed, are a better insurance against prolapse, but if they fail leave the unfortunate patient unrelieved of the most disagreeable sequel of the injury.

DR. ASHTON'S *Practice of Gynaecology*[2] is a good textbook and a favourable sample of the work done by the Philadelphian school in the domain of gynaecology. The author writes about treatment more judiciously than many other Anglo-Saxon writers on both sides of the Atlantic; indeed, he has added fresh matter to his directions for carrying out indoor exercises for the treatment of constipation. In this respect he does more wisely than compilers of manuals who pad their pages with details about other people's modifications of one single plastic procedure, although this work suffers rather from being overloaded than from being meagre in detail. The opinion of a distinguished Philadelphian authority on certain stock subjects like cancer and its treatment, will be sought with interest. Dr. Ashton believes in the *x* ray treatment for recurrent cancer, but places little or no stress on the extensive dissections practised by many European operators in association with the extirpation of the cancerous uterus. He maintains, as before, that if the vagina, the rectum, the bladder, the broad ligament, or the cellular tissue of the pelvis are involved, a radical operation is useless. In short, Dr. Ashton, guided by further experience, maintains his opinion on the operative treatment of carcinoma as expressed three years ago in the third edition of his textbook. He rightly lays even more stress than before on cystoscopy and the treatment of cystitis. No gynaecologist is really fit for hospital or private practice unless he liberates himself from a common but dangerous error that dysuria is essentially a symptom of uterine or ovarian disease. He must learn to recognize all disorders of the urinary tract, especially cystitis, and therefore must master the details of inspection of the interior of the bladder. Respect for that very tender portion of the tract is further taught by Dr. Ashton when he deprecates certain old-fashioned methods of treatment for the relief of vesico vaginal fistula. He also adds fresh matter concerning tuberculosis of the genital tract and the treatment of the worst forms of peritonitis. The blood counts, on which he also dwells, are rather a stumbling block to those who qualified long before their introduction as a means of diagnosis, especially when it is a question of peritonitis, haemorrhage, or shock; but in this new edition Dr. Ashton maintains their importance, though he admits that blood findings are not pathognomonic, and are too contradictory and conflicting to be relied upon as the sole means of making a positive diagnosis.

[1] *Minor Gynaecology.* By V. Zachary Cope, B.A., M.D., B.S.Lond., Surgical Registrar, London Temperance Hospital; late Resident Medical Officer, the British Lying-in Hospital, and Resident Obstetrical Officer, St. Mary's Hospital, Paddington. (The Practitioner's Handbooks Series.) London: John Lane. 1909. (Post 8vo, pp. 286; with 11 full-page illustrations and 30 drawings in the text. 5s.)

[2] *A Textbook on the Practice of Gynaecology for Practitioners and Students.* By William Easterly Ashton, M.D., LL.D., Professor of Gynaecology in the Medico-Chirurgical College, and Gynaecologist to the Medico-Chirurgical Hospital, Philadelphia. Fourth edition. Philadelphia and London: W. B. Saunders Company. 1909. (Royal 8vo, pp. 1093, 1057 illustrations. 27s. 6d.)

PELVIC ASTHENIA.

PROFESSOR VAN DER HOEVEN has attempted a fair summary of a most intricate subject very much discussed by anatomists at the present day, and the result is this pamphlet—*Die Asthenie und die Lage-Anomalien der weiblichen Genitalien.*[3] Many authorities will doubt that the author has a clear conception of intra-abdominal pressure and of its great importance in the economy of the body, but these critics are by no means always lucid themselves. Closely associated with this factor, as far as the author's work is concerned, is the mechanism and the limitations of the pelvic muscles. Anatomists, once more, are divided about their mechanism, and tend either to underrate or overrate the supporting powers of those muscles. Halban and Tandler have devoted much time to the preparation of a fine monograph on prolapse, and British obstetricians and anatomists are familiar with Professor Arthur Keith's views on the visceral supports of the pelvis, conveniently summed up in the first volume of the *Proceedings of the Royal Society of Medicine* (Obstetrical and Gynaecological Section, page 216). Though the subject is not being neglected in this country or abroad, it remains intricate, and hence Van der Hoeven's synopsis is not without value. This work may aid the student, qualified as well as unqualified, to understand reports and theories unavoidably intricate, but it is doubtful, however, whether the author is a safe "coach," for whilst he sums up what others have said, his own conclusions seem in great part questionable. Perhaps the best part of the work consists of the good photographs illustrating general "ptosis," such as pendulous breasts, the *facies ovarica* and the *facies* of pregnancy. These illustrations impress on the learner how much asthenia, or loss of tone, may mean. Professor Van der Hoeven himself, however, lays too much stress, according to current teaching, on the perineal body as a support. He uses the old argument that, on statistical evidence, displacement of the uterus is to be detected in the majority of cases of complete rupture of the perineum. It is true that the statistics which he brings forward are original, being based on cases under treatment at Leyden, but he does not compare his series with cases of retroflexion and retroversion not associated with ruptured perineum. He speaks of the levator ani as a structure which is supported by the transversus perinei, and the sphincters of the vagina and anus; most modern authorities maintain that the latter muscles can exercise no such function, and that the levator ani is one of the main supports of the pelvic floor. Yet his summaries give the reader a fair idea of current views, and his pamphlet suggests that some British expert might do well if he prepared a short and lucid manual on enteroptosis and displacements of the abdominal and pelvic viscera, briefly explaining their close association, and noting the theories

[3] *Die Asthenie und die Lage-Anomalien der weiblichen Genitalien.* Von Dr. P. C. T. Van der Hoeven, Professor in Leyden. Harlem: de Erven F. Bohn; and Jena: Fischer. 1909. (Sup. roy. 8vo, pp. 100, 61 Abbildungen. M. 3.)

ich have been brought forward as to their cause. Then, er careful study of dissections and of patients, let it be derstood, the reader of such a manual would be in a ition to understand the views of Landau, Halban and ndler, Arthur Keith, and other distinguished anatomists, ose treatises are of high value, but can hardly serve as ady guides to the student and practitioner.

GASTRO-INTESTINAL DISORDERS.

IE general idea of the editor of this "Medico-Chirurgical ries" is that physicians and surgeons should collaborate dealing with diseases, and probably there is no depart-nt in which this is more necessary than in that of eases of the digestive tract, and Dr. BOSANQUET and r. CLOGG may be congratulated on the success with nich they have performed their task in producing the lume now before us entitled, *The Stomach, Intestines, d Pancreas*.[4] The weakest part appears to be that aling with the examination of the stomach, for the scription of some of the methods do not seem to have en written by one personally familiar with the pro-dures; for example, in testing with Guensberg's reagent ne proportions are incorrectly given) it is usual to evapo-te in a porcelain dish over a spirit lamp, as is described wer down for the tropaeoline test, and we can conceive advantage to compensate for the loss of time in aporating over a water bath. In testing the digestive tivity of the stomach contents the white of egg should be thin discs about the twentieth of an inch in thickness, nd not "cubes"; and here the second and third tubes are nfused, and the results given in the wrong order. The nportance of looking for stasis is not properly brought out, or is any definite time limit given within which the normal omach empties itself. The newer methods of Schmidt nd Strasburger for examining the faeces are not men-oned. Under "achylia gastrica" it should have been tated that no symptoms may be present and no treatment e required; the treatment suggested by pepsin and hydro-hloric acid in the doses given in the only prescription at he end of the book would certainly be futile. Cases of xcessive secretion of gastric juice ought to be classified nto continuous and intermittent, and the value of a diet f minced meat, the meal being followed two hours later y hot water, should have been mentioned. Under the unctional disorders of the stomach the essential difference between bulimia and acoria is not made clear as it should e, because in the latter there is no craving, and therefore o need for sedatives. In the treatment of gastralgia its hronic and daily recurring nature would not appear to ave been in mind when the section on treatment was written; the use of arsenic is apparently approved, but it as failed to justify the hopes held out a good many years ago. Nervous dyspepsia may be a vague term, but in ninety-nine cases out of a hundred the condition so described is dependent upon gastroptosis with atonic dila-tation. The table given on page 74 is not satisfactory, for perhaps the most characteristic sign of chronic gastritis, vomiting of mucus, especially in the morning, is omitted, though in the description of the disease later on it is mentioned and proper stress laid upon it. Fermentation in the stomach is rarer than the reader would be led to imagine, for even where there is pyloric obstruction and stasis it is usual to find the stomach contents sterile, owing to the presence of sufficient hydrochloric acid to check microbial growths; from what is to be read on page 89 the authors evidently know this; interesting cases of gastric fermentation have, indeed, been published, and might have been referred to briefly. Ingluvin should no longer find a place as a remedy for vomiting, for any effect, if ever produced, was probably due to suggestion. In prescribing a diet it is essential to tell the patient that though at first it may have to be restricted to certain simple articles named, yet as improvement takes place other food can be added, and the articles permitted should be stated; finally a model diet should be given, with a warning as to those things which must be excluded for some time, or even permanently. In the directions given in the volume before us these details are wanting, and the information would have to be supplemented by just that knowledge on the part of the practitioner which the book ought to give. The chapter on gastric ulcer is good, but the table on differential diagnosis omits the important symptom of appetite or desire for food. The authors' experience of the use of olive oil is unfortunate if they have found that it causes vomiting and loathing; although it might be expected to have this effect, it does not occur frequently, and considerable experience of its use proves it to be well borne; it may be given alone or as an emulsion with compound tragacanth powder and some flavouring, such as cinnamon water. The indications for operating in diseases of the stomach are well thought out, and cover all the ground, but the diagnosis of perigastric adhesions, for which operation is often necessary, may be made by the discovery of stasis; by the omission to mention this the reader is left without any reasons to justify the exploratory incision recommended. Nearly two-thirds of the book are devoted to diseases of the intestines, and a considerable proportion is taken up with surgical procedures, which are clearly described and illustrated by appropriate figures. The section on constipation is poor; colectomy is not mentioned; diseases of the appendix and appendicitis, and the necessary operations concerned, are dealt with very fully. Diseases of the pancreas are discussed briefly, but more adequately from the surgical than from the medical point of view. It would have been interesting to hear the authors' experience of the value of Cammidge's reaction, but, as in so many other books, no definite opinion as to its value is expressed.

Professor MATTHES's fasciculus on the treatment of chronic gastric ulcer in Professor ALBU's encyclopaedia of diseases of digestion and metabolism[5] is an interesting summary of the discussions and of the progress of opinion on this subject during the last twenty years, illuminated by the results of his own wide experience and excellent judgement. He points out that not long ago the treatment of ulcer of the stomach as laid down by Kussmaul and Fleiner and developed by Ziemssen and von Leube was generally accepted as sound in its basis and satisfactory in its results, but that of late it has been subjected to much criticism from the medical point of view by innovators, among whom Lenhartz may be especially named, while surgery has shown itself more and more disposed to interfere even in uncomplicated cases. He first considers the diagnosis, and admits that probably many cases were formerly included where no ulcer existed, even although haematemesis had occurred, but expresses the opinion that if this latter sign is taken together with other symptoms the diagnosis is sure. Where there is no haematemesis and the diagnosis is based upon epigastric pain coming on after food, with or without vomiting, no such certainty can be felt, since by the use of the *x* rays it has been shown that such pain is not related to the stomach. He attaches considerable importance to the discovery of occult blood in the faeces if the patient has been put upon a proper diet, and regards the benzidine test as of great value for this purpose. He believes that it shows positively that an ulcer is there, and that this sign may be used to give information as to the progress of an ulcer. Although the presence of blood in the stools may be taken to show that the ulcer has not healed, we fear that its absence cannot be regarded as any proof that healing has taken place. The Roentgen rays with the aid of bismuth may help in the diagnosis of an ulcer. The patient should be given bismuth on two or more successive days, when, if the stomach is examined by the screen, a certain amount of bismuth may be seen adhering to the ulcer, which may in this manner be recognized. The rays are also useful in demonstrating the presence of hour-glass stomach, pyloric stenosis, and perigastric adhesions. In discussing treatment, Professor Matthes considers first how far knowledge of the causation of chronic gastric ulcer affords a satisfactory basis for treatment, and his conclusion is that it does not. After reviewing the various theories and the experimental work of the last twenty years, together with the chief clinical

The Medico-Chirurgical Series, No. 2. *The Stomach, Intestines, and Pancreas.* By W. C. Bosanquet, M.A., M.D.Oxon., F.R.C.P., and H. S. Clogg, M.S.Lond., F.R.C.S.Eng. Edited by James Cantlie, M.A., M.B., C.M.Aberd., F.R.C.S.Eng. London: John Bale, Sons and Danielsson, Limited. 1909. (Cr. 8vo, pp. 673. 12s. 6d.)

[5] *Sammlung zwangloser Abhandlungen aus dem Gebeite der Verdauungs Stoffwechsel-Krankheiten.* Herausgegeben von Professor Dr. A. Albu. II Band, Heft 4. *Die Behandlungsmethoden des chronischen Magengeschwürs.* Von Professor Dr. M. Matthes. Halle a. S: Carl Marhold. 1910. (Med. 8vo, pp. 56. M. 1.40.)

observations, he is of opinion that the problem is still unsolved. He refers to the recent interesting work of Katzenstein and Fuld on the presence of a supposed protective ferment in the stomach (antipepsin) which they have endeavoured to isolate and use in the treatment of gastric ulcer under the name of "amynin," but considers their results doubtful. The treatment, therefore, must still be symptomatic. Taking the symptoms in detail, he discusses, first, haemorrhage. This he says, generally stops of itself; but the main lines of treatment are absolute rest, the hypodermic injection of morphine, abstinence from food, rectal injections of normal saline solution where there has been much loss of blood, and feeding by nutrient enemata for a few days. He speaks with favour of the subcutaneous injection of sterilized gelatine if the bleeding is persistent, but it has been shown that sterilized gelatine is useless, while unsterilized gelatine is too dangerous to be employed. Recurrent bleeding may call for surgical intervention. He describes in detail the various plans of diet of Leube, Penzoldt, and Lenhartz, and finds no great difference in the ultimate results, but he disapproves of Lenhartz's plan of feeding by the mouth, even while haemorrhage is going on, as it involves a certain risk, while no harm to the patient can result from abstinence for a few days. After the bleeding has stopped he follows the usual practice of feeding with small quantities of mechanical non-irritating food, gradually increasing the quantity and consistence in the course of three or four weeks, which should be spent in bed. With regard to drugs, he believes bismuth is useful, while oil and sugar check gastric secretion, and iron will help to improve the state of the blood. He gives as indications for surgical intervention repeated bleeding, repeated relapse after medical treatment, the occurrence of perforation, stenosis, painful epigastric adhesions, hour-glass stomach, and any suspicion of carcinomatous degeneration of the ulcer. Finally, he compares the results of medical and surgical treatment, and concludes that the latter is by no means so successful as to warrant the claim that it should supersede the former. He regards the disease as emphatically one in which physicians and surgeons should co-operate, and in which there is an undoubted sphere for the exercise of both methods of treatment.

Dr. L. BAMBERGER'S Alvarenga prize essay on the internal and surgical treatment of chronic gastric ulcer and its consequences is a compilation mainly based on German experience.[6] He has followed the not altogether convenient method of dividing the subject into two parts, the first dealing with the medical and the second with the surgical treatment of gastric ulcer. The great defect of the book is that he does not lay down clearly and definitely the conditions suitable for medical treatment and those which ought to be handed over to the surgeon. Thus, for example, he discusses in the first portion the medical treatment of pyloric stenosis and hour-glass stomach, although such treatment must be futile or at best only palliative. He does not discuss acute gastric ulcer and syphilitic and tuberculous ulcers, and with regard to gastric ulcer comes to the conclusion that our knowledge of its etiology is insufficient to form a sound basis for treatment; he evidently inclines, however, to the opinion that excessive acidity is more often the consequence than the cause of disease. He holds that the internal treatment of gastric ulcer must be mainly dietetic, advocates the use of milk and afterwards a diet poor in chlorine and mainly vegetarian, and urges strongly that dietetic precautions should be maintained for a long time. He gives statistical tables to show that there is no great difference in the ultimate results of Lenhartz's treatment, recently described by Dr. Spriggs (BRITISH MEDICAL JOURNAL, April 3rd, 1909, p. 825), which is based on the principle of early solid food, and that of Leube, in which the patient is kept longer on slops. He gives Lenhartz credit for proving that we may be somewhat bolder in the administration of food, but early feeding in the treatment of gastric ulcer has been long and consistently advocated in this country by Professor Saundby, who wrote nineteen years ago (*Lancet*, February 14th, 1891), "These patie are generally anaemic and ill-nourished, and this i great importance when we come to consider the tr ment, for the starvation method now in vogue is calcul to maintain this unfavourable state of things; whil attribute the success I have met with to the energy v which I have endeavoured to remedy these conditio In that lecture he allowed bread and milk, eggs, and li pudding in the second week; chicken, light pudding, mutton diet in the third week; and he concluded saying, "It may be thought that there is danger by plan of exciting haematemesis, but I think this fea sufficiently answered by the record." As Dr. Bamber has quoted Donkin and McCall Anderson for what he n the English plan of prolonged rectal feeding, there is excuse for overlooking the fact that the other view has supporters here. We agree with him in deprecat Lenhartz's rashness in allowing food on the same day that on which the haematemesis has occurred. He nothing fresh to add to our medical treatment, but draws the conclusion from his statistics that the failu are 32 per cent., which is not a satisfactory result. the other hand, as, even on this showing, two-thirds cured by medical means, the claim of the surgeons to h all gastric ulcers handed over to them for treatm cannot be allowed; surgical operation is, he thin indicated when there have been repeated relapses, wh there is severe continuous pain or profuse or repea haematemesis or persistent emaciation. When an ulce situated at the pylorus surgical intervention is essent but he does not say how we are to recognize its situati For simple ulcer he advocates gastro-enterostomy and malignant ulcer resection, the mortality being only 4 cent. In non-pyloric ulcers the operation should "taken into consideration in all obstinate cases," but t risk is 12.6 per cent. He discusses the question of ope tion for haematemesis, and includes pyloric stenosis, ho glass stomach, and obstruction from perigastric adhesi among the conditions for which surgical interference required. The usefulness of the book is diminished the absence of an index, but it contains much statisti information.

MYOPATHIES.

DISEASES of the muscles, particularly the obscure a chronic disorders known as the primary myopathies, ha always received more attention in France than in oth countries. The appearance of an exhaustive Fren monograph on the subject is therefore a matter of co siderable interest; and we may say at once that I MARINESCO'S careful and elaborate treatise fully comes to expectations,[7] and is worthy to take its place in t great system of medicine and therapeutics in which forms one of the last sections. The first third of t volume is taken up by the discussion of pseudo-hype trophic paralysis, or myosclerosis, after which the Leyde Moebius type of myopathy is fully considered. Interesti details of a typical "living skeleton" of this type a given; he presents an extreme degree of gener muscular atrophy, only the muscles of the neck and fa remaining intact, together with a small quantity of t pectorals and erector spinae; even the intercostals a abdominal muscles have disappeared. The tendon reflex have vanished, the patient's various forms of sensatio show very extensive disturbances, and he suffers fro diffused bodily pains for short periods daily. The reactio of degeneration is absent; numerous contractures of t joints are to be observed. Discussing the diagnosis, D Marinesco sums up in favour of a progressive generalize myopathy; numerous photographs of this patient a given, and show his extreme emaciation. The other type of myopathy considered are Erb's juvenile form (th scapulo-humeral type), Zimmerlin's type, and the faci scapulo-humeral type of Landouzy and Déjerine. Heredit is a very common feature in all these myopathies, and th author argues in favour of their nosographic identity Two, three, or even four of these types may be combine in a single patient—thus Wougtschowski described patient simultaneously exhibiting the infantile, juvenile

[6] *Die innere und die chirurgische Behandlung des chronischen Mägengeschwürs und ihre Erfolge.* Von Dr. L. Bamberger. Berlin: J. Springer. 1909. (Demy 8vo, pp. 270. M. 8.)

[7] *Maladies des muscles.* Par G. Marinesco, Professeur à la Faculté d Médecine de Bucarest. Section XXXVIII of the new edition, edited b Gilbert and Thoinot, of Brouardel and Gilbert's *Nouveau traité d médecine et de thérapeutique.* Paris: J. B. Baillière et Fils. 1910 (Sup. roy. 8vo, pp. 172; 76 figs. Fr. 5.)

pseudohypertrophic types, together with Duchenne's ditary type—and the author holds the frequency with ch these mixed cases occur to be a strong argument nst elevating the various "types" into the position of rate diseases. His discussion of their pathology is thorough, and is well illustrated. The last quarter he book is devoted to the various inflammatory ases of the muscles, dermatomyositis, neuromyositis, morrhagic polymyositis, and other varieties of infection the muscles, including myositis ossificans. It is resting to remark that no place is found in Dr. inesco's book for myasthenia gravis, although so many nologists have found extensive lesions of the muscles in condition. Dr. Marinesco writes clearly and con- ingly, and has made admirable use of the literature of subject, which is fully quoted in footnotes. Many of illustrations are excellent; the book is well printed, should really be indispensable to the myologist and rologist.

UCATIONAL AND THERAPEUTIC EXERCISES.

e question of physical exercises in connexion with lic schools is one the great importance of which has ady been recognized, and to which the Board of ucation have lately given some attention. Dr. R. T. KENZIE'S book, *Exercises in Education and Medicine*,[8] l prove of great value to those who are concerned in way with the organization of courses of physical rcises for school children, and also to those who are in rch of information with regard to the application of ro-muscular training as a treatment for disease, or the ults of disease. In both fields there has been and still oo much left to the non-medical exponent of particular tems.

Dr. McKenzie gives much interesting information with gard to the physiology of exercises, the effects of exer- es of effort and endurance, massage and passive motions. e various systems of physical training and their ential differences are clearly explained and well illus- ted, and in the temperate discussion of their merits and merits the question of mental effort is not lost sight of. he school medical officer, who at this juncture is theo- ically asked to take over the supervision of a branch of ucation which has hitherto been generally in the hands ex-army drill instructors and others, will be glad of a ok in which he can find nearly all that he requires in der to form a reliable opinion upon any set of exercises, from which to obtain suggestions applicable practically any set of children, from the ordinary healthy school ild to the blind and mentally defective. The apter on the physical education of the mentally and orally defective is particularly interesting. In Part II e application of exercises to pathological conditions dealt with—flat foot, stooping shoulders, scoliosis, rdiac disease, obesity, and many other conditions being ken up, including such nervous diseases as occupational urosis, infantile paralysis, stammering, chorea and loco- otor ataxia. Under almost every one of these headings me information of value, and not to be readily had else- here, will be found. If we may venture one criticism, it that, granting the extreme value of physical exercises in romoting physical development, and in prevention and eatment of disease or amelioration of its effects, Dr. cKenzie in some instances claims rather more for this rm of treatment than all will be inclined to grant.

NOTES ON BOOKS.

HE volume on medicine on board ship,[9] modestly escribed by its author, Dr. FRANCK CLAIR, as consisting f notes, has more than one claim to attention. It has een awarded the Clarens Prize by the Academy of Iedicine in France, and is the outcome of eighteen years t sea in the capacity of surgeon in charge of passengers nd crews in ships trading chiefly in tropical and sub- ropical climates. After some account of the general onditions in which his work has been done, the author describes under alphabetical headings the diseases and injuries most commonly encountered on board ship, the fashion in which their course tends to be modified by the environment, and the treatment which he has found most easy, and in the circumstances most effective, to apply. In the latter part of the volume he passes from a description of his actual experiences and practical conclusions thereon to a general consideration of a ship medical officer's life and the provision which should be made for his work. He also advocates the creation in France of a public service of precisely the same character as that which in the United States of America exists under the title of the Public Health and Marine Hospital Service. The volume should be found of practical use by medical men who occasionally take charge of passengers and crews, provided they can read somewhat idiomatic French, while some of this sailor medical man's observations are of general interest and are summed up in such brief, dry phrases as to give to the volume an attraction even for those whose acquaintance with the sea is acquired from the shore.

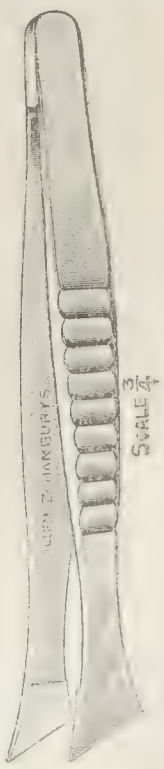
SLEEPING SICKNESS.

In the *Diary* on sleeping sickness (Part IX)[10] of the Nyasaland Protectorate, edited by Dr. Hearsey, the principal medical officer, the histories of the eight cases of sleeping sickness reported in Part VIII are given. Case I still remains in good health; Cases II, III, IV, and V have died; Cases VI and VII, which were detained at Livingstone, North-Western Rhodesia, have not been heard of since their detention was first notified, while Case VIII has died at Broken Hill, North-Western Rhodesia. A summary of the work done up to December 31st, 1909, by the medical officers engaged on sleeping sickness investigations is also given. No information has been received from either North-Eastern or North-Western Rhodesia since the publication of the last memorandum, but Dr. Hearsey has been informed, in reply to his inquiry as to whether *G. palpalis* had been found in the locality where Case VIII was said to have contracted infection, that two medical officers had carefully searched the neighbourhood without result. Dr. Davey, on his way home, made a careful search of the lake shore for *G. palpalis*, but failed to find it. *Glossina morsitans* and *fusca* were, however, met with.

MEDICAL AND SURGICAL APPLIANCES.

Epilation Forceps.

DR. ARTHUR WHITFIELD (London, W.) writes: In picking out the broken stumps of ringworm hairs I have found great difficulty in finding a pair of forceps finely pointed enough to enable one to dig a short stump out of the mouth of the follicle and yet stout enough to avoid crossing or opening when the pressure is put upon them. Messrs. Allen and Hanburys have made me a pattern which appears to me to combine the qualities which experience has taught me to regard as desirable. The forceps are stoutly made so as to avoid any lateral movement of the points upon one another, and end in a broad grasping end, finished at an angle of 45 degrees with the axis of the shaft. By these means one end of the gripping points has an acute angle which gives the necessary point for digging out very short stumps. In depilating wholesale the forceps are held so that the acute angle is directed away from the hand, and it will then be found that the whole of the gripping surface lies parallel with the scalp, while the hand is out of the line of sight. If a single stump is to be taken out, the forceps are turned so that the obtuse angle is away from the hand, and the point will then come into a comfortable position for use on the scalp, while the slope of the shaft will still keep the hand from obscuring the view. The broad edge is made rather sharp, so that it can be easily used for detaching scales for microscopic examination. I have been using a pair of forceps of this pattern for some years, but have only recently decided to call attention to its convenience because I have been so frequently asked where I have procured them.



---

[8] *Exercises in Education and Medicine.* By R. T. McKenzie, B.A., M.D. Philadelphia and London: W. B. Saunders and Co. 1909. (Med. octavo, pp. 406; 346 illustrations. 15s.)

[9] *La médecin à bord.* Notes. Par Franck Clair. 1910. Paris: Vigot Frères. Pp. 362. Fr. 5.)

[10] Nyasaland Protectorate, Sleeping Sickness, *Diary*, Part ix. By the Principal Medical Officer. Zomba: Printed by the Government Printer. 1910.

ANNUAL REPORT OF THE BOARD OF EDUCATION.

IN the annual report of the Board of Education for the year 1908–9[1] the hope is expressed that in at least three important particulars substantial improvements have been made in the conditions under which elementary education is given. One of these improvements is a reduction in the size of classes under individual teachers, another is a change in the system of payment of grants, while the third, and in our opinion the most important, is the very definite steps which have been taken to improve elementary school premises.

School Premises.

Information has been obtained by the Board as to the condition of the 20,690 ordinary public elementary schools in England and Wales, and a preliminary investigation of this information indicates that in about 2,000 instances the school premises are more or less seriously unsatisfactory. There are not included in this number those schools in which the only objection to the premises is the fact that three or more classes are taught in a single undivided room, nor those cases in which the only ground of objection is that the playground accommodation is insufficient; nor are those schools included which merely require to be enlarged. The extreme difficulty of forming an estimate of the extent to which school buildings fall short of a reasonable standard of efficiency is pointed out in the report. The standard embodied in the building regulations of the Board, though applicable to new schools, could not be employed universally in judging of existing school premises, for it would result in the condemnation of a large number of school buildings erected within the last twenty or thirty years. In some instances the particular defects are so glaring that the Board can without hesitation insist on their remedy, but in the majority of cases out-of-date school buildings exhibit a variety of defects which, considered separately, are insufficient to justify condemnation, but in combination make the premises decidedly unsatisfactory. Medical officers of health who have occasion to draw the attention of school managers to the unsatisfactory structural arrangements of schools are constantly met with the statement that the particular matter condemned has received the sanction of the Board of Education. It is now frankly admitted in the report that the official standard has been very materially raised on many occasions, and "there is reason to believe that until a comparatively recent date this standard fell considerably below the best practice of the country."

In the attempt to deal satisfactorily with some existing school buildings two special difficulties are referred to. The first is that many school buildings which, so far as their internal arrangements are concerned, are readily capable of improvement, have been built on such confined sites that there is very little playground accommodation. In view of the increased importance attached to physical exercises, any curtailment of the area already given to the playgrounds would be very undesirable. The second difficulty is associated with the dual system of school supply. In some districts it is stated that although the aggregate number of children is quite sufficient to form one well-organized school, yet the total number of scholars is divided among one or more small voluntary schools, or between a small council school and a small voluntary school. There are some towns, it appears, in which the managers of voluntary schools of the same denomination would save large sums of money, both to themselves and to the local education authority, if they would agree to "pool" and redistribute their scholars among the available schools.

After referring to the criticism which the Board frequently has to face that its demands for improvements are not merely progressive and wanting in finality, but are also capricious and unsystematic, it is admitted that in some respects the system of dealing with unsatisfactory school premises is capable of improvement. A great deal has been done in the past seven years in the way of improvement, but it is felt by the Board that the time has arrived when a resolute and systematic endeavour should be made to deal with the remaining cases of unsatisfactory school buildings throughout the country. The work done by the officers employed in the medical inspection of school children has brought home to the local education authorities the reality and importance of defects which they had been disposed to regard as insignificant if they did not altogether deny their existence. It is therefore the intention of the Board to follow up its own preliminary survey of the present condition of school buildings by inviting local education authorities and the supporters of voluntary schools to make a similar comprehensive survey, with a view to preparing a scheme for the systematic removal of defects within a reasonable period.

The Board anticipates that if an effort is made in a given period to bring all the schools in an area up to a reasonable standard of suitability and convenience it may be possible for the Board to refrain from demanding further improvements for a period of years and until the next periodical review is undertaken. If this procedure is carried out the local education authority and the school managers will be spared the annoyance of intermittent requirements, and will be able to forecast their expenditure over a term of years more accurately, while the Board will be able to standardize its requirements more completely, and, incidentally, its inspectors will be set free for their more legitimate duties.

Rural Education.

Referring to the question of rural education, the Board expresses itself as being in full sympathy with those persons who desire to have the curriculum and methods of instruction in rural schools less "bookish" and more practical. In some of the Buckinghamshire schools the manual work which is usually confined to the infants' classes is being carried out throughout all the classes—a course which appears to meet with the approval of the Board. During the year under review the Board paid grants for the instruction of over 20,000 children in gardening—an increase of more than 5,000 on the number who received such instruction in the previous year.

Education of Teachers in Hygiene.

It is only tardily being realized in this country that if children are to be taught efficiently those who teach must themselves have an intimate knowledge not alone of the art but also of the science of teaching. There are now available in various parts of England and Wales nearly 12,000 places in training colleges for teachers and further provision is being made for the same purpose, notably in Glamorgan and in Monmouthshire. It is satisfactory to find that hygiene, which was formerly an optional subject, is now included in the curriculum of every training college except in the case of students taking degree courses. A course for men students covering a year's work in hygiene and physical exercises has been instituted at the South-Western Polytechnic, Chelsea, and constitutes a third year of training under the regulations of the Board. During the summer of 1909 a model course in hygiene and physical exercises was held in London. Lectures were delivered by Professor Henry Kenwood, Chadwick Professor of Hygiene in University College, London, and during visits to certain schools he gave practical demonstrations in the modern methods of sanitation and ventilation.

Medical Inspection.

A separate report[2] was issued by the Board upon the working of the medical inspection provisions of the Act of 1907.

Provision of Meals.

The Board has also issued separately a report for the two years ending March 31st, 1908, and March 31st, 1909, on the working of the Education (Provision of Meals) Act, 1906. In a prefatory note Mr. Selby-Bigge, Principal Assistant Secretary in the Elementary Education Branch of the Board of Education, points out that there are great possibilities connected with the wise and effective working of this Act in conjunction with the Children Act and the Education Act of 1907. One of the outcomes of the Provision of Meals Act has been the formation of local "Children's Care Committees," and these, with other voluntary agencies, have done a great deal in the way of carrying on an effective warfare against ignorance and

[1] Report of the Board of Education for the Year 1908-9. Cd. 5130. Price 9½d. Eyre and Spottiswoode.

[2] BRITISH MEDICAL JOURNAL, January 22nd, 1910, p. 213; February 5th, 1910, p. 328.

elessness. The Act empowers local education horities, after obtaining the sanction of the Board of ucation, to defray the cost of food supplied to elementary ool children provided the total expenditure does not ceed an amount equal to a halfpenny rate. During the o years with which the report was concerned, this action was given to 136 education authorities. In the cond of these two years there was an expenditure out of e rates of £48,000, and £17,000 was provided by voluntary tributions for the purposes of the Act. Less than £300 s contributed by or recovered from parents. The luence for good upon the general conduct of the ildren who were provided with meals is a subject of neral comment. One teacher reported that owing to the eals being granted through the school the parents had len in more readily with medical inspection, and there s certainly much less trouble than formerly in securing eanliness and good manners. The experience gained of e working of the Act goes to show that it must take its ace as a part of the machinery of public education in is country.

SCIENCE NOTES.

the form of a digest of the report on the Irrigation epartments of Egypt and the Sudan for 1908, Colonel r C. C. Scott-Moncrieff contributes an interesting article the April number of the *Geographical Journal*. The bject is one of fundamental importance to the welfare of gypt and the countries of the Nile Valley, and it is essenally identified with the British occupation of these parts. revious to that very little had been done in the way of ontrolling the Nile. It is remarkable to think that the ncient Egyptians, with all the mechanical genius they ossessed and the power at their command, appear never o have thought of regulating the flow of the river on hich their very existence depended. It was, in fact, not ntil the beginning of last century that any attention was evoted to the matter, when, at the suggestion of a French ngineer, a dam was thrown across the two branches of pex of the delta. This was of service until 1867, when a ad fracture occurred. No steps were taken to repair it or nearly twenty years, but on the arrival of the British n 1883 one of the first matters to receive attention was rrigation and dam construction, and the country owes much o Lord Cromer, who had the foresight to earmark a million ounds for irrigation purposes. The original dam, even when repaired, was found to be totally inadequate, for although it raised and diverted the river when running ow, it did nothing to store the volume that rushed to the sea during flood time. It was on that account that in 1895 he great dam at Aswan was built, with the result of raising the level of the river 75 ft. and creating a great ake in Nubia 200 miles long. The ultimate benefit was enormous, as it ensured a perennial water supply for the whole of Middle Egypt. An auxiliary dam was later constructed at Assiut for the purpose of diverting the water from the river on to the fields. Even these great works, however, were found to be insufficient for all needs. South of Assiut irrigation was still dependent on floods. It was, therefore, resolved to raise the Aswan dam another 23 ft., and thereby more than double the volume of water stored. This work, which is in progress, is expected to be complete in 1912, and there should then be a perennial water supply for the whole of the Nile Valley north of Aswan. To control the discharge south of Assiut another dam has just been completed at Ina, 100 miles north of Aswan. There the width of the river is just about half a mile. In addition to the dams it has been necessary to construct a costly network of canals to carry water to every part of the Nile Valley, and the outlay for this purpose will be half a million pounds. Another direction in which there has been a marked improvement since the British occupation is in the matter of roads. Previously it had been quite impossible to drive a cart from Cairo to Alexandria. Moreover, navigation on the numerous canals was generally obstructed by the imposition of heavy tolls, mainly with the view of increasing the revenue on the State railway. Now these imposts have been abolished and there is an excellent system of roads, to which 100 miles were added last year. The task of carrying the water off the land was found as difficult as that of leading it on. There was much to contend with. The faulty alignment of the old canals was a continual source of trouble. The exceeding flatness of the country and the absence of tides in the Mediterranean removed two natural resources. Some of the land, in fact, is under sea-level, and although once fertile is now waterlogged. Much has been done in this direction, but much more remains to be done. The conditions in the Sudan are not nearly so encouraging as those in Egypt. The scanty population, the poverty and the lack of water make the country at present of very little value. Some improvement ought to result when the Aswan dam is completed. Before undertaking the irrigation of such a vast territory numerous considerations have to be weighed, but enough has already been ascertained to decide on the feasibility of making a great canal, arising from the left bank of the Blue Nile near Sennar and running in a north-westerly direction more or less parallel to the river. This would supply a large tract of rich black soil, but the drawbacks are the sparseness of the population and their ignorance of methods of irrigation. Such enterprises as these are a fitting testimony to the beneficence of the British rule in Egypt, and bid fair to enhance the reputation of the Nile Valley as a land of monumental works.

Sir E. Ray Lankester, in his presidential address to the Royal Microscopical Society, gives a summary of several recent lines of investigation which demand the attention of microscopists. After dealing with the ultramicroscope he refers to Dewar's experiments on bacteria at very low temperatures. The fact that they can withstand exposure to a temperature approaching absolute zero for many weeks and that in such a state they are impervious to most destructive agencies is interesting. The only agent which was found to destroy them was light from the violet end of the spectrum. The whole question of the action of light and radiant energy not only upon bacteria but upon all forms of protoplasm, naked and protected, is likely to be of immense importance in the immediate future. Before progress can be hoped for, however, more delicate methods of experiment must be devised. The part played by bacteria in the alimentary canal of man is then discussed, and reference made to some of the theories and discoveries familiar to us in these latter days. The name of Metchnikoff is naturally mentioned more than once. The curious association of bacteria with all forms of animal life is a matter on which our present knowledge is little more than scrappy. As to its importance and interest, both from a medical and biological point of view, there can be no question, and, as Sir Ray Lankester rightly insists, "a complete study of the bacteria to be found in the alimentary tract of all animals, with a demonstration of the history and source and activity of such bacteria as are found, is required."

To the farmer, until not so long ago, the starling appeared an altogether innocuous bird. It was not regarded, like so many other birds, as an enemy of the seed time, for it was considered to be an entirely carnivorous feeder. For the most part it certainly regales itself with all manner of creeping and crawling things like beetles, spiders, grubs, worms, and molluscs; and, for a change, it now and again indulges in a little fruit. Whether the seed-eating propensity is an old habit which had hitherto escaped observation or whether it is a development of modern times is a matter of much doubt, but certainly no cognizance was taken of the fact until the beginning of the present century. At that time several persons had occasion to call attention to the depredations of starlings in newly-sown fields; and conclusive evidence that their visits were not of a purely friendly nature was adduced by the finding of seeds in their crops and gizzards. Dr. Kelso, who has done much to bring this matter to light, summarizes the facts in the April number of the *Zoologist*. Such a change—if, indeed, it be a change—in the habits of the starling is extremely interesting, and is not without parallel in the case of some other of our common birds. Perhaps the most outstanding instance is that of the black-headed gull, which from being a shore bird, like all its relations, appears to be rapidly becoming an inland inhabitant, and is even to be seen roosting on trees.

LITERARY NOTES.

WE are requested to state that next week's *Punch*, to be issued on May 18th, will be a special King Edward Memorial Number, and will consist of 40 pages, chiefly of illustrations gathered from the pages of *Punch* from the late King's birth in 1841 up to the date of his decease. It will be sold at the usual price of 3d.

In the May number of the *Polyclinic*, Sir Jonathan Hutchinson discusses Goethe's last illness. The account is abridged from Lewes's *Life*. It is, he says, a graphic though brief record of a form of illness which brings about the death of very many in senile or presenile periods of life whilst still, apparently, in vigorous health. The season of year, the sudden exposure, the severe rigor, the rapid but deceptive development of symptoms, the absence of anxiety on the part of the patient, the almost sudden termination, make together a picture which is complete with one exception. After such signs one may feel almost certain that herpes on the lips followed, but it has escaped notice. Goethe, in early life, was considered to be consumptive, and he nearly died from an attack of haemorrhage from the lungs. It may be mentioned by the way that the nature of this illness was dealt with in the *Zeitschrift für Tuberkulose* for February of the present year, by Professor Bernhard Fraenkel, of Berlin, who concludes that Goethe's ill-health in youth was due to tuberculosis, not to syphilis as has been mentioned by some. Later the poet became robust, and was fond of outdoor pursuits and of fresh air. He would sleep out of doors wrapped in his cloak, and would bathe in the river by moonlight. He was always subject to catarrh, but never had any more serious illness. He took wine freely, and it is recorded that he was never overcome by it. He was always fond of warmth, and after middle life was very tolerant of close rooms if only they were warm. The modern hygienist will be shocked to hear that in later life he could not endure an open window, and cared nothing for ventilation, appearing to prefer a close room. His last illness was probably an attack of catarrhal pneumonia with pleural effusion. One morning his grandson, going into his bedroom for breakfast, found him still in bed. It was March (the 16th), and he thought he had taken cold on the preceding day by going across his garden from a heated room. He was now 83 years of age, and in remarkably vigorous health. A physician who visited him found him very feverish and ill. In the evening he was better, and talked and joked. On the 17th he was so much better that he dictated a long letter to W. von Humbold, and it was thought that all danger was past. No note is made as to the 18th, but about midnight on the 19th he awoke with severe pain in the chest, and with his hands and feet icy cold. His teeth chattered, and the pain in the chest made him groan. Clearly, says Sir Jonathan Hutchinson, he had a rigor, and the pain probably denoted pleurisy. His face was ashen grey, and the eyes dull and sunken in the sockets. He was removed from bed to an easy chair, as he could not find a comfortable position. Towards evening he became a little better, and signed some papers. On the next day the pain was gone (effusion), but he seemed exceedingly ill. He tried to read, but could not manage it. He asked for the list of those who had called to inquire for him, and said that such evidences of sympathy must not be forgotten when he was well. On the 22nd he talked of the coming spring, and said that it would soon restore him. He even tried to walk up and down the room, but was too weak to continue it. He had no idea that he was about to die. As the day advanced he slept at intervals, but frequently wandered in his talk. His speech became less and less distinct, and about half-past twelve he composed himself in the corner of his easy chair, drew figures in the air and on his dress with his finger, then apparently fell asleep, and so passed away. His illness had lasted six days. The last words which his attendants distinguished were "More light."

In a recent issue of *Science*, Dr. J. F. Abbott raises a question which has often vexed our own spirit, though we have always put it aside, salving our literary conscience with Lord Melbourne's famous question, when enthusiasts told him something or other called for reform, "Can't yo leave it alone?" We congratulate Dr. Abbott on his gallan attempt to rectify a particularly absurd error which ha by long use almost acquired a prescriptive right to continu He writes:

Perhaps it is too late in the day to protest against th spelling, but it seems to the writer that even should ou physiologists concede their science to be "made in Germany certainly our language is not. There are certain obvious rule for the transliteration of Russian names that have been i effect since such transliteration began to be done. But of lat there appears to be a tendency to ape the Germans in thi regard. Vladivostok now masquerades on many maps a Wladivostok. But if Pawlow, why not "Saratow," o "Orlow," or "Trepow," or "Popow"? Even *Minerva*, whic no one ever accused of being un-Teutonic in its make-up, use the spelling Pavlov throughout. What reader of contemporar history would recognize the name of the famous Russia diplomat, Pavloff, if he read that one Pawlow was some tim minister to Korea? Surely our orthography is bewilderin enough as it stands without wantonly importing foreig absurdities into it.

The name of the distinguished physiologist is correctly pronounced by a good many, but "Paulou" is too common A still more illustrious name is almost universally mispronounced in various ways. Those with some knowledge of German speak of Vir*ch*ow (*ch* guttural); some say Vir*ch*ov; some uncompromising Britishers we have heard say "Virchow" (*ch* hard, and last syllable rhyming with "cow"), or even "Virtschow." The great pathologist pronounced his name, which is not, strictly speaking, German, "Virshō."

John Bunyan was born at Elstow in 1628, and it should interest all lovers of English literature to learn that it is proposed to erect a memorial to the author of the *Pilgrim's Progress* in his native place. It may be remembered by some of our readers that Bunyan was held up by Mr. Edmund Owen to medical writers as a model of style. Bunyan's work, says Mr. W. Charter Piggott, minister of the Bunyan Meeting, Bedford, in a circular which he has issued, bore fruit in his native village, and probably there have never been wanting those who, Sabbath by Sabbath, have walked along the old level road to Bedford to worship with the congregation in Mill Street, and to join in fellowship with the church in which Bunyan was minister. The village of Elstow, he adds, still retains much of the flavour of its past, and the Moot Hall is unquestionably a fitting historic home for those who follow in the spiritual faith of Bunyan. The church at Bunyan Meeting, Bedford, proposes to erect on a site, given by Mr. Samuel Whitbread, a hall, to be known as the "Bunyan Memorial Hall," which will contain not only accommodation for public worship but also smaller rooms and all the appointments necessary for school and social work, at a cost of from £1,500 to £1,800. Over £1,000 has already been raised, and of this sum the little congregation at Elstow has contributed through its own effort £165. Subscriptions will be received and gratefully acknowledged by the present minister of the church of whose membership the Elstow congregation is a part, the Rev. W. Charter Piggott, Bunyan Meeting, Bedford.

IT is announced that Dr. Zenchallo, Medical Officer of the International Sanitary Commission, has died of plague at Jeddah as the result of infection when examining rats.

AT the annual meeting of the Medical Mission Auxiliary of the Church Missionary Society on May 6th, the report submitted showed that the society now maintains fifty hospitals in various parts of the world. Between them they provide 3,075 beds, the patients treated therein last year numbering over 29,000. In addition there were upwards of 1,100,000 out-patient attendances. Professor A. Carless, of King's College Hospital, who was in the chair, drew attention to the magnitude of the work done, its economical administration (the expenditure being less than £40,000 a year), and the high qualifications of the medical men engaged in it. They included a gold medallist and all were men who would have been in the front rank of the profession at home. Some account of their experiences as medical missionaries was subsequently given by Messrs. B. van Someren Taylor, M.B., C.M.Edin., of Hing-hwa, China; T. L. Pennell, M.D.Lond., F.R.C.S., of Bannu, North-West Frontier, India; and J. H. Cook, M.S.Lond., F.R.C.S., D.T.M., of Mengo, Uganda.

Death of King Edward.

THE LAST ILLNESS.

KING EDWARD THE SEVENTH may be said with perfect truth to have died a martyr to his sense of duty as a Sovereign. Throughout his reign he had insisted on performing his public duties without regard to his personal convenience. It was only within a day or two of his death that he could be prevailed upon to keep within doors, and even in the last throes of the distressing and dangerous complaint which was so quickly to cut short his valuable life he refused to take to his bed until his flagging powers could no longer be spurred into activity by his resolute will. Thirty-six hours before he breathed his last he gave audience to Lord Islington—the new Governor of New Zealand—and Major T. B. Robinson, Agent-General for Queensland. He continued up to nearly the end of the last day of his life to do his work, and he reminded his attendants that he had an important appointment fixed for twelve o'clock on the same day. If ever a man died in harness it was King Edward the Seventh.

From a medical point of view the case was perfectly simple, and the stopping of the machinery of life was due to causes about which there is nothing doubtful or mysterious. We think it necessary to point this out, since the appearance on the bulletins of the name of a leading laryngologist gave rise to a revival of unfounded rumours which were current even before the deceased monarch came to the throne. Professor StClair Thomson had, however, attended him on several occasions during the last eighteen months; before that time Sir Felix Semon had often been called on to advise the King about his throat; it may be added that more than twenty years ago he had been seen by the late Sir Morell Mackenzie.

For years the King had suffered from emphysema and a tendency to more or less acute bronchitis, with the usual symptoms of distressing and ineffective cough and difficulty of breathing. For a long time there had been crepitation at the bases of both lungs, indicating a chronic impediment to the free passage of air in the smaller bronchial tubes. He was subject to attacks of laryngitis, producing a slight spasm of the vocal cords; but, except for some inflammatory thickening at the hinder part of the glottis and chronic catarrh of the throat, there was, we are in a position to state, no trace of disease in the upper air passages. The King, in short, had what is known as a smoker's throat, and this and the congestion and thickening due to that cause, combined with the loss of elasticity in the lungs, made it increasingly difficult for him to clear his chest. The strain thrown upon the heart by the obstruction to the passage of blood through the lungs caused by the collection of secretion in the bronchial tubes had its natural sequel in dilatation of the right ventricle, and the actual cause of death was heart failure due to the increasing difficulty in the pulmonary circulation. It was, in short, a case of a type seen every day in thousands of elderly persons. The cause of death in such cases is purely mechanical, the action of the overladen heart being gradually stopped by increasing resistance in the lungs. Could the King have been induced to spare himself more he would probably have lived many years longer. His Majesty had indeed suffered from glycosuria of varying degree for a long time, but this did not, as far as can be judged, tend to the shortening of his life. Another condition which must have caused considerable discomfort at times was a certain weakness in the abdominal wall at the site of the operation for appendicitis, which was performed in 1902.

We only mention these infirmities as the knowledge of what he had had to endure must increase the admiration which all Britons feel for the high courage and resolution of the Sovereign whom they have lost. The state of his health would have been a reasonable excuse for some degree of valetudinarianism. Of this weakness the late King showed no trace. A notable feature in him was the pluck with which he bore himself, not only in the illnesses which have been mentioned, but during the painful period when he was recovering from a fractured patella. Although he invariably listened to the advice of his physicians with respect, he did not always follow it if it seemed to him to stand in the way of the discharge of his duty. It should be a comfort to his subjects that he passed away peacefully before he had reached the stage of invalidism which is the frequent fate of sufferers from bronchial asthma. Except for the conditions which have been referred to, the King had till lately been a remarkably healthy man. He led a strenuous life, and it may be said that since he assumed the sceptre he seldom, if ever, had what the humblest of his subjects would call a real holiday. Even his social activity, which he thoroughly enjoyed, he may be said to have looked upon as part of the day's work. There is probably no man in these realms who worked harder or more conscientiously than Edward the Seventh.

His life, spent as it was in the fierce light that beats upon a throne, would to most men have been exceedingly tiresome. But Edward the Seventh thought it a part of his duty as a Sovereign to fulfil ceremonial functions of the most diverse kinds and to mingle freely in society. He delighted to live among his people, and he shirked no engagement that might help to promote goodwill among the nations. More than a year ago the strain began to tell on his robust constitution. He was ill when he went to Berlin in the early part of last year; he was ill again in the autumn, and it was noticed by many of those who saw him at the opening of Parliament that he looked very weary and unwell.

On his way through France he caught a fresh chill, and during the early days of his stay at Biarritz his condition caused some anxiety. The skill of his physician and the care of his nurse, combined with

the favourable influence of the climate, enabled him to shake off the enemy for a time. Had he been a private citizen he might have extended his stay at Biarritz, which was proving beneficial; he felt obliged, however, to return to his post to be ready to play his part in a great constitutional crisis. He returned from Biarritz without stopping. This hurried journey would have taxed his strength even had he been in perfect health. Suffering as he was from the effects of recent illness, the King might fairly have been excused from facing the risk of returning from the South to the cloudy skies and cold winds and showers of a treacherous English spring. The result might almost have been foretold. Though the end came with startling suddenness to his people, it was clear to those about him that the end was imminent before any whisper of alarm had found its way outside the palace. The first bulletin issued on Thursday revealed the real nature of the situation to those who could read between the lines. During the last night the state of the heart made the august patient very restless, but the next day he was able to transact business for a short time. Gradually he became unconscious, reviving once or twice sufficiently to recognize the Queen and some of the others about him. But the unconsciousness deepened into coma, and the royal sufferer passed away so quietly that his life seemed to

Cease upon the midnight with no pain.

The King was attended throughout by his Physicians in Ordinary, Sir Francis Laking, Sir James Reid, and Sir R. Douglas Powell, and by one of his Physicians-Extraordinary, Dr. Bertrand Dawson, Dr. StClair Thomson being called in consultation. Some time ago His Majesty underwent a course of vaccine treatment at the hands of Dr. Spitta, Bacteriologist to St. George's Hospital. All the resources of modern science were used in the last illness. He was nursed by Miss Fletcher, whose ministrations he had learnt to appreciate at the time of the operation performed upon him by Sir Frederick Treves.

[Since the above account was written an official report, signed by Sir Francis Laking, Sir James Reid, and Sir R. Douglas Powell, has been issued. It fully confirms our description of the course of the disease, only giving a few more details as to the last hours of the King.]

PREVIOUS ILLNESSES.

As already said, the late King had a remarkably strong constitution, and until his respiratory troubles began he had suffered but little from illness of any kind. In 1871, however, an attack of typhoid fever brought him to the very verge of the grave. His life was saved by the skilful treatment of Sir William Jenner and Sir William Gull, with the assistance of a local practitioner, the late Dr. John Low. In 1898 he slipped on the spiral staircase of Waddesdon Manor, and, in the effort to save himself from falling, fractured his left patella. He was attended by Sir Francis Laking, who summoned the late Sir William MacCormac. Lord Lister and the late Sir Thomas Smith were subsequently called in consultation. The line of fracture was nearly transverse and close to the upper margin of the patella; the gap between the fragments amounted to a little more than 2 in. The question of operation received the most anxious consideration by the medical attendants, who, after carefully weighing all the circumstances of the case, decided against it. This view was fully endorsed by Lord Lister, whose opinion upon any matter involving the question of operation on the patella was rightly regarded as authoritative. The Prince made a good recovery, and no impairment of the usefulness of the limb was left. Sir Francis Laking, Sir Alfred Fripp, and Deputy Inspector-General A. G. Delmege, R.N., were decorated in recognition of services rendered by them on the occasion.

KING EDWARD AND THE MEDICAL PROFESSION.

The whole medical profession shares in the general grief at the untimely and irreparable loss which the nation has suffered by the death of the King. He honoured it by consenting to become an Honorary Fellow of the Royal College of Physicians of London in 1897, and by accepting a similar compliment from the Royal College of Surgeons of England on the occasion of the celebration of the centenary of its foundation in 1900. He took the keenest interest in the development of hospitals, and was ever active in helping them. The formation of the Hospital Fund which bears his name is a testimony of his anxiety for the prosperity and efficiency of institutions for the relief of suffering. He gave his powerful patronage to the crusade against consumption. The Sanatorium at Midhurst, which was opened in June, 1906, is a standing proof of his devotion to the welfare of his people. He also took a great interest in the reorganization of the Army Medical Service which followed the South African War, and expressed privately his approval of the article published in the BRITISH MEDICAL JOURNAL of December 31st, 1904, p. 1761, which dealt with the introduction of the new principle of promotion by selection on the ground of merit instead of by virtue of mere seniority.

Not long ago the King showed his continued interest in the advance of medical science by the initiative which he took in the foundation of the Radium Institute for the investigation of the therapeutic properties of that remarkable substance and their application to the treatment of disease. What he had heard of its beneficial effects in suitable cases had impressed him with the need for such an institution.

KING EDWARD AND THE BRITISH MEDICAL ASSOCIATION.

Another instance of the interest which he took in the profession is the fact that when Prince of Wales he received with favour a proposal that he should become an Honorary Member of the British Medical Association. He was accordingly elected at the Annual Meeting at Ipswich in 1900. On his accession to the throne in 1901 His Majesty, in accordance with custom, intimated that he could not continue his Honorary Membership. He graciously consented to become Patron of the Association

in the following year. Mr. Edmund Owen, as Chairman of Council, has sent to Sir Arthur Bigge the following letter:

British Medical Association,
429, Strand,
London, W.C.,
May 9th, 1910.

Sir,

On behalf of the Council of the British Medical Association, I humbly beg leave to offer to His Majesty and to the Members of the Royal Family our respectful sympathy on the death of His Majesty King Edward VII, and to assure His Majesty of our loyalty and devotion.

I have the honour to be, Sir,
EDMUND OWEN,
Chairman of Council.

Sir Arthur Bigge, G.C.V.O., etc.,
Marlborough House, S.W.

KING EDWARD AND PUBLIC HEALTH.

Though the reign of Edward VII was short, it was in many ways eventful, and the power of his personality made itself felt throughout the Empire which he ruled and in all civilized countries. It does not lie within our province to discuss the political side of his manifold activities; but we may be allowed to refer to the important part which he played in movements for the amelioration of the conditions of life among the poor, in the development of charitable work, and in the furtherance of sanitary science. In the debate which led to the appointment of the Royal Commission on the Housing of the Poor in 1884 he said the subject of the housing of the poor was not totally unknown to him, as, having acquired a property in Norfolk twenty-one years before, he had had something to do in building fresh dwellings for the poor and the working classes. On arriving there he found some of the dwellings in a most deplorable condition, but he hoped that now there was hardly one person on the estate who could complain of not being adequately housed. A few days before he had visited two of the poorest courts and districts in St. Pancras and in Holborn, where the condition of the poor, or rather of their dwellings, was perfectly disgraceful. There had existed for some time several private societies organized for inquiry into this question. All ought to be grateful that they should have given time to so important a subject, and he felt that a Royal Commission could in nowise clash with the efforts of these private individuals. He expressed an earnest hope that the inquiries of the Royal Commission would result in its being able to recommend to Parliament measures of a drastic and thorough character which should be the means of ameliorating not only the dwellings of the poor, but their condition generally.

He took an active part in the work of the Commission, on which he sat with Sir Charles Dilke, the other members being Cardinal Manning, the Marquess of Salisbury, Earl Brownlow, Lord Carrington, Mr. (afterwards Viscount) Goschen, Sir Richard (afterwards Viscount) Cross, the Bishop Suffragan of Bedford, the Hon. Lyulph Stanley, Mr. W. McCullagh Torrens, Mr. Henry Broadhurst, Mr. Jesse Collings, Mr. George Godwin, and Mr. Samuel Morley. From his work on the Commission the late King gained a knowledge of what Carlyle called the "condition of the people question," and that knowledge kindled in him a living interest in the subject. This found expression in many ways. There was no landlord in the country more careful of the welfare of his tenants or more considerate in his dealings with them.

"IF PREVENTABLE, WHY NOT PREVENTED?"

No one had a more thorough grasp of the vital problems of sanitary science than the late King. At the International Congress of Hygiene and Demography held in London in 1891 he delivered a memorable speech, the greater part of which will bear quoting at the present day. He said: "As one looks through our programme it is impossible not to feel distress and even horror at the multitude of dangers to health in the midst of which we have to live. Some of them appear at present to be inevitable, but the great majority may certainly with due care be averted. I can pretend to be able to judge only of a few of these dangers, but I would take as examples those to which my attention was especially drawn when I was a member of the Royal Commission on the Dwellings of the Working Classes. I learnt much there of the dangers to health which may be ascribed to the constant increase of our great manufactories and to other industries from which especially come the overcrowding of our towns, the building of huge factories, the pollutions of our atmosphere, the accumulations of refuse, the fouling of rivers, the impurities of earth and air and water. I learnt not only these dangers, but the immense difficulty of increasing or even maintaining our activity in all branches of trade without incurring heavy risks to health, more particularly in our chief centres of population. The task of averting them might have appeared hopeless, but I have rejoiced to see how much has already been done in diminishing them, and to observe how our registers bear witness to the increasing average length of life in the whole population, and to many facts proving the good influence of our sanitary institutions; but on them I do not now propose to dwell. I will only conclude from them that the good already done, and the constantly increasing knowledge of the whole subject, may make us sure that much more good may still be attained, and that neither this nor any other nation should be content until prosperity in business and all other things desirable for the national welfare are made consistent with national good health. How the many dangers which our programme indicates may best be dealt with will, of course, be discussed in the several sections. It will be no trivial work if their sources and probable remedies can be clearly pointed out, and especially if this can be done—as in a Congress such as this it should be—in a strictly scientific manner, calmly and dispassionately, without any reference to either general or municipal politics, or for any other purpose than the promotion of health. It is only on conviction such as may thus be produced that the appointed sanitary authorities can compel the changes necessary to be made, for such changes are almost always inconvenient or injurious to some, and might even seem unjust to them, unless it is made quite clear that they would be very beneficial to the community. But my hope is that the work of this Congress may not be limited to the influence which it may exercise on sanitary authorities. It will have a still better influence if it will teach all people, in all classes of society, how much every one may do for the improvement of the sanitary condition among which he has to live. I say distinctly 'all classes,' for although the heaviest penalties of insanitary arrangements fall on the poor, who are themselves least able to prevent or bear them, yet no class is free from their dangers or sufficiently careful to avert them. Where could one find a family which has not, in some of its members, suffered from typhoid fever or diphtheria, or others of those illnesses which are especially called 'preventable diseases'? Where is there a family in which it might not be asked, 'If preventable, why not prevented?' I would add that the questions

before the Congress, and in which all should take personal interest, do not relate only to the prevention of death or of serious diseases, but to the maintenance of the conditions in which the greatest working power may be sustained. In this I include both mental and bodily power; for the highest possible prosperity must be when men and women of all classes, rich and poor alike, can safely do such good and useful work as they are fit for, and for which they are responsible to those among whom they live. To this end it is essential that they should enjoy the best possible health and vigour, and to obtain these it is necessary that everything possible should be done for the promotion and maintenance of the national health. Such, then, is to be your work—let me say our work; for though I cannot further contribute to the proceedings of the Congress, I shall watch them with much interest, and shall always strive to promote whatever may be here plainly shown to be useful for the public health."

Though much progress had been made since then in our knowledge of the spread of certain diseases and prophylactic resources have been enlarged, the question here propounded, "If preventable, why not prevented?" has not yet found a completely satisfactory solution.

KING EDWARD'S MEDICAL ADVISERS.

Sir Francis Henry Laking, Physician in Ordinary to King Edward, was born on January 9th, 1847. He received his medical education at St. George's Hospital and at Heidelberg. At St. George's he held the appointments of house-physician and medical registrar, thus acquiring a large experience of disease. He became a Licentiate of the College of Physicians in 1868 and a Member in 1872. In the meantime he had taken the degree of Doctor of Medicine at the University of Heidelberg. He has been the trusted adviser of the late King and the Royal Family for many years. He has also been Physician in Ordinary to the Prince of Wales, now George V, and to their Royal Highnesses the Prince and Princess of Schleswig-Holstein. He is a Consulting Physician to the Victoria Hospital for Children. He received the honour of knighthood in 1893 and was created a baronet in 1902, and a Grand Commander of the Victorian Order in 1903. Among his other decoration are the Grand Cross of the Crown of Italy, the Grand Cross of the Immaculate Conception, Portugal, and the Grand Cross of the Dannebrog Order. He is also a Grand Officer of the French Legion of Honour. and holds the First Class (Gold) Turkish Order of Merit.

Sir James Reid, who was for twenty years in constant personal attendance on the late Queen Victoria, and enjoyed her confidence in a very unusual degree, was also one of the Physicians in Ordinary of his late Majesty, and often attended him on visits to foreign countries, and took part in the medical charge of him when ill at home. He is a son of the late Dr. James Reid, of Ellon, in Aberdeenshire, and was born in 1849. He was educated at the University of Aberdeen, where he graduated M.A., with a gold medal and honours in natural science, in 1869, and M.B., C.M., with the highest honours, in 1872, proceeding to M.D. in 1875. In 1881 he was appointed Resident Physician to the Queen in succession to the late Dr. William Marshall. Dr. Reid first acted under Sir William Jenner, who conceived the highest opinion of him, and gradually the charge of the Royal patient passed more and more completely into his hands. When Sir William Jenner's health broke down, Dr. Reid, who had been appointed Physician Extraordinary in 1887, became in title as well as in fact Physician in Ordinary in 1889. The Queen well fulfilled in the case of this most faithful and efficient guardian of her health, the Scriptural precept, "Honour the physician for the need thou hast of him." He was made a C.B. in 1889, a K.C.B. in 1895, and a Baronet in 1897. The Grand Cross of the Victorian Order was conferred upon him in 1901. Sir James was appointed Physician in Ordinary to the Prince of Wales in 1899, and was confirmed in this office when the Prince became King in 1901. He also held the appointment of Physician in Ordinary to the new King.

Sir Richard Douglas Powell, Bart., K.C.V.O., is a son of the late Captain Scott Powell, of the 23rd Royal Welsh Fusiliers, and was born at Walthamstow in 1842. He was educated at University College, London, and graduated M.B. in the University of London in 1865, and M.D. in 1866. He is the author of well-known works on diseases of the lungs and pleura, on the principles of treatment of diseases and disorders of the heart (Lumleian Lectures for 1898), and of numerous other valuable contributions to medical literature. Sir Richard Douglas Powell, who is a Consulting Physician to Middlesex Hospital, was created a Baronet in 1897, and appointed a Physician in Ordinary to Queen Victoria in 1899 and to Edward VII in 1907. He was elected President of the Royal College of Physicians of London in 1905, and held that office till a few weeks ago.

Dr. Bertrand Dawson has been physician to the London Hospital since 1906. He has made many valuable contributions to medical literature. He was appointed Physician Extraordinary to the late King in 1907.

Dr. StClair Thomson is Professor of Laryngology and Physician for Diseases of the Nose and Throat at King's College Hospital, and Professor of Laryngology and Otology in the Royal Army Medical College. In addition to a large experience as a specialist, he was for many years in general practice abroad. He is a corresponding member of the Accademia Medica of Florence, of the American Laryngological Association, of the Société Française de Laryngologie, and of other learned bodies. He is the author of bacteriological, physiological, and clinical papers on the throat and nose, and of a monograph on the cerebro-spinal fluid.

THE MEDICAL DEPARTMENT OF KING EDWARD'S HOUSEHOLD.

The medical department of the late King's household was, at the time of his death, constituted as follows:

Physicians in Ordinary, Sir J. Reid, Bart., G.C.V.O., K.C.B., M.D.; Sir F. Laking, Bart., G.C.V.O., M.D.; Sir R. D. Powell, Bart., K.C.V.O., M.D., F.R.S. *Physicians Extraordinary*, Sir F. Semon, K.C.V.O., M.D.; B. Dawson, M.D.; Sir A. R. Manby, M.V.O., M.D. *Physician to the Household*, Sir T. Barlow, Bart., K.C.V.O., M.D. *Sergeant Surgeons*, Lord Lister, O.M., F.R.S.; Sir F. Treves, Bart., G.C.V.O., C.B., LL.D. *Honorary Surgeons in Ordinary*, T. Bryant, F.R.C.S.; Sir A. D. Fripp, K.C.V.O., C.B., M.S.; R. J. Godlee, M.S. *Surgeon to the Household*, Anthony A. Bowlby, C.M.G., F.R.C.S. *Surgeon Apothecary to His Majesty and Apothecary to the Household*, Sir Francis Laking, Bart., G.C.V.O., M.D. *Surgeons and Apothecaries in Ordinary to the Household at Windsor*, W. Fairbank, M.D.; and W. Ellison, M.V.O., M.D. (jointly). *Surgeons and Apothecaries in Ordinary to the Household at Sandringham*, Sir Alan R. Manby, M.V.O., M.D. *Surgeon Oculist*, Sir G. Anderson Critchett, Bart., C.V.O., F.R.C.S.E. *Surgeon Dentist*, Sir Henry Bell Longhurst. *Dentist to the Household*, Charles Truman, M.R.C.S. *Anaesthetist*, Frederic William Hewitt, M.V.O., M.D. *Chemist and Druggist*, Peter Wyatt Squire.

All these offices in the usual course become vacant on the demise of the Crown.

British Medical Journal.

SATURDAY, MAY 14TH, 1910.

MEDICAL BULLETINS.

EOPLE have learnt to look with suspicion on medical ılletins as to the health of royal personages. This ıeling is not altogether unnatural, for such bulletins ave often prophesied smooth things when a ɔvereign's life has been known to be trembling ı the balance. Moreover, the divinity that still in ıe eyes of so many doth hedge a crown makes ıe public ready to believe in the existence of ɔme mystery whenever it is announced that a King ; ailing. This may perhaps be a survival of the ıediaeval notion that when a potentate suffered he universal fate of man his death was due to oison. But it is mainly owing to the dislike f publicity in matters relating to their health hat is felt by most monarchs. Perhaps they do ıot care to have it known that they have anyhing in common with ordinary clay. Hence it is he natural instinct of Court officials to keep all knowedge of anything unpleasant from royal ears. This eads to reticence on the part of the physicians in ıttendance when a monarch is stricken with illness. ın such circumstances a King is less fortunately ɔlaced than his meanest subjects, for something is sure to leak out through one or other of the many channels leading from a throne, and he sees in the newspapers what is hidden in the diplomatic reserve of the bulletins. This is hard on him and on those near and dear to him. It has come to be taken for granted that medical bulletins are as untrustworthy as those of Napoleon's victories. From the newspapers, therefore, a royal sufferer will learn the exaggerations and unfounded rumours inevitably bred by the reticence of his doctors. For this reticence, of course, we have no word of blame; they cannot help themselves. But we are convinced that it is a wholly mistaken policy. The Iron Duke once startled George IV by saying, "Your Majesty is not a gentleman," meaning, of course, that as the head of the State he could not claim the privilege of obscurity that belongs to a private citizen. The King's health is a matter of the most direct concern to his subjects, and they have a right to know when he is suffering from serious illness. It may be added that it would not be to the advantage of the Crown if people were to become indifferent about the Sovereign's health. In the feeling of personal loyalty the monarchy has its strongest root, and it is well that a nation whose constitutional stability is mainly based on the principle of kingship should take a personal interest in the welfare of the occupant of the throne.

There are, of course, objections, not only from the official but from the professional point of view, to the publication of unnecessary details as to the illness of a royal personage. Bulletins should tell the truth and nothing but the truth; there are, it need hardly be said, cases in which they need not tell the whole truth. But they should not be wilfully misleading and in this respect no fault can be found with the bulletins relating to the last illness of King Edward VII. It is true that the mention of bronchitis, without any reference to complications, prevented people unacquainted with the actual facts of the case anticipating so rapid a termination of so common an illness in the case of a man generally believed to be unusually strong for his age; but, after all, bulletins are not issued for those who have special knowledge of disease, and the fears of His Majesty's medical advisers were expressed in language which could not be misunderstood by those who know the meticulous care with which every word of such announcements is weighed and the rigid censorship to which they are subjected. As for the old suspicion revived in some quarters by the inclusion of a laryngologist among the consultants, we have shown elsewhere that there was no ground for them whatever. If quidnuncs in clubs and drawing-rooms shrugged their shoulders with the implied meaning, "There be some who could tell an if they would," this was nothing but the gossip of people who wished to give the impression that they were in all the secrets of the Court. We felt it a public duty to try to dissipate these idle rumours by circulating through the general press an account of the King's last illness, which we took the greatest pains to make absolutely authentic; and in this we have the satisfaction of knowing that we succeeded.

In connexion with this subject we may recall that after the death of George IV the physicians who had been in attendance on the King were sharply criticized in some of the public prints for the bulletins they had issued, which, it was argued, were calculated, even if they were not intended, to mislead.[1] Sir Henry Halford took an early opportunity of justifying himself and his colleagues for the manner in which they had discharged their duty of informing the public as to the condition of their royal patient. He also discussed the whole question of bulletins in an essay "On the Influence of some Diseases of the Body on the Mind," before the College of Physicians, in February, 1831. After considering how far a patient should be told of his danger in an illness threatening life, he went on to say: "But if, in cases attended with danger in private life, the physician has need of discretion and sound sense to direct his conduct, the difficulty must doubtless be increased when his patient is of *so elevated a station that his safety becomes an object of anxiety to the nation.* In such circumstances the physician has a duty to perform, not only to the sick personage and his family, but also to the public, who, in their extreme solicitude for his recovery, sometimes desire disclosures which are incompatible with it. Bulletins respecting the health of a sovereign differ widely from the announcements which a physician is called upon to make in humbler life, and which he entrusts to the prudence of surrounding friends. These public documents may become known to the royal sufferer himself. Is the physician, then, whilst endeavouring to relieve the anxiety or curiosity of the nation, to endanger the safety of the patient; or, at least, his comfort? Surely not. But whilst it is his object to state as accurately as possible the present circumstances and the comparative condition of the disease, he will consider that conjectures respecting its cause and probable issue are not to be hazarded without extreme caution. He will not write one word which is calculated to mislead; but neither ought he to be

[1] Munk's *Life of Sir Henry Halford*. London. 1895. Page 178 et seq.

called upon to express so much as, if reported to the patient, would destroy all hope and hasten that catastrophe which it is his duty and their first wish to prevent." We may remind our readers that this was the utterance of a man who was physician to four sovereigns of this country and to many royal personages besides. We think it puts the matter in its true light.

TRAUMATIC TUBERCULOSIS.

THE occurrence of internal disease as a more or less direct result of external injury is not a matter of everyday experience, but it is nevertheless sufficiently frequent to warrant thoughtful consideration. The paper by Dr. Parkes Weber, published in the present issue, brings the question prominently forward in relation to traumatic tuberculosis, pneumonia, and pleurisy, and although primarily intended for discussion by experts in life assurance, it merits the attention of all practitioners of medicine and surgery, since it has a practical bearing upon the great question of employers' liability in which every one has a direct interest.

A philosophic physician once described certain chronic diseases as "fevers diluted by time," and the description is particularly apt when applied to tuberculosis arising as a secondary result of injury. It is this interval of time, in the case of chronic disease, which makes it so difficult for the lay mind to associate cause with effect. An injury to brain or spinal cord may be followed at once by nervous incapacity or paralysis, a direct contusion of the chest wall may cause an attack of pleurisy or pneumonia, while a poisoned wound may be directly followed by serious illness of a septic kind, and all of these may fairly be attributed to the primary injury. In the case of tuberculosis, however, the connexion is by no means so easy to determine, and a perusal of Dr. Weber's paper will demonstrate the many possibilities of accidental infection by tubercle from within that have been recorded, and will doubtless bring to many minds the explanation of similar cases in individual and unrecorded practice. Inoculations of tubercle through abrasions of the skin are only too well recognized. The risk to those who have occasion to handle tuberculous tissues is known and can be guarded against, but it is unfortunately true that a large proportion of the population of the world are subjects of internal tuberculosis in some form. The death-rate from pulmonary tuberculosis is doubtless decreasing, but it cannot as yet be shown that the proportion of persons who at some period of their lives suffer from tuberculosis is decreasing in the same ratio. The enforcement of a hygienic life has had the effect of rendering the disease quiescent in a vast number of cases and the traces of former disease are only discovered by the pathologist, but it is precisely these traces, often in the form of caseous encapsuled nodules, that are at all times capable of lighting up the disease afresh if their contents are disturbed by accidental violence. A notable case, quoted by Dr. Weber, of fatal acute tuberculosis in a presumably healthy young man of 33, following upon a chance blow upon an epididymis which was the unsuspected seat of a caseous tuberculous nodule, forms a good illustration of the possible risks to which the subjects of healed tubercle are liable. That a general infection may take place in the course of an operation upon local tubercle is proved by many recorded cases, but such dangers are remote as compared with the liability to infection by too severe manipulation of parts which may be the seat of latent disease. The ultimate results of bone-setting and joint manipulation have furnished abundant evidence of this danger, but in almost all such cases the onset of the revived disease has been delayed, and its true nature has only been recognized after an interval sufficiently long for the act which has caused it to have passed out of mind. It is not necessary that an injury should be severe in order to light up pre-existing tubercle. Very small causes have been followed by very severe effects. It is especially in the case of latent tuberculous foci in or about the joints that accidental injury may be followed by destructive disease, but in such instances there is usually sufficient evidence to prove that the disease had been pre-existent, and its relation to the injury can safely be assumed. In cases, however, where no evidence of former tuberculosis is forthcoming, the relation cannot be proved, but it must reasonably be assumed that where the possibility of inoculation from without can be excluded, the incidence of the disease must be attributed to latent foci of tubercle from within the body, not necessarily, as Dr. Weber points out, at or near the seat of injury. These considerations have a direct bearing upon life insurance and upon the liability of employers, and hence their importance is by no means negligible. The number of persons who are the subjects of "healed tubercle," and who have resumed their ordinary round of life, is daily becoming greater, and it is not unreasonable to assume that claims for compensation where illness has supervened on injury will in like manner become more numerous. In such cases the evidence must turn upon the extent to which recognizable tuberculosis may have been present, and upon the probable result of the injury, if any, upon it, as estimated by pathological knowledge and experience. The Employers' Liability Act limits compensation to personal injury by accident, but the interpretation of personal injury may in time to come be extended beyond the limits of immediate results.

It is not probable, in cases where no latent focus of disease could reasonably be suspected, that any judicial authority would interpret the resulting illness as a personal injury arising from the accident. In the more numerous class of cases where there are reasonable grounds for assuming the possibility of latent tubercle, a different view might be taken, and it follows that the employer of labour should exercise more than ordinary care in the selection of workmen, to ascertain the presence or absence of any tuberculous taint in his or her previous medical history. Apart, however, from this aspect of the question, Dr. Parkes Weber's cases suggest the greater need for continued observation of persons with a tuberculous history who may have suffered surgical injuries. The fact that all evidence suggestive of latent infection from within may be withheld for three weeks or a month has always to be borne in mind, and apparent recovery from the results of an accident to a tuberculous patient must not be assumed to be complete until such time has elapsed. Violent injury to the chest walls may be followed by pneumonia or by pleurisy, but such sequence is usually direct and the ultimate course of the inflammation must largely depend upon the presence or absence of pathogenic micro-organisms. Dr. Weber describes and discusses the condition known as "contusional pneumonia," which occasionally follows direct injury and has been artificially produced and studied by Külbs and others. Such cases, whether limited to the pleura or extending to

he lungs, may in themselves serve to light up latent uberculosis, and this may not declare itself till the irst effects of contusion have passed away. In some nstances the development of simple pneumonia has een delayed, but as a rule the direct connexion with he primary injury is manifest, and it is probable that n either of these conditions it would be judicially eld that they must rank as personal injury by ccident.

KING GEORGE V.

IN the name of the British Medical Association and of the whole medical profession we join with all other classes of the subjects of these realms in offering our loyal homage to the new Sovereign. King George, like his father, takes an active interest in all that concerns the public health and the relief of suffering. He has often astonished members of the medical and administrative staffs by his minute and accurate acquaintance with all the details of the management of a modern hospital. His Majesty has been President of King Edward's Hospital Fund for London since its institution in 1897. He has always shown appreciation of the medical profession, and has more than once gone out of his way to show courtesy to its members. During his visit to India in 1901 he insisted on breaking through the official programme which had been drawn up for his stay in Calcutta, in order to visit the General Hospital, under the guidance of Sir R. Havelock Charles. He graciously consented to become an Honorary Member of the British Medical Association, and was accordingly elected at the annual meeting held in Swansea in 1903. We wish King George V a long and prosperous reign.

NEW MEDICINES, SECRET REMEDIES, AND SPECIALITIES.

PRIVATDOZENT DR. C. BACHEM, of Bonn, has been invited by the editors of the *Berliner klinische Wochenschrift* to publish analyses of new medicines, secret remedies, and specialities, and to criticize "the justification of their existence." The articles will deal with nostrums, etc., in a somewhat different manner from that in which the subject is dealt with in our columns as well as from that which Zernik has adopted. Dr. Bachem does not state that he has analysed any of the preparations with which he deals, but he gives information which, if it reaches the public, must shake any confidence it may place in the various preparations. The matter of his first article is of general rather than of special interest for English readers. Having chosen the subject of "female remedies," he shows that a large number of them are nothing more or less than powdered chamomile flowers, and that the advertisements of these preparations describe them as being useful for all "irregularities," etc., the wording usually being such that the average person would understand that the object of giving them was to induce abortion. Needless to say, they are quite inert as abortifacients; and even when the pregnant woman finds out that she has paid a high price for a perfectly useless article, the fact that she aimed at the induction of abortion effectually closes her mouth. In this way the traffic continues without hindrance. A menstruation powder called "Gloria," which costs 3s. without carriage, is found to consist of about 35 grams of chamomile, and would cost about 3d. at the chemist's. It is supplied by a bookshop keeper. "Excelsior," which costs 4s. (or 6s. extra strong), consists of 45 grams of the same powder. "Citro" costs 3s. for 45 grams, while Drake's menstruation powder appears to be more expensive; a sample of 8 grams cost 1s. "Japol" costs 3s. for 35 grams. All contained only chamomile. "Triumph menstruation drops" are supposed to consist of serpillus herb (600), rosemary (250), common chamomile flowers (600), centaurius herb (550), dilute spirit (5,000). A bottle costs 3s. 6d. for 75 c.cm. Bachem says the preparation is no doubt harmless, but it is at the same time inert. The firm which deals in this also advises the use of "Junogen" for thinness, "Heralin" for corpulency, "Officin" for impotence, and "Probat" as a preventive measure for women. Dr. Bachem describes the way in which these preparations are advertised in the comic papers, and the difficulty in prosecuting the manufacturers. In some cases when a person applies for particulars, she receives a letter offering to "treat" the lady, and asking her to fill up a paper asking a number of questions. These include, when the past period took place, whether she has previously been pregnant, whether the breasts are painful, etc. The advertiser states that the fees for treatment and drugs for the course of three weeks will be 12s. Dr. Bachem has collected some twenty addresses of persons who undertake this form of treatment, and is prepared to give these addresses to persons or institutions interested in this form of quack traffic.

DECREASE OF MEDICAL STUDENTS IN AMERICA.

WE learn from the *Boston Medical and Surgical Journal* that there has been a gradual decrease in the number of medical students throughout the United States. In the academic year 1908–9 the total number of students of medicine in the States was 20,554, as against 21,011 in 1907–8 and 24,930 in 1902–3. Our contemporary thinks this decline somewhat remarkable, as it coincides with a period of financial prosperity, increasing population, and of constantly enlarging facilities and endowments for medical teaching and research. One reason suggested for the falling-off is that the increasing use of motors has lessened the number of doctors needed for the service of the public. Another influence making in the same direction is the advance of preventive medicine, owing to which there are fewer sick requiring attendance. The prevalence of disease is still further lessened by the greater attention given by State and municipal authorities to local and individual conditions of health. Moreover, i is said that the insurance companies and other agencies teach people to take better care of themselves, and thus help to diminish the need of doctors. Our contemporary, however, suspects that, while all the causes may be operative in varying degree, there is a deeper underlying reason, psychological rather than economic. As the art and science of medicine become more and more highly specialized they appeal to a more and more limited class, as demanding a more highly developed type of mind for their successful study. In the America of to-day it is said many occupations of business, finance, mechanics, and engineering, offer not only problems that appeal with greater force to a large number of people, but far larger prospects of pecuniary profits than they did even ten years ago. While during this time the problems of medical science have become more complex and its practice not less difficult, the substantial rewards are no greater

or surer except for the very few. No one, therefore, is likely to be attracted by the profession of medicine unless he has an intellectual love of the study for its own sake. It is remarkable that among the causes of the decline in the number of those who enter the ranks of the medical profession enumerated by our contemporary, no mention is made of some which we think should be taken into account. The chief of these is that, if the doctor's occupation is not yet gone, it will be before long, except for the giving of death certificates. In consequence of the enterprise of the manufacturing chemist, who sends out broadcast pamphlets describing in more or less lurid fashion the diseases to which mankind is subject, and painting in attractive colours the marvellous effects of his remedies, vast numbers of people doctor themselves. Then there is the competition of quacks: of these there are many kinds, and America, with its numerous unorthodox medical schools—eclectic, osteopathic, and so forth—offers more facilities for the development of quackery than any country in the world. The wonder workers of various kinds, notably the Christian Scientists, must be taken into account. The American people, shrewd as it is in the pursuit of the almighty dollar, shows the most childish credulity in things concerning health. Of course a free people will, as Gregory said, insist on going to the devil in its own way, but it is a pity that the "independence of thought" of which it boasts should so often manifest itself in the worst form of bigotry—that which is founded not on intolerance of what is deemed baleful error, but on ignorance and stupidity. The decrease in the number of medical students, which is by no means confined to America, may be taken as a proof of the success with which the medical profession is fulfilling its aim. That aim, which it pursues with an unselfishness to which there is no parallel in any other avocation, is to abolish disease, and thereby destroy the reason of its own existence.

THE TYPHOID CARRIER.

DR. BRÜCKNER has been making a systematic reinvestigation[1] of the urine and faeces of persons known to have suffered from an attack of typhoid fever some years previously. In discussing the results of other inquirers he notes that Forster found that 2 per cent. of typhoid fever patients become chronic carriers; Klinger in a series of 482 recoveries obtained 1.7 per cent.; Kayser found 1.5 per cent. in 200 cases; Conradi found 6 per cent. in 400; Frosch, Lentz, and Kirchner each found 5 per cent. in their investigations; Schneider found 3 per cent., Hetsch 4.62 per cent., and Park 5 per cent. These statistics are sufficient to show the seriousness of the danger, which may, Dr. Brückner thinks, be even greater than is indicated by some of the above percentages. He points out that the methods for demonstrating the bacilli in faeces are not yet perfect; the excretion of bacilli is often intermittent, and hence may escape detection; and the bacilli, though thriving in the gall bladder, may sometimes be dead by the time they arrive at the lower end of the intestinal tract. His own inquiries were conducted in the neighbourhood of Strassburg; he endeavoured to obtain for investigation the urine and stools of 566 persons known to have been attacked by typhoid fever in previous years. It was found that 45 of these were dead, 170 could not be traced, and 35 of the remainder refused to provide material. This leaves 316 persons from whom material was obtained and investigated. In 12 cases (3.8 per cent.) bacilli were found, the micro-organism being the typhoid bacillus in 9 instances and the *Bacillus paratyphosus* B in 3. Amongst the 316 cases 104 were children under 15 years of age, and in only one of these were the infective bacilli found. Limiting the statistics to adults, we have 11 positive cases (6 men and 5 women) out of 212, a percentage of 5.2. Dr. Brückner considers this an unusual distribution, as women are usually found to be more frequently carriers than men. He found, however, that with two exceptions the bacilli from the male cases were scanty in number, whereas in the women they were always abundant. With regard to the previous bacteriological history of cases where Dr. Brückner obtained positive results, the following details are of interest. Case I suffered from typhoid in the summer of 1906, and after six negative examinations (four of the urine and two of the stools) in August and October of that year was pronounced bacteriologically free from the infection. Dr. Brückner made five re-examinations, in December, 1908, and January, 1909, and found typhoid bacilli on each occasion in the stools and once in the urine also. Case II, infected in 1906, was known to be a carrier up to April 26th, 1907, when the last examination with a positive result was made. Three subsequent examinations on June 7th, September 23rd, and October 27th, 1907, yielded negative results, and the man was then considered to be free from danger. But in December, 1908, and in January and March, 1909, Dr. Brückner found him to be still harbouring bacilli. Case IV fell ill in October, 1906; after three negative examinations in November of that year she was pronounced free from bacilli. But in February and March, 1909, Dr. Brückner found typhoid bacilli in the stools. Case V, after three bacteriological examinations with negative results in June and July, 1906, was pronounced free from infective bacteria; but on February 16th, 1909, the author found typhoid bacilli in the stools; further investigations on February 27th and March 6th gave negative results. Case VII suffered from paratyphoid fever in 1906, and after three negative bacteriological examinations was pronounced free from bacilli; but in March, 1909, the author found *Bacillus paratyphosus* B in the stools, the urine being negative. Case X, a youth 17 years old, was peculiar. In the summer of 1908 he had undoubted typhoid fever, confirmed by the discovery of the bacilli; when he was convalescent, three bacteriological examinations proved negative; but in March, 1909, the author discovered *Bacillus paratyphosus* B in his stools. Dr. Brückner concludes from his investigations that bacteriological examination conducted a long time after the disease has occurred is a highly important means of detecting carriers, and that persons who during their convalescence took a long time before the bacilli disappeared are in especial need of repeated reinvestigation. The need of prophylaxis in this direction is indicated by the fact that out of 276 cases of typhoid fever traced in South-West Germany to carriers, 228 occurred before the carrier was discovered, and only 48 (which is equivalent to 0.7 per cent. of all the cases recorded during the three years under review) after the carrier had been notified.

[1] *Arbeiten aus dem Kaiserlichen Gesundheitsamte*, Band XXXIII, Heft 2, 1910.

INSANITY IN ITALY.

WITH a population of about 35 millions at the end of 1907, Italy counted 46,442 insane patients distributed among 171 asylums and homes; in addition there were 1,920 patients more in colonies, bringing the total up to the number 48,362. Of these, 1,433 are inmates of homes for the mentally deficient. The figures show an increase of about a thousand over those published officially twelve months previously. In 1874 less than

000 insane patients were being treated in the Italian ylums, the population then being about 25 millions; t to conclude from these figures that insanity is on e increase in Italy would be quite wrong, as mbourini[1] points out, for in 1871 there were more an 44,000 insane in the country, of whom less than ,000 were in public institutions. Since that year, owever, statistical returns as to the numbers the insane not under control in public institutions have not been made, so that the means for mparing the total numbers of the insane in 71 and at the present time are lacking. But ere seems to be no reason for believing that sanity, speaking generally, is on the increase in aly. Indeed, with certain forms of madness, the test figures show a progressive and satisfactory iminution. Thus insanity due to pellagra, of which much has recently been heard, accounted for 945 atients in 1874, 1,741 in 1889, 2,401 in 1899, but only 567—780 men and 787 women—in 1907, in spite of the act, already mentioned, that the percentage of the sane confined in lunatic asylums is increasing. fence, there seems reason to hope that pellagrous sanity will ultimately disappear from Italy. With sanity due to alcoholism, on the other hand, the gures unfortunately point to the opposite conclusion. n 1874 the cases of alcoholic insanity numbered 204; n 1895 they were 1,227, and in 1907 they were 2,271 in umber. Tamburini notes that a history of alcoholic xcess in the parents or ascendents can be obtained in o less than 85 per cent. of the insane, and deprecates he cure for the vinicultural crisis recently recommended by a distinguished Italian statesman—that very good consumer should triple his daily consumption of wine; 2,089 of these patients were men, 182 women. Alcoholic insanity appears to be commonest in Umbria, Piedmont, and Liguria.

[1] A. Tamburini. Sulla statistica degli alienati in Italia nel 1907. *Riv. sperim. di Freniatria*, Rome, 1909, xxxv, p. 343.

THE OCULAR SYMPTOMS OF ARTERIO-SCLEROSIS.

THE early diagnosis of arterio-sclerosis—a disease not confined to the aged—is a matter of supreme importance to the patient, because it is only at the commencement of the malady that effectual measures can be taken to combat the pathological processes, which if allowed to develop unchecked lead almost invariably to early death. Careful ophthalmological examination often enables a true diagnosis to be made at a stage when recovery is not impossible. Osler has stated that the vessels of the head, of the heart, or of the kidneys may be in a state of advanced sclerosis without any change in the palpable arteries. The disease may progress more rapidly in the large vessels, but the most serious form, and the form most frequently met with in young persons, is that in which the smaller vessels are chiefly affected. It is therefore of the highest importance to recognize sclerotic changes in the smaller arteries, and this can be accomplished only by detecting the characteristic changes in the retinal vessels. Unfortunately it by no means follows that, because the retinal vessels are normal, sclerosis is absent in other small vessels in the body; on the other hand, the full brunt of the disease may fall upon the retinal arteries, and the extensive changes present in the retinal vessels may not be accompanied by general arterio-sclerosis. Nevertheless, the retinal vessels are the best indicators of the state of the small vessels elsewhere that we possess. The retinal vessels may be extensively sclerosed, and yet the kidneys may have normal arteries, and albuminuria may be absent even when the kidneys are granular. When arterio-sclerosis is present the prognosis becomes important both from the point of view of vision and of life. We are all familiar with the general prognostic significance of albuminuric retinitis. The large majority of the patients die within two years, and a considerable percentage within the first year. In ocular sclerosis, Woodruff says, "Not until the gross lesions have shown themselves in the eye can we positively say that a fatal termination is apt to occur. The mere fact that such conditions exist in the retinal vessels does not warrant us in assuming that the disease is going to progress to such a stage as to affect the functions of the kidneys or to cause degenerative changes in the brain." Gunn stated that only when sclerosis had advanced so far as to cause haemorrhages in the retina could we speak of the probability of an approaching cerebral haemorrhage. Schweinitz, who has written extensively on this subject, has divided the retinal signs into the suggestive and the pathognomonic. Suggestive signs are uneven calibre and undue tortuosity of the arteries, increased distinctness of the light reflex from the vessels, and alteration in the calibre of the veins. They suggest an under-exposed photograph which has been intensified, but they are subtle changes which can only be detected with any degree of certainty by the expert ophthalmoscopist. Pathognomonic signs are marked irregularity in the calibre of the arteries, a beaded appearance, the "silver-wire" appearance, and the indentation of the veins by the arteries at points of crossing. Late in the disease we may get perivasculitis, haemorrhages, and oedema of various parts of the retina. When haemorrhages are present the blood pressure is generally raised. Subconjunctival haemorrhages are often, if continually repeated, the heralds of approaching apoplexy—little leaks which presage a larger outflow. These symptoms were admirably described in a paper read to the Ohio State Medical Society at Cincinnati, May, 1909, and published in the *Annals of Ophthalmology*, October, 1909, and our remerks have been chiefly gathered from this source.

CALCIUM CHLORIDE AS A HAEMOSTATIC.

IN a paper recently read before the Royal Academy of Medicine in Ireland, an abstract of which was published in the JOURNAL of February 26th, page 507, Professor B. J. Collingwood criticized the belief that calcium chloride acts as a haemostatic by increasing the coagulability of the blood. His experiments *in vitro* yielded no evidence that calcium chloride increased the coagulability, so that the clinical effect attributed to the salt must be due to some other factors than its direct influence on this. Professor McWeeney expressed the opinion that the haemostatic effect of calcium was due to its action as a general vaso-constrictor. Mr. Wheeler, alluding to the practice of administering calcium chloride for some days before the operation of prostatectomy, suggested that, if it were effective, it could hardly be due to vaso-constriction, which would not last so long; he added that Mr. Moynihan had given up its use and relied on the injection of an alien serum, such as horse serum. Professor Collingwood, in his reply, said he believed the injection of serum to be a more rational treatment for the prevention of haemorrhages than calcium; but it should be remembered that old and new serum might differ in their effects, and that serum of four days might actually inhibit coagulation. The same question has recently been discussed by M. P. Ciuffini,[1] who comes

[1] *Il Policlinico*, 1909, vol. xvi, p. 12.

to the same conclusions as Professor Collingwood as to the inability of calcium chloride to influence the coagulability of the blood. On the other hand, he found subcutaneous injection of non-sterilized gelatine highly active, but, as by its use there is grave risk of inducing tetanus, and as sterilized gelatine proved quite inert, its practical value as a remedy is small. Ciuffini found that iron perchloride given by the mouth acted promptly and energetically, although not so well as non-sterilized gelatine. He also studied the effects of ipecacuanha, formerly used in severe haemoptysis and other haemorrhages by Trousseau. He found that the effect of ipecacuanha was to increase slightly the coagulability of the blood, an effect that disappeared in twenty-four hours; it had little or no effect upon the blood pressure, which was 108 mm. of mercury before the administration and 113 afterwards. He recommends as a substitute for the hypodermic injection of non-sterilized gelatine the use of an artificial gelatine made by mixing iron perchloride with a concentrated solution of gum arabic. This when warmed liquefies so that it can be forced through a syringe, and he finds it to act better than any other remedy except non-sterilized gelatine. He regards it as quite rational to employ fresh blood serum or antidiphtherial serum or even simple normal salt solution in the treatment of severe haemorrhages, although to either of these the mixture of gum arabic and iron perchloride might be added with advantage. In using serum for haemostatic purposes, a practice which is evidently finding favour, it is obviously important that it should be fresh, as the fibrine ferment which it contains rapidly diminishes by keeping; it may not always be possible to fulfil this condition when it is necessary to arrest haemorrhage without delay, yet old serum may actually do more harm than good.

AN EXTENSIVE OPERATION FOR VULVAR CANCER.

MODERN gynaecology, like Strafford of old and general surgery at the present time, has become thorough. A radical feat of operating skill, where the principles of Halsted and Wertheim were followed, was related recently by M. Morestin of Paris to the Société Anatomique de Paris.[1] A woman, aged 59, was admitted into the Hôpital Tenon in March, 1909, suffering from a bulky ulcerated tumour in the left groin. In February, 1908, a surgeon had operated upon her for epithelioma of the vulva, already advanced, the glands of the right groin being involved. The labia minora, the clitoris, and all the glands and subcutaneous tissue in Scarpa's triangle on the right side were dissected away. A few glands were also removed from the left groin, but nothing positively indicated, in the surgeon's opinion, invasion of that side. Nevertheless, a big tumour rapidly developed under the cicatrix in the left groin, with pain and haemorrhages. The use of the left leg was soon lost. On March 13th Morestin performed an extensive operation for the removal of the big fungating bleeding mass covering Scarpa's triangle without success. A curved incision was made from the inner side of the thigh, passing below the tumour to beyond and behind the great trochanter. A second incision began at the inner extremity of the first, and was carried through the labium majus, the anterior commissure of the vulva, the skin over the symphysis, and the integuments of the abdomen up to five finger-breadths above Poupart's ligament, passing over the crest of the ilium to join the outer extremity of the lower incision behind the great trochanter. This upper incision, measured by the curve, was over 17 in. long. After free exposure of the superficial muscles, part of the crural arch and 1½ in. of the aponeurosis of the external oblique were resected as well as the upper portions of the adductor longus and pectineus; 2¾ in. of the femoral vein were resected, and all branches of the artery except the profunda were ligatured and divided close to its wall. The wound made by these dissections measured vertically 9¾ in. by nearly 10 in. in breadth. The cut edge of the aponeurosis of the external oblique was drawn down and sutured to the psoas, pectineus, and adductor longus, and the sartorius was then fixed by suture over the bare and unprotected femoral artery. As the patient was a multipara and had become emaciated, he was able, by freeing the integuments of the abdomen up to the umbilicus, the false ribs, and the iliac crest to bring down a flap and fix it to the lower end of the wound. The thigh was kept flexed. The patient recovered. After some complications, including a dental abscess, a recurrent tumour developed in Scarpa's triangle, and on July 17th Morestin amputated the left lower extremity through the hip joint. Of necessity, he was obliged to make a very big posterior flap, as all the soft structures in front had to be sacrificed. Great trouble was experienced in securing the femoral artery, as its wall was softened, and forcipressure was applied for five days to the left external iliac. The edges of the posterior flap united to the edges of the wound in the groin by first intention, excepting at the points of issue of the pressure forceps. Convalescence was delayed by osteomyelitis of the lower jaw; eventually a sequestrum was removed, the jaw healed altogether, and the patient recovered, leaving hospital in the middle of September. At the date of the report—November 11th, 1909—there was no sign of recurrence in the cicatrix of the amputation or elsewhere. M. Morestin certainly deserves credit for his bold action in sacrificing the left lower extremity so soon as he saw that his former operation had failed; he dwells, however, more on that very free removal of infected and suspicious tissue than on the amputation. In short, he implies that whenever cancer of the vulva shows the least sign of extension to the glands in the groin thorough resection of the glands and the structures around them is good surgery, even though a trunk vessel be sacrificed.

[1] *Bulletins et mém. de la Soc. Anatom. de Paris*, November. 1909.

THE DIAGNOSIS OF ORGANIC HEMIPLEGIA.

SOME time ago (April 3rd, 1909, p. 862) we drew attention to the valuable observation of Dr. Hoover on the involuntary tension of the muscles of the sound leg when a patient suffering from organic hemiplegia tries to raise the paralysed leg from the bed, as shown by the pressure of the heel of the sound side on the mattress, a sign which is entirely absent in hysteria or simulated hemiplegia. The value of observations of this kind is so great that a summary of an excellent article by Dr. Lhermitte[1] will be useful, since he gives the pith of several contributions to this point of diagnosis which are well worth noting, if not quite so striking as that of Dr. Hoover. The first is that of M. Souques, which he calls the "sign of the interossei," or the "finger sign"; it is shown if a hemiplegic patient tries to raise the partially paralysed arm, when the fingers are extended and abducted like the sticks of a fan; it is of course absent when the hemiplegia is complete. The second was described by MM. Klippel and Weil, and may be called the "thumb sign"; it is observed in the contracted hand of organic

[1] *La sem. méd.*, March 16th p. 121.

ralysis, and consists in the spontaneous flexion of e thumb when the fingers are passively extended; is never present in hysterical contracture, and therefore a useful sign. The third is due to Raïmiste; it is only to be observed in flaccid miplegia, and is elicited by raising the patient's ralysed hand to a vertical position, the elbow sting on a table or the bed and the hand and arm ing brought into the same straight line; if the server slips his hand quietly down so as to support e forearm only, the hand, if paralysed, will drop to rm an angle at the wrist, but in cases of hysteria simulation it remains upright. The fourth is also ie to M. Raïmiste: If the patient, when lying on his ck with his feet together, is asked to abduct the und leg while the observer opposes the movement ith both his hands, the paralysed leg will be seen to slightly abducted; or, if the feet are separated d adduction is asked for and opposed in the same anner, the paralysed limb is slightly adducted. The fth was described by M. Néri, and is based on the pertonicity of the flexors of the paralysed leg; if ie patient is lying on his back, it will be found that ie sound leg can be raised from the bed to an angle f 70 to 75 degrees with the plane of the bed, but the aralysed leg can be raised only to 40 or 50 degrees. n addition to these points of diagnosis, Dr. Lhermitte raws attention to the observation of M. H. Claude, ho believes that a favourable prognosis may always e given in those cases of hemiplegia in which move- ients of the paralysed limb can be produced by inching or pricking the skin of the thigh or arm r by making forced movements of pronation and upination.

CYCLODIALYSIS IN GLAUCOMA.

THE operations practised for acute glaucoma are, as a rule, highly satisfactory, often leading to permanent cure, but those performed to stay the course of the chronic variety are generally only palliative, often useless, and not infrequently harmful. An unprejudiced examination of the true nature of glaucoma will show why this is so, and why chronic glaucoma may be said to be an incurable disease. There are two factors in glaucoma—a rise of tension and an essential atrophy of the optic nerve. Examples of the disease may be arranged in a graduated scale; at one end we have acute inflammatory and congestive cases with very high tension associated with no atrophy, at the other end of the scale we find cases where the atrophy is great and there is no rise of tension whatever. All other types can be arranged between these two extremes, but it will be seen that there is a marked antithesis between the rise of tension and glaucomatous atrophy. As we go up the scale we get less and less tension, but more and more cupping. It has long been held and taught, and has been copied from textbook to textbook, that the glaucoma cup is the result of tension, either of high tension or of long-continued slight rise of tension. It is also taught that the cup formation is a slow process. The absolute facts are that those cases where tension is the prominent symptom have no cupping, and the deepest cups are found in cases where no rise of tension, or at most only very slight, rises can be detected. Another fact hard to explain on the pressure theory is that a total cup has been seen to develop in a fortnight in a case which had been iridectomized and which had no tension whatever. Finally, Elschnig and others have shown that the glaucomatous atrophy is a condition with histological characteristics of its own which are totally distinct from ordinary optic atrophy, and which could not be produced by pressure. Admitting, therefore, that in glaucoma there are two factors—high tension and essential progressive atrophy, which is quite independent of the tension—it is obvious that no operation can benefit those cases in which the atrophic side is well marked, and that the success to be expected from an operation will be greater the more the symptoms can be referred to pressure rather than to atrophy. In other words, no operation can be expected to cure chronic glaucoma where there is no evidence of raised tension. The classical operation for acute glaucoma is iridectomy, introduced by von Graefe. In the vast majority of cases this is, and probably always will be, the operation of election. But sometimes iridectomy is almost technically impossible, and often it has no lasting effect. To meet these cases Heine has introduced an operation known as cyclodialysis. This procedure is well described by Pyle in the *American Journal of Surgery* for December, 1909. The object of the operation is to open up a permanent communication between the anterior chamber and the suprachoroidal space by detaching the ciliary body partially and breaking down adhesions and sclerotic processes at the angle of the anterior chamber. The conjunctiva is reflected back and the sclerotic exposed. A small incision is made and carefully deepened down to the ciliary body. A spatula is introduced, passed into the interior chamber in front of the iris, and by a sweeping movement the required detachment is made. The effect is only obvious after a few days. The operation is advised in certain cases by Meller in his new book describing the methods in vogue at Vienna in Fuchs's clinic. Elschnig, in the latest edition of Czermack's work on ophthalmic surgery, speaks well of it, and it certainly would appear to be a useful alternative in certain exceptional cases. The final judgement can only be given by each individual surgeon when he has given the procedure a fair trial. Krauss, writing in the *Zeitschrift für Augenheilkunde*, Band xx, p. 50 (Zur Frage der Cyklodialyse) criticizes the operation very adversely. On clinical grounds he is of opinion that the effect is only a transient one, and he has come to this conclusion after examining the notes of Heine's own cases. Krauss has performed the operation upon several cats and rabbits, and he has found that instead of a permanent communication between the anterior chamber and the superchoroidal space there was only a mass of cicatricial adhesions. These results are confirmed by similar researches carried out by Wichodzew and Judin. Examination of eyes enucleated after cyclodialysis has failed to show that the desired communication has been attained, and in certain cases there was much cicatricial contraction. Krauss believes that when cyclodialysis permanently lowers tension it has only succeeded because the ciliary body has become atropic, and that the transient success is only the herald of the total loss of the eye. In the face of these divergent opinions we can only say with the logicians—*solvitur ambulando.*

As readers will remember, there was opened last year in Montreal an institution for the study, prevention, and cure of tuberculosis, presented to the city by Colonel Burland and his sisters in memory of their parents. His late Majesty gave permission for it to be named the "Royal Edward Institution," and by pressing an electric button at Buckingham Palace opened it by cable on October 21st. Of this event we have, thanks to the courtesy of Colonel Burland, received an interesting memento in the shape of a reproduction of the account of the proceedings prepared for His late Majesty. It is illustrated by beautiful photographs, the text being in Gothic characters. The royal copy was printed on heavy vellum and richly illuminated.

ARTIFICIAL RESPIRATION IN NEWBORN INFANTS.

FROM communications which have reached us, it would appear that the prominence given during the last few years to Schäfer's method of effecting artificial respiration has given rise among midwives and others to the idea that this method should be substituted for all those previously in vogue in dealing with children born in a state of more or less marked asphyxia and failing to breathe of their own accord, despite the fact that the heart is beating. It is true that the condition of such a child is, so far as physiological causes are concerned, not essentially different from that of the persons for whose benefit Schäfer's method was primarily devised. But on the other hand, its lungs have never been completely dilated, its muscles are undeveloped, and its chest wall mainly composed of cartilage. Hence the thoracic elasticity, on which the success of Schäfer's method mainly turns, is almost completely lacking.

Of the very large number of methods suggested at one time and another of applying artificial respiration to such children, those which, on the whole, seem most favoured by writers of textbooks and practical obstetricians at the present date are the same as those which Champneys,[1] in his elaborate experiments on the dead body, described by him in papers read before the Medico-

Fig. 1.

Fig. 2.

Reproduced from an illustration in Garrigues's *Textbook on Obstetrics* by permission of Messrs. Lippincott and Co.

Chirurgical Society in the years 1881 and 1882, seems to have found the most effective in filling the chest with air. These are the Silvester method and the Schultze swinging method.

Champneys found that when carefully used the proportion of air introduced into the chest by the Silvester method was greater than that resulting from any other process, and that one detail not mentioned by Silvester was of material importance in augmenting it. The arms should not only be seized above the elbow, but should be held everted while being raised above the head during the inspiratory movement.

The Schultze swing was found to ventilate the chest somewhat less fully, but nevertheless to be quite effective. The method is probably often used by those who have never heard of it under that name, for it was described in some English textbooks within a very few years after Schultze[2] first brought it forward formally in 1871, but not under the name of Schultze, nor as a new device.

The operator, standing with his legs a little apart and the upper part of his body inclined slightly forward, holds the child in front of him with its back toward h separated knees (Fig. 1). His grasp of it is secured b placing his right and left thumbs respectively over th child's right and left shoulders on the inner side of th coracoid processes and vertically down the thorax, as fa as they will reach; his forefingers he places in th respective axillae, under the heads of the humeri, an spreads the remaining fingers over the back of the thora the wrists being brought as close together as possible, s as to secure the head steady between them. Caref attention to the position of the fingers and wrists necessary, not only to ensure the child from falling, bu to prevent the subsequent movements being of a jerk flail-like character. The child thus held is in the first o inspiratory position, and the whole of its weight must b supported by the forefingers, no pressure whatever bein exercised at this moment by the remaining fingers an the thumbs.

The change to the second, or expiratory position, brought about by swinging the child's body forwards an upwards until its pelvis is higher than its head and topple over on to its abdomen, bringing its legs so as to swin between the child's head and the operator's face (Fig. 2 In causing this movement the operator is careful to use pure shoulder swing until his arms are horizontal; he the relaxes his shoulder-blades and elbow-joints slightly, th result being that he catches, so to speak, the weight of th child's pelvis on the remainder of its trunk, its body onl bending in the lumbar region, and the descent of its leg into the position shown and described being quite gentl and gradual.

The change back to the first position must immediatel follow. This, too, should be a definite swing from th operator's shoulders, anything in the nature of a flail-lik turn of the child's pelvis on its spine being carefull avoided. At the moment the child is in the expirator position its chest may be further compressed by th operator's thumb and fingers, but the pressure must b relaxed so soon as the swing towards the inspirator position commences; though, of course, during its progres the support given to the back of the thorax by the finger must be sustained. This movement should be repeate ten or twelve times a minute, there being a pause of a fe seconds not in the expiratory but in the inspirator position.

Should the movements have to be repeated frequentl it is well to combine them with immersion in hot wate so as to maintain the child's temperature. Pressur brought about by Schultze's swings has some action o the heart as well as on the lungs.

There is another movement which was first formall described about the same date as the Schultze swing, an is known in America as the Byrd method.[3] It consists i seizing the child at the back of its shoulders and neck an the back of its pelvis with the right and left hand respec tively, and alternately bending the child's body forward and backwards. Inspiration takes place when the bod is bent backwards, expiration when it is bent forwards when in the latter position the child should be held fac downwards so as to facilitate the escape of inspired fluids The mechanical theory of this manœuvre is much th same as that of Schultze's swing, but its respiratory actio is less powerful, and the chief value of the method lies i the fact that it may be carried on while the child's bod is immersed in a hot bath. It is thus applicable to case in which the asphyxia has lasted so long that the stag of wax-like pallor and intermittent heart action has bee reached.

[1] *Medico-Chirurgical Transactions*, vols. lxiv and lxv.
[2] *Der Scheintod Neugenboren*, Jena, 1871.
[3] *Baltimore Medical Journal*, 1870, vol. i, p. 646.

ON April 27th the Duchess of Marlborough, in presidin over the annual meeting, at Sunderland House, of th Invalid Children's Association for London, announced tha the association had acquired a special home, and promise a contribution of £200 if the further £300 required to main tain it could be raised. The Bishop of Bath and Well dwelt on the need of personal service, and Dr. Hutchiso and Mr. D'Arcy Power spoke on the medical aspects of th work of the association. The annual report was adopte unanimously; and we hope that the demand of the society which has its offices at Denison House, Vauxhall Bridg Road, S.W., for more visitors for invalid children wil receive a ready response.

Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

MEDICAL TEACHING AT EDINBURGH UNIVERSITY.

FORMS of medical and surgical teaching at the iiversity of Edinburgh were submitted in reports id before the General Council of the university on ay 4th, and after some discussion were adopted. ie committee appointed to consider the question of edical education in Edinburgh reported that they ere of opinion that the questions to be considered uld best be treated under two main heads, namely:) The medical curriculum regarded purely as a urse of study, and (2) the mutual relations between ie bodies concerned in medical education in Edin- rgh, namely, the university, the Extra-Mural hool, and the Royal Infirmary, appointed two ibcommittees to deal separately with the ques- ons falling under each of these heads. The tter subcommittee has not yet submitted a port, it having been thought advisable to post- one its deliberations until the report of the sub- ommittee on the medical curriculum was com- leted. With regard to the subjects of the first pro- essional examination, the former committee has rrived at the unanimous conclusion that attendance -prior to registration as medical student—on any of hose subjects ought to be accepted from any institu- ion, whether school or college, which after due nvestigation may be approved by the University Court on the recommendation of the Senatus. They lesire to point out that it would be greatly to the dvantage of a student to have passed one or more of these subjects before the actual commence- ment of the medical curriculum, and they recom- mend that students who present themselves from any such recognized institutions be admitted to examination in one or more of the subjects of the first professional examination without requiring attendance in the course or courses of instruction for such object within the university, provided that the attendance on such subjects prior to registration shall not be held to constitute any part of the five years' course of professional study. One of the reasons which has led the committee to make this recommendation is that attendance on any subject of the first professional examination which can be taken at school and passed prior to the commencement of the medical curriculum would enable so much more time to be devoted to the medical part of the curriculum. A difficulty in adopting the plan suggested is created by the fact that the General Medical Council has up to the present refused to recognize instruction in schools, although it is recognized by the Conjoint Examining Boards of England, Scotland, and Ireland. The statistics of the Conjoint Board of the Royal Colleges in England show that instruction in the preliminary sciences in English public schools is relatively satisfactory, since candidates coming up from these institutions exhibit a smaller number of rejections than those coming up from the medical schools themselves. There is reason to believe that the public schools of Scotland would be able to show equally good results.

The committee gives a proposed time-table for the several years of professional study. The time-table is drawn up for students who enter in October, but it is applicable with little modification to those who enter in May. The committee is of opinion that it is advantageous to the student to begin the curriculum in May rather than in October, because this will allow of his completing the subjects of the first and second professional examinations by the end of the second winter. In first professional subjects the principal change suggested is in connexion with the teaching and examination in physics. It is proposed that a practical course be instituted, to be concurrent with the lectures, both to extend over the whole of the first winter session. The examination in physics would be taken at the end of the first winter session, in conjunction with that of chemistry. Botany and zoology remain as at present, except that in zoology forty lectures are suggested instead of fifty. With regard to the second professional subjects, the principal change suggested is the earlier study of anatomy in order to enable the work in this subject to be completed by the end of the second summer, when the examination could be taken along with that of physiology, instead of in the following December, as at present. The disadvantages of the present arrangements have been so obvious that no argument is necessary to emphasize the importance of the change. The lectures in anatomy, in place of being divided into two parts, as at present, separated from one another by a year's interval, would follow on continuously, and be completed in the course of the first winter. Practical anatomy would also begin at once, so that each student would have six terms in which to complete the dissection of the body. The arrangements for physiology remain unchanged, except that in consequence of the shifting of the second part of the course of anatomy, it will be possible for each student to devote a little more time in the second part of the winter session to practical chemical physiology. No change is suggested in the work of the second summer. An alteration of importance which is suggested in the third professional subjects is the division of the lectures on materia medica into two parts, namely, one comprising materia medica proper and pharmacology, to be given on two days a week during the whole of the third year, and one comprising therapeutics, to be given on two days a week during the fourth winter session. This necessitates no change in the number of hours devoted to the subject of materia medica.

In the scheme proposed in the time-table the subjects of pathology and bacteriology obtain room for expansion. It is suggested that a general course of pathology be given during the third year on three days a week (90 lectures), and an advanced course during the fourth summer session on two days a week (20 lectures), making 110 in all. Far more time than is at present available would be free for the teaching of practical pathology, and the subjects would be spread over the whole of the third year, and would include practical bacteriology as an integral part. The first possible appearance for examination in elementary pathology and bacteriology and in materia medica and pharmacology would be at the end of the third year. The final examinations in medicine and surgery would include questions in advanced pathology and therapeutics.

Important changes are suggested in the arrangement of the teaching of the chief subjects in the final professional examinations. It is proposed to spread the systematic teaching of medicine and surgery over the three years available for clinical study. Lectures on medicine and surgery would be given every morning, including Saturday, both summer and winter. On three mornings a week the audience would be composed of students who have not yet studied the subject. These lectures would constitute a full systematic course. On the remainin days the lectures would be attended by senior students, and might be usefully devoted to special parts of the subjects. The committee points out that this arrangement has the advantage of enabling a division of labour to be introduced into the advanced course, and gives the professor, if he thinks fit, the opportunity to delegate any portion of the subject to a special lecturer. This plan has been found to work successfully in the department of obstetric medicine. Although, in deference to the practice which has hitherto prevailed in most schools of medicine, the time-table has been drawn up in such a manner as to place the commencement of the study of surgery before that of medicine, the committee is almost unanimously of opinion that it would be an improvement if the relative positions of the two subjects were reversed in the curriculum. Every surgical patient must undergo a thorough medical examination, and all the routine of such examination is system-

atically taught in connexion with medicine, and is only properly acquired by the instruction which is given in the medical wards. It would, therefore, be obviously of advantage to the student of surgery, as well as to the surgeons whom he has to assist, if he possessed this knowledge before taking up his duties in the surgical wards, whereas it cannot be alleged that a knowledge of surgery is likely to be of the same benefit to a student who is beginning the study of medical diseases.

The committee sees no reason for interfering with the present arrangements whereby all subjects except those of the final examination can be taken separately, if the student desires to do so. This arrangement has worked satisfactorily both to student and teacher; for, while it has facilitated the passing of the examinations, as shown by the diminished percentage of rejections, it has at the same time allowed a higher standard to be set in the individual subjects.

In moving that the report be adopted Mr. J. B. Clark said the special committee had made up its mind that the problem should be attacked along two distinct lines, and they therefore appointed two subcommittees, one of them to consider the medical curriculum regarded purely as a course of study, and the other to consider the relations among the various bodies in Edinburgh which were concerned with medical education. They had had the report of Professor Schäfer, who was convener of the first-mentioned committee. When the terms of the report of the subcommittee were considered by the special committee one single point of divergence emerged. In Professor Schäfer's report there was an expression of opinion that medicine should come before surgery in the medical curriculum. The special committee was not altogether of that mind, and it added the reservation that against the opinion expressed in the report regarding the relative positions of medicine and surgery in the curriculum, it may be urged that, while a knowledge of pathology such as is sufficient for the junior student of surgery can be acquired at an early part of the surgical course, a longer period of study of pathology is required for the proper appreciation of clinical work in medicine. Subject to this reservation, he moved that the council approve of the report, and direct it and the reservation to be transmitted as a representation to the University Court.

This was seconded by Dr. Norman Walker, and adopted.

ADDITIONAL MEDICAL INSPECTOR UNDER THE LOCAL GOVERNMENT BOARD.

Dr. Dewar, County Medical Officer of Health for Fifeshire, has been appointed by the Local Government Board for Scotland as medical inspector, in addition to Dr. Dittmar. The Board has thus instituted a second inspectorship. The duties consist in inspecting and reporting to the Board on the administration of the Public Health and allied Acts throughout Scotland.

EDINBURGH HARVEIAN FESTIVAL.

In consequence of the death of His Majesty King Edward VII the Edinburgh Harveian Festival has been postponed. It was to have taken place on Friday, May 20th.

VOLUNTARY AID SCHEME IN SCOTLAND.

The annual meeting of the Council of the Scottish Branch of the British Red Cross Society was held in Edinburgh on May 6th. Sir George T. Beatson presided. In presenting its first annual report, the council points out that in conjunction with the Army Council a scheme for the organization of voluntary aid in Scotland in connexion with the Territorial Forces was prepared and issued in December to all concerned. Under this scheme it was left to the County Territorial Force Associations to delegate or not to the Scottish Branch of the British Red Cross Society the work of raising, equipping, and maintaining the voluntary aid detachments necessary under the scheme. The council has pleasure in recording that in all the counties and cities of Scotland the Territorial Force Associations had so delegated the work. By the co-option of members of the Territorial Force Associations as members of the County and City Red Cross Committees, marked assistance is secured in overcoming any local difficulties which may arise.

Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

NATIONAL MEDICAL SERVICE FOR IRELAND.

AT the last meeting of Council of the Irish Medical Association a report was received from a special committee which was appointed by the Association in January last to consider the proposed changes in the Irish Poor Law Medical Service. The committee, while recommending that the opinion of all the members of the Association should be obtained by means of a *plébiscite*, has expressed itself in favour of a national service, as suggested by the Viceregal Commission, and as opposed to the county scheme of the Royal Commission, and this view has been adopted for the present by the Council. The main objection advanced against the county scheme is that, while the county councils would probably deal more generously with the officers concerned, the possibilities of promotion would be limited to each county, and that in consequence medical officers in poor counties in the West of Ireland would be deprived of the opportunity of bettering their condition. The most important details of the scheme approved by the committee are as follows:

1. A national medical service would be established for Ireland, and the salaries paid out of the Consolidated Fund.
2. Entrance would be by competitive examination, and a rota kept.
3. A board of control, with representatives from the examining bodies, would be formed to administer the scheme and to deal with all important questions of promotion and remuneration.
4. There would be adequate graded salaries, and all officers would be pensionable.
5. Whole-time officers would be provided in large towns and wherever possible.
6. Union infirmaries would be converted into district hospitals and their medical officers brought into the scheme, so as to form a united service, with arrangements for promotion, the recognition of merit and length of service being suitably provided for.
7. Whole-time county medical officers would be appointed possessing special qualifications, with analytical and bacteriological experience.
8. Only members of the National Service would be eligible for appointment as medical inspectors.

BELFAST CITY COUNCIL: RESIGNATION OF THE CHAIRMAN OF THE PUBLIC HEALTH COMMITTEE.

At the meeting of this committee on May 5th, Councillor Dr. Thomson (Vice-Chairman) in the chair, a letter was read from Alderman Dr. King-Kerr, resigning the chairmanship of the committee on account of ill-health. It was resolved:

> That the resignation of Alderman James King-Kerr, M.D., J.P., of the Chairmanship of the Committee be accepted with profound regret; and that Alderman Dr. King-Kerr be assured that it is the unanimous and heartfelt wish of the members that his retirement from the arduous position of Chairman will enable him to take the rest and care necessary quickly to restore him to full health and vigour.

Dr. King-Kerr was vice-chairman of the committee from 1900 till 1904, and since then he has been chairman. No one in the council has expended more time, energy, and thought for the public. During the stormy time of 1906 he manfully stood to his guns despite the strong indictment of the public health department. His efforts since then have been unabated in carrying out both the schemes urged by the reformers and those of his own initiative or of the medical officer of health. He has retired now, on the eve of a large

cheme of reclamation of some of the worst slums in he city, and he carries with him the warm thanks of ll for his manifold labour and toil in the past and the best wishes for his speedy recovery in the future.

England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

LONDON.

THE MEDICAL TREATMENT OF LONDON SCHOOL CHILDREN.

IT was reported at the meeting of the Education Committee of the London County Council on May 11th that a difficulty had arisen with regard to the offer of medical practitioners in Norwood to treat 1,500 children at a local centre (BRITISH MEDICAL JOURNAL, March 5th). The Committee accepted the offer, but declined to contribute a sum of £175 asked for in respect of the equipment of the premises. The committee of the medical practitioners of Norwood then wrote that in the absence of an equipment grant the scheme could not be proceeded with. In the case of certain hospitals, the Council had made grants for the purchase of equipment on the understanding that any apparatus so obtained should be the property of the Council. The committee of Norwood medical practitioners was prepared to accept a grant on this condition, and the Education Committee accordingly sanctioned the necessary expenditure.

The arrangements made with the authorities of St. George's Hospital for the treatment of children suffering from ringworm having been found inadequate, the Education Committee on May 11th accepted an offer by the governing body of St. Mary's Hospital, Paddington, to deal with 200 cases for one year upon payment by the Council of £100 a year and a capitation grant of 7s. Children suffering from eye, ear, nose, and throat affections are already being treated at this hospital.

The Committee recently asked the Board of Education to allow the attendances of children at hospitals to count as attendances at school for the purposes of grant earning. The Board of Education has replied that Article 44 of the code was framed to meet cases where medical inspection could not be carried on within school premises. The Council's proposal was inadmissible, and, in view of the numerous practical difficulties the Board did not propose to amend the code in the way suggested. The Council, in its application, urged that the arrangements made for medical treatment of school children were in accord with the wishes of the Board, and to this the Board of Education replied that the Council was responsible for the particular proposals sanctioned.

The Committee decided to ask the Highways Committee to permit parents and children going to the hospitals under the Council's scheme for medical treatment to travel on the tramcars at reduced rates.

The County Council on May 10th approved the arrangements submitted for medical treatment in Wandsworth (BRITISH MEDICAL JOURNAL, April 30th, page 1079).

No controversial business was taken at the sitting, and the consideration of the report of the Asylums Committee with reference to the treatment of incipient mental disorder was postponed.

MANCHESTER AND DISTRICT.

OPTICIANS AND FEDERATION.

Aims and Objects of the New Organization.

Mr. J. C. KIDD, of Manchester, on his re-election as President of the Manchester and North of England Optical Society, at the annual meeting last week, dealt at some length with the part that society had played in bringing about the establishment of a Federated Society of British Opticians, and also submitted reasons for the formation of such an organization. He alleged that to-day opticians were threatened with extinction, principally on account of the action of members of the medical profession, and the time had come for opticians to combine, not only for the purpose of improving their status, but to meet what he described as unfair and unwarranted attacks made on members of the optical craft by doctors, or prompted by medical men. The Manchester Society, said Mr. Kidd, had started a movement which was likely to do good to the optical trade generally, and he was confident that within a fortnight from that date the Federated Society of British Opticians would be an accomplished fact. All the societies represented at the recent conference in Manchester were in favour of the scheme, and the only thing now wanted was an agreement with regard to the lines on which they should proceed. Mr. A. Herschberg, the Honorary Secretary, submitted an amended draft of the memorandum of federation to be laid before the adjourned conference of delegates from the different societies, to be held in Manchester next week. This was approved by the meeting. The draft recites that: "The Federation is an agreement between the Manchester and North of England Optical Society, the Scottish Optical Association, Glasgow Optical Society, West Riding Optical Society, Midland Optical Society, the National Association of Goldsmiths, Northern Counties Optical Society, and the Opticians' Club, London (and such other societies as may subsequently join the Federation) for the purpose of securing to the members thereof mutual co-operation and benefit." The title of the organization is to be "The Federated Society of British Opticians," each society retaining its own individuality and independence of government. The objects of the Federated Society are: (1) To strengthen and improve the position of the members of the optical craft. (2) To watch and guard the interest of all members. (3) To promote social intercourse and good fellowship amongst members of the optical trade. (4) To create, have, and efficiently work a common policy in all desirable matters of trade interest, to make heard the united voice of the members of the afore-mentioned societies (and such other societies as may subsequently join the Federation) on all occasions when benefit to the members of the trade in general will thereby be secured. It is also set out that a conference be held annually at different centres, these to be decided upon at the meeting held twelve months ahead. The purpose of the conference will be to receive reports, to discuss matters of general interest, to survey the past work of the Federation, the present opto-political position, and formulate the future policy of the Federation. It is proposed that the head quarters of the Federation shall be in Manchester, that there shall be a council of twelve, that business meetings be held quarterly, than an executive shall have power to transact any urgent business, that affiliated societies pay not less than £1 1s. per annum for every thirty members, that individual members of federated societies pay 1s. each per annum to the Federation funds, and that opticians residing in towns where no society exists shall be eligible for membership on payment of 2s. 6d. a year.

LADYWELL SANATORIUM, SALFORD.

At a meeting of the Health Committee of the Salford Corporation a report of the special subcommittee was considered, and the following recommendations were adopted with reference to the Ladywell Sanatorium, which is the borough fever hospital:

1. That the present practice of discharging from the sanatorium borough patients who have been suffering from scarlatina, regardless of desquamation, be continued, subject as hitherto to the general health and other conditions of the patients discharged being satisfactory to the medical superintendent.
2. That the present practice of treating borough patients at the sanatorium free of charge be continued.

With regard to the first resolution, it has been the custom for several years in Salford to take absolutely no account of desquamation after scarlatina as a test of infectivity, and patients are discharged from the

sanatorium while still freely desquamating. The authorities claim that there have been no bad results from this. The "return cases" in 1908 numbered 96, or 7.2 per cent. of the total number of cases. In many of these it would of course be impossible to say that the returned convalescent was actually the source of the infection; but assuming that this was really the case, there has still been a steady reduction of the number of carrier cases of scarlatinal infection. In 1903 the number of carrier cases was 13.2 per cent. of those discharged after complete desquamation, whereas the latest report for 1908 shows only about 6 per cent., though desquamation is no longer taken into account. Of course this proves very little, as elaborate precautions are now taken to see that no nasal or other discharges are present before patients are sent home. Of the 96 return cases, 22 occurred within the first week after discharge of the carrier case, 31 within two weeks, 27 within three weeks, 11 within four weeks, and 5 after four weeks had elapsed. Nothing can be argued as to the period of incubation from this, but it shows the tenacious character of the infection. Mallory and Duval attach some etiological significance to certain protozoa-like bodies found in and between the deeper cells of the epidermis. Doubts have been expressed as to whether these bodies are really protozoa and are not rather the result of the growth in the cell of a smaller germ of the same group (*Chlamydozoa*) as that which is said to be the specific organism in trachoma. If this should prove to be specific to scarlatina, it may be possible to decide the question as to the infectivity of desquamating skin, but until this is done there would certainly appear to be some risk in the Salford plan of totally neglecting desquamation, in spite of the fact that the percentage of return cases has lessened.

With regard to the second resolution, where for any reason compulsion is applied to get patients sent to the sanatorium, or where there are no satisfactory means of isolation at home, free treatment is often excusable; but the ratepayers and medical men have a right to complain that well-to-do people, who can quite easily provide efficient isolation and medical attendance at home, are being encouraged to impose on the rates, and are sending their children to the borough fever hospital simply to save themselves trouble and to avoid a private doctor's bill. There is not the slightest reason for encouraging this imposition on the already overburdened ratepayers of Salford.

THE CRIPPLED CHILDREN'S HELP SOCIETY.

At the annual meeting of the Manchester and Salford Crippled Children's Help Society the Lord Mayor said that in many cases parental neglect was responsible for the deformity of the children. The society was doing a good work in instructing crippled children in ways of earning at least a partial living. Tailoring and cobbling were mentioned as suitable trades to teach to the boys. It was suggested that better results might be obtained if the various agencies for child invalids were banded into one association, and the Civic League of Help would very soon take up the early treatment of tuberculosis among children. An examination of 400 cases on the society's books showed that 56 per cent. arose from some form of tuberculosis and 26 per cent. from rickets. Many of these cases were so far preventable that if early treatment were given only a very small proportion of the cases would remain. During the year 1,075 children were dealt with, of whom about 300 were new cases.

The Manchester Education Authority has a special residential home for cripples at Swinton House, where 60 children have been accommodated. This accommodation has proved to be quite insufficient, and recently an adjoining house has been taken where 60 more can be received. Manchester appears to be the only education authority which has, so far, made this special institutional provision for crippled school children.

LEEDS.

ADMISSION OF WOMEN STUDENTS TO THE GENERAL INFIRMARY.

AMONG the general provisions of the Charter of the University of Leeds is one which states that, "All the degrees and courses of study of the University shall be open to women." This, of course, follows the precedent of the Victoria University, of which the Yorkshire College was one of the colleges. In so far however, as the Faculty of Medicine is concerned, this provision has been a dead letter. To all the courses of lectures, to the dissecting room, and to the physiological and pathological laboratories women have indeed been admitted, but the doors of the great clinical school of the Infirmary have been closed to them. It has, therefore, always had to be pointed out to women making inquiry as to the facilities for study that this fatal bar existed to a complete curriculum being obtained in Leeds. Women students have, indeed from time to time done some work at the General Dispensary and at the Hospital for Women and Children, but the *impasse* will be appreciated by those who are aware that the Infirmary is the only general hospital in Leeds. From time to time the matter has been discussed, both at the weekly board of the Infirmary and at the meetings of the medical board or "faculty," as that body has for many years been termed. Within the last few weeks a final decision was arrived at, and in future women students will be admitted to the clinical work of the Infirmary on the same terms as men, with the one exception that they are not to be admitted to the general male surgical out-patient department.

APPOINTMENTS IN THE DEPARTMENT OF CLINICAL PATHOLOGY AT THE INFIRMARY.

After very full inquiry and the interviewing of several selected candidates, the Faculty of the Infirmary recommended to the weekly board the appointment of Mr. Mathew J. Stewart, M.B. Ch.B.Glas., as clinical pathologist, in succession to Dr. Gruner, and that of Miss Eglington, M.B. B.S.Lond., as assistant in the department. These recommendations have been given effect to by the board. Mr. Stewart comes with the highest credentials from his school of Glasgow University, while the work which Miss Eglington has done in Leeds during her house-surgency at the Hospital for Women and Children shows her ability to undertake the responsible duties of her new position.

LIVERPOOL.

THE TREATMENT OF SCHOOL CHILDREN.

THE Association of Honorary Officers of the Liverpool Medical Charities has for some time had under consideration the question of the treatment by hospitals of school children referred for medical treatment by the education authorities, and as a result of several meetings has arrived at the following resolutions:

1. This Association of Honorary Medical Officers of the Liverpool Medical Charities is opposed to the committees of the hospitals contracting for the treatment of school children by their medical officers.
2. That this Association of Honorary Medical Officers is of opinion that the rectification as far as is possible of the defects found in children by inspection is a public duty the cost of which should be defrayed by the public, and that it is not honourable to endeavour to shirk the responsibility by throwing the burden of it on to any one class, namely, the medical profession.
3. That this Association of Honorary Medical Officers considers the scheme for the treatment of school children found upon inspection to be defective, put forward by the British Medical Association, to be a reasonable method but is of opinion that the profession should accept any other scheme approved of by the community, provided that the terms of service are honourable and the remuneration adequate.

On May 4th a combined meeting of the association and of the general body of the medical profession of Liverpool, took place, Mr. G. P. Newbolt, the Chairman of the association, presiding, when the foregoing resolutions were adopted, and ordered to be sent to the education authority and to the committees of the various hospitals.

India.

[*FROM OUR SPECIAL CORRESPONDENT.*]

COMMISSION ON THE MEDICAL ARRANGEMENTS ON THE TEA GARDENS IN THE DUARS.

THE Blackwater Fever Commission of last year brought to light some deficiencies in the provision for medical treatment of coolies on the tea gardens in the Duars. The problem in this area differs much from that on Assam tea gardens because much of the labour on the latter is indentured, so that provision of diet and medical treatment during sickness is compulsory. On the other hand, in the Duars the labour is "free," the coolies coming and going as they please, and the managers have no control over the labourers, who make their own arrangements for food and housing. Medical officers are employed by the tea gardens, but they have no power to enforce treatment on sick coolies or to make them go into hospital. There are very few Government dispensaries in the area, so that if any coolie falls sick and is unable to work and earn any wages his lot may be a very hard one. As the district is intensely malarious, more so than any other part of India, it is a difficult problem to afford adequate medical relief to the thousands of coolies who flock there for work in the tea-making season, which is also the malarious one. A Commission has recently been appointed to inquire into this matter, with the civilian Commissioner of the division as its president, and aided by two other civilians and two medical officers, one with some recent experience of sanitary work in Bengal and the other a civil surgeon in Assam. They have already set to work and their recommendations will be awaited with interest.

MALARIA IN BOMBAY.

In 1906 a committee was appointed to inquire into the prevalence of fevers in Bombay, but not very much has been heard of its labours. During the last year an inquiry into the prevalence of malaria in the city was commenced by Captain McKendrick, I.M.S., and is being continued by Dr. Bentley, who recently read an interesting paper before the Bombay Medical and Physical Society. It had been shown by Captain W. G. Liston, I.M.S., in November, 1908, that the *Anopheles stephensi* was the principal carrier of malaria in the neighbourhood of the Bombay dock works, while McKendrick found a large number of wells to be breeding this mosquito. Dr. Bentley has followed up this clue and come to the conclusion that this variety is practically the sole carrier of malaria infection in Bombay town, and that it breeds in innumerable cisterns on the roofs of the houses as well as in very many wells, especially those within the courtyards of houses. About 10 per cent. of *stephensi* were found to be infected with malarial parasites, but no *rossii* harboured them, which is fortunate, as they form the great majority of *Anopheles* in Bombay. Certain tanks also breed *stephensi*, but it does not live in foul water or in that covered by water weeds. They will also live in sea water. Among their enemies are various fish and also the large larvae of *Culex concolor*, which rapidly devour those of *A. stephensi*.

These observations well illustrate the importance of local investigations by malarial experts, and encourage the hope that the recent appointment of special malarial officers to each large province, as a result of the Simla malarial conference, will soon add greatly to our knowledge of malarial carriers in India, and that Captain Liston's important discovery of the part played by *A. stephensi* in Bombay may be emulated by similar additions to our knowledge and powers of prevention in other areas of this vast peninsula, with their very varying climatic conditions.

PLAGUE.

The height of the plague season has once more been reached, and it is gratifying to find the total deaths are again much below the figures of the worst years. Bombay and Calcutta have so far got off very lightly, and the Punjab comparatively so. Behar and the neighbouring eastern portion of the United Provinces are, however, again severely affected.

Correspondence.

THE CONFERENCE ON SCHOOL CHILDREN.

SIR,—As Chairman of the Conference held at St. James's Vestry Hall, on Wednesday, May 4th, 1910, on the question of the medical treatment of school children, I beg to say that the *first* resolution as agreed at the Conference, should read as follows:

> That in the opinion of this Conference, the provisional arrangements made by the London County Council for the medical treatment of elementary school children are wholly inadequate, and involve abuses of charitable medical institutions and unfairness to the medical profession.

An amendment deleting the words "for this national purpose," and adding at the end "and unfairness to the medical profession," proposed by Dr. R. M. Beaton, and seconded by Dr. Beckett-Overy, was accepted by the proposer and seconder of the original resolution, and this incident is referred to in your report, although by some oversight it has not been embodied in the resolution as reported in the SUPPLEMENT of the BRITISH MEDICAL JOURNAL of May 7th, 1910.

I desire also to call attention to the omission, in your report of the Conference, of Sir Victor Horsley's strong dissent from the suggestion of Dr. Sidney Phillips that the meeting was not a conference, and I desire to add that I agree entirely with that dissent. The instruction to the Honorary Secretary was to issue invitations to all members of the staffs of the hospitals concerned to confer with the Metropolitan Counties Branch, and I have every reason to believe that this was done.—I am, etc.,

London, N.W., May 9th. J. FORD ANDERSON.

*** We regret that in the report of the conference published in the SUPPLEMENT of May 7th, p. 217, Dr. Ford Anderson was by inadvertence described as Chairman, instead of President, of the Metropolitan Counties Branch.

MEDICAL TREATMENT OF SCHOOL CHILDREN.

SIR,—I am interested to see that since the International Congress of 1907 the profession has become convinced of the importance of the subject of the treatment of school children found defective, and, with the view of learning what was being done in the matter, I attended an important conference. At that meeting of the staffs of hospitals with the Metropolitan Counties Branch on May 4th the Chairman, Dr. Ford Anderson, very wisely drew attention in his opening remarks to the fact, that to render the medical treatment of school children compulsory, was a new departure, and it was therefore most important that it should be started on proper lines. Any error which is made now will become more and more difficult to rectify as time goes on. The meeting discussed only the treatment of school children in London, but the example set by the Metropolitan Branch is likely to be followed by other Branches, and it is therefore advisable that any scheme adopted by this Branch should be applicable to every district in the country, rural, where no hospital may exist, as well as urban and metropolitan. If this be so, then unquestionably school children must be either treated at their own homes or in school clinics established for the purpose. The natural thing, of course, is that each child should be treated by the medical man who usually attends the family. One objection which may be raised is that the treatment of eyes, ears, throat, and nose requires special training and skill which ordinary practitioners may not possess. But very many practitioners are quite competent to treat all these specialities, and we must remember that the lines are now being laid down on which treatment will run for many years to come. Demand brings supply, and if these specialities are required in ordinary practice the younger generation will be thoroughly trained in them. Even now, if some of the older men in a district should not feel able to undertake such treatment, they can meet together and

select some one of their number who would do so. A clinic might be established near the school to which each doctor in a district might refer such cases as he felt either unable or unwilling to treat himself. But it seems to me that the proper course is that, when parents are warned by the school authorities that their child requires treatment, they should apply first to their own doctor, who, if he thinks it right, could send them on to the clinic. Moreover, the medical men who conduct the clinic should be chosen by the practitioners in the district, and their choice should be ratified by the Education Authority, but it would be manifestly unfair that some one should be forced upon them without their consent. In cases of ringworm, where not only *x* rays but isolation from healthy children are advisable, it might be advantageous to have special clinics for the disease, to serve the needs of a county, and to these the district clinics might send the cases requiring such treatment. This and many other questions are, however, matters of detail. The main points are:

1. That school children requiring medical treatment should be taken for it, in the first instance, to the practitioner attending the family; and
2. That school clinics should be established in the neighbourhood of schools by the combined action of the practitioners in the district where such cases as they were either unwilling or unable to treat themselves might be treated by some one whom they had themselves selected, and whose appointment had been confirmed by the Education Authority.

I am, etc,

LAUDER BRUNTON,

President of the Second International Congress for School Hygiene.

London, W., May 9th.

PUBLIC MEDICAL SERVICE.

SIR,—I have no desire to enter into any controversy on this subject, but perhaps you will allow me briefly to mention some objections to the public health service suggested by the Association.

1. No provision is made, nor apparently even anticipated, for contributions from the employer and the State. Time was when employers called in medical men and paid for attendance, especially for those injured by possibly defective machinery. In larger centres employers now send them to hospitals where they are attended free of charge, and the amount paid in compensation is less, as not only treatment but free board and lodging is given at the expense of those who piously believe that in subscribing to hospitals they are helping the poor. The fact is that there is a large body of people in this country who are not paupers, but cannot afford to pay an adequate sum for medical attendance. In other countries the employer does his part, and no complaint is made, as he knows that by this means his poor-rate is greatly reduced. Nor does it seem reasonable that a State which can afford to expend large sums on education should not be called upon to pay something for medical attendance on the sick poor. Contributions from employers and the State can only be had when medical men and others do something towards the passing of a State insurance bill.

2. In the Association's proposals the amount to be paid for medical attendance is not graduated according to the wages of the recipient. A patient whose income is £200 a year is not expected to pay as much as one earning £2 000 a year, and why should a labourer earning less than £1 a week pay as much as a skilled artisan? One of your correspondents has pointed out that a considerable part of his income is derived from families who earn less than £1 a week, but has he duly considered a fact, which I have verified by going over family budgets, that the labourer in the country with 16s. a week is as well off as he is when earning 30s. a week in a large town, and that there is a vast number in large towns who are earning less than that amount?

3. The Association places its imprimatur on contract practice. It must surely be evident that if that proposal is not abandoned the scheme must fall through, as on these lines anything approaching unanimity is impossible. Alternative proposals on the lines of the National Deposit Society have been brought forward by Dr. Fothergill, but they seem to me to involve so much detail that they are impracticable.

Personally, I have long regarded a system of compulsory insurance, not precisely as we find it on the Continent, but adapted to our national needs, as the only satisfactory solution of this question. Objection has been made that if all earning less than, say, £2 a week were compelled to insure there would be a limitation of private practice. To many of us living in large towns and in the neighbourhood of hospitals that is a matter of no importance, as with the exception of those who are members of clubs or dispensaries those earning less than £2 a week now pay practically nothing, and the trend in small towns and country districts seems to be in the same direction. Another objection I have often heard from medical men is that they do not wish to be servants of the State. But surely every one who has inquired into the matter must know that this is not a necessary element in compulsory insurance. Deduction is made from wages to which a contribution is added from employers and the State. In return the worker calls in the medical man of his choice. He may have him as his family doctor for a lifetime, or he may change at the end of an illness. Where any cohesion exists among medical men there is practically as little interference between the medical man and his patient as exists in private practice.—I am, etc.,

J. H. KEAY.

Greenwich, May 9th.

THE REFORM OF MEDICAL CHARITIES.

SIR,—When I wrote a pamphlet twenty years ago on the Abuse of Medical Charities by the Public and the Profession, I thought, like the writer of the leading article in the BRITISH MEDICAL JOURNAL of Saturday on Mr. Booth and Poor Law Reform, that reform of medical charities was quite possible of accomplishment within a few years. I have now changed my mind, and have formed the opinion that reform is hopeless so long as they are supported on the present basis. The managers of voluntary medical institutions have taken up an attitude of *non possumus*. A few years ago, in the annual report of the Western Infirmary of Glasgow, the board of management stated in effect that they did not see their way to check the alleged abuse of the hospital by patients able to pay professional fees, because by attempting to exclude such people they might alienate some measure of public support. The board thought it was more advisable to admit an occasional undeserving case than to run any such risk. Hospital managers feel that charity is so very sensitive a source of income that they must take every care not to give any cause for estrangement. Neither in the outdoor nor indoor departments are the boards of voluntary hospitals willing to abate the abuse of which the profession have been complaining so long and so bitterly. They even quite boastfully present their annual reports showing increasing numbers year by year. At the same time they show the usual large annual deficit in the income, and never cease to make their appeal *ad misericordiam*.

So long as charity is the sole source of the support of our medical institutions they will remain as they are—incapable of reform. The old eleemosynary aspect of hospitals is antagonistic to the spirit of reform. They are not now to be compared with the lazar houses of ancient times, and we need not cry out, "Help, for the love of God." We live in a practical age of science and industry, and a medical service is absolutely necessary in the complete equipment of a civilized community. The treatment of sickness should be provided for by a source of support which is perfectly reliable and equal to all requirements. I mean, of course, a fund obtained by public assessment. As is stated in the leading article, the very essence of charity is its freedom to do as it likes. Neither the public nor the profession have any representative control over the action of the management of medical charities.

The public have so long been accustomed to obtain the very best medical assistance at charities that it will be wellnigh impossible to arrest the trend to go thither rather than to private practitioners. The most hopeless aspect of the matter is that people, especially the industrial classes, hold that by their contributions to the hospitals from their wages they are quite entitled to treatment and nursing when they require it. They have abolished the idea of charity long ago. Returns show that the working classes are now subscribing much more

to hospitals than formerly. It could be shown, I think that rate support would, over all classes of the people, not take so much out of our pockets as at present for the upkeep of the existing institutions. They would be managed by the municipal councils elected by the rate-payers, representative, of course, both of the profession and the public.

If we, as practitioners, expect the lay management of hospitals to have any care for our professional interests we are deluding ourselves. At present they are getting the services of the staffs of voluntary medical institutions for next to nothing, unfortunately. They are mean enough to accept those services on those terms and we are silly enough to give them. In a municipal or State service we would be remunerated for our work on strictly commercial terms.

The so-called abuse of our medical charities extends beyond the sphere of the general public. The Education Act, 1907, orders the London County Council and other authorities to inspect school children, and empowers them to treat those children found defective. The London authority, ignoring all thought of hospital abuse, has commandeered the services of several medical charities by offering them small subsidies.

Twenty years ago I fondly expected the medical officers of our hospitals would take a stand for reform. So far as I know, not one of them has sacrificed his appointment in the interest of reform of medical charities. Has any one declined to treat patients, indoor and outdoor, because in his opinion they were able to pay him fees, and in defiance of the orders of the board of directors. Of course, I except cases quietly transferred to the physician's own house and the smaller one-man concerns which exist largely for that purpose.

The charity support of hospitals creates the circumstances in which medical men give their services for a mere honorarium or for nothing at all. These practitioners make it appear that they are by their gratuitous services contributing to the charitable support. We know better than that; the appointments are invaluable to most of them, and many of them would be ready to pay premiums for the posts. It would have been a self-denying ordinance for such gentlemen to have taken any prominent action in relation to this aspect of the reform of medical charities. Did the British Medical Association or any medical association ever take action in the way of compelling hospital staffs to accept adequate remuneration for their services? It would be absurd to expect hospital physicians, surgeons, and specialists to stop the abuse of which the profession complains, because the greater the crowds and the better the class of patients, the more are they appreciated and advertised. While they receive no remuneration for the hospital treatment of these people, and may be preventing their fellow-practitioners outside getting payment, the hospital doctors have in the clinical material, outdoor and indoor, the means of keeping themselves before the public, and at the same time keeping up their fees at the high-water mark of consultants and specialists.

The solution of the problem of the medical treatment of the poor under the Poor Law Act is mere child's play compared with the much greater question of a medical service for people above the verge of pauperism. The British Medical Association propose provident institutions. Who will join them so long as the doors of medical charities are open? Force is suggested in the leading article if argument fails with the lay boards of medical charities. The public have also to be reckoned with. They have been getting medical assistance from our large institutions, and believe they are paying for it. By transferring the incidence of that payment to the rates there is nothing to hinder them getting the benefits of a continuance of a public medical service.

Allow me to conclude this rather long letter by stating that I think the necessary treatment of defective school children is one of the several factors now operating to bring about a State medical service in this country.—I am, etc.,

Glasgow, W., May 9th. JAMES ERSKINE.

HOSPITAL CRITICISM AND HOSPITAL LETTERS.

SIR,—In an annotation headed "Hospital Letters" in your issue of April 30th, the writer appears to have allowed his feelings of prejudice against an individual to obscure his outlook upon hospital affairs and modern hospital efficiency. The annotation is merely a veiled attack upon the author of the King's Hospital Fund, who for forty-two years has devoted much of his time to the cause and maintenance of the voluntary hospital system. Seeing that the writer, with the exception of a few small points, is wholly occupied with his attack upon the man referred to and his methods and mode of work for the hospitals, I have thought it worth while to show that the writer, whatever may be thought of his main theme, has done himself less than justice if he claims to speak of hospitals and their management with knowledge.

The whole pother appears to have arisen because the author of the King's Fund recognizes the immense advantages which have accrued to the Metropolitan Hospitals by the work and inspections of this Fund. In consequence he has endeavoured by a personal inspection of the principal hospitals and Poor Law infirmaries in the United Kingdom to enable the managers of these institutions, as the result of these inspections embodied in frankly outspoken reports, to know exactly where they stand, where improvements can be introduced, and so to attain the same high standard of hospital efficiency. It was, perhaps, a bold step to take for one man to make these inspections, to embody their results in critical reports, and to publish them, as they will be published, in a volume which will record the condition of these voluntary and other hospitals in 1910. These inspections have, at any rate, been welcomed by some of the best and ablest minds in the hospital world, and they have been attended already by material results of real importance to the institutions concerned. I believe the Blue Book containing them, which will record the actual changes resulting, with plans of many institutions, cannot fail to prove useful as supplementing the reports of Holmes and Bristow made in 1864–7. No one is more conscious than I am of the imperfections and faults of the man who has ventured to make these inspections, in the hope, which has been realized, that they would prove welcome and helpful to many zealous workers connected with the voluntary hospitals throughout the United Kingdom. But the majority of hospital managers, at any rate, do not take the somewhat bilious view which your contributor has expressed, and he appears to be out of sympathy with the spirit which animates the overwhelming majority of hospital workers, who believe, as I believe, in the doctrine of personal service in the days of health in the cause of the sick.

The only point which justifies the heading "hospital letters" to the paragraph referred to, is a reference to a suggestion made in the report on the South Devon and East Cornwall Hospital, Plymouth, which was published so long ago as November last, in which a revision of the scale of governor's privileges, as represented by tickets at this hospital, is recommended. Your correspondent has failed to grasp the bearing of the recommendations made, which is in the main the exact opposite of what he states it to be. They were not that subscribers should be offered an exact return for sums they contribute, but that it was neither business nor philanthropy to give a cash subscriber of two guineas at Plymouth seven pounds of actual hospital benefits. In the reports referred to the writer has frequently expressed a strong opinion in favour of the abolition of tickets, and has pointed out that he has never found the residents in an English county who have not supported the hospital committees which have revised the scale of privileges as suggested, and placed them upon a more businesslike and fairer basis. It was further stated that each voluntary hospital which trains nurses should maintain a private nursing staff, so that the hospital authorities would be in a position to supply a trained nurse whose character and efficiency they can guarantee at the request of any subscriber; that the South Devon Hospital at Plymouth has upwards of £100,000 invested funds; that five years' expenditure—that is, a sum of £50,000—invested is an ample reserve fund for the security of this voluntary hospital, which, to maintain the maximum of efficiency, should be largely dependent upon the goodwill and contributions of the people of each generation it may serve. In these circumstances the Governors would be justified in following the example of some of the ablest administered voluntary

hospitals in the kingdom by expending some £20,000 of the invested funds in reconstructions and improvements, so as to bring the South Devon and East Cornwall Hospital up to the standard of average efficiency which the King's Fund has brought about largely in London. If my information is correct, this view is shared by the progressive members of the committee of this hospital, and I am hopeful that my suggestions will yet be followed, for its medical staff includes some very able members of the medical profession.

It is remarkable that your correspondent should not call in question the suggestions contained in the report, and I may point out that that report and correspondence stands, and will stand, as faithfully representing the actual condition of affairs at the South Devon Hospital at the date when the inspection was made. *Truth*, in welcoming the independent inspections I have been making, urged me to state frankly the condition of each hospital as I have found it to be. This I have done everywhere, and I welcome the present opportunity to express my indebtedness to the authorities of the hospitals, who have readily afforded me every possible facility to carry out these inspections without fear or favour.—I am, etc.,

Madrid, May 7th. HENRY C. BURDETT.

*** We trust that the publication of this communication will not be taken as fresh evidence of prejudice or as another veiled attack on "the author of the King's Fund." We are glad of the assurance that Sir Henry Burdett disapproves the issue of hospital letters. The fact that both locally and by ourselves he was interpreted to be an emphatic advocate of an extension of that system was the sole reason for alluding to the voluminous correspondence in question. The latter was made amusing by the difficulty experienced by Sir Henry Burdett's opponents in defending their institution without incurring a charge of *lèse majesté*. In respect of purely local examination, we cannot judge as to the soundness of his advice to this or other institutions, but we are sure that the probability of its acceptance is lessened by the dogmatic tone in which it is delivered. For the rest, personal service in one form or another is the note of the day, and this, we gladly admit, Sir Henry Burdett is ever ready to furnish.

GASTROPTOSIS.

SIR,—Two very suggestive papers read at the Medical Society of London by Mr. Eve and Dr. Robert Hutchison, and published in the current number of the JOURNAL, appear to demand some comment, for it is gradually being recognized that mere displacement of the stomach, without other gastric disease, is an exceeding common condition, though such stomach displacement is usually associated with ptosis of some of the other viscera of the abdomen as well as those of the thoracic, cervical, and buccal regions.

That the complications and sequelae associated with displacement of the stomach may sometimes require, and be relieved by, gastropexy (especially in hospital patients of the working class) appears certain from Mr. Eve's results. It can be but seldom, however, that fixation of the *stomach only* can dispel the symptom-complex arising from the associated ptoses.

I thoroughly agree with Dr. Hutchison's views as to the duplex relationship between neurasthenia and gastroptosis, but I most emphatically join issue with him on the point that the replacement of the stomach is "a matter of secondary importance." My view is that the restoration to their normal position not only of the stomach but of all the viscera and, what is more, the vertebral column, thoracic cage, and balance of the head on the spine, are of *primary* importance—that is, if the practitioner desires to *cure* the simple gastroptosis, and the causal or consequential neurasthenia, as well as to *prevent* the supervention of the grave complications and sequelae which Mr. Eve and Dr. Hutchison have described in their papers.

It has been well said "treatment is causation reversed," and, without doubt, in gastroptosis causation is the key of the situation. What is the *cause* of ptosis of the viscera?

Professor Arthur Keith, in his classical Hunterian Lectures of 1903, has expressed the view that "enteroptosis is the result of a vitiated method of respiration, and should be assigned really to the respiratory diseases." My own opinion, nevertheless, is that enteroptosis is not *primarily respiratory*; it is *primarily postural*. The subject of enteroptosis has either never acquired the "correct erect posture" or has lost it. I have elsewhere[1] written of the "correct posture" as the "normal orthograde" or "perfect erect" posture, and it is essential to the comprehension of my present argument to repeat myself as briefly as possible.

Posture has a pre-eminent significance for man, who stands and progresses on one end of his longitudinal axis with the centre of gravity of his body poised high over a small base of support. Any movement of his body as a whole, or relative displacement of internal parts, tends to shift the centre of gravity outside the base of support, and the postural mechanism has to be incessantly at work to maintain the "perfect erect" or "normal orthograde" posture. It is clearly to man's advantage to effect this with the least expenditure of power. This he should do by arranging that the weight of the body is borne to the maximum degree by the appropriate mechanical structures of the body—the bony and cartilaginous skeleton and the ligaments. Under these conditions a minimum expenditure of power is needed to maintain that posture or from it to start a new activity, and there is no excessive local muscular contraction or relaxation, leading to unnatural displacement of parts—visceral or skeletal. I therefore define the normal orthograde posture as that position in which the centre of gravity of the head is vertically over the centre of the base of support, and in which these two points are distanced as much as possible from each other, the line of gravity joining these points bisecting the median transverse occipito-condyloid and intercotyloid axes.

This is the ideal posture at which we should aim for every child—the one we should endeavour to get stereotyped by growth in form and structure—and it is the posture to which such child should automatically return, after action or relaxation. A child so trained will have a straight back, raised and expanded thorax, well distanced from the pelvis, and a flat abdomen. It does not follow that the postures permitted by some physical culturists—stiff, rigid, faulty copies of the above—really arrange the weight of the body in accordance with my definition. It is notoriously not so. Further, the "normal orthograde posture" is the one we should teach, train, and urge upon our patients suffering from ptosis. Experience has shown further that the same posture is the one in which the respiratory mechanism has "optimum efficiency," and from which the correction of vicious respiratory habits is best commenced.

Professor Arthur Keith has said enteroptosis is due to the fact that in some individuals, "through circumstances over which they might or might not have any control, the balance got upset between the expiratory and inspiratory groups of muscles, and it was the muscles of expiration that yielded usually." But why? I would reply that unless the spine and thorax were habitually collapsed the expiratory muscles would *not* become enfeebled. When the viscera were thus allowed to sag down, the expiratory muscles were stretched, first by the weight of the viscera, and secondly by the inspiratory descent of the diaphragm. Professor Keith also states that the effect which the diaphragm would have on the abdominal viscera on inspiration depended largely "on the opposition offered by the muscles of the abdominal wall to the descent of the viscera." But that view must be strenuously opposed. It is not probable, for it is not compatible with any conception of economy of working in the human engine, and is in direct opposition to Professor Sherrington's well-established generalization as to the normal reflex inhibition of antagonists in the muscular work of the body. To assume that, in ordinary breathing, the abdominal muscles are pulling hard at the same time that the diaphragm descends is not conceivable—or at least only for some temporary abdominal expulsive effort. My own view is that the abdominal walls are made taut by the inspiratory straightening of the spine, raising of the chest, and expansion of the thoracic base. The belly walls act *chiefly* as ligaments during the in-breath. In my opinion there should be, in normal breathing, no descent

[1] A New Cardinal Principle in the Treatment of Disease and its Application in Disorders of the Nose, Throat, Voice, and Speech. *Med. Press and Circular*, February 9th, 1910.

of the diaphragm at all, and this statement is made in spite of the fact that, in the ordinary, average modern human, such descent usually takes place. The correct—that is, most efficient—mechanical action of the diaphragm is the centrifugal or expansile one, as was apparently suggested by Galen and worked out thoroughly by Duchenne.[2] If there is a straight spine, raised and expanded thorax, and a centrifugal action of the diaphragm, all the viscera are held in position; and that principle I apply to my cases that, among other troubles, have ptosis of the viscera. Such measures might be included under the term "physical education," but the special selection of procedures which I have selected and adopted I have named "psychico-postural-respiratory training."[3] Such training of the patient requires considerable perseverance and patience, but it is successful, of wide application, and permanent.

Professor Keith thinks[4]—be the type of breathing abdominal or thoracic—there may still be gastroptosis, for, "although the visceral swing is greatest in the abdominal type, the pressure to which the abdominal viscera are subjected is greatest in the thoracic type." But in my opinion that is not so; for if the spine be fully extended and the thorax raised—positions of optimum efficiency—the diaphragm necessarily acts centrifugally. There is *no* increase of intra-abdominal pressure on the in-breath. The spine and thorax, in fact, act as a powerful elastic spring crane, keeping all the viscera retained in proper position, while the base of the thorax is being expanded by the diaphragm. Thoracic suction comes into play, and aspirates the blood from the portal area. When expiration occurs the abdominal muscles contract, acting as a force-pump. *Now*, increased intra-abdominal pressure is produced, and further emptying of the abdominal pool by squeezing. Thus, in thoracic respiration there is no tendency to ptosis, or for the viscera to bulge forwards and stretch the abdominal walls by their weight, or for the active diaphragm to drive the viscera down. Attention to these matters of posture and breathing will cure permanently uncomplicated ptosis of the viscera. If the diaphragm works centrifugally, it has not to expend power on dragging down the thoracic viscera at each in-breath, and exerting traction on those strong fasciae which connect the pericardium and roots of the lungs with the inlet of the thorax and the cervical spine, and it has not to waste power in translating the abdominal viscera. One of the great factors in curing neurasthenia is to so use the human machine as to get from it "optimum efficiency," and not to waste power on unnecessary internal work. Gastroptosis is, with the rare exception of a "dislocated" stomach, only part of a general ptosis of the viscera. It is especially common in those who suffer from affections of the upper air passages.

In view of the concentration of the medical thought of to-day on the possible relations between the inflammatory, ulcerative, and innocent lesions of the stomach and other viscera, on the one hand, and malignant degeneration in the same organs, on the other hand, the *possibility* of malposition and displacement of the viscera being intimately associated with the two groups of phenomena must be a matter of interest.

Meanwhile, I would urge, in conclusion, that the most efficient treatment for uncomplicated ptosis of the viscera is the physical education of the spine, thorax, abdominal wall, and diaphragm to regain and maintain optimum efficiency of the postural and respiratory mechanisms by some such measures as I have elsewhere described, and named psychico-postural-respiratory training.—I am, etc.,

ROBT. HY. SCANES-SPICER, B.Sc., M.D.Lond.

London, W., May 9th.

TREATMENT OF WOUNDS IN ROAD OR GARDEN OR FIELD ACCIDENTS.

SIR,—During the last week the army and the profession have lost a valuable member by death from tetanus. It may not be inopportune if I refer to the treatment I adopt in every case of accident where a wound has come into recent contact with dirt from a road, garden, or field. It receives at once an injection of tetanus antitoxin. Lately a little boy was admitted under my care into King's College Hospital. A quarter of an hour previously he had met with a street accident; the wound, on the thigh, contained dirt from the road. The wound was purified and tetanus antitoxin was administered. About fourteen days after, Dr. d'Este Emery examined the discharge from the wound and found what appeared to be tetanus bacilli in large numbers. Happily the little boy was protected, and he recovered completely without a sign of tetanus. Perhaps, Sir, many will agree with me that this safe prophylactic measure ought to be more generally employed.—I am, etc.,

G. LENTHAL CHEATLE.

London, May 10th.

CANCER OF THE RECTUM.

SIR,—The correspondence which has appeared in the columns of the BRITISH MEDICAL JOURNAL of May 7th and the preceding two weeks on the surgical treatment of cancer of the rectum is full of interest, and every surgeon will welcome an exposition of the personal experience of those who are especially interested in this particular branch of surgery.

At the same time I cannot help thinking that the discussion is ill-timed and somewhat premature, because, up to the present, sufficient time has not elapsed to enable those who have adopted the abdomino-perineal route for extirpation of the cancerous rectum to collect a sufficient number of cases which have survived the operation for a period of at least three years, and thus to establish the merits of that procedure in reference to the problem of recurrence and to draw a comparison with perineal extirpation in that respect, which, after all, is the main point at issue.

In the *Lancet* of December 12th, 1908, I published an article entitled, A Method of Performing Abdomino-perineal Excision for Cancer of the Rectum and of the Terminal Portion of the Pelvic Colon, and mentioned therein that I had performed that operation twelve times. I also stated that I had abandoned perineal operations because I had found that those methods were inadequate for the purpose of preventing recurrence. At the same time I pointed out that, so far as my experience was concerned, recurrence after perineal operations occurred in situations above the field of operation, in a region which I termed the "upward zone of spread."

The method of performing the abdomino-perineal operation which I then described was devised by me for the purpose of including this zone, in the hope that the percentage of recurrences might, at all events, be diminished.

This operation, which is in fact the final result of the evolution of the operation for cancer of the rectum in my own practice, I have now performed twenty-four times, and the first three patients upon whom it was done have now passed the three-year limit.

My observations upon the recurrence of cancer following perineal operations in my own practice, and my reasons for advocating my method of performing the abdomino-perineal operation, are embodied in a paper, the title of which I submitted a few weeks ago to Mr. Douglas Drew (as one of the secretaries of the Surgical Section), to be read at the forthcoming meeting of the British Medical Association in July next, until which time I shall defer expressing the opinion I have formed on the relative merits of the operation.—I am, etc.,

W. ERNEST MILES.

London, W., May 9th.

DUCTLESS GLANDS.

SIR,—The most interesting paper of Mr. Mayo Robson on "The Surgical Treatment of Certain Cases of Glycosuria" clearly demonstrates the important part played by the islets of Langerhans in the production of glycosuria; and there are certain developmental and physiological points which these islets suggest of great interest and of great importance in the question of internal secretions. It seems to me that in the past we have been apt to treat ductless glands as functionless and uninteresting organs and the useless reminders of our ancient ancestry. The islets of Langerhans represent developmentally the more primitive part of the pancreas and it is interesting to note that special cells of the

[2] *Physiologie des mouvements*, 1868.
[3] *Proc. Roy. Soc. Med.*, vol. iii, No. 6. Section of Laryngology, p. 119, Case of Intranasal Disease and Stammering.
[4] Loc. cit.

sympathetic ganglia are found in the islets and in the carotid coccygeal glands of the posterior lobe of the pituitary body and the medullary substance of the adrenal bodies. Therefore all the most active parts of these ductless glands are intimately connected with the sympathetic portion of the nervous system.

There is also an interesting point with regard to the thyroid gland. If one lobe be removed and the nervous supply of the remaining lobe severed, the result is the same as that produced by removing both lobes.

There is also, as one might expect, a very close relationship between the action of the internal secretions of these glands, which have an intimate developmental relationship to the sympathetic nervous system.

The posterior lobe of the pituitary body secretion contains two substances, one producing a rise and the other a fall in blood pressure. Gigantism and acromegaly are also associated with disease of the pituitary body, and therefore there must be a secretion which plays an important part in regulating the normal growth of bone. Probably it is derived from the anterior lobe, which contains colloid material very like that found in the thyroid, and it must be remembered that the anterior lobe is developed from the buccal cavity.

Adrenalin, the internal secretion of the medullary portion of the adrenalin bodies, produces a rise in blood pressure, partly owing to its tonic action upon the heart and partly to stimulation of the vaso-constrictor fibres in the walls of the peripheral vessels. It also inhibits the movements of the stomach and intestines (producing therefore the same results as stimulation of the sympathetic).

Again, if we take the action of the thyroid secretion upon the circulation, intravenous injection of colloid material produces a temporary but marked fall in blood pressure; but if, after removal of the thyroid, when the blood pressure falls very low, we inject the colloid material, the blood pressure rises.

About the functions of the coccygeal and carotid glands we know nothing. Whether the coccygeal gland has any developmental relationship with the uropygeal gland of birds, which is merely a lubricating gland, I know not. The thymus gland secretes a substance which lowers blood pressure.

The close developmental relationship existing between these ductless glands is very interesting; the action of their secretions upon the circulatory organs is also very suggestive, as is also the nutritional changes of the body associated with pathological conditions affecting them.—I am, etc.,

Bedford, April 24th. S. J. Ross.

THE SURGICAL TREATMENT OF GLYCOSURIA.

SIR,—Will you allow me to comment briefly on one point in Mr. Mayo Robson's very instructive paper on the above subject which appeared in your issue of April 23rd? Mr. Robson says: "It is now possible to diagnose the catarrhal inflammatory diseases of the pancreas even in their earliest stages by a careful examination of the urine and faeces and by a consideration of the clinical history and symptoms." And he goes on to refer to "the results that may follow the neglect of a warning given by the pancreatic reaction."

A large experience of this new urinary test in the past three years has convinced me that we have in this test a new and very useful diagnostic measure; at the same time, too little attention has, I think, been directed to the limitations of its usefulness. This is to some extent restricted by the laborious nature of the test and by the undoubted difficulties that present themselves, in not a few cases even to the expert, in regard to the character of the crystals and their relationship to glucosazone. In Mr. Robson's paper frequent reference is made to the report of Dr. Cammidge as to the urine containing sugar and also giving the pancreatic reaction. There is here, to my mind, a difficulty. After an experience of considerably over a thousand analyses, the end reaction in nearly every instance being determined by myself, the series including very many cases of glycosuria, in which the urine was examined before and after complete fermentation, I have been led to the conclusion that *the pancreatic reaction has no special value in cases of glycosuria.* In every case of glycosuria in my experience the pancreatic reaction is positive—that is to say, crystals are present which are not distinguishable from those obtained from sugar-free urines, which give a marked positive reaction. This experience is, I think, at variance with that of Dr. Cammidge, and it is desirable that the correct view should be determined. I may say that the experts engaged in urinary analysis in the Royal College of Physicians laboratory in Edinburgh have arrived at the same conclusion as I have.

In view of Mr. Mayo Robson's recent pronouncement on the subject, it appears to me advisable to sound a note, not of protest, but of caution, lest, as a result of operative treatment carried out by less experienced hands, the surgical treatment of certain cases of glycosuria should fall into a disrepute which may be unmerited. My experience has led me to adopt the following views as a guide in practice:

1. There is a group of cases of organic disease of the pancreas in which a marked pancreatic reaction in the urine is a prominent feature, in which the reaction in the urine does not readily disappear under the influence of diet.

2. There is a large group of cases of disease, variously regarded as indigestion, gout, neurasthenia, and the like, in which a marked pancreatic reaction in the urine is present, in which the reaction in the urine readily disappears, with corresponding improvement in the patient's general condition, coincidently with a suitable restriction in saccharine and starchy foods.

3. There is a third group of cases in which the urine contains sugar, and also gives the pancreatic reaction; for reasons above stated the pancreatic reaction has no special value in these cases.

4. Great care is called for on the part of the physician in recommending cases of glycosuria for operative treatment on the strength largely of information gained by urinary analysis.—I am, etc.,

Edinburgh, April 30th. CHALMERS WATSON.

THE INFECTIVITY OF PNEUMONIA.

SIR,—There is a point in Sir Thomas Oliver's instructive lecture on some of the less common aspects of pneumonia to which I should like to refer.

My experience as workhouse medical officer has left no doubt in my mind as to the infectivity of pneumonia. In a Poor Law infirmary where a large percentage of the patients are aged, and suffering from chronic disease, such as rheumatoid arthritis, the various forms of paralysis, or perhaps ulcers of the legs, I have observed on several occasions that as soon as a case of lobar pneumonia is admitted from outside three or four of these predisposed old people will be attacked by the disease. The period of incubation is short. I should put it at three or four days. Generally on the third day after the new admission some old woman loses her appetite, her cheeks get flushed, her respirations hurried; or an old man gets quite delirious and violent. An examination of the chest reveals typical lobar pneumonia. These cases are not as fatal "as the worst type of cholera." As a rule they run a mild course. I regard them just as I do a case of erysipelas coming into the wards—sharp and troublesome for the time, but almost invariably ending well.

It would be of great interest to me to know whether other workhouse medical officers have had similar experience.—I am, etc.,

Exeter, May 3rd. J. A. W. PEREIRA.

THE VALUE OF STRYCHNINE IN SHOCK.

SIR,—In the course of a clinical lecture entitled, How to operate in appendicitis, and reported in the BRITISH MEDICAL JOURNAL of March 12th, Mr. R. P. Rowlands is reported to have said: "In the treatment of the shock strychnine is avoided, because clinical experience confirms the statement of Crile that strychnine is the surest method of producing shock." From this statement I infer that strychnine is to be avoided, in the opinion of Mr. Rowlands, not only after abdominal operations, but in all cases of shock arising from any cause whatever. Now, strychnine is used probably more frequently than any other drug, and most practitioners, I should think, carry some about with them, and use it freely and with confidence in respiratory and cardiac failure *and shock* produced by operative interference or otherwise.

In 1898 Messrs. Rose and Carless advised strychnine hypodermically for shock. In 1910 Mr. Rowlands and others say it is about the worst thing you can give. Obviously there is an error of observation somewhere. Meanwhile, the profession is reduced to a state of doubt on a very important point indeed—namely, the value of strychnine and other stimulants in cases of shock. Could not a Commission be appointed to attempt to settle a question as important as the rights and wrongs of vivisection or the action of chloroform? Dogmatism, immature and contradictory pronouncements, hamper us at every turn. It is so much easier to echo the cry of some enthusiastic injector of dog, guinea-pig, or frog, than to carefully, patiently observe and interpret clinical phenomena. Nowadays, when a lecture is elaborated in a few hours and a would-be epoch-marking book after a few weeks' sojourn in a reference library, let us remember that Copernicus, Newton, and Darwin were silent for more than twenty years, and that one of them was on his death-bed before his work was published.—I am, etc.,

Bedford, Cape Colony, April 5th. H. F. BELL WALKER.

THE COLLEGE OF SURGEONS' DISSECTIONS AND SURGERY.

SIR,—As a good knowledge of anatomy is essential to good surgery, no stone should be left unturned to place at the disposal of the profession first-rate anatomical preparations. The College of Surgeons possesses what is perhaps the finest collection of dissections in the world, and the benefits to surgery would be almost incalculable if good stereoscopic photographs of them were obtainable. They would be invaluable in anatomical museums, and are a necessity to enterprising practitioners. Moreover, they are known to and held in affectionate esteem by all graduates of the college, and would therefore be almost certain to sell well. It certainly does seem a pity that no one should benefit from them save those who live in London, and of these only the few who have the time to visit the museum.—I am, etc.,

London, S.W., May 3rd. CHAS. WRAY, F.R.C.S.Eng.

SCARLET FEVER.

SIR,—There can, I think, be little doubt that the large accumulation of vague knowledge on the subject of infectious disease generally, and especially of scarlet fever, is rapidly beginning to focus itself in a way which clears up much of the obscurity that has hitherto prevailed as to both the theory and the treatment of this class of diseases.

The recent publication by Dr. Milne of his epoch-making *Plea for the Home Treatment and Prevention of Scarlet Fever*[1] is one of the most important contributions that has been made to this desirable end. I have myself, no doubt in common with many other medical officers of health, hitherto hesitated to accept Dr. Milne's statements as to the results he has achieved by the methods of inunction and throat swabbing on which he relies, partly because I was not satisfied with the evidence on which they were founded, but mainly because they were in direct opposition to the view that has gradually come to be accepted as to the relatively small importance of the skin as a source of infection in scarlet fever. But in view of the very strong evidence which Dr. Milne now produces in the book referred to, not only as to his own experience of this treatment but of the opinions of medical officers of health and others who have had personal opportunity of observing its results at Ilford, I feel that scepticism is no longer justified, and that, whatever may be the theory of the inunction treatment, its efficacy is beyond question. I do not, of course, overlook the fact that swabbing of the throat with a 10 per cent. solution of carbolic oil is quite as much an indispensable element of Dr. Milne's treatment as the inunction with eucalyptus oil. But until some one can demonstrate as good results from the former method alone as Dr. Milne claims to have obtained from the combination of both, it must be admitted that the inunction method holds the field.

Its acceptance as a *vera causa* will be much facilitated if the difficulty about its assumed action in preventing the diffusion of infection by desquamation alone can be got over. And I think it can. Assuming, as we must, that the application of eucalyptus oil to the skin has a direct influence on the potency of the infection of the disease generally, and believing, as I myself do, that such effect is not due in any important degree to the mere mechanical influence of the oil in preventing the diffusion of the exfoliated particles of epidermis, except, possibly, for a very short period, before their infectivity is destroyed by light and air, and that we must still consider the discharges from the throat, nose, and ear as the main sources of infection, we must, whilst adhering to this opinion, also assume that it is in the highest degree probable that the active principle of eucalyptus oil itself, whatever it may be, is capable of absorption by the skin, and especially by the newly-formed layer of epithelium that is uncovered by the exfoliation of the old epidermis, and that in the modifying influence of this principle on the special infection of the disease in the tissues and blood of the patient is to be found the explanation of the benefits derived from Dr. Milne's practice of inunction.

On this point it is well to remember that, as is admitted, the method of inunction by eucalyptus oil, or by a fairly equivalent preparation (oleusaban), was strongly advocated by Mr. Curgenven many years before Dr. Milne adopted it. The force of this fact is the greater because Mr. Curgenven, I believe, relied solely on inunction with oleusaban, and did not, as Dr. Milne does, complicate the problem by the conjoined swabbing of the throat with carbolic oil. So that, putting these two experiences together, we seem to be driven to the conclusion that it is to the absorption of the active principle of eucalyptus oil, in several ways, as much as and possibly more than to the swabbing of the throat with carbolic oil, that the good results of Dr. Milne's treatment are due. Here we are much assisted in arriving at a conclusion by the illuminating views contained in the article by Dr. Edwards on "An Immunizing Subinfection in Scarlatina" in the JOURNAL of April 30th, p. 1048. There can be no question, I think, in the mind of any one who has had extensive opportunities of noting the infecting vagaries especially of scarlatina and diphtheria, that we have in these two correlated forms of infection to deal with pathological agencies which are not only capable of indefinite modification, in the way both of casual attenuation and energization, but that in their attenuated modifications they are capable of producing results on susceptible persons which develop corresponding degrees of immunity. These facts are so common that they may be said to have passed into the dominion of platitudes.

If this be so, it is easy to see that in the combinations of the practice advocated by Dr. Milne and of the theory as expounded by Dr. Edwards is to be found the key to the effective treatment of scarlet fever and to its practical suppression as a menace to the public health.

I think it necessary to add, in conclusion, that I am myself so strongly impressed with the importance of this matter that I propose at once to give Dr. Milne's treatment a fair trial, feeling that I am not justified in any longer refraining from doing so.—I am, etc.,

Gloucester, April 30th. FRANCIS T. BOND, M.D.Lond.

THE ROYAL COLLEGE OF SURGEONS AND DENTISTS.

SIR,—I think in the interests of British qualified dentists, especially those practising abroad, that the Royal College of Surgeons might be pleased to change the designation of their title from Licentiate to Master of Dental Surgery, or were it possible to even style them Fellows of the Royal College of Dental Surgeons. The opposition in dentistry is very strong, and American dentists hold the title of doctors of dental surgery. This gives them an apparent superiority over the Britisher, whose L.D.S. is considered by the public to be a lower qualification, and no doubt places them at a disadvantage. In British India, where no Dental Registration Act exists, the American dentists appear to have the monopoly of the practice, and the reasons are obvious—they are either better skilled, or their professional designation makes a more distinct impression. Of course, in America there are only Doctors or Masters in all faculties. I am not a dentist but am merely relating facts.—I am, etc.,

ALF. MCCABE-DALLAS, L.R.C.P.I., L.M.Dubl.
D.T.M.Liverpool.

Calcutta, April 21st.

[1] See also BRITISH MEDICAL JOURNAL, 1908, vol. ii, p. 1333.

FAECAL VOMITING DURING ANAESTHESIA.

SIR,—In his interesting paper Dr. Dudley Buxton makes some original suggestions for the management of such cases. The performance of laryngotomy or tracheotomy, with the passage of a stomach tube and plugging of the pharynx is admirable from the point of view of thoroughness. It would completely obviate any risk from regurgitation from the stomach, but it would certainly increase the shock, cause some disturbance, and delay the ultimate operation. Can we not achieve the same result by less drastic methods?

For many years I have used and recommended a much more simple and obvious procedure, which so far has given most satisfactory results. It consists in passing a stomach tube and lavage of the stomach as recommended by Dr. Buxton, but the tube is kept in the stomach throughout the whole operation. The result is that the stomach is emptied before the operation is begun and kept empty until the patient regains consciousness. This method is simple, easily and quickly put into execution, entails no shock, and is sufficiently efficacious. The presence of the tube in the gullet in no way seriously interferes with respiration and does not hamper the anaesthetist or operator.

Should it be considered necessary to shut off the larynx completely, this too could now be done, without recourse to a laryngotomy, by Kuhn's "per oral intubation tube." For this suggestion I am indebted to Dr. Falkner Hill, who, with his colleague Dr. Ed. Moir, has used the apparatus in Dr. Milligan's clinic with success during the past year. The apparatus consists of a long-jointed flexible metal tube with a cannula at one end and attached to the other a funnel covered with flannel, similar to that supplied with Trendelenburg's cannula. The patient is anaesthetized and the cannula passed into the larynx and the pharynx plugged, the tube is allowed to hang out at one angle of the mouth, and the anaesthesia is kept up by dropping chloroform on the flannel stretched over the funnel, as in the Trendelenburg's apparatus.

Apart from the initial difficulty of getting the cannula into the larynx, this apparatus gives excellent results in operations on the jaw and naso-pharynx, and could equally be applied in cases of faecal regurgitation. Up to the present time, however, I have found the mere retention of a tube in the stomach quite sufficient.

In Mr. Milward's case, referred to by Dr. Buxton, it is to be noted that notwithstanding the quantity of fluid regurgitated, there was no appreciable amount found in the air passages. It is stated "the trachea contained some dark greenish mucoid material resembling vomit, but not sufficient to have caused asphyxia." Considered in conjunction with some cases I have seen and others that are reported, this confirms me in the belief that in many such instances death is not actually due to suffocation from vomited matter sucked into the lungs. It is most probably due to the disease, to failure of the circulation, etc., and the sudden profuse gush of vomit is part of the final act of dissolution, and as such occurs in many diseases quite apart from the action of anaesthetics.—I am, etc.,

Manchester, May 3rd. ALEXR. WILSON.

CHILD EMIGRATION.

SIR,—I have read Dr. Dunlop's letter in the JOURNAL of April 23rd advocating child emigration as a solution of the problem of "dependent children," and suggesting that some scheme of child emigration should be included in our Poor Law system.

Does he mean that power should be given to the Poor Law authorities to take children away from such parents as "cannot afford to, or will not maintain them properly," and send them to the colonies, even without the consent of the parents? Such a power could not be exerted except in cases in which the grossest cruelty or neglect could be proved. Who is to decide upon the amount of unworthiness on the part of the parents that would justify such a measure?

In the case of orphans and other children thrown entirely upon the hands of the Poor Law authorities, Dr. Dunlop's suggestion has much to recommend it. It appears to be generally agreed that child emigration is a sound expedient if properly supervised. But we have at present no real systematization of any such work.

Two plans have so far been adopted, and those on a quite inadequate scale. One is the "boarding out" of destitute children with colonial families, sometimes as adopted children, sometimes, without any pretence of charity on the part of the hosts, for payment. The other method is the training of such children at home, preparatory to sending them to the colonies in early youth.

In the former case there is an obvious risk of the children being exploited for the advantage of those who take charge of them in the colonies. Haphazard foster parentage is bound to have such drawbacks. In the latter case the youth is sent to a new life in a new country lacking the essential training of a young emigrant, and therefore in a much less advantageous position than he would have occupied at his age had he been sent to the colony as a child, and educated and practically trained on the spot.

A solution of these difficulties possibly lies in the farm-school method, which is the policy, I believe, of the Society for the Furtherance of Child Emigration, founded last year at Oxford by colonials. The society proposes to take waif children to the colonies at the age of 8 to 10, and to give them a complete general and agricultural education on the society's farms in the colonies.

At the Emigration Conference, initiated by the Royal Colonial Institute, to be held on May 30th and 31st, this question is, I believe, to be discussed.—I am, etc.,

London, W., May 2nd. GEORGE JOHNSTON.

The Services.

ROYAL NAVY MEDICAL SERVICE.

DISTRIBUTION OF PRIZES.

THE course of instruction of the newly entered surgeons at Haslar was brought to a close on April 7th by the distribution of the prizes by Inspector-General James Porter, C.B., M.D., Director-General of the Medical Department of the Navy.

The gold medal was gained by Surgeon R. J. G. Parnell, of King's College Hospital. The silver medal was awarded to Surgeon J. H. B. Martin, M.B., B.A., of Cambridge University and London Hospital. The two above-named officers took the first and second places respectively in the combined London and Haslar examinations. Three Navy Regulation Pocket Cases—prizes for subjects in which instruction is given at Haslar—were awarded to Surgeons R. J. G. Parnell, J. H. B. Martin, M.B., B.A., and T. C. Patterson, M.B.

The following list shows the places gained by the combined marks of the London and Haslar examinations:

	Marks.
1. Surgeon R. J. G. Parnell	5,037
2. Surgeon J. H. B. Martin, M.B., B.A.	4,690
3. Surgeon F. L. Smith	4,620
4. Surgeon C. D. Bell, M.B.	4,585
5. Surgeon T. C. Patterson, M.B.	4,552
6. Surgeon M. H. Langford	4,526
7. Surgeon A. Fairley, M.B.	4,489
8. Surgeon F. C. Searle	4,434
9. Surgeon A. G. V. French	4,374
10. Surgeon W. E. Lloyd	4,322
11. Surgeon J. P. Barry	4,201
12. Surgeon C. G. Sprague	4,044
13. Surgeon A. C. Rusack, M.B.	3,980

ROYAL ARMY MEDICAL CORPS (TERRITORIAL).

MILITARY HYGIENE.

A. N. M.—We are informed that Lieutenant-Colonel Caldwell's work on *Military Hygiene* (10s. 6d.) is a very good book to read for the examination in epidemiology. Nothing is laid down as to the scope of the examination beyond "Epidemiology and Management of Epidemics." The questions in sanitation and epidemiology at the examination held last December are being published in the *Report of the Examination held in December, 1909, of Officers of the Regular Forces, Canadian Permanent Forces, etc.*, and will shortly be on sale. Officers can obtain copies at a reduced price by making application through the usual channels on Army Form L 1372.

THE Territorial Decoration has been conferred upon Major Hugh Jones Roberts, of the 6th (Carnarvonshire and Anglesey) Battalion Royal Welsh Fusiliers.

VOLUNTEER OFFICERS' DECORATION

THE Volunteer Officers' Decoration has been conferred upon Surgeon-Major E. A. C. Hindmarsh, Behar Light Horse, Indian Volunteer Corps.

Medico-Legal.

SCHOOL ATTENDANCE AND MEDICAL CERTIFICATES.

BEFORE the West Penwith magistrates at Penzance on Wednesday Charles Ladner of Pendeen was summoned for not sending his child to school. It had been previously proved that the child had not attended school since September, 1908, and the case was adjourned that defendant should have an opportunity of producing a medical certificate.

Mr. J. Vician Thomas, for the defendant, said this was a test case. The Education Authority asked people to provide a medical certificate. The defendant was a club patient, and there was no duty on the part of the doctor to supply certificates free of expense. The doctors offered to supply those certificates if the Education Authority were prepared to pay a reasonable fee in the same way as they did, Dr. Nesbitt informed him, in other counties. Cornwall seemed to be an exception in that respect. The authority would not pay, and the consequence was that the doctor would not give a certificate. He would call the doctor, and ask for a dismissal of the case and a decision that the authority should pay a small fee to the medical man.

Dr. Nesbitt said the defendant's child was unfit to attend school, as it was suffering from a disease which would make it a nuisance to the school and scholars.

Mr. E. C. Harvey, Clerk to the Penzance District Education Committee, contended that there was no need to have brought Dr. Nesbitt there, as the defendant should have taken the ordinary course of furnishing a medical certificate. It was the duty of the Education Committee to pay a medical man to prove for parents that their children were not fit to attend school.

The case was dismissed, but the Bench did not allow any fee for the medical witness.

ACTION FOR RECOVERY OF FEES.

IN Liskeard County Court, on Monday, before his Honour Judge Granger, K.C., Messrs. Hingston, Carter, and Pearse, surgeons, Liskeard, claimed £14 13s. 4d. from Hans Scharien, poultry farmer, of Rosewarne, Mayfield, Sussex, balance of charges for professional attendance on, and medicine supplied to, Mi Isabel Scharien, daughter of the defendant. Mr. A. W. Venning for the plaintiffs; Mr. J. H. Elliott for the defendant.

Mr. Venning stated that in April, 1908, the defendant's daughter went to stay as a boarder at the house of Mrs. Lord, of Trevaria, Morvah, some six miles from Liskeard. Miss Scharien remained with Mrs. Lord until November, 1909, and the defendant paid for her board and lodgings, the receipts being sent to the defendant. The daughter became very ill, and Mrs. Lord wrote to Hans Scharien, and asked if a doctor should be engaged. The defendant wrote to Mrs. Lord that she should call in the doctor she usually engaged or get another for his daughter. This was done, as it was thought the daughter would die. In November, 1909, the defendant took his daughter home. When the plaintiffs sent in their bill Scharien replied that he was not liable.

Mrs. Lord having given evidence, she was asked by Mr. Elliott: Do you know that Miss Scharien was an inveterate drug taker?—No; I never heard so; her father never said so. What he said was he would pay for the doctor if he was required. Miss Scharien was quite capable of taking care of herself.

Dr. William H. St. Ledger Carter said he never saw any signs that she was an inveterate morphine taker.

Dr. R. Hingston also gave evidence.

The defendant denied that he ever sent a letter to Mrs. Lord that she should employ a doctor. His daughter was 35 years of age, and all he paid for was board and lodgings. What he said was, if it was a case for the hospital she should be placed there. Whilst his daughter was in Cornwall he sent her money for board and lodgings once a fortnight. His daughter was an inveterate drug taker for twenty years. In reply to Mr. Venning the defendant said he had maintained his daughter all her life. There were other doctors' bills for her which he had refused to pay.

His Honour said there was sufficient evidence that the defendant authorized Mrs. Lord to get the doctor. It was a case which ought to be taken notice of in Cornwall. A large number of invalids were sent there, and arrangements made for board and lodgings. Care ought to be taken that those people who sent invalids down should also give an authority as to who was responsible for medical attendance. There was a liability upon the defendant in this case, and there would be judgement for the plaintiffs with costs.

AN ACTION FOR LIBEL.

ON May 6th Mr. Justice Darling, sitting with a jury, heard the case of Hooper *v.* W. Piles, Limited. The plaintiff was a medical man practising at Sutton, and the defendants were the proprietors of the *Sutton Herald*. The action was for a libel alleged to have been published in the defendants' paper on July 10th, 1909.

Mr. McCardie appeared for the plaintiff; Mr. Duke, K.C., aad Mr. W. W. Mackenzie for the defendants.

It appeared that the plaintiff was the Chairman of the Sutton Urban District Council, and was on its sanitary committee. In March, 1909, a child who had been suffering from scarlet fever was discharged from the Cuddington Isolation Hospital, which was in the charge of the council. The child, who was also suffering from phthisis, unfortunately died, and subsequently scarlet fever and septic tonsillitis broke out in her house. Subsequently, at the instance of the plaintiff, the council sent the papers relating to the matter to the Local Government Board. On July 10th the defendants published a letter in which a correspondent mentioned the plaintiff by name, and, while blaming the council as a whole, cast aspersions upon the plaintiff, and alleged that he said at the council meeting: "It would be a good thing if the sanitary committee would give them a strong assurance that they investigated the matter and had evidence that nothing of the sort would take place in the future, and that the means of isolation were such that it was impossible for any patient to leave the hospital with the germs of disease upon him." The plaintiff was not the councillor who uttered these words. The lady who wrote the letter apologized, but the newspaper refused to do so, alleging that the plaintiff's name had been inserted in the letter by some one in their office and wholly without authority.

After the case had been opened a settlement was arrived at. The defendants by their counsel said that they had no intention of injuring the plaintiff, and that there was no justification for any imputation upon him. They were willing to pay the plaintiff's costs.

A juror was accordingly withdrawn.

WORKMEN'S COMPENSATION.

Objection to Medical Referees.

IN a case (Wigan, May 3rd) it was pointed out that the applicant objected to going before a medical referee. Judge Bradbury, who was invited to express his view on this subject, said his experience taught him that when certain cases came into court there were several medical men on each side, and after hearing the evidence he sent the cases to the medical referee for his decision. The question as to whether a man was fit to resume work could best be decided by a medical man. This particular case had to go to the medical referee, and if the applicant did not agree he would probably have to pay the costs. The medical referee was the proper person to decide the matter, and not a lawyer.

Accident or Pneumonia?

In a case heard at Liverpool it appeared that a workman was engaged in making concrete blocks. While so employed he felt a little splash in his eye. He did not attach any importance to the occurrence, but he subsequently developed pneumonia, for which he was removed to the infirmary. His eye eventually became badly inflamed, and had to be removed. The question was whether the necessity for removing the eye arose owing to the presence of a foreign substance, or whether it was set up by the pneumonia. Two doctors having expressed the view that the inflammation of the eye had been caused by the introduction of a foreign substance, an award was made in favour of the applicant.

Workmen Wearing Waistbelts.

In a case at Sheffield, the applicant alleged that he strained himself while trying to start a gas engine which was out of repair and so caused a rupture. His wages were £1 13s. a week *plus* emoluments attached to the position of caretaker, which he valued at 8s. a week. He claimed half wages from the date of the accident till further notice. In the course of the case Mr. Arthur Connell, a surgeon, said that the workmen who wore these belts pushed the internal organs into the pelvis, and produced a condition which frequently necessitated a surgical operation. Subsequently Mr. Connell explained to a reporter that these men, like women who wore tightly laced corsets, put pressure on the wrong place. If they required support, he added, they should wear a belt like the old time loin cloth, lower down where there were hard bones. His Honour held that there was a tendency from an old standing inclination to rupture in the plaintiff, and that it was hastened to the extent of incapacity by the strain of starting the fly wheel. He gave an award for 19s. weekly from December 10th to February 24th.

Death in Hospital.

In a case at Manchester (May 2nd) it appeared that the husband of the applicant was injured whilst lifting a heavy stone in the pit. He sustained a rupture, bnt did not give notice of the accident because at that time incapacitated. In June, 1909, he hurt himself again by slipping when at work in the colliery. He went to a bowling green that night, and was afterwards seen by a doctor, who diagnosed strangulated hernia. He was sent to the hospital and there he consented to an operation. There was an accident during the operation, the bladder being punctured. This necessitated two further operations, and the man died. An inquest was held, and the verdict returned was that death was due to "peritonitis and cellulitis, due to an accidental puncture of the bladder during an operation for a rupture caused by lifting a heavy stone in the colliery." The widow was held to be entitled to an award.

Light Work.

In a case at Rotherham a pitman who had been injured was offered light work on the surface. This he objected to, apparently on the ground that he did not care for it. In order, apparently, to disabuse his mind on this subject the learned judge awarded him half-wages only for a short period, after which he was to have 1d. a week.

SALE OF SHARE.

VENDOR.—We have carefully considered our correspondent's letter, and do not think that any good is likely to arise by further reference to the matter in the JOURNAL.

Obituary.

FREDERICK CHARLES HITCHINS, F.R.C.S EDIN.

WITH much regret we record the death of Dr. Frederick Charles Hitchins, of Trevarrick, St. Austell, Cornwall. It occurred at his mother's house in the same neighbourhood on Sunday, May 8th, as the issue of a trying illness. Dr. Hitchins, a Guy's student, became M.R.C.S., L.R.C.P. in 1897, and some eight years later was admitted to the Fellowship of the Royal College of Surgeons of Edinburgh. Before settling down in practice on his own behalf in Cornwall he supplemented his school work by holding an unusually large number of residential appointments at hospitals in various parts of England. Among the institutions at which he thus gained clinical experience were the Royal Hants County Hospital at Winchester, Stamford and Rutland General Infirmary; the Children's Hospital, Bradford; the South Devon and East Cornwall Hospital at Plymouth, at all of which he served a term of office as either assistant or senior house-surgeon. The matured man himself and the nature of his career in Cornwall are well described in the following lines from the pen of a personal friend and colleague: "A native of St. Austell, and belonging to a family well known and respected there, Dr. Hitchins commenced practice some years ago in his native town, and the saying, 'A prophet is not without honour,' etc., did not in this instance apply; for, in spite of the friendly opposition of other medical men, he had worked up a good practice and was respected by all, and by none more than his professional *confrères*. Though comparatively a young man, and in general practice, it was especially as an operating surgeon that he was sought after, not only in St. Austell, but in the neighbourhood around. Many medical men owe him many a debt of gratitude for kindly help, both in consultation at operations and as an anaesthetist; he was a particularly good anaesthetist, and always so willing to lend a helping hand. I made his acquaintance a little over three years ago, and the acquaintance then formed ripened into a friendship which, had his life been spared, would never have been broken. For many acts of personal and professional kindness to me and mine my saddened heart is deeply grateful. Cheery and genial in manners, a staunch friend, and absolutely straight in his dealings with all, he will be greatly missed. To his sorrowing widowed mother, his brothers, and sister, all who knew and loved him will offer their heartfelt sympathy, and pray that God will comfort them in their sorrow."

BY the untimely death of HERBERT NELSON CAPPE, M.R.C.S., L.R.C.P., the Surrey County Council has lost a trustworthy officer and all who knew him a sincere friend. He was the only son of Mr. Walter Cappe, who was appointed Clerk and Steward of Brookwood Asylum when it was completed in 1867. Educated for his profession at University College Hospital, he qualified in 1888, and immediately acted as locumtenent at the asylum for three months. For a short time thereafter he went into private practice, but returned to Brookwood as Junior Medical Officer sixteen years ago, being appointed to the Senior position on Dr. Gayton leaving to take charge of the new asylum at Netherne late in 1908. The circumstances of his death were peculiarly sad, as within a short time he had every reason to believe that he would have realized the height of his ambition and have been appointed Medical Superintendent at the place where the greater part of his life had been spent. While conducting a *post mortem* examination he became infected, and after a gallant struggle for a month, and in spite of everything that could be done for him, he died of septicaemia on April 22nd at the age of 44. Always painstaking and conscientious in the performance of his duties, an able physician, and an agreeable colleague, his loss will long be felt by both the staff and patients of the asylum. The *Surrey Advertiser*, in recording his death, says: "Possessing a winning personality, he was immensely popular with both staff and patients, and his death has cast quite a gloom over the whole institution. A fine all-round sportsman, Mr. Cappe was perhaps best known outside the precincts of Brookwood as a cricketer. He was a member of the Surrey Cricket Club; and l captained the asylum team, upon whose ground, one the finest in Surrey, he made many centuries in faultle style, while his fielding was quite up to county form."

DR. JAMES MORRIS, Dunfermline, one of the olde medical practitioners in Scotland, passed away c May 2nd. Born eighty-four years ago, he began h career as a chemist's apprentice in Dunfermline. He the applied himself to the study of medicine, and took th diploma of the Faculty of Physicians and Surgeons Glasgow in 1849. He spent all his professional life i Dunfermline. Of a somewhat blunt manner, he had kindly disposition, which was manifested in the ca which he bestowed upon his patients, even in minor ai ments. The ideal of the family doctor, he took an intere in the father, the mother, and the whole of the family, an many visits which he made to the home were neve charged for. Especially was this so in the case of th poor, to whom he was a warm friend. Dr. Morris hel various public appointments. On the occasion of h jubilee as a doctor, Dr. Morris was, in 1899, the guest the Fifeshire Medical Association and the Corporation Dunfermline, from whom and others he received substar tial tokens of goodwill. He will be much missed by th medical profession in the west of Fife, by whom he wa held in great esteem.

WE regret to record the death at Old Colwyn of D GEORGE HENRY WHITAKER, formerly of Horwich. To mos of the inhabitants of that locality his was a face of almos lifelong familiarity, and the year or two which had elapse since he bade it farewell had not sufficed to diminish th affection and esteem in which he was held. Born i Rawtenstall, Lancashire, Dr. Whitaker received his pro fessional education partly at Glasgow University, partly a University College, London, became L.R.C.P., L.R.C.S Edin., in 1875, and celebrated his release from the school by a voyage to China in charge of one of the steamships o the Oceanic Company. Not long after his return he settle down in Horwich, and he and the village grew, so t speak, together. It was a small hamlet when he firs joined it as a young man of 24, and a township of som 16,000 inhabitants when he left it on the eve of old age. He was in charge of the sanitary affairs i the locality almost from the beginning of his connexio with it, being appointed Medical Officer of Health by the Local Government Board in 1875, and subsequently elected to the same office by the Urban District Council i 1895. He also held appointment under the Poor Law, an was Certifying Surgeon under the Factories Act, and ha charge of the Joint Isolation Hospital. On his retirement from these various offices some fifteen months ago, the Urban District Council presented him with an illuminated address recording its appreciation of his services. At a somewhat earlier date he had been appointed to the commission of the peace for the county, an honour which both the public and his professional brethren regarded as a just recognition of his abilities. In private life Dr. Whitaker was an active Freemason, and as a man of musical taste and ability made an excellent president of the Horwich Orchestral Society. He was, too, a good sailor, and spent most of his holidays on the water. Dr. Whitaker was married and is survived by his wife. His last resting place overlooks Colwyn Bay.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Professor Hermann Lenhartz, Director of the Eppendorf Hospital, Hamburg, aged 56; Dr. Ernst L. V. Oedmansson, sometime Professor o Syphiligraphy in the Medical Faculty of Stockholm; Dr. Van Beneden, Professor of Comparative Anatomy in the University of Liége, member of nearly every learned society of Europe, a holder of honorary degrees from the Universities of Cambridge, Edinburgh, Leipzig, Jena, and Brussels; and Dr. M. Afanassieff, sometime Professor of Anatomy and afterwards Professor of Internal Medicine in the Army Medical Academy of St. Petersburg, and Director of the Grand Duchess Helena Pawlawna Clinical Institute in the same city, author of numerous writings on medicine and pathology, aged 60.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

Medical Degrees.

WE take the following important statement from the *Times* of May 5th:

For nearly two years a committee of the Special Board for Medicine has been considering the regulations for the degrees of Bachelor of Medicine and Doctor of Medicine. The changes and developments made in 1900 were only partially successful, and the Special Board have felt for some time past that further revision of the examination was inevitable, especially as newer subjects have been advancing ever-increasing claims.

In the changes made in 1900 pathology and pharmacology were included in the first part, leaving surgery, midwifery, and medicine for the second part of the final examination. This was so far satisfactory that the student gained a scientific foundation for a study of disease and of treatment; but the second part now became somewhat unwieldy. Moreover, it was thought that there was a tendency on the part of those who had passed the first part of the examination to consider that it was no longer necessary to study pathology or pharmacology, even in connexion with the cases they were studying in hospital; and the result has been that in the later years too little time has been devoted to clinical and practical work and too much to the study of textbooks. Then, again, although candidates were able to obtain credit for any two of the larger sections—surgery, midwifery, or medicine—and at a later date to qualify for a degree by passing the third, many candidates were tempted to force their preparation and to present themselves prematurely for all three sections at once. Under the new regulations pharmacology and general pathology, along with bacteriology, are separated from the final examination and are introduced as a second part of the second examination. This examination will be more of the nature of a test of the results of teaching, and may be taken six months after the first part—anatomy and physiology—has been passed.

The final examination will be divided up as formerly, up to 1900, surgery and midwifery being included in the first part, which may be entered for, should the student wish, at the end of five years' study and two years' hospital practice. The principles and practice of physic (including the diseases of children, mental diseases, and medical jurisprudence), pathology (including hygiene and preventive medicine), and pharmacology (including therapeutics and toxicology) may be taken as the second part of the third examination after the student has passed both parts of the second M.B. examination and after he has completed three years of hospital practice. At this date, of course, should the student wish it, he may take both first and second parts. In this way the examination will not press so heavily upon men of average ability, and the arrangement will encourage them to devote themselves to a more thorough preparation for the various parts of the examination. Further, owing to the rearrangement of the times for examination in pathology and pharmacology, the student will be able to clear this examination out of the way in time for him to begin his studies in the London or other hospitals, and there will be no unnecessary loss of time during the curriculum.

In view of the increasing amount and complexity of the work involved in the examination of theses for the degree of M.D. and in some measure to lighten the labours of the Regius Professor of Physic, a Degree Committee consisting of four additional members of the Special Board for Medicine will, in future, assist the Regius Professor and his assessor in dealing with theses and keeping of acts for the M.D. degree. The whole of these suggested amendments appear to make for efficiency. They will secure a better arrangement of both preparation and examination, and will encourage practical and clinical work wherever possible.

UNIVERSITY OF LONDON.

UNIVERSITY COLLEGE.

Advanced Lectures in Physiology.

DR. GORDON HOLMES delivered the first of his course of eight lectures on the mechanism of co-ordination in the central nervous system in the Institution of Physiology on May 9th. The lectures will be continued on May 23rd and the following Mondays at 5 p.m.

UNIVERSITY OF SHEFFIELD.

Anatomical Department.

IN the notice of appointments published last week, p. 1149, it should have been stated that Mr. Alexander Wilson, M.B., B.Ch. Aberd., had been appointed Demonstrator in Anatomy in succession to Mr. John Annan, M.B., Ch.B., appointed Demonstrator in the University of Bristol. Mr. A. Garrick Wilson, F.R.C.S., who has been appointed Tutor in Surgery, has resigned the appointment of Honorary Demonstrator.

UNIVERSITY OF BIRMINGHAM.

THE Ingleby Lectures before the University of Birmingham will be given this year by Professor R. F. C. Leith on May 27th and June 3rd, at 4 p.m., the subject being tumours of the body of the uterus. Professor Peter Thompson will give two post-graduate lectures in anatomy in the anatomical lecture theatre of the university, on some early human embryos, on June 7th and 14th, at 4 p.m.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE following constitute the Boards of Examiners for the year 1910-11:

COURT "A." (for the conjoint diplomas, D.P.H. and Preliminary Examination).—*Anatomy:* A. Campbell Geddes, G. Jameson Johnston. *Surgery:* C. A. K. Ball, Alexander Blayney, R. J. Harvey, Seton Pringle. *Physiology and Histology:* E. L'Estrange Ledwich. *Pathology and Bacteriology:* A. Hamilton White. *Midwifery and Gynaecology:* F. W. Kidd. *Biology:* J. J. Burgess. *Ophthalmology:* A. H. Benson, H. H. B. Cunningham. *Chemistry:* R. J. Montgomery. *Sanitary Law and Vital Statistics:* E. F. Stephenson. *Engineering and Architecture:* J. H. Fergusson. *Languages:* William Kennedy. *Mathematics, Physics, Dictation, and English Essay:* J. W. Tristram.

COURT "B." (F.R.C.S.I., L.R.C.S.I., L.M. and L.D.S.).—*Anatomy:* A. Campbell Geddes, G. J. Johnston. *Surgery:* C. A. K. Ball, Alexander Blayney, L. G. Gunn, R. J. Harvey. *Physiology and Histology:* E. L'Estrange Ledwich, J. A. Scott. *Pathology and Bacteriology:* L. W. Rowlette, A. Hamilton White. *Midwifery and Gynaecology:* F. W. Kidd. *Chemistry and Physics:* E. Lapper, R. J. Montgomery. *Dental Surgery and Pathology:* G. M. P. Murray, W. G. Story. *Mechanical Dentistry:* D. L. Rogers, E. Sheridan.

The annual report of the Council will be submitted at a general meeting of the College on Saturday, June 4th; the election of President, Vice-President, Council, and Secretary takes place the following Monday. The names of candidates must be in the hands of the Registrar on or before Tuesday, May 24th; notices of motion for which priority is desired at the general meeting should also be sent in before that date.

APOTHECARIES' HALL OF IRELAND.

THE following candidates have been approved at the examinations indicated:

BIOLOGY.—M. Burke Kennedy, D. J. Chadwick.
PHYSICS.—H. Hutchinson.
PHYSIOLOGY.—J. M. J. Levens, W. MacArgan Scott.
PATHOLOGY.—G. M. Mayberry.
PHARMACY.—M. Neary.
MEDICAL JURISPRUDENCE AND HYGIENE.—M. Neary.
MEDICINE.—W. J. Fletcher.
SURGERY.—W. J. Fletcher, W. S. Dervoux.
MIDWIFERY.—W. J. Fletcher, W. S. Dervoux, G. M. Mayberry, A. Ardill, J. V. Pestana.

EXAMINATION FOR REGISTERED PRACTITIONERS.
M. P. Desmond, P. V. Dolan, R. McDonnell.

Public Health AND POOR LAW MEDICAL SERVICES.

INSPECTION OF MEAT IN GLASGOW.

THE annual report of the Veterinary Surgeon to the Corporation of Glasgow, on the inspection of the city's supply of meat, fish, and milk, deals especially with the subject of tuberculosis in cattle. Of 65,033 home cattle slaughtered at the abattoirs 9,385 were affected with tuberculosis; of 49,881 swine, 2,547 were affected; and of 19,229 foreign cattle, 317 were affected. There is therefore a very strong incentive to adopt stringent measures to eradicate as far as possible this disease. Mr. Trotter says that it is incomprehensible that the British authorities have not carried out the recommendations of the Royal Commission of 1898 or made any attempt to deal with the bovine scourge, seeing that it not only causes an enormous loss in food and money, but is a menace to the health of the citizens. No attempt has been made to prevent the infection of young stock. During the past year 45 cows in city cowsheds were found affected and dealt with, and of 15,736 milch cows outside the city supplying milk for the city, 160 were found affected. The report gives a number of interesting details on the food supply of Glasgow and the sources of contamination.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Paisley Burgh.—Dr. Trotter, M.O.H., in dealing in his annua report with the question of antenatal influences, states that 61 children did not survive a week after birth, the deaths of 56 being due to prematurity, or congenital debility. Visitation in such cases was of little use as these children were doomed. With the mother who knew all about babies because she had had eight and buried five, little progress could be made. But with young mothers in the case of the first or second child visitation and advice was more valuable, and in a general way good results were to be hoped for. An investigation made into the home conditions in cases of infants born of working mothers was satisfactory; and the report states that as an industrial town where female labour predominates, the home conditions in Paisley are most creditable. One result of the work of the health visitors, however, was the revelation that in many cases no food was cooked for school children, bread and jam being given for breakfast and the same on return from school. Constitutions were thus undermined and rendered unable to withstand tuberculosis, rickets, etc.

Buckingham Rural District.—The population, estimated at the middle of 1909 was 7,600. The birth-rate was 22.6 and the adjusted death-rate 13.2 per 1,000; the infantile mortality-rate was equal to 70 per 1,000 births. Dr. P. L. Benson, the medical officer of health, draws the attention of the council to the need of a permanent isolation hospital and also of a steam disinfector, both of which should be provided. A large quantity of the milk produced in the district is sent to London, and for the purposes of dairy inspection a veterinary inspector has been appointed by the District Council. In the early part of the year an inspector of the London County Council condemned a dairy cow as suffering from tuberculosis of the udder. The veterinary inspector of the District Council differed from this conclusion, and applied the tuberculin test, with a negative result. A sample of the milk taken by the inspector was examined bacteriologically and declared to be free from tubercle bacilli. Dr. Benson includes in his report some excellent photographic reproductions of a cottage condemned as uninhabitable, two new semi-detached cottages, and the interior and exterior of newly-built cowsheds.

Newark Rural District.—The estimated population in 1909 was 8,035, the birth-rate was 25.3 per 1,000, and the adjusted death-rate 12.5 per 1,000. The infantile mortality-rate was equal to 117 per 1,000 births. There occurred during the year 20 cases of diphtheria, and 5 terminated fatally. The medical officer of health, Dr. Frank Broadbent, expresses the opinion that when this disease once gets well established in a district nearly every case of slight sore throat would reveal the presence of the Loeffler bacillus. He suggests that during the time sore throats are prevalent the education authorities might provide for the school children pleasant antiseptic lozenges in order to prevent the diphtheria bacillus from invading their throats.

Cheshunt Urban District.—The birth-rate in 1909 was 22.5 per 1,000, and the adjusted death-rate 10.8 per 1,000 of the estimated population—13,565. The infantile mortality-rate was 92 per 1,000 births. Although there were 10 deaths registered as due to phthisis, there was not a single notification of this disease among poor persons. Dr. Walter F. Clark, the medical officer of health, draws attention to the great importance of the question of the housing of the working classes. Not only, he says, are cases of diphtheria more likely to occur in insanitary houses, but when the patient is removed to a healthy atmosphere he still feels the effect of the want of sanitation from which he has already suffered. More than one of the patients who died from diphtheria in the isolation hospital had succumbed not so much to the virulence of the illness as to his inability to live through it because he had lived previously in unhealthy surroundings. During an outbreak of scarlet fever in May Dr. Clark was very successful in hunting down several "missed" cases of the disease, and thus, no doubt, shortened the epidemic.

Barnstaple Borough.—Based on an estimated population of 14,462, the birth-rate in 1909 was 21.6 per 1,000, and the adjusted death-rate 12.9 per 1,000. The infantile mortality-rate was equal to 71 per 1,000 births. Of the 23 illegitimate children born, 7 died during the year. The water supply of the town appears to be ample, as much as 40 gallons per head of the population being used daily. The supply is derived from the North Yeo river at Bratton Cross, some five miles distant from Barnstaple. Before entering the service reservoirs the water passes through sand filters, of which there are four, with a total area of 8,800 sq. ft. The medical officer of health, Dr. J. R. Harper, refers with satisfaction to the assistance which the bacteriological laboratory of the Devon County Council has been to him, and he suggests that its sphere of activity might be extended.

Barnstaple Rural District.—The birth-rate in 1909 was 22.2 per 1,000 of the estimated population of 16,620, and the adjusted death-rate 14.8 per 1,000. The infantile mortality-rate was equal to 49 per 1,000 births. For the most part the district appears to be in a satisfactory condition as regards its water supply. A scheme has been agreed upon for the supply of Instow and some adjoining parishes from the mains of the town of Barnstaple. The parish of Georgeham has a very indifferent supply. There are about 200 inhabitants, and Dr. J. R. Harper, the medical officer of health, states that epidemic disease, either typhoid fever or diphtheria, appears every year in some part of the village. He very properly advises that before any scheme of increased sewerage is undertaken there should be obtained a wholesome supply of drinking water.

Amble (Northumberland) Rural District.—The estimated population of this district at the middle of 1909 was 6,000. The birth-rate was 25.3 per 1,000, and the death-rate 9.1 per 1,000. The infantile mortality-rate was equal to 92 per 1,000 births, and although this is considerably lower than that recorded in former years, the medical officer of health (Dr. H. Martyn Stumbles) considers it is still unnecessarily high and might be reduced at least 50 per cent. He looks to the education of the mothers as more likely than anything else to effect an improvement. It is satisfactory to find that the question of erecting a public slaughterhouse is under the consideration of the District Council, so that those slaughterhouses in the town which are surrounded by so many houses may be done away with. A more urgent reform appears to be the discontinuance of promiscuous tipping of domestic refuse and excreta—a practice which cannot fail to be a menace to the health of the inhabitants.

Egham Urban District.—Based upon an estimated population of 11,895, the birth-rate in 1909 was 19.6 per 1,000 and the adjusted death-rate 10.5 per 1,000. The infantile mortality-rate was equal to 77 per 1,000 births. One case of phthisis among poor persons was notified, and 12 deaths occurred from this disease. As many as 60 cases, all non-fatal, of scarlet fever occurred, and in this connexion the medical officer of health, Dr. G. Trew Cattell, draws attention to the absence of any means of isolating cases of infectious disease in the district. This want will, however, shortly be remedied, for a resident in the district, Baron Schroder, has come forward and given a valuable piece of ground as a site for an isolation hospital which is now being erected.

SANITAS.—*Soils and Subsoils from a Sanitary Point of View, with Special Reference to London and its Neighbourhood*, published by Stanford, price 1s. 6d. There is also a great deal of useful information in connexion with geology and public health in the third edition of Notter and Firth's *Theory and Practice of Hygiene*, published by J. and A. Churchill.

ELEMENTS OF ETIQUETTE.—The Local Government Board has stated that, as a general rule, it is unnecessary and undesirable that a medical officer of health should make a personal examination of patients suffering from infectious diseases notified under the Notification Acts in order to test the accuracy of the certificates. If, in any special instance, the medical officer of health deems it desirable that he should make a personal examination, the Board considers this should only be done with the consent of the patient or those having charge of the patient, and that the medical practitioner in charge of the case should always be communicated with and his co-operation secured if possible.

CERTIFICATION OF ALLEGED LUNATICS FOR DETENTION IN WORKHOUSES.

LEX, who is a district medical officer in a provincial union, states that he has recently had some differences with the relieving officer in reference to cases of alleged lunacy which had to be sent to the workhouse, and that it has been more or less a practice for such cases to be treated in the following way: A magistrate gives a formal order for the patient's detention in the workhouse for observation, this order to last for fourteen days if so required. In addition to this order, the relieving officer expects the district medical officer to take some responsibility in reference to the detention of such cases, and usually applies to him to attach his signature to a form of medical certificate (originally designed for certifying cases of illness and not for lunacy), after writing the word "insane" on such certificate. Our correspondent considers that by complying with the request of the relieving officer he may find he has incurred some more or less serious responsibility by informally certifying such patients as insane. He asks whether, as a district medical officer, he is bound to certify as required when he may not have had sufficient opportunity to ascertain the precise mental condition of the patient, and, moreover, may not know of anything to justify the patient's detention either for fourteen days or for any less length of time, as by so doing, were the patient not eventually found to be insane, he might be involved in some trouble.

*** It would appear that by section 21 of the Lunacy Act any justice having the necessary jurisdiction, and in cases in which a summary reception order may be made, and in such cases only, can make an order for an alleged lunatic to be sent to the workhouse for observation, and if necessary for detention there for fourteen days; but if he does this either on the application of the relieving officer or on other grounds such order does not appear to require to be accompanied by any medical certificate whatever, and we fail to see that it can be the duty of any district medical officer to supplement in any way such magisterial order. We are quite unable to understand on what grounds an order by a magistrate for fourteen days' detention can ordinarily be required, as by section 20 of the Lunacy Act the relieving officer has full power in all urgent cases to send an alleged lunatic to the workhouse for three days on his own order only, but we are afraid that this last mentioned power of the relieving officer is in some cases abused, as it must be evident that it was intended not to be exercised except in urgent cases, which for some cause or other could not be got off at once to any asylum. The case which led our correspondent to communicate with us was not one of urgency, and we cannot understand how any necessity can have arisen for the patient being sent forthwith to the workhouse either by magistrate or relieving officer.

ELECTION OF MEDICAL OFFICERS OF HEALTH.

FAIR PLAY.—It is not usual for one medical man to canvass for the appointments held by another medical man when the holder has expressed no intention of resigning them. It is usual, but not the invariable custom, for a medical officer of health who has admittedly done his work to the satisfaction of the district council to be re-elected, if he desires re-election, at the termination of his term of office. When a medical officer of health who desires to retain the

office has been superseded by another practitioner, it has of late years been the practice of the Local Government Board to inquire from the district council the reason for the non-election of the retiring officer. A medical officer of health who seeks re-election is quite justified in canvassing for the appointment.

CERTIFICATION OF LUNATICS FOR ASYLUMS.

WE have received the following in reference to this subject:

Kencott House, near Lechlade, Glos.,
May 7th, 1910.

Sir,—Your answer to "M.O.'s" query in the JOURNAL of May 7th, p. 1148, may seriously mislead many practitioners who wish to prevent their private patients from passing into the union medical officer's hands. All "M.O." need do is to provide himself with the proper lunacy forms, call in the nearest magistrate, certify the case, and then send the certificate to the relieving officer for the district in which it occurs. The guardians will pay him the guinea fee in due course.—Yours truly,

F. W. PILKINGTON.

*** We may point out to our correspondent that the few lines on the subject to which he refers, which appeared in the BRITISH MEDICAL JOURNAL of May 7th, were for the purpose of giving an answer to a special question asked by "M.O.," namely, whether it is necessary for patients of the class described by him to be certified by the district medical officer, and our reply was to the effect that such form of certification was *not* necessary. We made no attempt to enlighten either "M.O." or others on other points of lunacy law. We cannot say that we regard the method of dealing with lunacy cases suggested by our correspondent as being one to be advocated. The process is more or less irregular throughout, and not in accordance with the spirit of the Lunacy Act, and we have grave doubts as to whether it meets all the requirements of that Act. It seems to us to partake rather too much of a private arrangement by medical practitioners and magistrates, the relieving officer being altogether ignored till the last part of the business, instead of having been applied to at first, and so put in the position of an automaton in the case.

Medical News.

THE Council of the Royal Society of Medicine has decided to postpone all further meetings of sections until after the date of the funeral of His late Majesty.

IN consequence of the death of His Majesty King Edward, no meeting of the Royal Society, of which he was a patron, will be held until further notice.

THE next session of the General Medical Council will open on Tuesday, May 24th, when the President, Sir Donald MacAlister, K.C.B., will take the chair at 2 o'clock.

THE following members of the medical profession have been appointed vice-presidents of the Royal Institution for the ensuing year: Sir Thomas Barlow, Bart., Sir Francis Laking, Bart., and Sir James Crichton-Browne (treasurer).

THE first meeting for the vaccine-therapy discussion before the Royal Society of Medicine, to be held at Morley Hall, George Street, Hanover Square, W., has been postponed from Wednesday, May 18th, at 5 p.m., until Monday, May 23rd, at the same place and the same hour.

THE President and Council of the Medical Society of London will give a conversazione in the rooms of the society, 11, Chandos Street, W., on Monday, May 23rd. A reception will be held by the President at 8.30 p.m., and at 9 p.m. Mr. W. H. Battle will deliver the Annual Oration, the subject selected being Internal Injuries.

AN examination of candidates for not less than ten commissions in the Royal Army Medical Corps will be held on July 27th and following days. Candidates who are over the regulated limit of age at the date of the examination will be permitted to deduct from their actual age any period of service in the field after October 1st, 1899, that they could reckon towards retired pay and gratuity if such deduction would bring them within the age limit. Applications to compete should be made to the Secretary, War Office, London, S.W., not later than July 18th.

THE first course of post-graduate instruction at the Hospital for Sick Children, Great Ormond Street, W.C., on surgical diseases of children, by members of the surgical staff, will begin on Tuesday next at 5 p.m. The courses are of three months' duration, and the classes will be held on Tuesdays and Fridays of each week at 5 p.m. From May 17th to June 9th Mr. George Waugh will discuss diseases of the joints, and from June 14th to July 7th Mr. O. L. Addison general surgical diseases; from July 13th to August 4th Mr. H. G. T. Fairbank will give instruction on deformities. The fee for the course is £5, but tickets for part of course may be obtained by arrangement with the secretary.

THE annual conference of the Child Study Society commences next Thursday at Tunbridge Wells, and concludes on the following Saturday. The first day's proceedings are limited to a reception of delegates and members at the Town Hall at 8.30 p.m., followed by an address from the President of the Society, Sir James Crichton-Browne, F.R.S. Friday's work, beginning at 9.30 a.m., includes the reading of reports from the constituent societies, and of three papers: (1) The Social Life of a Child at a Co-Educational School; (2) The Child as Citizen; (3) The Hand as the Gate of Knowledge and Social Relationship. The following morning is to be read a paper by Miss Alice Ravenhill, recording the results of an investigation into the Play Interests of English Children, based on a preliminary examination of 10,000 returns. The Council of the Society extends a cordial invitation to attend the meeting to all those interested in its objects, and such hospitality as is possible will be offered to delegates and visitors. The local secretary is Miss F. M. Watt, 35, Church Road, Tunbridge Wells.

THE 1910 Tournament of the Medical Golfing Society will be held on Thursday, June 2nd, at Burnham Beeches, by kind invitation of the Burnham Beeches Golf Club. Anyone on the *Medical* or *Dental Registers* can join by payment of the annual subscription, which includes entrance to the tournament. The annual subscription is five shillings. Play will be as follows: Eighteen holes match play *v.* Bogey under handicap: Class I handicaps, 12 and under; Class II handicaps, over 12. The "Henry Morris" challenge cup and the Medical Golfing Society's gold medal will be awarded for the best score under handicap. A first and second prize and a prize for the best last nine holes will be given in each class (no player shall take a first or second prize *and* the prize for the best nine holes). No previous play will be allowed on the day. Members of the Burnham Beeches Golf Club will deduct two from their handicaps. A foursome sweepstake will be arranged in the afternoon. Players must send entry with their annual subscription (five shillings) on or before Monday, May 30th, to L. Eliot Creasy, honorary secretary and treasurer, Medical Golfing Society, 36, Weymouth Street, London, W. (telephone, 904 Paddington). The telephone number of Burnham Beeches Golf Club is 050 Burnham, Bucks. Conveyances will meet the trains at Burnham Beeches Station (G.W.R.).

THE Devonshire Branch of the Red Cross Society has issued a pamphlet entitled *Devonshire Voluntary Aid Organization*, which has been drawn up by Mr. J. S. C. Davis, of Ebberly, Beaford S.O., North Devon, the honorary County Director. It well merits its subtitle, "a handbook for workers;" for though the booklet relates ostensibly only to Devonshire, the information given as to what is being done and what may be done in that county in the direction of voluntary aid to the sick and wounded in time of need is so succinct, compact, and comprehensive, that it might well be found of much use in other counties where Red Cross organization is in progress. The frequency with which accounts of meetings in furtherance of the objects of the Red Cross Society appear in provincial and other papers is good evidence that interest in the subject is not decreasing, and that the work of voluntary aid associations is steadily spreading over the whole country. The latest instance in point is a meeting held at the Mansion House on May 2nd. The Lady Mayoress presided, and in the course of the proceedings announced that Lady Mackinnon, the wife of General Sir Henry Mackinnon, who commanded the C.I.V.'s during the South African war, had consented to take in hand the organization of the Red Cross Society in the City of London, and that a small advisory committee had been appointed to assist her. Ten detachments for men and ten for women would be formed, and steps taken to expand in case of need the general hospitals and establish convalescent homes. It was also stated that several large business houses had undertaken to form first-aid classes among the members of their male staffs, and first-aid and nursing classes among their female employees.

Letters, Notes, and Answers.

BRITISH MEDICAL ASSOCIATION AND BRITISH MEDICAL JOURNAL.

THE offices of the British Medical Association and of the BRITISH MEDICAL JOURNAL are at 429, Strand, London.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

RUSTICUS writes: A middle-aged lady, of blameless habits, is much distressed by a redness of her nose that has appeared during the last few months. To some extent it is permanently present, but it becomes worse almost immediately after a meal, and is then associated with a burning feeling, the whole face flushing in addition. The condition also becomes more marked towards the end of each day. There is no other symptom of indigestion, and her general health is good. She lives a strenuous life, and lately has had additional burdens of work and anxiety. My own experience of the treatment of red nose in analogous cases has not been encouraging, and I shall be grateful if any of your readers can suggest anything likely to be of service.

PRACTITIONER wishes to know if there is anything new as to the pathology of zona (shingles). He has a case under his care at present, a young man with well-marked eruption extending from the lumbar spine round to the umbilicus on the right side, with a small margin over at both extremities. There is a very abundant crop of vesicles, and the band of eruption will average 2 in., there being, of course, patches of skin clear. He says he felt out of sorts four days ago, and had a slight headache for two days. Otherwise he has been going about as usual. From analogy the affection would appear to be a symptom more than a disease *per se*, but what is the disease? More than one case has appeared in the locality recently.

TINNITUS AURIUM.

VERDI asks for suggestions as to a case of right ear tinnitus of five months' duration in an apparently healthy man, aged 42. It is not constant nor synchronous with the cardiac impulse, and worst at night. There is a past history of middle-ear suppuration (as also of malaria) and hearing power in the right ear is slightly diminished, but neither in the ear nor throat is anything explanatory of the tinnitus to be found. Politzerization relieves it, and quinine stops it. At present it is being kept under by quinine salicylate, 6 grains daily. This causes no secondary effects, but our correspondent asks how long can it safely be continued, and what other treatment is available? Bromides have done no good and amyl nitrite makes matters worse; so, too, does smoking.

ANSWERS.

THE DRUG HABIT: TOBACCO.

DR. JOS. S. BOLTON (Nottingham) writes: In treating patients for alcoholic inebriety I have occasionally found a distaste produced for tobacco. I should recommend hypodermic injections of strychnine and atropine twice a day. This will remove the depression and lessen the craving. A stomach mixture should also be taken. The tobacco should be stopped at once, or certainly within two days.

INCOME TAX.

C. P. H. asks what proportion of the expenses and upkeep of a motor car and of a male servant, both kept for professional purposes, can be deducted for income tax purposes.

*** If the car and the servant be kept for professional purposes, the whole of the expenses connected with them should be deducted. The necessity for taking a proportion would only arise if the car or the servant were, in fact, employed to any considerable extent for non-professional purposes, when the expense should be apportioned according to the relative extent of time during which they are employed for each purpose.

EQUITAS has a resident patient paying 2 guineas a week since October, 1908, and desires to know what proportion of this can reasonably be regarded as profit for the purposes of his income tax return.

* As the weekly fee is so low it would probably be sufficient to regard one-third of the annual receipts as profit. The profit should be added to the receipts of the practice for the years in which it arises, and the income tax return made in one sum on the average of the whole profits for the hree years to Christmas, 1909, or March, 1910.

PETROL DUTY.

W. R. A.—As explained in the article on the Finance Act the BRITISH MEDICAL JOURNAL of May 7th, p. 1119, a medi man is entitled to repayment of the whole of the petrol du on petrol used prior to January 1st, 1910, and of one-half t duty on that used since.

APPOINTMENTS IN THE COLONIES.

CLYDE.—(1) The work done by medical men holding Gover ment appointments in the Colonies commonly covers fields of practice, and to that extent may be said to resemb the work of general practitioners in this country. But th environment and fashion in which it is carried on differ mo or less extensively according to the degree of civilizatio locally attained. (2) With a few exceptions the expenses life are less than in this country, more especially in coloni whose inhabitants have to content themselves with few the amenities of domestic existence. (3) The rates of pa vary greatly. Usually they correspond more or less accurate with the amount of work imposed, the opportunities fo private practice, the healthiness or otherwise of the climat and the expenses of life within the colony. (4) The Coloni Office usually has a large number of candidates on its book but direct family connexion with a colony or political influenc at home is sometimes effective in securing early appointmen (5) Non-official appointments in the Colonies are not numerou and, excepting public health posts in a few large cities, ar connected with mines and railways. Young men are pre ferred, and the pay is never large. Moreover, the appoin ments lead to nothing. (6) The Colonies and Protectorates i West Central and East Africa have regular medical service and candidates for admission are at present plentiful, and th same is understood to be true of British Guiana.

LETTERS, NOTES, ETC.

THE SPEED LIMIT.

THERE has recently been a fresh crop of cases in which medica men have been summoned for breaches of the speed limi rules. Usually they have escaped with a fine, the magistrate accepting explanations to the effect that the speed limit ha been exceeded owing to the importance of rapidly reaching the bedside of a patient. We congratulate the offenders on this result; but there is the general public as well as private individual interests to be considered, and when speed limit rules are set aside the increased risk to the public usually outweighs the possible benefit to individual patients. The details of some of the cases as reported do not always furnish full assurance that the speed was necessitated by the actual nature of the case. It is difficult, for instance, to understand in what sort of case urgency can fairly be claimed when a medical man motors from London to Brighton to see a patient. Nor is it easy to understand how it can be thought worth while to traverse Hyde Park at 12 miles an hour instead of 10; the saving of time can at best be about a minute. Whether speed limits should everywhere be abolished, as some people hold, is another question, but so long as they are maintained unusually fast driving by a medical man is not a practice to be encouraged. The public always suffers more or less, and patients do not always gain, since a medical man is sometimes stopped. Indeed, the more urgent a case the more carefully should a medical man abstain from driving at a speed which, by attracting the attention of a policeman, may cause really serious delay. Motor drivers often seem to believe that once they have sounded their horn they have done everything due from a careful driver, and the responsibility for an accident will rest on the shoulders of those that may be in the way. Hooters, even those of a musical variety, add not a little to the wear and tear of nerve power to which everyone is nowadays subject, and are quite as often merely startling as usefully informing. If the habitual use of hooters in populous places were frowned on by the police there would be some chance of motor drivers recognizing that it is their duty to avoid accidents by careful driving instead of trusting to the agility of foot passengers.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page	8	0	0

An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

NOTE.—It is against the rules of the Post Office to receive *postes Restante* letters addressed either in initials or numbers.

Presidential Address
ON
ABDOMINAL EMERGENCIES

DELIVERED BEFORE THE MANCHESTER MEDICAL SOCIETY.

BY E. STANMORE BISHOP, F.R.C.S.ENG.

E list of abdominal emergencies is a fairly long one, l includes:

Accidental injuries and rupture of viscera.
Post-partum haemorrhage.
Ruptured ectopic gestation.
Twisted ovarian pedicle.
Strangulated hernia.
Intestinal kinks and adhesions.
Appendicitis.
Acute pancreatitis.
The passage of renal or biliary calculi; and
Perforation of gastric and duodenal ulcers.

t would obviously be impossible to attempt to deal h all, nor do I propose to do so. Certain subjects st be omitted entirely, and in each of the rest only a points can be taken; to one only, and that the last, haps a little more detail may be possible.

n the first place, it is possible to put on one side se cases of injury to abdominal viscera of which there clear history, such as bullet and knife wounds or the ture of viscera in consequence of the passage of heavy lies across the abdomen, etc. A clear diagnosis of the ent of injury may present difficulties, may indeed be ossible before operation; but at the present day their atment by immediate laparotomy, with such subuent work as may be required in each individual e, is clearly admitted and need not now detain us.

here is, however, another general class which cannot dealt with so summarily, and the possibility of which fronts the surgeon in almost every case. I refer to the romimetic class. In these days of suggestive adverng of quack remedies, it is easy for any one to become essed with the idea that his or her own case presents ctly those symptoms which are presented as characstic of a dangerous disease, and the neuromimetic d easily fills in those that are wanting. A little knowge is here peculiarly a dangerous thing.

ut it is necessary also not to lose sight of the opposite ; even a neurotic person may suffer from a genuine ominal lesion, and the real symptoms may be overed or not accorded their full value because of their sessor's known tendency to nervous exaggeration. A r diagnosis is best obtained by entire reliance upon ctive signs, which fortunately now are not wanting.

Post-partum Haemorrhage.

mention this merely in order if possible to emphasize views as to treatment, previously elaborated in the *ctitioner* and elsewhere; lapse of time and further erience only still further confirm them, and I have ived communications from all over the world endorsing r truth from the writers' own personal experience; ing last June, Major Giffard, of the Indian Medical vice, who is in charge of the Government Hospital in lras, was in England and told me that for three years, r reading some of the earlier articles, treatment solely pelvic elevation and aortic compression had been pted in that hospital by him with complete success; whereas before its adoption several cases had been from this cause, since the plan had been introduced e had not been a single death, and that, he considered, all the more remarkable since it had been carried out native assistants, who, as he remarks, are inclined to me flustered in such an event. He had treated ng those three years, 7,000 cases of midwifery.

Ruptured Ectopic Gestation.

he next two conditions are not so evident. Rupture pregnant tube might be mistaken for rupture of a ric or duodenal ulcer, or even for a burst appendical ess, but the state of the pulse and the mucous branes will quickly distinguish them. Nothing eases the rapidity of the pulse so much or so quickly oss of blood, and as in appendix cases there is no appreciable blood lost, whilst in gastric ulcer the blood lost is either vomited or passed by bowel, and so easily recognized, the extreme rapidity of the pulse in ruptured ectopic pregnancy would almost alone serve to distinguish it, and this especially if seen early after the occurrence. The colour of the lips and finger-nails also is very different—in the one they are naturally blanched, in the other two they alter but little; whilst if seen later, the expression of the face will attract attention; in appendical abscess and gastric ulcer the fluids set free irritate the peritoneum, and the peritonitic face is produced. An expression of extreme anxiety comes over the features, which in itself is characteristic. I have called it a "hunted" expression; the patient looks from face to face in search of a help that she knows beforehand she will not find; once seen, this can hardly be mistaken for anything else. In the other case, the blood not being an irritant, the face is more placid; there is anxiety, too, but it is not of the urgent kind which is seen in the others; so that from the face and the pulse alone a diagnosis might almost be made. But the respirations also differ. In ectopic cases there is first yawning, sighing breathing, then gasping, for want of sufficient oxygen in the tissues; in the other two the respirations may be hurried, but it is a sort of "busy" breathing, not gasping or yawning. Of course the history, if it can be obtained and is reliable, is of great help, but at times like these one is often liable to be misled, not by want of information, but by too much.

If the occurrence of sudden pain can be obtained, occurring in a woman otherwise in fair health, and followed by the collapse witnessed, with soft abdominal walls and a rapid pulse, there will be sufficient ground for a strong suspicion of this condition; if to this is added the sensation of a thrill or a doughy swelling in Douglas's pouch, whilst the slightest irregularity during the preceding one, two, or three periods of menstruation can be elicited, the diagnosis is sufficiently certain to justify immediate exploration.

In any such case it is better not to wait for the collapsed condition to pass off, as the patient will the sooner recover if a stop is at once put to further loss of blood.

At the present time all our efforts are of course directed so as to anticipate the occurrence of rupture and to remove the unbroken ectopic sac, and this, thanks to increased experience of the bimanual method of examination, may often be done. I have succeeded in removing the intact ovum and tube in three cases, whilst in a fourth the tube evidently had given way during her journey from ward to theatre, since, though blood was issuing from a rent in the tube, only half an ounce of blood was found in Douglas's pouch.

In acute peritonitis there immediately follows a contraction of that segment of the abdominal wall which overlies the area of inflamed serous membrane. This contraction of the muscular wall is automatic, due to reflex action, and, as I have for some years suggested, is analogous to the contraction observed in joint inflammations, which Hilton showed long ago must inevitably follow any inflammatory irritation of the serous lining. The serous membrane of a joint, the muscles acting upon that joint, and the skin over it, are all connected by a nerve arc, through which the stimulus arising from the afferent nerves in the serosa pass, via the spinal centre controlling both, to the efferent nerves supplying the muscles, which thereupon at once contract, holding the joint firmly in one position, so that no movement of it can intensify the mischief within. It is, I conceive, easy to show that this law applies with equal force to what may be called the "abdominal joint." The word "joint" has long been supposed to connote the presence of bone and cartilage; but these are by no means necessary to its existence. The essential elements of a joint are:

1. Two surfaces capable of movement the one over the other.
2. Muscles capable of effecting that movement.
3. A serous lining membrane which secretes sufficient fluid to render that movement easy and smooth.
4. A nervous arc connecting these several parts.

All these are to be found in the abdomen, and experience shows that Hilton's law is obeyed here just as in any other joint. In the knee we judge of the amount of serosal inflammation by the fixity of the bones held by the automatically contracted muscles; in the abdomen by the contraction of the muscles themselves.

Twisted Ovarian Pedicle.

An ovarian tumour with a twisted pedicle does not present much difficulty; if a mass has previously been recognized the sudden occurrence of great pain followed quickly by tenderness of that mass, which now rapidly enlarges, points plainly enough to what has occurred. At first the muscles above will be supple, but adhesive peritonitis is almost certainly to be set up as soon as the blood is shut off and the tumour, because dead, becomes a foreign body; then muscular rigidity will be added to the picture. If there is no previous history of a recognizable growth it will, if present, be still in the pelvis and recognizable by recto-bimanual examination.

Intestinal Kinks and Adhesions.

It is not necessary to say anything as to strangulated hernia, but apart from hernia there may be obstruction from adhesion and kinking of bowel internally. Such a case was seen with the late Dr. Mason of Moss Side.

A lady, fourteen days after confinement was suddenly attacked by vomiting; there was not much pain at first, though later she complained of some in the hypogastrium. The patient was practically convalescent from her labour, and had been allowed to rise the day before. The vomiting was persistent, and smelt faecally; the abdomen began to distend; there was absolute coprostasis. Enemata brought away the contents of the lower bowel, but nothing more. The diagnosis was provisionally made by relying upon the absence of rigidity, the absence of any recognizable tumour or external hernia, the rapid distension, and the fact that the vomiting preceded the pain, which was never very acute. It was evident that some small intestine obstruction was present, whether from band or kink it was impossible to determine, and the abdomen was opened. A coil of small intestine was found adherent deep down in Douglas's pouch, which was loosened and brought up; the vomiting at once ceased, and did not return. She was quickly well.

I have seen two similar cases recently.

Crateriform ulcer formed upon line of union after excision of a previous ulcer. The walls of the stomach had been united by two layers of continuous suture; the inner of catgut, the outer of iron dyed silk. The latter is seen lying free on the mucosal surface, attached only by a knot, also on the inner surface. This specimen I owe to the courtesy of Dr. Andrewes of St. Bartholomew's Hospital.

Appendicitis.

This is one of the most prominent of the sudden emergencies met with in the abdomen, but as it has been hardly possible to take up a medical journal during the last year without finding a long article dealing with this subject, I shall not say much about it. The rapidity with which danger arises in some first cases is extreme. In one seen during the last month with Dr. Davie, of Fallowfield, the first symptom occurred on Friday; pain was felt in the epigastrium, but was attributed, as is so often the case, to unsuitable food, and the mother devoted Saturday to purgatives. Dr. Davie was first sent for on Sunday morning; the same afternoon the abdomen was opened, and an almost entirely gangrenous appendix found. Sero-purulent fluid welled up from the pelvis, necessitating drainage by a long tube passing Douglas's pouch. The patient was placed in the Fo position and treated by continuous proctoclysis, with result that in a fortnight she was out of bed, and retu home well at the end of three weeks. I mention this partly for the reason alr given and partly to call at tion to the extremely results obtainable by Murp method of treatment; it in many cases which I seen apparently turned scale in severe perito inflammation.

Chronic crateriform ulcer of stomach (saddle ulcer), lying transversely across the lesser curvature. Shows "terracing." There are two small perforations through the peritoneal coat. This specimen I owe to the courtesy of Professor Lorrain Smith, of the Victoria University.

But appendicitis appear be well understood and tre in Lancashire. Referenc the Registrar-General's rep will show that its morta is much lower in propor to the population than London, and that the c bined mortality in London the three counties chosen comparison is less than third of the entire mortalit England and Wales.

I must pass over the pas of renal and biliary calcul well as acute pancreatitis.

Intussusception.

This is the last but on these conditions to whic wish to refer; its sympt are well known, but it ma well to call attention t method of obtaining always necessarily present characteristic, which has b found useful. When intus ception takes place the mesentery of the entering in tine is compressed. Such pressure acts first and chi upon the mesenteric veins; as a consequence some the smaller vessels will give way; the blood effused n find its way into the lumen of the bowel, and tends collect, it may be in small quantity, above sphincters. Inasmuch peristalsis below the le is disturbed, it may appear outside, but a fi gently passed above sphincter will return bl stained. In this way small amounts of blood be recognized.

Perforation of Gastric Duodenal Ulcers.

When the mortality gastric and duodenal u is considered it is evic that in this county need specially to di our attention to fatality. Since 1901 gas ulcer has been distinguis in the Registrar-Gener *Reports;* before that t it was included in deaths from peritonitis from indefinite cau but during the eight y up to the report for 1 which has just been p lished, the deaths for E land and Wales have averaged 1,700. Of these, London nished 250, Lancashire 252, Cheshire 39, and the West Ric of Yorkshire 143, so that we stand at the head of the list other county in England and Wales having anything as large a number of deaths from this cause. When remembered, also, that only a small percentage of gas

ulcers immediately cause death, but that they do produce a large amount of chronic suffering, the necessity for increased study of this condition is abundantly evident.

Perforation of a gastric or duodenal ulcer is one of the most important of all sudden abdominal emergencies. The sufferers from it usually complain of a sensation of something having yielded in the upper abdomen, followed either immediately or after a short interval by intense pain, which may become so agonizing as to produce marked collapse. The course of events is well shown in the two following cases, one of gastric, the other of duodenal perforation:

A man, aged 37, was admitted to Ancoats Hospital in March, 1909. On the morning of his admission he was feeling in fairly good health. On cross-examination afterwards, at first he would admit to only one week's sensation of some pain after food, later to a hazy "few weeks." He ate a good breakfast at 7.15 a.m. and felt no pain after it. He continued at business until 5.30 p.m., having dined at midday off stewed steak and potatoes. He was performing his toilette previous to departure when something was felt to give way suddenly in the epigastrium. No immediate pain was felt, but there was a sensation of rapidly increasing weakness. As he walked with difficulty down a long room he became short of breath and faint. He sat down and rested. Half an hour after the first sensation severe pain began, also in the upper abdomen, which became steadily worse until, he said, it amounted to agony one and a half hours later. He vomited once; the fluid rejected contained food, but no blood. A doctor was sent for who injected morphine. Relieved by this, he was able to be removed to the hospital.

On examination there, great tenderness, increased by pressure, was found over the entire epigastric region, and there was rigidity of both upper recti, the lower segments being still supple. His temperature had fallen to 96.8°, his pulse to 66, but his respiration was quickened to 36 per minute. He was not at that time in any great pain.

The abdomen was opened five hours after the initial lesion; when the peritoneum was divided gastric contents at once escaped and poured out in great quantity; when sufficient had been removed by sponges the stomach was drawn forward and a round punched-out opening was found, which was surrounded by a whitened bleached appearance, which faded gradually around into the normal colour of the stomach. The tissues, however, were not thickened or indurated. The opening was easily closed by a purse-string suture; drainage was carried out by tubes passed through stab wounds in both loins and above the pubis; the abdominal wound was closed.

Acute "tunnel" ulcer of the stomach. Openings at both ends of equal size, that on the peritoneal surface being sharply cut. No "terracing." This specimen I owe to the courtesy of Mr. Shattock, of the Royal College of Surgeons and St. Thomas's Hospital.

Perforation of the duodenum gives a somewhat similar picture, though a different history.

The case I select is that of a girl aged 19. She was at her work as a mule tenter, when suddenly without any warning, about 4 p.m., she was attacked by violent pain in the epigastrium bringing her to the ground. After a few minutes it became less intense, at the same time sinking to the umbilical level. She had suffered for some months from mild epigastric pain which became worse about one hour after food and was relieved by vomiting; she could also relieve it for a while by eating more food. There had been some loss of weight. After resting about half an hour she walked some hundred and fifty yards to the hospital. When seen the pain was so much less that it was with difficulty that she could be induced to remain, but as both upper recti, and especially the right, were found to be rigid, and there was great tenderness all over the epigastrium, a diagnosis of perforated duodenal ulcer was made. The abdomen was opened four hours after the first appearance of pain, and a pinhole perforation was found on the anterior duodenal wall from which fluid was issuing. The opening was closed and the patient recovered.

By the courtesy of Dr. Andrewes of St. Bartholomew's I am able to show a gastric crateric ulcer in the process of formation. In this case a previous ulcer had been excised three months before death and the healthy stomach wall reunited. The surgeon had used catgut for the internal suture, and this had become digested before complete union of the mucosa had taken place. This coat had therefore retracted at one point, allowing access of gastric juice to the submucosal and muscular layers, with the production of the ulcer seen. This preparation is valuable, since it illustrates not only terraced ulcer formation but several surgical points—the unfitness of catgut for internal suture, for one; one possible cause for jejunal ulcer after gastro-enterostomy, for another—so many of which have been found at the actual junction between stomach and intestine; besides a third, to which I shall presently refer.

Chronic gastric ulceration is not strictly speaking one of the emergencies of the abdomen, but its perforation is. It is therefore admissible as a subject of remark. Patients who suffer from chronic gastric ulcer are usually men and women in middle life. They give a history of long-continued dyspepsia. They dread to eat, since the act is usually followed within an hour by pain, sometimes by vomiting, which gives so much relief that many are in the habit of exciting it for that purpose. The disturbance of their gastric functions reacts upon their nutrition, frequently upon their temper. They become thinner, more irritable, sometimes even morose. Their diet becomes restricted, since various foods are dropped one after another, partly because of their own experience of the pain produced, partly by the advice of their friends or their physician. Rest in bed, absence of worry, and a suitable diet will relieve for a time, but return to normal life and diet is followed by relapse. Their views of life and the future become clouded, they themselves neurasthenic and unhopeful. There seems little doubt that some at least of the suicides for which no cause can be assigned are due to this condition.

Chronic duodenal ulceration gives a similar history, but with one main point of differentiation. There are others of course, but this is the one on which it appears to me most reliance can be placed. I refer to nocturnal pain. Patients suffering from this wake up in the morning about 2 or 3 with a hot burning sensation rather lower than the epigastrium but in the median line, and often also at an opposite point in the back. Almost immediate relief can be obtained by the taking of some alkaline fluid, and they fall asleep again. This symptom is in my experience more valuable than the actual time after a meal at which pain is felt; comparison of cases proved by operation shows great variability in the time of appearance of this pain, in some gastric instances the pain appearing even later after food than in other duodenal ones.

Both gastric and duodenal ulcers appear to be curable by gastro-jejunostomy, but in what remains to be said I shall refer only to gastric ulceration. Such ulceration is not only in itself an evil, but it tends to produce other and more serious results which cannot so easily be remedied. Sonnischen found 14 per cent. of 156 cases of gastric cancer examined *post mortem* in the pathological institute at Kiel undoubtedly developed from ulcer, whilst in a second series Klausa found 26 per cent. Stich declares that ulcer carcinoma constitutes 30 per cent. of gastric cancer. Mayo found 54 per cent. of the cases of gastric

cancer at Rochester in which both the clinical history and pathological examination made it certain that they had originated in ulceration. Robson, in his Bradshaw Lecture, reports 59.3 per cent. of gastric cancer giving a previous history of chronic ulcer.

The good results of gastro-enterostomy in chronic ulcer are now admitted, and every physician who has advised and every surgeon who has practised this operation will have many cases to which they can refer with satisfaction. From my list of 53 I select 2 which will illustrate its effects.

The first was that of a man aged 58, who had suffered for years from dyspepsia. Eight years ago he had a sudden attack of haematemesis and passage of blood by stool; after this there was no more bleeding for several years, although his digestion was always bad, until three years ago, when it returned; he was at that time manager to a large firm, but the effect upon his health was so great that he was obliged to resign his position. For a time he lived quietly, attempting by diet and rest to recover his health, when a third and more profuse loss of blood occurred, causing his friends great anxiety as to his life. His recovery from this was slow, but as soon as he was sufficiently fit he came from London here for the operation. This was done and he returned home. As may be supposed, the loss of his situation, combined with the difficulty of obtaining another at his age, weighed on his mind, and he writes, some months later: "I should almost begin to despair but for the memory of what I have gone through and the constant feeling of thankfulness to be so healthy and strong; it is worth anything to be restored to good health. There has been nothing whatever to report in my condition that is unfavourable. I have not once been sick (however slightly), but am certainly stouter, and my appetite keeps always normal."

The other I mention as showing that good results are persistent, though, as several *x*-ray drawings and photographs which I have to show appear to demonstrate, the new stoma alters in its action as time elapses. This case is one of a girl who was operated upon in 1907.

Shortly, the case was one of pyloric ulcer with contraction and consequent gastrectasia. Symptoms had existed for several years; the pain was increasing and emaciation was great. She weighed only 6 st. on admission. Soon after the operation she began to gain weight; the pain disappeared almost directly after it; a year later she had gained 4 st., and she writes now, two and a half years since operation: "I am now better than I ever was in my life, which only serves to prove how successful was my operation."

It is interesting to note the progress of these cases as shown by Roentgen-ray observations. At first the gastric contents pass almost at once through the artificial stoma. In one case observed within eight days (it is difficult to obtain an observation earlier) the bismuthized food went through in large gulps and almost immediately so filled the small intestine that it was impossible to obtain a clear photograph. Later, in the course of two or three months, a time which varies in different cases, only a certain amount passed at once, and then the stomach was contracted, closing the opening, and allowing a clear space to become visible between the bismuth still retained in the stomach and that which had passed through the stoma. It was as if the intestine was able to signal to the stomach when it had received the amount which it was capable of digesting. After a time, also variable, the stoma reopened and allowed still more to pass, closing again when sufficient had entered the jejunum. At a later period in the history of the case the food began again once more to pass by the pylorus, less and less went via the stoma, more and more by the natural passage. At last—at least, in some cases—the original condition of things appears to be re-established. That is the impression produced by a study of these photographs and screen observations. No doubt in many cases, especially if the pylorus is organically contracted, the stoma will always remain the route by which gastric contents will find their way onwards, but, as in those in which ulcer is present, pyloric closure is usually due to spasm, which remains until the ulcer is healed, and relaxes when once that source of irritation is removed, it seems probable that these observations reflect the most common course of events.

A natural consequence of this is the question of closure by artificial means of the pylorus at the time of operation, which has been advised by some operators. I have never done this, for two reasons; no doubt the most startling results for good have been observed when exit by the natural route has been entirely stopped by organic closure, but it is doubtful how far such closure can be imitated by artificial means, or advisable if it can be done. As long ago as the time of Travers it was observed that any suture appli outside the intestinal wall tended sooner or later to ma its may through into the lumen of the gut; but it has be objected by some that this only resulted with the sept sutures in use at that time. An aseptic suture or ligatu it has been said, will remain. Allow me to call your atte tion once more to the photograph. The inner suture was ca gut, but the outer was iron dyed silk, and was aseptic wh applied as it was to the outer wall of the stomach, yet no it is almost loose in its interior. Asepticity of the ligatu would therefore appear to have no effect in preventing th Mucosa if pressed against mucosa will never unite. Unle the actual mechanical pressure of the ligature can be mai tained the ultimate result will be a reopening of t pylorus as soon as the thread has worked its way throu the tissues of the gut, leaving behind a linear scar in th opening. If the general tendency is to a *restitutio a integrum*, is it advisable to produce such a scar, whic must always hamper the dilatation of the pylorus whil unable to close it?

An Address

ON

THE TREATMENT OF GASTRIC AN DUODENAL ULCER.*

BY

E. I. SPRIGGS, M.D.LOND., F.R.C.P.LOND,

SENIOR ASSISTANT PHYSICIAN AND LECTURER ON PHARMACOLOGY AT ST. GEORGE'S HOSPITAL; PHYSICIAN TO THE VICTORIA HOSPITAL FOR CHILDREN.

In the last few years much attention has been pai to the pathology, symptoms, and treatment of gastri and duodenal ulcer. Most of the papers published hav been devoted to special aspects of the subject. I propos this evening to review briefly the chief methods of trea ment now advocated, most of which I have used patients under my care, with or without the co-operatio of surgical colleagues. I shall not burden you with man figures. The statistics of different methods of treatmen are of great value, though figures compiled by differen observers must not be compared too closely, because w cannot be sure that in each series the individual case have been selected under the same conditions or ever with the same care. In practice, however, when con fronted at the bedside with the problem of treatment, w have to make our choice with a greater regard to th symptoms and circumstances of the particular patien than to the percentage of cures reported to have beer established by this method or by that.

One conclusion may be reached from a glance at the published papers advocating the various methods of treating gastric ulcer at the present day—namely, that there is no one exclusive way of dealing with this disease. For there are now several large series of cases treated on divergent principles, all showing a low mortality with a large proportion of successes. In these series we note that when one observer has made use of one method, he has usually attained success; this I interpret to mean that success does not depend upon the particular method so much as upon the care and prudence with which it is carried out. Men do well what they do often.

Gastric ulcers are of two types—acute and chronic The acute gastric ulcer, occurring in well-nourished young anaemic women, is probably one of the easiest diseases to treat successfully; indeed, so striking is the response to treatment, that the doctor may be said in this disease, if in any, to cure the patient. Chronic gastric ulcer, on the other hand, though seldom fatal when carefully treated, is a more difficult complaint.

Diagnosis.

Before making up our minds as to the method of treatment to be adopted we must form an opinion as to the existence of an ulcer, how long it has been there, and whether it is in the cardiac or pyloric end of the stomach or in the duodenum. We must then find out whether

* Read before the Brixton Medical Society.

there have been any previous attacks, what treatment was applied, and with what success. I am not going to speak of diagnosis, but will say that, though there are borderline cases which offer difficulty, in most cases there is but little. Cases of severe haematemesis have been described in which no definite ulcer could be found at an operation or *post mortem*. I am not now referring to the multiple haemorrhagic erosions occurring in a number of toxaemic states, such as pneumonia, appendicitis, and anaemia, and in severe gastritis, but to the vomiting of blood in patients with the symptoms of gastric ulcer. Recently Dr. Hale White has described this in this country under the title "gastrotaxis." I shall include such cases of haematemesis with gastric symptoms in young people as cases of acute gastric ulcer; in some of them the existence of a little ulcer involving a vessel has been proved by minute examination. I have seen such myself. The great difficulty of demonstrating a small lesion in the rugose lining of the stomach must be remembered. At an operation it is impossible to be sure that a small ulcer or fissure is not present, and after death it is quite easy to miss one, even when the stomach is carefully pinned out. It appears likely that the lesions both in "gastrotaxis" and in gastric ulcer arise from the action of the digestive juice upon disintegrated lymphoid patches. Lymphoid tissue is especially abundant in the stomach of the dyspeptic. Neither from the point of view of diagnosis nor, as we shall see, of treatment, is it of importance whether a small lesion involving a vessel is present or whether such a lesion has proceeded to the stage of a round ulcer.

Rest.

In accordance with the teachings of the English physicians of the last century, I believe that the most important point in the treatment of gastric ulcer is to ensure complete and prolonged rest in bed. It has been my lot to treat cases in the out-patient department who would not or could not lie up entirely, and to see patients in better circumstances who have remained up and about against advice. Dietetic and medicinal treatment will relieve such but seldom cure them. On the other hand, I have seen cases in bed treated in many different ways with good results. From these observations the conclusion may be drawn that complete rest is a factor without which all other treatment is likely to be disappointing. I have no doubt that the absolute rest and simple diet enforced after an operation has a great part to play in the relief afforded. If operations for gastric ulcer were arranged at the end of three weeks in bed instead of at the beginning they would, in not a few instances, be postponed indefinitely. I need not dwell longer on the importance of rest, and should have not said so much about it did I not know how many people there are walking about with gastric and duodenal ulcers who could be cured if they went to bed for a month or even a shorter time. The rest in bed should be absolute; no getting out or sitting up, and as little rolling over as possible. The indications for complete rest are still more stringent when there has been a recent haemorrhage; the patient should not move from the supine position for ten days. An ice-bag on the epigastrium helps to keep the patient still; it also diminishes stomach movements and relieves pain.

Dietetic Treatment.

This must be looked at from the point of view of the condition of the stomach, and from that of the general nutrition of the patient.

The stomach contains an unhealed wound, and very often an eroded blood vessel loosely plugged with newly-formed clot. It also produces an acid digestive ferment capable of irritating the ulcer and dissolving the clot; further, the patients who are most liable to gastric ulcer produce this digestive juice abundantly.

We ought not to speak of hyperchlorhydria, if by that is meant a higher proportion of hydrochloric acid in the gastric juice, because it is probable that the percentage of acid in the secretion never rises much above about 0 4, which may be regarded as a normal figure. When pure gastric juice has been obtained from a fistula in man the proportion of hydrochloric acid has been, as in animals, surprisingly constant.[7] That proportion may be depressed in disease, but the evidence is wanting that it can be much raised.

There are, however, three ways in which the total amount of acid, as distinguished from the percentage, in the stomach may be increased. First, by hypersecretion of juice. This was observed by Pawlow to take place in a dog who developed a gastric ulcer in a small accessory stomach made by operation from the normal stomach. During the formation of the ulcer there was a continuous secretion of three or four times the normal amount of juice.

Secondly, by any interference with the natural discharge of the stomach contents. The pylorus has been shown to open as soon as a certain proportion of free acid is present in the stomach; the time which elapses after a meal before the food begins to leave the stomach will, therefore, vary with the nature of the food. Protein will take up a good deal of acid, and its affinities must be satisfied before acid appears free in the mixture of food and secretion, and stimulates the pylorus to open. Carbohydrate, on the contrary, does not take up acid, and therefore, if the meal is chiefly starchy, the acid of the gastric juice is not neutralized and the pylorus opens earlier. We see, then, that if this mechanism is interfered with, as for instance by an ulcer near the pylorus, which may be supposed to render the musculature of the pylorus unduly irritable, the pylorus would not open at the proper time, and instead of the acid juice passing on into the small intestine to be neutralized, it would accumulate in the stomach. It is probable that such interference with the motor functions of the stomach is often responsible for the so-called hyperacidity.

Thirdly, the total amount and percentage of free acid may be raised by the fermentative production of organic acids. In this way the percentage of total free acid, but not, of course, of hydrochloric acid, may be higher than about 0.4; indeed, the total acidity may be equivalent to 0 6 or 0 7 of hydrochloric acid. Fermentation is most likely to occur as a result of deficient motor activity of the stomach.

The dietetic treatment adopted depends upon the view taken of the relative importance of the above-mentioned conditions in the stomach. If the most urgent requirement is to protect the ulcer from all contact with foreign material, whether fluid or semi-solid, then no food at all must be given by the mouth; if, on the other hand, the harm is done by the gastric juice, then means must be used to prevent its secretion or to neutralize its activity after it has been secreted.

If we could be sure that the withholding of food by the mouth would be followed by the cessation of gastric secretion, the course to be taken would be plain; but we do not know this. It is true that the normal stimulus to the secretion is a meal; but the flow begins before food is sent into the stomach, for the thought of food is sufficient to arouse it; and the hungrier the patient the more likely is such a thought or any stimulus to call forth secretion. Further, I have already mentioned that the ulcerated stomach is prone to hypersecretion of juice; and several observers have reported that the administration of a nutrient enema, which is associated by the patient with the idea of food, does excite the production of gastric juice, and one of them has actually observed this in a patient with a gastrostomy wound.

If, then, we cannot be sure that starvation really secures the ulcer from all irritation, we may turn to see what means may be employed to neutralize the gastric juice and to lessen its secretion. When the etiology of the gastric and duodenal ulcer is considered, it is evident that this course is a reasonable one, for these ulcers only arise in those parts of the mucous membrane which are exposed to the action of the gastric juice. Dr. C. Bolton has shown that the ulcers which follow the injection of "gastrotoxic serum" into the peritoneum in guinea-pigs are not formed if the activity of the gastric juice is arrested by neutralization. It is the digestive power of the acid secretion which is the immediate cause of the ulcer, and appears to be the chief factor in preventing it from healing.

The gastric juice may be neutralized, and thus rendered harmless, by giving protein and by giving alkalis. Both these methods are useful, but the former has the advantage that food is being supplied which, when it has been passed on into the intestine, will be absorbed and nourish the patient.

Another plan which may be adopted is that of mechanically draining off the gastric juice and the food from the stomach by means of a gastro-jejunal fistula. This operation is effectual in cases of ulcers at the pyloric end of the stomach, but it is less likely to be so in those at the cardiac end. I have seen recently a case in which a later operation showed that an ulcer in the cardiac part had leaked and become adherent to the abdominal wall after a gastro-jejunostomy had been performed.

The secretion of juice may be lessened or inhibited by giving fat, which, again, is a valuable food; indeed, from one point of view, that of the heat value, the most valuable of the three foodstuffs.

Leaving now the discussion of the local condition in the stomach, let us consider the general nutrition of the body. This is undermined in many cases by a long period of dyspepsia suffered by the patient before an ulcer had formed or was recognized. Some patients are, however, well covered, but these are commonly anaemic, and anaemia has been shown to delay the healing of ulcers in the stomach.[9] There is no danger to life in withholding food altogether for a few days or even two or three weeks in fairly stout people, provided that fluid is supplied freely. In the emaciated, however, such a proceeding cannot fail to be harmful. It is true that food can be given per rectum, and under favourable conditions about half the needs of the body can be supplied in this way. It is seldom, however, that the absorption of this amount of food can be continued for more than a few days. We must remember that only a part of what is introduced into the sigmoid is really absorbed, and, in the average case, only a small part. We cannot, therefore, regard rectal feeding as anything but a temporary makeshift, valuable though it may be in a few individual cases.

The injection of oil under the skin has been practised, but in the only cases that I have found in which its effect has been estimated by a metabolism experiment, it appeared that but little, if any, of it was oxidized,[18] and in one patient unused oil was found lying in the body spaces after death.

Having briefly discussed the chief considerations which have formed a basis for the methods of treatment put forward at the present day, I will proceed to describe a few of these methods which have been used widely. I will not apologize for detailing them at some length, for they are not described in the ordinary textbooks, and my experience is that they are often carried out imperfectly from ignorance of the details. Of course, no method should be followed blindly, and in particular cases modifications must be made when necessary.

Rectal Feeding and Graduated Milk Diet.

The plan which has, until recently, found most favour in this country—at all events, in textbooks and in hospitals—is that of deprivation of food by the mouth, with rectal feeding, followed by a graduated milk diet. The patient is kept in bed, and if haemorrhage is recent nothing whatever is given by the mouth—not water nor ice to suck; the mouth is washed out repeatedly with antiseptic solution, and bismuth lozenges are given to suck. An ice-bag is placed over the stomach. A nutrient enema is given three times a day at intervals of six hours. At the fourth injection time the bowel is well washed out with normal saline solution, and, after an interval of half an hour, then a fresh quantity, up to a pint, of normal saline passed into the bowel and allowed to remain. The enemas should be run in slowly with a soft rubber tube and funnel; if greater pressure be used, such as is produced by a syringe, the fluid is likely to be returned. The hips should be raised so that the fluid injected may run by gravity into the colon. The patient must keep still for some time after each injection. The enema recommended by Boyd and Robertson is as follows: The yolk of two eggs, 1 oz. of pure dextrose, 8 grains of common salt, peptonized milk to 10 oz. There is no difficulty in 9 or 10 oz. being retained if it is run in very slowly and the bowel washed out thoroughly every day. In well-nourished people the nutrient enemas may be dispensed with. Enemas of half a pint of normal saline solution are then given every six hours. An intermediate course is to give 7 or 8 per cent. of dextrose in normal saline. The length of time that enemas should be continued is differently fixed by different physicians; some, after a severe haemorrhage or with a chronic ulcer, continue them for two o three weeks. Probably ten or fourteen days is enough. Afte five or six days small quantities of milk may be given b the mouth, say 2 or 3 oz. every two hours, increase gradually to 4 or 6 oz. at a feed. Each feed must be take slowly in sips. If pain is caused, 10 grains of sodium bicar bonate may be given with the milk. After the tenth day little bread and milk or milk boiled with flour is allowe and the enemas discontinued. Arrowroot, tapioca, sag and ground rice are now added to the milk with ½ oz. o plasmon. Bread and butter, rusks, eggs, and mil puddings follow. After four weeks, or, according to som physicians, not until the sixth week, pounded fish o boiled calves' brains, or very underdone scraped meat i carefully tried.

The advantage of this method is its exceeding caution The disadvantages are its neglect of the possibility of th irritation of an ulcer by the gastric juice leading t recurrence of haemorrhage; the slowness with which sufficient amount of nourishment is obtained; and th risk of parotitis from oral sepsis.

Leube has elaborated a diet on similar lines which ha had a great vogue abroad. Patients with recent haemor rhages are treated with abundant nutrient enemas for th first three days, but are sometimes allowed a little ice milk by the mouth. After a few days they begin the die upon which patients without haemorrhages are placed a once. This diet is designed to give a good deal of nourish ment with a minimum of gastric work, and is as follows For the first ten days small quantities of boiled milk meat extract, soup, unsweetened biscuits. On the fourt day, for instance, the patient receives two and a half pints of milk, six ounces of rusks and some meat extract. A tumbler of Carlsbad water is taken fasting every day. If all goes well, the patient may get up afte ten days. In the next seven days gelatinous soups, rice and sago cooked with milk, raw and lightly-boiled eggs boiled calves' brains, and boiled chicken and pigeon, without fat or skin, are added. In the next five days the diet is increased by minced underdone beefsteak, potato soup rice soups, a little tea, and coffee. The fourth diet, from the twenty-second day to the end of the fourth week, contains also tender beef, roast chicken and pigeon, well-cooked venison or partridge, macaroni, and a little white bread. From the fifth week on a return is gradually made to ordinary food. Strauss recommends a similar diet, but gives nothing by the mouth until the faeces have been shown to be free from blood.

Leube's plan is much less exhausting and rigorous than the first described; the patient is taking a concentrated and nourishing diet in a fortnight, and is soon being well fed. The enemas and the graduated milk diet are not carried to an extreme. Leube's régime has been successful in a large number of cases, and the mortality is low. It is open to the same objections as the first plan detailed, though in a less degree. But both the above methods include nutrient or saline enemas, and these are difficult to administer properly unless skilled nursing can be provided. They are also, under all circumstances, strongly objected to by patients and their friends. Indeed, nutrient and saline enemas have never been used in private practice in more than a small proportion of cases. In the majority treatment has consisted of rest in bed on a diet of milk, beginning with small quantities soon after the haemorrhage, if any, has ceased, the amount of milk being increased rapidly in favourable cases. Dr. Saundby in 1891 recommended rectal feeding only for a day or two in cases of haemorrhage. This was followed by 1 oz. of a mixture of equal parts of milk and lime water every hour. Then bread-and-milk and custard were given, and then eggs and pounded chicken, the patient being led to an ordinary nourishing diet as soon as possible. An iron pill was taken daily, and magnesia.

Treatment by Immediate Feeding.

We may now consider the plan recommended by Lenhartz, which has been on trial for a comparatively short time, but long enough (eight years) for a large number of cases to have been treated by it. I first gave it a trial in 1906,[14] and published a series of cases, with a short review of the literature, last year.[15] The following account of the method is taken from that paper:

The routine of the Lenhartz method is as follows: The patient is kept absolutely in bed for four weeks, for the first two of

which she is not allowed to move from the supine position for any reason whatever. All mental excitement must be avoided. An ice-bag is kept upon the stomach almost continually for the first two weeks. The dietary consists of eggs, beaten up with sugar, or in some cases with wine, and iced; and of milk. These two foods are taken in small quantities at frequent intervals from a teaspoon, the quantity prescribed being spread over the day and not given at definite meal times. The first day 7 to 10 oz. of milk are given, and one egg. The quantity is increased daily by 4 oz. of milk and one egg until 2 pints of milk and six eggs, or in some cases eight eggs, are reached. From about the third to the eighth day raw or almost raw mince is added, starting with 1 oz. in divided doses, either beaten up with the egg or alone; the next day, if the mince is well borne, 2 oz. are given. In my own cases minced beef was used.

From the seventh to the eighth day boiled rice is added, followed by softened bread, and, later, by a small quantity of bread-and-butter. One or more eggs may now be lightly boiled. The diet is then gradually increased by the addition of minced or pounded fish with a corresponding reduction of eggs, until by the end of the fourth week the patient is on an ordinary mixed diet containing the common foodstuffs with the exception of indigestible foods—such as peas or other seeds. The patient is instructed to masticate very slowly. On the twenty-eighth day the patient is allowed to get up, and discharged from the sixth to the tenth week.

For the first ten days bismuth subnitrate is given in doses of 30 grains in water without mucilage twice or three times a day. In my cases, however, the carbonate or the oxychloride was used. From the sixth to the tenth day sulphate of iron is prescribed in the following soft pill:

Sulphate of iron	150 grains
Calcined magnesia	20 grains
Glycerine	1 drachm.

Mix and divide into 60 pills.

Two of these are given two or three times a day. Lenhartz increases the dose gradually, giving three for three days, four for four days, up to ten for ten days, and then down again. In some cases arsenic is added. The bowels are not disturbed at all during the first week unless they are naturally opened. An enema is then given, and repeated every fourth day during treatment. The mouth should be washed out and attended to regularly.

In my own cases I have usually begun with 4 oz. of milk and one egg on the first day, and have seldom given the iron pill more than three times a day.

It is claimed for the Lenhartz method that it is suitable for all forms of gastric ulcer except, of course, those associated with mechanical deformities, such as stenosis of the pylorus and those in which some serious complication, such as perforation, peritonitis, or subphrenic abscess, is present. The sour regurgitation, the vomiting, and the pains and distress after food disappear in from a few hours to a few days. The method has been found successful after recurrent haemorrhages have occurred on rectal feeding.

The diet introduces an amount of food which soon becomes adequate to the needs of the body. A table is given by Lenhartz in which the calories given per diem are shown to reach nearly 1,600 on the seventh day and 2,500 on the tenth. The actual figures for the first fourteen days are: 280, 420, 637, 777, 956, 1,135, 1,588, 1,721, 2,138, 2,478, 2,941, 2,941, 3,007, 3,073 calories.

It is important that patients should be kept in hospital some weeks after they have reached full diet, for a case cannot be recorded as cured until not only are there no symptoms, but the percentage of haemoglobin and the weight are normal. Unfortunately, it is difficult to keep the average hospital patient in after all symptoms have subsided.

The ulcer cannot be regarded as healed until the motions have been free from blood for several weeks. If haemorrhage persists in small quantities, the attention should be directed to the possibility of cirrhosis or carcinoma. In cases in which the blood test is being regularly made, the mince must be omitted altogether from the diet.

From a comparison of my own series of cases, with a similar number of cases treated by other methods, it was concluded:

First, that the Lenhartz method of treatment is not more dangerous than treatment by nutrient and saline enemas, followed by a graduated milk diet. In these particular cases the recurrence of haemorrhage was less frequent, and there were no deaths.

Secondly, that the pain suffered by the patient in the course of treatment is less on the Lenhartz diet.

Thirdly, the diet gives far more nourishment than can be introduced into the body by nutrient enemas, and is, therefore, more desirable in patients who have frequently been for a long time in a state of semi-starvation, or have suffered a loss of blood, or both.

Fourthly, that in cases treated by this method rectal injections may be entirely avoided. This is an advantage in a hospital, and a still greater advantage in treating cases at their homes, where rectal injections are not only regarded as extremely unpleasant, but are seldom efficiently administered.

Gerhardt used the Leube and the Lenhartz methods, and obtained good results with each. This is my own experience. The choice may, then, turn upon convenience, and there is no doubt that the latter method is more convenient.

Whenever the Lenhartz method is discussed, the objection is put forward that it does not seem wise to put food into the stomach immediately after a haemorrhage. The fact is that such patients do well, and recurrent haemorrhages are less frequent than in patients treated by other methods. It is extraordinary how some very severe cases have responded to this treatment. Here is an example (from notes by the house-physician, Dr. G. W. H. Carpenter):

M. W., aged 25, a cook, was admitted into St. George's Hospital on August 23rd for gastric ulcer. In the previous two years she had had indigestion several times. On the day before admission she brought up "half a pailful" of bright blood. She was given nothing by the mouth, except a very little water in sips. That evening she vomited 51 oz. of blood; ¼ grain of morphine was injected, and 15 oz. of saline given per rectum, six hourly, one of which contained 10 c.cm. of horse serum. The pulse-rate quickened, and at 10 p.m. was 132. The next evening a third haematemesis of 29 oz. occurred. A little iced milk was allowed, and adrenalin solution administered in 20-drop doses in white of egg. Morphine was again injected, and an ice-bag applied to the epigastrium. For the next two days all went well. A little raw beef juice and horse serum was taken in drachm doses. On the fifth day after the first haemorrhage a clot, representing about 33 oz. of blood, was vomited. Morphine, horse serum, and rectal saline injections were continued. The next day the fifth haemorrhage occurred, about 20 oz.; adrenalin in egg-white was given again. The patient was blanched and the pulse 140. The next afternoon a sixth and a seventh haemorrhage took place, 35 oz. in all. The pulse could sometimes scarcely be felt, and the patient was in an extreme condition. Continuous subcutaneous saline infusion was given. Operation had been discussed, but put on one side on account of its high mortality when performed for haemorrhage.

At 8 p.m. feeding with milk and eggs was begun, one egg in 4 oz. of milk being given in the next twenty-four hours. No more bleeding occurred. The saline infusion was continued two days longer. The patient made an uninterrupted recovery. Six weeks after admission she looked well, had a good colour, and was able to take all her food without discomfort.

The advocates of the treatment by this method go so far as to say that it is a valuable means of diagnosis, for in cases which do not yield to it cancer or cirrhosis may be suspected, or, in cases without bleeding, neurosis. I have seen this verified as regards cancer more than once.

The Lenhartz method seeks to protect the ulcer by neutralizing the acid of the gastric juice with protein, and by inhibiting its secretion by the fat of the yolk of egg and milk. It has long been known that fats inhibit the secretion of gastric juice, and butter, cream, and bacon fat have been given in conditions of hypersecretion; the work of Pawlow's pupils has established their use upon a scientific basis. Senator with fats prescribes gelatine, with a view of arresting bleeding and sparing protein. He claims that his plan has all the advantages of the old and the new methods without their disadvantages. He orders teaspoon doses of 10 per cent. gelatine in water every quarter or half hour, with an ounce of butter, in small frozen pellets, and 9 oz. of cream in the twenty-four hours. This is followed by milk, beaten eggs, and scraped meat.

Others adopt further compromises by withholding food for two or three days, milk and cream being begun on the fourth day. I find that many of my colleagues follow with success this rule, which differs from that recommended by Dr. Saundby in that a larger proportion of fat is given.

Rosenfeld gives half a litre of cream a day for the first three or four days. This, by diminishing the secretion of acid and causing the pylorus to open, has the same effect, he points out, as gastro-enterostomy. Pain is allayed and bleeding arrested.

Oil Treatment.

P. Cohnheim in 1900 introduced the treatment of gastric ulcer by large doses of olive oil. Walko (1902) recommended the oil alone for the first few days in the form of 1 or 2 oz. of olive or almond oil, three or more times a day. I have found this method successful. The great objection

to it is the repugnance which it excites in some patients' and to which I shall refer again under the heading of duodenal ulcer.

In my own experience, very few cases have failed to respond to one or other of the above methods of treatment, if carefully carried out. We read of cases operated upon because medical treatment had failed; this happens of course, but it need not happen often. Any form of milk diet is regarded by some surgeons as efficient medical treatment, whether it was applied strictly with due attention to absolute rest, and to the quantities taken, or not. The fact is, just as much care and attention both to principles and to details should be given to the medical treatment of a gastric ulcer as are necessary to the performance of an aseptic operation. It is not enough to say, Rest as much as you can, and feed upon slops.

The Arrest of Haemorrhage.

The most important measure is absolute repose. Surgical aid during haemorrhage is not to be recommended, the mortality being greater than when no operation is done. Bleeding from the stomach is seldom immediately fatal; the patient may, however, die in a few days from exhaustion. An ice-bag is placed upon the stomach to cause contraction of the stomach wall; it also keeps the patient still, since any movement tends to dislodge the bag. Morphine is given subcutaneously in doses of ¼ grain; atropine is also recommended. Many styptics have been used; the most valuable is adrenalin, in doses of 30 drops of a 1 in 1,000 solution. I have given this in a little egg-white, with the view of the protein taking up any gastric juice that may be present. No styptic can be expected to arrest haemorrhage from a large vessel. The bleeding goes on until the fall of pressure in the arteries allows a clot to form; the aim of treatment must then be to ensure that the clot is not dislodged by the rise of pressure caused by movement, or by direct movement of the stomach, or from digestion of the clot by gastric juice. Horse serum is also given. Some physicians have used large doses of bismuth in haemorrhage.

After-Treatment.

The after-treatment of cases of gastric and of duodenal ulcer is of great importance, owing to the tendency to recurrence. The teeth of the patient must be kept in order and the food well masticated. Alcohol is best avoided; if taken at all it must be in a very weak solution. Sternberg has shown that concentrated alcohol promotes the formation of ulcers in animals. No vinegar should be allowed. Dr. C. Bolton found that 0 5 per cent. acetic acid favoured the extension of "gastro-toxic" ulcers of the stomach; vinegar is a solution of eight times that strength. Strong spices, peppers, and irritants of all kinds must be prohibited. Foods containing small indigestible particles, such as seeds and stringy fibres, should be avoided. The patient must not take aërated waters, which are likely to distend the stomach unduly. If tea is taken, it should be China tea, very weak, and only once a day. All bland and non-irritating foods may be recommended, and especially cream and butter, gelatinous soups, and soft, well-chewed fish, meats, and farinaceous foods.

Indications for Operation.

What are the indications for operation? Perforation, of course, pyloric stenosis, or other mechanical deformities. If the symptoms, and especially severe pains, do not yield to treatment, and recur more than two or three times, I advise gastro-enterostomy, particularly if there is reason to suspect a chronic ulcer at the pyloric part of the stomach. The operation gives relief just as does appropriate medical treatment, and the relief is often persistent. The symptoms may, however, recur after operation, as they may after other treatment. I have seen a number of such cases—indeed, considering that only a small proportion of cases are operated upon, a striking number. It must be remembered, however, that as I do not recommend operation until medical treatment has been followed by recurrence, only the more resistant of my own cases have been passed on to the surgeon. If every case diagnosed as gastric or duodenal ulcer is operated upon without delay, as is the practice of some surgeons, no doubt much more uniform success may be obtained, though a great many unnecessary operations will be, and indeed are, done.

It appears that a gastro enterostomy is not likely to be so efficacious for a cardiac as for a pyloric ulcer, since it cannot prevent food and gastric juice from passing over the cardiac part of the stomach. In such cases it is advisable that the ulcer be tucked in at the operation whether a gastro-jejunostomy be done or not. Clairmont in Vienna, at v. Eiselsberg's clinic, noted in a large series of cases that the nearer the ulcer was to the pylorus the more favourable was the effect of gastro-enterostomy.

My own experience is that the cases which are refractory to careful medical treatment are sometimes the same to surgical treatment. It is well, therefore, not to promise the patient too much. In Clairmont's series 52 per cent. were cured and 15 improved, leaving 33 per cent. of less satisfactory results.

A certain number of cases have a palpable tumour in the epigastrium. These masses are not necessarily carcinomatous, but nevertheless an operation should always be done to ascertain whether they are or not. Here is such a case:

A woman of 35, a patient of Dr. Atkinson, of Catford, suffered for months from gastric symptoms in spite of treatment. A mass formed in the epigastrium. Mr. English opened the abdomen at my request, and found a large bossed tumour at the pyloric end of the stomach. A gastro-jejunostomy was done and a piece of the mass removed for microscopical examination. It proved to be inflammatory. That is eighteen months ago, and the last report is that the mass is much smaller, and the patient enjoys good health and can walk for miles.

Such cases may recover without operation, as did a patient whom I saw three years ago:

An elderly gentleman had a hard tumour in the upper abdomen associated with gastric symptoms. Two or three medical men had made a diagnosis of carcinoma, and in view of his extreme emaciation and anaemia and the extent of the tumour, I could not dissent from that view, and did not advise an operation, but contented myself with instructions as to a non-irritating and nourishing diet, with large doses of bismuth. The patient, to the surprise and gratification of all, made a good recovery and is well now.

It is important to take out a piece of the growth, and not only a gland. I have known an enlarged gland reported benign whilst the mass was a carcinoma. In another case, a male, presenting almost the same symptoms as the young woman referred to above, the piece of growth taken out was malignant. A second operation was then performed by Mr. English, who excised the major part of the stomach, sewing up the duodenum. The patient recovered, grew fat, and was well a year later. Shortly after this, however, he put an end to his life. His medical man, Dr. Mayston of Erith, reported that he had had severe headaches, and these may have been due to a recurrence in the cranial cavity.

Treatment of Duodenal Ulcer.

We owe a great deal to the Mayos in America and to Mr. Moynihan in this country for their enterprise in opening the abdomen in patients suffering from this complaint, and thereby enabling us to diagnose the disease with much more accuracy than formerly. The patients who have been thus operated upon should also receive the gratitude of the profession for their contribution to an important new chapter in experimental medicine. Provided that the patient is willing to submit to proper medical treatment and to rest in bed, duodenal ulcer is, in the large majority of cases, easily curable. Many mild cases may be cured by giving bicarbonate of soda in 20-grain doses when the pain comes on, and prescribing a bland fatty diet. Here is an example:

R. R., male, aged 45, ill for two months, sought advice on April 23rd, 1909, for bad pain occurring three to four hours after a meal, relieved by food. Two years before he had vomited some blood. The bowels were only opened every second or third day. A week later black motions were passed. On May 7th he was better. The motion contained no blood either to the eye or to chemical tests. On May 18th there remained a slight pain only before meals. On June 11th he reported that he had had no pain for a fortnight and felt well. I have just heard from him, after nine months, and he has had no return of the complaint. This patient was treated simply by a diet containing abundance of milk, eggs, butter, dripping, with milk and eggs alone for the first few days. A mixture containing 20 grains of sodium bicarbonate was ordered to be taken when the pain came on. He rested in bed only for the first few days.

As a rule, however, the patient should be entirely in bed and should be treated like a gastric ulcer. Duodenal ulcers are of the same nature as gastric ulcers, in that they occur in that part of the alimentary tract which is exposed to the gastric juice before its acid is neutralized by the bile and pancreatic juice. Cases of duodenal ulcer do well on the Lenhartz diet; did time permit I could quote a considerable number. I often combine with it ½ oz. of olive or almond oil three times a day, following the method introduced by Cohnheim and by Walko, and advocated by Dr. Hertz. On this plan ½ oz. of oil is given every three hours and increased to 1 oz. or 2 oz. Nothing else is given, except water for thirst, until there is no blood in the stools. Cream is then given, and the foods of the Lenhartz diet are added gradually, but not the rice. The oil is now reduced to 1 oz. before each meal.

I have tried this method thoroughly, and can recommend it for patients who will endure it, and not a few will. To others it is exceedingly nasty, and fails on that account. Whenever retching or vomiting is caused the treatment should be altered. If the patient does not respond to one or other form of dietetic treatment, the possibility of the symptoms being due to gall stones must be carefully reconsidered.

The indications for operation in duodenal ulcer are the same as in gastric ulcer. It is to be noted that a proportion of cases of ruptured duodenal ulcer have had no premonitory symptoms. As in gastric ulcer, a certain number of cases relapse after operation—25 per cent. in 28 cases operated on by Drummond and Rutherford Morison and 15 per cent. in the series recently published by Mr. Moynihan, which includes many cases that cannot be regarded as severe. If those surgeons who advocate surgical treatment as a routine could do a year or two's work on the medical side of a hospital, they would learn that many cases get well as out-patients, and most of the remainder as in-patients, with rest and dietetic treatment.

REFERENCES.

1 Bogen, H.: *Arch. f. d. ges. Physiol.*, 1907, cxvii, 150.
2 Bolton, C.: *Proc. Roy. Soc. Med.*, 1909, II, iii, Path. Sect., 54.
3 Clairmont, P.: *Mitt. a. d. Greuzgeb. d. Med. u. Chir.*, 1909, xx, 330.
4 Cohnheim, P.: *Zeitschr. f klin. Med.*, 1904, lii, 110.
5 Drummond and Rutherford Morison: BRITISH MEDICAL JOURNAL, 1909, ii, 67.
6 Gerhardt: *Zentr. f. Stoffw. u. Verdauungskr*, 1909, N.F. iv, 336.
7 Katznelson, H.: *Arch. f. d. ges Physiol.*, cxviii, 327.
8 Leube: *Deutsch. med. Woch*, 1909, xxxv, 961.
9 Quincke: Ibid., 1882, viii, 79.
10 Rosenfeld: *Zentr. f. Stoffw. u. Verdauungskr.*, 1909, N.F. iv, 336.
11 Saundby, R: *Lancet*, 1891, i, 353.
12 Sternberg, C: *Zeitschr. f. Heilk.*, 1907, xxviii, N.F. viii, Supplement-Heft (Marz, 1908), 280.
13 Strauss: *Zentr. f. Stoffw. u. Verdauungskr*, 1908, N.F. iii, 30.
14 Spriggs, E. I.: *Med.-Chi. Trans.*, 1907, xc, 283.
15 Spriggs E. I.: *Proc. Roy. Soc. Med.*, 1909, II, iii, Therap. Sect., 81; BRITISH MEDICAL JOURNAL, 1909, i, 825.
16 Walko, K.: *Centr. f. inn. Med.*, 1902, xxiii, 1113.
17 White, W. Hale: *Lancet*, 1906, ii, 1189.
18 Winternitz: *Schmidt's Jahrb.*, 1906, ccxci, 235.

DOES GASTROSTAXIS EXIST AS AN INDEPENDENT DISEASE?

By CHARLES BOLTON, M.D., D.Sc, F.R.C.P.,

DIRECTOR OF THE RESEARCH LABORATORIES, AND LECTURER IN GENERAL PATHOLOGY, UNIVERSITY COLLEGE HOSPITAL MEDICAL SCHOOL; ASSISTANT PHYSICIAN, UNIVERSITY COLLEGE HOSPITAL.

It is well known that profuse haemorrhage may occur from the mucous membrane of the stomach apart from gastric ulceration. For example, in severe anaemias, in infective disease, in purpuric conditions, and in toxaemias associated with diseases of the liver and kidneys, it is a common experience to find the mucous membrane of the stomach intact when vomiting of blood has occurred during life.

In the condition known as gastrostaxis, however, there is said to be an oozing of blood from the mucous membrane of the stomach not only in the absence of any ulceration of that organ, but also in the absence of any other disease in which bleeding is likely to occur. Gastrostaxis is also said to possess a definite clinical history simulating that of gastric ulcer—namely, pain, vomiting, and haematemesis occurring in attacks in either sex, but especially in young females. It seems to me that the actual existence of gastrostaxis as a common clinical entity is hardly established on a sufficiently sound basis, and that it is extremely important for the question to be definitely decided one way or the other, because it is obviously absurd to treat a case of gastrostaxis by operation, whereas in the haemorrhage of gastric ulcer life may often be saved by timely operative interference.

For some time my attention has been particularly directed to the difficulties in the way of proving that this disease exists, and my object in writing this paper is to emphasize these difficulties and to encourage others to pay especial attention to the condition of the stomach at all *post-mortem* examinations of patients who have died of haematemesis. I am continually on the look-out for cases of gastrostaxis, but have never yet encountered such a condition on the *post-mortem* table, in all cases having found one or more acute gastric ulcers.

The evidence that gastrostaxis exists is threefold, namely: (1) That at certain *post-mortem* examinations of patients who have died of haematemesis no lesion has been found in the stomach to account for the bleeding. (2) That at certain operations performed upon such patients an ulcer has not been found. (3) That gastrostaxis possesses a definite clinical history. I shall critically examine each of these statements in turn.

Haemorrhage from the mucous membrane of the stomach is due to one of two pathological conditions:

1. There is some lesion of the walls of the blood vessels, allowing of the escape of blood, which breaks through the surface of the mucous membrane into the cavity of the stomach. There are two distinct conditions of the mucous membrane produced:

(*a*) If the haemorrhage be profuse enough to kill the patient it is quite common to find at the autopsy multiple erosions of the mucous membrane. These erosions are quite superficial, the bases of the glands being preserved, and form slight depressions in the surface of the mucous membrane as if the latter had been lightly rubbed off with the finger. When the stomach is hardened in formalin they can hardly be seen by the naked eye unless there be any altered blood adherent to them, but they are easily recognized microscopically. These erosions are of no importance, except that they may help to keep up the bleeding, and they do not develop into ulcers because the stomachs of such patients are kept in the resting condition, the secretion of gastric juice being therefore at a minimum, and secondly, the gastric cells themselves are healthy, and there is no tendency towards their further digestion by the gastric juice.

(*b*) If the haemorrhage be not profuse the condition found after death, which is always due to the primary disease, is one of multiple small or large interstitial haemorrhages into the mucous membrane, with perhaps a little coffee-ground material in the cavity of the stomach. Such interstitial haemorrhages appear as black patches on the inner surface of the stomach, which on microscopic examination are seen to be portions of mucous membrane infiltrated with blood which has not escaped externally. These haemorrhages cause no symptoms, and the patient is fed in the usual way, with the result that the stomach is actively digesting, and the infiltrated patch of mucous membrane is digested owing to the destruction of the gastric glands, and removed, leaving an ulcer. These two pathological conditions occur quite independently, and constitute two distinct types; but there is no doubt that at the same time one may see all transitions and combinations in different cases.

2. The haemorrhage is a secondary event resulting from ulceration of the mucous membrane. The ulcer is the primary condition and the haemorrhage due to a secondary opening up of a blood vessel. There is a great deal of confusion with regard to the conception of what is an erosion and what is an ulcer, and the two names are sometimes applied to precisely the same condition.

Both the terms "ulcer" and "erosion" imply a loss of substance, and when the lesion is once formed, there can hardly be a clear distinction between them, the difference being only one of depth. From the point of view of morbid anatomy, therefore, an erosion may be regarded as a superficial ulcer.

From the point of view of general pathology, we are not yet in a position to formulate precise definitions of these

two conditions. I think it will be granted by all that serious haemorrhage will not occur as the result of an erosion, so that if a patient die from gastric haemorrhage any lesions which may be subsequently found in the mucous membrane, and which are microscopically proved to be erosions, must be a result of the haemorrhage, which is therefore the primary condition. The lesion must be examined microscopically, because, as I shall show later, fatal haemorrhage may occur from an ulcer which is so shallow as to be indistinguishable from an erosion by the naked eye. To whatever pathological condition the term "erosion" be restricted is immaterial, because it is quite obvious that if a small artery be opened up and death result from profuse haematemesis, the lesion extends to the submucous tissue or deeper, and should undoubtedly be called an acute ulcer. This is the class of case with which I am dealing in this paper. It is often stated by writers that a slight abrasion or erosion existed, in the centre of which a blood vessel had been opened. Such a lesion is undoubtedly an ulcer, and a great deal of misconception arises from the use of these ambiguous phrases.

When moderately stretched out at an autopsy the thickness of the stomach wall is about 4 mm., the mucous membrane being about 1 mm., so that an ulcer reaching to the muscular coat must necessarily look shallow and especially so in proportion as its area is large. This shallow appearance almost forces the observer to call the lesion an abrasion or erosion and to consider it as of little moment. I do not forget that much of the congestion of an acute ulcer probably disappears after death.

Acute ulcers vary in diameter from about the size of a split pea to an inch. Small acute ulcers and the scars of acute ulcers are very easily overlooked at *post-mortem* examinations, and an ulcer may be cut through in opening the stomach, and so obliterated. All writers agree upon this point, and I think there is no doubt that many stomachs have been described as being free from any evidence of ulcer owing to the employment of a not sufficiently minute method of examination. For such an investigation the stomach should be placed in warm water so as to relax the muscular coats, and first examined in front of a light for opacities in the mucous membrane. It should then be pinned out on a board after being moderately stretched, and the surface should be well washed with a camel-hair brush, and carefully examined all over by means of a lens. Even now a scar may be missed. The specimen should then be hardened for twenty-four hours in 5 per cent. formalin, and dried by washing in methylated spirit. Stellate scars can be much easier seen in the dry state, and if the specimen be photographed they are seen with greater ease still. The radiating lines are exaggerated by the photographic plate.

Hardening in formalin, of course, takes the colour out of the specimen; but I am presuming that the specimen has already been examined in the fresh state and all information possible gained from the presence of blood. The scars of acute ulcers are not always stellate in form. The only evidence of a scar may be a slight opacity of the mucous membrane which is adherent to the muscular coat at that spot.

If the ulcer has perforated the muscular coat and been at all extensive, the resulting scar will be a small surface very slightly depressed below the surrounding mucous membrane, but otherwise looking quite like it. The surrounding mucous membrane may be slightly puckered or not. The scar is always very much smaller than the ulcer from which it has resulted, and it often tends to be oblong, or like a small fissure, and may be quite invisible till the stomach is stretched. The area of such a scar may be less than a fifth of that of the ulcer preceding it, as I have been able to show experimentally.

A point of the greatest importance is that in the centre of a scar of this kind, almost invisible itself, may be found a tiny opening leading into an artery. One such case was only recognized by a piece of blood clot which protruded from the hole; this clot had been tunnelled by the blood, and formed a tiny projection from the scar. It is not sufficiently widely known that profuse haemorrhage may occur from an ulcer which is almost healed.

The following three cases illustrate the fact that death from profuse haemorrhage may occur at any stage in the evolution or cicatrization of an acute ulcer.

CASE I.—*Haemorrhage from an Acute Ulcer in Its Fully Developed Stage.*

The patient was a servant, aged 30 years, who was admitted to University College Hospital on February 19th, 1908. She had no previous history of any stomach disease or indigestion. On the morning of the day of her admission she suddenly vomited half a pint of blood, and had five such attacks during the day. She was blanched and had a small feeble pulse of 120 in frequency, but was well nourished and apparently otherwise healthy. During the next two days she had three attacks of haematemesis, melaena occurring. The vomiting stopped, but the patient died on the sixth day of her illness. At the *post-mortem* examination an acute ulcer was found on the posterior wall of the stomach, situated 1½ in. to the right of the cardiac orifice and 1 in. below the lesser curvature. It was sharply punched out and extended to the muscular coat of the stomach. It was round in shape, ¾ in. in diameter, and looked quite shallow. In the centre of the base was an opening into a small artery.

CASE II.—*Haemorrhage from an Acute Ulcer Advanced in Healing.*

The patient was a man, aged 49 years, who felt a sudden pain in the abdomen whilst at work on September 3rd of last year. The pain was followed by faintness and the patient vomited up two quarts of blood, according to his own statement. He had epigastric pain after food, which he still continued to take, the pain coming on either at once or two or three hours after ingestion, and he had melaena. Five days later he vomited up a pint of blood, and on the sixth day was admitted to University College Hospital. It was found that seven years previously he had been in the hospital. The notes of the case showed that he then had pain three-quarters of an hour after food in the epigastrium, but no haematemesis. The vomiting often relieved the pain, but not always. This attack of pain and vomiting lasted seven weeks, and the patient recovered.

During the seven intervening years he never had any pain or vomiting until the present illness, but he had what he described as a little indigestion on and off. From the third day after admission he was treated by immediate feeding as recommended by Lenhartz. He did well for two days and then suddenly vomited up 24 oz. of blood and died six days later, on the eighteenth day of the disease, after gastro-enterostomy had been performed. At the *post-mortem* examination an acute ulcer was found on the small curvature of the stomach at a distance of 2½ in. from the pylorus. It was irregularly circular in outline and 5 mm. in diameter. It was rapidly healing, the base was smooth and almost level with the surrounding mucous membrane, which showed puckering, and the edges of the ulcer were smooth and showed fine lines radiating on to the surface of the ulcer. In the centre was an open vessel which had bled. Near this ulcer was a stellate scar resulting from a healed acute ulcer of an earlier date. A tiny acute duodenal ulcer which was granulating was also present.

This case also illustrates, what is a well-known fact, that acute ulcers tend to recur in the same individual.

Such acute ulcers normally heal in a few weeks, exactly as they do in animal experiments. They may produce no symptoms; pain and vomiting without haematemesis may occur, or pain and vomiting with haematemesis. Sudden haematemesis or perforation without preceding symptoms constitute well-known clinical types of this disease.

CASE III.—*Haemorrhage from an Acute Ulcer almost Healed.*

The patient was a female, aged 69 years, who, after climbing up seventy stairs, was suddenly seized with nausea, and vomited up about an eggcupful of blood. On the following day (February 1st, 1910) she vomited a pint of blood, and was brought to University College Hospital. A fortnight before admission she had had a "bilious attack," and since then had pain in the stomach. Last August she had a similar attack without haematemesis. With the exception of these two attacks, separated by an interval of five months, she had no stomach disease at all. She vomited blood several times, and had melaena for the first five days, after which mouth feeding was commenced. She did well for four days. On the next day bleeding again commenced, and the patient died on the eighteenth day of the illness. At the autopsy four cicatrized acute ulcers were found on the small curvature of the stomach. Two of the cicatrices were stellate, and two were round, and in the centre of one of the latter was a tiny hole leading into a small vessel.

This case illustrates the occurrence of haemorrhage from an ulcer which is healed except for a small hole in the centre leading into the bleeding vessel. An interesting point about the case is that only two of the scars were found at the autopsy, the two remaining ones being found on the following day after drying the stomach as described above.

Before excluding acute gastric ulcer as the cause of haematemesis one ought, therefore, to exercise the greatest care, and be fully acquainted with all the conditions which are to be looked out for. Such cases as those I have quoted above are common enough, and all observers agree that they may be overlooked at the

autopsy with the greatest ease. The lesions are often called abrasions or erosions because they look so shallow, which is not surprising considering that the thickness of the mucous membrane of the stomach is only about 1 mm., and the base may be almost filled up, as these ulcers are often advanced in healing. The older physicians taught that bleeding might occur from the stomach in the absence of any ulcer, and many such cases were called "vicarious menstruation." Within recent times, however, Hale White[1] was only able to collect 10 cases from the literature, in which it was stated that no *post-mortem* lesion was found to account for the preceding haematemesis; one of these cases was under the care of Dr. Hale White himself, who was unable to find any evidence whatever of ulcer, erosion, or bleeding point at the autopsy. This is in striking contrast with the large number of cases of haemorrhage due to acute ulcer which have been recorded, and which are so well known as not to need reference.

Turning to another aspect of the question, a second piece of evidence quoted in favour of the occurrence of gastrostaxis is the fact that several cases of haematemesis have been recorded in which the patients have been operated upon, the interior of the stomach examined during life, and no ulcer found. These cases fall into three groups: (1) Those in which no lesion whatever was found. (2) Those in which a single bleeding point was found. (3) Those in which multiple bleeding points were found. The first group contains the greatest number of cases.

From what I have said above, it will be at once evident that it is quite impossible to explore the interior of the stomach during life thoroughly enough to exclude the presence of an acute gastric ulcer or a scar left by such an ulcer.

Cases are recorded in which the stomach was found normal at operation and yet an ulcer discovered at the subsequent autopsy (Dieulafoy,[2] Stevens[3]).

The inability to find the lesion at an operation is therefore no evidence that an acute ulcer is not present.

If a bleeding point be found in the mucous membrane of the stomach at an operation, it appears to me very questionable whether the exact condition of such a lesion can be accurately made out, and therefore whether the operator is justified in calling it a mere erosion.

The ease with which the point can be examined at an operation depends upon its position, but still, considering the difficulty that is experienced in deciding upon the nature of the lesion by naked-eye appearances at an autopsy, it seems to me that such difficulty must be greater at an operation, whatever the position of the lesion, and that the depth could certainly not be judged to a fraction of a millimetre. Such an operation must be done hurriedly, owing to the condition of the patient, and the bleeding must tend to obscure the character of the lesion.

My experience of operations on the human subject is, however, only that of a spectator, so that I cannot do better than quote the words of a surgeon[4] who has had considerable experience in such operations. After stating his opinion that the bleeding from an acute gastric ulcer is nearly always arterial in origin when it is severe, he goes on to say:

> During life the ordinary acute ulcer of the stomach usually takes the appearance of a linear or triradiate fissure, out of which the blood trickles in a steady, continuous stream. . . . *Post mortem*, when all the congestion and oedema have gone, the arteries, especially in a patient who has died from loss of blood, contract to such an extent that they appear to be quite insignificant in point of size, and a lateral opening, such as is usually present, is almost certain to be overlooked. Unless the blood vessels of the stomach are injected, or some special examination is made, the bleeding point is scarcely ever found in an acute ulcer, and the loss of blood is almost certain to be laid to the credit of the capillaries.

When the bleeding is slight, it comes from the capillaries or veins in the base of the ulcer. If such an ulcer be bleeding, it must be easier to find it in the living person than at an autopsy, but it must be more difficult to examine accurately. If any doubt exist with regard to the nature of a lesion after death, the question can be settled by microscopic examination. The statement, therefore, that a bleeding point is found at an operation certainly appears to me to be no more in favour of the case being one of gastrostaxis than of such a lesion being an acute ulcer. Neither is the finding of multiple bleeding points any evidence against acute ulcer, because acute ulcers are often multiple, and one would expect that in such cases an artery might be opened in one, and that in some the bleeding would be chiefly capillary and in others venous. A case is recorded in which twenty acute ulcers were found at an autopsy.[5]

Another piece of evidence given in favour of gastrostaxis being a clinical entity is that it possesses a definite clinical history. Thus, there are said to be three symptoms —pain, vomiting, and bleeding. These symptoms occur in attacks separated by intervals of months or years of freedom from any symptoms, or at most symptoms of indigestion may occur. These attacks may occur over many years. The first sign of the disease may be profuse haematemesis. The blood is bright red, and varies greatly in amount. In each attack blood is vomited on occasions separated by a few hours or days. The disease occurs in patients chiefly between the ages of 20 and 40 years, and affects females more than males. Vomiting and pain may occur without haematemesis.

I have not the slightest doubt in my own mind that a disease of this type exists, and also that it is commonly not chronic gastric ulcer, but in every case of this sort which I have seen, and which has died, I have invariably found an acute gastric ulcer which has perforated a blood vessel. From the writings of other observers it is evident that they recognize these recurrent attacks as being due to acute ulcers, but I do not think that sufficient stress is laid upon the recurrences in descriptions of acute gastric ulcer in the textbooks.

In three cases within the last six months I have found the scars of old attacks, together with recent ulcers, which have caused death. There is no doubt that acute ulcers in the human subject heal in a few weeks, precisely as they do in animals, and that they are liable to recur in the same person. Each attack represents a new ulcer or ulcers, it lasts a few weeks at most, and the ulcers heal as in animals. I have been able to show that acute ulcers in animals may be delayed in their healing owing to motor insufficiency of the stomach leading to delayed emptying of that organ. In the same way an acute ulcer in man may be delayed in healing, as the following case shows:

> A man, aged 34 years, was admitted to University College Hospital on August 28th of last year. The present illness had commenced about five weeks before admission with pain in the right side below the ribs. The pain was of an aching character and was said not to be related to food. He had a little vomiting, and on one occasion brought up a small quantity of blood, melaena occurring subsequently. He kept at his occupation, and one day whilst at work fainted, and shortly afterwards vomited a dark red clot of blood about the size of the fist. He had never had any indigestion nor gastric pain before the present illness.
>
> Three days later he had two fainting attacks with melaena, and vomiting of blood on one occasion. He died five days subsequently, after gastro-enterostomy had been performed and after an illness of about seven weeks.
>
> At the *post-mortem* examination the stomach was found to be dilated. An acute ulcer was present on the lesser curvature midway between the cardiac and pyloric orifices. It was oval in shape, measuring 8 mm. in its longest and 3 mm. in its smallest diameter. The edges were rounded, quite clean, and slightly incurved. The base was clean, and in the centre was a small eroded vessel which had caused the bleeding. A certain amount of thickening of the base had taken place, and puckering of the mucous membrane at the edges was distinctly visible. The ulcer was healing, but more slowly than normal and with more thickening. In short, the healing was delayed.

The ulcer, judging from the history, was probably at least seven weeks old. When an acute ulcer is delayed in the healing the epithelium grows over the surface more slowly than normal, and the glands are not so well regenerated. There is more dense fibrous tissue in the base than normally occurs, and more scarring results. It has been known for some time that acute ulcers following burns may only give rise to symptoms some weeks after the burns have healed, and unhealed ulcers have been found as long as two and a half months or more after this time. Such ulcers are undoubtedly acute ulcers produced at the time of the burn which have been delayed in their healing, or in which the healing has been completely stopped. It is quite likely that they have been slowly extending, because perforation or sudden haemorrhage may occur as the first symptom. The importance of acute gastric ulcer, therefore, does not merely lie in the fact that it produces a definite group of symptoms during its

formation and healing, but also that it may be delayed in its healing, or extend, and so form the initial stage of chronic gastric ulcer.

The natural conclusions to which one is driven from a consideration of the above points are that gastrostaxis as an independent disease is not yet indisputably proved to exist; and, on the other hand, that acute gastric ulcer is a most important and very common malady, and one which is worthy of more consideration than appears to be given to it.

REFERENCES.

[1] Hale White, *Lancet*, 1906, vol. ii, p. 1189. [2] Dieulafoy, *Bull. de l'Acad. de Méd.*, 1898, 39-40, p. 49. [3] Stevens, *Glasgow Med. Journ.*, January, 1899, vol. li, p. 5. [4] Mansell Moullin, *Trans. Clin. Soc.*, vol. xxxvi, p. 80. [5] Affleck, *Lancet*, 1901, vol. i, p. 478.

ON IMPLANTATION OF THE URETERS INTO THE RECTUM BY THE SACRAL ROUTE,

ILLUSTRATED BY A CASE OF INVETERATE VESICO-VAGINAL FISTULA IN WHICH THE LEFT URETER WAS IMPLANTED AND THE RIGHT KIDNEY REMOVED.

BY R LAWFORD KNAGGS, M.C.CANTAB.,

SURGEON TO THE LEEDS GENERAL INFIRMARY; PROFESSOR OF SURGERY IN THE UNIVERSITY OF LEEDS.

SOME years ago the question of implanting the ureters into the rectum by the sacral route was suggested to me by the desire to alleviate the discomforts of a man from whom I had removed the penis with the whole urethra up to the bladder for a carcinoma of the bulbous and membranous portions which had extended to the apex of the prostate. At that time I did not work out the idea to a satisfactory conclusion, as the patient learnt to manage himself, and preferred his condition, with its attendant difficulties, to submitting to an operation with all its uncertainties. But I learnt sufficient to be sure that, in the male at any rate, the operation would be very difficult owing to the depth at which the ureters had to be sought and the contracted area in which the manipulations had to be performed.

When, however, the case which is described in detail below was sent to me by Dr. McAllister, Vice-Master of the Coombe Lying-in Hospital, the suitability of such an operation was so evident that I returned to the attempt to arrange a feasible procedure, with the impression that the greater width of the female pelvis would make it more easy of accomplishment.

Three points suggested themselves for consideration:

The first was the preservation of the sphincteric control of the rectum, for, if the result of the operation was to produce paralysis or even paresis of the sphincteric apparatus, the patient would not be benefited, and might even be made worse.[1]

Then there was the question of the uterus. Could the operation be carried out without its removal, or must it be sacrificed?

And, lastly, there was need for clearer knowledge about the ureters. Could they be easily found in this situation? After their separation would it be possible to close the openings made in the bladder?

1. *The Preservation of the Sphincteric Control of the Rectum.*

The direction usually given in Kraske's operation for removal of the rectum that the section through the sacrum must not extend as high as the fourth sacral foramina, so that the fourth sacral nerves may not be injured, defined the limit of the removal of bone.

The fourth sacral nerves incline upwards after their exit from the foramina, and groove slightly the anterior surface of the sacrum on which they lie. In a horizontal section, if the foramina are left intact, there is no danger of these nerves being injured. The nerves to the levatores ani run from the lower part of the sacral plexus just below the white line, and close to the ischial spine; they are completely out of the way if the knife be kept close to the bone in separating the soft parts from the coccyx and lowest part of the sacrum. The inferior haemorrhoidal nerves which supply the external sphincter, and lie almost entirely within the ischio rectal fossae, are not likely to be disturbed, and the pudic nerves, of which they are branches, are quite safe.

The internal sphincter is probably innervated by the sympathetic, which reaches the bowel along the superior, middle, and inferior haemorrhoidal arteries. With reasonable care no serious damage to the nerve supply of this muscle was to be expected Consequently there was no reason to suppose that the patient's power of control over the sphincters would be impaired.

2. *The Question of the Removal of the Uterus.*

The uterus and upper part of the vagina lay in the direct route to the trigone, and to expose the insertions of the ureters it was almost certain that the former would have to be excised. If this were done the operation would be partly intraperitoneal.

Its removal need cause no feeling of compunction, for the patient had suffered too much in consequence of her last pregnancy to desire another, and if left it was only likely to be a discomfort and an inconvenience.

My first attempt led me to think that the ureters could be dissected out and removed from the bladder without any further interference with the uterus than the division of the uterine arteries, and without opening the peritoneum. I was able to isolate both ureters and by traction to pull up a cone of bladder on either side of the vagina. The closure of the separate openings made in the bladder was commenced before each ureter was completely cut adrift, so that there was no fear of the bladder wound sinking out of sight.

But subsequent attempts showed me that I had met at first with an exceptionally easy case, and that the removal of the uterus in nearly every instance would be essential. In doing this, after the uterus had been freed on either side from the broad ligaments, it was drawn out of the wound and pulled downwards and backwards, whilst the anterior surface of the vagina was stripped off the base of the bladder. The tendency was not to strip the vagina sufficiently low, as, owing to the necessity of preserving the levator ani insertions into the bowel, this was not easy. But a suitable retractor fixed at the inferior angle of the wound gave great help. When the vagina had been separated low enough it was divided transversely, but a sufficient margin was left to permit of its easy closure by sutures.

3 *Exposure and Separation of the Ureters.*

This was not such a simple matter as I had expected. When the uterus was removed and the vagina stripped down, the ureters were not once exposed, nor were they readily found. At this stage there was to be seen an opening into the peritoneal cavity corresponding to the lowest portion of the pouch of Douglas, through which the uterus had been drawn out, and a quantity of fatty pelvic connective tissue. The position of a ureter was best ascertained by the sense of touch. When tissue which concealed it was grasped between the finger and thumb, it could usually be felt as a somewhat flattened but definite cord. By placing a finger in the peritoneum and grasping the tissues on either side of the opening between the finger and thumb the ureters could usually be detected lying close to the peritoneum, but at some depth in the fat. When located they could easily be exposed with dissecting scissors and separated down to their entry into the bladder wall. At first the tendency was to search for them too far to the sides of the wound, but they were usually found running longitudinally ½ in. to ¾ in. from the median line, and tending slightly outwards and upwards to lie on the outer sides of Douglas's pouch. One point that the preliminary observations taught me was to be prepared for ureters of variable size; in one instance the ureters were so small and narrow that even after they had been traced to the bladder some uncertainty still remained until it was found that a probe passed along them from the vesical apertures, which were very difficult to enter. Another was that the separation of the ureters from the bladder required considerable circumspection. Twice at least when I thought I was cutting well wide of the ureter I found that I had divided it in its oblique course through the vesical wall, and had failed to secure its orifice on the mucous membrane. This accident was probably due to putting the ureter on the stretch to steady and define the bladder. A cone of bladder was in this way formed, and the exact situation of the ureter in it no doubt misconceived.

Case of Inveterate Vesico-vaginal Fistula Treated by Implantation of the Left Ureter into the Rectum, and Removal of the Right Kidney.

The case on whose behalf the foregoing investigations were made was that of Mary F., aged 42, who was admitted to the Leeds General Infirmary on February 4th, 1909. She stated that five years ago she had been confined and that forceps were used, the child being stillborn, and that since then she had submitted to thirteen operations. Dr. McAllister wrote that the bladder and vagina had been converted into a single compartment as the result of her first confinement in the country, and that many attempts had been made both in England and Dublin to restore the bladder, without much success.

In the last operation the difficulty was to get the stitches to hold or the tissues to unite when brought into place, even after weeks of preliminary preparation. "The condition of the patient was the deplorable condition of such cases—bad enough in hospital, but unbearable at home, when no one will go near her." When the proposal of transplanting the ureters was suggested to her "the wretched woman simply jumped at the idea of any procedure, no matter how risky, which would offer prospect of improvement, even if short of actual cure."

Her condition on admission was described by the dresser as follows: "The vulva, the buttocks, and the thighs are always wet and the skin is inflamed and eczematous in consequence, and covered with a pustular eruption—more particularly over the buttocks. She gives off an offensive urinous odour, and this, with the pain and discomfort of her condition, makes her very depressed. If she gets up she cannot sit down without pain, and she is only kept fairly comfortable when in bed and receiving careful attention."

On examination it was seen that the perineum was deficient, but the parts were so tender that they could only be satisfactorily investigated under anaesthesia. Then the following condition was found: There was a patent aperture corresponding to the urethra which admitted the index figure. It was only covered with healthy mucous membrane on its upper margin, the rest of the circumference being formed of scar tissue. The floor of the urethra had completely disappeared. On the right side was another aperture leading into the bladder. It was as big as a sixpence, and admitted a finger. It was bounded on one side by the pubic ramus, to which it was firmly attached. The tissue completing the circumference of the fistula and separating it from the urethral opening was very rough, indurated, and fibrous. The uterus was movable backwards and forwards, but was tethered low down in the pelvis, near the cervix, by indurated tissue on the right side. There was an offensive purulent vaginal discharge.

Some time was taken up in preliminary treatment of the vaginal discharge and the unhealthy skin condition, and on March 16th the following operation was performed:

Operation.

After the patient was anaesthetized (ether) and placed lying upon her face with the thighs hanging down over the end of the table, the anal sphincter was well dilated, and the rectum copiously irrigated until it was quite clean. The vagina and the bladder were also thoroughly douched. A median incision down to the bone was then made from the top of the sacrum to one inch from the anus, and the soft parts were dissected off the bone, and sacro-sciatic ligaments for a sufficient distance on either side. Next the coccyx was removed, and three-quarters of an inch sawn off the end of the sacrum. The first difficulty was now encountered. The recto-vesical fascia was only in places capable of separation from the rectum. There seemed to be no perirectal fat, and the fascia was so adherent that the greatest care had to be taken lest the rectum should be inadvertently opened. Between the bowel and the upper part of the vagina the adhesions were very firm, but above this the separation of the anterior surface was easier. Consequently, it was only after a somewhat tedious dissection that a loop of rectum was isolated and cleared upwards as far as the pouch of Douglas, and downwards until the posterior surface of the vagina was laid bare for quite an inch. This loop was then drawn to one side by a gauze retractor.

The second stage of the operation—the removal of the uterus—was now entered upon. The pouch of Douglas was opened, and the fundus of the uterus grasped and drawn out. First on one side and then on the other double ligatures were applied between the ovaries and the uterus, and the upper part of both broad ligaments freed. Next the peritoneum in front of the cervix was incised and pushed and dissected downwards till the anterior wall of the vagina was sufficiently exposed. Both uterine arteries were then divided and ligatured, and the uterus was removed by cutting across the vagina, whose posterior surface had been cleared, it will be remembered, in the first part of the operation. In carrying out these steps there was at one point very considerable difficulty. The vaginal wall on the right side of the cervix and at the base of the broad ligament was drawn up in a cone-shaped recess, and firmly fixed to the pelvic wall by dense fibrous tissue. This was carefully dissected away, fortunately without opening into the ureter. The possibility of such an accident happening was considerable, for the right ureter was almost certainly involved in the inflammatory tissue.

The Third Stage.—After the removal of the uterus the search for the ureters began. The position of the bladder was made clear by passing a pair of curved lithotomy forceps through the urethra and opening the blades. It was necessary to separate the anterior vaginal wall still further down in order to expose the posterior part of the trigone sufficiently. The left ureter was then felt for in the firm fatty areolar and fibrotic tissue on the left side of the bladder. It was eventually located by feeling it between the fingers, one finger being inside the peritoneum. The tissue overlying it was taken up by two pairs of French vulsella and divided between them until at last the white ureter was exposed. It was hooked up on an aneurysm needle, traced downwards to the bladder, and isolated for about 2½ in. Then it was surrounded by a loop of thick silk and left, whilst the search for the right ureter was prosecuted.

This proved futile. No trace of the second ureter could be found by any of the aids that had been found useful on the other side, and attempts at dissection in the mass of fibrous tissue soon made it evident that it would only be found if it was cut into. As a last resource, it was determined to open the bladder through the trigone, look for the orifice, and pass a catheter as a guide.

Before doing this that portion of the bladder through which the left ureter passed was cut out. Fortunately this was safely accomplished and the orifice surrounded by a good margin of mucous membrane preserved. A sterilized No. 2 black French catheter was passed into the ureter for 3 in. and tied in. The catheter and ureter were wrapped in gauze and held to one side.

The hole thus made in the bladder was enlarged transversely until it was sufficiently large to permit of a good view of a portion of its interior; but no ureteral opening could be seen, and with one finger in the bladder and another outside nothing could be felt that could possibly be imagined to be a ureter.

The search for it was now, perforce, abandoned, with the consoling reflection that it would be possible to deal with the excretion from the right kidney at a later period by nephrectomy.

The peritoneum was closed by uniting the serous covering of the posterior wall of the bladder to the upper edge of the opening in Douglas's pouch. The vaginal opening was sewn up, and a second row of Lembert sutures effectually closed it.

The opening in the base of the bladder was too ragged and too deeply situated to enable its closure to be attempted with any prospect of success, so it was left.

The left ureter was now implanted into the front of the rectum on its left side. Through a small longitudinal incision ½ in. long a pair of artery forceps was passed from within, was made to lay hold of the catheter and draw the end of the ureter into the rectum until a full inch lay within the bowel. A couple of sutures closed the opening round the ureter, and the portion of the ureter just outside the rectum was embedded between two folds of the bowel coats, which were drawn over it by three or four sutures. Some of these took a hold of the wall of the ureter to make sure that it would not slip out of the rectum. When the gut was replaced in its position, the ureter could be just seen entering it about 4 in. from the anus. At this stage the altered position of the bowel seemed to offer a better prospect of finding the right ureter, and a considerable layer of fibrous tissue alongside the pelvic wall suggested its possible position. The search, however, again proved fruitless, and it was at last realized that the sloughing of the pelvic tissues, which had resulted in the bladder becoming adherent to the right pubic ramus, had dragged the ureter very much out of position, and that, if found at all, its safe separation with its orifice intact would be a practical impossibility.

The large wound was, therefore, cleansed and closed. Its mid-part, above the seat of the implantation, was drawn together by continuous deep catgut suturing. The space above, just below the sacral section, was drained by gauze packing, and the space below by a smaller gauze pack, and a tube passed down on the left side of the bowel to the opening in the floor of the bladder. The skin incision was closed, except around the drains.

The bladder was also drained by a strand of gauze passed through the urethra, and another gauze drain was placed in the vagina.

The patient was under the anaesthetic for three hours, and was transfused towards the close of the operation. She suffered severely from shock afterwards.

The subsequent progress of the case was satisfactory. The chief fear lay in the danger of the wound becoming contaminated from the interior of the bladder, but this was prevented by the care with which the Sister of the ward changed all the packing and the gauze drains every four hours, and the wound never gave the least cause for anxiety. The catheter came away on March 21st, and afterwards urine escaped from the rectum as well as from the vagina. By March 24th the rectum would retain the urine for an hour at a time.

By the end of April the patient had sufficient power of control that as much as 30 oz. of urine were collected in twenty-four hours, but this did not represent the whole of that passed by the rectum, for some escaped during sleep. Dr. Gruner's examination of this led to the belief that the functional capacity of the left kidney was good.

On May 8th the patient was sent to the Ida Convalescent Hospital for a month to recuperate, and returned for the second operation on June 9th.

Second Operation.

Dr. Gruner having confirmed his previous investigation as to the functional adequacy of the left kidney, the right kidney, which was quite healthy, was removed on June 25th. During the operation a bougie was passed along the right ureter to the bladder, and could be felt by an assistant with a finger passed through the enlarged urethral aperture to lie against the bone at the side of the pelvis, and to be incapable of being moved

about by his finger. It did not seem to enter the bladder, but when pushed on it was felt to bend.

From the time of this operation the patient's vulval dressing remained quite dry, and no more urine escaped from the vagina. But for some time the rectal control seemed inefficient, probably owing to the neurasthenic state which succeeded the operation. However, she gradually recovered from this condition, and for some time before going to the Ida, on July 23rd, she had been able to keep herself quite dry and to retain urine for one and a half to two hours.

She went home to Ireland on August 19th, and at that time could retain the urine for three and sometimes four hours. There was still a small sinus connected with the nephrectomy wound and another small sinus just below the line of the sacral section. There was hardly any secretion from either. The notes state that she remarked on more than one occasion that "the result of the operations is worth all her pain and trouble several times over."

Subsequent History.

She has reported her satisfactory condition on several occasions. The last time was on March 30th, 1910—just before this was written. She stated that she had never lain a day in bed since she left Leeds, and that she does her work about a farm, her house work, and the washing.

She can retain her urine about three hours, has no need to wear anything, and walks about like anyone else.

She only wets her bed when she happens to sleep unusually soundly. Both sinuses have healed, and her friends say she looks as if there is nothing the matter with her.

It must be evident that the patient owes a very great deal to the experienced skill of the anaesthetist, Dr. Douglas Seaton, as well as to the zealous care of the Sister of the ward, and to them, as well as to Mr. J. A. Coupland and Mr. L. R. Braithwaite, who at various times gave me valuable assistance, I desire to acknowledge my own obligation.

REFERENCE.

[1] BRITISH MEDICAL JOURNAL, February 12th, 1910, p. 362.

A CASE OF INTRACRANIAL TUMOUR RELIEVED BY A DECOMPRESSION OPERATION.

BY ROBERT KENNEDY, M.A., D.Sc., M.D.GLASG.

THE majority of patients in whom it is found necessary to perform a palliative operation for relief of cerebral compression due to lesions which cannot be radically dealt with, return to their homes after the operation has been recovered from, and therefore it is that few opportunities occur in such cases of obtaining autopsies. It is, perhaps, therefore desirable to publish this case, for the patient, after going home, returned to the hospital to die, and an autopsy was fortunately secured.

The patient who suffered from this growth was a fisherman, aged 26 years. His troubles commenced in December, 1908, with headache and giddiness and some vomiting. In March, 1909, vision in his left eye began to fail, and soon the right eye was equally affected. By the middle of May he was quite blind in both eyes. For his defects of vision he became a patient of the late Dr. Meighan, who, upon diagnosing intracranial mischief, sent him to me.

Fig. 1.—Hernia of intracranial contents through aperture made in skull to relieve compression due to inoperable growth.

When he came under my care in the Western Infirmary on August 11th he was suffering from three distinct general indications of cerebral compression. First, he was found to be completely blind, and both discs showed advanced optic atrophy. The pupils were both widely dilated and did not react to light. Ocular movements were not affected. Secondly, he suffered from severe pain in the head, which was of a very constant nature and prevented him from sleeping, and was worst over the vertex. Thirdly, he suffered from attacks of vomiting, although this sign was not so constant as it had been. He also answered questions slowly and showed other signs of intellectual torpor. Beyond these indications there were no other signs, and therefore localization of the growth was out of the question. The reflexes were present, with the exception of the pupillary reflex already referred to, and were somewhat exaggerated. There was no staggering gait nor history of such, the patient being able to walk about without any difficulty, except that due to his blindness. With the exception of the blindness and a diminution of hearing in the left ear, there were no evidences of cranial nerve affections; also there were no indications in the trunk or limbs of an irritative or destructive central lesion. Urine was normal. Temperature was normal and the pulse was slow. In his past history there was no indication of syphilis.

Operation.

Localization of the tumour being impossible, it was useless to operate with a view to radical treatment. Also, on account of the advanced optic atrophy, it was hopeless to expect recovery of sight by means of relieving intracranial tension. His headache, however, was so severe as to be almost insufferable, and his vomiting was at times very troublesome. To relieve these two distressing symptoms it was decided as palliative treatment to perform a decompression operation. With this in view, on August 25th, 1909, a piece of bone was removed from the right parietal bone close to the lambdoid suture. When the dura was slit the brain bulged forcibly, and showed no pulsation, but the veins were turgid. The soft parts were sutured over the bulging brain.

As the result of this operation headache and vomiting disappeared at once, and do not appear to have troubled him again. He left hospital on October 6th, and on November 17th he writes: "I came home feeling pretty well, but since I came home a large lump has formed on the crown of my head, and I had to call in the services of the local dispensary doctor, who probed the lump and found that it contained only water, which is now flowing out of it for a fortnight past without any diminution of the lump." It would appear that this swelling had been tapped, but in any case the puncture appears to have healed, and on account of the increasing size of the lump, which had now assumed the proportions of a newly born child's head, he was sent back to the infirmary, where the lump burst, and he died of meningitis.

Necropsy.

At the *post-mortem* examination by Professor Muir, to whom I am indebted for this report, it was found that "to the left side of the pons there is an irregularly rounded tumour measuring about 1½ in. from before backwards and from side to side, and about 1 in. in thickness. The tumour is adherent to the anterior margin of the cerebellum, and has apparently grown from the membrane. The pons has been pushed to the right side, and has been distinctly compressed by the growth. The growth is composed of a comparatively firm tissue which is very vascular in places, and there are yellowish areas which indicate degeneration, and probably previous haemorrhage. The tumour is a fibro-glioma. In some parts there is a dense fibrillated structure, but even here the glial character of the cells can be distinguished. In the looser part there is a delicate reticulum with large glial cells which show numerous branching processes. In places there are numerous wide and thin walled vessels, some of which show thrombosis, and there is a good deal of haemorrhage around."

The growth was situated under the tentorium, and was in such a position that its effect on the blood stream through the veins of Galen must have been pronounced, and this would account for the enormous intracranial pressure developed. The brain showed very considerable distension of the ventricles. It is not the mere volume of the growth which has given rise to the intracranial pressure but merely its effects on the circulation. I have seen enormous increase of intracranial pressure which caused forcible extrusion of a portion of the cortex through an aperture in the skull, and which on tapping the ventricles and drawing off the fluid, immediately subsided, and permitted free displacement of the brain within the cranium for purposes of exploration.

Coursing over the tumour in this case appear trunks of the glosso-pharyngeal, vagus, auditory, facial, and trigeminal nerves, and yet none of these, with the possible exception of the auditory, showed previous to the operation any sign of being interfered with. Likewise, there was lateral compression of the left lateral hemisphere of the cerebellum of the left middle peduncle of the cerebellum and of the pons, and certainly, at least until near the end, when I had no opportunity of examining his condition, these displacements were not evidenced by any sign.

The site of the cranial opening was carefully chosen. A cranial opening as a decompressive procedure would serve to relieve pressure no matter in what part of the skull it was made. It is necessary, however, to bear in mind that when an opening in the bone and dura is made when there is great pressure, the cerebral substance is usually forced through, and the function of the cortex is therefore apt to be destroyed or damaged. It is no use leaving the dura intact, as this would make the operation quite useless. The bulging of the brain through the aperture, which ought to be of a large size, has the result of causing effects of a more or less serious nature according to the situa-

tion of the opening. Therefore, the opening must always be made over those parts of the cortex which can be dispensed with by the patient with least inconvenience. In right-handed individuals the left side of the skull being that containing the educated association centres should not be chosen unless there is some very special reason for choosing that side. I have seen in one case in which I made an opening over the left temporo-sphenoidal lobe in a right-handed individual aphasia develop simply from the centre in Broca's convolution having its function thrown into abeyance by being involved by the protrusion in the neighbourhood. Also proximity to the fissure of Rolando must be avoided, so as to save the motor areas in front of that fissure and their sensory representations behind, as hemiplegia would be a very likely result of an opening in this position. A good area to choose is over the temporo-sphenoidal lobe, as Cushing points out; but this should be chosen on the right side in right-handed individuals only, and the left side, though also recommended by Cushing, should be avoided if possible in right-handed individuals, for the reason of avoiding any interference with the neighbouring educated association centres. In left-handed individuals, of course, the reverse applies.

In the present case I chose the situation between the occipital and parietal lobes because there did not appear to be any chance of causing inconvenience to the patient by choosing this site. Interference with the centre for vision or with the optic radiation from protrusion in the neighbourhood of the occipital lobe would result in hemianopsia in the event of sight being restored; but in this case this consideration was of no moment, for restoration of sight was out of the question. Such a restoration is one of the happiest events in these operations, and it is almost sure to follow if the operation is undertaken early enough, but in this patient the optic nerve had been destroyed. Therefore there was nothing to be lost by choosing this region as the site of the bone defect, and the opening in this region permitted the formation of a better hernia in a more convenient situation, and the result was that he was not in any way incommoded by any damage to the cortex which resulted from the hernia cerebri.

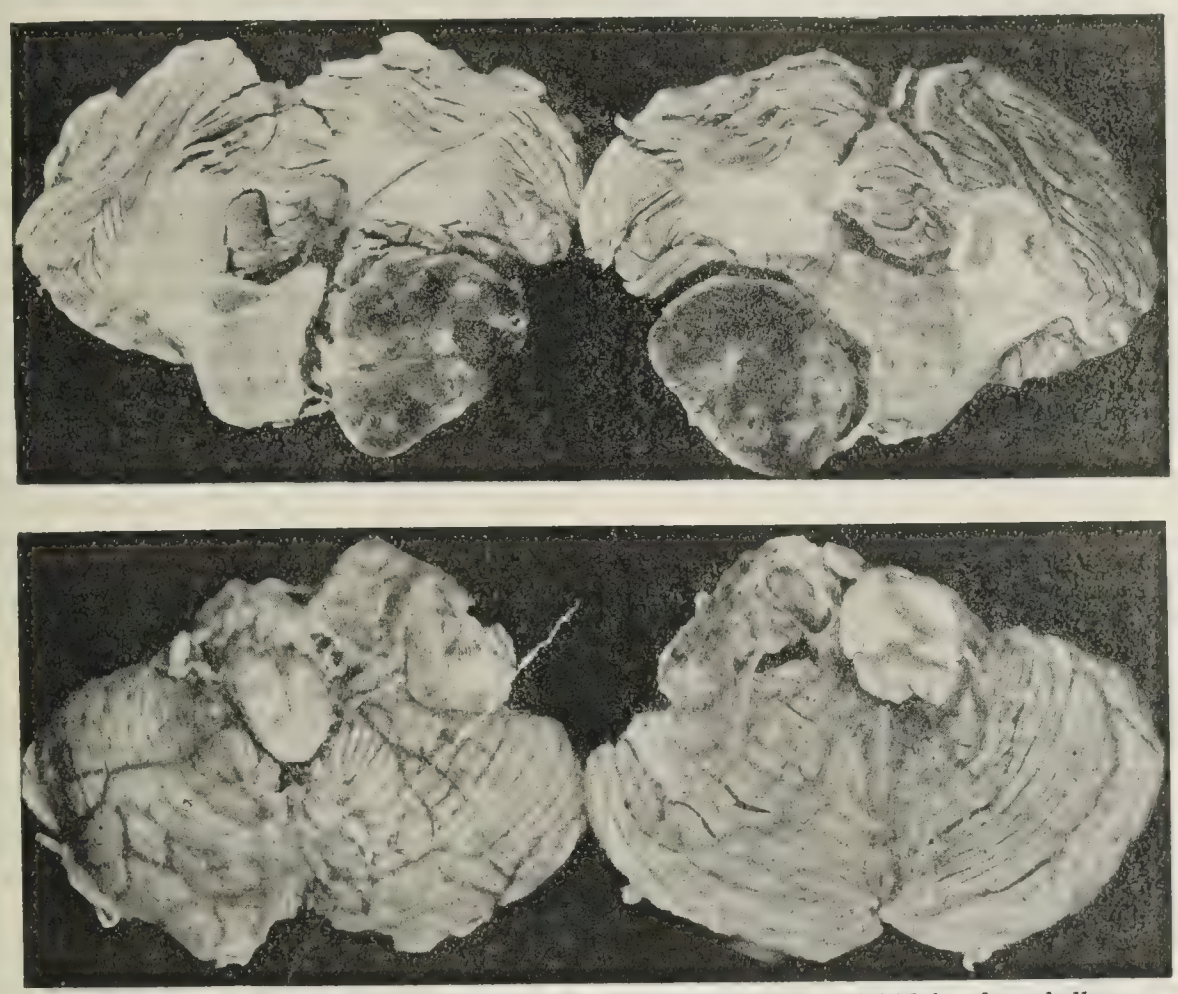


Fig. 2.—Intracranial fibro-glioma, compressing pons, medulla, and right lobe of cerebellum

THE CULTURAL CHARACTERISTICS OF THE MICROBACILLUS OF ACNE.

BY E. H. MOLESWORTH, M.B., CH.M.SYDNEY.

(From the Lister Institute of Preventive Medicine, and the Dermatological Department, King's College, Hospital.)

THE object of the present research on the microbacillus of acne was to reconcile, if possible, those accounts of its biological and cultural properties which have been given by recent contributors to the subject, with those originally described by Sabouraud in 1897. Such work is rendered all the more necessary when it is realized how great are the differences in the pathogenic qualities ascribed to this bacillus by the various authors who have treated the subject.

In order to bring these discrepancies of opinion clearly before those interested in the subject it is necessary briefly to refer to the principal works dealing with the acne bacillus.

It was Unna[1] who in 1896 discovered this organism in the comedo, but who, being unable to cultivate it, drew, from purely histopathological data, the conclusion that it was the cause of the comedo and the subsequent suppuration. The classical work, however, upon the subject is that of Sabouraud,[2] who, studying the organisms both in the lesion and in culture, was able to speak more authoritatively on the subject. He assigns to the microbacillus the causative agency in the production of the comedo, but decides that the suppuration is due to the staphylococcus. This opinion he supports, first, on the histological grounds that the staphylococci are found in the phagocytes, while he was never able to find microbacilli undergoing the process of phagocytosis in these cases; secondly, because he was never able to produce suppuration even by injecting huge quantities of microbacilli under the skin. For the cultivation of the microbacillus a special acid glycerine agar was required, and the details of its preparation will be found in his work. The inoculation was made with the central portion of a seborrhoeic filament, which, by the aid of a lance-headed needle, was carried into the medium to a depth of several centimetres. Incubation at 37° C. results in rapid growth of staphylococci of the non-liquefying variety, followed in four days by the appearance of a red-brown button, which gradually increases until it reaches the size of a small currant. This is the culture of microbacilli, which can be obtained pure by reinoculating after a month's growth, at which time the staphylococci are found to have died. He never succeeded in obtaining an ordinary stroke culture, but obtained subcultures by several other methods—for example, by inoculating and incubating eggs. These researches were performed at a time when anaërobic methods were very imperfect. Inoculation experiments on animals were uniformly negative in Sabouraud's hands.

These results were confirmed by Gilchrist,[3] but it is extremely doubtful whether the organism he was dealing with was identical with that of Sabouraud. Cultures of his bacillus were fatal to guinea-pigs and white mice in some cases.

In this state the matter rested for some years, the conclusions of Sabouraud being fairly generally accepted in France and England.

Then followed in 1907 some work on the sebaceous

glands by Hallé and Civatte,[4] who, in making anaërobic cultures from comedones, found constantly colonies of an anaërobic organism which corresponded very closely in microscopical characters with the organism seen in the comedo. This they pointed out to Sabouraud, who, with Hallé, compared the organisms obtained by both methods, and found by inoculating one of Sabouraud's cultures in a deep glucose-agar tube by the stroke method (which Hallé and Civatte, pupils of Veillon, used), that Sabouraud's organism grew only anaërobically. This is a surprising fact, the only explanation for which is that the microbacilli in the centre of the material used for inoculation in Sabouraud's cultures were so protected by the surrounding fatty material that the penetration of oxygen was insufficient to prevent growth. At the present moment Sabouraud has only modified his previous teaching in so far that he impresses the fact that the microbacillus is anaërobic in culture.

The next contribution to the subject was that of Fleming,[5] who, in describing his cultural experiments, came to some conclusions at variance with those of Sabouraud. In the first place, he describes pure cultures of microbacilli by surface inoculation of pus from cases of acne, on a medium described by him in his work. This fact and the failure to grow staphylococci in all cases, led him to the opinion that the latter when present were only the result of accidental contamination. Accordingly he makes the microbacillus the cause of both comedo and pustulation—a conclusion supported by his success in obtaining a pustular eruption by rubbing a culture into the arm of a susceptible person. This Sabouraud had failed to obtain. Secondly, he described his cultures as being made by ordinary surface inoculation, by which method Sabouraud always failed to get growth. Results of calculation of opsonic indices and the therapeutic action of vaccines prepared from the organisms cultivated were also given in support of his views.

This paper evoked criticism from Whitfield,[6] who maintained his previous opinion that suppuration in acne was due to staphylococci by reference to histological and cultural experiments, and could not agree that the results of opsonic work justified the conclusions drawn by Dr. Fleming.

Quite recently a paper by Südmersen and Thompson[7] appeared recommending the use of a strongly acid agar with the addition of horse serum, but the most significant part of the work was their recommendation of anaërobic methods for the cultivation of the organism.

Thus as the matter stands at present the microbacillus is described as being aërobic and pyogenic by some, anaërobic and non-pyogenic by others, and a multitude of minor differences in characters morphological and cultural are disputed.

My own personal work consists of a series of primary cultures from cases of acne, now totalling over 30. The materials used for inoculation were generally comedones, sometimes seborrhoeic filaments and pus.

The medium employed for these cultures was simply 2 per cent. glucose agar in deep shake tubes or stabs, or slopes incubated anaërobically. Personally I find the most convenient method for isolating pure cultures the deep shake method as recommended by Veillon. The agar is melted and allowed to cool to about 45° C., when a drop of an emulsion is added, made by crushing a comedo, or such material as is to be used, in a few drops of salt solution, mixing well and transferring to a second tube 3 or 4 drops from the first, and 10 to 20 drops from the second to a third. The agar is allowed to solidify and the tubes incubated at 37° C. By this method in the second and third tubes isolated colonies are obtained and can be easily picked out for subculture. This is most easily done by using a sterile Pasteur pipette drawn out to about 1.5 mm. in lumen. To this a rubber tube with a mouthpiece at one end is attached, and when the tube is held horizontally against the light the pipette can be pushed down to the colony, which then is sucked up into the lumen, withdrawn, emulsified, examined, and re-inoculated by a procedure exactly similar to that described above.

In cultures made from comedones or pus by this method staphylococcic colonies appear in a day or two, chiefly confined to the upper aërobic areas of the first tube; but after an interval of four days minute colonies appear in myriads, confined to the anaërobic areas. These slowly increase in size, and when discrete assume a lenticular form or often a shape composed of regularly intersecting lenticular bodies; the colour of these colonies is greyish-white. Scattered amongst these white growths, especially if the material inoculated has been a comedo, are seen a few similarly shaped colonies, but red and larger in size.

On microscopic examination the organism found in the white colonies is seen to be a short plump Gram-positive bacillus, exactly corresponding in appearance with the organism seen in a smear of the comedo. The red colonies show cocco-bacillary forms also Gram-positive, but not recalling the organism found in the comedo. Subcultures made by the shake method readily show the anaërobic character of both these organisms which only grow at a distance not less than 1 cm. from the surface.

Stab cultures made in the usual manner in glucose-agar tubes give growth in the deeper parts of the stab, but show no special characters. On slopes inoculated from a pure culture of the microbacillus, incubated in a Bulloch's apparatus or Buchner's tube, isolated whitish colonies or a continuous growth is obtained according as a dilute or thick seeding is made. By these surface inoculations one obtains longer and more diphtheroid organisms with occasional irregular forms, contrasting with the uniform short plump forms of the mother colony.

Cultures may also be obtained in glucose broth incubated anaërobically, but a large amount of material must be inoculated. On ordinary agar, and in ordinary broth, attempts were almost uniformly futile, or such an insignificant growth occurred that one doubted whether the seeding had increased at all. For a very long time attempts to obtain an aërobic culture failed, but finally, by using a very old strain frequently subcultivated, an aërobic growth was obtained. This is more likely to succeed when material from a slope culture is used than when a colony from a deep shake tube is inoculated.

Similar methods are successful in cultivating the organism growing in red colonies, but the colour production soon diminishes on subcultivation, and is not evident on slopes.

To compare this organism with a culture obtained from Sabouraud was the next step. In this I quite confirm the results obtained in Paris, an emulsion from Sabouraud's culture inoculated by the shake method growing only in the anaërobic areas. Also, I was able, after some difficulty owing to the lack of sticky coherence required for this method of inoculation, to transfer a colony from an original culture in a shake to Sabouraud's medium in the manner described by him. The mass increased and assumed a brownish hue as seen in Sabouraud's culture.

These cultures have been accepted by Sabouraud as identical with the organism described by him, but a culture of Fleming's organism when shown to him was not recognized as being identical with the microbacillus. With regard to animal inoculations made with the microbacillus, negative results with guinea-pigs were always obtained. The morphological and cultural characters of Gilchrist's bacillus, and its marked pathogenic qualities for guinea-pigs and white mice, lead one to think that his organism was more probably a form of streptothrix, and not the microbacillus of acne. In the human subject no result was obtained by rubbing in large quantities of the culture.

In comparing the organism isolated by anaërobic methods with two strains obtained from Dr. Fleming and a third obtained through Dr. Eyre of Guy's Hospital, a considerable number of important differences was found. First, and most important, it was found that Dr. Fleming's organism was strictly aërobic, growing only in the uppermost centimetre of a shake or stab culture, and never in the depths. On slopes incubated anaërobically no growth was obtained. Secondly, his organism grew quite readily, and appeared in about forty-eight hours on ordinary agar, and in ordinary broths, on which media the microbacillus, even under anaërobic conditions, is at least extremely difficult to cultivate. Even on glucose agar four days elapse before the colonies of microbacillus become evident. It was on these characters that cultures shown to Sabouraud were rejected by him.

About two months ago, however, I obtained a fourth strain from Dr. Fleming, and, much to my surprise, found that it grew anaërobically, being, in fact, exactly similar

to those growths obtained by educating the microbacillus to aërobic growth. This culture is undoubtedly different from the others, and is probably the true microbacillus.

In drawing conclusions from this work we are bound to consider, first, whether the organism cultivated by Dr. Fleming was identical with that grown by Sabouraud. I am forced to the opinion that this is not the case, since it is inconceivable that an organism really an anaërobe should be so changed in its characters by cultivation under anaërobic conditions as quite to lose the power of growing anaërobically. And even a very old strain of microbacilli which has been educated to aërobic conditions will, if transferred to anaërobic conditions, immediately reassert its preference. The early appearance of growth in Fleming's cultures, which is always less than the four days necessary for the first sign of microbacilli in cultures, is also a point against the identity. Again, the pustular eruption described by Fleming on inunction of a mass of his organisms into the arm of a susceptible person is not obtained by a similar experiment with Sabouraud's organism. Now, since it is admitted by all who have compared the two, that the organism seen in Sabouraud's cultures and that obtained by ordinary anaerobic methods are identical, there is no reason again to distinguish between Fleming's organism and the anaërobe.

The next question for consideration is, Which is the real microbacillus of acne?

In the first place, Fleming's organism is admittedly difficult to obtain, and a culture has not been forthcoming in my hands or in those of Dr. Whitfield, in spite of numerous essays. On the other hand, the colonies obtained by anaërobic cultivation are in myriads, as would be expected when one remembers the vast numbers of the organisms in the comedo. Again, Dr. Fleming does not mention a single instance of successful cultivation of his organism from comedo, all his cultures having apparently been made from pus, which is more liable to contamination and not so rich in the organism whose cultivation is sought as the comedo.

Most of Dr. Fleming's conclusions seem to have been based upon the opsonic indices of his patients to the organism cultivated. But it seems to me unjustifiable to pronounce an organism the cause of a particular lesion on these grounds. There are at least other possibilities.

With regard to inoculation experiments, at first sight the results published by Dr. Fleming appear more promising, but it is to be remembered that comedo formation and not suppuration is the essential lesion of acne vulgaris, and no account of a production of comedo is given in the description of his results. In addition, treatment with vaccines of Fleming's organism apparently caused increase of the amount of pustulation; but no mention is made of the disappearance of comedo under such treatment.

The inoculation experiments by inunction with the anaërobe are, it is true, unconvincing. But nearly everybody is at least seborrhoeic, and the liability of the subject to react to the presence of the organism by comedo production seems to be limited, in the vast majority of cases, to the age of puberty and early twenties, and then to certain well-defined localities—for example, face and back where inoculation results would be open to question. Those who have suffered from acne in their teens appear, as a rule, to become immune to the organism to the extent that the only reaction observed is a persistent excessive fat secretion.

Next, as to the causation of the pustulation, on only one occasion did I fail to find staphylococci in culture from pus, though it is only fair to acknowledge that Sabouraud in his vast experience has occasionally found cases which gave no staphylococci. It is true also that microbacilli can be cultivated in great numbers from the pus, but not more than might be expected considering the amount of comedo débris present in this material.

In conclusion, a great deal has been written about media for the cultivation of this organism. In my opinion the complicated agars recommended are quite unnecessary. The secret of success in cultivating the organism is the use of anaërobic methods. Under these conditions a simple and easily prepared medium like 2 per cent. glucose agar gives luxuriant growth. Südmersen and Thompson, who also used anaërobic conditions, recommend a highly acid medium (+ 40 to phenolphthalein). But even by reducing the acidity to + 20, I was unable to obtain a material which was sufficiently stiff to be sloped.

Dr. Sabouraud still uses his special medium and method of inoculation, but for ease and rapidity of obtaining a pure culture from all sorts of material, I think it must be admitted the anaërobic methods are the most satisfactory.

In conclusion, I wish to express my gratitude to Dr. Ledingham at the Lister Institute for his goodness in controlling my work and advising lines of action; to Dr. Whitfield for the material he provided, and assistance throughout the work, and especially to Dr. Sabouraud for his kindness in furnishing me with the full literature on the subject, and in examining and identifying my cultures.

REFERENCES.

[1] Unna, *Histopathology of the Diseases of the Skin*, 1896. [2] Sabouraud (1897), La séborrhée grasse et la pelade, *Ann. de l'Inst. Past.*, t. xi, p. 134; (1897) Sur la nature, la cause, et le mécanisme de la calvitie vulgaire, *Ann. de dermat.*, t. viii, p. 257; (1899) L'acné nécrotique, *Ann. de dermat.*, t. x, p. 841; (1902) *Séborrhée, Acné, Calvitie*, Paris, 1902. [3] Gilchrist (1900), A Bacteriological and Microscopical Study of over 300 Vesicular and Pustular Lesions, etc., *Johns Hopkins Hosp. Rep.* vol. ix, p. 409; (1903), The Etiology of Acne Vulgaris, *Journ. of Cutan. Dis.*, vol. xxi, p. 107. [4] Hallé et Civatte (1907), Contribution à la bactériologie des glandes sébacées, *Ann. de dermat.*, t. viii, p. 184. [5] Fleming (1909), On the Etiology of Acne Vulgaris and its Treatment by Vaccines, *Lancet*, 1909, vol. i, p. 1035. [6] Whitfield (1909), The Etiology of Acne, *Lancet*, 1909, vol. i, p. 1207. [7] Südmersen and Thompson (1909), Cultivation and Characters of *Bacillus acne*, *Journ. of Pathol. and Bact.*, vol. xiv, No. 2, p. 224.

ACHONDROPLASIA.

BY

O. EICHHOLZ, M.D.OXON.,

LONDON.

ACHONDROPLASIA is described by Poynton[1] and others[2] as a rare disease. I recently saw five cases, three of which, it is true, were not quite typical, though, as I shall presently endeavour to show, they were undoubted cases. This morning I accidentally passed two more cases while walking in the streets of London within ten minutes' interval, making in all seven cases seen in three or four months. It would not, however, be fair to doubt the accuracy of the statement that the disease is rare on the strength of what may be an unusual experience, especially as five of the above cases were attached to a travelling company of dwarfs.

My remarks will be limited to three of these cases because they differ in some respects from the usual description. Two of them were sisters and the third was a daughter of one of them. Mother and daughter were 18 and about 40 years of age respectively. The aunt was about 42 years of age and a nulliparous widow.

These facts, of course, support the view that the disease may be hereditary, as has been recorded by Porak and others; but Drs. Rankin and Mackay[3] appear to doubt the evidence for this. The transmission of the disease from parent to child is mentioned by Dr. Poynton. The diagnosis is easy in typical cases, and most authors lay stress on the pug-nose, which is so common as to be an almost invariable symptom; but in none of the three cases to which I now refer was this peculiarity present, nor was there anything in the appearance of the head or face to suggest any abnormality. Nevertheless, the great disproportion between the lengths of the four limbs as compared with the body (which was certainly small, as would be expected from imperfect ossification of the ribs and pelvic bones), the small stature, the characteristic appearance of the hands described as *main-en-trident*, the absence of rickety changes such as contracted chest, deformed ribs, curved spine, and bowed legs, leave, I think, no doubt of the nature of the disease. Moreover, the dentition did not appear to have been delayed, and the shortness of the limbs was noticed about the second year, when it is unusual to notice shortening from rickets. The history I was able to obtain may have been faulty, and I was only able to examine one of the two sisters clinically. Apparently this absence of the depression at the root of the nose, which is admitted to be due to a premature synostosis of the occipito-sphenoidal synchondrosis or os tribasilare, has been noticed by others, for Dr. Thomson[4] says "there is usually an abrupt depression at the root of the nose," though he does not say definitely that there are other cases which might not show that peculiarity. The skin is described as

smooth and pliable by Rankin and Mackay, while Poynton says it is usually soft and natural to the touch although it may be redundant over the extremities. In my case the skin of the trunk and head was normal, but over the limbs, especially at the wrists and ankles, it was unusually soft and doughy to the touch, and the same feature characterized the hands of her two relatives.

The pelvis of my patient was contracted, the conjugate diameter at the brim was estimated by external examination at 6.5 cm., and there was a sharp angle between the lumbar and sacral vertebra which gave at first the impression that one had to deal with a spondylolisthetic pelvis, but this I do not think was the case. The uterus was situated in the right half of the pelvis. Presumably the pelvis of her sister was similarly contracted, as she had undergone Caesarean section.

Lordosis is described as one of the characteristics of achondroplasia; this is probably only apparent, the acetabula being displaced backwards from shortening of the ilio-pectineal lines, so that the femora are attached in a plane posterior to that of the normal individual (Poynton). My observation certainly accords with this view of the matter.

References.
[1] Clifford Allbutt's *System of Medicine*, vol. iii. [2] G. Rankin and E. C. Mackay, British Medical Journal, June 30th, 1906. [3] Ibid. [4] *Encycl. and Dict. of Med. and Surg.*, J. Thomson, article Achondroplasia.

A CASE OF GENERAL SUPPURATIVE PERITONITIS: RECOVERY.

By HARRY COOPER, M.A., M.D.Oxon.,
Medical Officer, Tolworth Isolation Hospital; a Medical Officer, Surbiton Cottage Hospital.

The infrequency of recovery from general suppurative peritonitis prompts me to record this case.

Ethel H., aged 8 years, was admitted into the Tolworth Isolation Hospital on November 9th, 1909, on suspicion of suffering from enteric fever.

She was rather a frail little girl, and looked ill; the cheeks were flushed, the orbits sunken, and the lips dry and scaly. Temperature, 100.8°; pulse, 128; respirations, 36. The tongue was furred; the fauces were noted as normal. The abdomen was somewhat distended, and did not move freely with respiration; there was considerable resistance on palpation all over the abdomen, and some complaint of tenderness on the right side, though not directly over the iliac fossa. The spleen was not palpable, and no "spots" were present. Rectal examination revealed no swelling or distension. The heart and lungs were normal. The urine was acid, clear, specific gravity 1024, and free from albumen and sugar.

During the next ten days there was continued fever, with persistence of the abdominal signs; vomiting occurred once on the day following her admission, and once again on November 15th. Some indefinite pulmonary signs in the form of coarse râles and rhonchi, suggestive of enteric bronchitis, also developed, and on the fourth day after her admission a general scarlatiniform rash was noted, though unaccompanied by any other signs of scarlet fever.

On November 21st there were signs of free fluid in the peritoneal cavity, and on November 27th, as this had increased very considerably, a Southey's tube was passed into the abdomen with a view of relieving what was thought to be an ascitic collection. Instead of serous fluid, however, pus welled out from the tube.

On the following day, under an anaesthetic, the abdomen was opened over the right iliac fossa, and several pints of thick creamy pus were evacuated. The peritoneal cavity was then flushed with a large quantity of sterile normal saline solution at 105° F., the rubber flushing tube being freely passed from the diaphragm to the pelvis and from one loin to the other. This huge collection of pus had in fact occupied the entire peritoneal cavity in exactly the same manner as ascitic fluid. Both visceral and parietal layers of peritoneum were represented by continuous sheets of pyogenic membrane, so that the individual coils of intestine were not visible nor consequently was the appendix. Two large drainage tubes were inserted. I regret that I did not on this occasion collect a specimen of the pus, which was thick, creamy white, and inodorous, for bacteriological examination. A specimen taken subsequently from the discharging wound, however, showed the presence of pneumococcus.

From this date the child gradually improved. One incident remains to be recorded. On January 4th, when all seemed to be going on well, she had an attack of haematuria, and the daily excretion of urine was much diminished. This was not accompanied by any other appearance of illness either objective or subjective; there was no elevation of temperature or alteration of pulse, and by January 15th no blood or albumen could be detected, and the kidneys were acting well.

On January 20th the wound was closed, and on January 31st the child was discharged from the hospital.

I would call attention to three points of interest in this case.

First, as to the diagnosis: This seemed at first to lie between enteric fever and appendicitis. The general appearance of the child suggested enteric; the abdominal signs were consistent with that view, and the advent of bronchitis supported it; moreover, the child did not become worse. On the other hand, the abdominal signs were the predominant feature of the attack, and the immobility of the abdomen was greater than is usually seen in enteric fever; moreover, there was no enlargement of spleen and no "spots"; the first Widal reaction was negative, but that was on the seventh day of illness and too early to be conclusive; when the second Widal was also negative signs of fluid had already appeared in the abdomen. At this stage tuberculous peritonitis seemed to be the diagnosis. It was only when the Southey's tube revealed the presence of pus that the diagnosis of general suppurative peritonitis was established.

The second great point of interest is that a general suppurative peritonitis should recover at all, especially at so late a stage, and this in itself suggested a pneumococcal infection, which was found to be the case.

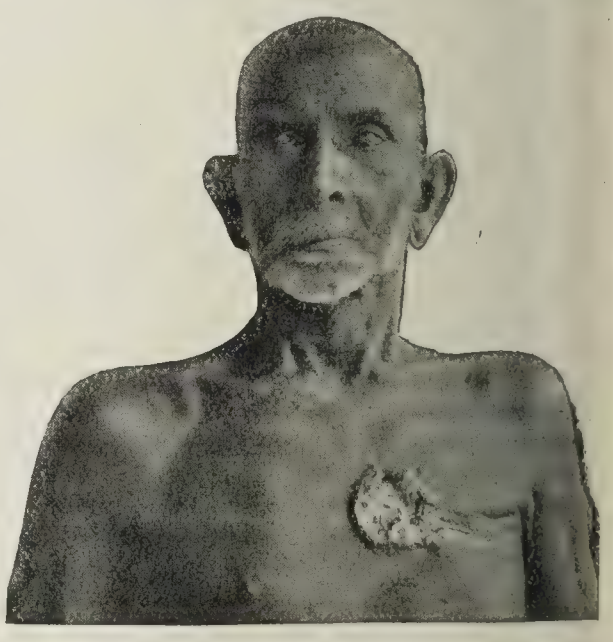
Thirdly, a puzzling feature was the rash which appeared four days after the child's admission. This rash had the exact distribution and character of a scarlet fever exanthem, but there were no confirmatory signs in tongue or throat, nor was there any desquamation more than the powdery state of the skin so often present in patients who have been some time in bed. I looked upon the rash as a septic one. The occurrence of haematuria, however, during convalescence, which I could not otherwise account for, and which in its abrupt onset, its mild course, and rapid termination was so suggestive of a slight scarlatinal nephritis, again raised the possibility of that explanation of it. If this was so, the child had scarlet fever concurrently with her peritonitis.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

CARCINOMA OF THE MALE BREAST.

In connexion with Dr. Bingham's case of carcinoma in the male breast (February 19th, 1910), I think it may be of interest to record the fact that I have seen two such cases during the present year. Both were natives of Travancore, S. India. One of the cases, which presented all the naked-eye appearances of scirrhus of the breast, did not submit to operation, and I have, temporarily at any rate, lost sight of him.



The other I operated upon. He was a native, aged 65, and said that he had first noticed a small lump near the left nipple four years ago. This gradually increased in size until about a year ago, when he received an injury to the growth. Soon afterwards the skin over the tumour began to give way, and on admission to hospital there was a typical cancerous ulcer (about 3½ in. long by 1½ in. broad) with very hard raised edges (as shown in photograph).

The usual radical operation of removing pectorals and fascia and clearing out the axilla was performed. Some of the glands in the latter region were very hard, though

mall. In spite of undermining of skin edges, a raw surace of about 3 in. by 1 in. had to be left to granulate. This s now healing well. On section the tumour was found to e a typical scirrhous cancer.

I may add that, while 61 excisions of upper or lower w, 14 excisions of tongue, 6 excisions of the (female) amma, and 146 operations for the removal of cancerous owths of the cheek or lip have been performed during e last five years at Neyoor Hospital, the above case is the rst of carcinoma of the male breast which has been perated on in that period.

JAS. DAVIDSON, M.D.Edin.

L.M.S., Neyoor Hospital, Travancore.

HIGH TENSION AND CAVITATION.

N idea that the arthritic diathesis is antagonistic to the cidence of tuberculosis is, I believe, more or less prealent in the medical profession.

Now the arthritic diathesis is a conception of "disease ffecting the joints," and may include both gout and heumatism, but while these two affections occupy extreme oles in the semeiological scale of arterial tension—gout eing a high tension disease and rheumatism a low—yet hey appear to be equally uncommon as complications or oncomitants of tuberculosis.

Assuming that this is the accepted position, I venture to ecord a case in which high tension and pulmonary cavitaion coexist, in the hope that it may elicit opinions and uggestions of value in the conduct of similar conditions.

A man aged 53, born and resident in Canada, is now travelling n Europe for pleasure. He suffered eight years ago with tuberulosis, which quieted down and left only a "tendency to rouchitis," which probably, rightly interpreted, means a endency to secretion on the part of cavities left by the antedent tuberculosis. I first saw the patient on November 29th, nd prescribed some nitromuriatic acid and nux vomica for slight igestive disorder.

He then went to Les Avants (altitude 3,000 ft.), and I heard othing further of him till December 10th, when his wife telehoned that he had had haemorrhage. This was of no great mount, but I noted a somewhat high arterial tension, in conequence of which I advised him to come down to Montreux altitude 1,200 ft.).

Since the first onset there have only been three days on which here was no trace of blood, while there have been recurrent aemorrhages of increasing severity at intervals of eight or ten lays. As I saw more of the patient, I found that the arterial ension was habitually high, and that he had been credited in anada with a "renal pulse." There are considerable cavities t both apices, but the haemorrhage comes from the left apex, s gathered from slight crepitations which may be heard there t times of haemorrhages. The temperature remains about 8° F.

Apart from the haemorrhages, the patient remains in excellent ealth and spirits, in spite of being confined to bed and chair nd having all his wine and smokes and most of his food nocked off.

I have strapped the left side of the chest with the object of estricting its movements—a practice which I find useful in nany cases of pulmonary disease, but which does not appear to e of material use in the present one. I have calmed the ervous system with morphine, kept down the arterial tension ith calomel, increased the coagulability of the blood with alcium chloride, and can only hope that the *vis medicatrix Naturae* may step in and seal up the leaks.

I presume that the condition is one of aneurysmal lilatation of arterioles in the walls of an old tuberculous avity. What is the rational treatment? Is it to plug he cavity with some non-irritant coagulable injection or o compress it by means of an artificially produced pneumohorax?

Montreux. STUART TIDEY, M.D.

AN association for the cure of patients suffering from upus has been formed at Hamburg. It is to receive a ubvention of £500 a year from the city, and two pavilions n the Eppendorf Hospital has been set aside for the ccommodation of the patients.

UNDER the will of the late Mr. Frederick Tendron of Tunbridge Wells the Poplar Hospital for Accidents and he London Hospital each receive a bequest of £1,000; the atter institution is also given a third part of the residue f the estate, which apparently amounts to about £35,000.

THE next meeting of the Royal Society will be held on Thursday, May 26th, at 4.30 p.m., when the Croonian Lecture will be delivered by Professor G. Klebs, on alterations of the development and forms of plants as a result of environment. The soirée announced for May 25th will not take place.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

ST. BARTHOLOMEW'S HOSPITAL.

A CASE OF GENERAL INFECTION WITH AN ANAËROBIC BACILLUS.

(By G. GRAHAM, M.A., B.C.Cantab., House-Physician.)

[Under the care of Dr. HERRINGHAM.]

L. B., aged 3, was admitted on July 3rd, 1909. She had been quite well until July 1st, 1909, when she began to have three to four loose stools a day, but was otherwise well. On July 3rd she seemed listless and apathetic, but did not complain of anything. She was put to bed at 8 p.m., and at 11 p.m. was found in a convulsion. She was brought to the hospital at once, and admitted.

The child was well developed, but in a very dirty condition. She was quite unconscious, and the face was continually twitched and both arms and legs jerked. The pupils were widely dilated and the corneal reflex absent. There were signs of general bronchitis all over both lungs, and at the apex of the left lung signs of consolidation. Nothing abnormal was noticed in the heart or abdomen. The temperature was 103° F., the pulse and respiration were both very frequent. The fits ceased at 2.30 a.m. on July 4th, but at 3 a.m. the child became blue. She recovered temporarily, but died at 4.50 a.m. on July 4th, six hours after she was first found unconscious.

The note from the Pathological Department about the case is as follows: The brain was natural. The lungs showed many areas of haemorrhagic collapse scattered over both lungs but chiefly at the apices, and around these the rest of the lung was oedematous. The larynx and trachea contained frothy fluid. The heart was natural, but the stomach showed a number of small petechial haemorrhages. The spleen was large and firm. The rest of the body showed nothing abnormal to the eye.

Histology.—Pieces of the lung were hardened and sections cut and stained with haemalum and eosin. The only abnormality seen was general congestion of the blood vessels and some catarrh of the alveoli and smaller bronchi.

Bacteriology.—Film specimens of the lung juice, of the heart's blood, and of the spleen were made at the time of the autopsy. The films from the lungs showed the presence of one micro-organism only, a square-cut Gram-positive bacillus, which was present in fair numbers. The heart's blood showed no bacteria microscopically. Films from the spleen, however, showed a few of the same bacilli as seen in the lung.

The character of the patient's illness and the presence of this Gram-positive bacillus in the lung and spleen in pure culture suggested that the patient had succumbed to its action, and it appeared probable, on general grounds, that the micro-organism was either an anaërobic bacillus or else *B. anthracis*. The following steps were accordingly taken to decide which of these alternatives was correct. As it was evident that the bacillus was most numerous in the lung, about 1 c.cm. of juice expressed from the lung was injected into a guinea-pig subcutaneously. Cultures both aërobic and anaërobic were also made, with the usual precautions, on agar and in broth from the lung, the heart's blood, and the spleen, and incubated at 37° C.; eighteen hours later the guinea-pig was dead. Its subcutaneous tissues were gangrenous, and intensely infiltrated with a haemorrhagic exudation showing globules of fat and portions of muscle fibre floating in it. Microscopically the exudation was found to be swarming with the Gram-positive bacillus seen in films of the child's lung. The bacillus appeared to have a capsule in this subcutaneous fluid.

The aërobic cultures failed to show growth. The anaërobic cultures from the child's heart's blood and spleen were negative. The anaërobic cultures from the

lung, however, gave practically a pure culture of the bacillus, as also did cultures from the guinea-pig. This micro-organism from its biological characters was identified with the well-known anaërobic bacillus first described by Welch and named by him *B. aërogenes capsulatus*, and it also produced the change in milk known as the enteritidis change, on account of its being a feature of the *B. enteritidis sporogenes* of Dr. Klein. On the Continent it would seem that this micro-organism is known under the name of *B. perfringens*.

The interest of this case lies in the brief illness of the patient (six hours) and in the fact that this anaërobic micro-organism was found present in pure culture, and was especially numerous in the lung. A section of the child's lung stained by Gram's method showed the bacillus in considerable numbers, both in the blood vessels and also free in the alveoli.

Reports of Societies.

MEDICAL SOCIETY OF LONDON.

Monday, May 9th, 1910.

SAMUEL WEST, M.D., F.R.C.P. (President), in the Chair.

Ankylostoma Duodenale.

Dr. F. M. SANDWITH demonstrated by means of the epidiascope microscopical preparations illustrating the *Ankylostoma duodenale* and the entrance of the larvae through the skin into the human body. Until 1898 it was, he said, universally supposed that the larvae of this worm, like most other parasites, entered man only by the mouth, but in that year Professor A. Looss, of Cairo, accidentally dropped upon his own hand in his laboratory a drop of water containing more than 1,000 lively larvae. Thereupon ensued redness and local burning, and eventually anaemia and debility followed, and the eggs of the parasite were found in the faeces of the involuntary experimenter. The latter at once recognized the importance of this observation, but his belief was not shared by others, as it seemed too unlikely a thing to be possible that the larvae should have entered his skin. Hence after being cured of the infection he repeated the experiment purposely on another part of his hand and was able to show the same local and constitutional results. After this discovery of Professor Looss, the speaker said that fortunately it was possible to make use, for experimental work, of an analogous worm which infested dogs—the *Ankylostoma caninum*. Looss carefully selected some puppies which were found to be free from disease and applied to their skins a mixture of charcoal and faeces in which larvae had been bred. The puppies died on the ninth day, and at the *post-mortem* examination anaemia was seen and many young worms were found in the duodenum, all immature and no adults, proving that the infection was recent, and practically the same result was achieved as when puppies had been fed on larvae by the mouth. By infecting a series of puppies on three different days, and then killing the puppies, Looss was able to procure reliable sections of different stages of the disease, for the important thing was to know what happened to the larvae after they had entered the hair follicles, and how did they succeed in getting into the alimentary canal. After devoting some weeks of patient toil to this special investigation Looss was able to prove that the larvae after entering the skin got into the lymphatic vessels, and later into the subcutaneous veins. Having thus entered the circulation, the larvae were transported by the blood current to the right side of the heart, to the capillaries of the lungs, to the alveoli, to the bronchi, to the trachea, and to the larynx, where they wound themselves round the epiglottis and entered the oesophagus, stomach, and duodenum, which seemed to be their goal, for there they became sexually mature.

Dr. C. W. DANIELS demonstrated some slides dealing with malaria, Dr. CARNEGIE BROWN showed slides illustrating tropical dysentery, and Dr. A. W. G. BAGSHAWE explained some microscopical sections from cases of sleeping sickness.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

Friday, April 29th, 1910.

Dr. J. B. HELLIER, President, in the Chair.

THE following were among the exhibits: Mr. H. LITTLEWOOD: (1) A case in which *Peridiverticulitis* with a fistulous opening between the bladder and sigmoid had been successfully operated on. The patient, a male aged 50 years, had passed faeces and flatus per urethram for four years, during which time he had been unable to work; there was also a stone in the bladder. He made a good recovery. The portion of the bowel removed showed no evidence of malignant disease, but was a typical example of chronic peridiverticulitis of the colon. (2) A case in which early *Malignant disease* of the upper part of the common bile duct, involving the cystic duct and producing intense jaundice, had been removed. The patient was a man aged 65, who was in perfect health until about seven or eight weeks before the operation; at that time he suddenly became jaundiced; there was no pain and no fever. The jaundice increased in intensity and at the time of the operation (March 15th, 1910) the patient was of a greenish-yellow colour. He made a good recovery. Dr. A. G. BARRS: A man, aged 30, with *Chronic sprue*. He went to India in 1901, and the sprue began in June, 1908. The attacks generally lasted from two to three months, with intervals of about a month. He returned home in December, 1908, and then began to have sore tongue and tender gums, and consequently could not eat hot food. Latterly abdominal pain and vomiting had been less. He was pale and had lost much weight. His tongue was sore and red, and pharynx red also. The faeces showed the presence of *B. coli* and *B. enteritidis sporogenes*. Mr. A. L. WHITEHEAD: A boy, aged 17, who had suffered from *Chronic otorrhoea* all his life. There had been an external mastoid swelling for three weeks, and facial palsy for one week, but no symptom of intracranial extension, except marked optic neuritis more intense on the affected side. Very extensive mastoid disease was found at operation, with extensive pachymeningitis externa, the dura mater over the cerebellum, lateral sinus, and cerebrum being diseased, and a large extradural abscess above. His recovery was uneventful; some optic neuritis was still present. Mr. LAWFORD KNAGGS: A man, aged 58, in whom *Dry gangrene* of the arm began the day after the crisis of lobar pneumonia. There was no radial or ulnar pulse and there was no albuminuria or cardiac bruit. Dr. WARDROP GRIFFITH showed a child, aged 9½, suffering from adherent pericardium, in whom *Precordial thoracostomy* had produced slight improvement. Mr. CONSTABLE HAYES showed a man, aged 35, who was suffering from *Secondary syphilis* with condylomata, which caused symptoms of mastoid trouble in a suppurating ear. Dr. ALEX. D. SHARP showed a girl, aged 19, suffering from chronic *Oedematous laryngitis*, which had developed suddenly about four years previously. In spite of prolonged and active treatment, the condition was still very pronounced, only a tiny glottic chink being seen on elevating the thickened epiglottis. The vocal cords were unaffected, and there was no pain and no cough. There was no evidence of tubercle and no specific history. The nature of the case was uncertain. Mr. H. H. GREENWOOD: A case in which a large *Hydronephrosis* had been caused by impaction of a ureteral calculus in a woman four months pregnant. The calculus was removed by laparotomy on May 2nd, and on November 22nd the patient was delivered of a healthy full-term child; the hydronephrosis was then no longer palpable. Dr. MAXWELL TELLING: (1) A woman, aged 26, suffering from Graves's disease with *Unilateral exophthalmos*. (2) A woman aged 56, with pernicious anaemia due to *Oral sepsis*. There had been marked glossitis, pyrexial attacks, and active delirium. Vigorous disinfection of the mouth and administration of arsenic was followed by marked improvement in the anaemia, the mental condition becoming almost normal. Dr. BRONNER: Two cases of *Asthma* of ten and twenty-three years' duration respectively, regarded as successfully treated by galvano-cauterization of the nasal septum and lower turbinates.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF ANATOMY AND PHYSIOLOGY.

Friday, April 29th, 1910.

T. H. MILROY, M.D., F.R.S.E., President, in the Chair.

DR. CASSIDY showed a specimen of *Superfetation* in a cat. Its interest lay in the fact that there were two embryos, one occupying each horn, and showing a great difference in period of growth. The smaller did not represent a "blighted ovum," as both microscopically and on section it appeared quite normal. Superfetation, he said, was of not infrequent occurrence amongst mammals, but whether it ever occurred in women was another question. In the thirty-eight recorded instances of bicornuate uteri in women there was no case. Obstetrical literature contained several cases of presumed superfetation, but whether true superfetation occurred in the normal human uterus was very doubtful. With the thickened decidua blocking the lumen of the tube and the plug of mucus which blocked the cervical canal at an early date, the passage of another spermatozoon at a later date was rendered very improbable. Professor THOMPSON said it did not seem beyond the bounds of possibility that the two cells might be impregnated at the same time, and that for some reason one developed and the other did not. Dr. CASSIDY, in reply, said that in looking for an explanation for such cases the question to be answered was, Is it possible for a spermatozoon to live in the passages for four weeks and then fertilize another ripe ovum? Mr. SETON PRINGLE read a note on a case of complete *Transposition of the viscera*. The condition was found in a man, aged 27, who was the subject of extensive cancer of the rectum. The exhibitor opened the abdomen for the purpose of fully examining the extent of the disease, and, if removal was out of the question, of performing a colotomy. He found a transposition of all the abdominal organs, and as removal was impossible, did a colotomy, fixing a knuckle of iliac colon in an incision in the right inguinal region. The heart was also situated in the right thorax, the apex beat being in the fifth right intercostal space, $1\frac{3}{4}$ in. inside the nipple line. In referring to the theory associating these cases of transposition with twin birth, he pointed out that his patient said he was not one of twins, nor was there any record of a fetus papyraceus. Professor DIXON said that, in twin formation, an early separation in the embryonic plate, so that the resulting twin embryos would be ventrally opposed, was held to afford an explanation of transposition of viscera in one of the embryos. Professor M'LOUGHLIN favoured the view that "transposition" was dependent on a primitive vascular irregularity of the abnormal embryo. Dr. N. C. RUTHERFORD showed (1) lantern slides of a human embryo of the fifth week. The first of these showed the opened chorionic vesicle, the embryo being enclosed in the amnion, while the yolk sac was still attached and lay in close proximity. The second showed the amnion opened, and a very well-preserved embryo lying inside. Other views of the embryo separated from the appendages were shown in conjunction with a millimetre scale which indicated its length to be almost exactly 3 mm. He was of opinion that the embryo had no exact counterpart among those collected by Keibel and Hochstetter. It was intermediate between Figs. XVIII and XIX of Keibel's Normentafeln and between Hochstetter's Embryones Humani Re III and Ma I. That being the case, he expected that further examination of the specimen by serial section and reconstruction would be productive of some profitable results. (2) A lantern slide of the external form of a human embryo, showing ectopia cordis. He stated that, as was to be expected in such a pathological condition, the features of the external form were somewhat anomalous, and did not allow of any exact estimate of the age of the specimen. Judging, however, by the state of development of the limbs, he would place it early in the fifth week. He attributed the condition to the failure of growth of the ventro-lateral process springing from the protovertebrae; this resulted in a defect analogous to that of spina bifida. Professor M'LOUGHLIN said that spina bifida had been produced experimentally by treating the eggs of tadpoles with a weak sodium chloride solution. It was, consequently, suggested that some unusual chemical condition or irregularity of the blood of the mother might be responsible for the condition of ectopia cordis.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

Tuesday, April 19th, 1910.

Dr. WARD SMITH in the Chair.

DR. MITCHELL showed skiagrams of the hand showing undescribed bone changes associated with *Tuberculous arthritis*. The photographs showed a curious striated appearance of the long bones, the meaning of which was as yet undiscovered.

Mr. BASIL HALL read notes on 53 cases of intestinal obstruction. The most noticeable point was the enormous death-rate in the case of obstruction by band, the reason being that these cases were only seen when too late, owing to the very deceptive onset of the symptoms. It was pointed out that all textbooks stated that these cases commenced suddenly; experience, however, showed that this was not so. The onset was very gradual, and the symptoms at first were very slight, and it might be not until the intestine was nearly gangrenous that the decisive symptoms appeared. Dr. WARD SMITH said he thought that visible peristalsis should always be looked for, and was a certain sign of obstruction. Dr. JASON WOOD agreed, and instanced several cases showing the difficulty in diagnosis.

MEDICO-PSYCHOLOGICAL ASSOCIATION.

NORTHERN AND MIDLAND DIVISION.

Tuesday, April 19th, 1910.

Dr. C. T. STREET (Newton-le-Willows) in the Chair.

DR. E. R. GAVE (Sunderland), in a paper on the treatment of general paralysis by means of serums, narrated his experience in this connexion with diphtheria antitoxin. He had used it in six cases of general paralysis of the insane. In one of these the patient showed improvement. Probably the serum acted by setting up some absorptive process and not specifically. All these cases were so advanced that nothing more than arrest or transient improvement could reasonably be expected. Dr. A. J. HALL (Sheffield), in a paper on insanity following *Carbon monoxide poisoning*, related the following two cases. In the first, a woman aged 33 was found unconscious in a bathroom soon after going for a hot bath. She showed most of the signs of CO poisoning; there was no smell of gas, and the "geyser" was turned off. By next day she had completely recovered. The second patient was a man engaged to be married to the previous patient. He had been spending a week-end with the family. He too was found unconscious in the bathroom, exhibiting typical symptoms of CO poisoning, the room being full of gas, the light out, but the geyser gas-cock full on. Instead of complete recovery after treatment the patient remained dazed and confused, and had loss of memory and incontinence of urine and faeces. This condition continued practically unchanged up to the day of his death seventeen days later. In this case the speaker raised the question whether the mental symptoms were entirely due to the poison, or was there some prior mental derangement, and quoted the saying, "Whenever an obscure death occurs in a patient about to be married it is suicide." Dr. STREET, in opening a discussion on the question, "Are we doing as much in the form of treatment of mental disorder as we might do?" pointed out that the recovery-rate had not increased during the past thirty years. He advocated a higher form of moral treatment than the usual occupation, recreation, and amusement, a more intimate knowledge of the mental condition of every patient, and particularly a more frank and open method of dealing with it. He believed in discussing a patient's mental symptoms freely with him, whether they were delusions or suicidal inclinations, and had found this method to yield good results, especially in cases of melancholia and alcoholism.

Reviews.

EICHHORST'S TEXTBOOK OF MEDICINE.

THE fourth and last volume of the sixth edition of Professor EICHHORST'S admirable textbook of medicine[1] maintains the high character of those already reviewed which have preceded it. We have on former occasions described the plan upon which is based the author's description of each disorder, and have expressed the hope that he would in the final volume give a full reference to the numerous authorities quoted; he has, however, not added this most desirable information, considering it unnecessary in a mere textbook. This is a pity, because the publication contains such a fund of information that it deserves to be looked upon as more than a textbook; it really is a valuable contribution to the list of books on the subject.

One blemish which persists in this volume is that the names of English contributors are so badly spelt. It is almost impossible to recognize them in the distorted form in which they are presented; for example, in the reference to writers on multiple myelomatosis we read of such investigators as "Mac Inturi, Dabrymple, and Sence Jones"; and "Heyl und White" are made responsible for the ophthalmoscopic recognition of lipaemia in diabetes mellitus. When we have complained of the absence of a list of references and of these orthographic failures, we have practically said all that can be said in the way of detraction; in every other detail the subject is handled in a most masterly way; many facts are given, and the value of various theories is justly appraised.

The volume opens with an admirable essay dealing with diseases of the suprarenal bodies; the pithiness of Professor Eichhorst's treatment of his subject-matter cannot be better exemplified than by his use of Lewin's paper, in which it is shown that in the collected cases of Addison's disease and diseases of the suprarenal bodies the former malady occurs in association with the latter in 80 per cent., without association in 20 per cent.; that suprarenal disease occurs with Addison's disease in 72 per cent., and without it in 28 per cent. of the reported cases.

The tenth chapter deals with diseases of the blood-forming organs and of the blood, including the haemorrhagic diathesis. An excellent account of Banti's disease is given, and care is taken to point out the difficulty of separating the malady from cases of ordinary cirrhosis of the liver and from pseudo-leukaemia or lymphadenoma.

Changes in the fundus oculi in chlorosis are referred to in three groups, namely, those which simulate albuminuric retinitis (Nolan and Knies), optic neuritis (Gowers), and optic neuritis with atrophy (Engelhardt). How firmly the author's ideas are wedded to the possibilities of auto-intoxication is shown by his frank declaration that chlorosis is due to autointoxication from disturbance of the internal secretion of the ovary.

A useful classification of the varieties of lymphadenoma according to the structures most obviously involved provides us with a lymphatic type, a splenic, a medullary, and an enteritic type, the latter suggested no doubt by the admirable description of this form given by Behier, in which the solitary follicles and Peyer's patches are enormously hypertrophied. It will thus be seen that Professor Eichhorst, in common with other clinicians, has adopted, even in this form of blood disease, which does not depend upon the microscopical examination of the blood for determination, a classification which is pathological rather than clinical. It is obvious from a perusal of this volume, which deals so largely with blood diseases and infections, that, despite the large amount of experimental work done in the direction of a more thorough understanding of the problems connected with haemolysis, Professor Eichhorst, as a clinician keenly alive to the advances made in medicine, finds space only briefly to refer to two observations—one by Donath and Landsteiner, who have made observations on the haemolytic processes which appear to underlie haemoglobinuria, and the other a most brief and casual reference to Wassermann's serodiagnosis of syphilis.

A subject most successfully dealt with is that of obesity; the reader will find a very intelligible description of the methods of treatment which Professor Eichhorst has himself found to be efficacious. The reference to the variable results of observations on the output of uric acid in and before an acute attack of gout would be simply amusing were it not that it serves to show how unsatisfactory are the conceptions at present put forward to explain the pathogeny of true gout. Duke's "Fourth Disease" is treated with scant consideration in view mainly of the very large disagreement of English writers as to whether it exists; equally short shrift is meted out to de la Harpe's "Fifth Disease." The acute infective diseases are described under two headings—those with and those without a regular localization of manifestations. Ficker's diagnosticum for the detection of typhoid fever is recommended strongly as being both reliable in verdict and safe in execution. Professor Eichhorst is quite confident that the treatment of typhoid fever by Jez's antityphic extracts has yielded beneficial results. It will cause the reader considerable dismay to learn that the mere exposure of the examiner during consultations with tuberculous patients is capable, according to Moeller, of leading to the entrance upon the mucosa of the nose of the causative organism. A thoroughly helpful section on syphilis, most fully illustrated, closes this volume, giving the reader a sense that this system of medicine forms one of the most reliable guides we possess.

[1] *Handbuch der speziellen Pathologie und Therapie inneren Krankheiten.* Bd. iv. By Dr. Hermann Eichhorst. Sixth edition. Berlin and Vienna: Urban and Schwarzenberg. 1909. (Sup royal 8vo, pp. 1230; 216 illustrations. M 22.)

SURGICAL TEXTBOOKS.

THERE is no doubt that students—and teachers too—will welcome the new edition of "Walsham" now issued as the *Practice of Surgery* by W. G. SPENCER and G. E. GASK.[2] Mr. Spencer is responsible for the greater part of the text, which has been rearranged so as to bring nearer together the consideration of diseases and injuries of the same part. He has rewritten a considerable portion, and revised the whole to bring it right up to date. Mr. Gask is responsible for a chapter on examination of the blood and for the illustrations, a great many of which are new. Mr. Jessop has revised the section on ophthalmic surgery, and Mr. C. E. West has rewritten that on diseases of the ear with new illustrations. This tenth edition of an old favourite will establish its reputation more firmly than ever. It is true there are twelve hundred pages for the unhappy student to get through, but it is difficult to see how all he has got to be familiar with can be crowded into less. It is very difficult to discriminate amongst all the new work and decide what may be excluded without leaving a hiatus to confound the examinee. Mr. Spencer seems to have been very successful in his choice. It was almost a pity to set forth the complicated refinements of coxa valga; and, on the other hand, Matas's work on aneurysms deserved a little more space, but, after all, that is a matter of opinion, and Mr. Spencer is certainly not open to the charge of indecision. He speaks definitely on disputed points without undue bias. On one issue he might, perhaps, be convicted—that of taxis for strangulated hernia—but doubtless would offer a defence. Taxis is necessary to establish the diagnosis of strangulation, but surely when once the fact of strangulation is ascertained, the treatment is operative. Mr. Spencer incorporates the recent work on pre-existent sacs in the development of herniae, but hardly makes clear enough how rarely one severe muscular effort is responsible for the causation of rupture, and how seldom "accident" can be alleged to the satisfaction of any but county court judges. The new arrangement which brings, for instance, diseases of bones and joints together is certainly an advantage. Anything which conduces to the consideration of disease on the basis of broad general principle, and then illustrates it by example, is a simplification much to be desired. Only by some such plan can the enormous mass of material now to be digested by the learner be brought within his capacity. The new series of illustrations is an education in itself. The collection of clinical photographs by Mr. Newbolt has been drawn upon, Dr. Hugh Walsham has supplied more of his excellent radiographs, and the coloured plates are decidedly more worthy of such special prominence than is often the case. They certainly add to the attractiveness of the book. All things considered, too, the price is moderate.

[2] *The Practice of Surgery.* By W. G. Spencer and G. E. Gask. London: J. and A. Churchill. 1910. (Roy. 8vo, pp. 1250; plates 48 (20 in colour), illustrations 707. 22s.)

The Professor of Surgery in the University of Pennsylvania has produced a large book purporting to be upon *Surgical Diagnosis*.[3] There is a great deal of useful information in it, some first-rate radiograms, and a multitude of pictures, most of them good. We do not think, however, that as a work on "diagnosis" it is a good book. The underlying idea seems to be, "Here is a lesion; let us make a long list of all the conditions it might possibly own for cause; now let us make choice among them." But for the elucidation of the first principles of choice, or even their enunciation, there is little if any help offered. It would require a good deal of industry or luck to light upon a surgical condition not named or referred to between the covers of this volume, but often there is over-elaboration. Is it necessary to devote a paragraph, out of two pages given to "acute diffuse peritonitis," to the danger of confusing the visceral crises characteristic of angeio-neurotic oedema? On the other hand, the author is at times hardly adequate. For example, he says that "primary carcinoma (rare) of the liver, when it forms a palpable tumour, can be recognized as such only by the careful exclusion of syphilis and of the existence of a primary focus elsewhere. Its diagnosis is of importance, since it is amenable to surgical operation." Is it correct that "typhoidal bone infection . . . exhibits a special predilection for the ribs'? Then, again, the regional arrangement of the chapters lends itself to repetition; a fibroma of the back and a fibroma of the arm do not differ to an extent that makes separate discussion necessary. Dr. Longcope has written a chapter on laboratory diagnosis, and Dr. Pancoast another on *x* rays in surgical diagnosis. The latter has supplied a large number—the largest yet published according to the author—of *x*-ray fracture pictures. The reproductions of photographs are good, but the diagrammatic drawings from *x* rays, of which there are a great many, are almost as difficult to read as the original negatives, so that his labours in that direction have been mostly in vain. The chapter on gynaecological diagnosis by Dr. Anspach is written much on the same plan as the rest of the book. We repeat that as a work on surgery this book is an industrious compilation, well illustrated, well printed, and well indexed, but it does not succeed, as it seems to us, in inculcating sound doctrine of diagnosis.

Another book on the same subject,[4] equally weighty, equally well printed and even more lavishly illustrated, is that by Dr. EISENDRATH. If clinical illustrations multiply at their present rate for many years more there will be no need for students to waste time in going to out-patient departments or doing clerkships in the wards; they will sit comfortably at home and learn the appearances of all the morbid conditions in their studies. Imagine the surgeon of the future saying to his anxious patient, "Dear me, yes, yes, you are exactly like that picture in Dr. Thingummy's atlas; excuse me while I turn it up and see what it is that's the matter with you." However, as we live in an age of short cuts to success, if we want to "get wise quick," it will be difficult to find a better guide just at the moment than Dr. Eisendrath's *Surgical Diagnosis*. He is not free by any means from some of the faults we have found with Dr. Martin, but they are much less in evidence, and at least he is not trying to write a treatise on surgery with the treatment left out, so as to justify the title "diagnosis." The arrangement of the book is broadly regional, but the author has managed to avoid serious overlapping. He opens with a chapter on surgical affections of the head and steers his way through a good deal of contentious matter with great discretion. When an author is bound down to tabulate his faith on the thorny question of cerebral compression and concussion, contusion and laceration, it is not easy to defy criticism; but in this, and in many another table, Dr. Eisendrath comes through the ordeal very well. Not that one can be expected to agree with him in every instance, but none of his dicta will teach the young idea to shoot much askance. The chapter on the abdomen is very well done; for example, he tabulates acute abdominal affections, for bedside purposes arbitrarily, into those in which pain is a prominent early symptom, those with obstruction, those with haemorrhage, and those with symptoms of suppuration, as early signs. It works out not so badly, but the four conditions he feels constrained to throw in as make-weights, under no particular heading, rather strain the balance—"angina sclerotica abdominis," "visceral crises in tabes or in the erythema group," "referred pain from thoracic or spinal affections," and "inflammation of the intra abdominal portion of vas deferens." He has a long chapter on "the extremities," which of course includes bones and joints, but the heading "diseases of the joints in general" indicates that he is no slave to regional system. After a section devoted to diseases and injuries of the spine, there is an excellent chapter on post-operative complications. Dr. Schram writes on methods of blood examination, including such matters as the Wassermann reaction; Dr. Kolischer is responsible for "methods of diagnosis of renal lesions," including cystoscopy and cryoscopy. For a student actively engaged in clinical studies, who is daily putting to the test the statements he finds in the textbooks of his teachers, and who is unlikely to be led away by the dogmatisms inseparable from the printed page, this book will not be harmful, and, on the other hand, will be a welcome and handy means of reference when in doubt.

An enterprising reader of the second part of the second volume of Professor HOCHENEGG'S textbook of surgery[5] will be driven to find out which of Professor Albert's old pupils is responsible for the various sections of this rather ill-arranged book. He will be able to extract the information from the front pages of the book after a little trouble, and it may surprise him to find that Karl Ewald is the author of the articles on injuries. Whether it is the author's fault, or that of the regional arrangement, or what it is, is open to question, but certainly to get information from this part of the book it has to be extracted and collated before it can be used. Doubtless the information is there, but it is not to be come at without effort. Dr. Friedländer, with inflammatory affections of the soft parts and of the bones, with tumours and with diseases of the vessels, writes so much more simply and clearly that one could wish he had not been cut down to a dozen pages for the consideration of neoplasms, whilst the enthusiastic orthopaedists were allowed to expand congenital dislocation of the hip into sixteen. It cannot be denied that Max Reiner, with the assistance of Rudolf von Aberle, has well used the space allotted to him; and as there is a good index, it does not matter much that some deformities (Sprengel's shoulder, for instance) have wandered off into another volume. His chapters on the inflammatory affections of joints, too, are worth reading; he is not dogmatic, and his generalizations will command sympathy, if not agreement. Throughout the book there is not nearly enough written about treatment. The discussion of such a condition as dislocation of the shoulder with fracture of the shaft of the humerus is quite inadequate. There is very little indeed about the operative treatment of fractures, simple or compound. The methods of dealing with arthritis in haemophilia are dismissed in a few lines. The recent advances in the surgery of the blood vessels do receive notice in small type, but that is all. It is worthy of note that congestion hyperaemia is not regarded in Vienna as a panacea. There are forty-six fairly good reduced radiographs and a large number of illustrations in the text, some of which are very good, some quite bad. The index is a very satisfactory feature, and does a good deal to redeem the book from an unfavourable estimate, and so from injustice.

ELECTRICITY IN MEDICINE.

DR. LARAT understates the value of his work when he describes it as a practical treatise of medical electricity.[6] It is, indeed, a practical treatise, but it is much more. The author, who is the chief of the electro-therapeutic service in the Hôpital des Enfants Malades, Paris, gives us no mere compendium of potted advice as to the modality to prefer in this or that condition, but a work which suggests

[3] *Surgical Diagnosis*. By Edward Martin, M.D. London: H. Kimpton. 1910. (Roy. 8vo, pp. 772; 18 plates; 445 illustrations. 28s.)
[4] *Surgical Diagnosis*. By D. N. Eisendrath, M.D. Second edition. Philadelphia and London: W. B. Saunders Company. 1909. (Roy. 8vo, pp. 885, 574 illustrations, 25 in colours. 28s.)
[5] *Lehrbuch der speziellen Chirurgie*. Edited by Professor Doctor J. Hochenegg. Vol. ii, part 2. *Surgery of the Extremities*. Berlin and Vienna: Urban and Schwarzenberg. 1909. (Sup. roy. 8vo, pp. 530, plates 14, illustrations 268. M. 10.)
[6] *Traité pratique d'électricité médicale. Electrothérapie, radiothérapie, radiumthérapie*. By Dr. J. Larat. Third edition. Paris: Vigot Frères. 1910. Post 8vo, pp. 651; 194 illustrations. Fr. 10.)

that his vast subject has appealed to his imagination as well as to his professional instincts. In its general plan the book is similar to other treatises upon the same subject. There are the usual chapters devoted to technique and apparatus, electro-diagnosis and treatment, and also a specially useful section upon electro-physiology, which includes a number of tracings showing the action of the various currents on the muscles and nerves. The author traces back the first electro-physiological observation to a period before Galvani, and gives the credit to Swammerdam, the Dutch physician and naturalist, who in 1678 described an experiment upon muscular contraction by electricity similar to that which afterwards proved to be the point of departure for such a long line of research. Another attempt at historical rectification is his exaltation of the French worker, Matteucci, who was ignored by Erb, to the position of a founder of electro-physiology. The author looks forward to future developments in electrical medicine—such, for instance, as the direct treatment of infectious diseases by means of high frequency; and also to further advance in electro-biology, and probably in electro-therapy, owing to the work that is being done upon colloidal substances in the organism. The newer therapeutic agents, radium and ionization, are sufficiently but not exhaustively treated. Students of medical electricity would do well to avail themselves of this treatise, not only because of its budget of practical information and its up-to-date summary of electro-medical literature, but also for its freshness of outlook and broad suggestiveness.

Dr. Morton has written a practical manual, which will doubtless find wide acceptance among practitioners who are occasional workers with electricity and the *x* rays. To describe the *Essentials of Medical Electricity and Radiography*[7] as an understudy to the well-known work of Dr. Lewis Jones is in no sense a reflection upon the originality of its author, since he himself expresses his indebtedness to that classic. He begins with a full description of the supply and application of electrical currents for medical purposes, and then passes to their use in surgery, in diagnosis, and in general and special therapeutics, glancing on the way at the new subject of ionic medication and the ever-widening utilities of cataphoresis. This, the second, edition has now a new section upon radiography, in which the author speaks authoritatively and at length upon that crux of the radiographic question—the focus tube. To instantaneous radiography, with the aid of the Snook or other apparatus, a special chapter is given. As an electrotherapeutist Dr. Morton speaks out of the treasures of a long experience gathered in the electrical department of a large hospital like the London, of which formerly he had charge. He does not believe that electricity is a wholesale curative agent, even in conditions which are supposed by many to be peculiarly subject to its influence. In functional sexual disorders, for instance, he does not admit its efficacy, and, on the other hand, he finds the electric bath of immense service as a means of treating such a condition as chilblains. Dr. Morton writes as a worker to workers, and his book shows in places a certain hastiness, not so far as his facts are concerned, but in the matter of style. We are still awaiting a book on this subject which shall be pleasant to read as well as to refer to, and which shall **not** be disfigured by awkward phrases and halting punctuation.

MALARIA.

A Practical Study of Malaria, by William H. Deaderick, M.D., is a book above the average.[8] It is necessarily, to a large extent, an old story, but it is told in a clear and easy style so that the matter is easily comprehended. The general tone of the work is excellent, save that what "the author calls the parthenogenetic cycle" of the malaria parasite—a cycle, by the way, which is by no means definitely proved—seems to excite much as a red rag angers a bull; for example, on page 114 he describes this phase in the following language; "The parthenogenetic cycle, or reproduction by unfertilized gametes; the cycle of chronic malaria, of latency and relapses, an immaculate conception yielding saviours to the species necessary for its salvation at a time of crisis, a vicarious atonement of macrogametes that the human cycle may be saved"; and yet again, on page 283, referring to the same thing, he writes: "The conquest of the schizonts seems to be a signal for the macrogametes to lay aside the conventionality of slow sexual reproduction and to conscript recruits rapidly by parthenogenesis." Leaving out of account these blemishes, there are points of real interest in the book. For example, the statement as to the comparative frequency of blackwater fever in America is important, and still more so the histories of the sixteen cases in which the urine was carefully examined afterwards. Nephritis is not usually supposed to occur as a sequela, but these statistics show that it may. In the part on the geographical distribution of the disease the author makes a few slips; he states, for instance, that of the lesser Antilles, St. Vincent, Antigua, and Barbados are relatively exempt from malaria; but the two former islands are highly malarial; the last has no malaria, *Anopheles* mosquitos being absent from it. It is hardly correct, either, to say that the greatest prevalence of the disease in St. Lucia is in the cool season from January to March. The views of different authorities on points of controversy are very fairly put forward, and a first-rate bibliography concludes a work which shows painstaking zeal in the review of the literature of the disease and also many signs of original and careful work.

The first fascicule of a treatise on exotic pathology, clinical and therapeutical, published in parts under the direction of Grall and Clarac,[9] is entitled *Paludisme*. Six other parts, dealing with different problems in tropical medicine, are promised. Whether such a work is demanded by the French profession it is not for us to say, but this first part is written by Drs. Grall and Marchoux, and their names ensure that the subject will be well and accurately treated. It is a bulky volume of 565 pages, and in the text are 140 figures, diagrams, and charts. With so much space at disposal the authors have room to expand their ideas. This is not always an unmixed advantage, the essential facts often being buried in a mass of useless generalities; and though we do not say that the fault is prominent in this volume, yet there is a tendency in this direction: the value of the book suffers thereby. In every chapter there is much to interest, and much also that is instructive and useful. The account of the pathological anatomy is, for example, distinctly good and well written, and the same may be said for the description of the clinical types of the disease. The retention of the term "typho-malaria" is, perhaps, a mistake, although it must be admitted that cases occur which, even with all our modern methods of investigation, are extremely difficult to diagnose. The cardiac, bronchopneumonic, pneumonic, and pleuritic forms, rare varieties not usually described in ordinary textbooks, are all well dealt with, and the same may be said of the dysenteric and other algid types. The section on treatment occupies just over fifty pages, and here compression would have been an improvement. A chapter on antimalarial legislation, which completes the volume, contains good accounts of this new branch of sanitary science as at work in Italy, India, Algiers, and other places.

Captain Craig, of the Medical Corps of the U. S. Army, has had the fortune to study malaria in different parts of the tropics and in America. He has built these experiences into a book—*The Malarial Fevers, Haemoglobinuric Fever, and the Blood Protozoa of Man*.[10] It is a good book, and contains much useful information well put together; but as malaria is a subject about which a great deal has been written during the last ten years, the volume should not contain such a number of faults here. On page 7 we read: "Ross continued his observations upon

[7] *Essentials of Medical Electricity and Radiography*. By E. Reginald Morton, M.D., F.R.C.S.Edin. Second edition. Kimpton's Essential Series. London: Henry Kimpton. 1910. (Cr. 8vo, pp. 365, 129 illustrations, plates 11. 6s.)

[8] *A Practical Study of Malaria*. By William H. Deaderick, M.D. Philadelphia and London: W. B. Saunders Company. 1909. (Roy. 8vo, pp. 500, illustrations 100. 20s.)

[9] *Traité de pathologie exotique, clinique, et thérapeutique*. Publié en fascicules sons la direction de MM. Ch. Grall et A. Clarac. I, Paludisme. Par Ch. Grall et E. Marchoux. Paris: J. B. Baillière et Fils. 1910. (Sup. roy. 8vo, pp. 565; 140 figs. Fr. 12.)

[10] *The Malarial Fevers, Haemoglobinuria Fever, and the Blood Protozoa of Man*. By Charles F. Craig, M.D., Captain, Medical Corps, U. S. Army, Attending Surgeon, New York City. Illustrated by 4 coloured plates, 25 clinical charts, and 28 photomicrographs and drawings. London: J. and A. Churchill. 1909. (Roy. 8vo, pp. 489. 20s.

birds infected with *halteridium*," whereas the correct term is *proteosoma*. On page 41 the sentence: "2. The cytoplasm in the male gamete, etc.," is manifestly wrong; a correct description of the protoplasm of the gametes is, however, to be found on page 46. On page 71 it is said that "*M. rosii* has been proved incapable of transmitting malaria." This appears to be true under natural conditions, but experimentally this mosquito has been infected with malaria. On page 97 no mention is made of Gray and Low's paper (BRITISH MEDICAL JOURNAL, January 25th, 1902), in which Koch's statement that the adult native does not get malaria was first controverted. Pages 135 and 139 contain contradictory statements. On the first the endothelial cells of the liver and the cells of Kupfer are deseribed as containing malarial pigment; this is correct, but on the second it is stated that "this pigment (referring to melanin) is engulfed by the large mononuclear leucocytes—but not by the endothelial cells of the liver or by Kupfer's cells in the liver." On page 313 the author talks of Wright's stain; this should be Wright's modification of Romanowsky's stain, or, to be perfectly correct, Wright's modification of Leishman's modification of Romanowsky's stain. No reference is made to Leishman's original paper (BRITISH MEDICAL JOURNAL, September 21st, 1901) in the literature of this section (page 340), and certainly, from reading page 313, no one not thoroughly acquainted with the subject would gather that Leishman invented this modification and that Wright modified the way of making the methylene blue polychrome advised by the former. It would have been better if the author had stopped when he finished malaria. The chapter on blackwater fever falls much below the standard of the first part of the work, and we are tempted to ask two questions—first, In what regions free from malaria is blackwater fever found? and secondly, How the author knows that the patients, in whom it has been said that no symptoms of malaria occurred, had not that disease in the latent form on which he himself lays so much stress? Repetitions increase the size of the book without adding to its usefulness.

CHOLELITHIASIS.

THE monograph on cholelithiasis by Professor ASCHOFF and Dr. BACMEISTER[11] is one of the most important contributions to the study of the mode of production of gall stones since the celebrated work of Naunyn. It is destined probably to modify to some extent the conclusions generally accepted by the profession on the authority of Naunyn, who taught that bile stasis in the gall bladder, however caused, always sets up an infective catarrh, and that this infection was essential to the precipitation of cholesterin. This view has been criticized by Hirsch and Lichtwitz on chemical grounds, but Aschoff and Bacmeister point out that there is an essential difference in the composition of solitary and of multiple gall stones. The former are composed of pure cholesterin around a nucleus of pigment, the cholesterin being arranged in radiating rods which can be well seen in a polished section; they show no lamination except that there may be a secondary deposit of a mantle of lime salts around the primary pure cholesterin stone. This radiating stone is to be found in non-infected gall bladders, and arises independently of inflammation. On the other hand, multiple stones are, as Naunyn described, composed of cholesterin, lime salts, and pigment mixed together, and show on section a laminated structure. They are always caused by inflammation and are secondary to infection. The presence of a pure cholesterin stone predisposes a gall bladder to infection, so that a pure, non-infective cholesterin stone may be the cause of a number of mixed stones, and may in the same way acquire a mantle or outer layer of mixed mineral deposit; as such solitary stones are often impacted in the neck of the gall bladder, this mantle may exist only as a cap over the upper part of the stone. They have found by experiment that cholesterin may be obtained from bile free from epithelium, so that the catarrhal desquamation of the epithelial lining of the gall bladder which Naunyn regarded as essential is really not so. They also differ from him in regarding the presence of cholesterin as constant and as dependent on metabolic processes. For example, it is increased by the use of protein food, and is absorbed from the bowel and secreted by the liver; they believe it may crystallize in the gall bladder from a process of sterile autochthonous destruction of the bile. There is, however, a physiological shedding of the epithelium in the gall bladder which is increased by stasis.

They have not been able to settle the exact nature of the chemical decomposition by which the precipitation of cholesterin takes place. The pigment and the traces of lime to be found in these radiating stones are also present in normal bile. Stasis from any cause favours infection from the gall bladder, and this may be brought about mechanically, as by improper clothing, which probably accounts for the greater frequency of gall stones in women. Such stasis favours infection, as has been already noted, but infection may also occur in consequence of many acute infectious diseases or from the presence of an aseptic foreign body. They hold that dropsy of the gall bladder is not a purely mechanical process, but always of inflammatory origin and to be regarded as a process of cure. Their work is based upon the study of a very large amount of material obtained from the surgical clinics of Kehr, Kuettner, Enderlen, Kroenig, and Kraske; they have studied the inflammatory changes in 250 gall bladders excised by operation and fixed forthwith, but as a rule they have been opened; they also obtained 50 from dead bodies unopened. They found cancer and gall stones associated in 9 cases; in 2 the stone was radiating; hence it may be regarded as the primary condition and the cancer as the secondary. In 5 the stones were of the mixed kind, and it was as probable that the cancer was secondary as that it was primary; in 2 cases of cancer no stones were found. They state that cancer may supervene on a congenital adenomatous formation in the gall bladder. This is a work which should be studied by every pathologist and clinical teacher. It is illustrated by eighteen beautifully executed chromolithographic plates and by numerous figures in the text, reproducing photographs or photomicrographs. The volume contains a carefully compiled bibliography of its subject matter.

[11] *Die Cholelithiasis.* Von L. Aschoff und A. Bacmeister. Jena: Gustav Fischer. 1909. (Sup. roy. 8vo, pp. 125, Taf. 18, Abb. 18. M.20.)

VENEREAL DISEASES.

IN the atlas of syphilis and venereal diseases,[12] by the late Professor MRACEK of Vienna, a good account of the subject is given. In addition to genital chancres, there are some instructive plates of extragenital chancres. Considering the attitude of some teachers in this country as to the great rarity of primary sores of the cervix uteri, the plate illustrating them is well worthy of study. Where women are examined more systematically than with us chancre of the cervix is not rarely observed. It is overlooked, and this accounts for errors which would be avoided were a speculum employed. The nomenclature which obtains among German writers, however, should not be imitated. For instance, "psoriasis syphilitica plantaris" for plantar syphilides (Plate 30) is misleading, and by modern English writers has been rightly given up. Further on we find "psoriasis palmaris" (Plate 30, *a*), "leukoplakia (psoriasis) linguae" (Plate 42, *b*). The same remarks apply to "papulae diphtheriticae in mucosa portionis vaginalis et vaginae" (Plate 39), and "papulae diph. in mucosa lab. sup. or. et in bucc. sin." (Plate 40). The text on the pathology and treatment is succinct and satisfactory for an atlas of reference such as this. The illustrations are, on the whole, very fair. The atlas will be found useful.

Dr. MAGIAN'S small *Handbook of Venereal Diseases*,[13] in the compilation of which the author states that almost every modern authority has been freely consulted, will be useful within certain limits. The section on gonorrhoea contains a judiciously arranged summary of symptomatology and treatment, and is more satisfactory than that on syphilis, a good deal of which consists of little more than an enumeration of signs and symptoms, and, consequently, the information given is too scanty to be of much value. For example, the description of syphilis of the bones, the

[12] *Atlas der Syphilis und der venerischen Krankheiten, mit einem Grundriss der Pathologie und Therapie derselben.* Von Professor Dr. Franz Mracek. Second edition. Munich: J. F. Lehmann. 1908. (Cr. 8vo, pp. 230; 81 coloured plates and 26 illustrations. M.16.)

[13] *A Handbook of Venereal Diseases.* By A. C. Magian, M.D., B.Ch.Vict. Manchester and London: John Heywood, Limited. 1909. (Cr. 8vo, pp. 159. 3s. 6d.)

tendons, the eye, and the ear, occupies only a single page, and the reader who sought for guidance as to the diagnosis of a syphilitic affection of, say, the nervous system or of the bones, would probably feel disappointed. The chapter on treatment is better, and so are those on inherited syphilis and syphilis and marriage. On the other hand, there are some Biblical quotations which might very well have been left out. The statement that "a venereal disorder . . . is so very seldom contracted in any other way than that of prostitution or illicit intercourse, that other causes may be almost neglected," is somewhat misleading as far as syphilis is concerned.

THE PHYSIOLOGY OF MASSAGE.

IN this little book on the scientific basis of massage,[14] Dr. CARL ROSENTHAL, who has already published other works on the subject, seeks, by explaining its physiological basis, to remove what he regards as the prejudice entertained by so many medical practitioners against a method which is largely in the hands of unqualified persons. Although massage has been practised empirically from ancient times, it is only during the last thirty or forty years that any attempt has been made to study it scientifically and give a rational explanation of the results. The author names Mosengeil (1876) as the first to carry out and publish physiological experiments on animals in elucidation of its action. He has been followed by O. Lassar, J. Zabludowski, Eccles, Kleen, J. Mitchell, and others. In the chapters of this book Dr. Rosenthal relates the experimental evidence obtained in some cases from animals, in others from human subjects to show the action of massage on the surface temperature, the electrical resistance of the skin, the common sensibility of the skin and its sensitiveness to pain; the action of massage on the subcutaneous fat he found, in accordance with other observers, to be directly *nil*. Indirectly, he thinks its influence may be great by increasing metabolism, circulation, and diuresis; muscular energy is increased in tired as well as in fresh muscles, while by massage tired muscles are restored more quickly than by rest, and the tendency to cramp is diminished. It promotes the circulation of blood and lymph in the extremities, while it withdraws these fluids from the abdomen. It makes the heart's action slower and the pulse fuller and stronger, and it diminishes the area of the cardiac dullness. It causes, he believes, an increase both of the red cells and of the leucocytes, but especially the latter, which he explains as an apparent increase from their being forced into the blood stream. He discussed the general effect of massage upon metabolism, diuresis, nutrition, blood pressure, the circulation, and respiration, which are all promoted by its use. With regard to the alleged effect in diminishing the excretion of sugar in diabetes, he quotes the favourable experiments of Finkler and the criticisms of Seichter, who was unable to confirm Finkler's favourable results. Undoubtedly massage is beneficial to the general health and nutrition of diabetics, but it has not been proved to have any influence upon the excretion of sugar.

NOTES ON BOOKS.

IT would be decidedly difficult to mention the number of textbooks of zoology, botany, and biology which have appeared in England in the last few years, yet another volume is added to the list, *An Introduction to the Study of Biology*, by the Misses KIRKALDY and DRUMMOND.[15] A textbook almost invariably commences in the preface with an apology or a justification for its appearance, and in the present case one justification put forward is that the frog is too specialized an animal to be used as the type of vertebrate anatomy. The dogfish is therefore given the place of honour in the book, but the frog is included "to show the adjustment of an aquatic form to a terrestrial habit." This is, perhaps, a new idea, but is it a justification for bringing out a new book which is a mixture of zoology and botany and which leaves out such types as the snail and the pigeon? The book seems unsatisfactory, partly owing to the incompleteness of the types and partly to the insertion of chapters upon "allies" of this or that type, the term "ally" being used in its very broadest sense. For instance, the malaria mosquito and gnats are described at some length in a chapter on the "Crayfish and its Allies." The book is apparently produced to provide for a particular examination since the preface tells us that "the organisms dealt with are those prescribed in the syllabus of the Oxford and Cambridge Schools Examination Board, with certain additions designed to bridge over the gulfs produced by too close an adherence to the type system." In days gone by the idea of an examination was to test the knowledge of the candidate, but the fact that for nearly every syllabus a cram book can be found has largely assisted in reducing the examination system to a test of the cramming or crammable capacity of the student.

In a volume which they have entitled *Clinical Memoranda for General Practitioners*,[16] Drs. BRAND and KEITH have collected a series of short and desultory annotations on a wide variety of subjects more or less important to men in practice. Many of the memoranda are too sketchy to be of much practical use, and convey information which is mere common knowledge such as is available in every good treatise on clinical medicine as well as in the periodical literature of the profession. Others are more valuable, and deal with subjects which are not so generally understood. A smattering of knowledge is proverbially a dangerous thing, and any attempt to convey accurate information within the compass of a few lines on such comprehensive subjects as "digitalis in acute endocarditis," "rheumatism in children," "diarrhoea," "phlebitis and thrombosis"—to mention only a few examples chosen at random—seems a direct encouragement to the worst of all clinical sins, the establishment of a diagnosis or the institution of a plan of treatment on a few isolated facts. It is incontestable that without patient and detailed investigation no illness can be thoroughly understood, and however useful aphorisms and short references may be as concentrated essences of large generalizations, they possess a very limited application to the needs of those who desire their work to be thorough and their conclusions to be established upon the firm basis of personal investigation. The book is divided into four sections—medical, surgical, obstetrical and gynaecological, and therapeutic—and concludes with a series of short statements called aphorisms, some of which are apt enough. The book contains much that is of interest, and reflects careful observation and considerable bibliographic research on the part of its authors. In many paragraphs it directs attention to points in diagnosis and treatment which are not sufficiently emphasized in the education of the student, and herein will be found its chief value. It is pleasantly written and has an excellent and comprehensive index, which makes reference to the various memoranda easy.

Dr. GEORGE HERSCHELL, in the second edition of his booklet on soured milk,[17] discusses auto-intoxication from intestinal putrefaction and the selection and preparation of lactic acid ferments, and finally gives an account of their administration in disease, illustrated by cases treated by himself. The style of the work leaves the reader in some doubt as to what class of audience the author has in mind. He is strongly opposed to the use of any sour milk except that prepared by a competent bacteriologist, or at home according to the rules laid down in this book. It is essential, of course, that when administered therapeutically the bacteriological contents of sour milk should be precisely of the kind desired and the approximate number and activity of the micro-organisms present known to the medical men. But it is not made clear why it should be deemed so objectionable for persons in this country to consume soured milk on their own account. After all, soured milk is a pleasant form of food, and as sold by dairy companies or commonly prepared in the household must be at least as safe a diet as the corresponding article prepared by villagers in the Middle East.

We have received vol. i of the four volumes annually published under the title of *International Clinics*.[18] It contains summaries of the progress of therapeutics, medicine, and surgery during the year 1909, and some

[14] *Die Massage und ihre wissenschaftliche Begründung.* Von Dr. med. Carl Rosenthal. Berlin: August Hirschwald. 1910. (Sup. roy. 8vo, pp. 152. M. 3.60.)

[15] *An Introduction to the Study of Biology.* By J. W. Kirkaldy and I. M. Drummond. Oxford: Clarendon Press. 1909. (Cr. 8vo, pp. 266, illustrated. 6s. 6d.)

[16] *Clinical Memoranda for General Practitioners.* By Alexander Theodore Brand, M.D., C.M., and John Robert Keith, M.D., C.M. London: Baillière, Tindall, and Cox. 1909. (Crown 8vo, pp. 215. 3s. 6d.)

[17] *Soured Milk and Pure Cultures of Lactic Acid Bacilli in the Treatment of Disease.* By George Herschell, M.D. Second Edition. London: Henry J. Glaisher. (Pp. 72.)

[18] *International Clinics.* Edited by Henry W. Cattell, M.A., M.D., with the collaboration of various authorities. Vol. i. Twentieth series. 1910. Philadelphia and London: J. B. Lippincott Company. (Pp. 301. Price 35s. net.)

sixteen more or less elaborate papers on various subjects. Three deal with the serum diagnosis of syphilis, and two others with pellagra and its diagnosis and treatment. A fair number of papers are illustrated by coloured engravings, the authors, with one exception, being American physicians and surgeons bearing more or less familiar names.

The twenty-first volume of the *Transactions of the American Pediatric Society*,[19] edited by Dr. L. E. LA FÉTRA, contains an account of the proceedings of the Society at it annual meeting in 1909. Included are some twenty papers, abstracts of the observations made by speakers who subsequently discussed them being added. A considerable proportion are records of single cases, one of the most interesting of these being a case of so-called congenital malaria. The other papers include an account of seven cases of thymus death in one family, a summary of the results of an analysis of the examination of the urine in 300 cases of gastro-intestinal disease in infants, and a consideration by Dr. L. Emmett Holt of the bacteriology of acute infections of the respiratory tract in children. In this some attempt is made to determine how far cultural methods are reliable in the differential diagnosis of influenza. Also of some general interest is Dr. Rotch's attempt to determine what part this Pediatric Society might usefully play in the settlement of public questions. The president at the meeting was Dr. C. P. Putnam, from the summary of whose paper it may be gathered that in Boston barrack homes for children are making way for the boarding out system.

The new edition of the *Charities Register and Digest*,[20] which has now appeared, is the nineteenth issue, and, like its predecessors, edited by Mr. C. S. LOCH, of the Charity Organization Society. It contains a classified list of all charities in or available for the metropolis, a digest of information respecting all means available for the prevention or relief of distress among the poor, a review of last year's work in the world of charity, and special articles on various comparatively novel forms of philanthropic enterprise, each written by a person having expert knowledge thereof. It is in all respects a most admirable publication, always kept thoroughly up to date, and made easy to use by one of the largest and best indices with which we are acquainted. The notes regarding individual institutions show their precise scope, and supply enough information respecting what they are doing to decide in most cases their true status. The introductory matter, which occupies a fourth of the whole number of pages, is a ready guide to the fashion in which any given case of distress, from whatever cause, may best be assisted. It is practically a treatise on methods of combating difficulties arising in civilized communities, but in addition describes under separate headings the whole organization of London for the relief of sickness or physical or mental suffering, and for dealing with poverty and its various outcomes. One of the subjects treated with additional fullness this year is unemployment, and another emigration.

Possibly the term "applied therapeutics" best describes the conception underlying the French title of Professor GRASSET'S handbook of treatment.[21] In the sixth edition which has now appeared there is no departure from the original plan of the work. This is first to give in alphabetical order brief descriptions of the principal concrete diseases, and more definitely recognized disorders and of their clinical symptoms, and then describe in precise terms the treatment which should be adopted, including diet and prescriptions for any drugs which may be ordered. The new edition, which, unlike many French books, is beautifully bound, has been prepared by Dr. VEDEL of Montpellier, and its contents only differ from those of its predecessors in being brought into line with the French codex of 1908 and in including suitable allusions to the most recent forms of treatment. It is naturally a popular work in France, for it enables practitioners to do with very little trouble what is always expected of them by their patients—namely, to provide them in writing with full instructions on all points. It is possible that the same practice might be followed with advantage more commonly, and those desirous of trying it might gain useful hints, perhaps, from this book.

[19] *Transactions of the Pediatric Society.* Volume xxi. 1910. New York: E. B. Treat and Co. (Pp. 207.)
[20] *The Annual Charities Register and Digest.* By C. S. Loch. Nineteenth edition. London: Longmans, Green and Co. 1910. (Pp. cccIxii+668. 5s.)
[21] *Consultations médicales.* Sixième edition. Par le Professeur Grasset et Dr. Vedel. Montpellier: Coulet et Fils. (Cr. 8vo, pp. 535.)

THE

COMPOSITION OF SOME PROPRIETARY FOOD PREPARATIONS.

VII.—BREAKFAST AND GENERAL FOODS.

THE number of proprietary foods which must be classed as "general," being recommended by the makers for general consumption by healthy people, and in most cases by invalids also, is very large, and it would not be practicable to deal with more than a selection from among them; those described below are believed to include most of these foods having the largest sale, and to be fairly representative of others.

In most cases some information is given as to the materials from which the food is prepared, and in a few cases the percentage of some of the chief constituents is set forth. The real value of a food does not, of course, depend solely on its percentage composition; different fats and different proteins vary greatly in their adaptability for assimilation; but a knowledge of the proportions of these constituents is nevertheless of value, and enables useful comparisons to be drawn. In the results given below the figures for carbohydrate are obtained by difference; the Calorie values are calculated from the percentage composition, and represent the Calories (kilocalories) yielded by complete combustion of 1 gram of each food. For purposes of comparison the Calorie values of a few common foods are here given (from Dr. R. Hutchison's *Food and the Principles of Dietetics*):

Potatoes	0.98
Lean beef	0.98
Cheese	2.4
Fine white bread	2.74
Wholemeal bread	2.78
Coarse white bread	3 03
Fat beef	3.27
Peas	3.31
Bacon	8.86

EMPROTE.

(EUSTACE MILES PROTEID FOOD.)

This is supplied by Eustace Miles Proteid Foods, Limited, London, W.C. A package, price 1s. 6d., contained 1 lb. The food is described on the label as

A pleasant and sustaining powder, with tonic properties. It has proved an excellent remedy for nervous weakness, sleeplessness, sea-sickness, gastritis, etc. It can be used as a drink or food by the healthy, as well as by invalids and children, and can be safely taken after an operation.

The directions are:

For a complete meal, three to four heaped tablespoonfuls of the "Emprote" in a breakfast cup, are found sufficient by most people. Slowly add the hot water and mix thoroughly.

Analysis showed it to contain:

Protein	30 5 per cent.
Fat	5 3 ,,
Water	9.8 ,,
Ash	6.2 ,,
Carbohydrate, by difference	48.2 ,,
Calorie value, 3.72	

Microscopical examination showed the presence of potato starch in fairly considerable quantity. A cold water extract of the food had a strong reducing action on Fehling's solution, indicating the presence of a sugar other than cane sugar. The ash contained a considerable proportion of phosphate.

EUSTACE MILES BREAKFAST FOOD.

This is supplied by the same firm as the above. A sixpenny package contained ½ lb.

This is described on the label as:

The ideal food for breakfast. Ready for immediate use with cold milk or cream added.

Analysis showed it to contain:

Protein	15.7 per cent.
Fat	3.7 ,,
Water	10 1 ,,
Ash	3.6 ,,
Carbohydrate, by difference	66.9 ,,
Calorie value, 3 73	

The material was light brown in colour and coherent in small cylindrical masses, slightly sweet to the taste. A reducing sugar was shown to be present by its action on

Fehling's solution; microscopical examination of the insoluble part showed it to consist principally of wheat flour.

GRAPE NUTS.

This preparation is supplied by Grape-Nuts Company, Limited, and is made in U.S.A.

A sevenpenny packet contained about 18 oz. This is described on the package as

fully-cooked, pre-digested breakfast food, made by Special Treatment of Entire Wheat and Barley. A food for Brain and Nerve centres.

The directions are:

Serve dry, just as it comes from packet. Perfect results are obtained by the use of four heaping teaspoons for the cereal part of a meal. Never use more.

Analysis showed it to contain:

Protein	11.2	per cent.
Fat	0.6	,,
Water	5.1	,,
Ash	2.0	,,
Carbohydrate, by difference	81.1	,,

Calorie value, 3.84

Much of the carbohydrate was in a soluble form, and consisted of gelatinized starch and a reducing sugar. Microscopical examination of the insoluble portion indicated wheat and barley flours as the constituents. The material was in irregular masses of brown colour and agreeable, somewhat malty, flavour.

AVENOLA.

This preparation is supplied by the "International Health Association, Ltd.," of Watford.

A sevenpenny packet contained a little over 1 lb. This is described on the label as

A perfectly cooked food. A combination of various grains. Ready for use in one minute.

It is further stated that

The best and most digestible way of eating Avenola is to take it dry, after making hot in an oven. Avenola in milk or cream is most toothsome.

Analysis showed it to contain:

Protein	12.3	per cent.
Fat	2.6	,,
Water	6.4	,,
Ash	1.8	,,
Carbohydrate, by difference	76.9	,,

Calorie value, 3.92

This material was in pale coherent masses, with little taste. Microscopical examination showed a mixture of starches, more or less changed by heat.

H.O.

Hornby's steam-cooked oatmeal. This is supplied by the H.O. Company, described as of New York, U.S.A.

A sixpenny packet contained nearly 2 lb. This is a form of rolled oats. It is directed to be made into a porridge by boiling with water for from ten to fifteen minutes. An "analysis" is printed on the package, showing: Carbohydrates 65.05, nitrogenous matter 17.63, vegetable fats 7.38, phosphates 3.53, and water 6.41.

Analysis showed it to contain:

Protein	14.4	per cent.
Fat	5.8	,,
Water	9.6	,,
Ash	1.6	,,
Carbohydrate, by difference	68.6	,,

Calorie value, 3.94

HYGIAMA.

This preparation is supplied by Theinhardt's Food Company, Limited, of London, E.C.

A shilling tin contained about 4½ oz. The colour and flavour show this to be a cocoa preparation, and a small proportion of the nitrogen is therefore present in other forms than protein. It is stated on the label that

Hygiama is a nutritious substance which has been known since 1890 and which has during this time given the most excellent results both in hospitals and in general practice. Hygiama combines all the nutritious matters necessary for the preservation and growth of the organism. It is therefore a perfect food.

The directions are to mix two large teaspoonfuls with half a pint of milk and boil; for children, one large teaspoonful to half a pint of milk.

Analysis showed it to contain:

Protein (calculated from total nitrogen)	21.7	per cent.
Fat	8.9	,,
Water	4.1	,,
Ash	3.6	,,
Carbohydrate, by difference	61.7	,,

Calorie value, 4.25

The carbohydrate comprised both starch and a reducing sugar.

STAMINA FOOD.

This is supplied by the Wallace "P. R." Bakery, of London, S.W.

A ninepenny tin contained about 1 lb. This food is described on the label as

A perfectly balanced food, containing all the essential elements, rightly proportioned, to sustain the body in vigorous health.

The directions for preparing a breakfast food are:

One part of Stamina to four parts of milk or water. Dredge into boiling liquid, and cook for five minutes more.

Analysis showed it to contain:

Protein	10.8	per cent.
Fat	1.4	,,
Water	9.7	,,
Ash	1.1	,,
Carbohydrate, by difference	77.0	,,

Calorie value, 3.73

Microscopical examination showed this to consist chiefly, if not entirely, of wheat flour. It was, however, in much coarser powder than ordinary flour, and of a greyish tint. The composition of an average wheat flour of good quality is about as follows:

Protein	10.8	per cent.
Fat	1.1	,,
Water	12.8	,,
Ash	0.5	,,
Carbohydrate	74.8	,,

Calorie value, 3.61

CHAPMAN'S FOOD.
(ENTIRE WHEAT FLOUR.)

This flour is supplied by Chapman's Food Company, of Christchurch, Hants.

A shilling tin contained about 1 lb. It is stated in a pamphlet that this food

Contains all the elementary principles of true food, and by its use children and invalids take in the largest percentage of flesh forming nutriment with the least expenditure of vital force.

It is described as roasted wheat flour, and is directed to be prepared for use by mixing with milk and water and boiling.

Analysis showed it to contain:

Protein	10.1	per cent.
Fat	1.5	,,
Water	7.6	,,
Ash	1.2	,,
Carbohydrate, by difference	79.6	,,

Calorie value, 3.82

CHELTINE FOOD.

Supplied by Worth's Foods Syndicate, Limited, Cheltenham.

A shilling tin contained about 1 lb. This is described on the tin as "a perfect cooked food." The directions are:

One tablespoonful to be mixed with half-a-pint of cold milk, or milk and water, into a thin smooth paste: allow to stand in a warm place for about ten minutes for the digestive action to take place; put into a saucepan and raise to the boiling point. Immediately it reaches the boiling point it is sufficiently cooked. Sweeten it with a little castor sugar to taste, or salt and spice may be used.

Analysis showed it to contain:

Protein	11.4	per cent.
Fat	1.7	,,
Water	7.1	,,
Ash	2.1	,,
Carbohydrate, by difference	77.7	,,

Calorie value, 3.81

A cold water extract of this preparation contained a little starch, and dextrin; a larger quantity of starch was present which was not gelatinized. A portion of the material did not dissolve in boiling water, and this portion agreed with casein in its characters and behaviour to tests.

DR. ALLINSON'S NATURAL FOOD.

This preparation is supplied by the Natural Food Company, Limited, London, E.

A sixpenny tin contained about 12 oz. It is stated on the label that this food

makes delicious and highly nutritious gruel, puddings, porridge, baby's food.

Various directions are given, according to the purpose for which it is required; they involve mixing it with milk, or milk and water, and bringing the mixture to the boil.

Analysis showed it to contain:

Protein	12.2 per cent.
Fat	2.0 ,,
Water	6.7 ,,
Ash	1.4 ,,
Carbohydrate, by difference ...	77.7 ,,
Calorie value, 3.87	

Microscopical examination showed this to consist chiefly or entirely of wheat flour; the taste indicated that it had undergone some cooking process.

DUBARRY'S REVALENTA ARABICA FOOD.

This is supplied by Dubarry and Co., Limited, London, W. A shilling tin contained about 5 oz. In a circular enclosed in the package this food is stated to be the only cure for a long list of complaints, beginning with dyspepsia and constipation, and including scrofula, consumption, rheumatism, influenza, paralysis, asthma, etc. It is directed to be mixed with cold water, then more water or milk added, and the whole boiled for twenty minutes.

Analysis showed it to contain:

Protein	24.2 per cent.
Fat	0.8 ,,
Water	9.1 ,,
Ash	2.2 ,,
Carbohydrate, by difference ...	63.7 ,,
Calorie value, 3.68	

Microscopical examination showed this to consist of lentil flour, with no indication of any other constituent. This flour is to be bought for a few pence per lb., and its average composition is about as follows:

Protein	22.3 per cent.
Fat	1.1 ,,
Water	12.6 ,,
Ash	2.3 ,,
Carbohydrate	61.7 ,,
Calorie value, 3.55	

GLUTEN MEAL.

This is supplied by the International Health Association, Limited, in packets. A packet, price 10d., contained about 1 lb. This is described on the package as "30% strength." It is also stated that:

Gluten, the nitrogenous and flesh-forming element of wheat, barley, and rye, is the most remarkable of all food elements, in that it alone is capable of sustaining life indefinitely in the absence of all other elements. . . . Gluten can be prepared only by washing out the starch of wheat flour. It is by this laborious and costly process that this product is prepared. This Invaluable Food Preparation is eminently adapted to all cases of feeble nutrition, impoverished blood, general debility, nervous exhaustion, chlorosis, diabetes, and all diseases attended by general weakness. It is also exactly suited for many forms of dyspepsia, as acid dyspepsia, or sour stomach, biliousness, gastric catarrh, flatulence, torpid liver, and many other gastric derangements. In consumption, scrofula, and all wasting diseases, as well as in fevers and in convalescence from any acute diseases, nothing can excel in value this delicate, digestible, and toothsome article of diet.

This certainly appears to convey the statement that the contents of the package consist of either pure gluten, or at least of a mixture containing 30 per cent. of the latter. But analysis showed it to contain:

Protein	15.8 per cent.
Fat	0 6 ,,
Moisture	9.1 ,,
Ash	0.7 ,,
Carbohydrate, by difference ...	73.8 ,,
Calorie value, 3.73	

The carbohydrate consisted chiefly of starch which was gelatinized and therefore soluble in cold water; microscopical examination showed the presence of wheat starch, partly altered by heat.

WINTER'S PRUNUS PERFECT FOOD.

This is supplied by R. Winter, Birmingham.

A shilling tin contained about 10 oz. It is thus described on the label:

R. Winter's Prunus Perfect Food contains about 23 per cent. of pure vegetable albumen, 50 per cent. of digested starch, 20 per cent. of Nut Fat in a perfect state of emulsion, and also valuable vegetable salts. The total percentage of nutriment is about 96. It is an ideal form of nourishment for invalids and infants as well as for the strong and healthy. It is digested with the greatest ease by the most delicate, and is assimilated for the upbuilding of the human body and brain in a marvellously short space of time. Prunus Perfect Food completely supersedes Cod-liver-oil, Beef Tea, Peptonised Food, etc. 1 lb. of Prunus Perfect Food is equal in nourishment to 3 lb. best beef or mutton.

It is directed to be dissolved in hot or cold water, or added to milk.

Analysis showed it to contain:

Protein	17.2 per cent.
Fat	27.6 ,,
Water	6.7 ,,
Ash	2.1 ,,
Carbohydrate, by difference ...	46.4 ,,
Calorie value, 5.17	

On boiling in water, a rather considerable proportion remained undissolved, and this proved to consist of nitrogenous matter. Starch was present in a gelatinized condition, and a reducing sugar.

ROBORAT.

No name or address of makers is given on the package.

A ninepenny packet contained about 4 oz.

It is stated on the package that

Roborat consists of unaltered vegetable albumen, and contains, besides this, nutritive salts and a considerable quantity of Lecithin, a natural phosphorus combination which promotes all the higher life processes such as general growth, mental energy, and tissue formation. The nutritive value of ordinary foods is increased many times by the addition of Roborat.

The directions are:

The Dose for adults is from 2 to 3 or more tablespoonfuls a day. For children according to age from 2 to 3 teaspoonfuls a day. Roborat can be taken in its simple form, between wafers, in water or mixed with any kind of food.

Analysis showed it to contain:

Protein	73.0 per cent.
Fat	4.7 ,,
Water	10.0 ,,
Ash	2.9 ,,
Carbohydrate, by difference ...	9.4 ,,
Calorie value, 3.82	

Microscopical examination showed that the carbohydrate consisted of wheat starch.

NUT BROMOSE.

This is supplied by the "International Health Association." It is in the form of small tablets, of a pasty consistence. A tin, price 1s. 6d., contained 30 tablets, weighing a little over one-third of an ounce each. It is stated on the tin that

Bromose is a predigested food. It is especially intended for persons who need an increase of fat and blood, and those who are unable to digest starch, or who become bilious from eating milk or cream. Invaluable for Constipation. Bromose is the most nourishing and fattening of foods.

The directions are:

The amount of benefit derived from Bromose depends upon the quantity eaten. For rapid gain, three to six Tablets should be taken at each meal. Bromose is best eaten dry. It may, however, be eaten in liquid form, as it readily dissolves in hot or cold water.

Analysis showed it to contain:

Protein	21.6 per cent.
Fat	29.7 ,,
Water	11.4 ,,
Ash	1 8 ,,
Carbohydrate, by difference ...	35.5 ,,
Calorie value, 5.10	

Starch was present in fair quantity, and a good deal of a reducing sugar; a considerable proportion did not dissolve in boiling water. Microscopical examination showed the presence of vegetable tissue, the appearance of which agreed with its being derived from nuts.

GRANOSE.

This also is supplied by the International Health Association. A box, price 7½d., contained 19 "biscuits," each weighing rather over half an ounce. These "biscuits" are loose aggregations of flaky material pressed together. It is stated that

Granose consists of the entire kernels of choice wheat, prepared by unique processes so as to afford the most digestible food ever prepared.

Analysis showed it to contain:

Protein	10 9 per cent.
Fat	1.8 ,,
Water	9.5 ,,
Ash	2.0 ,,
Carbohydrate, by difference ...	75.8 ,,
Calorie value, 3.72	

MEDICINAL AND DIETETIC PREPARATIONS.

Albulactin.

MUCH of the difficulty of preparing a satisfactory equivalent to human milk from cow's milk arises from the fact that their protein constituents differ widely; analysts are not altogether in agreement as to the relative proportions of casein and albumen in the two milks, but a good estimate gives 6 of casein to 1 of albumen in cow's milk, and about equal amounts of the two in human milk. Mere dilution of cow's milk and addition of cream and milk sugar, therefore, as in the usual preparation of so-called "humanized milk," makes a very imperfect imitation of mother's milk for infants that cannot be breast-fed. The soluble milk albumen called "albulactin," recently introduced by Messrs. A. Wulfing and Co. (12, Chenies Street, London, W.C.), is intended to meet this difficulty. It is described as a soluble salt of lactalbumen, and is intended to be added to diluted milk in the proportion of about 1 to 100, with additional milk sugar. A sample which we have examined was a fine dry powder, readily soluble in water to a slightly cloudy solution; it contained 12.71 per cent. of nitrogen—representing 80.1 per cent. of protein—and 5.22 per cent. of mineral constituents. On addition of acid to the solution, the albumen is precipitated in a finely divided form, and does not form clots. A modified milk, prepared by mixing cow's milk, albulactin, and water in such proportions that the casein and albulactin were in approximately equal amounts, formed much less curd when acidified than diluted cow's milk containing the same proportion of total protein. There appears to be every reason to expect this preparation to prove of great value in the "hand-feeding" of infants.

Standardized Tabloids of Thyroid Gland.

In the therapeutic use of animal glands and preparations made from them great uncertainty as to dose necessarily prevails at first, and when experience has given some guidance as to the amount usually suitable, it is by no means certain or even probable that the glands from different animals will always be equally active. Here, however, as with other drugs, standardization is making progress; galenical preparations of suprarenal gland, for example, have been largely displaced by the use of the definite crystalline active principle. In standardized tabloids of thyroid gland, a sample of which is before us, Messrs. Burroughs, Wellcome and Co. (Snow Hill, London, E.C.) apply the principle of standardization to this substance, which was almost the first of the animal glands to be employed in medicine, and is certainly one of the most widely used. The activity of this gland has been attributed to thyro globulin, an albuminous substance containing iodine; and the percentage of iodine may therefore be expected to be a measure of the activity of a preparation of thyroid, provided the glands have not been subjected to any treatment which would cause alteration in this substance; but this proviso prevents the determination of iodine alone being a sufficient guide as to activity. In the case of these tabloids, which are standardized by chemical tests to contain 0.2 per cent. of iodine, it is stated that the results of the chemical test are controlled by physiological testing, though no particulars are given of the nature of the latter. The preparation appears to mark an advance in accuracy of dosage of the thyroid gland; the tabloids show the careful preparation and good finish characteristic of all the preparations of this firm.

Phosphova.

We have on previous occasions referred to certain of the excellent dry preparations of milk made by Casein, Limited (Battersea, London, S.W.), the manufacturers of "Trumilk" and "Sweet Whey Powder." We have recently had under examination another product submitted by the same firm, to which the name "Phosphova" is given. This is described as a combination of milk, malt and eggs, with sodium glycerophosphate. It is in the form of a dry powder which can be readily mixed with water, and in that form makes an agreeable drink. Our analysis showed it to contain 4.13 per cent. of nitrogen, representing 26 per cent. of protein, and phosphorus equivalent to 2.45 per cent. of anhydrous phosphoric acid, P_2O_5, practically the whole of this being in organic combination; the presence of a small amount of sulphur in organic combination afforded evidence of egg material in its composition. It is stated that the method of desiccation that is employed does not destroy the natural enzymes of the milk, and that it possesses, therefore, the properties of fresh and not of condensed or sterilized milk.

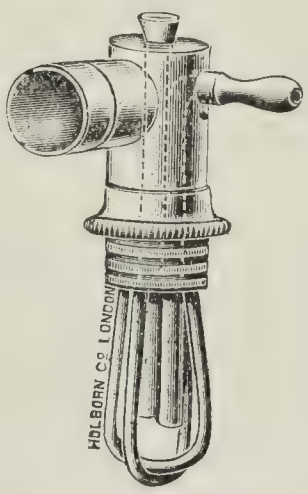
Thiocol "Roche."

When a substance such as guaiacol has proved itself to be of considerable value in the treatment of disease, it is important that it should be presented in a form more suitable for administration and assimilation than that of guaiacol itself. The guaiacol compounds in the form of powder which have been introduced hitherto, while possessing advantages over the parent substance, have not been soluble; the Hoffman-La Roche Chemical Works, Limited (7 and 8, Idol Lane, London, E.C.), now put forward a soluble guaiacol compound under the name "Thiocol." This is supplied in the form of powder, and also as 5 grain tablets, and a sample of the latter has been submitted for our examination. Thiocol is described as the potassium salt of guaiacol sulphate $C_7H_7O_2SO_3K$, containing 52 per cent. of guaiacol; it dissolves readily in water, and the solution gives no precipitate with either acid or alkali, and therefore free guaiacol would presumably not be thrown out in the stomach; the tablets have a fairly strong taste of the parent substance. It is not easy to see what good purpose is served by having the word "Thiocol" stamped on each tablet, and it will certainly militate against the substance being prescribed in this form.

MEDICAL AND SURGICAL APPLIANCES.

A New Ethyl Chloride Inhaler.

MR. P. H. PARSONS (South Kensington) writes: I should like to bring to the notice of medical men who are interested in anaesthetics an angle piece specially designed by me for safety in the administration of ethyl chloride. Hitherto the idea has been to place in a closed bag a certain dose of ethyl chloride and place the face piece over the patient's face and await results, which in too many cases were serious.



May I point out that ethyl chloride is stronger than chloroform, and that any anaesthetist would consider it a criminal act to administer chloroform in a closed inhaler? In the usual way of administering ethyl chloride one is struck by the sudden onset of pallor and the *sudden* widely-dilated pupil, both signs of overdose on the heart, and, of course, both being symptomatic of grave danger. In the angle piece which has been made for me by the Holborn Surgical Instrument Company of Thavies Inn, the new points are: First, a flanged tube running straight through into the bag for the administration of ethyl chloride—there are no valves or stoppers to this, it being intended that the administrator's thumb should act when necessary as a stopper—and secondly, another tube running into the bag to which may be fixed a puff ball attachment, so that at any moment one can dilute the ethyl chloride vapour to any extent. By thus giving dilute ethyl chloride all the dangerous effects can be avoided, and ethyl chloride can be used in perfect safety, and so will regain the important place it should hold for minor surgery.

A MONUMENT to Dr. Crawford W. Long, said to have been the first to use ether as a general anaesthetic, was unveiled at Jefferson, Georgia, on April 21st.

MR. D'ARCY POWER has been elected a corresponding member of the Budapest Royal Society of Medicine—the oldest scientific body in Hungary—in recognition of his services as an honorary secretary of the National Committee for Great Britain and Ireland of the Sixteenth International Medical Congress.

SEVENTY-EIGHTH ANNUAL MEETING

OF THE

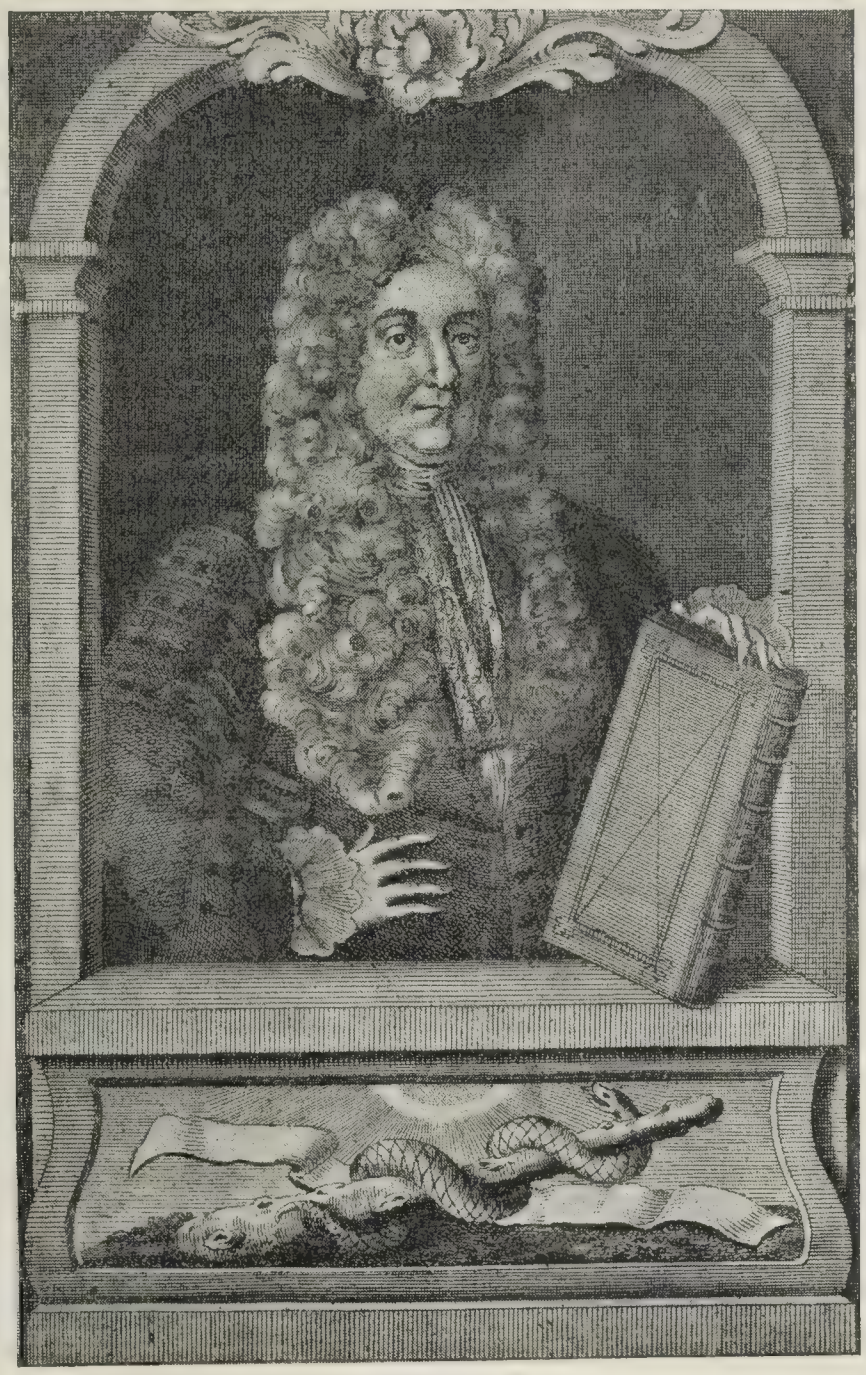
British Medical Association.

LONDON, JULY, 1910.

Scientific Museums.

The British Museum of Natural History.

THE British Museum was founded in 1753 by an Act of Parliament which provided "for the purchase of the museum or collection of Sir Hans Sloane and of the Harleian collection of manuscripts, and for providing one general repository for the better reception and more convenient use of the said collections, and of the Cottonian Library and of the additions thereto."



SIR HANS SLOANE.

Sir Hans Sloane, who was President of the Royal College of Physicians of London from 1719 to 1735, and who in 1727 succeeded Sir Isaac Newton in the presidency of the Royal Society, an office he retained until 1741, formed during his long and successful career a large and miscellaneous collection. Sloane was born in 1660, and was a friend of William Courten, a naturalist, who made a very large collection which, in about 1684, he displayed in a set of rooms in the Temple. At his death in 1702 Sloane acquired the whole collection. In 1742 it was, together with the numerous objects he had himself brought together, transferred to the Manor House at Chelsea. Sloane had purchased the manor of Chelsea in 1712, and in 1721 had founded, for the Society of Apothecaries, the botanic garden there. At the time of his death in January, 1753, the collection at the Manor House, Chelsea, consisted of "Books, manuscripts, prints, medals, and coins ancient and modern, seals, cameos and intaglios, precious stones, agates, jaspers, vessels of agate and jasper, crystals, mathematical instruments, drawings, and pictures." It included numerous zoological and geological specimens, as well as an extensive herbarium of dried plants, the greater part of which had probably been formed by Courten; this herbarium is still preserved. The Act of 1753 provided that the sum of £20,000 should be paid to Sloane's family, according to the terms of his will, although his collection is said to have cost him over £50,000.

The Act also appointed trustees who in 1754 purchased Montagu House, Bloomsbury, to which the several collections mentioned above were removed. The museum, henceforth called the British Museum, was opened on January 15th, 1759, but could at first only be visited in specially conducted parties of ten persons during three hours in the day. In 1810 it was made freely accessible to the general public for three days in the week from 10 to 4, but it was not until 1879 that it was opened to the public every week-day from 10 to 6, and on Sunday afternoons. In 1845 the classical building by Sir Robert Smirke, with which most people are familiar, was completed, and in 1857 the great circular reading room was erected.

The increased amount of space afforded by the new building soon, however, proved insufficient for the rapidly growing collection, and in January, 1860, the trustees resolved that it was expedient to remove the natural history collection from the British Museum in Bloomsbury; three years later the purchase of a part of the site of the International Exhibition at South Kensington, with a view of appropriating it to the purpose of a museum of natural history was sanctioned by the House of Commons. The first architect appointed was Captain Francis Fowke, R.E., but he died in 1865, and the late Mr. Alfred Waterhouse, who was appointed in his place, found it necessary entirely to remodel his plans; he retained Captain Fowke's suggestion to use terra-cotta, and the museum is, we believe, still the largest modern building in which that material has been exclusively used in external façades and interior wall surfaces, including all the varied decorations both inside and out. The work of building was commenced in 1873 and completed in 1880. The arrangement of the departments of geology, mineralogy, and botany occupied the remainder of that year, and these portions were opened to the public in April, 1881. In the following year the cases for the larger collections of the zoological department were sufficiently complete to allow these collections to be exhibited, although it was three years later before all the galleries could be brought into a state fitted for public exhibition. The main front of the museum faces south on Cromwell Road, but the return east and west wings have not yet been erected.

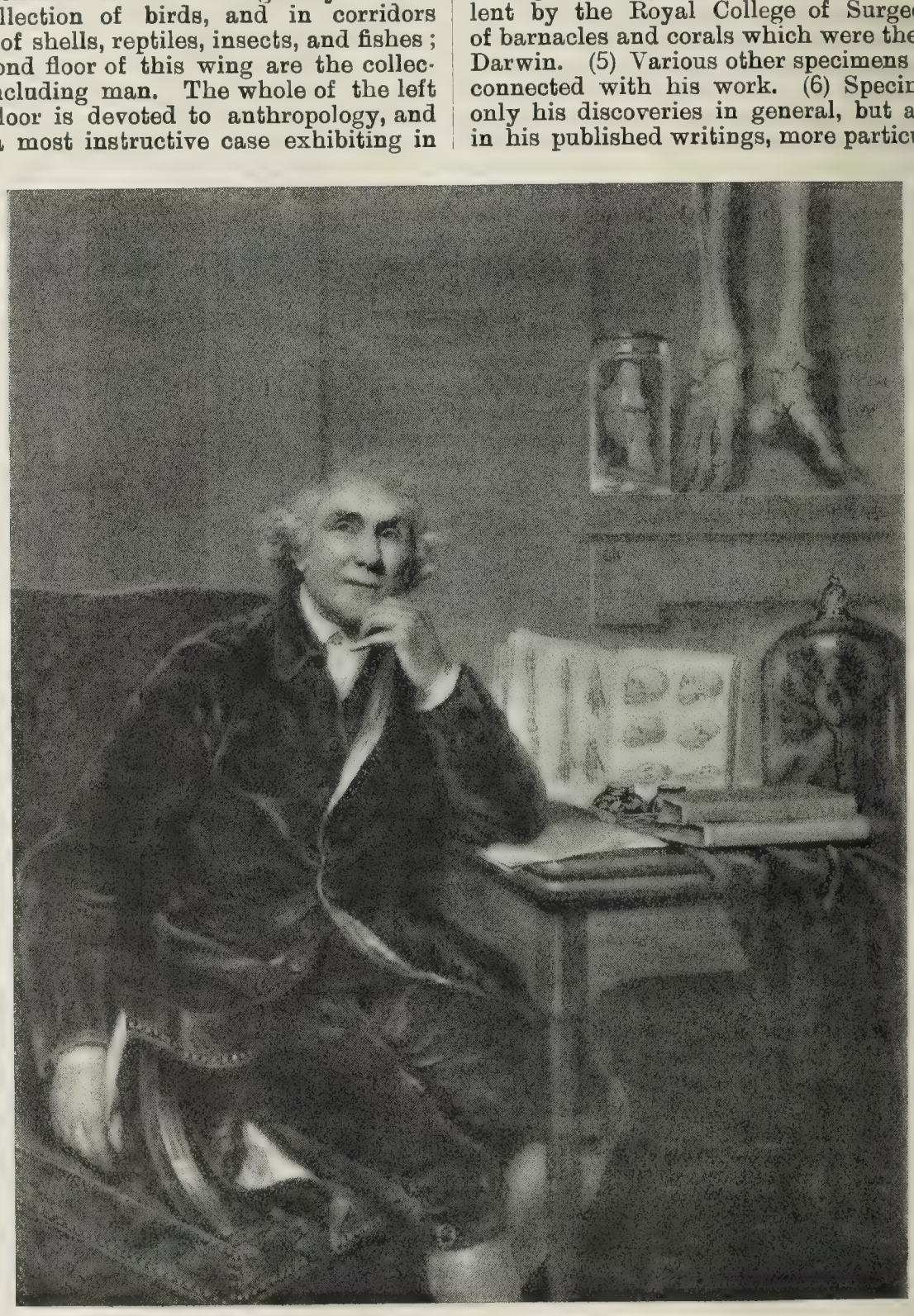
In the centre of the front, which is 675 ft. long, is the main entrance, approached by a flight of steps. Passing across the corridor, the visitor enters the great central hall, where the statue of Sir Richard Owen at the south end faces that of Charles Darwin at the north, while in the bay on the east is the fine seated marble statue of Huxley unveiled ten years ago. In a smaller bay on the west side is a bust of the late Sir W. H. Flower, the first director of the museum. Most of the cases in this hall, which is under the direct supervision of the director, Mr. L. Fletcher, F.R.S., illustrate general laws, or points of interest in natural history, which could not be so appropriately illustrated within the systematic collections of the departmental series. Among the general subjects thus dealt with are variation under domestication as exhibited in pigeons, fowls, and canaries; changes of plumage according to sex and season as shown by ruffs and reeves; seasonal changes of plumage as shown by wild ducks; adaptation of colour to surrounding conditions and the protective resemblance of desert animals to their surroundings; mimicry, albinism and melanism, and intermediate forms in nature; Mendelism. There is also here displayed a most interesting and instructive series of large models of mosquitos and of the tsetse

flies, with still more enlarged models of mammalian blood corpuscles showing the parasites by which they are infested in the diseases communicated by mosquitos and tsetse flies—malaria and sleeping sickness. The five bays on each side of the hall contain the introductory or elementary collection illustrating the more important points in the structure of certain type of animal and plant life. At the north end of the hall is the principal staircase, and behind it the north hall, which contains examples of domesticated mammals.

The west wing contains in its main gallery on the ground floor the collection of birds, and in corridors opening off it those of shells, reptiles, insects, and fishes; on the first and second floor of this wing are the collections of mammals, including man. The whole of the left side of the second floor is devoted to anthropology, and here will be found a most instructive case exhibiting in a striking manner the structural differences distinguishing man-like apes from man, and the different types of human skulls, and methods of measuring them.

The ground floor of the east wing is devoted to the palaeontological collections—the first floor to mineralogy and the second to botany. The departments of zoology, geology, mineralogy, and botany are each supervised by a keeper, a staff of assistant keepers, and assistants.

Besides the exhibits mentioned above, which form the permanent collection, the visitor to the museum next July will have the opportunity of seeing an exhibition which is of exceptional interest and quite unique. It is most unlikely, however, that it will be on view for longer than the present year, so that the opportunity of visiting it should not be lost. We refer to the Exhibition of Memorials of Charles Darwin. The year 1909 was both the hundredth anniversary of Darwin's birth and the fiftieth of the publication of his most famous work, *The Origin of Species*. To celebrate the double event the trustees of the museum gave instructions that an exhibition should be prepared, in which should be shown relics of the great naturalist and specimens illustrative of various themes in his writings. These specimens are contained in nineteen csaes, which have been placed in or adjoining Bays VI to IX on the right hand side of the central hall. Some of the cases are part of the permanent collection, and have already been alluded to—namely, those containing specimens to illustrate variation under domestication, changes of plumage according to sex or season, mimicry, etc. But the remainder contain objects which are for the most part the property of private individuals. The exhibition comprises: (1) Manuscripts, books, and instruments, written or used by Darwin. Perhaps the mos interesting of the manuscripts are the statement b Darwin, then a young man of 22, detailing his father' objections to his acceptance of the appointment c naturalist to the *Beagle* expedition, and his uncl Josiah Wedgwood's fateful reply. There are several manu script notebooks, and three or four microscopes, whic nowadays appear humble enough. (2) Portraits, sketche and medals, amongst which are several portraits of Darwi at different ages. (3) Fossil bones collected by Darwi during the voyage of the *Beagle*. These have bee lent by the Royal College of Surgeons. (4) Specimer of barnacles and corals which were the subject of study b Darwin. (5) Various other specimens collected by him c connected with his work. (6) Specimens illustrating n only his discoveries in general, but also actual passage in his published writings, more particularly the *Origin c Species*. Refe ences are give to the places i Darwin's book where the subje illustrated is dea with. To th naturalist the are perhaps th most interestin exhibits. (7) Sp cimens illustra ing Darwin's r searches o plants. Ever member of th Association wh takes even th slightest intere in the problen of evolution—an who does not? is strongly a vised not to mi visiting this e hibition.



DR. JOHN HUNTER.

The museum open on we days from 10 a.n from the midd of July to t end of August closes at 7 p.n on Sundays it open (from M to August incl sive) from 2. p.m. to 7 p.m.

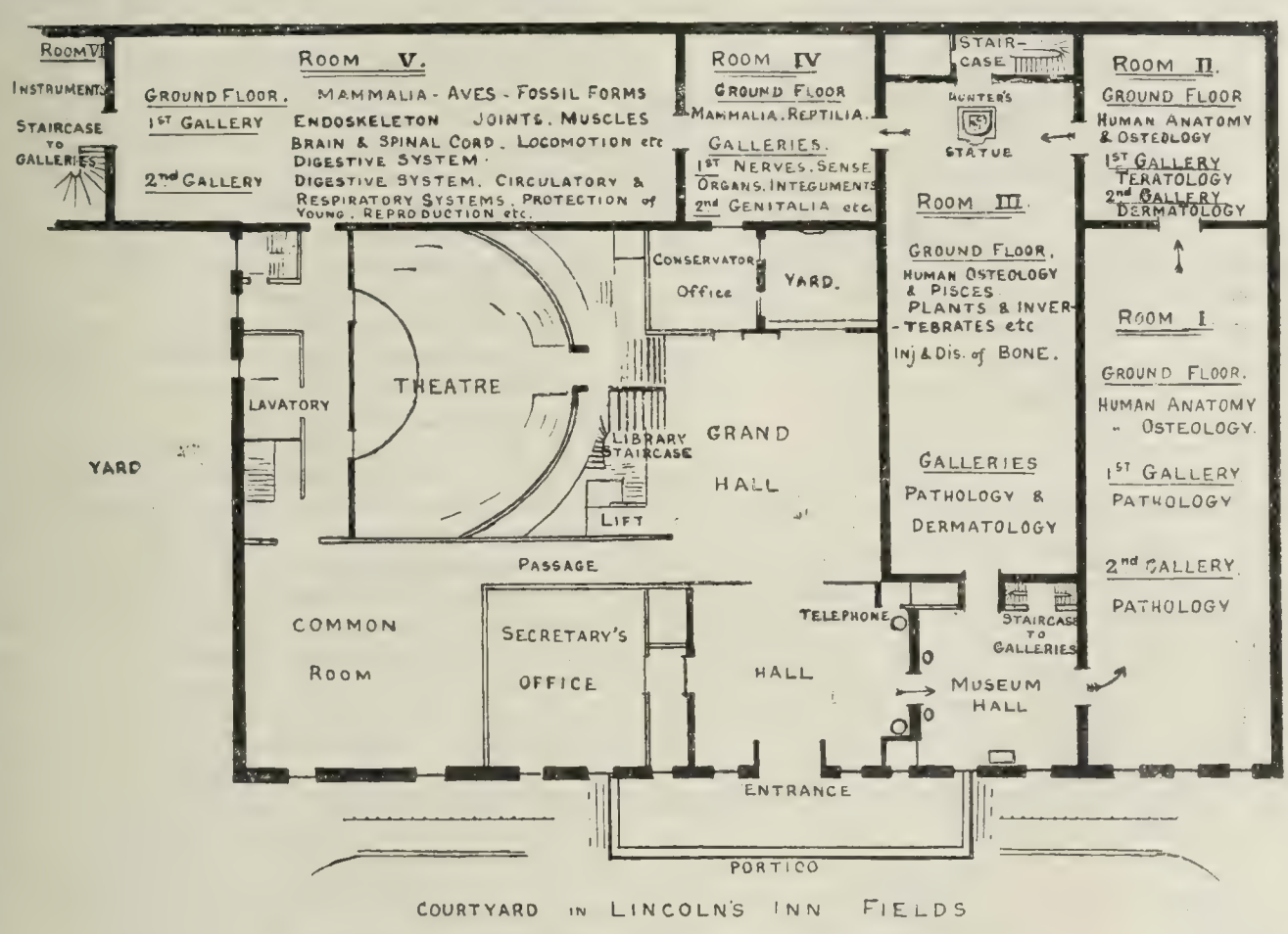
THE MUSEUM THE ROYAL CO LEGE OF SU GEONS, ENGLAN

Visitors to t museum of t Royal College Surgeons, in t south side Lincoln's Inn Fields, W.C., will find that the muse itself, and especially its surroundings, have und gone a considerable alteration since the meeting the British Medical Association in London fifte years ago. The slums of Clare Market have be cleared away, and a new great thoroughfare, Kingsw cut from Holborn to the Strand, gives free and easy acc to the south-west corner of the great square in which t museum stands. The means of reaching the muse have been enormously improved; the Holborn Station the Brompton and Piccadilly Tube Railway is or 300 yards away, so that members of the Association cou reach the museum from the meeting rooms at South Ke sington in twenty minutes. The Temple Station on t District Railway, and the British Museum Station on t Central London Tube Railway, are also convenient situated for the museum.

The chief changes in the museum itself relate to t

extension and arrangement of its contents. Just previous to the last meeting of the Association two large rooms—now known as Rooms I and II—had been added to the three older rooms—now marked III, IV, and V. Visitors interested in the history of this museum will recognize in Room III the original museum finished in 1813, to contain the Hunterian Collection, and the room in which the first conservator, William Clift, and his assistant, Richard Owen, carried out their arduous labour under the critical eyes of Home, Blizard, Abernethy, Astley Cooper, and other famous surgeons of that period. Room IV was added in 1836; on its floor space are now shown the remarkable collection of gigantic fossil Edentates of South America—Mylodon, Glyptodon, etc., acquired by the Council of the College in 1835. Room V was built in 1852; its floor space is devoted to Mammalian Osteology, the arrangement being the work of that master of museums—the late Sir William Flower.

Last year, by extending the museum into the basement, a sixth room was added to accommodate the large and valuable collection formed by the Odontological Society, which is now merged in the Royal Society of Medicine as its Odontological Section. The arrangement of the Odontological Collection, which has been increased by numerous specimens added from the College Collection, including many Hunterian preparations, was recently described in our pages (December 11th, 1909, p. 1686).



Plan of the Museum of the Royal College of Surgeons of England.

Other recent extensions and additions to the museum are the following: The Nubian Pathological Collection, consisting of 500 specimens illustrating the diseases of the ancient inhabitants of Nubia. A historical cabinet, containing specimens illustrating curious methods of embalming and mummification, such as the body of Mrs. van Butchell, wife of a famous Georgian quack, which was embalmed by Drs. William Hunter and Cruickshank; instruments used in past times for restraining the insane, and others for maintaining chastity; specimens illustrating the diseases of distinguished personages, such as preparations alleged to have been obtained at the *post-mortem* examination of Napoleon the Great. Those interested in specimens of historical worth will find the anatomical plates made for John Evelyn at Padua in 1646, and described by him in his diary, displayed in Room II, and still in a remarkably good state of preservation.

To visitors from abroad, especially to those accustomed to State-maintained public institutions, this museum will present features which at first sight are not easily comprehended. The State, it is true, has on several critical occasions contributed liberally to its support; but it may be said justly that the museum is really a product of private enterprise. It is computed that a sum of £500,000 has been spent in building and maintaining the museum and in collecting and preserving the 62,000 specimens within its walls. Of that sum, £57,000 has been granted by Government; the remainder has been provided out of the funds of the Royal College of Surgeons of England. Many of its most valued possessions are the gifts of private donors. The collection which forms the foundation of the museum was all the savings and fortune left by Hunter for the maintenance of his family.

Members of the Association, especially those concerned with museum organization, will be interested to see the manner in which a card-catalogue system is being applied to the collection. Each specimen is being supplied with a descriptive card giving its history and characters. The cards are kept in specially contrived boxes which are placed on the museum shelves with the specimens, and are easily accessible for reference. A series of index cards, to serve the same purpose for the museum as an index does for the contents of a book, is being prepared, and will be placed for consultation in the hall of the museum, so that the visitor may readily discover the position and number of specimens representing whatever morbid condition he may wish to investigate. More than half of the museum is already furnished with specimen cards, but it is estimated that the preparation of the index cards will occupy a period of three years at least.

The following table shows the composition of the Hunterian Collection as handed over to the Corporation of Surgeons at the end of 1799, contrasted with its condition at the present time. The list also gives an idea of the museum contents:

	Hunterian Collection, 1799.	Museum Collection, 1910.
Pathological and Teratological specimens (Rooms I, II, III)	1,927	9,566
Calculi (Room III)...	536	2,095
Specimens illustrating function (physiological series)	4,362	10,429
Human anatomy and Osteology	—	4,902
Comparative Osteology	965	8,984
Zoological preparations (mostly of invertebrates)	5,677	9,041
Microscopical preparations	215	12,699
Surgical instruments (used in past times)...	—	806
Odontological collection	—	4,000
	13,682	62,531

The Pathological Curator, Mr. Shattock, assisted by Dr. Cecil Beadles, has commenced the Herculean task of revising and rearranging and recataloguing the Patho-

logical Collection. The revision of the Gynaecological Series of this collection is in the able hands of Mr. Alban Doran. The pathological specimens are to be arranged in the two great divisions adopted by Sir James Paget in former editions of the catalogue—namely, General Pathology and Special Pathology. Under General Pathology are grouped those specimens which illustrate atrophy, hypertrophy, inflammation, grafting, repair, necrosis, gangrene, tumours, etc.; under Special Pathology, specimens illustrating the diseases of each organ or part. In the new arrangement the Section of General Pathology is to be greatly extended. The beautiful preparations made by Mr. Shattock some years ago, to illustrate infectious organisms and processes, are to be included in this section; so are those specimens which illustrate the results of experimental pathology, such as the very instructive series recently presented by the Cancer Research Association, and the series showing the results of castration and other experimental lesions. When the rearrangement is completed, the general pathological section will form an unrivalled exemplification of the morbid processes of the human body.

The collection of Entozoa has been revised, extended, and redescribed with marked ability by Dr. Robert T. Leiper, of the London School of Tropical Medicine.

It is impossible in the space at our disposal to give any description of the contents of the museum; the extent and scientific worth of the Physiological Series must be seen to be realized. The annexed plan shows the general arrangement of the museum contents. A special booklet, to serve as a guide to visitors, is in course of preparation. Those interested in Hunterian relics and specimens will find the museum staff very willing to serve as guides to the various parts of the museum in which they can be seen and examined.

(To be continued.)

THE CAUSES OF INFANTILE MORTALITY.

AN ILLUSTRATION FROM BAVARIA.

NOTWITHSTANDING the deserved triumphs which Germany has won in the department of public health, some features in her national life have given matter for anxious thought to those charged with the public health administration of the empire; not the least important of these is the question of infantile mortality. The extent of the evil is clearly shown by the following figures which we extract from the recently published *Deutsche Sterbetafeln* for the decennium 1891–1900[1]:

Country.	Survivors of 100,000 Born, Living at the End of the First Year.
Sweden	88,917
France	83,674
Belgium	83,114
England and Wales	82,814
Massachusetts	82,767
Holland	82,681
Italy	82,481
Germany	76,614
Austria	75,028

It will be noticed that relatively Germany is almost as much worse than Italy, the next in order, as Italy is inferior to Sweden, who heads the list.

The German or Austrian statesman could justly quote the haunting lines of the *Aeneid*:

> Continuo auditae voces vagitus et ingens
> Infantumque animae flentes in limine primo,
> Quos dulcis vitae exsortis et ab ubere raptos
> Abstulit atra dies et funere mersit acerbo.

The statistics of the different regions of the German Empire show that this death-rate is not uniformly high; in West Prussia, for instance, the survivors of the original 100,000 at the end of the first year of life reach 82,200, while the corresponding figures for Saxony and Bavaria are 69,945 and 71,289 respectively. A good deal of attention has been directed to the Bavarian mortality; we recently reviewed a monograph by Von Vogl dealing with this topic, and we desire now to direct attention to an elaborate inquiry made by Dr. Alfred Groth and Professo Martin Hahn.[2]

We are not, we think, doing an injustice to the valuabl work of Prinzing, Möllhausen, Krause, and others whe we describe the present monograph as one of the mos extensive which has yet appeared. The authors begin b summarizing the changes in infantile mortality and th birth-rate which have been observed in the kingdom o Bavaria between 1835 and 1904, the statistical data bein clearly presented in tabular form. They then enter upo the main portion of their inquiry, which is to ascertai the chief factors determining the rate of infanti mortality at the present time.

For purposes of comparison the different provinces ar divided into *Unmittelbare Städte* and *Bezirksämter*, cat gories which roughly correspond to our urban and rur districts, the former, of course, including the great citie such as Münich and Augsburg. The variables brough into relation with the mortality are pauperism, the birt rate, and the method of feeding the infant. Taking th influence of a high birth-rate first, although many of th rural districts seem to suggest a fairly close correspon ence between a high birth-rate and a high infantile deat rate, this is not so manifest in the case of urban district The authors conclude that the connexion between th birth-rate and infantile mortality is neither direct n simple. It may be remarked that Heron, working on th figures for London parishes in 1901, found a correlation of 0 between the birth-rate and the number of infants per 1,00 births dying under the age of 1 year.[3]

The authors have chosen as a criterion of poverty th percentage of persons in each division who have receive public assistance (*Unterstützte*). Here, again, they co clude that although there is a correspondence between th rate of pauperism and infantile mortality, the connexio is not a direct one, that pauperism *per se* is not necessari a causative factor.

Lastly, the authors deal with the relation betwee methods of feeding and infantile mortality. This sectio is based upon returns made by the medical officers charge of the public vaccination departments who ha been requested to inquire whether the infants brought be vaccinated were bottle or breast fed, and, in the form case, to ascertain the exact kind of nourishment. Th medical officers loyally responded to this appeal, and, a result, enough returns were obtained to be tolerab representative of many of the districts. The returns—whic are presented in upwards of a hundred detailed tables ar compared with the mortality figures—suggest a clo relationship between infantile mortality and bottle feedin and the authors conclude that this factor is the mo important among the causes at work.

The memoir concludes with a study of the influen upon the fitness of recruits exerted by the conditions d cussed in the earlier sections of the paper. The autho are of opinion that the artificial feeding of infants is ass ciated with a low standard of fitness for military servic but we cannot feel that they have established the truth their contention.

An excellent feature of the work is the careful way which possible or probable fallacies in the data are broug forward and discussed.

From what we have said, it will be clear that t composition of this monograph must have involved a immense amount of labour, and that it has resulted the bringing together of a mass of valuable informatio We cannot, however, honestly say the methods of redu tion adopted by Drs. Groth and Hahn appear at a adequate to the task they had in view. We think ma readers will feel, especially when they examine the lat sections of the essay, that the authors are determined see everywhere, even in apparently irreconcilable fac proofs of their contention that bottle feeding is the prin evil. Though they frequently lay stress upon the i tricacy of the problem, yet they do not appear to ha realized that so complex a matter demands a somewh more subtle method of attack than is afforded by th

[1] *Deutsche Sterbetafeln* für das Jahrzehnt 1891 bis 1900. Berlin, 1910.

[2] *Die Säuglinsverhältnisse in Bayern.* Von Dr. Alfred Groth u Professor Martin Hahn. (Sonderabdruck aus der Zeitschrift d K. Bayer. Statistischen Landesamts Jahrgang 1910. Heft 1. Münche 1910. J. Lindauersche Buchhandlung. pp. 88 with 13 figs. Price 2 mk

[3] Heron, "On the Relation of Fertility in Man to Social Status, etc *Drapers' Company Research Memoirs.* 1906. London: Dulau and C

imple plan of tabulating figures and percentages, or rawing rather unsatisfactory diagrams.

The truth is, we think, that this is pre-eminently a case or the use of the method of correlation. The problem s—given a number of measurable factors each of which ffects the infantile mortality, which is the most nportant?

We will illustrate the line of treatment which should, e think, have been adopted. Let us suppose that we equire to determine the relative importance of (1) poverty nd (2) artificial feeding as factors in the death-rate of nfants. Taking the data for rural districts, we find that ne correlation between artificial feeding and infantile nortality is 0.77, and between pauperism and mor-ality 0.44. There is also a correlation of 0.37 between auperism and artificial feeding.

We now require to know how much of the first two orrelations is indirect and dependent upon the correlation etween artificial feeding and pauperism. Using a well-nown theorem,[4] we find that the correlation between auperism and infant mortality when the part due to rtificial feeding is eliminated, becomes 0.26, while the orrelation between artificial feeding and mortality when he factor of poverty is similarly kept constant becomes .73. In other words, infantile mortality is much more losely associated with artificial feeding than with auperism.

These remarks are intended merely as an illustration of nethod. In a proper treatment of the subject a fourth ariable, namely, the birth-rate, would have to be con-idered, and of course the rest of the data would require nalysis. We may return to this subject on another ccasion. At present it is sufficient to indicate what eems to be the proper method of handling a most impor-ant problem. We must not, however, part company from)rs. Groth and Hahn in a carping spirit. We heartily vish that their zeal and industry might find numerous mitators, especially in the ranks of that band of well-neaning persons who favour the profession with advice nd criticism. It may be that some of our brethren, vhile studying the works of eminent statisticians, have een involuntarily reminded of a criticism addressed to ertain sons of Levi; still, it must never be forgotten that n the collection and analysis of statistical data lies the nly hope of arriving at truths of paramount importance.

DISTRIBUTION OF DISEASES IN PERSIA.

DR. M. M. BASIL, now of Taurni, Constantinople, who ractised in Teheran from the end of 1889 to May, 1909, nd who, he tells us, was from 1890 to 1906 the teacher of he hundred students who passed through a curriculum f six years at the Imperial Polytechnic College there, has ent us some notes on disease as he observed it in Persia rom which we quote the following:

1. *General paralysis of the insane* is a disease entirely nseen in Persia. No case of it was seen by me in Teheran. My inquiries in Resht and Ispahan confirm ny Teheran experience. I was assistant medical super-ntendent of the District Lunatic Asylum at Melrose for hree years, and I have travelled all over Scotland pecially to visit asylum work, and should not have verlooked a case. When I drew the attention of the ate Sir Joseph Tholozan to this remarkable fact, he hought he had one case to show to prove the existence f the disease in Teheran. We visited the gentleman, and he presence of equality of pupils, absence of any tremors bout the mouth—in fact, the total absence of all physical igns of the disease—compelled me to reject the diagnosis n spite of vague mental symptoms. The gentleman lives et without any further development of the disease, and nentally he is not more ambitious than most Persians.

2. *Tabes dorsalis* is an extremely rare disease in Teheran. I have seen only one case in which the ymptoms and the evolution of the disease to the end eft no doubt as to the diagnosis. My experience of wenty years makes me look on any case of ataxia in a Persian with grave doubts.

Opinions would naturally differ as to the cause of the bsence of the first disease and the rarity of the second n Teheran. My own impression is that the form of alcohol consumed by the Persians is an important factor. Wine is made in Persia after the manner frequently referred to in the Scriptures. Bunches of grapes are crushed by men walking on them, then put into vats; after a few days of fermentation and stirring the whole mass is allowed to mature, filtered in a rough way, and the alcohol of the dregs left on the filter is distilled off. Or raisins mixed with water are put into vats and, after fermentation, subjected to distillation; 99 per cent. of the alcohol consumed in Persia is thus obtained directly from the fermentation of grape sugar without the possibility of any adulteration. Whisky, brandy, vodka, and other European forms of alcohol are rarely used, being consumed more as luxuries than ordinary beverages. Tabes dorsalis and general paralysis of the insane cannot be due to worry, overwork, anxiety, etc., because all these causes exist in Persia, and in the troublesome domestic and uncertain political life of Persia they are even more powerful than in Europe. These maladies cannot be due to syphilis, for, without going so far as to say that syphilis is as common in Teheran as in London, Edinburgh, and Manchester, I can say that syphilis is frequent in Teheran. All forms of the disease are seen daily. Ataxia is not a para-syphilitic disease as far as Persia is concerned. It would be interesting to search in old medical literature in Europe in the days when the popular beverage of the people—in England and France, for example—was wine and eau de vie, to see if then any disease resembling general paralysis of the insane and tabes dorsalis were recorded. Both are conditions with features so striking that it is almost inconceivable to suppose that they existed in Europe in the old days and were overlooked or mistaken for other diseases.

3. *Gastric ulcer* is unknown in Persia. Cirrhosis of the liver and tuberculosis of the alimentary tract are frequent and various forms of severe dyspepsia are seen especially among sedentary students. In all these conditions well-marked haematemesis may occur, but the condition met with in Europe mostly in anaemic, stout subjects, especially young women and associated with the round ulcer of the stomach, is unknown in Persia. I graduated in Edinburgh, 1882, and left England in September, 1889, being in hospital, asylum, or private practice for seven years before going to Persia. For three years I was non-resident house-surgeon to the Manchester Southern Hospital for Women and Children. In Manchester especially I saw cases of gastric ulcer for prolonged periods clinically, and on the operation table, or in the *post-mortem* room. My clinical experience in Teheran does not point to any similar disease among Persians, but pathological work on any extensive scale is out of the question. Persians are residents of elevated table-lands and like inhabitants of other mountainous countries are full-blooded. Milk is seldom taken by Persians. It is transformed into yoghurd or mast and used in this form as food. Vegetable food, and especially vegetable acids, lemon juice, the juice of unripe grapes, sour fruits, etc., enter largely into the dietary of Persians. Rice and bread form the staple articles of food; meat occupies a secondary place. The above conditions combined with many others, for example, abundant supply of air and light, contribute to make digestion easier in Persia than in Europe.

4. *Traumatic tetanus* is a rare disease in Teheran. During the first three years of my medical studies I followed the clinical work in the medical and surgical wards of the hospital of the Medical College of Bengal. Traumatic tetanus is seen frequently in India, and in Calcutta I saw many cases of it. I was surprised during the first five years of my experience in Teheran, and in spite of special inquiries, that I never saw or heard of an undoubted case of traumatic tetanus in Persia. The Arabic word for tetanus (*kozaze*) corresponds to our trismus (lockjaw), and the native physicians often diagnose tetanus when from any local irritation they observe trismus. I have never seen a case of idiopathic tetanus in Persia, where strychnine poisoning is very frequent. I have the detailed history from non-medical sources of two cases of very severe spasmodic disease, one ending in death, one in complete recovery, in the same family, at different periods; they occurred at Julfa, near Ispahan and from the accounts given to me I suppose them to have been cases of tetanus following parturition.

[4] Yule, *Proc. Roy. Soc.*, vol. lx, p. 477 et seq.

5. *Tabes mesenterica* is a rare disease in Persia. I never saw a well-marked case in a Mohammedan child in Persia, yet tuberculous intestinal disease is a common malady among Persian adults. Pulmonary phthisis is seen in Teheran, and even in Resht, which is sometimes said to be free from tuberculous phthisis. In Teheran the old quarters, where houses of over a hundred years old exist, low down among valleys, phthisis is not rare, and is most often seen in the colony coming from Azerbijan. Intestinal tuberculosis, primary, as far as my experience goes, is frequent in Teheran—quite out of proportion, judging from European experience, to the cases of pulmonary phthisis. I fancy the large quantity of dry, indigestible vegetable material, in the way of the seeds of pomegranates, roasted almonds, pistaches, seeds of melons, of water-melons, etc., continually ingested by the Persians, are causes of intestinal breaches of continuity on which tuberculous disease is easily inoculated. I fancy also that the Persian child is not subject to intestinal tuberculosis to the same extent as children in Europe, because hand-feeding is very rare. Koranic law—at any rate, the Persian interpretation of the law—requires every child to be fed on the breast for two years. The vast majority of Persian children are nursed by their mothers; in the upper grades of society nurses are employed frequently, but artificial feeding is never seen among Persians. Lactation is generally prolonged wellnigh to eighteen months or two years.

6. *Malignant disease* is less common in Persia than in Europe. Sarcoma is frequently seen, but true carcinoma is rare. I have never seen any case of true uterine cancer in a Persian. My cases have been in Armenian women; "cancer of the uterus," when diagnosed by Persian physicians in Mohammedan women, has invariably on careful physical examination proved to be something else. Fibroids of the uterus are seen frequently. Cancer of the breast is not rare among Persians, but the vast majority of cases of cancer seen in Teheran are in connexion with the abdominal cavity, mostly gastric in origin. Persians connect the origin of cancer and of tuberculosis with special houses, and, as in India, special cholera houses are pointed out by old Indian residents; similarly, "cancer and phthisis houses" are pointed out by old Persians. In Teheran there are really very few ancient houses. All over Persia the mosques, public baths, bazaars, and caravanseries form the principal old buildings. Private houses are generally made of perishable material. They are more or less of the nature of tents rather than of permanent family dwellings. In Teheran there is comparatively a heavy rainfall, and as the roofs of houses have generally perishable beams, few houses last over fifty or sixty years. Even in the old quarters of the city there are few dwellings dating as far back as a hundred years. It is specially in the old quarters of the city that I have seen cases of cancer and phthisis. In Ispahan, ancient brick houses are sometimes met with, and it is specially among old Ispahan families that the theory connecting the existence of cancer and phthisis with special dwellings is rooted.

7. *Appendicitis* is rare among Persians. In Teheran I have seen cases of this disease frequently enough, but among Europeans, Armenians, and such Mohammedans as have lived abroad, in Russia and Turkey, and have more or less adopted Western ways of living. In primitive Persians, feeding on the simple diet of the country, I do not remember seeing any case of appendicitis.

8. *Diabetes* is much more rare in Persia than in Europe, and the prognosis of a case is less grave. I have known cases doing well for years. I remember two cases with grave symptoms commencing in Persians during a journey in Europe; on returning to Teheran the diabetes disappeared after a very simple treatment by sodium salicylate. Persians feed on plain food in the fresh condition. They do not understand keeping butcher's meat to make it tender. Europeans, on the contrary, are specially prone to diabetes in Persia.

9. *Bright's disease* is frequently seen among Persians, but the prognosis is less serious than in Europe. I remember many cases I saw during my earlier years in which, from my experience in England, I pronounced death not far off. Yet most of them were living years after. Patients suffering from kidney disease who are consumers of opium die rapidly in the severe dry frost of Persia. Persian climatic conditions are peculiar; high elevation, great dryness promoting free evaporation from the skin, and mostly small range between the day and night temperature. In particular stations where the climate is damp, or severe cold nights follow hot days, patients with Bright's disease do badly.

10. *Vesical or urinary calculus* is not a very frequent disease in Teheran. Persians who have passed many years in and near Mesopotamia—as Kerbella, Nedjef, Bagdad, etc.—often come back to Teheran suffering from abundant bleeding from the bladder. I suppose this must be the result of some parasitic disease, but I have not been able to prove it.

11. *Rickets* to any marked extent is rare. Bandy legs, to the extent of demanding operative interference, are scarce, but rickets sometimes cause marked malformation of the whole body, often to a very slight degree. The sparsity of population in Persia gives plenty of space and air to each individual; add to this a dry climate and abundant light, and we have all the conditions that are necessary for the prevention of rickets. But the Eastern habit of swathing or bandaging a child is not without effect in keeping the bones straight. A Persian child is sprinkled with salt immediately after birth; it is then swathed, and is washed for the first time about the third day. This "salting" hardens the skin and renders it less irritable in that dry, sunny climate. The child is kept strictly bandaged, the lower and upper limbs and even the head religiously submitted to pressure and correction, for several months. This prolonged orthopaedic treatment gives straight bones, a peculiarly long head, and a remarkably deep thoracic cavity. The heart of the Persian is generally lower in the thoracic cavity than that of the European; the liver is often felt below the right costal edge without being diseased, and the stomach is always dilated without any abnormal state.

12. *Progressive pernicious anaemia* I have never seen in Persia; I have seen only 1 case of leucocythemia, 2 or 3 of Hodgkin's disease, 2 of Graves's disease, and 1 of Addison's, known to the native physicians as black jaundice, and supposed to be connected with some form of liver disease.

13. *Typhoid fever* is frequent in Teheran among Europeans, specially the English, less frequent among Armenians, and least of all among Mohammedans. The late Sir J. Tholozan doubted whether it existed among Persians; Dr. Polack wrote that it did not exist. I have watched undoubted cases of it among Persians, men, women, and young children, but I feel sure Persians are less liable to it than other races. A whole camp follows the Shah on his journeys, and it is generally the European employee who takes typhoid. Persians believe that beef-eating renders people liable to take typhoid fever and except in the cold of winter Persians do not eat beef Typhus fever is rarely seen in Teheran, but sporadic cases sometimes come under observation. On two occasions I have seen many cases in the summer. A group of Kurdish cossacks brought seven cases to the hospital attached to the regiment. I have known other cases imported from the old town of Demavend or Larigan.

14. *Mumps, whooping-cough, and scarlet fever* sometimes disappear from Persia for years, and when an epidemic occurs many Persian physicians do not recognize them. In the last epidemic of mumps in Teheran many men of over 50 or 60 took the disease. In the south of Persia scarlet fever is said to disappear for fifty or sixty years. Scarlatina is very mild in Persia in the spring and in autumn, but extremely dangerous if the outbreak occurs in the thirty or forty hot, dry days of midsummer I have not seen it in the depth of winter. Measles is frequently seen in Persia, and, except during the severe frost of the winter or the height of summer, it is a very mild affection.

THE Balneological and Climatological Section of the Royal Society of Medicine is to hold a provincial meeting at Buxton on Saturday, May 28th. A full programme of the proceedings can be obtained on application to Dr Septimus Sunderland. They include visits to the Devonshire Hospital and the baths, and cover the week-end A carriage for members will be reserved in the train leaving St. Pancras at 10.5 a.m.

A DRASTIC TREATMENT FOR ALCOHOLISM.

DR. ALEXANDER LAMBERT published last autumn in the *Journal of the American Medical Association* an article with the title, "The Obliteration of the Craving for Narcotics."[1] It opened with the statement that if the writer, who is Visiting Physician to the Bellevue Hospital, New York, and Professor of Clinical Medicine in Cornell University, had been told some years ago that it was possible to take away the desire for morphine, cocaine, or alcohol in less than five days with a minimum amount of suffering and discomfort to the patient, he would have felt justified in treating the statement with polite scepticism. The treatment he has now adopted was brought to his notice by Mr. Charles B. Towns, of New York, not a member of the medical profession, who has since communicated details to Dr. Lambert. The prescriptions he uses are as follows:

The Compound Tincture.

℞ Tinctae belladonnae	... ...	℥ ij
Fluid extract of xanthoxylum	... ...	℥ j
Fluid extract of hyoscyamus	... ...	℥ j
Initial dose vi–viii ♏.		

Compound Cathartic Pill.

℞ Extracti colocynthidis compositi	... ...	gr. j⅓
Hydrargyri chloridi mitis	... ...	gr. j
Cambogiae	... ...	gr. ¼
Resinae jalapae	... ...	gr. ⅓

Vegetable Cathartic Pill.

℞ Extracti colocynthidis compositi	... ...	gr. j
Extracti hyoscyami, Extracti jalapae	... ...	āā gr. ss
Extracti leptandrae, Extracti resinae podophylli	...	āā gr. ¼
Olei menthae piperitae	... ...	♏ ⅛

The second prescription is the compound cathartic pill, the third the vegetable cathartic pill, *U.S.P.* To the vegetable cathartic pills he adds oleo-resin of capsicum $\frac{1}{10}$, ginger gr. ½, croton oil $\frac{1}{25}$ ♏. He also found it desirable to have the pill mass freshly made, or to have it enclosed in capsules, as ordinary stock preparations were too dry to act efficiently.

Xanthoxylum, or powdered bark of prickly ash, is official in the *United States Pharmacopoeia*, and is described as a stimulant producing when swallowed a sense of heat in the stomach, with more or less general arterial excitement and a tendency to diaphoresis. It seems to have been used chiefly as a cure for chronic rheumatism.

By tincture of belladonna in the above prescription Dr. Lambert means "the old 15 per cent. tincture of belladonna, *U.S.P.*"; and Mr. Martindale informs us that 6 to 8 minims of the above compound tincture would contain 3 to 4 minims of the tincture of belladonna, *B.P.* Dr. Lambert also had blue mass (strength 33 per cent. as compared with the blue pill, *B.P.*, strength 40 per cent.) put up in capsules containing 5 grains.

There is therefore nothing very novel about the drugs, and we do not understand that Dr. Lambert claims any novelty on this head; the novelty would appear to be the use of the compound tincture as part of a course of treatment in which catharsis is an important element. Apparently the cases have been treated in the ordinary hospital wards, and we gather that in most of the cases of alcoholism the patient has been admitted, to use Dr. Lambert's phrase, "in the midst of his spree or at the end of it."

Dr. Lambert first describes the treatment of cases of morphine or cocaine addiction as follows: He begins by giving four compound cathartic pills and 5 grains of blue mass, and at the same time an enema of soap suds; when the bowels have begun to act he begins to give the compound tincture; at first he gives 6 to 8 minims every hour, increasing the quantity by 2 minims every six hours, until 14 or 16 minims are being taken every hour. If signs of belladonna poisoning are noticed, the compound tincture must be stopped until they have subsided, when it should be given again in 8 minim doses. At the beginning of the treatment with the compound tincture he gives, in three doses, at half-hour intervals, from half to two-thirds of the total daily dose of opium, morphine, or cocaine usually taken by the patient; fourteen hours after the first dose of the compound tincture he gives four compound cathartic pills and 5 grains of blue mass, and again, six hours later, four compound cathartic pills and four to six vegetable cathartic pills. If catharsis is not produced within three or four hours the pills must be repeated with 5 to 10 grains of blue mass. If this be not done the patients are liable to begin to vomit, and the distressing symptoms produced by the withdrawal of the narcotic will be states, come out in full force; at this time an ox-gall enema is sometimes of assistance. After the bowels have acted, but not before, one-third or half of the original dose of the narcotic may be given; it makes the patient comfortable and contented, and ready for the final stage. This begins twelve hours later by the administration of four compound cathartic pills and four to six vegetable cathartic pills, with 5 grains of blue mass; six hours later this is followed by an ounce or more of castor oil in coffee or orange juice. Nervousness and discomfort occurring before the castor oil acts should be met by a dose of 2 to 5 grains of codeine phosphate, given hypodermically. The castor oil ought to produce a characteristic stool showing that the treatment may cease. It is a liquid green stool composed of mucus and bile, and its passage is usually followed by the disappearance of discomfort. After the patient has been under treatment for thirty hours a cardiac stimulant, strychnine $\frac{1}{30}$ to $\frac{1}{60}$ grain every three hours, or digitalis or strophanthus, should be given, alone or in combination. During the treatment the patient should have a regular diet of easily digested food, such as eggs, cereals, bread-and-butter, and vegetables; coffee or tea may be given if desired by the patient. The appetite often becomes voracious, and during the first week care must be taken that the patient does not over-eat himself.

In the treatment of alcoholics the same plan is followed, but it does not usually need to be continued so long. Much closer observation is necessary to recognize the early symptoms of belladonna poisoning, an alcoholic being sensitive to that drug. Dr. Lambert considers that belladonna delirium is less ferocious and less pugnacious than that produced by alcohol, and that the patients are more persistent and insistent in their ideas and more incisive in their statements concerning their hallucinations. Hallucinations produced by alcohol are usually those of an occupation delirium, those of belladonna are not; further, the belladonna delirium is apt to be confined to one or two ideas, whereas the hallucinations of alcohol follow each other so quickly, that the patient is busily engaged in observing them one after another. When an alcoholic is admitted "in the midst of his spree or at the end of it," the first thing to do is to put him to sleep, and a hypnotic is given after the first four compound cathartic pills; the hypnotic which Dr. Lambert states has given him the best results is the following:

℞ Chloral. hydrat.	... ...	gr. xv
Morphinae	... ...	gr. ⅛
Tincturae hyoscyami	... ...	♏ ss
Tincturae zingiberis	... ...	♏ x
Tincturae capsici	... ...	♏ v
Aquam	... ...	ad ℥ ss

This dose can be repeated in an hour, with or without 1 or 2 drachms of paraldehyd.

If these are not effective within two hours, or even less, and the patient's delirium is of the furious, thrashing, motor type, a hypodermic injection of the following will almost invariably quiet him:

Strychninae sulphatis	... ... gr. $\frac{1}{30}$.
Hyoscyamin. sulphatis	... ... gr. $\frac{1}{100}$.
Apomorphinae hydrochloridi	... ... gr. $\frac{1}{10}$.

If sleep is difficult to obtain, the patient is allowed to sleep until he wakes; but if he goes to sleep easily, he is awakened every hour for a dose of the compound tincture. Save in the young robust alcoholic Dr. Lambert considers it wise to give most alcoholic patients $\frac{1}{60}$ to $\frac{1}{30}$ of a grain of strychnine every four hours. Fourteen hours after beginning the compound tincture the patient should again be given a cathartic, either the same dose of four compound cathartic pills, or one half that quantity with 5 grains of blue mass. At this stage the young, full-blooded alcoholic may need a further dose of hypnotic, but need not be given alcohol; the older alcoholics and those in a weak and poor physical condition should have 1 to 2 oz. of whisky about four times a day with milk during the first twenty-four hours, during the second twenty-four hours two doses will probably suffice. After the second dose of cathartics has acted, if the patient begins to show the characteristic green, mucous stools, he should be given an ounce of castor oil, and from this dose the characteristic stool, as described under morphine, will appear and the treatment may cease. If, however, the green stool does not begin to appear at this time, further

[1] Vol. liii, p. 985.

compound cathartic pills should be given, and as soon as the green stools begin to appear the castor oil should be given.

The treatment, Dr. Lambert says, establishes a patient's self-reliance to go on without alcohol; it will do all that can be done for a man who honestly desires to be helped, but he cannot touch alcohol in any form whatever without a danger of a relapse.

THE DEATH OF KING EDWARD.

THE following addresses of condolence have been presented to King George V and the Queen Mother on the death of King Edward VII:

Royal College of Surgeons of England.

THE HUMBLE ADDRESS
OF THE
PRESIDENT, VICE-PRESIDENTS, AND COUNCIL
OF THE
ROYAL COLLEGE OF SURGEONS OF ENGLAND
TO
HIS MOST EXCELLENT MAJESTY
GEORGE V,
KING OF GREAT BRITAIN AND IRELAND.

May it please Your Majesty,

We, the President, Vice-Presidents, and Council of the Royal College of Surgeons of England, venture to approach Your Majesty in order to express our deep grief at the sudden and unexpected death of Your Majesty's beloved Father, our late revered Sovereign, and we humbly pray Your Majesty graciously to receive our respectful sympathy.

During his reign, which was all too short, he gained the love and confidence of his subjects throughout the world to a degree which we believe has never been surpassed by any Sovereign. At the same time he endeared himself to the people of foreign countries in a remarkable manner by his tact, courtesy, and kindness, so that his death will be felt by them in little less degree than by his own subjects.

Surely, no Monarch was ever more sincerely mourned than he will be.

We desire respectfully to express our devoted loyalty to Your Majesty, and our trust that God may grant You good health and that Your Majesty may live to reign for many years in the hearts of Your people.

L. S.

In witness whereof we, Your Majesty's loyal and dutiful subjects, have caused the Common Seal of the College to be hereunto affixed this 12th day of May, 1910.

HENRY T. BUTLIN,
President.

THE HUMBLE ADDRESS
OF THE
PRESIDENT, VICE-PRESIDENTS, AND COUNCIL
OF THE
ROYAL COLLEGE OF SURGEONS OF ENGLAND
TO
HER MAJESTY QUEEN ALEXANDRA.

May it please Your Majesty,

We, the President, Vice-Presidents, and Council of the Royal College of Surgeons of England, desire humbly to offer our sincere and respectful condolence with Your Majesty under the great loss which Your Majesty and Your Illustrious Family have sustained by the sudden and unexpected death of His Majesty King Edward VII.

We earnestly and respectfully trust that the expressions of grief which have been sent from every part of the world will help to mitigate, in some degree, Your Majesty's own private sorrow.

L. S.

In witness whereof we, Your Majesty's loyal and dutiful subjects, have caused the Common Seal of the College to be hereunto affixed this 12th day of May, 1910.

HENRY T. BUTLIN,
President.

Royal College of Physicians, Edinburgh.

The following addresses were proposed by the President (Dr. Allan Jamieson) and unanimously agreed to by the Fellows of the College, upstanding, at an Extraordinary Meeting of the College held on May 12th, 1910.

TO THE KING'S MOST EXCELLENT MAJESTY.

May it please Your Majesty,

We, the President and Fellows of the Royal College of Physicians of Edinburgh, humbly approach Your Majesty to express our profound sympathy in the great bereavement which has been suffered by Your Majesty, your Royal Consort, the Queen Mother, and the other Members of the Royal Family in the death of our much-beloved Sovereign King Edward.

With the nation at large, we mourn the loss of one whose life was so conspicuously devoted to the maintenance of peace, not only within the confines of the Empire over which he ruled, but throughout the world.

This influence was achieved in great measure by his unfailing tact, his accurate knowledge of mankind, his geniality of disposition, his gift of recollection and recognition of individuals, and his conspicuous devotion to the discharge of every duty.

To us as Members of the Medical Profession, King Edward's active interest in the health of his subjects comes specially home. The influence of his work, as Prince of Wales, on behalf of the London Hospitals was felt far beyond London, while the great interest he took in the subjects of Cancer and Consumption will, we believe, yield abundant fruit in the future.

We most loyally and heartily congratulate Your Majesty on your accession to the Throne, and we confidently anticipate that your wide experience of travel and consequent familiarity with all parts of your dominions and their inhabitants will specially appeal to a nation which loves a sailor King.

We hail with satisfaction your love for the country, for field sports, and for quiet domesticity, as a means of directing the trend of thought towards that simple existence and plainer life on which we, as medical men, lay so much stress.

In assuring Your Majesty of our most loyal and dutiful allegiance, we warmly express the hope that with Your Gracious Queen Consort you may long be spared to reign over a happy and prosperous Empire.

Signed in name and under the seal of the Royal College of Physicians of Edinburgh this the Twelfth day of May, One thousand nine hundred and ten year.

UNTO HER MAJESTY QUEEN ALEXANDRA.

May it please Your Majesty,

We, the President, Vice-President, and Fellows of the Royal College of Physicians of Edinburgh, desire to convey to Your Majesty our truest sympathy in the sad and unlooked-for bereavement Your Majesty has sustained. We rejoice in the thought that King Edward was spared acute pain or prolonged and exhausting suffering, and that Almighty God so tenderly took him into His keeping. Your Majesty's address has touched every heart, and we are sure that your wishes therein expressed will be most faithfully and loyally obeyed. It is our earnest hope that Your Majesty may be long spared to a peaceful and much honoured life among a devoted people.

Middlesex Hospital.

At a special meeting of the Court of Governors, held on May 13th, at the instance of His Serene Highness Prince Francis of Teck, an address of condolence to His Majesty King George V was moved by the Duke of Northumberland and seconded by the Hon. G. W. Spencer Lyttelton. The Duke also moved the address to Her Majesty the Queen Mother, and this was seconded by the Hon. Walter Rothschild. The following is the text of the addresses:

TO THE KING'S MOST EXCELLENT MAJESTY.

The humble address of the President, Vice-President, Treasurers, Weekly Board, Medical Staff, and Governors of the Middlesex Hospital:

Most Gracious Sovereign,

We, Your Majesty's dutiful and loyal subjects, humbly venture to approach your Royal Presence to offer our

respectful sympathy, and to express our heartfelt sorrow at the lamented death of Your Majesty's august father, our late Sovereign Lord, King Edward.

We fully share the profound grief into which the whole Empire is plunged by the irreparable loss which Your Majesty has sustained, and we humbly trust that the universal tribute of respect and reverence paid to the memory of our beloved Sovereign may comfort and console Your Majesty in your bereavement.

We wish to record our deep sense of gratitude for the special mark of his Royal favour in graciously consenting to act as the Patron of this hospital throughout the entire period of his wise and beneficent reign.

We particularly desire to express our high appreciation of the many munificent gifts which His late Majesty bestowed upon this hospital, whilst we take especial pride in the reflection that it was largely due to the sympathy and interest which His Majesty displayed in every effort made for the alleviation of suffering and the encouragement of scientific research that the Middlesex Hospital Cancer Charity was established upon its present basis.

We recall with feelings of fervent admiration the noble work which His Majesty carried out by initiating King Edward's Hospital Fund for London, and later, by his continued influence, consolidating it into an organization which has already more than fulfilled the purpose it was designed to serve.

We further humbly crave leave respectfully to congratulate Your Majesty on your accession to the Throne of your Ancestors. We assure Your Majesty of our unalterable attachment and devotion to your person, and we fervently pray that Your Majesty may long be spared to guide the destinies of this realm.

NORTHUMBERLAND,

May 13th, 1910. *President of the Middlesex Hospital.*

TO HER MAJESTY QUEEN ALEXANDRA.

The humble address of the President, Vice-Presidents, Treasurers, Weekly Board, Medical Staff, and Governors of the Middlesex Hospital:

Your Gracious Majesty,

We humbly and respectfully venture to tender to Your Majesty an expressing of our profound and abiding sorrow at the death of His Majesty, King Edward the Seventh, of blessed and glorious memory, and to assure Your Majesty of the sincere and heartfelt sympathy we feel for Your Majesty in Your Majesty's grievous affliction and loss.

NORTHUMBERLAND,

May 13th, 1910. *President of the Middlesex Hospital.*

Royal Free Hospital.

At a meeting of the Board of the Royal Free Hospital, of which His late Majesty was Patron, the following addresses of condolence to His Majesty King George V and the Queen Mother were passed:

TO THE KING'S MOST EXCELLENT MAJESTY.

We, Your Majesty's most loyal and dutiful subjects, respectfully beg leave to express our heartfelt sorrow at the loss sustained by Your Majesty, the Royal Family, and the Empire by the death of Your Majesty's revered Father, our late most Gracious and Beloved Sovereign and Patron of this Institution, and also to express our dutiful congratulations upon Your Majesty's accession to the Throne, as well as our sincere attachment to Your Royal Person.

TO HER MAJESTY QUEEN ALEXANDRA.

That the Board of the Royal Free Hospital record their profound sorrow at the death of His Most Gracious Majesty King Edward the Seventh, who as Prince of Wales became the Vice-Patron of the Hospital in 1863, and in 1895 accompanied Your Majesty when publicly opening the new Alexandra Wing of this Hospital. Upon his accession to the Throne His late Majesty graciously confirmed his Royal favour, and became the Patron of the Hospital.

The Board respectfully tender to Your Majesty their heartfelt sorrow on the irreparable loss which Your Majesty and the Royal Family have sustained.

Reading Pathological Society.

At a meeting of this society held at the Royal Berkshire Hospital on May 12th, the following resolution was unanimously passed:

TO THE KING'S MOST EXCELLENT MAJESTY.

May it please Your Majesty,

The Reading Pathological Society desires to express its profound sorrow at the death of His Majesty King Edward VII. The interest in Medical and Sanitary Science which His late Majesty has so constantly shewn, together with the establishment of the King Edward Hospital Fund, call for the warmest recognition and gratitude on the part of the medical profession, which reveres his memory as that of one of the most enlightened of British Sovereigns.

The Society desires to offer its most loyal Homage to Your Majesty King George the Fifth and trusts that you may long reign over a prosperous and happy nation.

(Signed) JAMIESON B. HURRY, *President*,
N. B. CLOWES,
W. B. SECRETAN, *Honorary Secretaries*,
Reading Pathological Society.

It is worth noting that the Reading Pathological Society was founded in the same year that His late Majesty King Edward VII was born—namely, 1841.

SCIENCE NOTES.

IN the *Revue générale des sciences* Duclaux writes a comprehensive article on the present state of our knowledge of organized matter. The term "organized matter" is used to denote substances which are of a much more complex structure than organic compounds. The latter are definite compounds found in the body of living organisms, or derivatives of those containing carbon. Their composition is always the same whatever the source they are derived from, and whether obtained naturally or prepared synthetically. Organized substances, on the other hand, have no definite chemical composition. Their properties vary according to their method of preparation, and their molecular structure is of immense complexity. Many of them are apparently conglomerations, so to speak, of some simpler organic molecules bound together by some mysterious affinity, but this bond can be loosened by the action of ferments. Thus, amidon, an organized substance, is transformed into the organic compound maltose by the action of the ferment amylase. Similarly cellulose can be transformed into glucose. Albumen, casein, gelatine, and gum arabic are other familiar examples of organized substances. One property which these have in common is their inability to form crystals. At the same time they display several of the optical phenomena characteristic of crystals, as, for instance, the colour changes in polarized light. Some liquids have also analogous properties. Thus, judged by optical criteria, the idea of crystalline structure must be extended to include these amorphous organized bodies, which may be classed in an amorphous system of crystals. In other words, we must admit that these organized substances, in assuming the solid state, may take on at the same time a crystalline state, and that it is only the complexity of their molecule which prevents that fact being evidenced by the existence of a regular geometrical shape. How to represent these complex molecules is a difficulty, and it remains to be ascertained whether they are formed haphazardly or according to fixed laws. What is the force which produces them, and what force maintains them? Their constant association with living matter suggests the question whether they are characteristic of the latter, and, if not, why are they so widely spread throughout the animal and vegetable kingdom? With regard to the first part of this question the answer is negative, for by simple chemical means bodies resembling these organized compounds can be obtained from sodium silicate and several other inorganic salts. These all have the common property of being colloidal and of not

forming crystals. On being heated they coagulate like the white of egg; alcohol separates them from solution, and once separated they remain insoluble. Their properties are inconstant and indefinite like those of the natural organized compounds, and their composition varies in the same way. As regards the actual synthesis of the natural compounds, some advance has been made. Grimaux, for example, has succeeded in synthesizing colloids closely resembling albumen, and Fischer has prepared similar substances called polypeptids. From a polypeptid to an albumen is no great step, and possibly the time is not far distant when the synthesis of the latter will be actually realized. If, then, the presence of a living organism is not an essential factor in the production of organized matter, does the converse hold good? Is organized matter a necessary element in vital phenomena? The answer naturally is "Yes," and Duclaux proceeds to substantiate this. As already remarked, these colloid bodies when separated from solution remain absolutely insoluble. To an organism living in water such an insoluble substance is obviously of the greatest utility. Insolubility of its tissues is a necessity for its very existence. To organisms living out of water the same does not apply. Here, however, a *raison d'être* is found in the necessity for suppleness and movement. Imagine an animal or plant in which all the colloids were replaced by crystals. The result would be greater rigidity and cohesion, but at the same time greater fragility and immobility. Of greatest moment is the third claim to the importance of colloids in vital economy. All vital processes are effected by diffusion; *corpora non agunt nisi soluta*. This, however, necessitates the existence of a substance which will exercise a discriminating or selective action. It is essential that certain elements—to wit, inorganic salts—should be permitted to diffuse in one direction, and certain others, the products elaborated from these simple salts, should be prevented from diffusing in the opposite direction. Now it is impossible to construct from a crystalline substance a filter of this nature. The crystals and the spaces intervening between them would require to be many times smaller than those occurring naturally. A colloid, however, by reason of its curious structure, fulfils the necessary conditions. In diffusion the action is a molecular one, and the spaces between the molecules of the colloid are large enough to admit the passage of the small molecules of simple compounds, but retain the larger molecules of the products metabolized within the cell. The latter escape when from any cause the colloidal filter becomes incompetent through injury or disease, and such, we may suppose, is the case in nephritis and diabetes.

Many of our readers take an interest in grouse, some regarding them as objects of sport, others from the gastronomic, others, again, from the pathological point of view. For the benefit of the latter class it may be mentioned that at a meeting of the Zoological Society of London held on May 3rd, Dr. H. B. Fantham, F.Z.S., Protozoologist to the Grouse Disease Inquiry, read four papers relating to the protozoa and blood of grouse. In the first, entitled The Morphology and Life-History of *Eimeria* (*Coccidium*) *avium:* a Sporozoon causing a Fatal Disease among young Grouse, he gave a detailed account of the morphology and life-history of the coccidium, which destroys the epithelial lining of the duodenum and caeca of grouse chicks, causing enteritis accompanied by diarrhoea. The second paper, entitled Observations on the Parasitic Protozoa of the Red Grouse (*Lagopus scoticus*), set forth the author's observations on some seven other protozoa, parasitic in the blood or in the digestive tract of grouse. None of these parasites, however, could be said to be either numerous or very harmful to the birds examined. The parasites were *Leucocytozoon lovati*, in which schizogony in the spleen of the bird was recorded for the first time, not only for *Leucocytozoon lovati* but for *any* avian *Leucocytozoon; Haemoproteus mansoni* and *Spirochaeta lagopodis* in the blood; *Trichomonas eberthi* and *Spirochaeta lovati* in the caeca; and *Amoeba lagopodis* in the intestine and faeces. The spirochaetes and amoeba of grouse are new species. *Monocystis* spores are also found occasionally. All the parasitic protozoa mentioned were observed both alive and in stained preparations. The third paper dealt with Experimental Studies on Avian Coccidiosis, especially in relation to young Grouse, Fowls, and Pigeons. The results of many and varied experiments were recorded in this paper, relating to the time of ripening and duration of infectivity of coccidian oocysts, their dispersal by insect larvae, etc., and the effects of various reagents on the oocysts. The distribution of the parasites within the host was given, and the results of the transmission of grouse coccidiosis to young fowls and pigeons were set forth. Observations on the Blood of Grouse were discussed by the author in the fourth and last paper. The various blood cells were described, and the results of blood counts (both of red cells and of leucocytes differentially) of healthy and diseased birds were set forth. Both coccidiosis and strongylosis produce anaemia, and the presence of various parasites is also associated with numerical differences in the leucocytic elements of the blood.

LITERARY NOTES.

The well-known French novelist, Marcelle Tinayre, points out that in modern fiction consumption has lost all the poetry with which sentimentalists used to invest the disease. In novels of a former day, especially in those written by women, there used to be two characters who, though rather ridiculous in themselves, excited the keen sympathy of sentimental ladies. There was the young consumptive lover and his pure-hearted betrothed. For more than half a century this couple was fashionable. The lovers were described as wandering about under weeping willows amid landscapes strewn with ruins and embellished with waterfalls. The pale young man discoursed on the fall of the leaves, and blasphemed the god who had cursed him by refusing him the terrestrial joys of love. His devoted sweetheart foretold that he would be cured by the spring of the following year, and assured him that in any case she would be faithful to his memory, and that if it was their fate to be separated on earth, they would be reunited in Heaven. For a long time these two lovers reappeared in one book after another, to the weariness of many readers, but they quite suddenly became unfashionable. This is attributed by Marcelle Tinayre to the discovery that phthisis is not necessarily fatal, but that it is often contagious. As a matter of fact, this was not a discovery but the rediscovery of a truth which had been taught for centuries, and which was acted upon with great stringency till about the early third or middle of the last century. Then the view that phthisis is not contagious became dominant. In many places, however, the popular instinct held fast by the idea of contagion, and the doctors came round again to the old doctrine when Villemin proved the infectivity of tuberculosis in 1866. For a time he was looked upon with suspicion by the "superior person." It was not till Koch announced the discovery of the bacillus in 1882 that Villemin was fully vindicated. This is only a parenthesis. The romance of consumption was spoiled when men of science demonstrated the action of a microbe where people before had seen an elegant wasting, a poetical fever, a sort of sacred disease—the most literary of all diseases Marcelle Tinayre calls it. All this was changed when the consumptive was branded as the subject of tuberculosis. The pure-hearted betrothed no longer wanders under the willows, among the ruins and waterfalls, and she tells the pale young man to go off and undergo the air treatment and overfeeding. Here the clever lady is somewhat behind the age. Overfeeding, happily, is largely a thing of the past. At any rate, the pale young man would not now be forced to eat a Gargantuan feast of pork chops, fat mutton, and so forth, and if his stomach rebelled and he had to leave the table, he would not be brought back and compelled to finish the disgusting meal. The lady does not promise to wait for her lover, and before he is cured she marries a champion athlete. As for him, he is quite likely to find his affinity in a sanatorium.

In *Wits, Beaux, and Beauties of the Georgian Era*, Mr. John Fyvie tells the following story: A certain pompous physician once confided to Foote that he had written a number of poems which he had a great mind to publish, but had so many irons in the fire that he really did not know what to do. "Take my advice, doctor," was the reply, "and put your poems where your irons are."

British Medical Journal.

SATURDAY, MAY 21ST, 1910.

THE PSYCHOLOGY OF THE CONSUMPTIVE.

THAT the mind influences the body is now a matter of familiar knowledge; and that the body influences the mental state is within the experience of every one. The whole purpose of asceticism was to subdue, and if possible kill, the natural healthy instincts of the flesh. St. Francis of Assisi, when nigh his death, came to see that he had been too hard on his body, which he called "Brother Ass." The Turkish lady quoted by Boswell as having expressed the opinion that happiness depended on the manner in which our blood circulates, had a truer insight into the facts of life than the biographer of Johnson, who solemnly condemns the utterance. Yet Bozzy himself had a large experience of the mental depression and remorse which sit waiting for the awakening of a sleeper who has gone to bed drunk. The effects of indigestion on the mind are familiar to most of us. Sydney Smith, who expressed his conviction that "the apothecary is of more importance than Seneca," described them with characteristic humour. The passage is well known, but will bear repetition: "Half the unhappiness in the world proceeds from little stoppages, from a duct choked up, from food pressing in the wrong place, from a vext duodenum, or an agitated pylorus. The deception, as practised upon human creatures, is curious and entertaining. My friend sups late; he eats some strong soup, then a lobster, then some tart, and he dilutes these esculent varieties with wine. The next day I call upon him. He is going to sell his house in London, and to retire into the country. He is alarmed for his eldest daughter's health. His expenses are hourly increasing, and nothing but a timely retreat can save him from ruin. All this is the lobster; and when over-excited Nature has had time to manage this testaceous encumbrance, the daughter recovers, the finances are in good order, and every rural idea effectually excluded from the mind. In the same manner old friendships are destroyed by toasted cheese, and hard salted meat has led to suicide. Unpleasant feelings of the body produce correspondent sensations in the mind, and a great scene of wretchedness is sketched out by a morsel of indigestible and misguided food. Of such infinite consequence to happiness is it to study the body!" Gout must be held answerable for many of the atrocities perpetrated by men invested with absolute power. Experienced doctors can read in the face of a patient the expression of the melancholy engendered by a disordered liver. We all know the peculiar irritability caused by disease about the lower end of the intestinal tract. It may be that every functional disorder or organic lesion of a particular part has a corresponding mental condition; in other words, every disease may have its peculiar psychological coefficient. Could this be accurately determined, the knowledge thus possessed by the doctor would be a most useful help in diagnosis and a potent addition to our means of combating disease.

In a recent issue of the New York *Medical Record*, Dr. Maurice Fishberg has discussed the psychology of the consumptive. He holds that, excluding nervous disorders, there is no chronic organic disease in which the psychical control of the patient is a more essential condition of successful treatment. He says he has seen many cases of tuberculosis on the down grade in which improvement—indicated by gain of weight, recovery of appetite, and mitigation of cough—followed examination by a new physician, who insisted on going through the whole ritual of physical examination in its minutest details, using the *x* rays, the ophthalmic or cutaneous tuberculin test, and examining the sputum and urine in the presence of the patient, but making no change in the treatment. The same directions that had already been given without benefit were repeated but in different words. Dr. Fishberg adds that many consumptives had undoubtedly been benefited by the different kinds of "mind cures" even of the "absent" variety. Physicians, both ancient and modern—among them being such men as Boerhaave, Auenbrugger, Laënnec, and Trousseau—have recognized the psychical factor in the treatment of disease. Dr. Fishberg thinks that the modern materialistic conception of the life and functions of the human body, engendered by the great discoveries made in the domain of physiology and pathology, have diverted attention from the psychic forces of the average patient. "We carefully study the lesions in the lungs of the consumptive; we are able to determine accurately the extent of invasion of the tubercle bacilli, and we form our final judgement on these objective findings, as well as on observations of the pulse, temperature, loss of weight, etc." But few writers on tuberculosis have taken into consideration the mental state of the patient, though many mention the importance of perfect discipline and the influence exerted by the physician. He points out that the attention of medical practitioners has been called to the relation of the nervous system to tuberculosis by the large number of consumptive lunatics, especially in asylums. Clouston has stated that the death-rate from tuberculosis among the insane is three times that among the sane of the same ages. As far back as 1863 that author made a special study of the relation of insanity to tuberculosis, and he concluded that there was a form of insanity so distinct in mental symptoms and clinically so characteristic of consumption that it might be termed "phthisical insanity." There is much difference of opinion whether insanity predisposes to tuberculosis or tuberculosis to insanity, but it is significant of the close connexion between the two diseases that modern improvements in the hygienic conditions of lunatic asylums have not, as far as we know, materially reduced the mortality from tuberculosis among the inmates.

Another proof of the influence of the nervous factor in pulmonary tuberculosis is the prevalence among consumptives of neurasthenia and hysteria in their various manifestations. But apart from insanity and other definite mental disorders, commencing phthisis finds expression—in many cases before any physical signs are discernible—in changes of character and in an exaggerated tendency to emotional disturbances. Every one who has had much to do with consumptives must have been struck by their selfishness. This often makes the care of them in their homes an almost intolerable burden, and it is a frequent cause of trouble in sanatoriums. More than any class of invalids they are to themselves the centre of the world. They spend their time noting the minutest variations in their symptoms; they can

hardly speak of anything else. They shrink from the slightest sacrifice of their comfort. Their only thought is to cling on to life. There are of course beautiful instances of a wholly different character; but these are exceptions to the general rule.

In close relation to the selfishness of the average consumptive is his amazing optimism. It is not by any means universally true of mankind that "Hope springs eternal in the human breast"; but it is true of the consumptive. He is always getting better and forming plans for the future. The ordinary consumptive would never say, as the famous wit said, referring to the cheering assurances of his physicians, that he was dying of a multitude of favourable symptoms! The optimism characteristic of pulmonary tuberculosis may be the outcome of a judgement disabled by disease. The consumptive finds it hard to believe that he is doomed, and goes from doctor to doctor, and if he has the means, from one health resort to another. He reads the literature on tuberculosis which flourishes with such rank luxuriance in these days, and is the easy prey of every vendor of a new "cure."

Another psychical characteristic frequently noted in consumptives is eroticism, marked sometimes by a sickly sentimentality. An illustration of this is to be seen in the case of Sterne. There is good reason to believe that Byron's charge that the author of the *Sentimental Journey* wept over a dead donkey and allowed his mother to die of starvation is unfounded. But it is certain that Sterne's philanderings with women were in some cases not altogether Platonic; indeed, we have his own confession, expressed with characteristic coarseness in one of his letters, that his desires were for something more sensual than sentiment. The sexual erethism of the consumptive often shows itself in frequent indulgence, with selfish indifference to the feelings or danger of the other party. On the other hand, pietism of a peculiar type is frequently associated with tuberculosis. This does not make the patient less exacting in his demands on all about him.

We have already referred to the effect of the mental factor in speaking of the eagerness with which consumptives fly to quack cures. A curious illustration of the influence of suggestion is quoted by Dr. Fishberg from Albert Mathieu. That physician announced to his patients that a great discovery had been made in the shape of a new serum which positively cured tuberculosis, and he gave it the fine-sounding name "Antiphymose." He selected his patients carefully, examined them minutely, and noted daily the results produced by the treatment, which actually consisted in the injection of a few centimetres of physiological salt solution. The patients were greatly impressed with the new remedy, and the favourable results exceeded all expectations. After a few days' treatment he noted an improvement in the appetite, a diminution in the temperature, cough, expectoration, and night-sweats, and even an improvement in the physical signs. The patients began to gain in weight, ranging from 1,500 grams to 2 and 3 kilograms. As soon as the injections were discontinued, all the old symptoms reappeared.

Rénon accounts for the general uniformity of results in records of cases treated in various ways—especially such as have an element of novelty or mystery about them—by attributing it not to the drug or other mode of treatment, but to the influence of psychotherapy.

It may be well to point out that, even if this explanation be accepted, it leaves untouched the system of strangling the disease in its cradle, which is one of the most striking results of modern scientific research.

ANAPHYLAXIS.

THE term "anaphylaxis" was invented by Richet[1] in 1902 to describe the curious property possessed by certain poisons of increasing instead of diminishing the sensitiveness of the organism to their action (ἀνά, backwards; φύλαξις, protection). The property is really an inverted immunity, and escaped notice for many years after the study of poisons that diminish the sensitiveness of the organism to their action, and evoke immunity on injection or are prophylactic, had made great progress. Richet's work was done with venins derived from the tentacles of certain common sea anemones. He was able to extract from these two venins; one, which he called "thalassin," was a complex crystalline amine, producing intense itching when injected into the dog, and conferring a relative immunity—acting prophylactically—on repeated injection. The other, named "congestin," was an albumin, producing intense congestion of and haemorrhages from the gastro-intestinal mucous membrane on injection, and on repeated injection increasing the sensitiveness of dogs to its action. Thalassin causes congestion of the skin, Congestin congestion of the viscera; and Richet at first regarded the two as an antitoxin and a toxin occurring side by side in the sea anemones. Using a highly toxic congestin extracted from mussels, mytilocongestin, he found that a second injection of it into dogs might find them from five to twenty-five times as sensitive to its action as to the first injection, a typical instance of "anaphylaxis."

To explain this anaphylaxis he supposes that the first injection slowly gives rise to the formation of neither a toxin nor an antitoxin, but of a third substance, which he proposes to call a "toxogenin." The toxogenin exists in the serum, and can be found in quantity there, roughly speaking, between the sixth and the fortieth days after the first injection; after that period anaphylaxis disappears and prophylaxis (or acquired active immunity) takes its place. The toxogenin he believes to exert its anaphylactic action by combining with the small dose of toxin introduced in the second injection, and thereby producing a still more active poison called an "apotoxin." Professor Richet is a teleologist, and holds that anaphylaxis is Nature's method of accelerating the reaction of the organism to the toxins, bacterial or otherwise, particularly when these toxins are administered in small doses. It secures a prompt and vigorous reaction, the rapid production of antitoxins, while the bacterial attack is still feeble, and paves the way for active immunity.

Professor Richet's toxogenin is apparently identical with the "anaphylactin" of certain American pathologists, and is an innocuous substance. Some of it is to be found in the serum, but no doubt much is fixed to the cells—presumably to the cells of the nervous system. There is naturally great variation in the ease with which different toxins produce anaphylactic phenomena not only in different kinds of animals, but also in different animals of the same species. Thus, cocaine probably occasions anaphylaxis in rabbits, but not in the guinea-pig; apomorphine in some dogs, but not in others. The relation of the toxogenin

[1] *Physiologie.* Travaux du laboratoire de M. Charles Richet. T. vi. Anaphylaxie, alimentation, toxicologie. Paris: F. Alcan. 1909. (8vo, pp. 514, with numerous figures and diagrams.)

produced by the first toxin injection to the antitoxin that gradually replaces it, and is found alone some three or four months later, is at present quite obscure.

So far Professor Richet, who has had the advantages of working with toxins easily prepared in large quantities, and of using the lower animals for his experiments. Few of the many other writers and workers on anaphylaxis have been so fortunate and successful in their results and in the explanations they have to offer. Friedberger explains it as an albumin-antialbumin reaction taking place *in vivo*; Hartoch believes it to be a precipitin reaction, and connects it with deviation of complement; terms such as "anti-anaphylaxis," which, as has been elsewhere remarked, no fellow can be expected to understand, have been freely invented and used. The names of distinguished men of science have been introduced into the question. Thus the "Theobald Smith phenomenon" is the name given by Otto (1906) to the hypersensitiveness to horse-serum shown by guinea-pigs that have already been used for the titration of antidiphtherial serum. Arthus (1903) was the first to record anaphylaxis for serum, and accordingly Marfan has described the very threatening pseudo-phlegmon that sometimes appears within a few hours at the site of the injection of serum into the human subject as the "phenomenon of Arthus." The unnecessary multiplication of new terms that characterizes modern scientific progress has been actively carried on in anaphylaxis, and Richet's "toxogenin," in which he recognizes Gay and Southard's "anaphylactin," has already been also described as "sensibilisin" by Besredka, "lysin" by Nicolle, "zymogen" by Vaughan and Wheeler, "antibody" by von Pirquet and Schick, "anaphylactic antibody" by Weil-Hallé.

In the lower animals anaphylaxis exhibits itself usually in the form of severe and sudden phenomena; death may occur within a few moments of a minute second injection of serum in a perfectly healthy animal, or may be postponed for some hours or days. In man, sudden death following very soon after a serum injection is by no means unknown, and has in several instances been attributed to anaphylaxis. Certain experimenters, however, argue strongly against this view. Weil-Hallé and Lemaire, for example, go so far as to state that the deaths attributed to antidiphtheritic serum-therapy will not stand criticism, and that serum-anaphylaxis in man gives rise to transient phenomena only, and never to dangerous or permanent consequences. They argue that the only anaphylactic phenomena observed in man are skin eruptions, pains, malaise, slight fever, or local reactions; and point out that the best way of avoiding them is to give large injections of antiserum, rather than small ones, whenever it is necessary to give second or later injections during the period when anaphylactic manifestations are to be expected. It is clear, therefore, that some uncertainty still attaches to the exact scope of anaphylaxis in human beings. Rapid or sudden death after a serum injection may undoubtedly occur in both man and the lower animals, and it is perhaps not unreasonable to assume that the mechanism whereby this death is brought about is the same in the one case as in the other. Be this as it may, however, it is at any rate satisfactory to find that the mass of theory that surrounds the subject of anaphylaxis has given birth to some important practical advice as regards serum treatment. And that is, that after a patient has received one serum injection, any second injection should be made with caution and should be massive rather than small; anaphylaxis first shows itself ten or fifteen days after the first serum injection, but may be elicited after that by any injection given later, and may persist for at any rate as long as nine years in specially sensitive patients.

THE PELLAGRA FIELD COMMISSION.

A TELEGRAM, dated May 13th, from Dr. Sambon, now in Italy in charge of the Pellagra Field Commission, conveyed the information that "the Commission has definitely proved that maize is not the cause of pellagra; the parasitic conveyer is the *Simulium reptans*." The information contained in the telegram is satisfactory so far as it goes, but we are without information as to the proofs, which no doubt will be forthcoming. The maize theory has been so long an accepted belief that if Dr. Sambon has done nothing more than direct attention to other possible causes of pellagra only good can come of it. Dr. Sambon in his investigations states that the *Simulium* is found wherever pellagra prevails, but whether the connexion between the disease and this fly has been shown either experimentally or bacteriologically we are not yet in a position to state. Captain Siler, United States Army, who accompanied Dr. Sambon in the early part of the work of the Pellagra Field Commission, delivered an address before the Committee in London on May 11th, 1910. He bore eloquent testimony to the arduous work done in Italy by the Field Commission, and strongly urged the continuance of the investigation on the lines which were forecast by Dr. Sambon before he left England. The Committee hopes to be in a position to carry out Captain Siler's suggestion. The investigation is at present being carried out on purely epidemiological lines, a plan of campaign which requires investigation over a wide field of infection, involving much travelling, interviewing, inquiry, and sifting of evidence. This can be accomplished only by expenditure of money on a liberal scale, and as the funds at the immediate disposal of the Committee are wellnigh exhausted, it is to be hoped that an inquiry so promisingly begun and so zealously pursued will not be called to a halt for lack of a few hundred pounds.

INTERNATIONAL HYGIENE EXHIBITION, DRESDEN, 1911.

A MEETING of hygienists, as announced in the BRITISH MEDICAL JOURNAL of April 30th, was held at the Hotel Cecil on Thursday afternoon, May 5th. Sir William B. Leishman was voted to the chair. In the course of his opening remarks the Chairman stated that since the preliminary meeting the preparations had been proceeding, and he found that the organization promised to be still more extensive than he had thought. He dwelt on the general arrangements which were being made, and then called upon the Secretary, Mr. H. W. Armit, to report on the actions which he had taken since the first meeting. Mr. Armit briefly related that negotiations with H.M. Government had now reached a stage when the support of the Board of Trade had been promised and the Governments of the self-governing Dominions and India were being addressed with the view of participating in the exhibition. He then read a list of names of ladies and gentlemen who had been invited to attend the meeting and of societies which were being approached to nominate delegates to serve on the British National Committee. The lists for the colonies were not yet complete, but he was in communication with prominent colonials for the purpose of selecting

persons who would adequately represent colonial hygiene. It was then proposed by Dr. Edridge-Green that the ladies and gentlemen whose names were on the lists be elected *en masse* to the British National Committee, and that the Committee have the power of co-option. This was passed *nem. con.* The Secretary then read a second list of experts in each branch in hygiene, classified according to the groups of the exhibition. This list was intended for the purpose of forming an executive committee. The Secretary explained that he thought that it would be possible to avoid many meetings of the committee by having it large and representative, and by asking the members to allow him to consult them at their homes or institutions on matters requiring expert advice. The action taken in response to this advice or the suggestions put forward could then be submitted to the other members of the committee through the post, and time and trouble could thus be saved. After a few additional names had been added, the Executive Committee was elected with power of co-option, the co-opted members to become *ipso facto* members of the National Committee. The number of members on the National Committee was 271 and on the Executive Committee 121. Among the names of the National Committee the following may be mentioned: The Countess of Warwick, the Presidents of the Royal College of Physicians of London, of the Royal College of Surgeons of England, of the Royal College of Physicians of Edinburgh, of the Royal College of Surgeons of Edinburgh, of the Faculty of Physicians and Surgeons of Glasgow, of the Royal College of Physicians of Ireland, of the Royal Society of Medicine, of the Chemical Society, and of St. John Ambulance; Sir W. Church, Sir Lauder Brunton, Sir William Collins (Vice-Chancellor of the University of London), Dr. Kenyon (the Chief Librarian of the British Museum), Sir Walter Goschen (His Majesty's Ambassador in Berlin), Dr. Whitelegge, Dr. Newman and Dr. Newsholme of the Home Office (Board of Education and Local Government Board respectively), Sir W. Leishman, Sir Patrick Manson, Sir Shirley Murphy, Professor Osler, Surgeon-General Pollock, Director-General Porter, Sir R. Douglas Powell, Sir H. Roscoe, Sir E. Thorpe, and Sir W. Thompson. The Secretary was instructed to approach H.R.H. Princess Christian, who had intimated that she would require to have the list of the Committee submitted to her before she agreed to join it, to ask her to act as Patroness. He was further instructed to approach a certain number of prominent patrons of science with the view of one of them accepting the post of president, and others, including Sir Alfred Keogh, Sir William Treloar, and the presidents of the various colleges of surgeons and physicians, for the vice-presidents. The meeting terminated after a hearty vote of thanks had been passed to the Chairman.

THE MEDICAL PROFESSION IN SOUTH AFRICA.

IN view of the position of the medical profession in South Africa, to which we have drawn attention on several recent occasions, it is satisfactory to be able to note that an attempt is being made to lay the foundation of a better state of things before the four South African colonies fuse into one. Certain resolutions which have been under the consideration of branches of the British Medical Association and other medical bodies in different parts of South Africa should, if it prove possible to get their principles established by law, secure a much better form of machinery for the treatment of medical questions in the future Commonwealth than at present exists in any one of its component states. These resolutions, four in number, emanated originally from the Transvaal Medical Society, and a propaganda in favour of the principles underlying them is being actively carried on by Sir Kendal Franks and others. The first two propose that a minister holding a portfolio of public health, either alone or together with some other portfolio such as that of education, should be one of the responsible ministers of the Crown under the central Government of United South Africa, and that a principal medical officer of health for South Africa should be appointed, and, under the responsible minister, be the administrative head of the department thus established. The other two resolutions propose that on questions other than those referring to the public health the Government should be under an obligation to consult the President of the General Medical Council, and that when provincial governments have under their control hospitals and similar institutions their establishment, maintenance, and management should be entrusted to a board which includes an adequate number of medical men. The disposition to regard these resolutions with high approval seems general in all medical quarters, the only differences of opinion relating to minor points, such as what questions precisely should be dealt with by the Government in consultation with the President of the General Medical Council, and whether it would not be better that there should be two responsible administrative officers under the Minister of Public Health—one charged with matters relating to the public health pure and simple, and the other with those of a general professional kind. Arrangements have also been made for the holding of a conference between the existing medical councils of each of the four colonies, in order that they may be ready to put forward jointly suggestions as to the constitution, duties, and powers of the General Medical Council for the Commonwealth; the opinion is generally and strongly held that such Council should mainly be composed of elected members, and that in any case an elected member, and not a Government nominee, should be at its head. Things, therefore, are moving satisfactorily so far; but it has to be remembered, of course, that even should the medical profession get its own way in all the directions indicated, something further will be required to secure against attack the dignity and prosperity of its rank and file. Unless they have some such organization as the British Medical Association at their back, individual medical men must always be comparatively helpless when dealing with either public or private employers of labour on a large scale.

THE "ANTIVACCINATION GERM KILLER."

MISS BEATRICE E. KIDD (Secretary British Union for Abolition of Vivisection, 32, Charing Cross, S.W.) writes with reference to an article which appeared under this title in the JOURNAL of May 14th: "Why the above title should be given to a remedy, whether real or 'quack,' merely because its proprietors selected the *Vaccination Inquirer* as an advertising medium is hardly apparent to those not guided by prejudice. According to this argument, Holloway's Pills might be called a 'Liberal Remedy' and Mother Seigel's Syrup a 'Tory Nostrum' indiscriminately. But I notice that because the advertisers made use of certain statistics investigated or compiled by Dr. Hadwen, you take the opportunity of associating his name with a quack remedy. Dr. Hadwen being abroad, I trust you will allow me to write for him in order to point out to you that if his statistics showed that 'the cases coming under the Crimson Cross ointment treatment during the Gloucester epidemic showed a lower mortality-rate than those

therwise treated,' that fact does not make him esponsible for the suggestion that the ointment as all that its inventor claimed, but only or the proof that other treatments were worse." Ve think Miss Kidd would have been spared this utburst of resentment if she had taken the trouble o read the article in question a little more carefully nd had secured a copy of the advertisement to which he refers. The first point in her criticism is vitiated y absurd fallacy, owing to an altogether erroneous ssumption on her part that the title to which she akes exception was given "merely because" the proietors selected the *Vaccination Inquirer* as an dvertising medium. It was not the medium selected, ut the advertisement itself, which suggested a title he appropriateness of which should be apparent to ny one not blinded by prejudice who had read the aragraph along with the "documented" article in nother part of the JOURNAL. A remedy advertised s a simple solution of the vaccination question, which laims to be a germ-killer, curing and preventing mall-pox, and with statements said to have been nvestigated and compiled by the President of the ntivaccination League and one of the most proounced medical antivaccinists of the day, might urely be called "The Antivaccination Germ Killer" ithout wounding Miss Kidd's susceptible feelings, nless she fears there is some inhumanity in the killing rocess. Incidentally we may point out to Miss Kidd that Holloway's Pills, if advertised as a simple solution of he Veto question, might properly be called a "Liberal Remedy" or a "Tory Nostrum," according to which olitical party puffed them. The other item of Miss Kidd's criticism refers to Dr. Hadwen, whose name ppears in the advertisement and in our comment. If Miss Kidd objects to Dr. Hadwen's name being assoiated with what she calls a quack remedy she must emonstrate with him, and not with us, for the assoiation had continued long before it was mentioned in he JOURNAL. We may further point out to Miss Kidd hat the suggestion of making Dr. Hadwen responsible or all the "inventor claimed" is hers and not ours. Whether self-constituted or authorized to act as Portia or Dr. Hadwen, the advocacy of Miss Kidd is remarkbly feeble. Even Dr. Hadwen must feel that the uality of her mercy is a trifle strained. Her letter completely misses its aim, and does nothing to extricate Dr. Hadwen from the position in which he is placed by the association of his name with a quack remedy in a prominent advertisement repeated over a considerable period of time.

SHIP SURGEONS.

THERE has reached us from far-away Australia a cutting from a February issue of a London newspaper, sent on with a request that attention may be drawn to the inaccuracy of a statement therein relating to ship surgeons. This is to the effect that most steamship lines pay their medical officers so generously that unless the services rendered have been of quite an exceptional character there is no reason why any passenger should acknowledge them by the tendering of a cheque. The generosity of the pay is, of course, a delusion. It varies between £6 and £10 a month, the latter rate being practically restricted to one or two of the very best lines. In either case the pay hardly does much more than cover the incidental expenses of a voyage, for these in the case of a medical officer commonly mount up in a most unexpected way. Besides supplying himself with uniforms and making additions to the medical and surgical outfit of the ship of things he may consider necessary, but which are not on the list officially approved, he is often involved in a good deal of expenditure in connexion with unavoidable shore-going expeditions, has to pay wine and washing bills, and finally bestow sundry tips, notably on the "boy" told off to assist him in his work and look after him personally. However abstemious a medical officer may be, his wine bill almost inevitably rises quickly if he is a popular man on board, while washing bills on ships whose captains pride themselves on the turn-out of their officers sometimes reach a surprising amount. Nor is there anything in the nature of a sinecure about his post. He always has a certain amount of professional work to perform daily, while should there be any case of serious illness or accident on board, or an outbreak of infectious disease, the capabilities of the ablest man may be tested to the utmost. There is also a social side to the ship surgeon's work. He is expected to take the head of a table, get up games and amusements, pay special attention to passengers who might otherwise feel neglected, and generally understudy the captain in the character of host. The work, in short, calls equally for medical and surgical knowledge, social ability, and endless tact, for the medical officer has to contrive to please everybody, from the captain downwards, and this is not always readily compatible with fulfilment of professional duty. On the whole, therefore, the pay can never be considered generous, while there is a multiplicity of passenger vessels which never make even a pretence at payment. They depend on the gratuitous services of medical men who hope to cover their expenses by fees tendered them. It is an expectation that is usually falsified; for a considerable proportion even of saloon passengers do not apparently feel under any obligation to remunerate the surgeon, however much trouble they may have given him. The sea has an immense attraction for many men, and but for this fact it would be impossible for steamship companies to secure medical officers on the terms named. As things are, they have to make their choice between those who like a roving life and, having a certain amount of private means at their back, are indifferent to financial results, newly qualified men, and practitioners who, either from weakly health or other causes, are unable to settle down on shore. Their choice would probably be wider if it were frankly recognized that free medical attendance is not one of the advantages proffered by steamship companies in return for passage money paid, and if the managers of companies, instead of merely allowing their medical officers to receive fees when offered, authorized them to make a charge to any first and second class passengers requiring their attendance, according to an approved scale.

LABORATORY RESEARCH BY WOMEN.

WE learn from *Science* that the Naples Table Association for Promoting Laboratory Research by Women announces the offer of a fifth prize of £200 for the best thesis written by a woman, on a scientific subject embodying new observations and new conclusions based on an independent laboratory research in biological, chemical, or physical science. The theses offered in competition are to be presented to the executive committee of the association, and must be in the hands of Mrs. Ellen H. Richards, Massachusetts Institute of Technology, Boston, Mass., before February 25th, 1911. The papers will be judged by a board of examiners, or by such specialists as they may choose. The board of examiners consists of Dr. William H. Howell, Dr. Theodore W. Richards, and Dr. Albert A. Michelson. The first prize was awarded to Florence Sabin, B.S.Smith, 1893.

M.D.Johns Hopkins University, 1900, for a thesis on the Origin of the Lymphatic System. The second prize was awarded to Nettie M. Stevens, B.A., M.A., Leland Stanford University, 1899, 1900, Ph.D., Bryn Mawr, 1903, for a thesis on a Study of the Germ Cells of *Aphis rosea* and of *Aphis oenotherae*. The third prize was awarded to Florence Buchanan, D.Sc., Fellow of University College, London, for a thesis on the Time taken in the Transmission of Reflex Impulses in the Spinal Cord of the Frog.

SIMULATION OF TUMOURS BY MEANS OF PARAFFIN INJECTIONS.

PARAFFIN, as is well known, has been used with success by surgeons to disguise deformities of the nose, and we believe it is employed by some beauty specialists to obliterate wrinkles. It is not surprising, therefore, to hear that it has been employed by some ingenious persons to produce swellings simulating tumours. In a recent number of the *Annales d'Hygiène* we find reports of two cases by a Russian doctor, M. Violine. In one, a young soldier complaining of varicose veins on the left leg, was admitted to the military hospital at Smolensko, where there were discovered not varicose veins but large tumours of cartilage-like consistence situated under the skin and in the soft parts of the leg. Two of these tumours were so large as to interfere with the wearing of boots. An ossifying myositis was diagnosed, and the man was invalided. Soon afterwards there came to the hospital a new recruit with similar lesions. The coincidence excited suspicion, and the patient was placed under observation. Under the integument and the soft parts of the right leg were seven tumours, two of which as large as a hen's egg, occupied the outer surface of the leg, three were at the level of the ham, and two smaller and flattened ones were situated on the inner side. These tumours, which were of cartilaginous hardness, could be moved with the skin, and to a certain extent were movable in the underlying parts. They were painless even on strong pressure, but by this means it was found that the tumours changed in shape, as if they were made of wax or paraffin, and that they kept the changes so produced after pressure had ceased. It was suspected that they were artificial tumours caused by the subcutaneous injections of vaseline. When it was proposed to excise one of them for examination the soldier refused to submit to the procedure. The following method was then adopted to verify the diagnosis: A flat zinc pan, used for making applications to the abdomen, having been filled with hot water, it was placed successively on each of the tumours, each of which after a very few minutes changed completely in shape and remained very much flattened. These two cases are by no means isolated. Other authors, among whom may be mentioned Goldenburg, Kustner, and Raptchevski, have reported cases of tumours produced by paraffin, some of which simulated elephantiasis of the scrotum or large exostoses of the upper limb.

MEDICAL PRACTITIONERS ABROAD.

MOST of our readers have probably had more or less practical reason for recognizing that the agents of the Inland Revenue Department are exhibiting this year something more even than their wonted energy in the matter of income tax requisitions. In a general way it is a circumstance to which none of us will be disposed to object, since the more faithfully income tax laws are put into force, the wider is the incidence of the tax, the greater the total collected, and the better the chance of the poundage claimed in future years being reduced to something more like peace-time proportions. Indeed, from this point of view it has sometimes seemed to us in former years that the collector might well have been less pressing in their attention to those who sooner or later in the year must inevitably make returns, and devoted more energy to hunting out those who commonly escape entry in collectors' books at all. There are, for instance, thousands of permanent residents in hotels, boarding houses, and private apartments who are never worried by a demand for a return at all; still more important there are hundreds of comparatively wealthy men who, living in rooms and having no other permanent address than some club, escape payment of all income tax other than that deducted by distributors of dividends. This year, however, the net seems to be being cast more widely, and is entangling in its meshes—at all events, in isolated instances—a certain number of medical men who practise abroad and merely visit London for purposes of relaxation. Such of them as have a known address in this country are, it appears, being directed to hand in forthwith a full account of their income and of the source from which it is derived. It is, of course, right that these medical men should pay income tax on any property they possess in this country, as also, like other folks, on dividends received by them from companies having their head quarters therein; and possibly it is just that if they have a domicile in England at all they should pay income tax on sums acquired abroad. But that is a very different matter from subjecting them to the same form of inquisition as that to which medical men who practise in this country unfortunately have to submit. It is one of the most searching character, and in some instances surveyors express themselves as not satisfied with the particulars supplied and demand to see books themselves. The point thus raised is one of some degree of novelty, and the principle underlying it can apply to very few persons outside the medical profession. Indeed, what that principle is would seem to be somewhat a moot point, nor do we know that it is held to be inherent in the income tax laws by the surveyors of more than one district. With a number of examples before us, each furnishing an exact statement of the individual's professional position, the extent to which he resides in England, and the arrangements he makes as to quarters in this country it might be possible to ascertain whether the principle is upheld by the Imperial authorities and in what circumstances its application could successfully be resisted. We should be glad, therefore, to hear from any medical man interested.

AMERICAN SOCIETY OF TROPICAL MEDICINE.

THE seventh annual meeting of the American Society of Tropical Medicine will be held at the Medical School of the St. Louis University, St. Louis, Missouri, on Saturday, June 11th, 1910, under the Presidency of Colonel W. C. Gorgas. Amongst the subjects proposed for discussion are the following: Uncinariasis (Dr. Charles Wardell Stiles, Washington); the prevalence of hookworm (Dr. C. C. Bass and Dr. John C. Gage, New Orleans); a study of the type of infantilism in hookworm disease (Dr. Isaac Ivan Lemann, New Orleans); a comparative biological study of the amoebas cultivated from liver abscesses of man (Dr. M. Couret, New Orleans); the ipeca treatment of intestinal amebiasis (Dr. Walter Brem, Cristobal); pellagra (Dr. C. C. Bass, New Orleans); the cultivation of the *Bacillus leprae* upon artificial media (Dr. C. W. Duval, New Orleans); *Strongyloides intestinalis* with larvae in the sputum (Dr. John G. Gage, New Orleans); a summary of cases of malaria and of cases suspected to be malar-

xamined in the past three years (Dr. John M. Swan, Watkins, N.Y.). The following papers will be read by tle: Has the American occupation of the Philippines emonstrated that the tropics is a suitable place of sidence for the white man? by Dr. Victor G. Heiser, anila; the campaign against yellow fever in the exican Republic, by Dr. Edouardo Liceaga, Mexico ity.

THE DIAGNOSIS OF TRACHOMA IN EMIGRANTS.

THOSE whose function it is to examine immigrants nd emigrants and to decide from simple inspection whether or no trachoma be present have, indeed, an nenviable task. Increased experience, so far from endering the problem simpler, only introduces fresh omplications. Dr. J. Sandos Fernandez, of Havana, ade this question the subject of a paper which he ead to the Medical Congress of Rio de Janeiro, and hich is translated in the *Recueil d'Ophtalmologie* or September, 1909. Every ophthalmic surgeon who as had much experience of trachoma will agree with he author in his conclusion, that in many cases it is uite impossible by simple inspection to say that a an is or is not suffering from trachoma. In all arked examples the diagnosis is easy, more especially hen the changes in the lids are associated with annus. The author does not mention the presence f the so-called sago bodies, or rice grains, as of iagnostic import, although many surgeons, especially erman surgeons, state that trachoma does not exist ithout them (*Kein Trachom ohne Körnchen*). Experince in the East, however, teaches that very many ell-marked and obvious cases of papillary trachoma o not show these bodies. Papillary hypertrophy is ound in lids which have been exposed to the weather, ith infection with diplobacilli, and in many other nflammations. Doubtful cases should be kept under bservation, and the result of treatment noticed. The nicroscope does not afford much help. Holberstüdter nd Prowazek, and later Graefe, have described cell nclusions which are almost certainly typical of rachoma, but at present the technical details are too omplicated to render their detection of diagnostic alue. Histological methods show no changes ufficiently characteristic to warrant a differential iagnosis. The conclusion is that there is a large umber of borderland cases in which a definite iagnosis of trachoma cannot be made with any degree f certainty. Such patients should be kept under bservation, and the result of treatment watched.

THE EFFECT OF MERCURY ON THE SERUM REACTION OF SYPHILIS.

THE value of the Wassermann-Bruck-Neisser reaction n the diagnosis of syphilis is becoming generally ecognized, and the serum of patients is being subjected to the test extensively. Uniform results are not always obtained by the various investigators, owing, in all probability, to the modifications of the original method which have been introduced. That this is the case is clearly shown by the varying percentages of positive reactions which have been met with in the various stages of the disease. But even if one definite method were universally adopted and all investigators were to utilize exactly the same technique, the reaction could not be regarded as one which is simple to interpret. The large majority of cases of syphilis yield a positive reaction, just as the large majority of persons who are free from syphilis give a negative reaction. The exceptional positive reactions when no syphilis exists need not detract from the real value of the reaction, since a certain number of conditions are now recognized in which a positive reaction may be met with, such as scarlatina, yaws, etc., and the investigator and the clinician will not readily fall into error in such cases. Negative reactions in doubtful cases require much more careful consideration, and in this case no definite cut and dried formula can be set up. Experience must be relied upon to determine whether a person who is known to have suffered from syphilis years before is free from the disease when the reaction proves negative. A much more awkward limitation to the test is produced by the transformation of a positive into a negative reaction by treatment with mercury. If this transformation were synchronous with cure, the test would gain considerably in value, but this does not appear to be the case. Citron registered the fact of the transformation without deciding whether the metal itself in some combination interfered with the reaction, or whether it interfered with the production of that substance which causes the complement in the serum to be deviated. In view of the practical importance of a sound theoretical knowledge on this subject, Dr. August Brauer has investigated this problem in Professor Klingmüller's clinic in Kiel.[1] After considering previous work on this subject, he comes to the conclusion that there are three possible explanations of the action of the specific treatment in syphilis. In the first place, the mercury could render the serum haemolytic; in the second, it could destroy or paralyse the substance in the serum which deviates the complement; and in the third place, it could act directly on the production of the substance which deviates complement, or even on the virus itself. It was easy to exclude the first explanation. More difficulty was met with in deciding between the two remaining. His investigations showed that a positive reaction may be met with in a patient who is excreting mercury extensively, while a negative reaction was met with in other cases in which there was little or no excretion of mercury. Again, he found cases in which a negative reaction became positive in spite of the presence of considerable quantities of mercury in the blood. He even found that the serum of a patient which was previously able to yield a positive reaction gave a negative reaction as a result of mercury treatment, and subsequently gave a positive reaction in spite of the persistence of mercury in the system. He then attempted to decide the action of the particular combination of mercury in the serum on the deviating substance. This experiment, however, does not appear to us to be convincing. He added one volume of the mercury containing serum which had been found not to deviate complement to one volume of a deviating serum which was free from mercury, and then tested the deviating power. As the power was not ascertainably altered, he concluded that the mercury in this particular combination was incapable of acting on the substance which causes the deviation. But it must be pointed out that if an action on the part of the mercury in destroying or chemically altering the substance which causes the deflection of the complement existed at all, this action would only be likely to be exerted when the active free mercury ions are claimed by the protein of the serum and thus converted into complex ions. After the chemical reaction is complete no further effect on the deviating substance would be probable. However this may be, it appears that there is argument in support of Dr. Brauer's contention that the mercury does not act directly on the deviating substance. He points

[1] *Muench. med. Woch.*, April 26th, 1910.

out that clinical experience shows that the reaction does not always become negative under the influence of thorough mercurial treatment, and, in fact, that the effect of treatment on the reaction varies widely. He was further able to show that the mercury content of the organism does not stand in any direct relationship to the reaction. He therefore deduces that mercury attacks the virus itself and not the substance which deviates complement, and that the effect on the reaction is at best an indirect one. If this be true, the ultimate effect must be that of removing this power of deviating if mercury can kill the *Spirochaeta pallida*. So long as any of the virus is still resisting the action of the parasiticide, so long is there a possibility of a renewed appearance of deviating substance; but once the last of the race has been dealt with, the reaction must become permanently negative. Time must show whether this is so.

THE SCHOOL NURSE'S LOT.

JUDGING from an account of a recent meeting of the Devon Education Committee in the *Western Morning News*, there is room for further beneficent labour on the part of a certain poet of musical and magisterial fame, still living. In some beautiful lines familiar to most of us he called attention to the unhappiness of the policeman's lot, and by diagnosing the causes thereof did something towards alleviating it. Those for whom we invite further exercise of his skill are school nurses, and more especially one in the neighbourhood of Paignton. We are so far able to assist him as to point out that one of the principal duties of a school nurse is to deal with lice-infested heads, and this in certain cases entails paying visits to the houses of pupils. Even though such visits, like those of angels, are few and far between, there is a tendency to confusion between accepted methods of dealing with guests; unless accompanied by a policeman, the Devon county nurse sometimes finds herself sped on her arrival instead of her departure, and this makes the performance of her duties difficult. In addition, some of her more ardent admirers send her billets-doux, of which the following sample was read at the meeting in question: "I now write you these few lines to let you know I am capable of keeping my own children's heads clean without your help. I have had six children go to school, and never had no complaint before for this last thirty years, and if there is any more of your impudence I shall see further into it." Another correspondent, a man, wrote promising to comb the nurse's hair if he got hold of her, a particularly generous offer, as he simultaneously declined a corresponding service on her part towards his own children. A third but less forward correspondent contented himself with writing a letter on the subject of the nurse's visits to a teacher at one of the schools with which she was connected: "I shall certainly object to any examination of my children to encourage such a waste of public money. In my opinion, better by far the doctor examined the mental faculties of the promoters of this scheme or provide furnished apartments for them at the Devon and Exeter Asylum. I hope you will be good enough to forward this to the authorities responsible for such tomfoolery."

A COMMITTEE for the study and prevention of cancer has been formed in Switzerland under the presidency of Professor Tavel, of Berne. The committee is affiliated to the International Cancer Research Committee, on which it will be represented by two members.

IT is stated that Professor Max Verworn of Göttingen has been called to Bonn as successor to Pflüger in the Chair of Physiology.

IN the note on our present Gracious Sovereign King George V published in the BRITISH MEDICAL JOURNAL of May 14th, it should have been stated, in referring to his interest in the medical profession and the honour he has always been ready to show it, that he is an Honorary Fellow of the Royal College of Surgeons of England, having been elected on February 11th, 1909.

IN the procession which accompanied the body of the late King from Buckingham Palace to Westminster Hall on May 17th, places were assigned the following members of the medical department of His Majesty's Household: Three Physicians in Ordinary, Sir Douglas Powell, Sir Francis Laking, and Sir James Reid; two Physicians in Ordinary, Sir Alan Manby and Dr. Bertrand Dawson; the Sergeant Surgeon, Sir Frederick Treves; two Honorary Surgeons, Mr. Godlee and Sir Alfred Fripp; the Surgeon-Oculist, Sir Anderson Critchett. Dr. Spitta, bacteriologist, had a place in the procession. One of the Gentlemen Ushers, Mr. Arnold Royle, C.B., was formerly a medical officer of the army, and was afterwards medical attendant to His Royal Highness the late Duke of Albany. The following members of the medical department of the household of King George V, as Prince of Wales, also had places in the procession: Dr. S. J. Gee and Sir R. W. Burnet, Honorary Physicians; Sir Havelock Charles, Physician in Ordinary; and Mr. H. Mallinson Rigby, Surgeon in Ordinary.

EN AVANT.

(Friday, May 20th, 1910.)

Pass on, O King! to thy reward,
Be thine the gain, as ours the loss;
The empty scabbard, flaming sword
May work for service of the Lord,
Yet wert thou warrior of the Cross
By ways of peace, and that pure path
That shows no blood-stain'd aftermath.

Thy faith in men was Faith of thee,
Their devious coils of meaner mood,
Thy winnowing gifts of courtesy
And understanding charity
Made straight to lines of rectitude;
Too proud to fence by petty wiles,
Thou taught'st the world to win by smiles.

And if upon the viewless Shore
The dreams we dream by faith and creed
Be holiest fact; if human lore
Expand to knowledge evermore
And glimmering light be Light indeed,
Thou wilt not know, O King once ours!
The irony of wasted hours,

Since, where thy human Kingship moved,
Thy sympathy of sane intent
Went out to those whom Christ beloved!
The "stricken field," where helpless roved
The wounded of Time's Covenant,
Thy tireless vision, pitying, saw,
And seeing, pitied by Love's law.

G. H. R. D.

England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

MANCHESTER AND DISTRICT.

MIDWIVES' PROTEST AGAINST THE MIDWIVES ACT AMENDMENT BILL.

THE midwives of the Manchester district last week held a meeting in the Memorial Hall, Manchester, to protest against certain provisions in the Midwives Bill recently introduced in the House of Lords by Viscount Wolverhampton. Mrs. Lawson, President of the National Association of Midwives, presided, and said that if the bill were allowed to pass as it stands it would put back the midwifery profession two centuries. Midwives were already supervised to an alarming extent, and this bill would carry supervision still further. They were told that great difficulties arose in the rural districts, where there was often a shortage of midwives. The fact was that in the rural districts there were often not enough cases to maintain a midwife, and the obvious solution of the difficulty was State aid; but the bill in question made no provision for any State subvention. They had also a grievance against the composition of the Central Midwives Board. The bill proposed to enlarge the board from nine to thirteen members by adding representatives of the Local Government Board, the Association of Municipal Corporations, the Society of Medical Officers of Health, and the British Medical Association. Midwives were supposed to be represented by the Incorporated Midwives Institute, and in future the members appointed by the Midwives Institute and the Royal British Nurses' Association must be certified midwives, but the Midwives Institute was not at all representative of the working midwives of the country, and they had a right to claim direct representatives on a body to whose regulations they had to conform. The bill also proposed an alteration with regard to the fees paid to doctors called in by midwives in cases of emergency. At present in Manchester the fees were paid by the local supervising authority, and the doctor was always sure of obtaining his fee from the Town Hall, but Lord Wolverhampton's bill proposed to make the fee payable by the boards of guardians. In that case the relieving officers would be sent to make inquiries, and she knew something of the methods of relieving officers. Under present arrangements investigations were made with skill and tact, but the relieving officer would have to work differently and would be forced to ask impertinent questions. The midwives would then be blamed for sending for the doctor, which necessitated the visit of the relieving officers. They would in fact be blamed for doing what the law required them to do, and that would affect their employment. Another point was that the new bill made no provision for raising the standard of training of midwives, though the National Association of Midwives desired a higher and better training for midwifery.

One of the speakers said that the bill was a gross insult to the intelligent trained midwife, and it was urged that as no one but a working midwife could know the conditions under which they had to work, they had a right to proper representation. The following resolution was put to the meeting and carried unanimously:

> That this mass meeting of midwives protests against the adoption of a bill which does not give full representation on the supervising authorities and on the Central Midwives Board to working midwives, the persons most concerned in the decisions of these authorities.

Protests have now been made from at least four quarters against the provision of Lord Wolverhampton's bill that boards of guardians should be responsible for medical fees. The evidence of the British Medical Association before the Departmental Committee was in favour of payment by the local supervising authorities. This has since been supported by the Manchester Corporation in its circular to municipal corporations; Mrs. Sidney Webb, representing the National Committee for the Break-up of the Poor Law, is emphatic in condemning the pauperizing tendency of payment by boards of guardians, and now the National Association of Midwives complains that the provision would act injuriously on midwives themselves. Thus practically all the persons most concerned ask that the bill should be amended in this respect.

BIRMINGHAM.

SPECIAL SCHOOLS AND INSTITUTIONS FOR PHYSICALLY AND MENTALLY DEFECTIVE CHILDREN.

IN the report for 1909, showing the work accomplished by the Education Committee, an important account is given of the working of the special schools for physically and mentally defective children. There are 11 special schools, 7 for mentally defective, 2 for physically defective, and 2 for deaf children. The average number of children on the roll during the year was 1029, and of these 743 were mentally defective, 201 physically defective, and 85 deaf. The number of teachers employed was 59, and nurses and attendants 10. Very careful notice is taken of all children approaching the age of 14 years, as periodical examinations are made of these children every six months. As a result, a decision is arrived at in each case as to whether the child may safely be allowed to leave school on actually attaining that age, subject to a satisfactory situation being obtained, or shall continue to attend until the legal age for exemption from a special school is reached—namely, 16 years. Scholars who are nearing the age of 16 years are specially observed, and if it be felt that they are likely to need institutional care and treatment after leaving school the respective boards of guardians in whose areas they reside are notified, and the parents advised to make application with a view to their children being admitted into some suitable colony or institution.

Each year the evidence is becoming clearer that the majority of the mentally defective need lifelong care and control, and that a great number of the cases can only be dealt with satisfactorily in industrial colonies. The statistics of the After-Care Sub-committee show that out of 307 feeble-minded persons who have left school and are still alive, and whose whereabouts are known, only 34.8 per cent. are earning wages at all, and only 5.5 per cent. are earning as much as 10s. per week. The percentage of wage-earners would probably have been considerably lower if the number "lost sight of" could have been included in the figures, as a recent investigation proved that the latter belong to a class that are rarely in remunerative employment. Of 64 deaf persons, 40 are earning wages averaging 11s. 5d. per week, and of 68 cripples, 15 are receiving wages, averaging 4s. 9d. per week. During the year 1909 the number of Birmingham children in residential institutions for the blind was 51 (25 boys and 26 girls); in residential institutions for the deaf, 6 (all boys); in residential institutions for epileptics, 9 (4 boys and 5 girls); and in residential institutions for the mentally defective, 46 (19 boys and 27 girls). These are only a small percentage of those who ought to be under control in a residential institution.

WALES.

CARDIFF CHILDREN.

DR. E. WALFORD, Medical Officer to the Cardiff Education Authority, in his annual report for 1909, reviews at length the hygienic conditions prevalent in the schools, which, he says, are in the newer ones very satisfactory. Proceeding, he says: "Artificial or mechanical ventilation has not been adopted in any of the elementary schools. In many of the older class rooms closed iron stoves, with iron smoke flues passing through the wall or roof, were found. Acting upon my advice, these have nearly been substituted. Such stoves have been found at times quite red hot, and

emitting noxious fumes from the iron of the stove and the fuel used. They in no way assist ventilation, and are at all times liable to foul the air to a dangerous extent." Dr. Walford also states that he has issued instructions to teachers and parents for dealing with infectious diseases, and explains the system adopted for the medical inspection of the children. The examination is conducted in accordance with the schedule prepared by the Board of Education, and no attempt is made at a complete clinical investigation unless the condition of the scholar is such as to indicate the necessity for further examination. As a rule, the examination of each child occupies on the average five minutes, time being saved by the previous entry on the inspection card of the necessary particulars relating to the history of the child. The scholars inspected numbered 12,503, comprising 1,661 boys and 1,314 girls leaving school, 4,599 of both sexes entering school in the infant departments, 4,374 scholars about 7 years of age, 490 who were referred by the teachers and school attendance officers for special examination, 37 mentally defective children, and 28 children attending oral school for deaf children. Eighty per cent. of the boys examined were found to have normal vision, and 53 per cent. of the girls. There is some reason to believe, proceeds Dr. Walford, that the mere medical inspection in itself has resulted in some considerable improvement in the condition of a large number of children. The occasion has been regarded by some parents as one of importance and somewhat in the nature of a "review," and their children have evidently received special care and attention with a view to a creditable appearance on the day of inspection. This has been more marked amongst the girls, and particularly among those about to leave school. This improvement is doubtless in some cases only temporary, but in others it has been continuous, and in such cases it is largely due to the combined efforts of the medical inspectors, school nurses, and teachers. Unsuitable food and want of cleanliness and attention to the teeth seem to be the chief causes of dental caries, a condition which ultimately leads to many cases of serious physical deficiency. Of the infants of both sexes examined 3.40 per cent. were found with more than four decayed teeth. Of the boys entering 55.3 per cent., of the boys leaving 26 per cent., of the girls entering 44.6 per cent., and of the girls leaving 21.3 per cent. had defective teeth. Adenoids and enlarged tonsils and ringworm seemed to be somewhat extensively prevalent, and 68 children suffering from ringworm were excluded from school; 273 cases of scarlet fever were notified, and 103 of diphtheria. Special attention is paid to the defective and epileptic children attending the school at Virgil Street, but Dr. Walford fears that some of the benefits of this special school are lost owing to the difficulty of exercising any supervision over the children after leaving. After-Care Committees have been formed for this purpose, and in his last report Dr. Eichholz, H.M. Inspector of Special Schools, says: "An After-Care Committee is urgently needed for the various schools which train afflicted children in Cardiff. At present there is no agency to help in avoiding the educational loss which is bound to occur at the moment when children leave school and try to find places for themselves. A helping hand at this time will in a great many cases make the difference for many pupils between pauperism on the one hand and a life of self-respect and partial or total independence on the other."

Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

WOMEN STUDENTS' PETITION.

THE Glasgow University Court has received a petition from the women students asking the court to open to them the systematic classes in medicine and surgery as well as the other medical classes at present closed to women, and also desiring the court to assist the women students to gain admittance to the Western Infirmary. They find the distance between the college and the Royal Infirmary a great handicap, preventing them from taking certain classes or compelling them to lose part of their clinical tuition. The court decided to appoint a committee to report on the matter, but it is extremely unlikely that anything will be done in view of the position taken up by the court in reference to the scheme to institute the new professorial chairs at the Royal Infirmary, the systematic tuition of which is to be open to students of either sex.

EDINBURGH POST-GRADUATE VACATION COURSE IN MEDICINE.

The programme for the Edinburgh Post-graduate Vacation Course in Medicine in connexion with the University and Royal Colleges, which will extend from Monday, September 5th, till Friday, September 30th, has just been issued. There will be a general course, with a composite fee of five guineas for the four weeks or three guineas for either the first or second fortnight; a surgical course, limited to twenty-five members, with a composite fee of ten guineas; special classes, the fee for each being one guinea; and a daily lecture on some subject of general medical or surgical interest. Accommodation and board may be obtained in one of the residences of the University Hall, and early intimation should be made to the secretaries, Messrs. Whitson and Methuen, C.A., 21, Rutland Street, Edinburgh. The honorary secretary for the course is Dr. Edwin Bramwell, 24, Walker Street, Edinburgh; and the acting secretary Mr. John Stirton, the University, Edinburgh.

GLASGOW UNIVERSITY COURT AND THE MEDICAL CURRICULUM.

Considerable discussion took place at the meeting of Glasgow University Court on May 12th regarding an ordinance for degrees in medicine of St. Andrews University. Principal Sir Donald MacAlister, who presided, said that they had carefully gone through the ordinance along with the draft ordinance which expressed the general wishes of the conference of the four universities, and he suggested that they should make a formal objection to the words "or diminishing," which, if passed, meant that by an internal regulation the minimum curriculum could be diminished by regulation. This ought not to be done by one university, but only by an ordinance of a general kind. Dr. McVail also raised strong objection to the alternative suggested, of "biology" in place of "botany" and "zoology" in the curriculum; but after prolonged discussion it was agreed, on the motion of the Principal, to give notice of objection to the words "or diminishing," and to leave the biology matter for St. Andrews University to decide for itself. The consideration of the Glasgow draft ordinance submitted by committee was left, after discussion, to an adjourned meeting to be held on May 18th.

GLASGOW WEATHER DURING 1909.

A pamphlet has been prepared by the Superintendent of the Glasgow Corporation Parks containing the meteorological notes compiled from month to month during the year 1909 at Queen's Park, with a general account of the effect of the meteorological conditions on vegetation in and around the city. These prove most interesting reading in view of their bearing upon public health and the atmospheric conditions in large towns. Owing to prevailing easterly winds, heavier rainfall, and severer frosts, together with an absence of bright sunshine, the average temperature was lower than in previous years. The "fog fiend" was frequently experienced, and the fogs of November and December were the worst that have occurred for a long series of years. The effect on plant life in the environs of the city was unusually bad. At best the atmosphere of the city is inimical to plant life, and is not tending to improve. When fog comes in addition it becomes a serious concern to those who have the care of plants. Such reports as appear in this

amphlet should go far to still further impress the itizens in our towns with the necessity of pushing rward the crusade with regard to air purification in ie interest of the health of the community. Human eings cannot be expected to thrive in conditions that rove fatal to plant life and growth.

PHTHISIS NOTIFICATION IN GLASGOW.

Some idea of the difficulties in the way of the radication of tuberculosis in our towns may be ad from the reply given to a question last week a the Town Council of Glasgow. The report for the revious fortnight stated that there were 579 cases of hthisis notified living in their homes, and a question as asked as to the details of the conditions in which hese cases lived. The reply showed that for the eriod from the adoption of notification till March 31st here were 81 patients living in houses of one apartment, the average number of people per house being .78; there were 229 in houses of two apartments, the verage in these cases being 4.27; there were 90 in ouses of three apartments, average 6.14; and 46 in ouses of four apartments and upwards, with an verage of 5 per house. Another inquiry showed hat in Cowcaddens district, which is under the special bservation of the Health Department with a view to emoving the causes, the people in a special area of 3,000 square yards live 550.6 to the acre, but excluding streets, 929.4 per acre, as against the average 3 persons per acre for the whole city; that the nfantile death-rate in this area is 230 per 1,000, as gainst 131 for the city; that diseases of respiratory organs cause a death-rate of 9.5 per 1,000, as gainst 3.5 for the city; and that of the total 443 ouses in the area, 126 are illegal in one or more partments.

PURIFICATION WORKS AT GIFFNOCK, GLASGOW.

The new sewage purification works at Giffnock, near Glasgow, were formally opened on May 7th, and are he first to be designed in Scotland to meet the recommendations of the Royal Commissioners—the sewage o be completely dealt with up to three times the dry veather flow. The works are entirely bacteriological, with septic tanks and bacteria filters of the percolating ype. The septic tank effluents are distributed over the circular filters by means of the Adams hydraulics revolving sprinklers. There will be no chemical or mechanical action as at Glasgow; aërobic and anaërobic bacteria completing the whole process. The only supervision required is the third of a man's time oiling bearings occasionally and cleaning the arms of the sprinklers.

RAG FLOCK AS BEDDING.

Glasgow Corporation at a meeting on May 5th passed a resolution submitted by the Health Committee, expressing satisfaction at the issue of the Blue Book by the Local Government Board of England on rag flock and its use for bedding and upholstering purposes. The resolution also expresses the hope that the Government will give early facilities for the introduction of a short bill providing for the prohibition of the sale to the public of unwashed rag flock for these purposes. The sanitary inspector for Glasgow, Mr. Peter Fyfe, has taken a leading part in bringing to the front the dangers of the use of unwashed rag flock to the public health, and a letter on the subject was submitted by him to the Health Committee when drawing attention to the above mentioned Blue Book.

THE PURIFICATION OF THE RIVER CLYDE.

With the completion of the main drainage scheme of Glasgow, as reported in the JOURNAL of May 7th, the question of the River Clyde purification enters on a new phase. Interest is now centred on the attitude which will be adopted by the burghs of Paisley and Renfrew, which discharge their sewage into the Cart and Pudzeoch tributaries of the Clyde. Paisley Town Council, at the time of the inception of the southern part of the Glasgow scheme, decided not to join in the Glasgow proposals, but to adopt some plan of its own. Since that time, eight or nine years ago, the matter has been practically shelved. The necessity of facing some scheme sooner or later is admitted, but the cost is a serious matter. The idea most favoured is to have intercepting sewers on each side of the river Cart to convey all the sewage to purification works north of the town—that is, between the town and the river Clyde. The cost of this scheme would, it is estimated, add 1s. per £ to the rates, which are already very high. Three years hence some relief will be experienced by the expiration of the 3d. per £ guarantee rate for Cart navigation purposes, and by that time experience of the Glasgow scheme will have been gained. Urgency, so far as public health is concerned, is not admitted by the local authorities; but as Glasgow is also concerned—the Clyde being a tidal river for some miles further up than the junction of the Cart—and has powers of compulsion, the matter will have to be decided probably before that date.

Renfrew is at present considering schemes for the purification of its sewage ere reaching the Clyde via the Pudzeoch; and, as the financial aspect of this question is not so serious, a satisfactory solution is anticipated at no distant date.

VAGRANCY IN SCOTLAND.

An interesting report has just been issued by the Scottish National Society for the Prevention of Cruelty to Children. The report states that there has been a noticeable decrease in the number of cases of mothers found drunk in charge of children, the number of such convictions in Glasgow being now as 1 against 5 formerly. This, the report states, may be attributed to the Children Act, which prohibits persons from taking children into public-houses. The company of children is, no doubt, often the means of preventing women going into public-houses.

The society has now a staff of 42 inspectors stationed at 27 centres of population engaged in looking out and protecting ill-treated and neglected children. The number of cases dealt with during the year was 7,514, involving the welfare of 22,224 children. Cases of ill-treatment and assault numbered only 180 as compared with 6,262 cases of neglect and starvation, and "this appears to indicate that cruelty to children in Scotland arises more from want of thought than want of heart."

Attention has been given to the problems presented by the children of vagrants, tinkers, tramps, and others of the itinerant classes. It was estimated that at the end of November there were 361 families with 913 children then living out of doors, Of these, 109 families lived in vans, 197 in tents, and 55 otherwise, chiefly in sheds, outhouses, and a few in caves. The children whose parents had vans were fairly comfortable, and mostly attended school. Few of the children who lived in tents were found to be getting any education, and their lodgings were often of the most miserable description. The society's inspectors were warning vagrants of their duty to the children, and good results had already followed. To enable the society to keep vagrants under supervision a new system had been adopted of circulating among all the district branches information of the society's dealings with such cases. The system was working well, and promised to be of much value.

The children of the vagrants who are receiving elementary education may under the Children's Act be committed in industrial schools. "This," the report says, "would be a most valuable power in many cases, but we regret to say it is in the meantime rendered inoperative, as no adequate financial provision has been made for the maintenance of such children. It is greatly to be desired that a sufficient Treasury grant be made for these cases, so that children may be saved from a life of vagrancy, and get the industrial training and education of which they stand in so much need."

After referring to the present methods of dealing with offending parents, the report states that there remained "a residue for whom imprisonment had no terrors, and who on release immediately resume their former life and commit similar offences over again."

Such cases point to a lack in our penal system that calls for reforms. There is a consensus of opinion that habitual criminals required prolonged detention in a labour colony under circumstances which would alike be penal and reformative. In no class of cases would such treatment be of more benefit, or is it more urgently needed, than in cases of continued neglect and ill-treatment of children.

Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

OFFICERS' TRAINING CORPS.

AN important step has lately been taken in connexion with student life in Dublin by the establishment at Trinity College and at the Royal College of Surgeons of contingents of the Officers' Training Corps—an organization which it is hoped will provide the nation with a trained and efficient reserve of officers in cases of national emergency. Already 200 men, many of whom are medical students, have been enrolled at Trinity College, and about 70 men at the College of Surgeons. Apart from the national advantage, it seems likely that the individual gain to medical students who become members of the corps will be considerable. Many students now feel themselves debarred from taking an active part in athletic games during the course of the professional year, but now, with a minimum expenditure of time, probably not more than a couple of hours weekly, they will be enabled to obtain regular and interesting exercise. In addition, in the senior division experience of field ambulance work can be obtained, and members who have completed their training will be allowed a certain bonus of marks if at any time they decide to compete for any of the medical services. The establishment of the contingent in Dublin owes much to the energy of Professor Campbell Geddes, who was one of the first, in an article five years ago in the *University Review*, to point out the advantages of training university men to constitute a special reserve of officers.

ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS.

A meeting of this new association was held last week in the Gresham Hotel, Dublin, for the purpose of electing council and officers for the ensuing year. Numerous letters were received from Fellows of the college expressing approval of the association. A council of twenty members was elected and the following were appointed officers for the years 1910 and 1911: President, Lieutenant-Colonel Adye-Curran; Vice-President, Edward Charles Thompson; Honorary Secretaries, Robert P. M'Donnell, 20, Lower Leeson Street, Dublin, and Andrew Charles, 64, Harcourt Street, Dublin; Honorary Treasurer, James Caleb Powell, 30, Harcourt Street, Dublin.

HEALTH OF LURGAN.

Dr. Agnew, the Medical Superintendent Officer of Health for the Lurgan Urban Sanitary District, has just issued his annual report on the health of the town. The average birth-rate was 26.8, a fall of 4 from that for the last ten years; and the average death-rate was 19.6, a fall of 0.2 from that of the last ten years. The zymotic death-rate was 1.3. Lurgan early seized the opportunity of adopting Part I of the Tuberculosis Prevention (Ireland) Act, so that phthisis became a notifiable disease; but the limitations imposed by the Act and the subsequent Orders of the Local Government Board have greatly hampered its usefulness; 19 out of every 20 cases which now come under the Act are already known to the dispensary doctor who is also the medical officer of health. In connexion also with the establishment of tuberculosis dispensaries the Act is defective. An interesting epidemic of scarlatina occurred during the month of April, 1909; this Dr. Agnew traced to a boy who was actually peeling from scarlatina after a mild unrecognized attack carrying white work and handkerchiefs to and from a factory for domestic employment. A list of the outworkers of the factories was obtained, and a list of the customers of a suspected dairy. Dr. Agnew was able to isolate all suspected cases, to stop all out or home work with the help of the factory owners, and to stamp out the epidemic without interfering with the sale of the milk. Infant mortality was only 91 per 1,000 births, and this low figure Dr. Agnew assigns to the fact that only about 10 per cent. of the children are bottle-fed. Dr. Agnew urges further school hygiene and the erection of better housing for the working classes.

Correspondence.

SICKNESS AND INVALIDITY INSURANCE.

SIR,—Having read the recent articles and correspondence in the JOURNAL with great interest on the above subject and Poor Law reform, I hope a few remarks are not out of place.

Changes will soon take place which will affect us for better or worse for the remainder of our professional career, and that being so, care should be taken that no agreement which would affect the entire profession should be entered into without the whole profession being sounded on the matter. As far as I can see there are four alternatives before us:

1. A State medical service open to all medical men who wish to enrol.
2. A municipal or county medical officer competing against the general practitioner (as in Minority Report scheme).
3. A medical service organized by the British Medical Association on the contract service system.
4. A medical service organized by the British Medical Association on the payment per visit system.

To the general practitioner No. 2 would hardly be acceptable for obvious reasons, yet it was the scheme put forward in the Prevention of Destitution Bill which was favourably received in the House of Commons.

No. 3, a scheme for which is put forward by the British Medical Association in the BRITISH MEDICAL JOURNAL of May 7th, would not, I believe, be acceptable to the vast majority of general practitioners, though the scheme is an improvement on the present system of contract practice it would, as Dr. Fothergill says, "confirm the position of the profession as slaves," and, as Dr. Gough says, is "about the worst system for the average general practitioner which could be devised," and, at the same time, the worst for the public. Do not the General Medical Council look with askance on such practice?

No. 1, a State medical service, would, I think, be far more acceptable than an extension of contract practice and a medical service backed by the State, with hospital and pathological laboratories forming part of one system of public health, both preventive and curative, it would be a vast step in advance beyond the present day hap hazard methods.

No. 4, I believe, also would be acceptable to the majority of medical men, and there is no reason why a medical service on the payment-for-work-done system could not be organized. The system works well in the National Deposit Friendly Society, and many of its members have not much over £1 a week; thrift is encouraged, and the patients can get treatment from whatever doctor they wish, paying at rates not below the dignity of the profession. Any doctor who has patients on the contract system on the National Deposit system would not, I think, have much hesitation in voting for the latter. The scheme roughly sketched out by Dr. P. R. Cooper in the issue for May 7th seems excellent.

I humbly make the suggestion that the British Medical Association have a Referendum and refer certain questions to the *whole* profession—whether members of the British Medical Association or not—individually, as many members, especially in the country, can seldom attend the Association meetings; that the opinion of every registered practitioner in Great Britain and Ireland should be sought on the question of contract practice and payment for work done system (as in National Deposit

riendly Society), or whether a public medical service ould be preferable to either; that appropriate questions ould also be asked with regard to medical treatment of chool children. The outlook is grave, but we have in our wn hands the making of the future, whether one of egradation, as contract practice is, or of freedom and elf-respect. We are face to face with what has been otly described as a national emergency, but we can be, if il agreed, masters of the situation.

It was with a feeling of great uneasiness that I read the ontract system scheme in the JOURNAL; but it is surely ncredible that the recognized heads of a great profession hould leave *sweated labour* as an inheritance to the next eneration, or that they should recommend what one ight call "the pat on the back and bottle of medicine ystem" as the best possible. Would it not be cutting off he multitudes from the benefits of diagnosis and treatment earnt by modern research? Would it not be degrading to et up a new class of professional hacks knowing yet unable o use such scientific methods?

Long Eaton, May 16th. ERNEST H. M. MILLIGAN.

SIR,—I am entirely in agreement with Dr. Cooper that, n any medical service under State sickness insurance, ayment of medical fees in direct proportion to work done s much preferable to the ordinary club system of payment er head per year; but I am afraid that in trying to find afeguards against unnecessary visits, Dr. Cooper has verlooked some points that will be regarded by the State as essential. The deposit system of the National Deposit Friendly Society is satisfactory only for short illnesses, and would utterly fail to meet insurance equirements if a long illness or invalidity occurred, eeing that when a member's private deposit was xhausted, he would lose all claim for further medical ttendance. What would then happen? It is suggested that the deposit might be renewed either by charity or the Poor Law, but the one essential object of compulsory insurance is to make a permanent provision, nd absolutely to prevent any need for recourse to charity or the Poor Law. The insurance would certainly e considered to have failed in its main intention if either charity or the Poor Law had to be invoked to eke out the insurance, and I cannot believe that any Government would ever consent to medical attendance depending on the chances of a private deposit lasting. Besides this, if the members knew that the deposit might be renewed by charity or the Poor Law, they would argue, "What does it matter if my deposit does get exhausted; it will be renewed somehow or other, and I might just as well have all the attendance I can get?" Thus the whole safeguard against unnecessary attendance would be lost. On the contrary, if medical attendance were made in any way less eligible when the deposit ran out, self-respecting members would be afraid of calling in a doctor, even when it were advisable, and any deterrent influence of that sort might have serious results, especially in cases of early phthisis. Thus, as it is under the Poor Law, the worthless people would still demand, and get, unnecessary attendance, while the self-provident would be deterred.

Neither can I agree with the suggestion that all visits over two a week should be at a reduced rate if the illness lasted over a certain time. This savours too much of paying by results or of imposing a fine on the doctor for not curing the patient sooner. More than one visit on the same day might, perhaps, be at a lower rate, as it often is in private practice.

By far the most practical suggestion, which is actually carried out in France, is to appoint medical supervisors, and this ought to go a long way as a guarantee against unnecessary visits. So thoroughly do I agree with Dr. Cooper as to the advantages of payment in proportion to work done, that even if the Government insists on payment by contract, I still think a pooling arrangement might be made which would remove the system as far as possible from ordinary club work, and I would suggest the following tentative scheme.

Statistics of some hundreds of clubs, with over 40,000 members, show that on a wide average each club member receives four to five visits and consultations per year. Allowing 2s. to 2s. 6d. for each attendance would mean, say, 10s. a year for each member. This is a great advance on the ordinary 4s. club, but it must be remembered that under compulsory insurance the members would not have to pay the whole premium themselves, as they do now. Employers would be paying part, and the State would be giving assistance, so that 10s. is not excessive. If the insurance premium is to be a percentage on wages, it would not be unreasonable to ask more than 10s. for those receiving the higher wages and paying higher premiums. Moreover, if medical inspection of persons not actually sick is added to the duties, as Dr. McVail suggests, the rate would have to be increased. I would then have the central office of the British Medical Association organize in every district local medical committees which would receive the capitation fee for each person compulsorily insured. At the beginning of the year each person insured would have to name the doctor he wished to attend him for the year from among all the medical men of repute in the district. Notice would be sent to each doctor, and if he did not within, say, a fortnight decline, he would be understood to accept as his patients those who named him. There would thus be choice of doctor for patients and liberty on the part of the doctors. Each person insured would have a book of vouchers, something like the *carnet à souche* in France, and at every visit or consultation would give the doctor one of the vouchers. At the end of the year the doctor would present all his vouchers signed to the local medical committee, which, with the aid of the medical supervisor, would scrutinize them and divide the total money in hand among the doctors in direct proportion to the work actually done by each. As already stated, the sum of 10s. is calculated to allow about 2s. to 2s. 6d. for each attendance, taking an average year, but it would, of course, be less for each attendance in bad years and more in good years. In this way, while the Government would be paying the local committee at a contract rate of 10s. per year for each person insured, the individual medical man would be receiving payment in proportion to work done, and the question of unnecessary visits would no longer affect the public, but only the medical men among themselves. The expenses to be subtracted would be very little. In existing provident dispensaries from one-sixth to one-fourth of the total income goes to the management, such as paying the salaries of collectors, but there would be none of this under State insurance, if it is worked as in Germany, as employers are responsible for collecting subscriptions, deducting the workman's share from his wages, adding their own share, and paying the total into the local insurance office, which might be the post office. Neither ought there to be any expenses for drugs. The capitation fee should be clear, and it would be better both for patients and doctors that the insurance department should, as in France, contract with chemists to supply medicines to the prescriptions of the doctors. The business of the local medical committee would be mainly to divide the fees, to settle disputes, and perhaps to fix a rota of doctors for any dispensary that the insurance department might establish at its own cost for the insured.

I hope the Association will not take up a *non possumus* attitude on this subject. I see no chance of abolishing contract practice in every form; we might just as well confess that we have too many obstructives inside the profession and too great forces against us outside the profession to hope for that at present, though it should be our ultimate aim; but I do see a chance of whittling contract practice down to harmlessness. Medical attendance is practically certain to be one of the benefits demanded by the State for the 12 to 16 million persons to be compulsorily insured, and if we deal directly with the Government department it ought not to be impossible to obtain a businesslike arrangement not founded on any false philanthropy, and as far removed from ordinary club practice as possible. But if we place unreasonable obstacles in the way the State will simply leave medical attendance to be provided by innumerable small works' clubs or friendly societies as is done in Germany. This is, indeed, the greatest danger of all, as it would perpetuate in a worse form than ever the same competition and underbidding among medical men as occurs in Germany, the baneful effects of which even the British Medical Association, with all its powers, could hardly avert.—I am, etc.,

Salford, May 15th. J. H. TAYLOR.

PUBLIC MEDICAL SERVICE.

SIR,—In the second paragraph of Dr. Keay's letter he points out that there is no provision made for different fees for different classes of patient under the British Medical Association scheme for a public service. It is not a question with the medical profession as to what people can afford to pay—that is a point which will not be left to us to settle. What we have to do is to settle what our fee is to be; it is of no consequence whether the patient is a pauper or a millionaire. The work and skill and attention demanded for his treatment is the same; and it is pretty certain that one fee will be paid, and that it will almost as certainly be the minimum. Is it likely that after the medical profession have been fighting hard to get hold of club appointments at 4s. per annum per head that we shall be offered a capitation fee of 10s. per head? I think we had better settle a scale of fees which will be sufficiently remunerative for a general practitioner to live in decency and comfort, and educate his family, and then leave it to the "powers that be" to settle how much each club member shall contribute to his club.

It will be folly to fix a small fee for "poor persons," and expect richer ones to pay more. The fee fixed will be taken as the "price" at which we are prepared to work, and no business person will consider any other as necessary.—I am, etc.,

Cheshire, May 17th. HENRY EDWARD GOUGH.

THE MEDICAL SICKNESS SOCIETY.

SIR,—This society is of such importance to the profession that I feel no apology is necessary for referring in your columns to the last report, although by the time this letter appears in print the twenty-seventh annual meeting will have taken place.

It is a very discreditable fact to the medical and dental professions, in my opinion, that the average annual increase of membership of this important society has only been 100 per annum. (The total membership of the sickness branch, which is the only branch that takes new members, is only 2,805.) How is it to be explained? There are, of course, several reasons, of which the first is the well-known apathy of the profession to looking after its individual interests. Yet no profession requires insurance more, no profession is a more personal one, and every practitioner must know that when he is away for a holiday, or for an illness, the work that comes in is in most cases barely sufficient to pay for a locumtenent.

Another reason is the existence of many insurance societies which profess to give sickness insurance at a low rate, and to which no doubt many men belong, believing that they are perfectly covered for sickness risks, and ignorant until they have had an illness that they have only got an annual contract, which is renewable at the option of the insurance office, and then only will be renewed if a certificate can be given that the illness has been completely recovered from. Certainly there are one or two offices which grant permanent contracts, but these should not be entertained for a small amount, as the premiums are considerably heavier than those of this society, and there are no bonuses.

For this slow development, however, the society must bear a certain amount of responsibility. It has been its policy—a very good one until it was firmly established—to keep down expenses to 5 per cent. of the premiums, an amount which has admitted of but little advertising, and not at all of employment of agents. It is a serious question, in the interest of the profession generally, whether it is not the duty of the society to increase its expenditure with the view of largely increasing its membership. If a large increase of new blood should take place, it would obviously mean a lowering of the average age of the members, and thus a smaller sickness rate, so that the bonuses could probably still be maintained. What, by the way, is the average age of the members?

In this connexion another feature of the report deserves comment, and comment of a not altogether complimentary nature. With commendable candour the investments are put down at length, but the average rate of interest is not stated. It appears to be about £3 5s. per cent. If this is so, compared with the rates earned by the English and Scottish insurance companies—I omit Colonial and American—the rate is poor. The average these companies earn is almost £4 per cent., and it would certainly appear that a larger amonnt might be earned, especially as I note on page 13 that "in the list of assets some of the securities were written down in 1907 and 1908, but some still remain above the present market value, and may need to be written down later on."

Why should not the directors invest in good colonial securities if they cannot get better rates at home? There are many which would return a safe 4 per cent., and an increase of only ½ per cent. in the rate of interest would mean an addition of £1,250 per annum to the society's income to spend on development.

I trust that nothing I may have said may be considered ungrateful to our present directors, who do an immense amount of work for the society absolutely voluntarily, and to whom the thanks of the members are due for, on the whole, an excellent report. I also hope that no one may read this letter so carelessly as to imagine that there is anything wrong with the society in any way, or that he could do better elsewhere; the latter is as impossible as the former would be incorrect.—I am, etc.,

Birmingham, May 14th. E. D. KIRBY.

VOLUNTARY MEDICAL ATTENDANCE ON PAUPERS.

SIR,—In reference to the letter from Dr. Holt in your issue of May 7th, p. 1146, *re* voluntary medical attendance by private practitioners upon paupers, I should like a little space in which to reply. As one of the guardians who dealt with the case, I must point out that there was no question before us of *voluntary* medical attendance on the part of Dr. Holt; on the contrary, it was indicated to us in no uncertain manner by the representative of the applicant for relief who attended the relieving office that he would have to be paid for his services, and full confirmation of this is afforded by a perusal of the whole of his correspondence with the Local Government Board.

I cannot admire the way in which Dr. Holt has placed the case before your readers, since he has had other letters from the Local Government Board which bear more directly upon the case, and to the receipt of which he does not even refer. To Dr. Holt's first letter the Local Government Board reply in stereotyped form that they make it a rule not to advise outsiders in such cases. Dr. Holt then puts the following question:

"Is a person who has become poor and has to seek relief bound to have the parish doctor if he falls ill, even though his own doctor is willing to continue to attend him?" (Note that no mention is made of *free* medical attendance on his part.)

To this question the Local Government Board reply as follows:

"The Board can only state generally that persons who are in need of medical attendance at the cost of the poor rate should be attended by the district medical officer appointed by the guardians, except, of course, in cases of urgency. They are not entitled to select their own medical attendant, and require the guardians to pay the bill sent in by such attendant."

This is a complete vindication of the action of the guardians in sending the district medical officer to the case.

Dr. Holt then informs the Local Government Board that he will attend the patient for nothing—which is an obvious and material alteration of his position—and the reply is that there is nothing to prevent an outdoor pauper receiving gratuitous attendance or charity in any form. Of course there is nothing to prevent it, and I am not aware that anything has been done to discourage, much less to prevent.

I am certain that Dr. Holt's conduct in withholding this part of his correspondence with the Local Government Board will not commend itself to your readers, and one might even be pardoned for using strong language in reference to such an action. He is surely unconscious of the humour of the situation in gravely pointing out to his professional brethren that, by his intervention, they have now the hitherto unheard-of privilege of attending pauper patients gratuitously, and that it carries with it the benediction of the Local Government Board. It is a noble object, but since most men are in the medical profession primarily to make a living, and as they do far too much

work for nothing already, I scarcely think he will find many becoming delirious with joy at the prospect.—I am, etc.,

JOHN BUTTERWORTH, M.R.C.S., etc.,
Chairman of the Oldham Board of Guardians.

Manchester, May 14th.

THE CONFERENCE ON SCHOOL CHILDREN.

SIR,—In reading the report of the recent conference of the Metropolitan Counties Branch and of the medical staffs of the metropolitan hospitals, on the subject of the medical treatment of children found defective, it seems to me that all the speakers, except Dr. Josiah Oldfield, missed the point.

The whole point seems to me to be that this treatment of children is a State matter. It is not a poor man who comes to a doctor, saying, "I am poor; my child is ill; give me of your charity." It is the State, saying, "This child is not growing up strong to make a good citizen. Now, doctor, do your best to give us a strong and useful citizen." That being the case, I maintain that the State should pay the doctor an adequate fee for the work he does.

No one can suppose that any of the money paid by the London Council Council under the present scheme will percolate to the pockets of any medical man.

Why should the State be our worst paymaster? The architects who design schools; the contractors who build them; the teachers who teach in them; even the caretakers who clean them for the London County Council, are all paid fair remuneration. Why should the man who attends to the medical necessities of the children be the only one who is not paid?—I am, etc.,

Bradford-on-Avon, May 10th. HERBERT P. TAYLER.

PROPHYLACTIC TREATMENT OF DIRTY WOUNDS BY TETANUS ANTITOXIN.

SIR,—The note on the above subject by Mr. Lenthal Cheatle in your issue of May 14th calls to mind three cases of tetanus in which one regrets not to have adopted his treatment.

The horrible and, sad to say, almost invariable death in cases of this awful disease makes one who has witnessed it rejoice to learn of any sort of treatment which may prevent it.

In the short period of three years (1901–3) it was my misfortune to have three cases of tetanus occurring in my colliery practice, and in each case injection of antitoxin, as promptly as it could be obtained, was of no avail in the treatment. If it produced any result at all, it was that of causing immediate convulsions of renewed vigour.

In brief, the cases were as follows:

CASE I.—Carpenter. Punctured wound of inner side of instep from a nail in a piece of wood covered with horse-dung from an old wooden stable in process of demolition. Seen first on morning of third day; wound in appearance was no bigger than the average fleabite, and had been hot bathed and poulticed with bread and water. Patient wished to know whether he was fit for work, as there was no pain or discomfort. In the evening, while taking a meal before going to his work, he noticed a stiffness of the jaw, and his landlady, a midwife, sent for a doctor. Dr. W. S. Cowin, now of Ramsey, who then assisted me in my practice, immediately diagnosed tetanus. The patient was put to bed and given chloral and bromide mixture. Antitoxin was wired for and obtained, and injected that night. Meanwhile convulsions suddenly commenced; chloroform was given incessantly. The opisthotonos was of such terrible severity that the patient was bent backward in almost a complete circle. The case went horribly from bad to worse, and ended in suffocation in about twenty-four hours. As the patient was a strong well-built man of 24 years, his condition became a perfect nightmare of fearful contortions.

CASE II.—Collier. Foot caught and held between rapidly moving haulage rope and tram rail. Before the motion of rope was stopped, the first metatarsal was rubbed through almost its whole thickness. Wound at once washed in 1 in 20 carbolic lotion and afterwards 1 in 40. Dressed daily with antiseptics, and was doing well. On evening of tenth day, patient complained of shortness of breath—"like asthma," he said. Dr. Turner (of recent Bargoed explosion heroic fame), who was then assisting me, diagnosed tetanus. Treatment as in last case. The convulsions were not of so severe a character, and chiefly affected the chest and abdominal muscles. Although nourishment was taken fairly well, the patient succumbed in about forty-eight hours from gradually increasing cardiac failure.

CASE III.—Engine boy. Hand caught and crushed between haulage rope and drum of engine. After thoroughly washing with 1 in 2,000 perchloride of mercury, two fingers were removed. Patient went on well for eight days, walking out and taking food well, although he was not a strong lad. On the eighth day he awoke with stiff neck. He was seen early by Dr. Wilson (of Blaengarw) and myself, and treatment was commenced at once and carried out as in the other two cases. The convulsions in this case were less severe still, and patient survived over three days, when he gradually sank from cardiac failure, the convulsions having become much less pronounced and less often.

The course and end of the last two cases irresistibly suggested that the depressing nature of the treatment contributed largely to the final result. I have always concluded from the history of these cases that:

First, horse-dung was the source of the poison, the nail in the first case and the haulage rope in the second and third being soiled by it.

Secondly, as in the first case, early onset meant greater severity, although the wound was very small; and

Thirdly, that the antitoxin injection did no good.

Now I should certainly treat such cases on the lines followed by Mr. Cheatle.—I am, etc.,

Brynmawr, May 16th. J. L. THOMAS.

SCARLET FEVER.

SIR,—Many members of the profession will be grateful to Dr. Bond of Gloucester, as an expert authority on the subject, for his endorsement of the swabbing of the throat with an antiseptic, as recommended by Dr. Milne, in conjunction with inunction of eucalyptus oil or oleusaban, as suggested and practised by my old friend the late Mr. J. B. Curgenven many years ago in cases of scarlet fever. As Dr. Bond observes, "we must still consider the discharges from the throat, nose, and ear" as the main sources of infection.

More than thirty years ago I commenced the use of, and for many years since have employed, the swabbing of the throat in scarlet fever cases with a combination of carbolic acid and tannin, as in the subjoined formula. The value of the tannin adds to the efficacy of the application of the carbolic acid, for its astringency limits, by causing contraction, the area of surface available for absorption, while the carbolic acid is dealing with the infecting organism, the *Streptococcus conglomeratus*.

In the *pre-antitoxin* days I found the same application of signal service in diphtheria as well as in sore throats simulating faucial diphtheria; cases representing, probably, some form or other of streptococcal attack.

The formula I have used, and which I published many years ago, is the following:

℞ Glycerin. acid. carbolici ... ... ʒjss
Glycerin. acid. tannici ... ... ʒxss
Misce ut ft. glycerinum.

It has been shown that the action of glycerine is augmented by the addition of a little water, hence, before swabbing it is well to dip the throat brush in fresh water, shake out the excess, and then mix the carbolic tannin glycerine with the *well-moistened* brush.

Two or three applications in the twenty-four hours generally suffice.

When the tonsils exhibit suspicious patches, it is important to take a swab at once; or, if an antiseptic has been already used, to allow six hours to elapse, after the last application of the antiseptic, previous to taking a swab for the bacteriological examination.

If this examination indicates merely a streptococcal infection, the ordinary medical treatment, *plus* swabbing with an antiseptic, will suffice; if, however, the Klebs-Loeffler bacillus is identified, the use of diphtheria antitoxin supersedes the necessity of swabbing the fauces.—I am, etc.,

Babbacombe, May 13th. H. CRIPPS LAWRENCE, M.D.Durb.

THE MEDICAL PROFESSION IN INDIA.

SIR,—In the BRITISH MEDICAL JOURNAL of February 19th there is a letter on the medical service of India signed "V. P. Gonsalves." The writer has two points to make: First, that local medical men are injuriously affected by not having a larger share of the higher paid appointments in civil hospitals in India. This may be conceded at once; were the better paid posts open to all Indian medical men no doubt they would produce in time men fitted to hold them. Why not, then, throw open all civil billets to them? This brings me to his second point—that to do this would increase the efficiency of the service and of teaching in particular. Here is where I differ from him. Racial prejudice, no doubt. But the situation at present is really summed up in the answer of Sir Harvey Adamson to Mr. Gokhale, to the effect that Government were aware that local medical men desired to be appointed to medical professorships, but they were not aware there was any strong feeling in the country on the subject. The fact is, that Indian medical men are beginning at the wrong end; they want professorships and pleasant billets in the Presidency towns, but they do not want to work up for these through the rough and tumble that the average I.M.S. officer goes through. I quite agree they should have better openings, but they should earn them. Before the needs of the private practitioner are attended to we should increase the rewards open to the subordinate services, the men who have borne the heat and burden of the day, and promotion should be quicker, merit should be rewarded earlier, and not at the end of a long service.

Dr. Gonsalves does not show how efficiency is to be increased by admitting local medical men to the higher posts. He tries to make out that these posts at present go to notoriously inefficient persons. His case in point of the ten years' Governor's surgeon at Madras becoming a principal of the college is most amusingly unfortunate for his argument. To those who are ignorant of the facts it might appear on paper as if this was a shockingly bad appointment. The facts are that the officers who have acted as Governor's surgeons have since my memory serves almost been the pick of the profession. They have almost always been picked for their professional ability and tact. Later they have one and all got good billets. The officer in question was a splendid operator—it was a treat to watch him—and one of the best all-round medical men I have met, East or West.

As Dr. Gonsalves says, specialists cannot be made by Government order. Specialists are made in India in exactly the same way they are elsewhere, by capable men getting special experience. Who ever trained a specialist? It might be an advantage to bring out men who had made themselves specialists in England or elsewhere, but what pay would they require? The present system is probably as efficient as anything India can afford. You select by a stringent examination the best men the pay you can afford to give will attract, put them through the mill as juniors in a variety of civil and military billets, each calculated to develop certain capabilities, and out of the all-round man when opportunity occurs a few specialists are developed, who are all the better in their special line for a wide medical and general education beforehand. It may not be an ideally perfect system, but on the whole it works well. The long acting appointments when the specialist is away and a junior officer does his work are grumbled at; but this, it must be remembered, is the junior officer's chance. Exactly the same thing happens in ordinary civil hospitals and medical schools at home, only acting appointments are shorter.

The Indian medical man has a claim to obtain gradually a larger share in the Government medical work of his own country, but he does his own cause no good by misrepresenting facts, whether intentionally or from want of knowledge. It must be remembered that the men who are now crying out to be appointed professors are the pupils of the men they wish to replace, and, if their medical qualifications are respectable, it is largely due to the professors they now represent as incompetent. Medically and politically we shall have to give more share in the higher posts, but it is better Indians and Englishmen should clear their minds of cant. What the result in the long run will be no one can say; but it is certain the process must be a gradual one.

A few words in regard to the reserve question: The officers who hold professional billets happen to be liable to be recalled to the army; but they are at the bottom of the list, and would only be called on in a national emergency. It is absurd to say that these posts are sacrificed to the need for a reserve. But the general run of military medical officers in civil employ do form a reserve, and an efficient one; during 1900–1 over 80 officers were recalled for military service either in China or to replace those who had gone to the war.

There are about 730 Indian Medical Service officers, of whom about two fifths are in civil employ—roughly about 300. Any scheme which replaces these men by civilians to any large extent must, unless the efficiency of the general medical service of the country is to be impaired, provide somehow for this reserve. Military medical arrangements cannot be improvised at a moment's notice, though it would be possible to replace Indian Medical Service officers by local men and civilians from England in a time of stress, leaving only administrative officers and a few others to keep the civil medical departments together. This, again, is a matter which can only be settled gradually. Perhaps the local medical men will form voluntary military medical associations—such are being formed at home—and will thus help to form a reserve. In any case, Indian conditions require a Government service, and the type of man required to man this is an all-round doctor and a man. There are a number of local men, and an increasing number, who are approximating to what is required, but they will not be developed by giving over a few fat posts, but by seeing that all who join the provincial medical service go through the mill of hard work first.—I am, etc.,

April 2nd. A MADRASSI BY ADOPTION.

CALCIUM CHLORIDE AS A HAEMOSTATIC.

SIR,—In your paragraph on Calcium Chloride as a Haemostatic, in the JOURNAL of May 14th, the following passage occurs:

"In using serum for haemostatic purposes . . . it is obviously important that it should be fresh, as the fibrine ferment which it contains rapidly diminishes by keeping; it may not always be possible to fulfil this condition when it is necessary to arrest haemorrhage without delay, *yet old serum may actually do more harm than good.*"

From this latter statement I beg most emphatically to dissent. One of the quickest and surest ways of stopping bleeding from a gastric ulcer is to give normal serum, or, better still, an antiserum such as antidiphtheritic, and it does not seem to matter how old this serum is. Some of the serums I have used for this purpose were some years old and had been condemned as useless for their specific purpose. Only last week I saw a case of haemoptysis the day after the onset; the sputum was full of bright blood. I gave her 1 c.cm. of antidiphtheritic serum intravenously; the next morning only one nummular piece of sputum was rusty. I then gave her 2 c.cm. of the same serum, and the next day there was no trace of blood in the sputum. This serum was at least six months old. I have mentioned these facts to Professor Collingwood, and we hope to investigate the matter.—I am, etc.,

W. M. CROFTON,
Dublin, May 16th. Lecturer in Special Pathology.

DISTRICT AND COTTAGE NURSING ASSOCIATIONS.

SIR,—District and cottage nursing associations are greatly increasing in numbers, and it seems desirable that their relation to the medical men practising in the neighbourhood should be placed on some definite footing. The object of these associations is a good one, namely, to bring within the reach of the poorer classes the advantages of a nurse, whose duties extend to helping in the work of the household when the woman is incapacitated, the nurse at times being resident in the cottage, and at times not so resident. The boon is greatly appreciated by poor people who have once had experience of such help. The accounts of a number of these associations show that they are by no means self-supporting, the subscriptions and fees paid for the use of the nurse by the class for whom she is intended not amounting to half the cost. Hence the deficit has to

be made up by charitable subscription, and the working of the associations is usually in the hands of some resident lady. Many of the nurses are registered midwives, and they will be so in larger proportion as time goes on. These are, of course, subject to the regulations of the Midwives Board, and the question of the fees of the medical man when he is called in by one of them is a matter which appears to be in course of settlement, so that *quâ* midwifery no more need be said except to point out that these are not self-supporting midwives, but midwives kept in a place by the aid of subscription and not themselves receiving the fees paid for their services.

But there is another and more difficult aspect of the matter. These nurses are called in by cottagers to attend to trivial ailments such as would among that class of persons not generally come into the doctor's hands but would be treated at home, such as, for example, trifling burns, abrasions, or what-not. Now the rules of the associations are for the most part carefully drawn up so as to prohibit the nurse from overstepping these limits, but it is obviously not unlikely that an enthusiastic and capable nurse may at times undertake more than she is intended to, and so an insidious form of unqualified practice creep in. And when the nurse declines the responsibility and insists upon a doctor being called in, the question of the payment of his fee is in no way provided for. Though in some places the guardians are friendly to the nursing associations, to the extent of subscribing towards their support, yet the guardians are not liable where the case has not passed through the hands of a relieving officer, and might find themselves afraid to admit the charge. It appears to me that the proper course is for the medical men to preserve a friendly attitude towards the nursing associations, which in some instances they have not done, and so to exercise control over the actual work, which must often be a valuable assistance to them in treating their cases. As I am not in practice, and have never had any knowledge of the conditions of country practice except by hearsay, I do not feel competent to offer an opinion as to the best method of arranging matters, but I think the subject is worth discussing, and hope that this letter may elicit helpful suggestions from your readers.—I am, etc.,

May 11th. F.R.C.S.

AUSCULTATORY FRICTION.

SIR,—As the original discoverer of this method of diagnosis, which forms the subject of an interesting note by Dr. H. H. Brown in the JOURNAL of May 14th, I merely write to say that I quite agree that the method deserves wider recognition.

I described the method with Dr. W. Ewart in the *Lancet* in 1898, and it was while acting as clinical clerk at St. George's Hospital that I happened to make the discovery. I was greatly indebted to Dr. Ewart for his elaboration of the method, and have always found it reliable and of the greatest use. I have often wondered that it has not been described in any of the recent textbooks.—I am, etc.,

ALLAN C. PEARSON, M.B., etc.

H.M. Institution, Borstal, May 16th.

SIR,—We all owe a debt to Dr. Herbert H. Brown for his short paper on auscultatory friction in your issue of May 14th, p. 1168.

I can bear out all he says of his method, but think that vibration auscultation gives better results; this experience of mine may be due to the fact that I have used the old wooden stethoscope in applying the friction method.

The value of the vibration method I learnt about ten years ago from a lecture by Dr. Herbert Habershon at the Brompton Hospital for Consumption. The lecture was soon afterwards published, but in a very much abridged form, in the *Practitioner*. Thus the valuable quotation from the late Professor Tyndall's writings on the acoustics of the vibration method was omitted in the printed lecture. The method is simple and of great value. Thus, if we wish to map out the septum between an upper and a lower lobe of the lung, all we have to do is to listen over one lobe while we hold a vibrating tuning-fork over the other lobe; the fork should have a circular flat base. The one I have used is a rather large one of the note C of the middle of the bass clef. One hears the vibrations distinctly; but directly the fork reaches the border of the lobe over which we are listening, there is heard a startlingly loud ringing sound. Similarly, if we listen over the lobe over which the fork is placed, we suddenly lose the loud sound when the septum is reached.

So enamoured was I of this method that I hoped we might be able by its means to localize intracranial and spinal tumours, etc. A young neurological friend tested these points at my suggestion on a few cases, but his verdict was that it was of no value. Still, I think that possibly a more extended research might give a different result.

It would be of interest if Dr. Habershon would give us in your pages, Sir, his ten years' further experience of the value of vibration auscultation and friction auscultation in clinical medicine.

If I may be critical for a moment, I should like to suggest that the terms "friction auscultation" and "vibration auscultation" are more accurate than "auscultatory friction" or "auscultatory vibration." The commonly used term "auscultatory percussion," too, is a misnomer; it should be "percussion auscultation." To conclude, we have at least four methods of auscultation, namely: (1) Simple; (2) percussion auscultation; (3) vibration auscultation; (4) friction auscultation. Apologizing for the length of this letter,—I am, etc,

London, W., May 14th. LEONARD J. KIDD.

Universities and Colleges.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary Council was held on May 12th, Mr. H. T. Butlin, President, in the chair.

The Death of the King.

It was decided to present addresses of loyalty and of condolence to His Majesty George V and to Her Majesty Queen Alexandra. The text will be found at p. 1250.

Issue of Diplomas.

Diplomas were issued to eighty-eight candidates found qualified for the Membership of the College at the recent examinations, and to thirty-five candidates found qualified for the Licence in Dental Surgery.

National University of Ireland.

As recommended by the Court of Examiners, the examinations of the National University of Ireland were accepted on the same conditions as the examinations of the late Royal University, so far as are concerned candidates who desire to enter for the First Professional Examination for the Fellowship.

The resignation of Mr. G. A. Wright from the Council was accepted as taking effect from July 1st, 1910.

CONJOINT BOARD IN ENGLAND.

AT a meeting of the Comitia of the Royal College of Physicians and of the Council of the Royal College of Surgeons on April 28th and May 12th respectively diplomas of L.R.C.P. and M.R.C.S. were conferred upon the following candidates:

O. J. W. Adamson, F. S. D. Berry, N. W. Berry, D. F. Borrie, R. F. Bridges, L. Buckley, J. S. Burn, R. H. Candy, *N. L. Clarke, W. T. Clarke, F. J. Cleminson, R. C. Clifford, A. K. Contractor, W. R. Cooper, D. M. Cox, R. K. Dadachanji, R. G. Dainty, W. C. Dale, C. A. Dottridge, H. H. Dummere, G. Dunderdale, W. A. Dunn, W. H. F. Eales, S. J. Elkin, R. Ellis, J. T. Fox, F. A. French, L. Game, R. Gamlin, R. W. B. Gibson, C. S. Gideon, P. Hamill, J. C. Harris, R. F. Higgin, A. N. Hodges, E. Howden, S. Hoyte, H. R. B. Hull, R. A. Jackson, R. Jackson, †C. A. Joll, E. H. Jones, P. C. V. Jones, W. F. Jones, F. Kahlenberg, G. G. Lyttle, M. F. Maaz, F. N. H. Maidment, K. D. Marriner, G. Maxted, A. Moir, *A. S. Moorhead, F. Morres, G. E. Neligan, J. H. Newmarch, A. E. Nicholls, H. M. D. Nicoll, C. Noon, E. Nuttall, T. E. Osmond, A. C. Palmer, Miss Dossibai R. C. Patell (Bombay and Royal Free), P. V. G. Pedrick, W. M. Penny, A. Perlman, A. B. Pettigrew, F. O. M. Pfister, A. P. Phillips, F. S. Poole, J. B. Pulling, A. E. Rayner, N. L. M. Reader, A. H. Rolph, J. B. Ronaldson, J. Z. H. Rousseau, F. D. Saner, H. I. Shaheen, N. A. D. Sharp, W. Shipton, R. G. Smith, R. W. Starkie, R. S. S. Statham, T. D. M. Stout, T. E. A. Stowell, H. Thwaite, C. C. Tudge, *G. E. Vilvandré, L. F. K. Way, C. Witts, R. Yood, W. A. Young.

* M.R.C.S. diploma granted April 14th, 1910.
† L.R.C.P. diploma not yet confirmed.

CONJOINT BOARD IN SCOTLAND.

THE following candidates have been approved at the examinations indicated:

D.P.H. (*Part I*).—E. H. Cramb, Jane R. F. Gilmour, Mary P. Graham, J. M. Kelly, D. J. M'Leish, R. A. M. Macleod, M. B. G. Sinnette, R. T. Young W. Young, W. A. Young.

D.P.H. (*both Parts*).—M. Campbell, T. Campbell, J. Davies, W. A. Dickson, A. S. Gordon, W. Grier, S. A. M'Clintock, F. B. Macdonald, W. J. M'Feat, J. Macintyre, L. W. C. Macpherson, G. G. Middleton, Bhola Nath, P. Pattison, O. E. Powell, J. Reid, H. D. Robb, J. Scott, H. R. Sloan, A. S. Walker.

CONJOINT BOARD IN IRELAND.

THE following candidates have been approved at the examinations indicated:

FIRST COLLEGE.—S. J. M. Cairns, T. M. Cronin, G. S. Douglas, O. L. Fleming, J. J. G. Harvey, W. Morrow, J. J. Walsh, R. P. Weldon.

SECOND COLLEGE.—W. I. Adams, *J. D. Cherry, A. T. Cannon, *T. F. Collins, R. F. J. Griffith, J. R. Kelly, C. F. Dillon-Kelly, B. Kelly, J. S. Levis, M. Murphy, F. A. O'Donnell, T. J. O'Riordan, J. C. Sproule, A. Verling.

THIRD COLLEGE.—J. H. Barry, J. Barrett, W. R. Beeston, P. W. Black, B. N. Blood, P. J. Burke, T. T. Buckley, D. F. Curran, J. J. Donegan, P. Daly, J. Geraty, J. M. Gilmore, J. J. Glynn, J. T. Hill, J. Kirker, D. McLaughlin, E. J. B. Moynihan, S. Punch.

FINAL.—A. M. J. Blake, H. F. Blood, V. J. P. Clifford, P. A. Doyle, E. P. Harding, J. T. Heffernan, A. K. Hogan, H. Hunt, C. Kelsall, D. J. Lyne, J. T. McKee, J. J. O'Connor, L. C. Rorke, H. B. Sherlock, A. H. T. Warnock.

D.P.H. (BOTH PARTS).—W. B. Bannerman, E. H. Brook, E. E. Dickinson, R. T. Edwards, C. C. FitzGerald, W. J. D. Inness, H. P. Lobb, J. K. Patrick, H. J. Raverty, W. de W. Wishart.

* With honours.

Medico-Legal.

RECEIPTS FROM FRIENDLY SOCIETY.

A CORRESPONDENT writes that he has been informed by the secretary of a friendly society to which he is the surgeon that it is unnecessary to put a receipt stamp on payments made to him for medical services rendered as surgeon when the amount is over £2.

*** This is correct. The officers of friendly societies *duly registered* under the Friendly Societies Acts are exempt from the duty of stamping receipts for payment for duties rendered in their official capacity.

A QUESTION OF PARTNERSHIP.

M. O. H. writes that he proposes to make his assistant a partner by giving him, in addition to his salary, fees for all confinements attended by him, night visits, and inquests, as he is not in a position to buy a share of his practice. He has consulted a solicitor, but the latter seems at a loss as to what bond of partnership he can draw up.

*** Such an arangement is not a partnership, but the granting an assistant other remuneration in addition to his salary. This is not infrequently done in preference to increasing the assistant's salary. If our correspondent wishes to take his assistant into partnership he must make over to him a *share* in the business. Partnership is the relation which exists between persons carrying on a business *in common* with a view to profit. In the case given the assistant is not carrying on a business in common with the other, but altogether on another basis, being in fact no more than the servant of the other.

AN UNREGISTERED CHEMIST.

A CORRESPONDENT sends us a copy of the *Wednesday Herald*, published at Tottenham and Wood Green, which reports that at Edmonton County Court on Friday, May 6th, a man named Tasker Keys was fined £5 for selling a poison, he being not registered as a pharmaceutical chemist. The defendant is reported to have said in his defence that he was not liable, as he had been a medical practitioner and had obtained his diploma in pharmacy, and that a legally qualified man was exempt from the requirements of the Pharmacy Act. His Honour Judge Tindal Atkinson said he might appeal to the Divisional Court, but the defendant said it was no good his doing that as he was an undischarged bankrupt; he was sorry the case had been brought, as he had been nominated for the Fellowship of the College of Physicians! His Honour imposed a penalty of £5 and costs, but said he would have made it less if the Act had allowed him an option. The defendant declared he would do time rather than pay!

*** The name Tasker Keys does not appear in the *Medical Register*. Had he been registered he would undoubtedly have been exempted under the Act to amend the Pharmacy Act of 1868 (32–33 Vict., cap. 117). We presume his Honour satisfied himself that Mr. Keys was not a registered medical practitioner before imposing the penalty, but we do not understand what ground there was for suggesting that a modified penalty might have been imposed, unless we are to take it as a judicial *obiter dictum* implying that in his Honour's opinion the penalty imposed by the statute is needlessly high. As the individual named is not a registered medical practitioner we do not think he made his case better by claiming to have been a medical practitioner, and his Honour would have performed a public service if he had sifted this claim and shown it to be groundless. The medical profession has good reason to complain of the attitude of minor judicial authorities who seem to have scanty respect for the Medical Acts, and whose sympathies too often appear to be given to quacks.

WORKMEN'S COMPENSATION ACT.

Medical Certificates as to the Nature of the Injury under the Workmen's Compensation Acts.

A CORRESPONDENT asks the following questions: (1) Is the injured party under an obligation to provide a medical certificate at his own expense? (2) Is the employer, or an insurance company acting for him, bound to pay for this certificate?

*** (1) The injured party must pay the expense of any certificate he requires from his own doctor. (2) The employer, or the insurance company, must pay the expense if they require their own doctor to examine and report on the condition of the injured party, but they cannot be charged for any other certificates (Workmen's Compensation Act, 1897, Schedule I, S. 3).

Medico-Ethical.

The advice given in this column for the assistance of members is based on medico-ethical principles generally recognized by the profession, but must not be taken as representing direct findings of the Central Ethical Committee, except when so stated.

UNQUALIFIED ASSISTANTS.

COUNTRY G. P. writes that he is at present employing a senior medical student who has recently failed to pass his final examination, as dispenser and surgical assistant, and he wants to know whether he would be "in order" in asking him to make occasional visits on patients who had been already seen by his employer and to attend midwifery cases.

*** The words used in the warning issued by the General Medical Council are: "That as some registered medical practitioners have been in the habit of employing as assistants in connexion with their professional practice, persons who are not duly qualified or registered under the Medical Acts, and have knowingly allowed such unqualified persons to attend or treat patients in respect of matters requiring professional discretion and skill, and whereas in the opinion of the Council such a substitution of the services of an unqualified person for those of a registered medical practitioner is in its nature fraudulent and dangerous to the public health, any registered medical practitioner who is proved to have so employed an unqualified assistant is liable to be judged as guilty of infamous conduct in a professional respect, and to have his name erased from the *Medical Register*." This declaration is only qualified by the following words: "That this notice does not apply so as to restrict the proper training and instruction of bona fide medical students as pupils or the legitimate employment of dressers, midwives, dispensers and surgery attendants under the immediate personal supervision of a registered medical practitioner." It seems to us that our correspondent may be sailing dangerously near the wind if he proposes to send his dispenser to visit patients and attend midwifery cases. It cannot be pretended that he is merely sent to acquire knowledge, as our correspondent says he is "quite capable of doing this work." This is the plea invariably put forward in defence of the employment of unqualified assistants, but has never been accepted by the General Medical Council, and seems to be entirely inconsistent with the view generally admitted by the medical profession that the passing of a final examination is necessary evidence of fitness to practise.

AFRICAN TROUBLES.

B. S. A.—(1) The position is peculiar, and it is hard for any one living in England to realize the difficulties of practice where it may take ten or twelve days to pay a visit. We therefore are scarcely in a position to say whether C. was justified in the circumstances in recommending the lady to go into A.'s district so that she should be attended by him. If this was done with the view of shifting an irksome responsibility upon A.'s shoulders, it was certainly wrong. (2) We have no means of answering the legal questions put to us by our correspondent, as we are not conversant with the laws under which the Administrator is acting, but we should have thought that the society which employs the medical missionaries in question would have sufficient influence with the directors of the British South African Company to protect them against any injustice, and we should recommend that the grievance should be brought to the notice of the society's committee.

Public Health
AND
POOR LAW MEDICAL SERVICES.

FEES FOR CERTIFICATION OF WANDERING PAUPER LUNATICS.

G. A. J. writes saying he was called to the police station to see a wandering pauper lunatic, and the following morning gave evidence before a magistrate and certified the case for asylum. He says he is now offered a fee of 10s. 6d. by the relieving officer, and asks whether he can claim a higher fee.

*** For attending before a magistrate and certifying the case described *as one fit for asylum* our correspondent is entitled to reasonable remuneration, and the magistrate who acted in the case has the power to order the board of guardians to pay this. The amount usually paid is one guinea, and in our opinion this should be the minimum fee for certifying such cases. Should "G. A. J." have any difficulty in getting this amount he should apply to the magistrate to make an order for the guardians to pay it. In addition to this, we consider that "G. A. J." is entitled to a fee from the police for his visit to the police station at their request on the previous day. The fee paid by the guardians for the certification of lunacy does not include payment for the previous day's services to the police, but is for the special services rendered to the magistrate.

Obituary.

EDWARD CRESSWELL BABER, M.B.,

SURGEON, ROYAL EAR HOSPITAL, LONDON.

WE regret to announce the death of Edward Cresswell Baber, the well-known aural surgeon, which took place on Saturday at his London consulting address in Brook Street, at the age of 59. Mr. Baber resided at Brunswick Square, Hove, and, in addition to an extensive consulting practice, was intimately associated with the principal medical institutions in the district, notably the Special Hospital for Throat and Ear Diseases. He was Surgeon to the Royal Ear Hospital, London. He received his preliminary education at King's College School, London, and studied medicine at St. George's Hospital, where he was formerly House-Surgeon and Demonstrator of Anatomy, also Prizeman and William Brown Scholar. He afterwards continued his studies at Paris and Vienna. He was admitted a Member of the Royal College of Surgeons of England in 1871, and a Licentiate of the Royal College of Physicians of London in 1872. He took the degree of M.B. at the University of London in 1873. Mr. Baber had been President of the Laryngological Society of London, Vice-President of the Otological Society, President of the Brighton and Sussex Medico-Chirurgical Society, Honorary Secretary of the International Otological Congress, 1895, Honorary General Secretary of the International Otological Congress, 1899, and President of the Section of Laryngology and Otology, British Medical Association, 1899. He was the author of numerous contributions to the literature of his special branch of surgery.

ANDREW GILMOUR, L.R.C.P.EDIN., J.P., V.D.,

LINLITHGOW.

WE regret to have to announce the death, after a few days' illness, of Dr. Andrew Gilmour, one of the oldest medical practitioners in Scotland. Dr. Gilmour, while paying a visit to his son-in-law, Dr. MacDonald, Foyers, Inverness-shire, was seized with cerebral haemorrhage, from the effects of which he succumbed after six days' illness, his death occurring on May 9th. Dr. Gilmour while quite a young man came to Linlithgow and commenced practice there. For forty-five years he was a member of the Linlithgow Town Council, and held the position of Provost for twenty years. During his Provostship the Town Council and the community presented him with his portrait in oils. Being a man of active habits and devoted to public life, Dr. Gilmour, after he relinquished the Provostship remained a member of the Town Council, who made him a Police Judge. For many years he continuously represented the burgh at the Convention of Burghs, and at the last annual meeting of that body he was referred to as the Father of the Convention. He held the rank of Surgeon-Lieutenant-Colonel in the old Volunteer Force, receiving the Volunteer decoration. In politics Dr. Gilmour was a Conservative, and did much to further the cause of the party in the burgh. The funeral took place at Linlithgow; the procession was headed by the Freemasons, of which body the deceased was a Past Master. All the shops in the town were closed, and there was present a large concourse of people, especially of the poorer classes, of whom Dr. Gilmour was a great friend.

Medical News.

THE meeting of the Society of Tropical Medicine and Hygiene, fixed for Friday, May 20th, has been postponed to Friday, May 27th, at 8.30 p.m.

THE conference of the Child Study Society, arranged to be held at Tunbridge Wells on May 19th, 20th, and 21st, has, owing to the death of King Edward, been postponed to June 10th and 11th. Copies of rearranged programme can be had on application to Miss Watt, 35, Church Road, Tunbridge Wells.

OWING to the death of His late Majesty King Edward VII, the dinner of the Edinburgh University Club of London, which was arranged for May 27th, has been postponed until Friday, July 22nd.

DR. GEORGE SKENE KEITH, author of *A Plea for a Simple Life* and other well-known works, who died not long ago, left personal estate of the value of £29,919.

THE annual general meeting of the Asylum Workers' Association will be held at 11, Chandos Street, London, W., on May 25th. The President (Sir William Collins, M.P.) will take the chair at 3 p.m.

A COURSE of post-graduate clinical demonstrations will be given at the Manchester Royal Infirmary by the honorary staff on Tuesdays and Fridays, from May 31st to June 23rd inclusive. The course is open to all qualified medical practitioners.

THE dinner of the Post-Graduate College and past and present students of the West London Hospital will be held at the Trocadero Restaurant, Piccadilly Circus, on Wednesday, June 8th, at 7 for 7.30 p.m., when the Duke of Abercorn will take the chair.

AT the meeting of the Medico-Legal Society to be held at 11, Chandos Street, London, W., on May 24th, at 8.15, Dr. Major Greenwood, Honorary Secretary of the Poor Law Medical Officers' Association, will read a paper on the policy of the English Poor Law and its proposed medical reform.

ON Thursday, May 26th, at 6 p.m., a lecture will be given at the Royal Eye Hospital, St. George's Circus, Southwark, by Mr. G. T. Brooksbank James, on binocular vision in its relation to some of the refractive and muscular anomalies of the eye. Any medical students and practitioners interested in the subject are invited to attend.

AN amendment of the law of November 30th, 1892, regulating the practice of medicine in France and its dependencies has recently been promulgated. By its terms it is made compulsory for doctors of medicine, surgeon-dentists, and midwives, before establishing themselves in a place and performing any professional act, to register their titles at the prefecture or subprefecture, and at the civil tribunal of the *arrondissement*, and to have it authenticated with the signature of the mayor. No fees are payable for such registration. In the case of beginners who have not yet received their title or diploma the provisional certificate given to them by a duly authorized faculty or professional school must be registered and signed by the mayor in the same way.

THE next quarterly meeting of the Medico-Psychological Association of Great Britain and Ireland will be held at 11, Chandos Street, London, W., on May 24th, at 3 p.m., under the presidency of Professor W. Bevan-Lewis. Dr. Charles Mercier will read a paper on insanity as disorder of conduct; Dr. John Turner one on the examination of cerebro-spinal fluid, with special reference to the diagnostic value of Ross and Jones's test; and Dr. W. H. B. Stoddart will enunciate a theory of the toxic and exhaustion psychoses. In consequence of His late Majesty's death, the usual dinner in the evening will not take place. The General Secretary (Dr. C. Hubert Bond) will be much assisted in arranging the programme for the annual meeting if members desiring to read papers thereat will communicate with him as soon as possible.

Letters, Notes, and Answers.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted will be found under their respective headings.*

QUERIES.

Rheumatic asks for information as to what suburbs of London are likely to be most suitable for a rheumatic patient to reside in, with particulars as to nature of the soil, etc. There is a slight preference for western suburbs.

G. R. G. would like to raise the question of the treatment of hay fever by serums or vaccines, as to whether cure or great benefit can be derived from them. If there is some efficient remedy he would be very glad to hear its name and where it may be obtained.

Dr. Percy Newell (St. Leonards-on-Sea) would be much obliged for information on the following points: What the saliva sulphocyanide test in cases of plumbism is. He has consulted several fairly up-to-date textbooks, but cannot find it mentioned.

J. F. M. would be glad to know the significance, with regard to prognosis, of the persistence of a small amount of albumen and casts in the urine of a girl aged 16. In all other respects she enjoys apparently perfect health, is of good colour, active disposition, with a healthy appetite and of somewhat stout build. A slight eczema led to an examination of the urine, which is normal in amount. She had a mild attack of scarlet fever at the age of 7. Is it possible that, although casts are present, the trouble is functional, and may disappear, or is it to be regarded as incipient Bright's disease?

Pasteurization.

Pasteur would be glad of advice in the choice of an apparatus for pasteurizing or sterilizing milk in quantities of 4 to 6 gallons. For heating purposes gas and electricity are both available.

ANSWERS.

M.D. has not authenticated his communication with his name.

Staff Surgeon.—Our correspondent might consult *How to Become a Nurse*, by Sir Henry Burdett. New edition. (London: The Scientific Press. 1909. 2s.)

Treatment of Red Nose.

Dr. Arthur J. Mathison (Wood Green) writes: In answer to query from "Rusticus," I suggest a combination of internal and local treatment. The following would give relief, I think, in most cases: A bismuth, soda, and gentian mixture, containing in each dose 2 minims of carbolic acid, administered shortly before food, and a film of pasta ichthyoresorcin, made, after Unna's formula, by Messrs. Damaney and Co., of Liverpool, applied each night to the nose and surrounding flushed area.

Practice in Canada.

H. M.—Geographically the nearest medical school to British Columbia is that carried on in connexion with the University of Manitoba in Winnipeg. Candidates for admission to the register must be armed with certificates of good character, with diplomas in medicine and surgery obtained from bodies imposing a curriculum of not less than four years, and proof of identity. Candidates registered in Great Britain or Ireland prior to June 30th, 1887, and still so registered, and provided with the documents before mentioned, are admitted to the register forthwith. Others must pass an oral and written examination in (1) anatomy, (2) chemistry and public health, (3) physiology and histology, (4) materia medica and therapeutics, (5) medical jurisprudence, (6) theory and practice of medicine and medical pathology, (7) theory and practice of surgery and surgical pathology, (8) clinical medicine, (9) clinical surgery and surgical anatomy, (10) obstetrics and diseases of women and children, (11) urinary analysis and clinical microscopy. The fee on admission to the register, which is maintained by the College of Physicians and Surgeons, Victoria, B.C., is 100 dollars, a further 2.50 dollars being payable each year.

No one should proceed to British Columbia without first ascertaining from the secretary of the college information as to the precise tests which he personally will have to undergo, since matters in that Province, as also throughout Canada in general, are in a state of transition.

LETTERS, NOTES, ETC.

"Demoniacal Possession": A Disclaimer.

Dr. C. Williams (Liverpool) writes: With reference to a short paragraph which appeared in some of the Liverpool newspapers this week alluding to an address which I delivered in London last Monday on the subject of demoniacal possession, I should like it to be known that the paragraphs in question were sent to those papers without my consent or approval; that the wording of some of them was not strictly correct; and that I am very sorry such notices appeared.

German Researches on Tuberculosis: A Correction.

In the paragraph entitled "German Research on Tuberculosis," published in the British Medical Journal of April 2nd, 1910, p. 836, we regret that, by inadvertence, the words "feeding" and "inhalation" in the second column, line 20 from the top, were transposed. The sentence should read as follows: "Drs. Weber and Titze call attention to the work of numerous investigators, which shows that experimental infection with tubercle bacilli can be produced more readily by inhalation than by feeding."

The Dangers of the Arylarsonates.

Major F. J. W. Porter, R.A.M.C., writes: The statement of Major French in the Journal of April 2nd, that from twenty to twenty-five deaths have resulted from the use of grey oil, is, I think, calculated to alarm those who contemplate using this method of treating syphilis. So far as I know, the majority of these deaths occurred many years ago, and were the result of overdoses of grey oil. In the army this material used to be supplied in bottles holding about 8 oz., from which the smaller wide-mouth dispensing bottles had to be filled. It sometimes happened that excessive heat was applied to liquefy the contents of the large bottles, and proper care not taken to stir the cream thoroughly before pouring it into the 1 oz. dispensing bottles. The result was that the upper portion of the contents of the large bottles contained too little and the lower layers too much mercury. In the same manner, if great care was not taken to keep the cream thoroughly stirred while using it from the dispensing bottle, the recipients of the lower strata were very likely to get more than was intended. In addition to this, it is only within the last few years that this method of treatment has been systematized in the army by making use of definite courses of a given number of injections—that is, ten or twelve of 1 grain weekly, for a first course; five of ½ grain weekly after an interval of two months; five of ½ grain weekly after another rest of three months, and so on. It is advisable also to reject the dregs of the dispensing bottle. Since this plan has been adopted, and due care taken regarding thorough stirring and not overheating of the cream, one has not heard of fatal cases of poisoning in the army at any rate. In the early days, after Colonel Lambkin published his first paper, we had to make the cream ourselves, and the only apparatus available in India consisted of an ordinary pestle and mortar. Under these circumstances an occasional case of overdose can easily be understood. For naval and military practice, the intramuscular method is ideal, and has perhaps more adherents than any other.

My experience of soamin has not been large, but it has been very unsatisfactory. Out of 10 cases (who had received no mercury previously) I had symptoms of slight arsenical poisoning in three; 9 developed bad secondary symptoms *immediately* after a course of ten injections, a result I have never seen after a first course of mercurial injections. Unless some idiosyncrasy exists, I think it is better to stick to a well tested remedy like mercury for the treatment of syphilis.

The Causation of Sex.

J. A. W. writes: I have read Mr. Stark's letter with much interest. The following quotation from Maeterlinck's *Life of the Bee* may be appropriate. About the queen he writes: To become as was the mother before her it is essential that she should meet the male within the first twenty days of her life. Should the event for some reason be delayed beyond the period her virginity becomes irrevocable. And yet we have seen that she is not sterile, virgin though she be. The virgin queen is able to lay, but from all the eggs she will deposit in the cell there will come *males alone*.

Bismuth Hair Dye.

H. A. C. writes: I am not infrequently asked by patients if I can recommend a satisfactory hair dye, so that I read with interest Dr. Falkiner's letter to the *Lancet*, 1910, vol. i, p. 217. I find it wise not to recommend any dye of which I have not some practical experience, and I have found the bismuth nitrate and sulphurea solutions altogether disappointing. When used in the ordinary way they produce no appreciable result on the hair. To have any effect they should be used *hot*, and the part afterwards covered with protection, so that for practical purposes they are useless. When the bismuth nitrate solution is used with a solution of sodium sulphide instead of sulphurea, although the hair is at once darkened, so much sulphuretted hydrogen is generated that no lady could use the dye with comfort to herself or her friends.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page	8	0	

An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

Note.—It is against the rules of the Post Office to receive *poste Restante* letters addressed either in initials or numbers.

A Clinical Lecture

ON THE

TREATMENT OF INJURIES OF THE HEART.

DELIVERED AT THE MIDDLESEX HOSPITAL, MAY 3RD, 1908.

BY JOHN BLAND-SUTTON, F.R.C.S.ENG.,
SURGEON TO THE HOSPITAL.

SURGEONS have known for centuries that penetrating wounds of the heart are not always fatal, even when the injury is inflicted by an instrument so gross as a rapier. Death is occasionally deferred many minutes or even hours. The famous surgeon Ambroise Paré, who, about 1552, discovered the use of the ligature instead of a red-hot iron to arrest bleeding after amputation of a limb, has placed on record an observation relative to a gentleman wounded in the heart during a duel. The injured man pursued his adversary 600 feet before he fell. Examples of this sort have multiplied since Paré's time, and we now know that the heart is very tolerant of traumatic insults. A remarkable case illustrating the tolerance of the heart to severe injury was recorded in 1834 by Thomas Davis. A boy made himself a gun out of the handle of a telescope toasting-fork. To form the breech of the gun he had driven a plug of wood three inches into the handle of the fork, and made a touch-hole in the hollow part of the handle. When the gunpowder exploded it forced out the stick, which formed the artificial breech, into the boy's chest, between the third and fourth costal cartilages, half an inch to the right side of the sternum. Immediately after the accident the boy walked a distance of 40 yards to his home. He lived five weeks and two days after the accident. At the *post-mortem* examination a piece of wood 3 inches long and as thick as a cedar pencil was found in the right ventricle, encrusted with a coagulum as large as a walnut.

To come nearer our own times. In 1896, Mr. W. G. Spencer showed to the Clinical Society the heart of a man aged 28, who had been stabbed in the right ventricle twenty-nine days previously. The wound had been treated by plugging in order to arrest the bleeding. This man died from causes unconnected with the injury. At the *post-mortem* examination the wounds in the chest wall, the pericardium, and the heart were found firmly sealed.

Six months before Spencer's case was communicated to the Clinical Society, a new method had been born for the treatment of stab wounds of the heart. In March, 1896, Farina, an Italian surgeon, had the courage to apply to a heart that had been stabbed the simplest and greatest canon of surgery concerning accidental haemorrhage, namely, arrest bleeding at the earliest possible moment. He did it by a recognized method for stopping bleeding in vascular muscular organs, by bringing the divided surfaces into strict and firm apposition by means of sutures.

Although Farina's epoch-making case is frequently referred to in statistical tables relating to the surgical treatment of stab wounds and gunshot injuries of the heart, except for a brief reference made by Durante to the International Congress of Surgery held in Rome, 1896, the details have never been fully published. In reply to a letter, Dr. Guido Farina sent me the following facts in December, 1909:

The first case of surgical interference on the heart which I had the opportunity of performing was carried out in March, 1896, at the Spedale della Consolazione.

The patient was a man 30 years of age who received a blow from a very fine and sharp dagger, in the fifth intercostal space near the parasternal line. The wound penetrated to the cavity in an oblique direction from above downwards and from without inwards. It wounded the pericardium and penetrated into the right ventricle. The wound in the myocardium was about 1 mm. long.

I removed part of the fifth costal, or rather I detached the cartilage of the fifth rib from the sternum and removed cartilage and rib for about 15 cm. Then I strongly retracted the fourth and sixth costal cartilages and retracting the pericardium, I arrived on the wounded heart. I sutured the wound with three silk sutures, and between these three particular points I placed two others of less importance. Everything went excellently until the fifth day, when a violent bronchopneumonia declared itself on the right side, and in three days killed the patient. The thoracic wound healed by first intention.

At the autopsy the wound in the heart was found perfectly healed. I begged our judicial authorities to let me have the heart for further study of the process of healing, but met with an energetic refusal. It was precisely because of my irritation at this fact that I have not published any communication on this interesting case.

Dr. Farina's letter was written in Italian, but my friend Dr. StClair Thomson kindly furnished me with the translation. Farina's method of treating punctured wounds of the heart was soon followed by other surgeons. The first complete success fell to Rehn (Frankfurt-on-Maine). In 1897 in a case of stab wound of the heart he opened up the intercostal space and resected the fifth rib. The right ventricle was wounded and this he sutured with success. The good consequences which have followed the surgical treatment of stabs and gunshot wounds of the heart have been very great during the past ten years. In 1909 Dr. G. T. Vaughan (Washington) was able to collect from the periodical medical literature of America (North and South), Germany, France, Spain, Italy, Canada, and England, 150 cases, including two cases (one of which was successful) under his own care. The evidence that he has collected, as well as the careful and skilful way he has analysed the reports and the facts, make it clear that primary suture of wounds of the heart is an established surgical measure for treating such serious injuries.

My interest in injuries of the heart was awakened very early in my career as a surgeon by an extraordinary assault which a drunken man made on his own heart. In 1887 some men were drinking in a beershop; one of them, a lad aged 20, was playing with a loaded revolver, and a companion made a bet with him that he was afraid to shoot himself in the heart. Astonishing as it may seem, the drunken boy fired the revolver into his chest, and was brought into the hospital in a collapsed state. When his clothes were removed, gastric contents were found between his skin and shirt, which clearly pointed to a wound of the stomach. The abdomen was opened, and a large hole in the stomach was closed with sutures; the food and beer were washed out of the general peritoneal cavity. The boy recovered consciousness after the operation, but had no recollection of his foolish wager and act. However, it cost him his life, for he died some hours later. At the *post-mortem* examination it was found that the bullet had entered the pericardium, ploughed a deep groove in the apex of the heart, torn away a piece of the diaphragm, and perforated the stomach. The fatal consequence was not due to the cardiac lesion.

This leads to the question, What causes death in fatal wounds of the heart? Death after injury to the heart may be primary or secondary.

PRIMARY CAUSES.

Death after a severe injury to the heart may be as sudden as when the heart stops beating from what is called "natural causes." Gunshot wounds in which a bullet traverses the heart are very fatal; it is stated that they are usually fatal within the hour. They may be instantly fatal. I once saw a man who five minutes before fired a revolver bullet into his heart. He was being arrested for embezzlement, and asked permission to get his hat and coat. He then snatched open his waistcoat, took a revolver from his pocket, shot himself exactly in the left fifth intercostal space as if he had previously measured it out, fell upon the floor, and died in a few seconds. In such cases the heart passes into a condition of shock, and ceases to beat; death takes place too rapidly for the fatal event to be attributed to loss of blood.

In these suddenly lethal injuries there is very little blood extravasated into the pericardial or thoracic cavities. The only reasonable way of accounting for such rapid death when the heart receives a severe injury is to believe that its nervous mechanism is paralysed. This is a bald statement, but no other explanation is available. It is recognized that any mechanical stimulation of short duration causes temporary arrest of the heart's action and systolic contraction.

A very common cause of rapid death from penetrating wounds of the heart is bleeding, and the fatal event in

these circumstances may be delayed for some hours. In investigating the manner in which death is brought about, we must realize that it is not always due to what may conveniently be called traumatic anaemia, but by compression, for the heart being completely enclosed in its bag or pericardium, the blood as it issues from the wound in the heart fills the pericardial sac, and this effused blood may, and occasionally does, exert such pressure on the big vessels issuing from the base of the heart, and so strangulates them, that the organ becomes literally suffocated, or drowned in its own blood. The rapidity with which death comes depends on the size of the wound in the heart. Until I realized this I often wondered why playwrights put long speeches into the mouths of players when they were mortally wounded by heart-thrusts. There is justification for the speech made by Mercutio after Tybalt ran his rapier into the chest of this quick-witted creation of Shakespeare:

"What, art thou hurt?" says Benvolio. To this Mercutio replies:

"Ay, ay, a scratch, a scratch; marry it is enough."

To Romeo's suggestion that the hurt cannot be much, Mercutio replies:

"No; 'tis not so deep as a well, nor so wide as a church door; but 'tis enough, 'twill serve: ask for me to-morrow, and you shall find me a grave man." (*Romeo and Juliet*, Act III, Scene 1.)

When the weapon with which the wound is inflicted is of a coarse kind, and the pericardium is damaged and unable to retain the escaping blood, death quickly comes. As an example of such an injury reference may be made to the way in which Abner killed Asahel:

> With the hinder part of his spear he smote him under the fifth rib, and the spear came out behind him; and he fell down there, and died in the same place. (2 Sam. ii, 23.)

For a similar case see also Joab's treacherous murder of Amasa (2 Sam. xx, 10).

Wounds of the auricles are, as a rule, more rapidly fatal than wounds of the ventricles. This is capable of explanation. We know from observations on such a vascular and muscular organ as the pregnant uterus that its walls may be rudely divided by the horn of an ox, or skilfully split by the surgeon for many inches with a scalpel, yet the contraction of the muscular fibre of the uterus is so quick and powerful that the bleeding stops and very little blood is lost. In grave penetrating injuries of the uterus by bullets, knives, or the blunt instruments of the gynaecologist, and the clumsy tools of the criminal abortionist, death from bleeding is almost unknown. Similar conditions happen in the heart. It is a fact derived from common observation that punctured wounds of the heart by a needle, hatpin, or a stiletto are rarely fatal from bleeding. Moreover, in cases of stab wounds of the ventricles, when the chest wall has been opened up and the pulsating heart exposed to view, the blood may sometimes be seen spurting out of the wound in the ventricular wall during the contracting stage. In some conditions when the heart is thus exposed the surgeon finds free blood in the pericardial cavity, but cannot find the puncture; he then gently compresses the big vessels at the base of the heart and causes the cardiac cavities to become over-full, then the blood spurts through the hole in the heart's wall and reveals the position of the puncture.

It is true that large wounds of the heart cause death and small wounds may heal; few surgeons realize how tolerant the heart is of gross injuries. Bullets have been removed from its walls four months after their lodgement. There is also the remarkable case reported by Schloffer in which a youth aged 18 shot himself in the heart with a 7 mm. revolver. There was much shock for some hours. Next day the patient complained of pain in the right arm, and the limb presented signs of "ischemic paralysis"; the bullet was detected in the axilla. Two months and a half later the bullet was excised. The artery above and below the bullet was thrombosed. Schloffer offers as a satisfactory explanation of these facts that the bullet penetrated the chest, the wall of the left ventricle, and lodged in the cavity of that ventricle; thence it was projected as an embolus through the aorta, the innominate and the subclavian artery, to be arrested at the beginning of the axillary artery. The difficulties with the arm slowly disappeared, and later signs of narrowing and insufficiency o the mitral valve declared themselves.

The heart may be traversed by a bullet and the patien recover. Connor recorded a case in which a boy, aged 1 was wounded in the cardiac region by a pistol bullet; h remained ill for some days, but was able to get abou again, though he remained weak and anaemic. He die three years after the injury. It was found, on examinin the heart after death, that the bullet had traversed th right ventricle, and opened the left ventricle and the righ auricle; it was found at the root of the lower lobe of th right lung.

DIAGNOSIS.

When a patient comes under observation after a seve injury to the chest caused by a fall, or from being ru over, kicked by a horse, gored by an ox, transfixed by th pole of a van or a carriage, shot accidentally by a frien designedly by an adversary, or intentionally by himsel stabbed in a fit of jealousy, or in a civil broil, or in reveng and in one or other of the one thousand and one ways which such injuries are produced, it remains for th surgeon to decide whether the heart is injured, and if th heart has received serious injury; the surgeon must al endeavour to determine whether the injury concerns th organ alone, implicates other important structures, suc for example, as the lung, pleura, diaphragm, colo stomach, or liver.

In surgical books the rules laid down for our guidan are clear, but it often requires some acumen as well experience to ascertain the nature of the injury and extent. Injured patients do not come under our observ tion with their injuries labelled; were this so our wo would be simplified. It is easy to act when we know t conditions which require the action.

The heart when full of blood and discharging its fur tions, occupies a considerable space in the left half of t thoracic cavity. Under normal conditions a small porti passes across the middle line to the right side of t thoracic cavity and this portion is a part of the rig auricle (in cases of transposition of viscera these relatio are reversed). The left auricle lies in relation with t bodies of the thoracic vertebrae from the fourth to t eighth. The bulk of the right ventricle and part of t right auricle lie on the diaphragm, separated of cou from this muscle by the pericardium. Although a la area of the pericardium is in relation with the anter wall of the left half of the chest the greater part of t area has the anterior thin edge of the lung, and the ple associated with it, lying between the pericardium and chest wall. The area of the pericardium in actual cont with the chest wall is very small. These relations important, because it is in a very small proportion of ca that the pericardium and heart are injured in punctu wounds of the chest unassociated with wounds of lung pleura, and in a fair proportion of instances the peritone also, for the heart may be wounded by thrusts, malici as well as accidental, from the back, as well as from side, and from below as well as in the commonest of directions from the front.

It is a fact that there is no unequivocal sign of injury the heart. When a man or woman is seen with a knif long needle, or a dagger sticking in the cardiac regio the chest and the victim is living, the handle of knife, dagger, or projecting portion of the needle mo synchronously with the beating of the heart.

The following extract from the *Iliad*, Book IV, is c sidered to indicate that Homer was aquainted with sign of injury to the heart:

> His lance bold Thoas at the conqueror sent,
> Deep in his breast above the pap it went,
> Amid the lungs was fixed the wingèd wood,
> And quivering in his heaving bosom stood.

All surgeons who read the *Iliad* of Homer carefully agree with Buckley's remark that "Homer is n anatomically correct as to the parts of the body in wh a wound would be immediately mortal." Modern p wrights would not waste their time if they read s anatomy and surgery.

The heart may be wounded with a bullet, or a sh instrument, and bleed profusely into the pericardial and no blood escapes externally. A patient in this dition always exhibits symptoms the gravity of which out of all proportion to the size of the external wo

Then signs indicative of profuse internal haemorrhage (or traumatic anaemia) arise, such as shock, pallor, rapid pulse, cold sweats, sighing respiration, subnormal temperature and restlessness. If measures are not promptly taken to stay the bleeding, death is not long delayed. When the bleeding takes place into the pericardial cavity and the blood is retained in this bag, producing compression of the vessels, the clinical signs are often characteristic. The patient becomes blue (cyanosed) and breathes with difficulty (dyspnoea); there is an increase in the area of the cardiac dullness, and the sounds of the heart are muffled. The diagnosis of haemopericardium in the presence of such signs is not difficult to make. The amount of blood which the pericardium will hold is astonishing. A man, aged 23 years, received an injury to his heart whilst playing at football. Eventually Mr. C. Mansell-Moullin removed through an incision in the fifth intercostal space and drained away 6 pints of blood.

When the pleura and lung, as well as the heart, are injured, curious sounds may be heard on auscultation—splashing, whistling, gurgling, and similar weird noises.

When a cardiac injury is complicated with a wound of the pleura, air will rush in and out of the thorax with the respiratory movements and cause the blood to appear frothy as it issues through the external wound. It is estimated that in 80 per cent. of the wounds of the heart the pleura is injured likewise, and the importance of this is very great, for pleuro-pericardial infections are the common causes of death after operations performed for injury to the heart.

TREATMENT.

Previous to 1896 it was the custom to teach that in the majority of cases injuries of the heart do not admit of any treatment, and this is in a measure true to-day. In a well-known and widely used textbook published in 1896 it is stated that "suture of wounds of the heart has been proposed." In discussing the treatment of haemopericardium following injury the same writer adds: "Operation affords only the slenderest, if indeed any, prospect of good."

Severe injuries to the heart are still as fatal as formerly because life is destroyed so quickly that surgery has no chance; punctured wounds of the heart leading to haemopericardium are submitted to surgical treatment with fair prospect of success, and if there be no concurrent wound of the pleura the chances of success are great. The method of saving life in such circumstances may be definitely formulated; it consists in exposing the pericardium by fashioning an osteoplastic flap from the chest wall and turning it to one side so as to expose the pericardium; then, in opening this membrane and exposing the heart, finding the wound, and closing it by means of sutures.

Anaesthesia.

The question of administration of an anaesthetic in operations for exposing an injured heart for the purpose of applying sutures to the wound cannot be determined by rules; it must be left to the judgement of the surgeon. In some cases the patient has been so collapsed that an anaesthetic would have probably ended fatally. In such cases the patient, being in a state of collapse, would probably be insensible to painful sensations. In others the excitement would be so extreme as to render the administration of chloroform highly desirable. These remarks only apply to cases of primary suture. In operations for suturing a wound which has been inflicted some hours previously, as for extracting foreign bodies from its walls which have been embedded many days, or even weeks, the induction of unconsciousness by ether or chloroform is as necessary and as advantageous as in any of the common operations of surgery.

Operation.

The manner of conducting surgical operations for punctured wounds of the heart requires careful consideration. Sepsis is the common cause of failure. This is in part due to the difficulty of preparing the patient for the operation with the same thoroughness as in cases less urgent, but chiefly to the fact that the injury is inflicted with a dirty (septic) instrument or weapon, and if the pleura be injured, as is so commonly the case, air and germs have free access to the parts.

Although the method usually employed for exposing the heart consists in fashioning an osteoplastic flap from the chest wall immediately over the anterior surface of the heart, it admits of three modifications:

(*a*) The skin is incised at the left side of the sternum at the level of the third intercostal space, and carried out as far as the nipple line; a second incision is made parallel with this along the fifth intercostal space, and the ends of these incisions are joined by a cut parallel with the left border of the sternum. The costal cartilages are divided, and the flap thus formed is turned outwards; the pleura is stripped off if possible, and the ribs are divided or broken just beyond the costo-chondral junctions. The flap reflected in this way consists of skin, costal cartilages, intercostal muscles, and a section of the internal mammary vessels.

(*b*) This method may be reversed. The parallel incisions along the intercostal spaces are united by a vertical incision near the nipple line; the ribs are divided beyond their costo-chondral junctions, and the osteoplastic flap is turned towards the sternum. In both methods the pleural cavity is almost certain to be opened.

(*c*) In order to avoid opening the pleura and at the same time to make a good exposure of the heart, the vertical incision should be made on the right side of the sternum from the third to the fifth intercostal spaces, and the parallel incision should cross the sternum and extend outwards as far as the left costo-chondral junctions. The piece of the sternum thus involved and the costal cartilages of the fourth and fifth ribs of the right side are divided, and the osteoplastic flap thus formed is turned to the left side, the costal cartilages forming a hinge.

Whichever method be adopted, the surgeon can vary it to meet the needs of the cases. After reflecting the flap and arresting bleeding from vessels divided in the chest wall, access to the pericardial cavity is obtained by enlarging the wound already existing in the pericardium. The blood effused into it is carefully removed; in some cases it is large in quantity. It is preferable to remove the blood by sterilized dabs than to wash it out. The surgeon then seeks for the wound in the heart. In cases where the foreign body which inflicted the injury remains *in situ* the wound is readily found. In some fortunate instances the cavities of the heart are not penetrated and the blood oozes from the lacerated tissues of the heart, or from a large branch of, or from a coronary artery. When the bleeding is from an artery, the injured vessel should be ligatured with thin sterilized silk. It has happened that the blood in the pericardial chamber has been furnished by an injury to the internal mammary artery.

When the surgeon exposes the heart the wound in the auricular or the ventricular wall is usually seen at once, the blood issuing intermittently. Sometimes the wound is not so obvious; then by gently compressing the vessels at the root of the heart the cavities fill, and the leaking spot is seen. The wound may be large and blood gush out freely; this may be checked by gently compressing the walls on each side of the wound, or even introducing the finger as a plug.

When the surgeon finds the wound, and clears away the blood, he then closes the opening in the heart with sutures. The material used for this purpose is either thin sterilized silk or catgut. Of these silk is preferable, and it is most conveniently introduced with a curved needle. The number required varies with the size of the wound, and it is useful, if the wound requires a series of sutures, after introducing the first one, to use it as a retaining suture in order to steady the heart, and thus facilitate the process of suturing. It is preferable to use interrupted sutures; they should be passed in such a manner as to avoid the thread projecting into the cavity of the heart; such a thread might lead to the formation of a thrombus and a consequent embolus. It can be imagined that it is not always an easy matter to pass sutures successfully through the wall of the living heart, especially if it be beating tumultuously, as is sometimes the case during the progress of such operations. In tying the sutures care should be taken not to pull them too hard, or the tissues of the heart will tear. The number of sutures required to close a hole in the heart wall varies greatly. When the wound is effectively sewn up the surgeon should examine the posterior surface of the heart, for in stab wounds the

organ is sometimes completely transfixed. Success has followed operative treatment of such a severe injury.

It has also happened that bullets have traversed the heart completely and the aperture of entry and that of exit has been closed with sutures and the patient's life saved. In one remarkable instance a revolver bullet (5 mm.) entered the right ventricle and the aperture of entry was closed with sutures; on careful palpation the bullet was detected in the posterior wall of the left ventricle and removed with success (von Manteuffel). In this case the surgeon states that when the opening in the right ventricle was exposed a blood fountain ½ metre high gushed out with each systole of the heart.

A remarkable case was reported in 1908 by Guinard. A garçon de café, aged 26, was shot in the chest and abdomen; one bullet entered the ninth intercostal space, 4 in. to the left of the spinous process. The abdomen was opened and nothing found. Four months later the man returned complaining of dyspnoea, cough, and inflammatory oedema of the chest wall below and to the outside of the nipple line. The *x* rays revealed the bullet an inch or so behind the ribs. The sixth rib was resected and the pericardium opened. The bullet (7 mm.), surrounded by a piece of the man's shirt, was extracted with forceps. He recovered in spite of an extensive pleural effusion. A piece of the man's coat had also been carried in with the bullet; it lay under the chest wall. When Guinard communicated his case to the Surgical Society of Paris the boy was in the hospital with a fistula. In reply to a letter (1910) Mons. A. Guinard kindly informed me that he had heard nothing more of the boy, so he came to the conclusion that he had remained well.

Some of the injuries to the heart are remarkable. Schubert reports a case in which a ball passed through the heart, and he succeeded in closing the opening of "entrance and exit"; the man recovered. Schubert is of opinion that the bullet traversed the intraventricular septum.

It has happened that a man sustains a serious damage to his chest, and the surgeon in charge suspects an injury to the heart; on opening the pericardium he finds the heart uninjured. In all cases of cardiac wounds which are treated by operative methods it is important that the surgeon should in the course of the operation examine the lung and pleura in order to ascertain their freedom, or otherwise, from injury. If the pleural cavity contain blood it must be removed carefully, and the hole in the pleura should be closed with sutures of fine silk. Blood, sometimes in large quantity, has been poured out from a wounded heart into the pleura; this has been removed in the course of the operation, and the pleura closed without drainage.

This is an important detail. Many surgeons, in reporting cases of cardiac suture in the last two years, insist on the avoidance of drainage, believing that some of the patients who have survived the immediate shock of the initial injury and the operation have died from septic sequelae. Some of these septic complications probably arose from secondary infection through the drainage tube.

It is stated that wounds of the auricles are more fatal than those of the ventricles. In Vaughan's list of 150 cases an auricle was wounded in 8. These numbers are too small to make any comparison of the relative danger of wounds of the auricles and ventricles reliable, but it raises suspicions of another kind, namely, the probability that wounds of the auricles are, as a rule, so quickly fatal that the patients with such injuries die before there is time to place them in the hands of a surgeon.

This is a matter of great importance; I have tried, but without results, to obtain facts in regard to the localization of fatal wounds of the heart which would enable a definite answer to be given to this question. In future it would serve a very useful purpose if those who had the opportunity of conducting *post-mortem* examinations upon men and women who lose their lives from wounds of the heart to accurately note the region of the organ which is injured. A score of such observations would be very valuable.

At the present time the mortality of the operation known as "suture of the heart" is about 65 per cent., according to Vaughan. He also shows in his excellent paper that the mortality of this operation has not diminished during the last twelve years. The secondary causes of death in the majority of cases are pericarditis, pleurisy, pneumonia, and bronchopneumonia; some of these complications are due to the use of drain tubes.

In spite of the high mortality it is a matter for congratulation that surgery can save 35 per cent. of the patients suffering from a wound which untreated is usually mortal.

Bibliography.

Davis, T.: Singular Case of a Foreign Body Found in the Heart of a Boy, *Trans. of the Provincial Medical and Surgical Association*, 1834, ii, 357.

Guinard, A.: Balle de revolver logée à la pointe du cœur. Extraction de la balle après quatre mois. Guérison. *Bull. et mém. Soc. de Chir.*, 1908, xxxiv, 24.

Mansell-Moullin, C.: A Case of Haemopericardium, *Lancet*, 1897, i, 314.

Manteuffel, Professor v.: Schussverletzung des Herzen. Naht. Extraktion der Kugel aus der hinter Wand. Heilung. *Cent. f. Chir.*, 1905, 1096.

Rehn: The Successful Treatment of a Wound of the Heart, *Lancet*, 1897, i, 1306.

Schloffer: Ueber embolische Verschleppung von Projektilen nebst Bemerkungen über die Schussvertletzungen des Herzens und der grossen Gefässe, *Beit. z. klin. Chir.*, 1903, xxxvii, 698.

Spencer, W. G.: Punctured Wound of Right Ventricle, *Trans. Clinical Society*, 1896-7, xxx, 1-5.

Vaughan, G. T: Suture of Wounds of the Heart, *Journ. Amer. Med. Assoc*, 1909, vol. lii, 429.

Remarks

ON A

CASE OF PROBABLE OVARIAN PREGNANCY.

BY

BECKWITH WHITEHOUSE, M.S.Lond., F.R.C.S.Eng.,

ASSISTANT GYNAECOLOGIST TO THE GENERAL HOSPITAL, BIRMINGHAM.

The literature of ovarian pregnancy increases rapidly, and each year adds its quota to the store of recorded cases. The last few years particularly have been lucrative in this respect. In 1908 Teacher and Bryce[1] published their well-known monograph on the early changes associated with normal uterine pregnancy, including a very valuable report on a specimen of early ovarian gestation. In August, 1909, appeared Norris's paper[2] on ovarian pregnancy, with the detailed account of a case and summary of previously recorded literature. Hastings Tweedy[3] has recently described a specimen of this condition occurring in Ireland, and the current year has seen also the publication by Prince[4] of a case of full-term gestation in this abnormal position. In spite of this mass of accumulating literature, however, little is known of the processes taking place in an ovary the seat of such an occurrence. The etiology and early pathology of the condition is still largely speculative, and the true facts can be reached only by the comparison of authentic records and the very careful investigation of every specimen that falls to the lot of the individual worker.

The case I now publish is wanting in some details, but it raises several points which may have an important bearing upon the work of others.

History.

The patient, E. J. B., 25 years of age, had been married for five and a half years. She had had two previous confinements, dated June 6th, 1905, and March 16th, 1908, respectively. The first pregnancy and labour were normal in every particular, but the second was noteworthy from the fact that menstruation was regular during the first three months. The catamenia were absent for three months following the second confinement, but recurred on June 16th, 1908. The function was regularly repeated till December 19th, the last period terminating on December 25th. Coitus occurred on two occasions during December, namely, the 12th and 26th. At 1 p.m. on December 31st, 1908, after pushing a heavy wringing machine, the patient was seized suddenly with acute abdominal pain, localized in the right iliac fossa. It was unrelieved by rest and fomentations. Vomiting occurred twice, but although faintness was present, she did not lose consciousness. The pain remained constant till 1 a.m. on January 1st, 1909. It then passed off, but recurred on the following day, when she rapidly became worse, and was admitted to the General Hospital, Birmingham, at 3.30 p.m.

On admission her condition suggested acute appendicitis. The abdomen was exquisitely tender, especially in the right iliac fossa. The abdominal muscles were rigid, and the percussion note over the above-named area was dull. The pulse-rate measured 132 at the radial artery, and the temperature registered 100.4° F.

Operation.

The abdomen was explored during the same evening by Mr. Lucas and the peritoneal cavity found full of blood-clot. Ruptured extrauterine gestation was diagnosed, and the source of the haemorrhage traced to the right ovary, from which protruded a small mass of clot. Both Fallopian tubes and the left ovary were quite normal. The uterus was not enlarged. Right salpingo-oöphorectomy was performed, the patient making an uneventful recovery.

Description of Specimen.

The specimen was handed to me for investigation on the morning of January 4th, 1909, when the following notes were made:

"The specimen consists of the right ovary and Fallopian tube, with the corresponding mesosalpinx and mesovarium. It is free from all adhesions, and there is no evidence of any inflammation, acute or chronic. The ovary forms an elongated oval body, 5.4 cm. in length by 4 cm. in breadth. It is divided roughly into two equal portions. The upper or tubal half is somewhat quadrilateral and attached to the tube by the fimbria ovarica. The structure is firm, and appears to consist of normal ovarian tissue. Its colour is dull white, and the surface shows slight puckering, due to scars from previously ruptured follicles. The lower half of the ovary at the attachment to the ovarian ligament is dilated, and forms a rounded swelling with the following measurements: 4 cm. by 3 cm. by 2 cm. A rough granular area, 1 cm. in diameter, to which a small blood clot is adherent, is present at the extreme lower limit of this spherical enlargement. The clot appears to issue from a rupture in the wall of the swelling. There is no evidence of blood extravasation at any other part of the specimen.

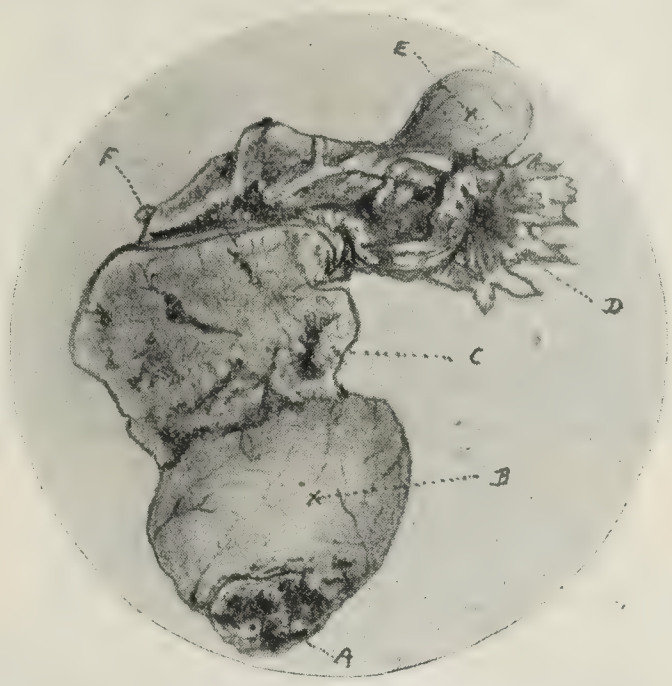


Fig. 1.—Specimen of ovary and Fallopian tube as removed at operation. A, Blood clot on surface of ovary; B, cyst at uterine pole of ovary; C, normal ovarian tissue; D, ostium of Fallopian tube; E, Kobelt's cyst; F, cut isthmic extremity of Fallopian tube.

"The Fallopian tube is normal in every way. The ostium is patent and the fimbriae luxuriant. In length, the tube measures 4 cm.; it is not distended, and is free from blood clot and adhesions.

"The mesosalpinx presents a well-marked Kobelt's cyst, but otherwise is normal."

In view of the possibility of ovarian pregnancy, I made a drawing of the specimen (Fig. 1) and placed the latter in the following hardening solutions, before submitting it to any further investigations:

Sodium sulphate	50 gr.
Magnesium sulphate	50 ,,
Sodium chloride	25 ,,
Formalin	200 c.cm.
Water	2,500 ,,

The specimen remained in this solution for seven days. It was then transferred to the second solution for a further period of fourteen days, namely:

Glycerine	600 c.cm.
Formalin	20 ,,
Sat. solution of potassium acetate ...	20 ,,
Distilled water	400 ,,

After hardening, the ovary was divided vertically from tubal to uterine pole, splitting it approximately into equal halves. The line of section passed through the centre of the clot on the surface of the organ. The following notes were made on the sectioned specimen:

"The quadrilateral tubal pole of the organ is solid, and macroscopically appears to consist of healthy ovarian tissue. A few small follicles are present in the substance of the ovary with one well-marked corpus albicans. The lower spherical area consists of a cyst about the size of a cherry, with translucent yellowish contents, coagulated by the agents employed in hardening the specimen. The lining of this cyst is composed of yellow friable tissue typically lutein in nature. It is definitely encapsuled, and at no spot is there any communication with the adjacent blood clot. This lutein cyst constitutes the only lutein element seen macroscopically in the specimen.

"The mass of blood clot adherent to the surface of the ovary is found on section to measure 0.5 cm. in thickness. It is solid throughout, and penetrates into the substance of the organ for a distance of 3 mm. It lies directly over the lutein cyst, at the pole most distant to the Fallopian tube. It is separated from lutein tissue, however, by a bridge 5 mm. in thickness and macroscopically having no connexion with the cystic corpus luteum.

"No chorionic vesicle or fetal structures of any kind are visible to the naked eye, the clot being firm and homogeneous throughout.

"The Fallopian tube on section presents a wall and mucosa that are normal in every respect. The natural folds of the latter are very well marked, and there is neither haemorrhage nor swelling in any part of the tube."

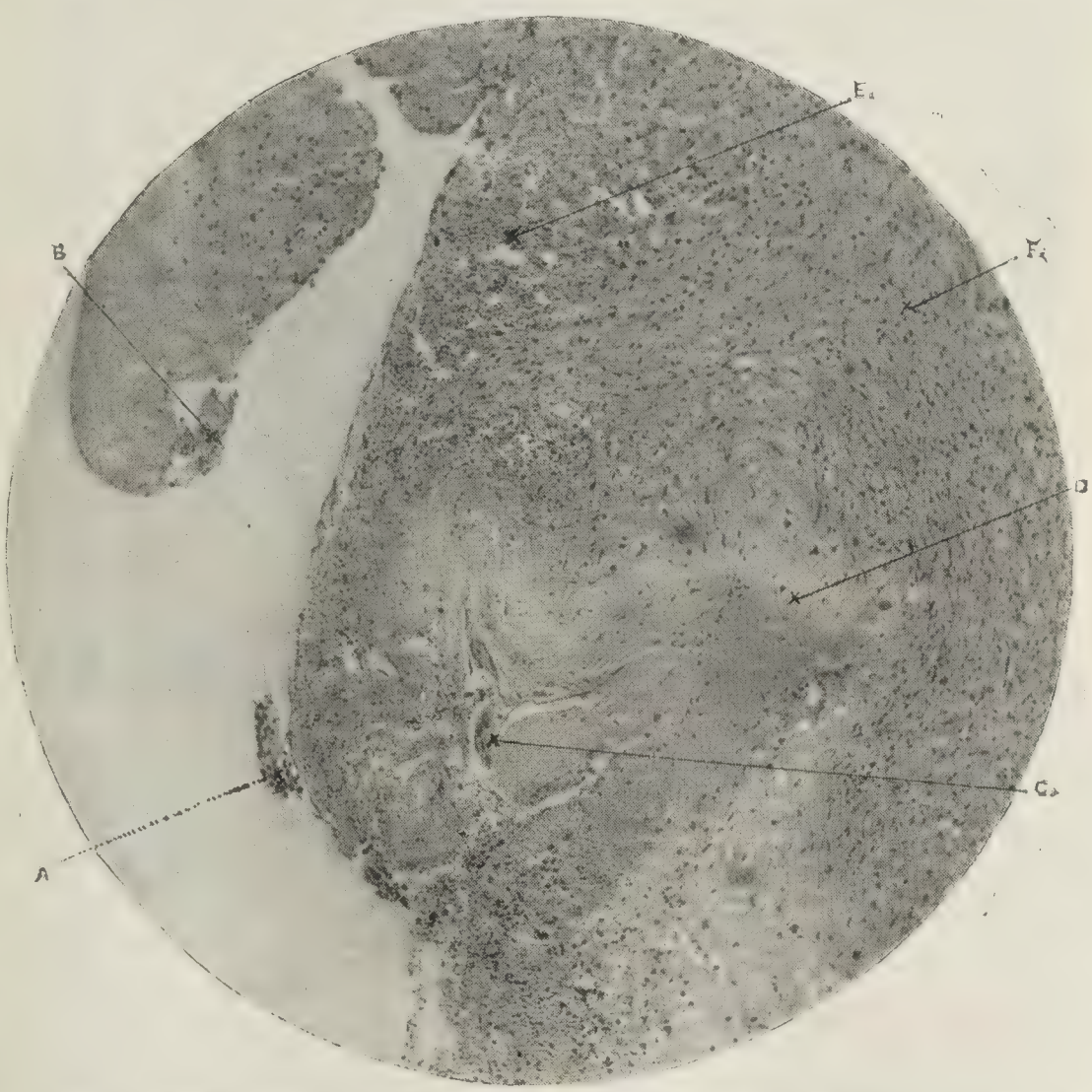


Fig. 2.—Vertical section through portion of ovary at site of gestation. A, Plasmodotrophoblast on surface of ovary; B, ditto; C, ditto in substance of ovary, occupying capillary vessel; D, fibrinous and necrotic zone limiting normal ovarian stroma; E, blood clot; F, normal ovarian stroma. (For description see text.)

Microscopical sections were taken from the periphery of the clot and carefully examined. No fetal elements were found, although extravasation of blood had occurred to a considerable depth in the tissue. It was then decided to sacrifice the specimen and convert the whole area containing blood clot into serial sections, in the hope of finding gestation products. The sections were cut in the vertical direction and carefully numbered, to render reconstruction possible. Each tenth section was submitted to microscopical examination.

Microscopical Report on Specimen.

The sections show definite plasmodo-trophoblast attached to the surface of the ovary and invading the superficial layers. There is much blood extravasation and necrosis of the ovarian tissue immediately surrounding the haemorrhagic area. The

normal ovarian stroma is marked off from the necrotic zone by a tortuous band of fibrin and fibrous tissue. The surface of the ovary presents an irregular cavity from which the contents have escaped. The presence of plasmodo-trophoblast attached to the walls of this gap suggests that it was originally occupied by a blastocyst, the latter being lost in the blood clot resulting from the rupture. No chorionic villi are seen, and the pregnancy is presumably of very short duration.

A portion of the ovary showing plasmodo-trophoblast lining the cavity above mentioned is illustrated in Fig. 2. The photomicrograph gives a general view of the structure seen on vertical section through the centre of the blood clot on the surface of the ovary. The trophoblast appears as isolated strands of protoplasm containing numerous darkly-stained nuclei. It is attached principally to the surface of the ovary, but a mass of similarly nucleated protoplasm is seen deep in the tissues occupying the lumen of a capillary vessel. It is limited peripherally by a tortuous band of fibrous tissue undergoing necrosis. The latter merges into the normal ovarian stroma seen at the extreme right of the section. There is considerable extravasation of red cells into the stroma at the upper part of the photograph, but the trophoblastic elements are here absent.

Fig. 3 illustrates a portion of the same tissue under a higher magnification ($\frac{1}{8}$ objective). The characters of the plasmodo-trophoblast are well seen and the situation of a mass of protoplasm in the lumen of a capillary vessel eroding its wall affords some explanation of the large haemorrhage which has caused destruction of the specimen. A few large solitary cells with a single definite nucleus are also present in the section. According to Teacher and Bryce, such cells are probably maternal and possibly point to an effort on the part of the ovary to produce decidua from the connective tissue stroma cells.

Fig. 4 shows a section taken at a deeper level than the preceding and forms a continuation with the latter. It illustrates the minute structure of the cyst wall lying beneath the seat of the pregnancy. It will be seen that the immediate lining of the cyst is composed of dense fibrous tissue. This is limited peripherally by typical lutein cells. There has been a small haemorrhage into the fibrous tissue, but the wall is entirely intact and the lumen is occupied by hyaline contents. There is no plug of fibrin or any irregularity in the contour of the cyst, and the lutein tissue in the ovary is confined absolutely to the immediate vicinity of this body.

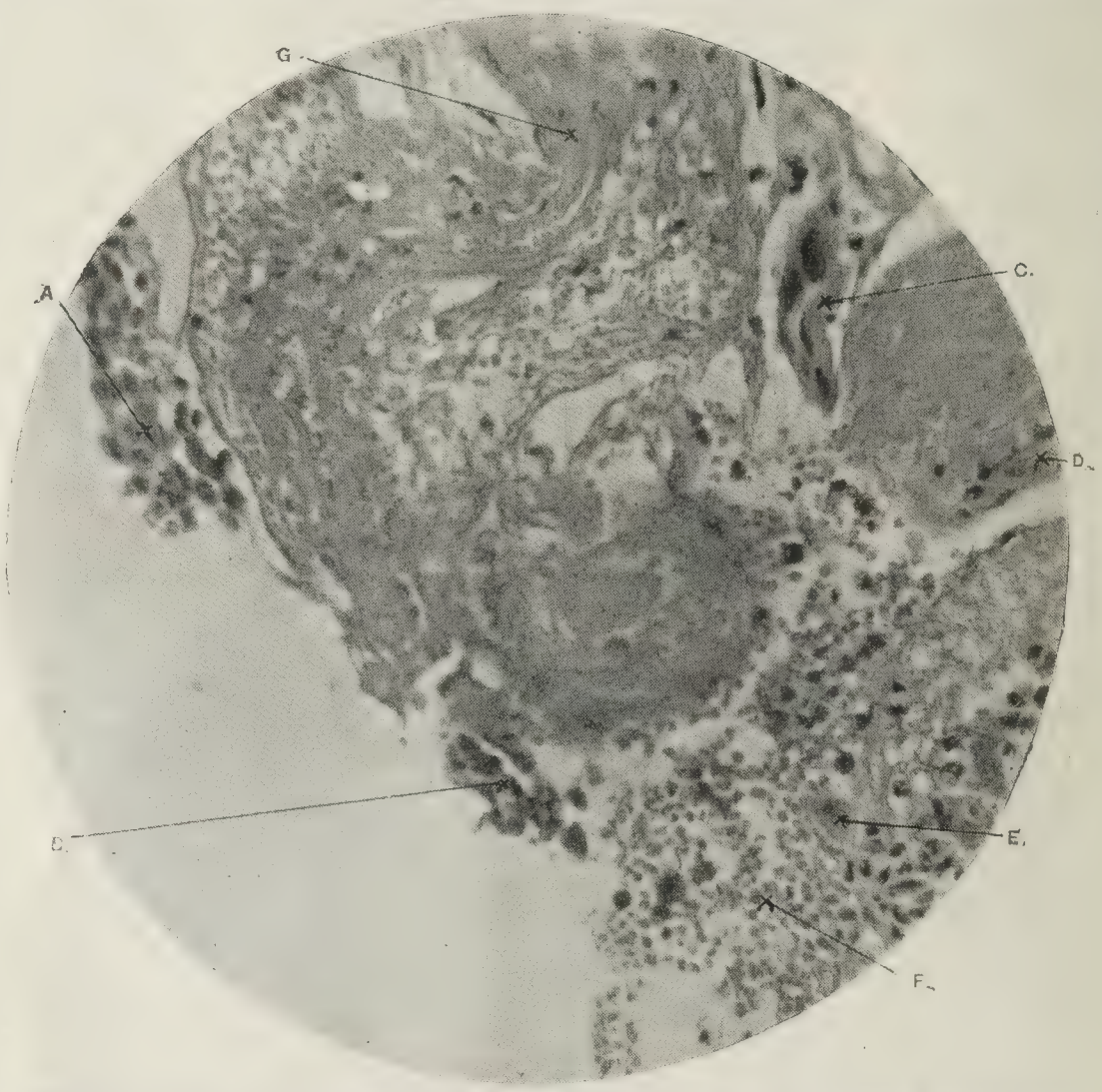


Fig. 3.—Portion of tissue seen in Fig. 2 under $\frac{1}{8}$ objective. A, Plasmodo-trophoblast on surface of ovary; B, ditto; C, plasmodo-trophoblast occupying lumen of ruptured capillary; D, decidual-like stroma cell; E, ditto; F, blood clot; G, fibrinous and necrotic zone. (For description see text.)

Microscopical examination of the Fallopian tube showed a perfectly normal structure. No evidence of any haemorrhage or fetal structures was found. Furthermore, no decidual reaction was noted in any of the tubal sections examined.

This case suggests several interesting points for discussion. In the first place, can it be granted that the presence of plasmodo-trophoblast is sufficient evidence of pregnancy? Without this assumption the specimen falls to the ground as an example of ovarian gestation, as further evidence of pregnancy is wanting. No chorionic villi are present, and the blastocyst has been lost apparently in the blood clot removed at the operation. C. van Tussenbroek[5] argued from her historical specimen that the plasmodium covering the villi of an ovum embedded in the ovary cannot be a derivative of the uterine epithelium, and the work of Teacher and Bryce[1] furnishes very decisive proof that this plasmodium is definitely fetal. Granting, then, that trophoblast is essentially a product of gestation, is one justified in stating that this tissue is only found under these circumstances? The recent work on chorion-epithelioma appears to negative this assertion. On June 10th, 1909, Fairbairn[6] exhibited a specimen of primary chorion-epithelioma of the ovary before the Obstetrical and Gynaecological Section of the Royal Society of Medicine. A full report of this remarkable specimen, with reference to similar cases described by Döderlein and others, appeared in the Society's *Transactions* for July, 1909. Sections of this tumour showed the usual syncytial meshwork with masses of polyhedral cells derived from Langhans's layer. No decidual reaction was present in either tube or uterus, and there was nothing in the history of the case to suggest that the condition had supervened upon a previous pregnancy. Pick,[7] also, has collected seven cases of primary ovarian tumour containing chorion-epitheliomatous elements; several of these neoplasms occurred in young girls before the age of puberty, and more than one contained teratomatous elements. Reference also should be made to the cases of Kanthack[8] and Eden and Schlagenhaufer.[9] These authors also mention the presence of plasmodial tissue in association with sarcomatous elements in the male testis. Schlagenhaufer suggested as an explanation that the chorion-epithelioma-like tissue represented the trophoblast of an included ovum, the latter being now generally regarded as the source of ovarian teratoma and dermoid tumours.

Ritchie[10] has described a dermoid containing plasmodium in the anterior mediastinum of a man, secondary nodules being present in the lungs, etc.

These cases prove that trophoblast may occur apart from pregnancy, and the thesis that can be used as arguments against the specimen described is an example of ovarian gestation, in the absence of more conclusive data. On the other hand, it must be noted that in all the above cases syncytium did not occur alone. It was always associated with other elements; either the polyhedral cells of chorion-epithelioma, sarcomatous cells, or definite teratomatous elements. No specimen is recorded in which plasmodo-trophoblast is the only abnormal structure present. Furthermore, all the above-mentioned cases were associated with the development of a tumour. In no instance was operation performed for an acute condition, and none were associated with internal bleeding. Severe internal haemorrhage has for long been associated with the rupture of an extrauterine gestation, although recent cases have shown that other factors may be concerned in the production of this catastrophe.

Cuthbert Lockyer[11] recently recorded two cases of pelvic haematocele of ovarian origin, and a third is described by Thomas Holmes[12] in the BRITISH MEDICAL JOURNAL of March 19th, 1910.

The present case would be included under this heading were it not for the presence of plasmodo-trophoblast,

which at once places it in a different category. The association of severe haemorrhage, with the presence of plasmodo-trophoblast and a recent corpus luteum, although cystic, and the absence of any tumour containing other chorion-epitheliomatous or teratomatous elements is strong evidence that the condition is one of ovarian gestation.

The pregnancy is apparently of extremely short duration, but in the absence of more exact data from the microscopical specimens the exact period can be only speculative. Little help is obtained from the menstrual history. During the first three months of her previous intrauterine pregnancy the patient menstruated regularly; and in the present instance there was no period of amenorrhoea previous to the illness terminating the gestation. In fact, the catamenia, normal in all respects, ended only six days before the onset of acute symptoms, and the patient was unaware that pregnancy had occurred. A very definite history regarding coitus was obtainable. The dates upon which coitus occurred were given as December 12th and 26th.

Teacher and Bryce,[1] following the observations of Birch-Hirschfeld,[13] allow twenty-four hours as the interval between coitus and normal fertilization. If it is granted that the gestation terminated on December 31st, with the onset of acute symptoms, a choice between eighteen and four days is possible as an index to its duration. It is impossible to correct or amplify these figures by His's convention, because no menstrual period was missed. The presence of plasmodo-trophoblast with a comparison of other early cases points to eighteen days as being approximately correct. In Teacher and Bryce's early case of ovarian pregnancy the duration is given as from twelve to fifteen days, and here definite chorionic villi with Langhans's cells and plasmodium are present.

In the earliest case of intrauterine pregnancy recorded—namely, fourteen and a half days (Teacher-Bryce ovum),[1] plasmodo-trophoblast and cyto-trophoblast are present, but no definite chorionic villi are seen. On the other hand, in the important ovum described by Eternod,[14] the age being 18 to 19 days, the villi are well developed and measure 1.2 to 2 mm. in length.

In the specimen I describe villi are entirely absent, although the plasmodo-trophoblast is well developed. Of course, it is possible that the villi have been lost with the blastocyst in the mass of blood clot. It is surprising, however, that not a single villus was seen after complete section of the specimen in the presence of such well-developed trophoblast.

One is forced, therefore, to the following conclusions: Either (1) the chorionic villi have been completely lost in the course of operation; or (2) the ovum is of a very early age, and the epiblastic proliferation constituting the trophoblast has not been invaded by the fetal mesoblast in the production of chorionic villi.

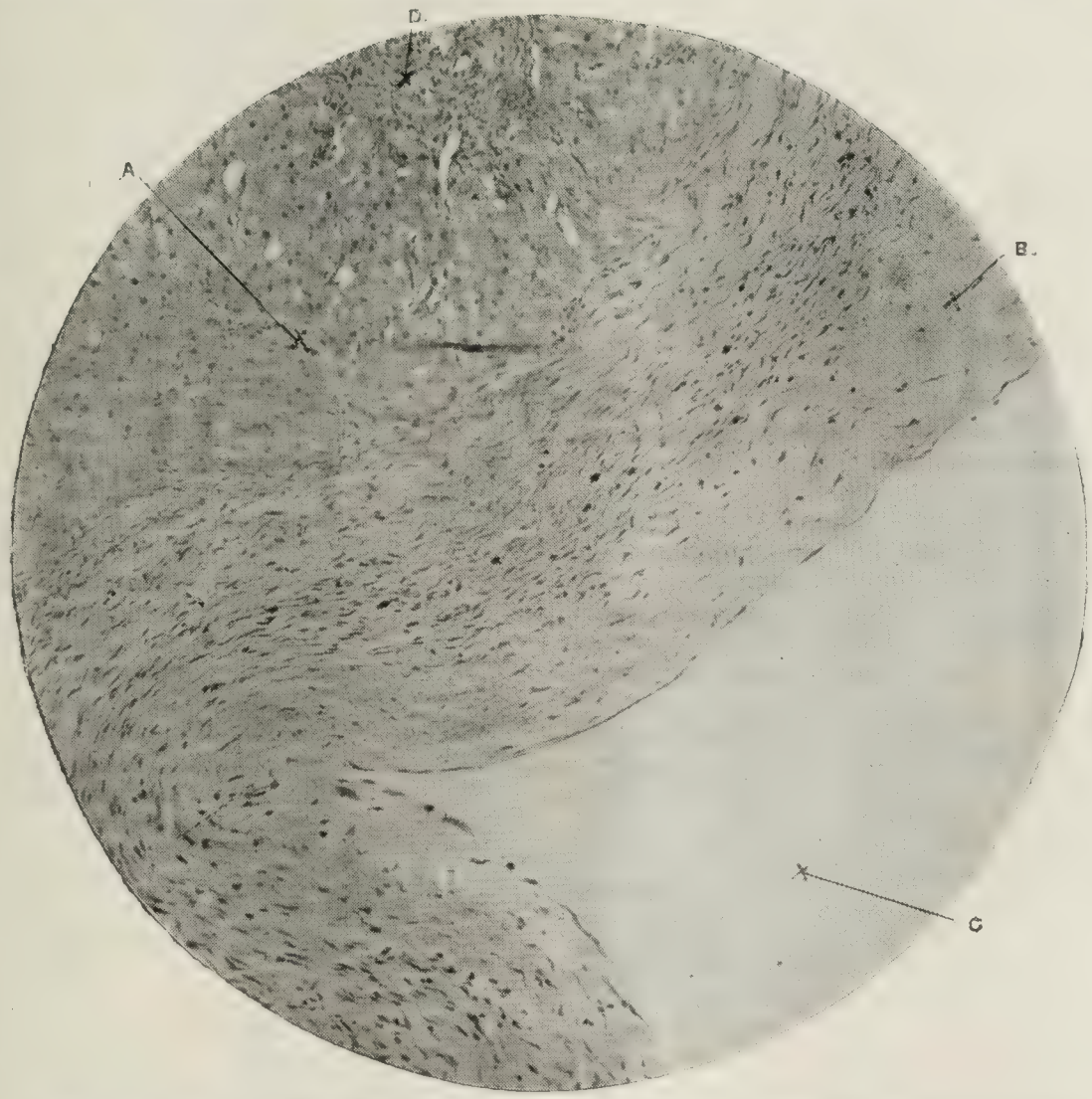


Fig. 4.—Section through wall of cyst shown in Fig. 1. A, Lutein cells; B, fibrous lining of cyst; C, hyaline contents of cyst; D, ovarian stroma cells. (For description see text.)

In the absence of further data it is impossible to fix the duration of the pregnancy within exact limits.

The relation of the pregnancy to surrounding structures must next be considered. Norris[2] in his paper referred to the conditions formulated by Speigelburg[15] which must be fulfilled before a diagnosis of ovarian gestation is justified. He furthermore added the rider that the Fallopian tube on the affected side must be microscopically free from any evidence of pregnancy. The present case conforms to these revised requirements. The Fallopian tube is macroscopically and microscopically normal. The evidence of gestation occupies the ovary, and the portion of the organ containing the specific elements is connected to the uterus by the ovarian ligament.

It remains, finally, to consider the relation of lutein tissue to the trophoblast. The corpus luteum in this specimen is represented by the cystic body described above and illustrated in Fig. 4. The relationship of cystic corpora lutea to abnormal pregnancy, ectopic and otherwise, is interesting. The condition is now well known and needs no further comment.

A point requiring emphasis, however, is that the wall of the cyst in this case is microscopically intact. The lutein cells are separated from the tissues containing trophoblast and extravasated blood by a narrow layer of normal ovarian stroma. This is bounded peripherally by the tortuous band of fibrous tissue and fibrin described above.

There is, in fact, no evidence of any previously existing connexion between the gestation elements and the follicle from which the ovum presumably is derived. The specimen, therefore, is in accordance with that described by Hewetson and Jordan-Lloyd.[16] It suggests the view that fertilization occurred on the surface of the ovary, and that the ovum, by virtue of its trophoblast, then burrowed into the gland.

As in other records, there is no decidual formation on the part of the corpus luteum. Reference has been made above to the possible decidual reaction of the ovarian stroma cells. A few of these large mononucleated cells are seen in the sections of this specimen, but their origin can only be speculative. It is upon the presence of decidual-like elements in the ovary that Webster[17] has based his theory of Müllerian tissue being an essential factor for the development of a fertilized ovum. The uterus and Fallopian tubes are Müllerian in development, but the ovary is of Wolffian origin. Webster argues that ovarian pregnancy can only occur within an ovary the seat of Müllerian inclusion. Norris[2] very rightly points out that decidual-like tissue has been found on the posterior surface of the uterus, peritoneum of Douglas's pouch, and rectum in women dying during or shortly after labour. Unless more definite evidence is forthcoming, ovarian pregnancy appears to point to the fallacy of Webster's theory.

The etiology of the present case is obscure, as there is no degree of inflammation about the Fallopian tube to prevent the entrance of the fertilized ovum to its lumen. Possibly over-activity of the lutein body stimulated trophoblastic formation and burrowing of the ovum before the latter had succeeded in obtaining access to the ostium abdominale by the peritubal peritoneal currents.

In conclusion, my thanks are due to Mr. Lucas, Assistant Surgeon to the General Hospital Birmingham, for the specimen forming the subject of this paper; and to Dr. Thomas Wilson, Honorary Gynaecologist to the General Hospital, Birmingham, for kind assistance in the microscopical investigation of the same.

REFERENCES.

[1] Teacher and Bryce, *Early Development and Imbedding of the Human Ovum*, 1908. [2] Norris, *Surgery, Gynaecology, and Obstetrics*, August, 1909. [3] Hastings Tweedy, *Proceedings Royal Society of Medicine*, vol. iii, No. 5, 1910. [4] Prince, *Journ. Amer. Med. Assoc.*, vol. liv, p. 461, 1910. [5] C. v. Tussenbroek, *Annales de Gynécologie*, December, 1899. [6] J. S. Fairbairn, *Journ. of Obstet. and Gynaec. of the British Empire*, vol. xvi, No. 1, 1909. [7] Pick, *Berl. klin. Wocn.*, No. 51, 1902. [8] Kanthack and Eden, *Trans. Obstet. Soc. of London*, 1895. [9] Schlagenhaufer, *Wien. klin. Woch*, May, 1902. [10] J. Ritchie, *Journ. of Obstet. and Gynaec. of the British Empire*, vol. iv, No. 1, 1903. [11] Cuthbert Lockyer, *Proc. Roy. Soc. of Med.*, vol. iii, No. 4, 1910. [12] Thomas Holmes, BRITISH MEDICAL JOURNAL, March 19th, 1910. [13] Birch-Hirschfeld, *Uterus und Kind*, Leipzig, 1897. [14] Eternod, *Anat. Anzeiger*, 1898, xv, Nos. 11 and 12. [15] Speigelburg, *Arch. f. Gyn.*, 1878, xiii, 73. [16] Hewetson and Jordan Lloyd, BRITISH MEDICAL JOURNAL, 1906, vol. ii, p. 568. [17] Webster, *Trans. Amer. Gyn. Soc.*, vol. xxix, 1904.

NOTES ON ONE THOUSAND CASES OF INSTRUMENTAL LABOUR, WITH FOUR DEATHS, IN A COLLIERY PRACTICE.*

BY

I. CRAWFORD, L.R.C.P., L.R.C.S.EDIN., L.F.P.S.GLASG.

TREDEGAR, MONMOUTHSHIRE.

THIS series of 1,000 instrumental labour cases might be termed consecutive if it were not for the fact that about twelve natural labours occurred amongst them.

They extend over a period of thirteen and a half years, and comprise the second series of 1,000 midwifery cases of which I have had experience. I had 4 deaths, giving a death-rate of 0.4 per cent.

In colliery practices we are only sent for when the midwife thinks that help is required. The rule I impose upon the midwives is: In the case of a primipara with dilated os and good pains, wait two hours. In the case of a multipara, wait at least one hour. The one great drawback to this method of practice is that of course all preventable or corrective midwifery is impossible.

My methods are the usual ones as now taught. I keep my nails cut short, I wash and scrub my hands thoroughly with hot water and soap, and then soak them in hot biniodide solution. All instruments are placed in boiling water and lysol. I prefer to have the posterior hair clipped and the pubic parts thoroughly disinfected. My midwifery bag contains everything that is necessary except a cranioclast and sterilizer.

I allow a reasonable time for expulsion of the placenta —say, twenty to thirty minutes—and I extract it by a combination of Credé's method and gentle traction. If I have any suspicion that a piece of membrane is left behind I always carefully search the interior of the uterus. I give plenty of chloroform upon an open mask. For years I always douched out the vagina and uterus with a Bozeman's tube and lysol, but I have almost abandoned it because I found it difficult to guarantee the aseptic condition of the instruments.

I have the bowels opened on the second or third day, preferring two or three teaspoonfuls of magnesium sulphate as an aperient taken upon the fasting stomach.

I encourage the patient to sit up in bed from the third day on, and after the first day allow the ordinary diet, of course in reason.

My four deaths in this series were as follows:

The first was due to concealed accidental haemorrhage; the pains were of an agonizing description, and when the os was dilated I gave chloroform and delivered. The placenta followed naturally, and then came two huge clots of different colours. The patient sank and died in about half an hour.

The second death was a perforation case, when unfortunately I had no cranioclast handy, and I am afraid I used more force than was safe in extracting with the forceps. She developed peritonitis and died.

The third death was also a perforation case, when vomiting set in on the third day and continued until the patient's death on the ninth day. She had no rise of temperature, and apparently nothing the matter with the genital tract. There was total obstruction of the bowels, and what caused it I cannot surmise unless it were connected with the fact that she fell a couple of days before delivery.

The fourth death was also a perforation case. She apparently got all right, and came downstairs in due time and then caught influenza. She was getting the better of that when one day, as her husband was reading to her, she calmly announced that she was dying, and die she did. She was trying on old bonnets a minute or two before death. I suppose embolism must get the credit of that death.

Two of these deaths, I think, might have been avoided so that it would be possible to do 1,000 cases of instrumental labour in a colliery practice with what I consider the low death-rate of 0.2 per cent.

Trouble arose through the chloroform in three cases. Two had some kind of epileptic fits, and one got pale in the face and stopped breathing; her tongue was pulled forward, when she ejected some fluid and recovered. I must confess these cases startled me considerably. I know of no preventive of rupture of the perineum save slow careful delivery, and episiotomy. I always sew up each laceration carefully, doing it while the patient is under the influence of the chloroform, and before the expulsion of the placenta. I employ silkworm gut and a Hagedorn's needle. I generally do it in the lateral position. As years go on I get fewer ruptures. Of late years I have never failed, with one exception, to get a good sound union. Episiotomy I generally reserve for elderly primiparae.

On two occasions I had occasion to practise secondary suture of the perineum, with excellent results. I mean by secondary suture from the seventh day on, and I can strongly recommend it for those cases in which primary union has failed or suturing has been neglected.

I had two cases of complete rupture of the perineum; one I consider could have been avoided, the other was unavoidable. The first case healed up and stood the strain of two subsequent craniotomies; the other, I regret to say, required operation in a hospital.

Post-partum haemorrhage caused anxiety in some six cases, and in one serious anxiety. I always employ saline rectal injections after haemorrhage. I depend upon clearing out the uterus, compression, and hot intrauterine douche.

I had not one case of placenta praevia centralis. I had several of the lateral variety and no bad results. Injections of ergotine I have abandoned, as the tablets are often inert, and the bulbs smashed in the bag when most required.

Analysis of the 1,000 Cases.

Thirty craniotomies.
Two face presentation, both of the favourable type.
One brow, this demanded craniotomy.
Twelve transverse presentations; three of these occurred consecutively in the same patient.
One anencephalic monster, in which singularly enough the use of forceps was required. The head, or what represented the head, would not engage in the pelvis.

As regards instruments, I pin my faith to Nevill's axis-traction forceps, Auvard's cranioclast, Simpson's perforator, and a blunt hook with a good curve. I think that in the course of my midwifery career I have run the gauntlet of all the varieties of forceps, and I consider that the chief requisites are a proper fitting blade and one strong enough, everything else is merely secondary.

I do all my craniotomies myself. The majority of these were done in the persons of four patients, all with contracted pelvis.

Mrs. J. I confined her 10 times, with the results of 3 living children and 7 craniotomies.
Mrs. B. (her sister) 4 times—3 craniotomies and 1 living child.
Mrs. C., 10 times—4 living children and 6 craniotomies.
Mrs. P., 3 times—2 craniotomies and 1 living 7 months child.

If I were asked what I considered the most awkward operation in ordinary midwifery, I would answer, perforation and craniotomy of the after-coming head in a breech case with flat pelvis, and a large child having a short, fat neck.

* Read at a meeting of the Monmouthshire Division of the British Medical Association.

In breech cases I always use the blunt hook. Once I had a fractured thigh, but that was through carelessness.

I had a footling case that gave me a surprise. It was a seven months case, and the leg was protruding well into the vagina. I broke the membranes, when the rush of waters caused the child to perform a somersault, and converted it into a head presentation. The os closed, and left me absolutely dumfoundered. The case came off naturally in a couple of days.

As regards some of the curiosities in this series:

Once I heard a child cry before the head was born.

One case was hydrocephalic, and not so easy to diagnose as one would think.

One patient gives birth to enormous dead children with a deep layer of solid oedema. One placenta, after squeezing out the blood, weighed 3 lb. 10 oz.

Another patient had a very projecting promontory, and the head slipped over it with a bump that was audible over the room.

One patient developed peripheral neuritis in both feet; what caused it I never could find out.

I think the most extraordinary experience I ever had was a case of some species of catalepsy—or. more accurately, perhaps, prolonged fainting. She was a primipara whom I delivered with forceps. There was some haemorrhage, but nothing alarming. She then passed into a state of unconsciousness. Her pulse became slower, weaker, and finally could not be detected at the wrist. Her breathing became almost imperceptible; her cheeks became of a dead-white colour. She lay motionless as if carved out of marble. I stayed some time, but had to leave her, and on passing by the house in the early morning I called and found her perfectly well, and as lively as if nothing had happened.

I have another patient who behaves in somewhat similar manner. Twice I have been called after labour was over and found her unconscious, and had considerable difficulty in restoring life. She has sharp haemorrhage in each labour.

One primipara kept me busy all day running to and fro endeavouring to keep the heart going, and when she recovered she calmly informed me that similar trouble arose in a London hospital after chloroform for a trivial operation.

Once I was called in to see a case of proptosis of the eyeball in the newborn, and I thanked my stars that there had been no necessity for my services. I lost sight of the people, and cannot say what was the result upon the eyesight. The eye certainly settled back in the place and seemed to be all right.

Four of my cases suffered from pronounced fibroids. There was no haemorrhage.

I had two cases of vesicular mole. One called for curetting on account of the haemorrhage.

Once I was called up in the middle of the night to attend a patient, confined seven days. I found her on the verge of departing this life. She had been flooding with secondary *post-partum* haemorrhage for three or four days. She was in such a critical state that I dare not give chloroform. Fortunately there was no trouble in exploring the uterus. I found a small hard growth in its interior which I curetted away. She made an excellent recovery. This case is stamped upon my memory because I used chloroform instead of lysoform in douching. In the dim light I mistook the bottles, and the result was that she nearly blistered round the buttocks. However, it must have acted as a good antiseptic.

One of my cases swallowed a tablet of mercury perchloride instead of pil. opii. The nurse had stupidly left the tablet upon the dressing table. Luckily the burning sensation in the mouth and throat aroused suspicion. I was summoned and happened to be handy, when an apomorphine injection and plenty of mustard and water saved the situation.

I had a case of hyperemesis in which I was compelled to induce labour in the seventh month. A live child was born, but my patient unfortunately contracted septic endometritis. This is the only case of the sort I ever saw. The stench in the room was unbearable. After repeated use of the curette, douching, and swabbing, she recovered. I am afraid she was infected by the nurse, who happened to be attending a septic case at the time. The chief peculiarities of the case were: no great rise of temperature, a state of sleepless excitement almost amounting to mania, and the fetid, dark-coloured discharge.

I have consulted all the nurses, and looked over whatever records I possess, and I can find mention of only 7 cases of puerperal infection. I am confident that there were no more. In these 7 cases I had one death, the others recovered; in fact, only two gave rise to any anxiety.

The plan of action that I follow is that laid down by Dr. McCann. For the first couple of days I give a saline mixture, get the bowels well opened, and employ the vaginal douche. I then proceed to uterine douches, and, if there is not a speedy improvement, I give chloroform, press down the uterus, and explore. I use the blunt curette, sometimes the sharp, swab out with perchloride or iodine, and follow up with copious injections of some weak antiseptic solution.

I had one case of puerperal ulcer. This developed on the left labium and destroyed part of the perineum. Of puerperal eclampsia my experience has been fortunate. In this series there were two cases, not severe. I must confess I believe in emptying the uterus as soon as possible. Twice have I been summoned hurriedly to deliver and found the patient dead. One had severe cardiac disease, and the other was badly waterlogged.

One woman, the mother of thirteen children, never knew the meaning of after-pains, and one daughter has inherited the happy peculiarity.

One patient never menstruated before marriage, and another menstruates only when she is pregnant. She enjoys fairly good health.

The ages of the primiparae varied from 17 to 44. Once I was engaged to attend a married woman of the mature age of 14 years and 9 months, and when I arrived the baby was born.

One of the trained nurses was followed for a whole summer by an epidemic of pemphigus neonatorum. She changed her clothes and took antiseptic precautions, but it still clung to her, gradually dying out.

It has happened to me at least once to be summoned to a case after confinement and to find the patient dying and nothing to account for it.

There are two curious opinions current amongst the older midwives:

The first is, that if you have to attend a patient who by reason of her occupation has been chained to a chair, you always get a badly ruptured perineum. I believe there is some truth in that.

The second is, that undoubtedly instruments are called for more often now than formerly. They consider the babies are larger, the parents earn more money, get better food, and altogether take life more easily. Perhaps a simpler explanation is that people are more impatient of bearing pain.

That last *obiter dictum* leads up to the question, Did all these cases really require instruments? I must say that I consider the vast majority did; doubtless there was a small minority that only required a little more time and patience.

Perhaps the confession may lead to censure, but that I can only accept from those cognizant of all the peculiarities of this kind of practice; and these only judges are my fellow-workers, often harassed, often ill-paid and often overworked—the body of colliery surgeons.

LARGE SIMPLE OVARIAN TUMOUR REMOVED FROM A GIRL.

By GEORGE McMULLAN, M.B.,
WALLINGFORD, BERKS.

THE following case is of some interest on account of the age of the patient, the large size of the tumour, which probably had been present in some degree since the onset of symptoms—that is, some eighteen months previous to operation—and lastly, on account of the character of the cyst; for, while the occurrence of malignant tumours of the ovary is not uncommon at this or even at an earlier age, simple multilocular cysts are comparatively rarely met with.

Edith L., aged 16, single, a domestic servant, had first menstruated at the age of 14¾ years. She continued to do so regularly every four weeks until July, 1908, when she was 15.

Menstruation then commenced to be irregular and accompanied by pain, and some months later intramenstrual pain was experienced. This state of things continued for some twelve months, the menstrual periods becoming more irregular and occurring at longer intervals, while the pain became more constant in character. About September, 1909, she noticed her clothing becoming tight, and thought her abdomen was becoming larger. It was not, however, until January, 1910, that she sought medical advice, and was then treated for some weeks apparently on the assumption that she was the subject of tuberculous peritonitis. She had had no previous illnesses of importance, and the family history did not appear noteworthy.

Condition on Examination.

The patient was somewhat emaciated, but did not show any symptoms of respiratory embarrassment, in spite of the enormous enlargement of the abdomen, neither were the functions of the bladder or alimentary canal interfered with to any extent. Inspection of the abdomen showed marked symmetrical enlargement; abdominal respiratory movements were normal. The whole abdomen was very tense, and a well-marked thrill could be elicited. Palpation produced no pain, even on considerable pressure. The whole swelling yielded a dull note, extending as high as the costal margin. Above this there was a resonant area, completely replacing the liver dullness. There was resonance in either flank, and, furthermore, the latter resonant areas could be slightly increased by turning the patient on to the opposite side. Rectal examination showed a normal uterus, freely movable, but an ill-defined mass could be felt lying to the right of this organ.

Operation.

The patient having been prepared overnight, an incision, 5 in. in length, was made through the right rectus muscle near the middle line, extending from the umbilicus to a point about an inch above the pubis. The character of the cyst was at once apparent. Having been found to be free from adhesions, it was tapped, 14 pints of clear, glairy fluid being evacuated; it was withdrawn from the abdomen, its pedicle transfixed and ligatured by interlocking sutures of silk, and removed. The left ovary having been examined and found normal, the abdominal wound was closed by three tiers of sutures.

The anaesthetic used was gas and ether. Recovery was uneventful. The tumour, on examination, was found to consist of one very large and several smaller cysts. No ovarian tissue could be recognized in it by the naked eye.

SPINAL ANALGESIA AND PITUITARY EXTRACT FOR FORCEPS DELIVERY DURING ACUTE PNEUMONIA.

By J. A. HENTON WHITE, M.D., F.R.C.S.Edin.,
BIRMINGHAM.

I can find no record of forceps delivery under spinal analgesia, and venture to think the following case is of interest.

On April 4th I first saw Mrs. M., aged 28. She expected to have been confined of her fifth child on March 30th, and had engaged a midwife to attend her. All went well until April 3rd, when a bad shivering fit, accompanied by stabbing pain in the right chest, set in.

I found her sitting up in bed breathing very rapidly (40), cyanosis was marked, the pulse 140, and the temperature 102°. There were signs of consolidation and pleuritic friction over the lower and middle lobes of the right lung. There was no sign of labour. Next day the patient was weaker and did not recognize people, and showed signs of puerperal insanity.

At 1 a.m. on April 7th I was sent for, and found labour had set in; the os was about the size of a crown, and the waters were broken; the head was above the brim. The patient was desperately ill, the pulse was thready, and the cyanosis was of a livid hue. In spite of strychnine hypodermically, no efficient pains could be induced, and to prevent the patient dying undelivered I decided to try spinal analgesia; 1 c.cm. of a 5 per cent. solution of tropacocaine was injected in the middle line of the back below the twelfth dorsal spine with the patient leaning forwards sitting up in bed. Analgesia supervened rapidly, and I applied forceps with the patient sitting on the side of the bed, with the legs as far apart as possible, and supported on two chairs. I found it impossible to exert enough traction in this position, and put the patient on the left side, with the shoulders well raised on pillows, with the double object of easing the breathing and preventing the fluid running too high up the spine. I then rapidly effected a difficult delivery. The child was a large one, and there was a depressed fracture of the frontal bone owing to the severe traction required and the angle at which I was obliged to pull; it survived only two days. As soon as the child was delivered serious flooding set in, due to atony of the uterus from the spinal analgesia, and also to the engorged state of the venous system. I had anticipated this, and at once injected 12 minims of pituitary extract (Duncan, Flockhart and Co.) into the buttock, and introduced my hand into the uterus; as soon as I had well grasped the placenta a violent contraction of the organ took place, so violent that it would have been impossible to introduce the hand. The placenta was removed and the bleeding stopped. The pulse greatly improved; instead of being thready and uncountable it became of full volume and good tension, and the general condition was very good.

The pneumonia ran a severe course, the upper lobe of the right lung becoming involved on April 10th, and puerperal insanity set in severely. The patient died from exhaustion on April 19th.

This case, although unfortunate in its termination, is instructive in that it shows the possibilities of spinal analgesia under conditions which precluded the use of a general anaesthetic. The woman felt nothing of the severe traction which I had to use. I could not safely have injected ergot to cause uterine contraction owing to its depressing action on the heart. Pituitary extract acted splendidly in this emergency, and is, I feel sure, a drug to be kept in the midwifery bag for use with a weak heart. Normal sensation returned in the legs about two hours and a half after the injection. The urine had to be drawn off on April 10th.

This case was conducted single handed with the help of an untrained woman, in a badly-lighted room.

SOME OPHTHALMIC CONDITIONS CAUSED OR INFLUENCED BY DISEASES OF THE UPPER RESPIRATORY TRACT.

By A. S. COBBLEDICK, M.D., B.S.Lond.,
LATE RESIDENT MEDICAL OFFICER, GOLDEN SQUARE THROAT HOSPITAL AND SOUTH LONDON EYE HOSPITAL.

The consideration of abnormal nasal conditions and the possibility of their presence coincident with eye disease is of much importance to the ophthalmic surgeon in forming his diagnosis and carrying out his treatment; the rhinologist, on the other hand, does not obtain so much assistance from ophthalmology, for nasal conditions are not much affected by ocular disease.

The ophthalmic surgeon may not be able to complete his treatment of a case without the assistance of a rhinologist, but he should be so equipped as to be able to complete his diagnosis without additional advice.

Eye Conditions in Children.

Corneal Ulcer.

One of the most common eye diseases of childhood, especially in hospital practice, is ulceration of the cornea. The condition is troublesome to treat, usually very painful, and *cure* is frequently delayed for years on account of the great tendency to recurrence. As the ulcers may be deep and centrally situated, leaving permanent and dense nebulae, they are the cause of a considerable amount of defective vision.

The chief causative factors are bad hygiene, insufficient and unsuitable food, and the presence of post-nasal growths.

The first and last of these may be said to be always present in hospital patients, but the food factor may not be so prominent, owing partly to the fact that the painful nature of the affection and the general depressed condition of the child makes him refuse the best of food. Bad hygiene, which includes lack of cleanliness, of nursing, of warmth, and of good surroundings, has much to do both with the general ill health and tardy recovery. This is shown in patients admitted into hospital when nearing perforation; the child is cleaned, kept warm, and well nursed, generally as well as locally, he soon begins to eat, and recovery is much more rapid. This, however, is not cure, and recurrence is the rule within six or twelve months; the chief cause of this recurrence is the presence of post-nasal adenoid growth. If the adenoids are removed when the eye condition is quiescent recurrence is the exception. I am so convinced of this that I do not consider any case of severe or even slight corneal ulceration has been adequately treated without resort to this operation, for a slight initial attack may be followed by a severe second one with great disturbance of vision. The following is a typical case:

A boy, aged 6 years, with deep central corneal ulcers of both eyes, much pain and photophobia, was treated for three years at the South London Eye Hospital; on an average he had three recurrences yearly, consequently he was practically in continuous attendance. On three occasions his condition was so

pitiful that he was admitted as an in-patient, only to relapse soon after his discharge.

On examining the post-nasal space digitally I found he had a diffuse adenoid growth, not large in amount, but very unhealthy, producing an odorous secretion of a caseous character. At one children's hospital the amount of growth was not deemed sufficient to indicate removal. At a throat hospital, however, the post-nasal space was thoroughly cleaned, with a remarkable result. The lad began to eat well, he increased rapidly in height and weight, the ulcers became firmly healed, and at the end of eighteen months there had been no relapse.

Mouth breathing is usually looked upon as the only symptom pathognomonic of post-nasal growths, but some children—those with a high cephalic and nasal index—have a large post-nasal space, which may contain a considerable amount of healthy or unhealthy adenoid growth without the production of mouth breathing. If the post-nasal space is small, as in children with a small cephalic and nasal index, quite a small amount of adenoid growth will produce mouth breathing. Such cases are frequently complicated by nasal obstruction.

A digital examination of the post-nasal space is seldom necessary in order to make a diagnosis. The conditions and symptoms, apart from mouth breathing, which may be looked upon as pathognomonic of the trouble are:

1. Acute or chronic otorrhoea in childhood.
2. Children who are classed as "delicate" without any discoverable organic disease; they are badly nourished; their appetite is capricious as the result of a mucous dyspepsia caused by swallowing the secretion from the post-nasal space.
3. Children who are subject to attacks of bronchitis and broncho-pneumonia during the winter months.
4. A very large percentage of children with enlarged tonsils also have post-nasal growths.

This is not an exhaustive list, but it is a good basis on which to make a diagnosis. As regards the nutrition of the child, the condition of the hypertrophy (that is, whether in a healthy or chronically inflamed state) is of more importance than the amount; a small amount of unhealthy, chronically inflamed adenoid tissue will disturb the child's digestion and cause loss of appetite, with frequent attacks of sickness, to such an extent as to prevent assimilation of suitable food, whereas a large amount of growth may cause nothing more than mouth breathing and its results.

Other common eye diseases associated with the presence of adenoids are phlyctenular keratitis and conjunctivitis and severe blepharitis. Children with these complaints, if in poor condition and ill health, should have the post-nasal space examined, and, if necessary, curetted.

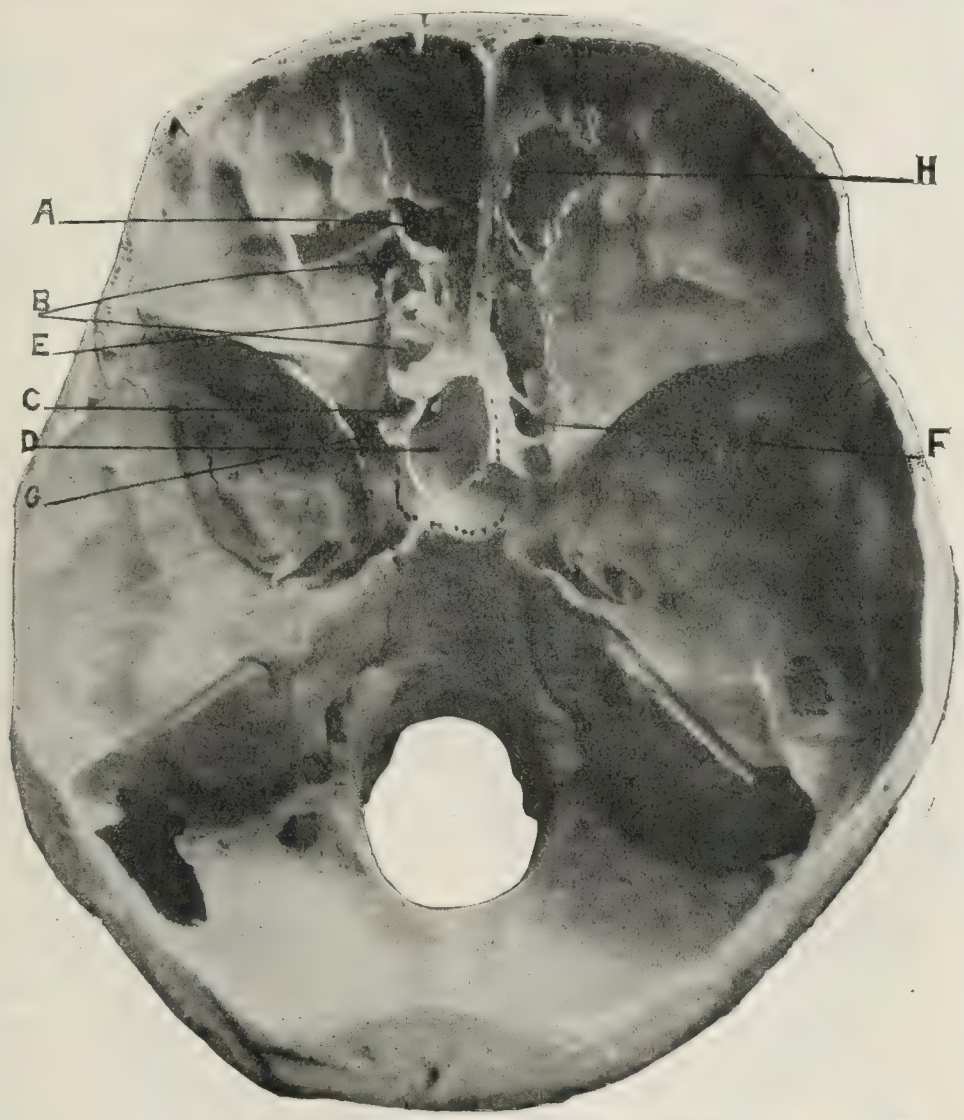


Fig. 1.—Dissection of accessory nasal sinuses from the anterior cranial fossa. The roof of the *left* orbit and of the accessory nasal sinuses have been removed. On the right side the orbital plate of the frontal bone is intact. It well indicates the extent and irregularity of the sinuses, and their relation to the orbit. The left sphenoidal sinus—extent posteriorly is indicated by the dotted line—practically occupies the whole of the body of the sphenoid bone. Suppuration in such a sinus might account for contralateral blindness. A, Left frontal sinus. B, Ethmoidal cells. C, Optic canal. D, Large sphenoidal sinus showing opening (anteriorly) into nose. E, Inner wall of orbit. F, Small right sphenoidal sinus. G, Sphenoidal fissure. H, Large right frontal sinus.

Dacryocystitis.

Another point of importance concerning the healing of corneal ulcers is that if there be a coincident dacryocystitis healing will be much retarded and very serious complications may arise.

In infants dacryocystitis is due to an imperforate nasal opening due to developmental defect; the cord-like thickening which has separated along the naso-lacrymal groove has acquired its lumen, but the process has not been quite completed at the nasal extremity.

Many cases of acute and chronic dacryocystitis in adults are dependent on nasal trouble. The nasal duct must be regarded rather as a nasal diverticulum than a conjunctival appendage; the columnar epithelium and the submucous cavernous network are common to both the nose and nasal duct. In hypertrophic or atrophic rhinitis an extension of the trouble may take place along the nasal duct, causing obstruction to the flow of tears—in the first case from swelling of the cavernous tissue, and in the second from formation of stricture caused by atrophy of the submucous tissue.

If the nasal duct be healthy there is probably no passage of micro-organisms from the nose to the conjunctival sac. The flow of tears towards the nose and the valve-like action of the mucous membrane at the nasal end of the duct prevent any regurgitation from the nose. It must be remembered, however, that the healthy nose, like the healthy conjunctival sac, contains no pathogenic bacteria. Thomson and Hewlett[1] have shown that virulent micro-organisms placed on healthy turbinates rapidly disappear, whereas at the nasal orifice and on the vibrissae manifold micro-organisms may be demonstrated. When the duct is in an unhealthy condition and not performing its functions normally, bacteria may enter it from an unhealthy nose or conjunctival sac, and cause acute or chronic blenorrhoea of the lacrymal sac. Nasal polypi rarely find their way into the inferior meatus of the nose so as to occlude the orifice of the nasal duct. Tertiary syphilis of the nose with bony necrosis in the region of the lacrymal and inferior turbinate bones causes obstruction and a perisaccular abscess with much brawny swelling. Although many cases of acute dacryocystitis are secondary to chronic inflammation of the lacrymal sac and nasal duct, some are due primarily to nasal disease, especially anterior ethmoiditis. The anterior ethmoidal cells are very irregular in their arrangement; sometimes they closely surround the infundibulum of the frontal sinus, and in this region of course come into close association with the lacrymal bone and sac. If suppuration takes place in these cells a perisaccular abscess may result. In all such cases where, on probing, bare bone can be felt the nose should be carefully examined, and when the cells are affected they must be broken down and curetted.

In dacryocystitis, therefore, the abnormal nasal conditions to be recognized are hypertrophic and atrophic rhinitis, bony necrosis due to tertiary syphilis, anterior ethmoiditis, and possibly nasal polypi. In such cases the treatment of dacryocystitis must be most unsatisfactory without careful and patient treatment of the nasal condition.

The treatment of obstruction of the nasal duct in its earliest stages should always be accompanied by treatment of the nasal condition, and I feel sure better results

would accrue if the ophthalmic surgeon did not interfere until the nose had been thoroughly treated by a rhinologist.

Conjunctivitis and Blepharitis.

Reference to the conjunctivitis caused by the Koch-Weekes and the Morax-Axenfeld bacilli is not necessary, as these bacilli have not been found in the nose and throat, although they are the most common cause of catarrhal and chronic conjunctivitis respectively. Other micro-organisms, however, play an important part in the production of identical conjunctival conditions, so that to classify them correctly a bacteriological examination is necessary.

Many children with chronic conjunctivitis and blepharitis, especially after an attack of one of the acute exanthems, also suffer from rhinitis with acrid discharge from the anterior nares, causing redness and swelling of the upper lip. Not infrequently there is an accompanying chronic otorrhoea and possibly impetigo contagiosa of the face. Careful inquiry shows that the conjunctival condition is secondary to the aural and nasal discharges; the infection is probably carried to the conjunctival sac by the child's fingers. The discharge of chronic otorrhoea always contains the *Diplococcus pneumoniae* and the *Streptococcus pyogenes;* it is interesting to note that the same micro-organisms may be found in the conjunctival and nasal discharges in the aforementioned class of case.

A satisfactory cure of the eye condition cannot be expected until the cause of nose and ear trouble has been thoroughly treated.

Croupous conjunctivitis — that is, conjunctivitis characterized by the formation of a membranous deposit—should suggest a bacteriological examination of the membrane, and a careful examination of the nose and pharynx for any membrane. A child may have a membranous rhinitis —always caused by the Klebs-Loeffler bacillus—without disturbance of health, which may prove to be the primary cause of the conjunctival condition; it must be confessed, however, that in diphtherial conjunctivitis the source of infection is most frequently obscure, and not related to a nasal or pharyngeal diphtheria.

Refractive Errors.

It is extremely common to meet with children suffering from the combined effects of an uncorrected refractive error and of the presence of post-nasal growths: the result is frequently deplorable; the general health and nervous system are much deranged. It is not always easy at once to apportion to each fault the amount of trouble it causes; some indication may be gathered in such a case by first removing the adenoids. There is a general improvement in health, and the child seems brighter and better able to understand when instructed; there is, however, little improvement in ability to concentrate, and the school report reads that the child is quick and intelligent, but inattentive, and unable to concentrate on his lessons.

If the refractive error be corrected before the adenoids are removed, the result is not always satisfactory, and symptoms of asthenopia continue. This is no doubt due to the involvement of the muscles of convergence in the general condition of myasthenia so common as a result of the presence of adenoids.

I am in the habit of examining the post-nasal space in all spectacle cases in children, and advise operation where the correction of refractive error does not give as satisfactory a result as might be anticipated.

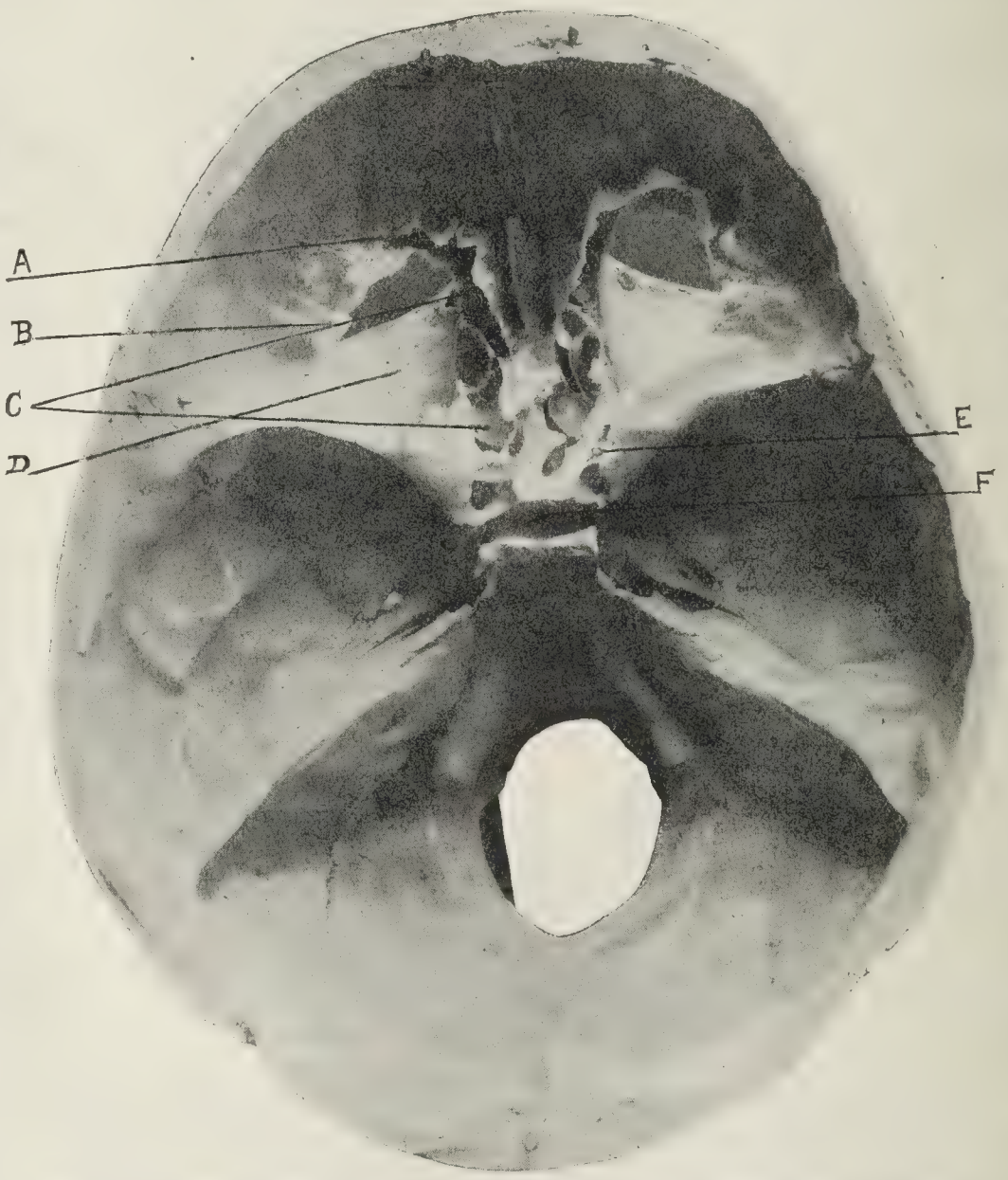


Fig. 2.—The roof of each orbit has been removed. The frontal sinuses are extensive both laterally and antero-posteriorly. The sphenoidal sinuses are small, and situated ventrally; the conformation of the sella turcica partly accounts for this. The cells opened up posteriorly are the ethmoid cells continued on to the body of the sphenoid. The very thin os planum is well indicated. A, Left frontal sinus. B, Floor of orbit. C, Ethmoidal cells. D, Os planum of ethmoid. E, Optic canal; note very thick wall between it and ethmoidal cells. F, Sella turcica, large and deep.

EYE AFFECTIONS CAUSED BY NASAL DISEASE.

In order to understand these affections, the anatomical relations of the orbital cavity must be made clear.

The orbit may be looked upon as an irregular pyramid, the apex of which is formed by the sphenoidal fissure and optic foramen. The roof, floor, and internal wall of the orbit are all in close contiguity to important structures.

The roof of the orbit, which is chiefly formed by the orbital plate of the frontal bone, is of variable thickness; the chief point of interest is the extent to which the frontal sinus may be continued posteriorly. In the dissection (Fig. 2) the length of the frontal sinuses antero-posteriorly was 2 cm. —that is, almost one-half the antero-posterior diameter of the orbit; the importance of this possibility will be pointed out later.

The inner wall of the orbit in the whole of its extent is in intimate relation with the nasal accessory sinuses, and separated from them for the most part by a thin plate of bone covered by periosteum.

Posteriorly, both the optic nerve and the contents of the sphenoidal fissure are in close relation to the sphenoidal sinus. (Fig. 1. Note the varying thickness of the bony partition.) In the dissection (Fig. 2) the optic nerve has no relation to the sphenoidal sinus, as the posterior ethmoidal cells intervene; this is one of many variations.

Immediately in front of the sphenoidal sinuses are the ethmoidal cells which form the body of the ethmoid bone. These, as shown in both Figs. 1 and 2, are only separated from the orbital cavity by the thin os planum, this may be wanting in parts, so that periosteum alone forms a partition. These cells are very variable in size and distribution; the posterior cells may extend backwards almost to

the optic foramen and occlude the nasal opening of the sphenoidal sinus; the anterior cells, as has been pointed out, may extend so far forwards as to come into intimate relation with the lacrymal sac and the infundibulum of the frontal sinus.

Not only are these cells in internal relation, they are also supero-internal, and may even be continued outwards into the roof of the orbit. I have in my possession a dissection in which the whole of the orbital plate of the frontal bone is a hollow wedge (orbito-ethmoid cell), continuous with the ethmoidal cells, and separated from the frontal sinus in front by a thin but intact partition; more remarkable still, the condition is symmetrical.

The frontal sinuses are very irregular in size, shape, and symmetry; from the ophthalmic point of view the chief interest is in its floor; in front this forms the roof of the orbit, and may extend backwards a considerable distance, so that the sinus forms a wedge between the orbit and the anterior cranial fossa.

Study of the two dissections, therefore, shows that there is a more or less continuous line of sinuses from the optic foramen posteriorly to the region of the external angular process of the frontal bone antero-externally.

The sphenoidal sinuses have received much attention of late years, on account of the difficulty of diagnosing their affections and of the various and apparently obscure eye symptoms these affections may produce. These sinuses are as irregular in their size, symmetry, and shape as are the frontal sinuses; the thickness of their walls varies from $\frac{1}{2}$ mm. to 2 or 3 mm. (Figs. 1 and 2). The nasal opening of the sinus is so situated as to be quite hidden from view both by anterior and posterior rhinoscopy.

The antrum of Highmore does not take as prominent a place in the etiology of orbital troubles as the other accessory sinuses. It is variable in size; its roof, which forms the floor of the orbit, is thicker than that of any of the other sinuses impinging on the orbit.

Mention has been made only of those anatomical points necessary for the understanding of subsequent remarks. Full details of the accessory sinuses and their irregularities may be obtained from various works on rhinology.[2]

Optic and Retro-bulbar Neuritis and Atrophy.

In cases of sudden loss of sight in one eye caused by retro-bulbar neuritis, or in unilateral optic neuritis where there is no evident or ordinary cause, suspicion must fall on the sphenoidal sinus. The inflammatory secretion may accumulate rapidly and be unable to find its way into the nose, consequently the intrasphenoidal pressure rises; pain may or may not be present. One can only speculate as to the mode of production of the neuritis; it may be due to the action of toxins or to the pressure of slight periostitis at the optic foramen, but probably it only occurs when the bony partition is very thin. Relief of the sinus tension followed by free irrigation and drainage results in rapid disappearance of the alarming eye symptoms.

No figures can be given as to the frequency of these ocular troubles in accessory sinus disease; in order to do so, the eye should be examined as a routine procedure in every case of sinusitis, for, as ophthalmic surgeons well know, definite neuritis may be present without any loss of visual acuity.

Proptosis and Diplopia.

These conditions are produced by the encroachment on the orbital contents of any growth or suppurative process. The most common cause is orbital cellulitis; this is produced by an invasion of micro-organisms from the nose by way of the ethmoidal cells; extension to the orbit may be by necrosis of the os planum in a chronic case, or by the line of least resistance being in the direction of the orbit in an acute case, possibly through absence of the bony partition.

Some of the chronic cases of ethmoiditis in strumous young adults are undoubtedly tuberculous; others are due to the pneumococcus alone or coupled with the *Streptococcus pyogenes;* the *Streptococcus pyogenes* alone is not common, nor are the staphylococci. Some indication of the origin of the cellulitis may be gathered from the position of necrosed bone felt on probing after the abscess has been opened. In cases due to chronic ethmoidal suppuration the diagnosis of the nasal condition presents no difficulty, but in the acute cases careful nasal inspection may be negative.

In order to prevent recurrence of the cellulitis the chronic ethmoiditis must be radically cured. A culture of the orbital pus or serum will probably reveal *Streptococcus pyogenes* and pneumococci combined. After opening and draining the orbital abscess the proptosis and diplopia gradually disappear.

Empyema of the antrum may cause similar symptoms, but is not nearly as common an etiological factor; the anatomical position of the antrum, the thickness of the partition between the two cavities, and the greater readiness with which the disease is diagnosed, all assist in protecting the orbit from invasion in this direction.

Other causes of diplopia and proptosis are invasion of the orbit by growths originating in the accessory sinuses, by mucocele of the frontal sinus, and occasionally by a chronic empyema of the frontal sinus.

The two latter conditions must be carefully distinguished. Mucocele is a retention of normal secretion which accumulates under pressure from occlusion of the infundibulum, and which cannot escape to the middle fossa; the fluid is glairy, viscid, and sterile. Chronic empyema is an infection of the sinus by nasal micro-organisms; as a rule drainage is free, and if there be some obstruction of the infundibulum the rise of intrasinus pressure quickly forces a passage into the nose; rarely the obstruction is so great that the symptoms usually ascribed to a mucocele result. The symptoms depend somewhat upon the extent to which the sinus is prolonged backwards; if it extends into the orbital plate of the frontal bone the first symptoms are deep, obscure frontal pain quickly followed by diplopia and the appearance of a hard swelling in the roof of the orbit. Such a swelling may be mistakenly diagnosed as an osteoma, a gumma, or a malignant growth, and as there is no complaint of nasal discharge or catarrh, a definite diagnosis may be very difficult; the swelling increases in size, and if the floor is thin eventually an egg-shell cracking may be detected. The following case is instructive:

A man, aged 37, consulted me for double vision of three weeks' duration. He complained of deep frontal pain, and had been treated with large doses of potassium iodide. On digital examination of the roof of the orbit a small hard swelling about the size of a hazel nut could be felt about 2 cm. from the orbital margin. It increased in size whilst under observation, as did the pain and diplopia. Examination of the nose showed complete occlusion of the infundibulum by a dense adhesion between the septum and the infundibular region, the result of an operation performed in Germany two years previously for a septal spur. This had been diagnosed as a gumma and a malignant growth, but it was undoubtedly a mucocele of the frontal sinus.

If the frontal sinus is small the swelling presents in the region of the trochlear fossa.

Iridocyclitis.

A certain proportion of cases of both acute and chronic iridocyclitis which cannot be ascribed to syphilis, tubercle, gout, or gonorrhoea, may be caused by septic processes in the mouth and nose.

Pyorrhoea alveolaris, or Rigg's disease, is undoubtedly a cause of some of these cases; the infection is staphyloccic. S. Mayou[3] has been able to demonstrate them in the anterior chamber. Two cases at present under my care, after being regarded successively as due to syphilis and tubercle by different oculists, eventually proved to be caused by the *Staphylococcus albus.*

Chronic empyema of nasal sinuses must not be forgotten as an etiological factor in this disease when all other possibilities have been excluded.

CONCLUSION.

In summing up, I would say that in every obscure eye case, especially where there is complaint of a long-standing nasal or post-nasal catarrh, the accessory sinuses should be examined by an expert, and, if diseased, they should be radically treated for the benefit of the eye trouble.

When operation on the eye is contemplated, not only should a careful examination be made of the condition of the conjunctiva, but the mouth and nose, with its diverticulum, the nasal duct and sac, should be examined. If pyorrhoea is present no operation should be entertained until the mouth is perfectly clean; even then the system

may be so permeated with staphylococcic toxins as to render the likelihood of an endogenous eye inflammation possible as the result of the traumatism of operation. The same remarks apply to atrophic rhinitis and chronic sinusitis.

The condition of the operator's mouth and nose must also be considered in this connexion; carious teeth, pyorrhoea, or nasal trouble, including acute coryza, should be looked upon as a possible source of infection, and precautions taken; speaking during the operation should be forbidden for obvious reasons. The bacteriology of post-operative inflammatory eye troubles indicates that the pneumococcus and staphylococcus play an important part; these micro-organisms are not frequently found in the conjunctival sac, but the mouth is a common habitat, hence the great likelihood of infection arising from the operator's or assistants' exhalations.

Mention must be made of blindness resulting from the onset of optic atrophy, caused by intranasal operations. Such cases are, of course, not frequent, but there are a number on record.

Perhaps the most common accident has been entry of the orbit when exploring the antrum of Highmore with a trocar or cannula, or in forcibly boring a hole in the alveolus of the superior maxilla, for drainage purposes; loss of control and the absence of a stop on the drill has resulted in puncture of the floor of the orbit and either injury to the optic nerve or infection of the orbital contents. Forcible removal of bony nasal spurs and of the middle turbinal bone may produce a fracture involving the optic canal, the formation of callus, pressure of the callus on the nerve, and subsequent atrophy.

I am much indebted to Sir William J. Collins for permission to make use of Case 1 and of a portion of the ophthalmic material on which this article is based.

References.

[1] Hewlett, *Manual of Bacteriology*. [2] Onodi, *Anatomy of the Accessory Sinuses*, translated by StClair Thomson; and Onodi, *The Optic Nerve and the Accessory Sinuses of the Nose*, translated by J. Luckhoff, M.D.; Watson Williams, *Rhinology*, 1910. [3] S. Mayou, *Ophthalmoscope*, August, 1908.

AN INTRANEURAL CYST OF THE EIGHTH CERVICAL NERVE.

BY

R. B. ETHERINGTON-SMITH, M.B., B.C.Cantab., F.R.C.S.,

ASSISTANT SURGEON, WEST LONDON HOSPITAL; SURGICAL REGISTRAR AND DEMONSTRATOR OF SURGICAL MORBID ANATOMY, ST. BARTHOLOMEW'S HOSPITAL.

With a Report by

E. H. SHAW, M.R.C.S., L.R.C.P.,

PATHOLOGIST, GREAT NORTHERN HOSPITAL.

The patient in the following case, a lady, married, and aged 32, was first seen on November 1st, 1907. She complained of pain in the inner side of the left forearm and hand, which had been present for three weeks following an attack of "influenza." The pain was nearly continuous as a dull aching, with attacks of severe pain and tingling shooting to the little and ring fingers. It was aggravated by cold. The skin over the affected area was tender, so much so that the pressure of the wedding ring could not be tolerated.

State on Examination.

There was found to be marked wasting of both thenar and hypothenar eminences, and a little also of the interosseous spaces of the left hand. There was a slight amount of flattening of the flexor aspect of the ulnar side of the forearm.

The movements of the fingers were good, but the thumb could only be abducted, adducted, and opposed to the fingers weakly and imperfectly. The hand was slightly colder than the other. The objective sensory changes consisted of marked increase of painful sensation over the palmar and dorsal surfaces of the little and ring fingers, and ulnar half of the hand up to the level of the wrist-joint.

The pupils were natural, and radial pulses equal. On the left side of the neck, beneath the lower part of the sterno-mastoid muscle, could be felt a swelling, which was too deeply placed to admit of accurate definition, but which seemed to be fixed to the deep structures in the neighbourhood of the transverse process of the seventh cervical vertebra and neck of the first rib.

Initial Diagnosis.

A diagnosis of cervical rib was made, although the distribution of the sensory changes was not quite typical. For, in cervical rib, the objective sensory change is commonly anaesthesia over the first dorsal area, or over the first dorsal and eighth cervical areas combined; whereas, in this case, the changes were confined to the eighth cervical area.

The patient was not aware of the weakness and wasting of the hand, but on further careful inquiry it became clear that for many years—almost as long as she could remember—there had been some difficulty in picking up and holding objects in the left hand. This could be traced back with certainty to the age of 14—namely, eighteen years. It further transpired that for two or three years past pain had occasionally been felt along the ulnar side of the forearm and hand, which had been treated as "neuritis."

Final Diagnosis.

A skiagram was taken by Dr. Harrison Orton which showed no cervical rib but a definite circumscribed shadow at the root of the neck extending downwards behind the clavicle. Electrical testing of the muscles showed no reaction in the abductor and opponens pollicis, partial reaction of degeneration in the remaining short muscles of the thumb, those of the little finger, the interossei and the flexor sublimis digitorum.

During the next week the swelling above the clavicle increased in size so as to cause visible asymmetry of the neck.

It seemed evident that the swelling affected the eighth cervical nerve above the brachial plexus; that it was of many years' standing; that it had recently begun to increase in size rapidly; it was feared that it might prove to be a sarcoma originating in an old neuro-fibroma.

Mr. Butlin was consulted and agreed with the general diagnosis; he advised an early operation, which he performed on November 19th, 1907.

Operation.

The brachial plexus and third part of the subclavian artery were exposed by a **V**-shaped incision carried downwards over the posterior border of the sterno-mastoid and outwards above the clavicle. The lowest of the three primary cords of the brachial plexus was identified, and on tracing it inwards a thin-walled, tense cystic swelling was found extending downwards behind the scalenus anticus over the first rib. The cyst was punctured and some clear fluid and a little mucoid material escaped. A small portion of the cyst wall was excised and a fresh section immediately cut by Mr. E. H. Shaw, who found the structure to be fibrous tissue only. His report in full appears at the end of this communication.

On dissecting out the cyst, which was about 2 in. in length, it was found to be in the course of the eighth cervical nerve, which apparently ran into it close to the intervertebral foramen, and issued from it at the point of junction with the first dorsal trunk. No nerve fibres could be detected in the cyst wall microscopically at the time of operation. The cyst was removed, the nerve being divided on either side of it, and the ends sutured together with catgut. The wound was then closed with fine silk sutures.

After-Progress.

Union took place by first intention, and immediate recovery was uneventful; there was some pain in the whole limb for the first few days, and considerable hyperaesthesia of the hand and forearm for eight or nine weeks, which prevented thorough massage and electrical treatment being carried out. During this time also there was an area of solid oedema which extended from 2 in. above the wrist-joint down to the middle of the palm, fairly sharply defined above and below and limited to the anterior aspect. The subjective sensory symptoms gradually passed off and definite eighth cervical anaesthesia remained; the movements of all the digits were much impaired, all the intrinsic muscles of the hand being paralysed. The *main-en-griffe* position was marked, hyperextension of the proximal phalanges being slightly less in the index and middle fingers than in the others. Massage and electrical treatment were employed regularly, and a splint used to correct the deformity of the hand.

On July 22nd, 1908, electrical testing of the muscles of the upper limb was carried out by Dr. Harrison Orton, and showed complete loss of reaction in the flexor sublimis digitorum and all the intrinsic muscles of the hand. No qualitative changes were observed in any other muscles of the limb, but in the flexor carpi ulnaris the contractions were decidedly feeble. The anaesthesia remained as before, the whole hand showing signs of malnutrition—namely, cold, shiny, congested skin, roughness of the nails, etc.

Result.

Since that time much improvement has taken place in the appearance and general usefulness of the hand, though the electrical reactions when tested in January, 1910, remained unaltered, nor is there any return of voluntary power to the affected muscles. There was no return of sensation over the eighth cervical area for more than a year after operation, but it has now been completely regained, together with the nutrition of the skin.

Remarks.

The chief points of interest in the case which have led me to publish it are:

1. The situation of the nerve lesion, marking the distribution of the anterior primary division of the eighth cervical nerve.
2. The transformation of the nerve trunk into a cyst.

Mr. Thomas Bryant,[1] in a lecture delivered before the Royal College of Surgeons in 1888, mentioned two cases of cystic tumours of nerve.

The first is described as a cystic tumour of the size of half a hazel nut, which was enucleated from the sheath of the median nerve above the anterior annular ligament. This swelling had given rise to pain over the distribution of the median nerve in the hand.

The second case is that of a cystic tumour within the sheath of the upper cord of the brachial plexus, which caused pain chiefly over the distribution of the musculo-spiral nerve; removal of the swelling was followed by recovery. Mr. Goodheart reported that it seemed to be a blood cyst. This specimen is preserved in the museum of Guy's Hospital, and appears to be a fibrous-walled cyst containing blood clot.

A remarkable case of multiple neuro-fibromata affecting the nerves both within and external to the spinal canal, some of the tumours being cystic, is recorded in the *Transactions* of the Medico-Chirurgical Society by Mr. Septimus Sibley.[2] The largest of the many tumours was situated upon the anterior crural nerve, the capsule being continuous with the sheath of the nerve. "On section the tumour presented the appearance of a fibro-cellular tumour interspersed with cysts, the fibrous portion being chiefly collected in one part, and the cystic portion in another. All the smaller cysts were filled with clear serous fluid, the cysts being formed by a thin, smooth fibrous wall. The largest cyst was nearly filled with partly organized blood clot. A second cyst, the size of a walnut, was filled with yellowish gelatinous or colloid substance." This specimen is preserved in the museum of Middlesex Hospital.

In the museum of St. Bartholomew's Hospital is a specimen which was obtained from the dissecting room, and consists of a portion of the inferior articular branch of the external popliteal nerve, which shows two small thin-walled cysts in the course of the nerve.

In the case of the cervical nerve cyst recorded above, although examination of the specimen does not give any definite indication of its origin, it seems probable that the cyst arose from a fibro-neuroma which had been present for many years before undergoing cystic change. The examples quoted seem to show that such a condition does occur.

My thanks are due to Mr. Butlin for his kind help and for his permission to publish this case.

REPORT BY MR. E. H. SHAW.

The specimen consists of a unilocular ovoid cyst measuring 2½ in. in its vertical length by 1 in. in transverse diameter. Its wall is thin and composed of strong fibrous tissue; it is strengthened in places by rather thick plaques, which fade gradually away on to the thinner parts of the wall. The inner surface is smooth and pale, like an ordinary endothelial surface. The outer aspect of the cyst wall is composed of loose connective tissue, and numerous blood vessels are seen traversing its surface. A nerve is seen at the upper part of the specimen; it gives off a number of small branches which spread out and soon become incorporated with the outer part of the cyst wall; the remainder of the nerve passes on and becomes lost in the lower part of the wall.

Microscopic sections were made of various parts of the cyst wall. One through a thickened patch reveals dense fibrous tissue arranged in irregular wavy lines with very few cells; it reminds one of the appearances presented by the cornea and the thickened patches seen on the spleen in perisplenitis. No lining of endothelial or other cells is visible; the outer part of the wall is composed of loose fibrous tissue containing numerous blood vessels and many spindle cells. Several small nerve bundles are also seen.

Another section of the lowest part of the cyst wall shows an inner dense fibrous layer, much thinner than the first part, and an outer layer of fibrous tissue thickly packed with spindle and oval cells. Several nerves are seen surrounded by these cells, and are cut in various planes. Many large blood vessels are present in both parts of the wall, and in several places collections of blood pigment are visible—old blood extravasations.

In a third section the separation into inner dense fibrous tissue and outer loose fibrous tissue is not so abrupt, and many more spindle-shaped cells are seen in the inner part. Several flattened cells can also be seen on the internal surface; these are evidently endothelial in character.

Origin of the Cyst.

It is difficult to prove whether the cyst is due to dilatation of connective tissue lymphatic spaces in one of the nerves or to the same change occurring in the neighbourhood of the nerve and implicating it by extension and pressure. The close relationship existing between the cyst wall and the surrounding nerves, seen both macroscopically and microscopically, suggests strongly that it has arisen in the connective tissue of a nerve.

On the other hand, lymphatic cysts do occur in the neck, and it is possible for such a cyst to cause trouble by pressure on the adjoining nerves. These cysts, however, are usually multiple, occur in young people, and may become very large and numerous without involving the nerves. A third possibility is a cystic change occurring in a fibro-neuroma; there is no macroscopic tumour remains in this specimen, but the presence of the numerous spindle-shaped cells in the second section might lend support to this suggestion.

REFERENCES.
[1] *Lancet*, 1888, vol. i, p. 1232. [2] *Med.-Chir. Soc. Trans.*, vol. xlix, p. 39.

TRACHEOTOMY DURING THE ADMINISTRATION OF NITROUS OXIDE GAS.

BY

HERBERT RELPH, L.D.S., M.R.C.S., L.R.C.P.,

LECTURER ON DENTAL SURGERY, NATIONAL DENTAL HOSPITAL; ASSISTANT DENTAL SURGEON, UNIVERSITY COLLEGE HOSPITAL;

AND

FELIX ROOD, M.R.C.S., L.R.C.P.,

ASSISTANT IN ANAESTHETIC DEPARTMENT, UNIVERSITY COLLEGE HOSPITAL.

THE following incident occurred during a dental operation upon a patient, a man aged 24, who was suffering from multiple osteo-arthritis. Most of the larger joints were markedly affected, including both mandibular joints to such an extent that the teeth could be separated only by about one-third of an inch. The teeth were in a very bad condition, with the exception of a few in the front of the lower jaw they were all decayed to the gum level. It was thought advisable in the treatment of his condition that all these stumps should be removed, and the mouth put in as healthy a state as possible.

Nitrous oxide was administered for this purpose, the intention being to remove the more accessible stumps towards the front of the mouth on the first occasion so that, at a subsequent administration, those at the back could be more easily removed. Previously to the administration it was found that, although the free passage of air through the mouth was somewhat limited by the fixation of the lower jaw, nasal respiration was perfectly free.

Anaesthesia was induced in a normal manner by the nasal method, and one root had been removed when slight cyanosis was noticed, which continued to increase in spite of the admission of air. The administration was at once discontinued, but respiration ceased entirely. The mouth was opened with a Mason's gag, and the tongue drawn forward; no obvious obstruction could be felt by the finger in the pharynx, which was sponged out, large quantities of very viscid mucus being present.

The patient was placed on the floor and artificial respiration performed, but it was obvious that there was laryngeal obstruction, as no air passed into the chest; therefore tracheotomy was immediately performed and artificial respiration continued, air passing freely through the opening through which oxygen was administered. After a very few compressions of the chest natural respiration was resumed, the patient's colour rapidly improved, and he soon recovered consciousness.

In view of the condition of affairs, the problem of the removal of the teeth was solved by administering chloroform next day through the tracheotomy tube, the pharynx being plugged with a sponge; after all the stumps had been removed, the tracheotomy wound was closed, and the patient made an uninterrupted recovery.

The interesting feature of the case was that although the mouth was opened, the tongue drawn forward, and the pharynx sponged out, complete laryngeal obstruction persisted, which appeared to be due to congestion of the tissues around the epiglottis, the tongue and neighbouring soft parts being much swollen; immediately the asphyxial symptoms were relieved by tracheotomy, the swelling subsided, and the patient could breathe through the natural passages.

WE observe that at Whitehaven, as on the occasion of nearly all mining disasters, the medical profession played its usual but commonly unrecognized part, Dr. C. J. J. Harris of Whitehaven being mentioned among those who formed the first rescue party to descend. The accident, besides being one of the worst on record in point of loss of life, has not even the advantage of affording any hint, apparently, as to how mining operations may be rendered ess perilous. When a mine catches fire all ordinary aids o rescue work are set at nought, and while the dangers a tending it are greatly increased the chances of material success are reduced to a minimum.

PRELIMINARY NOTE ON THE PREPARATION OF THE SKIN FOR OPERATION BY MEANS OF DICHLORIDE OF ETHYLENE AND IODINE.

BY ARTHUR J. WALLACE, M.D.,
SURGEON TO THE HOSPITAL FOR WOMEN, ETC., LIVERPOOL.

I CALLED attention recently[1] to the use of iodine acetone for preparing the skin prior to operation. Last year v. Herff of Basel described[2] the results of the use of acetone only, but as the latter possesses very feeble bactericidal powers, I combined its advantages with those of iodine. The iodine acetone solution was found by Dr. Leith Murray to be more strongly bactericidal than an equivalent iodine alcohol solution. Unfortunately solutions of iodine in alcohol or acetone give off pungent, irritating odours, and when a large area of skin is painted with such a solution, the atmosphere of the room becomes well-nigh intolerable for the time, and nurses who apply the solution complain of lacrymation, coryza, etc., often of an intense kind.

I regarded the good results obtained from acetone as being due mainly to its power of dissolving fats, and set out to discover some solvent of fats and iodine free from the objection mentioned. Whilst engaged on this search, Dr. W. McQ. Brunton of Runcorn drew my attention to the commercial fat solvents manufactured by the Weston Chemical Company. These solvents are derivatives of ethane and ethylene; they are clear liquids of a detergent nature; most of them are non-inflammable and non-combustible; they are powerful solvents of fats and resins, miscible with alcohol but not with water. In each instance the addition of iodine results in a violet-coloured liquid which in bulk has a black appearance. In four instances (the tetrachloride and pentachloride of ethane, the trichloride and perchloride of ethylene) the odour is decidedly pungent; and in the case of the first-named iodine is recognizable.

In the case of the dichloride of ethylene there is only a faint aromatic odour without trace of iodine, even when the solution is painted over a considerable area.

Dichloride of ethylene ($C_2H_2Cl_2$) is a clear mobile liquid, specific gravity 1.25, boiling point 55° C. (The boiling points of the other preparations are much higher—usually over 100° C.) It is non-explosive, but its vapour burns slowly with a smoky flame. It has an immense capacity for dissolving fats and greases, practically double that of acetone. It mixes readily with alcohol, and a mixture of equal parts can absorb water in small quantities. Dr. G. Koller, of the Weston Chemical Company, informs me the dichloride can dissolve 2 48 per cent. of iodine, the trichloride coming second with 1.71 per cent. He assures me further that the addition of iodine to the dichloride results in a solution, for the absence of iodine odour had inclined me to suspect that chemical combination had taken place. This point is not of importance, because in practical use the results are identical with those given by iodine-acetone.

When painted on the skin, temporary mild tingling or pricking sensations are produced, and, as the violet liquid quickly dries, the light brown iodine stain appears. The following method of skin preparation is pursued:

1. Immediately—a few minutes to an hour—before operation: swabbing with sterile swabs saturated with a mixture of equal parts of dichloride and alcohol (methylated spirit).
2. Swabbing with sterile swabs saturated with pure dichloride.
3. Painting with iodine-dichloride-ethylene ("I-D-E") solution (2.48 per cent.).
4. Application and fixation of sterile lint over prepared area.

The only odour given off is a mildly aromatic one that does not produce any unpleasant effects on bystanders. Those in whom other iodine solutions produce lacrymation, etc., can with impunity apply I-D-E solution. The iodine stain has a lighter hue than that produced by other solutions, and it disappears more quickly and without causing irritation or dermatitis. In operative—chiefly abdominal—work the results have been uniformly excellent.

NOTE.—Ethylene dichloride is made by the Weston Chemical Company, Weston Point, Runcorn. In bulk it costs about 9d. per lb., or less than half the price of acetone. It is stored in metal vessels, and solutions should be kept in dark blue glass bottles, stored in dark cupboards, as exposure to light for any length of time leads to the appearance of traces of HCl.

REFERENCES.
[1] *Practitioner*, April, 1910, p. 501. [2] v. Herff, *Deut. med. Woch.*, 1909, No. 10, p. 425; G. Koller, The Chlorine Derivatives of Ethane and Ethylene and their Industrial Importance as Non-inflammable, Non-combustible, and Non-explosive Solvents: Seventh International Congress of Applied Chemistry, London, 1909.

A CASE OF EXOPHTHALMIC GOITRE CURED BY OPERATION.

BY F. P. STURM, CH.B.ABERD.,
LEIGH, LANCS.

THE following case affords such an excellent example of what surgery can do for otherwise hopeless conditions of exophthalmic goître that no excuse is needed for putting it upon record:

In October, 1908, I was asked by Dr. F. E. Wynne to see an advanced case of Graves's disease. The patient was an unmarried lady aged 32. Two years previously she had suffered from palpitation, anaemia, and swelling of the ankles. These symptoms had not responded to treatment, and in six months from the commencement of her illness she presented all the symptoms of well-marked Graves's disease.

When I saw her she had a moderately large bilateral goître. The neck measurement was 20 in. There was a loud bruit and a well-developed thrill over the tumour, a murmur of dilatation at the apex of the heart, and an irregular pulse, which fluctuated between 120 and 140. There were fine tremors of the hands and very definite exophthalmos. Her ankles were oedematous, there was profound anaemia, and her general condition was bad. She complained of nervousness, palpitation, inability to do any work, and breathlessness upon the slightest exertion. She had attacks of profuse sweating, which were always accompanied by an extremely offensive and penetrating odour. The diagnosis of exophthalmic goître made by her medical attendant had been confirmed by an eminent consulting physician, who furthermore gave an extremely grave prognosis. Practically every known plan of medical treatment had been tried without success. She had been kept in bed for months at a time, and had swallowed large amounts of thyroidectin, not to mention antithyroid serum and the usual drugs, but without any permanent benefit. As she expressed her eagerness to undertake no matter what risk in the hope of even partial relief, I advised operation.

Operation.

Upon October 30th, 1908, I removed the right lobe of the thyroid tumour under local anaesthesia. The right lobe was chosen because it appeared to be the larger and more vascular, and because it had the louder bruit and the more marked thrill. The operation was a difficult one, involving much haemorrhage and deep dissection. The wound healed by first intention except at the point of insertion of the drainage tube, through which much colloid material escaped during the first five days. Recovery from the operation was uneventful. The temperature never rose above normal. Within a week the pulse had dropped to 80. Within a month the tremors had disappeared and the exophthalmos had improved. Exophthalmos has been the last symptom to disappear.

Present Condition.

Seventeen months have elapsed since the operation, and all symptoms of Graves's disease have disappeared. There are no tremors except after unusual exertion; there is no dyspnoea; there is no exophthalmos, and the pulse remains steady at 80. The patient is able to be on her feet from morning to night, and has recently applied for, and obtained, a position in a teaching institution. She eats well, sleeps well, and is never troubled either by palpitation or nervousness. The only relic of her former condition is the almost invisible scar of the incision in the neck.

During the past two years I have performed thyroidectomy in 5 cases of well-marked Graves's disease. Each of these cases presented the classical symptoms, namely, exophthalmos, tachycardia, fine tremors, and goître, and in all the diagnosis had been confirmed by independent observers. Of these 5 cases the one recorded above has been completely relieved of every symptom. Three other cases declare themselves cured, but of these three all have still slight exophthalmos, and two have occasional attacks of tachycardia. The remaining case was a woman, aged 33, who had been married eight years and was childless. No symptoms remained six months after operation. I then lost sight of her, but her medical attendant, Dr. G. H. Shaw, tells me that she subsequently became pregnant, was delivered at term, and within a few weeks of her confinement died of acute pulmonary tuberculosis.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

OSSIFICATION IN THE BRACHIALIS ANTICUS FOLLOWING INJURY TO THE ELBOW.

I WAS much interested on reading (BRITISH MEDICAL JOURNAL, April 16th, p. 920) Mr. Tyson's report of his case of ossification in the brachialis anticus, as I was then in communication with Sir Alfred Fripp respecting a similar injury.

The notes of my case are as follows: A lady of middle age at the end of last January was at a skating rink with roller skates on when she fell on to the palm of her left hand, the left arm being extended behind her back. She experienced great pain at the elbow, and with much difficulty got to her feet. As she was not at home she did not see a medical man until next morning, when the pain and swelling forced her to do so. No fracture was detected; the arm was put in a sling and evaporating lotions applied to the elbow.

I saw her on her return home at the end of February; there was then a large hard swelling in the bend of the elbow which felt like bone; the arm could not be flexed to reach the mouth, nor extended as usual.

No definite improvement taking place, she saw Sir Alfred Fripp the second week in April; *x* rays then showed no recent fracture, but only an ill-defined blurred mass in front of the elbow-joint. At an operation on April 21st Sir Alfred Fripp found the lower ends of the biceps and brachialis anticus pushed forwards; it was in the lower end of the latter muscle that the ossification had taken place, and about one-third in thickness of its posterior surface had to be removed. It was a tedious business, as there was no possibility of shelling the mass out, and the bone had to be removed piece by piece with bone forceps, two large pieces the size of walnuts being detached, besides many smaller pieces. On completion of the operation the arm could be flexed so as almost to reach the mouth.

The speedy onset of ossification after injury in this case makes it interesting, more especially as to its final outcome.

Haslemere. WILLIAM A. ARDAGH, M.D., B.Ch.

ARTIFICIAL RESPIRATION IN NEWBORN INFANTS.

THE article on artificial respiration in newborn infants, published in the JOURNAL of May 14th, p. 1194, incites me to report the following case. It is one which I venture to think afforded an extremely severe test of the method of artificial respiration employed.

Mrs. T. was delivered of twins, no skilled attendant being present. The first child was separated, cried lustily, and was put on one side as usual. The second child was born *en masse* with the placenta, without rupture of the second bag of membranes, there being one placenta with two cords and two separate bags.

The attendant, thinking the whole mass was after-birth, put it in a slipper-pan, and laid it aside. There it remained until the medical attendant arrived, a period of forty-five minutes at least. (This time has been most carefully verified.) The child (male) was then removed from the bag, and showed some extremely feeble signs of circulation. Artificial respiration induced natural breathing in about half an hour. The child is now 3 months old, and has doubled his weight at birth.

The point of interest in this case is the time during which the infant survived, namely, forty-five minutes. Probably five or ten minutes would generally be considered the limit.

Dr. Leonard Hill has kindly furnished me with the following facts which bear upon the case: Newborn kittens and puppies can be recovered by artificial respiration after submersion for as long a period as thirty to forty-five minutes. A curarized dog's heart will beat for forty-five minutes after cessation of artificial respiration. Guthrie has transplanted a dog's head on to a dog's carcass, stitching artery to artery and vein to vein, and has seen eye reflexes re-established on setting going the cerebral circulation after nearly thirty minutes' interruption.

My own suggestion in this particular case is that the long survival of the child was due to the fact that by chance the maternal surface of the placenta was exposed to the air as it lay in the pan, and that this afforded an opportunity for a small amount of oxygen to enter the fetal circulation. In support of this theory I quote the following sentence from an article in the *Encyclopaedia Medica*:

> In the middle of last century it was a common practice to lay the placenta on the child's belly, and last year Stringer recommends the exposure of the placenta to the air as the rational treatment of asphyxia.

The method of artificial respiration I employed was that of applying the lips to the mouth of the infant, only a handkerchief intervening, and "blowing up" the lungs, then compressing the chest with the hand, and so on. No doubt a good deal of inflation of the stomach takes place, but this is easily expelled, and serves the useful purpose of clearing the pharynx of mucus, etc.

When blowing, the operator must be prepared to receive a rather unpleasant mouthful down the infant's nostrils, but after one or two blows the nose should be gently compressed, in order to prevent the air escaping by that route.

One great advantage of this method is that it can be carried out whilst the infant is immersed in warm water, and another is that the hand grasping the chest can feel a definite and highly satisfactory expansion at each "blow," and one is not left in doubt as to whether air enters or not. Further, there is no fear of injury to the child's shoulder joints or neck muscles by over-vigorous stretching.

I always employ this method and believe it to be superior to any other. It is so simple, so easily performed, and so obvious that it must be resorted to by many midwives, and I think their experiences would be of great interest.

Loughton. B. F. PENDRED, M.R.C.S., L.R.C.P.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

ROYAL SURREY COUNTY HOSPITAL, GUILDFORD.

A MULTILOCULAR CYST OF THE OMENTUM.

(Reported by ALEX. H. GIFFORD, M.R.C.S., L.R.C.P.Lond., House-Surgeon.)

A BOY, aged 6 years, was brought complaining of swelling of the abdomen, which had been noticed for about six months, and which for the last few days had been very painful when he stooped forward. The pain was felt in the umbilical and hypogastric regions, and had no relation to the taking of food. It was constantly present though varying in intensity; there was no vomiting, and the bowels were costive. He passed urine freely and without pain. The urine has always been clear, and of normal colour and appearance.

Condition on Admission.

The child was healthy, well nourished, and intelligent; the heart and lungs were normal. The abdomen was distended towards the middle but less in the flanks, which did not bulge. The abdomen was tight, with a sense of fluctuation, and on percussion dullness was detected above the pubes reaching to a level three fingerbreadths above the umbilicus with deep resonance. In the flanks there was also deep resonance with superficial dullness, though the latter was not so pronounced as in the median parts. No free fluid could be detected in the abdomen. A catheter was passed, but only 2 oz. of urine were drawn off; the swelling of the abdomen was undiminished. Its circumferential measurement at the level of the umbilicus was 24 in., varying $\frac{1}{4}$ in. more or less at intervals of a few days. Digital examination by the rectum revealed nothing abnormal. The urine was amber coloured, neutral, 1004; there was no albumen, no pus, and no blood in it.

Operation.

On March 4th median laparotomy was performed; an incision was made for 3 in. below the umbilicus; healthy intestines, uncovered by omentum, presented; the peritoneum was quite healthy, and there was no fluid. On passing the hand upwards the fingers were arrested by adhesions extending from the abdominal wall to a cystic swelling about the size of a cocoanut. The adhesions were broken down, and a cyst in the substance of the omentum freed; the incision was enlarged for 3 in. above the level of the umbilicus, and the cyst partially tapped; the omentum was then ligatured and divided, and the cyst with the surrounding omentum easily removed. The abdomen was then closed. The cyst was multilocular, lined with a smooth membrane, and contained a clear straw-coloured fluid. The measurement of the abdomen at the level of the umbilicus after the operation was 20 in.

Remarks.

The diagnosis in this case was difficult and diverse, though the opinion that the condition was cystic was more or less universal. When the patient was lying in the prone position the appearance and signs resembled those of an ovarian cyst. Bladder conditions were ruled out. Encysted tuberculous cysts were suggested, and I find on reference to Rose and Carless's *Manual of Surgery* (Chapter XXXII) the statement that in tuberculous peritonitis a cyst is occasionally formed by the effusion being shut up by adhesions between coils of intestine; in this case, however, there was no studding of the peritoneum with tubercles, no free ascites, and no flakes of fibrin, and the cystic condition was confined to the great omentum. Had the exact condition been known before operation, raising of the pelvis would probably have made an interesting change in the physical signs.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

STAFFORDSHIRE BRANCH.

Wolverhampton, April 28th, 1910.

Dr. W. G. Lowe, President, in the Chair.

Sarcoma Treated with Coley's Fluid.

Mr. Deanesly showed a case of sarcoma of the lower end of the femur successfully treated by Coley's fluid.

The patient was a girl aged 11 years, admitted to the Wolverhampton General Hospital on August 25th, 1909, and discharged on January 9th, 1910. The treatment was begun on September 10th and discontinued on December 13th. On admission the child had the typical features of a sarcoma of the lower end of the thigh—namely, a spheroidal elastic enlargement of the lower end of the femur measuring 15 in. in circumference, and covered with enlarged veins. A radiograph showed uniform circumscribed enlargement of the bone and absence of implication of the knee-joint. Exploratory puncture produced only blood. The knee-joint was flexed, the muscles contracted and somewhat wasted. There was general emaciation. After one month's daily treatment, accompanied by a high febrile reaction, the emaciation was extreme, and a large fluid swelling surrounded the growth. This gradually became absorbed. At the end of three months' treatment great improvement and gain of weight began, and thenceforward increased rapidly.

At the present time the general health was excellent, full use of the limb had been regained, and the tumour was represented by a hard bony mass about one-half the original size.

Graves's Disease.

Dr. Codd showed a case of Graves's disease treated with *x* rays. He was sent to him by Dr. Malet, with a history of four years. M., aged 31, very large goître measuring 19 in. round neck, right side much larger than left, marked thrill. Exophthalmos, Graefe and Joffroy's signs, pulse 100, marked erythrism, felt quite unfit for work. Tried to wear 18 in. collar, but would not go round and had to use flannel collar. Had *x* rays ten minutes—1 milliampère daily for a month, three times a week for two months, then weekly for three months; most of the applications had been given to the right lobe. At the end of that time the right side was almost the same size as the left, and had become very much flatter, the neck measured 16¾ in., pulse 68, erythrism quite gone, and the patient was able to work as well as he ever did. The 18 in. collar he at first could not wear now fitted him very loosely, and he had had to take to a smaller size; he could lean forward without the feeling of choking which he experienced at first. There was still the exophthalmos, Graefe and Joffroy's signs. This case was but a type of other cases treated by him in the same manner, many of them with similar results, but others not so favourable. The chief factor of success in this case had been the pertinacity with which he had continued the treatment. It had taken a long time, but it had to be remembered that he had not lost an hour of time at his work.

X Rays in Favus.

Dr. Codd showed a case of favus, and also some coloured stereographs taken when the treatment begun. The whole of the scalp was covered with the yellow scabs filling the favus cups. Even when these scabs were removed as much as possible, there were very few small patches of unaffected scalp seen. The treatment had been applications of *x* rays given about three times a week, but the patient attended very irregularly. Hydrogen peroxide was ordered to be applied twice a day to the whole surface and the scabs to be removed as effectually as possible daily. No internal treatment. The disease was now not quite cured owing to the very great irregularity in his attendance, but there were only a very few foveae left, and there was no doubt that a few more applications would clear it up, though some permanent alopecia must be expected. Yet some of the areas that had been cured showed an unexpected growth of hair considering the vigour of the treatment.

Papers.

Dr. Martin read a paper on infant feeding. Drs. Deanesly, Edge, and Lowe discussed the paper. Dr. Edge read a paper on the ureter in hysterectomy.

Pathological Specimens.

Mr. Deanesly exhibited: (1) *Five specimens of chronic gastric ulcer* which had been removed by free excision followed by suture of the stomach. The largest measured 2 in. in diameter, and had completely eroded the posterior wall of the stomach, being fixed to the pancreas by firm fibrous adhesions. In removing it a complete division of the stomach was made and a segment removed involving about one-fourth of its length. The functional result in all cases shown was perfect up to the present time, but longer time would be required to test the permanence of the cure. (2) *A carcinomatous rectum completely removed by the combined abdomino-perineal method.* Although the disease was so advanced as to be thought inoperable by the physician who transferred the case, the patient, a man of 42, had made a complete recovery, with complete control over the sphincter ani, which was preserved. (3) *A cancerous caecum*, removed, with the whole of the ascending colon, from a man of 50. The operation was begun by dividing the ileum close to the caecum and implanting its proximal end into the sigmoid flexure. The large bowel was then removed up to the commencement of the transverse colon, the divided end of which was inverted and closed. The patient recovered, and had regained his normal weight and appetite. Dr. Lowe showed a specimen from a *Popliteal aneurysm* which had been operated on many years before—it was shrunken and obliterated. Dr. Cholmely showed a piece of drainage tube encrusted with salts removed from a kidney.

Under the will of the late Sir Frederick Thorpe Mappin of Sheffield, the University of Sheffield and the Royal Infirmary, Royal Hospital, and Jessop Hospital for Women, all in that city, each receive a bequest of £1,000.

All dispensaries, hospitals, creches, camps, asylums, homes, and nurseries in Chicago keeping or caring for children under 2 years of age are now required to report to the Department of Health twice a year, on June 1st and September 1st, on forms furnished for that purpose, particulars as to (1) facilities for (*a*) sterilizing diapers, (*b*) excluding flies, (*c*) segregating cases of diarrhoea; (2) source of milk supply; and (3) measures used to protect against venereal disease.

Reports of Societies.

MEDICAL SOCIETY OF LONDON.

Monday, May 23rd, 1910.

SAMUEL WEST, M.D., F.R.C.P. (President), in the Chair.

The Annual Oration.

MR. WILLIAM H. BATTLE delivered the annual oration, taking as his title, Internal Injuries (Abdominal). In the course of his remarks he pointed out that rupture of the spleen was mostly met with in malarious districts, where it was so commonly diseased; it might also occur during an attack of typhoid fever. In this country it was most commonly the result of severe injury, and none of the recorded cases had been ruptures of diseased spleens, so far as could be ascertained by the naked eye. In one instance, which Dr. Wheen had found in medical literature, there was evidence of disease of the blood on examination. They could not enter much into a consideration of the rupture of the diseased spleen, for although it would be interesting, it would be chiefly so from a medico-legal point of view. Much of interest on the subject could be found in papers by Dr. D. G. Crawford in the *Indian Medical Gazette*, 1902 and 1906. Some of the accounts given by those in charge of hospitals in tropical countries, or by those in charge of hospitals where patients were admitted from malarious districts, were quite startling. A patient with a large spleen "turned in bed," was playfully "dug in the ribs" by a jocular friend, some one threw a tiny missile at him, or flicked him with a cane, and death ensued in a period of time measured by minutes. Playfair gave seven to eight minutes as the average duration of life after rupture of a malarial spleen, and the late Surgeon-General Coull-MacKenzie said that 68.9 per cent. of his cases died under half an hour. If the abdomen were examined after death, it was found to be flooded with blood, as if the sac of an aneurysm of the abdominal aorta had burst into the peritoneum. There was rarely time for more than a guess as to the cause of the symptoms—none for treatment. Rarely was the rupture of a malarial spleen survived even for a few days. Dr. White-Hopkins, who spent some years in Sarawak, had kindly permitted him to show them a weapon which he (Mr. Battle) called the "lethal cross," but the real name of it was "larang" (meaning forbidden) in the Malay language. It was used by the Chinese only in Southern China, and generally in the Malayan countries and islands, Malay States, Java, Sumatra, Celibes, etc. The weapon was not known in Northern China for the reason that an enlarged spleen was not so plentiful as in the southern or tropical portion. It was made of iron, with a cross-piece, the ends of which turned towards the point. The blunt end terminated in a nut, which gave it a knobbed appearance. The longer part beyond the cross was carried up the sleeve, so that the deadly blow was struck by the shorter and thicker end. It was carried with the shaft up the arm of a long sleeve, clutched between the second and third fingers at the cross, leaving the knob extending. It could not be seen, in consequence of the sleeve. The Chinaman waited for his victim at night, and, accosting him, dealt him a sudden and unexpected blow in the abdomen, and was not particular as to the position in which he struck. The victim, without a groan, fell dead on the spot. His pockets were rifled, and nothing more was known of his assailant. From Dr. White-Hopkins's experience in Sarawak, an enlarged spleen amongst the Chinese was found in about 90 per cent. He would go further and say that every Chinaman had an enlarged spleen. But the ratio of enlargement would be as follows: The whole of the abdomen involved with a hard nodulous enlargement would be 60 per cent., perhaps more; a partial enlargement occupying three-quarters of the abdomen would be about 25 per cent., and the remainder from a half to a quarter enlargement. Mr. Battle went on to say that if a Chinaman was found with a larang upon him he was at once tried and imprisoned, because it was known what intention he had. It was rarely found except in a case of intoxication, or the finding of a Chinaman in close proximity to a dead man. Rupture of a normal spleen was found as the result of considerable violence, and was met with clinically under two conditions. From its position under the shelter of the ribs, where it was well guarded in the adult, it was a comparatively rare injury. It was not surprising to find that amongst the published cases there was an unduly large proportion of children, nearly all of whom were "run over" in the streets. It was formerly held that there must be adhesions between the spleen and diaphragm before rupture could take place, but that theory had been frequently disproved in recent years. Every rupture of the organ was not fatal; healed cicatrices had been found during necropsies by Ayres, Neville Jackson, and D'Arcy Power. There were some cases in which life was said to have been much prolonged after the injury, but unfortunately the condition of the abdomen as given in the report did not always carry conviction that the diagnosis was correct. Statistics were therefore of little value, but Edler computed the mortality at 82.3 per cent. in the uncomplicated cases. The symptoms produced by the injury might be immediate and alarming, or they might be delayed in their development. Barrallier summed them up in the following words: "péritonisme," "l'hémorrhagie," "syncope," but probably referred to the rupture of a normal spleen. The amount of shock varied very considerably when a healthy spleen had been ruptured, and did not help in the diagnosis, but the speaker was rather inclined to think it greater when the spleen rather than the liver had been ruptured, unless the laceration of the latter was deep or extensive. There might be no local evidence of contusion, but if the injury was to the splenic region, more especially if the overlying ribs were broken, then the great probability was that the spleen had been torn. Pain might be severe, but on the other hand it might be absent, and there might even be no tenderness. The chief reliance must be placed on the presence of blood in the peritoneal cavity soon after an injury, and the general effect of the loss of that blood on the patient. It was strange that in so many of the recorded examples of rupture of the spleen there was no statement as to the presence or absence of dullness in the abdomen during the progress of the case, or in fact any note to show that those in charge were aware of the very large accumulations of blood which were revealed at the *post-mortem* examinations. In one or two cases in which operation was performed abroad it was stated that there was no dullness, and a paragraph or so later on that a great deal of blood escaped when the peritoneum was incised. In ruptured spleen there was the shifting dullness of the effused blood, whilst the immediate neighbourhood of that organ was occupied by a clot which gave the impression of an increase in size. All those cases should be closely observed, and frequently examined, and operation performed if there were rapid increase of the effusion. Many of the successful cases had presented a less urgent group of symptoms, there being apparently a smaller amount of intraperitoneal haemorrhage at the commencement, but occasional recurrences during the following days, by any one of which the state of the patient might be rendered precarious. The clotting of the blood in and around the laceration appeared to close the vessels for a time, but secondary haemorrhage had been known to prove fatal three weeks after the accident. If the patient survived and no relief was afforded during the first day or two, to the other abdominal signs and those depending on loss of blood were not infrequently added increasing distension, vomiting, pain, restlessness, and other symptoms of peritonitis. It was advisable in those cases to remove the spleen and empty the peritoneum of the blood which had invaded it, through an incision over the left upper abdomen. Tamponage was sometimes useful, but with such a vascular organ, efficient pressure might produce sloughing. In one case, the notes of which were read before the Clinical Society, that of a big heavy man, where the spleen was very adherent to the diaphragm, the speaker passed a ligature round the splenic vessels and so arrested the haemorrhage. Saline infusion was most useful in that case, but the patient only survived the operation four days. Dr. Wheen had tabulated the successful cases of excision for that injury done by British surgeons, and it was interesting to find that a recent President of their Society, Mr. C. A. Ballance, not only obtained the first operative success, but had the credit of 3 out of the 23 recoveries which had been published in this

country. It was worthy of note that in the cases of ruptured spleen during the course of typhoid fever, operation had mostly been performed for supposed perforation of the small intestine. A laparotomy of the lower abdomen was first performed, and then a second incision made over the spleen.

THE ROYAL SOCIETY.

Thursday, May 5th, 1910.

Mr. A. B. KEMPE, Treasurer and Vice-President, in the Chair.

Development of Trypanosomes in Tsetse Flies.

COLONEL Sir DAVID BRUCE, C.B., F.R.S., A.M.S.; Captains A. E. HAMERTON, D.S.O., and H. R. BATEMAN, R.A.M.C.; and Captain F. P. MACKIE, I.M.S. (Sleeping Sickness Commission of the Royal Society, 1908–9), contributed a paper on the development of trypanosomes in tsetse flies. Until the end of 1908 it was believed that tsetse flies acted merely as mechanical agents in the transference of trypanosome diseases. The parasite was supposed to be carried by the fly in the same way that vaccine lymph is carried on the point of a lancet from one child's arm to another. The limit of time of infectivity of the fly was placed at forty-eight hours, and it was believed that if an infected area were emptied of its sleeping sickness inhabitants for a couple of days it would then be quite safe for healthy persons to enter it. At the end of 1908 Kleine made the discovery that a tsetse fly could convey a trypanosome for some fifty days after the fly had fed on an infected animal. The experiments were carried out on these lines in Uganda. Both lake-shore and laboratory-bred flies (*Glossina palpalis*) were used, and various trypanosome diseases besides sleeping sickness were experimented with. Tsetse flies are numerous on the lake-shore, 500 or more being caught every day by a few fly-boys. The flies brought up from the lake-shore were found to be naturally infected with at least two species of pathogenic trypanosomes, so that it was afterwards found necessary to use flies bred in the laboratory from pupae gathered on the lake-shore. At first it was difficult to find these pupae, but after some time the supply was more than sufficient, as many as 7,000 being brought up in one day by a few natives. These experiments go to show that a late development of trypanosomes takes place in about 5 per cent. of the flies used. This development of trypanosomes in the inside of a fly renders the fly infective and capable of giving the disease to the animals it feeds on. The shortest time which elapsed before a fly became infective after feeding on an animal infected with sleeping sickness was 18 days, the longest 53 days, and the average 34 days. An infected fly has been kept alive in the laboratory for 75 days, and remained infective during that time. It is not known how long the tsetse fly may live under natural conditions on the lake-shore. Experiments made to test directly the duration of the infectivity of tsetse flies show that they can retain their infectivity for at least two years after the native population has been removed from the fly area.

EDINBURGH OBSTETRICAL SOCIETY.

Wednesday, May 11th, 1910.

Dr. F. W. N. HAULTAIN, President, in the Chair.

Suprapubic Fascial Incisions.

PROFESSOR KYNOCH, in a communication on suprapubic fascial incisions in gynaecological coeliotomy, described Pfannenstiel's transverse incision as a slightly curved incision two or two and a half inches above the symphysis pubis, and passing through the skin, subcutaneous tissue, and the anterior layer of the sheaths of the recti abdominis. The muscles themselves, he said, were separated or divided vertically, and the peritoneum opened. The advantages claimed for the incision were: No gaping of skin wound; no division of motor nerves, and, in consequence, no muscular atrophy, and less risk of hernia. The only chance of hernia was at the place at which the transverse and vertical incisions crossed. This spot should always be strengthened by a special stitch. The patient might be allowed up sooner than after the vertical incision, and might sit up on the third or fourth day—a matter of importance in the aged and feeble. All oozing should be guarded against by ligation of the vessels and not merely crushing or twisting with forceps. A flat sandbag, weighing 6 to 9 lb., might be placed over the dressing. This transverse fascial incision was contraindicated in septic cases. The speaker had employed the incision for five years in the removal of ovarian cysts of moderate size, small fibroid tumours, and early ectopic gestations, and in ventrisuspension. Dr. BARBOUR said that if more room was required during the operation, it was difficult to obtain it with the transverse incision. If a small opening was sufficient, then the diminished risk of hernia was in favour of the transverse incision. Dr. FORDYCE said he had once had very troublesome sepsis after a transverse fascial incision, and this had discouraged him in its use. To keep the wound sufficiently open during the operation a special retractor was required, and it was a great disadvantage to have each of the four edges guarded by a rigid bar of metal. Hernia was a rare occurrence after the median incision if it was stitched up in layers. The cases in which it was likely to arise were those done in a hurry, and stitched up with through-and-through sutures. The PRESIDENT had one or two objections to Pfannenstiel's incision; the chief was the hampering of movements. The wound could not be enlarged with any freedom, and if ovarian cysts were taken out entire, as they ought to be, a very large opening was usually required. There was no objection to a large vertical incision. It healed as well as a small one. The cases of hernia which he had seen occurred in small wounds when the surgeon had tried to do too much through too small a space; then bruising of the tissues and impairment of healing took place. He still adhered to the through-and-through suture. If suppuration did occur, the removal of an individual stitch was possible, and got rid of the septic seton. He still advised his patients to wear a belt for six to nine months. Professor KYNOCH, in reply, said that the transverse fascial incision was almost universally used in Continental clinics. Originally it was recommended by Pfannenstiel for small tumours, but he had recently seen many large tumours removed. For such, however, he considered the vertical incision preferable. The transverse incision was bad if suppuration occurred.

Infection of the Urinary Tract.

Dr. NAPIER BURNETT, in a communication on *B. coli* infection of the urinary tract complicating pregnancy, said from failure to recognize it this affection was passing from the domain of the obstetrician to that of the surgeon. It ought to be taught that it was a complication of pregnancy. These infections might occur any time after the fourth month of pregnancy, and were most frequent in primiparae. They fell into two groups according as bladder symptoms were present or absent. The symptoms were usually of acute abdominal disease, and the most constant area of tenderness was in the costo-vertebral angle. The ureter might be thickened and palpable per vaginam. At first the temperature might be intermittent as in malaria, but later, when the kidney tissue or the other urinary tract became affected, it remained persistently above normal. The urine had not a fishy odour, as described by some authorities, and no faecal or ammoniacal odour. The reaction was acid if the *Bacillus coli* was present in pure culture. The examination of the blood showed a secondary anaemia with a leucocytosis; the bacillus was rarely to be isolated from it. Acute cases were marked by rigors and increasing toxaemia; the chronic were characterized by pain and tenderness over the kidney, headaches, and general ill-health. Slight cases were often overlooked, or diagnosed as recurrent lumbago. If mixed infection occurred, the attack might be very severe. The condition was to be differentiated from acute cholecystitis, which might also be present, appendicitis, and intestinal obstruction, malaria, right-sided pleurisy, and pneumonia, renal and ureteral calculus. Regarding its etiology there were two ideas: (1) That it was an ascending infection, and (2) that it was haematogenous. The attacks had been said to be due to a pre-existing bacilluria plus the supervention of retention, or to mechanical obstruction. Most cases were right-sided at first—a fact which favoured the theory that they were caused by pressure of the axially rotated uterus. But more probably infection was due to a

direct lymphatic spread of the bacilli from the ascending colon, especially if the right kidney was mobile, and occasional kinking of the ureter occurred. The best treatment was by alkalis in large doses—potassium bicarbonate, acetate and citrate. Urotropin and helmitol had little effect except in cases of mixed infection. Serum treatment had been unsatisfactory, but the vaccine treatment was often good, especially if autogenous. Douching of the renal pelvis with 1 per cent. silver nitrate through a ureteral catheter pushed to the upper end of the ureter was of great service. In severe cases nephrotomy might be done, but it was better to interrupt the pregnancy even although there was a risk of infecting a big raw surface. The PRESIDENT said his experiences in the vaccine treatment of obstinate cases of *Bacillus coli* cystitis had been most encouraging. Dr. BARBOUR believed there was nothing in the pressure theory of these conditions. The author had seemed of the same opinion, yet he advocated the termination of the pregnancy. Dr. CHURCH had had one case of so-called neurasthenia in a woman between 50 and 60, which turned out to be an infection with the *Bacillus coli*. It persisted for years. Dr. FORDYCE had had a case in which the diagnosis between appendicitis, pneumonia, and *Bacillus coli* infection was difficult. After labour at full time the symptoms subsided. The *B. coli* was often present in the urine without giving rise to symptoms. Dr. BURNETT, in reply, said that vaccines had no effect in lessening bacilluria, hence he washed out the bladder in such cases, though it was contrary to Wright's teaching. As to its frequency in pregnancy, it might be that the bacilluria was pre-existent, but was only revealed in pregnancy. Many patients with neurasthenic symptoms had the *Bacillus coli* in the urine. In a *post-mortem* examination of a woman who had died in late pregnancy, he had found a dilated right ureter and pelvis, which was suggestive of pressure by the uterus. The dose of alkalis had to be large—40 to 60 or even 120 grains every two hours.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

Tuesday, May 10th, 1910.

W. WARD-SMITH, F.R.C.S., President, in the Chair.

MR. T. WILTON THEW, in a paper on oral sepsis from a dentist's point of view, said that it was a subject demanding the combined attention of both doctor and dentist. One of the chief things to be considered in connexion with it as regards children was the question of diet. It should be of such a character as to leave the mouth physiologically clean and healthy. After some teeth had appeared the food should be such as would demand the use of the teeth by including substances of a hard and fibrous nature. Apples, crust, and even bone were excellent things to scour the teeth and jaws and help to develop the bones and muscles of mastication. Dental caries was the principal cause of oral sepsis in children, and the importance of having temporary teeth filled, and filled early, could not be exaggerated, because the smaller the decayed spot the easier and more satisfactory it was to fill. Permanent teeth were more likely to be preserved if they were in a mouth which was clean and free from caries. Decayed temporary teeth very readily produced alveolar abscesses. The first permanent molar (six-year-old molar) was very apt to decay and caused the acutest suffering. In adults the study of oral sepsis was largely the study of pyorrhoea alveolaris. There was a chronic progressive destruction of the tooth socket, generally accompanied by the formation of pus. The cause was irritation of the gum margin, long continued and incessant. The deposit of tartar round the necks of the teeth was the usual form of irritation. No specific micro-organism had been discovered. The disease was accompanied by systemic symptoms, the chief of which were anaemic and various intestinal disorders. Vaccine treatment was still *sub judice*, and so far had not given very satisfactory results. The principal point in the treatment was the removal of the tartar, and required care and patience. After scaling, a dental atomizer should be used with hydrogen peroxide. The teeth should be brushed with a simple chalk tooth-powder night and morning and after every meal. Systematic massage of the jaws must be carried out. For advanced cases there was only one cure—extraction. Dr. BRONNER pointed out that oral sepsis was very closely connected with diseases of the nose and throat, especially otorrhoea and antrum disease. Dr. WOOD did not agree with feeding children on hard substances, and asked why it was that dentists had such an aversion to extracting teeth when an alveolar abscess had formed. Dr. WARD-SMITH said that from his experience at the Children's Hospital the number of children with septic mouths was appalling.

ROYAL SOCIETY OF MEDICINE.

MEDICAL SECTION.

Tuesday, May 24th, 1910.

J. MITCHELL BRUCE, M.D., F.R.C.P., President, in the Chair.

Examination of the Excreta in Pancreatic Disease.

DR. CAMMIDGE described the results of the analysis of over 1,500 specimens of urine from 1,475 cases, including pancreatitis, pancreatic calculi, cysts, infantilism, and cancer. The conclusion advanced was that, while the "pancreatic" reaction in the urine was not pathognomonic, its presence was strongly suggestive of active degenerative changes in the pancreas, and, when taken in conjunction with the history, symptoms, and an analysis of the faeces, the findings were of considerable clinical value. Clinical experience and the results of experiments pointed to the reaction being due to the destruction of substances with a glyco-nucleo-proteid content, and, since the pancreas contained nearly five times as much pentose as any other organ of the body, and it was more loosely combined than the corresponding sugar in other tissues, the reaction was obtained with much greater frequency, and more constantly in lesions involving degenerative changes of that organ than in others. The affections that were likely to give rise to a positive reaction were usually so readily differentiated from pancreatic disease clinically, and by an examination of the faeces, that there was little or no risk of confusion. No reaction was obtained in most affections in which the pancreas was not involved, also in quiescent cirrhosis of the gland, some cases of pancreatic calculi and cysts, and in 67 per cent. of cases of cancer of the pancreas, since in these there was no active degeneration of the gland substance to set free the glyco-nucleo-proteid content of the cells, unless there was also a secondary inflammatory change due to pressure effects or obstruction of the duct. In the diagnosis of diseases of the pancreas a qualitative and quantitative analysis of the faeces was of great value, not only as indicating the presence of disease but also as suggesting its nature and probable cause. The chief points to be noticed were the reaction, microscopical examination for fat globules, fatty acid crystals, and undigested muscle fibres, the percentage of unabsorbed fat, the relation between the saponified and unsaponified fats, the percentage of inorganic ash, the presence or absence of hydrobilirubin, and the constant presence of occult blood Dr. H. D. ROLLESTON thought the test of much value in cases in which the diagnosis was either very difficult or apparently impossible by ordinary clinical methods—for instance, in the differentiation of calculus of the common duct from cancer of the head of the pancreas. The operation of draining the gall bladder was, however, by no means always necessary in chronic pancreatitis. Dr. A. C. HERTZ suggested that it might be desirable to give a special diet before analysing the dejecta. Dr. CAMMIDGE replied.

UNITED SERVICES MEDICAL SOCIETY.

Wednesday, May 11th, 1910.

Lieutenant-Colonel R. H. S. SAWYER in the Chair.

THIS was a clinical meeting, the exhibits including two cases of disseminated sclerosis shown by Major W. S. HARRISON, who also read notes of a case of primary spastic paraplegia. He remarked that the cases were interesting from two points of view: First, that two of the patients dated their illness from an attack of enteric fever, and, secondly, as showing how very varied the symptoms of disseminated sclerosis might be. A case of congenital acholuric icterus was shown by Lieutenant G. H. DIVE. The chief points to which attention was directed were variability in the depth of the jaundice, splenomegaly, oligocythaemia, anisocytosis, diminished mean diameter of the red cells, absence of bile in the urine, and its presence in the faeces.

Reviews.

THE POOR-LAW COMMISSION.

A COURSE of nine lectures on various points in the Reports of the Royal Commission on the Poor Laws was arranged by a committee which included representatives of the Sheffield and the Eccleshall Boards of Guardians and various voluntary associations. The committee obtained as lecturers some of the leading exponents of all sides of the subject, including the Rev. L. R. Phelps of Oxford and Mr. F. H. Bentham of Bradford, signatories of the Majority Report; the Dean of Norwich and Mrs. Sidney Webb, signatories of the Minority Report; Dr. McVail, Dr. Marion Phillips, and Mr. R. H. Tawney, investigators for the Commission; Mr. H. J. Manton of Birmingham, a guardian of wide experience; and Dr. Bosanquet, husband of Mrs. Bosanquet who signed the Majority Report. The lectures have now been published,[1] and a brief review of them will be useful in showing the opinions that have been expressed by persons especially qualified to speak on the subject.

The Dean of Norwich deals with "the Poor Law Commission and the able-bodied." He first summarizes what has been done during the last seventy years, describing the workhouse test, the labour yard, and municipal employment. He thinks that "the danger that menaces our national greatness is want of grit in our citizens" and the ready way in which the able-bodied who come under the Poor Law "get on the slippery slope leading from self-respect to a flabby acceptance of the assistance of the State, giving nothing in return." The Minority's methods for dealing with the unemployed are discussed, and the kernel of their proposals is said to be "that they aim at getting rid of the causes of unemployment and not merely at relieving the unemployed when destitute."

Mr. R. H. Tawney, B.A., deals specially with "boy labour in its relation to unemployment." He shows what a large proportion of boys on leaving school enter employments which are often actually demoralizing and frequently lead to nothing better. The remedy for the evils of boy labour he sees in an extension of the period of education. He would abolish the half time system, extend the school age to 15, prohibit the employment of boys between 15 and 18 for over thirty hours a week, and make attendance at a continuation school for thirty hours a week compulsory on all youths under 18 not receiving education in some other way.

Mrs. Sidney Webb lectured on "the prevention of destitution." She begins with a picture of "a morass of destitution," with the Poor Law on one side and charity on the other side, neither of them doing anything to prevent people falling into the morass, and doing nothing to drain the morass. The peculiarity of the Poor Law is that it cannot touch those in need until they hold out their hands for relief, while "the charitable agency picks people out of the morass very gingerly, looks at them from top to bottom, asks them by what road they came down to the morass, inquires how they spent their time at the top of the road before they came down, and, if it does not like their tale, gingerly puts them back into the morass, and tells them to hold up their hand to the Poor Law." She next points out six roads down which people slip into this morass—the roads of neglected infancy, neglected childhood, preventable sickness, feeble-mindedness, old age, and unemployment. The methods are then described which the Minority recommend for dealing with each of these roads to destitution, and we read that "the Minority Report asserts in all seriousness that the prevention, in fact the abolition, of destitution is now as practicable as the abolition of slavery was a hundred years ago."

The Rev. L. R. Phelps follows with an admirable lecture on "the relations of Poor Law and charity." He says the Poor Law is always poaching on the domain of charity and charity is always straying into the field of the Poor Law, and the first thing needed is to keep Poor Law out of charity and charity out of the Poor Law. He advocates the pooling of charities in larger areas, acting on the doctrine of *cy pres*—"a doctrine which permits the application of funds to a purpose within reasonable distance of the founder's." He would also systematize the methods of charity by linking up various charitable agencies, and further "we (the Majority) propose that all cases should in the first instance be referred to a charitable agency, and only when the application or the treatment has failed should they be handed over to the State; charity should act as a sieve, through which all the grain should pass, leaving the chaff to be treated by the State." This by no means implies that all persons treated by the State are undeserving. He then describes the functions of the proposed reorganized "Charities Commission," and the work that is to be assigned to the Voluntary Aid Councils, and he claims support for the Majority Report on the ground that it endeavours "to reduce to order and utility the vast floating mass of charity in the country and impress it to the service of the community."

Mr. H. J. Manton deals with the "break-up of the Poor Law." He holds that the evidence gathered by the Commission is interesting and informing, but "the conclusions and recommendations appear to me to be of no great administrative value." He says that the Poor Law system has not been properly used, and, without destroying its *ad hoc* origin, it would still be able, if properly used, to do all that modern society rightly demands. He opposes both the Majority and the Minority when they recommend new machinery, and he objects to the condemnation of machinery which, if it were not so persistently braked and retarded, would be capable of all the service that the community requires. He strongly criticizes Mrs. Webb's statements, and says that "she either ignores altogether or with apparent wilfulness belittles the work" done by the guardians. His own experience shows that even the present work of education committees is too complex without giving them more, that municipal authorities are already overlapping, and unless the health committees soon divide up their present work among different committees the machinery of the health department will soon break down. He believes that the system of officialism proposed by the Minority is "not only impracticable but socially mischievous," while the Majority is equally condemned for substituting a selected authority in lieu of an elected one, and he hopes that the Government will attempt to adapt existing machinery.

Mr. F. H. Bentham speaks of "the reports of the Commission from the point of view of an administrator." He holds that the "break-up of the Poor Law" can only mean the break-up of its administration and distribution of its work to other authorities. He is as anxious to abolish pauperism as any one, but thinks it can be accomplished to a far greater extent by an *ad hoc* authority. "We must not run away with the idea that by distribution of services among different committees, what is pauperism in essence will not be pauperism because of such a change." What the Majority aims at is "a policy of remedial assistance tending towards self-maintenance and the discouragement of self-made dependence." He lays stress on the little interest that is taken in elections of guardians, and says that a directly elected *ad hoc* authority can only be advocated so long as the results are satisfactory. As for the charge that the Public Assistance Authority of the Majority is undemocratic, he denies that it is undemocratic that a popularly elected body like a county council should be allowed to select its best citizens to administer a particular branch of public service. Rather he thinks the proposal of the Minority is undemocratic, as the placing of the administration of home aliment "in the hands of a peripatetic official is an absolute withdrawal of this branch—the largest branch of public assistance—from popular control."

Dr. McVail's lecture on the "medical treatment of the poor" has already been given in full in the JOURNAL for February 26th.

Miss Marion Phillips, D.Sc., dealt with "the condition of children on outdoor relief." At any one time in the year there are about a quarter of a million children in the

[1] *Royal Commission on the Poor Laws.* A Course of Nine Lectures on the Report of the Commission, delivered in Sheffield during the winter of 1909-10, with a Preface by Dr. H. Scurfield, M.O.H. for Sheffield. Reprints from the *Sheffield Weekly Times.* Published by Sir W. C. Leng and Co., Sheffield. (Pp. 56. Price 4d., or 20s. per hundred.)

hands of the Poor Law, and about 70 per cent. of these are on out relief. It is shown how the present method of dealing with the children of widows has most unfortunate results, the visits of the relieving officers being rather to see that the family is not receiving too much than to make sure that it has enough. The lecturer holds that the Minority scheme would remove all the difficulty by removing the Poor Law and placing out-relief children under the Education Committee.

Dr. Bosanquet's lecture on "the art of public assistance" is a most excellent presentation of the underlying principles of the Majority Report. He finds fault with the Minority proposal to entrust relief of destitution to committees which are specialists only in other matters. Ill health, for instance, might well be entrusted to the Health Committee, but when there is ill health *plus* necessitousness the problem is the whole care of the individual and often of his family as well, and this is not work that belongs to doctors or to health visitors; it is the peculiar work of public assistance. On the other hand, the Majority plan is a Public Assistance Authority in co-operation with all specialists that are needed. The true analogy for the problem is that of the head of a household who may employ doctors, schoolmasters, architects, sanitary engineers, and so on, for the good life of his family, but does not entrust it to any one of these experts. The first point of the Majority is that there must be a single general authority, and the second point is that it must be a new authority, as it is agreed that "the guardians must go." The essential character of the Public Assistance Authority is then described and the parallel organization of the Voluntary Aid Councils. Attention is drawn to the fact that in deference to criticism the importance of the Registrar in the Minority scheme has been lessened, and greater importance is now given to the General Purposes Committee, under which the Registrar is placed. This committee will now really be a public assistance committee, and will go a long way towards the Majority idea. Referring to medical assistance, a strong plea is urged for the provident system, arranged so that poor people should have their own doctor, whom they choose and pay, just as the rich do. He says that the public ear has been captivated by the plausible argument of the Minority in favour of letting loose their special committees to proffer material aid whenever they think it wanted, without waiting for application, on the ground that prevention is better than cure. "The Minority poses before the public as advocating prevention of the causes of destitution, and suggests that their opponents confine themselves to proposals for cure, whereas the facts are precisely the opposite." He thinks the Minority misunderstands the nature of prevention, and limits its field by confining it to the agencies concerned with cure—that is, to the same authorities to whom the whole work of public assistance is entrusted, such as the health and education committees. "This weakens preventive arrangements, because all public assistance means public control, which involves forcing a mode of life, which people are very likely to resent and try to evade." Moreover, the Minority are reckless of injuring the great friendly societies and the provident medical work of the wage earners, and a great part of the enormous preventive movement of the nineteenth century is ignored. The Majority, on the other hand, welcomes all the social movements of the age, such as the "development of insurance, which we hope will extend to invalidity and unemployment." He thinks that a necessary condition of the effectiveness of measures of prevention is to keep them apart from maintenance relief; "what is wanted, in short, for effective and universal prevention is just to avoid marrying preventive agencies and public assistance agencies; preventive services are for the normal citizen, to be used at his discretion (except so far as the common law may prescribe certain conditions for all citizens without exception), whereas public assistance is for the weak or unsuccessful—to restore or develop their capacity and prevent recurrence of failure in the future."

From the above summaries some idea may be formed of the wide field covered by the nine lectures. Most of the main principles of the two reports are discussed by experts, and the pamphlet ought to be of great use in any consideration of the various subjects.

TEXTBOOKS OF PHYSIOLOGY.

PROFESSOR HOWELL of the Johns Hopkins University has brought out the third and a thoroughly revised edition of his *Textbook of Physiology*.[2] The deserved success of this admirably written work is shown by the fact that the third edition has been called for within two years of the second. In this time there has been a wealth of contributions to knowledge, and no one, says the author, "could claim to have winnowed all of this extensive field." The metaphor is consistently agricultural, but nevertheless slightly mixed. In the second edition most of the changes introduced were the results of the extensive application of chemical methods of research. In the present edition the new facts added are a consequence as much of improvements in the methods of physical physiology as in the use of chemical methods. Thus in more than one place evidence obtained by Einthoven's string galvanometer is used effectively to modify older opinions. Fig. 22 is a record, obtained by Piper, of the vibrations of the string during voluntary contraction of the flexor muscle of the fingers. Each oscillation is due to an electrical oscillation in the muscle (action current). These oscillations occur at the rate of about 50 a second, indicating that a voluntary contraction is in this case a tetanus composed of 50 single contractions a second; the deltoid muscle gives 58 to 62; the calf muscles 38 to 44; the masseter 88 to 100. Assuming that these figures represent the rate of discharge of nerve impulses per second by the motor nerve cells, it is evident that the various spinal and cranial motor centres possess widely different rhythms, although the rate is more or less fixed for each centre. Fig. 48 is "a string" record, obtained by Judin, of the electrical variations in the frog's gastrocnemius during a simple contraction. Here are to be seen two variations—the first a quick extensive change in potential, which occurs during the latent period, and marks probably the passage of the wave of excitation; the second, a slower wave accompanying the process of shortening. Piper has used "the string" to determine the velocity of the nerve impulse, recording not the contraction but the action current of the muscles of the thumb when the median nerve was stimulated first at the axilla and then at the elbow. The velocity indicated was 117 to 125 m. per second. In dealing with "the string" records of the heart beat (electro-cardiogram) we miss any reference to the interesting and seemingly conclusive analysis of the electric variation obtained recently by Professor Gotch with the capillary electrometer, an analysis which shows without question that the action current passes from base to apex and finally strongly to base, where the contractile force expels the blood into the great arteries. Much is going to be gained in the immediate future by the study of electro-cardiograms of "heart" cases, as the pages of the new journal, *Heart*, show. In dealing with the record of heart volume, we note a figure of a cardiometer made of a rubber ball and tambour, and ascribed to Henderson (1906), which was made by Leonard Hill and the late Harold Barnard, and used by them in various researches some years ago. A well-written and adequate account of the jugular pulse with Mackenzie records is added to the section on the circulation. In the section on the central nervous system we miss any reference to the trenchant criticisms by Marie of Broca's localization of aphasia—criticisms which are backed up by Monakow in the *Ergebnisse der Physiologie*; most of us have given up teaching the old orthodox doctrine of localization of motor aphasia in the third frontal convolution. On page 212, line 6 from the bottom, dealing with the connexions of the auditory fibres, "inferior colliculus of the median and internal geniculate," "of" obviously should read "and." To the chapter on reproduction Professor Howell has added an account of the very interesting observations and speculations of Rubner on the subject of growth. Rubner finds that during the first period of growth the total amount of energy necessary for maintenance of growth, as expressed by the heat value of the food consumed, is the same for all mammals except man. To form 1 kilogram of animal weight requires roughly 4,800 calories in food, while for man about six times this amount is needed. In all the mammals considered, except man,

[2] *A Textbook of Physiology*. Third edition. By Professor W. H. Howell. London: W. B. Saunders and Co. 1909. (Med. 8vo, pp. 998; 296 figures. 18s.)

the same fractional part of the entire food energy is utilized for growth. This "growth quotient" averages 34 per cent. of the food calories. In man it is only 5 per cent. The "growth quotient" is a specific property of the cell and characteristic of youthfulness. It has its maximal value at birth so far as concerns extrauterine life, and sinks slowly till it reaches zero at maturity. Older naturalists conceived that the duration of mature life might represent a definite multiple of the period of youth. Rubner finds no evidence of this, but calculating the energy value in food required for each kilogram of body weight from maturity to the end of life, he finds while the mammalia require 191,600 calories, each human kilogram requires 725,770 calories. Thus the human cell is characterized by its much greater capacity for obtaining energy from the foodstuffs. The capacity of assimilation finally languishes and expires, and death means that the somatic protoplasm is capable of effecting only a limited number of transformations. In man a greater number is possible than in other mammals. Among the latter the number is practically the same, but in the smaller ones, with a more intense metabolism, the series is completed in a shorter time. Rubner suggests that the injurious by-products which accompany simple metabolism in the living matter are in some way neutralized by growth changes, and thus the processes of growth contain the very source of the maintenance of life. On this basis Rubner suggests, somewhat after Darwin's theory of pangenesis and Weissmann's theory of the cause of death, that the body cells give off certain molecular complexes which are necessary to the growth processes, and that these complexes are taken up by the reproductive cells. Thus the individual is depleted of the power of growth, and senescence and death become inevitable.

Professor RENÉ DU BOIS-REYMOND has been called on to re-edit his textbook of physiology, *Physiologie des Menschen und der Säugthiere*[3] within two years of the first edition, which shows its popularity, in spite of its many competitors in Germany. This textbook has inherited an old-established position, as Professor du Bois-Reymond took over the production of the well-known textbook of Immanuel Munk. The textbook is a correct but uninspiring statement of the conventional doctrine of physiology, and not to be compared with the inspiriting and suggestive treatment of Professor Howell. How little attention the author gives to English work is shown by the obsolete chart of the localization of the brain, which is contrary to the work of Sherrington on the higher apes. There is nothing in this textbook which merits the attention of English students.

A textbook of human physiology[4] edited by two such distinguished workers as Professors N. ZUNTZ and A. LOEWY ought to be of value, and we are on the whole not disappointed with their compilation. They have obtained the co-operation of Professor R. du Bois-Reymond, of Berlin, who deals as a first hand authority with the mechanics of bodily movement and respiration; Professors Elenberger and Scheunert, of Dresden, who treat of the digestive organs; Professor Exner, of Vienna, who is responsible for the section on the central nervous system; Professor Johansson, of Stockholm, who gives a condensed but admirable account of the chemistry of breathing; Professor A. Kreidl, of Vienna, who writes as a master of the physiology of audition and the production of the voice and speech and also tackles the physiology of the peripheral nervous system; the late Professor O. Langendorff, who deals with the physiology of the circulation, and this to us is the least inspiring and most scholastic article in the book; Professor Metzner, of Basle, to whom is allotted the discussion of the internal and the cutaneous secretions; Professor Joh. Müller, of Rostock, who deals with the chemistry of the body, and the morphology and chemistry of the blood; Professor W. Nagel, who discusses the physiology of the lower senses; Professor H. Schenk, of Marburg, who treats of vision; Professor Spiro, of Strassburg, who deals with resorption and assimilation and the lymph; Professor Verworn, of Göttingen, who is chosen, of course, to give the general physiological introduction; Professor O. Weiss, of Königsberg, to whom is allotted the section on muscle-nerve physiology. In the above list we have omitted Professor Cohnheim, who treats of the urine and its secretion; Professor Zuntz himself, who gives a masterly account of metabolism; and Professor A. Loewy, who provides an interesting chapter on generation and growth. The textbook is written for students, and gives a condensed account in some 750 pages of the present position of each section of physiology as conceived by the several experts engaged. The work of English physiologists, as usual, does not receive the attention that it deserves. Thus we note that the alveolar air tensions are reckoned from the expired air after deducing the dead space, and not by the direct method of Haldane and Priestly. The old experiments of Ludwig are cited as proving that the saliva is secreted some 0·5–1.0° C. hotter than the blood, an observation proved erroneous by Leonard Hill and W. M. Bayliss some years ago. In dealing with reflex action no adequate account is given of Sherrington's masterly researches. In the article on the circulation there is no discussion of a most important subject—the influence of gravity and the change of posture on the circulation. The venous and arterial pressures found in the horizontally laid and anaesthetized animal are cited as if they held good in the active moving animal—an absurd view of the circulation.

The publication of the twelfth German edition of LANDOIS'S well known *Lehrbuch der Physiologie* has been completed, under the editorship of Professor ROSEMANN, of Münster.[5] The work consists of two volumes, contains 975 pages in all, and affords the practitioner a ready volume for reference on any branch of physiological knowledge. The value of the book is in truth wholly as a reference book and not as a textbook for students, for it is written rather as a dull catalogue of ascertained facts with men's names appended to them, than as an inspiring philosophic statement of the first principles of the science. Each chapter is followed by a short account of the comparative physiology of the subject matter treated on in the preceding sections, and an account of the historical development of the subject. Both these accounts are necessarily very limited in scope. The references to literature given at the end of each chapter are also very incomplete. It would be better to refer the reader to standard works on comparative physiology and the history of medicine. The paragraphs headed "pathological," added here and there, are also of little value owing to their shortness, and here again it would be much better to refer the reader to standard works. The space so saved could be given to further and ampler treatment of the subject matter, which is much required in several parts of the work. For example, such an important practical subject as "brain pressure" is dismissed in less than a page, and is dealt with in an insufficient manner within that page. In the section on the central nervous system we note also that while a long list of titles is given, such as sensory cortical and motor cortical aphasia, transcortical and subcortical aphasia, etc., no account is given at all of the modern researches on this important subject by Marie and others, nor is any figure given of Sherrington and Grünbaum's localization of the motor centres in the anthropoid apes. The only figures representing localization are the old ones after Hitzig and Munk. In the chapter on the circulation the venous pulse is not adequately treated, and no account is given of Dr. James Mackenzie's valuable researches, which have done so much to stimulate the study of heart affections. As is too often the case in German works, the researches of English physiologists receive scant or no notice.

[3] *Physiologie des Menschen und der Säugthiere.* Von Professor Dr. R. du Bois-Reymond. Zweite Auflage. Berlin: A. Hirschwald. 1910. (Roy. 8vo, pp. 656. M. 14.)

[4] *Lehrbuch der Physiologie des Menschen.* Edited by Professors N. Zuntz and A. Loewy. Leipzig; F. C. W. Vogel. 1909. (Sup. roy. 8vo, pp. 775; 306 figs. and 2 plates. M. 24.)

[5] *Lehrbuch der Physiologie des Menschen.* By L. Landois. Twelfth edition. Edited by Dr. R. Rosemann. In two vols. Berlin: Urban and Schwarzenberg. 1909. (Sup. roy. 8vo; vol. i, pp. 496, M. 9 = Kr. 10.80; vol. ii, pp. viii and 481–974, figs. 339, M. 9.)

THE PREVENTION AND TREATMENT OF ABORTION.

THE most careful estimates that we know of go to show that about one pregnancy in every five ends in abortion. The subject of the prevention and treatment of abortion is

therefore a matter of interest to every general practitioner, and Dr. JANSSIG'S work on the subject[6] deserves serious criticism and careful examination. The statement has been handed down from textbook to textbook for generations of doctors, and accepted as a truism, that abortion is commonest in the third month of pregnancy. Why? Dr. Janssig's explanation is that it is not till she has missed two menstruations that the patient is convinced that she is pregnant, and takes action to put an end to the unwelcome process. His estimate is that 80,000 criminal abortions are induced in New York every year. This may be so. America is the country in which individualism prevails more than anywhere else in the world. The American member of Congress will propose any legislation, however absurd, that a few blatant constituents wish, well knowing that if he proposes it he can get other people to vote against it, or that it will be vetoed by the governor, and that even if it passes it will never be enforced against the popular will. We believe the law in America about criminal abortion is much the same as it is here, only that in the case of the poor it is not worth anybody's while to put the law in action; and, in the case of a rich defendant, it would be difficult, if not impossible, to convict.

The object of the work is to instruct the general practitioner how to prevent, and, if inevitable, how to treat abortion. The author says he has tried to be clear and explicit, and he is clear and explicit. We have not come across anything that is new, but the book is practical and sensible. Condensation would, we think, improve the next edition. Like many of his compatriots, Dr. Janssig knows not that nearly every retroverted gravid uterus will spontaneously rise into its natural position if the patient is kept recumbent, and the bladder frequently emptied. Not knowing this, he advises putting the patient in the Trendelenburg position with a bag filled with mercury in the vagina. He also does not keep before his mind the fact that pelvic adhesions usually prevent pregnancy, and that for a retroverted pregnant uterus to be adherent and incarcerated is a clinical curiosity. The assumption that it is common has given people with the *prurigo secandi* an excuse for performing abdominal section; but when the abdomen has been opened for this purpose the imagined adhesions have not been found. Dr. Janssig's words are these (p. 70): "Whether from adhesions or from a relaxation of its ligaments, the pregnant uterus often lies in a retroverted or retroflexed position. Sometimes such a malposition may correct itself spontaneously, but it is best not to leave this to chance, for, if uncorrected, the most serious complications, incarceration, with almost certain abortion, will result." We agree that pregnancy with retroversion is common, but with adhesions it is excessively rare; it usually spontaneously rights itself, and will almost always do so if a ring or Hodge's pessary is inserted. If incarceration occurs, the danger is from retention of urine, pyelitis and uraemia, not from abortion. Abortion, it is true, occurs in such cases, but not, as a rule, until the patient is dying. Dr. Janssig is not always practical. The treatment of syphilis which he recommends is the daily hypodermic injection of either "the bichloride or some other related salt of mercury." The last phrase is a little vague. Further on he mentions inunctions. Cases may occur in which it is convenient or desirable to use intramuscular injections, but not daily and not of a solution of bichloride. Most persons would for themselves much prefer Hutchinson's pill. The patient can easily be induced to go on with these for years. The author is not always, it seems to us, consistent. At p. 97 he says: "A pair of rubber gloves is even more essential in this kind of work than in obstetrics." But at p. 109 we read: "For the first four or five times that a physician is called to a case of this kind he had better scrub his hands more thoroughly, and, unless he has been exposed to an infectious case, dispense with gloves." Now we know that very good results have been attained without the use of indiarubber gloves; and we know also that indiarubber gloves are so fragile and expensive, that in the practice of midwifery among the poorer classes they are never likely to be generally used. We know also that there are persons, whose judgement is based upon sufficient knowledge to make it worthy of consideration, who think that indiarubber gloves are unnecessary and illusory, as giving a fancied security which is not real. But, think as we may upon this point, we cannot see why indiarubber gloves are unnecessary in the operator's first four or five cases and necessary afterwards. The author, we venture to say, would improve his work greatly if he would study the works of English obstetricians such as Matthews Duncan, R. Barnes, and Braxton Hicks.

[6] *The Prevention and Treatment of Abortion.* By Frederick I. Janssig, A.B., M.D., Lecturer in Gynaecology, Washington University, etc. London: George Keenen and Co. 1910. (Sup. roy. 8vo, pp. 190; 59 illustrations.)

OBSTETRICAL AND GYNAECOLOGICAL TRANSACTIONS.

THE thirty-fourth volume of the *Transactions of the Edinburgh Obstetrical Society*[7] is strong in communications relating to tubal pregnancy. Dr. William Fordyce contributes clinical notes of seven recent cases of extra-uterine gestation, and Dr. James Young's excellent anatomy and histology of the pregnant tube should be carefully studied by all who work at the histology and pathology of this grave type of aberrant gestation. Not many years ago, however, the mortality was high; now, thanks in part to the pathologists and in part to the development of abdominal surgery effected by Lawson Tait and the other immediate followers of Spencer Wells, Clay, and Keith, timely interference has saved hundreds of women, whilst the operation has proved far simpler in the earlier stages of tubal pregnancy than the operators of the last generation ever suspected. Dr. James Young has investigated five gravid tubes. The histology of the structures involved has been scrutinized with extreme care, and is demonstrated by numerous photomicrographs. Many earlier treatises on the same subject are quoted, but the author does not seem to have studied Couvelaire's *Etudes anatomiques sur la grossesse tubaire*, founded, like his own essay, on personal investigation of the histology of the tube. Dr. J. Young finds that the muscular coat is really subjected to great tension; other writers lay stress on the weakening of that coat by the invasion of elements which are a part of the process of gestation. Dr. Berry Hart contributes two important monographs on the descent of the sexual glands in the male and female fetus, and a third contribution on "Mendelian action on differentiated sex." Sir Halliday Croom and Dr. Oliphant Nicholson write on decapsulation of the kidney in puerperal eclampsia, and Mr. Scott Carmichael on the conservative surgery of the uterus, tubes, and ovaries. Physiological research has not yet settled the disputed questions on which Mr. Carmichael dwells, the theories of Mandl and Burger and Abel on which Zweifel and Doran base their methods of performing hysterectomy for fibroids. The author's paper was read before Howard Kelly's recent article on the subject was published. Kelly believes that it is right to save a piece of the endometrium. There are some other good scientific and practical papers which all tend to prove that these *Transactions* should be more widely studied south of the Tweed than is at present the case.

The thirty-fourth volume of the *Transactions of the American Gynaecological Society*[8] is of unusual proportions and of equally unusual interest, as the Society celebrated last year the centenary of Ephraim McDowell's first ovariotomy. By the end of 1809, when medicine still held that a woman subject to an ovarian tumour was doomed, "like a piercing ray of sunshine out of the western sky came the message that an unknown surgeon in the backwoods of Kentucky had proposed—no, not proposed, but had actually done the deed that solved the problem and emancipated woman from this awful curse." Other Fellows of the Society, McMurtry, Brickner, and E. C. Dudley, read communications on McDowell. Dr. Howard Kelly spoke on the great Kentuckian's successors in America, Pozzi and Hofmeier on the evolution of ovariotomy in France and Germany, Dr. Herbert Spencer on the development of that operation in Great Britain, and Mr. Alban Doran on the rise and progress of the Samaritan Free Hospital, "a sequel to McDowell's triumph." As

[7] *Transactions of the Edinburgh Obstetrical Society.* Vol. xxxiv. Session 1908-9. Edinburgh: Oliver and Boyd. 1909. (Med. 8vo, pp. 393.)

[8] *Transactions of the American Gynecological Society.* Vol. xxxiv, for the year 1909. Philadelphia: W. J. Dornan. 1909. (Med. 8vo, pp. 940.)

precious relics of McDowell, a gavel with the hammer end made from the doorknob of his "office," and another with the handle fashioned out of timber from his house, are made the subjects of a plate; they are piously preserved by the society, to which they have been presented. Dr. Herbert Spencer took an active part in the discussions, and besides his historical paper on ovariotomy read an instructive communication on ovarian tumours complicating pregnancy, labour, and the puerperium. The subjects for debate were not confined to ovarian disease, many excellent contributions on other gynaecological questions being included in this volume. We may turn attention to one, relatively original, which reminds us of the writings of Sir Frederick Treves in his early days. Dr. Reynolds of Boston, as a gynaecologist, and Dr. Lovett, as an orthopaedic surgeon, publish a joint abstract report on investigations now being carried on in relation to the influence of corsets and high-heeled shoes on the symptoms of pelvic and static disorders. The discussion after the reading of the report was both active and instructive. Other papers deserve attention on this side of the Atlantic, especially Lapthorn Smith's treatise opposing the sterilization of every woman who has undergone Caesarean section, and Howard Kelly's contribution on subtotal hysterectomy so as to preserve the menstrual function.

The solid volume of the *Transactions of the Southern Surgical and Gynaecological Association for 1908*,[9] is in appearance almost a facsimile of the last mentioned. The papers collected and arranged by Dr. HAGGARD are equally substantial, but there comes first a short address delivered by the President (Dr. Parham of New Orleans), entitled Conservative Surgery, Then and Now. He reminded the association that modern surgery has been accused of turning the hospital into an hotel for the temporary care of the vivisected, whilst, on the other hand, a great American surgeon declared last year at another association meeting that an operation means a confession of failure. The dispute about radical measures and expectant treatment is very old; 1833 is, as far as our science and art are concerned, ancient history. In that year alone, under the influence of Broussais 41 million leeches were imported into France. That certainly meant radical treatment open to legitimate criticism. Radical surgery was then rampant in the domain of amputation; physical strength, nerve, and celerity being too freely displayed by those who possessed such qualities. It was inevitable that awkward blunders occurred. Brodie found a small abscess in the lower end of the tibia after amputation of a leg for obstinate pain of long duration. Three years later he came across what he recognized as a similar case, and evacuated the pus by aid of the trephine, and permanent cure ensued. "The amputation," Dr. Parham justly observed, "may have been more spectacular, but the other was more commendable in conception and result." Brodie's experiences form an object lesson, for we see how the great surgeon taught himself. Dr. Parham quotes Paget's advice about "the courage to do little," and the wise words of our brilliant contemporary Moynihan, "Speed should be the achievement, not the aim, of the operator." The volume includes some excellent communications. Goldsmith of Atalanta reports an instance of dermoid cyst of the kidney, so interesting to the pathologist and surgeon that an abstract of the case has been published in the EPITOME for February 5th, as it ought not to be overlooked in British and Continental European literature of the kidney and abdominal surgery. Norment Baker, of Montgomery, Alabama, contributes a paper on elephantiasis of the male genitalia. Both in his cases, and in a third related by Doughty, of Augusta, Georgia, the patients were negroes. Norment Baker has been able to collect not more than 30 indigenous cases of *Filaria sanguinis hominis* occurring in the United States. The volume contains some excellent communications, read specially for discussion, on cancer of the uterus, the transverse abdominal incision, treatment of abdominal aneurysm by wire, and other familiar subjects.

[9] *Transactions of the Southern Surgical and Gynecological Association.* Vol. xxi. Twenty-first Session, held at St Louis, Mo., December 15th, 16th, and 17th, 1908. Edited by W. D. Haggard, M D. Nashville, Tenn.: Published by the Association. 1909. (Med. 8vo. pp. 542.)

NOTES ON BOOKS.

THE author of *My Lady of Aros*,[10] JOHN BRANDANE, is, we fancy, a new writer, and certainly one of promise. His novel centres round certain doings in a Scottish island not long after Forty-Five, when Jacobites and Hanoverians had not yet ceased from mutual troubling; when plots, spying, treachery, and self-sacrifice were still to the fore; when inter-clan vendettas were still common and the depopulation of Scotland by emigration was but just commencing. Its special interest for medical men lies in its hero being a naval surgeon's mate, and in wounds, fractures, and an outbreak of "plague" or typhus fever, all playing an important and perfectly credible part. Indeed, the comparative credibility of the story is one of its virtues; in addition the plot hangs together, the characters stand out clearly, and the interest is well sustained.

DR. JAMES BURNET, of Edinburgh, has published a rewritten and enlarged edition of the *Hints on Prescription Writing*,[11] which first saw the light a few years ago. The point of view from which the subject is approached is that of a student who has to satisfy an examiner that his knowledge of the abbreviated terms used in writing prescriptions in ordinary life is adequate. To this end he must prove that he can not only translate a prescription laid before him, but himself write in either English or Latin full directions for the dispenser and the patient, with due regard to dosage and compatibility of ingredients. The subject is illustrated by supplying answers to questions set at recent examinations. The pamphlet is written so succinctly and to the point that it may well be found more useful by those for whom it is intended than some more ambitious efforts of wider scope.

There has come into our hands a book named *The Prayer Quest*,[12] its author being Dr. W. WINSLOW HALL, a medical man in active practice in London; a subtitle of the book is, A Physiological Extension. Though the work of an enthusiast, it is that of a plainly sane and reasoning enthusiast, and one who is in close touch both with the times and with science, and can write good English prose and versify cleverly. On this account the volume is worth perusal by any one, and study by many; whatever the beliefs or disbeliefs of readers, they are likely to find much with which they can agree, and perhaps some of their vaguer ideas pleasantly crystallized for them.

[10] *My Lady of Aros.* By John Brandane. London: Sir Isaac Pitman and Co. 1910. (Cr. 8vo. pp. 328. 5s.)

[11] *Hints on Prescription Writing.* By James Burnet, M.A., M.D., M.R.C.P.E. Second edition. Edinburgh: John Currie. 1910. (Medium 16mo, pp. 31. Price 1s.)

[12] *The Prayer Quest.* By W. Winslow Hall, M.D.Edin. London: Headley Bros. 1910. (Crown 8vo. Pp. 144.)

MEDICINAL AND DIETETIC PREPARATIONS.

Piutinol.

WE have received from Messrs. A. and M. Zimmermann (3, Lloyds Avenue, London, E.C.) a sample of piutinol, which is a compound intended for the preparation of sulphur baths at home. It is a brown alkaline liquid, and is described as an alcoholic solution of polysulphides and hyposulphites with the volatile oils of coniferae, and the results of tests confirmed this description. Piutinol makes a milky mixture with water, with a strong smell of essential oils blended with the odour of the higher sulphur compounds; on addition of acid sulphur is precipitated in large quantity and sulphuretted hydrogen liberated. It will doubtless prove useful for the purpose for which it is intended, and will put sulphur baths within the reach of those who are unable to visit the natural springs.

AT the end of 1909 there were 23 lepers in the German empire. The number in the foregoing year was 25.

THE number of women students in the medical faculties of the Prussian universities in the winter semester of 1909-10 was 266, as against 188 in the corresponding period last year.

WE have received from Messrs. De Dion a book of instructions compiled for the benefit of those who use the very popular 8-h.p. (model CD) and 10-h.p. (model CL) cars of this firm. It has been brought out because the book of instructions hitherto issued by the firm, and relating to all its models, has grown too bulky and complicated for general use. In future each model will have its own book of instructions. The book before us is very clearly written, and though relating specifically to the particular models in question might be found useful by the user of any car. Copies can be obtained on application.

MEDICAL DEFENCE UNION.

THE annual general meeting of the Medical Defence Union was held on Thursday, May 19th, at the Royal Station Hotel, Hull.

Dr. STAMFORD FELCE, M.R.C.P., took the chair, and before formally opening the meeting stated that in view of the calamity which had lately befallen the nation the advisability of postponing the date of the meeting had been seriously considered, but it was decided not to do so, as it was felt that the meeting was a purely formal one, and the holding of it could only be looked upon as a simple business duty, and could not be held to show any want of respectful sympathy. Owing, however, to the difficulties of railway transit, the attendance of members of the Council and others from various provincial centres had been prevented. He was sure that as loyal subjects the meeting would desire to express their sincere and deep regret at the loss which the empire had lately sustained. By the sudden death of His Majesty Edward VII, the nation had been plunged into mourning both outwardly and inwardly. The work which the late King accomplished was ever for the promotion of the peace and prosperity of his subjects; he was a lesson to all in that he never spared himself, and, medically speaking, there was no doubt that his death was accelerated by his determination to work to the last. The suddenness of the blow had caused a greater shock to the nation than even the death of Queen Victoria. In her case the blow was softened by the great age to which she had attained and the length of her illness. In the case of His late Majesty, no one was prepared for the disaster, which came with the force of an earthquake, the tremors of which had not yet passed from them. Whilst mourning for the dead they must remember the living, and he would ask them to pass the following resolution:

> That the members of the Medical Defence Union in general meeting assembled beg to express to Her Majesty Queen Alexandra their deep sense of the great loss which has been sustained by Her Majesty and the United Empire. They beg most respectfully to affirm that the noble work which His late Majesty accomplished in the interests of hospitals and public health and the destitute poor and suffering will live longer in the memory of his subjects than the victories obtained by force of arms in previous reigns.

The resolution was passed silently, the members rising in their places whilst it was being read.

The PRESIDENT then opened the business of the meeting, and gave an address upon the necessity of the existence of such protective societies as the Medical Defence Union, in view of the altered conditions of practice, and the keener criticism which is levelled at the profession by patients at the present date. He concluded the address by moving the adoption of the report, which was unanimously carried. The attention of members was called to the book lately published by the British Medical Association on *Secret Remedies*, and also the work written by Dr. Walsh, dedicated to the Medical Defence Union, on *Quackery*, which two books the President declared should be in the possession of all members of the profession, as the knowledge gained by them would be of great value in exposing the fraudulent pretences of quack medicines and quacks in general.

The usual statutory resolutions were put to the meeting and passed unanimously. Drs. Stamford Felce, Alderton, and Hallwright were re-elected members of the council.

The meeting terminated after a cordial vote of thanks to the president and council had been passed for the valuable and gratuitous services rendered by them to the members.

THE ANNUAL REPORT.

The annual report of the Medical Defence Union for 1909, presented to the members at the general meeting, is a record of success of which any society might be proud. The exigencies of daily medical practice, whether of consultants or specialists or general practitioners, afford ample scope for such protective measures as are adopted in the interests of the members by the Medical Defence Union. It is abundantly proved by the schedules of cases dealt with by the executive and legal officers of the society that it is almost a matter of necessity for every registered practitioner upon starting practice to become a subscriber to some defence society, and to obtain the aid, advice, and assistance of those qualified to give such by many years of experience when in doubt or difficulty. It has been said that "every patient should be considered in the light of a possible plaintiff," and the tabulated list of the cases dealt with by the solicitor of the union show that this opinion is not to be treated lightly. Criticism of medical and surgical treatment by patients and their friends appears to be more common in this generation than in the past, and this criticism is not always friendly, and actions for alleged negligence are by no means uncommon, although, as shown by the report before us, their success is not apparent. Whether successful or not, the medical practitioner against whom an action is brought has to take every step to defend himself; and if he be not a member of a defence society the expense to which he is put will prove in many cases disastrous. As a member of the Medical Defence Union his defence is undertaken without cost to himself, and he has the advantage of knowing that nothing is spared either in trouble or expense to effect a happy issue. The results of such actions are well shown in the solicitor's tabulated statements. From these we gather that in fourteen years of Mr. Hempson's term of office there have been 2,227 cases placed in his hands; of these, libel actions accounted for 652; actions for alleged negligence, 405; prosecutions of unqualified practitioners, 195; arbitrations and other matters of legal nature, 975.

The expenditure of law costs during these fourteen years amounted to £20,064 8s 11d., with out-of-pocket expenditure of £7,352 12s. 8d. The average law costs of the union each year was £1,433 3s. 6d., of which sum £525 3s. 9d. was paid as disbursements.

The average cost per case was £132 4s., and it is interesting to note that in 1906 five cases cost £1,297 15s. 7d., and in 1908 a similar number cost £1,426 18s. 4d., one case cost £928, another £790 18s. 3d., and in two others the expenditure was over £500 in each; thus in four cases the expenditure was £2,700 for legal defence alone. It is well for members of the profession to note these important facts, and to realize the advantages of joining a mutual benefit society such as the Medical Defence Union has shown itself to be. The income of a general practitioner would undoubtedly be unduly strained if he were to be called upon to defray the costs involved in a successful defence of his professional reputation, even if these costs were not above the average, as illustrated in the tables of the legal report of the solicitor of the union. To these costs also must be added the worry and anxiety of instructing solicitor and counsel and arranging all the numerous details which must arise in defensive actions. By becoming a subscriber to the Medical Defence Union the expenditure is limited to the annual subscription; the worries and anxieties relating to the defence are transferred from the defendant to the executive officers of the union, and the practitioner involved can attend to his daily routine of work, feeling ample confidence, knowing that everything in his interest is being done, and that no trouble or expense will be spared to determine the issue in his favour. It must be remembered that in the majority of actions brought against medical practitioners the plaintiffs are "men of straw" and incapable of paying costs, but that even in dealing with an action brought *in forma pauperis* the costs for the defence are not decreased thereby, and heavy expenditure must be incurred without the slightest possible chance of recovery.

The Council of the Medical Defence Union, together with the members, are to be congratulated upon the excellent financial condition into which they have brought this society. The early history of the Medical Defence Union was of "storm and stress," but for the last twenty years, under capable management success has been ensured, and the union is a monument of security and protection to those who are wise enough to seek its shelter. The additional security lately gained by the arrangement made with the Yorkshire Insurance Company —one of the highest repute—for an indemnity insurance, whereby the costs of the other side and damages ordered to be paid in lost cases are guaranteed to the extent of £2,500 for a small annual premium, make it possible for a defensive action to be fought without one penny of expense to the member so assured. It is difficult to imagine why every practitioner on registration, who intends to practise in the United Kingdom, does not at once, as a matter of

ordinary precaution, seek membership in one or the other of the defence societies. At any time after practice is commenced an action, however uncalled for, may be raised against him, when his whole professional repute may be at stake; common prudence should compel him to accept the ample protection which, thanks to societies like the Medical Defence Union, is now afforded to him at a small annual cost. In addition to actual defence, advice of a skilled character is at the call of any member, and such advice may be the means of saving the applicant from a dangerous position, by which, if unaided, he may be grievously harmed and his professional prospects seriously impaired. The work carried out by the council of the union is not only an advantage to its members, but is an aid to the profession generally.

MEDICAL SICKNESS, ANNUITY AND LIFE ASSURANCE FRIENDLY SOCIETY.

THE twenty-seventh annual general meeting of this society was held at 11, Chandos Street, W., on May 19th, when the chair was taken by Dr. DE HAVILLAND HALL, Chairman of the Executive Committee, ten other members being present.

CHAIRMAN'S ADDRESS.

The CHAIRMAN, in opening his address, referred to the great loss the country had sustained in the death of their much beloved monarch King Edward VII. No profession would feel the loss more than the medical, the members of which recognized the great interest he showed in its work, since he was an Honorary Fellow of both of the Royal Colleges, and the great interest he displayed in the welfare of the hospitals in London. During the past year the society had had a great increase in the number of proposals, 202 being received, the net gain in membership amounting to 128, making the total number of members 2,851 at the end of 1909. Of this number 2,805 were insured for sickness benefit. The life insurance department was slowly but steadily decreasing, only 157 being insured for life, while annuities to commence at the age of 65 had been secured by 277; many of those who were assured for annuities had compounded and accepted a lump sum down. At the present 35 members were receiving annuities amounting to £1,200 a year. It had always been a great regret to him that more members did not take out annuities when the society was originally started, and he hoped that those who had not taken up that form of insurance in the society were making provision in other quarters, for he considered that when a man reached the age of 65 some sort of provision was required. The sick pay in 1909 amounted to the very large sum of £15,114, which meant that the sickness outgoings exceeded expectations by about £101; this was a proof of the wisdom shown at the starting of the society in allowing an ample margin. For many years the sickness experience was much below expectation, but during the last two years the claims had increased; still the sickness fund continued to grow, being £133,257, as against £126,125 in the previous year. The annuity fund had increased from £80,666 to £82,320, and the life insurance fund from £17,201 to £17,798; in the last two funds no new contracts were made. The total funds of the society now amounted to £233,375, being an increase over the previous year of £9,381. In the annual report a new system of presenting the accounts had been adopted, three instead of the five original funds being shown. Each fund was allotted all the interest earned, and any balance in the management fund after providing for expenses was transferred to each fund in the proportion of the amount originally contributed. Five per cent. of the balance of each fund was earmarked for the Investment Fluctuation Reserve. On members attaining the age of 65 they received a bonus which often was a great surprise as many of those who were compelled to leave the society on attaining that age did not expect to receive anything. The committee had suggested an alteration in the rules so as to make it possible for a member to insure for eight guineas a week. It had been found by many members that six guineas was hardly sufficient for sickness benefit, and the committee proposed that after a period of probation any member wishing to insure for eight guineas as sickness pay should be allowed to do so. In conclusion, he would like to say how much they were indebted to the medical journals, especially the BRITISH MEDICAL JOURNAL, the *Lancet*, and the *Medical Press and Circular*, for inserting notices of the society, which he felt were of great value to it. In fact, as the society did not pay for canvassing, the only hope of getting new members was either by notices in the medical periodicals or through members inviting their friends to join. He had again the pleasant task of thanking the staff for their admirable work during the past year.

The CHAIRMAN moved that the report be adopted. The motion having been seconded, was put to the meeting and carried.

ALTERATION OF RULE.

An alteration in Rule IV, proposed by the executive committee, to enable a member to increase his sickness insurance to £7 7s. or £8 8s. a week, was adopted.

ELECTION OF OFFICERS.

On the motion of Dr. MUTCH, seconded by Dr. HERMAN, the officers in the list before the meeting were duly elected for the current year.

VOTE OF THANKS TO CHAIRMAN.

On the motion of Dr. BRINDLEY JAMES, seconded by Dr. PICKETT, a hearty vote of thanks was accorded to the Chairman for his work during the year and for presiding at the annual meeting.

The CHAIRMAN having replied, the proceedings terminated.

INDIA IN 1908.

REPORT OF THE SANITARY COMMISSIONER.

THE report for the year 1908 has been compiled by Lieutenant-Colonel John T. W. Leslie, I.M.S., Sanitary Commissioner with the Government of India, and the statistical tables which are appended to it by Major S. P. James, M.D., I.M.S. The size and arrangement of the volume are, with few exceptions, similar to those of its predecessors, and the publication presents as methodical, complete, and concise a view of the sanitary events of the year as it is possible to obtain. While the statistical element is still very prominent—perhaps too prominent—in all sections of the report, more endeavour is manifest in this than in any other instalment of the series to interpret the meaning and bearing of the figures in terms of actual pathogeny, and to indicate their value as tests of sanitary administration and effort; and the results of research and experience in India and elsewhere are freely utilized for the purpose of instruction and guidance.

GENERAL CHARACTER OF THE YEAR.

The year 1907 was characterized by deficient rainfall and partial failure of crops, excessive prevalence of plague, causing high, and in some provinces very high, death-rates, while the habitual causes of mortality were by no means of unusual severity. The health of troops and prisoners was good. The incidents of the year were summarized in the BRITISH MEDICAL JOURNAL (vol. i, 1909, p. 1192). The sanitary circumstances of 1908 were very different from those of the preceding year, and they offer a new illustration of the striking alterations which the health conditions of the Indian Empire are apt to undergo from year to year. The rainfall, which is the chief feature of the meteorology and climate of the country, and on which so essentially depend food production, public health, sickness, and mortality, was abnormal in respect of unequal distribution as regards both place and time, being in excess in some localities and seasons, and in defect in others. The cold weather was unusually wet, and the hot unusually dry. The monsoon rains were scanty in the eastern parts of Upper India, and "in enormous excess" over North-Western India. There was an early cessation of the rains over Northern and Central India; and over the areas supplied by the south-western and north-eastern currents of the bay there was also, during the last four months of the year, a considerable deficiency of precipitation. Excessive rain in the Punjab caused extensive and severe floods in September, which destroyed crops, inundated towns, demolished houses, and covered large areas of country. Floods in India are always disastrous to crops, and are followed by increased sickness and mortality. The spring crops of 1908, owing to the unfavourable conditions which prevailed towards the close of 1907, were

defective, and the autumn crops largely failed in consequence of too little rain in some districts and too much in others. High prices were general, and a considerable amount of scarcity and depressed vitality was thereby caused. Altogether the circumstances of the year were unfavourable to health, as the facts quoted in subsequent paragraphs abundantly indicate. With the exception of two small frontier expeditions peace prevailed in India, and political, social, and industrial life remained undisturbed.

VITAL STATISTICS OF THE GENERAL POPULATION.

No alteration appears to have taken place in the arrangements for registering births and deaths. The experiment of testing police returns by means of a professional agency was continued on a small scale in the Bengal district of Burdwan. The results indicate a fair degree of accuracy as regards total deaths and deaths attributed to cholera, small-pox, and injuries, but a great excess of deaths registered under the head of "fevers," and a defect under bowel complaints, chest diseases, and "other causes." No information beyond this is given on the subject of checking and verifying returns. The birth-rate was 37.78, a little lower than that of 1907, and still less than the mean of the preceding quinquennium. The highest rate was 52.84 in the Central Provinces, and the lowest (24.17) in the small province of Coorg, where the proportion of females in the population is small. The death-rate was 38.2, or 1.3 per 1,000 higher than in 1907, and 4.25 than the preceding quinquennium. The highest rates were returned by the United Provinces (52.73) and the Punjab (50.73), and the lowest by Bombay (27.15) and Madras (26.2). On the aggregate, death-rates exceeded birth-rates by 0.42 per 1,000, but the excess amounted in the United Provinces to 15.27, in Coorg to 10.27, in the Punjab to 8.9, and in Bengal to 2.47. In other provinces births were more numerous than deaths. In most provinces urban death-rates exceeded rural, and in those with a heavy mortality female rates were higher than male. The death-rate of male children under 1 year of age was 249.6 per 1,000, and of female 241.4 per 1,000, reckoned on the births of the year.

PREVALENT DISEASES.

The facts presented in the preceding paragraph indicate that the year was a very unhealthy one, and the statistics relating to the causes of the excessive mortality show that the excess was mainly due to fevers, mostly malarial, while cholera, small-pox, and bowel complaints were also in excess. On the other hand, there was a striking abatement of plague mortality. Of the total deaths 63 per cent. were returned under the head of fevers, 1 of plague, 7 of cholera, 3 of bowel complaints, and 2 of small-pox, leaving a balance of 24 for other causes, against 53, 14, 5, 3, 1, and 24 in 1907. The excessive prevalence and fatality of fevers constituted the chief feature of the year. Fever mortality amounted to 23.96 per 1,000, representing a mortality of nearly 5½ millions, against a habitual mortality of 19.5 and 4½ millions. The provinces which were most severely visited were the United Provinces and the Punjab, with fever rates of 41.31 and 34.66. The small province of Ajmere and Merwara had also a high rate, the remaining provinces being about or under the average. The areas affected were thus limited, and only portions of the implicated provinces suffered very badly. The type of the disease was deadly, and young children and aged people were the principal victims. Some districts and towns presented very high rates—over 100 per mille. Quinine was extensively distributed over the affected areas, and dispensaries were established in places. The Sanitary Commissioner writes a long and able dissertation on the prevention of malaria in the country. He shows how much worse malarious disease is among the general population than among troops and prisoners, and how much more arduous is the problem of prevention. He deduces from the experience of regiments and gaols grounds for concluding that measures of general and special hygiene are effective for the reduction of malarious sickness and mortality. Drainage and the systematic administration of quinine are the means of prevention on which he would place most reliance, but increased investigation and the study of local conditions are needed to direct preventive efforts with intelligence and effect. The mortality caused by kala-azar continues to fall. Instructive diagrams showing the rainfall and fever prevalence of the four quarters of the year accompany the report.

There was a very striking reduction in the mortality caused by plague in all provinces except Madras, in which there was a slight rise, and Coorg, and Ajmere and Merwara, where the numbers were small. There was no death in Eastern Bengal and Assam. The general rate fell from 5.16 to 0.50—about a tenth; that of the Punjab from 30.27 to 1.53; of the United Provinces from 6.90 to 0.48; and of Bombay from 5.06 to 1.48. The conditions affecting the epidemic rise and fall of plague are not completely known, and require further investigation. The maximum mortality occurred in March, a month earlier than usual. Low mortality in November and December, 1907, presaged the decline which took place in 1908; 533,315 doses of antiplague vaccine were issued from the Bombay laboratory, against 620,927 in 1907, which was a bad plague year, indicating increasing popularity of the prophylactic, of whose beneficial effect some favourable evidence was obtained.

Cholera caused 591,725 deaths, against 408,102, a rate of 2.61 against 1.81. There was an increase in all the provinces except Bombay, Eastern Bengal and Assam, and Coorg. The highest rates were recorded in Bengal, Madras, the United Provinces, and Eastern Bengal and Assam. The death-rate in the gardens was 5.34, against a provincial rate of 1.99. In Bombay the mortality was unusually low. There was also a considerable rise in small-pox mortality, from 0.46 to 0.75. The rise was most marked in the Punjab and the United Provinces. Some striking facts are recorded showing the preventive power of exhaustive vaccination. There was a slight rise in the mortality caused by bowel complaints, less than might be expected in a malarious year, in which also scarcity mus have compelled the people to live on scanty and inferio food; but no doubt many deaths from bowel complaint were registered under the head of cholera.

SANITARY ADMINISTRATION AND WORK.

Information under this head is recorded provincially, and does not admit of general summary. Municipalities and districts board devote a creditable proportion of their revenues to sanitary purposes, and the provincial sanitary boards dealt with many important projects for the supply of pure water, drainage, and conservancy. In Benga native students are qualifying for sanitary engineering. Peshawur and Dera Ismail Khan each entertained the services of an assistant surgeon as assistant health officer. The sanitary department offers a legitimate and promising field of employment for natives educated for both medicine and engineering.

(To be continued.)

EGYPT AND THE SUDAN IN 1909.

THE reports of Sir Eldon Gorst, British Agent and Consul-General, on the finances, administration, and condition of Egypt and the Sudan in 1909 were issued on April 28th.

EGYPT.

In reviewing the general situation reference is made to the assassination of the late Prime Minister, Boutros Ghali Pasha. Sir Eldon Gorst has no hesitation in stating that the motives of the crime were purely political, and the leaders of the Nationalist party are morally responsible for the murder. Sir Eldon Gorst refers to the valuable services which throughout his official life the late Prime Minister rendered to his country, and the loyalty and integrity which he displayed in many difficult and delicate situations.

Public Health.—Hospitals.

The work of the Government hospitals and dispensaries continues to show satisfactory progress. The in-patients treated during the year numbered 37,000, while in the out-patient department a total attendance of over 350,000, including 144,500 new patients, is recorded. Moreover, some 33,000 persons have been attended gratuitously by the district medical officers. The improvement observable during recent years in the quality of the work done is largely attributable to the excellence of the course of education at the School of Medicine.

The two travelling ophthalmic hospitals visited Mansourah, Ghizeh, Beni-Souef, and Luxor during the year

working between them on 442 days. Over 7,000 new cases were treated, and the total number of attendances was 100,000, giving an average of 221 per working day in each hospital. More than one-third of those attending for the treatment were under 15 years of age. The popularity of the service amongst the fellaheen is of good augury for the future, and it may be hoped that in time some appreciable effect will be produced on the mass of ophthalmia prevalent in this country.

At Tantah 5,000 new cases were dealt with in the permanent ophthalmic hospital, and there were 77,000 visits paid by patients under treatment; 1,763 major and 2,418 minor operations were performed. The ophthalmic hospital at Assiout is nearly finished, and will be ready during the year. The construction of the Mansourah hospital, the foundation of which was due to the generosity of Bedrawi Bey, a local notable, has not yet been put in hand. The plans have, however, been approved, and it is hoped that work will be begun this year.

Efforts are being made to deal with ophthalmic cases in Government schools by instructing the teachers, and through them the students, in some of the simple rules of hygiene.

The staff of this department is to be reinforced by an English inspector, in view of the great increase of work; a suitable candidate has been found, and will shortly be appointed.

Plague.

It is satisfactory to record a marked diminution in plague during 1909, especially in the more dangerous pneumonic form. The total number of cases was 513, as compared with 1,511 in 1908, whilst the number of deaths fell from 780 to 207.

The special organization formed two years ago in the Southern Provinces for dealing with the disease has largely contributed towards this satisfactory result. Disinfecting stations with the necessary appurtenances and a competent staff have now been supplied to each Moudirieh. A supernumerary staff of trained disinfectors is kept in readiness at head quarters, and a plague medical staff has been organized ready to proceed at short notice to an infected locality.

The campaign waged against plague for the last ten years has been productive of many indirect advantages in addition to its direct effect in preventing the spread of this terrible scourge. Death registration has been rendered more complete, attention has been called to the unhealthy conditions of life and the need for local improvements, while the medical staff has received a sound and efficient training. The total sum spent by the Public Health Department in combating plague during the whole of this period has not amounted to more than £E.249,000, or about £E.25,000 a year.

Infant Mortality.

Reference was made in the JOURNAL of April 30th, page 1058, in an article on the sanitation of Cairo, to the excessive infant mortality, and on this subject Sir Eldon Gorst says: Last summer the death-rate of children under one year assumed unusual proportions in Cairo. The weekly rate, which is about 105 on the average, rose to 130 in the latter part of March, 188 towards the end of April, and 654 in the middle of May. The figures for the next four weeks averaged 573, the maximum reached being 700. Then came a sudden drop to 248 in July, followed by a further gradual decline, till in December the mean of the previous winter was reached. High infantile mortality may be observed in the summer in all hot countries, being generally due to digestive troubles; but the immediate cause of the unusually serious outbreak in Cairo last year has not so far been discovered. Careful and thorough investigation is necessary before any definite conclusion can be arrived at, and it is hoped that some steps may be possible in this direction during the approaching hot weather. In any case, it is certainly desirable to do all that is possible to educate mothers in habits of care and cleanliness and in the rational bringing up of children. A most useful lead in this direction has been given by the Lady Cromer dispensaries, which are endeavouring to instil elementary ideas on the subject among the poorer classes. It is understood that the Princesses of the Khedivial family have recently decided to establish a society for the protection of infant life, and a general movement on these lines amongst the wives and daughters of the well-to-do might be expected to produce great improvement in existing conditions.

Cairo Water Supply.

In the article on the sanitation of Cairo, already quoted, reference was made to the unsatisfactory state of the water supply,[1] and this is borne out by the remarks in the report under review. For nearly three years the question of the water supply of Cairo has been under consideration, and at last the Government has arrived at a definite conclusion in regard to this important matter. After referring to the work of the Commission on the water supply,[2] Sir Elden Gorst states that it is not within his province to offer an opinion on the scientific and technical points on which the recommendations of the committee are in a great measure based, but from the point of view of the mere layman he ventures to think that the following considerations amply justify the measure which has been adopted.

1. The decision has been arrived at (namely, the arrangement the Government have made with the water company of Cairo to revert to the river supply under conditions as regards intake and filtration laid down by the Public Health Department) with unanimity after prolonged and exhaustive examination of the question in all its bearings, and consideration of the views of all the most competent experts in the country.

2. The bacteriological purity of well water is of little practical advantage from the hygienic standpoint if the population will not drink it.

3. The present system is extremely unpopular amongst all the inhabitants of Cairo, from the highest classes to the lowest, and the experience of over five years has in no way reconciled them to the change.

4. At Alexandria, where the supply is taken from the Nile water in a far more polluted condition than is the case at Cairo, the system of filtration which is to be introduced into the latter city has been in operation for some years with excellent results.

The system referred to by Sir Eldon Gorst is the adoption of filters of the Jewel type.[3]

The chief point in the scheme adopted by the Government which has attracted unfavourable comment is the decision to place the intake, from which the water will be drawn, in the neighbourhood of the water company's installation down-stream of the town, and it has been assumed that this course has been adopted for financial reasons, in order to avoid the expense of establishing the intake up-stream.

With regard to this criticism, Sir Eldon Gorst remarks that this decision was the outcome of very careful reflection, and was only arrived at after a thorough examination of the water both above and below the town had conclusively proved that there was no appreciable difference between the two. This result is not surprising when the various factors in the case are taken into account—namely, the absence of drainage, whether domestic or from manufactures; the scanty rainfall; and, above all, the great volume of water in the river. In fact, it may be said that the normal composition of the Nile water, provided it is taken at a sufficient distance from the bank, compares everywhere most favourably with the average river supply in Europe. Under these circumstances, it has been thought preferable to leave the intake in the immediate neighbourhood of the waterworks but some 100 metres out in the stream where it can be efficiently watched, rather than to place it at some distant spot, where supervision would be difficult and uncertain. The suggestion that considerations of economy have unduly influenced the Government is, Sir Eldon thinks, sufficiently disproved by the fact that the cost involved by the alteration of the water supply has been very considerably increased owing to the system of filtration which has been adopted. The sanitary authorities urged strongly that there was no other system which had been shown by past experience to be capable of meeting all the requirements of the case, under the climatic and other special conditions of the country, and in deference to their views a system was finally approved which, whatever its merits, had certainly the disadvantage of being much more expensive than several others which were put forward.

(To be continued.)

[1] BRITISH MEDICAL JOURNAL, April 30th, p. 1058.
[2] Ibid., April 30th, pp. 1058–9.
[3] Ibid., April 30th, p. 1059.

Nova et Vetera.

SOME ROYAL DEATH-BEDS.

For God's sake let us sit upon the ground
And tell sad stories of the death of kings.

After this melancholy invitation poor Richard II goes on to say:

How some have been deposed; some slain in war;
Some haunted by the ghosts they have deposed;
Some poison'd by their wives; some sleeping killed,
All murdered.

We do not propose, however, to follow him back to the times of violence of which he speaks. We will confine ourselves to days comparatively modern, when as a rule the deaths of kings could only be imputed to natural causes, sometimes it must be owned helped by ineffective or mischievous physicking.

Of the death-beds of our sovereigns historians have as a rule little to say that is of medical interest. It is not, indeed, till the last scene of James I's performance on the stage of life that it can be said we have any medical account at all. It will be convenient, therefore, to begin with Henry VIII, as it was in his reign that the Royal College of Physicians of London was founded, and that medicine as a profession needing formal initiation on the part of those who wished to practise it was placed on a definite legal basis. The following brief sketch, though based on well-known historical authorities, does not profess to be exhaustive. We shall welcome further contributions, as anything relating to the deaths of important personages up to times comparatively recent not only throws light on the state of medical knowledge at the time, but may also help to reveal the secret springs of history. The fate of a people in the Middle Ages and for centuries later depended largely on the health of their rulers.

Henry VIII.

In 1546 the life of Henry VIII was clearly coming to an end. From a handsome, athletic man he had become a mass of loathsome infirmities. He was bloated in face and so unwieldy in body that he could not pass through any ordinary door, and could be moved from one room to another only by the help of machinery and a number of attendants. His legs were swollen and ulcerated, the festering sores causing an unbearable stench. Towards the end he could neither walk nor stand. All about him saw that death had laid its hand upon him. Yet the King himself, according to Foxe, was "loth to hear any mention of death"; this, we shall see, may almost be called a characteristic of royalty. When a French Prince angrily inquired as to the meaning of the phrase, "*Le feu Roi d'Espagne*," inadvertently used by someone about him, he was pacified by the wily courtier's assurance, "*C'est un titre qu'ils prennent.*"

Lingard, on the other hand, says: "Of his [Henry's] sentiments on his death-bed nothing can be asserted with any degree of confidence. One account makes him die in the anguish of despair; according to another he refused spiritual aid till he could only reply to the exhortation of the archbishop by a squeeze of the hand; while a third represents him as expiring in the most edifying sentiments of devotion and repentance. He died on Friday, the 28th January, about two in the morning."

His admirer Froude, speaking of January 28th, 1547, says:

"On the same morning, an hour after midnight, Henry VIII had died. Late on Thursday evening the symptoms had become rapidly worse. He was asked which of his bishops he desired to see. He answered, 'Cranmer.' The Archbishop was sent for, but there was some delay; and when he reached Whitehall the King, though conscious, was speechless. Cranmer, 'speaking comfortably to him, desired him to give him some token that he put his trust in God through Jesus Christ; therewith the King wrung hard the Archbishop's hand, and expired.'"

Henry died at the age of 56. Of his doctors or the treatment used nothing is recorded. He had always been interested in medicine, and, according to Froude, was one of the best physicians in his kingdom. By the irony of fate his name had been given to an infallible ointment for sores, with the invention of which he was credited. In any case he must have been a formidable patient to deal with.

His sufferings made his temper like that of a wild beast. Of the actual cause of his death nothing certain seems to be known.

Edward VI.

Edward VI. died at the age of 16, apparently of consumption. He caught cold playing tennis; and soon he began to be troubled with a racking cough. According to the *Dictionary of National Biography* "Dr. George Owen and Dr. Thomas Wendy were in constant attendance with four other doctors, but they foolishly allowed experiments to be tried with a quack remedy, which had disastrous effects." But is there any proof that they did "allow" this? Physicians whose privilege it is to minister to royal sufferers cannot always prevent officious courtiers from bringing in unofficial and often questionable advisers behind their backs. Many a king who has escaped the various forms of violence enumerated by Richard II has in all probability died of a multitude of medical counsellors. According to Froude, Edward's illness began in January, 1553. In May he was reported to be worse, and his doctors being anxious for the support of further advisers, the family physician of the Duke of Northumberland was called in, with a professor of medicine at Oxford; "to these was afterwards added a woman who professed to be in possession of some mysterious specific; and before they were admitted to the sick-room they were sworn in the presence of Northumberland, Northampton, and Suffolk, to reveal to no one the king's condition." This tradition of secrecy, which has lasted to the present day, had the consequences, inevitable in the sixteenth century, of exciting suspicion among the people. The usual foolish rumours flew from mouth to mouth; it was said by some that the young king was already dead; by others that he was poisoned; by others again that his sister Mary had "overlooked" him. The physicians expressed despair of saving his life, and he was left in the hands of the woman quack. He became worse and, in addition to the symptoms of pulmonary disease, "eruptions on his skin came out; his hair fell off, and then his nails, and afterwards the joints of his toes and fingers." Froude thinks it probable that "the woman to whose exclusive care the king was culpably committed administered mineral medicines, and that Edward was, in fact, poisoned, though not by deliberate malice." On July 4th a report got about that the king was dead. "A wan face had been seen at a window of the palace at Greenwich; Edward had been helped out of bed and carried to the casement, that the people might assure themselves with their own eyes that he was living. But the suspicion was only deepened; the spectators believed that they had seen a corpse." On July 6th the end came.

Mary Tudor.

Mary, from the time of her first supposed pregnancy, was often ill, and her strength was further reduced by frequent bleedings ordered by her physicians. In September, 1558, she was attacked by a fever which was then raging in England, killing thousands of her subjects. It was called the "new burning ague"; most probably it was influenza.* She had long suffered from a disease which she called her "old guest." The chief symptom was amenorrhoea. Spencer Wells, in an address delivered before the British Medical Association at Manchester in 1877, expressed the opinion that the disease was ovarian dropsy. Wells believed that she aborted early in her first and only real pregnancy. The disappointment, no doubt, weighed heavily on her mind. She became cachectic, and a subsequent enlargement of the abdomen gave rise to false hopes. For years before the end her health had been bad. As a girl she had suffered from scanty and painful menstruation, the result, it may be conjectured, of overstudy. In more advanced life she was seldom free from headaches and palpitation of the heart, and her bodily ailments were doubtless aggravated by mental suffering. It is related that when she was dying she said to one of her ladies in waiting, "When I am dead and

* See Creighton: *History of Epidemics in Britain*, vol. i, p. 404. Cambridge. 1891.

opened you shall find Calais lying upon my heart." There is no record of any medical examination of the body; but it is probable that she died of an ovarian tumour.

She passed away on November 17th, 1558, in full possession of her senses, in the act of hearing Mass, which was said in her chamber. She was in her forty-second year.

Her bodily state, combined with her domestic unhappiness, no doubt contributed to sour her temper. As Spencer Wells says, if she had been "treated with the knowledge now at our command, the destinies of England might have been strangely altered."

Elizabeth.

It would seem that Queen Elizabeth's last illness began with a cold, which she caught at the beginning of 1603. She recovered sufficiently to go to Richmond, where at the end of February she was again ill. In the middle of March she became so much worse that the Lords of the Council were sent for and continued in attendance till the end. She declined medical treatment, and took hardly any food. Sir John Harrington, her godson, found her reduced to a skeleton; her food was nothing but manchet bread and succory pottage. She had not changed her clothes for many days, and she obstinately refused to go to bed. She sat day and night on a stool bolstered up with cushions, holding her finger in her mouth, and keeping her eyes fixed on the floor. She could seldom be induced to speak, treated the Lords of the Council with contempt, and was the torment of the ladies about her. Her imagination was haunted by phantoms, and when her relative, the Lord Admiral, urged her to go to bed, she said that if he had seen what she had seen there he would not press the advice. Sometimes there was a flash of the old spirit, as when Cecil ventured to say that she must go to bed. "Must," she exclaimed; "is 'must' a word to be addressed to princes? Little man, little man, your father, if he had been alive, durst not have used that word; but thou art grown presumptuous because thou knowest that I shall die." She had a sword placed by her table, which she often thrust violently into the tapestry of her chamber as if to slay a hidden enemy. She died on March 24th, speechless, with her Council standing round. Lady Southwell, one of the maids of honour who waited on her, says:

"She kept her bed 15 dayes, besides 3 daies she sat upon the stole, and one day, being pulled up by force, stood on her feet fifteen hours. Her Majesty understood that Secretaire Cecil had given forth that she was madd; and therefore in her sickness did manie times say to him: 'Cicell, know that I am not mad. You must not think to make Queen Jane of me.' [Doubtless she was thinking of the unfortunate Queen of Spain, Juana la Loca.] And although manie reports by Cicell's meanes were spread how she was distracted, myself nor anie that weare about her could never perceive that her speeches soo well adapted proved for a distracted mind."

What she died of there is no definite evidence to show. Beaumont, the French Ambassador, writing to his sovereign on March 19th, says "that Queen Elizabeth had been very much indisposed for the last fourteen days, having scarcely slept at all during that period, and eaten much less than usual, being seized with such a restlessness that, although she had no decided fever, she felt a great heat in her stomach, which obliged her every moment to take something to abate it, and to prevent the phlegm with which she was sometimes oppressed from choking her. . . . All agreed that before her illness became serious she discovered an unusual melancholy both in her countenance and manner." Though aware, says Miss Strickland in her *Lives of the Queens of England*, that those about her anticipated a fatal termination to her present malady, she refused to admit her danger and to do anything which bore the appearance of deathbed preparations. When the Archbishop of Canterbury and Cecil begged her to call in medical aid, she angrily told them that she "knew her own constitution better than they did, and that she was not in so much danger as they imagined." An attempt was made to charm away the dark spirit which overshadowed her by means of music. The end is described by Beaumont in a report from which the following is an extract:

"The Queen was given up three days ago; she had lain long in a cold sweat, and had not spoken. A short time previously she said, 'I wish not to live any longer, I desire to die.' Yesterday, and the day before, she beg to rest, and found herself better, after having been grea relieved by the bursting of a small swelling in her thro She takes no medicine whatever, and has only kept l bed two days; before this she would on no account suf it, for fear (as some suppose) of a prophecy that she sho die in her bed. She is, moreover, said to be no longer her right senses; this, however, is a mistake; she has o had some slight wanderings at intervals."

At last she passed away quietly in sleep, or m probably in coma. She was in her seventieth year. La Southwell says she left orders that her body was not be embalmed, but Cecil directed her surgeon to open "Now the Queen's body being cered up," Lady Southw proceeds, "was brought by water to Whitehall, whe being watched every night by six several ladies, mys that night watching as one of them, and being all in c places about the corpse, which was fast nailed up in board coffin, with velvet, her body burst with such a cra that it splitted the wood, lead, and cere-cloth; whereup the next day she was fain to be new trimmed up."

(To be continued.)

THE AMBULANCE WORK DURING THE FUNERAL CEREMONIES IN LONDON.

THE anxiety of so many people to view the Lying-in-Sta at Westminster Hall, the preliminary proceedings Tuesday, and the long waits resulting, gave rise plenty of opportunities for useful first-aid work, wh the need for such work during the procession on Frid was, of course, anticipated. It was foreseen that amount would depend on several variable factors—t number of people trying to see the procession, their choi of positions, their behaviour to one another, the fashion which they met the instructions of the police, the hour which they began to collect, the distance from which th travelled, and the weather. All of these factors came in play, some favourably, some otherwise.

There can scarcely have been less than a million peop on the route; nearly all of them had got up at an u accustomed hour; some had travelled long distances; certain points the crushing of body against body w intense; the shade temperature was very much high than it had been recently, and from quite early in t morning there was hot sunshine. On the other hand, t tendency of the crowd was to behave in a sensible a orderly fashion, and the police, except occasionally certain spots, were able to keep the line merely by t exercise of the firmness and good humour habitually show by them on such occasions.

Nominally, of course, it was the troops that kept t line, but, except at certain points, where unusually bro roads intersecting the line of the procession were ke closed by mounted troops, it was really the police; t chief difficulty attaching to this duty had, indeed, be got over long before the troops took up their positi between 8 and 8 30 a.m. It was the police authorities, to who saw to the making of arrangements for first-a work, and individual policemen who made the actu working of these arrangements feasible. But, of cours the possibility of any adequate arrangements at all turne on the existence of voluntary bodies long since organize for such purposes. Indeed, the thought evoked in o observer was, what would happen on such occasions did bureaucratic Government, filled with zeal for centraliz tion, take into its head to red-tape such voluntary b experienced organization out of practical being? N long ago such an occurrence seemed quite probable.

The Organizations Provided.

What work was required in connexion with the Lying-i State was done by the St. John Ambulance Association an individual members of the police, a very large proportio of this force being now thoroughly competent administr tors of first aid; but on the day of the procession fro Westminster to Paddington a number of bodies co-operate either by official arrangement or tacit consent. The were the Royal Army Medical Corps, including its Territori branch, the St. John Ambulance Brigade, an individu stretcher party sent by the 25th Battalion County

ondon Regiment, and the Church Red Cross Brigade for omen and Girls. Between them they provided nearly e hundred stations, so that practically the route of about ree and a half miles was "ambulanced" from end to d at distances of about 125 yards on both sides of the ocessional line. It sounds a very generous provision, t any one who tries to get though a densely packed owd for even a hundred yards will soon be convinced at it is quite a long distance.

All the stations were kept in touch by the bearer parties tended along the intervening spaces between them, so at at no part of the route was any one in need of assistnce likely to be overlooked. Though provided nominally r civilians and the military forces respectively, whatever rsons required treatment received it at these various ations irrespective of the class to which they belonged; y one who collapsed was forthwith removed to whatever ation was nearest or, for the moment at all events, the ost accessible. In this way at nearly all stations, hether civil or military, a greater or fewer number both civilians and soldiers were treated. In addition the t. John Ambulance men did useful work at certain ints in serving out water to the troops in the interval at elapsed between the time they took up their positions d were allowed to stand at ease, and the moment at hich the news was "flagged" that the procession had tually started.

The Military Arrangements.

The military arrangements were made by Colonel A. eterkin, Principal Medical Officer of the London District, ho, when the time came for him to take up his position n the staff of the general command of the district, laced Lieutenant-Colonel Clarkson in executive charge. ncluding as they did Rest camps in various parts of ondon for troops arriving from distant stations, they were ecessarily of an elaborate character. There were five test camps in all, and each of them had a marquee fitted p for eight beds, in charge of a medical officer, one nonommissioned officer, and two orderlies; while the provion for medical work created by the procession itself ncluded eleven ambulance stations, formed by an ambuance wagon in charge of a medical officer, eleven stretcher quads of the R.A.M.C. regulars, and twenty-two stretcher quads drawn from the R A.M.C. Territorial Force. These were so disposed as to ambulance the route from one end o the other at distances of 300 yards on each side. It hould be added that most of the regiments which came p from country stations brought bearer parties with hem, and that the Royal Army Medical Corps was irectly represented in the cortège by a detachment of ifty men and three officers.

The St. John Ambulance Brigade.

The St. John Ambulance Brigade paraded over a housand strong at St. John's Gate at 6 a.m., and had aken up their stations for the most part by 7 a m. They rovided in all thirty-six stations; six of these were etween the Houses of Parliament and the Horse Guards, ive scattered along the Mall, eight between St. James's alace and Down Street, Piccadilly, eight more in Hyde ark, and yet another eight between Seymour Street, dgware Road, and Paddington railway station. Each tation consisted of twenty trained bearers, six nursing isters, stretchers, medicine chest, etc., and each was in harge of a surgeon. A few of the surgeons were in charge f more than one station, so that, including the Surgeonn-Chief of the London District, the total number of nedical men interested in the St. John Ambulance Brigade who gave up their day to the public service, was twentyight.

The general plan adopted was to divide the personnel of ach station into three sections, one of which remained at he station to receive and treat patients, while the other wo watched the line in front and behind the crowd and ogether co-operated in carrying off for treatment those equiring it. Most of the men belonging to these sections worked in parties of two, each such subdivision endeavouring to keep just sufficient distance from the like division n each side to keep in touch with them, and thus provide or immediate help to any person requiring it along the whole line. At a majority of the stations stretchers and wheeled litters were provided, but there was not always space for them to be used. Hence it often happened that patients had to be carried through the crowd by hand. There were also a few wagons and some depots at which fresh supplies could be obtained.

The Church Red Cross Brigade.

The Church Red Cross Brigade turned out over one hundred and fifty strong, and had six stations allotted to it, all of these being along the Edgware Road. Each of these was in charge of a medical officer, two trained nurses, and ten orderlies; the work, in short, was done on much the same lines as that of the St. John Ambulance Brigade. More turned out than seem to have been expected, with the result that it was found possible to subdivide each of the stations into three, and thus extend the distance on the line of route over which it was possible to render assistance. Special interest attaches to the work of this brigade, for, with the exception of the medical officers, it consists entirely of women, who wear a special kind of uniform having some resemblance to the yeomanry pattern. The brigade has several objects in view, but on occasions such as the one under consideration they perform precisely the same duties as the bearers and nurses of the St. John Ambulance Brigade. Moreover, they seem capable of performing it with entire efficiency. The patients who came into their hands were for the most part adults of both sexes, and they carried them away to the stations on their stretchers with apparent ease; they also themselves stood the stress and strain remarkably well; only two out of the whole number showed signs of failing, and these only felt faint for a few minutes and then returned to the ranks.

The Number of Casualties.

As for the number of persons who fell ill or were injured before, during, or after the passage of the cortège, t is impossible to speak with precision. Large numbers of those who felt ill were assisted out of the crowd or otherwise attended to by their own friends; and though at most of the civilian stations an attempt was made to keep count of the cases treated, complete accounts commonly proved impossible. The military treated great numbers of civilians, but only 25 soldiers were sent for treatment at hospitals. On the other hand, a considerable number of soldiers suffering from passing attacks of illness received assistance, as has already been mentioned, at civilian stations. The St. John Ambulance Brigade had records of over 6,000 cases, the real number being, for the reasons stated, probably considerably higher, while the stations of the Women's Brigade know that they treated over 500. A large proportion of the crowd had collected as early as 4.30 a.m., and the ambulance parties met with plenty of calls the moment they arrived at their stations. They were constantly engaged throughout the morning, and were not able to break up until long after the procession had actually passed. On the whole, Hyde Park Corner seems to have been about the busiest localitiy, next coming the Mall and the Marble Arch. Apart from actual casualties, a good index of the physical feelings of the crowd was given by the extent and thankfulness with which it availed itself of the thoughtful kindness of persons who served out water from many public and private buildings as soon as movement became possible after the procession had passed.

The Difficulties of the Work.

As for the conditions calling for treatment, they were fortunately for the most part not of a permanently serious kind; the precise nature of them will be considered later on. One soldier who collapsed very suddenly got a severe scalp wound by striking his head on the kerbstone, and there were several cases of severe cuts on the hands and legs among men and boys who climbed the trees in the Green Park despite the fact that these were girthed with barbed wire. Tree climbing also gave rise to a fractured thigh, and there were one or two other minor fractures. A considerable number of cases of epileptic seizure had also to be dealt with. Despite, therefore, the large number of cases treated, the day may be regarded as having passed without serious medical occurrences of any kind; this in view of the hugeness of the concourse, the fashion in which it was composed, and all the factors which have been mentioned, must be considered remarkable testimony to the character of the work done by all the various bodies engaged in it.

In respect of all of them the general idea was to place the stations wherever possible at the openings of intersecting streets, so as to ensure working room. In this connexion one of our representatives was much struck by the cleverness with which the mounted police sometimes cleared the way for stretchers by cutting a lane for them along which the patient could be carried, with their horses. They also adopted a similar plan in keeping a clear space round the tailboards of the ambulance wagons. These wagons, wherever situated, were immensely useful, as they made it possible to provide shelter for cases which took long in recovering.

Nevertheless, despite all the assistance which the police could give, and did give most willingly and intelligently, the work at all stations was done under circumstances of great difficulty, owing to the thronging of bystanders. At some of the Church Red Cross Brigade and other stations it was found necessary to call in some of the bearers and secure space by a fence of locked arms.

The Conditions Treated.

As for the nature of the casualties which came under treatment, though many of these seemed initially very severe, they were for the most part only of a passing character, and of the same general order as are encountered on all allied occasions. They are the outcome of crushing, crowding, fatigue, lack of air, direct solar radiation, thirst, and hunger, either combined or separately. The precise phenomena vary greatly. Taken collectively, they are of the nature of more or less marked collapse, and, for want of better names, are commonly entitled either syncope or heat-stroke. The military authorities, in whose practice cases of the same kind often occur as the result of long parades, use both terms, but only as temporary designations, not regarding as instances of heat-stroke cases in which high temperatures do not subsequently develop. Mr. James Cantlie, whose experience of street ambulance work is unusually wide, informs us that a good many cases of true heart syncope do occur, but for the most part in the conditions commonly called "a faint" the typical signs of fainting are absent. The face in many instances is flushed instead of pale, the pulse full and often bounding, the temperature of the body not reduced, and the patient, although inclined to "go off," is seldom insensible. In other cases the patient is dazed, the face round the mouth ashen in appearance or of a greenish-yellow tint, the pulse feeble, and the hands clammy; the condition, in short, resembles an early stage of sea-sickness. In another group of cases, generally among elderly people, the patient seems insensible, but the eyelids, although closed, tremble, the face and ears are of a leaden hue, breathing is very shallow, and the pulse steady but small and easily compressible, and the temperature of the body lowered. In young men the cause of faintness is in some cases retention of urine owing to the impossibility of getting out of the crowd, and in such the clothing is not infrequently found soaked with urine. In old men, also, retention of urine is a frequent cause of distress, and faintness occurs from the irritability consequent upon an enlarged prostate or contracted bladder.

But these, on the whole, are exceptional cases, and the etiology of the general run should probably be written down more or less vaguely as imperfect breathing and consequent accumulation of carbonic acid gas in the lungs, tissues, and blood, whatever the primary cause may be. The latter, in a majority of cases, may be the natural physical difficulty of breathing created by close packing of a crowd, especially when short individuals are concerned. But mere crushing does not account for everything, for there were numerous cases of collapse last Friday among the privileged persons on the Horse Guards Parade, who were in no wise crowded, as also among soldiers, and even in many of the clubs. It is the long continuance of the standing position which has often been accused of being responsible for the collapses that occur, but circulatory failure, as evidenced by an arrested or exceedingly feeble pulse, is not a constant or even very common feature in street ambulance work.

That overloading of the system with carbonic acid gas and general respiratory imperfection should be common in crowds is not remarkable. Apart from the crushing, the air at the disposition of the crowd, even when not under cover, is exceedingly impure, saturated as it is with emanations from the lungs, perspiring bodies, and clothi The pollution of the air is especially evident when r falls during the waiting time. The first effect of such r is to cleanse the air; but as clothes dry the increase in pollution becomes evident. The extent of the pollut and the heat, smell, and other "closeness" of the atr sphere, can, perhaps, only be realized by those who ha had occasion to pass through a lane made by the pol in a long-waiting crowd.

In conclusion it should be noted that our own repres tatives, and other expert persons who had an opportun of observing the work done by all the organizations c cerned, were much impressed by its quality. Great clev ness was shown by bearer parties in extricating collaps persons from the crowd, and the treatment administe at the stations, even when not directly supervised by medical officer, showed that those engaged in the wo had been well trained.

That all this thoroughly effective work was largely do by purely voluntary organizations is a fact of which t country may well be proud. Its thanks are also due those who did it, for these—with the exception of cou of the military organizations—are men and women w give their time, energy, and knowledge to the alleviation suffering without pay or reward other than that of t consciousness of work well done.

SCIENCE NOTES.

A NEW aspect of the problem of exhaustion of the soil dealt with in *La Nature* of January 8th, and is concern mainly with recent work of the American Bureau of So It is a matter of common knowledge that no soil, howev rich, will continue to produce crops beyond a certa limited number of years. This was attributed to exhau tion of the supply of mineral and nitrogenous mater necessary for the support of vegetable life, and has led the past to the various methods of enriching the soil means of crude manure and various chemical substanc The plan of letting land lie fallow was also adopted wi the same idea, and the principle of rotation of crops w employed on the view that the one crop would supply the earth something which the preceding one had remov An analysis of these views, in the light of modern investig tion, brings out some curious anomalies. For instance, t amount of phosphoric acid and potassium salts in an ac of soil is enormous compared with the quantity which added as manure, and it is not true, as has be maintained, that the latter contains salts in a mo assimilable form. Schlossing has shown that plants c derive all their nourishment from very dilute solutions such salts, even as dilute as one in ten million. Aga there are certain soils in America which resist all forms cultivation, no matter how much manure and dressing applied to them. In such cases there is evidently so factor hitherto unreckoned with. This, it is believed, is be found on consideration of the excretory products giv off by plants. Seventy years ago De Candolle observ that excretion took place in the pansy, and that the pr duct was poisonous to other pansies. This important fa was ignored till recently, when it has been shown th plants excrete substances which are toxic to their ov species but not to others. The existence of these vegetab toxins in the soil has been demonstrated by Americ workers, who have succeeded in isolating and identifyi a certain number of them. Their experiments have ind cated that fertility is not a function of the amount mineral matter in the soil, but rather of the amou of toxin. The less toxin there is, or the more is diluted, the better will plants grow, but the growth is independent of the concentration of th mineral salts. Such facts being well attested, it evident that new methods of cultivation are called fo The object of such must evidently be to neutralize th toxins. Experiment has shown that chalk is capabl doing this. The toxins are readily oxidizable, and can neutralized to some extent by the mechanical turning of the soil. The action, however, is increased in presence of certain elements such as manganese ar magnesium. These have been employed experimental and have given encouraging results. Another line alon which investigation has proceeded is that of the emplo ment of bacterial cultures. Nitrifying organisms hav

en in use for some time, without pronounced success in me cases. Recently, however, some interesting results ve been obtained by Bottomley in England and Stoklasa Bohemia by inoculating soil with cultures of microbes. om what we now know it seems reasonable to attribute these organisms an action in neutralizing the soil xins as well as in fixing the nitrogen of the air. It may rfectly well be the case, too, that the recovery of fallow nd is due in great measure to the neutralizing action of ch bacteria. Such methods of cultivation are hardly yond the experimental stage yet, but it appears not likely that a revolution in agricultural technique is pending.

POOR LAW POLICY AND MEDICAL REFORM.

T a meeting of the Medico-Legal Society on May 24th, at hich Sir JOHN TWEEDY took the chair, Dr. MAJOR REENWOOD, Honorary Secretary of the Poor Law Medical fficers' Association, read a paper on the policy of the nglish Poor Law, with special reference to proposed edical reform.

Dr. Greenwood's paper opened with a historical survey the growth of pauperism from the decline of feudalism revious to which the pauper, as recognized by the State, as unknown, although, of course, the very poor person as in evidence—to the Royal Commission of 1832. He onsidered that the principles laid down by that Commission, with certain modifications to suit the altered conitions of the times, were perfectly sound and trustworthy the present day, and he examined closely the directions which Mr. and Mrs. Sidney Webb proposed to alter hem. With regard to the principle of early curative treatment, which was probably to many the most attractive eature of the Minority Report of the recent Commission, e maintained that to seek unduly to make the poor come the doctor, or to allow the State medical man to search hem out, would be as much resented as any similar attempt a higher state of society. Another assumption underying the medical recommendations of the Minority was hat the curative treatment attempted would in most cases e successful. Imagine the cardiac, phthisical, and other ases of organic disease coming to the doctor in the very arliest stage. What then? The Minority did not believe the "bottle of medicine" treatment. What curative reatment could free all these unfortunates, many of them egenerates and victims of hereditary taint? A few months' treatment in a sanatorium did not always cure onsumption. In most cases it was the environment of he patient that told, and if he had to return to conditions hat had had a good deal to do with the origin of his disease he ultimate outlook was not promising. That by early reatment in many cases much good could be done was, of ourse, a truism, but it was an assumption based on the lenderest foundations that the probable benefit to be erived from early curative treatment would counterbalance the evil likely to arise from the inquisitorial and pauperizing methods that must necessarily be employed to ring about even a trial of the system recommended. There was also a tacit assumption that poor persons would welcome this attempt to deal with their physical disabilities. This, in his opinion, was unwarranted. As to the principle of universal provision, he Minority, no doubt, got rid of a good deal of difficulty by proposing to regard all curative treatment of disease as a question of sanitation. But he preferred to regard sanitary and Poor Law questions from a separate standpoint, and looked with suspicion on the attempt to blend with the work of the sanitary authorities he curative treatment of ordinary disease. One reason for thus mixing up public sanitation with the Poor Law was the pretext that it would get rid of the stigma of pauperism and would not act as a deterrent in the case of applicants for State aid. The Reports insisted on the arity with which public relief given by the sanitary authorities had resulted in confirming the pauper habit. As a large number of the recipients of that relief were in a much higher social position than the ordinary applicant for Poor Law relief, this proved very little. But it did prove that a much higher class would accept State relief when it was given on easy conditions and without any legal deterrent, such as disfranchisement. The policy enunciated in the Majority Report was sound in so far as it provided for a separate destitution authority, but some of the proposals were as far away from the principles of 1834 as those of the Minority. He believed the carrying out either of the Majority or the Minority proposals meant disaster to the medical profession. There were some 5,000 members of the Poor Law Medical Service, who would all be affected by the change, but their loss as Poor Law officials would be less than their loss as private practitioners. It would surprise some if they knew how many doctors relied almost entirely on their poorer patients for a livelihood. The Majority and the Minority recommendations pointed with certainty to an enormous increase of gratuitous medical work, and it would be little consolation to the practitioner that a unified medical service, even if adequately paid, was attending, at the cost of the State, patients who furnished the chief source of his income under the old system. Again, if a huge system of so-called provident dispensaries were inaugurated, little advantage would accrue to the practitioner by the enlisting of most of his poorer private patients in such institutions, and he was strongly of opinion that the net payments of these dispensary patients would in the aggregate be much less than what was now paid by the poorer classes for their medical attendance. He strongly urged that, both for the good of the nation and the medical profession, the efforts of reformers should be directed to a reform, not a break-up of the present system. The greatest defect of the present Poor Law was its administration; its substance was sufficiently sound. Indoor, outdoor, and child pauperism had all greatly declined during the last sixty years, and the figures recently brought by Mr. John Burns before the House of Commons on this point showed how little reliance was to be placed on exaggerated denunciations of the present system, and how easy it would be to go further and fare worse.

Sir WILLIAM COLLINS, M.P., in the discussion which followed, said that Dr. Greenwood had done well to warn the society and the public against undue expectations with regard to curative results following upon the earlier application of medical assistance in cases of illness occurring amongst the poor. It was the general tendency on the part of a layman, especially when that layman assumed the position of a benevolent despot, to overrate the advantages which could be secured by medicine. The layman looked upon the medical profession as a useful agency which could always be depended upon to patch things up, and visited it with his condemnation if it failed. Dr. Greenwood was wise also to suggest that in all attempts at remedial legislation the distinction should be borne in mind between efforts directed to deal with the individual for the benefit of the community and for his own benefit. An instance occurred when the Tuberculosis (Ireland) Bill was in Grand Committee. As originally drafted, the bill required compulsory notification of all forms of tuberculosis at the earliest stage. Such condition as chronic tuberculosis of the knee-joint or tuberculous meningitis would have had to be notified, the notification to be followed up by some kind of action. He proposed a modification, which was immediately accepted by Mr. Birrell, limiting notification to those cases in which the infection was liable to be carried to other persons, thereby making the compulsory portion deal with the individual from the point of view of the community and not from that of his own benefit. As he listened to Dr. Greenwood's paper he could not help feeling how necessary it was for medical societies to arrive at something like agreement as to the principles on which sanitary legislation should proceed. He would like to see a chair of sanitary legislation in the University of London. The Legislature was occupied more and more each session with dealing not so much with the wealth as with the health of nations, and although there were only nine or ten members of the profession in the House of Commons, the appeal which was constantly made to them for guidance was so enormous that it was very necessary some clear principles on such matters should be enunciated. As to the Minority Report, the attraction for him in that document—although he was not prepared to give all of it wholehearted support—was the attempt to unify the public services and the public health administration. As an old municipal hack, he knew from long experience how desirable such unification would be, and how

splendid the realization of John Stuart Mill's principle that in each local circumscription there should be but one elected body for all local business. In his admiration for the principles of 1834 he thought that Dr. Greenwood had overlooked certain changes in our social system which had taken place since that date, and might well be held to modify those principles. One such change was the growth in the knowledge of hygiene and of the reciprocal influence of health and environment To-day no wise hygienist or pathologist could disregard the connexion between poverty and insanitation. Dr. Greenwood had referred to the retrograde character of much recent legislation; but he (Sir William) defended the collective action of the community in dealing, for instance, with insanitary areas in London; while, as to the State feeding of school children—another subject of Dr. Greenwood's criticism—he held that this was the natural and inevitable consequence of the Education Act of 1870 Once the latter had been passed, responsibility as to the physical welfare of the child could not be declined.

Dr. F. S. TOOGOOD criticized boards of guardians, and thought that it would be to the advantage of State medicine generally if boards of guardians were abolished and gave place to an authority of wider scope. He felt that every advance in the administration of infirmaries had been dragged out of the guardians by the medical officers.

Dr. GREENWOOD, in the course of a brief reply, agreed with Sir William Collins as to the desirability of unifying the Poor Law administration and the public service, but this was no reason for accepting all the suggestions of the Minority.

LITERARY NOTES.

A CURIOUS correspondence has recently appeared in the *Edinburgh Evening Dispatch*. Some one seems to have misunderstood the word "emphysema," which has lately been so much in men's mouths, and an "Irish Medical Student" wrote to point out that "emphysema is not a stomach condition, but is one in which there is abnormal dilatation of the pulmonary alveoli and air vesicles, with atrophy of the walls and obliteration of the capillaries." This drew the following remarkable reply from a correspondent who signs himself "J. Putnam Wheeler":

> With reference to the letter of "An Irish Medical Student," which appeared in your columns on Saturday, I beg to differ from his views. He has certainly proved his nationality, if he has not proved his case, for he flatly and strangely contradicts his own words.
>
> He says that emphysema is not a stomach condition, and then promptly proceeds to prove that it is. What else could "pulmonary alveoli and atropical vesicles" be except something that has to do with the stomach?
>
> Emphysema, on the other hand, I hold after many years of experience, is an inflation of the peritoneum (a serous membrane which contains all the viscera lying in abdominal and pelvic cavities).
>
> I should suggest that the Irish medical student in the case should leave such definitions and corrections to his elder and more experienced brothers of the medical profession.

Is this intended for what Artemus Ward would have called a "goak"? If so, it is like the German master's "most important choke" on the Schleswig-Holstein question referred to in *Vice Versa*. We do not wish to call in question Mr. Putnam Wheeler's wit, but we hope we may say of him without offence, as Holofernes did of Don Adnano de Armado: "His humour is lofty, his discourse peremptory, his tongue filed. . . . He is too picked, too spruce, too affected, too odd, as it were, too peregrinate as I may call it."

In the April number of the *University of Pennsylvania Medical Bulletin*, Dr. William Pepper discusses the medical side of Benjamin Franklin. The study of medicine was one of Franklin's chief interests. The degree of "Doctor of Laws" was conferred upon him by the University of St. Andrews in 1759, and he was afterwards known by the title of "Doctor." This may have led to his being taken for a doctor of medicine, but he did not hold a medical degree. Nevertheless, he was elected a member of several medical societies. He never studied medicine systematically, but he bought and borrowed a number of medical books, read and commented on them, and discussed with his friends various diseases and the methods of treating them. Although he did not practise medicine for gain, he treated a number of people for various ailments. He was a keen student of such diseases as came under his observation. He may almost be called a pioneer of hygiene, in which he was greatly interested. Among the medical subjects which Franklin discussed with his friends was the eternal question of diet. He wrote a letter in which he said:

> In general, mankind, since the improvement of cooking, eat about twice as much as nature requires. Suppers are not bad, if we have not dined, but restless nights naturally follow hearty suppers after full dinners. Indeed, as there is a difference in constitutions, some rest well after these meals; it costs them only a frightful dream and an apoplexy, after which they sleep till doomsday. Nothing is more common in the newspapers than instances of people who, after eating a hearty supper, are found dead abed in the morning.

He discussed exercise as a means of preserving health and the best forms to use, the influence of swimming, cold baths, and fresh air. The taking or catching of colds was a very favourite topic of Franklin's, and his nearest approach to a real medical article is on this subject. He held very sensible views, considering his day, and gave much sensible advice, which the world has been slow to accept. The modern treatment of tuberculosis is based largely on the open air mode of life Franklin so persistently advocated. He repeatedly stated that colds were caught by being in close, unventilated rooms in which were other people who possibly were already affected. He thought that damp clothes might cause colds, but that clothes wet with sea water would not, because, as he says, no clothes could be wet as water itself, and one did not catch cold while bathing and swimming. He recognized the epidemicity and contagiousness of colds. He also remarked that bathing would quench the thirst and stop diarrhoea, and that bathing or sponging with water or spirits would reduce the temperature by evaporation in fevers. He wrote a very capable letter on the heat of the blood and the causes thereof, and also upon the motion of the blood through the arteries, veins, and capillaries. He discussed learnedly the absorbent vessels and perspiratory ducts of the skin, and carried on experiments to prove his theories. Sleep, deafness, and nyctalopia all engaged Franklin's attention. He invented bifocal lenses for spectacles and a flexible catheter. He was much interested in medical education, and had decided views on the subject. Although Thomas Bond originated the idea of the Pennsylvania Hospital, Franklin created it, and was its first president. His letters on lead poisoning are wonderful, and would have been a credit to any physician of that age; his observations upon gout—and personal observations they were—are shrewd and exact. Smallpox and inoculation, cancer, yellow fever, fever and ague, sea-sickness, all claimed his attention. In many of Franklin's letters we note his interest in various drugs and in various methods of cure. He showed a healthy scepticism of all empirical remedies, when one considers the time in which he lived. Much could be written of his treatment of nervous diseases by electricity. Many patients consulted him, many doctors wrote to him for advice; even Sir John Pringle begs him to come and treat the daughter of the Duke of Ancaster. Franklin was not carried away by his temporary successes with this method of treatment—Franklinism as it has been called—but gives a very reserved opinion upon its value. He was interested in vital statistics and the mortality of different diseases. He wrote about the great death-rate of foundlings and among children not nursed at the breast by their own mothers, and the growing habit among the French to neglect this duty. He discussed the doctrines of life and death. His ability and knowledge in everything pertaining to medicine led the King of France to appoint him a member of the commission which investigated Mesmer, and it was Franklin who wrote the report. Even Dr. Jan Ingenhousz, physician to Maria Theresa and Joseph II, before inoculating the young princes, sought Franklin's advice. One cannot help being impressed by the fact that the majority of Franklin's friends seem to have been medical men, at least if we judge from the letters to and from Franklin. He corresponded, visited, and travelled with them, and they seem to have been his most congenial friends. Physicians dedicated their works to him, translated his writings into French, invited him to their meetings, made him a member of their societies, and received him always as one of their own body.

British Medical Journal.

SATURDAY, MAY 28TH, 1910.

OPERATIONS UPON THE INJURED HEART.

"WE now know," says Mr. Bland-Sutton in a clinical lecture we publish in another column, "that the heart is very tolerant of traumatic insults." He gives some remarkable instances of this tolerance, and no doubt was cognizant both of Elsberg's[1] experimental work on the animal heart and of Travers's[2] now historical case. Elsberg showed that after ligation of the entire heart at the junction of the lower and middle thirds of the ventricles and amputation of the distal part of the heart, complete recovery will occur. In Travers's patient, who was impaled on an iron spike, the wound in the right ventricle was so large and ragged that three fingers had to be inserted in the rent for temporary arrest of bleeding, and twenty-three sutures were required for closure. Yet the boy—who was not operated on till three hours after injury—lived eleven days, and died of slow leakage of blood into the pericardium, due not to sepsis but to defective repair in a small area of the badly damaged tissues.

Whilst, on the one hand, then, there is no obvious contraindication to operation in the apparent grossness of the lesion, on the other there are cases recently published which illustrate the importance of operating upon any and every penetrating wound of the precordium and its vicinity.[3] A woman of 56 was stabbed with a narrow-bladed knife in the breast and abdomen. For seven months she lay ill with symptoms of cardiac insufficiency, and at necropsy it was found that the pericardium contained over 2,000 c.cm. of old and recent blood effused from a wound of a small branch of the right coronary artery. Again, a man[4] died with all the symptoms of "heart-tamponade," and it was found that the blood in the pericardium had escaped from a needle puncture in the right ventricular wall.

Recovery has occurred even when operation has been deferred as long as thirty hours after infliction of the injury, so that the suggestion of Peck[5] (whose tabular analysis of 160 cases is more recent even than than of Vaughan to which Mr. Bland-Sutton refers) that the pericardium should be aspirated as a temporary measure when operation cannot be instant, deserves careful consideration. No doubt the intrapericardial tension serves to arrest further bleeding, but the pressure is felt chiefly by the auricles, so that their diastole is made difficult, and the aspiration factor is minimized. The consequent fall of blood pressure is more often the cause of death than the actual loss of blood. For the idea that direct shock is sometimes the cause of sudden and final cardiac arrest there is support in the description long since by Kronecker[6] and Schmey of the "co-ordination centre" in the interventricular septum. As a matter of fact, sudden death from punctured wound of the heart is not common.

Although there seems some reason for the view that wounds of the auricle are more often fatal than those of the ventricles, yet Peck's figures show that of cases that come to operation the auricular have decidedly the brightest outlook. Of 69 wounds in the right ventricle, 70 per cent. died; of 74 left ventricle, 60 per cent. died; whilst of 11 auricle cases only 36 per cent. succumbed.

It does not fall to many surgeons to suture a wound in the heart, but, as Peck says, "the rarity of the opportunity and the importance of prompt and definite action make it desirable that every surgeon . . . should be familiar with the best plans of operative procedure, in order that the choice of method may be instantaneous and the steps executed without delay."

Although "there is no unequivocal sign of injury to the heart," cardiac surgery has now reached such a point that the correct attitude in presence of evidence only presumptive is no longer to *wait* and see, but to *explore* and see. Thoracotomy, pericardiotomy, and manual examination of the heart are not dangerous proceedings; an unsutured wound of the cardiac wall, however small, is extremely dangerous, and the best interests of the patient are consulted by making sure.

No absolute rule can be laid down for the best method of exposing the heart. It may be seen from what Mr. Bland-Sutton says, and from many recent contributions to the subject, that the various methods have, each and all, advantages and drawbacks. Some are more likely to open the pleura; but this does not much matter when the pleura is already wounded. One exposes better the left side, one the right. Another method adopts the principle of enlarging the existent wound. The essential point is that the surgeon should be familiar with the difficulties that have beset those who have operated and with the means by which those difficulties were surmounted. It should be easy then to fit the means to the conditions of the particular case.

Every one is agreed that asepsis is of the first moment. An aseptic course cannot be expected for every case, since the original instrument of injury will seldom be germ-free, but no matter how urgent the symptoms, time should be spent in securing surgical cleanliness. Septic complications are not always fatal, however. In several of the successful cases, suppuration has occurred in the wound, sutures have been extruded, and empyemata have needed secondary operations; the pericardium has been reopened and drained of pus. The question of drainage cannot be settled off-hand. Certainly surgeons have been less inclined to drain of late, but if the same antiseptic precautions are observed at dressings as at operation, secondary infection by the drain should not occur. Salamoni,[7] indeed, has lately insisted upon the necessity for temporary drainage, and here again decision must not be dictated by rule but by the exigencies of the individual case.

The heart which will stand extensive lacerations will stand also all the rough usage necessary in manipulations for suture even of posterior wounds, and should it strike work for the moment, rhythmical massage will generally restore contraction. Operative dangers come, in fact, not so much from the

[1] *Journ. of Exper. Med.*, N. Y., 1909, vol., lv p. 479.
[2] *Lancet*, 1906, vol. ii, p. 706.
[3] Fischer: *Frankfurter Zeitschr. f. Path.*, Bd. iv, Hft. i.
[4] Daube: *Deutsch. med. Woch.*, 1910, Nr. 6.
[5] *Trans. Amer. Surg. Assoc.*, vol. xxvii, p. 162.
[6] *Sitzungst. der Akad. d. Wissensch. zu Berlin*, 1884.
[7] *Archiv. génér. de chir.*, 1909, vol. iii, 9.

heart as from the pleura and lungs, and these risks can only be avoided where there are chambers for operations under positive or negative pressure. Vidal has already operated successfully under these conditions, but it must be a very long time before such conveniences are common enough to make it likely they will be at hand when wanted. If some method could be devised which, like the intratracheal cannula plan of Meltzer and Auer, is simple and yet effective in maintaining respiratory exchanges in the absence of respiratory movements, and has proved satisfactory in the hands of Alexis Carrel[1] for extensive intrathoracic operations in dogs, it would do a good deal to simplify heart surgery. It is fortunate that, when needed, anaesthesia by inhalation has given little trouble, and in any case with the present state of local anaesthesia there is no difficulty to apprehend from that quarter.

At the same time, in a number of cases in which operation has been attempted, the patient has died upon the table. No surgeon can face such a catastrophe with entire equanimity, but no patient ought to die of a heart wound simply for want of a suture. The heart is tolerant of handling, its tissues are tolerant of suture material, and healing, though it be by fibrous tissue and not as in the case of the vessels by new muscle cells, is rapid and permanent. Operated upon, a patient with an uncomplicated injury of the heart has one chance in three of recovery. Left alone his chances are desperately slender. It behoves all surgeons to make themselves so familiar with the technique of cardiac operations that such a patient falling into his hands will not have an iota less than his standard chances. There is no lack of opportunity nowadays for others besides students to receive instruction in and to practise the manipulations in the ordinary courses of operative surgery.

It should not be overlooked, in connexion with cardiac as with vascular surgery, that a great debt is owing to the many operators who have perfected their technique, and demonstrated the feasibility of extensive plastic repair upon animals.

RAIN-BEARING WINDS AND PHTHISIS.

IN a paper read before the Royal Medical and Chirurgical Society in 1900, Dr. William Gordon, of Exeter, called attention to the fact that the death-rate from consumption in certain parts of Devonshire bore a definite relation to the prevalence of rainy winds in those parts. In the debate which followed, a good many searching criticisms were advanced, and it was shown that several other factors besides the prevalence of rain-bearing winds might have exercised a determining influence. During the ten years that have intervened, Dr. Gordon has followed up the subject with a pertinacity that commands admiration, and has set himself the difficult task of investigating and appraising at their true value the various influences that had been advanced by his critics and at the same time of extending his inquiries over a much larger field. The results are stated in business-like form in a compact volume of 100 pages.[2] Statistical tables and shaded maps present the facts in the clearest manner, and go far to prove the truth of the author's contention that the prevalence of rainy winds has a most deleterious effect upon the course of consumption.

For reasons which he sets forth fully, Dr. Gordon has confined himself for the most part to an inquiry into the female death-rate from consumption in the greater and smaller areas that he has passed in review. Beginning with the area best known to himself personally, he shows and illustrates by a series of coloured maps that the parishes round and about the district of Okehampton on the edge of Dartmoor, which are the most exposed to rain winds, present a much higher death-rate than do those parishes which lie in sheltered positions, although inhabited by country folk of the same race and of the same general habits of life. In the following chapter he gives the results of a close inquiry as to the influence of these winds in the streets of Exeter itself, and is able to show a preponderance of phthisis mortality in those streets which are directly exposed to them. The possible influence of soil and of varying degrees of poverty are duly weighed, but still the statistics point to the fact that the mortality is greatest in those streets along which such winds are apt to sweep. He concludes that the mischief is wrought by the effect of the wind upon the inhabitants as they pass along in their daily walks and that dwellers on either side of such streets are equally affected. Taking a wider purview in his own county and comparing larger areas in Devonshire, the author is able to confirm by statistical evidence the relation which he demonstrates in the smaller areas; and finally, by careful collation of facts recorded by others, and notably by Hirsch, he is able to support his case by evidence from all parts of the world. The laborious inquiry made many years ago by Hirsch and introduced to English readers by Dr. Creighton, shows the world-wide distribution of phthisis, and its particular prevalence and mortality in certain districts, but the association with prevalent wet winds does not appear to have been previously emphasized.

Dr. Gordon's work, if confirmed by further investigation in districts where phthisis mortality is high, must have an important practical bearing upon the selection of sanatoriums for present cases and the selection of sites for future sanatoriums. Although death-rate statistics cannot be of much use in determining the relative merits of such institutions, it is probable, if Dr. Gordon's theory be correct, that the percentage of success in results must be greater in the sheltered than in the exposed buildings, and this should not be difficult to prove. The book is a notable contribution to medical science, containing as it does a series of carefully-thought-out deductions from ascertained facts, and incidentally illustrates the value of preliminary presentation of scientific investigations before a critical audience. Much of the most convincing evidence in the work before us would never have been cited had it not been for the keen criticism to which the initial inquiry was exposed ten years ago.

[1] Carrel: *Berl. klin. Woch.*, 1910, March 28th.

[2] *The Influence of Strong, Prevalent, Rain-Bearing Winds on the Prevalence of Phthisis.* By William Gordon, M.D., F.R.C.P., Physician to the Royal Devon and Exeter Hospital. London: H. K. Lewis. 1910. (Demy 8vo, pp. 117; maps 22. 7s. 6d.)

THE EDWARD MEDAL.

THE King has been pleased to award the Edward Medal of the second class to Mr. Evan Owen, Mr. Edmund Davies, and Mr. William Wagner Turner, M.B., in recognition of the gallantry they displayed on October 29th, 1909, in connexion with the rescue operations after the explosion at the Darran Colliery, in the Cardiff district, by which twenty-seven persons

st their lives, five succumbing during the rescue operaons. Mr. Evan Owen, the under-manager, was one the first to enter the mine after the explosion, and the course of the day accompanied several of the scue parties to the furthest points it was possible reach, being several times partially overcome by e effects of carbonic oxide. Mr. Edmund Davies, e day fireman, was also one of the first to enter e mine, and his determined and continued attempts succour the unfortunate men below only came an end when his services were no longer of any ail. Dr. Turner, who was the first medical man reach the mine, displayed great courage by omptly going down the ladders in the upcast and mping shaft—an awkward descent to anyone unquainted with mining work. He rendered all the sistance he could, and nearly paid for his bravery ith his life, as he was severely affected by after-damp. e hope to have the opportunity of publishing in an rly number full details of the points of medical terest in connexion with this explosion.

CORONERS AND DOCTORS.

N inquest was recently held by Mr. H. C. Yates on a male infant aged 7 months, who died in the Knutsrd workhouse on May 14th. As it presents certain oints of interest to medical practitioners in their elation to coroners we give a summary of the pubshed details. It was stated in evidence by the ther, a labourer at Sale, that the baby, which was ne of twins, was nursed after his wife's death by his ster. Then the midwife who had attended the wife ad the child for a week. After that the child was laced under the care of his mother, who had it five r six weeks. She had since died. Afterwards nother woman took charge of it for a time. The hild was fretful, and the nurses could not give it ttention. Dr. Scott, who attended, gave the father me medicine for the child. It was afterwards ken to Dr. Graham Renshaw, who told him to athe the eyes with alum and water. Later Dr. dolph Renshaw saw the child, and advised him to athe the eyes with borax and water. He afterwards ecommended that the child should be taken to the orkhouse hospital. Miss Mitchell, nurse, stated that he child was brought by the father on a Tuesday and ied on the following Saturday. It was poor and maciated. The eyes were closed, and there was a ischarge of matter from them. The clothing was ery filthy, but not verminous. From the first there as very little hope. Dr. Smith said he saw the child n Saturday, May 7th; it was emaciated, and suffering om ophthalmia. The condition of the eyes pointed neglect; if the condition became chronic, it led to lindness. The child weighed 9 lb., whereas the ormal weight was about 16 lb. The coroner mentioned that one doctor advised borax and the other lum and water, and asked whether, if this had been one properly, the child would have recovered. Dr. Smith said the treatment must be constant nd systematic, otherwise there would be no improvement. He thought there was a strong possibility that, if the child had been properly cared or, it would have lived; but only skilled nursing ould have saved it. The coroner told the jury hat he was perfectly satisfied there was not sufficient evidence to justify them in placing the father n trial for manslaughter. The jury returned a verdict n accordance with the medical evidence, adding that he death was accelerated by want of proper care and ttention. There is nothing in the evidence, as published in the *Sale and Stretford Guardian* of May 19th, hat seems to us to point to manslaughter. So far we are in agreement with the coroner. But we think that Dr. Graham Renshaw and Dr. Adolph Renshaw may justly complain of the manner in which the coroner allowed himself to comment on the medical treatment without affording these gentlemen any opportunity of explanation. We are informed that he did not communicate with them in any way before the hearing. This is a matter as to which we have several times had occasion to speak. It is the coroner's duty to get all the evidence available in order that a true verdict as to the cause of death may be arrived at by the jury. For this purpose the testimony of medical practitioners who have treated the deceased during life is obviously of the first importance. In the absence of such testimony the effect of the evidence on which a judgement has to be based may be simply misleading. Under the Coroners Act, 1887, where the deceased was attended at his death or during his last illness by any legally qualified practitioner, the coroner *may* summon such practitioner as a witness. Although the Coroners Committee which issued its report a few weeks ago did not agree that the coroner is bound to do this, it expressed the opinion that every coroner should be empowered to call such medical witnesses as may be necessary for the proper determination of the case. It pointed out that in Scotland the coroner has a much freer hand in the matter of costs than an English coroner, and recommended that in regard to this the English should be assimilated to the Scottish system. The Committee further expressed the opinion that "to give coroners a somewhat wider discretion as to costs—a discretion possessed by all other courts—would go far to remove the friction which sometimes arises between them and the medical profession, and would, on the whole, be conducive to the efficiency of inquests and the public interest." Another point to which reference must be made is the impropriety of coroners or their juries criticizing the professional conduct of medical practitioners without giving them an opportunity of making a statement or explanation. These reflections go forth to the public with a quasi-judicial sanction, when often the doctors whose conduct is impugned could have set the facts in their proper light if they had been called upon to give evidence. This is a gross injustice which urgently calls for a remedy, and every effort will be made by the British Medical Association to influence the Government in this direction whenever any amendment of the Coroners Act is brought forward.

DANGERS INCIDENTAL TO THE SMELTING OF LEAD.

DR. EDGAR L. COLLIS throws an amount of energy and enthusiasm into his work which make his reports interesting. His recent report[1] on the dangers incidental to the smelting of materials containing lead, and the manufacture of red and orange lead, does not fail in this respect. So far as the manufacture of red and orange lead is concerned, the special rules at present in existence practically cover all requirements, and it is recommended that flaked litharge should be included. Within the last few years the number of cases of plumbism in smelting works has steadily risen. In the Potteries the percentage rate of plumbism among workpeople exposed to lead has been 1.5 per year, but in the smelting of lead ore it has been slightly over 3 per cent., and in spelter works just over 1 per cent. The incidence of plumbism varies in different factories according to the methods of manufacture and the character of the plant. Another

[1] *Special Report on Dangerous or Injurious Processes in the Smelting of Materials Containing Lead.* By Edgar L. Collis, M.B., H.M. Medical Inspector of Factories. London: Wyman and S . Price 3d. [Cd. 5152.]

possible cause of the increase of notified cases has been the inclusion of lead poisoning in the Workmen's Compensation Act 1907. In the first six months of 1909, 37 cases of plumbism were reported as occurring in smelting works, as compared with 15 in 1904, and a similar increase occurred in the last six months. While the percentage number of persons employed as smelters presenting gastric symptoms is equal to that of persons in other employments which exposes them to lead, the percentage exhibiting rheumatic and paretic symptoms is slightly greater. In smelters the tendency is for the symptoms of plumbism to increase in severity with recurrent attacks. Dr. Collis found that in a first attack the percentage of slight cases was 61.4, and of severe cases 11.7; after a second attack the percentage of slight and severe cases was 35.4 and 29.2, and after a third attack the numbers were 6.2 and 37.5 respectively. The number of fatal cases of plumbism in lead smelters between 1899 and 1909 was 19; the average age at death was 43, and the average duration of employment 15 years. Plumbism developed under these circumstances is not due to the handling of lead, but to inhalation of fumes and the breathing of dust; 16 per cent. of the workers had no blue line on the gums. Lead smelters exhibit a slightly lower blood pressure than white lead workers, the average being 148.2 mm. Hg, as against 156.5. Any rise of blood pressure occurring in a lead worker is in all probability due less to the action of lead as lead upon the blood vessels than as the result of the action of the metal and its salts upon the emunctories, interfering with their eliminating powers. Sir Thomas Oliver has shown that the injection of lead nitrate into the blood vessels of animals is followed by a fall of blood pressure. In describing the processes of lead smelting Dr. Collis states that the dangers incidental to working at the furnaces arise during the charging of the furnaces, when fumes and dust are given off. There is in addition another danger which has hitherto not received the attention it deserves—that is, the escape of carbon monoxide from incomplete combustion of the fuel. Hofman found that the dust from the roof of a blast furnace contained 27.1 per cent. of lead, and the dust from a flue 15.8 per cent., while the amount of carbon monoxide in the gas escaping from the blast furnaces of smelting works varied from 1.5 to 10.8 per cent. Carbon dioxide, too, is present in considerable quantities. Persons employed in spelter works are exposed not only to the fumes of lead and zinc, but also to sulphur dioxide gas, to the inhalation of dust, and to extremes of temperature. After the age of 40 many of these men, according to German authorities, are so broken down in health by chronic bronchitis, gastric troubles, and nervous diseases that they are unfitted for hard work. A series of interesting statistics of plumbism in certain Continental lead-smelting works is given in the report, and the good effects following the introduction of means for the removal of fumes from the cupelling furnaces are mentioned. The three conditions believed to be essential to the prevention of plumbism in lead smelting works are: (1) Prevention of the escape of fumes; (2) reduction to a minimum of dust which may be raised, whether by the coming and going of the men or by currents of air; (3) accustoming the personnel to take certain precautions and to be clean. The German regulations for spelter and for lead smelting works and the regulations in use in France relating to certain industries in which lead is used are given in appendices. The regulations suggested by Dr. Collis, which appear in full in the text, would apply to 34 lead smelting factories, 8 spelter works, 17 factories in which red and orange lead are manufactured, and to 8 in which flaked litharge is manufactured.

THE DURATION OF INFECTION OF TSETSE FLIES BY TRYPANOSOMES.

KLEINE'S discovery that one of the trypanosomes (*T. brucei*) could develop in tsetse flies, so that a fly remained infective for sixteen or twenty days or more, led to the suspicion that our ideas of the prophylactic measures necessary to stamp out sleeping sickness must be completely modified. Colonel Sir David Bruce, with Captains Hamerton, Bateman, and Mackie—members of the Royal Society's Sleeping Sickness Commission for 1908–9—have been working lately at the question of the infectivity of tsetse flies in sleeping sickness areas, and, as will be seen by the report of their paper at p. 1292, have established many interesting and important facts. Their experiments go to show that under experimental conditions this development of trypanosomes takes place in about 5 per cent. of the flies used, that the shortest time that elapses before a fly becomes infective after feeding on an animal infected with sleeping sickness is 18 days, the longest 53 days, and the average 34 days. An infected fly was kept alive in their laboratory for 75 days, and remained infective during that time, while experiments made to test directly the duration of the infectivity of tsetse flies in nature apparently prove that they may retain their infection for at least two years after the native population has been removed from the fly area. The conclusion to be drawn from this is clear: natives cannot with safety be allowed to return to such areas until all infection has died out of the flies; how long this may take still remains to be ascertained. It is certainly difficult to believe that an individual fly can go on living for two years, and, if it does not, then fresh generations of flies must either derive their infection from some animal or animals living in the area, or the infection may descend hereditarily from infected flies to their offspring. Whichever of these explanations be correct, the prophylaxis of sleeping sickness, by attacking the infection in the flies, must necessarily be a much more difficult task than was hoped—so difficult, in fact, that enormous tracts of country along the edges of lakes and rivers may have to be given up permanently or for many years.

TETANUS AND THE MOTOR CAR.

ACCORDING to the Registrar-General's returns there has been a sudden great increase in recent years in the number of deaths directly due to "tetanus"; and this in spite of our increasing knowledge as to its methods of invasion and the extensive use of antitetanic serum now prevalent. Taking the figures from 1889 to 1900, the average number of deaths in England and Wales was between 30 and 40. In 1900 it rose to 66, to fall again to 57 in 1901. Then came a sudden and unexpected increase. In 1902 the number rose to 201—almost four times that of the preceding year. This in itself might have been due to a fortuitous concatenation of circumstances, did not the returns for succeeding years negative the idea, and force one to the conclusion that some cause which came into force in or about 1902 must still be operating. The returns which show this are as follows: 1903, 257 deaths; 1904, 257; 1905, 248; 1906, 254; 1907, 226; 1908, 180. That this increase is a real and not an apparent one can, we think, be confidently asserted. The apparent increase in cancer, for example, is probably partly due to increased powers of diagnosis and care in certification on the part of the profession; but such a view can scarcely be maintained regarding tetanus, for the

nical picture of the disease is so striking that even e layman can diagnose it, and its symptoms were rfectly well known and had been carefully studied g before Kitasato's brilliant researches settled its crobic origin. The increase, therefore, in recent ars can scarcely be other than a real one. When we ne to the causes, however, of this great rise, we are, must be confessed, upon much more uncertain ound. One of these causes, however—perhaps the st important—would seem to be connected with the eat increase in the use of motor cars, which has been h a noticeable feature in the advances of recent ars. On *a priori* grounds one would have thought at such an increase in mechanical traction, and the nsequent diminution in the number of horses ployed in large cities, would have tended in ite the opposite direction—for it is well own that certain animal excreta may teem with e tetanus bacillus; the gradual disappearance of rses from the streets and main roads ought, one uld have thought, to have tended to purify these teries of traffic, and coincidently lowered the ath-rate by removing the source of infection. fortunately this comfortable theory has not oved correct in practice—and the cause is not far seek. The weak point in the argument has en that although the amount of animal excreta has en sensibly diminished in the streets, yet the dis- bution of what has been left has been greatly creased by the dust raising powers of the motor- r, and germs have thus been spread far and wide er an area greater than heretofore. It is this eater distribution, therefore, which to our mind plains the sudden and surprising increase which has en steadily maintained from 1902 to 1907. The ght fall in 1908 is distinctly hopeful, and is pro- bly largely due to the fact that the supply of horses as been diminishing more rapidly than in previous ars, now that it has been proved commercially that rse-traction cannot compete with mechanical. It mains to be seen whether the returns for 1909 ill maintain this decrease. We sincerely hope so; t improved conditions cannot be obtained until ther animal excreta disappears from our streets, or me efficient dust-laying contrivance checks the stributing power of the all-pervading motor car.

THE ACCOUCHEMENT OF ROSA THE PYGOPAGA.

YGOPAGOUS twins enjoy certain advantages—they are ntered on the roll of teratological fame which many rmal mortals may hold to be far better than no me at all, and they need never starve if they have objection to appearing in public. They are hardly pulsive like the miserable "What is it?" the childish etin which, as Mr. Arnold White informs us in *The reat Idea*, is often made a show of in caravans to atify the morbid instincts of the British and merican public. The two headed nightingale who as in England in 1871 was sweet-voiced, though far ore African in type of beauty than her, or their, ortraits accompanying the showman's advertisements d us to believe. In 1891 another teratological henomenon of this type, a pair of sisters 13 years of ge, appeared in public, and were described by Marcel audouin as *les sœurs Rosa-Josepha Blazek, le ygopage du théâtre de la Gaîté*.[1] He described the aidens, as they both then were, as intelligent young rls of independent tastes. One liked beer, the other referred wine, one was partial to salad, the other detested it, one could watch while the other slumbered and the radial pulses were not synchronous. They conversed in the Czech or Slavonic Bohemian speech, and Baudouin was a little sceptical about various statements which they made as to their relative psychology. The Czech language is not universally understood in Paris, and questions about synchronous fear and courage, love and hate, and so forth, are not easy to frame, nor are the replies always readily understood. When comprehensible in this instance, they were, it appears, rated as *une foule d'historiettes amusantes*. One point was made clear. There was but a limited area of common sensibility in the lower extremities of these twins; hence the caudae equinae must have been almost distinct. It was otherwise both with Judith-Helena, the Hungarian sisters, immortalized in the fiftieth volume of the *Philosophical Transactions*, and also with our old acquaintance, Millie-Christine, the Two headed Nightingale, who sang duets in London nearly forty years since, and has, it appears, retired on a fortune. Rosa-Josepha Blazek—*le pygopage de la Gaité*—returned to Bohemia—the Slavonic, not the Parisian. Last April, when old enough to know how to look after themselves, they made their appearance at the General Hospital, Prague. Rosa was troubled with an abdominal swelling. Then followed a delicate investigation of a type too familiar to all who understand female patients in trouble. When the possibility of pregnancy was suggested, both sisters gave "categorically negative replies." Josepha, however, was clearly less reliable than Jeannie Deans; a clandestine intrigue was physically impossible, whilst a marriage might have been kept secret for fear of the question of bigamy. Anyhow, Rosa must have been beloved, for before Professor Pitha could be summoned to the surgical clinic she was delivered on April 17th last of a fine boy. The mother and child are doing well, but sister Josepha, who was unavoidably present when Rosa was delivered, must be taken into account. Dr. Trunecek publishes a conjoint report of Rosa-Josepha, drawn up by Dr. Pitha when he examined the twins on April 29th, the twelfth day of the puerperium. He found that they were united posteriorly by the sacrum which was common to the pair, and by separate iliac bones. Accurate measurements of the pelvic inlet and outlet could not be taken; Rosa, the mother, clearly had a satisfactory pelvis, since it allowed of the birth of a well-developed male infant. There were lineae albicantes on her abdomen and not on her sister's, but the linea alba and nipples were pigmented, and milk was secreted by the breasts of both. The twins were accustomed to lie on one side, Rosa's left and Josepha's right. The external organs were easy of inspection and had become rotated in a strange manner. There was a common anus and perineum; the anus opened inferiorly—that is, towards the side on which the twins lay. The vulva had rotated inwards and upwards at a very early stage of development and became absolutely fused, hence the clitoris looked towards the side of the twins which was uppermost when they lay down. The labia majora alone were double, starting each from the perineum, running to the symphysis, and then turning backwards to meet its fellow anterior to the clitoris. Hence the labia minora and vaginal outlet lay framed by a lozenge-shaped fleshy ridge formed by the labia majora. Below the clitoris a wide common meatus urinarius was detected. The urethra was also single for an inch above the meatus, then it bifurcated; Rosa had undergone lithotrity a few years ago, and there remained traces of cystitis; the ureters opened normally. In Josepha's bladder those ducts both opened on the right of the

[1] *La semaine médicale*, July 8th, 1891, reprinted *ibid.* May 18th, 1910, an appendix to Dr. Trunecek's article on which the above paraaph is founded. When we see *le pygopage* described both as *elle* d *elles* in these reports, we must conclude that the description of ygopagous twins is even more trying to the French than to the nglish grammarian.

median line, one above the other. Desire to micturate was distinct in the twins; with defaecation it was otherwise; there was a rectal ampulla into which the great intestine of each twin emptied itself 2 inches above the anus. The septum of the vagina was extensively torn, and Josepha, the maiden, or rather the single patient, had suffered laceration of the posterior wall of the vagina on her side extending to the perineum. Rosa's uterus was as big as a fist; but its appendages could not be defined on palpation. It is interesting to learn that on Josepha's side not only was the uterus of the perfect nulliparous type, small, anteflexed, with ill-developed cervix and os externum, but the vagina was of the same type, with well marked rugae, whilst on Rosa's side the mucosa was hypertrophied and smooth. These distinctions were clearly indicated above the lacerated septum, which was visible at the common vaginal orifice. Rosa treads mostly on the left foot during progression, while Josepha walks entirely with her right foot. The point of the left great toe touches the ground. Pygopagi being of necessity one-yolk, or uniovial, twins are always of the same sex. "Pigeon," or male and female twins, are developed from separate ova, and never display certain well-known features frequent in one-yolk twins, acardiacus acephalus, and parasitism, for example. One-yolk twins, even when perfect, are more often female than male, and all the pygopagi—Walther's, Treyling's, and the three above mentioned—were girls.

A MUSEUM OF MOULDS.

In *La Nature* for February 12th there is an account of an interesting collection of moulds which is kept in the École supérieure de pharmacie in Paris. These have been gathered together since 1903, and to-day they form a veritable museum. They are maintained in the living state, and present objects not merely of curiosity but of scientific study. A thoroughly reliable knowledge of these mysterious plants has, until recent years, been lacking. Their omnipresence and the important part which many of them play in the domestic relations of man render such a knowledge highly desirable. The methods employed at this Paris museum are comparable to those which have been used with so much success in the case of bacteria and other lowly organized forms of life. The nutrient media naturally are of a different order, but the principles of treatment and isolation are much the same. Prepared liquorice root is the medium most commonly employed. Moulds are brought in from all manner of sources. Frequently they are in mixed growths, and the spores of each have to be carefully separated and sown with sterile precautions on the prepared media. In this way pure cultures are obtained, and there is the assurance in further study of the growth that one particular organism is being observed and not a mixture. Previously errors had in many cases arisen from this very cause, and observations made on certain growths were confused through contamination with other forms. The collection contains all the moulds familiar to us which grow on articles of food and faeces, and in addition numerous others which occur on various kinds of decaying animal and vegetable matter.

HOSPITAL ABUSE IN AMERICA.

In no city in the world is the chase after the nimble dollar commonly reputed to be more active than in Chicago, so it is somewhat instructive to note that the medical members of the population of that city have hitherto shown themselves hardly more awake to their financial interests than their colleagues in this country. It is clear from a paper recently read before a local medical society by Dr. C. J. Whalen[1] that the abuse of hospitals and dispensaries is at least as rampant in Chicago as in this country. The author endeavoured to represent the effect on the medical profession of this abuse in terms of hard cash. His figures are based on investigations conducted by the Charity Bureau of the city, and the Chicago Medical Society, as well as on his own inquiries. Apart from patients treated at the public hospitals, he put forward reasonable ground for assuming that about 25 per cent. of the whole population of Chicago habitually receive free attendance at the various dispensaries in the city, whereas only about 1 per cent. of the population is in receipt of charity other than that of a medical kind. On this basis, and averaging the number of treatments each patient receives as two and two-thirds, he calculates that the abuse of the dispensaries spells a financial loss to the local medical profession of over two and a quarter million dollars. From the statistics of the seventy three hospitals in Chicago he concludes that the treatment gratuitously accorded in their wards to patients who never expect or receive any but medical charity should rightly mean an annual payment to the medical profession of two and a quarter million dollars. Finally, as the result of inquiries, he computes that the 3,000 medical men in Chicago exercise between them private charity in the way of remitted and reduced fees to the extent of about one and a quarter million dollars. Hence the total of the work done by the medical profession in Chicago without adequate, if any, return reaches the total of five and three-quarter million dollars. This seems an enormous sum, but in view of the figures on which it is based by no means incredible; when divided up among the total number of medical men in Chicago it represents about £350 a head. In respect of dispensary or out-patient abuse Dr. Whalen suggests no very specific remedy; but in respect of hospitals he expressed the opinion that sooner or later the system which offers to every medical man the opportunity of placing his patients in any hospital he or they may elect, there to treat them with all the freedom of a legally qualified practitioner of medicine, will be adopted. This equality of hospital privilege could not, he considers, fail to work for the general elevation of all concerned. The causes to which he attributes the abuse of medical charity in Chicago are much the same as those which have been held to account for similar conditions in this country; but it should be added that in Chicago at present even the very ineffective precautions by which hospital authorities in this country endeavour to safeguard their portals do not appear to be in general use. Moreover, there is a form of hospital abuse in Chicago which has only just commenced in this country, since patients sent in by corporations of various kinds in return for annual payments are commonly admitted to free treatment so far as the medical staff is concerned.

THE CHURCH RED CROSS BRIGADE.

In an account of the first-aid work in connexion with the recent funeral ceremonies, published elsewhere in this issue, there is a reference to an ambulance organization not yet familiar to most people. It came into being upwards of half a dozen years ago, its official title being the Church Red Cross Brigade for Women and Girls. Its originator and present Commandant, or organizing secretary, is the Rev. T. Milner, and the chief staff-officer, Captain Langford Lloyd, D.S.O., R.A.M.C., who is adjutant of two of the London divisions of the Territorial branch of the Royal Army

[1] *St. Louis Medical Review*, March, 1910.

Medical Corps. The governing council includes H.I.S.H. the Duchess of Teck and Princess Henry of Pless, and the wives of some thirty bishops. Among the members of the executive committee are the late and present directors of the Army Medical Services. The objects of the brigade as officially stated are "to make girls more useful in the home; more valuable to their country; more sympathetic with the suffering; more truly followers of Christ." In some degree the body is a sister organization to the Church Lads' Brigade, except that those admitted are considerably older as a rule, and there is no limit of age in respect of continued membership. The general organization is of military type; each local division is termed "a company" and is in charge of a lady captain, two lady lieutenants, a male adjutant—a man with some knowledge of military and other drill—a chaplain in the person of the vicar of the parish, and of some medical man who is prepared to give his services as lecturer with the designation of surgeon-captain. From the first, courses of instruction in first aid and home nursing were an essential feature, but recently the subject of sanitation has been added, and with the assistance of the medical officers the scientific education afforded is being worked up to a comparatively high standard. In addition the girls meet weekly for musical and other drill. This, from the point of view of their health, is considered to afford most valuable results; most of the young women who belong to the brigade are employed by day in workrooms or offices, and officers of the corps state they often see delicate-looking anaemic girls develop into healthy young women, with manners, deportment, and self-respect correspondingly improved. It is also considered that membership of the corps exercises an abiding moral influence apart from any specific religious instruction, because the girls are led to devote their spare time and energy to work which has for its aim the benefit and help of fellow creatures. The corps, we are informed, has made very rapid progress during the past few years. It now has eight flourishing companies in London parishes, and there are a good number dotted all over the country. Branches are also being formed in Canada and South Africa. The London companies were allowed to contribute a certain number of members to take part in the ambulance work on the day of the funeral, and a representative of the JOURNAL who watched their work came to the conclusion that they did it well. The Brigade has its head quarters at 155, Edgware Road.

MODERN FOOD SUPPLIES.

THE remarkable changes of the latter half of the nineteenth century in the means of communication and transport have enormously altered commercial and industrial relations. Improvements in machinery and vastly increased competition have also made a lasting impression. The appearance of railways, the post office, telephones, sounded the knell of small and local enterprises and prepared the way for gigantic combined industries. A review of these changes as they affect the preparation of foods and foodstuffs has recently been made by Professor Lindet of the National Agronomic Institute of France. Reference is chiefly to French industries, but some of the points are of general interest. In the manufacture of bread, the old millstone, which had done duty for centuries, has since 1884 rapidly been replaced by more efficacious and economical machinery. This has caused the disappearance of the old country mills, and has ensured the production of a much finer flour. In the actual baking of bread there has not been such a noteworthy change; the necessity for the early delivery of fresh bread every morning still enables the local baker to maintain his place. Attempts at wider organization and co-operation have only been to a certain extent successful, but greater progress in this direction may be expected with the cheapening of motor conveyance. In the wine industry similar changes have been effected. Keen competition, bad years, the ravages of vine pests, and the introduction of many chemical novelties, have rendered the old family vintages, famous for centuries in many cases, unable to keep abreast of the times, with the usual result that they have been bought up to form part of larger concerns. With large capital these have been able to meet successfully various emergencies and to apply scientific methods to what has become a national industry. Of more interest to us are the facts with regard to milk, butter, and cheese. The growth of towns has necessitated bringing the larger part of their milk supply from a considerable distance, and has led to the great increase in milk traffic on railways. Two-thirds of the milk supply of Paris is brought in by rail. This has called for elaborate methods of keeping the milk fresh and pure. The establishment of large milk companies has tended largely towards the standardization of the milk supply, for instead of receiving the milk from one or two cows the customer obtains a uniform mixture from thousands of cows, and he has the assurance that it will always be pretty much of the same strength and quality. Private butter-making is giving place to commercial enterprises on a large scale. Butter-making has become such a fine art, involving so many complicated processes, that the individual has been unable to afford the latest improvements in machinery. Much the same applies to the making of cheese, although in both cases certain circumscribed localities and small dairies, with a well-established reputation, are able to maintain their place on the market. The manufacture of margarine and other substitutes for butter has had an important effect on the butter trade, and has led to much legislation with the object of preserving agricultural interests. In France in 1908 the amount of butter substitutes manufactured was more than one-fifth of the amount of butter. The production of sugar, unlike that of butter and cheese, has never been an individual business. It has always involved costly plant and a large number of hands. Even here, however, the tendency for businesses to grow and for smaller ones to be merged in them is very marked. In 1870 there were in France 520 sugar manufactories, each producing an average of 770 tons. To-day there are only half that number, but their average production is four times as great. Such is the movement—gradual, it is true, but none the less certain—which is creeping into our industrial customs, and which owes its initiation to the demand for better and cheaper production. Its future developments will be interesting to witness, and perhaps we may live to see the realization of Robida's facetious scheme for laying on food supplies by means of tube from a great central kitchen.

HUNTER'S FREE-MARTIN.

THE history and etymology of the free-martin was discussed in some paragraphs bearing that heading in the JOURNAL of May 7th, p. 1125. Mention was made of an important monograph on the subject by Dr. Berry Hart.[1] That observer reports the histology of the sexual gland in one of Hunter's specimens. Microscopic sections were made under the direction of Dr. Arthur Keith, the Conservator of the Museum of

[1] The Structure of the Reproductive Organs in the Free-Martin, with a Theory of the Significance of the Abnormality, *Proc. Royal Soc. Edin.*, vol. xxx, Pt. III, 1910.

the College of Surgeons, by permission of the Council of the College, and Dr. Hart examined the slides and made photomicrographs. These specimens, although now nearly a century and a half old, are in perfect preservation, and it is still more remarkable that the microscopical sections, cut in celloidin and stained with logwood and eosin, show even the finer details in a recognizable manner. They have proved that in Hunter's cases the sexual glands are testes, the adjacent structures epididymis, and that the tubuli seminiferi are distinct, although in only one are spermatozoa present. They display the condition usually detected in undescended testes in man and in the normal testis before its complete descent. In none of the sexual glands are ova present. Dr. Berry Hart therefore concludes that the free-martin, when the co-twin is a potent male, is a sterile male and not a sterile female; in other words, the twins are identical males except in their genital tract and secondary sexual characters. In conclusion, Dr. Hart discusses the free-martin according to Mendelian principles, which lead to the same conclusions. The free-martin is a bull, not a cow, and, says Dr. Hart, "the term pseudo-hermaphrodite means nothing."

THE LATE KING EDWARD VII.

THE following reply to the letter of condolence on the death of King Edward VII, addressed to the King and Royal Family by the Chairman of Council in the name of the British Medical Association, has been received:

Home Office,
Whitehall,
24th May, 1910.

Sir,

I am commanded by The King to convey to you hereby His Majesty's thanks for the Loyal and Dutiful Letter of the Council of the British Medical Association, on the occasion of the lamented death of His late Majesty King Edward the Seventh.

I am, Sir,
Your obedient Servant,
WINSTON S. CHURCHILL.

The Chairman of the Council,
British Medical Association,
429, Strand, W.C.

At the Memorial Service for King Edward VII held in Westminster Abbey the British Medical Association was represented by the President, Sir William Whitla, of Belfast, and the Past-President, Dr. Sinclair White, of Sheffield.

THE Croonian Lectures before the Royal College of Physicians of London will be delivered by Dr. F. W. Andrewes on Tuesdays and Thursdays, June 14th, 16th, 21st, and 23rd, at 5 o'clock on each day. The subject of the lectures is, the behaviour of the leucocytes in infection and immunity.

THE annual meeting of the Research Defence Society will be held in the rooms of the Royal Society of Medicine on Friday next, June 3rd, at 5 p.m., the Earl of Cromer in the chair. The speakers will be Sir Douglas Powell, Sir David Bruce, Mr. Anthony Hope Hawkins ("Anthony Hope"), and Mrs. Scharlieb.

A SPECIAL permanent commission has been appointed at the French Ministry of Public Instruction for the preparation of a new edition of the *Codex Medicamentarius*.

IN compliance with the wishes of His Majesty the King, Fleet Surgeon A. R. Bankart, M.V.O., took part in the funeral processions in London and at Windsor. Fleet Surgeon Bankart attended the late King Edward when afloat during the whole of his reign.

General Medical Council.

NOTES.

The Business of the Council.—The first day's session of the Council was distinguished by the business-like brevity of its proceedings. As usual, there was an early adjournment to enable various committees to complete their reports, but the whole of the business on the programme for the day was completed even before the time for adjournment. It is probable that during the greater part of this session the Council will be occupied in the consideration of disciplinary cases.

The Death of King Edward VII.—The President's Address commenced with a tactful allusion to the death of the late King and to his interest in medicine and hygiene, and it was decided to send to King George an address similar to that sent after the death of Queen Victoria.

The Need for Amendment of the Medical and Dentists Acts.—The recent decision of the House of Lords was alluded to as not only weakening the operation of the Dentists Act but also showing the necessity for a reform of the Medical Acts, which at present give rather less protection to man than is afforded by the Veterinary Acts to the lower animals; the door is thus opened to the exercise of endless ingenuity in the adoption of descriptions which shall not fall within the narrow interpretation of the words of the Acts. But there was a ray of hope, also, for the inquiries instituted by the Local Government Board at the instigation of the Privy Council have proved to be more fruitful than was at one time expected. It had been thought that the inquiry as to the prevalence of unqualified practice having been addressed to the medical officers of health, who were not directly in contact with practice might disclose little, and it is an open secret that in some cases only perfunctory answers were, in fact, received. But in other cases an exhaustive inquiry was set on foot, and the replies received are described by the Privy Council as forming "a large body of valuable and important evidence," and such parts as it is deemed expedient to publish will be issued as a Parliamentary paper. It is to be hoped that there will be no undue delay in this publication, which should go far to influence both public and parliamentary opinion with regard to the necessity of more effective legislation. Subsequently Dr. Latimer pointed out that, whilst legislation dealt with the preservation of the public health in such directions as sanitary regulations, factory laws, and in other less direct ways, little was being done to secure adequate protection when disease had necessitated treatment, and he expressed the hope that it might be enacted, amongst other things, that the exact constitution of proprietary medicines should be disclosed upon their labels, so that if people persisted in buying them they would at least know what they were taking.

The Revision of the Medical Register.—Since the last session the revision of the *Medical Register* has been completed, a task of no small magnitude, as the first inquiry involved sending out no less than 37,33 letters, while a second series addressed to those who had not replied to the first numbered 4,922. The final result was that 960 names had to be removed under Section XIV of the Medical Act, 1858, since no communication had been found possible with these individuals. In all probability, however, a large number of them will ultimately come to be restored. Certain arrangements have been made which will facilitate the keeping of the *Register* in a more correct form; the Colonial Office, for instance, has undertaken to furnish annually a list of those in their service, and the Registrars-General for England and Wales and Scotland will be supplied by the Council with copies of the *Register*, and will distribute them to the superintendent registrars of deaths, with instructions that the names of all practitioners signing death certificates in the year shall be looked up; a somewhat different arrangement, but with a similar object, has

een made in respect of Ireland. The net expendi-ıre proved to be surprisingly small, only £164, the ost having been largely defrayed by the fees paid for e-registration by those whose carelessness in replying ad led to confusion.

The Apothecaries' Society of London.—Allusion was also ıade to the bill introduced by the Society of Apothe-aries under which power was sought to grant licences ı various subjects, and to make them registrable, lthough some of them were not registrable when ranted by other bodies. This bill was ruled out by ıe Speaker, who held that the matters it contained ere not appropriate to a private bill. In this con-exion it may be added that in future all bills when rinted will be forwarded to the General Medical ouncil, so that matters occurring in private bills hich may touch the interests of the profession may ot be overlooked.

The Apothecaries' Hall, Dublin.—The appeal of the pothecaries' Hall, Dublin, to the Privy Council with egard to the refusal of the Medical Council to recog-ize its newly instituted preliminary examination was ıet by the reply that the matter did not come within he official cognizance of the Privy Council.

HE BRITISH MEDICAL BENEVOLENT FUND GUILD.

Y the invitation of Sir Alfred and Lady Fripp, a rawing-room meeting was held at their residence in ortland Place on May 25th in support of the Ladies' uild of the British Medical Benevolent Fund. The chair as occupied by Mr. HENRY COSMO BONSOR, Treasurer of uy's Hospital, who described the objects of the Guild, he first of which was to help the Fund by obtaining dditional subscriptions, and the second, to assist its eneficiaries by personal service, and generally to bring id and encouragement to the necessitous families of edical practitioners.

In proposing a resolution pledging the meeting to do its tmost to support these objects, Mr. S. O. BUCKMASTER, .C., paid a notable tribute to the profession. I have lways been of the opinion (he said) that you should udge a profession by the best that it produces; first, ecause it shows what a profession is capable of, and, econdly, because, after all, the standard of the best nen is the standard which the others try to reach. udged by that standard, there is no profession in he world comparable to that of medicine. I have ccompanied great surgeons and physicians when hey have gone round the wards of the hospitals, and have seen how the faces of the patients lighted up as hey passed by. The privilege of giving pleasure is one of he greatest that any profession can possess. Yet, as you vell know, for many medical men the struggle is a hard ne, rendered additionally difficult, and to my mind even errifying, by the fact that, however disheartening the war-are, appearances must always be kept up. At the same ime, while the medical man is keeping a brave face and ccasionally finding it a struggle to pay his butcher's and is baker's bills, his services are at the beck and call of ny one who likes to come and demand them, and he nows that often the payment he is to get, even if it be dequate, will be long, and sometimes indefinitely, post-oned. There are many instances of the work these men an, and do, render free. Think of our great hospitals n London. They are the finest monuments, not only f the philanthropy of our people, but of the public pirit and generosity of the medical men them-elves. Remember the time that they give ungrudgingly o the very poorest. Wherever stress and suffering find a esting-place they are to be found. Their foot is never o fleet as when it ascends the staircase of the oor man's home. Again, remember the work of the loctor in such events as railway accidents. The nearest loctors are sent for as a matter of course. People do not end for the lawyers to make their wills, but they send for he doctors to bind up their bodies. And, save in the rare ases in which the doctor stumbles upon a rich person who as been injured, his work goes practically unrewarded. Moreover, it should not be forgotten that the work of their profession places them hour by hour in close contact with risks which the rest of us shun. Yet they possess no special immunity. They are as liable to contract sickness and to bring it home as any of us. Another instance of heroism which has always appealed to me as being one of the greatest of modern times is that of the *x*-ray martyr. We have been told of one man who lost an arm owing to his work with the rays, and then pursued his beneficent labours with the other limb. When that also failed he was left without aid except in the shape of charity or a Government grant. That example of self-sacrifice, manifested perhaps in a smaller degree and in a different form, is multiplied in the ranks of the medical profession all over the kingdom. I am confident that in appealing to you to use your influence, your energy, your money to promote a cause the object of which is to assist distressed members of the profession and their dependants, I shall not appeal in vain.

The resolution was seconded by Mrs. FINN, of the Distressed Gentlefolks' Aid Association, who said that it was almost necessary to go out into a land where there was no proper medical service in order adequately to appreciate the doctor at home. She and her husband had had the happiness of establishing a hospital in Jerusalem and of bringing competent physicians to that city, which, with its thousands of inhabitants, had not previously a single doctor.

Sir ALFRED FRIPP, in apologizing for the absence of Dean Russell Wakefield and Dr. Arthur Latham, said that when the Guild was initiated last autumn the first appeal was made to the wives of the senior members of the profession, and the meeting that day was in the nature of an appeal to the wives of the junior members. Something also might be done if the successful practitioner would apply to his grateful and wealthy patients. A number of quite voluntary subscriptions had been received merely as a result of sending out invitations to that meeting. One gentleman wrote that he wished to endow a fresh annuity of £20, and had offered to guarantee this sum every year if the British Medical Benevolent Fund would allow the first recipient to be nominated by himself. The reason why he made this condition was because he knew an old doctor whom he wished to benefit for as long as he lived, and at the death of this annuitant the nomination would be in the hands of the Guild. Other subscriptions of two guineas had been received from Mr. Cosmo Bonsor, Mrs. Ronald Greville, Mr. Harold Begbie, and others.

Dr. SAMUEL WEST, in moving a vote of thanks to the Chairman and speakers, said that he did not remember ever having heard the claims of the medical profession to public appreciation put so eloquently as in the speeches of Mr. Buckmaster and Mrs. Finn. This drawing-room meeting was more or less a Guy's meeting. Guy's had always been to the front in work of this kind, but he hoped to see a St. Bartholomew's meeting and a St. Thomas's meeting follow in due course, and, indeed, to see a whole series of hospital drawing-room meetings in support of the Guild. It was not only the senior and the junior members of the profession to whom an appeal might be made—the students might also be asked to help. In the course of his lectures he was in the habit of giving general advice, and he always took the opportunity of urging medical students to perform two essential duties: in the first place, a duty to themselves, to insure their lives as soon as they could afford it; and, in the second place, a duty to their profession, to help systematically some charity which would benefit the less fortunate of their fellow practitioners. The sooner the students got to know of the existence of the Fund and the Guild the better.

The meeting was brought to a close after Lady TWEEDY, the Chairman of the Guild Council, had given some interesting and touching details as to the personal assistance which the Guild had already been able to give. They had found homes without blankets and coals, and the provision of these things had been followed by extraordinary gratitude on the part of the recipients. The personal service which the Guild was called upon to render was very diverse. It ranged from the provision of eye-glasses and ear-trumpets to making arrangements for the emigration of a family.

Sir Alfred and Lady Fripp were warmly thanked for their hospitality.

Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

GLASGOW PRACTITIONERS' WIDOWS AND ORPHANS FUND.

SOME time ago the medical societies of Glasgow appointed a joint committee for the purpose of considering the feasibility of forming a fund for widows and orphans of medical men residing in and around the city. The committee has reported that such a benevolent fund could be successfully inaugurated; it has suggested the following scheme as a basis, and recommends that if it be generally approved, a committee of one member from each society should be appointed to draw up rules and regulations.

1. Members to be medical practitioners of at least three years' standing, in good general health, resident within five miles of the Royal Exchange, and bona fide members of a recognized medical society or association.
2. Annual subscription to be £2 2s., payable on the first day of January each year, and ceasing after fifteen years. Members may, within the first three years of membership, compound for future subscriptions by a single payment, and thus become life members.
3. All payments constituting members for life, and all legacies (unless the testators otherwise direct) to be added to the capital stock of the society, which shall never on any account be diminished.
4. The interest of the capital stock, benefactions, and donations (unless otherwise directed by the donors) and annual subscriptions, to be applicable to the general purposes of the society.
5. Widows of members to be eligible to receive an annuity payable in quarterly instalments. The value of the annuity granted shall be determined by the court of directors after due consideration of annuitant's circumstances, and, at their direction, may be limited so as not to exceed the amount paid in subscriptions by her husband.
6. The court of directors shall have power to give a donation or an annual subscription out of any surplus funds to Epsom College or any similar institution, with the view of securing votes for the election of the sons or orphans of members to the benefits of such institution, or to use the funds of the society in any other way they may see fit to secure the proper education of the orphans of members.
7. The court of directors shall have power to add to a widow's annuity at any time a limited donation, if they find on investigation that her circumstances are necessitous, and if the funds of the society permit.
8. Annuitants shall forfeit their annuities if they marry again, but the court of directors may still assist in the education of the children of the deceased member.

GLASGOW ROYAL HOSPITAL FOR SICK CHILDREN.

A start has now been made with the new buildings for this hospital on the selected site at Yorkhill, and the work will be pushed on with all possible speed. The new hospital, which has been designed by Mr. J. J. Burnett, architect, and Dr. D. J. Mackintosh, superintendent of the Glasgow Western Infirmary, will provide accommodation for 200 children, and will be up to date in every respect. No pains will be spared to ensure the highest efficiency. All the latest advantages and improvements will be included, Mr. Burnett and Dr. Mackintosh having made an extensive tour of the Continent in order to see the most recent buildings of this kind and the systems in vogue before preparing the plans. All the wards will face the south, and all will have flat roofs, which will be utilized as playgrounds for the convalescents. Queen Alexandra recently became a patroness of the hospital.

BROOMHILL HOME, GLASGOW.

The annual sale of work done by patients in the Broomhill Home for Incurables was opened on May 16th by Lady Campbell of Succoth. Sir George T. Beatson, M.D., K.C.B., who presided, referred to the interest of the late King Edward in hospitals and charitable institutions. Such institutions were the practical expressions of the sympathy felt for suffering and distress; he referred to the Lanfine Home for Consumptives—an adjunct of Broomhill—as one of the most powerful factors in the general crusade against tuberculosis.

EDINBURGH ROYAL INFIRMARY RESIDENTS' CLUB.

The annual general meeting of members of the club will take place in the Caledonian Station Hotel Edinburgh, on June 24th, at 7 p.m., and the sixteenth annual dinner will be held at 7.30, when Dr. Byrom Bramwell, the President, will occupy the chair. Members intending to be present must send their names to the Secretary (Mr. Edwin Bramwell, M.B., 24 Walker Street, Edinburgh) on or before June 21st.

Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

POST-GRADUATE CLASSES, DUBLIN.

THE syllabus of annual post-graduate classes in connexion with the Royal College of Surgeons in Ireland has been issued. Two courses will be given, each of about three weeks' duration. The first will begin on June 6th and will terminate on June 28th; the second will begin on September 26th and will end on October 18th. One of the objects of these courses is to render available the whole of the clinical material in the city for the post-graduate student, and in consequence the programme has been framed so as to include lectures and demonstrations at each of the ten general hospitals, as well as at the various hospitals devoted to special cases. Instruction will also be given in operative surgery, anatomy, sanitary science, pathology, and bacteriology, the administration of anaesthetics, and in *x*-ray and light therapeutics. Arrangements have been made with certain hotels to receive members attending the classes at modified rates.

POST-GRADUATE CLASSES, TRINITY COLLEGE, DUBLIN.

The syllabus of the post-graduate classes in connexion with the School of Physic in Ireland has been issued. From the copy which lies before us we observe that, as in former years, there will this year be a summer and an autumn course. The former will begin on June 6th and the latter on September 19th. Each course will last three weeks. The inaugural lecture will be given by Mr. B. G. A. Moynihan, Surgeon to the Leeds Infirmary. By permission of Professor A. F. Dixon the lecture will be given in the large anatomical theatre. It will commence at 4.30 p.m., and will be open to all qualified men. Mr. Moynihan has selected "Dyspepsia" as the subject of his lecture, one which must appeal to all who practise medicine, whether as consultants, specialists, or general practitioners. The course, as a whole, is very much on the same lines as those which proved successful in past years. Instruction will be given in medicine, surgery, and gynaecology, in special subjects, such as skin, ear, throat, nose, eyes, and also in anatomy, physiology, and radiography. A fee of £5 5s. covers all the classes for three weeks. Arrangements have been made by which a limited number of members of the class may reside in college and dine on commons at a charge of £1 1s. per week. Further particulars may be had from the Honorary Secretary, 27, Lower Fitzwilliam Street, Dublin.

ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.

A meeting of the Central Committee was held at the Royal College of Surgeons on May 11th, Dr. Ninian Falkiner in the chair. The following resolution was passed, all standing:

> That the Hon. Secretaries and Acting Secretary be requested to draft an address to King George V on his accession to the throne, and of condolence with him on the death of his father, our late beloved and honoured Sovereign, King Edward VII, who was for nine years patron of this society.

MUNICIPAL WORK BY MEDICAL MEN IN BELFAST.

Councillor Dr. Robert Thomson, Vice-Chairman of the Public Health Committee of Belfast, has been unanimously elected Chairman, in the room of Alderman Dr. King-Kerr, who recently resigned. Dr. Thomson has been a member of the Corporation only for a few years, but has shown an active interest in the work o

the Health Committee, and proved himself well abreast of the times in sanitary matters. Councillor Dr. Andrew Trimble has been appointed Chairman of the Children's Act Committee, which has just come into existence, as a logical outcome of the Children's Act of 1908. Formerly the City Council thought they had done their duty when they had provided their share of the funds for the various institutions to which the magistrates could commit juvenile offenders of both sexes. Now, under the sympathetic guidance of Councillor Trimble, they will endeavour to investigate the causes that lead to the offence, and, as far as their powers will allow, to afford such aid and to take such steps generally as will remove the original trouble. Dr. Trimble has in the past taken great interest in the municipal milk dépôt; and both he and Dr. Thomson in the Public Health Committee may be trusted to take a large and comprehensive view of the responsible duties of their offices, and to carry the profession with them in their efforts for the public welfare. The chairmanship of four municipal committees is now held by medical practitioners; in addition to the two just referred to, Councillor Dr. Henry O'Neill is the energetic Chairman of the Market Committee, and Councillor Dr. Williamson, the trusted Chairman of the Police Committee. The valuable services of Dr. Briars as Chairman of the Poor Law Board of Guardians will also be remembered in Belfast. Members of the profession evidently take their part in the business of the public boards, and their efforts are appreciated and trusted by their lay fellow workers.

England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

WALES.

A Water Scheme.

For some time there has been a serious danger to public health in the Monmouthshire mining valleys owing to the absence of a proper and continuous water supply in dry seasons. The reason is that the colliery workings have in the course of time absorbed practically all the available springs. The Abertillery, Abercarn, Risca, and Mynyddislwyn councils are promoting a bill with the object of supplying the western portion of Monmouthshire with water. The estimated cost of the scheme is £247,000. There is every prospect of the scheme going through; it has been approved by the ratepayers in the localities concerned, and most of the petitions deposited against the bill have been withdrawn. A splendid source has been found in the Grwyne Fawr Valley, not far from Llanthony Abbey. The experience of past years shows that in those cases in which spring water has been utilized for the purposes of water supply, the minimum flow, which fixes the quantity of water capable of being supplied, has been diminishing for years past. Even in the district of Abercarn in recent years the springs have been gradually diminishing, so that in dry times now they have not more than one-half the volume which they formerly possessed, and as time goes on no doubt all these sources of supply which are in proximity to the coal measures will considerably diminish, as an enormous and increasing quantity of water is pumped every day from the coal mines of the district, all of which finds its way from the surface and reduces the supply. Further, even in districts outside the county of Monmouth, such as that of Grwyne Fawr, which it is now proposed partially to secure for the use of the proposed Abertillery and District Water Board, it is by no means certain that the supply will remain available for any lengthy period, as already it has been suggested that it should form a portion of the future source of the water supply of the metropolis. The particular advantages of the Grwyne Fawr stream are that the water is of the purest quality, that it is not plumbo solvent, and that the area is wholly uninhabited. The source is at a sufficiently high elevation to supply every portion of the district. The population of the districts to which the water is to be supplied is likely to increase very considerably, and it is estimated that at the lowest computation the population in Abertillery will be 59,541 in 1921; in Abercarn, 30,305; in Risca, 22,886; and in Mynyddislwyn, that portion supplied by the Risca works, 8,069, making a total of 120,801. The Grwyne Fawr reservoir will have a capacity sufficient for 167 days' supply and compensation water, although from the report made by Mr. Blethyn T. Rees to Viscount Tredegar, as the result of ten years' gauging on the Grwyne Fechan Valley, the adjoining valley to the Grwyne Fawr, 100 days' storage would be ample.

LIVERPOOL.

The Medical Institution and the Death of King Edward.

In consequence of the death of King Edward VII an extraordinary general meeting of the Medical Institution was convened for 5 p.m. on Thursday, May 19th, in order to adopt a loyal address of condolence to King George V; 73 members and Associates were present and several apologies were received from those unable to attend. The President, Dr. T. R. Bradshaw, stated that it was in accordance with the precedent set on the occasion of the death of Queen Victoria of most happy memory that the meeting had been called to give corporate expression to the deep sorrow they felt at the death of King Edward. At the last meeting of the Council a small committee, consisting of the President, the Secretary, and the Ex-President, had been appointed to draw up an address, which was as follows:

To the King's Most Excellent Majesty.

The Members and Associates of the Liverpool Medical Institution desire to record their deep sorrow at the death of their beloved Sovereign, King Edward the Seventh. They desire to express their appreciation of the sympathy which throughout his memorable career he manifested with every movement for the social and physical advancement of his subjects, and more especially with the work of the medical profession, which he showed in a signal manner by graciously consenting to be enrolled among the Fellows of the Royal College of Physicians and of the Royal College of Surgeons.

They respectfully offer to Your Majesty and Your Majesty's Royal Consort, to Her Majesty the Queen Mother, and to the other Members of Your Royal House, their profound sympathy in the loss which you and they, together with the whole British Empire, have sustained, and they beg to assure You of their loyalty and attachment to Your Majesty's Throne and Person.

Dr. A. T. H. Waters, the senior trustee, the senior past-president, and by many years the senior member of the institution, proposed the adoption of the address in an eloquent speech, in the course of which he said that in the presence of a great national calamity, under the shadow of a great national sorrow, when from all parts of the British Empire, from all the nations of Europe, with the reigning families of many of which our Royal Family was connected by ties of blood, and not only so, but from almost every part of the civilized globe, addresses were pouring in testifying to the sorrow caused by the death of our late King, to the appreciation and affection in which he was held, and offering condolences to his bereaved family, it was well that the members of the Medical Institution, representative of the medical profession in Liverpool, should assemble to give expression to their grief on the solemn occasion, to offer their condolences to the bereaved Queen Mother and the other members of the Royal House, and to convey the expression of their loyalty and devotion to His Majesty the King. The speaker said that he had lived in the reigns of five sovereigns, but he had never known an event which had so profoundly stirred the nation as had the death of King Edward VII. The medical profession had not only lost a King, but one of their own members—a man who had always been loyal to the profession and had shown great interest in it. It had been his good fortune to be present at the International Congress of Medicine in London in 1881, the opening meeting of which had been attended by the late King, then Prince

of Wales. The Prince was present also at a dinner given by Sir William Gull, at which the German Crown Prince was a guest. The late King showed his appreciation of another profession closely allied to that of medicine by conferring the Order of Merit on Florence Nightingale. The King was dead, but another King reigned in his stead, and to him and his gracious consort they wished a long, a happy, and a prosperous reign.

Mr. Chauncey Puzey seconded the adoption of the address, which was supported by Mr. Edgar Browne, and carried unanimously in silence.

ASSOCIATION OF PHYSICIANS.

The annual meeting of the Association of Physicians of Great Britain and Ireland will be held in Liverpool on Thursday and Friday, June 2nd and 3rd. The Council of the Medical Institution has granted the use of the building for the daily sessions. Clinical demonstrations will be held in the Royal Infirmary on one day, and the annual dinner will take place at the Adelphi Hotel on June 2nd. A large attendance is expected, and there is a full programme of business.

MANCHESTER AND DISTRICT.

OPTICIANS AND THE MEDICAL PROFESSION.

AN adjourned conference[1] of representatives from optical societies in favour of the establishment of a federation of such organizations was held at the Albion Hotel, Manchester, on May 19th. Mr. J. C. Kidd of Manchester presided, and the societies represented included the Scottish Optical Association, Glasgow Optical Society, Northern Counties Optical Society, West Riding Optical Society, and Manchester and North of England Optical Society. A communication was received from the Midland Optical Society regretting that its representatives could not attend. Since the last conference the eight societies taking part had had under consideration the draft memorandum of federation, and several of them submitted alterations, additions, and emendations to the chief clauses. The conference decided that the name of the new organization should be "The National Federation of Ophthalmic Opticians"; that for the present the head quarters should be in Manchester; that a conference should be held annually at a place to be fixed twelve months ahead; that there should be a council of twelve, four to retire annually; that business meetings should be held quarterly; that the federated societies should pay a fee of 15s. per thirty members, and over that number *pro rata*, individual members to contribute 1s. each year to the funds of the federation, unattached opticians to be eligible on payment of 2s. 6d. annually. It was further decided that members should not be allowed to advertise their connexion with the federation for business purposes. It was decided to include the following subjects in the programme of the federation: To secure or assist to secure a legal status for qualified opticians; the unification of the existing examination schemes—that of the Worshipful Company of Spectacle Makers and the British Optical Association; the establishment of optical classes in all technical institutions in the country according to the most advanced syllabuses for optical examinations; the creation of a defence fund; the abolition of favouritism in dealing with prescriptions at publicly-supported ophthalmic institutions; the position of opticians with school boards in the matter of systematic testing, and especially in regard to unfair statements on advice cards dealing with children's sight; the establishment of a uniform minimum price list; advertising ethics, wholesale retailing, etc. Mr. E. Beaumont, Vice-President of the West Riding Optical Society, who moved the adoption of the clause as to the unification of the examining schemes of the Spectacle Makers' Company and British Optical Association, said that the great stumbling-block to progress had been the existence of this dual examination. If the newly-formed federation was to get the sympathy and support of leading ophthalmic opticians it must take up this matter. He believed also that the Worshipful Company of Spectacle Makers would be prepared to hand over their examination scheme to a properly constituted and responsible body. At any rate since the last conference in Manchester Colonel Sewell had said the company had nothing to lose financially or otherwise by handing over the conduct of its diploma scheme to any properly accredited and responsible organization.

Mr. John A. Adams, President of the Scottish Optical Association, in seconding the proposition, said that he had received letters from opticians not only in Scotland but in England and Wales, which showed how widespread and deep-rooted was the discontent and dissatisfaction at the present state of affairs, and he felt quite sure that the clause for a unification of the existing examination schemes would receive the hearty support of the entire trade. Personally he could testify to the great need there was for such work as the newly formed federation proposed to take up.

The conference elected the following officers to carry on the preliminary work of the federation: President, Mr. J. C. Kidd; Vice-President, Mr. E. Beaumont; Honorary Secretary and Treasurer, Mr. Alf. Hershberg, of Manchester; the provisional Council being the delegates from the federated societies.

[1] BRITISH MEDICAL JOURNAL, April 30th, 1910, p. 1080.

PORTSMOUTH.

AT a meeting of the Committee of the Royal Portsmouth Hospital held on May 19th, the following resolution of sympathy to the Royal Family was passed:

> The Committee of the Royal Portsmouth Hospital feel the most unfeigned grief at the loss which the whole Empire has suffered in the death of His late Majesty, our beloved King Edward. His Majesty was graciously pleased to be patron of the Hospital, and was ever foremost in inspiring and guiding the charity of his people. The Committee desire to express their deep sympathy with Their Majesties the King and Queen, and all the members of the Royal Family in their own personal loss. The Committee welcome His Majesty King George V with the utmost loyalty, and with earnest prayers that the blessing of Almighty God may rest upon him and our Gracious Queen Mary, and that he may long reign over a devoted people.

Sydney.

[*FROM OUR SPECIAL CORRESPONDENT.*]

THE MEDICAL CURRICULUM AT THE SYDNEY UNIVERSITY.

IN his presidential address at the annual meeting of the Sydney University Medical Society Dr. G. M. Barron spoke of the need for some alteration in the Sydney University medical curriculum. He referred to the fact that other universities had been making changes in the direction of shortening the preliminary and intermediate periods and lengthening the period for clinical study. He suggested the desirability of a compulsory examination in experimental physics and chemistry at the matriculation examination, which would enable a student to have some knowledge of the principles of both sciences at the commencement of his university career. Modern ideals demanded that boys should be trained to observe and reason on the operations of the natural forces in the world around them, so that most of those now entering the university had an opportunity of getting a good grounding in these sciences. He then referred to the general opinion prevailing at other universities—that the prolongation of the period devoted to clinical study could only be obtained (without unduly lengthening the curriculum) by a radical change in the method of teaching the preliminary sciences. The University of London had decided that the teaching of physics, biology, chemistry, anatomy, and physiology must be conducted with special regard to the bearing of these subjects upon the special requirements of

the medical student, and Professor Starling had said that from the very beginning of his medical curriculum every scientific subject which a student studied should be considered only in its bearings on his future work as a medical man. Dr. Barron considered that the systematic lecture held too high a place in the curriculum; that while it had its uses in the way of providing a summary of work done or in shaping a course to be followed, in these days of excellent books a systematic course of 100 to 150 lectures on any subject seemed hardly necessary. Above everything, clinical work in the ward and in the hospital laboratories was of paramount importance. Professor Wilson, F.R.S., Professor of Anatomy in the University of Sydney, in moving a vote of thanks for the address, entirely disagreed with the view that from the earliest days students should be constantly led to approach every subject from the point of view of its future utility in practice. The object of the earlier training was to put students in the position of possible clinical observers. The material on which they would feed during the earlier years would have to be used again, but they should observe towards it a disinterested attitude. Knowledge of function should be acquired without any ulterior object, even that for which they were no doubt acquiring the knowledge. It had been said that the kind of young man commercial men wanted was not the one who had studied banking and so on, but the one who had a good sound intelligence. Preliminary training should aim at producing men who would be in a position to turn a sound well-trained mind and judgement to the subjects presented. That did not imply that there should be no science in the schools. It was a paltry school training which neglected the training of the observation, and it was not the acquiring of the facts of chemistry and so on which was important. If further room had to be made for clinical study it must be at the far end of the course. With thirty-three residents' posts waiting for their graduates to give them opportunity for clinical study there was not much to complain about.

COMPULSORY NOTIFICATION OF PULMONARY CONSUMPTION.

Compulsory notification of pulmonary consumption in the City of Sydney was introduced under by-laws of the City Corporation Act at the end of 1904, and in 1905 there were 196 notifications, in 1906 168, in 1907 154, and in 1908 187. When a case is reported in the city, the house is visited and the conditions under which the consumptive patient is living are noted. He is given advice as to what to do—how to treat his sputum, and generally how to avoid the transference of infection to other persons. If the house is dirty, it is cleansed and disinfected. Subsequent visits are paid as often as is considered desirable. When a patient dies or leaves a house, the premises are immediately disinfected. Dr. W. G. Armstrong, the city health officer, reports that the compulsory notification has worked well throughout all the period it has been in force, and that no friction has arisen between medical men and their patients and the department. The Government is now considering the question of making consumption a notifiable disease throughout the State. It is not yet decided whether the powers of local governing bodies should be extended to enable them to deal with consumptives or whether direct legislation dealing with the State as a whole should be passed. Without fresh legislation it is not thought practicable to extend to the whole of the State the law which has hitherto worked so beneficially in the City of Sydney.

OUTBREAK OF SMALL-POX.

On the arrival of the Orient R.M.S. *Otway* at Fremantle last month a suspicious case of illness in a boy in the third class proved to be small-pox. Although the patient had been isolated on the discovery of the illness a few days after leaving Colombo, the infection had already spread to some of the other passengers, and several cases have occurred among the passengers quarantined at Fremantle, Melbourne, and Sydney. The infection has apparently been rather virulent, as some of the cases have been of the haemorrhagic type, and death has resulted in a few hours. On the arrival of the steamer at Sydney she was at once placed in strict quarantine, and over 600 persons were detained at the quarantine station at the North Head. A few days ago one of the seamen, who had been released from quarantine after the ship had been thoroughly disinfected, presented himself at the Sydney Hospital, and he was at once detained as a suspicious case and removed to the quarantine station. The chief quarantine officer, Dr. Ashburton Thompson, states that the suspected case was certainly one of small-pox, but in an exceedingly mild and even abortive form. Immediately upon the detection of the case every precaution was taken, as though it were the disease in a serious form. All the doctors, attendants, and all who came in contact with the patient have had to submit to vaccination. So far no further cases have been recorded. It is now stated that when the *Otway* reached Fremantle on March 22nd, flying the yellow flag, the port medical officer, Dr. Williams, was informed that a case of tropical fever had developed during the voyage from Colombo, but an examination showed the patient to be suffering from small-pox. The authorities, it is said, have decided to institute proceedings against those of the *Otway's* officers who were responsible for the alleged misrepresentation made to Dr. Williams. Summonses will be served on the defendants, and the case is to be heard when the *Otway* reaches Fremantle on April 26th.

Correspondence.

GASTROPTOSIS.

SIR,—In a letter which appeared in the JOURNAL of May 14th, under the title given above, Dr. Scanes-Spicer discusses certain problems relating to visceroptosis, and to the mechanism of respiration. He has been good enough to cite certain inferences drawn by me some seven years ago relating to the cause of visceroptosis. Further observations and the progress of our knowledge has led me to materially modify the statements quoted by Dr. Scanes-Spicer—modifications which I embodied in the article on visceroptosis contributed to the last edition of Allbutt and Rolleston's *System of Medicine*. In true visceroptosis the diaphragm occupies the position of extreme inspiration; its muscular fibres are shortened and contracted, while the muscular fibres of the abdominal wall are elongated and relaxed. In marked cases the diaphragm has reached the limit of its inspiratory descent. There can be no doubt I was in error in inferring that the low position of the abdominal viscera was due to a vitiated action of the respiratory muscles. I therefore agree with Dr. Scanes-Spicer when he states that the condition of visceroptosis is "primarily postural," and not "respiratory." The prolapsed condition of the viscera is due not to a disturbance of the respiratory action of the muscles of the body wall, but to the vitiation of an equally important function—namely, the maintenance and regulation of the intra-abdominal pressure. This, which may be termed the "visceral function" of the muscular parietes, not only plays an important part in regulating the circulatory mechanism, as Dr. Leonard Hill has demonstrated, but serves, especially in orthograde animals like man, to maintain the viscera in position.

By applying the term "postural" to the condition of visceroptosis we are assisted only a little way to a full understanding of its nature and cause. We require a much fuller knowledge of the "visceral function" of the parietal musculature—especially of that complex nerve mechanism which co-ordinates the degree of tone and contraction of the abdominal musculature in relationship to the needs of the abdominal viscera. That the evolution of the orthograde posture was attended by a further elaboration in the reflex mechanism which exists between the viscera and muscles of the body wall in mammals is certain, but as to the anatomical substratum of that mechanism we know almost nothing at present. It is highly probable that the Paccinian corpuscles, which are found so richly distributed in the root of the mesentery and in the subperitoneal tissue in other parts and by the

sides of veins and venous plexuses, are end organs of this mechanism. The cause and probably the cure of visceroptosis will become apparent when this mechanism is better known.

In the investigation of all cases of visceroptosis, and especially of gastroptosis, a determination of the level of the diaphragm is absolutely essential to separate the condition of "true" visceroptosis from a condition of "false" visceroptosis which is due to artificial or pathological deformation of the liver and stomach with dislocation of the kidney. For the estimation of the level of the diaphragm I proposed a line drawn transversely on the body at the notch at the lower end of the sternum. My friend, Professor Wenckebach of Groningen, informs me that he finds the spinal parts of the tenth pair of ribs afford a better standard for estimating the degree of diaphragmatic dislocation than the line proposed by me.—I am, etc.,

Royal College of Surgeons of England, May 20th. ARTHUR KEITH.

DOES GASTROSTAXIS EXIST AS AN INDEPENDENT DISEASE?

SIR,—Dr. C. Bolton's admirable paper in your issue of May 21st should provoke an interesting discussion. He will, however, I hope, forgive me for pointing out that the title he has chosen is a little unfortunate, in that his use of the word "gastrostaxis" is not quite accurate, and rather tends to create unnecessary confusion.

Gastrostaxis, or oozing of blood from gastric mucosa, is merely a symptom that may occur in many diseases, just as epistaxis, or uterostaxis, or enterostaxis may occur in many diseases. To ask, therefore, if "gastrostaxis exists as an independent disease" is almost equivalent to asking if epistaxis exists as an independent disease. Diseases and their symptoms are surely not interchangeable terms. That the confusion created by not distinguishing in this case cause from effect is a real one is shown by the opening paragraphs of Dr. Bolton's paper. He there differentiates, in nomenclature, the oozing of blood from gastric mucosa that may occur in absence of demonstrable ulcer and of any other disease in which bleeding is likely to occur from the oozing that may occur in many conditions of toxaemia. To oozing in the first group he gives the name of "gastrostaxis"; to oozing in the second group he gives the name merely of "haemorrhage." Now, the object of his paper appears to be to show reason for believing that where oozing occurs in the absence of demonstrable ulcer, and in the absence of recognized toxaemic disease, the absence of ulcer is only apparent. Hence, if the term "gastrostaxis" be applied to this group only, the inference is that ulceration is not responsible for the oozing that occurs in the toxaemic group. This suggestion can scarcely be intentional, and, even if it were, could not be maintained until it had been shown that minute ulceration may not occur in cases of the toxaemic group in which the mucous membrane is ostensibly intact.

It is now many years since it was pointed out by Dr. Donald Hood that oozing of blood may take place from gastric mucosa without there being any demonstrable ulcer present to account for its production. The point was taken up also by Dieulafoy in 1898 and later by Dr. Hale White. The word "gastrostaxis" was then coined by Sir Edwin Cooper Perry (on the analogy of "epistaxis"), and if properly used it well describes the phenomenon. Its use was, however, immediately perverted, as I pointed out in December, 1907. The reason for perversion was the undoubted fact that oozing of blood from gastric mucosa may occur, mainly in young women, and may be accompanied or preceded by pain, in the absence of ulcer demonstrable by ordinary methods. This, of course, apart from its occurrence in the demonstrably toxic conditions in which gastrostaxis, or other forms of viscerostaxis, may occur in its purest forms. In order, therefore, to distinguish the apparently peculiar syndrome of oozing and pain without discoverable ulcer from the familiar syndrome so often accompanied by demonstrable ulcer the word "gastrostaxis" was swept from its proper place in medical nomenclature and was quite inadmissibly applied in the sense in which Dr. Bolton uses it.

It is to be hoped that this criticism, which is offered in no spirit of pedantry, will help to check a growing abuse that tends to add needless difficulty to a subject already sufficiently intricate.

To the many excellent points made by Dr. Bolton against acceptance of the view that gastrostaxis, whether accompanied by pain or not, may be symptomatic of a disease not associated with ulcerative lesion, I should like to add one or two remarks.

It is generally assumed that if, on macroscopic inspection, above all in the deadhouse, no ulcer or scar of ulcer be found, there is not, and has not been, an ulcer. Dr. Bolton has sufficiently dealt with the view that macroscopic evidence of the absence of ulcer is, unless the examination be conducted with detailed care, not necessarily of any value in proving absence. Certainly the position of those who maintain that failure to find ulcer is no proof of its absence, since a minute ulcer is easily overlooked, is at present unassailable by those who suggest that gastrostaxis without ulcer may be symptomatic of a distinct clinical entity; but of equal importance with ability or failure to demonstrate the existence of open ulcer is the question of scars. Some gastric and duodenal scars there are which from their nature cannot, on inspection, escape notice. Others there are that require most careful search; but—and here is the crux of the matter as regards acute gastrostaxis—are we sure that ulcers need leave any scar at all—any scar, that is, that the eye unaided by the microscope can detect? There is much suggestive, if indirect, evidence to the contrary. The one characteristic of experimentally produced gastric ulcers in animals is their fugitive nature, also always acute. The same is true of the natural disease in man. A patient with an acute ulcer—often, it may be, missed—either dies, or merges into a chronic stage, or gets rapidly well. Acute ulcer in man, apart from the obvious toxaemias, is a commoner event than is often supposed. Why should acute ulcers of the stomach, single or multiple, which rapidly get well, necessarily leave any scar at all, recognizable by macroscopic methods? If this reasoning be sound, and if it should eventually prove to be the case that wherever there is profuse gastrostaxis there is also a condition of ulceration, minute or gross, we should not always expect to find scars. The position, therefore, of those who think that gastrostaxis may occur without ulceration cannot be strengthened by an appeal to the apparent absence of scar any more than to the apparent absence of ulcer.

Once more, it is assumed by many writers that a chronic gastric or duodenal ulcer is essentially different, as regards its genesis, to an acute ulcer. This view I believe to be wholly erroneous. The fact that chronic ulcers are more often found on inspection to be single than multiple proves nothing. The distinguishing anatomical differences in morphology and site between an acute ulcer and a chronic also prove nothing as regards different genesis. Both in animals and in man multiplicity of acute ulcers, and often of chronic, is a well marked feature, particularly as regards acute ulcers in demonstrable toxaemias. If it be true that a chronic ulcer is merely an unhealed relic of a crop of acute ulcers that have healed, the conception of a clinical entity characterized by gastrostaxis and pain without ulcer becomes still more difficult to sustain. For if all single chronic ulcers be only the remains of an acute multiple outbreak the connecting link between acute gastrostaxis and multiple points of ulceration is greatly strengthened.

At the best, then, it is difficult to see how the view that gastrostaxis is independent of precedent ulceration can at present be more than a matter of speculation. From the argument that the conception is based on incomplete observation there seems to be no escape. Of far greater interest and practical importance, however, than the relation of ulceration to these rare cases of oozing of blood from no readily demonstrable source is the essential cause of ulceration itself. Reflection shows that both haemorrhage and ulceration must almost certainly be only symptoms of a disease of which we know nothing. Till this problem of the initial cause of ulcer be solved energy is wasted on academic issues, particularly as the need for differential treatment of the two conditions in practice very seldom arises.—I am, etc.,

E. C. HORT, F.R.C.P.Edin.,
Assistant Physician to the Italian Hospital.

May 20th.

CANCER OF THE RECTUM.

SIR,—I have read with great interest the contributions that have lately appeared in the JOURNAL on rectal cancer. The paper of Mr. Sampson Handley is one of great importance, for, if the facts as to the spread and infection by the lymphatics which he describes and illustrates are generally true, it would at once make any idea of curing rectal cancer by operation hopeless. I am encouraged, however, by calling to mind the words of the French savant to his pupils when he warned them "that in scientific research, unless they were very careful indeed, they would find what they were looking for."

Mr. Handley in his paper[1] draws very dogmatic conclusions from the single case of Mrs. G. Here the disease was in a common situation—"a finger-length from the anus." The disease, he says, was in "an early stage," only involving a portion of the circumference of the bowel. This is just such a case as we are called to operate upon, and in which, by the sacral route, we feel there is a reasonable chance of permanent success, while by resecting the gut a liberal inch above and below the disease the lower part, including the levatores ani and sphincter, is left intact. In these cases a subsequent operation can be done by joining the two ends and the control made nearly as good as before the operation. I have had some such cases in my practice—one occurs to me at the moment. The patient was brought to me by Dr. Rushworth of Hampstead in 1898. About 4 in. of the rectum were resected by removing part of the sacrum. The ends could not be drawn together, but four years later, the upper segment having by degrees become prolapsed, the ends were united. The result was excellent, and Dr. Rushworth tells me the patient, after eleven years, is still well with perfect control. Now, how could such a successful case occur in the future if Mr. Handley's deductions are correct? He starts his operation with the conviction that, though in an early stage and nothing can be detected by the finger, above the disease the lymphatics are infected. He proceeds to do a most formidable operation by removing a long segment of the bowel "at least 6 in." above the growth, while at the same time he destroys the whole of the bowel below, just the part that would be invaluable when restoring continuity at a future date. Having completed his work, according to his own statement, he has done a perfectly useless operation; for what does he find with the aid of mucicarmine? "Infiltration was found at least 6 in. above the growth and how much further I cannot say," leaving the impression that it certainly extended far beyond his point of section. Indeed, Mr. Handley's observations amount to this, that no matter how clearly defined the border of the growth may be to the finger, however movable the part may be on the surrounding tissues, the "cancer cells" have been carried far and wide along the apparently sound bowel to quite an unknown distance. This renders any local removal hopeless, and since Mr. Handley, after removing 1 ft. of the bowel, found no termination of the disease, even the widest operation might be equally futile.

As Mr. Handley's observations under the microscope are so opposed to my clinical experience, it will be well to point out some of the chief clinical facts that seem to vitiate his theory of wide lymphatic infection as the usual accompaniment in intestinal cancer at an early stage. If "cancer cells" pass and remain arrested along the submucous lymphatic paths, there would be little isles of cancer in the bowel walls, inches if not feet away from the original growth. These, from the very nature of cancer, are bound to develop into nodules and tumours of such a size as to be soon obvious to sight and touch. Yet this is very rarely the case; far more commonly the disease is confined to a single mass as far as the bowel is concerned. It is exceptional to find cancer in any other part of the intestine than at the original site. At this spot will often be found a large mass of disease, several inches in diameter, involving the walls of the bowel and incorporating neighbouring structures into the mass. Nevertheless, the bowel can be seen entering and emerging from this mass in an undiseased condition. If it is slit open the disease will be found spreading along the bowel *pari passu* with the rest of the growth by a clearly marked high border, and this may be taken as the way the cancer advances along the bowel in nine cases out of ten. There is another, though very exceptional, way in which the disease extends, and here Mr. Handley may be right in attributing it to lymphatic infection.

To these cases there is the formation of nodules in advance of the main growth, which gradually coalesce and join the main tumour. Such cases do not amount to more than 5 or 6 per cent., and I have always regarded them as hopeless and unsuitable for any form of operation. Secondary infection of the lumbar and mediastinal glands and of the liver is common enough in a late stage of rectal cancer. The liver is often studded with nodules of secondary growth from the size of a pin's head to an orange; notwithstanding this, the *post-mortem* examination seldom shows evidence of the infection having spread along the bowel to any great distance from the primary growth. Amongst the most favourable cases of freedom from recurrence after removal are those in which a ring of cancer is formed round the bowel, perhaps not more than an inch or two in width. If this be resected with a couple of inches of healthy margin the result is often excellent, and I have followed such cases for years without any recurrence. Would this have been possible if the "cancer cells" had spread "at least 6 in. beyond the disease" at the time of operation?

Then, again, the way in which cancer returns after excision of the rectum is inconsistent with the theory that the bowel is infected 6 in. above the part removed. If this were so, would it not show itself by the appearance of nodules all up the bowel? for if the cancer cells were already there, they would grow and soon show themselves in the infected area. This is not the way the disease recurs. In the first place the recurrence is generally not in the mucous membrane at all, but in the tissue surrounding the part from which the bowel had been removed, especially in the tissues about the sacrum and the base of the bladder. When it does recur in the mucous membrane it mostly does so in the immediate neighbourhood of the cut margin, and not higher up the bowel. I have on several occasions removed small recurrences at the margin with good results, which would not have been possible if the bowel had been infected with cancer cells far higher up. Lastly, the fact that the removal of patches of disease with a margin of not more than 1 in. or so of healthy tissue around is not infrequently followed by a permanent cure, is conclusive evidence that the lymphatics could not have been infected.

Now, seeing that it is contrary to clinical experience to find cancer recurring in long lengths of the bowel above and below the part removed, what evidence does Mr. Handley adduce to support his view that even at an early stage the lymphatics are infected far and wide up and down the intestines? To quote his own words, "mucicarmine staining red affords conclusive proof of cancerous invasion in tissues in which epithelium is normally absent." I have carefully studied in thousands of microscopic sections the appearance of both the growth and the rectal walls in its neighbourhood in cases of rectal cancer. When the glandular structure of Lieberkuhn's follicles with clearly-defined cylindrical cells can be traced extending downwards and extending into the muscular coats, I think we can say with fair certainty that the case is malignant, but if, on the other hand, the follicles instead of growing downwards grow so as to form more or less of a pedunculated tumour standing out in the lumen of the bowel a villous tumour is produced, which, if removed, no matter what its size, together with its pedicle is seldom reproduced, and therefore clinically is not malignant. The cells in the follicles of the villous tumour, both in appearance and in the way they stain, cannot be differentiated from similar cells in undoubted malignant disease. Here we have the same growth which, if extending free into the cavity of the bowel, is innocent, yet when growing downwards into the muscular coats becomes cancerous. The microscope will often decide whether or not the growth has invaded the muscular coats of the bowel, and in this way forms confirmatory evidence as to the nature of the disease.

Without actually seeing the specimen from which Mr. Handley's coloured illustration was taken (BRITISH MEDICAL JOURNAL, April 16th) criticism must be founded on his printed reproduction. No illustration of the growth itself is given; only a section of the bowel 6 in. above it.

[1] BRITISH MEDICAL JOURNAL, April 16th.

Little bodies, stained red, appear by their regularity and circular or oval shape to be channels cut in sections containing mucoid cells of some kind. Some of these might do for the extended base of a Lieberkuhn's follicle set a little deeper than its neighbours, or more probably, as the author states, they are vessels of some sort cut in section. What strikes one most is their regularity and their general uniformity in size, suggesting much more a natural condition than points of malignant disease. If these were really centres of malignant disease, did they all appear there at the same date? If not, one would have expected some to be tiny points and others considerable masses of growth.

I know only too well the extreme difficulty of readily interpreting the nature of cells in the intestinal walls, especially in the lymphatic passages. They vary according to whether the animal has been fed or starved, and probably from a variety of other causes. To clearly prove that such appearances are only found in the intestines of the cancerous would require a large number of control sections in healthy intestines under varying conditions. Even supposing that the appearance indicated was only found in patients who had cancer, it would not prove that they were cancer cells in the sense that they would develop into malignant growths. Very similar cells are found in intracystic papillomatous tumours of the ovary, where they display no malignancy until they have burst through the containing walls of the cyst, when once having done so they may quickly infect all the neighbouring tissues.

I venture upon this somewhat lengthy criticism of Mr. Handley's paper because statements made by so careful an observer are sure to have their influence in the practice of surgery, and might prove disastrous in the treatment of rectal cancer.

At present excision of portions of the rectum in properly selected cases has proved of great benefit, and led to a fair amount of permanent success. I define properly selected cases to be those in which the extent of the growth is moderate, and where the limits can be clearly ascertained by the finger, or, if high up, by intra-abdominal exploration; above all, those in which the bowel remains movable upon the surrounding tissue. In such cases, though, of course, no surgeon can promise a permanent cure in any particular instance, yet he may hope for it, knowing that it is possible in a fair number of instances. The risk to life when the bowel is still fairly movable and no extreme length involved is small, and is well worth running; but if the doctrine be accepted that with a comparatively small patch of cancer in an early stage the lymphatics are so involved that the anus, and perhaps a foot or more of the bowel, must be removed, then the operation becomes severe and risky, with but a small chance of getting beyond the infected lymphatics. Under these circumstances no practitioner would advise an operation for his patient, and the result would be that many patients would lose the advantages of an operation which, if it had been performed at an early stage, might have ended in a permanent cure.

To bring conviction that lymphatic infection, as described by Mr. Handley, is generally, or even commonly, present in rectal cancer requires far stronger proof than he has at present adduced, and I trust surgeons will hesitate before adopting this view. Every surgeon dealing with rectal cancer must be prepared occasionally to do severe and hazardous operations either by the sacral or intra-abdominal route, but I hope it will never become the practice to perform these dangerous operations when the patch of disease is small and limited. To do so would be to sacrifice sound clinical surgery to a doubtful pathological theory.—I am, etc.,

London, W., May 14th. HARRISON CRIPPS.

THE SURGICAL TREATMENT OF GLYCOSURIA.

SIR,—Dr. Chalmers Watson in his letter of May 14th rather misses the main point which I wished to emphasize in my paper—namely, that by the early recognition and treatment of functional disorders of the pancreas, whether associated with glycosuria or not, the onset of true diabetes may be averted in many cases.

With regard to the diagnostic value of the pancreatic reaction in cases of glycosuria I can only speak from my own clinical observations, which have shown that if the tests are personally carried out by a reliable pathologist who has had special experience in these analytical methods and their interpretation, they afford considerable assistance in determining the cases that are likely to benefit by operation.—I am, etc.,

London, W., May 19th. A. W. MAYO ROBSON.

SIR,—I cannot agree with the statement made by Dr. Chalmers Watson in his letter of May 14th that "the pancreatic reaction has no special value in cases of glycosuria," for I find that, if the test is carefully and correctly carried out,[1] a positive reaction is only obtained in cases where it is probable that the glycosuria is associated with active degenerative changes of an inflammatory character in the pancreas.

In my last series of 100 cases of glycosuria a negative reaction was obtained in 31 and a positive result in 69. My experiments upon animals[2] have also shown that a positive reaction is not necessarily given even when the urine contains a large amount of sugar.

I readily admit that the test is a laborious one, and I find that careful attention to details throughout is essential for success. It is, therefore, not an ideal method for routine work. I have for some time been experimenting with a view to improving it, and I am now, as a result, working with an entirely new process, in which the slow and clumsy fermentation stage is eliminated. The results so far have agreed very closely with those obtained by the fermentation method, which has been carried out at the same time, but the new test can be completed within the space of a few hours. I have had several opportunities of controlling the results at operation and *post-mortem* examinations, but until I accumulate a larger body of evidence I am content to "wait and see." My object in mentioning this method now is to show that in my experience the results of the fermentation test are confirmed by another and altogether different process, and that I find it to be of distinct value in the diagnosis and prognosis of cases of glycosuria.—I am, etc,

London, W., May 19th. P. J. CAMMIDGE.

LEAD POISONING, GOUT, AND GRANULAR KIDNEY.

SIR,—The article on lead poisoning by Dr. Prendergast in your issue of May 14th gives me the opportunity of shortly stating my experience of the connexion between plumbism and gout.

I have long been familiar with the views of Sir Thomas Oliver, that the relationship between lead and gout is rare, and this is again expressed by him in the present article, in which he says: "We do not see gout associated with lead here [Newcastle-on-Tyne], except on the rarest occasions." From a wide experience of lead poisoning in the Manchester district during the last thirty years I have always been surprised at this infrequency of gout in plumbism at Newcastle-on-Tyne, and now Dr. Prendergast's experience in the Potteries is similar, and he says: "I am not a believer in Garrod's theory [that lead poisoning is productive of gout]. Out of my 405 cases I found only 4 afflicted with gout"; and further, that neither he nor Sir Thomas Oliver have even seen gout in a female lead worker.

I cannot say how many cases of gout I have seen in lead poisoning, but putting the problem in another form, I can safely say that of cases of gout occurring in the working classes in the Manchester district, *at least* 25 per cent. have a history of lead poisoning, or, in other words, that lead is an antecedent in these cases. It may not be the only antecedent, but with a percentage so high as this it surely ought to be thoroughly understood and accepted generally that there is a strong connexion between plumbism and gout. This is to me a fact of the greatest importance, not only for diagnosis, for treatment, both preventive and curative, but also in medico-legal work, especially in compensation cases.

I have certainly rarely seen lead gout in women (but gout with any causation is not so common in women as in men), yet recently I saw a very typical case of gout of the left hand in a woman who worked with pottery glaze, and who showed other typical signs of lead poisoning.

[1] *Surgery, Gynaecology, and Obstetrics*, January, 1908.
[2] *Proc. Roy. Soc.*, B. 81, 1909; *Proc. Roy. Soc. Med.*, February, 1910.

While writing on this subject, I should like to mention another point about the after-results of lead poisoning. We all know its effect in producing the granular kidney with its resulting circulatory effects. During the last few years I have frequently obtained in many cases of the late stages of granular kidney with the typical dilated and hypertrophied heart, the cardiac asthma, the swollen feet, and the large amount of albuminuria, a history of lead poisoning which had occurred very many years ago, and which the patient had either forgotten or knew little about until closely questioned. For instance, two chemists with granular kidneys who had, some twenty or twenty-five years before I saw them, suffered from lead poisoning in the course of their work, in one instance for some weeks only, and in the other for some months. In several other cases I have elicited from builders or contractors who had by degrees risen from humble positions that when labouring men many years before they had worked amongst lead, and had suffered from acute symptoms of lead poisoning; all symptoms of plumbism had disappeared except the action on the kidneys, which had gone on in spite of freedom from lead contamination, and had gradually produced the typical and fatal circulatory and uraemic symptoms.—I am, etc.,

Manchester, May 23rd. ERNEST S. REYNOLDS.

SICKNESS AND INVALIDITY INSURANCE.

SIR,—I welcome Dr. Taylor's letter (BRITISH MEDICAL JOURNAL, May 21st, p. 1265) as a most valuable contribution to the discussion of this subject, and although I cannot quite agree with his criticism of my proposals (as stated in the JOURNAL of May 7th), I believe we are narrowing down the issue very considerably and approaching a *modus vivendi*. Dr. Taylor has not quite grasped my suggestion with regard to the "deposit system." He says:

> The deposit system of the National Deposit Friendly Society is satisfactory only for short illnesses, and would utterly fail to meet insurance requirements if a long illness or invalidity occurred, seeing that when a member's private deposit was exhausted he would lose all claim for further medical attendance. What would then happen?

I did not propose to copy the National Deposit Friendly Society's scheme *in toto*, merely to utilize the idea of a deposit as giving the insured an interest in keeping well, in expediting his recovery when ill, and in keeping down unnecessary visits. Under any scheme of national sickness and invalidity insurance some safeguards in these directions are, to my mind, necessary, and I have so far met with no better or more practicable scheme.

To state again my proposal: It is that from the contributions made by the insurer (or worker) half should go to the general insurance fund and half be ear-marked as a private deposit account, which, in event of the insurer not requiring to draw for sickness, will steadily accumulate. When it reaches a certain amount the depositor may draw upon the excess for certain capital purposes, or it may go as an extra old age pension. When the insurer is ill half, or some other fair proportion, of the charges are paid out of the deposit account, and the remainder from the general fund. When the fund is exhausted the deposit fund becomes a deficit, and a certain proportion is entered against the insurer. This deficit must be repaid before any fresh accumulation can occur. If thought necessary, a limit might be placed to the amount of the deficit allowed. Beyond this the patient would have to be handed over to the Poor Law medical service proper. There are certainly limits to be recognized to the elasticity of any insurance scheme, and although as a profession we may have every wish to help the State towards providing a workable scheme, it is unfair to ask us to take upon ourselves the whole burden of the medical treatment of chronic destitute patients at a purely nominal yearly fee. Special provision could, of course, be made for many of these cases—for example, phthisis, cancer, chronic Bright's and chronic heart disease, and so on—in special institutions, homes, sanatoriums, colonies, etc., but at present they belong largely to "the great unpaid," and if we are not careful they are likely to remain so.

Turning to Dr. Taylor's scheme of a capitation fee of 10s. a year for each insured, whether well or ill, pooling the funds, and paying the medical men according to work done, the only practical difference between this scheme and mine is that the insurer "names" his medical man at the beginning of each year. I foresee great objection to this, and it certainly lends itself to touting and corruption, all the worse because it would be underhand. Personally, I should not like to feel that my 10s. a year capitation fees for non-patients (that is, only *possible* patients) were dependent upon the caprice of these individuals, with whom it would be constantly necessary to curry favour. I see no reason for this. The capitation fee could be paid to the central fund just the same, and the fees paid out according to work done, and the choice of medical attendant given to each patient for each illness. Whether a capitation fee of 10s. a year would yield sufficient, and whether even that would be paid, is, of course, open to question.

We are, I believe, agreed about most other points. I would certainly rather not have a "reducing fee" for extra visits, but if it is insisted upon by the powers that be, I for one should be prepared to meet them, although it would certainly be "doing something for nothing."

I am quite one with Dr. Milligan in being absolutely opposed to a contract practice scheme, even such as has been outlined by the Association, and in preferring an out-and-out State medical service with salaried officers (providing the salaries shall be adequate). A State medical officer is responsible to his superiors and the heads of his department, but a medical man under a contract practice system—even at 10s. a head—is the *slave* of his actual and potential patients: he cannot call a moment his own; in fact he is sold, body and soul, for a mere pittance, and medical practice under such circumstances is intolerable to any man of spirit or independence. I am firmly persuaded, however, that a practicable scheme of sickness and invalidity insurance is possible without invoking such contract practice methods; and the sooner we evolve such a scheme and agree as to its essential outlines the better for us all and for the success of a State sickness and invalidity insurance in this country.—I am, etc.,

Bowdon, May 23rd. P. R. COOPER.

AUSCULTATORY FRICTION.

SIR,—For the past ten or twelve years, and perhaps longer, I have been teaching the value of auscultatory percussion and friction in all the instances mentioned by Mr. H. H. Brown in his Memorandum in the JOURNAL of May 14th, and I have constantly demonstrated this method of examination of solid organs to the classes on physical diagnosis at the London Polyclinic. The method is certainly little known and still less practised, but to some of us it is not new. I have for many years used this method to demonstrate the line of division between the lobes of the lung, which can easily be mapped out by auscultatory percussion. This, I think, may be new to many who have practised auscultatory percussion and friction on other organs.—I am, etc.,

London, W., May 18th. J. EDWARD SQUIRE.

SIR,—Until I read last week's JOURNAL I was under the impression that this diagnostic method was neither remarkable, nor recently invented, nor less widely known than any other. I now learn that it was "discovered" in 1898 by a contributor to the JOURNAL. I had imagined that I acquired my knowledge of it and other diagnostic aids during my student days from the clinical tutors at Edinburgh University. This much is certain, however, that it was discovered before 1898, for I have a very distinct recollection of this diagnostic method being used at a demonstration of the use of the new phonendoscope one morning at Jullien's clinic at the St. Lazare in the spring of 1896. The phonendoscope was fitted with multiple tubes, so that several persons could hear simultaneously through one instrument the sounds produced, and the various organs were pencilled out by the demonstrator at the direction of us who were listening to the sound of his stroking finger.

I did not gather that the inventors of the phonendoscope laid claim to the discovery of auscultatory friction, but only to the increased accuracy and facility of the method, though such an interpretation might be given to the

following extract from the circular enclosed with the instrument which I bought in 1896:

Determining the outlines of the organs is not done by percussion, but by passing the forefinger with slight pressure over the organ in question, pressing during this manipulation the phonendoscope with the small stick against the organ.

I do not remember that it struck me at the time as a new method, and my impression now is, as I have said, that I heard of it in my student days, but, at any rate, the method was common property before 1898, the date of its "original discovery" by Dr. Pearson.

I enclose the printed circular referred to.—I am, etc.,

Bristol, May 21st. HARRY GREY, M.D.

SIR,—In the JOURNAL of May 21st Dr. Allan C. Pearson claims to be the discoverer of auscultatory friction. If he had looked into the literature he would have found, like Dr. H. H. Brown, that the method had been introduced and practised some years before his paper appeared, as Henschen described auscultatory percussion in 1887, and Bianchi auscultatory friction in 1896. I believe, indeed, that both methods were in use at still earlier dates.

It is, however, of little importance to decide who invented these methods, as both have been found to be utterly fallacious. Moritz[1] and de la Camp[2], among others, have shown by means of orthodiagraphy, which is the only method giving absolutely accurate results, that the outline of the heart obtained by auscultatory friction is not even approximately correct.

I have proved the same thing for both auscultatory percussion and auscultatory friction in the case of the stomach and colon. On many occasions I have marked out the supposed position of the stomach by these methods after a bismuth meal had been given, and have obtained a quite definite outline, which was identical with that obtained at the same time by other observers. On now looking at the stomach with the *x* rays it was found that in no case did the outline obtained by auscultatory percussion or auscultatory friction show any resemblance to the true shape. Often the "stomach" marked out by these methods barely overlapped the position it really occupied.

Why such definite areas can be marked out by these methods I do not know, although the investigations of Moritz[3] have thrown some light on this subject. But there cannot be the slightest doubt that the methods are quite valueless. It is therefore a matter of congratulation rather than of wonder that they are "not taught in the medical schools" and have "not been described in any of the recent textbooks."—I am, etc.,

London, W., May 23rd ARTHUR F. HERTZ.

A NEW ASPECT OF THE EFFECTS OF BORIC ACID.

SIR,—In his recent letter (p. 1146) Dr. Grünbaum comments on an article of mine on the above subject, and cavils at the use of the words "entirely new aspect."

I was pleased to learn that my observations had been forestalled by Dr. Grünbaum, and more especially so as these had been adversely criticized by a leading metropolitan doyen of bacteriology. I had also discussed the question with other bacteriologists and hygienists, who agreed that if the deductions were correct the subject was of sufficient importance to be followed up, and regarded it as a novel idea.

It is a pity, therefore, that Dr. Grünbaum's opinions should have been published as a general observation in a few lines, which he quotes in their entirety, hidden away in a discussion on food preservatives in general, and with no evidence, experimental or otherwise, in support. Had it been more widely known I think that it would have done much good during the last ten years.

Whilst regretting, therefore, the use of the words "entirely new aspect," I am now of the opinion that Dr. Grünbaum's remarks enhance the value and importance of my small contribution on food preservatives.—I am, etc.,

London, W., May 23rd. JULIUS BERNSTEIN.

[1] *Muench. med. Woch.*, 1, 1333, 1903.
[2] *Kongr. f. inn. Med.*, 1904.
[3] Loc. cit.

The Services.

SECOND HOME FIELD AMBULANCE, R.A.M.C.

THE annual distribution of prizes to members of the 2nd Home Counties Field Ambulance took place at Canterbury on May 7th. The occasion took the form of a conversazione, the proceedings throughout being most enjoyable. Major A. R. Henchley presided, and was immediately supported by the Mayor of Canterbury, Surgeon-General Gubbins (Director-General of the Army Medical Service), Sir Somers Vine, C.M.G., Captain G. M. Kingsford, Captain Hamilton, Captain Emerson, Dr. Drake, Lieutenants Willan and Dundas, and Rev. J. Le Mare Shallis (chaplain). There was a very large attendance. In a short speech before presentation of the prizes, Major Henchley said they in the R.A.M.C. in Canterbury were in the happy position of being up to establishment in non-commissioned officers as well as men, and very nearly so in regard to officers, and not only that, but they had been so since the completion of the first year of the Territorial Force right up to the present day. That was a happy circumstance, of which he felt the city should be distinctly proud. In Canterbury they were distinctly proud, not only of the numbers, but of the quality of their men. The Territorial Forces were up to a standard of efficiency which the voluntary movement in England had never known before. Surgeon-General Gubbins, who distributed the prizes, alluded to the distinguished military history of the county of Kent. The Territorial scheme was a vast improvement and a great stride in advance of anything that they had previously had. The weak point of the old Volunteer movement was that there was no medical organization, but now all that had been altered, and the medical units were part and parcel of every division in the country. With regard to the men of the St. John Ambulance, the Surgeon-General said that during the time of the war he was instrumental in getting them into touch with the War Office. They estimated that about 200 men would be forthcoming, instead of which during that war there were no less than 1,900 who went out to the front, and, after a little licking into shape, he could not have wished for better men. Sir Somers Vine proposed a cordial vote of thanks to the Chairman, which was seconded by Captain Hamilton. The Mayor of Canterbury, in putting the resolution of thanks, said, as a member of the Kent Territorial Committee, he honestly believed that the success of that particular unit was mainly due to Major Henchley. They in Canterbury were grateful to him for what he had done, because in doing that great work for the city he was forwarding still larger work for the country and the empire. The resolution was unanimously carried, and Major Henchley briefly acknowledged the compliment.

Medico-Legal.

UNDERTAKINGS TO PAY FEES.

AT the Lambeth County Court on May 12th a medical man claimed payment by the London Electricity Supply Corporation of some £96, fees due for attendance on a person injured while carrying out a subcontract with the defendant company. This person, by coming into contact with a live wire, received a wound in the side some 16 in. long, dividing the muscles as well as the skin. The plaintiff, after affording him first-aid treatment when brought to his house, suggested that he should be taken to a hospital. The wounded man refusing, he was taken to his own house, where a nurse was secured and the patient treated by the plaintiff in the belief that the defendant company through its local superintendent had undertaken to pay all charges. The same superintendent had some years previously given the medical man concerned in this case instructions to treat another injured employee of the company, and that bill was paid. Another medical man who had assisted in the case and was present at a conversation between the superintendent and the plaintiff, gave evidence that the superintendent told the plaintiff to do everything possible, and that the company would be responsible for fees. On behalf of the defendant it was denied that the superintendent had any authority to retain a doctor for the company, and the superintendent denied having done so. The case ended in the action being dismissed with costs.

In delivering judgement the county court judge stated that the case was an unfortunate lesson for medical men, as it would make them careful as to what attention they gave to an urgent case. Possibly, he added some explanation of his reasons for ruling in favour of the defendant company despite the well-known readiness with which undertakings to be responsible for payment are given in such circumstances, but if so they are not reported in the *South London Press*, from which our information is derived. The evidence of the injured man himself was apparently not available, because the final outcome of his injury would seem to have been the development of insanity.

CLAIM ON EXECUTORS.

A CORRESPONDENT writes that a few months ago he sent in an account to the executors of a patient whom he had attended during his last illness, and that he had received a letter from a solicitor saying that the deceased's estate was not sufficient

to pay his debts, and that his creditors would not receive more than 5s. in the pound. He wishes to know whether his account for medical attendance would not count as a preference debt.

*** Our correspondent can only claim with the other creditors, and is not legally entitled to any preference.

MIDWIVES ACT.

PAYMENT OF MEDICAL MEN SUMMONED TO ASSIST MIDWIVES.

N. K. writes that since the clause in the Midwives Act forbidding unregistered midwives to practise has come into force, certain poorly-paid labourers have been compelled to have recourse to the parish to obtain attendance for their wives in the confinements, and he wishes to know: (1) What is his position, if called upon to attend one of these as district medical officer, when the guardians have declined to allow the relieving officer to grant a medical order for this attendance? (2) To what authority he ought to apply for a fee when called in by a certified midwife to attend a lying-in woman in an abnormal case?

*** (1) If he is aware that an application for an order has been made, it is open to him to see the relieving officer, and to inform him that unless the order is granted he will refuse to attend, and thus to throw the responsibility on that official, who cannot shelter himself behind the directions of his board. (2) The Departmental Committee of the Privy Council recommended legislation, whereby a fee would be guaranteed to a practitioner called in by a certified midwife, and this recommendation is embodied in the Midwives Bill, 1910, the text of which was published in the SUPPLEMENT to the JOURNAL of April 9th, 1910, p. 160; but at the present time no fee can be recovered from the guardians or other local authority unless they have notified their willingness to pay one.

Medico-Ethical.

The advice given in this column for the assistance of members is based on medico-ethical principles generally recognized by the profession, but must not be taken as representing direct findings of the Central Ethical Committee, except when so stated.

THE COURTESY CALL.

POOZLER ought to call on his senior colleague as soon as possible and show his desire to be friendly.

PROFESSIONAL CHARGES TO MEDICAL MEN.

R. C. M.—There is no ethical rule against charging brother practitioners for professional services. It is a generous custom not to do so, but each case must be considered on its merits, and in the circumstances stated reasonable charges ought not to be objected to by the executors.

ALLEGED MISAPPROPRIATION OF FEES.

HONOUR WITHIN THE PROFESSION states a case which is more suitable for the law courts than for the Ethical Committee of his Branch. We should advise him to refer the matter to the medical defence society of which he is a member. If he has not joined such a society his best course would be to consult a solicitor.

DOCTORS' RELATIVES AND PROFESSIONAL RELATIONS.

T. L. A.—We see nothing unethical in the sister of a medical practitioner being the secretary to a nursing association of which two other doctors are vice-presidents. Whether it is "discreet" may depend upon circumstances, but although the situation may not be free from difficulty it is by no means impossible.

MEDICAL OFFICERS OF HEALTH AND PRIVATE PRACTITIONERS.

ENQUIRER.—We are not prepared to say that a practitioner would be "perfectly justified in trying to have removed from his office" a medical officer of health who "used his position to obtain patients," but we agree that such conduct is not "fair play." The case is eminently suitable to be brought before the local Division of the Association.

THE RELATIONS OF MEDICAL PRACTITIONERS TO DISTRICT NURSES.

ENQUIRER is advised to associate himself with the committee by subscribing to the fund and by showing his willingness to co-operate in its work. He will then be in a position to obtain reasonable reforms. A nurse is not competent to diagnose or treat "influenza, diarrhoea, carbuncle, miscarriage," and the like, and must need medical supervision and control.

Public Health AND POOR LAW MEDICAL SERVICES.

THE SPREAD OF MEASLES BY POST OFFICE OFFICIALS.

THE Medical Officer of Health of the Brixham Urban District, Dr. G. B. Elliott, has recently reported to the Brixham District Council on the action of the Post Office authorities with regard to measles. He narrates the circumstances of a postman whom, his wife being ill with measles, the postmaster was advised to take off duty. It subsequently transpired that the rule of the Post Office is that no employee can be absent from duty on account of his coming from a household infected with measles. Dr. Elliott considers that a postman whose clothing is infected with measles germs is a kind of peripatetic incubator on a wet day, when he is wearing his regulation oilskin cape, and the recipients of letters no doubt receive their quota of germs. He hopes that public opinion may be aroused on the matter, so that the postal authorities will be compelled to alter their regulations and adopt a more common-sense and less dangerous practice.

VENTILATION ASSISTED BY ELECTRICITY.

IT has long been recognized that ventilation may be assisted and inequalities of temperature in a room may be prevented by suitably warming the incoming fresh air. Various devices having this end in view have been more or less successfully adopted. Among the latest is one which has been introduced by the Westminster Electric Supply Corporation. It consists essentially of a small electric radiator placed within a Tobin's tube. In a few moments the incoming air can be raised to a desired standard. This same principle might be adopted in connexion with methods of ventilation other than by means of Tobin's tubes by the insertion of an electric radiator within the main conduit for the supply of fresh air to a building. The system has not been patented, and can be carried out by any electrical engineering firm, and as there are no royalties or fees connected with it the cost should not be great.

DISINFECTION AFTER SCARLET FEVER.

DUBITANS.—It is usual to carry out complete disinfection of the room or rooms which have been occupied by a scarlet fever or diphtheria patient who has been removed to an isolation hospital.

MEDICAL OFFICERS OF HEALTH AND INFECTIOUS DISEASES IN SCHOOLS.

M.O.H. inquires: (1) If during a severe epidemic of scarlet fever it is the duty of a medical officer of health to receive daily reports from the public elementary schools giving the names and addresses of all absentees, to visit and examine the absentees at their homes, and occasionally to examine suspected cases in the schools. (2) If it is competent for a sanitary authority to require a medical officer of health to attend weekly a special sanitary committee meeting during an epidemic.

*** (1) In the latest memorandum issued by the Local Government Board upon public health administration for the prevention of the spread of infectious disease among children attending public elementary schools, Dr. Newsholme and Dr. Newman state that in the control of notifiable diseases action must start with the medical officer of health. Article 18 (2) of the Order of the Local Government Board of March 23rd, 1891, states that it is the duty of the medical officer of health "to inquire into and ascertain by such means as are at his disposal the causes, origin, and distribution of diseases within his district," and with this object in view he will regard each case of notified disease as possibly connected with other cases of the same disease, which, owing to their mildness or the absence of some of the characteristic symptoms, have been overlooked. The investigation of such missed cases is indispensable to effective administration. A portion of this investigation may need to be taken at the patient's home; it is incomplete, unless an equally thorough inquiry has been made into the condition of the children who have been in contact at school with the scholar who has fallen ill. This inquiry should be shared by the medical officer of health and the school medical officer, if these offices are not held by the same official. (2) If the circumstances are sufficiently grave to warrant the holding of weekly meetings of a sanitary committee, it is most desirable that the medical officer of health should be in attendance at such meetings.

Universities and Colleges.

UNIVERSITY OF OXFORD.

Diploma in Ophthalmology.

NOTICE has been given that the examination for the Diploma in Ophthalmogy will be on July 19th, 20th, and 21st, and not as previously advertised.

Appointments.

The following appointments have been made: Mr. Harold Scurfield, M.D., D.P.H., to be an Examiner for the Diploma in Public Health, and Mr. E. Treacher Collins, F.R.C.S., and Mr. John B. Lawford, F.R.C.S., to be Examiners for the Diploma in Ophthalmology.

Changes in Regulations.

The following change in the regulations relating to the examination for the degree of B.M., B.Ch. will come into effect in Michaelmas Term, 1910: Instead of the certificate hitherto required, a certificate will be required signed by the medical officer of a lying-in hospital or the lying-in wards of a general hospital, showing that the candidate has *either* (1) regularly attended the indoor practice of a lying-in hospital or the lying-in wards of a general hospital for a period of three months; and after having received therein practical instruction in the conduct of labour, under the personal supervision of the medical officer, has conducted twenty cases of labour under official medical supervision; *or* (2) given daily attention during one month upon the indoor practice of a lying-in hospital or the lying-in wards of a general hospital, and has therein conducted cases under the personal supervision of a medical officer of the hospital, by whom, having been adjudged competent, he has been authorized to attend, and has attended, not less than twenty cases of labour under official medical supervision. To the medical officer who signs this certificate the candidate must produce evidence that, prior to the course certified, he has acted as surgical dresser for six months, and has acted as clinical medical clerk for a like period, and has attended a course of instruction in midwifery.

UNIVERSITY OF CAMBRIDGE.

THE next examination for medical and surgical degrees will take place on the following dates:

Third M.B.: Part I (Pharmacology and General Pathology), June 15th to June 18th; Part II (Surgery, Medicine, and Midwifery), June 18th to June 25th.

M.C., June 18th to June 21st.

The certificates and fees of candidates must be sent to the Registrar on or before June 10th.

UNIVERSITY OF EDINBURGH.

UNIVERSITY COURT.

Resignation and Appointments.

AT the meeting of the University Court on May 16th, a letter from Dr. T. S. Clouston was read intimating his resignation as a University Lecturer on Mental Diseases as from the end of the current summer session. In accepting the resignation, the Court resolved to record in their minutes their sense of the valuable services rendered by Dr. Clouston to the university. Dr. George M. Robertson was reappointed University Lecturer on Mental Diseases, and Dr. George Mackay on Diseases of the Eye. Mr. David Wallace, M.B., F.R.C.S.E., C.M.G., was appointed a University Lecturer on Clinical Surgery, Dr. James Haig Ferguson was appointed additional Examiner in Gynaecology, and Professor Hugh Marshall was appointed additional examiner in connexion with theses submitted for the degree of D.Sc.

Grants for Research.

Grants recommended by the Senatus from the Earl of Moray Endowment for the promotion of original research were approved.

Recognition of Teachers.

Dr. P. G. Gundry and Dr. D. du T. Malherbe, Transvaal University College, Pretoria, were recognized as extra academical teachers, whose courses of instruction in physics and chemistry respectively, shall qualify for graduation in medicine, and Dr. P. D. Hahn, South African College, Capetown, was recognized as an extra academical teacher, whose courses of instruction in chemistry shall qualify for graduation in science (first B.Sc. examination). Mr. Lewis Beesly, F.R.C.S.E., was recognized as an extra academical teacher in Edinburgh, whose course of instruction in surgery given to women students shall qualify for graduation in medicine under Ordinance No. 18, Sect. iii, 4.

Colonial Services.

The Court approved of arrangements for the instruction of officers of the Colonial Services in the subjects of medical entomology and protozoology.

Medical Preliminary Examinations.

The following are the statistics of the Medical Preliminary Spring Examination: Entered for examination, 127 (including 3 women); English, 42 passed and 57 failed; mathematics, 54 passed and 38 failed; Latin, 47 passed and 52 failed; Greek, 5 passed; French, 45 passed and 35 failed; German, 7 passed and 3 failed; Bengali, 2 passed; Arabic, 2 passed; Sanskrī 4 passed.

Students of Medicine and Science.

The following tables show the number of matriculated students of Medicine and Science in the University of Edinburgh during the last nine years:

Session.	Medicine.	Science.
1900–1	1,364	170
1901–2	1,396	169
1902–3	1,427	206
1903–4	1,487	229
1904–5	1,481	248
1905–6	1,482	290
1906–7	1,493	289
1907–8	1,487	296
1908–9	1,440	300

But in the session 1889–90 there were 2,003 matriculated students of medicine.

UNIVERSITY OF GLASGOW.

AT a meeting of the Senate of Glasgow University on May 19th it was resolved to confer the honorary degree of Doctor of Laws (LL.D.) on Emeritus Professor John Cleland, M.D., F.R.S., Professor of Anatomy in the University from 1877 to 1909. The degree will be conferred with others on Thursday, June 9th, which will be celebrated as Commemoration Day.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following candidates have been approved at the examination indicated:

FIRST FELLOWSHIP.—J. W. Adams, J. N. Armstrong, Margaret M. Basden, C. W. G. Bryan, E. Calvert, N. G. Chavasse, F. J. Cleminson, J. Colgan, E. M. Cowell, H. C. R. Darling, E. D. Davis, A. E. L. Devonald, F. H. Diggle, G. E. Genge-Andrews, J. T. S. Gibson, T. T. Higgins, A. J. Hull, C. E. S. Jackson, J. C. Jefferson, W. A. H. McKerrow, G. S. Miller, A. S. Moorhead, J. Morley, A. C. Morson, K. G. Pandalai, C. H. G. Pochin, B. Quick, J. F. G. Richards, W. Robinson, B. C. Roy, D. W. Smith, R. W. Spence, F. T. Talbot, R. O. Ward, H. C. Wilson, D. Wood.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

AT a meeting of the Royal College of Surgeons of Edinburgh the addresses given below were unanimously adopted:

Unto the King's Most Excellent Majesty.

The Loyal and Dutiful Address of the President and Fellows of the Royal College of Surgeons of Edinburgh under their Corporate Seal.

May it please Your Majesty,—

We, Your Majesty's loyal and dutiful subjects, the President and Fellows of the Royal College of Surgeons of Edinburgh, in meeting assembled, humbly beg leave to offer to Your Most Gracious Majesty the expression of our sincere and respectful condolence on the lamented death of your Royal father, our dearly beloved Sovereign King Edward the Seventh.

While deeply mourning the great bereavement which has befallen your Royal House and the whole British Empire, we are comforted by the reflection that our late illustrious King so beneficently reigned over his subjects as to elicit the deepest devotion and warmest loyalty of all ranks and classes.

Very specially do we recognize the great debt of gratitude due to King Edward for the powerful assistance and encouragement he ever gave to scientific advancement in our profession, and for the deep interest he ever took in those practical results which have contributed to improve the comfort and health of the nation.

We rejoice that our late lamented King by the zealous discharge of the multifarious duties of his high and exalted station, by his deeply sympathetic nature, and by his constant thought for the welfare of all his subjects, was acclaimed a wise ruler and revered as a gracious Sovereign.

In tendering to Your Majesty our respectful congratulations on your accession to the Throne of these Realms it is our fervent desire and prayer that Your Majesty and your Royal and Gracious Consort may long be spared to reign over a free, happy, loyal, and united people.

Signed and sealed in name and by authority of the Royal College, at Edinburgh, on the seventeenth day of May, Nineteen hundred and ten, by the President and Secretary.

Unto Her Most Excellent Majesty Queen Alexandra, Queen Mother.

The Loyal and Dutiful Address of the President and Fellows of The Royal College of Surgeons of Edinburgh under their Corporate Seal.

May it please Your Majesty,—

We, the President and Fellows of the Royal College of Surgeons of Edinburgh, in meeting assembled, desire most

spectfully to express to Your Gracious Majesty our sincere nd heartfelt sympathy on the lamented death of your illustrious nd Royal husband.

We recognize with gratitude the large share which Your ajesty bore in aiding his late Majesty in the many good tions which it was ever his pleasure to perform in the interest and for the benefit of his people.

It is our hope that Your Majesty may long be spared to continue this beneficial work, which occupied so much of his late ajesty's time and thoughts; and it is our earnest prayer nat you may be given strength to bear the heavy trial which as befallen the Royal Family and the whole British Empire.

Signed and sealed in name and by authority of the Royal College, at Edinburgh, on the seventeenth day of May, Nineteen hundred and ten, by the President and Secretary.

Election of Fellows.

At a meeting of the College on May 17th, the following entlemen were elected Fellows: Theodore Robert William rmour, M.B., Ch.B., Liverpool; Alexander Campbell, M.D., M., St. John's, Newfoundland; Thomas Fergus, M.B., Ch.B., lew Zealand; Henry Grattan Johnston, M.D., L.R.C.S.E., amaica; James Lochhead, M.D., Edinburgh; James Masson, I.B., Ch.B., Captain, Indian Medical Service; Hugh Smith teid, M.D., Edinburgh; James Nisbet Turnbull, M.B., Ch.B., den; Jal Sorabji Vakil, L.M. and S., Bombay; James Thomas Vellington Wilkin, M.B., Ch.B., Dunedin, New Zealand; idney Rawson Wilson, M.B., Ch.B., Manchester; and Thomas oodall Nasmyth, M.D., D.Sc., Edinburgh.

Bathgate Prize.

The bronze medal and case of instruments presented to the College by Colonel William Lorimer Bathgate, in memory of his late father, William M'Phune Bathgate, F.R.C.S.E., Lecturer on Materia Medica in the Extra Academical School, was awarded, after the usual competitive written examination in Materia Medica, etc., held for Session 1909–10, to Miss Christian D. Maitland, Edinburgh.

Ivison Macadam Prize.

The annual award of the Ivison Macadam Memorial Prize in Chemistry, consisting of a bronze medal and case of instruments, was, after a competitive written examination in Chemistry, held for Session 1909–1910, made to Miss Janet Park Walton, Edinburgh.

ROYAL FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

AT an extraordinary meeting of the Royal Faculty of Physicians and Surgeons of Glasgow held on May 13th, Dr. D. N. Knox, President, made reference to the death of King Edward. He subsequently moved the adoption of the following address. This was seconded by Dr. James A. Adams, visitor, and approved of:

"To the King's Most Excellent Majesty.

"May it please Your Majesty,—"The President and Fellows of the Royal Faculty of Physicians and Surgeons of Glasgow in meeting assembled, beg most respectfully to give expression to their feelings of profound sympathy with Your Majesty, your Royal Consort, and your widowed mother, on the occasion of the death of His late Majesty King Edward, which has suddenly plunged the whole nation into mourning. Short as his reign has been, it has been long enough to develop the peculiarly fitting qualities he possessed for filling the high position he occupied, and to bring to the forefront his claim to be in the highest sense a great Constitutional Monarch. In all classes of his subjects he was interested, including those of them specially devoted to the pursuit of science.

"The Faculty have lately had reason to acknowledge with gratitude the gracious Act of their late Sovereign in ordering last December that this corporate body, founded in 1599, should be known as the Royal Faculty of Physicians and Surgeons of Glasgow.

"To Your Majesty and Your Royal House the loyalty of the Faculty will continue to be devoted. That you may perform your exalted functions in the same lofty spirit and to the same high ends as did your illustrious father, and that you may have many years to rule over a contented, a devoted, and a loving people, the Faculty will ever pray.

"Signed in name, on behalf, and by authority of the Royal Faculty of Physicians and Surgeons of Glasgow, this thirteenth day of May one thousand nine hundred and ten years.

(Signed) "D. N. KNOX,
"President."

SOCIETY OF APOTHECARIES OF LONDON.

THE following candidates have been approved in the subjects indicated:

SURGERY.—†F. F. L. How, *J. C. Johnson, *A. Y. Massey, *†A. R. Wade.
MEDICINE.—†J. A. Laughton, *J. G. Reidy, †*F. C. V. Thompson.
FORENSIC MEDICINE.—J. A. Jones, O. Marshall, E. Newhouse, J. G. Reidy, G. W. Simpson.
MIDWIFERY.—E. Newhouse.

* Section I. † Section II.

The Diploma of the Society has been granted to Messrs. F. F. L. How, J. A. Jones, E. Newhouse, G. W. Simpson, and A. R. Wade.

Obituary.

THE LATE DR. CRESSWELL BABER.

MR. C. H. GOLDING-BIRD, Consulting Surgeon to Guy's Hospital, writes: By the death on May 14th of Edward Cresswell Baber, a summary of whose professional career appeared in the JOURNAL of May 21st, the profession loses a very valued member, and his friends and patients, both rich and poor, one who will long be missed. His life was one that showed how much can be accomplished against odds (in his case bad health) by steady and, in the good sense of the word, obstinate perseverance.

After leaving St. George's and taking the degree of M.B.Lond. it was evident that his health would preclude all idea of his following his father, Dr. John Baber, of Kensington, in general practice; and being a keen histologist, he went to Paris to study at the Collège of France under Ranvier and Malassez in 1874; the former was then working with his newly devised method of double staining by picrocarmine, and the latter was evolving his "blood-counting" apparatus. Having had the advantage of school life in Germany, he was as familiar with German as he had become with French, and so, leaving Paris, he visited the various clinics of Vienna, then the great centre of medical attraction. On returning to London in 1875 he worked under Professor Klein, and it was to his influence that Baber owed the direction of his future life; for Klein insisted on his studying one subject only, and not ranging over the whole field of histology, as he had done abroad. The subject suggested was the thyroid in certain lower animals; and this being keenly followed out, many short monographs were the outcome.

Having once taken up this line of study, and doubtless also influenced by his studies in Vienna, and further feeling it was incumbent on him to follow a line of work that would make least demand on a delicate physique, Baber devoted himself henceforward to laryngological matters; and unable to live in London, he commenced a practice in Brighton, which proved in due course both extensive and lucrative. It was in Brighton that he achieved the work of his life, the founding of the Throat and Ear Hospital, and he thereby supplied a distinct want in the seaside metropolis. By dogged perseverance and the employment of inherited business instincts he tactfully overcame all difficulties and oppositions, financial and otherwise, and was spared to see his public work crowned with complete success.

As his practice increased he found it necessary to have rooms in London, which he visited on certain days, and a few years ago decided to make his home in London also, still retaining consulting rooms in Brighton. This step, from the health point of view, was not wise, and in the opinion of his friends can hardly have failed to shorten his life. Every few months Baber had been compelled to seek rest from his work, but his profession was his hobby as well as his life's duty, so the only relaxation he, as a rule, allowed himself was, with his wife (whose practical and untiring devotion to him enabled him to do more than he otherwise could have done), to visit some centre of professional interest on the Continent or to attend some congress.

His thorough up-to-dateness was greatly due to his familiarity with foreign languages, and he had the gift of picking up a language—and that not superficially—after a very short period of study. It was when away in 1908 for six weeks that for amusement he began to study Esperanto, and he became in a short time quite proficient in it, and was delighted to find he now could communicate with certain professional brethren even in Russia. He believed firmly in the value of a common language for at least scientific purposes, and so accustomed did he become to the artificial tongue that he even employed it on his death bed, to the distress of his friends, who could not understand him.

Baber was not only a leading and representative laryngologist, but, what is of more value to a profession, a high minded, honourable, and straightforward gentleman. All who knew him well will agree that he never said knowingly an unkind word of any man, and he never did a mean act. Brusque in his manner, he held some people

rather at bay; but where he made a friendship it was deep and life-lasting.

The numbers who attended his funeral at St. Anselm's, Davies Street, on May 18th, and the wealth of floral tributes sent by rich and poor, and the large sympathetic following at the interment in Hove Cemetery attest the appreciation and affection in which he was held.

Dr. DUNDAS GRANT (President of the Section of Laryngology of the Royal Society of Medicine) writes: Those who as his fellow-specialists came most closely in contact with the late Mr. E. Cresswell Baber are those who miss him most, and among the whole group there is probably not one who will be more missed. The character of the man claimed for him the respect as well as the affectionate regard of all his associates. Behind the somewhat cynical manner of speaking, which the casual observer might misinterpret, there lurked a depth of warm and genuine feeling which at once impressed those who had the privilege of enjoying the slightest intimacy with him. Shrewd and unerring in his judgement of men and action, nothing questionable, tricky or paltry escaped his instant detection. In his apparently cynical way he was able to indicate his recognition of the weak point while treating it with the gentle smile prompted by his infinite indulgence for weaknesses in his fellow-men which he would not have permitted in himself. While the quickest to perceive their shortcomings, he was ever ready to recognize and acknowledge whatever was good even in those whom it was fashionable to decry. His social side was one of great charm. He took delight in giving and acccepting invitations to informal little dinners of intimates, and always contributed largely to the gaiety and interest of the meetings, whether as host or guest. Frequent in his visits to congresses in other countries, he was well known, and in his quiet way he made himself extremely popular among his foreign brethren. Indeed, I have been struck with the frequency with which, in my sojourns abroad, I have received cordial inquiries about "Bahbair." In his domestic life a more than usually sympathetic companionship was his lot. His own uncertain health demanded and received the most cheerful care at the hands of his devoted wife, while she in her turn was the subject of his technical ministrations. These mutual reciprocities seemed to bind them all the more tenderly to each other, and, as their union was not blessed with children, each seemed to find in the other the scope for that affection and solicitude which many find in their offspring. Under these circumstances Mr. Baber's many friends will feel unusual sympathy with his widow in her bereavement, and I am sure they will endorse every one of these few words of appreciation which I have felt impelled to utter regarding him.

WITH much regret we have to record the death on May 5th of Dr. GEORGE WILLIAM CHASTER of Southport, at the comparatively early age of 47. It was due to a severe attack of double pneumonia which had commenced only four days previously when he was attending a relative ill with the same disease. Dr. Chaster was a native of Wigan, and received his professional education at University College, Liverpool, where his career was one of marked distinction. It began by his winning the Lyon-Jones Scholarship in 1882 and ended with his appointment to the Holt Tutorial Fellowship in 1889. Meantime he had been awarded the Torr gold medal, a silver medal for pathology, bronze medals in anatomy and physiology, and a prize in histology, and the diplomas M.R.C.S.Eng., L.R.C.P. He had also worked as Assistant Demonstrator in Anatomy and also in Physiology to the school. After adding to his experience by holding for some time the office of Clinical Assistant at the Royal Infirmary, Dr. Chaster settled down in Southport in the early Nineties, and was appointed to the assistant staff of the Southport Infirmary in 1896. Some seven years later he succeeded to a vacancy on the full staff, but only held it for about four years; he was then—in 1907—not in good health, and, resigning his position on the active staff, he was appointed Consultant Physician instead. Though Dr. Chaster was a man of retiring disposition he will be much missed in the district, where his interest in general science as distinct from medicine had made him well known. He paid some degree of attention to nearly all branches of natural history, though its departments which attracted him most were those which can best be studied by means of the microscope. He had done a good deal of work on the foraminifera of Lancashire, and was Vice-President of the Conchological Society of Great Britain and Ireland. He was also President of the Southport Natural History Society, and had a plan for the foundation of a natural history museum at Southport which may still be carried through.

IT is with great regret that we record the sudden death of Dr. F. W. JORDAN, of Heaton Chapel, near Stockport. Dr. Jordan received his medical education at Owens College, Manchester, where he had a distinguished career, and in 1873 took the diplomas of L.R.C.P.Lond. and M.R.C.S.Eng. Shortly afterwards he became Assistant House-Surgeon to the Sheffield General Infirmary, and on relinquishing this appointment settled in Heaton Chapel, where he was greatly respected and esteemed. He was exceedingly genial, straightforward, and upright, and was painstaking to a degree. He took the greatest interest in his profession, and kept himself well versed in recent medical literature. To illustrate his aptitude for work, it may be mentioned that while engaged in an extensive practice he succeeded in obtaining the following additional qualifications—namely, in 1889 D.P.H.Victoria, in 1897 M.D.Durham, and in 1904 B.Sc.Victoria. For fifteen years he acted as Medical Officer of Health for the Heaton Norris District, and at the end of that period the members of the Heaton Norris Council showed their appreciation of his services by presenting him with an illuminated address. Outside his professional work Dr. Jordan was keenly interested in meteorology and in freemasonry. He wrote the life of his uncle, Joseph Jordan, late Surgeon to the Manchester Infirmary, the volume being entitled, *Life of Joseph Jordan, Surgeon, and the history of the medical schools of Manchester, including the origin of professional medical education.*

WE have with regret to announce the death, in particularly sad circumstances, of Major KENNETH CAMERON, R.A.M.C. While cycling in the neighbourhood of Aldershot he fell, and sustained what was considered quite a slight wound in his arm. Unfortunately symptoms of tetanus set in, from which he died on May 9th. Major Cameron was a native of Skye, having been born there forty-one years ago. He was educated at the College, Inverness; from there he went to Edinburgh University, graduating M.B. and C.M. in 1891. He entered the Army Medical Service as a Surgeon-Lieutenant January 29th, 1894, becoming Surgeon-Captain January 29th, 1897, and Major October 29th, 1905. He served with the Tirah Expeditionary Force during the campaign on the North-West Frontier of India in 1897–8, for which he received a medal with two clasps. He was also in the South African war in 1899–1902, being present in operations in Natal, including actions at Rietfontein and Lombard's Kop and the defence of Ladysmith; he afterwards took part in operations in Northern Natal, and subsequently in the Transvaal; he was mentioned in dispatches, and received the Queen's medal with four clasps and the King's medal with two clasps. He was recently on the medical staff of Lord Kitchener in India. On returning to this country he was appointed Operating Surgeon at the Cambridge Hospital, Aldershot. Major Cameron leaves a widow and son to mourn his loss, to whom much sympathy is extended. The remains were taken from Aldershot, and were interred in Tomnahunich Cemetery, Inverness, on May 13th, with military honours.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. Heinrich Curschmann, Professor of Special Pathology and Therapeutics in the University of Leipzig, aged 64; Dr. Max Hirschberg, a well-known surgeon and Medical Director of the Jewish Hospital at Frankfort-on-the-Main, aged 68; Dr. Troland, Professor of Anatomy in the Medical Faculty of Algiers; and Dr. Volborth, since 1907 one of the Vice-Presidents of the Berlin Medical Society, and a prominent member of the profession in that city, aged 68.

Medical News.

THE Royal Dental Hospital, Leicester Square, has received a legacy of £1,000 under the will of the late Mrs. Elizabeth Cooper.

OWING to the lamented death of His Majesty King Edward VII, the Naval Medical Dinner will not take place this year.

THE annual general meeting of the Society for Training Teachers of the Deaf and for the Diffusion of the German (Pure Oral) System, which was to have been held on May 25th, but was postponed on account of King Edward's death, will be held at 20, Devonshire Place, W., on June 23rd, at 3.30 p.m.

THE Royal Commission on Mines appointed at the instance of the Home Office to inquire into the health and safety of persons employed in metalliferous mines and quarries has been reconstituted, with Sir Henry Cunynghame, K.C.B., as chairman; Dr. J. S. Haldane, F.R.S., of Oxford, is a member.

THE Hon. J. M. Atkinson, M.B., D.P.H.Cantab., Principal Civil Medical Officer, Hong Kong; Dr. Thomas Borthwick, Adelaide; Dr. C. A. Hodgetts, secretary Provincial Board of Health of Ontario, Toronto; Dr. W. P. Norris, Melbourne; Dr. C. E. Shelly, Hertford, and Dr. Harold R. D. Spitta, London, have been elected fellows of the Royal Sanitary Institute.

A DINNER for representatives and members of the Council attending the Annual Representative Meeting of the British Medical Association in London will be held at the Waldorf Hotel, Aldwych, Strand, W.C., on Friday, July 22nd, at 7.30 p.m. The price of tickets, exclusive of wine, is 5s. Further particulars will be supplied at a later date.

THE Royal Sanitary Institute has presented an address of condolence to King George V on the death of King Edward. The address contains the following passage: "His late Majesty won for his Throne and Person the affectionate loyalty of his people, by the interest he ever showed in their physical and social welfare, by the generous thought he gave to measures for the better housing of the poor, and by his gracious initiative in promoting the national effort for the extermination of tuberculosis in this country. We desire especially to record our deep sense of gratitude for the special mark of his Royal favour in graciously consenting to act as Patron of this Institute."

IN the form of a pictorial description of their Woolwich and Dalston Works, Messrs. Siemens Brothers and Company, Limited, of Caxton House, Westminster, have issued a handsome pamphlet (No. 500), affording to the lay mind an interesting glimpse of the processes involved in this firm's electrical engineering business, including the manufacture of submarine cables on the one hand and Tantalum lamps on the other. It is really an album of some seventy pictures, the accompanying letterpress being just sufficient to render them intelligible. Cable manufacture, for example, is fully illustrated in all its stages from the first receipt of the copper wire to the final coiling on the drums. The user of electricity for medical or experimental purposes will be specially interested in the description of the calibrating and meter-testing rooms and laboratories. The pamphlet, which is innocent of price-list and aggressive advertisement, serves to show how fascinating a thing the study of a special branch of engineering may be made, and makes one wish that the camera were oftener systematically employed to turn a modern industry inside out for our benefit.

THE Illuminating Engineering Society was formed in 1909 in order to bring together engineers, architects, members of the medical profession, and others interested in illumination, in order that an impartial and international platform might be provided for the discussion of problems of this kind. The report presented at the annual general meeting held on May 23rd, Professor S. P. Thompson, D.Sc., F.R.S., in the chair, stated that the work of the last session had fully demonstrated the usefulness of this society. During the session the membership steadily increased. It includes gas and electrical engineers, representatives of systems of lighting, using oil, petrol-air, and acetylene; professors in technical colleges, medical men, architects and surveyors, and manufacturers of lamps, shades, and reflectors. The society proposes to send delegates to the International Congress on Diseases of Occupation to be held in Brussels this year. At this Congress the question of the hygienic conditions of factories and schools, and the effect of light on the health of employees, will be studied in connexion with the engineering aspects of illumination.

Letters, Notes, and Answers.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

CAMBRIA will be greatly obliged if any one who has used gonococcal vaccine for cases of fibrositis will inform him whether it is usual for the symptoms, pain, etc., to be aggravated for the first few days.

J. L. M. asks whether hypnotism would benefit a patient who complains, and has complained for two or three years, that she hears voices; they are getting stronger; she has now got to the stage of talking about consulting a solicitor. If not hypnotism, would any other treatment be likely to benefit? There is no history of insanity.

URTICARIA.

NEW ZEALAND M.D. wants hints on the treatment of urticaria. Careful dieting and the usual drugs have failed. No organic or functional disease is discoverable. Rest in bed with ordinary diet has given most satisfaction. The patient, a female, is aged 32.

TREATMENT OF CHRONIC SINUS.

DR. W. J. DAVIES (Aberayron) asks for suggestions on the treatment of a patient suffering from a chronic sinus over the right great trochanter due to an injury received four years ago. It healed up after long treatment, but in November, 1909, the scar broke down, due to another fall. There is no necrosis or exposed bone, but a discharge of a small amount of "clean" pus." Various remedies have been tried—namely, cleaning with carbolic lotion (1 in 20 and 1 in 40), solution of hydrarg. perchlor., solution of silver nitrate, scraping the sinus, plugging with gauzes. Hydrogen peroxide 10 vols. is now being used, but there does not appear to be very great improvement.

HERPES ZOSTER FOLLOWING INJURY.

DR. MINA L. DOBBIE (London, N.W.) writes: I should like to ask in the columns of the JOURNAL whether any of its readers have seen herpes zoster following injury. I have come across two cases which I think may be considered due to injury. The first was that of a girl of 13 with severe scoliosis. During a course of treatment an exercise was given in which her whole weight rested on the angles of the ribs over a saddle placed on a horizontal boom. The treatment was given five times a week. After less than a fortnight of this exercise the treatment was interrupted by an attack of herpes zoster in the lower dorsal region of the side pressed upon. The second case was that of a woman of 44. She was a house-parlourmaid, and while standing on a three-legged stool stretching upwards and to the left in cleaning a shelf, the stool overbalanced to the left. She clutched the shelf to save herself from falling, and strained her left side. The pain increased steadily for four days, when I saw her. There was then superficial tenderness over the left costal margin, and over an area on the back around the angles of the lower ribs. There was also some tenderness on pressure of the muscles below the left margin of the thorax, but this was less marked than the superficial tenderness. Nine days after the accident a typical herpes rash appeared over the anterior, lateral, and posterior cutaneous branches of the ninth dorsal nerve. It is generally stated that the rash in herpes appears after the pain has lasted four or five days. In this case the pain had been present for nine days. I should be interested to hear of any similar cases.

CASE FOR DIAGNOSIS.

S. BOLTON writes: I have a patient, a young man of 30 years, who came to me in 1908 complaining that in 1902 a mist came before his eyes. Two uncles on his mother's side were similarly afflicted. Sometimes he can see better than at others. Right side of face hangs a little lower than left, right pupil and orbit bigger than left; right knee jerk more marked than left; discs white and glistening; vessels prominent on disc only; rest of fundus a dull red; always a cold in head; nose bleeds on washing in cold water. He brought prescriptions showing he had taken strychnine, mercury, and iodides for long periods at various hospitals. I ordered potassium iodide to be introduced through the skin by means of continuous current. Now vessels are more plainly visible, disc is not so much dull red blotch, but sight is not much improved. I think some other promising treatment was suggested in the JOURNAL about end of 1908, but I cannot find a reference. Can you refer me to it, or ask for suggestions as to treatment in JOURNAL?

*** We referred this inquiry to a leading authority on eye diseases, who writes: I think there is no doubt that the patient is suffering from hereditary optic atrophy or Leber's disease. As regards treatment I never heard of anything which was of the slightest avail, though most people would give strychnine or iodide as being the only thing which might possibly have some effect. Some have used arsenic and

bromide. A full paper on the whole subject by the late W. Ilbert Hancock appeared in the *Royal London Ophthalmic Hospital Reports*, vol. xvii, Part II, page 167, and was published in January, 1908. Perhaps it was an abstract of this paper to which the writer refers.

ANSWERS.

TINNITUS AURIUM.

GLASWEGIAN writes: I would advise "Verdi" (BRITISH MEDICAL JOURNAL, May 14th, p. 1212) to instil into the ear fifteen drops of fluid myelocene every night for two or three weeks. If the patient gets deafer, wash out the ear with hot water. After instilling the drops plug the meatus with cotton-wool. Myelocene is made by Macfarlane of Edinburgh.

NIL writes, in reply to "Verdi": I am much interested in his case on account of the resemblance it bears to a patient under my care, in whom I can find nothing abnormal to account for the symptoms. Bromides, strychnine, amyl nitrate were found to be useless, whereas quinine gr. vj afforded relief. Although quinine can be habitually taken for a long period in malarial countries without causing ill-effects, I fear that the constant use of it in tinnitus will ultimately aggravate the noises (quininism would set in). My patient resides in a somewhat damp seaside resort on the South Coast, and the tinnitus is said to be always worse on damp and foggy days, whereas instant relief is obtained on change to London or a drier climate. If "Verdi's" patient lives in a damp climate, a change might be recommended. In my case marked improvement follows catheterization and the daily use of a 1 per cent. alkaline spray (sod. bic. c. borax).

PRACTICE IN FRENCH TERRITORY.

IN answer to various correspondents we now give the outcome of the revision to which the regulations respecting French degrees and medical practice in France and its colonies have recently been subjected.

There are two diplomas in France, both of which confer the title of Doctor of Medicine, but only one of them carries with it the right to practise medicine either in France or any of its colonial possessions. This is known as the Diplôme d'État, and it can only be obtained —even by candidates already possessed of diplomas and degrees entitling them to practise in other countries—by those who complete step by step the curriculum ordinarily imposed on French students of medicine. Such students first obtain the degree of Bachelor of Arts, then complete certain courses in physics and chemistry, and finally commence their four years' work as undergraduates of the Medical Faculty of the University of Paris, or other French university possessing such a faculty. In the course of these four years they undergo five examinations, most of them being divided into two parts and including both theoretical and practical work. Finally comes a thesis on any subject chosen by the candidate; he reads it in public, and is subjected to cross-examination as to its contents. The fees payable from first to last amount in English money to about £74.

The other diploma is known as the Diplôme Universitaire, and, being a purely academic distinction conferring no right on the holder beyond that of calling himself M.D., certain concessions in respect of it are commonly made to foreign students. If these are already possessed of diplomas entitling them to practise medicine and surgery in their own country they may be released from the necessity of obtaining a degree in arts from a French university and from following the courses mentioned in physics and chemistry. They are also usually allowed to pass all the examinations one after the other without the regulation intervals, and from some of these examinations they are frequently exempted altogether. But in all cases the precise concessions made depend on the character of the curriculum which they have undergone in their own country, the proofs thereof which they possess in the shape of degrees or diplomas, and on their experience of the practice of medicine as represented by their status in their own country.

For these reasons it is impossible for any one in this country to say precisely what examinations any given individual desirous of obtaining the M.D. of Paris may have to undergo, or what length of time obtaining that degree will demand. The only thing certain is that the standards are high, and that the candidate must be a sufficiently good linguist and rapid thinker and speaker to deliver verbally the same sort of dissertations on given topics as those which in Great Britain are commonly delivered in a written form in answer to printed questions. In France examinations are almost entirely oral, though the candidate is usually told a few minutes in advance what specific points he will have to discuss. When concessions are sought, the first step is to address an application to the Ministre de l'Instruction Publique at Paris. It must set forth the grounds thereof, and be accompanied in all cases by the candidate's diplomas, and by certificates from school showing what education he has undergone in respect both of general and professional education, by a birth certificate, and by documents establishing his identity as the right holder of the diplomas and other certificates handed in. There must also be sent French translations of all these documents duly legalized—that is to say, certified as correct by a French consul. The concessions, whatever they may be, never affect the fees which the candidate has to pay, these being the same as for the State diplomas—namely, about £74.

LONDON SUBURBS AND RHEUMATIC PATIENTS.

ARGILLUS writes to advise "Rheumatic" to put his patient upon one of the clay hills round London—Highgate, Hampstead, or Harrow in the North; Richmond Hill, Sydenham Hill, or Shooter's Hill in the South. These hills, like a table basin turned upside down, drain themselves. The soil in the valley is mostly gravel, the soil always found next or near a watercourse and frequently waterlogged.

THE SIAMESE LINK.

M. P. D.—The "Siamese link" recommended in some books as an aid in reducing dislocations of thumb and phalanges is nothing more than the old-fashioned toy, also known as the "Indian puzzle." It consists of a tubular plait of reed or straw; if the two index fingers be inserted into the open ends they cannot be withdrawn by traction, for the more the pull the tighter the embrace. As a means of traction in reducing dislocations of the phalanges it has long been replaced, first by specially devised forceps with webbing grips, and then by the adoption of manipulations based upon the known anatomical obstructions to reductions.

TREATMENT OF RED NOSE.

NIL writes in reply to "Rusticus": I have had most excellent results in prescribing barley water to be drunk at meals and no alcohol in cases of red noses and flushing. The addition of a little lemon juice makes the barley water more palatable.

SPHYGMOMANOMETER.

BLOOD PRESSURE.—Dr. Leonard Hill's pocket sphygmometer, which cost 10s., or the same physiologist's new form of mercurial sphygmometer, which, with armlet and pump, costs about 30s., would, we think, suit our correspondent's purpose. The instruments are made by Hicks, 8, Hatton Garden, E.C.

LETTERS, NOTES, ETC.

"GLYCOSURIA AND THERAPEUTIC IMMUNIZATION."

IN a paper by Dr. Courtenay MacWatters, entitled "Some Points relating to Therapeutic Immunization," the patient in the first glycosuric case referred to (p. 1163, line 6 from top of right-hand column) was having, not a "restricted" diet, as printed, but an absolutely "*un*restricted" diet.

MEDICAL PARLIAMENTARY ROLL.

DR. S. D. CLIPPINGDALE writes that the following addition should be made to the Medical Parliamentary Roll published in the JOURNAL of January 8th, 1910: Lake, Thomas, M.D.Cantab. (Port of Hastings, 1572–1586). In the last year of his membership allegations were made against him, and he appealed to Lord Chancellor Burghley to protect him from his detractors (vide Munk's Roll of the Royal College of Physicians).

THE DRUG HABIT: TOBACCO.

DR. R. MACD. LADELL (Holbeck, Leeds) writes: In your issue of May 7th, p. 1152, Dr. J. St. George Whitty advises hypnotic suggestion as a cure for the cigarette habit. With this I am in hearty accord, as I have myself proved its value I cannot agree, however, with his final remarks that in order to effect a cure the hypnosis must be pushed to the extent of unconsciousness, followed by amnesia, on awakening. Only a comparatively small percentage of cases are hypnotizable to such an extent, and if his advice is followed many cases will be given up as hopeless which are in reality perfectly suitable to the treatment. Most authorities on the subject state that therapeutic suggestion can be successfully carried out when only a slight degree of hypnosis is present, and this is in accordance with my own experience. The hypnosis should be pushed as far as possible in each case, but failure to obtain sleep must not be taken to contraindicate treatment.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page	8	0	0

An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

NOTE.—It is against the rules of the Post Office to receive *postes Restante* letters addressed either in initials or numbers.

An Address

ON THE

DIAGNOSIS IN STATES OF DEPRESSION.*

BY

BEDFORD PIERCE, M.D.LOND., F.R.C.P.LOND.,

MEDICAL SUPERINTENDENT OF THE RETREAT, YORK;
LECTURER ON MENTAL DISEASES AT THE UNIVERSITY OF LEEDS.

subject—diagnosis in states of depression—has been ected on account of the frequency with which melan- oly in its various forms occurs in medical practice.

Mental depression is so widespread and is due to such ultifarious causes that any discussion of the subject, if t strictly limited in scope, would result in a treatise aling with humanity in all its relations—in fact, a new d enlarged edition of Robert Burton's *Anatomy of elancholy*.

The principal feature of the states of depression which propose to consider is a mental anguish or pain out of portion to any reasonable cause, and I necessarily clude distress of mind arising in the ordinary course of man affairs. The natural consequences of bereavement misfortune, the agony of remorse, the "pangs of spised love," are outside my subject. Depression, oreover, so often attends bodily diseases that it is neces- ry to confine attention to cases exhibiting mental pain the prominent or cardinal symptom.

When severe, mental depression is perhaps the most stressing of all human afflictions. Not only may the guish be fully as great as if the painful ideas d fears were completely justified, but in addition ere is not infrequently an inarticulate nameless agony dependent of any delusions that may have developed. Dr. Savage has aptly said, the delusions crystallize t of a saturated solution of misery.

An attempt to discuss the diagnosis of mental disorders cessarily raises the question of their classification, and must be admitted that we cannot satisfactorily differen- te the various forms of insanity. Pathology does not lp in the great majority of cases, and we are unable to eak of mental diseases with the same confidence that we eak of bodily diseases. Even when the clinical picture sufficiently clear and distinct, we not rarely discover at the symptoms observed may be due to widely different uses; and on the other hand, physical conditions appa- ntly identical may produce mental disturbances by no eans uniform in character.

A common illustration of this variability is the effect of cohol in different subjects: in one the mental conse- tences of indulgence are exhilaration and talkativeness; another dullness and stupidity; in a third unreasoning pulsiveness.

Poisons developed within the body have likewise diverse fects; the poison of general paralysis, for instance, pro- ces in one person the characteristic delusions of andeur, in another depression with painful hypochon- iacal ideas. Similarly, influenza and other fevers, when llowed by mental disorder, give no clearly defined train symptoms, and the insanity dependent upon childbirth ay exhibit either excitement, depression, or confusion.

It may, therefore, be contended that the forms of mental sorder which we describe are not diseases at all, but they erely indicate the various ways in which the mind reacts hen the body is exposed to stress.

In making a diagnosis most of us arrive at a conclusion y a process of exclusion. The conditions that may oduce the symptoms are considered one by one; the nlikely ones are successively eliminated until that disease hich most nearly fulfils the requirements is reached therefore enumerate the more common disorders which ay lead to mental depression, namely: alcoholism, neral paralysis of the insane, psychasthenic states, ementia praecox, and melancholia, divided into four groups confusional, inhibitory, intrinsic, involutional.

* Read before the Leeds and West Riding Medico-Chirurgical Society.

As our means of classification is imperfect, we find there are a number of cases which are not readily allocated. These fall into two classes: (1) Those due to recognized diseases which need not be described separately —for example, myxoedema, Graves's disease, epilepsy, diabetes, acute suppuration, etc.; (2) the peculiar and irregular cases for which no place can be found.

The 200 cases which have been reviewed for the purpose of this paper are consecutive cases observed between the years 1898–1908. Patients seen in consultation are included with those that have been placed under care at the Retreat. Of these 200 cases, 9 per cent. were unclassified for the reasons stated.

ALCOHOLISM AND DRUG HABIT.

In the great majority of cases of insanity due to intemperance or drug addiction the history will be sufficiently clear to leave no doubt as to the nature of the disorder.

It is not, therefore, necessary to follow up this subject further than to say that some of the patients are very depressed, many of them have delusions of suspicion, accompanied by hallucinations of hearing. In many cases there is a tendency to suicidal impulses.

In the absence of any history it is, however, frequently impossible to distinguish the insanity due to alcohol from other forms of mental disturbance.

GENERAL PARALYSIS OF THE INSANE.

The next group illustrates forcibly the dictum which my old chief at St. Bartholomew's, Dr. James Andrew, used to impress upon us: "Never make a diagnosis until you have completed your examination."

The following case will serve as an example:

A brick manufacturer, aged 38, was sent under care with the following history: His father and one brother had been intemperate, but no other evidence of hereditary weakness could be elicited. He was a bachelor and successful in business. There had been no previous attack. His mother stated that he had been depressed and unable to do his work for some three months; six weeks previously he had barricaded himself in a granary and laid himself down to die. He had attempted his life in several ways, tried to cut his throat and to hang himself.

The medical certificate states: "He is in a state of intense depression; his life is ruined; there is no hope for him; he is too wicked to live, and he has brought himself to this by his evil deeds; he must go to the workhouse as he possesses no money, and so forth."

So far, the history and the symptoms do not suffice to distinguish this case from an ordinary one of melancholia, and if the nervous system had not been examined, in all probability a favourable prognosis might have been given. But a routine examination disclosed that, although equal in size, the pupils were not quite circular in outline; they reacted to accommodation, but not to light; the tongue was tremulous; the knee-jerks were delayed and uncertain, and only with difficulty elicited, and the plantar reflex was slight. These symptoms indicated some tabetic condition, and there was little difficulty in concluding that the case was one of general paralysis.

Just as the occurrence of a fit for the first time at about 40 years of age is of grave omen, so is an attack of depression appearing without obvious cause at the prime of life. Melancholia usually begins in early life, or at the climacteric, unless it be due to some toxic condition or special disturbance.

Although the mental symptoms in general paralysis may be of almost any kind, which is to be expected in a disease accompanied by diffuse cortical degeneration, it is usually possible to distinguish the depression from that occurring in other conditions. In general paralysis we expect some sign of mental enfeeblement. In most cases of melancholia we find little disturbance of the general intelligence, but in the graver condition there is much greater mental reduction. Thus, in the case quoted, the patient said he had never had a happy day in his life, that he was dying, and had only a few days to live, although his general health appeared good.

Modern clinical pathology now enables a diagnosis to be made with some approach to certainty. The Wassermann reaction is found to give a positive result in 90 per cent. of cases, and the cytological examination of the cerebro-spinal fluid also gives valuable assistance in the

diagnosis of this disease and of tabes dorsalis. Modern research seems to have finally established the essential unity of tabes and general paralysis.

If we can be sure that the Wassermann reaction invariably indicates antecedent syphilis, the evidence strongly supports the proposition, "No syphilis, no general paralysis."

DEMENTIA PRAECOX.

The next group of cases are included under the term "dementia praecox." As Kraepelin's conception of this symptom-complex has greatly modified the classification of mental diseases, a few words in explanation may be permitted.

A generation ago it was commonly taught that any severe attack of mental disease, whether of depression or excitement, was liable to end in permanent mental enfeeblement, and a large proportion of the unrecovered patients in our asylums were consequently looked upon as cases of secondary dementia. I well remember this term giving me some trouble, as I could not find from the histories of many of these patients that they ever had suffered from acute mental disorder. It did not seem satisfactory to assume that there had been such an attack, in the same way as we are apt to assume a patient has had scarlet fever when we find peeling.

The new conception throws light upon this difficulty by the suggestion that the greater number of these secondary dements are in reality in the terminal stage of a definite mental disorder, which can generally be recognized early in its course, and which is entirely different in its symptomatology from typical cases of mania and melancholia.

Although some English authorities hesitate to accept Kraepelin's far-reaching generalizations in relation to dementia praecox, I have myself no doubt as to the great value of his conception, and consider it makes a great advance in psychiatry.

I will try in a few words to give the leading features of this disorder, although I am aware verbal descriptions will very imperfectly create the clinical picture.

In the first place we find the mental powers are unequally attacked, and as a rule in the early stages there is no lack of understanding, no failure of perception, no loss of memory. The patient, therefore, grasps what is said, does not mistake his surroundings, remembers what has happened. But in a strange unaccountable way he loses interest in the affairs of life, does not seem to care what happens, and is irresponsive and apathetic. This emotional indifference is one of the most constant symptoms. The claims of the family are unheeded, he no longer cares for his old pursuits, nor does ambition or a sense of duty spur him to effort, even the passion of love moves him not.

The gravity of the case becomes evident when the conduct is affected. Strange impulsive actions are apt to appear, for example, uncalled-for laughter, senseless weeping, grimaces, strange postures or antics, and in many cases there is sudden, unexplained refusal of food, or obstinate disinclination to speak, and perhaps general resistiveness. Sometimes a sudden suicidal impulse startles the relatives, and the gravity of the case is recognized.

The peculiar feature of these outward signs of a disordered mind is the inability of the patient to explain his conduct. Careful inquiry will discover no motive, or at best a totally inadequate one. In most varieties of insanity strange actions are the logical consequences of false premisses; for example, a man shoots another because he believes his own life to be in danger, or he commits suicide because he fears an exposure of his guilt.

In dementia praecox we may fail to elicit any reasonable train of thought, the action appears to be purposeless.

Similarly the ideas of the patient are bizarre, and there may be grotesque delusions. Thus, a medical student without the slightest reason wired to his mother to say his uncle was dead; an intelligent young lady told me she had been talking to the "Holy Viper," but could not say what this was; a youth, by no means uneducated, said he had air in his veins, and that he wanted "serum injected in order to make the ventricles go round." In the early stages hallucinations are common, but neither these nor the delusions are persistent, and as the disease advances they generally disappear.

Dementia praecox implies a dissociation of the mental faculties: the powers of perception are frequently not affected until late in the disease, thinking and judgement are affected early, and actions may be senseless and automatic. A dulling of the emotions is one of the earliest and most constant symptoms.

In the majority of cases there is little real depression but as in some emotional storms occur, it is therefore easy to confuse this disorder with other states of depression. Kraepelin[1] says, "Somewhat more rarely the commencement of the disease is characterized by a well-marked state of depression. The patient becomes dejected, dispirited, anxious, mistrustful, is home-sick, stares into vacancy and indulges in thoughts of death and may make a sudden attempt at suicide in a peculiar manner. . . . As a rule there is a certain mistrust of those about them, and a feeling of being observed, slighted, badly treated and made fun of. With all this, the apathy and lack of true emotion with which the morbid ideas are expressed and defended is most striking."

In the cases of dementia praecox in which there is marked periodicity there may be difficulty in distinguishing it from manic-depressive insanity, but in the latter disorder signs of dementia are long delayed, there is decided emotional disturbance, and rarely the indifference and dullness found in the former.

In certain cases, however, it is necessary to defer making a diagnosis until some of the more characteristic symptoms have appeared.

M. A. J. until 24 was quiet, shy, reserved, but possessed of average ability. Her family history was bad, her parents were first cousins, and a brother had been insane.

After a stupid love affair she became depressed, refused food, sat for hours weeping, and she would not get up in the mornings, and there was some fear of self-injury. Under advice she went from home and improved, but a few months later the depression returned. On one occasion she said she was afraid to sleep alone because her will was so weak. One day she complained of sore throat and it was noticed that her mouth was black; it was subsequently ascertained that she had drunk some marking ink.

Four days later she threw herself from her bedroom window and fell 30 ft. and fractured both femurs. In the weeks of anxiety which followed she had a fixed idea to end her life, and she said it must come sooner or later; she had sinned and could never be forgiven, and it was no use to try to live a Christian life. So far the case resembles melancholia, but a month or two later extraordinary delusions appeared, and she stated that she must marry the son of the matron in the nursing home, a boy of 5½, and that she would like to go to school with him, and she said she was sure her mother would approve if asked. At the present time these ideas appear to have vanished, but she does not repudiate them with any degree of emphasis. She remembers the accident and says she was not depressed at the time, and she did not intend to kill herself. She can give no reason for throwing herself out of the window, except that she saw no other course of action and that "it would save time." She seems quite unconcerned at all the anxiety she has given her relatives. In spite of this she can write an intelligent and descriptive letter.

This case illustrates well the selective nature of the mental deterioration, the grotesque delusions, the impulsive tendencies, and the emotional indifference which characterize dementia praecox.

PSYCHASTHENIC STATES.

In the next group of cases, the depression is secondary to conscious mental disability. The patient, harassed by obsessions or haunting doubts, finds life difficult. In these cases the depression is perhaps not the cardinal symptom, but as such patients are frequently very unhappy and complain of suicidal impulses, they demand consideration.

Although psychasthenic patients often say that life is not worth living and talk of suicide, they rarely make any serious attempt. In only two instances have I known such patients take their own lives. In one, the patient was persistently worried by obscene thoughts which distressed him beyond endurance; in the other case, severe pain of apparently hypochondriacal nature had lasted for years, the best advice gave no relief and suicide was deliberately committed.

Cases of psychasthenia with depression are very common. Those which concern our present inquiry may present obsessional impulses to kill, to commit suicide; fears of disease and of going mad; or doubts and hesitations which interfere with the daily duties. In almost all of these there is little difficulty in diagnosis.

In not a few patients the thought suddenly springs into the mind that they are becoming insane, which almost reaches a delusion that incurable madness is their certain lot. The imperative idea cannot be got rid of: they cannot sleep, and, haunted by this, they work themselves into a state of terror. It is usually possible to satisfy oneself that any depression which is present depends upon and is secondary to the morbid intrusive thought. Sometimes a patient can be reassured at a single interview, especially when the underlying cause of the fear can be elicited.

It would lead me too far from my subject to discuss Freud's hypothesis of the causation of psychasthenic states. Suffice it to say that my experience confirms his views of the importance of the sexual element. The physician will in not a few cases succeed in clearing up difficulties arising from past experiences of this kind and so remove a chronic source of mental irritation, with the result that the patient is permanently relieved and the obsessions and the imperative ideas disappear. The following case will serve to illustrate this:

The patient was an active, intelligent man 25 years of age, with a fairly good family history. At school and for some time after there had been masturbation, but none recently. He had been worried over an engagement which had to be broken off. Being depressed, he took a long holiday and was no better. His general health was good. For some time he had been haunted with the idea that he might commit suicide; he was much distressed at this, and was sure he was going insane. The thought constantly came into his mind, "it would be better if he were dead," but he did not at all want to die. He never made any attempt to injure himself.

The diagnosis was not difficult as it was clear there was no weight of depression; he could brighten up on occasion, could do his work well, and the central difficulty was the recurring imperative suicidal thought. It was also extremely probable that these were in turn dependent upon the memories of sexual irregularities.

The case did well. A plain talk, accompanied by advice in the use of spare time and the pursuit of some hobby, seemed to start him on better lines; the morbid ideas quickly disappeared, and he recovered his peace of mind, although in all probability a constitutional psychasthenic state remains.

The following case was more serious, and required asylum care:

A solicitor's clerk, aged 32, presented the following history:

The first attack of mental disturbance was ten years ago, and the second three years since. Both attacks closely resembled the present one. Recovery was stated to have been complete. The patient was a temperate, hard-working man, but for fully twenty-five years he had had a peculiar dislike to dogs. This idiosyncrasy was always worse when he was somewhat depressed. There was no evidence of inherited predisposition. The present attack began six weeks before admission, and no definite cause could be ascertained. The certificates stated he had great depression of spirits and an insane dread of cutting his throat and fear of being left alone. His wife told Dr. Barrs, who signed the second certificate, that her husband had homicidal impulses to murder his children, and on one occasion she arrived just in time to prevent him doing so.

On admission he was found to be thin and worn, but beyond a somewhat high palate no sign of physical disability could be discovered. He said he had hitherto successfully resisted the impulse to injure himself and his children, but on certain occasions he had only restrained himself with great difficulty. He gave the impression that there had been serious risk in that direction. He was very depressed and miserable, and did not feel safe. The institution proved a real asylum for him, and he obtained the needful rest and protection.

He steadily gained weight, his confidence in himself slowly returned, and in three months he was discharged recovered. The patient remained well for a considerable time, but he has not been heard of recently.

In this case also the patient did not wish to die, and certainly begged to be restrained from injuring his children. The obsessions were clearly the cause of the depression. It would have been an interesting case for Freud's psycho-analysis, as in all probability the cause of the strange dislike of dogs could have been discovered and the chance of a future relapse greatly reduced.

Unfortunately this method of investigation was not generally known when this patient was under care.

MELANCHOLIA.

We have now reached the most difficult part of our subject. Almost every author subdivides melancholic states differently, and the want of unanimity is in itself evidence that the data for classification are insecure.

Kraepelin has thrown considerable light upon the affective psychoses. He divides them into two divisions: a large one, manic-depressive insanity, and a much smaller one, to which he would restrict the term "melancholia." The latter he considers exclusively a disorder of declining years, and I have applied to it the term "involutional."

Manic-depressive insanity is virtually an extension of the older term "*folie circulaire*," and Kraepelin asserts that single attacks of mania, or melancholia, are, in the vast majority of cases, imperfect cases of the same disorder. The tendency to relapse that distinguishes those maladies apart from any definite periodicity strongly confirms this view.

A man whom I knew had eight attacks of mania, each following almost identical lines, exhibiting the same delusions and strange habits in the same order in the recurring attacks. The case was typical of recurrent mania. But the ninth attack was altogether different. He was silent, depressed, apathetic, he refused food and had to be forcibly fed. Another patient, a lady, had many characteristic maniacal attacks, but once when she relapsed she became depressed and resistive; instead of being jocular and hilarious she was irritable, morose, and obstinate.

Cases such as these seem clearly to indicate that there is something common to both mania and melancholia in spite of their outward dissimilarity.

The essential unity of dejection and elation is, however, no modern notion. The word "melancholy" was used to describe both states. I trust I may be excused in quoting a few stanzas showing how Burton seemed to have known all about this.[2] They come from the preface to his book.

Methinks I hear, methinks I see,
Sweet music, wondrous melody,
Towns, palaces, and cities fine;
Here now, then there; the world is mine.
Rare beauties, gallant ladies shine,
Whate'er is lovely or divine.
All other joys to this are folly,
None so sweet as melancholy.

Methinks I hear, methinks I see
Ghosts, goblins, fiends; my fantasy
Presents a thousand ugly shapes,
Headless bears, black men, and apes,
Doleful outcries, and fearful sights,
My sad and dismal soul affrights.
All my griefs to this are jolly,
None so damn'd as melancholy.

* * * * *

I'll not change life with any King,
I ravisht am: can the world bring
More joy, than still to laugh and smile,
In pleasant toys time to beguile?
Do not, O do not trouble me,
So sweet content I feel and see.
All my joys to this are folly
None so divine as melancholy.

I'll change my state with any wretch,
Thou canst from gaol or dunghill fetch;
My pain's past cure, another hell,
I may not in this torment dwell!
Now desperate I hate my life,
Send me a halter or a knife;
All my griefs to this are jolly
Naught so damn'd as melancholy.

There is, however, ground for the opinion that many patients suffering from depression are not rightly included in the group of manic-depressives. Tanzi,[3] Bianchi,[4] Lugaro,[5] all incline to the opinion that there is a melancholia apart from Kraepelin's syndrome. Dr. Lewis Bruce[6] also describes an acute and an excited melancholia separately from manic-depressive insanity. He presents much evidence to show that in the group called by him "acute melancholia" there is a metabolic toxaemia, and in that called "excited melancholia" there is a bacterial toxaemia, accompanied by hyperleucocytosis, the presence of agglutinins in the serum, and a deficient excretion of chlorides. Dr. Colin McDowall[7] has also done valuable work upon the same lines, and shows that in "melancholia with excitement" there is a distinct increase of leucocytes in the blood, especially in the early stages of the disorder.

As so many names are now in use—agitated, resistive, simple, delusional, acute, stuporose, pure, hypochondriacal—all varieties of melancholia, it may seem presumptuous in me to suggest fresh ones.

I have ventured to do so, nevertheless, because it seems to me we are justified in going a step further in the

differentiation of melancholic states. The varieties I suggest are:

1. *Confusional*, constituting a part of the syndrome, acute confusional insanity
2. *Inhibitory*, marked by thought hindrance, a part of manic-depressive insanity.
3. *Intrinsic*, with acute misery and without either confusion or hindrance to thought.
4. *Involutional*, generally marked by apprehensiveness and anxiety, melancholia in Kraepelin's restricted sense.

The Confusional Group.

In this group I have placed those cases of acute confusional insanity in which depression is a prominent feature. Many of these cases were formerly termed "acute melancholia," just as the exalted and excited confusional patients were described under the head of "acute mania."

Acute confusional insanity, sometimes called in Germany and in America, "amentia," is a fairly well-defined disorder, and is distinguished by confusion and disorientation—a failure to recognize surroundings, vivid, fleeting hallucinations, and an inability to recollect the incidents of the illness after recovery. Signs of digestive disturbance are common; there is often refusal of food and deficiency of the gastric secretions. Sometimes there is a rise of temperature. Sleeplessness and restlessness are usually present. At the outset of the attack there is a marked increase of leucocytes in the blood.

Inherited predisposition is not so important a factor in causation as in other forms of insanity. Frequently some definite bodily illness appears to be the cause of the attack. In women, a considerable number of cases are dependent upon childbirth, and Dr. Menzies[8] has shown that 65 per cent. of the cases of puerperal insanity are melancholic in type.

I have found these confusional cases some of the most satisfactory I have had. The disorder is so obvious that relatives realize its gravity at once; consequently effective treatment is adopted early, and the recovery rate is high. Out of 17 cases only 3 failed to recover, and of these one died of phthisis, another improved but relapsed, and the third was lost sight of.

Dr. Colin McDowall[9] considers the leucocyte count of considerable assistance in prognosis; if the percentage keeps moderately high there is always hope of recovery.

In some few cases there may be difficulty in distinguishing this disorder from those cases of dementia praecox which begin acutely. In the course of a few weeks the nature of the case will probably become clear. It is rare for patients with dementia praecox to be confused; they usually understand their surroundings; whilst in acute confusional insanity there is evidence of some degree of disorientation.

We are, I believe, justified in the opinion that when these confusional cases recover there is comparatively little danger of relapse. We may further consider it an acquired disease, not specially dependent upon inherited weakness, and not likely to be transmitted to children.

A. B., aged 29, had been confined two months before admission of her first child; parturition severe, no febrile disturbance; family history good. The past history disclosed nothing noteworthy. Five days after the birth of the child she became depressed, confused, suicidal. It was stated in the certificates that she wanted to put her head in a bucket of water, that her memory was bad, and that there was an absence of intelligent ideas. On admission she was quiet but depressed. She appeared confused, spoke only in whispers, and then only a word or two, not completing a sentence. During the first week the notes state she is restless, thinks she has been in York a month. Says things are fighting and going round in her head. Leucocytes, 23,000; red-cells, under 4,000,000. She takes food badly, is tube fed; impulsively springs out of bed, does not seem to feel prick of a pin; there is marked dermatographia. The report a week after admission says she is in a confused state and cannot properly understand her surroundings and is unable to reply to questions. She cannot express her ideas. She does not appear to know the names of those about her. She is pale, otherwise in good health, and no evidence of visceral or uterine disease.

Six months later: Does not make progress, childish in talk, apt to be depressed, says she wishes she were dead. Menstruation resumed. Is destructive at times, suddenly ripping her clothes. She then slowly began to improve, but was liable to be depressed; complained of pain in head, feelings like as though little red men were walking about in her head.

She left on trial twelve months after the onset of the symptoms, and was discharged recovered. I recently heard that she keeps well.

C. D., aged 28, officer's wife. She was confined three months before admission, and afterwards had an abscess in the breast. The family history is not good; she comes of an excitable family, and one sister had an attack of insanity lasting a year. The certificates bring out the depressed mental tone. She stated she was too wicked to live, is doomed to a horrible death, she has implored her husband to kill her to save her from it, and that she has gone over to the devil.

On admission was flushed, agitated, confused, dishevelled in appearance. She refused food; pulse 120; a presystolic cardiac murmur and thrill were detected; there was albuminuria, but no rise of temperature.

Next day it was reported she constantly hears "voices," especially her husband's voice at night. She was resistive and troublesome about food, and practises bad habits. A week later the "voices" continue, and she is a good deal troubled with the many things she hears. She does not know where she is, and took the ward sister for a certain major. (It transpired later that there was a certain facial resemblance between them.) She has an idea that things are distorted, much bigger than they ought to be. She was also in doubt as to her own identity. She was nursed in bed. A month after admission she had hallucinations of smell. An examination of the blood showed some increase in leucocytes, but no other abnormality.

Five months after admission she began to convalesce. The albuminuria cleared up, and, what was more remarkable, the cardiac murmur disappeared, the thrill vanished, and the pulse-rate became 72 before she left.

In this last case there was clearly some septic condition, which appeared to have caused the kidney disease, the heart trouble, and the mental disturbance. It is possible this was due to the infection which produced the mammary abscess.

The Inhibitory Group.

This form of melancholia has not, I believe, been described under this name, and as a rule authors do not attempt to separate it from the next group to be mentioned. The clinical picture is, however, a familiar one. The leading characteristic is a general slowing of mental processes, to which the Germans give the expressive name of *Denkhemmung*, or thought-hindrance. These cases would be included by Kraepelin in manic-depressive insanity.

A patient suffering from the inhibitory form of depression looks at first sight depressed and dejected, the face loses its natural expression, and it is frequently of a bluish-grey colour, indicating some interference with the circulation. The patient cannot give effective expression to his feelings; when asked a question he gives no response or replies in an undertone or an almost inarticulate whisper. There is often considerable delay in replying to questions, and it not uncommonly happens that just when the patience of the inquirer is exhausted, and at the very moment when the question is repeated, a faint murmur of reply is heard, or perhaps a movement of the lips is observed. This retardation applies to all actions; he moves slowly, hesitates over everything, and appears to think slowly. He often stands about idle, apparently not heeding anything; but upon close observation it is ascertained that he is not inattentive. This slowness and hesitation, however, is not incompatible with sudden impulsive actions, especially suicidal attempts. Melancholic stupor and melancholia attonita—the thunderstruck depression—may be considered an extreme form of this condition, and such patients are generally resistive, and actively oppose anything they may be required to do.

Such patients frequently take food badly, and they rapidly lose weight. The inactivity of mental process appears to extend to the bodily functions. Digestion seems to be delayed, there is deficient peristalsis, and constipation is almost invariably present. Often urine is retained for a long time, but the catheter is rarely needed. The total excretion of urine is diminished in quantity. Owing to the imperfect powers of expression it may be difficult to ascertain what the patient is thinking about; in most cases, however, it will be found that there are strange delusions or obsessions in the form of altogether unreasonable fears. In my experience hallucinations are extremely uncommon. Some trivial question, such as matters connected with clothing, or some unpaid bill or unwritten letter, are magnified into matters of vast importance, and entirely wrong notions of personal danger may haunt the mind.

It will be noted that the mental state I have described is almost the complete antithesis to mania, in which we find restless activity of mind, an apparent acceleration of the association of ideas, with exaltation.

It will be found that in the majority of cases the family history is not good; indeed, this form of insanity is more distinctly hereditary than any other.

The tendency to relapse is strong, and though we may with confidence expect almost every patient to recover from any particular attack, it is not possible to foresee how long the attack will last. There is little probability of dementia supervening. In not a few instances in which the number of attacks has been considerable there is little enfeeblement of mind even in old age.

Among my own cases there were 29 men and 16 women who suffered from the inhibitory form of melancholia. Of these 45 cases nearly all recovered from the attack, but at least 19 had more than one attack, and in 17 the family history was bad. It is hardly correct to use the word "recovery" in reference to this disorder; the patient gets sufficiently well to resume ordinary duties, but the instability remains.

The following is a verbatim account of the conversation of a lady suffering from the inhibitory form of melancholia. She had had several previous attacks, and her family history was bad. The attack in question had lasted about three weeks and appeared to be provoked by the worry of moving house. It will be seen that the remarks turn largely on this subject. In the intervals there were long delays and many inarticulate groans.

There isn't . . . is there? . . . No. . . . It's the boxes upstairs that I wanted. . . . Well, you see, it's only a dream. . . . There's none of us here, no one to open the door. . . . You see I cannot get to you. . . . I can't get out of the door. . . . (Why can't you get out?) Because there's trunks. I wish you could see it all. . . . I shall be left all alone. . . . There's everything. . . . What am I to do? . . . Because I can't get to my things . . . and . . . well, you see, there's . . . well, it's all upstairs . . . in different flights. . . . I've got no keys. . . . You . . . Well, I shall . . . I don't know what to do . . . 'cause I can't. . . . You find me. I'm all in different bits. . . . (How's that?) Well, 'tis . . . (I still do not understand.) . . . Well, it's the . . . it is so . . . the case, you know . . . of course, it means there's nothing at all. . . . Well, that's the . . . different floors, you see. . . . Oh, doctor . . . what am I to do? . . . There're . . . you want me, do you, upstairs? . . . There's nothing for us, etc.

It will be observed there is no disorientation, no real incoherence, but a strange impediment in consecutive thought; the imperfectly-formed ideas cannot be expressed.

E. F. had been a civil servant and had managed 200 women clerks. She had been twice depressed before the attack now described. After the last one she had been mildly excited.

I closely noted the development of her malady, the gradual change in expression, the blue, congested colour, and the growing inability to converse. In the course of a month her depression was severe, and she made two suicidal attempts, and was certified.

The certificates stated: "She is profoundly depressed, staring fixedly in front of her, with a most dejected, unhappy expression. She will not answer any question, and is rather resistive in her movements. She gives no sign that she hears anything. On admission it is noted that she would not speak, but will put out her tongue. Cerebration is slow, for she does these things after lapse of time. There is troublesome constipation. When her sister visited her she told her sister in a scrappy fashion that she was a wicked woman and ought to be killed. She is totally unoccupied and troublesome with food."

She recovered in nine months, and I believe keeps well.

THE INTRINSIC GROUP.

I have found it difficult to find a name for the next variety of melancholia. The word "intrinsic" has been selected because it conveys the idea that the disorder is inherent and genuine and is not a part of some other disorder.

The clinical features are intense misery and mental pain, usually associated with feelings of unworthiness and frequently accompanied by delusions of sinfulness. Patients suffering from intrinsic variety of melancholia can give a lucid account of their unhappy state; they are well able to express themselves, and they generally resent the suggestion that they are ill or in any way mentally affected. They are intelligent and able to answer questions accurately, and may make shrewd remarks upon what goes on around them. Many say they have lost all natural affection and do not love their nearest relatives, and they frequently believe they have sinned beyond all hope of forgiveness. Such patients are generally actively suicidal, and numbers succeed in ending their lives. Owing to the slight intellectual disturbance relatives are apt to refuse to accept the suggestion that they are of unsound mind, and so the needful precautions are not taken. In its milder forms this condition would be included under the term "simple melancholia" as used by many authors; in its more severe forms, when the distress of mind is extreme and there is much restlessness, the disorder closely corresponds with Dr. Lewis Bruce's use of the term "excited melancholia."[10]

The bodily health does not suffer so much as in the confusional or inhibitory forms; many of the patients are in very fair health, except that they are badly nourished and below their normal weight. Dr. Lewis Bruce has satisfied himself that excited melancholia is due to bacteria toxaemia. He gives a somewhat less favourable prognosis than I consider is justified in the group now described.

I have not found *intrinsic* melancholia associated with a bad family history so frequently as the inhibitory form, nor is there the same tendency to relapse.

I have notes of 42 cases, 18 males and 24 women. In 6 there was either a previous attack or subsequent relapse; in 12 the family history was not good. Of the 42 patients, 29 recovered, 3 committed suicide, and the remainder when last heard of were still depressed.

I consider we may look upon the intrinsic form of melancholia as an independent form of mental disorder, it being marked off from the inhibitory form by the striking difference in the clinical symptoms, and by the comparative absence of inherited predisposition. In none of my cases were there any maniacal symptoms either before or after the attack of depression.

The prognosis is not so favourable, as regards the immediate attack, as the inhibitory form, but after recovery there is decidedly less tendency to relapse. The unrecovered cases spend the rest of their lives in misery; dementia is slow to appear, and though in chronic melancholia the complaints become more automatic and do not depend on great intensity of feeling, the long-drawn-out suffering constitutes the saddest spectacle of asylum life. Happily, nearly 70 per cent. of cases recover satisfactorily.

I have not thought it necessary to give the notes of a case of intrinsic melancholia, as the disorder is common.

INVOLUTIONAL.

The last group which merits special mention is involutional melancholia, and in dealing with it I shall closely follow Kraepelin's description.

As the name implies, it appears in the declining years of life, in women at or after the menopause, in men somewhat later. In the great majority of cases there has been no previous attack of mental disorder.

The characteristic symptom is anxiety, apprehensiveness, with fear of impending calamity. Delusions are common, but hallucinations are rare. The nature of the fears are very varied, such as fear of exposure of an imagined falsification of accounts, fear of ruin and poverty, and the delusions include many altogether unjust self-accusations. Not a few patients say they have no clothes, are destitute, and must be sent to the workhouse.

It is a sad feature of many of these cases that hard-working men and women who have struggled successfully to provide for their old age, should in the autumn of their lives be harassed so frequently by the very fears that they might reasonably have expected to escape.

But the disorder, though a tedious one, is not so hopeless as one would anticipate. Kraepelin states that about one-third of the cases recover. Out of 27 cases taken consecutively, I found 11 recovered, but 2 subsequently relapsed, 5 died, and the remainder joined the unhappy group of chronic melancholiacs.

The following analysis of my 200 cases shows the relative frequency of occurrence of the various mental disorders which I have endeavoured to differentiate: General paralysis, 8; dementia praecox, 19; psychasthenia, 26; the confusional group, 17; inhibitory, 45; intrinsic, 42; involutional, 27; and unclassified, 18.

Few of us in any degree familiar with the subject will be able to say with the poet Fletcher[11]:

> There's nought in this life sweet,
> If man were wise to see't,
> But only melancholy;
> O sweetest melancholy!
> . . . . .
> Nothing's so dainty-sweet as lovely melancholy.

Nevertheless, I do not think a study of this malady will leave us as dejected as the subject matter would indicate. In only two of the forms dealt with is the prognosis really bad, and in these Nature mercifully dulls the faculties, and the suffering is quickly lessened. In the other forms, we may in the great majority of instances confidently look forward to recovery.

Tanzi[12] has graphically described the joys of recovery from this disorder, and with two sentences of his I conclude this paper:

"When the melancholic patient has passed through convalescence, and has been able to assure himself that his terrible infirmity is really ended, there are no bounds to his joy. . . . If melancholia is the most painful of all diseases, its disappearance is the most delightful of all recoveries."

REFERENCES.

[1] Kraepelin: *Psychiatrie*, p. 194. [2] *The Anatomy of Melancholy*, by Democritus Junior, 1845 ed. [3] *Textbook of Mental Diseases*, p. 502. [4] *Textbook of Psychiatry*, p. 685. [5] *Problems in Psychiatry*, p. 246. [6] Lewis Bruce: *Studies in Clinical Psychiatry*, p. 46, etc. [7] The Leucocyte in the Acute Insanities, *Journal of Mental Science*, October, 1909, p. 726. [8] Dr. Menzies: *American Journal of Insanity*, October, 1893. [9] *Journal of Mental Science*, ibid. [10] *Clinical Psychiatry*, p. 92. [11] Fletcher: Nice Valour. [12] *Textbook of Mental Diseases*, p. 517.

THE RIGHTWARD EDGE OF CARDIAC DULLNESS.

By W. GORDON, M.A., M.D., F.R.C.P.,

PHYSICIAN, ROYAL DEVON AND EXETER HOSPITAL, AND WEST OF ENGLAND EYE INFIRMARY.

THERE is nothing more curious in the subject of cardiac physical signs than the failure of the profession to perceive how posture modifies the cardiac percussion dullness. I can find no adequate reference, if indeed any, to this point in any English textbook. When the change in the normal dullness produced by change of posture was described by me in 1905, at a meeting of the Royal Medical and Chirurgical Society, it was a new fact, and had to be verified.[1]

In cases of cardiac disease, as I then pointed out, the change in the dullness on change of position is even more considerable than in the case of the normal heart, and when we consider how very important these changes appear to be, how necessary it seems, both in diagnosis and prognosis, to be acquainted with them, one cannot but wonder that they have so long escaped the general observation of the profession. That they have escaped general observation is beyond doubt. The only reference to them which I could find, when I looked for it five years ago, was in Dr. Alexander Morison's work on *Cardiac Failure*. Dr. Morison gave a figure[2] illustrating the change in the dullness in a case of mitral disease, and added the following good advice:

> Whatever method be pursued in determining the dimensions of the heart by percussion, it is of the first importance that the posture of the patient should, so far as possible, be exactly the same on successive occasions when this point is under observation.

His book was published in 1897—thirteen years ago—yet, for all the effect his words have produced on current teaching, they might almost as well not have been written. In 1907, in a paper dealing generally with the changes produced by change of posture on cardiac physical signs,[3] I again drew attention to these changes in the dullness. But I, too, might almost as well have saved myself the trouble. Why? At one time I could not imagine that phenomena so obvious could have been generally overlooked. Now I am forced to think otherwise. I can only suppose that the common incapacity to percuss clearly is the cause of the oversight—that our words have fallen, so to speak, not so much on deaf ears as on dumb fingers.

My present purpose is not to re-enunciate what I have already sufficiently emphasized, but to carry the subject on to a somewhat further stage by indicating the area in which the change of dullness is generally most pronounced, and, whilst suggesting a cause for one peculiarity of the change, to furnish more precise reasons for paying attention to it.

If the figure illustrating the usual change produced in the normal cardiac dullness by changing from the recumbent to the erect position (Fig. 1) be inspected, it will be seen that the alteration in the lateral edges of the dullness is considerably greater at the right edge of the dullness than at the left; for whilst in the healthy adult the leftward edge usually moves leftwards about $\frac{1}{4}$ to $\frac{3}{8}$ in., the rightward edge generally moves rightwards nearly $\frac{1}{2}$ to $\frac{3}{4}$ in.—practically double the distance. How can this difference in the movements of the two edges of dullness be accounted for?

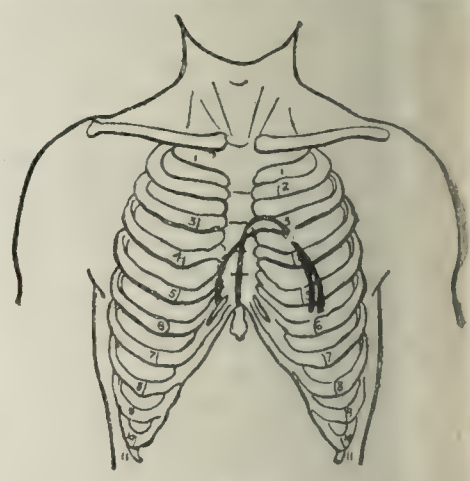


Fig. 1.

If we examine transverse sections of a human body frozen in the recumbent position, taken at the levels of the fifth costal cartilage and the third intercostal space respectively, as shown in Plates XII and XIII of Braun's *Atlas of Topographical Anatomy*, we see that the right auricle does not lie nearly so close to the anterior chest wall as does the right ventricle, and that a considerable part of the right ventricle falls back from the chest wall towards the right. Thus a great deal of the right heart is seen to be well removed from contact with the front of the chest. On the other hand, it is seen that the leftward border of the heart, at about the level of the fifth costal cartilage, lies only a little way beyond the leftward limit of that part of the heart's surface which is close to the anterior chest wall. We can therefore understand how it is that, in the recumbent position, more of the right side of the heart than of its left side is, so to speak, percussionally invisible.

It must be remembered, of course, that, in the dead body, distension of the intestines and retraction of the lungs do something to disturb the natural relations of the parts we are speaking of. But these sources of error do not, I think, invalidate the truth of what I am pointing out.

A comparison of an orthodiagram of the normal heart, such as the drawing (Fig. 2), reproduced from a paper by Drs. Clayton and Merrill,[4] with my percussion dullness diagram (Fig. 1) leads to the same conclusion—namely, that whilst in the recumbent posture, the leftward edge of dullness almost reaches the leftward limits of the heart, the rightward edge of dullness, bounded, as it generally is, by the midline of the sternum, is very far from corresponding with the heart's rightward limits.

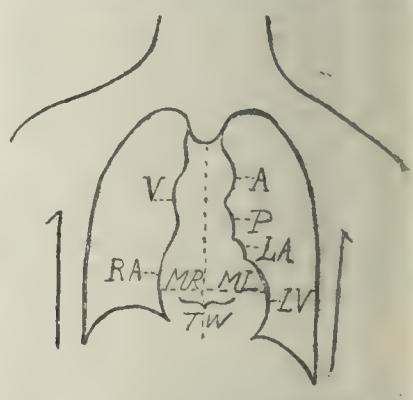


Fig. 2.—Orthodiagram of the normal heart, modified slightly from the figure in Drs. Clayton and Merrill's paper. V, Curve of the great vessels. R A, Curve of the right auricle. A, Curve of the aorta. P, Curve of the pulmonary artery. L A, Curve of the left auricle. L V, Curve of the left ventricle. M R, Width to right of the midline. M L, Width to left of the midline. T W, Total width—that is, M R + M L.

When, however, the erect posture is assumed and gravity no longer tends to pull the heart away from the anterior chest wall, the heart as a whole comes more fully into contact with the sternum and the rib cartilages, as is shown by two skiagrams taken by Dr. Cummings of Toronto, and published in an interesting paper by Professor Rudolf in the BRITISH MEDICAL JOURNAL of 1906.[5] Under these circumstances this rightward region of the heart which in recumbency is percussionally invisible, might, be reasonably expected to come more fully into view. That this is actually the case a comparison of the diagram (Fig. 1) of the normal heart dullness in the erect position with Fig. 2, the orthodiagram from Drs. Clayton and Merrill's paper, and with the heart itself, as shown in the frozen sections, makes evident. It becomes clear that the

width of the cardiac dullness in the erect position is a much more reliable measure of the heart's true width than is the dullness in the recumbent posture; also that the dullness in the erect position usually gives in the normal adult at least some idea of the dimensions of the right heart, which the dullness in the recumbent posture fails to do.

Now let us apply the foregoing to the study of the problems of disease. In cardiac disease, as I have stated, the difference between the cardiac dullness in the erect and the recumbent positions is even more striking than in the case of the normal heart, so that the measurements of the width of the dullness in the two postures often differ remarkably. And just as with the normal heart it is generally the rightward edge of dullness which moves furthest on change of position, so also it is generally the rightward edge of dullness which moves furthest with the diseased heart, only that the movement is usually more extensive. A few instances will suffice to make plain this very important and, I repeat, quite obvious clinical fact.

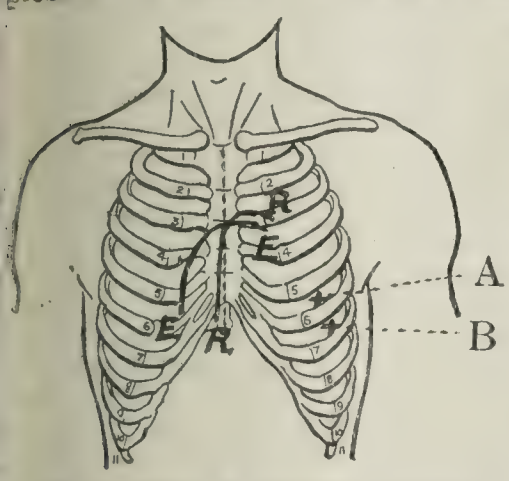


Fig. 3.—W.W., 60. Dilated and hypertrophied heart; slight albuminuria; slight apical systolic murmur conducted towards the axilla. M.R.: Erect, $1\frac{7}{8}$ in.; recumbent, $\frac{3}{8}$ in. A, Apex beat recumbent. B, Apex beat erect. R R, Outline of dullness in the recumbent position. E E, Outline of dullness in the erect position.

Let M.R. denote the distance of the rightward edge of cardiac dullness from the midline of the chest; T.W. the total width of the dullness; and, in the diagram given (Fig. 3), E E the outlines of dullness in the erect position, and R R its outlines in the recumbent position.

Mrs. B., 70, old-standing mitral regurgitation, slight albuminuria, commencing dropsy.

	Erect.		Recumbent.
M.R.	$1\frac{1}{4}$ in.	.....	0 in.
T.W.	7 in.	.....	$5\frac{1}{4}$ in.

Miss B., 57. Dilated heart. No murmur.

	Erect.		Recumbent.
M.R.	2 in.	.....	$\frac{1}{8}$ in.
T.W.	$7\frac{1}{2}$ in.	.....	5 in.

Mr. A., 56. Dilated heart. No murmur. Slight albuminuria.

	Erect.		Recumbent.
M.R.	2 in.	.....	0 in.

Mrs. G., 60. Heart hypertrophied and dilated.

	Erect.		Recumbent.
M.R.	2 in.	.....	$\frac{1}{8}$ in.
T.W.	9 in.	.....	5 in.

Mr. W., 60, dilated and hypertrophied heart, slight mitral regurgitant murmur; a trace of albumen.

	Erect.		Recumbent.
M.R.	$1\frac{7}{8}$ in.	.....	$\frac{3}{8}$ in.

Mrs. V., 43, dilated heart. Two observations.

On January 28th:

	Erect.		Recumbent.
M.R.	$3\frac{1}{4}$ in.	.....	$1\frac{3}{4}$ in.
T.W.	$8\frac{1}{4}$ in.	.....	$4\frac{1}{2}$ in.

On February 11th:

M.R.	$1\frac{1}{2}$ in.		
T.W.	$5\frac{1}{4}$ in.		

Such instances could be very easily multiplied, though to multiply them would serve no useful purpose. But it must not be supposed that so great differences are always met with. Here are a few cases in which the changes were less pronounced:

Mr. S., 48, very feeble dilated heart.

	Erect.		Recumbent.
M.R.	$1\frac{3}{4}$ in.	.....	$1\frac{1}{4}$ in.
T.W.	$7\frac{1}{4}$ in.	.....	$6\frac{1}{4}$ in.

In this case both lateral edges of dullness moved equally, which is, I think, quite unusual. Dr. Morison's case, in which the leftward edge moved further than the rightward (see his diagram), is, I find, exceptional.

Mr. W., 35, well-compensated mitral stenosis.

	Erect.		Recumbent.
M.R.	1 in.	.....	0 in.

O. C., 24, old mitral stenosis, with marked pulmonary regurgitation and great enlargement of right heart.

	Erect.		Recumbent.
M.R.	$1\frac{7}{8}$ in.	.....	$1\frac{1}{2}$ in.

In this last case probably the great size of the right heart kept it fixed in contact with the anterior chest wall, even in recumbency.

A single instance will suffice to show how these differences may affect diagnosis.

Some time since I saw a case with a friend, who is a very careful observer. He had been called suddenly to a boy of 19, a stranger to him, who had had a very alarming attack of syncope, and, as the condition continued serious, had sent for me. He told me he could find no evidence of cardiac dilatation, although the friends stated that such had been previously found. The lad's condition had made it impossible to raise him from the strictly recumbent position, and on percussing out the heart dullness in that position I, too, was quite unable to discover any dilatation. But by the time of my arrival the patient was already greatly better, and we were able to raise him cautiously into a sitting posture and repercuss out the heart dullness. We then found that the heart was obviously and considerably dilated, especially towards the right.

What, then, it will naturally be asked, is the value of the transverse measurements of the cardiac dullness, given without mention of the patient's posture at the moment, with which so many otherwise excellent descriptions of diseased hearts are supplemented? The only reply possible is "None whatever." For when the same heart, as in one of the cases I have quoted (Mrs. V.), gives, at one date, a dullness $4\frac{1}{2}$ in. wide in the recumbent posture and $8\frac{1}{4}$ in. wide in the erect, whilst a fortnight later, coincidently with general and local improvement, a dullness in the erect posture of only $5\frac{1}{4}$ in., what certain use would any of these measurements have been with no accompanying note as to posture. If, on the first occasion, when the patient was rather ill, the heart had been examined in the recumbent posture and found to have a dullness $4\frac{1}{2}$ in. wide, and, on the second occasion when she was much better, had been examined in the erect posture, and been found to have a dullness $5\frac{1}{4}$ in. wide, the natural inference would, of course, have been that the dilatation was increasing, whereas very much the reverse was the case.

To conclude: seeing that, in so many cardiac conditions, an estimate of the state of the right ventricle and auricle is an important factor in our judgement alike of prospects and of progress, it is surely only common sense to believe that these differences are matters not of curiosity, but of great practical importance. In the recumbent position we get, I submit, in many cases of cardiac disease a quite misleading idea of the condition of the right heart which is often then percussionally almost invisible. In the upright position we have usually the great advantage of having much more of the right heart percussionally in view.

I venture once again to submit these differences to the consideration of my fellow practitioners.

REFERENCES.

[1] The Influence of Posture on the Normal Cardiac Sounds and on the Normal Cardiac Dullness. *Roy. Med. Chir. Trans.*, vol. lxxxix, 1906. [2] *On Cardiac Failure and Its Treatment*. London, 1897, p. 33. [3] Bodily Posture and Cardiac Physical Signs. *Lancet*. August 10th, 1907. [4] Orthodiagraphy in the Study of the Heart and Great Vessels. *Amer. Journ. of Med. Sci.*, 1909, pp. 549–562. [5] The Influence of Bodily Posture on the Position of the Heart. BRITISH MEDICAL JOURNAL, October 20th, 1906.

IN consequence of the alleged outbreak of yellow fever at Sekondi, to which eight deaths among Europeans have already been attributed, a band of seven medical volunteers, headed by Sir Rubert Boyce, is sailing for the Gold Coast this week under the auspices of the Colonial Office.

THE STATE CIVIL MEDICAL SERVICES,

With Special Reference to the Poor Law and the Reorganization of the Home Civil Medical Service.*

By JOSEPH GRIFFITHS, M.D., M.C., F.R.C.S.,
surgeon to addenbrooke's hospital.

The State Civil Medical Services.

Before a State service of doctors came into existence in this country, doubtless aid of a kind that was at the time considered adequate was forthcoming, but that aid, satisfactory in its nature as it might have been and probably was, although freely given, was not at the service of the State; and no one except the man who could pay could command it to meet any particular necessity or emergency. To-day State service of one kind or another is so common that we may take it as permanently established; also, that the principle involved in the maintenance of such services at the expense of the State and for the advantage of the community is universally accepted and acted upon without demur or question.

The growth of this State Civil Medical Service has been slow, but not many years pass without Parliament giving sanction and financial support to the creation of a new section in this medical service. Quite recently there has been established the medical officer for the examination and physical care of school children, and another for the control and supervision of the new order of midwives, and there is already an inspection over public nurses.

Many of you here to-day hold one or more offices in this State Medical Service, and most of you know from personal experience the present working of the medical service of the Poor Law—the oldest branch; others know the machinery of the public health branch, which has by now reached a respectable age, having been born in the year 1848; and others still are finding out how to carry on the newer services which doubtless will gradually expand, perhaps to great proportions. However extensive our individual knowledge may be in any particular division or branch of this public service, I hope that the result of an effort at gathering a short story of the evolution of the ordinary State civil medical services may prove of interest to you as it has proved to me.

As the civil medical services are certain to increase and to gain greater and greater importance with the onward march of events, it is clear to my mind that the best interests of the State, as well as those of the profession of medicine, will be served only if medical men throughout the country will periodically take under review the policy of the State in such matters, and duly consider such policy so as to be able to offer sound advice to those who are more immediately concerned with the regulation of State matters than we are, or are likely to be. In the consideration of such subjects it is not a question of one medical man finding fault with another one in ethical or any other matter, but a question of getting one and all to see eye to eye and to guide the public in the way that the knowledge doctors especially possess determines and dictates. By all means let us be doctors first, but, being doctors, let us devote our knowledge at any rate to the welfare of the community at large, and do this in an organized and systematic way, and not only as individuals, one here and there, perhaps crying in the wilderness with no one near enough to hear our voices.

Now, if we take a look back upon the time before the reigns of Henry VIII and Elizabeth we may picture to ourselves a condition of affairs in which industry apart from agriculture with its side shows may be regarded as absent. During and up to this period all men, women, and children engaged in the national industry, agriculture, were always welcome to a share of the food and clothing that the farm or estate could produce and provide, and so it was that want, except in the case of the lazy and the good-for-nothing folk, perhaps never arose, certainly not to such an extent as to demand systematic treatment on the part of the State. It must not be forgotten, however, that up to the reign of Henry VIII the religious foundations throughout the length and breadth of the land rendered the special service of providing for any extreme want, either in food or in clothing, but this was purely a matter of charity.

The members of these religious orders, among whom the intellectual faculties were cultivated, could deal with matters requiring knowledge and foresight in a larger way than the common people: hence it was that in times of scarcity, from a bad season perhaps, the granary of the monastery and its store of wine and food, each of which was constantly kept replenished, was ever ready to meet emergencies. When Henry VIII quarrelled with the Church as then constituted and determined to abolish the religious foundations by confiscating the buildings and other properties, the moment his wish was carried out a magnificent organization for the distribution of charity was swept away, and ever since we have been struggling with a mixture of State and private help, often hopelessly inadequate, not in the main from want of means but from lack of an organization which could embrace all that which is due to a member of the State and that which Charity says should be offered even if not due or deserved. In consequence of the disorganization which followed upon the abolition of the monasteries the old charitable channels dried up, and nothing much remained except the unorganized charity which private persons did undertake.

When in the reign of Elizabeth industries of all kinds began to arise, for the first time in our history communities or colonies of men, women, and children were needed to develop those industries. At this time the master who paid a wage for work done came upon the scene, and men, women, and children were employed not only for the purpose of supplying themselves with food and clothing, but also for the very important purpose of giving that stimulus to the brain of the man who desired to make capital, either for his own welfare, for that of the community he lived in, or for the amassing of wealth which could bring in its wake power to himself and to his descendants.

The master who had his eye upon amassing wealth was apt to lose sight of the fact that the more he amassed the more he got out of his workpeople, and, at times, this may have led to oppression; further, it may have led to what is of greater significance—namely, the regulation of the work to meet the fitful demands of purchasers. Busy times were all to the good, but slack times to people unaccustomed to hoard for a rainy day were ever unwelcome. Besides, that feeling which the landowner and farmer had towards all who worked for them, and for whom they were in a measure responsible for feeding and clothing, gradually gave place to the feeling that it is all a business concern—work being paid for in money, leaving no balance of indebtedness from employer to the labourer—a soulless thought which has engendered many a needless struggle. The outcome of this new industrial development following upon the abolition of the religious foundations was to bring into prominence the presence in the country of those who were unable to provide themselves, through misfortune or disease, with sufficient food, clothing, and shelter.

This evil grew to great proportions, and in the forty-third year of the reign of Queen Elizabeth an Act was passed by Parliament to meet the evil and to provide relief for the poor. The organization for distributing this relief was first constructed at this time, and to-day the same organization with minor modifications is still in force.

In this reign provision was made only for relief in the way of food and shelter to the poor, and it did not occur to the authorities then, nor for some 150 to 200 years after, that the poor, in addition to help for keeping body and soul together, were deserving of medical and surgical relief; indeed, not until the

* Read before the meeting of the Cambridge and Hunts Branch of the British Medical Association, December 3rd, 1909.

early part of the reign of George III is mention made in the public Acts of medical relief. The justices of the peace were at this period empowered to order medical relief to the inmates of workhouses, and for the first time in our history there was called into existence a system by means of which medical relief was ordered and paid for by the State—to be correct, by the parish and its vestry, which was then the administrative body for such purposes. We find that between the years 1750 and 1800 the practice of giving medical relief systematically and at the public expense gradually established itself, and about this time parishes began to appoint medical officers who were regularly employed. This practice was almost confined to the south, east, and centre of England until the year 1834, when the Poor Law Amendment Act was passed. Although the practice of giving parish medical relief at the public expense was in actual working order at this period in about half of the parishes in England, yet the subject of medical relief is mentioned only once in the Poor Law Amendment Act, 1834, and then it is for the purpose of extending the practice confined to the inmates of workhouses in the reign of George III—namely, of conferring a power upon the Justices of the Peace to order medical relief to a person in cases of sudden and urgent illness.

Up to the year 1834, as I have said, the unit for the administration of relief was the parish, and the body for such purposes was the "vestry"; therefore, whatever was undertaken for the relief of the poor was under the charge of the vestry, and the medical man was appointed, if at all, by the vestry, consisting of churchwardens and overseers.

Now, on the passing of the Poor Law Amendment Act in 1834, the most important change in the administration of the Poor Law that occurred was the combination of two or more parishes into "Unions" controlled by a board of guardians, the members of which are elected in proper representative proportions from the different parishes composing the union. With this change the appointment of medical men to give relief to the sick poor was transferred from the hands of the vestry to those of the guardians; and the Commissioners appointed to administer and put into working order the Poor Law Amendment Act issued an order to all Unions throughout England and Wales to appoint medical officers for the care and relief of the sick poor. Accordingly, after 1834, the Boards of Guardians throughout England and Wales, being the administrative authorities for a union of two or more parishes, in due course proceeded to elect medical officers to attend upon the sick poor.

Therefore, not only were the inmates of the workhouse looked after, when sick, by a properly appointed medical officer, but, further, all the unions were compulsorily ordered to take steps to make similar provision for those in receipt of outdoor relief and those who were unable to provide medical relief for themselves.

It was this action on the part of the Poor Law Commissioners that secured for England and Wales, for the first time, the provision of medical relief to the sick poor generally at the expense of the community.

It will especially interest us if we look for a moment at the mode of election of such medical officers, for it reveals the condition under which medical men then worked, and, moreover, gives a clue to the cause of the general dissatisfaction that subsequently arose in the ranks of the medical profession. This mode of election was what is known as the "tender" system, which means that the medical work of the union was yearly let out to medical men, and that the lowest bidder obtained the appointment. There was no security of tenure, and in consequence the appointment soon became of the value it would fetch as an advertisement to a doctor who wished to retain an office he had once held or to one who wished to set up in a new district and desired something to which he could hang on and by which he could legitimately show himself in the area of the union. Owing to this and other causes it was not long before discontent arose not only among members of the medical profession, but also among the poor and their friends.

The doctors complained of the system of election by "tender"; of the insecurity of tenure; of the largeness of the area which they often had to travel; of the smallness of the stipend, and, to their credit be it noted, of the difficulties put in the way of the poor in obtaining medical relief in cases of urgent or sudden illness; lastly, of the incompetency of many in their own ranks, who, in their opinion, should be compelled, before being entrusted with the duty of attending the sick poor, to seek greater education, wider knowledge and experience.

Remedial measures were not adopted until after the year 1839, when a Committee of the House of Commons reported upon the working of the Poor Law, and in consequence of this report the election by "tender" was abolished by an order of the Poor Law Commissioners.

This action of the Commissioners removed only one of the causes of discontent, and so it was that agitation was kept going. During this time and on to the year 1844, the one man in the profession who seems to have been the champion not only of medical men but also of the poor was a Mr. G. W. Guthrie, who was President of the Royal College of Surgeons (England) in the year 1833. His efforts were seconded by the Council of the Provincial Medical Association, a body that preceded and gave birth to the present British Medical Association. Curiously enough Guthrie, the champion of the medical profession, was met by an equally capable, resolute, and just-minded man, a Commissioner, by name George Cornewall Lewis, whose paramount duty was to guard the interests of the members of the community and the State. He, however, appreciated the position of the medical men, and did all in his power to further their interests so far as that was consistent with his duty as Commissioner. Before going any further I will read a letter from the Council of the Royal College of Surgeons of England to the Commissioners in the year 1835, soon after the Poor Law Amendment Act was passed.

To the Right Honourable the Lord John Russell, His Majesty's Principal Secretary for the Home Department.

The Memorial of the President, Vice-Presidents, and Council of the Royal College of Surgeons in London, respectfully showeth,

That several members of the College have complained to your Memorialists, that under the orders and regulations issued by the Poor Law Commissioners persons have been appointed to the surgical charge of the sick poor who are not duly qualified to practise surgery.

That such appointments are injurious to the members of the three Royal Colleges of Surgeons in the United Kingdom, and manifestly dangerous to the poor.

That as the Society of Apothecaries of London are not authorized to examine their licentiates as to their proficiency in the art and science of surgery, such licentiates cannot be regarded as qualified to judge of the operations and other ministrations of surgery, on the skilful performance of which human life imminently depends.

That by an Act of the 4th of His late Majesty, cap. 64, relating to gaols and houses of correction, it is required that the surgeon to each of such gaols and houses of correction should be a member of one of the Royal Colleges of Surgeons.

That your memorialists cannot but believe his Majesty's Government feels as much, or greater, interest for the poor as for criminals; and respectfully, but earnestly, request that it be an instruction to the Poor Law Commissioners to adopt the principle of the said Act in the future appointments to the care of the sick poor of the several parishes or unions in England and Wales.

(*Signed*) JOHN G. ANDREWS, *President.*
ASTLEY COOPER, } *Vice-Presidents.*
ANTHONY CARLISLE }

29*th day of July* 1835.

If we subject this letter to criticism, it will be observed that the two reasons given for the action taken by the members of the College are—*one*, that the members are not afforded that protection in the practice of their profession which protection they were led to expect and which they thought they were entitled to in virtue of the trouble and expense they had incurred in the acquisition of the diploma of the Royal College; and the *other*—that the sick poor were not treated in the manner they ought to be, because many of the medical men were not

properly qualified to undertake the work; in plain words the apothecaries were not surgeons, and it was stated they were not capable of performing the service, always in demand, that the surgeon could and ought to be able to render. One motive of the members of the Royal College of Surgeons was to improve their own position, and the other was to secure for the poor the best skill then at the command of the State.

The doctors did not, however, obtain all they wished and asked for, but they did get (1) the appointment by election of the Guardians with the approval of the Poor Law Commissioners; (2) security of tenure, for the appointment is for life, subject only to good and proper behaviour; (3) payment, in part as a yearly stipend, and in part as extra fees for special work, fixed by the Poor Law Commissioners and not alterable by the guardians; (4) all doctors appointed after 1844 required the diploma of the Royal College of Surgeons, as well as one from the Royal College of Physicians or from the Apothecaries' Hall. In this way the services of properly qualified medical men were secured for the sick poor, and the medical men themselves were satisfied with the conditions of the service and with the remuneration they were to and did receive.

No change has been made in the condition of the Poor Law medical officers since this date—1844—and to-day the salaries are much as they were nearly seventy years ago; the fees for extras have not been altered, and the conditions under which medical relief can be obtained are unchanged, with the exception of the abolition of disfranchisement; the regulations or conditions of appointment, the characters of the qualifications, and the right of holding the office during good behaviour remain the same.

The doctors further held that the poor should in cases of emergency and even in case of ordinary illness have the right to send for the doctor at the expense of the parish or community and not be compelled first to seek an order from the relieving officer, who either lived far distant or was away from home attending to official or other duties; for unless an order was obtained the doctor had no claim for payment from the union, and if he went it was at his own expense. Delay that was dangerous to the lives of the sick poor occasionally arose in consequence of too close an adherence to such a system.

Guthrie very strongly supported this demand, not only, be it noted, in the interests of the medical men, who then, as now, did more in the way of charity than was their proper share, but also because he felt that any one who was taken suddenly ill had a right to the services of a doctor; and he maintained that the union should, in case the person taken ill was poor, pay on demand made by the medical man. The Commissioners resisted this demand, and laid it down as an essential principle of the Poor Law that no one is entitled to relief in any shape or form from the union unless he or she be destitute; but in case a person obtain service and is afterwards found to possess means, the cost of keep to the guardians shall be recoverable if necessary by action at law.

Had Guthrie's view prevailed, namely, that any one has the right to the service of the doctor if taken suddenly ill, and this at the public expense, I feel sure that we would have with us to-day, not voluntary hospitals here, there, and everywhere, but large State infirmaries in each union or district with a full staff of officers, physicians, and surgeons, drawing, perhaps, handsome salaries from the State. It may be that it is well that State infirmaries do not exist except in special cases.

The public has always sympathized with the poor, as seen in the maintenance of hospitals where the poor can go and are sure of receiving the best advice and help at the command of the institution free of charge. If we look back upon hospitals we see that they arose to give help to the sick poor, and our oldest institutions date back long before the time when the first Poor Law Act was passed in the forty-third year of the reign of Queen Elizabeth. So far as we know, such hospitals have always drawn to them men of the first rank in the profession of medicine; men who have given their services in lieu of the opportunities they receive for practice and study; each side, the poor and the doctor, has been mutually benefited and the generous public has indirectly reaped advantages of no mean order. As hospitals grew in importance, in numbers, and in accessibility the poor went to them in larger and larger numbers, and the special work of the Poor Law medical officer became less and less, until at the present time it is comparatively small except in some large towns where an important union infirmary (one or more) is still a necessity.

Where the Poor Law system failed the voluntary hospital system succeeded, and to-day, I venture to think, we all rejoice that our hospitals are open to all sick alike in case of emergency, to the rich only in case of urgent illness, to the poor for minor ailments, prolonged illness, or simple and severe operations. The poor can in this way, through the charity and good feeling of their fellow beings, seek and obtain medical relief of the highest order. Those who are thus helped are expected, if circumstances permit, to help others in their turn, and relief is given, not because the individual deserves it but because he is suffering.

Our Poor Law system, then, is legally only prepared to render service in case of destitution and not without a special order from a duly appointed officer—relieving officer of the union; and this is not given without evidence that the applicant is destitute or necessitous. In the case of our hospitals, on the contrary, charity provides advice and help for all who are in need of her services. True, this charity is abused now and again, especially in hospitals with medical schools attached or with teaching functions; it is doubtful, however, if the abuse is more than what human beings like to tolerate.

Having so far referred to the Poor Law in a general way, and to the relation the medical profession bears to it, the next step that naturally follows is a reference to the medical relief section of the report of the last Royal Commission on the administration of the Poor Law. I will refer to the report of the majority only. In it there are submitted for consideration *two great principles* with the view of improving the present system of dealing with the sick poor who are destitute, and who throw themselves upon the State for help. The *first* is that a regular service of inspectors be appointed, drawn presumably from the ranks of the medical profession, to inspect the work of the officials and to see that proper attention is given to the sick poor, whether treated in Poor Law infirmaries or at their own homes. Dr. John Price of Llangollen,[1] in the year 1844, advocated this system, but not without first making the officials independent of local influence—a condition, I venture to think, essential to the success of any such scheme. Medical inspectors under the present system may do their work well enough, but if the parish doctors or those who may replace them are kept under local control, it will not be easy for an inspector to say what he thinks he ought about the care of the sick, and at the same time do justice to the official, who will be judged not by men who possess the requisite knowledge to give a proper judgement, but by men who are for all practical purposes devoid of that knowledge, and who are easily influenced by local prejudice, and who may have a friend ready to take on the work. This is what was done from 1834 to 1844, and likely enough will be done again if opportunity be given.

The *second* principle is, that the sick poor be treated in the same sort of way as members of clubs and provident dispensaries are at present. The authorities by arrangement with such clubs and provident dispensaries would grant orders for the destitute sick to have attendance on application or by visits at home. In relation to this proposal it will be of great interest to you all if I read to you a letter from the Newmarket district, and sent in 1844 to a Committee of the House of Commons which inquired into the working of the Poor Laws.

[1] See letter appended, p. 1344.

TO THE HONOURABLE THE MEMBERS OF THE COMMITTEE OF THE HOUSE OF COMMONS, APPOINTED TO CONSIDER THE SUBJECT OF "MEDICAL RELIEF" IN THE POOR LAW BILL NOW PENDING IN PARLIAMENT.

We, the undersigned medical officers of the Newmarket Union, beg most respectfully and humbly to approach the Honourable Committee of the House of Commons now sitting, and beg to state that the system of remuneration to the medical officers of this union is by a pauper list, for which 2s. 6d. per head is paid, and by a fixed sum 7s. 6d. for every special case. We object to this system; not in principle, because, if fairly carried out, it is one of the best, if not the best, of plans hitherto offered to the profession and to the public. In making any alteration, we feel assured the Honourable Committee will have chief regard to the comfort and advantage of the sick poor. If it were possible, therefore, to adopt a system which would facilitate the communications between the doctor and his patient, in lieu of the present objectionable one of seeking medical relief through an order from the relieving officer, much suffering would be saved to the poor, the protraction of the case would be averted, and life frequently saved; besides saving an immense amount of labour to the ill-paid surgeon. In other words, the paupers seeking assistance by the special order system are often deterred from applying so early as they would otherwise do, from the difficulty of prevailing on the relieving officer to consider their illness sufficiently serious to grant such order; often being told, too, the order can only be granted as a loan; and thus, by delay in proper attendance, urgent, or in some cases mortal, symptoms have set in. In the Independent Labourers' Medical Club, established in this district under the benevolent patronage and high sanction of the Duke of Rutland, the Marquis of Bute, and other influential persons of the neighbourhood, members have the privilege of selecting their own doctor, and apply for his assistance at any time when they feel to require it, without losing time by seeking an order elsewhere. It is to avoid the evils at present inseparable from the plan adopted here that we humbly and earnestly call the attention of the Legislature to modify the arrangements for medical relief in the coming Poor Law bill, so as to put the sick and indigent poor upon a better plan for quickly obtaining assistance when they may be overtaken by accident or by disease; and we humbly submit this desirable consideration will be best accomplished by strengthening the power vested in the Poor Law Commissioners, as we have ceased to confide in the liberality entertained by boards of guardians, who are generally actuated by feelings of economy or local advantages in their arrangements for providing medical assistance for the sick poor. And your petitioners will ever pray, etc.

(*Signed*) E. L. KNOWLES. ROBERT TYSON. ALFRED JONES. W. G. STUTTER. THOMAS LUCAS. S. M. PECK. HENRY CALTHROP. R. FAIRCLOTH. HENRY MILLER.

The pay seems to have given satisfaction, but the real drawback, so it was said, was that a patient taken ill had to provide himself or herself with an order from the relieving officer, otherwise the medical man, if he went, did so entirely at his own expense. The choice of doctor lay with the poor.

This plan was adopted for a time in the Newmarket Union, and here, as well as in Northumberland, where the same system was tried under the patronage of the Duke of Northumberland, the scheme failed and fell into disuse. We have every reason to suppose that if tried again it will meet with the same fate.

So far as the medical profession is concerned, the recommendations of the Royal Commission affect it in a very material way.

I take it the suggestion is that the present office of the Poor Law medical officer is to be abolished and that the poor are to be allowed to choose their own doctor or one of several attached to a provident dispensary. If I am right, then I am sure it is time for us to wake up, or else the State will make us contribute not only our share of the rates and taxes, but also a good portion of our knowledge and skill towards the treatment of the sick poor. We shall have thrown upon us not only the burden of the citizen, but also an additional burden in the shape of charity—indeed, we shall be slaves to the community, and shall be regarded as men whose duty it is to pay all rates and taxes, and besides to attend the sick poor on a provident basis. I will venture to say that the members of the medical profession, if ever they accept this position, will deserve to remain slaves, and the State will be quite right in demanding from those doctors not only the contributions every citizen is liable to, but also something no other member of the community can give. We are, I am sure, more than ready to undertake our share in the work of the country, but we ought not to stand such an imposition as the Majority Report suggests should be thrown upon us. This is nothing less than an imposition, and once put on will hang round our necks for many generations.

The work in connexion with the Poor Law should, I maintain, be properly paid for, and all charity left to charitable institutions. The Poor Law work is what the State is prepared to provide for any one who is destitute or without means to pay for medical attendance, and this work, like any other the State takes in hand, should receive proper remuneration; whereas the work done at a real provident dispensary or at a voluntary hospital is given free of expense, and the honorary medical officers give their services free of charge. They are content with the advantages they obtain from the practice the appointment brings with it, and their services are given not because they desire to render charitable aid to less fortunate members of the community, but because they will indirectly gain knowledge and experience which may prove invaluable to them in the practice of their profession. The doctors and the public gain in more or less equal proportions, and we all reap the benefit the cultivation of charitable thoughts and practices bring in their wake.

We may now leave the Poor Law Medical Service and briefly review the services that have been established since the year 1834. Vaccination officers were created in 1840, and, with modifications as to fees and other minor details, the system continues much the same. The vaccination officers from the beginning were, and still are, appointed by the guardians and approved by the Local Government Board; the appointment is terminable by notice given by either party. The fees, however, have from time to time been modified, and to-day the fees may be regulated by the guardians.

The next branch of this State Medical Service to be called into being was in connexion with public health. In the year 1848 the first Public Health Act was passed. This conferred powers of very great extent and of immense importance upon local authorities, urban district councils, borough councils, and county councils. The sphere in which action might be taken under this Act is almost boundless, for the object of the Act is the prevention of disease; in other words, the maintenance of a standard of health, which standard will, we hope, gradually rise as time goes on.

The conditions affecting food and drink supply, provision of light, air and sunshine, the removal of all substances injurious to the health of the public generally; the prevention of the spread of disease and the prohibition of the conditions known to advance or favour disease, etc., come under its scope.

Well, it is interesting now to note that after all the fuss and bother to obtain security of tenure for the parish or union doctor between 1834 and 1844—four years later the medical profession acquiesced in a mode of election for medical officers of health that it refused for the parish doctor. Accordingly, the medical officer of health, who occupies a position that ranks higher, is paid better, and has thrown upon him greater responsibility than is given the parish doctor, is now and has been since 1848 elected by the local authority, either the union, district council, borough or county council. The appointment, it is true, must be sanctioned by the Local Government Board, but the appointment need not be made for a period extending over one year. Security of tenure is still wanted in England and Wales. London and Scotland have wisely secured it. The want of this security of tenure is often seen, for unless the public are aroused to the necessity of change the local medical officer of health is often powerless to insist on essential reforms, especially where important local people are concerned and where the suggestion of reform, it is thought, would reflect discredit upon such important local folk.

The factory surgeon is another important officer, but this officer, like the prison doctor, is under the direct control of a Government Board—Home Office.

Since the passing of the Education Act of 1907 it has become clear that in order to carry out its provisions medical officers must be appointed to inspect and to see that children are in a fit state of health to

profit by the education given at the expense of the State. In this instance also the medical profession has been found asleep, and the whole matter has been arranged, and, now that everything is for all practical purposes finished, we, as medical men, wake, rub our eyes, and hurry up to catch lost time and recall lost opportunities. This is of no use.

There are other State offices held by medical men to which I need not refer, as I think I have said enough to show that, sooner or later, it will be necessary to review this question in its entirety, and that primarily in the interest of the State, and only secondarily in the interest of the medical profession.

Outline of a Plan by John Price, M.D., Llangollen, to Improve the System of Administering Medical and other Relief to the Sick Poor of the Different Unions in England and Wales; and for the Better Regulation of the Medical Officers, and of the Remuneration for their Professional Services in their Respective Districts, so as to place them in a more Respectable Position than at Present.

1. That a proper number of superintendent medical officers be appointed by the Government, or by the Poor Law Commissioners, to superintend the medical department of the different unions in England and Wales.
2. That two or more superintendent medical officers be appointed for North Wales, the same for South Wales, and a proportionate number for England.
3. That a certain number of superintendent medical officers so appointed form a board.
4. For the medical board so constituted to appoint the medical officers in each district in the division under their control, but subject to the sanction of the Poor Law Commissioners.
5. That each superintendent medical officer visit the several districts in his division once a fortnight or month, or at some other specified period, to hear complaints and rectify abuses (if any) of the sick poor.
6. That the medical officer of each district keeps a regular register of cases, and sends or gives the superintendent a copy of the same every fortnight, as is now done to the Board of Guardians of the different unions, for the satisfaction of the Poor Law Commissioners.
7. That the medical department be entirely from under the control of the Board of Guardians and overseers in each union.
8. That a proper list of the sick poor be forwarded by the medical officer to either the Board of Guardians or to the relieving officer of each district every week or fortnight, with medical observations on cases when necessary.
9. That a list of all actual paupers, and a statement of such others as are, under the Poor Law Act, to be attended by the medical officer of each district, be given or sent to him at stated times by the Board of Guardians.
10. That each actual pauper has cards given to him, to be filled up by the medical officer when the said pauper is ill, and the card to be returned by the pauper to the medical officer on recovery. And that any other person having a right to medical advice, according to the Poor Law Act, may, by right, apply for a card to the medical officer subject to the above regulations.
11. That the said card so filled up, may be taken or sent by the pauper to the relieving officer during illness for extra assistance, or money, or diet.
12. That the chairman and *ex officio* guardians (being magistrates) and the board of guardians, do entirely manage the poor of their respective unions in every respect except the medical department; they being always, as at present, subject to the control of the Poor Law Commissioners.
13. That each superintendent and other medical officers are paid by the board of guardians a reasonable fixed income, regulated according to the population, number of paupers registered as sick, nature and extent of the district, besides for surgical cases, and difficult cases of midwifery, according to the Act of March, 1842, and also for vaccination per case.

Dr. Price does not recommend the plans of so much for each sick pauper attended, nor for mileage, as both such plans would be open to much abuse, as all frivolous cases might be registered in the one instance, and in the other useless distance visits to the poor might be made.

THE REORGANIZATION OF THE HOME CIVIL MEDICAL SERVICE.

The rapid increase in the amount of work the State throws upon doctors, and the creation of new services, make medical men think not only of how the work can be accomplished, but also how it can be best organized to fulfil the purposes the State has in view, and that in the most effective, useful, and economical way. There can now be no question of seeing how we can do away with one or more of these services, or reduce the amount of the work called for, and so it may be as well for us to realize that no other course is open to us than the course of reorganization of a service that must of necessity become of paramount importance to the State, not merely in the way of treating the sick poor but chiefly along the lines of preventing the occurrence of disease which for ever threatens men when congregated in communities and subject to the necessities of industrial life.

In order to summarize the work of a State Civil Medical Service we may divide the work into two great divisions, namely, (1) the relief of sickness among the destitute poor, and (2) the prevention of the spread of disease from community to community or from person to person and the promotion of conditions necessary to the enjoyment of good health.

1. The relief of sickness has been done by the Poor Law medical officers. There is one matter I would like to point out here, and it is that in connexion with the Poor Law there have been established large infirmaries, especially in and around London and very big towns. So long as the destitute poor only are therein treated there can be no objection raised whatever the cost of providing what is right and what we ought to supply to our sick poor. But in the Poor Law Commission Report, 1909, it will be seen that in some of the infirmaries patients who are themselves ratepayers get admitted and willingly pay the prime cost to the guardians for keeping them for a short time, for example, in connexion with surgical operations. Now, I maintain, these infirmaries were built and are upheld for one purpose only, and that is to give relief to the sick poor. When, however, a man gets himself into an infirmary and it is afterwards found upon inquiry that he is not destitute the guardians ought to treat him as a private person and call upon him to pay to them, not only the prime cost of his keep but the equivalent of what would be charged him in private life, for similar services and similar accommodation. In short the ratepayers did not sanction the building of Poor Law infirmaries for any other purpose than the treatment of the sick and destitute poor. Further, the medical man elected to the office of doctor to a Poor Law infirmary accepts the office on the understanding that the guardians have no claim upon him for services in addition to those necessary to attend to the sick poor in the House.

2. The prevention of disease has for over half a century been undertaken by the public medical officers of health. This department may, indeed, be said to have begun with the appointment of vaccination officers in the year 1840, and since it has been increased not only in size but in scope, and surely it will continue to do so as time goes on, for our very object in life is primarily to enjoy good health, and that cannot be secured without making the conditions under which we live as near natural as possible. While the department concerned with the Poor Law has remained stationary, that concerned with the health of the community has progressed, and for over half a century our Government has added a new function here and another there, until at last we have reached a stage when I think we ought to gather together the different medical functions now carried out by the State, and see if it be not possible to group them together into line. We have the Poor Law Medical Officer, Vaccination Officer, Medical Health Officer, under the Local Government Board; the Factory Surgeon, under the Board of Trade; and the Medical Officer for the Inspection of School Children, under the Board of Education, etc. The Poor Law Medical Officer, the Medical Officer of Health, Vaccination Officer, Factory Surgeon, Medical Inspector of School Children, and Medical Inspector of Midwives are all of them men educated on the same lines. They, however, work independently of one another and are under different authorities—authorities which have in reality no claim to regulate and control them, except that they supply the means for carrying on these several services.

Why should the Local Government Board deal with and control one branch of this service, the Board of Trade another, and the Board of Education still another? The only answer that can be given is that each Board in its turn found work thrown upon it that its ordinary officials could not perform and so it gave that work to members of the medical profession. We undertook what, in some cases, was right we

should undertake, but in others, the work was thrust upon us with an almost intolerable impertinence.

Be that as it may, the work I now propose to take in hand is to show how a Civil State Medical Service may be organized, and the various functions at present carried out by independent bodies of officers may be brought under one effective control. I maintain it can be no advantage to a department like the Local Government Board to retain control over the medical officers of health, for the community only demands that the work shall be properly done; nor can it be any advantage to the Board of Education to have the medical officers of schools directly under its control, provided the inspection be duly carried out; nor indeed, can it be to the advantage of economy to have the medical work of the State carried out by so many independent boards and so many officers having no connecting link between them. These medical officers are, as I have said, trained medical men; they, one and all, work for the State and are paid by the State. Yet they are in their work independent of one another, and under different authorities which are probably as independent of one another as bodies can possibly be.

The Department of Public Health is perhaps the best organized, and it possesses a large staff of highly trained men with a medical education, though many are necessarily not acquainted, except in a general way, with the practice of their profession. And were I to take any one department as a basis to build up the whole it would be this one; but as my knowledge is necessarily incomplete, and as I am dealing with the matter from the point of view of general policy, it will not be of any advantage to enter upon such details here. The first necessity, so it seems to me, is the realization that it must be to the advantage of the State to have its various, and now independent, medical services united together into one complete whole that possesses the capability of expansion as occasion arises, and that can effectively control the entire field, now in part overlooked by the Local Government Board, by the Home Office, by the Board of Trade, or by the Board of Education.

A board for the regulation and control of the civil medical services would form the fountain head. This board should rank just like, say, the Local Government Board, having the same status, similar powers, with regard to the spending of money allotted to it by Parliament; a civil head, responsible to Parliament; and a professional head with a supporting committee of officials selected from each grade of the service, and perhaps from each one of several large divisions of the whole country. A board thus constituted could undertake the organization of all the work of the State, and, I venture to think, subsequently control it not only to the satisfaction of the country but also with strict regard to economy.

The civil head would be able to represent matters in Parliament, and could at any rate point out the folly of passing measures which throw duties upon medical men that run counter to their professional honour, as was done of late in the case of the Notification of Births Act; for what medical man, I should like to know, is ever going to send word to public authorities that Miss —— has this day given birth to a fine boy! Again, such a board could soon organize its sections: (1) Relief of the destitute poor; (2) control of the public health, vaccination, inspection of school children, inspection of conditions of work in factories and mines, inspection of midwives, etc. Each branch could be regulated, and the board could have a grip of the whole of the work done throughout the country; and men of medical education would be judges as to whether the work done was satisfactory or not, for the simple reason that they possess the knowledge for the exercise of such judgement. The country need not be afraid that by giving such power to a board consisting mainly of medical men it would be creating a group of partisans for the rest of the medical profession, for I venture to think and to assert that there is no body of men that hold a higher ideal of what men owe to themselves, to their neighbours, and to the State than a body consisting of members of the medical profession.

Such in brief is the outline of the reorganization that I would ask you to consider. It is, I think, nothing more than what the country needs, and anything less would, in my opinion, be no gain to the State.

Before I conclude it would be pleasing to me personally to add that, should such a scheme as sketched above come into the range of practical politics, a still wider outlook should not be lost sight of. It is this: The Board of Agriculture is burdened with questions appertaining to veterinary science, just as the Local Government Board is with sanitary science; also with the new science of mycology and all the diseases plants are subject to. Doctors, veterinarians, and mycologists deal with matters akin to one another, and it only wants a big, open mind to see that all three should by co operation be made into one whole.

THE NATIONALIZATION OF MEDICAL SERVICE.

By BENJAMIN MOORE, M.A., D.Sc., M.R.C.S., L.R.C.P.,

JOHNSTON PROFESSOR OF BIO-CHEMISTRY, UNIVERSITY OF LIVERPOOL.

THE ever-increasing amount of service rendered to the State and to our great municipalities by medical men for direct payment opens up a most important question with many vexed issues, both for these public servants belonging to our profession, and for those others who are left in general medical practice paid for privately by the individual.

Increased work ought to mean increased total payment, and should be for the good of the profession as a whole, besides giving greater opportunity for public service, yet many medical men object bitterly to this increasing amount of State work not paid for directly by the recipient.

Many men in private practice cannot see where things are drifting to under present and foreshadowed legislation. They fear pecuniary loss and financial disaster, and hence maintain a stubborn resistance. Others, holding at present more or less well-paid public health or Poor Law appointments, fear displacement or reduction in any rearrangement.

Others, again, foresee in school clinics and improved Poor Law hospitals an unwarrantable extension of the undoubted hospital abuse inseparable from our present inadequate and wrongly administered system of voluntary hospitals, so illegitimately robbing men of their well-established rights.

Now it is of fundamental importance at this juncture that our profession should present as much solidarity as possible in its views, and also that it should convince the thinking public and educated laymen that it intends to do its utmost to further progress and to safeguard as thoroughly as possible both public and individual health.

There can be no possible doubt that in the long run the interests of the public and the interests of the profession are best served by the same common course, if only we can avoid falling out by the way.

We render a great service both to the individual and to the State, which can and ought to be paid for like any other great public or private service. No one questions this, although occasionally dishonest persons or dishonest public boards may attempt to avoid adequate payment. Neither Majority or Minority Report states that the doctor is not to be paid for his work, and it is an open question whether State work on the one hand, or private work on the other, is better paid at the present time.

The all-important question is whether there is to be more or less work to do, and how public servant and private practitioner, or the mixture of both, are to share in it, as to the amount of work allotted to them, and the amount of payment assigned for doing it.

If the work done, whether for State or individual, is paid equally adequately, it surely follows that if the health of every man, woman, and child is completely

attended to in part publicly and in part privately, then there must be more work and more pay for the profession as a whole than there is to-day.

There is not space here to enter upon the grounds of public utility and humanitarianism alike for which it is necessary to reform the Poor Law as a whole and medical service especially in connexion with it, but it may be confidently stated that if the comprehensive scheme of the Minority Report became law, the amount of medical work required—at the commencement, at any rate—would be at least trebled. A rapid decrease, both in public and private work, would follow the establishment of a thoroughly efficient medical service for the poor, on account of the improved public health, and we should all have longer and healthier lives; but a level would never be reached at which fewer doctors were needed than now, under our incongruous, ill-matched systems, often hopelessly opposed to one another, and in which the greater part of the work is left undone or licked over in a way of which any honest craftsman is ashamed.

The various other schemes, such as the Majority Report, all suggest more work than at present, though not so large increases as the Minority Report. Accordingly, whatever change occurs, there is bound to be an increase in the amount of work adequately done, and hence, unless we behave very foolishly, an increased amount of payment to the profession as a whole.

The next and burning question is the distribution of this work and pay, and how the changes are likely to affect present members of the profession. Are they going to be hurt or benefited by this movement? As the dean of a medical school, and in that my special work has brought me in contact for some years with men just graduated and thinking of entering the profession in various capacities, I think I can put forward some facts which may interest the general medical practitioner in this connexion.

In the first place the number of men entering the profession shows no tendency to increase but rather to decrease all over the country. In fact, there has been all the time for the past fifteen years a steady fall in this respect. Accordingly, unless the amount of work is rapidly decreasing, competition between private practitioners cannot be on the increase but rather decreasing, and, other things being equal, the average income ought to be improving. Further, in regard to what specially interests us here—namely, the distribution of work between private practitioner and public servant—if the total number of men entering the profession remains constant, then, whether the income of the private practitioner decreases or increases will ultimately depend upon the relative number of men entering public and private careers as compared with the amount of work taken away from the private practitioner by legislation and placed under public service.

For example, if half the men graduating were accommodated with suitable and permanent berths in the public services, so that only half the number entered upon work as private practitioners, then it is logical and indeed most obvious that half the work could be taken from private practice and put into State practice without affecting the income of the private practitioners in the slightest degree. Further, if the half who entered upon public work undertook chiefly forms of work which had never been done at all before, and so did not take away quite the half of the private work, then there would be more work for each private practitioner to do. Finally, the law of supply and demand would, of course, assert itself, and more men would commence to enter the profession.

It is thus seen that any increased demand for additional work properly paid for by the State will in the transition benefit rather than injure the general practitioner—this, too, excluding any direct sharing in the State work by men already in the profession. If such practitioners are open, as they are, to take a share, the new work becomes more advantageous to them still.

Now, we may ask, How far do these considerations accord with what is actually occurring with regard to the distribution of men entering the profession? In regard to the medical school with which I happen to be connected the answer is perfectly clear. A very considerably increased number of men are preparing for public health appointments. I happen to hold a Research Chair in the University of Liverpool, and until about two years ago I had an average number of between nine and ten young graduates either working on theses for M.D. degrees or visiting my laboratory in the intervals of leisure of commencing practice; during the last two years this number has been reduced to two, and the men who used formerly to come to me are working for the D.P.H., to qualify for the State and municipal work which they clearly see either coming or actually with them. This does not wholly represent the influx of men preparing for public work; other departments in our university have also sent their contributions to the public health laboratory, and the numbers of men now preparing for the D.P.H. are between three and four times as great as they were five years ago.

Nor is this, in my opinion, a temporary state of affairs. The State department of medical work is certain to increase year after year, and I venture to prophesy that within ten years from now over 80 per cent. of the young men in the country qualifying in medicine will be entering upon public health and hospital work for a great national service.

Is this change to be deplored in the interests either of the State or the medical profession? If we look at the subject even from the practical point of view of money earned by each man, I venture to deny it. The present *average* income of the profession lies well below £200 a year. Now, for whole-time service, we can hardly imagine the State offering less to a young graduate than £200 a year as a commencing salary, rising under ordinary promotion to £600 or £800. As a matter of fact, none of the existing services such as the R.A.M.C. or I.M.S. do offer less than about these figures when allowances are added in. But even suppose when the public service is completely organized we start at £150 a year in the junior posts, it goes without saying that the *average* pay will lie a long way above its present value of less than £200 a year.

The only thing present members of the profession have any cause to fear is the transition, and I have endeavoured above to bring forward evidence that this is adjusting itself, and, in my opinion, even over-compensating itself in a perfectly natural way.

A stage will probably never be reached at which the general practitioner will cease to exist; there will always be a large number of wealthy people, of middle class tradesmen, and of better class artisans who will desire to have private advice from their own doctors and pay for it themselves. These are the people who pay and support the private doctor. Even now the State is chiefly taking away the charity and unpaid work done for undesirables, and the State is going to pay for it, so that medical men will no longer have to work for nothing, or a mere pittance. Is this really the curse that some general practitioners have been taught to think it?

Further, by men being drafted off to do this work more room to live is left for the others. This process happens not only in the case of men about to enter the profession, but with men who have been in general practice. This happened recently, for example, in Birkenhead. A medical practitioner of Birkenhead was appointed as schools medical officer, and gave up practice on accepting it. What has happened to his practice? Are the people who used to consult him no longer ill? Of course they are; and now they go to other practitioners, so that this practice is distributed amongst the other private practitioners of Birkenhead. This is happening all over the country, and must benefit private practitioners. Moreover, a great deal of the work is new work for children who were never taken to doctors, but allowed to run on into chronic ill-health, and become charges on the State, in earlier and later adult life.

The general practitioner who has been reading this may say, perhaps, But in many instances he sells his practice, or another man comes and sets up. The

answer to this is that new men buying practices, or coming in and setting up, exist in a definite amount determined by the number entering the profession from the medical schools each year. Accordingly, if a man throwing up general practice goes in for a municipal or State appointment, he takes one off any glut of new men there may be, and, unless the total number entering the profession increases, every man going into State work must inevitably mean one less in private practice somewhere.

Eventually more men will enter the profession as the average income goes up on account of increased public service requiring more men; but until that happens—and it will not happen at once—men already in the profession are going to have a better time of increased incomes, whether they themselves go into State work or not. In other words, even the transition period is going to be advantageous to the profession as a whole, and not deleterious.

There are other advantages which the proposed reform in Poor Law and public health administration must inevitably bring in its train, and conspicuous amongst these is the complete abolition of hospital abuse with the absorption of the voluntary hospital system, which must inevitably occur as the new hospital or infirmary for the poor is brought up to the present level of a good voluntary or charitable hospital. Charity will take the form, probably, of endowing medical and clinical research, while the State will supply one uniform and adequate system of hospitals, open to people with means fixed at a certain maximum level. The work done for these people will be properly paid for by the State to that portion of the profession occupying public appointments. There will be correspondingly less men in private general practice, practising under certainly better conditions amongst people who are able and willing to pay them.

Under such a system hospital abuse cannot exist; in the first place, there are no subscribers to worry both medical staff and lay committee into bowing to demands or supplications from wrongful participants; in the next place the people below a certain standard of means using the State hospitals cease to be a part of the *clientèle* of the private practitioners, who will be less numerous. Such cases will now belong to the men in the State service, who are paid by the State for attending to them.

The advantages to the community of such an adequate national system—in preventing the very poor from infecting other classes with disease and establishing a better national health and sanitation—are too obvious to require elaboration.

Were such a system in existence, legislation could be pushed forward to enable the profession to deal with disease, and especially infective diseases of a chronic type, in a way hitherto undreamt of, and, by complete and efficient segregation, some diseases which vitiate our community and kill off the best of our children and citizens could be entirely swept away, or reduced to such a state of subjection as are at the present time small-pox, cholera typhus, and typhoid.

Can we not, then, seeing that the people's cause is our cause and their service our service, band together to head this movement towards better health and sanitation which social reformers are now leading past us, snatching away the palms which should be ours? Let us be at the head of this movement instead of at the tail of it.

DR. JAMES EDLINGTON MCDOUGALL has been placed on the Commission of the Peace for the City of Liverpool.

THE annual conference of the Child Study Society will take place at Tunbridge Wells on Friday and Saturday, June 10th and 11th. On Friday evening the President, Sir James Crichton-Browne, will deliver an address. On Saturday papers will be read as follows: On the hand as the gate of knowledge, by Sir John Cockburn; on the social life of a child at a co-educational school, by Mr. John Russell, Headmaster of King Alfred School, Hampstead; and on the child as citizen, by Mrs. Higgs. Further information can be obtained on application to Miss F. M. Watt, Honorary Local Secretary, 10, Lime Hill Road, Tunbridge Wells.

GASTROSTAXIS.

BY

W. HALE WHITE, M.D., F.R.C.P.,

SENIOR PHYSICIAN TO AND LECTURER ON MEDICINE AT GUY'S HOSPITAL.

DR. CHARLES BOLTON'S very interesting article in this JOURNAL for May 21st prompts me to give reasons for the belief that the condition of gastrostaxis, or oozing of blood from the interior of the stomach, exists. He, like many others, myself included, has "not the slightest doubt" that there is a disease, occurring chiefly in women between the ages of 20 and 40, characterized by pain, vomiting, and bleeding from the stomach, but he suggests that it is due to acute ulcers. Last year he supported the oozing view, for he said,[1] "Occasionally in young women . . . gastric haemorrhage is seen without any lesion of the mucous membrane being present to account for it. . . . Such cases have also been called gastrostaxis." If the oozing is fatal, minute erosions must occur, for the blood has broken through the epithelium.

Dr. Bolton mentions three cases in which bleeding was due to an acute ulcer, but one was a man aged 49 and another a woman aged 69, so that two of them hardly come within the limits of the disease in question. In the third an ulcer $\frac{3}{4}$ in. in diameter was found. It clearly could not, after the *post-mortem* examination, be confused with gastrostaxis; in none of these three was there any evidence that the bleeding came from more than a single point. In favour of the belief that oozing or gastrostaxis does exist, I would urge that the blood often in that condition comes from many bleeding points at once. For example, Dr. A. G. Gullan[2] showed at the Liverpool Medical Institution the stomach and intestines of a girl, aged 19, who had had all the symptoms of gastric ulcer, including haemorrhage. No ulcer could be seen in the stomach, but there were numerous small haemorrhagic erosions scattered over its mucous membrane and that of the duodenum and intestines. Dr. Herringham[3] gives a case in which on opening the stomach after death several small areas were seen from which haemorrhage had occurred, but no ulceration. There were also haemorrhagic areas in the intestines.

Turning to cases observed during life, Mr. Eve[4] speaks of seeing inside the stomach "small red points." Mr. Moynihan[5] speaks of "bleeding from many tiny points"; "the mucous membrane weeping blood." In the series of cases I originally collected,[6] in No. 5 blood was seen oozing from three different places. In No. 12 nothing abnormal was seen inside the stomach but a congested patch of mucous membrane. In No. 15 the stomach was deep red all over, with many bleeding points. In No. 16 bleeding points were found. In No. 20, in a small patch the oozing of blood appeared to come from a few minute points. In No. 24 a considerable number of bleeding points were seen. I have notes of a case communicated to me by Dr. A. E. Boycott. The patient, a woman, had two very severe attacks of haematemesis. During the second the stomach was opened and a large area of congested bleeding mucous membrane was seen. No local point of bleeding could be found to tie or excise, I admit that Dr. Bolton says that the finding of multiple bleeding points is no evidence against the acute ulcer view, because acute ulcers are sometimes multiple; but, in the first place, many acute simultaneously active ulcers are very rarely seen at an autopsy, and most of the descriptions which I have quoted, hardly describe active ulcers. An observer probably would not describe acute ulcers as a large area of congested, bleeding mucous membrane. And lastly, the chances that numerous minute acute ulcers would be all quite close to one another and all bleed at the same time must be remote. The opportunities for seeing this oozing from the stomach will become fewer, for surgeons, fortunately, rarely now open the stomach for haematemesis during the attack of bleeding; but I submit that the descriptions I have quoted support the view that oozing occurs.

Evidence from *post mortem* examinations must be rare, as the condition is seldom fatal; indeed, out of 7,500 *post-mortem* examinations at Guy's I could only find 3 cases that could have been examples of gastrostaxis. Several observers, however, believe that they have seen fatal cases

of gastric haemorrhage in which no trace of an ulcer, chronic or acute, could be found; and although, before the presence of a minute acute ulcer can be denied, much care must be taken, it hardly seems likely that all these observers are wrong. I have seen one fatal case within the last four years. That was a woman who had been in the hospital several times for haematemesis. After death I made a careful examination of the stomach, and neither I nor any one else could see any evidence of an ulcer. Dr. Wilberforce Smith has kindly sent me notes of a similar case, in which he and two other doctors made a most careful examination of the stomach after death, and no ulcer or source of the bleeding, which during life was very severe, could be found. I must, however, admit that in neither case was the stomach photographed or examined microscopically. It is allowed that acute ulcers may form the initial stage of chronic ulcers; but if all the cases which some call gastrostaxis were examples of acute ulcers, we should hardly expect that chronic ulcers would be, as they are, judging by *post-mortem* experiences, equally common in men and women, for the condition described as gastrostaxis is far commoner in women.

From this evidence it seems that some at least of these cases of pain, vomiting, and haematemesis in young women are due to oozing of blood from the stomach, and may therefore be called gastrostaxis. We do not know the cause of it any more than we know the cause of epistaxis in young boys or menstruation in women. There is reason for believing that a similar oozing may take place from the vessels of the kidney and give rise to blood in the urine; probably some of the cases of suspected stone in the kidney in which none is found are instances of this. Several cases have been recorded lately of bleeding from the stomach in association with disease of the appendix, and although this is difficult to explain it is easier to imagine that some toxin from the diseased appendix, acting as an endothelial poison, would cause gastrostaxis rather than gastric ulcer, for we know that in toxaemia associated with disease of the liver (apart from portal congestion) haematemesis may occur without any ulceration of the stomach and rupture of minute gastric vessels is not rare in acute infective process, for of 172 cases of gastric ecchymoses found in the *post-mortem* room at Guy's Hospital in 68 the cause of death was an acute infective process.

My justification for this short note is that it may interest your readers, as Dr. Bolton has given reasons for doubting whether the bleeding was due to gastrostaxis, to supplement him by giving those in favour of that view.

REFERENCES.

[1] C. Bolton, *Clin. Journ.*, March 31st, 1909, p. 392. [2] *The General Practitioner*, December 8th, 1906. [3] W. P. Herringham, *St. Bartholomew's Hospital Reports*, vol. xliv. [4] F. Eve, BRITISH MEDICAL JOURNAL, May 7th, 1910. [5] Moynihan, ibid., January 29th, 1910. [6] Hale White, *Lancet*, November 3rd, 1906.

THE first of a special course of six demonstrations on the surgery of the nervous system will be given by Mr. Percy Sargent at the National Hospital for the Paralysed and Epileptic, Queen Square, W.C., to-day (June 3rd), at 5 p.m. The course will be continued on June 8th, 10th, 15th, 17th, and 22nd, at the same hour.

THE Society of Medical Phonographers offers a prize of one guinea for competition amongst medical students for the best answers to three questions in medicine and surgery which are intended to appear in the August, October, and December issues of *The Phonographic Record of Clinical Teaching and Medical Science* (the organ of the society). The sole qualifications for entry are membership of the Society of Medical Phonographers and ability to *read* shorthand (Pitman's system). Answers to the questions may be sent in in ordinary writing, type-writing, or shorthand, at the option of the candidates. The competition will take place if not less than four student members enter for it. Entries must be received on or before July 7th by the honorary secretary of the society, Dr. A. Hill Joseph, 10, Cantelupe Road, Bexhill-on-Sea, who will be glad to receive applications for membership. There will be no entrance fee. Student members of the Society of Medical Phonographers pay a subscription of 5s. per annum, in return for which they receive the periodical and other literature issued by the society. Members of the profession pay a subscription of 7s. 6d. per annum. It is proposed later to institute another competition in anatomy and physiology.

THE DIFFERENTIAL CUTANEOUS REACTION IN TUBERCULOUS DISEASES.

BY

HENRY CLARKE, M.D., M.A.CANTAB,

HONORARY PHYSICIAN AND PHYSICIAN-IN CHARGE OF THE LABORATORY;

AND

CHARLES E. P. FORSYTH, M.B., B.CH.ABERD., M.R.C.P.LOND., D.P.H.,

PATHOLOGIST TO THE HOSPITAL.

(From the Research Laboratory of the Liverpool Hospital for Consumption and Diseases of the Chest.)

IN October, 1908, Dr. Ladislaus Detre, of Budapest, speaking at the Washington Congress on Tuberculosis, proposed a modification of von Pirquet's cutaneous reaction. He suggested that by applying bovine and human tuberculin simultaneously it would be possible not only to determine the presence or absence of tuberculosis but also to determine whether the bacillus present was of the human or bovine variety.

We have been using this method for about eighteen months, and have now on record the results in several hundred cases. We think it may be of interest to record the first 250 consecutive cases, and to consider what conclusions may reasonably be drawn from the results.

The technique is simple. A 25 per cent. solution of old tuberculin (as prepared by Meister, Lucius, and Brüning) is made up with a diluent consisting of one part of 1 in 20 carbolic acid glycerine and two parts of normal saline solution. The solutions are kept in three pipette stoppered bottles containing respectively the diluent for control, bovine, and human tuberculin.

On the right forearm is placed a drop of the diluent, and at some distance a drop of human tuberculin, and the skin is scarified through each drop with a straight Hagedorn needle. The solutions are then rubbed in with the needle. The left arm is similarly treated with bovine tuberculin. A different needle, which is kept in alcohol, is used for each solution.

If a reaction occur, a small red papule appears in twenty-four hours, increases in size for three or four days, and then gradually fades in about a week, leaving in some cases a slight desquamation or pigmentation. In a few cases the papule becomes vesicular, and in still fewer the reaction is delayed until the fifth or sixth day. The control should show no reaction on the third day.

In analysing the results of the first 250 cases it must be borne in mind that in every case there was some reason to suspect the presence of tuberculosis. Seventy-nine cases were certainly tuberculous, in 42 cases the diagnosis of tuberculosis was highly probable, and in 129 cases there was no evidence of tuberculosis other than the reaction when present.

The accompanying tables (p. 1349) contain an analysis of our results:

1. All cases certainly tuberculous gave one or both reactions, *with one exception*, namely, a case of tuberculous meningitis in which tubercle bacilli were found in the cerebro-spinal fluid. This patient died.

2. Of cases probably tuberculous, one or both reactions were present more frequently where the probability was greater than where the probability was less.

3 In cases suspected of tuberculosis, where there were no definite diagnostic signs, one or both reactions appeared more frequently after the age of 15 years and most frequently in patients over 45 years of age. It is obvious, however, that the probability of any individual being tuberculous increases with his age.

3. In the pulmonary cases, of those certainly tuberculous 2 gave a bovine reaction, and 22 both reactions. Of those almost certainly tuberculous 2 gave a human reaction, 1 a bovine, and 39 gave both reactions. In these two groups, of 66 patients examined 61 gave both reactions, which in 28 cases were equal, in 17 cases the human, in 16 cases the bovine being greater; 2 gave the human reaction only, and 3 the bovine. In all cases some reaction occurred.

TABLE I.—*Pulmonary Cases.*

	Both Reactions Present.			One Reaction Present.		No Reaction.	Total.
	Human Greater.	Bovine Greater.	Both Equal.	Human.	Bovine.		
Definite physical signs; T.B. present	8	4	10	0	2	0	24
Definite physical signs; no T.B, or not examined	9	12	18	2	1	0	42
Doubtful physical signs; no T.B., or not examined	6	3	10	1	1	32	53
No physical signs; no T.B., or not examined	7	7	18	2	1	55	90
Totals	30	27	56	5	5	87	209

TABLE II.—*Miscellaneous Cases.*

Disease.	Both Reactions Present.			One Reaction Present.		No Reaction.	Total.
	Human Greater.	Bovine Greater.	Both Equal.	Human.	Bovine.		
Cervical glands enlarged	5	5	5	—	—	1	16
Laryngo-pharyngitis (tuberculous)	—	4	3	—	—	—	7
Ulceration of nose (tuberculous)	—	—	1	—	—	—	1
Tuberculous peritonitis	—	2	2	—	—	—	4
Tuberculous meningitis	—	—	—	—	—	1	1
Tuberculous dactylitis	—	1	—	—	—	—	1
Lupus	1	—	—	—	—	—	1
Spinal caries	—	—	1	—	—	—	1
Heart valvular disease	—	—	3	—	—	2	5
Tonsillitis	—	—	1	—	—	1	2
Anaemia	—	—	—	—	—	1	1
Syphilis	—	—	—	—	—	1	1
Total	6	12	16	—	—	7	41

TABLE III.—*All Cases in Age-groups.*

Age-groups.	Total.	Definitely Tuberculous.		Probably Tuberculous.		No Evidence of Tuberculosis.	
		Positive.	Negative.	Positive.	Negative.	Positive.	Negative.
0–5	15	1	—	3	—	4	7
5–10	93	24	1	12	1	8	47
10–15	38	12	—	8	2	2	14
15–25	43	18	—	7	1	10	7
25–35	27	9	—	6	—	3	9
35–45	20	8	—	1	—	7	4
45 and over ...	14	6	—	—	1	6	1
All ages ...	250	78	1	37	5	40	89

TABLE IV.—*Percentages giving Positive Reaction in the Three Clinical Groups, arranged according to Age.*

Age-groups.	Definitely Tuberculous.	Probably Tuberculous.	No Evidence of Tuberculosis.
0–5	100	100	36.3
5–10	96	92.3	14.5
10–15	100	80	12.5
15–25	100	87.5	58.8
25–35	100	100	25
35–45	100	100	63.6
45 and over	100	—	85.7
All ages ...	98.7	88.1	31

TABLE V.—*Percentages giving Positive Reaction in Different Age-groups.*

Age-groups.	Total.	Positive Reaction.
0–5	15	53.3 per cent.
5–10	93	47.3 ,,
10–15	38	57.8 ,,
15–25	43	81.3 ,,
25–35	27	66.3 ,,
35–45	20	80.0 ,,
45 and over	14	78.5 ,,
All ages	250	62.0 ,,

General Conclusions.

This reaction is certainly capable of being applied cheaply, safely, and easily by any medical man, and in our opinion, if properly interpreted, it is of great value. Broadly speaking, our interpretation of our results is as follows:

(*a*) Any patient giving either or both reactions is certainly tuberculous, but the reaction gives no indication of the site or activity of the tuberculous lesion.

(*b*) Any patient giving no reaction is certainly not tuberculous, except in exceptional cases of advanced and moribund tuberculosis.

(*c*) In pulmonary phthisis both reactions are usually present. This seems to us to indicate either that the human and bovine bacilli are very closely allied, or, less probably, that both bacilli are usually present. The practical deduction we have drawn is that it is safer to exhibit mixed human and bovine tuberculin in all cases treated with tuberculin. If either is of any value it

will do its work, and the other will, at any rate, do no harm.

The number of cases we give is, we think, sufficient to justify, at any rate, a provisional opinion on the subject, and we have no hesitation in using this reaction ourselves, and recommending it to the profession as a simple and harmless method of obtaining accurate information, which we have found to be of great value in many obscure cases.

A FURTHER CONTRIBUTION ON THE STERILIZATION OF THE SKIN OF OPERATION AREAS.*

By J. LIONEL STRETTON, M.R.C.S., L.R.C.P.,
SENIOR SURGEON, KIDDERMINSTER INFIRMARY AND CHILDREN'S HOSPITAL.

My first communication on the sterilization of the skin of operation areas[1] by iodine was based on an experience of 57 cases. A further experience of 291 cases has increased my belief in the method and enabled me to improve my technique.

In the accompanying table I have added my cases together, so that I can submit a complete list representing the operations I have performed during the last ten months which were suitable for such a preparation. The cases have not been selected; they represent various classes of the community and ages varying from a few days to 84 years.

No. of Cases.	Operation.	Result.	Remarks.
5	Abscess	S.	2 healed per primam.
1	Amputation: hip	S.	Was suppurating.
3	,, thigh	2 P., 1 S.	1 was gangrenous.
1	,, foot	P.	
1	,, hand	P.	
6	,, fingers	P.	
4	,, toes	P.	
14	,, breast	P.	
3	Anthrax	S.	Malignant pustules.
9	Appendix: quiet	P.	
8	,, suppurating	S.	
3	Appendicostomy	P.	
1	Castration	P.	This healed per primam, in spite of secondary haemorrhage necessitating re-opening the wound.
6	Circumcision	S.	
2	Colostomy	S.	
4	Colotomy	S.	
3	Empyema	S.	
2	Epithelioma, lip and face	1 S., 1 P.	
6	Fractures, wired	4 P., 1 S.	1 died (tetanus); 1 compound, some suppuration.
7	Glands in neck	6 P., 1 S.	1 was suppurating.
11	Goître	P.	1 malignant, died in 48 hours.
1	Harelip	P.	
15	Hernia: radical cure	P.	4 femoral, treated with metal staples.
5	,, strangulated	4 P., 1 S.	1 was suppurating.
4	Hydrocele: radical cure	P.	
1	Ingrowing toenail	S.	Was suppurating.
6	Knee-joint operation	P.	
	Laminectomy	P.	Died within 48 hours
12	Laparotomy: various	11 P.	1 after watery solution healed per primam; abscess followed.
1	,, extrauterine fetation	P.	
3	,, ovarian	P.	
	,, uterine fibroid	P.	
6	,, ventrifixation of uterus	P.	
1	,, nephropexy	P.	
1	Laparotomy: suture bladder	S.	Was suppurating; died.
7	,, gastro-enterostomy	P.	
1	,, perforated gastric ulcer	S.	Died within 24 hours.
1	,, gall stones	S.	
1	,, enterectomy	S.	Died within 48 hours.
1	,, intestinal anastomosis	S.	Died within 48 hours.
6	Mastoid operation	S.	
1	Nerve suture	S.	It had been suppurating; nerve held.
10	Naevus	P.	
3	Osteotomy	P.	
6	Paracentesis thoracis	P.	
3	Plastic operations	P.	
2	Ruptured perineum	S.	Healed per primam.
19	Small tumours; bursa, etc.	18 P.	One suppurated.
5	Sinus exploration	S.	All suppurating.
7	Tenotomy	P.	
1	Tendon suture	P.	
1	Tracheotomy	S.	
2	Trephining	P.	
36	Varicose veins	P.	
1	Varicocele	P.	
272			
	It has also been used in the following cases:		
23	Casualty wounds	S.	In most cases a perfect result; 1 gangrene, 1 tetanus.
27	Injection of antitoxin	P.	
25	Skin grafting	S.	
1	Vaccination	P.	Did not take!
348			

N.B.—In column three: P = perfect; S = satisfactory.

Of the 272 operations some were performed for conditions already septic, but from my experience of similar cases prepared by the former method I have no hesitation in saying that their after-progress was more satisfactory. They are marked as "satisfactory" in the table. Some have healed per primam and are marked "perfect."

I have had only three failures among the clean cases:

CASE I.—The first was an old man upon whom I performed an exploratory laparotomy. He was found to be suffering from malignant disease of the liver, and the abdominal wound was closed. When dressed on the eighth day, it was perfectly healed, and the stitches were removed. Five days later a collection of pus (about two ounces) was found beneath the cicatrix. This case was prepared with a watery solution of iodine, which I was then experimenting with. It is possible the failure was due to that, or there may have been no failure at all, and the abscess may have been due to infection from another source. This appears probable, because the skin wound healed perfectly, and there was no trace of redness about any of the sutures.

CASE II.—The second was the case of a small boy with a mole on his cheek, near the angle of the mouth, which I excised. It is difficult to apply a closed dressing in this situation, and it is still more difficult to keep it dry, in an adult; in a boy it is wellnigh impossible, and I feel satisfied that this was the cause of infection.

CASE III.—The third case is more difficult to account for. The patient was a man, aged 32, whose leg was fractured at football on March 28th by indirect violence. The left tibia was broken obliquely, and an *x* ray photograph showed about ¼ in. separation between the fragments.

On April 2nd I made an incision and fixed the ends of the bone with a screw and silver-wire suture. The operation was quite simple, and was performed in the usual way.

On the fourth day the temperature was raised, but when the wound was dressed it appeared to be all right. By the sixth day there was a decided red blush, which spread with alarming rapidity, and within twenty-four hours reached his groin. He was treated with Bier's congestion and injections of polyvalent serum (B. and W.). On the tenth day he developed signs of tetanus, which increased; he had constant convulsions, and

*Read before the Kidderminster Medical Society.

died on the twelfth day. It is impossible to say how the infection occurred. If it was the fault of any of the preparations it is probable that the cases operated upon at the same time would have been affected. The ligatures used were catgut, prepared after the method of Sir William Macewen.

Suspicion was directed against catgut by Mr. W. G. Richardson in the BRITISH MEDICAL JOURNAL of April 17th, 1909. In the JOURNAL of May 29th, 1909, I reported a case of tetanus which occurred in a man eighteen days after an operation for varicose veins. The wounds had all healed per primam, and I was unable to account for the infection. I feel now, as I felt then, that there is no proof to connect them. The fact that this man was in a poor state, with a mouth full of decaying stumps, may have been, at any rate, a contributory cause.

Two or three other operations were performed the same morning under precisely similar conditions, including the excision from a man's neck of a huge carcinomatous mass, which necessitated the removal of the sterno-mastoid muscle and the deep jugular vein—a large dissection, lasting an hour and three-quarters. It healed up perfectly, and the stitches were removed on the eighth day, and he went home within a fortnight.

Besides septic and clean cases there are a considerable number which cannot be placed in either category. In such cases as appendicectomy and gastro-enterostomy, with the possibility of infecting the wound from the opened viscera, the skin preparation could not be blamed. Fortunately all these cases were successful and can be quoted in support of the method.

In cases such as circumcisions, where it is practically impossible to keep an aseptic dressing applied, healing occurs more quickly and there is less inflammation. Casualty wounds which have all been exposed to infection have in most instances healed perfectly. There were two failures—one a gunshot wound of the thigh which was followed by tetanus, and one a wound into the knee-joint followed by gangrene.

I tried the treatment in one vaccination, and I asked my friend Dr. O. C. P. Evans, the Public Vaccinator, to try it also. Our experience was very similar. It was too effective because it destroyed the lymph and there was no result, in spite of the fact that I allowed the iodine to dry on before performing the operation.

A former house-surgeon informs me that he finds the method useful for sterilizing his fingers in midwifery cases.

In this connexion arise the questions of staining, desquamation, and dermatitis. The staining does not persist, and I find that by the time most operations are completed all the colour has disappeared. If my hands become stained, as they often do, it is easily removed by washing them in a 1 per cent. solution of cyllin (3 per cent. carbolic solution is equally efficient), and towels are cleaned by soaking in a similar solution. There is no desquamation as a rule. I have seen it in one case, due, I think, to the solution being too strong, owing to exposure during a long operation and consequent evaporation. It should always be stored in a stoppered bottle, and only sufficient for use poured out. I prefer to use it direct from a wide-mouthed bottle. It can be applied with a sterilized swab or brush.

I am informed by several members of the profession that they are familiar with cases of acute dermatitis following the application of tincture of iodine, but personally I have not come across one. I have never heard any complaint of pain, and one house-surgeon who applies it freely to all casualty wounds informs me that there is no complaint.

My experience is that it is absolutely unnecessary to shave the skin, and this is an important advantage. Of all the preparations a lady has to undergo prior to an abdominal operation the shaving is the most repulsive, and during the period of convalescence the irritation of the growing hair causes great discomfort.

The only disadvantage I have discovered is lacrymation, to which some assistants are more susceptible than others. The tincture made with rectified spirit is far less irritating than that made from methylated spirit, and can be tolerated by most people. I still use the methylated spirit solution for the primary painting, which is performed immediately before the patient is anaesthetized. The second painting is done with the tincture when anaesthesia is complete, and the final when the operation is finished, with methylated. The tincture is of course suitable for all these purposes, but the increased cost is a factor which has to be considered in hospital administration. To prepare a patient properly by my former method necessitated at least three days' residence in hospital prior to an operation. It occupied the house-surgeon or a nurse for periods varying from one to several hours, and besides all the chemical materials, at least two sets of aseptic dressings were required. The cost to the hospital on each case was considerable. On a large number a good round sum is saved in a year. What is still more important, the patients are saved the misery caused by these preparations. What is most important is that it is an efficient and reliable method, and the surgeon can always be certain that it has been thoroughly performed.

REFERENCE.

[1] BRITISH MEDICAL JOURNAL, 1909, ii, p. 368.

THE SCIENCE COMMITTEE OF THE British Medical Association.

REPORT CXXII.

A SOURCE OF FALLACY IN COUNTING RED CELLS.*

BY CECIL PRICE JONES, M.B.
(From the Pathological Department, Guy's Hospital, London.)

IT seems desirable to record some observations in connexion with red cell enumeration and the estimation of colour index, from which it is clear that the employment of Toisson's fluid for red cell counts is apt in some anaemic conditions to give very fallacious results.

I have prepared Toisson's fluid according to the following receipt: Distilled water, 160 c.cm; glycerine, 30 c.cm.; sodium sulphate, 8 grams; sodium chloride, 1 gram. To the completely dissolved mixture I have added a few drops of a saturated aqueous solution of methyl violet to obtain the desired tint.

When counting the red cells of a rabbit which had been bled from the auricular vein on three successive days, I noted that the field contained, besides the usual red cell appearances, a number of very pale red cells, many of which were very difficult to see and readily escaped being counted, the result being an erroneously low red cell count and a correspondingly raised colour index. The number of these pale cells was increased with the interval of time after the mixing of the blood and Toisson's fluid in the counting chamber, and many cells became quite invisible with any ordinary methods of illumination.

The phenomenon was absent from normal rabbits' blood, but was observed in the blood of rabbits which had received phenylhydrazin subcutaneously. Table I gives some examples of this.

TABLE I.

Nature of Case.	Hb. per Cent.	Red Cells per c mm.		Toisson per Cent of Hayem.	Colour Index.	
		Toisson.	Hayem.		Toisson.	Hayem.
Rabbit X (normal) ...	69	5.49	5 61	98	0.63	0.61
Rabbit X after phenyl-hydrazin	32	1.20	1 60	75	1.34	1.0
Rabbit 27 (normal) ...	80	6.63	6.03	110	0.60	0.66
" " ...	78	6.47	6.49	100	0.60	0 60
Rabbit 27 after phenyl-hydrazin	34	1.34	1.92	70	1.30	0.89
" " "	50	2.09	2.60	80	1 25	0.96
Rabbit 29 (normal) ...	84	7.05	7.06	100	0 6	0 6
" " ...	86	7.27	7.07	103	0.59	0 60
Rabbit 29 after phenyl-hydrazin	28	1.06	1.49	71	1.3	0 96
" " "	38	1 53	2.11	72 5	1.26	0 90
" " "	48	1.99	2 40	83	1.23	1.0

* Towards the expenses of this research a grant was received from the Science Committee of the British Medical Association.

The phenomenon was found to occur in several cases of human pernicious anaemia, and one case examined of anaemia from malaria, but it was absent or only existed to a very slight and negligible extent in normal human blood, and was not noted in single cases of chlorosis, scurvy, or rectal haemorrhage, and was absent also in one case of pernicious anaemia.

Table II shows examples of these counts.

TABLE II.

Nature of Case.	Hb. per Cent.	Red Cells per c.mm.		Toisson per Cent. of Hayem.	Colour Index.	
		Toisson.	Hayem.		Toisson.	Hayem.
Normal man	96	4.78	4.82	99	1.01	1.0
„ „	94	4.66	4.75	98	1.01	0.98
„ „	100	5.56	5.78	96	0.90	0.86
„ „	102	5.86	5.93	98	0.87	0.86
Pernicious anaemia (1)	23	0.61	0.86	71	1.8	1.3
„ „ (2)	35	1.06	1.52	70	1.66	1.16
„ „ (3)	58	2.37	2.76	85	1.2	1.05
„ „ (4)	40	1.36	1.32	103	1.50	1.53
„ „ „	42	1.35	1.40	96	1.53	1.50
Malarial anaemia ...	62	2.98	3.55	84	1.0	0.8
Chlorosis	60	4.33	4.23	102	0.69	0.71
Scurvy	66	3.82	3.90	97.9	0.86	0.84
Haemorrhage from rectum	82	4.92	4.99	98	0.83	0.82

To obviate this production of pale red cells, Toisson's fluid was replaced by Hayem's solution, which was prepared according to the following receipt: Distilled water, 200 c.cm.; perchloride of mercury, 0.5 gram; sodium sulphate, 5 grams; sodium chloride, 1 gram. The phenomenon now no longer appeared.

Toisson's fluid does not haemolyze the red cells, as may be shown by adding normal and anaemic blood to Toisson's fluid in bulk and subsequently centrifugalizing. The pale cells seem to have acquired a refractive index identical with the solution, and thereby to have become invisible. It is suggested that the cells having this character are new formed cells, and that it may be possible from this observation to estimate the rate of regeneration of red cells in these anaemic cases.

It is, however, manifest that Toisson's fluid, as prepared above, is apt to give very unreliable and fallacious results, and should not be used for counting red cells, unless a control is simultaneously made with Hayem's solution.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

A CASE OF PROLONGED ABSTINENCE.

A WOMAN, aged 66, was seen by me on March 18th last. She complained that "for three days she had not been able to keep anything down." Examination disclosed a cancerous mass in the rectum. Matters were fully explained to her and her husband, but she deliberately refused all operative treatment from the first visit, and towards the end declared she did not regret her decision. She died on May 10th.

There was complete stoppage of the bowels throughout the duration of the case, nothing passing but a little foul discharge.

Vomiting took place after the drinking of even a mouthful of fluid but at no other time. The abdomen became distended but caused her very little distress. Occasional pains in the back were relieved by hypodermic injections of morphine, and during the last month these were given every six hours. She became very emaciated and developed a bedsore over the sacrum. Her mind was clear all through and she recognized and talked to her son five minutes before she breathed her last.

For fifty-six days she had been absolutely without food and, one might add, drink, as everything in the way of fluid was always immediately rejected. This period seems to be about the limit to which life may be prolonged during complete abstinence. Drs. Guy and Ferrier mention a case of voluntary starvation which lasted sixty-one days, but this person took water and lemon juice at intervals, whereas in my case the abstinence was complete. Considering the presence of the cancer and the bedsore, one must regard this case as remarkable and unusual.

West Mersea, Colchester. B. HALL, M.B.Lond.

UNITED FEMALE TWINS.

IN the BRITISH MEDICAL JOURNAL of April 30th, 1910, p. 1050, Surgeon R. M. Riggall, R.N., gives an interesting account, with a photograph, of a case of united male twins, possessing a common rectum and anus, which he considers unique. When on the Malabar Coast of India, I was given the accompanying photograph, with a full account in pencil, by the native photographer who took the picture. It shows two female infants, united to one another in a very similar manner to the case recorded, possessing a common anus and vulva (common cloaca); but the exact anatomical relations of the vaginae and urethrae are not known to me, as I did not personally see the twins. (The original photograph shows the infants sitting on their maternal grandmother's right hand, the grandmother merely wearing a loin cloth, as is the custom with women in those parts.) These twins were born on September 22nd, 1906, to respectable local native parents, who exhibited them for money, and in this way are said to have made a good deal, since over 400 persons visited them daily in connexion with a superstition of a "devil's birth," for they were born in a locality called "Bhootapara" or Devil's Rock, which is believed to be haunted. The twins, I have heard, are no longer living.

Newport, Mon. D. G. CARMICHAEL, M.B. (Capt. R.A.M.C.).

PRACTICAL POINTS IN THE TREATMENT AND CLINICAL HISTORY OF SYPHILIS.

To the excellent article on syphilis by Dr. Coates in the JOURNAL of May 7th, page 1093, the following facts may be added: that a woman may develop a primary sore from a syphilitic man who has no cutaneous lesion.

CASE I.—A man, aged 30, contracted syphilis two years before his marriage; he underwent only about six months' treatment. I saw him just before he married. He was free from all eruptions—no sore throat nor white patches in the mouth, no sores on the genitals, no sign of gonorrhoea. He married against my advice. A few weeks after the marriage his wife came to see me, complaining of vaginal discharge. I could find nothing to account for it but a hyperaemic patch at the posterior fourchette; no induration. I advised her to use some disinfectant. A fortnight later this hyperaemic patch was showing signs of erosion, but as yet no induration. I forgot to notice

particularly the condition of the inguinal glands at this stage. In another fortnight the patch had formed an eroded ulcer, the size of a shilling, with indurated floor and edges, and the inguinal glands were the size of walnuts, but painless. She developed secondaries and sore throat later, and was under my treatment for nearly a year, when she moved out of the neighbourhood.

CASE II.—A woman, aged 21, living under the protection of a gentleman of whose history I knew nothing at the time came to me complaining of vaginal discharge, and swore there was nothing wrong with her "husband." When I examined her there was a hyperaemic patch similar to that seen in Case I. There was no induration, but the glands felt slightly nodular. My suspicions were aroused, owing to the previous case. When I saw her a fortnight later the patch was eroding, but there was no induration, and nothing to draw attention to it, but the patient had been scratching herself, which gave the outside vulva an itchy appearance. She was taken by her "husband" to a physician in Harley Street, who said she was suffering from itch, and advised her to use sulphur ointment, and certified that the husband was free from any venereal signs. She came to see me again six weeks afterwards, when I found a well-marked eroded ulcer where the patch had been, with indurated edges and floor; the inguinal glands were painless but the size of walnuts. She subsequently developed secondaries, and was treated at the Lock Hospital. When the nature of the complaint became manifest beyond the shadow of a doubt, her "husband" confessed he had syphilis six years ago.

I have no doubt the converse is also true—that is, a man may develop a primary sore from a woman who has no cutaneous lesion, but unfortunately in these cases I have not had the opportunity of examining both parties at the same time.

The above cases also illustrate the fact that a syphilitic subject is infective in the latent stage; but this is by no means always true.

CASE III.—A man contracted syphilis twenty years ago and had treatment for it. He afterwards married and had a family of six, all living and perfectly healthy. His wife was quite healthy and never aborted during this period. Two years ago he came to me with tertiary sores on the right shin, and soon afterwards I had to attend his wife for an abortion, and again in a few months' time she aborted. She aborted a few weeks ago a third time. As she began aborting after the husband developed tertiaries it is perfectly certain that she was not infected before the appearance of tertiaries in the man, and consequently the children have no hereditary taint. The explanation forces itself on one's mind that during the latent period the germs had probably lodged in some tissue, probably nervous, and that the blood was then free from them. When they again gained access to the blood, as evidenced by the tertiary sore, the infective character of the man asserted itself.

CASE IV.—A man consulted me about his wife who had developed a nodal swelling on the left clavicle. I noticed at the same time that he had an eczematous eruption on the scalp and the back of the neck. The eruption had appeared six months previously. He said he had suffered with a sore on the penis about fifteen years earlier, that it was cured after a few weeks' treatment, and that he neither had rash nor sore throat after that, and was free from any venereal sign, till this eczematous eruption appeared. He had been married nearly twelve years and his wife never aborted nor showed any signs of eruption till this swelling came on a few weeks back. He has four children who look perfectly healthy. Here, again, one cannot but conclude that as the germs found their way into the circulation, as was shown by the eruption, the wife became infected, but not before. As she had no abortions and the children are quite healthy, it would be interesting to know whether the wife will miscarry after this. Under treatment by mercurials and potassium iodide the wife's node and the husband's skin eruption have disappeared.

That syphilis can be contracted a second time is now beyond all dispute; I have within the limit of my by no means large practice come across two instances.

D. N. COOPER, L.R.C.P., M.R.C.S.Eng.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

GOVERNMENT CIVIL HOSPITAL, KANDY, CEYLON.

A CASE OF STRANGULATED INGUINAL HERNIA WITH APPENDICITIS: OPERATION: HERNIOTOMY: APPENDECTOMY: RECOVERY.

(By F. R. BARTHOLOMEUSZ, L.R.C.P. and S.E., etc., House-Surgeon.)

IN the BRITISH MEDICAL JOURNAL, vol. ii, 1908, p. 260, Dr. Horace Brown, Assistant Surgeon, Tredegar Hospital, related a case (in a female) in which the appendix, "much thickened by the formation of young fibrous tissue outside the muscle coat and in the mesentery," was removed from the sac during an operation for strangulated hernia. The following case is an instance of a similar occurrence in the male:

A fairly well-nourished Cingalese, aged 40, was brought in a rickshaw to hospital at 7.30 p.m. on February 2nd, 1909. He was a vegetable seller, and stated that he had suffered from a reducible inguinal hernia on the right side for about five years. He had walked that morning a distance of about five miles with a bag containing 150 oranges on his head, and on arriving at the market-place at about 2 p.m. he felt a sudden pain in the right groin, and found that he could not replace the hernia. He complained of severe colicky pains in the right groin. He gave a history of constipation. The temperature was subnormal, the pulse 100 and of fair volume; the tongue was dry and coated, and he complained of thirst and nausea. In the right inguinal region was a large, well-defined mass, very painful to touch ("cutaneous hyperalgesia") and resonant on light percussion. The muscles of the abdomen were rigid and the right leg flexed.

I diagnosed the condition to be one of strangulated hernia. He was given an enema in the ward, and brought to the operating theatre at 8.30 p.m.

Chloroform was administered by Mr. Dharmaratue, the apothecary. An incision about 3 in. long was made over the swelling, which was oval and about the size of a large orange. The coverings were divided and the sac, which was surrounded by many adhesions, was opened. Its contents were the ascending colon, caecum, and appendix; there was also a certain amount of turbid fluid with lymph exudation. The constricting band at the neck was divided, the gut was examined and bound, but the appendix was reddened and inflamed.[1]

I protected the bowel by a sterilized mop rinsed in warm saline solution, and having divided the meso-appendix after ligaturing its vessels, I removed the appendix in the manner described by Rose and Carless. I then replaced the viscera and treated the case as an ordinary hernia by means of Fergusson's method, the cord not being interfered with. Finally, the muscular aponeuroses were united, and the skin flaps brought together by interrupted silk sutures.

The sutures were removed on February 10th. The wound healed by first intention, and the patient was discharged on March 4th, one month after the operation.

I must express my gratitude to Mr. Dharmaratue, the apothecary, for his assistance, and to Dr. Allan de Saram, the medical officer in charge, for having given me the permission to report this case.

[1] Appendicitis within a Hernial Sac. Thompson and Miles's *Manual of Surgery*, p. 386, vol. ii, 1904 edition.

THE Managing Committee of the Sleeping Sickness Bureau have received from the Agent-General for the Transvaal the sum of £500 as a contribution to the funds of the Bureau made by the Transvaal Government on behalf of the four South African Colonies.

Reports of Societies.

OXFORD MEDICAL SOCIETY.

Friday, May 27th, 1910.

Dr. JAMES NEIL, President, in the Chair.

THIS meeting was held at Littlemore Asylum, the following being among the exhibits:—Dr. GOOD: Three cases of general paraylsis of the insane in women, aged 36, 36, and 35 respectively. None of the patients had any grandiose ideas, and all belonged to the demented type. Two had increased knee-jerks, in 1 they were absent. Dr. GREENWOOD PENNY: Two cretins, aged respectively 19 and 41. The first was extremely demented, deaf and dumb, and showed a very marked cretinous condition, which, with thyroid treatment for two months, was beginning to yield, and the mental condition to improve. The second case was in a condition of mild dementia with delusions. This case was also improving on thyroid treatment. Dr. WOOLFE READ: A case recently in the Radcliffe Infirmary, where he had been admitted for severe mental symptoms, extensive muscular weakness and some sensory disturbance. On admission to Littlemore Asylum he had dementia, some delusions of grandeur, absolute inability to walk, and marked incoordination of all movements. The condition at the present time was one of general paralysis of the insane, of the ataxic type. Dr. GOOD, in a paper on *Alcoholic insanity*, in speaking of causation, mentioned the discrepancy between the statistics given by various authorities, which varied from 41.3 per cent. (Clouston) to 3 per cent. (Turner). This was probably due to the attitude of the observer towards alcohol and possibly to local peculiarities. The hereditarily weakened person was more prone to alcohol than another, and the quality of the alcohol drunk by large sections of the community at the present time was probably inferior to that drunk in earlier times. Alcoholic insanity occurred between 25 and 30 and 35 and 40, the period, in the first case, of the necessity for a stimulus, and, in the second case, of the beginning of mental deterioration in certain individuals. Gastric disturbance and carious teeth were factors among the poorer classes, and habit, especially in rural districts, was probably an important factor. In respect of symptoms, the aspect, the tendency to steppage or waddling gait was mentioned; reflexes were exaggerated or diminished. The pupils showed no constant change. Muscular tremor was always present and sometimes marked. Owing to neurotic disturbances, anaesthesia and hyperasthesia were nearly always present. Among mental symptoms the will, judgement, consciousness, and memory were weakened. Impulsive acts, often homicidal, were the most dangerous symptoms. Hallucinations were common, nearly always of a terrifying or disgusting nature, and to be attributed probably to neurotic disturbances in various organs. Delusions were similarly of an unpleasant character to the patient. Epileptic attacks were frequently seen in the chronic alcoholic. The reader divided alcoholism into the following types: (1) Acute—(*a*) delirium tremens, (*b*) mania a potu, (*c*) melancholia; (2) chronic—(*a*) delusional insanity, (*b*) Korsakow's disease, (*c*) dipsomania. The prognosis was always grave, and the treatment could only be successful if undertaken in some institution where the patient could be protected from allowing his vice to be an injury to himself. As regards medicinal treatment, the reader emphasized the value of capsicum and nux vomica for the digestive symptoms, and hyoscine for maniacal symptoms or great excitability.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

Friday, May 6th, 1910.

Dr. NEVILLE WOOD, President, in the Chair.

Scarlet Fever.

IN a paper on scarlet fever Dr. F. G. CROOKSHANK insisted on the importance of recognizing clinically the mixed infections and of differentiating between cases of pure scarlet fever, of all grades of severity, on the one hand, and, on the other, those associated with streptococcal, diphtherial and rheumatic infections. Cases of so-called scarlatina rheumatism were usually truly rheumatic in nature, and it was advantageous to treat all cases of scarlet fever with salicylate or salol in full doses from the first. This plan has been adopted at the Mortlake Isolation Hospital for several years with excellent results. Medical asepsis should be adopted in dealing with scarlet fever, whether in private or hospital practice; it would do away with cross infections, subinfections, and "complications" due to secondary septic infection of varying nature. Dr. NEVILLE WOOD thought that no case had been made out for the transference to a public or semi-public institution of patients able to command efficient nursing in their homes. He had never known infection to spread in such circumstances. Dr. T. R. ATKINSON said that when acting as referee in the last small-pox epidemic it had never happened to him to see a case of small-pox which could have easily been mistaken for scarlet fever, but he had found difficulty when cases of measles were about. As to sequelae, kidney troubles were the most to be dreaded. Dr. E. A. SAUNDERS agreed with the probable identity of scarlatinal rheumatism and acute rheumatism. Dr. G. S. HOVENDEN doubted if infection lasted six weeks in the absence of peeling and discharge from nose or ears, and hoped that at some future time a test as to infection would be evolved so that each case might be treated on its merits. He still believed in the advantage of inunction with eucalyptus oil. Mr. BISHOP HARMAN asked if Dr. Crookshank had made any observations on the effects of scarlet fever upon the eyes of his patients. He discussed the recent work of Dr. Tarantas in Constantinople on what he had named "Kératite superficielle exanthématique." In the London County Council Blind Schools he had had patients who had lost their eyes from intercurrent inflammation when under treatment for scarlet fever.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

Friday, May 6th, 1910.

Dr. J. B. HELLIER, President, in the Chair.

MR. ROBERT BEATTIE, in a paper on *Congenital talipes*, summed it up as being due to a perverted nerve habit, initiated *in utero*, the result of maternal impressions in a highly sensitive mother. A nerve habit could only be overcome by persistent opposition; and, in opposition to the opinion of recognized authorities, he held that operative measures and the use of irons were rarely required. Mr. MICHAEL TEALE, in a paper on *Prescribing and wearing glasses*, pointed out that in many cases the estimation of refraction was difficult, partly because the methods available were not exact, partly because the patients themselves happened to be peculiarly intolerant of the optical defects of lenses. Often it was only by averaging the results of several different methods of examination that the margin of error could be reduced to reasonable limits. Certain faults in the making up of spectacles were capable of causing discomfort, even though the prescription for the lenses was correct. Among these were unintentional decentering, both optically and geometrically, together with undesirable prismatic and astigmatic effects. Dr. E. O CROFT: A uterus, with a fibroid undergoing *Red degeneration*, removed from a woman, aged 40, who had borne two children. Menorrhagia, pressure symptoms, and recently much tenderness had been present. There was a large parovarian cyst on the left side. The fibroid, situated in the posterior uterine wall, was spherical; on section, its central portion showed deep red coloration, extending in a star-like manner towards the periphery. Microscopic examination showed some degeneration of the myofibromatous tissues, together with thrombosis of the smaller vessels. Dr. T. CHURTON: A man, aged 40, with paralysed right face and arm. On April 22nd, seven days after the onset, the right orbicularis oculi was completely paralysed; it was now acting in conjunction with the left, but not singly. The leg was not paralysed. The patient could repeat quite clearly words and short phrases, but answered questions unintelligibly. Mr. H. LITTLEWOOD: An appendix containing a large number of gun-shot. Mr. B. G. A. MOYNIHAN: A specimen from a nephrectomy for a tumour accompanied by continuous haemorrhage; the kidney was found to be completely disorganized, owing to

a silk ligature. Mr. H. COLLINSON: An ovary and twisted Fallopian tube, from a congenital inguinal hernia in a patient aged 6 months. Mr. L. R. BRAITHWAITE: An hour-glass gall bladder containing stones in the proximal and muco-pus in the distal compartment; it had been removed from a woman, aged 40, who for the last five years had been treated as a case of "neuralgia" of the stomach.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Wednesday, May 25th, 1910.

DR. BYROM BRAMWELL, President, in the Chair.

THIS was a clinical meeting, the following being among the exhibits: Dr. J. S. FRASER: (1) A case of chronic *Suppurative otitis media*, complicated by septic thrombosis of the jugular bulb and internal jugular vein. The vein having been ligatured, the ordinary radical mastoid operation was rapidly performed. The result was recovery with good hearing in the affected ear. (2) A case after *Killian's operation* for frontal sinus suppuration, with a good cosmetic result. Dr. DAWSON TURNER: A case of rodent ulcer in course of *Radium treatment*, illustrating a healthy radium reaction, the ulcer being covered by a thick impetiginous crust; and two cases of naevus improving under the same treatment. Dr. CRANSTON LOW (for Dr. NORMAN WALKER): A case of port-wine naevus, undergoing atrophy from application of CO_2 *snow*. Dr. GEORGE MACKAY: A case of *Spring catarrh* showing improvement under radium application. Dr. LOVELL GULLAND: Two cases of *Leukaemia*. Both on coming under observation showed a low leucocyte count, about 10,000 per c.mm. Under treatment—arsenic and *x* rays—the leucocytes in both cases steadily increased. In the first case they reached a maximum of 129,000 per c.mm., and then receded to 60,000 per c.mm. The blood film showed it to be a spleno-medullary leukaemia, the primary low count being due to an intercurrent influenza. In the second case the leucocytes had increased to 72,000 per c.mm. This was possibly a case of leukanaemia. Dr. R. W. PHILIP: A case of *Diabetes mellitus* in a young girl, in which the "massive saline" treatment lately introduced in Paris had been adopted. For four periods, each not exceeding three days, and extending over six weeks, the patient drank nightly a bottle of "Hunyadi Janos" water, the diet during the period being limited to one pint of milk daily, well diluted. There was no excessive purgation. The sugar dropped immediately, almost to zero, and sometimes actually to it, and then rose to a point much below the original standard. Symptoms of acidosis present before, acetone and diacetic acid in the urine, had entirely disappeared, and the patient had gained a stone in weight. Dr. A. BRUCE: (1) A case of injury to the spinal cord, accompanied by *Ischaemic paralysis* of one arm, due to the patient lying on it. (2) A case of chronic internal *Hydrocephalus* following meningitis. An *x*-ray photograph showed commencing separation of the frontal and parietal bones. The PRESIDENT: A patient who first had symptoms of intermittent *Claudication of the arteries* of the lower limbs. Gangrene supervened in the right leg, necessitating amputation. Early signs of gangrene were now showing in the big toe of the other foot, and no arterial pulsation was palpable at the ankle. In this, as in most other similar cases, there was no history of syphilis. Professor CAIRD: (1) A case in which *Multiple chondromata* (277) were removed from the hip-joint. (2) A case of severe colitis cured by *Appendicostomy* and irrigation of the lower bowel by weak protargol solution. (3) A series of cases of *Excision of one half of tongue* for epithelioma. In most, Butlin's operation on the cervical glands had also been done. The oldest was now three years after operation. None showed recurrence. Mr. COTTERILL: (1) A case of proptosis of the right eye after a fall, giving the signs of an *Arterio-venous aneurysm*, involving facial and ophthalmic vessels, and cured by ligature of the common carotid artery. (2) Two cases where decompression of the brain (after Cushing) was done for suspected brain tumour, with marked improvement. Professor ALEXIS THOMSON: (1) A patient on whom *Transperitoneal ureterotomy* was done for a calculus detected by *x* rays. (2) A series of cases of *Facial paralysis* in all of which reaction of degeneration had been present, and in which facio-hypoglossal anastomosis had been performed, showing various stages of recovery. Mr. C. W. CATHCART: (1) A case of *Catarrhal appendicitis* without peritonitis, in which the leading symptoms were severe pains in the back (right side), and in which local tenderness was very slight. (2) A case of very severe cut throat, with complete severing of larynx and pharynx, resulting in recovery, but with almost complete obliteration of the laryngo-pharyngeal passages. Mr. STRUTHERS: A patient showing no sign of recurrence after the removal of a *Spindle-celled sarcoma* of the brain twenty-four years ago. Mr. D. WALLACE: A child after nephrectomy for a large sarcoma, probably growing from the suprarenal capsule. Mr. MILES: (1) A case of *Acute osteomyelitis* of the spine in a boy of 10. (2) A case of syncope during an abdominal operation in which cardiac contractions were reduced by gentle *Massage of the heart* from the under surface of the diaphragm. Mr. G. CHIENE: A man, aged 52, with *Chronic osteomyelitis* of the femur, the first acute attack occurring forty years ago, sinuses opening intermittently ever since.

ROYAL SOCIETY OF MEDICINE.

SECTION OF LARYNGOLOGY.

Friday, May 6th, 1910.

DR. DUNDAS GRANT, President, in the Chair.

THE following were among the specimens and cases shown: Mr. HERBERT TILLEY: A *Foreign body from the gullet* of a girl aged 14. It was a penny, which had lain thirteen days just below the cricoid region of the oesophagus. The mucous membrane around the penny was very congested, and in parts slightly ulcerated. The penny was removed, but with difficulty, with a Killian's long-toothed forceps. The patient left the hospital four days later. Dr. H. J. DAVIS: (1) Case of entire *Excision of the tongue* in a man aged 45. The tongue was removed by Mr. Armour in 1909, and opinions were solicited as to the possibility of an artificial tongue being worn. He was well, and could speak volubly, but not very intelligibly. He pronounced "f" like "th." He could not bite properly, and lost his food, as he never knew where it was in his mouth, but both food and liquids went down the right way. The general opinion of members was that a rubber tongue or plate was not very practicable. (2) A man with a large *Venous angeioma* implicating the left tonsil and lateral pharyngeal wall; also a large vascular swelling on the neck of the same side. When the patient lowered his head the tumours at once distended, and evidently communicated. Mr. CHICHELE NOURSE: A case of *Epithelioma of the larynx* in a man, aged 69, shown fourteen months after operation. A red growth occupied the anterior two-thirds of the left vocal cord. Thyrotomy was performed on February 18th, 1909. The left vocal cord, ventricular band, and arytenoid were removed. Recovery was rapid; the patient still remained well, and had gained flesh. Dr. STCLAIR THOMSON: Two cases of radical *Frontal sinus operation*, to show the condition nine and sixteen months respectively later. Killian's method was carried out on the frontal sinus, and each patient also had an endonasal operation for suppuration in the ethmoid cells and maxillary antrum. The former headache had, like all the other symptoms, disappeared, the patients now enjoying perfect health, never requiring a nose wash, since there was no trace of purulent discharge in the nasal chambers. Dr. DUNDAS GRANT: A case of *Odynphagia* in a tuberculous woman aged 35, without any obvious disease of the larynx. There was loss of voice, severe pain running up to the left ear during swallowing, and some ill-defined oedema on the outer surface of the aryepiglottic fold. Otherwise the larynx was normal in appearance, as also the movement of the vocal cords. Dr. ARTHUR EVANS: A man aged 40, with *New growth*, probably malignant, invading the right tonsil, soft palate, lateral pharyngeal wall, inner surface of the angle of the lower jaw and adjacent portion of the tongue. The case was shown to invite suggestions for treatment.

SECTION OF DISEASES OF CHILDREN.

Friday, May 27th, 1910.

Dr. WALTER CARR in the Chair.

THE following were among the exhibits:—Dr. PARKES WEBER: A case of *Ateleiosis* in a man now aged 42, whose physical development was said to have been arrested at the age of 9, and had that appearance. His expression, the wrinkles on his face, his attitude, his manner of speaking, and his general behaviour were, however, those of an adult. Mentally he seemed normal. Skiagrams of the extremities showed persistence of some of the epiphysial cartilages, but the amount of union with the diaphyses varied considerably in different bones. There was no history of any similar condition in the family. Dr. WALTER CARR: A case of possible *Myositis fibrosa* in a girl aged 4½. There are three other children in the family, all healthy. The child began to walk when 16 months old, but six months later was unable to walk or stand. Two years ago her arms became weak, and now she could not fully extend either the hips or the knees; there was no limitation of flexion, but abduction of the hips was much restricted. The left arm could not be completely supinated. There was no pain on movement, nor rigidity of muscles. The mental condition was normal. Skiagrams showed no definite evidence of bone disease, nor any ossification of the muscles. Dr. CAUTLEY thought the condition analogous to the contracture of limbs seen in prolonged toxaemic conditions where the patients were confined to bed. Mr. LOCKHART MUMMERY took a similar view of the case, and advised treatment by means of weight extension over a prolonged period. Dr. BELLINGHAM SMITH: A case of *Amaurotic family idiocy* in an infant aged 11 months. The symptoms had only been noted one month. There were no voluntary movements of the trunk, and only limited movements of the limbs in which a variable degree of rigidity could be detected. Dr. WHIPHAM: (1) A case of *Congenital malformation of the heart* in a child aged 1¾ years. It also had showed congenital ptosis of both eyelids. (2) A girl aged 18 with congenital *Pulmonary stenosis*. Apart from cyanosis and shortness of breath she had no other cardiac symptoms. Dr. FRANCIS HAWKINS quoted a corresponding case which had been kept under observation until the patient was 21. Dr. WHIPHAM: A case of *Air swallowing* in a boy aged 12. There was a habit of continuous forced eructations. The abdomen was not enlarged. The patient had suffered from a similar condition two years previously. Dr. HILDRED CARLYLL exhibited a *Sarcomatous tumour* removed from a girl aged 2, admitted to the hospital suffering from distension of the abdomen, dating from six weeks prior to admission. On laparotomy the tumour seemed irremovable, but *post mortem* it was found to be attached only by a few adhesions to the bladder, and by a branch of the left common iliac artery, and a thin peritoneal covering. It weighed 6½ lb., and was a myxo-sarcoma.

FROM a list contained in the annual report of the New Hospital for Women, Euston Road, N.W., we gather that there were at the beginning of this year as many as 476 registered medical women resident in England, and that of these 103 are or have been married. The New Hospital is a general hospital for women and children containing sixty beds. All the twenty-six members of its active staff are ladies.

THE authorities of the Factory Girls' Country Holiday Fund are appealing for early support this year. The object of the fund is to assist young women employed in factories in London to get a country holiday at such time of the year as they can best afford to leave their work. The greater majority go only for a week. They are housed with cottagers and other persons with whom the fund has made arrangements, and pay part of their expenses themselves. Last year 4,780 were enabled to take this beneficial little holiday, providing themselves about two-fifths of the whole income of the fund for the year. Every girl who has once been away tries to go again, saving up her money for the purpose, so that the fund is esteemed to have a moral as well as good physical influence. The fund is at present overdrawn. The secretary is Miss Canney, St. Peter's Rectory, Saffron Hill, E.C.

Reviews.

THE LAWS OF HEREDITY.

THIS work by Dr. ARCHDALL REID on *The Laws of Heredity*[1] is exceptionally interesting and important, and will surely be of permanent value. It is pre-eminently the scientific method of inquiry insisted on by the author, and his strict application of it to the numerous problems dealt with, that justify the conclusion that he has produced one of the most thoughtful, comprehensive, and original contributions to the study of heredity which has yet appeared.

Until Darwin formulated the theory of natural selection, biology, with the exception of its physiological branch, consisted of purely descriptive knowledge, notwithstanding the promulgation of the Lamarckian and other hypotheses. Darwin achieved for biology what Newton achieved for physics and astronomy, and gave it the rank of an interpretative science. In the earlier descriptive stage of any branch of knowledge facts are classified according to their resemblances and co-existences. In the final scientific stage facts are arranged in sequences, and the relation of cause and effect is traced. Hypotheses are formulated which, if false, are disproved, if true, are established as theories, by making a deductive inference of consequences followed by a test appeal to reality, that is, to all relevant facts, in order to see whether such consequences actually occur. This method, familiarly exemplified by the establishment of the law of gravitation, and accepted as a matter of course in most interpretative branches of science, is not only the one method by which an hypothesis can be tested, but also brings within its range ever-increasing multitudes of facts which would not otherwise have been thought of. It also links the hypothesis with other established laws, and tends to render the science of which it forms a part a coherent whole. There is still, however, a remarkable difference, in spite of the work of Darwin, between the methods of many biologists and that common to students in other branches of knowledge, who are trained in the rigid application of the only method by which interpretative science of permanent value has ever been created. These have common criteria for evidence and proof, accept no hypotheses which cannot be treated deductively, reject none that survive such a test, and value all in proportion as they have been proved, and extended in scope, by this means. Many biological writings, on the other hand, betray a great departure from the strait way of scientific method. This is owing, probably, to a training too exclusively devoted to descriptive work, to a collection of resemblances and coexistences. Extraordinary differences of opinion are rife among biologists as to the nature of evidence and proof, and innumerable debates result which seldom or never end in agreement. With the exception of the theory of natural selection hardly one biological hypothesis has been tested deductively. Not even natural selection commands universal assent. There are but few, indeed, who explicitly reject it, but some, while confessing it with their lips, are fain to discredit it as an outworn superstition. These sharp and sectarian differences between biologists are especially marked on the subject of heredity. The very procedure by which natural laws are established—the procedure laid down by logicians and actually followed by all great scientific discoverers who have achieved permanent results—is often stigmatized as "deductive," or "logical," or "dialectic," or "essay writing," or by some other epithet equally inept. It seems, therefore, that there must be something wrong in the method of study which results in such a medley of doctrine and such a war of hostile sects.

A careful perusal of the work before us, in which an attempt is made, not merely to formulate hypotheses, but to establish laws, will show that the author's conclusions are as noteworthy as the scientific strictness of his method. He has, we think, made a luminous synthesis of the known facts of heredity, as well as many valuable criticisms of existing opinions on the subject. He has, further, by taking a comprehensive view of all relevant facts with which he is acquainted and applying to them

[1] *The Laws of Heredity*. By G. Archdall Reid, M.B., F.R.S.E. London: Methuen and Co., 1910. (Med. 8vo., pp. 559. 21s.)

accepted methods of scientific inquiry, gone far towards converting heredity into an interpretative science of wide scope and utility.

The judgement that this book is one of the most important of all that have appeared concerning the matter of heredity, which, from Darwin's time onwards, has been largely the subject of untested hypotheses, will not be considered extravagant by those who, holding accepted views respecting scientific method, read the book carefully, note the area covered by it, the mass of material brought into evidence, and the closely-connected and strictly-tested chain of reasoning by which the argument is supported. Though the book is much wider in scope than any previous essays by the author it is notably coherent throughout. There are no isolated suppositions, and none that careful examination shows to be contradictory. The author seeks to secure each position by a thorough survey of all available evidence, and then to make it a stepping-stone to the next. The style is clear; but the reader should bear in mind that the very merit of clear and consecutive reasoning which marks this work is apt to obscure the range of its contents. Any one familiar with the literature of the subject will, of course, meet with many problems which are well known to him; but he will also perceive many new ones, and will recognize that, in the case of all, the method of treatment is in many respects original. The reader should not fail to bear in mind that in each instance the writer is offering, not one of the mere guesses which are somewhat common in biological literature, but such proof as cannot rightly be rejected except by demonstration of mistaken facts or faulty reasoning.

It is not possible, within such limits of space as could be reasonably allowed in this JOURNAL, to review adequately any of the highly-detailed chapters of this work. Though a large book it is much condensed; though easy to understand, it requires close attention on the part of the reader. We shall, therefore, give him but one or two examples of the author's method—chosen, not because they are specially characteristic or important, but because they admit of comparatively brief statement.

Biologists have found that embryos often present faint and fleeting likeness to lower types. The younger the embryo the lower the type it resembles and the dimmer the resemblance. It has, therefore, been surmised that the development of the individual is a recapitulation of the life-history of the race. But the facts, used in this way alone, leave the hypothesis as a mere guess, though a plausible one, which cannot be tested, and has been frequently controverted. Dr. Reid adopts the proper scientific procedure of founding his argument on familiar and indisputable facts, and testing it by reference to facts which are more disputable and less familiar. He notes that, in every species, offspring resemble their parents on the whole, but differ from them in details; and that this partial resemblance is reached through a recapitulation, with variations, of the parental development. Thus, the child of a man grows into another man through following closely, but not exactly, the developmental footsteps of the parent. Variations are progressive or retrogressive. The former, Dr. Reid contends, imply a complete recapitulation of the parental development (as regards the character under discussion) *plus* an addition; the latter imply an abbreviation of it. Both kinds not only occur in the adult at the end of development, but also are interpolated, throughout the course of it, in the embryo, the fetus, and the child. These propositions we are asked to accept as familiar and indisputable facts. Now if the child reaches maturity only by recapitulating (with additions and subtractions) the parental development, if every predecessor did the same, if every individual, while varying somewhat in every stage, used the development of his predecessor as a stepping stone to his own development, then the development of the last individual must necessarily be a recapitulation (more or less inaccurate) of the life-history of the race. That is, it must be a recapitulation (in the order of occurrence, but with additions and subtractions made in every generation) of the variations through the accumulation of which the character arose. Given the facts, this view follows of apparent necessity. The only doubt that may remain is whether, notwithstanding the apparent necessity of the conclusion, the reasoning has been correct. Recourse must therefore be had to a deductive inference of consequences. If it be true that development recapitulates life-history, and if variations constantly occur during the whole course of it, we should find its earlier stages—those that have been longest exposed to change—the most altered, the most unlike the life-history; and the later stages the least altered. This is exactly what is found. The offspring of a human being is clearly very like his immediate predecessors; but his embryo only faintly resembles its remote prototypes of the life-history. The hypothesis, therefore, is tested, and is, for the first time, claimed to be established as a law.

Again, in the slums of cities and other unfavourable conditions, parents tend to be unhealthy, and the offspring puny or diseased. What is the relation between these facts? Is it that the offspring are unhealthy because their parents are unhealthy, or because they themselves developed under unfavourable conditions? In other words, is their condition true "degeneracy," innate, and therefore capable of transmission and accentuation in future generations; or is it an acquirement, brought about by the environment? Between these two hypotheses a decision can be arrived at only after making a deductive inference of consequences, and then appealing to actual instances. The inference from the first hypothesis is that a race exposed to unfavorable conditions will, by the accumulation of injury, become increasingly degenerate until at last it becomes extinct. The inference from the second is that races exposed to unfavourable conditions will, by the weeding out of the unfit, become continuously more resistant until they are able to flourish where the ancestral types pined. The first hypothesis, it may be noted, is in opposition to the theory of natural selection, which supposes that races evolve only in the presence of unfavourable conditions, while the second accords with it. Ascertain now what has happened to the races of the world, human and brute, animal and plant. In no instance is any racial deterioration observable. Races which have been longest and most exposed to the life of villages, towns, and cities are most adapted to it; races that have been moderately exposed are less adapted; races that have suffered no such exposure quickly perish when exposed to such conditions of life. Negroes are especially resistant to malaria, Englishmen to tuberculosis, natives of India to dysentery; while the mortality of Polynesians, when they are exposed to imported diseases, is immense. Arabs are resistant to heat, Eskimos to cold, sewer rats to life in sewers, and mosses to lack of sunshine, etc. The first hypothesis, therefore, is negatived and shown to be incompatible with the fact that life persists on earth. The second is sustained by a mass of illustration, detail, and proof too great for quotation here, and shown to be a far-reaching law, already generally accepted by all biologists who have given much attention to the subject, but not before, so far as we are aware, so well thought out.

A few words are necessary concerning Dr. Reid's exposition of the nature of "acquirements" and its bearing on the still vexed question of transmission of "acquirements." Weismann's contention, now almost universally accepted by biologists, that acquirements are not transmitted, would seem to be the only sure and important advance in the study of heredity since Darwin's time. But as the bald statement is frequently made that only "innate" characters are inherited, and a sharp distinction as to origin is apparently assumed between "innate" and "acquired" qualities, we find a vast amount of confused opinion prevailing on this matter and a strong tendency on the part of many biologists to ignore the immense value of acquirements, especially in the highest animals, as greatly important adaptations. Dr. Reid demonstrates more fully, we think, than any previous writer, that the power of making acquirements under the stimulus of use is a signal result of evolution, and is just as innate and truly germinal in origin as the innate power of growing under the stimulus of nutrition alone. He insists that all characters which the individual can possibly develop are implicit in the germ-plasm, but that none can be developed without some stimulus—a proposition which few biologists would specifically deny, though it would appear to be ignored by some. Characters requiring the stimulus of use for their development are not directly transmissible, but when they are developed it is by virtue of a capacity inherent in the germ-plasm.

Therefore all characters are ultimately germinal and innate. These considerations make it clear that the usual and inaccurate way of stating the doctrine of the non-transmissibility of acquired characters has tended to divert attention from the real significance of responses to use and injury, and from the evolution which has enabled the individual to develop the power of making such responses. The belief that acquirements are not "inherited" has caused many students of heredity to think of acquirements as unimportant, and virtually to make the assumption that all seemingly important characters are inherited. On the other hand, a large number of medical men, owing to their observations of numerous characters which develop almost identically alike in parent and child under similar stimuli of use in both, are led to conclude that all such characters are the result of the germinal transmission to the child of characters plainly acquired by the parents during their lifetime; or, in other words, to believe in the *transmutation* of a character, developed under the stimulus of use, into one which has developed under that of nutrition alone.

That this question is of commanding importance, especially in relation to the human species, and very notably in the matter of education, is evidenced by the emphasis given to the subject in the writings, not only of some biologists, but also of many others who make forecasts of a science of "eugenics." It is a remarkable fact that two prominent and mutually opposed schools of contemporary biologists—namely, the biometricians and the Mendelian mutationists—are both, apparently, inclined to regard all really important mental characters in adult human beings as exclusively germinal in origin, and proceed to draw wide inferences on the ground of this assumption, whereas the germinal inheritance is potential only.

This reflection induces us to call special attention to those parts of Dr. Reid's book which deal with the evolution and heredity of mental qualities, and also to his criticisms of the doctrines and methods of the two biological schools above mentioned. On these points, important though they are, space prevents us from dwelling. We can but state our opinion that the author has shown that the claims many Mendelians and Mutationists would appear to make to have revolutionized the science of heredity cannot be substantiated, that their methods are lacking in scientific precision, and that they have sought to give to the facts a width of application which does not belong to them. He has, we think, corroborated, with a mass of detail drawn from extensive fields of observation, the essential theory that the evolution of species is due to the action of Natural Selection on small or fluctuating variations, not to the sudden occurrence of so-called "mutations"; and that the central Mendelian doctrine of "unit segregation" is not a "discovery," as it is frequently termed, but a hypothesis as yet untested.

The appendix contributed to this book by Professor H. H. Turner is of considerable interest and illustrative value. It exemplifies in a striking manner his initial statements that there is a closer resemblance between biological and geometrical reasoning than might at first sight be supposed, and that Dr. Reid has shown that we may build upon certain biological truths in a manner not very different from that in which geometers build upon their fundamental axioms. We feel sure that this book will be recognized as of great importance both by those who are prepared to agree with its conclusions and those who are inclined to oppose them. Nor can it fail, in view of the extensive consideration given by the author to the subject of disease and to social matters generally, to be of peculiar interest both to medical men and to all serious students of human affairs.

THE OPTIC NERVE AND THE NASAL SINUSES.

The association of visual disturbances and blindness with suppurating air sinuses is well recognized, and it is also recognized that the phenomena are more commonly unilateral than bilateral, but the relationship of the walls of the optic foramina to the ethmoidal and sphenoidal air sinuses is less well known. This defect of knowledge has been largely remedied by Professor Ónodi's elaborate investigations into the relations and variations of the various air sinuses which communicate with the nasa fossae, and Dr. Lückhoff's excellent translation of Professor Ónodi's monograph on *The Optic Nerve and the Acccssory Sinuses of the Nose*[2] places a summary of the most important facts at the disposal of all English-reading people. The German edition of the book was published in 1906; therefore the main points of its contents are already familiar to many, but the English edition contains the results of the author's work since that time, and almost double the number of illustrations in the German edition; it is, therefore, more complete and instructive than the original volume. Professor Ónodi shows, by means of numerous illustrations, how variable the development of ethmoidal and sphenoidal sinuses is, both individually and relatively, and how closely the walls of the optic canals are associated sometimes with the sphenoidal and sometimes with the posterior ethmoidal cells. It appears that the most posterior ethmoidal cell may form the inner wall of the optic canal on the same or on both sides, and one sphenoidal sinus may lie in close relation with the opposite optic canal, with both optic canals, and with the optic sulcus. In some cases the optic canal runs within a sphenoidal or ethmoidal sinus, and the optic nerve of one or both sides may be separated from the mucoperiosteum of a sinus by a lamina of bone of varying thickness and the brain membranes, or by the brain membranes alone. In view of this close relationship between the optic canals and the accessory air sinuses it is not surprising that inflammatory conditions should pass by direct extension from the walls of the latter to the contents of the former; indeed it may seem rather a matter for surprise that the optic nerves are not more commonly implicated by inflammatory conditions of the air sinuses, when it is remembered that to the close topographical relationship is added an intimate association between the venous channels of the air sinuses and those of the orbit and optic nerve. The seriousness of the circumstances will be readily grasped by any one who consults Professor Ónodi's figures and text, and his warning regarding the care which must be observed, during operations on the posterior ethmoidal cells and sphenoidal sinuses, if injury to the contents of the optic canals is to be avoided, will not seem superfluous. The book is valuable both to the specialist and the general practitioner. It will aid the former in his particular line of work, and it will suggest to the latter the necessity of keeping a careful outlook upon patients suffering from suppurative affections of the nasal air sinuses.

HANDBOOKS OF PRACTICAL PHYSIOLOGY.

Drs. Alcock and Ellison have written a book on *Experimental Physiology*,[3] to which Professor Starling, who has been through all the exercises with the authors, contributes a preface. The book is evidence of the attempt which is being made to adjust the teaching of preliminary and intermediate sciences directly to the future requirements of the student of medicine. This adjustment aims at so teaching the principles of physics, chemistry, and biology that the students' attention shall be directed to those parts of these sciences which afterwards bear on physiology, pharmacology, parasitology, and bacteriology, stress being laid in teaching on those parts of the vast science of modern physiology which bear on pathology and the methods of clinical medicine. The new syllabuses of the University of London will, it is confidently hoped, work great things in this direction, and if the schoolmasters will only do their work and put all the London students of medicine through the matriculation or one of the several equivalents of that examination now allowed there will be little to complain of in the course offered for the London University degree. The great obstruction to a proper course in physiology has been, and still is, the legal restrictions which prevent the student from learning on the lower animals the routine of the administration of anaesthetics or the technique of the simple operative procedures necessary for the investi-

[2] *The Optic Nerve and the Accessory Sinuses of the Nose.* By A. Ónodi. Translated by I. Lückhoff. London: Baillière, Tindall, and Cox. 1910. (Cr 4to, pp. 101, plates 50. 10s. 6d.)

[3] *A Textbook of Experimental Physiology.* By N. H. Alcock, M D., D.Sc., and F. O'B. Ellison, M D. London: J. and A. Churchill. 1909. (Roy. 8vo, pp. 151; 36 figures. 5s.)

gations of the functions of the healthy body. The British student hitherto has been compelled to gain his first experience in giving anaesthetics and in operation on man himself. A greater absurdity than this restriction it is difficult to imagine. In the United States the medical students carry out a proper course of investigations of blood pressure, respiration, etc., on fully anaesthetized animals, and this course forms one of the most fundamentally important in their whole curriculum. It gives them practice and nerve in the administration of anaesthetics, and in operating on the living tissues—so different to the dead body—controlling haemorrhage, etc., besides focussing their attention on the greater problems of the circulation and respiration, the movements of the alimentary canal and bladder, the secretion of urine, etc. It was undoubtedly the legal restrictions which drove the first framers of courses of experimental physiology into the comparatively sterile lines of frog's muscle-nerve drum work. The present endeavour, as set forth in this excellent book of Drs. Alcock and Ellison, is to restrict the frog-muscle work to two or three chapters, and focus the attention on demonstrations on anaesthetized animals by the lecturer or experiments carried out on the carcass of decapitated mammal by the student. As Professor Sherrington has shown, the cat can be anaesthetized and its head removed by a bloodless operation performed by a licensed teacher, and then the carcass can be kept going by artificial respiration, so that the student can himself study the blood pressure, inhibition and acceleration of the heart, oncometry of the kidney, movements of the bladder and bowels, and reflex actions of the spinal cord. In addition to this, the present endeavour of the physiologist is to introduce, as far as possible, experiments on man, such as the study of blood pressure and effect of posture on the blood pressure, effect of breathing carbonic acid in excess or deficient oxygen, influence of exercise on pulse and breathing, etc. The authors have introduced several good exercises of this kind, and altogether have put together an excellent course, and by no means overweighted or beyond the student's power.

Professor JOHN MALCOLM, of the University of Otago, has added another to the already numerous textbooks of *Practical Physiology*.[4] The book has been written specially for students attending his own class, and the subject is treated in the order of the systematic lectures to enable students to study the theoretical and practical sides together, a plan which is undoubtedly the best but troublesome to carry out. The exercises are well chosen, and the directions are set forth in a very clear manner, with heavy type to catch the eye at the head of each exercise. Useful appendices are given in which lists of the apparatus and preparations required for the lessons are set out, and practical directions are given for reading burettes, using pipettes, filtering, etc.

NOTES ON BOOKS.

DR. J. A. RIVIÈRE, editor of the *Annales de physicothérapie*, has published a volume[5] of clinical sketches of physical therapeutics, the merits of which are endorsed by Professor Lancereaux, who contributes a short preface. Dr. Rivière's views on therapeutics are summarized thus: He says (p. 9) "calomel, castor oil, water and heat suffice to cut short acute diseases. On the other hand, chronic diseases which indicate serious functional and organic changes require, in addition to the incontestably useful chemical and hygienic agents, the use of the great physical modificators of which the organism is after all but a result," and he refers to a paper published in this JOURNAL (October 12th, 1901) in which he developed these opinions. The "modificators" to which he alludes are electricity, especially in the form of high frequency currents; heat, light, including the x rays and radium; water; movements including massage, passive exercises, the use of Zander apparatus and systematic gymnastic exercises; "atmaitry" (open windows), alteration of atmospheric pressure, respiratory gymnastics, and the like. The book is divided into chapters describing the methods employed and summarizing the results claimed for them. Typhoid fever, appendicitis, malignant jaundice and yellow fever, with three-fourths of the diseases of infants may, he thinks, be cured by calomel, castor oil, water and heat, and malignant tumours and tuberculosis by high frequency currents. He is interested in premature burials, has views on the cancer microbe, and is the founder and president of an international society for the suppression of war. The book is illustrated by a number of figures and photographs showing the apparatus employed. There can be no doubt of the value of many of the means which are described, but Dr. Rivière appears to exaggerate their power, especially in graver maladies.

[4] *Notes on Practical Physiology.* By John Malcolm, M.D. Dunedin N.Z.: Fergusson and Mitchell. 1909. (Post 8vo, pp. 188; figs. 17. 7s. 6d.)

[5] *Esquisses cliniques de physicothérapie.* Par le Docteur J. A. Rivière. Paris: Bouchy and Co. 1910. (Med. 8vo, pp. 400. Grav. 64. Fr. 7.50.)

THE ANNUAL MEETING.

GOLFING ARRANGEMENTS.

The Ulster Cup.

IT will be remembered that a cup was presented by the Ulster Branch last year, and is to be played for annually on the following conditions, as laid down by the Ulster Branch: "Bogey play under handicap, not exceeding 18; cup to become the property of the member of the Association winning it twice in succession, or three times in all; one round of 18 holes to be played on one day at the Annual Meeting, with no previous play." At Newcastle last year about eighty competitors played, and the cup was won by Dr. Shekleton, Holywood, co. Down. The cup is a copy of the famous "Ardagh" Cup, which is in the National Museum in Dublin, and whose history is known from the eleventh century.

Owing to the conditions of play, the golf subcommittee are this year compelled to insist that the numbers competing shall be limited to 200, and that all entries must be received by July 8th, in order that they may make arrangements to reduce the numbers to 200 if necessary.

All members who wish to enter for this prize are requested to send their names to Dr. F. J. Smith, 138, Harley Street, W., as soon as possible, and *in any case before July 8th, after which no entry can be received.*

The competition will take place on Friday, July 29th, on the excellent course of the Burhill Golf Club, which has most generously been placed at the disposal of the Association for this purpose by the directors. The club is near Walton-on-Thames station—easily reached from Waterloo.

Annual Match.

The usual annual match will take place on Wednesday afternoon, July 27th. It will be between the Metropolitan Counties Branch and the visitors, and it is hoped that at least twenty a side will take part. It will be played, by the kindness of the committee, on the well-known Northwood Links. All members who wish to play are asked to send their names at once to Mr. Percy Furnivall, 28, Weymouth Street, Portland Place, W., in order that the best selection available may be made. It is particularly requested that names should be sent in as early as possible, and each should be accompanied by the player's club and lowest handicap.

Honorary Membership of Clubs.

Golfing members generally will be pleased to hear that a number of the best clubs in the neighbourhood of London have, with extreme generosity, placed at the disposal of the Association a considerable number of honorary memberships for the days of the meeting. This will give visiting members a unique opportunity to play upon these courses. Up to the present the following clubs have invited members to use their links: Acton, Ashford Manor, Burnham Beeches, Bushey Hall, Burhill, Edgware, Eltham Warren, Fulwell, Hanger Hill, Home Park, Mid-Surrey, Neasden, Princes', Richmond, Romford, Sandy Lodge, Sunningdale, Totteridge, Tooting Bec, Walton Heath, Wembley, West Middlesex, Royal Wimbledon, and Worplesdon.

Arrangements will be made by which members wishing to play a round may leave their names and handicaps at the Reception Rooms not later than the day before, in order that matches may be arranged.

PROPOSED BLACK-AND-WHITE EXHIBITION.

An effort is being made to get together for the Annual Meeting of the Association, and in connexion with the Museum Committee, a collection of prints and black-and-white drawings having reference to the medical profession

and medical men. Many such pictures have appeared in *Punch* and other illustrated papers, and no doubt there are many old prints in existence which would interest and amuse. Dr. Rice-Oxley, 5, Kensington Square, W., who has undertaken the work of arranging the collection, will be most grateful for the loan of drawings, prints, or cartoons, or for any suggestions towards the carrying out of the idea. Every possible care will be taken of loans. Any good original paintings respecting medical men or matters would be acceptable. As the time is somewhat short, Dr. Rice-Oxley will be glad of immediate response to this appeal.

King's College Hospital.

The members of the medical staff of King's College Hospital are making arrangements whereby members attending the Annual Meeting may have an opportunity of inspecting the new hospital buildings situated at Denmark Hill. In order to facilitate these arrangements we have been requested to ask those who desire to avail themselves of the hospitality of the medical staff to intimate the fact to the Honorary Secretary of the Medical Museum Committee (Mr. H. W. Armit, Lister Institute of Preventive Medicine, Chelsea Gardens, S.W.)

BRITISH MEDICAL BENEVOLENT FUND.

At the May meeting of the Committee fourteen cases were considered, and grants amounting to £131 made to twelve of the applicants. Appended is an abstract of the cases relieved:

1. M.R.C.S., aged 71. Quite incapacitated by senile gangrene, and dependent on children who can ill afford to help. Voted £10.
2. Widow, aged 40, of M.B., C.M.Edin. Only income about £15 a year interest on insurance money. Four children, aged 11 to 3. Voted £10.
3. Widow, aged 48, of M.R.C.S. Has maintained herself by keeping a boarding house since husband's death, but has had a bad season and asks for a little help towards the education of her children. Voted £10.
4. Widow, aged 41, of M.R.C.S. Husband died a few weeks ago and so far has been unable to sell the death vacancy. Income £14 per annum. No children. Voted £5.
5. Widow, aged 54, of L.R.C.P.Edin. Quite unprovided for at recent death of husband; children unable to help and one still at school. Voted £10.
6. Daughter, aged 47, of late M.D.Aberdeen. Has supported herself by assisting in a boarding house kept by her mother, recently deceased, and asks for help towards unavoidable expenses of the illness. Voted £10.
7. L.R.C.P., L.R.C.S.Edin., aged 50. Lost his sight a few years ago and is dependent on his wife who lets lodgings. Four children, aged 15 to 10. Relieved twice, £36. Voted £18.
8. Daughter, aged 65, of late M.R.C.S., L.S.A. Acted as housekeeper for a brother until his death in 1890, and then qualified as a maternity nurse, but now finds extreme difficulty in obtaining engagements. Relieved once, £12. Voted £12.
9. Daughter, aged 50, of late M.R.C.S., L.S.A. Suffers from chronic glaucoma and dependent on slight help from friends and occasional earnings as a nurse. Relieved twice, £15. Voted £10.
10. Daughter, aged 59, of late M.R.C.S., L.S.A. Earns about 5s. a week by needlework and receives the same amount from friends. Relieved three times, £42. Voted £12.
11. Daughter, aged 67, of late M.D.London. Maintained herself as a governess for more than 40 years, but is now quite incapable of work. Relieved twice, £24. Voted £12.
12. Widow, aged 70, of M.D.Edin. Dependent on a small weekly allowance given locally and earns a few shillings occasionally by knitting. Children unable to help. Relieved six times, £69. Voted £12.

Contributions may be sent to the Hon. Treasurer, Dr. Samuel West, 15, Wimpole Street, W.

MOTOR CARS FOR MEDICAL MEN.

Handy Landaulette Wanted.

Member B.M.A.—Few if any four-cylinder cars are built with the wide lock which enables a taxicab to turn in so small a space; taxicabs have mostly two-cylinder engines. If our correspondent will state the horse-power he contemplates we can give the prices (approximately) of some reliable makes. It is well worth while when buying a car to join the Automobile Co-operative Association, 1, Albemarle Street, W., as almost any make of car can be bought through it more advantageously than from makers direct. A body on taxicab lines but much better finished can be got for about £110. A four-cylinder chassis will cost from £150 upwards, according to make and horse-power.

INDIA IN 1908.

(*Continued from page 1301.*)

The Gaols.

Sickness and scarcity led to an increase of crime and sapped the strength of the people. Accordingly the gaols were overcrowded and the health of the prisoners admitted into them bad. The prison population was 115,403, an increase of 7,728 on 1907. There was some increase in sickness-rates and the death-rate was 24.17, or 6.45 in advance of that of the preceding year. There was an increased mortality in every province except Bombay and the North-West Frontier, and the provinces of Bengal, Madras, and the United Provinces showed the largest increase. The mortality of district gaols receiving prisoners in the first instance was higher than of the central gaols, but in these prisoners of longer confinement die in greater numbers than in the earlier years of their incarceration. There was, as might be expected, an increase in the sickness and mortality attributed to malarial fevers, but the rates fell far short of those which obtained during the year among the outside population, particularly in the Punjab and United Provinces. There had been a decline in recent years which the Sanitary Commissioner considers real and not due to any material extent to changes in nomenclature and more careful diagnosis, though these have probably been operative. The report gives evidence of the value of anti-mosquito measures and the prophylactic use of quinine in reducing the prevalence and mortality of malarious fever, especially the latter. The experience of the Punjab gaols under the careful supervision of Lieutenant Colonel Braide is particularly demonstrative, showing a reduction in fever prevalence in gaols in the face of an enormous increase outside. There was a rise in the admission-rates of both dysentery and diarrhoea. Deaths from dysentery were, contrary to the experience of 1907, more numerous than from tubercle of the lungs, which also underwent a considerable rise, the rates being 4.67 and 3 76, against 2 57 and 2.74 in the preceding year. There was also a rise in the death-rate from pneumonia, cholera, and small pox and a slight rise in enteric fever. There were 10 cases of plague, 5 fatal, against 50 and 30 in 1907. There were 17 cases of beri-beri with 10 deaths; 10 cases of epidemic dropsy with 1 death; 24 cases of cerebro-spinal fever with 18 deaths; 3 cases of relapsing fever, no death; 1 case of kala-azar, fatal; and no case of Mediterranean fever nor of rabies. The details of provinces indicate a serious amount of overcrowding which demands urgent attention. Preparing pice packets of quinine has been introduced as an industry into the Alipore gaol.

European Troops.

The strength of the European army in India was 68,933. Of this number, a daily average of 10,923 occupied hill stations and 3,821 hill convalescent dépôts and sanatoriums; 1,603 were marching, 1,100 stationed at Aden and 367 at Deolali awaiting passage to England, 314 with the Mohmand Field Force, and 97 with the Bazar Valley Field Force. These expeditions took place in February, March, April, and May. The admission and death rates underwent increase, the latter from 8.18 to 9.78. Cholera was the chief cause of higher mortality. The invaliding rate was much lower on account of the healthiness of 1907 and the retention of suitable cases in hill stations. The northern army was more unhealthy than the southern, especially at stations within the area of malarious excess. Influenza was less prevalent. Cholera gave rise to 93 cases and 76 deaths. Of these, 50 cases and 41 deaths occurred in the Mohmand Field Force. The Royal Munster Fusiliers had 43 cases and 36 deaths—an explosion attributed to impure water. There were 53 cases of small-pox, with 2 deaths, against 30 and 1 in 1907. Malarial fever caused an admission-rate of 244, against 154 in the previous year. There has been a gradual abatement of malarious suffering during the last three decades, the admission-rates being 485, 374, and 223. How far this reduction is real it is not easy to say. More careful diagnosis, treatment in barracks, after-treatment, the mosquito campaign. the prophylactic use of quinine, and the retention of soldiers in the hills until the fever season is past have contributed to the reduction. Preventive measures were in full play in 1908,

but the remarks of the Sanitary Commissioner indicate that improved methods are requisite. There were 5,096 admissions for "pyrexia of uncertain origin," a term which appears for the first time in the returns. There were 4 cases of kala-azar—one fatal, the diagnosis being confirmed by splenic and hepatic puncture. Only 3 cases of Mediterranean fever were returned. The admission and death rates for enteric fever were 14.5 and 2.76, against 13.1 and 2.77 in 1907. There is a long disquisition on fevers caused by "typhosus-like" organisms, on bacteriological diagnosis, bacillus carriers, modes of spread, and preventive measures, exhibiting a wide range of well-digested study. Only 2 cases of plague occurred. Fewer cases of phthisis were admitted or invalided. Pneumonia, which is now included among infective diseases, was somewhat more common and fatal, but other respiratory diseases were fewer. There was a rise in dysentery, but a considerable fall in hepatic abscess. The decline in prevalence of venereal diseases continues. There was increased sickness and mortality among officers, women, and children, the death-rates being 9.60, 13.53, and 50.18, against 7.71, 6.38, and 32.7 in 1907.

Native Troops.

The strength of the native army was 126,975, of which 23,465 were located in hill stations, 8,640 marching, 1,041 in Aden and other stations outside of India, 762 in Colombo, 778 in Singapore, 2,314 in China, 333 with the Bazar Valley Field Force, and 1,183 with the Mohmand Field Force. The health of the army was not so good as in 1907, the sickness and invaliding rates were higher, and the death-rate 7.40, or, including absentees, 8.49. The northern army was more unhealthy than the southern, on account of malaria, which caused 39 per cent. of admissions. Pneumonia caused 29.7 of the deaths, cholera 12.3, malaria 7.8, enteric fever 7.8, and tubercle of the lungs 5.6. The troops stationed in China, Singapore, and Colombo were healthy. The Aden brigade had a death-rate of 6.24, and the troops in the Persian Gulf 37.50. The Bazar Valley Field Force had a mortality of 6.01, and the Mohmand of 35.44. The high rate of the latter was due to gunshot wounds (31) and cholera (5). Influenza was less prevalent and below the rate of the European army. There were 174 cases and 116 deaths from cholera, against 34 and 24 in 1907. There was a sharp outbreak at Abbotabad, and it was observed that 11 attendants on the sick in hospital were attacked—a somewhat unusual circumstance. From small-pox there were 103 admissions and 3 deaths, against 48 and 5. Since 1886 the prevalence and fatality of small-pox have been less in the native than the European army, owing, it is surmised, to more thorough vaccination and revaccination. There was an increase of malarious disease, which has been undergoing abatement of recent years; but these statistics are transitionary and uncertain. Preventive measures were actively resorted to, and, it is thought, with benefit. Nine cases were diagnosed as kala-azar, of which 4 were fatal. The diagnosis was confirmed by *post-mortem* spleno-hepatic puncture. From typhus fever only 4 admissions occurred, with 2 deaths. Cases of enteric fever were more numerous, but changes in nomenclature are probably responsible for the increase. From Malta fever there were 23 admissions. Plague caused 36 admissions and 14 deaths, against 85 and 56 in 1907. There was a decrease in scurvy; but tubercle of the lungs rose from 2.5 and 0.33 to 3.0 and 0.42. The rise was mainly due to an increase among Ghurkhas. There was also an increase in pneumonia. Dysentery was more prevalent, but not more fatal; and there was a rise in admissions from diarrhoea, as might be expected in a bad cholera year. The prevalence of venereal disease was about the same, and the decrease which has been taking place in recent years is not so marked as in European troops. The venereal admission-rates in the two armies were 15.2 and 69.6. There were only 13 admissions for beri-beri, without a death.

Vaccination.

Notwithstanding the increased prevalence of small-pox there was a decrease in the number of vaccinations during the year ending March 31st, 1909, to which the statistics refer. The decrease was in primary vaccination, revaccinations being more numerous. The mean proportion of population successfully vaccinated was 35.93, against 36.07 in the preceding year. The prostration of the people by malarial fever and famine no doubt interfered with vaccine operations. There was a slight rise in the cost of each successful case. There is a striking difference in this respect in different provinces, between 8 annas 5 pies in Bombay and 2 annas 3 pies in Eastern Bengal and Assam. There has been no change in administrative or executive arrangements. The use of prepared lymph, mostly lanoline and glycerine, is on the increase, and a new dépôt for its manufacture has been opened at Belgaum in Bombay. Variolous inoculation is still practised in some parts of Burma.

Miscellaneous.

Among topics discussed under the head of "General Remarks," the Mecca pilgrimage holds, as usual, a prominent place. Notwithstanding careful precautions, considerable mortality occurred among pilgrims travelling to and from the holy place. The most interesting incident recorded is the outbreak at Camaran towards the close of 1907 of cholera on a small scale among pilgrims conveyed from Bombay by two steamers. The cases appeared fifteen days and eleven days after the vessels had left Bombay. Dr. Delpino, the director of the quarantine station at Camaran, surmises that the disease was conveyed by "carriers" of latent germs, which for some reason acquired virulence at Camaran. This opens up a new and somewhat alarming view of the possibility of the conveyance of the infection of cholera over a long distance and a protracted interval. The disease prevailed severely in the Hejaz during four months, 21,000 deaths taking place among 140,000 pilgrims; but inquiries point to its having been imported from the north and not from India. Interesting summaries are given of the work done in the Central Research Institute, Kasauli; the Bombay Bacteriological Laboratory, the King's Institute of Preventive Medicine, Madras; the Pasteur Institute, Kasauli, and the Pasteur Institute of Southern India, Coonoor. Courses of instruction in sanitary engineering, vaccination, and bacteriology are given in the Madras and Bombay institutions. A great deal of original work was done during the year, both in the laboratories and by officers specially deputed, concerning malaria, enteric fever, plague, dysentery, lathyrism, gaol dietaries, and other subjects. Reference is made to the proceedings of the Imperial Malaria Conference, which assembled in Simla from October 12th to 18th, and the resolutions and recommendations formulated by the conference are given in detail. These contemplate continuous inquiry and action to the end of combating malaria by attacking the parasite in both mosquito and human hosts. This detail is peculiarly appropriate in a report dealing so largely with the ravages of malarious disease. Finally, a list is given of scientific publications issued under the authority of the Sanitary Commissioner with the Government of India.

EGYPT AND THE SUDAN IN 1909.

(Continued from page 1302.)

Cairo Drainage.

During the year progress has been made with the scheme approved in 1908 for the drainage of Cairo, and two important contracts have been given out, one to an English firm for the surface water drainage of Cairo, the sewerage of Zeitoun and suburbs, the construction of the main collector, and the construction of purification works at Khanka, fifteen miles north of Cairo; and the other to a French firm for the construction of the rising main from the main pumping station to the purification works. In the case of both these undertakings work has already begun. Various smaller contracts have been given to local firms, and one in particular, for the manufacture of the special bricks required by the scheme, will materially assist a local industry.

As many unfounded rumours have been in circulation regarding the effects upon the public health of the community of the execution of the drainage scheme, Sir Eldon Gorst states that it may be well to mention that no excavation will be undertaken within the city during the winter season, and, in any case, there will be no danger to health even when this work is in progress. The sewers will be laid near the surface, in order that the subsoil may not be disturbed to any great depth, and the trenches will not be of any great size, and will only

remain open for a few hours; all earth will be disinfected directly it is brought to the surface, the pipes will be immediately laid, and the trench refilled. There is, therefore, not the slightest ground for anxiety as to the health of the city being prejudicially affected during the carrying out of the scheme, which, when completed, will fulfil all the modern sanitary requirements, and will enable Cairo to rank with the healthiest cities of the world. It is hoped that before the commencement of the winter season of 1910–11 the surface-water system for dealing with the rainfall in Cairo will be practically finished, and that there will be no further flooding of the streets during wet weather.

Mosquitos and Malaria.

The antimosquito movement in Cairo was first started in 1902, the measures adopted consisting in oiling cesspools, wiring ventilators, putting fish into ornamental waters, and removing stagnant water. These measures have met with a certain amount of success, though not sufficient to permit the disuse of mosquito curtains; in fact, so long as excavations and low-lying spots exist which contain infiltration water during high Nile, mosquitos will continue to breed in Cairo. No doubt the steps now taken are efficacious within certain limited areas, but a much more effective cure will be the completion of the drainage scheme. In Port Said the antimosquito campaign has been carried on in more favourable circumstances, and has, owing to the compact area of the town and the absence of infiltration, resulted in a distinct improvement in the conditions of life. There has been some misunderstanding as to the object of the measures taken in these two towns, and it appears to have been supposed that they were intended to combat malaria. This is an error. The *Anopheles* mosquito, the species which carry malaria, breed in fresh and slightly saline water, and is but rarely found in Cairo and Port Said. In Suez and Ismaïlia true malaria exists, and the measures taken in these towns to stamp out the *Anopheles* mosquito have, as is well known, produced great improvement in the public health.

School of Medicine.

During the year 16 students obtained their diplomas; in October 50 new students joined. There are at present 206 students in the School of Medicine and one in the School of Pharmacy. Four medical students were sent to England for a post-graduate course of study, with a view to joining the teaching staff on their return.

Child Labour in Factories.

An important order has been issued in connexion with the employment of child labour in cotton-ginning factories. The chief provisions of the measure are as follows:

1. No child under 9 years of age may be employed in a cotton-ginning factory.
2. The employment of children between 9 and 13 years of age is subject to the conditions that the child (*a*) holds a certificate of age and physical fitness for work, and (*b*) must not work for more than eight hours a day; night work and certain other particularly dangerous forms of employment are altogether prohibited.
3. All persons engaged in recruiting or supervising child labour must be licensed.
4. Government inspectors have the right to enter factories in order to supervise the proper working of the regulations and to report any infringement of the law.
5. A first offence may be punished by a fine up to £E1, and the second by imprisonment not exceeding a week.
6. The Ministry of the Interior has power to extend the regulations to other industries should such a course appear necessary.

SUDAN.

Public Health

Three new hospitals at Khartoum, Atbara, and Port Sudan were all opened during the year. The buildings are satisfactory, but various accessory constructions are still required in the two former.

The Sudan Medical Department has been placed under the direction of Colonel Mathias, principal medical officer of the Egyptian army. Dr. Christopherson has been appointed director of the Khartoum and Omdurman civil hospital.

The number of out-patients treated increases steadily, and about 140,000 were treated in 1909, as compared with 121,000 in the preceding year. The number of in-patients remains at about 7,000.

Forty-one thousand vaccinations were performed during 1909, as against 19,000 in 1908. There was little small-pox in the country, nor has there been any serious epidemic of infectious disease during the past year.

A report on the subject of sleeping sickness has been furnished by Captain Anderson, who has been conducting investigations on the boundary of Bahr-el-Ghazal and the Lado Enclave, and valuable suggestions are made regarding measures of precaution against the introduction of the disease into the Soudan from that quarter.

An inquiry has also been instituted into the causes of the obscure and fatal disease, kala-azar, which has in recent years appeared in the Kassala province and on the Blue Nile.

Science.

Dr. Balfour, the Director of the Wellcome Research Laboratories, reports that, despite the great increase in the amount of routine work—especially in the bacteriological section—good progress has been made in the domain of research. The past year has been one of great activity, the busiest, and, in some respects, the most useful, that the laboratories have experienced.

The Seligmann Anthropological Mission left Khartoum at the end of last year, and will begin work among the Nubas of Kordovan.

In spite of the financial stringency which prevailed at the time the Budget for 1910 was framed, it has been possible to meet Dr. Balfour's demand for an increase of staff.

THE SOUTH AFRICAN MEDICAL CONGRESS.

THE next South African Medical Congress is to be held at Capetown in the autumn of this year. The exact date is not yet settled, but it will be within a few days of the opening of the Union Parliament, which is to take place about the middle of October. There have been eleven previous congresses. The arrangements made are closely akin to those of the British Medical Association at its annual scientific meetings, but all registered medical practitioners in South Africa are eligible for membership on payment of a subscription of one guinea. The President this year is Mr. C. F. K. Murray, M.D., R.U.I., F.R.C.S.I., Consulting Medical Officer to Somerset Hospital, Capetown, President of the Cape Colony Medical Council, and formerly Chairman of the Cape of Good Hope Leprosy Commission of 1895. The Honorary General Secretary is Mr. H. A. Moffat, F.R.C.S Eng., who is also Honorary Secretary of the Cape of Good Hope Western Branch of the British Medical Association, and Surgeon to the Somerset Hospital.

The Sections.

The Presidents of Sections and Honorary Secretaries respectively are:—Medicine: J. Bruce-Bays, M.D.Lond., of Grahamstown, and F. M. Morris, M.B., B.S.Lond., Capetown. Surgery: G. Ritchie Thomson, M.B., C.M.Edin., Johannesburg, and S. W. F. Richardson, M.B., B.Sc.Lond., F.R.C.S.Eng. Obstetrics and Gynaecology: A. H. Watkins, M.D.Edin., Kimberley; and A. Simpson Wells, M.B., Ch.B.Glasg., Capetown. Public Health: P. Murison, M.D.Edin., Durban; and J. A. Mitchell, M.B.Glasg., Capetown. Eye, Ear, Nose, and Throat: A. G. Brinton, F.R.C.S.Edin., Johannesburg; and D. J. Wood, M.B., C.M.Edin., Capetown. Pathology: W. Watkins-Pitchford, M.D.Lond., F.R.C.S.Eng., Pietermaritzburg; and G. W. Robertson, Capetown. Special Subjects: A. B. Ward, M.B.Camb., Bloemfontein; and W. Darley-Hartley, M.D.Durh., Capetown.

Programme of Discussions.

The subjects chosen for special discussion are:—Medicine: The modern treatment of tuberculosis. Surgery: The diagnosis and treatment of urinary calculus and its prevalence in South Africa. Obstetrics and Gynaecology: Diagnosis and treatment of fibroid disease of the uterus. Public Health: The aestival diarrhoeas of South Africa. Eye, Ear, Nose, and Throat: The diagnosis and treatment of headache due to disease or disorder of the eye, ear, nose, or throat. Pathology: The incidence and characteristics of cancer in South Africa. Special Subjects: Hospital administration and organization in South Africa.

Nova et Vetera.

SOME ROYAL DEATH-BEDS.

(Continued from p. 1304.)

James I.

OF the constitution and health of James I we have a very detailed account by one of his physicians, Sir Theodore Mayerne, dated December 1st, 1623, when the King was 57 years of age. As he died in March, 1625, this was less than eighteen months before the end of his life. It is summarized by Dr. Norman Moore in his *History of the Study of Medicine in the British Isles*,* and the Latin text is given in an appendix. It is a curious document showing a mixture of clinical sagacity with the fanciful pathology of the time. From it we learn that the "British Solomon," as he was called by his flatterers, or "the most learned fool in Europe," as he was described by his tutor George Buchanan, was easily affected by cold and damp, and that his lungs were often attacked by fluxion, though his chest was broad and well formed. He was extremely subject to catarrh and was always blowing his nose. The liver was liable to obstructions, and generated much bile. The King had the appetite which seems to be characteristic of royalty; as Mayerne expresses it, the stomach was always ready for the burden of a large quantity of food and readily got rid of anything hurtful either upwards or downwards, chiefly in the latter direction. Nevertheless, he suffered almost constantly from flatulence (*flatu importuno qui vel cruditatis vel fermentationis soboles est continuo quasi turget*).

This must have been aggravated by the fact that owing to want of teeth he could not chew, but had to bolt his food. In the matter of drink it is bluntly stated that he erred in quality, quantity, frequency, time, and order. He drank beer, ale, Spanish wine, sweet French wine, white wine and muscatelle. He loved all sweet wines and hated water and all watery drinks.

There was a tendency to gravel and he sometimes passed friable calculi, or rather, to use Mayerne's expression, "compact little masses of sand."

The King's legs were thin by nature and scarcely strong enough to bear the weight of his body. He did not walk until his sixth year; this weakness is explained by Mayerne as due to the bad milk of a drunken nurse. He had difficulty in swallowing owing to narrowness of the fauces, a peculiarity which Mayerne says he had inherited from his mother, and from his grandfather, James V. of Scotland. He was often troubled with colic and was subject to diarrhoea, which was made worse by mental irritation. Thus we are told that after the dissolution of Parliament $16\frac{10}{11}$ when there had been much sharp discussion about the King's favourites, his bowels were much disturbed for a week. The death of his son in 1612 had a like effect. Occasionally there was haematuria. Jaundice was apt to occur if he was disturbed in mind or body. He had piles which bled almost daily. He was the subject of arthritis, and the clumsiness caused by this was the cause of frequent falls from horseback and other accidents.

Like most monarchs—and most men of common clay—the King was impatient of pain and urgent in demanding immediate relief, caring little about the cause of his suffering. Yet with the usual inconsistency of mankind, he scoffed at medicine, and declared that doctors were of little use. He held that the art of healing was based on uncertain conjectures, and attributed every good effect to Nature; if, relying on his own good judgement (says Mayerne), he did not altogether refuse needful help, he imprudently allowed Nature to go more quickly to its own destruction. He declared purgatives to be hurtful, particularly senna and all drugs that caused griping; he would take only mild aperients, and said that the only remedies of the kind needed were such as stimulated the rectum to empty itself. He would not submit to the use of enemas till 1613, and after that only occasionally. He once consented to take a cathartic, and to his physician—who expressed surprise that his stomach had not rebelled—he made the truly royal answer that all things were easy for him when he had made up his mind that they were to be done. He would not allow himself to be bled, though he once consented to the application of leeches. His haemorrhoidal flux must have made further depletion unnecessary.

Mayerne's account seems to have been drawn up for the guidance of the King's physicians, and he gives them a number of hints as to the treatment to be adopted in possible contingencies. He displays the shrewdness of the experienced court physician when he suggests that they should place before the King all the remedies which should be used "lest they should be accused of omitting or neglecting anything," and that they should show how zealous they were in their ministrations, and should thus make the royal will more ready to bend to the rules of medicine. They should not, he adds, force the King unwillingly to submit to the treatment required, but should persuade him to accept it of his own accord. A lesson for all who have the health of royal personages in their keeping!

James's life was, therefore, partly owing to constitutional causes and partly owing to his excesses in food and drink and to other indulgences, one long disease. On March 5th, 1625, he was attacked by a tertian ague. According to Lingard, "His indisposition was at first considered a tertian ague, afterwards the gout in the stomach; but whatever its real nature, under his obstinacy in refusing medicine, and the hesitation or ignorance of his physicians, it proved fatal."

He died on March 27th, and whatever his life may have been it may be said of him as of Falstaff that "'a made a good end." In the library of St. John's College, Oxford, there is a manuscript record of the edifying sentiments which he professed on his death-bed. It is at the end of a *Book of Common Prayer* which belonged to James and bears his arms on the cover. The prayers are written in a rather large hand on the fly-leaves with numbers on the right hand on the right hand page, and on the left on the left hand page. Some one has written in lead pencil the words "King" and "Bishop" before some of them, making them into versicles and responses, as follows:—

King. Into thy hands I commend my spirit for thou hast redeemed me o Lorde thou God of Truth. 1
Bishop. Veni Domine Jesu, veni cito. 2
King. Cupio dissolvi et esse cum Christo. 3
Bishop. I know that my Reedeemer liveth and that I shall rise out of the Earth in the last day. 4
King. I believe that I shall see the goodnes of the Lorde in the lande of the Living. 5
Bishop. Credo, Domine, adauge Tu Fidem meam. 6
King. In Te Domine speravi nō confundar in aeternum. 7
Bishop. Amen, dico Tibi, hodie mecum eris in Paradiso. 8
King. Thankes be unto God, who hath given us the victorie through our Lorde Jesus Christ. 9
Bishop. As by Adam all die, so by Christ shall all be made alive. 10
Martii 27, 1625.
King. Say unto my soule I am thy Salvation. 11
Bishop. Euge, serve bone, intra in gaudium Dñi tui 12
King. A Corona ad Coronam, from a Crowne on Earth to a Crowne in heaven. 13
Bishop. I hearde a voice from heaven saying: Blessed are the dead that die in the Lord, for so saith the spirit. 14
King. Quia fecisti nos Domine pro Te, irrequietum est cor nostrū donec quiescat in Te. 15
King. Non timeo mori quia bonum habemus Dominum. 16
Bishop. Transibis a Gloria in Gloriam. 17
King. Bone Jesu, sis mihi Jesus. 18
Bishop. I hold all things as dung, so as I may winne Christ. 19
King. Beati qui habitant in Domo tua, Domine, in saecula saeculorum laudabunt te. 20
Bishop. Venite ad me omnes qui laboratis et onerati estis, et ego reficiam vos. 21
King. Totus sum tuus, fiat in me voluntas tua ô Deus. De vita et morte meâ facias secundum beneplacitum tuum: tantum fac, ut toto corde, et tota anima Tibi adhaeream in aeternum. 22
Deus meus, quamvis naturalis vitae amor recuset; cum fiduciâ tamen auxilij tui dicem cum Domino meo Jesu Christo. 23
"Pater mi, si non potest Calix hic transire, quin bibam illum, Fiat voluntas tua." 24
In pace in idipsum dormiam et requiescam, quoniam Tu in spe constituisti me. 25

Vel si licet alloqui aegrotum.

Memento qualem habes Patrem, qui sic te dilexit, ut unicum ffilium suum pro te redimendo dederit, Qualem Redemptorem qui seipsum pro te crucifigendum in manus hostium suorum tradidit, Qualem Consolatorem, omnis boni fontem, quem Christus promisit tecum permansurum usque ad Consummationem. Memento quales habeas conservos Angelos Dei a Deo

---

Oxford. At the Clarendon Press. 1908.

missos, ut animam a corpore discedentem in sinum Abrahae, in consortium beatorum Angelorum, et Sanctorum deferant in Coelum.

Precatio.

Pater qui, ut me servum redimeres, unigenitum ffilium tuum dedisti, ne permitte, ut in me pereat, tantum pretium, scilicet, Sanguis, et Vita dilectissimi ffilii tui Dñi nrî Jesu Xp̃i quo me redemisti. 28

Domine, Calicem hunc mortis de manu tuâ libenter accepto, et offero illum Tibi; et ut dignanter acceptes in odorem suavitatis deprecor. 29

Deus propitius esto mihi peccatori. 30

I am now readie to be offered, and the time of my departure is at hand. I have fought a good fight. I have fulfilled my course. I have kept the faith. Henceforth there is layd up for me a crowne of Righteousness, which the Lord, the Righteous Judge, shall give me at that day, and to all that love his coming. 31

Come Lord Jesu, come quickly. 32

Behold I come quickly, and my Reward is with me. 33

Commendo me Tibi Sancta Trinitas, Pater, ffili, et Spiritus Sancte, qui in unitate Substantiae unus et verus est Deus. 34

Commendo me Tibi, Patri omnipotenti, qui me et omnia quae sunt visibilia et invisibilia creasti. 35

Commendo me Tibi, Domine Jesu Xp̃i, qui me morte tuâ redemisti; et Sanguine tuo pretioso peccata mea abluisti.

Commendo me Tibi, Spiritus Sancte, qui Ecclesiam Catholicam et omnia eius membra, et me humillimum Christi servum vivificas, sanctifi ceaet solaris.

Domne, dic verbo et sanabitur puer tuus. 36

Domine, hic ure hic seca, ut saltem in aeternum parcas. 37

Domine Deus meus, qui quos diligis castigas, sim quaeso de numero filiorum quos diligis in vitam aeternam; quandoquidem sum ex iis quos castigare dignaris. 38

Propitius esto mihi, ô Deus, et virtutem tribue ad bene ferendum la quae me ferre vis. 39

Cuicumque dat Deus gratiam quaerendi veniam signum dat ei, quod velit ignoscere et peccata condonare. 40

In te Domine speravi non confundar in aeternum. 41

The text given above has been transcribed for us from the actual book by the Very Reverend Dom Cuthbert Almond, O.S.B., of Oxford, whose kindness we hereby acknowledge. The book seems to have come into the possession of Sir William Paddy, one of the King's physicians, who, in a smaller and quite different handwriting, added the following note:

Being sent for to Thibaults butt two daies before the death of my souvraigne Lord and master King James: I held it my christian duetie to prepare hym, telling hym that ther was nothing left for me to doe (in the afternoon before his death the next daie att noone) butt to pray for his soule. Whereupon the Archbyshop and the Lord Keaper byshop of Lincolne demanded yf His Maiestie wold be pleased that they shold praye wth hym; whereunto he cheerfullie accorded. And after short praier these sentences were by the Bishop of Lincolne distinctlie pronounced unto hym, who wth his eies (the messengers of his heart) lyfted up unto Heaven, att the end of every sentence, gave to us All therby, a godlie Assurance of those graces and livelie Faith, wherwth He apprehended the merits of our Lord (and of our Lord) and onlie Saviour Christ Jesus, accordinglie as in his godlie Life he had often publiquelie p'fessed.

Will: Paddy:

Sir William Paddy was educated at St. John's College, and afterwards went to Leyden, where he proceeded Doctor of Medicine. In 1591 he was admitted a Fellow of the London College of Physicians, of which he was President in 1609, 1610, 1611, and 1618. He was physician to King James, and was highly thought of by Mayerne.

The statement of Mayerne, of which a summary has been given, shows that the King had for some time before his last illness been suffering from gout and gravel. When he died rumours of poison got about. Such charges were scattered about by interested persons who wished to delude the vulgar. We need not, however, pride ourselves on our greater enlightenment when even at the present day a King's death is attributed by silly or unscrupulous people to vaccines.

The charge of poisoning King James was brought against Buckingham. It is set forth in detail in a pamphlet by George Eglisham, who describes himself as having been one of the King's physicians for more than ten years.[1]

We quote the essential parts of it:

"The King being sick of a certain ague, and that in the spring, was of it selfe never found deadly; the Duke (of Buckingham) tooke his opportunitie when all the Kings Doctors of Physick were at dinner, upon the munday before the King dyed, without their knowledge or consent, offered to him a white powder to take: the which he a long time refused; but overcome with his flattering importunitie at length tooke it in wine, and immediately became worse and worse, falling into many swounings and pains, and violent fluxes of the belly so tormented, that his Majestie cryed out aloud of this white powder, would to God I had never taken it, it will cost me my life.

"In like manner also the Countesse of Buckingham, my Lord of Buckingham's mother, upon the Fryday after the Physicians being also absent, and at dinner, and not made acquainted with her doings, applyed a plaister to the King's heart and breast; whereupon he grew faint, short breathed, and in a great agony. Some of the physicians after dinner returning to see the King by the offensive smell of the plaister, perceived something to bee about him hurfull unto him and searched what it should be, found it out, and exclaimed that the King was poysoned. Then Buckingham entering, commanded the Physicians out of the roome, caused one of them to be committed prisoner to his own chamber, and another to be removed from Court, quarrelled with others of the King's servants in his sick Majesties owne presence so farre that hee offered to draw his sword against them in his Majesties sight. And Buckinghams mother kneeling downe before his Majestie cryed out with a brazen face, Justice, justice, Sir, I demand justice of your Majestie; His Majestie asked her for what? For that which their lives are no wayes sufficient to satisfie, for saying that my son and I have poysoned your Majestie. Poisoned, said he; with that turning himself, swounded, and she was removed. The Sunday after his Majesty dyed and Buckingham desired the Physicians who attended his Majestie to signe with their hands a writ of testimony, that the powder which he gave him, was a good and safe medicine, which they refused. . . . Immediately after his Majesties death, the Physician who was commanded to his chamber was set at libertie with a Caveat to hold his peace; the others threatened if they kept not good tongues in their heads.

"But in the meantime the King's body and head swelled above meassure his haire with the skin of his head stuck to the pillow, his nailes became loose upon his fingers and toes."

Norman Chevers, in a book entitled *Did James the First of England Die from the Effects of Poison or from Natural Causes?* says that in the King's last illness he became more tractable in the hands of his doctors. When those about him endeavoured to reassure him by quoting the proverb, "An ague in the spring is physic for a King," he replied, "True, but the saying is meant for a young King." Chevers says Joseph Mead wrote an account of the King's death to Sir Martin Sackville, which, it would appear, is not extant. In a second communication (dated April 9th, 1625, Ellis, first series, vol. iii, p. 182) he says: "I am told for certaine that, after Friday at night till the houre of his death, his tongue was swolne so big in his mouth, that either he could not speak at all, or not to be understood." A little before break of day, on the Sunday, he expressed a wish to have another interview with Prince Charles, who instantly rose and came, in his nightdress, to the King's bedside. The dying monarch endeavoured to raise himself on his pillow, as if he had something of importance to impart; but by this time his speech was inaudible. In his last moments, however, when the prayer commonly used at the hour of death was concluded, he repeated once or twice the words, "Veni, Domine Jesu!" and shortly afterwards ceased to breathe, without any appearance of pain.

The Lord Keeper closed the King's eyes with his own hand. Joseph Mead reports that, "when his body was opened by the physicians, they found his heart of an extraordinary bigness, all his vitalls sound, as also his head, which was very full of braines, but his blood was wonderfully tainted with melancholy, and the corruption thereof supposed the cause of his death." There is, according to Sir H. Ellis, in the Harleian Manuscript 383, the copy of a letter from a Mr. William Neve to Sir Thomas Hollandem concerning the embalmment and bringing to town of the body of King James. The writer says: "The King's body was, about the 29th of March, disbowelled, and his heart was found to be great but soft, his liver freshe as a young man's, one of his kidneys

[1] *The Fore-Runner of Revenge.* By George Eglisham, Doctor of Physick, and one of the Physicians to King James of happy memory, for his Majesties person, above ten years space. Printed at London, in the yeare 1642. *Concerning the poysoning of King James of happy memory, King of Great Britain.*

very good, but the other shrunke so little as they could hardly find it, wherein there was two stones. His lites and gall, blacke; judged to proceed of melancholy. The semyture of his head so stronge as they could hardly breake it open with a chesill and a sawe; and soe full of braynes as they could not, upon the openinge keepe them from spilling; a great mark of his infinite judgement."

A curious detail may be added. According to Sir Robert Gordon, Tutor of Sutherland, Gentleman Ordinary of James's privy chamber, "the dead bodie of that mightie monarch, for the space of eight dayes that it abode at Tiboll's, lay naked, without any cover saveing a whyt sheet."

Those who are interested in the subject may consult *The Secret History of the Court of James I*, containing (i) Osborne's Traditional Memoirs; (ii) Sir Anthony Welldon's Court and Characters of King James; (iii) Aulicus Coquinariae; (iv) Sir Edward Peyton's Divine Catastrophe of the House of Stuarts. (James Ballantyne and Co., Edinburgh, 1811.)

(*To be continued.*)

Dr. E. P. Clippingdale writes: "I have been fascinated by the article, 'Some Royal Death-beds.' I see further contributions are invited. I do not know whether the enclosed notes are suitable."

Henry VIII suffered many years before his death from a "sorre legge," for which he was treated by a "meane practizer at Maidstone," Thomas Vicary, who subsequently became Sergeant-Surgeon (1531). The King had also a fistula, for which he was treated by Sir John Alyffe, Sergeant-Surgeon, in 1539. (Young's *Annals of the Barber Surgeons.*)

Edward VI was left much to the care of nurses. His father, anxious about "his most dearest sonne," sent him to Hampstead, in Hertfordshire, which then had the reputation of being curative for the sick children of London. The young King kept a diary, and in this he made an entry on April 2nd, 1552 (about a year before he died): "This day I fell sike of the mesles and small pokkes." This matter I have dealt with in a paper, "Hampstead as a Health Resort for Children in the Reign of Henry VIII." (*Journal of Balneology and Climatology*, vol. ix.)

Mary Tudor's physician was Dr. Caesar à Dalmariis, a naturalized Italian. (Munk's *Roll*.)

Queen Elizabeth must have retained consciousness almost to the last, for those around her, bending over her, heard her say (in answer to a question as to whom she wished to succeed her), in a very feeble voice, "Let a good man follow me." They said, "Does your Majesty mean your cousin James?" to which the dying Queen nodded her head in assent. (Recent correspondence in *Notes and Queries.*)

LITERARY NOTES.

THE following extract, given in James Dennistoun's *Memoirs of the Dukes of Urbino*, shows that at the Court of the Urbino during the latter part of the fifteenth century people were neither so dirty nor so foul and gluttonous in their feeding as they were elsewhere. It is copied from a volume of regulations compiled for the Court of Guidobaldo I, Duke of Urbino, A.D. 1472–1508 (vol. i, pp. 309–10). It states that to all persons composing the ducal household unexceptionable manners were indispensable. In those of higher rank there was further required competent talents and learning, a grave deportment and fluency of speech. The servants must be of steady habits and respectable character; regular in all private transactions; of good address, modest, and graceful; willing and neat-handed in their service. There is likewise inculcated the most scrupulous personal cleanliness, especially of hands, with particular injunctions as to frequent ablutions, and extraordinary precautions against the unpleasant effects of hot weather on their persons and clothing; in case of need medical treatment is enjoined to correct the breath. Those who wore livery had two suits a year, generally of fustian, though to some silk doublets were given for summer use. They had a mid-day meal and a supper: the former usually consisted of fruit, soup, and boiled meat; the latter of salads and boiled meat. This was varied on Fridays and vigil fasts by dinners of fish, eggs, and cheese; suppers of bread, wine, and salads. Saturdays were semi-fasts, when they dined on soup and eggs, and supped on soup and cheese. The upper table offered but few luxuries in addition to this plain fare, such as occasionally roasts, fowls, and pastry, with a more liberal allowance of eggs and cheese on meagre days. Of the diet at the ducal table, we find sparing and unsatisfactory notices; but its chief difference from that of the attendants seems to have consisted in the more liberal use of sweet herbs and fruit. The latter were presented in singular order: cherries and figs before dinner; after it, pears, apples, peaches, nuts, almonds; before supper, melons and grapes. The splendour of the table service seems to have been more looked to than its supplies, and many rules are given as to the covered silver platters on which meals were brought up, the silver goblets and glass caraffes for wine, the fine napery, and the ornamental flowers. The regulations for the Duke's chamber service indicate scrupulous cleanliness, both as to ablutions in perfumed water and frequent change of clothing, in strict conformance to the directions of physicians and astrologers. Among the conveniences enumerated for his bedroom are a bell, a night-light, and in cold weather a fire. An attendant slept by him without undressing, also a clerk in the guard-room within call. The music provided to accompany the Duke on his rides seems to have been somewhat miscellaneous—a company of bagpipers, a sackbut, four trumpets, three drums, with a herald or pursuivant. Guidobaldo's courtiers had, in fact, as Falstaff was recommended by the Prince to do, purged and lived cleanly, as gentlemen should do. If they did not lead an ideally simple life, they were much nearer it than many more brilliant courts have been in later days. The Dukes of Urbino appear to have been exceptionally enlightened rulers, if we may judge from the following extract from a paper of instructions written by Duke Francesco Maria II. of Urbino, to his son (about the year 1607) in case he should be left an orphan at an early age:

> Eat and drink of everything indifferently, without reference to diet such as is recommended by physicians, of whom keep aloof while you can, never calling them in until you are ill; but when really so, obey them strictly, committing yourself first to God, and secondly to their skill.

The last words convey advice that should be taken to heart by all patients of whatever degree. They should be written in letters of gold in the palaces of kings, for, as all records show, they are as apt to think themselves *supra medicinam* as the Emperor Sigismund said he was *supra grammaticam.*

THE DEATH OF KING EDWARD.

THE Council of Epsom College has sent the following addresses to His Majesty the King and to her Majesty Queen Alexandra:

TO THE KING'S MOST EXCELLENT MAJESTY.

May it please Your Majesty,

We, the Council of Epsom College, beg leave to approach Your Majesty for the purpose of conveying the expression of our heartfelt sorrow at the bereavement which has befallen Your Majesty, the members of the Royal Family, and the whole Empire by the death of our beloved King.

We hasten to assure Your Majesty of our deep sympathy, not only as humble and loyal subjects, but also as representing an institution of which your august father was the Patron, and in which Your Majesty has so recently as in the year 1903 been graciously pleased to take a personal interest.

We also desire to tender our congratulations on Your Majesty's accession to the Throne, with the earnest wish that Your Majesty may long be spared to reign over a happy and prosperous Empire.

ROSEBERY, President. HENRY MORRIS, Treasurer.
W. S. CHURCH, Chairman of the Council. J. BERNARD LAMB, Secretary.

May 21st.

TO HER MAJESTY QUEEN ALEXANDRA.

May it please Your Majesty,

We, the Council of Epsom College, desire to offer to Your Majesty the expression of our profound grief at the irreparable loss which has befallen Your Majesty by the death of our beloved Sovereign King Edward VII of blessed and glorious memory. We sincerely hope that Your Majesty may long be spared to receive the love of a devoted people.

ROSEBERY, President. HENRY MORRIS, Treasurer.
W. S. CHURCH, Chairman of the Council. J. BERNARD LAMB. Secretary.

May 21st.

British Medical Journal.

SATURDAY, JUNE 4TH, 1910.

DISCIPLINARY CASES BEFORE THE MEDICAL COUNCIL.

THE time of the summer session of the General Medical Council was this year very largely occupied by the hearing of disciplinary cases. Several of these involved considerations of great general importance both to the profession and to the public, and fully justified the amount of time and care devoted to them. In three the complainant was the British Medical Association, and we conceive that any impartial student of the reports of the hearing of these cases published in the SUPPLEMENT for this week will agree that in undertaking to lay complaints before the Council the Association was discharging a public duty.

One of these was of a type with which those who have followed the business of the General Medical Council in recent years are familiar, since a good many cases of the sort have been brought under its consideration from time to time; it was a case of canvassing, and the General Medical Council in 1905 gave notice that any registered medical practitioner who employed or sanctioned the employment of agents or canvassers for the purpose of procuring persons to become his patients would render himself liable to be charged under the twenty-ninth section of the Medical Act 1858 with infamous conduct in a professional respect. In this case the respondent practitioner through his solicitor admitted fully and freely that the main allegations with regard to canvassing by a collector were true, but stated that when he discovered the facts in March last, at a time when there was no suggestion of proceedings against him, he immediately dropped all connexion with the society and had not since attended any patients connected with it. He accepted without reservation full responsibility for the actions of the collector and admitted that he was professionally negligent in failing to make more careful inquiry, expressed his regret for having transgressed, and promised to have no further connexion with any society in which canvassing or collecting by agents was involved. In view of this apology the Medical Secretary, acting for the Association, withdrew the case, and the President undertook that its nature should be placed on record, together with an intimation that the Council, after hearing statements from the representatives of both sides, agreed to its withdrawal.

Two other cases in which the Association acted as complainant are of particular interest, because they bring into prominence what must be admitted to be a defect in the machinery of the Council when dealing with disciplinary cases. The defect exists in regard to all such cases save those in which the registered medical practitioner has been convicted of a felony or misdemeanour (in Scotland of a crime or offence), but becomes particularly obvious when, as in these cases, the principles or facts involved have an obvious and direct bearing upon public affairs. The interpretation put by the General Medical Council upon the statutory powers conferred upon it by the Medical Act is such that it does not consider itself competent to investigate a case on its own initiative, but holds that the charge must be brought before it by a complainant. The Act empowers the General Medical Council, if it see fit, to direct the erasure from the *Register* of the name of a medical practitioner who "shall after due inquiry be judged by the General Council to have been guilty of infamous conduct in any professional respect." The standing order under which the Council acts in these respects provides that "whenever information reaches the office of the Council that a registered medical practitioner . . . has been under the censure of any judicial or other competent authority in relation to his professional character, or has been guilty of conduct which *prima facie* constitutes infamous conduct in a professional respect," the Registrar shall make a report to the President, who may cause the matter to be brought before the Penal Cases Committee. The only exception to the requirement as to a complainant which seems to be recognized by the Council is when the facts are brought to its notice by a public authority. Instances in which the Council has taken action in the absence of a complainant are afforded by a case heard before it last November, when a practitioner was struck off the *Medical Register* for allowing another medical practitioner, in the circumstances then reported, to perform his duties as certifying factory surgeon, and a somewhat similar case heard this session upon information brought to the notice of the Council by the City of Leeds Education Department. In the latter instance the medical practitioner was charged with being associated in practice with an unqualified person and allowing him to sign what purported to be certificates of unfitness of children to attend school.

In one of the cases in which the British Medical Association was the complainant during the session just terminated an unqualified assistant, styled a dispenser, had attended a confinement; the patient was not seen by any qualified principal until she was in such condition from puerperal septicaemia that her immediate removal to a workhouse infirmary was deemed necessary. There the acting resident medical officer cleared out the uterus, removing portions of retained placenta, and gave an intrauterine douche. The patient died five days later and was buried, but the facts having come to the knowledge of the Medical Officer of Health for Sheffield the body was exhumed and an inquest held. The *post-mortem* examination, as was almost inevitable, revealed nothing material, and a verdict of death from natural causes was returned. The defence offered before the Council by the practitioner concerned was that the unqualified dispenser merely went in an emergency, and that it was owing to a chapter of accidents that no qualified person saw the patient until she was far gone.

In the other case the complaint was that a registered medical practitioner had associated himself as a member of its committee and also as one of its surgeons with an institution for the treatment of eye, ear, nose, and throat diseases, which advertised by pamphlets and in the public press for paying patients, the charges being half a guinea at the first and 5s. at each subsequent attendance. In defence it was claimed that the institution was supported by a gentleman who had, from philanthropic motives, guaranteed a considerable sum for its establishment and that it was governed by a committee of which the practitioner was a member. The practitioner and his legal representative were invited by the Council to adduce evidence as to the bona fides of the institution

by calling some member of its committee, or its secretary, or by producing its books, and for this purpose the case was adjourned. When the case was called on next day neither the practitioner nor his legal representative appeared and no such evidence was tendered, but, instead, a letter from the practitioner was read requesting that his name should be removed from the *Medical Register*. It was, of course, impossible to grant this request with an unfinished hearing of the charge against him hanging over his head, and the Council decided to adjourn the further consideration of the case to the November session, in order to give the respondent the opportunity of bringing additional evidence in answer to the charge.

The action of the British Medical Association in appearing as complainants before the General Medical Council in these cases was taken in pursuance of the decision of the Representative Meeting in 1906, confirmed by the Representative Meetings in 1907 and 1908. The Council deputed to the Central Ethical Committee the duty of acting in this respect on behalf of the Association. The cases just heard were the first brought to the notice of the Committee in which it was satisfied that the circumstances called for its intervention.

The case at Sheffield was reported to the General Medical Council by the medical officer of health and the coroner. The answer returned on behalf of the Council was to the effect that though there was a prima facie case for investigation, the requirement that the facts must be brought formally before the Council by a complainant would be insisted on. The case had, as will readily be understood, excited a great deal of attention in Sheffield, and the medical profession in that city thought that for the honour of the profession some action should be taken, but felt also that if any individual member of the profession came forward as a complainant he would lay himself open to the charge of professional jealousy, and that even if the general body of the profession in Sheffield through the local Division of the Association deputed some person to act as complainant a similar charge might be made. The decision of the Representative Meeting that the Central Council of the Association, as representing the whole body, should be authorized to act provided a solution of the difficulty, and the investigation of the circumstances was accordingly undertaken by the Central Ethical Committee. The case was carefully prepared by the Medical Secretary and the Solicitor to the Association, and ably presented by the former to the Council, with the result shown in the report published in the SUPPLEMENT. It is perhaps unfortunate that there is no officer of the General Medical Council who can discharge in relation to it the duties of a public prosecutor in cases raising the larger general interests of the public and of the profession. But so long as the Council adheres to the interpretation of its powers referred to above, the honour and interests of the profession will be best safeguarded by the British Medical Association continuing the policy of acting as complainant in suitable cases before the General Medical Council.

ENVIRONMENT AND HEREDITY.

As is well known the staff of the Galton Laboratory for National Eugenics has recently devoted a good deal of attention to researches having for their aim the determination of the parts played respectively by environment and inheritance in shaping the mental and physical destinies of the next generation. Two further contributions to this subject have just been issued[1]—one, by Mr. David Heron, deals with the influence of defective physique and unfavourable home environment on the intelligence of school children; the other, by Miss Elderton and Professor Karl Pearson, treats of the influence of parental alcoholism on the physique and ability of the offspring.

Mr. Heron's data comprise material collected in fourteen London elementary schools under the instructions of the Education Committee of the London County Council, who generously placed the facts at the disposal of the Galton Laboratory. Mr. Heron acknowledges his indebtedness both to the committee and to Dr. Kerr for ready help and advice in connexion with the data.

As the problem was to measure the relation between ability and various conditions, it was important to consider how far the classification of intelligence was satisfactory. The variations in the percentages of children placed in the different classes of intelligence at individual schools were so wide that the scale adopted could not be regarded as a good one. For instance, the percentage of children classed as "brilliant" varied from 3 to 33 among the boys, and from 1 to 33 among the girls. Evidently different teachers attached different meanings to the term "brilliant." The author remarks: "It will be seen at once that from this standpoint this pioneer survey has a most valuable lesson to teach us. There must be a preliminary standardization of the teachers who are called upon to estimate the intelligence of their pupils. It is idle to assert that there is no such thing as 'general intelligence'; it may be difficult to find a satisfactory means of measuring it, but measure it we must if we are to obtain any useful facts from these school surveys."

Owing to the non-uniformity of the scale, it was necessary to analyse the returns from individual schools, thus diminishing the size of the sample and increasing the "probable errors" of the constants deduced. The correlation between mental capacity and the following characters was determined for each school separately—namely, intelligence, with age, height, weight, condition of the teeth, condition of the clothing, state of nutrition, state of cleanliness, condition of the cervical glands, tonsils, adenoids, and power of hearing; the relationship between age and various physical characters was also measured. Although some of the coefficients of correlation between mental capacity and environmental conditions are so large in comparison with their "probable errors" that some degree of significant relationship might be predicated, yet their absolute magnitudes are so small, and they vary so much from school to school, that but little weight can be attached to them. For instance, the correlation between the state of nutrition and mental capacity for the girls in School 2 is $+ .22 \pm .05$, a significant positive value; for the boys in the same school, however, the coefficient is $- .16 \pm .04$, actually of opposite sign! The value for girls in School 12 is $- .14 \pm .03$. Evidently positive conclusions are not to be based upon such results. The author accordingly holds that the results of this survey do not support the belief that the home environment, so far as it can

[1] *The Influence of Defective Physique and Unfavourable Home Environment on the Intelligence of School Children*, by David Heron, M.A. (Pp. 60.) *A First Study of the Influence of Parental Alcoholism on the Physique and Ability of the Offspring*, by Ethel M. Elderton, with the assistance of Karl Pearson, F.R.S. (Pp. 46.) Eugenic Laboratory Memoirs. London: Dulau and Co. 1910.

be measured by the characters discussed, exerts any marked influence upon the intelligence of school children. He is disposed to believe that this is due to there being, in fact, no close relationship between environment and intelligence. It may be asserted that the result is due to the imperfection of the data, that better material would have yielded a more consistent and definite answer. Mr. Heron might, perhaps, legitimately retort that the *onus probandi* is with the objector. We think those familiar with conditions of life in the slums might differ from certain statements of Mr. Heron. He remarks that "it may be presumed that the home environment is the same for both boys and girls," but the presumption is not, perhaps, warranted. We are rather disposed to think that, in general, the environment of the girl may be less satisfactory than that of the boy from the same home, especially when the family contains young children. After school hours a girl sometimes has to act as a domestic helper and nursemaid to her younger brothers and sisters—duties not so often delegated to the schoolboy. Thus there may well be a sexual difference in the environment of members of the same family.

In the second memoir under notice Miss Elderton and Professor Pearson deal with the statistics of the Edinburgh Charity Organization Society's Report and with a manuscript account of the children in the special schools of Manchester provided by Miss Mary Dendy. The latter material is, of course, not a random sample, since at least one child in each family is mentally defective.

The analysis is conducted on the same general lines as that of Mr. Heron's paper. The results may be summarized in the following terms:

1. There is a higher death-rate among the offspring of alcoholic than among those of sober parents. This difference is somewhat more marked in the case of an alcoholic mother than when the father alone drinks. It is sensibly higher when the mother drinks "in bouts" than when she is a habitual drinker. This would appear to suggest that the cause is rather a greater frequency of accidents and gross carelessness than a toxic influence. Alcoholic parents appear somewhat more fertile than sober ones, the net family of the temperate being hardly larger than the net family of the alcoholic.

2. There is a very small but possibly significant correlation between alcoholism in the mother and poverty of physique in the child. There is no significant relation between paternal alcoholism and the height or weight of the child.

3. The wages of the alcoholic as contrasted with those of the sober parent show a slight inferiority compatible with the employers' dislike of an alcoholic employee, but wholly inconsistent with a marked mental or physical inferiority in the alcoholic parent.

4. The general health of the children of alcoholic parents appears to be slightly better than that of the children of sober parents. This may be partly due to the weeding out of delicate children by the higher infantile death-rate in the former class.

5. There is no evidence that parental alcoholism is the source of mental defect in children.

6. There is no measurable relation between the intelligence of children and the alcoholism of their parents.

7. The same conclusion applies to the vision of children and to the frequency of disease of the eyes or eyelids.

We have quoted most of Miss Elderton and Professor Pearson's conclusions without comment. That they have adopted the best, indeed the only adequate, method of statistical analysis is, in our opinion, beyond doubt. Whether the data they have used are sufficient to support a final judgement on this matter is a question on which we have no intention of entering. One remark, however, we think it well to make. The large number of persons who are probably even now girding on their armour with the intention of smiting Professor Pearson and his pupils should realize exactly what these investigators are teaching. They suggest that parental alcoholism, bad housing and other environmental evils do not produce large effects upon the next generation. They do not deny that these things are evils; they simply doubt whether they are evils visited upon the children and to the third and fourth generation. Even if these views merited universal acceptation—as to which we express no opinion—it would still be our duty to strive at least as hard as at present for the amelioration of environmental conditions. Hunger, filth, and alcoholic excess *may* not affect the intelligence and physique of the rising generation, but, beyond all question, they materially affect the health and happiness of the generation in being. If an imperfect or secondhand acquaintance with these memoirs were to lead to any weakening in the struggle to secure better environmental conditions, much harm would have been done—harm which, we think, would be deplored by no one more heartily than by the authors of the papers themselves. We have no doubt that the publications of the Eugenics Laboratory will be received, by the medical profession at least, with the respect which is the proper acknowledgement of all genuine scientific work.

THE CROONIAN LECTURE.

IF one were asked to name what might be considered the most essential common characteristic of living matter—or, indeed, of all forms of matter—the answer would unhesitatingly be summed up in the single word, "change." The idea has long been associated with biological phenomena, and has been given concrete expression on numerous occasions. Physical entities in comparison gave the impression of the immutable, and inspired a confidence as in something absolutely stable and steadfast. It is gradually being borne in upon us, however, that the elusive, impenetrable element of change is no less characteristic of the one than of the other, and that the only difference is a matter of time or of rapidity of action as measured by the human span. Biologically, change always suggests environment, implying that the process is measured or estimated not so much with reference to the immediately previous state of the individual as with reference to the innumerable other individuals with which it is surrounded and with which its whole life interacts. The effect, on the whole, is of importance incomparably greater than that on the unit. At the same time the converse is not without its importance and interest, and it is this aspect of the phenomenon which is most commonly studied. It formed the subject of the Croonian lecture delivered before the Royal Society on May 26th by Professor Klebs of Heidelberg, the title being "Alterations of the Development and Forms of Plants as a Result of Environment." Two examples in particular were chosen, one from the lower plants, another from the flowering plants. The well-known fungus *Saprolegnia* shows three distinct stages of development, which, under ordinary circumstances, follow each other with regularity till the

fungus dies. By ascertaining the conditions which initiate these successive stages and applying them, it is possible to produce any stage at will, and, moreover, by the same means their order can be altered. For instance, under ideally favourable conditions of nutrition the fungus must grow continuously without propagating and without dying, and it is only some alteration in environment which provides the stimulus towards a new stage in development. The complicated structure of the higher plants renders such experiments more difficult. A species of *Sempervivum* was taken to show how far the development of such plants depends on environment. It forms a rosette composed of a short stem covered with thick succulent leaves. The rosette produces asexually daughter rosettes, of which each comes to flower under suitable conditions, and dies after the ripening of seeds. When a plant is destined to flower, but has as yet no recognizable rudiments, it is said to be ripe to flower. Flowering consists of three essential stages—lengthening of the stem, production of terminal branches, and the birth of the flowers. Now, a number of alterations can be experimentally induced in this process. Thus, a rosette ripe to flower can be transformed again into a vegetative one; lengthening can occur without a sequent flowering, and conversely flowers may be made to grow on stems which have not lengthened. It is evident, then, that a new series of forms can be produced through replacing flowers by leaf rosettes on any part of the inflorescence. The flowers may be entirely replaced by rosettes or a mixture of the two. The process can be carried to the individual flowers, all the component parts of which, the sepals, petals, stamens and carpels can be altered. Further, each of these parts can be changed into the other, as, for instance, petals into stamens. It has also been shown that many of these remarkable and apparently unnatural changes can be transmitted to at least the following generation. The experiments on which these remarks are founded are being continued, and will no doubt lead to other surprising results.

THE OLDEST EGYPTIAN MUMMY.

IN an address delivered before the Royal Philosophical Society of Glasgow, on April 6th, an abstract of which has kindly been sent to us by the author, Professor Elliot Smith gives a sketch of the history of mummification in Egypt. To appreciate the motives which impelled the ancient Egyptians to invent the art of embalming, he says it is necessary to throw our minds back nearly sixty centuries to a period long before the amalgamation of the kingdoms of Upper and Lower Egypt was effected and the first dynasty of Egypt founded (about 3400 B.C.). Then predynastic Egyptians were in the habit of burying their dead in shallow holes scraped in the soil immediately beyond the limits of the narrow strip of cultivated land. As the result of placing the body in hot dry sand, it frequently happened that, instead of undergoing a process of decay, it became desiccated and preserved in an incorrupted form for an indefinite time. The burial of valuable and useful objects with the dead naturally led to grave robbing, which was already common in the earliest known prehistoric times in Egypt. This plundering of graves must have taught the people at large that the forces of Nature were often sufficient to preserve a dead body. In this way it became a part of the religion of the Egyptians to regard the preservation of the body as the condition of the attainment of immortality; they believed that in addition to the soul (*Ba*) "which flew to the gods" there was a second soul (*Ka*) which remained on earth and dwelt in the body or in its neighbourhood. The predynastic Egyptians were acquainted with copper, and the development of their knowledge of the uses to which this metal might be put in fashioning tools gave a great impulse to the arts of the carpenter and stonemason. The increased technical skill thus acquired was at once applied to the invention of the coffin, the sarcophagus, and the rock-cut tomb. But the early Egyptians soon learnt that the body when placed in a coffin or buried in a rock tomb usually underwent decomposition. It was a widespread belief that the stone "ate the flesh"—hence the word *sarcophagus*. Artificial mummification, therefore, had its origin in an attempt to deprive the grave of its victory. The Egyptians had long been familiar with the materials used for embalming. Salt and soda occur in the deserts fringing the Nile Valley, ready at hand and in enormous quantities; and even in predynastic times the Egyptian woman had learnt to paint her face; resin, such as the embalmer then began to employ, entered into the composition of these cosmetics. Professor Elliot Smith says that if this hypothesis as to the origin of mummification is correct, it might be expected that some evidence of embalming would be found soon after the invention of coffins and rock tombs—that is to say, about the beginning of the dynastic period. But he found, on examining the mummies in the Cairo Museum, that there was no unquestionably authentic mummy earlier than that of the last King of the seventeenth dynasty (about 1580 B.C.). There was thus a gap of eighteen centuries between the time when, on Professor Elliot Smith's hypothesis, the earliest attempts at embalming were made and the most ancient actual mummy in the Cairo Museum. There was, however, definite evidence that the embalmer's art was practised in Egypt as early as 2000 B.C., possibly even a thousand years before that time. Mummies were found at the Sakkara and Lisht Pyramids dating from the tenth or eleventh dynasties; these were so fragile that it was not possible to move them without reducing them to bones and powder. This seemed to explain why no actual mummies of this period were found in museums. But there is in the Museum of the Royal College of Surgeons of England a mummy of the time of Snefra (third or fourth dynasty) found by Professor Flinders Petrie in the neighbourhood of the Medum Pyramid in 1891. The researches which Dr. George A. Reisner has been carrying out at the Giza Pyramids have supplied data which demonstrate that this mummy was embalmed at the time of the fifth dynasty (about 2700 B.C.). This is therefore more than eleven centuries older than any other actual mummy, that is to say, not mere bones, hitherto found, and Professor Elliot Smith thinks it highly probable that attempts at embalming were made during the six or seven centuries before the date assigned to the mummy in question, which is supposed to be that of a high official called Ranefer. The reason why this mummy has come down to our times in such a remarkably good state of preservation is that it was encased in a hard and thick carapace of resinous paste which had been moulded, when soft, into the form of the body. The head and face had been particularly well modelled; the wig was faithfully represented, and coloured brown with a resinous paste painted on the surface of the mask; the features (the nose is now destroyed) were carefully fashioned; the eyes (pupils, eyelids, and eyebrows) were indicated by malachite paint; and the moustache, represented in Egyptian statues only at the period assigned to this mummy, was painted on the upper lip of the mask with brown resinous paste like that employed to represent the hair of the wig.

FABRICIUS VON HILDEN.

A MEMORIAL of the famous surgeon Wilhelm Fabry, better known in medical history as Gulielmus Fabricius Hildanus, is to be unveiled at Hilden, near Düsseldorf, on June 25th, the three hundred and fiftieth anniversary of his birth. Fabricius Hildanus was the father of German surgery. He received his preliminary education at what he calls the "Academy" of Cologne. Owing to the untimely death of his father, a law writer, he had to leave school in his thirteenth year, and had to give up what had been the object of his ambition—to study medicine at a university. For the next three years he seems to have had to shift for himself. During that period he contrived somehow to acquire an unusual knowledge of the classics. By a friend of his family, the Netherlandish poet Karl Utenhov, he was in his sixteenth year apprenticed to a surgeon named Dumgens at Neuss. With him Fabricius remained till 1580, when he became assistant to Cosmos Slot, or Slotanus, to use the Latinized form fashionable in that day. Slot was surgeon-barber to Duke Wilhelm of Jülich-Cleve. In the service of that magnate Fabricius remained till 1585. After a short stay at Metz he attached himself to a well-known surgeon of Geneva, Jean Guffon. With him he stayed three years, during which period he married Maria Colinetia. He next visited France, after a time returning to his native place Hilden. In 1591 he moved to Cologne in order to avail himself of the advantages of the university, where he worked hard at anatomy under Manlius. At Cologne he published his first work, *De gangraena et sphacelo*, which brought him great fame; it went through eleven editions, and was translated into Latin and French. Seeking ever for fresh woods and pastures new, he went to Lausanne. Next we find him in Poland; then back at Cologne, where he stayed two years, when he again betook himself to Lausanne. In 1602 he was appointed medical officer to the town of Payerne, in the Wandt Canton. There he remained nine years, when he returned to Lausanne. In 1614 he accepted the offer of the post of medical officer to the city of Berne, where he seems finally to have settled. He was greatly respected, and received high civic honour. He died of gout and asthma in 1634, aged 74. Fabricius Hildanus had a European reputation as an operating surgeon and devised many new procedures. In his wife he had a helpmate most suitable to a surgeon, as the following story related by himself shows: "It so befell me at Paterniam when I was about to cut off the thigh of a man of forty yeares of age, and ready to use the saw and cauteries. For the sick man no sooner began to roare out, but all ranne away except onely my eldest sonne, who was then but little and to whom I had committed the holding of the thigh for forme onely; and but that my wife, then great with child, came running out of the next chamber and clapt hold of the Patient's Thorax, both she and myself had been in extreme danger." Among his works, in addition to the customary "centuries" of cases which every clinician of those days compiled, as a modern cricketer "compiles" runs, are treatises on burns, on stone, on "a Christian manner of eating," and on the preservation of health by the use of hot springs; the last was the outcome of his own experience as a sufferer from gout and nephritis. Hildanus was a deeply religious man and conscientious in his professional work, chary of operating unless there was a good prospect of cure. He is said to have corresponded with 150 physicians and learned men. How in his wandering life he found time to do and write so much is a mystery, more especially as he must have spent a considerable part of his time in educating himself. He left a comfortable fortune at his death, thus falsifying the proverb about the rolling stone.

PITCH CANCER.

FOR many years the profession has been familiar with chimney sweep's cancer, and by his lectures published in the BRITISH MEDICAL JOURNAL, 1892, vol. ii, p. 68, Mr. H. T. Butlin added considerably to our knowledge of the subject, and at the same time drew attention to the irritating effects of tar-like bodies upon the skin. Since then there has been slowly accumulating a mass of evidence to show that the handling or use of pitch, tar, and tarry products is frequently followed by structural alterations of the skin akin to, if not identical with, epithelioma. This subject was brought under the notice of the Committee on Compensation for Industrial Diseases; and while there was a general consensus of opinion that the cancerous conditions observed in "pitch ulceration" might be prevented by scrupulous cleanliness, there was a feeling also that occasionally the lesions might develop in those who had taken all reasonable care in this respect. Attention is directed in the report[1] on ulceration of the skin and epitheliomatous cancer occurring among men engaged in the manufacture of patent fuel and grease, presented recently by Dr. T. M. Legge, to the large number of cases of scrotal cancer notified by Dr. Jabez Thomas of Swansea among the briquette makers of South Wales, to cases notified by Dr. A. Paterson of Cardiff, and to grease workers' cancer, mentioned by Sir Thomas Oliver in a paper read in the Industrial Hygiene Section of the British Medical Association in 1908. Dr. Legge points out that the conditions of work in factories where patent fuel or briquettes are manufactured differ from those in which tar is distilled, as well as from those industries where tar, or in its place anthracene is simply extensively used. In grease and anthracene workers the arms and hands suffer, whereas in patent fuel makers it is the scrotum which becomes affected. Dr. Legge therefore suggests that there should be some limitation in the application of Home Office regulations so as to suit the conditions of oil and grease works. It is believed that the incidence of epithelioma in briquette makers is increasing owing to the fact that since the extraction of anthracene has become less profitable this material is allowed to remain in the pitch. In the manufacture of briquettes 10 parts of pitch and 90 of coal dust are ground together, then moistened by steam and pressed into moulds. It is the men who are engaged in the pitch bin and in grinding the material who suffer most from affections of the skin. In 19.1 per cent. of patent fuel makers who had suffered, the face was found to be affected, in 7.7 the arms, and in 2 per cent. the hands, whereas in grease workers the numbers were respectively 12.9, 29, and 12 9. The hair follicles and sebaceous glands of briquette workers become plugged with pitch. Shotty papules form in consequence of this obstruction, and here and there the skin becomes irregularly pigmented, and the epithelium is transformed into warty growths. Occasionally these worts assume malignant characters and ulcerate. Dr. Legge recommends bathing every alternate day. He shows that at certain industrial concerns, both in England and on the Continent, baths have been provided for the men, and that the whole process of bathing for the establishment can be got through without undue loss of time to the workpeople. Overalls ought to be worn and goggles to prevent the eyes

[1] *Special Report on Ulceration of the Skin and Epitheliomatous Cancer in the Manufacture of Patent Fuel and of Grease.* By T. M. Legge, M.D., H.M. Medical Inspector of Factories. London: Darling and Son, Ltd., 34-40, Bacon Street, E.

being injured by the splashing of the hot material' since experience has shown that eyes injured under these circumstances heal with difficulty,

BERI-BERI.

FOOD theories as to the origin of beri-beri are strongly held in the East, and on the whole seem to be gaining ground. The bacteriological evidence which, when first brought forward by Baelz and Scheube, seemed so convincing, has not been confirmed, or at least there has been so much conflicting evidence, that up to the present no specific organism has been proved to be present. One of the latest views is that it depends upon over-complete shelling of the rice. Thus, Osler states that in Java the proportion of cases is 1 to 39 where the rice is eaten completely shelled, and 1 to 10,000 when the grain is eaten with its pericarp, while in some places the disease has disappeared after the substitution of unshelled for shelled rice. This question has been investigated by Dr. Henry Fraser, Director of the Institute for Medical Research, Federated Malay States, and Dr. A. T. Stanton, bacteriologist to the Institute.[1] They claim that the theory originated by Braddon now rests on a solid body of evidence, as it is supported by the observations of Fletcher and Lucy in the Malay States, of Dubruel in French Indo-China, and of Gilmore Ellis, whose paper was published last year in this JOURNAL (October 2nd, page 935). Although there has been this consensus of opinion respecting the power of white rice to produce the disease, the mechanism by which the result is effected has remained obscure. Some attribute it to diseased rice, others to the presence of a supposed poison in the rice for which an equally hypothetical antidote exists in the pericarp. Following these lines of thought Fraser and Stanton, of whose investigation we gave some account in our issue of April 16th, have experimented on fowls, and found that when fed on white rice they suffer from a form of polyneuritis, which they believe to be analogous to beri-beri, and which, at any rate, serves as an indicator of the beri-beri producing power of a given sample of rice. On the other hand, if the rice is parboiled the fowls remained quite healthy. Unhusked rice is spoken of in the East as "padhi"; from 40 parts of padhi when cleaned, 25 parts of rice are obtained, 10 of husks, and 5 of polishings. Twelve fowls fed on padhi remained healthy; of twelve fed on white rice six suffered from polyneuritis; of twelve fed on white rice and polishings all remained healthy; lastly, of twelve fed on the padhi husked in the primitive Malay method by a native woman, all remained healthy. Although parboiled rice was unable to produce the disease if it was extracted with alcohol and then dried in the sun, fowls fed on it contracted polyneuritis. Following a suggestion made by Dr. F. W. Mott, it was decided to determine the amount of phosphorus calculated as phosphorus pentoxide in the various kinds of rice in use. It was found to be greatly deficient in white rice. The authors refer to an address delivered by Dr. H. Schaumann before the German Society of Tropical Medicine, in which he had advanced the conjecture that beri-beri is a disease of metabolism associated with a diet deficient in organically combined phosphorus. They conclude that the prevention of beri-beri may be achieved by substituting for ordinary white rice one in which the polishing process has been omitted or has been carried out to a minimal extent, or by adding to a white rice diet articles rich in those substances in which it is deficient; such an article, cheap and readily obtained, is the polishings from white rice. We feel pleasure in again noting this evidence of scientific activity in our Far Eastern colony, and congratulate the administration on the encouragement afforded to research by the foundation and maintenance of this institute.

[1] *The Etiology of Beri-beri.* By Henry Fraser, M.D.Aberd., Director, Institute for Medical Research, and A. T. Stanton, M.D.Tor., Bacteriologist, Institute for Medical Research.

THE MIDWIVES BILL, 1910.

A MEMORIAL signed by Miss Jane Wilson, president, Mrs. Scharlieb, M.D., vice president, and other influential members of the Midwives Institute, has been presented to the Lord President of the Council, praying him to make certain alterations in the Midwives Act Amendment Bill, 1910.[1] The memorialists express regret that the bill provided that payment to medical practitioners should be made by the Poor Law guardians in cases of emergency. They continue as follows: "In the future of the guardians being so uncertain it would surely be better to give the power at once to the authority which is responsible for the supervision of midwives, and on whom in future the power of payment will probably devolve. We earnestly suggest that the stigma inseparable from Poor Law help should not be permitted to attach to the parents at the time of birth. By engaging a midwife a poor woman is making a reasonable effort to keep her position of independence, and should the services of a medical practitioner become necessary, her case comes at once within the category of 'accident,' and should be so regarded; it is not in fact a case of destitution at all." The memorialists also ask that the Midwives Institute should have two representatives on the Midwives Board, one of whom at least should be a qualified and certified midwife. They object to the provision contained in Section II (1) requiring a certificated, but not locally registered, midwife who attends any woman in childbirth in any capacity other than that of midwife in the absence of a qualified medical practitioner to give notice to the supervising authority within forty-eight hours from the birth. The memorialists suggest that "the only effect of this clause will be to induce medical men to abstain altogether from their growing practice to employ a certified midwife as their monthly nurse, for the clause operates to compel the certified midwife under penalties to report the medical man for being absent (from whatever cause) at the minute of birth." They object also to Clause 15 giving an officer appointed by the local supervising authority for the purpose the power of entering any premises which he has reason to believe to be a lying-in home conducted for profit within the area of the authority, and in which he has reason to believe that a certified midwife is employed or practises, or that a woman not a certified midwife practises in contravention of the principal Act. The memorialists believe that the only effect of this clause will be to tempt the poor, and especially the unmarried woman, to go for her confinement to houses kept by unqualified women. They hold that this is to a great extent a question for a public health and not for a midwives Act. The memorial also contains suggestions for certain other alterations of minor importance.

ASYLUM WORKERS' ASSOCIATION.

AT the annual meeting of this association, held at 11, Chandos Street, W., on May 25th, Sir William Collins, M.D., M.P., President, was in the chair, and there was a large gathering of those engaged or interested in the nursing of the insane, including

[1] SUPPLEMENT, BRITISH MEDICAL JOURNAL, April 9th, 1910, p. 160.

the Rev. Canon Sheppard, D.D., C.V.O.; Dr. Hayes Newington, Treasurer of the Medico-Psychological Association; many medical superintendents, chaplains, and other officers of asylums throughout the United Kingdom, and numerous attendants and nurses. The proceedings commenced with the adoption of a loyal vote of condolence with the Royal Family in the grevious loss they and the whole country had sustained in the death of King Edward, the patron of all charitable works. It was moved from the chair and carried by the assembly upstanding. The annual report having been presented by the Honorary Secretary, Dr. G. E. Shuttleworth, its adoption was moved by the Chairman in a speech in which he commented on its principal topics. The crowning event of the year had been the passing of the Asylum Officers' Superannuation Act, securing for all workers in public asylums throughout the United Kingdom definite pensions after adequate periods of service. This assured prospect would tend to attract to, and retain in, the important work of ministering to the insane those best fitted for this beneficent but trying duty. Though the bill in its passage through the House of Lords did not escape a measure of mutilation, it would no doubt prove a most serviceable enactment. He was pleased to congratulate the association on a year of substantial progress. The membership had increased from 3,025 to 4,575 during the year under review, and the credit balance from £90 10s. to £152 7s. 11d. The Homes of Rest Fund had been liberally supported, and twenty ailing comrades had been benefited by grants therefrom. Still, much remained to be done in improving the status of asylum workers in the nursing world; and the stronger the association became the more could be effected in this direction. The motion to adopt the report was seconded by Dr. Hubert Bond, and carried. The re-election of Sir W. J. Collins as president was carried by acclamation, and after vice-presidents and the executive had been appointed, Dr. E. S. Pasmore presented to the president, in the name of the association, an illuminated address in grateful recognition of his successful efforts in the passing of the Asylum Officers' Superannuation Act (together with a basket of growing flowers for Lady Collins). Next came the presentation to Dr. Shuttleworth of a Remington Standard typewriter, with an oak drop-cabinet suitably inscribed, a cheque, and a miniature of himself by Gabrielli, as a testimonial of appreciation of his services in the promotion of the bill. This was the result of a general subscription amongst asylum workers throughout the country, and the presentation was made on their behalf jointly by Sir William Collins and by Dr. Hayes Newington, as representing the Medico-Psychological Association in the unavoidable absence of their President, Professor Bevan Lewis. In the course of the proceedings medals were presented for long and meritorious nursing service in asylums—gold to Attendant B. Thomas, Joint Counties Asylum, Carmarthen; Nurse A. Fraser (Matron), Robben Island, South Africa; and silver to Attendant E. W. Fraser, Isle of Man Asylum; Nurse E. Ashfield, Colney Hatch Asylum.

POOR LAW MEDICAL OFFICERS' ASSOCIATION OF ENGLAND AND WALES.

THE annual meeting of this association will take place at 3 p.m. on Friday, July 1st, in the Council Chamber of the Town Hall of the city of Halifax. The President, Surgeon-General Evatt, C.B., will be in the chair, supported by the Worshipful the Mayor of Halifax (Alderman F. Whitley Thomson). After the meeting, the Mayor and Mayoress will hold a reception in the Mayor's parlour, at which afternoon tea will be provided. The following papers will be read, and will be followed by a discussion: (1) Poor Law Medical Reform, what it should aim at. By Major Greenwood, M.D., LL.B., Barrister-at-law. (2) The Medical Profession and Poor Law Reform. By John C. McVail, M.D., LL.D. At 7 p.m. the members and their guests will dine together at the White Swan Hotel, Halifax, the President being in the chair. Tickets, exclusive of wine, 6s. Ladies will be welcome at the dinner. Any medical practitioner desiring to be present at the dinner is requested to communicate with the Honorary Secretary, Dr. Major Greenwood, care of Dr. Drury, Landon House, Halifax.

DOCTORS IN COMMAND OF AN ARMY.

THERE have been many "fighting doctors" in our army, and medical officers have sometimes exchanged the scalpel for the sword. Dr. Jameson led a military expedition in South Africa. But hitherto, as far as we know, there has been no case in which the chief military command of an army has been entrusted to a man who began his career as a medical officer. Now it is announced that General Leonard Wood, whose work in Cuba has assured him a place in the history of sanitation, has been appointed Chief of the Staff of the United States army. General Wood took his doctor's degree at Harvard in 1884, and immediately entered the medical corps of the American army. In the war between Spain and the United States he became Colonel of Rough Riders, and in 1908 he was promoted by President Roosevelt to the rank of Major-General. It is interesting to note that the second in command of the United States army is also a soldier, so to say, by second intention, having originally entered the army as a medical officer. This is Major-General F. C. Ainsworth, who took his doctor's degree at New York University in 1874, and almost immediately entered the medical corps of the army as assistant surgeon. In 1892, we learn from the New York *Medical Record*, he was made Colonel and Chief of the Record and Pension Office of the War Department. From that time his advance has been rapid. He was made a Brigadier-General in 1899, and in 190[illegible] was made a Major-General and Military Secretary of the Army.

THE RESEARCH DEFENCE SOCIETY.

THE annual general meeting of the Research Defence Society will be held this day, Friday, June 3rd, at 5 o'clock, in the Library of the Royal College of Physicians, Pall Mall East, S.W., NOT in the house of the Royal Society of Medicine, as announced in the BRITISH MEDICAL JOURNAL of May 28th. The chair will be taken by the Right Hon. the Earl of Cromer, President of the Society. The other speakers will be Sir Richard Douglas Powell, Bart., K.C.V.O., Sir David Bruce, K.C.B., F.R.S., Mr. Anthony Hope Hawkins, and Mrs. Scharlieb, M.D.

HIS Excellency the Earl of Aberdeen, Lord Lieutenant of the County of Aberdeen, has, with the approval of His Majesty the King, appointed the Right Hon. Robert Farquharson of Finzean to be Vice-Lieutenant of the county, in room of the late Sir John F. Clark, Bart., of Tillypronie. Dr. Farquharson is a Justice of the Peace, and for some time had been a Deputy Lieutenant of the county.

THE annual election of members of the Council of the Royal College of Surgeons of England will be held on Thursday, July 7th, at 3 p.m. There will be

four vacancies, Mr. J. H. Morgan, C.V.O., and Mr. Lockwood retiring in rotation, while Mr. G. A. Wright has resigned. The fourth vacancy is due to the death of Mr. Clutton. Nomination papers, which may be obtained from the Secretary, must be sent in to him by June 10th. Our usual analysis of the present Council will appear shortly.

General Medical Council.

NOTES.

Medical Disciplinary Cases.—The greater part of the time of the Council during the session which came to an end on Saturday last was occupied in the discharge of its duties as a disciplinary authority under the Medical and Dentists Acts. To certain of the medical cases which were brought before the Council by the British Medical Association we refer elsewhere (p. 1366), but another case was heard in which a conviction for libel was the means of bringing the matter before the Council. The libel related to the character of a girl with whose family the respondent had been intimate, both as a friend and as medical attendant, and touched upon matters which might have come under his cognizance as a medical man. As he had pleaded guilty the question of the truth or untruth of the libel did not arise. His name was directed to be erased from the *Medical Register*. A practitioner was struck off the *Register* in consequence of a conviction for using an instrument with intent to procure abortion, for which a sentence of five years had been imposed and is now running. Another was struck off in consequence of repeated convictions for drunkenness; and yet another for the same cause, this last case having been adjourned from the last session. But no evidence of improved conduct in the interim was offered, and an additional conviction for a similar offence was recorded the very day after the previous hearing. In an adjourned case of convictions for drunkenness and violence the respondent was let off with a warning, evidence of improved conduct in the interim having been tendered and accepted.

Dental Disciplinary Cases.—In one case in which facts had been found proved but judgement upon their gravity postponed till this session, no further action was taken, the practitioner's assurances as to his conduct in the interim having been accepted as satisfactory. In another the facts were taken as proved, but judgement postponed; and in a third, a case of covering, the practitioner's name was removed from the *Register*. A new issue arose in a fourth case, in which it appeared that the practitioner, who had originally registered as in practice prior to 1878, was dead, but a successor had continued the practice at the same address under the same name, which was not his own. Several periodical inquiries by the Registrar had been answered from this address and signed with the name originally registered. It was admitted that the person who had signed these returns was not the person who had originally registered. The Council for the present confined itself to ordering the removal of the name from the *Register* on the ground that the person registered was dead, but probably more will be heard of the case.

The Subjects of the Final Examination.—Towards the solution of the question whether candidates should or should not be allowed to pass the subjects separately, or should be compelled to pass in all at one and the same time, the Examination Committee presented a memorandum in which, so far as was practicable, the rules of the various licensing bodies were summarized. It was decided to send this memorandum, in which no opinion was expressed, to all the licensing bodies for their comments, and in order that each may know what the others are doing—a thing not easily discoverable from their calendars. Little discussion took place on this preliminary communication, but Dr. Norman Moore expressed the opinion that to allow the subjects to be taken separately did not conduce to "cram," but, on the contrary, to a more thorough devotion to the subject in hand. Much might have been said, and doubtless will be said, when the matter is ripe for discussion, on the other side. A further recommendation, to be dealt with at some future time, was that ophthalmology, otology, and diseases of the throat should form obligatory subjects of instruction, and that every candidate should be examined thereon.

The Subjects of the First Examination.—A memorial against the relegation of physics, chemistry, and biology to a period antecedent to the curriculum at a medical school was presented to the Council, signed by a number of those engaged in teaching these subjects; but though the memorial was influentially signed some names were conspicuous by their absence, and no action was taken in the matter.

The Dental Education and Examination Committee.—The Dental Committee recommended that, in view of the facts that many new bodies were granting dental qualifications, a cycle of inspections of the examinations be commenced, and the Executive Committee was instructed to arrange for this being done. The question whether apprenticeship to a registered dental practitioner for instruction in mechanical dentistry should be counted for two years or for one only towards the four years of the curriculum had arisen owing to the practice of the Royal College of Surgeons of England being somewhat at variance with the Council's recommendation; but as the teaching of mechanical dentistry at the schools is rapidly supplanting the apprenticeship system it was not thought worth while to make any change in the Council's recommendation, which relates to an expiring custom.

Pharmacopoeia Committee.—The revision of the *Pharmacopoeia* is progressing, and it is proposed that the results of the work done up to the end of 1909 shall be published and submitted to professional criticism.

Finance.—The Finance Committee reported that there was a small deficit on the working of the year, but attributed this to the appearance in the accounts for the last time of certain expenditures which had been charged over a series of years. The outlook for the future is not wholly satisfactory, for registration fees for the last quinquennial period averaged £535 less per annum than for the preceding similar period, notwithstanding an increase from fees for registration of additional qualifications, restorations, etc. It was pointed out by the Senior Treasurer, Mr. Tomes, that this diminution in the numbers registering had occurred in spite of a rapid increase in the number of licensing bodies and of medical schools, and that, so far, there was no sign that this increase in local facilities was leading to any increase in the numbers preparing for or actually entering the profession. On the other hand, an increasing burden was placed upon the funds of the Council by the addition of new members representing these new qualifying bodies. The Senior Treasurer suggested that the President would try to arrange, as had already been done in the case of the University of Sheffield, that the bodies should themselves bear the cost of their representatives, at all events until such time as they had a material number of graduates.

The Council's Trustees.—Owing to the death of Mr. Wheelhouse, a former direct Representative, who had long acted as one of the Trustees of the Council's funds, there was a vacancy, which was filled by the appointment of Mr. Tomes, the Senior Treasurer.

Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

UNIVERSITY COLLEGE, CORK.

THE first degree ceremonial at University College, Cork, took place on May 26th in the Great Hall of University College, Cork. The floor and galleries of the hall were filled with students and their friends and notable laymen and ecclesiastics from the city and county of Cork. The daïs was reserved for the members of the governing body and academic staff of the college. The President, who also acted as Pro-Vice-Chancellor, representing the National University of Ireland as well as Cork Members of Senate, with the professors, lecturers, and demonstrators formed into a procession, the colours of the academic robes worn lending a picturesque effect; headed by the new mace of the college it entered the Great Hall at 2 p.m.

The Pro-Vice-Chancellor (Dr. Windle) declared the congregation open, and in his address referred to the proceedings of the day as marking an epoch of very great importance in the history of University College, Cork. It was the first senate meeting of any university which had been held in Cork since the times of St. Finbar. Its purpose was to confer on the students successful at the late examinations the degrees which they had obtained. These examinations had been held by the professors of the college in conjunction with external examiners unconnected with any of the constituent colleges. These gentlemen officiated also in Dublin and in Galway, and thus a common standard was maintained between the three colleges. The Pro-Vice-Chancellor referred to the amount of autonomy the Cork College possessed, but said that he would never be satisfied till Cork had a university of its own. This depended entirely on the people of Munster, who must help in three ways—first, by sending their sons and daughters in large numbers to the college where already such good work was being done, particularly in the medical and engineering departments. This year the first place in the Indian Medical Service was taken by a student who had received his entire education in the Queen's College, Cork, now University College. Secondly, by making money grants to the college, as had been done by the citizens of Belfast, where as much as £25,000 has been given by a single citizen. Thirdly, the people of Cork and of Munster must be proud of their college. If it did not come up to their ideals, that was their own fault, for a country or a province got the education it deserved. Within the last few years many improvements had been made, notably the foundation of the Students' Club, the Biological, Chemical, Pathological, and Histological Laboratories, new class rooms, and a ladies' club.

Having congratulated the students receiving degrees, and particularly Dr. Kearney on being the first and only receipient of a gold medal from the National University, the Dean of the Faculty of Medicine presented the following candidates for the degrees of M.B., B.Ch., B.A.O.: R. W. G. Hingston (first-class honours), M. Twoling (second-class honours), P. J. Cullinane, A. V. Harrison, J. Keynes, B.A., M.D., J. J. Kearney (first class honours). The degrees were conferred by the Pro Vice Chancellor.

The procession then left the hall in the reverse order to entering, the new graduates following the junior members of the staff, and the proceedings ended.

COUNTY NATIONAL MEDICAL SERVICE.

The Galway County Council has had under consideration the proposed substitution of either a county or a national medical service for the present Poor Law medical service, and has passed a resolution in favour of the county scheme, on the grounds that a national service would tend to remove all control of the medical officers from the representatives of the ratepayers. The council is also of opinion that the claim of medical officers to promotion and pensions would best be met by the adoption of a county service under the direct control of the county councils. As it is likely that other county councils may follow the lead given by Galway, it is of extreme importance that the dispensary doctors in Ireland should as soon as possible come to a decision in favour of one or other of the schemes, in order that due consideration may be given to their views when legislation is initiated.

THE CHILDREN'S ACT IN BELFAST.

At the first meeting of the Belfast Children's Act Committee, held on May 26th, Councillor Dr. Trimble, the chairman, gave an outline of the responsibilities of the committee. There were, he said, some 1,800 boys and girls from Belfast undergoing various terms of detention in industrial and reformatory schools scattered from Donegal to Cork. As the responsible authority the Corporation contributed to their support upwards of £11,000 annually; yet it had no official knowledge of the whereabouts of these juvenile offenders. It was therefore necessary as a preliminary measure, to establish and maintain a register and to tabulate the information obtained, showing particulars as to parentage, environment and history, before and after conviction, for future statistical purposes. The root causes of commitability must be ascertained, whether (*a*) parental, based on poverty, sickness, and criminality; or (*b*) individual, due to environment, want of training, or innate viciousness. The importance of this system of grouping consisted in its suggestiveness for remedial measures. Dr. Trimble emphasized the inadequacy of probation until the Treasury made such allowance as would enable suitable men and women to undertake the responsible and onerous duties of supervision of those offenders allowed home. At present no officers were available for this work, nor had any list of "fit persons" to whose care the child could be committed ever been compiled for the use of the justices of the Children's Court. The institution of day industrial schools would meet the case when the child had become derelict through absence of the parents at work. He recommended, however, that the committee should undertake exhaustive inquiries to ascertain what might be done and how best to do it before launching into large undertakings.

MEASLES IN BELFAST.

At the meeting of the Public Health Committee on May 27th, Councillor Dr. Robert Thomson in the chair, the medical officer of health drew attention to the alarming increase in the number of deaths from measles; they had risen to 40 for the previous week. He attributed this to carelessness on the part of many parents, and proposed the issue of a paper enumerating the practical precautions which should be taken.

DUBLIN WATER SUPPLY.

The Cleansing Committee of the Dublin Corporation has had under consideration a report from the borough surveyor calling attention to the fact that, in spite of the heavy rainfall, the water level in the reservoirs at Roundwood is 15 in. below the level recorded at this time last year, and asking the committee to restrict the public use of water as much as possible. While there is as yet no immediate cause for alarm, it has been thought wise to make arrangements for the use of canal water for street watering, and the citizens are desired to co-operate with the corporation in seeing that there is no undue wastage of water.

VETERINARY DISPENSARIES.

In a recent speech in Dublin, Mr. T. W. Russell, Vice-President of the Agricultural Department, stated that a plan for the establishment of veterinary dispensaries in Ireland was in process of development, and that he hoped the system would shortly be in operation. The whole of the congested district has been mapped out into dispensary areas, scales of fees have been arranged, and already negotiations have been entered into with veterinary surgeons with the object of inducing them to undertake the work. The benefits of the scheme will be confined to small holders, to whom it should prove of very great value.

Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

PROPOSED ZOOLOGICAL GARDEN FOR EDINBURGH.

THE Zoological Society of Scotland was constituted on March 18th, 1909, to advance the study of zoology, and to foster and develop among the people an interest in, and knowledge of, animal life, and to establish and carry on living zoological collections or zoological gardens in Scotland, has just issued its first annual report. The growth of membership, if not rapid, has been steady. The number of members on December 31st, 1909, was 65, no invitation to the public to support the society having been made at that date. At that date it was decided to reduce the annual subscription of members from £1 1s. to 10s. 6d., and in January, 1910, the issue was begun of a circular inviting membership and appealing for donations; in response, many additions were made to the roll, the number of members at the time of issuing this report being 105.

There is an unhappy tradition—in combating it the council has found one of its great difficulties—that the climate of Edinburgh makes impossible the well-being of exotics, and especially of tropical animals. In point of fact the climate is not more trying than that which affects many of the largest zoological gardens. It is not so cold in winter as Berlin, or Hamburg, or New York, nor so hot in summer; it is not more foggy than London, nor more damp than Amsterdam.

There is practical experience to prove that the climate of Edinburgh need not be an obstacle. The directors of the old Edinburgh Garden, in their first report, congratulated themselves and their supporters on "the fact, supported from the experience of two years, that the most delicate of the tropical animals can be maintained in good health during the severest winter in this country as successfully as in Paris or London." Moreover, besides the public garden collection, private collections of wild animals, including tropical and subtropical species, have been maintained in and near Edinburgh. The old garden was good in its day, but fifty years have passed, and the most modern method of accommodating wild animals for exhibitional purposes makes the old system of cage and den, however excellent of their kind, seem crude and ineffective. The garden that the society wishes to establish will be designed after the fashion of the now famous gardens laid out by Herr Hagenbeck at Stellingen, near Hamburg. The idea of that garden is to exhibit "wild animals at home." The animals, with a few necessary exceptions, are not confined indoors, but have the freedom of large open air enclosures, artistically arranged. Fosse, cliff, and hidden railing take the place of walls and bars, and there is no possibility of escape of any dangerous animal. Photographic views of the Hagenbeck Garden are given. On an ornamental lake, and in the park surrounding it, many aquatic and other birds live at liberty, finding shelter in caves in the low rock in the centre. Immediately beyond the rock is a roadway for visitors, while beyond that again is a large park, in which an apparently perfectly happy family of grazing animals—camels, zebras, wild cattle, etc., lives. The entrance to their shelter caves are in the masses of rock at each side. In the central distance a large cluster of rockwork towers up, serving on top as a home for mountain sheep and goats, while the long grotto beneath the overhanging cliff is the "lions' den." Fenced footpaths wind upwards among the rocks, enabling the visitors to ascend. The lions' grotto is of ample size, the spectators looking into it from behind a screen of vegetation, and over a deep pit which the animals cannot cross, see its inhabitants in a state all but natural. The "arctic mountains" is, perhaps, the most striking scene in the garden.

There are many sites near Edinburgh admirably suited for such a garden. The value of a zoological collection lies not in the quantity of its specimens, but in the quality of their arrangement, and some famous collections are of a size that Scotland could easily maintain.

The garden of the Royal Zoological Society of Ireland at Dublin is very successful, and a garden at Edinburgh has every prospect of a like success.

The council now appeals to the public to support it in its efforts to found a national garden at the capital of Scotland.

PROFESSOR SCHÄFER AT BERNE.

On May 23rd, on the invitation of the Rector, Professor Schäfer gave a lecture to the University of Berne on the functions of the pituitary body. The lecture, which was illustrated by lantern slides, formed one of a series designed to commemorate the seventy-fifth anniversary of the refounding of the university, and was listened to attentively by a large appreciative audience. At its conclusion the Rector, in felicitous terms, announced that he had been authorized by the university to confer the honorary degree of M.D. upon Professor Schäfer, who was accordingly thereupon duly presented with the diploma.

STUDENTS' HOSTEL, WESTERN INFIRMARY, GLASGOW.

A long-felt want in the hospital life of Glasgow promises to be met by the proposed establishment of a students' hostel or residence in connexion with the Western Infirmary. The hostel, which is to be situated close to the infirmary, is intended for students in their third, fourth, or fifth years. The hostel is to be in direct telephonic communication with the hospital, so that students in residence can be informed of emergency operations, and cases of accident or poisoning, which may occur in the afternoon or night. Under the present system such cases are rarely seen by the students, as there is no means of getting in touch with them. As the charge at the hostel is to be only about a pound a week for board and residence, it is likely to prove very popular. It will certainly greatly increase the value of the Western Infirmary to the senior students, who by its means will be able to see the treatment of emergency cases which require immediate attention. It is proposed to open the hostel in October.

England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

MANCHESTER AND DISTRICT.

THE MEDICAL GUILD.

IT has now been finally settled that the Medical Guild shall be dissolved. The sole and satisfactory reason for the dissolution is that the Divisions of the British Medical Association are now sufficiently active and united to do all that the guild has done in the past, and have the added advantage of being organically connected with a great Association whose influence extends both locally and generally in matters that affect the interest of the medical profession. The first of several preliminary meetings of the profession, which resulted in the formation of the guild, was held on July 5th, 1894, and the first annual meeting on January 24th, 1895. The guild has thus been in existence nearly sixteen years. One of the principal reasons for its formation was to oppose the methods used by the Manchester and Salford Provident Dispensary Association, and though it has not been in all respects successful, it has been able to bring about some reforms which, at any rate, have made the provident dispensaries somewhat less objectionable than they were. In other respects the guild was for some years the only society of medical men in Manchester which practically voiced the opinions of the profession on medico-political matters, and its influence has undoubtedly been helpful to general practitioners in ways too numerous to mention. In 1898 it was resolved to issue a magazine, to be called the *Medical Guild Quarterly*, which served a useful purpose in informing the pro-

fession of the work of the guild. Several years ago the name was changed to the *Manchester Medical Review*, but it was not altogether successful in obtaining the support of the other medical societies of the district, and last year it was decided to give it up. During the last few years a rapidly increasing proportion of those belonging to it have become members of the British Medical Association, and as the objects of the two are practically the same, it frequently happened that the same subjects had to appear on the agenda of each, and almost the same men had to deal with the same matters twice over. Even when the decisions of the two societies were the same, as they almost invariably were, there was a serious waste of time in the duplication of meetings, and there was just a possibility that any apparent discrepancy in the decisions might be used to damage the influence of both the Divisions and the guild. In addition to this the membership of the guild had been decreasing within the last few years. Quite naturally members have felt some regret at its dissolution, as it had done so much good work in the past, but they recognized the inevitable, and thought it best to dissolve while the financial position was still satisfactory. There is a substantial balance in hand, and the final meeting of members will have the pleasant duty of disposing of something over £30, after paying all liabilities. It is much to be hoped that all members of the guild who are not members of the British Medical Association will recognize that union of forces under one association will offer far better chances of success in negotiations with lay bodies, and that any regrets at the dissolution of the guild, especially felt by those who have so consistently worked in it ever since it started for the good of their fellow practitioners, will give way to a determination to avail themselves of the still wider field of usefulness offered in the British Medical Association.

LIVERPOOL.

The Liverpool School of Tropical Medicine.

Dr. Wolferstan Thomas, Assistant Lecturer in the Liverpool School of Tropical Medicine, has been appointed to the directorship of the new laboratories supported by the foreign business firms at Manaos, in the State of Amazonas. Dr. Thomas has also been commissioned to proceed to Porto Velho on the Madeira River to investigate the diseases endemic to that district, which tend to retard the commercial progress of the country. Dr. Thomas expects to meet Dr. Oswaldo Cruz, the distinguished Director of Public Health of the Brazilian Republic. In the new laboratories Dr. Thomas will direct researches in tropical medicine bearing upon the preservation of health and disease. He is taking with him a complete scientific outfit, and it is confidently expected that this new offshoot of the Liverpool School of Tropical Medicine will be the means of producing much benefit in the cause of humanity and commercial progress. This is the second institute that has chosen a student of the Liverpool School of Tropical Medicine as its director.

BIRMINGHAM.

The Birmingham Medical Benevolent Society.

At the eighty-eighth annual meeting, held at the Midland Medical Institute on May 26th, the President, Sir Thomas Chavasse, moved a resolution expressing profound sorrow at the death of King Edward VII and deep sympathy with His Majesty King George V and the members of the Royal Family in their great national loss. The report of the directors of the society stated that the good work of granting relief to those in need of the society's assistance had been carried on as usual during the past year in a quiet, unostentatious manner. The invested funds now amounted to £16,090, and there was a balance of £17 at the bank, making a total of £16,107. The sum of £150 was invested during the year. Twenty-five annuitants received help from the society during the year, the annual value of the grants ranging from £36 to £18. The sum expended on grants and donations in 1909 was £734. The income during the year amounted to £833, and the expenditure to £786, the surplus income being £47. The total number of benefit members at the end of the year was 391, but there were only 242 from whom the annual subscription was due. The directors drew attention to the very large number of practitioners in the district who had not yet availed themselves of membership of the society, and they urged all those interested in the welfare of their professional friends who were not members to make a special effort to induce them to join.

Mr. F. Marsh, one of the treasurers, pointed out that the society's average income was £770. The management cost about £50, so that there was a sum of about £720 available for grants. There was no question that the funds were not sufficient, and for some years the income legitimately at disposal for grants had been exceeded, and donations and other sources of income had to some extent been drawn upon. Among the donations recently received was one of £50 from Sir Thomas Chavasse.

Dr. Simon was appointed president for the ensuing year, Mr. W. F. Haslam president-elect, and Dr. A. V. Bernays and Mr. Jordan Lloyd vice-presidents. The following were re-elected: Mr. F. Marsh and Mr. W. F. Haslam, treasurers; Mr. F. Crowder, honorary solicitor; Dr. T. Stacey Wilson, honorary auditor, and Dr. J. E. H. Sawyer, honorary secretary.

Special Correspondence.

PARIS.

Congresses, Scientific and Professional.—Foreign Practitioners in France.

In France March is the month of showers, as is April in England, but in revenge April brings us congresses. These scientific assemblies seem to gravitate towards the equinoxes; but while the spring congresses are more of the nature of family parties, more local or national, the autumn congresses are more cosmopolitan and bring together a larger number of persons of international distinction, and attract more strongly the attention of Governments, which courteously take an official part in the inaugural proceedings and cause a hail of honours, medals, and ribbons to mingle with the rain of papers.

The spring congresses are, so to say, trainers' races, where the champions of the future show their paces and make their trial gallops. During this last April we had some sufficiently remarkable examples, both scientific and medico-political. The Congress of Physiotherapy, with its dependent exhibition, was a very great success, and the general press gave reports of it as full and careful as though it had been a fine arts exhibition or M. Lépine's annual show of toys. Physiotherapy is regarded with ever-increasing favour by the educated and well-to-do public, though the common herd is still ready enough to deliver over its stomach to the drugs of the quackmongers, and even forces the hand of the doctor, compelling him to write prescriptions for pills and potions which as a rule he tries to make as soothing as possible. With a class a little superior physiotherapy enjoys a very different reputation. It is being recognized that the task of repairing every kind of organic disorder has too long been imposed upon the alimentary canal, and the more enlightened among contemporary laymen decline any longer to drench their liver with the syrups of lactucarium (sweet-scented lettuce) or tolu, which tradition still expects them to ingurgitate. The imagination of the invalid is now stimulated by electrotherapy, mechanotherapy, kinesitherapy, phototherapy, and radiotherapy. What prosperous bourgeois, his mind full of the conquest of modern science, dazzled by the achievements of wireless telegraphy, or the rotatory motor of the latest king of the air, will any longer consent to allow his lips to be defiled by the nauseous saltness of potassium iodide when there exist whirling machines, giving forth crackling high-frequency currents, which will instantly relax the spasm of commencing sclerosis? His view is

indeed, most judicious, for is not man something more than a belly, and must Master Stomach always be the first to suffer on account of every failure of some other part of the organism? As a mere matter of equity, rational medicine must end in physiotherapy.

We have had also the congress of practitioners, but it does not seem to have achieved any very remarkable practical results. Most of the great questions on the agenda paper might each have afforded material for a discussion so prolonged that it would have occupied the whole of the time given to them all. It was necessary to limit the time assigned to each orator, and, as at the examination for externs, to allow to each a space of no more than five minutes within which to develop his eloquence. Hence, it came about that in the case of more than half the subjects discussed no definite conclusions were reached. For example, the question as to limiting the number of medical students, and, in the long run, of doctors, by competitive entrance examinations at the school of medicine, was eventually referred to the Vigilance Committee, which is to report upon it next year. Although everybody recognizes that there is a plethora of doctors, when it comes to finding a remedy the self-opinionatedness, which seems rather characteristic of our profession, leads every one of us to wish to propose a remedy of which (we use the expression of one of our vaudeville writers) he is the only father, and the merits of which he is on this account disposed to exaggerate. It is difficult to arrive at any common understanding between men of equal intelligence and equal authority. It must often happen that to recognize the superior strength of an argument seems to place one in a position of intolerable subordination, and the medical world in this respect has particularly acute susceptibilities.

A question which was not discussed at the congress of practitioners, but one which cannot fail sooner or later to arise, is that of the position of foreign practitioners established in France. The very large hospitality which the faculties of medicine offer to foreign students, from whom they demand before registration only evidence of "equivalence of diploma," which dispenses them from our more severe examinations, and the advantage which they have over French students owing to the fact that their studies are not interrupted by two years of military service, are circumstances which have already given rise to lively protests. It is very possible that these protests would not have been made were it not that many of the students when they have obtained the diploma of doctor establish themselves in France, increasing the overcrowding of the profession, while at the same time they introduce into their practice methods contrary to the standard of French medical ethics. It is especially from the Balkan countries that these too eager *confrères* come. No doubt they have been brought up from their cradles in the belief that France was always the happy hunting ground for which Goths and Dacians should abandon the banks of the Danube, and we see them seizing upon *clientèles* in districts in which there are no competitors, or setting up in opposition to men who have been long in practice; prodigal of their visits, and charging high fees, they hold the people at ransom, and then after two or three years go off to repeat, in another field, the same manœuvres and to carry on the same policy of pillage. No doubt there are honourable exceptions, but they grow fewer and fewer, and in spite of all the courtesy which we pride ourselves on showing to people who proclaim at every street corner that France is their second country, we shall soon be obliged to defend ourselves against this too lively demonstration of affection and against endearments which are strangling us. Nevertheless, it must be admitted that such proceedings have at least one happy result, in that these persons charge high fees. When a region which has been thus severely treated is abandoned by one of them, his successor finds that the reasonable tariff approved by our professional organizations is easily accepted, and the public are left with a recollection of a harsh experience and well-founded distrust with regard to all that concerns the eastern question.

No doubt this is only a passing evil, but French medicine, which has always prided itself in looking upon the interests of the sick as its own, ought to take the matter into consideration.

Correspondence.

HERMAPHRODITISM.

SIR,—In the JOURNAL of May 28th, p. 1315, under the title of Hunter's Free-Martin, you give an account of the examination of specimens by Dr. Berry Hart, preserved in the Hunterian Museum. This was of great interest to me as showing that they were imperfect males. This has invariably been my experience both in the human subject and in the lower animals. I mentioned this a short time ago in a contemporary journal in connexion with a very striking case of this malformation. In all the cases which I have seen and others carefully reported it has invariably been the same, and as regard animals you now give the cases of oxen and in sheep it has always been observed that these epicene creatures were invariably rams and not ewes as the shepherd thought. That is, the discovery was made when they fell into the hands of the butcher.

I cannot see the possibility of the same germ developing into two sexes; it must take the one form or the other, that is, male or female. That the so-called hermaphrodite should always be an imperfect male and not female is easy to understand when we see that the descent of the testes into the scrotum is necessary for its full development, so when arrested in its passage and not properly developed (this organ governing the whole masculine character), the body puts on the feminine form. The opposite may be theoretically true, but not likely to occur, as the ova and ovaries in the female are free in the lower part of the abdominal cavity.

The word "hermaphrodite" is a misnomer—no such creature could ever exist. It comes from an old Greek mythological story of Hermes and Aphrodite or Mercury and Venus coming together, and ever since the word has been perpetuated. There never was such a double creature and never could be, according to my own experience and reasoning.—I am, etc.,

Hampstead, May 28th. SAMUEL WILKS.

STRONG WINDS AND PHTHISIS.

SIR,—In your leading article of May 28th, "Rainbearing Winds and Phthisis," commenting on Dr. W. Gordon's book, *The Influence of Strong, Prevalent, Rain-bearing Winds on the Prevalence of Phthisis*, I perfectly agree with you that Dr. Gordon's book is a most valuable contribution to the literature on phthisis. Strong south-west winds are injurious to some otherwise healthy persons, causing in my own experience sickness, diarrhoea, headache, neuralgia, urticaria, etc.—a fact which was known already to Shakespeare, who makes Caliban curse:

> . . . A south-west wind blow on ye and blister you all o'er!
> *Tempest*, Act I, Sc. 2.

I, however, still adhere to the view which I expressed at the meeting of the Royal Medical and Chirurgical Society in October, 1900, when Dr. Gordon's paper on this subject was read, namely, that the prevalence not only of strong west and south-west winds, but of all high winds, as well those from north and east as those from south and west, exercises an injurious influence on those predisposed to or suffering from phthisis; and, as far as my experience goes, the dry north and east winds are quite as injurious as the rain-bearing winds.

I may venture another remark. Dr. Gordon on p. 1 of his book refers to the opinion generally held, which he regards as at variance with the results of his important inquiries—namely, the opinion that "the house should be protected from northerly and easterly winds, and well open to the south and west." I still hold to this advice, and think that it is in no way opposed to Dr. Gordon's results. I remember having used identical words when discussing the selection of the site of houses for persons suffering or recovering from pulmonary tuberculosis. These words referred to the house, not to the district, and the meaning of "well open to south and west" was not to the south and west *winds*, but well exposed to the *sun* and its purifying influence on the air. It must be confessed that it is not always easy to find free exposure to the sun without exposure to the south and south-west winds; but it is often possible to meet with sites on slopes of hills, sheltered from north and east and protected entirely

or to a great degree from south and west winds by mountain ranges acting as barriers against them without obstructing the rays of the sun.

Such ought to be the sites for sanatoriums for the cure of tuberculosis and also of other chronic disease—as, for instance, anaemia.—I am, etc.,

London, W., May 29th. HERMANN WEBER.

CANCER OF THE RECTUM.

SIR,—I am very glad Mr. Harrison Cripps has called attention to the difference in the teaching of clinical experience, and some recent pathological investigation, with regard to the treatment of cancer of the rectum. My practice has also been to cut 1 in. wide of the growth, both above and below it, and in many cases patients have lived for several years without any local recurrence, and as Mr. Cripps points out, when it does recur, it is often in the surrounding tissue and not in the rectal wall itself. Of course, it may happen that in some cases there is a widespread infection along the lymph path in the bowel wall, and, therefore, the greatest length of bowel we can resect without adding to the risk of the operation for causing any trouble after recovery the better, but that such widespread infection is not present in many cases is shown by the clinical evidence, and so, I think, we are not called on to do a very extensive operation for the purpose of any bowel resection, if it involves a distinctly higher mortality.

I do not, therefore, think that it is necessary to perform the abdominal method of excision, rather than the perineal or sacral, to get a great length of the bowel away. Neither do I think that by adopting the abdominal method of operating we should reduce the mortality of the operation for removal of rectal cancer. The mortality of the abdominal operation for cancer of the rectum has been great. I must say I do not see why this should be so, and I believe it will not be so in the future. Of course, if the cancer is so extensive that for that reason the abdominal operation is performed, then we would expect a higher mortality, because the probability would be that an unusually extensive operation would be required, but I see no reason why the approach to the growth from its abdominal rather than from its lower aspect (for by both routes the operation is an intraperitoneal one in cases of high cancer) should be attended by a higher mortality, provided that the actual resection of the growth is not performed within the peritoneal cavity line, only after that has been carefully shut off with suturing or packing, or both. The mortality of Kraske's operation in the present time is not very great in the hands of many surgeons. When Wertheim began to remove cancer of the cervix by his abdominal method, the mortality of the operation was very great; but it has now become much reduced, even though cancers more advanced are removable by this method than by vaginal hysterectomy. Until surgeons become accustomed to a new method of operating the mortality is often higher than it becomes later on.

I have no time just now to go through my records since 1908, and find out exactly my own mortality with Kraske's operation, but when I studied my records up to 1908 (BRITISH MEDICAL JOURNAL, 1908, vol, i, p. 1038), I found I had had no death in my last 12 cases. But I do find that although abdominal operation is not indicated either to lessen mortality, or to enable the operator to resect any great length of the bowel, it is for two other reasons. Any high excision of the rectum must involve an appreciable risk to life, and it seems to me that we often run that risk when it is possible we are leaving secondary growth behind. This may of course be so in operations for cancer in other positions. For instance, we may remove a cancerous breast and clear out the axilla, and even remove the supraclavicular glands, and yet there may be secondary growth we cannot detect in some inaccessible part, such as the mediastinal glands. But in cancer of the rectum it is so likely that if there are secondary growths, which we cannot detect in the neighbourhood of the rectum at the operation, they will be either in the high sacral or lumbar glands or on the liver, and could be detected by abdominal incision. I think, therefore, we should explore the abdomen in all cases before excision of high rectal cancer, and then it seems to me that it must be easier to detach the pelvic colon, so as to bring it well down, by dividing it from the abdominal rather than the sacral aspect, and, moreover, we are less likely to interfere with the vessels supplying the cut end, for we can divide the mesocolon close to its origin, that is, further from the colon, and this is of great importance, for sloughing of the cut end is so apt to lead to failure of union in those cases in which we are able to join them. I should not feel inclined to undertake the resection of the bowel within the peritoneal cavity; I should thoroughly free it, and pack it down into the lowest part of the pelvis, and endeavour to close the peritoneum with sutures around the highest part of the separated colon, and thus bring it out through a perineal or sacral opening and resect it, and if possible unite the ends. In one case in which I explored the abdomen before undertaking a Kraske's operation, I found a malignant gland high up in the lumbar group, and instead of doing a Kraske's operation, I had to resect so great a length of the mesocolon to get all the glands away that there was no chance of bringing down the upper cut end of the bowel to the sacral region, and I had to bring the upper end out in the inguinal region. Still, I was able to remove all the disease, which I should not have done by Kraske's operation. Indeed, I should not even have discovered it. Then there is another discovery we may make by abdominal exploration. I know from experience that a rectal cancer may feel absolutely fixed on rectal examination, even when the patient stands up and strains down, and yet when you grasp the growth from above, that is, when you have opened the abdomen, perhaps simply for the purpose of doing a colotomy, you find it is not fixed to the lining wall, and can be resected, and I did this in one such case. But I think it is a question whether, if a growth is so fixed in the surrounding cellular tissue that it feels absolutely fixed per rectum, it is wise to remove it even if it can be done. In my own case the difficulty was very great, and the patient did not recover, but it was quite possible to remove all the disease without injury to the bladder or ureters, and in another case the patient might recover. There was severe shock, but he rallied from this, and death occurred on the third day with hyperpyrexia. Moreover, quite apart from the possibility of removing the growth when per rectum it appears an irremovable one, I intend to open the abdomen and separate off the pelvic colon from its abdominal aspect in all cases of high cancer of the rectum in the future. Even if we are not going to operate by the abdominal route, I feel convinced that we should always have the skin of the abdomen prepared. It may happen that in the course of a Kraske's operation we may find an outlying nodule of cancer in the pelvis where we cannot possibly see it, and yet we can cut it out with scissors curved on the flat. We have to take the chance of wounding some fair-sized artery or possibly a nerve, but it is of the utmost importance to get away all the disease. Therefore, we should be prepared to open the abdomen and ligate the internal iliac artery through the peritoneum before cutting out such a nodule.—I am, etc.,

Bristol, May 28th. CHARLES A. MORTON.

SIR,—A reader of Mr. Harrison Cripps's letter, unless he has also read my second Hunterian lecture, published in the JOURNAL of April 16th, would imagine that I had claimed to produce evidence which settled the whole question of the operative treatment of rectal carcinoma. So far from this being the case I expressly stated that I had not been able to penetrate beyond the fringe of the problem, and that my conclusions rested merely on the very careful examination of one case. I would, however, remark in passing that a single case exhaustively examined is worth a hundred dealt with by what I have called "cheese tasting" methods. This, I think, my results testify. What were the objects of my references to rectal carcinoma? They were mainly two. First, to demonstrate a new method of mucicarmine staining for cancer cells which will allow the course of dissemination to be better traced, and will enable the pathologist to tell the surgeon what parts must be removed if he wishes to be reasonably certain of getting beyond the disease. To show the potentialities of this method and the beauty of the results attainable was the object of my coloured plate. My second object was to raise—not to settle—the question of the proper operative treatment of rectal carcinoma, and to indicate the nature of the guidance and criticism which surgery might in the near future expect from pathology.

Mr. Harrison Cripps's letter may be divided into two parts, one embracing his criticism of my pathological observations, the other his criticism of what he believes to be my surgical practice. Since my lecture contained no detailed confession of faith in regard to the treatment of rectal cancer, it will be necessary to make clear the views I hold, and my reasons for holding them.

Mr. Cripps suggests that I have been misled in my observations by a personal bias in favour of the permeation theory of dissemination, and that I have mistaken normal structures for cancer cells. This is a question which no amount of discussion can settle. It is a question of fact which I shall submit to any competent jury with confidence. I propose, therefore, to take an early opportunity of bringing my slides before the Pathological Section of the Royal Society of Medicine. Meantime, if Mr. Cripps will show me a section of a non-cancerous rectum presenting the appearances which I have figured, I shall be ready to confess my surprise and my error.

Leaving this question to the future, I will now ask, with all the respect due to my critic's distinguished record, what are the reasons which make him recoil from giving my pathological observations a provisional acceptance? In the first paragraph of his letter he has given what appears to be the chief one. "If," says Mr. Cripps, "the facts as to the spread and infection by the lymphatics which he describes and illustrates are generally true, it would at once make any idea of curing rectal cancer by operation hopeless." In this *reductio ad absurdum* Mr. Cripps assumes that the extensive mucous permeation which I have proved to be an unpleasant possibility is present in every case, an assumption not justified by present knowledge nor by any words of mine. Since, however, there is no means of telling in a particular case whether mucous permeation has occurred, the removal of a considerable length of bowel is a right procedure on pathological grounds. Whether it is feasible and advisable is a separate surgical question.

Throughout his letter Mr. Cripps assumes that an operation for cancer which does not remove every particle of growth present in the body is necessarily a useless one. Here I must entirely part company with him. I believe that the incomplete extirpation of a cancer is sometimes followed by permanent freedom from recurrence, owing to the activity of the natural defensive processes, or to the exhaustion of the proliferative power of the cancer cells themselves.

At this point I imagine Mr. Cripps might intervene and tell me that in admitting the occasional cure of cancer by incomplete operations I have confessed the superiority of his methods and have abandoned the whole case for such extensive operations as the abdomino-perineal method for rectal cancer. But experience in other forms of cancer has shown that the more thorough the operation—the more nearly it approaches the ideal of complete removal—the greater the percentage of permanent recoveries. The ideal of absolutely complete removal in every case may be unattainable, but progress depends upon its continued pursuit. In cancer of the breast and of the uterus the more radical operations have abundantly justified themselves by increased percentages of freedom from recurrence. I believe the combined operation for rectal cancer is the operation most in accord with pathological knowledge, not mainly because it allows the removal of a longer piece of bowel, but because it permits a proper removal, with visual aid, of the pelvic fat and glands, and if necessary of part of the mesosigmoid.

But there are three ideals to be worked for in the treatment of rectal cancer, and they are to some extent conflicting. They are (1) absolutely complete removal of the growth, (2) complete restoration of the functions of the bowel, and (3) a minimal operation mortality. Let us see how far the second and third of these ideals are fulfilled, in the first place by the operation from below, which Mr. Cripps advocates, and in the second by the abdomino-perineal operation with establishment of a permanent artificial anus. For reasons which will appear each sex must be considered separately.

In the male sex I agree with Mr. Cripps in advocating the operation from below. The deep and narrow pelvis of men, and their liability to profound shock from pelvic interference, make the combined operation a prolonged and dangerous one. Kraske's and Rotter's statistics show that in the best hands it has a mortality of about 40 per cent. Under these circumstances, and in spite of its many disadvantages, the less dangerous operation from below is at present the method of choice except in young, spare, and vigorous subjects who are willing to take increased immediate risk for the sake of increased security against recurrence. Coming now to the female sex, Mr. Cripps is entirely mistaken in his belief that the combined operation is so "severe and risky" that no practitioner would advise such an operation for his patient. In point of fact, if it is terminated by the establishment of an artificial anus, and not complicated by the serious risks of an end to end union following resection, the combined operation in women is a very safe one. Statistics show that its mortality does not exceed that of the operation from below. Thus Schloffer lost but one of fifteen female patients on whom he operated, and Goullioud's 11 cases all recovered. During the past eighteen months I have operated on three women by this method without a death. In women, then, the ideal of complete extirpation may be pursued without increasing the death roll. And Goullioud records that 50 per cent. of his cases operated upon three years and upwards remain free from recurrence. I ask Mr. Cripps to quote the corresponding figure in his own cases of operation from below. It is true that women operated on by the variety of the combined method which I advocate have permanent colostomy openings. That discomfort is the price of their increased freedom from recurrence, in other words, of the lives of some among them.

There is one other point. If the worst happens and recurrence takes place, the woman with a permanent colostomy is freed from the risk of intestinal obstruction and from the necessity of facing another operation for its relief.

If an operation is done from below with restoration of the continuity of the bowel the result in a few cases is doubtless ideal, but in obtaining the "fair amount of permanent success" of which Mr. Cripps speaks, are not the vital interests of a number of other patients sacrificed to avoidable recurrence of the disease? That seems to me the main question.—I am, etc.,

London, W., May 31st. W. SAMPSON HANDLEY.

SICKNESS AND INVALIDITY INSURANCE.

The Model Rules.

SIR,—It is with great pleasure I see the wide and sustained interest now aroused by the State sickness and invalidity scheme, and it will be difficult to add to what has already been said by your able correspondents.

I have had a large and varied experience of contract practice, extending over a quarter of a century. In 1895 I supported the Cork profession in the successful stand they made against oppression. In 1902 Drs. Larking, Vernon, and myself investigated and reported on the club system in the South-Eastern Branch, which report was incorporated in the voluminous report of the Association in 1905 ably organized by Mr. Whitaker, which contained numerous depressing and monotonous replies from nearly 5,000 inquiries.

The Model Rules for contract practice now issued for the consideration of the Divisions by the Council are in accordance with the instruction of the last Representative Meeting. Since 1905 the opinion of the profession has evidently advanced towards a contributory system, and the whole aspect of the question has been altered by the prospect of State insurance of sickness and invalidity; thus making it compulsory instead of voluntary, and therefore all will have to be attended.

During our inquiry of 1902 to 1905 I came to the conclusion that the contributory system was the only satisfactory solution to the problem, for these reasons: That, as the payment corresponds to the work done and tends to efficiency, the fact that a portion of the payment is paid by the patient checks unnecessary and trivial consultations, prevents imposition, and tends to economy; the practitioner would not be harassed and demoralized as he is now, and the conditions would promote consideration, self-respect, and thrift in the patient. The society that works on these principles is the National Deposit, so

I purpose giving data from recent annual reports, showing results:

The society in	1873	had	1,738	members.
,, ,,	1883	,,	4,588	,,
,, ,,	1893	,,	11,632	,,
,, ,,	1903	,,	103,735	,,
,, ,,	1909	,,	201,849	,,

This shows sound progress and appreciation.

Taking the three last annual reports, we find that in 1907 the membership was 169,100, and the medical pay £26,558, or just under 3s. 2d. a member; in 1908 the membership was 184,875, and the medical pay £29,867, or just under 3s. 3d. a member; in 1909 the membership was 201,849, and the medical pay £32,138, or 3s. 2⅕d. a member.

This is below the average club rates, yet gives more satisfaction; but it must be remembered that some members are attended privately. A few lose benefit by allowing their deposit to run out; this in our district of about 1,000 members averages less than ½ per cent. per annum. The management expenses average slightly under medical pay, but includes a magazine, annual meeting, advertising, also conducts assurance and other branches. This as under one-seventh compares favourably with other provident societies, which varies from one-fourth to one-sixth of income, and should be considerably less under State management.

This statement is only to give the results of thirty-seven years' experience of this system, not a change of attitude with regard to the principle of lay control.

Now it must be obvious that the State would not pay 10s. a year for an unsatisfactory service when they can get a satisfactory one for 3s. 2d.; nor would the State be justified in discouraging thrift and independence.

I am afraid I cannot agree with my friend Dr. J. H. Taylor in last week's correspondence, especially on the matter of the member's deposit failing. As humanity would not allow medical attention being withheld, the State insurance should be responsible, and could justly debit the full fees incurred after the contingency against the member to be repaid when he is able. I also think we can improve on the French system. I was glad to see it described, and also to observe that it needed vouchers, which some object to as troublesome but must admit necessary, and conduce to efficiency of treatment and accuracy of accounts.

The German system has failed; its neighbour Austria[1] has worked out a minimal tariff of fees for work done, and we, having the precedent, should take the hint.

Presuming the contributory system paying for work done is accepted and the minimal scale of fees for Dr. P. R. Cooper's "destitute" class (*a*) decided, I suggest that the simplest way would be to deduct for insurance a certain percentage from the earnings of the classes above (*a*) and to increase the minimal fees at a corresponding rate. So then the fees would be graded in proportion to the income.

The next question is the supply of ordinary medicines; in the Poor Law appointments the medical officer has supplied them, and it is doubtful whether the State would undertake the dispensing. But medical men in towns could combine in a dispensary.

The question of allowance to persons with large families dependent should be the responsibility of the State, as increasing the population is to the advantage of the State.

In other things the principles and limitations of the model rules for public medical service would apply.—I am, etc.,

Sittingbourne, May 21st. William Gosse.

Sir,—In reply to my communication in the Journal of April 30th, drawing attention to the important editorial article on page 1007 of the Journal, a most instructive correspondence has resulted.

No one of your correspondents has advocated the extension of the club practice system, but it is no breach of confidence to add that there is a most powerful influence at work in the highest places in the Association to give approval to such a scheme. The lately issued public medical service scheme is only one of many proofs available.

That any member of the Association should desire to elaborate and set up alongside of other systems of cheap charity clubs another one full of loopholes and opportunities for friction seems astounding, for approval of the club system by the Association would be directly against the opinion of the Representative Meeting at Leicester in 1905; it cannot harmonize the interests of the beneficiaries and the doctor, and therefore must fail ultimately; and however much padding is introduced, it certainly leaves the collar of servitude on the necks of the doctors.

Dr. Gough's communication published on May 7th (p. 1142) is very much to the point, and will bear repeated perusal. He suggests the preparation of a scheme on the payment-for-work-done system. Such a scheme is being elaborated, and no doubt will be published shortly.

For the present, however, it is not desirable to go too much into details. The questions to be asked now are:

1. Do you prefer a public medical service under the auspices of the Association or of the friendly societies?

2. Are you in favour of such a service being an extension of the club system or a scheme of payment for work done?

In other words, are you in favour of a system which places the doctor, even if he receives ten or more shillings a patient a year, at the beck and call of a beneficiary; or do you prefer a system which places the beneficiary with reference to a doctor in the identical position held by a private individual who can well afford to pay for all medical services as required?

These questions will be discussed at the Representative Meeting at the end of July, although no binding decision can then be come to.

The Association cannot run two schemes; the Government would turn elsewhere in order to obtain unanimity.

The recent discussion in the Journal has narrowed down to the consideration of what means can be taken to prevent abuse or collusion if a scheme of payment for work done is adopted. Drs. Cooper and Taylor have in their useful communications discussed this. The deposit-private-account plan has been suggested. Dr. Taylor considers that this may run dry. He has not remembered that in future there will be possibly several ways to prevent this. The National Deposit Friendly Society scheme is what one may term a one-string system. In future there will be at least five sources from which this account could be aided. There will be (1) contributions from beneficiaries or their relatives, (2) contributions from the sick pay and made by friendly societies, (3) contributions from the Government through the trade unions under the proposed Unemployment Act, (4) contributions from old age pension schemes when extended, and (5) contributions from the trade unions in the event of strikes. By one or more of these means help can be counted on. The portion out of any such deposit account to be paid by the beneficiary for medical attendance need not necessarily be a large one; a quite small percentage would fulfil the object in view.

It is open to discussion whether this deposit account could or should be kept by friendly societies. It is a means of thrift, and such bodies would readily lend themselves as suitable bankers. In this way the Association would obtain the greatest security.

The profession should realize that this question of invalidity insurance, involving as it will quite ten million persons, greatly interests trade unions, master associations, and friendly societies, besides the Government and our Association. Therefore in the elaboration of any scheme all these must be duly consulted, and their assistance welcomed. But not before we have decided on the fundamental principles involved in the above questions.

In order to help to a decision in the profession, Dr. Milligan urges a referendum. Such a referendum amongst the members of the Association in the United Kingdom would give a sufficiently satisfactory guide, and could well be carried out next autumn.

In the meanwhile it would be of the greatest assistance if members in touch with club practice would point out the advantages and disadvantages of the two proposals. The Government has already received actuarial advice on the question. We cannot afford to let matters alone much longer.—I am, etc.,

London, S.W., May 28th. E. Rowland Fothergill.

[1] British Medical Journal, May 7th, 1910.

SIR,—On this important subject there appear up to the present time two schemes before your readers (many more will probably arise as increased interest is taken in the matter), each claiming in some way to solve the question how medical men are to be paid for the work they will be called upon to do.

Of the two, the National Deposit system seems to find most favour, and well it should. Here we have a going concern, tested and found to work. The other scheme with Dr. Taylor's suggestions in comparison suffers. It would, I think, if carried out, be a good thing for the friendly societies and cheap consultants trying to uphold the dignity of a profession on a starvation diet. Dr. Taylor's objection to the National Deposit scheme is this, "that it would break down under long illnesses." Would any scheme meet this? Surely the cancerous, tuberculous, mental, and senile out-of-works are fit and proper cases for other places. On a wage of 20s. the unfit must be considered apart.

Would any decent medical man be for ever on the doorstep of a chronic case of this kind? The idea of a medical supervisor in such cases is quite funny. Dr. Taylor sees no chance of abolishing contract practice. Although he is a Representative of the Lancashire and Cheshire Branch, I hope this is not the opinion of its members, for here we have a scheme in the National Deposit Society which gives us that chance. Any such scheme as Dr. Taylor's means officialism—which the English character dislikes but tolerates—and this, coming between patient and medical man, must be denounced.—I am, etc.,

Northwich, May 29th. A. HINES.

THE MEDICAL SICKNESS SOCIETY.

SIR,—As an original member of this excellent society, and until recently one of the committee, I welcome Dr. Kirby's letter. I quite agree with him that the society ought to be better supported by the profession, and that the principal reason why this is not the case is the apathy to which he refers. My experience on the committee has, however, convinced me that there are other reasons connected with the management of the society. This is too stereotyped and ultra-conservative, and an effort should be made to place it upon a more popular basis. It is true that the committee is supposed to be elected annually by the members; but as a matter of fact this is not so. The committee really nominates itself, and its election is a pure formality. Moreover, the committee has but a small part in the management. It will hardly be believed, but no motion is allowed to be proposed which has not the sanction of the chairman. The society is really a "one man" society. I have not a word to say against the chairman, whose single-minded devotion to the interests of the society for many years is above all praise. It is the system which I think should be altered.

The society is run on the strictest profit-making life insurance lines, with the result that the reserves are added to at the rate of something like £10,000 a year, and now amount to £233,735, which I contend far exceeds any possible liabilities. There is, moreover, no surrender value attached to the policies, and a member may go on paying premiums all his life, seldom or never making any claims. In return for the hundreds of pounds he has paid he gets, if he live to 65, a bonus of £40 or £50, otherwise he gets nothing. Another objection which I have frequently heard is that all benefits cease at age 65, just when a man is most likely to want assistance from the funds.

I quite think, with Dr. Kirby, that as 10 per cent. is deducted for management in all actuarial calculations, the 5 per cent. of this which is not required might well be spent in increasing the membership by advertisement and otherwise. I further suggest that the members of the committee should be drawn from the provinces instead of, as at present, almost entirely from the metropolis, and that their travelling expenses should be paid. Their election should also be bona fide by means of voting papers sent to the members. Local secretaries should also be appointed in all the chief provincial centres, whose business it should be to bring the advantages of the society to the notice of local medical men.—I am, etc.,

Portishead, May 23rd. W. G. DICKINSON.

AUSCULTATORY PERCUSSION AND FRICTION.

SIR,—In common with many others I was considerably surprised to read that this method of examination was supposed to have been discovered in 1898. When I was resident physician under the late Professor Cuming in 1886 in the Royal Hospital in Belfast, I remember him demonstrating the method and saying it ought to be more widely practised. Later on, about 1898, I showed at one of our Branch meetings forty to fifty charts of comparisons of the results of ordinary percussion and of auscultatory percussion; these were chiefly of the stomach, but contained also cases of differentiating the hepatic and pleural effusion dullness of the right side, the accurate delimiting of spleen and liver in a case of Banti's disease, and some other rare conditions. These charts I have still and occasionally make use of for clinical demonstration. Mapping out the heart I found to be quite hopeless owing to the increased intensity due to the closely-set ribs and cartilages. Personally I have the temerity to doubt its having been done in the manner depicted in some diagrams; but I should be under a debt to any one who would demonstrate its feasibility. The difficulty in marking out the upper border of liver and lower border of pleural effusion is also at times considerable; this may be due not merely to the necessity of avoiding the percussion of a rib on which the stethoscope is already placed, but also to the fact that the quantity of fluid in the complementary pleural sinus seems to vary. As long as there is still considerable pulmonary elastic retraction there is little fluid; but when the pull at the lung becomes exhausted some fluid pushes the liver away from the chest wall. The method is undoubtedly of great and reliable service in ascertaining the lower border of an enlarged liver and the lower border of a dilated stomach, although, like all methods of physical examination, it seems to fail us at times.

Dr. Hertz writes the letter of the specialist; he seems to think that bismuth meals and *x* rays are infallible. What will he make of the following? A patient lately consulted one of the leading surgeons in London; he sent the patient to a presumably leading *x*-ray specialist (I believe not Dr. Hertz), who gave bismuth meals and used the screen several times; he gave the patient's friends a large diagram showing the position of stomach, colon, etc. The surgeon recommended operation, which was soon performed. The laparotomy showed that the *x*-ray results were absolutely and hopelessly wrong and entirely misleading. With all the profession, I have been much indebted to the *x* rays, and received great assistance; but, as in every other method of examination—physical, chemical, bacteriological, microscopical — fallacies are liable to creep in and give the too credulous enthusiast an ugly fall.

As regards the size, shape, and position of the stomach, I find no method so generally satisfactory as the simple method of distension when the tube is in the stomach after washing out; and if it is impossible for any reason, or inadvisable, to pass a tube, very satisfactory results can be obtained by a little baking soda and tartaric acid; then by ordinary percussion the boundaries are marked out with a coloured pencil; immediately, with the eyes shut, auscultatory percussion is to be employed, and the results mapped out with another colour. The two often agree; sometimes there is 1 to 2 in. of difference at the lower border; this is a distended colon, and repeated ordinary percussion will show that the auscultatory has been the more reliable. Such results are confirmed by laparotomy sufficiently frequently to prove that they are quite as accurate, indeed more so, than those obtained by the bismuth meal and *x* rays. This last method seems like using a crowbar to knock down an open door.

We can all practise auscultatory percussion on a distended stomach; less than 1 per cent. of medical men can practise *x* rays; and it will be a distinct loss if the method drops from hospital teaching and textbook description. It seems legitimate, however, to hope for more aid in ascertaining the functioning of the intestine by bismuth meals. Auscultatory percussion, like simple auscultation and simple percussion, requires many years' practice, and the three methods will be in daily and hourly use, despite the lofty absence of the slightest doubt in Dr. Hertz's mind, when the bismuth meals and *x* rays method will have

"suffered a sea-change into something rich and strange."—I am, etc.,

Belfast, May 28th. W. CALWELL.

SIR,—Your able correspondents have raised the questions of the when and by whom auscultatory percussion was discovered. As a little contribution to these inquiries perhaps you will kindly permit me to remind your readers that I gave a description of auscultatory percussion in my little book on "Physical Diagnosis," published in London in 1870, my account of this method of clinical examination being based upon my experience of its use in practice and in the teaching of medical students, and upon the description of auscultatory percussion given by Drs. Cammann and Clark, physicians of the United States of America, in the *New York Journal of Medicine*, and upon the account of their method given in the fifth edition of the late Sir William Aitken's admirable textbook on *The Science and Practice of Medicine*.

Cammann and Clark declared that auscultatory percussion required two skilled persons to bring out the result, one to strike and one to auscultate. I found that the process might be managed by one person alone, and that the method had some demonstrative advantage, especially in the differentiation of the cardiac and hepatic boundaries.—I am, etc,

Birmingham, May 30th. JAMES SAWYER.

SIR,—I notice that Dr. Allan Pearson claims to have discovered this method of mapping out solid organs some ten or twelve years ago. I well remember two senior students of Queen's College, Belfast, in the old hospital in Frederick Street, in the year 1870 or 1871, mapping out the liver by this very method.—I am, etc.,

Sheffield, May 30th. GEO. JOHNSTON, M.D.

DOES GASTROSTAXIS EXIST AS AN INDEPENDENT DISEASE?

SIR.—In the BRITISH MEDICAL JOURNAL of May 28th, p. 1322, Dr. E. C. Hort criticizes the title of my paper, "Does Gastrostaxis Exist as a Independent Disease?" because I use the term "gastrostaxis" as indicating a disease, when it merely implies a symptom. Perhaps I may be permitted to point out that this word is not one of my own choosing, nor one with which I agree in its present application, as should be evident from a perusal of my paper. I have used the word to represent the disease it was originally intended to describe, because this disease is the subject of the above mentioned paper. In the *Lancet* of June 29th, 1901, p. 1819, Dr. Hale White published a paper, "Are not some patients said to be afflicted with gastric ulcer, really suffering from a different disease?" and in the *Lancet* of November 3rd, 1906, p. 1189, the same author published a second paper on this disease, "Gastrostaxis, or oozing of blood from the mucous membrane of the stomach." In the latter paper Dr. Hale White used the following words:

> Sir Cooper Perry kindly suggested to me that the disease might be called Gastrostaxis—this is a satisfactory name, as oozing of blood from the stomach is always present at some time or another and may be the only symptom, and we already have the word epistaxis, some cases of which are probably due to an oozing of blood from the nasal mucous membrane.

The term "Gastrostaxis" was therefore invented to represent a definite disease, and it is in this sense that the word is generally used at present.—I am, etc.,

London, W., May 28th. CHARLES BOLTON.

THE SURGICAL TREATMENT OF GLYCOSURIA.

SIR,—I quite realize the main point which Mr. Mayo Robson wished to emphasize in his paper, namely, that by the early recognition and treatment of functional disorders of the pancreas, whether associated with glycosuria or not, the onset of true diabetes may be arrested in many cases. I fully share this view, and, as a physician, recognize the great value of Mr. Mayo Robson's work in drawing attention to it. The point on which I probably do not altogether agree with Mr. Robson has reference to the value to be attached to the existence of a positive pancreatic reaction as an indication for surgical as opposed to medical treatment.

My experience is in harmony with that of Mr. Robson and Dr. Cammidge in regarding the pancreatic reaction test as one of considerable value both in diagnosis and treatment, I cannot, however, subscribe to the view expressed by Dr. Cammidge in his letter of May 28th, that "a positive reaction is only obtained in cases where it is probable that the glycosuria is associated with active degenerative changes of an inflammatory character in the pancreas." I have found from a large experience of the test that complete fermentation of the urine invariably has the effect of rendering the reaction negative. The same result has been independently obtained by experts in the Royal College of Physicians laboratory. Our experience is apparently at variance with that of Dr. Cammidge. The point is one of practical importance. An extensive experience of the test in the past three years has led to my opinion being frequently asked as to its value in glycosuria and other conditions. The view I take is as follows: I value highly the information yielded by the test in the diagnosis and treatment of the different conditions referred to in my former letter; and for the reasons stated, I consider that the test has *no special value* in cases of glycosuria.—I am, etc.,

Edinburgh, May 29th. CHALMERS WATSON.

THE CULTURAL CHARACTERISTICS OF THE MICROBACILLUS OF ACNE.

SIR,—In the JOURNAL of May 21st, p. 1227, Dr. Molesworth published a paper in which he questions some of my results in the investigation of the bacteriology of acne vulgaris. Dr. Molesworth's paper appears to contain some inaccuracies or misconceptions. First, he states that I have expressed the opinion that staphylococci were only present in acne pustules as the result of accidental contamination, whereas in my paper published in the *Lancet* on April 10th, 1909, I divided cases of acne into three classes, and distinctly stated that, in two of these three classes, the staphylococcus acted as a pathogenic agent. Next he says that I have described my cultures as being made "by ordinary surface inoculation, by which method Sabouraud always failed to get growth," thereby intending to discredit my results. The method which I have described, however, was to squeeze out the contents of the pustule, take a loopful of pus, and transfer to an acid agar slope *en masse*. I followed this up by saying that, if the pus be spread thinly over the surface of the medium (which is the ordinary method of surface inoculation), no growth of the bacillus will be obtained. How Dr. Molesworth reconciles these facts with his statements is difficult to see.

Dr. Molesworth also emphasizes the fact that the comedo is the essential lesion of acne, a fact which no one disputes; but he goes on to say that I make no mention of the disappearance of comedones under the influence of treatment with a vaccine of the acne bacillus. If he had read my paper carefully he would have found the following sentence, referring to the results obtained with the vaccine: "In this way a large number of cases of acne, in all its stages, have been greatly improved, and in a fair proportion the lesions have totally disappeared." Now, the comedo being the essential lesion of acne, it is difficult to imagine any one describing the disappearance of all the lesions had the comedones remained.

Apart from these inaccuracies, there seem to be two points on which Dr. Molesworth and myself are at variance: (1) Whether or not the acne bacillus is *ever* the cause of suppuration, and (2) whether the organism I described was the true acne bacillus. On the first question the chief evidence he adduces is that of Sabouraud, that he found phagocytosis of staphylococci but not of bacilli in the pus, and that he was unable to produce suppuration by the injection of bacilli. Now, any one who has observed carefully films of pus from acne pustules must have seen the acne bacillus inside the pus cells; in fact, this state of things is even more common than the phagocytosis of staphylococci. In some films one can see both organisms taken up by the leucocytes, or even both taken up by the same leucocyte. As regards Sabouraud's second contention, I can only repeat that I have produced a pustular folliculitis by rubbing into the skin a broth culture of the acne bacillus, and in the pus from the lesions no organism other than the bacillus could

be found. On the other hand, if we find a case of pustular acne from whom we can obtain a pure culture of the acne bacillus time after time with only an occasional culture showing staphylococci, and if in the pus films we can only rarely find an occasional staphylococcus, I think we have a strong case for the bacillus being the cause of the suppuration. Such a case was a man who had suffered from pustular acne for many years, and who for at least eighteen months had been treated with staphylococcus vaccine without the slightest change in his condition. On repeated examination of the pus, however, the state oft hings alluded to above was found. A vaccine of the bacillus was administered, and in about two months the pustules had practically disappeared. The bacteriological findings and the result of the vaccine treatment are, I maintain, clear proof that in this case the bacillus was responsible for the pustulation.

Dr. Molesworth states that most of my conclusions seem to have been based on opsonic estimations, but a little thought would show that no conclusion as to the cause of the pustulation could have been arrived at from such observations, as, if the patients had pustules, they also had comedones, which we are agreed are caused by the acne bacillus, and so, being infected with the acne bacillus, they would tend to give abnormal opsonic indices.

Dr. Molesworth seems to have been unfortunate in that his work on the characters of my bacillus was done with cultures apparently obtained indirectly from me, which did not show the characters which I described in my paper. For instance, he states that the bacillus will grow readily on ordinary agar in forty-eight hours, but if he refers to my paper he will find the statement that on ordinary agar no growth can be obtained. It is true that I added a footnote just before the paper was published that I had obtained a growth of a bacillus on ordinary agar apparently similar to the acne bacillus, but in the light of some subsequent work I regard this not as acne bacillus but as a skin diphtheroid. It is curious to note that Dr. Molesworth was surprised when, about last November, he obtained from me a culture which agreed with my description of the organism. Surely it would be more reasonable to have been surprised when he found that the earlier culture did not agree with my description, and it seems to me that it would have saved him much trouble had he, when he found that the earlier culture did not fit my description, returned it to me with the suggestion that possibly some contamination had occurred.

The only culture which I have any recollection of giving direct to Dr. Molesworth is the last one he mentions, which he says is the true bacillus of acne. This bacillus, which he states is essentially an anaërobe, was isolated aërobically on acid agar in pure culture from an acne pustule in November, 1908, and was grown through very many generations of aërobic subcultures until November, 1909, when I handed the culture to Dr. Molesworth.

The case from which this bacillus came and the result of treatment with a vaccine derived from this strain of bacillus were described in my first paper on the subject.

I am quite in agreement with Dr. Molesworth as to the great advantage of anaërobic methods in the isolation of the acne bacillus from the lesions, and, whereas in my early work I found it almost impossible to separate the bacillus from staphylococcus, by using anaërobic methods as suggested by Sudmersen and Thomson I have found that it can be isolated with ease from every case.

If one uses a suitable medium, however, it is quite unnecessary in most cases to use anaërobic methods for subcultures, as the bacillus will grow well aërobically in many cases in the first subculture, and in practically all after one or two anaërobic cultivations. On glucose agar as recommended by Halle and Civatte, and later by Hartwell and Streeter,[1] and by Dr. Molesworth in the paper under discussion, one obtains cultures readily, but these cultures, ias Dr. Molesworth says, take four days to appear, and it s difficult to obtain aërobic cultures. Whereas, on a more suitable medium, growth appears in twenty-four to forty-eight hours, and, as I have said before, it is very easy to educate the bacillus to aërobic growth. The medium I have used is ordinary agar (neutral) + one quarter of its volume of an emulsion made by shaking 10 parts of ascitic fluid with 1 part of oleic acid. To this is added a sufficient quantity of a solution of neutral red to give a distinct red colour, so that the white colonies may readily be detected. I have made comparative tests of this medium with glucose agar and acid serum agar, and in all cases growth was more vigorous and appeared earlier in the oleic acid serum agar.—I am, etc.,

London, W., May 23rd. ALEXANDER FLEMING, F.R.C.S.

[1] *Boston Medical and Surgical Journal*, December 16th, 1909.

Medical News.

IN consequence of the lamented death of His Majesty King Edward VII, the annual dinner of the Indian Medical Service will not take place this year.

AT the recent examination for sanitary inspectors under the Public Health (London) Act, 1891, held by the Sanitary Inspectors' Examination Board, thirty-four candidates passed, of whom twenty were women.

THE visit of the Irish Medical Schools' and Graduates' Association to Bath, which was postponed in consequence of the lamented death of His Majesty King Edward, has now been definitely fixed for June 18th, 19th, and 20th.

SIR DOUGLAS POWELL has resigned his position as a member of the consulting staff of the King Edward VII Sanatorium, and has been succeeded as chairman by Dr. Theodore Williams. Dr. Bertrand Dawson has been elected honorary secretary, in the place of Dr. Williams.

THE Annual Founders' Day Commemoration of the Middlesex Hospital was celebrated by a service in the hospital chapel on May 26th. A new organ has recently been erected by private benefactions, and among the gifts to the chapel during the past year is a marble font of remarkable design. The chapel is entirely free of debt.

AT a meeting at the Royal Sanitary Institute on Wednesday next Lieutenant-Colonel C. H. Melville, Professor of Hygiene at the Royal Army Medical College, will give an address on the Sanitary Service of the Territorial Force. The Chair will be taken by General Sir Harry Prendergast at 7.30 p.m.

MR. WILLIAM ROSE, Emeritus Professor of Surgery in King's College, and consulting surgeon, King's College Hospital, died in London on May 29th. Mr. Rose recently underwent an operation on the tongue, which unfortunately was not attended by any permanent benefit. We hope to publish some account of his career in a future issue.

THE following members of the medical profession are included in the list of persons accompanying Captain R. T. Scott upon his Antarctic expedition: Dr. E. A. Wilson, chief of scientific staff, zoologist and artist (Western party); Surgeon G. M. Levick, R.N., doctor, zoologist, etc. (Eastern party); and Surgeon E. L. Atkinson, R.N., doctor, bacteriologist, and parasitologist. Dr. E. A. Wilson acted as surgeon to the *Discovery* in the Antarctic expedition, 1901–4.

AT a council meeting of the Association of Medical Officers of Health held in London on May 25th, a letter was read stating that the Council of the British Medical Association had given its consent to a general meeting being held in London during the approaching annual meeting of the Association, and it was arranged that the meeting should be held on Friday, July 29th, and be followed by a dinner. Provisions of the draft Public Health Officers Bill of the British Medical Association were considered, and it was resolved to take steps to oppose in Parliament any bill differentiating between part-time and whole-time medical officers of health in respect of condition of tenure. It was decided to issue a memorandum stating the position of affairs at the present time and defining the policy of the Association of Medical Officers of Health.

THE Lunatic Asylums Visiting Committee of the Surrey County Council has addressed a letter to the members of the medical profession practising in that county, calling attention to the fact that for some time past an improper use of the county pauper lunatic asylum had been made by those whose social position should preclude their admission to such institutions, and stating that the committee has made arrangements for the reception of private patients at the new county asylum at Netherne, at rates varying from 1 guinea upwards. The committee hopes that by the co-operation of the medical profession the abuse of the provision made for paupers may be prevented, and that the county rates may cease to be burdened with an expenditure which should be met by relatives or friends of the patients, who thereby would prevent the stigma of pauperism attaching to the sufferers.

Obituary.

ROBERT KOCH, M.D.,

HONORARY PROFESSOR OF HYGIENE IN THE UNIVERSITY OF BERLIN, AND FORMERLY DIRECTOR OF THE ROYAL INSTITUTE OF INFECTIOUS DISEASES, BERLIN.

DR. ROBERT KOCH died on May 27th at Baden-Baden, where he had gone to recruit after a recent attack of pneumonia.

Our Berlin correspondent writes:

Robert Koch's death in Baden-Baden on May 27th has come as a great shock to his country, for none but the members of his own private circle seem to have known how severely a recent attack of influenza had affected his heart. Those who saw him and heard him speak at the meetings of the Hufeland and other medical societies earlier in the year carried away with them an impression of hale and hearty manhood and of a full reserve of bodily as of intellectual strength. He was in his 68th year, and though it would have been idle to expect that at such an age he would be able to emulate the achievements of his earlier manhood, it seemed that a period of valuable activity was still before him, and that the world would continue to profit by his unparalleled experience. Fate had decreed otherwise, and death came after a comparatively short illness. His friends and admirers must find comfort in the thought that he has been spared the sad consciousness, they the sad spectacle, of gradual intellectual decay. The facts of Robert Koch's biography, from his beginnings as a District Physician in Wollstein (a small town in Polish Prussia), his long and illustrious career at the Berlin University, the classical series of researches which raised bacteriology from the stage of uncertain experiment to its present high position in pure and applied science, and which made his name immortal in the annals of medicine—all this has been told and retold so often and so exhaustively that repetition here would be meaningless.

Scientific work, fearless, keen, close, and unremitting, was his greatest happiness, the very breath of his nostrils, and he could say in Shakespeare's words, "Joy's soul lies in the doing." At home and abroad, wherever German is spoken, Robert Koch's name was a household word, and his death will be felt as a personal sorrow by tens of thousands who can have but the faintest glimmering of what really constituted his superiority, and who would hardly know how to explain or justify the pride they took in him. That this is truly so, has been felt and expressed by the German Emperor. In his telegram of condolence to Robert Koch's widow, "I mourn deeply," he says, "the loss of the greatest German medical man (Arzt) of our time, and in common with the German nation I gratefully turn my thoughts to his beneficent (segensreich) life-work." By special wish of the departed, there will be no public funeral and as little mortuary ceremonial as possible. It was arranged that the remains should be cremated in Baden-Baden on May 30th; besides the widow only Geheimrath Gaffky (Koch's closest friend) and a very small circle of intimate friends will be present. Frau Koch has expressed her earnest desire that no floral tributes should be sent.

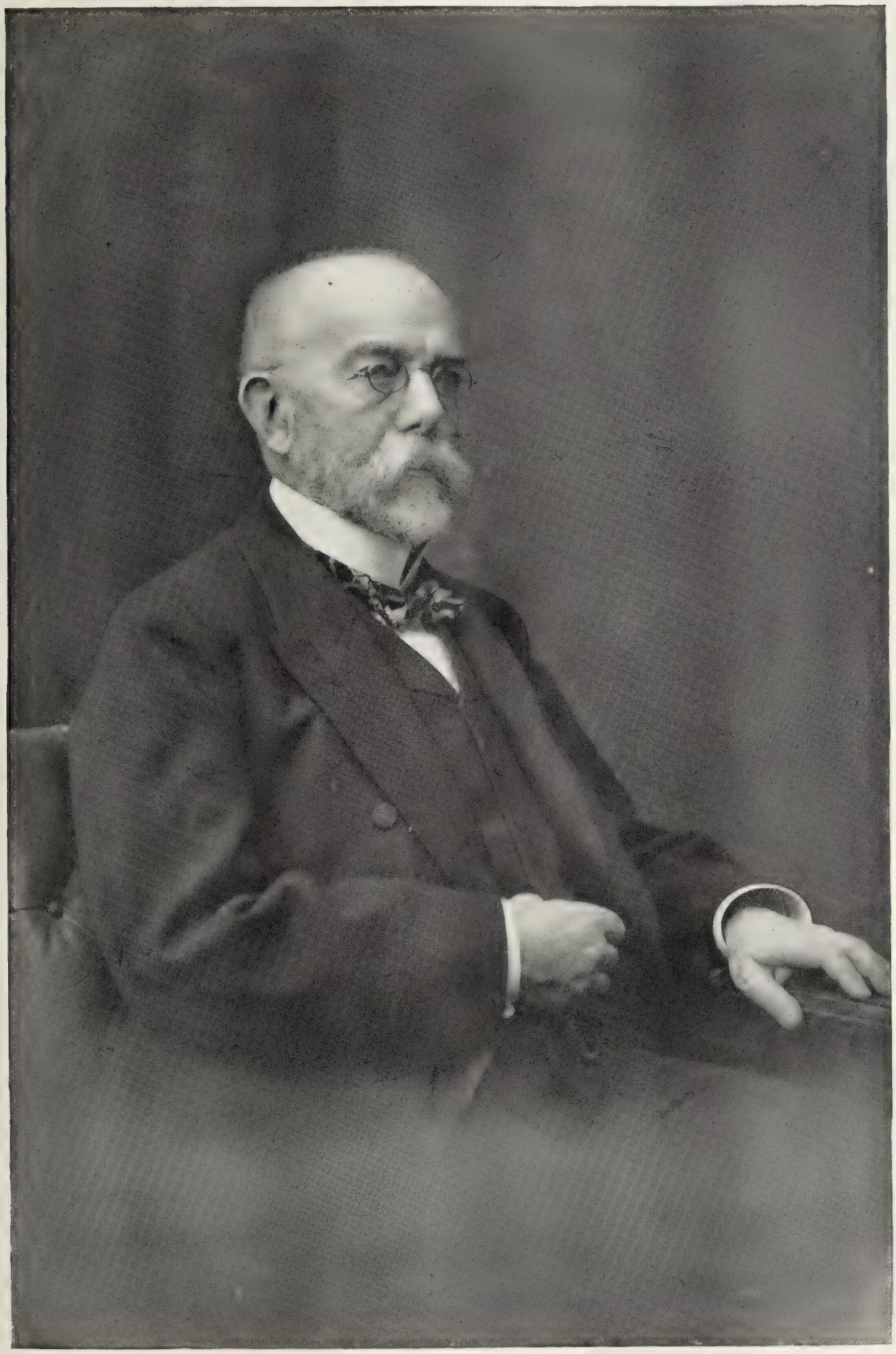
Robert Koch was born on December 11th, 1843, at Klausthal, Hanover. He was one of the thirteen children of an official in the Prussian Forestry Department. He studied medicine at Göttingen from 1862 to 1866. After serving for a short time as assistant in the general hospital at Hamburg he began life as a general practitioner (1866), first of all at Langenhagen, near Hanover, and afterwards at Rackwitz. In 1872 he became Medical Officer of Wollstein in Posen, and it was during the succeeding eight years for which he held this appointment that he began his epoch-making work in bacteriology. His first important paper on the etiology of anthrax, in which he announced the isolation of the bacillus, was published in 1876. This was followed in 1878 by an essay entitled, *Untersuchungen über die Aetiologie der Wundenfektionskrankheiten*, which was translated, at the suggestion, we believe, of Lord Lister, by Sir Watson Cheyne, and published by the New Sydenham Society in 1880 under the title *Investigations into the Etiology of Traumatic Infective Diseases*. It was on the strength of these investigations, the value of which was immediately appreciated throughout the scientific world, that Dr. Koch was in 1880 appointed by the Prussian Government to be a member of the State Public Health Department.

The particular importance of Koch's work up to this point resided not so much in the novelty or even in the importance of his observations as in the rigidly scientific method he followed, the severe criticism to which he subjected his own results, and the great improvement in technique due to his introduction of solid media for the cultivation and separation of micro-organisms. In 1881 he published in the first volume of the reports of the *Kaiserliches Gesundheitsamt* an essay on the investigation of pathogenic organisms in which he laid down principles which have ever since been followed by all bacteriologists. In this paper he said (we quote from the translation made by Sir Victor Horsley for the New Sydenham Society[1]):

> As a rule the following points must be observed in investigating micro-organisms from the point of view of sanitary science. In the first place, it must be definitely determined whether the organisms in question are pathogenic at all—that is to say, whether they can cause disease. Following on that comes the proof of their inoculability, that is, of the possibility of their transference from one individual to another previously healthy, this transference being attempted both on individuals belonging to the same species as those in whom the disease arose spontaneously or was artificially produced, and on individuals of other species.
>
> Next we have to trace out the mode in which the pathogenic organisms enter the animal body, to follow their behaviour outside the body in the air, water, and soil, and finally to determine what influence reagents may exert upon them either in the way of destroying them or preventing their development. Hygiene is only interested in their existence in animal tissues in so far as an explanation of the mode of infection may thereby be rendered possible—whether, for example, the pathogenic organisms are localized in the alimentary canal, whether they pass into the blood, or whether they form resting spores in the interstices of the tissues.

In this paper he insisted upon the value of the photographic representation of micro-organisms, and gave a full account of the methods he employed for obtaining pure cultivations, insisting that pure cultures were absolutely indispensable for the further development of knowledge of pathogenic organisms; after describing the practical difficulties in the way of making pure cultivations in fluids, he described the advantages to be obtained from the use of solid culture mediums, and the trials which he had made in this direction. He told how he was led to use solid cultures by observing that if a boiled potato is divided and the cut surface exposed to the air for a few hours, and then placed in a moist chamber so as to prevent drying, there would be found on the second or third day, according to the temperature of the room, on the surface of the potato, numerous droplets, almost all of which appeared to differ from each other. Taking a little of one of these colonies he spread it upon the cut surface of another potato which was then placed, with suitable precautions, in the moist chamber, and in this way he obtained a pure cultivation. After some experiments he hit upon the gelatine nutrient material as the best for general purposes, and he described the manner of its preparation, sterilization, and use. He drew attention to the fact that different nutrient soils are required for different kinds of micro-organisms, and indicated that one prepared with meat infusion and peptone was specially valuable for many pathogenic bacteria, but that unquestionably "the best nutrient material is a nutrient jelly made out of blood serum and gelatine." Since this could not be sterilized by boiling because the serum albumen would coagulate, he indicated the special care which must be taken to obtain the blood serum in the first instance as free as possible from contamination, and he also pointed out how, by the study of the appearance of colonies, it was possible without the microscope or with only very low powers to recognize with a very high degree of confidence the various bacteria of which the several colonies consisted. There can be no doubt that the introduction of this method of making cultivations on solid media constituted the greatest advance in bacteriological technique which has ever been made, and enormously advanced the science by giving to it a degree of accuracy which it had not previously

[1] Published in the volume entitled, *Bacteria in Relation to Disease* (1888).



Robert Koch (1907).

possessed. It will be noticed to what a degree of perfection Koch had brought the method at the time of his earliest publication.

The research which first made Koch's name widely known to the general public, and that which was, perhaps, in its far-reaching results the most important he ever undertook, was the inquiry which resulted in the identification of the bacillus of tubercle. The belief, long popularly held in many countries, that pulmonary consumption was communicable, had received confirmation from Villemin in 1865 and from Cohnheim in 1877, who showed that guinea-pigs inoculated with tuberculous sputum died from general tuberculosis. It was in 1882, in a paper on the etiology of tuberculosis communicated to the *Berliner klinische Wochenschrift*, that Koch announced that a bacillus of definite form and presenting well-marked characters was present in tuberculosis, and he showed that this organism fulfilled the four conditions which have come to be known as Koch's postulates: (1) That the organism should always be found microscopically in the bodies of animals having the disease; that it should be found in that disease and no other; that it should occur in such numbers and be distributed in such a manner as to explain the lesions of the disease. (2) That the organism should be obtained from the diseased animal and propagated in pure culture outside of the body. (3) That the inoculation of these germs in pure cultures, which had been freed by successive transplantations from the smallest particle of matter taken from the original animal, should produce the same disease in a susceptible animal. (4) That the organism should be found in the lesions thus produced in the animal.

The announcement met at the time with a mixed reception; it was immediately and even enthusiastically acclaimed by many who saw in it the link wanted to establish the hypothesis of the specific, communicable nature of tuberculosis, while by others, influenced by a belief in the hereditary nature of the disease, it was subjected to adverse criticism. In 1884, in the second volume of the *Mitteilungen des kaiserlichen Gesundheitsamtes*, Koch published an elaborate article on the etiology of tuberculosis;[1] in it he discussed the subject with great cogency of argument and wealth of experimental facts, which carried conviction to nearly every mind, and it was upon this article and upon other observations made or instigated by Koch that the modern crusade against tuberculosis in all countries is founded.

It was in November, 1890, that Koch startled the world by announcing that he had prepared from cultivations of the bacillus itself a remedy afterwards named "tuberculin," which he hoped might prove to be capable of curing phthisis with certainty in its early stage. The history of this matter is still, it may be said, too incomplete to warrant the expression of any definite opinion. No doubt the first trials of tuberculin gave rise to much disappointment. Many readers will remember the excitement which arose and the many pilgrimages which followed to Berlin; enthusiasts probably expected too much, and did not attach sufficient importance to some of the phrases in the original paper, by which Koch doubtless intended to avoid raising false hopes. The remedy was found to be uncertain in its practical results, and not free from the risk of seriously aggravating the diseased conditions for which it was used. It fell into discredit, and in spite of the improvements in the preparation introduced by Koch and his followers, has not again come into general use, although tuberculin in one or other of its forms is now being employed by many physicians and in many sanatoriums with precautions which theory and experience have suggested.

Apart from this matter of the attempt to devise an effective specific treatment of tuberculosis, Koch continued the investigation of its etiology in man and in animals, and in 1901, in an address to the British Congress on Tuberculosis held in London in July of that year, he surprised the scientific world and fluttered the public health department of every civilized country by asserting that if man be at all susceptible to infection by bovine tuberculosis, such infection must be of very rare occurrence, and insisting that the only main source of infection of tuberculosis is the sputum of consumptive patients. As the most effective means of combating tuberculosis he indicated the improvement of general domestic conditions under which the poor live, the compulsory notification of the disease, the provision of adequate hospital accommodation for patients in an advanced infective stage, and of sanatoriums for early cases, and the education of the public as to the nature of tuberculosis and as to the principles of the method for its prevention. The immediate result in this country was the appointment of the second Royal Commission on Tuberculosis, and the general result of its inquiries, as well as of those of other Commissions in the United States and elsewhere, has been to establish the general conviction that the tuberculosis of bovine animals is a real source of danger to man, and that restrictive legislation is therefore necessary.

In 1883 Koch was appointed a Privy Councillor, and in the same year nominated President of the German Cholera Commission which visited Egypt and India to investigate the disease. The Commission went to Egypt on August 16th, 1883, and within less than a month of its arrival Dr. Koch was able to report to the German Government that an organism was present in the disease which he believed to be specific; this hypothesis was subsequently completely confirmed by further experiments in India, which showed that the organism, commonly called the comma bacillus owing to its curved form resembling the comma mark used by German printers, fulfilled the postulates, as was fully set out by Koch himself in the addresses which he delivered to the conferences on cholera held in Berlin in July, 1884, and April, 1885.

Probably his study of conditions determining the dissemination of cholera, combined with his interest in questions concerning the etiology of typhoid fever, turned Koch's attention to the filtration of river water, a subject to which he made many important practical contributions. Of no less practical importance were his experiments with regard to disinfection, mainly carried out for the German public health department, in the reports of which the results are embodied. In fact, it was a characteristic of Koch's attitude towards scientific problems that he was not satisfied merely to establish laboratory facts—he was always ready to go on to investigate the conditions under which they could be applied to practical hygiene, a task commonly far more difficult than the repetition of experiments in a laboratory, and often raising side-issues which demand the highest scientific acumen for their elucidation.

In the departments of tropical parasitology, bacteriology, and hygiene Professor Koch did much valuable research work, and during the later years of his life the greater part of his time, in fact, was devoted to tropical problems. As has already been said, his far-reaching discovery that cholera—a special scourge of tropical and subtropical climates—was due to a spirillum or bacillus was made in 1883 as the result of investigations carried out in Egypt and in India.

India saw him again in 1897 studying plague, the germ of which had been discovered by Kitasato and Yersin in Hong Kong in 1894. Some years later Koch was at Rome following up the recent discoveries on malaria and the part the mosquito played in the spread of that disease. His next expedition was to New Guinea, its special object being the study of the severe type of malaria found in that country. This may be said to be his first real step into the domains of tropical parasitology proper. The results of this expedition were in many ways far-reaching, the most important being the suggestion that quinine might produce blackwater fever, and the proposal for completely stamping out malaria by the use of the same drug. As regards the first of these ideas, there is no doubt that Koch has often been misquoted; he does not seem to have meant it to be understood that he held that quinine was the one and only cause of blackwater fever, but that it might act as the excitant of blackwater in certain cases. The statement, being misunderstood, frightened many laymen and some doctors, and, by hindering the use of the drug in proper doses when necessary in ordinary malarial attacks, caused some harm, especially in certain of the German colonies. As regards the second idea—the stamping out of malaria by the general use of quinine—there is no doubt that if every one suffering from malaria were thoroughly treated with proper doses of quinine over prolonged periods the disease might be expected to die out, but practically such a procedure is impossible, and the true place of quinine must be that of a prophylactic and a

[1] Translated for the New Sydenham Society by Mr. Stanley Boyd (*Bacteria in Relation to Disease*, 1886).

valuable adjunct to other methods of attacking the disease, especially the general destruction of mosquitos.

Some time after this Koch was asked to visit South Africa, where in certain parts rinderpest was decimating the herds of cattle and flocks of game. He was not, after a careful study of the condition, successful in finding a specific parasite, but he proceeded to look into the question of East African fever, a form of Texas fever, which was spreading and killing off large numbers of cattle. His special researches on this subject were directed to the part the tick plays in the spread of the parasite, the *Babesia parva* (Theiler), which is the causative agent of the disease. Koch's visits to German East Africa about this time naturally directed his attention to sleeping sickness, the problems it raised, and the work that had been and was being done. Very soon he was in Uganda in the midst of the disease eagerly studying it. Such energy must be looked upon as remarkable when it is remembered that he was no longer young, and the amount of travelling and work he had already accomplished in so many unhealthy climates. Settling down at his camp in one of the Sesse islands, he studied the bionomics of the tsetse fly, the carrier of the trypanosomes, and also the curative effect of atoxyl, then newly introduced, on cases of the disease. At first it seemed as if a cure—analogous to quinine in malaria—had been discovered, but this we now know to have been too sanguine a view. The idea also that the fly lives only or chiefly on the crocodiles which abound along the lake shore has, in the light of subsequent investigation, been proved to be only partially true. Still, the work he did on sleeping sickness was of a very high standard.

This somewhat incomplete and scanty record shows how large a part of Professor Koch's work was done in the tropics and actually on tropical complaints. Though future generations will remember him chiefly in connexion with his brilliant bacteriological discoveries, yet a place will have to be kept for him in the records of tropical parasitology and medicine as well.

In 1885 Koch was appointed Professor of Hygiene in the Medical Faculty of the University of Berlin, and Director of the Hygienic Institute, then newly established by the university. In 1891 he was appointed director of the new Royal Institute for Infectious Diseases, and became an honorary professor in the university. This institute now forms a part of the great Rudolf Virchow Krankenhaus, and is commonly called the Koch Institute. It was described and illustrated in the Special Hospital Number of the BRITISH MEDICAL JOURNAL published on June 20th, 1908. During recent years Koch considerably limited his official activities, although he was still ready to take part in expeditions for the investigation of exotic diseases, and when at home to take his share in the medical and scientific life of Berlin, and, indeed, of Germany in general. He received, as was to be expected, many honours from scientific societies, and from his Sovereign the *Ordre pour le Mérite*. He was an Honorary Member of the British Medical Association, and a foreign Fellow of the Royal Society. On his 60th birthday in 1903 a number of his pupils presented him with a *Festschrift* containing a suitable dedication and a number of papers of high scientific value.

Professor Koch, although he was the author of many papers and reports to which we have referred by title or implication above, was not a voluminous writer. He seldom or never wrote or spoke save when he had something very definite, founded upon careful experiment, to say; but he was always ready to encourage other investigators, and in conjunction with Flügge, who now holds the chair of hygiene in Berlin, he founded in 1899 the *Zeitschrift für Hygiene*.

For the photograph reproduced as a special plate we are indebted to the kindness of Dr. Heron, to whom it was presented by Dr. Koch, at Christmas, 1907.

We are indebted to Dr. C. J. Martin, F.R.S., Director of the Lister Institute, for the following interesting account of Koch's work and estimate of its value to bacteriology and hygiene:

The death of Professor Koch has removed from us one of the great discoverers of medicine. His researches have exercised a profound influence not only upon the development of medical science, but also upon the welfare of mankind. Tribute to his memory is due from us for the enrichment of our knowledge, and from the whole human race for the benefits which have directly and indirectly followed from his discoveries.

To gain insight into the value of the work of a great man it is often profitable to study more particularly the earlier portion of his career. Later his activities become so various and so often complicated by the co-operation of others that it is difficult to define so clearly the effect of his genius. This is certainly so in the case of Robert Koch.

When Koch commenced the study of infectious diseases the significance of microbes in putrefaction and wound infection had been established by Pasteur and Lister. At this early stage of bacteriology, however, the methods proper to the science were undeveloped, and although a number of cardinal facts had been brought to light, knowledge on the subject was chaotic.

Diseases of man and animals presented unlimited problems but the means to attack them were lacking. Needless to say, to devise successful means to attack a problem involves a clear insight into the nature of the problem, and fertility of resource in overcoming the technical difficulties arising in every experimental inquiry. With both these qualities Koch was richly endowed. He defined clearly the exact point at which knowledge had already arrived, and not only saw what was the next question to ask of Nature in order to advance one step further, but devised experimental methods which ensured an answer to this question. In this last faculty Koch was pre-eminent, and the methods of this youngest of the sciences are to a large extent the methods of Robert Koch.

Koch commenced the study of bacteria when district surgeon at Wollstein in Hanover, and two of his earliest papers—that on the etiology of anthrax, founded on the life-history of *Bacillus anthracis*, published in 1876, and that on experiments on the etiology of wound infections, published in 1878—have become classics. This work was carried out in addition to the duties of a practitioner of medicine, and without the assistance of any laboratory equipment beyond a good microscope. Pollender and Davaine had seen the anthrax bacillus twenty years earlier in the blood of infected animals, and in 1863 the latter had shown that the blood containing the bacilli was capable of infecting animals if inoculated into them. That these bacilli were in reality the cause of the disease was, however, controverted. Koch reasoned that if the anthrax bacilli were the living virus, and as the disease remained attached to certain pastures, they ought to grow outside the body as well as inside. He succeeded in cultivating them in broth throughout many generations, and watched their growth upon a hot stage. He discovered that they formed spores when grown outside the body or when blood containing them was allowed to dry; determined the greatly increased resistance of the spores to physical and chemical agents; and showed that as long, and only as long, as the broth or dried material contained bacilli or spores capable of propagating themselves, these remained infective for animals.

The importance of the anthrax work can hardly be overestimated. It afforded for first time convincing proof of the causal relation of a particular bacillus to a particular disease. Owing to the unmistakable character of the bacillus, and its presence in large numbers in the blood of infected animals, its study could be profitably undertaken with the means available.

Koch was unremitting in his efforts to improve his microscopical technique, and in the same year published a paper on the investigation, preservation, and photographing of bacteria, in which an account of the preparation and staining of dry films is given. The method described is very much that still in daily use. The paper is accompanied by photomicrographs of bacteria, the excellence of which is rarely equalled at the present day. Koch pointed out that he had persevered in this work because he was obsessed with the idea that the results of investigations on the parasites of infective diseases had their foundation in the incompleteness of the methods used.

Koch's interest in traumatic infectious diseases seems to have been stimulated by the disasters due to these causes amongst the wounded in the Franco-Prussian war. The results of Lister's antiseptic methods had demonstrated

that means directed against the infection of wounds with microbes obviated these diseases. Micrococci and bacteria had frequently been found in pus, diphtheritic ulceration, in the tissues at the edge of advancing erysipelas, and in pyaemic deposits. Micro-organisms had also been discovered in the blood in relapsing fever and puerperal fever. Further, Coze and Feltz and Davaine had inoculated rabbits with the blood of patients dead of puerperal fever, and had succeeded in carrying on the infection through successive generations of these animals. Nevertheless, the evidence that a particular organism was the cause of a particular disease was far from conclusive. Many observers concluded that bacteria were universally present in the normal body. Others failed to find any organisms in obviously septic conditions. There was no practicable means of separating one coccus from another coccus, and bacteria of apparently identical appearance were found to be associated with a variety of diseases. The parasitic nature of traumatic diseases was probable, but unproven.

Koch began his work on traumatic infective diseases with the conviction that the most fruitful line of investigation would be a comparative one, namely, to induce septic infections in animals and see whether they would "breed true" upon successive reinoculations, controlling the experimental observations by careful microscopic examination throughout. He used for the purpose of infecting his animals putrid serum or bouillon. This, he found, contained a large variety of organisms of different sizes and shapes, which he was unable to separate from one another. He hoped that, implanted into the body of an animal, a selection might occur, and only those pathogenic for the particular species survive. His anticipations were justified, and the injection of small quantities of such materials was followed in a number of instances by the development of a fatal illness with the presence in the blood of one only of the many forms present in the original material. He was able to carry on the disease from one animal to another always with the same symptoms and the presence of the same organism. Moreover, if the same material containing a variety of organisms were injected into animals of different species one microbe flourished in the one species and another in the second, showing that a particular microbe could establish itself in one animal and not in a neighbouring species.

The animal body is, as Koch said, an excellent apparatus for pure cultivation, and he succeeded to some extent in doing what had been the stumbling-block to all progress—namely, to isolate one organism from another.

The publication of these three papers raised the hitherto obscure physician of Wollstein to the first rank of scientific investigators, but they were merely the beginning of his scientific career. Their importance and the genius of their author were recognized by Struck, the enlightened Director of the German Health Office, who invited Koch to accept a position in that department. The chemical and hygiene laboratories attached to the department had been extensively equipped, but bacteriology was naturally unprovided for. A room was, however, found for him, and in these humble surroundings he settled down to pursue his inquiries. He was soon joined by Loeffler and Gaffky, who became his first assistants. The three worked together enthusiastically in the one room, fitting up the laboratory, inventing apparatus, and improving methods. The great problem confronting them was to find a practicable means of obtaining a pure culture outside the body. Koch before long accomplished this by the simple expedient of cultivating upon nutrient gelatine and subsequently inoculating media from single colonies. The discovery of this technique made advance possible. Another line of investigation undertaken at this time, on account of its importance in the technique of bacteriology, was concerned with disinfection and sterilization. The experiments of Koch and his pupils, made upon pure cultures of pathogenic bacteria, is the foundation upon which all later work has been built. It also led to the substitution of the more convenient steam sterilization for dry heat.

One cannot emphasize too strongly to what a large extent Koch provided the tools of inquiry at each stage in the development of bacteriology, but he did not rest there. From 1880 onwards followed a period of extraordinary activity. In a dozen years the etiological factor of eleven important human diseases—tubercle, cholera, typhoid, diphtheria, erysipelas, tetanus, glanders, pneumonia, epidemic meningitis, influenza, and plague, as well as numerous animal diseases—was discovered by Koch and his pupils.

After the completion of his work on anthrax, Koch's individual efforts were directed more particularly to the discovery of the infective agent in tuberculosis, whilst diphtheria and typhoid were being investigated by his assistants, Loeffler and Gaffky. The work of Klencke and Villemin and the further experiments of Cohnheim and Salomonsen had established that the disease tuberculosis was due to an infective agent which was capable of propagating itself in the animal body. Miliary tubercles were examined microscopically for some signs of a microbe, but for long without success. At last, by a modification in the method of staining, a fine bacillus was discovered, and its presence in the majority of preparations established. Efforts to grow the organism in pure culture at first failed, but subsequently, by infinite patience, he succeeded in growing it upon coagulated serum. Once isolated and grown upon a succession of media the establishment of the bacillus as the etiological factor presented no difficulty, and at the Physiological Society in Berlin on March 24th, 1882, Koch presented the proofs that he had discovered the cause of one of the most widespread and dreaded of human diseases.

From the discovery of the cause of a disease its prevention or cure does not necessarily follow, but in the campaign against an enemy it is of first importance to be acquainted with his nature and peculiarities. Koch interested himself at once in studying the life-history and methods of warfare of the tubercle bacillus. These studies were, however, interrupted. Cholera was in Egypt and threatened Europe, and the German Government organized a commission with Koch as leader to proceed to Egypt to study the disease and draw up recommendations for dealing with it should it reach Germany. Shortly after reaching Egypt the outbreak there ceased. In the meantime, however, Koch had obtained important information leading him to suspect a particular comma-shaped bacillus as the specific cause of the disease. The material for the furtherance of his inquiry having failed in Egypt, Koch proceeded to India, where cholera is endemic, and completed his investigations. He satisfied himself that the comma bacillus was the constant companion of the cholera disease, that its abundance was commensurate with the severity of the attack, and that it penetrated beneath the epithelium in the affected part. He never succeeded in obtaining it from the healthy or diseased intestine other than in the case of cholera. It was comparatively easy to obtain it in pure culture, and its characteristics were studied, but the completion of the evidence to convict this organism was lacking, as a true cholera process cannot be artificially produced in any of the laboratory animals. Incidentally, whilst in Egypt he discovered amoebae in dysentery and the bacillus responsible for the widespread ophthalmia in that country.

As previously mentioned, at the time Koch was ordered to Egypt to investigate cholera, he was engaged in the attempt to discover some means to modify the infection by the tubercle bacillus in the animal body. Proceeding on the assumption that the tubercle bacillus exercises its pathogenic effects by means of a soluble poison, Koch investigated the action of dead bacilli and their products upon normal animals and animals already infected with the disease. From his experiments he was led to the conclusion that not only could a guinea-pig be immunized against tubercle by repeated injections of the products of the tubercle bacillus, but that the disease could be brought to a standstill by this means. Later (1890) he published his well-known results upon tuberculin, by means of which tuberculosis could be not only diagnosed, but in the early stages might, he hoped, be cured. The possible remedy was enthusiastically welcomed by the whole world. Medical men thronged to Berlin from all parts to see the results of its application. The treatment was applied to all sorts of cases in what we now know were colossal doses. The results were disappointing, and in many cases disastrous. The premature publication of his results with tuberculin was a misfortune, and the failure of the treatment obscured for the time being the great value of Koch's work, and even exposed

him to opprobrium. Koch had, however, made a great discovery, but underestimated the potency of the agent he had brought to light. Tuberculin is an invaluable diagnostic for early tuberculosis in man and animals, and is universally employed. Since 1890 it has been consistently employed by a number of physiclans all over the world for the treatment of tubercle with what appear to be beneficial results, and of recent years its employment has again been resuscitated by Wright, and is now administered in much smaller doses, and with careful observance of the effect of each injection by measuring the opsonic index. Moreover, the significance of the discovery of tuberculin as the first essay in vaccine therapy must not be lost sight of.

During the next eight years, 1891–1899, Koch was occupied with investigations into a large number of diseases of men and animals. The list includes leprosy, rinderpest, plague, surra, Texas fever, and malaria, and necessitated his spending much of his time abroad. It would be difficult to adjudge just how much of the knowledge gained upon these diseases to attribute to Koch, as the problems were also under investigation by numbers of other observers, and, moreover, he was usually accompanied by one or more distinguished workers, as in the case of the German Plague Commission which visited India. It is very clear, however, from the published reports and papers that his insight into the nature of infectious diseases and his unrivalled experience were never directed to any of these inquiries without materially enhancing our knowledge of the causation and the means by which each disease was spread.

Koch's work upon malaria needs special mention. Whilst in tropical countries his attention was naturally drawn to this disease, Laveran's discovery of the malarial parasite had been made, but the mechanism of the spread of the disease was unknown. Theobald Smith's proof that Texas fever was transmitted by ticks, and Bruce's demonstration that the tsetse-fly disease was due to a protozoan parasite and conveyed by the fly suggested to Koch, as to others, that malaria might be transmitted by a biting insect. He was, indeed, engaged upon experiments with mosquitos and had nearly satisfied himself that malaria was transmitted by a mosquito when Ross published his results. Koch was, however, largely instrumental in showing that the three types of malaria were associated with three distinct parasites, and that none of these were infective for the lower animals—a result of great importance from the point of view of malaria prophylaxis. He also cleared up the difficulty as to the reservoir of the disease in a population the adults of which could not be found to harbour the parasite, by showing that the young children, even to the extent of 90 to 100 per cent., were infected.

In 1901 Koch reported to the British Congress on Tuberculosis the results of experiments which he had carried on during the preceding two years in conjunction with Schutz upon the pathogenicity of the human tubercle bacillus for domestic animals. Briefly stated, Koch's main conclusion from their experiments was that human tuberculosis differs from bovine, and cannot be transmitted to cattle. The far more important question, "Is man susceptible to bovine tuberculosis?" was then considered. No direct experimental proof of this converse proposition is possible, but from the fact that men—and particularly children—consume large quantities of bovine tubercle bacilli in milk and yet tuberculosis of the intestine is rare, Koch concluded that man is little if at all susceptible to the bovine variety of the bacillus. He pointed out that the question whether man is susceptible to bovine tuberculosis at all was not decided, but expressed the belief that infection of human beings is of so rare occurrence that it is not advisable to take any measures against it. It was the last conclusion that caused so much consternation, as most countries were embarked in considerable expenditure with a view to minimizing the chances of infection by milk and meat. Koch may have been unwise in stating his views, but he did so with the conviction that bovine tubercle is not an important source of infection, and with the earnest desire that we should not squander our energies in subordinate directions, but should concentrate them in efforts to diminish man-to-man infection through the respiratory tract.

The importance attached to a considered opinion of so distinguished an authority led to the appointment of numerous commissions of inquiry in Europe and America. Of these the work of the English Royal Commission has been the most extensive. These investigations have shown that the sharp distinction between the two varieties, though usually manifest, is not so absolute as Koch supposed, and that bacilli of the bovine type are not so uncommonly found in human infections as he was led to believe. The frank expression of opinion by Koch on this subject has been the stimulus for an enormous amount of valuable work in connexion with tuberculosis throughout the civilized world, and it is not improbable that he has thereby conferred as great a benefit upon mankind as by the discovery of the tubercle bacillus.

The relative importance of infection from one another through sputum and from bovines through dairy produce is still an open question, and will not be settled for many years to come.

Before closing this sketch of his life-work it remains to add a few words upon Koch as a teacher. In 1885 he removed from the Health Department and became a professor in the faculty of medicine and director of the new Hygiene Institute attached to the University of Berlin. Here, with the help of his assistants, numbers of those who later became the leading bacteriologists in all countries, were trained in his methods and endowed with some portion of his enthusiasm and earnestness. The admiration and affection with which he was regarded by his pupils and the absolute faith which he inspired amounted in many cases to actual worship, and afford further evidence of the essential greatness of the man.

There have no doubt been many discoverers as great as Koch, but it must be seldom that one has been so individually associated with the whole development of a science which has grown up around him, so that the title "Father of Bacteriology," conferred upon him by his admiring compatriots, is entirely appropriate, provided we reserve that of "Grandfather" for Louis Pasteur.

Sir Watson Cheyne sends us the following appreciation:

My acquaintance with Professor Koch dates back to 1879, when I was asked by the New Sydenham Society to translate his monograph on infective diseases of wounds which had recently appeared. I first, however, made his personal acquaintance at the International Congress in 1881, when he brought forward his great work on the method of cultivating micro-organisms. Since that time I have had the great pleasure of his friendship, and the opportunity of working for several weeks on two occasions in his laboratory in Berlin. Dr. Koch appeared somewhat retiring to strangers, but when one got to know him intimately one found that he was a most genial companion, and he was ever ready to help in one's work in every way possible. Like every one who has been intimately associated with Professor Koch, I conceived the greatest admiration and affection for him. He was an extremely conscientious man and was most particular that nothing should be published by him or from his laboratory that so far as he could judge had not been thoroughly verified and would stand the test of time. He was also a man of singular insight and dogged perseverance, and forms a worthy member of the great trio—Lister, Pasteur, and Koch—who have done so much to throw light on infective diseases and not only to throw light on their nature but to oppose their ravages. There can be no question that the great advances which have been made in bacteriological science are to a very large extent the result of Koch's work.

Koch's first bacteriological investigations were in connexion with the anthrax bacillus, and he was really the first to give a complete demonstration that these bacilli were the cause of anthrax. This was shortly afterwards followed by papers in Cohn's *Beiträge* on methods of staining bacteria and on microphotography of bacteria. Then followed the monograph on infective diseases of wounds to which I have already referred. All this work, it may be remarked, was done while he was in general practice or medical officer of health in Wollstein. In his work on infective diseases of wounds he demonstrated for the first time that there were a number of different kinds of pathogenic bacteria which produced infective diseases in the lower animals, and he showed that each had specific characters, and always produced the same set of symptoms and pathological effects. He also called special attention

to the proper illumination of stained specimens under the microscope with special reference to Abbe's condensor and Zeiss's lenses. Shortly after the publication of this monograph Dr. Koch's work was recognized in Germany by his appointment as director of a special laboratory for the study of infective diseases in Berlin, and in this institution he worked for many years, and not only produced a large amount of work himself, but trained up a great many men who have done much to bring the science of bacteriology to its present condition. Perhaps his most fundamental piece of work was the introduction of solid media as a means of cultivating micro-organisms. The immense advance which thus resulted can only be appreciated by those who had been struggling to obtain and carry on pure cultivations of bacteria in various fluids, but, apart from the fact that by the introduction of solid media he was able to obtain and carry on pure cultivations, it turned out that by the peculiar methods of growth of different bacteria on various solid media characteristics were found which helped very much in the identification of the various species. Following in rapid succession were his important work on Disinfection, the discovery of the Tubercle Bacillus in 1882, and the demonstration that it was the cause of tubercle, and the discovery of the Cholera Bacillus in 1884. Translations of all these epoch-making papers will be found in a collection of selected essays on micro-parasites and disease, which was published by the New Sydenham Society in 1886.

From the time when Koch discovered the tubercle bacillus, his great aim was to find some remedy for that disease, and after years of laborious work he produced the substance tuberculin, which created so much excitement in 1890. There can be no doubt that the publication of his investigations was hurried more than he himself desired, with the result that the material was extensively used before its properties and its disadvantages had been properly investigated. The failure of tuberculin as originally produced to attain the desired object did not, however, discourage Professor Koch; he continued to labour at the subject, and subsequently produced a tuberculin which seemed to be free from the disadvantages of the original material. It is this tuberculin which is now being extensively employed in the vaccine methods of which Sir Almroth Wright is the chief exponent.

I need not follow up Koch's work in recent years. He has up to his recent illness devoted himself night and day to advancing the subject of bacteriology, and has spent years in tropical climates investigating such diseases as plague, rinderpest, malaria, sleeping sickness, etc., and on all of these he has thrown a great deal of light.

J. J. Y. DALGARNO, M.B., C.M.,

SENIOR ANAESTHETIST, ABERDEEN ROYAL INFIRMARY.

IT is with great regret that we announce the death of Dr. Dalgarno, which occurred at Tain, Ross-shire, on Saturday, May 21st, with startling suddenness. Dr. Dalgarno had gone north by motor on Friday afternoon, with Mr. H. M. W. Gray, to perform an operation, and at 7.30 a.m. on Saturday morning he was found dead in bed, death being attributed to heart failure. The news came as a great shock to his many friends, and his death is widely regretted in the medical and lay communities of the north-east of Scotland, by whom his eminent services as an anaesthetist were much appreciated.

Dr. Dalgarno was a son of the late Rev. James Dalgarno, who was for many years the respected minister of the Free Church of Peterculter. He graduated in Arts in 1883, and subsequently studied medicine at Aberdeen University, where he had a distinguished career. After graduating M.B. and C.M., he became a resident physician in Aberdeen Royal Infirmary, and thereafter succeeded to the practice of the late Dr. Wight in Aberdeen. He enjoyed a high professional reputation, and proved a most successful practitioner. For ten years he acted as one of the physicians at the Aberdeen Dispensary, and his clinical teaching was much appreciated by successive generations of students. At the time of his death he was senior medical officer to the Aberdeen Parish Council, and had charge of its hospital at Oldmill; he also held the post of Senior Anaesthetist to the Royal Infirmary and University Lecturer in Anaesthetics. He was a keen Volunteer, and devoted much of his spare time to that movement, being attached as medical officer to the Royal Engineers.

Dr. Dalgarno was only 48 years of age and is survived by his widow and three daughters. He was a man of wide culture, of marked geniality of disposition and possessed of social qualities of a high order which made him highly respected both in professional and in private life, and his death will be greatly regretted by his patients and and by all to whom he was known. While his reputation as a practising physician stood undoubtedly high it was as an anaesthetist that Dr. Dalgarno made his mark in Aberdeen and the north-east of Scotland, and his sudden and unexpected death leaves a vacancy it will not be easy to fill. As a conductor of chloroform anaesthesia particularly his skill was widely acknowledged, and would have been difficult to surpass. Indeed, his death and the sudden blank it has made in the anaesthetic circle has brought into prominence the apparent lack of appreciation in the north of the importance and responsibility of the anaesthetist's office. The small proportion of disasters that have occurred even though chloroform has been the anaesthetic of tradition and of choice since its introduction until a year or two ago, when ether has been displacing it more and more both in hospital and private practice, may have had a good deal to do with this apparent lack of recognition of the gravity of the work.

Medico-Legal.

INQUEST ON A PATIENT TREATED AT THE SANDOW INSTITUTE.

AN inquest was held by Mr. Hugh Donnithorne, Deputy Coroner for South Hants, at Drayton, near Portsmouth, on May 26th, with regard to the death of Henry Harridge Phillips, aged 39, a grocer and provision merchant, of Southsea.

The Coroner, in opening the proceedings, said that the deceased at Whitsuntide had visited his father-in-law at Drayton; he was not well when he arrived, and on May 23rd he went to bed, as usual, at 10.30 p.m., but complained of sickness. Dr. Wood saw him between 11 p.m. and midnight, when he was better, but early on the morning of May 24th he complained of pain in his stomach, and died at 2.45 a.m. During the previous five weeks he had been undergoing the Sandow physical culture treatment.

Retired Lieutenant James T. McDonnell, R.N., said that the deceased, who was his son-in-law, had been ailing for some time, suffering, according to the report of the doctor, from dilated stomach; he had been under medical treatment for nearly seven years; he had been undergoing the Sandow treatment five or six weeks, and thought it was benefiting him. He went once a week to the Sandow Institute and had instructions to carry out—bathing regularly, and exercises.

Mr. Lewis of South Square, Gray's Inn, who watched the case on behalf of Sandow Ltd., interposing, said that he was prepared to call the two doctors who saw the deceased at the Sandow Institue. Mr. Hansard, one of the directors, was also present.

Witness continuing said that the deceased was subject to attacks of sickness or biliousness similar to that which terminated fatally. In reply to the foreman of the jury he said that the treatment just before his death was by dumb-bell exercise after his bath, such as a child might take. He had been as well all day as usual, and had taken supper. In reply to Mr. Lewis witness said that the exercises the deceased took were very light, simple exercise which a little child of seven could do. In reply to the foreman he said he had every belief that the exercises had nothing to do with the death.

Mrs. McDonnell, wife of the last witness, said she was called at 1 a.m. on May 24th, by her daughter, the deceased's wife; he had had an attack of sickness at 11 p.m. the night before, and when she went to his room his condition was the result of the sickness and pain in the stomach. The pain was less severe than it had been at 11 p.m. He had taken no medicine, but had a a little Benger's food and milk about 8.30 p.m.

Dr. Maurice Dale Wood, practising at North End, Portsmouth, said he was called on the evening of May 23rd by a telephone message which stated that the deceased was in a serious condition, gasping for breath. He was informed that the patient was not being attended by a medical man at the time and had not been so attended for some weeks previously. When Dr. Wood saw him he was sitting up in bed, the urgent attack having evidently passed off; he expressed himself as feeling comfortable. Dr. Wood examined his chest and abdomen, and as he had apparently recovered from the attack for the time being, gave instructions what to do in case there was a return. He did not consider that there was any immediate danger of death, and hoped that the patient would be refreshed by a good night's rest. Next day he heard that the patient died during the night. When the patient was taken faint a second time messengers were sent to Dr. Emmett with whom Dr. Wood is associated in practice, but before Dr. Emmett could arrive the deceased had expired. The further evidence of Dr. Wood was as follows: I made a *post-mortem* examination of the deceased yesterday, and found that there was a perforation of the stomach situated

in the region of the lesser curvature, and through the perforation the contents of the stomach had escaped into the peritoneal cavity, causing peritonitis. I also discovered at the pylorus, the outlet of the stomach, there was a tumour, completely surrounding the opening. It was in the form of a ring, and instead of the opening being large enough to admit the passage of any solid food, it was the size of a cedar pencil. All the other organs were practically healthy. There were signs of general peritonitis.

The Coroner: What was the actual cause of death?—Death was due to shock following on the perforation.

How was the perforation caused?—It was brought about by the weakening of the walls of the stomach, due possibly to ulceration. It is a distinct and definite cause of death. As the stomach would admit of food entering it, and would admit of nothing passing through in the way of solid food taken, it would naturally cause irritation, and tend to the ulceration.

The Foreman: If he had been medically treated could the disease have been discovered by a medical man while deceased was still alive?

Witness: It was quite possible. I only saw him once, and I expressed the opinion that there was something in the way of a new growth in the stomach.

The Foreman: Do you consider the exercise treatment he was undergoing was weakening the walls of the stomach?

Witness: I don't think it was favourable, at any rate, and I don't think he was benefited by taking solid food.

Would the exercise treatment weaken the stomach and hasten the cause of death?—Anything in the way of exercise would weaken it, and tend to cause the rupture or perforation. The recognized treatment in such a case of this sort is complete rest and restriction to fluid diet.

The Foreman: Would the ring tumour in the pylorus have been the growth of sometime previous?—I am not prepared to say how long; it is impossible to say, but it had been there for some time.

The Foreman: Do you think if he had had a medical man some time previously he would have recovered?—It is possible, if an operation had been performed, that it would have prolonged his life.

A Juryman: Would the retching and sickness cause the perforation?

Witness: Very possibly.

Maurice Edmund Arnold Wallis, M.R.C.S., L.R.C.P.Lond., Ashford, Middlesex, produced the chart and described the formula at Sandow's establishment. He said: When an applicant calls on Mr. Sandow with a view to getting some benefit, the object of his call is first ascertained, and full particulars taken under specified headings as to his general health and his habits of life. These particulars are taken by one of Mr. Sandow's managers. After that a doctor is called in to examine the applicant as to the condition of his organs, and to see if exercise treatment is permissible. If the exercise treatment is considered inadvisable from a medical point of view, Mr. Sandow forthwith declines to have anything to do with it. If there is no medical prohibition and the case otherwise, according to experience, is considered to be amenable and likely to gain benefit from a course of physical stimulation which Mr. Sandow endeavours to bring about, the case is accepted, and further particulars are taken. These further particulars include careful measurements of every part of the body and the weight, height, and lung capacity. The usual diet is also taken, copied from the patient's own verbal report, and if any physical peculiarity or structural defect is noticed the chart is drawn to indicate this. In this case there was a slight curvature of the spine. Then this report is placed before Mr. Sandow, and he arranges a certain set of exercises, specializing particularly on any weak part which may need stimulation. Every care is taken to avoid overstrain, and this is shown by the fact that very old men and quite small children take the exercises. There are no heavy weights to lift, and in the case of weakly or aged people the exercises are usually what are termed free movements without apparatus. This is the process usually adopted according to my experience of Mr. Sandow's treatment, and I have never to my knowledge heard that any person has suffered injury from the exercise.

Witness then handed in a medical report, showing that the deceased was organically sound, but that he was thin and run down, and out of condition. His measurements and the dilation of his stomach were also shown.

The Foreman: In the medical examination of the deceased did you find any trace of the cause of the condition of his stomach?—I did not see the deceased at the Institute. I was present at the *post-mortem* examination.

Mr. Lewis: In your opinion how long had the trouble which you discovered been present?—It is impossible to say, but it was there probably twelve months ago. The deceased undertook the course on April 6th last.

Charles Edward Trimble, Woodside, Pope's Grove, Twickenham, registered medical practitioner, said he was engaged at Sandow's Institute, and lived at Woodside, Twickenham. He tated: I examined the deceased when he first came to the nstitute on April 6th, 1910. He was in a weak condition and wasted. I sounded his lungs and heart, and found them sound organically. I examined his abdomen and found some dilatation of the stomach. I made the report which has been put in. I found no trace of the growth, and I consider the treatment which was prescribed was right. I considered him suitable for treatment. I noticed in the examination that deceased had a slight curvature of the spine.

The Foreman: What did he say he was suffering from?—He said he was suffering from dyspepsia, and had been for seven years past. The curvature of the spine had nothing to do with the death at all, and it was probably due to his weak condition.

By the Foreman: I did not discover the condition of the deceased's stomach. It was not an easy thing to discover, and he was rather young for it.

A Juryman: I should like to ask how often your pupils are examined by a medical man?—Witness: Once a month, as a rule, but the deceased was examined weekly.

Mr. Lewis: Was it possible that you could have ascertained what in fact the gentleman was suffering from by a medical examination such as any medical might have made?

Witness: It was possible, but very unlikely. In fact, I did not discover it. He had been for years under medical men, and he was also too young for it in the ordinary way.

The Foreman: We do not want further evidence. The deceased had been under treatment for seven years, and applied to Sandow's for treatment, and, in fact, had the treatment. The deceased was taken ill, and Dr. Wood, who was called in, found after *post-mortem* examination that death was due to natural causes.

The Coroner said it was not necessary for him to sum up at any length. The deceased had been under a doctor for some time, and then went in for the Sandow treatment. He was examined in the ordinary way, and it seemed they were very careful as to how they treated people. The treatment and instructions were very elaborate, and the last witness had told the jury he did not discover what was the matter with the deceased. He had answered Mr. Lewis that it was possible, but very unlikely, to discover what the deceased was suffering from. He returned home in bad health, was taken ill, and died. The doctor who was sent for, not knowing anything of the deceased, could not give a certificate as to the cause of death and had to make a *post-mortem* examination, from which he had ascertained the cause of death. If the jury thought the Sandow treatment was in any way to blame they would tell him. He proceeded to read the law on manslaughter by culpable neglect of duty or ignorance.

The Foreman (to the jury): Do you think Mr. Sandow's treatment accelerated death?

The Jury: No.

A Juryman: The deceased was in a weak state, and was not fit for exercise treatment.

The Foreman: I think the evidence of Mr. Sandow's witnesses shows they were very careful and the exercises very slight.

The jury returned the verdict of "Death from shock following on perforation of the stomach, from natural causes."

FEES FOR INQUEST AND NECROPSY.

491–7 writes that he was called to attend a servant who had suddenly been confined, but being out a colleague went in his place, who attended the patient at the time, but our correspondent subsequently went on with the case to recovery. As the patient had wittingly, or unwittingly, contributed to the death of the child, an inquest was necessitated and a *post-mortem* examination ordered. The order was issued to our correspondent, but required his colleague to assist him. When the inquest took place only his colleague was called in the first instance; he received two guineas. At the adjourned inquest our correspondent was called and was paid one guinea. On making representations to the coroner he was told that only one guinea could be allowed for a *post-mortem* examination, and that he must settle that matter with his colleague. He wishes to know if this is correct.

*** If our correspondent received an order from the coroner to make a *post-mortem* examination he is entitled to two guineas (Coroners Act, 1887, Sec. 22 (*b*), and could recover this fee from the coroner. There is nothing to prevent a coroner from directing two registered practitioners to make a *post-mortem* examination jointly, and in that case each would be entitled to the same fee, namely, two guineas, but in the details submitted it is not stated whether an order was issued to our correspondent's colleague, so that it would appear that the former only is at law entitled to the statutory fee, but if the coroner desired both to assist in making this examination, he ought in all fairness to have issued the usual order to both.

Medico-Ethical.

The advice given in this column for the assistance of members is based on medico-ethical principles generally recognized by the profession, but must not be taken as representing direct findings of the Central Ethical Committee, except when so stated.

OFFICIAL CHARGE.

ENQUIRER.—We do not think that a military medical officer who happens not to be in "official charge" of the wife or family of another officer is precluded from attending her or them if asked to do so, and it would be straining etiquette to insist that a lady in that position must consult only the medical officer under whose official charge she happens to be. But if the latter has been actually in attendance, his position would be exactly the same as that of a private medical practitioner, and he should receive the same recognition.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

Praelectorship in Biochemistry.

F. G. HOPKINS, M.B., D.Sc.Lond., F.R.S., tutor and Fellow of Emmanuel College, has been appointed by Trinity College to a Praelectorship in Biochemistry. The appointment has been made "in the confident hope that the university will not relax its efforts to secure at the earliest opportunity the foundation of a professorship" in biochemistry, which the Senate has represented as an urgent need.

Degrees.

The following degrees have been conferred:

M.D.—A. W. D. Coventon, Trin.; A. N. Walker, Queens'.
M.B.—G. B. Fleming, King's; C. B. Heald, Caius.

UNIVERSITY OF LONDON.

MEETING OF THE SENATE.

A MEETING of the Senate was held on May 11th.

The Death of the King.

On the motion of the Vice-Chancellor, it was resolved—all the members standing—that a respectful address of condolence and congratulation be presented to King George V, and that the Vice-Chancellor should transmit to Her Majesty the Queen Mother an expression of the profound sorrow of the Senate on the death of His Majesty King Edward, and their respectful sympathy with Her Majesty in her grief.

Report of the Francis Galton Laboratory Committee.

The report on the work of the Francis Galton Eugenics Laboratory for 1909–10 was received from Professor Karl Pearson. Reference was made in the report to Miss Elderton's investigations into the influence on children of alcoholism in parents and of parental occupation, and to the researches in other branches of the subject conducted by Miss Barrington and Miss Ryley. Professor Pearson appealed for a more emphatic recognition by the university of the need for full provision for teaching and research in his department. Mr. Heron, Miss Elderton, and Miss Barrington were re-appointed for another year Galton Research Fellow, Scholar, and Computer respectively.

Dates for Submission of Theses.

It was resolved that the note in Section 4 of the Regulations under Statutes 113 and 129 (Red Book, September, 1909, p. 18) be amended to read as follows:

NOTE.—The expression "two years" in this regulation will be interpreted in the case of students registered in October as the period from that month to the June in the second year following; in other cases it will be interpreted as two calendar years.

Appointments.

The following appointments were announced: Mr. A. Pearce Gould to be a member of the University College Committee for the remainder of the year beginning March 1st, 1910; Dr. E. G. Graham Little to be governor of the University College of North Wales, Bangor; Sir William H. Allchin to be governor of the Cranbrook Grammar School; Professor H. R. Kenwood to represent the university in respect of the University College at the congress of the Royal Institute of Public Health at Birkenhead in July, 1910.

Carpenter Medal.

In 1881 the university received from the Carpenter Testimonial Committee a sum of money in order that an annual prize should be instituted and associated with the name of Dr. William Benjamin Carpenter, registrar of the university from 1856 to 1879. The Senate has resolved to establish a Carpenter medal under the following regulations:

1. A Carpenter medal of the value of £20 (or its pecuniary equivalent, at the option of the successful student) will be awarded every three years by the Senate for a thesis of exceptional distinction in experimental psychology, including the physiology of the central nervous system and special senses, presented for a doctor's degree during the previous three years.
2. The Carpenter medal will be open both to internal and external students.
3. No award will be made unless in the opinion of the Senate a thesis of sufficient merit is presented.
4. The Carpenter medal will be awarded for the first time for a thesis for which a doctor's degree has been granted during the three years ending May 31st, 1913.

Alteration in Price of Calendar.

The price of the *Calendar*, which will now contain a complete alphabetical list of the living graduates of the university, with dates of degrees and indications as to whether each graduate took honours and is a member of Convocation, has been increased from 5s. to 6s.

THE following candidates have been approved at the examinations indicated:

THIRD M.B., B.S.—W. R. W. Asplen, C. Banks, H. L. Barker, J. N. Beadles, *J. D. Benjafield (*a*), University College Hospital; L. C. Blackstone, E. S. Calthrop, A. Camacho, B. A. Cheadle, G. H. Chisnall, Ethel M. Connan, A. K. Contractor, Emily S. Cooke, Nina G. Cotton, G. M. Davies, D. F. Dobson, J. P. Elias, E. L. Elliott, S. F. Fouracre, H. Gardiner, *E. G. Gauntlett (*a*, *c*, *d*, *University Medal*), King's College Hospital; D. Green, H. Hingston, E. L. Horsburgh, S. Hoyte, A. E. Iles, Anne L. J. Kann, D. Kennedy, N. C. Lake, B.Sc., T. S. Lukis, G. Maxted, Marjorie E. Middleton, Ethel M. Morgan, H. O'Meara, Dossibai R. C Patell, W. N. Pickles, W. L. Pink, A. B. Porteous, S. I. Rabbinowitz, N. L. M. Reader, E. E. A. T. Rigg, Mary C. Scott, E. G. Stanley, T. Stansfield, *T. D. M. Stout (*a*), Guy's Hospital; H. H. Tanner, H. L. Tasker, N. Tattersall, C. C. Tudge, W. R. M. Turtle, R. W. W. Vaughan, P. J. Veale, *F. M. R. Walshe, B.Sc. (*c*), University College Hospital; A. L. Weakley, W. Weir, R. H. Wilshaw, R. N. Woodsend.

B.S.—†H. Hartley, M.D., †Olive McDougall, M.D.

M.B., B.S. (*Group I only*)—Kathleen Bayliss, F. L. Brewer, H. A. Grierson, W. S. Kidd, M. A. Nicholson, J. V. Rees, C. Witts.

M.B., B.S. (*Group II only*).—T. K. Boney, E. G. H. Cowen, A. N. Cox, R. B. Edwards, T. C. C. Evans, T. W. George, Katherine A. Gill, E. H. Jones, E. R. Jones, A. E. Lees, K. D. Marriner, R. Montgomery, A. Renshaw, A. L. Robinson, H. G. Smith, H. Thwaite, S. van Someren Boyd, Elsie Warren.

* Honours. (*a*) Distinguished in Medicine. (*c*) Distinguished in Forensic Medicine. (*d*) Distinguished in Surgery.
† For Students who Graduated in Medicine in or before May, 1904.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN extraordinary Comitia was held at the College on Thursday, May 26th, the President, Sir Thomas Barlow, in the Chair.

Death of King Edward VII.

Before the business of the day was commenced, the President addressed the Fellows, all standing, on the irreparable loss which the College, the nation, and the civilized world had sustained since their last meeting through the death of their Sovereign, King Edward VII. He dwelt more particularly on the late King's manifold sympathy with poverty and suffering, as evinced by his work on the Commission on the Housing of the Poor, the Cancer Research Fund, the Hospital Fund bearing his name, and numerous measures for the relief and benefit of his poorer subjects. The President concluded by saying that he felt sure that he would be only anticipating the wishes of the Fellows by moving the following resolutions:

That this College humbly approach His Majesty King George, and express its profound sorrow at the loss which His Majesty and the Royal Family have sustained, and at the same time assure Him of the loyalty and devotion of the College to His Throne and Person.

That the College humbly approach Her Majesty Queen Alexandra, and express its profound sorrow at the irreparable loss she has sustained.

Fellowship.

The gentlemen elected at the last meeting, with the exception of Dr. Rudolph, were admitted Fellows of the College.

The Registrar moved that the following temporary by-law be enacted for the first time, namely:

That Robert Dawson Rudolph, M.D.Edin., elected to the Fellowship on April 28th, being resident in Canada, be admitted *in absentia*, any by-law to the contrary notwithstanding.

This was seconded and carried.

Membership.

Kekobad Cowasjii Anklesaria, L.R.C.P., was admitted a Member of the College.

Communication.

The following communication was received: From the Secretary of the College of Surgeons, dated May 17th, 1910, on the proceedings of the Council of that College on May 16th.

Emeritus Librarian.

The Senior Censor moved:

That the title of Emeritus Librarian be conferred on Dr. Payne.

This was carried by acclamation.

Chelsea Physic Garden.

On the motion of the President, Sir Wm. Allchin was elected the representative of the College on the Committee of Management of the Chelsea Physic Garden.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

The Licence in Surgery.

THE Council has adopted new regulations for the granting its licence in surgery to registered practitioners. In future all candidates will have to attend the examinations ordinarily held by the Conjoint Board in Ireland so far as the surgery group of the subjects of the final examination for the Conjoint licence are concerned, and must be approved in all the divisions of this group on the same occasion. No more special examinations will be accorded in any circumstances. Besides fulfilling the usual requirements as to courses of study, candidates must also satisfy the Council that they have not within three months been rejected by any other licensing body in any of the subjects of the examination. The fee for examination has been fixed at 5 guineas, and is not returnable in any circumstances.

Letters, Notes, and Answers.

Communications respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisements, non-delivery of the Journal, etc., should be addressed to the Office, 429, Strand, London, W.C.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted will be found under their respective headings.*

ANSWERS.

Dr. Forbes Winslow (London) writes in answer to "J. L. M.": Hypnotism in the case narrated would do considerable harm. The case is one of hallucination of hearing probably associated with delusion of persecution and suspicion so often seen in connexion with auricular insanity. "Consulting a solicitor" is often a concomitant symptom. I have a case precisely the same under my observation. It is in all probability a typical case of "paranoia" and one in which hypnotism should not be tried.

The Climate of Perak.

S.—As tropical climates go Perak and the Malay Peninsula generally may be looked upon as comparatively healthy. People can live there, for example, for years without coming home on leave, a state of affairs which seems to be impossible on the West Coast of Africa and other unhealthy parts of the tropics. The common diseases are malaria and dysentery, but with care they can largely be avoided now. If the financial terms are satisfactory the post might be worth accepting, but a course at one of the tropical schools should be taken previously to going abroad.

Hair-Washes Containing Lead.

Hair-Wash.—In the circumstances mentioned by "Hair-Wash" it is very possible that the symptoms complained of were due to lead. Lead lotion applied in the manner stated—that is, 'vigorously (? daily) with a sponge over the scalp, beard, and moustache," is not a proper way of applying such a solution. There is formation of lead sulphide, and, in such a case, in excess. There would, therefore, be a risk of getting some of the lead sulphide when dry through the mouth, and to some extent, perhaps, through the skin. The patient evidently used the lotion regardless of expense (daily). After use excess should be removed with warm water and frequent applications avoided. When employed in this way with care the risk of lead poisoning is remote. "Hair-Wash" does not say whether there was any sign of a lead line on gums. As to the particular hair lotion (proprietary article) named by our correspondent, there is little doubt that it contains some metallic salt or other (assuming the particular proprietary article in question was sold to dye the hair). That is the rule with hair dyes on the market, notwithstanding any advertised assertion to the contrary. Many advertised dyes said to contain nothing but vegetable substances are not to be relied upon. *Caveat emptor!* In Germany and Austria hair dyes containing poisonous metallic salts are not (ostensibly?) allowed to be sold on the ground that they contain toxic substances. But that such dyes are sold goes without saying, however zealous and lynx-eyed officials may be. Fraud and quackery are rampant everywhere. One writer has well said that the mainstay of the newspaper is the "pale person."

LETTERS, NOTES, ETC.

The Brighton Throat Hospital.

Mr. C. H. Golding-Bird writes: In my notice of the late Mr. Cresswell Baber in your last issue, I spoke of him as founder of the Throat and Ear Hospital at Brighton. I now learn he was joint founder with the late Dr. Scatliff, a fact of which I was not aware when I wrote. I hasten to make the correction.

"Tight Neck-Clothing."

Dr. W. G. Walford, of Finchley Road, N.W., to whose views on the important part played by tight neck-clothing in the production of disordered health we have before called attention, has been good enough to supply some further details respecting one of his cases. The patient is a widow lady, aged about 50, who tries to eke out her resources by running a lodging-house single handed. She has been very much out of health for some six months, salient features being very marked enlargement of one knee from rheumatic gout and neuralgia at the back of the neck and shoulders. She was receiving no treatment, as her former medical adviser and herself agreed as to its inability so long as her environment and mode of life was so unfavourable. Seen at Easter by Dr. Walford, she was noted to be wearing tight neck-clothing, and was told that if she relaxed it and continued to do so gradually, she would find a decided change in a fortnight and be pretty well in three weeks or a month. The prognosis was verified; in a fortnight she reported herself as improving, and at the end of five weeks as being quite her old self, despite no alteration in her mode of life, surroundings, or other circumstances other than attention to the neck clothing. Dr. Walford also puts forward grounds for believing that persons of so-called gouty habit to whom an incautious meal commonly provokes great discomfort, may dine "well but not wisely," and yet escape scot free provided they have adopted the loose-neck clothing principle. An account of Dr. Walford's views will be found at pages 1100 and 1336, vol. i, 1909, and a review of his booklet on page 699, vol. i, 1910. He retired from practice some years ago, and is anxious that those who have greater opportunities should turn their attention to the same disorder.

Christian Science and the Reduction of Disease.

Mr. Frederick Dixon writes: In an article entitled the "Decrease of Medical Students in America" you go out of your way, after the manner which is becoming almost inevitable in the press to-day, to attack Christian Science, and, if you will forgive my saying so, you lose sight of your logic in the effort. You put down the decline in the number of medical students to some various causes, amongst others to Christian Science, and then conclude with the deduction that the decline may be taken as a proof of the success with which the medical profession is fulfilling its aim. Now, as a mere matter of argument, if the decline is owing to the success of the medical profession, how can it possibly be owing to the competition of Christian Scientists? Furthermore, why, because you differ entirely from the methods of Christian Science, should it be necessary to speak of Christian Scientists as the personification of childish credulity, encouraging people to go to the devil? The best way to meet childish credulity is to ignore it, and when people are sure that their neighbours are childishly credulous they find it easy enough to ignore their claims. The persistent attacks which are made on Christian Scientists all over the world, and which seem to grow in intensity rather than anything else, are possibly the strongest proof that their opponents are perfectly conscious that Christian Science is not childish credulity, but is a great movement to be reckoned with.

*** We may point out to Mr. Dixon that "Christian Science" was only incidentally mentioned among other forms of wonder working. The attribution to the American people of credulity in matters relating to health had no special reference to Christian Science. We do not attach the same importance to this "great movement" that Mr. Dixon does, nor did we refer to it as encouraging people to go to the devil; we do not meddle with theology. Does Mr. Dixon deny that various diseases have been stamped out, and the prevalence of others greatly reduced by the self-sacrificing labours of the medical profession? Does he contend that anything of the kind has been achieved by Christian Science? If so, will he do what we have several times asked for in vain—give a few properly authenticated facts to support his contention? The awakening of slumbering will power in some neurotic people is nothing to the purpose, for the same thing has been, and is done, by the stimulating action of faith whether in some form of religion or in particular persons believed to be endowed with the power of healing. Has Christian Science reduced the mortality from any organic disease, or had any effect at all on public health that can be proved by evidence that will bear examination? We repeat what we want is Facts. If these are brought forward we are quite willing to examine them dispassionately, for our only object is to get at the truth. But so far we have got nothing but assertions—"a tale of little meaning, though the words are strong."

Corrections.

In a review of a work entitled *The Prevention and Treatment of Abortion*, which was published in the British Medical Journal of May 28th, p 1296, the name of the author should be "Taussig," not "Janssig" as printed throughout the article. The name of the publishers was also incorrectly given—it should have been "George Keener and Co.," not "George Keenen and Co."

In the article on "Distribution of Diseases in Persia," which appeared in the Journal of May 21st, p. 1247, Dr. M. M. Basil is referred to as "of Taurni, Constantinople." This is an error, "Taurni" being a misprint for "Taxim."

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page	8	0	0

An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

Note.—It is against the rules of the Post Office to receive *poste Restante* letters addressed either in initials or numbers.

A Clinical Lecture

ON A

ASE OF PERNICIOUS ANAEMIA HAVING CHANGES IN THE SPINAL CORD.

DELIVERED AT GUY'S HOSPITAL.

BY W. HALE WHITE, M.D., F.R.C.P.,

SENIOR PHYSICIAN AND LECTURER ON MEDICINE TO THE HOSPITAL.

GENTLEMEN,—Most of you will remember the woman about whom I want to talk to-day. She was in Mary ward in September. She was 31 years of age, and a nurse. She was said to have always been delicate; the history given was that she had been out of health for two years, during which she had been getting weaker, losing weight, had had much anorexia, totally disliked her food, and had become paler. There were no definite symptoms indicating disease of any particular organ. Her illness might be summed up by saying that she had become thinner, paler, and weaker, and had suffered from considerable dyspnoea. She was sent in with the diagnosis of anorexia nervosa. So the first thing we did at the bedside was to try to make it clear to those who were round with us what was meant by anorexia nervosa. It is a condition which was described by Sir William Gull about fifty years ago. Most of the patients are women; they have a great dislike for food; are always of a nervous, neurotic disposition; take less and less food; waste more and more, although they have no organic disease; and ultimately they are reduced to an extraordinarily light weight. I have known one patient weigh less than 5 st. If such a patient undergoes what is called a complete Weir Mitchell course—that is to say, if she is put to bed, rested completely, isolated absolutely from her friends, has massage applied every day, is systematically fed every two hours, so that at the end of a few days she is taking a great excess of food; I have seen a woman only 5ft. 4 in. high taking over 5,000 calories a day, which gave a heat value for her food per kilogram of body weight of 115 kilo-calories — she generally quickly recovers, loses her distaste for food; even if she was sick before the treatment began, she keeps her food down, and ultimately, though a few such patients are never quite cured, most are cured or immensely improved. You do not see this treatment in the hospital, partly because it is expensive and partly because it is difficult to carry out, as these patients have to be isolated in a room by themselves and must have a special nurse and masseuse. The most essential feature of the cure is the absolute isolation of the patient from her friends, which isolation often extends to not allowing the receipt or sending of letters. The metabolism of these patients is of great interest. One, whom Dr. E. I. Spriggs and I examined,[1] utilized 96.5 per cent. of the fat in her food even when 2,692 kilo-calories of fat were taken daily. The total amount of nitrogen in her food for fifty-five days was 2,142.54 grams; of this, 1,481.5 grams were recovered from the urine and faeces, leaving 661.04 grams stored in the body or got rid of in some other way. Her increase of weight in fifty-five days was 13,256 grams; and if the gain in weight had been entirely proteid, it would have accounted for 442 grams of nitrogen, so that even on this assumption there was a deficit of 219 grams of nitrogen. Allowing for menstruation and sweat, this might at the lowest be reduced to 120 grams. The explanation of this deficit is difficult, but it might be due to the tissues containing simpler nitrogenous substances and to the water in the tissues having been reduced during observation.

The patient about whom we are talking was, as I have told you, sent in as a case of anorexia nervosa. The first thing you have to remember when the suggestion of anorexia nervosa is made is that it is a grave mistake to say that a person is suffering from anorexia nervosa when she is not. Indeed, you should never make a diagnosis of anorexia nervosa at one examination only, because the organic diseases which cause people to waste and become weaker and paler are such serious diseases, that to put a person suffering from one of them into a nursing home and isolate her from her friends is as bad a thing as you could do. Moreover, you tell the friends of the patient who suffers from anorexia nervosa that she will get well, but people suffering from most of the diseases which may be confused with it will not get well. An obvious one is phthisis. A person with phthisis becomes weaker, loses appetite and flesh, and becomes pale. In every case in which you suspect anorexia nervosa, carefully examine the patient to see if she has phthisis. We concluded that the woman who forms the subject of this lecture had not phthisis. The next thing to remember is that cancer will make you lose flesh, it will make you weaker, it will make you paler, and make you lose appetite; therefore, whenever you suspect anorexia nervosa, look everywhere to find whether the patient has malignant disease. This woman had none. Some cases of granular kidney have the group of symptoms which I have just mentioned. We examined this patient's urine, and it was healthy; we took her blood pressure, and it was below normal; there was no evidence that she had granular kidneys. People suffering from a gastric or duodenal ulcer may lose their appetite, get weaker, thinner, and paler. We examined this patient carefully, but we could find no evidence that she had a gastric or duodenal ulcer. We could not make out that she had diabetes, which would have made her weaker and paler and thinner, although of course she probably would have had a large appetite. We could not find anything wrong in her heart, lungs, abdomen, or kidneys. Up to this stage it looked as if the doctor who suggested that she had anorexia nervosa was right.

But we went on with our examination and came to the nervous symptoms, and those of you who were round the bedside with me the other day will remember that, beginning with the feet, we, so to speak, "struck oil" at once, for we discovered she had an extensor reflex in her great toes. That seems to those of you who are beginning medicine a very trivial matter, but it is of fundamental importance. Most textbooks tell you that an adult who has extensor reflex of the great toe must necessarily have organic disease of the nervous system. I think I have once in my life seen a case in which there was no organic disease, and in which that sign occurred, but that is so rare that for all practical purposes the statement in the books is correct, namely, that if there is an extensor reflex of the great toe, the possessor of that reflex, if an adult, has organic disease of the nervous system. You will remember that to obtain it the sole of the foot should be warm, and that you should stroke the sole lightly with some sharp object from behind forwards, and generally steady the foot so as not to mistake a flexion of the ankle for a flexion of the toe. If you do this to a healthy person the toe is generally flexed towards the sole of the foot. If it is extended, there is disease of the central nervous system. In children up to the age of about 3 it is always extended, whether they are healthy or diseased, so that the reaction is of no use in children. Further, the disease of the nervous system indicated by an extensor reflex of the great toe is always some alteration in the upper motor neuron. So that the moment we found that this woman had an extensor reflex in her great toe we were compelled to assume that she had organic disease of the nervous system, although she made no complaint of anything to point to organic disease of that system, nor could we find anything else, on examining her further, to indicate any organic disease of her nervous system. Having settled definitely that she had organic disease of the nervous system, somebody then handed to us the temperature chart, and it was seen that during the two days that she had been in the hospital her temperature was about 101°.

The problem before us was this: here is a woman who is wasted, weak, has anorexia, is pale, has almost certainly chronic degeneration of her upper motor neuron, and has a raised temperature. What can be the matter with her? You will remember that she came in because of her general weakness, and pallor and anaemia. Therefore the suggestion was now made that this woman really had pernicious anaemia, and that the changes in the spinal cord which gave the extensor jerk in the great toes were secondary to pernicious anaemia. And further, it was alleged by those who took this view that it would explain the rise of temperature; consequently the diagnosis suggested was that the patient had pernicious anaemia.

Inasmuch as when we mentioned anorexia nervosa I sought to explain what it was, so now I must stop to explain what is meant by pernicious anaemia. You may say that any anaemia which is profound enough to kill is pernicious. That, in a sense, is true. The term "pernicious anaemia" is bad, and yet it is used so constantly for one particular disease only that we know what we mean when we employ it. This trouble was first described by Addison, and if you read his work on the suprarenal capsules you will find that while discovering Addison's disease he stumbled across people who were anaemic and weak, and in whom no obvious cause for anaemia could be found. These patients were frequently of a lemon tint, they were sometimes, but not by any means always, a little wasted, and he stated that the disease which these people were suffering from was uniformly fatal in the end, and that when a *post-mortem* examination was made nothing could be found wrong. Addison's description has passed into the classics of medicine and has needed no alteration, and this apparently causeless anaemia first described by him is called pernicious anaemia. It would be very much better if it were called Addison's anaemia. We have made little or no advance in the clinical symptoms since Addison described them. We have learnt something owing to examination of the blood and to more thorough *post-mortem* examinations than were possible in his day, and the chief change in the blood is this: there is a great reduction in the number of red cells, and there is a great reduction in the haemoglobin—in other words, there is a profound anaemia, but the reduction in the haemoglobin is usually not as great as the reduction in the number of red cells; therefore each cell carries an excess of haemoglobin. In other words, the colour index is above unity. Other changes in the blood are that many of the red cells are misshapen, there is much poikilocytosis, there are many megaloblasts, and very often several nucleated reds, and generally there is considerable deficiency of white cells. You will remember that although the woman I am describing to you was anaemic and weak she had not a yellow colour, which Addison described as usually characteristic of his cases. So we could not say, from merely looking at her, that she had pernicious anaemia. But I need hardly say we examined her blood immediately the suggestion of pernicious anaemia was made. There were two examinations; she did not live long enough for more. The first gave the colour index as 1.7, the reds being reduced to 1,750,000, the haemoglobin 45 per cent. Later examination showed almost the same, the colour index being then 1.9, and the white cells were greatly reduced. Thus you see there was a great reduction of red cells, a great reduction of white, and a raised colour index, and therefore the diagnosis of pernicious anaemia was made. She had some poikilocytosis, she had some megaloblasts and one or two nucleated reds, and so the diagnosis was confirmed, and we knew that she had pernicious anaemia and not anorexia nervosa, although she had anorexia. Still she certainly did look like a case of anorexia nervosa; she was the usual sex, the usual age, she had anorexia, and was wasted. Further, most cases of pernicious anaemia are not wasted, and most are primrose yellow in colour. Occasionally in addition to the lemon-yellow colour of the skin you see scattered over it little dark brown patches of pigment. Whenever you see them, inquire whether the patient has been taking arsenic, as is likely, because arsenic, as I shall tell you presently, is the best drug you can give a patient with pernicious anaemia, and arsenic causes brown pigmentation of the skin; but brown pigmentation due to pernicious anaemia, it is definitely settled now, may occur inside the mouth, like the pigmentation of Addison's disease,[2] so that it becomes a considerable clinical difficulty at times without a blood examination to know whether you are dealing with a patient who has pernicious anaemia, with one who has been taking arsenic, or with one who has Addison's disease. An examination of the blood will put that right for you. I cannot now give you a lecture on pernicious anaemia, it would take too much time; but I may remind you that sufferers from it have most of the signs usually associated with profound anaemia—that is to say, they are giddy, they have a feeble beat of the heart, they have haemic murmurs, the heart may be dilated, they are short of breath, and in women you find amenorrhoea. This woman had most of these symptoms. Let me remind you that occasionally you see haemorrhages in the retina sometimes associated with retinitis and optic neuritis; so severe were these features in an anaemic patient in the hospital two years ago, that from the ophthalmic appearances we successfully suggested pernicious anaemia. Our patient had no changes in the fundus of her eyes; if she had we should have known that she was not suffering from anorexia nervosa. She went from bad to worse, and at the end of two days she died.

I am often saying to you in the wards that if we put aside a few functional diseases—such, for instance, as genuine neuralgia—you can never be said to make a diagnosis unless you have a definite picture of what will be found at a *post-mortem* examination. Whenever you see a patient in the ward or anywhere else, by the time you have left the bedside you ought to be able to describe what you would expect to see if the patient were at that moment shot and you made a *post-mortem* examination. You must picture to yourself the naked-eye and histological appearance of the liver, the heart, the lungs, and the other viscera; and, further, you must have in your mind as far as present knowledge will allow, a rational explanation of the patient's symptoms. Unless you have that, you have not made a diagnosis. We must now try to form such a picture and explanation for our patient who lay in No. 5 bed in Mary Ward. We diagnosed that she had pernicious anaemia, and that she also had chronic degeneration of her upper motor neuron. In pernicious anaemia we picture to ourselves an excessive destruction of blood, great haemolysis, and we believe that to be the essential feature of the disease. The reason why we believe this is that if you make a *post-mortem* examination on a case of pernicious anaemia and take a piece of the liver, and let it lie in a 5 per cent. solution of potassium ferrocyanide for five minutes, and then transfer it into a 1 per cent. solution of hydrochloric acid, it turns blue, as this piece of liver, from a patient with pernicious anaemia, which I show you has done. On applying this test to the liver of our patient it also turned bright blue. The explanation is that in pernicious anaemia there is a great deposit of free iron in the liver, and the potassium ferrocyanide and hydrochloric acid and free iron give you Prussian blue, and consequently from the bright blue colour we infer the presence of a good deal of free iron in the liver, and we know that this is characteristic of pernicious anaemia; therefore, as we said during life that the patient had pernicious anaemia, we pictured to ourselves that the morbid anatomist would be able to demonstrate this blue colour. He did, and thereby clinched the diagnosis. The appearance of free iron in the liver means that there had been a great destruction of blood, and the resulting free iron has been deposited in the liver, and you might demonstrate it there in any condition in which there is considerable haemolysis, but the appearance of this free iron in the liver is much more constant and much more abundant in pernicious anaemia than in any other disease, although you sometimes see a less degree of it in other diseases accompanied by severe destruction of the blood. I have seen it in severe pyaemia. When there is a considerable amount of free iron in the liver a little is deposited in the kidney and a little in the spleen. At the *post-mortem* examination on this woman it was possible to demonstrate free iron in the liver, kidneys, and spleen. Much of the work concerning free iron in the viscera has been done at Guy's Hospital. Dr. F. G. Hopkins,[3] working at some cases under my care, published a very important paper on the subject. The normal liver should contain 0.09 per cent. of free iron, but he found in four sufferers from pernicious anaemia the amount of free iron was 1.038, 0.204, 0.400, and 0.190 per cent. The spleen in health ought to contain 0.18 per cent. of free iron, but he found the amount in 2 cases of pernicious anaemia to be 0.301 and 0.325 per cent. Mr. J. H. Ryffel[4] has recently published the results of 7 cases. The amounts of free iron in the liver were 0.34, 0.24, 1.01, 0.14, 0.57, 0.60, and 0.086 per cent., showing an excess in 6 out of 7 cases, and the increase in the spleen and kidneys was equally striking. So that analyses show that in pernicious anaemia there is a great deposition of free iron in the liver, kidneys, spleen, and especially in the liver. It is found almost entirely in the periphery of the lobules of the liver, and in the convoluted tubules of the kidney.

The intensity of the Prussian blue reaction is by no means necessarily proportionate to the amount of free iron, but this is proportionate to rapid haemolysis and a high colour index. As so much free iron is found in the liver, I suggest that the destruction of red cells and haemoglobin takes place somewhere in the portal area, and the free iron is consequently deposited chiefly in the liver. This patient only had 45 per cent. haemoglobin, and her red cells were reduced to a little over a million. Therefore, each red cell had more haemoglobin than it should. In other words the colour index was high, and this high colour index, which is such a constant feature of pernicious anaemia, may be regarded as an attempt at cure, each red cell carrying more haemoglobin than it should to compensate for the paucity of red cells.

You will remember we took out the femur of this woman, and the marrow was red like fetal marrow, and evidently it was in a state of great activity. The suggestion is that this indicates an attempt at repair, that the marrow of the bones becomes unduly active and red, like fetal marrow, because it is called upon to make an excess of red cells to compensate for their abnormal destruction, and that in its hurry to cure the disease, it is constantly pouring into the blood immature forms of red cells, such as megaloblasts, poikilocytes, nucleated reds, and red cells staining badly, which give blood films so characteristic of pernicious anaemia. When the marrow is in this condition, the bones are sometimes tender during life; they were so in our patient.

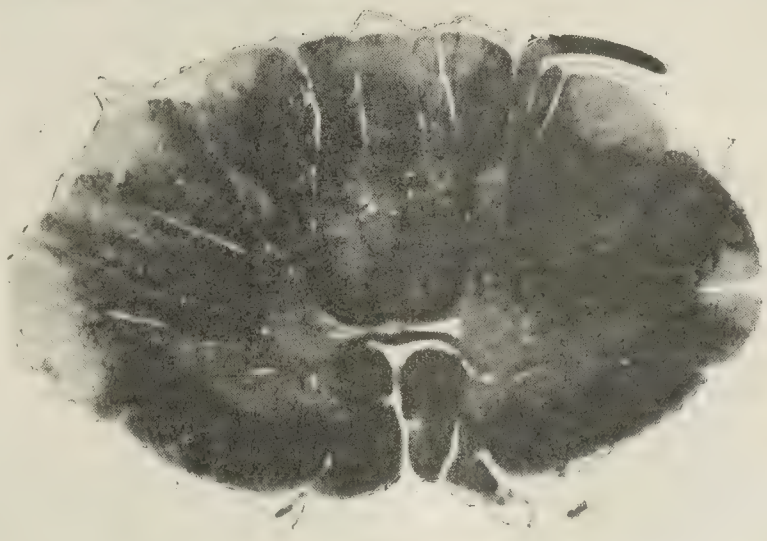


Fig. 1.

I have already told you that our patient had a moderate degree of pyrexia. It is strange that the temperature should be raised, as it usually is in pernicious anaemia, because the sufferers from it are generally not wasted, and, the red cells being greatly reduced in number, the oxygen-carrying power of the blood is diminished, and, generally speaking, a raised temperature means more active oxidation. We may suppose that, as a result of the breaking down of the blood, there is some substance formed which, acting like belladonna, sends the temperature up by its action on the nervous system.

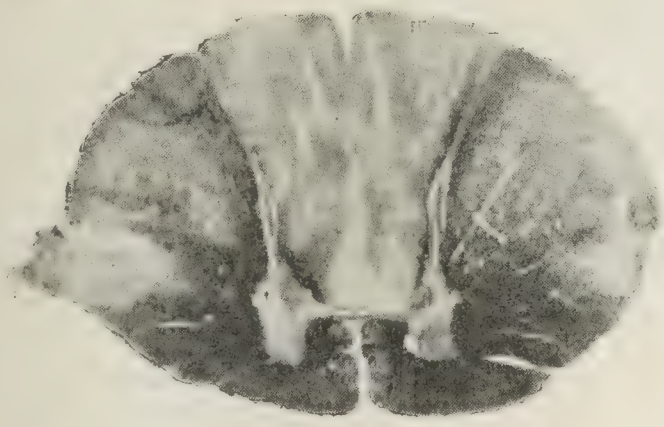


Fig. 2.

I have left till last the chief interest of our patient—namely, the state of the spinal cord. You will remember that she had an extensor reflex in both great toes, and from this we diagnosed there was degeneration of the lateral columns of the cord. Degeneration of the spinal cord occurs in various forms of severe anaemia—more often in pernicious anaemia than others—but not in many cases of pernicious anaemia; it is probably due to some toxin; it may be that which produces the haemolysis, or it may be one of the results of the haemolysis. Poisons will produce degenerations of the spinal cord, for we meet with them as a result of poisoning with ergot of rye. I hand round some beautiful sections of the cord from our patient. They have been stained by the Weigert-Pal method. The healthy parts are stained very dark; the degenerated parts are unstained, and hence appear light (see Figs. 1, 2, and 3). You will notice that the degeneration is much more extensive in the dorsal than in the cervical region, and that it is the posterior columns and crossed pyramidal or lateral tracts that are most degenerate; indeed, in one of our sections there are hardly any healthy fibres left in these regions. The degeneration in the lateral tracts was the cause of the extensor jerk in both great toes. We found during life no other evidence—for example, exaggerated knee-jerks—of degeneration of the lateral columns, and none of degeneration of the posterior columns. Our patient was moribund when we examined her, and this, no doubt, explains to some extent the absence of many symptoms of degeneration of the cord; nevertheless, the degeneration of the cord—if it exists—in a case of pernicious anaemia is usually much more extensive than the symptoms observed during life would lead you to expect. If you look carefully, you will notice some areas of degeneration outside and near to the lateral tracts and some on the edge of the cord in the cervical region. You will also see in the section of the dorsal region that the white matter adjacent to the posterior horns (posterior root zone) is not degenerate. Lissauer's tract, too, has escaped. Further, a low power of the microscope will show you small diffuse areas of degeneration and several minute haemorrhages. I doubt whether you will ever see better examples of severe changes in the spinal cord in pernicious anaemia than are shown in the slides before you. In all respects they show the usual changes found in an extreme case, but lesser degrees of degeneration are more common, and these are generally seen only in the posterior columns. The grey matter is not affected. All these changes in the cord are rare in the higher cervical and the lower dorsal and lumbar regions, and once again let me remind you that any changes in the spinal cord are uncommon in pernicious anaemia—hence this lecture.

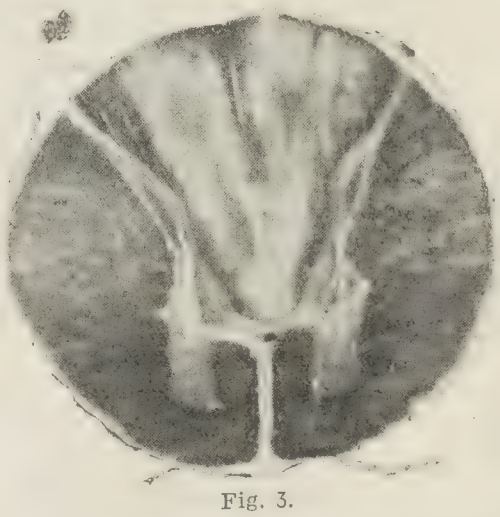


Fig. 3.

If I may sum up the chief points of interest in this case: in the first place, it teaches us that you should be very careful about the diagnosis of anorexia nervosa. If we had not discovered that extensor reflex in the toes we might never, in the two days that that woman was in the hospital, have examined the blood and found that she had pernicious anaemia, and we should have had the mortification of a case of supposed anorexia nervosa going down to the *post-mortem* room and found to be pernicious anaemia. We should not have forgiven ourselves for that. And in the next place, it does most admirably illustrate the advantage of taking special notice of small points. It would seem incredible—mere hocus-pocus—to any of the laity to believe that, because this woman instead of bending her toe downwards bent it upwards, we should be able to infer she had pernicious anaemia and sclerosis of the upper motor neuron, and would certainly die.

All I have to tell you about treatment is that sufferers from pernicious anaemia often improve if they take arsenic. But the improvement is never permanent. The usual thing is that the patient comes into the hospital, is given arsenic, the blood improves, and the patient feels better, and then, after some weeks' treatment, goes out of hospital, but is admitted again in a few months, and again improves on

arsenic. That happens three or four times, and then the disease proves fatal.

REFERENCES.
[1] *Journal of Physiology*, vol. xxvi, p. 151. [2] *Quarterly Journal of Medicine*, vol. i, p. 108, and *Guy's Hospital Reports*, vol. lxiii, p. 103. [3] *Guy's Hospital Reports*, vol. l, p. 349. [4] *Journal of Pathology and Bacteriology*, vol. xiv, No. 3, p. 411.

REMARKS ON A CASE OF SUBACUTE COMBINED DEGENERATION OF THE SPINAL CORD, SIMULATING DISSEMINATED SCLEROSIS,

WITH THE RAPID DEVELOPMENT OF PERNICIOUS ANAEMIA SHORTLY BEFORE DEATH.

By BYROM BRAMWELL, M.D., F.R.C.P.E., F.R.S.E.,
SENIOR ORDINARY PHYSICIAN TO THE EDINBURGH ROYAL INFIRMARY.

It is well known that the nervous symptoms due to subacute combined degeneration of the spinal cord may be developed a considerable time before the anaemia or cachexia which usually precedes or accompanies the symptoms due to the degenerative changes in the spinal cord. In cases of this kind the diagnosis is sometimes very difficult, more especially in the early stages of the case; disseminated sclerosis in particular may be very closely simulated. In the following case, in which the nervous symptoms were developed three years before the anaemia became sufficiently marked to attract attention, this difficulty in diagnosis was more striking than in any of the recorded cases of subacute combined degeneration with which I am acquainted. This was partly due to the early age (31) at which the cord symptoms developed, but chiefly to the facts: (1) That, in addition to ataxic-spastic paraplegia, nystagmus and derangements of the bladder and rectum, optic atrophy, exactly resembling that characteristic of disseminated sclerosis, was present; and (2) that remarkable periods of improvement and relapse, so characteristic of disseminated sclerosis, occurred. The case is also important and exceptional inasmuch as the profound anaemia which developed a fortnight before death was typical pernicious anaemia, megalocytes were present in the blood during life, and the free iron reaction was very marked in the liver and kidneys after death. The notes of the case are as follows:

A man, aged 33, married, a hairdresser by trade, was admitted to the Edinburgh Royal Infirmary on September 18th, 1906, complaining of difficulty in walking and a tight feeling across the stomach.

History.

The patient, who denied any venereal disease, stated that he enjoyed good health until October, 1904, when he had an attack of influenza. After this he noticed that his legs were weak, and that his sight was becoming impaired; he however continued to work without much complaint until January of the present year (1906); he then had another attack of influenza. After this his legs were for a time much weaker, and he complained of a feeling of numbness, tingling, and pins and needles in the legs, buttocks, and lower part of the back. Since this second attack of influenza his sight has become much worse. He continued to follow his occupation until three weeks ago, when his walking became very unsteady, and he noticed that in walking he dragged his legs. Two months ago he felt giddy when getting up in the morning or when he turned quickly. For the past five or six weeks he has felt a tight feeling across the upper part of the abdomen, and his water has at times dribbled away. Since January he has been obstinately constipated. He has had no pain in the back and no lightning pains. There has been no affection of speech. During the past year he has become much "shorter in the temper." His social condition was quite satisfactory, and he had been a very steady man.

Family History.

Father, aged 53, is alive and well; mother died a year ago, at the age of 52, cause unknown. There were twelve children in the family: all died in childhood (causes of deaths not known) except one brother, who is abroad, and, as far as the patient knows, healthy. The patient has had six children; two died, at the ages of 14 months and 2½ years respectively, from inflammation of the brain (? meningitis); the four surviving children are alive and well. There have been no miscarriages.

Condition on Admission.

The patient was a spare, thin man. The body was fairly well clothed with fat; muscularity was poor. His height was 5 ft. 3¾ in., and his weight 7 st. 1½ lb.; when in perfect health he used to weigh 8 st. 8 lb. in his clothes. The temperature was 97.6°, the pulse 74, and the respirations 20 per minute.

The mucous membranes were slightly anaemic. (I have no record of any blood examination at this date.) The appetite was poor; the tongue was rather red and raw; the bowels were obstinately constipated.

The patient walked with great difficulty and only with support. The gait was very ataxic and also spastic, the toes being dragged along the ground. There was marked Rombergism. The muscularity was poor, but there was no localized muscular wasting, and no definite paralysis of any muscle or group of muscles; the calves though small in size were firm. The knee-jerks and Achilles jerks were greatly exaggerated. There was no sustained ankle clonus, but a few clonic contractions were obtained in the right leg. The plantar reflex showed a double extensor response, more marked on the right side. The abdominal reflex was active on both sides. The deep reflexes in the upper extremities were normal. He complained of a feeling of numbness and tingling and coldness in the lower extremities, buttocks and lower part of the back, but no objective derangements of touch, pain, or heat and cold were detected. The sense of movement (muscular sense) in the lower extremities was distinctly impaired. The bowels were obstinately constipated; the functions of the bladder were distinctly affected (precipitant urination and some dribbling, but no loss of expulsive power). There was no lateral nystagmus, but distinct nystagmus on looking up, and especially on looking upwards and to the left. The pupils were equal, 4 mm. in diameter; they contracted actively to light and on convergence. The acuity of vision was much impaired—$\frac{6}{18}$ in each eye. There was distinct pallor of both optic discs, chiefly marked on the temporal sides, and greater in the right than in the left eye. There was no volitional tremor; no speech affection; and (at this stage) no pain in the back.

A soft systolic murmur was present in the aortic area, the aortic second sound was somewhat accentuated, but the heart, kidneys and other viscera appeared to be normal.

Diagnosis.

The condition was one of ataxic-spastic paraplegia. It was obvious that the patient was not suffering from tabes. The age at which the disease had developed, the absence of other cases in the family, the absence of foot deformity, and the presence of optic atrophy were against Friedreich's ataxia. The ataxic-spastic paraplegia, the nystagmus, the giddiness, the optic atrophy, the affection of the bladder and rectum, were indicative of disseminated sclerosis. The fact that the illness had commenced at the age of 31 in a perfectly healthy man who had not had syphilis, after an attack of influenza, seemed to support this diagnosis. The subsequent progress of the case—the marked improvement which resulted under treatment on two occasions (see infra)—was strongly in favour of this diagnosis. Granting, as was thought, that the patient was suffering from disseminated sclerosis, the peculiar character of the nystagmus (it was only present on looking up) was exceptional and interesting.

Treatment and Subsequent Course.

The patient was treated with rest in bed, massage and arsenic (5 minims of Fowler's solution three times daily). Rapid improvement took place; the patient's walking quickly improved; the bladder derangement disappeared. He was discharged from hospital on November 3rd, 1906, walking well and stating that he felt quite fit for work. The exaggeration of the deep reflexes, the double Babinski, the optic atrophy and the nystagmus were still present. For two months after his discharge from hospital the patient felt very well and was able to walk about and to do his work, which involved a lot of standing; weakness in the legs and difficulty in walking then again developed.

He was readmitted to the infirmary on February 20th, 1907. The ataxic-spastic paraplegia was very marked and he could only walk with support. The urinary difficulties had returned, and he now had to "force" in order to get the water away. He complained of an aching pain on the left side of the back, of numbness, prickling, and coldness in the legs, and of a sensation as if he were walking on rubber. The knee-jerks and Achilles jerks were markedly exaggerated; ankle clonus was now present in both legs; there was a marked double extensor response; the abdominal reflexes were still very active on both sides. The vertical nystagmus and the pallor of the optic discs were more marked. Dr. Sym kindly examined the eyes and reported as follows:

"The acuity of vision in right eye is $\frac{6}{18}$, and in left eye $\frac{6}{24}$. The optic discs are distinctly paler than normal, especially on their outer sides. The retinal vessels are slightly reduced in size."

The patient was again treated with arsenic and again improved. On May 8th he was discharged, able to walk well with the help of one stick and saying that he was fit for work.

For three months after his discharge he continued well and was able to follow his occupation. Then the weakness in the legs and difficulty in walking again recurred, and he began to suffer from pain in the back.

On October 15th, 1907, he was admitted to the infirmary for the third time, unable to walk without support; the gait was still very ataxic and spastic; Rombergism was marked. The patient complained of severe pain in the lower part of the back and in the legs, numbness and tingling in the feet, and a cold feeling in the knees and elbows.

The knee-jerks and Achilles jerks were still markedly exaggerated; ankle clonus and an extensor response were present on both sides. There was considerable difficulty in

making water; the bowels were still obstinately constipated. The vertical nystagmus and optic atrophy were still present. There was no volitional tremor and no speech affection.

He was treated by rest in bed, arsenic, and phenacetin (for the pain in the back and legs). For the first fortnight after readmission he distinctly improved, but on October 28th he complained of a discharge from the nose, and was sent to the throat department. Dr. Logan Turner, who kindly examined him, reported, "he has some obstruction and nasal discharge." He advised an alkaline nose wash.

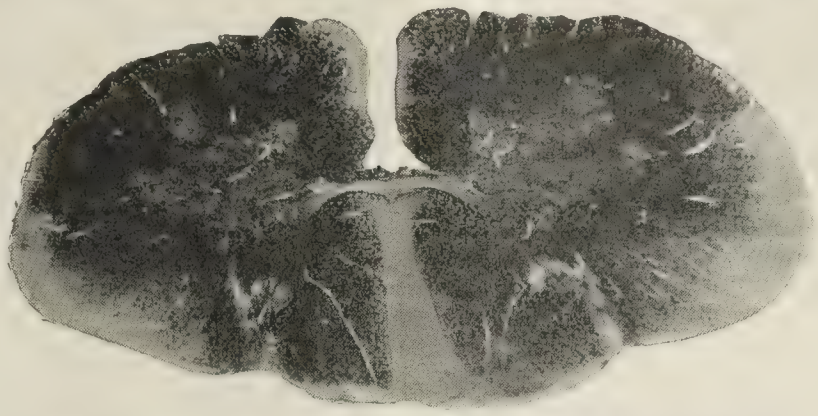


Fig. 1.—Section through the cervical enlargement of the spinal cord in the case of subacute combined degeneration described in the text. (Stained by Weigert-Pal)

On November 11th a blood count showed: Red corpuscles, 4,200,000; haemoglobin, 70 per cent.; colour index, 0.8; whites, 8,000.

After this date the patient rapidly became profoundly anaemic, the blood picture being typically characteristic of pernicious anaemia. The legs became completely paralysed, the muscles soft and atrophied; the knee-jerks, Achilles jerks, and the ankle clonus disappeared; the Babinski sign remained; the legs and lower part of the trunk and abdomen became anaesthetic, and incontinence of the bladder and rectum developed; he became semi-comatose and finally comatose.

On November 19th the blood count was as follows: Red corpuscles, 1,500,000; haemoglobin, 28 per cent.; colour index, 0.9. On microscopic examination the red corpuscles were found to be markedly altered in size and shape; some normoblasts and megaloblasts were present. The feet and legs were oedematous, and the temperature, which had throughout the previous course of the case been normal or subnormal, began to rise, and showed marked fluctuations; the highest point reached was on November 23rd, when the morning temperature was 101.8°.

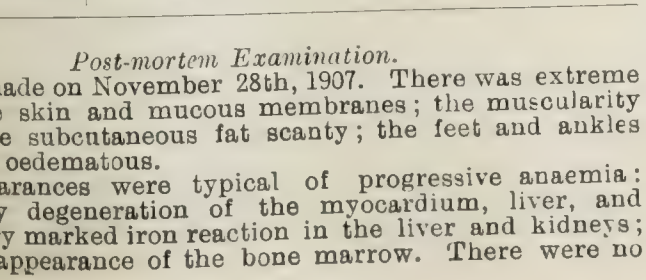


Fig. 2.—Section through the mid-dorsal region of the spinal cord in the case of subacute combined degeneration described in the text. (Stained by Weigert-Pal.)

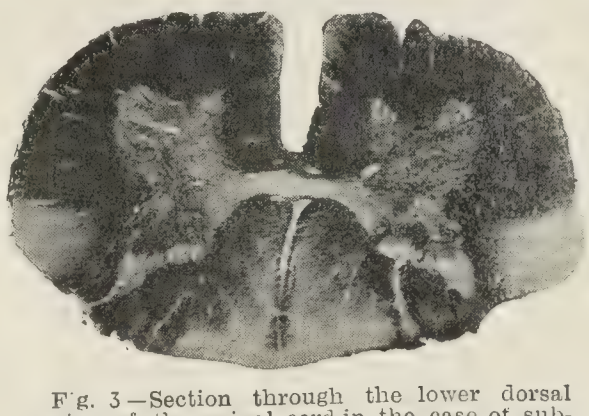


Fig. 3—Section through the lower dorsal region of the spinal cord in the case of subacute combined degeneration described in the text. (Stained by Weigert-Pal.)

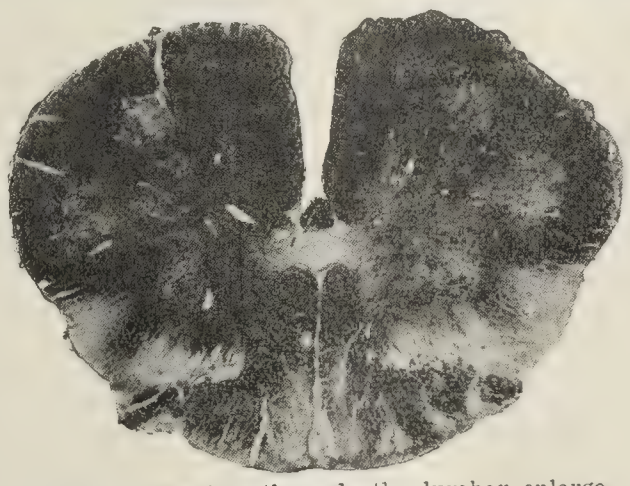


Fig. 4.—Section through the lumbar enlargement of the spinal cord in the case of subacute combined degeneration described in the text. (Stained by Weigert-Pal.)

On November 25th the red corpuscles numbered 600,000 per cubic millimetre, and the haemoglobin was 28 per cent., the colour index = 2.3. On November 26th the patient became unconscious.

He died on November 27th.

The blood count at different dates was as follows:

Date.	Number of Red Corpuscles.	Percentage of Haemoglobin.	Colour Index.
November 11th, 1907...	4,200,000	70	0.8
November 15th, 1907...	1,500,000	28	0.9
November 21st, 1907...	1,190,000	25	1.0
November 23rd, 1907...	980,000	25	1.3
November 25th, 1907...	600,000	28	2.3

Post-mortem Examination.

This was made on November 28th, 1907. There was extreme pallor of the skin and mucous membranes; the muscularity was poor, the subcutaneous fat scanty; the feet and ankles were slightly oedematous.

The appearances were typical of progressive anaemia: Marked fatty degeneration of the myocardium, liver, and kidneys; very marked iron reaction in the liver and kidneys; typical red appearance of the bone marrow. There were no punctiform haemorrhages. The spleen was firm and somewhat enlarged.

There was slight atheroma at the root of the aorta. The upper lobes of the lungs were somewhat emphysematous, the lower lobes oedematous and congested. There were no gross changes in th stomach, intestine, pancreas, suprarenals, or thymus.

The brain was markedly anaemic, but showed no gross lesions.

Spinal Cord.

After hardening, the spinal cord was cut and stained in various ways. The membranes and nerve roots, posterior and anterior, were healthy.

Degenerative changes, typical and characteristic of subacute combined degeneration, were found in the spinal cord (see Figs. 1, 2, 3, and 4).

These changes were most marked in the mid-dorsal region, and diminished as one proceeded upwards and downwards to the top and bottom of the cord.

In the mid-dorsal region there was extensive degeneration of the posterior columns, the crossed pyramidal tracts, the direct cerebellar tracts, and the direct pyramidal tracts. In the lateral columns, more especially on the right side, the degeneration extended much further forward than the direct cerebellar tract. In the anterior column, too, the degeneration invaded a much more extensive area than the direct pyramidal tracts. In the posterior columns in the mid-dorsal region a large area of normal fibres was present on the inner side of the grey matter and posterior horns. Lissauer's tracts were not involved.

In the cervical enlargement the lesion in the posterior columns was confined to the columns of Goll (postero-internal columns) and to a narrow tract of the postero-external columns (column of Burdach) on the surface of the cord. In the lateral columns the direct cerebellar tracts were completely sclerosed, and the crossed pyramidal tracts to some extent sclerosed; on the right side the sclerosis extended farther forward than the direct cerebellar tracts (as it did in the mid-dorsal region). In the anterior columns the sclerosis involved the direct pyramidal tracts more extensively on the left than on the right side.

In the lumbar enlargement the posterior columns were sclerosed in a patchy manner, the involvement of this part of the cord being much less extensive than in the mid-dorsal region. The crossed pyramidal tracts at this level (greatest thickness of the lumbar enlargement) were also involved.

Many of the nerve cells in the anterior horn in the dorsal, lumbar, and cervical regions, and the cells in Clark's column, were degenerated, as shown by Nissl's method.

This case presents many points of great interest; the more important are the following:—

1. *The fact that the optic atrophy and cord symptoms developed three years before the pernicious anaemia became sufficiently marked to attract attention.* It is true that when the patient first came under observation the mucous membranes were slightly anaemic, but the anaemia was so slight that no blood examination was made; the anaemia only attracted attention and became a feature of the case a few weeks before death. The obvious lesson which this teaches is that a careful blood examination should be made in all cases of (supposed)

disseminated sclerosis and in all cases of ataxic and ataxic-spastic paraplegia. The facts of this case, in my opinion, strongly support the view that in cases of subacute degeneration the cord lesions are not directly due to the anaemia or to haemorrhages in the spinal cord the result of the anaemia (it has been stated that no punctiform haemorrhages were present in this case in any of the organs), but that the degenerative lesions in the spinal cord and the anaemia, which in this case was typically pernicious anaemia, are due to a common cause—a toxin, the exact nature of which we are still ignorant of. In the majority of cases of subacute combined degeneration which have been recorded, the anaemia was not pernicious anaemia. In speaking of their cases Risien Russell, Batten, and Collier state—"There was nothing in the blood of any of the cases in which it was examined to suggest pernicious anaemia."[1]

2. *The very rapid way in which the pernicious anaemia developed and proved fatal.* The blood changes in the terminal stages of the case were characteristic of pernicious anaemia, and the *post-mortem* appearances (free iron reaction in the liver and kidneys and changes in the bone marrow) were typical of this disease. The Prussian blue (free iron) reaction in the liver and kidneys was intense; I have never seen it more marked in any of the cases of pernicious anaemia which I have examined. This is a very interesting point, for in his article on subacute combined degeneration in the forthcoming volume of Clifford Allbutt and Rolleston's *System of Medicine* (a proof of which he has kindly sent me), Dr. Collier states: "The reaction for free iron in the liver has not been obtained in any case."

3. *The difficulty in diagnosis in the early stages.* The symptoms were undoubtedly most suggestive of disseminated sclerosis—none of us who saw and studied the case doubted that we were dealing with a case of disseminated sclerosis.

4. *The age at which the cord symptoms developed* (31), as has been previously pointed out, was much more suggestive of disseminated sclerosis than of subacute combined degeneration. Subacute degeneration of the spinal cord very rarely develops before the age of 35; most cases occur between the ages of 50 and 60; while in the great majority of cases (85 per cent. of 110 cases which had come under my observation up to the year 1904) disseminated sclerosis develops before the age of 35. In my 110 cases of disseminated sclerosis no less than 47, or 42 per cent., commenced between the ages of 21 and 25 years (inclusive); 76, or 69 per cent., between the ages of 16 and 30 years (inclusive); and 85, or 77 per cent., between the ages of 16 and 35 years (inclusive).[2]

5. *The optic atrophy* was strongly in favour of disseminated sclerosis. Optic atrophy is not a feature of subacute combined degeneration of the spinal cord, but it occurs, in my experience, in about 40 per cent. of cases of disseminated sclerosis. In my 110 cases of disseminated sclerosis, definite optic atrophy was present in 40 cases, or 36.3 per cent., and in 7 other cases, or 6.3 per cent., doubtful optic atrophy was present.[3] My additional experience since the year 1904 points in the same direction. The optic atrophy in this case exactly resembled that which is met with in disseminated sclerosis—partial in degree and chiefly confined to the temporal sides of the discs. The acuity of vision was in this case more markedly impaired than it is in most cases of disseminated sclerosis. Further, it is important to note that the dimness of vision was in this case one of the initial symptoms; it developed three years before the anaemia attracted attention. The dimness of vision and the pallor of the discs were without doubt due to optic atrophy and not merely to anaemia or debility.

6. *The remarkable periods of improvement with subsequent relapses* which occurred in this case were highly suggestive of disseminated sclerosis; such alleviations in the severity of the symptoms are not a feature of subacute combined degeneration, but are most characteristic of disseminated sclerosis. On this point, Risien Russell, Batten, and Collier state: "A remarkable feature of the cases was the absence of any improvement of the nervous symptoms under treatment. From the first appearance of the disease to the fatal event, the tendency was for the symptoms to increase, sometimes halting, sometimes progressing rapidly, but never showing any remission. Under treatment the general health and the anaemia improved markedly in some cases, but the nervous symptoms never."[4]

Dr. James Collier, whom I have consulted with regard to the occurrence of optic atrophy and relapses, remissions and periods of improvement in cases of subacute combined degeneration, kindly writes me as follows:

> I have just written the article on subacute combined degeneration for *Allbutt's System*, and I have been carefully into all the cases we have had at Queen Square, and also into all the cases that I have found in the literature. I make the following statement upon optic atrophy: "Optic atrophy has been reported in a good many cases, but it is possible that the pallor of the disc, which is striking in some of the anaemic cases, has been confused with optic atrophy, for I have never myself seen undoubted atrophy of the disc. Dimness of vision is common when anaemia and debility are severe." In several of our cases at Queen Square the note that optic atrophy was present had been made by the house-physician, but in no case was this opinion upheld by Mr. Marcus Gunn and Mr. Paton, who subsequently saw these patients. We have not as yet found any lesions higher than the mesencephalon, and, from the anatomical point of view, one would not expect optic atrophy in this disease. Your second question is of great interest, and is one that I should have answered in the negative two years ago. But since then I have followed to autopsy (1) cases in which the onset was an apparently functional paraplegia which improved for a time, (2) cases in which there was marked temporary improvement, and (3) one case in which the onset was so rapid as to suggest acute myelitis, and in which temporary attacks of paraplegia lasting a week or two had occurred eight months and four months before the onset respectively and had been completely recovered from. This last case was an unusually rapid one, but the pathological condition found by Dr. Holmes was typical. I have always pointed out that the diagnosis of this disease in the early stages from the ataxic paraplegic form of disseminated sclerosis was an important one, but we have not had a case in which this differential diagnosis has been difficult. From our knowledge of the disease and its anatomy it seems to me easy to conceive cases of slow onset in which the clinical picture might be exactly that of typical disseminated sclerosis, for many cases present no anaemia till late.

7. *The vertical character of the nystagmus* was peculiar and interesting.

With regard to the differential diagnosis of subacute combined degeneration of the spinal cord and disseminated sclerosis, Risien Russell, Batten, and Collier make the following statements:

> The early clinical picture of combined degeneration, that of slight ataxy and spasticity, resembles closely that of the common paraplegic form of disseminated sclerosis in an early stage. . . . In attempting to distinguish these two diseases careful attention should be paid to the history. The age at which combined degeneration occurs is not the most common for the appearance of symptoms of disseminated sclerosis. The preponderance of subjective sensations in the legs, the absence of the functional manifestations, of exacerbations and remissions of the symptoms, of nystagmus, and of sphincter trouble, which are so usual in disseminated sclerosis, and the presence of irregular pyrexia are probably of great importance in the early diagnosis of combined degenerations.
>
> The presence of anaemia in an early case of spastic paraplegia should give rise to a suspicion, but the possibility of chlorosis associated with disseminated sclerosis in young women must be borne in mind. A symmetrical affection of all limbs with slight ataxy and spasticity, preponderating in the legs, is a most important distinguishing symptom of combined degeneration.[5]

In the case I am recording all the differential points mentioned by Risien Russell, Batten, and Collier in favour of disseminated sclerosis were present, and, in addition, there was optic atrophy. According to these authorities the preponderance of subjective sensations in the legs was in favour of subacute degeneration; but, on the other hand, the absence of any objective disturbance of skin sensation until the final stages of the case was, in my opinion, in favour of disseminated sclerosis.

8. The cord lesions were striking, and corresponded exactly with those which have been described by Risien Russell, James Taylor, and other observers as characteristic of subacute combined degeneration of the spinal cord associated with anaemia.

References.

[1] *Brain*, 1900, vol. xxiii, p. 56. [2] *Clinical Studies*, 1904, vol. ii, p. 201. [3] Ibid., 1905, vol. iii, p. 23. [4] Ibid., p. 54. [5] *Brain*, 1900, vol. xxiii, p. 58.

The eighty-second congress of German scientists and medical men willl be held at Königsberg from September 18th to the 24th. Full particulars can be obtained from Dr. Rosenstock, Königstrasse 80, Königsberg.

THE DARRAN EXPLOSION FROM THE MEDICAL STANDPOINT.

BY T. LISTER LLEWELLYN, M.D., B.S.LOND.,
MEDICAL OFFICER TO THE RHYMNEY IRON AND THE POWELL DUFFRYN COMPANIES.

AN explosion took place in the Darran Colliery at 4.30 a.m. October 29th, 1909. Of the forty-five men who were in the pit at the time twenty escaped through a communication between the Darran and Gilfach pits, four men were brought up alive, and twenty-one were killed. One of the rescued died subsequently, and five rescuers lost their lives. The total casualties were twenty-seven.

THE EXPLOSION AND ITS IMMEDIATE EFFECTS.

The explosion, in the opinion of the mining experts who gave evidence at the inquest, arose from shot-firing at the stone marked in the plan. This shot-firing ignited coal dust, and produced the explosion.*

The zone of explosion extended from about 100 yards inbye of the stone to the pit mouth.

The air-bridge carrying the return air across the intake was destroyed, and all the doors between the intake and return air-ways from this point to the shafts were broken down. The ventilation of the pit was thus short-circuited, and the fan, which remained undamaged, at first simply drew the air from one shaft to the other. The downcast shaft was damaged and not repaired until 11.30 a.m.

The positions in which the bodies were found are shown in the plan. An attempt will be made to ascertain as far as possible the exact position of each of the men at the time of the explosion and to trace their subsequent movements.

Nos. 1 and 2, who were brought up alive, say they were sitting down a few yards from the downcast shaft, when they were hurled into the shaft, and Jones (No. 2) was pinned under the cage.

Tovey (1) was found in a dazed condition, unable to move or speak. (I was able later on to diagnose fracture of the base of the skull.) His right hand was badly crushed—three metacarpals were broken. The left side of his face was scorched, and his hair was singed. Fine coal dust had been driven into his face and head.

Jones (2). General bruising and simple fracture of both bones of the right leg. He remained conscious throughout.

Both these men had a good supply of air and showed no symptoms of carbon monoxide poisoning.

Wm. Cleavy (3). This man was stooping down fifteen yards from the shaft when the "blast" came. "I was knocked down, but was able to get up and go to the bottom of the shaft. I could not help the two men there, so went back to look for more help. I got lost in one of the passages between intake and return, and decided to stop where I was." He was found here by the first rescue party. His face and hair were slightly scorched, but he sustained no other injury.

Bodies 4–9 were found in a recess in which it was the usual custom of men to wait before going out. The men were all colliers and dressed. In all probability these six men were sitting down waiting to go out. The bodies all lay with their heads towards the return, and presented more signs of violence than any of the others. All the exposed parts—face and hands—were scorched.

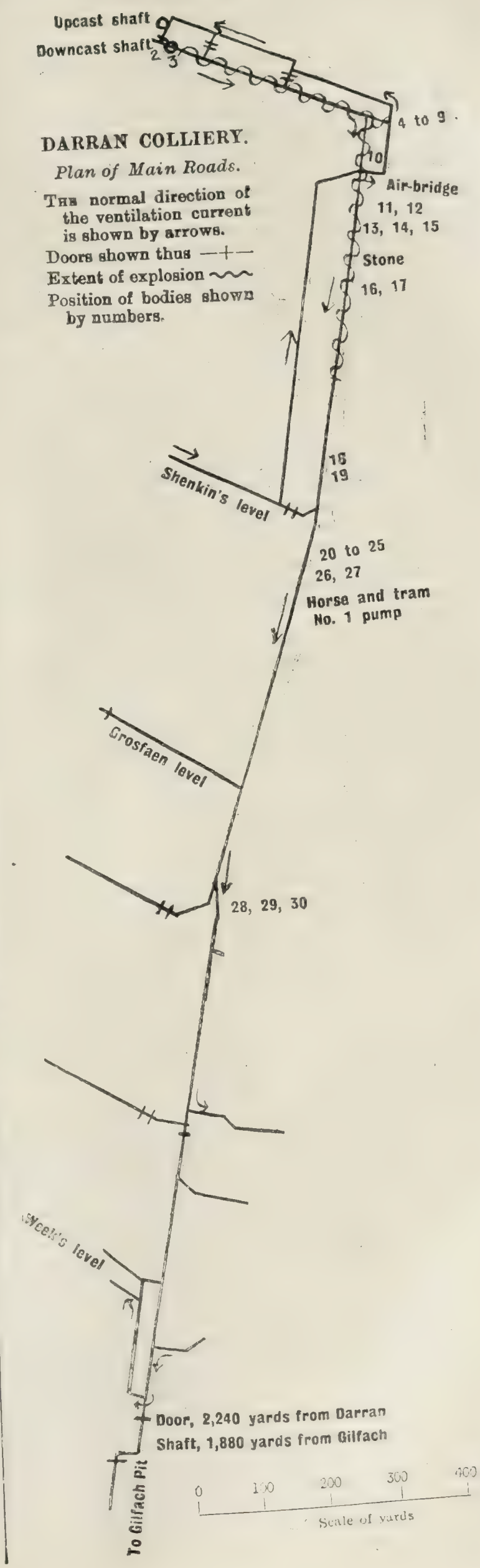
W. Brown (4) was found lying under a fall. The top of his head was completely crushed. The face was covered with fine coal dust driven in; when this dust was removed all the signs of carbon monoxide poisoning were seen. The face and hands were scorched.

Brown could not have breathed after the stone had fallen on to his head. He showed as well-marked signs of carbon monoxide poisoning as any of the other bodies. The fall must, then, have been delayed for some time after the explosion.

I visited the place afterwards with Mr. W. N. Atkinson, H.M. Inspector, and he was able to say, from the clean surface of the fracture left by the fall, that the stone had come down some time after the explosion.

James Weeks (5). Left side of face crushed; malar and inferior maxilla bones fractured; face and hands scorched; well-marked signs of carbon monoxide poisoning, from the effects of which he died.

* For details see the report by Messrs. W.N. Atkinson and F. A. Gray, His Majesty's Inspectors of Mines.[1]



John Evans (6). Face and hands scorched; well-marked signs of carbon monoxide poisoning. No other injuries.

John Tovey (7). Face and hands scorched; right cheek split open. Well-marked signs of carbon monoxide poisoning.

Jos. Vincent (8). I did not examine this body. Dr. Thomas at the inquest said the face and hands were scorched. Compound fracture of the right elbow. He attributed death to "force of explosion," but unfortunately made no examination for signs of carbon monoxide poisoning. All the bodies were covered with fine coal dust driven in, and it was only after removing this that the characteristic signs would be seen. Taking into consideration the other cases the probability is that this man also died from carbon monoxide poisoning.

H. Edwards (9). Face and hands scorched; hair singed. No injuries. Well-marked signs of carbon monoxide poisoning.

D. Edwards (10). This man was seen alive by J. Evans near Shenkin's level after the explosion. He went up the drift, and was found just above the air-bridge, lying on his face in the middle of the road with his head towards the shaft. No signs of burns or other injury. Well-marked signs of carbon monoxide poisoning.

Nos. 11, 12, 13, 14, and 15 were found lying partly in and partly out of adjacent manholes (see plan). Their faces, hands, and hair were all scorched, but they showed no other signs of injury. They all showed characteristic signs of carbon monoxide poisoning, from which they died.

Barker (16) was found reclining against the side of the drift. The face and hands were burnt, the hair singed, and there were well-marked signs of carbon monoxide poisoning.

Anthony (17) was found alive by the first rescue party 60 yards below the stone. He was lying on his face in the innermost corner of the manhole. He was unconscious and breathing stertorously. I saw him the same evening. His face, hands, arm, neck front and back were superficially burned. He was in his shirt-sleeves at the time and all the exposed parts were burned. He died five days afterwards from septic absorption and bronchopneumonia.

David Lewis (18), *W. Edwards* (19) were rescuers. They died of carbon monoxide poisoning, and, of course, showed no sign of injury.

John John (21). The fireman. His face was badly burnt; coal dust and large pieces of coal were driven into the skin and nostrils. The hands and arms were peeling; the finger-nails were loose. His burns were so much more serious than those of the others that I am inclined to think that he was in the drift at the time of the explosion or that he was only partly in the manhole. He showed all the signs of carbon monoxide poisoning.

Cases 20, 23, 24, 25, 26, and 27 showed well-marked signs of carbon monoxide poisoning but no signs of injury.

J. Evans, who escaped through Gilfach, gives the following account of the explosion:

> I was walking up the drift with Ball and Cutliffe when we were all suddenly swept off our feet by a rush of wind. We relit our lamps and proceeded up the drift, noticing nothing except a smell of powder (? H_2S) until we reached a point half way between Shenkin's level and the top of the drift. Here we found J. John (21) sitting on the side of the road. His face and hands were badly burnt and his hands were bleeding. He told me he had put four balls of powder on a large stone just above and fired the shot. Lying across the road was Prosser (22) groaning very heavily; he could not move or speak to us. Barker (16) was also lying across the road; he could raise his hand when spoken to.
>
> The air here was warm and dusty. I went on, and the air became thicker and full of smoke.
>
> I went beyond the stone, every step feeling like ten; my forehead became hot as fire, my lamp nearly went out, and I was forced to return. On my way back I found several people trying to help J. John (21). We tried to take John (21) and Prosser (22) out but were not able. We placed Barker (16) in a sitting position against the side of the drift. [One of the rescue party described to me the position in which he found Barker—exactly as Evans said he left him. This tends to show the reliability of Evans's statement.
>
> I told John we could do no more for him, and advised all the other men to come away with me at once, saying I knew the way out through Gilfach. Most men followed me; we met D. Jenkins (23) going up the drift; he did not answer us when we spoke to him. Most of the men with me had by this time lost their heads and were rushing into the levels, instead of going straight on. We met W. Davies (26) and Baragweneth (27) on our way down and asked them to come out with us. Baragweneth asked me if I were frightened. Davies had his horse with him, but unharnessed. There was no tram on the road. We met several men lower down, and finally made our way out through Gilfach.

Bull, Cutliffe, Geo. James, and Syd. Edwards, all of whom escaped through Gilfach, corroborate Evans's story in almost every detail. No one saw Anthony (17). Syd. Edwards says he saw Morgan (20), Ed. Cleavy (25), and Vaughan (24) trying to help Prosser and John. Syd. Edwards, who went above the stone, was slightly affected by the after-damp. He was not able to walk as fast as the others, and was last out. None of the other men seem to have suffered at all, except Geo. James.

In the manhole, where Anthony (17) was found, were four lamps. Taking John's statement to Evans to be correct, it seems reasonable to suppose that 16, 17, 21, and 22 were sheltering in this manhole while the shot was fired. We may also assume that 11, 12, 13, 14, and 15, knowing a shot was to be fired, were sheltering in the manholes above the stone.

All the men in the actual track of the explosion have now been placed (Fig. 1). The other men were all below Shenkin's level.

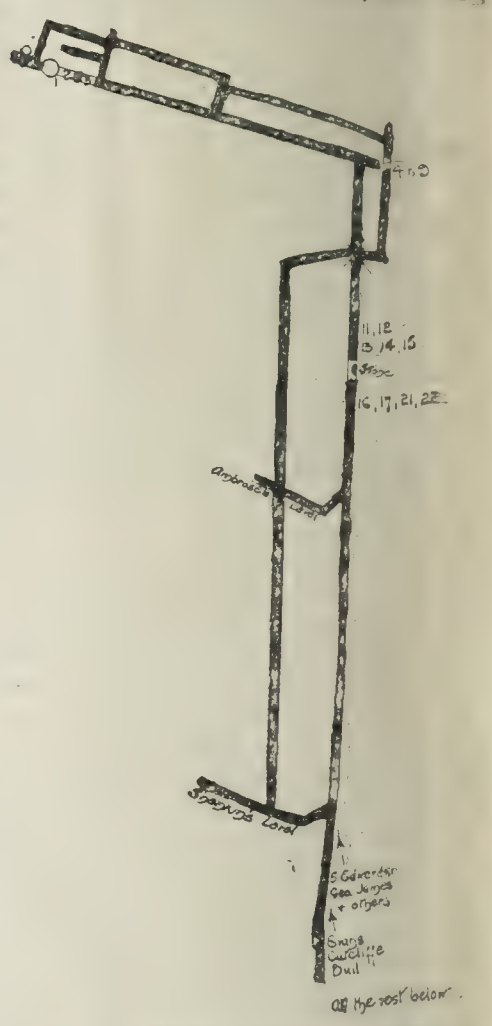


Fig. 1.—Showing supposed position of men at actual moment of explosion (ground plan).

We may conclude that the immediate effect of the explosion was as follows: 4 to 9 and 11 to 15 inclusive immediately lose consciousness and do not move again. Of the four men—16, 17, 21, 22—in the manhole, 17 is blown into the innermost corner, where he remains unconscious; the others—16, 21, 22—are blown into the road. They are all unable to move, but John remains quite conscious. There are many men on their way out near Shenkin's level; these all hurry forward and meet near John. Some, J. Evans and Syd. Edwards especially, make an attempt to go forward, but are compelled to retire. They try to relieve John and Prosser, without success, and then Evans leads his party out through Gilfach. Ed. Cleavy (25), Vaughan (24), J. Morgan (20), and Jenkins (23) then come up and are able to take John and Prosser to a recess by No. 1 Pump.

They probably took one man between two, and possibly carried them back. This would account for the fact that Barker (16) was left unmoved. There were only four men, and they were unable to do more. Barker also was a very big man and too heavy to carry.

Meanwhile D. Edwards (10) rushes forward and tries to make his way out. He falls just beyond the air-bridge. Davies (26) and Baragweneth (27) now come up. They offer to go back, bring up a tram, and help the others to take John and Prosser out. They would have to retire about 400 yards and come back. They do so.

Returning, they find the six men unconscious in the recess by No. 1 Pump. They reverse the position of the horse so that it looks towards Gilfach, and then fall unconscious themselves. They were found in the roadway by the tram, together with the dead horse.

Course taken by the After-damp.

A large quantity of the after-damp must have escaped at once up both shafts and through the broken doorways into the return.

At first the greatest quantity probably collected at the

top of the drift, for the following reasons. The explosion probably reached its maximum there, as shown by evidence of greater injury to the bodies and presence of a large fall. More after-damp would be formed here then. The top of the drift would act as a chimney, and the heated air and after-damp would tend to remain at the highest point. (There is a well-marked fall in level from the top of the drift to the stone.) The evidence that men were able to go beyond the stone proves there was not much after-damp there at first. As the heated gases cooled, and with partial return of the natural ventilation, the after-damp moved gradually down the drift, clearing away almost entirely from the main road.

Possibility of Rescue.

Nos. 1, 2, and 3 were exposed for so short a time to the after-damp that their lives were not endangered; 4 to 9, 11, 12, 13, 14, 15 probably lived a very short time, and it is very doubtful if they could have been saved; 10 (D. Edwards) should have escaped through Gilfach; 16, 21, and 22 could not save themselves, and it was in trying to save them that 20, 23, 24, 25, 26, and 27 (and possibly 10) lost their lives.

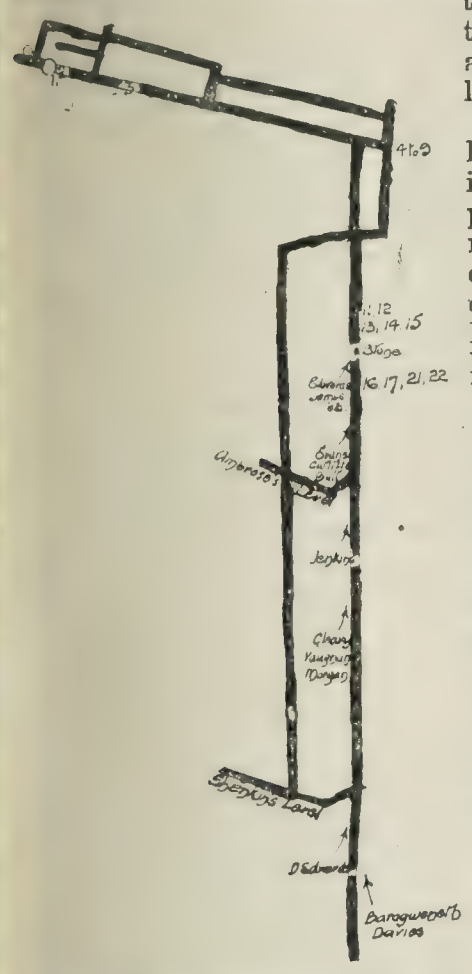


Fig. 2.—To show supposed positions of men five to ten minutes after the explosion.

Why should Anthony have lived? Barker in almost the same position died. Anthony may have been less susceptible to carbon monoxide than Barker. Both were young, and Barker was a very well-built man. Barker was sitting propped up against the side with his head, say, 2½ ft. above the ground; Anthony was lying on the ground. Possibly a stream of air entered along the ground and brought the necessary amount of oxygen to Anthony, while, Barker, who was above this stream, breathed air containing more carbon monoxide.

THE RESCUE OPERATIONS.

From the Darran End.

The pit carpenter, W. Evans, went down the ladder in the upcast shaft immediately after the explosion. He was followed by E. Davies and T. Matthews. They first attended to Jones (1) and Tovey (2), and after some trouble succeeded in getting Jones free. David Lewis then came down, and with Ed. Davies and T. Matthews proceeded down the main road. Wm. Cleavy (3) got up from the ground and called to them. They took him along with the intention of taking him out through Gilfach.

They went below the air-bridge, when Cleavy became affected by the after-damp. (He had probably already absorbed a good deal of CO before starting.) The party retired, and met E. Owen and Ned Jones.

Davies, who had been down since 5 a.m., was also overcome; he was sent back to the pit mouth with Cleavy.

Lewis, Owen, and Jones then proceeded down the drift; they found the bodies 10, 11, 12, 13, 14, 15, 16, in the positions shown.

They could hear someone breathing, and eventually found Anthony in the manhole. His breathing was so noisy that they heard him 20 yards off. They tried to do artificial respiration, but desisted as the skin (epidermis) was coming off his arms. He was quite unconscious.

Ned Jones was sent back to fetch Dr. Turner (8 a.m.); Lewis and Owen then went on by themselves as far as Shenkin's level. The air here was very thick, and Owen was unable to go any further. They retired, and met Dr. Turner, Ned Jones, E. Richards, and W. Edwards.

Dr. Turner sent Owen back to the pit mouth with Richards, and gave orders that Anthony was to be taken to the pit mouth. This was done by E. Davies, who had returned the second time with fresh help. Owen, on return to the bottom of shaft, revived, and was able to superintend repairs to the doors.

Dr. Turner, Edwards, Lewis, and Ned Jones then went down the drift. Jones, who had been down some hours, was obliged to return; he was able to go out by himself. The others then went down the drift as far as Shenkin's level, when Dr. Turner, who was leading, noticed that he had no reply from Lewis; he turned back, and saw Lewis slide slowly into a sitting position. He shouted to him, and tried to rouse him, but obtained no reply. Edwards also gradually subsided, but remained conscious. Dr. Turner asked him for the jack of beef-tea which he was carrying; Edwards did not speak, but let the jack fall. They both became unconscious, and Dr. Turner was unable to rouse either.

Dr. Turner had no symptoms until he exerted himself in trying to rouse the other two. He then felt tired, wanted to lie down, but struggled on as far as he could, falling several times, and finally losing consciousness.

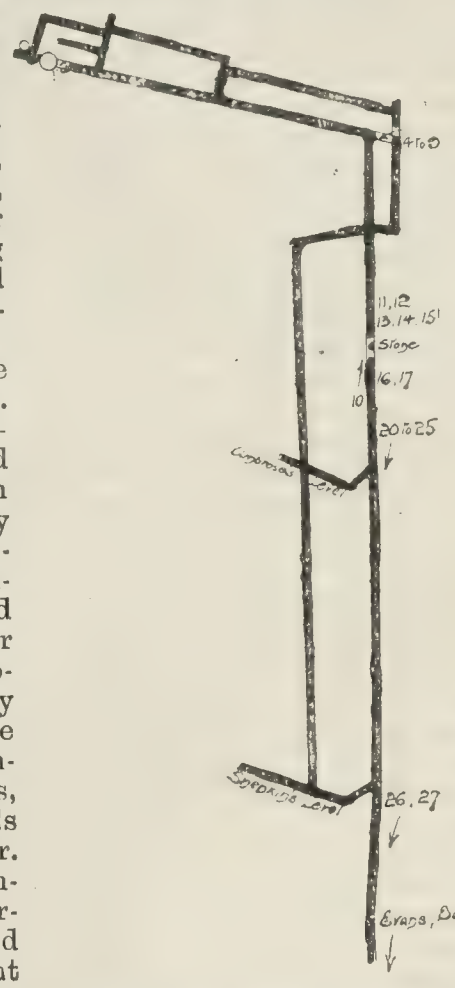


Fig. 3.—To show position of men fifteen to thirty minutes after explosion.

Ned Jones for the third time, with Wm. Thomas (under-manager), Meredith and C. Edwards, went down the drift at 9 a.m. They found Dr. Turner unconscious, but breathing. Edwards was told to carry Dr. Turner out, and Thomas proceeded a short way down the drift. He found no one, and catching up the others, found that Edwards could not carry Dr. Turner. Thomas himself then took Dr. Turner on his back and carried him for about 30 yards. He was then obliged to drop Dr. Turner and struggle on himself. Ned Jones relates how he saw Thomas drop on his knees, crawl forward, and finally stop—he himself was just able to crawl beyond Thomas. Evan Owen had by this time returned with E. Davies and others to the air-bridge. He saw a light below and shouted; receiving no answer he proceeded down the drift and found the four men all unconscious in the roadway. Ned Jones was in front with his lamp in his teeth, and with his chin resting on it. The lamp was thus kept vertical and alight. The four unconscious men were brought to the pit side of the air-bridge, when Owen again collapsed.

All, except E. Davies, were overcome, but a fresh party of rescuers was able to bring all the men out.

Subsequent operations were all directed to the recovery of Dr. Turner. He was soon found, but the tales are so conflicting that I am unable to make out a definite account. He was treated on the pit side of the air-bridge with oxygen and artificial respiration and was only brought out about 2.30 p.m.

W. Edwards and D. Lewis were both dead when found. Mr. Grey, Inspector of Mines, then gave orders that no one was to go beyond the air-bridge until it had been repaired (3.30 p.m.).

From Gilfach.

The first rescue party, consisting of Mr. Bowen, manager (30), G. Griffiths, overman (29), D. Morgan, fireman (28),

D. Jones, collier, J. McCarthy, collier, went forward about 5.45 a.m. They walked very quickly to the door communicating with Darran Pit, so quickly that Mr. Bowen felt tired when he arrived there. The door between the two pits was shut.

Entering the Darran Pit they passed a horse feeding in Week's level. Proceeding carefully they noticed a distinct smell of "powder" (H_2S?). Mr. Bowen sat down and asked the others how they felt. Morgan said he was a little dazed. Mr. Bowen asked for a drink of tea, and then said, "What about going a little further, boys?"

"We started, and had only gone about ten yards when Morgan, who was second, fell. Mr. Bowen went on a yard or so; we shouted, and he dropped his stick and came back. I carried Morgan's head; Jones and Mr. Bowen took one leg each. We went back as quickly as possible, Gomer Griffiths leading with the light. We had only gone back about forty yards when Mr. Bowen said, 'Put him down.' Mr. Bowen and Griffiths then dropped almost together. Jones and I ran back for help" (McCarthy). Mr. Bowen's stick was found forty yards beyond the three bodies (28, 29, 30), which were all together.

A second rescue party say they heard Jones and McCarthy shouting for help, and saw them fall unconscious near Boot's level. They carried the two men back.

A third rescue party then went forward about 7 a.m. Several men were partly overcome and had to be helped back. One member, Ned Rees, was left behind unconscious. The party was not able to advance very far into the Darran Pit.

The last rescue party was led by Mr. Watkins, manager of Bargoed Colliery, about 8 a.m. He was not allowed at first to enter the Darran Colliery, but when he was told that Ned Rees was left behind he blocked up the Gilfach return airway and went forward (8.45 a.m.), taking the Gilfach air with him. Ned Rees was found unconscious, breathing very noisily and with his tongue out. He was carried back. Proceeding, they found a horse in Week's level (see above), unconscious and breathing very heavily. Mr. Watkins examined all the double partings and felt dazed every time he entered one. They worked their way up to Boot's parting taking most of the air with them. Here they found a dead horse. There was no indication of a cap in the lamp. A resinous smell resembling that of burning timber was noticed. The men were continually questioned as to how they felt, and in one case, after a satisfactory reply ten yards before, one man fell without warning. "One more man fell and then I fell myself. A few yards before this I had taken rest and felt quite well. My legs became weak and the man behind noticed I was walking unsteadily" (Watkins).

The party then retired, Mr. Watkins on a stretcher; he soon recovered and returned, sending on a *fresh* party of seven men, followed shortly afterwards by a second party of seven. The first party recovered the three bodies and brought them back. Phil Williams and Parry then went on further, and had to be assisted back by the second party.

All retired, and passing Week's level they found that the horse had been revived by the fresh air. The horse was on his feet, and just able to stand up.

All rescue operations from Gilfach were then suspended.

Of the first rescue party three died and two escaped. They were all under similar conditions.

The three men who died were officials, the others colliers. Mr. Bowen had had nothing to eat since the previous evening, Griffiths had been working all night, and Morgan had had a long walk to the pit. McCarthy and Jones were fresh, and had just had a good breakfast; being colliers they were also more accustomed to physical exertion.

SYMPTOMS OF AFTER-DAMP POISONING.

The following accounts were given by the men:

J. McCarthy: No symptom until he tried to carry back Morgan; he then felt his breathing becoming deep and laboured. When he ran back for help he felt his legs weak and heavy, and had feeling of weight on his back. Felt very sick. When he came round he felt very cold, had marked shiverings, and a bad headache.

Thomas McCarthy: Slightly affected only. Giddy. Air thick and difficult to breathe.

Mr. Watkins (Manager): Felt dazed after going into double partings. Became tired; his legs gave way; marked palpitation. He was walking unsteadily before he fell. "A few yards before I fell I had taken rest and felt quite well. My urine was very thick afterwards."

Ed. Owen (Under-manager): Noticed the air was very thick. Pain in back of head; weakness of legs, so that they felt very heavy. Unsteadiness. He was better after return to fresh air, but again collapsed when he went down the drift again. "Quite done up." Marked nausea, with headache and giddiness when he reached the pit top a second time; he rapidly become worse, and fell outside the offices.

W. Thomas (Under-manager): None until I carried Dr. Turner. I felt him very heavy, and my knees became very weak. I had to breathe very deeply, and had headache. I was obliged to drop Dr. Turner, and was able to struggle on with great difficulty. I thought I had gone 20 yards, but was only just beyond Dr. Turner.

Ned Jones: This man went down the drift on three occasions; he was obliged to retire twice, but returned after he had been in fresh air for some time. "Quite done up; no power in my legs; quite unable to help to carry Dr. Turner. I felt my legs going and my head swelling. When I came round I was shivering, and felt very cold for a long time. I was very weak next day."

Ed. Davies (first rescue party): "Eyes burning, throat parched, legs weak. I was obliged to return, and improved in fresh air. After helping to bring Mr. Thomas back, I was again done up, but was able to walk out."

J. Evans (in pit when explosion occurred): "Beyond the stone the air was full of smoke and dust, and very hot. My lamp nearly went out. Great heat across my forehead. Felt my legs very weak; each step was like ten."

Syd. Edwards (in pit): "Tried to go forward, but air was so thick and breathing so difficult that I had to return. On my way back I felt very weak and was unable to keep up with the others. I was quite done up until I met the fresh air."

Mr. Hannah (General Manager, Ferndale)—Evidence at inquest: "Mr. Trump and I went to within 6 yards of Shenkin's level. We found it difficult to breathe; had palpitation and pungent feeling of the eyes and nose; worse coming back."

Dr. Turner: No symptoms until he exerted himself to rouse the others. "I felt tired, wanted to lie down, had weakness of the legs, and fell several times."

SUMMARY OF SYMPTOMS.

It is most important to realize that symptoms may be entirely absent and the man fall without warning.

Once symptoms appeared they always increased in severity unless a return to fresh air was made at once.

It follows that as soon as symptoms appear the man should at once retire.

Symptoms are always increased and in many cases only brought out by exertion.

A man who had been down before collapsed before a fresh man.

Symptoms sometimes increased when fresh air was reached.

Objective Symptoms.—The man would be silent, not answering when spoken to; his gait would be unsteady, slow, and rolling from side to side. Then he would fall and become unconscious, with stertorous breathing.

Subjective Symptoms.—Tired feeling, weakness in knees and legs, giddiness, palpitation, and difficulty in breathing. All movement becomes difficult, the legs feel heavy, and there is sense of weight on the back. Time sense delayed. "Every step like ten." Then would come complete helplessness, followed by unconsciousness.

Physical Signs (of Carbon Monoxide Poisoning).

Severe.—Unconsciousness, with stertorous breathing, which at times becomes very irregular and jerky. The pulse is small, very irregular, and intermittent. The body is convulsed with severe shivering attacks. Recovery is shown by regularity of breathing with steady pulse, and, after a variable time, return of consciousness.

Mild.—These men appear stupid, are unable to walk without assistance, and look something like "an incapable." They are often sick, feel cold and miserable, but soon recover with warmth. Some cases showed excitement, but I believe this was due to the brandy they received.

TREATMENT OF AFTER-DAMP POISONING.

Preventive.

No one should advance into the zone of explosion until the ventilation has been, at any rate partly, restored. The air should be taken with the party.

It is very important to impress on the men:

The very great danger of the after-damp.

The fact that carbon monoxide gives no indication of its presence either by a cap in the lamp or by smell. Also, that the lamp burns well in a poisonous percentage of the gas.

Never to go in small parties; there should be six or seven in each party.

The rescue party should be under a good leader, and should be followed by a reserve party. They should be all fresh and have had a meal recently.

A canary or tame mouse should be taken with the party, and the movements of the animal carefully watched. The party should return on signs of collapse of the animal.[2] They should immediately return if one of their number is affected in any way. The alternative is the use of one of the rescue appliances.

Curative.

1. *The man should be removed to fresh air without delay.* This should mean the pit top. It is useless to attempt treatment in an atmosphere which contains carbon monoxide.

2. *The patient should be kept warm.* This is of the greatest importance. Several cases collapsed more than once after coming round, and were quickly revived by warmth.

3. *Oxygen should be administered in large quantities.* Oxygen should be given warm. One oxygen cylinder may be made to serve several patients at once by filling football bladders with the gas; the bladders could then be warmed in front of a fire and continually refilled.

4. *Artificial respiration*, if necessary. This should only be done in a pure atmosphere or the patient will be made worse. Schäfer's method is the best. This method was found very useful in men who collapsed after coming round.

5. *Injection of strychnine and adrenalin.*

6. *No exertion should be allowed.* The men should be carried home when they have recovered.

Post-mortem Signs of Carbon Monoxide Poisoning.

I was unable to make any internal examination. The bodies were all well preserved eighty hours after death, and rigor mortis was still well marked. In case of the rescuers one glance was sufficient to determine cause of death.[3] The face was of a bright pink colour, ears and mucous membranes of lips of the same tint. The *post-mortem* stains were also pink. The man almost looked alive. I saw no evidence of venous engorgement. I tried to obtain blood from the heart of one body by a syringe, but was only able to draw off pink serum.

In all the other cases the pink colour could be seen either inside the mouth or by rubbing off the superficial layer of skin, which was in many cases loose as the result of burns.

Character of the Burns.

Fifteen men were burnt more or less severely. The burns were severe, according to amount of body exposed. Anthony (17) and John (21), who were in their shirts, had face, hands, arms, neck, and chest affected. The men (4–9, 11–15) were dressed, and only had hands and face burnt. Tovey (1) at pit bottom was burnt by hot coal-dust. In all cases the superficial layer of the skin was separated and was curled up into small areas. In John's case the burns were more extensive and the finger-nails were loose. Possibly in his case the injuries were due to the action of force. The hair in many cases was singed.

Two men were injured on top of the pit.

A.—*Skyrme:* This man was stepping into the cage when the explosion occurred. He was thrown against the side of the cage, but received no definite injury. He suffered afterwards from great nervous depression, had marked tremor of face and hands, was tired easily, and did not return to work for two months. He has now apparently recovered.

B.—*T. Williams:* Acting as banksman. Cut eyelid and small scalp wound. This man also was very nervous afterwards; he started whenever spoken to, had marked tremor, and was idle six weeks.

Table Showing Cause of Death.

No.	Name.	Burns.	Injuries.	Cause of Death.
	A. Rescuers.			
18	Wm. Edwards ...	*Nil*	*Nil*	Carbon monoxide.
19	D. Lewis	"	"	" "
28	D. Morgan	"	"	" "
29	G. Griffiths*	"	"	" "
30	Wm. Bowen*	"	"	" "
	B. Men in Mine at Time of Explosion.			
10	D. Edwards	*Nil*	*Nil*	Carbon monoxide.
20	J. Morgan	"	"	" "
24	Chas. Vaughan ...	"	"	" "
25	Ed. Cleavy	"	"	" "
23	D. Jenkins*	"	"	" "
27	J. Baragweneth ...	"	"	" "
26	W. Davies	"	"	" "
9	H. Edwards	Face and hands scorched; hair singed	"	" "
11	D. McCarthy	" " "	"	" "
12	E. Roberts	" " "	"	" "
13	Lewis Morgan ...	" " "	"	" "
14	Ambrose Jones ...	" " "	"	" "
15	M. Coombes	" " "	"	" "
16	H. Barker	" " "	"	" "
21	J. John	Face and hands badly burnt	Nose full of pieces of coal, etc.; nails coming off	" "
22	E. Prosser	Hands and arms	*Nil*	" "
5	J. Weeks	Face and hands scorched	Left side of face crushed	" "
7	John Tovey	" "	Right cheek split open	" "
4	W. Brown	" "	Top of head crushed by fall (after death)	" "
17	S. Anthony	Face, hands, arms, neck, front of chest and head	—	Died 5 days afterwards; septic infection and bronchopneumonia.
8	Jas. Vincent*	Face and hands	Fracture right elbow-joint	? Carbon monoxide; ? violence.

* Seen by Dr. Thomas only, to whom I am indebted for the notes in Cases 29, 30, 23, and 8.

Progress of Cases 1, 2, and 3.

1. *Eli Tovey:* Hand much deformed, and at present useless. The left tympanic membrane was ruptured, and he is still deaf on that side. He had no symptoms of nervous depression.
2. *Evan Jones:* Fractured leg. No nervous symptoms.
3. *Wm. Cleavy:* No definite injury, but complained of weakness after any slight exertion. Marked tremor of hands. Well-marked nystagmus also set in immediately after accident, although he had had no trouble from his eyes before. Is only able to do light work still.

It is interesting to note that, of these five cases, 1 and 2 had marked physical injuries, but no nervous symptoms, while the others had marked nervous symptoms but trivial injuries.

AFTER-RESULTS OF THE EXPLOSION.

All the cases who suffered from after-damp recovered very quickly, with one exception: J. McCarthy, of the first rescue party, was unable to work for six weeks. He suffered from great nervous depression, inability to perform any physical exertion, and loss of appetite. He showed marked weakness of grip, with tremor of hands.

A. Thomas, who was in charge of a pump underground on the night of the explosion, and who escaped through Gilfach, is also at present unable to work. He suffered from great nervousness, loss of appetite, sleeplessness, and weakness. The other men were all able to resume work when the pit started.

REFERENCES.

[1] *Report to the Home Secretary on the Darran Explosion.* By Messrs. W. N. Atkinson and F. A. Gray, H.M. Inspectors of Mines. 1910. [2] Haldane and Douglas, *Transactions, Institution of Mining Engineers*, vol. xxxviii, p. 267, 1910. [3] Haldane, *Report to the Home Secretary on the Causes of Death in Colliery Explosions and Fires*, 1896.

TRIGEMINAL NEURALGIA AND ITS TREATMENT BY ALCOHOL INJECTION.

BY

WILFRED HARRIS, M.D., F.R.C.P.,

PHYSICIAN TO ST. MARY'S HOSPITAL AND TO THE HOSPITAL FOR EPILEPSY AND PARALYSIS, MAIDA VALE.

OWING to the frequency of dental caries, or other causes connected with the teeth, neuralgic pain in the area of distribution of the fifth cranial or trigeminal nerve is one of the commonest disorders calling for treatment. Excluding dental neuralgia due to caries, erupting or impacted teeth, periostitis, etc., errors of refraction and other ocular and nasal troubles, antral and other sinus disease, there yet remain a number of cases of intractable neuralgia affecting one or more of the divisions of the fifth nerve, whose cause is either irremovable or else cannot be discovered. Prominent amongst these are the cases of true tic douloureux, often spoken of as trigeminal neuralgia It has been a matter of general agreement that true tic douloureux, once acquired, persists indefinitely until either death or removal of the Gasserian ganglion has brought relief. Cases of so-called cure following cataphoresis or other electric treatments, or the use of various drugs, have probably been either not instances of the disease at all, or else the relief was transient, and recurrence of the pain soon takes place. The only treatment besides extirpation of the Gasserian ganglion that gave any real relief was resection of the nerve trunks, and this often failed, as in the cases of neuralgia of the second division. When the pain affected the upper jaw as well as the skin of the nose, lip and cheek, unless the superior maxillary nerve was resected intracranially no improvement resulted, as peripheral resection of the infraorbital nerve alone would not influence the pain in the upper jaw, owing to the dental nerves being given off from the trunk of the nerve some distance behind the point of resection at the infraorbital foramen. Pain referred to the lower jaw alone, or to the supraorbital nerve, was often relieved for one or two years by division of the inferior dental nerve at the angle of the lower jaw, or of the supraorbital nerve at the notch respectively. In neuralgia of the third division, however, if the pain was referred to the tongue and auriculo-temporal nerves in addition to the lower jaw, peripheral resection became more difficult. The real reason, however, of the failure of the treatment by peripheral resection of the nerves, was the impossibility of repeating the operations when the pain recurred, due to regeneration of the nerve, which invariably occurred in from one to two or three years. Thus, extirpation of the Gasserian ganglion was the only real remedy, and that had the advantage of producing a permanent cure, some cases having now been free from pain for more than fifteen years since that operation. It is, however, an operation of considerable severity, and many patients have refused to undergo it, and preferred to submit to the pain rather than undertake the risk, which the latest statistics show to be about 7 per cent., even in skilled hands.

In 1903, Schlösser,[4] a Munich ophthalmologist, published his method of injection of strong alcohol into the main branches of the fifth nerve at their points of exit from the skull at the deep foramina. The action of the alcohol instantly paralyses the nerve, destroying the nerve fibres at the point of injection, if the needle has properly punctured the nerve sheath. The immediate result is anaesthesia to all forms of sensation on the skin and mucous membrane supplied by the nerve below the point of injection, and, if the third division of the nerve is injected at the foramen ovale, there will also be motor paralysis of the masseter, pterygoids, and temporal muscle. Experimental work by Finkelnburg[1] has shown that degeneration of the nerve fibres of the ordinary type follows injection of a nerve trunk with strong alcohol, so that this method practically amounts to a chemical resection of the nerve. The advantage of this method over resection by the ordinary method of incision is that the needle leaves practically no scar, and it is possible to repeat the operation indefinitely, whenever pain returns after regeneration of the nerve. Schlösser[5] states that alcohol injection is less successful in those cases in which resection of the nerves has previously been done. This has not been my experience in three cases in which the inferior dental, infraorbital and lingual nerves had been divided. In each case the relief of pain after injection was complete.

During the last twenty months, between October, 1908, and May, 1910, I have treated with alcohol injections 50 cases of neuralgia of one or more branches of the trigeminal nerve. In this period I have had sent to me 38 cases of true tic douloureux, 23 in private practice and 15 in hospital. Of these 38 cases I have treated 33 with injections of strong alcohol into the affected nerve trunks at their foramina of exit from the skull. Two of my cases have been unsuccessful, owing to my failing to hit off the nerve, and the pain remained uninfluenced. One case died suddenly of angina whilst awaiting the injection treatment to be begun; two refused all suggestion of any form of operative treatment, and one is considering the question. Another, a woman with bilateral spasmodic neuralgia of the second and third divisions, which has continued off and on for over thirty years, ever since she was 17 years old, improved somewhat under butyl chloral hydrate, and injection treatment was consequently postponed. The remaining 31 cases were all completely relieved of the pain in the affected nerve, as the result of the injections, for periods varying from two months to eleven months and more. Nine of my cases have had recurrences of the pain after intervals of complete freedom varying from two to nine months. Five of these cases have been re-injected, causing much deeper anaesthesia than before, and their next interval of relief will almost certainly be much longer. The short interval of two months' freedom occurred in case 35, a woman with tic of the right third division mostly, with some reflected pain in the upper jaw, of six years' duration. Injection of the foramen ovale on March 5th, 1910, must have been perineuritic, not into the nerve, as no anaesthesia at all was produced, but her pain was instantly relieved, and did not recur until May 13th, and then in the lower jaw only. On May 14th I again injected the foramen ovale, producing complete anaesthesia of the inferior dental and lingual nerves, though only slight anaesthesia of the auriculo-temporal, and no paresis at all of the motor branch. She has been perfectly free from pain since. Three cases injected in June, 1909, are still quite free from pain, over eleven months, and the remaining 19 cases, which were injected between the end of August, 1909, and May 14th, 1910, have so far had no recurrence.

Another common type of trigeminal pain, though quite distinct from tic douloureux, and yet equally curable by alcohol injection, is supraorbital neuralgia, or brow ague. Of these I have injected eight cases with alcohol at the supraorbital notch, with the best possible results, the pain disappearing generally at once, as though by magic,

ough in two cases it did not disappear finally until four five hours after the injection. Of late years these cases supraorbital neuralgia have been fairly common as quelae of influenza. The pain is agonizing while it lasts, d is very periodic, usually starting about 10 30 a.m., d lasting without intermission until about 5 p m., turning every day, perhaps for weeks. The periodicity the pain is suggestive in its resemblance to the supra- bital neuralgia or brow ague due to malaria. I have t come across any such malarial neuralgia, but I think would probably yield to injection with alcohol of the upraorbital nerve at the notch, in the same way that the ost-influenzal type does.

I have also used this method for injecting the superior axillary nerve in two cases of chronic antral disease ith periostitis, for the inferior maxillary nerve in three ases of inoperable carcinoma of the tongue and base of kull, in two cases of chronic neuritis of the ophthalmic ivision of the fifth nerve, two cases of neuralgia of the uriculo-temporal area of a migrainous type, and one case f sclerosis in the medulla involving the spinal root of he fifth nerve, causing neuralgic spasms in the analgesic acial area.

Indications.

As the result of this experience, it appears clear to me hat the alcohol injection method is indicated under the ollowing conditions in any persistent neuralgia:

1. When the site of irritation or injury to the nerve is nore or less peripheral, so that the nerve can be injected n the central side of the lesion. No benefit results from alcohol injection of a nerve below the point of irritation. This method is therefore contraindicated in tabetic and in post-herpetic neuralgia.

2. When paralysis of the affected nerve will not cause extensive muscular palsy. Thus injection into the sciatic nerve, or into either of the nerve trunks of the upper extremity, is contraindicated.

I need not repeat the description of Schlösser's method of working with a very stout needle like a cannula, with a blunt stilet or trocar projecting beyond its point, as I do not consider it is the best method. I have followed Sicard[6] in using finer needles, without any projecting stilet, and I entirely agree with him that the use of a blunt stilet, in order to avoid vascular injury, is unnecessary. I, however, use drawn steel needles, not of platinum, as Sicard recommends. For the foramen rotundum and foramen ovale I use hollow steel needles, $2\frac{1}{2}$ in. or 64 mm. in length, made for me by Messrs. Maw and Son, in two sizes, with an outside diameter of 0.8 and 1.2 mm., the points being short and bevelled at an angle of about twenty degrees. Of late I have been using the finer needle in preference to the stouter size, as it causes less pain, though it is rather more difficult to work with. The handle or butt ends are round, with a milled grip, and bored accurately to fit a Record syringe. I have the milling incised with a file in line with the bevelling of the point, so that when the needle has been inserted I can direct the orifice of the needle towards the foramen by rotating the needle until the file mark is directed towards the foramen. With ordinary care there is no danger of breaking off the point, and I consider a platinum needle unnecessary. Although a blunt stilet projecting beyond the point is inadvisable, in my opinion, a stilet to fit the bore of the needle as far as the commencement of the bevelled point is necessary, to prevent the interior of the needle becoming filled with blood clot whilst working it down to the deep foramen. For this purpose I use the ordinary brass wire supplied with such needles, bending the end projecting from the handle at a right angle, so as not to interfere with the fingers when working.

As soon as the nerve is found at the foramen I withdraw the wire, and attach the syringe, ready filled with 90 per cent. alcohol, to the needle, and commence to inject slowly two or three drops. If the needle is correctly placed in the nerve, or even touching the outside of the sheath, a sharp burning pain will instantly be felt over the area of the distribution of the nerve, lasting about fifteen seconds, and gradually dying away. As soon as all the pain has disappeared, three or four more drops of the alcohol are injected, causing a repetition of the same burning pain, but lasting probably a few seconds less. Thus, a few drops at a time, from 1 c.cm. to 1.5 c.cm. is injected, the pain produced with each succeeding push of the syringe being less and less. The syringe is then detached, and the needle steadily withdrawn, a sterile sponge being then firmly pressed over the site of the puncture for three or four minutes, until the oozing of the few drops of blood that always escape has ceased. A small collodion dressing, the size of a threepenny bit, is then applied, and left on for four days.

I invariably boil my needles, wire stilet, and syringe in weak soda solution immediately before use, as strict asepsis must be observed. The skin over the site of the puncture is previously sterilized with ether soap, followed by a solution of lysol, 1 in 3 of spirit. This is wiped off with spirit after a few seconds, as, if left longer, the skin is apt afterwards to become sore, and later will peel.

The method of directing the needle towards the deep foramina I described[2] fully in February, 1909, and I have little or nothing to add on that point. The question of whether general anaesthesia should be used or not is, in my opinion, one which must be considered for each patient. In five of my patients at least, four women, and in one man, it was quite impossible to attempt the injection without general anaesthesia, owing to their want of self-control. I certainly prefer to make the injections without general anaesthesia, as there is then available a valuable guide to the nerve in the sensations of the patient, who will at once complain of pain in the region of the distribution of the nerve as soon as the needle touches it. Then, as soon as a drop of the alcohol is injected into the nerve, the characteristic burning pain is felt over the same area. With general anaesthesia this indication is absent, and the needle must be guided in the right direction, first, by an intimate practical acquaintance with the correct line and depth, which can only be acquired by experience on the articulated skull and on the dead body. This study of the anatomy of the parts concerned enables the operator to picture before him the foramen and its bony landmarks, so that he is able to recognize what bony parts his needle is touching, and guide it accordingly. In my first paper[3] on this subject I described a method which I then thought combined the advantages of general anaesthesia without losing the indication of the patient's evidence of pain when the needle touched the nerve. The patient was allowed to come round partially from the anaesthetic, after the point of the needle had been worked to the probable neighbourhood of the foramen. Then, pushing on the needle into the nerve was accompanied by a spasm of the patient's face as though feeling pain, though afterwards there would be no memory of what had occurred. I have found this method successful on two different occasions, but I am now convinced from further experience that it is fallacious, and that the same spasmodic reaction of the features may occur when the needle misses the nerve, and neither anaesthesia nor relief from the pain follow the operation.

A description of one typical case of neuralgic tic of the third division will suffice. Usually the pain develops gradually, stabs of pain in the cheek or jaw suggesting toothache, so that visits to the dentist, and perhaps total removal of the teeth from the affected jaw, are the earliest remedies sought. The following is an instance of absolutely sudden onset of the pain, which I have met with in four cases, all women:

CASE XIX.

Miss S., aged 50, while at lunch nine years ago, felt a sudden crash on the right side of her jaw, as though she had broken her jaw or a tooth. This was not very painful, but at every meal afterwards she noticed sudden pains, like flashes of lightning, in the right upper jaw. Any movement of the jaw, or talking, would also bring on the pains, for the first year or two during the first few minutes of the meal only, the pains disappearing as suddenly as they came. She described the pains as being "like fireworks playing along the sides of the cheek and then exploding in pain." Her attacks at first used to last for five or six weeks, and then might disappear for months, once for nearly a whole year. In 1908 she had an attack lasting from June to August, and then no more pain until March, 1909, when it started gradually, and then became severe, and lasted until I saw her at the end of August. The pain goes into the tongue, and runs along the lower jaw and into all the lower teeth up to the middle line, but not into the lip, though movements of the lips may start the pain. In the right upper jaw the pain runs only as far as the first bicuspid. The pain also runs up on to the side of the head in front of the ear, and also into the right ear and tragus, and the pinna often feels raw, and she sometimes cannot lie on the right side because of the pain.

Pressure on the lower lip, especially over the mental foramen, and sometimes over the malar bone, will start the pain, and at other times these spots are quite insensitive. No salivation. With the spasms of pain the angle of the mouth may be drawn to the right and the tongue curled up. Resisting the spasm makes the pain worse.

She had never suffered from toothache in her life, and her teeth were pronounced quite sound when the neuralgia commenced. Three years ago she was advised to have the Gasserian ganglion removed, but she refused. On September 4th, 1909, under chloroform, I injected the right foramen ovale successfully, producing complete anaesthesia of the right inferior maxillary nerve, as described in Fig. 2. There was no loss of taste, but the muscles of mastication on the right side were paralysed, and the jaw deviated to the right on being opened. At first the right side of the tongue and lower jaw felt wooden, and she had to eat on the left side, because she lost the food if it got on to the right side. The pain disappeared entirely from the date of the injection, and, although the anaesthesia has gradually diminished, there has been no further return of pain hitherto.

If general anaesthesia is used, chloroform or ether should be employed, not nitrous oxide or gas and oxygen, as the muscular spasm induced in the masseter and pterygoids by the latter interferes very seriously with the proper guiding of the needle. Consequently, whenever possible, I prefer to make the injections without any general anaesthetic, using only ethyl chloride spray for numbing the pain of puncture of the skin. I have tried anaesthetizing the track of the needle with eucaine and with stovaine, but have not found that it appreciably reduced the pain. After all, as several of my patients have told me, the pain

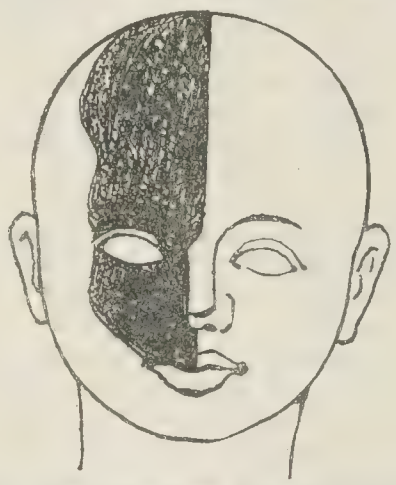


Fig. 1.—Chart of the cutaneous anaesthesia to all forms of sensation, in Cases V, XXVII, XXXIV, and XXXVI, resulting from injection of the supraorbital notch and foramen rotundum. The chart is diagrammatic for Cases V and XXXVI, in which the left side was affected. In addition to the area of skin shown, the anaesthesia was also complete on the inside of the nostril and septum, on the whole of the upper gum, inside of cheek above the line of the teeth, and on the hard palate as far back as its junction with the soft palate. In some cases of injection of the supraorbital notch the triangle of skin bounded by the notch, the middle line of the forehead, and the hair line escapes anaesthesia, owing to alcohol not diffusing to the supratrochlear branch.

of the injection is not so severe as a spasm of the neuralgic pain from which they are constantly suffering, and I have found that patients with good self-control bear it perfectly well, especially the educated class met with in private practice. The most difficult subjects are old women of the almshouse and hospital type.

Results.

Of the 33 cases of tic douloureux that I have treated by alcohol injection, 31 were completely relieved of all pain as the result; 9 of these received the successful injection under chloroform, although in 7 (6 women and 1 man) I had previously attempted to make the injection, using only the ethyl chloride spray. In all these 9 cases deep anaesthesia of the nerve distribution resulted, proving that the nerves had been properly hit by the injection. In 7 of these 9 patients I injected the foramen ovale, in 5 the foramen rotundum, and in 1 case the supraorbital nerve in addition to both the other divisions. In one of the 9 I have injected both the second and third divisions on each side twice under chloroform during the last twenty months. In 22 other cases, using ethyl chloride spray only, I have successfully injected the second division in 11 cases, the third division in 9 cases, and the supraorbital nerve in 8. Two of the cases had all three divisions involved, and in three others the neuralgia affected the first and second divisions together. In 4 of the cases, 1 of the second division and 3 of the third division, the injection must have been perineuritic and not into the nerve trunk, as neither of the four developed any anaesthesia, although the pain disappeared completely. Case 35, as already related, relapsed after a little over two months, the pain reappearing in the lower jaw, when I again injected the foramen ovale, this time producing deep anaesthesia of the inferior dental and lingual nerves. In the remaining 18 cases anaesthesia of varying depth has been produced, as a rule the anaesthesia being deeper when the injection has been made into the foramen ovale than when the second division has been treated. The statement has been made by an American writer that the second division is never really anaesthetized by injecting to the foramen rotundum; this certainly is not true, for, of a total of 17 cases in which I have attempted to inject the superior maxillary nerve at the foramen rotundum, in 9 I succeeded in producing deep anaesthesia of the skin of the cheek and side of nose, inside of nostril, septum, upper lip, gum and hard palate, so that both tactile sensation and sensation to pin-prick were abolished over this area. In no case have I ever produced any anaesthesia over the area of skin above and outside the outer canthus of the eye, which is assigned in the anatomy books to the temporal branch of the superior maxillary. The limit of the anaesthesia I have obtained has always been sharply limited by the outer canthus (see Fig. 1). The temporo-malar branch is said to arise far back from the trunk in the spheno-maxillary fossa, as soon as the nerve leaves the foramen rotundum, and that is possibly the reason why it always escapes. In 4 other cases in which I have injected the second division,

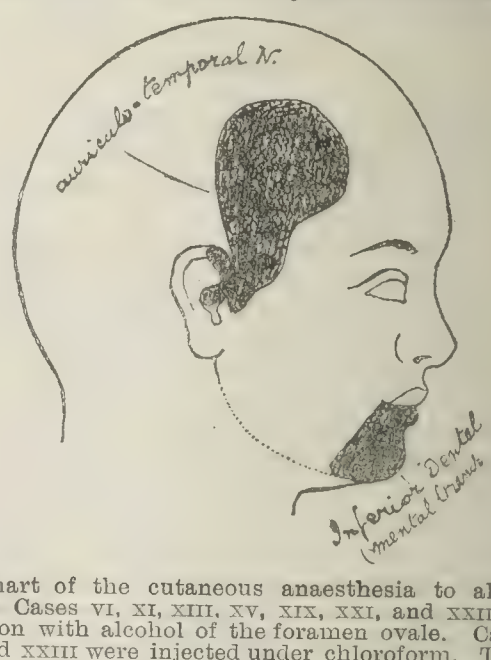


Fig. 2.—Chart of the cutaneous anaesthesia to all forms of sensation, in Cases VI, XI, XIII, XV, XIX, XXI, and XXIII, resulting from injection with alcohol of the foramen ovale. Cases VI, XI, XIX, XXI, and XXIII were injected under chloroform. The chart is diagrammatic for Case XI, in which the left side was affected. In addition to the area of skin shown, the whole of the lower gum to the middle line, the half of the tongue, and the inside of the lower part of the cheek were anaesthetic.

only partial anaesthesia was produced, pin-pricks appearing blunt, but tactile sensation being preserved, although the neuralgic pain was abolished in each. In two others injection of the infraorbital nerve produced complete anaesthesia of the cheek, and relief from all pain for four and a half months, but further injection to the foramen rotundum produced no anaesthesia of the gum and palate, and could not, therefore, have pierced the trunk of the superior maxillary. In another case, in which the pain was limited to the right second division, I attempted injection of the foramen rotundum on three occasions, at intervals of three or four days, without producing any anaesthesia at all, yet the third injection was followed by complete cessation of the pain which had scarcely left him for many months, and which had been present off and on for thirty years. In all these 16 cases the pain was completely abolished, although in 4 the analgesia produced was only partial, and in 1 there was no analgesia at all produced. In 1 case only of the 17 did I fail to relieve the pain, three injections failing to hit off the nerve, the pain, which was never very severe, remaining unaltered. In this case, slight diplopia in certain positions of the head was produced, and also some diminution in the acuity of the colour sense, indicating that the alcohol had been injected too far upwards and inwards towards the sphenoidal fissure and optic foramen. In another of the successful cases, transient slight diplopia for a week was produced, and also slight dilatation of the pupil, which persisted after the disappearance of the diplopia.

Very rarely will injection of the supraorbital notch require an anaesthetic. I have injected this nerve in eighteen patients altogether, seven of whom were cases of tic douloureux, and in only one was an anaesthetic necessary.

This treatment of injection of the nerve trunks with strong alcohol is, I am absolutely convinced, a sure cure for the pain in tic douloureux; not a permanent cure as with excision of the Gasserian ganglion, but giving complete relief from the pain for periods varying from two to five months, when the injection has been only perineuritic, and has produced no anaesthesia, to twelve or eighteen months, or even longer, in the more successful cases in which the injection has properly punctured the nerve at the deep foramen, producing complete anaesthesia of the anatomical distribution of the nerve. When the pain returns, as it is likely to do ultimately, the same process can be repeated, giving generally a longer period of immunity from pain than on the first occasion, and so on apparently indefinitely. With the needles I use, no scar is produced which can be detected after the lapse of ten days to a fortnight, even though as many as three injections may have been given at about the same spot within a few days. With proper precautions and strict attention to asepsis, there is absolutely no risk to life, and the only troubles I have met with were in three patients, two of whom had slight transient diplopia, one partial diminution of the colour sense on the one side, and in one case a certain degree of Eustachian deafness. Slight haematomata may occasionally develop after an injection, especially after injection of the foramen ovale, or of the infraorbital foramen, causing a bruised appearance lasting for a few days. Swelling of the cheek or eyelid always follows a superficial injection of the infraorbital foramen or supraorbital notch, closing the eye in the latter case for a day or two, the swelling not entirely disappearing for four or five days. Injection of the foramen rotundum is said to cause sometimes considerable swelling of the lower eyelid and chemosis of the conjunctiva, but I have not met with this in my own practice.

Dangers to be Guarded Against.

1. In injecting to the foramen rotundum, never inject at a greater depth than 5 cm. for an average-sized skull, or, a better guide, be careful not to sink the needle more than 7 mm. past the anterior edge of the external pterygoid plate. This precaution will prevent the optic nerve being injured. If the injection be made too horizontally, it will pass beneath the superior maxillary nerve and reach the spheno-palatine foramen, and will be felt in the nose. If directed too high, the sphenoidal fissure may be reached and the branches of the third nerve may be damaged, causing diplopia and dilatation of the pupil.

2. In making the injection for the foramen ovale, for the third division of the fifth nerve, if the needle is directed too low and too deeply, more than $4\frac{3}{4}$ cm., the pharynx wall or the Eustachian tube may be punctured; if too far back, the middle meningeal artery may be injured, and it is conceivable that if directed much too far back by a person with no experience, even the internal carotid artery or jugular vein might be injured.

As an instance of the boldness sometimes met with in the use of new treatments, I have known a doctor give a patient suffering from tic douloureux of the third division a hypodermic injection of alcohol deeply behind the angle of the lower jaw, because, as he said, "all the nerves ran there"! It is essential that any one wishing to use this method must first practise with a long needle upon a complete articulated skull, and then on the dead body in the *post-mortem* room, not once only, but many times.

REFERENCES.

[1] Finkelnburg, *Verhand. des Congress f. Inn. Med.*, Wiesbaden, 1907. [2] Harris, *Proc. Roy. Soc. Med., Neurol. Sect.*, 1909, vol. ii, p. 77. [3] Harris, loc. cit., p. 81. [4] Schlösser, *Klin. Monatsbl. f. Augenheilk.*, Stuttg., 1903, xli, p. 244. [5] Schlösser, *Verhand. des Congress f. Inn. Med.*, Wiesbaden, 1907, xxiv, p. 49. [6] Sicard, *Rev. Neurologique*, 1907, p. 1157.

The American and Colonial Clubs, composed of Rhodes scholars at Oxford, have passed resolutions strongly approving the aims and objects of the Association for the International Interchange of Students. The first touring party is leaving Liverpool on June 21st for Canada and the United States.

ON CIRCULAR OR END-TO-END SUTURING OF ARTERIES:

BEING A MODIFICATION OF AN ALREADY PUBLISHED METHOD.

By E. ARCHIBALD SMITH, CH.M.VICT., F.R.C.S.,

HONORARY SURGEON, WESTERN GENERAL DISPENSARY; CLINICAL ASSISTANT, PADDINGTON GREEN CHILDREN'S HOSPITAL.

THE following description of a method of end-to-end suture of arteries is an evolution of the method set forth in the book on blood-vessel surgery recently published for the author[1] by the Oxford Medical Press.

Further experience, partly in human surgery, partly in the course of research work in which blood-vessel surgery forms part of the procedure, has led to a greater perfection of the method. One or two instruments for the purpose must first be described.*

1. The "frame" (Fig. 1) takes the place of a very simple appliance termed a "measure" in the original publication of the method. In a steel frame slides a flat plate of steel engraved on one side with two scales, the upper one being $1\frac{1}{2}$ cm., graduated in millimetres, the lower being the same length graduated in $1\frac{1}{2}$ mm. Any number read off on the larger scale is equal to one and a half times the same number on the smaller scale. The use for this will appear hereafter. At one end of the instrument is a handle, and at each end of the fenestrated portion is riveted a small spring clip,

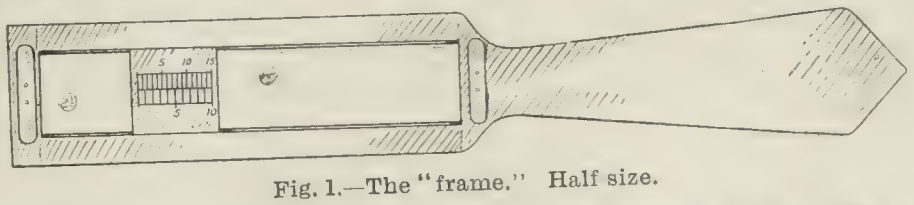


Fig. 1.—The "frame." Half size.

Fig. 2.—The needle. Actual size.

under each side of which can be fixed and held a suture.

2. A curved needle in a handle (Fig. 2). The eye is not far from the point; the needle is removable from the handle, and, if damaged, or if it becomes unthreaded during the operation, it can readily be replaced by a new one, or by one previously threaded.

3. Clamps required for the temporary control of the blood stream may readily be made by covering both blades of a small spring clamp with rubber tubing; the tubing should be reflected over itself at the heel end of one blade, and the point of the other, making those parts of the blades double covered (Fig. 3). The middle portion of

Fig. 3.—The clamp for temporary control of the blood stream. Actual size.

the blades is used to clamp the vessel; the extra layer of rubber at the ends serves to prevent injurious pressure on its wall. These clamps are better if the blades outside the rubber are thinly covered with gauze, which prevents the divided vessel from retracting through the blades. (The gauze on the blades is not shown in the drawing.)

The suture material used is silk, for a vessel as large as the human femoral artery, No. 0000; for one the size of the radial about half that thickness. In addition, some fine chromicized catgut, No. 1 or No. 2, according to the size of the vessel, is required. The silk is used from the reel, and it is essential to thread the needle from the convexity of its curve towards the concavity. The catgut should for convenience be in straight lengths, that is,

* These two instruments have been made for me by Mr. C. F. Palmer, 6, Upper Tulse Hill, London.

never have been wound on a reel. I use an apparatus for sterilizing silk or catgut by superheated alcohol vapour, designed by Föderl, and made by Kutill of Vienna. The material is thus efficiently sterilized, and owing to the volatility of the alcohol, is dry when required for use, and free from any foreign substance.

The suture method is an adaptation of the quill suture, the quill being represented by the chromic gut. The desideratum is to bring two endothelial surfaces together, yet to have a suture that penetrates every coat of the vessel but causes a minimum of bare suture material to impinge on the lumen.

The following detailed description applies to the simple experimental operation of division, and end-to-end union of an artery.

Every preparation being made, and the operator completely equipped for aseptic operating, the vessel concerned is exposed freely, and separated from its surrounding tissues for a length of 3 to 4 cm. The frame is then slipped beneath the vessel and its diameter under the arterial pressure noted on the smaller scale. The vessel is then cleanly divided, after having been temporarily clamped above and below the proposed point of union. If it retracts within its adventitia the superfluous amount of the latter should be cut away even with the divided end of the vessel.

The first suture is then inserted as follows, and attention must be given as to the direction in which the needle should be passed. The needle is passed from without inwards on the deep aspect of one of the divided ends about 1 mm. from its edge, and from within outwards at a corresponding point on the other; the loop in the concavity of the needle is seized with fine dissecting forceps, and the needle withdrawn; through the loop is then drawn a thread of the chromic gut, and a thread of silk; the loop is then drawn tight, and the two ends tied over another thread of chromic gut. The end attached to the needle must be above, the loose end below the gut. The ends are left long, the needle having been previously slid along the silk towards the reel, and being thus left still threaded. The long ends of the tied suture, and the thread of silk through its loop on the other side form two traction

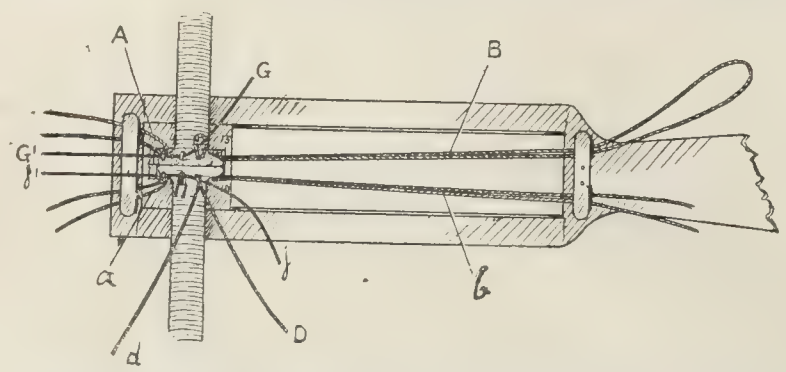


Fig. 4.—The vessels fixed in the "frame," stretched by traction threads, and partly sutured on one side. For the sake of clearness, only two sutures are shown, one of them tied, where three ought to be inserted for a vessel of this size. (Half size.) A, *a*, First traction threads. B, *b*, Second traction threads. G, G¹, *j*, *j*¹, "Quills" of chromicized catgut. D, Upper end of the last suture inserted, but not tied. *d*, Lower end of the last suture inserted, but not tied.

threads A and *a* (Fig. 4) on the deep aspect, one for each piece of the divided vessel.

The needle is passed for the second time in an exactly similar manner to the first, but on the superficial aspect of the vessel, that is, diametrically opposite to the first, but the loop of silk is drawn far through the vessel walls, and the suture is not tied for the present; the loop of this suture on the one hand, and the long ends on the other form the two traction threads, B and *b*, for the superficial aspect of the vessel, which is now ready to be fixed in the frame.

The traction threads of the *first* suture are then fixed in the clips of the distal end of the "frame," which is slipped underneath the vessel at the point of union, those of the *second* suture being fixed in like manner in the clips at the proximal end, the vessel itself being as near the distal end as possible. (See Fig. 3.) Traction is then made on the vessel wall by means of these threads, so that the part between the points where the threads pierce it is stretched to the same number on the large scale as was read on the small scale before division. The vessel is now ready to be sutured, and is not removed from the frame till the suture is practically completed. The stretching in the way indicated ensures the size of the vessel at the suture line being the same as it was before division, so that no narrowing should be present at the point of union. The sutures already inserted, after serving their purpose as traction threads, take their place also as permanent sutures when all is completed.

Sutures are now laid in succession on the exposed side of the vessel beginning $1\frac{1}{2}$ mm. from the first suture, and with a space of $1\frac{1}{2}$ mm. between each two sutures.

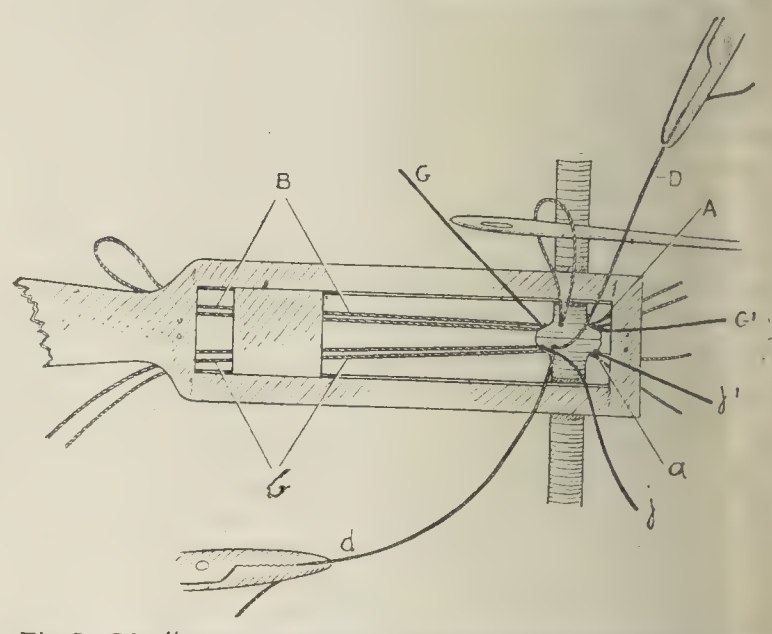


Fig. 5.—The "frame" reversed. The first suture on the reverse side inserted, its loop threaded on a probe and the loose ends distinguished into upper D, and lower *d*, in respect of the chromicized catgut *j*. Lettering as in Fig. 4. Half size.

The loops are successively threaded on a probe, and the untied ends are caught temporarily in two pairs of forceps, the unattached end (when passing the needle), being designated the lower *d*, the end attached to the reel the upper D. (See Fig. 5.) When the sutures for the one side are all laid, the proper piece of chromic gut G (Fig. 4), is threaded on the probe and drawn through the loops, being finally passed also between the two threads of the corresponding traction loop B (Fig. 4). The loops are then drawn tight, and tied over the second strand of chromic gut, *j*, in the same order in which they were laid, each suture being cut short when tied, and the chromic gut *j* being drawn between the two threads of its corresponding traction loop *b*. The sliding plate is then slid to the proximal end of the frame, which itself is turned over around the blood vessel as an axis, thus bringing the other side of the vessel upwards, and exposed for suturing.

It is in order to facilitate the reversal of the "frame" that the first traction threads A and *a* are fixed to the

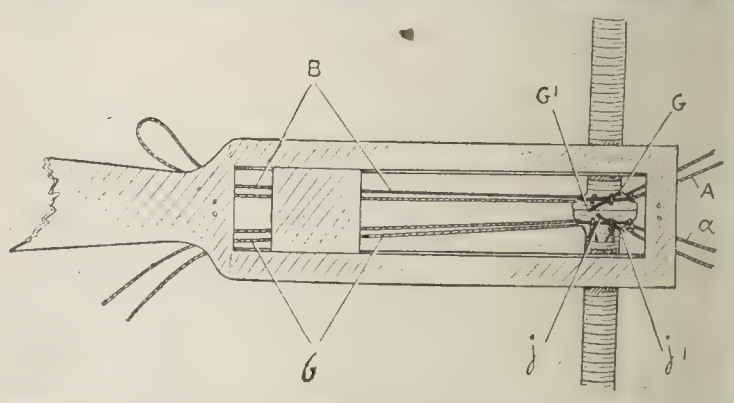


Fig. 6.—The last suture on the reverse side, its loop enclosing both ends G G¹ of the one catgut "quill," and its ends tied over both ends *j j*¹ of the other. Lettering as in Figs. 4 and 5. Half size.

distal end of the frame, and that the vessel is fixed as near that end as possible.

By making the first traction thread on the deep aspect of the vessel the latter is only turned on its own axis to an extent of 90 degrees, first one way, then the other, an amount of torsion insufficient to injure the vessel wall.

The second row of sutures is now laid exactly as the first, and tied in the same way, except that the last one to be tied has both ends G G¹ of the one catgut strand through its loop, and both ends *j j*¹ of the other tied under it (Fig. 6).

The loop of the second traction suture B *b* is now loosened from its clip, drawn tight, the ends tied and cut away. The first traction threads are cut, and releasing the vessel thereby from the frame, the suture is complete.

On loosening the temporary clamps, there is sometimes a little oozing at the suture line, which stops in a minute or two under gentle pressure with gauze between the fingers. The reason for laying and tying the sutures in a definite order is that if one breaks in the tying it cannot be replaced if the sutures on both sides of it have been already tied.

This method of end-to-end union of a divided vessel differs in some small but important details from that previously published by me.

The "frame" is a greater convenience as compared with the "measure" of the original method, in that the vessel once fixed is not removed till the suture is complete, the other side being exposed by simply sliding back the plate, and reversing the frame as described.

The main difference is that, in the original directions, the second suture inserted, which forms the traction threads B *b* during the suturing of the two sides of the stretched vessel, is directed to be tied last of all, as in this method, but the ends of the chromic gut "quill" G G^1 *j* j^1 were originally directed to be tied in this suture after removal from the "measure" (which there takes the place of the "frame"), while now the two ends of the "quills" G G^1 *j* j^1 are tied in the last of the sutures on the reverse side of the "frame," and so the diameter of the supporting "quills," which determines that of the finished union, is fixed before the traction is released and the "frame" removed. The traction suture B *b* is then tied, the section of vessel wall concerned being already held stretched, whereas in the former method that section of wall was free to contract, the traction being released, and consequently the contraction led to a slight narrowing at the suture line.

1. The course of the suture in its passage through the walls of the apposed ends of the vessel is to be noted. If the details above described as to threading the needle and as to the distinction of the ends of the suture before tying into upper D (Fig. 5) and lower *d*, with respect to the strand of catgut *j* over which they are tied, the suture will invariably take the form of the figure 8, the space in each

Fig. 7.—Shows diagrammatically the figure of 8 shape of the suture *in situ*.

half of the figure being occupied by the chromic catgut, while the cross in the centre is where the suture pierces the vessel walls (Fig. 7). There is thus no possibility of the suture cutting out on each side to the width of the thickness of the chromicized catgut, and the hole through which it passes in the vessel walls is minimal.

2. The catgut itself is a powerful aid against any tendency of the suture to cut out, by giving a more extended hold on the vessel wall. It acts also as a pair of splints, keeping the two endothelial surfaces in contact between the suture points.

3. Fewer sutures are required than under any other suture method, and so fewer needle punctures, and less consequent weakening of the wall of the vessel.

4. Nothing but an endothelial lining is exposed to the blood stream, even the sutures, though perforating all coats, being practically prevented from contact with blood.

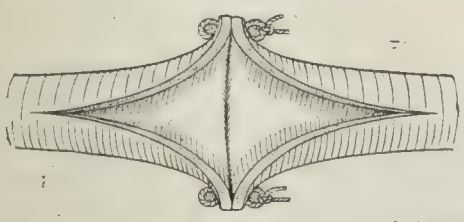


Fig. 8.—Diagrammatic representation of the internal appearance of the suture line in an artery which has been united by the method described.

The inner aspect of the vessel after suture is shown diagrammatically in Fig. 8.

5. If the observations of measurements of the size of the vessel when full of blood, and when stretched in this "frame," are correctly made, there is a mathematical certainty of having the size of the vessel at the suture line that of ordinary distension under the pressure of the blood.

6. As I have shown in the book referred to, when healing has occurred no suture material remains *in situ* in the vessel wall, the catgut being eventually absorbed, and the silk completely outside the vessel; in the scar itself new elastic and muscular fibres form, and there is a strong probability of a complete *restitutio ad integrum* being established.

I have repeatedly united by this method divided vessels of a diameter when distended with blood of not more than 3 mm. Rarely can any necessity arise in human surgery for suture of a smaller vessel.

The method is equally applicable to end-to-end suture of veins, though it is specially designed to furnish a safe suture under conditions of pressure such as exist in arteries.

A suture on the same principle is also applicable to the repair of wounds in the wall of a vessel not amounting to complete division. If the wound were longitudinal or slightly oblique the "frame" would not be required; if very oblique or transverse, it might be wiser to complete the division and make a union as above described.

It would then, of course, be necessary to observe the original diameter of the vessel under the arterial pressure by temporarily controlling its proximal end and laying it across the graduated plate of the "frame" when filled out with blood.

REFERENCE.

[1] *Suture of Arteries.* By E. Archibald Smith. Oxford Medical Press. 1909.

A NOTE UPON THE MECHANICAL EFFECTS OF A MASSIVE RIGHT-SIDED PLEURAL EFFUSION.

BY A. C. GEDDES, M.D.,

PROFESSOR OF ANATOMY AT THE ROYAL COLLEGE OF SURGEONS IN IRELAND.

(From the Anatomical Laboratory of the College.)

THE observations here recorded were made on a dissecting room subject preserved by the double vascular injection method. The arteries were injected under low pressure with a corrosive-carbolic-glycerine preservative, the venae cavae and their tributaries to the first valves with 15 per cent. formalin.

This method of preservation secures that the majority of the tissues retain an almost lifelike consistency, whereas the heart, liver, and kidneys are firmly fixed and the lungs partially fixed.

The body upon which the observations were made was that of an old woman, whose age was returned as 67. Before dissection was commenced the right shoulder was seen to be considerably higher than the left. This elevation is shown in the photograph. When the thorax was opened, the right pleural cavity was found full of clear fluid. The condition of the (partially fixed) right lung is shown in the figure. It contained air, but was not completely expanded.

In connexion with the displacement of the thoracic viscera the most striking fact was that the inferior vena cava and the pericardial attachment of the diaphragm had moored the mediastinal structures as efficiently inferiorly to and through the diaphragm as the great vessels, trachea, and oesophagus moor them superiorly to the margins of the thoracic inlet. As a result the displacement of the mediastinal structures to the left was maximal at the level of the lung roots and minimal at the levels of the thoracic inlet and diaphragm.

The diaphragmatic pleural recesses were widely opened up, and the convexity of the right cupola of the diaphragm was in part reversed, so that it looked downward instead of upward. The posterior part of the mediastinal pleura was bulged somewhat to the left of the middle line, but not sufficiently to clear the vertebral bodies.

The heart was displaced, the apex having passed downwards and slightly inwards. The mechanism of this displacement was: the right margin of the inferior or diaphragmatic surface of the heart was held almost im-

movably by the inferior vena cava. As a result the pressure from the right was only able to displace to the left the upper part of the normal vertical axis of the heart, so that the apex was forced to descend. An adequate description of the cardiac displacement would be that the heart was rotated clockwise through an angle of 30 degrees on an antero-posterior axis which passed through the caval opening in the diaphragm. The photograph shows only a small part of this rotation, for the removal of the fluid withdrew the displacing force and the natural elasticity of the tissues effected a partial rectification. The full extent of the downward rotation of the apex can be accurately gauged from the inclination of the upper surface of the left lobe of the liver against which it was firmly pressed, the diaphragm alone intervening.

The margo acutus of the heart was deeply notched at about its middle. The causation of this notching is considered later in connexion with the distortion of the liver. The notch was deep enough seriously to affect the capacity of the right ventricle.

The right auricle was almost obliterated, its cavity being represented by a mere slit. The superior vena cava was compressed and extended. Its lumen apparently was much reduced. The short ntrapericardial part of the inferior vena cava was compressed, extended, and sharply bent from right to left. It was difficult to understand how any appreciable quantity of blood could have entered the auricle. The left auricle was pulled out on its right side, and the right pulmonary veins were elongated.

As a whole, the heart was flattened on its right side. This flattening is shown in the photograph. The pericardium was healthy.

The vertical curvature of the aorta was of shorter radius than usual; this was clearly due to the rotation of the heart. The horizontal curvature was considerably flattened.

To show the flattening on the right side of the heart, the slope of the upper surface of the left lobe of the liver and the deep depression on the upper surface of the right lobe.

The liver was depressed but not rotated. The upper surface of its right lobe was deeply concave. This concavity was directly due to the transmission of the pressure of the pleural fluid through the diaphragm. The upper surface of the left lobe sloped steeply from a point near the middle line of the body downwards and to the left. This depression was due to the forced downward rotation of the apex of the heart. The central part of the liver held by its diaphragmatic attachment, the falciform ligament, and the hepatic veins, had resisted the general downward movement, if, indeed, it were not somewhat elevated. It appeared almost to have been squeezed upwards as a result of the action on the liver of three forces—the downward pressure of the fluid on the right, the downward pressure of the heart apex on the left, and the upward counter pressure of the intestines below. Be this as it may, the central part of the liver formed a prominent projecting rounded mass, against which the margo acutus was compressed. This was the cause of the notch which has already been described as seriously affecting the capacity of the right ventricle.

To ordinary clinical methods of examination the downward displacement of the liver must have been in some measure masked, for the distended transverse colon lay in front of the lower third of the organ.

The descent of the liver had caused a considerable downward displacement of the right kidney. The descent of the diaphragm had carried the right suprarenal downwards. These displacements must of necessity have caused considerable traction upon the renal and suprarenal plexuses of the sympathetic nervous system.

To generalize from one example is impossible, but it is interesting briefly to compare the actual observations made in this case under the most favourable conditions upon hardened organs with some parts of a standard description of the mechanical effects of massive right-sided pleural effusion such as that given by Dr. West in his book, *Diseases of the Organs of Respiration*. He writes:

> With effusion on the right side, the pleura extends across the sternum . . . the line of dullness being continued through the nipple, or above and outside it, to the spot where the apex of the heart is felt beating. . . .

The photograph shows that in this case the line of dullness would have followed the line indicated, but that the dullness would not have been due to an extended right pleura containing fluid, but to the displaced mediastinal structures pushing forward and to the left behind the emptied anterior part of the left pleural cavity.

The description continues:

> The most marked change on this (the right) side is in the position of the liver, which is greatly displaced and curiously rotated. The lower border reaches down as far as the border of the umbilicus . . . ; the notch is then usually close under the left costal arch and the gall bladder in the middle line.

The downward displacement of the liver certainly occurred in this case, but there was no rotation. In view of the almost necessary descent of the apex of the heart, it is difficult to believe that such rotation is the rule. The feeling of a notch near the left costal margin might be simulated by palpation of the depressed left lateral border of the organ.

In Dr. West's description the possibility of a rotatory displacement of the heart is not discussed. Compression of the right auricle and ventricle is somewhat lightly dismissed, and the possibility of kinking of the vena cava inferior is categorically denied. It existed in this case, and certainly looked sufficiently effective to explain a sudden death—a possibility which was originally suggested by Bartels. It is necessary, however, to remember in this connexion the compression of the right auricle and ventricle and the traction upon the renal and suprarenal sympathetic nervous plexuses.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

CARCINOMA OF RECTUM APPEARING SIMULTANEOUSLY IN HUSBAND AND WIFE.[1]

IN the family history on the husband's side there is nothing of importance. On the wife's side the history is as follows:

Father died from cancer of the oesophagus;
Brother died from malignant tumour of brain;
Brother died from malignant disease in neck;
Maternal great-aunt died from cancer of breast;
Maternal aunt died from cancer in abdomen;
Maternal aunt died from cancer of breast;
Second cousin (female) died from cancer in abdomen;
First cousin (female) has at the present time a breast tumour, the nature of which has not yet been determined;

so that, on the wife's side, seven relatives died from malignant disease.

The patients have been married thirty-four years. In the case of the husband, a very stout man, aged 63, the first symptoms—evacuations many times a day of small amounts of liquid faeces, with small quantities of blood—commenced in April, 1909. Six months later (October, 1909) he was examined by Mr. Ernest Miles, who found an inoperable growth high up in the rectum. On November 9th I performed left inguinal colostomy. All the tissues were very fatty and friable. The mesentery only just permitted the bowel to be fixed outside the abdomen. At the present time (April, 1910), five months after colostomy and one year from the onset of symptoms, the patient appears to have taken a new lease of life. A daily morning enema empties the bowel, from which neither faeces nor flatus escape during the rest of the twenty-four hours. There is no pain, discharge of blood from the rectum has almost ceased, and the patient feels so well that he is actively carrying on his work, which involves much standing and talking.

In the case of the wife, a thin, delicate multipara, aged 60, the symptoms, similar to those of the husband, commenced in May, 1909. Ten months later, March, 1910 (some one having suggested that the disease was uterine), the patient was examined by Dr. F. H. Champneys, who found nothing uterine, but in the rectum a large growth blocking the lumen 3 in. from the anus. On April 8th, 1910, I performed left inguinal colostomy, fixing the portion of bowel immediately below the splenic flexure.

[Seen two months after operation the patient is much less weak and the rectal discharge is very little. The high colostomy appears to have prevented prolapse, while the new opening functions as well as that of the husband.]

C. HAMILTON WHITEFORD, M.R.C.S., L.R.C.P.

Plymouth.

[1] Read before the South-Western Branch of the British Medical Association.

CARBON DIOXIDE SNOW.

IN January of this year I contributed an article to the JOURNAL on the "therapeutic value of carbon dioxide snow" in the treatment of vascular naevi, moles, etc. Since then I have had so many letters from doctors requesting further details with regard to the method of obtaining the snow and recounting the difficulties they have experienced in carrying out the treatment that I would be grateful if you would give me space to amplify my former description. The method of obtaining the snow is perfectly simple. In the department under my care at Charing Cross Hospital the liquid carbon dioxide from which the snow is made is contained in small iron cylinders of 7 lb. capacity. These are obtained from the British Oxygen Company, and filled at the London Carbonic Acid Gas Works. This size of cylinder was chosen as it is easily lifted; it is fixed vertically in a metal stand with castors. The nozzle of the cylinder is horizontal, and the key is at the top. In order that the cylinder may be used in the vertical position, it is, of course, necessary to have it fitted with a central tube reaching down nearly to the bottom.

The snow is formed by allowing a jet of the carbon dioxide to play into a piece of baize folded up in the form of a bag or tube by rolling it round a ruler. The roll of baize is held over the nozzle by the left hand, on which a glove should be worn, while the right hand controls the key and the escape of the carbon dioxide. The key should be turned slowly, and the carbon dioxide allowed to escape into the baize tube with medium force, the tube being so held that practically none of the carbon dioxide is allowed to pass through it. After a short experience it is possible to tell by the noise made by the escape of the carbon dioxide the force at which the maximum deposit of snow will be obtained. The length of time in which the carbon dioxide is permitted to play into the baize depends on the amount of snow required, and varies from a few seconds to a minute. The jet is then turned off and the baize spread out on a table, when the central part is found to be thickly coated with the snow.

This is transferred to specula-like applicators, by means of a spoon, and the snow is tightly compressed by a closely fitting plunger into the applicator, which is placed on a smooth surface. These applicators are composed of vulcanite, and vary from $\frac{1}{4}$ in. to 1 in. in diameter. They were made for the hospital to my design by Messrs. S. Maw, Son and Sons. No hard and fast rules can be laid down with regard to the exact time of application or the pressure which should be exerted, for these are matters of experience, and vary according to the type of lesion and its situation on the skin. An average exposure for a raised angiomatous naevus is about thirty seconds, for a wart a minute, or more if it be situated where the skin is thick, as on the palm of the hand. As a general rule, it is better to do too little than too much at a time, and to repeat the procedure if necessary when the reaction has subsided. A good working rule with regard to the pressure is to apply just sufficient to produce a slight cupping of the frozen area when the applicator is removed.

J. M. H. MACLEOD.

Charing Cross Hospital.

TWO CASES OF RHINORRHOEA.

THE widow of a farmer, aged 76, consulted me in 1875 about the constant dripping of clear fluid from her nose. Later she lost power in her legs, and died with the signs of cerebro-spinal degeneration. The fluid dripped so constantly that she could not prevent it finding its way into her food. It was not tested for sugar.

The second case was of the same kind, occurring in a middle-aged gentleman, whose brain and cord were slowly degenerating. After many years of glycosuria and consequent fibrosis of the kidneys he lost control of his legs, and finally of his hands and tongue. He died in a comatose state. His nasal fluid was clear, colourless, and devoid of sugar. Of course no treatment controlled this discharge.

CAREY COOMBS, M.D.

Castle Cary.

PUERPERAL ECLAMPSIA: RECOVERY.

I SAW for the first time Mrs. C., aged 18, at 7.30 p.m. on April 11th. She was in a very severe fit, and had been almost continuously in them since 11 a.m., when she had the first. She was six months pregnant, and was apparently quite well until she had the first fit. When 11 years old she had typhoid fever and acute nephritis. She had neither had special diet nor, in fact, any treatment during her pregnancy. With great difficulty I passed a catheter. The urine was loaded with albumen. I decided to waste no time with the conventional treatment, but injected hypodermically ʒij of liquid extract of ergot, and returned home. At 10 p.m. Dr. Edward Nason kindly saw the case with me, and agreed that the only means of saving life was to empty the uterus, and even then the prognosis was very bad. Dr. Nason administered chloroform. I was greatly relieved to find that the ergot had done good work, for the os admitted my little finger. In fifteen minutes I had introduced the largest Hegar's dilator, and, finding a vertex presentation, turned and brought down the feet. I had great difficulty in extracting the head.

The patient passed a very restless night and had to be held down in bed. She had a very severe fit at 10 a.m., but this was the last. From 3 a.m. onwards during the whole of the day I kept her under the influence of morphine. She passed no urine from 11 a.m. on the Monday until 7 p.m. on April 12th, and then only a small quantity. On the evening of April 11th I only drew off a very small quantity. She quickly improved and was able to take fish on the sixth day, and regarded it as a great hardship to wait so long for it. On the tenth day she was

up and dressed. When last seen, three weeks after the first fit, she was apparently quite well and doing her work.

The interesting points about this case are: (1) The early onset of the fits, only six months pregnant. (2) The discarding of the usual attempts to arrest the fits. (3) The action of the ergot, which caused partial dilatation of the os. (4) The recovery of the patient.

Nuneaton. J. VINCENT SHAW, M.B., B.Ch.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

THE INFIRMARY, SUNDERLAND.

(Notes by Z. M. HAMILTON ROSS, M.B., Ch.B., Resident Medical Officer.)

THE following record of a week's operative work at a provincial hospital may be interesting as showing the variety and extent of the work done at such institutions, even when situated near a large and important centre.

During the week ending January 15th twenty-four major operations were performed by members of the honorary surgical staff, besides twenty-seven minor operations performed by the resident staff.

Included in the series are acute mastoiditis (3), for acute appendicitis (6), for quiescent appendicitis (1), for ruptured gastric ulcer (2), for pyloric disease (1), for intestinal obstruction (1), for cholecystitis (1).

One of the patients operated upon for mastoid disease died of meningitis the following day, and the patient with cholecystitis died of post-operative shock. All the others have made excellent recoveries.

Some of the cases are worthy of special mention. Perhaps the most uncommon was that of a man who was found to have considerable limitation of movement in the elbow-joint. A loose body could be palpated anteriorly, and a skiagram showed a shadow in this position, with evidence also of irregularities posteriorly. By an anterior incision the body in front was easily removed, and was found to consist of cancellous bony tissue covered with cartilage. It measured about 1 in. by $\frac{3}{4}$ in. by $\frac{1}{4}$ in. I can find no similar case on record.

The case of pyloric disease presented most of the signs and symptoms of perforated duodenal ulcer, but at the operation no perforation could be found. The pylorus was adherent to the surrounding structures, and was partially covered with lymph. Gastro-enterostomy was performed, and whereas previous to operation the patient suffered much, he has since been on ordinary diet without any ill effects.

One of the cases of ruptured gastric ulcer presented considerable difficulty in diagnosis. The question of perforation was discussed, but it was finally decided to treat the case as one of appendicular trouble. A healthy appendix was found. A median incision was then made, and the perforation was discovered and sutured. Although the patient had delirium tremens for two days after the operation, he eventually made an excellent recovery.

Another case of interest was a boy aged 11 years, sent in as a case of intussusception. There was a tense swelling, about 2 in. in diameter, in the left iliac region. It was entirely limited to the left side, and proved to be a pelvic appendicular abscess.

The intestinal obstruction occurred in a patient upon whom Wertheim's hysterectomy had been performed in June. Obstruction was due to the adhesion of the small intestine to the wound, and was relieved by enteroplasty. This incident shows the importance of attending to the position of the omentum when the patient has been placed in the Trendelenburg position, before closure of the abdominal wound.

The following week among the operations performed were mastoidectomy (2), abdominal hysterectomy (1), for ruptured duodenal ulcer (1), lateral anastomosis (1), and appendectomy (3).

I am indebted to the honorary surgical staff for permission to record these cases.

Reports of Societies.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Wednesday, June 1st, 1910.

Dr. C. W. MACGILLIVRAY, Vice-President, in the Chair.

Artificially-prepared Hypnotics.

DR. F. D. BOYD, introducing a discussion on artificially-prepared hypnotics, said that of the milder members of the group the best were amylene hydrate and chloralamide, which should be given dissolved in alcohol. In the medium group paraldehyde stood out as the best. Its nauseous taste was a disadvantage, but this again obviated the danger of a drug habit. It was specially good in pneumonia, except in the alcoholic form. It acted well per rectum in 2 to 4 drachm doses, well diluted. Sulphonal was toxic and cumulative, and should be excised from the *Pharmacopoeia*. Bromural was sometimes effective in emotional excitement. Of the powerful hypnotics, chloral was seldom used now. Veronal was best given in soup, the minimal dose being 3 to 5 grains. It had occasionally unpleasant sequelae—general erythema, vertigo, even ataxia and peripheral neuritis. Trional should be banished along with sulphonal. A good general rule was never to employ these hypnotics undissolved. It was with their use in tabloid form that unpleasant and dangerous effects were generally associated. It was also wise to ring the changes in prolonged use of hypnotics, and never to use a single drug for long. He was in favour of restrictions on the sale of those not in the *Pharmacopoeia*. Dr. CLOUSTON said the object in giving hypnotics might be to produce sleep, to act as a nerve sedative, or as a muscular quietus. He believed in the virtue of combination of hypnotics. Sulphonal and paraldehyde made a valuable combination. Potassium bromide was also a good adjuvant to sulphonal, and the combination gave sleep, followed by a quiet day. In his belief, it was the means of keeping many old people out of the asylum. He had never found sulphonal toxic, and disagreed entirely with Dr. Boyd's condemnation of it. Dr. ROBERTSON (Morningside Asylum) extolled the combination of potassium bromide and paraldehyde. He agreed with Dr. Boyd in his condemnation of sulphonal, having met with toxic effects from its use. He had also had unpleasant results with veronal and trional. Dr. AFFLECK said he had found potassium bromide with tincture of hops most useful for cases of simple insomnia; while chloral and potassium bromide were valuable in the delirium of fever. Dr. SILLAR said that in giving hypnotics two principles were important, that of combination and solubility. Alcohol was not only a good solvent, but was also useful in its diaphoretic action on the skin. In this connexion a glass of beer could be compared with the tincture of hops mentioned by Dr. Affleck, both in its constitution and sedative effect. Dr. RITCHIE said that in cases of pain the only efficient hypnotic was an opiate. In the sleeplessness of old age or debility, a drink of warm soup was often effective. For many years he had avoided using sulphonal. Dr. LUNDIE said that in cases of overwork, strain and anxiety, phosphorus given steadily in small doses for some time was a "curative hypnotic."

The Treatment of Lupus Carcinoma.

Dr. NORMAN WALKER said this complication of lupus by carcinoma had been increasing in frequency of late years, and was probably associated with the increasing frequency of *x*-ray treatment. After describing a number of cases of his own, he said the features of this form of malignant growth were its superficial character and the absence of involvement of neighbouring glands or more distant metastasis. The usual treatment was excision, but it was almost invariably followed by recurrence. This had happened in nearly all his early cases, and also in a series recently published by Professor Wild. Lately he (Dr. Walker) had practised vigorous erasion under local anaesthesia, careful stopping of bleeding, and application of a powerful caustic, such as fused chromic acid, or arsenious acid to the raw surface. With this treatment his results had been much better. Dr. ALLAN JAMIESON said the common site of lupus carcinoma on the face

uggested that exposure was a factor, and recalled Unna's ases of sailors' cancer. *X* rays should be used in lupus n the face with caution, except on the nose, where this omplication did not occur. He endorsed the value of the rasion and caustic treatment.

The Cammidge Reaction in Abdominal Disease.

Dr. W. RUSSELL gave an analysis of results obtained rom 78 cases, chiefly of abdominal disease. In a few acute onditions the Cammidge reaction was markedly positive n an acute necrotic pancreatitis, but also in a case of nalignant disease of stomach, where *post mortem* the iver was infiltrated with new growth and the pancreas vas healthy. In a series of hepatic conditions the reaction vas positive in a number of cases of cirrhosis, gall stones, nd catarrh. In a group where the symptoms were aguely gastro-intestinal there were twenty-six positive esults and twenty-nine negative. And, again, seven bservations on members of the staff, who all appeared to e healthy, gave six positive results and one negative. These results negatived the idea that the reaction was a "pancreatic" one, for if it appeared when the pancreas was involved, it also was present when it was healthy. Further, the substance that gave the reaction was of carbohydrate origin, while the pancreatic ferments were of proteid nature. This pentose which gave the urinary reaction was probably an index of carbohydrate digestion in the intestine, but there was no evidence that it specifically incriminated the pancreas or any other abdominal organ any more than did the presence and variations of urea, uric acid, and ethereal sulphates in the urine.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

Tuesday, May 24th, 1910.

Professor W. BEVAN-LEWIS, M.Sc., in the Chair.

Insanity and Conduct.

DR. CHARLES MERCIER, in a paper on insanity as disorder of conduct, said that he had been surprised to find at a recent meeting of a committee of the association that no one supported his suggestion that the study of conduct should form an item in the proposed syllabus of subjects for a diploma in psychiatry. He had supposed that the doctrine that insanity and disorder of the mind were convertible terms had been exploded twenty-five years ago. He proceeded to instance cases of claustrophobia, agoraphobia, and giddiness as disorders of mind that were not insanity, and cases of insanity in which disorder of mind was irrelevant. In one case, on being introduced to a lady, she spat in his face. He sat down at once and certified her to be insane without interchanging a word with her. He knew nothing of the state of her mind, nor did it interest him. If the mental condition of a patient was given in a certificate of lunacy, the certificate did not give facts observed, for the mental condition could not be observed; it could only be inferred from conduct. Nor was the mental state important, except as suggesting tendencies in conduct. Since in every case the state of the mind had to be inferred from conduct and then conduct inferred back again from mind, why not simplify the operation and look to conduct as of primary importance? The syllabus stated that it was important for the student of insanity to test the patient's reaction-time, to discover his aesthetic sentiments, to examine his estimation of time and space, to know his response to the ergograph; but whether he was suicidal or dangerous, whether he could earn his living, whether he tore up his clothes or was indecent, whether he tried to murder his wife and children, were apparently matters of profound indifference to the alienist. That was the lesson to be learnt from the syllabus. That was what students are taught by it. He submitted that conduct was all-important in insanity, that it ought to be studied, and ought to be studied systematically.

Dr. G. SAVAGE said that certain certificates which he had signed had been wide of the mark concerning facts as observed by himself. A lady might have her powers of calculation and reasoning intact, but if she left home and did many strange things indicating a tendency to lust, one would recognize symptoms indicating insanity. Because a man lost a certain kind of memory he should not be regarded as insane; a man might be very mad and yet be right in his conduct. Even the committal of a crime did not in itself constitute insanity. Some teachers were always insisting on the danger of the definite, and certainly one must not be governed by definitions which were too rigid. He was much indebted to Dr. Mercier for insisting that insanity must be looked at from the practical rather than the purely scientific point of view.

Dr. W. H. B. STODDART said the point at which he parted company from Dr. Mercier was that he (Dr. Stoddart) regarded conduct as a part of mind. The difficulty was that a line had to be drawn between conduct and what Dr. Mercier called mind. Conduct appeared to be something muscular, but he did not think one could stop at the muscles and exclude the nervous system or the skull's contents. It would not be easy to say where study of conduct was to leave off and the study of psychology begin.

Dr. R. H. STEEN remarked that Dr. Mercier said when conduct was disordered there was disorder of mind, and he, Dr. Steen, wished to know whether the converse was true. He instanced the case of a girl against whom no disorder of conduct could be alleged, yet who was certified as a private patient, and at the end of a year the certificate was renewed. What was the superintendent of an institution to do with such a case?

Dr. T. DRAPES said he thought Dr. Mercier's remarks would have been apt if he had used the word "certifiable" before "insanity." One was taught that the mind consisted of three departments—intellect, emotion, and will—and that insanity might show itself by disorder of any of these, or of all three together. If Dr. Mercier's views were fully carried out, the occupation of the alienist would be gone, because the man in the street would be considered as good a judge as to whether a man was or was not sane as the skilled alienist. But the alienist was required to give some explanation of the man's conduct, and that could only be done by a reference to the man's condition.

Dr. A. R. URQUHART complained that the paper just read was not that of the physician, because it did not reflect the physician's point of view. If insanity was merely a disorder of conduct, then the question was rather a legal than a medical one, though, of course, the alienist had to address himself to legal as well as medical matters. Insanity he regarded as a disease of the brain which affected the actions of the body; and the alienist had to inquire what was the reason of the disorder of mind, and what could be done to restore the mind to the normal condition.

Dr. J. F. DIXON asked whether Dr. Mercier wished insanity to be regarded merely as a disorder of conduct without any reference to the supposed state of mind which led up to that disordered conduct. If insanity was merely disordered conduct, how could accommodation be provided in this country for all the cases of insanity?

Dr. BEDFORD PIERCE said he understood the thesis to be that there was no insanity without disorder of conduct. If that were so, there was no knowledge of insanity without disordered conduct. How did Dr. Mercier speak of the person troubled with obsessions to murder? A gentleman came under his charge voluntarily because he wanted to be protected against himself, as he had an obsession that he would murder his children. His conduct in seeking such protection, however, was not insane.

Dr. R. L. LANGDON-DOWN asked whether one could wholly infer the mental condition from the conduct. Conduct was the text by which the mind was read, and the text needed to be carefully studied so as to know the state of the mind.

Dr. H. RAYNER narrated a case in which a surgeon did a very strange act to himself, and in which a certificate of insanity was not signed, as the alienists concerned did not think there was a likelihood of his doing a similar thing again.

The PRESIDENT said he understood Dr. Mercier to controvert the legal fiction that delusion was a necessary proof of insanity. He (Dr. Bevan-Lewis) agreed that conduct should be very widely taken into consideration, but a stumbling-block was provided by the problem as to how to deal with crime. It would be difficult to solve in the courts the problem as to what disordered conduct constituted crime.

Dr. MERCIER replied on the discussion, insisting that he was pleading for a systematic study of conduct. He had all along taken the view that every man had an unescapable responsibility for his own acts, and he had never regarded crime and insanity as convertible terms. In answer to Dr. Bedford Pierce's difficult question he would say look at the man's conduct and ascertain what he did. The man referred to did the most sane thing he could—namely, put himself under Dr. Pierce's care. He, Dr. Mercier, strongly repudiated the notion that mind was to be neglected altogether; but hitherto mind had been too exclusively studied, and conduct had been left out.

The Ross-Jones Test.

Dr. JOHN TURNER read a paper on the examination of cerebro-spinal fluid, with special reference to the diagnostic value of Ross and Jones's test.

Dr. HUBERT BOND corroborated the statement as to the ease with which the test was applied, and said he hoped to hear of some equally ready test to show the cases which, at some period of their lives, had had syphilis. The test just described seemed applicable only to syphilis of the nervous system.

Toxic and Exhaustive Psychoses.

Dr. W. H. B. STODDART enunciated a theory explanatory of toxic and exhaustion psychoses. He said the disease to which he referred was also known as post-febrile insanity, acute confusional insanity, and acute hallucinatory insanity, though on the Continent the term "amentia" was preferred. All the cases had the same series of symptoms, and they arose as the result of toxaemias of various kinds, mainly those following acute fevers, though it might occur in those who had undergone profound physical strain, as in one case, that of a man who won a long distance race. It occurred following mental shock, and in those who worked up for examinations. A remarkable symptom was peripheral anaesthesia, often with inability to recognize sounds. Some had apraxia, catalepsy, and katatonia; they also had constant hallucinations, in which there was a positive and a negative factor. The peripheral neurons were dissociated, and he believed that dissociation must occur at the synapses, for there was increased synaptic resistance in the whole nervous system.

Dr. SEYMOUR TUKE and Dr. BEDFORD PIERCE discussed the contribution, and Dr. STODDART replied.

Reviews.

AFTER-TREATMENT.

It must be a very difficult task to write a good book on "after-treatment." The temptation to go outside the subject must be as strong as the case that could be made out for doing so. It is no use laying down rules for possible complications in the post-operative course of diseases unless the pathology of the malady and its incident extensions are known; so that, exactly as in the case of books on diagnosis, great restraint is necessary to save an author from serving up a mutilated work on surgery. The points to be looked for in such a volume are good arrangement, good typography, good indexing, and brevity. Professor REICHEL of Chemnitz, in his book on after-treatment of operation cases[1] has tried to secure accessibility, but his index is not quite elaborate enough, and in spite of marginal headings it really is not easy to find quickly information about any particular question. The general part of the book is concerned with wounds, infection, intoxications, nervous disturbances, special treatment required after operations in the individual tissues, fistulae, contractures, and so on. In the special part chapters are devoted to operations of regions and special organs. The style is, however, too literary for the subject, and in a striving after completeness the author has left his readers in the stress of indecision. It is no doubt true that for haemorrhage after gastro-enterostomy somebody has recommended the injection of gelatine. But for practical purposes one might as well "rub it with a bath-brick," as Beck would have said. There is not enough detail about such matters as colostomy cups and suprapubic dressings, whilst any attempt to include after-treatment of orthopaedic cases in a general treatise was foredoomed to failure. In spite of the enormous amount of information collected between these covers, it is not quite the book for the English student.

A book much more likely to be of practical service to students and practitioners alike is the *Preparatory and After Treatment in Operative Cases* of Professor HAUBOLD of New York University.[2] The author has written specially with the purpose of putting into the hands of the general practitioner a book that will make him thoroughly acquainted with modern methods of preparing patients for operations, and furnish him with such knowledge of present day practice in controlling the subsequent course as will justify an operating surgeon in leaving both preparation and after-care in his hands, and at the same time will give the family doctor the right to claim special fees from his patient for his specially skilled work. Professor Haubold thinks in this way to obviate a growing evil—the levy of a toll by the practitioner on the specialist's fees—but he points out that the public must be educated to the idea that the work *is* specially skilled. Although here again the index is not so full as it ought to be, the text is so fully illustrated, that a good deal may be learnt simply by turning over the pages. There is such an enormous amount of special apparatus, and so many mechanical contrivances for methods of after-treatment that any one may be excused for not being familiar with every demand any particular surgeon may make upon him. Here he can learn at a glance what is meant by the "Fowler" position; how to arrange for continuous suprapubic drainage; how to feed a child after intubation, and a hundred like matters. There are, of course, a good many points on which we might quarrel with the author's dicta, but he is always careful to say "I have found it best" or "I generally prefer," and that is an impregnable position. For instance, Professor Haubold is very nervous of purgatives after abdominal operations, and he is ready to let his patients out of bed much earlier than in this country is usually considered advisable. More definite directions ought to be given as regards the protection of hot-water bottles when used "in contact with the patient" in shock; more than a few reputations have been damaged by want of care in this particular. There is a long quotation from the writings of the inventor of a high-pressure respiratory and anaesthetic apparatus for use in operations on the chest, but the author does not tell us whether he has found it of value himself. He is open to a similar charge on other points, as, for example, in his description of the wonderful effects of isoform in rendering the intestinal tract aseptic. But wherever, as throughout the greater part of the book, he is writing out of the fullness of his own experience, his advice is sound and his directions are simple. This is a book that ought to prove valuable not only to the general practitioner but also to the surgeon and to the student.

PALPATION OF THE ABDOMEN.

IN spite of recent improvements and additions to our mechanical means of diagnosis, palpation remains the chief method by which we can explore the abdomen; yet, compared with auscultation or percussion, the art is little studied, and is rarely acquired, if at all, until comparatively late. Dr. THEODOR HAUSMANN, the author of one of two books we propose to class together, published three years ago a monograph on the palpation of the normal stomach, which we reviewed favourably at the time (BRITISH MEDICAL JOURNAL, December 7th, 1907), and his new volume, *Die methodische Intestinalpalpation*,[3] is an extension of the same careful methods to the examination of the bowels. As has been well said, palpation is the most subjective of all physical methods, and requires for its successful performance that the mind of the observer should accompany his finger-tips, and through them, as it were, see the abdominal contents. To do this is not easy,

[1] *Lehrbuch der Nachbehandlung nach Operationen.* Compiled by Professor Dr. P. Reichel. Second edition. Wiesbaden: J. F. Bergmann, 1909. (Sup. royal 8vo, pp. 575, illustrations 67. 12s.)

[2] *Preparatory and After Treatment in Operative Cases.* By Herman A. Haubold, M.D., Clinical Professor in Surgery, New York University. New York and London: D. Appleton and Co. 1910. (8vo, pp. 680; 429 illustrations. 25s.)

[3] *Die methodische Intestinalpalpation mittels der topographischen Gleit- und Tiefenpalpation.* Von Dr. Theodor Hausmann. Berlin: S. Karger; and London: Williams and Norgate. 1910. (Sup. roy. 8vo, pp. 169; Abb. 9, Taf. 2. M.4.50.)

as the sense of touch has not been educated to convey delicate impressions, such as the blind receive from their fingers; the medical student or practitioner who sets about to learn must remember that only by time and patience can he acquire the delicacy of touch which will enable him to practise with success the difficult art which Dr. Hausmann teaches. He must not be discouraged if at first he cannot feel all that an expert says can be felt; still less should an impatient teacher or practitioner throw doubt on its value or discourage others from seeking to acquire the needful skill. Dr. Hausmann attaches great importance to the palpation of the abdomen on a topographical principle—that is, the observer should know the usual position of each organ and search for it in a methodical manner. The palpation should be at first sliding, the hand placed flat on the abdomen, moving the skin with the fingers, until all that can be made out superficially is recognized; the second stage is deep palpation, and, where greater pressure is required, he recommends the plan of superimposing one hand upon the other, the upper hand making pressure while the lower hand gathers the impressions. He warns beginners not to expect to do too much at once; at first a thin subject should be selected with relaxed abdominal walls, in whom it is possible to make out with comparative ease most of the points discoverable. He claims that those who will follow his directions to the end and will test the method for themselves will recognize its practical value; by it the normal stomach and the different parts of the bowel, the pylorus, great curvature, caecum, transverse colon, and sigmoid flexure can be made out. Further experience will enable the observer to follow out the whole of the colon, and even to recognize the portion of the ileum as it enters the caecum. Dr. Hausmann makes no pretension to be the originator of systematic palpation of the abdomen, but gives due credit to his predecessors, Glénard and Obrastzow. It is not suggested that it is possible in all persons to make out by palpation all the above points. Obrastzow believed he could feel the transverse colon in 33 per cent. of his cases; it is perceived as a transverse cylindrical body with an upper and lower contour which runs for three or four fingerbreadths on each side of the middle line; it is made out by slipping the finger with the skin up and down so that the gut rolls under the tips of the fingers. The pylorus is a short cylindrical body to the right of the middle line, also with an upper and lower contour, but the great curvature feels like a step without an upper contour. The pancreas can be sometimes perceived, but only in a small proportion of cases—estimated to be not more than 0.5 per cent.—and when felt it is probable that it is indurated. Hausmann recommends that the patient should be placed in an easy position on his back with his legs stretched out and the head and shoulders slightly raised; the arms should be laid parallel with the body; the couch should be so long that, as he says, a giant might be laid upon it. Palpation on a soft bed is, in his opinion, impossible. He gives details for the examination of all the above organs and for that of the kidney, psoas muscles, and appendix. Before attempting to palpate the last, the whole course of the large gut and the pars caecalis ilei must, he says, have first been made out; the last, if contracted and not bubbling, may resemble the appendix, but if two worm-like bodies can be felt one must be the appendix. He thinks the appendix can be felt in 25 per cent. of those cases in which the colon is palpable. He gives the following statistics of the cases in which he has been able to palpate the principal organs: Caecum, 79 per cent.; transverse colon, 62 per cent.; sigmoid flexure, 91 per cent.; pars caecalis ilei, 84 per cent.; vermiform process, 16 per cent. The book is a very good one and an English translation we feel sure would be appreciated.

Professor SACCONAGHI'S book on the diagnosis of abdominal tumours is much larger but deals with the same subject.[4] Professor von Noorden, to whom the book is dedicated, has written a short complimentary preface in which he says that the author relies mainly on palpation, and he agrees that the educated hand can diagnose all but a small percentage of cases without the use of more complicated means. The author defines an abdominal tumour as any abnormal circumscribed protuberance as well as any wholly or partially enlarged, distended, indurated, or displaced organ, which conveys the impression on palpation of abnormal resistance in the abdomen, but he limits his subject by excluding tumours of the wall, except so far as they may be mentioned for purposes of differential diagnosis, tumours of the diaphragm, because they are not palpable, and tumours of the pelvic organs, unless they develop upwards so as to come within the abdomen. He recommends that the patient should be lying flat, with no pillow, with the arms by the side of the body, and the legs straight or half-bent at the knee; he points out, however, that the bending of the knees does not relax the abdominal muscles, and he thinks it is preferable to support the knees by a pillow. The patient must breathe quietly and relax all his muscles; the mouth should be open. The hand may be oiled or rubbed with French chalk, but he thinks this necessary only in a small proportion of cases, the colon and liver being palpated better without it. The hand should be applied flat to the abdomen, at first softly and superficially, then more deeply when the muscles have softened. The finger-nails should be pared closely, and he recommends the plan of superimposing one hand upon the other when deep pressure is needed. In cases of difficulty—as, for example, in great obesity—he recommends palpating under water in a warm bath. He says chloroform should be avoided as "dangerous"; he mentions the local application of methyl-chloride as recommended by Guinard, but says he has not tried it. He claims to be able to palpate the horizontal portion of the duodenum! For palpating the spleen he recommends that the patient should be lying partially on his right side or, as he says, midway between the dorsal and right lateral positions, with the legs slightly bent, the left arm raised and the hand resting on the head which is bent backwards on a soft pillow. The physician should stand on the patient's right side with his right hand laid flat upon the abdomen in the line from the crest of the ileum to the left costal border, and should press gently with the finger-tips under the border of the ribs, meanwhile his left hand is placed at right angles to the left axillary line of the patient so as to grasp the lower part of the left side of the thorax and to exert pressure towards the palpating right hand, the patient should at the same time breathe slowly and deeply. He thinks the pancreas may be palpated if the stomach and bowels be empty, but only in people with relaxed abdominal walls. He does not think it abnormal to be able to feel the lower end of the kidney. After describing his methods of examination, he gives a classification of tumours based on their pathology, and then a second based on their localization, as (1) in front of the alimentary canal, and (2) posterior to the alimentary canal. He discusses the various points which must be investigated in connexion with each tumour, such as its mobility, its relation to the distended stomach or bowel, its form and size, the nature of its surface, its consistence, percussion note, the presence of pulsation or murmurs, painfulness or tenderness, and the results of puncture, or in some cases of exploratory incision. He has ranged widely over the literature of the subject, and has incorporated a great mass of material collected from scattered papers in medical periodicals, and in this way has made a large book, but we are not convinced that the subject is best studied in this fashion. As a work of reference the book has some value, but a student or young practitioner would spend his time infinitely better by the bedside with the guidance of a smaller, more concise manual. Various writers have stated that gastric ulcer is rare in Italy, but we were not aware that it was so rare as the author's figures suggest; he says that out of 62,598 patients treated in the Ospedale S. Giovanni at Milan there were only 90 cases of gastric ulcer, or 0.15 per cent.

[4] *Anleitung zur Diagnostik der Abdominaltumoren unter Zugrundelegung der Palpation.* Von Professor Dr. G. L. Sacconaghi. Uebersetzt von Dr. V. Plitek. Mit einem Vorwort von Professor Dr. C. v. Noorden. Berlin: S. Karger; and London: Williams and Norgate. 1910. (Sup. roy. 8vo, pp. 430; Abb. 90. M. 12.)

CELLS AND BLOOD CELLS.

IN their book on haematological technique[5] Drs. SCHRIDDE and NAEGELI deal only with the methods which they

[5] *Die hämatologische Technik.* Von Dr. Herm. Schridde and Dr. Otto Naegeli. Jena: Gustav Fischer. 1910. (Roy. 8vo, pp. 142; 1 coloured plate and 20 figures. M. 3.60.)

themselves have found useful, but the selected processes are described in such detail that they can be followed even by a beginner. The first part, from the pen of Dr. Schridde, deals with the examination of the blood-forming organs, and it is a noteworthy sign of the times that this part occupies a little more than half the book. The technique of obtaining the material, fixing, imbedding, cutting, and staining, are given in great detail, together with many practical hints of general interest. There is, of course, a description of the authors' method of demonstrating the Altmann granules. He recommends as a readily obtained material for the study of these granules the tonsils and adenoids which are removed in such large numbers by the surgeon. This part of the book concludes with a short description of the various types of cell and their staining reactions. The coloured plate which accompanies the description is rather crude. Dr. Naegeli has written the second part, which deals with the clinical examination, and, as might have been expected, it follows very much the lines of his well-known textbook. For blood counting he uses only the Thoma-Zeiss apparatus, but describes the numerous sources of error and the means of avoiding them in great detail. He does not object to the fluid flowing over into the ditch and advises that some fluid should be placed between the cover-slip and the slide. It is important to have a uniform distribution over the slide (a much neglected point) and to get Newton's rings. There is a useful table of the best staining methods for the demonstration of the various features of the cells. Innumerable methods are left without mention, but the only one we regret to miss is the Haldane method for the estimation of haemoglobin. Another slight defect is the omission of directions for the preparation of a few stains, including that of Giemsa. The authors recommend that they should be bought ready prepared—a procedure which in this country is apt to result in solutions of uncertain age and still more uncertain staining power. We should sum up the valuable features of the book by stating that, here are described the actual methods which have been subjected to the test of the extended experience of two eminent haematologists. The book should meet with a cordial welcome.

Professor SCHAFFER, in *Die Plasmazellen*,[6] reviews the subject of plasma cells from the point of view of normal histology. The discussion on these cells has often passed beyond the bounds of scientific controversy into the realms of personalities, but Professor Schaffer has given a very fair exposition of the present position of our knowledge. Waldeyer first used the term for a heterogeneous group of cells which have since been shown to be of very different types. Unna described as plasma cells, identical with those of Waldeyer, the inflammatory cells found in lupus, and further stated that they were only found in pathological conditions. The peculiar character of these cells, which had been previously described by Ramon y Cajal, is not doubted, but it has since been shown that they are certainly not identical with all the plasma cells of Waldeyer, and they are also found in normal tissues. The conception of a plasma cell is based on its strongly staining protoplasm, which is heaped up at the periphery of the cell, leaving a clear space round the nucleus; the latter is situated eccentrically, stains with basic dyes less strongly than the protoplasm, and has a chromatin network arranged in a radial manner. No single one of these characteristics is, however, typical of the plasma cell. Cells with these features are found in many organs of the body, especially in the alimentary canal. The dispute as to their origin is far from being settled, but the author states that all the evidence tends to show that they originate in all parts of the body from the small round cells with scanty protoplasm which, regardless of their origin, have been called lymphocytes. Their fate is also unsettled, but it seems that they may become mast cells, epithelioid cells, or may become pyknotic and die. The evidence for their becoming fibroblasts is very slight. As regards their function, the author, finding that they are very plentiful in the thymus of hibernating animals where the tissue is being absorbed, thinks that they serve some function in elaborating the products of tissue destruction. A valuable feature of the book is the very full bibliography, which extends to over six pages.

[6] *Die Plasmazellen.* Von Dr. Schaffer, Professor of Histology at Vienna. Heft 8. Gaupp and Nagel's Encyclopaedia of Anatomy and Physiology. Jena: Gustav Fischer. 1910. (Roy. 8vo, pp. 47. M. 1.20.)

In a small volume and in a concise and clear manner Dr. FISCHER gives an excellent account of an investigation into the question of myeloid metaplasia and fetal blood formation.[7] Those who are interested in the subject would be well advised to purchase and read the monograph, for even if they do not agree with the author's conclusions, they will appreciate his evidence and admire his method of demonstrating his opinions. Dr. Fischer refers frequently to the work of other observers, and, after comparing it with the results of his own observations, he arrives at the conclusion that the myeloid formations which result in the production of blood cells are largely the consequence of the proliferation of connective tissue cells of embryonic character which are present in many organs, or of the transformation and return to a more rudimentary character of more highly specialized connective tissue cells and their subsequent myeloid growth. The first process he calls "heteroplasia," and the second "indirect metaplasia." He admits, also, as the result of his most recent work, that new blood cells, myeloblasts, basophile erythroblasts, and megakaryocytes, are produced under certain conditions from the endothelial cells of the capillary walls. The technical details of the methods by which Dr. Fischer has attained his results are to appear in a special monograph in which the physical and chemical problems of the fixing and staining processes will be discussed.

Dr. SCHWESINGER, of Coburg, has dedicated his Inaugural Dissertation to furthering the fantastic theory of cell reproduction put forward by Freytag.[8] Schwesinger has counted and measured all the cells in a series of slides, and in over three million cells has been unable to find any evidence of cell division. He has also measured all these cells and finds that he can classify them according to size, which he assumes is a classification according to age. He concludes that Virchow's celebrated dictum *Omnis cellula e cellula* must be modified into a general theory which is merely a generalization of Freytag's blood regeneration theory. This theory states that the red cells of the blood lose their haemoglobin in the spleen, and become shadows which migrate to the bone marrow, where they fuse together to form an undifferentiated mass called the amphiblast. The nuclear material, which has remained invisible during the intravascular life of the cell, again becomes visible and collects haemoglobin material around it, and forms an erythroblast, which again goes to the spleen, where it undergoes a single division, the nucleus becomes invisible, and the regenerated red cell is ready to enter the blood stream again. This theory is raised into a philosophy which embraces the state as an organism of the sixth order, whilst the amphiblast represents the first order. This work stimulated us to spend an evening with the Cellular Pathology, which we found ample compensation for the time spent on reading Dr. Schwesinger's thesis. If it does this in other instances it may serve a useful purpose.

[7] *Myeloische Metaplasie und Fötale Blutbildung.* Von Dr. med. H. Fischer. Berlin: Julius Springer. 1909. (Demy 8vo, pp. 148. M. 4.)

[8] *Untersuchungen über die Bedeutungen der Teilung bei den Körperzellen.* An Inaugural Dissertation for the Doctorate of the University of Bern. By Theodor Schwesinger. Bern: Falkultät auf Autrag des Herrn Prof. Dr. Rubeli. 1909. (Med. 8vo, pp. 43. Taf. I.)

POISONS.

THE second edition of Professor R. v. JAKSCH'S *Die Vergiftungen*[9] (Poisons) will fully maintain the reputation of the author and of the first edition. In the main the work follows the usual lines inevitable in a work dealing with poisons, but we know of no work which deals so comprehensively with apparently every substance that has ever given rise to symptoms of ill-health. In the introduction v. Jaksch makes use of the following definition of a poison: "From a clinical point of view everything may be termed a poison which can damage the organism not alone by its quality but by simple excess in quantity—even food"; and truly he discusses the poisonous properties of all foodstuffs—milk, fats, flesh, fish, and carbohydrates and their substitutes.

[9] *Die Vergiftungen.* Von Dr. R. v. Jaksch. Second edition. Wien u. Leipzig: A. Hölder. 1910. (Sup. roy. 8vo, pp. 773; 42 illustrations. M. 16.)

Of poisons in the ordinary meaning of the word, the corrosives and metallic irritants, chlorine and its compounds, phosphorus, sulphur, etc., there is little that is novel in the work, unless it be the simple and uniform style in which each poison is described, but when we come to the vegetable poisons and the rarer organic poisons we at once perceive the enormous industry and care with which the book has been prepared; there is certainly no natural order of plants and scarcely a genus which is omitted and for which there is not given one or more illustrative cases of unfortunate effects from taking the plant in question. The book thus forms a most useful work of reference for European investigators of poisonous products. Included in the group of animal poisonous products is an account of the ill effects that have followed injections of diphtherial, erysipelatous, antistreptococcic serums, of anticancerous injections, of preparations of mucor racemosus, of thyroid and adrenalin preparations; the descriptions, it is true, are brief, but they are there on record. Radium is also considered, as well as the effects of the Roentgen rays, sunlight, blue and red light; most striking charts are given of the effects of the *x* rays on leukaemic patients, charts which certainly give one reason to pause and consider whether such active and direct destruction of white blood cells is a process without harm to the body at large.

The last section, on endogenous toxins, is perhaps the most interesting to the clinical physician; here we have discussed retention toxins—from affections of the skin, from retention of faeces, from non-excretion of urine, from disturbance of the bile-forming and bile-excreting mechanism; then the toxins of acute infectious diseases—cholera, diphtheria, malaria, septicaemia, etc.; a third group of toxins or toxic processes induced by Addison's disease, alkaptonuria, leukaemia, worms, etc.; and, lastly, acetonaemia, ammonaemia, uricacidaemia. On ammonaemia we cannot resist quoting Professor v. Jaksch's somewhat caustic remark, "Cases of ammonaemia are rare—vielfach werden sie immer noch mit der Uraemie in einen Topf geworfen—and that may well be the reason why our knowledge of uraemia is not yet as clear as our knowledge of ammonaemia."

We have said enough to indicate the very wide range of the book, and to show that no disappointment is likely to arise when a search is made through its pages to find a case with which to compare one that may have happened to the seeker, and this we conceive to be the main reason for the popularity of the book; it is such a curiously human satisfaction to find in print an account of something one has oneself met with. The book is certainly one to possess as a work of reference.

OPERATIVE MIDWIFERY.

ELEVEN years of practising and teaching are Dr. HAMMERSCHLAG'S credentials as a teacher of operative midwifery. His book, *Lehrbuch der Operativen Geburtshilfe*,[10] is liberally illustrated, and to ensure accuracy in his pictures he has used photography whenever possible. The printers have reproduced the photographs extremely well. When the photographs were taken we know not. The extreme antiseptic ritual usual in German hospitals is enjoined in full extent—washing with chemicals, india-rubber gloves, etc., also clipping and shaving of the pubic hair. The photographs show the operator's hands duly encased in gloves; but most of them show also a luxuriant growth of pubic hair in the patient, so we conclude that the clipping and shaving is a late addition to the tribulations of child-bearing in Königsberg. A long list of instruments necessary for the accoucheur, sixty-nine in number, is given, nine of these being included in brackets as unnecessary for the general practitioner. Subtracting these, sixty different instruments is a liberal equipment. Among the things unnecessary for the general practitioner we notice the axis traction forceps. We should have said that the family doctor need have no other. What appears to us a valuable novelty in the book is the number of photographs and skiagrams illustrating the injuries to the fetus that may be produced in delivery. In describing the forceps operation, the author instructs the practitioner to have ready not only the forceps, but a sharp scissors, a needle holder, needles, dissecting forceps, two pressure forceps, suture material, a catheter, and a douche tin. If delivery is slow because the vaginal orifice dilates not well, snips are to be made with scissors. If the head is above the brim, not engaged in the pelvis, the case is not one for forceps, in Dr. Hammerschlag's opinion. The forceps he recommends is that of Naegelé. The axis traction forceps is briefly described, but the name of Tarnier is not mentioned in connexion with it. The author frankly recognizes that perforation of the living child is sometimes the duty of the accoucheur. The three-bladed cranioclast is the instrument he recommends for extraction. Three kinds of Caesarean section are put before the reader: The old classical operation, the "suprasymphysarean," and the vaginal operation. The supreme advantage of the classical Caesarean section is that it abolishes every kind of mechanical difficulty. But it seems to us that with the other two operations the operator may open the uterus and then find it a troublesome job to get the child out. The mortality of the classical Caesarean section Dr. Hammerschlag estimates to be 7 per cent.; of the vaginal Caesarean section, 13.9 per cent.—a mortality much too high to recommend its general adoption. The chapter on *post-partum* haemorrhage does not seem to us very satisfactory. Among the measures suggested are "Momburg's tubing"—that is, encircling the abdomen with india-rubber gas tubing pulled so tight as to compress the abdominal aorta. Another thing is to put on the abdomen for the same purpose a bag containing about 8 lb. of moist sand. Is this to be had in every lying-in room? As in most German textbooks, plugging with iodoform gauze is mentioned as a good treatment; but the reader is not told that patients have died in spite of it, or that it has been done so frequently by its strenuous advocates that it is impossible not to think that many of the patients would have done just as well without it. There is no mention of bimanual compression of the uterus between one hand in the vagina and the other on the abdomen. Nor is the pituitary infundibular extract referred to. The prophylaxis of *post-partum* haemorrhage is not so fully emphasized as we think it should be. We are aware that "comparisons are odorous." Nevertheless, we cannot help comparing this book with a recent English work, identical in scope—we refer to Dr. Munro Kerr's *Operative Midwifery*. We do not think the Scottish obstetrician has anything to fear from the comparison. Good as Dr. Hammerschlag's book may be for the Germans, the English-speaking doctor will find Dr. Munro Kerr supply his need at least as well, and in his own language.

The fifth edition of Dr. BARTON COOKE HIRST'S *Textbook of Obstetrics* was noticed in the JOURNAL of August 24th, 1907. Now we have before us the sixth,[11] revised and enlarged. The title page says "847 illustrations, 43 of them in colours"; an advertisement facing the title says "747 illustrations"; the last illustration in the text is numbered Fig. 776. The author exemplifies a tendency of the age: he is a gynaecological surgeon rather than a practical obstetrician. He knows not how to decapitate. He mentions Ramsbotham's hook, but has evidently never used it, for he gives his readers the choice between that and some absurdly inefficient methods. He describes the repair of fistulae, the removal of inflamed tubes and ovaries, abdominal hysterectomy, and other surgical proceedings. The pupil for whom he writes is the man who will conduct labours and operate in a well-found theatre in a hospital, where every conceivable device for sterilization of everything that can be sterilized is provided. He has no thought of the midwife, or of the general practitioner who must attend a great many confinements in private houses. Such a man cannot every time he visits the patient scrub his hands for ten minutes by the clock with various chemicals and then put on sterilized india-rubber gloves. The wear and tear of the epithelium forbid the first, and the expense is prohibitive of the second. Much

[10] *Lehrbuch der Operativen Geburtshilfe*. Von Professor Dr. Siegfrid Hammerschlag, Berlin, Privatdocent an der Albertus universität zu Königsberg-i.-Pr. Leipzig: S. Herzel, 1910. (Sup. roy. 8vo, pp 510; Abb. 191. M.16.)

[11] *A Textbook of Obstetrics*. By Barton Cooke Hirst, M.D., Professor of Obstetrics in the University of Pennsylvania. Sixth edition. Philadelphia and London: W. B Saunders Company. 1909. (Med. 8vo, pp. 992; 847 illustrations, 43 of them in colours. 21s.)

simpler means have been found effective in protecting mothers from puerperal infection. In placenta praevia the author tells us that the maternal death-rate has been about 20 per cent.; but with proper treatment, "carried out by men who understand antiseptic methods, the mortality almost disappears." Then why quote what may have happened in the dark ages of midwifery? At p. 218 we find a statement that needs explanation. In a footnote the author tells us: "Even with firm adhesions of long standing binding the uterus firmly backward, I have seen spontaneous repositions take place." But how does he know there were adhesions? If we ourselves had seen a retroverted uterus, which we believed to be adherent, spontaneously right itself, our conclusion would have been that we had been mistaken in supposing that uterus to be adherent.

NOTES ON BOOKS.

A THERAPEUTIC lexicon may be a useful compilation if it is fairly complete, and if the reader utilizes it merely to refresh the memory. On the other hand, it should not be tolerated for the purpose of actually imparting knowledge. Dr. HAHN has succeeded in piecing together much of what passes as therapeutics, and has arranged his material alphabetically in his *Therapeutisches Lexikon*,[12] giving a separate note to each method of treatment, and to many conditions requiring treatment. In this way he has rendered the book satisfactory from the point of view of completeness, and has even added notes on matters which need not have been included. His manner of dealing with his subjects rather suggests the wholesale treatment of symptoms or diseases without any consideration to the personal factor. The book may be very useful in the hands of an intelligent and well-informed practitioner, who would not accept everything in the book blindly, and who would merely refresh his memory on special points in special cases. We are, however, inclined to consider that there is no real necessity for such a cut and dried epitome of treatment, although we admit that the book has been carefully and well compiled.

The Conquest of Consumption and the Duties of Municipalities is the title of a most useful address published by the Manchester and Salford Sanitary Association. So much important work is being at present carried out by the various voluntary health societies and sanitary associations throughout the country in the home visitations of consumptives, that it is essential that the members of such associations should be taught the main facts in relation to the spread of consumption and the measures needed for prevention. Dr. ARTHUR LATHAM is especially well fitted to impart the required information, not only because of his intimate knowledge of the subject, but because he is able to give a clear and comprehensive, though concise, summary of the facts in simple and convincing language. Dr. Latham urges the establishment of antituberculosis dispensaries in our large towns as a means of getting at close quarters with the disease and of finding the early cases whilst in a curable condition by the systematic examination of contacts. This address, which is published at the price of one penny, is recommended to all health societies for the use of their members, and especially of those who are acting as "phthisis visitors."

The eighteenth volume of the *Archives of the Middlesex Hospital*, being Clinical Series No. IV, contains some ten papers, all purely clinical in character, and commendably succinct. In the opening paper Dr. Pasteur brings out the clinical value of the orthodiagraph, and in a later paper (on a case of chorea gravis which yielded at last to hot packing) makes a remark to the effect that very serious cases of chorea are now rarely encountered; he attributes this to the introduction of salicylates in the treatment of acute rheumatism, but it may be asked whether cases that could be called very serious were ever anything but uncommon. Dr. Bonney describes a case of persistent menorrhagia which he treated by an operation devised by Howard Kelly, resulting in restoration to health and establishment of single day periods. The operation, termed by its inventor, "utriculoplasty," consists in excising a wedge-shaped portion of the whole thickness of the body of the uterus, and uniting the remainder, so as to form a miniature uterus or utriculus. Its object is to reduce the size of the "menstrual area," whilst conserving a portion of it sufficient for the continuance of its function. Dr. Bonney seems to regard it with approval, but does not state what would happen if impregnation occurred in a patient thus treated. Nor is it made clear what advantage the operation offers over subtotal hysterectomy, more especially as the writer states that when the latter is performed for such cases, but the ovaries conserved, the enforced cessation of the periods is followed by an immense improvement in the general health, without any drawback whatsoever.

[12] *Therapeutisches Lexikon*. By Dr. J. Hahn. Leipzig: Wilhelm Gzgelmann. 1910. (Fcap. 8vo, pp. 822. M.12=11s. 9d.)

MEDICAL AND SURGICAL APPLIANCES.

A Small Thermo-Generator.

A SIMPLE apparatus for generating electricity to illuminate surgical lamps and provide heat for light cautery work, introduced by Messrs. F. Davidson and Co. (29, Great Portland Street, London, W.), is based on the well-known fact that electricity can be generated by the liberation of the elements of certain metals, but we do not at the moment recall another instance of the commercial application of this principle. The thermo-generator is provided in two forms, methylated spirit being used in the one instance and gas in the other. Two rows of hollow copper tubes, each connected with its neighbour, are placed vertically between two metal plates on a base-board; a perforated tube runs horizontally through the whole apparatus, connected at the end with the spirit lamp or the gas jet, as the case may be. When the lamp and all the tube perforations are lighted a current of electricity is generated very rapidly, sufficient to illuminate a 4-volt lamp or recharge small accumulators. The current, of course, is very small, and there appear to be practical difficulties in the way of greatly increasing the generating capacity of such an apparatus, but the arrangement evidently has certain useful applications, especially for work abroad, when dry batteries are not convenient.

A Catheter for Prostatic Cases.

Mr. HUGH LETT, M.B., F.R.C.S. (London), writes: Some patients who have to practise regular catheterization, because of an enlargement of the prostate, find that their case is complicated by the presence of a stricture in the anterior urethra. This may give rise to little trouble if dilated at regular intervals; but, on the other hand, it may contract rapidly after dilatation and make catheterization very difficult, no matter whether a coudée or an olivary catheter be used, for the following reasons: An olivary catheter can be passed through the stricture, but it is very likely to hitch against the posterior wall of the prostatic urethra or against a projecting middle lobe of the prostate. The ordinary coudée catheter, although it can be passed through the prostatic urethra with ease, is passed through the stricture with difficulty, or not at all, because of its blunt extremity. To obviate this, Messrs. Bell and Croyden, of 50, Wigmore Street, W., have made for me a catheter which combines the principles of both the olivary and coudée catheters. The chief points of interest are: (1) That with its olive head, narrow neck, and tapering shaft, it resembles an ordinary catheter, and so readily enters the stricture. (2) It is strongly curved in the last inch. This enables it to overcome the difficulty of the prostatic urethra, the angle of the coudée catheter being replaced by this curve. (3) For the last two inches the catheter is soft and pliable while the rest of the shaft is firm and rigid, thus giving the firmness which is wanted for passing the instrument through the stricture, while at the same time the tip and neighbouring part of the catheter are so soft that there is little or no danger of injuring the urethra or prostate unless very carelessly used. I have also found this catheter useful in patients who have a false passage in the floor of the urethra, especially when this is situated near the triangular ligament, for the point of the instrument can be controlled to a certain extent, and the curve keeps it against the roof and away from the opening in the floor. The catheters are of pure silk, and woven in one piece on a spandril bent to the required angle. The extreme flexibility of the point with the stiffer shaft is caused by a different mixture of gum and resins for the two divisions. There is no fear of their cracking and splitting, and they will stand sterilizing in mercury bicyanide or perchloride. If boiled they should be allowed to cool on a slab for at least half to three-quarters of an hour before use, otherwise they will be pulled out of shape. Naturally the boiling will shorten the life of the catheter, but it is not necessary, mercury bicyanide having been proved to cause complete sterilization.

SEVENTY-EIGHTH ANNUAL MEETING

OF THE

British Medical Association.

LONDON, JULY, 1910.

SCIENTIFIC MUSEUMS.

(*Continued from page 1246.*)

THE MUSEUM OF ST. GEORGE'S HOSPITAL.

THE museum of St. George's Hospital owes its origin to the zeal and generosity of the eminent surgeon, Sir Benjamin Brodie. In his autobiography he tells us that in the year 1812 he formed a museum of specimens illustrative of surgical pathology in a house in Great Windmill Street, "being at first content with the preservation of such specimens as he was able to prepare with his own hands." Later he obtained the help of Dr. James Somerville, and in the course of a few years became possessed of a collection of preparations which was admirably adapted for the intended purpose of illustrating his lectures. In 1829 he presented the whole of this collection to the governors of the hospital for the use of the medical school. Soon afterwards it was found desirable to have an anatomical theatre, museum, and lecture rooms, situated in one building, and under the entire control of the hospital staff. Suitable premises were therefore obtained in Kinnerton Street, and here was the first home of the hospital museum.

From this time onward the collection has been added to partly by the labours of successive curators and partly by the donation of private collections and specimens. In 1852 the late Mr. Caesar Hawkins presented the whole of his collection, and his letter conveying the gift is preserved in the museum. In 1866, owing to the removal of Tattersall's to Albert Gate, the site of the present school buildings became vacant and was leased by the late Duke of Westminster to the governors at a nominal rent. The present museum building was completed in 1868, and formally opened on October 1st of that year by the late Sir Henry Acland, Regius Professor of Medicine at Oxford, and a former student of the hospital.

A catalogue of the specimens was published by the late Dr. John Ogle and the late Mr. Timothy Holmes in 1866, and a supplementary catalogue in 1882 by Sir Isambard Owen, who also rearranged and classified the collection. Since 1882 the catalogue has been kept in manuscript.

In addition to the donors already referred to, mention must be made of the names of Sir Benjamin Brodie, second baronet, the late Dr. Seymour, and of Dr. Howship Dickinson, who have given collections of water-colour drawings; and of the late Mr. Stone, sometime lecturer on midwifery at the hospital, who gave his valuable collection of embryological and obstetrical specimens.

In the museum are preserved John Hunter's chair and dissecting table, autographs of Edward Jenner and the skin of the cow from which he took the first vaccine matter, as well as other interesting and historical relics.

The number of preparations is at present about 6,000, exclusive of the histological collection which has recently been formed. In the Curator's Room are preserved the *post-mortem* and case books, which date back to January 1st, 1841.

THE GORDON MUSEUM, GUY'S HOSPITAL.

The present museum was opened in 1905, and the splendid building in which the specimens are now housed was the gift of Mr. Robert Gordon, a governor of the hospital.

The Guy's museum dates its commencement from the eighteenth century, a considerable number of preparations being in existence in 1804, as shown by the catalogue of that date. These specimens, and others collected later, formed the nucleus of a new museum opened in 1825, of which Dr. Hodgkin was appointed curator; his catalogue, published in 1829, contained descriptions of about 3,000 preparations. Many remarkable specimens were put aside in those early days, as, for example, a piece of muscle containing white specks which were the first recognized preparations of *Trichina spiralis;* portions of brain tissue with supposed tuberculous deposits, later recognized to be syphilitic in origin; organs likened to bacon, now known to be the result of lardaceous disease; and many others.

The beautiful wax models of dissections of the human body and of diseases of the skin were executed by Mr. Joseph Towne. Towne brought a model, a small human skeleton, made when he was 17 years of age, to show to Sir Astley Cooper, who, recognizing the skill of the workman, sent Towne with a letter of recommendation to Mr. Harrison, the treasurer of the hospital, with the result that in 1826 Towne was appointed modeller to the hospital; the letter and model referred to are in the museum. The models of the dissections of the human body were made from dissections by Mr. John Hilton when demonstrator of anatomy, and previous to his appointment as assistant surgeon to the hospital. Most of the models of the diseases of the skin were executed at the instigation of Dr. Addison. In all Towne made more than a thousand models for this museum, working there from the year of his appointment until his death fifty-three years later. Towne was truly an artist to whom Guy's men, among others, owe an eternal debt of gratitude for his accurate and unique life's work.

The curators who followed Dr. Hodgkin number, amongst others, Sir Samuel Wilks, Drs. Habershon, Moxon, Fagge, Goodhart, and Carrington.

Since the early days alluded to the museum has grown until it contains, in addition to the models, some 6,000 pathological specimens, which in great part have been recently remounted and recatalogued, or are in process of being so; the medical section is finished. In addition there are some 2,000 drawings and paintings of various diseases.

The present Gordon Museum is divided into four large compartments with central and side staircases. Two galleries run round each compartment, and they are fitted with shelves painted white, and having a black background, as this was found to be the most suitable arrangement for showing the specimens to advantage. The medical preparations occupy the galleries of two of the sections—the obstetrical and gynaecological, and the surgical specimens are placed in the galleries in the other two sections.

On the ground floor Towne's models are placed, and here also is a collection of models prepared by the curator of the Dental Museum. In one of the ground-floor compartments are two cases containing a collection of surgical and other instruments of historical and antiquarian interest; they have been arranged by Dr. F. W. Cock, who most generously presented many of the most valuable of them to the museum, and at whose instigation the collection was started. The museum is top-lighted, and artificially lit with electricity. The whole museum has been specially arranged with a view to the needs of students of pathology, and it amply fulfils its purpose. One of the ground-floor bays is reserved for class demonstrations to the students upon the specimens in the museum.

The historical details relating to the museum are taken from Wilks and Bettany's *History of Guy's Hospital.*

THE MUSEUM OF ST. THOMAS'S HOSPITAL.

The pathological collection of St. Thomas's Hospital contains over 3,000 preparations, and illustrates all the morbid lesions of importance met with in the various organs of the body. The present descriptive catalogue has been entirely rewritten by Mr. S. G. Shattock.

The collection includes many specimens of historical interest, such, for example, as those used by Sir A. Cooper to illustrate his works on dislocations and fractures, on hernia, and diseases of the testis; as well as two preparations showing the result of ligature of the abdominal aorta, and Mr. Travers's preparations exhibiting the natural process of repair of injuries of the intestines, and results of the experimental ligature of arteries. The section of fractures contains numerous examples of gunshot injuries obtained from cases under the care of Sir William MacCormac during the Franco-German War (1870).

A special feature of the museum is the selection from the general collection of a complete series of type specimens illustrating medical, surgical, and gynaecological pathology. These are placed on the front floor of the museum, and of each series a card catalogue is maintained.

The marble bust of Morgagni in the museum was the gift of an Italian committee, which included the chief professors at the various Italian universities. It was formally presented to the hospital by the Italian Ambassador in October, 1899.

The Museum of St. Bartholomew's Hospital.

The museum of St. Bartholomew's Hospital was formally inaugurated in 1726 by the following resolution of the Governors: "Two convenient rooms being prepared under the cutting ward—[at this time the surgeons were paid 6s. 8d. for each operation for stone in the bladder]—one for the more decent laying the dead patients before the burial, the other a repository for anatomical or chirurgical preparations, it is ordered that . . . whatever preparation shall be given to the repository shall be numbered, and the name of the person who gave it and the history of it be entered in a book to be kept at the compting-house for that purpose, and that Mr. Freke (an assistant surgeon) do keep the key of it, who shall be accountable for the loss of any preparation; and when he shall decline it the youngest assistant surgeon shall do the same." This record book is not extant, nor do we know whether any of these earliest preparations are at present in the "repository." Nevertheless, the collection contains several specimens which were prepared by or belonged to Percival Pott, surgeon to the hospital from 1749 to 1787. One of these is a congenital hernia (No. 2138), probably prepared before 1756, when Pott published an essay on this subject—his first work; the other (No. 1097) a specimen of Pott's disease of the spine, of which specimen we are told, on the authority of Abernethy, "that it was one of the first cases which showed the benefit of issues in the treatment of the disease."

A large accession to the museum thus founded was due to Abernethy, who became assistant surgeon on the retirement of Pott. In April, 1821, while urging the governors to rebuild the anatomical theatre, he offered to present to the hospital, in trust for the medical school, his own large collection of preparations, "amounting in number to several thousands." A month later he and Edward Stanley made a formal tender of the preparations and all the other property in the museum. The offer was accepted and a catalogue prepared, which was published in 1831. In 1839 James Paget became curator. Of the many legacies of his curatorship one of the most important was a new catalogue published in 1846. Paget was succeeded by Savory, who brought out in 1862 a further catalogue, which remained in use till 1881. In this year the preparations were transferred to the present museum, a large building situated over the library, and the transfer was made the occasion of a rearrangement and re-cataloguing of the pathological specimens, the work being carried out by Mr. F. S. Eve, the then curator, and his successor, Mr. Bowlby. Of late years attention has been concentrated upon the pathological side of the collection, which now includes some 10,000 specimens, casts, calculi, and drawings. Descriptions of the specimens are supplied by means of scrap-book catalogues, into which are pasted printed descriptions of specimens added from year to year.

The Museum of the Royal Free Hospital.

The Royal Free Hospital museum is of comparatively recent date. In 1853, when the Hunterian School of Medicine in Bedford Square closed, the late Mr. Gant, who was then a lecturer in physiology, migrated with the students to the Royal Free Hospital, and he relates how in the same year he visited Edinburgh and Paris to collect specimens for the formation of a museum in connexion with the new school. He brought back six skeletons and other anatomical material from Paris, and a series of pathological specimens which he obtained from the late Professor Hughes Bennett in Edinburgh. In spite of Mr. Gant's energy and enthusiasm, the school was not able to fulfil all the requirements for recognition by the Council of the Royal College of Surgeons; the students were transferred at the end of the winter session to another hospital, and for the next thirty years little attention was given to the newly formed museum. In 1888, some years after the London School of Medicine for Women had become attached to the hospital, the need was urgently felt for developing the museum and making it available for teaching purposes and a superintendent and curator were appointed. Since then the museum has steadily grown, the additions being derived mainly from the hospital, but specimens have also been given by past and present members of the staff, former students and some other hospitals.

The present museum and pathological laboratories were erected at a cost of about £2 000, the greater part of which was generously defrayed by Mrs. Webb, as a memorial to her daughter, Miss Mabel Webb, who for two years before her death had been an enthusiastic curator, and with whom the scheme and plans for the new buildings had originated. The museum was formally opened by Lady Reay in February, 1900. It contains rather more than 1,800 specimens, the majority mounted by the Kaiserling method; a few, added this year, are put up in liquid paraffin. In 1904 the specimens were regrouped and catalogued, as far as possible, on the plan of the Royal College of Surgeons Museum. The most complete of the 40 series into which the specimens are divided is that illustrating diseases of the thyroid gland, which includes 117 examples. The series of injuries and diseases of the bones and joints comprise 276 specimens; for this portion of the museum a separate descriptive catalogue has been written by Mr. E. W. Roughton for the use of students. The museum also contains a collection of plaster casts, a series of bacteriological cultures, and a set of slides illustrating morbid histology.

The Museum of the Westminster Hospital.

The museum of the Westminster Hospital is situated in a well-lighted department on the first and top floors of the medical school in Caxton Street, Westminster.

Previous to the building of the medical school the collection was housed in the hospital itself. Only a few of the older specimens remain at the present day; they consist almost entirely of a historical collection of gunshot injuries from the battle of Toulouse, presented by the late Mr. Guthrie, surgeon to the hospital.

The collection, as it at present exists, owes its success to the energies of Mr. C. Stonham, who, after collecting some fourteen hundred specimens, catalogued them in a published work in which each section is preceded by a brief explanation of the morbid lesions the specimens illustrate; it thus serves as a textbook of systematic pathology. The specimens mounted at that time still form the main part of the surgical section. In more recent years, however, the methods introduced for preserving the natural colours of specimens have rendered it possible to replace the old discoloured ones, and to improve more especially the medical section by exhibiting lesions previously impossible. Subsequent curators have turned their attention to this with such good effect that now the two thousand specimens preserved, together with the catalogue and the several descriptive appendices, form a fairly complete picture of the pathological anatomy of disease. The value of the catalogue is enhanced by the clinical and clinico-pathological data referring to each specimen, and cross references render it possible to find the full particulars of the individual cases in the *post-mortem* and clinical laboratory records preserved in the hospital laboratories. Rarer specimens of pathological curiosities have usually been sent to the museum of the Royal College of Surgeons, as it is considered that the museums of the individual schools should be principally adapted to the needs of the undergraduate. During the past two years the present curator, Dr. J. M. Bernstein, has added 190 new specimens, and a printed catalogue of these has been prepared.

A recent feature of the collection is the grouping of specimens of medico-legal interest in a separate class, forming a nucleus of what in time ought to develop into a valuable aid to the medical jurist. There is also a useful section containing specimens of gynaecological interest. A special collection of specimens illustrating normal anatomy prepared by the late Mr. Holthouse, senior surgeon to the hospital, is catalogued in a separate work in manuscript.

In the past session an attempt was made to increase the usefulness of the museum by holding a course of post-graduate evening demonstrations open without fee to old students of the school and other practitioners. The value of such a course is obvious, and it ought to meet with success.

THE MUSEUM OF THE MIDDLESEX HOSPITAL.

The museum of the Middlesex Hospital forms the only remaining part of the original buildings of the medical school as founded by Sir Charles Bell in 1835. Bell's original collection of specimens had been stored in the Windmill Street school—the famous school founded by Hunter—which was destined to be the immediate predecessor of the Middlesex School. In 1825 Bell's collection was disposed of to the Edinburgh College of Surgeons, and he straightway commenced, as he tells us in his letters, "if not tooth and nail, at any rate very seriously to commence a new one."

The collection at the Middlesex Hospital at first consisted of the preparations belonging to Sir Charles Bell and the lecturers whom he brought with him from Great Windmill Street. Among the specimens now in the museum belonging to this period may be mentioned the beautiful series of wax models illustrating the development of the embryo of the chicken, and the magnificent series of anatomical and pathological water-colour drawings made by Sir Charles Bell, himself an artist of no mean power, and who in 1808 had been appointed Professor of Anatomy to the Royal Academy. On the death of Dr. Sweatman the whole of his collection, amounting to 660 preparations, was purchased for 350 guineas and added to the museum. The first catalogue, the manuscript of which is still in existence, was prepared by Mr. Lonsdale in 1840. In 1847 a second catalogue was prepared by Mr. C. H. Moore, who afterwards became surgeon to the hospital. Among the specimens illustrating diseases of arteries is preserved the first aortic aneurysm which was treated by the introduction of wire. The operation was performed by Mr. Moore in 1864; the patient after surviving five days died with pyaemic deposits in the kidneys. Sir William Flower, who afterwards became conservator of the museum of the Royal College of Surgeons and later succeeded Owen as director of the British Museum of Natural History, was for some time curator of the Middlesex Hospital Museum. The museum contains many specimens prepared by Flower; the zoological collection, illustrating the chief facts of comparative anatomy, was almost entirely made by him.

Dr. Spencer Cobbold, F.R.S., the eminent helminthologist, succeeded Sir William Flower in the curatorship, and enriched the museum by the addition of his collection of parasitic worms. To this period also belongs the fine series illustrating typhoid ulceration, presented by Dr. Murchison, and to a somewhat later period the classical series of specimens presented by Dr. Greenhow, to illustrate changes in the lungs in the pneumokonioses.

A third catalogue was prepared in 1869 by Dr. Cayley, who, during his curatorship, added the interesting group of specimens illustrating the changes in the bones in osteitis deformans. Dr. Kingston Fowler, with the help of Mr. J. Bland-Sutton, in 1882 prepared the large catalogue at present in use, which has been further enlarged by the catalogue of "Additions" prepared by Dr. A. F. Voelcker in 1907. The museum is now under the competent direction of Dr. C. Ernest Lakin. The museum contains the busts of many distinguished men connected with the hospital and school, and there are medallions of Sir Charles Bell and Sir John Burdon-Sanderson. The skeletons of Landseer's "Dignity and Impudence" have found a home in the museum, while among the specimens of more medical interest may be mentioned the models of skin diseases from the collection of Sir Erasmus Wilson, a former member of the hospital staff. The first renal calculus to be removed by nephrolithotomy will be found among the calculi, and the fine series of specimens illustrating the surgical diseases of the kidney, at present arranged on the shelves in the centre of the museum, were presented by Sir Henry Morris. The museum possesses a fine series of skulls of interest to the anthropologist, and this section has recently been enriched by the addition of several models of the skull of prehistoric man and allied genera. Another section of the museum is devoted to anatomical preparations, and a number of old surgical instruments and appliances are preserved in the curator's room. The *post-mortem* records date from 1850.

THE MUSEUM OF CHARING CROSS HOSPITAL.

The present Museum of Charing Cross Hospital was built in 1881, when the medical school moved from the hospital buildings to its new home in Chandos Street. For many years previously, however, the collection of pathological specimens had been housed in the hospital. Originally brought together by Mr. Howship, these specimens passed under the curatorship of Mr. Canton, who, in addition to increasing their number, enhanced the value of the collection by preparing the first manuscript catalogue. His descriptions, together with those of his successors, remained in manuscript for some years, but after the removal the collection was found to have become so large and varied that the Council of the hospital decided on the publication of the first printed catalogue; this appeared in 1888. The concluding years of last century marked a period of further activity, when the whole of the collection was revised by Dr. Hunter, improved methods of mounting were introduced, and some 1,300 additional specimens added.

In 1902 the growth of the museum had been so considerable that a new edition of the catalogue was printed, followed a few years later by a supplementary appendix. More recently still the entire series has been again revised, the older specimens remounted, and sectional catalogues corresponding to the different groups of specimens in the museum have been prepared. By means of manuscript entries on the interleaves of these volumes a description is available of every new specimen as soon as it is placed on the shelves.

One or two special features of the Charing Cross Hospital Museum may be mentioned. Charing Cross was one of the first, if not the first museum in London to adopt the formalin method of mounting. This process, though somewhat more costly than the older methods, preserves the natural colours of the tissues in a most satisfactory and permanent manner. The increased interest and teaching value of a specimen thus prepared will be appreciated by every practitioner who recalls the bleached and shrunken spirit preparations of his student days. Some of the formalin specimens mounted nearly twenty years ago are to-day as fresh and bright as if they had just been brought from the *post-mortem* table. Another useful feature of the museum is a cabinet of microscopic slides. Sections of every pathological specimen destined for the museum are cut, and a slide, numbered to correspond with the specimen, is entered in the cabinet. This arrangement is of considerable help to workers in the museum, who thereby are enabled to study side by side and first hand the microscopical as well as the macroscopical details of the specimens.

In the curator's room, adjoining the entrance to the museum, are preserved the *post-mortem* records of the hospital. The earlier volumes are indexed separately, but recently the card-index system has been introduced by the present curator, Dr. David Forsyth, so as to facilitate the use of the valuable pathological material in the reports.

MUSEUM OF THE LONDON HOSPITAL MEDICAL COLLEGE.

The museum of the London Hospital Medical College, like the Medical College itself, owes its origin mainly to Sir William Blizard, Surgeon to the London Hospital, 1780–1833, and President of the Royal College of Surgeons. It was in August, 1781, that Sir William Blizard obtained permission to deliver courses of lectures on anatomy and surgery in the demonstrating theatre of the hospital, and in 1783 a special building was erected at the east end of the hospital to serve as a medical school. The cost of the building was largely defrayed by Sir William Blizard, who was the leading spirit of the enterprise, and whose specimens obtained from the operating theatre and *post-mortem* room formed the nucleus of the London Hospital Medical College Museum.

In 1804, owing to the increasing needs of medical and surgical science and the necessity of attracting to the London Hospital a staff of "dressing pupils," a new building was erected close to the hospital, and the present Medical College was inaugurated. The specimens, already of great value, were housed in a separate room in the new college, and the museum had a distinct existence. During the alterations that took place in 1871 one of the chief was the increase of the size of the museum, which was then enlarged to its present dimensions.

The object of the museum has always been to collect anatomical and pathological specimens of teaching value

and not merely the bizarre and extraordinary, and the school has been extremely fortunate in having a succession of curators who have held this object clearly in view.

Amongst the collections of specimens especially noteworthy are those of diseases and injuries of the testis collected by Mr. Curling (1834–69). Many of these specimens are figured in his classical work on the testis, and have been copied into every textbook written on the male generative organs since the publication of that book.

Dr. Ramsbotham (1854–69) added a collection of gynaecological specimens and specimens of the malformation of the fetus and monstrosities, whilst Mr. Little (1862–69) presented to the museum over 100 plaster casts illustrating the deformities of the foot, hand, and chest.

The museum contains a large number of drawings and water colours illustrating diseases of the skin, which it owes chiefly to the energies of Sir Stephen Mackenzie and Sir Jonathan Hutchinson. The latter still continues to take great interest in the museum, and is one of the trustees of the Witherby Fund, which was given by the Misses Witherby for museum purposes in memory of their brother. The anatomical side of the museum chiefly consists of dissections made by students each year for the dissecting prizes, but Mr. Keith, now Conservator of the Museum of the Royal College of Surgeons, during his curatorship added many beautiful anatomical and embryological dissections. Amongst specimens of special interest are the skeleton and plaster casts of the "Elephant Man," added by Sir Frederick Treves; the skeleton of the Irish Giant, articulated by Mr. Openshaw; and the photographs of the patients by which Sir James Paget illustrated his original paper on osteitis deformans.

In 1890 a catalogue of the specimens contained in the museum was printed and published by order of the College Board, the chief bulk of the work being done by Mr. Openshaw, who was then curator. This catalogue served till 1907, when Mr. Keith started to recatalogue the specimens; this work is still progressing under the present curator, Mr. Russell Howard, and is now nearly complete.

The collection of the Pathological Institute comprises at present about 1,500 specimens. The specimens are put through the Kaiserling process, and are then placed in large tanks of glycerine and water. There is a card index kept of these specimens, and in this is given the reference to the record of autopsies or of specimens sent for investigation from the theatres. A special record of the autopsies for each year is kept in a book in which is entered the summary of the macroscopic changes in each organ, of the microscopic findings, and the clinical history. The record of the specimens sent for investigation from the theatres is kept in a similar manner. This collection of specimens can be examined by permission of the Director, Dr. H. M. Turnbull, or the Assistant Director.

A special collection is kept to which students have free access.

The Museums of University College and University College Hospital Medical School.

The pathological museum of University College Hospital Medical School was originally housed in University College. The nucleus of the collection consisted of a large series of surgical specimens purchased from Sir Charles Bell by the college. By subsequent additions made from year to year by the professors and gifts from friends of the college the collection has been gradually increased until it now consists of over 5,000 specimens. Of the more noteworthy contents of the museum may be mentioned the collection of water-colour paintings of pathological subjects, 1,100 in number, made by Sir Robert Carswell when he held the professorship of pathological anatomy in the college; a portion of the pathological collection of Professor Liston, and a large and very interesting series of old surgical instruments collected by him; an extensive series of vesical calculi, including collections presented by Mr. Liston, Mr. Richard Quain, Sir J. E. Erichsen, Mr. James Arnott, and others; and a number of well-executed wax models by Tuson, illustrating diseases of the skin.

A catalogue of the surgical series, under the editorship of Mr. Marcus Beck, Mr. S. G. Shattock, and Mr. C. Stonham was published in 1887. A new edition of this catalogue was issued in 1906. A catalogue of specimens illustrating medical pathology, edited by Mr. Charles Stonham, appeared in 1890, and one illustrating gynaecology and obstetric medicine by Sir John Williams and Mr. Stonham in 1891.

Upon the incorporation of University College in the University of London, under the Act of 1905, the Faculty of Medicine separated from the College, and became incorporated with University College Hospital as a separate school of medical studies. The buildings necessary to carry out this scheme were provided through the munificence of Sir Donald Currie, and in 1907 the pathological collection was transferred from University College to the new school buildings in University Street.

The Museum of Anatomy of University College contains nearly one hundred special dissections, illustrating the anatomy of all parts of the body, explained by a series of water-colour drawings. There are also preparations of all the joints and ligaments; the original preparations of the arteries by Richard Quain; a large osteological collection, including many specimens showing the growth, development, and variations in the skeleton; and a large number of valuable casts and models illustrative of the topographical anatomy and the development of the body. The anatomy of the various organs and tissues is further illustrated by nearly 500 specimens in spirit.

The Museum of Zoology and Comparative Anatomy of University College was in 1875–6 refitted and arranged under the direction of Sir E. Ray Lankester. It contains a very extensive series of both wet and dry preparations, arranged in zoological order, and carefully selected so as to illustrate all the important variations in the structure of the animal kingdom. The material from which the collection was made is due to the liberality of the late Professor Grant, of the late W. D. Christie, C.B., the late Arthur Grote, the late Sir Andrew Smith, M.D., K.C.B., and other donors; but a large number of the more valuable specimens have been either purchased or presented since 1875. A special series of skeletons and viscera is arranged to illustrate the works of Gegenbaur and Huxley.

The Museum of Botany consists of an extensive series of dry and wet preparations, including collections illustrating the morphology of the vegetative and reproductive organs of flowering plants, and a very fine carpological series, in which the numerous types of fruits are fully illustrated; a series illustrating the chief biological classes of plants—for example, epiphytes, carnivorous plants, climbers, etc.; and systematic collections of Thallophyta, Bryophyta, Pterydophyta, and Gymnospermae. The museum, though of recent origin, contains many of the specimens used by the late Professor Lindley. Many valuable donations have been received from the Royal Gardens, Kew, the Botanical Department of the Natural History Museum, and from former students and others resident in the Colonies.

The late Dr. Thomas Windsor bequeathed part of his medical books and manuscripts to the Library of the Surgeon-General at Washington, U.S.A., and the rest to the Manchester Medical Society. His scientific books he directed should be given to the Owens College library, and his miscellaneous books to the Rylands Library. After making sundry bequests to friends and relatives, he directed his executors to use the residue of his estate (some £20,000) in the relief of suffering in any way which might appear best to them, provided always that they should give nothing to any hospital, dispensary, or medical society or institution, or to any church or to any charity subject to any religious body or sect. He also directed his executors to spend as little as they possibly could on his funeral, and to invite no one to it. He further expressed the wish that no notice of his death should be inserted in the newspapers, and that if it did not involve any extra expense his remains should be cremated. Dr. Windsor retired from practice some twenty years ago. He became M.R.C.S.Eng. in 1853, and L.S.A. in 1854. He was at one time Consulting Surgeon to the Salford and Pendleton Royal Hospital, Ophthalmic Surgeon to Manchester Royal Infirmary, and Lecturer on Ophthalmology at Owens College.

RESEARCH DEFENCE SOCIETY.

THE annual meeting of the Research Defence Society was held at the Royal College of Physicians on June 3rd. Lord CROMER, President of the Society, was in the chair, and there was a good attendance, among those present being Sir F. Lascelles, Sir F. Macmillan, Lady Sheffield, Lady Horsley, Sir Malcolm Morris, Major-General Sir R. Talbot, the Hon. Sydney Holland, Sir James Reid, Mr. Anthony Hope Hawkins, Professor Ferrier, Professor Halliburton, Professor Starling, Professor Cushny, Canon Duckworth, Dr. Theodore Williams, and Dr. Donkin. Expressions of regret for non-attendance were received from Sir Clifford Allbutt, Sir Lawrence Alma Tadema, Mrs. Garrett Anderson, Sir William Anson, Lord Avebury, Sir Thomas Barlow, Lord Bath, Mr. Otto Beit, Mrs. Courtenay Bell, Sir Hugh Bell, Lord Blyth, Sir Lauder Brunton, the Dean of Canterbury, Lord Robert Cecil, the Hon. John Collier, Mr. Francis Darwin, the Bishop of Ely, the Bishop of Exeter, Lord Farrer, Sir Luke Fildes, the Hon. Mrs. Franklin, the Hon. Walter Guinness, Field-Marshal Lord Grenfell, Mr. Vernon Harcourt, Mr. Helby, Mr. Horton-Smith, Mrs. Kersey, Lord Kilmorey, the Bishop of Kingston, Bishop Knight, Sir Henry Knollys, Lord Lamington, Professor Leith, Mr. Henry Lucas, Mr. Holte Macpherson, Lord Malmesbury, Mr. Raphael Meldola, Lady Dorothy Nevill, the Bishop of Oxford, Mr. Marlborough Pryor, Sir William Ramsay, Sir Henry Roscoe, Mr. Ernest Schuster, Lord Sligo, Sir Cecil Clementi Smith, Lord Stalbridge, Lord Stanmore, the Bishop of Stepney, Mr. Marcus Stone, Lady Sutton, Mr. J. G. Wainwright, Lord Waldegrave, the Duke of Wellington, Dr. West, the Bishop of Winchester, and the Rev. H. G. Woods.

ANNUAL REPORT.

The annual report was presented by Mr. SYDNEY HOLLAND, chairman of the committee. It stated that the society had steadily advanced during the past year, both in the number of its members and in the estimation of the public. The membership now amounted to about 3,200; and there were besides 160 associates, making a total of 3,360, being an increase of 800 during the year. Several new branches had been formed. There were now active branches in Birmingham, Bournemouth, Brighton, Cambridge (University Branch), Croydon and Surrey, Devon, Dublin, Edinburgh, East Lothian, Glasgow, Harrogate, the Isle of Wight, Kensington, Liverpool, Newcastle, Oxford, Reading, Shrewsbury, South-West London, and York. Other branches were in course of formation. In many towns where there was not at present a branch there was a corresponding member, who was in touch with the committee. These were Bath, Birkenhead, Coventry, Halifax, Leamington, Manchester, Lowestoft, Southport, Salford, Stoke-on-Trent, Trowbridge, Warrington, and Worcester. During the year sixty addresses and lantern lectures were given in London and elsewhere by members of the society. A new series of popular leaflets, entitled *The Truth about Vivisection*, had been sent out to their associates. A further series of popular leaflets for general distribution was in course of preparation; two had already been published. The quantity of literature thus distributed during the past twelve months had been very large. Reference was made to the fact that the antivivisection societies had lately opened shops in public thoroughfares in London and in other towns. These shops were used to obtain signatures for petitions and to advertise antivivisection meetings. The committee had made arrangements for the orderly distribution of the society's literature outside such shops, and in that way many thousands of its leaflets had been distributed with good results. During the Church Congress last year at Swansea, the society had a stall in the Congress Exhibition and a lecture was given during the Congress week. Similar arrangements had been made for the forthcoming Church Congress at Cambridge this autumn. The committee was informed that the final Report of the Royal Commission on Experiments on Animals would probably be published next month. It would make all arrangements for presenting the facts of the Report to the public. Speaking of the Report of the Royal Commission, he said that whether it was for or against vivisection, the Research Defence Society would accept it.

Sir DOUGLAS POWELL, proposing the adoption of the report, said he thought it deplorable that the society should be necessary in order to defend the good works of a great profession against the machinations of a clique of people who for the moment dominated and misguided another association—a most beneficent association—whose proper work one would think would be to supplement the work of science in its endeavour to diminish suffering and to prolong and save life. It was only within comparatively recent years that the Society for the Prevention of Cruelty to Animals, which had done, and was doing, great service in ameliorating the conditions of domestic animals and beasts of burden, had unfortunately entered upon a wild crusade against science. In doing so it had endeavoured to excite the prejudice of many worthy people, and to exploit the sentimentalism of a great many people who were still very worthy, though perhaps not very wise.

Sir DAVID BRUCE, in seconding the motion, said that it seemed a pity that it should be necessary to meet year after year to affirm propositions which one would think were self-evident—to repeat, for example, that animal experimentation was absolutely necessary for advance in our knowledge of the prevention of disease, or that experimenters did not torture or inflict unnecessary pain on animals; but that, on the contrary, in 999 cases out of 1,000 so-called vivisections there was no pain inflicted—nothing more than the injection of a drop of fluid under the skin by means of a fine hypodermic needle. No less than 97 per cent. of all experiments on animals in this country were inoculations, or experiments of the nature of inoculations, involving no sort or kind of operation on any animal. No operation, more than the lancing of a vein under the skin, was allowed to be done on any animal, except under an anaesthetic. Or, again, to repeat that it was unfair of the opposite party to appeal by caricatures and sensational posters to the emotions of the public rather than to their reason. All this yearly repetition seemed a work of supererogation, a thrice killing the slain, but as long as human nature was constituted as it was, he was afraid it would require to be done. The worst of it was they could not console themselves with the feeling that by bringing forward irrefragible proof of the beneficent results of the work they would convince their opponents. There were people at the present time so constituted as to the nerve cells of their brains that they believed the earth was flat; and many other equally erroneous notions were held just as firmly. It must be remembered that these same people might be very exceptionally endowed in other ways; they might be great thinkers, poets, mathematicians, naturalists, and all that sort of thing; and the only way to explain the phenomena was by saying they are monomaniacs—that is, a particular part of their brain was abnormal, twisted, or imperfectly developed. Else how could it be that there were people who said that consumption was not caused by the *Bacillus tuberculosis*; that Malta fever was not caused by the *Micrococcus melitensis*; that sleeping sickness was not caused by a trypanosome? Would any one of their opponents, who are so loud in print, drink a little of the milk of a goat affected with Malta fever? Or introduce under his skin a single sleeping sickness trypanosome? Or allow an infected tsetse fly to bite him? Not a bit. Sir David Bruce went on to say that in 1903, when they called a meeting of the Uganda chiefs together to explain to them that sleeping sickness was caused by the entrance of a blood parasite into their bodies, that this was carried from the sick to the healthy by the *kivu*, or tsetse fly, and that the way to stop the sleeping sickness was to remove the natives from the fly area, they politely disbelieved them, saying that the fly had always been on the lake shore in their time and in their fathers' time, and that, therefore, it was harmless. Sir David then said to Sir Apolo Kagwa, the Prime Minister, that if he did not believe the fly carried sleeping sickness he should go and sit among them under the shade of the trees on the lake shore, in order to show every one the faith he had in the innocence of the fly. But he answered, "God forbid!" But these same so-called "uncivilized natives," whose untutored minds could not, perhaps, at once grasp the position, a few years later were so convinced of the truth of what was told

them, that they cleared the lake shore and islands of their inhabitants, with the result that, so far as Sir David Bruce was aware, at present not a single new case of sleeping sickness was being contracted in Uganda proper, and the toll of human lives to this plague had ceased to be paid. This toll had been estimated at 200 000 out of a population of 300,000. In one island alone—Buvuma—with a population of 22 000, 18,000 were reported to have perished. What a saving of human life, by the simple means of removing the population from the fly area; and this knowledge acquired mainly by animal experimentation! During the last eighteen months the study of sleeping sickness in Uganda had been continued, and before Sir David Bruce left at the end of last year they had carried out more than 2,000 experiments. It was very important to find out how long the fly remained infective, as on this would depend the repopulation of the lake shore and islands. By animal experimentation it was found that the flies, when once they had sucked blood from an infected animal, might remain infective for at least seventy-five days; and, again, that the flies on the lake shore were still infective, although the natives had been removed some two years before. By animal experimentation it was also discovered that cattle and antelope could be infected by sleeping sickness, and, in fact, they found a cow on the island of Kome which had been naturally infected. They made many experiments to find out if the birds and large mammals, such as the hippopotami, on the lake shore were capable of giving sleeping sickness to man by means of the fly; but although they injected the blood of many water-birds, antelope and hippopotami, into healthy susceptible animals, they never succeeded in discovering an infected animal, with the exception of the cow mentioned. The importance of these experiments was great, as the repopulation of some thousands of square miles of the very fertile land lying along the lake shore depends on the results gained. By animal experimentation they found out the cause and nature of a disease called "Amakebe," which killed 70 to 80 per cent. of the calves born in Uganda. This had eluded all other workers up to the present. The finding out of the true cause and mode of spread of a disease was a big step in its prevention. By animal experimentation they found out the nature of several of the most important diseases of the domestic animals in Uganda, and on more than one occasion nipped an epidemic in the bud, thus earning, if they had known it, the gratitude of the animals themselves. By animal experimentation they found out the nature of a disease among natives in Uganda called "Muhinyo." When the Sleeping Sickness Commission passed through Kampala, the native capital of Uganda, at the end of October, 1908, on the way to their camp at Mpumu, they were informed by Sir Apolo Kagwa, the Prime Minister, that a new disease had broken out in the province of Ankole, and that many people were sick. This was the disease which had been investigated in 1906 and described as beri-beri. At that time it was reported that in one part as many as 25 per cent. of the natives were down with it. In the same year another observer described it as dengue, with persistent joint pains. Again, in 1909, a third doctor investigated the disease, and came to the conclusion that it was kala-azar, the black-death of India. None of these observers used animal experimentation. They used the method of clinical diagnosis. Each one held a different view, and all were wrong. If any one of them had injected a few drops of the blood of one of these cases into a monkey the nature of the disease would have been manifest. Thanks to the kindness of Sir Apolo Kagwa, the Commission had the opportunity of seeing a case of Muhinyo, which was sent to the laboratory at Mpumu from Ankole, a distance of some 200 miles. This man was carefully examined, but as it was an old case nothing very definite was discovered. It was decided to go to the district, and see cases on the spot. In this way some 50 cases were examined. The chief symptoms were fever, profuse sweating, pains and swellings of the joints, and extreme weakness and emaciation. The natives looked like scarecrows. The disease was of long duration, many of them having been ill for several months. Cultivations were made from the blood and spleen of some of the cases, which showed that there was a small micrococcus present very similar to *Micrococcus melitensis*. Monkeys and rabbits were inoculated with this Muhinyo organism, and at the same time animals were inoculated with a strain of *Micrococcus melitensis* brought from Malta. Now, when the organism separated from the Muhinyo cases was tested with the serum of the animal into which the *Micrococcus melitensis* had been injected it gave rise to marked clumping of the micrococci, and when the *Micrococcus melitensis* brought from Malta was tested with serum from the Muhinyo cases the same phenomenon occurred. It was therefore decided that, as the symptoms of the disease were the same, the organism isolated the same, the character of the growth of the organism the same, that both agglutinated with the same serum, the disease Muhinyo was in reality Malta fever; and the curious fact was established that here, on the shores of Lake Albert Edward, in the centre of Africa, thousands of natives were sick of Malta fever, and more than a thousand had been reported as having died from it. Now, as it had been proved beyond the shadow of a doubt that Malta fever was caused in Malta by the drinking of goat's milk, and by that alone, it was a matter of importance to find out if the goats in the affected district also suffered from Malta fever. Last June Sir Apola Kagwa was asked if it would be possible to have a number of goats sent to the laboratory from a place in Ankole where this Muhinyo was common. Sir Apolo said he would try to have them sent. In July twenty-four goats arrived, and were at once examined. Among them the blood of three was found to give the agglutination reaction with the *Micrococcus melitensis* got from a case of Muhinyo, and also with the germ of Malta fever brought from London. One of these animals was then killed and cultures made from its spleen. These cultures grew a micrococcus which had all the cultural and morphological characters of the *Micrococcus melitensis*. Finally, the micrococci were tested as to their power of agglutination with a known Malta fever serum, and were found to react in high dilution. This, then, completed the proof that Muhinyo was Malta fever, and that in Central Africa, as in Malta, the infection was caused by the drinking of goat's milk. In conclusion, Sir David Bruce said a few words about Malta fever in Malta. It was said in the newspapers that goat's milk in Malta was quite harmless, and that the doctors had got rid of Malta fever by simply calling it simple continued fever. This simple continued fever was quite a distinct disease, and had been made the subject of study in Malta during the last year and the present one. In 1908 Dr. Doerr, an Austrian army surgeon, discovered that it was a fever caused by the bites of the common sand-fly, which was so common in Malta during the summer months, and the parasite conveyed from man to man was, like that of yellow fever, so small as to be invisible under the highest powers of the microscope. As none of the lower animals were susceptible to this disease all the animal experimentation had been carried out on man himself. Then soldiers had been found plucky enough to come forward and offer themselves. Colonel C. Birt, Royal Army Medical Corps, who conducted this investigation, wrote:

> Science and humanity owe a debt of gratitude to the self-sacrificing courage and zeal of the gunners of the 99th Company of the Royal Garrison Artillery. When the object of the research was explained to them, they vied with one another in offering themselves as cheerful victims for the sake of mankind. The men of this company are of splendid physique, and they rejoice in rude health, which they maintain by the enthusiastic pursuit of athletics. Those volunteers who were selected for experiment had resided less than a year in the island. They were all exceptionally healthy, strong, and muscular men. The aches and pains during the acme of phlebotomus fever make the sufferer an object of our profound pity. Those who of their own accord knowingly submit to them are martyrs indeed.

In this way it was proved that sand-flies fed on a soldier suffering from simple continued fever and then conveyed by the quickest route to England were capable of setting up the disease in two Royal Army Medical Corps officers in London. Also, that blood taken from a patient and filtered through a porcelain filter could give rise to the disease in healthy men.

This showed that the disease was caused by an ultra-microscopical parasite, and that this parasite was conveyed from the sick to the healthy by the sand-fly. This year the study of the habits of the sand-fly was being pursued with energy, and he hoped that within a short time simple continued fever would have disappeared as completely

from Malta as Malta fever had done. He gave the latest figures for Malta fever as follows:

In 1905, in the army alone, there were 643 cases, and in the navy about the same number.

In 1906	147
In 1907	11
In 1908	5
In 1909	1
In 1910	0

Lastly, it was reported in the daily press that the goats which were taken to America, and were supposed to have set up an epidemic on board the steamship *Joshua Nicholson*, were really quite healthy, and never gave rise to any disease. He had just had a report sent to him by the Board of Agriculture in America, from which it appeared that as soon as these goats were landed they were placed in quarantine and subjected to a most rigorous investigation. The man who brought them from Malta did not believe in the milk theory, and he died. A delicate woman who lived on the station was fed on goat's milk, as it was considered to be very nourishing; she took a severe attack of Malta fever, and also died. The goats, sixty in number, were kept under observation for some two years, those which showed severe infection with Malta fever being slaughtered from time to time. The result was that they had been all slaughtered, as they all developed, sooner or later, this serious human disease. Not one could be saved, although the greatest efforts were made to do so.

Mr. JULIUS BERGHEIM also spoke.

Mr. ANTHONY HOPE HAWKINS said he was glad to become a member of the society. He believed that the speakers of that afternoon were carrying on perhaps the most beneficial work this age had witnessed. He proposed a vote of thanks to the chairman.

This was seconded by Mrs. SCHARLIEB, who, quoting the well known line,

Take up the white man's burden,

said the antivivisectionists were trying to hinder scientific workers from doing this.

The Earl of CROMER, returning thanks, paid a tribute to the unselfish and untiring zeal of Mr. Stephen Paget. Mr. Cobden said that the only way to get an idea into the heads of the British public was to repeat the same thing over and over again in slightly different language. He found that was pretty generally what he had to do. They had to convince the public that those who advocated the progress of science and who endeavoured to prolong human life and mitigate human suffering were the true friends of humanity, and that their opponents who often—he did not doubt with very good but mistaken motives—placed obstacles in their path were not the true humanitarians. For the benefit of the public the society had circulated a pamphlet, containing facts of the same nature and entitled *Recent Surgical Progress*, by Mr. Keen, an eminent American surgeon. The author asked what the friends of experimental research had done, and Lord Cromer summarized his reply. They had discovered antiseptic surgery, and made possible all modern abdominal surgery. They had also made possible all modern surgery of the brain, and had gone far to prevent lockjaw. They had enormously reduced the death-rate in cases of all compound fractures, and in operations for ovariotomy. In some parts of the world, as in the case of the island of Havana, they had practically abolished yellow fever. They had made possible the cure of nearly all cases of hydrophobia; had immensely reduced the mortality in cases of diphtheria, and also in that terrible disease, cerebro-spinal meningitis. They had shown the cause and method of propagation and of prevention of the deadly malaria which devastated whole regions and armies. They had reduced the mortality from tuberculosis by from 30 to 50 per cent., a reduction due to the discovery made by the great German scientist whose death not only his native country but the whole civilized world had recently had cause to mourn. Moreover, not only man, but the brute creation had reaped enormous benefit from their humane researches, for the causes of tuberculosis, Texas fever, anthrax, glanders, and other infectious diseases of animals had been discovered, and their progress has in many cases been successfully arrested. He had not nearly exhausted the list, but was not that a noble record? Mr. Keen then asked what the foes of experimental research had done, and he answered in tones vibrating with justifiable indignation: "Nothing but to stand in the way of progress. Not a single human life has been saved by their efforts; not a single household made happy; not a single disease has had its ravages abated or abolished." He was quite prepared to leave the society's case there, asking any impartial person, whether professional or non-professional, to compare that noble record of humane work with the sterility of their opponents. They were probably aware that a bill was recently introduced into the House of Commons by Sir Frederick Banbury and Sir Francis Channing, having for its object the total prohibition of experiments on living dogs. The love of dogs was not confined to antivivisectionists. He dared say that many members of the Research Society were as fond of dogs as he was himself, but when they were asked to express approval of legislation of that nature they had to inquire whether, putting aside sentiment, the proposal could be justified. He thought no such justification could be found. In the first place, if dogs were to be exempted why not cats, horses, guinea-pigs, and other animals? In the second place, they had it on the highest professional authority that the use of the dog was indispensable for the furtherance of their knowledge as regarded many functions of the body. Further, a very large number, he believed some 20,000, stray dogs were annually put to death in London through the instrumentality of the lethal chamber in the Battersea Dogs' Home. He was unable to give the exact number of dogs used annually for experimental purposes in this country, for the official returns did not specifically distinguish between dogs and other animals. But it might confidently be asserted that the number had to be reckoned not by thousands, but by hundreds, and that by far the greater portion of these were put to death in a manner as painless as that adopted at the Battersea Dogs' Home. The only result, in fact, of the passing of the bill would be that a few hundred dogs a year more would pass into the Battersea lethal chamber. For these reasons he thought it was the duty of all connected with the society to offer whatever resistance they legitimately could to the passage of the measure. If it ever reached that menaced branch of the Legislature to which he belonged, he should certainly do his utmost to oppose it. There was another bill which had been prepared by Mr. Stephen Coleridge, and he (Lord Cromer) could not do better than illustrate his views upon it by a historical anecdote. It was related that in 1802, when the country was threatened by invasion from France, a large number of Volunteer corps were formed. Amongst others, the Articles of Association of one corps in the neighbourhood of the Cinque Ports, of which Mr. Pitt was then the Warden, was submitted to that statesman. It was a very elaborate and detailed document containing a great number of carefully worded provisions as to how, when, and where the Volunteers were to be employed. The words "except in case of actual invasion" frequently occurred. At last, towards the close of the document, Mr. Pitt came across a provision which was to the effect that under no circumstances whatsoever was this corps of Volunteers ever to be sent out of the United Kingdom. Mr. Pitt lost patience and added to the clause "except in the case of actual invasion." That was very much the treatment which animal experimentation received from Mr. Stephen Coleridge. His bill professed to permit it, but surrounded it with such an enormous number of conditions as to render it impracticable to work and altogether ineffective for research. Without going into its details, one point would show the spirit in which it was drawn up. In one clause it was provided that no one was to be allowed to conduct any experiment unless he could obtain a certificate signed by at least one justice of the peace and a clergyman, stating that he had a reputation for humanity. He thought such a proposal was almost unique in our legislative annals. What standard of humanity was to be adopted? A justice of the peace who was a member of the Antivivisection Society would adopt one standard, and the justice of the peace who was a master of hounds, for instance, would adopt a very different one. The proposal was really absurd, and of itself was almost sufficient to laugh the bill out of court. Could it be reasonably suggested that an eminent man like Professor Starling was to be compelled

to go and look about for a justice of the peace and a clergyman who would give him a certificate for humanity? If that was to become law he would suggest a very useful amendment. It was that no one, even in this free country, should be allowed to speak against vivisection unless he could produce a certificate signed by at least two judges and a brace of bishops that he had a reputation for common sense and accuracy of statement. In conclusion, Lord Cromer said he was told that the Report of the Commission would probably be issued in July, but the long delays which had already occurred precluded him from entertaining any very sanguine hope that this expectation would be realized. He was sure, however, that when it was issued it would be a very valuable document, and that it would receive the utmost attention from the general public, and from none more than from every member of the Research Society.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

The annual general meeting of this society was held on May 26th, Dr. Blandford, President, in the Chair.

The annual report stated as follows: During the past year 19 new members were elected; 10 died and 4 resigned. The society consists at the present time of one honorary member, 142 life, and 149 ordinary members, making a total of 291, which, considering the number of medical men who are eligible for membership, is a very small proportion. The invested funds amount to £100,550, from which was derived in interest the sum of £3,124 18s., £350 9s. 6d. being received in subscriptions and donations. Amongst the annuitants of the charity, namely, 48 widows and 13 orphans, the sum of £3,018 was distributed, each widow receiving on an average £50, besides an additional £10 as a Christmas gift, and each orphan £12 and a gift of £3 at Christmas. The Copeland Fund is a special fund which enables the society to grant to any widow or orphan already in receipt of the society's ordinary relief, extraordinary assistance in special circumstances of unusual distress, such as blindness, paralysis, insanity, severe disabling accident or grave permanent disease, and to continue such extra relief in the case of orphans beyond the age of 16 or 18 years (at which under the society's existing by-laws, the ordinary relief ceases) for such further period as the Court of Directors may think fit. During the year three widows in receipt of grants died. One of these, whose husband had paid in subscriptions £6 6s., had received £2,900. Two widows were elected during the year, and on December 31st there were 47 widows and 14 orphans in receipt of grants. One of the widows has been on the books since 1854, and has already received over £2,250.

Relief is only granted to the widows and orphans of deceased members who have paid their annual subscription for three years or who are life members. During the year nearly fifty letters were received from widows of medical men, who, in many instances, had been left practically penniless, asking for relief, but this had to be refused, as their husbands had not been members of the society. The directors cannot too strongly urge upon the members of the medical profession, especially the younger, the desirability of joining the society. Membership is open to any registered practitioner who at the time of his election is resident within a 20 mile radius from Charing Cross. Should any member remove beyond the limits of the society he nevertheless continues to be a member.

The annual subscription is two guineas; every member who has paid this sum for twenty-five years becomes a member for life. Life membership may also be obtained by the payment of one sum, varying with the age of the applicant.

A cordial vote of thanks was passed to the editors of the various medical journals who from time to time insert notices of the society.

The meeting closed with a vote of thanks to the chairman.

Further information can be obtained on application to the Secretary, 11, Chandos Street, Cavendish Square.

SCIENCE NOTES.

In a paper on the metabolism of development Murlin[1] deals with the energy metabolism in the pregnant dog. He finds that when only one embryo is present the increase in the total energy production due to pregnancy is not evident until the sixth week of gestation (the total duration of gestation in the dog being about nine weeks). In the next fortnight an increase of nearly 10 per cent. is observed. When estimated a few days before parturition the energy production of pregnancy is found to be proportional to the weight of the offspring at birth. This was determined in two different pregnancies of the same dog, in the first of which one, in the second five, pups were born. The extra energy production near the end of pregnancy is nearly equal to the energy requirement of the new born. This is calculated upon theoretical considerations according to Rubner's law of skin areas. Thus, if a pup weighed 280 grams at birth it would be calculated to weigh 240 grams three days before, and from another formula its metabolism then would be 45.4 calories. In the same way the author calculates that the extra energy production of mother and offspring the first day after parturition is from two to three times the extra energy production of pregnancy three days before parturition.

Few are not familiar with the favourite circus turn of the highly intelligent horse or dog which performs truly remarkable mental feats at the bidding of its master, and the doubt has often arisen whether what was being witnessed was only a clever trick or the evidence of an ability in such animals to appreciate matters of an abstruse nature. It is so difficult to imagine the psychological processes of the lower fellow-creature that one is disinclined to deny without reserve the possibility of the occurrence of even the simple mental powers. Of such the appreciation of numbers lends itself most easily to observation. A clear distinction must, however, be drawn between the ability to recognize a printed or a spoken number, and the power of counting and of connoting perceptible things with the abstruse idea of numbers. Many animals can be taught to attach definite meaning to sounds or words whether they be numbers or anything else. It is on this fact that most of these circus tricks are based, and it is this, also, which has led some to the belief that certain animals are capable of counting. The subject is discussed by Coupin in a short note in *La Nature*. He relates a number of stories from various sources, chiefly about dogs. One of these tells of a dog which in the course of several days stored away 26 bones. One day it was not fed, and it had recourse to its buried treasures. It unearthed and feasted on 25 of the bones, and then lay down to sleep; but hardly had it done so when it awoke with a start and proceeded to obtain the last bone. This was regarded by the narrator as an instance of the power of counting even as high as 26; but it is evident that a different interpretation is not difficult. Delboeuf tells three stories of dogs he tried to initiate into the mysteries of elementary mathematics. One was offered the choice between 3 and 4 pieces of sugar, and compelled to make the former. After a time, however, it became so frightened even at the preparations for this demonstration that it displayed the picture of abject terror, and, as Delboeuf quaintly remarked, it showed no disposition towards mathematics. To another he offered a piece of liver, but did not allow it to touch it till he had counted four. This succeeded quite well; but if he counted *one*, *three*, *four* the dog immediately took the piece. If he counted *one*, *two*, *one*, *three*, *four*, the piece was again taken. Evidently it was the sound of the word *four* which the dog recognized as the signal to start eating. The third dog was taught to bring wood into the house, a labour very much to its liking. Five pieces were sufficient every day. One day the dog was left alone in the house, and, compelled by an urgent sense of duty, it proceeded to bring in wood. This it did with such zest that on Delboeuf's return he found the house full of wood. Jacquot instances, as a proof that monkeys are able to count, the case of certain predatory monkeys in the Transvaal, which by experience have learnt that parties of hunters or natives usually consist of four. So it has been noticed that they never start pillaging before they have witnessed the

[1] *Amer. Journ. of Physiology*, April, 1910.

departure of four men from the hut or farmhouse. To circumvent this, larger parties are formed, of which four take their departure. The marauders immediately descend, and naturally fall victims to an overweening belief in their mathematical ability. Such is the story. Of the other anecdotes adduced as positive evidence Coupin frankly disbelieves the greater part; and, indeed, they are all rather weak.

LITERARY NOTES.

PROFESSOR BERRY, of the University of Melbourne, proposes to publish a *Clinical Atlas of Sectional and Dissectional Anatomy*, and is negotiating with publishers in Great Britain, who state that if they are assured of the sale of 100 copies of the work in Australia, the arrangements will be expedited. Up to the time of writing 100 copies have been applied for in Australia. Among those who have agreed to assist are Professor H. B. Allen, of the University of Melbourne; Professor Osborne, of the University of Melbourne; Professor Spencer, of the University of Melbourne; Professor Stirling, of the University of Adelaide; Rev. E. H. Sugden, of Queen's College, University of Melbourne; Dr. G. A. Syme; and Professor Wilson, of the University of Sydney. The honorary secretary is Dr. J. W. Barrett, 105, Collins Street, Melbourne.

We all speak of the psychological moment; and we all doubtless think we know what the expression means. But if we are to believe the Oxford *Periodical* we do not. Discussing the subject, our informing contemporary quotes the following passage from Sir James Murray. This (the "psychological moment") is equivalent to the French *moment psychologique* "applied to the moment in which the mind is in actual expectation of something that is to happen" (Hatzfeld, *Dict. Général*); the psychologically (or rather, *psychically*) appropriate moment, often misused for "the critical moment," "the very nick of time," without reference to psychology or to the mind. The French expression arose in Paris in December, 1870, during the siege, when it was asserted to have been used by the German *Kreuz-Zeitung* in reference to the bombardment of the city, and explained to mean that, as the bombardment had as its aim to act upon the imagination of the Parisians, it was necessary to choose the very moment when this imagination, already shaken by famine and perhaps by civil dissension, was in the fittest state to be effectively acted upon. (Sarcey, *Le Siège de Paris*, 1871, p. 263; Eng. trans. p. 242.) But the phrase with its explanation was due to an error of translation, in which the expression actually used by the German journal, *das psychologische Moment*, the psychological "momentum," potent element, or factor, in the case was mistaken for *der psychologische Moment*, the psychological moment of time. The article in the *Neue Preussiche [Kreuz] Zeitung* of December 16th, 1870, p. 1, col. 3, says that very cogent psychological considerations spoke against opening the bombardment before the hopes built by the Parisians upon the raising of the siege by armies of relief should be overthrown; and continued, "in all considerations the psychological momentum or factor must be allowed to play a prominent part, for without its co-operation there is little to be hoped from the work of the artillery." Thus attributed to German pedantry, the nonsensical *moment psychologique* was ridiculed by the Parisians, and became a jocular phrase or "tag" for the "fitting or proper moment"; and with this connotation it has passed equally nonsensically, Sir James Murray says, into English journalese. Without presuming to question Sir James Murray's interpretation of the expression, we venture to point out that "psychological moment" has a perfectly clear meaning, apart altogether from "momentum." Every one knows, for instance, that there are right times or wrong times for speaking to a person. A favour is more likely to be granted if it is asked when a man is in good humour, as after dinner. On the other hand, a wise man would ask nothing of a person in the throes of indigestion or gout. There are, the experienced say, "moments"—not "momenta"—when ladies are more yielding than at ordinary times. The French proverbial phrase, *L'heure du berger*, expresses this fact. No one knows better than Sir James Murray that words and phrases may come to have a meaning altogether different from what may be called their face value. Of this "psychological moment" is an instance, and with all respect we deprecate its being stigmatized as nonsensical journalese.

To most people the name of the Chiltern Hundreds is associated with the retirement of a member of Parliament while the Legislature is in session. It is, in fact, nothing more than a political expression. How many of us who have not had a board school education could say offhand what or where these famous "Hundreds" are? To the many who could not answer this conundrum we commend the perusal of a paper read by Dr. Clippingdale before the Royal Society of Medicine in January, 1910. It has lately been reprinted by John Bale, Sons, and Danielsson, Limited, under the title of "The Chiltern Hills and Dales in certain of their Natural and Medical Aspects." The Chiltern Hills are a range of chalk downs lying to the west, north-west, and north of London. "In shape," says Dr. Clippingdale, "they form an irregular quadrant, the mean radius of which is about thirty miles from the centre of London. The south-west extremity of this quadrant is at Streatley in Berkshire; the north-east extremity at Luton in Bedfordshire. Between these extremities the range of hills passes through the counties of Oxford, Buckingham, and Hertford." It is only with the portion contained within the County of Buckingham that Dr. Clippingdale deals. "The length of the entire range is some seventy miles. The breadth varies from the narrowest limits to a span of about twenty miles. The slope of the hills varies; towards the south-east they slope gradually until they merge in the valley of the Thames; towards the north-west they end in a rather bold escarpment overlooking the Vale of Aylesbury." The great healthiness of the district is, according to Dr. Clippingdale, due in part to the fact that there is no higher ground between the Chiltern Hills and the East Coast, so that air coming from the North Sea passes north of London and so reaches the Chilterns cold and pure, although it drops salt on its way. Dr. Clippingdale deals exhaustively, not only with the geography, but the geology, orography, scenery, fauna and flora, meteorology, ethnology, and even the economics of the region. Under the head of Health he gives an account of the epidemics and hospitals at Amersham, Aylesbury, Beaconsfield, Chalfont St. Giles, Chesham, Great Hampden, Wendover, Wycombe, and other places within the purview of his paper. With regard to the present day, we learn that the mortality from diseases of the respiratory system is only 1.7 per 1,000, as compared with 37 per 1,000 for the whole of England. Buckinghamshire was formerly third among the counties of England in respect of frequency of stone in the bladder owing to the large amount of chalk in the water. At the present time the disease is almost unknown in the county. On the other hand, cancer is common, especially in the valleys. Goître is common; reference is made to Mr. James Berry's discovery that the softening of hard water by Clark's process, while diminishing the prevalence of calculus, increases the tendency to goître. Rheumatism is rather above the average in frequency in the valleys, rather below it on the hills. Although consumption is fairly common in Buckinghamshire generally, it is rare in the Chiltern district, except as an imported disease. The general death-rate as compared with that of rural England is as 12.5 to 14.7. Length of days is common among the inhabitants.

THE Medical Golfing Society held its annual tournament on June 2nd at Burnham Beeches, by kind invitation of the Burnham Beeches Golf Club. The Henry Morris challenge cup and the Medical Golfing Society's gold medal were tied for by H. A. Seagrove (12) and J. C. Briscoe (15) with 4 up, H. A. Seagrove taking the first prize in Class 1 and J. C. Briscoe the first prize in Class 2. The second prize in Class 1 was tied for by C. M. Anderson (5), C. J. Marsh (10), and E. T. Robinson (10) with 3 up, while that in Class 2 was won by W. H. Kelson with 1 up. The prize for best last nine holes in Class 1 was tied for by K. Goadby and G. C. Bell (2 up), and that in Class 2 by C. F. Winkfield and Canny Ryall (2 up). The Foursomes sweepstakes resulted in six ties, G. C. Bell and H. H. Brown, F. Juler and L. Paton, C. M. Anderson and J. R. Walker, W. B. Reid and S. B. Christian, C. I. Graham and C. W. M. Hope, A. S. Cobbledick and G. B. Scott all being 1 up.

British Medical Journal.

SATURDAY, JUNE 11TH, 1910.

COLLIERY EXPLOSIONS FROM THE MEDICAL STANDPOINT.

THE important paper by Dr. Lister Llewellyn in our issue of to-day on the explosion at Darran Colliery, South Wales, places clearly before the profession a number of important points in connexion with colliery explosions. Dr. Llewellyn made a careful external examination of the bodies of the men killed, and also obtained from survivors and rescuers a detailed account of their symptoms and what happened to them. He also pieced together the evidence as to what happened to each of the men who were involved in the explosion or exposed to the after-damp. Owing to the existence of a communication with a neighbouring colliery a large proportion of the men escaped, and more information was thus obtainable from survivors than after any other recent explosion.

One of the most salient facts brought out is that the whole of the deaths in the pit were due to carbon monoxide poisoning. The explosion was a typical coal-dust explosion, occurring in the typical manner on the main road for haulage and intake of air. It was caused, like so many other explosions, by blasting at a dusty place, contrary to regulations. The flame traversed about 600 yards of the main road, and left this part of the road filled with poisonous air, the ventilation being at the same time brought to a standstill owing to the destruction of doors between the intake and return airways. The men involved in the explosion were thus left in poisonous air, and the rescuers who went to their help were also in great danger.

Of the splendid courage and determination shown by the rescuers their countrymen have good reason to be proud. Dr. Llewellyn's account makes it clear that of the twenty-six men who perished in the pit, eleven, or possibly twelve, including the manager and several officials, died in trying to help their comrades, while many others risked their lives again and again. With the first rescue parties were two members of the medical profession—Dr. Turner in one party of three, of whom the other two succumbed, and Dr. Thomas in another party. Dr. Turner dropped, and remained unconscious for about eight hours.

The circumstances of the explosion present a vivid picture of the extreme danger caused by an atmosphere containing carbon monoxide. Time after time men dropped without previously noticing any symptoms to warn them. Their lights burned brightly, and were thus quite useless in indicating the danger. Unfortunately, no one seems to have known how to test the air. In Dr. Haldane's Report to the Home Secretary on the Causes of Death in Colliery Explosions, published in 1896, it was shown that nearly all the deaths are due to carbon monoxide poisoning. A practical means of testing for carbon monoxide was also described, the test being to watch the symptoms of a small warm-blooded animal, such as a mouse or small bird. Owing to the extremely rapid metabolism of the small animals, they show symptoms of carbon monoxide poisoning in a mere fraction of the time required for a man to be affected. In some colliery districts this test is now well known, and is frequently made use of in connexion with underground fires and explosions. Practical experience has also shown that the symptoms of a small bird carried in a cage provided with a perch are easier to appreciate than those of a mouse. Instructions on this point, and on the properties and sources of carbon monoxide, ought to be included in all ambulance courses for miners. Another important matter in connexion with ambulance courses for miners is instruction in the Schäfer method of artificial respiration. In ease of performance, simplicity, and efficiency, Schäfer's method has enormous advantages, particularly important in the difficult circumstances under which rescue work has often to be carried out in mines.

The Darran Colliery was not provided with rescue apparatus for penetrating foul air, nor was any such apparatus available in the district. It seems probable that if apparatus and trained men had been promptly available, some of the men might have been saved. At any rate the work of exploration could have been rapidly and safely carried out, and much delay in restoring the ventilation and bringing fresh air to the injured or unconscious might thus have been avoided. There is doubtless much popular exaggeration of the advantages to be derived from rescue apparatus. Owing to blowing out of timber and consequent heavy falls of loose stone it is often very difficult to penetrate along roads which have been traversed by a mine explosion. To carry men out is thus slow and difficult work, particularly if the rescuers are hampered with heavy and complicated apparatus. Nevertheless the advantages to be gained by the provision of rescue apparatus are substantial. With their help the seat of an explosion can be rapidly explored; fires consequent on an explosion can be extinguished before they become serious and cause further disaster such as that which befell the Whitehaven Colliery; men who are cut off by an explosion or fire can be guided to safety; and much other useful work can be accomplished. If the seat of the Darran explosion could have been rapidly explored with the help of rescue apparatus the manager would probably have decided to block the top of the downcast shaft and open the door communicating with the neighbouring colliery. The action of the fan would then rapidly have cleared the pit of after-damp, and many of the men might have been saved. It is to be hoped that every colliery will soon have rescue apparatus available on the spot or within easy distance, and from Mr. Churchill's reply to the deputation which waited on him on Wednesday this would appear to be the desire of the Home Office.

At the Darran and Whitehaven explosions rescue apparatus would have been of great use had they been promptly available. In many other colliery explosions, however, little could have been accomplished with their help, or, indeed, by any other known means. The main thing, therefore, is to prevent explosions from occurring. An enormous amount has been accomplished in this direction during recent years by precautions and regulations with regard to blasting, the use of safety lamps, proper ventilation, and strict discipline. Watering the coal dust has not proved generally successful, but the very important experiments in the great experimental gallery erected in Yorkshire by British coal owners seem to show that an admixture of shale dust can be advantageously used to render coal dust inexplosive. The general public, who read the ridiculous "colliery warnings"

which appear in the newspapers, have little knowledge of the care and thought which mining engineers are devoting to the whole subject of colliery explosions. In devising and organizing means for minimizing the loss of life in colliery accidents the medical profession can give most important help, and we are confident that this help will always be freely forthcoming.

SUBACUTE COMBINED DEGENERATION AND SEVERE ANAEMIA.

THE combination of a severe anaemia with symptoms of degeneration in one or more of the nerve tracts of the spinal cord was first recorded in 1884, when Leichtenstern reported cases of "progressive pernicious anaemia in patients with tabes." Such cases are not rare, and since that date reports of a good many have found their way into the literature. To mention a few of the authors—Dana, Putnam, and Grinkler have written about the condition in America. Risien Russell published a paper on it in 1898, and in 1900 a highly important contribution to our knowledge of it was made by Risien Russell, Batten, and Collier, who also gave the disorder its now generally recognized title of "subacute combined degeneration." In 1901 similar cases were published in America as instances of "combined sclerosis of the Lichtheim-Putnam-Dana type accompanying pernicious anaemia." During the last nine years there has been much written about the syndrome, and the present issue of this JOURNAL contains the two latest contributions to its literature.

It is not without interest to trace the evolution of what is now known as "subacute combined degeneration." In the first instance, its pathological picture appeared fairly straightforward. Leichtenstern's patients were said to have tabes dorsalis on the one hand, pernicious anaemia on the other. Further experience, however, has considerably enlarged the bounds of the disease. Thus in 1886 Gowers described a new nervous disorder under the name "ataxic paraplegia," and in all probability some of his cases were instances of subacute combined degeneration with unobtrusive and unrecognized anaemia. Thus a variability in the nervous symptoms of the disease was soon admitted, and there can be no doubt that a great variety of nervous phenomena may occur in different cases, or in the same case at different periods of its progress. The signs will naturally depend on the distribution of the cord lesions. Thus spasticity will be the main feature if the pyramidal tracts are most involved, spasticity and ataxia if both the lateral and the posterior tracts are affected, flaccid paralysis with loss of the deep reflexes if the degeneration is mostly in the fibres of the posterior columns of the cord. As a matter of fact it often happens that the spastic paraplegia originally present becomes replaced by flaccidity in the later stages of the disease, the change indicating involvement of the pyramidal fibres. The lower extremities suffer most if, as is usually the case, the degeneration is most marked in the dorsal or the dorsal and lumbar cord. But in rarer instances the arms have been chiefly affected, and then the degenerative changes are found to have occurred mainly in the cervical region; as Dr. Collier has remarked, lesions higher than the mesencephalon have not yet been found. A similar variability in the morbid changes in the blood must also be admitted. In Leichtenstern's patients, as in those of Dr. Byrom Bramwell and Dr. Hale White, progressive pernicious anaemia was present, by which is meant the severe specific infective, or Addisonian, anaemia of Dr. William Hunter. Indeed recognition of the connexion between pernicious anaemia and combined cord degeneration was so thorough in America some five or six years ago, that patients suffering from the former disease were arranged, for teaching purposes, into three classes—those with no nervous symptoms, those in whom the nervous symptoms came on after the anaemia, and those in whom the nervous symptoms appeared before the anaemia. This classification at least serves to indicate the frequency with which subacute combined degeneration may be expected to occur. In the majority of cases, however, the anaemia has been of a severe secondary type, and not Addisonian. In a few instances, particularly those in which the course of the combined degeneration has been rapid and the issue fatal, the blood count and blood picture have been normal throughout. Originally the anaemia was believed to cause the nerve degeneration. But at the present time it is held that both are the results of a common cause, the action of some toxin. The first view is clearly untenable now that it has been shown that the nervous troubles may precede the anaemia, and may even be exhibited by patients with normal blood. The nature and source of the hypothetical toxin remain undetermined. In many cases, no doubt, it has its origin in the chronic infection of the mouth and gastro-intestinal system, upon which Dr. William Hunter lays such stress in his account of the pathogenesis of progressive pernicious, or, as it is better entitled, "Addisonian anaemia." It must be remembered that degenerative changes in the peripheral nerves, spinal cord, or brain may be found in almost any case of profound anaemia; many of them, no doubt, are terminal lesions, small in extent, and not productive of any clinical evidence of their presence, or, perhaps, resulting only in the symptoms of so-called functional nervous disorder.

As has been pointed out already, much attention has been directed of late years to the connexion between severe anaemia and subacute combined degeneration. Wider views are taken, and what at first seemed a rare combination is now shown to exist fairly frequently. In the same way the lapse of time has shown that the course of combined degeneration is often chronic, extending over four or five years. If the anaemia is marked, the earlier stages of the degeneration are likely to be overlooked, the patient's complaints of stiffness or weakness in the legs, or of anaesthesiae or various paraesthesiae of the stocking-and-glove variety about the limbs, being set down as evidences of functional or neurasthenic disorder. On the other hand, if the anaemia is not a prominent feature of the case, the partially correct but incomplete diagnosis of spastic paraplegia or of tabes dorsalis may be made on the evidences of the nervous symptoms. Dr. Byrom Bramwell's case illustrates to perfection how combined degeneration may imitate disseminated sclerosis, while Dr. Hale White's proves conclusively the dangers attaching to the hasty diagnosis of functional nervous disease. In addition, the former writer has brought into prominence the important circumstance that optic atrophy and temporary recoveries may occur in combined degeneration, just as is known to happen in Addisonian anaemia. Both Dr. Byrom Bramwell and Dr. Hale White note the fact, apparently never previously recorded, that the large deposits of inorganic or free

iron so characteristic of pernicious anaemia may be found in the liver and other viscera of patients dying from subacute combined degeneration.

INSURANCE.

We commend the letter from the Treasurers of the Medical Sickness Society, published at page 1439, to the attention of readers, for it well deserves careful study. The business of insurance is precisely on all-fours with any other business in which one person sells and another buys. The buyer gets just as much or as little as he chooses to pay for. There may be slight variations in the price one vendor charges as compared with the price another vendor charges. One vendor may be able to produce more economically, usually because he works on a larger scale, or because he is content with a smaller profit than another, though this is rare. The rule is that the vendor who tries to undersell a rival gives the buyer an inferior article or a smaller package. An enterprising grocer may advertise that he gives away a teapot with a pound of tea, but he does this either as an advertisement, or he recoups himself by charging for the tea as much as both tea and teapot are worth. If he does it as advertisement, the cost has to be debited to his trading account, and he must ultimately recover it out of his customers; if he does not he becomes bankrupt, and there is an end of the free teapot. A very large part of the total expenses of many traders is for the cost of advertisement, and it is as clear as the sun at noonday that in the long run the buyer pays for such advertisement in the increased cost of the commodity; usually he has not a very long run for his money. Most people, if they think about the matter at all, will quickly reach this conclusion; in the application of the principle to the business side of the practice of medicine we very reasonably tell the public that if they want good service they must pay a proper price, or accept the service as an act of benevolence or charity.

When it comes to insurance, however, it seems strangely easy to persuade people that they are getting something for nothing, which, except in the way of actual benevolence or inheritance, nobody ever does save casually or, as it were, accidentally, never certainly as a matter of business. Insurance is a matter of business, and even when, as in the case of the Medical Sickness Society, the business is carried on not for the individual gain of shareholders but for the mutual benefit of the insured alone, the business must be conducted on sound actuarial principles, the only difference being that the profits which would be paid in dividends to the shareholders are utilized for the benefit of the insured either by charging lower rates to cover the risks or for distributing in the form of bonuses. Adequate reserve funds must be accumulated to meet contingent claims. It is the experience of insurance companies, as of all other human undertakings, that demands on their resources occur irregularly—

> When sorrows come, they come not single spies
> But in battalions.

This is true even for fire or accidents. The doctrine of the average finally vindicates itself, but in the case of sickness and life business special provision must be made in forming the reserve fund to meet the growing incidence of sickness and death, which inevitably increases as the age of the insured increases. Therefore, those who undertake insurance—and not least those who go into the business of insurance from a sense of duty to their profession—must work upon strict business lines, and in fixing the rates to be charged for the benefits offered must be guided by the calculations of the actuaries. No idea of philanthropy must be allowed to intrude; philanthropy, and providence by way of insurance, both have their field of activity, but they are at opposite poles.

A policy of insurance is a contract, and nothing not within the four corners of the contract is to be expected by the contractee (the policy holder). Therefore, it becomes very necessary to examine most carefully the exact words of the contract, what it promises, and under what conditions and provisos, and with what exceptions. Accident policies are offered, either free or more commonly on small payments, such as 6d., as an extra inducement to buy a newspaper or a diary, or some other commodity. We do not for a moment suggest that any of these are not quite *bona fide*. On the contrary, those we have examined have all been guaranteed by a responsible insurance company, and we have no doubt that any claim made in strict compliance with the conditions set out in the policy would be met. One such offer which is before us states that if the applicant sends 2d. and a stamped addressed envelope, he or she will receive a coupon insurance ticket entitling the insurer's personal representative to £1,000 if the insurer be killed by an accident to a railway train in which he or she is travelling as a ticket, or pass-bearing, or fare-paying passenger. If 6d. is sent with the stamped addressed envelope the coupon insurance ticket would ensure the above benefit and a similar benefit if the insurer be killed in an omnibus, tramcar, or cab driven by a licensed driver plying for public hire, in which he or she is a fare-paying passenger; or the sum of £500 for the loss of two eyes or two limbs or one eye and one limb; or of £250 for one eye or one limb; or if not entitled to claim under any of the above heads, then to £2 10s. a week for a period not exceeding five weeks if totally disabled and confined to the house by an accident as defined, that is, in a public vehicle in which the insured is travelling as a fare-paying passenger. For 1s. 6d. the insurance will be extended to include passenger steamers, and to any place within the limits of Europe. We do not question the perfect fairness of these conditions; we take the document as the first at hand, and as illustrating very well the gradual increase in the amount the insurer must pay in direct proportion to the benefits for which he desires to insure, and how precisely the risks insured against are defined. For example, if in the case of the policy cited the insured was a passenger, but not a fare-paying passenger, in an omnibus, or cab, it would appear that he would not be entitled to compensation, nor apparently would the policy cover an injury sustained by a passenger in a railway station waiting for a train in consequence of an accident to any train coming into or going out of the station.

The necessity for examining carefully the conditions under which policies are issued is well illustrated by a case which was brought to our notice recently. The assured had a policy covering sickness due to, among other diseases, diphtheria and scarlet fever; he was taken ill, and was admitted to a fever hospital, the diagnosis between diphtheria and scarlet fever being doubtful; it proved to be a slight attack of the latter. On leaving the

hospital he applied for compensation under his policy, but was informed that he had no claim as he had not notified his illness and its nature within three days of the notification to the Public Health Authority. He stated that the reason for not giving earlier notice was that the exact nature of his illness was not determined till he had been in hospital for some time, and that while in hospital he was not allowed to write letters; but the proviso of the policy was quite plain, and it was clear that not having exactly fulfilled the stipulated conditions he had no claim under it.

The point that the insurer can only expect to get exactly what he pays for is illustrated on a larger scale by a statement in the letter of the Treasurers of the Medical Sickness Society; one of the reproaches addressed to the management of that society is that all benefits cease at the age of 65. This, at first sight, may seem a harsh provision, and were the society a philanthropic society would be harsh. But the society is not philanthropic; it can only give its members what they pay for; and they have paid only for certain specified advantages.* The Treasurers tell us that the question of extending the benefits beyond the age of 65 has been discussed by the Committee; it was found on actuarial investigation that to extend the benefits to the age of 70 it would have been necessary to require the members to pay nearly double as much as they now do for the benefits which they are actually entitled to receive. The rates of the society, of course, vary according to the age of the applicant, and it is almost of the essence of personal insurance that the provident man who takes this precaution early in life enjoys protection at a cheaper rate than he who enters at a more advanced age. This is one fact out of many which should impel a man when he is entering on the practice of medicine to insure at once. There is also the consideration that the consequences of being laid aside by sickness or accident are apt to be even more disastrous to a young practitioner than to one who is already well established or associated with others in partnership. Incidentally we may refer to the instructive fact that during 1908 the claims on the Medical Sickness Society represented nearly 27 per cent. of the membership—that is to say, with a membership of 2,723 the number of sickness and accident claims was 726, the large majority being for sickness.

The art of the actuary is a good example of applied science. It is the application of certain principles of mathematics and vital statistics to particular problems concerning the duration of life, or the frequency and severity of sickness and accidents, considered in relation to the interest which can be obtained for money in the money market. Without claiming that anything like finality has been reached, it may be said without fear of contradiction that a very high degree of accuracy has been reached, and that the forecasts of the actuaries, which are continually being tested by time and the vicissitudes of human life, have come triumphantly out of the test.

THE ACCURACY OF THE *MEDICAL REGISTER*.

FROM time to time complaints are heard from medical practitioners who find that their names have been omitted from the *Medical Register* under the provision of Clause 14 of the Medical Act, 1858, which empowers the Registrar to erase the name of any person who does not reply to official inquiries asking whether he has ceased to practise or changed his residence. It is, however, of the first importance to the medical profession that the *Medical Register* should be correct, and provided that the General Medical Council takes reasonable care, exception cannot be taken to the due exercise of the powers given to the Registrar under the clause referred to. For some time past it has been the custom to correct the *Medical Register* twice in five years—once on the occasion of the election of direct representatives, and again by means of circulars sent to one-third of the persons on the *Register* in each of the three years intervening between the quinquennial elections. As notwithstanding this many inaccuracies were known to exist, a careful revision of the *Register* was put in hand in the autumn of 1908. The precautions taken were fully described in the report of the Registrar published in the SUPPLEMENT to the JOURNAL of May 28th, 1910, p. 312. They seem to have comprised all that can reasonably be expected by medical men. In the first place a letter was sent to every person whose name appeared in the *Medical Register*, inquiring whether the entry was correct. The total number of names on the *Register* was 40,257, and the total number of inquiries issued was 37,330, the difference being accounted for by the fact that inquiries were not sent to those whose names appeared as belonging to the Navy, Army, or Indian Medical Service, these lists having been carefully revised previously. A certain number of inquiries were returned through the Dead Letter Office; and with regard to these search was then made in the medical directories of Messrs. Churchill and Messrs. Nisbet, in the lists of universities and colleges, and in such of the colonial medical registers as were available. In this way it was found possible to re-address inquiries in nearly 700 cases. The first letter was dispatched on February 1st; on April 30th a second inquiry in a registered envelope was sent to all those who had not then replied; they numbered 4,100 in England and Scotland, and 822 in Ireland. This second inquiry produced a fairly satisfactory result, but still at the end of August no information had been received in respect of 584 names in England and Scotland, and 134 in Ireland. Thereupon a third inquiry, again in a registered envelope, was sent to these 718 addresses. Eventually the Registrar found himself reluctantly under the obligation to erase 980 names: 463 English, 362 Scottish, and 135 Irish. In how many cases the person was dead is not known. The importance of removing the name of a deceased practitioner from the *Register* is obvious, its retention may afford opportunities for personation; an instance in which it was suggested that this had occurred in connexion with the *Dentists Register* occupied some part of the time of the Council at its last session. The importance of the *Register* as an official work of reference, and therefore the importance to every medical practitioner of taking care that his name appears upon it, will be enhanced by the arrangement which the Council has made with the Registrars-General in England and Scotland to supply the Superintendent Registrars of Deaths with copies of the *Medical Register* for this year at the Council's expense. Instructions have been given that the names of all practitioners who sign certificates during the year are to be looked up; in Ireland, where the conditions are somewhat different, the names will be looked up in the *Register* by the authorities at Dublin Castle. Further, the Board of Trade has undertaken that in future the current *Medical Register* alone shall be accepted as evidence of the registration of persons applying to be accepted as medical officers in the marine service. We cannot too

* They will be found set out in the annual report of the Council of the British Medical Association (SUPPLEMENT, BRITISH MEDICAL JOURNAL, May 21st, 1910, p. 357).

strongly insist that it is the duty of every medical practitioner—a duty due to himself, to the medical profession, and to the public alike—to co-operate with the Registrar of the General Medical Council in keeping the *Medical Register* correct. The trouble of sending a notification of change of address is not great, more especially as similar notifications have to be sent out when any such change is made to a large number of persons and societies. What greater precautions could have been taken than were taken on this occasion to avoid hardship to individuals we cannot see.

"MEDICAL MISGOVERNMENT."

THE invasion of antivivisectionist meetings by lap-dogs seems to be a new feature of the movement. More than one of these little animals, in the arms of ladies, were present at the annual public meeting of the British Union for the Abolition of Vivisection, held at Caxton Hall, Westminster, on June 2nd, and assisted to swell the excited and frequent applause. Indeed, the dogs appeared to be gifted with an almost human sense for psychological moments, and when it was announced that Lady Warwick had sent £10 to the funds of the union their yapping became a perfect chorus. In other respects it was a meeting of disappointments. Letters of apology were read from no fewer than five members of Parliament, who had been announced to support the chair. The Rev. R. D. Monro, M.A., who took the chair in the absence of Sir Francis Channing, and addressed the audience as "Gentlemen and ladies," dwelt upon the degradation of character, hardening of heart, and searing of conscience which followed indulgence in vivisectionist practices, and, quoting some words used before the Royal Commission of the Seventies, referred to men newly initiated into vivisectionist research as "young devils." Mr. H. G. Chancellor, M.P., then moved a resolution protesting "against the encouragement given by the Government and by municipal bodies to the growing practice of vivisection, and against the preferential treatment accorded to the vivisectionist propaganda by a large section of the London press." Speaking of the late Dr. Koch as one who had probably raised more sensations and more hopes than any medical man had ever done before, he said that tuberculosis was almost, if not quite, as prevalent as it was before the advent of his serum—a specific which was now, he believed, largely discredited. Pasteur, again, was supposed to have discovered a cure for rabies; but many of the dogs were much less mad than the people who went to him. Mr. Chancellor also protested strongly against a conspiracy on the part of the great body of journalists to prevent the public from getting knowledge on this question—knowledge which they had a right to have. Dr. W. R. Hadwen, the new President of the Union, was the speaker of the evening, and his subject, Medical Misgovernment, was widely placarded in the neighbourhood of the hall. He said that antivivisection had not yet become a first class Parliamentary question. A great deal of pioneer work yet remained to be done, and in a nation like ours, which held fast by its prejudices, every great reform had taken forty or fifty years to accomplish. He compared the antivivisectionists of to-day with Galileo, fighting down unscientific prejudice; with Harvey, who was abused by practically the whole of the medical profession of his day; and with men like Wilberforce and Shaftesbury, in the opposition they encountered in their moral crusades. Antivivisection, however, meant a harder battle than others because it involved what was called a medical question. There never had been a burning "medical question" which the medical profession had been able to settle for itself. The question had been settled for them by the people outside. It rested with the great British public to take the matter in hand, and he assured them that, when a few points had been mastered, there was no impediment whatever to a sufficient understanding of this subject by the intelligent layman. But in one respect this "medical question" was more complicated than it appeared to be. It was not merely that medical opinion frightened the public, but that vested interests were ranged on the side of the vivisector. The main opposition to this humanitarian reform lay, not with the rank and file of the medical profession, but with the men in high places, belonging to the bureaucracies of Whitehall. It was not the front bench in the House of Commons that the antivivisectors were fighting, but, as in the case of the antivaccination struggle, an entrenched, wire-pulling enemy, in the shape of the permanent officials. Dr. Hadwen's indictment of "medical misgovernment" practically resolved itself into two familiar counts—the constitution and terms of two recent commissions. He complained, in the first place, of the personnel of the Vivisection Commission, the one-sidedness of Mr. (now Viscount) Gladstone's selections, and the field of the commission's investigations. They started out, he said, not to conduct a thorough inquiry into the whole subject, and to determine the right or wrong of vivisection, but to find out what, if any, modifications were demanded in the existing law. He criticized also the action of permanent officialdom in the matter of the Mediterranean Fever Commission; he repeated his contention that Malta fever was due to insanitation and not to the drinking of goat's milk, and asserted that had an independent body of scientists been sent out to inquire into this matter, their finding would have meant a condemnation of the whole medical military system of the island. In conclusion, he called upon the public to unmask and to fight the biassed and prejudiced policy in high quarters which had sufficiently been shown to prevail. Needless to say, the resolution, which was supported by Mr. Arnold Lupton and others, was carried.

THE WORK OF HOSPITAL ALMONERS.

THE authorities of St. Thomas's Hospital have issued as a separate publication the Lady Almoner's Report for the year ending March, 1910, and the social work described is an excellent example of the highly useful part which almoners may play. The work seems to be conducted much on the system recommended by the Hospital Almoners' Council, and the report makes it clear that when provided with a quite practicable amount of assistance a well trained and business-like, but tactful, almoner can do a good many things besides acting as a petticoated Cerberus at the gates of the out-patient department. She can, for instance, promote the maintenance and recognition of the casualty and out-patient departments as purely first-aid resort and "poor man's consulting room" respectively; both are aims to which the authorities of St. Thomas's Hospital and its professional staff appear to attach importance. She can also do much towards securing the real efficiency of the treatment accorded by showing patients that they must co-operate with their physicians or surgeons, helping them to do so by bringing them into touch with outside charitable agencies of various kinds. Most patients, perhaps, require influence and help of this kind if the full benefit of hospital treatment is to be received. There are too many instances of the worn-out mother who hugs a large bottle of medicine, trusting implicitly that it will cure all her troubles, and setting aside,

s either superfluous or impossible of fulfilment, he instructions she has been given as to rest nd nourishment. It does not enter into either ier head or her husband's that it would be well vorth while to pay for a substitute to do or a time her cleaning, washing, and cooking. Common, too, are parents who drag rickety children o and from hospitals weekly, ignoring the fact that he damp and dark basements in which they live and leep is one of the causes of their illness. From the tatistics supplied in the report, it would appear that is the years go on attempts at abuse in the casualty lepartment show some tendency to increase in number, but in the out-patient department gross attempts of this kind are stated to be now rare. In he former department about 8 per cent. of the appli- cants were sent away last year as in a position to pay a private doctor, about 6 per cent. warned to bring their doctor's card at the next attendance, 26 per cent. referred to provident medical dispensaries, 20 per cent. referred to Poor Law authorities, and most of the rest accorded treatment. In the out-patient department only about 6 per cent. were refused treat- ment as being able to pay for it themselves. A good many were assisted to round off their treatment by rest in a convalescent home, and others were provided with surgical instruments from various sources, or had admission to sanatoriums obtained for them. The almoner's department, in short, seems to work hand in hand with all local and other agencies for the relief and prevention of distress. One excellent working rule in the out-patient department would appear to be to pass for treatment forthwith every patient accom- panied by a medical man's card or letter, the almoners' department taking no action unless the case demands something more than ordinary medical or surgical treatment.

THE LATE MR. CARTEIGHE AND PHARMACEUTICAL LEGISLATION.

MR. MICHAEL CARTEIGHE, whose death occurred at Goring-on-Thames on May 30th, was for fourteen years President of the Council of the Pharmaceutical Society of Great Britain, and the greater part of his life was devoted to the services of that society. His desire was to witness the achievement of the object for which the society was founded, which was, broadly, that all persons entrusted with the duty of compounding dangerous medicines should have the highest possible qualification by training and examination. He recognized that the medical profession would prefer trained men to dispense their prescriptions, rather than persons who had no systematic knowledge, and his aim was to provide for the public a class of men who would, by their training and by an examination based upon that training, deserve to be recognized by the State as members of a calling which ought to receive an adequate amount of protection. In 1866, when Mr. Carteighe became a member of the Council of the Pharmaceutical Society, the sale of poisons, with the sole exception of arsenic, was subject to no restriction, and the only Act which affected pharmacy was the Pharmacy Act of 1852, which merely prevented persons who had not passed the Pharmaceutical Society's examinations from assuming the title of "pharmaceutical chemist" or "pharmaceutist." In 1868, a bill drafted by the society was passed by Parliament and became law; the principle on which this Act was based was that the education of the vendor was the only safe foundation for a poison law. It was enacted thereby that the sale of certain poisons should be solely in the hands of trained persons. It was one of Mr. Carteighe's first duties as a member of the council to assist in the drafting of this measure, and this may therefore be regarded as his first important service to pharmacy. Shortly after the passing of this Act he retired from the council, but remained a member of the Board of Examiners. In 1881, how- ever, he returned to the council, of which body he remained a member until his death. In 1882 he was elected President, and occupied that office without interruption until 1896. In the year preceding his election as president pharmacists had sustained a heavy blow owing to a judicial decision which showed that a company could not be brought within liability of penalties for contravention of those sections of the 1868 Act which made it unlawful for any unqualified person "to sell or keep open shop for retailing, dispensing, or compounding poisons, or to assume or use the title 'chemist and druggist,'" and for any person to fail to conform with the poison regulations framed in pursuance of the Act. The attention of the council was therefore directed towards finding some means of rectifying the defect revealed by this decision; under Mr. Carteighe's guidance several bills were framed with this object, but owing to the amount of threatened opposition they were not intro- duced into Parliament, and Mr. Carteighe sought to overcome the difficulty in another way. He con- ceived the plan of raising the status of pharmacy by way of improved education, believing that Parlia- ment could not refuse to grant proper protection to pharmacists if it could be shown that they were a highly educated body of men. Unfortunately, owing to lack of support from the members of his own craft, he was only partially successful. He did succeed in raising the standard of pharmaceutical education, but his larger policy never matured. He desired to obtain powers to insist on a bona-fide apprenticeship, to separate the preliminary from the qualifying examination, and to enable the society to examine on a definite curriculum. He regarded it as an essential that the examiners should know the history of the candidates coming before them, and should not depend merely upon the possession of the requisite examination qualification. The "curriculum bill" introduced into Parliament during his term of office was not successful, but in 1908 the society at last obtained the powers to make by-laws requiring candidates for the qualifying examination to produce evidence that they have received a sufficient training in the subjects. This is only one respect in which pharmacy in later years has reaped the benefit of Mr. Carteighe's labours during his long occupation of the presidential chair, and there can be little doubt that it is largely owing to his efforts that the Pharma- ceutical Society holds its present position among the scientific and technical institutions of the country. Apart from the services he rendered to pharmacy, Mr. Carteighe found time to interest himself in the work of several scientific societies. He was one of the founders of the Institute of Chemistry, and for many years a vice-president; he was for forty years a member of the Royal Institution, for a long period one of the leading members of the British Pharmaceutical Conference, and for five years a vice-president of the Society of Arts. Mr. Carteighe was in his 69th year.

INDUCED CELL PROLIFERATION, HEALING, AND MALIGNANCY.

AT the meeting of the Association of Physicians, held at Liverpool on June 2nd and 3rd, a demonstration was given by Drs. Macalister and Ross illustrating induced cell proliferation, and its relation to normal healing and to malignancy. Lantern slides of photo- micrographs were shown demonstrating the mitotic figures which can be induced in human lymphocytes

and also in leucocytes by the agency of an aniline dye called "azur." It having been proved that these cells divide in response to this chemical agent, further researches were made which elicited the fact that white blood corpuscles will also divide in response to a chemical agent (the actual nature of which is at present unknown) contained in the extracts of many dead tissues, and probably in all of them, showing that this substance, in causing the division of these cells on the microscope slide, may be, and probably is, the immediate cause of the proliferation of healing. It has been ascertained that this agent is also contained in "globin." Former researches (described in the British Medical Journal of October 23rd, 1909) have shown that alkaloids, especially atropine, although not in themselves excitors of reproduction, will greatly augment the action of the latter agent in inducing cell division, and that the combination frequently produces in lymphocytes what appear to be asymmetrical mitoses. In experimenting with extracts of dead tissues and with a solution of "globin," it was found that if these solutions were allowed to putrefy for a month the same augmentation occurred, and that this result is probably due to the alkaloid produced by putrefactive bacteria. The same result can, in fact, also be produced by fresh extract of dead tissues or "globin" to which choline has been added. The last lantern slide shown demonstrated an early mitotic figure induced in an epithelial cell from the vagina, proving that these cells also respond to the chemical excitor of reproduction. It was therefore suggested that the unknown substance contained in the soluble remains of dead tissues and in "globin" may be the cause of the proliferation of healing, and that if putrefaction takes place in a site where there is chronic irritation and consequent attempt at healing, with the production of an alkaloid of decomposition such as choline, the divisions in lymphocytes may be of the greatly augmented asymmetrical type, such as are seen in carcinoma—that is, that if it is a criterion that because a cell divides by these asymmetrical divisions it is cancerous, then the combination of the chemical cause of healing and an alkaloid of putrefaction in certain strength will cause carcinoma. Although these points have been shown by experimentation *in vitro* on individual cells, they have not all been proved by experiment *in vivo*, but that "globin" contains a cause of the proliferation of healing has been demonstrated in the case of a chronic ulcerated leg, its direct application to a certain part of the sore having caused abundant granulations to grow in a few hours. The possible association between the cause of the proliferation of healing and the problem of immunity was also raised. Since by healing the body protects itself against invasion by disease germs, and since this healing is caused by a chemical agent which is contained in dead tissues and in "globin," it will be necessary to make experiments to find out whether this agent affects or is affected by disease germs, for if, on the one hand, germs destroy this agent, healing will be retarded, whereas, on the other hand, if the agent destroys bacteria the progress of the disease may be arrested.

YELLOW FEVER IN WEST AFRICA.

In view of statements which have appeared in the press with regard to the outbreak of yellow fever in West Africa, the Colonial Office thinks it desirable to state that since May 13th, when the outbreak was first reported, there have been twelve cases in all—nine at Sekondi and three at Freetown. All the cases have unfortunately proved fatal, and, with three exceptions, those attacked were Europeans. No fresh case has occurred at either port since May 26th, and no cases have occurred at any other place in British West Africa. As soon as the outbreak was reported, meetings of the Advisory Medical and Sanitary Committee for Tropical Africa were summoned, and Lord Crewe has acted throughout on the advice of this body. As soon as it was certain that the disease was yellow fever, Lord Crewe was glad to avail himself, with the consent of the Corporation and the University of Liverpool, of the offer of Sir Rubert Boyce to proceed to the West Coast to assist in organizing measures for stamping out the disease. Sir Rubert Boyce accordingly proceeded to Sekondi on June 1st, accompanied by six medical men, two others being simultaneously sent to Freetown. They were all drawn from the London School of Tropical Medicine, which they were attending as selected candidates for the West African medical staff. They will receive the initial pay of officers of that service.

BOGUS MASSAGE AND NURSING HOME

It is somewhat unfortunate that a contemporary which has recently drawn attention to bogus massage and nursing homes should have such a reputation for sensationalism, for it would seem that during the past year or two there has been a distinct recrudescence of the evil. Apart from discreetly indiscreet name-plates in various streets there are to be found in most of the Sunday, and indeed other, papers advertisements the meaning of which is not difficult to interpret. It may be doubted, however, whether detailed consideration of the scandal in the general press is desirable, for in existing conditions it would seem that effective action can be taken by the police alone. Nor in this should there be much difficulty, for in many instances the veil which distinguishes these "homes" from ordinary so-called "disorderly houses" is of the thinnest possible character. In no well-managed State should two most desirable occupations for women—nursing and massage—be permitted to be brought into disrepute by vicious or criminal persons adopting the external characteristics of those belonging to them. Among the recommendations of the Select Committee of the House of Commons, appointed some years ago to consider the question of nurses' registration, was one providing for the inspection of nursing homes. Such inspections would be some protection against bogus institutions, but power to hold them is not specifically created by any of the bills since framed; and it is by no means certain that such power would evolve, as the Society for the State Registration of Trained Nurses seems to think, from those created by the general clauses of such proposed Acts. There would be less risk of genuine and bogus practitioners being confounded if the Incorporated Society of Trained Masseuses played a more prominent part than hitherto, and if it were accorded a definite position among official institutions. In any case membership of that society should be regarded as a *sine quâ non* by every woman who practises massage, by every medical man who employs a masseuse, and by every patient who seeks the services of a masseuse on his or her own account. At present the existence of the society is probably not known to the public at all, and though it has the support of a large number of prominent medical men, both in and out of London, is less familiar to the medical profession as a whole than it should be. It only admits to its membership those who produce evidence of adequate training and good moral character, and permits none of its members to undertake any case except under the direction or sanction of a registered medical practitioner. It has its home at 12, Buckingham Street, Strand.

TREATMENT OF TRYPANOSOMIASIS.

MR. J. D. E. HOLMES, Imperial Bacteriologist to the Government of India, has recently been trying different forms of treatment for surra, a trypanosome disease of horses in India. Combinations of atoxyl and arsenious acid have been found to be the most efficient drugs, and in one experiment 12 out of 16 ponies are believed to have been cured. In these instances the drugs were administered in the following way: A dose of arsenious acid in solution (Loeffler and Ruchs) was administered as a drench at a period of paroxysm; this was followed on consecutive days by a dose of atoxyl subcutaneously, and a dose of arsenious acid as a bolus. These three doses were repeated once or twice at intervals of four days, and once after an interval of eight days. In a few instances the intervals between the doses varied. In some cases a dose of atoxyl was first given subcutaneously, and was found to clear the circulation of trypanosomes within twenty-four hours. This system of treatment was the most successful tried. In four cases the treatment failed—in three instances probably from insufficient doses, while in one case the interval between the doses was increased to six and twelve days. All the animals stood the treatment well and rapidly improved in condition. In view of these successful results arsenious acid might perhaps be more commonly employed in combination with atoxyl in human cases.

WE are informed that at the approaching election to the Council of the Royal College of Surgeons of England Mr. Lockwood will offer himself for re-election, and that Mr. C. Ballance, Mr. Bland-Sutton, Mr. Ernest Lane and Mr. Bilton Pollard are candidates for the vacancies on the Council. An analysis of the Council as it is now constituted appears in our columns on p. 1448.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

The Spring Recess of the House of Commons was to have ended on May 26th, but this arrangement was upset by the ever-to-be-lamented demise of King Edward VII on May 6th. The members of both Houses of Parliament consequently assembled on May 7th, and on May 9th the last Parliament of King Edward VII was transformed into the first Parliament of King George V by the swearing-in of the members. On May 11th, the Royal Message of H.M. King George was received, and the motion for an address and message of condolence to the King and Queen Mother was passed, on the proposal of the Prime Minister, seconded by Mr. Balfour. The House of Commons then adjourned to Wednesday, June 8th.

The Order of Business.—Before the House of Commons adjourned the Prime Minister indicated the business which must necessarily occupy the House of Commons on its reassembling. The Navy Votes in Committee of Supply were appointed as the work for Wednesday, June 8th. On the next day the report of these votes was arranged to be taken by the Ways and Means resolution in Committee. On Friday private members' bills have one of their few chances for this session. For the next few weeks the business must be mainly financial. The Consolidated Fund Bill must be passed; a committee will have to be appointed to draw up a report on the Civil List for the new reign; a measure to modify the Statutory Declaration of Faith made by the Sovereign is to be drawn up and introduced; the Budget for the year, now overdue, has to be presented and discussed, while some fourteen days are required to make up the twenty allotted to Supply. The bill authorizing the Census of 1911 will have to be passed, and the Supreme Court of Judicature Bill authorizing the appointment of extra judges, which is under consideration and to which there are some three and a half pages of amendments down on the paper, must occupy a day or more of the Government time. A Regency Bill will also have to be passed through the two Houses. This summary of necessary business, including, as it does, the Budget, which is sure to occupy a good deal of time, shows that there is sufficient to occupy Parliament till the end of July or even till the middle of August, so that the opportunities for other legislative work can only arise if it should be decided to hold an autumn session for the transaction of other business.

The Royal Navy Medical Service.—Both Houses of Parliament met on Wednesday, and Peers and Members not yet sworn took the oath of allegiance to the new King. Among the large number in the Commons was the Speaker himself, who was sworn in as the first business. There were only some eleven questions on the paper, none of very great interest, and when they were all answered the House went into Committee of Supply on the Navy Estimates. The first vote, for clothing and victualling, led to a friendly discussion, and satisfaction was expressed by Lord Charles Beresford and others at the improvement in the victualling. Next came the vote for £263,000 for the Medical Service. Lord Charles Beresford observed that the First Lord in his statement had said that questions of the greatest importance and far-reaching scope had been brought before the Committee of the Admiralty which was investigating matters connected with the Navy Medical Service. He hoped that the report of that committee would be published as soon as possible. There was hardly anything more important than that the medical service should be organized and ready for war, for at the moment of war an immense reserve in surgeons and staff would be wanted. He advocated the establishment of a royal naval medical school similar to the Royal Army Medical College at Millbank, and hoped that the First Lord would be able to say that the committee had provided for some such establishment. He calculated that the peace establishment of surgeons at the present time was sixty or seventy short. There were only thirty-four surgeons in the Royal Naval Volunteer Reserve, and he suggested that the number might be immensely increased by inviting surgeons of mercantile ships to become surgeons in the Reserve. He paid a tribute to the nurses, whose advent, he said, had been followed by an enormous improvement in naval hospitals. He hoped, further, that it would be recognized that the building of hospital ships was absolutely essential. If they were properly found, like modern hospitals, with a proper number of surgeons and proper staffs, hundreds of lives would be saved in case of war. Mr. Bowles agreed that the question of the sufficiency of naval surgeons was one which should occupy the attention of the Admiralty. Mr. Lee strongly supported the plea for the building of hospital ships. He had had personal experience of the difference of treatment in a merchant ship converted to hospital uses and the treatment on a ship built for the purpose. He thought that the Admiralty might usefully study what the United States navy department had done in providing ships especially built for the purpose. Mr. Ashley called attention to the small pay of the nurses; the maximum of £50 per annum was too low. In his reply, Mr. McKenna said it was intended to start building a hospital ship next year, and regretted that the report of the committee, which had considered the medical service and had dealt thoroughly with every question raised, had not been published even in part. The recommendations were under consideration by the Board, and he was not going too far when he said that he expected not only that the bulk of them would be accepted, but provision would be made to carry them into effect; on some of the matters, such as scale of salaries for doctors and nurses, the Admiralty was not the only authority to be consulted. The vote was then agreed to.

Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

NATIONAL ASSOCIATION FOR THE PREVENTION OF CONSUMPTION.

THE National Association for the Prevention of Consumption and other forms of Tuberculosis, which up to the present has held its annual meetings in London, has this summer convened the eleventh at Edinburgh. At the same date as the annual meeting, and under the auspices of the association, a conference will be held regarding consumption, especially the more interesting and present-day questions as to its causation and prevention. Professor William Osler, F.R.S., will preside, and it is expected that leading representatives of thought on the various aspects of tuberculosis from the United Kingdom, America, and the Continent will take part. In connexion with the conference there will be a Tuberculosis Exhibition, including the exhibition of the National Association which has obtained such a remarkable success in London, Oxford, and Cambridge. The annual meeting will take place in the United Free Church Assembly Hall, on Monday, July 4th. The conference will be held in the Rainy Hall of the New College on July 4th and 5th. The exhibition will be held in the New College Buildings, Mound, and will continue for a week from July 1st to July 9th inclusive. The annual meeting will be open to the general public. The conference will be open to members and (by special card to be obtained from the secretaries) to all medical practitioners and representatives of public health departments and local authorities. Membership of the association is constituted by payment of a minimum subscription of 5s. The Tuberculosis Exhibition will be open each day to the public free of charge. Arrangements will be made for conducting school classes and other groups round the exhibition and explaining the various exhibits. It is believed that by means of the exhibition an educative movement of the highest importance with reference to consumption and other forms of tuberculosis will be effected. It is hoped that members and officials of the local authorities throughout the kingdom will avail themselves of this excellent opportunity to acquire the fullest and most recent information regarding the subject. An influential committee has been formed to ensure the success of the meeting. The chairman of the executive committee is Sir Alexander Christison, Bart.; the honorary treasurer is Dr. R. W. Philip; the honorary secretaries are Dr. W. Leslie Lyall, Mr. Geo. A. Mackay, Local Government Board, and Dr. James Miller.

A provisional programme has been issued. On Friday, July 1st, the Tuberculosis Exhibition will be opened by the Countess of Aberdeen. On Saturday morning, July 2nd, addresses to teachers and scholars will be given by eminent visitors, in Edinburgh schools, while in the afternoon the Royal Victoria Hospital Farm Colony, at Springfield, Lasswade, will be inaugurated, and a garden party will be given by the Committee of the Royal Victoria Hospital. On Sunday, July 3rd, there will be a special service for university students and visitors in the McEwan Hall, and an address by Professor Osler. On Monday, July 4th, at the Tuberculosis Conference, there will be discussions on the Avenues of Infection in Tuberculosis and on Preventive Measures and the Administrative Control of Tuberculosis. In the evening the annual meeting, presided over by the Right Hon. Lord Balfour of Burleigh, will be held, and this will be followed by a reception by the Municipality of Edinburgh. On Tuesday, July 5th, there will be discussions on the Incidence of Tuberculosis in Childhood and The Working Man in Relation to Tuberculosis.

MEDICINE AND PUBLIC HEALTH IN THE HIGHLANDS.

In issuing the nineteenth annual report, Dr. John MacDonald, the medical officer of health for Inverness-shire, states that the general health of the county during 1909, as evidenced by the death-rate and the number of cases of infectious diseases, has been, on the whole, good. Notwithstanding the severity of the weather during the last few months of the year the death-rate was lower than it had been in the three previous years, and the number of notifications of infectious diseases and the zymotic death-rate lower than in 1908. No widespread epidemic of notifiable diseases occurred, but influenza was prevalent in several of the districts, and was responsible for 33 deaths. No cases of small-pox or typhus fever were notified, but 2 cases of relapsing fever occurred in Harris. The last occasion on which this disease occurred in the county was in 1902, when 8 cases were notified, also from Harris. The number of deaths registered was 950, compared with 979, 992, and 987 in the three preceding years, giving a death-rate of 14·628, as against 15·085 in the previous year. The uncertified deaths numbered 259, or over 27 per cent. of the whole. The number of uncertified deaths in the county remains at a fairly constant figure from year to year. By far the greatest number occurred in the islands, namely, 191, or over 20 per cent. These figures clearly show that medical attendance in the Highlands is insufficient.

This is a question intimately bound up with the health and lives of a great number of people, who are widely scattered over large areas both on the mainland and on the islands. The inadequate medical attendance represents much suffering, loss of life, and misery which might be obviated or relieved if medical attendance were available. Looking at the matter from another point of view, crime may be allowed to go undetected for the want of medical certification. The Poor Law Commissioners drew attention to this matter in their report. The whole problem of the Highlands is a difficult one, but what is clearly necessary in this particular matter is a special grant in aid of medical attendance. Of the total number of deaths, 460, or almost half, were of persons above the age of 70 years; 276 were between 70 and 80, 161 between 80 and 90, 22 between 90 and 100, and 1, a female, was over 100. The number of deaths attributed to tuberculous diseases was 83, phthisis being responsible for 67. The Inverness-shire Sanatorium continues to do good work. One or two new shelter huts have been erected. The number of cases treated during the six months ending October 31st was 18. Cases in the incipient stage did very well.

SIR JAMES CRICHTON-BROWNE.

Sir James Crichton-Browne last week opened the newly constructed town hall of Dumfries, which was destroyed by fire in November, 1908. Afterwards he received the freedom of the burgh, the burgess ticket being enclosed in a silver casket.

In acknowledging the honour paid him, he said he owed his success in life to having been brought up in that district in a simple Scottish home, and an old-fashioned school, and to the precept and example of a greatly gifted and cultured father. In the evening Sir James opened a bowling green, which the Town Council has had laid down in the public park for working men.

Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

MIDWIVES ACT AND IRELAND.

THE question of the extension of the Midwives Act to Ireland has been brought prominently before the profession by a letter on the subject addressed by Dr. F. W. Kidd, of Dublin, to the Council of the Irish Medical Association. After dealing with the objections commonly urged against the bill, namely, that it establishes a body of practitioners with inferior qualifications, who to some extent compete with medical men, and that it fails to provide that remuneration should be given to doctors who are summoned by midwives to attend in complicated cases—an objection which would be removed by the proposed amending

bill—Dr. Kidd proceeds to consider the adoption of the Act in Ireland under the headings of utility and feasibility. As regards utility, he points out that the great object of the Act was to protect the public from the ministrations of the "handy woman." Such protection is, he thinks, not required in Ireland, inasmuch as the number of midwives trained in proper institutions has been so large as practically to destroy the calling of "handy woman" in populous centres, while in rural districts the need can, he maintains, adequately be met by the universal appointment of district midwives. From the point of view of feasibility, he points out that the extension of the Act to Ireland would necessitate representation of Ireland on the Board, and the establishment of local examination centres, thereby entailing an increase in training expenses. Furthermore, assuming that the number of nurses did not diminish, there would not be enough maternity cases to supply each nurse with the requisite number without to some extent depriving students of advantages which up to the present have so much helped the Dublin School of Obstetrics. The only reason, he proceeds, that can be urged for the adoption of the Act is that Irish nurses may otherwise suffer; but this point can, he thinks, be met as follows: Under Clause XII of the amended bill, any woman who produces evidence that she has been trained as a midwife and certified in any other part of His Majesty's dominions in which there is for the time being in force any Act or Ordinance for the certification and registration of midwives under a public authority, may under certain conditions be certified under the main Midwives Act. Such an Ordinance for the certification and registration of midwives under a public authority as would entitle those registered to the advantages of reciprocity might, Dr. Kidd suggests, be established as a part of the coming scheme of Poor Law reform; he considers that this might prove a satisfactory solution of the question as far as Ireland is concerned. The opinions expressed above are of extreme importance and deserve the careful consideration of Irish doctors. The Council of the Irish Medical Association has invited its members to express their opinions, with a view to ascertaining the general feeling of the profession on the subject.

MEDICAL OFFICERSHIP OF SKIBBEREEN WORKHOUSE.

The case of the Skibbereen Guardians, in which they sought an injunction to restrain Dr. T. O'Meara from discharging the duties of medical officer to the Skibbereen Workhouse, came before the Chancery Division in Dublin on June 3rd. It will be remembered that the guardians some months ago appointed two medical officers, but the Local Government Board, wishing to meet their views as far as possible, and thinking that the proposed arrangement was not open to objection on administrative grounds, sanctioned the appointment of one of the doctors, namely, Dr. O'Meara, and suggested to the guardians to advertise for the appointment of a second on another day. The guardians complained that this was a misapprehension of their resolution, and that it was not divisible in that way. Mr. Justice Barton thought the Local Government Board could not, without altering its regulations, sanction the making of two (joint) appointments, and he did not think it was right in giving a partial sanction to the resolution. It, in his opinion, could not be made divisible in that way. In the circumstances the defendant had no right to insist on discharging the duties of medical officer, and enter the plaintiffs' premises for that purpose. He was of opinion also that the guardians had brought the action bona fides. Mr. Justice Barton added that Dr. O'Meara was perfectly blameless in the matter, and every one had agreed in praising him and saying that he was entirely fitted for the appointment. That was the only consolation he had. His qualities had been recognized in public in that court, and he wished he could make some person pay his costs, but he could not. He would certainly, however, not make him pay any one else's costs as well.

POST-GRADUATE CLASSES, TRINITY COLLEGE, DUBLIN.

The summer session of the post-graduate classes held in connexion with Trinity College, Dublin, was inaugurated in the Anatomical Theatre, Trinity College, Dublin, on Monday, June 6th, by Mr. B. G. A Moynihan, of Leeds, who delivered a lecture on dyspepsia. The Provost of Trinity College, who is a member of the medical profession, was in the chair, and there was a large attendance of medical men. Mr. Moynihan dealt with three varieties of dyspepsia: that associated with the presence of a duodenal ulcer; the variety which is symptomatic of the presence of gall stones within the gall bladder; and with "appendix dyspepsia." He laid special stress on the fact that each of these three varieties was regarded as a purely functional disturbance only a few years ago. After the conclusion of the lecture a vote of thanks was proposed by the Regius Professor of Medicine (Dr. Little), was seconded by the Regius Professor of Surgery (Sir Charles Ball), and was passed by acclamation.

England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

LONDON.

THE COUNTY COUNCIL.

Dr. D. J. Jones, of Banstead Asylum.

THE Asylums Committee of the London County Council reported on June 7th the resignation of Dr. David Johnston Jones, the medical superintendent of Banstead Asylum. Dr. Jones has been for thirty years in the asylum service, and twenty years at Banstead, where he has been medical superintendent since October 1st, 1901. The committee added: "We gladly avail ourselves of this opportunity of recording our appreciation of Dr. Jones's faithful service, and his sympathetic care of the patients."

Public Slaughterhouses.

The Local Government Board has intimated to the London County Council that it does not see its way at present to undertake an inquiry into the need for public slaughterhouses in London, as suggested by the Council in November, 1909.

Cost of Medical Inspection.

The London County Council on June 7th devoted nearly twelve hours to the preliminary consideration of the annual education estimates. The cost of medical inspection accounted for an increase of £3,615, and medical treatment of £4,000. Mr. R. A. Bray, in the course of a general debate, remarked that medical inspection of school children in London was in a profoundly unsatisfactory condition. The County Council had fallen far short of the Board of Education's minimum requirements, and with the staff it would have in September it would still be behind. With that staff about 150 schools could be inspected in a year, and there were 900 schools in the administrative county. It would be six years before all the schools could be inspected unless the pace was accelerated. At the same meeting the Education Committee submitted a recommendation—which, however, was not reached—that in cases where children sent to hospitals were discharged after the first attendance on the ground that no treatment was necessary, the examination at the hospital should be regarded as "school medical inspection" within the meaning of the Act.

THE WEIR BEQUEST.

The appeal of the Wandsworth Borough Council against the decision of Mr. Justice Eve upholding the scheme of the Charity Commissioners for the disposal of the Weir bequest has been allowed. Mr. Benjamin Weir, who died in February, 1902, bequeathed certain freehold houses in Balham and Streatham and the residue of his estate, the whole amounting in value to over £100,000, for the purpose of establishing a hospital or other medical charity, to be called the Weir

Hospital, for the benefit of the inhabitants of the parish of Streatham and the neighbourhood. The trustees, considering it to be impracticable to carry out the specific provisions of the will, and relying upon the general provisions, applied to the Charity Trustees to settle a scheme for the administration of the charity. The Commissioners accordingly made an order directing that the house at Streatham should be used as a home for a staff of trained nurses whose services would be available for all the inhabitants of Streatham and the neighbourhood, and the other house a dispensary, and that the surplus income arising from the remainder of the endowment not required for the maintenance of the nurses' home and the dispensary should be applied to enlarging and supporting the Bolingbroke Hospital on condition that the name of that hospital was changed to the Weir and Bolingbroke Hospital. The Court of Appeal held that the Charity Commissioners had disobeyed the rules of law which ought to govern them.

MANCHESTER AND DISTRICT.

THE ROYAL INFIRMARY AND MEDICAL WOMEN.

SOME months ago the Convocation of the Manchester University passed the following resolution with reference to the refusal of the Royal Infirmary to appoint medical women to the resident posts at the infirmary:

> That, having regard to the interests of the women students in the Faculty of Medicine, Convocation desires to suggest to the University Court that they should ask the Royal Infirmary Board to reconsider the question of appointing women to resident posts at the Royal Infirmary.

This resolution came up for consideration at a meeting of the University Court on June 1st, at which Vice-Chancellor Hopkinson presided. Sir Wm. Cobbett, who is Chairman of the Board of Management of the infirmary, said that if this resolution were adopted by the Court the infirmary could only return one answer, which he thought would not be satisfactory to the supporters of the resolution, and would place the infirmary and the university in a regrettable position. At the present time a subcommittee of the Board of Management was considering whether and to what extent and by what means the post-graduate education and training of medical women could be assisted by the infirmary, and without saying more he thought it right to direct the attention of the Court to these two matters. Dr. Schuster thought that after what had been said by Sir Wm. Cobbett every one would agree that the time was not opportune for the university to take action, but felt that it would not be courteous to Convocation simply to shelve the resolution. After some discussion it was resolved:

> That the resolution of Convocation be communicated to the council for its consideration and for report to the Court.

MR. F. A. SOUTHAM AND THE ROYAL INFIRMARY.

At a meeting of the Board of Management of the Royal Infirmary on May 31st the retirement of Mr. F. A. Southam from the post of honorary surgeon to the infirmary was reported. Mr. Southam has been a member of the honorary surgical staff for upwards of thirty years, and has now reached the age limit of 60 prescribed by the rules of the infirmary. The board passed a resolution recording its high appreciation of the services he had rendered, and in declaring him elected an honorary consulting surgeon, expressed the hope that "the benefit of his wise counsel and professional skill would still be available, and that he would be spared for many years to continue his association with the institution for which he has so long and consistently laboured." On June 3rd a dinner was given to Mr. Southam at the Queen's Hotel by the house-surgeons and resident surgical officers who had served during his term of office. In the course of the evening he was presented with a silver tray as a token of the affection and regard of his henchmen. Mr. Wright and Mr. Thorburn were also present as guests.

Owing to the vacancy caused by Mr. Southam's retirement, Mr. J. W. Smith, F.R.C.S., Senior Assistant Surgeon, has been elected Surgeon, and Mr. C. Roberts, M.B., F.R.C.S., has been appointed Honorary Assistant Surgeon in place of Mr. Smith.

DOCTORS AND HAIRDRESSERS.

It is evident that the Northern Counties Hairdressers' Federation is in earnest in its attempt to introduce into hairdressers' establishments approved sanitary methods in order to minimize any dangers to the public that might arise in the course of their business. The federation has adopted a code of sanitary rules based on the advice of medical authorities, and has definitely expressed itself as most anxious to work in accordance with the recommendations of medical men. A perfectly reasonable request was made some weeks ago by the secretary of the federation that medical men should carefully consider the serious results to hairdressers that may follow any off-hand statement by a medical man that a person is suffering from "barber's itch" or "barber's rash." There are persons only too ready to make unjust claims for damages on the strength of a doctor's statement that they are suffering from the results of a "foul shave," and the appeal of the federation that any facial disease submitted for diagnosis should be called by its proper name, sycosis, tinea sycosis, impetigo, etc., ought to be acceded to, especially as the federation is showing in a practical way that it intends to take every possible precaution in its shops to prevent the spread of these diseases through shaving. As a step in this direction the Salford Branch of the federation has already appointed a medical adviser. The example of Salford has been followed by Rochdale, Bury, and Oldham, and according to the *Hairdressers' Chronicle* there is every probability that within the next few weeks Manchester will follow suit. In Salford the medical adviser is paid a retaining fee, and, in addition, for actual work done at his usual rates. Lectures have been given on the best sanitary methods of conducting a business, and establishments are inspected and advice given. Persons claiming damages for "dirty shaves" from members of the federation are sent to the medical adviser for examination, and if, as a result of the examination, it is decided to contest any claim, he appears in court to give evidence. The medical adviser for Salford has for many years consistently, as a member of the British Medical Association, supported the rights of the medical profession to proper remuneration for actual work done, and his definite opinion that the Northern Counties Hairdressers' Federation is making a genuine attempt to maintain the highest standard of sanitary efficiency in its shops and is prepared to enter into satisfactory arrangements for obtaining the help of the medical profession, will no doubt ensure for the federation the support of medical men.

India.

[*FROM OUR SPECIAL CORRESPONDENT.*]

THE PERMANGANATE TREATMENT OF SNAKE BITE.

NOT the least interesting and important discussion at the Bombay Medical Congress of last year was that on snake bites. Sir Lauder Brunton contributed an important paper on the subject, including an account of his well known local treatment by incision and direct rubbing in of crystals of potassium permanganate at the seat of the injection of the venom. A number of successful applications of this method, in cases in which the snake had been identified as poisonous, as well as a few unsuccessful ones, were recorded. One of the Bombay workers criticized the method on the strength of a single experiment on monkeys with unknown quantities of venom, but pretty certainly a far larger number of lethal doses than could be received by a human being. Further experimental investigation of the treatment has since been going on at the Bombay

Laboratory, and an official press note recently appeared to the effect that intravenous injections of potassium permanganate are dangerous in animals. This relates to a suggestion made at the Bombay Congress that further experiments might be made to see if permanganates could be used intravenously to neutralize venom already absorbed when the patient comes under treatment. The Bombay tests thus confirm Sir Joseph Fayrer's results of over thirty years ago, which were mentioned in Sir Lauder Brunton's paper, and also others carried out in Calcutta and referred to in the discussion, to the effect that intravenous injections of potassium permanganate are both useless and dangerous in the treatment of snake bite. Unfortunately some of the lay papers have been misled by the brief press note into thinking that the recent negative Bombay experiments referred to the local application of this salt, with which, of course, it has nothing whatever to do. The results of the Bombay work, which is still in progress, will be awaited with interest, and we may join in the hope expressed by the leading lay Bombay paper that they will yield some positive as well as negative results.

Special Correspondence.

PARIS.

Compulsory Vaccination and its Results.

IF there were an official medical calendar for French doctors, it would contain somewhere about the beginning of June the following note: "*Vaccination et revaccination antivariolique: service départemental.*" This, in fact, is the season of the year consecrated by usage and the tacit consent of all parties for doctors to pay their visits to the office of each *mairie* in his district, in order to carry out the provisions of the law of February, 1902, with regard to the protection of the public health. This law, completed by a decree of July 27th, 1903, explained by a circular from the Minister of the Interior dated August 7th of the same year, sanctioned by a resolution of the departmental council of hygiene, and regulated in its application by the Conseils généraux in 1905, came into force in 1906.

Until then vaccination was a matter of private concern. It had long been the custom to have children vaccinated during their first year by the doctor or the midwife who had presided over their entry into this world. Later on the State found several occasions for prescribing revaccination. In this way fresh inoculations were imposed on young persons at the time when they entered the lycée or the great secondary schools or the higher schools, as, for instance, when a student's name was first entered at the Faculté de Médecine. The young soldiers were all revaccinated at the beginning of their military service, and I myself, who write, was revaccinated in this way seven times in three years and seven times besides, always with most complete want of success.

This was all very well for the majority of male persons who, in the course of preparing for a professional career or owing to the requirements of civic life, fell from time to time within the sweep of the administrative net. On the other hand, women almost always remained content with their primary vaccination, and so did those of the opposite sex who, being both poor and weakly, could not be seized upon by the State either during the course of their professional education nor required to serve as soldiers.

The law of 1902 systematized and generalized the provisions for the prophylaxis of small-pox. It required (1) the vaccination of infants between the ages of 3 months and 1 year; (2) the revaccination of children between the ages of 10 and 11 years and of young persons between the ages of 20 and 21 years. This duty the departments assigned not indiscriminately to all doctors, but to those only who already held some public office, already received some salary from the Administration, and therefore, being already in relation with it, could be counted upon to regard with greater complacency or greater resignation the very moderate fees the Administration was prepared to offer. The tariff of fees varied in different departments, and I will quote as an example that of my own native department of the Yonne:

1. Vaccinations performed in the place where the medical practitioner resides.—Seventy-five centimes for each of the first twenty operations; 35 centimes for each operation above the twenty.

2. Vaccinations performed in communes to which a journey is necessary.—One franc 25 centimes for the first ten; 1 franc for the next ten; 50 centimes for the others.

This tariff may be sufficiently remunerative in towns where vaccinations are numerous. It is much less so in country districts, where the population is much less dense.

One clause rendered it still worse: the doctor was obliged to vaccinate and revaccinate in the course of the same year until success was attained, without any additional fee. Yet it is well known what the results of revaccination are contingent on various circumstances; I have, for example, given my own personal experience above. The Administration, however, did not take long to discover that this clause which required us to be successful as Rome required its generals to be victorious was unreasonable, and two years ago we were cheered by the following note entered on our sheet of statistics (thirteen pages to be filled in for each commune), "will be considered as successful all cases in which revaccination produces instead of a vesicle a simple *bouton* or only a papule resembling in appearance the classical papule. With good luck, then, the unsuccessful cases of vaccination need no longer trouble the philanthropic work of the State. A hint should be enough to make the State and the doctors understand each other, and it would be deplorable ignorance of the refinements of language to report any cases in which arms have remained refractory to our scarifications. We are now in a position to furnish to learned societies triumphal statistics, thus affording an instance of the degree of perfection which can be attained when Governments are willing to assist in the progress of medicine.

But from another point of view the administration of the law still remains unsatisfactory. Vaccinees of the first category, the infants, we find in their cradles or in the arms of their nurses. Those from ten to eleven years of age are brought before us by the teachers in school. But the last class is out of our reach. Many individuals in this category do not obey the summons of the municipalities, and the muncipalities with the fear of the elector before their eyes dare not institute the prosecutions which the law demands. Through apathy, ignorance, or from a feeling of independence which can find no better way of asserting itself than by claiming and proclaiming the right of the individual to be ill if he likes, this clause of the law has been reduced to a mere form of words.

Every law of a medical nature when it comes to be applied practically encounters forces of obstruction and inertia which we dare not attack. It is in such circumstances especially that laws are powerless unless reinforced by habit and custom. Science must be authoritative or persuasive. Authority acts quickly but encounters many difficulties, persuasion is effective but acts slowly. The administration of our laws as to prophylaxis and hygiene is as yet little more than a compromise between the two methods, and the service of public vaccination and revaccination against small-pox in France is one of the most topical examples that can be instanced.

Correspondence.

THE MEDICAL SICKNESS SOCIETY.

SIR,—Your issue of June 4th contains a letter from Dr. W. G. Dickinson about the Medical Sickness Society. In this letter are several misstatements as to matters of fact, which it seems to us would injure the society if they were left uncontradicted.

Dr. Dickinson says that "no motion is allowed to be proposed which has not the sanction of the chairman." This is not the fact. What Dr. Dickinson probably had in his mind is that no motion is allowed to be *discussed* without the sanction of the *committee*. In other words, the committee has resolved to keep to its business, and not let itself to be turned into a debating society. Any member of the committee can propose anything, but the committee will determine whether they will discuss it or

not. They will not have their time wasted in discussing irrelevant or absurd proposals.

Dr. Dickinson says: "The society is really a 'one-man' society." It is not. The society is managed by a committee. The only authority the chairman has is the influence he has acquired by his long services, his regular attendance, his knowledge of the rules, and of life insurance business in general. By virtue of these qualities he can influence the votes of members of the committee, but in no other way.

Dr. Dickinson says: "The society is run on the strictest profit-making life insurance lines." That is, on the soundest lines. Then he says: "The reserves . . . I contend, far exceed any possible liabilities." We trust Dr. Dickinson will not take offence if we ask those who read his letter to bear in mind that he is not an actuary. The society's financial position has been valued by an independent actuary every five years, and his opinion is that the margin of the reserve funds over the liabilities of the society is a very small one. A part of this small margin is distributed in the bonuses to which Dr. Dickinson refers.

Dr. Dickinson says: "A member may go on paying premiums all his life, seldom or never making any claims. In return for the hundreds of pounds he has paid he gets, if he live to 65, a bonus of £10 or £50,[1] otherwise he gets nothing." This is what every member, when he joins, hopes may be his own case. We hope it may be Dr. Dickinson's case. But it is not a fair picture of the result of joining the Medical Sickness Society, unless the reader is also informed of the members who have not paid hundreds in premiums, but have received thousands in sick pay.

Dr. Dickinson says: "Another objection which I have frequently heard is that all benefits cease at age 65, just when a man is most likely to want assistance from the funds." This has been discussed by the committee over and over again. Once they went so far into it that they asked the secretary (who is an actuary) to prepare figures showing approximately what would be the increase in the premiums required it the benefits of the society were extended to the age of 70. We do not recollect the exact figure, but we think it came to this, that the annual premium paid by each member would have to be nearly doubled.

Dr. Dickinson says "the committee really nominates itself, and its election is a pure formality." This is so, and we hope will continue to be so. The qualifications required in a good committee man are that he shall attend regularly, study the rules, and master the business of the society. When a set of men have been got together who fulfil these requirements the best thing for the society is that they should be re-elected year after year, as long as they are willing to attend. We can imagine nothing more certain to smash up the society than the transference of its management from a committee such as it at present has, to a scratch lot, knowing little or nothing about insurance business, some of them tempted to come forward by the prospect of free trips to London, and elected by a popular vote, which would probably replace them by a different scratch lot at the next annual election.—We are, etc.,

G. E. Herman,
F. Swinford Edwards,
Treasurers, Medical Sickness Society.

June 4th.

THE ASSOCIATION'S ACTION IN DISCIPLINARY CASES.

Sir,—I desire to express my warm approval of the action of our Association in bringing the Sheffield case before the General Medical Council.

Many men working alone at a heavy general practice must frequently have regretted the good old days when a cheap unqualified assistant was engaged to take emergency cases and do night work and midwifery. But, with few exceptions, the new regulations have been loyally obeyed, and I believe that the bulk of the members will be glad that an example has been made and a penalty inflicted through the efforts of their own Association.—I am, etc.,

A. A. Hill, M.D.

Stoke-on-Trent, June 6th.

[1] These figures are not quite accurate, but this is immaterial.

THE NATIONALIZATION OF MEDICAL SERVICE.

Sir,—Dr. Moore's article in the Journal for June 4th is obviously the work of a man not engaged in the turmoil of private practice. He writes in the serene atmosphere of a professorial chair, in the Olympian peace born of a fixed income. His conclusion that all is well and tends to better with the profession is built on insecure premisses. "Occasionally dishonest persons . . . attempt to avoid adequate payment." Were Dr. Moore in practice, he would soon learn that a large proportion of patients avoid payment entirely. Few of us anticipate less than 15 per cent. of bad debts, and 25 per cent. is no uncommon experience. The psychology of the multitude is a factor beyond the ken of the professor "if the health of every man, woman, and child is completely attended." The great bulk of the people will never consult a doctor or Britishers tolerate for a moment the inquisitorial method suggested by this sentence: "Unless the amount of work is rapidly decreasing." The rapid diminution of the sick-rate is a patent fact testified to by the reports of medical officers of health and experienced practitioners. In this city, for instance, one man is conscientiously able to attend 5,000 patients; normally such a number should support three practitioners. The suggestion that there is an enormous amount of remediable sickness which will be dealt with by a State service is not in consonance with the facts of practice amongst the working classes. The bulk of the work resolves itself into dealing with the feeding of infants, the dyspepsia and neuroses of women, and troubles arising from overwork and worry. In the winter add influenza. Phthisis, the disease *par excellence* to be dealt with by State service, can never be attacked until the slums are abolished and State provision made for the dependants of workers whilst they are undergoing sanatorium treatment, if the treatment survive many years the fierce criticism to which it is now being exposed. Treatment at present resolves itself into open windows, cough mixtures, and cod-liver oil. Large numbers of men are dependent for their daily bread (that is, their fixed incomes) on clubs of various kinds. Let the State appoint officers to deal with the sick and ailing children in the schools, and the inevitable result will be that their parents will cease to pay into the "doctor's club." Many citizens of this city decline to enter clubs, for they say, "I will go to the 'orspital free when I want anything."

Dr. Moore regards it as inevitable that the State will take over the hospitals. What is to become of all the endowments and the trusts connected with them? He assumes that the staffs will be paid for their services, and that abuse will be ended by the enforcement of an impossible wage limit. If the State controls the hospitals, the result must be that they will be open to every applicant (since all must pay directly or indirectly by taxation to support them), as the schools are now. Thus the doom of general practitioners, except those few that work amongst the upper classes, would be sealed. For a small proportion of State service men the outlook for a moderate income is good. For the bulk of the profession the outlook at the present time is "wrop in gloom."—I am, etc.,

Vaughan Pendred, M.D., F.R.C.S.

Coventry, June 6th.

PUBLIC MEDICAL SERVICE.

Sir,—The whole case of the proposed public medical services as they are to affect the profession seems on analysis to resolve itself into a matter of unanimity or the reverse in the ranks of the profession at large.

There appears to be no doubt that if a general consensus of opinion is favourable to a solid stand against all existing club and contract work below a well defined and remunerative scale, then our position can be assured.

Careful readers of their Journal will note how the profession in France is exploited for State purposes, and it rests with us to place before the State, when asked, a practical *modus operandi*. I note to-day the letters of Drs. Milligan and Taylor on this subject. The former has not observed the weak spot in the National Deposit system—namely, that of a long illness practically placing the member in a temporary state of pauperism unless further funds are forthcoming. Under a State aid system our fees would be anyhow assured; but a payment of 20s. for eight visits within two miles and sixteen days' medicine cannot be deemed extravagant, as on the Deposit

Society scale. Here you will further note there is a fair scale of fees for all ordinary injuries and operations, and settlements are made monthly, which to my mind is a great desideratum.

Let us, then, for a moment examine the conditions on which a form of unionism amongst medical men would be arrived at:

1. A union created for the purpose of fixing conditions on which medical service can be procured. The difficulty arising here is the great number of practitioners concerned.

2. A union for organizing and enforcing a scale of fees—as a rule, fixing the minimum of tariff for services required. This appears the essential but most difficult of problems facing us.

3. A union subordinating itself to a central organization acting in the interest of all equally in return for a surrender of their individual liberty in this contract section of practice. This is much on provident dispensary lines.

The model outline in your issue of May 7th combines to a great extent the above degrees of a possible medical union, and as such should be acceptable to the contract worker as a practical instrument for the Government to work by. For let us once and for all dismiss the notion of the sickness and invalidity schemes being shelved by any future Government—it is a thing of the near future.

A personal referendum, as suggested by Dr. Milligan, is essential for the *whole* profession; but further, the Association should approach all governing and educationary medical corporations without delay to urge the matter on and obtain signatures from those *about* to qualify.—I am, etc.,

Hartland, May 20th. A. L. MARTYN.

SICKNESS AND INVALIDITY INSURANCE.

The Model Rules.

SIR,—The correspondence in the JOURNAL has been almost entirely in condemnation of any extension of the club practice system. The system of "unlimited medical attendance" for a "nominal yearly payment" is radically wrong. The patient and doctor are often dissatisfied. The medical service of the future must be based on the system of "reasonable payment for work done." The National Deposit system may not be perfect, but it is based on this principle, and is more satisfactory than ordinary club practice. Dr. Fothergill has suggested that a referendum be taken amongst the members on two questions (see BRITISH MEDICAL JOURNAL, June 4th, page 1380, column 2). I trust this proposal will be acted upon, but would suggest that the profession outside the Association should be canvassed. Also that a postal vote be taken, as many medical men cannot attend our meetings. The vote could be probably most easily secured if each Division would undertake the canvass in its own area.

In our negotiations with the Government we must be able to prove that contract medical service is most unpopular. Also that in some parts of the country the club system cannot get a foothold. If the whole of the medical profession can be united on this most important principle of "payment for actual services rendered," the Government may reasonably be expected to comply therewith. All forms of club and contract medical attendance ought, as far as possible, to be abolished. Poor Law, police, postal services are unsatisfactory, because very often the services rendered are far in excess of the remuneration.—I am, etc.,

Bacup, June 6th. JOHN BROWN, M.D.

SIR,—Let us suppose that under a revised Poor Law the destitute are attended to in illness, and, in a kindly but by no means lax or careless manner, those who for the time are without the means of obtaining medical treatment (either an emergency or where treatment is expensive or prolonged). None of these interferes with the ordinary doctor's emoluments.

Above these come workers in more or less regular employment. The Public Medical Service scheme applies to them. There is no mention of "charity," so that we construe it on strictly business lines. We look to see what is to be the standard of payments we are to receive per case, and per attendance; the two, I think, in contract practice should go together. But this most essential matter is not included in the scheme.

Some have proposed a charge of about 10s. per annum. This I do not consider too much, and there might very well be a bonus returned or carried forward for those who have required little of the doctor's services in the year. The strongest opponent of any alteration of present methods whom I have met with is a man who accepts his yearly cheque for 4½d. a visit. He competes thus with shilling dispensaries. His patients pay 6s. 6d. per annum. I know men who accept 13s. per annum for a family of three or more, less expenses 20 per cent—that is, about 11s. 6d.

In the business point of view such arrangements are extremely unsatisfactory, not only for those who accept such appointments, but for their competitors.

Again, what is the machinery for working the scheme? There is none, except in the existing societies, which are all in the hands of the despised "layman," on whom at every meeting members rise to move votes of censure. All those benevolent schemes—hospitals, dispensaries, free or provident—are managed by business men, and not by members of our profession. An occasional medical governor seldom exerts any influence, and contents himself with a purely ornamental position as far as administration is concerned. I was very gratified to be present at a meeting of representatives of institutions—hospitals and sick clubs, etc.—specially dealing with the West End of London. The cordiality and friendliness were most marked towards each other, and towards the profession generally, forming a contrast to the goings-on in other parts of the Branch.

If, therefore, we are to accept any scheme of fixed weekly payments at all, the first thing is for the members of each Division to make up their minds (1) as to the absolute *minimum*, and (2) also the amount of pay that is *desirable*, so that by successive annual increments it may perhaps be arrived at. The second essential is to make friends with those charitable societies. Their experience will be useful, and they will all be willing to make some change if the need for it be shown; and even the slightest change should be accepted, while the pressure should be kept up for years if necessary.

It need hardly be pointed out that the individual is almost absolutely powerless, and that the most exacting loyalty is demanded. Perhaps I should have put this first among my requirements, but I regret that I have to mention what ought to be obvious. The need for reform and mutual loyalty can nowhere be greater than in the metropolis. If State insurance be seriously proposed the experiment will begin here. Yet, serious as the urgency is, I find from the SUPPLEMENTS of the last twelve months almost no indication that the metropolitan Divisions are taking the thing seriously.[1] As to our Branch Council, the Medical Charities Committee is reported to have met twice in twelve months, once being the formal first meeting. It required but this to show the total indifference of our present rulers to the pressing wants of the rank and file.—I am, etc.,

London, W., June 6th. G. C. CRICHTON.

INFLUENCE OF POSTURE IN PHYSICAL EXAMINATION.

SIR,—Dr. W. Gordon's paper on the rightward edge of cardiac dullness would be interesting if it were accurate; but, in my opinion, his conclusions are the very reverse of the truth, unless his term, "percussionally invisible," of which I heartily disapprove, has some hidden meaning which I do not quite understand or appreciate. His method of percussion is not described, but from his diagrams I am led to the conclusion that his cardiac areas are somewhat of a compromise between the superficial and deep cardiac dullness, and the following sentence shows that he makes no attempt to delineate the right margin of the heart:

> In the recumbent posture the leftward edge of dullness almost reaches the leftward limits of the heart. The rightward edge of dullness, bounded, as it generally is, by the midline of the sternum, is very far from corresponding with the heart's rightward limits.

The superficial cardiac dullness is of no value in estimating the size of the heart, and it is the complete area of the heart which we should always endeavour to map out; this can be fairly accurately done by percussion, even in extreme cases of emphysema, where the whole heart is overlapped by the lungs, and it can be more accurately done by the pleximeter than with the orthodiagraph, notwithstanding Dr. Hertz.

[1] Chelsea and Hampstead made their arrangements, I think, the previous year.

I do not know who first described the postural variations in the size and position of the heart, though I thought it was a matter of ancient history; but, in my opinion, the man who has done most to explain those conditions is Dr. Albert Abrams, of San Francisco. He has shown that in cases of cardio-splanchnic paresis, which are often associated with orthostatic albuminuria, in the recumbent posture the right side of the heart becomes distended and the liver shrinks, while in the erect posture the very reverse happens. I have often found in these cases that in the recumbent posture the right auricle extended 2 to 2½ in. to the right of the mesial line, and the lower margin of the liver only reached the costal margin; while in the erect posture the right auricle may not go 1 in. beyond the mesial line, but the liver will extend a good fingerbreadth below the costal margin. Dr. Abrams has also shown in his description of the lung and cardiac reflexes how rubbing of the chest alters the size of the lungs and heart, and I constantly make use of this information in chest therapeutics. I have also shown the great reduction which takes place in the size of a healthy heart during the Valsalva experiment.—I am, etc.,

Liverpool, June 4th. JAMES BARR.

SIR,—A great deal has been written about postural shifting of the heart, a subject of much clinical importance. Concerning it it is well to remember that the right side of the heart—which so far as percussion is concerned has hitherto been wiped off from the student's slate—is in reality the steady side, although it is more liable than the left to physiological fluctuations in size. Unlike the left ventricle, unattached and mobile, the right auricle is "let in," and pivoted closely into the floor of the pericardium at the foramen pro vena cava. Moreover, it is vertically hinged as it were, though in a looser fashion, along the axis common to the inferior vena cava and to the superior vena cava (the latter being itself anchored to the spine by the vena azygos major). These, together with the pulmonary veins, are the close attachments of the heart, its loose attachments being, in addition to the pericardial collar, the aorta and the pulmonary artery, both of them practically right basic attachments. The attention which Dr. William Gordon calls to the right boundary of the heart could not, then, be better justified. He deals, however, not with the more important subject of the lateral displacements, but only with the effect upon our percussion results of a sagittal gravitation of the heart. Here again we should realize that, even under violent exertion, we are saved from the danger of much cargo shifting by the circumstance that the right heart is "well and truly packed" on the wedge principle, and works up and down on the anterior slope of the liver.

With special reference to the examination of the heart, the facts he points out have long been well known, though disregarded in students' textbooks; and, although their elementary discussion is almost an anachronism at the eve of the second decade in the twentieth century, it is manifestly needed. In reality, bad heart disease seldom lies flat, and in the out-patient room, too, the usual examination is in the upright posture. But, granted that the supine decubitus inflates the sternal fringe, this local increase in the pulmonary resonance is hardly an excuse for cutting out the entire right parasternal portion of the heart's area from our percussion outline. The correct outlining, irrespective of posture, of the entire heart was antecedent to the skiagram,[1] not only in its anterior percussion, but also in its dorsal percussion, although the publication of the latter was longer delayed (cf. various papers since 1896). For many years, too, the position of the right "edge" of the heart has been the subject of measurement—by some in millimetres, by others in the more mysterious quantity of fingerbreadths. We know where it is in the dead body; we can now see that it occupies the same place in the living, and we might readily percuss it for diagnosis, if only we would use sufficient care and the suitable methods.

Dr. Gordon's paper is specially welcome, as even the *x* rays have hitherto failed to enforce this urgent reform in our teaching of percussion. He rightly appeals to the orthoskiagram. The fact is that anything that is to be seen there is also to be percussed, and should be. He may perhaps forgive me for calling attention, in a good cause, to the discrepancy in general configuration between his outlines and those of the orthoskiagram which he depicts. This is nothing more than the accepted orthodox discrepancy. The approved precordial dullness outline is usually presented to us shorn not only of its right parasternal but also of its no less essential upper sternal extension—as though the sizing of the prevascular dullness, that is of the great vessels, were of no practical account in the study of disease. The prevascular percussion, not a difficult matter, has been practised and described for the last twenty years,[2] and, it is to be hoped, may perhaps now begin to be taught. It may have been regarded as devoid of any practical purpose; nevertheless it has well served that of diagnosis.—I am, etc.,

London, W., June 5th. WILLIAM EWART.

SIR,—In emphasizing the effect of posture on the percussional area of the heart, Dr. W. Gordon has rendered a very useful service, as the fallacy to which he draws attention is not sufficiently recognized.

The influence of posture is, however, by no means confined to the heart, but extends to all the organs amenable to physical examination. That posture—or, in other words, the action of gravity—also enters largely into the subjective arena, is evident from the various positions which patients assume for comfort. One of the most striking examples of this is the upright or forwards attitude which patients with cardiac embarrassment adopt. Although, as Dr. Gordon states, the heart appears larger to percussion in the erect posture, it is in reality smaller. In the recumbent position the breadth of the heart is increased by the blood gravitating into the right auricle from the splanchnic veins. Hence it is that in cardiac distress the patient seeks the upright position in order to keep the blood in the splanchnic reservoir.

In the recumbent position, besides gravity, another factor comes into play, tending to diminish the cardiac area of dullness. This is the inflation of the anterior portions of the lungs. It is not, perhaps, generally perceived that in this position the respiratory excursion is considerably greater, and the percussion tone consequently more resonant. Lying on the back is not the only method of altering the percussional area of the heart. If the patient lies on the left side the heart moves about 1 in. to the left, and about ½ in. upwards. Lying on the right side the heart moves ¾ in. to the right, and about ¼ in. upwards.

The influence of posture on percussion of the liver is considerable. In the recumbent position the intestine and stomach, with their gaseous or solid contents, act as disturbing factors in determining the lower liver border. But if, when standing, the patient inclines his body backwards, the edge of the liver comes into contact with the abdominal wall, and the same is obtained in the knee-elbow position from the action of gravity. The pressure within the abdomen being positive its contents are largely under the influence of gravity. But the organ which is most sensitive to posture is the spleen. About ten years ago I observed certain cases in which a stomach note only was obtainable over the splenic area with the patient lying on the right side (the conventional position for percussing out the spleen), and yet a dull area was most marked when the patient sat up. In the course of a visit to St. George's Hospital I mentioned this to Dr. Ewart, who confirmed it there and then on one of his cases, and it was subsequently recorded in the *Lancet* (May 31st, 1902, p. 1527). Like Dr. Gordon, I invite attention to these matters, as they are not stated in textbooks, and yet are of high practical importance.—I am, etc.,

London, W., June 6th. A. G. AULD.

CANCER OF THE RECTUM.

SIR,—The matters involved in the discussion between Mr. Cripps and Mr. Handley regarding the pathology and treatment of cancer of the rectum are of extreme interest and importance. Leaving on one side the problem of lymphatic permeation, about which even its discoverer admits that we know little, the main point at issue is whether cancer of the rectum is best attacked from below or by the combined method. The exact comparison of

[1] *Cardiac Outlines*, 1892.

[2] Cf. *Cardiac Outlines*.

the two methods by statistical results is impossible, because hitherto the combined method has not been employed for a sufficient number of cases, and the tendency has been to reserve it for those presenting signs of obscurity or difficulty. But there are not wanting figures which show that the older methods have both a high mortality and a large percentage of recurrence. For example, Zinner gives a careful summary of the results obtained in Hochenegg's clinic in Vienna.[1] Out of 201 cases submitted to radical operations by the perineal or sacral methods, 34 died (16.8 per cent.); of 137 cases which could be traced afterwards, 71 had recurrence of the disease and only 37 (25 per cent.) were alive and well after three years. In the cases of recurrence the cancer reappeared locally in no less than 72 per cent., as metastatic growths in 24 per cent., and in the lymph glands in 4 per cent. I have chosen these figures because they are the largest to hand and because they represent the results obtained by various surgeons and are reported by an independent observer. I made an attempt to collect some figures bearing on this point in 1908[2] from the various English hospitals, and found that in 1907, out of 108 radical operations for cancer of the rectum, 26 had died, giving a mortality of 24 per cent.

So that it is evident, if judged by collective results, the older operations for rectal cancer have a high mortality, and that more than half of the surviving cases die from recurrence of the disease, which is usually local.

The combined method evidently presents certain obvious advantages, but hitherto it has had a very high mortality. I believe this is due partly to the method being new, but chiefly to its having been reserved for cases in which the attack from below would have been impracticable—that is, for the most severe cases. Within the last twelve months I have had two cases which illustrate so well the merits of the combined method that I will venture to give them very briefly.

J. M., man, aged 47. Operation August 29th, 1909. Growth encircling the bowel, within easy reach of the finger, and freely movable. Patient was in excellent general condition. A median laparotomy, however, revealed several metastatic growths in the liver, and excision was therefore abandoned.

It seems to me that the opportunity afforded of examining the liver by the abdomino-sacral method constitutes by itself sufficient reason for its wide adoption.

S. B., man, aged 54. Movable growth high in the rectum. Operation June 1st, 1910. Patient was very fat, and the space in the pelvis much reduced thereby. By the abdominal route a hard cylindrical growth was found at the junction of rectum with pelvic colon. The upper part was firmly growing to the fundus of the bladder. A part of the latter was resected —measuring about 1½ by 1 in.—and the growth mobilized by division of the mesocolon and superior haemorrhoidal vessels. A loop of colon was brought through the parietes outside the left rectus for subsequent colostomy. The removal of the growth and the anastomosis was completed by the sacral route. Up to the present the patient is doing well.

If this case had been attempted from below it must have been abandoned as impossible. I am surprised that Mr. Handley attaches so much importance to the question of shock in the combined method as applied to male patients. One of the most satisfactory points about the method as I have seen it has been the remarkable absence of shock. It has repeatedly been remarked upon by the anaesthetist as being much less than in the simple transsacral method. In the case above described, for example, although the operation lasted for two and a half hours, the patient's pulse was never over 100, and was so good at the end that it was not necessary to give a saline infusion. I attribute this absence of shock to the fact that the tissues are cleanly divided, instead of being dragged upon and loaded with heavy clamps. In the only two cases in which severe and alarming shock occurred in my practice both the patients were women, and in both it coincided with the separation of the growth from the front of the sacrum, and I have no doubt was due to the dragging upon the pelvic nerves.—I am, etc.,

Clifton, June 5th. ERNEST W. HEY GROVES.

GASTROPTOSIS.

SIR,—In all pioneer work there must necessarily be many provisional conclusions and retracement of steps is often unavoidable.

On refreshing my memory of the visceroptosis article in the last edition of Allbutt and Rolleston's *System of Medicine*—it may indeed be said of Professor Keith "Nullum quod tetigit, non ornavit"—I was glad to find correct my impression that, although under the head of etiology, all reference to the vitiated method of respiration hypothesis had been omitted, there had been no explicit disavowal of the very strong position taken up in the Hunterian Lectures of 1903, so that if I have done Professor Keith an injustice in quoting views which he has seen good reason for abandoning, my act was without intent and without knowing he had changed those published views.

The words of my criticism were: "Enteroptosis is not *primarily* respiratory; it is *primarily* postural," my evidence having led me to the conclusion that there must be an antecedent postural defect, first, of the spine (incomplete extension or perverted curvation), and, secondly, of the thorax (sinking and collapse—marked expiratory position) before the diaphragm can commence its deforming activity in urging the abdominal viscera on their downward course and putting strain on their various ligaments.

I therefore think that Professor Keith is in error now in so precipitately climbing down from his main original contention as to the causal influence of a vitiated method of respiration in the genesis of ptosis.

In the consideration of all the internal relations of parts and functions of the living machine, the following *a priori* considerations in my opinion should be kept well in mind:

1. The forms, postures, and movements of vertebrate animals are conditioned primarily by the endoskeleton. Of this framework the spinal column is the principal internal fulcrum which chiefly maintains the form of the animal and the efficiency of its muscular actions in relation to the resistances of the environment.

2. The chief resistance to be met by terrestrial animals is the gravitative force.

Professor Keith remarks in his letter, "By applying the term postural to the condition of visceroptosis, we are assisted only a little way to a full understanding of its nature and cause." I entirely agree with him, but I think it must be conceded that the propositions that I have put forward—whether I am right or wrong—go much further than applying an adjective to the condition, or than the recognition of its visible proximate initiation.

Based on what I believe to be the chief causative factors in most cases, I have suggested means of invading the *circulus viciosus* by training the patient's will to correct directly his postural and respiratory defects and through these indirectly those of circulatory stagnation in the abdominal pool, deranged intra-abdominal pressure, deficient peristalsis, gastro-intestinal toxaemia, and neurasthenia. All the same, I recognize the many gaps in our knowledge indicated by Professor Keith, and especially as to the exact part played by the viscero-muscular reflexes.

Having accidentally stumbled on the fact, while seeking to abolish habitual excessive negative pressure in the air tract, strains of the vocal apparatus, and forcing of the voice as common exciting causes of various throat or nose diseases, by the training I have previously indicated, in numerous patients (who had also gastroptosis, neurasthenia, and dyspepsia), that such patients recovered from the latter group of symptoms without other special treatment, I have been led to bring the matter forward with a view to its more extended utility, and am anxious to show any colleague engaged in the serious investigation of ptosis what I mean and what I do in more precise detail than can perhaps be gathered from what I have written.—I am, etc.,

ROBT. HY. SCANES-SPICER, B.Sc., M.D.Lond.

London, W., June 4th.

GASTROSTAXIS.

SIR,—Dr. C. Bolton's quotation from the *Lancet* of November 3rd, 1906, p. 1189, is not altogether happy, if he wishes to justify "general" misuse of an excellent word. For in the paragraph referred to gastrostaxis is called not only a disease, but a symptom. How it can be both I do not know, any more than I can understand how epistaxis can be "due to an oozing of blood from nasal mucous membrane," as the same paragraph states. Epistaxis *is* oozing, or, more strictly, dropping, of blood from the nose, just as gastrostaxis is oozing of blood from the

[1] *Langenbeck's Archiv*, 1909, Bd. 90, p. 933.
[2] BRITISH MEDICAL JOURNAL, 1908, ii, p. 1008.

stomach, though in the former case the word has been extended to all kinds of haemorrhage. Both are symptoms and nothing more. To assert, therefore, that there is a disease characterized by pain and gastrostaxis without ulcer may be right and the statement is intelligible. To call gastrostaxis a disease is clearly wrong and leads to confusion, which is not lessened by reliance on previous error, however unintentional such error originally was.—I am, etc.,

London, W., June 4th. E. C. HORT.

SIR,—In his note on gastrostaxis (June 4th, p. 1347) Dr. Hale White reiterates the arguments he used in his original paper, so that, as I have already dealt with these arguments, it would seem unnecessary for me to reply to his criticisms. There are, however, one or two new points raised by him about which I should like to make a few remarks. The disease in question occurs chiefly between the ages of 20 and 40 years, and therefore Dr. Hale White objects to my including 2 cases aged 49 and 69 years respectively within the limits of this disease. In his original paper, however, he includes 4 cases, aged respectively 41 (Case ix), 54 (Case xviii), 44 (Case xix), and 47 years (Case xxvi) amongst his 29 cases of gastrostaxis. My 3 cases, as I stated, were selected with the definite purpose of showing that acute ulcers may bleed although they are almost healed.

With regard to the finding of multiple bleeding points, Dr. Hale White states that many acute simultaneously active ulcers are very rarely seen at an autopsy, that the descriptions given hardly describe active ulcers (such descriptions being "haemorrhagic erosions," "small areas from which haemorrhage had occurred," "a congested patch of mucous membrane," "many bleeding points"), and that the chances that numerous minute acute ulcers would be all quite close to one another and all bleed at the same time must be remote. The statement that multiple acute ulcers are seen very rarely can hardly be correct in view of the fact that such ulcers are multiple in about 54 per cent. of cases according to London Hospital statistics. In nine recent cases observed by myself the ulcers were multiple in six. In my paper I gave all my reasons for believing that the description of bleeding points found at an operation could hardly be relied upon, and a *post-mortem* description can only be of value if it be a microscopic one, and in none of the cases described by Dr. Hale White is such a description given. Further, it is not infrequent for acute ulcers when multiple to be situated near together, and this is not an original observation of my own. In the three cases referred to above the ulcers were multiple in two, and in both cases the scars or ulcers were quite near together. Since an ulcer may bleed until it is completely healed, it is probable that multiple ulcers, even in different stages, would give rise to the appearance of multiple bleeding points.

I cannot follow Dr. Hale White when he says that gastric haemorrhage in disease of the appendix is more likely to be due to an endothelial poison causing gastrostaxis rather than to acute gastric ulcer. Appendix disease is of bacterial origin, and we know that in bacterial diseases acute gastric ulcer is quite common, far more so than is gastrostaxis in such diseases, so that the probability is greatly in favour of the bleeding being due to acute ulcer. The literature upon the question of ulceration of the stomach due to various bacteria is very abundant both on the clinical and experimental sides. It is quite true that bacterial diseases may cause gastric ecchymoses, but such patients may never vomit blood at all, whereas a gastric ecchymosis is very often the starting point of an acute ulcer, as I pointed out in my paper. The only way in which this controversy can be settled is by the systematic and thorough examination of *post-mortem* specimens, which has not hitherto been done.—I am, etc.,

London, W., June 4th. CHARLES BOLTON.

AUSCULTATORY PERCUSSION.

SIR,—Dr. Calwell misunderstands me if he thinks that I write from the point of view of an *x*-ray specialist and that I regard the *x* rays as infallible. I write from the point of view of a general physician, who has had the curiosity to test the accuracy of a method of examination, which he, in common with Dr. Calwell and many others, has long regarded as very valuable.

After a bismuth meal the stomach can be seen with ease on the fluorescent screen. There is no possibility of mistaking it for anything else, although abnormalities in shape and activity are naturally often difficult to explain. The fact that a leading *x*-ray specialist has misinterpreted what he saw in a certain abdominal case, the nature of which Dr. Calwell does not tell us, is ridiculously irrelevant. We may draw an erroneous conclusion from the presence of an area of dullness in the chest, but that does not mean that the area of dullness is not there, nor does it indicate that the knowledge gained by percussion of the chest should henceforth be disregarded.

I have frequently marked out the stomach by auscultatory percussion and friction, and others have done it for me. I have then placed a metal wire over the outline, and have found that in no case did it correspond even approximately with the outline of the shadow of the stomach. What could be more conclusive?

I quite agree with Dr. Calwell as to the value of inflation of the stomach. It is a method I constantly use in the out-patient department when there is no time for an *x*-ray examination. But after inflation auscultatory percussion is superfluous; inspection, palpation, and ordinary percussion are sufficient. Laënnec himself demonstrated the value of auscultatory percussion in determining the outline of a cavity filled with gas and in contact with the body wall, and I have never denied the accuracy of the method in this connexion. What I have criticized is the employment of auscultatory percussion and friction in estimating the size and shape of the stomach and intestines without inflation. Moreover, inflation is a method which only gives results comparable with a quite artificial normal standard, as nobody can pretend that the shape of the stomach inflated with gas and examined in the horizontal position even approaches that of the stomach under natural conditions. It is for this reason that I prefer to examine the stomach with the *x* rays, by means of which it is possible to ascertain its true shape, size and situation in both the vertical and horizontal positions, the degree of its tone, the activity of its peristalsis, and the rate at which its contents pass into the duodenum.

The fact that every medical man can practise auscultatory percussion, whilst only a few are in a position to use *x* rays, is no reason why auscultatory percussion should be employed now that it has been proved to give erroneous results, or why *x* rays should not be used whenever it is possible.

If Dr. Calwell will honour me with a visit the next time he is in London, I shall be delighted to show him where the stomach really is, after he has marked out by means of auscultatory percussion where he believes it to be. He will then, perhaps, recognize that the reliability of a method does not depend upon the number of years it has been practised.—I am, etc.,

London, June 4th. ARTHUR F. HERTZ.

SIR,—In a little work, *Clinical Memoranda*, by Dr. Keith and myself, we draw attention to the value of auscultatory percussion, which is of great service not only in the diagnostic investigation of the soft parts, as suggested by your various correspondents, but also in the exact location of the site of fracture of bones.

For this purpose a single wooden stethoscope is employed, which is placed upon one side of a suspected fracture, while the bone is gently percussed on the other. If there is a fracture, the vibratory thrill which should reach the ear is lost. If, therefore, the bone retains its normal conductivity, there can be no fracture between the stethoscope and the spot percussed. The position of a fracture can thus be exactly located by approaching the stethoscope towards the part percussed. This method is specially useful in fractures of the ribs, and also in those of the clavicle, where the breakage has occurred in that bone between the conoid and trapezoid ligaments.

In fractures of the forearm affecting the lower end of the radius or the styloid process of the ulna, the stethoscope should be placed in the first case on the thenar end, and in the second upon the hypothenar eminence, while the hand is forcibly extended.

A slight fissure in the vault of the skull causes the sound to be muffled, compared with that found on the opposite side.—I am, etc,

Driffield, E. Yorks, May 28th. A. T. BRAND, M.D.

STRONG WINDS AND PHTHISIS.

SIR,—In your leading article upon Dr. Gordon's book you state that he concludes "that the mischief is wrought by the effect of the wind upon the inhabitants as they pass along in their daily walk."

Now, Sir, I will back "the tightly closed window" against "the daily walk" any day. Some time back I resided in a small seaside village, which has a reputation as a health resort. Yet I found cases of definite phthisis, tuberculous glands, and "weak chests" common amongst the natives. In that place there are cold, wet rains in the autumn and during the first four months of the year. Walk down the village street—every window is shut night and day. On two occasions I had to call in the carpenter and had the windows bodily removed. A window that had been pasted up with wall paper for many years undoubtedly caused one case I had.

If people are crowded together in badly ventilated rooms, it matters not if they are at Okehampton or Whitechapel, at Exeter or Shoreditch. The colder the wind and the more rain it carries the more tightly will the window be closed.

It is far from my wish to make light of Dr. Gordon's ten years' work, but ten minutes' common sense must connect the closed windows with the disease.

In those districts where the cold, wet wind lasts long, the windows will hardly be open at all, and phthisis will abound.

Let the public defy the rain and keep their windows open and there will be less phthisis. Do not blame the rain-bearing wind.

Those that live in England—even those that live on Dartmoor—must put up with our weather. In the words of James Whitcomb Riley—

> "It ain't no use to grumble and complain;
> It's jest as cheap and easy to rejoice;
> When God sorts out the weather and sends rain,
> W'y, rains my choice."

To which I would add:—

> "Keep your windows open, let it rain or hail,
> The hand of Death shall not prevail;
> Close your window, tightly fix the frame,
> 'Tis good as calling him by name."

—I am, etc.,

Symonds' Yat, May 29th. JAMES TURLE.

SIR,—I much appreciate Sir Hermann Weber's very kind reference to my book, as also I greatly appreciate the very kind way in which the BRITISH MEDICAL JOURNAL has reviewed it. But I must regretfully differ from what I believe to be his meaning with reference to the comparative influence of dry winds.

It should be remembered that I have most carefully explained in my book (p. 10) that it—the book—has nothing to do with the influence of winds on the *course of existing cases* of phthisis; it *deals simply with their influence on the prevalence of the disease.* My experience in work of this sort has convinced me that, if we are successfully to disentangle the influences which tend to modify phthisis mortality, we must keep apart their effects on prevalence and their effects on course. When, therefore, Sir Hermann says that "dry north and east winds are quite as injurious as the rain-bearing winds," I infer that he means that dry winds increase phthisis death-rate as much as do rain-bearing winds. If this inference is correct, I am sorry I must entirely differ from him. My findings on the point are summed up as follows (p. 35 of my book):

> Dry winds seem to have little effect as compared with rainy winds. The plains of Colorado, South Africa, and inland Australia furnish ample evidence that strong dry winds, even when sometimes laden with dust, can coexist with low phthisis mortality. That they have some effect seems, however, probable. Thus, in Northern Nigeria, where the disease is rare, the cases which do occur present themselves after cold dry winds have been blowing.
>
> In Chapter III it will be seen that winds from easterly directions—that is, relatively dry winds in Devonshire—did not interfere with the demonstration of the influence of the rain-bearing winds from westerly directions.

If Sir Hermann has evidence on this point with which I am unacquainted, I shall be most grateful to him if he will publish it. All that I can discover points in the direction I have indicated.

With regard to the words on page 1 to which he has taken exception, Sir Hermann Weber is under a misapprehension. They were quoted from another authority. I am entirely in accord with all that he says as to the most suitable site for a sanatorium.—I am, etc.,

Exeter, May 4th. W. GORDON.

THE SURGICAL TREATMENT OF GLYCOSURIA.

SIR,—My experience is undoubtedly at variance with that of Dr. Chalmers Watson, but until it is certain that our methods are precisely the same it is impossible to profitably compare our results. At present I am not at all clear that they are, or that Dr. Watson himself always uses the same method, for I find it rather difficult to reconcile the statement which he made in his letter of May 14th that "in every case of glycosuria, in my experience, the pancreatic reaction is positive," with one in his second letter of June 4th in which he states that "complete fermentation of the urine invariably has the effect of rendering the reaction negative." If fermentation, which is an essential part of the process with sugary urines, *invariably* renders the test negative how can he have obtained a positive reaction in *every* case?

I do not claim that a positive pancreatic reaction is always associated with inflammation of the pancreas, but my experience with over two thousand cases clinically, and the experiments of myself and others on animals have shown that it is an indication of active degenerative changes in the pancreas, which are most commonly of an inflammatory type, provided that the test and control experiments have been properly and carefully carried out. I do not find that every case of diabetes gives a positive reaction, or that a negative result is invariably obtained when the presence of sugar in the urine necessitates a modification of the ordinary test. But as a negative reaction has been given by about 30 per cent. of the cases of glycosuria I have examined, and a positive result in about 69 per cent., many of the latter suffering from gall stones, cancer in the pancreas, etc., I am led to conclude that the results of the reaction, as I obtain them, are a useful aid in the diagnosis and prognosis of diabetic as well as of non-diabetic cases.—I am, etc,

London, W., June 7th. P. J. CAMMIDGE.

The Services.

ROYAL ARMY MEDICAL CORPS (TERRITORIALS).

FIRST LONDON DIVISION.

IN the divisional orders, with regard to attendance at camp, attention is called to the War Office letter requiring Officers Commanding to forward lists showing by units the numbers of men they recommend to be permitted to join camp with pay and allowances in spite of their not having completed the number of drills required by regulation to be performed before being eligible for pay and allowances. The General considers that a man should not be recommended for this privilege unless he has been prevented from completing his drills by some unusual or unavoidable circumstance, such as having joined so recently that time has not been available.

Attention is also called to the fact that saddlery for medical and veterinary officers is drawn and held by officers commanding units entitled to a medical or veterinary officer.

Certificates on Army Form "E" 661 have been granted to Quartermaster-Sergeant W. E. Lawrence, Second London Hospital, after attachment to the Royal Herbert Hospital, Woolwich, from March 1st to 31st, 1910; and to Sergeant J. Elvines, First City of London Field Ambulance, after a course of instruction at the R.A.M.C. School of Instruction, Aldershot, from April 1st to 28th, 1910.

SECOND LONDON DIVISION.

Lieutenant-Colonel W. B. Day, M.B., R.A.M.C. (ret.), has been appointed staff officer to the A.M.O., Second London Division, and took up his duties on May 31st, in succession to Colonel James Magill, C.B., M.D., appointed Organizing Secretary to the British Red Cross Society.

EAST ANGLIAN DIVISION FIELD AMBULANCES.

We are informed that the Administrative Medical Officer of the East Anglian Division, Territorial Force, Colonel Elliston, V.D., was able through the General Officer Commanding to offer the services of the four field ambulances of the Division for street duty in London on the day of the King's funeral procession. Had the authorities been in a position to avail themselves of the offer, it would have been possible to send from East Anglia at least 11 medical officers and 600 trained men with stretchers and all necessary medical equipment.

Public Health
AND
POOR LAW MEDICAL SERVICES.

PAYMENT OF DOCTORS CALLED IN BY MIDWIVES.

WE have received from Mrs. Sidney Webb, Vice-President and Honorary Secretary of the National Committee for the Prevention of Destitution, 5 and 6, Clements Inn, Strand, London, W.C., a memorial which has been sent to all the members of the Houses of Lords and Commons. The memorandum is a criticism of Clause 17 of the Midwives Act Amendment Bill, 1910, which provides that the fee of a doctor called in by a midwife to attend a case coming under the rules of the Midwives Board shall be paid by the board of guardians of the Poor Law Union in which the woman resided. The memorial continues as follows:

That clause [17] proposes to compel *the Board of Guardians* to pay out of the Poor Rate the fee of the doctor whom the midwife is required to have sent for in an emergency, and (whilst, by implication, making the payment always "parochial relief") expressly to enable the Board of Guardians to declare the payment "relief on loan." The effect of this Clause, if enacted, would be—

(*a*) to make compulsorily into paupers thousands of thrifty and hard-working wage-earners' families, *without any application or consent on their part;*
(*b*) to subject the unfortunate women and their households, notwithstanding their thrift and provision, *compulsorily* to the hated visits and investigation of the Poor Law relieving officer and to the stigma of pauperism;
(*c*) to impose on these thousands of working-class households a new pecuniary liability (in the form of having to repay to the Board of Guardians whatever fee the Board may choose to pay the doctor), for which there is at present no statutory warrant.

The further effect of this importation of the Poor Law, the Board of Guardians, and the relieving officer into the administration of the Midwives Act—with which, so far as the statutory arrangements are concerned, they have hitherto had nothing to do—would be greatly to impede the working of the Act. The reluctance to summon a doctor in emergencies, which it has taken some trouble to overcome in midwives and patients alike, would immediately spring up again as soon as it was realized that the summons to the doctor involved the shame of pauperism, the necessity of attendance before the Board of Guardians, and the social disgrace of the visits of the relieving officer. The very object of the provision relating to dangerous emergencies would be largely defeated.

The position at present is that, whilst the midwife is peremptorily required by the statutory rules and forms to have a doctor sent for in dangerous emergencies, there is no express statutory provision for the payment of his fee. The patients who have, by thrift and foresight, already made the customary provision for the confinement—namely, the attendance of a professional midwife—are often unable to pay the extra fee for a doctor (amounting, as this often does, to the entire income of the family for a whole week), and accordingly the doctor frequently fails to get paid for an attendance in a dangerous emergency which Parliament has, in effect, insisted on in the public interest. In some places, in order to ensure medical aid, the midwives themselves have occasionally paid the doctors where the patients have been unable to do so. In others they have done this by a mutual arrangement, to deposit one shilling in respect of every case, thus forming a fund out of which, in any emergency, the doctor can be paid. But in most places no such provision is made, and, indeed, out of the exiguous earnings of the midwife none can be properly expected. In some towns—among them being Manchester, Liverpool, St. Helens, and Cardiff—the Town Council has been paying the fee, under Section 133 of the Public Health Act, whenever the doctor has failed to obtain payment from the patient. This arrangement (which has been made with the knowledge of the Local Government Board, and without any disapproval) has worked—to quote the words of the Departmental Committee itself—"very efficiently, and both without friction and at small cost to the community."*

Unfortunately, the Local Government Board, instead of asking all Local Sanitary Authorities to make use of this power, on the 29th of July, 1907, issued a circular to all the Boards of Guardians suggesting that they should make it known to medical men that the Guardians would be prepared (under the general powers of Section 2 of the Poor Law Amendment Act of 1848) to pay the doctor, "on being satisfied that the woman is too poor to pay the fee." No circular was sent by the Local Government Board to the Local Sanitary Authorities requesting them not to make these payments; and thus there has been created a special and quite unnecessary overlap—in some towns both the Town Council and the Board of Guardians agreeing to pay the doctor's fee, and neither having necessarily any knowledge of what the other is doing.

* Report of Departmental Committee on the Midwives Act (1909), 4822, par. 73 (p. 12).

Further difficulties and complications have arisen. The payment to the doctor, made under Section 2 of the Poor Law Amendment Act, of whatever amount the Board of Guardians may choose, without application or consent by or on behalf of the patient, is, in the opinion of competent legal experts, at present not "parochial relief." In some unions, at least, it is not treated as such, and not entered as such in the accounts, this procedure not meeting with disapproval by the District Auditor. The Local Government Board pointedly refrains from saying that it is parochial relief. As the Local Government Board now expressly declares,† it cannot be recovered from the patient or her husband. It cannot lawfully be declared "relief on loan," and if the Guardians choose to pay the doctor repayment cannot on any pretext be exacted from the patient or her husband. These things were, however, not pointed out to Boards of Guardians by the Local Government Board, and much hardship has, in different parts of the country, been caused to the poor. In most Unions the relieving officer has been sent to interrogate the patient or her husband as if they were applicants for parochial relief. Some Boards of Guardians have, without any application by or on behalf of the patient, and without even consulting her or her husband, treated the payment to the doctor as parochial relief to the patient and her husband, and have calmly entered and classed them as paupers in receipt of medical relief. Other Boards have summoned the husband to appear before them (involving loss of time and earnings) as if he had been an applicant for relief, and have sought to induce him to consent to the payment (assumed to be parochial relief) being made "relief on loan," and therefore recoverable. Other Boards, again, whilst aware that the payment is not legally parochial relief, and not entering the patient and her husband as paupers, have nevertheless applied to them for payment, exactly as if they had a legal right to recover the amount, without explaining that there was no legal liability to pay the sum, and that the guardians had no right to recover it. Many sums have been thus wrong, fully extracted from families in extremely poor circumstances who have been under the misapprehension that they had incurred a legal liability to the Board of Guardians. Many families have been placed in great distress by their efforts to scrape together the sums thus without any legal warrant demanded from them, and many others have been wrongfully subjected to the stigma (though without exclusion of the man from the Parliamentary register) of being classed as paupers.

Let no man believe that the wrong which the Poor Law Guardians have been doing to women is an imaginary one or a sentimental evil. The following is a report of a recent meeting of midwives:

> "A meeting was held at the East End Mother's Home on March 8th, at which Miss Paget presided, and there was a good attendance of midwives. The question of doctors' fees was discussed. The chairman spoke on the question, and then asked the midwives present to give their experience. All agreed that since the Guardians of both Boroughs had promised to pay the fee when the patient was too poor to do so they had not much to complain of with regard to the doctor, but a great many of those present spoke of the way in which the relieving officer went (in some cases the same day) and worried the patients with questions as to their power to pay the fee themselves. One midwife said her patient had been so upset by the officer's visit that her temperature went up, and the midwife feared she would have to send for the doctor again. In one case the father lost half a day's work because he was summoned before the board when he said it was impossible to pay both doctor and midwife out of his weekly wage of 21s., and inquiries were made at the firm where he worked to verify his statement as to wages. If the guardians are going to pay the doctor in necessitous cases, midwives feel they ought to have a different way of collecting information on the subject."

What it is now sought to do by Clause 17 of Lord Wolverhampton's bill is to legalize the action which the Guardians have been taking under a misapprehension of the law—to make the payment parochial relief, *irrespective of any application or consent*, and to enable the Board of Guardians, equally irrespective of any application or consent, to declare the payment to be "relief on loan," and thereby to render the patient and her husband *for the first time* liable for its repayment.

To impose the stigma of pauperism on these thousands of thrifty and provident families (who have actually made the normal provision for the expense of the confinement), and to subject them to a new and additional pecuniary liability to the Boards of Guardians (amounting, it is estimated, to about £20,000 a year in England alone), from which they are at present free, is already producing a storm of indignation, which will certainly increase and progressively hamper the proper administration of the Midwives Act. How would any effective administration of the Vaccination Acts be possible if a similar policy were adopted? The feeling aroused will, of course, be altogether out of proportion to the magnitude of the pecuniary issue. The total amount at stake in a town of 10,000 inhabitants may be estimated at not more than £6 per year, but this sum may fall with crushing weight on one or two poor families.

It is submitted that there is no necessity for making this matter one for the Poor Law or the Board of Guardians at all. The proposal to require the Board of Guardians to make the

† L.G.B. Memo. of April 19th, 1909, at p. 27 of Cd. 4822 (1909).

yment to the doctor in all the cases in which he applies for it, thout the Guardians having any discretion, and without refer- ce to the destitution of the patient, is quite alien to Poor Law actice. The authority administering the Midwives Act, fraying the expenses connected with that Act, and exercising sciplinary supervision and control over the midwives, is the unty or County Borough Council. It is important not to open any possibility of collusion between unscrupulous midwives id dishonourable doctors tempted to share fees. The payment the fee of the doctor called in on emergency under the Act, in e interests of the Public Health, can therefore most suit- ly and conveniently be made by the County or County orough Council as a matter of Public Health, *just as the unty or County Borough Council already pays the fee of the ctor summoned by the police*. In both cases the amount of rden on the rates is insignificant—in a town of 100,000 inhabi- nts usually not £50 in a year—and the Public Health advantage beyond all calculation. This is the course recommended by e witnesses* representing:

The British Medical Association;
The Society of Medical Officers of Health;
The Municipal Corporations' Association;
The Lancashire County Council;
The Nottinghamshire County Council;
The Manchester Town Council;
The Midwives Institute; and
The Central Midwives Board.

It was a misfortune that the Departmental Committee n the Midwives Act contained no midwife, and no ember belonging to or representing the wage-earning lass. That Committee, on which the Poor Law Division f the Local Government Board was very strongly repre- nted, chose to disregard the overwhelming mass of evidence resented to it on this point; and (without assigning ny weighty or conclusive reason against the arrangement, hich they had themselves reported to be working "very fficiently, and both without friction and at small cost to he community") to recommend that the boundaries of arochial relief and of pauperism should be extended by tatute in the way proposed by Clause 17. That recommenda- ion was made the subject of instant protest, and is now strongly bjected to by the great majority of the persons actually oncerned—namely, the midwives and their patients, as vell as by the British Medical Association and the Society of Medical Officers of Health. The Manchester Town Council has ent a letter to the Corporations of a number of other County Boroughs protesting against the payment being made by the Poor Law Authority at all. Resolutions of protest are begin- ning to pour in from the branches of the Women's Co-operative Guild, the Railway Women's League, and the Women's Labour League. Some Boards of Guardians—for instance, hat of the Derby Union—have formally expressed their objec- ion to being required to make the payments proposed. It is already evident that the subject will be made an issue at the elections, and that any such enlargement of the sphere of the Poor Law—still more any such compulsory pauperism—will call forth the strongest denunciation from all those claiming to represent working-class opinion.

That the recommendations of the Departmental Committee are in no way binding, and are, indeed, neither conclusive nor authoritative, is shown by the fact that in the very bill under discussion the Government has spontaneously departed from them (as stated in the official Memorandum prefixed to the bill) in various particulars in favour of other proposals.

In order to enable the bill to pass, and to secure to every medical practitioner the fee to which he is legitimately entitled for a service performed in an emergency in the interests of Public Health at the instigation of Parliament itself, it is submitted that it should be at once announced that Clause 17 will be amended by the substitution of the words "local supervising authority" for "Boards of Guardians for the Union," and that Sub-Clauses 2 and 3 and all reference to parochial relief or relief on loan will be omitted.

SCIENTIFIC RESEARCH.

In connexion with the annual grant voted by Parliament in aid of scientific investigations concerning the causes and processes of diseases, Mr. Burns, the President of the Local Government Board, has authorized the following special researches:

1. A continuation of an investigation into protracted and recurrent infection in enteric fever, by Dr. Theodore Thomson, Medical Inspector of the Board, in conjunction with Dr. Ledingham of the Lister Institute.

2. A continuation of an investigation into protracted and recurrent infection in diphtheria, by Dr. Theodore Thomson and Dr. C. J. Thomas.

3. A continuation of an investigation into flies as carriers of infection, by Dr. Monckton Copeman, Medical Inspector of the Board, in conjunction with Dr. Graham Smith and Mr. Merriman of the University of Cambridge, Dr. Nicoll of the Lister Institute and Dr. Bernstein of the Bacteriological Laboratory, Westminster Hospital.

4. A continuation of an investigation on the injurious gases evolved during artificial illumination, by Dr. J. Wade, D.Sc., of Guy's Hospital.

5. A preliminary inquiry into the relationship of certain special types of bacteria to the diarrhoea of infants, by Dr. C. J. Lewis of Birmingham, Dr. Sheila M. Ross of Manchester, Dr. Thomas Orr of Shrewsbury, and Dr. R. A. O'Brien of the Lister Institute.

* Report of Departmental Committee of the Midwives Act (1909), Cd. 4822, p. 27.

MEDICAL CERTIFICATION OF PAUPER LUNATIC.

H. B. D. states that he had a female pauper lunatic (who had attempted to cut her own throat) removed to the asylum with the assistance of the relieving officer. Our correspondent signed the necessary certificate and handed it to the latter, who then secured a magistrate's signature, and arranged for the patient's removal. The guardians now decline to pay our correspondent's claim—21s., and he asks whether they are liable for his fee.

*** By Clause 285 of the Lunacy Act, when a justice directs a lunatic, or an alleged lunatic, whether a pauper or not, to be examined by a medical practitioner, the justice directing the examination may make an order upon the guardians to pay such reasonable remuneration to the medical practitioner as he (the justice) thinks proper; should such justice refuse to make such order, by Clause 301 of the same Act any person aggrieved thereby may appeal to quarter sessions on giving to the justice fourteen clear days' notice of appeal. Our correspondent will note the order of procedure which must be followed.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

Appointments.

THE following examiners have been appointed for the ensuing academical year:—*In Medicine:* Drs. Bradbury, G. Newton Pitt, Frederick Taylor, and T. Dyke Acland. *In Surgery:* Messrs. L. A. Dunn, Raymond Johnson, F. F. Burghard, and W. McAdam Eccles. *In Midwifery:* Drs. H. R. Spencer and Amand Routh.

Degrees.

The following degrees have been conferred:

M.D.—W. Ledlie, Christ's.
M.B.—G. G. Alderson, Caius; A. E. A. Carver, Caius; L. W. Sharp, Caius.
B.C.—W. Ledlie, Christ's.

VICTORIA UNIVERSITY OF MANCHESTER.

AT a meeting of the Court of the Manchester University held last week, a loyal address to King George on his accession was adopted, and Sir Wm. Mather unveiled a marble bust of King Edward which had been executed by Mr. Bruce Joy and presented by an anonymous donor. The following honorary degrees were conferred: *Litt. D.:* Mr. W. W. Fowler, Fellow of Lincoln College, Oxford, and Canon Hicks, Bishop-elect of Lincoln; *D.Sc.:* Mr. W. N. Shaw, Director of the Meteorological Office, Dr. Hugo Müller, and Professor T. W. Richards, Professor of Chemistry in the Harvard University; *Mus. D.:* M. Felix A. Guilmant of Paris; *M.A.:* Miss Mary Dendy and Miss A. E. F. Horniman. Authority was also given to confer the degree of M.Sc.Tech. on the following members of the teaching staff: Mr. H. Brotherton, Assistant Lecturer in Mathematics; Mr. J. Grant, Assistant Lecturer in Chemistry; Mr. E. L. Rhead, Assistant Lecturer in Metallurgy; Mr. G. H. Winstanley, Lecturer in Mining.

In presenting the names of Mr. Dendy and Miss Horniman for the honorary degrees of M.A., Mr. E. J. Broadfield alluded to the good work of Miss Dendy as a member of the Manchester Education Committee in securing schools for defective children. Miss Horniman had come to Manchester to undertake work in improving the theatre which had never been attempted in any other city, and she was presenting a series of plays which the public had no opportunity of seeing elsewhere.

Annual Statement.

Vice-Chancellor Hopkinson, in his annual statement, said the university still continued to increase in numbers gradually, and there had been a substantial addition to the number of students during the year, the number now being 1,653, against 1,587 last year. The increase had not been confined to any one department, but was partly due to the increase in the number attending the Manchester School of Technology. The university was certainly a valuable help to the School of Technology, as students attending the school could now proceed to university degrees in the Faculty of Technology. There was also a slight increase in the medical school and the science and art departments. On the advice of the Senate, the council had decided to institute a professorship in Economic History; this was a new departure, and would be a valuable addition to the departments of arts and commerce. The council had also under consideration the question of appointing a second professor of law. The laboratories in connexion with the engineering department which were opened last year were now in full work. The court had also arranged for degrees to be given in agriculture, as the department of agriculture was now working successfully with the co-operation of the Cheshire County Council. He hoped the

Board of Agriculture would see it way to make a grant, especially for the purpose of encouraging research.

Diploma in Psychological Medicine.

The court decided to institute a diploma in psychological medicine. Professor Lorrain Smith, who brought up the motion, explained that the Medico-Psychological Association, which is composed largely of members of the medical staffs of asylums, had suggested that arrangements should be made for post-graduate teaching and for granting a diploma in this subject. The society pointed out that the graduates who left the medical school with the ordinary qualifications to take up resident posts in asylums had usually had very slight training in psychological medicine.

Dental Diploma.

The ordinances for the Dental Diploma were amended by the omission of elementary mechanics from the first course and examination, and the ordinance for the final examination now reads "Dental Surgery with Materia Medica and Therapeutics in their application to dental surgery and dental prosthetics."

Intermediate B.Sc. Examination.

In the Intermediate Examination for the degree of B.Sc., the students' choice of subjects is widened by the introduction of geology, and in the final examination for the same degree anatomy is added to the list of subjects for which a candidate may offer himself.

Certificates in Factory and School Hygiene.

It was also decided to institute certificates of proficiency in factory hygiene and school hygiene. The Vice-Chancellor referred to the growing importance of this subject in connexion with the inspection of schools and the increasing attention that is being given to the industrial diseases. He explained that candidates would not be eligible for the certificates unless they had the full medical qualifications and had also qualified for the diploma in public health.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

The Coming Council Elections.

The Council is at present constituted as follows:—

President.

Mr. H. T. Butlin; C, (1) 1895, (2) 1903.

Vice-Presidents.

Mr. Pearce Gould; (1) 1900, (2) 1908.
Mr. R. C. Lucas; C, (1) 1901, (2) 1909.

Other Members of Council.

Sir Henry Morris, Bart.; C, (1) 1893 (substitute), (2) 1898, (3), 1906.
Mr. Edmund Owen; C, (1) 1897, (2) 1905.
Mr. R. J. Godlee; C, (1) 1897, (2) 1905.
Sir W. Watson Cheyne, Bart.; C, (1) 1897 (substitute), (2) 1901, (3) 1909.
Mr. F. Richardson Cross; (1) 1898, (2) 1906.
Mr. J. H. Morgan, C.V.O.; C, 1902.
Mr. C. W. Mansell Moullin; C, (1) 1902 (substitute), (2) 1907.
Mr. Clinton Dent; C, 1903.
Mr. G. H. Makins, C.B.; C, 1903.
Mr. F. S. Eve; C, (1) 1904 (substitute), (2) 1907, (substitute for Sir J. Tweedy, till 1912).
Mr. A. Bowlby, C.M.G.; C, 1904.
Mr. H. G. Barling; C, 1904.
Mr. C. H. Golding-Bird; C, 1905.
Mr. G. A. Wright; C, 1906.
Mr. W. Bruce-Clarke; C, 1907.
Mr. Charters J. Symonds; C, 1907.
Mr. W. F. Haslam; C, 1908.
Mr. C. B. Lockwood; C, 1908 (substitute for Mr. Howard Marsh till 1910).
Mr. W. Arbuthnot Lane; C, 1908.
Mr. W. H. Cripps; C, (1) 1905 (substitute for Sir Alfred Cooper till 1908), (2) 1909.
(Mr. H. H. Clutton; C, 1902, deceased since last election.)

The following list shows the proportional representation of metropolitan medical schools and the provinces:

St. Bartholomew's	...	5
Charing Cross	...	1
Guy's	...	4
King's College	...	1
London	...	2
Middlesex	...	2
St. George's	...	1
St. Mary's	...	1
St. Thomas's	...	2*
University College	...	1
Total number attached to London schools	...	20*
Provincial members (Birmingham 2, Bristol 1, Manchester 1)	...	4
Total	...	24

Mr. Morgan and Mr. Lockwood retire in rotation, and two vacancies are left owing to the death of Mr. Clutton and the resignation of Mr. G. A. Wright.

*1, Mr. Clutton deceased.

UNIVERSITY OF SHEFFIELD.

Appointment.

Mr. Robert Donaldson, M.A., M.B., Ch.B., F.R.C.S.Edin., has been appointed to the post of Junior Demonstrator in Pathology, in succession to Dr. A. Bennee, deceased.

Instruction in Diseases of Children.

The Council has accepted with thanks an offer from the staff of the Children's Hospital to afford teaching facilities at the hospital to medical students of the university.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

Annual Meeting.

The annual meeting of the Fellows was held on Saturday, June 4th, the President, Mr. J. Lentaigne, in the chair.

The report stated that during the year, after the usual examinations, 27 candidates were admitted to the Fellowship, 73 candidates received the Conjoint Diplomas in Medicine, Surgery, and Midwifery of the Royal Colleges of Physicians and Surgeons; 37 candidates received the Conjoint Diploma in Public Health of the Royal Colleges of Physicians and Surgeons; 10 candidates received the Licence in Dental Surgery. Eighty-one candidates having passed the Conjoint Preliminary Entrance Examination with the Royal College of Physicians received certificates. The obituary list showed that 12 Fellows and 51 Licentiates died during the year. There are at present living 12 Honorary Fellows, 486 Fellows, 2,919 Licentiates, 6 Honorary Diplomates in Public Health, 334 Diplomates in Public Health, and 548 Licentiates in Dental Surgery.

Election of Officers.

At a meeting of the Fellows, held on Monday, June 6th, the following office-bearers were elected for the ensuing year:—*President:* Mr. Robert H. Woods. *Vice-President:* Mr. Richard D. Purefoy. *Honorary Secretary;* Sir Charles A. Cameron, C.B. *Council:* Sir Henry R. Swanzy, Mr. William Stoker, Sir Charles Alexander Cameron, C.B., Mr. John B. Story, Sir Charles B. Ball, Sir Thomas Myles, Mr. John Lentaigne, Sir Arthur Chance, Sir Lambert H. Ormsby, Mr. Henry G. Sherlock, Mr. R. Bolton M'Causland, Mr. F. Conway Dwyer, Mr. R. Lane-Joynt, Mr. William Taylor, Mr. Edward H. Taylor, Mr. R. Charles B. Maunsell, Mr. William Ireland Wheeler, Mr. D. Edgar Flinn, and Mr. Thomas E. Gordon.

CONJOINT BOARD IN IRELAND.

The following candidates have been approved at the examinations indicated:

D.P.H. (*Both Parts*).—W. B. Bannerman, Elizabeth H. Brook, Evelyn E. Dickinson, R. T. Edwards, C. C. FitzGerald, W. J. D. Inness, H. P. Lobb, J. K. Patrick, H. J. Raverty, W. de W. Wishart.

Obituary.

WILLIAM ROSE, M.B., F.R.C.S,

EMERITUS PROFESSOR OF SURGERY, KING'S COLLEGE, LONDON; CONSULTING SURGEON, KING'S COLLEGE HOSPITAL.

We are indebted to Sir John Cockburn, K.C.M.G., M.D., for the following account of the career of Mr. William Rose, whose death on May 29th was briefly announced last week:

William Rose's career affords a striking instance of the coincidence of an hereditary faculty with circumstances peculiarly favourable to its development. Descended from a race of successful surgeons, he was nursed in an atmosphere of the healing art. Long before he entered as a medical student at King's College he had learnt from his father, the leading surgeon in High Wycombe, something more than the rudiments of the profession, with the result that, having the end in view, he was able to appreciate more thoroughly than the younger and less experienced students the meaning and bearing of the teaching facilities which a great medical school affords. Endowed by Nature with an exquisite sense of touch and manual skill, he lost no opportunity of cultivating a wonderful dexterity in manipulation, which made him a most expert operator.

As a boy he was the fortunate possessor of a fine turning lathe and well-equipped workshop. Here he spent most of his leisure, and served his apprenticeship in handicraft. The hand that for the first time touched the instruments of surgery was already ripe with experience in handling all manner of tools. William Rose was not one who required to practise with the saw on the human femur. He was possessed of prodigious strength. It was

one of the sights of student days to see him with one hand grasp a heavy chair by the top rail, extend it at arm's length, and by sheer power of wrist raise it to a horizontal position. But this strength was tempered and regulated with a wonderful tactile sensibility. His touch conveyed a sense of restrained power, which commanded confidence and rallied the recuperative power of a patient. There was a veritable virtue in the laying on of his hands. His skill in manipulation and readiness to come forward when anything was required to be done attracted, early in his career as a student, the notice of Sir William Ferguson, whose dresser he became. He filled successively the positions at King's College Hospital of House-Surgeon, Surgical Registrar, Assistant Surgeon, Surgeon, and Consulting Surgeon. At the college he was Professor of Surgery, and on retirement from active work at the hospital he was elected to the Council of the College and appointed Emeritus Professor of Surgery, which positions he held until his death. The desire of his father's heart was that he should succeed to the hereditary practice at High Wycombe, but his uncle, Sir Philip Rose, having formed a high opinion of his talents, encouraged and assisted him to start as a consulting surgeon in London. Accordingly he took rooms in Old Cavendish Street. He became Sir William Ferguson's assistant, and indeed colleague, in all the latter's great surgical undertakings. Keen in diagnosis and unsurpassed at the operating table, William Rose was a fine type of the all-round surgeon. He was essentially a man of business, with a good sense of proportion. He never allowed his professional views to obscure his judgement in general affairs. He was endowed in large measure with that rarest of gifts, common sense; and this, with keen observation and divination of character, served him in good stead in positions where business capacity as well as medical knowledge are required, such as his appointments as Surgeon to the Great Eastern and London, Brighton, and South Coast Railway Companies. He was instrumental in obtaining settlements favourable to the companies in many claims for compensation after accidents. I remember one striking instance. He was asked to report on a case of alleged spinal concussion, as a consequence of which it was represented that the patient was unable to walk. Calling at the house, he was kept waiting an unusual time before being asked to see the patient, who was supposed to bedridden. On entering the room the man was sure enough in bed, but Rose noticed a pair of boots under it. Putting his hand into one of them, he found it was warm! So that case was easily disposed of.

William Rose was a lover of animals. It was the freemasonry of pigeon keeping which brought us together on the steps of the portal of King's College on the opening day of our first session in 1867. This mutual taste founded a friendship which stood the test of twenty-three years separation during my life in Australia. For many years we had rooms together, and well do I remember the assiduity with which he seized every opportunity of developing his innate dexterity. In the fruit season we used to practise cutting a uniform slice off cherry stalks; he called it paring the edges of the soft palate. We used, moreover, to work at every game which required manual skill, and had serious competitions in manipulating various mechanical toys. We speculated on diagnosing by their shape the contents of parcels seen in the street or at railway stations, and were never content with any appearance without demanding the why and wherefore.

About that time an eminent surgeon's reputation was seriously injured by the wounding of a main artery during an operation. This taught us the lesson that any mistake might be fatal, and escape from the consequences of an error was a mere matter of good luck. Consequently we regarded even trivial slips as matters of magnitude, and it was a rule that whoever committed a blunder, however slight, should be regarded as dead and have no voice in any decision for the rest of the day. Rose was impatient of any incapacity or shortcoming, and was sometimes unduly severe on those occasional errors of diagnosis from which in cases of exceptional difficulty even the best of men are not exempt.

He had a rich fund of humour, and as a raconteur had few equals. He had a talent for music, and especially for rhythm. It was a treat to hear him play the drum. Although some might have greater powers of executive, no one played with such fine modulation; he could make the parchment speak. He was a keen sportsman and excellent shot, of which the antlered heads of many royal stags were trophies. His strength and delicate touch made him a fine whip. A coach team or tandem were as a plastic mass in his hands. He could do what he liked with them. Although he prepared himself for his profession with infinite care, he could never be said to be a hard reader either as a student or afterwards. Neither was he a copious writer, although, jointly with Mr. Carless, he was the author of one of the best books of the day on surgery. The secret of his success was that, having an aptitude for his work, he loved it, and throughout life followed the natural bent of his disposition. At the same time he insisted on his week-ends and a long annual holiday. In no one, until his last illness, was the zest of life more keen.

His country house at Penn near High Wycombe was a model of solid comfort, and replete with every form of mechanical and electrical convenience and contrivance. He was possessed of unbounded faith in his own powers, which he in no way exaggerated. He knew just what he could do, and did it. His courage, mental and physical, was of a high order. He was a cheery optimist and never looked on the dark side of things. He was open-handed and kind, especially to the poor, to whom he always gave, gratuitously, the benefit of his vast skill and experience. Small wonder that the people of Penn loved him and grieve for him. In 1880 he married Marian, youngest daughter of the late Robert Clark, solicitor.

The last few years of his life were the reverse of a singularly prosperous and useful career, and were spent in struggling with a fatal and painful disease which he bore with unflinching fortitude.

SIR FRANCIS SEYMOUR HADEN, F.R.C.S.ENG.

SIR FRANCIS SEYMOUR HADEN died at his residence, Woodcote Park in Hampshire, on June 1st, in the 92nd year of his age. It is so many years since he gave up practice that his name has long since disappeared from medical reference books, and many of the younger generation are unaware that he was at one time almost as conspicuous a figure in the world of medicine as in that of art. He was the son of an Edinburgh medical graduate practising in Sloane Street, then a new neighbourhood not far from what were known as the Chelsea Marshes. His medical education he received partly at University College, London, partly in France at the Sorbonne and the University of Grenoble. He took the diploma of M.R.C.S. in 1842, and that of F.R.C.S. in 1857. Eventually he established himself in Hertford Street, Mayfair, devoting himself to general practice with a good deal of surgical and obstetrical work thrown in. A great many of his patients were well-known personages, one of them being the novelist, Thackeray, whom he attended in his last illness. He made at this time a few contributions to the medical journals on various topics, including cholera, and was one of the vice-presidents of the Obstetrical Society, in company with Sir Charles Locock and Sir William Fergusson. His interest in the subjects dealt with by this society was well evidenced by the ardent support he lent to the few persons who then favoured the radical treatment of ovarian tumours. He was also prominent during the early part of his career as a medical member of committees and juries at international exhibitions, presumably as an outcome of the circumstance that he was honorary surgeon to the Government Department of Science and Art. It was perhaps, however, as an early reformer of burial practices that he was best known in medical connexions. Though a strong opponent of burials as then and even now conducted, he was equally opposed to cremation, regarding his own method as being the only defensible practice. This was to inter bodies in papier maché coffins placed just below the surface of the ground. He took so much interest in this subject that he continued experiments with animals on his own estate in Hampshire until quite a recent period. But this was by no means the only controversy in which he was a leader. Vigorous in mind and body, he was ever ready to uphold a cause which interested him, and what between his powers as a fighter and

his admittedly high talent as an artist, he came to hold a unique position in art circles, both at home and abroad. It was as an etcher that he was celebrated, his work being not that of the copyist but of a painter-etcher on the lines of Rembrandt and other great masters. He published a good many dissertations on the subject of etching, and fought its claims with the Royal Academy on several occasions. By way of further supporting it he founded the Royal Society of Painter Etchers, of which he remained President until his death, meantime obtaining for it Royal recognition. His own work with the needle was so skilled that on two occasions he was awarded the Grand Prix by the Académie des Beaux Arts of France. Sir Francis Seymour Haden was a brother-in-law of the artist Whistler, whose half-sister he married in 1847. This circumstance may have contributed to maintain his interest in art, but did not initiate it, as from a much earlier period in his life he was known for his skill with pencil and paper, and he had divided his time as a student in Paris between the medical school and the studios. Lady Haden died some two years ago, but he is survived by a son and namesake, Mr. Francis Seymour Haden, C.M.G., formerly Governor of Zululand.

RUSSELL STEELE, M.D.DURHAM,

M.R.C.S. AND L.R.C.P.EDIN.,

CONSULTING SURGEON, WEST HERTS COUNTY HOSPITAL.

THE news of the death of Dr. Russell Steele, which occurred at Hemel Hempstead on May 18th, will be received with regret and sorrow by his many old friends and patients. Born in the year 1847 at Reigate, where his father, Dr. John Sisson Steele, practised for many years, he received his education at Epsom College, and from there went in 1865 to study medicine at University College, London, where he was a contemporary of Sir Thomas Barlow. He obtained the diplomas of L.R.C.P. in 1871, M.R.C.S. in 1872, and took the degree of M.D.Durh. in 1887. After leaving University College he was for a few years an assistant to his father, and in 1877 settled at Hemel Hempstead, as assistant to Dr. Holland Ambler; at Dr. Ambler's death in 1879 as partner to his son, Dr. Horace Ambler.

In his work at the West Herts County Hospital, where his services were much appreciated by the staff and committee as well as by his patients, Steele took the most unremitting interest and showed himself to be a skilful and successful surgeon of no mean order. Quiet, unassuming and self-sacrificing, he was a fine example of the general practitioner of this country and did much good in upholding the honour of his profession. Nothing gave him greater pleasure than to meet his school and college friends and discuss old times. For Epsom College he retained to the last days of his life a great affection, and in its welfare he took a keen interest. The funeral service was held at the parish church on May 21st, the building being filled to overflowing by those who loved and respected him, by many of whom he will be sadly missed. He leaves behind him a widow, three sons, and two daughters to mourn his loss.

Of his career at college and afterwards, Sir Thomas Barlow writes as follows: "Russell Steele was well known to me because we were fellow students. He was a very engaging man, popular and much liked by all his fellows. He went to the country directly after he had qualified, and I often saw cases with him at Hemel Hempstead. He was always the same—devoted to the interests of his patients and disregardful of his own. He was a careful and accurate and thoughtful practitioner, and seemed to me to keep thoroughly abreast with the progress of modern knowledge. No wonder he was beloved by his patients, for he was always tender-hearted and humane, and he was a delightful companion, for he had a cultured taste and keen appreciation of beautiful things. Nobody could have been more patient, gentle and unselfish all through his long weary illness."

One of Dr. Steele's former assistants has sent us the following appreciation:

He was all that was noblest and best, both as a man and as a physician; certainly one of the most transparent men I ever met. He lived entirely for others, and neglected himself at the cost of a shortened life. No one appealed to him for help in vain, and he always left one the better for having come in contact with him. His store of sympathy and good spirits was inexhaustible. The more he lavished them on others the more he seemed to have. In his home he was an ideal father. He was an all-round man, and as a general practitioner he had few equals. The chief attributes to his remarkably successful career were his unfailing sympathy, his gentleness, cheerfulness, refinement, and ability. Had he not chosen to follow the profession of medicine, there is little doubt but that he would have made a name for himself in the world of art. Whether it was a sketch or a photograph that he happened to be engaged with the result was invariably a delight to the eye. He was an artist to his finger-tips, and more than once have I seen him out of a few chance blots on a blotting-pad dash off, with a few strokes of his pen, a very pretty landscape. To a man of his fine fibre, the wearing life of a busy country practitioner must have been very trying, but he was never heard to complain; the word "self" was not in his vocabulary.

Medico-Legal.

AN ACTION FOR NEGLIGENCE.

THE case of Crickmay *v.* Biden, which was heard last week at Bury St. Edmunds, involved a charge of negligence against Dr. Charles Walter Biden, of Laxfield, near Halesworth.

Mr. Brandon appeared for the plaintiff; Mr. Hume Williams, K.C., and Mr. Wild, instructed by the Medical Defence Union, appeared for the defendant.

It appears from the report published in the *Times* that the plaintiff, a solicitor's clerk, suffered from an attack of pneumonia while at his home at Laxfield for a holiday. After recovering from the pneumonia he had a disorder of the knee, which was first diagnosed as acute rheumatism. The condition of the knee was eventually attended by suppuration, and on October 31st another doctor who was called in advised operation. Before this was performed the swelling burst. Counsel for the plaintiff contended that the patient had not received proper treatment, and that had he done so the leg, when becoming stiff, would not have remained at an angle. The patient was subsequently admitted to St. Thomas's Hospital, where it was found that the knee was dislocated, and that the plaintiff would be a permanent cripple. The plaintiff, in his evidence, said that at St. Thomas's Hospital he was told that his condition would become worse through curvature of the spine unless he had an operation. Dr. C. D. Green, of Romford and London, said that the knee was stiff, and the bone of the leg displaced backward and outward; he expressed the opinion that proper treatment for suppuration was not followed.

Mr. Hume Williams said that no question of want of care could arise, because no man could have bestowed more anxious care than Dr. Biden, who attended the plaintiff ninety-six times almost consecutively. Counsel traced the condition of the plaintiff from the time when he called in Dr. Biden, pointing out the serious state of his health and the danger that would probably have arisen from an operation. The difficulty was not the keeping of the plaintiff from having a stiff leg, but from dying. He contended that the defendant had exercised care and reasonable skill.

Dr. Biden said that two days after it was decided to make an incision into the knee it burst, and an operation was therefore considered to be unnecessary. He had no reason to suspect the existence of pus until October 28th.

Dr. Ball of Stradbroke, Dr. Edgar Barnes of Eye, and Dr. Kilner of Bury St. Edmunds all agreed that Dr. Biden took all reasonable means, considering the obscurity of the case.

The jury returned a verdict for the defendant, for whom judgement was entered with costs.

DEATHS FROM MISADVENTURE.

THE case of strychnine poisoning through the incorrect compounding of a mixture, in which a coroner's jury returned a verdict of death from misadventure, and of which an account will be found at page 115 of our issue for January 8th, 1910, had a sequence in the London Sheriff's Court on June 1st. Negligence was admitted, and the only question for the court was the amount which should be paid to the husband and the children of the deceased woman by way of damages. The plaintiff's counsel endeavoured to make out that the defendant was a man of large means, but the jury, after hearing the medical man's statement as to his position, assessed the damages at £214 11s. 6d. —namely, £50 for the husband, £50 each for three children under age, and £14 11s. 6d. expenses. The deceased woman was the wife of the stage manager of a local music-hall.

ATTENDANCE AT NECROPSIES ORDERED BY CORONERS.

AT an inquest held recently by the deputy coroner for Nottingham with regard to the death of a child which was attributed to exhaustion following diarrhœa, it appeared that Dr. C. M. Simpson, who had attended the child during life, had not been

invited to attend the *post-mortem* examination. Mr. Jackson, of Messrs. O'Rorke and Jackson, who watched the inquiry on behalf of the Midland Medical Union, said that the doctor who had attended the child might very properly have been asked to make the *post-mortem* examination, or to have been present. The Union and the medical profession felt that in cases where a *post-mortem* examination was thought proper, the doctor should be invited. The coroner said that he had thought it better in this case to have an independent examination, but he had not intended to prevent Dr. Simpson from being present. The fact that Dr. Simpson was not informed of the date of the *post-mortem* examination was due to an oversight.

Medico-Ethical.

The advice given in this column for the assistance of members is based on medico-ethical principles generally recognized by the profession, but must not be taken as representing direct findings of the Central Ethical Committee, except when so stated.

SUPERSESSION.

MAN OF PEACE writes: B. has been regularly attended by A. for many years, but in an emergency C. is sent for as being nearer, and sticks to the case; B., being ignorant of the custom of the profession, and not knowing how to get rid of C., does not demur. C. then takes a holiday, and B. refuses to have his locumtenent, and sends for A., to whom he explains the whole matter. Ought A. to attend on behalf of C.? C. knew quite well that A. had been the regular medical attendant for many years.

*** In the circumstances stated A. would, we think, be at liberty to resume attendance on his patient if it is the patient's wish that he should do so.

Medical News.

SIR FRANCIS HENRY LAKING, Bart., G.C.V.O., M.D., has been appointed a Knight Commander of the Order of the Bath, on the occasion of the King's birthday (June 3rd). It is announced that other honours appropriate to the occasion will be issued at the time of the official celebration of the birthday on June 24th.

DR. H. R. MILL has presented to a board of trustees the unique collection of rainfall records and the leasehold of the historic rainfall house, 62, Camden Square. The institution, which deals with the records of nearly five thousand voluntary observers in the British Isles, has always been self-supporting, but an endowment fund is now being formed.

THE Harben Lectures of the Royal Institute of Public Health are being given this year by Sir W. B. Leishman, M.B., F.R.S., Professor of Pathology in the Royal Army Medical College, London. The subject of the lectures is antityphoid inoculation. The first was given on Wednesday last, and lectures will be given on June 15th and 22nd, at 6 p.m. on each day.

THE Section of Balneology and Climatology of the Royal Society of Medicine held a very successful provincial meeting at Buxton on May 28th. The fellows were received by the President of the Buxton Medical Society and other members of the profession practising in the locality, and given an opportunity of examining the bathing establishment and the Devonshire Hospital. At the latter the various classes of cases were arranged in groups. The fellows' dinner, which took place the same evening at the Palace Hotel, was followed by a smoking concert.

THE report of the Council of the Society for the State Registration of Nurses, adopted at the annual meeting on June 2nd, stated that on all sides there were signs that the long struggle for the organization of the nursing profession was drawing to a close. The true significance of the opposition was daily becoming better understood, as also was the fact that in desiring to obtain the organization of their profession under State authority trained nurses were working for no selfish ends, but were inspired by a sense of public duty to the community. The public was beginning to realize that it had no guarantee that women who professed to be thoroughly trained nurses were what they assumed to be, and legislation giving this guarantee could not be long delayed. Before the meeting concluded a resolution was passed stating that the Society desired to direct the attention of the public and of Parliament to the injury done to well trained and reputable nurses and nursing homes by the exploitation of their professional uniform and by bogus nursing and massage homes. A second resolution called upon Government to offer facilities for the passing of a registration bill and on local authorities to institute inspection of nursing homes.

Letters, Notes, and Answers.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

COUNTRYMAN asks how rubber gloves may be sterilized thoroughly without boiling, which tends to destroy them quickly.

HYPERIDROSIS.

WIDS asks for suggestions for the treatment of excessive sweating of the palms in a girl, aged 18. The gloves are constantly soaked. The sweating has no relationship to the menstrual periods. All the textbooks' applications have been tried.

BISMUTH SUBNITRATE PASTE.

TRISNIT asks: What are the symptoms of bismuth poisoning where the subnitrate paste is used to inject sinuses and abscess cavities, and whether there is any advantage in using the carbonate instead of the subnitrate? Nitrite poisoning is said to occur when the subnitrate is used. What would be the symptoms? In a case where the last-named salt was used there was developed a black line on the gums, upper and lower; the patient died some weeks afterwards from exhaustion following on long suppuration. Two ounces of the paste were used.

ANSWERS.

OLD CLOTHES.—Left-off clothing for use by members of the profession or their dependents are received by the Ladies' Guild of the British Medical Benevolent Fund. The parcels should be addressed to Miss Ruth West, 11 Chandos Street, Cavendish Square, London, W.

HERPES ZOSTER FOLLOWING INJURY.

DR. RICHARD HAMILTON (Santley, Birmingham) writes: The following case may be of interest to Dr. Dobbie: W. consulted me on May 22nd last. He stated that on May 16th he fell from his bicycle on to his shoulder; he suffered very little pain and there was no bruising. On May 18th pain became intense, and on May 21st herpes appeared. On the next day herpes was well developed on the skin over the lower portion of the deltoid, the outer side of the upper arm and the upper half of the lower arm. Pain was very severe and his temperature was 101°. Recovery was rapid; he returned to work on May 30th.

BOOKS FOR D.P.H. CAMBRIDGE.

W. P. H.—We are informed that the textbooks usually read by candidates for the D.P.H.Cambridge are: Muir and Ritchie's *Manual of Bacteriology*, fourth edition (Edinburgh and London: Young J. Pentland, 1907, 10s. 6d.); Notter and Firth's *Hygiene*, sixth edition (London: Longmans, Green, and Co., 1905, 4s. 6d.); Whitelegge and Newman's *Hygiene and Public Health*, eleventh edition (London: Cassell and Co., 1908, 7s. 6d.); Parkes and Kenwood's *Hygiene and Public Health*, third edition (London: H. K. Lewis, 1907, 10s. 6d.); Robertson and Porter's *Sanitary Law and Practice* (London: Sanitary Publishing Co., 1905, 10s. 6d.); Newsholme's *Elements of Vital Statistics*, third edition (London: Swan Sonnenschein and Co., 1899, 7s. 6d.); Knight's *Annotated Model Bye Laws of the Local Government Board*, seventh edition (London: John Knight and Co., 1905, 16s.). A copy of the papers set for any one examination, together with the regulations for the next examination, can be had for 1s. from Messrs. Deighton and Bell, booksellers, Cambridge, or Cambridge University Press Warehouse, Fetter Lane, London.

LETTERS, NOTES, ETC.

CAVEAT EMPTOR.

COMMUNICATIONS received recently from medical correspondents seems to make it desirable to advise readers to act with due deliberation in determining whether they will accept the terms of a proposal which may be made to them by a canvasser who may lay before them an agreement to subscribe to an album of portraits of medical men, issued or about to be issued by the firm of Adolf Eckstein of Berlin Charlottenburg

THE INFLUENCE OF AIR ON PHTHISIS.

DR. F. P. ATKINSON (Bexhill-on-Sea), writes: I think it may safely be said that improved vitality is to a great extent the base on which the successful treatment of phthisis rests, and therefore a pure, mountainous, dry, sunny air is required with residence on a dry, well-drained soil. Residence in sunless air, and damp, low-lying districts has a tendency to lower vitality, and is therefore prejudicial, although the detrimental effects are by no means so great as where there is overcrowding and the atmosphere is germ-laden and germ-producing.

"Some Royal Death-Beds."

In Dr. S. D. Clippingdale's note appended to the article "Some Royal Death-Beds," which appeared in the Journal of June 4th, there was a misprint which we wish to correct. The place to which sick children from London were sent in the reign of Henry VIII was not Hampstead, but Flamstead, a place in Hertfordshire, a few miles north of St. Albans.

Family Longevity.

Dr. George Maw (Shortlands, Kent) writes: I think the following instance remarkable. Can any of your readers give a higher record? Out of a family of twelve, two died young (22 and 17, one drowned at sea); the ages of the other ten were 75, 87, 87, 89, 91, 64, 85, 80, 71, 77; total, 806, or an average of close on 80 years and 8 months. Two are still living. I know of another instance in which three sisters were considerably over 90 and alive at the same time; but I believe there were only six in that family, and the others died (comparatively) young.

The Diploma in Ophthalmology at Oxford.

Dr. J. C. McWalter (Dublin) writes: Surely the British Medical Association should protest against the proposal to institute a diploma in ophthalmology at Oxford? After such an important precedent every university will feel bound to confer a diploma in some branch of medical service—in otology, rhinology, proctology, urology or the like—and a multiplication of certificates will result which will reduce the universities to the status of competitive diploma shops. I submit that the British Medical Association, being officially in favour of a one-portal system, is bound to discountenance a multiplicity of diplomas.

Visceroptosis—Viscerostaxis.

W. A. H. (Hove) writes: I see with regret in the pages of your well-edited Journal of the 28th May a revival of the transatlantic hybrid "visceroptosis." This term must be offensive to all lovers of good English for two reasons. It is compounded of words taken from two languages, namely, viscera, Latin, and ptosis, Greek—and, moreover, the hybrid is a bad hybrid even so. By no recognized rule of grammar that I know can the crude-root "viscer" be followed in a derivative by "o." We find "visceratim" and "visceratio" in Latin. If we permit the coiner of a new word to pick his syllables from different sources, "visceraptosis" may be admissible. Again, "epistaxis" is Hippocratic; "viscerostaxis" may be "democratic" but it is certainly not a good English word.

A Fatal Case of Gastric Haemorrhage.

F.R.C.S.Edin. writes: About 4 o'clock one afternoon recently I was urgently called to see a woman, aged 40 years, who had commenced vomiting blood about a quarter of an hour before. She had a history of gastric trouble of four months' duration, but there had been no previous haemorrhage. She had not been under regular treatment. I found her walking about apparently not seriously ill, though she had vomited about 6 oz. of bright red blood. She was immediately put to bed, cold wet cloths were applied to the abdomen, and a quarter of a grain of morphine was injected. After about a quarter of an hour I went to get some drugs—adrenalin, etc. When I returned about half an hour later I found her very much worse; she had vomited about 10 oz. of blood, and passed about 6 oz. by the bowel. She was given another injection of morphine and mxv of adrenalin by the mouth, but the latter had little effect, as she vomited a few minutes later. It was impossible to remove her to hospital or to attempt operative treatment in the house. She vomited a few ounces more blood, rapidly got worse, and died at 6.30 p.m., apparently solely from loss of blood. No autopsy was performed, so that the actual site of the haemorrhage is unknown. I had previously only seen one case of fatal gastric haemorrhage—from a gastric erosion, and the diagnosis was only made at the autopsy, there having been no blood vomited or passed by the bowel. In the literature at my disposal I cannot find any statistics of the frequency of fatal gastric haemorrhage. It would be instructive if some of your readers would give their experiences of these "pathological accidents."

Spontaneous Version after Rupture of Membranes.

Dr. John Morrison (Bannockburn) writes: I have read with considerable interest Dr. Crawford's "Notes on One Thousand Cases of Instrumental Labour" (British Medical Journal, May 28th, p. 1280), and especially that part of his paper in which he describes how, after rupturing the membranes, the rush of waters caused the child to perform a somersault *in utero*. I had a similar experience some years ago. My case was that of a multipara with a large, roomy pelvis. The midwife, who sent for me, said that the patient had been in labour a long time and that the pains were "doing her no good." I made out the presentation as a head, and that the delay was due to an excessive amount of liquor amnii. I ruptured the membranes and withdrew my hand. There was a gush of fluid, and, to my surprise, on making another examination, I found a "footling" presentation. I mentioned the case to several of my colleagues, but was chaffed so unmercifully about my "acrobatic fetus" that I made up my mind to say no more about it. Dr. Crawford's experience is my excuse for putting it on record. While on the subject of experiences, I may say that some time ago I attended a woman in her second confinement. Her nurse was her first child, who had reached the age of 22 years and who was at the time suckling her own firstborn.

Child Emigration.

Dr. B. Dunlop (Brasted, Kent) writes: In his interesting reply (p. 1206) to my letter in the Journal of April 23rd, Dr. George Johnston indicates that only "in cases of orphans and other children thrown entirely upon the hands of the Poor Law authorities" could anything like compulsory child emigration be recommended. He does not, however, deal with my contention that public assistance to "dependent children"—certainly public assistance beyond free education and free dispensary treatment—must, for the reasons I gave, bring us rapidly either to national disaster or to Socialism. In all cases where, in spite of due warning, children are sent to school insufficiently fed, clothed, or cared for, their emigration should be enforced; the alternatives being, so far as I can see, segregation for life or continuance of the home neglect. If Dr. Johnston be a Socialist I can understand him pursuing their policy of urging on the Individualists to ruinous charitable schemes, cooly pretending—or leaving the thoughtless to assume—that under a Socialistic régime chronic poverty would be checked without any infringement of the liberty of the subject. If, however, he be an Individualist, he must be holding a view I wish I could share with him, namely, that a thorough public maintenance of the children of the poor would make them self-dependent citizens who would voluntary emigrate the moment they became unemployed, and would be above accepting readily any available public assistance for their children in the next generation.

Motor Dust and Diarrhoea.

Dr. J. Aikman (Guernsey) writes: Your note on the influence of the motor car on the increase of tetanus interested me as an explanation which I have attempted to give concerning the incidence of a winter diarrhoea. The disease was quite a marked feature during the winters of 1906–7 and 1908–9, but was commonly thought to be a form of influenza, as it was attended by marked fever and followed by prostration. The stools were like those of summer diarrhoea, and the onset was just as sudden. It did not specially attack children, and the mortality, when it did, was not as high as is usual during the summer. The rainfall of these two years was low, that of 1908 being the lowest since 1870, hence they favoured the raising of dust by motors. During the winter the growth of the dust-contained organisms is less active than in the summer, which might account for the diminished virulence or fatality of the disease. I also noted that during last summer (1909), which was dry, there was less infantile diarrhoea than usual. Adults, being out more after dark, are more exposed to the dust in the roads during the winter than children are. Perhaps it was for this reason that the disease was more marked in them. The converse—that children suffer more in the summer—raises the question whether toleration has any influence. It surely does result from frequent exposure to lesser doses of organic poisons which the system has been educated to control. I should be glad to hear if my experience has been exceptional, as an individual experience may be.

The Causation of Sex.

T. W. B. writes, in reference to the communication from "J. A. W." in the Journal of May 21st, page 1272: Bee cells of wax combe are constructed by the worker bees in three different sizes for each colony of bees, the largest for the queen; next in size come the drone cells for the male bees, and, most numerous, the smallest cells of the worker bee. There is but one queen retained in each colony, and, if she is strong and fertile after cohabiting with a drone, she will lay upwards of 3,000 eggs a day, one in each cell, indiscriminately in all available cells. These eggs, of course, do not differ in composition, and yet three different kinds of bees are produced from them. The queen is fed on special food (to make her strong and fit for her great task of laying some 5,000 eggs to make up a strong colony of bees) by the worker bees during her "grub stage," but I do not agree with the theory held by so many of my fellow beekeepers that the so-called bee-jelly feeding accounts for her sex. I am of opinion that according to the *size* and formation of the cells will the sex be, according to the moulds in which the ova are deposited; and so I take it to be in the female human body, that the moulds forming the corpora lutea are the moulds for fertile ova in the ovaries, and that these moulds may vary sufficiently from period to period as to vary the sex of the progeny of the same father and mother, and, in the case of twins, to produce, according to its each individual mould, both a male and a female from the same impregnation.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page	8	0	0

An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

Note.—It is against the rules of the Post Office to receive *poste Restante* letters addressed either in initials or numbers.

Reflections
ON
FAITH HEALING.

BY
SIR CLIFFORD ALLBUTT, K.C.B., M.D., F.R.S.,
REGIUS PROFESSOR OF PHYSIC, UNIVERSITY OF CAMBRIDGE.

DURING the last few years the various notions which gather about the name of Faith Healing have gained such ascendancy as to command the attention of all thoughtful men, and of those especially who are responsible for the services of religion and medicine. If not in all times and places, yet over long periods of many nations, the offices of religion and medicine have been united, and one not only by connexion, not even by kinship only, but one in unity of source and sanction. The mystic medicine of the Pythagoreans passed to later generations through Plato and Plotinus; and although in the Hippocratic tradition temple medicine and professional medicine developed independently in the Roman Empire, religion and medicine again joined hands in the cults of Aesculapius, Isis, Serapis, and Mithra. The rite of Incubation, using this name broadly to signify ecclesiastical ritual as a means of cure, was revived under the Empire, and flourished with new vogue, intensity, and crudity which it had not known even at Epidaurus, and thus medicine again became subject, or at any rate allied, to religion through the Middle Ages until the Councils of the twelfth century on the clerical side, and the revelations of Vesalius and Harvey on the medical, once more wrenched the two supreme functions formally asunder. Yet such is their affinity, or their sympathy, that now in our own day again, even as we write, religion and medicine are kissing each other.

As in the age of the Antonines, as under the Byzantine emperors, as in the days of Gregory of Tours, these confusions of medicine with religion mystified medicine and polluted religion with superstitions, well may we ask ourselves if in the recrudescence of to-day also there may not be much that is reactionary and fraught with the evils which are bred of corruption, or, at any rate, of error? But at the same time we shall inquire no less carefully if in it may have survived much that is useful or even precious which, in the exclusive pursuit of either religion or medicine, had been lost or obscured—some infiltration of elements which, if suppressed, break into a ferment. The outbreak of faith healing and the conditions of the outbreak in the twentieth and in the second century present so many features in common that we may reverently ask ourselves if in these times and those some vital elements of human nature and of divine inspiration had thus again and again burst forth upon a starved experience? Or are we to conclude that the reaction is due to a vice of superstition in man so ineradicable that long ages of moral culture have failed to quench it?

Such questions and the matters of practice depending upon them are so urgent and so momentous that, notwithstanding a deep personal reluctance in one who is not a religious teacher to argue about spiritual experience, and that after long thought I do not feel sanguine of compassing more than our reasonable intuitions have already attained in practice, it would be an unworthy hesitation when formally called upon to refuse to consider this problem, however imperfectly. And having set out to speak there is nothing for it but to speak plainly.

Of the common features of which I have spoken there is one on which we cannot but pause, namely that, under the Roman Empire as in our own time, the recrudescence of miraculous medicine—that is, of medicine by way of religious rites—has coincided with the time of eclipse, or at any rate of instability, of religious doctrines; and of change in our conception of the Divine Nature. It is in eras when analytic and critical reason has failed to nourish the creative reason, and science is but enlarging the material conditions of societies, that we shall beware lest a yearning for spiritual life long repressed or ignored, or a blind rebellion against irremediable ills, should flow with force so irresistible as to sweep mankind beyond religion into superstition. Now if, as Dr. Fraser proves to us, provisional superstitions among rudimentary peoples are stages in development, relapses into superstition on the contrary signify and indeed propagate corruption. When divine fervour is cooling the heart seeks warmth in the thrills of witchery.

Now as we cannot discuss any subject profitably until we have defined its terms, we cannot discuss Faith Healing until we have defined what we mean by Faith—of Healing we will speak hereafter.

By "The Faith" a religious society has generally intended an intellectual assent to a code of definite propositions, and has always been fairly content with this legalist acquiescence, preferring it, indeed, to less orthodox saintliness: naturally, because these chains of logic are the bonds of the edifice. But "faith healing" in all times has concerned itself little with intellectual schemes; the function has been notoriously independent of particular religious societies, or of any one society; its wonders have been wrought, and are wrought under, and consistently with, any set of opinions—orthodox, pagan, or bizarre. Of the miracles of Our Lord we shall agree this is not the place to speak. The wonder cures of Epidaurus, of the Tiber Island, of Apollonius of Tyana, of the medieval saints—as read abundantly in Migne and elsewhere—of Oriental magic, of savage dances and chants, as well as of modern pilgrims, Irvingists, Eddyists,* Emmanuelists, and the rest, are in nature and event alike; and thus in considering them we find ourselves concerned not with thought, not with creeds, but with passion in various guises. Even in times like our own, when the claims of the critical and analytic intellect are predominant, this uprush of hope and will is copious even when springing from no religious system, but from more rationalist origins; as from the methods of the Spa, for instance, of the Dietetist, of the Gymnast, of the Electrician, and so forth.

What, then, are the common elements animating all these issues? The answer to this question is beset with grave preliminary difficulties, difficulties which involve the deepest problems of our nature and dwelling place. In the first place we must not only admit but realize that although we have to act continually beyond knowledge, perhaps in every important work, yet we ought never to act contrary to knowledge; we must never act contrary to what is, relatively for each of us individually, the best of our knowledge. Not only so, but we must try to delineate, or at least to sketch what we know, and to distinguish it from what we do not, and even cannot, know. For instance, to say that time and space have no objective existence, but are only modes of our cognition, is beyond knowledge, but not contrary to knowledge; while to seek to know the origin of evil, the reconciliation of freewill and determinism, the distinction of the material and the spiritual, is bootless, for, so far as we can see, the solution of these and such mysteries will always lie outside the scope of our earthly understanding. Yet, notwithstanding, as consequences of great practical moment depend upon the sense in which we regard these antinomies, we have always to act in their regard in some measure beyond knowledge. In life we are met by these antinomies at every step and in every hour; we have, therefore, to make with them a provisional truce, and to perceive that while we can foresee no reconciliation between good and evil, freewill and determinism, material and spiritual, we can frame a working rule in the contrasts of their extremer and more emancipated terms. As Professor Hobhouse has said, our theory of life cannot be complete and consistent; we have, therefore, at various stages of development, "to counterfeit finality." For example, concerning the antinomy of matter and spirit: as in the lowest material categories there is an imperceptible trace of mind-stuff, so in the most spiritual some fine woof of the material is inevitably and continuously implied. Spiritual gifts may or may not consist in the insertion of a new entity, they certainly do consist in a reanimation and remodelling of thinking matter in the uppermost strands of the brain, and probably of some other, perhaps even of all the other, molecular activities of the body. Probably no limb, no viscus is so far a vessel of dishonour as to lie wholly outside the renewals of the spirit; and to an infinite intelligence every accession of spiritual life would be apparent in a new harmony (*συγγυμνασία*) of each and all of the metabolic streams and confluences of the body. On this conviction it is that the hopes and methods of faith healing depend. Conversely, every man who watches his own life must know

* We cannot, I think, allow the profession of "Christian Science" to be monopolized by any sect.

this, as in time of weariness or pain he grieves over the drooping of his soul—that the highest spiritual life depends on the highest bodily health; but this health means, not health only of the belly, not only health of the heart and common brain, but also of the rarest and most exquisite textures of the cerebral web. If in a rude health of the grosser body these subtlest parts have not been exercised and cherished, the total harmony is diminished; highly efficient as, on lower planes, the particular body may be, it is defective in comprehensions, it is an inconsummate body. To this "materialism" of the body, even on its most spiritual planes of structure, we must not close our eyes lest in our search beyond knowledge we walk contrary to knowledge. "To pray well," said the noble Teresa, "one must eat well and sleep well." If into the last analysis the Pauline division between the carnal and the spiritual cannot be carried, if under the relations of other times and of other ideas we have to reinterpret it, yet still in its broader contrasts it points out a plain way of life and conduct—one so plain that the perplexities of the middle terms may be left to the casuist.

It must be granted, then, in respect of faith healing, that spiritual influences, divine directly, or indirectly through human mediation, may to some unknown power radiate from these highest currents downward through the more and more "material" planes, arousing them less and less as they have become more and more statical in order. But, while we grant this, we must first be sure, as we shall presently see, that we have exhausted certain other conditions, more physiological than transcendent, which certainly go far to explain the cases of faith healing, and may within limits suffice to explain them.

Now these things being so, if we are to be careful not to act contrary to knowledge, we know, and must candidly say, that the physical life of a sick man depends, not upon prayer, but upon the timely arrival of the physician with the antidote, upon the hoofs of his horse. In bitter certainty we know that the mother who in the hour of crisis betakes herself to prayer only will lose the child which is spared to the prayerless mother who had learned the path of infection and how to outwit it. And since we have discovered the paths of malaria, of yellow fever, of diphtheria, have we not learned also that to stay these plagues no pageantry nor humiliations will serve us, but to look to our serums and our water-butts? By no invocations can we even think to reach and to purify the cradles of disease; yet in the sphere of prevention lies the future of medicine. These words are spoken not in irreverence—God forbid—rather, I trust, in the deepest reverence of hoping on beyond knowledge, indeed, but at the same time of working in loyalty to such knowledge as we have, and of never working contrary to knowledge.

These antinomies are, then, not so much flat contradictions as contrary movements between the lowest and the highest planes; they are points of perspective, the material rising to the spiritual, the rigidly determined to expanding freedom, positive evil to relative good. For if now we proceed to the antinomy between freewill and determinism we shall observe likewise that if in the lower categories of natural structure and forces we feel ourselves in bondage to "mechanism,"* we perceive no less assuredly that, as consciousness and comparison of motives begin, we enter upon a new order, and as we attain to higher spheres of spiritual activity the divine immanent in all Nature becomes more free and radiant. Between freedom and uniformity there is no necessary discord. In the spiritual life we now find all, and more than all, the freedom we can make use of.

And is it not in this manner that we may contemplate the most terrible of these antinomies, that most poignant of the doubts which perplex us, the conflict of good and evil? The darkest hours of our spiritual lives have surely been not in the concern of intellectual difficulties, but in the cry of sorrow, pain, and ruin. To say that in the desolations of San Francisco and Messina, in the blind suffocation of Martinique, in the blighting of the child in the arms of its mother, we are to read the signs of God's vengeance, or to accept the formula, which experience continually refutes, that He makes this evil, this ruin, that He may overrule it for good, is not only to do violence to our own trust in the Father who pities the fallin sparrow, but it is to gainsay the judgement of Our Lor concerning the fall of the Tower of Siloam, which mad no selection of sinners; it is to dishonour the Gospel, t forsake reason for sophistry, and not to hope beyon knowledge, but to judge contrary to knowledge. For u indeed, the Father is not God as He seemed to the ruthles Elijah, yet even He was not in the wind, nor in th earthquake, nor in the fire.

To put limits to what God can do were presumptio indeed; but we must try to see with eyes open what Go wills and what He does not will. Of the tenets of th followers of Mrs. Eddy I know too little to speak wit assurance; but it is said that they endeavour to repel c evade the assaults of material evil by persuading them selves that it does not exist, that it is a spectre engendere in the warped and sinful medium of man's understandin Deeply as we may sympathize with the hearts whic will not attribute to God acts or implications which revol our highest ethical instincts, which cannot see in th earthquake infinite love, this denial of the plainest fact of life is too audacious an imagination to serve us in th interpretation of disease. This is not to hope beyon knowledge, but to defy knowledge, and the humbles truth must go before the noblest error. When we refus to face facts all is lost; we may not hypnotize ourselves.

Then how does an ascent to the higher planes o spiritual apprehension help us to understand or to with stand these terrible conflicts of the best and the worst i and about us? Well, to me it appears that our light an consolation are in this: that the conceptions of all th religions have been and still are too static; that, as in al else, our conceptions are expanding from those of Bein to those of Becoming; to apprehend that the Divine Son has striven with Chaos, as in its microcosm the huma soul is striving; that even for God Himself the Cross wa on the way of perfection. And if to any reader such a meditation seems untimely or overstrained I must plead that by this way only have I been able to gain a foothold or to give a provisional answer to the problems on which thoughtful men are seeking counsel and, amid their failures and afflictions, consolation.

If, then, we are to face the facts, if these mutually com plementary disengagements of the spiritual from the material, alike in the universe as in the microcosm of man are practically valid, then the power and range of praye must be directed not to our natural strife against carna evil, but towards these spiritual disengagements, towards that sphere wherein the human and the divine spirits meet each other, love, and seek unity. We shall not pray then, for things frankly material, but for spiritual gifts not for the setting of a bone, nor even for the renovation of a withered or a poisoned film of brain, but for conformity with the divine will, and for that communion with God which seems to be one of the most assured of those moral probabilities which mould our lives. Congregations of to-day would be taken aback to hear the prayers for change of weather which in my childhood were customary, as our children will cease to pray for deliverance from plague, battle, and tempest, but to be delivered from envy, blindness of heart, and uncharitableness. The prayers of Our Lord were directed rarely and scantily to the material side of life. "Give us our daily bread" was but the elementary condition of a prayer for spiritual gifts. And in the Psalms, that mine of prayer and adoration, the few material petitions—"that our garners may be full," or that we "may go upon the lion and the adder"—are plainly metaphorical.

If, then, in medicine the spiritual is never wholly divested of the material, and the material is never wholly withdrawn from the influence of the spirit, yet in practice we discover that to avoid dilemma we must distribute a certain range to each aspect of the compound function. And on returning now to the chief question before us—Is prayer effectual for the corporeal needs of the sick?—we will proceed to consider the provisional demur already signified—that before yielding to the temptation, which besets us all, of transcendental solutions, we must exhaust those nearer explanations which we call physiological. It is probably true that, by reinforcement and harmonizing of that part of the vital web which ministers to the spiritual life, we may pour out energy into certain other saving capacities of the human body—

* This term, which vitiates most modern philosophy, I use to be readily understood; but mechanism, however vast, is but an extension of man's hand, without which it is nothing.

processes wherein "thoughts touch their effects." I saw it assumed in a recent essay on this matter, that on the sick bed good Christian men and women make better recoveries and surmount their physical ills better than the irreligious. This is my experience only thus far—that while a calm and happy temper is conducive to therapeutical succour, rebellious agitation is contrary to it; for my part, by the sick bed of saintly men I have observed that in not a few of them the instinct of self-preservation continued so strong that in spite of divine hope they clung to life; yet not more successfully than men of coarser habit who stretch out their days by strength of will and worldly desire. I am not convinced that spiritual inspiration, as such, is directed with any specific quality even towards bodily survival, still less to repair damaged limbs or tissues; though perhaps this conclusion is to be accepted with some reserve in respect of those highest cerebral films which are more especially the seat of that "innermost" wherein lie conscience, spiritual freedom, and the vision of God. Yet we see daily that when these textures themselves are in decay, or poisoned, the instrument of the soul is broken, and access to divine aid is lost in the utmost need. And this not in "insanity" only, but in many another malady, indirectly dimming the fairness of the mirror.

Be this as it may, the "lower," the more mechanical the lesion—a broken bone, for instance—the less can we count even upon the mediate healing of spiritual influences, not even upon those effects of sympathy and encouragement whereby, humanly speaking, fading and vacillating forces are fortified and replenished. Speaking broadly, it is in the fields of functional disease that we shall anticipate, and that we find, the most striking effects of spiritual influences; and then to less and less degrees about the functional fringes of diseases more and more static—in cases, that is, in which, although equilibrium, local or general, is disturbed, stability is not lost. But from diseases of this class a very large deduction has at first to be made for coincidence—for the *post hoc, propter hoc*. And even in those in which the beneficent effect of "faith" seems indisputable, we shall assume no miracle, no insertion of a new entity, no dislocation of natural order; but inquire more particularly what, if any, effects within this order we may expect from the "mind upon the body." In ancient times this question was soon answered; the soul differed from the body only as gaseous matter differed from solid. The pneuma, the breath of life, was familiarly seen to enter and to leave the body, and new volumes of the pneuma were to be sought, perchance from the heavens. We no longer believe ourselves able to call forth and convey entities thus; what we do believe is that we can call forth latent potentials, release energies, and trim sails to their breezes. In our modern logic we are wont to divide too much human faculties which act together or in fusion; still, it is true that, if reason be at the helm, the breezes spring from the emotions. Without passion to fill his sails the helmsman makes no voyage. How, then—for faith healing is no mere speculation, but means business—how is it to be done? If the wonder cures are not miracles, how are we to account for them? Before we incline to miraculous intervention what capacities are there in physician and patient whereby a failing vitality may be fanned, and whereby even a local lesion may conceivably be affected? It seems to me that there are such material means, and that they are at least threefold; I will call them Solace, Reanimation, and Readjustment.

Of solace, of the calming of fret, of the gentle hand for the body and the gentle voice for the heart, few words are needed. By solace energy running to waste is spared. For his reflecting brain man must pay the cost. By reflection his pain is infinitely multiplied; we suffer ten times over; pain and sorrows are fanned by regrets and by forebodings, and to their inroads is added the weariness of inhibitory controls. Solace at any rate we shall be content to call humane therapeutics.

Reanimation depends on that principle of "reserve," in each organ of the body and in the organism as a whole, on which for medical readers I need not dwell at length. It is well known to experimenters in ablation that a fragment of an organ left behind makes itself felt in their results; that often for a time the specific quality of it may persist in something like full measure. In common therapeutics we are wont to liberate such reserves by drugs like digitalis, or strychnine, by certain "physical" methods, and so forth. As I have said, an organ, a psychical organ for instance, or higher association web, may for lack of a stimulant, ethical or other, recede, and yet be capable, on the access of such a stimulant, of re-entering the functional concert. I think it cannot be doubted that the existence in almost all patients of unexpected reserves of potential energy, especially in maladies partaking more or less of the nature of hysteria, is a large factor in the results attributed to "faith healing." For in all disease, eminently of course in chronic disease, parts and functions not directly impaired, whether by contraction of receptive fields or by lapse of associative strands, tend to sink into inactivity. When we entreat the patient to "make an effort," it is to encourage him to keep alive every function over which he may still retain any control. For example, in tabes many limbs and parts of limbs outside the ring of the fixed disease tend to slip into a common indolence with those which are irreparable; and the physician knows that by re education on this margin a surprising measure and kind of efficiency can, even at later stages of the malady, be recalled. In the defect of the damaged parts those in functional abeyance may, it is true, be of no great or immediate usefulness, yet we find that to reanimate is not only to multiply the will power by pouring fresh streams of energy into the system, but even to gain some advantage over the malady itself. Thus in many a severe functional malady, to arouse latent reserves by a rekindling of hope and courage may compass a marvellous cure, and a lively rally even in some by nature incurable.

Of such are the reserves; now as to readjustment of the balance of forces. If we imagine the human system in its swift orbit and mutually reciprocating parts we shall see it revolving about some centre, and we shall desire to see it in each of us revolving about its ideal centre, and in some larger concert than the individual life. But how often is this so? Which of us can hope that his more exalted functions have, as a spiritual gyroscope, so habitually governed the commoner and the meaner that his life has not generally, or too frequently, found its centre of revolution at or about some lower point? Now it is a curious inquiry in physiology, and one which, as we have seen under "reserves," is of chief importance in our present inquiry, how far and for how long a considerable function may run at low speed, or even fall out of gear, without withering; and still, after the lapse of time, of years perhaps, be ready to bound suddenly back into the system, even with accumulated intensity. On the spiritual side the unquestionably genuine phenomena of Conversion point to such changes, to new tides so swift and voluminous as to swing the system out of previous equipoises, and to move to some larger measure. And if unhappily the new equilibrium be too often transitory, if too often the bondage of older habit drags the system down again to its former and lower mean position, yet in many instances the new position is maintained permanently. The annals of our own times, the annals of our Churches and religious "Armies," are rich in such witness.

Now it appears to me that the phenomena of "conversion" are in the spiritual life like to, and indeed partially identical with, those of disordered or oblique bodily balance. In hysteria—the most notable sphere of such phenomena—larger or smaller receptive fields are shut off, so that their corresponding centres, though still supplied with blood, are in abeyance; they stand out of gear. Then all at once —as a fluid may suddenly freeze at the tap of a finger, as an electric coherer may be shaken into activity, or as a jar to a kaleidoscope may transfigure its picture, so all at once the parts shut off may slip back into gear, and the system rise to revolve about a correspondingly higher centre. In the spiritual life we call this change regeneration; in the sphere of functional disease we call it cure; often a wonder-cure. We have seen that even the purest spiritual life depends upon bodily integrity; unless all the organs and tissues are there, and relatively complete, the transformation cannot take place, and the system can revolve only about some inferior centre. Without, substance that, if dormant, is sound, there is no "point de prise."

So far, then, as the malady depends upon suspension or arrest of parts, the cure depends upon their being still potentially efficient and available when the new impulse stings the dormant periphery into sensation. Thus the magnetism, the call, or the alarm which makes the hysterical paralytic leap up, will not make the man walk whose leg is broken, or whose motor centre is poisoned. Or if, under great exaltation of heart he were to stagger to his feet his effort would be brief and evil. And thus again the healing balm for the sorrowful heart will fail to comfort the melancholic in whom the corresponding part of the psychical texture is torn or poisoned.

Now, although much of what has been said applies both to reserves and to perverted balance, yet we know by clinical experience that to call out reserves and to transform equilibrium respectively requires, as a rule, different means. Speaking now in that emotional field with which we are occupied, we perceive that while sympathy and ardour may call out reserves, to alter balance we must often exhibit something of a collision, a shock or surprise, pleasurable or even painful. Thus, highly-charged particles may be released and the composition of forces transformed as by a detonation. I suspect it will be found that all notable wonder-cures have been of this nature, or of the nature of astonishment; moreover, that they have been effected in hysteria, that amazing mimic of all and any disease. So Charcot, with his illustrations from Lourdes, was wont to assure us, and later experience has convinced me that his doctrine is true in the main. But the method of astonishment would not by any means be appropriate to the relief of the faint-hearted whose reserves we desire to call out; in most cases it would prove injurious.

It is in those lapses, melancholies, or ecstasies in which hysteria often begins, whims which Teresa regarded as the chief perils of the conventual life, that the domination of a stronger will—a "magnetic personality"—often prevails. Teresa declared that all this "letting oneself go" came of "sick brains"; and physiologically we know that in functional disease, in order to force open torpid functions, we often have to shut down certain lower issues through which energy is running to waste; so that love is only complete in a certain austerity. She warned the religious that "if the body be neglected it takes a terrible revenge upon the soul." She gently taunted a certain prioress with the words, "If I were with you you would not have so many of these extraordinary phenomena." "Suspect," she said, "everything which weakens the use of our reason; for by such a way we shall never attain to the liberty of the spirit." And her curative measures were as vigorous as her preventive; she began by assuring the visionaries that their brilliant humiliations were not in the least interesting, while the ardent worker or ascetic she would warn more gently that not till the harm is done will the strain of the endurance make itself felt. Very wise medicine, in all such ministrations to be remembered.

Now as Teresa thus recognized hysteria in all its guises, she disdained to assail it with prayer and ritual. She affirmed that to turn prayer and religious ceremony to impose upon these fantastic folk was to degrade it. It was by mundane methods that she brought them to their senses, quelled their fits, and dissipated their palsies.

Once more, it is said that in his "subliminal self" man possesses a substance peculiarly divine, or a substance or means through which we may reach divine communion, or through which especially divine purposes may be fulfilled in us. It is true that we do not know even approximately the content of the individual man, of the materials racially and personally acquired, the products of past experience, racial and personal, built sensibly and insensibly into his personality. May we not each of us be compared with a ship which began its voyage with no inconsiderable rudimentary equipment, then, calling at many a port, has gathered many kinds of stores and treasure? Of some of these stores, of some variety of them, the supercargo has a recollection, especially of those in frequent use; but, for the most part, the bills of lading had been lost. Unlike a cargo, however, these contents are not a passive burden, but a system of coefficients; some on planes which we commonly call material; some on spiritual planes; some working on the surface, some working stealthily within; so that much tact and insight are necessary to unveil and to reanimate those agencies in whose abeyance disorder or ineffectualness may happen to consist. And the influences which are to effect these revivals must be akin in nature to these kinds respectively; some must be solidly material—such as splints or drugs—some must be religious, moral, and even intellectual, yet inspired by emotion, by appeal to hope and joy; and their instruments must be devotion, sympathy, gladness, reasonable persuasion, and even surprise.

We have said that, although we do not know the contents of the individual vessel by the list, they are either freely or potentially active. Moreover, we know that each individual is by itself impotent; that, indeed, solitary confinement will derange and kill the individual. For its life, whether as a whole or in its parts, the mutual play of individuals one with another is a necessary condition. Furthermore, if about any one individual the play of the associated individuals is only partial, so that certain of its receptive fields are outside the play of common association, these unstimulated parts will fall into abeyance; though, if the activity of the whole be not gravely impaired, they are kept alive in the systemic ("subconscious") life, and will be ready to glow with animation again when kindred vibrations awaken them. Thus I have often spoken of individuals as the "synapses" of the social body, synapses endowed with instinctive affinities by which we awaken and kindle each other, and so cumulatively animate the whole social system. Now some persons—the "magnetic"—are peculiarly endowed with richer or intenser degrees of these instinctive "synaptic" affinities, and have thus rare and even singular faculties of awakening and stimulating others. Such persons are likely to enter the clerical or medical professions, and therein to multiply these faculties, and to use them for the refreshment of the sick and the sorrowful.

And if of those so happily endowed the light of the eye, the touch of the hand may impart marvels of refreshment and comfort, yet for the many less fortunate ministers to whom this measure of virtue is not given we may have to build up some standard of expression and form, a standard which shall be in itself impressive, radiant, gracious, and informed with the memorials of the past. For this service it may be true that to awaken our highest functions, whether we be sick in body or in mind, some form of words and ceremony may be necessary. For we perceive, no doubt, that beautiful forms, which for some persons at any rate, have lost much of their meaning, may for others effect more than the shy lispings of the most benevolent extempore minister. Yet the ultimate danger of forms is great—lest they become the armour of Saul! For as men are prone to believe that the internal significance will always follow the external performance, ritual insensibly supplants ethics, and we go astray upon the confines of thaumaturgy and magic. Formulate it as we may, faith healing consists in part in sympathy, in love, in active devotion; in part in comprehensible medical and surgical skill; but also in part in dispelling spiritual torpor, and in emotional surprise; and for these uses we may find a genuine ally in ordered and even ceremonial appeals to the heart and imagination. But we shall shrink from anything like bamboozling our patients with pretentious apparatus, we shall withdraw from hieratic artifices and all practices akin to imposture, remembering Lavoisier's true saying that "Medicine came into the world with a twin brother called Charlatanism."

For the hysteric at any rate the bedchamber is unwholesome; the disease, engendered of isolations, is fostered by the seclusion; in social suggestion lies its cure. For the sick and afflicted, on the contrary, peace and rest are restorative; and in the solitary chamber, where the stimulating synaptic vibrations of common life are muffled and remote, social "suggestion" is suspended. Therefore in the main the piety of the sick bed is a passive piety, the spirit is drooping; and then it is that a renewal or economy of energy—of emotion—both in the patient and his ministers is efficacious, "lest his brethren's heart faint as his heart." Even in health some men cannot play a losing game. At such moments and in this solemn seclusion a "synapsis" with spiritual issues, an inspiring touch to higher apprehensions may through the soul revive the animal spirits. Yet here again unless the faculty of spiritual conversation, a habit which like other attainments depends on exercise, had been formed in the health needful to its full practice it will be hard work in sickness to

attain to it. The physician knows ... ant delusion than to suppose sickness ... ient season for inspiration; it is rather a sea... or of despondency—*Domine quid multiplicas*... the mystic quietism of the bedridden is ... virile enthusiasm; it is pallid and tenuous in fi... it is true no doubt that the solitary and disc... heart, closed to common circumstance, may be mo... eptible to other appeals, may offer less resistance; s..., as we have seen, unknown wells of energy may be ta...ed and fading and vacillating forces replenished. Then it is that the influence of a clerical minister, of a gentle friend or Bible-woman—brief angels' visits lifting up human hope and love into Divine love—may be twice blessed, blessed materially and spiritually. But even then the physician can take no active part in hypnotizing the smitten sufferer with promises of corporeal repair. Indeed in the more formal spiritual ministrations his part can never be direct; they are not obviously his business, and even a religious patient resents the divided mind. Notwithstanding, the sick man does feel dimly that diagnosis limited to material phenomena is imperfect; that its insight ought to penetrate to mental and spiritual as well as to bodily conditions; and he would say, did he know how, Do you understand *me*, or am I only a case? This seems to be our modest part in faith healing; and with it these reflections must end. How tentative and inconclusive they are no one is more painfully aware than the writer himself.

"SUGGESTION" IN THE TREATMENT OF DISEASE.

BY

SIR HENRY MORRIS, BART., M.B., F.R.C.S.,

EX-PRESIDENT OF THE ROYAL COLLEGE OF SURGEONS; CONSULTING SURGEON, MIDDLESEX HOSPITAL.

ALTHOUGH the theory of faith healing differs from the theory of Christian Science, and that again from the theories of mesmerism, hypnotism, and animal magnetism, there is one thing which is common to them all, namely, the power of "suggestion." And by suggestion is here meant the enforcing influence of an idea.

Faith healing and Christian Science may be grouped under the term, "religious suggestion." Mesmerism, animal magnetism, etc., are now commonly spoken of as "hypnotic suggestion." All are included under "mental healing." In each of the methods of mental healing the curative effect seems to be brought about by the influence of some strong or vivid idea, of some subtle energy other than physical, upon the abnormal or morbid states of the body. To attempt to answer the question, "What is the psychological process by which this power or energy—'suggestion'—works the cure?" would require a consideration of the theories of "unconscious mind," of "unconscious cerebration," and of "dual mind," or in other words, the relation of the conscious or objective side of the mind to the subjective or subconscious side. It must suffice to say here that the most accredited theory at the present time as to the states of mind induced by hypnotic or religious suggestion is that the objective side is thrown into abeyance, whilst the subjective is brought into a condition which enables it to receive suggestions.

The readiness with which the subjective mind can be reached varies greatly in different races of men and in different persons of the same race. The French, for instance, are found to be more susceptible than the English. Some persons pass spontaneously into the hypnotic state, others are not at all amenable to either hypnotic or religious suggestion. Some are affected against their will; others, though willing and even anxious to be hypnotized, remain unaffected.

Esdaile, it is said, on one occasion hypnotized a man in open court behind his back and without his knowledge. Some operators are more successful than others. Some cannot hypnotize at all. Thus, it would seem that in some individuals the objective mind cannot be put into abeyance either at the wish of the person himself or at the will of another. Again, different subjects, even though susceptible to an equal degree, show very different phenomena under the influence of hypnotism. In some, ordinary consciousness is lost, and sleep, trance, catalepsy, or somnambulism results, the subject rendering absolute obedience to the operator and on waking being unaware of what has passed. In others the effect of suggestion is marked by an exalted intellectual or emotional power, or by the acuteness of one or other of the special senses being so heightened that the subject is able to do things which he is quite incapable of doing in his ordinary state.

MENTAL SUGGESTION.

Hypnotic and religious suggestion are quite different from what is understood in metaphysics as mental suggestion. In psychology and metaphysics the term "mental suggestion" is used as the equivalent of "mental association" or the "association of ideas." It is employed to account generally for the facts of mental life, and to express in a general way the principle which Berkeley applied specially to the problem of visual perception—namely, that one idea may suggest another idea to the mind if these two ideas have been associated together frequently; and that, too, without our having any proof of the necessity of their co-existence, and without even knowing what it is that makes them co-exist.

The principle of "association of ideas" was pointed out by Aristotle, but the expression was first employed by Locke. Subsequent philosophers, especially Hamilton and Hartley, urged that association extends beyond ideas or thoughts proper to every class of mental states.

Hartley being a physician by profession as well as a metaphysician, in his *Observations on Man*, published in 1749, combined the doctrine of mental association with a detailed hypothesis as to the corresponding action of the nervous system, and he enunciated the principle that any sensation frequently associated with another sensation will, when presented alone, call up in the mind the ideas which are excited by that other sensation also. James Mill carried the doctrine still further than Hamilton, Hartley, and Berkeley, and held that "some ideas are by frequency and strength of association so closely combined that they cannot be separated; if one exists the other exists along with it, in spite of whatever effort we make to disjoin them." And John Stuart Mill made the same statement, though in somewhat more guarded terms, as to the "inseparable" character of the association of certain mental states.

Thus it is apparent that "suggestion" as a force in producing mental cures concerns the influence exercised by another person, or by some other external agency, upon the mental and physical states of an individual; whereas "mental suggestion" is the spontaneous recurrence of trains of thought in the same individual. "Mental suggestion" is a psychological process absolutely distinct from hypnotic and religious suggestion. Indeed John Stuart Mill sought to prove that "inseparable association" is the ground of our belief in an external objective world; whereas Christian Science denies *in toto* the existence of such a world, and under the term "Mortal Mind," which Mrs. Eddy uses as "the specific term for error," she refers to the body and to the whole material world as non-existent.

HYPNOTIC SUGGESTION.

Suggestion as a powerful agency was not unknown to Mesmer, but its significance was overlooked by the earlier Mesmerists, who adopted instead the theory of the "magnetic fluid" in explaining their influence over patients.

James Braid, of Manchester, who, in 1841, originated the word "hypnotism," denied that the mesmeric phenomena were caused by the "magnetic fluid," though he himself made use of mesmeric "passes." Braid, the hypnotist, the propounder of the theory of "nerve sleep," appreciated the importance of suggestion better than Mesmer; and Braid's followers, who anticipated the celebrated Nancy school of hypnotists, developed the theory of suggestion to a considerable degree. According to Braid, "the sleeper" shows "physical manifestations of the suggestion received through words, or excited by sensible impressions which thereby direct his current of thought"; and he further taught that "definite physical changes could be excited and regulated and controlled at will, according to the suggestion of another person."

In 1851, both Dr. Gregory of Edinburgh and Dr. Hughes Bennett described the phenomena of hypnotism as due to suggestion; and Bennett's view was that the predominating ideas which excite the phenomena of

mesmerism may be either of spontaneous origin or suggested by the words and actions of others.

Dr. Liébault, the founder of the Nancy school (1880) of hypnotists, declared that there is nothing in hypnotism except suggestion. Indeed, most mental scientists of the present day are agreed that the basis of mesmerism and its effects is a marked susceptibility to suggestion, the mind, including the will of the subject, being ready to receive and act upon any idea impressed upon them by the operator.

It is evident from what is now known that animal magnetism, electro-biology, clairvoyance, odic force, mesmerism, and hypnotism are essentially one and the same thing, which has undergone a series of revivals under different names. They all have had the same origin, and the same history; and while the different names predicate different theories, they do not in reality stand for any difference in method.

It would appear that in all ages hypnotism has been known, though not under that name, as a means of curing diseases. It is also known that amongst the Greeks and Romans, and in many Oriental nations in olden times, priests performed cures by throwing people into deep sleep; and that in England in the seventeenth century several individuals claimed to have power of healing the sick by stroking with their hands. Such influences were pretty generally held to be supernatural and connected with religion. Since the eighteenth century the hypnotic state has been induced in a number of ways precisely like those used in producing the mesmeric "crisis." In the latter quarter of the eighteenth century Mesmer and his immediate successors in Paris employed mesmerism as a curative treatment for disease. This practice was stopped by the French Revolution, but about the year 1820 it was again widely adopted in hospitals, and minor operations were performed under its influence. In 1831 a commission of the Académie de Médecine, after an inquiry extending over five years, issued a report in favour of the reality of the mesmeric phenomena. A later inquiry instituted by the same body was, however, followed by an unfavourable report.

In 1843 Esdaile, a Scottish surgeon, successfully made use of mesmerism on a large scale in India as an anaesthetic agent for major operations, though he did not regard it as a remedy for all kinds of diseases. In 1851 Dr. Gregory declared that, in his opinion, hypnotic suggestion had a useful and increasing application in medicine; and in the same year Dr. Hughes Bennett, referring to Esdaile's successful work in India, expressed the view that before long mesmerism would become acknowledged as a rational means of treating diseases. Charcot in 1877–80, when investigating the treatment of hysteria by metal plates, stumbled upon the hypnotic or mesmeric state just as Mesmer himself had done in 1774, and, owing to Charcot's great name and fame, hypnotism took a fresh start in France, and once again became recognized as an orthodox method of treatment. In 1889 an International Hypnotic Congress was held in Paris, and was attended by leading representative men from all Europe and from North and South America. The result of this conference was to give hypnotism a great stimulus and to raise sanguine expectations as to the usefulness of it in medicine. But in spite of the complete vindication and recognition of the reality and existence of the phenomena of mesmerism, and in spite of the thorough trial of it in the treatment of disease at certain epochs between 1820 and 1889, to which I have just alluded, it has never long maintained a hold upon the medical profession. Its successful employment has for the most part been limited to disorders of the nervous system, the relief of pain, the cure of dipsomania, and the production of anaesthesia. The Nancy doctors, after Charcot in 1880 revived attention to the hypnotic or mesmeric condition, employed it in every class of diseases, including the specific fevers, but with inconspicuous success. Charcot came to regard the hypnotic state as a morbid condition allied to hysteria, and abandoned it because, as he said, it did more harm than good, and added to the disorder of already disordered nervous systems. Nor was its utility extended or confirmed by longer experience in the practice of others.

Though hypnotism has from time to time been revived, and there have been periods when it excited great interest on account of its positive effects, it has invariably fallen back again into disfavour, owing to the uncertainty of its action and its failure on a large scale as a therapeutical agent. Moreover, it has been found too dangerous for gen... practice; and in order to produce a st... sufficiently profound for the performance ... operations the patient must be made high... by repeated hypnotization, extending over week... the course of the process he is pretty sure to hav... power permanently enfeebled (Shadwell).

For ... easons the profession as a whole has been fully j... in holding aloof from the practice of hypnoti... and a knowledge of what has been done in the past ought to be an effective discouragement to every proposal to return to it either now or in the future.

RELIGIOUS SUGGESTION.

Religious Suggestion includes (A) Faith Healing, and (B) Christian Science.

A. Faith Healing.

In faith healing the suggestion is that cure will be worked by spiritual or divine power, especially if this power be appealed to at some particular place such as a sanctuary, the foot of an idol, a fountain or pool of water, the resting place of some sacred relics such as the bones of a saint, or, it may be, in presence of the Eucharistic procession or during High Mass or the administration of the Holy Sacrament. Healing power is also believed to reside in the touch of a king, and in that of a seventh son of a seventh son, and also in the incantations of a "wise woman."

This divine power, or energy, is supposed to act by neutralizing or overcoming sickness, disease, and the ill consequences of accidents. The faith healer does not doubt the reality of matter or of diseases, but believes that he can draw upon a spiritual force to subdue or annihilate an existing evil.

Lourdes Cures.

Conspicuous amongst the cases of faith healing are the Lourdes cures.

Charcot describes these as cases of hysteria and of other neuroses, cured by religious suggestion; Bernheim speaks of them as cures by suggestion; Berillon as cures by hypnotism. On the other hand, Dr. Boissarie, the chief of the "Bureau des Constatations" at Lourdes, repudiates all such explanations and declares that they are supernatural effects and nothing less than miracles. Faith healing and hypnotic suggestion, he points out, are forms of "treatment by an idea," exercisable upon only a very limited range of disease. In such healing the only curative intervention is the power possessed by the mind over the body; beyond this range faith healing clashes with that impassable barrier—the laws of Nature. But at Lourdes, he tells us, there is no limitation in the character of the cases cured.

Tumours, wounds, and all sorts of organic diseases in others than neurotic patients, diseases which have resisted all forms and varieties of medical and surgical treatment, are cured, and *cured instantaneously*, at Lourdes. Some of the patients recover after drinking at the spring of the grotto, some after bathing in the pools there, some during the Eucharistic processions, others at or after attending Mass or partaking of the Holy Sacrament, and others again by praying quietly and in solitude at the shrine of the Immaculate Virgin.

Cancers disappear, tuberculous ulcers cicatrize, perforations of the cheek and palate are instantly and perfectly filled up, gastric ulcers heal, the blind are given sight, and suppurating joints, tuberculous peritonitis, necrosis of bones, gangrenous feet, etc, are made well in the twinkling of an eye. Indeed, it seems only necessary for some individuals merely to touch the soil of Lourdes to be instantaneously restored to health. Suggestion, Dr. Boissarie tells us, whether religious or hypnotic, is as a curative agency at best very limited, being confined to patients affected with simple functional troubles, or broken down in health from overwork, whilst serious cases of hysteria may even suffer harm instead of being benefited by it. But at Lourdes there are but few functional troubles, whereas, on the other hand, persons with all sorts of different organic diseases are made well either during their sojourn in the place or after they have returned home therefrom, quite independently of any influence of suggestion.

These supernatural manifestations not only surpass the possibilities of art and science and the ordinary limits of the powers of Nature, but they actually turn the laws of Nature topsy-turvy. The inference to be drawn from

Dr. Boissarie's descriptions is that the miracles performed through the Immaculate Virgin at Lourdes are even more wonderful than those of her Son and His Apostles. Their works, though exceeding in extent the ordinary powers of Nature, never contravened the processes of Nature, as we learn from the readiness with which Christ turned water into wine but refused to change stone into bread, or to cast Himself down from a pinnacle of the temple to prove that the angels who were given charge of Him would bear Him up, and prevent Him suffering any physical hurt.

It is useless to discuss the character of the cases cured at Lourdes, or to dispute the opinions entertained in favour of the view that these cures are of a miraculous and supernatural order. The polemics of the subject will never cease. And certainly it would be foolish to deny the occurrence of extraordinary events at Lourdes, and unwarrantable to question the sincerity and bona fides of Dr. Boissarie and his colleague in charge of the "Bureau des Constatations," from whose notes and records we derive much information. But I confess that, after a careful perusal of Dr. Boissarie's book *L'Oeuvre de Lourdes*, I am not convinced of the correctness of his views or of his interpretation of the remarkable cures he has related therein.

I am in sympathy with the attitude adopted by Professor Fournier and Dr. Besnier, of Paris, to whom the notorious case of Madame Rouchel was referred in 1905. This was a case of lupus of the face with perforations in the cheek and palate, and extensive tuberculation and ulceration of the lips and other parts of the face. The report is that both these perforations were instantaneously healed in so complete a manner that it seemed as if there had never been any loss of substance.

The woman came from Metz, and sometime after her return she was made the subject of debate at a conference of doctors there, at which Dr. Boissarie was present. Dr. Muller, the skin specialist of Metz, in particular declined to accept the case as one of veritable instantaneous cure, in the absence of any medical evidence as to the condition of the disease immediately before the moment of asserted cure. And no one can censure Dr. Muller for his incredulity, seeing that the only evidence in support of the condition of the woman's face just before she was healed was the testimony of a hospital nurse and a *religieuse*, and the casual observation of a bath attendant, a publicist *en route* to the grotto, and a chance visitor to Lourdes in the person of a school teacher. But no medical evidence was forthcoming beyond that contained in certificates, and no medical man had seen the case later than eleven days before the asserted miracle of the instantaneous healing of the perforations in cheek and palate.

The Paris professors mentioned above declined to act as arbitrators in the dispute between Drs. Muller and Boissarie; and although they made a very prolonged and detailed examination of the woman's case, they refused to pronounce an opinion as experts in medicine on what had occurred at Lourdes. They remarked that it is not in the interest of religion to confuse science with religion; but that they should have supposed it would have given the Holy Virgin no more trouble to completely cure the lupus than to fill up the perforations in the cheek and palate, leaving, as she had done, the lupus tubercles on the nose and cheeks and the ulcers on the lips uncured and without improvement.

I gather from Dr. Boissarie's writings as well as from J. K. Huysmans's book, *Les foules de Lourdes*, that it is not the custom for the doctors in attendance at the Bureau des Constatations to examine the pilgrims on arrival at Lourdes, nor, in fact, until the healing is in course of being accomplished, or after it has been actually effected; so that the registers do not contain reports made by the medical attendants from their own personal observation of the patients between the arrival of the patients at Lourdes and their first visit to the grotto. The reports by the patients of their own ailments and of the failure of all previous treatment, read in many instances like sombre fairy tales—they are related with so much emotion and often with ecstatic enthusiasm.

Comparison of Lourdes Cures with Cases met with in Ordinary Practice.

There are none of the magnificent manifestations of Lourdes which I have read of which could not be paralleled by cases in the practice of medical men of wide experience. The case of Mdlle. Lévêgne, claimed by Dr. Boissarie to be one of the most strikingly important ever seen at Lourdes, is easily explained by the escape during the woman's journey or just after her arrival of a fragment of necrosed bone from the inflamed, suppurating, and painful wound.

A case of immediate closure of "a sinus left after appendicitis" is a not uncommon surgical experience in connexion with the escape of a deep suture or ligature which has been keeping open a sinus following an operation, whether of appendectomy or for radical cure of hernia, or for one of many other conditions. The escape of the peccant loop of silk is very likely indeed to be overlooked unless close watch is kept for it, and both nurse and patient are surprised when on removal of the dressing the sinus is found healed.

The case of Mdlle. Rosarie Monnier, a young lady brought to death's door by starvation, is specially accentuated in Huysmans's description of Lourdes as being "une maladie de langueur" not due to any well-defined cause, because the sufferer had been abandoned by science and declared to be beyond the possibility of even the slightest relief. At length, after nineteen years of illness, she had a "sudden intuition that she would obtain her cure from the Immaculate Virgin if she went willingly to Lourdes." She went, and was instantaneously cured on the morning following her arrival, and just after receiving the Holy Communion at the chapel of the hospital of the "Holy Lady of the Seven Sorrows"—the hospital in which she had passed the night.

I am aware of a case which must be perfectly well remembered by a distinguished London physician still in practice, as well as by a member of the profession at Bournemouth, which, except for the youth of the patient and the much shorter duration of the symptoms, was remarkably like that of Mdlle. Monnier. This little girl, the spoilt child of loving and despairing parents, was cured within twelve hours after entering a nursing home in London, to which she was most unwillingly transferred, and where she was most reluctantly allowed to go by her parents.

In my own experience there have been several cases of hysterical or purposive deception, simulating real diseases, which were instantaneously cured, and which in their way are quite as remarkable as those we hear of from Lourdes and other shrines and sanctuaries.

A woman supposed to be hopelessly ill with a communication between her stomach and a dilated renal pelvis was immediately made well by our detecting her spitting finely masticated food into her urine. Another woman who was admitted into the Middlesex Hospital under my charge was supposed to be afflicted with cancer of the uterus and vagina. Her symptoms were discharge and pain, and actual perforation of recto-vaginal and vesico-vaginal septa. She had been ill for years; but she made a most rapid recovery after I removed a candle extinguisher from the upper part of her vagina. An unmarried woman living by herself with her servants had been for a long time the subject of a peculiar skin rash which had frustrated all treatment, and was a puzzling and unique case in the experience of the late Sir Erasmus Wilson. She recovered at once after being seen early one morning on a surprise visit from her medical attendant frictionizing her skin with a piece of pumice stone. Another young lady was sent to me with a chronic sore on her thumb. It had resisted scraping and every sort of medical treatment. One day she was caught hiding away a box containing the sticks of wooden matches sharpened to a fine point. She was charged—and confessed after indignant protestations at being suspected and accused—that she was keeping open this wound by irritating it with the pointed match stems. Her object had been to get away from home for treatment, as she was very unhappy with a newly made stepmother. She was terribly afraid of her fraud becoming known to her relations, and I promised to keep her secret unrevealed to others on condition she came to me in a week with the wound quite sound, and promised never again to make it sore. To the best of my knowledge, we have both been faithful to our vows up to the present time.

A charming and very handsome girl who craved to go on the operatic stage, but was opposed by her family in doing so, was very anxious to take lessons at the Conservatoire of Music. Consent not being given to this

scheme, she became afflicted with a troublesome and persistent sore throat. This excited sympathy, and she was, after a time, permitted to quit her "damp and relaxing" neighbourhood for a residence in Paris. At once, after this "change of air," she gave up applying carbolic acid to her tonsils and fauces, and her sore throat got rapidly and permanently well.

To these cases of feigned or self-induced disease I will add the mention of two cases of immediate recovery from real disease.

A woman absolutely at death's door, pallid and helpless from many repetitions of loss of blood, was admitted into my cancer ward at the Middlesex Hospital. I found the cause of her condition was not cancer, but a large uterine polypus with a slender pedicle and a surface black, roughened, and sloughy from the application of strong ferric astringents. For a day or two I feared even to have her moved on to the operation table. When I did so, and placed her in the lithotomy position, the polypus fell unassisted bodily to the floor, and from that moment she began to get well.

A man who for a long while had been suffering from chronic intestinal obstruction and haemorrhages was admitted into the Middlesex Hospital under me. He had previously been in two large London hospitals, and had been told by surgeons, one a very distinguished man only recently deceased, that he had malignant disease of the rectum, and must be operated upon. He had refused at each of these hospitals to undergo an operation. Colotomy had been the operation proposed to him at one of them. I found he was suffering from a large polypus of the rectum, and its removal at once completely cured him. Many times afterwards he visited the hospital to report himself to me, and was seen by my dressers and house-surgeons in excellent health.

I could add other cases if it were necessary, but those I have mentioned are sufficient, both in number and in character, I think, to justify my scepticism as to the miracles of Lourdes, and as to the remarkable cures there being due to the immediate and direct interposition of the Divinity.

Nor am I tempted to give up my unbelief because "the extraordinary facts of Lourdes" which were communicated to the Holy Father at Rome by Dr. Boissarie on the eve of the Jubilee of the Apparition of the Immaculate Virgin to the shepherdess Bernadette at Lourdes were investigated to the satisfaction of the "Curia," or Court of Inquiry of the Papal See, and thereafter received the seal and confirmation of "The Church."

Nor can I altogether, or even almost, persuade myself to forego forming an independent opinion about these cures, because I am assured on the authority of the Bishop of Tarbes that science has its limits, and that it is the mission of the Church alone to pronounce on the reality of miracles, after canonical inquiry has ascertained evidence of "the finger of God and the direct intervention of His power."

These episcopal ordinances which declare the miraculous nature of the Lourdes manifestations naturally arouse a desire to know somewhat of the history of the "Lourdes movement." By this way we shall be able to get a better idea of the real significance, the inwardness, of these performances at Lourdes.

History of Lourdes and Former Shrines.

"The apparitions of the Holy Virgin in our own epoch, such as that in the grotto of Massabieille at Lourdes, are not in any way surprising; Lourdes, in the history of France, is neither an exception nor a novelty. The Mother of Christ has looked upon that country as her own property ('fief'). At no time, save in the 18th century, has she disinherited it of her continuous presence; but if one thinks of the frightful baseness of the Bourbons and the inexorable infamy of the Jacobins this temporary abandonment is explained." So writes M. Huysmans in the eighth edition of his work above referred to.

Lourdes, in fact, is but a modern and the latest repetition of many similar manifestations which have been seen in Paris and in the provinces of France. Lourdes is the centre of a district in which were nine chapels, formerly the resorts of pilgrimages to the Madonna; and it stands surrounded by these ruined and now unfrequented sanctuaries "like a brilliant star surrounded by nine waning satellites." These chapels were built at different periods between the latter part of the fourteenth and the early part of the seventeenth centuries. The dates at which they ceased to attract pilgrims and became more or less ruins are lost in the obscurity of time. Some of the chapels were destroyed by the Huguenots, some were deserted on account of their inaccessible situations, some because of the cupidity and licentiousness of the neighbouring inhabitants, which "caused the Virgin to withdraw" from these places. And for this latter reason—the extortion and dissoluteness of some of the residents—it is predicted that she will in time retire from Lourdes also.

But this much about these chapels is sure: scarcely one of them in their day lacked any of the accessories of their successor on the banks of the Gave. Grotto, spring, shepherdess, and miraculous cures—all were theirs; but, above all else, there was at each of them the radiant presence and effulgence of the Virgin Mary.

Lourdes, therefore, is the resultant of the revivification by the Madonna of ancient devotions formerly so popular in other and neighbouring spots in the Pyrenees and in the French capital. In Paris in the fourteenth century an altar and a brotherhood under the name of the Immaculate Conception were instituted in connexion with the Church of St. Severin, to celebrate the spotless purity of the Virgin Mary. "This devotion was rewarded by the Virgin curing multitudes of sick persons who came, often from far away, to drink of the water of the wells at the foot of the statue. . . . But by degrees this devotion grew feebler and feebler, and Saint Severin ended by being a parish church instead of a sanctuary for pilgrims."

In the seventeenth and eighteenth centuries it was made a rendezvous of the Jansenists, and though dead as a shrine of the Virgin, it became a branch establishment of the cemetery of St. Medard, where the "Convulsionists" resorted to pray at the tomb of the Abbot Desanguis, the Deacon Confessor of Paris.

To-day the Virgin, if she still dispenses spiritual benefactions at St. Severin, has, it would seem, at any rate closed her "dispensary" for bodily ailments, and the wells have been closed up by the priests since the waters have been forsaken by the pilgrims.

In the fourteenth century the devotion to the Immaculate Conception was very marked in Paris, but onwards from the end of the Middle Ages it dwindled day by day; there was no longer any special shrine for the purpose, but her worship shifted about (*vivotait*) from place to place till in November, 1830, the Virgin suddenly desired to make a fresh start and spread abroad her influence, not only in Paris, but throughout the whole world. Then it was she appeared to Catherine Labouré in the chapel of the Sisters of Charity, in the rue du Bac, and commanded this sister of St. Vincent de Paul to have a medal struck wherewith to propagate the belief in the Virgin's immaculate origin.

About the same moment a voice spoke to the curé of the church of Notre Dame des Victoires, when he was celebrating Mass, and told him to consecrate his parish "to the very sacred heart of the Immaculate Mary." The effects were prodigious; the medal rapidly became celebrated for its miracles, crowds were drawn to the chapel in the rue du Bac, whilst on the other side of the Seine the hitherto empty church of Notre Dame des Victoires, situated in one of the most debased districts of the town, became filled to overflowing, and physical cures and spiritual conversions were achieved there in great numbers.

The special hyperdulia of Lourdes is a replica on a larger scale, and in a place accessible to the whole country, of the worship at Notre Dame des Victoires in Paris. Sixteen years after the apparition of the rue du Bac and the hearing of the voice by the curé of Notre Dame des Victoires, and twelve years before the apparition at Lourdes, the Virgin appeared to a little shepherdess at La Salette in the Alps. This was in 1846. There also a spring of water gushed forth and miraculous cures were wrought. La Salette, like Lourdes, was surrounded with ancient pilgrim chapels more or less ruined and extinct.

For a time La Salette had a wonderful name, but the bad roads, the difficult ascent to it, and the miscreant and scoffing Freemasons of the district led to its desertion, and the final blow was struck at it by the apparition at Lourdes at the base of the mountains instead of on the summit of a peak difficult to climb.

The Virgin appeared at Lourdes with a countenance smiling and radiant and as if she desired to be more easily approached—more within the easy reach of the people; and there she distributed benefactions with both hands.

This was quite different from the austerity and sadness of her apparition at La Salette, where she was seen weeping and threatening, and was heard censuring the vices of mankind, more especially those of the priests and the cloisters. At La Salette not a word was said by her about the spotless purity of her conception, and her blessings and benefits were dispersed in a far less liberal manner than afterwards they were at Lourdes.

At Lourdes, in 1858, the Virgin's words to Bernadette were distinct and emphatic: "I am the Immaculate Virgin. I desire a chapel here."

The Relation of Miracle Cures to the Doctrine of the Immaculate Conception.

Let us now consider briefly the bearing which the controversy about the Immaculate Conception had upon these shrines and chapels to the Virgin in Paris, the Pyrenees, and the Alps.

This dispute commenced in the twelfth century by the canons of the Cathedral at Lyons introducing into their church a festival in celebration of the Immaculate Virgin without consulting the Roman See. These canons are said to have learnt their special rite from a document communicated by the Virgin herself.

At once, a remonstrance and a critical argument ridiculing the doctrine was sent to the canons by Bernard of Clairvaux (St. Bernard). During the thirteenth century the Feast of the Conception became very popular, and in 1263 it was accepted by a general chapter of the Franciscans at Pisa, but without reference to the question of immaculacy; during the same century, however, all the leading theologians took the view of St. Bernard. Then in the early part of the fourteenth century came the categorical statement of the doctrine of the Immaculate Conception by Duns Scotus, the "subtle doctor of the Franciscans," and its denial by Thomas Aquinas, the learned Dominican—"the Dominican Aquinas" as he was called. But the doctrine was gaining ground, and in 1387 the University of Paris condemned one of its members because he taught that the Virgin Mary, like other descendants of Adam, was born in original sin; and the university expelled the Dominicans, who were fierce opponents of the doctrine of the Immaculate Conception. For several years the Dominicans were excluded from all the privileges of the university because of their continued refusal to acquiesce in its teaching.

It was at this same period, as we have just shown, that the pilgrim chapels in the Pyrenees and Alps took origin, and that the worship at St. Severin in Paris became especially associated with the Virgin.

In the beginning of the fifteenth century the University of Paris made subscription to the doctrine a necessary condition for its degrees; and various other universities entered into a compact to do all in their power to propagate it. But, on the other hand, at the end of the same century—namely, in 1483—Pope Sixtus IV published a Bull threatening with excommunication any one making charges of heresy against either the advocates or the impugners of the doctrine, for the reason that the point had not yet been decided by the Apostolic See.

In the middle of the sixteenth century (1546), the Council of Trent sought to effect a compromise between the Dominicans and Franciscans.

In the seventeenth century under the influence of the Franciscans and Jesuits in Spain, pictures were painted, statues erected, and persecutions set on foot in honour of the "Virgin conceived without sin"; and embassies were sent to Rome by Philip III and IV, to obtain more explicit recognition of the then popular doctrine. The Popes, however, continued to maintain an attitude of reserve. Pope Paul V in 1617 forbade all public disputation on the subject, and Gregory XV in 1622 went still further, and even prohibited private discussions, except in the case of Dominicans amongst themselves. This discouragement, or at least this lack of encouragement, of the doctrine of the Immaculate Conception had its effect on the pilgrimages; and consequently there commenced a little later the desertion and destruction of the pilgrim shrines to the Virgin, and the cessation of the miraculous cures at these special places in the Pyrenees and Alps. It was this lukewarmness towards or this indifference to the doctrine of the Immaculate Conception which in all probability led to these sanctuaries becoming neglected; and not "the appalling baseness of the Bourbons and the inexorable infamy of the Jacobins," which Huysmans assigns as the cause why the Virgin disinherited France during the eighteenth century of her beneficent presence.

But by degrees the papal view became more defined, and more in favour of the doctrine, and at length Gregory XVI (1831–1846) gave permission to several prelates to describe the Conception as Immaculate. And now it was that the Holy Virgin, who had never before mentioned the subject of her freedom from original sin, spoke in 1830, for the first time, of her prerogative in this respect when she revealed herself to Catherine Labouré in the rue du Bac, Paris.

Between his accession to the Holy See in 1846 and the year 1854 Pius IX made communications with the bishops inviting them to state how far the papal pronouncement in favour of the dogma would meet their wishes and the wishes of those under them. And as if to incline the priesthood to penitence and remorse, and to lead them in the direction desired, and to stimulate their attachment to the Virgin, La Salette—where the Virgin appeared with a weeping face and lamenting the vices of the priests—was founded in 1846, and its fame and its miracles were soon spread throughout the world. The replies to the Pope's address were in the great majority of instances declarations in favour of the dogma, and the result was that on December 8th, 1854, the Pope formally declared his approval of the doctrine of the Immaculate Conception before an immense congregation of cardinals, patriarchs, archbishops, and bishops assembled in St. Peter's at Rome. Meanwhile the nineteenth century itinerary of the Virgin, which began in Paris in 1830, and for a brief space made a halt at La Salette in 1846, was to find its ultimate destination at Lourdes on February 11th, 1858. It is to be noted that this date is four years after the declaration of the dogma of the Immaculate Conception by the Pope in St. Peter's had been solemnly announced, whereby the dogma was made an article of faith, and its denial declared to be heresy.

Then the Holy Virgin spoke out plainly to Bernadette in the grotto of Massabieille and said: "I am the Immaculate Conception." She had waited through all these centuries, through all the period of disputations in the Middle Ages; she had almost ceased to receive special devotions and to dispense her special benefactions in the seventeenth and eighteenth centuries whilst discussions were forbidden and the decision of the Roman See was held in suspense; and then, at last, she came to the front again with the revival of the discussion in the first portion of the nineteenth century. On former occasions it was "Mary conceived without sin," but now, after the head of the Holy Roman See had decided the question in her favour, she appeared in all the glory of her resplendent halo and absolutely identified herself with her prerogative "Immaculate." Then was the dogma of the Conception made manifest to all by the "events of Lourdes." Then the Lourdes miracles commenced.

It is obvious to any one who will follow the course of the dispute about the Immaculate Conception step by step with the history of the shrines and apparitions in Paris and the Pyrenees that there is a remarkable chronological relation between the vicissitudes of the doctrine on the one hand, and the popularity or otherwise of the worship and the accompanying performance of miracles at these shrines, on the other hand. With the rise and fall in favour of the doctrine of the Immaculate Conception rose and fell the number of pilgrimages and of miracle cures.

After 1854, it became heresy not to accept the doctrine; the people had to be instructed as to it; the well-to-do and educated could be otherwise informed, but the lower classes and the peasant ignorance had to be enlightened; and by what means could this be more strikingly accomplished than by appealing to the imagination and the superstition of these folks, through reports of apparitions, and by the emphatic declaration of the Virgin herself, "I am the Immaculate Conception"? And if, as the reward of the people's belief, these reports were followed by beneficent and miraculous cures of physical ailments, as well as by spiritual conversions, so much the more impressive and convincing would be the instruction of the Church. The events at Lourdes, it is said, hallow and confirm the instruction given by the Church. They tend to bring the dogmas of the Vatican into popular favour.

More recently we have heard of another instance of the

same sequence of events. In 1905 the Holy Father recommended "frequent communion," and this decree has been followed at Lourdes by "the multiplication of more brilliant cures in connexion with the Eucharistic procession, the Mass, the elevation of the Host, and the Holy Communion." Unmistakably "we find in this fact a response from heaven to the teaching of the Church."

We are told that at the present moment, in spite of the multitudes of pilgrims who pray there, only very few actual miracles are being wrought at the grotto; and that this is due to the great number of tourists who now go to Lourdes in automobiles from all the surrounding Pyrenean spas, prominent among whom are the forward and self-assertive English with "l'indigence de cervelle" (mark the word) "et de la misère d'âme de ces funestes snobs," etc. (Huysmans). The Virgin, displeased with the behaviour of the hale and hearty, withholds her benefactions from the sick and suffering! History thus proves to us that political and social events can disarrange the healing disposition of the Immaculate Virgin, as well as of the mesmerists. The automobile craze suspends the miracles of the one; the great revolution, as previously stated, put a stop to the activity of the other.

And if it be asked, "How came it about that the Alps and the Pyrenees, the dioceses of Bayonne and Tarbes, were so specially selected as the places at which these apparitions and miracles occur?" one is disposed to attribute the chief reason to the mountainous character of the country.

It is not entirely because the Holy Mary had always looked upon France as the country peculiarly her own (Huysmans); nor because on the other side of the Alps is the country which contains the apostolic capital of the world, and on the other side of the Pyrenees the country in which dogmatism, fanaticism, and superstition erected the Inquisition. Not entirely because France, Italy and Spain are the great Roman Catholic countries of the world, but chiefly, no doubt, for the reason that the inhabitants of the mountain districts are more impressionable to these manifestations. As Alison[1] in his remarks on the Tyrol states, "the grandeur of the mountain scenery imbues the minds of the natives with fear, and has caused the invention of many superstitious legends." It may be doubted if in the northern parts of that land so favoured of the Virgin the apparitions of herself would have taken the same hold on the imaginations of the French common people as they did upon the more imaginative and emotional inhabitants of the Pyrenees. Much might be said on this subject, but I must content myself by referring the reader to Buckle's *History of Civilization* (chap. ii, vol. i) for information as to the effect on the moral and religious character of the people of the physical conformation of the country in which they reside.

THE CREATIVE LIE.

One of the greatest social forces in almost every country and in almost every epoch is the creative lie. It is one of the most potent factors in the world. Alike with the educated citizen of a great city and with the ignorant peasants of a mountain hamlet, a mere statement forcibly advanced and plausibly supported at once becomes a belief. No question is asked. No doubt as to the truth of the announcement is raised. Thus, it is too often the case that to prefer a charge is to convict of an offence. "Give a dog a bad name and hang him" is an old apophthegm. A charge made, whether about a person or thing, is frequently taken as proven merely because it is rumoured. How many people have the faculty of being quite sure a lie is a truth if only it is repeated a number of times, even if the only persons repeating it are themselves! What multitudes prosper by the fabrication of the not yet true! How often the constructive rumour becomes the proclaimed belief! In Duguid's *History of the Stock Exchange* there is an interesting account of the "De Berenger Fraud" or "The Napoleon Hoax" of 1814.

In that year Government Funds had been heavily depressed by the success with which the French were withstanding the attacks of the Allied Armies. But on Monday morning, February 21st, 1814, the whole aspect of the Stock Exchange was suddenly changed by rumours, as vague as they were welcome, which reached the House, to the effect that the Allied Armies were in possession of Paris, that peace was assured, that Napoleon was slain. There was no official announcement, no authoritative foundation, only a certain amount of circumstantial evidence. This took the form of De Berenger himself, disguised as an aide-de-camp to Lord Cathcart, his gorgeous uniform wet with the spray of his cross-Channel voyage, scattering with his tidings napoleons—not sovereigns—at every stage of his journey, and showering amongst the eager and excited people, as he drove with his two accomplices in triumphal procession through the City of London in a carriage drawn by four horses and bedecked with laurel, papers announcing again the fall of Paris and the death of Napoleon.

The fraud caught on completely; omnium rose from 27½ to 33, and De Berenger sold out more than three-quarters of a million sterling of Government stock at a profit of about ten thousand pounds.

At length it was discovered that the rumour was false; omnium and Consols crashed back to their lowest figure, and the chagrin of the Stock Exchange at having been thus duped was, needless to say, extreme.

This is an illustration of the power and the effect of the creative lie. But we need not go back a hundred years for examples. "Rubber shares are in great demand!" "People are going in crowds to Somebody's to buy short skirts!" Only placard these statements thickly through the town, send out sandwich men, advertise widely in the press, and the eagerness for rubber shares knows no bounds; the demand for short skirts at the shop named becomes enormous, though previously the public had never heard of rubber shares, and Somebody had not a short skirt in their establishment. It is the same in political strife, and in actual warfare. A false belief of one day becomes the truth realized another. The false, but accredited rumour, "The enemy are beginning to retreat," if spread throughout the ranks, produces such an effect that the enemy actually do give way. The constructive look, and the suggestive sound, as well as the spoken lie, will equally bring about the not yet true.

The *bardit*, or war song of the Ancient Germans, Tacitus* tells us, inflamed their courage; and according to the intonation given to the tune these warriors made others tremble or trembled themselves. This musical strain was only a harmony of warlike sounds, we are informed, rather than a set of words.

The moral of these remarks is pretty obvious, and has a fairly wide application; and it certainly does enter into our thoughts when we read about faith healing and the miracles at Lourdes, as well as when we are thinking about other and more commonplace matters.

For example, there is a general impression that ladies should be in the fashion. The creative lie goes forth that hats 3 ft. broad from brim to brim are all the fashion, and immediately every hat shop in the town will lay in a stock, and the rumour will send people in crowds to buy these head gears.

It is a precept of the Church that "works" are the outward signs of what is proceeding in the Spirit. A doctrine is set forth in a Papal Bull; this is followed by "works" in the form of some wonderful recoveries at a certain shrine, and soon afterwards obedience in the acceptance of that doctrine by the people belonging to that Church becomes general. Who can prevent incredulous and sceptical folk irreverently alluding to those "cures" as an "exploitation of miracles"?

It is the universal wish to avoid the consequences of sin and evil; to be relieved of pain, and to escape death. It is widely promulgated that the way to attain these desired ends is fully explained in a volume entitled *Science and Health, with Key to the Scriptures;* and in thirty years the book claiming to give this instruction, though published at a preposterous price, passes through 200 editions and spreads its fallacies and falsities broadcast throughout a credulous world.

B. CHRISTIAN SCIENCE HEALING.

The other form of healing by religious suggestion prevalent to-day is Christian Science healing. Faith healing differs from Christian Science in not masquerading in senseless and meaningless metaphysics; in not asserting the non-existence, the nothingness, of matter; and in not discouraging the use of physical methods and materials as aids in the treatment of injuries and disease.

* "Sunt illis haec quoque carmina, quorum relatu, quem *barditum* vocant, accendunt animos, futuraeque pugnae fortunam ipso cantu augurantur; terrent enim trepidantve, prout sonuit acies. Nec, tam voces illae quam virtutis concentus videntur." Tacitus, *Germania*, III.

The "very heart of Christian Science" is said to be contained in the following "immortal sentence":

> There is no life, truth, intelligence, nor substance in matter. All is infinite Mind and its infinite manifestation, for God is All in All. Spirit is immortal Truth; matter is mortal error. Spirit is the real and eternal; matter is the unreal and temporal. Spirit is God, and man is His image and likeness; hence man is spiritual and not material.

In Christian Science healing, which is based upon "faith" in certain doctrines, the suggestion is that disease has no existence; that the individual who thinks himself ill or in pain is labouring under a false belief; that the only real being is God, the only reality the Divine Mind; and that "sin, sickness, disease, and death" are phantoms arising from an erroneous impression that there is such a thing as "life in matter."

The method of suggestion is both aural and telepathic. It is aural when the patient is spoken to, and emphatically assured that he is not ill, that the disease is imaginary, that God will not permit sickness. It is telepathic when the operator gives "absent treatment," which consists in repeating in thought the same or such like assurances; and when he sits, without speaking, but in concentrated thought, by the bedside of the patient.

The Christian Science healer, however, does not admit that his method is "suggestion," but asserts that healing consists in an increase of "spiritual force," whereby the Divine influence dispels the illusions associated with matter, which Mrs. Eddy calls "mortal mind"—illusions which she says arise from the false belief in the existence of a body. Throughout her writing she is perplexingly inconsistent, and is constantly referring to matter in terms of mind, and to mind in terms of matter.

It is really difficult to study Christian Science with patience and composure, or, indeed, without impatience and mental irritation. It is quite possible to read about the miraculous cures at Lourdes with toleration and even with interest, however incredulous one may be; but the reading and study of Christian Science are simply insufferable.

Nevertheless, Christian Science has been studied and analysed with calmness and ability, and its flagrant errors have been exposed (1) by Canon Scott Holland, from the point of view of its false Christianity; (2) by Mr. Stephen Paget, from the standpoint of its failures as a therapeutical power in sickness and disease; (3) by Miss Carta Sturge, from the metaphysical aspect; and (4) by Mark Twain, who has criticized it as a literary production written in third-rate English, full of glaring defects in expression and of unsoundness in argument.

Mark Twain's able analysis would have been even more telling than it is if there had been less of the music-hall wit in his criticisms, fewer slangy or colloquial Americanisms, and less intermingling of the "funny man" with the clearness and brightness and pungency of the eloquent and facile writer. He has brought into prominence Mrs. Eddy's literary incapacity; her meaningless sentences; her "intoxicated metaphor"; her want of consistency; her love of the dollar; her briskness in business; her inexorable rule over the mother church, the metaphysical college, and the ministers in all the branch churches; her punishment of those Christian Scientists who disobey her; and her assertion of infallibility and absolute authority, outstripping even the claims of Rome. Mark Twain's summary of her as a woman is "grasping, sordid, penurious, famishing for everything she sees—money, power, glory—vain, untruthful, zealous, despotic, arrogant, insolent, pitiless where thinkers and hypnotists are concerned, illiterate, shallow, incapable of reasoning outside of commercial lines, immeasurably selfish."

Nor does a perusal of Mrs. Eddy's biography lead one to think that Mark Twain is too severe in his estimate of Mrs. Eddy's character. Undoubtedly she writes with great swelling words of vanity. Confusion of thought is made worse confounded by diction. She expresses indistinct ideas in meaningless phrases, which, however, are calculated to give an impression of wisdom and knowledge to those who read without thinking, or who, being imperfectly educated, accept sound for sense.

The jumble and confusion in Mrs. Eddy's philosophy and the errors in her logic are well described by Miss Sturge, who points out how particularly mischievous in their practical results are the Christian Scientists' false conclusions from true premisses. She gives many illustrations of this vicious reasoning, as, for instance, Mrs. Eddy's use of such words as "life" in two senses, and her argument first from one sense and then from the other as suits her purpose. The reader untrained in logic, seeing the truth of the major premiss, unthinkingly takes for granted and swallows whole Mrs. Eddy's incongruous reasoning and inadmissible conclusion.

Mrs. Eddy's absolute denial of the reality of matter reminds one of what Byron said of the celebrated Bishop of Cloyne's scepticism concerning the non-existence of matter:

> When Bishop Berkeley said "There is no matter"
> And proved it—'twas no matter what he said:
> They say his system 'tis in vain to batter,
> Too subtle for the airiest human head;
> And yet who can believe it? I would shatter
> Gladly all matter down to stone or lead,
> Or adamant, to find the world a spirit
> And wear my head, denying that I wear it.
>
> Byron, *Don Juan*, Canto xi.

Space will not allow of further reference to either Canon H. S. Holland's essay or Mr. Stephen Paget's book. But I desire to comment on one side of Mrs. Eddy's mental organization which seems to have escaped the notice of her critics, and to have been entirely misrepresented by her admirers—namely, her natural temperament, or turn of mind.

The Importance of Temperament in a Propagandist.

The temperament of a writer or teacher is a matter of the greatest importance in appraising the sincerity and trustworthiness of his work.

Without consulting the writings of any of her hostile critics we can obtain from Mrs. Eddy's own writings and the biography written by her devoted and sympathetic admirer, Sibyl Wilbur, ample material for forming an opinion as to Mrs. Eddy's inherent character or temperament. She was a precocious, emotional, argumentative child, prone to use long words and sage grave sayings, which she had learnt by rote in her close companionship from infancy with her Scotch Covenanter grandmother, whose "dramatic tales of a land torn by religious dissensions for nearly a century" were poured into the eager ears of her little charge. Mary Baker (Mrs. Eddy's maiden name) was affected in her actions, and when 12 years of age began to hear "voices" and fancy herself "called" by her mother when she was not. At this tender age she contradicted and disputed with her father on religious questions so that he was led to say that "if Mary Magdalene had seven devils our Mary had ten." She showed herself to be a heartless and very unnatural mother by parting with her only child and fatherless son when he was but 5 years of age, allowing him to go to live a long way off with a spinster nurse who was about to get married. For seven years Mrs. Glover, as was then her name, never saw the child. She married her second husband, towards whom she professed indifference from the first, for the sake, we are told, of an independent home for herself and son. Not till three years after this marriage, however, did she go to see her son and have him to live in her house; and then only did she do so because of a mortgage on a property in which she and her husband were interested and which happened to be in the district in which the boy was residing with his nurse and her husband. After a brief interval the boy was sent back to his foster parents, who removed away into the Far West. Mrs. Eddy saw no more of her son after this for twenty-two years; neither did she communicate with him or he with her.

In 1888, when this son, then in his 47th year, proposed to come to her, she being then in her 70th year, Mrs. Eddy refused to receive him. It was said "Destiny still parted them with an insurmountable barrier." Nevertheless, at this very time she adopted a graduate of Hahneman Medical College, a homoeopathist, and a pupil of her own in Christian Science, who was five years junior to her own son. "This agreeable and accomplished man of 40 remained with Mrs. Eddy till 1896." She and he then had differences, and they parted; but Mrs. Eddy "did not however, erase him from her memory, for she yet speaks of him as her son." But with her own son she was shortly afterwards fighting lawsuits in equity respecting her property and his inheritance.

During four years before and eleven years after her second marriage she was an invalid "afflicted with a spinal

weakness which caused spasmodic seizures, followed by prostration, which amounted to a complete nervous collapse."

Sometimes bedridden, at others actively getting about even to "speeding up steps like a deer," then again being rubbed with alcohol and lifted in and out of bed, she was regarded by the ladies of her acquaintance as an acting invalid making her husband a martyr to her whims. Once she rang the bell, and immediately after was found by the servant who answered "lying rigid with foam on her lips." She was an accomplished actress, as was shown on two occasions when she succesfully hoaxed a female acquaintance with whom she was living. This friend was a Mrs. Crosby, a great believer in spiritualism, who was much attracted by the description given by Mrs. Eddy of her deceased brother, Albert Baker. So Mrs. Eddy one day, when sitting with Mrs. Crosby, suddenly leaned back in her chair, shivered from head to foot, closed her eyes, and began to talk to Mrs. Crosby in a deep, sepulchral voice, and purported to deliver a message from the spirit of Albert Baker. On the following day she again pretended to go into a trance, and directed Mrs. Crosby as to where she would find letters from the spirit, and which she herself had written and placed there. Mrs. Eddy, who boasted that she had no belief in spiritualism, made a complete dupe of her friend Mrs. Crosby, the spiritualist.

The greatest event of Mrs. Eddy's life was an accident which occurred to her in Lynn, and which has been called with various shades of meaning her "fall." This fall resulted in what has the semblance of having been another unmistakable hoax. As she was walking home with friends on February 3rd, 1866, she slipped on ice, and is said to have suffered "a concussion of the brain and spinal dislocation, with prolonged unconsciousness and spasmodic seizures as concurrent symptoms." On the third day after this fall "God said to her, 'Daughter, arise!'" and thereupon she got up from her bed quite recovered, and walked into the adjoining room, where her friends were awaiting her death. This was the most momentous occasion in her career. It was then that she caught from "the Divine Harmony a revelation of the Truth"; it was then the Bible miracles which before had seemed supernatural grew divinely natural and apprehensible; it was then she underwent "a cataclysmal upheaval," from which was to follow that "new understanding of Christianity which would shake the world's thought to its center"; it was then she "made the discovery of the principle of Divine Science," of "'*Christian Science mind healing,' and gave to the world in my work called 'Science and Health' the leaves that are for the 'healing of the nations*'"; and it was then she felt the hand of God laid upon her, and she learned the unique and powerful significance of the life which was before her. The sceptical surgeon with experience of concussion of the brain and dislocation of the spine might be Pyrrhonist enough to add that it was then also that Mrs. Eddy exhibited the deception of an impostor, the feigned illness of a malingerer, the tricks or "business" of an actress.

This "fall" and "miraculous recovery" were well timed. They happened about a month after Quimby's death, and when she could safely assert a claim to complete originality in the conception of her scheme of "science" without fear of contradiction from him.

From the date of her cure, when "Quimby may have allowed her to hypnotize herself with the thought that God was the 'Wisdom' which Quimby brought to his patients," Mrs. Eddy's mind was thoroughly under the influence of Quimbyism. This system of Quimby was, her biographer says, nothing more than "an excrescence on the natural growth of mental suggestion from Mesmer to the Nancy school."

In 1861 Mrs. Eddy corresponded with Quimby about her own health, and in 1862 she went to Portland, Maine, to be treated by him. He cured her instantaneously, and "set her free from the excruciating pain of years."

Quimby considered he had cured her in his usual way by imparting healthy electrical currents, together with his "Wisdom"; but Mrs. Eddy persistently would, through her "religious emotion engendered by years of suffering, ascribe to him a spiritual nature"; and she insisted that he had healed her "by virtue of his religious wisdom."

It would seem that jealousy of the success of some of her former pupils led her in 1872 to completely rid herself and her teaching of all relics of Quimby's influence, by repudiating mental suggestion and animal magnetism, and denouncing manipulation and all use of physical contact in the treatment of patients, as having no part or place in Christian Science healing. Many of her pupils, who by following her teaching had really been practising mesmerism, though some of them were apparently unaware of the fact, parted from her when she began to preach "the science of healing by soul power." They questioned the propriety of calling this treatment "Mind Science," "Moral Science," or healing by the Divine Spirit or by spiritual power, and they doubted the truth of the positions they were called upon to take up, as they were convinced they had been studying the "science of mesmerism." Even after she ceased to teach by lectures and writing only, and had published a complete statement of her system in her book, *Science and Health*, the first edition of which was published in 1875, Mrs. Eddy was still mistrusted by those who knew her best; and her unchristian-like conduct caused her to be deserted by many of her disciples. Eight of her former followers brought an indictment against her in 1881 for "frequent ebullitions of temper, love of money, and the appearance of hypocrisy," and declined to submit any longer to such leadership.

Mrs. Eddy had always a longing to create "an effect." She craved notoriety; she loved to cause a sensation in some way, whether by attacks of "hysterical grief" or otherwise. She was exacting in authority, grasping in power, and safeguarded her material interests by infrangible copyrights. Mrs. Eddy says: "Impelled by God to set a price on my instruction in Christian Science mind healing, I was led to name 300 dollars for each pupil for one course of lessons at my college." Nearly £60 is a startling sum for tuition lasting barely three weeks. But "a strange providence" led her to accept this fee!

Though she would have the world believe that she was inspired to write, and that her book was given to her as a revelation, yet she was for years without any clear idea as to what system of healing she would proclaim as her own. She had lived at more than one period of her life on intimate terms with spiritualists, and had, as we have seen, successfully practised spiritualism on her own account on at least two occasions. She had dabbled in homoeopathy; she had received personal instruction from, and possessed manuscript notes of the work and results of an out-and-out mesmerist; and she had learnt also from Quimby something about a system of healing on a principle of belief.

Mrs. Eddy claims to have instantaneously cured a form of blindness in a baby by simply taking the child in her arms and looking at it; yet she had in her domestic service for years a blind maid whom she did not cure, but to whom she behaved inconsiderately by making her walk six miles behind the conveyance in which she herself was travelling from Groton to Rumney on the occasion of their giving up their residence in the former place—the village church bells being tolled in derision as she and her second husband were departing therefrom.

Her first husband had died within a year of their marriage; her second husband, whose simplest attentions to her provoked, we are told, the jealousy of all other women, so universally was he in request by the fair sex, at length left her, and Mrs. Eddy obtained a divorce from him in 1873. In 1877 she made what she spoke of as "a spiritual union" by marrying, as her third husband, Mr. Eddy. Mr. Eddy was agent for a "sewing-machine concern," not in good health, and was spoken of by persons who knew him as "devoid of the true force of manliness." He consulted Mrs. Eddy about his health, she advised him to enter a new class she was forming, and, having read aright the submissive and conciliatory nature of his character, she married him "in the midst of the struggles of personalities" with several former pupils; and made him her agent and the guardian of herself "against the onslaughts of the envious and ambitious who pressed too closely with their human desires." Mrs. Eddy introduced her new husband to her class with an address, followed by a reading of the Bible. Then she expounded certain passages, whilst the students beheld their teacher and leader "with hands as ever outstretched to them with the spiritual gift to be transferred through them to the whole human race and to the age." "Mr. Eddy at this moment became simply one of them . . . he, like them must carry out her directions that the spreading of Christian Science should

not languish." In the year following their marriage Mr. Eddy, by a strange conspiracy on the part of some of Mrs. Eddy's old pupils and now professional enemies, was charged with murder. There was no foundation in fact for the charge; but the worry of it, and of the lawsuits in which Mrs. Eddy was engaged in connexion with plagiarism of her book, and plans which threatened "to wrest the leadership of Christian Science from its discoverer," caused Mr. Eddy to regard these attacks as "an exhibition of malicious animal magnetism" on the part of his wife's aggressors and competitors.

Now, after learning the character of Mr. Eddy, one is not surprised to read that he became convinced he was the victim of an affection caused by "the suggestion of evil," and that he was being poisoned by a suggestion of arsenical poison made by two of his hostile acquaintances.

He died of heart disease in 1882, and just before he expired he cried out: "Only rid me of this suggestion of poison and I will recover."

What are we to think of the founder of Christian Science, who neither alone, nor in conjunction with her afflicted husband, himself a Christian Scientist, could call effectively on the Divine Spirit, or successfully draw upon "spiritual force" to remove the impending fate—namely, death—which though elsewhere she says is an unreality, is yet about to carry off her husband by "an idea" of poisoning? And what is the meaning of her sneers at "suggestion," seeing she told the physician, whom she summoned in the last stage of the illness, that "she believed her husband was suffering from" the suggestion of arsenical poisoning, that she did not believe that his heart was defective, but *that he was suffering from suggestion;* and, later on, that poison mentally administered killed her husband? "Not material poison," she declared, "but mesmeric poison."

What are we to think of such a philosophy of disease and death? Of such a philosopher, who had told Quimby "the illiterate mesmerist, Quimby the blundering and stumbling reasoner," that the healing resulting from his hypnotic practice was in reality due to "his knowledge of God's law, his understanding of the truth which Christ brought into the world, and which had been lost for ages"?

It seems incredible that any one who has given thought to Mrs. Eddy's so-called philosophy or science can have the least faith in her system of healing, her doctrine of treatment. We have seen from her own statements how many of her pupils did fall away and revolt from her teaching and pretensions, some of whom *went on practising* mesmerism.

One can no longer wonder at the absurdities of her philosophy, nor at the cruelty and folly of her Christian Science treatment of disease, after a study of her temperament and conduct. Her work was conceived in ignorance and vanity; reared in profane audacity, and the most presumptuous and selfish ambition; developed in deceit, disharmony, and strife; and culminated in hypocrisy, cupidity, and lust of power.

What a contrast there is between the miracles of healing related in the Gospels and the miserable travesties, failures, and tragedies of the Christian Science healing!

The cures wrought by Christ were instantaneous, complete, and perfect. The blind received their sight, the lame walked, the lepers were cleansed, and the deaf heard, the dead were raised up, and the poor had the Gospel preached to them. But there was no boasting of the wonders worked, no exploitation of the miracles performed. "Go and show John those things," but at the same time "see that thou tellest no man," were the injunctions given. In the case of the man of the country of the Gadarenes who called himself "Legion" because many devils were entered into him, instruction, it is true, was given to him to "return to his own house and show how great things God hath done unto thee." But we can understand that for the peace of mind of others there were special reasons why a person whose dwelling had been among the tombs, who had worn no clothes, and whom no man could bind, no, not with chains, should not go away with Christ, but remain behind "clothed and in his right mind," as a consoling witness that the unclean spirits had departed and were buried in the sea.

But the Christian Scientists, on the other hand, proclaim aloud at all their meetings their vanquishment of disease, as well as their victories over drunkenness, morphine, and immorality. They are incessantly making "triumphant assertions of the health and power" derived from their cult. Nor was there, in the case of the gospel miracles of healing, as I have specially pointed out elsewhere, rejection or neglect of physical aids either during or after the cure or the restoration to life. Jairus's daughter, for instance, was *taken by the hand* and told to arise; and when she arose Christ "*commanded to give her meat,*" and her parents were charged "that they should tell no man what was done." But with Christian Science there is bungling, shilly-shallying, and worse. Relief is withheld, irreparable mischief is done, and life is lost through this misguiding and misguided "treatment."

Of Mrs. Eddy's own cases of reputed cures there is not one that I can find substantiated by reliable and independent evidence. Notwithstanding this, notoriety and publicity are courted, attention is attracted, men's eyes are drawn to the cures which are claimed, and Mrs. Eddy impiously asserts that God prepared her "during many years for the reception of a final revelation of the absolute principle of scientific being and healing." At the same time, it is asserted with blasphemous audacity that she rediscovered and applied the definite rules whereby Jesus Christ performed His miracles of healing sin, and disease.

Compared with the Lourdes craze, Christian Science is as a snare and a pitfall to a refuge and a haven of security. No deprivation of medical treatment, or of physical aids to comfort or relief is required by the former; no excuse for failure is sought in extraneous trifles to pacify or impose upon the disappointed pilgrims to the Grotto.

The Lives of the Founders of Great Religious Movements.

It is distasteful, indeed hateful, to write thus of any one, especially of a very aged woman. But it is not the woman as an individual but the founder of a sect, the "Pastor Emeritus" of a church, college, and community, the boasted author of "the greatest religious movement of modern times," whose character I have been examining and interrogating.

The lives of the founders of all the great religious movements of the past have been the subject of searching criticism and unsparing and rigorous investigation. The Buddha, Mohammed, and Mohammed's immediate successor have again and again been submitted to the fullest inquiry. The Founder of Christianity throughout His career on earth was exposed, and exposed Himself willingly, to constant interrogation and searching curiosity. Every part of His life was a befitting piece of a consistent and perfect whole. He came into the world to save sinners. He was manifested to take away our sins, and made "to be sin for us, who knew no sin"; and when towards the end of His mundane existence He asked of the Jews that boasted of Abraham being their father, "Which of you convinceth Me of sin?" though they sought to kill Him, they were unable to meet the challenge to bring any sin against Him.

Even Bernadette and the other little shepherdesses in the Pyrenees who saw the apparitions and were made the mouthpieces of the Immaculate Virgin instantly knew their mission; and youthful, simple, and unlettered as they were, set themselves immediately to discharge it. Having done so, they retired into the sanctity of the cloister, leaving the continuation of the work commenced through them to be carried on by a wily priestcraft and a wondering world.

But not so the apostle of Christian Science. Her "moral science" teaching was repudiated, her conduct was justly condemned, and she was abandoned by many of her disciples. She had floundered in and out of her depth without knowing what it was she was going to do. She had oscillated from one "ism" to another till at length she declared in favour of "arsenical poisoning by *suggestion.*" But meanwhile, and thereby, she was reaping a rich harvest, and was garnering up a very considerable fortune.

"*Christian Science Lacks even Glowworm Luminosity.*"

The fundamental principle of Christian Science is the assertion of the unity which underlies the universe. "God is all." "The One in which everything has its reality is of the nature of Mind, Intelligence, Life, or Spirit." But this principle, though true, is not new. It underlies the speculative and scientific thought of 2,000 years and more. Philosophers and scientists in all ages have referred back their experiences to an underlying unity, whether they

have tried to find this Ultimate Unity in an Element, Number, or Idea.

But the only deduction Mrs. Eddy can make from this great principle is that, "God, Spirit being all," there is no such thing as matter.

The great invention of Christian Science is "mortal mind." By this phrase Mrs. Eddy means something untrue, unreal, something which has no existence. She calls "sickness and sinful humanity mortal mind—meaning by this term, the Flesh opposed to Spirit." The ills of the flesh, which are part of matter or "mortal mind," and as such are merely false ideas and non-existent, must be annihilated by the Divine Spirit, not by means of medicines presented by physicians. Healing will be accomplished by the "Supreme and only reality," for "the realm of the real is Spirit."

What a contrast to the Christian creed of the Creation is the World as described by the founder of so-called Christian Science! When darkness was upon the face of the deep and the Spirit moved upon the face of the waters the word went forth, "Let there be light and there was light"; and it was seen that the light was good, and was divided from the darkness. But when the author of *Science and Health, with Key to the Scriptures*, attempts to throw light upon the dark places of science and religion, she cannot supply us with even a glowworm luminosity.

Portia, when returning home to Belmont, after getting justice done to Antonio by outwitting Shylock, seeing a light burning in the hall of her house, exclaimed:

> How far that little candle throws his beams,
> So shines a good deed in a naughty world.

But Nerissa remarked in response:

> When the moon shone we did not see the candle.

And Portia answered:

> So doth the greater glory dim the less:
> A substitute shines brightly as a king
> Until a king be by.

From Mrs. Eddy's work no light is emitted. Her treatment of "The Fundamental Principle," "The Unity," is too bewilderingly unintelligible. Her vagueness and misconceptions exclude all daylight from her writings, and her philosophy affords no kind of illumination.

When common sense, not to say logical reasoning, steps in, it acts on Mrs. Eddy's metaphysics like Nerissa's moonshine or Portia's little candle, like the king on his substitute.

"*Faith Abounds without the Aid of Christian Science.*"

It is not within my purpose here to dilate upon the spiritual service which Christian Science is said to have rendered many souls by engendering within them the virtues of faith, fortitude, endurance, and self-control.

In any case, we have to set over against such service the terrible and fatal disservice Christian Science has dispensed in multitudinous instances by its cruel and heartless treatment of physical suffering and disease.

If Christian Science has done good in a spiritual manner to any one by arousing or increasing faith—and I am not prepared to deny that it has done this—so much the better, as this is at least something towards counterbalancing the enormous evils of its mistaken and criminally erroneous treatment of the body. But it is harmful to do evil even though some good may come out of it.

Fortunately, however, it has been permitted to us to learn the value, the comfort, and the helpfulness of faith without having to condone or acquiesce in the danger and absurdity of faith healing in its Christian Science garb.

Faith, indeed, is much; perhaps it is really everything to man. Happily, it was given to him ages before the atrocities of Christian Science were dreamed of.

A far better and truer way of explaining its action in mental affliction and bodily suffering may be gleaned from the following extract from Carlyle, with which I must bring to an end this lengthy but imperfect article:

"An inward force has been given to man whereby he is enabled to withstand the pressure of things outward. Obstruction abounded; but Faith also was not wanting. It is by Faith that man removes mountains: while he had Faith, his limbs might be wearied with toiling, his back galled with bearing; but the heart within him was peaceable and resolved. In the thickest gloom there burnt a lamp to guide him. If he struggled and suffered, he felt that it even should be so; knew for what he was suffering and struggling. Faith gave him an inward Willingness, a world of Strength wherewith to front a world of Difficulty. The true wretchedness lies here; that the Difficulty remain and the Strength be lost; that Pain cannot relieve itself in free effort; that we have the Labour and want the Willingness. Faith strengthens us, enlightens us, for all endeavours and endurances; with Faith we can do all, and dare all, and life itself has a thousand times been joyfully given away."[2]

REFERENCES.

1 *Europe*, vol. ix, pp. 79, 80. 2 Carlyle: Characteristics, *Essays*, vol. iii, p. 22.

REMARKS ON SPIRITUAL HEALING.

BY

H. T. BUTLIN, F.R.C.S., D.C.L., LL.D.,

PRESIDENT OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND AND PRESIDENT-ELECT OF THE BRITISH MEDICAL ASSOCIATION.

THE cases of two patients from my private practice, who have been mixed up with faith healers, have come to the notice of the British Medical Association,* and that, I think, has led the Editor of the JOURNAL to imagine that I have had a much larger experience of faith healers than really is the case. I only remember one other of my patients who belonged to a sect of faith healers (Note I), and I have not met with any number of persons, so far as I am aware, on whom the agency of faith has been employed for the cure of their disease.

On the other hand, I have always had an indirect interest in spiritual healing, for a member of my family is said to have the gift of healing by faith. We have supplied quite a number of clergymen to the Church of England, most of them of the very low Church. Many years ago I was informed by letter that one of these clergymen was endowed with such great and lively faith that he was able to cure the sick, and that he had actually cured two of his own household by anointing them and praying over them. I was asked to express my opinion on this very important matter, and I am sure it was expected that I should remonstrate and say it was nonsense or the effect of imagination. But I did not do so. I at once wrote to offer my congratulations and to express my pleasure, and to say that I saw many persons whom I could not cure, particularly persons afflicted with cancer, and that I should be delighted if my relative, the clergyman, would take over and cure the cases which were beyond my art. My disappointment may be imagined when I received a letter informing me that it was not given to him to cure other persons than those who also believed. From this I perceived that mutual faith was necessary, and, as I could not feel confident that I should be able to provide patients of so strong a faith as this, no further negotiations took place. I have, however, at rare intervals, held conversations with this clergyman on healing by faith, and the matter has often been before my mind, although I have never, until now, spoken or written on it.

It has always seemed to me that our profession has been disposed to take too narrow a view of spiritual healing. In the opinion of many medical men the cures are only effected on impostors who permit themselves to be cured, and on neuro-mimetics, who are cured of maladies which they have never had; and the persons who proclaim these cures, for the most part ecclesiastics, are either too ignorant to distinguish between real and feigned conditions of disease, or are themselves impostors, sometimes sometimes banded together deliberately to deceive the public, either for their own individual ends or for the benefit of the religious community to which they belong. In some of these communities the ecclesiastic is himself the healer, the only intermediary between the Almighty and the patient; in other communities the intermediary is a saint or virgin, and the ecclesiastic assists and encourages the patient to approach the intermediary

* BRITISH MEDICAL JOURNAL, 1909, vol. i., p. 1253. This case formed the substance of a leading article. The second case has not been published, but has been referred to a Committee of the Association. The patient died of cancer of the larynx in spite of an attempt at cure by spiritual means.

And, sometimes, the place of the ecclesiastic is occupied by a lay person of great faith and influence. Undoubtedly there are impostors and wicked persons among faith healers as there are among all other kinds of human beings, but I am sure there is not the least reason or excuse for branding every person who assists in spiritual healing, whether as patient or as intermediary, as a fool or a rogue.

In the first place, a little reflection will discover that there is a very wide and abundant material for spiritual healing. It is possible, with little difficulty, to mark out several groups of patients who may be cured by faith. In addition to the impostors and neuro-mimetics, there occur to me at least four other groups. Let me enumerate them all, and give an example under each heading.

I.

First, there are the deliberate impostors, who sometimes simulate disease so closely that they take the cleverest of us in. Of such a kind was a young lady whose stomach I opened some years ago for gastric ulcer. Not only had she suffered terrible pain and grown pale and meagre, but she had brought up blood on several occasions, once in the presence of a medical man, when she brought up a large quantity of it, and fell on the ground in a kind of swoon. The stomach was quite healthy, but her symptoms ceased from the time of the operation. I afterwards learnt that, some time previously, albuminuria had been suspected on account of certain symptoms which she presented. Specimens of her urine were examined. The quantity of albumen was so remarkable as to arouse the suspicion of the medical attendant, who had some of the urine brought him unknown to the patient. There was no albumen in it, and he also found that on the occasions when a large quantity of albumen had been present the patient had fetched an egg out of the kitchen. As such patients are believed to feign disease in order to secure sympathy, there is nothing more likely than that they should permit themselves to be suddenly cured by a miracle in order to secure still greater sympathy.

II.

Second, there is the large army of "sofa saints," (Note II), neurotics, and neuro-mimetics of every degree and kind. How easily some of these people lend themselves to a cure by faith! Many years ago I found a young woman in Mr. Callender's ward who was suffering from paralysis of one arm from a lightning stroke six months previously. The limb was well nourished, and had never been burnt. The window at which she was sitting watching the thunderstorm was closed and had not been broken, while the door of the room was shut. A single application of the battery after confidence had been imparted to her by the surgeon sufficed to immediately cure her paralysis. What an excellent case for cure by faith!

III.

Loss of function of nerves from shock and other influences. An old lady whom I saw some years ago told me that she had become stone deaf from the sudden horror of seeing her grandson fall in front of a passing train just as her own train was starting from the platform. It was not until some hours later that the boy was found to have escaped by having fallen between the metals. But she did not recover her hearing on the news. Six months later, however, it came back as suddenly as it had left her. Had she been on a pilgrimage to Lourdes at the time, what a splendid example of spiritual healing hers would have furnished!

IV.

Then there are the so-called reflex conditions of disease, such as asthma—true sickness for the sufferers, making life almost unbearable. Some of them are never cured and are scarcely relieved by any treatment. But there are cases having all the characters of severe asthma which are cured or relieved by a single application of the galvano-cautery to the nose or by the use of an inhaler for a few days. When a medical man claims to have cured nearly 200 cases of asthma out of 400 which he treated by the application of the galvano-cautery to an apparently sound mucous membrane, it is only reasonable to expect that some of these sufferers might have been cured as completely by faith without the cautery as by faith in addition to the cautery.

V.

Stiffness and serious impairment of power after accident. Such was the case of Anatole Desailly, a coalminer, who was seriously injured in April, 1898. When he arrived in Lourdes in August, 1899, he could scarcely drag himself along with the aid of crutches. He was being conveyed to the hospital in a little cart, when he suddenly leapt out of the cart, crying "Ça y est," and began to walk without crutches. A few days later he returned to his work as a coalminer. There seems not the least reason to doubt that, had any other strong influence than faith possessed him, he might have done what he actually did at Lourdes perhaps a year earlier, and have been at work within a few weeks or months of his accident. We are familiar with similar cases and cures, particularly after railway accidents. The impression produced on all observers when such a cure is instantaneous, and takes place in a town charged with the electricity of religious emotion, cannot be overestimated.

VI.

The disappearance of tumours, particularly of internal tumours. Such tumours disappear in persons who have not been treated by faith, but who have been condemned to death by the most capable surgeons. As a rule, the cure is slow, but, as we occasionally know to our chagrin, abdominal tumours disappear as if by magic. Here, again, is a case from Lourdes. Mlle. Victoire Bonnet, aged 30, brought a medical certificate to the effect that she was suffering from a tumour apparently situated at the level of the pylorus, which the doctor believed to be cancerous and, accordingly, incurable. At the tenth immersion in the pool she was suddenly freed from all discomfort, the tumour disappeared, and from that moment she remained cured of all her troubles. Three years later she presented herself at the Bureau des Constatations Médicales, to show that the cure was permanent.

Here, then, are four groups of cases, in addition to the impostors and neuro-mimetics, which afford material for any number of marvellous cures and miracles. The halt and maim walk, the deaf hear, the sick are made whole, and the cure is often instantaneous.

If the diseased condition has been simulated, it has been so skilfully done that we ourselves might have been deceived into believing it to be true disease. And in the other groups, in which there has not been what we regard as organic disease, the patient has been sick or in pain or disabled, and has, perhaps, been treated by many physicians in many lands without relief, when suddenly, or rapidly, complete relief has resulted under the influence of faith. When such cures take place in the presence of vast masses of people, although it may be possible to explain all the steps through which the emotion has produced the "cure," how can we be surprised that the people fall on their knees before God and bless His holy name for the miracle which He has wrought?

I defy any one to read Zola's story of the cure of Marie le Guersaint, written by a sceptic (Zola's *Lourdes*), without being moved by it and without feeling convinced that all the true Catholics who were present, priests and people, with the unhappy exception of the Abbé Pierre Froment, truly believed that Almighty God had been moved by the intercession of Our Lady of the Immaculate Conception to display His divine power by instantaneously restoring the health of the poor girl who had lain paralysed upon a couch for seven years. In the eyes of all who witnessed it, it was a miracle, for every medical man who had seen her had, with one exception, believed her to be suffering from a damaged spinal cord. There is therefore no excuse, in such a case as this or in ninety-nine out of one hundred cases which are cured by faith, to impute dishonesty and deliberate deception to the priests and people who proclaim such cures to be the work of God. From the little I have seen of the priests actively engaged in the grotto at Lourdes, I can feel no doubt that the most of them honestly believe that the cures which they have seen are genuine. I would no more think of accusing them of deliberate deception than I would accuse my own relative of it.

And, knowing his life as I have known it for nearly fifty years, I would as soon believe him to be guilty of forgery

or murder as of an attempt to impose on me by falsely representing the circumstances of a case in which he believes that he cured disease by faith. If he tells me that he has cured cases by prayer and anointing, I am quite certain that he thoroughly believes that he has done so.

It will be seen that only the sixth of the foregoing groups contains cases in which organic disease is likely to have been present. The large abdominal tumours which have been known to clear up either under the influence of faith or without it, are presumably inflammatory, not malignant; but they are solid masses, and may be classed as conditions of organic disease, although they belong to a class which may get well under many diverse treatments.

VII.

But I am prepared to go one step farther, and to suggest that every now and again a case of true organic disease may, perhaps, be cured by faith. I would base my argument on the knowledge we have gained from cancer research. We have learnt that certain mice are immune to cancer, and that mice which are susceptible to cancer may be rendered immune to cancer. We have learnt that cancer may disappear spontaneously in mice which are not immune; and we have learnt that mice may be so treated as to enable them to get rid of their cancerous tumours in the same manner as other mice get rid of them spontaneously. Our cancer researchers are striving to discover what there is in some mice which renders them naturally immune to cancer and what there is in other mice which enables them to get rid of their cancerous tumours. At present the investigations have not yielded any other result than a growing belief that the chemical constitution of the blood or lymph, or of the tissues of the body of mice which are immune to cancer, or spontaneously get well of it, differs in some unknown manner from the chemical constitution of the blood or lymph or tissues of the body of mice which are susceptible to cancer.

Of human beings we are not in a position to affirm that there are any individuals who are immune to cancer, although we do believe that this is so. On the other hand, there are individuals who spontaneously get rid of tumours which are authenticated cancers. Many such cases are on record, and I might quote them from medical literature, but I prefer to take one from my own practice.

Early in 1903 a gentleman, 75 years old, had an epithelioma of the lower lip removed in New Zealand. It recurred, and a second operation was performed six months later. Again the disease recurred, and the glands on the same side of the neck became enlarged. The lip and glands were removed in February, 1904. In the summer of that year he left New Zealand, came to England, and consulted me in September. There was no sign of recurrence. But in November the glands beneath the angle of the jaw at the extreme end of the scar were enlarged. I removed the contents of the anterior triangle of the neck, in which there were glands which were on the point of breaking down. In the following July (1905) there was disease on the posterior border of the sterno-mastoid muscle. With the assistance of Mr. Harold Simmons of Bournemouth I cleared out the posterior triangle, cutting away the muscle and most of the soft structures of the neck. But the disease was on the point of breaking down, and was adherent to the surrounding structures and even to the bone, so that I had to leave lumps of it here and there and to close the wound with the certainty that the patient could not live more than a few months. The wound healed by the first intention. Within a short time all that side of the neck down to the clavicle became swollen, full, and very hard. Dr. Simmons suggested that one more attempt should be made to clear away the remainder of the disease. But I would not consent, and pointed out to him that we had run very close to killing the old man at the last operation, and that the present conditions were much more unfavourable than those which we had dealt with. (This was in October, three months after the operation.) From that time matters began to improve. The induration gradually cleared up until not a trace of disease could be felt. And at this present time, nearly five years after the last operation, the patient is in perfect health. In this case there was no attempt at treatment, whether local, general, or by the influence of the mind. One naturally asks, then, what change took place in that man, and why did the change take place in him which rendered his body not only resistant to further extension of the growth, but even enabled him to get rid of the disease which had been left behind?

To those questions we have no answer ready. But it does seem certain that, after the last operation, the patient acquired a power of resistance which he had not previously possessed. And now I would ask whether it is not possible that such a power of resistance may, once in many thousand cases, be acquired under the influence of a mental condition such as strong faith? When we see the extraordinary influence which is exerted on the body, on its blood and tissues, by fear, by hope, by love—how, on the one hand, the individual fades and wastes and even dies; how, on the other hand, appetite is restored, sleep returns, the blood grows richer and redder, and a kind of resurrection of the body is effected—is it unreasonable to assume that this resurrected body may sometimes differ from the former body in some fine chemical changes which science is not yet able to measure or even to discern? And, if this can be induced by other states of the mind, why not by faith?

I have attempted to formulate this idea, not only to explain the occasional cure of organic disease under the influence of faith, but to explain the cases which are now and again cured by remedies which come into fashion for awhile, then lose their support and are lost sight of (Note III). How many of these remedies I have seen for cancer in the course of the last thirty-five years. Chian turpentine, thyroid extract, cinnamon, trypsin, electricity, Count Mattei's treatment, and I know not how many more. The renown of more than one of them has depended on the cure of a single case of cancer which had, perhaps, been diagnosed by an eminent surgeon. In my earlier days I formed the opinion at once that the eminent surgeon had been mistaken in his diagnosis. And that may have been so in some of the cases. But in other cases the diagnosis has been proved by microscopical examination, and by general conditions which have left no room for doubt. Upon that the same treatment is tried again and again, by many persons, including the one person who had the successful case. But the remedy seems to have lost its charm; there is no repetition of success, and the cancer cure sinks slowly into oblivion. But how is the one successful case to be explained? Did the remedy chance to produce that change in the body of the patient the nature of which our cancer investigators are trying to discover, which rendered it capable of resorbing its cancer and made it immune to another attack of the same variety of cancer? For the present the question must remain unanswered.

It will be inferred, from what I have said, that I believe in spiritual healing; or, to put it in other words, that people are cured by faith. But I am not an advocate for the treatment. It is too capricious, too uncertain. I do not know whether there are any statistics of the proportion of the cured to those who attempt to be cured by faith. I scarcely think there can be. From our point of view, they would not be very reliable, and, from the public point of view, I have an impression they would be very disappointing. At the present moment, in the Western world, the great centre of spiritual healing is in France, at the town of Lourdes. Immense numbers of pilgrims, well and sick, sound and unsound in body or mind, flock to the town in the Pyrenees every year. Lourdes is the metropolis of spiritual healing, and has maintained its supremacy for more than fifty years. So far as I can judge, the results, whether estimated in quantity or quality, are cruelly inadequate. The doctor at the Bureau des Constatations Médicales informed the Abbé Pierre in Zola's *Lourdes* that the proportion of cured to uncured is about 10 per cent. I suspected that Zola would be more likely to represent a low proportion than a high one. But I doubt if he has not overrated it. For in the Chanoine Rousseil's *The Glories of Lourdes*, published last year,* he says that "on an average, 1,500 cures are entered annually in the Register of the Bureau." There must surely be many more than 15,000 persons who visit Lourdes each year in search of healing.

So far as quality is concerned, the most celebrated case is

*Translated by the Rev. Joseph Murray, p. 259. Washbourne, Ltd.

still that of Pierre de Rudder (Note IV), which occurred five-and-thirty years ago, but which was again the subject of an inquiry in 1907–8, made for the purpose of establishing it on a firm base as a miracle. If this be one of the most convincing cases, and the proportion of cures as small as would appear from the Catholic publications, it is certain that a modern hospital which could not make a better showing would not be able to live if it depended on its success for its voluntary contributions.

Why is it, then, that the belief in spiritual healing continues to be so strong in the face of such depressing results? There are many reasons.

To believe is to exhibit great faith; great faith is not common, and those who have it not respect and admire those who do possess it. It is a sign of sanctity, certainly not a sentiment for a religious person to be ashamed of.

Spiritual healing offers a hope to the people whom we are not able to heal. And if one of these people by chance recovers, there is naturally much joy at our expense.

The facts relating to the proportion of those who are cured by faith are not known to those who might be interested in them.

People "love," as my master Sir James Paget said, "to be cured with a wonder."[1] And he pointed out that the cured case is noised abroad, while the persons who have not been cured are not disposed to publish their misfortune or their folly.[2]

Our diagnoses are often distorted, not intentionally, but from ignorance, so that the cure of an incurable or scarcely curable disease may be recorded under an error. We all of us know from statements which patients make to us of what has been said to them by other medical men, or even by ourselves, what absurd ideas may result from the impression which our diagnosis may make upon them. The case related in our JOURNAL is an example of an error of this kind. And here is another example. It has happened to me twice, certainly, to operate for tumour of the breast on a nun in a Roman Catholic convent. In one of those cases I could not be quite sure of the diagnosis, but I said that I believed that the disease was not malignant. Now, during the operation the Mother Superior and one of the nuns remained in the operating room and prayed earnestly all the time. When I told them that the disease was a deep-seated cyst and was not malignant, they cried out with joy and thanked the Almighty that He had heard their prayers. And I have no doubt, whatever I might say to the contrary, that these devout ladies think that the disease, owing to their prayers, was transformed from malignant into innocent during the actual performance of the operation. And I have no doubt that this is the view which the convent held, and that it was taught to all the young ladies who were educated by the nuns.

I could give many other reasons for the popularity of spiritual healing, such as the relief from the necessity of dieting and medicines and local applications; the possibility of a sudden cure and instant relief from all discomfort; the pleasure of acting in opposition to the orders of our profession, which is apt to be a little dictatorial at times. But I have already given far more reasons than are necessary, and I would only point out one advantage which the faithful have over our profession. We can explain, and do explain, many of the spiritual cures, but we cannot explain them all. No doubt, there is an explanation for every one of them, but we are sometimes at a loss to find the explanation of the individual case. Nor is this surprising. For every medical man of large and long experience must have seen patients recover who, according to our laws and theories, ought not to have recovered, and he often finds it quite impossible to explain, even to himself, the reason. There has been no change of treatment, no question of faith, but when matters seemed at their worst and everyone had given up hope, the patient has slowly or suddenly begun to mend and continued to do so to complete recovery. We can no more explain such cases than we can explain some of the cases of spiritual healing. We are obliged to accept them as facts, but we are unable to explain them. The faith healer is under no difficulty in the presence of such cases. He not only accepts the fact, but has a ready explanation of it—that it is an evidence of the existence of a superior being, and is a manifestation of a power and wisdom infinitely superior to our own. The stranger and more improbable the cure, so much the greater glory to God.

And now I ask myself whether I am to join a crusade against spiritual healing, whether I am to sally forth, armed cap-à-pie with the armour of science and reason, to suppress belief in cures by faith. I think not. If the question were whether the world is to be guided by reason or by faith, and I had to make the choice, I should certainly throw in my lot with reason. Or, if I thought the world would be better for the destruction of the Christian religion, I should cry "Away with miracles and cures by faith." Or, if the belief in miracles and cures by faith were an essential part of the Christian religion, I should protest against such tyranny. But it certainly is not so in the Protestant Church. And an Italian lady, a Roman Catholic, whose sister is the Mother Superior of a convent, has often told me that belief in the miracles and cures of the Middle Ages and of modern times is not essential. It is good for those who have it, but the absence of it does not imperil the salvation of the soul. Knowing as I do how the belief in cures by faith is bound up with religious belief in the minds of many truly devout and excellent persons, and that the breaking or the shaking of it might weaken the very foundation of their belief in God, I am not disposed to war against it, but to let it be, believing that the world is none the worse, but distinctly the better, for religious beliefs which tend to make men and women kinder, less careful for themselves and more thoughtful for others—which make them, in truth, better men and women than they otherwise would be.

NOTES.

NOTE I.—This case is worth recording, to show how strong the belief in spiritual means is imbedded in the minds of some persons. Some years ago one of my medical friends told me that I should probably be consulted by a lady who was one of his connexions, and who was a member of the Christian Science sect. I had not heard of the sect before, and questioned him regarding it. Two days later a tall, well-looking, and elegantly-dressed woman came to see me. When she removed her hat and turned back the locks which hung down over her forehead, I was shocked and disgusted to see that she was suffering from tertiary ulceration, that there was no dressing on the sores, and that her hair was actually matted with the foul discharge. There was similar ulceration of the scalp. When I had examined her, we both sat silent. She was the first to break the silence, saying, "Well, I was quite sure, before I came here, that you would not be able to cure me. What they have not been able to do in Wales and in America (where she had been) you will not be able to do." I replied, "You are quite right. I cannot cure you. For, knowing what I do of you, I am sure you will not do what I tell you." "If I did," she said, "it would be all the same." "No," was my reply, "for I can certainly cure you if you will do what I tell you to do." She considered for a moment, then accepted the challenge.

A fortnight's course of potassium iodide and a simple application to the sores made a different woman of her. She persevered in the treatment until she was quite well, and I thought she had learned her lesson so that she would have the good sense in future to try orthodox treatment, in the first place at least. It must have been between two and three years later that I learned that she was lying very ill in the house of a friend some twenty miles from London. I was told that she dragged one leg, was very weak, frequently sick and suffering from severe giddiness. But with the onset of her illness she had again placed herself under the care of some of the leading persons of the Christian Science sect. I was asked to go down and see her, but there was grave doubt whether she would consent to see me. As a matter of fact she was delighted to see me, and once more recovered under large doses of potassium iodide.

NOTE II.—"Sofa saints." I do not know who invented this name for some of the neuro-mimetic patients, but the first time I heard it used was at the Children's Hospital. I was registrar, and Mr. (Sir Thomas) Smith was surgeon to the hospital. When he came into the female ward one morning he found there a girl, about 9 years of age, who was lying on her back apparently fast asleep. I told him she had been lying thus, with her eyes closed, so far as I could ascertain, for a period of two years, and that she could not be wakened. After examining her attentively for some minutes, he drew me away from the bed, and

laughing after his fashion, said, "Why, Butlin, she's a sofa saint."

NOTE III.—Two cases are worthy of mention under this paragraph. A great many years ago, during the enthusiasm in favour of Chian turpentine as a cure for cancer, I was consulted by a gentleman who was nearly cured of a cancer on each border of the tongue. The disease had been diagnosed by Sir James Paget and other distinguished surgeons of the day. He had placed himself under the care of Dr. Clay, and he told me he had taken Chian turpentine and Canada balsam until his feet and hands and face swelled, and he was stupefied. The swelling of his feet was such that he could not put on his boots. In fact, he seemed from his description to have suffered from a temporary condition resembling myxoedema. But the ulcers of his tongue began slowly to mend under the treatment, and, when I saw them, they were on the road to rapid recovery. And this patient did recover. Of course, the diagnosis of cancer may have been erroneous.

The other case was that of a lady whom I never saw myself, but an account was given me of it by an old friend in general practice. It was in the days when thyroid extract was in favour, and he tried it in a case of recurrent cancer of the breast, where there were ulcerated plaques in the skin, and the diagnosis had been confirmed by microscopical examination. He pushed the administration of thyroid extract until the patient was so ill from it that he feared that she might die. But when she had reached that state her cancer began to get well, and continued to do so under less vigorous doses of thyroid until she quite recovered.

It will be observed that in both these cases the medicine was pushed until it produced a very extraordinary effect upon the health of the patient. A repetition of the same tactics has not been attended with success in the case of either remedy. Certainly not with thyroid, for I have pushed it in the treatment of hospital patients (where I could be sure that what was ordered was taken) as far as the safety of the patient would permit.

NOTE IV.—Pierre de Rudder suffered from inability to rest his weight upon his leg and from necrosis and discharging sinuses, following upon a compound fracture sustained in the year 1867. He was treated by various medical men in the course of the next eight years, but the sinuses remained still unhealed and he was not able to use his leg to much purpose. In the year 1875 he went, not to Lourdes itself, but to the Sanctuary of Notre-Dame de Lourdes at Oostacker-lez-Gand, where he bathed. Suppuration is said to have ceased at once, the wounds suddenly closed, two cicatrices formed, bony consolidation was performed without the formation of a callus and without shortening or vertical deviation. Even if this case were accepted, it is but a poor exhibition compared with what might have been expected. One cannot but ask whether this is the best which so powerful an intercessor as Notre-Dame de Lourdes can show in the course of half a century. Its importance in the minds of the faithful is shown by the appointment of a Commission in 1907 for the purpose of sifting the evidence, and by the fact that the canonic judgement of the Bishop of Bruges (Monsignor Waffelaert) declared to the world in 1908 that the cure was "miraculous." The case is all published in the *Journal de la Grotte* (Dimanche, Août, 1908), during a visit which the Bishop was making to Lourdes, and the faithful were, I know, very much rejoiced at the decision. I would almost desire to believe the miracle myself, but there are certainly two grave defects in the evidence. There is no evidence to show whether the bones united in the first months after the accident; all that is said is that Pierre could not bear upon the leg. And the last medical examination of his leg was made nearly three months before the cure took place. Had there been clear evidence of non-union of the fracture up to the time of that examination, or had the limb been examined by an impartial medical witness within two or three days of the cure, the case would bear a very different aspect.

In the *Journal de la Grotte* this case is spoken of as "la plus célèbre de toutes les guérisons dues a l'intercession de Notre-Dame de Lourdes."

REFERENCES.

[1] *Clinical Lectures and Essays*, second edition, p. 98. London, 1879.
[2] Ibid., p. 88.

THE FAITH THAT HEALS.

BY

WILLIAM OSLER, M.D., F.R.S.,

REGIUS PROFESSOR OF MEDICINE, OXFORD UNIVERSITY.

NOTHING in life is more wonderful than faith—the one great moving force which we can neither weigh in the balance nor test in the crucible. Intangible as the ether, ineluctable as gravitation, the radium of the moral and mental spheres, mysterious, indefinable, known only by its effects, faith pours out an unfailing stream of energy while abating nor jot nor tittle of its potency. Well indeed did St. Paul break out into the well-known glorious panegyric, but even this scarcely does justice to the Hertha of the psychical world, distributing force as from a great storage battery, without money and without price to the children of men.

Three of its relations concern us here. The most active manifestations are in the countless affiliations which man in his evolution has worked out with the unseen, with the invisible powers, whether of light or of darkness, to which from time immemorial he has erected altars and shrines. To each one of the religions, past or present, faith has been the Jacob's ladder. Creeds pass; an inexhaustible supply of faith remains, with which man proceeds to rebuild temples, churches, chapels, and shrines. As Swinburne says in that wonderful poem, *The Altar of Righteousness:*

God by God flits past in thunder, till his glories turn to shades:
God to God bears wondering witness how his gospel flames and fades.
More was each of these, while yet they were, than man their servant seemed:
Dead are all of these, and man survives who made them while he dreamed.

And all this has been done by faith, and faith alone. Christendom lives on it, and countless thousands are happy in the possession of that most touching of all confessions, "Lord! I believe; help Thou my unbelief." But, with its Greek infection, the Western mind is a poor transmitter of faith, the apotheosis of which must be sought in the religions of the East. The Nemesis of faith is that neither in its intensity nor in its effects does man find any warrant of the worthiness of the object on which it is lavished—the followers of Joe Smith, the Mormon, are as earnest and believing as are those of Confucius!

Again, faith is the cement which binds man to man in every relation in life. Without faith in the Editor of the JOURNAL I would not have accepted his invitation to write this brief note, and he had confidence that I would not write rubbish. Personally I have battened on it these thirty-six years, ever since the McGill Medical Faculty gave me my first mount. I have had faith in the profession, the most unbounded confidence in it as one of the great factors in the progress of humanity; and one of the special satisfactions of my life has been that my brethren have in many practical ways shown faith in me, often much more than (as I know in my heart of hearts) I have deserved. I take this illustration of the practical value of the faith that worketh confidence, but there is not a human relationship which could not be used for the same purpose.

And a third aspect is one of very great importance to the question in hand—a man must have faith in himself to be of any use in the world. There may be very little on which to base it—no matter, but faith in one's powers, in one's mission is essential to success. Confidence once won, the rest follows naturally; and with a strong faith in himself a man becomes a local centre for its radiation. St. Francis, St. Theresa, Ignatius Loyola, Florence Nightingale, the originator of every cult or sect or profession, has possessed this infective faith. And in the ordinary everyday work of the doctor, confidence, assurance (in the proper sense of the word) is an asset without which it is very difficult to succeed. How often does one hear the remark, "Oh! he does not inspire confidence," or the reverse! How true it is, as wise old Burton says: "That the patient must have a sure hope in his physician. Damascen, the Arabian, requires likewise in the physician himself that he be confident he can cure him, otherwise his

physic will not be effectual, and promise withal that he will certainly help him, make him believe so at least. Galeottus gives this reason because the form of health is contained in the physician's mind, and as Galen holds confidence and hope to be more good than physic, he cures most in whom most are confident"; and he quotes Paracelsus to the effect that Hippocrates was so fortunate in his cures not from any extraordinary skill, but because "the common people had a most strong conceit of his worth."

Faith is indeed one of the miracles of human nature which science is as ready to accept as it is to study its marvellous effects. When we realize what a vast asset it has been in history, the part which it has played in the healing art seems insignificant, and yet there is no department of knowledge more favourable to an impartial study of its effects; and this brings me to my subject—the faith that heals.

Apart from the more specific methods to be dealt with faith has always been an essential factor in the practice of medicine, as illustrated by the quotations just given from Burton. Literature is full of examples of remarkable cures through the influence of the imagination, which is only an active phase of faith. The late Daniel Hack Tuke's book, *The Influence of the Mind on the Body*, is a storehouse of facts dealing with the subject. While in general use for centuries, one good result of the recent development of mental healing has been to call attention to its great value as a measure to be carefully and scientifically applied in suitable cases. My experience has been that of the unconscious rather than the deliberate faith healer. Phenomenal, even what could be called miraculous, cures are not very uncommon. Like others, I have had cases any one of which, under suitable conditions, could have been worthy of a shrine or made the germ of a pilgrimage. For more than ten years a girl lay paralysed in a New Jersey town. A devoted mother and loving sisters had worn out lives in her service. She had never been out of bed unless when lifted by one of her physicians, Dr. Longstreth and Dr. Shippen. The new surroundings of a hospital, the positive assurance that she could get well with a few simple measures sufficed, and within a fortnight she walked round the hospital square. This is a type of modern miracle that makes one appreciate how readily well meaning people may be deceived as to the true nature of the cure effected at the shrine of a saint. Who could deny the miracle? And miracle it was, but not brought about by any supernatural means. I had the good fortune to be associated for five years with Weir Mitchell, and saw much of the workings of that master mind on the sisters of Sir Galahad and the brothers of Sir Percivale, who flocked to his clinics. His extraordinary success, partly due to the rest treatment, was more largely the result of a personal factor—the deep faith the people had in his power to cure. And it is in this group particularly that the strong man armed with good sense, and with faith in himself, may be a power for good. And the associations count for much. Without any special skill in these cases or special methods, our results at the Johns Hopkins Hospital were most gratifying. Faith in *St. Johns Hopkins*, as we used to call him, an atmosphere of optimism, and cheerful nurses, worked just the same sort of cures as did Aesculapius at Epidaurus; and I really believe that had we had in hand that archneurasthenic of ancient history, Aelius Aristides, we could have made a more rapid cure than did Apollo and his son, who took seventeen years at the job!

Outside the profession faith has always played a strong rôle as a popular measure of cure. There are at present four plans, all of which illustrate phases of an old-time practice.

1. In England a small sect, the Peculiar People, carry out a consistent gospel system of faith healing. A pious, simple folk, only heard of when in collision with the law of the land, they base their belief on the plain sayings of Scripture, "Whatsoever ye shall ask in My name," etc. The prayer of faith is all they need, and in consequence, when one of their number dies, there is an inquest, and someone is sent to prison for criminal negligence. One of the recent cases was very pathetic, as both father and mother expressed the most touching confidence that what God willed was best for their child with scarlet fever, and what they asked in prayer would be granted. This primitive Christian attitude towards disease has never lacked adherents in the Church, and mediaeval literature is full of illustrations of a practice identical with that of the Peculiar People.

2. The Christian Church began with a mission to the whole man—body as well as soul—and the apostolic ministry of health has never been wholly abandoned. Through the Middle Ages the priests had care of the sick; many of the most distinguished physicians were in holy orders, and even after the Reformation in this country much of the ordinary medical practice was in the hands of the clergy. But the most characteristic development of Christian faith healing has been in connexion with certain saints and shrines. The early Church found the popular belief in Aesculapius so deeply engrained that many rites of the temples were deliberately adopted, such as incubation and the practice of votive offerings. The temple sleep, in which methods of cure were suggested in dreams, was continued until recent times, and indeed has not yet been abandoned. Certain saints had special powers—St. Cosmas and St. Damian became the patrons of surgery; St. Antony and St. Vitus had well known virtues. Belief in the healing power of relics became universal. The Reformation made a small section hostile, but a large majority of all Christians still believe strongly in the power of the saints to cure disease. The votive offerings which cover the walls of many Catholic churches on the Continent, accompanied with grateful inscriptions, are modern counterparts of the old practice in the Aesculapian temples. Miracles are still as common as blackberries, and new saints and new shrines are in active manufacture. The process may be studied in the history of Bernadette Soubirous, the 14-year-old ecstatic, who fifty years ago had visions of the Virgin at Lourdes, now the most popular faith resort in Europe. The cures are often genuine, and the miracles are of the same kind and as well attested as are those of Epidaurus. More people, it is said, frequent Lourdes than all the hospitals of France, and the same is true in Canada of the most popular shrine of the New World—St. Anne de Beaupré. In the English-speaking world and in Germany faith has been chilled by the Reformation, and even among Catholics this mode of healing is not much in favour. I do not know of a single popular shrine in the United States, the country of all others in which Roman Catholicism presents the most rapid development. In England there has not been an active medical saint for 300 years.

3. History repeats itself, and we are to day deep in the throes of an intellectual change quite as striking as that which came over the Graeco-Roman world when disbelief in the gods, started by the philosophers, filtered into common life. Men sought other resting places, some with Zeno and the Stoics, others with Epicurus, while thousands remained in the misty mid-region of uncertainty. The cults which had ministered to the religious wants gradually lost their hold on the people, while the new sects appealed chiefly to the intellectuals. Christianity came, and, winning its way from below upwards, swept away many cults, absorbed others, and gradually destroyed the sects. Once again old beliefs are in the melting-pot. Modernism, the culmination of the spirit of the Renaissance, has changed the fundamental aspects of humanity, and the new wine in the old bottles has had the usual effect. A great gulf has opened between pastor and flock, and the shepherdless sheep at large upon the mountains have been at the mercy of any one who could pipe new tunes. One result of this intellectual and spiritual unrest is of great practical interest to us as physicians, and of still greater interest to all students of psychology. A new cult has arisen, attractive and aggressive, unlike in many ways anything hitherto seen. It was only natural (and the punishment fits the crime!) that such a cult should come from the United States, the country which possesses a larger number of separate sects than any other in the world. That the founder should be a woman profoundly ignorant of theology and of science, without, indeed, a single bond between the professors of the one or the practice of the other, was in itself a favouring element. A disciple of an American spiritualist, Mrs. Eddy had one strong conviction—the paramount importance of the things of the spirit. Never before in a history surcharged with examples of

credulity has so monstrously puerile a belief been exploited. To deny the existence of disease, to deny the reality of pain, to disregard all physical measures of relief, to sweep away in a spiritual ecstasy the accumulated wisdom of centuries in a return to Oriental mysticism—these, indeed, expressed a revolt from the materialism of the latter half of the nineteenth century at once weird, perhaps not unexpected, and, to a student of human nature, just a bit comic. One cannot but smile to think that this has happened at the very time when the Goddess of Reason was priding herself on the brilliancy of the accomplishments of her devotees! It is, indeed, a salutary lesson in humility, and serves to remind us that our deliciously credulous human nature is still plastic and receptive. To some a sign of decadence, to me the growth of Christian Science and of Mormonism are among the hopeful indications that we are in the childhood of the race. Only in the welter of a new world, untrammelled by a past, and by regard for authority, among a keen people too much absorbed in business to work out for themselves any mental salvation could such a chaotic mass of rubbish have had any measure of successful acceptance. And, as I said, the punishment fits the crime. For generations the people of the United States have indulged in an orgie of drugging. Between polypharmacy in the profession, and quack medicines, the American body had become saturated *ad nauseam*, and here indeed was a boon even greater than homoeopathy! No wonder the American spirit, unquiet in a drug-soaked body, rose with joy at a new Evangel. In every county there were dyspeptics and neurasthenics in sufficient numbers to demonstrate the efficacy of the new gospel! But the real secret of the growth of Christian Science does not lie in the refusal of physical measures of relief or the efficacy of prayer, but in offering to people a way of life, a new Epicureanism which promises to free the soul (and body) from fear, care, and unrest; and its real lever is the optimism which discounts the worries of the daily round. It has done the profession good in awakening an interest in a too much neglected section of rational therapeutics. The tragic side of the story lies in the valuable lives sacrificed to the fanatical ignorance of so-called healers. The miracles of Christian Science are the faith cures which we all know so well. They are exclusively in the realm of functional disorders. I have not met with any case of organic disease permanently cured. I know of reputed cures of locomotor ataxia; two of these patients still take opium for the lightning pains.

4. And, lastly, there has arisen in the United States a form of faith healing known as the "Emmanuel Church movement," which originated in Boston with the Rev. Dr. Worcester, an able and distinguished clergyman of the Episcopal Church, who had had a good training in psychology under Fechner at Leipzig. Curiously the idea arose out of the success which had attended the organization among the members of his church of classes for the home treatment of tuberculosis by my friend and former pupil, Dr. J. H. Pratt. It was suggested that the Church might undertake the treatment of nervous troubles by mental and spiritual agencies. The method is as follows (I quote for brevity from Powell's *The Emmanuel Movement in a New England Town*, 1909):

> The Emmanuel movement in Boston makes use of both the social uplift and the individual direction. There is a class for the prevention of functional ailments as well as a clinic for their cure. Any Wednesday evening from October until May you will find, if you drop in at Emmanuel Church—one of the most beautiful church interiors in the land, well filled with worshippers, to the astonishment of those who think the mid-week service a spent force in organized religious life. A restful prelude on the organ allures the soul to worship. Without the aid of any choir several familiar hymns are sung by everybody who can sing and many who can not. A Bible lesson is read. The Apostles' Creed is said in unison. Requests for prayers in special cases are gathered up into one prayerful effort made without the help of any book. One Wednesday evening Dr. Worcester gives the address, another Dr. McComb, still another some expert in neurology or psychology. The theme is usually one of practical significance, like hurry, worry, fear, or grief, and the healing Christ is made real in consequence to many an unhappy heart. Though the mass effect of the service, which is always followed by a purely social hour in the adjoining parish house, is prophylactic, it is not at all uncommon for insomnia, neuralgia, and kindred ills to disappear in the self-forgetfulness of such an evening.
>
> But it is in the clinic, conducted every day by one or other of the two head workers assisted by eleven helpers, that the treatment is direct and definite. Every applicant must first submit to diagnosis. If organic trouble is disclosed, he is not accepted as a patient. If the disease appears to be simply functional, the applicant is registered for treatment and passed on into the Rector's study. There he finds himself in an environment in which the very appointments of the room conduce to the disclosure of every fact, physical, mental, social, moral, spiritual, which bears in any way upon the situation. To the frankness which the family doctor's presence can evoke is added the confidence which the confessional inspires. All the conditions are for many a new patient immediately supplied which unlock the hidden wholesomeness of his inner life and lead by rapid stages to complete recovery.
>
> Where more is needed than the full self-revelation—in itself curative—and the prayer and godly counsel which succeed it, the patient is next invited to be seated in a reclining chair, taught to relax all his muscles, calmed by soothing words, and in a state of physical relaxation and mental quiet the unwholesome thoughts and the untoward symptoms are dislodged from his consciousness, and in their place are sown the seeds of more health-giving thoughts and better habits. The spiritual result of such an experience outbulks all else. As week after week patients come for treatment, they frequently lose interest in the ailments which were once their torment and cease to think at all about them, physical health becomes a casual by-product of the spiritual uplift, and the sometime patient, well once more, one day goes on his way, like Jacob after Peniel singing to the world, "I have seen God face to face, and my life is preserved."
>
> But the patient has his share in applying the treatment. The cure is never permanent without his complete and constant co-operation.

As the Rev. Lyman Powell says, in the excellent book from which I have taken this extract, "The only magic known in the Emmanuel movement is the magic of a mind surcharged with faith, and operative within bounds set by the scientific doctor." Here, again, the success will depend in the individual character of the man conducting the movement. The class organization, the association with church services, and the confidence inspired by the co-operation of pastor and doctor have been favouring features. Only in existence for a few years, it is impossible to say what the future has in store, but it is an honest attempt to bring back that angelical conjunction, as Cotton Mather calls it, of physic with divinity.

Briefly stated, this is the status of the faith problem in medicine to-day. Others will analyse its workings, the relation to suggestion, to the subconscious self, etc. Not a pyschologist but an ordinary clinical physician concerned in making strong the weak in mind and body, the whole subject is of intense interest to me. I feel that our attitude as a profession should not be hostile, and we must scan gently our brother man and sister woman who may be carried away in the winds of new doctrine. A group of active, earnest, capable young men are at work on the problem, which is of their generation and for them to solve. The angel of Bethesda is at the pool—it behoves us to jump in!

CONSIDERATIONS ON THE OCCULT.*

BY

T. CLAYE SHAW, M.D., F.R.C.P.,

EMERITUS LECTURER ON PSYCHOLOGICAL MEDICINE, ST. BARTHOLOMEW'S HOSPITAL.

GENTLEMEN,—I am introducing to you a subject which is at present full of mystery, because the time is probably not far distant when we shall be much enlightened on the nature and application of these occult processes, and as you will possibly be in active practice during the new eventful years, I beg permission to place before you some ideas which strike me as being relevant to the subject, in the hope that your attention may be drawn to it with the view of assisting, as opportunity offers, the exploitation of phenomena the nature of which it is impossible to predicate at the present.

The Vibration Theory.

Through the vibrations of ether we become conscious of what is going on outside us, at any rate in the regions of sight and hearing, and it is to be assumed that in some way or other these vibrations of ether are transformed into a molecular conduction along the nerve paths to the central cells themselves, so that a cell which is energizing is a cell in motion in a definite way, and as long as this

* A lecture delivered at the London Polyclinic.

motion lasts so long does consciousness or activity continue. Kingdon Clifford recognized this, and he remarked that:

> The vibratory motion of solids, which is really a molecular disturbance, is absorbed by being transformed into other kinds of molecular motion, and so may finally be transmitted to the ether. (*Lectures*, i, 246.)

The importance of what Clifford wrote is manifest, for it postulates not only that external vibrations may be transmitted to the internal nervous mechanism, but that the reverse process may take place, namely, that central nervous action (for example, as in the process of active attention) may be transmitted outwards to the ether, where, of course, it ought to be capable of demonstration. If this is true it would account for telepathic influence, a possibility asserted but not yet proved. We may understand how it would be possible that internal vibration which is communicated to an external medium might, if meeting with vibrations of a similar quality, serve to reinforce the latter so as to evoke a reciprocal effect (consciousness) in the centre whence the reinforced vibrations emanated. Examine this process a little more closely. How would it occur? It would mean that in the respective spheres, say, of sight, audition, and sound (words), central impulses were communicated to the external ether, and that these must correspond with the internal process. If an image is formed on the retina it sets up certain internal processes which eventuate in what we call the perception and the consciousness of that image.

Now take the reverse process. Is it possible so to revivify (say by active attention) those internal processes that the image shall again be produced on the retina, and even further, so as to act upon external media?

There are psychologists who hint at their belief in this reverse excitation—for example, Professor Sully. If this is true of one sense, it must be true of the others, and the theory may be extended to include the whole body.

It may not be given to every one to be able to re-excite central processes so that they may flow with such intensity in the reverse direction, but there are persons of such intense concentration that they do seem capable of re-exciting dormant tracts. I knew an anatomist who said that he could so realize a dissection that when thinking of it he could actually see the parts before him as if they were really present, and it is common knowledge that painters can carry away an impression of a landscape and reproduce it in detail at their leisure, and this not merely by the *memory* that there were certain details of form and colour here and there, but by an actual revivifying of the first impression.

That the body itself irradiates into space is more than probable, though we are ignorant of all the conditions under which this occurs. Some persons of high sensibility can detect the presence of a living object in a dark room without the previous knowledge that there was any occupant, and this is intelligible when we consider that the body being a warm living thing, there must be physical emanations, alterations of air currents, and so forth. But there must be other conditions of radiation which we may conceive must exist though we cannot prove them. For instance, a well-known actor declared to me the other day that when resident in some parts of America he was in a state of electric tension, that by simply rubbing his feet on the carpet he became so charged with electricity that on raising his finger to another person there was an explosion of a small electric spark, and that he could light the gas by approaching his finger to a jet when the tap was turned on, just in the same way as happens to any one who is charged by a high-tension current of electricity. There is, probably, no such a sensitive receptor as certain developments of the human body, and when one asserts that he has feeling of a certain kind, or that he can see or hear certain things which to other less receptive organisms are not apparent, we should be able to allow that the condition is quite possible and that the recipient of the impressions is a living scientific proof of it. And yet we do hesitate to accord our belief because we ourselves may not be able to perceive what is asserted, nor are, perhaps, capable of being made to appreciate it owing to our own defective mechanisms, and so we at once not only think of deception but openly proclaim it. Why? Just because it cannot be proved and brought home to universal cognition. There are people who feel uneasy and even ill, depressed and sick, in certain atmospheric conditions when others are in no way affected—then a thunderstorm comes on, and the victims of the unseen and unsuspected influence are restored to normal equilibrium. That was a distinct vito-physical experiment demonstrated by a certain quality of organism alone. An individual in such a state that he can light the gas by just presenting his finger must be irradiating force in a way that would never have been suspected but for the coarse realization of objective experiment.

In the *personality* of some individuals the indescribable impression of latent force becomes objective; it is held probable that we are in this instance affected, not by history, tradition, or mere external peculiarity in bulk, form, or manner, so much as by an actual emanation of *force* in some shape of which our mental reception is really the exponent, the physical proof by experiment. But no such emanation has yet been proved.

Still more evident is the action of the spoken word. Here there is no doubt about the fact of vibrations communicated, and when of a certain intensity, received upon a medium, and, we must think, not only received but received by the listener in the same way as they are emitted by the speaker. If I stand at a distance—say, twenty yards—from the person whom I am addressing, the latter hears what I say if I only speak loud enough. Now, it ought to be possible to trace the progress of the vibrations through the space intervening, for, no doubt, the physical movement does exist. but so far it is not possible to show what happens. And if, as we must conceive, there are different degees of sensitiveness or receptivity in individuals, it follows that the spoken word may be of the lowest intensiveness, and therefore inaudible for some though perceptible by others. Consider wireless telegraphy. That an alteration of the air-medium between the primary apparatus and the receiving station exists there is no possible doubt, because by suitable means it is easy to interrupt—as it were to steal—the message; but there is no other evidence of this active state, though motion of some kind is constantly going on in it. The telephone is different—it is, for the time being, a part of the body, there is a visible continuity; but what we want is to ascertain the process going on in non perceived media. As a rule, women are more sensitive to sensational impressions than men, and though I do not profess to know the conditions under which intracommunication exists in the case of the Zancigs, I can quite understand that if the positions were reversed, and if *he* were made the receiver instead of the lady, the exhibition might not be possible.

The Psycho-Physical Society is at present little more than a record of personal experiences, and because it presents nothing but assertions without physical and demonstrable proof people are inclined to scoff at its lucubrations, but in common fairness it ought to be allowed that if, during séances, or in the giving of expositions, or even in the mere narration of experiences, some condition of nervous excitement is produced (called by many people hysteria, nervousness, etc.), this very condition of excitement or tension is favourable to the reception of impressions which would be otherwise imperceptible. That charlatans exist in this special direction must be because of the want of true scientific interpretation, but that does not invalidate the probability of truth being at the bottom of it. There are charlatans in medicine and surgery, especially in the departments where our knowledge is most defective—as we know to our cost—for is not public gullibility the quantitative test of our fallibility?

To my own knowledge the following occurred:

A man went down to a river to fish and was not seen again; the river was diligently searched for many days but no trace of him was found. Then a keeper's daughter had a night vision—a dream, if you like—that she saw the body in a certain pool which she named; and there, as a fact, the body was found.

Of course, the girl knew the river, had heard of all that had been done in the way of searching, knew of the reward for the finding of the body, and doubtless had thought much upon a subject which caused intense local excitement; but may not that very excitement have rendered her susceptible to actual movements which must have occurred and which, as it were, accidentally, perhaps,

came within the sphere of her cognition? No, you will say, it was a mere coincidence, or a judgement founded on reasoning that this particular pool had, perhaps, not been searched. Well, it may be so, but on the other hand, there was no certainty that the man was in the river at all. During his act of going to the pool and of falling in there must have been a great disturbance of medial agencies which only awaited the necessary receptor for their recognition.

A man with good eyesight might have seen the occurrence a quarter of a mile off; a hawk with better eyesight might have seen it at twice or three times the distance. Why may not this girl have been sensitive to medial vibrations which could only affect a receptive agency of a definite reciprocity?

Until we can explain and show the fact of intermaterial communication there must, of course, be ridicule of those suppositions, and that person remains in possession of the field of human intelligence who loudly proclaims as his creed, "I believe just what I can see, hear, feel, or smell, and nothing more."

When I say to another person, "You will sleep tomorrow at 10 a.m.," I arouse his expectant attention; I arouse a process which goes on in certain cells; I arouse a process akin to my own, which, through intensification, becomes in my subject a dominant and reinforced idea, to the exclusion of others. When I say to a person, "You cannot get off that chair," and when the person finds that he cannot, what has happened? I arouse in him a definite idea, and the vibrations are in harmony with mine, the new idea is reinforced and becomes dominant, and therefore imperative; for, surely, to have the idea that I *cannot* get off a chair means the actual inhibition of the idea that I *can* do it, and so there is nothing to set in action the muscles necessary for getting up.

In the same way the command to go to sleep involves the arousing of a dominant idea, the muscular expression of which is the closing of the eyes, the adoption of a reclining attitude, and the assumption of the prodromata of sleep.

It is common knowledge that the strenuous tension of the idea is so essentially the antecedent of muscular action that it is often impossible to control the latter in the presence of the former, hence the term "ideo-motor action," and generally we may sum up the action of the person who is obedient to suggestion or to hypnotism in the words "ideo-motor"; but this form of action is of the *impulsive* kind, of what Wundt calls simple voluntary action, and the chief constituent of it is Feeling—we all know that the more emotional a person is the more impulsive, the more liable to suggestion he is. The art of the suggestor, or of the hynoptist, is the creation of a state of mono-ideism, of reduction to a condition in which the balance of motives is upset and where there can be no choice, and this is done by the influence of personality, by authoritative or persuasive tone of voice, by the means of artificial aids, such as electricity, crystal-gazing, etc, which tend to concentrate the attention upon what is being said, to arouse an idea of the same tone as the suggestor's, reinforced in harmony with it. External voluntary action cannot exist without an internal process, though the converse does not hold. The suggestor knows that the assumption of an external position may, however, lead to the internal idea of which it is the expression, and he almost invariably (anyhow at first), imposes certain muscular adjustments, knowing that his best way to influence and set up definite internal conditions is by what has been termed the muscular element of thought. Can internal voluntary action be registered by any means—that is, Can thought be made manifest, apart from some muscular demonstration?

Here lies the great secret. If it can, then telepathy is possible. Can the mere *internal* willing something cause the thing willed to come to pass? You will probably say, "No; because if it could there would be an end of individualism and of secrecy. If by merely willing I can compel another to disgorge the contents of his internal nervous action, there is an end of speculation, of deceit, of bargaining—any person's mind would be open to the caprice of another, and the word 'privacy' would cease to have an intelligible meaning!"

It is true that we can sometimes tell what is going on in another person's mind, but only when he gives the clue by involuntary muscular action, as by a cry or a start, or by an involuntary blushing or pallor—only by some medium of external communication of this sort.

A strong internal concentration is a personal proprium, a self-determinant, only capable of influencing others by example or the spoken word. At times so strong as to assert itself, it displays what is going on by an involuntary exclamation or movement, but, if combined with this internal thinking, there is sufficient inhibition, then no one can divine what is going on. Those who profess to be thought-readers are really persons of quick perception trained by experience, who are thereby able to notice minute physical changes in expression, colouring, or action, and to draw conclusions which are not manifest to others less gifted or accomplished in the art of interpretation.

Look away from man for a moment.

Is there going on outside us a world of *Force* which requires for its display the human mechanism? If there is *Force* existing under these conditions, does it ever show itself in apparently purposeless actions? For example, How is it that there have to be stimulations of the human mechanism in a way which is palpable before we agree to notice brain or nerve action? A person may be sitting quietly, when all at once he says or does something unexpected by himself or others. He may even say, "I wonder what made me say—or do—that. It seemed suddenly to occur to me, for I was not thinking of it at the time." Such instances must be viewed with great suspicion, for as a rule it is possible to trace antecedents to both internal and external action—as a rule, I say; but if our first premiss is true—namely, that there may be external Forces at work which are able to affect the human mechanism—it is surely not possible to deny that the individual may have been moved to speak in a way unknown to himself by some influence of which he was the appropriate medium. There must be—there are—paths of subconsciousness leading to the connexion between ideas which it is difficult, perhaps not possible, to trace, owing to their rapidity or to their low intensity. For instance, two men may be faced with the same mathematical problem; the one without any hesitation gives the correct answer (which is indeed a judgement process differing in quantity from the first proposition, and only possible in its solution by a continuous chain, however rapidly the links may be traced over), whilst the other arrives at the same conclusion by a slow process the steps of which he is painfully conscious of; but if asked to state how he arrived so rapidly at his judgement the born mathematician will say that he cannot tell you—the result seemed to come at once without any consciousness of intervening processes, though, of course, these must have occurred, but they were too rapid and feeble to rise into a perception of them.

It is, then, hypothecating the predicate to assume that there is no connexion between ideas because we are not able to trace it at all times. Many will recall occasions when, though not at first able to trace the steps by which the connexion between ideas occurred, they were yet able by diligent attention to so *intensify* the intervening steps that they finally rose into consciousness and clearly demonstrated that the association between ideas was actually a determined one.

To prove that the perception of sensation demands a definite intensity and time in the receptor, it is only necessary to mention that it is possible to read so quickly that only a blurred consciousness follows of what has been read—there was no time for the too rapid outer impressions to rise to a full consciousness of their meaning.

Remember that our present question is that of the possibility of external Force influencing the human organism. Can these abstract "mental atmospheres" affect the nervous system so that an insanity, or a group of symptoms, may be set up without a morbid internal physical alteration? Can we suppose that sudden and temporary frenzies may be produced in this way, just as if, considering the human mechanism by itself, there was a wild and tumultuous agitation or sweeping over of the instrument in such a way as to cause a discord or incoherence? Such a condition would be a true functional insanity, and would account for those cases in which, though mixed up with incoherence and even delirious and strange actions, there is yet evidence of intelligence and

perfect sanity in the conduction of the ordinary affairs of life, and after death there are no more traces of disease than may be found in any one whose mental action has been considered normal.

If the body and brain are just merely instruments for the working of this Force, then our actions denote that some changes are going on in the nature of this Force for which there is in us no responsibility. We are just puppets as it were, the keyboard of an electric installation. And, if so, man is just a necessary complement of this Force, nothing more, and the object of his creation was merely that of a Force terminal, an Æolian harp which discloses the motion of winds which we cannot see. If the existence of the Force we are discussing is a chimera, a fantastical creation, what are we to say to the writings of the Prophets in the Old Testament? They wrote things which they did not understand and had no knowledge of at the bidding of a Voice, and some of these forebodings actually came to pass. Was this just a coincidence? How could they write what seems to us wonderful, not having before any experiences which could make possible the things about which they were writing? We must either disbelieve the Old Testament or confess to the existence of a Force which we do not understand, and have not, up to the present, been able to demonstrate.

But we recognize that a man may be so placed that his bodily conditions set up manifestations of mind, so that a reverse process is set up, and Force is, in its turn, compelled; for example, a man is placed in uncomfortable, or even dangerous, conditions: he sets to work to extricate himself by the exercise of an *internal* mental process and by external organs, and this has just the same effect as a guiding external process. There is no efficacy in Prayer unless we believe that an external Force can be brought to bear on our internal mechanism. Whatever is the virtue of the agencies at work outside us the key that unlocks their manifestation in ourselves is Sensation—no Sensation, no mind—not no nervous action, but no mind—perhaps we may say that sensation is the earliest form of mind, and who shall say how impalpable may be the causes of Sensation, or what is their true nature?

Take the instance of the oak-eggar moth, whose power of attraction has been brought to my notice by Dr. Ernest Carter. If the female insect is put in a box covered by gauze the male insects are attracted from an enormous distance. This is probably due to a very refined sensory power, but no one knows for certain that it is so, and even if it is the instance just shows how potent are the agencies going on around us of which we know nothing.

What is body without mind? What is mind without body? The former can illustrate some forms of organic life, but that is all; the latter may exist, in some form or other, but we cannot prove it, and this proof is just what we are most anxious to obtain. We want to know the nature of the *Force* which when interpreted through the human mechanism means mind. That there is some such energy we must believe, because we witness results which can only be conceived as occurring from the action of an external agent. The people who deny this external agency say: "Prove it to us; describe its nature and reactions, and we will believe it. We are quite satisfied with things as they are, and we do not require an external force to explain them." The others say: "Such and such mental manifestations have occurred, and can only be accounted for by external Force which has been made manifest in persons of particular composition and susceptibility; there is no trickery about it, and you cannot prove any deceit." And so, apparently, the matter rests.

It is Life which links up mind and body, but Life is not mind; there is plenty of Life without mind, but there is no mind, as we know it, without Life. Are Life and Spirit the same thing? A living body is evidently a combination of body and something else. What is that "else"? A dead body cannot be revived by mere mechanical agency. A living body has *selective* powers; it incorporates this and it rejects that; and this selective power is its Life. When the selective powers cease the organ is dead. Nutrition, or selective power, is Life, but it is not of necessity Mind. In sleep there is selective power; the nutrition of the nervous system goes on; but that is not Mind, because manifestations of Mind are absent unless when shown by the accidental occurrence of dreams. So that Life is not Mind, for will, attention, feeling, and every other mental function may be in abeyance, but there is still Life in the parts.

Why is it necessary to think that there is such a thing as external or spiritual mind? Why will it not do to confine our speculation to the *live body*? It is clear that there is something besides the body; there is the *live* body, and we have shown that Mind and Life are not the same thing. There is a certain school of thinkers who do so confine themselves; for them the living body is enough. They argue that it does contain in itself all the elements for voluntary action, ideation, etc., without the necessity of invoking any other agent. It is sufficient for them that the body is alive, and they are not concerned with what it is that makes it alive. Given this, they profess to be able to explain the action of the processes by the essential constitution of the body itself. The people who hold these views are competent investigators, who have persuaded themselves that they are sufficiently satisfied with things as they are. I do not know that they are opposed to the possibility of such a state as hypnosis, nor to the agency of such a thing as Suggestion, because it is to every one patent that hypnosis and Suggestion are everyday facts, but they explain them in their own way—by the terms of the organization itself—and they deny that it is necessary to call in any Force or Power of which we know nothing. It may be permitted to ask, however, if they really are satisfied, or whether it is not that they take things as they are and assume that the mechanism is perfect and self-sufficient? Their explanation of Hypnotism is that the condition depends upon the acquiescence of the living body itself, that it is not due to any force or special essence in the hypnotizer, but that it is purely a subjective state—is, in fact, an auto-process; and as to Suggestion, they aver that it is merely the acceptance of an idea which is made strong or reinforced by repetition, and which thus becomes a belief, and therefore sets up an action of the kind desired by the suggestor. And who shall gainsay them? If it ever comes to be proved by physical methods that influence can irradiate from one body to another, that there are conditions of matter which can affect some organisms and not others, then, no doubt, they will give their assent to the demonstration; but, as things are, they refuse their belief to the statements of clairvoyants and telepathists, because only certain results are *affirmed*, and neither agent nor process can be analysed nor made patent.

Whilst this is the condition of some psychologists, there are yet many others who are not satisfied with regarding the body as self-contained. It does not content them to assert that there is no guiding power to our actions and thoughts as they are willed; it does not satisfy them to reject the affirmations of others because they do not come within their own category and cannot as yet be explained; they quote their *feeling* that there is yet something behind these occult manifestations, and they point to the truth that many things which at one time were not believed, but were said, indeed, to be impossible, have become now accepted commonplaces.

There is really no reason for thinking that we have such a thing as an "activity process." Why can we not be satisfied with a Life or a Force which, when attached to an organism, sets up certain processes? For, after all, there is such a thing as Life, and it is superior to mind and body, making them but its complements. Life can surely go on without mind and body, but the latter are useless without the former. At any rate, there is something which, when joined to the body, means mind and actions, and which, when abstracted, means death or cessation of function. Whether this something is Life, or whether the term "Life" must be kept for the Force—the something, as shown by its union with an organic body—is perhaps a question. It cannot make stone into bread; it cannot, having once left an organism, re-enter it, revivify it, as it was before. It must have been with it from the first. It is a thing by itself, and we know nothing of its nature when separated from the body. It is not electricity, nor magnetism; these are but manifestations of it in other ways. It requires a definite kind and state of material for its association; it cannot work through injured material, because we see that under certain conditions of injury or disease it forsakes its complement and the material degenerates into lower forms of matter, upon which this "Life" has no influence. Whatever its nature, it must be differently modified according to the nature of

the medium; and as no two bodies are the same, it follows that their living manifestations must be different, though the more closely two bodies approach one another in composition the more similar must they be in vital manifestations; hence we may conceive the possibility of what have been called "affinities"—conditions in which two persons seem to be in some sort of relationship which is inappreciable by others. Physical alterations, such as food, education, etc., set up alterations in tissue, and therefore vital Force is constantly having changing material to work upon, which will cause manifestations which we can neither expect nor explain, baulking anticipations of uniformity of action and giving occasion for surprise at what happens.

Vitalized material must have radiating external influence, and moving Life (a body in action) will possibly have influence on a similarly attuned moving Life. How we are to show this is the question. Falling in love, apart from the more sexual question, is a subject worthy of more scientific treatment than is generally accorded to it. That people of the most apparently diverse personal attributes and social positions should be so attracted to one another as to fly in the face of family prejudices, and that they can give no reason for the attraction save the feeling that it exists, is beyond explanation. It is possible that the attraction which sometimes is found—and which is looked upon generally with reproach by society—between persons of the same sex, is founded on deeper structural affinity than we are willing to recognize. The *Schwärmerei* of the Germans, the "Urnings" of this country, refer to conditions which most people are unable to understand, but apparently they are conditions well recognized by many who act upon the compelling force of their attaction. It seems as if something in the one person met with its complement or reinforcement in the other (vaguely described as "animal magnetism"). Such persons are thought to be abnormal, or even degenerate, and yet they may be people of great intellectual power; but society, not understanding, refuses to condone such alliances. Perhaps from our standpoint we may take a more reasonable view of these eccentricities, and be content to allow a possible cause for what we cannot explain, though we refuse to consider as a depravity. All this points to the conclusion that there is something in us, and of us, and round about us, of which we know nothing.

Hypnotism need, then, not mean any peculiar power in the hypnotizer; it is a subjective state brought on by reduction to a state of mono-ideism through the insistence by an outsider that such and such a condition will occur; this idea continually reinforced becomes a positive compelling idea, and as such must act in its own way, and will set up its own associations. Any one, then, can hypnotize; it requires no special auto-force beyond a certain amount of definite assertion and a little art; the real agent is the hypnotized himself, and if he resolves not to submit to the ideas suggested to him, there is no reason why he should be hypnotized at all, unless, indeed, certain physical processes have been used to bring on *fatigue*, in which case he may lose his power of inhibition, and thus drop into the train of thought proposed to him. Suggestion is very much the same thing. There is no mystery about it. It is the setting up or prompting an idea which by constant reinforcement is turned into a dominant one leading to action in its own direction. It is just a matter of education, and can be undertaken by any one, but more successfully, of course, by those who are said to be authorities on the subject, and to whom people turn with a mental state already predisposed in favour of the suggestor.

The case of telepathy is different. No one is competent to assert that it exists; no one can deny the possibility of it; we are in the hands of the physicists; we have arrived at the conclusion that manifestations of mind do not depend upon the body alone; the material through which these manifestations occur is there, but without that something which we have called Life it cannot be envisaged. We must suppose that when the living body dies there must be an upset in this external Life or Force, just as there is when one is born, so that there must be constant change going on in this Force, which when in union with the body means the *living* body, and calls forth its manifestations, of which Mind is only one. When Life leaves a body we must suppose that it may have been modified by its connexion with that body; we can scarcely conceive that it is altogether unaffected, but rather that it has a definite form still capable of affecting an organism of a receptive or complementary character. Take for a moment those cases where persons allege that an image of a friend or relative has appeared to them at the moment (as afterwards ascertained) of his death. It might be seriously argued that the Force or Life which at the moment of rupture left the body was so modified that for a time, at any rate, it was able to so act on another similarly tuned bodily organism as to re-excite correlated parts in it. Of course, most of the so-called ghosts or apparitions are subjective intensities projected externally in people who are placed in circumstances prepared for the realization of what has been discussed and is expected. If a person of strong power of attention goes to see the Hampton Court ghost appear at a certain given time and garbed in a certain manner he will probably see it. That is a case of subjective ideal projection, but such a case is very different from the one described in my book, *Ex-cathedrâ Essays* (p. 137), where all knowledge of what had previously happened was *ex post facto*. It may be quite correctly urged that this is a theory made up to explain occurrences, and that if it were true we should have more frequent demonstrations of its action—for example, it might be expected that at the time of the death of a murdered person there might be the presentment of it to some other living friend, but I have never heard of this, nor can I explain why it should not happen, if the other instances cited are true.

There can be no scientific hypothesis in favour of fortune-tellers or seers into the future, or in the host of crystal-gazers who profess to foretell what is going to happen. All these are but people who form more or less shrewd judgements from what they have heard or have noticed, and who combine it with strongly asserted guess-work. Such prophecies are essentially of the nature of suggestion, and their object is to arouse a strong subjectivity, which may by chance eventuate in action of the desired kind.

In the year 1904 I wrote in the same strain as I am now doing. Since that time I cannot find out that our knowledge has been materially increased. The cry is still the same: "Show us proofs of an activity-process; prove to us the nature of the Force which, acting through organic material, makes it a living thing." True we have acquired knowledge of radio-activity, and we have had theories of a coloured bodily aura, but we want to have it *shown* whether the living body irradiates in any way. When the Force which we call the Life ceases to act on the body, is it in any way altered so that it can still, to some degree, affect other living matter? Can living matter affect other living matter at a distance by means of a change in the medium between the two, apart from the agency of known conductors? Surely it can—it must. A magnet lies quietly on the table, but we know that there is a modified medium within a certain distance, because we find that within the limits of its agency a piece of metal flies to it. But, beyond the fact that the metal flies to it, we should not know that there was any existing alteration of the space between them. We want more knowledge of the invisible and the intangible before we can refuse to believe the truth of what we often see or hear, but which is called deception. Meantime, we wait in the hope and in the belief that some of the nature of the multitudinous processes which are going on outside our ken are yet within the field of demonstration to such powers as we have or shall attain to.

What a field for speculation it is to consider the number of forces which are going on outside us of which we have no knowledge, though some of them must affect us in different ways, and may be at the root of our obscure feelings, ideas, and actions. Meanwhile, we go on patiently toiling—not forgetting, however, that there probably are processes going on which we may never be able to demonstrate; they are in no relationship with us, and pass us by without notice; being of a different order, we are as nothing to them, and they are nothing to us.

It is quite right to form hypotheses on these subjects; indeed, the whole chapter of J. S. Mill on "Hypotheses" should be studied, for nearly everything which is now theory was once hypothesis. There is no reason for assuming that the true explanation must be one which with only our present experience we *could* imagine. Among the natural agents with which we are acquainted

the vibrations of an elastic FACE be the only one whose laws bear a close resemblance to those of light; but we cannot tell that there does not exist an unknown cause other than an elastic ether diffused through space, yet producing effects identical in some respects with those which would result from the undulations of such an ether.

And so we go on from hypothesis to theory, from theory to an actual knowledge of the facts and their causes —some day.

ABSTRACT OF A LECTURE ON PSYCHO-PNEUMATOLOGY;

OR, THE INTERACTIONS OF MIND, BODY, AND SOUL.

DELIVERED AS AN INTRODUCTION TO THE SUMMER COURSE OF LECTURES,

BY JAMES RORIE, M.D.,

LECTURER ON MENTAL DISEASE, UNIVERSITY COLLEGE, DUNDEE.

IN a review of "Philosophy by Experience (Pragmatism)," by H. Heath Baden, in a recent issue of *Nature*, the following occurs: "The only future that is possible is an immortality of function. An organism is nothing but a centre or focus through which the world energy operates. When the organism is lost in what we call death, the function may well enough go on in terms of more subtle forms of energetic activity. Perhaps if a criticism may be ventured, modern 'Psychology-without-a-Soul' has become *too much* afraid of being metaphysical—a function must be a function of something. If there is an act there must be an Actor, who is in a way greater and more real than the Act. A Soul entity, then, is justified. It is as reasonable to posit it as to posit a surviving function." Sir Francis Galton, in a letter to the *Times* of May 31st, writes: "The march of science is fast obliterating the distinction between the material and the non-material, for it is now generally agreed that matter is atomic of innumerable and it may be immaterial matter and the apparent vacancy of space is a plenum pervaded throughout like a solid."

Statements such a quoted) show that the fluid matter of many others might be or later to come about, was bound sooner introduced by Carl Vogt half a century ago, has now fairly set in, and that while physiological and experimental psychology have led to no small advances in neurology, they have done very little towards increasing our knowledge of pure psychology or the real nature of mental activity. They only make it clear that, if we are to arrive at a correct analysis of man's mental constitution, the spiritual element cannot be set aside and disregarded.

As this subject is now attracting considerable attention, the following (which is practically the terminal portion of my introductory lecture on mental diseases, recently delivered in Dundee University College) may interest some readers.

At the present time there are no questions of greater importance or more pressing for solution than those connected with the nature of the physical and cerebro-neural changes underlying the mental state, as revealed in consciousness. The most recent discoveries made in the general and microscopic anatomy of the brain, and the views now entertained as to the nature and physiological importance of the neuron and nerve cell, or "psychical organic unit"; the important functions discharged by the neuroglia, formerly looked upon merely as a connective tissue, but now found to be an antitoxic protective agent against brain-blood poisoning, and also regulating the chemical process of nerve tissue metabolism, all show an immense advance in neurology. A great change has also taken place in our ideas in regard to mental activity, in so far that what formerly was treated of as mental philosophy is now studied as physiological psychology, and many phenomena regarded formerly as purely mental are now, under the title of "psycho-physics," subjected to rigid experimental investigation in laboratories specially fitted for the purpose. Again, instead of viewing the mind as operating through certain faculties peculiar to it and apart from the body, psychologists now begin at the other end, working gradually up from the stimuli or physical forces operating on the nerve end organs, specially provided for the conversion of these—such as the vibrations of the atmosphere in the case of hearing, and those of the ether in regard to vision—into the nerve current; a vito-neural energy, and its transmission as such to the cerebral nerve cells. The difficulties experienced in further tracing the transformation of nerve energy into purely psychic or mind force—that is, how mind acts on matter and how matter acts on mind—still remain, however, as great a puzzle as before to all investigators. The opinions of various eminent authorities show a pretty general agreement in the view, as expressed by Goodsir, "that it would be unphilosophical, and could not be admitted by the physicist even as a hypothesis, that a psychical power and a physical force can act and react on one another, and that the future elucidation of the problem would probably depend on the cautious philosophical investigation of their mutual influences." The weak point in this view is in assuming that a physical force does act on a psychic energy, and vice versa. Recent discoveries in physical science rather indicate that through the influence of the nerve end organs the atmospheric and ethereal vibrations—purely physical energies—are transformed into a vital nerve force with totally different properties, although itself as yet of unknown nature, and that it would not be assuming too much to imagine that through an analogous process in the cells of the cerebral cortex the nerve current passes into the condition of psychic energy.

But here again another difficulty presents itself, for although the above might go far to explain the phenomena of the primary activities of such intellectual processes as sensation, perception, association of ideas, etc., it would not explain those of consciousness, freewill, and memory, to say nothing of conscience, morality, and religiosity. For the manifestation and recognition of these a higher form of energy seems imperative; it is just here that the materialistic monism which was introduced into this country by Carl Vogt and other German writers fifty years ago, and has during these years exercised so great a control over modern psychology, breaks down. The failure there can be little doubt is due to the refusal on the part of most modern psychologists to accept any evidence except that demonstrable to the senses; they thus exclude such testimony as that of personal witnesses and under this head there must be included revealed truth. This is all the more remarkable, as such evidence was, not so very long ago, readily received by many eminent men. Michael Faraday, who spent his lifetime in the forefront of experimental research, declared in a lecture on education, delivered in the Royal Institution, London, that, "High as man is placed above the creatures around him, there is a higher and more exalted position within his view; and the ways are infinite in which he occupies his thoughts about the fears or expectations of a future life. I believe the truth of that future cannot be brought to his knowledge by any exertion of his mental powers, however exalted they may be; that it is made known to him by other teaching than his own, and is received through simple belief of the testimony given."

But the clearest exponent of this view of man's organization was the late John Goodsir, Professor of Anatomy in the University of Edinburgh. Goodsir was not only a naturalist, physiologist and anatomist of European reputation, but also a philosophical psychologist of the first rank. He taught, that "Man in his constitution consists of three elements—a corporeal, a psychical, and a spiritual"; and these he treated as of the Sarx, Psyche, and Pneuma; that it was in the last of these, and not in his corporeal element, that his personality resided, and in the possession of which he differed so greatly from all lower animals that he ought not to be classified with them. Although Goodsir never directly said so in his lectures, there is little doubt that in this division he was influenced by the revealed declaration that man in his creation had superadded to his animal organism "the breath of life," or, as some translate it, "the breath of lives" (attributes of the Divine Three), and so became a living soul. He accordingly held that, "while there can be no question as to the existence in the animal of a principle allied to our own human consciousness, every unbiassed observer who has studied the actions of the various forms of animals from the protozoon upwards must feel impressed

by the manifestations presented of an ascending series of forms of consciousness—a series co ordinate with the series of structural forms in which their presence is manifested, and that these manifestations are three fundamental conditions or states of consciousness: (1) As manifested in sensation and perception; (2) as manifested in the appetites, emotions, passions, social impulses, and special habits; and (3) as it manifests itself in the determining power or will"; but he adds: "An animal has *no will* in the proper sense of the term. In like manner it cannot be conceived to possess a choice between right and wrong, action or inaction." And, in regard to man, he states: "Provided, like the animal, with instinctive, corporeal and cosmical conditions of life and welfare, he has superadded to his animal constitution a conscious principle possessed of entirely different faculties and endowments. In the possession of this higher principle, man is elevated above his own corporeal and instinctive individuality. He may control his animal instincts, and use his body as a thoroughly adapted instrument. In the possession of this higher conscious principle, a human being is not merely an individual—as an animal can only be considered—he possesses also a personality—he is a person who is called upon to employ not only his body and animal principle, but also his higher and self-conscious principle, conjointly under the guidance of the latter, to those great and extensive purposes for which he was created."

Again: "The will in man also is, in consequence of his self-conscious faculty, a will properly so-called, for it is, or ought to be, determined or regulated by those higher or Divine principles of thought and belief of which he is conscious."

And he adds: "At this point we reach the solution of the question as to the essence of humanity. With an animal body and instincts, man possesses also a consciousness involving Divine truth in its regulative principles. But along with this highly endowed consciousness, the human being has been left free to act, either according to the impulses of his animal, or of his higher principle. The actual history of humanity, of its errors, its sufferings, and its progress, is the record of the struggle between man's animal and Divine principle, and of the means vouchsafed by his Creator for his relief."

And he further states that "the Psyche in man must be assumed as the instinctive element of his threefold constitution. Upon its deputed efficacy depends that determinate and co-ordinate action of all those physico-chemical forces which are collectively engaged in the development of his body from the ovum and in his lifelong structural modifications and physiological actions; and in which in man also are based all those instincts, emotions, appetites, and passions which, stronger, keener, and more numerous than in the animal, were conferred on man for his higher purpose and greater enjoyment so long as subject to his higher principle. It is distinguishable from the spiritual principle in man, by the immutability of its powers and attributes and strict co-ordination of these to its proper sphere for each species of organism. On the other hand, the Pneuma or spiritual element in man, also immaterial in its nature, because only recognizable by its manifestation through consciousness, although in its endowments strictly co-ordinate with the purpose of man on earth, and with his future eternal destination, is nevertheless subject to his will."

I have given Goodsir's views pretty fully, from the conviction that they have been too much overlooked, and the feeling that ere long they will yet receive the attention they deserve. Indeed, the most recent writings show that the scientific views of many illustrious men are already tending in this direction. Thus Sir Oliver Lodge, Principal of the University of Birmingham, and one of the most eminent physicists of our day, in one of his latest works, *The Ether of Space*, after referring to the most advanced views at present entertained in regard to the constitution of matter and the relations of ether to electrical and other energies, says: "The ether has not yet been brought under the domain of simple mechanics—it has not yet been reduced to motion and force . . . conceivably it may remain apart, and our first additional category wherewith the foundations of physics must some day be enlarged may turn out to be an ethereal one . . . and when the present century or the century after lets us deeper into their sedimentary into the secrets of some other phenomena no-hero course of being rationally investigated, I feel as if it would be no merely material prospect that will be opened on our view, but some glimpse into a region of the universe which science has never entered yet, but which has been sought from far, and perhaps blindly apprehended, by painter and poet, by philosopher and saint." And as indicating that it may yet be possible to trace a direct relationship between physical, psychical, and spiritual energies he says: "The universe we are living in is an extraordinary one; and our investigation of it has only just begun. We know that matter has a psychical significance, since it can constitute brain, which links together the physical and the psychical worlds. If any one thinks the ether with all its massiveness and energy has probably no psychical significance, I find myself unable to agree with him."

And the author of *The Unseen World* goes even a stage further when he affirms that, "We are led to believe there exists now an invisible order of things, intimately connected with the present, and capable of acting energetically upon it; for, in truth, the energy of the present system is to be looked upon as originally derived from the invisible universe. Now, is it not natural to imagine that a universe of this nature, which we have reason to think exists and is connected by bonds of energy with the visible universe, is also capable of receiving energy from it? Whether is it more likely that by far the larger portion of the high class energy of the present universe is travelling outward into space with an immense velocity, or that it is gradually transferred into an invisible order of things? May we not regard ether or the medium as not merely a bridge between one portion of the universe and another, but also as a bridge between one order of things and another, forming, as it were, a species of cement in virtue of which the various orders of the universe are welded together and made into one? In fine, what we call ether may be not a mere medium *plus* the invisible order of things, so that when the motions of the visible universe are transferred into ether, part of them are conveyed as by a bridge into the invisible universe and are made use of or stored up. Nay, is it even necessary to retain the conception of a bridge? May we not at once say that when energy is carried from matter into ether it is carried from the visible into the invisible, and that when it is carried from ether to matter it is carried from the invisible into the visible?"

Be that, however, as it may, we have seen how admirably Goodsir's views in regard to man's physical, mental, and spiritual constitution adapt themselves to the most advanced scientific ideas, and of even higher and more incomprehensible problems such as those of life, death, and the hereafter, when the individual having fulfilled his purpose on this earth, the time has arrived when the psyche and pneuma have to be withdrawn from their mere material companion, and when the last in consequence, coming under the dissociative laws of physico-chemical action alone, returns to the purely inorganic elements of which it has been composed, while the two first still united and now the repository and register of all the "deeds done in the body," continue to pursue their eternal and predestined course.

AT the annual conference on June 15th, in Leeds, of the Charity Organization Society, Dr. F. E. Fremantle, Medical Officer for Hertfordshire, urged that the treatment of school children found defective on medical inspection was a separate problem, and expressed the hope that the Government would appoint a departmental committee to put together the facts presented in the Poor Law Commission's report and in the local reports on school health and public health. He contended that it was necessary to establish a State medical service, to employ nurses to instruct and encourage parents, and to bring about the co-operation of all voluntary institutions. Dr. C. S. Loch, secretary of the society, spoke in favour of a single agency for all public relief. In the evening Sir Nathan Bonnington, Vice-Chancellor of the University of Leeds, presided at a meeting to which Mr. F. H. Bentham, a member of the Poor Law Commission, delivered an address on the constructive policy of the Majority Report.

ON PALAEOGENETIC FACE-PATTERN IN ACROTERIC PIEBALDS.

BY

SIR JONATHAN HUTCHINSON, F.R.S., F.R.C.S.,

CONSULTING SURGEON, LONDON HOSPITAL.

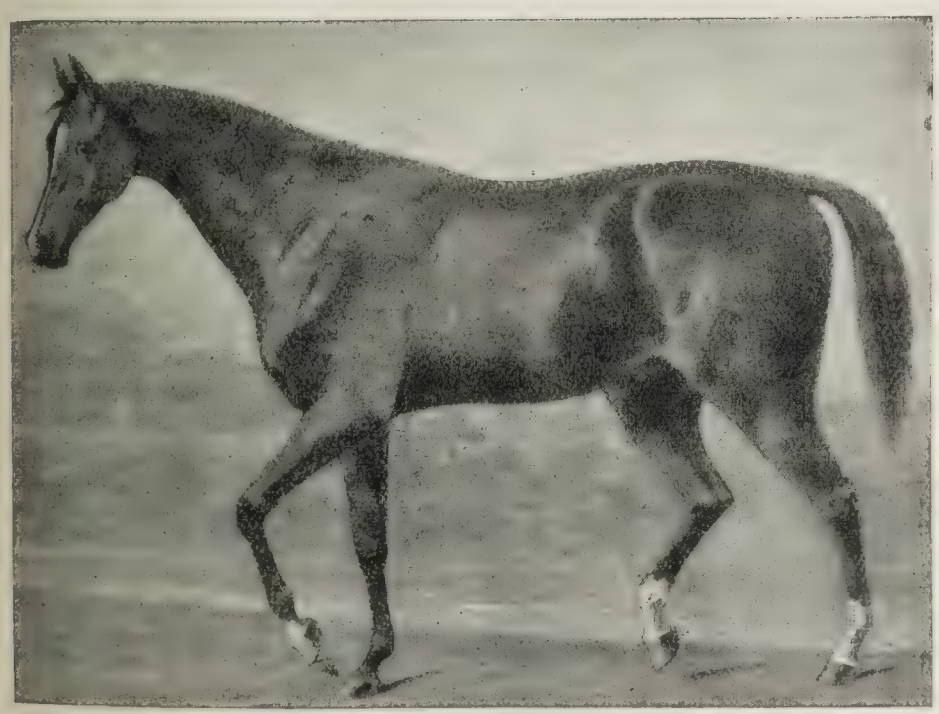
Broad forehead, streak on face of horse prolonged upon the upper lip and showing also on lower lip. White stockings occurred on all four feet, very long on the hind feet, and very abruptly margined. The horse was not otherwise piebald. Both in Buffon's portraits and those of Neisser the lower lip was implicated as well as the forehead.

THE most casual observer in London streets must have noticed that many horses have stars, or streaks of white, on their faces. It may, however, evoke a smile of amused incredulity if it is asserted that these markings sometimes have their representatives on the human face.

In the first place let me point out that these patches may differ much in size and contour, and although usually in the middle line, and bilaterally symmetrical, they are sometimes one-sided and conspicuously unsymmetrical. They sometimes run the whole length of the face, from the vertex to the lips, and may affect even the lower lip, whilst on the upper forehead they may have side-wings and become dagger-shaped. With them comes the very curious and important observation that the animals which show them almost always have the lower parts of their extremities, one or several, white to a greater or less extent, and that the extent to which they are white is in direct ratio with the size of the patches on the face. "White stockings" is the colloquial expression in use respecting the feet, and the association of the two is recognized in the farmer's charge to his son when going to the fair:

> Four white stockings and a white nose,
> I pray thee, my son, buy none of those.*

When the forehead marks are large they are called "blazes" or "flares." I do not believe that they imply any real discredit to the horse which shows them, but they have their meaning. For the present all detail must be avoided, and I must invite my readers to observe for themselves in any town-street, or, to greater advantage and more at leisure, at any railway station. It is to be noticed *in limine* that although we speak of them as "*white* markings," they are not invariably white, but that when in other tints they are, as will be easily understood, less conspicuous. This circumstance it is which to some small extent explains their being less easily observed in the human subject. Although I have preferred to give the horse as my example, these face-markings are common to many of the larger quadrupeds, and may be easily studied in many dogs.



Illustrating the common association of a white star on forehead of horse with white feet on three legs. Note that the "stockings" are small and the foot that has none is the right forefoot (according to rule).

The items of evidence which bear upon the occurrence of "blazes" and "white stockings" in the human subject are but very scanty, but they are very instructive. The first which I adduce is from a drawing taken by an English surgeon in the West Indies of a piebald girl. The ship in which it was being carried to England, having been taken by a French privateer, the sketch fell into the hands of Buffon, and was by him published. It must be remembered that this was long before the days of photography, and that no details of the case were recorded.

A piebald goat showing a broad white band on the face in association with white legs and black stockings. To be compared with Buffon's portrait of piebald child with star on forehead and black gloves and stockings. (Copied by permission.)

We must notice that the "blaze" on the child's forehead is dagger-shaped and has an island near its centre, that it does not involve the nose, but recurs on the lower lip and chin. As regards its body, the child is (as is usual in piebalds) patched with rudely bilateral symmetry, and, what is more important, that its four extremities, manus and pes, all carry stockings or gloves, which, however, are not white, but black. It is the pattern, and not the colour, which is noteworthy.

The observations respecting this portrait might be passed aside as exceptional, or vulgarly claimed as a "freak," were they not most remarkably substantiated and illustrated by the next group which I produce. The portraits of three negresses, which are here seen, are executed from a photograph given me ten years ago by Professor Neisser of Breslau. I have his permission to publish them, but neither he nor I have been able to obtain any particulars, or to say whether they have ever been published before. It is very probable that they have; and if so, I should be very much obliged to any one who can give me the reference to place of their publication or any facts respecting them.

The girls were sisters and presumably of different ages. It will be seen that all have the forehead "blaze" and the patch on the chin, but with certain minor differences which are important as demonstrating that

*The term "acroteric" is used to denote association with the extreme periphery, that is, *with the outermost points*. The tip of the tail, the ends of the four limbs and of the nose and the external ears, are all acroteric. The term may be extended to include adjacent regions, as, for example, the forehead and whole of face.

the pattern may vary in detail whilst remaining essentially the same. The upper part of the dagger has no doubt been distorted by the manner in which the white hair has been arranged. The fact that a piebald condition occurred on the upper extremities is made evident in the central figure, and in all of them it is shown that the manus remained wholly black or almost so, as in the Buffon's case. We may safely suppose that all three were in essentials alike. The occurrence of such similar phenomena in three sisters, and, still further, their parallelism with what is seen in the Buffon portrait, are, I must insist, sufficient to prove that we must refer them to the action of law and not to mere chance coincidence; and the same statement applies, I think, to the comparison which I have suggested with the forehead and foot pattern as they are observed in the horse. It is surely needless to protect myself from the absurd inference that I suggest any direct transmission by inheritance between horse and man. All that I imply is that horse and man alike inherit an integumental organization which under the laws of palaeogenesis may evolve, even in very remotely related animals, similar results.

Face-pattern on a negress with acroteric distribution of colour in a piebald skin. (From Buffon.)

It is obviously much to be regretted that no family history of the patients is obtainable (at any rate for the present). We do not know for certain, either in Buffon's portrait or in those of Neisser, that the girls were mulattos. It may be plausibly suggested that they were; but I may remind those who are inclined to attach much importance to this supposition that mulattos are very common, whilst the conditions here shown are extreme rarities, and that the mixture of races has never been observed to bring out patterns of this kind. My own belief is that what we here observe are the result of palaeogenetic inheritance, and that we ought not to attach much importance to the fact that the subjects in this instance are all of negro race. Mr. Bishop Harman has, indeed, already given us (in the *Transactions of the Ophthalmological Society* a most instructive narrative (with a portrait), in which in several generations forehead-patterns occurred in subjects of English parentage. I possess in the Polyclinic Museum and in my notebooks sundry other illustrations of coloured face-patterns, but prefer for the present to allow these cases to stand by themselves.

Face-pattern in three negresses (sisters) with acroteric distribution of colour, probably on a piebald skin. (With permission, from a photograph given by Professor Neisser.)

My observations of the face and foot markings of horses have extended over many years, and I am in a position to make certain statements respecting them with tolerable confidence. There are exceptions to all rules, but, allowing for these, I am sure that generally, as I have already stated, the upward extension of the patches on the legs will be in ratio with the size of the star or blaze on the forehead. If it occurs, as is unusual, that the forehead patch is not placed in the middle line, there will probably be want of bilateral symmetry in the markings of the feet. The face marking may be a simple small and central star. This star may be developed as a large patch, and it may form wings; these wings may be wholly one-sided. Now, all four feet may be involved or only some or one. The hind feet almost always are more extensively involved than the fore ones. The horse figured (p. 1479) in the present paper shows what we may describe as one of the commonest types. There is a small bar on the forehead, and it is central. One foot only is without any stocking, and it is the near or right one. I attach much importance to any conspicuous deviations from symmetry in these matters. If, for instance, the face-patch is on one side only and the two feet on one side show stockings while those on the other retain colour, it may, I believe, be suspected that the animal is not developed with perfect bilateral symmetry in other respects. He may differ from his fellows, as a left-handed man differs from a right-handed. He may be a sinistral horse, and if so, although he may be strong and efficient for work, he will move more or less awkwardly and not be pleasant to ride. As my observations have been made for the most

part in driving about London streets, I have not had, as a rule, any opportunities for making inquiries as to the animal's gait. Out of the few instances in which such information has been obtainable I have met with several which remarkably confirmed my conjectures from the animal's feet and face. Of examples in which both fore feet had stockings and both hind ones were wholly exempt I have seen only two or three.

The faces of all animals, especially our domestic ones, should be carefully observed and notes and photographs should be taken. There is much to be learnt from them. The face often preserves a pattern when little or none is discoverable on the body. Animals with tails often show at their tips colour resembling that of their noses or foreheads. Dogs very often show the white star or a long central white forehead-streak extending from nose to nape. Black cats often have snow-white paws, the hinder ones, like the feet of horses, being the longer ones.

A Clinical Lecture
ON
DERMATITIS ARTEFACTA.

BY

NORMAN WALKER, M.D., ETC.,

PHYSICIAN FOR DISEASES OF THE SKIN, THE ROYAL INFIRMARY, EDINBURGH.

[With Special Coloured Plate.]

DURING the last three years several cases of dermatitis artefacta have come under my notice in hospital and in private. There is, perhaps, no class of case attended by so many difficulties and where the exercise of tact on the part of the doctor is so essential. The apparent absence of any reason for self-mutilation very often, indeed one may say usually misleads the attending physician, and diagnosis is most often made only when the hard-hearted stranger is called in consultation.

I would first dismiss a class of artefact eruptions which really depends upon a mental delusion. I had last winter in my wards a woman, aged 52, whose chest was torn and scored in all directions by her nails in her endeavours to extract from her skin the parasites which she believed to be infesting it. There was in her case no concealment; she explained the lesions at once. Two or three of these cases have occurred in my experience, and I think the prognosis is invariably bad. This patient refused to stay in the ward, and although I restrained her until her relatives were consulted, they could not be induced to allow her to be sent, as I thought she should be sent, to an asylum. The next case is a relatively uninteresting one. The patient was a woman of low mental development, and at intervals she suffered from an eruption on her legs, an eruption which had evidently aroused sympathy and interest at home. The lesions were simply long scratches with her nails, and as she persisted in her statement that there was no itching connected with the eruption, it was pretty obvious that they were intentionally inflicted. I kept her in my ward a few days, and had her watched. The eruption disappeared, but reappeared soon after she returned home, and I fear she will, like the first case, eventually find her way into an asylum.

I am, fortunately, able to give illustrations from casts made by my secretary of three very typical cases, where the nature of the eruption was at first something of a mystery, the patients all along pretending complete ignorance of the cause. I have, for reasons which will be obvious, felt it necessary to paraphrase the cases, but I can vouch for the essential accuracy of the facts.

C. V., a girl aged 16, was knocked down in the street by a motor car. Her elbow was bruised, and she was taken to a hospital, where the joint was examined both manually and by the *x* rays without disclosing evidence of any serious injury. A correspondence relative to the accident began, and some of it was conducted in a less diplomatic manner than was altogether wise. While this correspondence was going on the arm was getting better; the stiffness was disappearing, and the arm becoming moderately useful again. One day there appeared around the affected joint a group of lesions, just such as those depicted in the illustration. The next day there were more of them, and the surgeon in whose care the patient was sent her to me for an opinion. I at once suspected the nature of the eruption, but said nothing to the girl or her parents; indeed, I did not see the latter at this time. But I pointed out to the students sitting around me the probable nature of the eruption, using language which she was not likely to comprehend. Then, returning to simpler speech, I explained to the students that such cases were very often symmetrical, and that lesions having appeared in the neighbourhood of one joint, were likely to appear around the corresponding one on the other side. This in due course they did. I then pointed out to the students that in some cases the eruption spread to one of the other limbs, usually crossing the body in doing so, and two days later she came up with the eruption around the knee of the opposite side to that originally injured. I thought matters had now gone far enough to enable me to express a definite opinion as to the cause of the eruptions. I took her into my ward and had the cast from which the illustration is taken made. No further lesions appeared; those present soon disappeared, and there was no action in the Court of Session. I did not succeed in finding out what was the particular chemical she used.

The next case was a young lady whom I saw in consultation in the North of Scotland because of an eruption upon her face, arms, and chest. It was of markedly linear type, and when we retired to another room to discuss the case, I at once said to the doctor, "I believe she is doing that herself." Whereupon he replied, "I suspected it." She was a handsome, plump, healthy girl of 22, in good circumstances, and had no mental worries that either the doctor or her relatives could discover. She was carefully watched, and actually detected by one of her sisters applying nitric acid to her skin with a stick. I had the advantage in this case of having the opinion in consultation of an eminent neurologist, and neither he nor I could recall a case in which so much mutilation of the *face* had been produced. Under careful and close nursing she recovered, half admitted her share in the transaction, and a few months later was brought to me again with a similar eruption. While ready to admit that she had had something to do with the first, she stoutly denied anything of the sort in connexion with the later attack.

The next case was one which was instructive because of the character of the patient. It is well represented in the Plate (E.N.), and no one of experience, observing the bizarre character of the lesions, could possibly doubt that some extraordinary cause had been at work. This girl was a children's nurse. She had been many years with one family, was a devoted nurse, and was implicitly trusted by the parents, who could go away for days or weeks, leaving the children confidently in her care. For months these lesions continued to come out on different parts of the body, running a comparatively short course, and disappearing to give place to fresh ones in some other part. This patient was actually permitting arrangements to be made for her admission to the Longmore Hospital for Incurables, when I was asked to admit her to my ward, and, as said above, at once diagnosed self-infliction. No lesions appeared after her admission, and she had therefore evidently not brought her chemical with her. We had some reason to believe that the active agent was lysol, combined with friction.

The other case illustrated is perhaps the most instructive of all, and I have to thank her doctor, in the late Sir T. Granger Stewart's words, a "friend and former pupil," for permission to publish in full the correspondence which passed between us about the case; for I think nothing could give a better account of the attitude of the family doctor to such patients. It is the attitude which all of us under similar circumstances tend to adopt.

The correspondence opened with a letter from my friend (Dr. A.) from a manufacturing town in the Midlands, asking me to take under my care in hospital a case which had exhausted his (more than average) ability, and in due course the patient arrived.

The first letter is from Dr. A.'s partner, Dr. B.

I.—*From Dr. B.*

March 8th, 1909.

Dear Dr. Walker,

As I have had more to do with Miss S. than Dr. A. has, I write a short note about her and her eruption. Six months ago she sustained a small burn with pure carbolic acid on the

right forefinger. This was slow in healing, but did eventually heal. A week later a small area of skin near the burn simply sloughed off—size of sixpence. This was slow of healing, and as it healed another small place began. Bit after bit of the skin of the finger similarly died sloughed off, and the raw area would heal slowly. Then as the forefinger got finished the others began, and bit by bit of skin sloughed off, and the area would slowly heal, till now there has been a complete renewal of skin on all the fingers. Then the back of the hand, then part of the palm, then up the forearm, where now it is. The palm, the hand, and the thumb have not been affected much.

As to treatment, I have tried everything local in the way of ointments, antiseptics wet and dry, plain dry dressings and plain wet (plain water) dressings, and I think the latter has been the most generally useful. I have dressed the arm and hand at least once daily always, usually twice daily, occasionally three times daily.

Internals—iron, arsenic (up to 18 gr. thrice daily), pot. iodide (for no reason), strychnine, calcium chloride, calcium iodide—without the slightest benefit. A week ago I put her on Levurine, thereafter the arm got worse for a day or two, but since then has improved, and no fresh place has begun, though there is a suspicion of one further up. The condition quite beats me. I cannot describe exactly how the sloughing places begin; I know of no terminology which fits them at all. My attempts at prevention have not succeeded. This week, as I say, the condition has looked much better, and there are no fresh places. May it continue so.

Yours truly,

——

II.—*From Dr. Walker to Dr. A.*

March 12th, 1909.

Dear A.,

I am afraid you will be surprised at my diagnosis of your case. I believe the eruption is self-inflicted. It has exactly the characteristics of such eruptions of which I have seen quite a number, quite often in girls who seem to have absolutely no reason for doing such a thing. It is unusual to see it on the right hand, but I elicited from the girl casually that she can use both hands for many things.

Yours truly,
Norman Walker.

III.—*From Dr. A.*

March 14th, 1909.

Dear Dr. Walker,

I can positively assure you that this is not a case of self-infliction. We have dressed it every day—sometimes twice—for over six months. At an early stage I suggested the need of disproving self-infliction, and so we used to keep a note of the number of reverses in the bandages, etc. Later I got special plaster made, and put it on in peculiar ways, and finally we were ashamed to have been so persistent in our suspicion which all produced absolutely negative results. No, I think you will find this a genuine case of dermatitis ulcerosa, or gangrenosa secondary to a primary carbolic acid burn of forefinger, which has spread from finger to finger, and thence to dorsum, and next front of hand, then to wrist, with an occasional arrested patch arising on trunk, etc. A point of much importance possibly is, that her father was a paroxysmal haematuric; so is her eldest brother when run down, at other times perfectly healthy. Her younger brother has had severe purpura haemorrhagica over limbs—not trunk. The patient herself, up to a year ago, was a martyr to small pea-sized pimples on shins, which mostly ulcerated. I fancy you will find her genuine; she is one of the most industrious, sensible, and conscientious girls in this town.

Yours sincerely,

——

IV.—*From Dr. Walker to Dr. A.*

March 26th, 1909.

Dear A.,

I have delayed writing to you because I have always been hoping to be able to confound you with proof. I remain convinced, but up to now, in spite of all sorts of inquiries, I have been unable to detect how she manages—*in the ward*—to continue to produce those lesions. It will interest you to hear that the junior nurses are on your side, but I am supported by my ward sister, who is consequently on her mettle to justify her chief. She has, by the way, that marked anaesthesia of the palate found in most of these hysterical cases. As soon as there is anything to report I shall write again.

Yours truly,
Norman Walker.

V.—*From Dr. Walker to Dr. A.*

March 28th, 1909.

Dear A.,

I am afraid this looks as if I were playing to the gallery, but it is merely coincidence. On the night of the day on which I wrote you, Sister found concealed in your patient's handkerchief a bottle of pure carbolic acid, which she told a probationer was scent, afterwards said it was for her corns. Last night another bottle was found, so I think you must give in. It is inexplicable why girls do these things, and nearly all the cases I have had have been girls bearing just the same exemplary character that yours does. We shall now arrange for her treatment on general medical lines, and I hope to send her back to you all right.

Yours truly,
Norman Walker.

VI.—*From Dr. A. to Dr. Walker.*

March 29th, 1909.

Dear Dr. Walker,

The coincidence makes me feel inclined to say something very severe about human nature in regard to gratitude for past kindnesses. Let me know the final scene.

Yours very sincerely,

——

VII.—*From Dr. Walker to Dr. A.*

April 13th, 1909.

Dear A.,

Your patient goes home this afternoon. I had a few words in private with her this morning and she promised not to play any more with carbolic. I think six months on a farm would do her moral fibre a lot of good. I wish you would let me know how the anaesthesia of her palate goes on.

Yours truly,
Norman Walker.

VIII.—*From Dr. A. to Dr. Walker.*

May 1st, 1909.

Dear Dr. Walker,

I am watching Miss ——. Anaesthesia still exists or persists. She says you said nothing to her *re* cause. I am surprised at this girl—however, she possesses an arm which should make her feel foolish many times before her life terminates.

Yours very truly,

——

It would be difficult to find a case more instructive, and I trust that the candid confessions of Dr. A. and myself—for, needless to say, neither of us had in contemplation the publication of our correspondence—will prove useful to others. Here was a young woman in apparently good health, hard working, "sensible and conscientious." In spite of this character, which he himself gives her, the doctor's suspicions are aroused, and he takes measures to justify or clear them away. He continues these till he is "ashamed of his suspicions," and eventually sends the patient on to his old teacher. And now I come in. The moment I saw the eruption I not only suspected, but felt convinced that the eruption was self-inflicted, and I expected, as is plain from the terms of my first letter, that I would solve the mystery immediately. In my ward she was under my daily observation, under the charge of a most experienced Sister, who was equally convinced of the nature of the eruption, and was, therefore, on her mettle to detect the cause, and who had further to combat the feelings of her junior nurses—that it was almost wicked to cherish such suspicions of a girl so nice-looking, quiet, and respectable. I flatter myself that my own detective abilities are not below the average, and yet for over a fortnight that girl successfully kept us at bay. Her box was searched, her clothes were searched, her bed was searched while she was in her bath, and by the simple expedient of always transferring the bottle to her handkerchief, she hoodwinked us all. Dr. A. and I hope that this relation of a clever deception will stimulate others who in similar cases have their suspicions aroused to persevere with their inquiries under repeated discouragement.

These latter cases are all hysterical, and usually show the more usual features of that disease. All my cases showed marked anaesthesia of the palate They are not easy cases to deal with, for it is not a pleasant matter to tell a girl's mother that the eruption which has been giving so much trouble and annoyance in the house is all produced by the patient. Too often the doctor is simply not believed, a more sympathetic one replaces him, and the eruption goes on as before.

Treatment at home is no use; the patients are always able to deceive their relatives, and their fruitless efforts to discover the cause are urged against the doctor's diagnosis. They should be put in a home under the care of a very capable nurse, whose confidence in herself and in the doctor is complete. The nurse must watch the patient as one watches a dipsomaniac, and must be on her guard against the most ingenious devices to procure chemical irritants.

In my own experience carbolic acid is the application most frequently made. It is easily—too easily—procured, and the effects can be varied in an interesting fashion by the amount used. But simple rubbing will produce lesions, provided it is continued long enough; therefore the patient must be watched day and night. Under this régime the eruption will soon go, but a prolonged course of nursing and general tonic treatment is required before the patient seems to get rid of this extraordinary desire to mutilate her own person.

MENTAL HEALING.

MANY volumes would be required if the history of healing by spiritual or mental influence were to be fully written. Here only a brief sketch of the subject can be given.

The general term, "mental healing," is convenient, as in it may be included all methods of using the influence of the mind on the body for the treatment of disease. Among these the operation of faith is the most conspicuous and the most powerful. It may be faith in the supposed evil influence which causes the disease, or in the beneficent force of a more powerful influence, or in the knowledge and skill of a human healer, or, again, in the potency of physical remedies administered in such a way as to produce an effect on the mind of the patient. The latent forces that produce the effect are in the patient himself; the healing agency, be it a person, a shrine, a sacred spring, or what not, is only the motive power which brings these forces into play. Of the nature and mode of operation of these forces we at present know little or nothing. But in mental healing of all kinds the active agent is faith. It is, in short, the patient's faith that makes him whole, when this desirable result is brought about.

Although religion most commonly supplies the condition which begets faith and makes it a curative agent, other mental processes, notably fear and joy, may operate on the body in a way that eases pain, and may even cure disease. Of this we have everyday experience. The power of suggestion, which is often spoken of as if it were a new discovery, is as old as humanity. It is an innate quality in human nature, and depends for its causation and effect on the structure of the human mind. The power of exciting belief in others, whether we call it personal magnetism or by any other name, is a gift which may be beneficent or dangerous according to circumstances. It may relieve suffering, or it may cause disease by mental contagion. Of this there are numerous examples in history; we need only mention the epidemics of dancing madness, flagellation, and the like, and the children's crusades of the Middle Ages. It may turn a sinner to righteousness or mislead whole peoples to their own undoing. It is the power of suggestion that gives many who undertake the treatment of disease, whether they are within or without the fold of medicine, a power of healing or of mitigating pain which is not found in others. Suggestion, also, has much to do with the action of remedies; most of us have seen a restless patient soothed to sleep by a hypodermic injection of water. It is suggestion that makes every new treatment do good for a time. Hence the vaunted "cures" of cancer, consumption, and so forth. It was the knowledge of the natural tendency to faith in the new and unknown that led the wise old French physician to say to a patient, *Hâtez-vous de prendre ce remède pendant qu'il guérit.*

THE MIRACLE OF CURE.

Mr. Matthew Arnold said in his airy way that "Miracles do not happen." He stole the phrase from Renan, but it is difficult at this time of day to say anything that some one has not said before. Besides, it matters little who said it, for it is not true. Miracles do happen, and doubtless have happened ever since the brain of this "foolish-compounded clay, man" began to wrestle with the problems of disease and death. Before going further, it will be well to follow the advice so earnestly given by John Locke, and "define our terms." What is a miracle? The discussion of this question from the theological point of view lies altogether outside our province. The word "miracle" is used here in its etymological sense to denote something marvellous and opposed to common experience, that at first sight cannot be accounted for by the agency of natural causes.

Here we must be allowed to remark that much shallow nonsense is often talked about "violations of the laws of Nature," as if the laws of Nature were anything more than the "laws" which man formulates from the phenomena which he observes. But human observation can err, and has often erred; and it is conceivable that the law of gravitation itself may some day have to be amended, if not repealed. "True science," as Charcot said, "is a foe to systematic negation, which the morrow may cause to melt away in the limits of its new triumphs." What appears to be miracle to-day may therefore cease to be a miracle to-morrow. Diseases now incurable by any therapeutic means at our disposal will, there is every reason to hope, be curable by medical art in the future. If such a disease were to be cured now by some force different from the resources which medicine has at command, it is not necessary to assume that the agency which works the cure is supernatural. The most orthodox theologians will admit that *miracula non sunt multiplicanda praeter necessitatem.*

In the sense in which the word is used here miracles do not only happen, but they happen frequently, and in almost infinite variety of circumstances. If human testimony is worth anything, cures of a marvellous nature are wrought at Lourdes, St. Winefride's Well and other Christian shrines. Similar "miracles" are wrought at the tombs of Mussulman Marabouts, as they were at the healing shrines of ancient Greece and in the temples of Aesculapius in Rome. Cures of precisely the same kind are wrought by mesmerism, and other forms of faith healing in which the sacred element is altogether wanting. Could there be a more authentic "miracle" than the restoration of Harriet Martineau, a professed atheist and a strong minded woman of the most pronounced type, to health by means of mesmerism, after long disablement by a pelvic tumour? The tumour, it is true, was found in her body after her death, but what of that? It had ceased to trouble her, and she may for practical purposes be counted a "cure." Brodie cured many bedridden patients by the simple process of bidding them get up and walk. There is nothing more supernatural in such occurrences than there is in the effect which arsenic has on pemphigus—an effect which was once described by a surgeon of the highest eminence as an illustration of the "miracle of cure."

A slight sketch of the attitude of man towards disease may help to a clearer understanding of the true significance of forces which are at work to-day as they have been since the human race began to crawl on the earth. The expression changes, but the thing itself remains the same through all the changing forms of belief.

DEMONOLOGY AND DISEASE.

The earliest conception of disease seems to have been that evil spirits for the time being took possession of the body. This general notion expressed itself in different ways. Where a disease was sufficiently characteristic in its manifestations to stamp it with an individuality of its own a special demon was invoked as the explanation. This belief lingered into times well within the range of recorded history, and, indeed, traces of it survive at the present day. The Hindus built temples to the Goddess of Small-pox, and the Romans had no fewer than three shrines dedicated to the Goddess of Fever, which was doubtless malaria. At the present day there is a church in Rome dedicated to Our Lady of Fever, which is a lineal descendant of these shrines. Another belief was that the demon of disease was introduced by malevolent persons by means of magic. Again, one finds in different tribes or races such beliefs as that disease was caused by the spirits of the dead, or the spirits of animals killed in hunting, invading the living. These theories must be carefully distinguished from the much later concept that disease is a punishment inflicted by an angry Deity.

This notion of the causation of disease led naturally to a system of treatment directed to the dislodgement of the demoniac intruder. To that end every effort was made to make his usurped abode as unpleasant as possible. The patient was beaten, starved, smoked with evil-smelling substances, and drenched with every foul thing that the savage imagination could think of. The fumigation treatment is illustrated by the story in the Apocrypha in which Tobias is said to have freed his bride from a demon by taking the ashes of the perfumes and putting the heart and the liver of the fish thereupon and making a smoke therewith, "the which smell when the evil spirit had smelled he fled into the utmost parts of Egypt." The beating out of evil spirits, in which some ingenious persons detect the beginning of massage, was used in comparatively modern days in the exorcisms which were practised on the supposed victims of demoniacal possession. With what severity these poor sufferers from hysteria and other conditions grouped by modern medicine under the head of

neuroses were treated, may be read by the curious in the records of the possessed nuns of Loudun in the reign of the Sun-King of France. A relic of the same concept of the origin of disease is perhaps to be seen in the brutal treatment that used to be the lot of unhappy victims of mental disease till their chains were struck off by Esquirol, and other cruel methods of restraint were finally abolished by the efforts of Tuke and Conolly. In the matter of medication, too, the system of making the body an uncomfortable abode for the diabolical tenant persisted long after the belief on which it was founded had died out, and is not quite extinct at the present day. The horrible concoctions prescribed by doctors in the Middle Ages might seem to have been intended for the forcible eviction of evil spirits. The faith of modern hospital patients in the efficacy of the physic given them is often in direct proportion to its nastiness.

The demonological theory of disease held sway over the minds of men for thousands of years. If it cannot exactly be called a *zolie hypothèse*, as the lisping French philosopher called the existence of a Creator, at any rate like that pretty hypothesis it supplied a convenient explanation of many things. But if the simple pathology of primitive man causes us amusement, the smile dies on our lips when we reflect on the appalling consequences of that belief translated into action. It was the notion that disease was caused by demons that led to the belief in witchcraft, which again survived in full vigour till the seventeenth century, and is not by any means extinct in this century of light. The belief in witchcraft caused the persecution and judicial murder of countless human beings, chiefly old women guilty of nothing worse than eccentricity or madness. In many neolithic skulls there are round holes, evidently made during the life of the owner, for signs of repair are visible about the edges. These show that the operation called by modern surgeons trephining was practised by prehistoric man. There is some difference of opinion among the learned as to the purpose of the procedure. We think we are right in saying that Sir Victor Horsley has expressed the opinion that it was done, as it often is at the present day, for the cure of epilepsy. Broca, who is inclined to regard it as a form of religious rite or initiation, admits that it may also have been practised with the object of providing an outlet for the escape of the imprisoned demon which caused convulsions.

Faith Healing in Antiquity.

It is usually said that medicine in its origin was a form of priestcraft; in other words, that the first physicians were priests. It is an equally plausible conjecture that the first priests were physicians. In the medicine men of the savages the priestly and the medical characters are mingled. The theory that disease is caused by spirits would naturally lead to the use of spiritual means of cure. This would be more especially the case where it was held that the evil spirit had been driven into a man's body by magical spells. Obviously, the way to deal with such a situation would be to administer a more potent magic. In this we may possibly discern the first dawn of the theory that like cures like. Here, again, cure by charms, spells, and amulets, the practice of which was not so long ago universal, is still widely prevalent in one shape or another to a great extent.

Of faith-healing as practised in antiquity the best illustrations are to be found in the old Greek Temples of Asklepios. The most famous of these shrines was that in the valley of Epidauros, situated in Argos in the south-eastern part of Greece, about three miles from the coast. This temple enjoyed the highest repute as a place of healing for many centuries till its ineffectual fires paled in the beams of the rising sun of Christianity. At first this temple was probably almost exclusively a shrine to which sufferers resorted in the hope that the God of Healing would take pity on them and rid them of their disease. The ministers of the shrine were priests, and their ministrations were mostly of a distinctly spiritual character. Gradually the priest became more and more merged in the physician, and the temple itself was, at any rate to a large extent, transformed into a clinical hospital. The original character of the shrine was, however, maintained in the eyes of the faithful by the kind of pious fraud that seems to be an inevitable feature in the evolution of places of spiritual medication. Instead of the god exercising his power of healing directly, in answer to the prayer of the afflicted believer, he cured them indirectly, just like a human physician, by giving them a prescription. Asklepios did not, indeed, scrawl a hieroglyphic formula to be deciphered only by the initiated; he revealed in a dream the mode of treatment to be followed. The patients spent the night in the holy place amid mystical surroundings well calculated to screw the mind up to the highest pitch of expectancy. To sufferers worn by illness and animated by hope dreams would come easily.

This dream therapeusis was known as incubation. An excellent account of this is given by Miss Mary Hamilton in her work *Incubation and the Cure of Disease in Pagan Temples and Christian Churches*.[1] She traces the connexion between healing and incubation to the fact that the deities in whose temples the rite was practised were heroes who had gone down into the earth; hence they were called Chthonian. They were believed in this way to become endowed with the powers of the earth, chief among which were the sending of dreams and the gift of healing. The attribution of healing powers to the earth would seem to have had its origin in the fact that from the bosom of the earth spring herbs which cure disease or cause death.

The earliest literary mention of incubation is found in the *Plutus* of Aristophanes (B.C. 388). The following is the description as paraphrased by Mr. W. H. D. Rouse[2]:—

"All round," says Carion in the comedy, "were people sick of all manner of diseases. In comes the verger, puts out the lights, and bids us sleep; and, quotha, if you hear a noise, keep a quiet tongue. So we all composed ourselves decently for sleep. But sleep I could not, for my eye caught a pot of pease which stood just behind the old gammer's head, and I had a monstrous craving to crawl after it. Then I looked up, and what should I see but the priest grabbing the cakes and figs from the sacred table. Then he made the round of all the altars, to see if there was a biscuit or two left, and these he consecrated into a bag he had with him. I looked on the performance with much awe, and up I got to fetch the pease. 'You bold, bad man,' says the other, 'weren't you afraid of the god?' 'Afraid?' 'Yes, afraid that he might get there first with his garlands; the priest showed me the way, you see.' Well, when gammer heard the noise I made, she got hold and tried to pull it away; but I gave a hiss and bit her, as though I had been one of those hooded snakes." Carion then goes on to tell how the god, accompanied by his daughters Iaso and Panacea, went round inspecting all the cases. Mr. Rouse omits a short passage here, but it is so much a part of the picture that we venture to replace it. Carion was afflicted with flatulence, and just as the god came near, his inflated intestine allowed its gaseous contents to escape with a loud explosion. Iaso blushed a little, while Panacea turned aside, stopping her nose. The god, however, paid no heed, because, as Carion explains, he is accustomed to the flavour of excrements. Asklepios examined the patients with much attention; a slave who accompanied him placed ready to his hand a stone mortar, a pestle, and a small box. This probably contained remedies. He first prepared an ointment for one of the patient's eyes; the application caused such smarting that the man tried to run away, but the god said to him with a laugh, "Stay there with your ointment; thus you will not go and perjure yourself before the assembly." Going to the next bed where Plutus lay the god wiped the patient's eyes with a clean cloth while Panacea covered his head and face with a purple veil; then the god whistled and two enormous snakes came from the sanctuary and sliding gently under the veil, licked the eyelids of the patient. Soon Plutus arose, having recovered his sight. Carion praises the god because while he had quickly unscaled the eyes of Plutus he had made the impostor Neoclides more blind than before.

It must be remembered that Aristophanes was the Rabelais of ancient Greece, and neither in one case nor the other must it be assumed that the ridicule of sacred things implied disbelief in religion. It is impossible to conceive that the comedy could have been played at Athens had it been thought that it ontraged public sentiment. The miracle plays of the Middle Ages and the licentious stories about persons who professed holiness

[1] London, 1906.
[2] *Greek Votive Offerings: An Essay in the History of Greek Religion*. Cambridge, 1902, p. 201.

were in like manner accepted by the people as jokes. The faith of men in those days was so deep that they could afford to joke about it. What Don Pedro says about Benedick in *Much Ado about Nothing*—"The man doth fear God; howsoever, it seems not in him by some large jests he will make"—might have been said with truth of mediaeval man, and doubtless of the Athenians in the days of Aristophanes.

The most famous temple of Asklepios was at Epidaurus, but his shrines were very numerous, and it is estimated that even before the time of Alexander there were 186 of them; later the number amounted to 320. The whole territory of Epidaurus was held sacred to Apollo, just as the country of which Lourdes is the centre is looked upon as under the special patronage of the Blessed Virgin. The temple may be taken as the type of the Greek shrines of healing, and an account of it may serve to give an idea of the others. The temple dates from the beginning of the fourth century B.C., but the cult of the god at Epidaurus is much older than that.

The buildings comprised, in addition to the temple proper, a *Tholos* or sacred well of Asklepios, and an *Abaton* or hospital for the pilgrims who visited the shrine in search of health. The chief feature within the temple was a great statue of Asklepios, fashioned of ivory and gold, by the famous sculptor Thrasymedes of Paros. The god was represented seated on a throne with a golden serpent rising up towards his left hand and a dog lying on his right. These animals had a prominent place in the symbolism of the cult. The serpent has been interpreted as signifying the spirit of the earth from which comes the mysterious power of life; as for the dog, some explain his presence by the legend that the god was guarded by that animal when forsaken by his mother in infancy, while others hold that he was regarded as sacred because he was supposed to cure sores by licking them. Antivivisectionists might perhaps find a more sinister meaning in the special association of the dog with medicine. A harmless species of large yellow snake peculiar to the Epidaurian valley, which has been seen within the last century but is now believed to be extinct, was regarded as the incarnation of the god and kept in the precincts of the temple. These reptiles were held in the greatest veneration by devotees, who fed them with cakes. Both serpents and dogs seemed to have been trained to lick sores. The *Tholos* was a circular temple appropriately adorned with paintings of Methe (drunkenness) and Eros (love), two chief sources of the diseases which afflict mankind. Some believe that the Tholos was the building in which was situated the sacred spring—the pump-room, in fact, where sufferers drank the healing waters.

The *Abaton* was a portico or gallery open on one side towards the south, the roof of which was supported by a double row of columns. It consisted of two chambers or wards—one for men, the other for women—which Dr. Caton in his book, *The Temples and Ritual of Asklepios*, estimates might have sufficed for the accommodation of 180 pilgrims. Besides these wards or dormitories there were a number of apartments in four buildings, each opening into a quadrangle, which he conjectures to have been hostels where patients suffering from comparatively slight ailments or convalescents found shelter. There was also a theatre, the ruins of which are more impressive than those of any other in Greece. The Greeks evidently knew the hygienic effect of amusement, and full provision for the application of that therapeutic resource was made at Epidaurus. The open porticos in which the patients lay may perhaps be taken to show that they also knew the value of open-air treatment.

The temple had a large staff of priests for the performance of the ritual. The chief priest, or Hierophant, was sometimes, but not always, a physician; in some of the subordinate officials the sacerdotal and medical characters were also united. M. Cavvadia, who has given an account of excavations at the side of the temple of Epidaurus, maintains, however, that the combination of the function of the priest and the physicians belongs to a late period in the history of the temple. Up to the dawn of the Christian era the miracle of cure was, he says, wrought at Epidaurus and the other Asklepieia entirely by prayer.

In any case, the treatment was largely of the nature of faith healing. An essential part of the ceremony was, as it should be in all well-regulated practice, the fee, which took the form of offerings of one kind or another to the god, represented by his ministers. The performance of religious rites and lustrations prepared the suppliant for the operation of the divine power. At night, when the patients were gathered together in the long ward of the Abaton, priests recited prayers, and then put out the lights with an injunction to go to sleep and hope for dreams in which the god should appear and tell them how they might find relief. Whether hypnotism played a part in the ritual of cure can only be conjectured; it is clear, however, that nothing was left undone to create an atmosphere of suggestibility. Many inscriptions recording cures have been discovered, and several of these speak of dreams in which wholesome counsel was given by the god. In the case of the less imaginative patients it is not unlikely that the influence of the mystic surroundings was helped by the use of opium, or other drowsy syrups, causing vivid dreams. Readers of Théophile Gautier's *Paradis Artificiels* will remember how the effect of hachisch manifested itself by the intensification of actual impressions; thus, a chord struck on a piano was magnified into the music of a heavenly choir; a question asked by a bystander in an ordinary tone became the voice of doom echoing through infinite space. Men and women, worn out by suffering and possessed by an eager faith in the healing power of Asklepios, would, when under the influence of such a drug, need no elaborate *mise-en-scène* to make them see visions.

The cures wrought at Epidaurus are attested by inscriptions on stone stelae placed where the sick folk seeking for relief could read them and be impressed by the power of the god. It is evident that the priests of Asklepios knew the power of suggestion. Over forty of these inscriptions have been discovered. Among the cures recorded are, as was to be expected, cases of paralysis. One case of paralysis is an interesting example of the influence of the mind on the body. A lame man named Nikanor was sitting wide awake; a naughty boy ran off with his crutch; "but," says the inscription, "Nikanor got up, pursued him, and so was cured." By the power of the god stones were got rid of by the natural passages; barren women, anxious for offspring, dreamed that snakes came and lay upon their bellies, and straightway became pregnant. In one case the woman dreamed that the god lifted up her dress and touched her belly; "so," it is added, "she bore a son to Arybdas." Such dreams recall the story of the ladies who, on their way to a French shrine famous for the cure of barrenness, were met by someone who told them it was no use to go there for children, as *le grand chanoine qui les faisait est mort.*

Asklepios seems also to have been a pioneer in abdominal surgery. Thus we hear of his relieving a woman of a tapeworm by laparotomy, of his opening a woman who thought she was pregnant and removing two dishfuls of worms, and of his operating successfully for abdominal abscess. In all these cases the wound was duly stitched up. He extracted spear-heads from the face and arrows from the lung. In these cases and the one of cure of stone, the sufferer is said to have carried away the offending object in his hand. The cure of blindness is frequently recorded and the god did not disdain to make hair grow on bald heads. A remarkable case is recorded of the cure of gout by a goose which bit the foot of the patient when he was walking about the temple and made it bleed; we do not know whether any symbolic significance is to be attached to this goose. Many of the cures, it must be admitted, read strangely like the testimonials to the skill of quacks and the virtues of secret remedies which at the present day deface our landscapes and occupy so large a place in newspapers. One feature in the character of Asklepios which should commend him to the admiration of the medical profession is his insistence on the payment of the proper fee. Like mortal doctors he had ungrateful patients, but he knew how to deal with them. Thus a man cured of blindness who would not pay, was smitten blind again and remained so till he had performed the needful ceremony.

While many of the cures recorded on the stelae are absurdly fabulous, in many the working of suggestion can be clearly seen. In others the prescription of the god consists of simple remedies mostly of a dietetic and hygienic character. Mention is sometimes made of physicians as officials of the temple, but this is excep-

tional. Still, as time went on, the theurgic element tended more and more to give place to natural methods of cure.

Faith Healing in the Roman Empire.

Before the ancient Romans came under the influence of Greek thought they were, as described by Sir Clifford Allbutt in his FitzPatrick Lectures: "A people entrenched . . . in a folk-lore and a folk-medicine of their own, and worshipping a mob of pallid deities each, as elsewhere so also in medicine, personating rather than creating not only every chief system and function of the body, but every stage of each. For each stage of labour there was its peculiar deity." Every part of the body, each limb, and even the "harmless, unnecessary navel has its divine warden." Even the itch had a goddess peculiar to itself. They had no doctors, but each head of a family was supposed to look after his wife, his children, and his slaves in illness. In this household medicine healing by charms figured largely. Thus when Cato's panacea, cabbage, failed to reduce a dislocation or heal a fracture, a green reed was broken in the middle, each part being held in contact with the injured limb while the patient said the following words, *Daries, dardaries, astataries, Dissunapiter*, till the pieces of the reed united; these were then made into a ligature and applied to the limb. This cured the mischief, but every day for some time after the patient had to repeat the incantation already quoted or the following: *Huat, hanat huat ista pista sista, domiabo damnaustra;* or *Huat, haut haut ista sis tar sis ardannabon dunnaustra.*

The worship of Asklepios was introduced into Rome in 293 B.C., when the city was made desolate by a terrible pestilence. In this extremity messengers were sent to Epidaurus, who brought back with them the healer in the form of one of the sacred serpents. The snake left the ship and went on shore in the Tiber Island, now called the Island of San Bartolomeo. On it now stands a monastery attached to which is the large hospital of the Fate Bene Fratelli, belonging to the brothers of St. John of God. A conjectural restoration of the original temple was reproduced in an illustration published in the British Medical Journal, vol. i, 1908, p. 1486, in an article entitled "The Evolution of the Hospital."

The Roman temple does not seem to have won anything like the fame of Epidaurus, but records of the same character as those commemorated on the stelae of Epidaurus have been found. At a later day the centre of the cult was transferred to Pergamos in Asia Minor. Of the treatment there we have detailed descriptions in the *Sacred Orations* of Aristeides written in the second century A.D. after his recovery from an illness which lasted seventeen years. He was evidently a neurasthenic of the type we are apt to consider as a product of our modern civilization.

The treatment was of the usual character, being a mixture of faith healing and medical treatment, in which diet, river bathing, and bleeding played a considerable part. He was also anointed with mud or sand, and made to take exercise in the open air by walking barefoot and riding. Nor was drugging omitted; Aristeides says he cannot remember the numberless medicines ordered by the god. But he attributed the greater part of his cure to the healing agency of the god. Faith healing and medicine are mixed in a somewhat comical manner in the following passage from his *Eulogy* to Asklepios:

> Truly the wonderful plays the leading part in the visitations of the god. He makes one man drink gypsum, another hemlock, while another has to strip and wash in cold water, when you would think he needed heat. I myself have been honoured in this way. He has stopped catarrh and chills by river and sea bathing; he has cured prostration with long walks; when I have been without food for some time he has added purging; and when I have been unable to breathe, I have been told to read and write.[1]

The cult of Asklepios lasted, six or seven centuries and the reputation of Epidaurus for cures equalled that of the most famous of mediaeval or modern shrines. Walter Pater's picture of the methods of healing pursued in the Temples of Aesculapius in the transition period between paganism and Christianity is worth quoting here. In *Marius the Epicurean* he says:

> That almost morbid religious idealism, and his healthful ove of the country, were both alike developed by the circumstances of a journey, which happened about this time, when Marius was taken to a certain temple of Aesculapius, among the hills of Etruria, as was then usual in such cases, for the cure of some boyish sickness. The religion of Aesculapius, though borrowed from Greece, had been naturalized in Rome in the old republican times; but had reached under the Antonines the height of its popularity throughout the Roman world. That was an age of valetudinarians, in many instances of imaginary ones; but below its various crazes concerning health and disease, largely multiplied a few years after the time of which I am speaking by the miseries of a great pestilence, lay a valuable, because partly practicable, belief that all the maladies of the soul might be reached through the subtle gateways of the body.
>
> *Salus*, salvation, for the Romans, had come to mean bodily sanity. The religion of the god of bodily health, *Salvator*, as they called him absolutely, had a chance just then of becoming the one religion; that mild and philanthropic son of Apollo surviving, or absorbing, all other pagan godhead. The apparatus of the medical art, the salutary mineral or herb, diet or abstinence, and all the varieties of the bath, came to have a kind of sacramental character, so deep was the feeling, in more serious minds, of a moral or spiritual profit in physical health, beyond the obvious bodily advantages one had of it; the body becoming truly, in that case, but a quiet handmaid of the soul. The priesthood or "family" of Aesculapius, a vast college, believed to be in possession of certain precious medical secrets came nearest, perhaps, of all the institutions of the pagan world, to the Christian priesthood; the temples of the god, rich in some instances with the accumulated thank-offerings of centuries of a tasteful devotion, being really also a kind of hospital for the sick, administered in a full conviction of the religiousness, the refined and sacred happiness, of a life spent in the relieving of pain.
>
> Elements of a really experimental and progressive knowledge there were doubtless amid this devout enthusiasm, bent so faithfully on the reception of health as a direct gift from God; but for the most part his care was held to take effect through a machinery easily capable of misuse for purposes of religious fraud. Through dreams, above all, inspired by Aesculapius himself, information as to the cause and cure of a malady was supposed to come to the sufferer, in a belief based on the truth that dreams do sometimes, for those who watch them carefully, give many hints concerning the conditions of the body—those latent weak points at which disease or death may most easily break into it. In the time of Marcus Aurelius these medical dreams had become more than ever a fashionable caprice. Aristeides, the "Orator," a man of undoubted intellectual power, has devoted six disclosures to their interpretation; the really scientific Galen has recorded how beneficently they had intervened in his own case, at certain turning-points of life; and a belief in them was one of the frailties of the wise emperor himself. Partly for the sake of these dreams, living ministers of the god, more likely to come to one in his actual dwelling-place than elsewhere, it was almost a necessity that the patient should sleep one or more nights within the precincts of a temple consecrated to his service, during which time he must observe certain rules prescribed by the priests.
>
> For this purpose, after devoutly saluting the *Lares* as was customary before starting on a journey, Marius set forth one summer morning on his way to the famous temple which lay among the hills beyond the valley of the Arnus. It was his greatest adventure hitherto; and he had much pleasure in all its details, in spite of his feverishness. Starting early, under the guidance of an old serving-man, who drove the mules, with his wife, who took all that was needful for their refreshment on the way and for the offering at the shrine, they went, under the genial heat, halting now and then to pluck certain flowers seen for the first time on these high places, upwards, through a long day of sunshine, while cliffs and woods sank gradually below their path. The evening came as they passed along a steep white road with many windings among the pines, and it was night when they reached the temple, the lights of which shone out upon them, pausing before the gates of the sacred enclosure, while Marius became alive to a singular purity in the air. A rippling of water about the place was the only thing audible, as they waited till two priestly figures, speaking Greek to one another, admitted them into a large, white-walled and clearly lighted guest-chamber, in which, while he partook of a simple but wholesomely prepared supper, Marius still seemed to feel pleasantly the height they had attained to among the hills.
>
> The agreeable sense of all this was spoiled by one thing only—his old fear of serpents; for it was under the form of a serpent that Aesculapius had come to Rome, and the last definite thought of his weary head before he fell asleep had been a dread either that the god might appear, as he was said sometimes to do, under this hideous aspect, or perhaps one of those great sallow-hued snakes themselves, kept in the sacred place, as he had also heard was usual.
>
> And after an hour's feverish dreaming he awoke—with a cry, it would seem, for someone had entered the room bearing a light. The footsteps of the youthful figure which approached and sat by his bedside were certainly real. Ever afterwards, when the thought arose in his mind of some unhoped-for but entire relief from distress, like blue sky in a storm at sea, would come back the memory of that gracious countenance which, amid all the kindness of its gaze, had yet a certain air of predominance over him, so that he seemed now for the first time to have found the master of his spirit. It would have been sweet to be the servant of him who now sat beside him speaking.

[1] Mary Hamilton, op. cit.

He caught a lesson from what was then said, still somewhat beyond his years, a lesson in the skilled cultivation of life, of experience, of opportunity, which seemed to be the aim of the young priest's recommendations. The sum of them, through various forgotten intervals of argument, as might really have happened in a dream, was the precept, repeated many times under slightly varied aspects, of a diligent promotion of the capacity of the eye, inasmuch as in the eye would lie for him the determining influence of life; he was of the number of those who, in the words of a poet who came long after, must be "made perfect by the love of visible beauty." The discourse was conceived from the point of view of a theory Marius found afterwards in Plato's *Phaedrus*, which supposes men's spirits susceptible to certain influences, diffused, after the manner of streams or currents, by fair things or persons visibly present—green fields, for instance, or children's faces—into the air around them, acting, in the case of some peculier natures, like potent material essences, and conforming the seer to themselves as with some cunning physical necessity. This theory, in itself so fantastic, had however determined in a range of methodical suggestions, altogether quaint here and there from their circumstantial minuteness. And throughout, the possibility of some vision, as of a new city coming down "like a bride out of heaven," a vision still indeed, it might seem, a long way off, but to be granted perhaps one day to the eyes thus trained, was presented as the motive of this laboriously practical direction.

"If thou wouldst have all about thee like the colours of some fresh picture in a clear light," so the discourse recommenced after a pause, "be temperate in thy religious notions, in love, in wine, in all things, and of a peaceful heart with thy fellows." To keep the eye clear by a sort of exquisite personal alacrity and cleanliness, extending even to his dwelling-place; to discriminate ever more and more fastidiously, select form and colour in things from what was less select; to meditate much on beautiful visible objects, on objects, more especially, connected with the period of youth—on children at play in the morning, the trees in early spring, on young animals, on the fashions and amusements of young men; to keep ever by him if it were but a single choice flower, a graceful animal or seashell, as a token and representative of the whole kingdom of such things; to avoid jealously, in his way through the world, everything repugnant to sight; and, should any circumstance tempt him to a general converse in the range of such objects, to disentangle himself from that circumstance at any cost of place, money, or opportunity. Such were in brief outline the duties recognized, the rights demanded, in this new formula of life. And it was delivered with conviction; as if the speaker verily saw into the recesses of the mental and physical being of the listener, while his own expression of perfect temperance had in it a fascinating power—the merely negative element of purity, the mere freedom from taint or flaw, in exercise as a positive influence. Long afterwards, when Marius read the *Charmides*—that other dialogue of Plato, into which he seems to have expressed the very genius of old Greek temperance—the image of this speaker came back vividly before him, to take the chief part in the conversation.

It was as a weighty sanction of such temperance, in almost visible symbolism (an outward imagery identifying itself with unseen moralities), that the memory of that night's double experience, the dream of the great sallow snake and the utterance of the young priest, always returned to him, and the contrast therein involved made him revolt with unfaltering instinct from the bare thought of an excess in sleep, or diet, or even in matters of taste, still more from any excess of a coarser kind.

When he awoke again, still in the exceeding freshness he had felt on his arrival, and now in full sunlight, it was as if his sickness had really departed with the terror of the night; a confusion had passed from the brain, a painful dryness from his hands. Simply to be alive and there was a delight; and as he bathed in the fresh water set ready for his use, the air of the room about him seemed like pure gold, the very shadows rich with colour. Summoned, at length, by one of the white-robed brethren, he went out to walk in the temple garden. At a distance, on either side, his guide pointed out to him the *Houses of Birth and Death*, erected for the reception respectively of women about to become mothers and of persons about to die; neither of those incidents being allowed to defile, as was thought, the actual precincts of the shrine. His visitor of the previous night he saw nowhere again. But among the official ministers of the place there was one, already marked as of great celebrity, whom Marius saw often in later days at Rome, the physician Galen, now about 30 years old. He was standing, the hood partly drawn over his face, beside the holy well, as Marius and his guide approached it.

This famous well or conduit, primary cause of the temple and its surrounding institutions, was supplied by the water of a spring flowing directly out of the rocky foundations of the shrine. From the rim of its basin rose a circle of trim columns to support a cupola of singular lightness and grace, itself full of reflected light from the rippling surface, through which might be traced the wavy figure-work of the marble lining below as the stream of water rushed in. Legend told of a visit of Aesculapius to this place, earlier and happier than his first coming to Rome; an inscription around the cupola recorded it in letters of gold. "Being come unto this place the son of God loved it exceedingly":—*Huc profectus filius Dei maxime amavit hunc locum*;—and it was then that that most intimately human of the gods had given men the well, with all its salutary properties. The element itself when received into the mouth, in consequence of its entire freedom from adhering organic matter, was more like a draught of wonderfully pure air than water; and after tasting, Marius was told many mysterious circumstances concerning it, by one and another of the bystanders: he who drank often thereof might well think he had tasted of the Homeric *lotus*, so great became his desire to remain always on that spot; carried to other places, it was almost indefinitely conservative of its fine qualities; nay! a few drops of it would amend other water; and it flowed not only with unvarying abundance, but with a volume so oddly rhythmical that the well stood always full to the brim, whatever quantity might be drawn from it, seeming to answer with strange alacrity of service to human needs, like a true creature and pupil of the philanthropic god. Certainly the little crowd around seemed to find singular refreshment in gazing on it. The whole place appeared sensibly influenced by the amiable and healthful spirit of the thing. All the objects of the country were there at their freshest. In the great park-like enclosure for the maintenance of the sacred animals offered by the convalescent, grass and trees were allowed to grow with a kind of graceful wildness; otherwise, all was wonderfully nice. And that freshness seemed to have something moral in its influence, as if it acted upon the body and the merely bodily powers of apprehension, through the intelligence; and to the end of his visit Marius saw no more serpents.

A lad was just then drawing water for ritual uses, and Marius followed him as he returned from the well, more and more impressed by the religiousness of all he saw on his way through a long cloister or corridor, the walls wellnigh hidden under votive inscriptions recording favours from the son of Apollo, and with a distant fragrance of incense in the air, explained when he turned aside through an open doorway into the temple itself. His heart bounded as the refined and dainty magnificence of the place came upon him suddenly, in the flood of early sunshine, with the ceremonial lights burning here and there, and withal a singular expression of sacred order, a surprising cleanliness and simplicity. Certain priests, men whose countenances bore a deep impression of cultivated mind, each with his little group of assistants, were gliding round silently to perform their morning salutation to the god, raising the closed thumb and finger of the right hand with a kiss in the air, as they came and went on their sacred business, bearing their frankincense and lustral water. Around the walls, at such a level that the worshippers might read, as in a book, the story of the god and his sons, the brotherhood of the Asclepiadae, ran a series of imageries, in low relief, their delicate light and shade being heightened here and there with gold. Fullest of inspired and sacred expression, as if in this place the chisel of the artist had indeed dealt not with marble but with the very breath of feeling and thought, was the scene in which the earliest generation of the sons of Aesculapius were transformed into healing dreams; for "grown now too glorious to abide longer among men, by the aid of their sire they put away their mortal bodies, and came into another country, yet not indeed into Elysium nor into the Islands of the Blest. But being made like to the immortal gods, they began to pass about through the world, changed thus far from their first form that they appear eternally young, as many persons have seen them in many places—ministers and heralds of their father, passing to and fro over the earth, like gliding stars. Which thing is, indeed, the most wonderful concerning them!" And in this scene, as throughout the series, with all its crowded personages, Marius noted on the carved faces the same peculiar union of unction, almost of hilarity, with a certain self-possession and reserve, which was conspicuous in the living ministrants around him.

In the central space, upon a pillar or pedestal, hung, *ex voto*, with the richest personal ornaments, stood the image of Aesculapius himself, surrounded by choice flowering plants. It presented the type, still with something of the severity of the earlier art of Greece about it, not of an aged and crafty physician, but of a youth, earnest and strong of aspect, carrying an *ampulla* or bottle in one hand, and in the other a traveller's staff, a pilgrim among his pilgrim worshippers; and one of the ministers explained to Marius this pilgrim guise. One chief source of the master's knowledge of healing had been observation of the remedies resorted to by animals labouring under disease or pain—what leaf or berry the lizard or dormouse lay upon its wounded fellow; to which purpose for long years he had led the life of a wanderer, in wild places. The boy took his place as the last comer, a little way behind the group of worshippers who stood in front of the image. There, with uplifted face, the palms of his two hands raised and open before him, and taught by the priest (Aristeides has recorded it at the end of his Asclepiadae), to the Inspired Dreams:

"O ye children of Apollo! who in time past have stilled the waves of sorrow for many people, lighting up a lamp of safety before those who travel by sea and land, be pleased, in your great condescension, though ye be equal in glory with your elder brethren the Dioscuri, and your lot in immortal youth be as theirs, to accept this prayer, which in sleep and vision ye have inspired. Order it a right, I pray you, according to your loving-kindness to men. Preserve me from sickness; and endue my body with such a measure of health as may suffice it for the obeying of the spirit, that I may pass my days unhindered and in quietness."

On the last morning of his visit Marius entered the shrine again, and just before his departure the priest who had been his special director during his stay at the place, lifting a cunningly-contrived panel, which formed the back of one of the carved seats, bade him look through. What he saw was like the vision of a new world, by the opening of some unsuspected window in a familiar dwelling place. He looked out upon a long-

drawn valley of singularly cheerful aspect, hidden, by the peculiar conformation of the locality, from all points of observation but this. In a green meadow at the foot of the steep olive-clad rocks below, the novices were taking their exercise. The softly-sloping sides of the vale lay alike in full sunlight, and its distant opening was closed by a beautifully-formed mountain, from which the last wreaths of morning mist were rising under the heat. It might have seemed the very presentment of a land of hope, its hollows brimful of a shadow of blue flowers; and lo! on the one level space of the horizon, in a long dark line, were towers and a dome: and that was Pisa, or Rome, was it? asked Marius, ready to believe the utmost, in his excitement.

All this served, as he understood afterwards in retrospect, at once to strengthen and to purify a certain vein of character in him. Developing the ideal, pre-existent there, of a religious beauty, associated for the future with the exquisite splendour of the temple of Aesculapius, as it dawned upon him on that morning of his first visit—it developed that ideal in connexion with a vivid sense of the value of mental and bodily sanity. And this recognition of the beauty, even for the aesthetic sense, of mere bodily health, now acquired, operated afterwards as an influence morally salutary, counteracting the less desirable or hazardous tendencies of some phases of thought, through which he was to pass.

CHRISTIANITY AND THE ANCIENT GODS.

The last refuge of paganism was in the shrines of healing. The old gods were gradually supplanted by Christian saints. Temples were replaced by churches, where Christ was worshipped as the Healer, who did His beneficent work through the agency of His saints. Districts had their special patrons, and their shrines vied with each other in popularity. Incubation continued, and can be traced throughout Europe, Asia Minor, and Egypt. The method of incubation remained much the same as in the pagan temples. The patient had first to go through a course of vigils, prayer, and fasting. This preliminary spiritual purification was gone through at the tomb or before the image of a saint. In this way the patient was brought to a state of mind and body most suitable for the operation of hypnotism and self-suggestion. The patient was sometimes cured in a vision; either an operation was performed by the saint, or the disease was cured by the laying on of a healing hand. In other cases the saint appeared in a dream and gave directions for a cure, prescribing a certain course of treatment. Sometimes cure was wrought instantaneously, as at Lourdes, by the mere presence of the patient in the holy place. There is a striking parallel to the surgical cures attributed to Asklepios in the case of the German Emperor Henry II, of whom it is told that in 1041, being in sore suffering from stone in the bladder which the doctors could not relieve, he betook himself to the famous monastery of Monte Cassino. There he prayed fervently and St. Benedict appeared to him in a dream, and with a surgeon's knife (*ferro medicinali*) cut into the bladder—apparently by the suprapubic route—extracted the stone, placed it in the King's hand, and forthwith healed the wound. In several of the cures recorded at Epidaurus it is mentioned that the stone, spearhead, or other body removed was found in the patient's hand when he awoke. Henry told the story to Benedict VIII, who thereupon crowned him Emperor. The Pope himself gives a somewhat different version in a letter, in which he says that Henry had been troubled with doubts whether St. Benedict was actually buried at Monte Cassino. "Not being fully asleep from pain by which he was grievously afflicted, nor yet fully awake, the most Blessed Father Benedict appeared to him, and asked where his pain was. When he had fully explained it, the most blessed Benedict said, 'I know thou hast hitherto doubted whether I rest here, but this shall be a sign to thee that my body and that of my sister (St. Scholastica) are in this place. When thou arisest this day thou shalt pass three large stones *in egestione urinae tuae*, and thenceforth shalt be free from pain.' In the morning the monarch told the story to the brethren, showed the three stones of which he had got rid."[1]

THE EMPEROR HENRY OPERATED ON BY ST. BENEDICT.
A Sculpture at Bamberg (about 1510). From Eugen Holländer's *Die Karikature und Satire in der Medizin*, Stuttgart, 1905.

This shows the legend in the making. Even in this form the story has a counterpart, though in a less edifying form, on the stelae at Epidaurus, where it is recorded that a man who had stone in the bladder dreamed that he was lying with a boy. He passed the stone and went his way holding it in his hand.

The general character of the diseases cured at the Christian shrines is the same as that given in the pagan records. The accounts are as meagre as those of the "testimonies" of Christian Science and other modern methods of spiritual healing, but the prominence of lameness, blindness, and paralysis is striking. A special feature of Christian churches was the cure of lunacy and other nervous diseases, among which various forms of epilepsy are conspicuous.

The casting out of devils was a common subject with painters employed to decorate churches under the patronage of special saints; how closely some of the greatest Italian artists followed nature in this matter is well explained by Dr. Paul Riches in his copiously illustrated work, *L'Art et la médecine*. The demoniacs lived in the churches, where the rite of exorcism was performed on them every day. Sufferers from various diseases also took up their abode in a church, it might be for months or even years. Such a

[1] E. T. Withington, *Medical History from the Earliest Times*. London. MDCCCIV.

system of resident patients implies the maintenance of a large establishment. Hospices and baths adjoining the churches are frequently mentioned in the narratives, and great crowds came to invoke the saints, filling the hospices and sacred buildings.

The healing saints were mostly general practitioners; but many were specialists, as St. Lazarus for leprosy, St. Roch for plague, St. Raynald for diseases of the eye and skin, St. Dodon for rheumatism, and so forth. The photograph (which we owe to the kindness of Dr. George Pernet) reproduced below gives some other names; the list might be extended indefinitely. Sometimes the attribution had its origin, as in the case of St. Lazarus, in the fact that the saint had suffered from the disease which he cured; sometimes, as in that of St. Roch, from his having while alive shown particular zeal in tending sufferers, often from some accidental circumstance in a resemblance between his name and the disease or the part affected.

Miracles were regarded as a test of the influence with the Almighty possessed by the saints, and national and regional jealousies naturally led to the growth of legends. An attempt to authenticate miracles has for some

THE SIX HEALING SAINTS OF NOTRE DAME DU HAUT (CÔTES DU NORD).

St. Mamert cures abdominal ailments; St. Livertin, headache; St. Houarniauce, who is holding a wolf on leash, cures fear; St. Meen cures madness; St. Hubert, the bite of mad dogs; St. Lubin comforts all who are afflicted.

centuries been made in the act of canonization, where the *advocatus diaboli* plays the part of the historical critic. Notwithstanding this the Roman Breviary, though partly expurgated by Leo XIII, still contains a number of stories which are stones of stumbling to the faithful.

Some saints are credited with miracles performed in infancy which irresistibly recall the statement referred to by Yorick that the great Lipsius composed a work the day he was born. "They should have wiped it up," said My Uncle Toby, "and said no more about it."

VOTIVE OFFERINGS.

In the old shrines of healing, as in the new, the votive offering plays a prominent part. The walls of the Greek Asklepieia were adorned with representations of arms, legs, necks, breasts, and other parts of the body which had been healed. These were made of precious metal or such baser material as the grateful patients could afford. These votive offerings, doubtless, resembled the *donaria* found in the old Roman temples of Aesculapius, but were probably of more artistic workmanship. A collection of these *donaria* was described by Dr. Louis Sambon in the BRITISH MEDICAL JOURNAL of July 20th and 27th, 1895, and some specimens were reproduced in the JOURNAL of June 17th, 1899. The *donaria* consisted for the most part of bronze statuettes or representations in marble or terra-cotta of the parts of the body which had been the seat of disease. They were thrown into the water of the sacred spring, or hung about the walls of the temple or round the statue of the god. When they had accumulated to an inconvenient extent, they were put away in small caves or wells or buried in the ground, from which they are now from time to time recovered. Terra-cotta images are naturally the most numerous; and the variety of objects represented is very great. They are mostly of very rude workmanship, but many of them are interesting as showing the notions of the anatomy of the human form which were current among the Etruscans and old Romans. The terra-cotta figures were painted in various colours, generally red and blue. Marble *donaria* are uncommon; bronze figures are fairly numerous.

Another form of the *ex-voto* was a tablet of wood or terra-cotta on which were paintings representing miraculous cures. Such tablets may be seen at the present day in churches in Italy, Spain, and other Southern countries; and the altars are often covered with *donaria* in wax and silver. Rouse in his work on *Greek Votive Offerings*[1] classifies the offerings in the Greek temples which commemorate a deliverance from sickness under the following heads: (1) The Image of the Deliverer; (2) the Image of the Person delivered; (3) Representative of the Act or Process; (4) Miscellaneous. He says that the Epidaurian cures would have been rejected by Plato or Sophocles as by any educated man of to-day; such as these and most of the richer citizens went to the doctors. But the ordinary Greek was simple and tried the faith cure, which was at once cheaper and more in accordance with tradition.

"If," he says, "we set aside the temple officials who naturally would support the establishment, most of the dedicators' names lack the demotic adjective; which may imply that they were foreigners, or humble tradesmen, not citizens of Athens. Or the temple might be the last resort of those who could get no relief from the physicians."

INCUBATION IN MODERN GREECE.

A good idea of the rites practised in the Asklepieia of ancient Greece may be got from observances of a kindred character which are still to be witnessed in some of the more remote islands of the Greek archipelago. Miss Jane Harrison, who is a recognized authority in Greek archaeo-

[1] *Greek Votive Offerings. An Essay in the History of Greek Religion.* Cambridge, 1902.

logy, was present at a religious function in the island of Tenos, which may be taken as fairly representative of the rites of healing at Epidaurus and the other shrines of Asklepios, though shorn of the beauty of art and the pomp of a richly endowed shrine. It is, she says, the eve of the feast, and pilgrims have been arriving all day, and continue to do so far into the night. The whole place is full of them. They present a weird spectacle: many are lame, not a few blind or paralytic, most of them exceedingly dirty. The houses are very full, and sleeping accommodation is nowhere to be had. Many make a night of it, and the cafés do a roaring trade. Dancing begins in the streets, and whole night is one long unrest. Meanwhile the Church plays its part. Service has been held in the afternoon, and vast colonnades have been prepared for the reception of patients. The more fortunate have secured places in these, and amidst the lurid flame of quickly-prepared fires, the night is passed in cooking food and attending to the wants and cries of the children. Round the sacred well the crowd is thickest. The ceremony begins with a procession of priests, which threads its way among the worshippers, whose object is to be touched or actually walked over by the bearer of the Eikon, or sacred image. Next morning printed lists of cures accomplished during the night are published by the priests. In the church itself may be seen numbers of votive offerings, in the form of limbs or other parts of the body, which were the seat of the disease, placed there in testimony of cures wrought on former supplants. Here, too, the parallel is exact, for vast numbers of such *ex-votos*, many of them made of gold, have been excavated from the ruins of the Asklepieia.

The church at Tenos is comparatively recent, having been erected in 1821 at the outbreak of the War of Independence. To-day it is the most famous of the Greek shrines of healing, and may perhaps be regarded as having inherited the virtues of the temple of Apollo at Delos, which is in its near neighbourhood. Miss Mary Hamilton[1] gives accounts of similar pilgrimages which she has had the opportunity of seeing in many parts of the islands and mainland of Greece.

HEALING WELLS.

Here it may not be out of place to say something about the wells which are a feature in all shrines of healing, ancient and modern. The belief in the relation of wells with the healing of disease is a very old one. The Pool of Bethesda may perhaps be referred to in connexion with this belief. In the old temples bathing was prescribed not only for purification before the influence of the god was invoked, but as a means of treatment.

In 1872 among the ruins of the so-called baths of Heliogabalus there were discovered the remains of a small sacred edifice of the fifth century generally believed to have been the church of Saint Cesario in Palatio. From this building a steep staircase leads directly down to a well whose construction is said to belong to the republican era. It is supposed that the water of this well was credited with certain healing qualities and played its part in certain rites and ceremonies practised in the Middle Ages. Similar instances of such wells in Christian churches are not wanting. The site of a famous temple of Aesculapius, on the island of the Tiber, is now occupied by the church of San Bartolomeo. Under the altar of this church, built about the ninth century on the ruins of the temple, is an ancient well, which was undoubtedly connected with the rites of incubation. Grateful patients used to throw coins into these wells. Justinian built, out of the stone which remained over from St. Sophia, the church of "St. Mary of the Well" at Balukli, near Constantinople. This well, discovered at the time of Leo the Great, was already celebrated for the miraculous cures effected by its waters. Even to-day holy springs are to be found in Cyprus, Crete, and many other places in Greece and throughout Europe.

Wells were especially credited with therapeutic virtues in the diseases of children. Mr. R. C. Hope, in his *Legendary Lore of Old England*, enumerates 139 such wells; and Dr. Dan McKenzie has discussed the whole subject in a paper published in *Folk-Lore*, an abstract of which appeared in the JOURNAL of January 11th, 1908. Some thirty wells in Cornwall are said by Mr. and Mrs. Quiller Couch to be curative of sick children. In some foreign countries, as in Slavonia, Servia, and Syria, diseased children are often taken to wells for treatment.

[1] Op. cit.

Many children's wells are found in Scotland. In the Scottish Highlands there were in former times many springs famous for their healing properties. One of the most noted of these places was Saint Fergan's Well, in the Hill of Knockfergan, near Kirkmichael, in the Banffshire Highlands. Even in the middle of the eighteenth century this well was the resort of pilgrims in search of health. Like all the other springs in the Highlands, it had a guardian spirit which took the strange form of a fly. According to custom, all who drank the water of this well were expected to leave an offering to the spirit, which might be in the form of money, pins, or bits of cloth. The author of a book entitled, *Lectures on the Mountains; of the Highlands and Highlanders as They Were and as They Are*, published in London in 1860, remembers having seen some of these *ex-votos*.[2] According to Miss Mary Hamilton,[3] the hanging of rags on a tree or bush as a token of a disease left behind, or a sign of the suppliant's desire for a cure, is a widespread custom in Greece and in Asia Minor at the present day. The origin of the custom is the belief that an evil thing can be transferred from oneself to an inanimate object by the agency of a rag. Speyside had numerous miraculous springs. Over a century ago the "chappel wall" at St. Mary's Orton was renowned for the cure of whooping-cough and diseases of the eyes and joints. Two miles further down the river the wells at Ait-Hash were also the resort of children suffering from whooping-cough, who were brought to drink the waters in the month of May. At these wells, too, votive offerings of pins, coins, rags, and even little "mutches," or caps, were left as tokens of gratitude.

We have the testimony of the late Sir Arthur Mitchell[4] to the fact that the adoration of wells continues in Scotland largely at the present day. It may, he says, be encountered in all parts of Scotland from John o' Groats to the Mull of Galloway. The well on Innis Maree, which the Dingwall Presbytery condemned at a meeting in 1656, is still an object of adoration. When Sir Arthur Mitchell visited it, some fifteen years before the date of his book, he found numerous offerings fastened to the tree which stands beside it. The bush above Craeguck Well, in the parish of Aboch, was covered with rags when he was there, and he saw at least a dozen wells in Scotland which had not ceased to be worshipped. He goes on to say that, whereas formerly crowds used to go to these wells on the first of May and the pilgrimage ended as a frolic, nowadays the visitors are comparatively few and those who go are generally in earnest.

They have a serious object, which they desire to attain. That object is usually the restoration to health of some poor little child—some "back-gane bairn." Indeed, the cure of sick children is a special virtue of many of these wells. Anxious mothers make long journeys to some well of fame, and early in the morning of the 1st of May bathe the little invalid in its waters, then drop an offering into them by the hands of the child—usually a pebble, but sometimes a coin—and attach a bit of the child's dress to a bush or tree growing by the side of the well. The rags we see fastened to such bushes have often manifestly been torn from the dresses of young children. Part of a bib or little pinafore tells the sad story of a sorrowing mother and a suffering child, and makes the heart grieve that nothing better than a visit to one of these wells had been found to relieve the sorrow and remove the suffering. One feature of the visits paid to these wells in a spirit of faith and earnestness, as visits like those I speak of are sure to be, is that they are kept more or less secret. It is well enough understood that the business is not a Christian one, and that the engaging in it is not a thing which it would be easy to justify. There is a consciousness that it has not been gone about as an empty, meaningless ceremony, but that it has involved an acknowledgement of a supernatural power controlling human affairs, and influenced by certain rites and offerings—a power different from that which is acknowledged by Christians. Hence it happens that there is a difficulty in getting people to confess to these visits, and of course a greater difficulty still in getting them to speak freely and frankly about the feelings and beliefs that led to them.

Some of these wells have the names of Christian saints attached to them, but I never knew a case in which there was any prayer or appeal to the saint. Many of these wells were objects of adoration before the Christianizing of the country. The early missionaries, by taking them over as levers of regeneration, believed themselves to be doing wisely in trying to give a new direction to the respect paid to them. Their success, however, does not seem to have been complete and lasting.

[2] BRITISH MEDICAL JOURNAL, November 13th, 1909, p. 1421.
[3] Op. cit.
[4] *The Past and the Present: What is Civilization?* Edinburgh. 80

TO ILLUSTRATE DR. NORMAN WALKER'S PAPER.

Case C. V.

Case F. S.

Case E. N.

Speaking of other superstitious practices still common in Scotland and unquestionably of pagan origin, Mitchell says it would be a great mistake to suppose that the persons who practise these rites with just belief in their efficacy are the grossly ignorant, and a still greater mistake to suppose that they are the irreligious. "On the contrary, they are often church-attending, sacrament-observing, and tolerably well-educated people—people, too, who necessarily participate in all the advantages of the advanced civilization of their country."

Of healing wells in Wales the most celebrated is that of St. Winefride at Holywell, the curative virtues of which were proclaimed some years ago by that prophet of the marvellous, Mr. W. T. Stead.

LOURDES: THE GROTTO.

In France the cult of the well dates back to a time before the conquest of Gaul by the Romans. The district of Morvan is particularly rich in miraculous springs, and it is only within recent years that the number of sufferers resorting to them has begun to diminish. Most of these wells are under the protection of a saint, but the belief in their curative virtues is much older than Christianity. It is, indeed, one of the primitive forms of naturalism which preceded philosophic religions. It existed in India, Egypt, Persia, Asia, whence it passed to Germany, Scandinavia, Gaul, and Britain, before or with Druidism. In Gaul the priests of Belen practised medicine, their chief healing agent being the worship of water, trees and stones. After the conquest of Gaul by the Romans, the latter, pursuing their usual policy, adopted the native gods. After the Romans the Christian bishops had to fight the popular superstition. Notwithstanding the fulminations of councils (Tours, 567; Nantes, 658; besides two ordinances of Charlemagne, 789 and 794), Christianity could do nothing more than transform, without being able to destroy, the cult of wells. A saint was given to each of them, the old idol being broken, or perhaps made to serve as the saint, and placed in the chapel built in the neighbourhood of the well. Thus at Certenue Our Lady replaced the White Lady, who was formerly the tutelary deity of the well. M. Lex, who has made a special study of the wells in the department of Saône-et-Loire, has found that among 76 springs 30 cured fevers, 14 every kind of disease, 13 affections of visions, 4 barrenness in women, 5 pains, 2 headaches, 1 neuralgia, 1 wounds, 3 glands in the neck, 1 cancer, 3 diseases of the skin, 1 caries of the bones, 3 pains in the stomach, 1 indigestion, 1 catarrh, 1 goitre, 2 all the diseases of children, 3 rickets, 2 wasting, 1 convulsions. Other wells were credited with the quality of bringing milk to the breasts of young mothers; others, again, of making delivery easy. The offerings brought by pilgrims consisted in eggs, cheese, and some small money. It was believed that only the poor could pick up these offerings; a well-to-do person who stole them got at the same time the disease of which the pilgrim had been cured.

LOURDES.

Lourdes may be looked upon as the type of the modern healing shrine, as Epidaurus has been taken as that of the ancient world. At the present time it is the most famous place of pilgrimage in existence. It is a curious fact that shrines of healing have their periods of splendour; they suffer eclipse from time to time as newer places of devotion come into fashion, and sooner or later they almost inevitably fall into decay and oblivion. This happened over and over again in antiquity, and it happens now. A few years before Lourdes became known, La Salette, which is among the mountains in the Department of Isère, not far from Grenoble, was in great repute, though it never reached the height of popularity enjoyed by Lourdes, the rising glory of which threw it into the shade. It has now fallen on evil days, though it is not altogether deserted of visitors.

Lourdes lies in a beautiful valley on both sides of the Gave in the south-west of the department of the Hautes-Pyrénées, at the mouth of the gorge which, as it divides, leads to the thermal springs of Cauterets, Saint Sauveur, and Barèges. There are two distinct towns—the old, or "grey town," and the new, or "white town." On the right bank of the river on a steep rock stands, as if in watch over the old town, the ancient citadel of Lourdes, on which have floated successively the banners of Romans, Saracens, and English. It has been time and again attacked by great feudal lords in the Middle Ages, and was the scene of many a bloody fight during the wars of religion. Further to the west is the white town, made up of churches, monasteries, shops where rosaries, medals, and other objects of piety are sold, and of hotels and lodging-houses for pilgrims. The story of Lourdes has been told so often that it need only be recalled that it owes its origin to an ignorant young girl, Bernadette Soubirous, daughter of a miller of Lourdes, who in 1858 is said to have seen eighteen times an apparition of the Blessed Virgin in the grotto of Massabieille. The apparition said

LOURDES: THE BASILICA AND ROSARY CHURCH.

to her, "I am the Immaculate Conception." These facts, after a long inquiry, were declared by ecclesiastical authority to be authentic and miraculous, and a feast with a special office was authorized for the anniversary of the first apparition (February 11th). The number of pilgrims has gradually increased, and now every year, in the month of August, the Great Pilgrimage takes place and requires a special service of trains. Churches have sprung up and their walls and the grotto are covered with *ex votos*. A statue in white marble by Fabisch, of Lyons, stands on the spot where the first vision was seen. To the left of the grotto is the miraculous spring which discharges 85 litres of water a minute. It was unknown before the apparition, and some engineering skill has been needed to keep up the supply. It is situated in a building where there is this inscription: "Allez boire à la fontaine et vous y laver. Février 1858." A part of the water, which comes out of several pipes, is for the use of the pilgrims. The rest supplies the piscinae where patients bathe in the hope of a cure. The Bishop of Tarbes at present is the chief ecclesiastical authority.

The whole country about Lourdes is rich in shrines. J. K. Huysmans, in *Les foules de Lourdes* (Paris, 1905), says Lourdes is like a living star surrounded by nine satellites, dead or dying. These are Notre Dame de Héas, Notre Dame de Piétat at Barbazan, Notre Dame de Piétat at Saint-Savin, Notre Dame de Poueylahün, Notre Dame de Bourisp, Notre Dame de Nestès, Notre Dame de Médoux, Notre Dame de Bétharram, and Notre Dame de Garaison. All these shrines are very old. The legend of the origin of several of these is similar to that of Lourdes. Thus, at Notre Dame de Médoux the Blessed Virgin appeared to a young shepherdess named Liloye; Notre Dame de Bétharram was discovered by some young shepherds who found a luminous statue of Our Lady in a bush; the shrine fell into decay, and was restored by Louis XIII. On the eve of the Assumption, 1622, the spring, which had run dry years before, began to flow again. But now the patroness of the well has left it and gone on to Lourdes. There is an ancient church at Bétharram, destroyed in the wars of religion and rebuilt at the beginning of the seventeenth century. A calvary stands on the hill above the chapel. The caves of Bétharram are among the wonders of France, and, indeed, of Europe. The history of Notre Dame de Garaison is almost an exact anticipation of that of Lourdes; it was, in fact, the Lourdes of the sixteenth and seventeenth centuries. Of Bernadette it need only be said that she was a simple soul, very stupid, very pious, and of very unhealthy constitution. She is described by those who knew her as altogether an insignificant person, but sweet in temper and lovable. She was totally without education, and at the time of the first vision had never, it is said, heard of the Immaculate Conception. From childhood she was the victim of severe asthma, and in 1879 she died of tuberculosis of the bones in a convent at Nevers, where she worked as infirmarian. The story of her humble life—a life of suffering and resignation—is told by J. B. Estrade in *Les apparitions de Lourdes* (Tours, 1899).

We need not go into the bitter controversies which have raged round this poor girl who might have been the heroine of Flaubert's *Un coeur simple*. There seems to be no solid reason to doubt Dr. Balencie's statement that, as the incessant crowd of visitors who went to see her imposed a strain on her which she was unable to bear, he thought it best to interfere for her protection. She herself disliked the notoriety of which she was the object, and of her own will took shelter in the convent where she died. One feature of Lourdes which cannot fail to make a disagreeable impression on visitors more sympathetic than Zola, is the open and unabashed commercialism of the place. The pilgrim is exploited in every possible way, and the sale of religious objects brings vast sums of money to the town. A particularly revolting example of this is a shop in a conspicuous situation bearing the name of Bernadette's brother. Her name is used in a like manner by others of her family. To such base uses may the seer of heavenly visions come! It would be going outside our province to describe the churches and religious institutions of Lourdes. Huysmans cannot find words strong enough to condemn them from an artistic point of view, but he admitted that what we may call the management of the place is admirably fitted to arouse religious excitement to the highest pitch in believers. Even unbelievers like Zola have recognized that the processions and other religious functions, and especially the vast mass of prayers shot, in Huysmans's words, like catapults against the gates of heaven by the pilgrims, must stir the coldest and most languid to emotional fervour.

Here we are concerned with the effects of all this on the sick. Only two parts of the ritual of cure need be mentioned: the plunging of the sufferer in the sacred spring, and the benediction of the sick with the Blessed Sacrament displayed on a monstrance. The water is also drunk by those who can get near the taps, but the crowding is so great that often this is not possible. Nowhere in the world is such an amount and variety of disease seen as at Lourdes. The rotting limbs, gnawing ulcers, and deformities of all kinds gathered together, make up a hideous spectacle of misery that can never be forgotten; and the stench of the discharges is enough to upset the stomachs of the doctors and nurses most hardened to the smell of diseased humanity. But the charity that nowhere flowers more sweetly than at Lourdes enables the volunteer attendants to go through their work without sinking under their self-imposed burden. Huysmans, who gives an account of the Bureau des Constatations where "cures" are verified, was struck by the care taken to exclude all false miracles. Both Dr. Boissarie and Dr. Cox, who have charge of what may be called the clinic of miracles, are, he says, on their guard against fraud and self-deception, and rigorously set aside all cases of hysteria, epilepsy, and all forms of disease obviously due to neurotic causes. The reality of the result is tested and precautions taken to ascertain its permanence by examining the patients year after year when the opportunity is afforded till it is judged that a sufficient time has elapsed to enter it on the list of "cures." The official record of the "cures" wrought at Lourdes is contained in Dr. Boissarie's book, *Les grandes guérisons de Lourdes*.[1] The work is now ten years old, but a new edition is, we understand, about to appear. We may say of the book what Carlyle said of the Koran, that it is "crude, incondite," but it is of special value, as it gives the official medical evidence. From it we learn that the Bureau des Constatations was established about 1884. Before that time the cures were described by the clergy, who consulted the doctors of the patients, drew up the notes and reproduced the certificates at the end of each observation. At an earlier period each patient used to make his doctor verify the cure, and this was, in fact, the best way of spreading the fame of Lourdes. Then two medical men, Drs. Dozous and Balencie, came on the scene. The former was a sceptic, but on examination recognized the supernatural. He wrote a book some years ago, to which he prefixed the motto: "J'ai cru, parce que j'ai vu." The other one was a Catholic, but did not believe in the apparitions, which he described in an official report to the prefect as hallucinations. He afterwards saw reason to change his mind, and at the time of publication of Boissarie's book (1900) he had signed certificates of cure at Lourdes.

The clinic was founded by Dr. de Saint-Maclou, of Louvain. He directed the clinic from 1884 to 1891. During these seven years the average of reports drawn up in the office annually was 50, the number of doctors present being sometimes 30 to 35. In 1892 there was a sudden rise from 40 doctors to 120, from 50 reports to 100. In 1897 there were 220 doctors and more than 230 reports. This does not include many who visited Lourdes *incognito*. The 230 reports represent only two-thirds of the cures seen by Boissarie. The total number would be about 300. At first the clinic worked only during the great pilgrimages—two months. Now it works six months, from April 12th till October 15th, six hours a day, and there is often a large mixed audience. During the national pilgrimage sixty to eighty doctors sometimes follow the inquiries. Some at least of the larger pilgrimages (Dr. Boissarie says all) bring their own doctors with them. Only preliminary work is done at Lourdes; addresses, names, and certificates are taken, and the condition of the patient is noted. As the doctors come from every part of France, there is no town or province that has not sent representatives there. Two or three thousand certificates are brought each year. That would make in ten years twenty-five to thirty thousand, bearing the names of twelve

[1] Edition illustré de 140 similigravures dans le texte et de 24 gravures hors texte sur papier couché. Paris: Ancienne Maison Charles Douniol. P. Téqui, Libraire-Editeur, 29, Rue de Tournon, 29. 1900.

to fifteen thousand different doctors. All countries in the world, including England and America, send pilgrims to Lourdes. As regards the attitude of the doctors, there are some who are convinced, some who wish to examine without prejudice, some who will not listen to anything, others who are annoyed. Among the irreconcilables, says Dr. Boissarie, it is rare to find names well known to science; they are mostly doctors who have drifted into politics. The professors and others listen and observe. During the five or six years preceding the date of his book there were 30 professors of faculties, 15 in medical schools, 15 physicians to the Paris hospitals, 20 members of the Academy of Medicine, 20 doctors of the University of London, 15 professors in foreign faculties, and a certain number of senators and deputies. Then there was Zola, who put his hasty observations into the form of a novel. Naturally he "explains" everything, but he has to admit certain facts which in the present state of knowledge can only be regarded as riddles. The special point about the Lourdes miracles when they happen—which when the evidence is critically sifted is not often—is their instantaneous character. The sudden healing of a face destroyed by lupus—in one case with, in another without, scarring—facts vouched for by Boissarie and by Huysmans, who saw the patients, is altogether outside ordinary experience. But it is not, therefore, necessarily a result of supernatural intervention. The case of Peter de Rudder, said to have been cured suddenly of a compound fracture of both bones of the leg, at Oostacker, the Belgian Lourdes, in 1875, may, perhaps, be placed in another category. The wound is said to have been open eight years, the ends of the bones being a considerable distance apart. Here we do not find the evidence altogether convincing.

The sudden cure of phthisis is not so difficult a riddle. The diagnosis may be at fault, and the cure may not be so sudden as it appears to be. The healing of sinuses due to diseased bone may appear to the patient to be instantaneous, when in reality the process has taken place gradually under a scab. A case of this kind evidently puzzled Zola, who could not deny the reality of the cure, and therefore left it unexplained. It must be remembered that most of the patients whose cases are reported are poor and dirty; bandages are not often changed, and it is conceivable that the cure may be wrought by the slow forces of Nature, though the discovery of what has happened comes only when the bandages fall off in the sacred spring. Of the cure of cancer there is a number of examples; but here again comes in the question of diagnosis. The surgeon of largest experience will be the readiest to admit that this is a serious source of fallacy.

It is significant that the largest number of *ex votos* are crutches; it may safely be conjectured that the crutches represent the bulk of the cures. At all healing shrines cases of lameness and "paralysis" yield by far the largest proportion of cures.[1] There are two features of the Lourdes "cures" to which particular attention should be drawn—there is no medical treatment as in the later days of the old temples of Asklepios, and there is no secrecy. Publicity is courted. There is often, no doubt, exaggeration, and oftener still mistake. But those who have charge of the shrine seem, as far as can be judged, in perfect good faith, and to be as ready to acknowledge failures as to proclaim successes. It may be added that the miracles of Lourdes are not *de fide*, and many good Catholics keep an open mind on the subject.

Not all the "cures" are instantaneous. In some, especially in cases of bone disease, repeated visits to the shrine are required. Others are healed not at Lourdes, but it may be a considerable time after the pilgrimage. There are many relapses. In the whole enormous amount of diseased persons who seek deliverance from their sufferings at Lourdes many are eased for a time, but of definitive cures the proportion is small. The total number has been estimated at 7,000, but, according to Padre Gemelli, a medically-trained ecclesiastic who discussed the miracles not long ago with the medical professors of Pavia, this should be reduced by one-half. If we accept this figure as representing anything like the result of forty-five years of miracle working, it compares very unfavourably with the statistics of any modern hospital. Of course, it may be said that at Lourdes cases are cured which are the mere despair of medical art. But even if we admit that cures have been wrought that cannot be explained in the light of present knowledge, they are very few in number, and the evidence is doubtful.

The secret of good statistics of "miracles" lies, as in less occult provinces of the healing art, in the right selection of cases. These should be instances of purely functional disorder, or, if there be organic mischief, it should be such as is dependent on nervous disturbance. "Neurosis" may indeed in general terms be laid down as the indication for "miracle." A Roman Catholic physician, the late Dr. J. R. Gasquet, who was President of the Psychological Section at the Annual Meeting of the British Medical Association held at Dublin in 1887, who paid a visit to Lourdes in 1894, classified the cases which he saw there into two categories.[2] In one of these the symptoms were purely neurotic, and in them recovery was, he said, the rule. The other consisted of "persons in whom examination easily detected the persistence of organic disease, but whose general condition was greatly improved." In the former group most of the cases were examples of hysterical paralysis; in the latter cases of osteo-arthritis predominated—a circumstance which Dr. Gasquet says is "not without interest considering the neurotic affinities of the disease." This is just what might be expected. Of course, persons afflicted with other infirmities go to Lourdes. Dr. Gasquet admits that the great majority of the cures which he saw at Lourdes "were evidently, in one way or another, due to the influence of the mind on the body." This influence, as all medical practitioners can testify, is capable of working "miracles" as striking as those in the records of any shrine. A powerful mental emotion or shock will often cure cases of functional paralysis, hysterical contracture, and similar conditions, which are the mere despair of medicine. Gout has been literally frightened out of a man, and strong emotion has restored the sound of a voice that had been still for years. We have ourselves seen a woman who had long been voiceless cured of her aphonia by the mere introduction of the laryngoscopic mirror; and the story told by Herodotus of the King's son who "burst the bonds of his voice" when he saw his father about to be slain before his eyes is entirely credible. A large number of most interesting cases illustrating the effects which mental shock may have on the body will be found in Hack Tuke's *Illustrations of the Influence of the Mind upon the Body in Health and Disease* (London: Churchill, 1872). The analogy which these cases, in which there is no suggestion of thaumaturgic influence, present to the miracles wrought at shrines and temples, is so striking that one can hardly avoid the conclusion that the mechanism is the same in the one class of cases as in the other. But in the miraculous cures it is the patient's faith that makes him whole; and in cases where nerve power is deficient there is no more potent agent. The physician has called this powerful auxiliary to his aid in cases of what Sir John Russell Reynolds called "paralysis from idea," and others where it was likely to be useful. Charcot sent many patients to Lourdes. It is only fair to Dr. Gasquet to quote the following passage, which expresses his view as to the cases in which, the local disease remaining unaffected, the general state greatly improved:

> To say there is nothing remarkable about them, and that they are simply instances of suggestion carried out on a large scale, is merely to provoke the retort, "Why, then, do you not treat your own patients with equal success?" It must be clear to the most superficial observer that the conditions of suggestion—if suggestion there is—at Lourdes differ very considerably from those which prevail in the clinics of Nancy or Paris. There is no evidence of hypnotic manifestations among the pilgrims; and the number of cures of the various neuroses at different times are in no direct ratio to the amount of religious excitement, there being often none during the great pilgrimages and processions. Whatever suggestion there may be must come from within, and, even so, must differ notably from the more common kinds of "autosuggestion"—to use the barbarous word which has been coined for the purpose. Thus, there can be no certain anticipation of cure on the part of the patients, for all are aware that recovery is the exception, not the rule. It is a matter of every-day experience at Lourdes that many who arrive with the most confident belief that they will be healed derive no benefit

[1] At Banf, in the Rocky Mountains, a steep path leading to one of the smaller sulphur wells is, or was, railed in by a fence entirely composed of crutches.

[2] Dr. Gasquet's account of what he saw at Lourdes may be found in his volume entitled *Studies Contributed to the Dublin Review* (London, 1904).

there, while there are sufficient instances—Dr. Boissarie records a very striking one—where persons were cured who had no hope whatever. The truth appears to me to be that suggestion is potent in the cure of disease in proportion, not to its directness and imperiousness, but to its forming a part of the normal mental life of the individual. The former kind of suggestion is like a foreign body, which may compel the living tissues to yield to its impact, but cannot restore health, which must be due to the physiological reaction of the organism. For the same reason, I believe that cure by suggestion is less frequent among the puppets of the Charité and the Salpétrière than among the patients treated by the simpler process employed at Nancy, and that it is most real and complete when wrought by the ordinary moral influence of the physician. The wonders worked by this last means will be never fully known, "*carent quia vate sacro*," but they have more elements of permanence about them than those produced by formal hypnotic suggestion. I no not, however, myself think this is the whole account of the matter. I believe that contact with the supernatural, not only at Lourdes, but in every place where men call for the help of their Creator, may produce much greater effects than ordinary suggestion or auto-suggestion can accomplish. Such effects would be produced through the influence of the mind on the body; and no argument could be based on individual cases, each of which might be paralleled among instances admittedly natural. But if the environment of patients visiting Lourdes be borne in mind, it will appear very improbably that the kind and degree of suggestion existing there should produce so many complete and permanent cures, even of purely nervous ailments. Nor will this seem antecedently unlikely to theists, who will be prepared to admit that prayer has a superhuman efficacy to change and renew the moral and spiritual nature of man. Those who grant so much will hardly think it unreasonable to believe that such an action may sometimes overflow into the body, which they know to be so intimately connected with the mind.

It should be added that it is stated by various writers that, even when Lourdes fails to cure the ailing body, it comforts the soul. This is not a small thing.

Christian Science.

The newer forms of spiritual healing have been so fully discussed in the Journal during the past year or two that little need be said of them here. They present at least one note of sectarianism, in that they hate each other with the fervour characteristic of the theological temper.

Christian Science seems to present one fundamental point of difference from all other forms of spiritual healing. This is, that whereas the cures said to be wrought at Lourdes and other shrines are attributed to the direct action of Christ, exercised at the intercession of His Virgin Mother or His saints, Mrs. Eddy and her disciples claim, as far as we understand the teaching—which is not only obscure in itself, but often inconsistent—to cure disease by the same power of healing that was given to Christ. In the sacred book of the sect we read:

> Our Master healed the sick, practised Christian healing, and taught the generalities of its divine Principle to His students; but He left no definite rule for demonstrating His Principle of healing and preventing disease. This remained to be discovered through Christian Science. A pure affection takes form in goodness, but Science alone reveals its Principle and demonstrates its rules.[1]

She tells us that "when God called her to proclaim His Gospel to this age, there came also the charge to plant and water His vineyard." What she calls her "sacred discovery" was made in 1866, and since then it has become widespread in America and in this country. It does not commend itself to the Latin mind, which is nothing if not lucid and logical. Its methods and results are fully discussed by some representatives of the most advanced medical thought in the present issue of the Journal, and we have nothing to add to what they say. To any one who wishes to see the whole case against Christian Science put most clearly and convincingly from the medical point of view, we cordially recommend Mr. Stephen Paget's book on the subject.[2] It is attractively written, well "documented," and informed with the true scientific spirit.

We need say only one thing more about Christian Science, which, to speak plainly, is a repulsive subject, inasmuch as it shows in a way no other form of spiritual healing does the depths of degradation to which the human mind can sink under the weight of superstition. That it cures cases of the kind that have been healed at all sorts of shrines—pagan, Christian, Buddhist, Mohammedan—from time immemorial, it would be idle to deny. That it brightens the lives of some persons who have no aim in life and have nothing to do but evoke pains and ailments by thinking of their health is also true. But none the less, its pretensions go far behind anything that is credible, except by such as accept Tertullian's paradox, *Credo quia impossible;* and, instead of courting the light as other methods do, it seems to love the darkness. We have asked over and over again for facts that would convince a trained mind, but none are forthcoming. Christian Science may, indeed, be described as faith with the least possible amount of works and the largest possible number of words. Here are fair specimens of the kind of facts which form all the evidence vouchsafed to us of its healing efficacy; they are taken from the *Christian Science Sentinel* of May 28th, 1910, p. 777:

> A short time ago I was taken sick with fever. My mother asked for Christian Science treatment for me, and I was almost instantly cured. I have been reading *Science and Health, with Key to the Scriptures*, by Mrs. Eddy, and have been benefited in business and in health ever since. I am very grateful for Christian Science, and thankful to God, whence all good comes.
>
> Fred. Werth, Dallas, Tex.

> Some time ago I was attacked by stomach and bowel trouble. A Christian Science practitioner was called, and my ailment soon left and I was again able to resume my duties. I am very thankful for the good done me and others, and praise God for speaking to us through Mrs. Eddy.
>
> Tillie Werth, Dallas, Tex.

There is nothing new in Christian Science except the colossal impudence of its pretensions. Mark Twain spoke in ignorance when he said:

> The Christian Scientist has taken a force which has been lying idle in every member of the human race since time began.[3]

We have shown that it was not left to Mrs. Eddy to discover this force, and that so far from lying idle, it has been active in temples and churches, at shrines and tombs, for thousands of years. In one thing Christian Science has probably a unique record of achievement: Beyond any sect or system that we know of it has succeeded in exploiting human imbecility and turning airy nothing into solid cash.

The Emmanuel Movement.

Quite recently the Anglican Church has awakened to the need of not leaving the healing of the sick by spiritual means to its rivals. Valentine Greatrakes, a seventeenth century faith healer, an account of whom was given in the Journal of April 17th, 1909 (p. 963), said that God had made choice of him to work wonders, for the following reasons:

> The first is to convince this Age of Atheism, who cannot yet believe Jesus to be God, when they see pains and diseases to vanish, and evil spirits flye his Power; as I have good cause to believe the Falling-sickness and other Distempers I have met withal sometimes to be. Next, God may, to abate the pride of the Papists that make Miracles the undeniable Manifesto of the truth of their Church make use of a Protestant to do such strange things in the face of the sun, which they pretend to do in cells.

The same reason seems to have inspired some of the modern systems of faith healing.

The Emmanuel Movement took its name from the church in Boston, Massachusetts, where it originated. The movement dates from 1905, when Dr. Joseph H. Pratt, of the Massachusetts General Hospital, laid before the Rev. Elwood Worcester, D.D., a scheme for the treatment of poor consumptives in the tenements of Boston by the class method which was first employed at Emmanuel Church.[4] The success of this enterprise convinced its promoters that the Church has an important mission to discharge to the sick, and that the physician and the clergyman can work together to the benefit of the community. They therefore entered upon a similar work. Before doing so they consulted some of the leading neurologists in America, and were assured of their approval and active co-operation. Had the medical profession, they state, withheld their assistance, they would not have proceeded further.[5]

One of our fundamental ideas is that all work of this kind should be under strict medical control, and to this idea we have been and are consistently loyal. We recognize that in part the

[1] *Science and Health.* By Mary Baker G. Eddy. Boston. 1908. P. 41.
[2] *The Faith and Works of Christian Science.* Macmillan and Co. 1909. The book is now in a second edition
[3] *Christian Science*, London and New York, 1907, p. 86.
[4] *The Christian Religion as a Healing Power.* A Defense and Exposition of the Emmanuel Movement. By Elwood Worcester, D.D., Ph.D., and Samuel McComb, M.A., D.D., Emmanuel Church, Boston. London and Leipsic. 1910. (P. 14.)
[5] *Religion and Medicine.* The Moral Control of Nervous Disorders. By Elwood Worcester, D.D., Ph.D., Samuel McComb, M.A.Oxon., D.D. Glasg., Emmanuel Church, Boston, and Isador H. Coriat, M.D. With a preface by Somerset E. Pennefather, M.A., D.D., Vicar of Kensington and Prebendary of St. Paul's. London: Kegan Paul, Trench, Trubner, and Co., Limited. 1908.

reason why moral therapeutics has been eyed askantly by medical men has been because the therapeutist has too often refused the guidance of science, and has taken up with some type of crude supernaturalism in defiance of the obvious facts of experience. There is, perhaps, no subject around which has gathered so much humbug, quackery, fanaticism, and pseudo-metaphysics. This warning is constantly before us in all our endeavours.

The meaning and aim of their work, they say in their recent work, *The Christian Religion as a Healing Power*, "is to bring into effective co-operation the physician, the psychologically trained clergyman, and the trained social worker in the alleviation and arrest of certain disorders of the nervous system which are now generally regarded as involving some weakness or defect of character or more or less complete mental dissociation." They affirm that there is no attempt in their movement to unify the functions of the priest and the medical man. What they claim is to have brought into existence a new form of specialization, the employment of special knowledge and experience for a special task. If, they say, nervous sufferers, victims of alcohol and other drugs, the unhappy, the sorrowful, would-be suicides, and other children of melancholy felt that religion meant nothing to them, there would be no place for work like theirs. They attach great importance to prayer, but they also believe in convincing the reason of the sufferer, in showing him how the trouble arose and how it may be removed, in arousing within him fresh interest, in soothing and calming his mind by infusion of hope and faith, in leading him to a more satisfactory moral or intellectual outlook. They add:

In a word, we believe that conscious and subconscious are both essential to the integrity of the personal life. Great as is the power of the subconscious, greater still, we believe, are the powers of reason, emotion, and will. Hence, one of the principal remedies for the nervous maladies of which we are speaking is psychic, moral, and religious re-education. Just as an athlete can train particular groups of muscles to do his bidding, so we can exercise particular groups of thoughts until they dominate the mind, and this domination leads of necessity to the elimination of other groups of thoughts which we regard as undesirable. In neurasthenia, hypochondria, hysteria, psychasthenia, and other morbid and abnormal conditions, both conscious and subconscious are involved, and the method which affects both elements in mind would appear to be the most rational and practically the most effective.

It is stated by Drs. Worcester and McComb that several thousand persons have been treated with some degree of success at Emmanuel Church and in other churches. Beyond this small group several million persons in America and in other countries have learnt of their work by reading what has been written about it, and they say, "If we may believe the letters which constantly pour into the church, some of these too have received benefits, which appear sometimes in the form of improved health and greater strength, sometimes in the form of improved habits and a new spiritual life." An institution in which the sick may be treated and students instructed in what may be called the methods of the Emmanuel Church, has recently been founded in San Francisco, under the general direction of Bishop Nichols of California, supported by several of the leading physicians of that city.

THE CHURCH AND MEDICAL UNION.

The Church and Medical Union was established recently with the object of promoting the co-operation of the Church and the medical profession in the healing of the sick. The principles on which the union bases and purposes to carry on its work are embodied in the following paragraphs in the Lambeth Report of 1908:

The Committee believes that Christ still fulfils in Christian experience His power to give life, and to give it more abundantly; and that the faith which realizes His Presence is capable of creating a heightened vitality of spirit, which strengthens and sustains the health of the body. The Committee believes that sickness and disease are in one aspect a breach in the harmony of the Divine purpose, not only analogous to, but sometimes at least caused by, want of moral harmony with the Divine Will; and that this restoration of harmony in mind and will often brings with it the restoration of the harmony of the body.

The Committee believes that medical science is the handmaid of God and His Church, and should be fully recognized as the ordinary means appointed by Almighty God for the care and healing of the human body. The Committee believes that discoveries in the region of medicine and surgery come to man through Him Who is the Light and the Life, the Divine Word.

An article by the Honorary Secretary of the Church and Medical Union, Mr. Geoffrey Rhodes, appears in this issue of the JOURNAL. It may not be out of place, however, to give here a summing up of the general conclusions of the committee of the Union which we find in a recently published account of its work entitled *Pyschic Healing*. It is as follows:

(1) Starting with the proposition that religious belief is of definite and important therapeutic value, it is obvious that the best results in the alleviation of sickness can only accrue from the close collaboration of the representatives of the two professions, that of the Church and that of medicine. (2) We have, therefore, seen that to make this collaboration of the greatest use to society it is necessary that as far as possible both the doctor and the minister of religion should be acquainted with and able to avail themselves of the laws revealed to us by modern psychological investigation. (3) Certain difficulties that at first appear to be what might be termed philosophical must not be lost sight of, but must be rather kept in view, as they are valuable aids to the consideration of relationships of cause and effect. It is not necessary here to refer to all of these philosophical difficulties, but one that will occur to all of us is the danger, when religion and medicine are closely approximated, for the latter to be swallowed up by the former. The doctors did not like the bishops describing medicine as the handmaid of the Church, but it is hardly to be expected that the Church can completely subjugate herself to the practice of medicine.

THE SOCIETY OF EMMANUEL.

The Society of Emmanuel must not be confused either with the Emmanuel Movement or the Church and Medical Union. It was founded in 1905, and dispenses with medicine. Its president is Mr. James Moore Hickson, of 22, Talbot Square, Hyde Park, W. In its official organ, *The Healer*, for January, 1908, it is stated that its objects are:

1. To develop the Divine gifts left to His Church by the Master, especially the gift of healing by prayer and laying on of hands, with the object of using these Divine gifts, not only for the healing of the body, but as a means of drawing the souls of men nearer to God.
2. To further this purpose by opening a hostel, especially for poor gentlefolks, a class who are beyond the reach of ordinary help, where their cases may be diagnosed by duly qualified medical men, and where a band of healers may develop and use their gifts to further the work.
3. To form a strong wall of defence against the powers of evil, by mutual united intercession, and by common reception of the Holy Communion on the Second Sunday in the month.
4. To safeguard the central doctrine of the Incarnation, all regular members should acknowledge the divinity of our Lord, *although the operations of the* society should be freely used for all in need of them.

In the report of the society for the year ending June 30th, 1909, it is stated that a hospice had been opened on the outskirts of Regent's Park, near Gloucester Gate, for the reception of in-patients. On May 26th of that year it was "dedicated and set apart for the glory of God and for the service of our acting brothers and sisters" by the Right Rev. Bishop Mylne. We quote the following passage from the report:

There are eight beds in the hospice for in-patients; and, with the exception of a few weeks during the summer recess, they have been fully occupied. Our in-patients without exception have written most grateful letters about their stay in the hospice, and we are thankful beyond measure to Almighty God for the help that He has given them, as they tell us, in body, soul, and spirit. It cannot be too strongly emphasized that a home such as ours, with its chapel for private prayer, devotional meetings, and intercessions, its band of helpers, the visits of the clergy for administration of the Sacraments and spiritual work in preparation for healing, may, under God's blessing, foster to the full an ideal spiritual atmosphere for the Healing Gift. We hope that all our members will come forward to take some active part in this work. We are glad to be able to report that all the healing that has been done in the hospice has been duly certified by qualified members of the medical profession. Dr. James Moorhead and Dr. Rowse have examined the in-patients each week. We owe them a hearty debt of gratitude for their devoted and ungrudging services in connexion with this part of our work.

The following remarks by Dr. James Moorhead are added to the report:

I have had some experience of Mr. Hickson's work during the past two years, and I can say with confidence that he has been the means of bringing much comfort and help—physical and spiritual—to several sufferers. I testify with pleasure that he has been successful in curing or alleviating cases of both organic and functional disease. I shall cite a few cases. I know one patient who was under medical treatment for four months (a consultant was called in) without much if any benefit, and who was cured by Mr. Hickson after six visits. I know another case where an internal growth was diagnosed (and which was believed to be malignant) nearly two years ago by two eminent surgeons, one a London specialist, and the growth gradually disappeared under Mr. Hickson's treatment, and the patient is now well and strong. I know

of a third case—one of locomotor ataxy—which was discharged from two hospitals as incurable, after a residence in one of nearly seven months and in the other of two and a half years, and which, under Mr. Hickson's treatment, has undergone a remarkable improvement. I saw this patient in March, 1908, directly after his discharge from the National Hospital, and he was then in a most deplorable and helpless condition. (I may remark that he was carried from the hospital.) I saw him again yesterday, and the change in his condition was most gratifying. His general health was greatly improved; one would think as he sat in his chair there was nothing the matter with him; he was able to walk pretty comfortably with the aid of a stick, and could walk even a little without it, and when I left he walked down two flights of stairs to see me off. He told me that with two or three rests he could walk a mile or more with the aid of his wife's arm and a stick.

Since the Hospice was opened, from one cause or another I was only able to see a few of the cases that came under treatment, but in every case I saw some improvement took place, and in some the improvement was marked. At present there are some very interesting cases under treatment, and in one case of nine years' duration, and which for six years was under the care of an eminent surgeon, a very gratifying improvement has been noticed.

We make no comment on these statements now, as a Subcommittee of the Medico-Political Committee of the British Medical Association has carefully investigated some of the cases treated in the Hospice of the Society of Emmanuel, and its report will be presented in due course.

We may, however, be allowed to refer again to a case already mentioned in the JOURNAL (May 22nd, 1909). It was cited by Bishop Mylne in a paper which appeared in *The Healer* of March, 1908, as a case quoted in "the latest up-to-date book on cancer which is in the hands of the most scientific men of to-day." Repeated efforts to obtain the reference from Bishop Mylne failed, but we succeeded in tracing the case, and got an account of it from Mr. Butlin, who had never published it. It was a case of growth on one of the vocal cords which was diagnosed to be malignant, but turned out after removal to consist of horny epithelium arranged in layers. It was, in fact, a kind of leucoplakia. A thesis on the subject of such growths was presented to the University of Paris by Gaston Poyet in 1908.[1] The bishop's sensational account was therefore absolutely incorrect. In another case, for details of which we are also indebted to Mr. Butlin, the disease was really a cancer of the larynx. Though not inoperable, the prospect of cure by operation seemed hopeless. The patient was under Mr. Hickson for some time, but although there seemed to be some temporary improvement in his condition, he died within a year of the time Mr. Butlin first saw him.

An Independent Spiritual Healer.

On February 26th, 1909, in response to a letter from the Earl of Sandwich, whose name had been mentioned as attending a meeting of the Society of Emmanuel, a representative of the JOURNAL had the privilege of an interview with his lordship. As giving the views and experiences of a man above all suspicion of interested motives, and who spoke with perfect frankness, the interview was of special interest. Lord Sandwich, who is a visiting governor of St. George's and the Royal Free Hospitals, said he was on the best of terms with the doctors. He wished it to be clearly understood that he did not profess to heal disease; in his own words, he never "cures" anything. Our representative gathered that what he treats is pain and the general feeling of "seediness." His method is to lay his hands on the painful place. Sometimes, with the other hand, he will take one hand of the patient at the same time. In laying on his hand he prays, and he supposes that the patient prays at the same time, but he never tells them to do so. He says that he had no idea of possessing this power until he met Mr. Hickson, as to whose work he was curious. Mr. Hickson told Lord Sandwich as soon as he saw him that he could do just what he himself did, and after that Lord Sandwich treated a number of cases. It should be said that he is not a member of the Society of Emmanuel. Our representative gathered that the patients were mainly people connected with him in some way, but in a lower station of life—that is to say, servants and tenants of his own. He freely admitted that this might possibly have had something to do with his success. He has had a large experience in dealing with suffering people, poor people, and outcasts of one kind or another, and generally succeeds in inspiring them with confidence. When he applies his hand he feels a curious sensation, and at the same time the patient feels something. Children described the sensation as pins and needles. One of the cases mentioned by Lord Sandwich was that of his own butler, who had been operated on for a tumour of the spinal cord at the National Hospital. Sir Victor Horsley, who operated, has kindly placed the notes of the case at our disposal. The following is the record of the operation, which was performed on November 16th, 1907:

Patient lying on right side, an incision 6 in. long was made from just below the occiput downwards. The muscles and fasciae were divided without much bleeding and retracted. The periosteum was stripped from the spines and laminae of the second, third, and fourth and fifth cervical vertebrae. The spines and laminae were removed with bone forceps and saw. The theca appeared distended, chiefly at the level of the third cervical vertebra. Colour normal; no pulsation at this level and below.

The theca was incised by a longitudinal cut. The roots of the third, fourth, and fifth pairs of cervical spinal nerves were seen to be flattened and stretched over an enlarged cord. The enlargement was chiefly on the left side, where, at the region of the postero-lateral tracts, two cysts with a small tumour mass between them were seen on the surface. The cysts were incised and the tumour mass removed with a sharp spoon. The theca was not sewn up. The wound was closed by one layer of interrupted sutures. The perithecal fat was particularly abundant. There was markedly small amount of haemorrhage. The patient stood the operation well.

The patient improved somewhat for a time, but left the hospital on January 18th, 1908. He returned to Hinchingbrooke scarcely able to walk and complaining of great pain. After treatment by Lord Sandwich the pain ceased and he could walk across the stable yard without support, though with difficulty. His condition got worse, and he became completely paralysed below the neck. The man has since died. Another case was that of a girl with congenital syphilis threatened with blindness and generally in so bad a condition that Lord Sandwich said one was tempted to think it was better she should die. Under his treatment, however, she got very much better. Our representative gathered that he did not claim to have driven the poison out of her system. A third case was that of a man with disease of the kidney and heart; he was very ill and confined to bed. One night his wife thought he was dying, and in the morning the man said that he felt as if he could get up and go to work. He could not, however, leave his bed. Lord Sandwich, in reply to a question, said he did not suppose the organic part of the disease was influenced in any way. In reply to an inquiry about the man treated at the National Hospital our representative lately received a letter in which Lord Sandwich said that there had been several instances in which pain had ceased, and extraordinary improvement had taken place in the condition of sufferers whom he had attended. He was unwell himself and ordered by his doctor not to continue this treatment, and had generally abstained from doing so lately. Most of the patients he had attended were suffering from mortal diseases and had since died. Among these was the butler, but Lord Sandwich states that from being totally paralysed he recovered the power of walking. He was perfectly certain that the so-called "spiritual healing" had brought about most marvellous results. It should be added that, although we understand that Lord Sandwich has no objection to the publication of his statements, he is not in any way responsible for the manner in which they are here presented. If there is any inaccuracy, we shall, of course, be glad to afford him an opportunity of correcting any unintentional misrepresentation.

THE ARCHDEACON OF LONDON ON SPIRITUAL HEALING.

In conclusion, we may be allowed to quote the following abstract of the charge of the Archdeacon of London at his annual visitation on April 27th and 28th. We have to acknowledge the courtesy of Archdeacon Sinclair in supplying the abstract of his charge. He took as his subject the "History of Faith Healing." He cited first the Report of the Committee of Bishops appointed to consider the question of Ministries of Healing, the Unction of the Sick, Faith Healing, and "Christian Science" by the Lambeth Conference of 1908. They had laid stress on the attendance of the clergy on the sick, not merely for death-beds; divine power in all sickness; the body as well as the spirit the object of Redemption; the partial neglect of teaching the

[1] *Leucoplasie laryngée.* Paris: Octave Doin. 1908.

duty of reliance on faith and prayer; the indisputable results of the revival of trust in spiritual agency; the aberrations of "Christian Science"; the necessity of the testing by scientific experts of all evidence of spiritual healing; the duty of consecrating personal gifts to God; thankfulness for the triumphs of medical and surgical skill; improvements recommended in Pastoral Visitation, especially the addition of collects more hopeful of recovery; the permission that such prayers should be accompanied by the Laying-on of Hands; the difference between Psychic Forces and Spiritual; the need of prayer for guidance on the whole subject; the impossibility of giving official recognition at present to "Gifts of Healing"; caution to those who believe themselves to have such gifts, especially as to the need of medical study and the avoidance of Occultism and Spiritualism. With regard to the practice of anointing with oil, the Bishops pointed out the obscurity as to the primitive practice; the gradual attraction of the practice as an encouragement to faith into a sacramental preparation for death; and though refusing to prohibit it, declared that at present it could not be authorized by the Church, but that the bishop of each diocese should be consulted. The Archdeacon went on to show how large a part the healing of the sick occupied in the ministry of Christ and His Apostles, and of the Church at large. To the continuance of these gifts evidence was given by Justin Martyr, Irenaeus, Origen, Ambrose, Chrysostom, and Augustine. To the practice of anointing the sick with oil with a view to recovery testimony was found in Tertullian, Serapion, Jerome, the Apostolical Constitutions, the Testamentum Domini, St. Martin of Tours, and others. From the great mass of works of healing in the Middle Ages down to the present time, Mr. Dearmer, who had written on the subject, had selected a list of forty-five, including in recent times George Fox, John Wesley, Prince Hohenlohe, Father Matthew, Dorothea Trüdel, Pastor Blumhardt, and Father John of Cronstadt. Hutton, the late editor of the *Spectator*, took a favourable view of these agencies. In England until the end of the reign of Queen Anne was retained the custom of touching by the king for scrofula, with indisputable results in certain cases. The part borne by faith in healing was fully recognized in the BRITISH MEDICAL JOURNAL. From the JOURNAL accounts were quoted of three remarkable faith healers — Valentine Greatrakes, the Deacon de Paris, and Johann Joseph Gassner. The cures effected at Lourdes might be reckoned at about 5 per cent. In modern times an American movement for faith healing had begun in an episcopal church in Boston, which had not received much encouragement from the authorities on nervous diseases; its promoters had finally decided that nothing should be attempted without the sanction of a responsible physician. In this country, Dr. Alexander Robertson, Physician of Glasgow Royal Infirmary, had practised healing by mental suggestion as far back as 1871 and 1889. In London an association had been formed in 1908, called the Church and Medical Union for the promotion of the recognition of the power of faith in sickness in co-operation with medical skill. There was also the Society of Emmanuel, conducted by Mr. James Hickson, with a view to the employment of spiritual forces in healing. Articles were quoted from the BRITISH MEDICAL JOURNAL which supported the cautious views of the Bishops at Lambeth, acknowledging the wonderful power of mind over matter, and pointing out the lessons to be drawn from the past history of faith healing. The Archdeacon referred to a remarkable discussion at the Harveian Society at a meeting held last autumn, when the powers of suggestion in mental and nervous diseases was fully acknowledged, while the final responsibility of the experienced practitioner was strongly maintained. The upshot seemed to Archdeacon Sinclair to be that there were no limits to the powers of faith and prayer; that many persons, like wise parents, had a gift of personal impressiveness; that the subconscious self was a fact in psychology; that the clergy might do more in their visitations of the sick by encouragements to faith; that the laying-on of hands and the anointing with oil might be tangible helps to faith; and that religion and medical science should always co-operate, while the ultimate responsibility must lie with the accredited physician.

HEALTH VALUES.

BY

GEOFFREY RHODES,

HONORARY SECRETARY OF THE CHURCH AND MEDICAL UNION.

PROFESSOR SIDGWICK once excused himself for devoting two lectures out of a course of three to a definition, and in the present instance I find myself in a very similar position. My friend, Sir Clifford Allbutt, in his *System of Medicine*, says health is an ideal conception, with which assertion I am in complete agreement, for layman, doctor, philosopher, and priest have an ideal before them when they discuss health. Unfortunately, however, not any two of these ideals are the same, and therein lies the main difficulty of coming to any general conclusions in connexion with the phenomenon known variously as spiritual, mental, or faith healing.

One does not by any means get over the difficulty by talking of spiritual health and physical health as two distinct states of being. The realms of consciousness cannot be divided in this way. A sense of wrong-doing can result in a physical breakdown just as surely as a toxic substance in the system may cause mental collapse. It comes, then, to a question of finding some definition of health that shall satisfy all ideals of life.

The great pitfall into which we all, to a certain extent, run the risk of tumbling when we consider the influence of mind over matter is the error of placing physical excellence first. Perhaps I may be allowed to explain what I mean. We no sooner, for instance, realize that thought can control the body than we rush off into the extreme of imagining that, if we only knew how, the mind could be so directed as to obliterate all physical abnormalities of the body. Whether such a process might be scientifically possible or not is quite foreign to my argument. I am merely here interested in the ethical point, namely, the danger of making the spiritual the servant instead of the master of the material. We may not all go to the extreme of trying to cure toothache by being so good that no ache would presume to attack our person, but there is certainly, I believe, a risk of our moving in this direction—it may be all unconsciously—if we do not specially guard against the temptation. Morally it can never be a question of developing the highest in us for the good of the lowest. We know that by cultivating our character we can rise superior to mere material conditions, but we cannot expect to still be counted sane if we pretend that we have completely changed the material. A man may learn to be happy in sordid surroundings. He may consider himself to have become rich in a philosophic sense, but woe betide him if he starts cashing cheques! In the same way, a man who loses a limb may lead a more useful life and be a more valuable citizen after the accident than he was before it, but that will not restore the missing leg or arm. It is irrevocably gone. On the other hand, there would appear to be within each of us a source of psychic energy of which we really know very little at present. That such a reserve fund exists is proved in many ways, as, for instance, when a naturally feeble woman performs some task for her child that entails a herculean effort on the part of mind or body or it may be both. I think it is a mistake to talk of this as being miraculous, for what is the miracle of to-day is often found to be the ordinary working of a scientific law, to-morrow.

The alleviation of sickness by means of the influence of mind over mind is a practice as old as the medical art itself. But it is with certain modern aspects that we are specially concerned. Among all primitive peoples religion and medicine are very closely allied. As civilization advances, the two practices—that of priestcraft and that of surgery—become divided, probably because it is found that an aptitude for metaphysical speculation and for practical medicine does not usually occur in the same person. This division of labours has its drawbacks as well as its advantages. It tends in its first inception towards superstition on the one hand and butchery on the other. Witness the belief in sorcery and the burning and bleeding,[1] not only of the Middle Ages, but of a hundred years back! We have left all that behind, but

[1] Bleeding was of course, based on the pathology of the time.

undoubtedly are still to some extent suffering from the evils of the dual system, the foremost of which has been in recent years the tendency for a sick person to be treated as if composed of two not only distinct but independent parts, the mind, spirit or soul being considered on an entirely different plane from the physical organism. Modern psychological research has, however, tended to the diminution of this error, and has further stimulated a sympathetic regard on the part of the doctors and the clergy for each other's ministrations.

A few words in conclusion on the relationship between the two professions.

Every medical man endeavours to exert a beneficial psychic influence on his patients. All the modern school believe in Professor Osler's mixture of hope and nux vomica. Naturally those endowed largely with what is called "personal magnetism" have a great advantage in the application of this kind of treatment.

But above and beyond this the physician is keenly concerned in all influences that are likely to make for recovery, and the "mental healer" has a definite place in the scheme of cure, just as the chemist, the masseur, or the nurse may have theirs. It is difficult for the doctor professionally to concern himself with dogmatic religion. He has to regard religion rather from a philosophical or ethnical standpoint. It matters not whether he personally be a devout Churchman or what Bishop Welldon has called (I think) a believing Agnostic; in his professional eyes the minister of the Gospel is merely an expert in peace of mind and a messenger of hope.

Reviews.

MIND AND BODY.

A SMALL but highly-important essay, dealing with the psychic treatment of the sick,[1] by Professor KERN, is not one of the usual descriptions of psychotherapeutic practice and of clinical cases and categories, of which large numbers have been published recently. These, as a rule, accept the fact that so-called mental influences, such as persuasion, suggestion, hypnotism, etc., are capable of modifying for good or for ill the mental and bodily states of the subjects to whom they are applied, without attempting any searching examination of the fundamental question of how such action is at all possible. Professor Kern's essay, on the other hand, is a closely-reasoned discussion and attempt at explanation of the one question of how the mind can act on the body.

After a rapid historical survey of psychotherapy, in the course of which he traces it from its beginnings in the magic of the "culture-folk" or primitive peoples—from which medicine only became separated by Asclepiades and later grounded on an empiric basis by Hippocrates—through incubation or temple-sleep, exorcism, miraculous healings, animal magnetism, and mesmerism up to the hypnotism of to-day; and after referring to the work of Scheidemantel (1787) on the emotions as healing agents, and of Johannes Müller (1842) on the interaction of soul and body, he describes how the doctrine of the conservation of energy, which dates from 1842, appeared to deal the death blow to mental action on bodily processes.

Concerning this, he says that an age of anatomical and physiological scientific medicine does not perceive its helplessness with regard to mental processes, nor see that its foundation, the law of a closed causality, is refuted by every instance of the working of the mind on the body. Man, he maintains, is a psycho-physical unity, and it cannot be denied that bodily conditions markedly affect mental states, and vice versa. Common opinion, he says, finds an easy way out of this difficulty by abandoning the question as insoluble, that is, by proclaiming the limitations of human intellect and the unknowableness of the essence of all things. Before criticizing the various explanations which have been advanced with regard to the mutual relations of mind and body, and before exposing his own views, Professor Kern brushes aside this doctrine of the unknowable. Science, he maintains, cannot rest here. Natural science, he says, is in the right in ascribing to mental or spiritual and spaceless things an epiphenomenal value, but in the wrong when it begins to reckon with this epiphenomenon, and to assert its unknowable character, particularly as mental phenomena are the only processes of which we have immediate knowledge, being more truly knowable than spatial and material processes known only by the intermediation of the senses. Physiology, as a part of natural science, is concerned only with things with spatial content. To psychology, on the other hand, the objective facts are strange and foreign, and the chasm between them still unbridgeable, or only to be spanned by an investigation into the nature of knowledge. A great part of the difficulty, he considers, has been unnecessarily imported into the matter by way of framing the question, that is, by regarding mind and body as separate entities. Of mind, or soul, we know nothing; we know only mental processes, and mind is only a concept or *Denkbegriff* to which we fasten a chain of mental events. The body also is only a chain of organic processes for whose permanent and actual foundation we vainly seek, and whose constant connexion in time and space alone justifies us in regarding it as a separate entity. "Mind" and "body" are thus for us, whatever their actual essence, secondary concepts whose uniting point is to be sought, as already said, in the nature of knowledge.

Disregarding these abstractions of mind and body, and confining his attention to the twin series of bodily and mental events—or, as he would say, the same series differently regarded—Professor Kern passes under review and discards, first, materialism, according to which mental processes are the result of neuro-cerebral processes; or more cautiously, as "epiphenomena," bi-products whose appearance belongs, if materialism be accepted, to the realm of the marvellous: a position, he says, not recognized by science to-day. He then briefly discusses and dismisses neovitalism; then dualistic interaction theories, according to which a conversion of physical energy into "psychical energy" is assumed, such as is implied, for example, in the statement that external stimuli give rise to sensations, sensations to perceptions, perceptions to ideas, etc., or that mental processes influence cortical motor paths, and eventuate in action or muscular movement. Such statements, he contends, cannot be reconciled with natural laws.

Next, in very interesting fashion, he traces the development of the psycho physical parallelism doctrine from its origin with Descartes and Leibnitz. This view, which is sometimes called a hypothesis and at others a theory, though it is neither, in order to furnish some sort of causal explanation of the invariable side-to-side relation of the bodily and mental series of events, had to assume the existence of a divinely pre-established harmony (Leibnitz and the Occasionalists), the necessity for which assumption is frequently overlooked by the modern exponents of this view. Although discarding this view, he gives it importance as marking a stage in the progress of our conception of world phenomena, of which the next stage was the positing of an "identical third" between the two series; then the view (Fichte and Fechner) that the mental and the bodily series were merely the two sides of one and the same process; and, finally, the hypothesis, which he himself adopts, that the apparent difference between the mental and bodily series lies entirely in the mode of regard—that is, whether apprehended objectively or subjectively by the apprehending subject.

[1] *Die psychische Krankenbehandlung in ihren Wissenschaftlichen Grundlagen.* By Berthold Kern. Berlin: August Hirschwald. 1910. (Pp. 58. M. 1.20.)

Proceeding to the exposition of this view in relation to mental phenomena, he acknowledges that in the forefront of any discussion lies the law of a closed natural causality, that a physical cause can produce only a physical effect; and he further admits—even leaving out of account the particular investigations of Robert Mayer, Rubner, and Atwater—that this law holds good for animal and human organisms as much as the inorganic world. At the same time, and dismissing any naïve interaction theory, he firmly maintains there is a continual transformation of mental into bodily processes in action during our whole life. "Mental processes, after they have become developed, accustomed, and habitual, become automatic, and finally purely bodily and mechanical." What, then, is the distinction between these two systems of bodily and mental processes? According to Professor Kern, the sole fundamental distinction lies in the employment of the concept of space. The bodily equals spacial-material, the mental equals spaceless-immaterial; only space-filling content being regarded as material. We have therefore not two real processes, but only one and the same fundamental real process, which we regard objectively as space-filling or bodily, and subjectively as spaceless immaterial or conscious and mental; that is, the apparently two-fold nature of the bodily and mental series is resolved into a two-fold ideal system or mode of regard, and identity replaces difference.

Certainly the will moves our members, and certainly stimuli evoke sensations, but in speaking so we continually change from one system of ideas to the other. Expressed in purely physiological terms the movement of our members is due solely to changes in cerebral motor areas and these again to external and internal excitations, mostly after a complex series of associative and dissociative processes in the cortex, which latter we describe psychologically as thought, feeling, will, etc.

Turning to the application of his theory to mental therapeutics, Professor Kern discusses the means or methods of psychotherapy, the nature of their action, and the indications and conditions for their employment. First with regard to therapeutic measures, and accepting the fact that psychotherapy has as its point of application the ideal life (*Vorstellungsleben*), Professor Kern stands firmly on the ground that a sharp distinction between psychic and somatic therapy is impossible, seeing that the bodily and mental series are at bottom identical, and that psychic therapy must, therefore, depend on the employment of physical means of some order or other. The sole difference between psycho-therapy and somato-therapy lies in the fact that the former aims at engaging and influencing the consciousness of the subject, whereas the latter does not. Under therapeutic means, therefore, Professor Kern includes all stimuli, whether of sight (writing, pictures, etc.), sound (speech, verbal suggestion, command, music, etc.), touch, or smell, which are capable of setting in activity some, or inhibiting other, neuro-cerebral tracts which, either by racial or individual use, have acquired certain associations and memorial or emotional values, and which, being regarded subjectively, are conscious or mental in character. It will be observed that use, which is also the essence of recollection, furnishes Professor Kern not only guidance as to the means of psychotherapy but also the fundamental explanation of its action; that is, it is by the employment of definite and carefully-chosen physical stimuli which excite neuro-cerebral complexes possessing marked conscious and particularly emotional values of service to the individual, that psychotherapy must act.

For Professor Kern's brief discussion of hypnotic suggestion in the light of his views and for the indications he gives for treatment we must refer readers to this interesting pamphlet. Although Professor Kern adduces no new facts, his exposition of his views throughout is lucid and suggestive, and capable of much wider application to psychotherapy than was possible in the brief space of his essay. If for no other reason than that it helps to remove the action of suggestion from the realm of the marvellous and to reduce it to a refined somato-therapy, though this is the least of its merits, it deserves the widest reading and reflection.

SOMNAMBULISM AND MYSTICISM.

A few years ago Dr. L. LOEWENFELD, of Munich, a well-known writer on mental diseases, published an essay on the several forms of somnambulism, bringing them into relation with such pseudo-scientific phenomena as clairvoyance, telepathy, transposition of the senses, mediumship, and so on. He has recently brought his study up to date on the side of the occult by a consideration of some of the more recent and striking claims of the exponents of spiritualism and allied forms met with in modern medico-psychological obscurantism. His elucidation of the connexion between somnambulistic processes and the beliefs in supernatural powers to which they have given origin in *Somnambulismus und Spiritismus*[2] is satisfactory, and he incidentally describes many striking cases of somnambulism. His well-reasoned and temperately-worded statement of the scientific standpoint affords a valuable corrective to mysticism in general, and in particular to that uncritical acceptance of spiritistic pretensions exhibited by many whose claim to be men of light and leading in their own professions is apt to be too readily accepted by the public. Some of these distinguished persons, though acutely critical in their own domains, seems to lose all their critical faculties when they approach the boundaries of our present knowledge. This tendency appears to be almost ineradicable in human nature, and forms another example of "the will to believe" whose direction is in this case determined by a kind of mental atavism or survival of the effects of primitive superstitions.

NEURASTHENIA.

IN a brief and rather diffuse discussion of the *Pathogeny of the Neurasthenic States*, which has been translated by Mr. E. G. Richards,[3] Professor DUBOIS, of Berne University, maintains that the term "neurasthenia," though rightly indicating the asthenic character of these states, has two drawbacks. One is that it raises the supposition that the *fons et origo mali* is some physico-chemical alteration of the nerves—a conception, he says, which has taken possession of the minds of medical men. The other is that it encourages the idea—an idea against which he protests—of a morbid entity or a limited affection easily separable from other graver psychoneuroses. For Professor Dubois, neurasthenias, or neurasthenic states, as he prefers to call them, are of mental nature, in fact psychasthenias, forming only one group, and that not a very stable one, of the psychopathies, into which they merge. In classifying the psychopathic states into neurasthenic, psychasthenic, hysterical, hypochrondriac and melancholic, Professor Dubois maintains that all proceed from the same causes, their form being determined by inherited and constitutional factors and the education of the subjects, and their classification decided by the symptoms of fatigue, exhaustion and incapacity in the case of the neurasthenic; obsessions, tics, phobias, etc., in the psychasthenic, and exaggerated autosuggestibility and a weakness of mental synthesis in the hysterical. The basal condition in all these different forms, including hypochondria and simple melancholia, is, he says, a primitive mental defect, a psychasthenia, springing from an original inferiority. In neurasthenic states the neurasthenic crisis is merely the episodic appearance of an ingrained weakness for which physical remedies may do something, but which, according to the author, calls above all for mental treatment, self-education and moral self-discipline.

[2] *Somnambulismus und Spiritismus.* By Dr. L. Loewenfeld. Zweite Auflage. Wiesbaden: J. F. Bergmann; and Glasgow: F. Bauermeister. 1907. (Sup. roy. 8vo, pp. 71. 2s. 3d.)

[3] *Pathogeny of the Neurasthenic States.* By Dr. Paul Dubois. Authorized translation by E. G. Richards. Edinburgh and London: W. Green and Sons. 1909. (Cr. 8vo, pp. 61. 2s.)

British Medical Journal.

SATURDAY, JUNE 18TH, 1910.

MEDICINE AND MIRACLES.

FOR a considerable time there has been a growing reaction against the dogmatic materialism which held sway over the minds of scientific men thirty or forty years ago. To Huxley, Tyndall, or Herbert Spencer the expression of a belief in the possibility of supernatural agency would have branded a man as a fool or an impostor. Hell was, it may be remembered, dismissed with costs by a high judicial authority; to the man of science heaven and miracles, and life and death, were explained by that blessed word "molecules." Now science is less cocksure about a great many things, and men are not so ready as they were, when the generation now fading into the sere, the yellow leaf was, in Byron's phrase, juvenile and curly, to declare that what they do not know is not knowledge.

One of the most remarkable results of this recognition of the limits of science is the present attitude of the medical profession towards what may for the sake of convenience be generically described as faith healing. The change is so great that it seemed to us that the time had come to invite some of those who could speak with the highest authority on the relations between mind and body, as exhibited in the phenomena of disease, to state the results of their observations and experience.

The body of opinion which we have been able to collect deserves attention from all who are interested, professionally or philanthropically, in the relief of human suffering. It serves as an authoritative reminder that there are bodily ills which cannot be cured by pills and potions, but which yield to methods which, for want of a better word, may be called "mental"; that cures which in a former day would have been denied by unbelievers and accepted as miracles by the faithful really happen, and that they can be explained without invoking supernatural intervention. Some one has described a metaphysician as one groping in a dark room for a black hat which is not there. Though we are still groping in a dark room, we have learnt to know that the hat is, or at any rate may be, there. The problem is to find it. Towards the solution of this practical problem the papers which we publish, each in its own way, supplies a help.

Our distinguished contributors have virtually said all that can be said in regard to faith healing from the medical point of view at the present time. An attempt to summarize them here would spoil their cumulative effect. The reader should study them carefully for himself. We can only call attention to a few points. Sir Clifford Allbutt shows in his references to St. Teresa, who was the incarnation of good sense, how far we have travelled since Macaulay described her as "the mad nun of Avila." He reviews the history of faith healing from antiquity to the present day; and he well says that probably no limb, no viscus is so far a vessel of dishonour as to lie wholly outside the renewals of the spirit. On this conviction the hopes and methods of faith healing depend. He draws a clear line of demarcation between the function of the physician and that of the clergyman, but he shows that they should not be enemies, but allies. In sickness the mind is always more or less diseased as well as the body, and herein the patient cannot minister to himself, as he is sunk in apathy or despondency. Here the spiritual healer may most usefully co-operate with the doctor.

Sir Henry Morris discusses the "miracles" of Lourdes and the "cures" of Christian Science in a large and philosophic spirit. While rejecting the miraculous character of the cures at Lourdes, he throws no doubt on the good faith of the medical men to whom the inquiry into the genuineness of the cures is entrusted, but he holds that there is nothing in these "cures" that cannot be matched by the operation of natural causes, and he brings forward in illustration some striking cases of the immediate and spontaneous cure of diseases which had brought the patient to death's door. It may be pointed out that it is the instantaneous character of the cure which is claimed as the special feature of the Lourdes miracles. While not gentle in his handling of Lourdes, Sir Henry Morris reserves the sharpest arrows of his criticism for Christian Science. After referring to the total want of trustworthy and independent evidence in Mrs. Eddy's own cases of reputed cures, he says that, compared with the Lourdes craze, Christian Science is as a snare and a pitfall to a refuge and a haven of security. "No deprivation of medical treatment, or of physical aids to comfort or relief, is required by the former; no excuse of failure is sought in extraneous trifles to pacify or impose upon the pilgrims to the grotto." Though speaking from the rationalist standpoint throughout, Sir Henry Morris believes in the power of faith, which, he says, is much—"perhaps it is really everything to man." But he takes care to add that happily it was given to him ages before Christian Science was dreamed of.

Mr. Butlin's paper is of special interest, as he has seen more of cancer than most surgeons, and such cases form the best test of the reality of cures supposed to be wrought by faith. He, too, believes in the good faith of the official reporters of the Lourdes miracles, but he shows how fallacious experience is in such matters. He gives instances of the disappearance of tumours in persons who have not been treated by faith, but who have been condemned to death by the most capable surgeons. Both these and the similar cases which are claimed as faith cures, he presumes to be instances of inflammatory, not malignant disease. But they are solid masses, and may be classed as conditions of organic disease. He is prepared to go a step further, and to suggest that now and again a case of true organic disease may perhaps be cured by faith. It is well known that cancer sometimes gets well spontaneously, or the disease may without obvious cause be arrested for a longer or shorter period of time. If such things should happen, as they well may, in a patient undergoing any system of faith cure, the case would naturally and honestly be claimed as a miracle. He has seen cancer cured not only by faith, but by some of the many remedies which at one time or another during the last thirty-five years have been put forward as remedies for the disease. In some cases the diagnosis was at fault, but in others scientific tests left no room for doubt. The curious thing, however, is that the remedy seemed to lose its charm in the hands of others, and even in those of the person after one success. Mr. Butlin asks whether the remedy did not chance to produce that change in the body of the patient, the nature of which our cancer investigators are trying to discover, which rendered it capable of resorbing its

ancer, and made it immune to another attack of the ame variety of cancer. For the present, he says, the uestion must remain unanswered.

The lesson of Professor Osler's paper is contained n the concluding words, in which he urges that our ttitude as a profession should not be hostile to faith ealing. He has seen much of the curative effects of aith made operative either by the personality of the hysician, or by the attractions of a new gospel vhich offered to people a new way of life, "a new Epicureanism which promises to free the soul (and ody) from fear, care, and unrest." The "miracles" of Christian Science, he says, lie exclusively in the ealm of functional disorders. He has not met with any case permanently cured. He knows of eputed cures of locomotor ataxia, but, he adds ignificantly, "two of these patients still take opium or the lightning pains"!

In an editorial article we have endeavoured to trace the history of faith healing from the temples of Asklepios to the growth of Lourdes and the churches where the cult of Mrs. Eddy flourishes. The general uniformity of methods and the similarity of the results obtained are very striking.

Dr. Claye Shaw tells us that hypnosis and suggestion are everyday facts. As to the latter, some, he says, aver that it is merely the acceptance of an idea which is made or reinforced by repetition, and which thus becomes a belief and therefore sets up an action desired by the suggestor. And, he asks, who shall gainsay them? Who indeed? Is it not the idea "made strong or reinforced by repetition" that gives power to nearly all the teaching of the pulpit, to the eloquence of Parliament and of the hustings, to the pleadings of the bar, to the education given at school and college, and, to come to a lower plane, to the advertisements that meet the eye wherever it may chance to rest for a moment? *Gutta cavat lapidem non vi sed saepe cadendo.* To come to the special application, does not suggestion play an immense part in the sick-room? The power of suggestion goes largely to the making of the successful practitioner; without the faculty of inspiring faith in the patient, learning counts for little. Falstaff says that knowledge is like a hoard of gold kept by a devil till sack sets it in act and use. Suggestion, if we may say so, is the sack that sets in operation the recuperative powers that in the sick man often lie imprisoned by paralysis of the will. Avicenna divined this truth when he said, "Plus interdum prodesse fiduciam in Medicum quam medicinam."

In suggestion, then, lies the secret of faith healing. But it must be applied by the right person, and a physician may be able to influence one person and be powerless with another. The difficulty is to discover how it is to be applied and how its exercise is to be safeguarded. For it can work for evil as well as for good. Suggestion, of course, has its limitations, which are obvious enough. It varies in degree and also in nature. It is outside our province to discuss prayer from the theological point of view. But it is unquestionable that prayer, inspired by a living faith, is a force acting within the patient which places him in the most favourable condition for the stirring of the pool of hope that lies, still and hidden, it may be, in the depths of human nature.

As for miracles, it is an otiose solution of the problem to dismiss them as impossible, and on that *a priori* ground to reject them, like David Hume, without investigation. We do not know enough to say that anything, however outside experience it may seem to lie, is impossible. The man of truly scientific mind should always bear in mind *le grand peut-être* of Rabelais. There is evidence enough of the existence of natural forces working under unknown conditions, but which can be utilized for the healing of disease. Research has been too exclusively confined to the laboratory, and we hope that the papers which we publish to-day will stimulate inquiry into the "miracles" of healing in their relation to medicine. The investigation is surrounded by pitfalls. Among the most serious of these are human fallibility, especially where the wish is father to the thought; and the tendency, noted by Huxley and others, and exhibited in many directions, to deliberate lying on the part of persons of the highest moral character.

In conclusion, we ask all who practise the art of healing to meditate on the words of the poet:

> Our greatest good and what we least can spare
> Is hope; the last of all our evils fear.

Whatever exorcises the demon of Fear and brings to the sick man's bed the Angel of Hope is a powerful aid to medical treatment. It is therefore as unscientific as it is inhuman to put aside faith healing as mere superstition.

A PHILOSOPHY OF MENTAL HEALING.

ALTHOUGH psychotherapy is the oldest of all forms of medical treatment, having its origin in the magic of our remote ancestors, and although it has been practised, wittingly or unwittingly, and veiled under some form or another down to to-day, there is no part of the whole domain of medicine which offers such impenetrable barriers to investigation. The empiric facts, the cures wrought under mental and emotional influences, have abounded at all ages in history; yet the modern practitioners of mental healing—even after excluding the mystical utterances of Christian Scientists, faith healers and other dabblers in the occult—either give hopelessly discrepant explanations of the phenomena with which they deal, or with a wiser caution confess their ignorance.

There is, of course, nothing to occasion surprise in this, seeing that a fundamental elucidation of the nature of psychotherapy would involve a solution of that apparently inscrutable problem, the connexion of mind and body. To this task, however, Professor Berthold Kern has addressed himself in an essay, containing in small compass the principal conclusions of his larger works on mind and brain, and composed almost entirely of a closely reasoned discussion and attempt at explanation of how the mind can act upon the body. That it can and does so act has, he says, never been called in question, for it is an immediate and unimpeachable experience.

It should, perhaps, be said at the outset that Professor Kern finds in monism his *Weltanschauung* and adequate explanation of this fundamental issue to which many, he says, exhibit a lethargic indifference, "basing their theory on X and their practice on Y, at one time swearing according to a rigid natural science and at another practising psychic therapy, and thus paying tribute to the doctrine of the separation of soul and body, with all its sense-bewildering consequences." Professor Kern's views are more fully treated elsewhere in this issue,[1] and we need only say here that he is an exponent of the identity of mental and bodily processes, and that for him the apparent difference between them lies solely in the

[1] See Review, page 1498.

mode of regard, that is whether they are regarded subjectively or objectively by the apprehending subject.

On the general question, the first point to be discussed is the law of causality, the fundamental law of natural science. Here he at once admits the validity of this law, not only as applied to inorganic nature but also to the animal and human organism. Obviously, a causal relation between a spaceless, immaterial, and mental process on the one hand, and a spatial, material, and bodily process on the other—if these two processes were not one, but two—would be an infraction of this law. Laws are, however, generalizations from the facts of experience, and must be thrown upon the scrap-heap of empty dogmatism if broken by a single contrary experience. May, he asks, psycho-physical interaction be such an experience? His answer to this is that the question is wrongly framed. It is an empiric fact, he says, that during our whole life mental processes and mental capacities, after they have become habitual, become automatic, and finally unconscious and purely bodily and mechanical processes. In the individual, as in the race, this transformation of the conscious and mental into the unconscious and bodily is continually in process, resulting in the performance of "complicated reflexes, co-ordinated conduct, and entire thought processes" quite independently of consciousness, in the manner on which they had been trained or exercised. The terms "subconscious" and "unconscious mental processes" have thus arisen—terms which he considers quite untenable and self-contradictory. That is to say, for Professor Kern only those processes which are conscious deserve the designation of mental.

Waiving all discussion of this point here, Professor Kern maintains that this one fact of the conscious sinking into the unconscious furnishes an irrefragable proof of the immediate kinship of bodily and mental processes. "We have here not merely co-ordination, not merely parallelism, but transformation. The supposed antithesis, the difference in kind between mental and bodily processes vanishes under our hands and their identical nature presses upon us irresistibly if we are sufficiently unprejudiced and not self-deceived by false conceptions, such as 'unconscious thought,' and the like."

We must pass by Professor Kern's elucidation of the knotty point of the origin of this double mode of regard—subjective and spaceless; objective and spatial—of the one identical and real substance; also his demonstration of the entire harmony between this monistic explanation and the facts of cerebral localization, the latter a point too obvious to call for detailed exposition. On this latter matter Professor Kern prophesies that psychology as a whole must become finally an ideal physiology of the brain; though at present, owing to defective knowledge of cerebral physiology, we are continually driven when in difficulty to the employment of psychological terms, on account of their greater wealth. In ordinary speech, and even in scientific language, we are continually, he says, alternating between one system of ideas and another. "Certainly the will moves our members, and certainly stimuli evoke sensations, but in speaking so we continually change from one system of ideas to the other. Expressed in purely physiological terms, the movement of our members is due solely to changes in cerebral motor areas, and these again to external and internal excitations, mostly after a complex series of associative and dissociative processes in the cortex, which latter we describe psychologically as thought, feeling, will, etc." But this, he says, is not interaction between the psychical and the physical, but simply a change from one system of ideas to another.

The bearing of the foregoing physiological view of mental processes upon psychotherapy, which thereby becomes incorporated into general medicine, is clear enough almost to anticipate description. Psychotherapy in fact becomes, to its undoubted advantage, a refined, though as yet rather nebulous and vague, somatotherapy, unless, as Professor Kern points out, it be claimed that mind can act immediately on mind. All of the methods of psychotherapy, whether by oral or written suggestion, pictures, music, etc., depend on the intermediation of physical stimuli, and the sole distinguishing feature of psychotherapy—for Professor Kern—is that it aims at engaging in some way the consciousness of the subject and thus modifying the conceptual life. This latter it achieves when the physical stimulus (order, verbal suggestion, etc.) sets in activity certain physical neuro-cerebral complexes, or inhibits others; it being assumed that these complexes, either by heredity, education or training, use or habit, have acquired certain memorial and emotional values and associations. If this physiological view be accepted, the nature, effect, scope and limitations, and the indications for psychic treatment are plain.

In this account of Professor Kern's views there remains but one essential matter so far untouched, and this, perhaps, the most important, as it is certainly the most obscure. For Professor Kern, as for many others, mind and consciousness are conterminate, and consciousness "is nothing but the spread of all excitations in the central nervous system." This statement, by itself, might be taken as allowing to all excitations, of however humble place in the neuro-cerebral hierarchy, a certain degree of consciousness. As will have appeared from the foregoing, however, and as he explicitly states in his book on the problem of life,[1] this is not his meaning. On the contrary, he restricts the sphere of consciousness solely to the highest cortical processes, and of these to only such as have not by long use sunk into unconscious and material processes. Otherwise, he says, we might describe even metabolic processes as unconscious mental processes, and thus arrive at the phantasies of panpsychism. With this denial of the Leibnitzian contention that even the vegetative processes in the living organism have a psychic correlate, and for want of some explanation how consciousness springs miraculously into being in higher cortical processes without being already given in the lower, Professor Kern's argument, in so far as it purports to be a monistic explanation of the origin of mind, crumbles to pieces.

The ineradicable longing for a unitary conception of the universe, for a single solution of multiple phenomena, is characteristic of the philosophic mind, and medical men, imbued with the facts of cerebral processes, must be favourably disposed to some form of monism—though whether idealistic or materialistic is of less consequence now than formerly. The amazing result of recent physical research, that investigation of the tangible, concrete, and sensible, conducted along the lines of rigidly inductive science, leads directly to the intangible, supra-sensible and inconceivable, to a world in which

[1] *Das Problems des Lebens in kritischer Bearbeitung.* By Berthold Kern. Berlin: August Hirschwald. 1909. Pp. 552.

ll values derived from our experience become futile, nd whose actual nature can only be dimly suggested y mathematical symbols, is doing away with the old ntagonism between idealism and materialism, the ole respect for the ideal and disdain of the material. ut if monism be embraced, of whatever form, there eems no escape from the logical conclusion that mind s either everywhere or nowhere.

THE SPECIAL GENERAL AND REPRESENTATIVE MEETINGS.

HE Special Representative Meeting for the considera- ion of the special report by the Council on the reply eceived from the Privy Council to the application of he Association for a Royal Charter of Incorporation, nd upon the action which should now be taken, ill commence on Tuesday week, June 28th, at 3 p.m. he agenda for this meeting was published in the UPPLEMENT of May 28th, and will be seen to provide or the consideration of a draft, submitted by the ouncil, of new Articles of Association and By-laws of he Association as now constituted, and also for the onsideration of a recommendation of the Council hat, in order to obtain the extended powers desired y the Association, steps shall be taken with a view o the formation of a new company possessing those owers. The meeting, which will be held in the onnaught Rooms, Freemasons' Hall, Great Queen treet, London, W.C., will, if necessary, be adjourned ntil the following day, and an Extraordinary eneral Meeting of the Association has been sum- noned to meet at the same place at 11 a.m. on Wednes- lay, June 29th, for the purpose fully set out in the fficial notice published in the SUPPLEMENT, June 1th, and on p. 400 of this issue. Arrangements have een made with the railway companies to issue to nembers of the British Medical Association attending he Special General and Representative Meetings in ondon return tickets at a fare and a quarter on resentation of a voucher signed by the Financial ecretary and Business Manager. This voucher will e sent to all Representatives and members of ouncil, while other members of the Association an obtain them on application to the office of the ritish Medical Association, 429 Strand, London, W.C. hese reduced fares are available from June 25th to une 30th. An announcement showing that similar ailway facilities have been arranged for members ttending the Annual Meeting in London at the end f July will be found in the Programme of the Annual eeting published in the SUPPLEMENT, which also ontains a form which members who propose to ttend the Annual Meeting next month are requested o fill up at once, for the reasons stated by the onorary Local Secretaries in their letter published t p. 1516. It is particularly desired that members esident in London, as well as those who reside else- here, should make use of this form.

INSURANCE FOR MEDICAL MEN.

N an article published last week we ventured to make ome observations on the business of insurance, pointing out that a man must pay the market price for the protection he desires, and cannot hope to obtain anything for less than its actuarial value, much less for nothing. If he obtains any protection which is not illusory—and inadequate protection, by giving a false sense of security, is almost worse than none— he must make up his mind exactly what benefits he wants to secure, and then, by taking expert advice and comparing the rates of different companies, ascertain what it ought to cost. The methods of insuring are continually being improved and extended, and the insurance companies are showing themselves ever more ready to adapt their policies to the particular needs of the individual. To those members of the medical profession who insure through the Medical Insurance Committee this elasticity in methods is an unmixed benefit, for the premiums are, of course, in any office recommended by the Committee, fixed on a sound actuarial basis. The agent of the Committee has recently brought to notice a form of life policy which contains features likely to commend it to medical men, more especially when it is remembered that there is a very great advantage in taking out a life policy as early in life as circumstances will permit. Under this policy, if before he attains the age of 60 years the person assured becomes, and continues for a period of not less than two calendar months, totally incapacitated, either by accident or by bodily or mental disorder, from carrying on his professional business, a part of the premium next due, determined by the proportion which the time for which the total incapacity has extended bears to the period covered by the premium, will be remitted, and, if incapacity prove to be permanent and total, the policy will be free from the payment of future premiums. In the event of the person assured sustaining before the age of 60 the loss of two limbs, or the complete and irrevocable loss of the sight of both eyes, one-half of the sum assured will be at once paid; no further premiums will be required, but the remainder of the amount will be paid with bonus additions, if any, at death, or, in the case of endowment insurance, at previous maturity. Further, if the policy holder be temporarily unable to pay the premium, the policy, if it has acquired a surrender value, will be kept in force for one year, at the end of which period the then surrender value will be applied to convert the assurance into a paid-up assurance without participation in future profits. Special reduced premiums are allowed to total abstainers of two years' standing under certain conditions. With regard to accident policies, it is surely obvious that all medical men, but specially those in general practice, should take this precaution. The motor car and cycle are now so much used that the number of claims arising under this head alone is very considerable. In one recent case a doctor who attempted to pass two tram cars on his cycle was fatally injured, and the sum of £1,000 to which his widow became entitled was an important addition to her resources. Sudden acute illness involving incapacity from professional work as complete as serious accident may fairly rank on the same footing, and policies can now be obtained to cover both risks. As an example we may take a policy which the Medical Insurance Committee is able to offer. It covers accidents of all kinds, and temporary total disablement by any one of a list of fifty diseases, including all the ordinary acute specific fevers, septicaemia and pyaemia, and a number of serious and common diseases, such as acute pleurisy and appendicitis, but not acute rheumatism. For an annual premium of £7 a medical man will be entitled under this policy to £1,000 in case of death or permanent total disablement—loss of two limbs, or sight of both eyes, or loss of one hand or foot and sight of one eye; £500 for permanent partial disablement—loss of one limb or sight of one eye. These amounts are doubled if the accident occurs in a railway, tramcar, or passenger lift. For permanent general disablement by accident an annuity of £30; for temporary total disablement £6, or, if by railway, tramcar, or passenger lift accident, £12 a week. For temporary partial disablement £1 10s.

a week—twice this if by railway, tramcar, or lift. The weekly allowances for temporary disablement by accident or disease are payable for a period up to fifty-two weeks. Another policy on the same lines giving similar compensation for accidents and for a shorter list of twenty-one diseases, including all the acute specific diseases as well as acute pneumonia and appendicitis, is issued at an annual premium of £6. In respect to both policies a reduction of 10 per cent. in the premium is made after the policy has been in force for five years, and a further reduction of 5 per cent. after ten years if no claim has been made during the second five years. The first-mentioned policy also entitles the holder to a cumulative bonus by which the capital sums assured in the event of death, permanent total disablement, and permanent partial disablement are increased by 5 per cent. per annum until the original sums insured are increased by 50 per cent. The policies cover the risk of accident and disease by land and water when travelling in the United Kingdom or on the continent of Europe, or while voyaging from one European port to another. The premiums quoted apply only to healthy, sober, and temperate persons, without any physical defect or infirmity, residing in the United Kingdom, and between the ages of 20 and 60. An immediate reduction of 10 per cent. in the premium is made to total abstainers. The annual premium for a policy giving similar compensation for accident and for temporary total disablement by typhoid, typhus, and scarlet fever, diphtheria, measles, or small-pox, only is £5. The annual premium for a policy giving similar compensation for accidents only is £4. The accident or disease allowances are limited to twenty-six weeks in any one year. We have instanced these two classes of insurance business as presenting certain features of novelty, and may recur to the subject again, but full information can at once be obtained on application to the agent of the Medical Insurance Committee, 429, Strand, London, W.C.

CHILD EMIGRATION.

In the Journal of December 4th last an account of the foundation and objects of the Society for the Furtherance of Child Emigration was given, and the general subject has recently been discussed by several correspondents in connexion with the much debated question of Poor Law reform. Of this it certainly forms a part, whether Poor Law reform be regarded from the point of view of those who would aim solely at removal of all causes of destitution, of those who would deal mainly with its effects, or of those who meantime pay the piper, namely, the destitute themselves and their rate-paying supporters. There is, too, another class of persons who cannot shut their eyes to the need of satisfactory provision for State or destitute children—those who regard all emigration schemes with dislike, painting pictures of an England inhabited solely by the old and the unfit, and drawing examples of its outcome from the history of Ireland and more northernly Scotland. The society does not ostensibly aim specifically at meeting the views of any of these classes; nevertheless, it may be regarded as in some degree entitled to the sympathy of all of them. Indirectly, it takes up the ground that the empire is a single, indivisible, whole, thus silencing the anti-emigrationists, while destitution, with all its direct and contributory causes, it regards as mainly a question of environment. To the ratepayer it holds out promises of lessened outlay on State-supported children, and to the destitute child the prospect of a much more desirable form of existence than any at present within his reach. Child emigration in itself is, of course, no new idea; but hitherto the children have been either assigned to foster parents, boarded out, or found situations. The society treats education, physique, moral and technical, as the first essential. The children of both sexes aged between 8 and 10 are to be placed at small farms grouped round a central farm or farm school worked by staffs of men and women skilled in various branches of agricultural and domestic science, and capable of teaching what they know. On these farms the children are to remain until quite grown up and thoroughly capable of leading useful, independent lives. Each of these groups of farms is expected to become more or less self-supporting, but meantime assistance is looked for from philanthropists and boards of guardians, should it be made legal for them to pay £20 a year for the keep of a child in a colony instead of about £30 for its keep in some part of the British Isles. The plan may perhaps seem somewhat visionary, but appears to be regarded as thoroughly practical and eminently desirable by many persons who ought to know, including representatives of Colonial Governments. The pamphlets issued by the society are worth study by those interested in the settlement of problems of sociology. Copies of them can be obtained on application to the Acting Honorary Secretary, Mr. Kingsley Fairbridge, Exeter College, Oxford.

THE ELECTRIC-BATH TREATMENT OF THE INSANE.

There can be very little doubt that Dr. Goodall is right in saying, in a recent paper,[1] that the electrical treatment of the insane, at least in this country, has largely fallen into desuetude. How far this decline is attributable, as Dr. Goodall thinks it is to a great extent, to the lack of convenient methods of application is another matter. Certainly, however, the results published in a preliminary communication by Dr. Goodall and his co-worker, Mr. Mackenzie Wallis, Lecturer on Chemical Physiology in University College, Cardiff, are encouraging. Dr. Goodall deals with the mental and bodily changes observed in 108 subjects of insanity who were treated by electrical baths with alternating and sinusoidal currents; a course consisting of eighteen to twenty baths, each of twenty minutes' duration. The cases were mostly under 30 years of age, and comprised many recoverable forms of insanity, though they were preponderatingly cases of melancholia. Out of 108 cases, 62, or 57.4 per cent., either recovered or showed marked mental improvement; whereas out of 16 control cases, belonging to the same class as the others, receiving the same diet, but treated merely by simple warm baths at the same temperature as the electric baths, only 2, or 12.5 per cent., showed any improvement. The average duration of residence of those who recovered among those treated by electric baths was six and one-third months. It is obvious, Dr. Goodall says, that the number of controls had to be limited, but it cannot be denied that their small number leaves a good deal of room for a chance selection of less favourable cases; indeed, it might be said that the unusually small percentage of cases showing improvement in this class itself suggests that this happened. The percentage of recovery among the electric bath cases, 25.9 per cent., is satisfactory, but it cannot be claimed that there is anything particularly striking in these results, stated baldly as above, and it is, we gather, rather upon the evidences of improvement in the general nutrition of the cases treated by electric baths that Dr. Goodall bases his conviction that it occurred largely in consequence of the baths. The figures given by Dr. Goodall show that of the

[1] *Journal of Mental Science*, April, 1910.

lectric bath cases 65, or 60.1 per cent., gained in veight; 8 remained stationary; and in 35, or 32.4 per ent., a loss occurred; whereas of the 16 controls, 0, or 62.5 per cent., gained; 1 remained stationary nd 5, or 31.2 per cent., lost weight. At first sight hese figures seem to show the more successful issue n the controls; but Dr. Goodall says that if only those who gained 5 lb. or over are counted, these form only 0 per cent. in the simple bath, as against 62 per ent. in the electric bath cases. Unfortunately Dr. Goodall's tables are not complete enough to urnish material for accurate comparison between he two classes. Doubtless future accounts of the esults of this treatment will contain this needed nformation. All that can be drawn with certainty rom the results so far published is that the great majority of those which did well gained in weight. In the second part of the paper Mr. Mackenzie Wallis gives an interesting historical sketch of the methods of estimating the output of creatinine and the views of the various investigators as to its source and alterations in pathological conditions. He then describes the results obtained by him, using Folin's colorimetric method, in 14 of Dr. Goodall's patients, 7 of whom were taking electric baths and 7 simple warm baths. His conclusions are as follow "(1) The excretion of creatinine in the insane is in general subnormal. (2) Electric bath treatment, using the sinusoidal current, tends to increase the creatinine in the urine. (3) Treatment with warm baths without the current has very little, if any, influence on the creatinine excreted. (4) Variations in volume of the urine excreted and the great proneness to bacterial decomposition seem to be characteristic of the insane." The results, he says, "seem to support Schaffer's view that creatinine is an index of a special process of metabolism taking place in the muscles, and that the muscular efficiency depends on it. Exposure of the muscles to a sinusoidal current probably intensifies the process, increasing the general tone of the muscles, and consequently the creatinine metabolism. The effect of electric baths on these patients affords considerable support to this view, not only from the aspect of creatinine metabolism, but also from the clinical observations." As Mr. Wallis does not mention the mental changes, if any, undergone by the 14 patients studied by him, the phrase "clinical observations" possibly refers to body-weights, of which particulars are given in each case before and after the baths. From these we see that of the electric bath cases 5 gained, 1 remained unchanged, and 1 lost weight, the simple bath cases giving numerically exactly the same results. Also the total amount gained in the two groups of 5 patients —electric and simple bath cases—amounted to 5.6 kg. The only difference between the two classes is that one warm-bath case lost 1.3 kg., whereas one electric bath case lost 0.3 kg. It is obvious that the whole matter requires further investigation.

THE HARVARD CANCER COMMISSION.

THROUGH the beneficence of the late Mrs. Caroline Brewer Croft the sum of £20,000 was left to the University of Harvard to be applied to the investigation of cancer. A commission was formed to carry out the wishes of the testatrix, and has been at work for ten years. During that time the Commission has issued five biennial reports, which have been mainly devoted to a consideration of the etiology and nature of the disease. The work of the Commission has also included, to a certain extent, special forms of treatment, such as the action of the *x* rays, and in the last report the principle of vaccination was touched upon. The work has hitherto been conducted to a large extent in the laboratory; it has included research work in animals, and the study of cancer from the biological, zoological, and embryological standpoints. Now it is proposed to devote attention to the clinical side of the question. According to the *Boston Medical and Surgical Journal*, to which we are indebted for the information here given, recent events in New York, Boston, and elsewhere have emphasized the importance of testing thoroughly the question of the vaccine treatment of cancer, and great interest has been aroused in regard to the efficiency of the ascitic fluid from a case of spontaneous cure of cancer recently reported. For this purpose the Commission desired to have under its observation a small number of incurable cases of cancer in a hospital situated within the grounds of the medical school and in close proximity to the workers engaged in cancer research in the laboratory. "The idea," says our contemporary, "of a hospital for incurable cases of cancer, presided over by laboratory men and under the exclusive control of the Commission, is one, it seems, that has not hitherto been attempted, and it is hoped that their point of view, which will necessarily be quite different from that of the practising physician or surgeon, may lead to new observations and new interpretations of some of the phenomena attending the generalization of cancer." At a public meeting held on April 13th, Dr. J. C. Warren, who was in the chair, explained the work of the Commission and its desire to build a hospital containing 24 beds for incurable cases of the disease. He stated that the object which the Commission had in view was to study and possibly help such cases without operative interference. If this seemed to be necessary, the patients could be transferred to one of the numerous hospitals now in course of erection near the Harvard Medical School. Professor W. T. Councilman presented an analysis of the statistics showing the increase of cancer during the past fifty years. A study of the facts led him to the conclusion that, making allowance for the absence of epidemics, and other factors favouring the preservation of life to the cancer age, there was still a distinct increase of the disease during the last half-century.

ANTIMENINGITIS SERUM.

THE Rockefeller Institute for Medical Research, which has been supplying the antimeningitis serum gratis for several years, has announced that it may discontinue, at any time after the expiration of the next six months, its preparation and distribution on a large scale. The consensus of medical opinion, based on the employment of the antimeningitis serum in widely separated epidemics of meningitis, is to the effect that it is of undoubted value in reducing the mortality and preventing the severe consequences of the disease. The serum is without effect in any other form of meningitis than that caused by *Diplococcus intracellularis* (Weichselbaum), and its favourable action is most pronounced when it is applied early in the course of the disease. Hence it is desirable that State and municipal laboratories, engaged in the preparation of diphtheria antitoxin and allied products, should undertake the preparation of the serum and provide means of controlling the bacteriological diagnosis of meningitis, as they now do of diphtheria and some other diseases. Unless the bacteriological diagnosis is controlled by competent authorities, the serum will, undoubtedly, be applied in some cases of meningitis due to causes which are not subject to its action, and not a few cases of epidemic meningitis will be deprived of the benefits of its use. The serum is administered by being injected into the spinal canal by means of

lumbar puncture, an operation also required to secure the fluid for the bacteriological diagnosis; several separate injections of the serum are usually required in treating a given case. The effective employment of the serum is likely, therefore, to be restricted on account of the experience and skill required in its administration and the high cost of the commercial product, unless the preparation and distribution are undertaken by State and municipal authorities.

LORD LISTER'S WORK ON LACTIC FERMENTATION.

IN view of the current craze for the consumption of sour milk, which in fashionable health resorts is apparently regarded as a veritable *elixir vitae*, considerable interest pertains to the early investigations into the nature of the lactic fermentation. Among these, those of Lord Lister will always hold an honourable place. His *Collected Papers*[1] contain the articles in which he narrated the series of experiments by which he satisfied himself that the organism described by him under the title of *Bacterium lactis* is the true cause of the characteristic souring and coagulation of milk in its typical uncomplicated form. He found that this organism, though in dairies it seems to be universal, is very rare in other places. He describes it as a motionless bacterium, occurring commonly in pairs or in chains of three or more individuals, oval in form, and often showing a line indicating transverse segmentation. Its size was variable, but full-grown specimens averaged $\frac{1}{20000}$ in. in diameter. As illustrating at once the rarity of the *Bacterium lactis* and the extreme susceptibility of milk to infection by various organisms, Lord Lister adduced the following experiment: Twenty-four glasses, sterilized by heat, were charged with milk drawn under proper precautions from a single cow, and immediately covered with sterilized caps. Manifest changes occurred in every one. Some had a golden-yellow aspect, some a green tint, many were studded with brilliant red spots, either alone or associated with other colours. But in none appeared the signs of the true lactic fermentation. These rare appearances Lister attributes to the exclusion of ferments (for example, the lactic, the butyric, etc.) which, when present, inhibit other growths. The lactic ferment proved to be as rare in ordinary water as in air, and inoculation of specimens of pure milk with, say, $\frac{1}{100}$ minim tap water was found to produce in different cases strikingly different results, as evidenced by the various colours and odours produced. From the fact that in certain cases these inoculations produced no effect, Lord Lister inferred that the fermentative material could not be diffused throughout the water, but must exist in the form of insoluble particles, that is, as micro-organisms of divers kinds. The fermentative changes were, in fact, invariably found to be associated with bacteria of one sort or another. By an ingenious device Lord Lister diluted milk containing a pure culture of the *Bacterium lactis* so that one portion contained on the average a single bacterium, a second two, and a third four bacteria to each $\frac{1}{50}$ minim. Of sixteen specimens of sterilized milk ten were inoculated with $\frac{1}{50}$ minim of the first, five with a similar drop of the second, and the remaining one with the third dilution. The result was, that of the ten specimens inoculated with a drop calculated to contain a single bacterium, five soured and five remained unchanged. The milk supposed to have been inoculated with two and four bacteria respectively coagulated in every case and within a somewhat shorter time. A clearer demonstration of the relation of the *Bacterium lactis* to the lactic fermentation could hardly be desired. But indeed the whole investigation, as narrated by Lord Lister, is a model of inductive method, apart from the topical interest of the subject with which it is concerned. It was communicated to the Pathological Society of London in 1877.

[1] *The Collected Papers of Joseph, Baron Lister*, vol. i, pp. 353-385.

A SKY-SCRAPER HOSPITAL.

THE New York Post-graduate Medical School has begun the erection of a new building containing about four hundred beds; it is to be built on the site adjoining the present quarters, which will be rearranged and the nurses' home rebuilt. The new hospital building will contain eight operating rooms each 18 ft. by 20 ft. and in addition, well equipped laboratories for research work; it is intended to give special attention to the investigation and teaching of tropical diseases. The building is to be in part of twelve and in part of seven stories; the higher part of the building or tower will have rooms for fifty private patients, and on its roof will be a pavilion for open-air treatment. There will also be, on three floors, a loggia open to the street front and to the rear, where beds can be kept permanently with full exposure to the air. The main building, which, as has been said, is to be seven stories high, will have three long balconies to the eastward, and the whole of the top of this part of the building will be arranged as a roof garden; the hospital will, therefore, have ample means of giving patients abundance of fresh air.

THE ROYAL COMMISSION ON UNIVERSITY EDUCATION IN LONDON.

THE first report of the Royal Commission on University Education in London, which was issued on Wednesday last, consists merely of a paragraph submitting minutes of the evidence taken down to April 21st last. The first witness called was Mr. R. Blair, Education Officer of the London County Council. The other witnesses were Mr. Sidney Webb, a member of the Senate of the University of London; Sir A. W. Rücker, late Principal of the University of London; the Master of the Rolls, who has all through the agitation of the last thirty years taken a great interest in the affairs of the University, of which he is a graduate; the Rev. A. C. Headlam, D.D., Principal of King's College, London; Dr. William Garnett, educational adviser to the London County Council; Lord Aldenham, President of the London Institution; the Bishop of Exeter, formerly Principal of King's College and Vice-Chancellor of the University of London; Mr. T. Gregory Foster, Provost of University College and a member of the Senate of the University; Lord Reay, Chairman of the College Committee of University College and a member of the Senate of the University; Sir William Ramsay, Professor of Chemistry in University College; Sir H. E. Roscoe, a member of the Senate and formerly Vice-Chancellor of the University; and Dr. J. K. Fowler, late Dean of the Faculty of Medicine of the University. In the appendices are given memorandums handed in by Mr. Blair, Dr. Garnett, Lord Aldenham, and Mr. Gregory Foster.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

SINCE the note on the approaching election to the Council of the Royal College of Surgeons of England published last week no more applications have been

received by the Secretary of the College, and the last day on which such applications could be admitted, June 10th, is past. Hence there will be no provincial Fellow to replace Mr. Wright. Mr. Lockwood, who has only held office for two years, certainly deserves re-election for a full term. Of the new candidates, Mr. Bilton Pollard is of the oldest standing as a Fellow (June, 1881); as a Member (November, 1879) he is junior to Mr. C. A. Ballance (July, 1879), whose Fellowship, on the other hand, dates from June, 1882. Both are distinguished surgeons. The third in order is Mr. Ernest Lane, a Fellow since 1882 (Member, 1880); and, lastly, the fourth is Mr. J. Bland-Sutton, a Fellow since 1884 (Member, 1882). The professional merits of these four new candidates are known to all of us. Mr. Bilton Pollard is Surgeon to University College Hospital, at present represented by only one member, Mr. Godlee. Mr. Ballance, C.V.O., represents St. Thomas's Hospital, which has lost Mr. Clutton as a Member on the Council. Mr. Ernest Lane is Surgeon to St. Mary's, and Mr. Bland-Sutton to the Middlesex. The successful candidate who will come out third on the poll will be substitute member for Mr. Wright, elected in 1906, and will therefore hold his seat on the Council until 1914.

AT the annual meeting of the Metropolitan Counties Branch, to be held on Thursday, June 23rd, at 4.30 p.m., in the Council Chamber, at 429, Strand, Dr. Lauriston Shaw, the new President of the Branch, will deliver his Presidential Address, taking as his subject, "The Aim of a United Medical Profession and the Handicap of the Trade-union Bogey."

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

Payments to Medical Men under the Midwives Act.—Mr. Henry Walker asked, with reference to the doctor called in on an emergency under the statutory rules, in pursuance of the Midwives Act, and to the fact that payment was now being made to him out of the rates in some places under the Public Health Act, 1875, and in others under the Poor Law Amendment Act, 1848, whether, in the absence of any application for consent by or on behalf of the patient or her husband, such a payment out of the rates to the doctor, whether under the one Act or the other, was treated as parochial relief; whether, as a matter of fact, the patient and her husband in respect of attendance on the former of whom the doctor was thus paid under the Poor Law Amendment Act, 1848, were in some unions, but not in others, entered and classed as paupers in receipt of medical relief; whether, when the payment was made under the Public Health Act, 1875, the patient and her husband were everywhere spared from any demoralising contact with the Poor Law, and were not subjected to visits from the relieving officer; what authority in each locality decided whether the payment out of the rates to the doctor should be made under the one Act or the other; what authority determined whether the patient and her husband in those cases in which no application or consent was made by them or on their behalf should or should not be regarded as in receipt of parochial relief and be dealt with as paupers; and whether, in view of the diversity of opinion and of action among local authorities in this matter, the President of the Local Government Board would issue a circular clearing up the legal position. Mr. Burns replied that he had stated on April 28th last that there were two or three cases in which payments of the kind referred to had been made under Section 133 of the Public Health Act, 1875. Such payments would not be parochial relief. Some boards of guardians had, he believed, made similar payments under Section 2 of the Poor Law Amendment Act, 1848, but he had no information as to their practice in the matter. It did not seem to him to be necessary to adopt the course suggested in the last part of the question. He might remind his hon. friend that a bill had been introduced on behalf of the Government, in another place, which contained a provision on this subject, and he could assure him that the points to which he had drawn attention would not be lost sight of.

Mediterranean Fever (Goat's Milk).—Mr. Chancellor asked the Under-Secretary for the Colonies whether it had been decided to appoint a new Mediterranean Fever Commission for the purpose of investigating the manner in which goats became infected, seeing that it was officially stated in evidence before the Royal Commission on Vivisection (Q. 14242) that no goats had been infected by the alleged Malta fever germ, that it did not give rise to any ill health, and that it did not give rise to any fever; and, seeing that, according to official statistics, Malta fever had been practically extinguished from among the British garrison before the order of July 1st, 1906, for the prohibition of goat's milk was issued, what public ends were sought by spending time and public money in prosecuting a research which appeared to have no bearing whatever upon the question of Mediterranean fever. Colonel Seely replied that it had been decided to appoint another Commission for the investigation of the question. The evidence of Sir David Bruce before the Royal Commission on Vivisection, to which allusion was made, was to the effect that the goats, though their blood and milk contained the micrococcus of Malta fever, and they were therefore capable of infecting man with the disease, remained themselves apparently healthy. Such tolerance of disease germs was, the Secretary of State was advised, a common physiological phenomenon. His hon. friend was mistaken as to the statistics of admissions to hospital among the troops for Malta fever. In 1905 there were 643 such admissions; up to July, 1906, when the prohibition of the use of goat's milk was issued, there were 123; for the remainder of the year, 40; for 1907, 11; 1908, 5; 1909, 1; and 1910 to date, 0. As it was not practicable to prohibit the use of goat's milk among the civil population, it remained to investigate the causes of the infection of goats, and, if possible, to remove them.

The Census Bill.—In moving the second reading of this bill on Tuesday, Mr. Burns pointed out that it did not apply to Ireland, for which a separate measure would be introduced. The bill followed generally the lines of the Census Act of 1900. The Local Government Board had been advised by the Registrar-General, who had consulted many learned societies and experts. The Statistical Society and the Society of Medical Officers of Health had thanked the Registrar-General and the Local Government Board for the assistance that would be given them, and the alterations to be made in taking the census had been generally approved. Provision was made for the first time to obtain from each married couple the duration, and number of children, of the marriage. This, it was hoped, would furnish data of high value on certain social problems, such as fertility under various conditions and the extent of infant mortality. The birth-rate had dropped since 1851 from 34 per 1,000 to 26. In the same time the death-rate had been reduced from 23 to 15. The marriage-rate had remained about stationary. Infant mortality, happily, had fallen in the last five years from 145 to 109 per 1,000 in England and Wales, and from 144 to 107 in London. The information they hoped to get by the census would assist in this work of reduction. As regards the most important matter of overcrowding, it had been arranged that the number of rooms occupied by a family in a tenement should be recorded, which was thought a better unit for classification than the number of persons in a

house with five rooms or less, as some of the worst forms of overcrowding were found in houses with six to ten rooms. Clause 6 also provided for the inclusion of large establishments such as hotels, big business places, and institutions. The reports of returns would be simplified, and the preliminary report would be ready sooner, probably in less than three months after the census was taken. He hoped the main report would also be sooner published. By Clause 9 the Registrar-General would be enabled to supply statistical information obtainable from the census reports for the benefit of local authorities. In this way more detailed information would be accessible to public bodies and investigators. He had hoped that a quinquennial census might have been provided in the present bill, but the Treasury would not sanction it. The cost might be from £100,000 to £185,000. It was better in a census to ensure accuracy than enlarge scope. In this country the householder answered the questions; in some foreign countries it was done by an official. He preferred the British method. By enlarging columns 12 to 16 and putting in three or four subheads he hoped for considerable improvement on the previous census. The experts he had met were agreed as to the lines laid down, and he had consulted the Education Department, the Board of Trade, and the Home Office, and he thought as a result the new census would throw more light than ever before on problems of public health and vital statistics. He should like a census of the Empire on the same date or near it, and he was not without hope that it might be made in 1911. Sir Charles Dilke said most of the Dominions now had a quinquennial census, and he advocated a permanent census office as desirable for efficiency and for general statistical work. The bill really ought to have been passed last year, and provision should have been made for an intermediate enumeration every five years and the general census every ten. Mr. Long generally supported these views, and contended that with a regular census department the cost might be lessened, so that a quinquennial census would not cost so much as the Treasury thought. Several speakers afterwards spoke as regards a religious census, and information as to the use of the Welsh and Gaelic languages in different parts of the United Kingdom. The bill was then read a second time without a division and referred to a Committee of the whole House.

The Census (Ireland) Bill was also read a second time and committed, on the motion of Mr. Redmond Barry. On the subject of illiteracy Mr. Birrell admitted that the age of 5 was a very early age at which to stamp any one as illiterate, and he would, therefore, consider whether the age could not be increased in the instructions.

Plumbism in Dockyards.—Mr. Fuller asked whether, in in view of a recent death at Portsmouth, the First Lord would appoint a medical officer who should be, if not a specialist, at least thoroughly conversant with the disease known as plumbism, and give this officer authority to visit the gunwharf shop, to draft men suffering from the incipient or later stages of the disease from this shop to healthier work in the dockyard, and generally to report on all such cases. Dr. Macnamara answered that medical officers were not appointed to dockyards unless they were thoroughly conversant with industrial diseases. Dockyard workmen whose business brought them into contact with lead were periodically examined by the dockyard medical officers for plumbism, etc., and, if considered necessary on medical grounds, they were placed on other work where there was no risk of contracting lead poisoning.

The Care and Control of the Feeble-minded.—Mr. Hicks Beach asked the President of the Local Government Board whether the Government proposed to take any steps to carry out the recommendations of the Royal Commission on the Care and Control of the Feeble-minded. Mr. Churchill said that his right hon. friend had asked him to answer the question. As stated by the Prime Minister, in reply to a question on November 1st last, the Government were fully alive to the importance of this matter, and a draft bill was already in preparation, though legislation this session was, he feared, not practicable.

The Notification of Pulmonary Phthisis in Scotland.—On Monday Mr. Younger asked the Lord Advocate if he could state how many local authorities in Scotland in burghs and counties, respectively, had added pulmonary phthisis to the list of compulsory notifiable diseases under the Infectious Diseases Notification Act, 1889; and how many cases were notified in 1909. The Lord Advocate replied that the Local Government Board had approved the orders of forty-one burghal local authorities and of thirty-three landward local authorities extending the provisions of the Act referred to to pulmonary phthisis; 1,902 cases of phthisis were notified in the year 1909.

Medical Inspection of School Children.—Mr. Ramsay Macdonald asked the President of the Board of Education last week whether it was still the intention of the department to keep as confidential the information derived by the medical officer from the inspection of school children; and if that be so, whether he had considered the impropriety of allowing authorities to appoint as medical inspectors persons who already held the office of public vaccinator. Mr. Runciman answered that the Board remained at present of opinion that it was desirable that these reports should be regarded as confidential. As regards the second part of the question, he must refer the honourable member to the answer he received on March 9th (vide BRITISH MEDICAL JOURNAL, March 19th, p. 718).

Sunday Golf.—During Tuesday's sitting a discussion on Sunday golf arose over a Midland Railway Bill. Mr. Kerr-Smiley objected to the company having power to open the golf links at Portrush on Sundays without the consent of the urban district council. Mr. Illingworth (speaking for the Board of Trade in the absence, through illness, of Mr. Tennant), said the question was an ethical one of much interest, which each individual had to decide for himself. The Board of Trade was neither a censor of morals nor of manners, and so they left the matter to the good sense of the House. After some other speeches the amendment to require the consent of the local authority was carried, amid cheers and laughter, by 94 to 59. The bill was then read a third time, and the House adjourned.

Private Members' Bills had their first regular opportunity on Friday last, June 10th, and very little came of it. Two bills which had passed the Committee stage in the Standing Committee came on first for consideration. The first of these, the Police Superannuation (Scotland) Bill, unexpectedly evoked considerable criticism on the part of Lord Hugh Cecil, Sir F. Banbury, and others; and, instead of passing in a short time, was under discussion for some three hours, when it was read a third time without a division. The Norwich Charities (No. 2) Bill came on next, and an unexpected amount of interest was also shown in its provisions, and a division was taken on the schedule before the bill was read a third time and passed at 10 minutes to 5. This left only a few minutes for the Ecclesiastical Disorders Bill, which would under ordinary circumstances have occupied all the afternoon, but which had lost its chance in consequence of the tactics of its opponents in using the other two bills to exhaust the time. The bill was moved in a few words by Mr. McArthur, and then talked out. The adjourned debate was put down for June 24th, the next day reserved for private measures.

SCIENCE NOTES.

It is well known to all who take any interest in radio-activity that the alpha rays have much less power of penetration than the beta rays, and these again less than the gamma rays. The rays are stopped or absorbed by matter in proportion to its density; the relation is not quite exact, but the statement is approximately true. The alpha rays are absorbed by a thin sheet of paper, the beta will pass through a layer of tin foil, the gamma through half an inch of steel. All three classes of rays are themselves complex, that is to say, each comprises several different types. Mme. Curie showed that the beta rays, from some radio-active substances at least, are deflected in a magnetic field. To the last meeting of the Royal Society, Professor Rutherford communicated a paper by Mr. J. A. Gray, B.Sc., in which an attempt had been made to utilize this property to detect sets of homogeneous beta rays by the photographic method. Radium emanation was placed in a very narrow thin-walled tube, drawn out from capillary tubing so thin that the alpha rays from the emanation escaped. Enough black paper was placed over the tube to absorb the alpha rays and to protect the photographic film from phosphorescence caused by the alpha rays. The beta rays from the active deposit had thus to pass through very little absorbing material. If the beta rays from a simple radio-active substance are emitted at an identical speed, it would be reasonable to expect to obtain evidence of such, even if beta rays change slightly in velocity, in passing through matter. Although several photographs were taken, no sign was found of sets of homogeneous beta rays from radium B and radium C. Experiments were then tried with radium E, which gives beta rays which are very nearly absorbed according to an exponential law; if, as many writers have assumed, absorption according to an exponential law signifies homogeneous beta rays, these rays should be practically homogeneous. It was found, however, that the velocities of the rays were distributed over a wide range. Mr. Gray summarized the results of his experiments as follows: (1) Beta rays which are absorbed according to an exponential law are not homogeneous; (2) beta rays must fall in velocity in passing through matter, for, if not, the absorption coefficient of any mixture of rays must decrease as the rays pass through matter.

The first step in the series of changes which radium spontaneously undergoes is the liberation of radium emanations. The expulsion of the emanation is accompanied by the simultaneous liberation of an atom of helium. The emanation then undergoes a further series of changes into radium A, B, C, and so on. The emanation does not accumulate beyond a certain point, because it is constantly changing, so that, soon, as much emanation will be changing as is formed, and the quantity present in a mineral will therefore be constant. This is the condition to which the term "radio-active equilibrium" is applied. It is otherwise with the helium; is not radio-active, and, so far as is known, undergoes no further change; it is in fact the rival or equal of argon, as the most inactive of elements: it exists free as single atoms and does not combine with other elements. When a mineral in which it is formed or heated is dissolved the helium is evolved and it cannot again be absorbed by the mineral or any other known substance. The helium formed during geological time by the disintegration of the radio-active elements in the mass of the mineral, which is often of a glassy nature, being unable to escape, slowly accumulates, and the amount liberated when the mineral is heated or dissolved can be measured. These facts have been utilized by the Hon. R. J. Strutt, F.R.S., Professor of Physics at the Imperial College of Science, to estimate the age of rocks, and in a paper read to the Royal Society on June 9th he gave the results of further determinations of the ratio of helium to radio-active matter in minerals, chiefly those occurring in Archaean rocks. Very large relative quantities of helium were found, in one instance (a sphene from Renfrew Co., Ontario), indicating an antiquity of at least 700 million years even if no helium has escaped. Mr. Strutt also discussed the unique case of beryl, which, as he had previously shown, contains much helium, with hardly any radio-active matter. He put forward an explanation, suggested by Dr. Boltwood: It is supposed that beryl, in crystallizing, has separated from the parent magma one of the longer-lived products of the uranium or thorium series—such, for example, as radium, ionium, or radio-thorium, without the parent element. This product would decay, leaving no trace of its presence, except the helium generated. Mr. Strutt gave reasons for believing that nothing of this kind had happened in the cases relied on for measuring time.

THE KING'S HOUSEHOLD.

MEDICAL APPOINTMENTS.

THE KING has been pleased to make the following appointments:

To be Physicians in Ordinary to His Majesty: Sir Francis Henry Laking, Bart., G.C.V.O., K.C.B., M.D. Sir James Reid, Bart., G.C.V.O., K.C.B., M.D. Sir Richard Douglas Powell, Bart., K.C.V.O., M.D.

To be Physicians Extraordinary to His Majesty: Sir Thomas Barlow, Bart., K.C.V.O., M.D. Sir William Henry Allchin, M.D. Bertrand Dawson, Esq., M.D. Sir Alan Reeve Manby, M.V.O., M.D.

To be Physician to His Majesty's Household: Sir Robert William Burnet, M.D.

To be Sergeant-Surgeons to His Majesty: Sir Frederick Treves, Bart., G.C.V.O., C.B. Sir Richard Havelock Charles, K.C.V.O., F.R.C.S.I.

To be Honorary Surgeons in Ordinary to His Majesty: Rickman John Godlee, F.R.C.S., M.S. Anthony Alfred Bowlby, C.M.G., F.R.C.S. Sir William Watson Cheyne, Bart., C.B., F.R.S.

To be Surgeon to His Majesty's Household: Hugh Mallinson Rigby, Esq., F.R.C.S.

To be Surgeon Apothecary to His Majesty and to His Majesty's Household: Sir Francis Henry Laking, Bart., G.C.V.O., K.C.B., M.D.

To be Surgeon-Oculist to His Majesty: Sir George Anderson Critchett, Bart., C.V.O., F.R.C.S.Ed.

To be Laryngologist to His Majesty's Household: Milsom Rees, Esq., F.R.C.S.Ed.

To be Bacteriologist to His Majesty's Household: Harold Robert Dacre Spitta, Esq., M.D.

To be Dental Surgeon to His Majesty's Household: Charles Edwin Truman, Esq., M.R.C.S.

To be Anaesthetist to His Majesty: Frederic William Hewitt, Esq., M.V.O., M.D.

To be Chemist and Druggist to His Majesty: Mr. Peter Wyatt Squire.

To be Surgeons-Apothecary to His Majesty's Household at Windsor: William Fairbank, Esq., M.R.C.S. William A. Ellison, Esq., M.V.O., M.D.

To be Surgeon-Apothecary to His Majesty's Household at Sandringham: Sir Alan Reeve Manby, M.V.O., M.D.

To be Surgeon-Apothecary to His Majesty's Household at Balmoral: Alexander Hendry, Esq., M.D.

To be Honorary Physicians in Ordinary to His Majesty in Scotland: Sir Thomas Richard Fraser, M.D. David W. Finlay, Esq., M.D.

To be Honorary Surgeons to His Majesty in Scotland: Alexander Ogston, Esq., M.D. Sir William Macewen, F.R.S., M.D.

To be Honorary Surgeon-Oculist to His Majesty in Scotland: George Andreas Berry, Esq., M.B.

To be Surgeon-Apothecary to His Majesty's Household at Holyrood Palace: William Black Alexander, Esq.

To be Honorary Physicians in Ordinary to His Majesty in Ireland: Sir Francis Cruise, M.D. James Little, Esq., M.D.

To be Honorary Surgeons to His Majesty in Ireland: Sir Charles Bent Ball, M.D. Sir Thomas Myles, M.D.

To be Honorary Surgeon-Oculist to His Majesty in Ireland: Charles Edward Fitzgerald, Esq., M.D.

MOTOR CARS FOR MEDICAL MEN.

STARTING.

MOTOPHILE.—The cars mentioned are low in price and we know nothing against them, nor have we any intimate knowledge of them. But it must be remembered that cars of the less well-known makes fetch a very small amount if it is necessary to sell them again, and we should advise a somewhat larger initial expenditure on one of those which have a well-established reputation. It is fairly easy to start on a good modern magneto; but it generally involves vigorous rotation of the starting handle, and there are now many which are so made as to use an accumulator current to excite the coils of the magneto for starting only. This ensures an easy start.

AN AMERICAN CAR.

DOUBTFUL.—The cars mentioned are American, and have some good features in simplicity of design. Though they may look somewhat flimsy in build, the agents have not been afraid to send recently a whole fleet of them for a very rough journey over ill-kept lanes and over the downs where there are only tracks, and they came satisfactorily through the ordeal.

Reports of Societies.

THE ROYAL SOCIETY.

Thursday, June 2nd, 1910.

Sir ARCHIBALD GEIKIE, K.C.B., President, in the Chair.

Influence of Bacterial Endotoxins on Phagocytosis.

A PRELIMINARY report on this subject was presented by Messrs. LEONARD S. DUDGEON, P. N. PANTON, and H. A. F. WILSON. Extracts were prepared from most of the common pathogenic organisms by grinding them up in the presence of sterile sand or glass and adding a definite amount of sterile salt solution; this was then centrifugalized at high speed, and the final supernatant layer employed as the endotoxin. The experiments were limited, and failed to indicate that there was any direct action on the leucocytes, as in no instance was there any appreciable variance from the control experiments. As to the action of the endotoxic substance on the serum, the following facts were evident as a result of the experiments: (1) That the endotoxic substance was capable of exerting a specific action on the serum in a large proportion of cases. (2) That the endotoxic substance was unaffected by heat. (3) That dilution of the endotoxic substance correspondingly diminished its toxic effect upon the serum, but in a few instances, when diluted, it appeared to play the part of "stimulin," so that the degree of phagocytosis was far greater than in the control experiments.

The Mesocoelic Recess.

Professor ARTHUR DENDY, F.R.S., and Mr. G. E. NICHOLLS, B.Sc, contributed a paper on the occurrence of a "mesocoelic recess" in the human brain and its relation to the subcommissural organ of lower vertebrates, with special reference to the distribution of Reissner's fibre in the vertebrate series and its possible function. They had found in the adult human brain a small cavity, lined by a characteristic columnar epithelium, embedded in the roof of the iter at the back of the posterior commissure, and in close relation to this another irregular cavity, which apparently represents the remains of a communication with the lumen of the iter. In the five-months fetus this communication is still widely open, and the cavity is evidently part of a structure lying beneath the posterior commissure, and corresponding to the so-called "ependymal groove" of lower vertebrates. For this structure they proposed the more distinctive term "subcommissural organ." It consists, in the human fetus, of two bands of high columnar epithelium with deeply situated nuclei, invaginated posteriorly into the roof of the iter to form a "mesocoelic recess," as in certain lower vertebrates. In the adult man it is in a vestigial condition, being represented by the mesocoelic recess alone. In the chimpanzee the subcommissural organ is better developed than in man and the mesocoelic recess still opens into the lumen of the iter in the adult, the recess itself having a diameter nearly ten times as great as in the human subject. In the cat and mouse the subcommissural organ is very well developed, and there is also a Reissner's fibre. The latter, in the cat (and probably also in the mouse), breaks up into slender branches which are connected with the modified epithelium of the subcommissural organ exactly as in the lower vertebrates (for example, lamprey, frog). Considering this well-defined relation of Reissner's fibre to the subcommissural organ it was thought highly improbable that in man, where the subcommissural organ is reduced to a mere vestige altogether shut off from the remainder of the cavity of the brain, a Reissner's fibre exists. It was maintained that these observations supported the view already put forward that Reissner's fibre has a mechanical and not a nervous function, and that in connexion with the subcommissural organ it forms an apparatus for automatically regulating (in lower types) the flexure of the vertebral column; the authors supposed that this function had become obsolete with the assumption of the erect position and the loss of the tail.

ROYAL SOCIETY OF MEDICINE.

SECTION OF SURGERY.

Tuesday, June 7th, 1910.

Mr. R. J. GODLEE, President, in the Chair.

Discussion on the Treatment of Syphilis.

MR. ERNEST LANE, in opening a discussion on the treatment of syphilis, said he believed that although the numbers of patients attending the Lock hospitals had increased considerably during the last ten years, the actual decrease in prevalence observed in the services was also to be found in civil life. Good treatment was the best prophylactic, and early treatment had been freed from all reproach by the means now available for diagnostic certainty. In treatment he had no royal routine, but selected a method to suit the case. Dealing first with injection methods, upon which he relied whenever confronted with any emergency, he said that calomel cream was the most potent means of treatment at our disposal. The average dose was $\frac{3}{4}$ grain suspended in sterile oil; twelve injections at intervals of a week should be given. The disadvantages were the occurrence of pain, abscess, pulmonary embolism, and acute mercurialism; of these, only the first was at all common, but it was enough, nevertheless, to lead him to prefer grey oil as a routine agent, reserving the calomel for conditions demanding instant response. Of the soluble preparations of mercury he had little to say, finding that the inconvenience and expense of frequent injections put this method out of court in practice. Inunction, whatever its merits, was repugnant to most patients. As regards the duration of treatment, he prescribed a minimum period of five years. In the case of those whose occupation involved severe stresses he advised an extension to seven years, believing that only by this means could the possibility of late affections of the higher nerve centres be certainly averted. Capacity to transmit disappeared long before immunity to nerve lesions was established. Treatment was not, of course, continuous over the whole period, but should intermit, with intervals of progressive length. Of iodipin he spoke with but faint praise, and he reiterated the warning against the arylarsonates published in these columns a few months ago.

Dr. FLEMING dealt with the laboratory aspect of diagnosis, describing the chinese-ink method of demonstrating the *Spirochaeta pallida*, and giving statistics of his method of serum diagnosis. Whilst a positive result was reliable in primary syphilis, 30 to 40 per cent. gave negative; in secondary, tertiary, congenital, and parasyphilis the test was quite reliable. Energetic treatment destroyed the reaction, but if stopped too early a positive result could again be obtained. A negative result, confirmed after some months, might be taken as evidence of "cure." So far as his present indications went, he found that the injection of grey oil was most effective, and he was able to say that after two years of "pills," the reaction could still be obtained.

Major FRENCH supported his well-known views as to the pre-eminent value of inunction. He thought there was no evidence that the arsenic preparations ensured the patient against relapse. He advocated social legislation for the control of the disease.

Captain HARRISON referred to the improved statistics as to the incidence of venereal disease among troops in India which was the outcome of the preventive efforts of individual medical officers even when working without the support, if not with the hostility, of civilian opinion. He believed in the superiority of calomel injections, but had found three injections as much as could be given; after these three preliminary doses, grey oil was used for further treatment. He had found Wassermann's original method most reliable. It had proved very useful to employ it in a roughly quantitative manner.

Mr. MCDONAGH advised the excision of the chancre, and indicated other details of the practice he had followed on the Continent.

This discussion was adjourned to June 14th.

CLINICAL SECTION.

Friday, June 10th, 1910.

Mr. A. PEARCE GOULD, President, in the Chair.

THE following were among the exhibits:—Mr. R. C. ELMSLIE: Three cases of enlargement of the tubercle of the

tibia (Schlatter's disease); and a case of fracture of the humerus at the site of an innocent cyst. The radiogram showed that the shaft of the humerus was expanded. This was thought to be an endosteal sarcoma. An exploratory operation was performed, a cyst was found, and the interior was scraped. Microscopically, sections showed spicules of bone surrounded by osteoclasts and large intervening areas of young fibrous tissue—exactly the appearances which are found in fibrous osteitis. The arm was now strong and well, the humerus was still expanded at the site of the cyst, and a radiogram showed the presence of a cystic space with, however, sclerosis of the surrounding bone. Dr. H. D. ROLLESTON: A case of jaundice with areas of unpigmented skin. Dr. PARKES WEBER suggested that the relatively unpigmented areas were spots of latent leucodermia. Dr. F. J. POYNTON and Mr. WILFRED TROTTER: A case of cardiolysis. Mr. J. P. LOCKHART MUMMERY: A case of hyperplastic tuberculosis of the pelvic colon. Mr. CYRIL NITCH: Congenital hairy mole. Dr. WILFRED HARRIS: Trigeminal neuralgia of left first and second divisions treated by injections of alcohol. Dr. S. A. CLARKE and Dr. A. F. HERTZ: A case of phlegmonous gastritis, in which a cast of the stomach was vomited. Dr. R. H. HODGSON: A case of pulmonary phthisis with large cavity treated with ether.

EDINBURGH OBSTETRICAL SOCIETY.

Wednesday, June 8th, 1910.

Dr. F. W. N. HAULTAIN, President, in the Chair.

Vomiting After Anaesthesia.

DR. J. W. KEAY, in a paper on the treatment of vomiting following chloroform anaesthesia, said that he regarded vomiting as partly nervous and partly gastric in origin, though in any individual case the central or the local factor might predominate. The sickness that occurred in nervous patients after a short anaesthesia was not serious, and the excessive retching was stopped by an enema of potassium bromide and chloral. In more prolonged operations the general sickness was commonly more severe. During the administration of the anaesthetic, gastric irritation was produced by the swallowing of chloroform-laden saliva. The stomach reacted by secreting large quantities of acid, and the vomited matter was often sufficiently acid to produce excoriation of the lips and cheek. The treatment was to administer large draughts of warm sodium bicarbonate solution, and apply counter-irritation to the epigastrium. At the same time the patient should be placed on the right side to encourage the escape of the gastric contents into the duodenum. Hydrocyanic acid and bismuth were useful, while coffee, alcohol, and ice were harmful. Chloretone was sometimes of value, but he had never obtained any benefit from the administration of cocaine. The serious cases showed distension of the intestine, which pressed on the irritated stomach. Reverse peristalsis might ensue and lead to regurgitant vomiting. If symptoms of acute acetonaemia were noted, rectal salines, massage of the abdomen, turpentine enemata, castor oil, or magnesium sulphate by the mouth, with brandy if the strength was failing, were useful; and, in addition, adrenalin 3 minims of a 1 in 1,000 solution three times a day by the mouth to contract the blood vessels of the stomach and stop oozing, and to stimulate peristalsis. No certain method of prophylaxis was known; much depended on the mode of preparation of the patient and the efficiency of the anaesthetist. Dr. FERGUSON thought chloroform vomiting was undoubtedly diminished if the patient was carefully prepared and strychnine administered for a day or two beforehand. He was in the habit of pouring saline solution into the peritoneal cavity in almost every abdominal section. Dr. LACKIE had learnt that blistering over the vagus nerve in the neck was often done in the East for chloroform vomiting. The PRESIDENT said that post-operative vomiting fell under one of three headings —chloroform, intestinal paresis, or peritonitis. In preparation for chloroform anaesthesia he made no change in the patient's diet on the day before operation. If much sickness occurred he administered copious draughts of water containing soda, and withheld food. Paresis and peritonitis were difficult to distinguish by clinical signs, but in the former the distension of the intestine was usually more rapid.

Life-History of Fibroids.

The PRESIDENT, in a paper on some practical points in the life-history of uterine fibromyomata, said this was still a profound mystery, but the fact that they did not in general develop before puberty or after the menopause pointed to a possible ovarian influence. They occurred with equal frequency in married and single. Many said that they were the cause of sterility, others that sterility was a stimulus to their growth and development. In over 400 cases 39 per cent. were in single women; among the married women, 42 per cent. were childless, and of those who had children 40 per cent had only one, hence fertility was much impaired. During pregnancy fibromyomata increase in size, and as a rule they remain bigger after its termination. This increase in size often led to symptoms, and was followed by sterility. The main characteristic of these tumours was their tendency to degeneration. Such occurred in 34 per cent. of his cases. A malignant change appeared only in 2 out of 415 cases. Some observers gave higher figures, but their statistics were probably based on microscopic evidence which could not distinguish between groups of embryonic cells and sarcomatous cells. Phlebitis sometimes occurred in the veins lying around the tumour, and spread to the lower limb. In his first 3 cases he had delayed the operation, and one died of embolism. In 11 cases he had operated at once with no untoward result. Post-operative phlebitis had merely resulted in a delay in convalescence. The menopause might be delayed to 55 or 60, or even over. After the menopause there was a tendency to quiescence and shrinkage. He had operated on only 6 post-climacteric fibroids, of which 1 was calcareous, 1 sarcomatous, 1 cystic, 2 cervical with pressure symptoms, and 1 had a twisted pedicle. In 7 he had operated for post-climacteric haemorrhage. Hence only 3 per cent. of his operation cases were in patients who had passed the menopause. The *post-mortem* results showed that fibromyomata were present in 20 per cent. of women. Hence they were in the great majority of cases harmless. There was no need for operation if no symptoms existed, but if they did exist operation should be carried out without waiting for the menopause. It was a mistake to subject patients to years of invalidism on the problematical chance of a peaceful old age. Dr. BALLANTYNE was interested to hear that Dr. Haultain did not consider fibroids a penalty for celibacy, nor likely to undergo malignant degeneration. Dr. FERGUSON agreed with nearly every point, but thought that fibroids were the result of sterility due to some other cause. He also operated early in cases of phlebitis. Dr. FORDYCE said that pregnancy and sloughing degeneration at the menopause were grave dangers. Dr. CARMICHAEL said that three of the last four fibroids he had removed were associated with cystic degeneration of the ovaries. That might have a bearing on the question of sterility.

Pelvic Abscess.

Dr. LAMOND LACKIE read a short note on two cases of pelvic abscess. The first was associated with pain over the buttock, where after some weeks the skin became oedematous. After incision, a small quantity of pus escaped. He then pushed dressing forceps through the upper part of the sacro-sciatic notch, and more pus escaped. In the second, the abscess pointed in the triangle of Petit, the cavity extending down into the pelvis. In each case recovery was rapid. In both the cellulitis had spread backwards instead of forwards, as was usual in puerperal cases.

THE festival annually held at Livingstone College, and known as Commemoration Day, took place on Saturday, June 11th, among the visitors being British and foreign delegates to the World Missionary Conference at Edinburgh. In the course of the proceedings, Dr. C. F. Harford, Principal of the College, pointed out that its students did not call themselves medical missionaries, but, thanks to the training they had received, were able to do something towards guarding their own health and relieving the needs of the natives by whom they were surrounded, when cut off from qualified medical assistance. The college training was also useful in that it enabled students to join in the campaign against malarial and other tropical diseases. Testimony to the value of the training supplied at the college was given by Dr. J. H. Cook, a medical missionary of long experience in Uganda, and by several representatives of foreign missionary societies.

England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

LIVERPOOL.

ASSOCIATION OF PHYSICIANS OF GREAT BRITAIN AND IRELAND.

THE fourth annual meeting of the Association of Physicians of Great Britain and Ireland was held here on June 2nd and 3rd. The date originally fixed, Thursday and Friday in Whitsun week, was altered on account of the death and funeral of King Edward. Dr. Glynn was elected President, and Dr. S. R. Bradshaw was the local secretary for the meeting. The daily sessions, which took place from 10 to 12 and from 3 to 6, were held in the Medical Institution, and were well attended. Demonstrations were given between 12 and 1.30, partly in the Institution and partly in the Royal Infirmary. The annual dinner took place at the Adelphi Hotel, covers being laid for 105. The meeting was highly successful in every way, and the visitors expressed themselves as much pleased at the arrangements made for them.

TUBERCULOSIS EXHIBITION.

A tuberculosis exhibition, organized by the National Association for the Prevention of Consumption, was opened by the Lord Mayor of Liverpool on Wednesday last, when Sir James Barr gave a popular lecture on the prevention of consumption. By permission of the Liverpool Health Committee and the Queen Victoria District Nursing Association, members of the female sanitary staff and the district nursing staff, and inspectors of the district sanitary staff, attend daily to explain to visitors the meaning of the exhibits. The methods adopted by the corporation for safeguarding milk are illustrated. On the evening of each of the days for which the exhibition remains open—that is to say, until June 25th—a lecture will be given by a medical man.

MANCHESTER AND DISTRICT.

CONSUMPTIVES UNDER THE POOR LAW.

AT a conference arranged by the Women Guardians and Local Government Association held in Manchester, Dr. J. R. Hutchinson read a paper dealing with the treatment of phthisis in workhouses. He emphasized the point that poverty and phthisis were intimately associated, and pointed out that Boards of Guardians had power to detain cases of phthisis, as they might be regarded as infectious. Dr. Jane Walker, who read a paper on the management of tuberculosis in schools, said that while there was excellent provision for Poor Law children with tuberculosis, there was practically no provision of country schools for delicate children attending elementary schools in towns. In the discussion Mr. T. C. Horsfall showed the beneficial results that had followed the system in Germany, where through compulsory insurance working men and women suffering from tuberculosis were admitted to a sanatorium, while at the same time ample provision was made for the maintenance of the family at home. Before consumptives came to the Poor Law they were generally beyond cure. In the Chorlton Union the guardians would provide money necessary to maintain the family. Dr. Garrett said that in Chorlton consumptives were treated exactly as private patients, though, as a general rule, the relief given by Boards of Guardians was quite inadequate to keep the wife and family of a phthisical patient in anything like decency. He thought that if guardians would let it be known that they had power to deal in a proper manner with the families of the patients sent to a sanatorium they would receive applications from a large number of working-class people who, under the present conditions, would go on to the last gasp till they were absolutely compelled to go to the workhouse.

Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

DECREASE OF TUBERCULOSIS IN IRELAND.

LADY ABERDEEN was able to make a most gratifying announcement to a special meeting of the Women's National Health Association held last week. From her previous statement it was known that the death-rate from tuberculosis in Ireland was decreasing, but accurate returns are now to hand and show that the death-rate, which was 2.7 per 1,000 in 1907 and 2.6 in 1908, fell to 2.4 in 1909, the lowest rate recorded during the last thirty-five years. The actual number of deaths in 1909 totalled 10,594, as compared with 11,679 in 1907, a decrease of over a thousand within the two years. It is encouraging also to find that the anti-tuberculosis work of the association has been recognized elsewhere, and that it has been awarded one of the medals of l'Oeuvre d'Enseignement Médical Mutuel for its special efforts in this field. Attempts are now being made by the association to obtain light outdoor employment for patients discharged from sanatoriums, in order to obviate the necessity of an immediate return to city homes on the part of patients who are sufficiently recovered to leave the sanatorium, but are still liable to relapse.

ROYAL MEDICAL BENEVOLENT FUND OF IRELAND.

Mr. Robert H. Woods, President of the Royal College of Surgeons in Ireland, presided at the annual meeting of the Royal Medical Benevolent Fund Society, which was held a few days ago in Dublin, and which was largely attended. The annual report stated that the total number of grants recommended since the last distribution amounted to £1,313 2s. 6d., an increase of about £200 as compared with the previous year. In moving the adoption of the report, Dr. Horne, President of the Royal College of Physicians, stated that he found it necessary to emphasize the fact that the society was entirely unsectarian, and that the religious belief of applicants had never been mentioned or considered in any way by any member of the committee when recommending a grant. He was forced to make this statement owing to a letter received from one of their branch secretaries saying that some of the medical men in his district refused to subscribe on the ground that the fund was distributed from a sectarian point of view. Dr. Horne also referred to the fact that a number of orphans and widows had been relieved whose fathers and husbands had never subscribed to the fund. At the conclusion of the meeting Dr. Woods handed the treasurer a cheque for £20 as a donation to the fund.

The annual meeting of the Belfast and Antrim branch was held in the Medical Institute, Belfast, on June 10th. The Lord Mayor of Belfast (Mr. R. J. McMordie, M.A.) occupied the chair. Dr. Fielden, the honorary secretary and treasurer, read the annual report and submitted the statement of accounts. The total subscriptions were £163, being £109 from Belfast and £31 from the country; sixteen subscribers outside the profession gave £14 and the medical students £4 15s. A total of £115 was granted by the Central Council, on the recommendation of the local committee, to various members, widows, and orphans. The adoption of the report was moved by the Lord Mayor, and seconded by Dr. R. J. Purdon. Professor Symington was again elected President, and the following gentlemen were proposed as members of the local committee by Dr. Coates and seconded by Dr. Leslie and elected: Sir William Whitla, Professor J. A. Lindsay, Drs. William Gibson, William M'Lorinan, A. B. Mitchell, R. J. Purdon, Gardner Robb, Cecil Shaw, and J. W. Taylor (all of Belfast), Dr. Gaussen (Dunmurry), Dr. Greenfield (Holywood), Dr. Macarthur (Greyabbey), Dr. St. George (Lisburn), with Dr. Victor G. L. Fielden, honorary secretary and treasurer.

Professor Symington proposed and Sir William Whitla seconded a vote of thanks to the Lord Mayor, which was carried.

IRISH MEDICAL ASSOCIATION.

Judging from their annual report, the Irish Medical Association has just concluded an active and useful year's work, and under the guidance of their newly elected president, Sir Thomas Myles, it seems likely that the influence of the association will be largely felt during the coming twelve months. The membership now amounts to well over 600 medical men, and the income is nearly £1,000. Amongst the numerous matters dealt with during the year 1909 were the position of medical men who are subpoenaed to attend a court of law in private cases, and the inadequacy of the fees payable under the Old Age Pensions Act to medical men for the return of deaths of persons aged 70 years and upwards. The antivaccination campaign in Wexford was also under discussion, and at the annual meeting the following resolution was adopted:

> That, owing to antivaccination literature being circulated throughout Ireland, the Irish Medical Association deem it necessary to record its most marked disapproval of this retrograde movement, and to request the members of the association to combat this attempt to injure the public health of our country by every means in their power, especially by pointing out, on all possible occasions, the fact that vaccination has been proved to be the only thoroughly reliable means of preventing the spread of small-pox.

ANTICONSUMPTION CRUSADE.

The Lurgan Urban Council, at its last meeting, decided to follow the example of other sanitary authorities in joining the Chemical Research Association to enable it to get sputum of suspected phthisical patients examined. Dr. Agnew, Medical Officer of Health, pointed out the necessity of some such step; he also urged the council to unite with others in the erection of a common sanatorium, and in the meantime to send the patients in the early stages to some existing sanatorium for treatment. The discussion of this second project was postponed.

BORSTAL SCHOOL, CLONMEL.

The Clonmel Discharged Prisoners' Aid Society, which is interested in the working of the Clonmel Borstal School, the only Borstal school in Ireland, recently issued its report. These schools, as is well known, have been instituted with the object of rescuing juvenile adult offenders from association with regular criminals, and thereby preventing them, if possible, from recruiting the ranks of habitual offenders. The society has come to the conclusion that if good results are to be obtained the period of detention in the school should be not less than eighteen months. Of 137 youths who have been committed to the Clonmel school, 46 are still inmates, 4 have been transferred to ordinary prisons, and the remainder have been discharged. It is estimated that out of the 87 discharged 50 are doing well. The society hopes later on, if funds permit, to establish agents in the more important centres to look after the boys for whom employment has been found.

PRESENTATION TO SURGEON MCARDLE.

A meeting of students of the St. Cecilia Street School of Medicine was held a few days ago for the purpose of making a presentation to Surgeon McArdle on the occasion of his approaching marriage. The presentation took the form of a large silver rose bowl of Irish design and manufacture. It was presented on behalf of the students by Mr. Henry Barniville, who made a speech suitable to the occasion.

THE COUNTY CORK SANATORIUM FOR CONSUMPTION.

At the meeting of the Conjoint Hospital Board held on June 4th regulations regarding the admission of patients were considered, and the question of the age limit of the patients was the one most discussed. Mr. Creagh said the condition of his gift to the sanatorium was that the patients were to do some work. If the age were not limited, instead of having patients in the sanatorium able to assist the staff, it would be almost a nursery, and new appointments would be required. Preference should be given to breadwinners. It was eventually decided not to admit patients under 14 years of age. The board considered the proposed division of beds between contributing bodies, and it was proposed to divide the 77 beds by giving each of the 28 contributing districts one bed each and allocating the remaining 49 beds in proportion to contributions.

THE ROYAL SANITARY INSTITUTE.

At a sessional meeting of the Royal Sanitary Institute at Trinity College, Dublin, at 8 p.m., on June 24th, discussions will be opened on the water supply of Irish towns by Mr. J. H. H. Swiney, M.Inst.C.E., and on the bacteriological standards of potable water by Professor E. J. McWeeney. On the following day a visit will be paid to the Rathmines Waterworks.

KING EDWARD VII COT.

At a recent meeting at Mercers' Hospital, Dublin, it was decided to found a cot in that institution in memory of the late King. An influential committee has been appointed, and an appeal for funds to carry out the project is being made to the public.

CARLOW ASYLUM.

As a testimony of their high appreciation of the valuable services rendered to the Carlow Asylum by the medical superintendent, Dr. T. A. Greene, the governors of that institution decided at their last meeting to add to his salary a sum of £100. Dr. Greene was appointed superintendent of the asylum about a year ago.

DECLINING BIRTH-RATE.

The report of the Registrar-General for Ireland for the first quarter of 1910 shows a decline in the birth-rate of 0.2 below the average rate for the corresponding quarter for the ten years 1900–9, and a decline of 0.1 below the rate of the first quarter of last year. It is satisfactory to note that the death-rate also has diminished, and is 0.7 below last year's rate.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

SIR HECTOR C. CAMERON.

SIR HECTOR C. CAMERON, who has held the Chair of Clinical Surgery since 1900, when he succeeded Professor George Buchanan, has intimated his desire to resign that position, and at the last meeting of the University Court his resignation was accepted. We understand that the resignation is to take effect in October. Since the foundation of the chair there have been only two professors of clinical surgery. As the chair is one of those involved in the new scheme for instituting university professorships at the Royal Infirmary, it is not expected that the Court will take any steps to fill up the vacancy till the new scheme is started. This has been the plan adopted with the corresponding Chair of Clinical Medicine, which has not been filled up since the appointment of Professor Gemmell to the Chair of Medicine.

COLONY FOR SANE EPILEPTICS.

The Glasgow Parish Council has received the report of a deputation appointed to visit existing English colonies for sane epileptics in view of the projected colony to be started by the Glasgow Parish Council. The deputation recommended as the most economical plan that the accommodation should be of the colony type, with villas, to hold each 50 patients, of the one-story type used at Monyhull. Central administrative buildings would also be required, and the deputation recommended the erection of large workshops, so that continuous employment might be provided in bad weather when the patients could not be employed out of doors at farm and garden work. It is considered that constant work is the best thing for warding off attacks and conducing to a contented and peaceful state of mind. Though many epileptics are bad workers, the report states that with proper personal

supervision of the individual wants of the patients, better working results can be obtained. It is estimated that the number of epileptics for whom accommodation would be required is about two hundred.

THE CAIRD CANCER RESEARCH LABORATORY.

Reprints of a number of communications from the Caird Cancer Research Laboratory, Dundee, which appeared in various publications last year, have been issued. Most of them relate to work done by the pathologist of this institution, Dr. Archibald Leitch. They include a note on a method by which a safe report with regard to a tumour can be supplied to an operator within seven minutes of the moment at which slices of it are removed, provided that the distance from the operating room to the laboratory can be covered in two minutes. The slices are placed forthwith in acetone, whence, on arrival in the laboratory, they are placed in hot water for a few seconds, then dipped in gum solution, and frozen by carbon dioxide. The rapidly cut sections are fixed and coloured simultaneously by an acetone solution of "krystallviolet," then cleared with xylol, and examined. Other papers deal with the diagnostic value of peau d'orange in acute mammary cancer, the volume ending with a consideration, by Dr. R. C. Buist, of the practical management of the ureters in abdominal operations, based on an examination of literature and the experimental work performed by Dr. Leitch.

INFANT HEALTH VISITORS, GLASGOW.

A series of lectures, arranged by the Glasgow Infant Health Visitors' Association, is being delivered in the physiology class-room at the university. Although primarily for the health visitors, of whom there are now 307 working in the seventeen organized centres in the city, all interested have received a cordial invitation, and the opening attendance was highly encouraging. The series consists of lectures on physical defects in infants and how to recognize them, by Dr. Jas. H. Nicoll; common diseases of childhood, by Dr. J. B. Mackenzie Anderson; the hygiene of infancy, by Dr. Carstairs Douglas; and preventable blindness, by Dr. A. Maitland Ramsay. Professor Noel Paton, who presided at the opening lecture by Dr. Nicoll, referred to the objects of the association. The last quarterly returns show a total of over 1,600 infants being regularly supervised and visited every fortnight in the lower-class districts in Glasgow.

New South Wales.

[*FROM OUR SPECIAL CORRESPONDENT.*]

COLOUR-TESTING OF RAILWAY MEN.

WE are indebted to Dr. G. H. Taylor, Railway Medical Officer, Sydney, for the following interesting note:

The colour-testing of candidates for the railway service of New South Wales is by Holmgren's wools and a modification of Williams's lantern. The retesting of men for colour vision on the running lines is by Williams's lantern alone. The old lantern can easily be learnt by a defective colour sense. The modified lantern is so arranged that the examiner can bring into view any contrast in colour or any single disc at will from the discs in the lantern. In the old lantern the discs move in regular sequence. Any method of colour-testing depreciates in value when it is used to tutor intending candidates, and this is openly done in regard to Holmgren's wool test and the old Williams's lantern. It is remarkable how a candidate in whom a defective colour sense has been clearly demonstrated, even a defective sense of red, can be tutored in the wools and old lantern to deceive an examiner. As his sense of shade, however, is never reliable, he may suddenly, after naming correctly a number of red and green discs, name a red, green, or white. If examined by a method new to him, detection is not difficult. The key to a candidate's colour sense is undoubtedly his sense of green. The smallest degree of defect revealed by the modified lantern is failing to see colour in the two pale greens and calling them white. This defect is not invariably confirmed by the Nagel test. The two pale greens show one with a little more colour in it than the other. When a candidate, with both of them in view, names one white and the other green, it indicates a more serious colour defect. This is, in the cases I have tested, always confirmed by examination with the Nagel test, the distinction being that the candidate in naming one white and the other green is using his sense of shade and not his sense of colour. The conflict of opinion that occasionally occurs in different examinations of a candidate by Holmgren's wools is due in a great majority of cases to atmospherical conditions. In an unsatisfactory light a man with a feeble colour sense may fail in his green test and satisfy the examiner under more favourable conditions of light. In the Nagel test, which is a severe one, but which could be learnt by an incomplete colour-blind, a good light is absolutely necessary. In a failing light or in gaslight persons with normal colour sense confuse the grey spots with green.

If a candidate confuses red with green or green with red, he is recognized by public opinion as a colour-blind. If he sees no colour in red and calls red white, there is also a certain degree of appeal to the ordinary man; but if he confuses pale green with white in the lantern test, or if, in matching green in Holmgren's test, his only mistake is to pick grey or brown wools, the uneducated man is not impressed.

A colour-blind engine-driver is protected from mistake under favourable conditions: (1) By his perception of shade, the signal lights used, red and green, being of a standard pattern; (2) by his exact knowledge of the locality of distant and home signals; they are not flashed upon him suddenly; (3) by the colour sense of his fireman. In shunting operations, however, where a confusion between white and green may at least imperil the life of a shunter, he must act promptly, guided entirely by his sense of green.

About 12,000 men have been examined in my office in regard to colour sense since my appointment two years ago. Of these, 4.92 per cent. were found to have defective colour sense, classified as—red blind 2.16 per cent., green blind 0.12 per cent., incomplete colour blind 1.12 per cent., and feeble colour sense 0.41 per cent., and 1.12 per cent. failed only in the lantern, the failures in the lantern being subsequently confirmed by Nagel's method.

I am satisfied that a man should not be admitted to the railway service as a worker on the running lines who in any degree has a defective sense of red or green, and that a man in the service, and working on the running lines, must be regarded as unfit if it can be shown that he fails to recognize green under conditions that 95 per cent. of ordinary candidates, consisting almost entirely of youths and young men, practically all of them wage earners, and certainly not educated in colour in the great majority of cases, never fail to recognize. No man is rejected whose only error is that he cannot detect green in the two pale green discs of Williams's lantern, this being his only error, and not repeated when he is shown their contrast to two whites.

Prior to the adoption of the modified lantern 0.42 per cent. with defective colour sense not detected by Holmgren's test were discovered by the old lantern. The new lantern increased that percentage by 0.7 per cent.

India.

[*FROM OUR SPECIAL CORRESPONDENT.*]

THE MADRAS GENERAL HOSPITAL.

A COMMITTEE, presided over by Surgeon-General Benson, has been sitting to consider the advisability of removing the Madras General Hospital from its present position to another site outside the more popular part of the city. The cost of the scheme was

stimated at nearly forty lakhs, and Government has ecided that funds will not admit of this expenditure eing incurred, but steps will be taken to bring the ospital up to date in its present site. As the grounds n which the extensive wards are placed cover a large rea, there should be no difficulty in adapting them to he new buildings which will be required. The alcutta hospitals have been largely rebuilt in the ast ten years, and the J. J. Hospital of Bombay is in rocess of reconstruction, so it is well that the Madras nstitution should also be brought up to date.

Special Correspondence.

PARIS.

Hospital and Teaching Reforms.

M. EDOUARD HERRIOT, Mayor of Lyons, member of the Conseil Supérieur of the Assistance Publique, proposes to build in the great city of which he is the presiding officer a hospital containing 1,200 beds. He wants it to be designed on the most modern lines, and, to insure that this wish should be fulfilled, he undertook a few months ago a voyage of discovery among the hospitals of Germany and Denmark. From it he brought back, among much else, the conviction that the management of French hospitals is archaic and ought to be the subject of wide-reaching reforms. We ought, he says, to build and manage our hospitals in a different way, and there is no one in France to contradict him. At the last Congrès des Praticiens, Dr. Archambault demanded autonomy for the hospitals, maintaining that their complete dependence on the Assistance Publique too often hampered the administrative officers. It is, in fact, very annoying to the management to be obliged for the least little thing to apply to the central office, and to compile reports, thus withdrawing the plans or schemes or proposals from their living environment, and in the end to receive, after irritating delays, a frigidly-worded permission from a remote bureau. As we have left the direction of the hospitals in the hands of pure bureaucrats, in order to leave the doctors free to pursue their scientific work undisturbed, it seems absurd to maintain such a system. Every administrative act in this special field must in reality be subservient to therapeutic considerations, and in asking that the director of the hospital should be a doctor—a doctor free from exacting and harassing central control, and, when necessary, provided with an administrative assistant to do the necessary clerical work—we put forward the most logical and practical scheme which can be devised.

It seems as though administrative reform ought to prove a fairly easy task, and one capable of speedy accomplishment, since the difficulties to be encountered will be human, and therefore ephemeral. To substitute structures more suited to modern hygienic ideas for those now in existence is quite another thing. How are we to pull down all at once the numberless and huge buildings now in use for the treatment of the sick? How is the enormous expense to be met? How can we consent to abandon, even for scientific reasons of the most imperious kind, buildings which are not large enough to take in all those needing help? It generally comes to this that the new buildings do not replace but are added to the old ones.

We recognize our backwardness in hospital management; we recognize it with the less shame because we know that it is due to our superiority in the past. France in times gone by was the first country to scatter through its cities refuges for the suffering. All the Hôtels-Dieu in the provinces have existed for centuries; some of them, such as the hospital at Tonnerre, in Burgundy, is the last remaining example of the timber work of the thirteenth century; many, such as the hospice of Beaune, are wonders of architecture. Having been designed as at once churches and hospitals, having been more anxious, perhaps, to save the soul than to tend the body, they may appear antiquated and heretical to the hygienists of to-day, but the piety and charity to which they owe their existence were wrong only in this, that they built them too lovingly, making of them monuments which are really imperishable because that modern progress dare not propose to pull them down. It is not likely that modern architects will be guilty of the same fault, for they know that buildings of a more temporary and utilitarian character are better adapted to the conditions of human and social progress, and that only a pure work of art has the right to be indestructible.

I have just said that it was fairly easy to reform administrative methods. On further consideration I think that the assertion was a little rash, and indeed, if I needed evidence of my rashness, I need go no further than the controversies on the question of the reform of medical teaching, and the violent demonstrations which disturbed the recent Concours d'agrégation. There are at the present time two centres of medical teaching, the Faculté and the hospital. The Faculté only is official, but if the influence of the hospital on the Faculté be left out of count, the instruction which it gives, apart from anatomy and physiology, is entirely theoretical. Professors and lecturers give learned addresses, but they have about the same teaching value as a geographical lecture delivered without maps. At the hospital, which is not supported by the State, but by the Assistance Publique, the teaching has, it is fair to say, become organized spontaneously. Down to 1893 the representatives of hospital work on the Faculté were the eight clinical professors, and the Faculté did not trouble itself very much about what the medical student did, and, by the decree of 1862, he was only required to produce a certificate of attendance. In 1893 the hospital course was instituted; it extends over three academic years, during each of which the student must spend three months in the medical and three months in the surgical department. During the last stage of his course a certain period must be given to obstetrics, and another to the special departments for skin diseases, mental diseases, diseases of children, ophthalmology, and diseases of the urinary tract. During this stage, which only occupies about eighteen months of the student's life, he is under the supervision of those members of the staffs of the hospital who are willing to undertake the duty and to furnish quarterly reports, which are forwarded by the Assistance Publique to the Faculté. It will be seen how under the influence of common sense the two spheres, the faculty and the hospital, have come gradually to influence one another, so that the two systems of instruction are becoming imbued with a common idea. The students and practitioners are least of all disposed to recognize any distinction between them. Most students eager to obtain practical instruction, and by whom every member of a hospital staff, indeed any doctor who, though he has no official hospital appointment, has yet gained a position giving him a claim to speak with authority, is esteemed a teacher, ask for nothing less than the abolition of the lecturers (*agrégés*). They argue that they are too few to be really useful teachers, and that they form a body behind the professors of the Faculté, a caste jealous of its official rank, and too much inclined to monopolize all the chairs in the school which was formerly much more ready to recognize freedom of education. But what they more especially aim at is the shifting of the centre of gravity of medical education from the school to the hospital. At any time since 1907 they have been expounding their reasons to the Ministre de l'Instruction Publique, but they failed to obtain a definite answer, and have not succeeded in inducing him to study the subject seriously. Their plan now is to stir the inertia of the public authorities, and to disturb the egoistical dreams of their opponents by kicking up a row at the Concours d'agrégation. Whatever our opinion may be of this plan which has obliged the judges of the Concours to take refuge behind a row of policemen, we must not forget the deeply grounded, and for the most part justifiable, grievances which have found expression in this outbreak of impatience.

BERLIN.

The Bicentenary of the Charité Hospital.—New Buildings for the Army Medical College.

THE Charité Hospital in Berlin has lately entered on its two hundredth year of existence, and the bicentenary has been celebrated by a ceremony which was attended by the Prussian Cultus-minister, accompanied by a staff of senior

State officials—the chief physicians and surgeons of the army and navy, the Rector of the Berlin University (Erich Schmidt), the deans of the various faculties, a full tale of the medical professors and private physicians of note, and many private persons of distinction—besides a large number of medical students. It was a brilliant and decidedly characteristic assembly.

Herr v. Trott zu Solz, the present Cultus-minister, acting for the King of Prussia, distributed among the Charité authorities quite a number of decorations—those crosses and ribands so keenly coveted by all good Prussians as a finish to their evening dress—and said that in graciously bestowing them his Majesty had wished to mark his appreciation of the great hospital's leading position. Then followed an address by the Physician-in-Chief, Surgeon-General Scheibe, in which he gave a historical sketch of the Charité's evolution from its first construction 200 years ago. Originally it was intended to serve as a plague hospital for Berlin and its environs, in accordance with the regulations for preventing the spread of plague enacted in November, 1709. But it was never called upon to fulfil the object for which it had been destined, since the scourge passed away at that time without attacking Berlin. The house, a large two-storied, timbered building, was then put to use as a garrison hospital, a few rooms being reserved for sick paupers. Under Frederick William I, Frederick the Great's tyrannical father of Carlylean renown, a proposal was strongly urged to turn it into a general hospital (Bürger-spital), but the bluff soldier-king could not be brought to countenance the change. On the margin of the ministerial rescript submitted to him he wrote: "This house 'longs to my regiment. Must not rile me by such nonsensical stuff.—Fr. W." ("Soll mit solchen Possen mir (*sic!*) nit ärgern.") Later, however, the consideration that a large general hospital would supply his army doctors and surgeons with the best material for study—and the cheapest, too, being so near at hand; and thrift we know was the King's ruling passion—induced him to rescind his veto, and in 1726 the establishment was formally converted into a "Bürger hospital," with reservation of a wing for the garrison. Its name, too, was given it by the King. A set of documents bearing on excise duties, from which in the year 1727 the hospital authorities prayed to be exempted, are still in existence, and on the margin of the official paper granting the request can still be read in Frederick William's crabbed handwriting, "es soll das Haus die Charité heissen.—Fr. W." (the house is to be named the Charité). By church collections and house-to-house begging the money required for extension and improvements was obtained. The King himself contributed the entire building material required. But the income for working expenses was and remained not only precarious, but grossly insufficient, so that the building fell into great disrepair, and the condition of the wards was quite disgraceful even for the times. At last, in 1785, Frederick II (the "Great") was brought to consent to reforms, and by his command, but unfortunately without due consideration of his doctors' demands, new buildings were erected, which, well or ill, continued to serve their purpose for more than a hundred years, the "Alte Charité" of our own days, some remnants of which may still be seen standing. The clinical courses grew more and more noteworthy, especially from the foundation of the Berlin University—in 1810—onwards, but at that time no real progress had been made in pecuniary matters, the means of support remained grossly inadequate, and the wards were in no less neglected a condition than before. It is true that early in the eighteenth century Frederick William III had ordered a strict inquiry into the whole matter, but Prussia's political downfall and its subsequent penury put a stop to this as to many other projected measures of reform, and things came to such a pass that Berlin tradesmen could no longer be induced to deliver goods to the hospital! In the end a royal visit from afar gave the impetus towards improvement. The Empress Dowager of Russia came to Berlin in 1818, and it was known that she intended to go over the Charité. Immediately a sum of 17,000 thalers (£2,550)—a large one for the times—was placed at the disposal of the hospital by the Government, and the most urgent necessities thus supplied. Ten years later further large funds were voted, and one by one new buildings and scientific institutes were erected. A large students' quarter, a real "Quartier Latin," grew up around the hospital, and under a long roll of illustrious teachers and masters of research, such as Traube, Langenbeck, Graefe, Virchow, v. Bardeleben, Frerichs, v. Leyden, Senator (to mention but a few), the fame of its clinical courses grew world-wide. But the buildings themselves and their hygienic and therapeutic arrangements, though reforms were attempted again and again, became in time hopelessly antiquated, and it was impossible to think of adapting them to the requirements of modern medicine. After a long period of effort and persuasion, the moving spirit of which was undoubtedly the late Geheimrath Althoff of the Cultus ministry, opposition was overruled at last, and in 1894, after reports and counter-reports unnumbered, and thorough inspection by the Prussian Ministries of Public Works, of Finance, of War, and of "Cultus," complete re-erection of the entire hospital was unanimously decided on, and a sum of almost £50,000 voted for building operations, to be begun at once.

At present the annual budget of the Charité amounts to close upon 2,000,000 marks (£100,000); in the year 1908 8,000,000 marks (£400,000) went through the books of the establishment. Besides its 200 doctors, a staff of about 700 minister to the wants of the patients. What may be called its military tradition still exists unbroken, for there is a special school of military surgery.

It is a curious coincidence that—as mentioned above—the centenary of the Berlin University should fall in the same year as the bicentenary of the Charité. May 7th, 1810, was the date on which Christoph W. Hufeland began his first lectures on pathology and therapeutics as a university professor in the building which had been the palace of Prince Henry of Prussia, the brother of Frederick the Great.

Last week the Emperor, who was accompanied by the Empress, opened the new buildings of the Emperor William Academy. The new academy, which has been erected in the Invalidenstrasse in the north of Berlin, is an imposing building, comprising laboratories, a library containing some 70,000 volumes, reading rooms, and quarters for 300 students. The Emperor, in declaring the new building open, said that the academy, which was founded in 1797, formerly known as the Frederick William Medico-Chirurgical Institute, had trained for the army a medical corps which had proved itself thoroughly efficient, and expressed the hope that with its new and improved accommodation the academy would continue to carry on its useful work for the army and the nation.

Correspondence.

THE ANNUAL MEETING IN LONDON.

SIR,—Will you please allow us to call the attention of members of the Association to the "Notification of Attendance" at the Annual Meeting, which will be found at the end of the SUPPLEMENT of this issue?

We hope to have a very large attendance at the meeting in London during the last week of next month, and we are anxious that all the arrangements made for the convenience and entertainment of members shall work satisfactorily. Nothing will conduce more to this end than early intimation of the names and numbers of those intending to be present. We would therefore earnestly appeal to all members, as soon as it is possible for them to arrive at a decision to attend the meeting, to fill up the notification form and forward it to the Central Office. We particularly request members resident in London to give us due notice of their intention to take part in the meeting.—We are, etc.,

E. W. GOODALL,
W. GRIFFITH,
LAURISTON E. SHAW,
Honorary Local Secretaries, 1910 Meeting.

429, Strand, W.C., June 14th.

CARBON DIOXIDE SNOW.

SIR,—The notes in the JOURNAL of June 11th, and the many inquiries which I receive, indicate that much interest has been aroused among members of the Association in

orton's method of using carbon dioxide snow in the eatment of naevi and other cutaneous anomalies, and I ould be obliged if you would kindly allow me to nounce through your columns that at the Dermato- gical Section of the Annual Meeting Dr. Morton, in njunction with the President of the Section, will give a mplete demonstration of the method and show cases eated by it. A collection of improved appliances for the oduction of the snow will also be exhibited, some of iese presenting novel features specially designed for the sy and convenient use of the method in private practice.

I am, etc.,

London, June 11th. W. GRIFFITH,
Honorary Secretary, Dermatological Section.

ON THE INFLUENCE OF THE SANATORIUM TREATMENT OF TUBERCULOSIS.

SIR,—I look upon statistics as the handmaid of medi- ne, but on that very account I hold that it befits medicine treat her handmaid with proper respect, and not to rostitute her services for controversial or personal pur- oses. For statistics is an exact science, and the training iat is required in medicine does not necessarily fit a ian to use the services of statistics in a reasonable and roper manner. The medical man who has not been ught to respect exact science is liable to handle statistics a manner which would call down on him the oppro- rium of the whole scientific community, if he were, the service of preconceived notions in physics, to handle us any branch of exact mathematical logic.

I do not use these phrases lightly; there is an immense esponsibility thrown on the medical profession when it ublicly advocates any line of conduct, which in itself may e most desirable, to see that the arguments it uses are not ere arguments of the market-place, but sound in origin nd authentic in all the facts they adduce. Nothing can e worse for the public, nothing worse for the medical rofession itself, than the distrust between the profession nd the public which must arise if the latter discovers that epresentatives of the former have made gross blunders n their statement of facts.

In an evening contemporary a discussion has recently risen on the value of the sanatorium treatment of tuber- ulosis. I am not concerned with the medical side of that reatment, but I am concerned with the statistical evidence y means of which the contrast between pre-sanatorium reatment and modern sanatorium treatment has been established by two recent medical writers. Mr. Charles H. Garland makes the following two assertions in his letter to the *Pall Mall Gazette* of the 6th instant.

(1) "In 1865 a statistical investigation was published by Dr. J. E. Pollock, embodying 3,566 cases of consumption in all stages which had been observed by himself." (This is absolutely correct.) "*The average duration of life in all these cases from the first symptom of the disease to the fatal termination was two and a half years.*"

(2) "*Dr. Pollock further found that no less than 83 per cent. of the patients whom he saw in the early stage of the disease died within five years of the first symptoms.*"

Mr. Garland calls this a "grim picture." It is, indeed; but the grimness is of another kind from that which he suggests.

Both the statements in italics above occur verbatim on p. 44 of a work by Dr. Arthur Latham and Mr. Garland, entitled *The Conquest of Consumption*, just published, and in a chapter termed "Our Knowledge of the Disease." The second also appears in the form of a table in a paper by Dr. Arthur Latham published in 1907 entitled, "The Economic Value of Sanatoriums." The table is headed "Results of 194 Cases of Chronic Phthisis in the First Stage." In that table Dr. Latham tells us that at the end of the *second year* 13 per cent. of these cases of Dr. Pollock were *dead*, and at the end of the *fifth year* 83 per cent.; and Dr. Garland puts against this 83 per cent. the 57 per cent. of the patients in Prussian and Hessian State railway sanatoriums, who were at the end of five years in full enjoyment of their working capacity.

Now Dr. Pollock's book of 1865, *The Elements of Prognosis in Consumption*, is, even from the statistical standpoint, a most cautious and scholarly work. He tells us exactly what he has observed and how he has observed it. From the medical standpoint of 1865 there is nothing slipshod or careless about it. He is most careful to tell us that he is speaking of the *observed duration* of the disease only, and that of the first-stage chronic patients the *observed* duration of the disease was 49.48 months when last observed, and that *not one had died under observation.* In other words, instead of 83 per cent. being dead before five years were out, not *one* was dead, and the mean period during which the disease had been observed was more than four years; 83 per cent. of these patients had had the disease for less than five years. This 83 per cent. of patients alive when last observed are converted into dead men by Dr. Latham and Mr. Garland, and used to show the "grim state" of affairs in pre-sanatorium days!

Now I have no doubt that Dr. Latham and Mr. Garland will tell us that this is a mere error of reading Dr. Pollock. Do they reckon their statement as to the 3,566 cases also as another mere error of reading? Dr. Pollock only tells us that on the last occasion on which he examined these patients the disease had lasted so long, but the patients were not dead and many have lived years after. In fact, the patients whom Dr. Pollock reports as being dead form a very very small percentage of those he examined. All the 3,566 are slaughtered by Dr. Latham and Mr. Garland. I assert that this is a very grave matter indeed, and that when the public is appealed to, as it is in their popular manual, there ought to be no possibility of mere errors of reading of this magnitude.

I know only one course open to these authors—that is, the immediate withdrawal of *The Conquest of Consumption* until the chapter entitled "Our Knowledge of the Disease" has been rewritten and brought statistically up to the knowledge of 1865.—I am, etc.,

KARL PEARSON.

Biometric Laboratory, University College, Gower Street, London, W.C., June 8th.

INFLUENCE OF POSTURE IN PHYSICAL EXAMINATION.

SIR,—It would have been odd had it never occurred to any one during the now very considerable period in which methods of physical examination have been practised that so mobile an organ as the heart should present some variation dependent upon change in the posture of the patient. The mere fact, however, that Sir James Barr considers Dr. Gordon's views on the "rightward edge of the cardiac dullness" in this matter of "ancient history" "the reverse of the truth," shows that even on the "eve of the second decade in the twentieth century," to use Dr. Ewart's words, it is not altogether an "anachronism" to discuss this elementary point.

It has been said to be injurious to the eyesight, and frequently wholly destructive of originality, to inquire too curiously into the labours of our predecessors. The exercise, nevertheless, is usually wholesome if chastening, and it is a duty which is too much neglected. In the letters which appeared in your last issue there is, I venture to say, a good deal of "ancient history" without much mention of the ancient historians.

The recognition of the *principle* of percussional variation due to differences of posture is not new, although definite details in this matter are not, as Dr. Gordon says, frequently met with. Skoda wrote in 1839: "The heart, the liver, the spleen, offer a resistance through the thoracic wall great in proportion to their application against the chest wall and their density." Hope, in the same year, states that "the heart is by its own gravitation withdrawn in some degree from the anterior walls of the chest when the subject lies on his back, especially inclined a little towards the right. The same effect is produced by full inspiration even in the erect position. . . . On the contrary, when the subject leans forward and a little to the left, the heart, displacing the lung by gravitation, comes into more than ordinarily extensive contact with the walls of the chest." Walshe, again, remarks: "The act of respiration and alteration of the posture of the trunk will of course change the position of the heart's dullness;" and also adds, "not the slightest change in position, even of the limbs, ought to be permitted during the examination."

These quotations, which might be multiplied, serve to show that in this matter we are dealing with "ancient history." But, like Auenbrugger's extension of the ancient percussional method to diseases of the chest, which was

practically ignored for fifty years, the importance attached by past observers to this or that point in the details of physical examination, is apt to be forgotten. History, however, repeats itself. Old discoveries are rediscovered and the last discoverer is frequently quite ignorant of the existence of his predecessor. He has often retained both eyesight and originality from this circumstance. The majority of textbooks are archaeological neither in method or intention, and thus, much valuable information lies unrecognized by the fleeting generation of the moment. Laënnec's discovery of auscultation (I suppose he discovered it) within ten years of Corvisart's translation of the *Inventum Novum*, probably accounts in great measure for this partial eclipse, for a considerable period, of the percussional method, and also for the fact that, now and again, some detail in the results given by that method, has appeared to be new to a more recent observer. The point of interest in anything considered new is, of course, to determine whether it be of practical importance, and it cannot be so if it be not also true. In Sir James Barr's opinion, Dr. Gordon's conclusions are, as I have said, "the reverse of the truth."

Particular attention was redirected in this country to the percussional method, when the reports of phenomenal shrinkages in the cardiac area were reported as a result of the balneological treatment of heart disease some fourteen years ago. I was asked at that time to write an account of the methods practised at, and the virtues resident in the waters of, a health resort, then and now in vogue for the treatment of heart disease. I preferred to write a more general essay on cardiac failure, and in this connexion studied the possible causes of the shrinkages to which I have referred. Experience gathered in the interval by myself and others might cause me to modify some of the views expressed in the book in question, but such modification could not apply to matters which I regarded as facts observed. Among these are the conditions of which Dr. Gordon treats and some to which Dr. Auld refers. A point which I proved to my own satisfaction was, to continue remarks which Dr. Gordon was good enough to quote, that: "These differences, although discernible in kind, are evident in a less degree in normal hearts acting vigorously than in those enlarged by hypertrophy or dilatation, or enfeebled in action; and some of them . . . are due to skin, not heart, movement" (p. 19). Nor do I find that subsequent observations suggest my altering the following statement: "The mobility of the heart and its retreat in the recumbent position from the chest wall no doubt in part account for the percussion differences in that position, but these are partly due also to that circumstance which accounts for the great fall of the upper percussion limit of the liver—namely, that while lying on the back, the ribs, carrying with them their diaphragmatic attachments, move slightly headwards, describing a segment of a circle with the vertebro-costal joints as a pivot, together with a widening of intercostal spaces, and thus interpose more air between the liver and the anterior thoracic wall. If transverse measurements be made with calipers at the level of the sixth rib, it will be found that the diameter of the chest is greater by half an inch in the recumbent than in the erect position. It is probable, also, that the liver, with its firm attachment to the diaphragm on its upper and posterior surfaces, sinks somewhat backwards and causes the anterior portion of the organ to retreat in proportion from the chest wall when a man lies on his back."

I should only add that any such movement of the liver is bound to carry the right auricle with it, which accordingly is less evident on percussion in that posture. The *shape* of the anterior portion of the chest—a point with which Dr. Gee has fully dealt in his classical work on *Auscultation and Percussion*, has also a considerable influence on the results obtained by the latter method, in estimating the size of the heart.

With the advent of skiagraphy and its skilful and calculated use, there is no difficuly in demonstrating this influence of posture in modifying the relation of the heart to the chest wall, and this shows, in my opinion, that Dr. Gordon's contentions and my own are substantiable. They are, I think, important, not only in the interests of precision in clinical description, but because they are more ronounced under pathological circumstances.—I am, etc.,

London, W., June 13th. ALEXANDER MORISON.

SIR,—I am glad to have elicited three such valuable letters. They make very clear the need for discussion. When Dr. Ewart considers that the facts I have pointed out "have long been well known," and Dr. Auld agrees that "the heart appears larger to percussion in the erect posture," whilst Sir James Barr declares that, in his opinion, my "conclusions are the very reverse of the truth," some reconsideration of the subject is obviously desirable.

Now, Sir James and I are evidently talking of two quite different things. He finds that he can map out fairly accurately the *complete area* of the heart, even in extreme cases of emphysema, more accurately than it can be determined by the orthodiagraph. I make no such claim. To such perfection of percussion my conclusions must, of course, be wrong, because the *heart itself* is rather wider in recumbency than in the erect position. But with ordinary percussion, which, in neither posture, does more than approximate to the heart's outline, I maintain I am right, and am glad to see that I am not without very authoritative support.

Sir James is therefore quite justified in asking what is my method of percussion. I used the ordinary digital method which is in almost universal use, and thought that this would be assumed in absence of any statement to the contrary; if I had used any other method I should have said so. Sir James uses the pleximeter, and this raises a point of far-reaching importance. If the pleximeter is capable, in other hands, of yielding such results as he obtains with it, its use ought to be universal.

This brings me to the question of the exact outlines I have given. Failing absolute certainty in mapping out the whole area of the heart, every one's outline must be a personal matter. I do not by any means insist on the exact precision of my diagrams. They were only meant to indicate, with moderation, the differences to which I wished to draw attention. Consequently in the diagrams of the dullness in the erect position the outline of my rightward edge is less to the right than I might reasonably have drawn it.

I have not compared the cardiac dullnesses in the two positions in cases of orthostatic albuminuria. I do not see how Dr. Albert Abrams's valuable work on the "cardiac reflex" touches my paper. Dr. Ewart's admirable little book on *Cardiac Outlines* does not refer to my point. Dr. Auld's interesting observations on the postural changes in the dullness areas of other organs support my position as regards changes in the cardiac dullness

As to history, I should be very sorry to claim a priority which does not belong to me. Will Sir James Barr or Dr. Ewart be so kind as to quote the papers which anticipated mine, which I read before the Royal Medical and Chirurgical Society (November 14th, 1905), on the Influence of Posture on the Normal Cardiac Sounds and on the Normal Cardiac Dullness?—I am, etc.,

Exeter, June 15th. W. GORDON.

AUSCULTATORY PERCUSSION.

SIR,—The discussion under this heading will be very useful if it leads to a clearer appreciation by some of what it is we can learn about the stomach by percussion with or without simultaneous auscultation. As a teacher of medicine, I have always found it necessary to warn my pupils against the idea that the gastric resonance has any necessary relation to the size of the stomach. It has never been quite clear to me why any one with an elementary knowledge of physiology should guess that the entire stomach, whatever its contents, should give out a resonant note; but, by carefully questioning my ward clerks, I find that many of them do guess this way; and, from what I read in your JOURNAL and elsewhere, it seems to me that this early guess becomes a fixed belief of some practitioners. I have found it helpful to my students to remind them that the area of gastric resonance, however carefully defined, merely gives them information as to certain dimensions of the "gastric air bubble." I am not at the moment concerned to discuss the relative value of auscultatory and ordinary percussion, but to maintain that any one who is in the habit of assuming that the size of this "air bubble" will give him trustworthy information as to the size and shape of the stomach will find his

esults contradicted by any rational method of mensuration nd localization of the entire organ.—I am, etc.,

London, W., June 13th. LAURISTON E. SHAW.

SIR,—In Dr. Hertz's interesting letter (June 11th, 1910, . 1444) he states that, as a result of experiment, he finds hat in no case did the percussion outline of the stomach pproximately correspond with the outline of the *x*-ray hadow of that organ.

Theoretically, in no case of any internal organ capable f being defined by percussion and by *x* rays can the two utlines correspond, unless the external surface of the body vere spherical, and the focus tube could be placed at the entre of the sphere, the respective systems of projection eing entirely different. Nor can the respectively traced utlines be directly comparable.

Further, while the percussion outline of an internal rgan in a big man is fairly similar to and comparable with that in a small man apart from alteration due to lisease, this is not the case with an *x*-ray outline of an nternal organ in a big man as compared with the *x*-ray utline of the same organ in a small man. On the con- rary, in the case of *x*-ray examination, unless the distance f the radiographic centre of the focus tube from the ndividual is proportioned to some one definite external limension of the region to be examined, the *x*-ray shadow utline in a big man would be dissimilar, and not truly omparable to the outline in a small man, even though in oth cases the organ in question were of normal proportion nd position.

This is the principle of proportional representation, which up to now has been entirely neglected in clinical adiography.—I am, etc.,

Bristol, June 12th. W. COTTON, M.D.

THE PSYCHOLOGY OF THE CONSUMPTIVE.

SIR,—I have read with interest the remarks contained in your leader on this subject. There is no doubt that the average consumptive, especially as met with in sana- oriums, tends to be decidedly neurasthenic—in other words, his nervous system is usually more or less out of gear.

It appears to me that this is less due to the particular physical condition from which he is suffering than to the general moral environment in which custom has decreed that his lines shall be cast.

To my mind, tuberculosis is essentially a disease of 'civilization" (to use that term in its least favourable sense). It is one of the punishments humanity has had o suffer from having "advanced" too eagerly, without sufficient forethought, in straggling groups rather than each man shoulder to shoulder and with mind alert and balanced.

This disease is a product of our imperfect or pseudo- civilization; it follows that the general lines of its treat- ment involve a "return to Nature." It is to a recognition of this principle that we owe the introduction of the open-air treatment of phthisis, with all its gratifying results.

We yet, however, are not quite satisfied. It is observed that many patients exposed to all the most favourable conditions of fresh air, rest, and simple nourishing diet, still fail to progress altogether satisfactorily. Many of them become moody, querulous, self-centred, and this reacts unfavourably upon their physical condition. The reason is that our "return to Nature" has been imperfect. We have forgotten one of the most important elements of that "natural" life to which we are trying to lead our patients back. We have given them simple food and fresh air, but we have forgotten to give them work.

If I may be excused the use of a teleological expression, I would suggest that we are all of us "meant" to work, just as we are "meant" to eat and breathe. We all of us come into this world with a talent of some sort to develop, and if we do not do our best to develop that talent, our spiritual condition is bound to suffer. It is the spiritual element in our sanatorium patient that is not being sufficiently catered for when he or she suffers from 'nerves." What these patients need, and what the more progressive sanatoriums are beginning to give them, is congenial work—work which allows of self-expression. They are going to be allowed to work out their own salva- tion, to feel "that they are of some use in the world," and so to attain to that self-reverence which alone, in the poet's words, "leads life to sovereign power." A man who is for long periods not allowed to realize himself in work is almost bound to suffer morally.

The kind of work suitable for phthisical patients does not admit of a general statement; a little ingenuity will discover some suitable task for every case.

I am persuaded that there is a future for what may be provisionally called "ergotherapy," not only in tuberculosis, but in many other chronic asthenic conditions. The rest cure will be in future, to a great extent, supplemented, if not replaced, by the work cure. The simple life and the strenuous life are not incompatible. "Ergotherapy" is not a fad; it is physiology. Our ancestors knew about it. We have been lately forgetting it. "The end of man," says an old writer, "is an action, and not a thought."—I am, etc.,

Edinburgh, May 19th. ARTHUR J. BROCK.

SIR,—The leading article in the BRITISH MEDICAL JOURNAL of May 21st last, entitled "The Psychology of the Consumptive," besides interesting me deeply, has reminded me of a small investigation I made into this matter a few years ago.

It had always struck me very forcibly that in patients suffering from pulmonary tuberculosis the effect of the mind over the body has a large contributory effect on either the death or recovery of the patient. Consequently, one would think that a patient with a disabled mind—that is, through insanity—would have a greater chance of recovery through that disablement preventing him from dwelling on his disease, especially in those asylums where open-air treatment is carried out.

I wrote to Dr. Alfred Miller, of the Warwickshire County Asylum, asking him if the death-rate in his asylum was greater in those patients suffering from phthisis having cognizance of the disease or in those without cognizance. I append his remarks which he has kindly sent to me, and which are as follows:

> Taking phthisis to refer to pulmonary tuberculosis only, during last year we had 10 out of a total of 61 deaths among females, and 9 out of a total of 49 deaths among males from the disease. Six of these women were suffering from dementia (1 was epileptic), 3 from mania, and 1 was an idiot. Of the men, 7 were demented (1 being epileptic), 1 was the subject of mania, and the remaining case was of epileptic idiocy. In only 2 women and 1 man was the disease diagnosed on admission, but the difficulties of making a satisfactory physical examination of any insane person are very great. I do not think that any of these patients who died last year were aware of the disease from which they were suffering, or, at any rate, worried about it. This has been my general experience for many years, although in one or two isolated cases patients admitted with phthisis and a family history of that disease have been melancholy; but I do not think that the mental condition in the least affected the progress of the physical disease. You will observe that during last year there was not a single death of a melancholic patient due to phthisis, which would be the most common form of mental affliction were the patients sufficiently sensible to dwell upon the seriousness of the disease. We have an open verandah for females; eight beds always full, summer and winter. The expectoration is a most hopeless business; the majority of the insane will not expectorate, or, if they do, on to the floor. It must be borne in mind that some of the insane are quite good patients, and stand just as good a chance of benefiting by treatment as their saner brethren; but, on the other hand, the demented and those of faulty habits are quite hopeless to deal with, and it is these whom, in my opinion, increase our death-rate by spreading disease among their fellows, and by their habits hasten their own dissolution.

From Dr. Miller's remarks it may be concluded that the mind, generally speaking, must be healthy and free from all morbid thoughts, more particularly in those suffering from phthisis, because he shows that the larger death-rate is from those patients who have no cognizance of the disease they suffer from on account of their mental condition, although open-air treatment is provided.

This leads one also to the conclusion that the cure of pulmonary tuberculosis depends mainly on:

1. A __althy mind.
2. The faith the patient has in the doctor who is responsible for him.

3. The faith the patient has in the place he is sent to. (We all know that some patients get well with no treatment; others by being sent to various health resorts over Europe; others, again, by being sent to various sanatoriums; and also that a patient will get worse in one sanatorium, and on removing to another, where the same treatment is carried out, get better.

This draws one further to suppose that pulmonary tuberculosis is a psychological problem—in fact, a mental disease the cure of which depends much on the mental temperament and its receptivity to suggestion, much more than is now recognized or supposed, and even more so, perhaps, than by any climatic treatment, concerning which latter cures are obtained in every climate in the world. This explains, probably, why some sanatoriums have better results than others. Sanatorium treatment being absolutely dependent on the influence the doctor has over the mind of his patient and his power to remove the black despair which is so common at first in consumptives, and his power also to increase the faith which many patients lack.

In conclusion, I would add that I found suggestion by hypnotism of much avail in treating symptoms in certain cases, and I believe in time that this form of treatment will be used for much good as regards results. I believe, also, that for such results a sanatorium (climate immaterial) is the best place in which to obtain them, because here the patient is directly under the influence of the doctor, the diet is more carefully watched, the patient's general life is more easily regulated, and the treatment, both mental and physical, can be better carried out.—I am, etc.,

J. PENN MILTON,
Yelverton, R.S.O., May 20th. M.R.C.S.Eng., L.R.C.P.Lond.

THE SURGICAL TREATMENT OF GLYCOSURIA.

SIR,—There are some conditions in the behaviour of diabetic urine which may be found as valuable and important as other tests, both in verification and therapy. In the first case there is an organic acid—presumably lactic—which helps to form, I think, the ordinary acidity of normal urine, which is also associated with the sugar in diabetic urine, and which seems to clear off with the sugar; 20 c.cm. of urine shaken up with 5 c.cm. of 1 per cent. solution of potassium permanganate and filtered, will be found to have lost a part of its acidity. Presumably this organic acid is destroyed by the oxidizer; if equal volumes of permanganate is used still more acidity has disappeared, the phosphates are left on the filter, and the urates, and what I have described in my *Quantitative Urine Analysis* as *possible* urates, disappear. Using my carbohydrate sugar test* for estimating sugar in urine, I am obliged to reckon with this organic acid and salt heat evolution, and include it with that of the sugar; but it seems also that the urates, organic salt and acid, clear off with the sugar. Hence I am obliged to view acidity of urine as only part of one and the same condition, as in arthritic conditions of urine, where I shall find perhaps a normal acidity of urine and a high organic acid or salt heat factor, that is, I take it, there are lactates as well as free lactic acid in such urine, both referable to the same condition, and sugar is also in relation with the lactates in function and in analysis. Using a small centrifuge and the copper hyposulphite test solution, I find urates and alkaline phosphates may be estimated at the same time, in exactly five minutes; the lactates are estimated by the carbohydrate test in three minutes.—I am, etc.,

London, S.E., June 13th. J. BARKER SMITH.

SIR,—The clinical importance of the subject must be my excuse for again trespassing on your columns in reply to Dr. Cammidge's letter in your issue of June 11th. It appears to me that Dr. Cammidge rather evades the point which I have raised and on which I was anxious to get from him a definite pronouncement.

The point at issue is the influence of complete fermentation of the urine on the presence of the reaction. I maintain that complete fermentation of the urine renders t reaction negative, and am anxious to know what exac Dr. Cammidge maintains on this point. There is nothi inconsistent in the two statements reproduced by h from my two letters of May 14th and June 4th respective When I stated in my first letter that in every case glycosuria the pancreatic reaction is positive, this referred the results of examination of the urine before fermentati not after, as is assumed by Dr. Cammidge in his l letter. May I once more make my position clear, and, view of the practical importance of the subject, make suggestion?

The method of analysis employed by me has been t "improved method" described by Dr. Cammidge, and r familiarity with the correct end reaction was the outco of a demonstration very kindly given me by the author the test. In the course of over a thousand analyses I ha made a special study of the influence of complete fermen tion on a large number of urines which give a mark pancreatic reaction, but which do not contain sugar ordinary tests; and I have found, as stated in my seco letter, that "complete fermentation of the urine invariab has the effect of rendering the reaction negative." Th experience naturally led me to conclude that the test h no practical value in cases of glycosuria. In his lett Dr. Cammidge does not quite clearly define his position the point at issue, but his statements seem to imply th his experience of the fermentation test both in the case sugar-free and sugar-containing urines is diametrical opposed to mine. This is the point on which I wou like a definite pronouncement from him. If I have inte preted his position aright, our different results must be d to certain differences in the methods of examinati during the process of fermentation. This view might put to a practical test in the following way. I could se to Dr. Cammidge within the next few weeks a series of ha a dozen samples of urine from medical patients under n own care whose urine does not contain sugar to ordina tests, but gives a marked pancreatic reaction, and he ca determine the influence of complete fermentation of th urine on the presence of the characteristic reaction. he will send me a like number of specimens, I will ma the same examination, and we might profitably compa the results in the series of 12 cases in communicatio published in the autumn.—I am, etc.,

Edinburgh, June 12th. CHALMERS WATSON.

PALPATION OF THE ABDOMEN WITH SUPERIMPOSED HANDS.

SIR,—In the BRITISH MEDICAL JOURNAL of June 11 are reviews of two books on palpation of the abdomen b Theodor Hausmann and Sacconaghi which state that bo authors recommend the method of palpating the abdome in difficult cases by placing the hands one over the othe I have not been able to see the books, but I should like point out that this method of palpation was advocated b me over twenty years ago in a paper on abdominal palp tion in pregnancy, read on November 28th, 1889, before Branch meeting of the British Medical Association. Th paper was published in the last volume of the *Illustrate Medical News* (January 11th, 1890), of which there is copy in the Library of the Royal College of Surgeons This last volume does not appear to be in the library of th Medical Society of London, and no doubt it is due to i rarity that my paper is not mentioned in Dr. Alexand Maclennan's excellent book on abdominal examination an manipulation in pregnancy, published in 1902.—I am, etc

London, W., June 11th. HERBERT R. SPENCER.

THE COLLEGE OF SURGEONS' DISSECTIONS AND SURGERY.

SIR,—A great number of medical men must feel wit Mr. Chas. Wray that stereoscopic reproductions of man of the dissected specimens in the College of Surgeon would be most useful. I have very often heard practi tioners, on revisiting the dissecting room, express the wis that they could go through another course of practic work. This, in the great majority of cases, is an im

* Saturated solution of potass. perm. 4 c.cm., dilute sulphuric acid, 1 c.cm. Urine, 1 c.cm. Take the heat evolution by small stem thermometer.

[1] The volume is also in the Library of the British Medic ssociation.

ssibility. It is often only at odd moments that the busy actitioner has time to refresh his anatomical memory, d if he had at hand a good stereoscopic atlas with a ort description accompaning each plate, these moments ight be most usefully employed.

Professor Waterston has done a great service to the ofession in popularizing the stereoscopic photograph. seems a pity that a collection so famous as that at the ollege of Surgeons should not be reproduced so that it ould be accessible to the great majority of the profes-on.—I am, etc.,

London, W., May 25th. NORMAN PATTERSON.

SIR,—I have read with much interest Mr. Wray's letter garding photographs of the specimens in the Royal ollege of Surgeons. I should like to be permitted to ate that, as a university coach, I have often deplored the ct that such a set of pictures was unobtainable. They ould be of the utmost service to all reading for aminations in medicine, and especially surgery.

The diagrams in some of the textbooks on anatomy and ysiology are most inefficient, and it is an essential ctor to have something in the way of photographs as an d to practical work.—I am, etc.,

London, W., May 17th. HENRY J. NASH.

THE ACTION OF CUTANEOUS ANAESTHETICS.

SIR,—The experiments in "the action of cutaneous aesthetics," reported by Dr. Short and Mr. Salisbury in e JOURNAL of March 5th, p. 560, are very interesting, t, I venture to suggest, do not justify the sweeping nclusions to which they come.

Experiment on the normal skin is a very different thing observations of the action of these drugs on inflamed arts, and to advise on such slender grounds the abandon-ent of well-worn remedies seems a little premature.

In my clinical experience, emplastrum belladonnae and mplastrum opii *do* relieve pain. Whether they ought to o so or not is another matter, but, from an extensive use both remedies in such affections as the buboes in ubonic plague, their action in relieving pain is a *fact*.—am, etc.,

J. PRESTON MAXWELL, M.B., F.R.C.S.

Tung-chun, Fukien, China.

A MEANS OF RESCUE IN TIDAL DROWNING.

SIR,—At rare intervals one reads of a person being held ast by some means whilst the tide rises over him, and eing drowned under only a foot or two, or perhaps under nly a few inches, of water. Sometimes the tide is near e turn; at others the man can be extricated, but time is equired; in either event the life can be saved if the espiration can be kept going for a few minutes.

The accident which happened at Workington Harbour ecently appears to furnish an example. In spite of the ost noble and heroic efforts it was impossible to dislodge e man until the tide had risen over his head and bmerged him for such a period that he ultimately ccumbed to the strain.

As a teacher of ambulance I have been often struck by e absence in the press reports of any reference to a eans of rescue which is almost always available, and hich would be effective in most cases.

An ordinary bucket, inverted in the air and forced down hrough the water and well over the patient's head, would arry enough air to last him for a few minutes, and the upply could be repeated as often as necessary. By sing two buckets the patient need miss a breath only ery occasionally, whilst the change was being made, and he moment might be signalled to him by tapping on the ucket.

Perseverance would enable any one to overcome the ifficulties of any ordinary case. The buckets might be andled by a person standing on the machinery or rock by hich the victim was held down, or by a swimmer in the ater aided by helpers "standing-by" in a boat. The atient's co-operation would not be absolutely necessary.

An alternative method of supplying air is to pass to the patient's mouth a piece of piping long enough to reach to the surface. The rescuer would have to clear the water out by blowing down the pipe until the patient got hold of it. This plan would be easier for the rescuers, but I doubt if it would be so convenient for the sufferer.—I am, etc.,

JOSEPH JONES, M.D.,
Honorary Surgeon, Leigh Division, St. John Ambulance Association.

June 11th.

NATIONALIZATION OF MEDICAL SERVICE.

SIR,—Professor Moore (p. 1345) maintains that the nationalization of medical service will be for the benefit of the profession as well as of the public; and that even the transition to the new state of things need not be feared by present day practitioners. As regards the ultimate benefit to the profession I do not doubt his conclusions, though his reasoning is not absolutely convincing; but the transition is another matter. The new appointments which are being created so rapidly are nearly all at small salaries: these will doubtless be increased later, but they are at present so small that a practitioner with a family could not accept them. Even if he could accept such a salary he could not comply with the conditions, which nearly always include possession of a D.P.H., and which frequently exclude men over 40 years of age.

Now there are hundreds of practitioners almost entirely dependant on the class of patient which, we are told, is shortly to be treated by the State medical service; and there are hundreds of others who derive a considerable proportion of their income from the same source. Under the new régime these men must lose their present practice.

Professor Moore thinks that the reduction in private practice will be fully compensated by the reduction in men entering on such work. This may be true as a general statement, but it does not help the individual. The practitioners to whom I refer will be unable to get their share of the private practice which remains because they live in the poorer parts of the town, because they have the local reputation of being "club" or poor men's doctors, and because the habits of a lifetime have rendered many of them less able than their competitors to accommodate themselves to the bedside manner required by richer patients. If they are to get a fair share they must go to a new house and a new style of practice—both changes which require pluck and expenditure, and involve great risk. If they do it the cost, both financial and nervous, will be high; and many will not succeed after the change. Probably many will never make it, because, as the transition to a State service is to be gradual, many men will either not realize the necessity for alteration in their style and place of practice, or will fear to make it, until they have been squeezed dry and helpless by their gradual loss of income. If Professor Moore be right the transition will benefit the practitioners already established in the "West-Ends" of our towns: it will be death to many in the "East-Ends."

The remedy plainly seems to be that the Association should definitely set itself to obtain such conditions for the new appointments that they may be reasonably acceptable to, and obtainable by, older practitioners. A very few are so at present, the great majority are not. The practitioners to whom I refer are in every way qualified for the work, for which a D.P.H. is not, and a living experience of poor-class practice is really necessary. If this be not done the present day poor-class practitioner is doomed to the same starving-out process as overtook the lower class private schoolmaster after the passing of the Education Act in 1870.

Will Professor Moore give authority for his statement that the average income of the profession is well below £200 per year? On the face of it the statement, which I have met before, is astonishing, even after one allows for the unpaid H.S. and others with no income. The present day assistant in general practice has a *minimum* income of £170—reckoning board and lodging as worth £50 per annum.—I am, etc.,

Newcastle-on-Tyne, June 4th. T. L. BUNTING.

SIR,—With your permission I should like to make a few remarks on an article published in the JOURNAL of the 4th inst., under the above heading.

Dr. Moore writes: "Many men in private practice cannot see where things are drifting to under present and foreshadowed legislation." I do not think general practitioners are quite as blind as he suggests. They possibly lack some of his imaginative powers, and may be even diffident as to the cogency of his reasoning; but they mostly recognize the fact that much of the legislation he refers to threatens ruin to themselves, notwithstanding his assurance of their ultimate welfare. Specialists and whole-time medical officials almost invariably regard the nationalization of medicine with equanimity, as they would not be greatly affected by it. It is true Dr. Moore gives reasons why he thinks the general practitioner would be benefited by this nationalization. What are these reasons? "If," he says, "half the men graduating were accommodated with suitable and permanent berths in the public services, so that only half the number entered upon work as private practitioners, then it is logical, and indeed most obvious, that half the work could be taken from private practice and put into State practice without affecting the income of the private practitioners in the slightest degree." No doubt it is "logical" and "obvious" that such a result *could* take place, but that it *would* is quite another matter. If half the present practitioners were given posts in the public services under some of the proposed nationalization schemes, it seems to me far more logical and obvious that it would be wise on the part of the other half to endeavour to get similar posts. With half the profession affording free medical attendance to all the poorer classes on the lines, say, of the Minority recommendations, it would be a poor look-out for the other half who might try to get their living by private practice. The general reduction of fees would be serious enough. Where State medical attendance could be got for the asking, the private doctor's charges would have to be very moderate.

With the exception of a small class of practitioners who attend almost solely on the wealthy classes of the community, the ordinary practitioners of the country would find their "occupation gone."

Dr. Moore further says, "The present *average* income of the profession lies well below £200 a year." It would be interesting to know how he obtains this average, which will come as a surprise to the average practitioner. Advertisements in the medical press will demonstrate that assistants can readily command this income. Many assistants are dissatisfied with their salaries, but it may console them to know that they are at least equal to the incomes of the average members of the class that employs them. Is not Dr. Moore, as the dean of a medical faculty, surprised that a student, or his parents, are willing to lay out a thousand pounds on a medical education that could only be expected in the future to yield an "income well under £200 a year"?

I fear Dr. Moore's arguments are hardly calculated to promote solidarity in the profession.—I am, etc,

London, E.C., June 11th. MAJOR GREENWOOD.

MEDICAL SICKNESS SOCIETY.

SIR,—I am glad to read the letter from Dr. Herman and Mr. Swinford Edwards, as I have always felt that the affairs of this society require fuller ventilation than they have hitherto received. I can assure them that the last thing I wish is to say anything which would injure the society.

Now as to the "misstatements as to matters of fact" of which they accuse me:

1. I repeat that no motion is allowed to be proposed which has not the sanction of the chairman. Whenever I sent in a matter for discussion I was always told that it would be submitted to him, and although, with his usual courtesy, he allowed it to be brought forward, it was never allowed to be placed on the agenda. The committee knew nothing about it until the meeting, and therefore could not have been consulted at all. As naturally no one would submit anything for discussion which had not a direct relation to the affairs of the society, the proposals could not have been "irrelevant," however "absurd" some members might think them.

2. That it is a "one man" society is proved by the fact that all matters of policy are decided by the chairman, and that the discussion of these by the committee is d countenanced unless it is initiated by him. Further, matters not officially approved of are deliberately s pressed in all reports of meetings and even in the minut On several occasions I brought forward questions at annual general meetings to which not the faintest allus was made in the report.

3. I never regretted that I was not an actuary unti joined the committee, when I came to the conclusion t it was actuary ridden. Everything that the actuary (w is also secretary) said was taken as gospel, for the sim reason that no one present was able to confirm or deny I am fully aware of the necessity for expert actua guidance, but I submit that this should not take the fo of *ex cathedrâ* statements without explanation, but t the committee should be empowered and invited to use own judgement. The "independent" valuation referred is made by the society's consulting actuary, who is resp sible for the original tables and estimates, and wh opinion is naturally merely corroborative of that of actuary and secretary. The consulting actuary's sta ment that the sickness policies have no surrender value taken as if he were a judge of the High Court.

4. The honorary treasurers' opinion as to the qualifi tions of a good committeeman is curious. It wo condemn the present constitution of the British Medi Association and of every other representative body governed by "a scratch lot." Judged by the only t possible of verification—that of regular attendance—o the metropolitan members attend with any regulari The honorary treasurers rarely put in an appearance my time. Dr. Herman's record in this respect is not stat in the report, and Mr. Swinford Edwards was not th treasurer. The chairman himself stated that the atte ance of provincial members is immaterial. I go furth and say the same of the whole body as at present co stituted. The business is entirely routine and formal, n could be done quite as well by the chairman and t medical examiner.

The question raised by Dr. Kirby and supported by is not even referred to by Dr. Herman and Mr. Swinfo Edwards. It is, What can be done to make the socie more popular in the profession? At present it constitut less than 10 per cent. of the whole number, in spite of t fact that nowhere else can a medical man obtain sickne insurance at such low rates. If they object to our p posals, what have they to suggest? Even this cor spondence has done some good, as people have be writing to ask me the society's address.—I am, etc,

Portishead, June 11th. W. G. DICKINSON.

SIR,—When the above society was first establishe some twenty-seven years since, it was thought that large number of the medical and dental professions wou be only too glad to avail themselves of its opportuniti and benefit, especially in the annuity department, a thus provide for themselves, after the age of 65, when benefit from the sickness assurance ceased. So fe members, however, joined this branch that this depa ment did not pay, and hence it was allowed to lapse, a no more annuitants taken. The same occurred with t life assurance department. The society simply became sick society for the granting of sick pay in cases of sic ness and accident to its members up to 8 guineas a wee to which it was increased at our last annual meeting fro 6 guineas.

Our tables of rates were prepared by the late F. G. Neison, one of the most eminent actuaries of the day, a at the time, if anything, thought too low. Now they a said to be too high. One member stating "that t society is run on the strickest profit-making life assuran lines." And why should it not be so? It is also contende that the amount accumulated far exceeds any possib liabilities. I am not so sure of this, especially if we shou be visited at any time by any serious epidemic.

Only last year the experienced sickness nearly exceede that provided, especially in the half-pay part.

Our committee are approved and appointed at t annual general meeting, but are selected by the Committ of Management held at a meeting, previous to the annu meeting, at which they can be rejected and altered, a new names selected, by any members attending.

Very few members, however, take the trouble to attend, leaving the work for those who attend. As one of the Committee of Management, I am astonished to hear that no motion is allowed to be proposed unless it has the sanction of the chairman. Our chairman is a most tolerant, indulgent, and liberal-minded gentleman in every sense of the word, and acts most fairly in all the duties of his office. He even goes to the extent of asking if any member has anything to suggest or say on the subject of discussion before he expresses his own opinion. I cannot, therefore, see how the society can be called a one man society.

I quite agree with one of your correspondents that this society is of great importance to the profession, and that it is most discreditable that the annual increase of its members should not be greater. I also agree with the appointment of provincial members, but the difficulty is to get them to join. To spend the remainder of the 10 per cent. management fund, after paying all necessary expenses of management which is now transferred to the different branches of the fund, were spent in advertising would be of very little service to us in increasing our members. Our society is well known through the medical press, and through the BRITISH MEDICAL JOURNAL in particular.

If we paid travelling expenses, and each member of the Committee of Management for each attendance, our funds I fear would be greatly run upon, and our increasing annual expenditure for sickness and accident (this last year amounting to the sum of £15,114) should caution us to be extra careful in our management, and husband our resources against any evil times of sickness, especially as so many old established insurance companies have amalgamated to reduce their expenses.

I am of opinion also that the appointment of local agencies would be beneficial, and if we resorted to the old custom of having a room at the annual meetings of the British Medical Association, and distributed our reports and circulars to the members present, also would be advantageous. I am aware this custom was given up as it was considered not to pay. At all events it would tend to keep the society before the medical profession. I fear the unsettled state of political affairs, and consequences of bad trade, etc., which has affected all classes of the community, more or less, and medical men most acutely in particular, is the chief cause of our trouble — I am, etc.,

Reigate, June 7th. JACOB PICKETT.

SIR,—The letter of Drs. Herman and Swinford Edwards, and your leading article on insurance in this week's issue, draw attention to certain aspects of sickness and accident insurance for medical men which it is well to emphasize. In the Medical Sickness Society the profession possess a mutual friendly society which is well and economically managed, is financially strong, and which charges remarkably low premiums for the benefits offered. I have been a member of this society for fifteen years and I feel convinced that we are fortunate in possessing so zealous, painstaking, and unselfish a chairman and executive committee. I find that the claims of members in case of sickness are dealt with in a prompt, just and generous manner. It is therefore very regrettable to find that a larger proportion of the medical and dental professions have not availed themselves of this excellent opportunity of making some provision for themselves against the chances of accident or disease. Many medical men have unfortunately, I find, been induced by the ingenious arguments of plausible and persistent agents to take out policies in certain proprietary companies where the premiums are at least 30 per cent. higher for the same kinds of benefit. Still more astounding, in my opinion, is the popularity of a certain scheme of fever and accident insurance offered to subscribers by an otherwise serious and valuable medical periodical. The policy issued under this scheme gives such limited and inadequate protection, that I venture to say, it would not, on its own merits, appeal to any reasonable man. And yet it is generally known that hosts of medical men have become subscribers to the periodical on account of the tempting offer of a free policy of insurance against fever and accidents. I feel so impatient about this want of discrimination and common sense on the part of my professional brethren, that whenever the subject of this fever and accident policy is brought up, I am in the habit of remarking, that I do not like to get a teapot thrown in with a pound of tea, but prefer the value of the purchase money to be in the tea itself, and that when I do require a teapot I buy one in the open market of a size and quality to suit my own tastes and requirements.—I am, etc.,

London, E., June 13th. EDMUND HAY.

The Services.

ROYAL ARMY MEDICAL CORPS (TERRITORIAL).

LOWLAND MOUNTED BRIGADE FIELD AMBULANCE.

A SERIES of three week-end camps has been held by this unit at Darnley Rifle Range, about five miles from the Glasgow head quarters. About thirty men attended each week end, and received practical instruction in pitching tents and marquees, building field kitchens, digging latrines, preparing destructors, etc. Special instruction was given in cooking, and a lecture on sanitation was delivered each week on Sunday. The men were most fortunate in having excellent weather, with the exception of the first Sunday. Valuable instruction was afforded in work which could otherwise only be learnt at the annual training in camp, and the men with this preliminary training will profit much more during camp.

The camp of the unit begins on June 18th at Biggar, Lanarkshire. The Lowland Mounted Brigade, consisting of four regiments of yeomanry, with the transport and supply column and field ambulance, will be encamped for fifteen days, the units being located at Biggar, Lanark, Symington, and Douglas, and a most instructive programme of combined training has been arranged. The field ambulance is under the command of Lieutenant-Colonel R. T. Halliday, with Major H. Wright Thomson, second in command.

GLASGOW UNITS.

The annual church parade of the Glasgow units of the R.A.M.C.(T.) took place on the 12th June in the Bute Hall of Glasgow University, Principal Sir Donald MacAlister, K.C.B., and Professor Stewart, D.D., taking part. The units represented were the Lowland Mounted Brigade Field Ambulance, the 1st and 2nd Lowland Field Ambulances, and the third and 4th Scottish General Hospitals. The Rev. Thos. Adamson, D.D., Corps Chaplain, preached the sermon, and a collection was taken on behalf of the Queen Victoria Memorial School for the Sons of Scottish Soldiers and Sailors.

Obituary.

ELIZABETH BLACKWELL, M.D.,

CONSULTING PHYSICIAN, NEW HOSPITAL FOR WOMEN.

DR. ELIZABETH BLACKWELL died at Hastings on May 31st, in her ninetieth year, after a long illness, which would seem to have originated in a fall while on a visit to Scotland in 1907. She was the first woman to be admitted to the British *Medical Register*, and her success is the more notable in that, apart from difficulties brought about by the total novelty of the idea of a woman studying medicine, she had to contend with one experienced by many male students, namely, lack of means. She was the daughter of a Bristol sugar refiner, who, emigrating to the United States in 1832, died a few years later, leaving hardly any fortune behind him and a family of nine children, headed by three girls, of whom Elizabeth Blackwell, then aged 17, was the youngest. To keep the family going this trio opened a small school, carrying it on successfully for four years, until a brother was old enough to begin a business life. Elizabeth Blackwell was then persuaded, somewhat against her will, to see if medicine did not offer her a career, and finally was accepted as a pupil at the medical school carried on at Geneva University in the State of New York. She was admitted to the school as the result of a vote among its students, who, from beginning to end, treated her with admirable courtesy. On one occasion the anatomy teacher warned her to absent herself during a particular dissection, but she replied that she was a student, and a student only, and would attend it, unless her fellow-students wished her not to do so. The result was that she took her place as usual, her fellow-students carefully abstaining from any kind of conduct which might possibly accentuate the awkwardness of the situation. On leaving this school with the degree of M.D. in 1849, she spent two years in Europe, dividing her time between St. Bartholomew's, where she was welcomed by the then

dean of the school, the late Sir James Paget, and the Maternity Hospital at Paris. While at the latter she had an unfortunate accident, losing the sight of one eye, which became infected while she was treating a patient with gonorrhoea. This put an end to her hopes of figuring in surgery rather than in medicine.

On returning to the United States she began to practice in partnership with one of her sisters, eventually establishing a dispensary out of which grew the New York Infirmary for Women. She also gave lectures to women on the laws of life in reference to the physical education of girls. In 1859 she paid a further visit to England, during which she lectured on medicine as a profession for women. Among one of her audiences was Miss Garrett, now Mrs. Garrett-Anderson, who shortly afterwards began, in her turn, the study of medicine, qualifying as the first woman doctor of English education in 1865. Just before her return to America it was suggested to Miss Blackwell that she should get her name inscribed in the recently instituted *Medical Register*, and but for this almost accidental circumstance she might not have spent the last forty years of her existence in this country. She only returned to it after some eight years' further work in America, during which she played an active part in the organization of women's nursing during the civil war. One outcome of this work was the establishment of a medical school for women in which Miss Blackwell, who, in her visits to England, had come under the influence of Miss Nightingale, held the Chair of Hygiene.

When she finally settled in England she continued to co-operate in the movement which has since led to the frank recognition of the medical profession as a proper sphere for women, and to the establishment, as we recently pointed out, of as many as 476 registered medical women in practice in England alone.

For a long time Dr. Blackwell carried on an active practice partly in London, partly in Hastings. Of late years she had not been seen much in London, but she was always certain to be acclaimed at the London (R.F.H.) School of Medicine for Women, where at one time she lectured on gynaecology. She also held, up to the time of her death, a position on the consulting staff of the New Hospital for Women. She was the author of a good many publications; among the more important being *The Laws of Life in Relation to the Physical Education of Girls*, *The Human Element in Sex*, *The Religion of Health*, and *The Moral Education of the Young in Relation to Sex in Medical and Social Aspects*.

There are two points never to be forgotten in speaking of Dr. Elizabeth Blackwell: one is that, although much of her life was passed in America, she did not go to that country until she was 11 years old, and always regarded herself as English. The second is that, although never married, she was, and ever remained, one of the most womanly of women. It was, indeed, her womanly character, coupled with her intense earnestness, which mainly enabled her to overcome the difficulties in her path, and won for her personally, if not for her ambitions in respect of women as a whole, the esteem and good wishes of all possible opponents. Although she appears to have turned to medicine with some reluctance in the first place, she soon acquired a belief that she had a definite "call," and retained this belief to the end.

The interment took place at Kilmun, and the funeral service was attended by representatives of various medical and other societies connected with the work in which Dr. Blackwell took so prominent a part.

DR. JOHN HENDERSON, of Wakefield, died on May 22nd, after an illness extending over six months. He had recently undergone a serious operation which, however, failed to eradicate the disease. Dr. Henderson, who was in his 54th year, graduated B.A. in the Royal University of Ireland in 1878, and M.A. in 1882; he studied medicine in the University of Edinburgh, and in 1888 received the degrees of M.B. and C.M. from that University. In 1893 he took the diploma of D.P.H.Cambridge. He was engaged in practice in Wakefield for many years, and took a keen interest in public affairs, serving for some time on the Wakefield City Council and its Education Committee; recently he had been made a Governor of the Educational Charities.

THE death occurred on May 22nd of Dr. CHARLES TERR of Bath, one of the oldest members of the medical pr fession in the West of England. He became M.R.C.S. 1849, and L.S.A. in 1850. He first went to Bath Resident Medical Officer of the Mineral Water Hospit He retired from practice a good many years ago, but r mained physically and mentally strong until comparative recently.

DR. JAMES FINLAY, of Helensburgh, died on May 25t in his 75th year. He was the son of a Glasgow mercha and received his training in the University of Glasgo After being in practice in Stranraer for a time he r moved, about the year 1862, to Helensburgh. For ov twenty years he was parish doctor under Row Paroch Board, but he resigned this position about sixteen yea ago. Some ten or twelve years ago he retired from acti practice. Dr. Finlay was widely read, and to the end w a diligent student of the classics. For some years befo his death he interested himself in farming. Dr. Finl leaves a widow. His only surviving brother, Dr. Dav Finlay, is Professor of the Practice of Medicine in Aberde University.

THE death is announced of Dr. DAVID COWIE, one of t best known practitioners in the city of Glasgow. He h been in failing health for some time, and had been la aside from duty for about three months. He was born Nova Scotia, where his father, a Scotsman and an M.D. Glasgow, was in practice. The father sent his son Glasgow and apprenticed him to a firm of engineers, b the young man's proclivities towards medicine were t strong; he entered the medical faculty of Glasgow Un versity, and graduated M.B., C.M., in 1874. For thirt two years he was parochial medical officer, first of t Barony Board, and after the amalgamation of the Baro and City Parochial Boards, of the Glasgow Parish Counc He acquired an extensive private practice, and was muc respected as a practitioner and as a man. He took a ke interest in the Volunteers and attained the rank of Surgeo Lieutenant-Colonel to the Glasgow Highlanders, a cor which he joined in 1878; some time ago he received t long service medal. In his younger days he was a notab swimmer and skater. Dr. Cowie was a most honourab man, and had a high standard of medical conduct; he w a genial and sympathetic companion, an excellent teller stories, and on several medical questions expressed h views in vigorous verse. Dr. Cowie, who was about years of age, leaves a widow and one daughter.

TWO more Crimean veterans have passed away, in t persons of Deputy Surgeon-General JAMES ROSS, M.I late of the Indian Medical Service, who died in Lond on April 10th, and of Surgeon-Major ORMSBY BOW MILLER, retired Army Medical Department, who died April 8th. Deputy Surgeon-General Ross joined t Madras Medical Department as an Assistant Surgeo January 29th, 1857, and became Deputy Surgeon-Gener June 16th, 1885, in which year he retired from the servic During the Crimean campaign in 1854–5 he served in t Royal Navy in the operations in the Black Sea, and w at the siege and fall of Sebastopol and at the capture Kertch and Kinburn, receiving a medal with clasp a the Turkish medal. He had also a medal for the Indi Mutiny campaign in 1857–60, during which he w present at the affair of Poon Poon River. Surgeon-Maj Miller entered the Army Medical Service, March 28t 1854, and retired therefrom in 1875. In the Crimea was present at the battles of the Alma and Inkerm and at the siege and fall of Sebastopol. He was grant a medal with three clasps, the Turkish medal, and t 5th Class of the Order of the Medjidie.

SURGEON-MAJOR-GENERAL JOHN GEORGE FAUGH M R.C.S., died at Southsea, on June 12th, in his 78th yea He was a son of the late Rev. G. S. Faught, Rector Bradfield St. Clare, Suffolk; was educated at Ki William's College, Isle of Man, and entered the Arm Medical Department as an Assistant Surgeon, January 5t

855; becoming Surgeon, November 9th, 1867; Surgeon-Major, March 1st, 1873; Brigade-Surgeon, April 17th, 1880; Deputy Surgeon-General, September 3rd, 1884; and Surgeon-Major-General, November 13th, 1890. He retired rom the service, December 15th, 1892. He was employed s Sanitary Officer, at Cape Coast Castle, during the shanti war in 1874, receiving a medal. He was also in he Afghan war in 1878-80 (medal); in the Egyptian war n 1882 (medal and Khedive's bronze star); in the Bechuanaland Expedition in 1884-85, as Principal Medical Officer, for which he was honourably mentioned; and again s Principal Medical Officer in the operations in Zululand n 1888. He was appointed an Honorary Surgeon to Queen Victoria in 1897.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Professor Edlefsen, for many years Extraordinary Professor at Kiel and Director of the Medical Poliklinik of that city, aged 68; Dr. Stolpe, Health Privy Councillor and the oldest doctor in Germany, aged 94; Dr. Bauby, *agrégé* Professor in the Medical Faculty of Toulouse, and surgeon to the hospitals of that city; Dr. Oscar Riegner, for many years head of the Surgical Department of the Allerherligenhospital at Breslau, aged 66; Professor Vittorio Mibelli, Director of the Clinic of Dermatology and Syphilis in the University of Parma. Dr. Andrew H. Smith, one of the founders of the New York Post-Graduate Medical School, and one of the physicians who attended the late President Garfield, aged 73; Dr. George Krich, the first editor of the *St. Petersburger medicinische Wochenschrift*, in his 80th year; Dr. Eugene Hodenpyl, for many years pathologist to the Roosevelt Hospital, and sometime President of the New York Pathological Society, aged 46; Dr. F. Tilden Brown, Surgeon to the Bellevue Hospital, New York, aged 55; Dr. James Eisenberg, a well-known gynaecologist, aged 48; and Dr. John Landström, Lecturer on Surgery at Stockholm.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

THE following degrees have been conferred:

M.D.—H. L. P. Hulbert, Trin.; H. L. Wilson, Selwyn H.

UNIVERSITY OF LONDON.

UNIVERSITY COLLEGE.

Anatomical Department.

MR. D. E. DERRY, M.B., Ch.B.Edin., has been appointed Assistant in the Department of Anatomy and Curator of the Anatomical Museum at University College for the session 1910-11. Mr. E. K. Martin, M.B., B.S., F.R.C.S., has been appointed Demonstrator in Anatomy for the session 1910-11.

VICTORIA UNIVERSITY OF MANCHESTER.

IT has already been announced that in connexion with the Diploma in Public Health special certificates have been instituted in Factory Hygiene and School Hygiene, and to complete the arrangements necessitated by the institution of these certificates, the following appointments have been made: Mr. A. E. Brindley, B.Sc., M.D., D.P.H., has been appointed to assist Dr. Tattersall in the subject of Public Health Administration; Mr. Meredith Young, M.D., D.P.H., has been appointed Special Lecturer in School Hygiene, and Mr. T. M. Legge, M.A., M.D., D.P.H., Special Lecturer in Factory Hygiene.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN Ordinary Council was held on June 9th, 1910, Mr. H. T. Butlin, President, in the chair.

Queen Alexandra.

A letter was read from Earl Howe, G.C.V.O., Lord Chamberlain to Queen Alexandra, conveying Her Majesty's thanks for the address of condolence of the President, Vice-Presidents, and Council of the College.

Examination Results.

At the recent examination in Anatomy and Physiology for the Fellowship, 36 candidates were approved.

At the first examination for the Fellowship, 22 candidates were found qualified for the diploma.

Examinerships.

As no vacancies had occurred on the Board for the Membership and Fellowship, and Diploma in Public Health, all the previous examiners were re-elected.

Thanks of the Council.

The thanks of the Council were given to Sir Henry Morris, Bart., for his services as the Representative of the Council on the General Medical Council.

The thanks of the Council were likewise given to the Board of Guardians of the Parish of St. Marylebone for the gift of a series of old surgical instruments.

Congress of Obstetrics and Gynaecology.

Dr. Amand Routh was appointed the Representative of the College at the Fifth International Congress of Obstetrics and Gynaecology to be held at St. Petersburg in September next.

Election of Council.

The President reported that a meeting of the Fellows would be held at the College on Thursday, July 7th, for the election of four Fellows into the Council of the Council in the vacancies occasioned by the retirement in rotation of Mr. J. H. Morgan, C.V.O., and Mr. C. B. Lockwood (Mr. Morgan not offering himself for re-election), by the death of Mr. H. H. Clutton, and by the resignation of Mr. G. A. Wright.

Final Fellowship Examination.

The following candidates have been approved at the examination indicated:

FINAL FELLOWSHIP.—C. Dykes, Captain, I.M.S., T. S. Novis, Captain, I.M.S., T. J. C. Evans, Lieutenant, I.M.S., E. H. B. Oram, A. J. M. Wright, L. J. Austin, B. T. Lang, M.A., K. H. Digby, W. B. Griffin, H. F. Vellacott, W. A. Campbell, D. Davies, W. R. Douglas, P. S. Vickerman, A. M. Dick, Lieutenant I.M.S., F. Guevara-Rojas, C. A. Joll, B.Sc.Lond., L.D.S., R.C.S.Eng., H. Buck, R. H. Campbell. J. Eadie, R. Jamison, G. H. Usher, and P. P. Bharucha and W. B. Johnson.

Medico-Legal.

WORKMEN'S COMPENSATION ACT.

Is an Assault an Accident?

IN a case heard in the Irish Court of Appeal, before the Lord Chancellor, Lord Justice Holmes, and Lord Justice Cherry, it appeared that the plaintiff, Robert Anderson, was employed as a gamekeeper, and on September 1st last went out in discharge of his duty, and about 10.30 p.m. he was set upon by three men, and, as a result of their violence, was incapacitated for a period of about ten weeks. The county court judge, before whom the case had come in the first instance, found that the injuries were received in the course of, and arose out of, his employment, but held that they did not constitute an accident within the meaning of the Workmen's Compensation Act. This judgment has now been reversed, the Lord Chancellor and Lord Justice Holmes both being of opinion that the occurrence constituted an accident within the meaning of the statute. Lord Justice Cherry, however, did not concur with this opinion, on the ground that such injuries as were inflicted were not unforeseen or undesigned, and that the absence of design or intention was the essential element of an accident.

Frostbite.

An action embodying legal points of some nicety was recently tried in the Sheriff Court of Fort William by Allan MacDougall, surfaceman, against the North British Railway Company, concluding for compensation under the Act. On February 14th last pursuer was engaged during the night keeping clear the railway points at Glennan, a task rendered necessary in consequence of the arctic severity of the weather. While attending to his duties the fingers of both his hands were frostbitten to such an extent as to incapacitate him from continuing at his usual occupation. So far as is known, the point has not yet or arisen, or been decided, as to whether injuries from frostbite can "arise out of and in course of a workmen's employment," and can therefore be regarded as an "accident" under the Act. After the case had been debated before him, Sheriff Davidson indicated that he had no hesitating in holding in the affirmative. A remit was accordingly made by him to Dr. Miller, Fort William, as medical referee for the district, to decide whether the pursuer had suffered injury to the extent stated in the latter's condescendence; and, if so, to what extent his wage-earning capacity had been affected. The pursuer has now been examined by the medical referee and an award issued to the effect that he is entitled to compensation at the full rate of half wages up to the date of examination and quarter wages thereafter.

Compulsory Operations.

In a recent Scottish case it appeared that a plasterer was injured in the respondent's employment in October, 1905, and was paid compensation at the rate of £1 per week. In June, 1907, the employers presented an application for review of the weekly payment, but on a report of the medical referee—that Carroll was still suffering from severe sciatica due to the injury—the application was dismissed. In December, 1909, Carroll voluntarily underwent an operation for nerve stretching in the Royal Infirmary, Glasgow, under chloroform. The

operation was not successful, and the surgeon recommended a further operation. Carroll declined to undergo a further operation, and the employers now asked the Court to suspend the weekly payments of compensation in respect that, having undertaken to undergo the operation recommended by the referee, he now refused to do so. Carroll thereupon lodged a certificate from another doctor stating that he was unfit to undergo the operation, that such an operation would be of no avail, and that he was permanently injured. The Sheriff-Substitute then remitted to Dr. D. C. M'Vail (the medical referee) to report on the nature of the operation and the fitness of Carroll to undergo it, and the questions in the case were (1) whether the Sheriff-Substitute was entitled to make that remit, and (2) whether Carroll was bound to submit to the operation if the medical referee advised it. The Court answered the first question in the negative, and found it unnecessary to answer the second question. The refusal of the Court to allow the Sheriff to make the remit is probably founded on the principle which the English Court of Appeal has laid down with regard to compulsory operations. It has been held that if a workman can find a medical practitioner who will say that he ought not to undergo an operation, the Court will not compel him to do so. Such a certificate having been produced to the Sheriff, he became powerless to order the man to undergo any further operation, or to compel him to do so by reducing the amount of the compensation.

Phthisis or Accident.

In a case at North Shields it appeared that the applicant was injured by an accident which happened to him in August, 1909. He was then employed in building a wall, when a batten slipped or tipped up, and he was thrown to the ground, a distance of 8 ft. or 9 ft., bringing with him a number of bricks which fell upon him. He injured his ankle, hip, and right side. The material point was the injury to his right side. His case was that that injury had resulted in phthisis from which he was suffering. The case for the respondents was that the phthisis was not the result of the accident. The applicant was so ill that he was not able to appear in court, and he had been examined by commission. Three weeks after the accident he developed pleurisy. Afterwards phthisis developed. This was not diagnosed with certainty until February, 1910. It was suggested that as the result of injury to the side, which developed pleurisy, the resistance of the lung to the germs of the tuberculous disease was lowered, and the result was that phthisis had developed, and developed in a very rapid way. The phthisis developed at the base of the lung, on the same side as the injury. In practice it was found that the seat of phthisis was usually the apex of the lung in more than 95 per cent. of cases. The applicant, who was 42 years of age and past the age when phthisis usually developed, was a very healthy man up to the time of the accident, having never suffered from an illness before. He had had ten children, all healthy, and himself was one of a family of twelve who were healthy. There was no history of phthisis in the family. The only reasonable conclusion was that the phthisis was brought on by lowered resistance to the disease as the direct consequence of the accident. On the part of the respondent it was contended that pleurisy developed too long after the accident to have anything to do with it.

Dr. James Harrison, who said he acted as the family doctor, said the applicant had been a very strong, healthy man, somewhat above the average in physique. The pleurisy was the direct result of the accident. Dr. H. Stephens, surgeon at North Shields Dispensary, stated that when he first saw the patient on October 8th he was suffering from pleurisy, the result of the accident. Before the man went to Newcastle Infirmary he did not diagnose phthisis, though he suspected it from the progressive emaciation of the patient; he had lost about 4 st. in weight. On December 14th, he and Dr. Younger made an examination to ascertain the cause of the pleurisy. It was decided to call in a consultant, as there was something underlying the pleurisy. Witness was satisfied that the pleurisy was traumatic—due to the accident. Dr. Fraser expressed the opinion that pleurisy was set up by the injury to the chest, and later resulted in phthisis.

This concluded the evidence for applicant. For the defence Sir T. Oliver said he examined the patient on March 22nd. He was suffering from tuberculous disease. If the pleurisy had been due to the accident in August, he would undoubtedly have expected it to appear earlier than twenty-six days afterwards. He did not think the man's present condition was due to the accident. Dr. Younger, of Newcastle, gave evidence to the same effect. Dr. Beattie, Newcastle, who was called into consultation by Drs. Stephens and Younger on December 28th, said he could not imagine an interval of three weeks occurring between an injury to the chest wall and any signs of pleurisy appearing. Questioned as to whether it was not true that phthisis seldom occurred after the age of 42, witness replied that the reason for this was that the average age was 35, and the majority of people died before that age. Only on that hypothesis was it right to say that phthisis seldom occurred after 42.

His Honour gave judgement for the amount claimed.

UNDER the will of the late Mr. Thomas Horne, of Warwick, the Birmingham Eye Hospital inherits one third of the residuary estate, the amount it will receive from this source being apparently about £12,000.

Public Health AND POOR LAW MEDICAL SERVICE

REPORTS OF INQUIRIES BY MEDICAL INSPECTO OF THE LOCAL GOVERNMENT BOARD.

Bradford Rural District (by Dr. R. W. Johnstone, New Seri No. 22).—The ground for the inquiry was the repeated occ rence of typhoid fever from year to year at Jennet Hill Stanford Dingley in the rural district of Bradfield, about se miles from Reading. Since 1896 there had been notified 16 ca of typhoid fever from Jennet Hill—a collection of ninet houses, ten of which are in one row. It is probable that other cases were infected from the same locality. Nearly all ten houses in the row were at one time or another affect There are no drains at the houses, slops are thrown on the g dens, and there is a pail closet for each house. The content the pails are emptied on to heaps in the gardens and cove with a little soil. The circumstances of the continued pre lence of the disease suggested the presence of one or m "carriers," and endeavours were made to obtain specimens the blood, faeces and urine of the inhabitants. In spite of the influence that could be brought to bear, including pecuni inducement, only a small number would permit samples to taken. In the end samples of faeces and urine were obtai from eighteen persons, and of faeces alone from one pers Four of the samples of faeces were found to contain the *Baci typhosus* in large quantities. It was not recovered from of the samples of urine. Samples of blood were obtained fr fifteen persons residing in the row of houses, and in six instan a positive reaction was obtained with Widal's test, while gave a partial reaction.

Bedwellty Urban District (By Dr. J. Spencer Low, New Se No. 23).—No reason is given in the report for Dr. Spencer Lo inquiry. In ten years the population of the Bedwellty Ur District has been nearly trebled, and is now about 20,000. sewage from nearly the whole district enters the rivers Sirho and Rhymney in a crude state. On the completion of the tru sewer of the Western Valleys Sewerage Board, the pollution the river Sirhowy will be prevented, but at present there is scheme for the Rhymney river. In some parts of the distr there are privy middens and cesspits, but the more recen erected houses are provided with waterclosets. There is a l of houses with consequent overcrowding, some of the ol houses are back-to-back, back-to-earth, or cellar dwellin The water supply of the district, as a whole, appears to of a doubtful character, and in some parts is insufficient quantity. A temporary isolation hospital of galvanized ir lined internally with wood, was erected in 1902. On the basis 2,000 cubic feet per patient there is accommodation for f persons at one time. In 1902 it was occupied by five small-p patients, and in the seven succeeding years there was admit a yearly average of five patients suffering from typhoid fe Other diseases have not been treated in the hospital. infantile mortality-rate in 1908 was equal to 190 per 1,000 birt and Dr. Low advises the district council to adopt the Notificat of Births Act, 1907, in connexion with which he suggests t a competent woman or women should be appointed who, un the direction of the medical officer of health, could give u able advice to mothers concerning the care and nourishment children. Among other recommendations are the appointm of a whole-time medical officer of health in combination w neighbouring districts. Dr. Low considers that the necess personal supervision of the routine work in the health dep ment of a populous district cannot, as a rule, be conduc effectively by a medical officer of health in private practice.

Pontefract Borough (by Dr. Reginald Farrar, New Series, No. —The grounds for the inquiry had reference to the arrangeme for the discharge of the duties of inspector of nuisances. water supply of the borough appears to be satisfactory, consumption amounting to a daily average of 26 gallons a he Water is laid on to the modern houses, but some of the ol courts are supplied by standpipes. The town is prope sewered, and the sewage is treated at outfall works, which w constructed in 1903. After being mixed with lime the sew is led to two settling tanks, whence it passes through or other of four bacterial filter beds of crushed clinker sand, graded and 5 ft. in depth. The effluent, which appe to be satisfactory, is passed into the Wash Beck, and by of the Goole and Knottingley Canal flows to the River Ou About two-thirds of the houses are provided with waterclose and the pail closets or privy middens at the remaining hou are gradually being converted to waterclosets. A Meldru refuse destructor has been in use since 1907. An isolat hospital, with accommodation in two pavilions for 20 patie was opened in 1902, and serves jointly the borough of Po fract, the Pontefract rural district, and the Knottingley ur district. A separate iron and wood hospital for small-pox is u jointly with several other districts. Dr. Arthur Hillaby, wh engaged in general practice, has been medical officer of hea since 1895, and in Dr. Farrar's opinion carries out duties in a satisfactory manner, and gives excellent advice the corporation. The inspector of nuisances formerly duties allotted to him other than those connected with office, but in consequence of representations made by the Lo Government Board he now devotes his whole time to the du

of inspector of nuisances. The infantile mortality rate in 1908 was equal to 131 per 1,000 births, and the mean rate in the seven years 1902-8 was equal to 148 per 1,000. Among Dr. Farrar's recommendations is the adoption of the Notification of Births Act, 1907, and the making of arrangements proper for the education of mothers and those having charge of infants.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Mirfield Urban District.—The birth-rate in 1909 was 22.7 per 1,000, and the adjusted death-rate 16.1 per 1,000, based on an estimated population of 11,094. The infantile mortality-rate was equal to 115 per 1,000 births, the rate among illegitimate children being exactly double that which was recorded among the legitimate. The medical officer of health, Dr. Leslie J. Milne, refers to the improvement in the ventilation of the sewers of certain portions of the district since Webb's ventilating lamps have been fixed. An outbreak of diphtheria in the latter part of the year is said to have had some connexion with the Huddersfield sewage works, which were opened in June, 1909. The odours from the works, especially during July and August, were said to have been very offensive, and many people declared that it was impossible at times to open either their doors or windows. It is to be regretted that the district council has not yet adopted Dr. Milne's advice as to the testing by smoke of the drains in the district. Of the 18 cases of scarlet fever notified during the year, 16 were treated in the isolation hospital, and for the third year in succession there has been no death from this disease, and there have been no return cases.

Guildford Borough.—The population of the borough of Guildford as at present constituted was estimated in the middle of 1909 to be 23,000. The birth-rate was 22.3 per 1,000, and the adjusted death-rate 10.6 per 1,000. The remarkably low infantile mortality-rate of 54 per 1,000 births was recorded. The medical officer of health, Dr. R. W. C. Pierce, does not state in Table V the number of illegitimate births and deaths, so that the relative mortality among legitimate and illegitimate children cannot be given. A large amount of systematic inspection has been carried out in the borough during the year. Among 641 houses inspected, as many as 561 had some sanitary defect. Dr. Pierce considers that, as practically the whole of these defects have been remedied without serious protest, the standard he adopted can hardly be considered as unreasonable. When the Midwives Act came into force the district medical officers of health in Surrey acted as local inspectors under the county council, but this arrangement has now ceased, and the superintendent of the county nursing association has been appointed to act as inspector for the whole county. Dr. Pierce considers that this arrangement will not be beneficial to the public health of the district, as there must necessarily be greater delay in dealing with cases of puerperal fever as they arise, and the midwives will be more likely to respond to the advice of the medical officer of health than to that of a non-medical lady inspector.

Medical News.

DR. J. M. MASON, Consulting Medical Officer to the Dominion of New Zealand, was, on June 8th, called to the Bar by the Benchers of Gray's Inn.

AT the meeting of the Senate of the University of London, on June 15th, Dr. M. J. M. Hill, F.R.S., Astor Professor of Mathematics, was re-elected Vice-Chancellor.

AT the annual meeting of the Royal Society of Medicine, to be held on July 1st, at 5 p.m., Sir Henry Morris, Bart., F.R.C.S., will be proposed by the Council for election to the office of President in succession to Sir William Church.

THE midsummer address to the Abernethian Society of St. Bartholomew's Hospital will be delivered this year at 8.30 p.m. on Thursday next, June 23rd, by Dr. Norman Moore, who has chosen for his subject St. Bartholomew's Hospital in the sixteenth century.

THE dates of the professional and Gaskell prize examinations of the Medico-Psychological Association have been altered to July 6th and 7th respectively. The former will be held in London, Edinburgh, and Dublin, and the latter in London only.

THE Inter-hospital Sports will take place at Stamford Bridge on Friday, June 24th. The prizes will be presented by Mrs. Anthony F. Voelcker. Entries are above the average, both in number and quality, and a really excellent afternoon's sport is anticipated.

THE National Association for the Prevention of Consumption has appointed a special appeal committee to collect funds for an educational campaign, including travelling exhibitions, popular lectures, an information bureau, and the distribution of literature. The annual expense is estimated at £5,000.

THE Cavendish Lecture of the West London Medico-Chirurgical Society will be delivered at the Town Hall, Kensington, on Friday, July 1st, at 8.15 p.m., by Sir Thomas Oliver, of Newcastle-on-Tyne. The subject of the lecture is empyema and some problems connected therewith. It will be followed by a conversazione.

SIR ALFRED KEOGH, K.C.B., will present the prizes at St. Thomas's Hospital Medical School, of June 23rd, at 3 p.m. On the same day, and at the same hour, Dr. H. A. Miers, F.R.S., Principal of the University of London, will distribute the prizes at the London (Royal Free Hospital) School of Medicine for Women. The prizes of Guy's Hospital will be distributed by Professor Howard Marsh on July 7th.

PROFESSOR and Mrs. Karl Pearson and the staff of the Biometric and Galton Eugenics Laboratories will be at home at University College, Gower Street, on Friday evening next, June 24th. The Senate of the University of London has made a grant of £40 a year for four years to the publication department of Applied Mathematics and the Eugenics Laboratory at University College, and the sum of £50 has been presented to it by an anonymous donor.

MR. NORMAN HAY FORBES, F.R.C.S., F.R.S.Edin., has written a pamphlet drawing attention to Coulsworthy water and the district of Devonshire in which this spring lies. We gather that it is a very soft water, free from organic pollution and containing very little mineral matter. The author compares it with Evian water, though its contained solids are lower, and offers reasons for believing that it is of therapeutic value as an eliminant in various conditions of autointoxication and in organic dyspepsias.

THE summer session of post-graduation classes at the Glasgow Royal Infirmary has just been concluded, and the syllabus is now being drawn up for the autumn course. This course is to be held during the month of September, and the introductory lecture will be given by Sir James Barr, of Liverpool. The classes will be similar to those of former years, and include instruction in clinical medicine and clinical surgery, haematology, bacteriology, vaccine-therapy, diseases of the ear, eye, throat and nose, skin, gynaecology, electro-therapy, etc. A copy of the syllabus may be had on application to Dr. Thom, Superintendent at the Royal Infirmary.

WHEN publishing (June 11th, p. 1446) the memorial of the National Committee for the Prevention of Destitution criticizing certain provisions of the Midwives Act Amendment Bill, 1910, especially those affecting the payment of medical men called in by midwives under the rules of the Midwives Board, it should have been stated that at the last meeting of the National Committee to Promote the Break-up of the Poor Law it was resolved to give it this new name. In recommending that the authority responsible for payment should not be Poor Law guardians, the committee is supporting the recommendation made by the witnesses representing the British Medical Association, the Society of Medical Officers of Health, the Municipal Corporations Association, the Lancashire County Council, the Nottinghamshire County Council, the Manchester Town Council, the Midwives' Institute, and the Central Midwives Board. The Committee urges that Clause 17 of the bill should be amended by substituting the words "local supervising authority" for the words "board of guardians for the union," and that the reference to parochial relief or relief on loan should be omitted. While agreeing that the bill would be greatly improved by this alteration, we venture to express the hope that no attempt will be made to wreck it, since it is in many other respects satisfactory.

MR. W. H. LEVER will preside over the congress of the Royal Institute of Public Health, to be held at Birkenhead, from July 18th to 23rd. There will be six sections, as follows: *Preventive Medicine and Vital Statistics*—President: Sir Lauder Brunton, Bart., M.D., F.R.S.; *Chemistry, Bacteriology, and Meteorology*—President: Sir William Ramsay, F.R.S.; *Industrial and School Hygiene*—President: Sir Thomas Oliver, M.D.; *Municipal and County Engineering*—President: Sir Alexander R. Binnie; *Comparative Pathology and Veterinary Hygiene*—President: Sir John McFadyean; *Town Planning and Municipal Architecture*—President: Mr. Henry Vivian, M.P. There will also be a ladies' conference on domestic hygiene; child study and social economy, presided over by Viscountess Grosvenor. The Earl of Meath will open a discussion on the effect of present educational and social influences on the moral fibre of children. A discussion on the relation of epilepsy to crime will be opened by Dr. Dalzell; on nervous strain and modern advertising methods by Dr. Richard Evans; on the nationalization of the public health service by Professor B. Moore, and on State feeding of school children by Mr. Councillor Pritchard. The honorary secretary of the congress is Dr. R. Sydney Marsden, from whom, at the Public Health Department, Town Hall, Birkenhead, further particulars can be obtained.

Letters, Notes, and Answers.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

AERO asks (1) the number of Pitcairn Islanders at the present day; (2) whether the Pitcairn Islanders, the descendants of the mutineers of the *Bounty*, are vaccinated or not; (3) in what animals in confinement has dental caries been found to occur.

PITTING AFTER HERPES.

S. A. asks for suggestions regarding a patient in whom the forehead and the upper part of the nose is greatly disfigured through pits following a severe attack of shingles.

PARALYSIS AGITANS.

P. A. would be glad to know if any relief to pain can be expected from tenotomy in this disease. He has a patient who suffers greatly from excessive spasm of the tendo Achillis and peronei, but can find no reference to the effect of division of tendons, which seems a reasonable method of relief.

THE RESPONSIBILITY OF ANAESTHETISTS.

LETHEON asks for information on the three following questions regarding responsibility for death under an anaesthetic: (1) The anaesthetist on the staff of an infirmary administers a general anaesthetic in the infirmary. (2) He administers a general anaesthetic for a surgeon in private practice. (3) He removes tonsils and adenoids in private, for which he gets a medical practitioner to administer a general anaesthetic.

*** Our correspondent does not say whether he means "legal" or moral responsibility. The legal aspects of the questions he asks are somewhat complicated. (1) An anaesthetist, being a duly qualified medical man attached to the staff of a hospital, is legally responsible for the proper conduct of the administration of all anaesthetics, when he is the actual administrator or is supervising the administrator, the latter being *in statu pupillaris*. If a fatality occurred, the staff anaesthetist would have to show that the death was not due to incompetence or carelessness, and was not in the ordinary sense of the word "preventable." (2) In private practice the anaesthetist is undoubtedly responsible, although the surgeon cannot divest himself of his general responsibility as regards the patient and the operation. The anaesthesia being ancillary to the operation, the surgeon arranges with a man whom he regards as competent, and, if the patient accepts his arrangements, the anaesthetist assumes the responsibility of carrying through the anaesthesia in the manner best calculated to promote the patient's safety and allow due performance of the operation. If the anaesthetist is called in as an expert, especially if his attendance is asked for by any one other than the surgeon, he accepts all responsibility as regards the patient and the surgeon. In the former case, if the surgeon desires an anaesthetic or the adoption of a method which the anaesthetist regards as unsuitable, the latter must, after consultation with his colleague, either accept his view or withdraw from the case. He cannot avoid responsibility by stating that he did what the surgeon directed if he did so against his own judgement. (3) A medical practitioner who devotes special attention to anaesthetics is not thereby debarred from operating as a surgeon, and in that capacity is justified in calling in any medical man to assist him by giving an anaesthetic. The responsibility of a death under such circumstances rests with the administrator, and is decided on the lines suggested under (2).

ANSWERS.

IGNORAMUS.—"Alienist" is a term borrowed from the French, in which *aliéné* means a lunatic, and *s'aliéner*, to go mad (*tourner à la folie*). Several instances of the use of the word in this sense are given in Littré's great dictionary.

HYPERIDROSIS.

DR. A. HOWARD PIRIE (London) writes in reply to "Wids": I would point out that both natural and excessive perspiration is stopped by four measured doses of *x* rays, giving each time the maximum that the skin will stand. This will stop perspiration on the palms, but only modify that which occurs between the fingers, as an equal quantity of *x* rays cannot easily be applied to the skin between the fingers. I have lately treated two surgeons' hands thus, and in each case the perspiration has ceased. If "Wids" will look up the BRITISH MEDICAL JOURNAL for April 17th, 1909, p. 953, he will find the method described.

LETTERS, NOTES, ETC.

ONE WHO DOES NOT INTEND TO BE VICTIMISED writes: I wish to warn your readers that a man is going about the West End saying he has been injured by falling over a loose coal-cellar plate on the pavement. He claims damages for loss of work, and surgical fees paid for treatment. I should like to know if others have had such experience. If so, measures must be promptly taken to stop this kind of thing.

A BRIGHT YOUNG MAN.

IF the proposal that a lecture on medical ethics should be given to young men at or about the time of their qualification is carried out, it would appear that it will be necessary to introduce some paragraphs warning them against misplaced zeal of relatives or friends who sometimes take very indiscreet ways of showing their admiration. A copy of a Welsh paper has been brought to our notice, in which a portrait of a young gentleman in elegant uniform appears, followed by particulars of his "exceptionally bright" medical career; but the acquaintance which the writer has with medical subjects is shown by his statement that the young gentleman in question is the only one from Wales who has won the diploma of F.R.C.S.Eng.

A FATAL CASE OF GASTRIC HAEMORRHAGE.

M.B. writes: In reply to "F.R.C.S.Edin.'s" inquiry as to these "pathological accidents," my experience of a case may be useful. I was called to see a woman of about 28 years of age who had suddenly vomited a large quantity of blood and died immediately. An inquest, of course, followed. At the necropsy I found varicosity of all the veins on the posterior aspect of the stomach, one of which had burst, and which showed a small ragged tear. The stomach in other respects was healthy, and there was no ulceration or other discoverable disease.

HOSPITAL ABUSE.

A MEDICAL correspondent has related to us an incident which will serve to illustrate the advantages which accrue from co-operation between the hospital authorities and the general practitioners in the neighbourhood. A well-dressed man, who already owed our correspondent a long-standing account, called with his son on a Saturday evening; the boy was suffering from phimosis, requiring circumcision. The next day it was arranged that the operation should be performed on Tuesday, the father undertaking to pay a fee of 2 guineas on the Monday evening. On that evening he called, professed to be unable to raise the fee, and asked for the operation to be deferred until the Wednesday. Our correspondent then communicated with the house-surgeon of the local hospital, who informed him that the boy had been brought by his mother on the Monday, having been, as the house-surgeon understood, sent by some practitioner in the neighbourhood for circumcision. Being informed of the circumstances, the house-surgeon declined to operate, and referred the patient to our correspondent. The operation was fixed to be done on the Thursday. It seems pretty clear that there was a deliberate attempt at hospital abuse in this case.

TINNITUS AURIUM.

A. D. writes: A gentleman afflicted with tinnitus aurium said to a fellow-passenger beside him in a railway carriage, "I trust, sir, the singing in my ear does not annoy you."

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page	8	0	0

An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

NOTE.—It is against the rules of the Post Office to receive *postes Restante* letters addressed either in initials or numbers.

Remarks
ON
THE BIONOMICS OF HELMINTHS.

A PAPER READ BEFORE THE SOCIETY OF TROPICAL MEDICINE AND HYGIENE.

BY

WILLIAM NICOLL, M.A., D.Sc., M.B., CH B.,

ERNEST HART SCHOLAR, BRITISH MEDICAL ASSOCIATION.

(From the Lister Institute of Preventive Medicine, London.)

My purpose in this paper is to advance some general considerations on the subject of helminth parasites. These will be derived from a study of the subject, not so much as it affects man, but in its wider relation to other vertebrates, and an attempt will be made to interpret in terms of general principles the facts which we know concerning human helminths. The treatment will be almost exclusively biological.

One of the first outstanding principles in helminthology is the fact that, with comparatively few exceptions, the definite or final host is a vertebrate. The exceptions are to be found amongst certain insects and myriapods which harbour adult nematodes, but no case is known of an invertebrate serving as the final host of a cestode or trematode. On the other hand, vertebrates and invertebrates alike may function as intermediate hosts. Generally speaking, therefore, invertebrates are parasitized only by larval stages, while vertebrates are subject to both larval and adult stages.

A second important fact is that helminth parasites can have no existence apart from their hosts, by which I mean that their life is indissolubly bound up in and dependent on the latter. It is true that they may survive the death of their host for a longer or shorter period, and may even make their exit from the dead host and be found at some distance from it, but their life is practically at an end, and they can never hope to make any prolonged existence thereafter. On this account it has been found impossible to keep adult helminths alive under artificial conditions for any length of time, although theoretically, if the exact physiological conditions of the habitat could be reproduced, it is not altogether an impossibility. Various larval stages have been reared in artificial media, but never beyond the point at which a living host was necessary for their continued development. In the case of intermediate stages the death of the host does not necessarily imply the death of the parasite, provided the former be eaten by some animal suitable as a final host. In such a case the parasite is enabled to complete its life-cycle; otherwise it must inevitably perish. The rare cases of heterogenesis are no exception to this, for even although in such cases a sexual cycle is passed through outside the host, the helminth eventually requires a host, and if that be withheld its life will be cut short.

Present knowledge seems to point to the fact that practically no species of animal can be considered immune to infection with helminths of one kind or another. The degree of susceptibility varies to a great extent in relation with the general habits, the mode of feeding, and certain imperfectly known physiological idiosyncrasies. The susceptibility to the various kinds of helminths also varies in a similar way; thus the dog is particularly prone to infection with cestodes, but rarely harbours trematodes. Certain species of helminths are capable of infecting a large number of different hosts, whereas others are confined to one particular host; for example, *Taenia solium* occurs only in man, while *Fasciola hepatica* occurs in a variety of mammals. Again, some hosts harbour numerous species of helminths, even as many as ten or a dozen different species being present at the same time, while others may harbour only one species, although that may occur with great frequency and in excessive numbers.

From a medical point of view only such helminths are of interest, as a rule, as call for medical treatment, and in consequence a somewhat inaccurate idea is apt to be engendered of the true importance of helminths in general. There is a tendency to forget that cases giving rise to symptoms form only a very small proportion of the total number actually infected. It has long been recognized that the occurrence of helminth parasites is very widespread. In 1845 Dujardin recorded that he found helminths in 53 per cent. of the 2,400 animals which he dissected, and of these, for the most part, only the alimentary canal was examined. Since that time various isolated statistics are to hand of the frequency of helminth infection amongst the different groups of animals. These are chiefly from Continental abattoirs, and are concerned with the domesticated animals. They show, however, that even in the domestic state, where a certain amount of care is exercised in the feeding arrangements, infection reaches a very high degree. At Copenhagen, for instance, Krabbe found 86 per cent. of the horses infected with *Strongylus equinus* alone, and practically 100 per cent. harboured helminths of some kind or other. He also found that 67 per cent. of dogs had intestinal parasites. This figure would undoubtedly have been much larger had the other viscera been examined in addition. Curtice, in 1887, found 87 per cent. of sheep in Colorado infected with the tapeworm, *Moniezia expansa*. Hertwig, in 1890, at the Berlin abattoir, examined 150 000 adult bovines, and met with *Fasciola hepatica* in 75 to 80 per cent. These figures form rather a disagreeable commentary on the cleanliness with which our domestic animals are housed and fed. In birds Hausmann has recorded an infection, with trematodes alone, of 30 per cent., and Wolffhügel 21 per cent. These were mostly inland birds, but in aquatic birds the percentage is much higher. On the east coast of Britain, for instance, I have found infection in over 90 per cent. In reptiles and amphibians I have no figures at hand, but here also infection is very high. Finally, in fishes I have found a constant infection of over 80 per cent. in the British fishes. In view of these figures, then, it cannot be regarded as an excessive estimate that 75 per cent. of all vertebrate animals are infected with helminth parasites of some kind or other. This may serve to indicate in a crude way the extent to which helminth parasitism enters into the economy of Nature.

Such being the case, we can hardly fail to come to the conclusion that the presence of helminth parasites in vertebrate animals must be regarded not as an abnormality, but as a normal condition, just in the same way as the presence of intestinal bacteria may be considered normal. The belief has more than once been advanced that helminths may even exercise a beneficial influence on their host. To some this idea may appear quite in discord with the medical conception of parasite as something loathsome and highly dangerous. The belief is founded on the fact that most helminths secrete a more or less irritating substance which may have the effect of stimulating digestion. There is, however, no direct evidence of this, but it is now generally agreed that the influence of helminths for the most part is, if not beneficial, at least comparatively innocuous. It is only when some vital organ is invaded, or when infection reaches an excessively high degree that harm results. In the latter case, however, it is difficult to know where to fix the limit. For instance, Dujardin quotes two cases, in one of which a black stork harboured 24 specimens of *Filaria labiata* in the lungs, 16 *Syngamus trachealis* in the trachea, more than 100 *Spiroptera alata* in the wall of the stomach, several hundred *Holostomum excavatum* and an *Echinostomum revolutum* in the small intestine, 100 *Chaunocephalus ferox* in the large intestine, and 22 *Cathaemasia hians* in the oesophagus, without showing any signs of distress. The other was a two-year-old horse, in which were found 500 *Ascaris megalocephala*, 200 *Oxyuris curvula*, 200 *Strongylus equinus*, several thousand *Strongylus tetracanthus*, 70 *Anoplocephala perfoliata*, 300 *Filaria papillosa*, and 6 *Cysticercus fistularis*. It is not at all uncommon to find several thousand parasites in one host, and one meets occasional references to the removal of a "bucketful" of tapeworms or ascarids from an animal which had previously shown no signs of inconvenience. It has been maintained by some that it is only when the general health of the host is impaired by some other cause that intestinal parasites begin to have an injurious influence. This, however, stands in need of confirmation.

If this condition of affairs, then, can exist in domesticated animals which are under constant observation, we

need not be surprised to find a similar condition amongst animals in a wild state. The rarity with which the latter appear to actually suffer from, or be incapacitated by, the inroads of helminth parasites is most striking. I cannot recall more than half a dozen instances in over a thousand birds and fishes.

In this connexion, however, three points must be borne in mind: (1) It is difficult for us to determine when an animal is suffering from illness, unless in pronounced cases; (2) the chance of such diseased animals surviving the struggle for existence and being brought to us for examination is small; (3) there is the possibility of immunity enabling the host to withstand the ill effects liable to be produced by parasites. With regard to the first point, veterinary surgeons are able to detect illness in such animals as horses and cattle with comparative readiness, and yet even they frequently report cases of extensive helminthiasis without apparent symptoms. The second point need hardly be commented upon, for it is only too well known that in Nature an animal that is seriously incapacitated very soon drops out.

The tolerance towards extensive helminth infection has more than once been ascribed to immunity, according to which antibodies are elaborated by the host to counteract the effects liable to be produced by any particular parasite. It has been found that many helminths secrete or possess within themselves a specific toxin, capable of producing ill effects under certain circumstances. The nature of these toxins, however, and the exact manner of their action, are matters on which we have as yet little definite knowledge. It is known, for instance, that *Dibothriocephalus latus* contains three different substances—namely, a haemolysin, a haemagglutinin, and a proteolytic ferment, each of which may produce evil consequences on its host, but under what circumstances exactly is still a matter of doubt. Why only certain cases suffer from the presence of this parasite is difficult to understand. That the illness is not the result of a massive infection, as in ankylostomiasis, seems abundantly proved. The anomaly has been explained on the ground that the toxins are only liberated on the death of the parasite, and that they produce their ill effects only so long as the dead parasite is retained within the host. This theory has also been advanced in the case of hepatic fascioliasis, but it lacks confirmation and does not appear to agree with other facts.

A large proportion of such pathological lesions as do occur are due to larval forms. The numerous cestode cysts of mammals, and the cestode and nematode cysts in the body cavity of fishes, may be instanced in vertebrates, while in invertebrates larval cysts of all kinds abound, frequently leading to serious lesions. Here, again, it is wonderful to what an extent helminth infection can go without causing much apparent distress to the host. Forty years ago McIntosh observed that the common green crabs (*Carcinus moenas*), at St. Andrews, were extraordinarily subject to infection with larval trematodes. He found their bodies simply riddled with the minute globular cysts which pervaded every organ and tissue, the liver, gonads, muscles and nerves being especially infected. I have recently confirmed McIntosh's observations, not only at St. Andrews, but in other parts of the country. This infection is not confined to isolated individuals, but occurs in practically all to a greater or less degree. Occasionally the infection is so enormous that nearly one-half of the crab's anatomy is replaced by trematodes. The edible crab (*Cancer pagurus*) is a victim to the same infection, but to a considerably less extent.

It seems but natural that larval forms should cause more inconvenience to their hosts, for it is to their advantage that the latter should be weakened and thus more readily fall a prey to an animal which will serve as a final host. On the other hand, the adult parasite has nothing to gain by causing the death of its host. By doing so it terminates its own existence and lessens the chance of dissemination of its offspring.

The study of tropical diseases shows us that, in an uncivilized or semicivilized state, man is much more subject to infection with helminths than under civilized conditions. The widespread prevalence of such parasites as *Ankylostoma duodenale* and *Schistosomum haematobium*, and the relatively small proportion of cases in which serious illness is the result of their presence, are indications that man, under such circumstances, approaches very closely to the condition I have described above as occurring in other animals. It is well known that individuals can get along fairly comfortably although heavily infected with helminth parasites, but it is just as well known that a certain limit is eventually reached, resulting in serious illness or death. It is obvious that parasitic infection is associated with living in a primitive state. Modern civilized cleanliness and sanitary arrangements have altered matters to a considerable extent and have rid man's body of what might be regarded as his natural heritage of parasites. At the same time, however, that they have made him less accustomed to parasitic guests they have rendered him more intolerant of their evil influence when they do effect an entrance.

The typical life-histories of helminth parasites are so familiar that I need only refer to them in brief. Nematodes, generally speaking, have by far the simplest life history, and in many cases are almost entirely without metagenesis. The simplest cases are provided by *Oxyuris* and many ascarids in which the ova extruded from one host are swallowed by another or the same host. In *Oxyuris* the ova immediately they appear in the faeces are in a condition to reinfect. Some ova require to remain under external conditions a longer time before they are ready to produce adults again. A step further is evidenced by those forms in which the larva is liberated from the ovum, and is only suited for reinfection after it has lived a certain period as such. *Ankylostoma duodenale* appears to be of this class, although its life history is complicated by the fact that before it can reinfect it must assume a sort of free encapsuled state, by forming a sheath around itself. In the next type we have the embryo entering some intermediate host and becoming encysted there. This is by far the commonest life-cycle, and is found in a large number of nematodes and most cestodes and trematodes. A more complicated history is shown by some nematodes which pass through a second sexual stage outside the body. The larvae from this second stage reinfect the host. The remarkable life histories of the filariae and *Trichinella spiralis* may be mentioned here. No part of the cycle takes place under external conditions, but the larvae pass the corresponding stage of their career in the blood. The conditions, however, are to some extent analogous, for blood is an aërobic medium, and, according to some observers, the presence of oxygen is necessary for the development of larvae. The complications which are introduced in the case of cestodes are not numerous, and usually consist of a multiplication by budding of the larva within the intermediate host. In the case of trematodes, however, much more elaborate histories may be evolved, and more than one intermediate host may enter into the cycle. There are four larval stages through which a trematode passes, namely, the miracidium, sporocyst, redia, and cercaria. The first stage is invariably spent in water. Each of the other three, however, may be passed through in a different host. The miracidium may enter one host and give rise to the sporocyst. The latter, by a process of internal budding, produces rediae, which may be set free and enter a second host. In this it again, by a process of budding, gives rise to cercariae, which may in their turn be set free and infect a third host, which is eventually eaten by the final host. All kinds of modification, however, may enter. Thus the sporocyst may take time by the forelock, and produce cercariae instead of rediae, and this happens fairly frequently. Again, it may take a step in the other direction and produce a second brood of sporocysts, and the redia also may reproduce rediae instead of cercariae. Occasionally, instead of wandering from one host to another, passes the whole three stages in one host, or two in one host and one in another. Sometimes the process is very much reduced, the sporocyst producing cercariae, which never make their escape until they find themselves in the alimentary canal of their final host. There may be cases in which intermediate hosts are entirely absent, the miracidium simply effecting an entrance into its final host and becoming adult there. This seems to be the case with *Schistosomum*, in which, hitherto, efforts to discover an intermediate host have been unavailing. The intermediate hosts of nematodes, when present, are usually fishes or insects, occasionally crustaceans; cestodes seem to

worms and molluscs as well as fishes, while trematodes show a great preference for molluscs.

The life-histories of most human helminths have been worked out to a more or less satisfactory extent. Owing, however, to the difficulty of discovering intermediate hosts, several remain doubtful. In the case of domesticated animals a considerable amount of work has also been done, with successful results. With regard to the rest of the animal world our knowledge is very meagre. A large number of adult helminths are known, with no corresponding larval stages, and vice versa. This to some extent is the result of imperfect description. A further difficulty is that of distinguishing larval forms from one another, possessing as they do so few specific features. For the most part, all that can be done in elucidating life-histories is to compare descriptions of adult forms with those of larvae and hypothecate their connexion if other conditions point to its being a natural or likely one. Feeding experiments are exceedingly difficult to carry out in the case of birds and fishes.

The paths of infection are two, the mouth and the skin, and of these the former is by far the commoner. Depending on the life-history of the parasite, introduction by the mouth may take place in water, in food, on dirty fingers, and rarely, if ever, by the air. Introduction through the skin is effected either by the active efforts of the larvae when the hands or feet are exposed in water or damp places, or through the agency of biting insects.

It is practically an undisputed fact that no helminth parasite is capable of multiplying sexually within the body of its host. It is an essential condition that the ova or larvae should pass out of the body of the host before they can proceed to grow again. This is generally considered to be due to the fact that the larvae require aërobic conditions for their development. This may well be the case, but the simplest explanation is found in the well-known developmental doctrine that "ontogeny is an abbreviated recapitulation of phylogeny," or, in other words, that the life-history and development of an individual tends to be a more or less perfect summary of its ancestral history.

The introduction of intermediate hosts is a difficulty for which various explanations might be advanced. It is generally agreed that trematodes and cestodes are derived from the Turbellaria, or rather that they have a common ancestry (although Ssinitzin has recently advanced the somewhat extraordinary opinion that the digenetic trematodes have an ancestry in common with the lower crustacea); in the same way the parasitic nematodes are derived from the free-living nematodes. Many of the Turbellaria and free-living nematodes show a tendency towards parasitism, and in fact a large number of the latter are parasitic in the larval stage. It may be considered that prior to the advent of the vertebrates many of the helminths had already become parasitic in invertebrates. With the advance in the evolution of the vertebrates the invertebrates naturally became their chief source of food supply, and it would frequently happen that an invertebrate harbouring a helminth would be ingested by a vertebrate. By some means, which it would be vain to attempt to explain, except possibly by mutation, the helminth became adapted for living in the intestine of the vertebrate. Here it would produce young, which, however, not being trained to parasitism, would find their way back to external media. Growing older, the tendency towards parasitism would again become strong, and they would seek a convenient invertebrate. Thereupon the cycle would be repeated, and we may suppose that the tendency to become adult in invertebrates gradually disappeared, until the present state of affairs was reached, in which the helminth proceeds only a certain distance towards maturity in the invertebrate. Semi-parasitic nematodes, such as *Gordius* and *Mermis*, show that a somewhat reverse process may have taken place in so far as it was the young of these species which took shelter in invertebrates, and getting older and more able to look after themselves, they returned to a free life. We may suppose that some of these protected larvae when swallowed with their host by a vertebrate found conditions very much to their liking, and became sexually mature in the new environment. Such problems as these, however, are purely speculative.

In introducing the subject of the specificity of helminths with regard both to host and habitat, I wish it to be distinctly understood that it is not my intention to dogmatize on the matter; I intend simply to lay before you the general principles which to me seem to regulate the distribution of helminths in their various hosts and habitats. It would be vain to endeavour to formulate hard and fast laws, admitting of no exceptions, for such laws are entirely unknown in Nature. It must be remembered that Nature is in a state of continued flux, and that the phenomena to be observed at any particular instant comprise two components: on the one hand, those which are in a state of relative stability or equilibrium for the time being, and on the other those which are in a state of progression or retrogression. It must also be remembered that evolution has not advanced at the same rate in every direction; along some lines it has apparently remained stationary for very lengthy periods. Thus the present biological picture presents organisms on which evolution has acted to a very high degree, and at the same time others, almost archetypic, in which the process has been arrested for many ages. Helminths are in no way exempt from the same conditions, and this must be borne in mind in dealing with the matter in hand.

The idea of specificity is no new one. Even in the beginning of last century we find that helminthologists attached a certain weight to it. This is most evident in the case of Dujardin, who treated helminthology more from its bionomic than from its systematic aspect. Later, however, the principle was hardly tenable, for species, apparently similar, were found in all manner of different hosts and habitats. Such species, however, were only superficially similar, and the inability to distinguish them was due entirely to the failure of methods of differentiation. In certain instances there has been a tendency to carry the principle of specificity to an extreme degree, each parasite being regarded as specific for a particular host. This view is quite as unjustifiable as the complete denial of any specificity. My intention here is to show that the degree of specificity is an intermediate one, that no hard and fast rule underlies it, and that it shows the same amount of variation, with the same anomalies and exceptions, as is to be met with in other biological phenomena. It will be shown that the specificity is not so much between one species and another—although that occurs frequently—as between one genus and another, or between two subfamilies or two families. Further, the hosts of these species and groups may be isolated species of vertebrates, or genera or groups.

It will be necessary first of all to refer briefly to the classification of the helminths. As in many other branches of biology the taxonomy is in a rather incomplete state. It is only within the last dozen years that anything approaching a natural classification has been attained. The reason for the slow advance is not far to seek. Throughout the animal kingdom the systematic differentiation of one species from another is based to a large extent upon the study of external characters, such as the number, arrangement and shape of appendages, and this is found to be quite a satisfactory working method in the majority of cases. With the helminths, however, it proved miserably inadequate, nor is that surprising when one considers the structure of a tapeworm or distome. The external features are few and capable of little permutation. The dimensions, shape and colour of the body, the situation and relative sizes of the suckers, the presence of spines, papillae, or other simple appendages, and the position of the genital aperture sum up all there is to work upon. The absolute insufficiency of these means of diagnosis is apparent when we find that until comparatively recently a large majority of all tapeworms were included in the genus *Taenia*, and the greater half of trematodes in the genus *Distomum*. As a result, twenty years ago the genus *Taenia* comprised nearly 500 species, and the genus *Distomum* well on to 1,000, probably two of the largest genera that have ever existed in zoological nomenclature. The descriptions of older writers are in many cases practically useless, as they could apply equally well to half a dozen different species. Attempts were repeatedly made to deal with these cumbrous groups, but as they were all based on external features they were, almost without exception, unsuccessful. It was not until a study of internal structures disclosed their wonderful variety that systematic and natural classifi-

cation became possible, and we owe the material advances that have since been made, in a large measure to Professor Looss, of Cairo. The method has led to the differentiation of innumerable allied species, and it would be no exaggeration to say that the number of known species of helminths has been doubled within the last ten years. The erstwhile genera *Taenia* and *Distomum* have been subdivided again and again until they have come to represent taxonomic units of higher rank even than families. These innovations have not materially affected the broad lines of classification, although they have influenced their relative value. The point which I wish to emphasize, however, is that in place of the former apparently homogeneous genera *Taenia* and *Distomum*, we have now a number of distinct groups each with its respective characteristics, but all more or less intimately and naturally related. It is with these groups and these subdivisions that I shall deal, for the taenias and the distomes, together with the nematodes form by far the largest proportion of helminths. It will be impossible in the time at my disposal to deal with each of these three classes, so that I shall content myself for the most part with the treatment of the distomes. The remarkable diversity of their structure and habitat, moreover, makes them most suitable for illustration of the principle I wish to lay before you.

From the point of view of habitat the alimentary canal cannot be regarded as one homogeneous whole, for apart from the mouth, oesophagus and stomach, each of which presents distinct conditions, the intestine shows at least four separate habitats corresponding to the anatomical and physiological divisions. It is well known that *Ankylostoma duodenale* occurs almost invariably in the jejunum, *Ascaris lumbricoides* in the ileum, *Trichuris trichiurus* in the caecum and *Oxyuris vermicularis* in the colon and rectum. These are four distinct types of nematodes, and it might reasonably be imagined that we had here a high degree of specialization in an extremely highly organized host. That, of course, is true, but the principle is the same throughout. In birds, for instance, it is not uncommon to find four different species of distomes in the intestine at one time, each maintaining a distinct and circumscribed area. In fishes the same holds good. Cases, however, not uncommonly do occur where there is a certain amount of intermingling of different species, but these are usually closely related species.

Practically every organ and tissue in the body may be the habitat of helminths, but, excluding larval forms, we find the most frequent habitats are the alimentary canal, the liver and gall bladder, the respiratory passages and lungs, or gills in the case of fishes, the urinary system, the vascular system, and the subcutaneous tissue. In the case of birds the eyes and the bursa Fabricii, an appendix of the cloaca, are not uncommon seats of infection; the swim bladder is an additional seat in the case of fishes. Generally speaking, then, the only organs that escape are the brain, the muscles, and the genital system. The brain and muscles are obviously not suitable for the life of adult helminths, but it is curious that the genital passages should escape in the way they seem to do. A few cases are on record of adult helminths being found in the reproductive organs, but they were almost invariably errant forms that had strayed from the intestine. *Oxyuris vermicularis* has even been found in the pouch of Douglas, having wandered there presumably via the uterus and Fallopian tubes. An interesting occurrence, of which several records exist, is the inclusion of a trematode, *Prosthogonimus pellucidus* (V. Linstow) within the white of a hen's egg. The explanation is simple. The species lives in the bursa Fabricii, and occasionally wanders into the rectum and uterus. In the latter it becomes entangled in the albumen before the shell has been formed.

Each habitat is suitable for one or more species of helminth, and it may be taken as a general rule, which, however, must not be applied with too unrelaxing strictness, that nearly-related species tend to inhabit the same situations in their various hosts. Thus, in mammals the *Fasciolidae*, of which *Fasciola hepatica* is the type, all inhabit the liver and gall bladder, although the genus *Fasciolopsis* is an exception. *Fasciolopsis*, however, appears to live high up in the intestine in close proximity to the bile duct, and may be regarded as a transition stage between an intestinal and a hepatic parasite. *Fascioletta* may come in the same category. The liver-frequenting habit of the *Fasciolidae* is found not only in terrestrial mammals but in marine mammals as well, for in the porpoise we find the *Brachycladiinae*, a subfamily of the *Fasciolidae*, infesting the liver and causing liver-rot, exactly similar to that in sheep. We find representatives of the same subfamily, namely, *Lecithodesmus goliath* (V. Ben), and *Orthosplanchnus arcticus* Odhner, and *O. fraterculus* Odhner in whales and seals. Another group of mammalian hepatic distomes is the *Opisthorcinae*. This is a subfamily nearly related to, but not included under, the *Fasciolidae*. In man we are familiar with *Opisthorcis noverca* Braun, *O. felineus* (Rivolta), *Clonorchis sinensis* (Cobbold), and *C. endemicus* Looss. *O. felineus* occurs in several other carnivorous mammals; *O. tenuicollis* (Rud), a very closely related species in the seals, and *O. lancea* (Dies.) in the dolphin. Some species of *Opisthorcis* are found in the liver of birds, as, for instance, *O. longissimus* (V. Linst.) in *Ardea stellaris*, *O. simulans* Looss, and *O. geminus* Looss, in several birds. A closely allied genus, *Metorchis*, includes two liver parasites of the cat, *M. albidus* (Brn.), and *M. truncatus* (Rud). These also occur in the grey seal (*Halichoerus grypus*). Here again some representatives of this genus are found in the liver of birds, for example, *M crassiusculus* (Rud) in the buzzard, (*Buteo buteo*), and *M. xanthosomus* (Crepl) in the lesser grebe (*Podiceps minor*). A distantly related subfamily, the *Telorchiinae*, occurs in the liver, or in one case the duodenum of reptiles. The third great class of liver flukes, properly so called, is the subfamily *Dicrocoeliinae*, but this is almost exclusively a class of bird-trematodes. The only mamalian representative is *Dicrocoelium dendriticum* (Rud) (=*D. lanceatum* St. and H.), but this species is quite as widespread as *Fasciola hepatica*. Numerous species of this and the two allied genera *Lyperosomum* and *Athesmia* occur in the liver and gall-bladder of birds. Amphibia are practically free from liver helminths. Fish also rarely harbour adult parasites in the liver or gall-bladder. Amongst the few cases may be mentioned *Fellodistomum fellis* (Olsson), and *F. agnotum* Nicoll in the cat-fish (*Anarrhichas lupus*), and *Anisocoelium capitellatum* (Rud), in *Uranoscopus scaber*, but these forms are very different from any of the mammalian liver flukes. In the *Fellodistominae* we have another example of two genera, one of which, *Leioderma*, lives in the intestine close to the opening of the bile duct, and the other is a purely gall-bladder parasite.

Owing to the enormous number of exclusively intestinal helminths it will be impossible to refer even briefly to them in this connexion, so that I shall pass on to the other parts of the alimentary canal. Distomes rarely inhabit the stomach or oesophagus in mammals or birds, but in fishes there is a large family, the *Hemiuridae*, the members of which live almost exclusively in the stomach. Again in birds the genus *Clinostomum* contains a large number of species, all of which live in the oral cavity; the several species of the genus *Halipegus* exclusively in the mouth of frogs. The cloaca, too, in birds with its appendix the bursa Fabricii, harbours numerous distomes, which fall into two or three more or less well-defined groups. In the lungs we find another favourite seat of trematodes. In man there is the common *Paragonimus westermanni* (Kerbert), which shows several features of resemblance to *Fasciola hepatica*. It also occurs in several carnivores. In addition there is *Paragonimus rudis* (Dies.) from the otter (*Lutra brasiliensis*) and *Paragonimus compactus* (Cobbold) from the mongoose (*Mungos fasciatus*). No distomes have ever been described from the lungs of birds, although a few have occasionally been met with in the trachea. Lung parasites of any kind, in fact, are very uncommon in birds, but I cannot venture to offer any explanation of this rather curious circumstance. In amphibia, on the other hand, the lungs are a favourite seat for parasites of all kinds, and we find here a special subfamily, the *Haplometrinae* Pratt, the chief genus of which is *Pneumonoeces* Looss. The members of this group are found only in the lungs of amphibia and a few reptiles (genus *Macrodera*). In fishes we have an entirely different state of affairs. External gills take the place of internal lungs, and here we find a distinct class of trematodes, which are radically

different from the distomes both in structure and in development. Their life-history is direct, with no intermediate host. They belong to the order *Monogenea*, and are generally referred to as Ectotrematodes. There are numerous genera and species, with much diversity of structure, but as they do not concern us here we shall not discuss them further.

The next viscus we may consider is the bladder and urinary organs. Here, again, we find distinct groups, constantly inhabiting this system and no other. Urinary parasites are comparatively infrequent in mammals and birds, the only common ones being the nematodes, *Eustrongylus gigas* and various species of *Trichosoma*. In reptiles, amphibians and fishes, however, we have a large homogeneous family of trematodes, the *Gorgoderidae*, which includes the genera *Phyllodistomum* from fishes, *Gorgodera* and *Gorgoderina* from amphibians, and *Plesiochorus* from reptiles. The last illustration which I shall take in this connexion is the case of the vascular system. Here we have the well-known *Schistosomum haematobium* and *S. japonicum*. These do not belong to the class *Fasciolidae*, but represent a small separate class, the *Schistosomidae*. A species, the same as or closely resembling *Schistosomum haematobium*, occurs in some of the primates. Other two species, *S. crassum* and *S. indicum*, are found in the ox and sheep. The most closely allied genus is *Bilharziella*, which comprises several species parasitic in birds; and a third recently described genus, *Gigantobilharzia*, is also found in birds. These are all the blood trematodes so far as known.

From a consideration of the foregoing, the general application of the principle of specificity of habitat can hardly fail to be clear, and, to my mind, there could be no better demonstration of the validity and correctness of Looss's system of classification. It is an axiomatic biological principle that related species and genera have common habits. Thus, all the carnivores are flesh-eating, wild, fierce animals, lithe of body and swift of foot, and, generally speaking, have habits very much in common. Subdividing them further into *Felidae*, *Canidae*, and *Ursidae*, we find constant differences in habit between the groups, which correspond to their morphological differences. The illustration of this correlation between habit and structure could be carried to the various genera. It is thus not surprising that the same has been found to hold good among the helminths. Moreover, we have several interesting examples of the phylogenetic transmission of acquired habits. Thus, amongst the *Fasciolidae*, the *Brachycladiinae* may be presumed to have begun to diverge from the parent fasciolid stock at the time when the cetacea first took to an aquatic life, but the hepatic habit remained impressed upon them, so that they continued to be liver parasites.

Turning for a short time to what is, in a sense, the converse of the foregoing, but at the same time an amplification of it: it has been shown that there is a specificity of organic habitat, it will now be shown that there is a specificity of host, always allowing for a certain number of exceptions, as in the first case. This principle is well known to those who have had to work experimentally with helminths. The most familiar case is that of *Ankylostoma duodenale*, which several workers have repeatedly endeavoured to introduce into animals other than man, but with very rare success. Dogs have occasionally been infected, but it has been found impossible to do the same with rabbits, guinea-pigs, etc. Again, it is impossible to infect the dog with *Taenia solium*. These, however, are but instances of a very general rule, of which I shall proceed to give a few more comprehensive examples. Of the true liver flukes, the *Fasciolidae* are strictly confined to mammals, the *Opisthorciinae* are found equally in mammals and birds, the *Dicrocoeliinae*, with one exception, exclusively in birds, and the *Telorchiinae* entirely in reptiles. No representatives of these are found in any of the lower vertebrates. Subdividing the *Fasciolidae*, the *Fasciolinae* are, with a few doubtful exceptions, restricted to the primates, ruminants, and, possibly, marsupials; and the *Brachycladiinae* to the cetacea and pinnipedes. With the *Fasciolinae* it is impossible to reduce the specificity to greater detail; but in the *Brachycladiinae* we have the genus *Brachycladium* confined to the cetacea, *Lecithodesmus* to the whales, and *Orthosplanchnus* to the seals.

The Cyclophyllid or Taenioid cestodes form another group, which is confined, with only three exceptions, to the mammals and birds. In this group sixty-five genera have already been distinguished. One of these is amphibian, another reptilian, and a third has mammalian and reptilian representatives. Of the other sixty-two, forty-two are exclusively confined to birds, and eight to mammals, while twelve are common to both. There is thus evidently a preponderating partiality towards birds.

There are nine families, of which three are exclusively avian. The three largest families are the *Anoplocephalidae*, the *Davaineidae*, and the *Hymenolepididae*. The first is typically mammalian, the other two typically avian. The *Anoplocephalidae* contain six of the eight exclusive mammalian genera. The four other genera contain a few avian forms. In the *Davaineidae* only one (*Davainea*) of the six genera contains mammalian forms, and these are isolated cases. In the *Hymenolepididae* twenty-three genera are exclusively avian, two mammalian, and five contain representatives of both, but, except for *Hymenolepis*, the mammalian forms are few. This differential process could be carried to the individual species, but it will be hardly necessary to enter into such detail. It will be sufficiently clear, from the facts I have already put forward, that a remarkable degree of specificity does exist, but that there are certain meeting-places where the various genera and species become less specific. This is particularly evident in the case of large and flourishing genera, such as *Hymenolepis*, which, as a type, has apparently become adapted—partly by the nature of its life-history, partly by its own physiological requirements—to varying conditions in a large number of different hosts. As a genus, however, it is not very homogeneous, in spite of the remarkable uniformity of its fundamental structure.

A knowledge of the general facts of helminthology is essential to the study of the particular forms which parasitize man, just as much as a general knowledge of protozoology is essential to the study of malaria and allied diseases. It is evident that the occurrence of helminth parasites in man is only an instance of a general phenomenon in nature. We have seen that no animal is exempt from the attacks of helminths of some description or other, and that the less civilized races of mankind are practically in the same condition. We in this country owe our comparative freedom from helminths to the amenities of civilization, but when these fail this exemption disappears. From the point of view of helminthology, then, civilization may be regarded as consisting of three factors—namely, the cooking of food, the wearing of clothes, and the application of sanitation and personal cleanliness. These are the three chief means of defence against helminths. We saw that food was the essential factor in the transmission of parasites in the vast majority of cases. Infection with trematodes and cestodes (which are heteroxenous) can be acquired only in this way, with the doubtful exception of schistosomiasis. This, however, applies only to a limited extent in the case of nematodes (which are monoxenous). The most effectual remedies against the inroad of platyhelminths are proper cooking of food and filtration of drinking water. All parasites are killed by exposure to a temperature of 100° C. (or even less), but it is of importance that the whole of the food be raised to this temperature, not merely the exterior. Most natural waters contain minute crustaceans and other animals, which frequently harbour helminth larvae. Careful filtering, however, entirely removes those. The wearing of clothes is not of the same far-reaching importance, but it appears to be essential in the case of *Ankylostoma*, *Filaria*, and *Schistosomum*. Sanitation and cleanliness are of little less importance than the proper cooking of food. They are specially important from an epidemiological point of view. The only means of dealing with an epidemic consists in the immediate destruction or disposal of the faeces from the infected cases, and in scrupulous personal cleanliness amongst those exposed to infection. Were these measures strictly carried out, there would be no such outbreaks of ankylostomiasis as have been notorious in Europe of recent years It is this third factor which is most largely concerned in the

spread of nematodes. There remains a fourth factor, which is not so directly connected with, or dependent on, civilization, namely, the transmission of helminths through the active agency of insects. The outstanding instance, of course, is filariasis. This is independent of food, sanitation, and clothing—unless, indeed, the whole body, including the face, could be covered. Even here, however, a means has been found to limit the occurrence of the disease—namely, by filling up the swamps and marshes, and thus destroying the breeding grounds of the mosquito. This measure might well enough be included under sanitation. These, then, are the main prophylactic and preventive measures, and, could they be efficiently carried out in all cases, man would cease to be afflicted with helminth parasites. This, certainly, is a counsel of perfection, and it seems vain to hope for its ultimate attainment in tropical countries. So long, however, as it fails of complete realization, just as long will there be helminthiasis in these regions. Medicinal remedies in places where helminthiasis is endemic are of merely transient utility. They only touch the outcrop in various isolated individuals, all the while the root of the evil remains untouched. Here, assuredly, one effort directed towards prophylaxis is worth a hundred towards cure.

ON RECURRENT MOTOR PARALYSIS IN MIGRAINE.

WITH REPORT OF A FAMILY IN WHICH RECURRENT HEMIPLEGIA ACCOMPANIED THE ATTACKS.

By J. MICHELL CLARKE, M.A., M D.Cantab., F.R.C.P.,

PROFESSOR OF MEDICINE, UNIVERSITY OF BRISTOL; AND PHYSICIAN TO THE BRISTOL GENERAL HOSPITAL.

Recurrent paralyses in some of their varieties have recently attracted considerable attention.[1] In migraine an opportunity for observing such paralysis is very rare, for it is a commonplace that the symptoms in the great majority of attacks of migraine are exclusively on the sensory side. In what follows I propose to give an account of a family in which hemiplegia, with, as a rule, loss of speech, was a constant feature of attacks of migraine, and to such a degree as to be almost unique, so far as I can ascertain; and also to deal with the forms of motor paralysis which occasionally occur in this disorder.

The restriction of the attack to purely sensory phenomena is one of the most interesting features of migraine, and at the same time one of the most puzzling. In an affection like migraine, of which the exact cause is unknown, and in which there are no recognizable pathological changes, the diagnosis rests upon the symptoms and their grouping. As a rule, the peculiarity of the symptoms and the regularity of their order of occurrence make the affection as definite as any symptom-group in medicine. But in diseases where the diagnosis depends upon the symptoms it is essential that these should conform to the accepted type. This is especially the case when phenomena are present over and above those recognized as proper to the attack. In some cases of migraine which lie on the borderland between it and other neuroses the distinction is by no means easy, and sometimes must be left in doubt. Especially may such difficulty arise in deciding between a diagnosis of epilepsy and migraine.

In the family history given below the strongly hereditary character of migraine is well marked, and also the tendency to direct transmission of the disease. The characters of the attacks which mark them as belonging to migraine will, however, be better considered when the cases have been described.

Attacks of migraine may be associated with motor paralysis in several ways, excluding those cases in which it occurs in accidental association with independent organic brain disease, such as tumour, or in which it is doubtful whether atypical migraine does not belong to another affection such as epilepsy.

1. *Migraine Secondary to Structural Lesions.*

Attacks of migraine may be a symptom of onset in hemiplegia due to a vascular lesion or to an intracranial tumour. This group I do not propose to consider. In connexion with the production of an attack of migraine by occlusion of an artery it may be recalled that Leonard Hill[2] produced an attack in himself by digital compression of one carotid artery.

2. *Long Standing Migraine Complicated by Paralysis.*

Cases in which migraine of long standing has issued in permanent paralysis, generally due to a vascular lesion. In some of these one of the phenomena of the aura of the attack, such as aphasia or hemiopia, has become permanent, but in others the permanent disability in no way corresponds to the aura. Instances of this kind are fairly numerous.

In a case reported by Oppenheim,[3] in a patient who suffered from old-standing migraine, there occurred in the course of an attack stupor with persistent aphasia and right hemiplegia, found to be due to thrombosis of the internal carotid at the origin of the Sylvian artery.

In Infeld's[4] case, a woman aged 27, who suffered from hereditary migraine, in one attack felt something give way in her head, and fell but did not lose consciousness. There resulted right hemiplegia, with hemianaesthesia and blindness of the right eye. One month later there remained weakness and spasticity, with post-hemiplegic disorder of movement and slight paraesthesia.

J. J. Thomas[5] gives two cases, in one of which an attack like migraine was followed by left hemiparesis, hemianaesthesia, and hemiopia; in the other, a woman aged 27, subject to migraine, left hemiparesis, hemiparaesthesia, and hemiopia resulted. In both cases hemiopia was permanent; the other symptoms cleared up. He gives another case of migraine in which permanent hemiopia resulted.

Indeed, hemiopia as a permanent result of migraine seems to be more common than paralysis, although both are fortunately rare. Often in these cases the hemiopia forms a very marked feature of the aura preceding the attack,[6] but this, as stated above, is by no means invariable. In one case under my care a woman, aged 35, had suffered for seventeen years with attacks of migraine preceded by right hemiopia. One morning she woke up with dimness of vision for objects to the right, and this in the course of a week developed into right hemiopia, which remained permanent. The optic disc looked pale, but was otherwise normal. Her vessels were healthy.

With regard to such cases as the above, those who believe that attacks of migraine are due to vasomotor spasm of cerebral vessels have raised the point whether constantly repeated spasm of an artery may not in time lead to disease of its walls, and hence to rupture or thrombosis. It is difficult to speak with certainty on this point, but the great infrequency of permanent paralysis in a disease so common as migraine, the fact (at any rate, in my experience) that sufferers from migraine do not suffer in greater proportion from atheroma or arterio-sclerosis than other persons not so affected, and the fact also that such paralysis when it occurs often affects persons under 40—the age of the patients mentioned above is noteworthy—are all against this view. There must, in addition to migraine, be some other factor at work. Further, as Spitzer[7] points out, if repeated vasomotor spasm led finally to thrombosis it would be expected that the finest arterial twigs would be affected, whereas in some of the recorded cases large vessels must have been involved. Exception to this last statement should be made for a few cases in which there was good evidence of thrombosis of the central artery of the retina.

J. J. Thomas[8] states the case very fairly by concluding that migraine may occasionally result in permanent paralysis, aphasia, or hemiopia, and that in most instances this is due to an attack favouring a vascular lesion in persons who already have disease of the vessels, but that in others the lesion may occur in young persons whose blood vessels are in all probability in a normal condition; and that although great caution is necessary, before ascribing such paralyses to migraine, to exclude coincident and independent disease—for example, of the vessels—yet a few cases remain which justify the statements made by Charcot and others that the normally transient hemiopia or aphasia may become permanent.

3. *Migraine Attended by Temporary Paresis.*

Cases in which paresis or even paralysis, temporary and recurrent, is one of the regular phenomena of the attack. In the ordinary way this consists of slight motor weak-

ness in the limbs, generally the arm, accompanying or following the sensory disturbance—for example, pins and needles, etc.—of transient duration, from a few minutes to half an hour, not of common occurrence, and, as a rule, only present in severe attacks. For instance, a patient of mine, who suffered from severe migraine, described a pricking sensation in the right arm, which then went numb, and she could not feel if touched upon it. With the numbness there came loss of power; she could "move it but not use it." The same feelings spread to the leg, so that "she could not walk" for a few minutes. The symptoms passed off in the same order, and were most severe in the arm. According to her statement the sense of position of the limbs was retained. In Dr. Liveing's classical work on migraine, p. 14, a good case of this kind is given. His general conclusion is that "in some few cases loss of sensibility is accompanied by a certain loss of motor power in some parts—in fact, a transient hemiplegia" (p. 87). He quotes some other cases where the temporary paralysis was marked; one of those from Dr. C. H. Parry of Bath is a good example, but in some of the others the diagnosis seems to be doubtful; one of them, for instance, was a case of Adams-Stokes disease.

Spitzer[9] refers to the occurrence, as an unusual feature of migraine, of transitory paresis, of monoplegia or hemiplegia, but gives references chiefly to "ophthalmic migraine." Féré describes a case in which paralysis and loss of sensation came on with attacks of migraine shortly after the onset of the attack. The paralysis lasted for one to one and a half hours and disappeared with the scotoma. Cases of transitory aphasia are not so uncommon as part of the attack; in most of the cases the speech affection is stated to be sensory aphasia, but in some it is due to defective articulation, the patients are not able to "form their words," whilst full comprehension is retained. Otherwise, I have not been able to find in the literature of recent years any cases of transient hemiplegia occurring during attacks of migraine and complete for the time they last, which are quite free from objection as not being possibly due to other morbid conditions, for example, a previous attack of syphilis, present at the same time.

A remarkable case is reported by Professor Osler, in which attacks of recurrent hemiplegia, migraine, and angio-neurotic oedema were associated in the same patient, though not at the same time. I quote from the account given by Dr. A. E. Russell.[10]

"The patient, a medical man, aged 29, at the age of 12 years had an attack of right hemiplegia with aphasia which lasted seven or ten days. Within the year he had five or six further attacks of hemiplegia, each successive one less severe and not accompanied by aphasia, and from that date was subject to occasional attacks of numb, tingling sensation in the side. From the age of 26 he became subject to severe attacks of migraine. At 28 he had a sudden attack of pain and swelling in the feet, and at the same time began to suffer from soreness at the ends of the fingers. He had frequent attacks of angio-neurotic oedema of the upper lip and outbreaks of urticaria associated with severe darting pains in the legs. He had one attack of abdominal colic with pain in the calves of his legs, and an outbreak of purpura and urticaria; later, he suffered from haematuria and albuminuria. Professor Osler considered that the recurring attacks of hemiplegia were probably associated with changes in the brain of essentially the same nature as those which subsequently occurred in the lip and skin—in other words, that an angio-neurotic oedema occurred in the brain substance."

History of a Family in which Migraine was Attended by Recurrent Hemiplegia.

I will now give the history of the family which has recently come under my observation. They belong to the working class, and, as is well known, people of this status often lose sight of their relations, and are unable to give accurate details of their condition. The three members of the family from whom I obtained the information were above the average in intelligence, and clear in their statements. Evidence as to four generations was available. The great grandparents (H) were said to be free from the affection, and had a very large family (the exact number was not ascertained), of whom four certainly—one son and three daughters, and possibly another son—were affected. Two of the daughters were unmarried, the third married a man not liable to migraine and had a daughter, who had at least one attack of migraine with paralysis.

CASE I.

The son, H_2, suffered from attacks of headache with transien paralysis all his life; the paralysis involved one side only, and there was marked affection of vision. His last attack occurred about the age of 54; he was taken in a tram-car with loss of power in the right arm and leg and great impairment of vision followed soon by intense headache. He had to be carried home from the car, as he could not walk without support. Pleurisy or pneumonia followed shortly after this attack, of which he died three weeks later.

The history of the affection of vision, hemiplegia, and headache which occurred in the tram car in this order was very definite, and the other attacks from which he had previously suffered were stated to be similar, and equally severe as regards the loss of power.

This man had a son, H_3, a daughter (M), both affected, two other sons unaffected, and another daughter who at the age of 5 years had whooping-cough. After a violent paroxysm of cough she had right hemiplegia, which lasted three weeks, and then cleared up, together with loss of speech, from which she took a long time to recover.

CASE II.

H_3, examined, but not seen in an attack. A small, pale man, a porter, aged about 47; no evidence of organic disease. Has suffered from attacks of hemiplegia with migraine since the age of 28. For years they came on about every two to three months, but of late years have been much less frequent, and he has had freedom from them for as much as two years. If at any time he was run down in health the attacks came much more frequently. Order of phenomena in the attack: (1) Dimness of vision in both eyes, no scintillating scotoma; (2) sometimes simultaneously with this a feeling of numbness or tickling, starting in toes or feet, and spreading upwards; (3) loss of speech, consciousness being unaffected, "he can understand what is said to him, but cannot reply"; (4) hemiplegia, in which there is absolute loss of power on one side, and he cannot stand, together with slight loss of sensation on the affected side; (5) nausea, occasionally vomiting. The loss of power, of speech, and the nausea last for about an hour, and as they pass away, (6) intense and incapacitating headache comes on and lasts for one to two days. Although the hemiplegia is of short duration, he is generally laid up for two days by the attack, and often does not feel quite well for a week. The hemiplegia is nearly always right-sided; both sides of the body are never affected in the same attack; loss of speech accompanies the hemiplegia, whether the latter is on the right or left side.

This man married a healthy wife; of the four children, aged 17, 14, 12, and 9 years, two are affected.

CASE III.

H_4, daughter of above, aged 14. This patient looks healthy, and presents no signs of organic disease. The attacks began at the age of 7, and recurred every two or three months, but have ceased for the past year. They consist of (1) dimness of sight, (2) loss of speech, (3) right hemiplegia, (4) intense headache with vomiting, followed by (5) drowsiness. She may sleep or lie in a drowsy condition for two or three days after an attack. The hemiplegia is always right-sided; loss of consciousness or muscular twitchings have never occurred. The hemiplegia sometimes comes on with extraordinary suddenness, so that she has been taken with an attack when standing, and has suddenly fallen from giving way of the leg. In this case the hemiplegia lasts for a few hours, or even a day.

CASE IV.

H_5, a boy, aged 9. An intelligent child, but has always been delicate, and goes to invalid school. As a small child he suffered from severe rickets, and in consequence had difficulty in walking until the age of 7 years. He then had an operation for straightening his legs, and after that was able to walk and improved in health. He has been well lately, and on examination, except for some anaemia and traces of rickets, there was no evidence of disease. He has had two attacks in which there was a greater extent of paralysis than in any of the other patients.

On October 25th, 1909, he was taken for a midday drive in the carriage belonging to the invalid school which he attended, and the lady in charge thought that he looked ill. The child then said to her: "Miss R——, it is getting dark. I can't see you." Shortly afterwards she lifted him out of the carriage, and found that he could not stand, and had lost the use of his right leg, loss of power in the right arm quickly followed, together with loss of speech; he seemed to know what was said to him, but could not answer; the face was not affected. Twenty minutes later he lost power in his left leg, and then in his left arm, so that he was helpless and paralysed all over; moreover, he could not hold his head up; if lifted, it dropped again to one side. This attack lasted about two hours, and the paralysis began to improve towards the end of this time; he complained of headache in the frontal and occipital regions, asked to go to bed, and vomited two or three times. There were no muscular twitchings or convulsions. The paralysis passed off in the order of onset. The attack left him weak for three or four days, especially in the right arm and leg, and then he recovered completely.

On November 26th he had a second attack, without assignable cause, whilst at school. It began at noon with loss of sight, followed by loss of power, first on the right, and then on the left side, as in the first attack. Speech was also lost, but he was quite sensible. When brought home at 4.30 p.m. he had

recovered speech, but was quite helpless, the loss of power affecting both sides of the body. He complained of very severe headache, and vomited all the day. Recovery took place in about the same time.

He was admitted into the Bristol General Hospital and remained there for nine weeks. During this time he had no attack. Beyond some anaemia, which improved under treatment, he appeared healthy, active, and intelligent for his age. At Christmas time he was purposely allowed to eat indigestible and rich foods, and as he had a large appetite he took full advantage of this, but no attack resulted.

After being for a week on a diet of bread 6½ to 7 oz., butter ¾ oz., meat 3 oz., 1 egg, potatoes 2 oz., rice pudding 3 oz., milk 16 oz., with one orange or apple, the analysis of the urine made by Dr. Emrys-Roberts was as follows:

Quantity in twenty-four hours, 515 c cm. Specific gravity 1020, acid, no albumen, no sugar, no deposit. Urea, 2.5 per cent. Uric acid (Hopkin's method, 0.3757 gram). Creatinin (twenty-four hours) 1.455 grams (Johnson's method; two estimations). Phosphates calculated as phosphoric acid 1.03 grams. Chlorides calculated as NaCl 5.66 grams.

Case v.

M_1, sister of Case II (H_3), a healthy-looking woman, about 35 years of age. Examination detected no disease of the nervous system or of thoracic or abdominal organs. In her case the attacks began in childhood, and continued at intervals of two to three months until her last pregnancy two years ago, during which they were much more frequent, sometimes recurring two or three times in one week. Since then for the past fifteen months she has been free from them. There was never any recognizable cause, and they came on at no particular time of day.

The first symptom is visual; apparently there is hemiopia of the upper halves of the visual fields, for she sees only the lower half of objects looked at. This gives her a warning to lie down, as the next symptom is hemiplegia, which sometimes comes on suddenly, as she states that if she were standing she would fall down. The affected limbs feel heavy, "like lead." The hemiplegia is generally right sided, but occasionally left sided; it is accompanied by loss of speech, but not of comprehension; the speech affection accompanies the hemiplegia, whether the latter is on the right or left side. The face is apparently not affected. She has a peculiar feeling of swelling or thickness on the same side of the tongue as the hemiplegia. There appears to be hemianaesthesia as well as hemiplegia, at any rate in some of the attacks, for on one occasion when tested by a pin prick there was no sensation on the affected side. There is no deafness, and no affection of the sphincters. After about two hours vomiting with severe frontal headache (bilateral) comes on, and the paralysis after the first attack of vomiting begins to gradually pass off. The headache always came with the vomiting, and never preceded the other symptoms. The patient has five children; the eldest, 9 years old, is Case VI; the younger ones have so far had no attacks.

Case vi.

M_2, a boy, aged 9, was admitted to the Bristol General Hospital on November 30th, 1909. He had had two previous attacks of migraine with transient right hemiplegia during the preceding six months, from which he had completely recovered. He had had no other illness, and was a healthy, intelligent boy. He was left-handed.

On the morning of November 30th the boy complained of not feeling well and of a headache, and stayed home from school. His mother did not see him again until the afternoon, when she found that he was paralysed in the right arm and leg, could not stand, and could not speak. He also vomited.

On admission the patient was very cold and somewhat collapsed. His temperature was 95°. There was no head retraction, no convulsions, or muscular twitchings. There was right hemiplegia, complete; the paralysis was flaccid. There was paresis of the right side of the face, affecting the lower part most, as in the ordinary hemiplegic type; the tongue was protruded to the right. He spoke very indistinctly and with difficulty, and occasionally used wrong words. He recognized his mistakes and understood what one said to him. He had some difficulty in swallowing. The right knee-jerk was said to be absent on admission, but as he was only examined lying down this is doubtful; it was certainly present next day.

On the next day, December 1st, the temperature was 97.6°; respirations 20; pulse 80, regular; tension normal. There was still well-marked right hemiplegia with flaccidity and slight hemianaesthesia—that is, sensation to touch and prick distinctly less acute than on the left side. He was conscious of the position of the paralysed limbs. He was still dull and drowsy, complained of left-sided frontal headache, had difficulty in speaking, used words wrongly, spoke slowly and indistinctly, and had slight difficulty in swallowing; he could only take liquid foods.

Reflexes.—Elbow, supinator, knee, and ankle jerks present, normal and equal on both sides; abdominal reflexes present, cremasteric absent, plantar reflexes extensor.

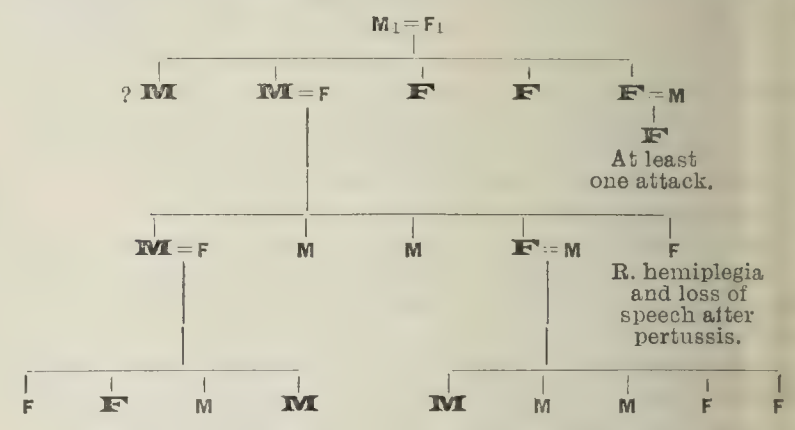
Cranial Nerves.—Well marked right hemiopia. Optic discs normal, except for some fullness of the veins. Smell normal.

No oculo-motor paralysis; no nystagmus; pupils equal, large, act to light and accommodation. Paresis of lower part of face on right side; orbicularis palpebrarum and frontalis muscles unaffected. Not deaf. Tongue protruded to right. Palate normal. No affection of sphincters.

On December 3rd there was still very slight defect of sensation to light touch, and prick on right side of face, front of chest and abdomen, and right arm and leg. No loss of sense of position of limbs. Paresis of right side of mouth and of right arm remained; the leg had recovered. There was no ataxy of movement. The reflexes as before, except that whilst the right plantar was of extensor type still, the left was flexor. He was still rather drowsy and speech was indistinct.

During the next two days the condition rapidly improved, and on December 5th he was normal, and there was no trace of paralysis left.

It may be added to the above that the motor loss was throughout much greater than the sensory, which was always slight; and that as this patient was the first member of the family to come under observation, and on admission we had no complete history with him, nor could he give any account of his two previous attacks, owing to the temporary loss of speech, the true nature of the condition was not at once recognized, and the electrical reactions were unfortunately not taken at the height of the paralysis. Later the muscles reacted well to interrupted current.



Genealogy of a Family with Attacks of Migraine with Hemiplegia.

M_1 and F_1 had a numerous family (exact number uncertain), of whom four certainly, and probably five, were affected.
The heavy type indicates the affected members.

Seeing that, as I have shown, motor paralysis to such a marked degree as existed in these patients is extremely rare in migraine, it is first necessary to establish the point that the attacks are of this nature. As there is no exact clinical test or pathologico-anatomical change to which we can appeal to make the diagnosis, each case must answer to certain criteria, which will naturally be those symptoms which are generally recognized as typical of the migraine attack. The more a case departs from the well-recognized type, or presents features not hitherto recognized as component parts of it, the greater care must be taken that the typical characters of migraine are present.

Attacks of headache more or less exactly reproducing the phenomena of migraine are occasionally seen as symptomatic of organic disease, such, for instance, as a cerebral tumour. Organic disease in these cases can be positively excluded by:

1. The hereditary history.
2. Lapse of time in the older patients—the attacks have occurred for years—during which no sign of organic change has appeared.
3. The recurrent paralysis has not become permanent in any of them. In such severe attacks this of itself is remarkable, and is sufficient for the argument.

The following are the points on which I base the diagnosis of migraine for the actual attacks: (1) The marked hereditary tendency, direct transmission, and absence of other neuroses in the family; (2) the onset of the affection in most of the patients in childhood; (3) the characteristic visual phenomena preceding the headache, especially temporary hemiopia; (4) headache, generally unilateral; (5) the vomiting which generally accompanied the onset of the headache, and after which the condition of the patient began to improve; (6) return to the normal in the interval between the attacks; and (7) the temporary loss of speech and sensory disturbance which are well-known features of some severe attacks of migraine. In all these points the attacks in this family so exactly correspond and these features so regularly repeat themselves in successive attacks—this regularity of repetition of the phenomena of the attack in the same patient being another characteristic of migraine—that the diagnosis of migraine seems to me established.

The remarkable feature is the addition of hemiplegia, or in one case of paralysis of all four limbs and muscles of neck, which cannot be accounted for as a secondary result of the sensory disturbance present.

There are a few points in the attacks in this family worthy of further remark. First, the hemiplegia, loss of speech, and hemiopia were phenomena of the aura of the attack, and in all cases regularly preceded the headache. In most attacks in all the patients the hemiplegia was right sided, and much less often occurred on the left side of the body. The speech defect was on the outgoing side of the cerebral mechanism for speech, the patients either could not articulate or only imperfectly, but could always understand what was said to them. This is contrary to what is described as the usual condition when aphasia occurs in migraine, for "sensory" aphasia is stated to be more common than "motor," although the latter occurs. Some of these patients were, however, definite on the point that they could hear and understand, and knew what they wanted to say, but could not speak. I think, speaking generally, that in migraine the affection of speech is not infrequently of this type.

This speech defect occurred indifferently with either right or left hemiplegia—that is to say, it regularly accompanied the hemiplegia, and in the adult patients, as well as in the children. In the latter it is well known that aphasia may accompany either right or left hemiplegia of organic origin. This indifference to the side of the hemiplegia seems to me a point of great interest. It has been observed before that in cases of migraine with sensory disturbance speech defect might accompany sensory phenomena in the left arm, left side of tongue, or left hemiopia.

The attacks seem to be becoming more severe as they descend the family, the two children last affected have more severe attacks than their parents, so much so that in one of them the paralysis affected the muscles of the trunk and limbs on both sides.

The frequently sudden onset of hemiplegia is particularly noticeable; more than one of the patients stated that if it came on when they were standing they had fallen down, and one used to lie down on the first appearance of the visual aura to avoid a fall. This is comparable with the sudden onset of hemiopia in some recorded cases of migraine. The relation of the attacks to pregnancy in Case v is curious, and it is well to accentuate the points that in none of the patients, even in case of a fall from sudden hemiplegia, was there ever a momentary loss of consciousness, or muscular twitchings, or convulsions, or affection of sphincters, or spasm of the muscles, the paralysis being of flaccid type.

Lastly, the recovery is complete between the attacks, and in no case have they left so far any permanent paralysis or disability.

In relation to the diagnosis of these cases reference must be made to the form of recurrent paralysis known as "family periodic paralysis." There can, I think, be no question as to the marked differences which distinguish the attacks of the latter disease from those of my patients. I have already given the points which identify them with an unusual and severe form of migraine, and need not recapitulate these further than to say that severe headache, hemiopia, and sensory disturbances—other than occasionally tingling and numbness—are not present in "family periodic paralysis," which consists of a recurrent and transient flaccid motor paralysis, not of cerebral type—for example, there is loss of electrical irritability in the affected muscles—affecting usually the trunk, all four limbs (proximal parts first), and muscles of the neck.

Whilst the attacks are thus distinct, there is another question as to a possible relation between the two affections. As a rule, migraine does not appear in the family history of the victims of family periodic paralysis, but in one remarkable family described by Holtzapple,[11] the disease was closely associated with migraine. In four generations of this family, eighteen persons suffered from severe attacks of migraine, and seventeen from periodic paralysis. Of the latter, five were subject to both affections, twelve to periodic paralysis only, and thirteen to headache only. All the patients were descended from an ancestress who suffered from sick headache only, and in the branch of the family most severely affected, and in which three deaths occurred, the mother had migraine but no paralysis.

In some respects the family I have described above affords features which carry whatever relation there may be, if any, between the two diseases a stage further, for in it there is the very unusual addition to typical migraine of an extensive motor paralysis, with a closer hereditary transmission than is often seen in ordinary migraine, and in one of the patients last affected in the third generation the paralysis, in the attack, beginning as a hemiplegia rapidly spread to the opposite side and affected the neck muscles, so as to become general.

The character of the paralysis in the two affections is, however, so essentially different that any apparent connexion may be no more than the common tendency for one neurosis to be associated with another in the same or different members of a family.

In family periodic paralysis the seat of the lesion is in the muscles or in the junctions of the lowest motor neurones with the muscle fibres, whilst in migraine the paralysis is of cerebral type. It is impossible not to be struck with the similarity of the hemiplegia, accompanied by more or less degree of anaesthesia, in the cases described above, to the hemiplegia of functional disease, especially hysteria. There are, however, differences between them which probably indicate in this case also a difference in the anatomical seat of the lesion. For instance, in hysteria the alteration of the visual field is not a hemiopia, but a concentric contraction; the face altogether escapes, the paralysis is "ideational," and due to the dissociation of the highest psychical centres from those next below. According to Campbell, associated with each of the known cortical centres there is a corresponding higher or psychical centre. He describes a psycho-motor, psycho-sensory, psycho visual, and psycho-auditory centre in close relation to the motor, sensory, visual, and auditory centres seated in the praecentral, occipital (calcarine), and superior temporal gyri. Dr. McDougall,[12] in his paper on the mode of action of fatigue in the nervous system, incidentally suggests that in hysteria the supply of energy is insufficient to overcome the resistances of the highest levels of the brain and to keep open the connecting channels.

In the recurrent hemiopia, disorders of sensation, and occasional paralysis of migraine the anatomical position of the lesion must be below these levels. It is important to note that these disorders occur early in the attack, precede the severe pain, and therefore they cannot be explained on any theory of inhibition due to the intensity of the latter. Moreover, abortive attacks are known in which transient hemiopia, aphasia, etc., are the sole features.

In Dr. McDougall's paper, referred to above, he attributes the phenomena of fatigue or exhaustion to such an increased ratio of the resistance to the supply of nervous energy at command at the synapses or junctions of the neurones that nervous impulses can no longer pass through, and the connexion between the neurones at the points of junction or synapses affected is interrupted. This increased resistance at the synapses may be induced by exhaustion or by accumulation of the waste products of activity.

It is reasonable to suppose that some endogenous or exogenous poisons may act in a similar way on the nervous system and produce paralysis by greatly increasing the resistance at certain synapses.

Without entering into a full discussion of the various theories of migraine, it seems to me that the disease may be best accounted for by the accumulation within the body of some self-manufactured poison, gradually accumulating until a periodical attack results, and showing a selective action on certain neurones, or rather upon their synapses, and possibly by becoming attached to their receptors preventing them from carrying out their functions. In view of the known selective action of various poisons upon special sets of neurones, there is nothing improbable in such a view of the localization of symptoms which characterize most attacks of migraine.

Such a view has, to my mind, more in its favour than the theory which is perhaps most generally accepted at the present time—namely, that vasomotor disturbance or spasm of cerebral vessels is the cause of the attacks of migraine. It must be admitted, however, that the pathology of migraine remains obscure in spite of the many explanations that have been offered, and, indeed, to suppose that in ordinary attacks the action of the poison remains localized to cortical sensory structures, whilst in cases such as the family above described there is in

addition a toxin able to act upon the kinaesthetic (motor) centres is but to state in other words a clinical observation and not to explain its essential nature.

4. There is still another form of motor paralysis associated with migraine—the so-called ophthalmic migraine (Charcot's "migraine ophthalmique"). I have left this to the last, as it is impossible to consider it fully in this paper, and its connexion with migraine is denied by good observers. Thus, it has been called hemicrania with third nerve paralysis.[13] Undoubtedly cases grouped together under this head own different pathological causes. Most commonly the paralysis is confined to the third nerve on one side, but in other cases of a similar kind the fourth, fifth, and sixth (and occasionally the seventh) nerves may be also affected. The reasons why some authors have separated these cases from true migraine are that in many cases there is no aura, no heredity, the pains may last for weeks, and some degree of paralysis persists in the intervals. There are, however, other cases which satisfy all the above criteria for ordinary migraine, and in which there is a return to normal between the attacks.

Probably the accounts have been written from two distinct groups of cases: (1) Cases in which intermitting attacks of third nerve paralysis are preceded by attacks of headache corresponding in clinical aspect (including aura and heredity) to typical migraine, and do not end in permanent paralysis; (2) cases which show periodic exacerbations, but in which from the first, or early in the course of the disease, there is a certain amount of persistent weakness which ends in permanent paralysis.[14]

In the first set of cases we may probably go further and say with Senator and Bernhardt that there is no recognizable lesion, whilst in the second group the lesions that have been found in the few cases that have undergone pathological investigation are (1) tumours (Karplus and Thomsen) at the base of the brain involving the third nerve, (2) a mass of granulation tissue, and (3) syphilitic lesions in the same situation.

Cases of this nature, however, form a clinical group so distinct from ordinary migraine that they are better considered apart from it until more is known about them.

REFERENCES.

[1] William Russell, On Intermittent Closing of Cerebral Arteries, BRITISH MEDICAL JOURNAL, 1909, vol. ii, p. 1109, and correspondence, ibid., pp. 1313, 1380, 1499, 1580, and 1715. [2] *Cerebral Circulation*, 1898, p. 124. [3] Casuistische Beiträge z. Prognose d. Hemikranie, *Charité Annalen*, xv, 1890, p. 298. [4] Zur kenntniss der bleibenden Folgen des Migränes Anfalles, *Wien. klin. Woch.*, 1901, Nr. 28, p. 673. [5] J. J. Thomas, *Journ. Nerv. and Mental Dis.*, 1907, vol. xxxiv, p. 153. [6] See also W. Harris, *Lancet*, 1907, vol. i, p. 276. [7] *Ueber Migräne*, Jena, 1901. [8] Loc. cit. [9] Loc. cit. [10] *Some Disorders of Cerebral Circulation*, Goulstonian Lecture, 1909. London: Medical Publishing Co., 1909. [11] *Journ. of Amer. Med. Assoc.*, 1905, xlv, p. 1224. [12] McDougall, *Brain*, 1909, vol. xxxii, p. 256. [13] *Nervous Diseases in Childhood and Early Life*, J. Taylor, London, 1905, p. 344. [14] See Spitzer, loc. cit., in which numerous references are given.

ON THE VALUE OF SERUMS AND VACCINES IN THE TREATMENT OF DISEASE.

BY

NATHAN RAW, M.D., M.R.C.P.LOND., F.R.S.EDIN., D.P.H.,

PHYSICIAN, MILL ROAD INFIRMARY, LIVERPOOL.

IN the hospital to which I am attached are admitted almost every variety of acute disease, some in a favourable condition for treatment, but a great many others in a very unfavourable condition, but I have included in my results all the most unfavourable cases, so that a fair and accurate conclusion as to the value of these remedies should be reached.

Acquired Immunity.

In the case of certain diseases such as small-pox, scarlet fever, typhoid, and measles, one attack protects against another for many years or even a lifetime. In other diseases such as erysipelas, influenza, and pneumonia, a person may suffer from several attacks, and in the case of erysipelas and influenza may even be more disposed to other attacks. I think it will be granted, however, that every disease produced by an organism does confer a certain immunity for a longer or shorter period. We do not know precisely how the human body recovers from an acute infection by dangerous organisms. It is presumed that the virus becomes exhausted in a varying time, and so dies out, but it has been found that in the case of such diseases as acute pneumonia, diphtheria, typhoid, and cholera, certain antibodies antagonistic either to the organisms or their toxins are formed in the blood. It would appear that a process of immunization is going on during the course of an acute disease, and when this immunization is complete the disease comes to an end. Now we want to encourage and promote this good effect, and if by the administration of serums and vaccines we can assist the blood to produce immunity, we are going a long way towards promoting the recovery of our patient.

Antistreptococcic Serums.

I have during the last twelve years treated 210 patients suffering from acute streptococcic infections with injections of antistreptococcic serum—an antibacterial serum prepared by inoculating a horse with increasing doses of streptococci until immunity is complete, and then using the serum of the horse as a remedy. Some authorities hold that all the various streptococci are in reality the same organism modified by circumstances. Marmorek holds this view and Aronson finds that an antitoxin produced from any single strain will produce an immunity against them all. My first 28 cases were treated with a dried serum manufactured from a single strain of streptococcus which was I believe isolated from a case of erysipelas; 17 of these cases were puerperal septicaemia, all of a severe type and generally sent into hospital when the disease was far advanced. In spite of this we observed in a fair proportion of cases distinct benefit followed the injections, which were then given under the skin, and a few patients recovered whom we expected to die. I noticed that the reaction from a single strain serum was always more severe than from a serum made from many strains. Eight cases of acute erysipelas were treated with this serum and in all cases recovery followed its use without the formation of pus. The remaining 4 cases suffered from cellulitis of a streptococcal origin and in 3 cases the result was good, but in 1 it had no effect and the patient died.

In my opinion we have made a distinct advance in preparing a polyvalent serum prepared from 20 to 26 distinct strains of streptococci. We have treated 182 patients with polyvalent serum, and I can unhesitatingly say that the results are most gratifying. The more local infections appear to do better than the general systemic infections such as puerperal septicaemia, but even in this formidable disease we have obtained excellent results. It is our general practice now to inject the serum into the rectum instead of under the skin; 20 or 30 c.cm. of serum are mixed with 40 c.cm. of normal saline solution and gently poured into the rectum, which has been previously washed out with a little water. The serum is rapidly absorbed, and seems to act quickly and efficaciously without any toxic effects such as urticaria, erythema, or headache, which sometimes follow injections under the skin.

Puerperal Septicaemia.

The cases vary enormously in intensity, but must be carefully distinguished from sapraemia, the result of absorption from retained débris within the uterus, in which emptying the uterus generally ends in recovery. In puerperal septicaemia we have to deal with a systemic blood infection with streptococci, and we must direct our efforts to assist the blood in producing an immunity. In many cases the violence of the infection is too acute and the woman is destroyed, but in a great many instances much can be done; and, combined with general and restorative treatment, injections of 20 or 30 c.cm. of serum twice daily seem to have a good effect. Every case of streptococcal infection, whether mild or severe, is invariably treated with rectal injections of polyvalent serum. Sometimes it is only necessary to give one or two injections before general improvement commences.

Erysipelas.

In acute erysipelas we get the very best results from serums; in fact, I look on all cases as favourable if there is no formation of pus or extensive subcutaneous cellulitis. In these cases extensive incision and drainage must be combined with large doses of serum two or three times daily.

Malignant Endocarditis.

We have treated three cases of septic endocarditis associated with rigors, sweating, and very high temperature. In one case which we did not expect to live the girl, aged 20, recovered, and was discharged with a loud systolic rough murmur, but with all infective signs in abeyance. She returned to hospital two months ago with a reinfection, and at once asked for some more injections, as she had felt benefit three years ago. A few were given, and she is decidedly better. In the other cases, beyond temporary relief, no real benefit was obtained from serum.

Acute Tonsillitis.

Nearly all these cases are due to streptococci, often they relapse, and are associated with severe constitutional symptoms. If we can get these cases before the formation of pus, a few injections will actually abort the attack, and the patient gets rapidly well. Even if pus has formed, serum seems to relieve the symptoms, and certainly prevents the debility and severe toxaemia which so often follows. In operation on the jaws and tongue, especially for malignant disease, where septic bronchitis and pneumonia sometimes follow, a dose or two of serum before operation often has an excellent effect in preventing secondary sepsis.

Antidiphtherial Serum.

I am a profound believer in this serum, both as a curative and as a prophylactic remedy. In 1894 I had the pleasure of recording in the BRITISH MEDICAL JOURNAL a number of cases of diphtheria treated with Aronson's serum, and since then I am more and more convinced of the value of the serum; if given within forty-eight hours of the onset of the disease it is almost a specific remedy. Associated with diphtheria there is often secondary infection with staphylococci, and these cases can often be cleared up after the diphtheria is over by preparing vaccines from the discharges from the nose, ear, and throat, and injecting them into the patient.

Antitetanic Serum.

I have not seen a case for over six years, but we treated eight cases; four of them were acute, that is, the symptoms developed within seven days, and were all fatal. In the remaining four cases the symptoms were delayed until after ten days, and they ran more or less a subacute or chronic course. In all the cases we gave large doses of serum, and all seemed to be benefited. In one the dried serum was given by the mouth in the intervals between the spasms, and strange to say the boy recovered. It is difficult to estimate exactly the effect of the antitoxin, as many cases of subacute tetanus recover without it, but my impression is that it helps, and I should always be inclined to give it.

Tuberculosis.

Maragliano's serum for tuberculosis is prepared from the blood of a horse which has previously been immunized with living cultures of tubercle bacilli; 1 c.cm. is injected on alternate days. The serum is said to be bacteriolytic as well as antitoxic, and Maragliano claims to have obtained excellent results in cases of tuberculosis without secondary infections. I have used the serum in fourteen cases of pulmonary tuberculosis, and although in some instances good effects seemed to follow its use, I have discontinued it in favour of tuberculin.

Vaccines.

The greatest care must be taken in the preparation of vaccines, and personally I have only used those which have been prepared for me. It may not be strictly correct to include tuberculin amongst the vaccines, but for my present purposes it is convenient.

Tuberculin from Human Sources.—With Koch's tuberculin R., which is prepared from bacilli of human origin, 110 cases of tuberculosis have been treated, including tuberculous glands in the neck, tuberculous peritonitis, tuberculous joints and sinuses, lupus, tuberculous meningitis, and genito-urinary tuberculosis. In the localized forms of tuberculosis, most of which I believe to be of bovine origin, and conveyed to children in infected milk, I am convinced that Koch's tuberculin R. has an excellent effect, except in those patients in whom there is some pus encysted in the body, whether in the interior of the joint or in a bone under pressure, or as an abscess in a lymphatic gland. In these cases there is a danger of tuberculin causing dissemination of the bacilli, with a resultant blood stream infection. It is a good rule never to give tuberculin if any pus is localized in the body. In many cases a course of tuberculin has had the effect of greatly reducing enlarged tuberculous glands of the neck, by dispersing the peri-adenoid tissue and causing a general freeing and loosening of the glands themselves, while in some the enlarged glands have entirely disappeared. If, however, there is any tendency to suppuration the glands must be opened, and in all cases the pus should be liberated. I feel convinced, however, that the extensive dissection of glands in the neck is wrong in principle, and sometimes leads to a general tuberculosis which is fatal. In tuberculous peritonitis tuberculin has a splendid effect, and, combined with operation and drainage, many of my cases have been completely cured. In genito-urinary tuberculosis ten or twelve injections of tuberculin has often had an excellent healing effect when everything else has failed.

Pneumonia.—The Klemperers were the first to attempt the treatment of pneumonia, and Washbourn did some splendid work on the subject; latterly Wright has brought out a pneumococcic vaccine carefully standardized. We have used injections of this remedy in twenty-eight cases of acute lobar pneumonia. Only in severe cases were the injections given, and in thirteen which recovered we thought we had observed some reaction of a favourable character, such as immediate reduction of temperature and pulse with the onset of perspiration. Personally I would like to preserve an open mind on this remedy, but I am inclined to the belief that it does good. In one case where a whole family developed pneumonia one after the other I gave a prophylactic injection to a daughter who had been nursing the mother, and she certainly escaped infection, but whether or not it was due to the injection I cannot be certain.

Staphylococcic Infections.—It is here that the very best results of vaccines are obtained. In acne of a pustular nature, boils and carbuncles, after the nature of the infecting organism has been determined, a corresponding vaccine has in a large number of cases led to complete and lasting recovery. Even in cases of boils and carbuncles associated with glycosuria vaccine treatment has been useful, but not to the same extent in cases of diabetes. It is my usual practice to make a growth from the patient, and then to obtain the corresponding vaccine from the laboratory. In many cases of acne of a chronic indurative character, however, we must be prepared for disappointment.

Coley's Fluid.—This powerful remedy is reserved for those cases of inoperable carcinoma or sarcoma in which every other form of treatment is useless. I have frequently observed in hospital that an acute attack of erysipelas will devour and clear up a growth or even an attack of lupus, and Coley's fluid is based on this principle. I have used it in 9 cases, 7 of which were uninfluenced, and 2 recovered. In 3 cases in which it is being used at present slow necrosis and an arrest of the growth is commencing. It is a most dangerous and powerful remedy, and must be used with the greatest caution; even half a minim sometimes produces the most violent reaction with a temperature of 105° and a pulse of 130. The reactions, however, become gradually less, and even 5 to 6 minims may be tolerated in a few weeks. In all otherwise hopeless cases it is justifiable to try it, as in some patients we get a happy surprise.

Typhoid Fever.—Wright has been the pioneer in the vaccine treatment of typhoid fever. His vaccine consists of cultures of *Bacillus typhosus* grown in broth for four weeks, and then sterilized by heating for ten to fifteen minutes at 60° C. A small amount of carbolic acid is then added for preservation and to ensure sterility. Favourable results have been recorded from all over the world, and it is possible that by its uniform adoption a great decrease in the death-rate from typhoid will follow, more especially abroad. We have used Wright's vaccine in eleven instances, nine of which recovered. The other two patients both died from perforation and haemorrhage. I cannot be sure that the vaccine was of any real benefit; it appears to be more suitable as a prophylactic than a curative measure.

A CLINICAL METHOD OF MEASURING THE ANTITRYPTIC INDEX,

ILLUSTRATED BY ITS RESPONSE TO VACCINES.

BY

FRANK C. EVE, M.D.CANTAB, M.R.C.P.LOND.,

PHYSICIAN, ROYAL INFIRMARY, HULL.

THE object of this investigation has been to devise a method of measuring the antitryptic index suitable to ordinary clinical work, and applicable to the regulation of the size and frequency of the doses of vaccines. The method will be illustrated by a chart showing the daily variations in the index during a period of three months in a case of pyelonephritis (with relapse) treated by tuberculin and *coli* vaccine.

A few introductory remarks may be helpful. If a viscous solution of casein is incubated with trypsin, digestion of course rapidly occurs, and is manifested by the loss of viscosity of the mixture. This may be measured by the viscosimeter—that is, a pipette with a fine capillary stem of thermometer tubing. If now a drop of ordinary blood serum is added the rate of digestion is enormously retarded, and if the serum has been taken from a patient suffering from cancer, tuberculosis, or any inflammatory or cytolytic disease, the rate of digestion will be still more powerfully inhibited. Hence if two mixtures of similar quantities of casein, trypsin, and serum (one normal, the other from the patient) are digested for 4½ hours, and the number of seconds that each takes to drip through a viscosity pipette is compared, the two numbers will give a measure of the antitryptic power of the patient's blood. Supposing the normal mixture drips through in 100 seconds and the pathological mixture in 103½ seconds, then the antitryptic index may be charted as 3½.

This method of estimating the relative antitryptic values of different serums, based on Bayliss's well-known method of estimating the velocity of tryptic digestion by the viscosimeter, was devised by Dr. Golla and demonstrated by him at Belfast[1] in July, 1909. This observer had also successfully measured the relative powers of normal and pathological serums by an adaptation of Victor Henri's method of electro-conductivity, as also had Dr. E. C. Hort[2] by adapting Sörensen's method of measuring the degree of amino-acid liberation during a tryptic digestion.

Both of these methods have been shown by these observers to give excellent results, but they are both of them complicated in apparatus and procedure, and the chemical method has the additional disadvantage that it demands more blood than can readily be obtained from a finger-prick. Now, to obtain several cubic centimetres of blood from a vein is a very neat and painless process when properly done, but it cannot be repeated often, and sometimes makes the patient feel faint and queer, as I can testify from personal experience. To the patient, the value of the information gained may make this worth his while, but to get an equivalent supply of normal blood is often a matter of serious practical difficulty. I have selected, therefore, the viscosity method, though I found that the technique required considerable modification in order to adapt it to clinical purposes.

After experimenting for four months, I found that by digesting for four and a half hours in the incubator instead of at room temperature, and by adding another 3 c.cm. of fresh casein just before measuring the viscosity, the antitryptic power of a serum could be reliably measured with only 0.08 c.cm. of serum and with quite homely apparatus.

Method.

Ordinary glass tubing is washed with acid and then with water and dried. It is then drawn out at intervals of 3 in., whereby a number of cylinders with tapered ends are made. If held horizontally in the drop of blood on the patient's finger, these fill themselves without forming bubbles. The finger must be warm and preferably should be swung round the head before applying the tourniquet of rubber tubing.*

* I find the best pricker is made by pounding some sheet glass, picking out the sharpest fragments, mounting each with sealing-wax on to a glass rod, which is fixed into the cork of a small phial containing a little wool moistened with formalin. These are clean and painless, and last for weeks.

The tubes, when sealed, are put for an hour into the incubator to contract the clot, after which they may be kept for several days at the temperature of tap water without alteration of the index.

Casein Solution.—This is made by weighing 6 grams of casein (prepared according to Hammarsten) and stirring it into a paste with 30 c.cm. of distilled water warmed to about 40° C. After adding 5 c.cm. of decinormal NaOH, the mixture is stirred till the particles are all dissolved with the help of five drops of liq. amm. fort. Mix this solution with 95 c.cm. of water, to which five drops of formalin have been added, and filter through paper (or wool) carefully. Repeat the filtration every day the solution is used, as a glutinous precipitate soon forms.

The Piston Pipette (Fig. 1).—I should be very sorry to dispense with thehelp of this device, adapted from the design of my friend Mr. Upcott. It consists of a home-made capillary pipette with a little bulb, B, holding about 0.1 c.cm. up to the mark, ↑, which may conveniently be made of a filament of cold sealing wax laid across the hot glass. The butt end of the pipette slides freely inside a larger glass tube, and the piston-joint is

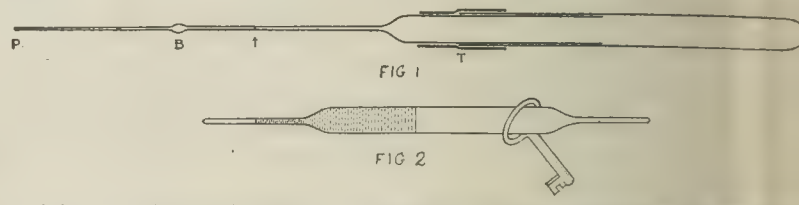


Fig. 1.—Piston pipette for measuring small quantities of serum. It consists of two tubes sliding one within the other, with a connecting collar of rubber tubing, T. One tube terminates in a capillary and a small bulb, B; the other in an orifice, O. Drawn one-third natural size.

Fig. 2 illustrates the use of a small key as a lever in breaking a blood capsule at the file mark without the risk of breaking the capillary ends. One-third natural size.

made tight by a collar of rubber tubing, T, fitting snugly, and lubricated by a drop of water. A finger over the hole, O, converts it into a syringe, but the moment the finger is removed the internal air pressure is equalized, and the contained fluid (if held horizontally) remains stationary. Final accuracy is obtained by removing any slight excess of fluid, as a succession of dots on the finger which is repeatedly tapped against the point, P. Alternatively the hole, O, can be applied to the mouth, and fluids can be aspirated or expelled by suction, as when washing it out.

Trypsin Solution.—Four grains (0.26 gram) of Armour's trypsin are stirred into a paste and mixed with 100 c.cm. of water which has been freshly drawn from the tap to secure uniformity of temperature. The solution is filtered twice, and must not be prepared till just before use, as it rapidly deteriorates in the absence of substrate.

The chart was made by collecting the blood daily and keeping it in the cool till the fourth day, when the antitryptic power was measured against one normal serum (my own). Thus the estimations were done in batches of five, and hence five similar short test tubes were required.

Into each 5 c.cm. of casein solution are measured; 0.08 c.cm. of serum (approximately) is then very exactly measured into a capillary pipette (Fig. 1), which is rinsed out thrice into the test tube of casein. The pipette is then rinsed out four times in water and dried ready for the next serum by toasting it in front of a gas fire, expelling the steam by blowing, and cooled by sucking in cold air. The point may either be plunged into the serum, or if scanty it is best to open both ends of the capsule and pour the serum from capsule to pipette held mouth to mouth. It is often difficult to break the blood capsules at the thick part without breaking the capillary end. If the handle of a little key is slipped over and used as a lever the tube will always break at the file mark (Fig. 2).

Each casein-serum mixture is shaken up as soon as it is made, and every test tube is conspicuously marked—for example, N, P_1, P_2, P_3, P_4—with a grease pencil; 1 c.cm. of trypsin is now added by pipette to each test tube. All five test tubes are corked, shaken, and incubated for four and a half hours at about 40° C. They are then cooled under the tap and allowed to stand until next morning, if, as usually happens, this is most convenient.

Measurement of Viscosity.

Five little flat-bottomed, steep-sided glass cells are required, about 2 in. in diameter and 1 in. high, which can be covered with a watch-glass and immersed in a photographer's developing dish (to act as a water bath). They are numbered in correspondence with the five test tubes; 3 c.cm. of fresh casein solution are now added to each test tube, and the mixture is shaken and poured into each dish. The fresh casein is added because I

found that acid decreases the viscosity of casein, and hence the amino-acids accumulated during the four and a half hours' digestion will accentuate the difference in the readings of the viscosimeter, and thus render small differences in the antitryptic activity of the serums more measureable. Also the serum will be acting in a state of greater concentration.

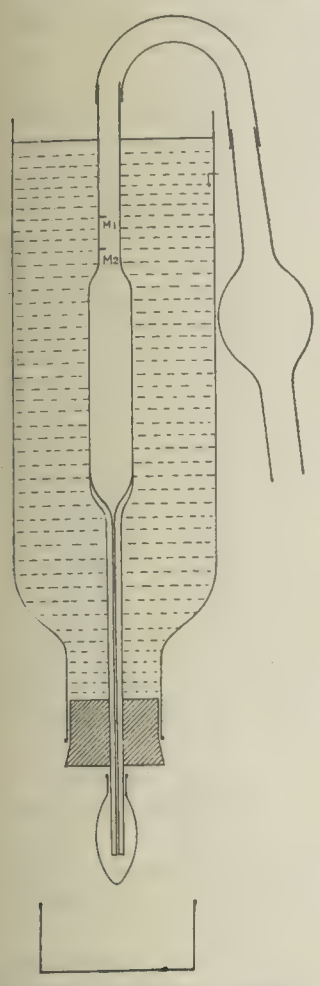


Fig. 3.—Viscosimeter, consisting of a pipette surrounded by a water bath, for measuring viscosity. It consists of a capillary tube surmounted by a bulb holding about 7 c.cm. This is connected by rubber tubing with a glass bulb which conveniently converts intermittent efforts of suction into continuous suction. The water bath is simply an inverted pint bottle with the bottom cut off. Below a glass capsule is shown in section. A rubber teat protects the capillary orifice from drying when not in use. The drawing is one-third natural size.

The five dishes now contain 6 c.cm. of casein-trypsin-serum digest *plus* 3 c.cm. of fresh casein. When they have stood for an hour or two to attain a condition of temperature equilibrium with their surroundings—very important—each solution is aspirated in turn into the viscosimeter and the number of seconds which each fluid takes to run through from the mark M_2 to the top of the capillary portion (see Fig. 3) is measured with a stop-watch. Each observation is repeated twice, or more if not concordant. The start should be a flying one from the mark M_2, starting from rest at the mark M_1.

Owing to the marked effect which temperature has on viscosity, the laboratory must be kept at a constant temperature during and before the observations. The whole apparatus should be considered as immersed in the air of the laboratory as in an air bath, so that a separate room is desirable. The observer must not touch the glass dishes with his warm hands, and the heat of his body must not be allowed to raise the temperature of the bath surrounding the pipette by more than 0.5° F. during the five observations.

If the temperature of the air is inconstant, a lower water bath may be necessary; the developing dish (or circular tray of perforated zinc) stands supported on a block inside it. Bits of fluff must on no account be allowed to get into the digest, and bubbles of air which have a way of clinging to the mouth of the pipette will surely vitiate a reading. But if these troubles be avoided the readings will with practice become very concordant, and should not differ by $\frac{1}{2}''$.

The protocols are tabulated thus:

G.H.—Serums of April 18th, 19th, 20th, 21st.

Time.	Normal.	Patients.				Temperature of water bath.
		No. 1.	No. 2.	No. 3.	No. 4.	
1.30 a.m. ...	73.2″	74.0″	74.7	75.2	72	Before, 53° F.
	73.2″	74.1″	75.2	75.4	72	After, 53° F.
	73.0″	—	74.7	75.3	—	
Difference	—	+0.9″	+1.5	+2.1	−1.2	
Add 27% ...	—	+1.1″	+1.9	+2.6	−1.5	

I add 27 per cent. here to bring results to a constant normal of 100″, so as to make the different parts of the curve (which has a fresh normal every four days) comparable. If the normal had come out at 70″, for instance, I should have added 30 per cent.

The results are plotted on the curve shown (Fig. 4), which is probably unique in being a daily record of the antitryptic index in an acute relapsing illness treated with vaccines during a long period.

In sucking up the serum into the measuring pipette a proportion of red cells will often be included. The mixture has, I think, a slightly less antitryptic power than pure serum, but side experiments indicate that the effect is negligible in slight degrees of red cell contamination.

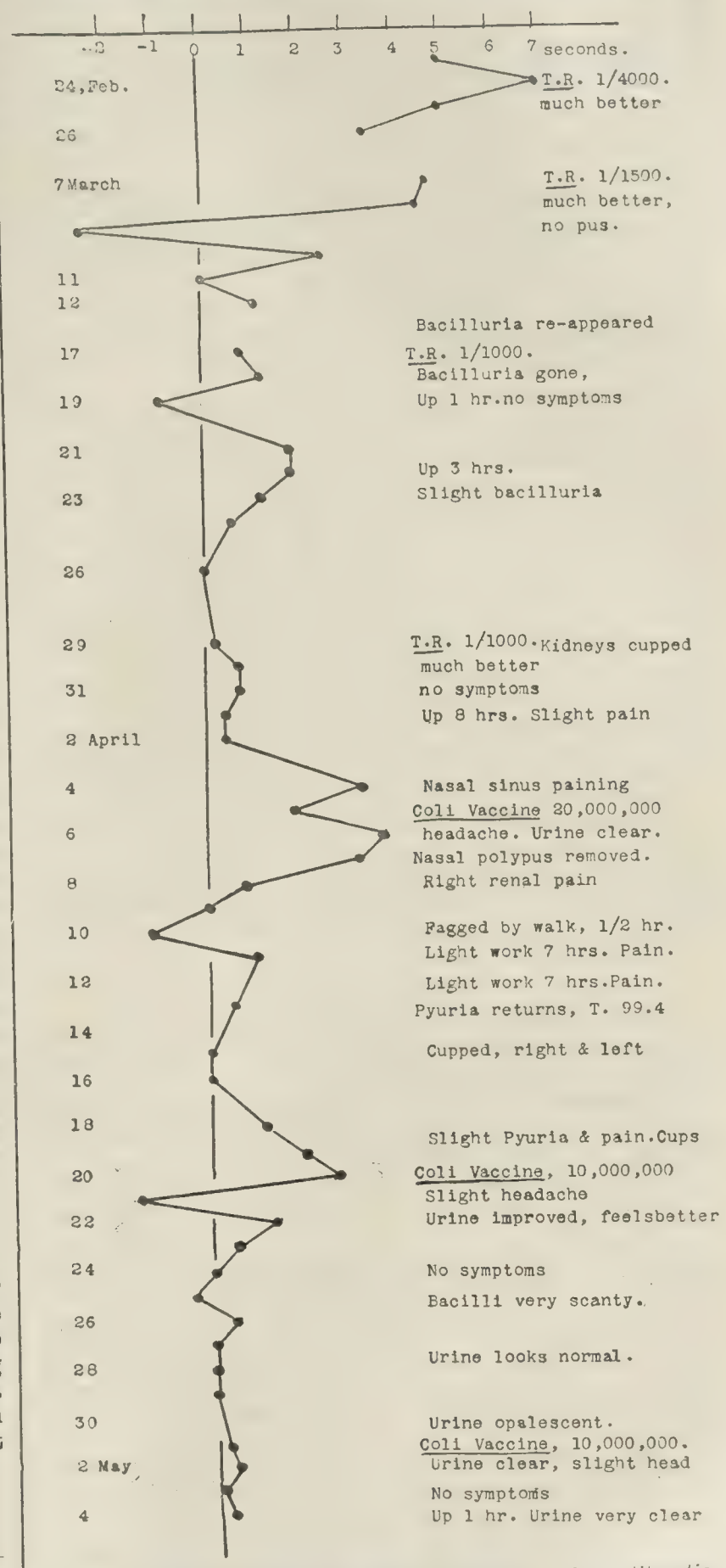


Fig. 4.—Chart showing the daily variations of the antitryptic index during two and a half months in a case of pyelonephritis treated by tuberculin (four injections) and *coli* vaccine (three injections).

Illustrative Case of Pyelonephritis Treated with Vaccines, Showing Their Effect on the Antitryptic Index from Day to Day.

The patient (female, aged 27) showed in her history a remarkable susceptibility to bacterial invasion. At the age of 12 she very nearly died of tuberculous peritonitis, but her natural desire to disappoint her schoolfellows in the band (whom she heard practising the Dead March for her benefit), doubtless contributed to her recovery.

Next came slight tuberculous glands, continuous amenorrhoea, and tuberculous disease of the bone and skin of the great toe, which, after thirteen operations, yielded to amputation.

Then she developed a persistent nasal catarrh, from which I isolated the bacillus of Friedländer, and prepared a vaccine which did temporarily stop the rhinorrhoea, but did more harm than good. A nasal polypus was then removed, and was followed by infection of the maxillary antrum. This was drained and washed, but the other sinuses became infected one after the other. All the sinuses have now been operated upon except the sphenoidals, and now, by wearing a tiny style to drain the frontal sinus, the poor girl seems to have been given relief from this trouble. However, after each operation urethral catheterization became necessary, and at the last one a cystitis due to *B. coli* infection was acquired in spite of every precaution. It spread up to the kidneys, causing a critical illness (February 6th, 1910).

The chart commences two weeks after this had passed its acute stage, while there was still pain and tenderness in the kidneys, and much pus in the urine. Though the temperature was normal, the antitryptic index was high (7″ delay). I did not dare risk the possibly injurious effect of a *coli* vaccine at this stage, though if one could have foreseen how obstinate the case would prove, a vaccine would have been worth the risk. As she had previously reacted very well to tuberculin (it always acted like a strong tonic) I gave her a small dose of T.R. ($\frac{1}{4000}$ mg.).

This and three other doses had an unmistakably good effect on all her symptoms, and also on the antitryptic index. A relapse, however, occurred, due partly to the necessity of her having another nasal polypus removed. This probably caused the big rise in the index about April 4th. The dose of *coli* vaccine she then had was probably slightly too large (20 million), as it produced a preliminary rise in the index and a fall delayed too long. The dose on April 20th was probably correct, as it caused a prompt and decisive fall in the index (4″), but of course one cannot generalize on such slender evidence. A vaccine appears to cause no fall of a normal index, but too large a dose would no doubt produce a rise, so that in either case the index may afford valuable guidance.

Those who are accustomed to opsonic curves must bear in mind that our object is to coax the curve *down* to the normal instead of trying to force the curve *up*, as in opsonic work.

Dry cupping I found of great benefit in this and similar cases, but I could not disentangle any effect on the antitryptic index attributable to it.

Urotropin, as usual in my experience of a *coli* urinary infection, did no good, but helmitol, as usual, proved distinctly helpful.

Methylene blue did no good in this case, and possibly harm.

The index varied independently of the temperature, proving much more sensitive to the vagaries of the kidneys and to the influence of vaccines.

CONCLUSIONS.

1. It is possible by this method to measure the antitryptic index with only $\frac{1}{12}$ c.cm. of serum, which is easily obtainable from a finger-prick.[1]
2. It appears probable that repeated observations of this index may give valuable guidance in the amount and frequency of doses of vaccines.
3. A suitable dose apparently lowers a raised index sharply without a preliminary rise (vide chart, March 8th and April 21st).
4. A dose which is unduly large seems to cause a preliminary rise and a delayed fall (vide chart, April 5th to 10th.
5. Tuberculin (T.R.) markedly improved the symptoms and an index raised by a *coli* infection, showing that the effect is not entirely a specific one. Although the patient was tuberculous there were no tubercle bacilli in the urine.
6. The present patient seems defective and abnormal as regards her immunization machinery, and the index in other cases may react differently.
7. The curve of the antitryptic index is perhaps more staid and moves in straighter lines than a chart of the opsonic index, probably because it is so much more accurately measurable. This consistent behaviour of the curve is, to my mind, strong evidence of the reliability of this technique.
8. In this chart the index displays a quality which simulates inertia, for whenever it falls suddenly it is apt to overshoot the normal line and to become a *negative index*, like a heavy, quickly-moving lever.
9. This throws some light on negative indices, which as isolated observations were less intelligible.
10. This method becomes a possible competitor with the opsonic index as another means of measuring immunization response.

REFERENCES.

[1] Golla, Proceedings of the British Medical Association, Belfast, July, 1909. [2] Hort, Diagnosis of Malignant Disease by Estimating the Antitryptic Power of Cancerous Serums, *Clinical Journal*, June, 1909; and Proceedings of the British Medical Association, Belfast, July, 1909.

ON THE VALUE OF TEST MEALS AS A GUIDE TO INFANT FEEDING.

BY RONALD CARTER, M.R.C.S., L.R.C.P., M.D.BRUX.,
KENSINGTON.

THREE years ago I started "infant consultations" in North Kensington (Notting Dale), with the help of the Kensington Health Society.

The mothers brought their infants once a week for advice because they were not progressing favourably. The majority were breast-fed, and, as is usual in these cases, friends told the mothers to wean the child. It seemed to me it would be a help in the elucidation of this problem to follow Professor Budin's plan and weigh the infant before and after a breast feed, and so discover at any rate the quantity of milk it obtained, and I have found this method to be of great practical importance. The number of breast-fed infants that "go wrong" is really amazing, and I feel quite certain that a large proportion of the deaths from gastro-enteritis attributed to bottle feeding are in reality breast-fed infants who have been artificially fed as a last resort. I have watched several of these cases, and I can positively say that the initial disturbance in nutrition started whilst the infant was breast-fed, and that artificial feeding was only resorted to when the degree of wasting had become noticeable to friends and relations.

In the case of breast-fed infants there should be some sort of co-ordination between the supply on the part of the mother and the demand on the part of the infant. A strong infant, by reason of its active powers of suction, affords the appropriate stimulus for a parallel activity on the part of the secreting gland, while the feeble nursling, on account of its indifferent powers of stimulation, excites little reaction in the breast. In a considerable proportion of cases there is no co-ordination between the supply and demand; sometimes there is too much milk, and sometimes not enough. Apart from the physiological test—namely, the progress of the infant—there is no way of finding out how much milk an infant receives unless we weigh the infant before and after feeding on very accurate scales; the amount consumed is estimated by noting the difference in the two weighings. This method is known as the "test feed." The following case illustrates its practical application:

A woman came to my consultations with a very wasted infant aged 2 months, and weighing 6 lb. She had fed it entirely on the breast, and assured me that it obtained the milk because it sucked for about ten minutes and then fell asleep. A "test feed" was arranged, and two hours after the last feed the infant was put to the breast. The scales proved that it obtained no milk at all. Milk could, however, be easily squeezed from the nipple, showing that an adequate supply was present. I ordered the mother to give 1 oz. of cow's milk with 1 oz. of barley water alternately with the breast feedings. During the following week the test feed showed that the infant obtained $\frac{1}{2}$ oz. from the breast, and the child had increased 4 oz. in weight. She continued to feed in this manner for another week and the test feed then showed that 1 oz. was obtained from the breast, the child having gained another 5 oz. in weight. At the end of a month's treatment 2 oz. was obtained from the breast, and the child had gained nearly 1 lb. The cow's milk was now discontinued and the child was fed entirely on the breast till it was 8 months old.

Irregular feeding is a frequent cause of vomiting and diarrhoea in breast-fed infants; the scales have often shown what small quantities these infants obtain, and when the mothers are told to feed "by the clock," the result is that the vomiting and diarrhoea cease and the child obtains often double the quantity of nourishment from the breast. When irregular feeding is persisted in, the child begins to waste, the mother then commences bottle feeding, with of course a bad result; should such a case end fatally, the doctor in attendance, if he had not inquired into the previous history, would naturally assume that bottle-feeding was the cause of death.

Another interesting observation that the test feed has disclosed is that among breast-fed infants it is not always those who are inadequately fed according to our accepted scientific data who suffer from wasting, but often those who receive an adequate or even excessive amount. I have notes of at least forty cases in which the infant appeared to thrive and maintain a good weight curve on half the quantity of food that it should normally obtain; for

instance, it is a common experience to find that an infant 3 or 4 months old is fed ten times a day and only obtains 1 to 1½ oz. of milk at a feeding, or about 12 oz. in the twenty-four hours. Evidence from an independent source confirms these observations, for Dr. Eric Pritchard at his consultations at the Marylebone Dispensary has come to exactly the same conclusions.

A starvation diet is hardly likely to promote active nutrition, so that in cases in which the test feed proves that the child is maintaining its weight on such a small amount of milk, I usually supplement the defective supply with additional feeds from the bottle. The following case, however, will show that this is not always necessary.

M., aged 1 month, weighing 8 lb. 5 oz., obtained 2 oz. from the breast. When he was 3 months old he obtained 4 oz. from the breast, and weighed 12 lb. 5 oz. At 4 months, the infant obtained only 2 oz. from the breast, and weighed 12 lb. 14 oz. At 5 months he obtained 2¾ oz., and weighed 15 lb. I felt inclined to give some cow's milk as well, but the child was satisfied, vigorous, and had well developed muscles, so I refrained. At 6 months he obtained 3¼ oz. from the breast, and weighed 16 lb. At the seventh month he obtained 3 oz. from the breast, and weighed 16 lb. 11 oz.

This child is still attending the consultations, and at present I see no reason why I should supplement this deficient supply of food, because evidently the quality of the milk must be very high. A wasted child, aged 2 months, and only weighing 6 lb. 10 oz., obtained 3 oz. from the breast; this is rather an excessive amount for this age. In a week's time he had lost 4 oz. in weight, and the test feed showed that he still obtained 3 oz. from the breast. In this case the quality of the milk must have been very deficient.

I frequently have infants brought to me who have been artificially fed from the first week of life, owing to the belief that the breast milk had "dried up" on the fourth or fifth day. I regret to say that some of these cases came from maternity institutions. I am sure that no one, however skilled in maternity work, can possibly tell, apart from the test feed, whether the infant obtains a small quantity from the breast or not. To show how mistakes can be made I will quote the case of an infant born in one of our maternity institutions.

The baby was 2 months old when I saw it, very wasted and was having the bottle. The mother told me her milk had disappeared on the fourth or fifth day, and that the nurse said she must feed the baby on the bottle. The financial problem on leaving the institution worried the mother a good deal, so she put the child to the breast now and then "when the nurse was not looking." The test feed showed that the child obtained 2 oz. from the breast. I told the mother to stop the bottle and feed only by the breast. The child did remarkably well, and there was no further trouble.

Mistakes such as this could easily be avoided if the test feed was employed in all doubtful cases.

During the colostrum period the amount of fluid secreted is always extremely limited. The milk is thought to "dry up" on the third or fourth day, because at about this time the breasts, which have been previously hard, often become soft and smaller owing to the resolution of the gland cells into a colostrum-like secretion.

I have seen many cases of dyspepsia and wasting in infants who have never had a chance of passing through the colostrum period (which usually lasts from ten to fourteen days), but have been fed on milk mixtures from the very commencement.

Colostrum is a bland, unirritating, non-coagulable fluid, and at the appointed time Nature adds the casein very gradually. The whole process may be regarded, in Dr. Pritchard's words, as an "educational" one, in which we can imagine the digestive processes being trained to deal with the clot at a later date. It is easy to see that cow's milk cannot be a suitable food at this early age. I have notes of several cases in which vomiting persisted for two or three months after this initial mistake was made. Infant foods were tried one after the other with a like result, and I only succeeded in arresting the vomiting by giving peptonized milk for some time, and gradually weaning the child on to citrated undiluted milk.

When cow's milk is added to the diet, the knowledge we obtain from the test feed is valuable. Take the case of a child 5 months old, who only gets 2 oz. from the breast—if the regular allowance of 4 or 5 oz. of modified milk were given in such a case gastric disturbance would be a likely consequence. I have seen many cases of mixed feeding, in which the mother has followed the printed instructions supplied to her with regard to the quantity of milk which should be given at a particular age, and where the result has been disastrous. I have in some of these cases proved by the test feed that the mixtures were in these particular instances far in excess of what the child required; and when I made the quantity of cow's milk to correspond to the amount obtained from the breast a more peaceful state of things resulted.

Up to the present time 360 infants have attended my consultations. During the first two years there were 5 deaths due to gastro-intestinal disease; during the last year no deaths from disease of the alimentary canal have occurred. The number of attendances has been 595 during the last year.

OVARIAN GRAFTING AND MENSTRUATION.

BY

TH. TUFFIER,

PROFESSEUR AGRÉGÉ DE LA FACULTÉ DE MÉDECINE DE PA
SURGEON OF THE HERTFORD BRITISH HOSPITAL, PARIS

AND

E. SEYMOUR CHAPMAN, M.D.GLASG.,

HOUSE-SURGEON, HERTFORD BRITISH HOSPITAL, PARIS.

ONE of us has been making a special study during the last few years of the question of ovarian grafting in the female subject. This grafting consists in implanting under the skin of the abdominal wall one of the ovaries which has been removed during a subtotal hysterectomy. The question of grafting an ovary from one woman into the abdominal wall of another subject, and also of grafting an ovary which has been preserved in ice during a period of from one to twenty-five days, has also been studied.

In all these cases the grafting has succeeded. The ovary has retained its original size for a period varying from one month to three years, and has exhibited at different times certain congestive phenomena which have stimulated those which normally take place just prior to menstruation. The results of these inquiries have been published in a thesis by Scheurer.[1]

The question of interest at the present moment is to know what actually takes place in a woman in whom both ovaries and tubes have been removed while the uterus has been left in place, and in whose abdominal wall one of the ovaries, apparently in a healthy state, has been implanted. Such a patient, after recovery from the operation, possesses a uterus in a normal position and an ovary in an abnormal position. Is it possible for such a utero ovarian combination to present the congestive phenomena associated with menstruation?

We have already published two cases with details upon the subject without being able to formulate any definite conclusions. In the case published below normal menstruation occurred, accompanied by enlargement of an ovary which had been implanted four and a half months previously:

E. G., aged 29, was admitted to the Hertford British Hospital on October 28th, 1909, with a history of abdominal pain on the left side of one month's duration. She was unable to assign any cause for the onset of the pain, and there was no history of miscarriage. There was slight leucorrhoea, but no examination was made to demonstrate the gonococcus. The patient had had one child, who was aged 4 years. Menstruation, which had commenced when she was 13 years of age, had been regular. Examination showed that she was suffering from double salpingitis, the disease being most marked on the left side. Treatment by rest in bed, daily douches, and enemata was undertaken and continued up to December 10th, 1909. On that day both tubes and ovaries were removed, and the right ovary, which appeared to be normal, was grafted into the abdominal wall on the right side. For some days following the operation there was complaint of pain on the right side of the wound, and the grafted ovary was tender upon palpation. These symptoms, however, quickly subsided, and she was dismissed well on February 10th, 1910.

On May 4th the patient came back with the complaint that the abdominal pain had returned, and then she gave the history of the following events, which had occurred since her discharge on February 10th. There had been slight yellowish-white vaginal discharge, which at times had had an offensive odour, and had necessitated her taking vaginal douches. Six weeks prior to her return—that is, on February 20th, or ten weeks after the operation—she had acute pain on the right side of the abdomen. This pain had come on suddenly and continued six

. She noticed that there was a swelling on the right side the abdominal wound; there was no vaginal discharge of lood. The pain gradually passed off, and her state of health again became satisfactory. On April 26th, 1910—that is to say, four and a half months after the operation—she observed a vaginal discharge of blood, accompanied by acute pain in the abdomen, and she noticed that the swelling on the right side of the abdominal wound had again appeared. She suffered also from a dull pain across the sacrum, from headache, and from lassitude. This discharge, which was thus associated with the usual signs and symptoms of a normal menstrual period, continued up to April 30th, 1910, and subsequently gradually diminished.

When the patient was readmitted on May 4th, 1910, there was slight leucorrhoea, but no discharge of blood. The os was unduly soft. The ovary in the right abdominal wall was tender and much swollen, measuring approximately 5 in. in diameter. There was no redness nor oedema of the overlying tissues. The temperature was 99° F., the pulse was 76, and the respirations averaged 24. The heart and lungs appeared to be normal, and the urine, which had a specific gravity of 1005, was acid in reaction and free from albumen and sugar.

On the following days the ovary steadily diminished in size, and by May 10th it was only just palpable, only very slightly tender, and the patient was practically free from all pain.

If we are to venture, in view of the facts of this case, to put forward any hypothesis regarding the nature of menstruation, we would say that the female organism is, in the first place, during a month under the influence of a toxin the origin of which is at present unknown but whose action is elective for the ovary; that the toxin produces an intense congestion of the ovary and perhaps a special metabolism; and that then an internal secretion derived from the ovary is formed which has a special action on the uterus, and which determines the discharge of blood. In the above case, for a period of four and a half months there were present certain signs such as the swelling of the ovary, flushings, and general lassitude, which were strong evidence of the presence in the organism of a poison having an elective action for the vasomotor system. After this period the grafted ovary had become permeated by new vessels originating from the parent body, newly-formed blood vessels had penetrated into the central portions of the ovary, and the menstruation, which up to that time had been in abeyance, was influenced by the grafted ovary, and occurred again in the usual manner.

REFERENCE.
[1] *Les greffes ovariennes*, Thèse de Paris, 1910.

A CASE OF SLEEPING SICKNESS SHOWING REGULAR PERIODICAL INCREASE OF THE PARASITES DISCLOSED.*

BY

PROFESSOR MAJOR RONALD ROSS, F.R.S.,

AND

DAVID THOMSON, M.B., CH.B., D.P.H.

[*Prefatory Note by R. Ross.*—For a long time it has appeared to me that much light might be thrown on infectious diseases, immunity, and treatment, by more exact enumeration of the infecting organisms, and that we might even be able ultimately to apply mathematical reasoning to the study of these subjects. In 1903 [1] I elaborated a method of blood examination, called the *thick-film process*, which enables us to detect small organisms in the blood about twenty times more easily than in ordinary preparations; but for the lack of the necessary assistance I was long unable to apply the method to the laborious enumeration of such organisms. Recently, however, the Advisory Committee for the Tropical Diseases' Research Fund has placed considerable funds at the disposal of the Liverpool School of Tropical Medicine for the study of cases in the tropical ward of the Royal Southern Hospital, Liverpool, with the result that the investigations referred to were commenced by Dr. David Thomson and myself from the beginning of this year. As I expected, methodical counting of the parasites has at once verified or disclosed several facts of importance in connexion with malaria and trypanosomiasis.]

In this communication we limit ourselves to a brief description of the remarkable periodical increase of *Trypanosoma gambiense* revealed by careful daily counting in a case in the Tropical Ward, Royal Southern Hospital; it is still under treatment, and the eventual outcome will be reported later.

W. A., male, aged 26 years, a strong young man born in Northumberland, was infected in North-East Rhodesia in September, 1909, the trypanosomes being found in his blood in Africa on November 17th. He was admitted into the Southern Hospital, Liverpool, on December 4th. From then until February 16th (seventy-three days) the number of trypanosomes in his blood was estimated only by the rough methods in common use—that is, by the proportion of trypanosomes to red cells or leucocytes, or to "fields" of the microscope examined. These methods are obviously open to such great error that they can scarcely be depended upon to indicate any but very large differences in the numbers of objects counted. During the seventy-three days forty-six counts were made; but on several occasions none was attempted for three or four days in succession, so that, even if the methods of counting employed had been more accurate, sudden fluctuations might easily have been missed. Hence, as was to be expected, the graph during this period is very irregular and almost worthless. On admission on December 4th the patient was reported to contain about 6,000 trypanosomes per cubic millimetre of blood, and large numbers, amounting to about 3,000 per cubic millimetre, were found on December 17th and 28th and on January 16th. All this time the patient was given the usual treatment with atoxyl and mercury, and received altogether ten doses of 2 to 4 grains of the former. Nevertheless, the parasites never fell below about 200 per cubic millimetre, as roughly estimated.

It was then found, however, that atoxyl was injuring the patient's sight (as sometimes happens), and other treatment was substituted. At the same time we elaborated a much more correct method of counting all the parasites in measured quantities (one quarter to 1 c.mm.) of blood taken in thick film; and from February 16th onward the trypanosomes were estimated daily by this method by one of us (D. T.). The attached chart gives the remarkable graph obtained up to the present (April 30th).

The numbers of trypanosomes found were scrupulously recorded, and the smoothness and regularity of the graph suggest that there was no very great error of observation. The blood was taken every day at about 10 a.m., but on April 5th and 6th several counts were made daily.

It will be seen that between February 16th and April 30th (seventy-three days) there were eleven rises in the number of the parasites. Up to April 7th there were seven rises, at intervals of seven or eight days. During this period the patient was given no atoxyl, but was treated with large doses of quinine (30 to 40 grains) daily, with frequent doses of methylene blue, and with trypan red on March 17th, 18th, 19th, and 20th.

On April 5th it was decided to administer atoxyl again, as shown on the chart, together with mercury and other treatment.

The temperatures were taken by the Sister of the ward, and it will be seen that there has always been a tendency to a slight rise in temperature concurrent with the rise in the number of parasites—the two curves thus confirming each other. Only the maximum and minimum temperatures are entered in the chart.

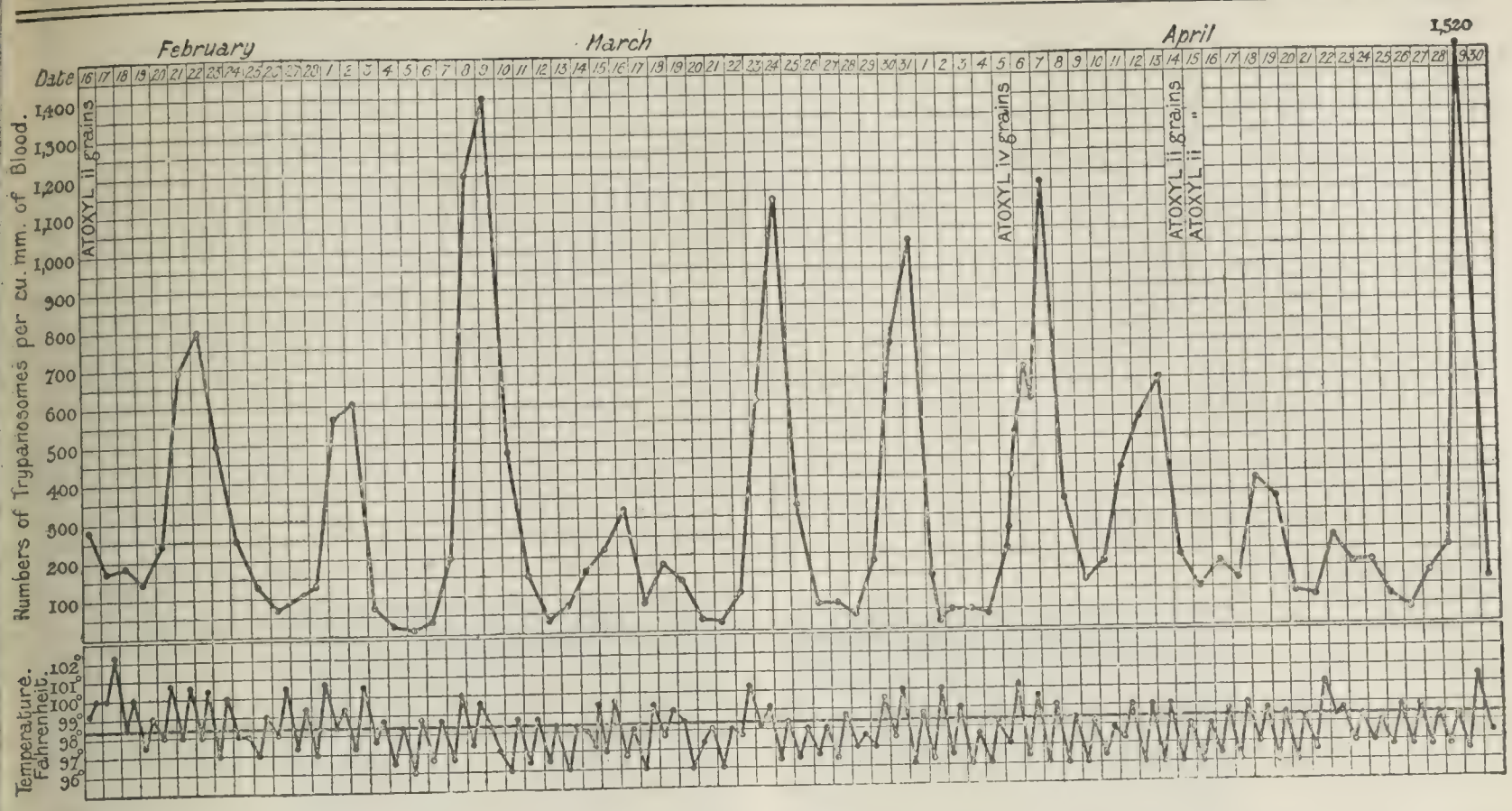
The great regularity of the rises can scarcely be compatible with a mere chance distribution. It will also be observed that the rises were of two kinds—namely, high rises and low rises; and that the two kinds alternated with regular periodicity until April 18th, at which point the cycle appears to have become distorted—probably in consequence of the treatment. The regularity of alternation of the high and low rises is so well marked as to recall the picture of a double tertian malaria, and to suggest that two independent sets of parasites may exist in the patient, just as often happens in malaria.

The large dose of atoxyl given on April 5th seems to have had no effect whatever on the following rise; but the succeeding rises were apparently modified for some reason. The value of the enumerative method for therapeutical research is obvious.

Of course many other facts in connexion with the case have been recorded, and parallel work is being done on subinoculated animals and on the parasites. It is, therefore, inadvisable to attempt at present any discussion of the many interesting theoretical questions which arise.

We are much indebted to the Director of the Sleeping Sickness Bureau (Dr. Bagshawe) for having given us references to the literature on the subject of such fluctuations. In the original case of Dutton and Ford it was noted that the parasites varied in numbers, and that a parallel rise in the patient's temperature occurred. Manson and Daniels [2] chart the number of parasites compared with 500 leucocytes; but the error of this method is very large, and their graph is quite irregular. They abandoned

* Read before the Royal Society, June 16th, 1910.



counts in measured quantities of blood as "unreliable." Thomas and Breinl[3] showed that in three cases of sleeping sickness the numbers of trypanosomes found in "fresh cover-slip preparations" varied irregularly from time to time. Koch, Beck, and Kleine (1909) remark on the irregularity of the appearance of *T. gambiense* in African natives, and state the parasites are present for two to five days, and absent for two to three weeks. Salvin-Moore and Breinl[4] show a graph with two undulations and a final premortal rise in two heavily infected rats, and give a detailed description of corresponding changes in the parasites. Apparently, hitherto, only irregular variations in the numbers of the parasites seem to have been recognized; probably the large error due to inadequate methods of counting has disguised the regular periodicity of the variation shown by more exact counts in the eleven successive undulations observed in our case.

We should add that our methods enable us to detect parasites when they are in numbers so small that their detection by the ordinary methods would be exceedingly laborious. Hence, if our case had been studied by the ordinary methods, probably only the crests of the rises would have been visible in the chart, and it would have been said that the parasites had disappeared in the intervals.

REFERENCES.

[1] *Lancet*, January 10th, 1903, and *Thompson Yates Reports*, vol. v, Part I, 1903. [2] BRITISH MEDICAL JOURNAL, May 30th, 1903. [3] *Memoirs of the Liverpool School of Tropical Medicine*, vol. xvi, 1905. [4] *Annals of Tropical Medicine, Liverpool*, vol. i, No. 3, 1907.

Memoranda:
MEDICAL, SURGICAL, OBSTETRICAL.

A *POST-MORTEM* REPORT OF A CYSTIC SPLEEN.

ON Friday, May 20th, I was called to view the body of a Portuguese, aged 48 years, who had been working—coaling a ship that day, and had complained of feeling sick. He had retired to his bunk, was given a little stimulant, and a few minutes later had died. I found the body lying partially on the left side. There was a considerable amount of foaming at the mouth. On inspection he was found to have a double inguinal hernia, easily reducible. The abdomen was moderately distended, and on the left side, slightly below the costal arch, was a swelling extending to a level with the umbilicus and across the middle line for about 1½ in. There were no marks of violence, and the body was just warm. I was unable to certify the cause of death, and by direction of the coroner made a *post-mortem* examination the following morning. An incision was made from the suprasternal notch to the pubis, and the parts exposed.

Thorax.—The pericardium contained some clear fluid, and on opening it the heart showed signs of fatty degeneration. The ventricles and auricles were filled with dark clotted blood; there was no valvular insufficiency, but there were a few calcareous deposits at the base of the aorta, and the muscular walls were much thinner than normal, and friable. The right lung was typically anthracosed, but otherwise normal. The left lung was also anthracosed, pushed up to about the lower margin of the sixth rib, and extremely adherent at all points, apically, towards the root, at the base and sides. The pleura was not visibly thickened.

Abdomen.—The first thing that presented itself was a large tumour about the size of a large melon, larger at the free border, and tapering slightly to its attachment below the ribs; about one-fifth of the tumour was underneath the costal arch and resting against the diaphragm, and the remaining four-fifths below the level of the costal margin. The tumour wa extremely adherent to the surrounding tissues and organs, except the stomach, which was pushed away to the right, occupying a position below the liver against the gall bladder. On attempting to remove the tumour, which was evidently the spleen, it was ruptured at its lowest margin, and a quantity of thick whitish-yellow fluid, of the consistency of custard, escaped. With a pair of scissors I opened the tumour in its entirety, and found a clear fluid in which were floating globules of various sizes, from the size of a Tangerine orange to that of a hazel nut or almond. These floating bodies consisted of a clear, translucent membrane containing a fluid similar to that in which they were suspended. The cavity in which they floated was unilocular. The thickness of the walls of the tumour was about half an inch. The stomach was very small, and measured about 5 in. in length and 3 in. in breadth. It was not further examined. The kidneys were congested. The liver was enlarged, and extended for 1 in. below the costal margin, and was congested. The gall bladder appeared normal.

Diagnosis.—I took specimens of the cystic bodies to the Sanitary Commissioners' Laboratory, where there were kindly examined for me by Mr. Abrines. Hooklets were found, and the diagnosis of *Taenia ecchinococcus* made.

An examination of the literature of *Taenia ecchinococcus*, or hydatid, shows that of 1,862 collected by Davaine, Cobbold, Finsen, and Neisser, the liver was affected in 953, the intestinal canal in 163, the lung and pleura in 153, kidneys, bladder, and genitals in 186, the brain and spinal cord in 129, bone in 61, blood vessels in 62, and other organs in 158. Of 50 cases treated by Mosler, the liver was affected in 36, the lungs in 10, the kidney in 3, and the spleen in 1.

L. H. GILL, L.R.C.P. and S.Edin., L.F.P.S.Glasg.
Gibraltar.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

EAST LONDON HOSPITAL FOR CHILDREN, SHADWELL.

A CASE OF SARCOMA OF THE PETROUS BONE.

(By W. H. BOWEN, M.S., F.R.C.S.Eng., late Surgeon; and H. B. CARLYLL, M.A., M.B., B.C.Cantab., Resident Medical Officer.)

THE patient in the following case—a child, aged 9 months—was admitted on October 8th, 1909, suffering from a polypus in the left ear, associated with a purulent discharge. The polypus had been noticed for a week, and its removal had been attempted by a doctor, who advised the parents to bring the child to the hospital. The mother had observed that the child, since it was 6 months old had been dull and apathetic. Screaming fits had occurred since it was three weeks of age, and "fits" during the past two months. It was an only child. Labour had been difficult, and instruments were used. The mother thought that the child's head had suffered some injury on the left side at the time of birth.

Fig. 1.—November 19th, 1909. Polypoid growth in concha. Rapidly growing mass between angle of jaw and ear.

Fig. 2.—December 9th, 1909.—Twelve days before death.

State on Admission.

The child was of average size, and well nourished. It appeared to be mentally deficient, and was almost, if not completely, blind. Its eyes were examined by the late Mr. Ilbert Hancock, who found patches of congenital choroiditis. Slow circulatory nystagmus was also observed. This had been present since birth. There was no head nodding. Some bloodstained purulent discharge escaped from the left ear, and there was a polypoid granulation to be seen, reaching as far as the outer limit of the meatus.

Fig. 3.—Tumour attached to bone, removed after death.

Treatment and Progress.

Two days after admission a slight swelling was noticed over the angle of the left jaw, and while the ear was being syringed a piece of gelatinous polypus, with some blood, came away. On October 12th the remainder of the polypus was removed by means of a snare, the inner part of the middle ear being scraped at the same time. A week later definite signs of recurrence of the polypus were noticed and the swelling over the angle of the lower jaw had increased in size. The recurrence was most pronounced, being as large if not larger than when first removed. It was bathed in pus, and suggested very active temporal osteomyelitis. Facial paralysis on the left side was also observed at this time. On October 19th a swelling had appeared behind the left ear, and on pressing this a quantity of offensive pus escaped from the meatus.

This abscess was incised and the antrum opened, the operation being carried out as for acute mastoid disease. The antrum was found full of granulations, which were scraped away. The pus had tracked down the neck in several directions. The wound was plugged and left open. At a second operation three days later the bridge was removed and extensive opening of all the cavities of the ear carried out. The dura mater was exposed in the middle and posterior fossae, but not found involved. The mastoid process was perforated and a probe passed through the opening in the bone into the abscess cavity at the angle of the lower jaw. This abscess was also incised. The incision behind the ear was sewn up.

On November 5th the child had slight general convulsions. The mastoid incision healed by first intention. On November 13th considerable haemorrhage occurred whenever the plug in the meatus was removed. In spite of the completeness of the operation the polypus had so recurred within a very short time as to form a large growth projecting into the concha.

It was now evident that the diagnosis of malignant disease was probably correct, and this was further confirmed when the mass at the angle of the jaw, though fully drained, increased in size and commenced to infiltrate the neighbouring tissues. Gradual progressive enlargement of the mass occurred along the angle of the lower jaw. There was no sudden increase in size as would have occurred from haemorrhage into its interior, and the consistency of the tumour did not vary. The child was able to swallow readily, but during December occasionally coughed up some blood. The temperature ranged between 97° and 102° F.

Result.

Death occurred on December 21st, fifteen weeks after the commencement of the illness. From first to last there were no brain symptoms, and the facial involvement varied frequently, the paralysis being sometimes complete, and occasionally so slight as to escape detection. There were no signs of labyrinthine irritation at any time.

REMARKS.—A complete *post-mortem* examination was not obtained, but a subcutaneous dissection of the tumour and removal of the petrous portion of the temporal bone was performed. The tumour dissected of skin was about the size of a tennis ball, and with the piece of attached bone weighed 9½ oz. Microscopic examination of the tumour showed a typical round-celled sarcoma. The clinical history and appearance of the specimen suggest that the disease started as a primary sarcoma of the middle ear, with secondary involvement of the antrum and mastoid. The case in the first instance was thought to be chronic middle-ear disease. There was nothing in the appearance of the polypus, as first seen, to suggest malignant disease, but bathed in pus as it was, and with its rapid history, it suggested rather active disease. The rapid recurrence might have raised suspicion, but was attributed to active bone disease, calling for a radical operation. When, despite a complete operation and packing, the polypus rapidly recurred, the malignant nature of the disease became manifest. It is probable that the haemoptysis was caused by malignant deposits in the lungs.

AT a sale of work in aid of the Peckham Nursing Association it was reported that during the past year the two certificated nurses had paid 6,460 visits to 247 cases.

FROM the thirty-fifth annual report of the Mission to Lepers in India and the East we gather that the society is now supporting or helping some 10,000 lepers or children removed by the society from their tainted parents. During the year additional accommodation was made near Simla for European and Eurasian lepers, of whom six are in residence. At Wuchow, in China, an island has been acquired and provision made for using it for the segregation of Chinese lepers and their employment in fishing. The annual expenditure of the society appears to be about £30,000 a year, home administrative expenses absorbing some 9 per cent. of that sum. It has its head quarters at 33, Henrietta Street, W.C.

Reports of Societies.

ROYAL SOCIETY OF MEDICINE.

OBSTETRICAL AND GYNAECOLOGICAL SECTION.

Thursday, May 26th, 1910.

Dr. MACNAUGHTON JONES, President, in the Chair.

Caesarean Section in Puerperal Eclampsia.

DR. F. J. MCCANN recorded a case of puerperal eclampsia successfully treated by Caesarean section. This operation, he said, when performed for eclampsia, had a high mortality-rate, because it was only undertaken when all other methods had been tried and the patient's condition was hopeless. The desirability of rapid delivery should be reconsidered, as the present mortality from expectant methods of treatment was still between 20 and 25 per cent. Dr. HERMAN agreed that Caesarean section was the quickest and easiest way of emptying the uterus, but did not agree that the first indication of treatment was to empty the uterus. In a paper read before the Medical Society of London he had collected 2,000 cases of eclampsia, and the comparison of the cases in which the uterus was rapidly emptied with those in which it was not interfered with showed that there was no benefit in emptying the uterus. The fits were not stopped, nor was the death-rate appreciably smaller. Dr. McCann had brought forward no evidence to alter this conclusion. The conditions under which Caesarean section had to be done in cases of eclampsia were as unfavourable as they could well be, and it was certain that Caesarean section did not stop the fits, for many cases had been recorded in which fits persisted after this operation. Dr. H. SPENCER did not think that it was in any way proved that delivery should be at once carried out. He had one settled conviction with regard to the treatment of eclampsia, and that was that abdominal section was very rarely indeed called for in eclampsia, for even if it were proved that rapid delivery was the right treatment, the patient could generally be delivered by the use of Bossi's dilators or vaginal Caesarean section (both of which methods, however, he regarded with some disfavour) in less time and with less danger than by abdominal Caesarean section, which seriously endangered any subsequent delivery. Dr. AMAND ROUTH thought there was reason to believe that Caesarean section would be occasionally useful. Dr. W. D. SPANTON said that some of the worst cases of eclampsia he had seen were *post-partum* ones. Abdominal Caesarean section should be reserved for such exceptional cases as those in which the cervix was hard and undilatable or the pelvis contracted. Dr. W. J. GOW thought delivery by Caesarean section was justifiable in certain cases of eclampsia. In severe cases patients died even after delivery, but in such cases after the uterus was emptied the chances of recovery were greater. Dr. MACNAUGHTON JONES thought there were circumstances in which Caesarean section might be the only available method of treatment, when the only two courses open were to abandon the woman to her fate, or to give her a chance by operative interference.

SECTION OF LARYNGOLOGY.

Friday, June 3rd, 1910.

Dr. DUNDAS GRANT in the Chair.

THE following were among the exhibits:—Mr. SOMERVILLE HASTINGS: A case of *Laryngeal paralysis*, following partial removal of the thyroid gland, in a woman, aged 41, who had suffered from goître for fifteen years. Loss of voice and slight dyspnoea were noticed immediately after the operation, but, owing to an attack of bronchopneumonia, examination of the larynx was deferred for three weeks. The patient was unable to cough and spoke with much waste of air in a feeble voice. There was some expiratory stridor. The cords were pale and held immovable in incomplete adduction, flapping forward in expiration. Dr. J. DUNDAS GRANT: (1) A case of *Tuberculosis of the larynx, with extreme odynphagia*, relieved by injection of alcohol into the left superior laryngeal nerve. The patient, a young woman, complained of such intense pain in swallowing as to prevent her from taking food. One cubic centimetre of 80 per cent. of alcohol, containing a trace of eucaine, was injected into the region of the superior laryngeal nerve between the hyoid bone and the upper margin of the thyroid cartilage by means of Schloesser's syringe. The needle (shown) used was somewhat coarse in structure, and sharpened to a much more obtuse angle than in ordinary hypodermic syringes, so as to render it incapable of puncturing the superior laryngeal artery, and it had a mark to indicate the depth of 1½ cm. The exhibitor had obtained an equally satisfactory result in the case of a female patient in the wards of Brompton Hospital. (2) A case of *Hypertrophy of the lingual tonsil*, with impairment of singing voice. The patient, a young woman, complained of tickling cough, which occurred soon after beginning to sing. The larynx presented a slight degree of catarrh and imperfect apposition of the vocal cords. There was very marked hypertrophy of the right half of the lingual tonsil, overhanging and obviously touching the epiglottis. A portion of this was removed with a snare, and the patient stated that the cough had been very considerably diminished and her singing greatly facilitated. Dr. JOBSON HORNE: (1) A series of microscopic sections cut vertically through the entire length of one side of the soft parts of the larynx, illustrating the *Development of an innocent neoplasm*, dependent from the roof and tending to present itself at the mouth of the ventricle. This specimen was accidentally met with whilst investigating a series of larynges obtained in the Pathological Institute of Berlin by Professor Virchow. (2) A section of the right half of the larynx, showing true *Prolapse of the mucous membrane* lining the ventricle. The detachment of the membrane had been brought about by ulceration and destruction of the cartilage secondary to a gumma. Mr. WALTER HOWARTH: A case of *Tuberculosis of the larynx*, with considerable dysphagia, treated by venous congestion. When the patient first presented himself great swelling of epiglottis and arytenoids obscured the larynx from view. For three weeks he had been wearing a fairly tight elastic band round the root of the neck for twenty-two hours out of twenty-four. The band was fitted with a pad lying in the hollow between the cricoid and top of the sternum. It could be tightened by a buckle at the back of the neck. The swelling had so far diminished that an easy view of the larynx was obtainable, and there was much greater facility in swallowing. Dr. JAMES DONELAN: *Tuberculous ulceration of epiglottis*, apparently healed by frequent use of electrocautery. The epiglottis was a mass of tuberculous ulceration and infiltration. Fifteen cauterizations had been applied previous to November, 1909, and ten since January 10th, 1910. There was now no evidence of active disease in the epiglottis or arytenoids.

SECTION OF SURGERY.

Tuesday, June 14th, 1910.

Mr. R. J. GODLEE, President, in the Chair.

Treatment of Syphilis.

THE adjourned discussion on the present position of the treatment of syphilis was opened by Mr. MARSHALL, who was imperfectly heard, but was understood to uphold the oral method of administering mercury. Dr. GEORGE PERNET said there was no manner of doubt that the "pills and potions" method of treatment had failed, and that on the Continent this had been recognized long ago. He had found calomel injections most potent, but used grey oil also, and on occasions the soluble salts. Treatment should be vigorous for two years, gentle for another two, and completed by a last course about the seventh year. The iodides were useful for patients over 40. In some cases there was a mixed infection, and it might be advisable to employ a vaccine if the complicating organism could be isolated. Mr. BAYLY had found the "Chinese-ink" method described by Dr. Flemming at the last meeting far less reliable than the use of the so-called ultra-microscope. His experience with the Wassermann test led him to believe that inunction gave even better results than intramuscular injections. The time had come when the pathologist was quite as important as the surgeon or the physician in relation to syphilis; he saw no reason why syphilis should any longer be regarded as a surgical disease. Something

should be done by notification and segregation of the disease to stamp it out. Mr. Hutchinson thought treatment ought to be continuous for at least two years. He was by no means convinced that injections were so perfectly satisfactory as some of the speakers had seemed to indicate. His own experience, and that of many army surgeons who had had great experience of the method, was certainly not entirely satisfactory. The iodides were extremely useful, not only in the tertiary stage, but sometimes in the secondary—for example, in intractable ulcers of the tonsil. He would like further evidence as to the alleged fact that in congenital syphilis the Wassermann reaction could not be abolished by the administration of any number of intramuscular injections; 9 out of 10, if not 19 out of 20, patients treated by the oral method were satisfactorily freed from the disease. The occurrence of wholly fresh attacks in those properly treated seemed to him to prove that the disease could be cured by oral administration of mercury. He regarded the arsenic preparations as extremely dangerous. Cases which would not respond to mercury orally administered often would not benefit even by intramuscular injections. Mr. Godlee said that to a large extent syphilis had passed out of the hands of the surgeon. He no longer saw, either in the wards or in private, the cases he used to see ten or fifteen years ago. Mr. Lane, in his reply, said he did not agree with the extreme view that oral administration was useless. The cases treated during the last fifty years had done well on the whole, and syphilis was a far milder disease now. He agreed with Dr. Pernet that there ought to be more systematic teaching of venereal disease in the schools. As regards iodide, he admitted that it had no effect on the virus, but nevertheless it was a most valuable adjunct in treatment.

Section of Diseases of Children.

Saturday, June 11th, 1910.

Dr. Cautley in the Chair.

This was a clinical meeting held at Portsmouth, the exhibits including the following:—Mr. C. P. Childe: (1) A case of *Subperitoneal resection of the shaft of the ulna* for tuberculous osteomyelitis in a child aged 7 years. There was four and a half months' history of pain over the upper end of the right ulna. Subsequently a swelling appeared and was opened. A skiagraph exhibited the tuberculous deposit in the ulna. Complete subperiosteal excision of the shaft of the ulna was performed, the bone being sawn through above, below the coronoid process, and wrenched off the lower epiphysis. The case had progressed satisfactorily, and the new ulna formed from the periosteum could be distinctly traced on the screen. (2) A case of *Partial tarsectomy* for tuberculous disease in a child aged 5 years. A swelling appeared over the dorsum of the right foot when the child was aged 2. This opened and discharged till the time of operation in October, 1908. Incisions were made on each side of the foot, and the tendons reflected. A large portion of the mid-tarsus, including the disease, was removed with the saw. The child has a very useful foot. In discussing the first case Mr. H. Lett mentioned a similar case in which he had used a prop to support the bones after resection very successfully. Dr. L. Cole-Baker: A case of *Bilateral absence of the puncta lacrymalia* in a child aged 10 years which had exhibited epiphora from its birth. An attempt was made to pick up the opening of the canaliculus in the left lower lid without success. Both glands were removed through the conjunctiva at the outer angle of the upper lid. Dr. J. T. Leon: Specimen of *Peritoneal growths from a case of lymphocythaemia.* The patient, a girl aged 6½ years, was admitted to hospital on May 28th, 1908, for intense anaemia, enlarged spleen and liver. The blood count on admission showed reds 560,000, white cells 17,500. *Post mortem*: Lymphoid growths were present in practically every organ. The liver weighed 30½ oz., the kidneys 11 oz and 9 oz., and the spleen 5½ oz., all these organs being the seat of numerous growths. Mr. C. S. Ridout: A case of *Extensive injury to the head* in a boy aged 7 years. As a result of injury a large part of the skull in the Rolandic area had been removed. There was pulsation of the scalp and athetosis of the right hand. The mental power was good.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

Friday, June 3rd, 1910.

Mr. W. McAdam Eccles in the Chair.

The Wassermann Reaction.

Mr. N. Bishop Harman, in a paper on the Wassermann reaction in eye work, described work covering a series of some 40 cases seen in the out-patient department of the West London Hospital. The pathological examinations were performed by Dr. E. H. Blunt, working under the supervision of Dr. Bernstein, Pathologist to the Hospital. The cases fell into three groups: (1) Children suffering from acute interstitial keratitis of a type that left no reasonable doubt that the inheritance of syphilis was the primary factor. In each of these the reaction proved positive. The mothers of these children were simultaneously examined, and also gave a positive reaction. Thus, although the mothers showed no sign of syphilis, they were as profoundly affected by the syphilitic poison as their offspring. (2) Twelve cases of ocular disease, past or present, in adults, the conditions ranging from scars of interstitial keratitis long passed to recent optic atrophy with ocular paralyses. In each of these cases of presumed syphilitic origin the serum reaction proved positive. (3) The last group of 10 cases covered a varied selection of inflammations, as nearly similar as possible to those found in the syphilitic groups, and yet in which there was no suspicion of a syphilitic origin. The subjects were equally divided between children and adults. In this series the serum reaction proved negative. The author considered these results added to the cumulative evidence of the reliability of the Wassermann reaction. As one of its commendable features he instanced the fact that it entailed no risks to the patient and no inconvenience other than the abstraction of a few drops of blood. When the test had been standardized, as the pathologists now proposed to do, its value would be increased, for it would not only indicate a general syphilitic infection, but also point to the particular nature of a given local inflammation. Mr. W. McAdam Eccles suggested testing the father and apparently healthy brothers and sisters of the patient. Mr. J. E. R. McDonagh mentioned two cases of interstitial keratitis recently under his care. One, a girl, who first showed the disease at the age of 23, gave a positive Wassermann reaction. The second case was a married woman with one child; she had had double interstitial keratitis, and had Hutchinsonian teeth; both mother and child gave a positive reaction. He recommended that all children of a suspected mother should be tested, and those giving a positive reaction treated with antisyphilitic remedies.

Haemorrhagic Pancreatitis.

Dr. A. Elliot described two cases of acute haemorrhagic pancreatitis. Both occurred in men between 40 and 50 years of age, considerably over the average weight for their age and height, and who habitually took alcohol in considerable quantity. In both the onset was sudden and, in both the chief symptom was intense epigastric pain with vomiting. In one case laparotomy was performed. Both ended fatally, one in twenty-six hours and the other in forty-eight hours. As to diagnosis, it was suggested that the suddenness of onset, the extreme severity of the pain and the persistence and urgency of the vomiting formed a symptom-complex more frequently found in this malady than in other acute emergencies in the upper abdomen. It was pointed out that the collapse to which various writers had attached much importance did not occur in these cases until a late period. Mr. W. McAdam Eccles said that he considered drainage through the lesser omentum and free drainage of the biliary passages gave the only hope in the early stages of the disease. Dr. G. C. Low, amongst other remarks, described four *post-mortem* examinations on this condition which he had performed whilst doing the pathological work at the West London Hospital. He described the naked-eye and microscopical appearances of fat necrosis, and drew attention to its being found only in the abdominal cavity—not, for instance, in the subcutaneous fat of the abdomen or within the thorax. He also mentioned

a case of "malarial haemorrhagic pancreatitis"; in this case there was no fat necrosis. Mr. J. A. CAIRNS FORSYTH had seen six cases of "acute haemorrhagic pancreatitis" operated on; only one was successful. He was inclined to think that many of the cases were non-inflammatory at the commencement—in fact, an apoplexy of the gland. He pointed out that they were generally cases in which haemorrhage might occur in other tissues. He thought that a gauze drain might be placed in the foramen of Winslow, if patent, as well as drainage of the lesser sac and bile passages.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Thursday, June 9th, 1910.

Dr. G. A. BERRY, President, in the Chair.

Arylarsonates and Optic Atrophy.

MR. ERNEST CLARKE, in a paper on optic atrophy following the use of arylarsonates in the treatment of syphilis, described the case of a man aged 46, who was given ten injections of 5 grains of soamin every alternate day, and after the last the sight became misty. Several months later he had three further injections of 5 grains. He had vision of barely hand-movement in one eye and $\frac{6}{12}$ with scarcely any field in the other. Both discs were atrophied. Another patient, aged 49, had 10 grains of orsudan on alternate days, and after the ninth injection the sight began to fail. Both discs became atrophied. The condition of the discs in these two patients left little doubt but that the drugs were responsible. Possibly the combination of arsenic, aniline and syphilis might be particularly destructive to the optic nerves, but the lesson he wished to point out was that great care should be exercised in the administration of arylarsonates. The eyes should be most thoroughly examined before and during the administration of the drug. Disease of the arteries, kidneys, or liver contra-indicated its use. The dose should be carefully regulated according to the body weight and age of the patient, and it was doubtful if it ever was safe in any one over 40 years of age. Colonel Lambkin, the great advocate of the treatment, had used it mostly, if not entirely, in young subjects. When the profession had fully recognized the limitations of the use of the arylarsonates, it might be that they would prove to be all that could be desired; meantime there might be a question as to the expediency of employing them for the treatment of syphilis. It was one thing to risk blindness in being treated for a fatal disease like sleeping sickness, and quite another to risk it in the treatment of syphilis, even if in some cases it were more successful than the ordinary and well-tried methods. Mr. WRAY pointed out the importance of giving the arylarsonates in accordance with the body weight. Cases of blindness after its administraion had been numerous; it occurred in two sets of cases—after sleeping sickness and after syphilis. He believed that 15 per cent. of cases of syphilis recovered without the administration of mercury at all. Too little had been heard about the Wassermann reaction in treatment; it was used chiefly in diagnosis. Mr. BREWERTON, the PRESIDENT, Mr. DAWNAY, Mr. DOYNE, Mr. COLLINS, Mr. MAYOU, Dr. FARQUHAR BUZZARD, Mr. POOLEY, and Major MOULD also spoke.

Congenital Cataract.

Mr. N. BISHOP HARMAN read a paper giving details of the inheritance of congenital cataract in nine families. Of these five were of lamellar cataract, one of coralliform cataract, one of discoid cataract, and one of form unknown, as the cataracts had been removed some years ago, and one of posterior polar cataract with microphthalmia. In the families with lamellar cataract several showed an inheritance through several generations and in numerous individuals. In one a marriage of first cousins seemed to accentuate it in their progeny. Another of these families showed grave mental disorder on both sides in several generations, several dying mad on the paternal side, and many suffering from epilepsy on the maternal side. The case of posterior polar cataract with microphthalmia was particularly distressing, for of five children born to an apparently healthy couple, of whom two were twin, the four surviving were all irremediably blind from the defective growth of the eye. It was noted that in several instances those affected with congenital cataract were mentally defective.

Family Choroiditis.

Mr. DOYNE showed some cases among members of a first family of "family choroiditis," and pointed out that the spots were exudations beginning in early adult life, but more generally later, increased very much in middle age, when, though the appearance of the lesion was gross, the sight was not proportionately affected, and finally, in old age, passed into atrophy with very great loss of sight.

ASSOCIATION OF REGISTERED MEDICAL WOMEN.

Tuesday, June 7th, 1910.

Mrs. DICKINSON BERRY, President, in the Chair.

BEFORE the work of the evening commenced it was resolved that a message of sympathy be sent to the relatives of the late Dr. Elizabeth Blackwell, who was one of the original members of the Association of Registered Medical Women.

Neurasthenia.

Dr. ABMITAGE, in a paper on neurasthenia, said it was not a new disease, though in the past it was not distinguished from hysteria, but it had certainly become more common in modern times. This was due to the greater prevalence of influenza and of carious teeth, and to the greater pace of modern life. She classified the symptoms according to whether the brain or spinal cord was chiefly affected. The causes of the condition were: (1) Toxic blood states; (2) malnutrition; (3) fatigue from overwork; and, least common of all, (4) emotion. Gastric symptoms were very common, and as they often preceded the development of neurasthenic symptoms by a long period, the gastric derangement was more likely to be a cause than a part of neurasthenia. In the cases due to malnutrition it was found that though the patient lost weight the nitrogen output in the urine was less than the intake, showing that there was diminished absorption. Neurasthenia due to fatigue was common in the professional classes, and was especially seen where overwork was combined with worry. The resemblance between cases with vasomotor symptoms and cases of early Graves's disease was pointed out. An important part of the treatment was to remove the patient to a suitable environment in which she would be encouraged to be the chief agent in her own cure. The speaker thought that the strict Weir-Mitchell treatment tended to induce a melancholy state. Hot drinks at night or wet packs to the feet were useful for the insomnia; moderate exercise was good for cerebral cases, while spinal cases were best treated by rest. Dr. MAY THORNE read some notes sent by Mrs. Savill, M.D., based on the investigations of the late Dr. T. D. Savill, in which it was pointed out that toxic causes, such as gastric disorders or pyorrhoea alveolaris, were the most frequent, and that a large number of neurasthenics improved when their gastro intestinal symptoms were treated. Nerve tonics should not be given in the early stages, but treatment should be mainly dietetic and electrical, combined with rest. Strict isolation was bad for patients who suffered from panics and dreads. Miss GARRETT ANDERSON said she was more chary than formerly of ordering rest cures, as she had often found that patients had difficulty in resuming their ordinary life. Dr. MAY THORNE noted that fat neurasthenic patients were most hopeless to treat and seldom got well. Miss LONG referred to cases of neurasthenia following operations, and emphasized the importance of enforcing prolonged rest after even slight operations on neurotic patients. She considered that a rest cure was the best treatment for neurasthenia, and that the temperament of the doctor was an important factor in bringing about a cure. Dr. ETHEL BENTHAM remarked that rest cures often intensified the patient's tendency to morbid introspection. Miss HASLAM approved of rest cures if the patient would follow advice with regard to return to work on leaving the nursing home. Miss STONEY suggested *x*-ray treatment applied to the thyroid gland for patients with symptoms resembling those of Graves's disease.

NORTHERN ASSOCIATION OF MEDICAL WOMEN.

Saturday, June 4th, 1910.

Miss Ivens, M.S., President, in the Chair.

Dr. Catherine Chisholm (Manchester) recorded a case of carcinoma of the sigmoid flexure in a woman, aged 59 years, suffering from chronic intestinal obstruction. The growth was removed by Miss Ivens, together with the attached mesentery and glands, through a median incision, end-to-end anastomosis with the upper end of the rectum being effected. The patient did well, and at the present time, six months after the operation, was in excellent health. The choice of operation—namely, primary anastomosis and colotomy, in spite of the increased risk, was amply justified by the subsequent comfort of the patient. Macroscopically, the growth was extensive ring carcinoma, the lumen of the gut only allowing a probe to pass. Microscopically, it was an adeno-carcinoma. Dr. Ruth Balmer (Stockport) read notes of a case of vesical calculi in a girl aged 14 years. A suprapubic cystotomy was performed by Miss Ivens, and two large calculi removed from a contracted bladder. A self-retaining catheter was inserted, and the wound healed by first intention. The calculi measured 2 in. and 2½ in. each respectively, the nucleus in each case being a hairpin. Dr. Mary Davies (Liverpool), in a paper on the treatment of school children after medical inspection, pointed out that one of the greatest difficulties lay in the varying social positions of children attending the elementary schools, some of the parents having incomes of £300 to £400. The free treatment of such children at school clinics would be a grave injustice to the general practitioner. The President referred to the death of Dr. Elizabeth Blackwell, and it was unanimously decided that an expression of condolence should be sent to her relatives. A vote of thanks was then passed to the retiring Chairman, Dr. Merry Smith, for the able manner in which she had performed the duties of her office.

ULSTER MEDICAL SOCIETY.

The annual meeting was held in the Medical Institute, Belfast, on June 9th. The President, Dr. J. J. Austin, occupied the chair. Mr. T. Killen, F.R.C.S., and Dr. J. Thompson were elected members. The reports of the council, of the honorary librarian, and the honorary treasurer's statement of accounts were laid before the meeting and approved of. The election of officers for the next session was held, and the following chosen: *President*, Sir Peter O'Connell, M.D.; *Vice-Presidents*, Dr. J. S. Morrow (Belfast) and Dr. J. L. Rentoul (Lisburn); *Honorary Treasurer*, Dr. Rush; *Honorary Secretary*, Mr. Howard Stevenson; *Honorary Editorial Secretary*, Dr. J. J. Rankin; *Honorary Librarian*, Mr. R. J. Johnstone, F.R.C.S.; *Council*, Drs. Storey, Fielden, Kirk, Miss Marion Andrews, Mrs. Elizabeth Bell, and Gardner Robb, Dr. G. A. Hicks then introduced a discussion on the treatment of the following obstetrical conditions: (1) The induction of premature labour; (2) placenta praevia; (3) unreduced occipito-posterior positions by the head; (4) the position of the patient during (*a*) the second and third stages, and (*b*) during the puerperium. Sir John Byers, Dr. Dempsey, Dr. John Campbell, Dr. R. J. Johnstone, Dr. Rush, Dr. Shackleton, and the President joined in the discussion, which lasted to a late hour.

The fifth annual report of the Trinidad Association for the Prevention and Treatment of Tuberculosis brings home to us the world-wide distribution of this disease which appears to be very prevalent in the West Indies. Indeed, we note in this report that "As usual, tuberculosis was the principal cause of death in Port-of-Spain." A tuberculosis exhibition was held early in the year in connexion with the association's educational propaganda. A tuberculosis dispensary has been in existence for the past five years, but has not yet apparently carried out any home visiting, which is an important feature of such dispensaries elsewhere. The promise of a Government grant has encouraged the committee to commence this work forthwith. A sanatorium for early cases is another urgent requirement, seeing that the mortality from tuberculosis in Port-of-Spain reaches 4.75 per 1,000 of the population, or about three times that for London.

Reviews.

HYGIENE IN SCHOOL.

Dr. Crowley is to be congratulated on producing an interesting and valuable manual on the *Hygiene of School Life*.[1] His book is the more interesting, as much of it is the expression of opinions formed as the result of practical experience; and if in some respects, in following questions to their logical conclusions, and in dealing with the social and economic difficulties which at present beset the path of the school medical officer, he goes further than the average education authority or even the average reader is prepared as yet to follow, his evident sincerity and desire to persuade education authorities and the Government to do the best, and not the least expensive, commands our sympathy. The manual, of course, contains much that is common to other publications of the same nature, but in most respects his selection of information and method of placing it before the reader show a distinct advance from the point of view of those seeking guidance and information. The various points in the physical condition of school children calling for investigation by the examining doctor are treated seriatim in a useful and interesting manner. The details of the routine work of medical inspection, the question of the treatment of the conditions found, and the equipment and working of a school clinic are ably dealt with. Under the title of "Special Groups of School Children," Dr. Crowley touches some of the most difficult problems which face the school medical officer. The backward and feeble-minded child, and those who fall under the various categories of physical defectives, have evidently received much attention from Dr. Crowley, and he brings out strongly the present need of provision for dull and backward children and low-grade mental defectives as contrasted with the grade intervening—namely, the feeble-minded children capable of a certain amount of improvement. The inadequacy of the provisions for dealing with feeble-minded children after their term of school life and the need of permanent care are well brought out. One would have wished that the outlook in the case of the mentally defective and the epileptic could have been made more encouraging to the authorities who are asked to undertake their education and training. In dealing with feeble-minded children the author gives us an excellent guide for their examination with a view to diagnosis and grading, although curiously enough there is no caution as to the marvellous memory of the parrot kind which these children often possess, nor is the well known difference in their power of dealing with numbers in abstract and in concrete noticed. Other valuable points in connexion with the diagnosis of the mentally defective are also wanting, but on the whole the information given is exceedingly full. In Dr. Crowley's descriptions and suggestions as to "infants and infants' school" those acquainted with public elementary schools will recognize much that obtains in the best infant departments as now carried on. In the chapter dealing with the provision of school meals there are suggestions which will not find universal acceptance, but the information given is exceedingly valuable, and much of it is not to be found elsewhere. School baths, physical exercises and games, and school buildings and furniture are in turn treated in the same able manner, and concerning "the school and infectious disease" Dr. Crowley gives much needed guidance, drawn here, as elsewhere, evidently largely from personal experience. In the "open-air recovery school" the author evidently finds a congenial theme, and inasmuch as there is no doubt but that such a school is one of the least expensive and most widely applicable of the methods of treating school children, we may perhaps hope that his description of such an establishment, and the evidence he produces in its favour, may soon bear fruit.

In annexing as "educational" practically everything which affects the life of a school child, Dr. Crowley will probably not convince many authorities that his view is correct, although his aims are desirable. In an appendix are contained the various circulars and memoranda issued by the Board of Education, the Children Act, and other

---

[1] *The Hygiene of School Life.* By Ralph H. Crowley, M.D., M.R.C.P. London: Methuen and Co. (Post 8vo, pp. 417, 17 illustrations; 3s. 6d.)

useful information. The manual is well indexed, and taken as a whole is certainly the most useful guide on the subject yet published.

Dr. W. B. DRUMMOND, who is lecturer on hygiene at the Edinburgh Provincial Training College, has written a little book on *Elementary Physiology for Teachers and Others*,[2] which is admirable in its clearness of expression and choice of matter, and is well illustrated. In each section particular attention is paid to the peculiarities of childhood, and as physical training forms an important part of the student's own training, and will form an important part of his work in the class-room, a fuller account has been given of the physiology of bodily exercise and of the anatomy of the bones, joints, and muscles, than is usually to be found in other manuals of the same size, and an entire chapter is devoted to the nervous system of the child. The good judgement of the author is shown in the following passage: "A game of skill, such as marbles, requires a very accurate association between the movements of the eyes and those of the fingers, and, therefore, between the centres for these movements in the brain. The various games and occupations in which children spontaneously engage are of great value in establishing such associations. It has been said, with some truth, that if you give children a sufficient variety of things to do their education will look after itself." The use of school lessons is indeed not in what they teach for the most part, but in training children to do patiently for so many hours what by natural instinct they do not want to do, to work as they will have to do in the world for the ulterior ends of food, warmth, and leisure.

Dr. HOAG'S *Health Studies*[3] are apparently intended for the use of the older classes in schools. Although, in his preface, he deprecates the study of anatomy and physiology, "except in their simple elements," as of "doubtful value for young pupils, he proceeds to fill nearly half of his book with these "simple elements"; in fact, going into rather more detail than the majority of similar works. The second part, dealing with hygiene, is fuller and somewhat more original, and should be interesting to intelligent schoolboys and girls. To these the book can be unhesitatingly recommended.

One of the first difficulties met with by the author of a book on hygiene for school children is the choice of the subjects to be included without risk of excluding essential matter. The decision which has been come to by the writer of the *Elements of Hygiene for Schools*[4] is on the whole fairly satisfactory. There is no overloading of detail, and technical terms are almost entirely absent. The chapter on foods is exceptionally well written, and that section of it which deals with the cooking of food calls for special commendation. The necessity for fresh air and the advantages of cleanliness are well dealt with, and the manner in which both can be secured is clearly demonstrated. In the chapter on sewage and garbage the authoress very properly points out that many bad odours are attributed to sewer gas which in reality are simply filth, easily removed by a thorough scrubbing and flushing with clean hot soapsuds to which a handful of washing soda has been added. Her views as to the proper arrangement of waste-pipes from sinks, etc., are not by any means in accordance with those which are held in this country. She says that the soil-pipe receives the sewage from the waste-pipes from bath-rooms, laundry tubs, kitchen and housemaids' sinks, and that these entering waste-pipes should never be at right angles. Such an arrangement is entirely opposed to the recommendations and practice of British sanitarians, who are in complete agreement as to the desirability of all such waste-pipes discharging into the open air over a trapped gully. The book is meritorious, but can hardly be recommended for adoption in this country.

[2] *Elementary Physiology.* By W. B. Drummond, M.B., C.M., F.R.C.P.Edin. London: Ed. Arnold. 1909. (Cr. 8vo, pp. 206, figs, 80. 2s. 6d.)

[3] *Health Studies: Applied Physiology and Hygiene.* By Ernest Bryant Hoag, A.M., M.D. London: D. C. Heath and Co. 1910. (Cr. 8vo, pp. 235. 2s. 6d.)

[4] *The Elements of Hygiene for Schools.* By Isabel McIsaac, late Superintendent of the Illinois Training School for Nurses. New York and London: The MacMillan Company. 1909. (Cr. 8vo, pp. 184. 3s. 6d.)

SPA TREATMENT AND CLIMATOTHERAPY.

A RECENT volume in Gilbert and Carnot's *Bibliothèque Therapeutique* is on crenotherapy, climatotherapy, and thalassotherapy, the conjoint work of Drs. LANDOUZY, A. GAUTIER, MOUREU, DE LAUNAY, HEITZ, LAMARQUE, LALESQUE, and P. CARNOT.[5] By far the greatest portion of the book (513 out of 675 pages) is devoted to the subject of crenotherapy—that is to say, treatment at springs (κρήνη = a spring or well) by means of the internal use of mineral waters, baths, etc. After an introduction by Professor Landouzy on crenotherapy in general, the origin, chemistry, and physical characters of mineral waters are discussed by Drs. A. Gautier and C. Moureu. Geological considerations and the enclosure of springs are dealt with by Dr. L. de Launay. Then, after a summary of the various methods of spa treatment by Dr. J. Heitz, we come to an elaborate description of the various mineral water and thermal health resorts of France, Corsica, Algeria, and Tunis. These are grouped into Pyrenean resorts (H. Lamarque); those of the Montagne Noire, including Lamalou and Balaruc (H. Lamarque); resorts of the Central Plateau, including Mont-Dore, La Bourboule, Royat, Châtel Guyon, Vichy, Vals, Pougues, etc. (J. Heitz); resorts of the East and South-East, including Aix-les-Bains, Uriage, Brides-les-Bains, Saint-Gervais, Plombières, Contrexéville, Martigny, Vittel, Evian, etc. (J. Heitz); resorts of Corsica, Algeria, and Tunis, including Orezza, Hammam R'irha, Hammam Lif, etc. (H. Lamarque). Dr. F. Lalesque is responsible for the sections on climatotherapy and thalassotherapy (treatment by marine health resorts and sea-water). The last portion of the volume (thirty pages) is devoted to a summary by Professor Landouzy and Dr. P. Carnot of the clinical indications and contra-indications for courses of "creno-climatic" treatment—that is to say, treatment by mineral waters and health resorts. An alphabetical index and a table of contents are appended. The health resorts of England, Germany, Italy, etc., are not described in the work, but we can recommend the volume to all those who wish for information on the mineral waters and climates of France and her North African dependencies. The small, as well as the large and world-famous, spas of France are all included, and the numerous photographic views increase the value of the work.

In his little book, *Spa Treatment*,[6] Dr. NEVILLE WOOD presents to the medical practitioner much valuable information with regard to the choice of a spa for patients suffering from various diseases. The work is based on recent balneological works and the author's own careful investigations; many of the abstruse problems are dealt with practically and scientifically. The author passes by the effect of dissociation and electrical ionization somewhat summarily, but even this matter receives fair attention. The book has one fault—it compresses its data too closely together, and lacks concise classification, so that for immediate reference the reader might find a search for the passage required for his particular case troublesome. This fault, however, will cease to trouble as soon as the reader has used the book for a little time in his practice.

SOME TRANSCENDENTAL SPECULATIONS.

THERE is probably no scientific speculation which possesses such a widespread interest to those who reflect on the whence and whither of human existence as the question of its evolution, past, present, and future. To the work of Darwin, Huxley, Haeckel, Pasteur, and others we are indebted for the present widely-accepted hypothesis that by a process of selection, adaptation, and survival of the fittest, the human race has been gradually evolved from humble and lowly organized progenitors; and it is not unreasonable to assume that with a continuation of this process of differentiation and elaboration evolution may possess, deeply hidden in the recesses of developmental

[5] *Crénothérapie, climatothérapie, thalassothérapie—cures hydrominérales, cures d'altitude, cures marines.* Par L. Landouzy, A. Gautier, Moureu, de Launay, J. Heitz, Lamarque, Lalesque, P. Carnot. Paris: J. B. Baillière et Fils. 1910. (Post 8vo, pp. 718; 166 figs., 8 maps in colour. F. 14.)

[6] *Spa Treatment: Selection of Patients and the Choice of a Suitable Spa.* By Neville Wood, M.D., M.R.C.P. London: Adlard and Son. 1910. (Demy 8vo, pp. 59. 1s. 6d.)

possibility, revelations for the future expansion of human power and capacity no less wonderful than those which have placed man in his present paramount position as the lord of creation. A remarkable contribution to another attractive conception of human destiny has recently been made by Dr. ENRIQUE LLURIA in a book an English translation of which has been published under the title of *Super-organic Evolution*.[7] In the course of the preface which he has written for the volume, Dr. Ramon y Cajal epitomizes the result of Dr. Lluria's speculations and conclusions in the following sentences: "Life represents a complex system of forces, of vibrations in ascending progression. Like an orchestra successively reinforced, organization begins with the mono-rhythmic note of the infusorium, and ends with the grand symphony of the mammal, in which millions of cell-voices take part. And when the volume of sound of the organic orchestra reaches its highest note, again rises the enchanting refrain of the germ, that is the simple cadence of the ovule, starting from which the melody develops a crescendo, ever more complicated, until arriving again at the fullness of the modulations and motives of the organization of the adult." And with generous appreciation of "the diverse and seductive themes" with which Dr. Lluria deals, he pays him the compliment of saying that his volume is written "with clearness, brightness, and suggestion, and with a mastery of thought and calmness of judgement, which might be the envy of many well known in the world of philosophy and social science." Dr. Lluria bases his theories on the following fundamental statements: That "man is a product of universal mechanics"; that "intelligence is Nature incarnate in man"; that "the great law of evolution is necessary for man to understand that his actual form is a moment in evolution"; and that psychic and physical life in man are widely differentiated, the latter having almost completed its evolution, whilst the former, "the life of the intellect, still continues and is destined to a wonderful development." He regards intelligence as an adaptation of natural laws by a gradual process of psychic evolution which is now in full course of development, and is being accompanied by a progressive complexity of cerebral tissue and by a more and more perfect differentiation in the integral cells, neurones, and histological network of the brain. He relates experiments made on lizards in the active state and during hibernation which go to prove that, in the last resort, the active power and inherent capacity of the delicate nervous elements depend wholly upon perfection of nutrition. "A change of pressure or composition in the blood is," he says, "all that is needed, a modification in the amount of heat, or in the amplitude of lymphatic sheaths which cover the grey substance, for a brain to lose its integrity, and thereby the virtue of which it is capable." The effect of perverted nutrition is to interfere with the faithful registration of natural phenomena, and to prevent perfect harmony between the human intelligence and the great laws of Nature by which it is inspired and guided. Such an interference is the common experience not of the individual only, but of nations also, with the result that degeneration ensues upon prosperity, because vice and idleness are liable to become the handmaidens of wealth. When the environment becomes again suitable for a better contact between Nature and the brain of man, an astonishing impulse is manifested in cerebral activity, in virtue of which the individual achieves discoveries and nations attain greatness. The violation of the normal conditions of life is responsible for the arrest of psychic evolution and even for degenerative cerebral changes, which delay human progress and explain the decay of civilizations which were once great. The author contends that our present civilization is seriously retarding human evolution because its requirements and restrictions are attempting to change man's relation to natural laws so as to put him beyond their influence—which is an absurdity. Natural laws are forsaken and obedience rendered instead "to an organization that turns or evolves entirely upon one base, recognizing no law or natural principle, but an arbitrary principle, contrary to natural law, as is the case with *Capital*." The author does not advocate the abolition of the right of private property which, in view of present social conditions, is a necessity, but he regards it as a selfish drag upon the progress of the race, which will be abolished when the conflict of classes yields to a general acceptance of what he believes to be the great verities of life. He asserts that "everything in Nature, from the cell to man, from hydrogen to Uranus, from the vibration that begins to make itself perceptible in sound to that of radio-activity, continually proclaims universal harmony. Man and society, through ignorance of them, are exceptions to these laws of harmony—man and society, the products of harmonious laws—which, by reason of this very organization, should create a well-balanced social organism, are in complete discord. Social organization, like sight and harmony, is a function of Nature, and happiness should reign in it." Enough has been said to indicate the character of Dr. Lluria's book. His topic is an absorbing one, and it is presented to his readers in terms of enthusiasm and almost of romance that make his conclusions attractive, if not altogether convincing. Many roads to Utopia have been described, but none can appeal more to human imagination than the inherent perfectibility of the brain, which Dr. Lluria asks us to believe with him is destined one day to control these great natural laws through the working of which it has come itself into existence. The book must be read to be appreciated, and even to those who cannot agree with its conclusions it will appeal as an earnest and not wholly fanciful interpretation of the greatest of all life's mysteries. The translators are to be congratulated on the easy and fluent language into which they have rendered the original.

IT is somewhat difficult to understand why Dr. RABAGLIATI should have chosen such a title for his last volume as *Conversations with Women regarding Their Health and that of Their Children*.[8] The subject upon which he discourses is so abstruse and idealistic that his reflections and theories and opinions would seem more suited for the perusal of physicists and physiologists. In his preface, Dr. Rabagliati admits frankly that the whole volume is based upon an assumption "that energy is the immediate cause of material substance." This is an inversion of the generally accepted view, but the author seeks to sustain his thesis by a reference to gravitation which he says "is not a property of matter; but gravitation, a form of the universal energy, incorporates itself in material substance in order to its own manifestation." Again he predicates as an essential premise of his argument that an animal is to be regarded "as a machine procreated by zoodynamic or the power of animal life to be a house or habitation for the manifestation of all the powers of animal life;" while human bodies are similarly "procreations by the human power of life to be fitting habitations for the manifestation of all the powers of human life." He repudiates unreservedly the theories of evolution propounded by Darwin and Huxley and expresses the opinion that "although men appear to have succeeded apes, there is no evidence whatever for the absurd view that they are their children or that they are both descendants of a common ancestor or ancestors." These extracts are sufficient to show that Dr. Rabagliati is the apostle of a special doctrine of the "whence and wherefore" of man's existence, and we repeat our surprise that he should have chosen such a narrow field as the diseases of women and children to prove his contentions. The practical outcome of these *Conversations* is an attempt to establish the following contentions: That the chief cause of disease is too much food; that food is not the cause either of the energy of the body or of its heat; and that to attain to physiological righteousness mankind should learn to live upon one meal a day. The first of these statements is, within certain limitations, true and generally admitted; the second can only be described as out of harmony with what most men believe; while the third would require for its realization not only a new heaven and a new earth, but also a new race of men. But the book must be read throughout if its theories, conceptions, and suggestions are to be fully grasped. Their novelty, no less than the attractive and readable style in which they are set forth,

[7] *Super-organic Evolution: Nature and the Social Problem.* By Dr. Enrique Lluria. With a Preface by Dr. D. Santiago Ramon y Cajal. Translated by Rachel Challice and D. H. Lambert. B.A.Oxon. London: Williams and Norgate. 1910. (Post 8vo, pp. 251. 7s. 6d.)

[8] *Conversations with Women regarding Their Health and that of Their Children.* By A. Rabagliati, M.A., M.D., F.R.C.S.Edin., Honorary Gynaecologist to the Bradford Royal Infirmary. Bradford: Wm. Byles and Sons, Limited. 1910. (Med. 8vo, pp. 334. 5s.)

may commend them to those who are dissatisfied with the more generally accepted views of human existence and health maintenance, but it is not impossible that, in the minds of many readers, they will beget incredulity, if not opposition, rather than assent.

The reverend author of a little book, entitled, *The Genesis and Evolution of the Soul*,[9] says that "in dealing with problems which depend on, and follow, the realization of Immortality, we are brought face to face with the fact that, in relation to this subject, we are groping in a land of shadows." The author could not better have expressed our feelings when trying to grasp his views on this interesting subject. The book seems to be in general an attempt to reconcile some of the fundamental dogmas of Christianity with recent biological, physical, and metaphysical teaching, and in particular to express in the same scientific terms the author's own speculations on the past and future development of the soul. He avows his adherence to the doctrine of evolution, but, from the treatment of his subject, is evidently unaware of the limitations of this hypothesis. The book is a strange medley of theological belief, philosophy, and scientific information; but though it contains little in the way of sustained argument and much question-begging statement, it has many excellent maxims and several ingenious suggestions. Among the latter may be mentioned the explanation of the resurrection of the body by means of the vortex theory, fortified by speculative mathematics as to fourth, fifth, and up to n^{th} dimensional space. Notwithstanding his evident good intentions, the author's lack of scientific method makes it impossible to take the book seriously, and absolves us from the necessity of following his divagations on the one hand into the origin of "soul-elements," or, on the other, into the series of existences—in fourth, fifth, sixth, etc., dimensional space—which await us on the other side of death.

NOTES ON BOOKS.

IN his book on Cystoscopy, in the service of surgery,[10] Dr. RUMPEL has given us an "atlas of anatomical pictures, with accompanying text, for practitioners and students." Besides the text accompanying the pictures, there is a consecutive account of the vesical aspects of urinary diseases at the beginning of the book. An atlas such as this has need of both these parts, that is to say, the most excellent pictures are of little use to the uninitiated unless he has by his side a description of what he is looking at. It is here that Dr. Rumpel is so good; his descriptions are at once clear and short; from them can at once be gathered the meaning of his picture. In some cases clinical notes have been added, which further help, and we can highly commend his judgement in giving views of the same bladder at different stages of the diseases (Plates 8, 9, etc.). So far we have nothing but praise; our only criticism is that Dr. Rumpel has gone the way of all atlas makers, and given us pictures of well-marked lesions in nearly every case, and has omitted to give pictures of those early lesions where the diagnosis is hard; a description of small differences would be very valuable.

A Manual of Medical Exercises,[11] compiled by Dr. PERCY LEWIS, and first published in 1897, has apparently met with a measure of appreciation sufficient to warrant the issue of a second edition, which has been revised and enlarged by the inclusion of some of the respiratory exercises recommended by Dr. Harry Campbell in his book on the subject. The proper prescription of formal exercises under the guidance, if not the actual supervision, of a medical man, is doubtless of considerable importance if their usefulness is to be fully obtained. The directions given are clear, and the little illustrative woodcuts prevent any possible misunderstanding of them. Some of the exercises entail a considerable amount of muscular effort, and those in which the trunk muscles are brought into strong action should be used with caution by convalescents from abdominal maladies.

The Sleeping Sickness Bureau has issued a revised edition of its useful pamphlet, *Sleeping Sickness: How to Avoid Infection*. An account is given of the life-history of *Glossina palpalis*, of the areas it inhabits, of the habits of the fly itself, and of the places in which man is most liable to be bitten. Clear indications are added for recognizing tsetse flies and distinguishing them from other biting flies, and are illustrated by very excellent reproductions of photographs by Dr. W. M. Graham of some of the different flies. The pamphlet is specially intended for the use of travellers and residents in tropical Africa, and no one should go to such places without providing himself with a copy. It is in a special sense true of sleeping sickness that prevention is better than cure, and the pamphlet tells one how this may be attained.

MEDICINAL AND DIETETIC ARTICLES.

Sour Milk Preparations.

THE use of Bulgarian sour milk as an article of diet and as an adjunct to medical treatment has now become very general, and the intending consumer may find himself somewhat embarrassed in choosing among the large number of brands of sour milk, cultures for its production, and various other preparations of the Bulgarian bacillus.

We have had under examination recently a sample of the milk prepared by the London, Gloucester, and North Hants Dairy Co., put on the market under the name "Saurlac"; this is of the consistency of cream, homogeneous, and perfectly free from lumps of curd, with a clean sharp taste free from unpleasantness; analysis showed the acidity to amount to 1.77 per cent. of lactic acid, which is a very satisfactory proportion; microscopic examination showed the presence of the characteristic rod-like bacteria in great abundance.

Messrs. Allen and Hanburys, Ltd., now sell "Sauerin" liquid cultures as well as "Sauerin" tablets; the disadvantage of the latter is that the dried bacteria when distributed through milk only regain their activity slowly, and the amount of lactic acid produced in a few hours is then not very considerable; the liquid cultures are, of course, free from this objection, and since each tube bears a date giving the limit of time beyond which the contents are not guaranteed to retain their activity, there should be no disappointment when they are used. Samples submitted to us were tested on sterilized milk, using the culture in the proportion recommended of one tubeful (about 4 c.cm.) to a pint; in fifteen hours the amount of lactic acid developed was 1.13 per cent. of the milk, which was found to be swarming with the characteristic bacteria.

Among the more disguised forms in which the Bulgarian bacillus may be taken, that of "chocolate creams" has already become popular. Messrs. Rowntree and Co., Limited (York) have submitted samples of such creams of their manufacture, which form a highly attractive sweetmeat not differing materially in taste from the ordinary creams made by the same firm. Microscopical examination of the "cream" or sugary mixture in the interior of the sweetmeat showed the presence of considerable numbers of the Bulgarian bacilli; to test the activity of these, some of the material was mixed with sterilized milk, in the proportion of seven "creams" to the pint; after fifteen hours' incubation the milk contained 0.41 per cent. of lactic acid.

Another preparation of which we have received samples consists of tablets prepared by Messrs. Stauffer and Co. (Enghien, Brussels. Agent, Mr. H. A. Riles, 28, Queen's Road, Lower Edmonton), and supplied under the name "Lacto-Bacteria." These are guaranteed to consist only of milk cultures of the lactic bacteria; they are quite free from any disagreeable flavour, and are intended to be taken in the dose of four or five tablets daily. To test the activity of the organisms contained in them, some of the tablets were powdered and mixed with sterilized milk (using seven to the pint), which was then incubated. After fifteen hours the milk contained 0.23 per cent. of lactic acid, and showed the Bulgarian bacillus in large numbers; the amount of acid produced in the test is not very large, but when allowance is made for the slow resumption of activity by dried bacteria, alluded to above, there is satisfactory evidence of the existence in the tablets of a considerable quantity of living bacteria of the requisite kind.

---

[9] *The Genesis and Evolution of the Soul.* Scientifically treated by the Rev. J. O Bevan, M.A., F.G.S., Assoc. Inst. C.E., F.S A., Rector of Chillenden, Dover. London: Williams and Norgate. 1909. (Cr. 8vo, pp. 177. 2s. 6d.)

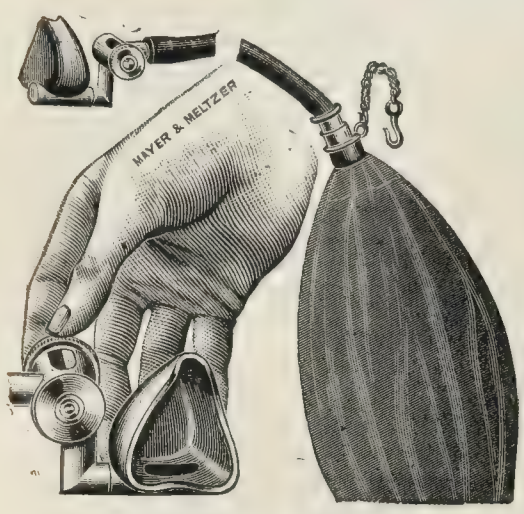
[10] *Die Cystoskopie im dienster der Chirurgie. Ein Atlas cystoskopischer Bilder und begleitendem Text für Aerzte und Studierende.* Von Stabsarzt Dr. O. Rumpel, Privatdozenten für Chirurgie an der Universität, Berlin. Berlin and Wien: Urban und Schwarzenburg. 1909. (Med. 4to, pp. 46; 85 forbigen Figuren auf 36 Tafeln und 22 Textabbildungen. M.30)

[11] *Medical Exercises.* By Dr. Percy Lewis, Honorary Medical Officer, Victoria Hospital, Folkestone. Second edition. London: H. K. Lewis. 1910. (Cr. 16mo, pp. 66. 1s. 6d)

MEDICAL AND SURGICAL APPLIANCES.

Nasal Administration of Nitrous Oxide Gas.

MR. FELIX ROOD (Anaesthetic Department, University College Hospital), writes: For the nasal administration of nitrous oxide gas I have found the modification depicted in the accompanying engraving a portable and efficient means of inducing anaesthesia for dental operations. The apparatus consists of a metal nosepiece with a single tube leading to the gas bag. At the junction of the nosepiece and the tube is placed a valve by the rotation of which the nosepiece can be placed either in connexion with the gas bag, or air may be admitted from a side aperture as required. The advantages are: (1) That the apparatus can be operated entirely with the right hand, leaving the left free; (2) that air may be given without raising the nosepiece from the face by rotating the valve with the thumb and first finger, at the same time cutting off the gas and so avoiding waste; (3) that the apparatus can be fitted to any gas bag, so that if anaesthesia is induced by the ordinary method the facepiece can then be removed, the nosepiece attached to the same bag, and administration continued nasally. Finally the single tube entering the nosepiece at an angle allows the operator free and unimpeded access to the mouth, while its portable nature is a recommendation to any anaesthetic apparatus. It has been made for me by Messrs. Mayer and Meltzer.



MOTOR CARS FOR MEDICAL MEN.

MEMBER B.M.A.—The prices of the undermentioned cars are taken from the catalogue of the last November exhibition, and include an open tonneau body. For a good improved form of taxicab body about £50 would have to be added, and possibly some of these prices may have been raised on account of increased cost of tyres, so that they must be taken as only approximate:

H.P.	No. of Cylinders.	Price. £
9 De Dion	... 1	 230
10 De Dion	... 4	 330
8–10 Panhard	... 2	 300
10–15 Panhard	... 4	 450
9–11 Peugeot	... 2	 300
12 Standard	... 4	 285
12 Talbot	... 4	 375
10–12 Swift...	... 2	No price given, probably about £275
8 Dietrich	... 2	 270
13 Dietrich	... 4	 320
12 Humber	... –	 285

THE famous ophthalmologist, Dr. R. Liebreich, who is now living in Paris, will celebrate the completion of his 80th year on June 30th.

THE sixty-ninth annual meeting of the Medico-Psychological Association of Great Britain and Ireland will be held at the Royal College of Physicians, Edinburgh, on July 21st and 22nd, under the presidency of Dr. John Macpherson. On July 20th there will be meetings of the Parliamentary and Educational Committees, and in the evening the president will hold a reception. The annual meeting commences at 11 a.m. on July 21st, and the annual dinner will take place at the Caledonian Hotel, Edinburgh, at 6.45 for 7 the same evening.

THOSE who purpose to attend the third International Congress on School Hygiene, to be held in Paris from August 2nd to 7th, are advised to communicate at once with Mr. W. J. Durrie Mulford, Assistant Secretary of the Organizing Committee for Great Britain and Ireland, who will supply information with regard to the arrangements for travelling and hotel accommodation. The offices of the committee are at the Royal Sanitary Institute, 90, Buckingham Palace Road, S.W.

LITERARY NOTES.

IN a paragraph which appeared in the BRITISH MEDICAL JOURNAL of June 4th under the title of "Doctors in Command of an Army," we said that although there had been "fighting" doctors in plenty and though Dr. Jameson had commanded a military expedition in South Africa, there had not so far as we knew been any case in which the chief military command of an army had been entrusted to a man who had begun his career as a medical officer, until General Leonard Wood was recently appointed Chief of the Staff of the United States Army. It was pointed out as a curious coincidence that the second in command of the same army, Major-General F. C. Ainsworth, was also originally a doctor. Captain C. S. Harris, of Oxford, has been so obliging as to call our attention to the fact that in Homer's *Iliad* II., 729 to 733, two Grecian army surgeons are mentioned as commanding the combined contingents of Œchalia, Tricca, and Ithome. In Lord Derby's translation the lines are numbered II., 844–847, and run:—

> Who in Œchalia, Eurytus' domain,
> In Tricca and in rough Ithome dwelt,
> These Podalirius and Machaon led,
> Two skilful leeches, Aesculapius' sons.

As rendered by Andrew Lang, Walter Leaf, and Ernest Myers in their *Illiad of Homer done into English Prose* (Revised Edition: London, 1893), the passage reads:

> And of them that possessed Trikke and terraced Ithome, and that possessed Oichalia city of Eurytos the Oichalian, of these again Asklepios' sons were leaders, the cunning leeches Podaleirios and Machaon, and with them were arrayed thirty hollow ships.

At Trikke, it may be noted, was one of the most famous healing temples of Asklepios. There was, therefore, a special fitness in the sons of the god commanding the contingent from that place.

Mr. J. F. Tocher, B.Sc., in a lecture on the necessity for a National Eugenic Survey of School Children recently delivered before the Eugenics Education Society, said it was now about forty years since Samuel Butler, in *Erewhon*, drew attention to the desirability of the reproduction of men and women of good physique. Underlying his conception of the Erewhonians, their customs and laws, was the principle of eugenics. Butler's method of improving the race was to place on trial, before a jury of his fellow-countrymen, and, if found guilty, to fine, imprison, or sentence to death, according to the enormity of the offence, each person who caught any disease, possessed any deformity, or failed in bodily health before he was 70 years of age. Sir Thomas More was much more practical. In his *Utopia* he describes the customs of the Utopians in regard to matrimony:

> "Farthermore in chuesinge wyfes and husbandes they observe earnestly and straytelye a custome, whiche semed to us very fonde and folyshe. For a sad and an honest matrone sheweth the woman, be she mayde or widdowe, naked to the wower. And lykewyse a sage and discrete man exhibyteth the wower naked to the woman. At this custome we laughed, and disalowed it as foolishe. But they on the other part doo greatlye wonder at the follye of al other nations, whyche in byinge a colte, whereas a lytle money is in hasarde, be so charye and circumspecte, that thoughe he be almoste all bare, yet they will not bye hym, oneles the saddel and all the harnesies be taken of, leaste under those coverynges be hydde som galle or soore. And yet in chuesinge a wyfe, whyche shalbe either pleasure or displeasure to them all theire lyfe after, they be so recheles, that al the resydewe of the wooman's bodye beinge covered with cloothes, they esteme her scaselye be one handebredeth (for they can se no more but her face), and so to joyne her to them not without greate jeoperdye of evel agreinge together, yf any thing in her body afterward should chaunce to offend and myslyke them. For all men be not so wyse, as to have respecte to the vertuous conditions of the partie. And the endowmentes of the bodye cause the vertues of the minde more to be estemed and regarded; yea, even in the mariages of wyse men. Verely so foule deformitie maye be hydde under those coveringes, that it maye quite alienate and take awaye the mans mynde from his wyfe, when it shall not be lawful for theire bodies to be saperate agayne. If such deformitie happen by any chaunce after the mariage is consummate and finyshed, wel, there is no remedie but patience. Every man muste take his fortune wel a worthe. But it were wel done that a lawe were made wherebye all suche deceytes myghte be eschewed, and advoyed before hande."

This passage shows that in regard to eugenics More had the root of the matter in him. The Erewhonian punishment of disease, satire though it be, is far more "fonde and folyshe" than the Utopian custom.

The May number of the *International Bibliographer*, edited and published by Erskine Macdonald (Clun House, Surrey Street, Strand, W.C.), and at Paris and Berlin, contains a section devoted to recent medical publications. We may point out one trifling error: the name of the translator of Wickham and Degrais's book on radium-therapy is not Doré, but Dore. The section gives a list of some 200 works. Incidentally this monthly register and the series of special bibliographies will indicate how the neglected subject of bibliography concerns every department of intellectual activity, and it cannot fail to be of the greatest service to scientific bibliographers.

The judicious blending of amusement with instruction, which has always been such a marked characteristic of *L'Hygiène*, is a conspicuous feature of the April number. Side by side with learned dissertations on Malta fever, by Dr. A. Gouget; on hygiene and the domestic fly, by Dr. Vaillard; and the sanitary condition of Paris, by Paul Juillerat, we have another of Georges Vicaire's charming articles on gastronomic literature. This time his subject is ancient culinary almanacks—*almanachs de bouche*—and, although this kind of literature does not sound particularly inspiring, M. Vicaire, thanks to his delicate wit and graceful style, has managed to invest it both with interest and with humour. The contributions of this delightful author are becoming quite a feature of *L'Hygiène*, and each month are a fresh pleasure, and one which we would not willingly forego. Turning to the more serious articles, we must not forget to mention a most interesting and practical one on hygiene and life, by Dr. Maurice de Fleury, which throughout bears the stamp of strong common sense. Another, equally interesting, is contributed by Dr. Georges Baudouin, physician to l'Hôpital Alphen-Salvador, who has written on "L'Association pour le développement de l'Assistance aux malades et l'Ecole professionelle de la rue Amyot." In it he describes the efforts which are being made to-day in France to supply the ever-increasing demand for fully-trained and competent sick-nurses. Under the auspices of the association, which was founded in 1899, a school for the training of nurses has been opened in the rue Amyot, and has been carried on with signal success. The article gives a full account of the nursing curriculum and the life led by the students, and is illustrated not only by portraits of the author, and the president and foundress of the association, Madame Alphen-Salvador, but also by several photographs of the nurses themselves at their work.

To the June number of the *Fortnightly Review* Dr. J. Johnston of Bolton, whose facile Muse has enlivened many a festive gathering, and who has sung the sorrows of a doctor's life with equal truth and humour, contributes an interesting appreciation of Walt Whitman as the poet of Nature. The atmosphere of his books is that of the open air. Of his principal book, *Leaves of Grass*, Dr. Johnston says:

> Of all that grass suggests, Whitman's book is the perfect embodiment and reflex. Like grass, it has all the characteristics of a natural growth, springing out of the poet's heart and life as spontaneously and as naturally as grass does from the soil, exhaling the fragrance of Nature as sweet as a hayfield, as healthy as a primeval forest, as tonic as the ozone-bearing breath of heaven.

For his task of Nature-poet he was qualified and equipped by direct and close communion with her. Born among the hills and within sound of the sea, from the very earliest days he was familiar with the sights and sounds of wood and mead and shore, and with all the teeming life of Long Island's sea-girt territory. To Walt Whitman Nature was the great physician. It was on Long Island, says Dr. Johnston, that he first tasted the joys of soul communion with her spirit; and it was in sweet and loving intimacy with her there that he afterwards found the balm for his body maimed by the physical effects of that superb service to his fellows which gained for him his everlasting guerdon of honour. Never did a man experience a fuller measure of the refreshment—the sanative, reviving power—of Nature than did Whitman during his sojourn at Timber Creek, with the soothing companionship of the wild flowers, the singing birds, the scented meadows, the cloud-canopied sky, and the all-glorifying sunshine of his open-air sanctuary. There did he feel to the full what he himself calls "the bracing and buoyant equilibrium of concrete out-of-door Nature, the only permanent reliance for sanity of book or human life." This vast, elemental sympathy and identification with Nature leads him to an equally impassioned comradeship with his fellow men; and his deification of the earth as a whole and in each detail leads to a deification of man. He believes in and has an enthusiasm for man which is a veritable passion. But man is what he is because of his soul; and the human soul, says Whitman, is the "acme of things accomplished" in the universe, by the mighty force of evolution. To Whitman everything in the universe is of divine significance, and speaks to each individual as the direct voice of God. Our own lives, too, in their every detail, and every occupation, however prosaic, are of divine significance. But, says Dr. Johnston,

> Walt Whitman insists that the message of Nature—this, too the direct voice of God—is addressed to us *individually*—"To You"—and he invites us to go to her, alone—with health as our sole possession; to argue not, but to listen; and he assures us that we shall find the earth "complete to him or her who is complete." If we are disappointed—if we find it "broken and jagged"—the fault is ours: it is because we are "broken and jagged."

The following extract from a MS. report of the lectures delivered by Mr. Joseph Else at St. Thomas's Hospital in the session 1774-75 is of some interest as showing the state of anatomical teaching in London at that date. In the opening of the introductory lecture Mr. Else says:

> It may not be amiss to inform you that this is the eldes School of Anatomy in London; Lectures have been given here upwards of an hundred years with uninterrupted Succession by Messrs. Simmons, Cheselden, Girl, Sharp, and Warner, who afterwards resigned it to Mr. Hadley and myself. The Lectures were deficient in Order, and left unnoticed several parts of anatomy which we are necessarily acquainted with. The structure of the Viscera was never shown but by preparations; the Course of the Nerves was never thought of, and it was not usual to speak of the Senses, at least but very few; there were not only deficiencies, but the Lectures were so short that it was scarce possible to have a sufficient Idea of Anatomy from them. I've seen the Abdominal Viscera given in an Hour, which now generally take up eight days, and so of the others. Students were not so anxious after anatomical knowledge as they are now. When Mr. Hadley and myself undertook to give Lectures, it was recommended to follow the same plan; there was no more than one subject allowed for the Season, and this, too, depended on the casual supply the Hospital afforded. We have enlarg'd the Plan considerably, and taken in many Parts of Anatomy which they never thought of. The lectures are now given daily; before, they were given only once or twice a week.

Speaking of the introductory lecture, Mr. Else says:

> I must own there is no one Lecture which I give so unsatisfactory to myself as the Introductory one; as there are none of so little use. If we make use of it to explain what will follow in the Course it may be useful. In some places more than one Lecture is given, sometimes seven, or eight; in this case they are directed to the History of Anatomy. There's certainly something amusing in enquiring into the Use and Progress of it; but a Person ignorant of Anatomy may employ his Time to much better purpose: indeed it may be of more use to a Proficient, therefore may come in with more propriety at the latter end of a Course: All first attempts not only in Anatomy, but in all other sciences were rude and unpolished; but as we are daily making discoveries, and the Moderns ought to be observ'd more than the Ancients, that some useful remarks may be made with regard to Surgery, is justly acknowledg'd. You may by and by look over old Writers with pleasure, but not at present. With respect to Anatomy 'tis impossible to contain it in one Lecture or even in half a Dozen: I have divided it into Periods; from the fabulous Ages to the time of Hippocrates the first period is constituted: from Hippocrates to Galen, the second: from Galen to Vesalius the third; from Vesalius to Harvey, the fourth; from Harvey to the present time, the fifth.

Mr. Else's opinion of the textbooks of his day is not without interest:

> The common necessary books on the subject are Cheselden, Winslow, Keil, Heister, Luloc (? Lieutaud), Albinus, Monro, etc. Cheselden's Physiology is very erroneous; he is valued chiefly for his chirurgical observations; Heister's Compendium is a much better book; Winslow's is also a very good one, but thought to be too tedious to young students; but when a little acquainted with the parts you will read him with pleasure. It has been customary to observe it would be better for young students if they have not read much on the subject before they come to the real Parts shewn before them, and I think not without some reason, as by reading merely they are apt to entertain such notions of it, which rather confuse than assist. Haller is the best Physiologist. Plates are useless in the Course of Anatomy for you will understand much more from seeing the parts themselves, than from the best plates. Couper and Albinus have given very elegant Tables of the Muscles.

The Report of the Lectures from which these extracts have been taken was, we believe, presented to the library of the Royal College of Surgeons of England some years ago by Mr. Fred. Haward.

SCIENCE NOTES.

In August last the forty-eighth annual volume of *British Rainfall* was published by Edward Stanford, of Long Acre, London, W.C. It contained the fullest information as to the distribution of rain—in space and time—over the British Isles during the year 1908, as recorded by more than 4,500 observers in Great Britain and Ireland. The exact number of this large army of scientific volunteers was 4,538. Their commander-in-chief was Hugh Robert Mill, LL.D, D.Sc., F.R.Met.Soc., of whose untiring industry and conspicuous services to "Hyetology" it is not easy to write in terms of adequate praise. Suffice it to say that in him the mantle of George J. Symons, F.R.S., has fallen upon most worthy shoulders. It was in the year 1861 that the first volume of *British Rainfall* appeared. In it the records for the year 1860 were published. In 1908 the surviving observers of 1860 numbered 11, and of them 7 are included in the list of those whose records appear in the forty-eighth volume. Of the 4,538 perfect rainfall returns published in *British Rainfall* for 1908, 3,326 came from England, 364 from Wales, 604 from Scotland, and 244 from Ireland. England had about one observer for each 17 square miles, Scotland about one for each 50 square miles, and Ireland only about one for each 140 square miles. The most remarkable feature in connexion with the British Rainfall Organization, called into existence by the late Mr. Symons, developed and, one may say, perfected by Dr. Mill, is its voluntary character. For the mere love of the subject more than 4 500 observers are willing, without fee or reward, to undertake the fag of daily observations throughout the year—in summer heat, in frost and snow, in rain and sunshine, it may be while lightning flashes and thunder rolls. This is enthusiasm indeed. But a sceptic will exclaim, "*Cui bono?*" The late Dr. Alex. Buchan answered this query in his third paper on "The Climate of the British Islands," published in 1886 in the seventh volume of the third series of the *Journal of the Scottish Meteorological Society*. He writes: "As regards these islands, the greatest differences in local climates arise from differences in the rainfall." He compares the climate of Skye with that of the Moray Firth. The annual rainfall of Skye rises to 100 in. and upwards, whereas at Culloden it amounts to only some 26 in. This difference in the rainfall, with the clear skies and strong sunshine which accompany it, renders the south shore of the Moray Firth one of the finest grain-producing districts of Scotland. It is this which gives rainfall so prominent a place in the climatology and agricultural economy of a country. In his paper Dr. Buchan in handsome terms acknowledged his obligations to Mr. Symons's *British Rainfall*, a publication which rendered his inquiry possible. It was based on observations of the rainfall made at 547 stations in Scotland, 1,080 in England and Wales, and 213 in Ireland—in all, 1,840. The period selected for discussion was the twenty-four years from 1860 to 1883 inclusive. The average rainfalls for this period were transferred to a map of the British Islands, which was then coloured with six different tints showing the districts respectively where the rainfall did not exceed 25 in., was from 25 to 30 in., from 30 to 40 in., from 40 to 60 in., from 60 to 80 in., and above 80 in. As mentioned recently, Dr. Mill has already transferred, or is about to hand over to trustees in trust for the nation, the British Rainfall Organization, of which he has been the energetic and most able head since the retirement in 1902 of his colleague, Mr. H. Sowerby Wallis, who had shared with him the editorship of *British Rainfall*, after the lamented death of its founder, Mr. George J. Symons, in March, 1900. Desirous that the rainfall work should go on in the future as efficiently as in the past, or even become more complete, Dr. Mill is making over to a board of specially qualified trustees—all tried men in practical meteorological research—his observatory at 62, Camden Square, London, N.W., and all its valuable contents, so that the whole property may belong to the Organization for the Study of Rainfall. He proposes meanwhile to continue to direct the work as heretofore, and to retain full responsibility for the finances until, by the accumulation of an endowment fund, the Organization becomes fully self-supporting. The trustees are all rainfall observers, and include some of the leading meteorologists of the day. They are ten in number, and represent all three divisions of the United Kingdom. The trustees who have agreed to act are: Dr. H. R. Mill, Mr. Francis Druce, London; Sir John Murray, Edinburgh; Sir Alexander Binnie, Past-President of the Institution of Civil Engineers, London; Mr. Henry Mellish, President of the Royal Meteorological Society, Hodsock Priory, Worksop; Mr. Douglas W. Freshfield, Wych Cross Place, Surrey; Mr. J. G. Wood, Barrister-at-Law, London, one of the very small band of surviving observers whose records appeared in the first volume of *British Rainfall* for 1860–1; Mr. Charles L. Brook, Meltham, Yorks; Mr Charles J. P. Cave, Ditcham Park, Sussex; and Mr. R. M. Barrington, Fassaroe, Bray, co. Wicklow.

Belin has recently shown[1] that serum anaphylaxis is hereditary. He experimented with guinea-pigs which were sensitized with asses' serum. Two of the guinea-pigs gave birth to young, the one after three weeks and the other after seven weeks. All were tested with ox serum, and gave a decided reaction. One of the guinea-pigs, which had been sensitized a fortnight before the end of gestation, again gave birth to two young. These died accidentally three days afterwards. From the heart blood of these serum was prepared and mixed in the one case with asses' serum, in the other with ox serum; 0.25 c.cm. of the first mixture was injected into a fresh guinea-pig, and it died in two minutes. A similar quantity of the second mixture was injected into another guinea-pig which died within a short time. Controls with asses' serum and ox serum alone were unaffected. From these experiments Belin concludes that serum anaphylaxis is hereditary if the mother is sensitized before or during gestation. He also notes that the hypersensitiveness, in the young guinea-pigs at least, is not specific, but that it is only less marked with other serums than with the serum used to sensitize the mother.

A new method of determining the blood volume is proposed by Abderhalden and Schmid.[2] Briefly it consists in the injection of a measured quantity of a highly optically active substance and the estimation of the optical activity of the blood before and after the injection. Blood plasma is slightly laevo-rotatory. A suitable substance for injection is dextrin, which is highly dextro-rotatory. In addition it satisfies other conditions which are essential for the success of the method, for it is easily soluble in water or isotonic salt solution, and can thus be injected in a concentrated solution, and therefore in small bulk; it does not disturb the isotonic state of the blood, and it is not toxic. It is, however, not an ideal substance, for it disappears too rapidly from the blood stream. On that account the necessary estimations require to be made within one minute of the injection. The technique of the method is comparatively simple. An animal of known weight is anaesthetized and the jugular vein exposed. A measured quantity of blood is drawn off and a measured amount of dextrin solution injected. After the lapse of a minute a further quantity of blood is withdrawn. The specific gravity of the blood is estimated and the proportion of corpuscles to plasma determined by means of the haematocrit. The optical activity of the plasma in both samples of blood is then measured, and the activity of the dextrin solution being known the blood volume can be determined. Thus the total activity of the dextrin solution injected, divided by the optical change produced in the plasma, gives a measure of the number of cubic centimetres of plasma, and as the proportion of corpuscles to plasma was previously found, the volume of the blood in cubic centimetres is thus obtained. On multiplying by the specific gravity the weight of the blood is got, and so the ratio to body weight. By this method it was found that in the case of dogs the ratio was about 12 per cent.

[1] *Comptes rendus Soc. Biol.*, April 15th, 1910.
[2] *Zeitschrift f. Physiolog. Chemie*, May 17th, 1910.

IN connexion with the North-East London Post-Graduate College a vacation course will be held, as in previous years, in September, from the 12th to the 23rd inclusive. The course will include demonstrations on recent clinical methods, demonstration of groups of selected clinical cases, clinical lectures, lantern demonstrations, and consultations. The fee will be 2 guineas. Full particulars may be had from the Dean at the Prince of Wales's General Hospital, N.

Nova et Vetera.

SOME ROYAL DEATH-BEDS.

(Continued from p. 1365.)

Charles I.

THE death-bed of Charles I was, as every one knows, a scaffold in Whitehall. Death came to him not with the disgusting accompaniments of the sick room, but with the swift cut of the headsman's axe, the surgeon who cures men of the "fever called living." Of the manner of his death there is nothing more to be said. He illustrated in his own royal person the fact which kings are so anxious to hide, that he was subject to the doom common to all men. When Dr. Johnson asked old Auchinlech, Boswell's father, what Cromwell had done, the old judge said: "Cromwell do? God, sir, he gart Kings ken that there was a *lith* in their neck!" How skilfully this had been done may be read in Sir Henry Halford's "Account of the Opening of the Tomb of Charles I,"[1] where it is related that on April 1st, 1813, when the coffin was opened in the presence of the Prince Regent, afterwards George IV, the Duke of Cumberland, Count Munster, the Dean of Windsor, Mr. Benjamin Charles Stevenson, and Halford himself, "the fourth cervical vertebra was found to be cut transversely, leaving the surfaces of the divided portions perfectly smooth and even." After the coffin had been soldered up it was found that the portion of the vertebra which had been cut through had separated from the neck and fallen aside unnoticed. The Prince Regent, deeming it unnecessary that the coffin should be opened again in order to replace the fragment of bone, presented it to Sir Henry Halford. The courtly physician, valuing the relic highly, placed it in a case specially carved of lignum vitae lined with gold, with a fitting Latin inscription inside the lid. It was shown from time to time to privileged persons, and Halford's possession of the relic became the subject of severe criticism. It was therefore given by his descendant, Sir Henry St. John Halford, into the hands of the late King, then Prince of Wales, who, it is understood, returned it to the vault and deposited it in its case on Charles's coffin.[2]

Charles II.

Of the death-bed of Charles II we have more detailed accounts than, perhaps, of any other British Sovereign. All the documents have been critically analysed by Dr. Raymond Crawfurd in his interesting book entitled, *The Last Days of Charles II*,[3] recently reviewed in the BRITISH MEDICAL JOURNAL; in that work the closing scenes of Charles's life are told in detail. He has garnered in his little volume all the records of the event, and has left little or nothing for us to glean after him. The following account is therefore almost entirely taken from his narrative.

No reader of Evelyn is likely to forget the famous description of the Sunday evening—February 1st, 1685—at Whitehall, when he saw the King "sitting and toying with his concubines, Portsmouth, Cleveland, and Mazarin, etc., a French boy singing love songs, in that glorious gallery, while about twenty of the great courtiers and other dissolute persons were at Basset round a large table, a bank of at least 2,000 in gold before them, upon which two gentlemen who were with me made reflections with astonishment." "Six days later," adds the diarist, "all was in the dust." The next morning at 8 o'clock, while being shaved, the King fell back with a cry into the arms of Lord Ailesbury, who was standing close beside him. He had violent convulsions, as to the nature of which there is no definite evidence. Sixteen ounces of blood were withdrawn from a vein in the left arm with good effect by Edmund King, a physician who had been a surgeon, and who happened to be at hand. Urgent messages had been dispatched to the King's numerous personal physicians, who quickly came flocking to his assistance; they were summoned regardless of distinctions of creed and politics, and they came. They ordered cupping-glasses to be applied to his shoulders forthwith, and deep scarification to be carried out, by which they succeeded in removing another 8 oz. of blood. A strong antimonial emetic was administered, but as the King could be got to swallow only a small portion of it, they determined to render assurance doubly sure by a full dose of sulphate of zinc. Strong purgatives were given, and supplemented by a succession of clysters. The hair was shorn close, and pungent blistering agents applied all over his head; and as though this were not enough, the red-hot cautery was requisitioned as well. So severe were the convulsions that the physicians at first despaired of his life, but in some two hours consciousness was completely restored. He was able to give his own account. He felt unwell on rising from bed and went to his closet to get some of the famous "King's drops"; these, says Dr. Crawfurd, were a volatile extract of bone, made up in the King's own laboratory according to a formula devised by Dr. Jonathan Goddard, in high repute on the Continent and commended by no less an authority than Sydenham.

After the treatment that has been described, Charles was "in a pretty good state" and the physicians pronounced him to be out of immediate danger. Dr. Crawfurd continues: "In the evening of Monday the King's physicians again met in consultation, and with a view to relieving the pressure of 'the humours' on his brain they administered remedies to promote sneezing, along with additional aperients. Noxious plasters were applied to the soles of his feet. A preparation of cowslip flowers and spirit of sal ammoniac was designed to stimulate and to strengthen the brain by the combined action of the remedies. Soothing draughts were prescribed to allay thirst and to stave off the scalding of the urine, which they were aware must inevitably result from the freedom with which they had made use of the blistering properties of cantharides. Nourishment was ordered in the form of light broth and of ale made without hops; and with this, therapeutic creativeness rested from its labours on the first day. Early on Tuesday morning another consultation was held, at which no less than twelve physicians were present. The success of their remedies seemed to warrant them in pursuing treatment on the same lines as they had already adopted. The King complained of pain in the throat, and on examination a superficial excoriation—probably a result of the efforts made to separate his teeth forcibly during the convulsions—was discerned, which was treated with an astringent and soothing gargle. The symptoms still seemed to indicate the likelihood of a recurrence of convulsions, and to guard against this the physicians prescribed an antispasmodic julep of black Cherry Water and other ingredients, which at that time were highly esteemed in the treatment of convulsive disorders. At the same time his jugular veins were mulcted in a further ten ounces of blood." On Wednesday afternoon there was a relapse with fresh convulsions, and the King's condition was declared by the physicians to be dangerous. Spirit of human skull was administered—"a sure harbinger," says Dr. Crawfurd, "of impending dissolution." The Ministers of the Crown pressed the physicians for opinions, but the medical diplomats only shook their heads, like so many Burleighs. They were puzzled as to the nature of the disease. Intermittent fever, which was then prevalent in London, was thought of, and, after consultation, it was decided on the Thursday morning to give Peruvian bark. Fortified by the sense that they had arrived at a diagnosis of some kind, they met the Council with a more confident air, and informed Lord North that they now knew what to do. When asked what that was, they replied: "To give the Cortex." The following announcement, issued on the previous day, which appeared in the *London Gazette*, is a typical specimen of such documents:

> At the Council Chamber, Whitehall, the 4th of February, 1684, at five in the afternoon.
>
> The Lords of His Majesty's most Honorable Privy Council have thought fit, for preventing false reports, to make known that His Majesty, upon Monday morning last, was seized with a violent fit, that gave great cause to fear the issue of it; but after some hours, an amendment appeared, which with the blessing of God being approved by the application of proper and seasonable remedies, is now so advanced, that the physicians have this day as well as yesterday given this account to the Council, viz., That they conceive His Majesty to be in a condition of safety, and that he will in a few days be freed from his distemper.
>
> JOHN NICHOLAS.

[1] *Essays and Orations*, London, 1831.
[2] W. Munk, *Life of Sir Henry Halford*, London, 1895, p. 62.
[3] Oxford, at the Clarendon Press, 1909.

[It may be recalled that on June 21st, 1902, the late King's private secretary wrote that there was "not a word of truth" in the alarming reports about the King's health. On June 24th the Coronation was postponed, when it became known that an operation for appendicitis had to be performed on the King.]

On the Thursday there was another attack of convulsions, and the physicians began to despair. The King's mind remained clear, and he faced death with serene courage, apologizing to those around for the unconscionable time he took in dying. On the Friday morning he was seized with breathlessness; he was again bled, and heart tonics were administered. At half-past eight his speech began to fail; at ten he was unconscious, and shortly before noon he quietly passed away.

Charles II died on Friday, February 6th, 1685, in his 54th year. He had lived hard, was, like most kings, a large eater, and was given to wine, and still more to women. His excesses undermined a naturally vigorous constitution. Not long before his death he had a prolonged attack of gout. His death was generally attributed to apoplexy, a term very loosely used in that day. A *post-mortem* examination was made on the day following his death. The physicians noted the fullness of the veins and arteries on the surface of the brain. No ruptured vessel was detected, though the surface of the brain was examined. Those present were struck by the abundance of serous fluid in the ventricles and in the substance of the brain. The right lung and pleura were firmly adhered to the chest wall owing to inflammation of long standing. Dr. Crawfurd thinks it likely that this may have been the result of the illness mentioned by Povy to Pepys, when it was thought by some that the King was in a consumption. The heart was hypertrophied, but otherwise healthy. No abnormality was found in the abdomen, but it was noted that the liver, spleen, and kidneys were full of blood.

There were the usual rumours of poison, but the account of his last illness, drawn up by Sir Charles Scarburgh, shows that there is no ground for such a belief. It is a curious document, in which all the prescriptions are given. The treatment, it will be seen, was drastic; the King was purged, bled, and blistered, and was made to swallow revolting concoctions, but he bore all the horrors of seventeenth century medicine with unflinching fortitude. We give in full Dr. Crawfurd's translation of Scarburgh's report, which is written in Latin, as it presents a living picture of seventeenth century therapeutics. The composition and ingredients of the various formulae are for the most part to be found in the *Pharmacopoeia Londinensis* of 1677:

Precisely at eight o'clock His Most Serene Majesty King Charles the Second, having just left his bed, was walking about quietly in his bed-chamber, when he felt some unusual disturbance in his brain, which was soon followed by loss of speech and convulsions of some violence.

There happened to be present at the time two in all of the King's Physicians, and they, so as promptly to forestal so serious a danger to this best of Kings, opened a vein in his right arm, and drew off about sixteen ounces of blood. Meantime too the rest of the Physicians had been summoned by express messengers, and flocked quickly to the King's assistance; and after they had held a consultation together, they strenuously endeavoured to afford timely succour to His Majesty in his dangerous state.

Indeed they prescribed three cupping-glasses to be applied to his shoulders, to be quickly followed by scarification deep enough to effect a fuller and more vigorous revulsion, and in this manner about eight ounces of blood were withdrawn.

Within a few moments after this, so as to free his stomach of all impurities, and by the same action to rid his whole nervous system of anything harmful to it, they administered an Emetic, to wit, half an ounce of Orange Infusion of the metals, made in white wine (Infusio croci metallorum, prepared from sulphonal of antimony and nitre. Crocus on account of its colour.) And as only a small part of this was taken, so that their endeavour might not be altogether frustrated, they added one drachm of white vitriol dissolved in compound Paeony Water (a complex antispasmodic mixture).

Soon afterwards they gave as well one drachm of two-blend Pills, likewise dissolved in Paeony Water, and this so as to drain away the humours more speedily by his nether channels.

Further, so as to accelerate the operation of that Purgative, they supplemented it with an Enema made up as follows:

℞ Common Decoction for Clysters ... 1 pint
Powder of Sacred Bitter ... ... 1 ounce
Syrup of Buckthorn ... ... 2 ounces
Rock Salt ... ... ½ drachm
Orange Infusion of the metals ... 2 ounces
To be mixed.

(The decoction for clysters was a common vehicle for drugs administered by the bowel. The ingredients were mallow leaves, violets, pellitory, beet, herb mercurial, camomile flowers, fennel seeds, linseed, plain waters. Hiera-picra—powder of sacred bitter—was a compound of cinnamon, zedoaria, avarum, cardamom seeds, saffron, cochineal, and aloes.)

All these remedies were ordered by these Physicians in consultation:

Chas. Scarburgh	C. Frasier
Edm. Dickenson	Tho. Short
Rich. Lower	Edm. King

After one or two hours they repeated the Clyster, with the addition of 2 ounces of Syrup of Buckthorn, 4 ounces of Emetic Wine (Antimonial Wine), and 2 drachms of Rock Salt.

But as these were slow in operation, they made still another effort to attain the same end with yet more purgatives, prepared as follows:

℞ Two-blend Pills (colocynth, scammony, oil of cloves, syrup of buckthorn) 2 drachms, dissolved in compound Paeony Water 3 ounces, of which the King was to take 1 ounce immediately, the remainder to be reserved for future use.

Over and above this, so as to leave no stone unturned, Blistering agents were applied all over his head, after his hair had been shaved.

Those in consultation:

Chas. Scarburgh	F. Mendes
Thos. Witherly	Rich. Lower
Edmund Dickenson	Tho. Short
Wr. Charleton	Edm. King
C. Frasier	

As evening came on, so as to persevere in their object of diverting and withdrawing the humours from his head, and at the same time to give strength to his loaded brain, they prescribed the following combination:

℞ Sacred Bitter Powder ... ... 1 oz.
Compound Paeony Water ... ... 1 pint
Bryony Compound ... ... ½ ,,
Mix and make a Tincture.

To be taken as often, and in such quantities, as the Physicians present may deem advisable. Bryony was reputed to be emetic, purgative, and diuretic.

At the same time, so as to excite sneezing, a powder was prepared of a drachm of White Hellebore roots, to be kept in readiness to be applied to the King's nostrils, as occasion arose.

A second Powder also was made up out of 4 ounces of Cowslip flowers (to strengthen his brain).

Those in consultation:

C. Scarburgh	Tho. Short
Tho. Witherly	R. Lower
Wr. Charleton	Edm. King
Edm. Dickenson	M. Lyster
C. Frasier	Fer. Mendes

So as to keep his bowels active at night as well, the following remedy was prescribed:

℞ Best Manna 3 ounces. Dissolve in Barley Water 1 pint. Filter. Add Cream of Tartar 1 drachm, of which take 3 ounces every second hour.

At the same time, so as to counteract the scalding of his urine, likely to result from the use of blistering drugs, an Emulsion was made up as follows, to be drunk as often as required:

℞ Decoction of Barley, with Liquorice ... 3 pints.
Sweet Almond Kernels ... ... No. 20.

To be made into an Emulsion and sweetened with white Sugar.

C. Scarburgh	F. Mendes	Edm. King
T. Witherly	T. Short	M. Lyster
Wr. Charleton	R. Lower	J. Lefebvre
E. Dickenson	C. Frasier	

To these was added further a mild Laxative of Sacred Tincture (contained hiera-picra, absinth, centaury, spirit of wine, anise) extracted in white Wine, 3 ounces, to be administered soon after the enema was returned. But the formula of that enema was as under:

℞ Common Decoction 1 pint. Sacred Powder 1 ounce. Rock Salt 1½ drachms. Syrup of Buckthorn 3 ounces.
Mix.

The prescription for these remedies was signed by
L. Rugely.

Meantime steps were taken to stave off thirst by the following, calculated at the same time to move the bowels,

℞ Best Manna 6 drachms. Cream of Tartar ½ drachm, dissolve in a draught of thin broth or 3 ounces of Barley Water. To be taken.

It was also decided that His Majesty the King should continue to take both the emulsion and the thin broth alternately, with

draught of light ale made without hops introduced from time to time as occasion determined throughout the night.

While these measures were being carried out, Spirit of Sal Ammoniac was applied now and again to His Most Serene Majesty's nostrils, both as a cerebral stimulant, and to excite sneezing. At intervals also, twenty drops of the same spirit, out of the Succinate kind, were given in a small draught of Antidotal Milk Water (Aqua Lactis Alexiteriae, composed of leaves of ulmaria, thistle, minth, absinth, rue, angelica, milk).

So as to leave nothing at all untried, to promote still further both the revulsion and the derivation from his Head, Cephalic Plasters combined with Spurge and Burgundy Pitch, in equal parts, were applied to the soles of his feet. An ingredient of this plaster was pigeon's dung.

And in this way came to a close
the Consultations of the Physicians held
on the first day.

February 3.

The Physicians ordered His Most Serene Majesty to go on taking the Sacred Tincture every six hours, in the dose previously mentioned, with the addition at the intervening hours of a dose of Manna prescribed with Cream of Tartar, dissolved in light broth; also, to mitigate the distress produced by his difficulty of micturition, to use the Emulsion between times; while to revive his strength and in the same way to stimulate his brain, they administered Spirits of Sal Ammoniac in Antidotal Milk Water, as often as exhaustion seemed to demand.

The following authorized this advice:

C. Scarburgh	T. Witherly
Wr. Charleton	C. Frasier
Edm. Dickenson	F. Mendes
T. Short	R. Lower
E. King	E. Browne
J. Lefebvre	M. Lister

These same, meeting again close on noon, considered it necessary to open both jugular veins and draw off about ten ounces of blood, as soon as ever it could be conveniently managed.

After this was done, so as to mitigate the scalding of the Urine that the Blistering agents would inevitably set up, the following Emulsion was prescribed:

℞ Dried Mallow Root 1 ounce. Heat in 2 or 3 pints of Barley Water. Sweet Almond Kernels No 6. Melon Seeds ½ drachm. Make into an Emulsion to be sweetened with Syrup of Mallow, 1 ounce. Of this let him take a small draught as often as may be to relieve Thirst and allay Difficulty of Micturition.

Decoction of Barley was repeated, and in 1 pint of it were dissolved 3 ounces of Best Manna, of which 6 tablespoonfuls were administered every third hour in a draught of Chicken broth, so as to keep the bowels acting from time to time.

At this juncture, as the King was complaining of pain in his throat, in which a superficial Excoriation was to be seen, the following Gargle was prescribed:—

℞ Inner Bark of Elm 1 ounce. Heat in 1 to 2 pints of Barley Water. Filter: add 1 ounce of Syrup of Mallow. Mix.

C. Scarburgh	E. Browne
T. Short	Wr. Charleton
F. Mendes	R. Lower

Further it seemed most desirable that his bowels should be kept continuously relaxed, by administering for that purpose 2 ounces of the Sacred Tincture just mentioned, and repeating subsequently the usual dose of Manna dissolved as stated above; and that small draughts of the Emulsion and of the light Broth should be given alternately.

Besides this, paying heed to the vital indication of the case, a Julep was written out as follows:—

℞ Black Cherry Water: Flowers of Lime, 6 ounces of each, Lilies of the Valley 4 ounces: Paeony Compound 2 ounces. Compound Spirit of Lavender ½ ounce. Prepared Pearls, 2 drachms: White Sugar Candy to taste, sufficient to make a Julep: of which he might sip, as often as he pleased, 4, 5, or 6 Tablespoonfuls, particularly when exhausted.

To this advice the following gave unanimous approval:

C. Scarburgh	E. Browne
T. Witherly	E. King
E. Dickenson	T. Short
Wr. Charleton	J. Lefebvre
T. Middleton	M. Lister
R. Lower	C. Farrell

As the same need for purgation still remained urgent, they administered afresh Sacred Tincture 3 ounces, with Syrup of Buckthorn 6 drachms. Compound Paeony Water 3 ounces, and at 2 a.m. also 2 ounces of Syrup of Buckthorn were introduced, in a draught of Infusion of Manna.

This was the joint advice of

C. Scarburgh	R. Lower
T. Witherly	F. Mendes
Wr. Charleton	T. Short
C. Frasier	M. Lister
E. Browne	J. Lefebvre

February 4.

It seemed advisable to the Physicians to prescribe a mild laxative Decoction, composed as follows, to be kept for use as occasion arose:

℞ White Tartar ½ ounce. Heat in 1½ pints of Spring Water. White Wine ½ pint; then infuse 1½ ounces of Senna Leaves. Best Manna, 4 ounces. Flowers of Chamomile, 2 handfuls. Gentian Root, ½ drachm. Nutmeg 1 drachm: at a gentle heat for 3 hours: then filter and purify by settlement.

C. Scarburgh	E. Browne	M. Lister
T. Witherly	T. Short	E. King
T. Millington	R. Lower	C. Farrell
Wr. Charlton	F. Mendes	J. Lefebvre
E. Dickenson		

All the above met afresh in consultation in the afternoon and ordered the following remedies:—

4 ounces of the Decoction just described to be given to His Majesty the King at 9 p.m., the same dose to be repeated at 2 or 3 a.m. if it seem advisable to the Physicians in attendance.

Alone with this His Serene Majesty's strength should be supported throughout the night with drinks of light broth, with draughts of Emulsion and with liquid Posset, first one, then another, with now and then as a change Ale made without hops, and occasionally the usual dose of Cerebro-Cardiac Julep, especially in presence of exhaustion.

Further, as His Serene Majesty's condition became more grave as the night advanced, the Physicians who were watching him considered it advisable to administer the following small draught:

℞ Spirit of human Skull 40 drops. (The skull of a person who had died a violent death was commonly employed in convulsive disorders, it was probably intended to act by suggestion.)

Take in an ounce and a half of Cordial Julep as soon as possible.

The advisers were:

C. Scarburgh	R. Lower
E. Dickenson	F. Mendes
T. Millington	C. Farwell
Pet. Barwick	

February 5.

As the Physicians who had kept anxious watch in the King's Bedchamber had noticed that His Majesty's illness underwent each night some exacerbation or paroxysmal increase, and as some of them had stated confidently that some sort of intermittent fever was prevalent in town, which though it came on with alarming convulsions at the onset still was readily brought to an end by the use of Peruvian Bark Febrifuge (after appropriate preliminary measures); on this account they were unanimously of opinion, that this Bark should be administered to His Serene Majesty, so as to anticipate speedily and surely the nocturnal exacerbations of the symptoms. Accordingly they prescribed Bark to be given in the following manner:

℞ Fine powder of Peruvian Bark, 1 drachm. Antidotal Milk Water, 4 ounces. Syrup of Cloves, 2 drachms. Mix and make a small draught, to be taken when indicated, and repeated as often as may seem advisable to the Physicians in attendance.

This prescription was signed by the following:

T. Witherly	C. Scarburgh	Wr. Charleton
T. Millington	Edm. Dickenson	R. Lower
T. Short	E. Browne	F. Mendes
Edm. King	C. Frasier	F. Lefebvre
E. Farrell	M. Lister	

They also determined with one consent that a specified dose of Febrifuge Bark should be handed to His Most Serene Majesty at 6 a.m. and 9 a.m., and also at noon in 4 ounces of Antidotal Milk Water, and to introduce at the intermediate hours 40 drops of Spirit of Human Skull in an ounce and a half of Pearl Julep.

February 6th.

As the illness was now becoming more grave and His Most Serene Majesty's strength (Woe's me!) gradually failing the Physicians were compelled to have recourse to the more active Cardiac Tonics, and to prescribe the following:

℞ Raleigh's Stronger Antidote, ½ drachm. (The Confectio Raleighana was an extract of different parts of an enormous number of herbs, animals, etc.) To be taken at once in a Tablespoonful of Pearl Julep, and followed soon after by 4 Tablespoonfuls of the same Julep.

℞ Goa Stone, 1 scruple. To be taken an hour or two later in a draught of Broth:

The Consultants were:

C. Scarburgh	R. Lower
T. Witherly	E. Browne
Wr. Charleton	T. Short
T. Millington	C. Frasier
P. Barwick	F. Mendes
E. King	C. Farel
J. Lefebvre	M. Lister

Some hours afterwards they met again, and being reduced almost to their last resource instituted the following line of treatment:

℞ Peruvian Bark, 1⅓ drachms; Rhine Wine, 3 ounces. To be mixed and administered forthwith.

His Most Serene Majesty was to persist in taking Spirit of Sal Ammoniac blended with an ounce and a half of Cordial Julep, in the quantity previously determined and at the appointed times.

At 8 p.m. he was to take 20 drops of Succinate Spirit of Sal Ammoniac in 4 Tablespoonfuls of Pearl Julep, and the same dose of each every other hour as long as the Physicians watching him shall deem fit.

℞ Oriental Bezoar Stone, 2 scruples. To be taken in a Tablespoonful of Pearl Julep, and followed soon after by the usual dose of the same Julep.

The true Bezoar was a concretion found in the stomach of an East Indian goat. There were many false bezoars.

Three hours later His Serene Majesty sinking lower and lower, the following was prescribed:

℞ The Julep aforesaid ... ... 5 tablespoonfuls
Spirit of Sal Ammoniac ... 20 drops
To be mixed into a small draught and drunk there and then.

In consultation:

C. Scarburgh
Wr. Charlton
P. Barwick
T. Millington
E. Browne
R. Lower
F. Mendes
E. King
M. Lister

But (alas!) after an ill-fated night His Serene Majesty's strength seemed exhausted to such a degree, that the whole assemblage of Physicians lost all hope and became despondent: still so as not to appear to fail in doing their duty in any detail, they brought into play that most active Cordial:—

℞ Raleigh's Antidote 1 drachm
Pearl Julep 5 Tablespoonfuls
Succinate Spirit of Sal Ammoniac 20 drops
Mix. To be administered forthwith.

At this last and most dismal meeting of Physicians there were present:—

C. Scarburgh
E. Dickenson
E. Browne
R. Brady
T. Short
C. Farell
R. Witherly
T. Millington
R. Lower
P. Barwick
J. Lefebvre

There was present also that renowned Hero, the King's only Brother, and Heir by an unimpeachable title to the Crown, James then most illustrious Duke of York and also of Albany, to-day however Most August Monarch of the Britains, who moved by the deepest affection for the King and by a more than brotherly love, was so anxious for his recovery, that he scarcely ever had the heart to leave the prostrate King's bedside, at times completely overwhelmed with grief, at times himself watching attentively the following out of the Physicians' instructions, at other times imploring Heaven's Arch-Healer for help and succour with most earnest prayers and vows and with repeated lamentations, so that it was clear to all that he prefer to enjoy the comradeship of his Most Distinguished Brother, rather than the Sceptre, but to no purpose, for the Fates were arrayed against him. For in spite of the vows and sighs of so many friends, in spite of every kind of treatment attempted by Physicians of the greatest loyalty and skill, this Best of Kings was seized quite unexpectedly by a mortal distress of breathing that compelled him to sit upright; and though from time to time its violence abated, it soon returned more urgently than before, for the tinder the disease had fired still smouldered unceasingly, till at length all his natural strength was exhausted by the immensity of his sufferings, and he peacefully laid down his mortal Crown to take up an Immortal.

He expired on February the Sixth soon after noon,
Towards the end of the fifty-fourth year of his age.
In the Body of Charles the Second, Most August
King of the Britains, when opened after death
were found:—

1. On the Surface of the Brain the Veins and Arteries were unduly full.
2. All the Cerebral ventricles were filled with a kind of serous matter, and the substance of the Brain itself was quite soaked with similar fluid.
3. On the right side the Lungs and Pleura were firmly adherent to the chest-wall, but on the left side they were quite free, as Nature has ordained they should be in health.
4. No fault whatever could be found with the substance of the Lungs, but they were charged with blood.
5. The heart was large and firm, and quite free from malformation in every part.
6. In the depths of the belly there was nothing unnatural, except that the Liver was inclined to be livid in colour, perhaps because of the abundance of blood in it, with which the Kidneys and Spleen were also engorged.

It is well known that Charles II, who had never been a Protestant at heart, died in communion with the Roman Catholic Church. So many different accounts of this last scene of all have been given—indeed James II and his wife differed as to certain details when they afterwards told the story to the nuns of Chaillot—that it may be of interest to quote the account of John Hudleston, the priest who ministered to him. It was published by Hudleston as an appendix to his uncle's short treatise in manuscript (*A Short and Plain Way to the Faith and Church*, by Mr. Richard Hudleston, a Benedictine of the Cassinese Congregation). John Hudleston had saved the King's life after the battle of Worcester, and was therefore after the Restoration a privileged person. He was not the illiterate person Macaulay has represented him to be. His account is as follows:[1]

Upon Thursday, the 5th of February, 1685, between seven and eight in the evening, I was sent for in haste to the Queen's backstairs in Whitehall, and desired to bring with me all things necessary for a dying person. Accordingly I came, and was ordered not to stir from there till further notice. Being thus obliged to wait, and not having had time to bring along with me the most holy Sacrament of the Altar, I was in some anxiety how to procure it.

In this conjuncture, the Divine Providence so disposing, Father Bento de Lemos, a Portuguese, came thither, and understanding the circumstances I was in, readily proffered to go to St. James' and bring the most holy Sacrament along with him.

Soon after his departure I was called into the King's bedchamber, where, approaching to the bedside and kneeling down, I in brief presented his Majesty with what Service I could perform for God's honour and the happiness of his soul at this last moment . . . . The King then declared himself that he desired to die in the faith and communion of the Holy Roman Catholic Church; that he was most heartily sorry for all the sins of his life past, and particularly for that he had deferred his reconciliation so long . . . and that if it pleased God to spare him longer life he would amend it, detesting all sin.

I then advertised his Majesty of the benefit and necessity of the sacrament of penance, which advertisement the King most willingly embracing, made an exact confession of his whole life with exceeding compunction and tenderness of heart, which ended, I desired him, in farther sign of repentance and true sorrow for his sins, to say with me this little short act of contrition.

"O my Lord God, with my whole heart and soul I detest all the sins of my life past for the love of Thee, whom I love above all things, and I firmly purpose by Thy holy Grace never to offend Thee more. Amen, sweet Jesus, amen. Into Thy hands, sweet Jesus, I commend my soul; mercy, sweet Jesus, mercy." This he pronounced with a clear and audible voice, which done, and his sacramental penance admitted, I gave him absolution.

After some time thus spent, I asked his Majesty if he did not also desire the other sacraments of the Holy Church administered to him. He replied, "By all means; I desire to be partaker of all the helps and succours necessary and expedient for a catholic christian in my condition." I added, "And doth not your Majesty also desire to receive the precious body and blood of our dear Saviour, Jesus Christ, in the most holy sacrament of the Eucharist?"

His answer was this, "If I am worthy, pray fail not to let me have it." I then told him it would be brought to him very speedily, and desired his Majesty, in the interim, he would give me leave to proceed to the sacrament of extreme unction. He replied, "With all my heart." I then anoyled him, which as soon as performed, I was called to the door, whither the Blessed Sacrament was now brought and delivered to me.

Then returning to the King, I entreated his Majesty that he would prepare and dispose himself to receive, at which the King, raising himself, said, "Let me meet my heavenly Lord in a better posture than in my bed;" but I humbly begged his Majesty to compose himself: God Almighty, who saw his heart, would accept of his good intention. The King then, having again recited the fore-mentioned act of contrition with me, he received the most holy Sacrament for his viaticum with all the symptoms of devotion imaginable. The communion being ended I read the usual prayers . . . appointed by the Church for Catholics in his condition. After which the King desired the act of contrition, "O my Lord God," etc., to be repeated: this done, for his last spiritual encouragement I said:

"Your Majesty hath now received the comfort and benefit of all the sacraments that a good Christian . . . can have or desire. Now it rests with you only that you think upon the death and passion of our dear Saviour, Jesus Christ, of which I present unto you this figure (showing him a crucifix); lift up therefore the eyes of your soul . . . beseech Him with all humility . . . when it shall please Him to take it out of this transitory world, to grant you a joyful resurrection, and an eternal crown of glory in the next; in the name of the Father, and of the Son, and of the Holy Ghost. Amen."

So recommending his Majesty on my knees with all the transport of devotion I was able to the divine mercy and protection, I withdrew out of the chamber.

In testimony of all which I have hereunto subscribed my name.

J. Hudleston.

A member of the English Congregation of Benedictines of the present day, Dom Roger Hudleston, O.S.B., of Downside Abbey, is a collateral descendant of John Hudleston.

[1] Quoted in an article by Mgr. A. S. Barnes in the *Downside Review*, July, 1900.

British Medical Journal.

SATURDAY, JUNE 25TH, 1910.

SHALL CONTRACT PRACTICE BE ABOLISHED?

FROM the correspondence on sickness and invalidity insurance that has been going on during the last month or more, it would appear as if there were a decided movement in the Association against contract medical practice, meaning by this the ordinary form of club practice in which an inclusive yearly payment is made by each club member. Hardly a single correspondent has had anything good to say about the ordinary club system, and it is most significant that nearly every writer has expressed a preference for payment in direct proportion to work done. Five years ago inquiries were sent out to all the Divisions, and among the propositions on which they were asked to express an opinion was the following:. "That it is inevitable in present conditions that there should be in some parts of the United Kingdom some system of contract medical service of the poor." To this sixty-nine Divisions sent replies; sixty-eight agreed that contract practice was necessary, and only one Division considered it not necessary. At the same time a general feeling was shown in favour of reform of the existing club system, and the opinion seemed to be that such reform could best be attained if "the general control were in the hands of some organized local body representative of the profession such as a Division of the British Medical Association." Accordingly the Divisions were "urged to establish a public medical service in every area in which contract practice is believed by them to be necessary." The Representative Meeting gave instructions that model rules for a public medical service should be drawn up; after careful deliberation this was done, and the model rules were published[1] for the consideration of the Divisions.

It is most important that it should be clearly recognized that the issue of these model rules must in no sense be taken as a general recommendation of contract practice. It is a complete misunderstanding of the intention of the Representative Meeting and the Council to suppose that contract practice is in any way "being pushed as the best thing for practitioners." The fact is simply this, that a considerable number of Divisions have expressed the definite opinion that "in present conditions" and "in some districts" some form of contract practice is necessary, and that where this is the case the model rules are offered as infinitely preferable to the older forms of contract practice. But wherever any Division has considered that contract practice was unnecessary and has attempted to abolish it, the whole resources of the Association have been and, in like circumstances will be, available to assist such Division.

Special emphasis, too, must be laid on the proviso contained in the above proposition in the words "in present conditions." At present we have to deal with hundreds of friendly societies, works clubs and sick clubs of all sorts into which the profession has allowed itself to be inveigled. It seems almost incredible, but in many cases medical men have even come to hug their chains. Out of 856 engaged in contract practice who replied to the inquiries of the Medico-Political Committee, 165 declared themselves "satisfied with the rates they receive at present"; many others grumbled, but seemed disinclined to make any attempt to escape. This was five years ago, but there are now evident signs that many Divisions are beginning to realize their strength wherever union can be obtained. If we read the signs aright, general practitioners are getting beyond the grumbling stage, which has hitherto ended in little but empty words, and are moving rapidly on towards an active policy directed against the ordinary form of club practice. The profession has long ago seen the hollowness of club practice, which is bad for both doctor and patient, and has been a constant cause of mutual recriminations between the friendly societies and medical men; and whatever else we may think of the Minority Report of the Poor Law Commission, it has done good service in bringing home to the public the shortcomings of a system against which the profession has been struggling for years, though perhaps only in a fitful and spasmodic way. When first the model rules were contemplated, we had not to reckon with a Government scheme for compulsory sickness and invalidity insurance of all the working classes; this is the direct outcome of the Poor Law Commission's report, and introduces a set of conditions which are quite new. In fact, it comes to this—that, under compulsory sickness insurance, if contract practice is to be acquiesced in at all, it will have to be accepted on a vastly bigger scale than at present. The Association will therefore have to face without delay the question whether it is not possible and infinitely preferable for all parties concerned, doctors and patients alike, altogether to abolish contract practice—that is to say, the ordinary club system, in which payment is made by an annual capitation fee, so much a head per annum—the system of unlimited attendance for a limited fee.

In an article published on February 26th, three systems of domiciliary treatment, all rivals of the ordinary club system, were mentioned. First, the appointment of whole-time or part-time medical officers, paid at a fixed salary; second, payment for each case of illness; and third, payment for each visit or consultation—that is, payment in direct proportion to work done. Whatever may be said in favour of specially appointed medical officers in other services, it is quite certain that persons who will have to pay part of their own insurance premium will not consent to be limited in their choice of doctor. This has been fully proved in Germany. The correspondence in the JOURNAL has turned mainly on the system of payment in proportion to work done, and even those correspondents who have most fully recognized the difficulties that are sure to be raised in England, as they were in the French Chamber of Deputies, are still in favour of payment for each visit and consultation as the best system.

It must not be forgotten that if choice of doctor and payment for each visit be adopted under the insurance, there must still be something in the nature of an agreement not only with the patients but with the insurance department also. It is not to be expected that an insurance department will ever hand over the medical benefit money to the patients and leave them to pay their own doctor. Some of it might be used for other purposes, and might never reach its proper destination, and the door would be opened for patients to bargain for reduced fees in clubs which they would form for themselves. The payment must be by the insurance department either

[1] SUPPLEMENT, May 7th, 1910.

directly or through some public body or friendly society, or, probably best, through the British Medical Association. This would involve not only some form of agreement, but also some right of supervision of the medical service by the insurance department. To condemn this as officialism is not practical politics; it must, in fact, be admitted to be a reasonable demand for any Government department to make.

The merits and demerits of the private deposit system as a guarantee to the State that unnecessary visits shall not be made if the basis of payment be in respect of each visit, have been discussed. Some guarantee will certainly be required, and it is not very clear that the deposit system as used by the National Deposit Friendly Society would be satisfactory. An essential requirement is that the patients themselves should have a permanent interest in neither asking nor allowing unnecessary visits. It is probable that under compulsory insurance a single premium will be made to cover all the benefits, including medical attendance, sick pay, invalidity pension, funeral benefit, and pension to surviving dependants. There must, of course, be a proper actuarial relation between this single premium and the sum total of the benefits, and seeing that the benefits consist of several separate items, the question has been raised whether it would not be reasonable to provide that if, in any individual case, any one item of benefit were increased, the other benefits should be proportionally reduced. Put in other words, the question is whether, without the cumbrous method of keeping a separate private deposit account for each person, which might fail when most needed, it would be practicable in cases receiving an excessive amount of medical attendance, much above the average of the sickness tables, to make a slight reduction in the other benefits such as sick pay or pensions. This would, of course, have to be so adjusted as not to cause hardship to patients. It is suggested, on the other hand, that for persons who had received less than the average medical attendance or less than some fixed amount of attendance, the other benefits might be slightly increased according to a scale to be drawn up. This, it is argued, would at any rate ensure that every patient would have a personal and permanent interest in preventing unnecessary medical attendance. The same personal interest might perhaps be attained by raising or lowering the premiums. At any rate, it seems as though it ought to be possible by some such plan, combined with proper medical inspection of the service, to furnish satisfactory guarantees against abuse by either doctors or patients.

A method has been suggested by which the medical officers might receive payment in proportion to work done, even though it were found impossible entirely to abolish the friendly society system of an inclusive yearly fee. The method assumes the formation of local medical committees under the auspices of the British Medical Association as being the most powerful and representative body to carry on any negotiations with the insurance department or the Government. This is on the analogy of the medical committees suggested by the Medico-Political Committee to negotiate with education authorities as to the medical treatment of school children; indeed, the same local medical committees might suffice for both purposes, though it would be preferable for all to work under a uniform scheme organized and directed by the central association. On this plan the local committee, following the uniform scheme, would formulate an arrangement with the insurance department under which each consenting local practitioner would on his own behalf agree to give medical attendance for the insured persons in the district. The committee, with the consent of the practitioners, would receive from the department a lump sum proportioned to the number of the insured in the district, and would be at liberty to disburse this among the medical officers on some approved system, payment in proportion to work done being preferred. While strongly supporting payment in proportion to work done, Dr. J. H. Taylor having regard to statistics collected by the Association, considers that if 10s. a year for each person insured were allowed, it would on the average provide between 2s. and 2s. 6d. a visit or consultation.

One of the most important questions will be the safeguarding of the interests of those practitioners who now obtain part of their income from clubs. Indeed, all the questions involved are so important that several correspondents suggest a referendum, and Dr. Fothergill has gone so far as to formulate the questions to be asked: (1) "Do you prefer a public medical service under the auspices of the Association or of the friendly societies?" and (2) "Are you in favour of such service being an extension of the club system or a scheme of payment for work done?" There will, perhaps, be little difference of opinion on the first question; and, as to the second, everything will depend on the practicability of the scheme of payment for work done. But it is quite necessary to be absolutely certain of the support of the great majority of the profession on a few broad principles. The state of the political world is such that Mr. Asquith thinks there will be no opportunity this year for legislation for either unemployment or sickness insurance. This is, perhaps, in one respect fortunate, as considerable time is requisite, first, to obtain agreement on broad principles, then to formulate a scheme in accordance with these principles, and finally to get it properly sanctioned. The Special Poor Law Committee is well advanced with what has been a most difficult task; it has had several conferences with the Contract Practice Subcommittee, and it is expected that the Annual Representative Meeting will have an opportunity of laying at least the foundations of something more satisfactory than the ordinary form of club practice as it now exists. It is sincerely to be hoped that all minor differences will be sunk on these questions. If the profession is united it can obtain any reasonable terms; if it is not united it will suffer.

RESEARCH DEFENCE SOCIETY.

A STRIKING feature of the annual meeting of the Research Defence Society—a full report of which was published in the BRITISH MEDICAL JOURNAL of June 11th—was the proof it afforded of the degree to which persons distinguished in various spheres of intellectual activity, having no direct connexion with science, are in active sympathy with its objects. Among them are churchmen, soldiers, artists, politicians, and men of affairs, all eminent in their own province of work. The rapid growth of the society, which was founded less than three years ago, and already has a membership of between three and four thousand, is especially remarkable in view of the fact that it makes no appeal to popular passions; on the contrary, it has to contend against an accumulated mass of prejudice and ignorance which has for years been fomented by the most unscrupulous agitation.

It is something of which the founders of the society and those who carry on its work may well be proud that they have succeeded in making the still small voice of reason heard amid the din of rival fanatics.

The work of the society is one which deserves the support of every member of the medical profession, and we hope that any of our readers who have not yet joined it will hasten to swell the list of its members. For years the wells of public opinion on the subject of vivisection have been deliberately poisoned, and the society has undertaken a difficult task in endeavouring to counteract the evil. But there is ample evidence that already the antidotes which it distributes are producing a wholesome effect, and it is earnestly to be hoped that this result will spread wider and wider till the people as a whole have been made immune against the infection of lies, slanders, abuse, and misrepresentation with which they have been so perseveringly inoculated. Men and women whose minds are untainted by morbid sentimentalism must recognize that a society which seeks to prevent research having for its end the prevention or relief of sufferings to which animals in common with mankind are liable is humanitarian in the fullest and highest sense. Cruelty is the most hateful of all the vices, and it is surely one of the worst forms of cruelty to let men, women, and children continue to run the risk of suffering and death rather than allow a dog or two to be put out of existence painlessly, or possibly have its life prolonged at the cost of a discomfort so trivial that no sign is given of its being felt.

Sir David Bruce, whose speech was described by Mr. Anthony Hope Hawkins as one of the most interesting he had ever heard, showed that as the result of animal experimentation Uganda has ceased to be a focus of sleeping sickness; and Malta fever, which only a few years ago levied a heavy toll on our forces in that island, has disappeared from the sickness returns. He added that there was reason to hope that in a short time simple continued fever will be got rid of as completely.

Lord Cromer contrasted what has been achieved by those engaged in experimental research with the sterility of their opponents. Some one criticizing this remark in a newspaper seemed to think that it is no business of the opponents of vivisection to do anything but oppose. In politics, of course, it has been said that it is the duty of an opposition to oppose; but when this principle is carried to the length of opposing legislation that is obviously called for in the interest of the country, opposition becomes factious and unpatriotic. In the same way opposition to research which has for its aim the welfare of man, as of other living beings, is inhuman in itself, as well as sterile of results if it fails to do what it aims at accomplishing. So far, the only fruit of the activity of the antivivisection bodies has been the collection of large sums of money which has been wholly applied to the endowment of sophistical, and, it must be added, uncharitable, controversy. The agitation has done absolutely nothing else for the good of man, and it has not saved a single guinea-pig or mouse from "torture." As Dr. Keen tersely puts it, the foes of experimental research have done "nothing but to stand in the way of progress. Not a single life has been saved by their efforts; not a single household made happy; not a single disease has had its ravages abated or abolished." It has tried to play the part of a "police trap"—a form of "inspection" with which the Hon. Stephen Coleridge has doubtless had th opportunity of becoming familiar—and even in this respect the record of all the antivivisection societies together may be written in one word—FAILURE.

In the meantime scientific research has gone on its way, exploring the dark places in which lie hid the secrets of Nature, and seeking to discover the elusive agencies by means of which she causes and cures disease. The Report of the Royal Commission on Vivisection, the incubation of which has been so prolonged, is awaited with interest. Whatever may be its purport, it will receive respectful consideration from the friends of experimental research. The document is sure to be of great value as the fruit of the mature deliberations of men representing the diverse opinions and feelings of persons who have given special thought to the subject. Whatever be the conclusions of the report, however, the great mass of evidence taken by the Commission will remain as a testimony to the good results that have been obtained by vivisection, and to the flimsiness of the case—presented, be it remembered, by its most skilful and most determined advocates—against that method of investigation.

MR. ROOSEVELT AT OXFORD.

ONE of the attractive features of the Romanes Lectureship is that it never fails to provide us with an interesting study of personality. The subject matter of the lectures may not always be novel, and its treatment may not, perhaps, carry us to the profoundest depths of analysis, but we invariably find that the individuality of the lecturer invests his theme with a vivid atmosphere of personal interest. Thus the lectures possess the value of character sketches; they present us with the literary portraits of eminent men, painted by themselves, with full licence to give expression to their own individuality in their own way. In adding to their literary portrait gallery of celebrities the distinguished ex-President of the United States, the Oxford authorities have undoubtedly made a most interesting acquisition.

With characteristic enthusiasm Mr. Roosevelt revealed to his Oxford audience the manner of man he is. Taking as his subject *Biological Analogies in History*, he at once proceeded to admonish sundry historians of the modern school who do not satisfy his criterion of the way in which history should be written. "A book which is written to be read should be readable. This rather obvious truth seems to have been forgotten by some of the more zealous scientific historians, who apparently hold that the worth of a historical book is directly in proportion to the impossibility of reading it, save as a painful duty." History, he goes on to explain, should be treated in the scientific spirit, but only on condition that it also remains a branch of literature. The scientific equipment of the historian must comprise some knowledge of biology, because there is a certain parallelism, though admittedly not an exact parallelism, between the birth, growth, and death of species in the animal world and the like cycle of events in human society. These general resemblances the lecturer then proceeded to illustrate by comparing the changes which have taken place in the predominant forms of higher animal life with the vicissitudes in the life history of nations.

Whilst some of the factors which bring about national decay are inscrutable, others are easily recognized. "It needs but little of the vision of a seer to foretell what must happen in any community if the average woman ceases to become the mother of

a family of healthy children, if the average man loses the will and the power to work up to old age and to fight whenever the need arises. If the homely, commonplace virtues die out, if strength of character vanishes in graceful self-indulgence, if the virile qualities atrophy, then the nation has lost what no material prosperity can offset." Each nation has its own problems to solve, and these differ according to circumstances; but the method of dealing with them all should be fundamentally the same. "It must be a spirit of broad humanity; of brotherly kindness; of acceptance of responsibility, one for each and each for all; and at the same time a spirit as remote as the poles from every form of weakness and sentimentality." Similar rules of conduct should apply to international relationships as well as to internal policy. "The foreign policy of a great and self-respecting country should be conducted on exactly the same plane of honour, of insistence upon one's own rights, and of respect for the rights of others, that marks the conduct of a brave and honourable man when dealing with his fellows."

These principles are not particularly new, though their manly honesty will always command respect. One might, perhaps, have thought that as the study of political philosophy has always held a prominent place in the intellectual life of Oxford, Mr. Roosevelt's audience would have been capable of appreciating a fuller and somewhat less elementary exposition of the principles of statecraft. It may also be objected that Mr. Roosevelt's biological analogies do not carry us very far; they are so vague, and the conditions affecting the complex organizations of human society are so widely different from those which determine existence amongst the lower animals, that it is difficult to see how this department of biology can throw much light on the laws determining the progress of human civilization.

Perhaps there is some element of truth in Mr. Roosevelt's strictures on the new type of historian who absorbs himself in the compilation of minutiae of little or no interest to the general reader. But though the writer who deals with general principles may be a more interesting person, the patient compiler of accurate data is none the less performing a task which is essential for the advancement of historical knowledge. Similarly with medicine, the general practitioner may consider that the mass of literature devoted to the physical and chemical properties of antibodies is extremely uninteresting, if not unintelligible; but he would hesitate to speak disparagingly of it, because he knows that it provides the raw material of knowledge from which may be elucidated general principles leading to the discovery of new methods in the treatment of disease. In fact, we already begin to see the theoretical principles applied to the treatment of disease with a degree of success which, if not uniform, is at least encouraging.

But as Mr. Roosevelt chose to treat his subject in light and popular fashion, it would be unfair to criticize his lecture as though it were intended to be a very serious contribution to scientific literature. Its most interesting feature is the vigorous presentment of the mental characteristics of the lecturer. Mr. Roosevelt went to Oxford to enjoy himself, and played the part of fault-finder with a geniality which was thoroughly appreciated by his hosts. They not only enjoyed the fun but helped to make it. Even in the stilted phrases of grandiose Latinity with which his honorary degree was conferred there are sly touches of academical humour such as are particularly dear to the heart of the Oxonian. "In feras terrae non minore animo, successu haud minore, ferrum exacuit quam in malos saeculi mores saevire solitus est." A delicately balanced comparison between the ex-President's prowess as a hunter and his zeal as a reformer of morals. *Saevire solitus est* is certainly a frank and amusing description of the way in which he exercises the latter capacity. Then the Chancellor's "hominum domitor, beluarum ubique vastator" is a delightful juxtaposition of epithets, which is followed by a more broadly humorous reference to Mr. Roosevelt's sympathy for alien races: "homo omnium humanissime, nihil a te alienum, ne nigerrimum quidem, putans." Assuredly Oxford was in festive mood, and thoroughly enjoyed its day's hero-worship. One wonders who their next celebrity will be. Amongst other complimentary phrases, the Chancellor greeted Mr. Roosevelt as "augustissimis regibus par." Is this a delicate hint that Mr. Roosevelt's successor to the Romanes Lectureship will be a distinguished foreign potentate of somewhat similar proclivities?

THE ANNUAL MEETING OF THE ASSOCIATION.

In the advertisement pages for this week (p. 9) is inserted a form for the use of members who intend to be present at the Annual Meeting in London at the end of next month, and it is particularly requested that all members who intend to visit London on this occasion will at once sign and return the form to the address shown on the back thereof. This request applies equally to members resident in London, for it will very greatly facilitate the work of the honorary local secretaries and committees if they are able beforehand to form some approximate estimate of the numbers for whom they will have the pleasure of providing. As has already been announced, the Annual Representative Meeting will commence on Friday, July 22nd. On Tuesday, July 26th, at 8.30 p.m., Mr. Butlin will deliver his Presidential address in St. James's Hall, Great Portland Street, and on this occasion foreign guests and colonial delegates will be presented and honorary members, if any be elected, inducted. A special service will be held in Westminster Abbey at 3 p.m. on Wednesday, July 27th, and special services will be held in Westminster Cathedral for members of the Roman Catholic community at 10.30 a.m. or 3 p.m. on the same day. The honorary local secretaries hope to publish at an early date—probably next week—a full list of entertainments which will be offered to members. Meanwhile, we may state that among the principal entertainments will be a reception by the Lord Mayor and Corporation of London, given in the Guildhall on Wednesday evening, July 27th, at 8.30, and a conversazione given by the Metropolitan Counties Branch in the Natural History Museum on Friday evening at 8.30. The annual dinner of the Association will be held on Thursday evening, July 28th, in the Connaught Rooms of the Freemasons' Hall, Great Queen Street, W.C. There will be a garden party on Wednesday afternoon at the Bethlem Royal Hospital, on the invitation of the governors of that institution; and other afternoon arrangements will be notified at an early date. Arrangements have already been made for visits to be paid to various manufactories and works on the afternoons of several days. On Saturday, July 30th, there will be four excursions: one to Bath, at the invitation of the Mayor and Corporation, who are making special arrangements to invite a large number of guests; the Mayor and Corporation of Brighton are also inviting a party to visit that town and to lunch

another party will visit Eastbourne; and Sir William Treloar is arranging for a party of 200 to visit the Cripples' Home and College at Alton. Dr. Lipscomb, Mayor of St. Albans, has invited a party to lunch with him on Friday, July 29th, and to visit the cathedral and other objects of interest in that ancient city.

THE ASSOCIATION LENDING LIBRARY.

THE Library of the British Medical Association, which dates its first beginnings only from 1887, has had an unusually rapid development. Within eight years of its initiation 7,000 volumes had been collected; now it contains some 20,000 volumes. This number does not include 12,000 theses presented for the degree of Doctor of Medicine at the University of Paris. This collection is of special value, as it represents the most advanced medical thought of France, many leading physicians and surgeons choosing the thesis of a favourite pupil as a channel for the conveyance of their teaching to the general world of medicine. For instance, most of Nélaton's work is to be found in the theses of his pupils. The Association Library has been largely used from the beginning by members, and the Library Committee has given continuous attention to the task of keeping it up to date. It has been felt for a long time that the sphere of its usefulness might be greatly increased by establishing a lending department, and the Council approved regulations drawn up by the Committee. We are pleased to be able to state that the first stage of this work is now complete. Arrangements have been made for the lending of books of reference and bound volumes of periodicals to members under certain conditions. A catalogue of periodical publications, including hospital reports and *Transactions* of societies and congresses, together with reports of Government publications, Royal Commissions, and Parliamentary Committees, is now ready for circulation. The Council has further decided that a list of monographs, British and foreign, available for lending purposes, shall also be drawn up, but this will take some time to prepare, and will not be available for several months. The Lending Department should therefore prove very useful to members of the British Medical Association who have not the opportunity of consulting publications of the nature indicated. It might be of particular service when, as often happens, medical men are suddenly called upon to take part in local controversies for which, in the absence of a reference library, they may be at the moment unprepared. We are surrounded on all sides by jealous enemies and unscrupulous critics, who have organized regular services of press correspondence for the diffusion of their own views. The Lending Department will afford medical practitioners in the remoter parts of the country the opportunity of confuting many a plausible fallacy and nailing many a lie to the counter.

MR. STEPHEN COLERIDGE AND LORD CROMER.

ELSEWHERE we publish a letter from the Hon. Stephen Coleridge in which he criticizes certain statements made by Lord Cromer at the annual meeting of the Research Defence Society. Mr. Coleridge entitles his letter "Lord Cromer as a Medical Expert." This, we suppose, is, as Artemus Ward would say, "wrote sarcustik." But it may be pointed out that Lord Cromer expressly repudiated the character of a "medical expert" which Mr. Coleridge thrusts upon him. This is a small matter, but, as it is characteristic of Mr. Coleridge's incurable and apparently constitutional tendency to inaccuracy, it is well to call attention to it. In Lord Cromer's statement as to "modern surgery of the brain" he was quoting Dr. W. W. Keen, of Philadelphia, who has some right to speak on the subject. In an article entitled "What Vivisection has Done for Humanity," which appeared in the April number of *The Ladies' Home Journal*, Dr. Keen, under the heading "Why Modern Surgery is Successful in Brain Disorders," says: "A few years ago I was called to Annapolis to see a young man who had been injured in a football game. He was evidently swiftly going to his grave. He had certain peculiar symptoms, which, in the light of cerebral localization—that is, the fact that certain definite portions of the surface of the brain have each a certain definite function—I believed to be due to a clot of blood inside of his head above his left ear. There was a bruise, not above the ear, but at the outer end of the left eyebrow. Before 1885 I should have opened his skull under the bruise—apparently the almost certain point of injury—would have failed to find the clot, and he would surely have died. Instead of this, I made a trapdoor opening three inches away from this bruise, removed nine tablespoonfuls of clotted blood, closed the wound so that his skull was as firm as ever, and he recovered, continued his studies, was graduated from the Naval Academy. Lately he has heroically given up his life at the call of duty. Had it not been for experiments upon animals which had definitely fixed certain spots in the brain as the centres for movements of the hand, arm, shoulder, head, face, etc., it would have been utterly impossible for me to save his life. This is but one of hundreds of similar cases in which modern surgery deals with tumours of the brain, haemorrhage inside of the skull, and many other disorders, and deals with them successfully." Sir Victor Horsley has, as a very little inquiry would have shown Mr. Coleridge, published a number of his cases in this JOURNAL. A report of 3 cases was given in a paper published on October 9th, 1886, and another paper with a table of 10 cases appeared in the JOURNAL of April 23rd, 1887. Details of several cases may be found in the JOURNAL of December 6th, 1890. Sir Victor Horsley's work has been largely done in public institutions and is known to the whole profession. He may surely choose his own time to publish any further report without consulting Mr. Coleridge. That gentleman may, however, be interested to learn that Sir Victor Horsley published a further series of cases in the JOURNAL of March 5th of the present year. With regard to the quotations from Professor Osler's *Principles and Practice of Medicine*, we have only to say that if Mr. Coleridge imagines that they in any way help him in his depreciation of Lord Cromer as a "medical expert" he is under a fond delusion. At any rate he should have made them elsewhere than in the pages of this JOURNAL. They are familiar to every reader, and they are absolutely irrelevant. Mr. Coleridge ought to know the difference between cure and prevention. For example (to take an instance from the moral order, in questions belonging to which we suppose he is an "expert") it is difficult, if not impossible, to cure the habit of lying "when once established." But its formation may often be prevented by measures well known to schoolboys. It would be interesting to learn why Mr. Coleridge did not quote the following passage, which may be read in the same part of Professor Osler's book under the heading "Preventive Inoculation": "Pasteur has found that the virus, when propagated through a series of rabbits, increases in its virulence; so that whereas subdural inoculation from the brain of a mad dog takes from fifteen to twenty days to produce the disease, in successive inoculation in a series of rabbits the incubation period is gradually reduced to seven days (*virus fixe*). The spinal cords of these rabbits

contain the virus in great intensity, but when they are preserved in dry air this gradually diminishes. If, now, dogs are inoculated from cords preserved for from twelve to fifteen days, and then from cords preserved for a shorter period—that is, with a progressively stronger virus—they gradually acquire immunity against the disease. A dog treated in this way will resist inoculation with the *virus fixe*, which otherwise would inevitably have proved fatal. Relying upon these experiments, Pasteur began inoculations in the human subject, using, on successive days, material from cords in which the virus was of varying degrees of intensity. In 1902 there were 1,103 persons treated at the Paris Pasteur Institute, with 2 deaths; in 1903 there were 630 persons treated, with 4 deaths, a smaller number of cases than ever before treated, among them 10 foreigners, one from Great Britain." The omission of this passage is a glaring instance of Mr. Coleridge's peculiar controversial tactics. But it is so foolish, because so easily exposed, that we are inclined to think it an instance of colour blindness in regard to facts rather than of disingenuousness in argument.

MICE AND MEASLES.

ACCUSTOMED as we are by this time to the most unexpected relations between cause and effect in the etiology of disease, it will be no surprise to learn that a connexion has been traced between mice and measles. The alliteration is reminiscent of mosquitos and malaria, and is even more euphemistic. "Does the microbe of measles come from the mouse?" is the question asked by Dr. A. F. King in a paper read before the Washington Medical Society. The foundations for his theory are distinctly weak, but he makes a most interesting case of it. At the outset he regrets being unable to present experimental demonstration and clinical proof, and thus his claim is only to a hypothesis derived from general facts. An idea that straw had something to do with the origin of an epidemic of measles first gained ground during the American Civil War, in which thousands of soldiers contracted the disease apparently from sleeping on straw. At that time Salisbury isolated from straw fungus spores, by inoculation of which the disease could be reproduced. Similar experiments, repeated by others, were unsuccessful. Dr. King, however, reconciles the discordant findings by assuming that the straw in the one case had been infected by mice, but not so in the other. He then mentions several instances in which, in the absence of an epidemic, persons had become infected with measles after working with or handling straw or inhaling dust in which mice were living or were likely to be living. In making cultures from the faeces of mice he found the various fungus spores mentioned by Salisbury, and, in addition, bacilli and oscillating spores. In the bacilli he sees a resemblance to those isolated by Canon and Peilicke from the blood of patients suffering from measles, but, as the resemblance is based entirely on the superficial morphology of the organisms, it is evident that no weight can be attached to it. The second fact in support of the theory is that measles is a cold weather disease, and that mice swarm into human habitations during the cold weather. The third link in the chain of presumptive evidence is the coincidence between an increased prevalence of measles and mouse plagues. Reference is made to the three most notable plagues of mice in recent times—namely, in Scotland and Russia and Thessaly—all occurring between 1892 and 1895. In Scotland the deaths from measles were greatly increased during the plague years, and reached their maximum at the acme of the plague. The same coincidence is observed in the records of cases from a children's hospital at Moscow during the Russian plague. No figures are available from Thessaly. As a converse the case of the Färöe Island is cited. For sixty years there was no measles on the island, and *probably* also no mice. Dr. King admits that almost all this evidence is purely presumptive, and suggests the advisability of obtaining experimental proof—such, for instance, as by exposing non-immune children to air heavily charged with mouse faeces in the form of dust. In the discussion which followed the reading of the paper, Dr. Adams recalled the ridicule with which the suggestion of a causal relation between mosquitos and malaria was received, and yet the theory has been amply verified. Dr. Williams remarked that the mouse plague in Scotland was due to the vole, and not to the house-mouse, and that the epidemic of measles was largely in the cities, while the mouse plague was in the country districts.

PELLAGRA INVESTIGATION COMMISSION.

IT was stated in the JOURNAL of February 5th that a Committee for the Investigation of Pellagra had been formed in this country. In April Dr. L. Sambon was sent out to Italy to pursue researches in districts in which the disease is most prevalent. He returned on June 12th, and at a meeting of the committee held on June 22nd, Dr. Clement Godson in the chair, he gave an account of his mission and its results. The Commission visited many places, especially in the provinces of Bergamo, Brescia, Perugia, Rome, and Padua. Everywhere the Italian authorities cordially assisted the work of the Commission and afforded the members every facility and help. He described the methods adopted to elucidate the epidemiology of the disease. Dr. Sambon had with him in his investigations first Captain F. Tiler, of the United States army, and afterwards Dr. Lavinder and Dr. Blue from the United States. Dr. Lavinder stated that he was going back to America to investigate pellagra from the standpoint which Dr. Sambon had taken up, and to test his statements concerning the parasitic nature of the disease. The Chairman congratulated Dr. Sambon on the amount of work he had done in the short time at his disposal. Dr. F. Sandwith seconded the chairman's appreciation of the manner in which the Field Commission had worked, and expressed the belief that when a full account of the expedition was before them it would be found that valuable information concerning pellagra would be forthcoming. Professor W. R. Simpson, C.M.G., hoped that the work so ably begun by Dr. Sambon would be continued. It would be unpardonable were the question allowed to rest now that so good a beginning had been made. Mr. E. E. Austen made some statements concerning the sand-flies sent from Italy to the British Museum by Dr. Sambon. It is to these flies that Dr. Sambon ascribes the transmission of pellagra, and their nature and habits will form an interesting part of the report. Dr. G. C. Low is entrusted with the examination of the blood slides sent from Italy taken from cases of pellagra. A young girl from Italy suffering from pellagra was shown at the meeting by Dr. Sambon. In addition to the speakers mentioned, the following were present at the meeting: Dr. J. M. H. MacLeod, Mr. Otta Stapf, F.R.S., Fleet Surgeon P. W. Bassett-Smith, Dr. Lavinder, U.S.A., Mr. A. Amaroso, and Mr. J. Cantlie (Honorary Secretary).

THE BOARD OF TRADE VISION TESTS.

THE President of the Board of Trade has appointed a committee to inquire what degree of colour blindness or defective form-vision in persons holding responsible

positions at sea causes them to be incompetent to discharge their duties; and to advise whether any, and if so, what, alterations are desirable in the Board of Trade sight tests at present in force for persons serving or intending to serve in the merchant service or in fishing vessels, or in the way in which those tests are applied. The committee consists of the Right Hon. Arthur H. Dyke Acland (chairman), Lord Rayleigh, O.M., F.R.S., Sir Arthur Rücker, F.R.S., Mr. Raymond Beck, Captain Thomas Golding, Professor Francis Gotch, F.R.S., Mr. Norman Hill, Mr. Edward Nettleship, F.R.C.S., Mr. J. H. Parsons, F.R.C.S., Professor J. H. Poynting, F.R.S., and Professor E. H. Starling, M.D., F.R.S., with Dr. William Watson, F.R.S., and Mr. S. G. Tallents as secretaries.

HUNTERIAN SPECIMENS UNDER THE MICROSCOPE.

IN the paragraph on Hunter's free-martin, which appeared in the JOURNAL of May 28th, p. 1315, it was stated that microscopic sections of the testis in one of Hunter's specimens were recently made under the direction of Dr. Arthur Keith, and that, although taken from preparations nearly a century and a half old, these sections, cut in celloidin and stained with logwood and eosin, showed the finest histological details quite clearly. We think it right to add that the first instance in which specimens from Hunter's collection underwent preparation and examination under the microscope according to modern methods will be found recorded in the JOURNAL, vol. ii, 1881, p. 743.[1] Mr. F. S. Eve exhibited some specimens of tumours composed of striped muscle and sarcoma tissue, or striped myosarcoma connected with the kidneys. He detected this condition in a kidney from Hunter's collection, and found that its minute structure was still perfectly distinct. Since the testes of Hunter's free-martin was examined several other Hunterian specimens have been submitted to microscopical research, for the entire pathological series, as well as the Hunterian collection, is undergoing thorough revision as well as rearrangement. The histological elements in sections from many tumours and normal tissues mounted in the eighteenth century come out as clearly as do similar preparations from specimens added to the college museum during the past ten years.

THE ALCOHOL QUESTION IN SWEDEN.

THERE has lately been much discussion in Sweden about the desirability of passing a law forbidding permanently and absolutely the use of all alcoholic drinks in Sweden, but with the reservation that the decision to adopt the law shall rest with each local authority. Enthusiasts for this very radical measure have been going about from house to house collecting signatures, and succeeded in obtaining assenting votes from apparently over 50 per cent. of the population. Few of the remainder seem to have voted either way. Among medical men the preponderance of opinion seemed to favour the view that the time was not yet ripe for such a drastic measure, but 185 were in favour of the passing of such a law. The reason why so drastic a measure is advocated in Sweden at this time is probably to be found in the fact that such a prohibitory law was actually in force in the country during the large strike last summer and autumn without causing much disturbance, and with the result that never has a large strike been carried out in so quiet and orderly a manner. If such an ideal law can ever become possible during this century, Sweden would certainly seem to be the best country for making the experiment. Education has been compulsory since 1686, and its population must be considered to be perhaps the best educated and most law-abiding in the world.

[1] See also *Trans. Path. Soc.*, vol. xxxiii, 1882, p. 312.

CHAIR OF UROLOGY AT THE LONDON HOSPITAL.

AT the quarterly court of the governors of the London Hospital, held on Wednesday, June 1st, Mr. Hurry Fenwick was elected Professor of Urology on the recommendation of the Medical Council. We also learn that Mr. Hurry Fenwick was unanimously elected President of the ensuing Congress of Urology by the Council of the International Association of Urology at their last meeting in Paris. This International Association, of which Professor Guyon is the President, holds a Congress every third year; its membership is limited, and confined to experts in this particular branch of surgery. They are elected by ballot from among the prominent members of the different urological societies of Europe and America.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

Local Government Board Vote.

Mr. Burns's Salary.

ON June 17th, when the Local Government Board Vote came on, the first point raised by Mr. Walter Long, who opened the debate, was the salary of the President of the Board. He pointed out that the President of the Board of Trade's salary had been raised to £5,000 a year, and urged the abandonment of the self-denying ordinance which was agreed to by the heads of the Board of Trade and Local Government Board in the debates of last year—namely, that the increase from £2,000 to £5,000 per annum should not take place while the then Presidents were in office. Mr. Churchill had passed on to the Home Office, and his successor at the Board of Trade received the higher salary. Mr. Burns had not been moved, and the House had to vote him the increased salary. The Prime Minister followed, and dwelt, as Mr. Long had done, on the enormous increase of work thrown on the Local Government Board in recent years, and the advisability of putting both these great departments on the same footing as the departments presided over by Secretaries of State. He paid a high compliment to Mr. Burns for his devotion to the duties of his office, and urged that he ought to be released from the understanding which under the altered circumstances ought not to be considered binding. Mr. Lees Smith then moved to reduce the salary of the President of the Local Government Board from £5,000 as in the estimate to £2,000 per annum. He did this on purely economical grounds, and not in the least from any want of appreciation of the valuable work of Mr. Burns. Mr. Byles seconded the amendment, and argued that the whole machinery of Government was becoming too costly. It was opposed by Mr. Gibson Bowles and Mr. Nield, and supported by Mr. Lough, Mr. Seddon, and Mr. Jowett, and when the division took place after three hours' debate, the proposal to keep the salary at £2,000 was rejected by 159 to 13.

Vaccination.

Mr. Chaplin then raised the question of the remuneration of vaccination officers, who complained that since the Act of 1907 their work had increased and their fees had diminished. The results of the passing of that Act—whether they were the direct results and whether they were the only results he was not prepared to say—were assuming a very grave aspect. Between the time of the issue of Lord Herschell's report and the passing of that Act the position was that something like one-third of the responsible local authorities in the country had declined to do their duty in carrying out vaccination, and consequently of 900,000 children born in a year at least 300,000 were going unvaccinated. The problem

with which the Local Government Board then had to deal was that of restarting vaccination and bringing the practice into general observance. At that time the number of unvaccinated children was increasing year after year, and if the position had been left as it was vaccination would probably have become a rare occurrence in a few years. Under his auspices a bill was passed in 1898, into which he unwillingly admitted a provision in favour of the conscientious objector, rather than lose the measure altogether. His attempt to preserve the bill was justified by the increase of vaccination which followed its adoption. In one of the East End metropolitan unions the number of vaccinations in the twelve months to September, 1898, performed by public vaccinators, was 336; in the twelve months ending the following September they were 1,130—that is to say, nearly four times as numerous. In three other unions in the metropolis there were 1,181 public vaccinations in the first nine months of 1898, and 2,441 in the first nine months of 1899. Now in unions in Yorkshire the aggregate primary vaccinations done by the public vaccinators in the East Riding for the three months ended September, 1899, was 60 per cent. more than in the like period of 1898. The general results of the Act showed that in 1899 the exemptions were 32,000, and so on we go to 39,000, 41,000, 33,000, 37,000, 39,000, and 43,000, until the present Government came into office, and then they went up to 52,000. What he wanted especially to call the attention of the Committee to was that in 1907 they were 57,000, and that was the year of the passing of the Act by which the statutory declaration was substituted for the necessity of going before the magistrate for the purpose of getting exemptions. What were the exemptions in the following year? They went up from 57,000 to 162,800 in 1908, and to 190,000 in 1909—that was to say, they went up from a percentage of 4.6 in 1905, the last year in which the other party were in power, and they had gone up from 4.6 to 20.8, and that had been done in two years after the passing of the Act. He saw no reason at the present rate of progress why it should not amount to 30,000 or 40,000 in 1910, and if it proceeded to increase with anything like the rapidity that it had done vaccination would be in a dangerous position in this country. Steps ought to be taken to discourage this enormous increase in exemptions which if continued must constitute a great danger.

Mr. Burns said, in reply, that there were 1,420 vaccination officers in England and Wales; they were all paid by fees. Out of the 1,420, 400 gave their whole time to the work; 1,020 out of the 1,420 held other appointments, such as relieving officers or registrars of births, marriages, and deaths, and other appointments. Vaccination officers, speaking generally, did not depend really upon their work as vaccination officers for their living. The guardians who knew them and were their direct employers were most competent to fix their remuneration, except in a few instances, where Poor Law guardians were swayed either by antivaccination ideas or other notions of that kind. The fees were paid and fixed by consent of the Local Government Board. Some people talked about the minimum of 3d. being adhered to, and that 9d. for every successful vaccination alone was paid. In many cases where the population was dense the minimum fees of 3d. and 9d. respectively yielded, so the guardians thought, sufficient remuneration, but where the population was not so dense the 3d. fee became 6d., and in some cases 9d., and the 9d. in successful vaccination became a fee of 1s. 6d., or 2s. 3d., and the average remuneration of these gentlemen for this work was very often from £150 to £200, and in some cases £300. He found that since the Act of 1907 was passed, when he only carried the principle of helping the conscientious objector one stage further, the exemptions had increased from 57,675, or 6.2 per cent., to 190,000, or 20.8 per cent. The exemptions had in some cases caused a diminution of income to some of the officers. He found that out of the 1,420 vaccination officers it was alleged that 487 had sustained a loss; but out of that number 217, or nearly half, had been paid by their guardians a gratuity to make good the loss, and this had been done with the consent of the Local Government Board. In the remaining cases vaccination officers had not always seen their way to apply for compensation, or else the guardians had declined to pay gratuities. These two classes of cases had to be met, and he was prepared to meet them as fairly as he could. The increase in the number of exemptions had been referred to as a serious danger. He saw from the 1909 report of the Local Government Board that in 1908, a year after the passing of the Act, the exemptions were rapidly increasing, and there was not a single case of small-pox admitted in the small-pox hospitals of the Metropolitan Asylums Board. [Dr. Hillier: A very happy coincidence.] Mr. Burns: And the happy coincidence had continued since 1909. He did not share the alarming fears and suggestions of some people that one of the results of exemption under the Act of 1907 would be a serious increase in small-pox cases, and there was no reason to assume that it would have that effect at all. He thought both the vaccinator and the antivaccinator had not sufficiently given credit to the effect of the education of the individual and of the improvement in domestic and public sanitation.

Boarded-out Children.

Mr. S. H. Butcher brought up the treatment of boarded-out children. Hitherto there had been two systems of boarding out in England and Wales. Of children who were boarded within the union they could get no official information. There were 7,000 of them, and they were under no inspection by the Local Government Board. The only supervision of these children was by the relieving and medical officers. The Poor Law Commissioners said that no effective supervision was found, that the system was not satisfactory, and that this class of children was gradually increasing. The second system was carried out for children who were boarded outside the union in which their parents lived, and two features of the system were—a voluntary unpaid committee, a third of whom must be women, and each member of the committee approved by the Local Government Board; and, secondly, inspection by trained women inspectors. These inspectors travelling over the whole country gave attention to health, food, housing, clothing, and general treatment of the children by a system of inspection only women could conduct. Men had been complete failures for purposes of domestic inspection; only women could discover abuses, and the Poor Law Commission had reported upon this as the ideal system, for girls especially. Last year, when this question was raised, the right hon. gentleman said he would not lose a day in extending the system of inspection to children within the union, but the order which came into force on April 1st, though it was a step towards meeting the points raised and evidence of the right hon. gentleman's sympathetic interest in the treatment of the children, was open to objections. There was no obligation imposed upon guardians to appoint women on the committee; there was the alternative of a committee of guardians, which had broken down. The guardians were allowed to co-opt persons of experience from outside, and this was necessary, for out of 638 boards there were 226 on which there were no women. It ought to be compulsory to put women on these committees.

Another point related to Local Government inspection. There were 7,000 children boarded out within unions and 2,000 outside, and the inspectors for the 2,000 were three qualified women, who found their time fully occupied in inspection over England and Wales. To this number three or possibly four women inspectors were to be added, and these six or seven inspectors were to look after, not only the 2,000 children, but the 7,000 also, and they would have other work of a very laborious kind, inspecting Poor Law schools, industrial homes, infirmaries, and maternity wards—duties that were so heavy as to leave no time for inspection of boarded-out children

within the unions. This additional inspection was quite inadequate; it meant that the 2,000 children would get less care than before, and the 7,000 would not be looked after at all. This was a matter of Poor Law reform that required no legislation.

Mr. Toulmin spoke in support, and urged that children should, so far as possible, be kept outside workhouse after 2 or 3 years of age. There were 0,000 children receiving in-relief at one time, and probably in a year more than double that number. There was, indeed, a slight increase in the number in workhouses at present. He wanted the Local Government Board to discourage more and more the retention of children in workhouses, and he pressed for the appointment of more women inspectors.

Mr. Burns, in replying to the points raised in the debate, said he thought the Committee would agree when they had heard the facts that the Local Government Board had kept the pledge which he made last June in regard to children boarded out within the union. He then promised to give closer attention to this matter, and that there should be no difference, so far as the inspection, control, and supervision of the Local Government Board were concerned, between children boarded out within and children boarded out without the union. That promise had been kept in the Boarding Out Within the Union Order, which was issued in December. In April he appointed three highly skilled and qualified lady inspectors, and he ventured to say the country would welcome these appointments as a substantial contribution to the fulfilment of the promise of June. And at this moment he was engaged in appointing a fourth lady inspector for the west country, including Wales, and in this case he thought they were justified in appointing a Welsh-speaking lady, so that the children in Wales might have the advantage of inspection by one who could talk their own language. These four ladies were the best he could possibly secure for these posts, and they possessed this great advantage—that their previous experience had given them a knowledge of hospital, infirmary, and institutional life that their other inspectors did not enjoy. He was glad to say that they were adapting themselves very rapidly to the inspection of the cottage homes and the boarding out institutions in which Poor Law children were placed, and from all the information he had received they were giving every satisfaction, and were doing their work very well indeed. If he found after a reasonable interval that the work of the visitors was not as well done as it might be, he should ask the House to allow him to issue a revised order based on the experience and circumstances revealed by the new inspectors in the first six or nine months of their work.

The Midwives Bill was withdrawn on Wednesday in the Lords. The bill was waiting for its second reading, and Lord Beauchamp, the new Lord President of the Council, asked leave to withdraw the bill to make certain amendments. He expressed a hope that on its reintroduction the bill would pass both Houses this session.

A Medical Commissioner of Prisons.—Dr. Hillier asked Mr. Churchill last week whether it was intended to appoint as a Prison Commissioner a medical man skilled in mental disease. Mr. Churchill replied that Dr. Donkin, who was for several years one of the Prison Commissioners, on his retirement in February last from the post of Commissioner, was retained in the position of Medical Adviser to the Prison Board, and in that position had a voice at the meetings of the Board, and exercised his medical functions as fully as he did in his former capacity. He was specially skilled in all questions of mental disease, and his expert knowledge had been of great service both to the prison administration and to the Royal Commission on the Feeble-minded, of which he was a member. So long as he retained his present post the appointment of a Medical Commissioner was not considered necessary. Dr. Hillier then asked whether the right hon. gentleman was aware that the present Prime Minister, when this question came on some years ago, very strongly urged the view that there should be a competent qualified medical man placed amongst the Prison Commissioners on the Board, and that the Board should not merely be dependent on outside medical advice. Mr. Churchill answered that this had already formed the subject of a debate in this House, and he could not attempt to reply to the arguments in answer to a question. Dr. Hillier asked whether he was aware that the Under Secretary of State for the Home Department in the course of that debate clearly intimated that it was quite probable that a further appointment would be made to the Board. Mr. Speaker ruled that this did not arise out of the question.

Anthrax.—Mr. Stanier asked how many cases of anthrax there were in the British Isles in horses, cattle, sheep, and pigs respectively in the years 1908 and 1909; and also the same figures during the first five months of this year. Sir E. Strachey replied that the subjoined table gave the information:

Year.	Cattle.	Sheep.	Swine.	Horses.	Total.
1908	1,107	34	220	58	1,419
1909	1,244	70	310	74	1,698
1910 (first five months)	685	15	119	38	857

In answer to a further question, Sir Edward Strachey said that the Board had reason to believe that a considerable proportion of the cases now returned as anthrax were not so in fact; but as in all cases where the cause of death was diagnosed as anthrax the animal's carcass was immediately destroyed, it was seldom possible to inquire fully into the cause of death. The bacillus of anthrax was easy to identify when present in fresh blood, but it was extremely difficult to exclude its presence when the animal had been dead for several hours. The Board had never expressed the opinion that anthrax could be stamped out; it could only be controlled. In reply to Mr. Charles Bathurst, Sir E. Strachey said that the Board had some doubt as to the accuracy of the diagnosis in some of the cases of disease returned as anthrax, and they were considering the issue of a revised Anthrax Order at an early date, designed to secure a more uniform and efficient method of diagnosis. The Board's veterinary advisers had little hope that anthrax could be stamped out, but every effort would be made to prevent the spread of infection. Asked further whether the increase of over 12 per cent. in the cases during the latter half of last year, and that three persons had recently died from the malady, did not demand stringent action, Sir E. Strachey said that he was aware of the serious increase, and that was the reason the Board were contemplating further action. In the course of the debate on the vote for the Board of Agriculture, Mr. Bathurst called attention to the subject, and said that the disease was found in fifteen to eighteen counties, and cases were forthcoming to show that persons attending cattle or engaged in slaughter-houses were frequently infected. In Wiltshire the disease was traceable to imported feeding stuffs. He urged the need for more stringent measures to stamp out the disease. Other speakers referred to this subject in the course of the debate, and Sir Edward Strachey, in his reply, said that he was alive to the serious nature of an outbreak of anthrax, and the Board would do all they could to prosecute investigations concerning this terrible scourge.

Tuberculosis and the Milk Bill.—Mr. Bathurst raised the question of tuberculosis and milk in the debate, and said he was glad that the Government Milk Bill did not become law, because it was founded on the third interim report of the Commission, which was not based on the experiments conducted or the evidence submitted. If on the

strength of that report they were going to have a Milk Bill putting most harassing restrictions on the dairy industry, it would be a great injustice to the agricultural community, and the advance in the price of milk would be a very serious matter to the poor. He was convinced that the danger arising from even tuberculous cattle had a very small effect in bringing about the disease in the large urban centres, and that a much more serious matter was the increasing scarcity of good milk to be obtained at a reasonable price. It was perfectly well known that tuberculosis was not hereditary either among human beings or cattle, and milk was safe unless the animal was suffering from a diseased udder or was physically emaciated by the disease. He viewed with alarm the time when officious and uninstructed officials of the urban authorities would go into healthy districts and condemn right and left, not only the cattle sheds and byres but also the cattle, because they considered them a danger to public health. Sir William Collins said that in dealing with diseases it was necessary to base administrative procedure on the latest scientific opinion. Unfortunately there were cases — tuberculosis for instance — in which opinion had been known to vary within wide limits. In regard to swine fever, foot-and-mouth disease, and pleuropneumonia, bacteriology had gone back as to the organism which could be assigned as the cause of the disease. He had hoped that those diseases would be made the subject of more elaborate scientific investigation. He hoped they might be told that it was intended to institute more exhaustive and thorough inquiry into the diseases of animals so that by arriving at a more definite opinion of their causes, administrative measures could be made more effective. The rest of the debate shifted off to the importation of foreign cattle and the prevalence of foot and mouth disease.

Official Certifying Surgeons.—Mr. Wedgwood asked the Secretary of State for the Home Department whether he contemplated taking any steps to prevent the official certifying surgeons acting privately for trade unions or insurance companies in any capacity wherein fees were paid for medical decisions or reports. Mr. Churchill said that it would not be possible to lay down any general rule on the subject, because in industrial districts it was often difficult to find a well-qualified medical man who did not hold some appointment in connexion with employers or associations of workpeople. The consideration, however, was borne in mind in making appointments, and the Department was always prepared to inquire into any case of grievance that might be brought to its notice. He might add that an appeal lay from decisions of a certifying surgeon under the Workmen's Compensation Act to the medical referee appointed under that Act. Asked if he could not arrange that where there were several certifying surgeons some should be whole-time officials, Mr. Churchill said he would give his best attention to any local case.

Infectious Diseases Hospitals.—Major Adam asked the President of the Local Government Board if he would state the number of infectious hospitals provided by the various local sanitary authorities in England and Wales, their cost for erection and maintenance, and the number of patients admitted over a convenient period of years; and whether, in view of the diversity of the skilled and medical experience which existed on the subject and the cost to the ratepayers which was involved, he would cause an inquiry to be made into the whole question of the usefulness of infectious hospitals, other than small-pox hospitals, as a means of preventing the spread of disease, and generally, in view of the extended experience which now exists on the subject, into the advantages or disadvantages which may be found to attend their use. Mr. Burns replied that he was not at present in possession of complete information on the points mentioned in the first part of the question. He might say, however, that by the General Order which would very shortly be issued in pursuance of Subsection 2 of Section 68 of the Housing and Town Planning, etc., Act of last session, the County Medical Officer of Health would be required to inquire into and report upon the hospital accommodation in each county and upon any need for the provision of further accommodation. As regards the second part of the question, he was advised that there could be no doubt as to the utility of isolation hospitals in the prevention of the spread of infectious diseases, when conjoined with good administration in regard to the other means necessary to prevent the spread of infection, among which the careful search for overlooked or non-certified cases of the same disease bore an important part.

Poor Law Children.—In answer to a series of questions, Mr. Burns gave the following information:—(1) Children in Workhouses and Infirmaries: The latest returns—namely, those for January 1st, 1910—showed that the number of children in separate Poor Law infirmaries in England and Wales was 7,128, whilst the number in workhouse wards (including infirm wards) was 17,047. The returns did not show how many of these children were over 3 years of age and how many were under that age, but they showed that of the total number of children in all Poor Law establishments, 8,914 were under the age of 3. The majority of these would necessarily be in workhouses and workhouse infirmaries, and could not well be separated from their mothers. (2) Children in Schools and Homes: The number of children maintained outside the workhouse on January 1st, 1910 (the date of the last returns), in the undermentioned classes of Poor Law schools and homes was as follows:

In district schools	3,883
In separate schools	7,604
In grouped cottage homes	11,640
In scattered homes	7,366
And in other homes	2,099

(3) Children Boarded Out: The number of Poor Law children who were at the date of last return (that is January 1st, 1910) boarded out beyond the union was 1,923; the number boarded out within the union was 6,890.

Tuberculosis in Ireland. — Last week Mr. Stephen Gwynn asked for information as to the change in the proportion of deaths in Ireland from tuberculosis, and Mr. Birrell replied that the Registrar-General's returns showed that the total number of deaths from all forms of tuberculosis in Ireland had decreased from 11,679 in 1907 to 11,293 in 1908, and 10,594 in 1909. The marked decrease in the number of deaths from tuberculosis was very gratifying, and must prove a great encouragement to those who for some years past had been engaged in a strenuous effort to check and extirpate the disease. In answer to further questions Mr. Birrell admitted that there had been some change made by the Registrar-General in the classification in the mortality returns, but he was not in a position to say what effect it would have on the figures.

Public Health Prosecution (Dublin).—In answer to Captain Cooper, Mr. Birrell stated last week that a summons was issued on behalf of the North Dublin Rural District Council against the Agricultural College at Glasnevin for keeping manure in the manure pit attached to the farmyard, on the ground of its proximity to the farm dairy. The Department pleaded that the manure pit, which had occupied its present position since the institution was built, was neither a nuisance nor a danger to public health, and this view was supported by certificates from high public health and veterinary authorities. The result of the proceedings was that the magistrates suggested a conference between the officers of the Department and of the district council, and adjourned the case for two months. No such ridiculous plea as suggested, namely, that the Agricultural Department was above the law, was employed on the occasion referred to.

England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

LEEDS.

THE UNIVERSITY.

Installation of the Duke of Devonshire as Chancellor.

AMID surroundings of academic and civic dignity, which were at once simple and impressive, the Duke of Devonshire was installed as Chancellor of the University of Leeds in succession to the late Marquess of Ripon. The occasion was a noteworthy one, city and university seemed drawn together to do honour to their distinguished guest, and everything went with the smoothness and precision of a carefully rehearsed pageant. The ceremony took place in the Town Hall, which was filled with a representative gathering of the citizens. The period of waiting was rendered less irksome than it might have been by the chorus singing of the students. The dignity of the occasion, it is pleasant to record, was fully recognized by the undergraduates, who from the time of the commencement of the "processions" observed an admirable restraint. Separate processions of the Mayor and Corporation of Leeds, of the mayors of other cities and towns of Yorkshire, of the academic staff of the university, and of the Council and Court entered the hall in succession, and took their places on the orchestra to the strains of the organ. Then came the procession of honorary graduands, followed by the procession of the Vice-Chancellor. In declaring the Congregation of the university open the Vice-Chancellor, Dr. Bodington, called upon the Registrar to read the clause of the charter specifying the mode of election of the Chancellor. This done, a delegation left the Hall, and escorted the Duke of Devonshire to his place on the platform. Here he was at once admitted to the degree of Doctor of Laws Honoris Causâ, and was installed as Chancellor by the Vice-Chancellor, by whom he was called to the chair. A graduation ode was then sung by the students, and the Chancellor delivered a short but admirable address. Honorary degrees were then conferred on the following:

The Right Hon. H. H. Asquith, K.C.
The Marquis of Lansdowne.
The Right Hon. James William Lowther, Speaker of the House of Commons.
The Earl of Crewe.
Sir William Nicholson.
Sir Hugh Bell. Bart.
Dr. Alfred Hopkinson, K.C., Vice-Chancellor of the University of Manchester.
Mr. A. G. Lupton, Pro-Chancellor of the University.
Professor F. J. Haverfield.
Mr. Arthur Sidgwick.
Lord Rayleigh.
Sir Clements R. Markham.
Professor Osler.

At the conclusion of the ceremony, Mr. Asquith, in a few well-chosen words, offered the congratulations of the graduates to the members of the university on the occasion of the installation of their Chancellor.

The Professorships of Medicine and Anatomy.

Alterations comparable with the changes which were made in the teaching of surgery on the resignation of Professor Littlewood have been carried out in relation to the teaching of medicine. A professorship of clinical medicine has been instituted, and to this Dr. Barrs has been elected. Dr. Barrs, who has been Professor of Medicine since the resignation of Dr. Eddison, will be succeeded by Dr. Wardrop Griffith, who has been offered and who has accepted the position of Professor of Medicine. Dr. Griffith has been the responsible head of the department of anatomy for twenty-three years, having been elected Professor in 1887. For the last fifteen years he has had as his chief demonstrator Mr. J. K. Jamieson, and to the great satisfaction of all members of the teaching staff the latter has been selected by the Council of the university to succeed Dr. Griffith. Professor Jamieson is appointed to devote all his time to the work of the department of anatomy. A vacancy will thus be created in the department, a new demonstrator being required, and Professor Jamieson will be happy if he is as fortunate as was Professor Griffith in the choice of his demonstrators. Among these, four in number, all of whom it may be remarked were trained by Dr. Macdonald Brown at Surgeons' Hall, Edinburgh, there was none more loyal, more efficient, and more enthusiastic than Dr. Jamieson.

MANCHESTER AND DISTRICT.

THE LATE MR. TOM JONES.

MR. JOHN CASSIDY, the sculptor, has presented to the Manchester Royal Infirmary a medallion portrait in bronze of the late Mr. Tom Jones, Honorary Surgeon at the Infirmary, who, when the war in South Africa broke out, went out as Surgeon in-Chief of the Welsh Hospital. Unfortunately in the course of his duty he contracted enteric fever and died at Springfontein. The portrait was unveiled on June 14th by Sir William Cobbett, Chairman of the Board of Management, who, on behalf of the board, accepted the gift with thanks. The medallion is a replica of the one placed in the Owens College.

HOSPITAL ABUSE IN MANCHESTER.

The annual report of the Manchester and Salford District Provident and Charity Organization Society contains some interesting statistics of the investigations made by the society into the circumstances of applicants for treatment at various charitable hospitals and other charities. During the year 1909 the society reported on 30,076 cases for the Manchester Infirmary, 10,742 for the Salford Hospital, 9,892 for the Northern Hospital, 9,237 for Ancoats Hospital, and 917 for St. Mary's Hospital. In addition 116 were investigated for the Manchester Surgical Aid Society, and 317 for the Manchester Midwives Supervising Committee. The last mentioned are cases where midwives have recommended that a medical practitioner should be summoned and where the medical man, not being able to obtain a fee from the patient, has applied for it to the Midwives Supervising Committee, which has an arrangement to pay such fees when patients come below a certain wage limit. The report does not say how many of the 317 cases were found able to pay a fee, and the report of the Supervising Committee for 1909 is not yet issued, but in the previous year there were 1,634 cases where medical men were summoned by midwives, and in 315 of these the medical man applied for payment to the Supervising Committee. Of these applications 28, that is 8 8 per cent., were rejected on the ground that the Charity Organization Society found on investigation that the income was above the wage limit fixed.

Of the 59,947 cases put in the hands of the Charity Organization Society by the first four hospitals named, 2,667 were in-patients and 57,280 out-patients. Of the total, no less than 7,569 belonged to other towns, and most of these were not properly followed up; 2,085 could not be found at all, having probably in most cases given wrong addresses; 47,391 were reported as suitable for free hospital treatment, 2,504 were in a position to join a provident dispensary. Of the out-patients, it is reported that only 27 were able to pay a doctor's ordinary fees, but 2,504 were in a position to pay the subscription to a provident dispensary, while 371 of the in-patients were able to make some payment. It is stated that, of the out-patients actually visited, 5 29 per cent. were found to be provident dispensary cases, and of the in-patients visited 14 69 per cent. were able to make some payment. These percentages are, however, practically of very little use in estimating the amount of hospital abuse that takes place, for probably a very large proportion of the 2,085 that could not be found, purposely gave wrong addresses, knowing well that investigation would reveal their ability to pay, while the 7,569 coming from other towns were evidently able to pay railway fares, and presumably could have paid

a local doctor for treatment. Thus when we are told that 94 per cent. of the cases were entitled to free treatment, it must be remembered that about one-sixth of the total cases, and those by far the most likely to be abusing the charities, escaped investigation altogether. The report states that in the year 1875, when the investigations first began, 42.32 per cent. of the applicants to the medical charities were found on inquiry to be ineligible for free treatment. In the very next year the percentage fell to 24.5 per cent., and there was a gradual fall up to 1888, when the percentage was only 6.53. During the last twenty years it has been nearly stationary, fluctuating between 7.49 per cent. and 4.13 per cent. Here again the figures given are of little value, as the standard of what is called "eligibility for free treatment" has not been constant, and it is a pity that such figures should be given to the public without fuller details. Apart from the unreliability of the figures owing to the large number of cases not followed up to other towns, or not found, in some of the hospitals less than half the total patients are given to the Charity Organization Society for investigation. But the most unsatisfactory feature is that even when the Charity Organization Society has gone to great trouble in investigating and reporting, it by no means follows that the cases reported as not suitable for free treatment are dismissed and referred elsewhere. In not a few cases no notice is taken of the reports, and free treatment is continued just as if there had been no report, making the investigation in these cases little more than a waste of time and energy.

SUFFOLK.

The East Suffolk and Ipswich Hospital.

The older parts of the East Suffolk and Ipswich Hospital have recently undergone renovation and improvement, involving an expenditure of nearly £20,000. The original building was erected in 1836; it was enlarged in 1867, and in 1877 the children's department was erected; in 1891 a chapel was built, in 1892 a nurses' wing, and in 1897 the men's wards were extended; in 1904 the nurses' wing was enlarged, and in the same year Dr. J. H. Bartlet presented a new out-patient department. The improvements recently carried out were started in the year 1907; they include a new administration block, a new operating theatre with its adjuncts, a new detached isolation block, a laboratory and *post-mortem* department, a laundry, and many renovations. Wooden dados, for example, have been replaced by white tiles, the electric light has been introduced everywhere, and an electric lift for patients has been fitted. The operating theatre annexe, an entirely new building, consists of a theatre fitted with the latest appliances for aseptic surgery and a separate anaesthetizing room. The sterilizer for dressings, in which a vacuum is first produced and steam is then admitted under 20 lb. pressure, and finally exhausted, the dressings being dried by a current of warm filtered air, was presented by the officers and men of the Royal Suffolk Garrison Artillery Militia. A new *x*-ray room has been erected and provided with entirely new apparatus. The bacteriological laboratory, now under the supervision of a member of the honorary medical staff, immediately adjoins the *post-mortem* room, while beyond this is the mortuary; both are floored with terazzo, and are tiled the full height of the walls. Communicating with the mortuary, and also approached by a separate entrance from the outside, is a small chapel-like structure called the view room; its doors are of solid oak, of ecclesiastical design, while the floor is laid with marble mosaic. On June 11th, Dr. J. H. Bartlet, recently elected president of the hospital, and Mrs. Bartlet received a large number of subscribers, some fourteen hundred in all, in the out-patient department. Mr. Herbert Mason, Chairman of the Board of Management, who presided, congratulated Dr. Bartlet on his first public appearance as president, and upon the success which had attended the efforts to make the hospital thoroughly up to date. Dr. Bartlet, in acknowledging the compliment, said that he was glad so many subscribers had attended, because they would see that there were very few provincial hospitals and not all the London hospitals so well equipped in detail. The company were entertained by the president and Mrs. Bartlet at tea, and afterwards visited the various departments of the hospital.

LONDON.

The London County Council.

The London County Council on June 21st devoted another protracted sitting to the consideration of the annual estimates. Numerous amendments were moved with the object of obtaining larger sums for medical treatment and public health administration, but none of them were carried.

Treatment of School Children.

The first amendment asked for £5,000 in order that dental treatment of school children might be proceeded with immediately. The mover, Mr. Jephson, pointed out that the twelve months during which the Education Committee had decided to postpone the consideration of the question had elapsed. Mr. Cyril Jackson, chairman of the committee, in reply, said that an exhaustive report on the whole question was now under consideration by a subcommittee. Inquiries had been made amongst the hospitals and the dentists, and the names of nearly all the dentists willing to undertake treatment, either in their own or in school surgeries, were known. The scheme would be working before Christmas, and £1,000 provision money had been put down in the estimates.

The next amendment urged that the present "inadequate arrangements with the hospitals" should be supplemented by an additional expenditure of £5,000, and this led to a long debate in which the advantages of school clinics were strongly advocated. Several speakers enlarged on the difficulties that occur owing to treatment being carried on through the hospitals. Mr. Jackson admitted that the present arrangements for inspection were not quite satisfactory, and that the staff must soon be increased. He would like to see a "flying squadron" of doctors who should see urgent cases, in order that treatment might be begun without delay. As to clinics, Mr. Jackson argued that thirty hospitals which he said had been carefully selected for their position must be more effective than twelve clinics.

Inspection of Milk.

On the Public Health Committee's estimates it was pointed out that the sum allocated to the cost of inspection of the milk supply had been reduced by £900. It was explained that the estimate had been put at precisely the amount of last year's actual expenditure, but this explanation and the lateness of the hour did not prevent one or two members from opening up the whole question whether bovine tuberculosis was communicable to man.

Asylums Committee.

In the small hours of Wednesday morning the much-postponed report of the Asylums Committee, urging the extension of the scheme approved by the Council for one receiving house to include whatever number might be found necessary, came under consideration. The Finance Committee strongly opposed any extension, and the Asylums Committee had to be content with authority to go to Parliament for powers to establish one receiving house only. At an earlier stage Sir John McDougall had urged that more expedition should be shown in regard to the scheme for a mental hospital, but was assured that the difficulty of finding a site still stood in the way.

BIRMINGHAM.

The Children's Hospital.

Great efforts are being made to raise a sufficient sum of money to rebuild the Children's Hospital. Two years ago, in response to an appeal, enough money was subscribed to purchase a suitable site in Lady-

wood Road. A fund has now been started to provide a memorial to King Edward VII, and it has been decided that this memorial shall take the form of a statue, to be erected in a suitable place in the centre of the city, and shall also include the rebuilding of the Children's Hospital. The fund for the memorial has been opened by the *Birmingham Daily Mail*, with the consent of the Lord Mayor, and already nearly £10,000 have been subscribed. It is estimated that the statue will cost from £1,500 to £2,000, and the sum required to rebuild the Children's Hospital is about £50,000. It is proposed that the title of the Children's Hospital should be so altered as to show that it is a memorial hospital to the late King. Great hopes are entertained of raising the whole sum. The Children's Hospital is in a very difficult position, for the present building is not only antiquated and insanitary, but in about five years the lease falls in, so that there is an urgent necessity for rebuilding. The present hospital does not contain enough beds for the urgent cases which ought to be treated in it. An amateur performance of "The Heiress," a new comedy opera, given in the Theatre Royal every night in the week commencing June 13th in aid of the funds was well patronized, and it is expected that about £300 will result from this effort. It was the first production of the comedy; the libretto was composed by Mr. Harold Weston and Mr. Follett Thorpe, the lyrics by Mr. Follett Thorpe, and the music by Mr. Guy Jones.

BEQUESTS TO BIRMINGHAM CHARITIES.

Under the will of the late Mr. Richard Peyton, of Edgbaston, who died on May 23rd last, the following legacies (which become payable on the death of his widow) have been made: To the General Hospital, £3,000; and to the Children's Hospital the like amount, provided that the building of the new hospital shall be begun within three years; to the Queen's Hospital and the Women's Hospital, £2,000 each; to the General Dispensary, the Edgbaston Institution for the Blind, the Deaf and Dumb Institution, and the Sanatorium at Blackwell, £1,000 each; to the Eye Hospital, the Homoeopathic Hospital, the Ventnor Hospital for Consumption, the Home for Incurables at Leamington, and the Birmingham and District Nursing Society, £500 each; to the Dental Hospital, £400; to the Orthopaedic and Spinal Hospital, the Skin and Urinary Hospital, the Ear and Throat Hospital, and the Lying-in Charity, £200 each. Besides these bequests, a large sum has been left to many other charitable institutions in Birmingham and the district.

TERRITORIAL SWIMMING CLUB.

A swimming club formed in connexion with the First Field Ambulance, South Midland Division, was opened at the Aston Baths, when the president of the club, Major C. Howkins, stated that, although it was intended to run the club for the enjoyment of its members and for polo, it had the more serious object of assisting the members of the ambulance to learn to swim, and instructing them how to help anybody when in difficulties in the water. The duties of the members of the club would not stop at that stage, for as they belonged to the Royal Army Medical Corps they would have sufficient knowledge to render first aid when necessary. Lieutenant E. J. Boome, Honorary Secretary of the club, expressed his gratitude to the members of the committee for the way in which they had worked. Colonel Whitcombe, P.M.O., South Midland Division, expressed his hearty approval of the object of the club. As an example of the great necessity for men being able to swim, he mentioned loss of lives in pontoon bridge making, which if the men had been able to swim would have been saved. He then declared the swimming club open, and asked Major Howkins to take the first plunge. This was done amid great enthusiasm on the part of the men.

LIVERPOOL.

ENTOMOLOGICAL EXPEDITION TO MALTA.

THE Liverpool School of Tropical Medicine has decided to send Mr. Robert Newstead, M.Sc., to Malta at the end of the present month on a special mission to investigate the serious problem existing there of the menace to health caused by the sand fly. The major portion of the funds to defray the cost of this expedition has been provided by the Advisory Committee for the Tropical Diseases Research Fund (Colonial Office), which voted a special grant of money for the purpose. Mr. Newstead is the Lecturer in Economic Entomology and Parasitology of the school. At the beginning of the present year he returned from Jamaica, after carrying out an important mission in that island which had for its main object the extermination of tick disease and other diseases injuriously affecting the animal industries. Mr. Newstead is a member of the Entomological Research Committee of the Colonial Office. Valuable facilities for his expedition to Malta have been afforded by Messrs. James Moss and Co., and Mr. Newstead will proceed to Malta by their steamer the ss. *Menes* at the end of the month.

Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

UNIVERSITY COLLEGE, CORK.

THE first report of University College, Cork, has just been issued by the President, and it is interesting to note that the number of students attending during the past session shows an increase on the numbers for 1908-9, the last year of Queen's College, when there were 266 students, as against 368 for 1909-10 in University College, which is the new name of the old Queen's College. The medical students numbered 185, arts 125, engineering 53, law 6, and commerce 2. The report states that the first examinations under the new statutes of the National University, held in the college during the month of April, were a complete success; the arrangements for them met with the highest praise from the Extern Examiners. The first conferring of degrees under the new statutes took place in Cork on May 25th, when five medical students received their degrees and one obtained a gold medal at the M.D. degree examination. The report stated that amongst the other medical successes during the year Mr. E. C. Kennedy, M.B., obtained first place at the examinations for commissions in the Indian Medical Service. Many new professors had been appointed during the year, mainly, however, in arts subjects. Amongst the structural improvements was the new histological and the new pathological laboratory, while large new laboratories for chemistry and physics are in course of erection. A new dissecting room as well as a new suite of rooms, both for women students, had also to be recorded as an advance on what existed heretofore. The President, however, drew the attention of the governing body to the fact that more money will be required in the future, and suggests to that body

> That the time is drawing nigh when it will be necessary to make an organized appeal to the public and private munificence of the province in order to place the College in a position to make an irresistible demand for that independent university which we must obtain if we are to render the fullest kind of service to the population which we are intended to serve.

COUNTY LONGFORD INFIRMARY.

A special meeting of the Committee of Management of the County Longford Infirmary was held early this month to consider the suspension of a nurse by the medical officer, Dr. Mayne, for disobedience. It appears that on the morning of May 27th, Dr. Mayne found it necessary immediately to perform a serious operation, and requested the nurse to make the requisite preparations. The nurse refused, on the ground that she was off duty, and, in consequence, outside assistance had to be obtained. Later on the same day the nurse again refused to obey the doctor, who requested her to make a bed for a patient with a sore hand, her reason for refusal on this occasion being that the bed should have been made by the day nurse. After all the evidence had been heard, the

Chairman, the Most Rev. Dr. Hoare, said that he held that a nurse had no right to disobey orders, she should obey at the time, and, if she thought right, complain afterwards; and he, in consequence, proposed that the nurse be reprimanded. An amendment, however, exonerating the nurse was proposed and carried, and in consequence the Chairman stated that he would not attend further meetings of the committee. As a commentary on the whole proceedings we may add that as soon as the amendment had been passed, the seconder of it proposed the passing of a further resolution, calling on the officers to obey Dr. Mayne in future. The Chairman, however, very naturally refused to accept it.

CLAREMONT INSTITUTION FOR DEAF AND DUMB.

The head master reports that the health of the inmates of this institution has been satisfactory during the past year, and that the educational work continues to be carried on efficiently. Six pupils gained prizes at the diocesan examination. The workshop, which was erected little more than a year ago, has already yielded a profit sufficient to clear half the cost of the original outlay, and in addition enabled the boys to undertake the greater part of the carpentry work required in the institution. The girls are taught needlework, cookery, and housework. The number of inmates is twenty-nine; four have left during the year for various situations, and two have been admitted.

INSPECTION OF LUNATICS.

The Lord Lieutenant has been pleased to sanction the appointment of Mr. Thomas I. Considine, F.R.C.S.I., Assistant Physician, Central Asylum, Dundrum, to be an Inspector of Lunatics, on the retirement of Sir George O'Farrell, M.D.

Scotland.

(*FROM OUR SPECIAL CORRESPONDENTS.*)

HEALTH OF EDINBURGH.

THE Medical Officer of Health, in his annual report, states that the death-rate of Edinburgh for the year 1909, based upon the method of calculation adopted in 1908, was 13·4 per 1,000 of the population, compared with 13·3 in 1908, which was the lowest recorded in the city; the infantile death-rate was 113 as compared with 114 in 1908. The birth-rate for the year was 20.83 per 1,000 of the estimated population, or 113.09 per 1,000 possible mothers, which is the lowest so far recorded for the city. The birth-rate is lower by 1.55 than the average rate for the preceding five years, and lower by 5·53 than the rate for Scotland for last year, which was also the lowest on record. The number of mothers who received free medical attendance was 1,934, or 26 per cent. of the total confinements.

In submitting this information, which is available for the first time, it should be noted that, while the extensive scale on which this gratuitous service is bestowed may be a matter of surprise to many people, experience shows that in this, as in other branches of hospital work, there is a disposition to practise economy at the expense of any charitable institution willing to offer its services.

The lady health visitors have during the year carried out their voluntary work in an extremely satisfactory manner. The number of cases of infectious diseases notified during the year, excluding phthisis and cerebro-spinal fever, was 2,216, compared with 2,743 in the previous year.

The citizens continue year after year to show an increasing amount of confidence in the treatment of infectious disease at the City Hospital, and greater and greater demands are being made in consequence upon its resources. During the past year the proportion of notified cases of infectious disease which were treated there was higher than has been the case at any previous time. Eighty-nine per cent. of all notified cases in the city were removed to and treated in hospital, while no fewer than 94.7 per cent. of the notified cases of scarlet fever were treated there. The number of cases of typhoid fever referred to last year (68) has still further fallen during the term now under report, to the record of 39 cases. Even that extremely diminished number has been of so mild a type as to be attended with fatal results in only 5 cases. If such progress as is being made in connexion with the prevention of this disease continues in anything like the proportion in which it has during the past year or two, it is safe to anticipate that in the very near future the occurrence of it in Edinburgh should be as unique as the occurrence of a case of such a disease as typhus fever would be. The number of cases of diphtheria notified during the year is so far satisfactory as to be exactly 200 below the average number during the preceding five years. When it is remembered that the average during that period amounts to 623, and that the notifications during the year number only 423, it may safely be claimed that there is much cause for satisfaction in regard to the greatly diminished prevalence of this form of infectious disease, which at one time was so fatal in the city.

Correspondence.

FAITH HEALING.

SIR,—Amongst much that is dreary in the traditions of medicine and puerile in the history of faith healing, I would except St. Augustine's contributions to the subject. The greatest of the Fathers, he is probably the most accessible. And thirty years ago the late Rev. Dr. Marcus Dods, of Edinburgh, produced an English translation of his *De Civitate Dei*.

In the course of the argument of that great book, Austin addresses the believers of miracles, and at last cites those of his own age and such as he himself could vouch for. Those who will not condone the miracles will forgive him for the light he throws on the practice of medicine in the fourth century.

Complaining that truths are suppressed, he says:

Who but a small number are aware of the cure which was brought upon Innocentius, ex-advocate of the deputy prefecture, a cure wrought at Carthage, in my presence and under my eyes? . . . He was being treated by medical men for fistulae, of which he had a large number intricately seated in the rectum. He had already undergone an operation, and the surgeons were using every means at their command for his relief. In that operation he had suffered long-continued and acute pain; yet among the many folds of the gut one had escaped the operation so entirely that, though they ought to have laid it open with the knife they never touched it. And thus, though all those that had been opened were cured, this one remained as it was, and frustrated all their labour. The patient, having his suspicions awakened by the delay, and fearing greatly a second operation, which another medical man—one of his own domestics—had told him he must undergo, though this man had not even been allowed to witness the first operation—the patient, I say, broke out to his surgeons, "Are you going to cut me again?" They reassured him; they would "cure that fistula by drugs, without the knife." They called in also another old practitioner of great repute in that department, Ammoricus (for he was still alive at that time), and he, after examining the part, promised the same result. But they failed, and had at length to propose a second operation. Then it occurred to the patient "to call in an Alexandrian, who at that time was esteemed a wonderfully skilful operator. . . ." But when he had come, and examined with a professional eye the traces of this careful work, he acted the part of a good man, and persuaded his patient to allow those same hands the satisfaction of finishing his cure, which had begun it with skill that excited his admiration, adding that there was no doubt his only hope of a cure was by an operation, but that it was thoroughly inconsistent with his nature to win the credit of the cure by doing the little that remained to be done. . . . Accordingly . . . it was arranged that in the presence of the Alexandrian they should operate on the fistula, which, by the consent of all, could now only be cured by the knife. The operation was deferred to the following day. . . . As to the patient, he was dubious to the last degree. "Such was the terror his former pains had produced that he made no doubt he would die in the hands of the surgeons." He besought his friends to do him the honour of being present next day at what he judged his funeral rather than his suffering.

The relation proceeds to show how his friends of the clergy strove to console and hearten him, and how at last he threw himself down and prayed with such vehemence that "he could not have exceeded it without expiring." "Lord," exclaimed St. Augustine, "what prayers of Thy servants dost Thou hear if Thou hearest not such prayers?"

The dreaded day dawned: . . . the surgeons arrived; all that the circumstances required was ready; the frightful instruments are produced. . . . While those who have most influence with the patient are cheering his fainting spirit, his limbs are arranged on the couch so as to suit the hand of the operator; the knots of the bandages are untied; the part is bared; the surgeon examines it; and, with knife in hand, eagerly looks for the sinus that is to be cut. He searches for it with his eyes: he

els for it with his finger; he applies every kind of scrutiny: e finds a perfectly firm cicatrix! No words of mine can escribe the joy . . . but the scene may be imagined rather ıan described.

Another case follows:

A lady has cancer in one of her breasts, a disease which, s physicians say, is incurable. Ordinarily, therefore, they ther amputate, and so separate from the body the member on hich the disease has seized, or, that the patient's life may be rolonged a little, though death is inevitable, even if somewhat elayed, they abandon all remedies, following, as they say, the dvice of Hippocrates.

It will be remembered that one of the sages defined the ood doctor as he who knew best what could and what ould not be done by medicine, and that Hippocrates escribed the art as "restoring the sick to health, relieving ain, and abstaining from the treatment of irremediable lisease." As to the lady, what she did is told us, she was immediately cured." Our predecessors, like ourselves, lid not believe those irregular recoveries.

The physician who had advised her to apply no remedy . . . vhen he had examined her after this and found that she who, n his former examination, was afflicted with that disease was ıow perfectly cured, eagerly asked her what remedy she had ısed, anxious, as we may well believe, to discover the drug vhich should defeat the decision of Hippocrates. But when he told him what had happened, he replied, with a con- emptuous tone, "I thought you would make some great liscovery to me."

A few more pages, however, and our interest flags, and we thankfully come back to our own times with what hey have accomplished by medicine, and with what is still unaccomplished.—I am, etc.,

Bristol, June 21st. DAVID A. ALEXANDER.

SIR,—The articles on Faith Healing in your issue of June 18th, with your comments thereon, are of great interest—in part, because they deal with a borderland region which has, perhaps, been shunned by the profession as a *terra incognita*, and avoided as a bourne from which no traveller returns as sane as when he started on his journey.

Sir Clifford Allbutt's sympathetic and subtle analysis of the rational grounds for the belief that there may yet be a place for Faith Healing in medical practice is an intellectual treat and a literary feast. But two of his conclusions seem to be scarcely merited by his premisses.

Thus: "Our children will cease to pray for deliverance from plague, battle, and tempest." Why? The premiss is: "We shall not pray for things frankly material." But is, for example, a battle a thing frankly material? Are not the causes that lead to it so complex, so bound up with the passions and aspirations of man, with the spiritual in man, that it is surely conceivable that a benevolent Power directing the affairs of the universe may, without presumption, be humbly appealed to with a view to prevention, by means the exercise of which need contravene no known law governing the material?

Again: "In the more formal spiritual ministrations his (the physician's) part can never be direct," because he would then be going beyond his "business" (the material) and weakening his influence; his mind is "divided." But why divided? The whole trend of the previous argument seems to be that the physician may, and does, legitimately exercise a spiritual influence on his patient. Why, then, necessarily relegate the reverent performance of an act of devotion (judged to be suitable to the case) to a third party? If the physician can lead his patient to share his belief that a cure will result, though that belief rests on different grounds, he is surely justified in joining his appeal to that of Faith, if satisfied that the reflex influence of that appeal (prayer) is the only way in which recovery may be brought about. No third party is required.

This is a more or less hypothetical case, but it seems to me that if such cases are to be relegated to unqualified men, or to be allowed to drift to Emmanuel Committees, etc., we shall be doing much to encourage superstition and credulity.

What may be to us a result most rational—for example, the cure of a functional nervous disorder—may appear to one with less knowledge a triumph of "faith." Do not let us, however, confuse faith with credulity. The patient puts faith in his physician because of knowledge gained of his care and truthfulness. Were he to take the word of his gardener or his pastor on the same subject he would be credulous to a degree. Such credulity should not be encouraged; hence your conclusion that we may favourably regard such agencies as the Emmanuel Movement seems to me to be an encouragement of superstition.

Damage will be done to rational medicine, and perhaps worse to religion, which, after all, has not to do mainly with the pathological, but with what is best and sanest in man, with the man as a whole; as Liddon so ably emphasized (*Elements of Religion*), making her appeal to his intellect, his emotions, and his will.

One word more. In speaking of faith healing we must be sure of our terms. Dr. Osler, besides imputing to St. Paul a panegyric on faith, which I have been unable to discover, seems to me to confuse "faith" with "credulity" when he says: "Faith has been chilled by the Reformation." Surely the latter was one of the grandest movements of "faith" the world has ever seen; and "faith" to-day advancing on a surer basis of ascertained facts and acquired knowledge, in the material, moral and spiritual spheres, is moving mountains as never before.—I am, etc.,

Nottingham, June 20th. A. CHRISTIE REID, M.D.

*** Our correspondent seems to confuse the Emmanuel Movement with the Society of Emmanuel. They are in reality opposed to each other. The promoters of the Emmanuel Movement profess to aim at the co operation of the divine with the physician by prayer and the exercise of moral influence over the patient. The Society of Emmanuel on the other hand dispenses with the doctor and professes to trust wholly to spiritual means. Our correspondent, who believes, if we understand him aright, that prayer is in itself curative, apparently argues that it must be applied by the patient himself, as he says "no third party is required." But a patient who is seriously ill is seldom in a condition to attend to his affairs whether spiritual or temporal, and as he calls in a lawyer to manage the latter for him, he may reasonably, if he believes in religion, call in a clergyman to help him with his ministrations. Sir Clifford Allbutt meant, we take it, that spiritual help lies outside the doctor's sphere. Finally we may point out that, while allowing that prayer inspired by a living faith may be a force working for good, we nowhere expressed unqualified approval of the Emmanuel Movement. The danger of this and similar movements is, as we have repeatedly pointed out, that the clergyman may usurp the function of the physician.

SELF-SUGGESTION AS A HEALING FACTOR.

SIR,—May I draw attention to one point in connexion with the most interesting papers on mental healing which appeared in your last issue? What I desire to emphasize is the enormous power of self-suggestion—a factor which seems to have been insufficiently recognized, and which appears to offer a real explanation of the Christian Science cures.

It may, I believe, be truthfully affirmed that all the phenomena of waking hypnosis can be induced by self-suggestion in a self-suggestive subject. It follows that ailments which are amenable to hypnotic suggestion in the waking state are also amenable to self-suggestion.

Twenty-five years ago, Professor Langley and myself found many undergraduates who could induce such phenomena on themselves, though some of them had never been, and could not be, hypnotized. Most of the phenomena which we happened to observe were cases of contracture resulting in inability to open the eyes or move a limb, or in the induction of rigidity in a limb. One or two could even render their hands anaesthetic, and one apparently could actually induce hallucinations, which vanished slowly if he were left to himself, but could be instantly removed by anyone else. This experiment was made without our knowledge and consent, and appears to be one which it would be undesirable to repeat.

The Christian Scientist constantly suggests to himself that the pain or ailment is non-existent, and, considering how many functional complaints yield to suggestion in the very lightest stages of hypnosis, it is not surprising that they should yield equally well to such constantly repeated self-assurances, if the patient happen to be susceptible.

How powerful self-suggestion may be as a curative agent is shown by the following case. Dr. X., a German surgeon,

aged 35, who had all his life been affected by a bad stammer, came to me some two years ago. He was hypnotized very lightly, and was made to attempt self-hypnosis. He succeeded readily in closing his eyes so that he could not open them, and, while in this suggestible condition, assured himself that his stammer would disappear. In three weeks he was well, and has remained so. I have seen other cases cured by similar means.

I cannot help thinking that the concluding paragraphs of the section on hypnotic suggestion by Sir H. Morris may give rise to an exaggerated idea of the dangers of hypnotism. The only untoward results, so far as I know, have occurred in persons hypnotized at public shows by peripatetic performers; but no such sequel has been recorded in any case treated by a properly qualified man. Nor can I agree with Shadwell's statement, which he quotes, that hypnotism weakens the will. However, I cannot discuss this point within the limits of a letter.—I am, etc.,

London, June 21st. HUGH WINGFIELD.

THE TEACHING OF APPLIED MEDICAL PSYCHOLOGY.

SIR,—I have read with great pleasure and profound admiration the remarkable articles in this week's JOURNAL on the force of mind in medicine and the power of suggestion. I now ask you to allow me to point out that while all the distinguished writers acknowledge the great and unexplored medical forces that lie in mind, no one suggests in what way this science is to be taught or practised. I feel sure that no careful reader of these admirable articles will maintain for one moment that the matter is so simple that no instruction is required. If this be so, and as my exhaustive inquiry last year in every university and medical school in the United Kingdom clearly showed, as published in your JOURNAL, that no such teaching really exists, may I venture once more to earnestly request the heads of our medical schools to consider whether the time has not come for the definite and systematic study of applied medical psychology as an integral part of a doctor's education.—I am, etc.,

Harley treet, W., 18th June. ALFRED T. SCHOFIELD.

LORD CROMER AS A MEDICAL EXPERT.

SIR,—In his speech as President of the Research Defence Society at its annual meeting, Lord Cromer delivered himself of some wonderful pronouncements in the field of applied medicine.

Vivisection, he said, had made possible "all modern surgery of the brain." This is a somewhat double-edged triumph. Lord Cromer forgot to tell us whether "modern surgery of the brain," founded on vivisection, prolonged the lives of the patients or hurried them faster into the grave.

When, in 1908, I asked Sir Victor Horsley, the great exponent of this particular field of surgery, if he could assist me to procure the death rate within three months of operation of patients operated upon by him at the Hospital for the Paralysed and Epileptic, he told me in the *Daily Mail* that a "Jubilee volume" would shortly be published wherein I should find these interesting and informing figures; but, after waiting a year and a half for this valuable publication, I made inquiries of the Secretary of the hospital, who told my messenger that he did not know when such a volume would be published, and that he was not responsible for statements made by Sir Victor Horsley in the newspapers. Perhaps, in these circumstances, it would be more sagacious of the President of the Research Defence Society if he suppressed his acclamations about the value to mankind of brain surgery based on vivisection.

But Lord Cromer's superlative achievement as a medical expert is his assertion *ex cathedra* as President of this grotesque society that the vivisectors "had made possible a cure in nearly all cases of hydrophobia." I invite his Lordship to the perusal of Dr. Osler's last edition of the *Principles and Practice of Medicine*. Dr. Osler is Regius Professor of Medicine at Oxford, and besides this medical qualification, has recently claimed for himself a power to know by intuition what takes place or does not take place 3,000 miles from his residence in a room in New York. He is, therefore, manifestly an authority of great weight. On p. 255 of his book, in a chapter on hydrophobia, he says:

> The nature of the poison is as yet unknown;

and on p. 257 he adds:

> When once established the disease is hopelessly incurable. No measures have been found of the slightest avail.

When the President of the Research Defence Society officially informs the public that vivisection has made possible the cure of a disease that his most distinguished Vice-President asserts is hopelessly incurable, reasonable people must conclude that Lord Cromer's lucubrations can only serve to throw an Egyptian darkness over the subject he essays to illumine.—I am, etc.,

London, S.W. STEPHEN COLERIDGE.

SICKNESS AND INVALIDITY INSURANCE.

SIR,—The interesting discussion on sickness and invalidity insurance has elicited diverse opinions, but it appears to me that certain other fundamental considerations require to be taken into account before any useful conclusion can be arrived at.

We are notoriously an unbusinesslike profession. We are discussing terms of remuneration with very little information before us as to the amount of work which will be required. The rates for contract practice, as at present understood, are pure "guess work." In the Model Rules which have been sent to the Divisions the amount of payment is left blank for each Division to decide; one member will suggest 5s., another 8s., another 10s., and so some haphazard scheme may be worked out. It is very essential that some accurate basis should be found. I have previously suggested that the Association should investigate the rates of sickness amongst various friendly societies; and at the present time it is more than ever necessary that we should have such information before us.

We cannot demand a given rate of remuneration unless we can show that it is adjusted on a scientific basis. A friendly society bases its sick-pay contributions on a careful actuarial investigation; medical contributions should be similarly computed. If we are to have a contract system of payment, we must know what we are contracting to do; and the amount of work is not, I think, adequately realized. Thus in the Manchester Unity, during the years 1893–7, the average annual period of sickness per member exposed to risk was 2 344 weeks; the lowered rate was 0.9 weeks at the ages 20 to 24, rising to 10 59 at the ages 65 to 69. It will be seen that a payment of 8s. per member would cover two visits a week at 2s. on the basis of the average rate of sickness; but this makes no provision for attendance when the member is not on the sick fund, probably the most burdensome part of contract practice.

It appears to me that the method most likely to give satisfaction would be to arrive at the average expectation of sickness; to compute a given sum to cover the cost of medical attendance per week; to decide the amount of insurance necessary to cover this; to discharge out of the amount thus collected either an annual payment or payment for work done.

In common with others, I regret that the Association appears in the Model Rules to have committed itself to a perpetuation of the present contract system. It is much to be desired that the difficulties incident to payment for actual work may be overcome, and some satisfactory scheme on these lines evolved.—I am, etc.,

Trowbridge, June 14th. JAMES PEARSE, M.D.

MEDICAL SICKNESS SOCIETY.

SIR,—Dr. Dickinson's letter in your issue of June 18th defines his position a little more clearly, and therefore deserves attention.

1. He repeats his misstatement as to a matter o fact. He says, "no motion is allowed to be proposed which has not the sanction of the chairman." And then he relates his experience, apparently unconscious that it refute his own statement. He tells us how he wanted to propose something, was advised to consult the chairman, and did so; that the chairman brought his proposal before the committee; and *the committee* refused to allow it to be

but on the agenda. Of course Dr. Dickinson's proposal would not have been irrelevant, or absurd; but it may have been something that the committee had discussed many times before.

2. It is not the fact that "all matters of policy are decided by the chairman." The fact is the reverse; no matter of policy is decided by the chairman; all such matters are decided by the vote of the committee. Then he says, "all matters not officially approved of are deliberately suppressed in all reports of meetings, and even in the minutes." The only foundation for this accusation that we can think of is that the committee do not have a shorthand writer present at their meetings, and therefore speeches made at committee meetings are not recorded. If it means more than this, it is a most serious charge against the secretary, which should be made to the committee and substantiated. Dr. Dickinson says, "On several occasions I brought forward questions at the annual general meetings to which not the faintest allusion was made in the report. This we take to mean that Dr. Dickinson's speeches were not reported. Nor were the chairman's.

3. He says that the committee is "actuary-ridden." There are people who say that hospitals are doctor-ridden; and courts of justice, lawyer-ridden; and so they use what they call their judgement, and physic themselves and their families when they are ill, and draw up their own wills, with unexpected results. Dr. Dickinson says that when the actuary makes a statement that no one present can either confirm or deny, the committee should be "empowered and invited to use its own judgement.', It is empowered to use its own judgement, but hitherto has been too sensible to reject the advice of its expert, and the chairman is too wise to invite it to do so.

The object of the Committee of the Medical Sickness Society is much more modest than those of the British Medical Association. It has nothing to do with scientific research, or politics, or charity. Its one object is to keep the society solvent, so that it may always be able to meet its liabilities, and give its members the benefits they have paid for. But if the majority of the committee were of Dr. Dickinson's way of thinking, the society would not remain solvent long.—We are, etc,

G. E. HERMAN,
F. SWINFORD EDWARDS.
Treasurers, Medical Sickness Society.

June 18th.

SIR,—May I as an original member of this society, and from the beginning a member of one or other of its committees, say a few words in answer to Dr. Dickinson's letter (June 18th, p. 1522)? I am doing this without the knowledge of any other members of the committee and without any knowledge of their views, as circumstances have prevented my seeing them or hearing their ideas. To take up Dr. Dickinson's points seriatim:

1. I suppose the chairman of such a society has always the right to bar any resolution he thinks useless, and the secretary would naturally say that he would be consulted, but during the twenty-five years' existence of the society I have never known his taking such action. On the other hand, I have known, many times, notice of resolutions placed on the agenda, or rather the notice calling the meeting, and a blank space is left on the printed forms for the purpose. May I give an example? On the very last meeting (I believe), before Dr. Dickinson left London for Portishead, notice of a resolution of his, though his name was not mentioned, appeared on the agenda, to the effect that country members should have their travelling expenses paid. Unfortunately, another engagement prevented his being present at the meeting, but he got another member to move it on his behalf, and a letter giving his reasons for the resolution was read. All the members who read their agenda knew of this, and the result was a large meeting, when a very forcible speech by a country member against the resolution was one of the chief reasons why it was negatived, as until then the London members seemed unwilling to vote against what was strongly urged to be of great importance to their country brethren.

2. It is as inaccurate as it is possible to be to say this is a "one man" society. The chairman has always openly taken the line that it is for the committee to decide, and has acted up to his professions. At the very important meeting just referred to he listened to the discussion without giving his views, and it was only when he was pointedly asked, I believe by myself, that he gave expression to them, and what occurred then is his usual custom. A "one man society"! It is no reflection on his predecessor to say that never has a greater freedom of debate and decision been allowed to the committee, and though, of course, his unrivalled experience has great effect with the committee when it is expressed, I have more than once known resolutions carried with which I knew he did not agree. With regard to the "deliberate suppression," I have never heard of it, and, unless the matters were quite unimportant, believe there must be a mistake somewhere.

3. Little need be said on the opinions of our actuary being taken "as gospel" or that the statements of the consulting actuary "are taken as if he were a judge of the High Court," except that it would show a strange want of common sense if, when we had engaged the highest experts we could get on matters of which most of us know little, we did not follow their advice.

4. Dr. Dickinson is, I think, in error in comparing the committees of the British Medical Association with ours. The work of the former can be mastered within a reasonable period. Not so that of ours. Life insurance is a difficult problem, but much more is disease insurance. When we started we had no tables or published data of any importance to guide us; all our knowledge has had to be gained by experience, sometimes at a costly price. It is more than the work of a lifetime, and I am sure that not one of us, including even the chairman, feels that he knows it all.

When Dr. Dickinson states that the chairman said, "The attendance of country members was immaterial," I am sure he misunderstood his meaning. I have heard the chairman say that country members living at a distance could not be expected to attend regularly, but that they were very useful in extending the interests of the society, and acted as local centres for diffusing knowledge of its work and aims.

I have tried to criticize Dr. Dickinson's remarks in moderate language, but no moderate language could express the gratitude due from every member of the society to our chairman, Dr. de Havilland Hall, not only for the work he does, but also for the way he does it.

For obvious reasons, I suppress my name, though enclosing it for your information.—I am, etc.,

A MEMBER OF THE COMMITTEE.

June 20th.

LEAD POISONING, GOUT, AND GRANULAR KIDNEY.

SIR,—When the observations of one medical man differ from the observations made by other medical men, it seems to me that all the cases on which the observations are made must be clear and beyond all doubt as to diagnosis. Is this the case with Dr. Ernest S. Reynolds?

Dr. E. S. Reynolds differs from Sir Thomas Oliver and Dr. Prendergast, finding lead poisoning to be a very frequent cause of gout, whereas Sir Thomas Oliver finds the combination to be extremely rare, and Dr. Prendergast only finds gout in less than 1 per cent. of his plumbic cases, and these few were either heavy beer drinkers or had a family history of gout.

Now, Dr. E. S. Reynolds, in his letter in your issue of May 28th, mentions "a very typical case of gout of the left hand in a woman who worked with pottery glaze, and who showed other typical signs of lead poisoning."

I think I know this case, and ask: Is it clearly and beyond all doubt a case of lead poisoning? Is it not a fact that this case has been seen by at least two other medical men who say there is no lead poisoning? Regarding the so-called gout in the left hand, has not the condition been diagnosed as something other than gout?

If I am correct in thinking I know this particular case, and take it as a sample of those on which Dr. E. S. Reynolds founds his observations, then I fear I cannot accept his deductions.

The question of lead poisoning and its consequences is one of very great importance to our industrial community, and it would be most unjust to employers and employed alike if deductions drawn from doubtful cases were allowed to influence us.—I am, etc,

JAMES HOLMES.

Bury, June 11th.

ON THE INFLUENCE OF SANATORIUM TREATMENT OF TUBERCULOSIS.

SIR,—Professor Karl Pearson, in his courteous and restrained letter which appeared in your issue of June 18th, has drawn attention to a most unfortunate misreading of one of Dr. J. E. Pollock's tables which occurs in our book on the *Conquest of Consumption*.

In this volume we argued that the results of sanatorium treatment were far ahead of the results obtained in the days before sanatoriums existed. We showed that over 50 per cent. of patients treated in certain sanatoriums were reported as being "capable of full work" five years after they had left the institution. We said that the value of sanatorium treatment was best grasped by comparing these results with those obtained before the introduction of sanatorium methods. We only had space for one illustration in support of what we thought was accepted as a true statement by all those who have any first-hand knowledge of the subject. We used Dr. Pollock's observations of 1865 for this purpose. To our great regret we misread Dr. Pollock's meaning. We did this owing to the fact that we misread the heading of one of his tables, and took "duration of disease" to mean "duration of life" for the two sets of figures which we quoted. Fortunately an inaccurate illustration does not invalidate a sound argument or an accepted truth. Our misquotation can have no excuse, but our argument was sound, and the impression this misquotation conveyed and was intended to convey to the public is well borne out by the opinions of the older observers, and therefore can have misled no one. Laënnec put the average duration of consumption, apart from any question of working capacity, at twenty-four months, Louis and Bayle at twenty-three months, Andral at twenty-four months, and Sir J. Clark (for the upper classes) at thirty-six months. Moreover, as Professor Pearson is well aware, so pessimistic were the views on the duration of the life of the consumptive in 1865 that Dr. Pollock thought it worth while to place on record the fact that in 3,566 cases observed by him the average duration of the disease had extended up to the time of publication to between thirty and thirty-one months. Dr. Pollock and others held that the duration of the disease was longer than the above averages, but none of them brought forward any results which can compare with those obtained by efficient sanatorium treatment, whether viewed from the standpoint of prolongation of life or from the standpoint of working capacity. On the contrary, Dr. Pollock, for 129 cases which were observed to the end, and Flint for 212 similar cases, placed the average duration at thirty-three months. In another table Dr. Pollock gave for 505 fatal cases, males, an average duration of nineteen months. Dr. Wilson Fox (1891) found in 90 fatal hospital cases a mean duration of twenty-one months; 56 acute cases, six to eight months; 34 chronic cases, forty-seven months. So far as our own observations go, it would appear that the average duration of the disease in the present day consumptive who fails to obtain sanatorium treatment is much the same as that recorded by the above observers. There would appear to be little evidence to show that the average duration of life of the consumptive extended to a longer period than five years from the diagnosis of the disease fifty years ago, or, in fact, extends to a longer period at the present day in the absence of sanatorium treatment. On the other hand, we have the fact that sanatorium treatment enables over 50 per cent. of consumptives to retain their full working capacity for at least five years from the commencement of treatment. We therefore do not hesitate to do all in our power to advocate sanatorium treatment being employed on a larger scale in this country. In support of our action, we would refer to the statistics of the German and other sanatoriums, and we would quote Dr. Noel Bardswell, who, in his recent book, *The Expectation of Life of the Consumptive after Sanatorium Treatment* (1910), calls attention to the well-known *Essay on the Treatment and Cure of Pulmonary Consumption*, by G. Bodington (London, 1840), in which reference is made to "the almost hopeless subject of the treatment and cure of pulmonary consumption." As a contrast to this, Dr. Bardswell gives the details of 241 patients observed by himself, and states his conclusion as follows: "Williams estimated that 'the average duration of consumption (selected cases) among the upper classes in pre-sanatorium days was eight years.' The average duration among the same class in selected cases is certainly now considerably longer, and for all classes the duration of life has been decidedly lengthened by sanatorium treatment."

Our argument was that sanatorium treatment gave better results than the methods of treatment used in pre-sanatorium days. Professor Pearson has called our attention to the inaccuracy of our illustration, but he does not appear to question the truth of our argument.—We are, etc.,

ARTHUR LATHAM.
London, W., June 21st. CHARLES H. GARLAND.

PITCH CANCER.

SIR,—I have read with much pleasure the very interesting report of Dr. Legge on pitch warts, referred to in the JOURNAL of June 4th (p. 1370).

One very noticeable feature of these pathological structures is that they do not occur on the exposed chest, but only on those parts that are rubbed when sweating, and rubbed continually—for example, the beardless face which is rubbed by the *back* of the hand and forearm. The sweat flows off the chest without the aid of rubbing.

Mr. Hilditch, His Majesty's Inspector of Factories for South Wales, informs me that in his last district he had many opportunities of studying the ulcerating effect of anthracene, and this product rubbed in with the irritating particles of pitch and coal is still more likely to cause minute ulcerations.

Warts or papillomata are only the exaggerated condition of the granulation tissue seen in slowly growing ulcers, and the minute ulcers found in pitch workers are not allowed time for healing.

If the plugging of sebaceous glands were the cause of the pitch warts one would expect to find more often a number of cysts, but such is not the case.

It is possible that frequent inunction of the parts rubbed might tend to diminish the irritation caused by the rubbing, and it would have the additional advantage that the men would then be sure to wash themselves in order to get rid of the oil.—I am, etc.,

Swansea, June 6th. G. ARBOUR STEPHENS.

ALCOHOL INJECTION INTO THE SUPERIOR LARYNGEAL NERVE IN TUBERCULOUS ODYNPHAGIA.

SIR,—Dr. Wilfred Harris's interesting article on trigeminal neuralgia and its treatment by alcohol injection must have convinced your readers of the value of this method of Schloesser's, to which Dr. Purves Stewart has also added his very valuable and favourable experience. The principle has been applied to the superior laryngeal nerve by Hoffmann of Munich, and as the result of its use in six cases of extreme pain in swallowing due to tuberculous disease of the larynx I feel justified in recommending its adoption. I showed a case illustrating it at the last meeting of the Laryngological Section of the Royal Society of Medicine, and described the proceeding in detail.—I am, etc.,

London, W., June 13th. DUNDAS GRANT.

THE SURGICAL TREATMENT OF GLYCOSURIA.

SIR,—If Dr. Chalmers Watson had stated in his former letters that he was quoting two entirely different sets of statistics, as he now does, it would have enabled me better to understand his position. It is quite clear that he does not appreciate the *rationale* of the fermentation process with diabetic urines, and that he has not adhered to the modified method of performing the pancreatic reaction I described in 1908 for such urines.[1]

The following points, which are the basis of the method, will, I think, show the necessity for strictly adhering to the steps of the process: (1) The pancreatic reaction appears to depend upon the presence in the urine of a nucleo-glyco-proteid complex, which on hydrolysis with hydrochloric acid yields a pentose that gives a characteristic osazone; (2) the glucose of diabetic urines is fermentable with pure yeast; (3) pentoses are not; (4) treatment

[1] *Surgery, Gynaecology, and Obstetrics*, January, 1908, p. 22.

of a pentose with impure commercial yeast containing bacteria does, however, destroy it in time. The aim of the modified pancreatic reaction is to remove the fermentable sugars without destroying the pentose, on which the reaction depends. To determine when this has been accomplished, a control specimen of the urine, which has not been boiled with hydrochloric acid, is fermented at the same time as the treated sample, and tested at short intervals for sugar. Immediately no reaction is obtained the phenylhydrazin test is carried out with the treated sample. If a pentose has been set free in this specimen by the preliminary hydrolysis a positive reaction, in the shape of pentosazone crystals, will be obtained, but if no nucleo-glyco-proteid was present no crystals will appear. The essence of the test, therefore, is to ferment a *control*, only just so long as is necessary to remove the last trace of fermentable sugar, and to take that as a guide as to the condition of the sample to be tested. So far as I can gather, this is where Dr. Chalmers Watson has gone astray, and the suggestion he makes with regard to our concurrent examination of sugar-free urines with a fermentation test confirms my belief, for if a urine shows no trace of sugar before hydrolysis fermentation is not only unnecessary but will, if carried out until any pentose formed by the treatment with hydrochloric acid is destroyed, prevent the formation of the characteristic pentosazone crystals.

I am not conscious that I have evaded the point at issue as Dr. Watson suggests, but, with all due deference to him, it appears to me to be whether the modified pancreatic reaction is of value in the diagnosis and prognosis of diabetes? I maintain it is.—I am, etc.,

P. J. CAMMIDGE.

London, W., June 17th.

AUSCULTATORY PERCUSSION.

SIR,—With regard to auscultatory percussion and its genesis, I may, perhaps, be allowed to recall that your pages record a paper on that subject which I read before the London meeting in 1895. In reply to some objections which had been raised to that method of physical examination you published in your issue of May 9th of the following year a contribution in which I pointed out that its fundamental principles had been laid down by Dr. Noel Gueneau de Mussy in the *Union médicale* of 1876 (third series).

Perhaps I may add that by auscultatory percussion the risk of error in ascertaining the area of cardiac dullness when the patient is in the recumbent posture, which has been referred to by some of your correspondents, is reduced to a minimum, and, indeed, may be said not to exist for the practised and attentive ear.—I am, etc.,

W. BEZLY THORNE.

London, W., June 20th.

SIR,—In this correspondence the method of auscultatory percussion described is that which I believed all medical students had long been taught, and it is strange to find some declaring that it is but little known or practised. It may be pointed out, however, that there is another and newer method of auscultatory percussion—possibly little known and practised—in which the technique is precisely the reverse. It was first described, so far as I know, by Dr. Albert Abrams, and termed by him "transsonance." The description, in his own words, is as follows:

> Percussion transsonance is obtained when the thorax is percussed, either directly or indirectly, at a time contemporaneous with auscultation at some remote point. In my modified method of auscultatory percussion, the clavicles, sternum, ribs, or vertebrae are percussed directly—that is, without the interposition of the finger as a pleximeter. The percussion blow is either light or strong, according to whether the superficial or deep dullness is to be elicited. If, for example, the area of cardiac dullness is to be obtained, the clavicle or manubrium sterni is percussed directly and the stethoscope is carried gradually towards the organ in all directions from the lung. The area of the heart is at once indicated by a dull tone supplanting a resonant one. A similar procedure is carried out in eliciting the upper liver border and the splenic area of dullness.

Abrams goes on to say that lung consolidation is easily elicited by this method, a prominent vertebra being percussed when the comparative apical resonance has to be determined anteriorly, and that it is possible also to outline the right auricle and the left ventricle on the posterior chest surface when the patient is in the erect posture and slightly inclined backwards. The lower border of the stomach is also found, the percussion being made over a rib in Traube's space. It is essential that the percussion blow be continuous and uniform. Corpulent individuals present a drawback.

I have used this method for at least eight years, having introduced it to notice in this country in 1903,[1] and I consider it a most valuable diagnostic aid. Without entering into a comparison of the two methods of auscultatory percussion in respect of utility, I really do not know any other means we possess for the determination of contiguous areas of dullness due to substances of different density. It is also the only form of percussion reliable as regards the stomach, and it is most satisfactory to find that the fallacies of Dr. Hertz have been so well exposed by Dr. Cotton.—I am, etc.,

A. G. AULT

London, W., June 19th.

SIR,—Dr. Cotton's remarks upon proportional representation with the *x* rays (p. 1518) must not be allowed to pass unnoticed. In the concluding paragraph of his letter to the BRITISH MEDICAL JOURNAL of June 18th he makes the surprising announcement, "This is the principle of proportional representation, which up to now has been entirely neglected in clinical radiography."

I am certainly well within the limit when I say that for ten years it has been the everyday work of the radiographer to obtain accurate measurements of internal organs, and that most complete and satisfactory apparatus had been designed for this purpose. I need merely mention the orthodiagraph, and Dr. Hugh Walsham's paper on the use of that instrument, read before the British Medical Association at Exeter in 1907. It is unnecessary to discuss the system by which these measurements are obtained, as they are now used in all large hospitals, and anyone interested in the subject can see for himself.

Dr. Cotton's remarks obviously apply to the ordinary radiogram, which, being a collection of shadows, gives no accuracy either in absolute or relative measurements.—I am, etc.,

EDWARD W. H. SHENTON, M.R.C.S., L.R.C.P.,
Senior Surgical Radiographer, Guy's Hospital.

London, W., June 21st.

SMALL-POX AND QUARANTINE IN AUSTRALIA.

SIR,—In your issue of May 28th, your Sydney correspondent publishes a paragraph in reference to the outbreak of small-pox on the Orient Line R.M.S. *Otway*. Though he guards himself by the use of the word "alleged," the impression necessarily left to the reader is that the "officers" of the *Otway*, which, of course, primarily means the surgeon of the ship, deliberately attempted to conceal a case of small-pox from the quarantine authorities at Fremantle. Your correspondent evidently has heard one side of the case. Had he communicated with the "officers" of the ship and heard the other? If not, surely it is unwise to place such a slur on a medical man's character while still the case was, as your correspondent states, *sub judice*. The surgeon of the *Otway* has been detained in Australia by a prosecution which I should prefer to label as a persecution, and has not yet reached England, but I believe the following facts are correct: The case developed after leaving Colombo, and was regarded by the surgeon as suspicious. He accordingly isolated it, but did not, at the time of arrival at Fremantle, consider that it was small-pox. The case was reported in writing on the Fremantle Health Form as "Sick," and Dr. Williams, the inspecting medical officer, was taken to see the patient, and had, I believe, to climb an isolation barrier in order to see it. He did not diagnose small-pox, and gave permission for the ship to proceed, but later, on second thoughts, again put the ship in quarantine and sent for another medical man who had special experience of the disease. The opinion of the consultant was in favour of small-pox, in which, unfortunately, he proved to be correct. It is, therefore, evident that there was not the least attempt at concealment, and that the conduct of the ship's surgeon was bona fide. Every medical man who has had experience knows the great difficulty there often is in the diagnosis of variola, and this difficulty is greatly increased in the tropics

[1] *Lancet*, February 14th, 1903, p. 433.

where "prickly heat" and other disorders further confuse the issue. That the ship surgeon, and Dr. Williams himself, made an error in diagnosis is excusable so long as the error was bona fide. Is there any one of us who is proof against error?

That advantage should be taken of a technical point to prosecute the surgeon of the ship, the prosecution being determined and decided on by medical men, does not say much for the spirit of mutual help and forbearance animating a part of the medical profession in Australia. The prosecution took place; that it was unwarranted by the facts is shown by the result—the acquittal of the surgeon. None the less, he will have suffered greatly in Australia by the action of the quarantine authorities, and it is hard that he is also made to suffer in England through the columns of a medical paper. The slur cast on the Orient Company is also unmerited. This company is more careful than most others to ensure a satisfactory medical service at sea, and has always treated the surgeons employed on their mail steamers with great consideration. In the near future they propose to institute such reforms in the conditions of medical work at sea as should earn the thanks of the profession.

So on all grounds the paragraph in question is to be regretted.

The case reported by Dr. Ashburton Thompson is inaccurate. The man was not a seaman, but a stowaway, and would have been quartered on the ship with the third class. I believe the cases were confined to the third class, showing that in isolating what was considered a suspicious case the methods adopted on board were successful; only those exposed to infection previous to the original illness declaring itself became subsequent victims.

By their highly restrictive quarantine laws Australia hopes to prevent the introduction of small-pox into the continent. It would be more to its credit if it took adequate means to protect the country by an adherence to, instead of practically a complete neglect of, the common-sense principles of proper vaccination. The state of things in quarantine is almost Gilbertian, inasmuch as the more frequently vaccinated and more immune a man may be the longer is he detained. It is the totally unvaccinated sure to "take" who escape long detention.—I am, etc.,

June 12th. MERCANTILE MARINE SURGEON.

EPSOM COLLEGE.

SIR,—The voting paper containing the list of candidates for the June election—a catalogue of woe—is before me. I notice there are twenty-three applicants for the two pensionships, not one of whom is credited with having been a subscriber. Of the twenty-five scholarship candidates, the parents of four were subscribers. I am pleased to see three of the latter among the seven names selected by the Committee of Examination.

I take this opportunity of drawing attention to two suggestions I made in a letter to the JOURNAL some time since: (1) That a day be fixed for a simultaneous appeal to all non-subscribing members of the profession to become subscribers, or at least to give a small donation. The adoption of this plan would not only lead to a regular addition to the funds of the institution, but bring prominently before every member of the profession once each year the duty of doing something to help the less fortunate of their brethren or those dependent upon them. (2) That a 5s. subscription should be asked from those unable to give a larger sum.—I am, etc,

London, W., June 2nd. CHAS. W. CHAPMAN.

THE HABITS OF SEAMEN.

SIR,—Our merchant seafarers are naturally apt to get a little behindhand with their literature, and no doubt this accounts for the fact that my attention has only just been drawn to certain comments appearing in an article on the Futility of the Official Tests for Colour Blindness, by Dr. T. Harrison Butler, which figures in the BRITISH MEDICAL JOURNAL dated February 5th. As no doubt you are aware, it is the Guild which has been instrumental in creating the widespread agitation which is now going on concerning the sight tests in respect to colour vision which are at present in vogue at Board of Trade examinations for certificates of competency as master or mate in the mercantile marine. In "Case v," Dr. Harrison Butler attributes the case to retrobulbar neuritis, the result of excessive indulgence in alcohol and tobacco. Such a diagnosis is, we do not doubt, perfectly correct. But we venture to think that he most improperly and unjustifiably supplemented this by stating that "such cases must be very common at sea, where men have plenty of time to smoke excessively, and also drink heavily as well."

Needless to say, those who follow the sea take umbrage at this expression of opinion on the part of Dr. Harrison Butler, and emphatically protest against such gross insinuations. We venture to think that he is totally unacquainted with the duties and responsibilities of a sea life so far as officers and seamen are concerned. In the great majority of vessels in the merchant service the hours per diem of seamen are not less than twelve, during which they have but the most limited opportunities to indulge in tobacco, whilst drink, as a rule, is inaccessible, or impossible to obtain.

In the case of officers, where the "two-watch" system is in vogue—which is chiefly the case—the period of an officer's duties per day extends to something like fifteen or sixteen hours, during which, as in the case of seamen, they have only the opportunity of an odd smoke during temporary relief, whilst, when at sea, it may safely be asserted that neither captains nor officers partake of strong drink in any way. Officers could not get it even if they desired it, whilst captains have far too great responsibilities on their shoulders to permit them to expose themselves to any risk in this way.

I may say that, during the last official year, out of, approximately, some thirty thousand certificated captains and officers of the merchant service not a dozen had their certificates suspended on the score of alcoholic excess. I venture to think that this will compare very favourably with any other profession.

To allege that seafarers "drink heavily" at sea is a grave misstatement, for which there is not the remotest foundation. Had Dr. Harrison Butler been aware of the enormous physical strain to which officers, chiefly, are subjected by reason of the many arduous duties and serious responsibilities imposed upon them, possibly he would have taken this factor, rather than drunkenness, into account as tending to impair their physical condition from both a functional and organical point of view.

I have been requested by a large number of officers of the Mercantile Marine to address this letter to you, as such unfair suggestions cannot be allowed to go by without protest.—I am, etc.,

T. W. MOORE,
Secretary.

The Imperial Merchant Service Guild, The Arcade, Lord Street, Liverpool, June 8th.

MEDICAL LIBRARY ASSOCIATION.

SIR,—By the kind permission of the British Medical Association the second annual meeting of the Medical Library Association, under the presidency of Professor Osler, will be held at London University during the last week in July. Two short sessions will be held on the mornings of July 27th and 28th, at which papers will be read dealing with matters likely to be of practical interest and assistance to medical librarians, members of library committees, and readers.

It is also intended to hold a bibliographical exhibition in connexion with the meeting, as this proved such a successful feature of the meeting held in Belfast last year, and we shall be glad to receive offers of loans to illustrate the following sections of the exhibition:

1. Incunabula.
2. Books by London medical men up to 1600.
3. Photographs of and papers relating to medical libraries.
4. Special collections, etc.

We are, etc.,

I. WALKER HALL, M.D,
Pathological Department, University of Bristol.

CUTHBERT E. A. CLAYTON,
Medical Library, University of Manchester.

Manchester, June 15th. Joint Honorary Secretaries.

Medico-Legal.

ACTION UNDER THE LUNACY ACT.

IN a case which was heard at Gloucester on June 21st, before Mr. Justice Lawrance, Dr. Herbert Llewellyn Porteous, of Chalford, was charged with having failed to give effect to an order of the Commissioners in Lunacy, dated April 10th, 1907, and with not complying with the provisions of the Lunacy Act, 1890. It was alleged that the defendant failed to visit two patients and to make the required entries, and that he had also made a false entry in a medical journal.

Counsel prosecuting on behalf of the Director of Public Prosecutions said that the offences charged against the defendant were technical in character. They consisted of a series of breaches of rules which might have resulted in serious consequences to the patients concerned, but no harm had actually resulted. The defendant had pleaded guilty, and all the Commissioners desired was to impress the great responsibility assumed by medical men in these cases, and the absolute necessity of carrying out their instructions to the letter.

It was stated on behalf of the defendant that he was a man of high character and professional repute. The breaches of the rules in question had occurred at a time of great business pressure.

The Judge bound the defendant over to come up for judgement if called upon.

THE SALE OF POISONS.

ON June 17th, at the Kingston County Court, the Pharmaceutical Society sued an assistant to James Nash and Sons, nurserymen, Wimbledon, to recover the penalty of £5 under the Pharmacy Act of 1903, for selling an insecticide containing nicotine, he not being a registered person under the Act. Under the Pharmacy Act of 1868, only qualified chemists could sell any preparation containing poison, but in order to accommodate farmers and gardeners in districts where purchase was difficult, the Act of 1908 allowed local authorities to license approved persons to sell certain preparations with poisonous ingredients in sealed vessels. This was the first action under the later Act. The whole point was whether the individual licensed by the authority under the 1908 Act could delegate to his assistants his power to sell. Judge Harington decided that he could not, and gave judgement for the Pharmaceutical Society for the £5 penalty. Leave to appeal was granted.

Medico-Ethical.

The advice given in this column for the assistance of members is based on medico-ethical principles generally recognized by the profession, but must not be taken as representing direct findings of the Central Ethical Committee, except when so stated.

MEDICAL PRACTITIONERS AND THE PATENTING OF INSTRUMENTS.

S.—We do not think that there can be any ethical objection to a medical practitioner patenting a scientific instrument which is not for use in the treatment of disease.

DOCTORS' RELATIVES AND PROFESSIONAL RELATIONS.

T. L. A.—We see nothing impolite or mean in the question to which we replied in the JOURNAL of May 28th under this heading.

MEMBERSHIP OF FRIENDLY SOCIETIES BY MEDICAL PRACTITIONERS.

W. W. writes that he is medical officer to a friendly society lodge in a large village where there is only one other medical practitioner, a comparatively recent arrival. This practitioner has applied and been admitted a member of the lodge, W. W. having passed him as medically fit; he goes on to say that "there is only one interpretation to be placed upon this action," and asks whether he is not justified in calling his neighbour's attention to its unethical nature and asking him to withdraw from the membership.

*** As medical practitioners do not belong to the class for which friendly societies are intended, we think our correspondent would have been justified in protesting against his neighbour's admission to membership.

THE Royal Mail Steam Packet Company arranges during the summer cruises of nineteen days to the Azores, at a charge of £15, including nine days' accommodation at the Azores. The sea trip, which lasts ten days, is made by the large transatlantic steamers of the company, which leave Southampton every alternate Wednesday. Further particulars can be obtained from the offices of the company, 18, Moorgate Street, E.C.

Public Health AND POOR LAW MEDICAL SERVICES.

APPOINTMENT OF MEMBERS AND EX-MEMBERS OF BOARDS OF GUARDIANS TO PAID OFFICES.

THE following circular to boards of guardians has been issued:

Local Government Board.
Whitehall, S.W.,
June 21st, 1910.

Sir,

I am directed by the Local Government Board to state that they have had under consideration the question of the appointment to paid offices under Boards of Guardians of persons who are or have been members of those Boards.

Representations on this subject have been addressed to the Board from time to time, and they have been reminded of the rule made by the Registrar-General with regard to the office of registrar. The Royal Commission on the Poor Laws and Relief of Distress referred to that rule with approval, and have recommended that "a Local Authority should not be allowed to appoint an ex-member as a paid officer unless he or she has ceased to be a member of the Local Authority for a period of, say, twelve months before appointment."

The Board are in agreement with this view, and they feel assured that Boards of Guardians generally recognize the impropriety of appointing to paid offices persons who are or have recently been members of their own body.

There may be exceptional circumstances which might justify an appointment of this kind, as for instance the appointment of a medical man, who has been a guardian, as medical officer for a district in which he is the only resident medical practitioner. But these cases will be very rare.

The Board therefore think it necessary to intimate generally that in future, unless very special grounds are shown, they will not be prepared to acquiesce in the appointment to any office, in respect of which approval on their part is required, of any person who is or has been within twelve months a member of the Board of Guardians making the appointment.

I am, Sir, Your obedient Servant,
H. C. MONRO,
Secretary.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Maldon Rural District.—Based on an estimated population of 16,034, the birth-rate in 1909 was 22.3 per 1,000 and the adjusted death-rate 14.0 per 1,000. The infantile mortality-rate was equal to 65 per 1,000 births. The water supply in the parishes of Tollesbury and Heybridge, in each of which there is a population of some 2,000 persons, is said to be very unsatisfactory. In Heybridge wells and cesspools are increasing in number, and as the wells already yield impure water the houses become occupied without a water certificate being granted. The district council will accept a serious responsibility if they do not take into consideration and act upon the advice of their medical officer of health, Dr. J. C. Thresh, with regard to the water supply of these two populous districts. An account is given in the report of an encampment of eight tents or sheds which is described as a disgrace to rural England, and as one which if seen in Central Africa would be photographed as showing the squalor and poverty of the inhabitants.

Sedgefield Rural District.—The birth-rate of this rapidly increasing rural district, with its estimated population of 31,875 persons, was 34.1 per 1,000 in 1909, and the death-rate was 13.2 per 1,000. The infantile mortality-rate was 139 per 1,000 births, the lowest yet recorded in the district, but still higher than the county of Durham as a whole (124), or of England and Wales (109). The medical officer of health, Dr. Frederick Hunton, points out that of the 152 deaths of children under 1 year no less than 63 lived but a week, while 93 had barely one month's existence. The causes of death were due entirely to the lack of initial vitality, which made it impossible for these children to have a sustained and separate existence. Contrary to what is usually found, the least sanitary township had a lower rate of infantile mortality than other parts of the district; but following the experience elsewhere, the number of illegitimate deaths was very high, for of the 25 illegitimate children born 8 died during the year. Dr. Hunton includes in his report a most useful table giving in detail mortality statistics for the past 32 years.

Chelmsford Rural District.—The estimated population in 1909 was 22,360. The birth-rate was 21.6 per 1,000, and the adjusted death-rate 11.9 per 1,000. The infant mortality-rate was equal to 74 per 1,000 births. When dealing with the conditions of housing in the rural district, the medical officer of health, Dr. J. C. Thresh, states that in one locality there are ten farms, with a total area of 950 acres, where not a single cottage is provided for the labourers. He gives other instances of lack of cottage accommodation. When dealing with the milk supply, Dr. Thresh expresses the opinion that the conditions under which milk is produced in the district are better than in the great majority of rural districts. Some of the cowsheds are excellent in every respect. Others are structurally defective—too narrow or improperly paved and drained; while others, again, are badly lighted; in many instances there are heaps or quagmires of manure adjoining the sheds. The water supply to the dairies is sometimes impure. The veterinary inspector of the London County Council has visited cowsheds in the district on several occasions, and Dr. Thresh states that he has sometimes been ashamed to meet him, knowing the conditions he would find.

Obituary.

ARTHUR JOHN SHARP, M.D.LOND., F.R.C.S.ENG., D.P.H.CANTAB.,

NOTTINGHAM.

IT will surely be with more than the ordinary regret and sympathy felt by the medical profession on the untimely death of an honoured colleague that it learns of the death of Dr. Arthur John Sharp, of Nottingham, which recently occurred at his residence in that town after a painful illness of eight months' duration.

Returning last summer from a holiday in Holland, he took an active part in the scientific work of the Annual Meeting of the Association at Belfast, and then resumed his usual work of general practice in Nottingham, together with arduous deputy work in connexion with the City Fever Hospital. His general health appears to have suffered somewhat under the stress, when, on October 22nd, he conducted a necropsy at the request of the city coroner on the body of a child 3 weeks old who had died from suppurative inflammation of the hip-joint and virulent septicaemia. Unfortunately he wore no gloves during the examination, but, although he thought his skin was tender at the time, he was not aware of any abrasion. Shortly afterwards local and constitutional signs of what proved to be a streptococcus infection appeared and developed into a profound septico-pyaemia. He was skilfully, patiently, and assiduously treated throughout the eight weary, torturing months by Dr. F. H. Jacob and Mr. Anderson, physician and surgeon respectively to the Nottingham General Hospital, the treatment including the injection of vaccine from the particular strain of streptococcus present, and the opening of abscesses in many parts of the body. Towards the end, after a courageous and patient fight both on his own side and on that of his medical attendants, abscesses developed in the lungs and in the abdominal cavity, his death immediately resulting from heart failure accompanying septic peritonitis.

Dr. Sharp was born in India, at Masulipatam, on December 23rd, 1867, and was the son of the Rev. John Sharp, late principal of the Noble College under the Church Missionary Society. In 1869 he came to England, and was brought up in the home of his grandfather, Dr. Sharp, F.R.S., at Rugby, who, it may be mentioned, was the means of introducing science teaching into the public schools when acting as medical adviser to the Rugby School under the headmastership of Dr. Tait.

In January, 1880, he entered Marlborough College, where one of his uncles was assistant master, with Foundation and East Indian Scholarships, and he remained there until midsummer, 1887. He gained an exhibition at Lincoln College, Oxford, in 1886, but he relinquished that in favour of commencing medical training in London. He had a distinguished career in London as a student of Guy's Hospital, taking honours in the London University Matriculation Examination in 1887; he gained in 1890 a first prize in Anatomy, Physiology, and Materia Medica, and the Treasurer's Prize with an essay on Heredity. In 1891 he gained the first prize in Medicine, Surgery, and Midwifery, and in 1892 took the M.B. degree with honours and the B.S. degree. In 1893 he obtained the diplomas of M.R.C.S. and L.R.C.P., in 1894 the M.D. degree, and in 1896 the diploma of F.R.C.S.Eng. and the D.P.H. of Cambridge. He held the post of Resident Obstetric Assistant, Senior and Junior at his own hospital, and filled the position of President of the Guy's Hospital Physical Society for the unusually long term of five years.

Soon after leaving Guy's Dr. Sharp married a daughter of the late Dr. S. H. Ramsbotham, of Leeds, and settled down in practice in Whitby. He stayed there for some six years and then moved to Nottingham, whence at the date of the commencement of his illness he was about to move again to Sheffield on appointment as assistant medical officer to the education authority of that city. During his stay in Nottingham he acted as corresponding secretary of the Medico-Chirurgical Society. He took much interest in public health subjects, and was urged by some of his friends to seek an appointment in the service. He never obtained a regular appointment, but did, nevertheless, a large amount of useful and important work, both administrative and scientific, in the health department of the Nottingham Corporation, where his assistance was highly appreciated by the medical officer of health and the Health Committee. Indeed, there were signs of late that Sharp's high quality was making itself felt among members of public bodies for which he worked, if not by the general public. Not only did the Health Committee of Nottingham give him a very fine testimonial, but the Education Committee of Sheffield, on hearing of his illness, at once appointed a locumtenent for him, and expressed their willingness to keep their post open until he should be well enough to take up his duties.

He was the author of numerous papers and articles, some of the more recent dealing with the Notification of Births Act, the successful treatment of puerperal sepsis with antistreptococcic serum, and the diagnosis of nerve disease. The first appeared last year in the *Medical Magazine* and the last as a serial in the *Guy's Hospital Gazette*.

Between Sharp's success as an independent practitioner and the brilliancy of his early career there was a certain degree of inconsistency, and this led his friends to regard with satisfaction his decision to abandon private practice altogether, and take the appointment at Sheffield, as being a step likely to bring him sooner or later to the front. A powerfully-built, pleasant mannered, and kind-hearted man, he was, without being exactly diffident, curiously unassuming. No one long in his company could have failed to recognize that he was a man of sterling character and of culture, industry, and wide professional knowledge, but it would have been possible to know him for years without learning that he had done so well at his school or possessed the highest medical qualifications.

Whatever he took up he did thoroughly well. The accounts he supplied of the meetings of his society brought out the points of every paper read or case recorded succinctly and without wasting a word, and were models of what such reports should be. It was this fact, coupled with the promptitude with which they were forwarded, that led to his being invited to join the outdoor editorial staff of this JOURNAL. He acted as official reporter of the Section of Diseases of Children at the meeting at Sheffield in 1908, and again last year at Belfast, and thoroughly fulfilled the expectations formed of him. We share the belief of his many friends that had he lived he must eventually have won a place of distinction in the comparatively new department of medicine formed by school medical work, and regard his death as a loss not only to his friends, but to medicine. By his own wish his body was cremated, and his ashes interred in Ambleside churchyard, the family resting place in Cumberland. On the same day a largely attended memorial service was held in Nottingham.

FLORENCE NIGHTINGALE BOYD, M.D.,

SENIOR SURGEON, NEW HOSPITAL FOR WOMEN.

IT is with much regret that we have to record the death of Mrs. Florence Nightingale Boyd. Having received her professional education at the London School of Medicine for Women, she became a Licentiate of the Irish Colleges of Physicians and Surgeons in 1888, and in the same year took the degree of M.D. at Brussels *avec grande distinction*. She was for a time Demonstrator of Anatomy, Examiner in Operative Midwifery, and afterwards Lecturer on Gynaecology at her old school. She was appointed Surgeon to the New Hospital for Women of which she was Senior Surgeon at the time of her death. She held the offices of Vice-President and Honorary Treasurer of the Association of Registered Medical Women, and was a member of the Gynaecological Section of the Royal Society of Medicine. She was a recognized authority in her special province of work and contributed several papers to the BRITISH MEDICAL JOURNAL, the *Lancet*, and the *Journal of Obstetrics and Gynaecology of the British Empire*.

Dr. Boyd was the wife of Mr. Stanley Boyd, Senior Surgeon at Charing Cross Hospital, to whom we venture to offer an expression of sympathy in his bereavement.

Mrs. SCHARLIEB, M.D., M.S., writes:

The life and career of Florence Nightingale Boyd are matters of no ordinary interest to the profession that sh

adorned and to all the friends of the higher education of women. It is the barest truth to say that those who knew her best and who were associated with her in her capacity of teacher and surgeon are those who most greatly appreciate the fineness of her character and the value of her work.

Mrs. Boyd began her career as a medical student in the early eighties, but did not immediately qualify because she gave up her work for a time to nurse a brother through his long and fatal illness. In 1888 Mrs. Boyd became Licentiate of Medicine and Surgery at the Royal Colleges of Physicians and Surgeons in Ireland, and also took the M.D. degree of Brussels. In 1889 the New Hospital for Women was moved from its old home in the Marylebone Road to the new buildings in Euston Road, and very shortly after Mrs. Boyd was appointed a member of its surgical staff. It is only the members of that staff who can do full justice to the splendid accuracy and thoroughness with which Mrs. Boyd discharged her duties to the hospital and the patients. As an operator Mrs. Boyd's skill and conscientious attention to detail went far to command success; her powers of diagnosis were excellent, and her knowledge of the more purely medical side of her profession contributed greatly to the comfort and ultimate welfare of her patients. Fortunately, both for herself and for her profession, Mrs. Boyd was modern enough to have a really competent knowledge of pathology, and every case was made to increase her knowledge and extend her usefulness.

During the twenty years of her hospital career Mrs. Boyd had the opportunity of teaching generations of students—an opportunity of which she availed herself to the full. Her informal clinical lectures were models of what such instruction should be—clear, concise, and practical—and when later she was appointed to the Chair of Gynaecology at the London (Royal Free Hospital) School of Medicine for Women the students reaped the benefit of her wide acquaintance with gynaecological literature and her ripe experience. Fortunately for herself and her students, Mrs. Boyd had travelled much, and had visited the chief European clinics. She spoke and read both French and German easily—a great advantage to the scientific student of surgery and pathology.

Of the higher qualities of her moral and spiritual nature, those can speak best who knew her as intimately as did the writer of this appreciation, who owed more than she can express to Mrs. Boyd's splendid loyalty during the early and troublous days when they both began their work as Senior and Junior on the surgical staff of the New Hospital. Among Mrs. Boyd's leading characteristics was courage and a love of truth so great as to make her absolutely indifferent to the criticisms that might be made. She was fearless and straight to a degree not common in the human race, and probably still more rare amongst women. Mrs. Boyd's religion in some ways greatly resembled her conception of professional duty: she was devout without affectation, and God-fearing without narrowness.

Originally possessed of a powerful physique, and a woman who thoroughly knew the *joie de vivre*, the last eighteen months of her life must have been peculiarly trying to her. She died before completing her 55th year in the midst of a career of remarkable value and usefulness, and it is difficult even for one who loved and respected her as much as the present writer to express the loss that her premature death has inflicted on her family, her friends, her patients, and the profession.

THE death, after a brief illness, on June 2nd, of Dr. J. T. W. BAIRD, of Congleton, has been the cause of very great regret in the district, where he was well known and had won for himself a leading position. James Thomas Wilson Baird was the son of the late Mr. John Baird, of Blackford, Dumfriesshire. He was educated at the High School, Edinburgh, and studied medicine in the University of Edinburgh, taking the degrees of M.B., C.M., in 1867. After holding resident appointments under the late Professor Laycock and Dr. Maclagan, he settled in practice, first at Upton, near Birkenhead, and then at Salford. In 1870 he removed to Congleton, and for some years subsequently acted as deputy coroner for Mid-Cheshire. At the time of his death he was a justice of the peace for the borough of Congleton, honorary surgeon to the Congleton Cottage Hospital, certifying factory surgeon for the district, and medical officer to the Post Office. Dr. Baird is survived by his wife, daughter of the late Joseph Carter Fearon, of Gilcrux, Cumberland, and by six children, his only son being a major in the Indian Medical Service. At the first meeting of the bench after Dr. Baird's death sympathetic references were made to the loss which the borough had sustained. The Mayor proposed that a letter of condolence should be sent to Mrs. Baird and family, expressing the magistrates' deep sympathy with them in their sudden bereavement. The resolution was seconded by Mr. W. Farrington, senior magistrate, and supported by Alderman Maskery, who paid a tribute to Dr. Baird's kindness of heart. After the magistrates' clerk had added an expression of his sympathy, the vote was carried in silence.

Universities and Colleges.

UNIVERSITY OF OXFORD.

Radcliffe Travelling Fellowship, 1911.

AN examination for a Fellowship of the annual value of £200, and tenable for three years, will be held in Hilary term, 1911. Candidates should make application to the Radcliffe Examiners, Radcliffe Library, University Museum, from whom all particulars can be obtained.

Radcliffe Prize, 1910–11.

The next award for this prize will be in the year 1911. The prize, which is of the value of £50, is awarded by the Master and Fellows of University College every second year for research in any branch of medical science comprised under the following heads: Human Anatomy, Physiology, Pharmacology, Pathology, Medicine, Surgery, Obstetrics, Gynaecology, Forensic Medicine, Hygiene. The prize is open to all graduates of the university who shall have proceeded or shall be proceeding to a medical degree in the university. Candidates must not have exceeded twelve years from the date of passing the last examination for the degree of B.A., and must not, at the date of application, be Fellows on the foundation of Dr. John Radcliffe. Candidates must send in their memoirs to the University Registry on or before December 1st, 1910. The award will be made in March, 1911. No memoir for which any university prize has already been awarded is admitted to competition for the Radcliffe prize, and the prize will not be awarded more than once to the same candidate.

Rolleston Memorial Prize, 1912.

This prize, which is of the value of about £60, will be awarded in Easter or Trinity term, 1912. The prize is open to such members of the Universities of Oxford and Cambridge as will not have exceeded ten years from the date of their matriculation on March 31st, 1912, and is to be awarded for original research in any subject comprised under the following heads: Animal and Vegetable Morphology, Physiology and Pathology and Anthropology, to be selected by the candidates themselves. Candidates wishing to compete are requested to forward their memoirs to the Registrar of the University of Oxford before March 31st, 1912. The memoirs should be inscribed "Rolleston Memorial Essay," and should each bear the name and address of the author. They may be printed or in manuscript, memoirs already published being admitted to the competition.

UNIVERSITY OF CAMBRIDGE.

THE following candidates have been approved at the examinations indicated:

FIRST M.B. (*Part I, Chemistry*).—P. H. Allen, B. S. Bland, H. R. Buttery, H. F. Edmonds, C. C. Goodall, C. Grantham-Hill, A. H. Little, R. A. Mansell, E. W. Mason, B. Mountain, G. B. Selwood, E. W. L. Sharp, H. W. Spicer, G. S. Trower.

FIRST M.B. (*Part II, Physics*).—P. H. Allen, H. R. Buttery, W. H. Edgar, C. H. Gow, L. H. James, A. H. Little, R. A. Mansell, R. H. Marten, B. Mountain, H. W. Spicer, H. N. Stafford.

FIRST M.B. (*Part III, Elementary Biology*).—A. C. Ainsley, P. H. Allen, A. B. Bratton, A. O. Courtis, H. F. Edmonds, H. Gardiner-Hill, C. C. Goodall, C. Grantham-Hill, J. B. Hunter, L. H. James, W. Lambert, J. B. Leather, A. H. Little, R. A. Mansell, R. H. Marten, K. Masson, B. Mountain, A. V. O'Keefe, W. Raffle, J. C. Russell, E. W. L. Sharp.

SECOND M.B. (*Human Anatomy and Physiology*).—M. Avent, W. F. Bensted Smith, W. G. Bigger, J. Brewer, R. St. L. Brockman, G. d'R. Carr, L. B. Clarke, K. B. Dickson, A. T. Edwards, A. N. Garrod, H. H. M. Gould, A. R. Jennings, J. D. Jones, F. G. Lescher, H. A. Lucas, G. R. D. McGeagh, H. G. Oliver, D. S. Page, V. C. Pennell, W. A. Pocock, R. N. Porritt, A. N. Rushworth, A. P. Saint, L. E. S. Sharp, A. G. Shera, G. D. Sherwood, L. R. Shore, A. C. S. Smith, P. Stocks, H. Walker, H. F. W. Warden, H. G. Wiltshire, E. Wordley.

THIRD M.B. (*Part I, Pharmacology and General Pathology*).—H. W. Barber, F. S. Bedale, A. C. Clifford, A. E. Cullen, J. W. Dew, S. Dixon, J. V. Fiddian, N. Garrard, J. R. Griffith, J. R. Heath, D. W. John, H. Lee, D. N. Macleod, A. J. McNair, Q. Madge, W. C. D. Maile, J. R. Marrack, T. H. Oliver, J. H. Pendered, D. V. Pickering, L. C. Rivet, F. A. Roper, F. G. Rose, L. M. Routh, F. D. Saner, H. J. S. Shields, G. A. Smythe, C. Strickland, A. L. Sutcliffe, C. H. S. Taylor, M. H. Watney, A. M. Zamora.

Degrees.

The following degrees have been conferred:

M.D.—F. Shufflebotham, H. W. Wiltshire, J. B. Mennell.

M.B., B.C.—B. Wallis, J. Walker, H. B. Ellison, R. E. V. Hale, A. Carter.

M.B.—K. Comyn.

Medical News.

In consequence of the death of His late Majesty King Edward VII the annual meeting and dinner of the Cambridge Medical Graduates' Club will not be held as usual in July, but are postponed until November.

During the World Missionary Conference which has been held this week in Edinburgh, a special conference on the medical aspects of missionary work was held. Discussions took place on the training and preparation of medical missionaries and mission nurses, on the medical training of natives, and on elementary training in medicine for foreign missionaries. Among those who introduced these subjects were Dr. J. W. Ballantyne, Dr. C. F. Harford, Dr. G. Basil Price, Dr. W. J. Wanless of India, and Dr. D. D. Main of China.

At the second Accession Court held at St. James's Palace on June 22nd, King George received a number of addresses offering him respectful sympathy on the loss which the Royal Family has sustained by the death of King Edward VII, congratulating him on his own accession, and assuring him of the loyal devotion and affection of the memorialists. Among the bodies presenting addresses were the Universities of Oxford, Cambridge, Dublin, London, Manchester, Leeds, Bristol, and Wales, the Royal College of Physicians of London, the Royal College of Physicians of Edinburgh, the Royal College of Surgeons of Edinburgh, and the Royal Institute of Public Health.

The *Magazine of the London (Royal Free Hospital) School of Medicine for Women* for June contains a protest against the proposal which it appears has been made to open the London Hospital to women medical students. The protest states that there is no general demand among the women medical students of London for such a change, that the large majority of the students of the London School of Medicine for Women would be opposed to it, and that, as it would inevitably damage the school, since the removal of ten or twelve students yearly to another would be a serious financial loss, it would undoubtedly diminish efficiency. It is added that the school and hospital provide more clinical material than the students can fully use during the course; and that for those who have already qualified most of the special hospitals are available for post-graduate study. The protest goes on to express the more general opinion that although the practice of men and women students working together is not wholly to be condemned, it is more desirable that women should be trained apart from men. Judging from the articles and illustrations in the magazine it would seem that there is a healthy collegiate life in the school, and that on this account alone it would be undesirable to weaken the present institution.

On June 18th the members of the Irish Medical Schools' and Graduates' Association journeyed to Bath to hold their summer meeting, and the attractions—historical, antiquarian, and scientific—induced a large number to accept the hospitality of the local medical profession and to receive the welcome of the civic authorities. The members were received by the Bath doctors at a garden party in the institution gardens, and a large number of guests were asked to meet them, including the Mayor and Mayoress and the Dowager Countess of Granard. In the evening the dinner of the association was held in the Empire Hotel, and was presided over by Sir Alfred Keogh, President, supported by the Mayor and Mayoress, Sir Charles Hunter, Bart., M.P., and Prebendary Boyd, Rector of Bath. In proposing the health of "Our Bath Hosts" Dr. MacNaughton Jones referred gracefully to the Mayor's connexion with the 18th Hussars, and to his combining with the Mayoralty of Bath the historic position of Master of the Ceremonies, which had formerly been held by Beau Nash. He then alluded to the meeting of the British Medical Association in Bath in 1878, and said that the names of many Bath physicians were intimately associated with the progress of medicine. Sketching the history of Bath, he said that the Roman temples and marvellous baths still existed, and the present baths, though unsurpassed in the present day, were mere pigmies beside those whose remains were the wonder of Bath. After dinner a reception was held in the old Roman Promenade by the Mayor and Mayoress, and was very largely attended. On Sunday there were special services at the Abbey and Catholic churches. In the afternoon the party journeyed to the far-famed Cheddar Gorge and Caves.

Letters, Notes, and Answers.

Communications respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisements, non-delivery of the Journal, etc., should be addressed to the Office, 429, Strand, London, W.C.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted will be found under their respective headings.*

QUERIES.

Member asks for information on the subject of heating dwelling houses by means of hot air.

Tuberculin.

Tubercle desires to know the amount of tuberculin which should be used in a case of tuberculous glands in a child aged 6 years, how often the injection should be made, and how many injections in all should be used. He also inquires where the most reliable preparation is to be obtained.

ANSWERS.

Dental Hypoplasia.

E. S. R.—So far as we are aware, the suggestion that there is any danger to the teeth of infants who are vaccinated during the first few months of life—that is to say, owing to any interference with the germs of the permanent teeth, has never been entertained by medical men. During the course of an inquiry into the causes of hypoplasia (that is, bad formation) of teeth, including many hundreds of cases, the suggestion did not arise. Such injury could only occur in consequence of general infection; if a child were seriously ill from vaccination, whether from sepsis or true vaccinia, for any considerable length of time, the teeth might bear a permanent record of the fact in the form of a horizontal band of hypoplasia. For a discussion of this form of hypoplasia of teeth see British Medical Journal, November 23rd, 1907, p. 1488, et seq., "Etiology and Pathology of Defects of the Teeth in Children."

Hypnotism.

Dr. Bernard Myers.—Dr. Milne Bramwell's *Hypnotism and Treatment by Suggestion* (Cassell and Co., London, 1909); or Dr. H. G. Wingfield's *Introduction to the Study of Hypnotism, Experimental and Therapeutic* (Baillière, Tindall, and Cox, London, 1910), would probably meet our correspondent's requirements.

Urticaria.

Dr. John W. S. McCullough (Alliston, Ont.) writes: For chronic urticaria I have found the following mixture give good service: ℞ Quinin. hydrochlor, acid. mur. dil., liq. arsenii hydrochlor., liq. strych. hydrochlor., pilocarp. mur. (gr. $\frac{1}{8}$ to $\frac{1}{4}$); in suitable dose three times daily after food. "New Zealand M.D." might find it useful in the case he mentions in the Journal of May 28th.

LETTERS, NOTES, ETC.

Medical Parliamentary Roll.

Dr. Clippingdale adds the two following names to the lists of medical M.P.'s already published in the Journal: Goddard, Jonathan, M.D.Oxon., M.D.Cantab., F.R.C.P. (Oxford University, 1653). The Parliament in which Dr. Goddard sat is known as the "Barebones Parliament," because a gentleman named "Praise God Barebones" represented in it the City of London. Its members were nominated by Cromwell himself, consequently they are not mentioned in the official Blue Book. A list of them, however, will be found in Browne Willis's *Notitia Parliamentaria*. Paddy, Sir William, M.D. Oxon., F.R.C.P. (Thetford, 1603). Sir William Paddy was one of those physicians who attended, in his last illness, King James I (see British Medical Journal, June 4th), and from whom he received his knighthood, July 9th, 1603.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page	8	0	0

An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

Note.—It is against the rules of the Post Office to receive *poste Restante* letters addressed either in initials or numbers.

THE

British Medical Journal.

THE JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

EPITOME

OF

Current Medical Literature.

JANUARY TO JUNE, 1910.

London:

PRINTED AND PUBLISHED AT THE OFFICE OF THE BRITISH MEDICAL ASSOCIATION,
429, STRAND, W.C.

NDEX TO THE EPITOME FOR VOLUME I. 1910.

ers in search of a particular subject will find it useful to bear in mind that the references are in several s distributed under two or more separate but nearly synonymous headings—such, for instance, as Brain and bral; Heart and Cardiac; Liver and Hepatic; Renal and Kidney; Cancer and Epithelioma, Malignant Disease, Growth, Sarcoma, etc.; Child and Infant; Bronchocele, Goitre, and Thyroid; Diabetes, Glycosuria and r; Eye, Ophthalmia and Vision, etc

The Figures in this Index refer to the Number of the Paragraph, NOT the Page.

A.

:, ROBERT: Radium in giant cell coma, 111; radium in tumour of the lid, 250
tion, cervico-vaginal fistula in, 51
ess, artificial production of in treatnt of lead poisoning, 55
ess, gaseous (or cyst?), of ovary,
ess, tubo-ovarian, complicating intertial ectopic pregnancy, 317
one treatment of inoperable carnoma, 26, 140
ARD: Syphilitic phlebitis, 46
oluric jaundice with splenomegaly, ronic, 58
noids, removal of, 135
noma of rectum, sessile, 101
osis dolorosa, 116
enalin causing lymphangio-sclerosis, 2
enalin in treatment of vomiting of egnancy, 105
ECK: Pulmonary tubercle and artiial interruption of pregnancy, 150
RECHT, H.: Collargol in septic condions, 155
hol injections in trigeminal neuralgia, 0
holic applications in typhoid fever, 0
XANDER, A.: Neutralon in gastric lcer, 92
AN: Treatment of chorea in children, 8
enyl, 195
aemia, infantile splenic, 59
aemia, primary, severe, in infancy, 33
aesthesia, arterial terminal, 314
aesthesia, electric, 273
aesthesia, intravenous, with ether and hloroform, 118
astomosis, arterio-venous, for gangrene, 219
DERSON: Mexican typhus fever, 267
eurysm, miliary, in cerebral apoplexy, 09
imal membrane, use of, in producing nobility in ankylosed joints, 4
kylosed joints, the use of animal memrane in producing mobility in, 4
ticholera serum, 305
tiferments, proteolytic, in treatment f acute suppuration, 68
tiform and ligroin in the detection of ubercle bacilli, 29
timeningococcus serum, 276
timony in trypanosomiasis, 237
titetanic serum, 190
uria, 1
oplexy, cerebral, miliary aneurysms n, 309
pendicitis, chronic, 30
pendicitis complicating pregnancy, 02
pendicitis, protective, 61
sacetin in relapsing fever, 69
terial anaesthesia, terminal, 314
terial pressure and the suprarenal glands in tuberculosis, 239
terio-venous anastomosis for gangrene, 219
tery, axillary, ligature of and gangrene, 132
ticular rheumatism. *See* Rheumatism
tificial ischaemia. *See* Ischaemia

ASCENZI, O.: Hereditary tetany, 198
Ascites, the umbilicus in subjects with, 200
Asphyxia, death by in radioscopic examination of oesophagus, 315
Asphyxiation, fetal, by coal gas. 297
Athyroidism and scleroderma, 174
Atoxyl in malaria, 96
Atoxylate of mercury in syphilis, 125
AUBERTIN: Death some days after chloroform, 260
AUSTERVEIL, LADISLAUS: Electrical treatment of gonorrhoeal epididymitis, 308
AUVRAY: Momburg's method of preventive haemostasis, 313
Axillary artery. *See* Artery
Axillary temperature in pneumonia, 117

B.

Babies, constipation in, 322
Bacillary dysentery, vaccination against, 12
Bacillus coli in colon and uric acid in urine, 72
Bacillus, typhoid, cultivations of from the blood, 324
Bacterial content of faeces, 171
BAEDEKER, JULIUS: Eulatin in pertussis, 11
BAER: The use of animal membrane in producing mobility in ankylosed joints, 4
BAER: Treatment of tuberculous sinuses by Beck's bismuth paste, 13
BAISCH, K.: Inheritance of syphilis, 226
Balneotherapy, 248
Barlow's disease and epidemic scurvy, 115
BARKER: Eye signs in chronic nephritis, 3
BARRET: Hour-glass stomach treated by mercurial injections, 236
BARRETT, CHANNING W.: Ectopic gestation, 137
Baths, cold, in septicaemia, 208
Baths, "gas-bubble," 41
BAUDEL, A.: Corrosive sublimate in articular rheumatism, 67
BAUMM, P.: Eclampsia, 192
Beck's bismuth paste, treatment of tuberculous sinuses by, 13
BÉNECH: Early diffuse syphilis of the nervous system, 327
BERTRAND, LE: Treatment of cancer by cancer, 209
BICHAT: Simultaneous tubal and gemellar uterine pregnancy, 163
BIER: Treatment of erysipelas by passive hyperaemia, 133
Bier's hyperaemia curing mogigraphia, 211
Biliary system, gall stones and diseases of, 295
BILLON: Jejunostomy in ulcer and cancer of the stomach, 35
BIRNBAUM, R.: Puerperal fever, 63
Bismuth paste, Beck's, treatment of tuberculous sinuses by, 13
Bladder of a child, cystine calculus in, 299
Bladder in tabetics, 240
BLOCH, B.: Case of sporotrichosis, 143
Blood, cultivations of typhoid bacillus from, 324
Blood pigment in the faeces of cirrhotics, 127
Blood, effect of repeated small doses of quinine in, 277
BOAS, I.: Flatulence and its treatment, 270
Bone-grafting, intrahuman, 119
BORCHARDT, M.: Gastrotomy for the removal of foreign bodies, 284
BORDIER: Ultra-violet radiation in the treatment of skin diseases, 54; *x* rays in fibroid tumours of uterus, 91; epilation by radiotherapy, 167
Bovine intestine, tuberculosis of, 56
BOXER: Origin and propagation of tubal cancer, 24
Boys, cystoscopic diagnosis in, 176
BRADFORD, E. H.: Congenital dislocation of hip, 74
Brain, concussion of, 229
Breast cancer. *See* Cancer
Breasts, inequality of in pulmonary tuberculosis, 21
BROCA, ANDRÉ: Massive *x*-ray dosage in skin diseases, 181
Bromide of camphor in chorea, 266
Bronchitis, chronic, treatment of, 180
BROUN, LEROY: Herniotomy in diabetic subject, 147
BRYAN: Ruptured spleen in typhoid fever, 49
Buccal mucosa in relation to tuberculosis, 268
BUCCIANTE, A.: Mogigraphia cured by Bier's hyperaemia, 211
Bullet loose in the spinal canal, 177
BURKHARDT, L.: Intravenous anaesthesia with ether and chloroform, 118

C.

Caesarean section, conservative, 274, 236; disadvantages of, 286
Caesarean section in dystocia after amputation of cervix, 22
Caesarean section, extraperitoneal, 122
Caesarean section, pregnancy after rupture of uterus, 220
Caesarean section, suture material for, 287
Calculus, cystine, in the bladder of a child, 299
Calculus, vesical, operations for, 242
Camphor, bromide of, in chorea, 266
Camphor and digitalis in croupous pneumonia, 307
Cancer, breast, operations, 298
Cancer of bucco-pharyngeal cavity, extirpation of cervical glands in, 328
Cancer treated by cancer, 209
Cancer of cervix, haematometra from after the menopause, 15
Cancer, deep seated, treated by radium, 334
Cancer of Fallopian tube, 318
Cancer of Fallopian tube, primary, 65
Cancer formation, relation of trauma to, 336
Cancer, inoperable, acetone treatment of, 26, 140
Cancer of prostate, 258

Cancer, serum treatment of, 183
Cancer of stomach, jejunostomy in, 35
Cancer of stomach and Salomon's test, 73
Cancer, thyroid, recurring as a sarcoma, 14
Cancer, tubal, origin and propagation of, 24
Cancer, uterine and pyometra, 9
Carbuncle, zinc ionization in treatment of, 182
Carcinoma. *See* Cancer
Carotid, ligature of the external, 103
CARTOLARI: Inequality of the breasts in pulmonary tuberculosis, 216
CASALI: Axillary temperature in pneumonia, 117
CASALIS, G. A.: Operative treatment of utero-vaginal prolapse, 288
Catarrh, true and false pharyngeal, 146
CATHERINA: Catheterization of Fallopian tube, 139
Catheterization of Fallopian tube, 139
Cephalic vaso-dilatation, 269
Cerebral apoplexy. *See* Apoplexy
Cerebral tumour. *See* Tumour
Cerebro-spinal meningitis, 18, 129
Cervical glands, extirpation of in cancer of bucco-pharyngeal cavity, 328
Cervico-vaginal fistula in abortion, 51
Cervix, cancer of. *See* Cancer
CHADZYNSKI: Venesection, 93
CHAPUT: Treatment of extensive osseous defects, 203
CHARLES, JACQUES: Treatment of lead poisoning by artificial abscess production, 55
Chauffeur's fracture, 202
CHAUSSÉ: Tuberculosis of the bovine intestine, 56
CHEINISSE: Alcoholic applications in typhoid fever, 290
CHÉRON: Treatment of deep-seated cancers by radium, 334
CHETWOOD: Suprapubic prostatectomies, 191
CHETWOOD, CHARLES H.: Results of operations for pancreatic obstruction, 300
Children, gastric ulcer in, 44; status lymphaticus in, 45; opiates for, 94; purpura in, 131; cyclical vomiting in, 144; intestinal perforation during typhoid fever in, 158; periodic vomiting in, 214; tuberculosis in, 227, 294; treatment of chorea in, 278. *See also* Infants
Chloroform, death some days after, 260
Chloroform, intravenous anaesthesia with, 118
Chlorosis, 263
CHLUMSKY, V.: Moro's tuberculin test, 326
Chondroma of mammary gland, 36
Chorea, bromide of camphor in, 266
Chorea in children, treatment of, 278
Chorion-epithelioma of Fallopian tube, primary, 223
Chorion-epithelioma, tubal, after repeated tubal pregnancy, 52
CHROM, I. P.: Uric acid, 156
CIGNOZZI: Thiersch grafts, 48
Cirrhotics, blood pigment in the faeces of, 127
CLAUDE: Radio-active earths in the treatment of rheumatic conditions, 152
Coal gas, fetal asphyxiation by, 297
Cold baths. *See* Baths
Colitis, muco-membranous, and foreign bodies in intestines, 188
Collargol in septic conditions, 155
Colloidal metals, therapeutic value of, 154
Colon, *B. coli* in, and uric acid in urine, 72
Colon, normal peristalsis of, 85
COMBY: Use of morphine for infants, 112; cyclical vomiting in children, 144; periodic vomiting in children, 214
Constipation in babies, 322
Constipation, chronic, treatment of, 225; paraffin treatment of, 142
Constipation, spastic, 32, 333
Convulsions following orthopaedic operations, treatment of, 189
COOLIDGE: Constipation in babies, 322
COPELLI, M.: A phagocytic index, 97
Corrosive sublimate in articular rheumatism, 67
COUVELAIRE: Disadvantages of conservative Caesarean section, 286
Cranial operations, artificial ischaemia in, 34
CROSA: Blood pigment in the faeces of cirrhotics, 127
Curschmann, "iced liver" of, 293
CUSHNY, A. R.: Antimony in trypanosomiasis, 237
Cyclical vomiting. *See* Vomiting
Cyst, dermoid, of kidney, 75
Cyst, ovarian, embolism and paralytic symptoms after enucleation of 25
Cystine calculus in the bladder of a child, 299
Cystoscopic diagnosis in boys, 176
Cysts, ovarian, and hydatidiform mole, 10
CZERNY, AD.: Exudative diathesis, 228

D.

DA COSTA: Practical value of spinal percussion, 256
DAUWE: Indications of operation for gastric ulcer, 86
DAVIDSOHN: Chondroma of mammary gland, 36
Death by asphyxia in radioscopic examination of oesophagus, 315
Death some days after chloroform, 260
DE COURMELLES, FOVEAU: Surgical opening of the skin to facilitate irradiation, 234
DEFINE, G.: Von Pirquet's reaction in lupus, 218
DELESTRE: Phlegmasia dolens and the temperature of the limb, 207
DELHERM: Myelogenic leukaemia ameliorated by *x* rays, 110; muscular stimulation by electricity, 291
Delirium tremens, veronal in, 28, 109
Delivery, premature, 204
DEMANCHE: Syphilitic phlebitis, 46
Dermoid cyst of kidney, 75
Dermoid ovarian disease in age, bilateral, 79
DE SANDRO: Effect of repeated small doses of quinine on the blood, 277
DESNOS: Ectopia of the kidney, 243
DESTERNES: Death by asphyxia in radioscopic examination of oesophagus, 315
Diabetes, hormon in, 210
Diabetes and pregnancy, 261
Diabetic subjects, herniotomy in, 147
Diarrhoea, compensatory, 187
Diaspirin, 95
Diathesis, exudative, 228
DIATRI: Traumatic separation of the fronto-parietal suture, 149
Diet in nephritis, 235
Dietetic cures, 224
Digestive tract, neurosis of, 98
Digitalis and camphor in croupous pneumonia, 307
DOMINICI: Treated of deep-seated cancers by radium, 334
DONATH, JULIUS: Alcohol injections in trigeminal neuralgia, 320
DONZELLO, G.: Lymphangio-sclerosis due to adrenalin, 252
DOPTER: Vaccination against bacillary dysentery, 12; antimeningococcus serum, 276
DORAN: Primary cancer of Fallopian tube, 65, 318
DREYER: Serum diagnosis of syphilis in prostitutes, 148
DUBAR: Sessile adenoma of rectum, 101
DUFOUR, ROGER: Bilateral traumatic pleurisy, haematoma of pleura, 199
Dysentery, bacillary, vaccination against, 12
Dystocia, Caesarean section in, after amputation of cervix, 22

E.

Earths, radio-active, in the treatment of rheumatic conditions, 152
Ecchinococcus in pelvis and omentum, vaginal operation for, 275
ECKARD, B.: Treatment of sleeping sickness, 166
Eclampsia, treatment of, 38, 192
Ectopia of the kidney, 243
Ectopic gestation. *See* Gestation
Eczema, treatment of, 124
EHRMANN: Neutralon in gastric ulcer, 92
EICHHORST, HERMANN: Gastric crises, 128
EKEHORN: Intestinal obstruction caus by gravid uterus, 232
Electric anaesthesia, 273
Electrical treatment of gonorrhoe epididymitis, 308
Electricity, muscular stimulation by, 2
Embolism and paralytic symptoms aft enucleation of ovarian cyst, 25
Emphysema, pulmonary, Freund's ope tion in, 20
ENGEL: Tuberculosis in childhood, 227
ENGLÄNDER, MARTIN: Clinical differe tiation of peritoneal transudates, 43
Enesol in treatment of syphilis, 335
Enteric fever. *See* Fever
Epididymitis, gonorrhoeal, electric treatment of, 308
Epilation by radiotherapy, 167
ERDHEIM: The pituitary body duri pregnancy, 64
Ergot, action of, 168
Erysipelas in old age, 114
Erysipelas treated by passive hyperaem 133
ESCLUSE: Rhythmic faradization uterine prolapse, 108
Ether, intravenous anaesthesia with, 1
Eulatin in pertussis, 11
Exudative diathesis, 228
Eye signs in chronic nephritis, 3
Eyelid, radium in tumour of, 250

F.

FABRICCI: Tubercle bacilli in faeces, 12
Faeces, tubercle bacilli in, 126; bacteri content in, 171
Faeces of cirrhotics, blood pigment i 127
FALK: Rupture of sac in interstitial tubo-uterine pregnancy, 8
FALK, E.: Amenyl, 195
Fallopian tube, primary cancer of, 6 catheterization of, 139; primary chorio epithelioma of, 223
Faradization, rhythmic, in uterine p lapse, 108
FEIN, JOHANN: True and false phary geal catarrh, 146
FERRANNINI: Immunizing power quinine, 289; action of quinine on t kidneys, 321
Fetal asphyxiation by coal gas, 297
Fever, cerebro-spinal, 18, 129
Fever, enteric, alcoholic applications i 290
Fever, enteric, intestinal perforation children during, 158
Fever, enteric, ruptured spleen in, 49
Fever, puerperal, 63
Fever, puerperal, immunization agains 7
Fever, puerperal, treatment of, 245
Fever, relapsing, arsacetin in, 69
Fever, typhus, Mexican, 267
Fevers, polymorphic septicaemic, 281
Fibroid tumours of uterus, *x* rays in, 91
Fibroma and myoma of vagina, 107
Fibromyoma of female urethra, calcifie 222
Fibromyoma of round ligament, 247
FIESSINGER, NOEL: Gonorrhoeal ker tosis, 21
FINDLEY: Appendicitis complicati pregnancy, 302
FISCHER, ALADAR: Breast cancer oper tions, 298
Fistula, cervico-vaginal, in abortion, 51
Flatulence and its treatment, 270
Folliculitis barbae, suppurating, cure by *x* rays, 292
Foreign bodies, gastrotomy for remov of, 284
Foreign bodies in intestine and muc membranous colitis, 188
Foreign body in thigh, 201
FOY, G.: Opsonic index in acute leu aemia, 323
Fracture, chauffeur's, 202
Fracture of first digital phalanx, torsio 161
FRAENKEL, C.: Enesol treatment syphilis, 335
FRANKE: Retrouterine fixation of roun ligaments, 78
FRANKE, FELIX: Chronic influenza, 83
FRATTIN: Congenital curvature an pseudarthrosis of tibia, 120
FREUND: Amenyl, 195

Freund's operation in pulmonary emphysema, 20
FRIEDENWALD: Bacterial content of faeces, 171
FROELICH: Congenital metatarsus varus, 5
Fronto-parietal suture, traumatic separation of, 149
FRUGONI: Local temperatures in phthisis, 296
FRÜHWALD: "Indian ink" method of demonstrating *Spirochaeta pallida*, 170
FULLER, EUGENE: Treatment of urethral stricture, 259

G.

GAEHLINGER: Cerebro-spinal meningitis, 18
GALLENGA: Chronic appendicitis, 30
Gall stones and diseases of the biliary system, 295
Gangrene, arterio-venous, anastomosis for, 219
Gangrene, and ligature of axillary artery, 132
"Gas-bubble" baths, 41
Gaseous abscess (or cyst?) of ovary, 123
GASPERINI: Inequality of the breasts in pulmonary tuberculosis, 216
Gastric capacity of infants, 282
Gastric crises, 128
Gastric pain, 311
Gastric ulcer. *See* Ulcer
Gastrotomy for the removal of foreign bodies, 284
GAUCHER: Essential pruritus, 17
GAZZOTTI, L.: "Iced liver" of Curschmann, 293
GELLHORN: Acetone in inoperable cancer, 140
Gestation, ectopic, 137
Gestation, twin normal and tubal, 23. *See also* Pregnancy
GHETTI: Cerebral haemorrhage in a child, 2; bromide of camphor in chorea, 266
GILDEMEISTER: Cultivations of the typhoid bacillus from blood, 324
GILIBERTI: The buccal mucosa in relation to tuberculosis, 268
GIORGI: Epidemic scurvy and Barlow's disease, 115
GITTINGS: Intestinal perforation during typhoid fever in children, 158
Gland, mammary, chondroma of, 36
Glands, suprarenal, and arterial pressure in tuberculosis, 239
GOELET, AUGUSTIN H.: The significance of leucorrhoea, 332
GOLDBERGER: Mexican typhus fever, 267
GOLDSMITH: Dermoid cyst of kidney, 75
Gonorrhoeal epididymitis, electrical treatment of, 308
Gonorrhoeal keratosis, 21
GOTSCHLICH, F.: Vibrios of the human intestine, 113
GOUGET: Syphilitic nephritis, 172
Grafts, Thiersch, 48
GRASMANN: Surgical treatment of gunshot wounds of the lung, 47
Graves's disease, *x*-ray treatment of, 319
GRIMALDI, U.: Freund's operation in pulmonary emphysema, 20
GROBER, J.: Epidemic infantile paralysis, 185
GROSSE, FRIEDRICH: Dietetic cures, 224
Gunshot wounds of lung, surgical treatment of, 47
Gynaecological region, pain in, 138

H.

Haematocele, pelvic, and haemorrhages independent of ectopic pregnancy, 193
Haematometra from carcinoma of cervix after the menopause, 151
Haematoma of pleura in bilateral traumatic pleurisy, 199
Haemolysin, specific, resistance to a, 70
Haemorrhage, cerebral, in a child, 2
Haemorrhage after tonsillotomy, 244
Haemorrhage, uterine, 179
Haemorrhages and pelvic haematocele, independent of ectopic pregnancy, 193
Haemorrhoids, urethral, or varices, 194
Haemostasis, Momburg's method of preventive, 313
HAINON, A.: Immunization against puerperal fever, 7
HANES: Eye signs in chronic nephritis, 3
HANNES, W.: Treatment of placenta praevia, 316
HARTMANN: High amputation of the rectum, 162
Headache, syphilitic, 100
Heart in infectious disease, 16
Heart, surgery of, 19
HECHT, F.: Examination of the stools in infancy, 310
HENGGE: Infection of placenta by bougie in induced labour, 262
HERGOTT: Suture material for Caesarean section, 287
Hernia, ventral, incarceration of gravid uterus in Caesarean section, 301
Herniotomy in diabetic subjects, 147
Hip, congenital dislocation of, 74
HIRSCH, MAX: Placenta praevia, 89
HITSCHLER: Conservation of middle turbinate, 102
HOCHHAUS, H.: Puncture of pleura, 66
HODENPYL, EUGENE: Serum treatment of cancer, 183
HOFFMANN: Tubal pregnancy, 77
HOFFMANN, ERICH: Etiology of syphilis, 82
HOLZKNECHT, G.: Normal peristalsis of the colon, 85
Hormon in diabetes, 210
Horses, vaccination of, with tubercle bacilli, 15
Horse-shoe kidney. *See* Kidney
HORST: Hydatidiform mole and ovarian cysts, 10
Hour-glass stomach. *See* Stomach
HOWLAND: Status lymphaticus in children, 45
Human subject, surgical transplantation in, 271
Hydatidiform mole and ovarian cysts, 10
Hyperaemia, passive, in treatment of erysipelas, 133
Hysterectomy, twenty-four cases of, 303
Hysteria, mechanism of, 255

I.

I.K. treatment of tuberculosis, 141
"Iced liver" of Curschmann, 293
Ileus verminosus, 134
Immunity against tubercle, 71
Immunization against puerperal fever, 7
IMPERATORI, CHARLES J.: Haemorrhage after tonsillotomy, 244
"Indian ink," method of demonstrating *Spirochaeta pallida*, 170
Indigestion, intestinal protein, 241
Infancy, severe primary anaemia in, 33
Infancy, examination of the stools in, 310
Infantile paralysis. *See* Paralysis
Infants, use of morphine for, 112; gastric capacity of, 283. *See also* Children
Infected wounds. *See* Wounds
Infectious disease, the heart in, 16
Inflammation, metastatic, of ovaries and tubes, 233
Influenza, chronic, 83
Insane, new reaction in the blood of the, 169
Interstitial pregnancy. *See* Pregnancy
Intestinal obstruction. *See* Obstruction
Intestinal perforation during typhoid fever in children, 158
Intestinal protein indigestion, 241
Intestine, foreign bodies in, and mucomembranous colitis, 188
Intestine, human, vibrios of, 113
Intrahuman bone-grafting, 119
Intravenous anaesthesia with ether and chloroform, 118
Intravenous injection of nuclein in tuberculosis, 249
Ionization, destructive effects of, 265
Ionization, salicylic, for the relief of pain, 40
Ischaemia, artificial, in cranial operations, 34
Ischaemic paralysis, Volckmann's, 330
Itching of skin, nervous, *x*-ray treatment of, 81. *See also* Pruritus
IVERSEN, J.: Arsacetin in relapsing fever, 69

J.

Jaundice, chronic acholuric with splenomegaly, 58
Jaundice, syphilitic, 186
Jejunostomy in ulcer and cancer of the stomach, 35
JEMMA: Infantile tetany, 157
JIANO, JEAN: Volvulus of the stomach, 6
JOHNSON, FREDERICK W.: Interstitial pregnancy, 104
Joints, ankylosed, use of animal membrane in producing mobility in, 4
JOHNSON, MARCUS M.: Electric anaesthesia, 273
JOLY: Balneotherapy, 248
JOPSON: Intestinal perforation during typhoid fever in children, 158

K.

KAHN, J.: Enesol treatment of syphilis, 335
KAMINER, S.: Diaspirin, 95
KAUFMANN, MARTIN: Gastric ulcer in childhood, 44
KEHRER: Fibroma and myoma of vagina, 107
Keratosis, gonorrhoeal, 21
Kidney, dermoid cyst of, 75
Kidney, ectopia of, 243
Kidney, "horse-shoe," operative treatment of, 257
Kidneys, action of quinine on, 321
KIRCHNER: Ovarian pregnancy, 106
KIRMISSON: Volckmann's ischaemic paralysis, 330
KLIENEBERGER, CARL: Diagnosis of diseases of the pancreas, 215
KRAEPELIN: New reaction in the blood of the insane, 169
KÜMMELL, H.: Anuria, 1
KUPFERBERG: Treatment of contracted pelvis, 231
KÜSTNER, OTTO: Extraperitoneal Caesarean section, 122

L.

LABHARDT: Calcified fibromyoma of female urethra, 222
Labour, induced, infection of placenta by bougie in, 262
Labour, internal rotation in, 164
Labour, premature, induction of, 50
LANGE: Antiform and ligroin in the detection of tubercle bacilli, 29; *x*-ray examination of the mastoid region, 285
LAQUERRIÈRE: Muscular stimulation by electricity, 291
Laryngeal tuberculosis. *See* Tuberculosis
Laundries, tuberculous infection in, 279
LAWRENCE: Conservative Caesarean section, 274
Lead poisoning treated by artificial abscess production, 55
LECONTE, JOS. N.: Spastic constipation, 32
LEDUC, STÉPHANE: Salicylic ionization for the relief of pain, 40; zinc ionization in treatment of carbuncle, 182; destructive effects of ionization, 265
LEIDI: Local temperature in phthisis, 296
LEITZ: Bacterial content of faeces, 171
LEMOINE: Diet in nephritis, 235
LENGLET: *X* rays in Paget's disease, 27
LEO: Twin normal and tubal gestation, 23

Leroy: Sessile adenoma of rectum, 101
Leucorrhoea, significance of, 332
Leukaemia, acute, opsonic index in, 323
Leukaemia, myelogenic, ameliorated by *x* rays, 110
Leven: Hour-glass stomach treated by mercurial injections, 236; gastric pain, 311
Levi: The sweats of phthisis, 253
Levy, E.: Immunization against puerperal fever, 7
Ligaments, round, retrouterine fixation of, 78
Ligature of the external carotid, 103
Ligroin and antiform in the detection of tubercle bacilli, 29
Lilienthal: Two stage principle in operative surgery, 175
Linossier: Diet in nephritis, 235
Lipowski: Paraffin treatment of chronic constipation, 142
Litten's sign, 130
Little, H. M.: Treatment of eclampsia, 38
Liver, "iced," of Curschmann, 293
Livierato: Transmission of vocal vibrations in pleural effusion, 159; extracts of lymphatic tissue and experimental tuberculosis, 213
Livingstone, Alfred T.: Action of ergot, 168
Looten: Ligature of axillary artery and gangrene, 132
Loumeau, E.: Cystine calculus in the bladder of a child, 299
Lövqvist: Tubal chorion-epithelioma after repeated tubal pregnancy, 52
Löwenthal: Action of radium emanation on man, 196
Lung resection, 272
Lung, surgical treatment of gunshot wounds of, 47
Lung, syphilis of, 84
Lupus, syphilis and sarcoma, 160
Lupus, Von Pirquet's reaction in, 218
Lust: Opiates for children, 94
Lying-in women, thrombophilia in, 178
Lymphangio-sclerosis due to adrenalin, 252
Lymphatic tissue, extracts of, and experimental tuberculosis, 213

M.

Macewen: Intrahuman bone-grafting, 119
Mackenzie: Cerebral tumour with an unusual clinical course, 173
Maffi, F.: Litten's sign, 130
Mahu: Removal of adenoids, 135
Malaria, atoxyl in, 96
Malaria, so-called cure of, 306
Mammary gland, chondroma of, 36
Mantelli: Fibromyoma of round ligament, 247
Maragliano, D.: Proteolytic antiferments in treatment of acute suppuration, 68; immunity against tubercle, 71; etiology of nephritis, 99
Marchal: Simultaneous tubal and gemellar uterine pregnancy, 163
Marchetti: Torsion fracture of the first digital phalanx, 161
Martinow: Operative treatment of "horse-shoe" kidney, 257
Mastoid region, *x*-ray examination of, 285
Mathieu: Cancer of stomach and Salomon's test, 73
Meat poisoning, 212
Meirowsky: Serum diagnosis of syphilis in prostitutes, 148
Mendel, F.: Thrombophilia in lying-in women, 178
Meningism, 280
Meningitis, cerebro-spinal, 18, 129
Menopause, haematometra from carcinoma of cervix after, 151
Menstruation, age of the beginning of in the Far East, 39
Menstruation during pregnancy, 136
Mercurial injections in treatment of hour-glass stomach, 236
Mercury, atoxylate of, in syphilis, 125
Méret, H.: Suppurating folliculitis barbae cured by *x* rays, 292
Metastatic inflammation of ovaries and tubes, 233
Metatarsus varus, congenital, 5
Mexican typhus fever, 267
Meyer, Fritz: The heart in infectious disease, 16
Micheli, F.: Chronic acholuric jaundice with splenomegaly, 58
Middle turbinate, conservation of, 102
Miliary aneurysms. *See* Aneurysm
Miliary tuberculosis. *See* Tuberculosis
Mircoli: The so-called cure of malaria, 306
Mitulescu, J.: Specific substances in tuberculosis, 53
Mogigraphia cured by Bier's hyperaemia, 211
Mole, hydatidiform, and ovarian cysts, 10
Möller, Friis: Veronal in delirium tremens, 28, 109
Momburg's method of preventive haemostasis, 313
Monrignand: Oxygen inhalation in whooping-cough, 251
Morestin: Ligature of the external carotid, 103; urethral haemorrhoids or varices, 194; extirpation of cervical glands in cancer of bucco-pharyngeal cavity, 328
Morin: Vascular naevi removed by *x* rays, 42
Moro's tuberculin test, 326
Morphine, use of, for infants, 112
Morris, Robert T.: Protective appendicitis, 61
Mosenthal: Gastric capacity of infants, 282
Most, A.: Treatment of infected wounds, 87
Muggia: Purpura in children, 131
Muller: Arteriovenous anastomosis for gangrene, 219
Muscular contusion, unusual issue of, 60
Muscular stimulation by electricity, 291
Myelogenic leukaemia ameliorated by *x* rays, 110
Mygind: Ileus verminosus, 134
Myoma and fibroma of vagina, 107
Myoma and myosarcoma of stomach, 88

N.

Naevi, vascular, removed by *x* rays, 42
Nassetti, F.: Thyroid carcinoma recurring as a sarcoma, 14
Neff, Mary L.: Mechanism of hysteria, 255
Neisser, A.: Syphilis, lupus, and sarcoma, 160
Nephritis, acute, histopathology of, 238
Nephritis, diet in, 235
Nephritis, etiology of, 99
Nephritis, eye signs in chronic, 3
Nephritis, syphilitic, 172
Nervous itching of skin. *See* Skin
Nervous system, early diffuse syphilis of, 327
Netter: Cerebro-spinal meningitis, 129
Neumann, H.: Pregnancy and diabetes, 261
Neuralgia, trigeminal, alcoholic injections in, 320
Neuro-retinitis in pregnancy, 206
Neurosis of the digestive tract, 98
Neutralon in gastric ulcer, 92
Niles, George M.: Compensatory diarrhoea, 187
Ninni, G.: Foreign body in thigh, 201
Nitsche: Antiform and ligroin in the detection of tubercle bacilli, 29
Nobécourt: Laryngeal tuberculosis in an infant, 254
Noorden, Carl von: Chlorosis, 263
Nothmann, H.: Frequency of tuberculosis in childhood, 294
Nuclein, intravenous injection of in tuberculosis, 249

O.

Obstetric practice, some principles of, 121
Obstruction, intestinal, conservative treatment of, 62; caused by gravid uterus, 232
Obstruction, pancreatic, results of operations for, 300
Oesophagus, death by asphyxia in radioscopic examination of, 315
Okinczyc: Metastatic inflammation of ovaries and tubes, 233
Omentum and pelvis, vaginal operation for ecchinococcus in, 275
Operative surgery. *See* Surgery
Opiates for children, 94
Opitz, E.: Pain in the gynaecological region, 138
Opsonic index in acute leukaemia, 323
Orthopaedic operations, treatment of convulsions following, 189
Osseous defects, treatment of extensive, 203
Ott, F.: Pyocyanase, 197
Ovarian cyst. *See* Cyst
Ovarian disease in age, bilateral dermoid, 79
Ovarian pregnancy. *See* Pregnancy
Ovaries and tubes, metastatic inflammation of, 233
Ovary, gaseous abscess (or cyst?) of, 123
Ovary, effects of grafting on the, 165
Ovary, a third, cystic disease, 304
Oxygen inhalation in whooping-cough, 251

P.

Paget's disease, *x* rays in, 27
Pain in the gynaecological region, 138
Pain, salicylic ionization for the relief of, 40
Pancreas, diagnosis of diseases of, 215
Pancreatic obstruction, results of operations for, 300
Pankow: Uterine haemorrhage, 179
Pansier: Vision of general paralytics, 312
Paraffin treatment of chronic constipation, 142
Paralysis, infantile, epidemic, 145, 185
Paralysis, Volckmann's ischaemic, 330
Paralytics, general, vision of, 312
Paramore, R. H.: Internal rotation in labour, 164
Paraplegia, spastic, in uraemia, 31
Parsons, J. Inglis: Quinine injections for prolapsus uteri, 246
Parvu: Opsonic index in acute leukaemia, 323
Pauchet: Cold baths in septicaemia, 208
Pawlow: Cervico-vaginal fistula in abortion, 51
Pedrazzini: Scleroderma and athyroidism, 174
Pelnár: Perityphlitis and pneumonia, 57
Pelton, Henry Hubbard: Syphilis of the lung, 84
Pelvic haematocele. *See* Haematocele
Pelvis, contracted, treatment of, 76, 231
Pelvis and omentum, vaginal operation for echinococcus in, 275
Percussion, spinal, practical value of, 256
Perineum, rupture of, 90
Peristalsis of the colon, normal, 85
Peritoneal transudates, clinical differentiation of, 43
Perityphlitis and pneumonia, 57
Perrin, Maurice: The umbilicus in subjects with ascites, 200
Pertussis, eulatin in, 11
Perugini, G.: Freund's operation in pulmonary emphysema, 20
Peruzzi, M.: Histopathology of acute nephritis, 238
Pesci: Therapeutic value of colloidal metals, 154
Petri: Bilateral dermoid ovarian disease in age, 79
Phagocytic index, 97
Pharyngeal catarrh. *See* Catarrh
Phelps: Relation of trauma to cancer formation, 336
Phlegmasia dolens and the temperature of the limb, 207
Phlebitis, syphilitic, 46
Pic: Permanent spastic paraplegia in uraemia, 31
Pick, Alois: Neurosis of the digestive tract, 98

PICK, L.: Miliary aneurysms in cerebral apoplexy, 309
PICKENBACH: Syphilitic headache, 100
Piles. *See* Haemorrhoids.
Pituitary body during pregnancy, 64
Placenta, infection of by bougie in induced labour, 262
Placenta praevia, 89, 205, 316; treatment of 205, 316
Pleura, puncture of, 66
Pleural effusion, transmission of vocal vibrations in, 159
Pleurisy, bilateral traumatic, haematoma of pleura, 199
Pneumonia, axillary temperature in, 117
Pneumonia, croupous, digitalis and camphor in, 307
Pneumonia and perityphlitis, 57
Poisoning, lead, treated by artificial abscess production, 55
Poisoning, meat, 212
Polymorphic septicaemic fevers, 281
PORTER, LANGLEY: Meningism, 280
PORTNER, ERNEST: Cystoscopic diagnosis in boys, 176
Pregnancy complicated by appendicitis, 302
Pregnancy after Caesarean section, rupture of uterus, 220
Pregnancy, artificial interruption of and pulmonary tubercle, 150
Pregnancy and diabetes, 261
Pregnancy, ectopic, pelvic haematocele and haemorrhages independent of, 193
Pregnancy, interstitial, 104, 221
Pregnancy, interstitial ectopic, complicated by tubo-ovarian abscess, 317
Pregnancy, interstitial or tubo-uterine, rupture of sac in, 8
Pregnancy, menstruation during, 136
Pregnancy, neuro-retinitis in, 206
Pregnancy, ovarian, 106
Pregnancy, pituitary body during, 64
Pregnancy, rupture of sac in interstitial or tubo-uterine, 8
Pregnancy, simultaneous tubal and gemellar uterine, 163
Pregnancy, toxaemia of, the thyroid and 331
Pregnancy, tubal, 77
Pregnancy, tubal, tubal chorion-epithelioma after repeated, 52
Pregnancy, vomiting of treated by adrenalin, 105
Premature delivery, 204
PRICE: Adiposis dolorosa, 116
Prolapsus uteri. *See* Uterus
Prolapse, utero-vaginal. *See* Utero-vaginal
Prostate, cancer of. *See* Cancer
Prostatectomies, suprapubic, 191
Prostatic enlargement treated by dilatation, 329
Prostitutes, serum diagnosis of syphilis in, 148
Protein indigestion. *See* Indigestion
Proteolytic antiferments in the treatment of acute suppuration, 68
Pruritus, essential, 17. *See also* Itch
Puerperal fever, 63
Puerperal fever, immunization against, 7
Puerperium, miliary tuberculosis during, 37
Purpura in children, 131
Pylorus, unilateral exclusion of, 283
Pyocyanase, 197
Pyometra and uterine cancer, 9

Q.

Quinine, effect of repeated small doses of on the blood, 277
Quinine, immunizing power of, 289
Quinine, action of on the kidneys, 321
Quinine injections for prolapsus uteri, 246
QUISLING: Digitalis and camphor in croupous pneumonia, 307

R.

Radiation, ultra-violet, in treatment of skin diseases, 54
Radio-active earths in the treatment of rheumatic conditions, 152
Radioscopic examination of oesophagus, death by asphyxia in, 315
Radiotherapy, epilation by, 167
Radio emanation, action of, in man, 196
Radium in giant-cell sarcoma, 111; in tumour of the eyelid, 250; in treatment of deep-seated cancers, 334
RANSOHOFF: Terminal arterial anaesthesia, 314
REBAUDI: Vomiting of pregnancy treated by adrenalin, 105
Rectum, high amputation of, 162
Rectum, sessile adenoma of, 101
REDLICH: Embolism and paralytic symptoms after enucleation of ovarian cyst, 25
REPELLIN: Cerebro-spinal meningitis, 18
Retrouterine fixation of round ligaments, 78
Rheumatic conditions, radio-active earths in treatment of, 152
Rheumatism, articular, corrosive sublimate in, 67
RHODE, O.: Paraffin treatment of chronic constipation, 142
Rhythmic faradization in uterine prolapse, 108
RICARD: Gaseous abscess (or cyst?) of ovary, 123
RICHTER: Pregnancy after Caesarean section, rupture of uterus, 220
RIDDER: Meat poisoning, 212
RINALDO: The bladder in tabetics, 240
ROBINSON: Lung resection, 272
ROBINSON, BEVERLEY: Treatment of chronic bronchitis, 180
ROCHE: Muco-membranous colitis and foreign bodies in intestine, 188
RODE: Pulmonary tubercle and artificial interruption of pregnancy, 150
RODIET: Vision of general paralytics, 312
ROEPKE, O.: Tuberculous infection in laundries, 279
ROLANDO: Unusual issue of muscular contusion, 60
RÖMER, PAUL H.: Epidemic infantile paralysis, 145
ROSE: Miliary tuberculosis during the puerperium, 37
ROTH, HENRY: Gall stones and diseases of the biliary system, 295
ROUBIER: Permanent spastic paraplegia in uraemia, 31
ROUS, PEYTON: Resistance to a specific haemolysin, 70
RUDAUX, P.: Induction of premature labour, 50; premature delivery, 204
RUDOLF: Cerebral tumour with an unusual clinical course, 173
RUMMO: Polymorphic septicaemic fevers, 281
Rupture of the perineum, 90
Rupture. *See also* Hernia

S.

SAATHOFF: Tuberculin, 80
Sabromin, 153
Sac, rupture of, in interstitial or tubo-uterine pregnancy, 8
Salicylic ionization for the relief of pain, 40
SALIMBENI: Anticholera serum, 305
SALINGER: Cancer of prostate, 258
SALOMONI: Surgery of the heart, 19
Salomon's test and cancer of stomach, 73
Sarcoma, giant cell, radium in, 111
Sarcoma, syphilis, and lupus, 160
Sarcoma, thyroid carcinoma recurring as a, 14
SARDOU: Cephalic vaso-dilatation, 269
SAUERBRUCH: Artificial ischaemia in cranial operations, 34; lung resection, 272
SAUVÉ: Effects of grafting on the ovary, 165
SCHANZ: Treatment of convulsions following orthopaedic operations, 189
SCHEPELMANN, E.: Sabromin, 153
SCHLESINGER, HERMANN: Erysipelas in old age, 114
SCHMIDT, H. E.: *X*-ray treatment of nervous itching of the skin, 81
SCHOLTZ, W.: Treatment of eczema, 124
SCHWARZ: *X*-ray treatment of Graves's disease, 319
Scleroderma and athyroidism, 174
Scurvy, epidemic, and Barlow's disease, 115
SELLHEIM, H.: Rupture of the perineum, 90
SENATOR, H.: "Gas-bubble" baths, 41
Septicaemia, cold baths in, 208
Septic conditions, collargol in, 155
Serum, anticholera, 305
Serum, antimeningococcus, 276
Serum, antitetanic, 190
Serum diagnosis of syphilis in prostitutes, 148
Serum treatment of cancer, 183
SÉZARY, ALBERT: Arterial pressure and the suprarenal glands in tuberculosis, 239
Sigmoid flexure, spasm of, 325
SIMON, O.: I.K. treatment of tuberculosis, 141
Sinuses, tuberculous, treatment of, by Beck's bismuth paste, 13
SIPPEL: A third ovary: cystic disease, 304
SIREDEY: Gaseous abscess (or cyst?) of ovary, 123
SITER: Treatment of prostatic enlargement by dilatation, 329
Skin diseases, ultra-violet radiation in treatment of, 54
Skin diseases, massive *x*-ray dosage in, 181
Skin, nervous itching of, *x*-ray treatment of, 81
Skin, surgical opening of, to facilitate irradiation, 234
Sleeping sickness, treatment of, 166
SMITH, JOSEPH: Mechanism of hysteria, 255
SOUBEYRAN: Twenty-four cases of hysterectomy, 303
Spasm of sigmoid flexure, 325
Spastic constipation. *See* Constipation
Spastic paraplegia. *See* Paraplegia
Specific substances in tuberculosis, 53
SPIELMAN, L.: Early diffuse syphilis of the nervous system, 327
Spinal canal, bullet loose in, 177
Spinal percussion, practical value of, 256
Spirochaeta pallida, "Indian ink" method of demonstrating, 170
Spleen, ruptured, in typhoid fever, 49
Splenic anaemia. *See* Anaemia
Splenomegaly, chronic acholuric jaundice with, 58
Sporotrichosis, case of, 143
Status lymphaticus in children, 45
STEIN: Haematometra from carcinoma of cervix after the menopause, 151
STEINTHAL: Perforated gastric ulcer, 217
STOELTZNER, W.: Severe primary anaemia in infancy, 33
Stomach cancer. *See* Cancer
Stomach, hour-glass, mercurial injections in, 236
Stomach, myoma and myosarcoma of, 88
Stomach, volvulus of the, 6
Stomach, ulcer of. *See* Ulcer
Stools in infancy, examination of, 310
STRASSMANN: Vaginal operation for echinococcus in pelvis and omentum, 275
STUART: Some principles of obstetric practice, 121
STUDDIFORD: Caesarean section in dystocia after amputation of cervix, 22
STUMME: The pituitary body during pregnancy, 64
STURMDORF: Interstitial ectopic pregnancy complicated by tubo-ovarian abscess, 317
Suppuration, acute, proteolytic antiferments in treatment of, 68
Suprarenal glands. *See* Glands
Surgery of the heart, 19
Surgery operative, two stage principle in, 175
Surgical opening of the skin to facilitate irradiation, 234
Surgical transplantation in the human subject, 271
Surgical treatment of gunshot wounds of lung, 47
Suture, frontal-parietal, traumatic separation of, 149
Suture material for Caesarean section, 287

Sweats of phthisis, 253
Syphilis, atoxylate of mercury in, 125
Syphilis, enesol treatment of, 335
Syphilis, etiology of, 82
Syphilis, inheritance of, 226
Syphilis of the lung, 84
Syphilis, lupus, and sarcoma, 160
Syphilis of the nervous system, early diffuse, 327
Syphilis, serum diagnosis of, in prostitutes, 148
Syphilitic headache, 100
Syphilitic jaundice, 186
Syphilitic nephritis, 172
Syphilitic phlebitis, 46
SZENTGYÖRGY, FRANZ JORDAN VON: Spasm of sigmoid flexure, 325

T

Tabetics, the bladder in, 240
TARDO, G. V.: Lymphangio-sclerosis due to adrenalin, 252
TARTANSON: Pelvic haematocele and haemorrhages independent of ectopic pregnancy, 193
Temperature, axillary, in pneumonia, 117
Temperature, local, in phthisis, 296
TENOGLIETTO: Syphilitic jaundice, 186
Tetany, hereditary, 198
Tetany, infantile, 157
TEULIÈRE: Radio-active earths in treatment of rheumatic conditions, 152
THAYER, A. E.: Intestinal protein indigestion, 241
THESEN: Spastic constipation and its treatment, 333
Thiersch grafts, 48
Thigh, foreign body in, 201
THOMAS, WILLIAM S.: Chauffeur's fracture, 202
THOMPSON, J. D.: Antimony in trypanosomiasis, 237
THOMSON: Myoma and myosarcoma of the stomach, 88
Thrombophilia in lying-in women, 178
Thrombus formation, 184
Thymus gland, hypertrophy of, and its treatment, 230
Thyroid carcinoma recurring as a sarcoma, 14
Thyroid and the toxaemia of pregnancy, 331
Tibia, congenital curvature and pseudarthrosis of, 120
TISSIER: Fetal asphyxiation by coal gas, 297
TIXIER, LÉON: Laryngeal tuberculosis in an infant, 254
Tonsillotomy, haemorrhage after, 244
TOVEY, D. W.: Acetone treatment of inoperable carcinoma, 26
Transudates, peritoneal, clinical differentiation of, 43
Trauma, relation of to cancer formation, 336
TRAUTNER, HOLGER: Uric acid in urine and *B. coli* in colon, 72
TRENDELENBURG, F.: Concussion of the brain, 229
Trigeminal neuralgia. *See* Neuralgia
TRINCAS: Atoxyl in malaria, 96
Trypanosomiasis, antimony in, 237
Tubal cancer. *See* Cancer
Tubal gestation. *See* Gestation
Tubal pregnancy. *See* Pregnancy
Tubercle bacilli, antiform and ligroin in the detection of, 29
Tubercle bacilli in faeces, 126
Tubercle bacilli, vaccination of horses with, 15
Tubercle, immunity against, 71
Tuberculin, 80
Tuberculin test, Moro's, 326
Tuberculosis, arterial pressure and the suprarenal glands in, 239
Tuberculosis of the bovine intestine, 56
Tuberculosis, buccal mucosa in relation to, 268
Tuberculosis in childhood, 227, 294, 338; frequency of, 294
Tuberculosis, experimental, and extracts of lymphatic tissue, 213
rculosis, I.K. treatment of, 141
Tuberculosis, intravenous injection of nuclein in, 249
Tuberculosis, laryngeal, in an infant, 253
Tuberculosis, local temperature in, 296
Tuberculosis, miliary, during the puerperium, 37
Tuberculosis, pulmonary, and artificial interruption of pregnancy, 150
Tuberculosis, pulmonary, inequality of the breasts in, 216
Tuberculosis, specific substances in, 53
Tuberculosis, sweats of, 253
Tuberculous infection in laundries, 279
Tuberculous sinuses, treatment of, by Beck's bismuth paste, 13
TUFFIER: Bullet loose in the spinal canal, 177; surgical transplantation in the human subject, 271
Tumour, cerebral, with an unusual clinical course, 173
Tumour of the eyelid, radium in, 250
Tumours, fibroid, of uterus, *x* rays in, 91
Turbinate, middle, conservation of, 102
TURCK, RAYMOND C.: Intestinal protein indigestion, 241
Typhoid bacillus. *See* Bacillus
Typhoid fever. *See* Fever, enteric
Typhus fever. *See* Fever

U.

UHLENHUTH: Atoxylate of mercury in syphilis, 125
Ulcer, gastric, in childhood, 44
Ulcer, gastric, indications of operation for, 86
Ulcer, gastric, neutralon in, 92
Ulcer, gastric, perforated, 217
Ulcer, gastric, treatment of, 264
Ulcer of stomach, jejunostomy in, 35
Ultra-violet radiation in the treatment of skin diseases, 54
Umbilicus in subjects with ascites, 200
Uraemia, permanent spastic paraplegia in, 31
Urethra, female, calcified fibromyoma of, 222
Urethral haemorrhoids. *See* Haemorrhoids
Urethral stricture, treatment of, 259
Uric acid, 156
Uric acid in urine and *B. coli* in colon, 72
Urine, uric acid in, and *B. coli* in colon, 72
USCHKOW: Primary chorion-epithelioma of the Fallopian tube, 223
Uterine cancer. *See* Cancer
Uterine haemorrhage. *See* Haemorrhage
Uterine prolapse, rhythmic faradization in, 108
Utero-vaginal prolapse, operative treatment of, 288
Uterus, gravid, causing intestinal obstruction, 232
Uterus, gravid, incarceration of in ventral hernia, Caesarean section, 301
Uterus, prolapse of, quinine injections for, 246; conservative operations for, 343
Uterus, *x* rays in fibroid tumours of, 91

V.

Vaccination against bacillary dysentery, 12
Vaccination of horses with tubercle bacilli, 15
Vagina, fibroma and myoma of, 107
Vaginal operation for echinococcus in pelvis and omentum, 275
VALLÉE: Vaccination of horses with tubercle bacilli, 15
VALLOIS: Neuro-retinitis in pregnancy, 206
VAN HAVRE: Antitetanic serum, 190
Varices or urethral haemorrhoids, 194
Vascular naevi removed by *x* rays, 42
Vaso-dilatation, cephalic, 269
VAUVERTS: Ligature of axillary artery and gangrene, 132
VEAN: Hypertrophy of thymus gland and its treatment, 230
VEIT, J.: Treatment of contracted pelvis, 76; treatment of placenta praevia, 205
Venesection, 93
Ventral hernia. *See* Hernia
VERBRYCKE, J. RUSSELL: Treatment of chronic constipation, 225
Veronal in delirium tremens, 28, 109
Vesical calculus, operations for, 242
Vibrios of the human intestine, 113
Vocal vibrations, transmission of in pleural effusions, 159
Volckmann's ischaemic paralysis, 330
Volvulus of the stomach, 6
VOGT: Menstruation during pregnancy, 136
Vomiting, cyclical, in children, 144
Vomiting, periodic, in children, 214
Vomiting of pregnancy. *See* Pregnancy.
VON EISELSBERG: Unilateral exclusion of the pylorus, 283
Von Pirquet's reaction in lupus, 218

W.

WALVIN: Early diffuse syphilis of the nervous system, 327
WARBASSE: Conservative treatment of intestinal obstruction, 62
WARD, EDGAR P.: Intravenous injection of nuclein in tuberculosis, 249
WARD, G. GRAY: The thyroid and the toxaemia of pregnancy, 331
WEILL: Oxygen inhalation in whooping-cough, 251
WEINSTRAUD, W.: Treatment of gastric ulcer, 264
Whooping-cough, oxygen inhalation in, 251
WILKE: Pyometra and uterine cancer, 9; interstitial pregnancy, 221
WINTER, G.: Treatment of puerperal fever, 245
Wounds, infected, treatment of, 87

X.

X-ray examination of the mastoid region, 284
X-ray treatment of Graves's disease, 319
X rays in fibroid tumours of the uterus, 91
X rays curing suppurating folliculitis barbae, 292
X rays, myelogenic leukaemia ameliorated by, 110
X rays in treatment of nervous itching of the skin, 81
X rays in Paget's disease, 27
X rays in skin diseases, massive dosage of, 181
X rays in removal of vascular naevi, 42

Y.

YAMASAKI: The age of the beginning of menstruation in the Far East, 39

Z.

ZAMBONI: Infantile splenic anaemia, 59
ZILAHY, EUGEN V.: Operations for vesical calculus, 242
Zinc ionization in treatment of carbuncle, 182
ZUELZER: Hormon in diabetes, 210
ZURBELLE, ERICH: Thrombus formation, 184

Printed and Published by the British Medical Association at their Offices, No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

Anuria.

RIA is a symptom which occurs in a number of totally nct pathological conditions, but indicates in each case some obstruction to the secretion or excretion of e situated in the uropoietic system above the bladder resent. In dealing with the significance of this ptom, H. Kümmell distinguishes between false anuria, uria in the wider sense, and true anuria, or anuria in the ower sense (*Berl. klin. Woch.*, April 19th and 26th, 1909). e anuria is present when some obstruction prevents urine from flowing into the bladder, and the most mon form of this obstruction is caused by calculi. stone may be placed in the pelvis of the kidney or in ureter. The secretion of urine may go on behind the ruction. Anuria is produced by calculus when both ers are blocked by separate stones; when one kidney is ked by a stone and the other is either so diseased that rine is secreted by it or is absent; or, lastly, when one ey is blocked by stone in the pelvis or ureter and the r, apparently healthy, kidney suddenly leaves off ting (reflex anuria). As a rule, the secretion urine behind the stone leaves off when the im- ned fluid exerts a high pressure on the renal e. In Kümmell's 8 cases of calculous anuria neces- ing operation the pelvis of the kidney was empty ie case, and in all the others there was more or less ked hydronephrosis. This condition is recognized by an ic tense tumour, and is a valuable index in deter- ng which kidney has been thrown out of function last. importance of this is that the kidney which has me obstructed last will nearly always possess more l tissue capable of secreting urine than the other ey, and the removal of the obstruction on that side ld have the effect of producing the best supply of e. In three of his cases, Kümmell had to attempt to ve the obstruction affecting one kidney, when the r kidney was either congenitally absent or had been icially removed. In one case there was a tumour esponding to the right kidney. *X* rays revealed a ulus in the pelvis of this kidney. Cystoscopy failed to ct the opening of the left ureter, and the low zing point, together with the increasing symptoms of mia, rendered the diagnosis of pyonephrosis of the t kidney with occlusion by calculus and absence of the kidney almost certain. The stone was removed by ation, and urine was passed in great quantity both ugh the wound and through the bladder. The patient, ever, was too uraemic, and died in spite of the opera- . In the second case one kidney had already been oved for pyonephrosis, and in the third one kidney had ady been removed for pyonephrosis calculosa. The ier was relieved by nephrotomy, but died eight weeks of pyonephrosis, while the latter died before the opera- could be performed. In dealing with the diagnosis of l calculus, Kümmell says that it may be extremely ult, or even impossible, to determine the presence of one. Pain on pressure is not a certain sign of which ey has been blocked up last. Israel believes that able information in this respect can be gained by the en tense contraction of the abdominal muscles on ating over the affected kidney. It is necessary to ude other causes of sudden anuria before a calculus agnosed, and radiography will be found to be indis- able for this purpose. Ureteral catheterization is also rtant, and the author points out that it is sometimes ible to incite sufficiently energetic peristalsis of the eral muscle by the introduction of the catheter to e the stone to be passed into the bladder. *X*-ray ination with the ureteral catheter *in situ* frequently als a clear diagnostic picture. It is of utmost pro- tic importance to operate as early as possible in cases locking of the pelvis of the kidney or ureter. The or's cases show the truth of this very clearly. Next he es on to the consideration of false anuria due to ours of other structures with pressure on the ureters. e or renal anuria involves a complete cessation of secretion of urine, and its causes are varied, and ude many which are inimicable to life. The es of true anuria are chronic interstitial nephritis, e haemorrhagic nephritis, especially the scarlatinal , toxic anuria following severe diphtheria, cholera, etc., septic processes, infections from wounds, eclampsia, and certain poisons. The latter include carbolic acid, corrosive sublimate, chlorate of potassium, ether, and chloroform. Tumours of both kidneys also may give rise to complete destruction of the secreting tissue of the kidneys. Reflex anuria is extremely difficult to explain. These cases may be either peripheral or renal. The apparently healthy kidney may strike work in response to some peripheral irritation, such as phimosis, or in response to cessation of the function of the second kidney. In discussing this condition, Kümmell says that he has never observed a true case of reflex anuria, although he does not mean that it does not exist. In all the cases supposed to be of this nature, some microscopical changes were found in the seemingly healthy kidney. He warns the surgeon against the trap-like dangers associated with this condition. The concentration of the urine is to a certain extent a guide, but care must be taken not to be misled. At the operation urine may be collected directly from the kidney which is of a different concentration to the urine collected before from the bladder, but it may be derived from the same kidney. He gives illustrations with dire results of such a mistaken conclusion. Hysterical anuria is rare, but he has met with cases. The diagnosis must be made with great care. Ureteral catheterization or simple anaesthesia suffices to remove the symptom. The author gives a number of instructive cases, illustrating several points in connexion with the diagnosis, course, and treatment of anuria, and concludes by summarizing the treatment of the various forms.

2. Cerebral Haemorrhage in a Child.

GHETTI (*Gazz. degli Osped.*, July 22nd, 1909) records an interesting case of cerebral haemorrhage in a boy aged 10. The child was a foundling, and, except for an operation (suprapubic cystotomy) for vesical calculus, and an attack of (?) rheumatic right facial paralysis, had enjoyed good health. In March, 1908, he had an attack of cystitis, but that was soon cured, and until the sudden onset of the hemiplegia the child remained quite well. The attack occurred in the middle of the night, and was only discovered by the noise he made in breathing, arousing the children who slept in the same bed. The last conscious act he was known to have performed was to get out of bed and urinate. On admission he presented a well-marked right hemiplegia, and was comatose. There were convulsive movements of the left upper and lower limbs. The right upper eyelid was rather lower than the left. There was incontinence of urine and faeces. The child never recovered consciousness, and gradually died on April 11th, the attack having set in on the 6th. At the *post-mortem* examination a large haemorrhage was found in the left ventricle, involving the internal capsule, and extending from the frontal almost up to the occipital lobe. There was no evidence of tumour or tubercle, and, with the exception of some remains of cystitis, the other viscera were healthy. The cerebral arteries (Sylvian and circle of Willis) were in a condition of diffuse endarteritis; search was made for the *Spirochaeta pallida*, but the result was negative. The author believes that the immediate cause of the haemorrhage was the strain of urination acting on blood vessels already diseased by a chronic degenerative process, probably of syphilitic origin.

3. Eye Signs in Chronic Nephritis.

BARKER AND HANES (*Amer. Journ. of Med. Sci.*, October, 1909) while calling attention to the frequent occurrence of exophthalmos in chronic nephritis regard it as analogous to that of exophthalmic goître in that it is one of a number of evidences of chronic systemic intoxication. Of 33 cases of chronic nephritis 16 (48.4 per cent.), of which notes are given, showed exophthalmos of varying degrees, those in which the intoxication was most severe with uraemic symptoms frequently showing in addition to the exophthalmos one or other of the allied ocular signs—that is, anisocoria, von Graefe's, Moebius's, or Stellwag's sign. Cases with albuminuric retinitis invariably presented this condition with one or more of the other classic ocular signs of exophthalmic goître without any evidence of thyroid involvement, and it seems reasonable to conclude that in both diseases there exists a chronic systemic intoxication affecting the autonomic system as the causative factor in the production of the ocular symptoms. In addition to

the above cases exophthalmos was obvious in all the fatal cases (7 in number) in the Johns Hopkins Hospital since the beginning of the year, and it is surprising that, considering the frequency of its occurrence, it is not mentioned as a sign of chronic nephritis in the majority of treatises upon that subject.

SURGERY.

4. The use of Animal Membrane in producing Mobility in Ankylosed Joints.

BAER (*Johns Hopkins Hosp. Bull.*, September, 1909), recognizing the objections attending the use of fascia, muscle, decalcified bone, zinc, rubber, celluloid, etc., as materials to be placed between articulating joint surfaces for the production of mobility in ankylosed joints, has obtained satisfactory results with a membrane prepared from the pig's bladder and chromicized to remain intact forty days. This material is found to be sufficiently thin and pliable to allow of easy adjustment in the joint, and lasting enough to remain unabsorbed for a period longer than was required for the new bone or fibrous formation. From experiments, pathological observations upon animals, and from a record of eight cases, a definite amount of permanent mobility and utility has been obtained by this method, provided that the membrane can be retained intact for a period of thirty to forty days. Daily passive and active movements with massage were instituted after the first dressing, and not later than the tenth day, and this is important in order to stimulate the atrophied muscles into action. In dealing with ankyloses from tuberculosis it is essential to be certain that the disease has been entirely quiescent for over a year at least, lest too early operative interference should set up inflammation in these cases. Operations were conducted upon the hip, knee, and elbow, and the membrane is readily inserted in these joints. For an arthrotomy of the knee, a lateral incision on either side of the patella, and for the hip the anterior incision from the anterior superior spine, are most suited to the insertion of the membrane. To ensure a successful result, any membrane used must be absorbable, but able to remain intact for at least thirty to forty days, and sufficiently pliable to be adapted to the contour of the joint, so that every raw surface is absolutely separated by it from that with which it would normally come in contact. It should be of sufficient strength to prevent tearing, and be firmly held in position by absorbable sutures. Existing experiments and cases render further and more exhaustive study of the method advisable.

5. Congenital Metatarsus Varus.

FROELICH (*Rev. de Orthopédie*, No. 5, 1909), who has recently observed three cases of congenital metatarsus varus, discusses at length the signs and treatment of this deformity, to which, he states, those engaged in the surgery of children have hitherto paid but little attention. The most striking features of this abnormal condition presented by the newborn subject are an adduction of the anterior portion of the foot, outward displacement of the posterior part resembling that observed in instances of Dupuytren's fracture, and more or less elongation of the great toe. A compensatory deformity presenting similar characters, and known also as metatarsus varus, is, the author points out, occasionally met with as a complication of genu valgum and of talipes equino-varus. In the cases published in this paper the special symptoms of the deformity were, it is stated, very evident and distinct. The inner surface of the foot was bent at its middle, so that the front of the extremity formed with the posterior portion an angle open internally. The instep projected and the foot was turned outwards. The great toe was abnormally developed and displaced inwards, thus increasing the curve on the inner side of the foot. Metatarsus varus is associated with very free mobility of the great and second and third toes, affording remarkable prehensile capacity, which by some observers has been regarded as an indication of atavism. The first metatarsal bone is usually rectilinear, but each of the next two metatarsal bones presents a double curve, one inwards, the other downwards. The deformity is bilateral in some cases, unilateral in others; when bilateral, it is much more marked in one than in the other. The muscles of the leg are not affected in regard both to their development and their electrical reaction. Of many different explanations of the genesis of congenital metatarsus varus, the most plausible, the author thinks, is that which attributes the deformity of the foot to compression due to narrowness of the amniotic s There is not likely to be any difficulty in the differen diagnosis of this deformity; it does not present equinism and backward and inward direction of sole characteristic of talipes varus, while pes cavus almost always an acquired affection, and is associa with hyperextension of the first phalanges of the t The treatment, which should vary in accordance with degree of the lesions, should have for its main obj the reduction of the dorsal projection of the metatars and correction of the inward displacement of the ante portion of the foot. These objects may be best attai in slight and recent cases by repeated manipulation by bandaging, and in more severe cases by the use orthopaedic appliances. In cases in which these meth have failed the author would endeavour, while the pati is under the influence of an anaesthetic, to straighten foot by free and forcible movements, and at the same t practise osteotomy of the first metatarsal bone.

6. Volvulus of the Stomach.

JEAN JIANO (*Bull. de la Soc. des Sciences Méd. de Bucar* June, 1908) relates the following case: A man aged was admitted to hospital in a moribund condition, v feeble, irregular pulse, very rapid and superficial bre ing, cold extremities, and distended abdomen in region of the epigastrium, and Hippocratic facies. days previously he had been suddenly taken ill with coughing, but vomiting did not occur nor did his bo act. He had never suffered from haematemesis melaena. Intestinal volvulus being suspected, a mec laparotomy was performed, and the upper part of abdominal cavity was found to be occupied by an ela bilobed mass, which was ecchymotic on the surface, with its left half covered by the transverse colon and right half (and the smaller half) covered by the gas hepatic ligament. The mesocolon on the right side of transverse colon was incised, and by introducing hand between the latter and the stomach and by suit manipulation the stomach was replaced in its nor position. With regard to the etiology of volvulus of stomach the author points out that not only must t be a relaxation of the gastro-hepatic and gastro-spl ligaments for such a condition to occur, but there n also be some obstruction at the pyloric region in the of adhesions, which in the case quoted were fo Borhardt mentions two important clinical signs volvulus of the stomach: First, when the twist is c plete, although the patient may be able to swallow, v he swallows does not pass into the stomach, bu returned; secondly, an oesophageal tube passed a the oesophagus does not enter and empty the stom In complete volvulus the mass found in the upper of the abdomen resembles the stomach in shape, coughing is frequent, whilst vomiting does not occur.

OBSTETRICS.

7. Immunization against Puerperal Fever.

E. LEVY AND A. HAMM (*Münch. med. Woch.*, No. 24, 1 have used a special vaccine for the prevention and tr ment of puerperal fever. The considerations which them to adopt the method are based on the experienc bacteriologists, especially that of Lorenz, Pfeiffer Friedberger and Besredka Instead of using a sin vaccine and an immune serum separately, they follo the suggestion of saturating the streptococci with imm body. The cocci were derived from a strain obta from a case of puerperal fever and grown on asc broth. The sediment of a twenty-four hours' culture mixed with Aronson's and Höchst's polyvalent seru and incubated further for three hours more. culture was then killed with carbolic acid, caref added, and centrifuged. The cocci were then was in saline fluid, and eventually suspended in f saline, so that each cubic centimetre conta about 50 million cocci. This suspension was inje in doses of 1 c.cm. in 14 cases, from eight to ten before the labour. In 13 of these cases no fever occu in the puerperal period. In the fourteenth patient p tonitis occurred as a result of a neglected hydrocepha The patient died. Besides these prophylactic experime some eight women were treated with the coccal suspens Of these one died of bacteriaemia. This was a cas criminal abortion. A second patient died of pulmon embolus, the bacteria, which were found in the b before the treatment, having disappeared before de

In 2 further cases cocci were found in the blood and recovery followed after local manifestations had developed. The remaining 4 cases were severe febrile affections, but streptococci had not been found in the blood at any time. The inflammatory process appeared to become localized after the injections more or less at the point of entrance of the cocci. As soon as streptococci were found, the injection of the prepared suspension was carried out; after two days an injection of the cocci derived from the patient and prepared as stated above was injected. If the fever lasted longer this suspension was again injected every other day, but not later than the tenth day, so as to avoid anaphylactic symptoms.

8. Rupture of Sac in Interstitial or Tubo-uterine Pregnancy.

FALK (*Zentralbl. f. Gynäk.*, No. 46, 1909) prefers the name "interstitial" to "tubo-uterine" pregnancy, as the ovum is really implanted in the interstitial portion of the tubal canal. He published four cases which prove that the nearer the sac develops to the isthmus of the tube, the earlier will be the rupture of that sac. As numerous small branches of the ovarian vessels running towards the fundus are torn, the immediate danger from haemorrhage is very great. In the first case the patient was a nullipara, aged 33. Rupture and severe internal haemorrhage occurred at the end of the second month. Abdominal section was performed, and the patient recovered. The sac was almost entirely made up of the serous coat of the uterus, the muscular wall and mucous membrane being torn through. The median portion of the sac had developed from the lateral part of the interstitial portion of the tube. In the second case the patient was a 2-para, aged 27, operated upon fourteen hours after the beginning of an attack of internal haemorrhage. A rent was discovered in the posterior wall of a sac developed in the right uterine cornu, whence projected a very minute ovum. The patient recovered. In the remaining cases the rupture of the interstitial sac did not occur so early, because the ovum had been implanted in the tubal canal nearer to the uterine orifice than to the isthmus of the tube. The third patient was subject to double ovarian cystic disease. She was a unipara, aged 31, and underwent operation after suffering for fourteen days from continuous haemorrhages and labour-like pains in the left side of the abdomen. A sac as big as a walnut occupied the left cornu. The amnion lay in a solid clot, and chorionic villi penetrated the sac wall as far as its serous coat. There was no communication between the interior of the sac and the uterine cavity. The patient recovered. In the fourth case the patient was a nullipara, aged 27. The period ceased five weeks before operation, but continuous haemorrhages set in. The sac was of the size of a goose's egg, tense, and continuous with the uterus on its inner side. Tubal abortion had evidently occurred. The patient, as in all the other cases, recovered. It is doubtful if the interstitial ovum is ever delivered into the uterine cavity.

GYNAECOLOGY.

9. Pyometra and Uterine Cancer.

WILKE (*Monats. f. Geb. u. Gynäk.*, November, 1909) attended a woman, aged 75, who had noted for some time the growth of an abdominal tumour, associated with great dysuria. He discovered that it was as big as a man's fist, tuberous above in the abdomen, smooth like a tense cyst below in Douglas's pouch. The vagina had undergone senile involution, being a funnel-shaped blind canal, and no cervix could be defined. Wilke suspected ovarian tumour, but admitted that an operation should not be undertaken without some consideration, as the patient's own doctor thought that she was too old and weak to bear it. The dysuria, however, became intolerable, and at the end of a month abdominal section was performed. When the parietes were incised, the tumour was seen to be uterine, not ovarian. Wilke suspected that the swelling indicated malignant degeneration of a myoma, or was a sarcoma with areas of softening, and therefore proceeded to perform panhysterectomy without tapping or puncture. The steps of the operation proved easy until the uterus was finally separated from its deep pelvic adhesions. In the course of this difficult dissection it ruptured, and a pint and three-quarters of sanious pus escaped into the abdomen. The cervix was then easily set free. The patient died with septic symptoms on the third day. The parts removed were exhibited by Wilke at a meeting of a medical society. They displayed pyometra and pyocolpos, with carcinomatous nodules in the fundus, extending into the serosa; the mucosa was entirely invested with squamous epithelium in several layers—the psoriasis uteri which some authorities, not all, who have described it maintain to be essentially and invariably malignant. The obstructed part of the vagina bore cancerous nodules.

10. Hydatidiform Mole and Ovarian Cysts.

HORST (*Zentralbl. f. Gynäk.*, No. 45, 1909) reported at a recent meeting of a medical society two cases in which a grave obstetrical complication coexisted, no doubt by pure coincidence, with a more frequent pathological condition in the ovaries. The first patient suffered from repeated haemorrhages with fever after the expulsion of a hydatidiform mole at the second month. A severe flooding taking place, Horst was called in, and found that the uterus was very soft and involution incomplete; there was also bilateral ovarian cystic tumour. The ovarian cysts were removed, and the uterus cleared of all traces of the mole. Hysterectomy was not performed, as before the operation some tissue removed from the uterus by the curette had been examined, and was found to be free from any signs of malignancy. Involution speedily followed the operation. There was no fever during convalescence, and after three months' observation the patient was well, free from oedema or albuminuria. The second patient came under Horst's treatment three months after the expulsion of a hydatidiform mole. There was an abdominal tumour but it was ovarian. The uterus had undergone complete involution; there was no albuminuria, nor sign of any visceral disease. The curette was employed, and, the scrapings being found free from malignant elements, ovariotomy was performed, and the uterus left untouched. The tumour was a cyst of the left ovary. There were no complications during convalescence.

THERAPEUTICS.

11. Eulatin in Pertussis.

THE treatment of whooping-cough is usually directed either against (1) the causative micro-organism, (2) the catarrhal condition, or (3) the neurosis which is an element of the disease. Julius Baedeker (*Therap. Monats.*, September, 1909) finds that eulatin, a compound of amido-benzoic and bromo-benzoic acid with antipyrin, is of use in each of these three directions. The antipyrin acts upon the specific organism, benzoic acid is the expectorant, and the bromide combats the neurosis. Eulatin is a whitish powder of slightly acid, not unpleasant taste, and can be obtained in the form of tablets. Baedeker has given eulatin in 25 cases during a three months' epidemic of whooping-cough. He finds that it can be given in larger doses than have been previously recommended; children of 4 years received 12 tablets, each containing 0.25 gram, daily; children of 1½ years from 6 to 10 tablets. Eulatin is absolutely unirritating to the stomach, and in no case did it cause loss of appetite or diarrhoea. None of the 25 cases failed to show some improvement, the effect being the more marked the earlier in the disease the treatment was begun. In 17 cases eulatin alone was given; in the other 8 a narcotic was given, but usually only once in twenty-four hours. Care was taken that the air in the room should be moist and fresh. A result of the drug which was invariably observed was a striking diminution and often a complete cessation of the vomiting; 20 of the children never vomited after the completion of the first few days of eulatin treatment, although 15 of them on other treatment had suffered from more or less severe vomiting. In one case of a child 4 years old twenty-eight paroxysms of coughing, twenty-one of them accompanied by vomiting, had occurred on the day before eulatin was first given; three days later there were only twelve paroxysms and no vomiting. Another case described is that of a rickety child 1½ years old with bronchopneumonia. Eulatin treatment was begun eight days after she first came under observation, when she was having about fifteen paroxysms of coughing a day and the temperature on the day before had been 38.6° C. From the first day of the administration of eulatin the child remained free from fever; after six days she was having ten paroxysmal attacks daily, but no vomiting; eulatin was now discontinued for three days owing to a mistake on the part of the mother, and the child became perceptibly worse with twenty paroxysmal attacks in the twenty-four hours, fifteen accompanied by vomiting. Under eulatin the number of attacks quickly diminished, and the vomiting ceased. The author's opinion is that the doctor who gives eulatin in whooping-cough may count upon the disease running a favourable course and ending in a comparatively speedy recovery.

12. Vaccination against Bacillary Dysentery.

Dopter (*Ann. de l'Inst. Pasteur*, September, 1909) has investigated various methods of attempting to produce immunity towards bacillary dysentery. Amongst other laboratory experiments he tried the effect of vaccination with sensitized bacilli, his mode of procedure being as follows: 5 mg. of culture of Shiga's dysentery bacillus are weighed out, killed by exposure to 60° C. for an hour, and dried *in vacuo*; they are then made into a uniform emulsion with a few drops of sterile physiological salt solution; to this, unheated antidysenteric serum of high agglutinating power is added, so as to make the total quantity of the material up to 2 c.cm. The whole is mixed and allowed to stand at laboratory temperature for about twelve hours. At the end of this time the agglutinated and sensitized bacilli have collected at the bottom of the tube, and the supernatant serum is clear. The liquid is decanted, the deposit is washed twice by centrifugalization with normal saline, and after the last liquid is poured off the deposit is emulsified with 2 c.cm. of salt solution. This liquid emulsion constitutes the vaccine. Into full-grown mice weighing 20 grams the author injected subcutaneously 0.2 c.cm. of this vaccine—that is, 0.5 mg. of sensitized bacilli (ten times the fatal dose). After inoculation the mice showed no signs of ill health and did not lose weight. During the early days after inoculation, and also during several weeks and even months subsequently, the mice were tested by subcutaneous inoculation with the ordinary fatal dose of living culture—namely, one-eightieth of a twenty-four hours' agar culture. It was found that the vaccinated animals had acquired immunity against the dysentery bacillus generally at the end of four days, though sometimes the immunity did not appear until the fifth day. During the incubation period the animals were no more susceptible to a fatal test dose than were the controls. The immunity obtained persisted for at least four and a half months; whether it would have lasted longer the author had not the opportunity of ascertaining. The vaccination produced neither a local nor a general reaction, and was in no respect toxic. In fact, the dose of sensitized bacilli might be increased to 2 mg. without producing any apparent ill effects, although a like dose of unsensitized dead bacilli would represent 100 fatal doses. Encouraged by these results, Dopter suggests that vaccination with sensitized bacilli might be tried on human beings. It may be recommended from the fact that on experimental animals it confers an immunity of much longer duration than is obtained by other methods of immunization. It might, therefore, prove useful for troops ordered to a region where dysentery is epidemic. The rapidity with which immunity is established and the absence of a negative phase are also points in its favour.

13. Treatment of Tuberculous Sinuses by Beck's Bismuth Paste.

Baer (*Johns Hopkins Hosp. Bull.*, October, 1909) reviews the diagnostic value, therapeutic efficacy, and inherent dangers attending the treatment of sinuses and fistulous openings by Beck's bismuth paste. Besides the opinions of others, 13 personally observed cases are quoted showing the undoubted value of the method whereby, by the injection of bismuth paste and its *x*-ray interpretation, the course of sinuses can be determined and the seat of infection definitely localized. Although there is some difference of opinion as to its therapeutic value. a larger percentage of cases are cured by this method than by any previous method; and possibly the varying experience of different observers is due to the fact that different preparations of bismuth subnitrate have been used, it having been proved experimentally that the preparations of different manufacturers vary considerably in the amount of nitric acid given off at body temperature, hydrolysis taking place in some from five to ten times as rapidly as in others. While Beck directed that bismuth subnitrate and petrolatum should be boiled as they are mixed, it is also possible that different temperatures may have been used by different observers, with a consequent variation in the amount of nitrites formed. The treatment of tuberculous abscesses by aspiration of the pus, and subsequent filling of the abscess cavity with bismuth paste, has been carried out in 4 cases with complete recovery. The number of injections necessary to effect a cure varies considerably, but it is wise to keep up the treatment as long as no unfavourable symptoms arise. When used for diagnostic purposes with subsequent immediate operation the danger is reduced to a minimum, but when large quantities remain for a long time in the body toxaemic symptoms may arise.

PATHOLOGY.

14. Thyroid Carcinoma Recurring as a Sarcoma.

F. Nassetti (*Il Policlin.*, sez. Chirurg., Rome, 1907, xvi, p. 429) describes the case of a patient who had a small thyroid tumour at 20; at 38 this suddenly began to grow, in four months attaining the size of a large orange. It was removed, examined carefully, and found to be composed of groups of polyhedral cells, separated from one another by a scanty fibrous stroma; in places extensive degeneration had occurred. It reproduced the structure of the normal thyroid gland, in a few places follicles containing colloid being found in the new growth. In many sections a diffuse infiltration, with small round cells, was seen, both in the stroma and among the neoplastic cells; this infiltration was regarded by Nassetti as inflammatory, and was most marked at the periphery of the growth. Ten days after the first operation a second small new mass was noted in the left carotid region; fourteen days later it had grown to the size of a turkey's egg, and was removed, together with a small lymphatic gland. The patient left the hospital later in good health, but soon returned with large, rapidly-growing masses in the neck and died. The second tumour was found to be a spindle-celled sarcoma, with a few oval cells intermixed; some were very large. The lymphatic gland was infiltrated with similar fusiform sarcoma cells. Nassetti notes that neither of these two tumours appeared microscopically to be a mixed carcinosarcoma. He believes that his case represents a rapid transformation of a carcinoma into a sarcoma, such as has several times been seen to occur in the mouse cancer investigated by Ehrlich, Apolant, Bashford, and others. He supposes that the cancer cells left behind at the first operation stimulated the connective tissue round them into sarcomatous growth.

15. Vaccination of Horses with Tubercle Bacilli.

Vallée (*Ann. de l'Inst. Pasteur*, September, 1909) has attempted to obtain an antituberculous serum by the vaccination of horses, using for this purpose the combined effects of an equine and a human strain of tubercle bacilli. The equine strain, the less virulent of the two, was found to be practically innocuous to horses, since four animals suffered no ill effects from intravenous inoculation with it, though in each case the large dose of 50 mg. was given. The human bacillus, stated to be of average virulence for the guinea-pig, was tested upon two horses in vigorous condition, aged 2 and 13 years, in the intravenous dose of 5 mg. It provoked some emaciation, which was persistent though not progressive, and a well-marked reaction to tuberculin. When the animals were killed, seventeen months afterwards, they both showed some scattered tubercles in the lungs. In contrast to the above results with equine and human bacilli, the author records an experiment which shows the extreme susceptibility of the horse to the bovine bacillus. A horse 15 years old was inoculated intravenously with 5 mg. of bovine culture; the animal developed rapidly progressive tuberculosis and was killed, when moribund, forty-six days after inoculation, the autopsy revealing very acute pulmonary tuberculosis. Guided by these results, the author decided to commence vaccination with his equine virus, and to follow this up by inoculation with the human strain. At first he began with an initial dose of 5 or 10 mg., but afterwards he found that a larger initial dose (50 mg.) of equine bacilli could be given with impunity. The inoculations were repeated in some cases at intervals of two or three months, and in others at intervals of five or six months, several inoculations (six or more in the cases tabulated) being made in all. The later inoculations were made with human bacilli in doses which were raised to 100 mg. or even more. Out of 11 horses treated in the above manner, 3 have died accidentally and 4 have been purposely killed. Most minute *post-mortem* examinations have been made on all these animals, but in no instance has it been possible to find even a trace of a tuberculous lesion. These negative results received further confirmation in the case of two of the animals by the failure to produce tuberculosis in guinea-pigs inoculated with the horses' bronchial glands. M. Vallée states that the serum of his vaccinated horses, though not showing well-marked agglutinating properties, contains an abundance of specific sensitizing substance. For more than two years his serum has been employed in cases of human tuberculosis. Apparently the results are encouraging; but the author is unwilling to make premature statements, and therefore reserves for a later period the full discussion of this question.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

The Heart in Infectious Disease.

3. ITZ MEYER (*Wien. med. Klin.*, August 15th, 1909), in cussing the heart affections met with in infectious eases, divides them into two well-marked forms—those ich occur at the height of the infection, and those ich occur during convalescence. The clinical symptoms the first group are at first restlessness, distress, and spnoea; the extremities soon become cold and damp, e face changes and becomes pallid, the lips are blue, and e temperature shows a tendency to fall; the blood pres- re oscillates or gradually sinks, the heart rapidly dilates, ile the heart sounds are soft and systolic murmurs are equent; the pulse-rate varies, and may be very high or ry low; the pulse is small, fluttering, and irregular in ality, and, according to von Leyden, the onset of a llop rhythm is characteristic of the condition. The ognosis of this form of heart affection is very grave, and ten collapse sets in rapidly. In the heart affections longing to the second group—those, that is, which pear during convalescence—sudden death may be the st sign; but in by far the greater number of the cases ere are typical signs of cardiac affection. Frequent neral symptoms are marked faintness accompanied by miting, feeling of oppression, distress, and breathless- ss. The temperature usually remains normal. As in e first group, the heart dilates and the pulse becomes nall and extremely compressible, while enlargement of e liver, oedema, and slight cyanosis may occur. The ost characteristic symptom of the condition is undoubt- lly the long recognized symptom of irregularity of the lse. The prognosis is decidedly more favourable an in the acute affections of the first group. The iphtheritic heart affections are the most common and of e greatest severity. Dorendorff observed severe cardiac mplications in 20 per cent. of his cases of diphtheria, nd Schmaltz has given a still higher percentage; 10 per ent. of the cases of rheumatic polyarthritis show cardiac omplications, but the prognosis *quoad vitam* is favourable. n the other hand, the heart is seldom affected as a result f scarlet fever; but, according to Schmaltz's observa- ions, the prognosis with respect to the disappearance of he condition is most unfavourable. Gonorrhoeal heart ffections are usually accompanied by symptoms of endo- arditis, and in the fatal cases the heart is almost always irectly affected; in half of the more favourable cases a ermanent defect is left. With respect to etiology, it is uggested that, according to the amount of poison pro- luced in the system, the heart and vessels are injured hrough the first acute poisoning of the organism, or time s given to react to the poison through anatomical hanges, the symptoms only becoming noticeable during onvalescence. When the formation of poisons cannot be lemonstrated, the hypothesis is that myocarditis is set up y the presence in the circulation of poisonous substances issolved out from bacteria, as, for instance, in the heart ffections seen just before and after the crisis in pneumonia, when there is a great destruction of bacteria. The general nethods of treatment are well known. The author elieves that in the specific treatment of diphtheria we ave an effective protective agent, though not a curative ne, of the heart affections of the disease, and therefore he great measure of prophylaxis for these affections is to inject serum early, even in apparently trifling cases. For the other diseases also he believes that progress lies in this direction.

17. Essential Pruritus.

GAUCHER (*Journ. des prat.*, July 17th, 1909) divides true pruritus into five groups: Senile pruritus, diathetic, partial, neuropathic, and pruritus due to auto-intoxications. Senile pruritus appears about the age of 60 years, sometimes following emotion, but usually without any recognized cause. It may be constant or intermittent, and may be intensified by changes of temperature, dietetic excesses, etc. Generally the skin is free from lesions, but it may after a time become rough and pigmented. Diathetic pruritus manifests itself principally in the form of "pruritus hiemalis," which is the result of cold. This form occurs in arthritic subjects of a nervous temperament, its principal seat being the lower limbs, and it is accompanied by papules and excoriations. In some it lasts throughout the year; in others it may appear only during the summer, disappearing as the winter sets in. Examples of partial pruritus are anal and pudendal pruritus, the former being caused by haemorrhoids; this may pass beyond the anal region to the perineum and genital organs, but there is no cutaneous eruption. The attacks of itching are very exasperating, and are intensified by walking and defaecation or by staying in bed or sitting for a long time. Anal pruritus is very common in phthisical subjects, and may be caused by intestinal parasites. Genital pruritus in man occupies the scrotum and perineum, the skin of which is red and sometimes covered with papules and shows scratch marks. In women it is especially common, affecting the labia, the clitoris, and the vagina; the skin becomes red, rugose, and excoriated and swollen, and after a time pigmented. The irritation may be very intense and lead to onanism, hysteria, etc. Sometimes genital pruritus in women appears at the menopause and lasts for years. Neuropathic pruritus occurs in hysterical women or in neuropathic subjects. This form is generalized, occurs especially at night, and is intensified by heat and by dietetic excesses and alcoholic indulgence. Pruritus due to autointoxications may occur in diabetes mellitus, in cases of latent uraemia, in interstitial nephritis, and in jaundice. In all these cases the pruritus is generalized, and is due to the irritation of the nerve terminals by the cutaneous elimination of toxic bodies. Indeed, with the exception of neuropathic pruritus, the author considers all forms of pruritus to have as their etiological factors auto-intoxication. With regard to treatment, acids, especially vinegar, are very useful in allaying itching. In other cases lotions of chloral or of carbolic acid are effective. In severe cases the following solution, dabbed on the affected part, will often lessen the irritation: Pure crystallized menthol, 10 grams; camphorated alcohol, chloroform, sulphuric ether, of each 30 grams. Other applications which may be used are pomades of menthol and guaiacol 1 per cent. Prolonged warm baths are sometimes of value, as are also faradization and galvanization of the spinal column, etc. Suitable diet should be taken, and meat only eaten in moderation. Internally opium, chloral, veronal, trional, tincture of musk, and ammoniated valerian may be given. In anal pruritus, belladonna, opium, or cocaine suppositories may be needed, or the parts may be painted with solution of nitrate of silver. In vulvar pruritus, pomades of belladonna, cocaine, or menthol may be used. In rebellious cases linear scarification, cauterization, continuous electric current, high-frequency currents, etc., may be tried.

18. Cerebro-spinal Meningitis.

GAEHLINGER AND REPELLIN (*Nord Méd.*, April 15th, 1909) report an interesting case of cerebro-spinal meningitis in an adult, a woman aged 28, who was admitted into the hospital at Lille suffering from severe pain in the head, which had already lasted for three days. She had had lupus in the face at the age of 5, and, one year before admission, a gynaecological trouble for which both ovaries had been removed. On four separate occasions she had been attacked with erysipelas of the face, the first time ten years previously, the second three years after the first, the third eight months and the fourth seven weeks before admission, each attack lasting about eight days, the temperature never rising above 102°. Three weeks before coming into hospital she had an attack of influenza, with pains in loins and limbs, headache, some fever, sore throat, coryza and cough, but neither vomiting nor constipation. This lasted for a fortnight, during which time constipation supervened, but a castor-oil purge removed the symptoms, and she was able to resume her ordinary occupations. On the same evening, however, she again felt ill, the temperature rose, and the next morning headache began, soon becoming intolerable, and radiating towards the top of the head, accompanied by nausea and vomiting, with persistent constipation. Pains in the limbs also returned, being specially marked in the nape of the neck and along the spine, with rigidity, and, subsequently, photophobia. On admission the pain was so severe that the patient uttered continuous cries, the face was flushed, the condition changed frequently from excitement to depression, and there was some twitching of the labial muscles. The mental condition was not much affected, no apparent delirium, and no difficulty in rousing the patient from

the semi-stupor in which she lay, being experienced. The rigidity of the neck was marked, extending towards the arms, and the smallest movement caused intense pain. There was no cutaneous hyperaesthesia or *taches cérébrales*, and the only ophthalmic symptom was some irregularity of the pupils. The tendon reflexes were normal, the pulse 84, and the temperature 103°. Lumbar puncture showed no tension, the slightly milky fluid exuding drop by drop, microscopically containing numerous polynuclear cells and meningococci. Flexner's antimeningococcic serum was injected daily during her seven days in hospital, the spinal fluid becoming gradually more purulent, and on the eighth day after admission she died in a state of coma. The autopsy, which unfortunately did not include opening the spinal canal, showed slight tension of the dura mater and very well marked congestion of the brain, with some oedema; also, about the base, several lines of purulent matter adherent to the pia mater. Other organs were normal, with the exception of a little bronchitis. The action of Flexner's serum was disappointing, but the authors are of opinion that it might have been used more freely, and might have been increased when the symptoms became more grave.

SURGERY.

19. Surgery of the Heart.

Salomoni (*Arch. gén. de chir.*, No. 9, 1909) publishes a full list of the recorded cases of cardiorrhaphy, and, basing his statements on the latest clinical data and the recent studies of d'Este and Mannino, discusses fresh developments in the technique of this operation. The best mode of thoracotomy for exposing the wounded heart consists, the author believes, in opening the intercostal space in which the external wound is situated and detaching one or both of the costal cartilages from the sternum. It has been suggested by Bucci that a long intercostal incision with desternalization of the costal cartilages would also prove a suitable procedure in the treatment of a wound of the diaphragm. The linear intercostal incision, in Salomoni's opinion, is simpler, more rapid, and less mutilating than other methods of reaching the heart. It will in most cases be found quite sufficient whilst the ribs retain their elasticity. When the ribs cannot be sufficiently separated, the straight wound can be speedily enlarged so as to form a triangular or quadrangular flap. Further exposure of the cardiac region after intercostal incision may be best attained by transverse linear division of the sternum just above the level of the fourth costal cartilages. This operation the author would advise in wounds of the base or of the right side of the heart. After separation of the connective and muscular tissues from the posterior surface of the bone, the sternal fragments can be separated to the extent of about 3 cm. without any risk of opening the pleural cul-de-sac on either side. The author advocates drainage of the pericardium after cardiorrhaphy, and states that in his list the precaution had been taken in 30 of 58 cases of recovery. The objection to drainage held by many surgeons rests upon the risks of post-operative infection of the pericardium and the pleura and the consequent formation of adhesions. As a point in favour of drainage, it is stated that the pericardium absorbs fluid more slowly than the peritoneum, and that blood and serum are apt to collect in the posterior part of the sac, such effusion being indicated by precordial oppression, anxiety, and weakness, and, at a later stage, by frequency of the pulse and facial cyanosis. Of 159 cases of cardiorrhaphy collected by the author, the operation resulted in recovery in 59 and was fatal in 99, the percentage of recoveries being about 37. In 34 cases death occurred in the course of the operation. In studying the results of cardiorrhaphy it is necessary to bear in mind the hopeless nature of the injury in some cases—such, for instance, as simultaneous lesions of two cardiac cavities, valvular lesions, and wounding of the motor centres. Perforation of the heart at two opposite points is not invariably fatal. Two conditions which render the operative prognosis very bad are extensive laceration of the myocardium and wounding of the coronary arteries. If the exposed heart should stop in the course of cardiorrhaphy the movements may be restored by gentle massage. Jaffé and Quin, with the same object in view, have injected artificial serum directly into the left ventricle. In cases of wound in the cardiac region, in which there is hesitation between immediate intervention and expectancy, the author would practise intercostal incision, which, if the heart itself be uninjured, will be the simplest and safest method of exploratory thoracotomy. It would also be found of service in a case in which the wounded organ proved to be the lung and not the heart. In conclusion, the author refers to Trendelenburg's operation for pulmonary embolism, and to Mauclaire's case of suture of the pulmonary artery as indications of the extension of the domain of cardiac surgery.

20. Freund's Operation in Pulmonary Emphysema.

In 1858 Freund advanced the view that emphysema might be secondary to a rigid dilatation of the thorax, with a secondary loss of elasticity of the lung tissue. In 1906 Hildebrandt of Berlin attempted the surgical cure of a patient, aged 46, with marked emphysema, by removing portions of the second and third right and second, third, and fourth left costal cartilages; the result was most satisfactory, the symptoms disappearing and the amplitude of the respiratory excursions of the thorax increasing from 2 to 5 cm. Since then four other successful instances of Freund's operation have been reported; in a fifth, where the patient had active apical tuberculosis and apical adhesions, the operation led to death from haemoptysis on the second day. U. Grimaldi and G. Perugini (*Giorn. Internaz. d. Sci. Med.*, Naples, 1909, xxxi, p. 481) report its success in the case of an otherwise healthy soldier of 34, with marked emphysema, who had been incapacitated by chronic bronchitis, with attacks of asthma and of acute bronchitis, for a year. $CHCl_3$ was given, and an incision was made from the clavicle to the sixth rib cartilage 1 cm. to the right of the sternal margin; a transverse incision 2 in. long was made along the fourth costal cartilage. The perichondrium was separated off, and pieces 1 to 1½ in. long were removed from the second, third, fourth, and fifth costal cartilages, using a Gigli's saw. Biliary colic and jaundice occurred a few days after the operation, but the patient made a good and rapid recovery. Pain on moving and using the right arm and shoulder passed off after a few weeks; the cough and dyspnoea (which had been marked) passed off rapidly, and nine months after the operation the patient was free from cough.

21. Gonorrhoeal Keratosis.

Noel Fiessinger (*Journ. des prat.*, September 25th, 1909) points out that the number of recorded cases of gonorrhoeal keratosis only amounts to 16. The affection occurs always during the acute stage of gonorrhoea, and the patients are always the subjects of multiple and severe joint troubles of gonorrhoeal origin. The joint troubles may be of the nature of sero-purulent arthritis; there may be marked muscular atrophy, and the arthritic affections are very rebellious to treatment, and often the joints become ankylosed. Gonorrhoeal keratosis occurs in two forms—first, as horny cones, and, secondly, as a diffuse formation on the sole of the foot. The horny cones affect especially the dorsal surfaces of the feet, especially on the inner border and dorsal surface of the big toe. About the matrix of the nail of the big toe the cones show a marked tendency to converge. Rarely the eruption spreads on to the legs and to the arms and face. At first small red, lenticular plaques appear; these rapidly become acuminate, and to the touch they feel like small horny cones. Each cone enlarges, and soon the appearance of the eruption is characteristic. About the dorsal surface of the foot one finds small, isolated lenticular lesions of a coppery colour, from the centre of which arises a small conical projection. About the dorsal surface of the big toe, however, there are no cones, only irregular elevations the summits of which are sometimes acuminate and sometimes rounded; they are horny and of a copper-yellow colour and glistening. Sometimes around each horny element may be distinguished two rings, first a whitish one and then one of a rose tint. The eruption lasts for a month or two, and then all the extraneous plaques and cones fall off, leaving a rose-coloured new epidermis. In the second form, small isolated elements are seen on the sole of the foot; these are only slightly projecting. About three weeks, however, after the eruption has first begun to appear here the appearance is characteristic. The sole is almost entirely covered with an extensive hard, thickened skin of a yellowish colour, the surface of which begins to show signs of desquamating. This desquamation occurs at the same time as the falling of the cutaneous horny cones, and in the desquamation the thickened epidermis comes away in one piece, exposing a thin and rosy epidermis beneath. Both these forms of keratosis occur bilaterally and symmetrically. Maceration of the skin by retained sweat appears to act as the chief cause in the production of this cutaneous manifestation of gonorrhoea, and therefore all conditions tending to this should be carefully avoided.

OBSTETRICS.

22. Caesarean Section in Dystocia after Amputation of Cervix.

TUDDIFORD (*Amer. Journ. Obstet.*, September, 1909) performed Caesarean section on a patient who had two years reviously undergone removal of the vermiform appendix ad amputation of the cervix uteri. There had been veral attacks of inflammation of the appendix, a elaxed pelvic floor, and a deep laceration of the cervix. he patient again became pregnant, and was readmitted ito hospital during the sixth month on account of severe bdominal pains. A mere dimpling of the vaginal vault epresented the vaginal cervix. She was kept under bservation, and labour set in about term; the pains were rong, but there was no dilatation of the os. A steel ilator was introduced, and the finger passed into the emains of the cervical canal. Profuse haemorrhage set n, so that all the further efforts at dilatation had to be iven up, and clamps were put on. Five or six hours later ne pains were still strong, but the cervix had not become ilated. Caesarean section was performed. After the hild had been delivered, the cervical canal was examined om above. It admitted a finger, but was surrounded by dense cicatricial ring, which required some force before yielded. The child weighed nearly 11 lb. Studdiford ad already delivered a number of cases where he himself ad amputated the cervix, and the operation never ccasioned any dystocia. In this case, the operator had robably amputated the cervix too high up, so that the aginal mucous membrane was drawn over and narrowed, nstead of amputating lower down and pushing up the mucous membrane of the cervix itself. The dilatation, hough ineffective, involved laceration of large vessels, and ne haemorrhage weakened the patient. The cicatricial ssue was so firm that an attempt to deliver the child ither by version or forceps would have caused severe njuries. In the discussion on the reading of this case efore a society, Dr. Brodhead stated that he once ttended a case of protracted labour following amputation f the cervix, but the cicatrix was dilated by hydrostatic ags, and delivery was effected without laceration. He lso reported a case where a patient consulted him during ne seventh month of pregnancy, after the vaginal cervix ad been amputated. He found the os internum very ightly closed. The patient left his neighbourhood, and he fterwards learnt that she had a short labour of two or hree hours' duration, a dead child was born, and four ours later she died of *post-partum* haemorrhage. The terus, he suspected, had ruptured. Mallett and Vineberg eclared that amputation of the cervix did not materially mpede impregnation. Spontaneous labour had occurred t least in one case in the experience of Vineberg, who elived that there was more likelihood of conception aking place after amputation of the cervix done in the rdinary manner than after systematic methods of rachelorrhaphy practised by many good and experienced perators.

23. Twin Normal and Tubal Gestation.

EO of Magdeburg (*Zentralbl. f. Gynäk.*, No. 36, 1909) ttended a woman, aged 31, a 2-para, in the autumn of 908. The last period occurred on August 18th. On October 8th an attack of acute abdominal pain occurred, nd since then she suffered from much pain, most marked n the left side, though she admitted that it was also felt n the right, running up to the liver. On October 13th eo examined the case for the first time. The uterus was nteflexed and of the size and softness usual in the second nonth of pregnancy. The abdomen was distended and ery tender. Leo also noted a remarkable tenderness on ressure over the left hip. The pains diminished after a ew days' rest. On October 26th a tender swelling could learly be defined to the left of the gravid uterus. There vas vomiting, with severe pain, but Leo admits that he vas puzzled by the total absence of any haemorrhage. He dvised active measures at once, but was not permitted to perate until November 2nd. The mass on the left had greatly enlarged, rising above the pelvic brim; it moved vith the enlarged uterus. Leo believed that there was ubal pregnancy with an unusual degree of hypertrophy of he uterus, but the absence of bleeding made him inclined o suspect that the painful symptoms implied torsion of a gravid uterus. He operated on November 5th. There was nuch free clot and fluid blood in the peritoneal cavity. The omentum and bowel adhered strongly to the swelling on the left of the uterus. This mass consisted of a big ubal sac. It was removed without much difficulty. Iodized catgut sutures and ligatures were freely applied to the bleeding surfaces on the pedicle and the coagula removed as freely as was possible with gauze swabs without flushing of the peritoneum. The right appendages were normal, and the uterus clearly bore a fetus; the pregnancy had advanced to the third month, judging from the size of that organ. The patient left the hospital on the fifteenth day after the operation; eight days later a little uterine haemorrhage appeared, which subsided after rest in bed and a sedative. The normal pregnancy thenceforth proceeded undisturbed. On May 11th, 1909, the patient was delivered at term, spontaneously, of a well-nourished living male child. The ectopic tubal sac contained a fetus nearly 7½ in. long; the membranes were unruptured. There had been free haemorrhage into the sac wall, which still contained well-preserved villi and groups of trophoblast cells. The ostium was quite closed. Leo believed that there had been simultaneous impregnation of two ova in one follicle. The absence of external haemorrhage in this case, where the uterus as well as the tube bore an ovum, was puzzling, though easily explained. This coincident type of normal and tubal gestation is very dangerous. In 174 of the cases recorded nearly a third ended fatally. Operative measures are imperative, the mortality being 20 per cent., whilst 46 per cent. of the patients not operated upon perished. Leo therefore impresses on the reader the necessity of bearing this condition in mind when there is some irregularity in the development of the uterus associated with the appearance of a tumour more or less connected with it and distinct attacks of pain without external haemorrhage.

GYNAECOLOGY.

24. The Origin and Propagation of Tubal Cancer.

BOXER (*Monatsschr. f. Geb. u. Gyn.*, November, 1909) throws some light on the question of primary and secondary cancer of the Fallopian tube, the frequency of bilateral tubal cancer, and the relation of salpingitis to malignant disease. He reports in full two cases of cancerous tubo-ovarian cyst where the primary disease had clearly developed in the tubal portion. The new growth had extended into the ovarian part of the cyst by implantation. Boxer adds a third case, where a patient aged 34 was subject to a malignant multilocular cyst of the right ovary. The new growth was a psammomatous papillary carcinoma. The Fallopian tubes were both thickened, obstructed, and dilated; they were the seat of salpingitis nodosa, but also contained well-developed cancerous growths with calcareous collections as in the ovary. The dilated right tube had formed a communication with the cavity of the malignant cystic ovary. Patches of cancer sprang from its mucosa, representing implantation from the ovarian growth. It was further found that tubules lined with epithelium ran amidst the bundles of fibres in the muscular coat; these tubules develop in the course of certain forms of salpingitis. In this case the tubules were largely infected and the cancer was conducted by them into the spaces in the connective tissue of the tube. The left Fallopian tube also showed this condition very distinctly, and there could be no question of implantation, as the left ovary was healthy, and the endometrium, the muscular and serous coat of the uterus, and the pelvic peritoneum were free from cancer; hence, the malignant disease must have reached the left tube through the lymphatics. Therefore it is easy to understand why tubal cancer is so often symmetrical, and it seems manifest that the morbid changes due to chronic salpingitis above described favour the propagation of cancer of the Fallopian tube. They probably favour its primary development as well.

25. Embolism and Paralytic Symptoms after Enucleation of Ovarian Cyst.

REDLICH (*Zentralbl. f. Gyn.*, No. 36, 1909) writes of a patient who suffered from a bulky ovarian cystic tumour which reached to the ribs. At the operation it was found to be entirely retroperitoneal. The peritoneal cavity was in great part obliterated, the intestines being pushed upwards, crowded into a very small space. The peritoneum was incised, and a large multilocular tumour, traced to the left ovary, was enucleated as completely as practicable, without laceration, but some of the contents, puriform in one or two of the loculi, blood-stained in others, escaped during the process. A portion of the pelvic peritoneum was unobliterated, and it was now seen that the right

ovary was also involved. As the relations of the pelvic organs were now made plain the operator was able to remove the tumours entire. A gauze drain was applied to the lower end of the abdominal wound, and removed on the fourth day. Although the process of enucleation was lengthy, and involved a wide area in the abdomen and pelvis, there was no shock, and convalescence proceeded without any fever or other complication, the patient rising on the twenty-first day. On the thirtieth embolism occurred, with partial facial palsy and paralysis of the left arm. By the fortieth day the patient had recovered completely. The intracystic growths showed no signs of malignancy.

THERAPEUTICS.

26. Acetone Treatment of Inoperable Carcinoma.

D. W. TOVEY (*Med. Record*, November 6th, 1909) gives the results of treatment of 15 cases of inoperable carcinoma of the uterus by means of acetone. This is of value only in inoperable cases, and does not give a permanent cure, but ameliorates the chief symptoms and makes the life of the patient endurable. The terrible odour, discharge, and haemorrhages are all relieved, and when they return the treatment can be given again without harm. The haemorrhages, septic absorption, and odour are all stopped. Acetone is a hardening agent for tissues, and hardens the living carcinoma tissue as well as pathological specimens. The treatment is preceded by a thorough curetting under ether. The solution is then poured into the crater left through a conical speculum, which prevents it reaching the normal vaginal tissues. If it reaches the vulva or perineum it produces a severe burning sensation. When the hardened tissues have been separated and discharge begins again the treatment may be repeated without ether. The hips must be elevated while the drug is in the cervix, and the excess is drained off carefully through the speculum. A tampon is put in place to take up the excess of liquid. The walls of the cavity become smooth and firm. Pain from extension of the cancer is not relieved. The author gives histories of 8 cases in which marked relief was obtained, continuing up to the time of death from the general infection.

27. X Rays in Paget's Disease.

LENGLET (*Bull. et mém. de la Soc. de Radiologie*, Paris, October, 1909) is sceptical as to the value of *x*-ray treatment in Paget's disease. He describes certain cases which seem to point to the conclusion that radiotherapy is very often futile. He commenced treatment in a typical case when it was still in the preliminary stage of hyperkeratosis. Both areolae and both nipples were affected. In spite of monthly séances of 6 H., the rays being No. 7 B., the growth of the deeper tumours was appreciable, and, abandoning radiotherapy, he took the case to a surgeon, well known for his conservatism with the knife, who advised the removal of both breasts. The patient, however, went to another radiotherapeutist, and he, after treating her regularly for one year, said that it was of no use to continue and that she must undergo operation. In another case, which was also undertaken at the stage of hyperkeratosis of the nipple, apparently without invasion of the breast, doses of 5 H. were given at intervals of three weeks for a period of fourteen months. There was a superficial healing, but a thickened band developed rapidly between the nipple and the periphery of the breast, and the *x* rays were abandoned and the breast removed. In a third instance, treatment commenced later, at the beginning of the eczematous stage, and eleven applications of 5 H. were given within seven months. There was an apparent cure, and no appearance of profound tumour. Two months after the cessation of treatment there was some recurrence, which was successfully rebutted by further applications, but within another couple of months a certain amount of deep thickening could be felt against which the rays were of no avail. The patient refused to undergo operation, and died some months later. The author states that in all his cases, although superficial healing has been obtained, the rays have been powerless to arrest the rapid and unexpected evolution of the deeper tumours beneath the irradiated zones. This failure occurred whether or not treatment began during the initial stage of hyperkeratosis. He concludes that the disease affects the galactophorous ducts, and in certain cases the acini, and that the radiotherapy is incapable of acting deeply enough to stay the process. He adds that in all cases of Paget's disease, if *x* rays are employed, it is important to warn the patient that recourse to surgical measures may still be necessary.

28. Veronal in Delirium Tremens.

FRIIS MÖLLER (*Ugeskrift for Laeger*, No. 46, 1909) gives his experience of veronal in the treatment of delirium tremens. The patient is given 1 gram of veronal as soon as seen, and if this does not produce sleep, as it seldom does, another gram is given a few hours later, and as a rule the patient goes to sleep for six to twelve hours, and wakes up calm and collected, though somewhat tremulous. He is then again given 0.50 gram of veronal, and the tremors, as a rule, cease in the course of the day. If the patient has difficulty in falling asleep at night, this dose is repeated every evening. If the delirium does not cease after the first two grams, another gram may be given five to six hours later, and as a rule this is sufficient to stop the delirium permanently; 94 patients were treated in this way in the Frederiksberg Hospital in Copenhagen, and none of the cases exhibited any symptoms of veronal poisoning or developed a rash. The pulse, as a rule, improved quickly, and the usual albuminuria disappeared with the delirium, and the temperature became normal after the critical sleep. The author considers this treatment far superior to the chloral treatment, as in cases treated with chloral there has often been a recrudescence of the delirium after a day or two. The author also has found it possible to prevent an incipient delirium tremens from breaking out by giving 2 or 3 grams of veronal.

PATHOLOGY.

29. Antiform and Ligroin in the Detection of Tubercle Bacilli.

LANGE AND NITSCHE described a method of demonstrating tubercle bacilli by means of which even small numbers can be separated from other micro-organisms. This method depended on the fact that the surface tension of tubercle bacilli corresponds to that of some of the hydrocarbons. A homogeneous emulsion of the sputum or other material containing tubercle bacilli is made with normal sodium hydrate solution, and this is shaken up with ligroin. On separating, the tubercle bacilli are carried up by means of the rising droplets of ligroin, and collect at the junction of the two liquids. Uhlenhuth previously described a method of separating tubercle bacilli by means of a liquid containing an alkaline hypochlorite and an alkaline hydrate. When ordinary micro-organisms are treated with solutions containing up to 20 per cent. of this liquid, which is known under the name of "antiformin," solution takes place; tubercle bacilli, however, are not attacked by the alkaline hypochlorite solution. G. Bernhardt (*Deut. med. Woch.*, August 19th, 1909) has combined these two methods together, and finds that excellent results can be obtained in this way. The sputum is rendered homogeneous by shaking up with four times its volume of a 20 per cent. solution of antiformin (for example, 5 c.cm. of sputum and 20 c.cm. of a 20 per cent. solution of antiformin), and allowing it to stand until a completely homogeneous emulsion results. This takes from half an hour to several hours, according to the nature of the sputum. The process can be carried out in an ordinary graduated measure cylinder having a capacity of from 50 to 200 c.cm. A special stoppered cylinder graduated in c.cm. is still better. When the emulsion is homogeneous, from 1 to 3 c.cm. of ligroin is added. Previous to this, 25 c.cm. of tap water may be added, but this is not necessary. The ligroin will form a layer above the fluid of from 3 to 5 mm. in depth. The whole is then shaken, a white emulsion resulting. On allowing the emulsion to stand, the ligroin rises in droplets to the surface. This can be accelerated by warming the cylinder in a water-bath at 60° C. When the ligroin has separated from the fluid sharply, the tubercle bacilli will be found in the layer between the two fluids, and may be gathered by means of a platinum loop. The loopful is spread on to a warmed slide, from which the ligroin rapidly evaporates, leaving the bacilli, often in surprisingly large numbers. The bacilli must then be fixed and stained as usual. The author points out that while the antiformin does not kill tubercle bacilli, they cannot withstand the action of the ligroin, which obviously dissolves the waxy coat. Tubercle bacilli treated with ligroin in the manner described above are no longer capable of infecting guinea-pigs.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

30. Chronic Appendicitis.

GALLENGA (*Gazz. degli Osped.*, June 27th, 1909) publishes a synthesis of recent literature with regard to chronic appendicitis. Broadly speaking, there are two main types: that which is chronic from the outset (the recurrent appendicitis of English and American authors), and that which follows one or more acute attacks (the relapsing form). Any of the numerous causes which excite an attack of acute appendicitis may in their turn set up the chronic varieties. Authorities differ as to the relation between colitis and appendicitis—it may be one of mere coincidence or each may act as an excitant of the other; a similar difficulty in the exact etiological relation also exists in the case of constipation and appendicitis. Clinically chronic appendicitis may be divided into: 1. Simple chronic appendicitis—(*a*) with acute or relapsing attacks; (*b*) without acute attacks. 2. Chronic masked appendicitis—(*a*) dyspeptic form; (*b*) abortive. 3. Paroxysmal (simulating renal, hepatic, and ovarian colic). It has been pointed out by Klemm that in chronic appendicitis you are apt to get a contractile caecum giving a characteristic gurgle on pressure. In these cases, also, there is often a considerable difference between the axillary and rectal temperature. Tenderness over McBurney's point is common to all varieties. Tuberculous and actinomycotic forms are discussed. The diagnosis rests on (1) history of one or more acute attacks; (2) gastro-intestinal disturbances; (3) the presence of a tumour or swelling in the right iliac fossa; and (4) tenderness over McBurney's point. Of these symptoms and signs the last is the only essential one. The prognosis *quoad vitam* is not bad in chronic appendicitis, but may lead to much discomfort, so that eventually in most cases operation becomes necessary. In children the author would always operate after the first attack; in adults a waiting policy with medical treatment may be tried.

31. Permanent Spastic Paraplegia in Uraemia.

THE paralyses of uraemia hitherto described have usually been of the flaccid type, with abolition of the deep reflexes; contractures with increased reflexes have generally heralded speedy death. Pic and Roubier (*Lyon Méd.*, November 21st, 1909) record a case which first came under their notice in March last, in which the signs of spastic paralysis gradually appeared in April, and still persist. Their patient, a man aged 54, with a history of alcoholism, was admitted to hospital on account of dyspnoea and oedema of the legs. The urine contained a considerable quantity of albumen. Pleurisy with effusion developed during March, and about a litre of fluid was removed from the left pleural cavity. In the middle of April the patient complained of pain in the legs and difficulty in walking. The deep reflexes were exaggerated both in the arms and legs, there was hyperaesthesia, and Kernig's sign was present to a slight extent. The gait was spastic. At the beginning of June sudden loss of power in the right hand was associated with definite aphasia; 30 c.cm. of clear fluid were removed by lumbar puncture. This was followed by distinct improvement in speech and in the paresis of the right side. A few days later Cheyne-Stokes dyspnoea was noticed, especially after exertion, but was relieved to some extent by bleeding. It persists still on exertion, but is absent in repose. The spastic paraplegia and right hemiparesis are also permanent. Probably the symptoms are due in part to patches of degeneration of brain substance and in part to oedema.

32. Spastic Constipation.

JOS. N. LECONTE (*Med. Record*, November 6th, 1909) says that constipation is a symptom of many diseases, and results from many causes. The atonic and spastic forms are opposite in causation and symptoms. Spastic constipation depends upon a spastic contraction of the longitudinal and circular fibres of the intestinal wall, caused by inflammation or irritation. It is generally found in nervous, highly-strung persons, especially women. Anal fissure or ulceration, and uterine and ovarian irritations are causes in women, and prostatic irritation in men. Any of the causes of chronic colitis, or an atonic constipation may indirectly cause the spastic type. The symptoms are attacks of sharp pain along the colon or radiating from the umbilicus, especially before expulsion of gas or faeces, dull aching pain in the intervals, and small scybalous or flattened stools, passed in two or three stools each day with much pain. Laxatives give much pain and act only in large doses. Mucus in considerable quantity may be passed. Harsh, irritating foods, such as are used in the atonic variety, are harmful here. The diet should be bland and should consist of materials that can all be passed through a fine sieve. It is associated with mucous colitis in many cases. The cause must be removed, careful directions given for diet and hygiene, and belladonna and other muscular sedatives given. General massage of the body and extremities and galvanism are of value.

33. Severe Primary Anaemia in Infancy.

W. STOELTZNER (*Wien. med. Klin.*, June 27th, 1909) has described in an earlier article a severe form of anaemia in infancy, which is distinguished by the fact that it occurs exclusively in premature children, especially in twins; that it is not accompanied by swelling of the spleen; and that it becomes strikingly improved if exclusive feeding with milk is given up and a mixed diet containing more iron is substituted. The author looks upon the condition as one of primary deficiency of iron. A case of this rare disease is described in the present article. The child was born two months before term, and was one of twins, the other of whom died on the day of birth. The child came under the author's observation twice, the first time at the age of 5 months, when anaemia was not observed; the second time at 1 year and 4 months, when he was suffering from diffuse bronchitis and some bronchopneumonic areas, and when the most striking feature was an extraordinary wax-like pallor. The spleen was not enlarged. Examination of the blood showed that the haemoglobin content was between 40 and 50 per cent. of the normal; the number of red corpuscles was 1,988,000 per cubic millimetre. The child had been fed on milk and water, barley water, or gruel, with the addition of sugar. The essential point in the condition of the blood is the decrease in the number of red cells, with a corresponding decrease in the haemoglobin content of the blood, while the haemoglobin content of the individual cell remains normal.

SURGERY.

34. Artificial Ischaemia in Cranial Operations.

SAUERBRUCH (*Zentralbl. f. Chir.*, No. 47, 1909), in a report of recent research on artificial ischaemia of the cranial contents, reminds his readers that three years ago he proved that with the use of his pneumatic chamber it was possible, by the local action of increased air pressure on the opened skull, to arrest completely haemorrhage from the bones and the brain, and to reduce to a marked extent the force of the arterial circulation. Such method of controlling haemorrhage was found to be unsuited to the human subject, as experiments on animals proved that it frequently caused air embolism. It was, moreover, too complicated to be of any use in clinical work. By more recent experiments it has been shown, the author states, that cranial and cerebral ischaemia may be produced by reducing the pressure of air on the surface of the chest and abdomen confined in the pneumatic chamber, the blood being thus derived from the head, which is not confined. The results of the physiological research carried on by the author in association with Schenk and Lehmann are reviewed as follows: (1) The reduction of air pressure on the surface of the thorax causes forcible dilatation of this cavity and active aspiration of venous blood into the right side of the heart. (2) The rarefying of the air is followed by marked dilatation of the capillaries and veins of the portions of the body enclosed within the chamber, especially the abdomen. The dilated vessels contain a large portion of the blood that is circulating in the body. (3) The tension of the carotid artery and the femoral arteries is not altered. (4) The blood pressure in the jugular veins is lowered, while the air pressure in the chamber is reduced. (5) During the venous anaemia of the cranium slight pressure on the surface of the abdomen

is sufficient to displace the blood accumulated in the abdominal veins, and to re-establish the normal supply of blood to the brain. (6) After ligature of the external jugular on both sides, it is difficult, if not impossible, to set up venous anaemia of the cranium by subjecting the trunk to reduced air pressure. (7) Moreover, the influence of the reduced air pressure on the blood contained within the cranium is abolished when the contents of the abdominal cavity, as in instances of over-distended bladder and pregnant uterus, are subjected to great and abnormal pressure. (8) In these experiments air embolism was prevented by the contracted diameter of the empty veins on section. (9) No signs were observed of any hurtful influence on the brain of these experiments on reduced air pressure. In considering the prospects of any application of these results in human surgery, the author states that notwithstanding the good and promising results obtained in his numerous experiments on animals, any use of the method here described must in surgical practice be made with the greatest care. It should not be tried on any subject of cardiac or vascular disease, and its use should be restricted to the prevention of venous bleeding. There could be no technical difficulty, he concludes, in performing a cranial operation on a patient whose trunk and limbs are enclosed in a small pneumatic chamber. The degree of the intracranial ischaemia may be made out by careful observation of the optic disc.

35. Jejunostomy in Ulcer and Cancer of the Stomach.

BILLON of Marseilles (*Arch. prov. de chir.*, No. 10, 1909) has collected 127 cases of jejunostomy for extensive ulceration and for cancer of the stomach. The operative mortality in this series was 29 per cent.; 64 patients did not live longer than three months, and in one instance only did the period of survival exceed one year. In spite of these unfavourable results, the author holds that jejunostomy is under certain limited conditions a good operation. From a chemical point of view it is not absolutely necessary, he states, that the food should pass by the mouth, stomach, and duodenum. The exclusion of the upper part of the digestive apparatus is compatible with life if food finely minced or in a fluid form can be directly injected into the jejunum. After jejunostomy, however, the functions of the mouth can be kept up, and the gastric, hepatic, and pancreatic secretions can follow their normal course and exert their normal action on the alimentary contents of the jejunum. Many different methods of jejunostomy have been devised. The most rational and successful are, in the author's opinion, those known as the Witzel-Eiselberg and the Maydl operations. The former, practised on similar lines to those of Witzel's method of gastrostomy, can be easily and quickly practised, causes very little shock, and does not necessitate the use of a general anaesthetic. Maydl's operation, which consists in division of the jejunum with anastomosis of the upper end to a distal portion of the intestine and attachment of the lower end to the wound in the abdominal wall, is a more serious procedure, which cannot well be practised except the patient be thoroughly anaesthetized, and is contraindicated by the existence of perigastric and perijejunal adhesions. Jejunostomy, it is held, may often be practised with good results in cases of gastric ulcer, the stomach being placed by this operation in a state of absolute repose. The fistula in successful cases may be closed at a later date. Maydl's operation is best suited to such cases. In cancer a jejunal fistula may be made with good palliative results when gastro-enterostomy is rendered impossible by the low state of the patient; though not to be regarded as a *pis aller*, jejunostomy, it is acknowledged, is in most cases of malignant disease of the stomach an inferior operation to gastro-enterostomy.

36. Chondroma of Mammary Gland.

DAVIDSOHN (*Zentralbl. f. Gynäk.*, No. 39, 1909) reports a case where a woman, aged 51, underwent amputation of the right breast for cancer. In the left breast lay a very tough, circumscribed growth of the size of a cherry. It was enucleated with the greatest ease. On microscopic examination after the employment of suitable staining material—kresyl violet—the growth proved to be a true enchondroma, the cells being characteristic, whilst the stroma was pure chondrin. It was not a mixed growth, being free from cancerous elements, glandular structures, or connective tissue. Davidsohn dwells on former observations. Birch-Hirschfeld found that chondroma of the mamma was rare, and usually directly combined with cancer. Virchow only trusted three earlier reports of chondroma in the breast. He remarked that cartilaginous tumours were extremely frequent in the dog, sometimes as a solitary growth, at others involving all the mammae. Foucher reported an instance of chondroma of the male breast, which Virchow considered doubtful. Ribbert considered that chondroma of the breast was always part of a mixed growth. On embryological grounds it is not surprising that cartilaginous new growths should be uncommon in the mammary glands, but Davidsohn implies that great care should be exercised about the staining of sections of tumours, especially when their appearance is doubtful. In this example, where precautions were taken, chondrin was detected, but it might easily have been overlooked.

OBSTETRICS.

37. Miliary Tuberculosis during the Puerperium.

ROSE (*Muench. med. Woch.*, September 21st, 1909) finds that miliary tuberculosis occurring during the puerperal period is extremely difficult to diagnose. He cites cases which have been published of illnesses which were regarded to be puerperal fever during life, which proved *post mortem* to be miliary tuberculosis. He further gives the details of a case in Veit's clinic in which a rigor occurred two days after an abortion. Eight days later the patient was sent into the clinic with the diagnosis of puerperal fever. Streptococci were found in the vaginal secretion. A piece of placenta was removed manually and the uterus irrigated with 50 per cent. alcohol, while other general treatment was employed. As the blood remained sterile the diagnosis of sapraemia was made, and the uterus was extirpated in the hope of arresting the process. Pneumonia and typhoid fever were excluded when the illness continued after the operation, and miliary tuberculosis was then taken into consideration. Although there were no signs pointing to this disease, it could not be excluded. The patient died seven days after admission, and *post mortem* miliary nodules with a few beginning caseating centres were found in both lungs. Rose lays great stress on the bacteriological examination of the blood. He points out that the general practitioner is in the habit of making pleural punctures and other aspirations, but is afraid of abstracting a little blood for bacteriological purposes, although this manipulation is really less dangerous than the former. He considers it wiser for the practitioner who is not in the habit of making bacteriological examinations to collect from 10 to 20 c.cm. of blood directly into a sterile flask, and, after shaking the flask well, to send it to an institute for examination. An attempt to plate out would, in the hands of an inexperienced man, probably lead to accidental contamination of the plates. Unfortunately, the prognosis is almost equally bad in cases of severe puerperal sepsis and in miliary tuberculosis. But it may be possible in future to obtain better results if the cultures from the patient's blood in the sepsis cases are employed in the preparation of curative serums. It was already known that the severer forms of sepsis were caused by a haemolytic streptococcus, and the isolation of a non-haemolytic culture from the lochia has enabled the physician to determine that the sepsis in a given case is likely to be amenable to treatment.

38. Treatment of Eclampsia.

H. M. LITTLE (*Journ. of Obstet. and Gyn. of the Brit. Emp.*, September, 1909) discusses the treatment of puerperal convulsions, and passes in review a series of 40 cases, 39 of which were treated in the Maternity in Montreal. The cases showed the usual premonitory symptoms. In all of them there was a marked decrease in the time of coagulation of the blood to a time varying between 2¼ to 2½ minutes. This time gradually increased as the patient improved, and constituted a fairly reliable guide to her condition. Only 4 of the 40 cases died. One died of acute yellow atrophy of the liver, one of cerebral thrombosis, possibly the result of slight infection during labour combined with low blood pressure resulting from venesection. The two remaining deaths the author ascribes to insufficient treatment; one was treated by the morphine method, the child being delivered by *accouchement forcé*, but not until the day after admission; the other had eight convulsions before delivery. Out of 31 patients who had convulsions while undelivered, 15 were delivered immediately and 16 underwent treatment before delivery. Immediate as compared with delayed delivery had very little, if any, effect on the occurrence of *post-partum* convulsions, but had a great effect in favour of survival of the child. If the cases in which the child was not viable or was already dead on admission of the mother be sub-

racted, it was seen that 12 live babies were obtained from 13 cases of immediate delivery and only 3 live babies from 13 cases of delayed delivery—that is, 92 per cent. as compared with 23 per cent. Immediate delivery, therefore, offers four times as good a chance for the child. Immediate delivery is not indicated if the child is not viable or is already dead from toxaemia unless convulsions continue; the author doubts also the advisability of dilating forcibly in cases in which labour has not set in, the cervix is rigid and the practitioner without assistance. There were only 4 cases of spontaneous delivery. Forcible dilatation of the cervix was carried out by the manual method whenever it was employed, and the Pomeroy bag was used in 6 or 7 cases as a preparatory measure. There was evidence of injury, slight or severe, to the cervix in all but 3 of the cases of dilatation, and in nine instances the cervix was sutured with perfectly satisfactory results. In only one case was a surgical as opposed to an obstetrical procedure adopted—vaginal Caesarean section. As to drug treatment, one case received veratrum after admission in the hospital but without permanent effect. Morphine was used only in small doses, and its administration is considered to be irrational except, perhaps, when a patient is conscious and very restless; chloral was given in a few cases, but without definite satisfactory result. The author suggests the following general rules of treatment: (1) Minimize the use of narcotics and anaesthetics. Chloroform is rarely indicated for the control of convulsions but should be used when general anaesthesia is required for examination or delivery. (2) Immediate delivery is advisable, particularly when the child is viable. (3) In the majority of cases the onset of labour is associated with the onset of convulsions; *accouchement forcé*, preferably Harris's method followed by version, has given the best results. (4) Immediately after delivery, if not before, the stomach should be washed out. Several ounces of magnesium sulphate, well diluted with warm water, should be introduced through a tube. The patient should then be sweated by means of a hot-air bath or hot pack. (5) If convulsions recur after delivery, and particularly in *post-partum* eclampsia, the best results are obtained by withdrawing 700–900 c.cm. of blood from one of the veins of the forearm. (6) A large quantity of fluid (forced fluids) should be given for several days, and the amount so given should be carefully tabulated for comparison with the amount of fluid eliminated in the urine and stools. If the excretion is inadequate, repeat the sweating and purgation. Do not allow the patient to become waterlogged. (7) Careful records of ingestion and excretion should be kept for at least ten days, as the involution of the uterus has a marked effect on the general metabolism, particularly between the sixth and ninth days.

GYNAECOLOGY.

39. The Age of Beginning of Menstruation in the Far East.

YAMASAKI (*Zentralbl. f. Gynäk.*, No. 37, 1909), director of the gynaecological department, Kumamoto, Japan, has drawn up some instructive statistical tables to throw light on the question of the menarche or establishment of the catamenia in the female subjects of the empire of Japan. Five races reside in that empire—the Japanese; the Kiris or inhabitants of the Loo-Choo Islands (Riukiu Isles in Japanese); the Ainos, the now well-known hairy, tall barbarians of Yesso; the Chinese born in Japan, and the aborigines of the isle of Formosa. Statistics on a large scale are made with much less difficulty in Japan than in the nearer East, and Yamasaki includes minute analyses of reports from different parts of Japan proper as to the menarche in girls of pure Japanese race. The climate in the North is different from that in the South, though the habits and morals of that race are much the same; but, on the other hand, there are far greater difficulties in estimating true averages amongst girls of the non-Japanese races. Chinese women are very shy, and may mislead the inquirer; the Ainos dislike and distrust the Japanese doctors, and are also ignorant and stupid, so that their replies may be of little value as information about the catamenia. However, Professor Koyabe and three qualified assistants have succeeded in gaining the confidence of the Ainos, after long residence in Kokkaido, in the north-east of Yesso, and close association with the females of that remarkable race. They find the maximum of early menstruation at 13 years, and the latest age at which the catamenia were established 18 years and 6 months. Yamasaki makes the Aino average 15 years 2 months and 12 days. The Aino girls, let it be remembered, fish and hunt with their fathers and brothers, and live in a climate resembling that of the coldest and dampest parts of the British Isles. Yet in the Loo-Choo or Riukiu Isles, midway between Japan and Formosa, the average age for the establishment of menstruation is 16 years, according to some carefully-prepared statistics drawn up by the medical officers of the State hospital on the main island, with the aid of Dr. Gajoko, a doctor who has gained the confidence of the natives. The Chinese girls born in the Japanese Empire begin to menstruate, on the average, at 16 years 7 months; Yamasaki notes that in their race the young girl is nearly always kept indoors. The average for girls of pure Japanese stock is 14 years and 10 months, but, as above stated, Yamasaki analyses minutely statistics concerning his own race, and he finds that a late menarche, 16 years, is very rare. It has not yet been found possible to get trustworthy statistics about the female aborigines in Formosa. Yamasaki shows that the age for the establishment of the period in the Far East is not very different from that in Western Europe, and since he has discovered that it is earlier in a hardy northern barbarian race than amongst the civilized Chinese, who allow no freedom to their women, he concludes that the difference must depend upon some hitherto unrecognized physical peculiarity in each race, or in some customs and manner of life never as yet taken into account.

THERAPEUTICS.

40. Salicylic Ionization for the Relief of Pain.

STÉPHANE LEDUC, of Nantes, discusses (*Arch. d'élec. méd.*, November 10th, 1909) the relief of pain afforded by the electrolytic introduction of salicylic ions. He cites several cases of old neuralgias which have yielded rapidly to this therapy. One patient had suffered for nine years from periodical attacks of trigeminal neuralgia, the maximum intensity of the paroxysms being in the supra-orbital nerve branch. During a crisis he could only lie moaning on a bed, unable to obtain sleep or to take nourishment, and after each attack he was rendered incapable of following his occupation for several days. Nerve stretching was carried out, but no relief followed, and many applications of the continuous current at high intensity, with the positive electrode applied to the seat of the pain, were similarly unsuccessful. Salicylic ionization was then tried (20 to 30 milliampères, forty minutes' séance), and this was repeated every day, with the result that although there was some shifting of the neuralgic pain to the gastro-hepatic region, the paroxysms quickly lessened in intensity, and within a short time the patient was able to return to his ordinary activities, suffering only very slight discomfort. Later, six further séances were given, and he became entirely free from all pain. Another patient who had suffered for more than thirty years from irregular crises of trigeminal neuralgia, and whose pain had been augmented by alcohol injections, found his trouble completely disappear in the course of a single séance (25 milliampères, one hour). As an instance of the rapidity of action of this treatment, Leduc mentions another case of inveterate trigeminal neuralgia, which had compelled the patient—a marshal of cavalry in the gendarmerie—to retire prematurely, and which was practically cured after a single séance of salicylic ionization. He brings forward also a case of neuralgia affecting the right eye, and accompanied by intense ophthalmia, the conjunctiva being much swollen. A thick wad of absorbent cotton impregnated with a warm solution of 1 per cent. salicylate of sodium was placed over the eye, and connected with the negative pole of the battery, a current of 10 to 20 milliampères being passed during forty-five minutes. Three séances per week were given, and improvement was noted from the beginning of the treatment, while twelve séances affected a complete and definite cure. This particular ion, according to Leduc, possesses the special property of relieving the pain of an inflamed wound. On several occasions he has dressed painful wounds with compresses impregnated with a solution of salicylate of sodium, sterilized by boiling. He uses this dressing in connexion with the negative pole of a generator, and passes 20 to 40 milliampères, according to the nature of the wound, for one hour. Not only does the pain disappear immediately and completely, but this procedure also serves to disinfect the wound. The introduction of the penetrating ions has a regular and rapid efficacy.

41. "Gas-bubble" Baths.

"GAS-BUBBLE baths" (*Luftperlbäder*) is a term used in Germany to denote baths of water containing gases of various kinds in such quantities that at the temperature employed, and under atmospheric pressure, myriads of tiny gas bubbles are set free and ascend to the surface of the water. H. Senator (*Deut. med. Woch.*, September 2nd, 1909) discusses the therapeutic action of several forms of these baths. Carbonic acid baths are the oldest and most commonly used. They may be either natural, the spring water containing large quantities of carbonic acid, or artificial, in which case the CO_2 saturates the water or is conducted into the bath through a pipe or tube. It has been shown that the action of such baths depends on a peculiar form of thermic stimulation, caused by the difference between the indifference point of water (about 95° F.) and that of carbon dioxide (about 75° F.). Naturally the indifference point of the CO_2 bath will be nearer that of water than that of gas, since the quantity of gas is small as compared with the quantity of water. The heat capacity of carbonic acid is about five times smaller than that of water, and its heat conduction is about fifty times smaller than that of water. A CO_2 bath is generally given at between 87.8° and 91.4° F., at which temperature the water feels cold and stimulates by cold, and the gas bubbles feel warm, and exercise a heat stimulation. On getting into the bath the patient feels the water cold, but soon the warmth of the bubbles which settle on the surface of the body makes itself felt, and the bath exercises an alternating cold and heat stimulus. Oxygen baths act in a similar manner. Air baths are also given. Air has about two-fifths of the heat capacity of water, and the heat conductivity of water is about twenty-eight times that of air or oxygen, The air is conducted through a mat of plaited bamboo strips. With a water pressure of two atmospheres, 100 litres of air can be pumped into the bath in 6 minutes. Observations have shown that the blood pressure, the size of the pulse and its frequency sink under the influence of these air-bubble baths. These baths act more sedatively on the nervous system than carbonic acid baths. It has further been shown that apart from the inhalation of the freed gas or air the skin can absorb gases, and in the case of CO_2 this has a certain therapeutic effect. The absorption of air or its inhalation cannot produce any action, and the author therefore ascribes the therapeutic effect of air-bubble baths wholly to the thermic stimulation. He has found these air and oxygen baths of use in nervous irritability, nervous palpitation, tachycardia, insomnia, and wherever it is desired to diminish the blood pressure, especially in arterio-sclerosis. In his experiments he has given a number of patients air-bubble baths (some in Apparatus A and some in Apparatus B), ordinary warm baths, oxygen baths and carbonic baths, and has observed the effect of these various baths on the blood pressure. The temperature of the baths was so adjusted that neither warmth nor a feeling of cold was experienced. That of the air, CO_2, and O_2 baths lay between 89.6° and 91.4° F., and that of ordinary water at 95° F. The blood pressure was measured graphically by means of Strauss's turgo-tonograph, which records the pulse frequency at the same time. The measurements were taken before the bath, during, and half an hour after the bath. Precautions were taken to keep the conditions under which the patients were placed as constant as possible. The body temperature and pulse frequency did not appear to have been appreciably altered. Subjectively the patients felt a pleasant sensation in the air and oxygen baths; the skin was not reddened in these baths, while it was in the CO_2 baths, the breathing became freer, and some patients believed that their subjective symptoms were lessened by the baths. The blood pressure was raised by the CO_2 baths, not influenced by the ordinary baths, and was lowered by the oxygen and air baths. Senator gives the figures of two cases.

42. Vascular Naevi removed by the X Rays.

MORIN (*Arch. d'élec. méd.*, September 25th, 1909) reports two cases of vascular naevi which yielded readily to the *x* rays. One case was that of a girl aged six months who had a large naevus, presenting a raspberry-like surface, on the left temple. The treatment was effectual in five séances, given at intervals of about one month. The quantity applied at each séance was not well determined, owing to the defective working of the tube, but it was certainly less than 2 H. In a similar case of a boy aged 3 years, practically complete success was obtained after eight séances. There was a remarkable lessening in the area of the growth after the beginning of the treatment, and then this shrinkage became less pronounced than the flattening and decoloration. The tube employed was a Chabaud, with conical anticathode, giving rays of 6 or 7 B. The same writer mentions a case of exophthalmic goître in a woman aged 23. The goître, which was very strained and pulsatile, became soft and flabby after a single *x*-ray séance, and greatly reduced in size. One month after the second séance, given fifteen days after the first, it had disappeared completely, and the patient's general condition had greatly improved.

PATHOLOGY.

43. Clinical Differentiation of Peritoneal Transudates.

MARTIN ENGLÄNDER (*Wien. klin. Rund.*, April 4th and 11th, 1909) examines the percentage of proteids in the transudates and the blood serum in the three types of peritoneal transudate—that is, in hydraemia due to Bright's disease, amyloid kidney, etc., in portal stasis and in general venous stasis. Experiment has shown that the percentage of proteid in a transudate depends on (*a*) the composition of the blood, (*b*) the endocapillary blood pressure, (*c*) the alteration in the vessel walls. Of these three factors the first can be the best tested, very little is known about the second, and we have no measure of the third. In cases of hydraemia, especially in Bright's disease, the percentage amount of proteid in the transudate is very small, varying from under 0.3 per cent. to 0.5 per cent., or occasionally as much as 1 per cent. The proteid contents of the blood serum are also very small, being frequently, in cases of chronic parenchymatous nephritis, only half, or under the normal amount of 7.6 per cent. In the author's opinion, a causal connexion exists between the low proteid percentage of the blood serum and that of the transudate. The percentage of proteid of from 0.3 to 0.5 per cent. in the transudate of Bright's disease only holds good as long as general venous stasis due to heart diseases or peritonitis does not set in. Thus, Runeberg, in a case in which the originally low albumen content of the transudate rose after a week to 1.22 per cent., concluded that the cause of the rise was the setting in of peritonitis, and this view was confirmed at the autopsy. To these mixed effusions Engländer gives the name of "transoexudates." In general venous stasis the proteid contents of the transudate reach their highest limit and vary between 1 per cent. and 4.4 per cent., while the specific gravity of the blood serum is often normal, and never above normal. Cases of fluid in connexion with contracted kidney belong etiologically to the group of general venous stasis and not to that of Bright's disease, and the corresponding conditions of the transudate and blood serum are found. In portal stasis the condition of the blood serum has not been adequately examined, but it may be accepted that in cirrhosis of the liver with portal stasis the blood is hydraemic, but not to the same extent as in Bright's disease. It is clear that in liver cirrhosis without heart failure, in which there is a strong flow of arterial blood to the liver and obstruction of the venous system within the liver, the endocapillary blood pressure will be higher than in the condition of general venous stasis. The proteid contents of the transudate in portal stasis vary from 0.4 per cent. to 2.6 per cent.; in 60 cases analysed by Engländer the percentage was always under 2 per cent. The composition of the proteid in the transudate of liver cirrhosis also varies from that of the transudate of general venous stasis; thus, in a case of ascites due to cirrhosis the total globulin was 62.85 per cent. and the albumen 37.15 per cent., while in one due to heart failure the total globulin was 47.82 per cent. and the albumen 52.18 per cent. A case is given which illustrates the clinical value of a knowledge of the differences between the proteid contents of the transudates. The transudate was examined in a case thought to be one of liver cirrhosis, and the proteid content was found to be 3.688 per cent. of albumen, which changed the diagnosis to that of heart failure with venous stasis. In 60 cases of cirrhosis of the liver followed by heart failure examined by the author the onset of general venous stasis did not raise the proportion of proteid in the transudate, and the percentage was never greater than 2.6 per cent., and only twice reached that height; the explanation probably is that by the time venous stasis sets in hydraemia is already far advanced, but further investigation of the matter is required. The whole article goes to show that peritoneal transudates are not uniform but are sharply divided into the three classes—the hydraemic, that of portal stasis, and that of general venous stasis.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

44. Gastric Ulcer in Childhood.

MARTIN KAUFMANN (*Zentralbl. für die gesammt. Therap.*, September, 1909) deals with the subject of gastric ulcer as it occurs in the later years of childhood, and describes three cases in which during the last eighteen months he has carried out a strict gastric ulcer cure. In none of the cases was the presence of gastric ulcer a matter of absolute certainty, unless the symptoms and the prompt result of the "cure" be accepted as proof. The first case was that of a boy 9 years of age, who had suffered for weeks from abdominal pain localized at the pit of the stomach, and associated with the taking of food. There was no vomiting, pain on pressure, or increase of free acid, but the symptoms resisted all treatment for weeks. A typical ulcer "cure" was instituted, and a permanent recovery speedily followed. In the second case, a boy of 11 years of age, severe pain in the stomach was present both before and after food, and had resisted medical treatment for months; the result of the ulcer "cure" was as striking as in the last case. The third case was that of a girl 10½ years old, in whom the symptoms had persisted for a year. Whether ulcer was or was not present in these cases, the fact remains that the ulcer "cure" was the only one which succeeded in removing the symptoms; and the author recommends that for children with obstinate stomach symptoms there should not be too long delay in embarking upon such treatment. He is also of opinion that in adults doctors in general practice are too slow to consider a case one of gastric ulcer unless haematemesis occurs or blood is present in the stools. In carrying out a cure Kaufmann would insist upon at least four weeks of absolute rest in bed, with at least two further weeks before work is resumed. For the first eight to fourteen days he gives only milk mixed with cream, or in some cases milk mixed with the sterilized creams which have a higher caloric value. Meat may sometimes be begun during the fourth week, although it may be well to wait longer, especially if the acid estimations are high. The special points of emphasis are: more frequent, longer, and more rigid gastric ulcer "cures."

45. Status Lymphaticus in Children.

HOWLAND (*Proc. Path. Soc. Philadelphia*, September, 1909), in order to gain a clearer perception of the obscure pathological anatomy and pathogenesis of status lymphaticus, endeavours to sift the evidence and discard vague theories. Statistics are insufficient for any general agreement as to the normal size and growth of the thymus during the first few years of life, as also for the time when atrophy commences, but 15 grams appears to be the average weight, though it is recognized that there may be considerable variations in size, even among normal individuals. The pathological complex known as status lymphaticus is probably much more common than is generally supposed, and after persisting for some years it may eventually disappear. Occurring usually in well nourished children under 18 months of age, the thymus is found to be markedly enlarged, even reaching far into the neck, and so low as to almost cover the anterior surface of the heart, while grooves corresponding to underlying structures may be present on its posterior aspect. Marked hypertrophy of all lymphoid structures (tonsils, adenoids, lingual follicles; cervical, bronchial, and mediastinal glands, Peyer's patches, and the solitary follicles of the intestine, and the Malpighian follicles of the spleen) generally coexists, with frequently small haemorrhages into the serous membranes of the thorax. The microscopic changes in the thymus are those of hyperplasia, the corpuscles of Hassell being sometimes increased in size and number. Eosinophile cells of the mononuclear and polynuclear variety are more numerous than normal, and a few myelocytes and giant cells are present. The changes in the lymphatic structures are those of hyperplasia and proliferation, with degeneration of the cells of the germinal centres. While the enlarged thymus may exert pressure on the trachea, and even cause dyspnoea, it is difficult to believe that a congested thymus could exert sufficient pressure to cause sudden death in a person absolutely free from any sign of dyspnoea immediately preceding decease; but sudden death with dyspnoea took place in four instances while the tongue was being depressed with a spatula, the heart having stopped beating in all some time before respiration ceased, whereas in asphyxia the reverse is the case. Since, also, the great portion of the thymus is below the narrow upper aperture of the chest, with ample room to spread downwards and laterally, it is difficult to see how sudden fatal tracheal stenosis can take place, and many clinicians deny the presence of symptoms due to that cause. If pressure on the trachea be regarded as a very infrequent factor, then the only explanation is the pathological complex of enlarged thymus and lymphatic structures, known as the status lymphaticus, rendering such patients especially liable to sudden death, and with a generally diminished resistance to physical and bacterial insult—that is, a physical type of individual liable to succumb. Experiments to investigate the toxicity of the thymus were conducted by freezing a large thymus from a case of sudden death, and then grinding to a powder, of which 15 grams suspended in salt solution were injected into the peritoneal cavity of two kittens without producing any effect. Further experiments to investigate whether hyperthymization of the blood (or the excess in the blood of the hypothetical internal secretion of the gland) could cause death were conducted, 75 c.cm. of blood from two cases of status lymphaticus being injected without symptoms. The fact that the thymus is epithelial in origin, and therefore of entirely different structure from a lymph node, further complicates the problem, since it points to the action of the two structures being dissimilar rather than associated in their nature, and there is evidence of a proteolytic enzyme in the thymus which is absent in lymphatic glands. Further, it is impossible by injections of thymus glands to produce lymphocytotoxins, which has been done with lymph nodes, bone marrow, and spleen; and if the thymus contained lymphoid tissue it is reasonable to suppose that lymphocytotoxins would be formed. Should further study substantiate the non-identity in structure of thymus and lymph nodes, the hypertrophy of the former cannot be regarded as compensatory for changes in the lymphatics. The theory that the phenomena are nervous in origin is unsupported by most careful examination of the nerve structures.

46. Syphilitic Phlebitis.

ACHARD AND DEMANCHE (*Arch. des maladies du coeur, des vaisseaux, et du sang*, August, 1909) quote the following case: A man 20 years of age was admitted to hospital for swelling of and pains in the left leg which had appeared five days previously. The whole of the left leg was found to be markedly oedematous, the skin red, hot, and tense, and showing some purpuric spots. The patient could not move the limb, and there was some fluid in the knee-joint. There were some purpuric spots over both elbows and over the trunk, and there were abundant reddish macules of a coppery tint. Two and a half months previously the patient had had a chancre, which was followed by falling of hair. At the time of admission to hospital the inguinal glands were still somewhat enlarged. The urine contained a large quantity of albumen. Treatment consisted of intravenous injections of cyanide of mercury, and a milk diet was instituted. Four days later the quantity of albumen in the urine had diminished by one half, and a few days later the mercurial injections were stopped. Although the pain in the left leg diminished, the oedema remained much the same until the leg was punctured and 400 c.cm. of fluid allowed to escape. Following this the oedema diminished considerably. As some pain and oedema appeared over the tibia of the right leg, mercurial treatment was again started, the protoiodide being given by the mouth. Under this treatment the oedema of the legs completely disappeared, but on leaving the hospital, about six weeks after admission, the urine still contained some albumen.

SURGERY.

47. Surgical Treatment of Gunshot Wounds of Lung.

WHILE the majority of surgeons are inclined to treat gun shot wounds of the lung by conservative methods, Max Grasmann finds that the prognosis is not favourable, and quotes Garré's statistics, which show that 30 per cent. of

these cases ended fatally (*Muench. med. Woch.*, October 12th, 1909). The dangers incurred by shot wounds of the lung are (1) internal haemorrhage, (2) haemothorax, producing impairment of the respiratory and circulatory organs by pressure, (3) suffocation caused by pneumothorax, (4) infection, and (5) secondary haemorrhage. The treatment of a patient suffering from severe internal haemorrhage used to consist in absolute rest, morphine, ice applications, and at times styptics. When signs of increasing pressure are manifest, it may be advisable to remove some of the blood from the pleura, care being taken during the first few days after the injury not to start the bleeding again by a sudden removal of a large quantity of blood or clot. The bleeding usually stops in response to the collapse of the lung together with increased intrapleural pressure, cardiac weakness due to loss of blood, and also to the fact that the pulmonary blood pressure is only one-third to three-fifths of the systemic blood pressure. The danger is not finally removed by the stopping of the bleeding. The clot may suppurate, and the resulting empyema may lead to death from sepsis, general weakness, or tuberculosis. If suppuration does not take place, pleural adhesions may form during the process of absorption and result in a permanent collapse of the lung, with displacement of the heart, thoracic wall, etc. For this and other reasons, the author comes to the conclusion that the conservative treatment of severe internal haemorrhage is not always satisfactory. Operative treatment aims not only at saving the patient's life, but also at preventing sequelae, which may permanently incapacitate the patient. The operation can be performed rapidly under local anaesthesia. He regards the presence of a large haematoma in the thorax resulting from a wound of the lung as an indication for operative interference. Pneumothorax, which is caused by entrance of air from without, rarely calls for energetic treatment. When a large bronchus is opened, without an open wound in the chest wall, and a pneumothorax forms in this way, the increased intrapleural pressure may lead to displacement of the mediastinum and heart toward the healthy side, and consequent kinking of the large vessels. Puncture usually only relieves temporarily in these cases. Active operative measures may be required for this condition, as also for empyema, which is mostly dependent on the pneumothorax. The operation is usually undertaken under chloroform anaesthesia. First the blood clot is removed from the cavity of the chest, next the collapsed lung is seized with the hand or forceps, and drawn out of the wound. The wound in the lung is then sought, and in the case of gunshot wounds, both the entrance and exit wounds should be sought for. With regard to the opening to be made in the chest, the author advises the resection of one rib in the first instance, and if the working space is found to be too limited, a second rib can be resected. It is important that there should be sufficient room for the manipulations. The bleeding points and wounds in the lung do not as a rule cause much trouble. After the lung wound has been cleared of blood clot, etc., it is sutured, but if the edges are much contused, it is necessary to trim it up with the scissors. Wounds near to the hilus are best dealt with by tamponage. After the wounds have been firmly sutured with a deep and a superficial row, the pleura is cleared of all blood by dry sterile compresses. The artificial expansion of the lung can be attained with the assistance of a pneumatic chamber, or failing this, by fixing the lung to cover the thoracic wound. Two or three sutures fulfil this satisfactorily, while a large number must be regarded as a disadvantage, since every suture certainly damages the pulmonary tissue. Lastly, the chest wall must be accurately closed. He regards a drain of any description as dangerous. In order to illustrate the results which have been achieved by operation for the treatment of gunshot wounds of the lung, the author mentions that 9 cases have been recorded, of which 6 were saved, while of the wounds caused by stabbing a further 9 cases have been collected, with 7 recoveries. He also mentioned 25 further cases of stabbing treated with suture of the lung, yielding a mortality of 36 per cent. He adds two further cases to the list. The indication for operation in each case was the recognition of a haemo-pneumothorax produced from within the pleura. In both cases the suture was successful in arresting the haemorrhage and in preventing any further complications. In conclusion, the author states that operation is indicated when a large collection of blood takes place in the pleural cavity, or when the quantity of blood is distinctly increasing, and further when pneumothorax due to an opening in the lung, with intact pleura, exists and does not pass off rapidly after puncture, or when it is associated with haemothorax.

48. Thiersch Grafts.

CIGNOZZI (*Rif. Med.*, November 1st, 1909) records 65 cases in which skin grafting was practised with great success. Of these, 57 were done by the Thiersch method and 8 by that of Tagliacozzi (the graft being partly attached). As one might expect, most of the subjects were males (46 males to 19 females), and the ages varied from 3 to 80 years. The sites of the grafts were: On the head 9, thorax and abdomen 11, arms 6, hands 15, and lower extremities 24 cases. The causes for which the grafts were needed varied; for example, 15 cases were for loss of substance after the removal of new growths, 12 after abscess sloughing, 9 after large surgical wounds, 8 for cicatricial deformities, 9 for varicose lesions, 3 for extensive burns, etc. One of the largest surfaces successfully covered is photographed; in this case the granulating area (in the popliteal region) measured 16 by 21 cm. In the technique of the operation the author uses no definite antiseptics, but trusts to asepsis. Both areas (the sound skin and the denuded area) are well washed with warm water and sterile soap for about fifteen minutes, then rubbed with 50 per cent. alcohol and after with ether, and then a warm salt solution (6 per cent.) is allowed to trickle over the parts. After the graft is put in position, it is covered with a square of dry gauze, which is fixed in position by collodion at the four angles, and the whole covered with wool and bandage and dressed a week later. The wounded area to be grafted is of course made in as aseptic condition as possible by various applications and by scraping.

49. Ruptured Spleen in Typhoid Fever.

BRYAN (*Ann. of Surg.*, November, 1909), who has collected 29 cases of rupture of the spleen in typhoid fever, gives the following conclusions on the clinical features and the treatment of this complication. Enlargement of the spleen to some degree is constantly associated, he states, with typhoid fever, and in the course of this fever splenic rupture occurs more frequently than is clinically recognized. This rupture has, there is good reason to believe, remained undiagnosed in many fatal cases of typhoid. On the other hand, it has often been recognized, and on account of medical objection, left without surgical help. The splenic enlargement occurs most frequently in the beginning of the third week and in the actual stage of convalescence. The rupture is probably caused by muscular effort. The medical attendant should at once be put on his guard by any complaint of pain under the left costal arch. In typhoid fever the spleen does not need to acquire very great dimensions for spontaneous rupture. The enlarged typhoid spleen should be gently palpated, but not roughly handled, every day. The author advises that in every case of typhoid fever an ice-bag should be constantly applied over the spleen. An increase of the pulse-rate by from 20 to 30 beats coming on suddenly in the course of the fever, and associated with evidence of shock and internal haemorrhage, needs the immediate attention of the medical attendant. If the liver dullness is not obscured and the temperature is rapidly rising, rupture of the enlarged spleen may be diagnosed. Pain is insignificant as a diagnostic sign of rupture. The only hope for recovery, it is held, lies in operation. In the course of an operation for intestinal perforation the spleen should be palpated through the abdominal wound, and, if found very soft, "like a bag of molasses," should be removed. All the grave complications of typhoid are, in the author's opinion, essentially surgical, and a typhoid state is not contra-indicative of surgical treatment.

OBSTETRICS.

50. The Induction of Premature Labour.

P. RUDAUX (*La Clinique*, December 3rd, 1909) discusses the question of the induction of premature labour. The operation is performed during the last three months of pregnancy, and may be required either to save the life of the mother or the lives of both mother and child. The operation is called for in cases of contracted pelvis. Although sometimes it is abandoned in favour of symphysiotomy and Caesarean section, the latter may be preferred when the case has reached full term. Absolute indications are obstinate vomiting, when the pulse reaches over 100; albuminuria, when classical treatment fails to bring about an amelioration, and when there are visual troubles, headache, insufficient urine (less than 800 grams in the twenty-four hours); severe neuralgia. chorea, osteomalacia, and some skin troubles when these latter refuse to yield to treatment; pyelonephritis, eclampsia, uterine haemorrhage, hydramnios. Relative indications

for inducing premature labour are all of fetal origin, and here exist other means already mentioned to gain the same end; these other operations must be performed when it is recognized that it is impossible for the fetus to pass by the natural passages in the ordinary way. In order to evacuate the uterus Champetier de Ribes's bag should be used. Two or three bags should be procured, varying in size from 5 to 8 cm. These must first be examined and filled with water to see if they are sound; then they should be immersed in soap water and sterilized by boiling for twenty to thirty minutes in an antiseptic solution. They should be preserved in the instrument in which they were sterilized. Other necessary appliances are some Hegar bougies, a bivalve speculum, a long forceps, two ordinary forceps, and a large syringe, such as is used for a hydrocele. All these instruments must be sterilized. One assistant at least is necessary, and there must be at hand sterilized gauze and sterilized or antiseptic vaseline, such as:

℞ Eucalyptol ... ... 2 grams
Vaseline, sterilized ... ... 20 ,,

together with antiseptic solution, antiseptic soap, and methylated spirits. Five litres of cold boiled water and of hot boiled water, three boiled towels, three washhand basins, and a nailbrush are also necessary. A soap bath should be given to the patient if possible, and the bowels should be emptied by means of an enema. The bladder must be emptied, the vulva washed with soap, and the vagina syringed with a hot antiseptic. The basins are cleansed; in one must be placed a solution of sublimate 1 in 1,000 for the hands, in another boiled water to be used in filling the bag, while the third is for washing the hands. The box of instruments should be near at hand and open. After washing and using with vigour an antiseptic solution to the hands and forearms, the bag is taken, folded on itself into the smallest size possible, and held by the forceps. The patient lies across her bed with the legs resting on two chairs or held by assistants. The speculum is placed in position till the cervix is brought into view; this is then seized by the forceps. If the cervical canal is not sufficiently dilated, the operator should pass successively Hegar's bougies Nos. 4 to 14; then a tampon, previously soaked in an antiseptic, is passed up the canal. Then the forceps, with the bag previously vaselined, is gently passed up till it passes the internal os. At this moment the assistant fills the syringe with water, and injects the liquid gently whilst the forceps is withdrawn. The capacity of the bag being previously ascertained, it is now filled with fluid, and the fluid kept in by means of forceps applied to the tubing, then the syringe is withdrawn. After removing the long forceps which has held the cervix in position, some antiseptic gauze should be placed in the vagina before the speculum is removed. Cotton-wool is applied to the vulva and kept in position by a T-shaped bandage. The catheter must be used every five hours during the day, and if there is no gauze in the vagina hot antiseptic injections should be used. In a few hours the contractions begin, and they can be increased by pulling lightly on the tube. The presence of the bag determines the uterine contractions, normal labour follows, and as soon as the cervix is dilated the bag is expelled. If the bag first introduced was a small one, it may then be necessary to introduce another a little larger. After expulsion of the bag ascertain the presentation, or the application of instruments may prove a danger. After expulsion of the fetus it is necessary to irrigate the uterus with an antiseptic on account of the previous manœuvres, for, unfortunately, these always expose the woman to infection.

GYNAECOLOGY.

51. Cervico-Vaginal Fistula in Abortion.

PAWLOW (*Zentralb. f. Gynäk.*, No. 48, 1909) collects four cases where this complication was without doubt due to traumatic causes, an instrument having been employed to induce abortion, and several others where it was not always so evident. In three at least there was rigidity of the os externum and conical cervix with extreme elongation of the anterior lip, and in more than one no instrument had been employed. He reports two cases in his own hospital practice where there was no question about the improper or careless use of instruments, and where the rigidity of the os and the elongation of the anterior lip so as to form a tongue or trunk-like process were marked. The first patient was a primipara aged 20; symptoms of abortion set in at the end of the first month. The vagina was filled with clot and with relics of an ovum and membranes, the os externum was quite closed, but about a quarter of an inch above it posteriorly was a rent extending into the posterior fornix without involving the parametrium, and into the uterine cavity. The uterus was cleared and scraped, the bridge of cervical tissue between the lower end of the rent and the border of the os externum divided, and the whole laceration closed by a plastic operation after trimming with scissors. The upper end did not heal by first intention. The second patient, also a primipara, aborted at the third month; there was much flooding, which led to careful examination. The os externum would not admit the end of the finger, and there was a laceration in the posterior wall of the cervix leading into the cervical and uterine cavity. The bridge of unlacerated tissue was divided, as in the first case; some of the substance of the cervix was examined under the microscope, and found to be deficient in elastic fibres. A plastic operation was performed as in the previous case, but the wound healed perfectly. Pawlow lays stress on the malformation, degenerate tissue, and marked anteflexion which must be the rule in a genuine case of this kind where no instruments have been used. Without these factors the uterus could hardly force an early ovum through the tissues of the cervix.

52. Tubal Chorion-epithelioma after Repeated Tubal Pregnancy.

LÖVQVIST (*Zentralbl. f. Gynak.*, No. 44, 1909) reports that a woman aged 37, a 5-para, who had been under treatment for salpingitis, underwent an operation in 1906 for tubal abortion. The affected tube was not removed. In December, 1908, she once more underwent an operation for tubal gestation. The ovum still lay in its sac, which was in the tube the seat of abnormal pregnancy on the first occasion. Lövqvist removed the tube. On microscopic examination, the wall of the tube was found to be the seat of chorion-epithelioma. There was free proliferation of the syncytium and of Langhans's cells which extended through the tubal wall to the peritoneum, which was perforated at one point.

THERAPEUTICS.

53. Specific Substances in Tuberculosis.

J. MITULESCU (*Berl. klin. Woch.*, August 9th and 16th, 1909) gives a summary dealing with the results of the treatment of tuberculosis by tuberculins in considerable detail. Briefly these may be stated as follows. Petruschky cured 40 per cent. of open tuberculosis and all his cases of "closed" tuberculosis in the first stage by means of Koch's tuberculin. These cures are stated to be permanent. Pottenger cured 84.2 per cent. of the first-stage cases by a combined tuberculin and open-air dietetic treatment, while only 64 per cent. of the cases which were treated without tuberculin were cured. Möller obtained 75 per cent. of permanent cures with combined treatment, and 31.8 per cent. by ordinary sanatorium treatment alone. Wilkinson treated his cases with human and bovine tuberculin ambulatorily, and got cures which lasted for five years and more in 90 per cent. of his first-stage cases, and from 60 to 70 per cent. in his second-stage cases. Those treated by other methods all died. The tuberculins which appear to have yielded the best results are Koch's old tuberculin, T.O.A., P.T.O. (both filtrates gained without the aid of heat), emulsions T.E. and T.O., as well as P.T.E. The author prefers to begin with the bovine tuberculins (P.T.O. and P.T.E.), which are less liable to produce symptoms of hypersensibility, and later to go on with the human tuberculins. Tuberculins may be given by subcutaneous injection, or by mouth or rectum. Many observers have obtained excellent results by giving tuberculin through the digestive tract. The author cured 171 out of 215 cases in the first stage in this way, but of 52 cases in the second stage only 2 did well. The effect appears to be less marked than by injection, but is recommended for ambulatory patients under certain conditions. Next, the author deals with the serums of Maragliano and Marmorek. A number of observers claim to have obtained cures in up to 38 per cent. of the cases, while others have not been able to gain complete cure. Lastly, he deals with Sprengler's I.K., which is said to have yielded excellent results. Even the severe, advanced cases are supposed to be cured by it, while the mild and early cases get well very rapidly. The author's own experience reveals that improvement is

easily obtainable by I.K., but he does not claim to have cured any cases completely by it. He states that it is quite harmless, and therefore is worth trying. His own experience includes treatment with the following substances and with the following results: Maragliano's serum, relatively encouraging results; Koch's tuberculin and Sprengler's bovine tuberculins, 71 per cent. cures in the first stage and 18 per cent. in the second stage. He varied the use of human tuberculin, and more recently has adopted a fresh method of combining the two. The results were improved by this combination. Then he has treated cases with I.K. and Rück's, Beranek's, or Filtrase's tuberculins. These therapeutic experiments are not yet finished, but he says that his results are very satisfactory, especially as ambulatory patients and females can be treated with tuberculin per os or rectum with good results.

54. Ultra-Violet Radiation in the Treatment of Skin Diseases.

An increasing amount of attention is being directed upon ultra-violet radiation as one of the agents in physiotherapy, and the quartz lamp invented by Kromayer seems to be supplanting the Finsen lamp for lupus and other treatments in the favour of some dermatologists. (See British Medical Journal, January 30th, 1909, p. 298.) H. Bordier, of Lyons, has recently discussed (*Arch. d'élec. méd.*, November 25th, 1909) the results of ultra-violet radiation, using the mercury-vapour lamp of Kromayer, in therapeutics. He believes this lamp to constitute a more powerful phototherapeutic agent than the Finsen arc lamp or its derivatives, and, as a consequence, to be much more rapid in its action on the tissues. The lamp may be employed either in contact or at a distance, the applications in contact being reserved for cases in which it is necessary to use compression in order to render the part bloodless. The compression is exerted by means of the quartz window, and is regulated by an elastic band. With the lamp in contact, the writer finds that one very long séance does not produce much more markedly destructive effects than those brought about by a séance lasting only a quarter of the time. The reason is that the ultra-violet rays modify the cells of the more superficial layers of tissue, and, these layers absorbing a certain quantity of the rays, the light action upon the deeper layers is very slow and gradual. Therefore, in cases where depth of action is required, instead of seeking to destroy a considerable thickness of tissue by a very long séance, he gives applications of fifteen to twenty minutes' duration only, and after the reaction is terminated recommences upon the same points. In lupus tuberculosus he has the quartz window in contact with the patches for about a quarter of an hour, first removing the outer crusts which arrest the radiations. Four or five applications upon the same point with ten or fifteen days' interval between them have sufficed for the removal of the patch. The aesthetic results have been much more satisfactory than with the *x* rays, and the cicatricial tissue more supple. In two cases of lupus erythematosus, also, he has obtained remarkable success. Another disease of the skin which has been successfully treated by the ultra-violet radiations, although obstinate to ordinary methods, is herpes circinatus. The treatment consisted of radiations from the Kromayer lamp in contact, and each zone of the disease in each of Bordier's three patients was exposed separately for a quarter of an hour under energetic pressure. The results were the same in all cases: a disappearance of the rings and a period of ten or twenty days' reaction and desquamation of the irradiated parts. Equally favourable have been the results with vascular naevi, acne rosacea, and eczema. In eczema the radiations have been applied at a distance of from 3 to 8 cm., according to the extent of the patch to to be treated. After irradiation a serous layer appeared, and this, on drying, became a crust beneath which the sound tissue reformed. Similarly rapid, necessitating only a single séance, have been the cures of lichen planus. The Kromayer lamp used by Bordier works at 6 ampères, 120 volts, and he takes special care to see that the circulation of the cooling water around the quartz tube is in order. He advocates the substitution of ultra-violet rays for *x* rays in dealing with such affections as those named above, laying stress upon the control to which this agent is amenable and the smaller risk which its use involves.

55. Treatment of Lead Poisoning by Artificial Abscess Production.

It is well known that if a subcutaneous injection of essence of turpentine be given there is a considerable accumulation of leucocytes at the site of injection—a veritable leucocyte bleeding—forming a large abscess. As the leucocytes act as the carriers of lead within the organism, Dr. Jacques Charles of Bordeaux (*Semaine médicale*, July 7th, 1909) has suggested the possibility of utilizing such artificial abscess production in aiding the elimination of lead from the system. His experiments have fully confirmed this hypothesis. In dogs in which subacute or chronic lead poisoning had been produced it was found that the pus from the abscesses contained much more lead than any other organ. Thus, in the case of a dog which had been given during seven days 14 cg. of red lead the pus obtained from the abscess yielded 0.005 mg. of lead sulphate; whilst the liver, where this metal most readily accumulates, did not yield more than 0.003 mg., and in the intestine and brain there were only slight traces of the metal. Starting from these facts, discovered experimentally, showing the eliminative power of the abscess, Dr. Charles tried the method in the human being. Two patients were thus treated. They were both suffering from chronic lead poisoning as a result of their work. One of the patients suffered from violent colic accompanied by uncontrollable vomiting, which resisted all treatment. The second case was one in which the general health was markedly affected, and which presented also bronchial and pulmonary symptoms. In both cases a subcutaneous injection of 1 c.cm. of essence of turpentine was given in the thigh. The effect of the treatment was rapid, and showed itself both in the general condition and in the pulmonary, bronchial, and intestinal symptoms. The amount of lead obtained from the pus in the first case (32 grams of pus) was 0.0025 decimilligrams, and from the second (10 grams of pus) 0.001 mg. of lead sulphate. It is noteworthy that the first patient, a house painter, had stopped all work for three months, but in spite of that, the amount of lead eliminated by the abscess was relatively considerable. This new method is thus an effective means of withdrawing lead from the system, and it is extremely probable that as the method has shown itself of value in chronic lead poisoning it will be at least as valuable in acute cases.

PATHOLOGY.

56. Tuberculosis of the Bovine Intestine.

Chaussé (*Ann. de l'Inst. Pasteur*, October, 1909) summarizes his very extensive investigations upon the anatomy and histology of this subject. He divides the tuberculous lesions found in the bovine intestine into three types—the ulcerated, the hypertrophic, and the herpetiform. The tubercles may be either caseo-calcareous, purulent or fibrous. The character of the lesions corresponds with the degree of resistance offered by the animal organism, the chronic forms of intestinal tuberculosis being remarkable in that they are only slightly caseous and do not contain tubercles, but present diffuse, infiltrating lesions rich in giant cells and bacilli. In the ulcerated form, which is the most acute, there is necrosis and total loss of the mucosa; the lesions develop in the whole thickness of the intestinal wall, but mainly in the mucosa and the submucosa. In the hypertrophic form of tuberculosis the mucosa is not necrosed, and the lesions are chiefly situated in the submucosa. In the herpetiform type the pathogenic power of the bacillus is still less; the lesions are developed almost exclusively in the mucosa, even the submucosa being spared, and the infection comes into category with the ordinary forms of enteritis. The author disagrees with those who think that intestinal lesions are usually due to infection by the blood stream. His opinion is that "tuberculosis of the digestive tract is always due to ingestion and not to generalization by the blood stream with very rare exceptions." In support of his view he points to *post-mortem* observations, showing the integrity of the hepatic and splenic parenchyma, as well as to the results of histological study. The lesions take origin from the mucous surface and progress by the lymphatic route. He also notes that the blood vessels do not suffer primary damage at the foci where the ulcerations develop. Acute ulcerations are characterized by an abundant lymphoid infiltration and a scarcity or absence of giant cells, the appearance of giant cells and of tubercles being signs of a subacute process. Giant cells are formed by fusion of various elements of connective-tissue nature, particularly of epithelioid cells. They are living cells, and apparently phagocytic; their processes are not artefacts, nor are they of amoeboid nature, but they depend entirely on the origin of the giant cells, being relatively scanty when formed from young cells, but numerous when due to the fusion of stellate or anastomosing elements.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

57. Perityphlitis and Pneumonia.

PELNÁR (*Zentralbl. f. inn. Med.*, August 28th, 1909) publishes two cases of pneumonia with symptoms of perityphlitis. A previously healthy woman, aged 35, was suddenly attacked with a rigor, pyrexia, and pain in the caecal region. Her medical attendant found only tenderness on deep pressure in the right iliac region. The general symptoms were out of all proportion to the local, and Pelnár was called, on the second day, to consultation. The temperature was 102.2° F., the pulse 100, and respirations 24. The only signs were slight tenderness over the caecum and harsh respiration high in the axilla. Early on the third day there was well-marked bronchial breathing in this position. On the fourth day consolidation of the right apex extended downwards to the sixth rib and pneumococci were found in the sputum. On the fifth day the bronchial breathing was less pronounced and the abdominal tenderness had disappeared. On the ninth day the temperature fell, but did not become normal. After the eleventh day a fresh rise of temperature occurred, with signs of extensive exudation in the right iliac region. A professor of surgery confirmed the diagnosis of perityphlitis. Pyrexia and pain continued during ten days, and the appendicular symptoms then subsided. Consolidation of the right apex persisted, and a few days later evening rises of temperature occurred. The sputum contained tubercle bacilli. Though the patient gained 13 kg. in weight, some apical catarrh persisted a year later. There had been no recurrence of pain in the caecal region. In the second case a workman, aged 62, was attacked with headache, diarrhoea, and heaviness of the legs. These symptoms increased in severity, and three or four days later a rigor occurred, with increase of old-standing expectoration and pain in the left side. He then took to his bed. The temperature was 104° F., but no abnormal physical signs could be detected. On the following day vomiting repeatedly occurred, with severe abdominal pain and constant hiccough. The writer then saw the patient in consultation. The pulse was 88, respirations were 28, and the temperature exceeded 104° F. The tongue was dry. There were such tenderness and rigidity of the abdomen, especially in the right iliac region, that deep palpation was impossible. There was slight dullness at the left apex, with harsh inspiration in the left axilla. The sputum was catarrhal. During the examination hiccough never ceased. On the following morning the abdominal symptoms had entirely disappeared, and there was neither tenderness nor exudation. But the pulmonary signs increased, and typical left apical pneumonia developed. When the writer saw the patient, a week after the first consultation, slight dullness and bronchial breathing in the left supraspinous fossa and rusty sputum remained. The abdomen was normal. There was cyanosis, and on the tenth day death occurred from cardiac failure. Osler, Bennecke, and others have published similar cases, but no satisfactory interpretation has been advanced. Osler and Martens assume that the caecal symptoms are due to atypical localization of pleural, diaphragmatic, or perihepatic pain. Though this might explain cases with no objective appendicular or peritoneal signs, it would not account for signs of exudation, such as were present in the first case, nor for the signs of peritoneal irritation, which have sometimes been found in cases in which an operation was performed. In neither of the writer's cases was there tenderness or pain in the hepatic region or other indication of perihepatitis. In both the abdominal pain and tenderness extended towards the bladder. This was so marked in the case of the woman that it was necessary to exclude parametritis. Neuritis of the ilio-hypogastric nerve as a cause of the abdominal symptoms was excluded in the first case by the presence of exudation. The writer therefore assumes that the caecal symptoms were due to localized peritoneal irritation of pneumococcal origin. Pneumococcal inflammation of the caecum, though rare, has been proved to occur. Better known is the pneumococcal peritonitis which, especially in children, sometimes complicates pneumonia, but is more frequently primary. This pneumococcal peritonitis may be general, or occur as a localized subumbilical and preomental abscess, or lastly as perityphlitis. In fatal cases of pneumonia pneumococci have been found *post mortem* in the peritoneal cavity.

58. Chronic Acholuric Jaundice with Splenomegaly.

F. MICHELI (*Giorn. d. R. Accad. di Med.*, Turin, 1909 lxxii, p. 213) remarks that this may be either a hereditary family complaint or, less commonly, acquired. Hayem and Lévy describe it as "infective"; Gilbert and Lereboullet as a mild chronic angiocholitis occurring in susceptible persons who have the "bilious diathesis"; Pick as a "paracholic" jaundice due to a congenital weakness of the hepatic cells; Minkowski in 1900 argued that it was a haemolytic icterus. Micheli gives details of a man who had first had jaundice at 19 as a sequel of variola, and had had acholuric jaundice of varying intensity for the next thirty-five (? thirty-seven) years, with more or less enlargement of the spleen. During the last two of these he had attacks of anaemia, dying in one of these; at the end his blood had a haemoglobin content of only 10 per cent., with 750,000 red cells and 2,500 to 3,000 white cells per c.mm. He had regenerated his red cells orthoplastically—normoblasts but no megaloblasts, polychromatophilia, red cells with stainable filaments, and about 1 per cent. of neutrophile myelocytes—on previous occasions. At the *post-mortem* examination the liver weighed 51 oz., and was rust-coloured and not fibrotic; the gall bladder and larger ducts were normal; the spleen weighed 30 oz., and had an opaque fibrous capsule; the pancreas, intestine, and lymph glands were normal; the marrow of the ribs and femur was red, soft, and resembled splenic tissue. Microscopically the spleen showed congestion, little fibrosis except about the capsule, much endothelial desquamation; plasma cells, scattered or in groups, occurred round the vessels; iron-containing pigment could be found in the macrophages and in the endothelial cells. The liver exhibited a slight increase of interlobular connective tissue, not abnormal in view of the patient's age (56); the bile passages were all normal; granules of iron-containing pigment were observed in and around the connective-tissue cells, and in the gland cells throughout the acini of the liver, but not in the biliary endothelium. In a few places were small aggregations of lymphocytes and plasma cells. The liver cells were normal, but a little separated from one another by congested capillaries, and perhaps in part by dilated bile canaliculi. The bone marrow showed less fat and more red marrow—mainly granular cells, many neutrophile myelocytes and megacaryocytes, much iron-containing pigment in the endothelial cells of the capillaries—than normal. Nothing found in the liver threw light on the cause of the jaundice. Micheli discusses the etiology of the excessive haemolysis. He thinks the enlargement of the spleen was not primary and the cause of the haemolysis, but secondary to it; he believes that a congenital dystrophy or debility of the red cells underlay the acquired jaundice of this patient, as it is believed to do the congenital hereditary acholuric jaundice described by Minkowski.

59. Infantile Splenic Anaemia.

ZAMBONI (*Riv. di clin. Pediat.*, October, 1909) gives an account of two cases of the above disease observed by him, and discusses in detail the various reports as to the pathological anatomy in this disease. The most conspicuous and constant changes are to be found in the spleen; the liver, bone medulla, and lymphatic glands may also be affected, but these changes are secondary. In the spleen we find a more or less extensive fibrosis of the reticulum, either alone or associated with a process of granulomatosis; the splenic pulp is increased; the follicles may remain healthy, or be fibrosed in parts; sclerosis of the capsule and large trabeculae is common; haemorrhages of indefinite origin may also occur. The hypothesis of a vicarious haemopoietic function is very doubtful. In the liver there may be oedema, basal congestion, atrophy, and fatty degeneration; sometimes slight perivasal small-celled infiltration, and in rare cases slight increase of connective tissue. Here, too, a vicarious haemopoietic function seems little likely. The bone medulla may be normal; more often it is hyperplasic or hypoplasic. The condition of the bone medulla may possibly account for the varying duration of the disease. The lymphatic glands may be normal or enlarged here and there with simple parenchymatous hypertrophy. These changes may be secondary not only to the primary disease, but also to other concomitant affections.

SURGERY.

60. Unusual Issue of Muscular Contusion.

ROLANDO (*Rif. Med.*, May 24th, 1909) reports two cases of contused muscles ending in the formation of marked callus. The first case referred to a man aged 26, who was disabled for three months in 1907 by a lacerated wound of the left palm, and in September, 1907, when lifting a heavy package, struck his left forearm against an iron post. Two days later he found a painful swelling in the forearm, and had difficulty in moving the limb. This steadily got worse, so that he could do no work, and when seen in January, 1908, presented at the side of the forearm a fusiform hard swelling, fading off indefinitely into the healthy parts, movable and painful on pressure. Passive movements of the forearm were painless and free. The bones were not damaged, and no ossification could be made out in the tumour by the *x* rays. Tubercle and syphilis could be excluded. As no improvement followed treatment, the growth was excised. It was adherent to the aponeurosis, and found to be made up chiefly of young connective tissue, rich in cells and in blood pigment; the muscle bundles showed no sign of striation. There was no proliferation of the nuclei of the sarcolemma. Towards the periphery the muscle fibres gradually resumed their normal appearance. The second case concerned a man who was struck in the calf by a stone on January 19th, 1908, and gradually disabled thereby; when seen on September 31st, 1908, a tumour the size of a nut could be felt in the calf. In this case the use of hot applications and massage dispersed the growths, so that nothing further was needed. Bruised muscles are common enough, but callus such as is described in these two cases is rare. The large amount of blood pigment in the first case suggests that there was free haemorrhage at the time of the accident, acting subsequently as an irritant. The author compares these tumours to those seen occasionally in the abdominal recti of women who have borne children with a good deal of muscular effort.

61. Protective Appendicitis.

ROBERT T. MORRIS (*Med. Record*, January 8th, 1910) says that we have appendicitis presenting itself in two irritative forms—an irritative form occurring in the course of normal involution, which he calls protective appendicitis, and an irritative lesion due to the presence of serous exudates in the tissues of the appendix, occurring with congestion of other organs; there are two infective states, intrinsic and extrinsic infections. He discusses protective appendicitis, which he formerly called fibroid degeneration. By this structures susceptible to acute infection are removed from the appendix by replacement with connective tissue, in the course of normal involution. The nerve filaments in the appendix are pressed upon and cause pain. There is local discomfort persisting for years, with general irritability, or only a sensation of warmth in the region of the appendix. These patients are worried about impending danger from appendicitis, while in reality they are being protected against the danger of infection. The sympathetic nerve filaments pressed on in the contracting connective tissue cause tenderness in the neighbouring ganglia of the sympathetic. These are found by deep pressure to the right of the lumbar spine. If pressure finds tenderness on both sides, the trouble is in the pelvis instead of the appendix. This hypersensitiveness of the ganglia is an important point for diagnosis of protective appendicitis. A second is distension of the caecum and ascending colon with gas. A third is the finding of a hard appendix by palpation. These appendices should not be removed, nor should normal ones. The removal of normal appendices leaves a door open for infection.

62. Conservative Treatment of Intestinal Obstruction.

WARBASSE (*Amer. Journ. of Surgery*, September, 1909) states that not a few lives are sacrificed in trusting too much to complete and perfect technique in treating intestinal obstruction when a cure would have been possible had the surgeon been willing to do less. In a case of gangrene of the sigmoid from volvulus, for example, the surgeon, having practised resection, is prone to proceed with an anastomosis of the bowel. In such instances, in which the temptation to do a complete and perfect operation is very great, a successful operation is often done, but the patient dies. The prospects of success, it is held, are better if the ends of the divided bowel are rapidly brought up into the wound and fastened there. Afterwards, and at a more suitable time and under more favourable conditions, a secondary operation may be performed for the removal of the artificial anus. In the course of a successful emergency operation, practised with the main object of saving life, a stage will come when the lethal conditions have been overcome. The surgeon should then cease to regard his patient as possessed of a fatal disease, but as one with a good chance of recovery if it is but given to him. A false anus, it is true, is for the patient a most unpleasant and almost intolerable condition, but the subject of such an evil can be cured. On the other hand, a patient lying dead, though the neatly-closed abdomen contains a perfect piece of anastomotic work, is not a credit to surgery. In the treatment of intestinal obstruction the major indication is to remove obstruction, and the second step is to empty the bowel of retained stercoral poison. These things having been successfully done and the emergency removed, it would, in the writer's opinion, be a reproach to surgery to proceed to consummate a classical operation when the patient is in the grip of toxaemia.

OBSTETRICS.

63. Puerperal Fever.

IN dealing with the experience and practice of the Göttingen lying-in clinic, R. Birnbaum states that he has been disappointed to find that the behaviour of the leucocytes fails to assist the clinician in coming to a conclusion as to the prognosis of puerperal fever (*Muench. med. Woch.*, No. 34, 1909). On the other hand, he has experimented with the metabolism of these cases, and has found that the power of assimilating sugar goes hand in hand with the power of resisting infection. Mild cases have no difficulty in dealing with sugar. So far, however, he has not been able to test the efficacy of this test in a large number of cases, but in the few in which he has applied it, the appearance of experimental glycosuria appeared to indicate a severe infection. The patients were given ¼ litre of milk, 100 grams of bread and 100 grams of pure grape sugar (dissolved in acrid wine, if necessary) as breakfast; the urine for sugar was tested during the following hours. The best prognostic means at the disposal of the experienced clinician, however, remains his general power of observation. The trained man can discern from the appearance of the patient signs which will justify him in forming a prognosis. He is of opinion that in these days of haematology and bacteriology, clinical observation is being unduly neglected. Turning to treatment, he states that he has received negative results from the various serum therapies, and from collargol. Deutschmann's serum has yielded unsatisfactory results both therapeutically and prophylactically, but he states that it acted well in a very severe case of tuberculosis of the bladder. The treatment will, then, be limited to alcohol and baths, provided that the question of surgical intervention is not entered into. The author discusses the action of alcohol in some detail. He claims that the experiments of Pringsheim *inter alia* have shown that alcohol acts differently in an organism invaded with infective micro-organisms than it does in an afebrile organism. Clinical experience, he states, proves that alcohol is well tolerated by the puerperal patient, and in addition he records the fact that while the number of leucocytes falls considerably after the intake of a large dose of alcohol by a healthy person, it actually rises in a person suffering from a septic disease. He insists on the wine or brandy being pure, and claims that much good can be done by its means. Again, he lays considerable stress on the feeding of these patients. A well-trained nurse is frequently successful in getting the patient to take a full diet, which is highly beneficial, in spite of protestations of loss of appetite. Warm baths are also useful, both in reducing fever and raising the appetite. A dose of pyramidon may be employed for this end.

64. The Pituitary Body during Pregnancy.

THE discovery that pituitary extract has a powerful action on the uterus would lead us to suspect that there might be some peculiar changes in that body during pregnancy. Since 1898, when Comte noted an increase in size of the gland during pregnancy, there have been several contributions on the literature of the subject, but by far the most complete survey of the question has recently been published by Erdheim and Stumme (*Ziegler's Beiträge*, June, 1909), who have been working on the subject for several years. From their examination of twenty-five normal pituitaries they describe the cytological features of the gland. There are three types of cell—the eosinophile granular cells, which predominate in the normal gland; the basophile granular ones, which occupy a place of second importance; and some

ells with very badly defined and poorly staining proto-lasm which they term "Hauptzellen." It is these Hauptzellen" which cause the changes during preg-ancy. They proliferate to form the "pregnancy cells." hey grow from the centre of the alveolus, and on involu-on taking place they slowly retreat to the centre again, ut not until after seven years are they fewer than the asophiles. It is claimed that a skilled histologist can iagnose a former pregnancy from the pituitary gland as urely as the gynaecologist can make the same diagnosis rom a tear in the cervix. The swelling of the gland is uite definite, and in two cases there was a "hernia" of he gland through the hole in the dura which accommo-ates the infundibulum. The article is accompanied by oloured plates, which illustrate these changes in a striking nanner. The authors suggest that the slight swelling of he lips often seen towards the end of pregnancy may be onnected with these changes, and they refer to a case of itemporal hemianopia which was recorded during preg-ancy as another possible result. In the same periodical here appears an article by Haberfeld, who has been nvestigating the pharynx for remains of the embryonal liverticulum which eventually forms the pituitary. After xamining 51 cases at all ages from fetal life to old age, he tates that in all cases he could find a definite structure vhich he describes as a pharyngeal pituitary gland. This s a solid string of cells about 5 mm. long, which runs rom below upwards and backwards immediately behind he vomer. It contains cells like those in the pituitary tself, but here the "Hauptzellen" predominate, and the asophiles may be absent. The eosinophiles are always resent in adults but not in the child. It was also found hat along the track which is traversed by the pituitary rom the pharynx to the sella turcica there may be remains f the gland. A further point of interest is that in this haryngeal pituitary there was in adults at times some olloid material, which fact seems to have some slight earing on the suggestion that the thyroid and pituitary re connected in some as yet unknown manner. Whilst ongratulating the Vienna Institute of Pathology on some ery painstaking and brilliant work, we should like to ear other pathologists on the question. It is deserving of uch further research.

GYNAECOLOGY.

65. Primary Cancer of the Fallopian Tube.

DORAN (*Journ. of Obst. and Gyn. of Brit. Emp.*, January, 1910) has tabulated 100 cases of primary cancer of the Fallopian tube, this article including the second series, from No. 63 to No. 100. The first series was published in the same journal, October, 1904. The second concludes with an instance of this disease in the author's own experience. The patient was a unipara aged 60, subject to a cystic tumour which reached nearly to the ensiform cartilage. At the operation it proved to be a true tubo-ovarian cyst; the left tube contained a free villous growth, which invaded the muscular coat. A few tufts of this growth were found on the inner walls of the ovarian part of the cyst; one had penetrated the walls and invaded the peritoneum of Douglas's pouch. The right appendages were healthy. The patient died of recurrence about two years after the operation. Analysing the 100 cases, the author found that free watery discharge was noted as a prominent symptom in 27 per cent. Yet ascites was only reported in 6 per cent., and in but one instance (Le Count and Newman) was it clear that the peritoneal effusion was due to discharge escaping from the ostium of the tube, although in the example of innocent papilloma of the tube reported by the author in 1879 this complication was marked. The oldest patient in the 100 was 70 (Pawlik and Novy), the youngest 27 (Norris). Pain was most marked when there was obstruction to the escape of watery discharge. In over one-third the disease was certainly bilateral. The evidence is strong that as a rule, at least, tubal inflammation precedes cancer. Boxer's recent researches tend to confirm this theory, which Orthmann and the author maintained from the first. Uterine fibroid was observed as a complication in 9 per cent. (Watkins, Bland-Sutton, etc.); ovarian cyst, excluding tubo-ovarian cases, 10 per cent. Statistical evidence on other points, such as fertility, menstrual phenomena, etc., seemed unreliable. The author adds, after the 100 in his series, the case of Dandelski, never reported in abstract, and notes a singular instance of myxoma of the tube where a pink, sticky fluid was freely discharged, and was also found filling the abdominal cavity (Violet of Lyons). Besides this summary of 100 cases several instructive reports of recent examples of primary cancer of the tube are published in the same number by (1) Herbert Spencer, 3 cases, one associated with a secondary growth in the vagina (unusual in this disease), and another with a fibroid tumour of the uterus; ascites was marked in the third. (2) W. Tate, 2 cases; an emergency operation owing to acute peritonitis following motor accident, left pyosalpinx and right tube found to be cancerous, no evidence of recurrence two years and three months after the operation. In the second case a sudden attack of arterial haemorrhage occurred, followed by continuous loss for three months. Columnar-celled carcinoma of both tubes was discovered; the right ovary, vermiform appendix, and great omentum were infected. (3) T. P. Legg, 1 case, in which one clinical symptom, colicky pains accompanied by a blood-stained vaginal discharge, was marked. The appendages were removed, and the patient was in good health over two years later. Bryden Glendining contributes a Note on the Spread of Carcinoma by the Fallopian Tube, based on two cases where the primary disease apparently lay in the stomach and the duodenum. Histological examination pointed to the view that invasion of the tube in carcinoma is brought about by cancer cells which, coming in contact with the fimbriae or being swept into the lumen, engraft themselves upon the columnar cells, and thence travel to deeper parts. At present, however, the possibility of lymphatic permeation from ovarian growths, in the two cases inspected by the author, cannot, he observes, be entirely excluded.

THERAPEUTICS.

66. Puncture of the Pleura.

H. HOCHHAUS gives what he regards to be the indications for paracentesis of the pleura, and discusses the technique of this procedure (*Deut. med. Woch.*, October 21st, 1909). Trousseau formulated the indications which still hold good to-day. First there is the *indicatio vitalis;* by this is meant that when dyspnoea, cyanosis, and weakness of circulation have become so marked that there is obvious danger to life, the pleural effusion should be removed. In some cases, no doubt, the symptoms are not entirely dependent on the pleural fluid, but even when other causes are contributing, the removal of the excessive fluid will remove one cause of danger to life. Next there is an indication when the effusion is very large. There may not be any signs of direct danger to life, but nevertheless the danger exists. The signs are clear: the chest wall of the affected side is protruded, the intercostal spaces are obliterated, resonance to percussion is limited to the apex down to the level of the second rib, the heart and mediastinum are displaced toward the unaffected side and Grocco's triangle is well marked. Lastly, he regards it necessary to puncture when moderate-sized effusions do not clear up within a reasonable time, which he arbitrarily fixed at four weeks. It is an open question whether puncture should be carried out when fever is present. The author usually postpones carrying this procedure out for one or two weeks, but if the fever persists he punctures, and if necessary repeats it after a time, when the fluid again collects. In many cases he has been rewarded by the disappearance of the effusion and of the fever. Turning to the technique, he makes it an essential condition, that an exploratory puncture should precede paracentesis. For the former, he uses a syringe having a capacity of from 5 to 6 c.cm. The needle should be at least 6 cm. long (that is, 2¼ in.) and have a wide lumen. This is necessary, since flocculi frequently block up small needles, and yield negative results when fluid is present. The paracentesis is carried out with a trocar and cannula; the latter should be provided with a slide tube with a tap. The slide tube is connected with a rubber tube of at least 80 cm. (about 31 in.) in length. At the other end of the rubber tube there should be a bent glass tube, which opens into a glass vessel containing some disinfectant fluid. The apparatus naturally depends on whether it is desired to employ aspiration or merely to siphon off the fluid. The author himself only uses siphoning. The pressure of the fluid should be measured in each case at the beginning and during the paracentesis. The operation is carried out in the following manner: The skin and the hands of the operator are sterilized, and also the instruments. The skin is then fixed with the left hand, and the trocar and cannula are pushed firmly and rapidly into the pleura, at the lowest part of the intercostal space selected for the purpose. As soon as the trocar is in the cavity, it will be felt to be freely movable, and it can then be withdrawn, leaving the

cannula *in situ*. The tap is then opened and the fluid escapes. In small localized effusions it will naturally be necessary to puncture at a situation where dullness on percussion reveals the fluid; but in large effusions, the fifth or sixth intercostal space in the axillary line presents advantages arising from the fact that the muscular wall in this situation is thinner than elsewhere. The scapular line may also be selected. The author does not advise puncture with a grooved needle. Formerly the whole effusion was removed, but it has been shown by experience that the removal of a portion is followed by the absorption of the remainder, and it is therefore advisable to evacuate not more than $1\frac{1}{2}$ litres at a time. The evacuation should not be continued for more than half an hour. Obstinate coughing or pain may compel the operator to break off the paracentesis earlier, but the author finds that a preliminary dose of $\frac{1}{6}$ grain of morphine frequently prevents cough. In dealing with the dangers attending paracentesis pleurae he states that infection, entrance of air, and injury to the lung are matters which need not trouble the present day practitioner. Injury to the intercostal artery is very rare, and is only possible when the artery is abnormally situated. Expectoration albumineuse is a real danger, but even this may be avoided by slow and careful evacuation. In conclusion, he says that he has not been able to satisfy himself of the advantages of Gilbert's autoserumtherapy. By this is meant the reinjection of a small quantity of the effusion subcutaneously. It is supposed to favour resorption of the effusion.

67. Corrosive Sublimate in Articular Rheumatism.

A. BADUEL (*Ann. della Facoltà d. Med.*, Perugia, 1909, ser. iii, vol. vii, p. 5) has obtained very good results from the treatment of rheumatic fever by intravenous injections of corrosive sublimate. The injection is made into a vein of the arm or the dorsum of the foot; the solution injected consists of 1 part of $HgCl_2$ and 8 of NaCl dissolved in 1,000 of distilled water. The dose consists of 5 to 10 mg. of $HgCl_2$, that is to say, 5 to 10 c.cm. of the above solution, sterilized by heat. The injections may be repeated at intervals of twenty-four hours, or, at the least, of eighteen hours. Baduel gives details of four rheumatic patients in whom this treatment was successful; in one, a girl of 15, salicylates given up to 90 grains a day for twelve days had proved ineffectual. From three to five injections were needed in these cases; usually the injection occasions a transient rise of temperature a few hours after its administration, but albuminuria or a marked local reaction were never observed. The injections also occasion a slight leucocytosis, the polymorphonuclears chiefly showing an increase. Baduel attributes the credit of the administration of drugs by intravenous injection to Baccelli (1890).

68. Proteolytic Antiferments in the Treatment of Acute Suppuration.

D. MARAGLIANO (*Rif. Med.*, November 1st, 1909) describes his experience in the treatment of acute suppurative processes by means of proteolytic antiferments. The practice is based on the fact that in normal blood serum there exist certain special bodies (antiferments) whose property it is to neutralize the enzymes contained in the leucocytes, which enzymes bring about solution of the albuminoids. These antiferments may be found in various organic fluids, for instance, ascitic fluid, pleuritic fluid, varicocele fluid, blood serum, etc., and the author has tried them all. In general it may be said that the antifermentative power of an organic fluid stands in direct relation with its albuminoid content and in inverse ratio to the number of polynucleated white corpuscles contained therein. Inasmuch as these proteolytic antiferments must be in direct contact with the affected parts to produce any effect, certain suppurative processes (for example, osteomyelitis) are unsuitable for treatment. In limited early abscesses it may be sufficient merely to aspirate the pus and inject some of the fluid (two or three times if necessary). In others a small incision may be necessary followed by free lavage with the antifermentative fluid, but without drainage, or, again, drainage may be advisable. Where the skin and parts are much affected—for example, bluish and necrotic—the results are not so satisfactory, and the serum will not suffice alone. The author groups his cases as follows: 25 where the abscess cavity was well limited without tendency to progressive infiltration (18 of these were cured by aspiration and 7 by incision); 10 cases of glandular origin with tendency to fusion of the glands; 15 cases of varying suppuration not well circumscribed (mastitis, tenosynovitis, phlegmon, etc.). In the second group of 10 cases, 3 were cured by aspiration in five to seven days, 5 with a very small incision and subsequent lavage, and 2 (where the skin was tense and blue) by free opening and drainage. Of the third group of 15 cases only 4 were cured by the antifermentative treatment, the others required the ordinary classical method.

69. Arsacetin in Relapsing Fever.

J. IVERSEN (*Muench. med. Woch.*, August 31st, 1909) reports on the results he has made in the treatment of relapsing fever (Russian recurrent fever) with arsacetin during an epidemic in St. Petersburg this year. In all he treated 148 cases; 30 of these were treated symptomatically, 14 were given atoxyl and 104 arsacetin. This drug was injected in 20 per cent. solution subcutaneously between the shoulder blades. Those patients who did not show a second attack of symptoms were watched for twenty days, while the others were kept under observation for longer periods. In every case spirochaetes were found in the blood of the patients during the first attack. The symptoms were: Severe headache and pain in the limbs, vomiting, collapse and anorexia. In 20 per cent. of the untreated cases severe infarcts of the spleen occurred; the majority of the patients showed some jaundice. Two died, one of endocarditis and one of tuberculosis. Those treated with atoxyl showed less severe symptoms after the drug had been applied. Of the patients treated with arsacetin, 52 per cent. did not have a recurrence of symptoms. Many of the rest who had relapses only showed slight and short fever and the interval between the first and second attack was much longer than usual. The author states that in a number of cases the beneficial effect of the drug was most striking, the temperature curve recording graphically the action in preventing attacks. The dosage of arsacetin had to be worked out. At first he gave 0.2 gram and increased this dose in from two to four days to 0.5, while at times he gave as much as 0.7 gram. The majority of the patients received injections for about twenty to twenty-five days, and received on the average 2.8 grams in all. The highest total dose which any one patient was given was 4.2 grams. In 40 cases he tried large single doses, but found the repeated doses better. The author discusses the action of arsacetin and also the question of "arsacetin-fast" cases. He also records that in one of his cases, in which 0.7 gram was given at first and 0.5 after an interval of seven days, permanent blindness, due to a toxic retrobulbar optic neuritis, set in. Otherwise he was able to state that the arsacetin acted promptly and energetically in preventing relapses, removing symptoms and rendering the course of the disease a mild one.

PATHOLOGY.

70. Resistance to a Specific Haemolysin.

PEYTON ROUS (*Journ. Exper. Med.*, November, 1909) has investigated the influence of disease upon resistance to a specific haemolysin. He finds that the resistance of washed human erythrocytes to a specific haemolysin (immune-rabbit serum activated with human complement) is the same for all normal adults, and that in disease this resistance of the red cells is altered only in very special instances. Among 41 cases of moderate and severe secondary anaemia from various causes, 1 only (excluding jaundice cases) showed a decrease in the resistance. But in 2 cases of pernicious anaemia out of 3 the resistance was lowered, as well as in the only 2 instances of leukaemia observed. Retention jaundice was accompanied sometimes (3 cases out of 9) by a lowering of the resistance similar in type. In all of these cases it was the minimum and to a less extent the mean resistance which was affected. An increase instead of a lowering was found three times—in 2 cases of haemophilia, where the finding was repeatedly obtained, and in 1 of chronic parenchymatous nephritis. Amongst all the 68 patients examined there was only 1 in whom the maximum resistance was abnormally high (an adult with the rare congenital icterus of Minkowski). The author found that resistance to a hypotonic salt solution showed no relationship to resistance to a specific haemolysin. In retention jaundice, for example, the corpuscle resistance to salt solution is usually much increased, while to the haemolysin it is either normal or slightly lowered. Speaking generally, resistance to salt solution was found to be much more variable than resistance to specific haemolysin. This is evidence in support of Hamburger's view that the resistance of red cells to hypotonic salt solution has little clinical value, because it depends on several factors within the cell which fluctuate independently.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

71. Immunity against Tubercle.

MARAGLIANO (*Rif. Med.*, August 2nd, 1909) says that it is quite possible completely to immunize an animal against tuberculosis. The difficulty lies chiefly in the exact dose of the tubercle bacilli injected. Tubercle bacilli act only and exclusively through their toxins, and to procure immunity intravenous injections are unnecessary, subcutaneous injections are quite sufficient. The existence of tuberculous antitoxins has been clearly established. All immunity is relative, there is no such thing as absolute immunity, and, as we are satisfied with a relative immunity in other diseases—for example, small-pox—we ought not to wait for an ideal absolute immunity in tubercle, but act up to our experience *re* relative immunity. The bactericidal power of human blood is naturally high in tubercle, as is shown, for example, by the large number of healed tuberculous foci (62.9 per cent. according to recent statistics of Seitzke). All this leads up to the use of an antituberculous vaccine; and Maragliano says that the vaccine prepared by him not only will but has been shown to produce complete relative immunity against tubercle. Whenever one member of a family shows evidence of tubercle he holds that the other members should be protected by serum injections, especial attention being paid to the children and younger members. This prophylactic injection may be given in the shape of progressive vaccination: (*a*) Ten days' injection of 1 c.cm. of serum of the immunized animal; (*b*) twenty-five days during which 25 c.cm. of immune serum and 75 mg. of protein are given; and (*c*) 75 mg. of protein in twenty-five days. This is most suitable for cases where some more or less latent form of tubercle already exists. One family of seven, all affected with tubercle (and four had previously died of tubercle), were treated in this way in 1901, and are now all well and at work. Two other methods of vaccination are also described, and on the whole for prophylactic purposes the author prefers the injection of bacillary material direct from the first series of tuberculous inflammations produced in the special way described. Numerous injections have been given since 1902, and in no single case has tubercle developed in those who have been inoculated. The injections are simple, and not followed by any deleterious consequences, and the vaccine can be prepared in any suitable laboratory, and should not cost more than the ordinary Jennerian lymph. Everything depends on securing a good culture of human tubercle derived directly from tuberculous sputa, and not weakened by successive passages *in vitro*. How long the immunity lasts time alone can show. Sanatoriums, fresh air, etc., are very good in their way, but the effective prophylaxis, according to Maragliano, lies in the inoculation of the serum prepared under his directions and after his method, and he pleads earnestly for a wider use of it.

72. Uric Acid in Urine and B. coli in Colon.

HOLGER TRAUTNER (*Ugeskrift for Laeger*, Nos. 37 and 38, 1909) publishes some further investigations to prove the relationship between the presence of uric acid in the urine and the *Bacillus coli* in the colon. In his previous investigations, published in *Le Nord.méd.Archiv.*, 1904 and 1906, and in *L'Union médicale*, Nos. 3–6, 1907, the author showed that the amount of uric acid in the urine increases during constipation in patients suffering from gout, and also that the *Bacillus coli* in sterile faeces produces reducing agents that may possibly be a cause of the presence of uric acid in the urine. The present investigations deal with the conduct of uric acid in the urine of newborn infants and in patients suffering from typhoid fever, the author starting from the presumption that in newborn infants the *Bacillus coli* possibly is not very evident, and that in typhoid patients it might possibly have been displaced by the typhoid bacillus. (*a*) The experiments on the infants concerned: (1) the presence of uric acid in the urine; (2) the presence of the *Bacillus coli* in the faeces; (3) the relationship between these; and (4) also some supplementary experiments on rabbits. 1. The methods used for estimating the uric acid were: (1) The lithion-lapis ("lapis" = solution of nitrate of silver) method; (2) Salkowski's method; and (3) the lapis-ammonia method. Eighty-eight infants were examined, varying in ages from 1 to 100 days, and as a result of these investigations the author thinks himself justified in concluding that the urine of healthy newborn infants does not contain any demonstrable quantities of uric acid, or at least minimal quantities only, and that in all cases where diarrhoea was present, uric acid was also present in the urine in demonstrable quantities, so that the diarrhoea must be placed in a causal relationship to the presence of uric acid. 2. The method of determining the presence of the *Bacillus coli* in the faeces of newborn infants was the indirect one of Nonotte and Demanche, by demonstrating the presence of indol, the product of the *Bacillus coli;* 39 infants were examined. As a result of these examinations it was found that demonstrable quantities of the *Bacillus coli* are not present in the faeces of healthy newborn infants, and in infants more than 5 days old in minimal quantities only. 3. The relationship between uric acid in the urine and the *Bacillus coli* in the faeces; 25 children were examined, of which 12 were healthy and 13 had had symptoms of diarrhoea and dyspepsia. As a result, the author found that uric acid is present in the urine in demonstrable quantities when *coli* bacilli are simultaneously present in the faeces in some quantities, and that an acute *coli* infection produces distinctly demonstrable quantities of uric acid in the urine of infants. 4. Similar results were obtained from examinations on rabbits. (*b*) Examinations of patients suffering from typhoid fever, in order to determine the conduct of the uric acid. One of the reasons that led the author to undertake these investigations was the communication of de Langenhagen at the International Congress in Paris in 1900, that he had found that out of 600 patients suffering from mucous colitis, 560 had symptoms of gout or various nervous manifestations, but this was not the case with the 40 patients who had derived their colitis from a previous attack of typhoid fever. The lithion-lapis method was used. Thirty-two patients suffering from typhoid and 70 convalescent from the same disease were examined. Some control examinations were also made on healthy persons and on some suffering from other diseases, for instance, scarlet fever. The results of these examinations were the following: (1) The amount of uric acid in the urine of patients suffering from typhoid decreases during the course of the illness and for some time afterwards; (2) whereas the amount of the uric acid during the first weeks of the illness, if anything, is greater than in other patients, it sinks steadily after the fourth week, and after the sixth week it is much below normal. The author does not think that this can be the effect of the changed diet, because in that case it would be less in the first weeks. For demonstrating the presence of the *Bacillus coli* in these patients, Nonotte's, Demanche's, and partly Morelli's methods were used. It was found that, when eight different varieties of the *coli* bacilli and two varieties of the typhoid were cultivated in sterile pepton, after a lapse of five days a further cultivation in pepton did not show any further formation of indol, whereas such was found to be present after only four days. The author hence concludes that the *Bacillus coli* probably is killed by the typhoid bacillus in a solution of pepton, after a period of five days, or at least that it loses its indol-forming power. As a result of these and his previous investigations, the author thinks that he is justified in maintaining that the *Bacillus coli* is the cause of the formation of uric acid, and hence of gout in its various manifestations.

73. Cancer of the Stomach and Salomon's Test.

MATHIEU (*Journ. de méd. et de chir. prat.*, September 10th, 1909) discusses the significance of Salomon's sign in cancer of the stomach. The sign is based on the fact that ulcerated mucous surfaces always secrete a quantity of liquid containing large quantities of albumen, the presence of which can be detected by special tests. A test meal is given in the morning, and in the evening the stomach is well washed out. The following morning the stomach tube is passed, and a certain amount of liquid is withdrawn from the stomach. In this liquid one finds a more or less large quantity of albumen. Mathieu has carried out this test in a number of cases, and his conclusions are as follows: The instantaneous appearance of an abundant and flocculent precipitate of albumen in the liquid removed from the stomach is an almost certain sign of cancer of this organ. The absence of this sign does not permit one

absolutely to exclude the diagnosis of cancer. On comparing the different cases in which the presence of the albumen has been found, Mathieu concludes that the production of the albumen owes its origin to the gastric ulceration and not to the cancerous mass. This sign, however, is of no great value for the diagnosis of gastric cancer, especially in the early stages of the disease.

SURGERY.

74. Congenital Dislocation of the Hip.

E. H. Bradford (*Amer. Journ. of Orthopaedic Surgery*, August, 1909) states that the progress made in the treatment of congenital dislocation of the hip in the last decade has been such that there is a reasonable hope that with perfection of the methods of procedure permanent cures may be expected practically in all cases which present themselves for treatment. Whereas from 1896 to 1902, 20 cases were treated by manipulation with 1 cure, between 1906 and 1908, 28 out of 31 unilateral cases were cured. By success in these statistics is meant anatomical reduction, with retention of the head in the acetabulum, and the practical establishment of the normal function of the limb—in fact, a permanent cure without noticeable limp or deformity. The increase in the success obtained by manipulative reduction has decreased the opportunities for treatment by open incision. Bradford formerly considered that in a large number of cases the capsular constriction between the dislocated head of the femur and the acetabulum was so strong and so firm as to constitute an insuperable obstacle to a permanent cure; relapses and anterior dislocations were explained by the persistence of this constriction and the subsequent imperfect reduction. His later experiences have disproved this opinion and have shown that in a large majority of cases the capsular constriction can be overcome by forcible manipulations. He has been obliged to resort to incision once only in the last 40 cases which have come under treatment. In this case the head appeared to have been reduced by manipulation and relapsed. On incision the firm capsular constriction presented an opening of not more than ½ in. in diameter, whilst the diameter of the head was fully 1 in. He attaches importance to Trendelenburg's test as an accurate determination of the thoroughness of the reduction. *X*-ray examinations are of value, but need interpretation, especially in very young children. On an *x*-ray examination the femoral shaft and neck may appear badly distorted, but if several *x* rays are taken with the leg rotated inwards and outwards the defect may be found to be only apparent, and due to a twist in the neck of the femur. In young children, where the head is largely cartilaginous and where the osseous advancement of the acetabulum is delayed, the exact condition of the head and acetabulum cannot be distinguished by *x*-ray examination, as the rays pass through cartilage and partly developed bone. From an *x*-ray examination of cases taken several years after reduction he is of opinion that in some instances the femoral twist may be corrected by growth after successful reduction. It is also seen that ossification of the cartilaginous upper lip of the acetabulum can be relied upon to take place when the head is well reduced. In after-treatment, in a majority of cases, the limb is best held in a forced, flexed, and abducted position, with the patella pointing forward and not upward. After fixation for three months the limb can be released gradually, and active and passive motion allowed. He attributes the improved results of his later cases to the adoption of this position. If a permanent cure is not established a second reduction should be attempted.

75. Dermoid Cyst of Kidney.

Goldsmith (*Trans. Southern Surg. and Gyn. Assoc.*, vol. xxi, 1909) notes that only two cases of this disease have hitherto been reported (Paget, 1853; Haeckle, 1902). Goldsmith's patient was a man, aged 20, who had suffered from pain referred to the lumbar region when a child 2 years old, and was treated later during childhood for "kidney complaint." At 16, persistent dull pain began to be felt and steadily increased, till at 18 the patient felt as though a heavy watch were lying in his abdomen, and from the date of the beginning of the pains there were occasional characteristic attacks of renal colic followed by haematuria. A distinct solid tumour presented in the right lumbar region. When each attack of pain ceased the outline of the tumour disappeared. Goldsmith observed this symptom on one occasion, and suspected twisting of the ureter. The urine, excepting when blood-stained after the attacks, showed no abnormal constituents. The patient's general condition was good, and there was no family history of any renal disease. A lumbar incision was made, exposing a large semisolid tumour of the upper pole of the kidney, which burst during extraction. Recovery after removal of the kidney was uncomplicated. Two good coloured drawings of the tumour accompany the report. The glandular tissue of the kidney showed little change. At its upper pole lay an oval mass measuring over 3 in. in its long diameter, and fluctuating on pressure. It was covered externally by a thin layer of fibrous tissue resembling very much the normal capsule of the kidney which was healthy and non-adherent. The contents were dark reddish, thick, mealy, and full of hairs. The inner wall of the cyst was irregular in thickness, and numerous long whitish hairs sprang from its surface. A tooth measuring 3 by 4 mm. was found loose in the contents. The substance of the wall was connective tissue showing small-celled infiltration, with squamous epithelium lining it internally at one point. The cyst contents, where in part semisolid, showed myxomatous tissue and also tubular structures, as though belonging to the normal kidney. The irritation and pressure of the tumour had caused slight parenchymatous nephritis and catarrhal pyelitis.

OBSTETRICS.

76. The Treatment of Contracted Pelvis.

J. Veit gives a succinct account of the methods of treating contracted pelvis taught at Halle (*Deut. med. Woch.*, October 21st, 1909). The first general principle which must be remembered, and which is accepted by nearly every school, is that a living child may not be destroyed. Veit recognizes one exception to this rule, namely, that in cases in which the uterine contents reveal a marked degree of decomposition it may be necessary to sacrifice the child, on the ground that the life is almost certainly lost whatever is done. He, however, does not perform craniotomy if he can still hear distinct fetal heart sounds. The methods available in contracted pelvis are (1) induction of premature labour, (2) prophylactic version, (3) starvation during pregnancy, (4) high forceps operation, (5) Caesarean section, (6) hebosteotomy or symphysiotomy. Induction of premature labour has such disadvantages that he no longer feels inclined to utilize it. He, however, does not go so far as to deny the right of the practitioner to carry it out in certain cases. Prophylactic version may be useful if the technique is mastered, and if the exact moment when it will yield the best results can be determined. On the whole, however, he does not advise this method, but regards it as a method of choice for individuals to use if they feel inclined. Starvation during pregnancy is a vain idea and one which cannot be supported. It fails to do what is required, and must therefore be rejected. The high forceps operation is not to be used in general. If the head has already entered the brim it may be tried, but Veit warns against all attempts to apply forceps when the head is above the brim. Before dealing with the remaining methods he turns his attention to the various indications for treatment. First, he speaks of the treatment of contracted pelvis during pregnancy. For him no method of treatment, be it induction of labour when the child is viable, be it a starvation course, is advisable. He prefers to wait until the full time. Next, the treatment during labour. He divides these cases into two classes, the absolute contracted pelves and the moderate degrees of contractions. By absolute contraction he means a pelvis which does not admit of the passage of a child even after craniotomy. He placed the measurement of the conjugata vera at 6 to 7 cm. (that is, 2¼ to 2¾ in.). For these cases there is no choice, and Caesarean section has to be performed. In moderate degrees of contraction the treatment depends on whether there is any immediate danger for the life of the mother or child. In generally contracted (both symmetrical and oblique) pelves it is necessary to await complications, but in flattened pelves, it may be necessary or wise to employ measures at once. In this case the selection lies between prophylactic version, Caesarean section, and hebosteotomy. In cases of moderate flattening version has many advantages. A living child can be delivered, if the operator has sufficient skill and practice, and no harm is done to the mother. The conditions for this, however, are that the os must be fully dilated and that the lower uterine segment must not be distended. The author does not appear to favour the performance of the severer operations under similar conditions. It, therefore, is advisable in these moderate cases to await complications. These may be threatening the

mother. So-called exhaustion of the mother or unusual prolongation of the labour are not signs of danger to the mother. Perforation may be carried out if the child is dead or obviously dying; high forceps may not be used if the child is still alive, unless, as stated above, the head has engaged the brim. In the majority of cases, therefore, the choice lies between hebosteotomy and Caesarean section. When the child's life is endangered, which is usually due to prolapse of the cord, version should be performed. Anterior hysterotomy may be necessary as a preliminary step to this. The other operations need only be considered when the head is fixed or when the lower uterine segment is distended. In comparing the advantages and disadvantages of hebosteotomy and Caesarean section, he points out that the dangers of the former include haemorrhage due to the accidental wounding of veins in sawing through the bone, haemorrhage due to injury to the vulva, and the danger associated with these wounds themselves. The dangers of the latter are infection from the operator (this is avoidable), infection with germs present in the uterine cavity, haemorrhage from the uterine wall, and haemorrhage due to atony of the uterus. On the whole, he advises Caesarean section in cases in which the mother's life is threatened, provided that there is no fever or virulent bacteria in the genital canal; in these cases hebosteotomy is better. Hebosteotomy should, however, not be carried out in primiparae. Haemorrhage from atony of the uterus can be avoided by only operating when pains are active. When an operation has to be performed in the interests of the child Caesarean section should be chosen.

77. Tubal Pregnancy.

HOFFMANN (*Zentralbl. f. Gynäk.*, No. 35, 1909) detected a mass reaching above the pubes and downwards into Douglas's pouch in a two-para, aged 22, who believed herself to be in the fifth month of pregnancy. It was diagnosed as retrouterine haematocele following tubal abortion. The patient refused surgical interference. Ten months later she returned complaining of increase of the swelling. Hoffmann suspected, knowing the previous history of the case, that tubal abortion had really occurred, as had seemed probable when the patient was examined before. Radiography was practised. A fetal limb was definable to the left of the lumbar spine of the mother, and the fetal skull was seen occupying the pelvic cavity. The diagnosis by skiagram was confirmed by abdominal section. There had been tubal pregnancy, and a fetus, long dead and over 16 in. in length, lay in the sac, with the head in the second position. In two other cases of advanced ectopic gestation Hoffmann had been able to confirm the diagnosis by the *x* rays, which shadowed forth the fetal skeleton; nevertheless, radiography was, in his experience, not always reliable.

GYNAECOLOGY.

78. Retrouterine Fixation of Round Ligaments.

FRANKE (*Zentralbl. f. Gynäk.*, No. 48, 1909), in treating backward displacements of the uterus, has discarded operations of the Alexander-Adams type for another method, which does not entail damage of the inguinal canal; and although the peritoneal cavity is opened, he considers that with modern aseptic technique there is no more danger in the intra-abdominal than in the extra-abdominal method. Franke draws up the fundus uteri with a forceps and pulls it towards the left, so as to stretch the right broad ligament, which he perforates with a bent, sharp-pointed toothed forceps, about half an inch external to the uterus and a little below the round ligament. Sometimes it is advisable to divide the posterior layer of the broad ligament with a knife to facilitate the passage of the forceps without any damage to the two layers and the parametrium. The broad ligament is made tense externally with forceps, and the instrument used to perforate it is then passed through the perforation from behind forwards. The round ligament is next seized in its middle portion with the perforating forceps, which is then drawn backwards through the perforation, carrying with it a loop of round igament. This loop is fixed on to the back of the uterus with a silk suture; three more, of catgut, are then introduced to ensure a broad surface of fixation. Catgut alone, Franke finds, is not safe. The above manœuvres are repeated on the left side. In patients past child-bearing Franke makes the loop of the right and left round ligament meet behind and sutures them to each other, as well as to the back of the uterus. Franke admits that he has only performed this operation seventeen times. In four cases he removed the vermiform appendix.

79. Bilateral Dermoid Ovarian Disease in Age.

PETRI (*Monats. f. Geb. u. Gyn.*, December, 1909) recently read before a medical society at Munich notes of an operation on a woman aged 73. Morphine-scopolamine and spinal anaesthesia were employed; the left ovary was converted into a dermoid of the size of a fist, with a long pedicle. The right ovary was also the seat of a dermoid tumour, which had opened up the broad ligament and become impacted in the pelvis. It pressed on the bladder and had thus caused dysuria. It had also contracted wide and intimate adhesions to the intestine. The patient left hospital on the seventeenth day after the operation.

THERAPEUTICS.

80. Tuberculin.

SAATHOFF (*Muench. med. Woch.*, October 5th, 1909) asks himself the question, What is really known about the action of tuberculin? In the first place, he finds that the action is specific. This specificity has been proved so often, that he does not consider it necessary to repeat the reasons on which this assertion depend. In the next place, it is known that tuberculin exerts an elective action in calling forth an inflammatory reaction in tuberculous foci. Numerous observations have also proved this, and none prove it more forcibly than the visible inflammatory reaction in lupus. The occurrence of dullness in percussion and moist râles after an injection in cases of latent disease is also evidence of this, while ample pathological confirmation of this reaction has been forthcoming. Tuberculin is therefore a medicament which stirs up tuberculous tissue out of its torpid condition, and puts it into a condition of acute inflammation. The modern doctrines of the action of hyperaemia and inflammation teach that these processes are eminently curative factors. Saathoff regards the action of producing hyperaemia and inflammation as the most important curative action of tuberculin. It is, however, necessary, if this be accepted, to avoid exaggerating this reaction, and for this reason he recognizes the *rationale* of controlling the dose and intervals between the injections by the opsonic index. But, while the extremely small doses suffice to raise the opsonic index, it does not follow that such doses suffice to produce the desired degree of reaction. The author agrees with Turban that the clinician should be warned against adhering to the extremely small doses. Saathoff believes that it is possible to regulate the dose so as to avoid both the extremes. He relies on the local, as distinguished from the focal, reaction. The injection of $\frac{1}{2}$ mg. of tuberculin produces a scarcely visible infiltration locally in a normal person, but the reaction in tuberculous individuals may be evidenced, according to their tolerance of tuberculin, by the appearance of an inflammatory and painful swelling, which may be as large as the palm of the hand, and which is distinct for several days. The degree of this local reaction yields certain information as to the safety or otherwise of the dose of tuberculin employed. It corresponds to the height of fever produced. He proceeds in practice as follows: Beginning with a very small dose, he increases this dose rapidly until a small visible and palpable infiltration is produced. Before giving a further injection it is necessary to allow the infiltration to disappear, which takes from five to seven days. According to the severity of the local infiltration, the next dose is smaller, the same or larger than the dose producing the reaction. This dose, he finds, has varied between 0.001 and 0.1 mg. These doses have empirically proved themselves to be the most beneficial. It is necessary to avoid the destruction of the power of reacting to tuberculin before the cure is complete. He does not use T.R. any longer, but finds that Koch's old tuberculin yields the best results. The dilution required for the purpose of measuring the dose should be prepared shortly before the injection, and stock dilutions for injection should not be kept. He gives from $\frac{1}{4}$ to $\frac{1}{2}$ mg. as a diagnostic dose, but in cases with râles, experience has taught him that the diagnostic injection should be smaller. He suggests $\frac{1}{10}$ mg. in these cases. The record of the temperature after the diagnostic injection must be exact, and must deal with rectal measurements. This injection will be a sound indication for the advisability of undertaking treatment by tuberculin, but as Saathoff points out, fever need not be a contraindication to this treatment. Turning to the question of body weight, he states that daily weighing reveals a very distinct result. Of the 75 patients which he injected recently, 59 gained in weight, 9 remained stationary, and 7 lost weight. The increase was often

extraordinarily rapid; for example, 4.4 lb. in three days, 6.4 lb. in six days, 5.8 lb. in five days, and so on. He discusses the *modus operandi* of this increase in weight, and comes to the conclusion that tuberculous subjects suffer from a relative poverty of water and an abnormally high sodium chloride content of the bony fluids. These deductions were made from the examination of the metabolism after injection of tuberculin. He believes that the increase in weight is of prognostic importance, and may serve as a guide in determining whether tuberculin treatment should be carried out. He thus finds that tuberculin improves the subjective condition of the patient, it reduces fever and increases weight, in cases which tolerate it well, and in which suitable doses are employed. He appends some details of cases and general considerations, and especially demonstrates the curability of tuberculosis by tuberculin by citing a case of ophthalmic tuberculosis, in which the healing process could be watched.

81. X-ray Treatment of Nervous Itching of the Skin.

H. E. Schmidt (*Berl. klin. Woch.*, September 13th, 1909) recognizes forms of itching which are due to diseases of internal organs (for example, diabetes, leukaemia, jaundice, gout, etc.), forms which are dependent on certain dermatoses (for example, eczema, lichen, prurigo, and at times psoriasis), forms which are due to animal or vegetable parasites, and, lastly, forms which are regarded as pure neuroses. The treatment of cases of the first class is limited to the treatment of the causal disease, while the removal of the parasites leads rapidly to the relief of the itching in the third group. *X* rays is recognized as the best method of treating chronic dermatoses which are associated with itching, and it is surprising to the author that patients are tortured by useless ointment and other forms of treatment in the skin diseases enumerated above when in skilled hands the rays are quite safe. With regard to pruritus, a very large number of medicaments have been recommended, but none of them do more than relieve temporarily. The external applications include various baths (CO_2, sulphur, tar), menthol, tar, or carbolic pastes, and high frequency currents. Internally, narcotics and arsenic are most commonly given. The author considers that high frequency currents yield the least marked results. The effect of *x* rays, however, contrasts favourably with all other forms of treatment. This treatment has not failed him in a single case. He is inclined to the opinion that the action of the rays is not dependent at all on suggestion. The relief was effected in many cases in which a large number of remedies had been previously employed. The effect does not appear until after from four to eight days, and the itching may be increased at first. Further, he points out that the effect of the treatment lasts for a considerable time, usually between three and six weeks. He adds the histories of two cases of universal pruritus, in which the rays were applied after other means had failed. Although he has used *x* rays in a large number of these cases, he has never seen a deleterious result, and when the effect passes off he states that a fresh application again brings relief. In applying the rays to folded skin, such as the scrotum, it is necessary to smooth the skin out, which can be effected by stretching it and fixing it in this position with leucopast strips. The patient should be warned in these cases beforehand of the possibility of the occurrence of azoospermia, which, however, when it does occur, is usually temporary.

PATHOLOGY.

82. Etiology of Syphilis.

Erich Hoffmann (*Dermatol. Zeitschr.*, November, 1909) summarizes the knowledge gained as to the etiology of syphilis since the discovery of the *Spirochaeta pallida*. In his view this organism is indisputably the cause of syphilis. It has been found with great regularity in thousands of cases of acquired, congenital, and experimental syphilis in the infectious stage. It also occurs in the circulation, both in adults and congenitally syphilitic children, and, in the latter, in large quantities in almost every organ of the body. It is present in the primary lesions of experimental syphilis in animals, but is absent in all non-syphilitic subjects. In the later stages of syphilis it is found, usually in small numbers, if experimental inoculation shows the persistence of infectivity. The objections urged by Siegel and his school that the spirochaete is merely a saprophyte which finds a favourable soil in syphilitic tissue, and that the "spirochaetae" which stain by the silver method are in reality spirally arranged tissue elements, have been repeatedly disproved. Of special interest is the discovery by Reuter and Schmorl of the *Spirochaeta pallida* in aortitis and osteo-chondritis. Pasini has found the organism in the dental germs of the incisor teeth of syphilitic fetuses, a fact which probably explains the deformity known as Hutchinson's teeth. From a diagnostic standpoint the demonstration of the spirochaete is of especial importance. Early primary sores, which might otherwise be mistaken for simple herpes, are thus recognizable, and in the latent stages syphilis may often be diagnosed by the results of puncture of lymphatic glands, or of scraping the surfaces of the tonsils. The diagnostic value of the spirochaete has not been diminished by the reliability of Wassermann's reaction (fixation of the complement). It is easy to demonstrate, especially by Preis's or Schereschewski's staining methods, or by reflected light as used for opaque objects with Reichert's condensor or Zeiss's ultramicroscope. Lately Burri has introduced a simple method. One drop of Grübler's Indian ink diluted nine times is intimately mixed with a drop of secretion or of emulsion of old material, and spread in a thin layer on a slide, which is rapidly examined with an oil immersion before it has dried. The spirochaetes appear as white threads on a black ground. The method is applicable in the absence of a condenser or ultramicroscope, but has the disadvantage that the organisms do not display their characteristic movements. A diagnosis can be made much more rapidly by one of these methods than by the complicated blood examination required for Wassermann's reaction, which in addition has more sources of error. The diagnosis of a doubtful local lesion is alone possible by the discovery of the spirochaete; a positive serum reaction merely indicating that the individual has been at some time infected with syphilis. During the primary stage—that is, during the first six weeks after infection—only about 17 per cent. of all cases give Wassermann's reaction; between the sixth and ninth week 61 per cent. give a positive reaction; at later stages, with manifest symptoms of syphilis, 95 per cent. are positive. Hence the two methods supplement each other. In the early stages the local discovery of the spirochaete is easier and more reliable; in the later, and especially in the absence of syphilitic symptoms, and in parasyphilitic conditions, such as tabes, serum diagnosis is the more trustworthy. As regards the morphology of the spirochaete, no striking recent advance is to be recorded. Lateral flagellae have been described, but do not exist. The long terminal filaments have not the significance of the flagellae of bacteria. Under certain conditions spirochaetes may occur in a "rolled-up" form. Hoffmann was able to trace in the spleen of a congenitally syphilitic infant every gradation between this form and the typical corkscrew organism. These "rolled-up" spirochaetes possibly represent a resting stage in the life-history. Spirochaetes in the tissues are usually extracellular and situated in the lymph spaces and connective tissue, but may occur in parenchymatous and connective-tissue cells and in the leucocytes. It is thus probable that phagocytosis plays a part in the destruction of spirochaetes, though it must not be forgotten that, being motile, they may penetrate the cells actively. Apart from their method of division and biological behaviour, the great flexibility of the spirochaetes shows that they are more allied to protozoa than bacteria, though at present it is safest to place them in a class between the two. As regards terminology, Professor Hoffmann prefers the original name *Spirochaete pallida* or *Spirochaeta luis* to *Treponema pallidum*, finally chosen by Schaudinn. The distinctions drawn between the species *Treponema* and *Spirochaeta* are not conclusive. Other spirochaetes than the *pallida* may possess terminal filaments, and the comparative constancy of the number of convolutions, the round transverse section, and the absence of an undulant membrane, are probably insufficient to distinguish a new species. All attempts at cultivation outside the body failed until Mühlens, who used Schereschewski's medium (specially prepared horse serum) obtained a pure culture of a spirochaete indistinguishable from the *pallida* from a syphilitic inguinal gland. The organism was grown anaërobically for many generations on horse serum agar, but, as all attempts to produce syphilis by inoculation with it have failed, it is impossible to state definitely that the culture was one of the *Spirochaeta pallida* or of an organism closely resembling it. Hoffmann believes it possible that, though the spirochaete may be cuitivated, it soon loses its virulence on artificial media, an avirulent modification resulting. This view is supported by the fact that Metchnikoff has shown that syphilitic material loses its virulence outside the body in a few hours, long before the spirochaetes have lost their motility.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

Chronic Influenza.

LIX FRANKE (*Beiheft zur Wien. med. Klin.*, Heft 10, 9) describes a condition of chronic influenza which he siders to be widespread and of great importance. ongst the signs and symptoms are: An extreme prostra-n, sensitiveness to cold, a subnormal temperature, a dency to sweating on slight exertion or even when at t, a peculiar pallor, "rheumatic" pains and neuralgias the most varied kinds, obstinate dry catarrh, enlarge-nt of the spleen, characteristic changes in the soft ate and the tongue, cardiac symptoms especially of vous origin, giddiness, sleeplessness, and headache, bility for prolonged mental exertion, and other nervous anges. The changes in the soft palate and tongue have en specially observed and called attention to by the thor. The mucous membrane of the soft palate is egularly reddened in linear strips. The "influenza ngue" is found in chronic influenza, and sometimes en in acute influenza, but not before the fifth day of an ute attack; the papillae of the anterior part of the ngue, and of the anterior part only, are swollen and ldened; in chronic cases and after repeated attacks the ollen papillae are so pressed together that the true ture of the condition may be overlooked at a hasty nce; the appearance of the tongue may be that de-ribed in Jacobi's *Atlas of Skin Diseases* as lingua rotalis. The so-called "rheumatic" pains the author nsiders to be due to a neuritis or perineuritis, and the nderness of the skin which is often observed is also of rvous origin. The tenderness of bones is especially mmon over the lower half of the tibia; in one case of nderness of the bones observed by Franke osteo-peri-titis was found to be present. Pains in the heels and in ie soles of the feet are also very characteristic. The eneral nervous condition may be described as one of eurasthenia with hypochondriacal and melancholic ten-encies. Asthma-like attacks are not uncommon, nor are pical attacks of angina pectoris, usually accompanied by quickening of the pulse, but sometimes by a slowing to rty a minute. The neuralgias are of importance and iseases such as pleurisy, pericarditis, myocarditis, clerosis of the coronary arteries, appendicitis, gall-tone colic, etc., may be simulated. Children with hronic influenza often suffer from influenza anaemia, rom pains in the joints caused by osteitis, and rom periarthritis humero-scapularis—an almost new ondition. In a few cases inflammation of the kidney de-elops. Raynaud's disease is not unknown during chronic nfluenza. The pallor of the face in chronic influenza s due to a pseudo rather than true anaemia. Moderate oss of weight is often observed, but sometimes the oss is very great in spite of persistence of appetite nd absence of any organic disease or any of the complications of influenza. Naturally all the symptoms re not present in every case, and the author suggests hat in any doubtful case throat and tongue should e first observed, then the nerve stems, especially the ntercostal nerves, be tested by observing the tenderness n pressure, the spleen be palpated, the sensitiveness to old be inquired into, and the shin bones be tested for enderness. Bacteriological examination is not of any practical use in establishing a diagnosis. The question of treatment is dealt with at some length. Treatment of the general condition is often more effective than that of symptoms such as bronchitis, bone disease, pains in the soles of the feet, asthmatic attacks, etc. Prophylactic treatment consists in the full treatment of the original attack, especially with respect to the most careful avoid-ance of chills and draughts. When chronic influenza is recognized a rest cure may be the most successful form of treatment. The sensitiveness to cold can hardly be over-estimated in many of these patients, and the treatment should only in a very small minority of the cases be of a hardening nature. The author has been able to effect more in some patients by treatment in one room for weeks and even months at a time, than had previously been effected by year-long treatment at sanatoriums, by baths, and by mountain or sea air. He especially warns these patients as to the danger of chill from sitting, standing, or lying out of doors, except on windless, sunny summer days. Harden-ing measures should only be cautiously begun when the patient's general condition has improved and strengthened. Franke makes use of alcohol for chronic influenza patients only in small quantities, and as a treatment for the con-tinued feeling of cold and the subnormal temperature. Nitroglycerine he finds useful for the same condition. Salts of bromum are of great service in dealing with many of the nervous symptoms, but they must be used in sufficiently large doses; Sandow's bromine salts are well taken. Pre-parations of menthol are sometimes soothing. For cases with swelling of the spleen an energetic quinine cure is to be carried out. Preparations of arsenic are most effective in dealing with the pseudo-anaemia and neurasthenia. The author has made large use of various preparations for which analeptic virtues are claimed in combating the con-dition of general weakness. The different ways of gradually hardening chronic influenza patients are finally considered, and as a last resource a long residence in a warmer climate may be successful.

84. Syphilis of the Lung.

HENRY HUBBARD PELTON (*Med. Record*, January 22nd, 1910) says that syphilis of the lung resembles tuberculosis or other lung diseases so closely that it is often not diagnosed. There are two types—catarrhal pneumonitis, in which there are in the alveoli a considerable number of large cellular elements; and interstitial pneumonitis, with thickening of the connective tissue framework of the lung and infiltration of all the tissues. Gummatous tumours may also be developed. Sclerosis of irregular distribution is the usual lesion of lung syphilis. Bronchiectatic cavities form, containing pus, or with necrotic and gangrenous walls. The *Spirochaeta pallida* is rarely found in acquired lung syphilis. Syphilis and tuberculosis of the lungs when found in the same subject do not affect one another. Diagnosis is almost impossible. When syphilis is en-grafted on tuberculosis the latter becomes more severe and rapid. When tuberculosis appears early in syphilis the course is rapid and prognosis bad. When tuberculosis is engrafted on an old syphilis the slow, afebrile type is developed. Absence of tubercle bacilli in the sputum is a valuable negative point. Syphilis is unilateral, circum-scribed, and has no predilection for the apices. The general health is not easily affected, evolution being slow. The presence of syphilitic lesions in other organs is a valuable sign. The author gives the history of a case which extended over some four years.

85. Normal Peristalsis of the Colon.

ALTHOUGH surmises have been made with regard to the mode of propelling the faecal matter in the colon, no actual physiological facts appear to be known about the way in which the peristalsis is carried out. Cannon has studied the conditions in various animals by means of Roentgen rays, and described the movement of that portion which corresponds to the human ascending, transverse, and descending colon as "slow," as causing "sudden" expul-sion, and attributing to it a few other not very definite characters. G. Holzknecht has opened up this chapter in physiology by making observations on human beings (*Muench. med. Woch.*, November 23rd, 1909). In all about 1,000 observations were undertaken, the duration of which varied between five and fifteen minutes. The content of the intestine was rendered visible by giving a diet con-taining bismuth and using an *x*-ray compressing screen. Only in 2 cases out of the 1,000 was any peristalsis seen. Holzknecht discusses at considerable length whether these two observations are to be regarded as normal peristalsis, and comes to a definite conclusion that this is so. The observations were controlled by Goldstein. In the one case they observed a continual filling of the bowel up to the hepatic flexure taking place. The mass pushed on filled the sigmoid flexure, but the intestine remained at complete rest, being divided up in numerous segments situated axially and separated by scoop-like (haustral) constrictions. Suddenly this segmentation disappeared from the transverse colon. The movement was so sudden and rapid that the eye could only just perceive it. Apparently the whole transverse colon was affected at the same time. The ascending colon did not become altered. The transverse colon, having become a smooth band-like structure, appeared to move as a whole toward the left, and the angle between the ascending and transverse colon became more marked. The contents passed by means of this movement into the hitherto empty and therefore

invisible descending colon; this process occupied about three seconds. The descending colon on becoming visible showed the same smooth band-like formation as the transverse colon, but again, with lightning rapidity, the haustral segmentation set in. No further movement was seen. Precisely the same procedure was observed in the second case. The whole peristaltic period occupied from forty to sixty seconds. Holzknecht gives a number of arguments in favour of this movement being the normal peristalsis of the colon. The difficulty of just hitting off the time when this peristalsis takes place explains why he was unsuccessful in gaining a view more than twice in 1,000 cases. It must be borne in mind that the peristalsis only takes place once a day. He measures the time of actual activity of the colon at about three or four periods of three seconds each. It thus appears that the old idea that the colon peristalsis is slow will have to be dropped.

SURGERY.

86. Indications of Operation for Gastric Ulcer.

DAUWE (*Ann. et Bull. de la Soc. de Méd. d'Anvers*, August and September, 1909) gives the results of an analytical study of 39 cases of gastric ulcer treated by surgical intervention in the clinics of von Eiselsberg, Mosetig, and Büdinger. The author's conclusions deal only with the treatment of chronic ulcer of the stomach. Early attacks of the affection, whether they be acute or mild, belong, it is asserted, to the domain of the physician, and are, as a rule, efficaciously treated by medical means. A careful study of the results of the different operations practised for the cure or relief of gastric ulcer has led the author to the following conclusions: (1) Gastro-enterostomy is the operation of choice in a large majority of cases of ulcer of the stomach. (2) Resection or partial excision or pylorectomy ought to be practised whenever there are grounds for suspecting carcinomatous regeneration and when the ulcer is callous and penetrating. (3) Gastro-enterostomy combined with exclusion of the pylorus is indicated in place of resection when the latter operation is impossible; it is suitable also in cases of gastric bleeding from a pyloric ulcer. (4) Gastro-enterostomy combined with jejunostomy is to be preferred when the surgeon finds it necessary to intervene in cases of abundant gastric bleeding; it is also a useful operation in cases of multiple ulceration and when the chief ulcer is situated on the smaller curvature of the stomach. (5) Jejunostomy may be practised as a last resource on patients in danger of a speedy death through acute anaemia or advanced inanition; it may be regarded as a curative operation in cases of extensive perigastritis accompanied by intense pain, and sometimes in cases of callous ulcer.

87. Treatment of Infected Wounds.

A. MOST (*Wien. med. Klin.*, September 29th, 1909) deals with the treatment, preventive and otherwise, of infected wounds. The two points upon which he lays especial emphasis are the avoidance of chemical disinfectants either for cleaning a recent wound or an already infected one, and the necessity for providing free drainage for all deep wounds and for all the "pockets" and irregularities of deep wounds. Fresh wounds are not to be even washed out, for fear of driving infective material into the deeper tissues, but free bleeding is to be encouraged and any visible impurity to be removed with forceps. Where deep wounds become infected the bandage is to be removed with the help of hydrogen peroxide and the wound is to be further opened up if necessary in order to provide for free exit for the secretions. Even in the case of comparatively superficial wounds, under favourable conditions, Most recommends that stitches should not be drawn too tight to prevent the escape of secretions. Conservative treatment, such as Bier's congestive treatment, is not to be used as a substitute for free incision from healthy tissue to healthy tissue in cases in which there is a phlegmonous process with a tendency to spread, unless at any rate under skilled and experienced guidance. The author recognizes the value of Bier's treatment, especially for infected wounds of the extremities, but he recommends that the infectious area should first be well opened, that the treatment should as a rule only be made use of in institutions, because of the need for careful and prolonged supervision. A consideration of wounds of special parts follows. The author follows as a rule, though not absolutely always, his principle of not washing out wounds, even in the case of diffuse peritonitis following a perforating wound of the abdomen. In such cases his practi is to swab out exudate and pus and to use irrigation on for coils of intestine outside the wound. As a conclusio Most points out that suitable prophylactic treatment fresh wounds and prompt treatment at the first onset manifest infection will successfully prevent many mo serious complications and avail to protect the organism.

88. Myoma and Myosarcoma of the Stomach.

THOMSON of Galveston, Texas (*Trans. Southern Surg. a Gyn. Assoc.*, vol. xxi, 1909), publishes an instructive mon graph on this subject, with an analysis of cases alrea reported. It is based on an instance of benign tumour the stomach in his own experience. The patient was woman aged 42. For four years she had been subject attacks of fainting followed by the passage of black, tar stools, and in one instance by haematemesis, fresh r blood clots being vomited. The first attack occurr during pregnancy. The faeces were natural in colour a free from blood or mucus between the attacks, whi were not accompanied by pain; on the other hand, the was occasional slight epigastric pain, which at leng became almost constant, and was finally associated wi distension of the stomach, eructations of gas, and seve cramps in the arms and legs. Milk caused great pain a flatulence; farinaceous food caused a heavy feeling. The was emaciation with a chronic cough, but no tuberc bacilli were detected in the sputum. The abdomen w flat, no tumour could be detected, nor was the stoma dilated; ulcer of the stomach was suspected. A media incision was made, and a large tumour could be felt in t stomach. The pyloric ring and duodenum were healthy no enlarged glands could be found. Partial gastrecton was performed, the cut ends of the stomach and duodenu were closed, and a posterior gastro-enterostomy performe So much stomach was removed that there was not su ficient wall left for the application of the anastomos forceps; a Murphy's button was used; it was passe twenty-five days after the operation. Five months lat the patient was in good health and able to eat anythi she pleased, in reasonable quantity, and she had gaine 25 lb. The tumour was a fibromyoma, situated about 3 i above the pylorus on the anterior surface of the stomac nearer the lesser than the greater curvature. Its base w $1\frac{1}{2}$ in. in diameter and it projected for about $2\frac{1}{2}$ in. into t cavity of the stomach. Thomson collected 62 cases—25 females and 17 in males, whilst the sex was not noted i the remainder. In 11 the patient was between 40 and 5 and in 16 between 50 and 70, 8 being younger and 8 old than 60. Though essentially a disease of middle-age, on instance of this tumour (N.B., "myosarcoma") occurred i a girl aged 17, and one, a mere pathological curiosity, the size of a pea, was discovered at a necropsy on an infa 10 months old. References to museum specimens a added. In the discussion on the reading of this cas Charles H. Mayo related one operation for a pure myom as large as two fists. It not rarely happened that a gastri tumour, suspected to be malignant, proved to be innocen when examined after removal. Thomson, in reply, adde that it was so in his own case, and had he known that h had to deal with a benign tumour he would not hav excised so much of the healthy tissues of the stomach.

OBSTETRICS.

89. Placenta Praevia.

THE methods of treating placenta praevia still form th basis of dispute between obstetricians, especially in Ge many. Krönig pleads for classical Caesarean section Sellheim prefers the cervical extraperitoneal section while others believe that the best results are obtained b version or the employment of the metreurynter. Ma Hirsch (*Deut. med. Woch.*, October 21st, 1909) meet Krönig's objection to the less drastic measures, an adduces proof of the excellent results obtainable by th older methods. He uses Krönig's own cases to support hi argument. In these cases, numbering 20, the treatmen consisted in combined version (Braxton Hicks) sixtee times, forceps once, simple version once, puncture of th membranes once, and metreurynter once. One patien died of an air embolus. In 15 of the cases there was severe bleeding immediately after the birth of the child. In cases the placenta was spontaneously expelled, and both mothers died. Two other mothers died after manual re moval of the placenta, forcible expression having failed Hirsch compares these cases with 15 of his own, which occurred in his private practice. In these cases the treat

ment was, in the majority of the cases, combined version, while dilatation with the metreurynter was performed three times and anterior hysterotomy twice. The placenta was removed manually immediately after the birth of the child in each case. None of the mothers died, as against 4 of Krönig's. He believes that Krönig lost his mothers on account of the mismanagement of the third stage of labour. With regard to the children, Krönig lost nearly every one, and Hirsch also lost his Braxton Hicks deliveries. The results were better with dilatation by the rubber bag. Here three children were saved. He therefore comes to the conclusion that in future he will treat cases of placenta praevia by the use of the rubber bag. The bag is left *in situ* until spontaneously expressed, and then the delivery is completed. No massage or expression is to be carried out, so as to avoid exhausting the uterus. The hand is disinfected and the placenta is immediately removed, and, if necessary, Dührssen's utero-vaginal tamponage may be employed after the uterus is emptied. When the os is too rigid anterior hysterectomy may be advisable, or it may be wise to perform Caesarean section either through the fundus or through the isthmus. The same may be done when the mother desires to ensure a living child at all risks. But care must be exercised in these cases that the uterus is not infected. Even suspicion of infection should exclude Caesarean section. In conclusion, he regards that the mother's life is amply safeguarded by either combined version or the use of the metreurynter.

90. Rupture of the Perineum.

H. SELLHEIM (*Muench. med. Woch.*, September 14th, 1909), in dealing with the etiology and cure of complete rupture of the perineum, remarks that many women go through life with unrepaired ruptures. The misery occasioned by such tears is considerable. The patient has no control over the sphincter, and loose stools as well as flatus pass involuntarily. Some of the women cultivate a habitual constipation by a suitable dietary, but even then they suffer mentally from the defect. It is popularly supposed that a complete rupture of the perineum cannot be cured. The miserable condition of the patients who sought relief on account of this condition at the gynaecological clinic in Tübingen caused Sellheim to inquire whether there were any common factors in the etiology. He found that, apart from rigidity of the soft parts, the form of pelvis often played a considerable part in predisposing women to a tearing of the perineum during the passage of the fetal head. A broad normal angle of the arch formed by the lower edge of the symphysis pubis permits the head to pass far forward, and thus on extension to expand the perineum less than when its occiput is pushed downwards and backwards. About a right angle with a rounded curve offers the best conditions. On the other hand, a shallow curve, and above all a narrow angle, must render the position of the head disadvantageous. The flattened rachitic pelvis and the infantile type of pelvis represent pelves which would favour the tearing of the perineum. In dealing with the treatment, he states that he has been able to examine the parts after death in a case of rectal cancer. An operation had been undertaken elsewhere, and when Sellheim saw the patient there was a large defect reaching from the vaginal portion of the cervix to the recto-vaginal septum. This was repaired. The patient died of a recurrence. The pelvis was divided *post mortem* sagitally, and from this preparation it could be seen that the cure of the previous defect was complete.

GYNAECOLOGY.

91. X Rays in Fibroid Tumours of the Uterus.

H. BORDIER (*Arch. d'élec. méd.*, September 25th, 1909) deals with the subject of *x* rays in the treatment of interstitial fibroma of the uterus. The difficulty has hitherto been that sufficiently penetrating doses of *x* rays could not be directed upon the tumour without grave risk of radio-dermatitis at the point of entrance. The scientific employment of filters, however, has made it possible to augment the non-injurious dose, and it is by strict attention to filtration technique that Bordier has obtained his successes. He employs a Müller tube, cooled anticathode, rays of 9 to 10 Benoist, and aluminium filters from 0.5 to 1.5 mm. in thickness. At each séance he absorbs a dose which, measured under this filter, is sufficient to change a pastille to tint 0 on the Bordier colorimetric scale. (The palest colour tint, 0, on the Bordier scale is equal to an irradiation of about 3½ Holzknecht.) The séances are usually given at intervals of about two or three days between the menstrual periods. The results are, first, progressive diminution of the tumour, and, secondly, diminution of the menses followed by total cessation. The growth of a fibroid tumour is connected with the circulatory activity of the uterus, and everything which tends to augment the uterine circulation increases the fibroma, and conversely. The *x* rays certainly have a destructive action on the embryonic cells of the fibroma, but even more important as a factor in the cure, in Bordier's judgement, is the cessation of the menses which follows after a certain dose is received by the ovaries. It has been shown that the *x* rays can sterilize the females of certain animals by atrophy of the ovaries, but, owing to the position of the glands, the action is generally regarded as much less certain than in the case of the testicles. Bordier shows, however, that careful filtration of the rays may bring about menstrual cessation without danger of radio-dermatitis. The necessary dose varies according to the age of the woman, and is smaller the nearer she is to the usual age for the menopause. The artificial menopause brought about by means of the *x* rays is accompanied by the same general symptoms as the natural condition, and the grave consequences which sometimes follow hysterectomy are not met with. This last may be partly due to the fact that the rays produce cessation not suddenly but progressively. One of Bordier's cases was that of a woman aged 39, the mother of two children, who at the age of 38 became aware of a large fibroid tumour in the uterus involving pain and haemorrhage. A limited number of irradiations were made in series of three—that is, the rays were aimed successively in the right, middle, and left directions—and the changing to tint 0 under the aluminium filter was obtained in each instance. At no time was there any sign of radio-dermatitis, but only an erythema followed by a brown pigmentation of the skin. During the first four months of treatment little change was observed in the size of the tumour, but the menses were less abundant; and when, after a rest from treatment during August and September, the séances were resumed in October the tumour perceptibly diminished, while the menses ceased altogether by March of the following year, and the fibroma was pronounced clinically cured. This condition had been maintained up to the time of writing (July of the same year). In this case 30 units I (Bordier's unit I is equal to about 2 Holzknecht units) were received on the skin, and Bordier estimates that the proportion of this irradiation received by each ovary after passing through 8 cm. of tissue was 3.3 units I. Two other cases are noted in which the cure was clinically established and an artificial menopause created (in one case after five series of irradiations in each of the three directions indicated) without any appearance of radio-dermatitis. Considering the large proportion of women who are afflicted with troubles of this nature, Bordier thinks that the method constitutes an important social progress, but he points out that the comparative facility with which the ovarian gland may be atrophied by Roentgen irradiations alone makes it imperative to interdict the employment of the *x* rays by persons who do not possess a diploma in medicine.

THERAPEUTICS.

92. Neutralon in Gastric Ulcer.

EHRMANN has found that a soluble aluminium silicate is capable of combining gradually with hydrochloric acid to form the insoluble and harmless silicic acid and aluminium chloride. A. Alexander has experimented with this compound, which is prepared for medicinal purposes by Kahlbaum, of Berlin, under the name of *neutralon*. It is a white, odourless, and tasteless powder, and is insoluble in water. In dilute hydrochloric acid solutions it is split up at body temperature (*Berl. klin. Woch.*, December 6th, 1909). The use to which he put this preparation was to neutralize hydrochloric acid in the stomach in cases of gastric ulcer, in hyperacidity, and hypersecretion. It was used in 18 cases of ulcer, with good effect in 12 cases. The pain ceased after from three to five days as a rule, while the tenderness disappeared after from nine to twelve days. The best results were obtained in ulcers with haemorrhage. He presumes that the silicate adheres better to the surface of the ulcer when bleeding than when dry. Fifty-four cases of hyperacidity were treated with neutralon, and 23 of hypersecretion; 12 of the former and 4 of the latter were not improved. He comes to the conclusion, after considering his cases, that neutralon exercises a beneficial action in diminishing the gastric

secretion of acid. It is not less useful than bismuth or silver, and has an advantage over these that intoxications do not occur. It acts slowly, but the effect lasts well as compared with the action of alkalis. He mentions that it is, of course, necessary to treat these cases dietetically as well as to give the drug.

93. Venesection.

CHADZYNSKI (*Journ. des prat.*, November 6th, 1909) describes a new method of venesection, more suitable to modern ideas of minor surgery, and less likely to be objected to by patients and their friends than the old system of incision. It consists in withdrawing the desired amount of blood by means of a syringe, necessitating merely a puncture, and enabling the blood to be received into a glass where it can be accurately measured, with no risk of soiling sheets, and no troublesome dressing and bandaging afterwards. By this method the valuable aid of bleeding, in pulmonary oedema, uraemia, cerebral congestion and the like, may be resorted to without the repulsive details which have largely contributed to its having fallen into disuse.

94. Opiates for Children.

LUST (*Journ. des prat.*, November 6th, 1909) reviews the case for and against the administration of opiates to children, beginning by pointing out that newborn infants respond as readily as adults to the therapeutic action of opium, and are less susceptible to its toxic effects. It is necessary, however, to be careful in the choice of the preparation, many of them being very uncertain in the relative proportion of the numerous alkaloids which opium contains. Morphine is the most stable and the most satisfactory to employ, and the dosage should be calculated according to the body weight, not the age, of the child. About $\frac{1}{2}$ mg. ($\frac{1}{500}$ grain) for every 2 lb. body weight is the proper dose for the 24 hours, or half that quantity in an enema of about an ounce. Tolerance is very easily produced in infants, and the dose may be repeated when necessary without danger of accumulation.

95. Diaspirin.

S. KAMINER (*Berl. klin. Woch.*, November 22nd, 1909) reports on a new diaphoretic, known as *diaspirin*. This preparation, which is manufactured by Bayer and Co. of Elberfeld, is a succinyl-salicylic acid (succinic acid ester of salicylic acid), and takes the form of a white crystalline powder, which is insoluble in water. It contains 77 per cent. of salicylic acid. It is scarcely split up in the stomach, and therefore the salicylic acid being liberated slowly in the intestine cannot irritate the gastric wall. The absorption is therefore less rapid than with pure acid. He first tried it in doses of 2 grams on himself, and produced profuse sweating. There were no symptoms of disturbance of the circulation nor any buzzing in the ears. The dose which he employed for patients varied between 2 and 4 grams per diem, usually 1 gram in the afternoon and 2 grams in the evening. As a rule, the sweating set in about half an hour after the second dose. No side-effects were noticed in any of his cases. He therefore recommends diaspirin as an active diaphoretic, which is pleasant to take, and which appears to be quite harmless.

96. Atoxyl in Malaria.

TRINCAS (*Gazz. degli Osped.*, December 16th, 1909) finds, as far as his experience goes, that atoxyl is not a satisfactory substitute for quinine in the treatment of malaria. Of the 8 cases of malaria in which he gave atoxyl the results were negative in 5; in the other 3 it appeared to be beneficial, but gave rise to secondary pneumonia, which necessitated a return to quinine in 2 of the 3 cases, whilst there was some doubt with regard to the third case whether it really was malaria and not some form of paratyphoid, as the blood was not examined. In undoubted cases of malaria, as determined by examination of the blood, atoxyl seems of quite secondary value, and its high toxicity makes it a dangerous remedy. On the other hand, quinine has a known effect on the malarial parasite and little toxic effect. In chronic malaria arsenical and iron preparations are no doubt very valuable. The so-called ecbolic action of quinine is so disputable that there is no reason to withhold the use of this drug in pregnant women who may happen to be suffering from malaria. The behaviour of arsenic in relation to sleeping sickness, syphilis, and malaria has some bearing on the etiology of the various diseases. It may well be that the parasite of malaria as it affects animals may differ from that affecting man, the trypanosome as it affects man having evolved differently.

PATHOLOGY.

97. A Phagocytic Index.

M. COPELLI (*Il Policlinico*, sez. med., Rome, 1909, xvi, p. 305) claims to have invented a uniform and standard method for determining the "phagocytic value" and "phagocytic index" (he believes that use of the term "opsonic" is no better than obscurantist) of blood or serum in tuberculosis that gives absolute values, and not relative, and thus needs no control experiment made simultaneously with normal serum. He uses cultures of attenuated tubercle bacilli grown on a solid medium; after seven weeks the growth is scraped off, dried at 37° in a layer 1 mm. thick for ten days. Of this, 1 cg. is fully emulsified in 1.5 c.cm. normal saline, with the addition of corrosive sublimate to 1 in 5,000 to keep the mixture sterile. In use this standard emulsion keeps well and uniform, and is diluted in each experiment to 3 volumes; the very dilute corrosive sublimate (1 in 15,000) appears not to influence the phagocytosis. Copelli lays stress on the importance of using approximately equal quantities of leucocytes in making estimations of phagocytic power; he obtains them by taking 10 to 15 drops of blood in 10.0 c.cm. of normal saline containing 1 per cent. of sodium citrate, centrifugalizing, washing with normal saline, centrifugalizing again, aspirating off the supernatant fluid, and collecting the leucocytic deposit in a Thoma-Zeiss white cell counting pipette, thus measuring its volume; an equal volume of normal saline is aspirated with it into the bulb of the pipette, and the two are well mixed and kept at 37° till used. This method, he finds, gives a fluid about as rich in leucocytes as the blood is. As regards the serum employed, Copelli lays stress on the fact (discovered apparently by himself) that the opsonic power of normal serum is low if the serum is separated soon after the blood has been drawn, and that this power increases to a maximum if serum and clot are separated after five hours; it remains high for about two hours, and then falls, being very feeble, if serum and clot are separated at the end of twenty-four hours. With tuberculous patients, however, the opsonic power of the serum is high immediately after the blood has been drawn, and increases only a little after five hours; after seven hours it diminishes rapidly. The opsonic power of serum remains the same for about half an hour after it has been removed from contact with the clot, and then falls rapidly. Hence, Copelli argues, it is absolutely necessary to separate clot and serum after the lapse of some uniform period of time; he does so after six hours. His own serum has an opsonic value of 6.2 to 6.6; the serum of patients with tuberculosis (of the lungs, bone, skin) gives values lower than this, but still fairly constant; the normal opsonic value, he finds, lies between 5.5 and 7.0—using, of course, the bacterial emulsion and suspension of leucocytes advised above. For the rest, Copelli follows Wright's technique more or less closely. He usually determines only the opsonic power; the opsonic index is obtained by comparison with the opsonic power of normal serum for the particular bacillary emulsion employed, which is determined once for all. He believes that the opsonic power of normal and of tuberculous serum is mainly due to thermolabile complement or cytase, destroyed at 58° C., and not to an "opsonin" destroyed at 61° C.—no such substance exists; heated to 68° these serums lose all opsonizing power. Such serums contain but little thermostable amboceptor or immune body; but such substances are present in increased quantity in the serum of tuberculous patients who have been treated (immunized) by tuberculin. The normal leucocytes are able to englobe tubercle bacilli without the addition of serum; the leucocytes of tuberculous persons have but little of this phagocytic power. In conclusion, Copelli gives details of his "phagocytic method" of determining the resisting power of patients to tuberculosis. He adds, drop by drop, 0.6 c.cm. of blood (drawn from the finger) to 0.3 c.cm. of a mixture containing 1 cg. of attenuated tubercle bacilli, 3 of $HgCl_2$, 2.25 c.cm. of $1\frac{1}{2}$ per cent. sodium citrate solution, and 1.5 c.cm. of normal saline. This, in a small test tube with paraffined cork, is agitated for fifteen minutes in a water bath at 37° C.; films of the mixture are then made, stained, and counted, in the usual way. The sodium citrate is added to prevent coagulation. Copelli believes that the "phagocytic value" thus obtained gives a fair and trustworthy picture of the patient's power of resisting or overcoming infection by tubercle bacilli. In his hands it has given excellent results.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

98. Neurosis of the Digestive Tract.

ALOIS PICK (*Wien. med. Klin.*, October 3rd, 1909) discusses the diagnosis of neuroses of the digestive tract. He is of opinion that insolated neurosis of the digestive tract is possible, but that in a majority of cases some general nervous symptoms are also present, and that these symptoms may be either the tokens of a general neurosis, or more seldom are the result of autointoxication from the disordered stomach or intestinal tract. It is of much importance with respect to treatment to decide which is the primary lesion. Nervous conditions often affect the oesophagus, and the author has seen a patient unable to swallow a drop of water, although solid food could be swallowed and a sound passed into the stomach. In the majority of the cases there is hypersensitiveness of the stomach, which may be present in every form of irritation, but which may only be found with particular forms of irritants, whether mechanical, thermal, or chemical in nature; very often fluids cause more discomfort than solid food. In distinguishing nervous dyspepsia from gastric ulcer this sensitiveness to fluids may be a useful diagnostic point—in gastric ulcer fluids can be better taken than solids. Other points are that the tenderness on pressure is more diffuse in nervous disease than in gastric ulcer; that faradization soothes the pain of nervous dyspepsia, but tends to increase that of gastric ulcer; that the pain of gastric ulcer may be aggravated by lying in a particular position, and that sleep is not disturbed, as a rule, by nervous gastric pain, and, of course, of most importance of all, that blood is not present in the stools. Hyperaesthesia to thermal irritation is not so important a diagnostic sign as is the discomfort from fluids as such, because the former may be present apart from a nervous condition. Hyperaesthesia to chemical irritation, on the other hand, and especially to acids, is much more characteristic; the symptoms are those of hyperchlorhydria, but the amount of gastric secretion is not actually increased, and may be diminished. The hyperaesthesia to acids may only apply in nervous dyspepsia to particular acids, and thus, for example, there are patients in whom vinegar causes pain, but not lemon juice, and vice versa. The author is of opinion that the pain of which some patients complain after eating certain sorts of fat to which they are not accustomed is due to an intolerance of the particular fatty acids which they contain. Custom and suggestion have much to do with the nervous hyperaesthesia, and re-education is to be attempted by the doctor—foods against which there is intolerance are given at first in very small quantities, or given with a digestive mixture, and an assurance that all will be well, and in this way a return to ordinary diet can often be accomplished; obviously this will not be possible when organic disease is present. A very characteristic form of hyperaesthesia is that described as idiosyncrasy, in which certain foods give rise to unpleasant symptoms of the most varying kind, referred to the digestive system, the nervous system, the skin, or the circulation. The cause of this condition is not fully understood, and may in some cases be due to hyperaesthesia of the digestive tract to certain chemical irritants, and in other cases may be the result of autointoxication from the intestine. Diminished sensitiveness may, on the other hand, sometimes be present in nervous dyspepsia, and patients may take very large quantities of food and yet never feel their hunger satisfied. With respect to the secretory neuroses of the stomach also, there may be either an increase or a diminution of secretion. It is very characteristic of the condition that the patients almost always find relief from pain on taking alkalis. The motility of the stomach also may be excessive or diminished. The condition of achylia gastrica, combined with hyperkinesis, is very characteristic of a nervous complaint, as compared with the carcinomatous achylia usually combined with hypokinesis. Hypokinesis, described as motor insufficiency, atony, myasthenia, is, however, the abnormality more commonly met, and it is difficult to distinguish between a neurosis and organic disease, since general nervous symptoms so often follow atony. The treatment of neuroses of the stomach is before all things causal. If the origin of the stomach abnormality is a psychosis, the psychosis should be treated by suggestion, etc. Where psychical treatment cannot be carried out or is without result, in all cases of primary neurosis of the stomach local treatment must be adopted, and may be medicinal, by physical methods, or dietetic. Alkalis play the chief part, even sometimes for patients with marked hypacidity, next hydrochloric acid, then stomachics, such as menthol and creosote. The diet should be such as to keep up the patient's strength, and he should be encouraged to gradually accustom himself to a full mixed diet.

99. The Etiology of Nephritis.

MARAGLIANO (*Gazz. degli Osped.*, October 7th, 1909) says it is no longer possible to classify nephritis on a purely pathological and anatomical basis; the only true starting point for classification is that of etiology. We can no longer look upon the diseased kidney as the beginning and the end of nephritis, the state of the organism being merely secondary; the reverse of this would be nearer the truth (setting aside the comparatively small number of nephrites due to ascending disease from the bladder). Both experimentally and clinically it has been found that very small quantities of kidney substance suffice to keep patients free from the phenomena of uraemia, and conversely one may get uraemia with free elimination of urine. So, also, with suppression and retention of urine, where the clinical facts show plainly that mere retention of urinary products does not suffice *per se* to cause uraemia. It seems clear that uraemia is due to the organic rather than the inorganic products of tissue change. Research directed towards the behaviour of the kidney with reference to the elimination of the organic refuse is far more likely to be fruitful than experiments with reference to the elimination of such substances as methylene blue; there is, indeed, a kind of renal coefficient of elimination for each substance, and it does not at all follow that a kidney which will readily allow methylene blue to pass will as readily allow some half-oxidized organic product, and vice versa. From experiments it has been found that the chief difference in power of elimination between a healthy and a diseased kidney is that the latter allows more of the less perfectly elaborated organic scoriae to pass through than the former. Hence the importance of estimating the relation between the total nitrogen and the ureic nitrogen. The proportion of inorganic salts in the urine is really more closely connected with the state of the heart and circulation than that of the kidneys. Modern research tends to show that the ultimate factor in the causation of nephritis is not disease in the kidney primarily, but subtle changes in intimate cell metabolism, and that the disturbances taking place there create cytolytic substances which possess a nephrolytic action, which in little-resisting predisposed renal tissue may determine necrobiotic processes with all the anatomical and functional results which follow therefrom. To hold that the kidney is the prime cause of the various symptoms of nephritis is to put the cart before the horse. The kidney is more truly the exponent of a morbid state of the whole organism. The changes in the renal tissue create the local symptomatology; the changes in the tissues, in the organs, and in the functions create the general symptomatology; the two together sum up the disease.

100. Syphilitic Headache.

PICKENBACH (*Wien. med. Klin.*, October 10th, 1909) describes two cases which illustrate how easily syphilis may be overlooked as a cause of headache. The first case was that of a woman 38 years of age, who had been known to her doctor for years as a healthy woman; she was married, her husband was in good health, she had two living healthy children, and had had one miscarriage, which came between the births of the two living children. She was suddenly attacked, after a hard day's work at her ordinary work of machining, with severe pain in the head. There was much tenderness over the right supra-orbital nerve, and the diagnosis made by Pickenbach was of neuralgia. In spite of treatment by rest and the administration of antipyrin, and later of quinine and of iron, there was no improvement, and the patient began to have a nervous, depressed appearance, so that it was thought best to send her to the nerve Policlinic with the idea that she might be suffering from brain tumour. At the clinic nothing to account for the headache was found, and she was sent to other clinics, until at the gynaeco-

logical one a vaginal examination was made, and an old scar at the introitus vaginae was discovered, and also the presence of indurated glands in the groin. It then turned out that before marriage she had contracted a disease of whose nature she was ignorant, and which was undoubtedly syphilis. She was put on to potassium iodide, and the headache disappeared. If further proof were needed in this case, it is found in the fact that an ulcus cruris which had persisted for months healed later under potassium iodide. The next case was that of a man who consulted a doctor because of severe headache, which had continued for six weeks and which unfitted him for work. The case was diagnosed as influenza, and treated with antipyrin and quinine, together with rest in bed, but without any benefit. When the man came under Pickenbach's care, he found that a secondary syphilitic rash was visible, and there was a specific ulcer at the sulcus coronarius. On being questioned as to this, the patient said that the ulcer had been there for nearly two months, but he had not connected the presence of the ulcer with the headache, and his answers to questions as to syphilitic disease had been misleading. Under specific treatment the headache in this case also quickly disappeared.

SURGERY.

101. Sessile Adenoma of the Rectum.

DUBAR AND LEROY (*Echo Médical du Nord*, October 21st, 1909) report the following case: A workman, aged 29, had been subject for some ten years to a variable amount of bleeding from the anus, beginning with a very small quantity on going to stool. The attacks of haemorrhage increased in frequency from every three months to every two months, once a month, and, finally, almost daily, the amount of blood lost also increasing until a very considerable anaemia and emaciation had taken place. There had been occasional slight colicky pains, disappearing after an action of the bowels, but never of any great severity. In March, 1908, after a copious evacuation from a saline purgative, the patient noticed a swelling protruding from the anus, which went back of itself after causing some acute pain. This occurred at each movement of the bowels, and was diagnosed by one doctor as haemorrhoids. His prescription proving ineffectual, the patient entered Dubar's clinic, where the protruding tumour was found to be the size of an orange, and to be preceded in its descent by a fold of healthy mucous membrane, as in prolapsus recti. The surface of the tumour was red and granulated, with bluish striations, and it could be felt to extend round the whole circumference of the rectum, except for a narrow strip of healthy membrane on the posterior wall. The lower margin of the tumour was about $2\frac{1}{2}$ in. from the anal opening. The diagnosis of adenoma was made, the size of the tumour being too great for internal haemorrhoids, and the consistence too soft for rectitis. The tumour was removed six weeks later, by the application of four clamps—anteriorly, posteriorly, and on both sides—and the division of the mass into four parts, and extirpating them as far as the limits of the healthy mucous membrane. When the bowels began to act again, after twelve days' constipation, each stool was accompanied by a little mucous discharge, but the bleeding had entirely ceased, and when the patient left the hospital he had regained strength and appetite, as well as colour and weight. Microscopic examination showed distinct arborescence, and an abundant proliferation of connective tissue, giving rise to some doubts as to the benign nature of the tumour, which looked suspiciously like a transition towards adeno-carcinoma. The prognosis, therefore, was guarded.

102. Conservation of Middle Turbinate.

HITSCHLER (*Amer. Journ. of Surg.*, December, 1909) protests against indiscriminate removal of the healthy middle turbinate for the relief of headache and for making a sure diagnosis in cases of suspected sinus disease. This bone when normal cannot, he asserts, be sacrificed without interference with the function of the nose in cleansing, warming and moistening the inspired air. When practised for headache there is, it is suggested, a possibility that it will result in the substitution of a greater for a lesser evil. Usually when the sinuses are subject to chronic disease the middle turbinate is diseased also; in the case of the sinuses of the middle meatus, the anterior portion, and with the sinuses of the superior meatus, the posterior portion. But there are cases of sinus disease, particularly acute cases, in which the bone is not the seat of any appreciable pathological change. Consequently when the greatest obstacle to a diagnosis of sinus disease is the middle turbinate, which may prevent a proper intranasal examination, the surgeon has a choice of two evils. The bone once removed cannot be restored, and there will follow, in all probability, a dry naso-pharyngitis which becomes a source of constant annoyance to the patient and may require continuous local treatment. On the other hand, complete removal may be all that is needed to effect a complete cure. In questioning the opinion held by some rhinologists, that no evil effects will follow excision of a healthy middle turbinate, as its place would be occupied by deviation of the upper portion of the ridge and other osseous contents of the nasal cavity, the author points out that these displaced structures could not perform the distinct functions of the removed bone, as they do not embody in their mucous membrane the cavernous structure of the turbinates. A very roomy nose, it is thought, is hardly compatible with an absence of secondary changes in the lower respiratory tract.

103. Ligature of the External Carotid.

MORESTIN (*Bull. et mém. de la Soc. Anat. de Paris*, No. 8, 1909) has devised a new method of exposing the external carotid artery when the surgeon seeks to carry out this object by making a distinct incision, and the exclusive aim of his intervention is to discover and ligature the vessel. The operation, it is held, is always a delicate one, and becomes really difficult when the patient has a thick, short, and fat neck, and when the veins over the artery are enlarged. The help afforded by the three anatomical guides which are given in textbooks, namely, the great cornu of the hyoid bone, the hypoglossal nerve, and the trunk formed by the thyroid, hyoid, and facial veins, has, the author thinks, been overrated. A more important and certain guide, he asserts, will be found in the posterior belly of the digastric muscle, which is in close relation with the external carotid artery at the seat of origin of its chief cervical branches, which it is often necessary to tie in the course of the operation. This portion of the digastric is always easy to find, and not likely to be confounded with any other structure in the wound, and the surgeon as soon as he has found this guide, which can be readily recognized by its size, the direction of its muscular fibres, and its shining tendon, may be assured that the carotid is very near, and can at once be easily secured. The cutaneous incision in the author's method extends from the tip of the mastoid process to the hyoid bone. After section of the skin and the platysma, and careful dissection of the network of superficial veins, the submaxillary gland is exposed. After this structure has been pulled upwards by a retractor, a blunt dissection is made along the inferior margin of the posterior belly of the digastric in a direction from the tendon outwards. At this stage the pulsation of the carotid will be felt, and the vessel, together with its lingual and facial branches, be promptly exposed. The author would ligature in succession the external carotid, the lingual and facial branches, and also the superior thyroid. By its results in a very great number of cases in his own practice, Morestin has been led to recommend this as an excellent method of exposing for ligature the external carotid artery.

OBSTETRICS.

104. Interstitial Pregnancy.

FREDERICK W. JOHNSON (*Boston Med. and Surg. Journ.*, December 2nd, 1909) was consulted by a woman, aged 30, who had given birth to her first child seven months before. Three months after labour a normal period occurred, followed by amenorrhoea for three months. Then uterine haemorrhage set in, clots being passed, without any pain. It continued off and on until the patient consulted Johnson. The uterus was enlarged, and solid masses could be defined in its substance anteriorly and posteriorly, whilst a soft, somewhat tender body was detected in the direction of the left cornu. The vaginal mucosa was violaceous. The curette was applied, and clots and decidua-like tissue removed; the uterine cavity was found to be capacious. The abdominal cavity was opened, when the uterus was seen to be studded with fibroids. The right Fallopian tube and ovary were normal, whilst the left tube and uterine cornu were deeply congested and of a violet colour. Immediately internal to the insertion of the left tube lay a soft, bulging tumour, where the uterine wall was so much thinned out as to consist of the serosa only. An incision was made, and a dead fetus with cord and placenta delivered. The "interstitial" cavity was closed

with buried catgut sutures; then three fibroids were nucleated. There were no complications during convalescence. The pregnancy had advanced to about the fourth month.

105. The Vomiting of Pregnancy treated by Adrenalin.

REBAUDI (*Gazz. degli Osped.*, No. 113, 1909) speaks highly of his experience in the treatment of a severe case of hyperemesis gravidarum of more than two months' duration by means of adrenalin in small doses. Various remedies had been tried, and artificially-induced labour was seriously contemplated. In whatever way the drug acts—whether by neutralizing the toxins produced in pregnancy, by toning up the nervous and muscular system, as an antitonic, as a stimulant of tissue change, or as a regulator of the vasomotor system, or in any of the other methods which have been theoretically suggested—the author is convinced of its great therapeutic success in the cure of obstinate vomiting of pregnancy.

106. Ovarian Pregnancy.

KIRCHNER (*Amer. Journ. Obstet.*, November, 1909) operated on a coloured woman, aged 30, the mother of eight children. The last period had occurred nine months previously; decidua seems to have passed in the second month, followed by haemorrhage, and after some of the usual alarming symptoms it became clear that pregnancy was developing. In the eighth month complete prolapsus of the uterus occurred, and recurred three weeks later though the organ had been replaced. A week or two afterwards distinct labour pains set in. Kirchner could detect the fetal heart sounds, and found that the uterus was empty. The cervix was so oedematous as to fill the vagina, a complication very misleading until the patient was examined under anaesthesia. The abdomen was opened and a large cystic tumour exposed and incised; a live fetus was then extracted from its interior, a male mulatto weighing 6¾ lb., which was nourished by artificial feeding; it was in good health ten months after the operation. The sac was removed without much difficulty; the vermiform appendix, being adherent, was excised. The sac lay on the right side in the region of the ovary, and it was there that the main blood supply passed into it; a sort of pedicle was made, secured, and divided. The left Fallopian tube was also amputated, as it had been damaged in the separation of adhesions. That tube appeared to be quite normal. The right Fallopian tube adhered to the right side of the outer surface of the sac; it was over 2 in. long and of nearly uniform diameter. Its fimbriated extremity was covered over by adhesions, but had no connexion with the interior of the sac. On the lower and inner part of the sac was a structure resembling the utero-ovarian ligament. The interior of the sac was lined with placenta and fetal membranes. Kirchner, in conclusion, considered that, according to Spiegelberg's definition and limitations of ovarian pregnancy, his case comes under that category.

GYNAECOLOGY.

107. Fibroma and Myoma of Vagina.

KEHRER (*Monatsschr. f. Geb. u. Gyn.*, December, 1909) has written a short monograph on "desmoid" growths of the vagina, including an example in his own experience. A woman, aged 41, consulted him on account of constant bearing-down pains and discomfort due to a swelling which he had observed for more than a year and a half. The patient had borne three children, the last was 11 years old. She had grown very stout. There were no haemorrhages and the periods were perfectly regular. Kehrer adds a good coloured illustration. There was a tumour the size of a goose's egg protruding from the vulva, and parting the labia widely. The tumour had developed under the mucous membrane of the anterior wall of the vagina, which was tensely stretched over its surface, though not actually adherent. The whole mucosa and tumour could be moved to a moderate extent. The marked feature in this case was the extreme displacement of the urethra. The meatus was distorted, appearing as a crescentic fold on the left side of the surface of the tumour at its anterior or lower attachment, with the concavity turned to the right, the convexity almost touched the descending ramus of the pubes on the left. The catheter, however, made these abnormal relations clear. The presenting part of the tumour was ulcerated. The patient had recently been treated for cystocele, and a ring applied, of course without benefit, but Kehrer admitted that, at first sight, the appearances simulated prolapse of the anterior vaginal wall. After careful disinfection of the parts the tumour was enucleated through a longitudinal incision. There was little or no bleeding excepting at a point close to the pubic arch on the left; on the other hand the separation of the urethra without damage proved difficult. The cavity left by the enucleation was made less by two catgut sutures and the mucosa was sewn over it, and a gauze tampon passed into the vagina, being removed at the end of twenty-four hours. The parts healed well. The microscopic appearances are described by Kehrer; the tumour was a fibro-sarcoma. He notes that Potel, of Lille, has collected 120 cases of "fibromyoma of the vagina," and quotes some recent reports of the removal of "desmoid" tumours of this type. The surgery is important: not only the urethra but also the bladder, and when the tumour develops posteriorly the rectum and Douglas's pouch, may be wounded. Gubarow was compelled to resect a part of the urethra, and the patient's life may be lost if the peritoneum be injured during the dissecting away of an infected tumour of this kind situated high up on the posterior vaginal wall. Lastly, the probability of sarcomatous elements being present in the growth is considerable and must be borne in mind, but it never assumes the extremely malignant characters observed in mesodermal vaginal tumours developing in the vagina of infants and children.

108. Rhythmic Faradization in Uterine Prolapse.

TWO cases of uterine prolapsus ameliorated by the rhythmic faradic current are described by Escluse (*Arch. d'élec. méd.*, November 10th, 1909). It is proved indisputably, he says, that the sphincters in general respond to faradic excitation. At the same time, with too frequent interruptions, there is a danger of inducing tetanic fatigue, and the faradic current, when employed to stimulate the muscles, should be periodically suspended. In one of his cases in which the uterus lay to some extent outside the vulva, he gave ten-minute séances of rhythmic faradization three times per week, at just supportable intensity, with interruptions from 60 to 80 per minute, one pole being on the abdomen, the other being represented by a vaginal speculum. Within one week the pain and bleeding which had accompanied the condition had ceased, and within a fortnight of the commencement of treatment the patient was greatly improved, was able to walk much better, and to maintain the upright position. The author concludes that in the treatment of prolapsus of the first degree rhythmic faradization may bring about a cure; in the second degree, associated with symptomatic treatment, it should reduce the inconvenience and discomfort; and in complete prolapsus, although it will be of no service apart from operative procedure, it may be very useful after the knife, provided that the muscular degeneration is not extreme.

THERAPEUTICS.

109. Veronal in Delirium Tremens.

WRITING from Copenhagen, V. Friis Möller (*Berl. klin. Woch.*, December 27th, 1909) states that hitherto the treatment of delirium tremens employed in Denmark has been the expectant treatment. When signs of cardiac failure appeared, digitalis, camphor, caffeine, or alcohol were given. Various medicaments have been tried to combat the delirium, such as chloral, paraldehyde, hyoscine, opium, etc., but with doubtful results. It is true that Aufrecht has been satisfied with chloral, but, according to his statements, it only obtains sleep in forty-eight hours, and that if one dose of 4 grams is given at once and followed by 3 grams on the following morning. Since 1903 Möller has experimented with veronal. At first small doses were used, but even then a beneficial effect could be noted. The deilrium was not shortened as far as duration was concerned, but its character was altered. The patient who was noisy and troublesome before became quieter, easy to keep in bed, and only muttered nonsense and was fidgety. Since the dose has been increased better results have been obtained. In no case has a veronal exanthem been observed, nor have any signs of poisoning been noted. The pulse became steadier, and the temperature, which was nearly always raised to between 100.6° and 102° F., dropped to normal after the patient awakened from the critical sleep, and the albuminuria always disappeared with the delirium. He treated his patients as follows: On admission into hospital 1 gram of veronal was given, and if no sleep followed within three hours (this was seldom the case) a second gram was given. Sleep then set in rapidly, and lasted for from six to twelve

hours. On awakening the patient was clear and quiet, and felt quite well. If any tremor was still present, ½ gram of veronal was given, and the tremor ceased before the evening. If the patient had to stay in hospital for other reasons he was given ½ gram of veronal at night if sleepless. If 2 grams prove not to be sufficient a third gram may be given after from five to six hours. This third dose was almost always ample to stop the delirium. Out of over 100 patients only 3 did not yield to the treatment. Of the 100 patients, 2 died, 1 from double pneumonia, and the second from general weakness due to repeated attacks of delirium tremens. In pointing out the advantages of this method of treating delirium tremens, Möller urges, *inter alia*, that the general practitioner can deal with his cases in the patient's own home, as there is no longer necessity for sending them into hospital.

110. Myelogenic Leukaemia ameliorated by X Rays.

DELHERM (*Bull. de la Soc. de Radiol. Méd. de Paris*, December, 1909) reports a case of myelogenic leukaemia which has been very greatly ameliorated by radiotherapy. At the commencement of treatment (July, 1909) the blood picture showed 508,000 white corpuscles per c.mm., and 2,077,000 red corpuscles. The splenic enlargement extended down to the pubis. Four séances of *x* rays were given during the first month of treatment (hard rays, carefully filtered). The spleen diminished in size, the patient gained strength, and the red corpuscles rose to 3,140,000. The white corpuscles, however, were also augmented to 576,000, the proportion of myelocytes being 36 per 100. Three séances were given during August, and, after an interval of a month, six other séances. In the middle of October the general state was good, the splenic enlargement reduced by half, the red corpuscles were 1,850,000, and the white corpuscles had decreased to 350,000 (myelocytes, 16 per 100). After a further rest of a month, the general improvement was continued, the red cells rose slightly, the white cells also rose to 384,000 (myelocytes, 15 per 100). The diminution of red cells during radiotherapeutic treatment, says the author, is not an absolutely exceptional fact. In Beaujard's forty observations of myelogenic leukaemia it occurs three times. In one of these cases the patient died; in the other two, which were identical with the one just described, the diminution of the red cells corresponded with a considerable improvement in the patient. The author says that up to the present, while radiotherapy has not modified very remarkably the red corpuscles, it has been the means of lessening considerably the white corpuscles, particularly the proportion of myelocytes, and it has produced such a modification of the general state that, although the patient at the beginning of the treatment was not able to stand, he can now conduct his business, and has put on about 15 kg. in weight.

111. Radium in Giant Cell Sarcoma.

ROBERT ABBE (*Medical Record*, January 1st, 1910) describes the treatment of eleven cases of giant cell sarcoma by the use of the radium tube. Several of these cases were inoperable without the loss of a large amount of bone, and these were treated by incisions into which were thrust the radium tube. The result was reduction in the size of the tumour, re-formation of bone that had been destroyed, and a return to an apparently normal condition. As an explanation of this pathological and surgical problem he suggests the following: The gamma rays carrying positive electricity from the radium penetrate everything. The overgrowth of cells constituting a tumour may be a loss of equilibrium in the balance of electric forces sustaining the normal cell growth, and the supply of one needed element by radium will restore the balance and enable the cells to resume their normal growth. In the group described it would have been necessary to resect one-third or one-half of the lower jaw in three cases and upper jaw in two, while in one the involvement of both upper jaws was hopeless. The author believes that every such case should be treated with radium before operation is attempted.

112. The Use of Morphine for Infants.

COMBY (*Arch. de méd. des enfants*, June, 1909) points out that the toxicity of morphine, owing to its action on the heart, kidneys, and brain, must be fully recognized; it is, nevertheless, a useful therapeutic agent for children in the severe pains of peritonitis and appendicitis, and may be given without hesitation either by the mouth or hypodermically. He relates the case of a girl, aged 6 years, who was attacked with appendicitis; nothing relieved the pain but morphine hydrochloride, half a cubic centigram (1/13 grain) night and morning. This daily dose of 1 cg. was well tolerated and procured relief. Since then Comby has frequently used morphine in similar cases and always with success; 1 to 2 mg. (1/65 grain to 2/65 grain) should be given daily for each year of age. This dose, divided into two, can be doubled if given by the mouth. If the pain is intense he does not hesitate to use a dose sufficient for an adult; it is the most rapid and least dangerous means to reduce pain. But morphine has other uses; one is to calm the nerves; again, in haemoptysis it acts indirectly as a haemostatic. More recently hypodermic injections of morphine have come into use in the treatment of spasmodic affections of the respiratory apparatus, croup, laryngismus stridulus, and whooping-cough. In croup or diphtheria there are two elements, the membrane and the spasm; both combine to threaten life. The infection is treated with serum, the stenosis by tracheotomy or intubation. Thanks to serum treatment, the number of cases requiring operation are greatly reduced; if they can be still further reduced by the hypodermic injection of morphine it will be a great gain. Morphine soothes the spasm and gives the serum time to act. In simple croup it acts as an antispasmodic. When intubation has been performed morphine is still useful in reducing the time it is necessary to leave the tube in. If the croup has existed several days and there is difficulty and cyanosis, intubation can be practised after the morphine has been used. If the difficulty of breathing has only lasted a few hours, one should not insert the tube but give morphine followed by the serum. If the child goes to sleep for five or six hours, the serum will have time to act and the danger will be overcome. If the tube has been used the morphine will allow it to be removed after thirty-six or twenty-four hours; in order to do this inject 1/3, or ½, or 2/3 cg.; in ten minutes the child will be asleep and the tube can be taken out. When the case is complicated with broncho-pneumonia, then morphine cannot be used. Morphine can also be successfully employed in the eruptive fevers when there is excitement and insomnia, also in cerebro-spinal meningitis, and in asthma and convulsions. In whooping-cough Triboulet and Boyé claim that the injections of morphine diminish the number and intensity of the attacks of coughing, stop the vomiting, and shorten the duration of the illness. But morphine should not be given when kidney trouble is present. The presence of albumen with diphtheria does not contraindicate morphine.

PATHOLOGY.

113. Vibrios of the Human Intestine.

F. GOTSCHLICH has examined the intestinal contents of every pilgrim who died in El Tor during 1905 and 1906. In the former year, out of 107 cases, vibrios were isolated 37 times; while in the latter year, out of 127 cases, they were isolated 18 times. These vibrios proved to be morphologically indistinguishable from cholera vibrios, in spite of the fact that the persons had neither suffered from cholera nor had come in contact with the disease. Gaffky suggested that similar examinations should be undertaken in Europe during periods when no cholera was present. Rothe and Meinicke have made investigations on the presence of vibrios in the human intestine in Hagen, and publish a note on their results in the *Deut. med. Woch.* September 9th, 1909. The intestinal contents of 100 bodies from the *post-mortem* rooms were examined. The patients had died of diphtheria, scarlatina, whooping-cough, measles—many of these cases were complicated with broncho-pneumonia and enteritis—tuberculosis, erysipelas, typhoid fever, etc. In one case only were vibrios found. This was a case of a boy of 7 years who had died of scarlatina, complicated by middle-ear suppuration and pneumonia. The vibrio was like a cholera vibrio, but could be distinguished from the latter by less marked motility, by the tendency to form long "screw" forms, and by the fact that it possessed several flagella. The usual form was two flagella at one end. Culturally, this vibrio did not fluidify gelatin and did not give a nitroso-indol reaction. The agglutination test and Pfeiffer's test also proved negative. It was non-pathogenic to guinea-pigs. A further investigation was undertaken in the examination of the faeces of upwards of 293 patients. In no case were any vibrios found. The authors discuss these investigations in connexion with the results obtained elsewhere, and conclude that while the bacteriological examination still serves as a safe means of diagnosing cholera, a microscopic examination alone is not sufficient, but is merely an important part of the necessary examination.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

114. Erysipelas in Old Age.

HERMANN SCHLESINGER (*Wien. med. Klinik*, August 8th, 1909) deals with erysipelas as it affects old people. Out of 2,664 cases treated at the Franz Josef Hospital at Vienna during the author's time of office 288 cases (10.8 per cent.) were of people over the age of 60 years. Women appear to be more frequently affected than men; out of 224 of the author's cases 133 were women and 91 men. The course of the disease may be similar to that in young people, and there may be a critical fall of temperature. Often, however, the fall is more gradual and the disease more protracted. In 12 out of the 224 cases the migratory form was seen. Severe heart symptoms during the height of the illness were noticeably infrequent, and it is emphasized that the heart in erysipelas is usually injured not by the disease itself but frequently as a result of the complications and sequelae. Kidney affections are frequent in the erysipelas of old age. Nervous symptoms are also frequent, but Schlesinger scarcely ever met with meningitis as a complication. Amongst all the cases there was not one instance of erysipelas of the fauces. Amongst complications and sequelae suppurative processes in the subcutaneous tissues or deeper structures were extraordinarily common. Subcutaneous abscesses of the eyelids seemed to be less frequent in old than in young people. Gangrenous processes were especially frequent in old people; the form often met with, which attacks especially the lower limbs of corpulent old women, is peculiarly dangerous, and the greater part of the skin and subcutaneous tissue of the leg and foot may in this form become gangrenous within twenty-four hours of the first onset of threatening symptoms; recovery in such cases is slow, but may occur even in people 80 years or more of age. The prognosis is grave in old age. One-fourth of the cases here dealt with ended fatally, usually as a result of complications or sequelae; the tendency to a fatal ending does not appear to increase continuously with increase in age of the person attacked—of 15 patients over 80 years of age only 2 died. The duration of the illness is often considerable, because of the complications; in 18 per cent. of 213 cases in people over 60 years of age the duration was four weeks or longer. The most frequent causes of death from erysipelas in old age are shown by autopsies to be myocardial changes, general sepsis, or surgical complications. The treatment in old age is essentially the same as in younger people. Digitalis is to be given early because of the frequent *myodegeneratio cordis*, and caffein natriosalicyl for the tendency to bradycardia. As a prophylactic measure it is recommended to rub fat into the skin after the attack in order to lessen the danger of relapse. The author has found compresses of liquor Burowi, or 60 per cent. alcohol, the most useful treatment. If pus forms and there appears to be danger of general sepsis argentum colloidale is to be tried. Schlesinger has made a wide trial of the serum treatment, without success. He finds veronal or medinal useful for sleeplessness, and advises caution in the use of morphine.

115. Epidemic Scurvy and Barlow's Disease.

GIORGI (*La Pediat.*, July, 1909) has had an opportunity of studying a small epidemic of scurvy occurring in a children's hospital. The number of cases was 14 out of 57 children admitted, and the ages varied from 15 months to 3 years. The chief features were scorbutic stomatitis, fungous, foul and bleeding; marked anaemia, rickets, periosteal swellings, spontaneous fracture, tender limbs, exophthalmos, etc. The severe gum lesions were as usual only evident when the teeth had erupted. The relation between improper feeding—either by absence of the antiscorbutic elements or by insanitary surroundings—was marked. A curious feature about the subperitoneal swellings in these cases is the fact that when radiographed the degree of stripping of the periosteum is much less than one would expect, a large part of the swelling being due to inflammatory reaction. Many of the author's cases would have been readily accepted as instances of Barlow's disease. Infantile scurvy is thought to be so uncommon that it has been made into a separate disease—that is, Barlow's disease; but the author is inclined to believe that, given the necessary conditions, scurvy (the same as occurs in adults) is not so very uncommon in children (and he refers to other epidemics in children in Venice), and, moreover, is not confined to the rich (his own 14 cases tend to disprove that). On the whole, therefore, he is inclined to hold that scurvy occurring in infants is simply scurvy in an infant instead of an adult, and not a specific kind of scurvy or rickets *per se*.

116. Adiposis Dolorosa.

PRICE (*Amer. Journ. of Med. Sci.*, May, 1909) discusses the clinical and pathological aspects of adiposis dolorosa, and gives notes of two cases with the *post-mortem* findings. The first case, a housewife aged 57, was admitted to hospital in a semistuporous condition. Her father and one brother had died of consumption, her mother of general debility, and one brother was insane. The history was that of moderate use of alcohol, and for the past ten years she had complained of pain in the stomach at times, and for the past eight months she had been troubled with severe pain and vomiting with occasional haematemesis and melaena. For some time there had been tenderness in the extremities, and for the past few weeks she had been confused or delirious. Marked tenderness was present all over the body, and the abdomen was very adipose. Bullae developed on the legs, and the stupor gradually deepened and oedema of the lungs set in. *Post mortem* there was fatty infiltration and degeneration of the heart, bilateral emphysema with atelectasis of the right lower lobe, chronic diffuse nephritis, and slight fatty infiltration of the liver. The subcutaneous fat about the umbilicus was 6.5 cm. in thickness. The thyroid gland was normal in size, but the right lobe was distinctly harder than the left, due to a marked connective tissue increase, and areas of round-cell infiltration were noted in both lobes, a condition also found in the hypophysis. The adrenals were normal. The second case, a woman aged 48, complained of severe pain in the right foot, which was swollen, and also of severe occipital pain extending over to the forehead, with photophobia. There was a distinct family history of stoutness on her mother's side, and the patient herself had always been large. Massage and bandaging relieved the swelling and pain in the right foot, but this recurred at times, and later the thyroid gland became enlarged, with difficulty of deglutition and pain at the back of the neck. Eighteen months later she presented a condition of myocarditis, nephritis, and adiposis dolorosa, weighing 308 lb., the superficial fat on the legs being tender. Repeated attacks of dyspnoea and cyanosis ushered in death. *Post mortem* there was cardiac hypertrophy and fatty degeneration, with chronic nephritis, chronic pleuritis, oedema of the lungs, and fatty infiltration and congestion of the liver. The thyroid gland was abnormally large, and connective tissue increase and plications of the cubical epithelium lining the acini were noted in places. Middle-aged women who have passed the menopause form the bulk of the cases, though cases have been reported as young as 12 and as late as 76 years, and males are affected about one-sixth as frequently as females. Onset is gradual, the cardinal symptoms being fatty deposit, pain, general asthenia, and psychic phenomena. The fatty deposits most commonly affect the trunk, shoulders, arms, and thighs, and are tender on manipulation, while paraesthesiae of numbness, tingling, burning, crawling, etc., frequently cause much distress. Irritability with depression, loss of memory, and a hypochondriacal tendency are the most common psychic changes. Anidrosis, flushings, cyanosis of the extremities, and transitory oedema are among the important vasomotor phenomena, while trophically ulcerations, blebs, and arthritic changes occur. Marked improvement has followed the administration of thyroid extract in several cases, while salicylates, bromides, and aspirin have been useful in relieving pain. Generally massage, electricity, and rest should be tried as giving greater comfort to the patient.

117. The Axillary Temperature in Pneumonia.

CASALI (*Gazz. degli Osped.*, October 19th, 1909) has examined the temperature in the two axillae in 30 cases of pneumonia. Of these, 26 were unilateral and 4 bilateral. In the unilateral cases, with one exception, the temperature was constantly higher (from 1° to $\frac{3}{10}$° C.) on the affected side. In the bilateral cases the patients were so ill, and under observation so short a time, that nothing

definite can be said; but as far as the observations on these cases go, the temperature tended to show an equality on the two sides. The one unilateral case where an equality existed proved fatal, and the author is inclined to look upon this equality of temperature in the two axillae in unilateral cases of pneumonia as of bad prognosis. The difference in temperature has no relation to the extension or site of the process. It can be recognized quite early in the disease, and is present until the crisis; with defervescence it disappears.

SURGERY.

118. Intravenous Anaesthesia with Ether and Chloroform.

AIMING at the introduction of a form of general anaesthesia which may be regarded as safe even in the hands of an unpractised surgeon, L. Burkhardt conceived the idea that the intravenous application of chloroform or ether might yield useful results (*Muench. med. Woch.*, November 16th, 1909). First he experimented with chloroform in animals, and, having found that anaesthesia could be obtained relatively without risk, he applied the method to four patients. The anaesthesia was excellent, and was maintained without difficulty, but in two of the patients temporary haemoglobinuria set in later. He then turned his attention to ether. Using 5 per cent. solutions of ether in sterile physiological saline solution, he found that the anaesthesia obtained in animals was eminently satisfactory, no deleterious effect occurring. Ten per cent. frequently killed the animal. He applied the method to man. Sterile physiological salt solution was warmed to 28° C., and to each litre 50 c.cm. of pure anaesthetic ether were added. The fluid was shaken carefully until all the ether dissolved. A vein at the elbow was then freed under local anaesthesia and tied peripherally. A wide glass cannula was inserted into the central portion. This was connected with the vessel containing the ether solution by means of a rubber tube, aseptic precautions being taken with everything. The fluid was then run into the vein at a fairly rapid rate. As soon as the patient became anaesthetic he stopped the flow, but fresh fluid was injected when the return of reflexes indicated a beginning of awakening; 33 patients were anaesthetized in this manner. The anaesthesia was complete in the majority of cases, but in 4 the reflexes were not entirely abolished. The anaesthesia was maintained for the whole operation in all cases, sometimes for as long as one and a half hours. All the adult patients had received an injection of scopolamine and morphine before the operation. The quantity of solution required to produce anaesthesia varied within wide limits between 85 c.cm. in a boy of 4 years and 800 c.cm. in a man of 24 years. The dose did not appear to depend on age. The total quantity required for the operation varied between 350 c.cm. and 2,500 c.cm. Of the 33 patients, one girl vomited twice after the operation, one woman of 63 vomited once, and one girl of 14 had nausea. No headache was produced, there were no changes in the urine induced, and no irritation of the respiratory organs or disturbance of the circulatory apparatus was seen. He also tried increasing the percentage of ether to 7 per cent., but this produced slight haemoglobinuria. On the other hand, he found a distinct advantage in some cases in anaesthetizing with ether solution and maintaining the anaesthesia with the chloroform solution. He considers that the necessity of a preliminary dissection of the median vein and the attendant complicated means of inducing the anaesthesia excludes this method from being the usual one for putting patients asleep, although he regards it as the safest and least unpleasant method of anaesthesia. He suggests that it should be used for all patients with affected respiratory or circulatory organs, for operations on the head and neck, and for persons who have a strong objection to inhaling ether or chloroform.

119. Intrahuman Bone-Grafting.

MACEWEN (*Annals of Surgery*, December, 1909) reports a case in which the greater part of the shaft of the humerus was restored by intrahuman transplantation. This operation was performed thirty years ago on a patient aged three years. The boy who was then thus treated is now a man in regular employment. During the greater part of the interval of thirty years the man has depended upon his physical exertions for the earning of his livelihood. He worked as a joiner for many years, and now is an engineer's pattern maker. The grafted arm has increased in length, but not in proportion to the increase of the sound one, which is 3 in. longer than the other. The greater portion of the increase in length of the grafted humerus has come from the proximal diaphysis; but still not the whole, as there has been an interstitial growth between the fragments of the transplant. In addition to this case, the author mentions three others—one illustrating human reimplantation of the flat bones of the skull, and two of restoration by transplantation of human jaw bones. In both of these latter cases the operation was performed for the removal of marked deformity, as well as for the restoration of the function of the mandible. Reference is also made to a further case, reported by Cameron of Toronto, who has lately seen and examined a man on whom Sir William Macewen had twenty years previously transplanted about 5 in. of the tibia. The limb is now a thoroughly sound and reliable member, which enables the patient to engage in hard labouring work. It is pointed out that the periosteum plays no part in the reproduction of bone after transplantation, and in the majority of cases observed by the author was not transplanted along with the bone.

120. Congenital Curvature and Pseudarthrosis of the Tibia.

FRATTIN (*Arch. di Ortoped.*, f. 6, an. 26) records (with several radiograms) the case of a boy aged 8 with the following history: The child was born of healthy parents and breast-fed; never walked well, owing to the presence of an anterior convexity of the right tibia, attributed by the parents to a fall at the age of 12 months. In 1905, after a fall on the ice, the right tibia was fractured at the site of curvature (between the middle and lower third). After a month in bed he was able to walk again, but not as well as before. In May, 1905, the skiagram showed a line of rarefaction at the site of fracture; the fibula was normal. In June a linear osteotomy was done for the relief of deformity, and considerable improvement followed for a short time; but the curvature soon reappeared, and in May, 1908, the angle between the two sections was 115°. The left tibia also showed a slight anterior curve, and a thin line of rarefaction at the summit of the curve. A small wedge of bone was removed from each tibia. On October 18th there was still a well marked line of separation in the right tibial skiagram. The fibula (which had been fractured at the time of operation) had healed with the formation of normal callus. On October 26th the child fell and broke its left tibia. In January, 1909, there was very slight mobility on the right side, and none on the left. From a study of the skiagrams, and especially of the callus, the author concludes there was a congenital defect in both tibiae, perhaps due to intrauterine lesions—for example, amniotic disturbances and pressure from adhesions—or possibly to some failure in the nutrient artery of the bone. The results of these intrauterine conditions need not necessarily show themselves at birth, but may develop even many years after. There was no sign of rickets or syphilis. In the tibia the results may be seen in the shape of various dystrophies, in the fibula as complete absence.

OBSTETRICS.

121. Some Principles of Obstetric Practice.

STUART (*New York State Journal of Medicine*, September, 1909) reviews some practical principles in the mode of procedure in certain groups of cases in obstetric practice from an experience of 2,000 cases at the Brooklyn Hospital. Examinations should be as infrequent as is consistent with a positive knowledge of the progress of the labour, and the general practitioner is urged to use forceps more frequently than is often the case in order to save needless suffering in cases of moderate delay as well as to perfect his skill for difficult ones, most cases of occipito-posterior position being best managed by their early use. In central placenta praevia, convulsions where labour has not progressed far in the first stage, and moderately flattened pelvis when the head is not engaged, Caesarean section is to be preferred to version as giving a better chance to the child and less shock to the mother. Where there is no necessity for haste in emptying the uterus, as in moderately contracted pelvis, prenatal fetal death, or prolonged gestation, etc., induction of labour may be best brought about by the passage of an English catheter on a stiletto, the catheter being kept in place, after withdrawal of the stiletto, by a moderate packing of sterile gauze. In eclamptic patients with bounding high-tension pulse and flushed face marked results have followed the hypodermic administration of 15 to 20 minims of the fluid extract of veratrum viride two-hourly, or the

dose every hour, till the pulse becomes normal, this treatment, combined with hot packs and e infusion, has proved most beneficial. In cases veak heart morphine is indicated, while chloro- must be used to control the seizures. Although y cases of albuminuria do not develop convulsions, all en whose urine contains albumen with diminished excretion require most careful watching. In cases of enta praevia with the cervix fully dilated and the engaged axis traction should be carefully applied, f the head is not engaged podalic version is prefer- Caesarean section is advised in cases of central antation proceeding to full term with the cervix un- ed or not readily dilatable. The operation is also sed in transverse presentations, and with the extension his operation to newer fields the necessity for the ost precautions against infection in the treatment of patient beforehand by guarding against injury from ninations, or other attempts at delivery, is insisted . Every case should be viewed from the possibility bnormality until the contrary is ascertained. It is sed that perineal lacerations should not be stitched forty-eight hours after labour, by which time the ix can be examined and any lacerations therein can paired at the same time. In multiparae, where both ix and perineum had been injured in previous labours, e should be repaired during the puerperium.

Extraperitoneal Caesarean Section.

KÜSTNER (*Muench. med. Woch.*, No. 34, 1909) states he has performed suprasymphysian Caesarean section een times since the beginning of 1908, and in thirteen nces the extraperitoneal method was attempted. first two cases were successful. The third failed, the oneum was torn, and the case was therefore not a one. In two further cases he met with difficulties ch rendered it impossible to complete the operation aperitoneally. In considering these cases, however, soon found that the technical difficulties were not ssarily insurmountable. In the first place he lays s on the importance of selecting one or other side to ate from. It appeared to him that in the majority of s the peritoneum is more easily separated from the side of the bladder. The uterus usually lies dextro- ed, and for this reason it seemed as if a left-sided ation offered especial advantages. Later on he found the position of the bladder was of more importance, he then determined the side for operating according hether the bladder when distended with fluid lay more ne one side or other. When placed in the middle line hose to operate on the side toward which the occiput directed, or, in footling cases, towards which the feet e directed. The object of this is to make extraction er. The delivery has been found to be difficult chiefly, he author's opinion, because the forceps used were uitable. He employs a special short forceps, adapted ne anatomical conditions of his lateral incision. There o pelvic curve in the forceps, but the handles are ed at an angle to the blades. With these and other important improvements in technique, he has found the extraperitoneal method has become compara- ly easy. In one case he had to operate a second time one patient in whom he had employed the extra- toneal procedure. In this case he found it impossible letach the peritoneum again from the bladder and us. The scar in the cervix was firm, but no adhesions e present. After discussing the technique in detail the objections raised to the method, he gives brief unts of the cases in which special precautions have to aken. He lost one case—the one in which the peri- um was torn—but all the others recovered. He is of ion that hebotomy should be limited more than it has , that perforation of a living child should not be ied out under any circumstances, and that when there isproportion between the size of the fetal head and pelvic ring Caesarean section should be performed. If case is bacteriologically intact—that is, if there is ning to make the obstetrician suspicious that infection occurred—and if the membranes are not yet ruptured, section can be carried out either transperitoneally or he classical method. If a suspicion exists, if the case been examined several times outside, and if the nbranes are already ruptured, the extraperitoneal hod should be employed, and the opening into the rus should be made through the cervix. The lower the rus is opened the more chance there is of the presence bacteria, and therefore in aseptic cases the fundus uld be incised. But if the cavity is possibly infected chances of infection are materially minimized if the ration is performed without opening the peritoneum.

GYNAECOLOGY.

123. Gaseous Abscess (or Cyst?) of Ovary.

SIREDEY AND RICARD (*Comptes rendus de la Soc. d'Obst. de Gynéc. et de Pédiatr. de Paris*, December, 1909) raised an active discussion at a recent meeting of the Obstetrical Society of Paris concerning an ovarian abscess or tumour, which ultimately became tympanitic on percussion, although when first observed it was quite dull. The patient was a married woman aged 37; the illness dated from a recent confinement, which was followed by several months of ill health. The patient deferred operative interference, and consulted several medical authorities. At length an operation was performed when she had become very exhausted, with fever, profuse perspirations, diarrhoea, and fetid breath. The tumour was of the size and shape of a big distended stomach. It adhered posteriorly to the peritoneum of Douglas's pouch, but when the adhesions were separated the wall of the rectum seemed perfectly free from damage. It had originated in the left ovary and was bilobed, yet not bilocular; the lower part contained half a litre of extremely fetid greenish pus, the upper was distended with stinking gas. The Fallopian tube was adherent to the tumour and not enlarged. The uterus and the right ovary and tube were saved. For several days after the operation the symptoms of septic infection continued, and the dressings became very offensive; there was fever for at least a fortnight. Convalescence was complete at the end of five weeks. Pinard, in discussion, doubted that the tumour was an abscess. The history suggested ovarian cyst, twisting of the pedicle, and infection during the puerperium. Doléris also believed in the theory that a cyst was present and that it was infected after labour. The infection might well have entered through a fistulous communication with the bowel. Doléris maintained that fistulous tracts of this kind may be obliterated and leave no trace before the suppurating tumour is removed. Pierre Delbet felt also sure about the obliteration of fistulae, yet he was doubtful about fistulous infection, or indeed about intestinal infection at all in this case. He thought that the gas had developed from changes inside the abscess or cyst cavity. He denied that air in pus necessarily meant gaseous gangrene and the septic vibrio, for in some cases the gaseous pus proves to be quite aseptic. He reported an instance of a tympanitic tumour in the thigh, an abscess following typhoid fever, and he felt sure at the time that anaërobian microbes had caused the phenomenon. But cultures were made under exclusion of atmospheric air, and no germs developed. Faure referred to a case of purulent peritonitis where the serous cavity held over 13 pints of pus, and there was also an enormous pouch holding gas. He considered that in the case under discussion there was an ovarian cyst, not a primary ovarian abscess. In reply, Siredey admitted that the primary disease was quite possibly an ovarian cyst.

THERAPEUTICS.

124. Treatment of Eczema.

W. SCHOLTZ considers that the treatment of eczema forms a sort of test of the therapeutic ability of the practitioner; and while he recognizes it as a grateful field of activity for the general practitioner, he believes that success depends on a mastering of the principles underlying the proper treatment. He therefore deals with these principles at some length (*Deut. med. Woch.*, October 14th, 1909). First it is necessary to recognize an external and an internal cause, a direct and an indirect, a primary and a secondary cause of eczema. In speaking of the external causes he includes a number of physical and chemical noxes which, acting on the exposed skin, produces eczematous conditions. Radiating light and heat, cold air, frequent washing of the hands, use of sharp soaps, alcohol, and disinfectants, caustic substances, polishes, etc., all may produce eczema. He refuses to distinguish between artificial dermatitis, and eczema. Iodine, for example, undoubtedly produces a typical dermatitis, but this may pass on to a true eczematous dermatitis, which in turn may give place to true eczema. The cause of these forms of eczema is to be found in the individual himself. He therefore recognizes a predisposition to eczema in certain individuals. Having recognized this fact, he turns to the general problems in the treatment. It is necessary to avoid those external noxes which produce eczema. In certain cases, since the substances have to be used in the person's employment, the noxes cannot be entirely removed. A limitation of the use of such

substances may be all that can be achieved. Much can be achieved by covering the skin of the face with face-coloured powders or pastes, by smearing pastes on the hands, and by applying ointments, etc., with suitable bandages at night time. Pressure from clothing and rubbing of two surfaces must be borne in mind as possible external causes, and suitable means adopted when they occur. Auto-intoxication by absorption from the gastro-intestinal canal may play a contributory part, and in these cases the diet should be regulated or altered. A vegetable diet, a milk diet, etc., may have a considerable influence in the treatment. Purgation and a diet limited to the bare needs of the individual often works well in fresh attacks of rapidly spreading eczemata. The rôle of the nervous system in the causation of eczema receives treatment, and he explains in this way the simultaneous appearance of eczema in two parts of the body in some cases. Sedatives in cases in which the nervous element is marked will be found useful. Itching must also be specially treated, as this symptom often acts as a cause of eczema. Scholtz states that we do not possess an internal medicament which acts satisfactorily in eczema. Those forms which set in with general congestion sometimes do well under ichthyol, while arsenic only serves a useful purpose in desquamating, psoriasiform eczemas, and in the pruriginous and squamous forms in children. With regard to secondary causes, he first mentions scratching. In adults the treatment depends on that of the causal itching, while in children it is useful as well to render scratching difficult by fixing the hands with so-called cuffs, keeping the elbows extended, and by applying protective pastes, such as zinc gelatine. Next he speaks of streptococci and staphylococci as secondary causes. The exudation in the majority of eczemata is infected with staphylococci, while the transition from an ordinary eczema into an impetiginous eczema is always due to some form of coccus. The treatment is to be influenced according to the pathological changes in the skin with regard to the form of application (dry ointment or moist). The severity, the kind and the character of the exudation must form the criterium. Having called attention to these points, he rapidly runs over some forms of eczema, suggesting the form of treatment which usually proves sufficient. In erysipeliform reddening with oedematous swelling he advises an antiphlogistic treatment with cooling applications or moist dressings (boric acid, plain boiled water, acetate of aluminium), or dry powdering. In papular eczema, in which the papules or vesico-papules often are surmounted by scabs, pastes, thick zinc oil, or dry painting should be employed. The pastes should be applied in a moderately thin layer and then well powdered. On the hairy parts pastes and powder are not advisable, and oils answer better. Dry painting with zinc oxide, talc, glycerine and distilled water in equal parts also answers well. The acute inflammation having been removed by means of these remedies, the whole process may heal up, or there may be a certain amount of more or less chronic inflammation to clear up. In order to favour parakeratosis (or abnormal thickening of the epidermis), sulphur, naphthol, chrysarobin, and tar may be employed, but it is necessary to be careful not to use these medicaments too early or too often, to avoid irritating the skin. For diffuse weeping eczema must not be treated by the dry method. The secretion would only collect beneath the dressing. Here moist dressings are required. Care, however, must be exercised in order to prevent maceration of the growing young epidermis. For this form of eczema ointments made up with vaseline or lanolin and vaselin also do good. The chief point is to see that the ointment does not irritate, that it does not decompose, and that it is of the proper consistency. He gives a long list of suggestions for the treatment of the various forms of weeping eczema. For squamous eczema the tar preparations are required, and he advises anthrasol or empyroform. When scabs are formed salicylic acid, at first dissolved in castor oil, or protargol is recommended. He also gives suggestions for the treatment of eczema of the hands, lichenoid eczema, and other forms.

125. Atoxylate of Mercury in Syphilis.

UHLENHUTH suggested and employed in some experiments a combination of atoxyl and mercury. The preparation formed was a p. amido-phenyl arsenic acid salt of mercury, and contained 24.2 per cent. of arsenic and 32.3 per cent. of mercury. Miekley has treated a number of syphilitic patients with this preparation, and records his results in the *Deut. med. Woch.*, October 14th, 1909. He used a 1 in 10 emulsion in olive oil, and injected 0.5 gram intramuscularly into males, then 0.5 gram, and later 1 gram. In women he began with 0.3 gram and then continued as in males. The total quantity which t males received in a course was 5 grams (= 0.5 gr atoxylate of mercury), and in women 4.8 grams. He giv a list of the patients in which he injected this preparat (31 in number), together with the brief details of t condition and effect of the treatment. The preparat influenced the syphilitic process rapidly. Papular syp lides often disappeared after 0.05 or 0.1 of the drug, after the third injection only the pigmentation remain In one case of a lichenoid syphilide, and in a secc papular eruption, the good effect was not marked. B these cases, however, had proved themselves to be ob nate against other forms of treatment. It acted exce ingly well in malignant syphilis. The ulcers in th cases cleaned up rapidly and soon healed. In tertia gummatous, and ulcerative processes it also acted w The preparation exercised a beneficial effect on general condition. The patients did well under it, th colour improved, and they put on weight. The aver increase in weight was about 6 lb. On the other ha atoxylate of mercury did not appear to act well in sim roseola and in specific sore throat. One to two we always passed before these symptoms were mastered w this drug. The preparation appeared to tend to prod mercurialism—0.1 gram producing swelling of the gum many cases, and 0.4 to 0.5 gram stomatitis. The in tions themselves produced less pain than injections perchloride of mercury or salicylate of mercury; o a few of the women complained at all of pain. In cases glimmering of the eyes was noticed. In view of possible effect on the optic nerve by atoxyl careful obser tion was kept on all the patients, but no objective si were met with. In summing up the value of this medi ment, the author points out that the chief advantages o other forms of mercury are the rapid and favourable ef in papular and ulcerative processes, the extraordin smallness of the dose, the course only introduc 0.16 gram of Hg, and the small amount of discomfort injection. The reason for the intense effect is not cl but may be due to the happy combination of arsenic mercury. Some care must, however, be exercised employing this preparation on account of the possible ef on the eyes.

PATHOLOGY.

126. Tubercle Bacilli in Faeces.

FABRICCI (*La Pediatria*, October, 1909) points out importance of the detection of bacilli, especially children, where as a rule there are no sputa, so that expectoration is usually swallowed, and hence, if tube bacilli are present, they may be detected in the fae Their detection is not easy, and is not rendered easier the pleomorphic character of Koch's bacillus, a p culture being the only certain way; practically the c difficulty is with the bacillus of smegma. The author h discusses three methods of examining the faeces—th of Kossel, Celli, and Strassburger, and also that of de Nal The best method is that of Strassburger, with the a tional use of a 20 per cent. solution of antiformin, wh has the effect of destroying other bacteria present, leaving the tubercle bacillus unhurt. A small pelle faeces is dissolved in 15 c.cm. water, centrifuged for or three minutes, and then treated with an equal quan of 20 per cent. antiformin solution for fifteen to twe minutes. To this fresh mixture an equal quantity absolute alcohol is added, centrifuged again for a cou of minutes, and a microscopic preparation made from sediment. The final classification of the specimen is accomplished by means of glacial acetic acid. author examined the faeces of 35 children suffering for most part from various forms of tubercle. In th 35 cases the result was positive eleven times. In 9 a cases (all tuberculous) the tubercle bacillus was fo seven times in the faeces.

127. Blood Pigment in the Faeces of Cirrhotics.

CROSA (*Gazz. degli Osped.*, September, 1909), using more recent method of Adler, says that he consta finds traces of blood pigment in the faeces of cirrhotic the ascitic stage of the disease. Adler's method is n delicate than either the guaiacum or the aloin test, depends on the use of benzidine. To 5 c.cm. of fa dissolved in acetic acid 25 c.cm. of sulphuric ether added; to the ethereal extract first add 10 to 15 c.cm oxygenated water, then an equal quantity of an alcol solution of benzidine freshly prepared. If blood pigm is present, a ring of emerald green colour is immedia formed at the junction of the two fluids. The test is to be very delicate.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

128. Gastric Crises

HERMANN EICHHORST (*Wien. med. Klin.*, September 12th, 1909) discusses the gastric crises of tabes, and is of opinion that the cause of the symptoms is often unrecognized for long periods unless systematic testing of the patellar reflex is carried out—a precaution which he himself always observes. A case is described of a man with gastric symptoms who was treated for five years by different doctors without result. The condition was diagnosed at different times as being one of chronic gastric catarrh, of acute gastric catarrh, of gastric ulcer, of dilatation of the stomach, and, finally, a suspicion of cancer of the stomach was aroused. The patient now presented himself at the Zurich clinic and came under Eichhorst's care. The patient had suffered for five years from attacks of severe pain in the stomach, sometimes accompanied by the vomiting of from ½ to 1½ pints of a green fluid of bitter taste. He gave a history of having contracted syphilis twenty-five years previously. On examination the patellar reflex was found to be absent on both sides, and the other signs characteristic of undoubted tabes were present. The patient had suffered for three years from lightning pains in both legs, and the stomach symptoms often came on when these pains were most severe. Eichhorst does not agree with Buzzard in thinking that gastric crises are especially frequent in tabetic patients with joint changes, but he has found that they are almost always accompanied by severe neuralgic pains. Three different forms of gastric crises can be differentiated, but usually mixed forms are present. The purely neuralgic form of gastric crisis is not accompanied by vomiting, and while light pressure over the stomach usually increases the pain, strong pressure may lessen it or even remove it for a time. The hypermotor form usually leads to vomiting, the appearance of the vomited matter and its constitution depending on the circumstances of the case. A variation of the hypermotor form is the tetanic gastric crisis, in which the tense stomach walls can be made out; this form is usually accompanied by severe pain, which ceases suddenly with the yielding of the muscular spasm. The purely secretory forms of crisis lead to vomiting of these watery masses of acid reaction, but as a rule containing none or very little free hydrochloric acid. The question as to what anatomical stomach changes underlie the gastric symptoms is a difficult one to answer. Eichhorst has made a *post-mortem* examination in two cases. In the first, the patient, a woman 48 years of age, had had frequent attacks of gastric pain with vomiting for more than a year before death. At the autopsy the mucous membrane of the stomach appeared to have undergone no essential change, and microscopical examination failed to show changes in the stomach wall. The second patient had suffered from gastric crises, with severe pain and vomiting at intervals, for five years. Here the gastric mucous membrane was thinned, and microscopical examination showed widespread diffuse atrophy of the glands and patches of interstitial round-celled proliferation which had to do with the disappearance of glands; the changes might perhaps be not incorrectly described as subanadenia gastrica and gastritis interstitialis chronica insularis. The condition was somewhat similar to that seen in cases of cancer of the stomach or progressive pernicious anaemia. Anatomical changes may therefore be present or absent after the condition has lasted for years; they do not lead to hyperchlorhydria, but both the secretion of hydrochloric acid and of pepsin are diminished if widespread destruction of the stomach glands occurs, a fact which may explain the loss of flesh often seen in tabetic patients.

129. Cerebro-spinal Meningitis.

NETTER read before the Medical Society of Bordeaux a report of an epidemic of cerebro-spinal meningitis which commenced towards the end of 1908 (*Ann. de méd. et de chir.*, June, 1909). The cases were divisible into three groups: (1) Some sporadic cases; (2) then a case occurred at Pavillons-sous-Bois in an army reserve man who had contracted the disease at Evreux, where the garrison was seriously affected; (3) next there was a series of 11 cases at Saint Denis, all occurring within a radius of 100 metres, and affecting children who attended the same school. The meningococcus of Weichselbaum was detected. The antimeningococcus serum was used in the treatment of several cases with marked benefit. The serum was injected into the arachnoid space in strong doses; 30 c.cm. were used for children, and 40 to 45 c.cm. for an adult; the doses were repeated for three or four consecutive days. The injections were most efficacious when used in the early stage, but they were also useful when the case was advanced, as the injections tended to prevent relapses and sequelae. The result of treatment was at times remarkable; of 8 cases specially observed at Saint Denis, 4 that were treated with serum recovered, 4 other cases not treated by injections proved fatal.

130. Litten's Sign.

THIS sign was first described by Litten of Berlin in 1892, as a normal phenomenon; previously it had been noted only as pathological and infrequent. Litten described it as best seen when the patient lies down, as a shadowy line or shallow sulcus on the chest wall starting in the sixth intercostal space, and passing away downwards and outwards to the back, rising with expiration and falling with inspiration; the light should fall on the chest from a single window in front of the patient. F. Maffi (*Il Morgagni*, Milan, 1909, li, Archivio, p. 230) gives a summary of what has since been written about this sign; its amplitude varies from 1 to 6 or 9 cm., and it is ill marked in respiration of the costal type, well marked when respiration is mainly diaphragmatic. The up and down movements of the line are equal on the two sides in health; their inequality is very rare unless some pathological condition is present in the abdomen or in the thorax, when the movement is less on the affected side. Thus the movement may be less on the left side than the right in patients with considerable cardiac hypertrophy, or with gastric or splenic tumour; in the majority of instances, however, it is the pleura or lung that is diseased when Litten's phenomenon is unequal on the two sides. Maffi thinks that this sign is often of value in diagnosis, and is unduly neglected in Italy.

131. Purpura in Children.

MUGGIA (*La Pediat.*, September, 1909) prefers to divide the varieties of purpura seen in children into two main groups: (1) Primary, occurring usually after 2 years of age in children previously healthy; and (2) secondary or symptomatic. He then discusses the many theories proposed to account for the condition, and concludes that the pathogenesis is multiple and the symptoms proteiform. The treatment must logically, therefore, vary with the different etiology. He finds the haemorrhages can be best controlled by injections of antidiphtherial serum. He uses serum of a 300 unit value immunizing power, and gives an injection about every five days. The injections are usually well borne, but a lively reaction may follow. They seem to augment the fibrinogen content in the blood. He says he gets better results with his serum treatment than with the usual haemostatics or with adrenalin.

SURGERY.

132. Ligature of the Axillary Artery and Gangrene.

VAUVERTS AND LOOTEN (*Echo méd. du Nord*, December 5th, 1909) combat the generally accepted view that ligature of the axillary artery in its lower part risks the supervention of gangrene of the hand and forearm. In the upper part of the artery, above the origin of the inferior scapular and the circumflexes, ligature involves no danger, as all are agreed, collateral circulation being established by means of the scapular arteries and the thoracic branches with the intercostals. It has been urged that ligature below the origin of the last branch is apt to be followed by gangrene, because there is no anastomosis between the inferior branches of the axillary and the superior branches of the brachial; and consequently that portion of the artery has been called the dangerous zone. Derocque was the first to formulate this opinion. After the occurrence of gangrene in one of his cases, where ligature of the lower portion had been performed, he made some anatomical

investigations for the purpose of ascertaining the cause. Having made injections of plaster-of-Paris, he declared that he found no communication between the branches of the axillary and the brachial arteries. The writers of this article point out that plaster-of-Paris was not a satisfactory substance to inject; and that a further source of failure might be due to the formation of a coagulum between the blood and the preservative fluid first injected, such coagula being sometimes capable of obstructing arteries of considerable size. Soupart also wrote in the same strain, explaining some successes which had undoubtedly followed ligature in the "dangerous zone" by the hypothesis of an abnormally high division of the artery into radial and ulnar. Faraboeuf and Nélaton, on the other hand, agree in contradicting these statements of Derocque and Soupart, having found that injections of gelatine did pass into the lower part of the artery after ligature. The present writers ligatured the artery below the origin of the circumflexes, and injected collodion coloured with lampblack into the vessel just below the clavicle, with the result of finding the colouring matter in the middle of the arm. On repeated dissections they invariably found one or more anastomoses between the anterior circumflex, where it twines round the surgical neck of the humerus, and a branch of the brachial near its origin. Posteriorly the anastomoses found were of greater calibre than the anterior branches and less constant in arrangement. Sometimes one or more branches of the posterior circumflex united with ascending twigs of the deep humeral; sometimes it was the inferior scapular which furnished the branches. In Derocque's case, which led him to consider the inferior zone dangerous, the initial injury had been crushing of the shoulder under a wagon wheel, with the rapid formation of a considerable haematoma in the axilla, both of which incidents must have contributed towards the occurrence of gangrene; and other operators have reported cases of cure without any circulatory embarrassment after axillary ligature. In the case of aneurysm special conditions obtain, favourable, since collateral circulation has probably begun in consequence of the difficult passage of blood through the sac; or unfavourable from the risk of thrombi. Arterial sclerosis might cause failure, owing to the small size of the vessels.

133. Treatment of Erysipelas by Passive Hyperaemia.

BIER has already recorded a series of 13 cases treated by this method with great success, but the series is far too short for reliable conclusions to be formulated in the case of this uncertain disease. Jochman and Schone (*Deut. med. Woch.*, No. 49, 1909) report a much larger series of cases. After noticing that it has been stated that streptococcal infections are injured by this treatment, they remark that as it is well recognized that the tension of the skin has some effect on the spread of erysipelas, therefore the results of treatment may be in part due to the alteration of skin tension by the treatment. The cases number 83, and are classified into three groups. All were treated alike by the constricting band for twenty-two hours per diem. The first group consists of 21 cases, which were either feverless on admission or were very slight. They were all treated by hyperaemia, and none of them were any the worse, which is important in view of the above statement. The second group consisted of 44 cases, in which the symptoms were well developed. They could not all be treated at an early stage, and so it is difficult to interpret the results. The authors draw attention to the fact that 5 out of 7 cases treated within the first two days were feverless in less than two days. Thirty-four cases in all made a rapid recovery, and in the other 10 there were some complicating features (rapid recovery with early recurrence which was also amenable to the same treatment, 4 cases; onset of cellulitis, 3 cases; chronic course after the urgent symptoms had apparently been relieved by the treatment, 1 case; treatment interrupted for epistaxis in one case and for parturition in another). The third group consists of 19 cases; 14 eventually recovered but there was no apparent benefit from the treatment; 5 died. Of these 4 were septic from the start and 1 moribund. The fifth was a child, who recovered from the erysipelas quickly but died a few days later from some acute lung condition. The authors conclude that Bier's treatment is of great value in many cases, but that in the severest cases it is without effect.

134. Ileus Verminosus.

MYGIND (*Ugeskrift for Laeger*, No. 48, 1909) reports the case of a boy, aged 1½ years old, who was taken suddenly ill with symptoms of intestinal obstruction. In the left iliac fossa an oval swelling was found. Only some very slightly blood-stained mucus was found in the rectum. Laparotomy was performed, and a deeply red collapsed loop of bowel discovered about 1 metre above the ileo-caecal junction. After incision 17 living ascarides were removed. As the child's condition made a resection unpractical the incision was sutured only. The child died two hours after the operation, and at the autopsy no peritonitis was found, but only a slight injection of the affected part of the bowel. In the upper part of the jejunum three more ascarides were found. The author thinks it possible that in this case a toxin infection caused by the ascarides and the slight resisting power to it in so young a child might in part be responsible for the death.

135. Removal of Adenoids.

MAHU (*Ann. de méd. et de chir. infantiles*, May, 1909) says the following are contraindications of operation for the removal of adenoids: Acute coryza, influenza, acute adenitis, great debility on the part of the patient. The question of age should never intervene; one should operate as readily on a child being fed at the breast as on one 7 or 12 years of age who has become dull on account of the adenoids. In children under 3 years the operation should be done without an anaesthetic. Above that age chloride of ethyl should be used with the help of a mask. The amount required according to age is as follows: gr.j from 3 to 5 years; gr.ij from 5 to 12 years; gr.iij over 12 years. An infant should be held in a sitting position on the knee of an assistant, who holds at the same time the head, the hands, and the legs. For an older child a second assistant is required to hold the head. The surgeon should be seated in front of the patient, having previously placed a gag in the mouth. Holding the tongue down with the left hand the curette is then used, care being taken to select an instrument of suitable size. The haemorrhage, at first very abundant, rapidly subsides, but a little ice may be given to the child to suck. When the bleeding is stopped the surgeon should examine very carefully to see that no shreds of mucous membrane are left incompletely cut, or they may cause haemorrhage later. Immediately after the operation the child should be made to lie down. It should be confined to the room for four days, and for the first two days should be kept in bed. Vaseline with resorcin should be applied three times a day to the anterior nares, and antiseptics should be used for the mouth. The diet should be fluid food and ice the first day, and for two or three days following it should be fluid and cold. With regard to post-operative accidents, the author says haemorrhage is exceptional, and usually not serious. The surgeon should ascertain if it comes from a tag that has been left behind; if so, this should be snipped off; if not, a solution of antipyrin, or a little peroxide of hydrogen, 12 volumes, should be instilled into the nose. In case of haemophilia, chloride of calcium should be administered, 3 or 4 grains a day, before and after the operation.

OBSTETRICS.

136. Menstruation during Pregnancy.

VOGT (*Zentralbl. f. Gynäk.*, No. 36, 1909) dwells on the known rarity of this condition. The ancients admitted that it was known to occur occasionally. Bartholinus in 1672 wrote on clinical reports of certain cases, and Tilt observed persistent menstruation in 8 out of 100 cases—a large percentage. It appears to be more frequent in certain savage races. Thus Seligmann found that the Sinangolo women, in the interior of New Guinea, naturally continue to menstruate during gestation, so that pregnancy can only be determined in its earlier stages by the swelling of the breasts and deepened pigmentation of the areolae of the nipples. Blyth found that menstruation frequently persisted amongst the native women in Fiji. Vogt reports the case of a family where menstruation tended to persist under his own observations. The family was Czech or Sclavonic Bohemian. His patient was a twin aged 26, whom he attended in the out-patient department of a hospital. She was in an advanced state of pregnancy, the fundus reaching to within a handbreadth of the ribs, the fetal heart sounds were plainly audible. On careful inquiry Vogt found that this patient had menstruated regularly down to the sixth month, several weeks after quickening. This pregnancy was her second, and she admitted that during the first, four years earlier, the periods had continued, just as on the latter occasion, until the sixth month. The patient further informed Vogt that her twin sister had been delivered at term of a living

ld, and that during the pregnancy she also had con-
ued regular until the sixth month, and that she had
ckened before the last period. There was also a
nger sister. She was at the time 21 years of age,
l in the seventh month of pregnancy; the last period
l occurred four weeks before Vogt made the above
uiries. She had quickened in the fourth month. Vogt
de further inquiries, and at length saw the mother of
three young women, who admitted that during her
r pregnancies she had menstruated regularly up to
sixth month, precisely as in the case of her daughters.
r fourth child was a male. During her first pregnancy
was completely misled by the persistence of the
iods, until quickening dispelled her doubts, and she
l warned all three of her daughters when they married,
t they might be mistaken, which would undoubtedly
ve been the case had she neglected to inform them
the possibility of menstruation persisting during the
iod.

37. Ectopic Gestation.

ANNING W. BARRETT (*Medical Record*, January 22nd,
0) calls the ovum a parasite living at the expense of its
st. Previous pelvic disease, especially gonorrhoea, plays
important part in the etiology of extrauterine preg-
ncy. The parasitic growth develops malignant ten-
ncies, due to the incapacity of the maternal tissues to
pe with it. The extrauterine ovum is suicidal and
tricidal in its tendencies. The danger to the mother
mainly by haemorrhage; less frequently sepsis, obstruc-
n of the bowel, embolism, and fistula are factors in
using death. The prognosis of the ovum is uniformly
l, and it should not be considered in treatment. An
ly diagnosis and prompt treatment for the removal of
e ovum are necessary. Extrauterine pregnancy should
considered when a woman of childbearing age has
vere pain in the ovarian region, with uterine haemor-
age, collapse, and evidences of concealed haemorrhage.
pelvic mass aids diagnosis. The more urgent the sym-
oms, the greater the need of relief of haemorrhage;
llapse indicates immediate operation. Patients some-
nes die of haemorrhage, and prompt surgical measures
ll save life. Suprapubic instead of vaginal incision
ould be chosen in all unruptured cases, and in most
l cases, unless contraindicated by sepsis or pus forma-
n. No vaginal puncture or exploration should be under-
ken for diagnosis or therapeutics unless preparations
ve been made for immediate laparotomy.

GYNAECOLOGY.

38. Pain in the Gynaecological Region.

OPITZ (*Wien. med. Klin.*, December 5th, 1909) deals with
e errors of diagnosis which may result from too great a
adiness to consider pain in the gynaecological region as
part of a general neurosis, and especially as a sign of
steria. The three so-called stigmata of hysteria—
anges in sensibility, changes in reflexes, and hystero-
nous zones—do not, taken by themselves, justify a
agnosis of hysteria, because investigation shows that
ey are present in a large majority of all gynaecological
tients. The success of treatment by suggestion often
termines a diagnosis of hysteria, and this conclusion is
rived at by many people even when suggestion combined
ith some one form of treatment has failed and suggestion
mbined with some other form of treatment has suc-
eded. But even if suggestion has really succeeded in
moving symptoms it cannot be held to necessarily indi-
te hysteria, when it is remembered that a condition of
sychical excitement in normal men may result in severe
ysical injury passing unnoticed. Then, again, physical
anges which cause pain—as, for instance, the pain of
euralgia—may be microscopical in character, and it is
erefore impossible in all cases to determine by physical
xamination that no organic lesion is the cause of any
rticular pain. There is, in addition, the possibility that
ne symptoms of hysteria or neurasthenia may be the
sult of long-continued pain instead of vice versa. These
nsiderations point to the need of the utmost care in
aking the diagnosis. The author inclines to the view
at many of the symptoms diagnosed as due to a func-
onal neurosis are more probably the result of disease of
he sympathetic. It is true that Lennander, amongst
thers, doubts the sensitiveness of the sympathetic
erves, and ascribes sensitiveness to pain only to
hose organs supplied by spinal nerves, and not, for
xample, to the endometrium, uterus, and ovaries;
ut Meltzer, Kast, and Ritter's experimental work led
them to an opposite conclusion, while the daily ex-
perience of gynaecologists shows that the uterus at
any rate is not always insensitive. After a review of
the evidence, it seems to the author probable that pain is
felt through the sympathetic system—if not ordinarily, at
any rate when it is in a condition of irritation, the con-
dition described by Buch as "sympathismus." The
greater pain felt after supravaginal amputation of the
uterus than after total extirpation is to be explained by
the retention of Frankenhäuser's ganglia in the one case
and their removal at the operation in the other. On
similar grounds certain Italian authors recommended the
extirpation of parts of the abdominal sympathetic for
pains which did not appear to be due to disease of the
organs. Another type of abdominal pain which may
cause error of diagnosis is pain due to inflammatory or
other changes in the great veins of the left side. An
instance is given in which intense pain reaching up to
the kidney region, beginning some days after a miscarriage
without rise of temperature, was diagnosed as hysterical,
but altogether disappeared when thrombosis of the iliaca
communis vein declared itself. If the fact of these vein
pains be accepted, it provides an explanation for the pain
complained of by some women when they lie upon their
backs, but not in any other position; the explanation is
the special liability to passive congestion of the pelvic
veins in this portion. Many cases of dysmenorrhoea,
especially cases in which the pain is most marked in the
period of premenstrual congestion, admit of the same
explanation. The article admittedly contains suggestions
rather than proved facts, but the author will be rejoiced
if his suggestions lead to further investigation in a subject
on which our knowledge is so uncertain.

139. Catheterization of the Fallopian Tube.

CATHERINA (*La Ginecologia Moderna*, October, 1909)
recently read before a medical congress in Rome
what he termed "an authentic case of sounding of
the Fallopian tube in a living subject." When using
the curette the author accidentally passed the sound into
the canal of the left tube for the greater part of its length.
In criticizing this case the reporter observes that the tube
was very probably catheterized, though the fact is difficult
to prove, as the uterus lay in latero-version towards
the right, so that the left side was turned forwards, the
corresponding tube being therefore easy to define.

THERAPEUTICS.

140. Acetone in Inoperable Cancer.

IT is two years and a half since Gellhorn suggested the
treatment of inoperable cancer by the application of
acetone (*Sem. méd.*, December 1st, 1909). In uterine
cases of this nature, after curetting, he applied to the
cervix, through a tubular speculum, 4 to 8 drachms of
pure acetone, leaving the liquid in contact with the
ulcerated surface for periods varying from fifteen to thirty
minutes. This treatment, repeated two or three times a
week, effected a rapid diminution of the fetor and amount
of the discharge, the haemorrhage ceasing at the same
time, and the ulceration losing its friable character. Since
its first introduction Gellhorn has used this treatment
many times, and has succeeded in improving the technique
of his procedure, and in taking stock of the results
achieved. As regards the modus faciendi, the most
important thing is to prevent the acetone from running
over the vulva or the perineum, since, although the vagina
is insensible, the application causes severe smarting in the
vulvar mucous membrane and the skin, not lasting long,
however, and easily soothed by cold water applications.
But to avoid this risk, Gellhorn coats the vaginal lower
third and the vulva with a thick layer of vaseline, smearing
the same over the outside of the speculum. As soon as
the acetone has all flowed out of the instrument, he
sponges the cavity carefully, and finally leaves in it a
large tampon of cotton-wool covered with vaseline, which
the patient herself can remove after a few hours. This
treatment is, of course, only palliative, but it acts more
beneficially than the ordinary therapeutic measures,
arresting haemorrhage and drying up the fetid discharges,
two results which lead to a marked improvement in the
general condition of the patient. Cases have been found,
one year after the first appearance of symptoms, to pre-
sent all the appearance of recovery; whereas, according
to statistics, the average duration of life in uterine cancer
is only 230 days. Two classes of cases are not helped by
the treatment—those who are not seen till the disease is so
far advanced that the danger is from the constitutional

cachexia more than from the local affection, and cases where the acetone cannot be applied direct, such as cancer in the cavity of the uterus, or in the lower part of the vagina or the vulva. For these latter cases Gellhorn has employed the bisulphide of acetone, a white powder which can be applied by insufflation, which is found to be quite as efficacious as the liquid acetone. Many other surgeons have used the remedy with success, and in one case it was used to heal up a cancerous ulceration in the scapular region, left after the necessarily incomplete extirpation of a dorsal tumour. No danger has been experienced from any marked absorption of acetone into the blood.

141. I. K. Treatment of Tuberculosis.

O. SIMON (*Zeit. f. Tuberk.*, Bd. xv, Heft 1, 1909) describes his experience with the I. K. treatment of tuberculosis, and deals with the literature on the subject. The treatment—which claims to be a specific treatment by immune blood substances—was introduced by Spengler, and is described as being a combination of active and passive immunization. Unfortunately full reports as to the mechanism of the immunization of the animals from whose blood the I. K. is obtained are not produced. Extraordinarily favourable reports have been given as to the effects of the I. K. treatment. Thus, it is said that an improvement in appetite and general condition becomes evident after the first injections; that the fever disappears often in a surprisingly short time, even in many cases which have been considered altogether hopeless; that the most striking effect is in speedy diminution in the number of bacilli which often occurs in the first fortnight; that the moist sounds and the amount of sputum diminish in the first weeks; and, finally, that the I. K. treatment can be safely employed even in the worst cases. In consequence of this report the trial of the treatment which is here reported was carried out at the sanatorium at Lipp Springe. To this sanatorium many of the patients have of late been sent for periods of not longer than six to eight weeks, a time which is too short for a tuberculin cure, but which should apparently be long enough for the results of I. K. treatment to declare themselves. The treatment has been carried out on 42 cases between the beginning of 1908 and the middle of May, 1909. The method was that of subcutaneous injections made twice a week. The largest dose was 0.4 c.cm. of the original solution. Of the 42 cases, 8 (= 19 per cent.) belonged to the first stage, 14 (= 33 per cent.) to the second, 20 (= 48 per cent.) to the third stage, according to the Turban-Gerhardt classification. In 1 of the 8 cases in the first stage tuberculosis could be probably excluded. In each of the remaining 7 cases there was a great improvement in the general condition, the average increase in weight being 5 kg. (11 lb.). In one case in which bacilli were present in the sputum on admission the sputum altogether ceased during the cure. Slight catarrhal symptoms present in 2 cases also disappeared, otherwise the condition of the lungs did not materially alter in any of the cases during treatment. The result of treatment of second stage cases was not unlike that of those in the first stage. One patient refused to have more than three injections. Bacilli were present in 3 out of the remaining 13 cases. In 2, in which the prognosis independently of the I. K. treatment was favourable, the bacilli disappeared. In the third, clearly a less favourable case, after eighteen injections the number of bacilli had increased and the lung condition changed for the worse, although the weight had gone up. Eight of the patients had catarrhal symptoms, which disappeared in 4 cases, diminished in 3, and increased in 1 case. All the patients with one exception increased in weight, the average increase being 10 kg. (22 lb.) The results for third stage patients were not nearly so good; 14 out of 20 had tubercle bacilli in the sputum on admission, and in no case did the bacilli disappear. Catarrhal symptoms disappeared in 7 cases, in all of which the catarrh had not been extensive, and the sounds had been for the most part dry sounds. The mean increase in weight was 3.6 kg. (8 lb.); there was a decrease in 3 cases. The result of the treatment was negative in 3 cases, was insignificant in 3, was satisfactory in 7, and was good or very good in 7; in none was a permanent recovery effected. There were very few side-effects, considerably less than under old tuberculin, but the injections could not be said to be altogether indifferent and harmless. In 3 cases the injections had to be discontinued, in 1 they were associated with rise of temperature and deterioration of the general condition, and in another with similar symptoms combined with considerable local reaction in the lung. In 1 case haemoptysis occurred after the fourth injection, but it is very doubtful whether it had any connexion with the injections. I. K. was not found to have any immunizing action against old tuberculin. The conclusions arrived at are that I. K. appears to possess a certain specific action. The time of observation was too short and the number of cases too small to decide whether I. K. is an effective agent in cases of slight and medium severity; the results it produced were in no case astonishingly great. In severe cases it is altogether without effect.

142. Paraffin Treatment of Chronic Constipation.

LIPOWSKI AND O. RHODE (*Wien. med. Klin.*, November 28th, 1909) describes the successful treatment of chronic constipation by means of injections of paraffin. The theory upon which the treatment is based is that in almost all cases of chronic constipation intestinal absorption is above normal, and that to correct constipation some substance should be injected which will hinder absorption. Oil would be efficient for this purpose, but that owing to its decomposition in the intestine the by-effects are too unpleasant to allow of its being long employed. The authors have found a substitute in paraffin; by mixing different kinds of paraffin they obtain a substance which is fluid at 40° C. (104° F.), and can be injected in this condition into the intestine, but solidifies again within the intestine. So the following is the method of injection. 200 c.cm. of the paraffin is heated over the flame or in hot water until it becomes fluid and at such a temperature as not to be painful to the finger. A soft intestinal tube about 20 cm. long, which has been previously warmed in order to prevent the paraffin from solidifying too soon, is inserted into the intestine up to about two-thirds of its length, and through it the paraffin is introduced. The patient is in a kneeling position, supported on both elbows. The injection is best made at night, and as a rule a uniform formed motion is passed in the morning; in some cases a glycerine injection is necessary in the morning to obtain this result. If, as occasionally happens, the injection at night disturbs sleep, it should be made in the morning instead. During the first and second weeks the injection should be made daily, only half the quantity of paraffin being used during the second week; as a rule the injections are needed only every other day during the third week, then every third day, and so on, until they can be altogether dispensed with, usually irom the fourth to the sixth week. Six illustrative cases are given. One of these is that of a woman, 48 years of age, who had suffered from obstinate constipation for five years; she had much pain on the right side of the abdomen, felt tired and not ready for work, and suffered also from severe headaches. An injection of 200 c.cm. of mucilago gummi arabici at night followed by a water injection in the morning, caused discomfort and no result. An injection of fluid agar-agar had little result. After intestinal massage the injections of paraffin were begun, and were successful from the beginning; they gave rise to no discomfort. The patient was discharged recovered after ten days of treatment, and when she was again seen five months later she stated that for months the constipation had altogether disappeared.

PATHOLOGY.

143. A Case of Sporotrichosis.

IN 1903 de Beurmann described a cutaneous lesion due to infection by a new fungus, *Sporotrichum*, and three years later added 3 more cases in which he had isolated the organism in pure culture. At the present time over 75 cases have been published. B. Bloch (*Beiheft z. med. Klinik*, Vienna and Berlin, 1909, Hft. 8–9, p. 179) gives a general discussion of the literature of the subject, with forty-one references, and details a case of his own, which he illustrates by a colour-photograph. He notes that sporotrichosis occurs freely in many species of animals affecting almost any of their organs; in the rat, intraperitoneal injection of the organism characteristically produces in a fortnight a large tumour (sporotrichoma) in the epididymis. The serum of patients with sporotrichosis is strongly agglutinating (1 in 500–1,500) to saline suspensions of pulverized cultures of the *Sporotrichum*. Bloch himself obtained a marked cutaneous sporotrichin reaction in his patient (von Pirquet's method). In man the *Sporotrichum* may produce a great variety of cutaneous lesions hard to distinguish from syphilitic or tuberculous eruptions of the most different descriptions; in a few instances sporotrichosis of the throat, larynx, bones, joints—possibly, too, of the lungs—has been recognized. The infection, when general, has even been the cause of cachexia and death. Full accounts of the symptoms, diagnosis, and treatment of the disease, and the cultural and other characteristics of the organism are given.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

144. Cyclical Vomiting in Children.

COMBY (*Arch. de méd. des enfants*, October, 1909) has personally had under observation 100 cases of cyclical vomiting in children. He finds that the condition is rare in children under 1 year of age, and that it is commonest between the ages of 1½ and 6 years; girls seem to be slightly more susceptible than boys, and a nervous and neuro-arthritic diathesis favours its occurrence. Sometimes cyclical vomiting is a familial complaint. Cold, fatigue, emotional disturbances, and excess of food appear to act as causes, whilst a history of dyspepsia, constipation, entero-colitis, adenoids, and appendicitis is often to be found. From his own observations the author believes that in 50 per cent. of his cases the cause was appendicitis. In 10 cases which have come to autopsy there have been found by various observers changes in the gastro-intestinal mucous membrane, but not of a constant character. In all the liver has been found to be enlarged, yellow, and affected with advanced fatty infiltration; the liver cells are badly arranged and misshapen, and there is sometimes an infiltration of round cells. The attacks of vomiting set in suddenly, apparently during a state of perfect health, and they occur irrespective of feeding. In some cases, however, there are prodromal symptoms, such as loss of appetite, acid or fetid-smelling breath, furred tongue, and nausea; sometimes pains in the stomach, sore throat, urticaria, erythema, prurigo, etc. The vomited matters soon became watery, glairy, and bile-stained. In 3 of the author's cases blood was noticed in the vomit. The attacks of vomiting are painful, and anything given by the mouth is immediately rejected. The appetite is lost, and the vomited matters have in many cases been noted to have an acid or chloroform-like or acetonuric smell. Acetonuria, however, is not constantly present; in the author's 100 cases it was found in 27 only. The attacks of vomiting last a variable time; generally of two, three, or four days' duration, they may last from half a day to ten days. These attacks profoundly affect the patient; the face becomes drawn, the eyes sunken and surrounded by dark circles, and the nose becomes pinched, but a marked improvement quickly occurs when the attack is over. Usually obstinate constipation exists during the attacks; rarely diarrhoea occurs. In 30 of the author's cases there was entero-colitis, in 18 adenoids, and in 25 dilated stomach. During the attacks the body temperature is generally either normal or slightly raised. Urine is secreted in small quantities, and uric acid deposit has been found. Headache, delirium, restlessness, convulsions, collapse, and a "meningeal" condition may occur during the attacks. The attacks may occur periodically every few weeks and months, and the author has noted fifty attacks in one child. Most of the patients recover from the attacks, but some die, and the prognosis of these cases is not, therefore, always reassuring. Cyclical vomiting has to be diagnosed from indigestion, accidental poisoning, migraine, intestinal obstruction, peritonitis, strangulated hernia, meningitis, and appendicitis, all of which can with care generally be excluded, excepting appendicitis, which, according to the author, may, indeed, be the cause of the trouble. During the attack, when the vomiting is persistent, it is better to give nothing by the mouth; later one may give iced or aërated drinks, Vichy water, etc. In severe cases subcutaneous injections of saline may be necessary to combat the weakness. When premonitory symptoms appear, the child should be given 2, 3, or 4 grams of bicarbonate of soda daily, and Vichy water should be drunk with a view of warding off the attacks, and in some cases this method is successful. In some cases washing out the stomach may cut short the vomiting; in others the same result may be obtained by injections of chloral and bromides, or by subcutaneous injections of morphine. Between the attacks the diet should be chiefly vegetable in nature; the skin should be kept active by warm or cold baths and friction. Open-air life should be insisted on and alkalis given. If chronic appendicitis is present surgical intervention is necessary.

145. Epidemic Infantile Paralysis.

PAUL H. RÖMER, in a preliminary communication (*Muench. med. Woch.*, No. 49, 1909), relates the results of his study of some of the cases which have occurred in Marburg during the recent German epidemic. From clinical experience there remains no doubt that the disease is infectious and contagious, yet the numerous investigators have not reached any uniform conclusions. The one point on which most of them agree is that a diplococcus (Gram-fast or doubtful Gram-fast) can be cultivated from the spinal fluid obtained by lumbar puncture. Römer's results do not confirm this. As the epidemic was accompanied by throat symptoms, he first of all examined the pharyngeal and tonsillar secretions, but could only find the ordinary saprophytes. The lumbar puncture fluid was clear, contained a number of mononuclear cells, but neither staining nor cultural methods showed any organism which could with certainty be regarded as not merely a contamination. Similar results were obtained with emulsion of brain and cord removed after death. Injections of fluid or brain emulsion into rabbits, mice, and guinea-pigs were without result. An ape was injected intracerebrally, and died within eight days after having exhibited signs of paresis. Histologically the brain and cord showed the typical lesions of acute anterior poliomyelitis. A second ape was inoculated from the material obtained from this animal, and this one also died with symptoms of paralysis. The author claims that this is the first time that the disease has been transmitted to a second animal. Other species of laboratory animal were inoculated at the same time, but remained healthy. The author draws attention to the close analogy with rabies, and concludes that the virus of the disease is an organism which cannot be easily stained nor cultivated by our present methods.

146. True and False Pharyngeal Catarrh.

JOHANN FEIN (*Wien. med. Klin.*, October 24th, 1909) calls attention to the frequency with which pharyngeal catarrh is diagnosed, that is, catarrh of the mucous membrane of the posterior pharyngeal wall, when either the condition of the pharynx is not pathological or is secondary to disease of some other part. Doctors and laymen alike have a tendency to diagnose pharyngeal catarrh whenever there is hawking followed by ejection of secretion from the mouth. It is, however, necessary to ascertain in the first place that the secretion is of a mucoid or muco-purulent nature and that it is not an excess of saliva. Next a mucoid or muco-purulent discharge more often comes from the nose or from the deeper air passages than the pharynx. When there is nasal obstruction, secretion from the nasal passages is especially liable to pass into the throat, and the true origin of the discharge is often not recognized, both because the nasal obstruction has been of gradual development and also because the nasal mucous membrane is very little sensitive to contact with indifferent mucus so that the discomfort is first felt in the throat. Cases of this kind are often treated unsuccessfully for months or even years, with gargles, painting, etc.; they often respond temporarily to change of climate, because the nasal mucous membrane is extraordinarily sensitive to climatic influences. Another not uncommon error is that of looking upon a granular condition of the pharynx as necessarily pathological in spite of the fact that granules can be observed in thousands of cases in which there are no throat symptoms, and although a granular condition is never found to supervene as a result of injury or repeated attacks of inflammation. The author looks upon the granules as being composed of adenoid tissue and only diagnoses pharyngitis granulosa when there is in addition a catarrhal inflammation of the pharyngeal wall. Pharyngitis sicca, again, is often wrongly diagnosed because the posterior wall of the pharynx is covered with a thin, dried-up muco-purulent and serous secretion, the surface having a glazed and "lacquered" appearance; the secretion in such cases is not pharyngeal but nasal in origin, and is especially likely to occur in rhinitis atrophica, ozaena, or where pus is secreted in the accessory nasal cavities; in exceptional cases hypertrophic rhinitis leads to much the same appearance. It is again possible that a secretion which leads to the diagnosis of pharyngeal catarrh originates in the deeper air passages, even though the patient himself is convinced that the throat alone is involved. Then, again, it is apparently often forgotten that hoarseness cannot be due to pharyngeal catarrh, but only to affections of the larynx, including, of course, its muscular and nervous apparatus. Other conditions leading to error are those which are not of a catarrhal nature, as, for instance, papular and gummatous

syphilitic throat affections, tuberculous processes, paraesthesias of the throat seen after weakening diseases or in the course of diabetes and gout. These may, indeed, have a catarrhal element, but it is not the underlying cause. Two other facts to be remembered are that fetor of the breath is not caused by pharyngeal catarrh, and that supersensitiveness of the pharynx is not a proof of catarrh. The article concludes with a consideration of the treatment of the condition when it actually occurs.

SURGERY.

147. Herniotomy in Diabetic Subject.

Leroy Broun (*Amer. Journ. Obstet.*, January, 1910) relates a fatal case where a major operation was performed on a diabetic woman. She was 52 years of age, and had borne eleven children; she had enjoyed good health, although she had to her own knowledge lost weight for about three years. This patient applied for relief on account of a painful umbilical hernia, and a cystocele which gave discomfort. The urine showed 3.75 per cent. sugar, with neither albumen nor casts. Diacetic acid was absent. The percentage of sugar decreased under appropriate diet, and after eight days' treatment, as urgent symptoms appeared, Broun repaired the hernia and operated on the cystocele. On the third day, pain was felt in the right popliteal space, the leg was blanched below the knee, and soon showed characteristic dark patches. Diacetic acid appeared in the urine. Gangrene involved the limb up to the upper third of the thigh, and death occurred four weeks after the operation. The femoral and radial arteries were found to be unusually small and sclerotic. Broun concluded that acidosis and coma were more to be feared than hyperglycaemia, and that when a diabetic patient is prepared for operation not only should an appropriate diet be enforced for two weeks, but a careful examination of the patient should be made for premature endarteritis and sclerosis. Should that condition be found, an operation ought not to be undertaken, even though the sugar could be reduced and acidosis were absent. Barrows, in discussing Broun's case, spoke of another in his own practice. A woman weighing over 20 st. had an enormous ventral hernia. Barrow placed her under treatment in a New York hospital for four months before operation. At the beginning there was 4 per cent. of sugar with marked acidosis; at the end of a month the sugar had disappeared. Sheep's thyroid was taken as well as the usual diet. At the end of the treatment the patient had lost 60 lb. in weight, and seemed in the most favourable health. Barrows operated on the hernia after Mayo's method. On the sixth day symptoms suggesting pneumonia set in. Gangrene of the abdominal wall was detected, and death followed three days later. Large tracts of gangrene were found throughout the peritoneal cavity.

148. Serum Diagnosis of Syphilis in Prostitutes.

Dreyer and Meirowsky (*Deut. med. Woch.*, September 30th, 1909) have examined the serum of a large number of the registered prostitutes in Cologne by the Wassermann-Neisser-Bruck method and have obtained results which they believe may throw light on some important questions. Of 100 women examined, 56 gave a history of syphilis and treatment. One of these had symptoms of secondary diseases, while the others did not show any manifest signs of syphilis; 68.4 per cent. of these women reacted by Wassermann's method and 78 per cent. by Stern's method. Of the remainder, in whom no sign of syphilis could be detected at the time and who denied having had syphilis, 60 per cent. reacted by the former and 74.4 per cent. by the latter method. Thus among 98 latent cases of syphilis, 78.6 per cent. reacted by Stern's method. They therefore consider that they are justified in concluding that at least 83 or 89 per cent. of the Cologne prostitutes had been infected. Turning to the effect of syphilitic treatment on the reaction, they point out that many prostitutes are either not treated at all or are treated in an absolutely insufficient manner. The average age of those who had been infected was 27.7 years (the youngest was under 20 and the oldest between 36 and 40). The average age of those in whom no syphilis could be determined was 24.5 years (the youngest between 16 and 20 and the oldest between 30 and 35). From their figures they find that practically every prostitute of over 30 years had been infected. The author found that this class of women object to inunction and insoluble mercury salt injections, partly because these forms of treatment frequently lead to permanent infiltrations and foul breath, and partly because the courses keep the patients much longer in hospital. Intolerance to insoluble salts of mercury is common in women generally. Of the prostitutes who had undergone treatment, those who gave a negative reaction had carried out on the average 2.7 courses, while those who yielded a positive reaction had been subjected on the average to 1.9 courses of treatment. They are of opinion that their observations are not extensive enough to justify a conclusion as to the effect of treatment on the reaction. Time did not appear to exercise any influence on the reaction, as they show in giving the period which elapsed between the first symptoms and the examination in a number of cases with admitted syphilis; 16 prostitutes were treated by injections, and of these 3 gave negative reactions; 15 were treated by combined inunction and injections, and 3 gave a negative reaction; 21 were treated by inunction alone, and 7 gave negative reactions; only 1 had been treated with pills, and she gave a positive reaction. They also state that no diagnostic importance can be placed on enlargement of lymphatic glands, either local or general. Many of the women were so fat that no glands could be palpated at all. Of 14 in whom enlarged glands all over the body were palpable, 12 gave positive and 2 negative reactions. In 48 women some of the glands were enlarged, and of these 40 had a syphilitic history or reacted to Stern's method, while 8 were apparently free from syphilis. Enlarged glands were not found in 3 cases of certain syphilis. They consider that much more weight may be laid on the birth of dead or syphilitic infants. In 13 of the women, such infants were born, and all gave a past history of infection or yielded a positive reaction. In one case, a dead seven months fetus was born of a 20-year-old prostitute, but she had only been under control for nine months. Her serum yielded a negative reaction, and she denied previous infection. The police medical officers will, they state, keep an especially watchful eye on those women who gave a positive reaction to the serodiagnostic test, and enforce treatment for every little skin affection, such as herpes. They are not prepared to advise forced or compulsory treatment in every case showing a positive reaction, at all events for the present, but they hope that further investigations will decide whether this would be necessary or not. In 1908 there were 353 prostitutes in Cologne under treatment for infective forms of syphilis.

149. Traumatic Separation of the Fronto-parietal Suture.

Diatri (*Rif. Med.*, December 13th, 1909) reports the case of a child aged 12 months who, in falling out of bed, sustained a severe injury to the skull. Immediately after the accident convulsions set in, followed by vomiting and coma. There was a contused lacerated wound over the right parietal region 3 or 4 cm. long, and on exploration it was seen that the parietal bone was fractured, and that there was more or less complete separation of the frontal and parietal bones along the corresponding suture. This separation commenced at the junction of the middle and lower third of the fronto-parietal suture on the right, and even passed across the middle line to the left side. The mean distance to which the two bones were separated was 6 to 8 mm. The dura was lacerated. An exploratory operation was done, but the child died without recovering consciousness. The author has collected 10 other cases of sutural separation in children, and the mortality appears in these to be 54 per cent. Separation of the sutures may occur with or without fracture, and when the lesions are associated is the more serious of the two. Recovery may occur either with the formation of an encephalocele or with the development of similar sequelae to those which may follow fracture of the skull. Possibly the injury, which of course can only occur in infancy or childhood, is more common than is realized, and depends to some extent on the degree of ossification which has gone on in the suture. Fracture of the skull alone in childhood is not so serious as fracture and sutural separation.

OBSTETRICS.

150. Pulmonary Tubercle and Artificial Interruption of Pregnancy.

Albeck and Rode (*Zentralbl. f. Gynäk.*, No. 44, 1909) introduced a discussion on this subject at the meeting of the Northern Surgical Association in Helsingfors. Albeck observed that pregnancy was prejudicial to a patient with phthisis, and that premature labour was as dangerous as labour at term. But the induction of labour or abortion might be necessary for curative purposes. This principle

s not to be applied to phthisical cases unless two tters were made clear: What was the precise influence pregnancy on the prognosis of the pulmonary complica-n, and what was the precise influence of phthisis on the gnancy and the child? Albeck analysed 82 cases in yer's maternity at Copenhagen in the course of one r; 28 had already shown signs of phthisis before the gnancy, and the disease made no progress until labour; suffered from rise of temperature, and 4 showed objec-e signs of aggravation of the pulmonary disorder in the erperium. None died from the complication. In the naining 54 the first symptoms either appeared during pregnancy or developed to an acute degree. No less n 15 died sooner or later after delivery, whilst in others the phthisis advanced during the puerperium. 11 out of the 54 the larynx was also involved, and 6 of fatal cases came under this heading. Out of 19 patients a private home 16 went through their pregnancy to m, and 6 of them died within a year and a half. ognosis was not easy. In no case was aggravation of e pulmonary complication observed before the fifth nth, and it was not always maintained. Albeck rched the register of 1,194 cases of early abortion in e maternity. In not one of them was phthisis sus-cted to be the cause. In his 82 cases, all except 17 were livered at term or within four weeks of term. Turning the viability question, 8 children were born dead—mely, 1 anencephalus, 3 very premature, and 4 lost ring obstetric operative manœuvres; 4 more children ed in the institution. The remainder were discharged in od health, the average weight being nearly 7¼ lb.; 38 of ese children only could be traced after discharge; 13 it as found had died in their first year. Albeck concluded at phthisis hardly ever caused abortion and seldom pre-ature labour, and that it did not prejudice the offspring materially as was believed by many authorities. It did t seem possible to make any definite rule about the terruption of pregnancy. Rode believed that much pended on the mother's constitution. Very young tients were in great danger, as the tuberculosis and the egnancy were a double burden on their undeveloped sources. He was inclined to favour the induction of ortion before the twelfth week in phthisical patients nder 30. Essen-Möller, of Lund, had refrained for ten ears from inducing labour in phthisical patients, but he mitted that the results were discouraging; 58.3 per cent. ed within a year, and only 25 per cent. passed through ie puerperium without aggravation of the symptoms. et the patients in this series were treated in a sanatorium here, as a rule, subjects in bad condition were not lmitted. Consequently, Essen-Möller preferred now to duce abortion in the early stage of labour when other rcumstances not to be reduced to rule favoured the terruption of labour. Westermark, of Stockholm, ad-itted that in his maternity the children of phthisical omen were generally born alive and often robust. The rognosis for the mother was, on the other hand, bad. He as not so sure that the mother could receive benefit from terruption of the pregnancy as to be ready to sacrifice ie child; indeed, he admitted that he had never induced bortion. In the war against tuberculosis many far harder nemes had been solved. Heinricius declared that at Helsingfors since 1870 labour had only been artificially duced three times in pregnant women. Engström did ot believe in the advantages of interference; it was the abour, not the pregnancy, that aggravated the phthisis. Collet considered that as pregnancy influenced the mucosa f the larynx, it had a very prejudicial effect on phthisis nvolving that organ.

GYNAECOLOGY.

151. Haematometra from Carcinoma of Cervix after the Menopause.

STEIN (*Zentralbl. f. Gynäk.*, No. 4, 1910) dwells on the difficulties in diagnosis caused by distension of an obstructed uterus with blood. It is generally associated with congenital atresia, or, if acquired, with inflammatory processes closing the vagina or the cervical canal developed during the puerperium, or as a sequel of diphtheria or even typhoid fever. Atresia following atmokausis has been known to cause haematometra. In cancer of the cervix this condition has been frequently observed, but for evident reasons it has hitherto been supposed to occur solely when the afflicted patient has not passed the meno-pause. Stein reports in full an instance of haematometra in a widow aged 66, which was not recognized until the uterus was exposed by operation. The menopause had begun at 46, and was complete three years later. During those years, as she suffered from pelvic pains, the patient was under medical treatment, the nature of which could not be ascertained. Until the age of 64 she remained in good health, then dysuria set in, the patient being obliged to rise several times in the night to micturate. There was much pain of a burning character when the last drops were passed, and as it continued for two years the patient came under Stein's care. There was no sign of diabetes or vesical disease. On abdominal examination a right inguinal hernia was discovered, and an area of dullness above the pubes; bimanually the dullness was found to be due to a soft, smooth, spherical tumour, quite movable and continuous with the cervix, which did not seem to be diseased. Degenerate fibromyoma of the uterus or uni-locular ovarian cyst was diagnosed. Abdominal section was performed, and then the tumour was seen to consist of the body of the uterus. A volsella, applied to the fundus in order to draw it out of the abdomen, per-forated its walls, and over a pint of a chocolate-brown fluid escaped. Panhysterectomy was practised, and the ap-pendages, which were quite normal, were removed with the uterus. The patient made a good recovery, but no after-history is given, and the operation was only per-formed as late as October, 1909. To the naked eye there was no evidence of malignancy in any part of the uterus removed, nor were any enlarged glands detected when the patient was examined. There was no trace of a fibro-myoma, and the walls of the uterus were very thin; its contents were simply altered blood. The cervix was found to be somewhat thickened. When sections were made, all the pathological appearances of adeno-carcinoma were detected by the microscope. The walls of the cervix were invaded, and the new growth had closed its canal. The body of the uterus was free from any trace of this condition.

THERAPEUTICS.

152. Radio-active Earths in the Treatment of Rheumatic Conditions.

AT a recent meeting of the Société de Radiologie Médicale of Paris (*Bull. et mém.*, December, 1909) a paper was read on the subject of radio-active earths in the treatment of arthropathies, with special reference to gonorrhoeal arthritis. The authors, Claude and Teulière, have used certain residues of non-silicious uranium ores for thera-peutic purposes in the form of radio-active mud. The mud is characterized by the presence of actinium, by the small-ness of the ray dose (activity, 0.15), and by the constant setting free of emanations. It is maintained in position against the skin by means of compresses in such a manner that it is kept humid, for dried mud does not possess anything like the same emanation activity as moist. The radio-active property is certainly of value, for the effect of the simple humid dressing without the earth offers no comparison in merit to the results which are described in the paper. In dealing with arthralgia, the authors state that the results appear to be equally good whether the condition is recent or of long standing, and frequently the benefit follows immediately after the first application. But the results vary to some extent according to the position of the joint affected, and, from the point of view of prognosis, arthralgia of the joints of the feet, and par-ticularly talalgia, is the most rebellious. The subacute forms of arthritis, with or without hydrarthrosis, are ordinarily favourably influenced. The pain, redness, and swelling usually disappear with great rapidity. In ankylosis the radio-active mud permits of rapid mobiliza-tion, relieves the pain, and possibly modifies the evolution of the fibrous tissues. But absolute cure cannot be reckoned upon, especially if the form is of long standing. In synovitis the superficial redness and swelling rapidly yield to the earths. No serious injuries have followed upon the application of this material, although, principally in certain predisposed subjects, there has been some erythema, simply or slightly vesiculous, with pruritus. The authors hold that the method of therapeutic action is threefold—namely, by means of the humid dressings, the rays, and the emanations. The actions of these factors are interdependent; not one of the factors by itself is capable of bringing about the effects clearly and con-stantly. The authors claim to have proved that this simple method combats at once the pain, the congestion, and the impotence which accompany several of the rheumatic conditions.

153. Sabromin.

E. SCHEPELMANN deals with the clinical value of a bromine preparation named "sabromin." In 1907 Emil Fischer and J. v. Mering succeeded in producing the calcium salt of

dibromine behenic acid. This preparation contains 29.5 per cent. of bromine, is a white, odourless, and tasteless powder, is insoluble in water, and has a neutral reaction. It is said to be split up in the stomach under the influence of the gastric acid and to be absorbed by the intestine. It is best given from 1 to 1½ hours after meals when the gastric digestion is at its height. One gram of sabromin is said to be as active as 1 to 1½ grams of potassium bromide, in spite of the fact that the latter contains 67 per cent. of bromine. The author did not employ it in cases of epilepsy on account of a dearth of these cases, but limited himself to neurasthenia, hysteria, various forms of nervous affections—such as fear, palpitation, headache, sleeplessness, and the like (*Deut. med. Woch.*, December 16th, 1909). Realizing that epilepsy cases must form the tests for a bromine preparation, he refrains from giving clinical histories, but contents himself with giving general impressions. The bromide action, he says, was evident in his patients when he employed doses of sabromin corresponding to the usual doses of potassium bromide, so that he feels justified in stating that the former is twice as active as the latter. He was able to begin with bromide and then pass on to sabromin without the beneficial effect being lost. The preparation was well tolerated by his patients, and no signs of bromine intoxication were met with. He usually gave doses of 1 gram, and only in rare cases was it necessary to increase this dose. It is put up in tablets, which can be taken about without discomfort. Lastly, he states that sabromin is not expensive, so that it may be prescribed for general practice under all circumstances.

154. Therapeutic Value of Colloidal Metals.

ALL the metals favour oxidation, even in small doses, and this property is even more marked when the metals are in the colloid state. There are practical difficulties both in the preparation and in the preservation in solution of the colloidal metals, but Pesci (*Rif. Med.*, December 20th, 1909) has been experimenting for some time with suitable preparations of gold, silver, platinum, and palladium, and of these he finds the platinum preparation the most reliable. It was prepared by Randone, and used in two 10 c.cm. doses of 0.4 per cent. solution, strict antiseptic precautions being taken. The best results were obtained by endovenous injections. With the larger doses—over 5 c.cm. —shivering, fever, cyanosis, and vomiting were sometimes observed. The author gives details of some 12 sample cases, mostly typhoid and pneumonia. The most marked effect was seen in the reduction of the temperature, in the hypoleucocytosis (for example, in one case of pneumonia the leucocytes fell from 24,000 to 8,000), followed later by a hyperleucocytosis; at the same time there was an increase in the azoturia and the alkaline contents of the urine. The defervescence lasted from twelve to thirty hours. The earlier in the disease (speaking of pneumonia) that the injections were given the better the results, and it is useful to add some digalen to the injections—given intramuscularly a good deal of pain was caused. The solutions should be freshly prepared and the syringe boiled in ½ per cent. solution of sodium bicarbonate. Speaking generally, the colloids seem to act like antitonics, but the exact *modus operandi* is not known yet.

155. Collargol in Septic Conditions.

AT the last Gynaecological Congress Walthard called attention to the exaggerated enthusiasm with which collargol is employed by a number of clinicians in septic processes, and denied that this drug possesses those actions in the infected organism which are often claimed for it. H. Albrecht approves of this reaction against a blind application of the remedy, but considers it necessary to study the matter both from the theoretical and from the clinical aspect (*Muench. med. Woch.*, December 21st, 1909). It is believed that collargol exerts a bactericidal action when applied intravenously. *In vitro* experiments show that in a dilution of 1 in 6,000 it is only an inhibitory agent, and when it is considered that the highest dose injected is only 0.2 gram it will be seen that this quantity diluted by the whole mass of blood cannot possibly act bactericidally. Next, collargol is supposed to stimulate a leucocytosis. His experiments in this direction show that the possibility of a valuable reaction of this kind after intravenous application of the drug is practically excluded. There remains the supposed catalytic action. In other words, collargol is said to exercise an action akin to that of a ferment in adsorbing and oxidizing toxins and endotoxins rapidly. Netter, Schade, and Hamburger have demonstrated the capability of collargol of removing the toxicity of toxins. Since Walthard questions whether clinical evidence favours the doctrine of the catalytic action, Albrecht analyses his cases which he has treated with collargol. The number of these cases is 45. He appends short clinical histories of the course of illness and temperature and pulse curves. From these considerations he finds that collargol intravenously applied is absolutely useless in severe bacterial infections which have become generalized. On the other hand, it acts promptly in intoxications depending on septic infections. In puerperal infections he believes that collargol is of great use if given early in every case, before the infection is generalized and bacteriaemia develops. He insists on the harmlessness of intravenous injections of collargol.

PATHOLOGY.

156. Uric Acid.

I. P. CHROM, of Copenhagen (*Nord. med. Arkiv*, May, 1909) gives a summary of his researches in uric acid. He had had his attention arrested by the phenomenon of crystals of uric acid in the urine. Discovering accidentally that creosote promoted the crystallization, he made a series of experiments with sulphovinic acid (phenol). He found that crystals of uric acid appeared when the quantity of sulphovinic acid was large in proportion to that of sulphuric acid. The only important exception were patients who had been treated with alkali. This exception formed a valuable clue, as it seemed to indicate that the crystallization is furthered by acids. It having thus been established that the crystallization was actually due to the sulphovinic acid combinations, the next question was in what way these bodies acted. Three possibilities were conceivable: (1) That the sulphovinic acid combinations precipitated the uric acid; (2) that the quantity of uric acid was increased; (3) that there was an increased acidity. The first two hypotheses proving apparently untenable, recourse had to be had to the third. An increase of acidity—the physico-chemical, not the titrometrical—certainly promoted the crystallization (mineral acid, 40 grains mixt. acid. sulph.). But if the crystallization was due to the formation of an acid, how was this acid formation brought about? Experiments with phenol have revealed that only half of it seems to be coupled in the system—at any rate, when large doses are administered. Could it be that the uncoupled half was oxidized into acid? Tauber, however, had taught that the uncoupled half is eliminated as carbolic acid through the lungs, thus not affecting the acidity of the urine, and Dr. Chrom's own experiments went in the same direction. Thus there was no other alternative but to assume that the coupling process itself is accompanied by the formation of an acid, there being split off an atom-group which either is an acid or is oxidized into one. In other words, before the coupling, we have H_2SO_4; after it $\frac{R}{H}7SO_4$ and $H-x$, where x signifies an unknown monobasic acid. The author was for some time completely nonplussed. However, his attention was one day arrested by the fact that salicylic acid is not able to precipitate all the uric acid in the urine. Uric acid is thus divisible into two groups—"a precipitable" and "a non-precipitable," or, in Klemperer's terminology, "free" and "bound." It is now quite conceivable that the precipitable uric acid is increased, while the non-precipitable is diminished. If this is so the action of the phenol, and by inference of all the sulphovinic acid combinations, was to cause an increase of uric acid by splitting it off. The process is now conceived as follows: A molecule of sulphuric acid (H_2SO_4) is replaced by a molecule of sulphovinic acid $\left(\frac{R}{H}7SO_4\right)$ and a molecule of a monobasic acid ($H-x$), which latter, it is held, is uric acid. We thus get the equation $Ur = Ba\,SO_4\,\frac{168}{133}$. Using chloride ammonium to precipitate the uric acid, Chrom proceeded to compare the value thus calculated with those actually found. The average error was 0.0024 grain of uric acid. *The values coincided in no less than 10 cases.* In two cases coinciding values were found more than once in the same subject. The following are Chrom's conclusions: (1) That the fate of the purin kernels in the economy seems to depend on the combinations in which they chance to be presented to the economy, or which they form by the action of certain bodies. (2) That the coupling of phenol in the system causes the formation of an acid, and that this acid is uric acid. (3) That the quantity of uric acid in the urine is wholly or partially determined by the quantity of bodies forming sulphovinic acid which are coupled with sulphuric acid in the system.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

157. Infantile Tetany.

JEMMA (*La Pediatria*, July, 1909) reports a typical case of infantile tetany, and takes the opportunity to discuss the subject somewhat at large. There are numerous hypotheses as to the etiology of the condition, and none seems generally accepted as sufficient *per se*. The author looks upon tetany and allied tetanic states as the exponent of an endogenous intoxication, probably of intestinal origin, developing in an organism deficient in certain of those powers of natural defence of a chemical nature with which the healthy body is endowed. There are many reasons why the intestines should form so suitable a soil for the generation of these toxins, and the fact that tetany is less common in the summer, when gastro-intestinal disorders are most frequent, is not a serious objection, for it is possible that the increased activity of the skin and of the metabolic processes which occurs in the summer may bring about a freer elimination of the toxins at this time. Such pathological changes as are met with for the most part affect the nervous system. The diagnosis rests on the chief symptoms, namely: contractures, mechanical and electrical, muscular hyperexcitability (especially galvanic). The prognosis should always be cautious, although the issue is usually favourable. The treatment much depends on proper feeding (nearly all the cases occur in bottle-fed children). In the attacks themselves bromide and chloral are the most efficacious, and it is better that they should be given by the rectum. In severe or prolonged cases hot baths, rubbing with chloroform liniment, or chloroform anaesthesia may be necessary.

158. Intestinal Perforation during Typhoid Fever in Children.

JOPSON AND GITTINGS (*Amer. Journ. of Med. Sci.*, November, 1909), from a study of reported cases, compare the clinical course of typhoid fever in children and adults with reference to intestinal perforation. In the earliest years haemorrhage and perforation are very rare, since it is not until after 4 or 5 years of age that the intestinal lesions are of a character to favour perforation, but in older children the disparity is less marked, being about half as common as in adults. Mortality in young children is less than in adults, but towards 15 years of age it approximates that of adult life, this lower mortality being partly due to the fact that the type of the disease in children is generally milder than in adults. The danger of perforation is greatest towards the end of the second and during the third week of the disease. The most important diagnostic symptoms are pain (more often generalized than local), tenderness, and rigidity—especially valuable when of early appearance, as later it may depend upon general peritonitis; while, in addition to these three cardinal symptoms, a fall in temperature, with increased pulse-rate, collapse, vomiting, chill, and rising leucocytosis, are further significant signs when present. With regard to operative technique, there is no material difference from that advisable in adults, a double row of interrupted Lembert sutures longitudinally inserted being usually sufficient, while in cases with a very large ulcer it is better to establish an artificial anus by primary enterostomy than to attempt resection of the bowel. General rather than local anaesthesia is advocated, and the necessity for rapidity and avoidance of meddlesome surgery is more important than in adults. The earlier the operation is performed the better the prognosis, as there is a steadily rising mortality in cases operated upon after six hours' duration.

159. Transmission of Vocal Vibrations in Pleural Effusion.

LIVIERATO (*Rif. Med.*, December 20th, 1909) discusses the problem of the preservation of vocal fremitus and breath sounds in spite of the presence of pleural effusion. The condition is, of course, well known, and the chief current explanation of the phenomenon is that it is due either to the presence of bands between the lung and the thoracic parietes which act as bridges to conduct the vibrations, or to fixation of the lung by adhesions. Neither of these explanations are completely satisfactory to the author, and for some time he has been making clinical, pathological, and experimental researches with a view to elucidation of the problem. His clinical material comprised 127 cases of pleural effusion, 7 necropsies, and certain experiments on dogs. In the last case he injected 250 c.cm. of serous fluid into the pleural cavity of dogs and observed its effects. As a result, he maintains that an important factor—and sometimes the only factor—in causing the persistence of vocal vibrations in pleural effusion is the pressure of the fluid of the lung, rendering the pulmonary tissue firmer and more compact. This greater firmness of the lung can sometimes be detected by the needle in paracentesis. He corroborates the value of limited bands of vocal vibration areas in the diagnosis of loculated pleurisies, and thinks this may well be due to the presence of sound-conducting bridges of adhesion bands. He finds that the increase in vocal vibrations in these cases varies directly with the specific gravity, the albuminoid and corpuscular elements in the contained fluid.

SURGERY.

160. Syphilis, Lupus, and Sarcoma.

A. NEISSER discusses the differential diagnosis of syphilis and lupus and syphilis and sarcoma (*Berl. klin. Woch.*, August 16th, 1909). He illustrates the difficulties of the former differential diagnosis by two cases. The first was a woman who was sent to him with the diagnosis of lupus of the nose. There was a marked swelling and broadening of the nose, ulceration of the nostril, marked thickening of the upper lip with scar formation and perforation of the nasal septum. He considered the diagnosis of tertiary syphilis more likely than lupus, and was confirmed in his belief by a positive sero-diagnostic examination and by the effect of a course of mercury and iodide of potassium. The deformities remaining after the process had been stopped by treatment were not very great. The second case was that of the daughter of the first patient. In this case the "lupus" had destroyed the nose, had attacked the face and palate, and had led to blindness of both eyes. The history was that the child (aged 13 years) had been quite well up to two years ago. The disease had begun in the skin of the forehead, and had spread rapidly on to the nose, lips, and eyes. In this case, too, he was able to exclude lupus and confirm his diagnosis of tertiary syphilis. But the harm was done. The girl was blind and had hideous deformities in her face. While Neisser does not blame the practitioner for the wrong diagnosis, he does blame him for not having thought of the possibility of syphilis, and for not having employed means to determine for certain whether syphilis could be responsible. The general practitioner could not be expected to carry out a Wassermann's test, but at all events he could have given the patients a short but energetic course of anti-syphilitic remedies. Iodide of potassium tried at an early stage would have saved the child from blindness and deformity. On the question of suspicion of syphilis, he states that in a woman of 41 years lupus would be unlikely, while syphilis would be more probable. The perforation of the septum was in favour of syphilis. A syphilitic history is of little importance, since a syphilitic person could be suffering from lupus, and a person who denies ever having had syphilis may be syphilitic. The second case, ending in blindness, caused Neisser to consider the blindness which has been caused by atoxyl in the treatment of syphilis. He defends the trial of new drugs, even in the face of such a risk, since it appears to him to be much more common that harm is done by too little enterprise in treatment than in too much. Next he speaks of a case of syphilis affecting the cervix. The woman was a married woman, who complained of haemorrhage, pain in the abdomen, and greenish discharge from the vagina in April. The cervix was examined and was found to be swollen but not ulcerated. Some soft masses were detected and a portion was removed for microscopical examination. This portion under the microscope led to the making of the diagnosis of round cell sarcoma, and the patient was subjected to the operation of extirpation of the uterus, which she stood well. At a later date she came to Neisser with a well-marked papulo-pustular eruption. There was no doubt as to the diagnosis of syphilis, and the sero-reaction was positive. Neisser points out that it is at times impossible to determine

whether a tumour showing round-cell infiltration is a syphilitic or a sarcomatous tumour. What ought to have been done in this case? If the diagnosis of sarcoma had been right, the practitioner would not have been justified in delaying the operation long. The infection was obviously a fresh one, and Neisser failed to trace its source. A sero-diagnostic examination would not have assisted matters in the least, but an energetic course of mercury would have cleared matters up within a fortnight. The best form of diagnostic treatment is 0.1 gram of calomel injected twice a week, or 0.1 gram of salicylate of mercury injected more frequently, or 0.002 to 0.003 gram of perchloride of mercury injected every second day. At the same time he advises the application of iodide of sodium, starting with 1 gram a day, and increasing to 4 grams. He gives antipyrin in doses of 1.5 gram, and bicarbonate of sodium in doses of 3 grams at first, to prevent symptoms of iodism. If no definite improvement takes place within fourteen days under this form of treatment, syphilis can be excluded. He warns practitioners against excluding syphilis after giving iodides alone, especially in secondary or even primary syphilis, but considers it advisable in any case in which the diagnosis lies between malignant disease or syphilis to give both mercury and iodide, no matter whether the alleged syphilis is believed to be primary or tertiary. He also adds a few words on the differential diagnosis of tuberculosis and syphilis, and strongly urges practitioners to have recourse to the tuberculin injection test, which will give a definite reply to the question, tuberculosis or not?

161. Torsion Fracture of the First Digital Phalanx.

MARCHETTI (*Arch. di Ortoped.*, An. 26, f. 6) records two interesting cases of oblique fracture of the first phalanx of the middle finger due to violent twisting. In the first case the man, aged 30, in trying to close the door of a carriage, slipped, and in the attempt to hold himself up, gave the finger a violent wrench. No fracture was detected at the time, and it was believed that the injury simply consisted in a severe sprain of the ligaments; but as the finger did not recover, it was radiographed, when an oblique fracture of the distal end of the first phalanx was clearly seen. In the second case, a carpenter was using a screwdriver with considerable force when it slipped, and he gave his hand a wrench, and also hit it with some violence against a door. A skiagram showed a considerable oblique fracture extending through the half of the distal extremity of the first phalanx. The two skiagrams are reproduced, and the author goes at some length into the anatomy of the parts, and as to method of production of the fractures in these two cases. Owing to the difficulty of detecting such fractures without the aid of skiagrams, it is probable that certain so-called sprains which recover slowly may really be fractures. In treatment, circular strips of plaster answer well enough in keeping the parts in apposition.

162. High Amputation of the Rectum.

HARTMANN of Paris (*Annals of Surgery*, December, 1909), in "Some Considerations upon High Amputation of the Rectum," states that in high peritoneal operations there is a risk of gangrene of the terminal portion of the intestine that has been brought down, and also that after perfect operative recovery recurrence may follow in the connective tissue of the pelvis even when the mucous membrane has remained intact. These serious results have in the author's practice been met with in patients in whom it had been necessary to divide the superior haemorrhoidal arteries, either because the cancer was situated in the upper part of the rectal ampulla, or the growth, though situated at a lower level, was accompanied by a malignant infiltration of the mesorectum. In order in such cases to drag down the rectum, especially its ampullary portion, it is absolutely necessary, we are told, to cut the superior haemorrhoidal vessels. The pathogeny of the post-operative gangrene that is likely to result from this division of the vessels is explained by the anatomy of the vascular system of this region, the arterial circulation of the rectum being very different from that of other portions of the intestine. While in the latter there is free communication between the terminal branches of the inferior mesenteric artery, upon the rectum the haemorrhoidal arteries descend without forming any anastomotic loop. The suppression of the blood supply to the rectum is the more complete since in the course of the perineal operation the surgeon separates the lower part of the intestine from its peripheral connexions, and thus cuts off the supply of blood by the middle haemorrhoidal artery. The results of anatomical researches made by de Dietrichs in the author's laboratory show that if the operator wishes to bring down the intestinal stump to the level of the skin of the perineum without traction and still well nourished, it is necessary to avoid cutting the haemorrhoidal arteries at the point where the surgeon is necessarily led to divide them when working exclusively from the perineum. It is necessary to place a ligature high up on the common trunk of these arteries above the last anastomotic loop, which is found a little below the sacral promontory. By the necessity of making this high ligature of the haemorrhoidal pedicle, the surgeon is obliged to begin his operation through the abdomen. By working from above downwards, the operation being ended by isolating through the perineum the lower part of the rectum, the surgeon is enabled to prevent gangrene of the lower part of the intestine, and to make a much wider removal of the cancerous growth along the lymphatic paths, realizing what might be called by analogy with the operations recently practised for uterine cancer, total ablation of cancer of the rectum. The author acknowledges that till now the results of abdominal and perineal amputations of the terminal parts of the intestine have not been very encouraging. He believes, however, that with improvement of the technique they will become better, and that the abdomino-perineal path is to be the path of the future, an opinion he supports by reference to its favourable results in his own practice.

OBSTETRICS.

163. Simultaneous Tubal and Gemellar Uterine Pregnancy.

BICHAT AND MARCHAL (*Rev. méd. de l'Est*, November 1st, 1909) report this case, where the patient was a woman aged 29, who came under their observation early in 1907. She was married in February, 1898, and aborted in August of the same year at the third month after a fatiguing railway journey. In July, 1904, she was delivered at term of a female child; there was free *post-partum* haemorrhage. In September, 1905, the patient was again delivered at term; the child was, as before, a female. The patient's health was perfect until March, 1907, and there was no evidence of gonorrhoeal infection. The last period occurred in the second week of March, 1907. In the middle of the night of April 7th the patient was seized with an acute attack of pain in the right iliac region, with symptoms of acute internal haemorrhage. Next morning there was great tenderness on pressure over the right iliac fossa, which prevented accurate palpation; but it was evident that the uterus was enlarged and the cervix soft. The temperature was normal. The patient was kept at rest till the end of the month; the periods did not reappear, but there were several attacks of cramp-like pains in the right iliac region. A well-defined tender body of the size of a hen's egg was detected on the right side of the uterus. Abdominal section was performed on May 7th, 1907. Some free sero-sanguineous fluid was found in Douglas's pouch, and some coagula adhered to the peritoneum. A tubal sac was discovered in the infundibulum of the right Fallopian tube, its outer part protruded so as to touch a wide area of the ovary, to which it was strongly adherent. The cavity of the sac contained nothing but clot. The right appendages were removed, but six months later, on November 18th, labour pains set in. The fetal heart sounds were audible at two distinct points. On November 21st, early in the morning, the patient was delivered spontaneously of a male child, weighing nearly 5 lb. A second bag of membranes presented; it was ruptured artificially, and another male child, 6 lb. in weight, was born. The puerperium was normal, and the twins throve well.

164. Internal Rotation in Labour.

R. H. PARAMORE (*Journ. of Obst. and Gyn. of the Brit. Emp.*, October, 1909) makes a critical inquiry into the causes of internal rotation of the fetal head during labour. The following is an abstract of the author's description of the mechanism of descent with which internal rotation is associated. Whenever flexion is good, whether in anterior or posterior presentations, the vertex is the advancing pole of the fetal head, and reaches the pelvic floor in the region of the coccyx. Here its progress is resisted by the muscular fibres rising from the ischial spines which are inserted into the coccyx and ano-coccygeal raphé, and which at the end of pregnancy can be shown by palpation to be hypertrophied to form true fleshy bellies. The continued downward fetal thrust causes descent of the floor, beginning at the region of primary impact—that is, centrally. The coccyx becomes sloped

ownwards and forwards to form an inclined plane down hich the vertex is pressed. When the forehead is pos- rior it is easy to understand how internal rotation now curs, for the transverse diameters of the pelvis become minished as the outlet is reached, so that the forehead is rced towards the hollow of the sacrum by the steadily creasing pressure between it and the postero-lateral lvic wall. When the forehead is anterior and the head ell flexed, just as before, the vertex is pressed downwards nd forwards along the sloping plane formed by the occyx. But since the ano-coccygeal raphé continues in ne same direction as the coccyx, further descent of the ertex is finally prevented except in combination with its rther projection forwards; this is, however, now resisted y the fetal chin being already in contact with the chest, nd the forehead is therefore compressed obliquely pwards against the antero-lateral pelvic wall. Descent the forehead is only possible if combined with retreat of ne vertex and occiput, which is resisted by the pelvic oor, and further ascent of the forehead is prevented by ne force thrusting downward the fetal chest. It is also to e remembered that at the comparatively high level at hich the forehead is placed the transverse diameter of ne pelvis is greater than the antero-posterior, and the sult is that the forehead is forced to glide into the larger ansverse diameter. This is made possible because, as a sult of the marked flexion, the part of the head opposed the floor presents almost as a segment of a sphere. But ne distance between the forehead and the cranial axial ne is greater than that between the side of the head and ne same line. Therefore, as the forehead moves into the ansverse diameter, the upper part of the cranial axial ne can advance towards the symphysis, while lower down ne tension of the pelvic floor forces the lower part of the ne similarly forwards. There is now less resistance etween the side of the head facing the sacrum and the osterior parts of the pelvis than between the forehead and ne lateral pelvic wall. Therefore, finally, the expelling rce from above together with the frictional resistance etween the side wall of the pelvis and the forehead, gether, as before, with the diminution of the transverse iameter as the outlet is reached, leads to complete rota- on of the forehead into the hollow of the sacrum. A ore dynamical consideration of all the forces acting on ne fetal skull strengthens the author in his view of the sulting motion. Obviously, for a constant result, the apes of the fetal skull and of the maternal pelvis must e approximately constant, a fact which explains the ilure to rotate seen in cases of small round pelvis in spite good flexion. When the head is not well flexed, also, otation cannot be expected. Thus, when the occiput is ehind and flexion is not good the vertex does not present, ut, instead, the bregma. The presenting part is more btuse than the vertex, and does not so easily cause either escent of the floor or alteration in the direction of the occyx. Descent, indeed, can only occur after consider- ble moulding of the head and marked recession of the occyx and the ano-coccygeal raphé. Lateral movement the forehead is also either impossible or more difficult an when flexion is good, both because the forehead is ow lower down where the transverse diameter is less, nd because the part of the head opposed to the pelvic oor is no longer almost the segment of a sphere, since the iboccipito-bregmatic diameter, $9\frac{1}{2}$ cm., is now replaced y the occipito-frontal, 12 cm. On this view of rotation the ange from an occipito-posterior to an occipito-anterior osition, when it occurs, appears to be the result of the rehead being rotated backwards rather than of the ciput being rotated forwards. The pelvic floor, which nds to fix the vertex centrally and is the *point d'appui* ound which rotation occurs, is also an essential factor in ne situation. The factors concerned in internal rotation ay be summed up as (1) the expulsive force from above;) the obstructing, central fixing, force from below; (3) the ape of the pelvis; (4) the shape, size, consistency, and osition of the fetal head. The article also contains a view of the other theories of internal rotation.

GYNAECOLOGY.

165. Effects of Grafting on the Ovary.

AUVÉ (*Bull. et mém. de la Soc. Anat. de Paris*, November, 909) insists on extreme precision in the technique of varian grafting and minute accuracy in reporting results, oth by the pen and the pencil or camera. Too much has een taken for granted; thus, vascular anastomosis is not ssential, as he has himself grafted an ovary six times ithout vascular anastomosis, and in all instances with success. Sauvé when grafting an ovary retains the opposite, from the same animal, as a reliable standard, making sections from it directly after its excision. The fellow ovary is then sutured, through its hilum, to a button-hole cut in the peritoneum of the iliac fossa, using aseptic precautions. Sauvé made his latest experiments on three rabbits. They were killed six months later. The results were uniform. The primordial follicles were scantier than in the standard ovary, the Graafian follicles also scantier and greatly developed, but what was most conspicuous and also of special import was the extreme hypertrophy of the corpora lutea. They took up the greater part of the grafted ovary. Thus, grafting of an ovary does not cause degeneration, but sets up a profound change in its histological elements. This change has likewise been noted in herniated ovaries by Branca at the Faculté de Médecine de Paris.

THERAPEUTICS.

166. Treatment of Sleeping Sickness.

B. ECKARD (*Archiv f. Schiffs und Tropen Hyg.*, Bd. 13, No. 16) describes the action of the different substitutes for atoxyl which he has made trial of in the treatment of sleeping sickness in Utegi, German East Africa; unfortunately none of them are found to surpass atoxyl and many of them do not come up to it. A 10 per cent. atoxyl ointment gave negative results in 10 cases, most of them recent ones. A 1 per cent. ointment of arsenic was also useless. Injections of atoxylin combined with the administration of auripigment pills in rapidly increasing doses were tried in two cases; in both trypanosomes disappeared from the peripheral blood, but reappeared in one case on the eighteenth day, in the other case on the twenty-first day after the completion of the cure. Four patients were treated with rosaniline pills and injections of arsacetin, but there was no clear proof of any specially favourable result. Para-rosaniline was absorbed more readily than rosaniline, but no special result was observed. Injections of arsacetin were tried in 134 cases; 0.6 gram ($9\frac{3}{10}$ grains) of arsacetin should correspond to 0.5 gram ($7\frac{7}{10}$ grains) atoxyl, and the amounts of arsacetin injected were 0.6 gram ($9\frac{3}{10}$ grains) and 0.45 gram (7 grains) on the thirteenth and fourteenth days respectively. While the injections were being given trypanosomes disappeared from the peripheral blood and the general condition improved. After three of the double injections a definite diminution of the glandular swellings could be observed. In 4 of the cases, after six of the double injections, the treatment was broken off; in 3 of them trypanosomes reappeared in the blood in from twenty to thirty days; in the remaining case, although trypanosomes could not be detected, the general condition deteriorated, and the patient died in about two months. If a long treatment be carried out, the dose of 0.6 gram ($9\frac{3}{10}$ grains) or 0.45 gram (7 grains) of arsacetin appears to need to be cautiously increased up to 0.75 gram ($11\frac{1}{2}$ grains) or even 0.9 gram ($13\frac{3}{5}$ grains) in the case of very strong men, or 0.6 gram in the case of strong women. The cure scarcely ever caused vomiting or abdominal discomfort. In three cases the patients became totally blind, one after taking 11.025 grams ($169\frac{4}{5}$ grains) arsacetin in five months, the second after 14.25 grams ($219\frac{2}{5}$ grains) in four and a half months, the third after 9.6 grams arsacetin in three months. Of the 134 cases, 12 died, 7 grew worse, 29 broke off the treatment, and 86 improved; the period of observation has not been long enough for it to be possible to speak with certainty of recovery in any case. Arsacetin, therefore, given in rather larger doses than atoxyl, has very much the same action and the same disadvantages as atoxyl; it is, however, cheaper, and can be boiled without decomposition. Inunction treatment with grey ointment was combined with injections of atoxyl or arsacetin, and the course of the disease appeared to be favourably influenced, although in three cases trypanosomes showed themselves in the peripheral blood either before or very shortly after the completion of the inunction cure, when the injections had been previously discontinued. Finally, 19 cases were treated with arsenophenylglycine, and apparently with very good results; longer time is, however, needed, and more extended trial, before a definite decision as to the results can be arrived at.

167. Epilation by Radiotherapy.

H. BORDIER (*Arch. d'élec. méd.*, December 25th, 1909) describes his modified technique for producing the fall of the hair without erythema or radio-dermatitis. He

covers the head of the patient with a sheet of lead having an opening corresponding to the region to be epilated. In the principal direction of the rays he places a platinocyanide pastille, ensuring that it receives the same quantity of rays as the irradiated skin. All having been arranged, he places in front of the focus of the rays an aluminium filter, ½ mm. in thickness, and connected with earth, so that the patient is saved from disagreeable discharges from the electrostatic field. The action of the tube is continued until the pastille shows the equivalent to tint 0 feeble of the Bordier chromoradiometer. When this is reached the irradiation is stopped, and other regions to be epilated are taken in the same way. The dose should be applied three times on the same part, with a free day's interval between each séance. The tint 0 feeble, at which the irradiation is arrested, corresponds to about 1.3 Bordier units I (Bordier's unit I is about equal to two Holzknecht units), so that the tissues will have absorbed in the course of the three séances given on alternate days about 4 units I. This dose, if given in a single séance, would correspond to the toning of the pastille to tint 1 strong or tint 2 feeble, and he has experimentally demonstrated that complete epilation is produced when the skin has absorbed a dose a little greater than his tint 1. By this method of fractionizing the dose and filtering the bundle of rays through ½ mm. of aluminium the hair falls out about fifteen days after the third séance, without the slightest brown pigmentation being produced. The radio-chromometric degree of the rays employed should not be less than 5–6 Benoist.

168. The Action of Ergot.

Alfred T. Livingston (*Med. Rec.*, January 29th, 1910) holds that the peculiar province of ergot is to stimulate diseased rather than normal unstriped muscle. He gives examples of this action. However contrary to previous knowledge of ergot, it is practically true that it acts on the diseased organs better than on normal ones containing unstriped muscle fibres. The author has never found any bad effects from the use of large doses of ergot. He prefers the less refined preparations, since some principle seems to be removed by standardization. The brain and lungs are especially beneficently affected by ergot; next comes the abdomen, the region of the pelvis being secondary to these in good effects obtained. Ergot used hypodermically may either reduce or increase arterial tension, according to the condition of the heart and great vessels. Heart failure itself is a rare condition. The obstacles to the ease of action and freedom of the heart exist in venous and capillary tension, and the relief of these causes relief of heart failure symptoms. The normalizing of the abnormal unstriped muscle is the province of ergot.

PATHOLOGY.

169. A New Reaction in the Blood of the Insane.

Kraepelin has stated that it is possible that the study of the metabolism may some day throw light on the question whether mental disturbances are dependent on somatic causes and changes. Up to the present, however, much minute work on the metabolism of the insane has failed to reveal important intelligence. H. Much (*Muench. med. Woch.*, May 18th, 1909) offers a contribution of this kind, which, even if it does not directly demonstrate the nature of the mental disease, indicates a specific change which may enable the physician to distinguish two forms of insanity from the others. The examination of the blood of certain insane persons led the author to investigate the power of inhibiting haemolysis. Washed red blood corpuscles of the human subject are readily haemolyzed by cobra venom. The serum of normal persons is incapable of inhibiting this haemolysis. Much and his colleague, Holzmann, have found that the serum of persons suffering from dementia praecox or circular insanity—maniacal depressional insanity—can prevent the solution of the blood cells. The test is carried out as follows: 0.35 c.cm. of serum is mixed with 0.25 c.cm. of a 1 in 5,000 solution of cobra venom. To this mixture 0.5 c.cm. of a 10 per cent. suspension of human blood cells is added. The mixture is then incubated for two hours and kept on ice for twenty-two hours. The tubes should be shaken before the result is registered. If the mixture is quite opaque, the reaction is positive. Partial inhibition, recognized by the lake colour of the fluid, is regarded as negative, and the results can always be decided by comparison with the control tests put up with the serum of normal individuals. He calls the reaction the psycho-reaction. Having described the rough technique, he proceeds to record the results obtained, and divides the tests into groups. From this it appears that the serum of patients suffering from forms of insanity other than those mentioned above, as well as the serum of persons enjoying good health or who are suffering from other diseases, always yield negative results. With regard to the cases in which the diagnosis of dementia praecox was made every case yielded a positive reaction. In some cases the diagnosis was made independently and after the reaction was tried, while in no case was the clinical diagnosis influenced by the result of the test. In the cases of circular insanity, including some cases of epilepsy with circular psychical affections, cases of alternating maniacal and depressed attacks, and further in mental patients whose families contained one or more members suffering from circular insanity, the reaction was also positive. He, therefore, could not distinguish by means of the reaction between the two classes. The cerebro-spinal fluid is incapable of inhibiting the haemolysis. After studying the reaction closely and applying the test in over 400 cases, he has come to the conclusion that it has no prognostic significance, but that its diagnostic value is considerable. He is making observations in this direction, with especial reference to the Wassermann reaction. He also points out that the forensic importance of the reaction may be considerable.

170. "Indian Ink" Method of Demonstrating Spirochaeta Pallida.

Frühwald (*Muench. med. Woch.*, No. 49, 1909) strongly recommends this method as being very rapid compared with the Giemsa method of staining and not requiring the expensive apparatus which is required for the dark-ground demonstration of the unstained spirochaete. It depends on the fact that the particles of Indian ink are smaller than the spirochaete, and hence when a mixture of the two is allowed to settle on a slide the spirochaetes remain as clear transparent spaces on a dark ground. Burri first used this method in order to obtain an absolutely pure culture, as the bacilli are "stained" without being killed and the growth of a single bacillus could be observed under the microscope. Bacilli and leucocytes, as well as spirochaetes, show up as clear spaces. The author uses the following technique: the surface of the suspected lesion is shaved off with a scalpel until a drop of serum is obtained which is not too darkly coloured with blood. A loop of this is mixed, upon a microscope slide, with a drop of commercial Indian ink (Gunther and Wagner's). The mixture is then spread with the edge of a coverslip. The film dries within the minute, and can be immediately examined with the oil immersion. The spirochaetes are seen as bright spirals on a dark brown field. Leucocytes, bacteria, and other spirochaetes are also seen as clear spaces. Pallida can be distinguished from the other spirochaetes by its form. It is claimed that with this method the spirochaete may be demonstrated after a shorter search than is necessary with the other methods.

171. Bacterial Content of Faeces.

Friedenwald and Leitz (*Amer. Journ. of Med. Sci.*, November, 1909), after reviewing the methods employed by previous observers to determine the bacterial content of the faeces, give the result of experiments to ascertain the effect of diet and various drugs both in normal individuals and in patients suffering from digestive disturbances. Control experiments without drugs were made for several days in order to compare the results with those on similar periods during which drugs were administered. The method adopted by Strasburger to determine the number of bacteria in the faeces was adopted; one-third of the dried substance of the faeces of a healthy individual on a medium diet having been found to consist of bacteria, giving an average of 8 grams, but in dyspeptic conditions the average may be 14 to 20 grams, while in chronic constipation it may be as little as 2.6 grams. In healthy infants the percentage of bacterial growth is practically the same as in adults. In normal cases the greatest reduction of bacterial content was obtained by diet alone, averaging a reduction of 16 per cent. on a liquid diet, fermented milk, and 13.7 per cent. on a Schmidt diet. Of drugs beta-naphthol reduced the organisms, 9.9 per cent., bismuth salicylate, 8.8 per cent.; while aspirin and ichthalbin gave an average reduction of 4.8 per cent. and 4.2 per cent. respectively, salol being ineffective in this direction. Intestinal antiseptics do not appear to have a marked effect in patients suffering from gastro-intestinal disturbances, the best results following regulation of the diet.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

2. Syphilitic Nephritis.

UGET (*La Clinique*, December 17th, 1909) quotes the case a man, aged 26, who was attacked with nephritis, his nptoms consisting of a generalized oedema and of uminuria—3 grams of albumen per litre of urine. der milk diet and diuretics the oedema completely appeared, and the patient, thinking himself cured, was t sight of. A few months later he again came under ervation for slight dropsy, spots before the eyes and tigo, and marked albuminuria. Three months' treatnt resulted in an apparent cure. About four months erwards the patient was admitted to hospital with nbar pain, gallop rhythm of heart, and marked albunuria (18 grams per litre). Syphilitic nephritis was gnosed and specific treatment carefully tried, intranous injections of colloidal mercury being employed. ter the first dose the albumen fell from 18 to 3 grams r litre; but the improvement was not maintained, and er eleven injections 15 grams per litre were still passed. again diminished, and fell to 2 grams when the patient t the hospital. After a short period the oedema repeared and the patient was again kept under observan. At this time 6 grams of albumen per litre of urine ere passed. The oedema again subsided and mercurial jections were again employed, both subcutaneously and travenously, without, however, any appreciable effect the albumen excretion. In this case the diagnosis of philitic nephritis was based on the effects observed der the first mercurial treatment, and on the fact that ere was a normal or exaggerated diuresis with marked buminuria—two factors which indicate either syphilitic phritis or lardaceous disease of the kidneys—and in e case under discussion there was no evidence of rdaceous disease in any other parts. Renal syphilis not very uncommon, especially during the secondary age. It may occur in apparently benign forms of philis, and methodical specific treatment does not ways prevent its occurrence. Secondary syphilitic sease of the kidneys occurs usually during the first six onths. Tertiary syphilis of the kidneys may not develop ntil many years after syphilitic infection. The anatomil lesions in secondary syphilis of the kidneys take on ffuse and superficial characters, with a tendency to come generalized; in tertiary syphilis the lesions are ore profound and localized. In the secondary form the idneys are like those of the "large white" form, and the ithelium is especially affected. Tertiary syphilis may ve rise to the lardaceous kidney, to gummata, and clerotic changes which are especially liable to affect arts only of the organs. Clinically, secondary syphilitic isease of the kidneys appears in two forms. In some ases there is simply a moderate albuminuria without ropsy; this may end in a confirmed nephritis possessing ne following characters: (1) Oedema, (2) great albumen xcretion, (3) a normal or exaggerated diuresis. Uraemia ay occur, and considering the liability of these cases to ecur the prognosis is not always as good as one might xpect. In tertiary syphilis of the kidneys the picture still more varied. There may be marked albuminuria ith a tendency to dropsy; simply a marked albumen xcretion; signs of lardaceous disease; interstitial ephritis with high tension, etc., and mixed forms. astly, tertiary syphilis may give rise to a form of brous perinephritis, and to actual breaking down of ne kidney substance to form material similar to pus. With regard to the recognition of renal syphilis, the uthor points out that in secondary syphilis urinary xaminations should be made frequently, and repeated rom time to time during the tertiary period. In all cases f nephritis it is necessary to remember the possibility f a syphilitic cause, especially when there is marked edema and the albumen excretion is large. The Wassermann test may help to elucidate the matter in some cases f recent origin. In some cases of secondary syphilitic idney disease the *Treponema pallidum* has been detected n the urine. Mercurial treatment may be tried in susicious cases, bearing in mind, however, that this metal s apt to cause symptoms of poisoning if the excretory unctions of the organs are badly damaged; mercury is lso an irritant to the renal tissue, it can cause actual ephritis, and may even aggravate a syphilitic nephritis. Sometimes syphilis of the kidney yields to iodide of potassium when mercury has failed, but the converse is the more usual. The method of treatment which seems advisable in these cases is as follows: Rest in bed and milk diet. If albuminuria and oedema still persist or increase, a mercurial course should be prescribed either by the mouth, subcutaneously, or intravenously. If after ten injections the albuminuria increases or continues, the injections should be stopped, but a second series may be given again later. When uraemic symptoms appear the usual treatment for such states must be adopted, and even under these circumstances the author thinks it advisable to have recourse to mercurial treatment.

173. Cerebral Tumour with an Unusual Clinical Course.

RUDOLF AND MACKENZIE (*Amer. Journ. of Med. Sci.*, November, 1909) record a case of cerebral tumour in a woman, aged 46, presenting an unusual clinical course. During most of her adult life she had suffered from chronic constipation and periodic headaches, almost always associated with the menstrual periods, and during these paroxysms there was some amount of aphasia. At the menopause the headaches became somewhat less acute, but she still hesitated in speech and occasionally used the wrong words, both in speaking and writing. Eighteen months later, without any localizing symptoms, she had an attack of apparently acute cerebral compression, which passed off, leaving her as well as before for nearly ten weeks, when she had a second similar attack, and these recurred at intervals of a month until the fifth and fatal one. Between the attacks she seemed nearly well, and on the day before the fatal one she spoke unusually well and walked downstairs. During life the symptoms were thought to be probably due to a periodic filling of some form of cyst, but *post mortem* a large, soft, vascular tumour, which did not infiltrate the brain but compressed the convolutions beneath it, was found lying on and in the left cerebral hemisphere in the parietal region. There were a few small, flat, white tumour nodules on the inner side of the posterior portion of the dura, over the left hemisphere and falx cerebri, and there was a large tumour between the tentorium (to which it was firmly attached) and the occipital lobe on the left side. Endotheliomatic in origin and arising from the dura, the soft tumour over the parietal region was probably the most recent, and its loose texture and rich vascular supply are of great significance in connexion with the clinical symptoms. The almost constant monthly occurrence of the acute compression symptoms, together with the history of bad headaches at these times, suggest the possibility of the increased pressure being connected with the menstrual function, although this had ceased eighteen months before, the case being one of almost symptomless brain tumour complicated by periodic attacks of congestion, which were a relic of the menstrual epoch. That monthly vasomotor disturbances do sometimes persist after the menopause is borne out by a case in which epistaxis associated with menstruation persisted for years after all menstrual flow had ceased. The blood pressure was always very high during an acute attack, and, by producing great distension of the vascular tumours, may have been the cause of the acute cerebral compression.

174. Scleroderma and Athyroidism.

PEDRAZZINI (*Gazz. degli Osped.*, August 1st, 1909) records 5 cases of true scleroderma in adults, and takes the opportunity to discuss the relation of this disease to the condition of the thyroid. He believes that whilst there are causes predisposing to scleroderma, for example, cold, tuberculosis, etc., the one condition essential is deficiency in the thyroid. With regard to the influence of cold, 2 out of the author's cases were associated with exposure to cold, the third was doubtful, and the fourth had no relation. Only 1 of the 5 cases showed any evidence of tubercle, and seeing the commonness of tubercle and the rarity of scleroderma, this may have been a mere coincidence. The sclerosing variety of tuberculosis may resemble scleroderma, but must be distinguished from the true scleroderma. In 4 out of the 5 cases the thyroid was distinctly atrophied (in 1 case this was verified by an autopsy); in the fifth case the thyroid was somewhat enlarged, hard, and probably in a condition of fibrous

hyperplasia. The resemblance between myxoedema and the initial symptoms of scleroderma is another point of similarity connecting the disease with states of the thyroid. With regard to the blood, a polynucleosis was found in 4 of the cases. Histologically the changes in scleroderma resemble those of a slow interstitial inflammation. No changes were observed in the nerves.

SURGERY.

175. Two-stage Principle in Operative Surgery.

LILIENTHAL (*Ann. of Surg.*, January, 1910) briefly discusses certain typical operations which appear to him particularly suitable for division into stages, the object of such division being to reduce the dangers due to prolonged anaesthesia, excessive loss of blood, and severe shock. Discussing, in the first place, operations for intracranial disease, the author points out that some of these procedures, especially those for the removal of cerebral growths and for neurectomy, are followed by such profound shock that attempt at completion of the operation signifies unwarrantable risk. If the work has been well planned so that it may cease at any moment the operation can be stopped, the wound completely closed, and the patient sent back to bed to await restoration of his strength. A second or even a third sitting is then to be regarded as a separate operation. The danger of shock is thus much reduced, although with increased risk of the more avoidable danger of sepsis. In operations on the lung for removal of tumour or foreign body, or the opening of a pulmonary abscess, the operation the author advises should, if possible, be done in two stages, the first stage being practised for the establishing of local adhesions between the visceral and the parietal layers of the pleura. Indeed, he suggests that it is probable that, even with the help of apparatus for negative or positive pressure, septic work on the lung will be less dangerous if the operation is divided. In operating for the relief of biliary obstruction, especially in cases of prolonged icterus, the author would not trust to the usual means of shortening the coagulation time of the blood, and of thus diminishing the risks of serious recurrent or secondary haemorrhage. The safer mode of procedure under such circumstances is to employ a serum or other therapy, and to operate by the simplest and shortest possible method merely for the relief of cholaemia, reserving the removal of the cause of obstruction till a later operation. The custom in modern pylorectomy of extirpating the pylorus and performing gastro-enterostomy at one operation might, the author suggests, be modified by dividing the surgical treatment, and to establish, in the first place, an artificial opening between the stomach and the small intestine. In a starved and emaciated patient the short and relatively simple operation of gastro-enterostomy is followed by very great improvement in the general condition, and the risks of the subsequent pylorectomy are much reduced. Moreover, the later operation may be rendered much easier by the absorption during the interval between the two sittings of inflammatory thickening and adhesions. While recognizing the very unfavourable prognosis of secondary nephrectomy in the treatment of renal suppuration, the author is of opinion that if the surgeon makes in the first stage an ample incision for drainage, it will be noted that after an interval of a week the condition of sepsis will have become less severe and the mass of diseased structures much reduced in size, so that the kidney may then be quickly and easily removed. The list of operations which are here referred to as suitable for division into two or more stages includes extirpation of cancer of the rectum and suprapubic prostatectomy, the actual removal of the disease being preceded in the former instance by colostomy, and in the latter by high cystostomy.

176. Cystoscopic Diagnosis in Boys.

ERNEST PORTNER (*Wien. med. Klin.*, January 9th, 1910) shows the advantages of the use of the cystoscope in boys suffering from tuberculosis of the kidney, a disease in which the most severe damage may be done to the kidney before any change can be demonstrated by palpation. After many years' experience on the patients at the Kaiser u. Kaiserin Friedrich's children's hospital, the author finds that the cystoscope can be used without danger for boys from 2 years old and upwards, while catheterization of the ureters can be employed from 8 years old, provided that an instrument of sufficiently small calibre is chosen. Deep narcosis is necessary, because the corneal reflex disappears before the bladder reflex. Where catheterization of the ureters is impossible the indigo-carmine test is available; in this test 20 c.cm. of a 0.4 per cent. solution is injected into the gluteal muscles, and the rule is that with healthy kidneys the urine in from eight to ten minutes begins to have a blue colour as it is seen, by means of the cystoscope, to emerge from both ureters, but if one kidney is diseased the appearance of the blue-stained urine is delayed on the affected side. In the first illustrative case given the patient was a boy 10 years of age who had been operated upon as a case of lithiasis because of the presence of the symptoms of frequency of micturition, pain in the bladder, and pyuria: the only result of the operation had been the formation of a fistula which had been slow to heal. Later on, animal experiment had shown that the affection was tuberculous. On cystoscopic examination the openings of the ureters were seen to be normal, but small specks of pus appeared to be emerging now and then from the left ureter. On using the indigo-carmine test a blue discoloration began to be evident in the urine of the right side after twelve minutes, but on the left side only after twenty-one minutes. It was therefore clear that there was a severe injury of the left kidney, with a probability that the right kidney was healthy—a view which was confirmed by the absence of signs of generalized illness. The indication was therefore to perform nephrectomy on the left side, but operation was refused by the patient's friends, and a tuberculin cure was undertaken. The author finds a tuberculin cure very useful in treating a tuberculosis of the bladder, if present after nephrectomy has been performed, but only in exceptional cases would he consent to postpone operation in order to try the effect of tuberculin: in this case, as the bladder was not infected, there was no danger of an ascending infection attacking the sound kidney. The danger of delayed treatment was shown by the case of a child of 4 years who had had symptoms for months, and in whom, when examined by the cystoscope, the mouth of one ureter was found to be severely affected, while small spots of pus appeared near the mouth of the other ureter, and a blue stain of the urine did not become apparent on either side within twenty-six minutes after the injection of the indigo-carmine solution. In this case it was not possible to exclude disease of the second kidney, and though the child's life was prolonged by operation on the most severely affected kidney, and the most pressing symptoms were relieved, permanent recovery could scarcely be looked for. In a third case the mucous membrane round the openings of both ureters was affected, and in the presence of severe tuberculous disease of both kidneys, operation was contraindicated. The author's impression is that tuberculosis of the urinary system tends to appear in a more malignant form in children than in adults, and to be more often a generalized disease. Early diagnosis and early surgical treatment is as important in children as in adults, and cystoscopy combined with the indigo-carmine test provides a method of making a precise diagnosis with little possibility of error.

177. Bullet Loose in the Spinal Canal.

TUFFIER (*Gaz. hebd. des sci. méd. de Bordeaux*, November 7th, 1909) relates a case in which a woman aged 56 received a bullet in the abdomen and complained, several weeks later, of severe pain in the left thigh. By means of the *x* rays the bullet was located in the spinal canal, but the first operation failed to extract it. A subsequent examination by means of the rays showed the missile to be movable in the cerebro-spinal fluid, chiefly in the neighbourhood of the first lumbar vertebra. It was extracted during a second operation, with the patient in a kneeling position, and all the nervous symptoms disappeared.

OBSTETRICS.

178. Thrombophilia in Lying-in Women.

IN pointing out that the modern tendency of obstetricians and gynaecologists in wishing to get their patients up within a day or two of confinement or operation is directed toward the prevention of thrombosis and embolus, F. Mendel (*Muench. med. Woch.*, October 19th, 1909) regards it of paramount importance to inquire into the causes of the clotting of blood within living vessels. After briefly reviewing the doctrines of the clotting of blood generally, he finds that a slowing or even arrest of the circulation can only play a contributory part in the production of a thrombus, and that the chief cause of the clotting is to be sought in a defect of the endothelium of the vessels. The fact of getting a patient out of bed might be supposed to favour an acceleration of the circulation, but inasmuch as muscular

contraction does not come into effect, the reverse probably holds good, and a slowing of the blood stream results in reply to the effect of gravity. He is therefore satisfied that neither in the prone position in bed nor in early getting up does the cause of thrombosis lie. Now Fraenkel has stated that there is reason to associate the production of thrombosis with septic infective processes, and he has been able to support this view with direct observations. Mendel defends this view. Schrötter believed that apart from the damaging effect which septic processes exercise on the vein wall, another cause has to be taken into account. This he spoke of as a predisposing cause. Mendel believes that the tendency to thrombosis has received much too little attention in the past. He suggests the word "thrombophilia" for this tendency. A careful study of the clinical histories of cases shows that there is a type of person who is attacked with thrombosis of one or other vein, as a result usually of infection. In illustration and confirmation of this view he gives the details of a case in which venous thrombosis followed a confinement in which there was signs of infection (fever, etc.), and during the course of a number of years thrombosis developed whenever an infection took place, while no thrombosis followed an operation for gall stones which was not complicated by any infective process. In a second case the same tendency to thrombosis was well marked. The patient was a man aged 40 years. After an attack of influenza he suffered from a painful affection in the leg, which got better after several weeks. Three years later, as a result of a wound in the sole of the left leg, a similar cramp-like affection of the calf of the leg gave considerable trouble. This was followed by eczema, and it was then found that the veins of the leg and thigh were extensively thrombosed. Later still he had two further attacks of thrombosis after influenza, and in 1907 he was seized with a severe enteritis, which was followed by undoubted thrombosis of the mesenteric veins. He eventually recovered. Mendel does not believe that thrombophilia is a rare condition. He discusses the theoretical explanation of the process underlying this condition in connexion with the theories of the coagulation of blood. With regard to the diagnosis of thrombophilia, he states that prolonged clinical observation is required in each case. Etiologically, the condition is neither inherited nor congenitally acquired. He suggests that a single primary infection produces a sort of hypersensibility in the walls of the veins, and that subsequently the body replies to stimuli by an excessive reaction, in forming *thrombokinase* in excess. In conclusion he again refers to the practical question of the early getting up of patients after confinements or laparotomies, and states that in persons predisposed to the formation of thrombi in the veins, early getting up will not improve matters. If a thrombus already exists, movement may form a danger to life from embolus.

GYNAECOLOGY.

179. Uterine Haemorrhage.

IN a clinical lecture on the causes of uterine haemorrhage, Pankow points out that he is only dealing with the causes of menorrhagia, and not with bleeding from uterine cancers or benign growths (*Muench. med. Woch.*, December 28th, 1909). The causes are usually sought in conditions spoken of as chronic endometritis and chronic metritis. By chronic endometritis is understood changes in the mucous membrane of the uterus, which need not be due to an infection, which may be either of the nature of an atrophy or a hypertrophy or a hyperplasia, and which are associated with changes in the glandular or interstitial portions of the mucosa. Less clear definitions can be given with regard to the term "chronic metritis." The usual conception of this term applies to true chronic inflammations, but these do not cause profuse haemorrhage. They are mostly gonorrhoeal in nature. In order to place this subject on a sound basis, he has studied the changes found in cases of menorrhagia, in which accompanying conditions could be excluded. The selection of cases was difficult, and for this reason he sought for changes which were present both in multiparae and in nulliparae, including unmarried women, in every case of profuse menstruation, and which were always either absent or very little marked in both classes of women in whom no profuse haemorrhage occurred. First he examined the muscular wall of the uterus. Here were found changes in the muscle itself, at times of the nature of a fatty degeneration. More commonly he found increase of connective tissue. This condition, however, proved to be present chiefly in multiparae, and also in those who had never suffered from profuse haemorrhage. On the other hand, in young menorrhagic nulliparae it was absent. It was therefore not associated especially with menorrhagia. Next he turned his attention to the vessels. He describes a condition under the name of "pregnancy sclerosis," and a slighter and less pronounced form under the name of "menstruation sclerosis," both of which he differentiated from true arterio-sclerosis. Here, again, there is no causal connexion between the changes found and the haemorrhage. With regard to the endometrium, careful investigation revealed that while there was thickening of the mucous membrane in these cases, the changes were not confined to these patients, and the haemorrhages were not due to it, but actually caused the hypertrophy. Entirely negative results were met with in studying the ovaries and appendages histologically. It appeared to him to be more likely that the tendency to haemorrhage was due to an altered function of the ovaries than to any anatomical alteration. He states that there is much which supports the hypothesis that a disturbance of function of the glands of internal secretion is responsible for this condition. The relationship between the ovaries, adrenals, hypophysis, and thyroid is well recognized. Under normal conditions these glands are kept in a sort of physiological balance toward each other, and a disturbance of this balance would naturally lead to a disturbance of function of one or other of the glands. He believes that this assumption is the only one which could explain why, when the anatomical condition of the climacteric uterus is the same in two cases, in one the menstrual loss should be natural, and in the second it should be extremely profuse. The same argument applied to the condition in young girls, and in menorrhagic, amenorrhoeic, and chlorotic women.

THERAPEUTICS.

180. Treatment of Chronic Bronchitis.

BEVERLEY ROBINSON (*Amer. Journ. of Med. Sciences*, December, 1909), in discussing the treatment of chronic bronchitis, urges removal to a warm and genial climate during the bleak and unsettled time of year—if possible, before any secondary changes have arisen. In the absence of any distinct heart, lung, or kidney mischief the prognosis is good, but when the condition is complicated by secondary or intercurrent affections the most that can be done is to keep matters stationary. Good ventilation, with plenty of air and sunshine, are essential; the clothing must be suitable to the season, and not too heavy; while food should be light, simple, and nutritious, with moderation in sweets, alcohol, and tobacco. Internally, iodide of potassium or syrup of hydriodic acid are the most useful drugs, combined with Hoffman's anodyne, if there is any tendency to dyspnoea or nervous irritability, and it may be advantageous to alternate terpene hydrate with hydriodic acid. Counter-irritation of the chest with compound tincture of iodine should be continued over a long period of time. Sedatives or anodynes should be avoided if possible, and a mercurial followed by a saline once or twice a week will help to diminish cough and expectoration, at any rate for a time. Equal parts of creosote, alcohol, and spirits of chloroform inhaled through a perforated zinc inhaler are frequently of great value if persisted in for some length of time, and creosote in small doses internally is beneficial, and, if combined with whisky and glycerine, will rarely disagree with the patient. In acute attacks, with increased cough and difficult expectoration, inhalations of benzoin in hot water may be substituted for the creosote, with ipecacuanha, spirits of nitre, and mindererus internally in place of the iodides. In the opinion of the author nothing equals dry or moist inhalations of creosote for the chronic manifestations. Aix les-Bains and Homburg are the two most valuable European spas recommended, and Sharrow and Richfield on the eastern side of the United States.

181. Massive X-Ray Dosage in Skin Diseases.

TWO distinct methods are employed in radiotherapy. One of these consists in giving small and repeated doses of *x* rays; in the other, a heroic dose is given, and the number of applications is severely limited. A strong case for the latter method in the treatment of certain diseases of the skin is made out by André Broca (*Arch. d'élec. méd.*, December 10th, 1909). Although he does not favour the massive dose for skin affections comparatively benign, such as certain acnes, he believes that in rebellious dermatological conditions the hazard of a big dose, giving intense reaction, possesses great advantages. The first essential is that the practitioner shall be absolute master

of an installation of accurate and known measurement in every particular. Details of technique which may be neglected without serious result in the case of feeble and repeated doses, assume a critical importance in intensive radiotherapy. Broca's results have been obtained with a Villard tube, working at 2 milliampères, with an equivalent spark of from 6 cm. to 10 cm., and capable of giving tint B of Sabouraud and Noiré, corresponding to 5 Holzknecht, in twelve minutes, with a mean spark of 7 cm. Before coming to the indications for intensive radiotherapy, he describes his method for limiting the *x*-ray action. Vigo's plaster, although praised by many radio-therapeutists, does not ensure that there shall be no displacement during the operation, nor does it lend itself to the exact localization of an isolated lupus nodule. He uses pigments of lead, and paints around the most delicate contours of the part with ceruse or minium—preferably the latter—mixed with spirit of turpentine. After the séance the pigment can be removed by means of turpentine or ether. Not content with this protection, however, he further circumscribes the lesion with imbricated bands of Vigo's plaster. His guiding principles are, (1) never to reach the sound skin by energetic doses of non-filtered rays, and (2) never to touch a morbid tissue save by an energetic dose. In lupus he commences with a medium dose of about 8 H., limiting the exact contours of the lesion with minium. This dose, in the worse cases, is repeated once or twice at intervals of three weeks or a month, finally destroying the infiltrated tissues. The fundamental lesions—nodules in the case of lupus tuberculosus, squamous patches, more or less hypertrophic, in the case of lupus erythematosus—can then be attacked by doses of 12 to 15 H., giving rise to reactions which heal in about a week. Definite cicatrization is usually obtained in the course of two or three applications. The author states that he has seen deep nodules, perfectly isolated, give rise to no visible reaction after receiving doses of 15 H. In the case of papilloma, cure should be obtained in a single application of 12 to 15 H., according to the thickness of the lesions. In cutaneous epithelioma, also, the higher doses may be given, provided that the diseased region is carefully marked out, and that no part of the skin which is not infiltrated and congested is allowed to appear under the rays. He has given as much as 20 H. in the case of non-ulcerating tumours, and even higher doses in ulcerating ones. His idea is to strike the lesion extremely violently; little doses may have the effect of exciting the epithelioma instead of destroying it. With doses of 20 H., two applications have sufficed to bring about complete cicatrization, and with 25 to 30 H. he hopes to obtain his results with a single application. The massive doses are not free from disadvantages; occasionally an oedema may be produced, or, when the region is somewhat extensive, the reaction is sometimes accompanied by such general symptoms as lassitude, extreme fatigue and malaise. This state is probably due to the toxins in the mortified tissues, and he counsels the giving of 60 grams of lactose per day in such cases.

182. Zinc Ionization in the Treatment of Carbuncle.

LEDUC (*Arch. d'élec. méd.*, February 10th, 1910) testifies to the efficacious action of the zinc ion in the treatment of boils and carbuncles. He has treated five cases of extremely painful carbuncle in this manner, the treatment being followed in each case by the rapid disappearance of the ulcer. After applying the negative pole to the calf by means of several thicknesses of absorbent material, saturated in warm salt water and rolled around the leg, he punctured the base of the carbuncle in the neck with a tenotome, and pushed into the puncture a zinc needle in connexion with the positive pole. The intensity was gradually raised, the patients being able easily to support 30 milliampères, and this current was passed for half an hour. The pain began immediately to diminish, and had disappeared, together with the inflammation, in every case after the following day. Two of these five patients had also suffered from boils of the neck for several years previously. In treating these, he covered the nape with a compress of several thicknesses of absorbent tissue, saturated in a warm solution of sulphate of zinc (1 in 200). This was placed in communication with the positive pole, and a current of 20 milliampères was passed for thirty minutes. The little boils disappeared by the following day, and in neither case was the patient again troubled with the swellings.

183. Serum Treatment of Cancer.

EUGENE HODENPYL (*Med. Record*, February 26th, 1910) reports experiments in treating cancer with ascitic fluid. The fluid was obtained from a patient with carcinoma of the liver and other organs and marked ascites. The patient had had several operations without results, but later there was a marked improvement though the ascites remained. This was used for inoculation in 47 cases for advanced inoperable cancer with very favourable results.

PATHOLOGY.

184. Thrombus Formation.

ERICH ZURHELLE (*Wien. med. Klin.*, November 7th, 1909) has carried out an experimental investigation of the mode of formation of thrombi, the two chief points being to find out in what relation a post operative thrombus stands (1) to infection, (2) to coagulation by fibrin formation. He agrees with Ebert and Schimmelbusch that the so-called white thrombus of Zahn is formed from deposits of blood tablets from circulating blood, and that the blood tablets have no connexion with fibrin formation; on the other hand the red thrombus is formed in stagnating blood by chemical processes. Ponseuille and Helmholtz have described the causes of separation of blood platelets out of the blood stream. With a normal rate of blood flow the red corpuscles and the blood platelets are found in the central part of the blood stream, in which the flow is most rapid, while the white corpuscles are present in great numbers near the vessel wall, where the flow is less rapid. If for any reason the rate of flow is slowed, more white corpuscles pass into the outer zone, while if the rate becomes much slower but not stopped, the blood platelets fall into the outer zone. They are then in a position to adhere to any injured part of the vessel wall, whether the injury is primary or is secondary to loss of vitality due to the slow rate of flow of the blood. The relation of thrombus formation to infection is undoubted and easy enough of explanation, with a local infection and an inflammatory condition of the vessel wall. The case is quite different when there is thrombus formation at a distance from the primary area of infection. The infection theory of thrombus formation, then, rests upon (1) the course of those cases in which fever is usually present; (2) the fact that in a proportion of the cases—about 10 per cent. of them according to Lubarsch—micro-organisms have been shown to be present in the thrombi. Clinical observation has, however, shown that the rise of temperature only occurs, in a great majority of the cases, after the thrombus has been manifest for some time, and with respect to the infection of the thrombus, this may have occurred secondarily after the formation of the thrombus. The strongest experimental proof given to the infectious theory of thrombus formation was that afforded by the experiments of Fromme, who found that if silk threads —some infected and some sterile—were placed through the jugular veins of guinea-pigs, thrombi only formed with infected and not with sterile threads. The author has, however, repeated Fromme's experiments, with opposite results. He found that a typical blood platelet thrombus formed in every case, sterile or infected, and that in no case was a trace of fibrin formation to be found. Even if a sterile thread were passed through the vessel, but not left in position, a thrombus formed where the endothelium was injured. On the other hand, in cases in which the vessel was clamped on the side nearest the heart. while the thread was inserted and the clamp then removed, there was formation of fibrin, with a secondary deposit of blood platelets outside the coagulum; here the fibrin coagulation occurred in stagnant blood, and the deposit of blood platelets from the blood in motion. In another series of cases silk threads were passed along arteries; in these a thrombus formed on the side of the thread near the vessel wall, where the blood was in fact caught in a kind of pocket, but no thrombus formed on the other side. The author, therefore, concludes that slowing of the blood stream is the primary factor in the formation of a thrombus, and that changes in the vessel wall also played an important part in all his experiments. In the recently-formed thrombi no fibrin coagulation was present, and fibrin formation is not necessary to the production of a thrombus. All measures intended to reduce the coagulability of the blood are therefore of no effect in preventing thrombus formation; the only practicable proceeding is to try to prevent undue slowing of the circulation. Local infection, by its effect on the venous wall, may give rise to local formation of thrombus. But general blood infection has nothing to do with thrombus formation at a distance from the seat of primary infection, except as severe infection may lead to cardiac weakness, etc., and so indirectly to thrombus formation.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

185. Epidemic Infantile Paralysis.

J. GROBER (*Wien. med. Klin.*, November 21st, 1909) describes an epidemic of infantile paralysis which spread over the provinces of Westphalia and the Rhine in the spring of 1909. The outbreak was characterized not only by its definitely epidemic form, but by the apparent increase of virulence of the causative factor, as shown in the severe course of the cases and the appearance of new symptoms pointing to cerebral as well as spinal paralysis. The death-rate from the disease, instead of being as usual almost *nil*, rose to 15 per cent. The deaths occurred in the first stage, and never appeared to be due to primary heart failure, but more usually to respiratory failure, which was found *post mortem* to have been central in origin. The next most striking feature of the epidemic was that children of all ages from a few months to 10 years were attacked. In ordinary cases of infantile paralysis, fever and nervous symptoms are usually first observed, but in this epidemic the initial symptoms were referred especially to the intestinal tract, except in a few very quickly fatal cases marked by unconsciousness and convulsions. Another striking symptom was a one-sided facial paralysis, but whether of peripheral or central origin is undecided. A number of abortive cases occurred in which there was a short stage of infection with intestinal symptoms, but with slight if any nervous symptoms, followed by paralysis, sometimes only of single muscles, which after a few days completely disappeared. The apparent frequency of such abortive cases might be due to the specially careful observation maintained by both doctors and parents during the epidemic. Another interesting point observed with special frequency during the epidemic was the tendency for the paralysis to disappear first at the extremities of the limbs, so that, for example, the patient might become able to use his fingers freely while the rest of the arm remained powerless. Reports of autopsies, in almost all the cases known to the author, described more widespread changes than those typical of infantile paralysis. In one case a large number of myelitic areas, with the appearances of leptomeningitis, were present, not only in the spinal cord, but also in the medulla, the pons, the cerebrum, and cerebellum. The facial paralysis, the respiratory embarrassment ending fatally in the first stage, and the increased spinal and cerebral pressure all point to an affection of the brain as well as of the spinal cord. The author suggests the name of "polypoliitis (*πολιος* = grey) acuta" as a suitable description of the disease in this epidemic. A case at the author's clinic was diagnosed as epidemic cerebro-spinal meningitis, but at the autopsy there proved to be not only changes of the meninges but also clear signs of a poliomyelitis acuta of the spinal cord and brain. In the first stage of the disease the treatment should be directed to obtaining a speedy evacuation of the intestine; the diet also should be attended to. To lower the pressure spinal puncture may be employed, if necessary on several days in succession. Inunction treatment with Credé's ointment and intravenous injections of collargol are recommended, on the ground that the disease is of the nature of a general infection.

186. Syphilitic Jaundice.

TENOGLIETTO (*Rif. Med.*, November 20th, 1909) records 3 cases of simple jaundice occurring in the secondary period, and believed by him to be due to syphilis. He has read the literature of the subject, and gives a full discussion as to the various theories and opinions with reference to so-called syphilitic jaundice of the secondary period. Jaundice in the secondary period is rare as compared with the tertiary stage of syphilis, and seldom exceeds 2 per cent. as a maximum. Women are more subject to it than men, and any of those predisposing influences which are likely to induce simple jaundice may act in a similar manner here—for example, alcohol, emotions, etc. The type of jaundice in question sets in at a period from five weeks to eighteen months after the syphiloma. Usually it is not preceded by any gastric symptoms nor accompanied by fever, pruritus, or bradycardia; it sets in suddenly, and in these respects differs somewhat from ordinary catarrhal jaundice. There is not infrequently some hypertrophy of the liver and of the spleen. The duration of the jaundice varies from three weeks to three months, and the prognosis is usually good. Nothing certain is known as to the pathological anatomy, nor, indeed, as to exact pathogenesis of these cases. Many theories have been advanced, and the author discusses not a few of these. In reply to those who urge that this type of jaundice is not in any way specific, but merely a simple jaundice occurring in a syphilitic subject, he draws attention to some of the differentiating features already mentioned, and to the fact that these cases yield to antispecific treatment when they are rebellious to other non-specific remedies. The upholders of the non-specific character of the jaundice point to alcoholism, syphilophobia, mercury, etc., as sufficient causes for the jaundice without invoking any definite syphilitic agency. The author appends a large number of bibliographical references to the subject.

187. Compensatory Diarrhoea.

GEORGE M. NILES (*Med. Record*, February 19th, 1910) states that there are diarrhoeas that show no local lesions and that seem to be salutary in their effects, which he calls compensatory. These are, first, those that are concomitant with deficient or perverse catabolic processes; such occur in gout, diabetes, goître, Addison's disease, etc. Secondly, those resulting from functional or structural diseases of certain excretory organs, as in failure of renal functions and extensive burns. Thirdly, those occurring in old persons who are failing in strength, the result of physiologic decline. The diarrhoea here consists of incompletely catabolized products that need to be excreted. The author referred to certain toxic states with elimination of toxic products by the bowels, such as uraemic diarrhoea: women past the climacteric seem to need elimination of certain products, which is done by diarrhoeal discharges. Treatment of such diarrhoeas should not be directed to stopping the passages.

188. Muco-Membranous Colitis and Foreign Bodies in Intestine.

ROCHE (*Journ. des praticiens*, December 4th, 1909) reports the case of a girl aged 12, very nervous and impressionable, with a family history where nervousness was also conspicuous, the present ailment being digestive troubles of about a year's standing. She complained of a sense of weight at the stomach from one to two hours after eating, the appetite being almost *nil* and very capricious, with no regularity in meals and frequent attacks of migraine. There were also severe colicky pains and constipation for five or six days at a time, followed by a great clearance of hard faeces mixed with liquid stools, these evacuations being very painful. Physical examination revealed no abnormality in the abdominal region, liver, or kidneys, and treatment was delayed pending an examination of the next copious evacuation, which consisted of hard scybalous masses covered with glairy mucus and some membranous débris. A second stool was distinctly membranous, some of the shreds being in whitish strips and some irregular in shape; the diagnosis arrived at was muco-membranous entero-colitis, and a regimen was prescribed of regular meals of soft food and irrigating enemata of weak boric solutions. After the second enema a spontaneous evacuation contained eight jet beads, the size of a large pea, which it was subsequently ascertained had been swallowed in play eleven months previously. Another half-dozen were evacuated shortly afterwards, the irrigations were continued for a few days without further result; the patient improved rapidly in health and appetite, and in a fortnight was completely recovered. Attention is drawn to such an unusual cause of entero-colitis, and to the lengthy sojourn of the foreign bodies in the intestine.

SURGERY.

189. Treatment of Convulsions Following Orthopaedic Operations.

SCHANZ (*Centralbl. für Chir.*, No. 2, 1910) directs attention to the occasional occurrence of convulsive attacks after orthopaedic operations on children. This complication, of which 10 instances have been observed by the author, may, it is stated, follow forcible correction of deformities of the knee and hip, correction also of club foot, and very

difficult reduction of the hip. The interval between the operation and the first appearance of the epileptiform attack varies in different cases, the convulsions sometimes beginning on the first day, and, in other cases, occurring on the second or third day. The attack, according to the author's experience, never comes on immediately after the operation. Although these convulsive attacks closely resemble the ordinary epileptiform seizures of childhood, the author is convinced that they are dependent on the operation. In some cases the patient is dull and apathetic before the attack; in others the convulsions are preceded by severe headache. The beginning of the convulsive fit very often coincides with a brisk elevation of temperature, which cannot be attributed to infection. In 1 of the 10 cases observed by the author the attack of convulsions was fatal, and in another case it was followed by transient hemiplegia. The remaining patients speedily recovered and did not present any complications. The pathogeny of the cases described in this paper may, it is stated, be explained by a recent contribution by Aberle, in which it is pointed out that, as a result of the forcible entry of bone marrow into the circulation, fat embolism of the cerebral vessels is an occasional result of orthopaedic operations. In the most severe cases of fat embolism thus originated speedy death results from pulmonary disturbances, while in the milder and later forms symptoms of cerebral lesions are the prominent features. Schanz, in his concluding remarks on treatment, holds that the prognosis of fat embolism after orthopaedic operation may be much improved by the practice of injecting, at the first appearance of any serious symptoms, normal salt solution. From copious and early injections he has obtained excellent results in his own practice, as is shown by the fact that so many of his patients recovered. The injected solution acts by dilating and flushing the cerebral veins, the obstructing masses of fat being thus set free and diluted.

190. Antitetanic Serum.

Van Havre (*Journ. de Chir. et Ann. de la Soc. Belge de Chirurgie*, No. 1, 1910) publishes a case of acute traumatic tetanus which ended in death in spite of a preventive subcutaneous injection of 20 c.cm. of antitetanic serum, made three hours after the receipt of the injury. After the first appearance of the attack of tetanus the patient was treated by three further injections of serum. After an elaborate criticism of the treatment applied in this case and a review of the present knowledge of the action of tetanic toxins and antitoxins, the author concludes that the antitetanic serum, though a wonderful preventive agent when injected into the horse, has but a doubtful value, and may also prove dangerous, in man. The injection of this serum is more likely, he suggests, to do harm than good when practised as a supposed safeguard against tetanus. A full trial of both subcutaneous and intraspinal injections of the serum in cases of declared tetanus in man have, it is held, no value. In the present state of our knowledge of tetanic infection and its treatment by injection of serum, the term "curative serotherapy" ought, in the author's opinion, to be rejected. He adds that chloral and inhalations of chloroform have a real palliative value by the relief afforded to the suffering of the patient. The author proposes to test by laboratory research the value of other methods of dealing with acute tetanus that have recently been suggested, the most promising of these being the intravenous injections of antitetanic serum and of collargol, intraspinal injection of sulphate of magnesia, and intracerebral and intracarotid injections of serum.

191. Suprapubic Prostatectomies.

Chetwood (*Amer. Journ. of Med. Sciences*, January, 1910) reports the experience gained in 6 cases of suprapubic prostatectomy, 5 of which were operated upon within the last six months. The patients ranged in age from 60 to 75, and the duration of symptoms varied from one to twenty years. Complete retention was present in 3 of the cases, while in the remainder micturition was frequent and painful with from 4 oz. to 12 oz. of residual urine. Pain, varying in degree, was present in all, and with one exception the urine showed bacterial infection, in 3 being ammoniacal. The prostates varied in size from a slight median enlargement to five times the normal, and 1 case was complicated by stone, another by glycosuria, another by carcinoma, and a fourth by extreme obesity. In 1 of the cases the suprapubic operation was secondary to a previous perineal prostatectomy, but in the other 5 it was primary. In 1 case, presenting obesity, foul urine, and considerable prostatic congestion, the operation was divided into two steps with a ten days' interval, and the results in all have been most satisfactory, voluntary micturition returning with frequency diminished from a minimum of two hours to a maximum of six hours. Swelling of the testicle followed in 3 of the cases, but in all of these there was a history of previous testicular trouble. The operative technique was the same in all cases, special attention being paid to details facilitating speed, shortening duration, and bladder drainage during convalescence. For the first twenty-four to forty-eight hours after operation continuous irrigation was carried out by means of a double tube to prevent blood clotting inside the bladder. By this method a smaller tube ($\frac{3}{8}$ to $\frac{5}{5}$ in.) can be used than the large one advocated by Freyer, thus allowing room for two or three stitches to partially close up the bladder wound and so shorten convalescence. An indwelling catheter in the urethra also facilitates irrigation, tends to smooth the newly formed posterior urethra, and is *in situ* when the bladder tube comes to be removed, thus avoiding any liability of bruising by having to be inserted later. Irrigation was automatically performed by means of an irrigator jar emptying slowly into a tipcup, the overflowing of which at regular intervals into a funnel provided intermittent siphonage of the bladder. After removal of the bladder tube the wound is strapped over tightly to promote rapid healing, the catheter being kept in the urethra for a week longer, by which time voluntary urination occurs.

OBSTETRICS.

192. Eclampsia.

P. Baumm (*Wien. med. Klin.*, October 17th, 1909) discusses the pathogenesis and treatment of eclampsia. The lesions which are found after death to characterize cases of eclampsia are well known to resemble those found after death due to poisoning; and the view that eclampsia is caused by a poison circulating in the blood is the one most commonly accepted at the present time. Those who support the theory of a poison fall into five principal groups, according as they find that eclampsia is due to: (1) Retention of some constituent of the urine; (2) infection; (3) auto-intoxication, with intermediate products of metabolism; (4) to poisoning by fetal products; (5) by placental products. The first four of these theories are considered and negatived in the article under consideration. The symptoms of eclampsia are similar to those of uraemia, but the *post-mortem* findings are dissimilar, and in one case of eclampsia reported by Schmorl no kidney change could be detected. Moreover, Zangenmeister's careful investigations of the constitution of the blood and the urine in eclampsia showed that the kidney anomaly was not to be looked upon as the cause but as the accompaniment of eclampsia. (1) The theory that eclampsia is due to pressure on the ureters causing retention of urine and back pressure on the kidneys, with retention of urinary constituents in the blood, is not an adequate explanation, since such a dilatation has not been shown to exist in more than one-fourth or one-fifth of the cases, nor could it account for cases occurring late in the puerperium. (2) The infectious nature of eclampsia is not accepted, since all the discoveries of the eclampsia bacillus have been without foundation. (3) Against the view of poisoning by products of metabolism are Schumacher's demonstration that the urine of an eclamptic patient and that of Chambrelent that the serum are not more poisonous than the urine and the serum respectively of a healthy person. (4) The theory of poisoning by fetal products does not explain why eclampsia so often fails to appear in cases in which there is disease of heart and kidney, why it is so much more common in primiparae than in a multiparae, why it may occur when the fetus has long been dead, and in cases of uterine mole. (5) The theory of poisoning by placental products rests in part upon the facts discovered by Schmorl that syncytium cells are found in the most different organs in eclamptics, and that, according to Veit, not only syncytium cells but placental villi may be carried on the blood stream, not only in eclamptics, but in any pregnancy. A great deal of experimental work has been done with a view to substantiating this theory. The treatment recommended is based, therefore, upon the following consideration—that the disease is most probably caused by a poison, which originates in the placenta, and for some unknown reason passes into the maternal circulation. The poison causes thrombosis, and perhaps acts directly as an organic poison on the maternal organism. It is almost certainly a nerve poison, which acts on the brain centres; it also has an action upon the circulatory system by causing cramp of the vaso-constrictors, which, amongst other things, results in deficient blood supply for the kidneys, with the known anatomical and functional kidney lesions. The indications for treatment are: (1) To bring about delivery

soon as possible, and so get rid of the cause of the chief. Statistics show the wisdom of this course. us, Seitz shows that the mortality after early delivery nly 6.5 per cent., after later delivery 17.2 per cent., and er expectant treatment 28.6 per cent. (2) To eliminate poison already accumulated in the body by means ecially of the kidneys, lungs, and skin. The diuretics, ich have an irritant action upon the kidney are not nissible, and the only ones which can be used are retics such as caffeine, digitalis, etc., which raise the od pressure. Diaphoresis is to be made use of. usions of saline solution by mouth, per os, or subaneously, should be tried, since they are harmless, even nough it is not yet proved that they have the intended ct. Decapsulation of the kidney is only indicated if resis has diminished to a threatening degree and not be increased by more simple means; its usefulness st obviously be limited to the kidney—lesions in other ans may be sufficiently severe to cause death, in spite successful decapsulation. (3) Neutralization of the son—the use of hirudin to neutralize the tendency to ck coagulation of the blood; the administration of alis and oxygen inhalations. (4) Treatment of the ivulsions. The author looks upon chloroform and rphine as dangerous, but chloral hydrate given per tum as harmless, though of doubtful utility. (5) Attenn to the heart and breathing. Baumm has never made of venesection. In a series of cases which he treated hout drugs, except caffeine and digitalis, and with hot ks and infusions of salt solution, the results were, haps accidentally, particularly good, and he arrived the conclusion that drugs, except those which cause resis, are useless. He has performed decapsulation of kidney in four cases, with three deaths. One of these es was, however, complicated by severe kidney disease, l in all three of the fatal cases there was an immediate provement in the kidney function after the operation. one case there was improvement of all the symptoms two days, and the patient regained full consciousness l was thought to be recovering.

GYNAECOLOGY.

93. Pelvic Haematocele and Haemorrhages Independent of Ectopic Pregnancy.

RTANSON (*Thèse de Lyon*, July, 1909) has collected cases of this condition, so important both for medical d for medico-legal reasons, adding cases reported since Rouville's series, Stein's monograph on fatal haemorge from uterine fibroids were published, and Jayle's nograph on haematocele caused by the rupture of ematic cysts of the ovary. Tartanson includes twelve amples of haemorrhage from lesions of the ovary, exding big cysts, as well as ovarian gestation. One case s under his own observation; the patient was a single man, aged 30, apparently a virgin. She was engaged be married, and, had sudden death occurred, the quesn of pregnancy might have come before a court of law. e declared that she had been perfectly regular. A lent attack of abdominal pain set in one night a fortght after the last period, coming on in spasms, without miting or signs of haemorrhage. She was sent into hosal, when it was noted that the abdomen was distended d a firm tumour occupied the hypogastrium. Tenderss was marked, and the patient felt much pain without pearing anaemic. A uterine fibroid was definable, but ughy swelling was detected in the vaginal fornices and ctuation in Douglas's pouch. Albertin operated, and ind a large collection of blood behind the omentum and erus. The blood did not proceed from the omentum, ich was infiltrated with clot, nor from the uterus, which re a small fibromyoma. It was traced to a haematic st of the right ovary. The left was the seat of a similar st, as big as a small Tangerine orange, thin-walled, but ruptured; it contained almost pure blood. The cyst in e right ovary had ruptured, and the haemorrhage had oceeded from it. The ovaries were examined, and a ries of sections of both cyst walls prepared. No trace of y products of conception could be found; not a single orionic villus. The uterus, bearing a fibroid as big a fetal head, was removed with the appendages, and nvalescence was uncomplicated.

91. Urethral Haemorrhoids or Varices.

ORESTIN (*Bull. de la Soc. Anat. de Paris*, November, 1909) lates how Richet used to teach that the varices in the male urethra and meatus should be classed as haemorids. They are liable to the same changes as are so frequently observed in rectal piles. The mucosa bears abundant venules, which tend for various reasons to become varicose, and may prolapse, inflame, or get plugged. Yet they do not seem to set up nearly such pain or discomfort as are seldom absent from piles. A typical case is related by Morestin. A married woman aged 33 applied to him for relief on account of dysuria, which had lasted for over a week; there was but a little pain, and the direct reason which induced her to seek medical advice was the appearance of drops of blood on the linen and the presence of a swelling in the privates. Morestin examined the patient, and discovered a characteristic purple mass protruding beyond the labia minora, and occupying the site of the meatus, which was represented by a dimple in the middle. The mass was irreducible, inflamed, and sloughing at several points. No adjacent part showed varices, and there was no disease of the vagina, upper genital tract, anus, or rectum. Morestin kept the patient at rest for about a week. Some sloughy tissue separated, yet the mass remained irreducible and hardly diminished in size. He therefore performed a Whitehead's operation on the urethral haemorrhoids, uniting the urethral mucosa to the mucous membrane outside the meatus bit by bit as he resected the varicose mass. When healed, the parts around the seat of operation looked perfectly normal. Under the microscope the mass was found to consist of dilated and thrombosed veins covered with the urethral mucosa, oedematous and ulcerated.

THERAPEUTICS.

195. Amenyl.

FREUND AND E. FALK (*Therap. Monats.*, November, 1909) have written articles descriptive of amenyl, a new emmenagogue. The article by Freund describes especially the chemical peculiarities of the drug, and that by Falk its pharmacological action. Amenyl is prepared from hydrastine, and is a methyl hydrastimide. Thirteen years ago Falk had worked with the allied derivative methyl hydrastimide, but his results had not been uniform. The toxic effects of methyl hydrastimide even in small doses upon cold-blooded animals at that time prevented his making trial of it in practice, but later he came to the conclusion that the toxic action on cold-blooded animals would correspond to a greater therapeutic action on men; and, after testing on himself the harmlessness of the preparation, he began to make cautious use of it for his patients. In cold-blooded animals in toxic doses amenyl causes first paralysis, and, later, a convulsive condition of the muscles. In warm-blooded animals, also, in toxic doses amenyl may cause paralysis accompanied by dilatation of the vessels and a consequent lowering of blood pressure; but, except in fatal doses, it has no material effect upon the heart. As a therapeutic agent it owes its effect to the dilatation of the vessels which it induces. The condition of the circulation in the pelvis depends to so great an extent upon the state of the lower bowel, that effective treatment of constipation is necessary for the success of the amenyl treatment. Falk, therefore, looks upon only those cases as suitable for the treatment in whom a preliminary treatment for at least eight days with aloes, or aloes and iron, has given no result, and even then, if necessary, gives amenyl in combination with aloes. He has made use of it in 48 cases of amenorrhoea, in 19 of them (that is, in 40 per cent.) with success. Some of the successful cases had previously been treated for months by other methods without success. It cannot be said that a drug which acts as amenyl is supposed to do by causing a dilatation of the vessels and a consequent congestion of the genital organs, is absolutely free from risk of inducing a miscarriage, if given by mistake in pregnancy. The risk is, however, very small with the dose recommended, and the author has found that amenyl given during a miscarriage does not cause regular contraction of the uterus, and given as a preliminary measure does not itself induce a miscarriage, although it did repeatedly cause some feeble pains, and in one case a small uterine haemorrhage. The possibility of pregnancy does, however, contraindicate its use. Given in cases of uncompensated heart disease, amenyl was found to be altogether harmless. The customary dose is 0.05 gram (0.77 grains) twice a day. The results obtained were least favourable in cases of abnormalities of the uterus or ovaries, whether of maldevelopment, atrophy of the uterus after puerperal fever, severe metritis, etc. No result was obtained in cases of premature climacteric. The treatment was successful in 3 out of 7 cases depending on inflammatory processes outside the uterus; in one of

these cases menstruation had been in abeyance for eleven months. The results were better in cases in which amenorrhoea depended on some constitutional affection; 7 out of 13 such cases were treated successfully, the unsuccessful cases including 2 of high grade anaemia, 2 of advanced phthisis, and 2 of infantilismus. The most favourable results of all (8 out of 12 cases) were obtained in cases of purely functional amenorrhoea, usually in young girls. No side-effects were observed, except that one patient, who continued to take amenyl after menstruation had begun, complained of headache and feeling of distress; this patient was, however, subject to headache. Falk suggests that amenyl should also prove useful in cases of arteriosclerosis with high blood pressure and pulse tension.

196. The Action of Radium Emanation on Man.

LÖWENTHAL (*Berl. klin. Woch.*, February 14th, 1910) claims that there is a definite reaction in rheumatic processes which may or may not be connected with the cure of the condition; that the emanation is chiefly absorbed through the respiratory passages; that emanation is of practical value in the treatment of chronic inflammatory processes and residues of the same; and that in therapeutic doses it is quite harmless. From his earlier publications, and from those of other observers, he claims that in order to subject the body to the permanent action of radium emanation it is necessary to apply the source of emanation several times a day, since he has shown that the body gets rid of all traces through the urine and expired air within three or four hours, and, further, that since the greater part of the emanation is taken up by the lungs, it is necessary so to construct the baths that the nose lies within the space of the bath itself, and that violent ventilation should be avoided, so that as much emanation may be absorbed as possible. He now publishes the results of some newer experimental results. These experiments aimed at the solution of the problem of how the emanation acts. In the first place, he found that radium emanation is capable of activizing body ferments. The proof of this was furnished by experiments with various body tissues, collected in such a manner to exclude all invasion with bacteria. These tissues were treated with radium emanation, and it was shown that autolysis was definitely delayed. He was also able to show that emanation influenced diastatic action, first by inhibiting it, and after about the fourth day by accelerating it. On the other hand, his experiments show that radium emanation does not affect bactericidal, antitoxic, and other biological actions. The action on the ferments would mean that the absorbing power of the body would be increased by emanation, and in this way the beneficial action on inflammatory processes may be explained. It is an old experience that mineral waters which have been bottled and exported do not act well on gouty and similar processes, while the same waters exercise a highly beneficial influence when fresh. This would suggest that something is lost in the bottling or standing. He believes that the emanation is lost. In order to strengthen this contention he discusses some experiments of Gudzent, who showed that uric acid could only exist in the blood as the monosodium urate. This substance exists in two isomeric forms: the one of which is soluble, but little stabile (lactam urate); while the second is stabile, but little soluble (lactim urate). The latter is present, according to Gudzent's analyses, in the blood of gouty persons. He further found that radium emanation is capable of preventing the transition of the less stable to the more stable form. Others have also shown that radium is capable of preventing the over-saturation and consequent deposition of urates in the blood. Löwenthal, therefore, comes to the conclusion that specific urate dissolving powers can be found in mineral waters. He questions whether some action may not be present as well by means of which ferments which form and destroy uric acid could be activized by radium. It can be shown that by drinking the radium-containing waters of Baden-Baden the excretion of urea is increased by 34 per cent., while that of urates is increased by 14 per cent., as compared to the excretion when the person is drinking the same quantity of ordinary water warmed to the same temperature. Lastly, he has studied the question of which rays act in producing the effects dealt with. Emanation practically only radiates alpha rays which have but little penetrating power, and which are absorbed freely by air. Having studied this point with the assistance of a sample of polonium, which radiates pure alpha rays, he was able to come to the conclusion that alpha rays, as well as the beta and gamma rays, exercise the curative ferment activizing effect in man. He explains late action on the ground of the alpha rays having this power.

PATHOLOGY.

197. Pyocyanase.

F. OTT (*Zentralbl. f. die gesamt. Therap.*, October, 190 passes in review the literature on the subject of "py cyanase," the bacteriolytic enzyme formed in *pyocyane* cultures. Pyocyanase can be obtained in the form of sterile concentrated solution if a three weeks old cultur is filtered through a Berkefeld filter and concentrated *vacuo* to a tenth of its original volume. Emmerich, wh has worked with Löwe, has shown that pyocyanase ha the power of killing and dissolving in a short time not on the cells of the *pyocyaneus* bacilli, but also the diphtheri cholera, typhoid, plague, and anthrax bacilli, and strept cocci, staphylococci, and gonococci. On the other han tubercle bacilli, which possess a membrane rich in fat an cellulose, and many saprophytes are not affected by i The action of pyocyanase on the diphtheria bacillus wa tested by adding to 1 c.cm. of pyocyanase solution and 1 c.cn of NaCl solution 5 drops of a twenty-four hour diphtheri bacillus culture in Loeffler's serum. It was found tha in one instance 395,000,000 bacilli present at the outse were all destroyed in three hours, in another instanc 992,000,000 bacilli were reduced to 1,200 in three hours an to zero in eight hours, and in a third 1,140,000,000 wer reduced to 9,500 in three hours and to zero in eight hours Control experiments showed the destruction of the bacil to have been due to the pyocyanase solution. Emmeric and Löwe also claim to have proved that pyocyanase ha the property of "binding" and neutralizing diphtheri toxin. Clinically in diphtheria, according to these author the properties of pyocyanase are: (1) To diminish th number of Loeffler's bacilli both in the membranes and o the surface of the mucous membrane; (2) to hinder th growth of the bacilli; (3) to "bind" the diphtheria toxin (4) to dissolve to some extent the membrane; (5) to hinde the growth of and to destroy streptococci and staphylococci (6) to act specifically in bringing about regeneration of th tissues. Emmerich reported the case of a man 60 year of age suffering from diabetes, who, at his own reques was treated with pyocyanase for a severe form of mixe infection of the throat; the patient's grandchild had jus recovered from diphtheria. No serum was used, but onl the pyocyanase spray in doses of 3 to 4 c.cm. three to fou times a day. On the third day the membrane disappeare and recovery quickly followed. Emmerich and Löw afterwards treated one set of patients with pyocyanase alon and another set with pyocyanase combined with sma doses of serum. All the cases recovered, including two c laryngeal diphtheria with suffocative symptoms, but th course of the disease was more severe than under adequat serum treatment, and sequelae more commonly occurre Emmerich finds pyocyanase excellent in severe case of septic diphtheria, but other authors do not altogethe agree with this result, and Boltenstern's conclusion is tha pyocyanase is of real use in the treatment of diphtheria case in which there is mixed infection or delayed recovery, pr vided that it is given in combination with serum trea ment, but that it is not a substitute for the serum trea ment. Scharff finds that treatment by pyocyanase preferable to that by gargles; his report on the loc action of pyocyanase is altogether a favourable on Boltenstern again reports that the general opinion is tha the length of the disease is considerably shortened by th combined pyocyanase-serum treatment, and the gener condition of the patient is strikingly improved. Cases a also given which go to show that even when tracheotom or intubation has had to be performed pyocyanase still effective upon the local condition. The treatment is ver suitable for cases of chronic diphtheria of the nose throat. On the whole, the death-rate from diphtheria diminished by the combined treatment. The opinio seems to be (apart from that of Emmerich and Löwe) tha pyocyanase has not a "binding" action on the diphtheri toxin, nor does it confer immunity against relapse. record is given in the article of the use of pyocyanase i diseases other than diphtheria. Pyocyanase is usuall applied to the throat or nose by means of a spray—eithe Escherich's or Lingner's. The more applications mad during the first two days of a diphtheria attack the bett is the result. The author recommends that in very seve cases the doctor should make three visits a day, with tw applications of the spray at each. Emmerich sugges that in treating children the dose of pyocyanase shou be given in four distinct applications during each visi The customary dose is 3 or 4 c.cm. heated to 40° (104° F.). When pyocyanase has been accidental swallowed no bad effect has been observed. Whe tracheotomy has been performed inhalations of pyocyana are substituted for the spray.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

8. Hereditary Tetany.

ıY about ten examples of this rare condition have been ɔrded; a new case is contributed by O. Ascenzi (*Riv. rim. di Freniatria*, Rome, 1909, xxxv, p. 40). In most ances the disease has been hereditary; in a few it has ı been familial. The patient, a washerwoman, aged with no family history of importance, had had febrile ıcks with tetany from infancy till she was 12 or 15; at he married, and at 33, after the birth of her second d, the attacks of tetany returned in her hands and ıs, and returned annually for three or four months—uary to April. The attacks were aggravated by her ɔloyment, which also produced pruritus and formication he forearms; they were not influenced by menstruation, grew so much worse while she was suckling her third d that she had to wean it. In the attack the hand umed the typical obstetric position, and there was nful paraesthesia in the hands and forearms with sms; occasionally spasms occurred in the feet also. netimes oesophageal spasms, vertigo, squint, aphonia, ıpnoea, or phosphenes were noted; fever, gastro-estinal upsets, skin eruptions or sweatings, disturbances the bladder, never occurred. The spasms would last ɔ to three minutes, recurring for four to five hours, ially in the mornings. The right hand was more erely affected than the left; the spasms were lessened movement and massage, which increased the pain, and attacks were shortened by immersion in hot water. ısciousness was never lost. From May to December the ient's health was good. On examination, in February, patient's reflexes were normal, as were the pupils and sation to touch, heat, pain, and vibration, and the cial senses. A light blow in front of the ear caused a con-ction of the facial muscles, but ceased to do so after a few ɔetitions. The signs of Erb, Chvostek (junior and senior), d Trousseau were all present, but were absent when the tient was examined in December in good health. Of r four children, the first, aged 12, developed slowly, but now normal; the second died at 16 months in a typical ıtus epilepticus; the third, aged 8, developed slowly, d had laryngospasm and squints; the fourth died of ıany at 3 after several weeks' illness. A close association tween tetany and epilepsy has often been noted before, rticularly in goître or after removal of the thyroid, both man and animals. The thyroid gland appeared normal the author's patient and in her two living children. ansmission of this hereditary tetany appears to be ways through the mother; it is probably of toxic origin. ıe electric excitability (both faradic and galvanic) of the ıscles of Ascenzi's patient was increased during the currence of the spasms, and was higher on the more verely affected side. When she was well it was normal, d equal on the two sides. The author quotes the erature, and gives brief accounts of the cases already corded elsewhere.

99. Bilateral Traumatic Pleurisy: Haematoma of the Pleura.

ıAEMORRHAGIC pleurisy is usually malignant or tuber-lous. A non-tuberculous primary variety has been scribed by French writers as simple haematoma of the eura. It is exceedingly rare, and many authorities ɔubt its existence. The following case, according to ɔger Dufour (*Rev. méd. de la Suisse rom.*, September 20th, 09), is an undoubted example. The process is a haemor-agic pachypleuritis and comparable to pachymeningitis. man, aged 28, was admitted to hospital on September th, 1908. He had always been robust, having performed s military service in France, and was of healthy ıarentage. On August 7th he fell down a cellar, a distance about 13 ft., and struck his right side on a cask at the ɔttom. Though badly bruised, especially on the right de of the thorax, the elbows, and knees, he immediately ɔsumed his work. On the third day the pain in the right de was severe and he consulted a practitioner, who ressed his excoriations and advised cessation of work, ut found nothing notably wrong with the general health. bout the end of August he resumed his work as a cellar-ıan, but three days later the pain in the right side ompelled him to cease. He then underwent a course of ıechano-therapeutics, and apparently improved; but on September 18th, forty days after the accident, he was attacked with a succession of rigors, cough, expectoration, and prostration, and took to his bed. On admission he was a well-built, muscular man, with dyspnoea and pyrexia (102.4° F.). There were traces of ecchymoses about the right axillary line. The signs were those of bilateral pleural effusion, which on the right side was confined to the extreme base, but on the left side reached the angle of the scapula. There was neither cough nor expectoration. The urine was normal. The small effusion on the right side persisted for months; it was a clear, yellow liquid, containing polynuclear cells, and, later, chiefly lymphocytes. The effusion on the left side was remarkable for the stages through which it passed. At the end of September dullness extended above the angle of the scapula, and Traube's space, previously resonant, became dull. The heart was slightly displaced to the right. During October the general condition improved and the temperature became normal, but it was not until the end of November that the fluid showed signs of absorption. Early in November great retraction of the left side of the thorax occurred, and reached its maximum in December. The effusion was at first sero-fibrinous, and resembled that on the right side. It contained lymphocytes. Towards the end of September it contained but few formed elements. During October the effusion was indistinguishable—apart from its etiology—from that of common pleurisy. On November 21st, for the first time, half a litre of fluid was drawn off. It was typically chyliform, the milky aspect being due to fatty degeneration. The costal retraction and the presence of adhesions seemed to indicate progressive absorption of the fluid. But, on the contrary, it persisted as abundantly as ever. During January, 1909, several exploratory punctures withdrew a haemorrhagic fluid. On January 30th there were 800,000 red corpuscles in each cubic centimetre of fluid, with extremely few lymphocytes. The fluid was incoagulable. If left to stand for several weeks it behaved exactly like defibrinated blood, the red corpuscles being deposited in a thick layer. It had considerable haemolytic power, and the liquid after centrifugalization retained a brownish tint, and gave the guaiac reaction for haemoglobin. About the same time the small effusion on the right side became feebly haemorrhagic. The liquid, unlike that on the left, became completely clear on centrifugalization, and no longer gave the guaiac reaction. This haemorrhagic character was on the right side temporary, and towards the end of March the fluid had regained its clear yellow colour. During March the fluid on the left side became brownish, and resembled extract of liquorice. This was evidently due to changes in the blood pigment. The red corpuscles were deformed and broken up, and did not exceed 400,000 in the cubic centimetre. Although a quantity (probably about two litres) of fluid persisted, the general health was satisfactory, and there was complete apyrexia. In April, as there was no sign of absorption, about a litre of a liquid resembling Munich beer was drawn off. During May and June aspiration was repeated on three occasions with similar results, the fluid rapidly reaccumulating. During June the small effusion on the right side entirely disappeared, and during July absorption proceeded on the left. On July 30th, after a stay of ten months in hospital, the man was discharged. There was great retraction of the thoracic walls on the left side, and some impaired resonance at the left base. Repeated explorations were negative as to fluid, and the general health was excellent. The writer considers the history conclusive as to the traumatic origin of the effusion on the right side. As to that on the left, it is well known that pleurisy may follow a contusion of the thorax on the opposite side (*pleurésie par contre-coup*), and though the exact date of onset cannot be determined, this etiology probably applied. The effusion caused but few symptoms until five weeks after the accident, when pyrexia and dyspnoea occurred. Stern, in his work on the traumatic origin of internal diseases, has reported several cases in which some weeks elapsed between accident and the onset of a traumatic pleurisy. A traumatic pleurisy, like that due to "chill," is most often bacillary—that is, traumatic pleurisy is most prone to occur in a tuberculous subject. But in this case the previous and family history, the absence of pyrexia during many months, and the excellent general health

rendered tuberculosis improbable. Finally, several guinea-pigs were inoculated with the pleural effusion without result, and the ophthalmo-reaction with a 1 per cent. solution of tuberculin was negative. The haemorrhagic effusion was obviously not due to cancer, nephritis, or hepatic cirrhosis. It could only be explained by haemorrhagic pachypleuritis or simple haematoma of the pleura.

SURGERY.

200. The Umbilicus in Subjects with Ascites.

MAURICE PERRIN (*Archives gén. de méd.*, February, 1910) turns attention to several reports, published within the last eight years, on spontaneous rupture of the umbilicus in patients suffering from ascites due to various causes. The accident is not frequent, considering how common the complication, distension of the umbilicus, is known to be. As the latter assertion may be challenged by those who would argue that in cases of ascites the umbilicus makes itself prominent whatever may be its condition, whilst in thousands of subjects without ascites the umbilicus is never examined, Perrin has made a series of special researches. He finds that the prevalent idea is quite correct, for in 9 out of 32 cases of ascites the umbilicus was distended more or less—very markedly in several patients, moderately in others, and so slightly in the remainder as not to be detected without careful examination. Out of 28 cases of ascites examined by Bertrand, a colleague of the author, distension of the umbilicus was present in 6. This series included two where the more serious complication, rupture of the umbilical sac, occurred. One patient was a woman aged 52. The sac was open and shrunken; erysipelas around the umbilicus set in and proved fatal. The primary disease was cirrhosis and morbus cordis. The second patient was a man, aged 51, subject to hepatic cirrhosis, apparently without cardiac disease. The umbilical sac, as big as an orange, was ruptured on the right side, but it cicatrized and the patient was afterwards tapped fifteen times, an average of 24 pints of ascitic fluid being drawn off. Perrin has studied the umbilicus in normal and ascitic subjects, and finds that at least three factors must be taken into account. In the first place the umbilical ring varies greatly in diameter. In the second place the ring is much more readily distended in some cases than in others, as its fibrous and connective tissue may be abundant and firmly welded together or may be more or less the contrary. Lastly, the obturator membrane fixed to the ring, the origin of the hernial sac, varies greatly in consistence, sometimes fibrous and at others elastic tissue prevailing, whilst sometimes the membrane is thick and sometimes it is thin. In conclusion, it is this membrane rather than the ring which is at fault when rupture of the sac occurs.

201. Foreign Body in Thigh.

G. NINNI (*Giorn. internaz. d. Sci. med.*, Naples, 1909, xxxi, p. 1038) records the case of two youths who were driving in a cart, and had a firework bomb in it. One of them dropped a lighted match on the bomb; it exploded and wounded both of them, one severely, and they were brought to hospital. The more severely injured patient had lost the fingers and thumb of his left hand, which was amputated at the wrist. He also had deep lacerated and contused wounds in the antero-internal region of both thighs and in the right shoulder, and his chest and face were extensively burnt. While the wound in the left thigh was being cleaned up, fragments of bone were felt in its depths. On extraction, this "bone" proved to be the middle finger of the left hand. In addition, a piece of palmar skin the size of a crown was extracted. The patient made a good recovery in a month. Ninni believes this case to be unique, remarking that such indirect projectiles as this have very rarely been found in lacerated wounds after explosions, and then have been derived from other victims and not from the patient himself, as in this case.

202. Chauffeur's Fracture.

WILLIAM S. THOMAS (*Med. Record*, March 12th, 1910) describes the peculiarities of chauffeur's fracture, which is becoming rather frequent, but can be avoided with care. It occurs from the crank handle revolving suddenly backward when starting the machine. The reversal comes very suddenly and with great force against the hand encircling the crank. The fracture is transverse or oblique into the wrist-joint. It may be considered and treated as a sprain for some time before the fracture is recognized. The bone is torn instead of tearing of the ligaments, when the hand is wrenched by the crank. This may be avoided by never encircling the crank handle with the thumb and fingers. It is generally curable in three weeks.

203. Treatment of Extensive Osseous Defects.

CHAPUT (*Bull. et mém. de la Soc. de Chir. de Paris*, No. 1910) discusses the relative value of the different method of repairing extensive loss of substance in bones. Th frequent failure in this surgical work is due, he points ou to the difficulty in maintaining perfect asepsis, and to th sluggishness of granulation and cicatrization of expose osseous surfaces. The different methods of treating a extensive loss of substance in a bone are: levelling of th osseous surface and removal of the walls of a cavity cutaneous autoplasty; osseous autoplasty; stopping b metallic and mineral substances. To these the autho adds a procedure of his own which he names "organi stopping," and which consists in the auto-transplanting c a mass of subcutaneous fat. This, practised in combinatio with levelling and cutaneous autoplasty, is held to be th best method of dealing with osseous defect. The author' views on this subject are summed up in the following cor clusions: (1) More or less complete levelling ought to b practised, in combination with other methods, in the treat ment of all forms of osseous cavity; (2) cutaneous auto plasty, especially when combined with organic stopping gives good results when the defective bone is situated jus below the skin; (3) osseous mobilization can seldom b practised under favourable conditions; (4) osseous trans plantation on the same subject causes mutilation, an when taken from another subject is a complicated an almost impracticable procedure. The osseous graft ma necrose, become a source of infection, and be eithe eliminated or absorbed; (5) stopping with metallic o mineral substances does not give good results when th osseous cavity is large.

OBSTETRICS.

204. Premature Delivery.

RUDAUX (*La Clinique*, October, 1909), considers that de livery is premature when the fetus is expelled at any time between the end of the sixth month and term. Though the phenomena are practically the same as the term, the labour is frequently longer, for the tissues have not the softness which is habitual at the ninth month. The danger to the mother is slight, but the prognosis where the child is concerned is not good. Malpresentations are common, and cerebral haemorrhages and obstetrical traumatism tend to occur. Further, the child has to accommodate itself to extra uterine life at a time when its organs have not sufficiently developed, and in spite of all the means at our disposal it is difficult to rear it. When a patient is threatened with a premature confinement an effort should be made to prevent or postpone the event, by ordering complete rest in bed with a subcutaneous injection of morphine, or a rectal injection containing 20 to 25 minims of laudanum. This may be repeated three times during the first twenty-four hours if no morphine has been given. On the following days the dose should not exceed 30 minims in all. If the membranes are ruptured the fetal presentation should be ascertained and corrected if necessary, careful antisepsis of the vagina and vulva performed and a sterile pad and bandage applied. Whenever premature labour is threatened preparations for the reception and restoration of the child should be kept ready, cotton-wool to wrap it in, and hot bottles to supply the needful heat. There is no advantage in attempting to retard delivery when the mother is suffering from albuminuria or eclampsia, or from repeated haemorrhages indicating detachment of the placenta.

205. The Treatment of Placenta Praevia.

J. VEIT (*Berl. klin. Woch.*, November 22nd, 1909) is of opinion that the surgical era is responsible not only for a lessening in the interest in obstetric technique but also for a falling off in the technical skill of the obstetrician. It scarcely seems worth while to learn how to perform version to-day, when the knife is in the practitioner's hand every minute. Veit considers that this is not in the interest either of the profession or of the lying-in woman. Krönig and Sellheim have suggested performing Caesarean section as a routine treatment, and according to Veit certain experienced obstetricians were polite enough to agree with these two authorities. He refuses to acknowledge Caesarean section as a means of treatment of placenta praevia, and states that he will not condescend to make any concessions out of politeness. Others may do as they like, but he is determined to let the world

know that the treatment of this condition can very well be carried out without such a severe operation. In recording his experience, he states that, as a young man, practically every woman who was found to have placenta praevia was plugged and transported into the Berlin clinic, and died there. He was still an assistant when Braxton Hicks introduced his combined version; there was no more transport, the version was performed at the patients' homes, and the majority survived. After a time it was realized that the cost in children's lives was great, and in order to improve this condition the metreurynter was introduced. The result, as far as the mother was concerned, was equally favourable, and there was a slight gain in infant life. It must, however, be remembered that the mortality among the chileren is high partly owing to the fact that in many cases the haemorrhage occurs before full time, and the infants prematurely born are not so resistant as full-time infants. Rupture of the membranes also yielded relatively good results. Veit points out that the technique is not simple in any of the manipulations. With regard to the rupture of the membranes, the pressure of the finger-nail must be exercised in such a way that not more of the placenta is detached from the uterine wall than has already been detached. The skilled obstetrician will therefore employ this method with great care, and only in cases of lateral or marginal placenta praevia. With regard to metreurynter treatment, the bag employed is either that of Champetier de Ribes or Müller. The bag must be introduced into the cavity, and it is therefore necessary to rupture the membranes first. Again, care must be taken not to separate any more placenta from the uterine wall, since this may lead to the death of the fetus, owing to a limitation of oxygen. This method is also only applicable when membranes can be felt at the side of the placenta. It has, however, an advantage over simple rupture of the membranes, in that the position of the fetus is immaterial. In the case of simple rupture of the membranes, it is necessary that the presentation be a vertex one. The head must be able to plug the bleeding surface. Turning to combined version, Veit insists on the technical difficulty of the manipulations. It is necessary to pass a finger or more into the uterine cavity without separating any placenta from the uterine wall. Air emboli may kill the patient if the hand is passed between the placenta and the uterine wall. As soon as the operator has reached the cavity of the uterus, within the membranes, a foot is seized and brought down. The leg is then left *in situ*, and no further manipulations are to be made until the child has been born as far as the umbilicus at least. The conditions for the child are not favourable, since the presentation is that of an incomplete footling. In comparing these methods with Caesarean section, Veit admits that, in the hands of a skilled surgeon, this operation need not be dangerous. But he argues very strongly that if equally good results can be obtained without recourse to an unnatural means of delivery, the practitioner is not justified in using the unnatural method. There can be no doubt that every woman would prefer delivery in the ordinary way *per vias naturales* to being cut open. When the os is rigid or cannot be dilated sufficiently to admit of immediate delivery after version, he compares the performance of anterior hysterotomy with *accouchement forcé*. He finds that the latter method is not dangerous if the tear is sutured at once, and it possesses this advantage over the former, that no preparations need be made before carrying it out. In defence of his doctrines he cites some cases which he dealt with in order to compare the results with those obtained by others. The placenta praevia cases were sent into hospital as soon as they were recognized, and in the course of four months he was able to deal with 19, including 5 of deeply-placed placentae. All the mothers survived, while 14 of the infants were born alive and discharged alive. In summing up, he gives the following directions for the treatment of placenta praevia—he assumes that a practitioner who undertakes the treatment of placenta praevia possesses the necessary skill to avoid further detachment of placenta and to apply sutures, etc.: If the child is premature or dead, combined version and waiting; if the placenta is situated low or is lateral or marginal—(*a*) in vertex presentations, rupture of the membranes; (*b*) in all other presentations, metreurynter for eight hours, then version and extraction, with subsequent suture if necessary. If there is placenta praevia centralis, either *accouchement forcé* with suture or anterior hysterotomy. In some cases it may be necessary to plug the vagina. If the practitioner does not feel capable of carrying out these manipulations, the vagina should be packed and the woman sent as quickly as possible into the nearest clinic.

206. Neuro-retinitis in Pregnancy.

VALLOIS (*Ann. de gynéc. et d'obstét.*, September, 1909) read notes of the case of a woman who in the eighth month of pregnancy suffered from distinct deterioration of vision, with symptoms of neuro-retinitis. The patient was found to be free both from neuroses and from albuminuria. Labour was induced, and the symptoms disappeared. Vallois explains the complication as an extremely localized phenomenon, indicating an autointoxication in pregnancy without albuminuria.

GYNAECOLOGY.

207. Phlegmasia Dolens and the Temperature of the Limb.

DELESTRE (*Ann. de gynéc. et d'obstét.*, January, 1910) has prepared an important clinical essay on the difference of temperature between the lower extremities in phlegmasia alba dolens. He first took the temperature of the legs in a series of healthy subjects, and found, it is needful for us to remember, a natural difference, which also varied to a certain extent day by day, but the difference never exceeded one degree Centigrade. A slight excess over one degree constant on one side for several days appears always an indication of some local morbid change. Delestre next took temperatures in cases of maternity and private patients suffering from undoubted phlegmasia alba dolens, and publishes the results with temperature charts. He found that the temperature was always higher in the affected limb, varying from one to four degrees C. Damaschino and Girardot, he admits, made out from their researches that the difference did not exceed one degree. This variation reached its maximum within a few days and continued for a long time, ending, as a rule, between the twenty-fifth and forty-fifth day, but it sometimes persisted for much longer. When equalization of the temperature of the two limbs was reached, there was often subsequent excess on the sound side for a few days. These phenomena, Delestre observed, bore no distinct relation to the familiar objective and subjective symptoms of phlegmasia dolens, as the difference of temperature was not always most marked when the affected limb was most swollen or most painful. In such cases no doubt the constitutional disturbance involved a general rise of temperature affecting the limb not affected with phlegmasia. In conclusion, Delestre took temperatures in cases of wrong or doubtful diagnosis, varicose veins or chronic articular lesions being present in all. It was found that the relative temperature of the affected and sound lower extremity did not show an excess of over one degree C. on the affected side, whilst in some cases the sound limb was the hotter. Hence degree of variation appears to be of diagnostic value, but Delestre does not hold it as a guide to treatment, implying that the patient is not necessarily fit to sit up or walk when the temperature of the swollen limb has fallen to that of its fellow.

THERAPEUTICS.

208. Cold Baths in Septicaemia.

PAUCHET (*Journ. des praticiens*, November 20th, 1909) operated on a little girl aged 5 who had been impaled on a railing, a spike having torn the recto-vaginal septum and penetrated first into the rectum and then into the abdominal cavity. After the accident the little patient suffered profoundly from shock; saline solution and antitetanic serum were injected subcutaneously. The next day, seventeen hours after the injury, with the pulse 100, the temperature 100.4°, meteorismus and vomiting of green matter, median laparotomy was performed. Above the umbilicus all was normal, but the lower part of the abdomen and the pelvis were filled with shreds of peritoneum, suspicious-looking serous fluid, and faecal matter. The rectum was found to be perforated at the level of the pouch of Douglas, and the pelvic portion of the colon was lacerated by being compressed between the spike and the promontory of the sacrum. The colon was sutured, but the rectal wound was too much contused to admit of this, and all that could be done was to ensure ano-vaginal drainage. The colon was sutured to the bladder, and an artificial anus made in the left iliac region. Forty-eight hours later right-sided enterostomy was performed, and was succeeded by collapse, the temperature rising to 104°, and the condition being that of general septic infection. Cold baths produced an immediate amelioration, the temperature remaining at 98.6°. One month later the artificial anus was

closed and the perineum and anal aperture restored; and on the evening of the operation the temperature was 105.8°, the complexion leaden, the pulse uncountable, and the general condition very serious. Cold baths, given twice, were again successful, reducing the temperature to 99°, after which convalescence progressed rapidly. The chief points of interest in this case are the lesions consequent on impalement, the beneficial result of enterostomy in paralytic peritonitis, and the advantage to be derived from cold baths.

209. The Treatment of Cancer by Cancer.

Le Bertrand (*Ann. de la Soc. de Méd. d'Anvers*, October-November-December, 1909) reports the history of a recurrent mammary carcinoma in a woman aged 45, which he treated by subcutaneous injections of an emulsion of carcinoma cells and of a glycolytic ferment. The emulsion was prepared under aseptic conditions by grinding up a carcinoma of the breast in a Borrel's mill. Treatment was begun in January, 1909, when the patient had a small fungating growth in the scar of a previous operation for removal of the breast. Minim doses of the emulsion were employed, and alternate injections of this and of the glycolytic ferment were given every four days. They were continued for six weeks, but the growth steadily increased in size. The patient then gave up treatment for two months, by which time a large cauliflower-like mass had appeared in the region of the scar, while ten nodules extended over the sternum to the right side of the chest. The daily excretion of urea, which had previously been 15 grams, had fallen to 10 grams. Treatment was recommenced and continued, with one month's intermission, until November 5th, 1909, the amount of emulsion being increased to 2 c.cm. The growth now rapidly retrogressed, the daily excretion of urea rising gradually to 35 grams. As soon as this point was reached the injections of glycolytic ferment were stopped. When treatment ceased no trace of the growth could be found.

210. Hormon in Diabetes.

Zuelzer has recently again taken up the subject of the treatment of diabetes with extracts of the pancreas, and has reported on satisfactory results. The extract is made from the pancreas of the horse or dog at the height of digestive activity (till recently the gland was further prepared by artificial hyperaemia), removal of albumen from the expressed juice by alcohol, and conservation in sodium chloride solution. The hormon, or active principle contained, is stated to be rendered less labile by such conservation. J. Forschbach (*Deut. med. Woch.*, November 25th, 1909) has experimented with this extract. In a dog which had been rendered glycosuric by extirpation of the pancreas, the absolute and relative quantity of sugar was markedly decreased by an injection of hormon, and the proportion of dextrose to nitrogen was also lowered. Twelve hours after the injection the temperature rose to 39.2° C. Other experiments yielded similar results. In all cases the dogs were ill after the injections. He then employed it in human diabetes. In one case the injection had no effect either on the sugar or on the general condition, while in a second there was a marked effect. At first there was complete suppression of the urine lasting for eight hours, then the quantity of sugar was markedly diminished for forty-eight hours, while the temperature was raised; and, as the fever disappeared, the quantity of sugar again reached its previous level. The acetone and aceto-acetic acid reactions were not influenced. The patient was acutely ill after the injection, and his condition gave rise to considerable anxiety. The febrile condition produced by hormon appears to be analogous to a bacterial infection or intoxication, and the author is inclined to regard the temporary diminution of the glycosuria as due to this fever, it being well known that certain febrile processes produce a similar effect. He therefore comes to the conclusion that hormon is too dangerous for practical employment in diabetes, and he considers that it is desirable to experiment further in order to find a better pancreatic extract, which, without exercising undesired actions, may benefit the diabetic.

211. Mogigraphia Cured by Bier's Hyperaemia.

The patient cured by A. Bucciante (*Riv. Sperim. di Freniatria*, Rome, 1909, xxxv, p. 400) was an emotional non-commissioned officer with a neurotic family history, who suffered from difficulty and rapid fatigue in writing for four months, and came up for treatment with all the signs of a classical "writer's cramp." Physical examination showed no abnormality; he was treated by placing an elastic bandage round the right arm for half an hour every morning and evening, and at the end of three weeks was cured. Reproductions of his handwriting before and after the treatment are given, and show how very satisfactory its results are. No relapse had occurred a year and a half later. The etiology of writer's cramp has always been much disputed; Duchenne believed it to be a functional affection of a centre in the central nervous system; Oppenheim states that it depends on a functional incoordination of the centres regulating the synergic movements of the muscles used in writing; d'Abundo holds it to be a psychological phenomenon. Others, such as Vigouroux, state that these professional cramps are always due to definite organic disease of the muscles, vessels, or nervous system. Bucciante concludes that the mogipraxies generally may be either (1) nervous in origin (affections of the muscles or nerves), (2) neuropsychical (mental fatigue, direct or remembered), or (3) purely psychical (emotion, hallucination, etc.). Thus they may be of (*a*) peripheral or (*b*) central origin; and cases where the origin is peripheral are likely to be benefited by Bier's treatment, which is probably worth trial in every case.

PATHOLOGY.

212. Meat Poisoning.

The bacilli responsible for cases of so-called meat poisoning have by general consent been divided into two main classes. These are (1) the *B. enteritidis* of Gaertner, and (2) the *B. paratyphus B*. Ridder, however (*Berl. klin. Woch.*, No. 50, 1909), draws attention to the fact that recent work has discovered other bacilli which cannot be placed in either of these groups, and relates a case which illustrates this fact. A man aged 40 one evening partook of some pickled and smoked pork, and next morning awoke suffering from fever, headache, and anorexia, which next day were worse and accompanied by diarrhoea. On the third day he was admitted to hospital, and there found to have a roseolous rash on the chest and abdomen, enlarged spleen, temperature of 38° C. There was a diazo-reaction in the urine. The blood did not agglutinate typhoid bacilli nor *paratyphus B*, but with *paratyphus A* there was agglutination in dilutions of 1 in 50. Blood cultures on Conradi-Drigalski medium gave a growth of bacilli which were recognized as the *Bacillus faecalis alkaligenes*. Its chief characteristics were that it did not coagulate milk, nor form gas, nor fluoresce, whilst litmus milk was strongly alkaline within twenty-four hours. The bacillus itself was a very motile rod which did not agglutinate with typhoid serum, paratyphoid A or B. The patient's serum, however, agglutinated in dilutions of 1 in 100. The patient rapidly recovered and left the hospital in sixteen days. Ridder cannot say definitely that the organism found was the cause of the illness, but its presence in the blood at the height of the disease and the agglutination reaction make it impossible to dismiss the *B. faecalis alkaligenes* as a harmless saprophyte. He suggests that we cannot yet look upon all cases of meat poisoning as being due to either Gaertner's bacillus or paratyphoid B, but that more cases (particularly the sporadic ones) should be examined bacteriologically. It is highly probable that there are many intermediate forms which are also pathogenic.

213. Extracts of Lymphatic Tissue and Experimental Tuberculosis.

Liverato (*Gazz. degli Osped.*, January 25th, 1910) finds that animals treated with extract of tuberculous lymphatic glands or with scrofulous gland tissue survive longer after tuberculous infection than control animals, the latter dying within forty days after infection, whilst the former were alive and well even four months after. Animals treated with extract of the normal lymphatic glands died, with one exception, about sixty days after infection. Those treated with tuberculous glands survived longer than those treated with strumous glands. Survival was longer in the animals treated preventively, that is, some little time before infection, and not contemporaneously with infection. In those treated with normal lymphatic gland extract, the tubercle lesions after infection were quite as well marked as in the control animals, whilst conversely these lesions were rare in the animals treated with tuberculous or strumous gland extract, and less in those treated with tuberculous than in those treated with strumous gland tissue.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

214. Periodic Vomiting in Children.

COMBY (*Journ. des praticiens*, November 17th, 1909) describes an affection observed during the second period of child life, between 18 months and 6 years of age, characterized by attacks of obstinate vomiting lasting from one day to several, and repeated with a certain degree of periodicity, although sometimes after intervals of variable length. Comby has collected statistics of 100 cases, and has found that the first months of childhood are free from attacks, and that the malady selects children with an arthritic family history. It has been observed in different members of the same family—a brother aged 9 and a sister aged 8; twin sisters of 3; two brothers of 5 and 3; three brothers; brother and sister; father and son have been among the cases cited. The exciting causes of the attack comprise cold, fatigue, emotion, and gastronomic excesses, and the children have always had a history of cerebral irritation, spasm of the glottis, or laryngismus stridulus. Digestive troubles have also had their place in the previous history, as well as adenoid growths, and finally appendicitis, the last named having been found in 40 per cent. of the cases. The vomiting has been attributed to general acidity, and in particular to the formation of diacetic acid or of acetone; but Comby regards these evidences of incomplete oxidation of fatty matters not as the agents, but as the results and the evidences of digestive toxaemia, showing itself by paroxysmal vomiting; whilst Hutinel regards the vomiting as being consequent on autointoxication of an arthritic nature. The information obtained from the few autopsies is not precise—slight lesions of the gastro-intestinal mucous membrane, slight cellular degeneration of the liver, very rarely a patch of haemorrhage in the suprarenal capsules. The attacks may come on at a time when the child seems in the most perfect health, and may occur quite suddenly at any hour of the day or night, although sometimes there has been warning in the shape of a little loss of appetite, foulness of breath or nausea. If the stomach is full, its contents are first rejected, and afterwards the vomited matters are watery, mucous, and finally bilious. Blood was noticed only three times. In 27 cases, Comby observed an odour of chloroform in the breath, suggesting acetonaemia or acetonuria. The attacks last from half a day to three or four days, the longer periods being interrupted by intervals of cessation of symptoms; but however short the attack may be, it is sufficient to cause emaciation, with sinking of the eyes and sharpening of the nose, as in cholera or meningitis. When the fit is over, however, the child is quickly himself again. Constipation was present in more than half the cases, and abdominal pain in 25; this latter symptom is important, and points to the possibility of appendicitis. The intervals between the attacks are very variable in length, from a week to six or eight months, and the prognosis is favourable, although the possibility of seriousness must not be lost sight of. The diagnosis has to distinguish it from simple indigestion, accidental poisoning, migraine, intestinal obstruction, appendicitis, and meningitis. If there is any warning beforehand, the treatment may be directed towards averting the attack by the administration of alkalis, such as large doses of bicarbonate of soda and Vichy water, so as to neutralize the general acidity. The stomach may also be washed out, and enemata of chloral and bromide may be given, or even hypodermic injections of morphine. Between the attacks the diet should be vegetarian, the skin should be kept active by baths, overwork at school must be avoided, and the little patient should live in the fresh air as much as possible.

215. Diagnosis of Diseases of the Pancreas.

CARL KLIENEBERGER (*Wien. med. Klin.*, January 16th, 1910) discusses the diagnosis of diseases of the pancreas. Clinical diagnosis of these diseases is purely functional, while our knowledge as to the internal secretion of the pancreas and the relations of the pancreas to the other organs with internal secretions is very deficient. In practice, if an abnormality of the internal secretion is suspected, the urine should be repeatedly examined for sugar to find whether intolerance of carbohydrates, especially of grape sugar, exists, and the presence of pentosuria or lipuria, should receive attention. With respect to the external secretion, it is possible to attempt to obtain the pancreatic juice directly from the stomach or duodenum, or to trace the effect on metabolism of absence of pancreatic ferments, or to examine the stools for pancreatic ferments. Of the methods of examination of comparatively pure pancreatic juice, only one is of any practical value; the method in question is based on Boldireff's observation that the introduction into the stomachs of dogs of large amounts of olive oil causes relaxation of the pylorus and passage into the stomach of bile and pancreatic juice. In clinical work, therefore, a quarter of a litre of olive oil is introduced into the patient's stomach by means of an oesophageal tube, and is afterwards removed and examined for trypsin. Various modifications of the method have been introduced, but the author finds that in any of them a positive result only is of value, and the proceeding is an inconvenient one. With the indirect method of investigation of the changes in metabolism induced by pancreatic disease the results obtained by Brugsch appear to be so far the most trustworthy; Brugsch, however, finds that the loss of fat in pure pancreatic disease varies from 50 to 60 per cent., while if icterus is present the loss varies from 80 to 90 per cent.; similarly the proteid loss apart from icterus is 21 per cent., with icterus is 33.7 per cent. It is, therefore, clear that these investigations, besides taking much time and work, are not to be relied upon unless disease of the liver and intestines can be excluded, and the author finds that the method is not altogether trustworthy. It can only be used in cases of chronic affections of the pancreas, and is not to be recommended to the general practitioner, for whom it is enough to examine for fatty stools after a special diet, to examine the stools for the remains of meat and fat, and to try the effect upon the general condition of a systematic pancreon cure. The next method considered is the test of the activity of the pancreatic ferments upon test objects taken by the patient. In Sahli's method gelatine capsules hardened by formol, and containing substances readily absorbed and traced, such as iodine, methylene blue, etc., are introduced. In order to render this method trustworthy, either control experiments should be undertaken or only a positive result of the tests be considered to be conclusive. Both this test, however, and Schmidt's test, in spite of their limitations, have a certain practical value; Ferreira's salicin test is undoubtedly less trustworthy. The last method is the examination of the stools for pancreatic ferments, and especially for trypsin. The three ways of performing the examination are those recommended by Eduard Müller, by Schlecht, and by Gross respectively. Müller's test is based on the fact that the tryptic ferment in the stools has a proteolytic action on Loeffler plates. This test is of use in finding whether trypsin ferment is present or absent from the stools, and also whether the amount of trypsin varies widely from the normal quantity, but it is not an adequate quantitative test. Schlecht's test is a modification of Sahli's test, and has the advantage of simplicity, but is found to be often untrustworthy. In the author's experience, the simplest and safest test is that of Gross, in which the power of digestion of casein possessed by a filtrate of the stool is tested; this method can be employed by the practitioner, needs the least apparatus, and is the most reliable. Cammidge's method of examination of the urine reaction is not recommended for general use, although in a laboratory it may be occasionally useful as a control in combination with other methods.

216. Inequality in the Breasts in Pulmonary Tuberculosis.

GASPERINI AND CARTOLARI (*Rif. Med.*, January 31st, 1910), following Sorgo and Suess and others, have made a series of observations with regard to the size of the breast in relation to pulmonary tubercle. It is said that the breast on the diseased side is smaller than that of the healthy side, and this diminution may even precede the pulmonary disease, and so prove an early sign. Owing to the difficulty in measuring the size of a breast by its fullness alone, the authors took as the standard of measurement the size of the areola, as measured in its vertical and horizontal diameters. The difference varied from a minimum of 2 mm. to a maximum of 9 mm. Males were excluded, and all cases where the difference might be explained by local conditions in the breast or subjacent tissues were also set

aside. The condition of inequality was christened "anisomastia," and was present in 35 cases out of 146 examined and known to be suffering from early phthisis, the smaller breast being on the diseased side, and in the case of bilateral disease on the more seriously affected side. *Per contra*, in 180 women not showing any evidence of pulmonary disease, true anisomastia was only present in 5 per cent., as against the 24 per cent. in the other group. Again, it was found that in cases where the pulmonary disease became arrested the areola on that side ceased to diminish or even became larger. The authors believe the anisomastia is not a congenital anomaly, but directly bound up with the progress of the pulmonary disease, and perhaps explicable in part by the relative immobility and partial loss of function on the diseased side, and in part by obscure changes in the trophic nerves of the breast.

SURGERY.

217. Perforated Gastric Ulcer.

STEINTHAL (*Wien. med. Klin.*, December 12th, 1909) bases an article upon the operative treatment of perforated gastric ulcer upon 15 cases which have come under his own care. Of these 15 cases, 2 were circumscribed perforations, and 1 case was not operated upon; of the remaining 12, 7 (58.33 per cent.) recovered, 5 (41.66 per cent.) died after operation. The percentage of recoveries is better if only those 10 cases are considered which came to operation within the first twelve hours; of these, 6 (60 per cent.) recovered, and 4 (40 per cent.) died. One of the patients who died suffered from chronic nephritis, and had an old apoplectic weakness of the right arm; death occurred in this case on the third day from uraemia. The second case was also abnormal, the patient dying on the seventh day as a result of profuse bleeding from the stomach, the cause of which was not made clear at the autopsy. If these two cases be excluded, it will be seen that, on the whole, the cases would justify a favourable prognosis if operation be undertaken early. Differences of opinion exist as to whether the operation be delayed until after recovery from the initial shock; in the author's opinion difficulty will not arise if the first shock, which lasts for a short time only and has been almost always recovered from before the patient comes to operation, is distinguished from the lengthened collapse which is a sign of a commencing peritonitis. With regard to the method of operating, in the author's cases the edges of the ulcers were never excised; in 6 cases the aperture was closed by suturing; gastro-enterostomia retrocolica posterior was performed in 6 cases, in 5 of them with the use of Murphy's button, and 3 out of these 5 survived. This method of treatment without excision appeared to be satisfactory in all cases. Gastro-enterostomy was reserved for those cases in which the ulcer was near the pylorus, and there seemed a danger of bringing about mechanical interference with the emptying of the stomach. With circumscribed extravasation of the gastric contents Steinthal recommends that swabs should be used for their removal, but when there is free extravasation that there should be free irrigation with warm physiological salt solution, special attention being given to the subphrenic region. With circumscribed extravasation it may be possible to completely close the abdominal wound without bad results, but it seemed safer to the author, even in such cases, to leave in a strip of iodoform gauze for drainage, and in all other cases to carry out a most careful system of drainage and tamponade, and again specially to attend to the dangerous subphrenic region. The later histories of the patients are interesting. One of those with circumscribed perforation and four with free perforation were afterwards found to be free from symptoms and able to take any food. The author's impression is that perforation cases which recover from the operation give much the same result as to permanent freedom from symptoms as do cases without perforation. A prophylactic operation would not have been possible in 5 out of the 15 cases of the series; in 4, perforation was the first symptom of gastric ulcer, and in the fifth the symptoms would not have justified operation. In a second group of cases the symptoms were only occasional, and it would have been difficult to persuade the patients to undergo a diagnostic laparotomy. In a third group, in which the patients had been under treatment for years, prophylactic operation would have been advisable. The author is of opinion that if Krönlein's rules on the surgical treatment of gastric ulcer were more generally followed many perforations would be avoided. These rules are: That operation is indicated (1) if a systematic, and, if necessary, a repeated internal treatment of gastric ulcer gives no result, or a temporary result only, and the patient's enjoyment of life or power of work is seriously impaired by symptoms such as pain and vomiting; (2) when stenosis of the pylorus, either of a severe or a slight grade, is diagnosed with certainty.

218. Von Pirquet's Reaction in Lupus.

THIS reaction has not proved very satisfactory in the diagnosis of visceral tuberculosis. G. Define (*Giorn. Internaz. d. Sci. Med.*, Naples, 1909, xxxi, p. 1061) has tried it in a number of chronic skin diseases and finds it more satisfactory. The reaction was positive in all of 50 patients with lupus; in 1 of cutaneous tuberculoma, 1 of erythema iris, 1 of psoriasis, 1 of vitiligo, and 3 out of 23 cases of syphilis. If the positive reaction is mild, it takes the form of a papule appearing in twenty-four to thirty-six hours and vanishing after ten or twelve days. When it is more marked there is oedema round the papule, at a maximum on the second or third day, and the papule disappears in fifteen or twenty days. When the reaction is severe a phlyctenule appears, rupturing in a few days and scabbing over; the last traces disappear in about a month. All these reactions appear within thirty-six hours; in a few instances Define has seen a "late reaction," a slight red papule forming after four or five days and lasting ten days or so. This he counts as a positive result. His inoculations (101 patients) produced no complications, no fever, and no discomfort beyond a slight itching in a few instances. He used "cutituberculin" from the Pasteur Institute at Lille, scarifying the skin in four places, not deeply enough to draw blood, inoculating two, and putting on a sterilized dressing. The skin was first cleaned with ether.

219. Arteriovenous Anastomosis for Gangrene.

MULLER (*Ann. of Surg.*, February, 1910) reports a case of spontaneous gangrene of the toes of the left foot in a man aged 51 years, which he treated by effecting an end-to-end anastomosis, by Carrell's method, of the femoral artery and vein at the apex of Scarpa's triangle below the origin of the profunda femoris. This operation was followed on the third day by a distinct line of demarcation. After amputation of the leg, which was long delayed by the patient's refusal, death from exhaustion occurred nine weeks from the date of the first operation. An analysis of a series of 10 cases, including that reported in the paper, has led the author to offer the following suggestions: (1) That in the early stages of arterial disease producing ulcers on the toes, erythromelalgia, extreme pain and tingling, a complete reversal of the circulation *may* relieve the conditions if other measures have been tried without any success. (2) That with gangrene of a toe established, the surgeon should wait for a line of demarcation. If the process involves several toes or tends to spread to the dorsum of the foot, an anastomosis between the femoral artery and vein with ligation of the external saphenous *will almost certainly* induce a line of demarcation in the region of the ankle. (3) That if the superficial and deep veins are also thrombosed the operation would certainly be useless.

OBSTETRICS.

220. Pregnancy after Caesarean Section: Rupture of Uterus.

RICHTER (*Zentralbl. f. Gynäk.*, No. 5, 1910) reports two instances of especially grave complications associated with rupture of a pregnant uterus previously the subject of Caesarean section. The first patient was 25 years old. In February, 1906, the conservative Caesarean operation was performed on account of contracted pelvis. There was distinct rise of temperature during convalescence. Pregnancy occurred again three years later, beginning in January, 1909. During the fourth month violent pains set in and a fistulous tract opened up in the middle of the abdominal scar. The patient was kept quiet and the pains passed off. In the seventh month very severe pains occurred, followed by rigors and all the symptoms of pelvic peritonitis. The foot was found presenting. The abdomen was opened after the delivery of a macerated fetus and the placenta; a probe passed into the fistulous tract from outside was felt in the uterine cavity. When the parts were exposed it was seen that no portion of the fetus or its membranes had been forced by the uterine contractions into the peritoneal cavity, but there was a rupture of the uterine cicatrix under 2 in. in length. The omentum and a coil of small intestine filled in the deficiency. But the adhesions were old and there was a distinct aperture of

mmunication between the cavities of the bowel and the rus, with firm edges. The uterus was amputated, the und in the intestine repaired, and the abdominal incision ined. Death occurred in fifty-six hours. Purulent itonitis had followed septic endometritis, and there s also double pleurisy. Rupture of the uterine scar had urred during the fourth month and the intestine had ıered to the ruptured wound, ultimately infecting the rine cavity. In the second case the patient underwent esarean section, in a provincial hospital, for eclampsia he seventh month. Saline solution was injected under skin of the thighs and suppuration followed, free isions being necessary A year or two later the patient, n 21 years old, became pregnant once more. A doctor empted to induce labour on account of haemorrhages, ving a metallic bougie in the uterus for three days. A ek later he reintroduced instruments; one was retained two days. Flooding recurred and the patient was sent o hospital under Richter. There was tympanitic dis- sion and other grave indications of septic infection. e uterus was full of fetid liquor amnii and gas. The lomen was opened and more stinking gas escaped, h dirty brown septic fluid. A macerated fetus was racted from the peritoneal cavity, the placenta adhered oils of intestine bound together by inflammatory adhe- ıs. There was a rent 2 in. long in the uterine wall. A ro's amputation was undertaken as in the first case; it ved very difficult as the uterine tissues were so soft t ligatures and sutures cut through them. The adhe- t placenta and inflamed intestine were also much soft- d. The abdominal wound was drained and a tube was sed from the abdominal cavity through the parietes of right and left loin. These proceedings, said Richter, embled an autopsy rather than an operation, yet the ient recovered. He insisted that a patient who had lergone Caesarean section should be very carefully tched during subsequent pregnancies. The first case uld have undergone operation in the fourth month. e bougies had perforated the uterus in the other case.

Interstitial Pregnancy.

LKE (*Monatsschr. f. Geb. u. Gyn.*, November, 1909) was sulted about a primipara, aged 29, who was seized with ıptoms of acute internal haemorrhage. Her doctor nd her pulseless; she was kept at rest, and Wilke saw a day later, when she was doing fairly well. He oper- d, and found much free blood in the peritoneal cavity. e tubes were apparently normal, but there was a bleed- aperture at one cornu, and Wilke began to suspect that ninal abortion had been attempted. He noted that the ly of the uterus was regularly rounded without any ication of an abnormally developed cornu. A wedge- ped piece of the uterine tissue was excised, and it was n found that an ovum had developed in the tubo- rine part of the tubal canal, and that its membranes l grown into the muscular coat of the uterine cornu, and s led to perforation. Wilke gives no clinical history the case before or after operation. The parts removed e exhibited at a recent meeting of the Nordwest- ıtsche Gesellschaft für Gynäkologie.

GYNAECOLOGY.

Calcified Fibromyoma of Female Urethra.

BHARDT (*Zeitschr. f. gynäk. Urologie*, No. 1, 1910) erves that, with the exception of the caruncle, one the commonest of diseases of the female organs, new wths rarely develop in the urethra. Innocent tumours still less frequent than malignant growths. He orts a curious instance of an innocent tumour which ected that part and underwent a conspicuous form of generation, yet failed to cause any disagreeable sym- ms until two days before its removal. This clinical tory was in striking contrast to that of an ordinary case caruncle. His patient was 63 years old; she was rried, but had never cohabited, and the menopause was nplete at 43. She had been subject for some time to ophthalmic goître. A sudden attack of pain in the ion of the vulva, with frequent desire to make water, l burning during micturition, occurred. Two days later e was examined. A round tumour, of the size of a lnut, projected from the labia; its surface was smooth, eding easily when handled, and although it had hitherto en so little trouble, it was intensely tender to the touch. der anaesthesia, carefully administered on account of constitutional disease, it was found to be, not a lunculated uterine polypus, as had hitherto seemed evident, but a growth of which the pedicle was attached to the anterior part of the urethral canal about a quarter of an inch above the meatus; it was quite thin and easily secured with a catgut ligature and divided. The tumour was a pure fibromyoma with calcified patches, and therefore of old standing; it had occasioned no pain until the muscles of the urethra had expelled it and caused it to drag on its pedicle.

Primary Chorion-epithelioma of the Fallopian Tube.

USCHKOW (*Medicinskaja Obosrenie*, No. 11, 1907; *Zentralbl. f. Gynäk.*, No. 6, 1910) reports that a woman, aged 37, had been subject to haemorrhages for a year, and it appeared clear that before the first haemorrhage two periods had been missed. Previously the patient had been twice pregnant, but the last pregnancy ended thirteen years before she came under observation. Uschkow, however, believed that the amenorrhoea of two years' date followed by haemorrhages signified a third pregnancy, which was ectopic and ended in a tubal abortion. The patient, seeking medical relief when the haemorrhages had become frequent and of long duration, was examined, and the uterus was found to be enlarged. A sausage-shaped, elastic tumour lay to its left side, and behind it another, as big as two fists, was defined. This big tumour was the right tube, which was firmly adherent to the peritoneum of Douglas's pouch. It was removed with the ovaries and uterus. Recurrence was detected three weeks later, and the patient died within two months. The tumour proved on microscopic examination to be a true chorion-epithelioma.

THERAPEUTICS.

Dietetic Cures.

FRIEDRICH GROSSE (*Zeit. für physikal. und diätet. Therap.*, November, 1909) points out that in a very great majority of all diseases, whether acute or chronic, metabolism is abnormal, and the organism is poisoned by autotoxins produced with or without the agency of bacteria. One great group of these autotoxins is connected with the processes of digestion; they may result either from the action of putrefactive organisms, especially upon the nitrogenous elements of the food, or may be the end products of proteid digestion when proteids are taken in too large amounts. The demonstration of indican in the urine is one of the easiest methods of proof of the presence of intestinal putrefaction; under normal conditions it should not be present. Slackness of the muscles of the abdominal wall and intestines has a considerable effect in promoting decomposition, and the autotoxins which result tend again to weaken the muscles and to affect unfavourably the general circulation and innervation, and also the activity of the glands. Since attention has been called to the subject, examination of the intestinal contents has shown that the number of bacteria present within the intestine increases from youth to age, that the number is greater for those who live on meat than on a mixed diet, and is a minimum for vegetarians. Among the conditions in the production of which these auto-intoxications have been held to be a causative factor are rheumatism, increased nervous irritability, epilepsy, deterioration of the general condition, some of the so-called primary pernicious and the secondary anaemias, arterio-sclerosis, etc. Watson and Campbell showed that in rats fed on meat only changes in the uterus causing sterility appeared, a fact not without possible significance as regards the falling birth-rate in the upper classes of all civilized countries to-day. The conclusion arrived at is that in many acute and chronic diseases an important part of the injury to the protoplasm is the result of poisons derived from the proteids, and produced either through or independently of the agency of putrefactive organisms. The following are the different methods of treatment based upon this view: (1) Treatment by aperients; (2) disinfection of the intestine; (3) introduction of antagonistic germs, as in Metchnikoff's sour milk treatment; (4) introduction of artificial digestive ferments; (5) chemical or physical methods (hydrotherapy, etc.), intended to bring about the more effectual and more rapid excretion of poisons; (6) regulation of the diet, especially with regard to its proteid contents. The first five of these methods may all be of service in suitable cases, but their usefulness is limited. Most aperients, including calomel, do not appear to lessen the number of bacteria in the intestine; salts, which have

the additional advantage of lessening absorption from the large intestine, lead to a great waste of energy on the part of the organism, and are clearly unsuited for continual use. Intestinal antiseptics, as, for instance, salicylates and ichthyol, are of service, especially in diseases running a rapid course, but are subject to the disadvantage that doses large enough to be effective are in danger of being otherwise harmful. The introduction of antagonistic micro-organisms, as suggested by Metchnikoff, gives better results, especially if at the same time meat is replaced by Kefir, Kumys, or Yohhurt, etc.; this treatment, however, suffers under the disadvantage of other milk diets. The digestive ferments become less used as time goes on; a danger not to be forgotten in connexion with them is that with improved digestion the non-bacterial autotoxins may be increased. The chemical and physical methods are undoubtedly helpful in freeing the body of poisons, and are of use in the group of autotoxins described by Pöhl as connected with diminished tissue respiration (through over-fatigue and over-irritation) with lowered alkalinity of the blood. All these methods are, however, directed rather to elimination of poisons already formed than to prevention of formation of poisons. The special subject of the article here described is the cures to be effected by sparing the organism by reduction and regulation of the proteid part of the diet. The view is emphasized that an effective and complete sparing of the organism and of the living cell protoplasm is brought about by a reduction in the amount of food, especially of the proteid food, to close on the limit of hunger, and in some cases for short periods even beyond it. With this limitation, especially of the nitrogenous elements of the food, the work of all the great organs of the body is reduced, and an endless number of symptoms is found to disappear. Many different well-known cures are based upon this principle—fruit cures, milk cures, rice cures, potato cures, are all true "sparing" cures. Milk cures are in some cases an impossibility, and cannot in many cases be long continued; in some cases the objection to the taste is insuperable, in others the milk gives rise to constipation or to "casein dyspepsia" and putrefaction of the intestinal contents. In such cases a proteid substance is needed which can be given in graduated doses, is willingly taken by patients, is easily absorbed, and does not give rise to intestinal putrefaction or to the production of autotoxins; such a preparation, in an almost ideal degree, the author finds in the casein sodium, glycerophosphate sanatogen, and he believes that with the help of sanatogen a "sparing" cure can be carried out with ease for a long period of time.

225. Treatment of Chronic Constipation.

J. Russell Verbrycke (*Med. Record*, March 12th, 1910) says that the treatment of constipation should never be symptomatic, but should treat the cause of the symptom. He classifies constipation as obstructive and non-obstructive, and then follows out its etiology in his further subdivisions. Mechanically constipation is generally surgical in nature, and is treated by the removal of the mechanical cause. When caused by disease of other organs than the stomach and intestines, as hyperaemia of the intestinal mucosa or obstructed portal circulation, the correction of the producing disease is required. Constipation accompanies abnormality of the gastric secretions and intestinal diseases, such as haemorrhoids, ulcers, fissure, etc. Here constipation must be temporarily relieved and then the painful cause removed. Diet, hygiene, exercise, and irritations must be used to relieve the intestinal condition. Here regular small meals are valuable. Salt water, ichthyol, or hydrastis irrigations, and the same drugs used internally are useful. When chronic constipation is not accompanied by any organic lesion, the formation of regular habits is important, defaecation taking place at a particular time each day. Spastic constipation has to be treated by heat locally, and atropine in full doses during an acute attack. Between the attacks hygiene and building up of the patient is necessary. Simple atony of the bowel is treated by hygiene, careful eating, and abdominal massage.

PATHOLOGY.

226. The Inheritance of Syphilis.

K. Baisch (*Muench. med. Woch.*, September 21st, 1909) believes that clinical observation is quite unreliable for the purposes of determining the laws of inheritance of syphilis, and that not much light has been thrown on this subject either by the discovery of the *Spirochaeta pallida* or Wassermann's serological test. He was, however, opinion that a combination of the two last mentione methods might yield definite results, and therefore studi the question in this manner. Apart from a large numb of control cases of undoubtedly syphilitic persons and u doubtedly healthy persons, he was able to study 140 cas in which suspicion of inheritance of syphilis was preser These cases he divides into groups. First there were tho in which the parents yielded a negative reaction to t serological test and in which the fetus was found to free from spirochaetes. Twenty-four mothers belonged this group. The cause of the death of the fetus in the cases was discovered in several instances, and include strangulation by a coil of umbilical cord, malformation nephritis in the mother, habitual abortion due to gono rhoeic inflammation of the uterine appendages, etc. In few cases both parents were examined by Wassermann test. In the next group, the serological reaction in t mother was positive and spirochaetes were found in t fetus. One hundred and two mothers belonged to th group. Of these, 27 bore signs which permitted t clinical diagnosis of syphilis. Three women who had bee infected earlier gave negative serological reactions. Tw of them had been treated with mercury. Both fetus showed spirochaetes in all organs, while spirochaet were also found in the intervillous portion of the placen —that is, in the maternal blood. The last-named wome had only received three mercurial injections, so tha Baisch does not believe that the reaction had disappeare on the case having been treated. The third case was or of a woman who had borne three macerated children b three different fathers. She had never been treated, an showed enlarged inguinal glands and mucous papules a the anus. Spirochaetes were found in the adrenals an lungs of the fetus. This case was undoubtedly an instanc of a negative reaction in a definite syphilis. In th remainder of the cases the mothers did not show an signs of syphilis, while the children were undoubtedl syphilitic. The positive reaction, together with the fin of spirochaetes in the fetuses, could be explained in thre ways. Either the mothers were suffering from late syphilis, or the mothers were healthy and the inhibitio product giving rise to the serological reaction was derive from the fetus and had passed through the placent into the maternal circulation; or, lastly, the mothe were immune against syphilis, and the substance givir rise to the reaction was an immune body. Whethe in the second or third case the infection of th fetus would be paternal in origin. In deciding i favour of the first possibility, he brings forward eviden of the presence of spirochaetes in the maternal portion the placenta in women who reacted to Wassermann's tes but who were clinically healthy, that the positive reactio in the mother does not disappear after the birth of th child; and, lastly, that in several cases the mother an child reacted differently, in some cases the mother givir a positive and the child a negative reaction, and in othe the reverse. He also deduces evidence in favour of th view by the occurrence of an apparently healthy moth who bore a syphilitic child by a syphilitic father. Sh became pregnant by two other men at a later date, b both men were shown clinically and serologically to b healthy. The children of these two healthy fathers wer syphilitic. The apparently healthy mother was in realit syphilitic. The next group consisted of cases in which th mothers gave a negative serological reaction, while th children had spirochaetes in their organs. These case numbered 12. In 4 cases the fathers were undoubtedl syphilitic. He points out that there are so many diffi culties to explain away if it is assumed that a mothe can bear a syphilitic child without being herself infected that very strong reasons would be required before suc a contention could be upheld. It has been found tha about 10 per cent. of syphilitics give a negative reactio to the serological test. Mention has already been mad of three cases of undoubted syphilis in which a negativ result was found. Out of 102 cases of syphilis these 1 would represent about the usual percentage of failures i the reaction. Further, he was able to show that in severa of these cases spirochaetes were found in the materna portion of the placenta. He concludes that these 12 wome were really infected. Colles's and Profeta's laws woul thus be true, on the ground that both mother and childre remained refractory toward an infection, having alread been infected. He adds some remarks with regard to th effect of treatment on the serological reaction which ten to show that an energetic treatment before the pregnancy as well as during the same, offers the best chance for th unborn child.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

Tuberculosis in Childhood.

EL (*Beiheft z. Wien. med. Klin.*, Heft II, 1909) deals the pathology of tuberculosis in childhood. He is of ion that the tuberculosis of young children is almost ays caused by the bacillus of human type, although ction by the bovine bacillus does occur. The possi- y of an intrauterine infection first manifesting itself years after birth has lately received support from discovery that tuberculosis of the placenta is not rare, from the demonstration that tubercle bacilli can in their virulence for long periods in the body without ng rise to any recognized histological changes. At the e time the majority of cases of tuberculosis in child- l are extrauterine in origin, and the source of infection most always the sputum coughed up by a phthisical ent; infection only occurs at close quarters, and there- , with babies at the breast, the source of infection is ost always discoverable. In young infants with a hisical mother, father, or nurse, the opportunities for rogenous infection are clearly present, while the erficial breathing at this age lessens the likelihood of ction by way of the respiratory tract; the younger the d the more is this the case, therefore in childhood it be accepted that infection by way of the digestive t plays a considerable part. Von Pirquet's test shows in children of the hospital class any form of tuber- sis is comparatively rare amongst children at the st, but that its incidence increases in frequency with easing age, until at puberty more than half the dren are affected. The different part taken by the gs in a tuberculous infection of children as com- ed with adults is expressed by saying that in y childhood no isolated lung tuberculosis exists; but lung is only one of the organs affected, even if s in some cases the organ most severely affected; in lts, on the other hand, the only parts to be affected as l as the lungs, and secondarily to them, are usually larynx and the intestine infected from contact with tum. The three chief points about children with ject to tuberculosis are: (1) Children easily become cted; (2) the virus readily disseminates itself over the ole body; and (3) the tissues have no tendency, or a ht tendency only, to bring about localization or healing he area attacked. After childhood the resistance of the anism to tubercle increases with the general increase esisting power, until the lungs alone remain especially le to the disease. In childhood the lymph glands are ost always the first tissues to be affected, and the nchial glands take in the child the same position as the ces of the lungs in the adult. The disease tends to run ifferent course at different periods of childhood. In nts at the breast a generalized gland tuberculosis r the whole body is typical, and as the glands have not as the power of localizing the process within the lymph tem it goes on to a general tuberculosis; the lungs o provide a *locus minoris resistentiae*, and are often ecially severely affected. In the intermediate stage, m the end of the first year to near to puberty, the con- ion changes, until the glands obtain power to localize virus and protect the body either for a time or per- nently from infection. In the final stage, before erty, the glands cease to play a great part, and an cal type of phthisis, like that of adults, is the ordinary e, which runs a speedy and unfavourable course. The tomical picture of tuberculosis of childhood is most dily understood by thinking that the lymphatic system first affected, and considering the different combina- ns which may occur, and which depend on (1) what and w many lymph glands are affected, (2) whether the ease remains limited to the glands, and (3) where the ease breaks through the lymph system, and whether it cute or not. The cases may be divided into groups: Affections of the lymph glands only. (2) Gland tubercu- is with submiliary dissemination. Here the lungs are ecially affected, and the liver, spleen, and kidneys seldom ape. (3) Lymph gland tuberculosis and miliary tubercu- is. In general miliary tuberculosis the lungs are ecially affected, and after them the spleen, liver, and neys. Mixed forms of meningitis and general miliary erculosis are commonly met with. (4) Lymph gland and us tuberculosis. (5) Gland tuberculosis breaking through into the bronchi. This form occurs in young infants, but it is the most common type of tuberculosis of the lung met with in the middle years of childhood. (6) The phthisis of childhood, that is, a chronic isolated tuberculosis of the lung, scarcely differs anatomically from that of adult life, and has no obvious connexion with a primary disease of the lymph glands.

228. Exudative Diathesis.

AD. CZERNY (*Jahr. für Kinderheilk. und phys. Erziehung*, November 3rd, 1909) describes under the name of the exudative diathesis a constitutional anomaly the symptoms of which have been well known for years but which in former years were classed with other affections, especially tuberculous affections, under the title of scrofulous. One of the earliest signs of the exudative diathesis is the occurrence of milk scab, the cause of which was at one time considered to be due to a fault in the quality of the milk, especially a too great percentage of fat. This view was not altogether without justification, but it was not the whole explanation; the food unsuited for the child made obvious the constitutional anomaly which had been hitherto latent. Predisposed children will show signs of the exudative diathesis almost without intermission for the first ten years of life if they are kept to an extreme and one-sided diet of which milk and eggs are the chief constituents. The food has, however, only an indirect influence, as is shown by the fact that the abnormality shows itself especially in the first year of life, for the greater part of which the normal child brings with it so great a supply of reserve material that it needs food to a great extent only to supply the necessary warmth and fluid. The author considers that an abnormality in the power of fat metabolism is probably the cause of the symptoms. In addition to milk scab, the following conditions are characteristic of the first six months of life—thrush, "scurf," geographical tongue; sometimes also catarrh of the nose, the pharynx, or the bronchi. The symptoms may begin almost from birth, or the condition may not declare itself until the end of the first year, sometimes in connexion with teething, or with vaccination; indeed, such children are liable to bring vaccination into discredit, and in families in which it is hereditary, it may be well to defer vaccination until the end of the second year. Moreover, the signs of the diathesis—as, for instance, eczema—if they are already obvious, are frequently made worse as a result of vaccination. Certain other infections appear to have a similar result, and especially measles and florid, complicated tuberculosis. The signs of the diathesis may appear after a cutaneous or subcutaneous application of tuberculin, and are then often looked upon as a specific reaction, but this view, according to the author, is not justified. That the symptoms of the exudative diathesis when they are present in a child with tuberculosis are distinct from tuberculosis is shown by their disappearance with suitable diet. Another fact which goes to prove that the condition has nothing in common with tuberculosis is that von Pirquet's tuberculin test has shown that comparatively few children are infected with tuberculosis during the first year of life, the period during which the signs of the exudative diathesis most commonly declare themselves. Czerny looks upon the abnormality as definitely hereditary, and the fact that no history is often obtainable is explained by the disappearance of the condition, and failure on the part of the patient to even remember it, by the time adult life is reached. In tuberculous families the exudative diathesis is not more frequently nor more strikingly encountered than in others, but it is often observed in families with a nervous history. The condition is so widespread that its incidence can only be compared with that of rickets. The subject still needs more investigation. The author still holds the view, which has met with considerable opposition, that phlyctenules are a sign of the exudative diathesis, and not of tuberculosis. He looks upon the status lymphaticus or the lymphatic constitution as a sign of the diathesis in its most severe form, and finds that it yields to the same dietetic treatment. Since it is found that overfeeding with milk and eggs is especially liable to give rise to the symptoms, these constituents of the diet must, in children affected, be reduced to a minimum in accordance with the age of the child. At

the same time fattening on carbohydrates is to be avoided as being still more harmful; flesh food has no bad effect on these children. If the primary cause of the condition is to be considered in the light of practical experience, it would seem that in the exudative diathesis there is a congenital defect which concerns especially those tissues which make possible the great variations in the water contents of the organism; the greater the amount of water the more obvious the diathesis—a fact which explains the frequency of the symptoms in the first year of life, and also explains why a diet which increases or diminishes the water contents of the body brings about corresponding changes in the manifestation of the condition.

SURGERY.

229. Concussion of the Brain.

As contrasted with cerebral contusion and cerebral compression, cerebral concussion may be distinguished by definite signs and symptoms. F. Trendelenburg (*Deut. med. Woch.*, January 6th, 1910) gives a clear account of this condition, and discusses many points of interest. He starts by giving two typical cases, one of concussion and one of compression. The former is that of a workman, who falls from a scaffolding and strikes his head on the ground. He lies motionless, pale, breathing superficially, and his pulse is beating feebly. He cannot be roused; his pupils are fixed. After a time he begins to awaken, he sighs and grunts, and gradually returns more and more to consciousness. Vomiting sets in, and after a few hours, although he answers to questions, he does so unwillingly and shows signs of wishing to be left alone. Occasionally he swears and calls out. Later he complains of headache, and then it becomes clear that he does not remember anything which occurred for some hours before the accident. He shows retrograde amnesia. Later he recovers completely. The other case is that of a man who is hit by a stone on the head. He becomes unsteady, but not unconscious. He is able to get into a tram and drive home. The symptoms pass off, but soon he again feels ill and vomits. He complains of severe headache, of being tired, and of losing power in his limbs. Then unconsciousness sets in and his breathing becomes irregular and stertorous. He is taken to hospital, where he is found to be comatose. When his skull is opened a large clot of blood is found between the cranium and dura mater. As soon as this has been removed the pulse and respiration improve, and the patient gets better from that time. Trendelenburg points out that the unconsciousness may set in immediately if the compression is produced by a depressed fracture of the inner table of the cranium. Cerebral contusion, on the other hand, usually causes clonic twitchings and tonic contractures of the extremities, associated with more or less permanent tension of certain muscles. Flaccid paralysis is rarer in contusion than in compression, and when it occurs usually indicates that a compression due to haemorrhage is complicating the contusion. Returning to the subject of concussion, he finds that the characteristic symptom is unconsciousness. This sets in at once after the accident. In very mild cases it may be partial, but in the majority of cases it is complete and may last for considerable time. He gives the duration as varying between ten minutes and fourteen days or more, and speaks of Schmucker's case, in which it lasted for six weeks. In this condition the patient resembles a man deeply anaesthetized with chloroform or ether, or a man who is "dead drunk." The manner of awakening resembles that of the drunken man. He finds that concussion may well be termed traumatic narcosis. He does not express any opinion with regard to those cases in which concussion is said to have terminated fatally, and at the *post-mortem* examination no changes of any description are found. With regard to the behaviour of the pulse and temperature, he is of opinion that the usual statements—that the former is always slowed and the latter depressed—are not quite correct. In the majority of cases there is a slight rise of temperature a few hours after the accident, which persists for one or two days, and then the temperature drops to normal and at times below this. In the same way the pulse is usually somewhat rapid when first examined, and only becomes slowed after a time. He also deals with the way in which the retrograde amnesia gradually clears up. This symptom has been observed after unconsciousness only lasting for five minutes. As a rule, while the memory for all circumstances preceding the accident returns later, the remembrance of the accident itself is permanently lost. Another striking symptom is the disturbance of the power of attention. Closely related to this symptom is that of traumati drowsiness (*Dämmerzuständen*). Trendelenburg also dis cusses other psychical effects of concussion. Next h turns to the pathology of the condition. The symptoms o concussion often stand in inverse relation to the severity o the damage done to the skull. When the skull is muc smashed there is little concussion. He considers th subject from the standpoint of the anaemia theories, an also as an instance of changed physiological function o the brain cells without anatomical damage. At presen the matter is not certain, but the recent work by Meye and Overton on anaesthesia, as well as the researches o drowning and hanging, may help to clear up some points o uncertainty in this connexion also.

230. Hypertrophy of the Thymus Gland and its Treatment.

VEAN (*Journal des praticiens*, December 11th, 190 describes in detail the means of accurate diagnosis o hypertrophy of the thymus and its surgical treatment The most important symptom of thymus hypertrophy i that of compression, indicated by dyspnoea, which i either congenital, or showing itself within the first fe days after birth, is permanent or intermittent, and in cludes paroxysms of suffocation. Laryngeal stridor in th newborn sometimes accompanies this dyspnoea, and is on of the important functional symptoms of thymus hype trophy. These symptoms deserve attention on the par of the medical attendant, as death may occur sudden without any further warning. Surgical interference i almost always successful, and among the indications o the necessity for it are permanent dyspnoea, paroxysm of suffocation, and stridor. Dyspnoea shows itself b retraction of the abdomen and the suprasternal spac during inspiration, and in the course of this suffocativ paroxysms may ensue. These generally come on durin the night, when the little patient starts from sleep wit inspiratory stridor and rapidly developing cyanosis, whic soon passes off in the erect posture, and the child sleep again, to be aroused anew after a short interval. Enlarge ment of the thyro-bronchial glands may be confounde with thymus hypertrophy, but it is not seen at so early a age, and the symptoms of the other are too urgent to permi of much hesitation or delay. On palpation, a substanc is felt in the suprasternal notch, most distinct in coughin and during expiration; and percussion reveals a triangula patch of dullness with its base between the sterno-clavi cular articulations and its apex at the level of the secon rib. Radioscopy gives a clear view of this triangula patch, easily distinguished from the rounded shadow fillin up the pulmonary hilus in the case of enlarged glands and intubation confirms the diagnosis by the necessity o passing a long tube instead of a short one in order t relieve the dyspnoea. The *x* rays may be tried first i mild cases, and they are sometimes effectual; but a extirpation of the gland is safe, and is becoming the orde of the day. Chloroform is the best anaesthetic, and th incision is made vertically in the median line, varying i length according to the individual case, but always endin about $\frac{1}{2}$ in. below the sternal notch. The first landmark i the aponeurosis of the two sterno-cleido-mastoids, one o each side of the median line, and when that layer has bee divided the second guiding point appears in the shape o the two sterno-thyroid muscles, meeting in the middle line These being separated expose a thick layer of connective tissue covering the anterior aspect of the trachea, in th midst of which is seen a movable greyish mass, rising an falling with respiration and slightly movable from side t side. On dividing the fibrous covering the gland almos enucleates itself, and it is easily separated from its capsule by a few strokes of a blunt probe. The sterno thyroids are then united with a fine catgut suture, and the wound closed without drainage, the haemorrhage having been inconsiderable. The immediate results are excellent. the respiration at once becoming normal, and the natural colour returning to the face of the infant. The remote results are not yet precisely known, as the procedure has so recently come into practice; but, so far, only one case of rickets has been observed a few years after operation. and it was cured eventually.

OBSTETRICS.

231. Treatment of Contracted Pelvis.

KUPFERBERG (*Zentralbl. für Gynäk.*, November 6th, 1909) writes on the treatment of cases of contracted pelvis of moderate degree, that is, in which the true conjugate measures from 9 to 7 cm. The three alternative modes of

treatment in such cases are: (1) Induction of labour in the thirty-second to thirty-fourth weeks; (2) hebosteotomy; (3) suprapubic Caesarean section. The first is undoubtedly the safest and least distressing and disturbing for the patient. The method chosen, whether the introduction of bougies or of some bag for dilating the cervix, or simple rupture of the membranes, is a question of individual choice. V. Herff's statistics show a fetal mortality of 3.3 per cent., and a maternal mortality of 1 per cent. (due to haemorrhage from cervical lacerations caused by turning and extraction of the child); 80 per cent. of the children born alive lived, which is 22 per cent. more than lived after operative deliveries at term in equal degrees of contraction of pelvis. Hence this is the method of choice for the general practitioner in moderate degrees of contraction, and also in hospital cases where they came in early enough, especially in primiparae. With regard to hebosteotomy, v. Herff's statistics show a maternal mortality of about 5 per cent., and a fetal mortality of about 10 per cent. That is, in comparison with induction of labour, the maternal mortality is 4 per cent. more and the fetal mortality 10 per cent. less. But this diminished fetal mortality is bought at the cost of a heavy list of maternal complications; for example, haematomata, deep lacerations, bladder lesions, thrombosis of veins, besides various sequelae which may appear later, for instance, incontinence of urine. The author has done the operation in 10 cases (6 primiparae, 4 multiparae). In 6 of these delivery was subsequently effected by operative means (version 1 case, forceps 5); in 4 it terminated naturally. In one case, forceps delivery having failed even after hebosteotomy had been done, and the child having meanwhile died, the author had recourse to perforation and cranioclasm. In another case, hebosteotomy having been done, and while a natural delivery was being awaited, the onset of fever made it necessary to effect delivery by means of Porro's operation. In yet another case the child died during the second stage of the labour. The author claims in his series of cases, though short, 100 per cent. of maternal recoveries and 80 per cent. of children born alive and likely to live. The only maternal complications, with the exception of the "Porro," were haematoma of the left labium majus in 5 cases, of which 3 were slight, and deep laceration needing immediate suture in 2 cases. In all the cases the pelvic ring firmly reunited. So that he thinks more favourably of the operation, especially in the case of multiparae, than does v. Herff, but nevertheless considers that it should only be undertaken in a hospital. The third method of treatment is suprapubic Caesarean section. In this operation the skin and fascia are cut through transversely, and the muscle and cervix longitudinally, the bladder, which has been previously distended, being defined and pushed to the right. The child is delivered by forceps. The author gives details of 4 cases in which he has done this operation. Three of them did well throughout. The fourth was from the first one of unusual difficulty, though the patient ultimately did well. She was admitted ten hours after rupture of the membranes and after an unsuccessful application of forceps outside. The bladder was not previously distended, and this and the fatness of the abdominal walls made the operation exceptionally difficult. The peritoneum was accidentally torn open during delivery of the child, and, though the rent was at once sewn up, became subsequently infected by the uterine contents, making necessary two operations for relief of distension and drainage of the peritoneum. In one of these operations an ovarian cyst was discovered and removed. During the sewing up in the primary operation the bladder was accidentally punctured, and, in spite of immediate suture, a urinary fistula formed and only healed after subsequent paring of the edges and suture. Ultimately, however, the patient made a perfect recovery. The children in all four cases were living and healthy. Finally, the treatment in this school of these cases may be summarized as follows: If possible, induction of labour in the thirty-second to the thirty-fourth week. At full term, if the child is dead, perforation and cranioclasm; if the child is alive—in primiparae, suprapubic Caesarean section; in multiparae, hebosteotomy (with subsequent natural delivery) after careful examination under anaesthesia and estimation of the relative sizes of the fetal head and the maternal pelvis.

232. Intestinal Obstruction caused by Gravid Uterus.

EKEHORN (*Upsala Läkareförenings Förhandlingar*, Bd. xiv, Nos. 7 and 8) reports a case of intestinal obstruction caused by a gravid uterus. The patient, aged 40, was expecting her delivery in three weeks. On examination it could be distinctly made out that the transverse colon had been pressed down between the abdominal wall and the uterus, lying below the latter. In this way traction was made on the bowel, causing an exaggeration of the left flexure. At the operation, which consisted in simply lifting up the bowel, all the intestines, except the descending colon, were found very distended. The patient recovered, and was in due course delivered of a living child.

GYNAECOLOGY.

233. Metastatic Inflammation of Ovaries and Tubes.

OKINCZYC (*Annales de gynéc. et d'obstét.*, January, 1910) writes on oöphoro-salpingitis associated with scarlatina, measles, small-pox, parotitis, tonsillitis, typhoid fever, pneumococcus inflammation, influenza, rheumatism, and other more obscure diseases and infections. Authentic cases have undoubtedly been observed and correctly interpreted, yet Okinczyc admits that they are seldom so definite as the two forms which include the great majority of cases of oöphoro-salpingitis—namely, the gonococcal and the puerperal types. The channel of infection in the rarer types is not always clear. Pure salpingitis represents infection from the uterus either along the tubal canal or through the lymphatics. Pure inflammation of the ovary seems to be established through descending affection along the blood vessels, its pathology being apparently simple when unilateral abscess develops in the course of the general diseases above mentioned, as well as in syphilis and actinomycosis. As it is not always clear whether in any particular case the tube or the ovary were the first to be infected, the route of infection must often remain obscure. Another difficulty lies in the rapidity with which specific microbes lose their virulence, as in the well-authenticated instance of pyosalpinx of the commonest types. Still greater as an obstacle in the determination of the channel of infection is the possibility of direct transference of the inflammatory process from inflamed adjacent structures, especially the appendix vermiformis. Lastly, Okinczyc greatly reduces the importance of these exceptional cases of metastatic oöphoro-salpingitis by showing that authentic cases are rarely pure; not that metastatic inflammation is secondary to gonococcal or puerperal infection, for, on the contrary, the metastatic lesion comes first, and, damaging the tissues of the ovary and tube, exposes them to the gonococcus, the puerperal microbes, or the *Bacillus coli*. Diagnosis is not always possible, as the physical symptoms and the course of the metastatic disease when it becomes chronic is the same as in the common varieties of oöphoro-salpingitis. Prognosis is similar, but inflammation of the ovary following mumps and ulcerative tonsillitis seems very amenable to appropriate treatment and is not followed by suppurative complications.

THERAPEUTICS.

234. Surgical Opening of the Skin to Facilitate Irradiation.

FOVEAU DE COURMELLES (*Archives of the Roentgen Ray*, London, February, 1910) urges the necessity of effecting a surgical opening of the skin to facilitate the penetration of the *x* rays, ultra-violet rays, and the radiations of radium. He says that certain varieties of luminous rays are not sufficiently penetrating when used alone, but become efficacious if the road is opened up for them by previous scarification or surgical ablation. He has frequently seen cases of cheloid which have recurred after operation, but which have been completely cured by high frequency sparking and subsequent irradiation by the *x* rays. In order to cause the dispersion of a naevus with a radium salt of activity 1,500,000 a long series of séances is required, but the radium irradiation may be greatly shortened by a previous treatment by positive electrolysis, using multiple needles. In this case a simple radium varnish containing 5 milligrams of a salt, with an activity of 100,000, will give a thick, squamous scab after a period of three or four days. The mixed method of radium irradiation *plus* electrolysis, as compared with the radium irradiation alone, diminishes the duration of treatment by one-half. The pores of the skin are opened

by the previous electrolysis, and the penetration of the alpha rays particularly, and also of the beta and gamma rays is much more complete.

235. Diet in Nephritis.

LINOSSIER AND LEMOINE (*Bull. de l'Acad. de Méd.*, March 1st, 1910) record some experiments in which albuminous foodstuffs were injected under the skin of rabbits and guinea-pigs, and describe the effect of these injections on the kidneys. Common foodstuffs—for example, fresh meat juices, white of egg, and milk—were selected, and in every case these injections produced a temporarily toxic effect on the kidneys, as shown *intra vitam* by albuminuria, and *post mortem* by renal congestion. After several injections a tolerance was produced in the guinea-pig, which apparently was not due to precipitins, since these were formed in abundance in the plasma of the rabbit, but were unaccompanied by a corresponding tolerance. Veal juice proved more toxic than beef juice. Egg white and milk were both highly toxic, but their toxicity could be destroyed by sufficient cooking or by the action of gastric juice, although egg white showed itself very resistant to this latter agent. The inference is that nephritic patients should be forbidden underdone meats, lightly boiled eggs, and uncooked milk. Red meats, however, may be given if sufficiently cooked. It is important to adhere to a diet which is constant as regards the quantity and quality of albuminous foodstuffs in order that the patient's tolerance may be established.

236. Hour-glass Stomach treated by Mercurial Injections.

LEVEN AND BARRET have communicated to the Society of Medical Radiology in Paris (*Bull. et mém.*, January, 1910) a case of hour-glass deformity of the stomach in which a specific treatment has been tried with success. The patient consulted them for digestive troubles, frequent vomiting, and severe pain localized at the epigastrium. This visceral pain had lasted for six months, and the patient was suffering from gradual denutrition, emaciation, and extreme anaemia. A radioscopic examination after a bismuth meal showed a bilocular stomach, the strictured passage corresponding exactly with the patient's indication as to the seat of pain. Before sending the case to the surgeon it was decided, in spite of the absence of all signs of syphilitic infection, acquired or inherited, to attempt specific treatment. Nineteen injections of biniodide of mercury (0.02 gram per injection) were made, and the patient took for a period of one month 3 grams of iodide of potassium per day. Immediately after the second injection the visceral pain began to disappear, the anaemia was rapidly ameliorated, and the emaciation, which had been progressive until the treatment was instituted, was arrested. The patient quickly increased in weight. On radioscopic examination it was found that the deformity remained, in spite of the disappearance of the digestive troubles, but it had undergone an evident modification, the strictured passage being much more supple and the function of the stomach more easily fulfilled. The authors add that the syphilitic nature of the case appears to be proved by the triple action of the mercurial and iodide treatment on the pain, on the anaemia, and on the emaciation.

237. Antimony in Trypanosomiasis.

DURING the past few years strenuous endeavours have been made to gain a mastery over trypanosomes, the importance of which as causal parasites of deadly diseases having been recognized on all sides. Ehrlich and his school have developed the arsenic series to an extraordinary extent, and have proved themselves to be almost infinitely fertile in the production of new organic combinations of this metal. Atoxyl, or the acetyl p-aminophenyl arsenate of sodium, was shown to be active up to a certain extent only, and further to possess a disadvantage in being toxic. Arsacetin, or the acetyl-arsanilate of sodium, proved to be better in every respect, while in his lecture delivered before the German Chemical Society on October 31st, 1908, Ehrlich pointed out that arseno-phenylglycin has solved the question with regard to the killing off of trypanosomes, at all events in animals. Whether this last-named substance is capable of doing all that is required or not is dealt with by Dr. J. D. Thompson and Professor A. R. Cushny in their paper communicated to the Royal Society on January 20th, 1910. Following up the plan of campaign started by Plimmer and Thompson, which was based on the close relationship between the antimony and arsenic salts, these observers have experimented with a large number of antimony compounds and have studied the behaviour of each toward infection in rats with *Trypanosoma brucei* (nagana). Their results are instructive and interesting. Briefly retold, the story which they unfold is that tetra-ethyl stibonium iodide and diphenyl stibin chloride were useless for the purpose of killing off trypanosomes in the rat. Before continuing they sought to determine the form in which the antimony ion had to be liberated to be effective. They recognized that a firm compound might fail to yield free antimony in the body altogether, while a loose compound, especially an inorganic one, must prove toxic and irritating. Antimony exists as a trivalent and as a pentavalent metal. Schlippe's salt, which is a sodium sulphantimoniate, was considerably more efficient than the glyceride of antimony, but in both cases the antimony is pentavalent. The former is highly unstable, and is easily reduced to the trivalent form. The reverse was found to be the case with the metantimoniate. Comparative experiments with the sodium antimonyl malate and with the ethyl antimonyl tartrate demonstrated that while both were active, the latter was the more so. Combinations of the latter with atoxyl increased the toxicity, although the efficacy was undoubtedly enhanced. As they aim at a rapid and complete trypanosomicidal action with a minimum amount of irritant and toxic effect, they were able to set up tables comparing the value of each drug, and conclude that ethyl antimonyl tartrate is the most favourable antimony compound hitherto dealt with.

PATHOLOGY.

238. Histopathology of Acute Nephritis.

ALL the older writers on diseases of the kidneys regarded acute nephritis, commonly so-called, as an inflammatory process. Klebs, however, in 1879, and Banti in 1895, argued that acute toxic haematogenous nephritis was really degenerative rather than inflammatory, lacking all inflammatory exudation. M. Peruzzi (*Lo Sperim.*, Florence, 1909, lxiii, p. 659) has studied the pathological histology of the kidneys in 106 cases of acute or subacute renal disease, and supports Banti's view. He also counsels great prudence and reserve in the interpretation put upon cells found in urinary sediments, because the desquamated cells of the glomerular epithelium may very closely resemble leucocytes. He gives a long discussion about the embryology and general pathology of the glomeruli, and describes the appearances of glomerulitis in detail; the small round cells found in the glomeruli in the latter condition he believes to be desquamated epithelial cells, and not, as Cornil (1884) believed, the leucocytes of an inflammatory exudate. When the process is less acute, active phagocytosis (of red cells, etc.) by these desquamated epithelial cells can be observed. He gives a full discussion of the shrunken, atrophic, or abortive Bowman's capsules found in the renal *cortex corticis* of infants and children, and taken by many authors as evidence of special forms of acute nephritis. He finds them in the peripheral parts of the cortex of all kidneys from young persons, and also in young guinea-pigs (under 400 grams), and notes that they vanish when the adult *cortex corticis* (or capsule-free periphery of the cortex) is established. He found thrombi in the glomerular vessels in many of his cases, and believes that "thrombosing glomerulitis" is not characteristic of any single disease—scarlet fever, for example. He found bacteria in the renal capillaries of 61 of his cases. No very constant changes were found in the renal tubules in his cases, beyond varying amounts of desquamation and cast formation; the interstitial tissue similarly showed only secondary changes. Peruzzi is led to remark that the anatomically perfect kidney probably does not exist, and gives details of the renal appearances in scarlet fever (9 cases), diphtheria (15), enteric fever (3), tuberculosis (15), bronchopneumonia (18) and pneumonia (16), sublimate poisoning (4), and pregnancy with fatal complications (9 cases). In conclusion, Peruzzi states that his work proves once again the truth of the view of Klebs, Banti, and others, and that the common toxic haematogenous "nephritis" is not a nephritis, but should be known by some other term—perhaps "nephrosis," the word used by Marchand to describe the renal degeneration in $HgCl_2$ poisoning. It is degenerative rather than inflammatory, lacking exudation of cells, and there is nothing characteristic whereby the "nephroses" caused by various diseases—scarlet fever or diphtheria, for example—can be distinguished from others. Peruzzi gives fourteen admirable photomicrographs illustrating points in his paper; the literature is fully quoted.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

239. Arterial Pressure and the Suprarenal Glands in the Tuberculous.

ALBERT SÉZARY (*Arch. des mal. du cœur des vaisseaux et du sang*, February, 1910) points out that in pulmonary tuberculosis the arterial pressure (as pointed out by Marfan and Potain) is usually low, and that this low blood pressure exists even at a time when the physical signs of pulmonary disease are doubtful. Rarely the arterial pressure may be normal or even slightly raised, either temporarily—for example, before an haemoptysis or during an attack of congestion—or the rise of pressure may be permanent—for example, when phthisis is accompanied by emphysema, by diabetes, or by chronic nephritis. This low blood pressure is with rare exceptions to be observed also in other tuberculous affections such as pleurisy, meningitis, etc. To explain such alterations of blood pressure the author has devoted his attention to the condition of the suprarenal glands in tuberculous patients. In patients dying from chronic tuberculous disease the suprarenals are generally altered, a diminution of their functional activity being accompanied with a more or less marked sclerosis, and according to the author there is found to be a marked parallelism between the diminution of functional activity of these glands and the lowering of arterial pressure. In early cases of tuberculous disease, whilst the arterial pressure is lowered from the beginning, there is no diminution of functional activity of the suprarenals—this only occurs in advanced cases. At the onset of visceral tuberculosis the arterial pressure is low, but the suprarenals are not altered. When pulmonary lesions are well marked and tend to soften, the arterial pressure continues to fall; in these cases suprarenal lesions appear but are discrete. In the same way in cases of acute tuberculosis, such as pleurisy, meningitis, etc., the arterial pressure is low, but in such cases investigated by the author the suprarenal glands were either normal in appearance or exhibited increased functional activity. From these facts the author concludes that in tuberculous patients the fall in arterial pressure and the diminution in function of the suprarenals do not occur simultaneously, but that the former precedes the latter, although at a later period the diminution of suprarenal secretion may have an influence on the state of arterial pressure. In the cases of tuberculosis associated with emphysema, in which the arterial pressure is normal or raised, the author has found the functional activity of the suprarenal glands to be normal or increased. In those cases of tuberculosis associated with chronic nephritis in which the arterial pressure is normal or raised, the author has shown that when the kidney disease is advanced and has preceded the tuberculous disease an increased functional activity of the suprarenals exists, whilst a diminution of suprarenal activity occurs when the renal and suprarenal lesions arise at the same time and when both are the result of the tuberculosis itself. This latter statement, however, directly opposes the view that an increased arterial pressure is due to increased functional activity of the suprarenal glands. In three cases of tuberculosis with chronic renal disease the author found the arterial pressure raised, and to explain the origin of the hypertension in these cases (in which the suprarenal glands were sclerotic) the author thinks that both the renal impermeability and the consequent retention of noxious products were the probable causes of the increased blood pressure. From the results of his observations the author concludes that arterial hypotension is not necessarily caused by diminution in functional activity of the suprarenal glands, and that chronic nephritis in a tuberculous patient in whom the suprarenal activity is diminished is accompanied by a normal or raised blood pressure.

240. The Bladder in Tabetics.

RINALDO (*Gaz. degli Osped.*, January 18th, 1910) draws attention to a condition of the bladder which may sometimes be seen in tabetics as an early symptom, and, indeed, may be the only symptom at first. This consists in a loss of sensibility, so that the desire to empty the bladder comes at longer and longer intervals, until finally a spurious incontinence arises, very much as is the case in retention of urine from enlargement of the prostate, the overflow of urine being all that the patient is cognizant of. When examined by the cystoscope the condition known as "columnated bladder" is to be observed. The appearance differs somewhat from that seen in prostatics, for in the tabetics the trigone and parts about the ureteral openings are free, whilst it is the lateral regions and the fundus of the bladder which display the marked trabeculae constituting the abnormality in question. In the author's case there were no characteristic signs of tabes and no known history of syphilis; no eye symptoms, and the reflexes were normal, and there was no ataxia. There was some history of lightning pains in the thighs and calves and some complaint of altered sensation in the soles of the feet when walking. There was a history of temporary diplopia and girdle pains. There was no prostatic enlargement and no stricture. Owing to the inability to empty the bladder suprapubic cystotomy had to be done eventually. In spite of any known history of syphilis a Wassermann reaction was obtained, and found to be positive. The man was 48 years old. Attempts were made to stimulate the sensibility of the bladder by electricity, douches, etc., but with only moderate success. These bladder troubles in tabetics may be due to spasm of the sphincter, to inability to relax the sphincter, or to paresis of the detrusor. In the author's case there was no spasm.

241. Intestinal Protein Indigestion.

A. E. THAYER AND RAYMOND C. TURCK (*Med. Record*, March 26th, 1910) state that intestinal indigestion of proteins is very frequent. These foods undergo rapid putrefaction when not promptly digested. Tryptophan is split off in the course of protein digestion, from which is produced indican and indolactic acid, which appear in the urine. They are the cause of symptoms of autointoxication. The clinical symptoms due to protein indigestion are manifold. Any of the great systems of the body may become deranged through them. For a long time the trouble is functional, but organic disturbances may result. These patients are treated for dyspepsia, intestinal indigestion, constipation, biliousness, etc. Anaemia and nervous symptoms are frequent. The trouble is generally in adults, but may be seen also in infants. It is least on a vegetable diet, next on milk, then meat, and most of all on eggs. This condition is secondary to some other derangement of the system, especially of the liver and pancreatic functions. Gastric digestion may be deficient and the foodstuffs arrive in the intestine improperly digested and ready to putrefy. In every such case the urine, faeces, blood, and general physical condition should be investigated. The authors give the best tests for the results of putrefaction in the urine and faeces, and the changes to be found in the blood in this condition. The blood shows degeneration of the lymphocytes. Illustrative cases are given. Cases are classified as neuralgic, neurasthenic, anaemochlorotic, dyspeptic, mental, and mixed types. Treatment includes cleansing of the bowels by laxatives, administration of ferments, removal of much protein material from the diet, intestinal disinfection, treatment of gastric secretions, and tonics.

SURGERY.

242. Operations for Vesical Calculus.

EUGEN V. ZILAHY (*Pester med.-chir. Presse*, No. 4, 1910) describes 4 cases of operation for vesical calculus. The first was a patient 48 years of age, who had suffered for years from urinary symptoms, and who for several months had only been able to pass water in drops, and with very great pain. The sound showed the presence of a stone about the size of a small nut. Suprapubic lithotomy was performed and two phosphatic stones removed, one 2.5 cm. long, 1.5 cm. broad, and 1.2 cm. deep (0.98 in., 0.59 in., 0.47 in.), the other 5 cm. long, 3 cm. broad, and 1.5 cm. deep (1.9 in., 1.18 in., 0.59 in.). A right-sided parotitis developed on the same day and on the following day severe septic symptoms, although the bladder wound showed no reaction. At the *post-mortem* examination there was found to be a severe double pyelonephritis of long standing. The next case was much more favourable. The patient was 24 years of age. A suprapubic lithotomy was in this case also performed, and a stone,

whose dimensions were 1.8 cm., 1 cm., and 0.5 cm. (0.7 in., 0.39 in., 0.19 in.), was extracted from a diverticulum and removed. A strip of iodoform gauze was used for drainage, and the wound closed in three layers. The patient began to pass water spontaneously after twenty-four hours. The gauze was discontinued after three days, the stitches removed after eight days, and the patient made a satisfactory recovery. In the next case the symptoms dated back for three years. The stone gave a metallic clang against the sound. The capacity of the bladder was very small, and since crushing the stone was contraindicated, and considerable difficulties were to be expected owing to the small size of the bladder, the method of operation was by the median perineal incision. The stone was uratic; its dimensions 4 cm., 3.5 cm., 1.3 cm. (1.57 in., 1.37 in., 0.51 in.). After the operation perineal drainage was carried out for three days, and a catheter tied in. The bladder wound was completely healed in the course of six weeks. In the last case suprapubic lithotomy was performed, but a process of the globular stone was found to be embedded in the prostatic half, and could not be removed. A second opening was therefore made through a median perineal incision, and the stone finally freed from the prostate with the help of pressure with fingers through both openings. Neither wound was sewed up, both because of the severe cystitis which was present, and also because of the severe mechanical lesion of the bladder. The after-treatment was by washing out of the bladder and adequate drainage, and recovery was eventually complete. The author considers suprapubic cystotomy to be the best operation for all cases in which lithotrity is contraindicated, because it gives the best results both with respect to the healing of the wound and also to the full restoration of the bladder function; in some cases, however, as in the one described above, suprapubic cystotomy cannot be performed, or the stone cannot be extracted by means of it, and in these cases the perineal opening will give a good result. In the after-treatment it appears to be unnecessary to tie in a catheter, emptying of the bladder at short intervals seeming to give the best result.

243. Ectopia of the Kidney.

Desnos has communicated to the Société de Radiologie Médicale of Paris (*Bull. et mém.*, February, 1910) a curious case of ectopia of the kidney, with a calculus of the pelvis of the kidney simulating, in the radiograph, a ureteral calculus. A woman aged 65 years came to him in October, 1909, suffering from continuous pain, frequently severe, in the abdominal region. She had some history of bowel irregularity in middle life, but the malady for which she came up for treatment began ten years before in the shape of a crisis of acute pain lasting for several days, accompanied by bloody urine. Although the pain diminished, it did not disappear completely, and the patient was subject to violent recrudescences. When Desnos saw her she was suffering from an almost constant pain, occupying the left side from the iliac fossae to the diaphragm. The patient was bronchitic and emphysematous, and the abdominal pain was increased on coughing. For the past twelve months the urine had been dark-coloured, even in the inter-haematuric periods. Palpation discovered a point very clearly marked out above the iliac crest, on the tract of the ureter. The usual renal region on the left side was occupied by a mass which gave one the impression of a depressed kidney, enlarged and irregular. On re-exploration some days afterwards the size of this mass appeared to have changed, and pyonephrosis was thought of. Cystoscopic examination showed a vascularized bladder, especially to the left side, and a gaping left ureteral orifice. The catheter on this side was arrested at 7 cm., the position corresponding to the painful point discovered by abdominal palpation. Under these circumstances the presence of a ureteral calculus seemed to be probable, and the radiograph showed a large, thick shadow extending transversely on the tract of the ureter. The composition of the urine was normal with regard to urea and chlorides, but the mineralization was a little subnormal. The methylene-blue test showed an excellent renal function. Meanwhile, the pain was intense, the general state of the patient was declining, and the heart and vessels were enfeebled. The calculus being apparently situated in the abdominal portion of the ureter, an incision was made, but although a mobile mass could be felt at the usual site of the kidney there was no sign of the fatty layer, and on searching in another direction an abnormal mass was found in the iliac fossae, which turned out to be the left kidney in iliac ectopia. Returning then to the normal renal region, it was found that the mass which simulated the kidney was in reality the enlarged ptotic spleen. Further examination showed that the pelvis of the displaced kidney was filled and even distended with a large calculus. Pyelotomy was done, and the calculus extracted. All went well at first, but on the fourteenth day after operation pulmonary congestion made its appearance, and the patient died two days later. Desnos points out that in this case the fixed pain, the characteristic haematuria, the ureteral catheterism, and the mass in the renal region gave a quasi certainty as to the existence of a ureteral calculus, and the radiograph appeared to confirm this diagnosis. He suggests multiplied radiographic proofs, taken from different positions, in such cases, and especially the stereoscopic method. The calculus in the case considered was on a plane anterior to that of the normal ureter, and this would probably have been discovered by stereoscopic radiographs.

244. Haemorrhage after Tonsillotomy.

Charles J. Imperatori (*Med. Record*, April 9th, 1910) thinks that not sufficient attention is given to the control of haemorrhage from the tonsil in removal. Complete removal causes less haemorrhage than partial removal, and portions left behind may undergo renewed enlargement. During the operation the field should not be obscured by blood. To prevent this he gives a general anaesthetic. A previous examination should be made of the coagulation period of the blood. This may be done by catching a drop on a slide and drawing a needle through it at intervals. Gauze sponges can be used to control haemorrhage, and the site be sponged as dry as possible after operation, and any bleeding points ligatured with catgut.

OBSTETRICS.

245. Treatment of Puerperal Fever.

G. Winter (*Wien. medizin. Klinik*, January 23rd, 1910) advocates a more conservative standpoint in the treatment of fresh puerperal infection. Local treatment he considers to be useless as soon as the infection has become a general one and entered into the tissues or the blood. Moreover, he finds it probable that severe cases of puerperal fever result from direct infection at the time of labour, and that a secondary development of slight local changes into severe infection seldom occurs: in only 5 of such cases out of 422 cases of puerperal fever which have occurred in his clinic during seven years did it appear possible that the condition was a development from a simple local process; and from his own observations and those of other workers Winter concludes that in only from 1 to 2 per cent. of cases of puerperal fever does the possibility of a secondary infection arise. The idea of undertaking local treatment in order to prevent a local condition from developing into a general one is, therefore, to be abandoned. Moreover, since local treatment can only affect the superficial tissues, its use must be limited to local uterine infections, to puerperal ulcer, and to infections of the cavity of the uterus connected with retention of the membranes or of fragments of the placenta. The great fact to be remembered in the treatment of puerperal endometritis is that local uterine infection usually recovers spontaneously within a few days. In 393 cases under the author's care, the fever lasted only one day in 225 cases, two days in 66 cases, three days in 40 cases, four days in 22 cases, and over four in 40 cases. Meermann has published similar results. It is thus seen that the power of self-protection of the organism with respect to such infections is excellent, 90 per cent. of the cases recovering spontaneously within four days. In certain cases, however, local treatment is indicated, as, for instance, in cases of lochiometra with severe general symptoms, in cases of severe toxic symptoms, and in cases in which spontaneous recovery does not occur within the customary time, and the general condition is unsatisfactory. The measures to be adopted are drainage of the uterus by means of Dreeman's glass tube in the cervix, or an intrauterine douche. Vaginal douches are of very little use, and may lead to the entrance of pathogenic micro-organisms into the uterus. Attempts at disinfection of the uterine mucous membrane by cauterization or the application of ordinary disinfectants are not successful, and injure the mucous membrane. Atmokausis is not free from risk, and is not effectual; streptococci have been found in the uterus within a few hours after a two minutes' treatment with steam. Ecouvillonage has been much employed in France, and in skilled hands may lead to a speedy recovery, but it accomplishes nothing which the natural processes will not

ring about, and in unskilful hands may be harmful. The se of the curette is, in the author's opinion, the most angerous of all these procedures. With regard to the eatment of puerperal ulcers, the power of self-protection f the torn and crushed tissues is very uncertain, and herefore less good is likely to result from disinfection or auterizing than is the case in infection of the uterus. The idication if infection occurs is to provide for escape of the ecretion by removing stitches and draining with gauze. he healing of infected wounds appears to follow the same ourse as recovery from local uterine infection considered bove. Retention of fetal membranes is disadvantageous, oth because the retained membranes form a nutrient edium for the organisms, tend to increase absorption by elaying involution, and occasionally block the cervical anal and hinder escape of secretions. It is found that hen membranes are retained the course of puerperal ever is longer on the average than in other cases. In 9 out f 42 of the author's cases (21 per cent.) fever lasted for more han four days, but in no case did it last longer than seven ays. The author does not recommend removal of retained embranes from the uterus, but would remove them if hey hang down into the uterus or are caught in the ervix. When fragments of placenta remain the conditions re much less favourable for spontaneous recovery. The eneral opinion is that retained fragments of placenta may ive rise to severe and fatal infection. The author's bservations and those of Puppel show that a severe eneral infection does not necessarily result from reten- ion of placenta. In 22 cases of retention of placenta hich have occurred within ten years at Winter's clinic, 3 cases were altogether free from fever; the other cases howed signs of a slight local infection only. *Post-mortem* xaminations also have shown that retained portions of lacenta do not give rise to general infection, but that ven when they are attacked by streptococci a pro- ective wall of leucocytes forms in the decidua, shutting ff the infected tissues. On the other hand, the condition s one of great significance, because it prevents the heal- ng of a local infection. The manual removal of the lacenta is more dangerous when local infection of the terine mucous membrane is present, because the infec- ion is likely to attack the fresh wound caused by the tear- ng away of the placenta. The author's rules of treatment n this condition are therefore: (1) Any retained portion f placenta is to be promptly removed if the patient is free rom fever and the cavity of the uterus is presumably ree from infection. (2) Severe haemorrhage, even in the resence of local infection, necessitates removal. (3) If haemorrhage is absent, the course of action is determined y the amount of fever and the general condition; if the ondition is favourable, manual removal may be deferred or as long as eight days. The demonstration of the resence of virulent (haemolytic) streptococci is an ndication against manual removal. (4) Where retention s already complicated by extrauterine infection (early eritonitis, venous thrombosis, etc.), manual removal is ot to be carried out unless it is made necessary by angerous haemorrhage. In no case is the curette to be mployed.

GYNAECOLOGY.

246. Quinine Injections for Prolapsus Uteri.

J. INGLIS PARSONS writes on his method of injection f the broad ligaments with quinine for prolapsus teri (*Journ. of Obst. and Gynaec. of the British Empire*, February, 1910). The method originates in the obser- vation that quinine injections elsewhere tend to the production of connective tissue, and in the altered view f the nature of prolapse, namely, as being due to a weakness or defect in the bands of connective tissue unning from the side of the pelvis to the side of the terus in company with the uterine blood vessels, this connective tissue being now regarded as the chief factor n maintaining the uterus in position. That the support f the perineum is of secondary importance is obvious rom a consideration of cases of complete rupture unasso- ciated with any descent of the uterus. The method consists in injecting a quantity varying from 40 to 80 minims (old cases or feeble anaemic patients requiring the larger doses) of a solution of sulphate of quinine in five times the quantity of sulphuric acid (half the *B.P.* strength). The most favourable time is one week after menstruation. The vagina is douched with perchloride of mercury, and with the aid of a speculum and retractor for the bladder and a straight sound in the uterus the injection made on each side of the uterus through the vaginal wall ¾ in. from the cervix and a little below the level of the external os; if the cervix is much enlarged the injection will be nearer to it, the aim being to inject mid- way between the position of the normal cervix and the pelvic wall, so that the uterine artery, vein, and ureter will lie to the inner side of the needle and above it; there are no veins of importance in the outer half of the broad ligament. In chronic procidentia a somewhat lower site is selected on account of the tendency of the bladder to pouch lower down on each side of the cervix. A needle 1 in. long attached to a long nozzle is used, being held in the right hand. After each side has been injected the uterus is anteverted and the patient instructed to lie on the face or side as much as possible. The cup and stem pessary is removed after three days. As a rule there is no rise of temperature; if there is, it usually occurs after six or seven days. For a case of prolapse in the first stage seven to ten days should be spent in bed and a like period on a sofa. The precise period of rest depends on the duration and extent of prolapse, the amount of effusion after ten days, and the patient's social position. When the patient gets about again a ring pessary is worn for three months, though the full strength of the new fibrous tissue is only acquired after six months or more. The perineum, if ruptured, is repaired, except in procidentia. Of 178 cases treated in this way 75 per cent. were permanent successes, 20 per cent. improved, and 5 per cent. were failures. The method does not interfere with subsequent pregnancies like ventrifixation; it is simple and rapidly performed, apparently free from risk or pain, and it is more effective than other methods of treatment.

247. Fibromyoma of Round Ligament.

MANTELLI (*La Gyn. Mod.*, July, 1909) reports a case where a woman, aged 21, noticed a swelling as large as a nut in the left groin, in the fifth month of her second pregnancy. Labour was uncomplicated. A few months later the swell- ing had attained the size of a small orange. It was firm, slightly tender to touch, and irreducible. The uterus and appendages were quite distinct from it. At the operation an incision was made as in herniotomy, and the inguinal canal being laid open it was found to be distended by a well-encapsuled tumour of an oval form. Its nature was made clear by the distinct fibrous cord which was attached to its external and internal pole. The outer cord passed out of the external abdominal ring, and showed the normal attachments of the round ligament; the inner cord ran into the abdomen through the internal ring. The tumour was removed, and the inguinal canal repaired as in Bassini's operation. It proved to be made up of plain muscle cells and abundant fibrous tissue. Mantelli quotes some recent cases reported by Herbert Spencer, Boyd, Reboul, and others. In his own the tumour was unusually well defined.

THERAPEUTICS.

248. Balneotherapy.

JOLY (*La Clinique*, January, 1910) dicusses the advantages derived by patients from residence at spas or baths. He considers that it is easier to regulate the social atmospheric and dietetic habits of people under the conditions of the cure resort. The patient finds himself in a calm atmo- sphere, without excitements, where every one is engaged in the pursuit of health and restoration of health. Some cases experience a preliminary crisis of nervousness and insomnia with some fever, and benefit from the distrac- tions provided by the casinos. Patients are impressed by the sight of others suffering from the various maladies in a more advanced condition, and will readily submit to treatment and direction; they become educated in hygiene, their will power is strengthened, and they learn the art of living a more normal and rational life. Most of the thermal establishments are small villages situated in the open country, thus affording the advantages of pure air and altitude. The action of air upon the cutaneous, respiratory, and circulatory systems is important in re- storing the physical functions; aërotherapy, combined with respiratory gymnastics, can be added to the ordinary spa treatment with advantage. This class of gymnastics is of special benefit to patients suffering from some of the disorders of circulation; it tends to regulate the heart- beat, while the movements of the thorax and diaphragm have a powerful effect upon the venous circulation, especi- ally in connexion with the lower parts of the body. A retarded venous circulation is thus stimulated, and physiological activity is promoted in the viscera by the massage which results from the increased movement.

The elimination of toxic products and the alteration produced in the blood has an important effect. Aërotherapeutics are not confined to respiratory gymnastics only; they include heat, light, and electrical treatment, the application of these means allowing of the functions being decreased or increased, while the action of the skin and nervous system is improved. Air and sun baths should, if the climate permits of it, be used to supplement the water treatment. It is occasionally wise to commence the cure by giving the patient complete rest in bed for a more or less length of time, after which he will derive help from carefully-arranged physical exercises, walking, and, when desirable, massage. When the waters are being drunk, diet becomes one of the most essential points; it is often modified according to the resources of the neighbourhood. In some resorts it is easy to carry out a milk, sour milk, or grape cure, while in all places a diet which is largely vegetarian and fruitarian is to be considered. As a rule there is no advantage in having recourse to drugs during the cure, which ought to rely chiefly upon assisting the patient to obtain the most complete advantage from his surroundings.

249. Intravenous Injection of Nuclein in Tuberculosis.

EDGAR P. WARD (*Med. Record*, March 26th, 1910) has made use of intravenous injections of solutions of nuclein in tuberculosis to increase the amount of haemoglobin and the number of red blood cells. The anaemia of tuberculosis is due to the gradual diminution of breathing surface, thus lessening the amount of oxygen available for the system. In tuberculosis the specific gravity of the blood is lowered, the normal varying between 1055 and 1060, and corresponding to this lowered specific gravity there is a lessened amount of haemoglobin. The specific gravity may be estimated by the method of Hammerschlag, the details of which the author gives. From a table of specific gravities given by the author may be reckoned the amount of haemoglobin. The red blood corpuscles have degenerated, about 20 per cent. of them becoming poikilocytes, in which there is a separation of the haemoglobin from the cell. This gives less oxygen-carrying power in the blood. The author injects intravenously 6 oz. of a solution of nuclein in a saline solution containing 6 grains of sodium triticonucleinate to the ounce, standardized to 1 mg. of organic phosphorus per c.cm. The author has treated 48 cases by this method. He concludes that there is a net increase in haemoglobin from the treatment. If this is not shown within two weeks' time, permanent result need not be expected. Still, it aids in keeping the patient on his feet. With a constant increase in haemoglobin, when it has reached 85 to 100 per cent., and remains so for a month, a cure may be declared to exist.

250. Radium in Tumour of the Eyelid.

"NOTHING so nearly resembling the marvellous has it been my fortune to see in surgical work," says Abbe, of New York (*Archives Roentgen Ray*, London, February, 1910), in describing how a tumour of the lower eyelid yielded to the application of radium. The case was that of a man, aged 45. The tumour had been growing for twelve months, involving two-thirds of the lid, and forming at last a mass in which all semblance of the lid and lashes was lost. It resisted treatment by *x*-ray experts and ophthalmologists. A section was taken from its centre and showed small-cell sarcoma. The patient was offered to Abbe that radium might be tried before excision of the lid. Strong radium in glass tubes was placed upon it four times during one week, the eyeball being protected by a thin lead shield. Week by week, without any more applications or treatment of any kind, the tumour melted away. At the end of eight weeks it was absolutely gone, and there has been no recurrence. To-day it would be impossible to say which eye was affected, save for a slight linear nick in the edge of the lid, where a bit had been taken for microscopic study. Abbe suggests, rather picturesquely, that the tumour was possibly a development of some intercellular, unrecognized, ultramicroscopic reticulum, and that this riotous cell-growth was beaten back into orderly life by the play of electrically-charged radium atoms.

251. Oxygen Inhalation in Whooping-Cough.

WEILL AND MONRIGNAND (*Rev. Française de méd. et de chir.*, November 10th, 1909) have for four years treated severe cases of whooping-cough with inhalations of oxygen, and have found this method most useful, both in checking the violence of the cough and in warding off bronchopneumonia. They found that the frequency of t cough was not diminished so readily as the severity a duration of each fit, these two being the factors to dreaded as risking asphyxia. The sedative action of t oxygen was very marked, and the cyanosis was lessen both during and between the attacks. There was a less depression, and an absence of the morbid stupor i which a child often falls in the intervals of coughin whilst the stimulating action of the oxygen prevented l of appetite, and kept the little patients in good conditi The children themselves were so sensible of the benef that they would ask for the inhalation when they felt attack coming on, or even go to the apparatus and take themselves, finding that it averted a cough. Oxygen ac as an aseptic to the lung, preventing bronchopneumon or, if a pneumonic spot already exists, checking its exte sion. At the same time, in one case, where extensi bronchopneumonia was already present, even oxyg failed to cure, as it did also in some other cases of spec gravity. The authors have, however, found it success where antipyrin and morphine have both failed, althou morphine has proved very valuable in some complicatio such as spasm of the glottis. In order to obtain the f benefit from oxygen it must be given very freely, an if pneumonia is threatened, regularly every hour as well during the attacks. It is advisable to use a funnel inste of a tube, so that the application may be made at a times, even during sleep.

PATHOLOGY.

252. Lymphangio-sclerosis due to Adrenalin.

SCLEROSIS of the arteries due to repeated injections adrenalin has been studied by numerous authors; Donzello and G. V. Tardo (*Lo Sperim.*, Florence, 190 lxiii, p. 891) have found that a similar sclerosis may caused in the lymphatic system. Dogs were employe the injections being given intravenously; the lymphat vessel examined in each case was the thoracic duct, whi was also studied in five normal dogs. The usual 1 in 1,0 solution of adrenalin was employed, the dose varying fro ½ to 1½ c.cm.; 2 c.cm. were found to be too much. From nin teen to fifty injections were given in the different cases. T normal thoracic duct of the dog has three layers: an end thelial intima resting on an undulating internal elast lamina; a media of unstriped muscle of varying thickne at different points in the circumference, its fibres bei circumferential, oblique, and longitudinal, without a definite division into layers, and in some places so th that the intima seems to rest on the adventitia; and adventitia of fibrous tissue with many arteries, veins, a lymphatics. The media also contains numerous elast fibres, but no definite external elastic lamina can be ma out. In two dogs that had received nineteen and twenty-tw intravenous injections of adrenalin the thoracic duct ha walls of about thrice the normal thickness; the intim here showed proliferation of the connective tissue, and th outer part of the media showed a similar growth of your connective-tissue cells; the thickening of the vessel wa was mainly due to proliferation of the unstriped musc of the media, which showed no degenerative change The elastic tissue of the media also was much i creased. Marked alterations were observed in th arteries and veins of the adventitia; many of th arterioles and venules were almost occluded by prolifer tion of the intimal connective tissue. The adventitia the thoracic duct was no longer as lax as normally, b exhibited much new formation of young connective tissu In two dogs that had received fifty adrenalin injectio each the wall of the thoracic duct was about five times thick as normal in places, thinner at other points in i periphery. Here, too, the increase was mainly due growth of the media, and the media showed a great pr liferation of its elastic tissue, slender elastic fibres tr versing it in all directions. In the adventitia many vesse were actually blocked by intimal or adventitial prolifer tion. Areas of hyaline degeneration could be found in th adventitia and the external layers of the media of th duct, but no fatty or calcareous degeneration and suggestion of atheroma; similar hyaline change was four in the media of the arterioles of the adventitia. The autho attribute capital importance to the obliterative endarterit and endophlebitis of its vessels in the production of th thickening of the duct, and so are led to support th dystrophic theory of arterio-sclerosis advanced by Mart and Huchard, who attribute it to obliteration of th arterial vasa vasorum. The paper is illustrated by sev figures.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

253. The Sweats of Phthisis.

LEVI (*Gazz. degli Osped.*, March 8th, 1910) has experimented in a considerable number of cases of phthisis with various antisudorific drugs, namely, atropine, infusion of sage, phosphate of calcium and gallic acid, tellurate of sodium and camphoric acid by the mouth, also friction with camphorated alcohol. Of these drugs camphoric acid in two daily doses of 15 grains each, gave the best result. Atropine sometimes did good, but rarely stopped the sweats altogether; the same could be said of infusion of sage and calcium phosphate. Tellurate of sodium in 2 cgr. doses was unsatisfactory both in not checking the sweats and in its unpleasant taste. Camphoric acid only failed in exceptionally bad cases and its failure in any given case is looked upon as an omen of bad import. External friction with camphorated alcohol was a useful aid to treatment, but not sufficient of itself to stop the sweats. The exact *modus operandi* of camphoric acid is a matter of opinion, but in the author's experience there is no doubt as to its value as an antisudorific. Brief details of some 20 cases are given where it appears that camphoric acid often succeeded when the other antisudorifics had been tried and had failed.

254. Laryngeal Tuberculosis in an Infant.

NOBÉCOURT AND LÉON TIXIER (*Bull. de la Soc. de Péd. de Paris*, October, 1909) quote the following case: A child, 3½ months of age, was admitted to hospital for cough and fever, with a history that the cough began about ten days previously, and for about the same length of time there had been slight fever with refusal of nourishment, and green stools. On admission the extremities were cyanosed; there were some firm and enlarged glands in the neck, and dyspnoea was present, although an examination of the chest revealed no physical signs of disease. The cough was somewhat raucous and the cry rather faint. Three days after admission the child died. On *post-mortem* examination the mediastinal lymph glands were found to be enlarged and caseous; both lungs were voluminous and showed caseous tubercles. The spleen was enlarged and showed a few scattered tubercles, and miliary tubercles were present in the majority of the viscera. In the larynx ulceration was present at the place where the two vocal cords came together anteriorly; the ulcerated surface was somewhat deep; its borders were regular and its base greyish. The right vocal cord at its middle was covered by a small fleshy excrescence divided in its middle by a depression. Around these pathological lesions were to be seen fine miliary tubercles.

255. The Mechanism of Hysteria.

JOSEPH SMITH AND MARY L. NEFF (*Med. Record*, April 2nd, 1910) state that a painful emotion acts mentally as trauma does physically. If such an experience is reacted to sufficiently it goes out of the memory, but if this does not occur it becomes a source of nervous irritation in the subconscious mind. This psyschic trauma may be a single experience or a set of them. The cause of the trauma may be entirely forgotten by the patient. The affect-memory may produce a single acute attack of hysteria or a series of them, each new one increasing the tendency to them. They may occur spontaneously at times of fatigue, or be provoked by other conditions. Normally, memories of things gradually fade away, or the effect of them disappears. In hysteria the effect remains. The telling of the cause of the trauma may be sufficient to remove the effect. Another way is that the experience may become a part of the general complex of associations of normal consciousness. Freud's psycho analytic method of curing hysteria is this: The original exciting cause must be fully recalled to mind by careful questioning or with hypnosis. The effect must be fully expressed and reacted to in speech or action. The entire psychic process must be acted out or expressed. This may immediately produce a permanent cure.

256. Practical Value of Spinal Percussion.

DA COSTA (*Amer. Journ. of Med. Sciences*, December, 1909) deals with the technique of spinal percussion, and points out its practical value in the investigation of mediastinal lesions—for example, enlarged bronchial and mediastinal lymph nodes associated with tuberculosis and other infections and neoplasms implicating the middle and posterior mediastinal spaces. Such lesions are found to affect the percussion note over the thoracic vertebrae. While forcible percussion over all the spinous processes brings out a well sustained, relatively high-pitched note of characteristic osteal quality, gentle percussion elicits differences over certain areas according to the situation of the vertebra percussed. In order to insure as nearly as possible perfect relaxation of the vertebral muscles and interspinous ligaments the patient should sit with the trunk inclined forward so that the crossed arms rest lightly upon the knees with the head bent forward at an angle of 50 degrees from the spinal column. Ordinary sharp finger percussion to the tips of the spinous processes gives more satisfactory information than any instrumental percussion with hammer and ivory plate, because the sense of resistance appreciated by the pleximeter finger is a more valuable guide than the actual note produced. Figures illustrative of the normal and of 20 cases are given with short notes of the associated lesions. The method is distinctly useful as an aid in cases presenting indefinite pressure symptoms and mural signs—for example, enlarged bronchial and mediastinal glands consecutive to tuberculosis or other specific infections, where a dull vertebral strip below the fourth thoracic spine is significant. Among other lesions acting as potential factors of unnatural dullness over the thoracic vertebrae, mediastinal neoplasm, aneurysm of the aortic arch, oesophageal tumour, atelectasis, consolidation of the lung, and pleural effusion may have to be taken into account.

SURGERY.

257. Operative Treatment of "Horse-shoe" Kidney.

MARTINOW (*Zentralbl. f. Chir.*, No. 9, 1910) reports a case in which very troublesome symptoms regarded as due to hysteria were effectually relieved after complete division of the connecting bridge of renal tissue in a horse-shoe kidney. The patient was a woman aged 48 years, who from childhood had suffered from an uncomfortable feeling of pulsation in the abdomen, pain in the umbilical region, and occasional attacks of intestinal obstruction. An exploratory laparotomy revealed a growth 4 cm. in breadth and 2 c.m. in thickness, which formed in front of the aorta a bridge connecting the kidneys. After incision of the peritoneal covering, this connecting band was completely divided between two clamps. The kidneys then fell apart and the aorta was freed from compression. After removal of the clamps the parenchymatous bleeding was readily arrested by a few catgut sutures. The patient, when last seen by the author after an interval of five months, was quite free from the former pains and the unpleasant feeling of pulsation in the abdomen which before the operation had troubled her for so many years. She had much improved in vigour and her general health was good. The author states that, although in the majority of instances horse-shoe kidney is first observed in the *post-mortem* room, there are many cases of this anomaly in which a diagnosis during life is rendered easy by distinct and characteristic symptoms. In a case of the latter kind typical pains in the whole of the abdomen, excessive pulsation in the abdominal arteries, and considerable disturbances of peristalsis are caused by continuous pressure on the sympathetic plexus and the aorta. If in a patient suffering from these symptoms a tumour can be felt in front of the spine between the kidneys, it will be found possible to establish a diagnosis of horse-shoe kidney. The author, though not an advocate of operative separation of the kidneys in every case in which the horse-shoe anomaly is unexpectedly exposed in the course of a laparotomy, holds that this simple procedure might be justifiably practised when compression of the sympathetic plexus is indicated by the above-mentioned symptoms.

258. Carcinoma of Prostate.

SALINGER (reprint from *Folia Urologica*, Band iv, 1909) points out in the first place that recent pathological research has proved that malignant degeneration of the

prostate occurs in at least 10 per cent. of cases of senile hypertrophy of this gland. The main object of this paper, which is based on twenty-one clinical records of prostatic carcinoma, is to present a critical review of the symptomatology of this disease, with special reference to its early diagnosis. The author found it impossible to distinguish a single symptom which without any other help could establish a sure diagnosis. It was made out, however, that the value of a number of symptoms previously well known was confirmed, and also that errors as to the presence or frequency of some other symptoms had to be corrected. These errors, the author states, were serious, as in his opinion they have presented the chief obstacle to the diagnosis of cancer of the prostate. The following are given as the most important results of the author's investigations: (1) In every case of senile prostatic hypertrophy it is absolutely necessary to bear in mind the possible existence of carcinoma. (2) In taking the history of a suspected case, special stress should be laid on learning from the patient the time of the first appearance of any trouble, as, for instance, nocturnal micturition, such information being important in regard to the rate of the subsequent evolution of the disease. (3) The most constant, and therefore the most important, symptom of malignant disease, which consists in very marked hardness of the prostate, can be made out by rectal examination. This hardness is associated with irregular nodulation, lateral outgrowths, and isolated nodules near the gland. (4) Pain in micturition, sciatica, and haematuria may be absent, especially during the early stage, in cases of prostatic cancer. (5) Absence of cachexia also does not always prove that the prostatic enlargement is of a benign character. Remissions of the pain attending micturition and improvement in the general health do not exclude the possibility of a cancerous growth. (6) In every case of prostatic hypertrophy treated by Bottini's method the gangrenous crusts should be carefully collected for microscopical examination. (7) If any of the inguinal glands be enlarged, the excision of one of these for examination may assist the diagnosis in doubtful cases. (8) The surgeon ought to inquire into the presence or absence of the following characteristic symptoms of cancer of the prostate—early incontinence without extreme retention, cases of disease of the central nervous system being excluded; and, secondly, enlargement of the anterior part of the gland, which is to be made out by the use of the cystoscope.

259. Treatment of Urethral Stricture.

Eugene Fuller (*Med. Record*, April 2nd, 1910) says that urethral stricture consists of round cell infiltration, chronic urinary extravasation, and cicatricial tissue. This view has altered surgical treatment of stricture. False passages are frequent complications, and serious ones, which predisposed the patient to sepsis. The position of the stricture, whether in the anterior or the deep portion of the urethra, is important. Cures of stricture, without resort to the knife, are never permanent, according to the author, unless, as is the case with a great majority of strictures, they are amenable to gradual dilatation. Skilful handling of the urethral instruments is a *sine qua non* in treatment. The author does not advocate internal urethrotomy on account of the danger of getting incurvation of the penis as a result. Haemorrhage and extravasation into the sheath of the penis are other dangers, and the curative results as to the stricture are uncertain. External urethrotomy, or urethrotomy with perineal incision, is the preferable procedure. When we have stricture of the deep urethra it is best to make a free longitudinal incision from the posterior base of the scrotum down to the rectal sphincter. The technique of the operation is then considered and the after-treatment of the canal.

260. Death Some Days after Choroform.

Aubertin (*Sem. méd.*, December 8th, 1909) mentions the fact that some cases, apparently quite free from any hepatic or renal mischief, die between the second and fifth days after surgical interference under chloroform, generally without jaundice, and that in such cases degenerative and necrotic lesion of the liver are discovered *post mortem*. These hepatic lesions have been attributed to appendicitis, to the abuse of antiseptics, etc., but it is probable that the chloroform always plays an important part in their production, and it is nearly certain that in many cases it is the only cause. Aubertin, in fact, has succeeded in producing, in healthy animals, delayed death after a single production of chloroform anaesthesia, and has found in such circumstances two varieties of lesion; visceral changes affecting chiefly the liver, and general congestive and haemorrhagic phenomena. It may be that the haemorrhagic changes are partly caused by hepatic insufficiency; but in any case it is interesting to see that chloroform anaesthesia can by itself cause delayed death from hepatic insufficiency, accompanied, not by jaundice, but by haemorrhagic symptoms.

OBSTETRICS.

261. Pregnancy and Diabetes.

H. Neumann (*Berl. klin. Woch.*, November 22nd, 1909) discusses the relationship between diabetes and pregnancy, and, after calling attention to the work of Matthews Duncan on this subject, comes to the conclusion that the rareness of the coincidence of the two conditions can readily be explained. Diabetes is a comparatively rare and a very severe disease in young persons. It is much more common in men than in women. Women of a marriageable and childbearing age are therefore not frequently affected by it, and of those who are so affected, the majority are too ill to think about getting married. Further, he points out that only a small proportion of those who would get married under these circumstances would be likely to conceive, on account of the reduced condition of their bodies. He points out that some cases arise during pregnancy, or after marriage, in response to nervous affections. He has met with several cases in his practice. On subjecting these and other cases to a critical analysis, he finds that the diabetes occurs as an accidental accompaniment to the pregnancy, and although the cases may end fatally at childbirth, this is by no means necessary. In the case of alimentary glycosuria, *ex amyli* or *ex saccharo*, the symptoms may pass off after the birth. He is of opinion that dietetic treatment and medication should be employed, in spite of the fact that other clinicians have not seen much good accruing from it. In conclusion, he finds that although diabetes and pregnancy rarely accompany one another, it is necessary to forbid girls who are suffering from diabetes to marry, on account of the very bad prognosis of this disease when it affects women of a childbearing age. When a married woman is found to have diabetes mellitus it is necessary to instruct her to avoid conception. Pregnant diabetic women or pregnant women who are excreting glucose should be kept under strict medical control and placed on an antidiabetic diet. Operative interference of pregnancy in a diabetic woman should not be undertaken, unless some other indication calls for such a procedure.

262. Infection of Placenta by Bougie in Induced Labour.

Hengge (*Monatsschr. f. Geb. u. Gyn.*, December, 1909) related at a meeting of gynaecologists the case of a dwarfish primipara with contracted pelvis. She was taken to a home, and two rubber bougies were introduced into the uterus. Full precautions against sepsis were taken, the bougies had been carefully prepared, and the operator and assistants all wore rubber gloves. On the following day a metreurynter was applied; next night the patient had a rigor, and the temperature rose to over 105°, the pulse to 140. By the next evening the temperature was 103.5°, the pulse 120. On the following morning a living child was delivered spontaneously. The significance of the high temperature seemed obscure, there was no fever during the puerperium, and no source of external infection could be discovered. Recovery was rapid. The placenta showed a long groove surrounded by dirty coloured, slightly infiltrated tissue. This groove had undoubtedly been caused by one of the bougies. The passage of the two had been effected with unusual ease, and had not been followed by haemorrhage. Hengge suspected that the infectious material lay in the cervix and was pushed upwards and introduced into the placental tissues by the point of the bougie.

GYNAECOLOGY.

263. Chlorosis.

Carl v. Noorden (*Wien. med. Klin.*, January 2nd, 1910) considers the subject of chlorosis in connexion with a typical case. The patient was a girl 20 years of age, who lived under healthy conditions; menstruation had always been irregular and scanty. Several attacks of chlorosis had occurred. Treatment was complicated by the fact that iron preparation gave rise to pain, while levico water, which had been otherwise very fairly successful in one

attack, induced obstinate constipation. In the last attack, which was the most severe, neither iron preparations nor levico water could be used; the blood condition was typical. The patient was passing a large amount of urine —2,600 c.cm. in twenty-four hours, specific gravity 1011. Such a polyuria is often seen in severe chlorosis, and the prognosis is better where this condition is present than in the cases where the output of urine is diminished. The polyuria of chlorosis is easily lessened by diminishing the intake of fluids. There is a primary polydipsia which appears to be connected with an increase in the water of the tissue fluid. In the author's case rectal examination showed an infantile condition of the genitalia. Such a condition is not uncommon in chlorosis, and may disappear, or the woman in other cases may remain sterile. With regard to the theory that chlorosis is caused by absence of normal impulses from the genitals to the blood-forming centres, it is to be remembered that menstruation may be normal or even excessive in chlorosis. If the theory be correct, and the impulses which proceed from the ovaries may travel not only through the internal secretion of the ovaries by way of the blood, but also by means of the nervous system, a certain amount of confirmation would be given to the view that chlorosis is a neurosis. V. Noorden looks upon it as more than an accidental circumstance that the patient's only brother, a boy of 14, had during the last year become very fat. He finds that boys who in the period before puberty show signs of temporary eunuchoidism frequently have sisters who are chlorotic. Examination of the patient's chest showed retraction of the lungs and an abnormally high diaphragm; the superficial breathing of chlorotics tends towards a high position of the diaphragm, a fact which explains the excellent results as to power of walking and hill-climbing obtained from breathing exercises (especially those of Müller). In the treatment of constipation caused by the administration of iron the author is especially urgent against the habitual use of rectal injections, and has found that frequent injections are almost the only cause of obstinate rectal constipation. The pharmacopoeial iron preparations are those which most frequently give rise to constipation. Carbonic acid chalybeate waters of the type of those of Langenschwalbach and Franzenbad are much better, but cannot be used at a distance from the springs; between the two are the sulphur iron waters, such as levico water. Subcutaneous injection of iron preparations has been tried, but does not necessarily prevent constipation. There remains the treatment by arsenic, which also acts as a stimulant of the blood-forming organs. If the more ordinary preparations of arsenic give rise to gastric irritation, the iron waters which contain arsenic, such as levico or those of Roncegno, etc., may give better results. Latterly subcutaneous injections of natrium cacodylicum, of ferrum cacodylicum, and of atoxyl have been employed with good results; it is not, however, possible to estimate the amount of arsenic which will be absorbed, and the author has seen cases of severe poisoning from this method; indeed, in one case of poisoning by atoxyl the patient's sight was permanently impaired. R. v. d. Velden and Brenner have recommended in certain cases the use of the water from the Dürkheim Mascquelle, which contains arsenic but is almost free from iron, and have got very good results from it. V. Noorden very strongly recommends a diet containing a comparatively large amount of proteids, either in the form of eggs, or preferably of meat, and thinks that the amount given should be as much as from 100 to 120 grams a day (1,543 to 1,851 grains).

THERAPEUTICS.

264. The Treatment of Gastric Ulcer.

IN dealing with the medical treatment of gastric ulcer and its sequelae, W. Weinstrand (*Berl. klin. Woch.*, December 20th, 1909) first points out that Kaufmann has shown that the mucus plays a considerable part in protecting the mucous membrane from the damaging effect of the digestive juices and from mechanical, thermic, and other chemical damage. An insufficient mucus protection may lead to the formation of ulcer. There are many other considerations which render this theory probable. After a few further general observations he turns to his subject proper, the treatment of ulcer of the stomach. He recommends as a standard basis for treatment Leube's treatment. This consists in: (1) Rest—at least ten days in bed, and not more than half an hour in the evening sitting up; (2) Carlsbad course of waters; (3) diet consisting of milk, soups, soaked rusks, or biscuits; (4) poultices. In many of his cases, however, he has obtained equally good results without the course of Carlsbad waters. The pain often disappears with extreme rapidity under the influence of complete rest, and it is possible to increase the articles of diet quickly without producing fresh symptoms. Boiled rice or semolina, eggs, and then minced meat are given when the patient is free from pain, sickness, and nausea. After from ten to twelve days it is often possible to add vegetables and stewed fruit, and then to proceed to a mixed diet. He makes it a rule that no ulcer patient may get out of bed until he can take a mixed diet without untoward symptoms. On looking over his cases he finds that he has treated 134 cases of uncomplicated gastric ulcer, many of which showed haemorrhage; 108 of the patients were women and only 26 men; 89 had haematemesis. One old lady of 82 died of cardiac weakness from a large pleuritic effusion. All the other cases terminated in recovery. With regard to the treatment of bleeding ulcers, he discusses the plan of Lenhartz, which embodies giving two eggs and 200 grams of milk from the first. Lenhartz has obtained excellent results, having only lost 2.3 per cent. of his 295 patients. The author, however, does not feel justified in giving up his method, since his results are better than Lenhartz, and he is afraid that he might lose one or two patients by the new method who would have recovered. He withholds all food per os during the haemorrhage. When this is stopped he gives tea in spoonfuls or iced milk, provided that neither vomiting nor pain follow. Then he goes rapidly on to increased quantities of milk, soup, rusks soaked, etc. When milk is vomited he has found Nestlé's milk, Mellin's food, hygiama, or cocoa useful. At times he has found it impossible to do without narcotics. He prefers codein, dionine, or morphine to all others. The chief difficulty in the treatment he finds is the arresting of haemorrhage. Once the bleeding has ceased the treatment is comparatively easy, but the bleeding is at times very obstinate. The most active means which he knows is the intravenous injection of 10 per cent. sodium chloride. He states that the results of these injections in cases of severe haematemesis are often extraordinary. He has satisfied himself that the injections really stop the bleeding, as in some cases the patients continued to vomit but there was no longer any blood in the vomit. He only once had to call the surgeon in to help him, and on comparing this case with his other cases he is now inclined to think that the operation may not have been actually needed. He is of opinion that many of the sequelae of gastric ulcer can be prevented by repeated courses of Carlsbad, Neuenahr, or other waters. Even pyloric stenosis may be prevented in this way, but when they occur these cases undoubtedly should be treated surgically. They react exceptionally well to operative treatment. The same applies to subphrenic abscess. Finally he deals briefly with perforation, and points out that the real prognosis of these cases largely depends on the contents of the stomach at the time of perforation. If only a little is present and the surgeon can be called early, the prognosis is good, while when the stomach is full the patient is lost almost for certain.

265. The Destructive Effects of Ionization.

IN the course of a long communication prepared for the International Congress of Physiotherapy (March 29th to April 3rd, 1910), Stéphane Leduc deals with the destructive effects of ionization (*Arch. d'élec. méd.*, February 25th, 1910). He pays particular attention to the action of the anions, which, he says, is more varied than that of the cations, more special in its character, and not so well understood. In discussing the properties of particular ions, he points out that the action of the anion of the bichromates is very caustic; the oxalic ion brings about a curious paralysis of the vasomotors; the ion SO_4'' produces a thin and glossy scar, with a tendency to become squamous; the group SH′ of the sulphides produces a cauterization very analogous to that of the hydroxyl OH′; the arsenous ion is extremely caustic but the arsenate ion very much less so. This difference of action between the arsenous and the arsenate ions demonstrates the importance attaching to the ionic groups. The arsenites and the arsenates are considered equal in therapeutics, but their action, when introduced electrolytically into the skin, is extremely different. Leduc lays special stress upon the antiseptic value of destructive ionization. For protecting the organism against infection, the ions are more efficient than the bistoury and the thermocautery. Although the latter may appear to be exempt

from the more evident dangers of the bistoury, yet the scar which is left by thermo-cauterization has no real defence and is predisposed to infection. The bistoury and the thermo-cautery have the advantage of being more rapid, simple, and convenient than ionization, but the advantages do not compensate for the greater risk involved. Leduc discusses many applications of ionic destruction, including electrolytic epilation in which the hair bulb is destroyed by the ion OH′, the specific action of the magnesium ion on warts, the zinc ion on carbuncles, and the salicylic ion upon infected and inflamed wounds. There is nothing simpler than the introduction of the salicylic ion in a painful wound. The wound having been carefully circumscribed, a thick layer of absorbent cotton is impregnated with a 2 in 100 solution of salicylate of sodium, and used as a dressing. On this dressing is placed a metallic electrode having connexion with the positive pole, and a current intensity varying, according to the case, from a few milliampères up to 100 is gradually established. At the end of the séance, which may last for one hour, there is usually an end of the pain, and the wound, sterilized and modified by the action of the salicylic ion, rapidly cicatrizes. He also deals with the useful ion OH′ in narrowings of the urethra, and states that he has seen the calibre of the canal maintained after electrolytic section in the case of patients who have had relapses after urethrotomy. For cauterizing and sterilizing the uterine mucus, and for arresting the metrorrhagia, the zinc ion possesses the maximum of efficiency. Leduc counsels the zinc ion also in cases where the morbid condition is local and of small extent, on account of its coagulating properties, and because the destroyed tissues form a scar, firm, adherent, closed to infection, and furnishing a protective occlusion to the living tissues underneath. The study of the ions, particularly of the anions, is only at its commencement, and he is confident that it will open up other new resources in medicine.

266. Bromide of Camphor in Chorea.

Ghetti (*Gazz. degli Osped.*, March 10th, 1910) draws attention to the value of bromide of camphor in the treatment of chorea. His experience does not appear to have been very large in the use of this drug, and he only records two cases, in children aged 9 and 7. In both these cases the result was satisfactory. The dose was 50 cgr. in cachet three times a day for the first week, increased to four in the next week. The drug was well borne, and gave rise to no unpleasant symptoms; it is used constantly in the Baccelli clinic, and the author wishes the treatment to be more generally known.

PATHOLOGY.

267. Mexican Typhus Fever.

In the issue for February 18th, 1910, of the weekly reports published by the Public Health and Marine Hospital Service of the United States, Anderson and Goldberger give an account of their work on "tabardillo," the typhus fever of Mexico. Experimenting on two species of monkeys, *Macacus rhesus* and *Cebus capuchinus*, they found that blood from cases of human tabardillo is capable of producing a characteristic fever. After an incubation period of from five to eleven days, the fever continues for thirteen days, and in its onset, course, duration, and critical defervescence presents a striking resemblance to the fever curve of this disease in man. The authors therefore consider that the disease they produced in monkeys, although without a discernible eruption, was due to the transfer of a living virus. The human blood which they inoculated gave no visible growth on ordinary culture media. Passage experiments gave further support to their view that they were dealing with a living virus, capable of multiplication. Using blood, sterile on ordinary culture media, from a human case of tabardillo, they inoculated two monkeys with it intraperitoneally, and produced a fever in these animals after an incubation period of eight days. Blood drawn from the heart of one of the monkeys four days after the onset of the fever, and again on the following day, although sterile on ordinary culture media, induced, when inoculated intraperitoneally into two other monkeys, a fever resembling that of the animal from which the blood originated. The virus is apparently too large to pass through a Berkefield filter, since the authors found that after filtration of the diluted human blood serum inoculation into monkeys gave no febrile reaction or other manifestations of illness. From their investigations in Mexico City the authors became strongly impressed with the idea that the transmission of tabardillo from man to man was probably attributable to some intermediary host. The insects which immediately suggested themselves as worthy of serious attention were the flea, the bedbug, and the body louse. The flea was soon eliminated from consideration, as the ubiquity of this insect, in contrast to the well recognized limitation of the disease amongst the lowest social classes, did not harmonize with the idea that fleas might be the transmitting agents. Nor was there found any evidence incriminating the bedbug. "Assuming for the moment that the bedbug is the carrier, tabardillo should have the characteristics of a house disease, that is, the infection should appear to be attached to houses and practically not at all to individuals, such as is the case in yellow fever. As a matter of fact, however, such is not the case. The distribution of the bedbug among the social classes is much more general than tabardillo. . . . Finally, both the bedbug and the flea seems to us to be pretty definitely ruled out of consideration by the further fact that these insects are found in the lowlands of Mexico, where the disease is unknown except as isolated imported cases." Stronger suspicion attached to the body louse. The sluggish habits of this insect, and the difficulty of its transfer from man to man without intimate contact with the person or clothing of a lousy individual, corresponded with the observation that tabardillo is a disease which is only contracted after intimate personal contact with an infected person. Another fact of some significance to which the authors call attention is that body lice, though common in the higher altitudes, where tabardillo is found, are apparently non-existent in the lowlands, where tabardillo does not occur unless imported. They were informed by a doctor who lives in the lowlands that this limitation in the distribution of body lice is well known amongst the natives. When persons coming down from the plateau in search of work are found to be infested with body lice, no precautions are taken for the destruction of the vermin owing to the popular belief, which the doctor found to be well substantiated, that the lice could not live in the lower altitude for more than a few days. In two experiments Drs. Anderson and Goldberger endeavoured to infect monkeys with tabardillo by means of lice. Positive results were not obtained, but the authors note that Nicolle, working in Tunis, has been successful in transmitting typhus fever from monkey to monkey by means of the body louse, and they feel justified in concluding that "the evidence against the body louse as transmitter of tabardillo is sufficient to demand that prophylactic sanitary measures directed against this disease should take into consideration that insect."

268. The Buccal Mucosa in Relation to Tuberculosis.

Giliberti (*La Pediatria*, December, 1909) details certain experiments made by him to determine how far tuberculous infection came about via the normal mucous membrane of the mouth. For this purpose he removed the cervical and inguinal glands of 30 children dead from various non-tuberculous causes, and, as far as was known, free from signs of tubercle during life. He made separate mixtures of the two sets of glands, and then injected portions of each of the mixtures into different sets of guinea-pigs previously subjected to the tuberculin test. Of the animals injected with the mixture of cervical glands 11 died of tuberculosis, 17 died within a month of other diseases, and 2 (killed three months later) showed no sign of tubercle. Of the second series of animals (those injected with the mixture of inguinal glands) only 2 died of tubercle, 5 of other diseases, and 23 showed no lesion. From these experiments the author concludes that the buccal mucous membrane may give passage to tubercle bacilli, and probably does so more frequently than is realized, and that consequently more attention should be paid to the mouth as a possible channel of tuberculous infection. Subsidiary questions arising out of his research are: (1) Is there an anatomical path from the mucosa of the mouth to the glands of the neck and thence to the peribronchial glands and right heart? (2) If every bacillus reaching the larger circulation from the mouth must first pass through the lungs, why is not pulmonary tuberculosis more common in infancy than it is as compared with other tuberculous localizations? Perhaps the incomplete development of lymphatic nodules in the lungs of children and non-retention of bacilli in the comparatively large pulmonary capillaries may partly explain this immunity.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

269. Cephalic Vaso-Dilatation.

SARDOU (*La Clin.*. March 25th, 1910) considers that cephalic vaso-dilatation is a phenomenon of frequent occurrence, and one which may be much accentuated owing to the vascularity of the nervous centres and the sense organs, and of the mucous membranes and glands connected with the face and skin. When these organs functionate circulatory changes occur, the balance and harmony of which are disturbed by inefficiency of the vasomotor system. Under these circumstances one observes a frequent excess of colour in the skin, generally most marked in the cheeks, ears, nose, and sides of the neck. It may be confined to one part of the face or to one side, but is usually symmetrical. More rarely the colour is in the forehead only, while in some cases the lips are turgid and violet-hued, with even an alteration in their shape. Heredity plays a part in causation, evidences of congestion appearing in childhood, and as the result of trifling causes. Vaso-dilatation is liable to appear at puberty or in later life, either when the menses are becoming established or at the menopause. The influence of the ovary upon menstruation is recognized, regulating the amount of the flow, its late appearance, or its suppression. Catamenial hypertension affects the mechanism of these troubles, although they may also be independent of hypertension. Probably the florid appearance of some chlorotics has the same origin. Uterine troubles cause cephalic vaso-dilatation either directly or as the result of ovarian changes. The digestive canal is a frequent source of it, as toxic products arise in it, and it is the seat of nervous influences. Auto-intoxication acts in a similar manner, producing hepatic disease and renal insufficiency. Such poisons as alcohol and tobacco affect the head, so also do such drugs as the iodides, salicylates, and mercurial salts, and some of the preparations of opium. Among diseases influenza is responsible for much vasomotor trouble, facial erysipelas and typhoid fever follow in frequency, syphilis and violent emotion are common causes, while it is always found when there is over-activity of the thyroid gland. Crises of cephalic hyperaemia may be excited by taking a repast or by certain foods, such as wine or coffee, while exertion, mental work after a meal, or missing the post-prandial sleep may have the same effect. Some positions relieve the hyperaemia; standing or gentle walking help to diminish it, bending forwards brings it on, lying down reduces it, any constriction round the neck adds to the discomfort and congestion; so also does any physiological effort—vomiting, singing, defaecation, or athletic exercises. The condition is aggravated by heat or cold, by diseases of the respiratory organs or of the circulatory system, sclerosis of the arteries being a preponderating cause. Thus vaso-dilatation arises from many causes, and first attacks the peripheral parts of the skin or mucous membrane. The conjunctiva is reddened, moist, even bathed with tears; there is visual fatigue and every appearance of the presence of a foreign body in the eye. An elderly woman with pronounced sclerosis had in successive years three attacks of cephalic hyperaemia, due to the delay of the menses. Another had two attacks of acute conjunctivitis accompanying vaso-dilatation from gastric intoxication. A patient who suffered from hepatic insufficiency suffered from flushings and visual disturbance with each crisis of the malady. A man who had mucous colitis could not read bending forward after meals. A child of 8 years after an attack of enteritis suffered during her sleep from vaso-dilatation. In the mornings her face was turgid, the lips and eyes swollen, the features oedematous, and her intelligence clouded. These symptoms would disappear in an hour or two, but were liable to reappear in a less acute degree after meals. The eyes showed deep congestion of the tissues, with thickening of the orbital margin. A young girl who was dyspeptic and constipated had coryza frequently, and every afternoon such nasal obstruction that she could only breathe through her mouth for an hour or two. The condition disappeared when the gastric trouble yielded to treatment. Epistaxis frequently occurs, and gives relief. Many cases have a watery discharge from the nose while the hyperaemia lasts. It is common among the young to find a varicose or granular condition of the throat with enlarged glands, oedema of the larynx, dysphonia, and cough. Further, the ears may be affected by deafness, ringing, or noises, while parotitis and adenitis are more or less frequently present. Much suffering is entailed by headaches, neuralgia, and migraine, and there may be a coincident enlargement of the thyroid gland. A continued hyperaemia of the face leads to erythematous and eczematous conditions of the face. The effect upon the nervous centres is to produce depression and slowness in some, with hyperactivity and excitement in others; the mind and character suffer, and the patient may develop vertigo, loss of memory, insomnia, or intercranial sensations which are very troublesome, the disturbance often becoming acutely mental. The trouble is often begun by an infectious disease which causes a simple paresis of the vessels. If vaso-dilatation is a factor in sclerosis, commencing sclerosis promotes vaso-dilatation. Too great activity of function produces abnormal irrigation of the parts with blood. On the other hand, toxins disorganize and exaggerate the flow of blood at the expense of the function and structure of the organs. Cephalic vaso-dilatation merits clinical attention, since it may develop in some cases, and lead to consequences such as have been indicated.

270. Flatulence and its Treatment.

I. BOAS defines flatulence as a condition in which an abnormal quantity of gases are expelled either without pain or when the flatus is imprisoned, with temporary pain. Nothnagel limited the term somewhat more narrowly (*Berl. klin. Woch.*, January 17th, 1910). Boas finds that flatulence may be produced either by an exogenous intake of gas or by an endogenous gas production. The former type is chiefly met with in nervous persons who swallow air with their food and in persons who eat quickly. The gas eructated or passed downwards is free from all smell and the intestinal function is not impaired in this form. The flatulence is independent of the form of food taken in or its quantity. When tested with Schmidt-Strassburger's or other form of fermentation tube, the faeces do not show any abnormal power of fermenting. Turning to the endogenous form, he states that much difficulty is experienced in recognizing some of the cases. Every degree from the temporary flatulence after eating foodstuffs containing cellulose, which may be regarded as physiological, up to a marked chronic form is met with. Chronic constipation supplies the intestines with material which can produce abundant gases; in these cases the gases are offensive according to the degree of decomposition of the ingesta. The form and quantity of food plays a distinct part in this form. Colicky pains occur at times in this condition, but are usually more due to the constipation than to the collection of gases. Painful flatulence is met with in cases of intestinal catarrh, affecting either the small or large intestine. At times painful flatulence is the only symptom of the so-called fermenting intestinal dyspepsia. In these forms, too, the kind of diet is of some importance, although the process of fermentation proceeding within the intestine naturally is the prime factor. The origin of some forms of flatulence has been shown to be the stomach, and include achylia gastrica and motor insufficiency. Pyloric stenosis also may give rise to diarrhoea, colic, and flatulence. A further type which can be readily differentiated from all other forms is met with in those disturbances of the intestine in which the process of fermentation depends on some organic lesion stenosing the large intestine. The gases developed include marsh gas, sulphuretted hydrogen, carbonic acid, hydrogen ammonia, etc. The odour is extremely unpleasant, especially when blood or pus in present. The flatulence due to intestinal stenosis is always attended by severe pain. Lastly, Boas mentions flatulence due to congestive processes in the pelvis and lower portions of the abdomen in cases of cardiac disease with disturbance of compensation. After dealing briefly with the question of tympanites, he turns to the question of treatment. He ridicules the old-fashioned idea of curing flatulence with a hot infusion of one or other form of herb. In treating a case of flatulence the first thing to be settled is whether there is any other symptom beside the flatulence, and also whether this is painless. If this be the case, a pure exogenous aërophagia may be assumed, and the treatment may be planned accordingly. There is no need to put the patient on a special diet, but attention must be directed

toward the mode of eating, and nervous remedies should be employed. Many of these cases are extremely obstinate. When the flatulence depends on constipation or chronic catarrh, careful dieting is of the foremost importance. Boas believes that treatment in a well-conducted sanatorium yields the best results. He deals specially with the action of milk, whey, sour milk, kefir, and eggs in producing flatulence. Underdone beef and mutton, and, in fact, all forms of half-cooked or raw articles of food, should be avoided. In some cases it will be found necessary to give special articles of food tentatively to test their special power of producing flatulence, until a suitable diet can be found for the individual patient. In fermenting dyspepsia, carbohydrates should be forbidden for a considerable time, and a pure albumen-fat diet prescribed instead. Intestinal disinfectants do good service, and Boas especially recommends magnesium salicylate. He does not consider that the rectal tube does much good, and in conclusion urges the necessity of selecting a good form of purgative for each case.

SURGERY.

271. Surgical Transplantation in the Human Subject.

Tuffier (*Bull. et mém. de la Soc. de Chir.*, No. 6, 1910) gives the results of his experience of transplantation of tissues, membranes, and organs in the treatment of certain surgical affections in man. This report deals exclusively with grafts taken from the patient or from another human subject. Previous experiments had proved, the author states, the therapeutical inefficacy of transplantations from animals to man. Reference is made to two cases to prove that the good results obtained by the auto-transplantation of large skin flaps are not of mere temporary duration. In both cases—one of perineo-scrotal hypospadias, the other of absence of the vaginal canal and the neck of the uterus, in which the refection of mucous canals by large rolled-up flaps of skin taken from the thigh, remained quite sound after intervals in the respective instances of four and a half and five years. Much success in regard to both immediate and remote results has also been attained in the author's practice by the transplantation of osteo-cartilaginous and exclusively cartilaginous grafts for the refection of articular surfaces after resection. In the year 1901 he grafted the articular surface of the head of the humerus on the extremity of the diaphysis after resection of the two tuberosities and the intermediate portion of bone. An excellent functional result was obtained, which after an interval of twenty months was still more decided. Many other successful cases of this kind have been put on record by different surgeons, and it has been recently proposed to transplant a complete joint. In the treatment of large osseous defects the auto-transplantation of masses of subcutaneous cellular tissue is preferable, the author holds, to metallic stopping, as the living tissue, when it has been successfully grafted, is capable of defending itself against infection, and has not the dangerous passivity of an inorganic body. Attempts made to relieve the subjects of myxoedema by inserting beneath the skin of the thorax and abdomen small portions of the human thyroid have not, it is reported, been very satisfactory, as the results of such treatment, though for a time decidedly encouraging, did not persist. The author in his researches on the transplantation of entire organs has paid special attention to the ovary. This organ he has often grafted into the broad ligament and into the subcutaneous cellular tissue of the abdomen either immediately after its removal from another woman or after cold storage for periods of from two to ten days. It is certain, he says, that after immediate transplantation not only will the grafted organ retain its vitality, but that the ovarian parenchyma may become the seat of biological phenomena exactly resembling what occurs at the period of menstruation. In the concluding portion of the paper reference is made to a case of old urethral stricture with induration of the perineum and several fistulae, in which the constricted portion of the urethra was refected and a free urinary outlet supplied by transplantation of a portion of a varicose saphena vein.

272. Lung Resection.

Sauerbruch and Robinson (*Annals of Surgery*, March, 1910) in a paper on the technique of lung resection with the application of both forms of differential pressure, point out the importance in practical surgery of the results of recent investigations on pneumectomy in animals. In the introductory portion of this paper the authors state that though extirpation of the lung apex in the subjects of early tuberculosis does not harmonize with modern conceptions of an operative indication, it has been shown that resection of pulmonary tissue is practicable in the human subject. Since the dangers of pulmonary collapse have been obviated by the use of differential pressure, removal of portions of the lung of greater or less extent has been practised in cases of neoplasm of the organ itself, or of large growths of the thoracic wall with lung involvement. In many of the recent series of experiments on animals it has been reported that while a single lobe may be removed without much danger to life, complete extirpation of one lung is in most instances a fatal operation. Death in such cases, which usually occurs after a quiet interval of a few days, may be due to infection or to pneumothorax and mediastinal emphysema consequent on patency and gaping of the bronchial stump, both of which causes can be prevented by strict asepsis and correct technique. Another cause of danger, first pointed out by Robinson, and to which special attention is directed by both authors, is the fact that in connexion with the removal of the complete lung there regularly occurs a marked exudation in the pleural cavity, which usually leads to death on the third or fifth day. The entire pleural cavity is filled with a clear or slightly cloudy serous fluid. The heart and mediastinum are pushed to the other side and the other lung compressed. This transudate, which differs perceptibly from an infectious exudate by its sterile character, must be regarded as a cause of death through mechanical hindrance of the heart's action, the blood circulation, and the respiration. This condition results when the large cavity left by removal of the lung fails to be filled up by displacement of the intrathoracic organs and soft parts and by rigidity of the thoracic cage. A series of experiments made by the authors, and fully described in this paper, demonstrate that the removal of one lung or a large portion of the same can only be successfully accomplished when the cavity left by the operation is diminished in size as soon as possible, in order thereby to avoid the accumulation of a transudate. This reduction in pleural capacity is best accomplished by the crowding in of the neighbouring organs. The authors have likewise been able to demonstrate under what conditions this displacement of organs is possible. They insist, in the first place, on the superiority of negative over positive pressure during the operation. As a condition of compensatory displacement of the neighbouring organs after total or partial pneumectomy, an operative reduction in the capacity of the pleural space is also rendered possible by the mobilization and displacement of the chest wall. If the mediastinum becomes stiffened by chronic inflammation, the thoracoplasty which has to be performed may be an extensive one without dangerous disturbances of the heart or remaining lung. It should be limited to the removal of a few ribs if the mediastinum is a movable one and readily capable of displacement.

273. Electric Anaesthesia.

Marcus M. Johnson (*Med. Record*, April 23rd, 1910) gives a summary of the production of anaesthesia by means of electricity as it was shown by Dr. Louise Rabinovitch in a case operated on for amputation of four toes. The patient felt absolutely no pain, even when healthy tissue was cut into. The anaesthesia was obtained by the use of storage batteries sending a current through electrodes placed over the nerves supplying the tissues to be anaesthetized. The negative electrode was applied over the sacrum, and three positive ones over the anterior crural, anterior tibial, and posterior tibial nerves. The capacity of the storage batteries were 100 ampères, and the current was interrupted 6,000 to 7,000 times per minute. Anaesthesia began as soon as the electrodes were applied, and there were no bad effects, the patient sitting up in bed two hours after the operation.

OBSTETRICS.

274. Conservative Caesarean Section.

Laurence (*Journ. des praticiens*, November 20th, 1909) treats of the technique of Caesarean section in pelvic deformities under three heads: (1) How to operate; (2) how to effect arrest of haemorrhage, asepsis, and antisepsis; (3) the ultimate results of operation, and how to improve them. Pinard advocates the more frequent practice of operating after the onset of labour, whilst Bar and Doléris prefer to choose the end of pregnancy, before labour commences, on the ground that thus selecting the day and hour of operation gives the best surgical conditions and

promises the best possible results. The inclined plane position and the delivery of the uterus outside the abdomen before incising it ensure the protection of the field of operation, preventing torsion of the womb and providing for an exactly median incision, so as to avoid important arteries. If the incision should pass through the insertion of the placenta, the increase of haemorrhage may be somewhat alarming; but the immediate urgency is the rapid emptying of the uterus, and if the incision is boldly continued to the required length the actual amount of blood lost will not be greater than when the placental detachment takes place subsequently. Muscular contraction, after the evacuation of the uterus, is usually sufficient to arrest haemorrhage, and Bar advises the subcutaneous injection of 15 minims of ergotinin, made just as the uterine incision is about to begin. If given sooner, it may cause contraction of the opening through which the fetus has to pass. Suturing must be carefully carried out, the stitches being drawn sufficiently tightly to resist muscular contraction and to obviate abdominal drainage and yet not to strangulate the site of the cicatrix or cut through the tissues. If persistent atony should prevent haemostasis in spite of ergotinin and sutures, hysterectomy is recommended as being preferable to wasting time by intermittent compression of arterial branches. Careful drainage per vaginam must be provided for during the first twenty-four hours, either by a drainage tube or by a strip of gauze passed through the cervix. Cases must be carefully selected to avoid auto-infection, and the conservative operation cannot be safely performed if there is much elevation of temperature, any gonorrhoeal infection, early rupture of membranes, great prolongation of labour with frequent examinations, or several attempts at extraction *per vias naturales*. Subsequent complications consist in thinning of the cicatrix with rupture, and in adhesions to the intestines, epiploic appendices or parietal peritoneum, the last causing less embarrassment than the others in future pregnancies. If subsequent sections are performed, the incision should be made beyond the cicatricial area, but the cicatrix constitutes a special danger in such cases, and repeated success is not to be counted upon.

GYNAECOLOGY.

275. Vaginal Operation for Echinococcus in Pelvis and Omentum.

STRASSMANN (*Zentralbl. f. Gynäk.*, No. 6, 1910) began a vaginal operation for what he had diagnosed as a malignant tumour of the ovary. The patient was 32 years old and had been subject to colicky attacks and pains in the hypogastrium for some time, and the tumour had latterly increased to a marked extent under observation. Ascites was absent. Strassmann found that the results of vaginal ovariotomy were very satisfactory, even for malignant tumours. But when he introduced his hand into the pelvic cavity through the vaginal incision, he could find no circumscribed tumour. Echinococcus cysts were widely diffused over the Fallopian tubes, the connective tissue between the vagina and rectum and the omentum which bore a large hydatid cyst. These cysts were freely removed, the wound was left wide open and plugged with iodoform gauze, and the patient made a speedy recovery. After inquiries it was found that ten years previously the patient had drunk out of a ditch, that others who had done so had suffered from painful swellings in the abdomen, and that parasites had been discovered in the ditch water on investigation. Strassmann declares that he had no difficulty in exploring the pelvic and abdominal viscera through the vaginal incision into which he was able to introduce his entire hand.

THERAPEUTICS.

276. Antimeningococcus Serum.

DOPTER (*Ann. de l'Inst. Pasteur*, February 25th, 1910), acting on the advice of M. Roux, commenced at the end of 1907 to vaccinate horses against the meningococcus. At the end of 1908 and in the course of 1909 the serum obtained was used in the epidemic which had arisen in France. Dopter considers that the number of cases treated is sufficiently large to enable one to form an opinion as to the efficacy of the serum. He is of opinion that it is of high curative value in the treatment of cerebro-spinal meningitis and of the extra-meningeal manifestations of the meningococcus. Its action is *nil* in other forms of meningitis (tuberculous, pneumococcic, streptococcic, etc.). The specific efficacy of the serum is shown by (1) the diminution in mortality, (2) its direct effects on the symptoms, and (3) the reduced duration of the disease and the rarity of sequelae. He has obtained particulars, collected from various parts of France, of 402 cases in which the serum was administered. Amongst these there were 66 deaths, giving a percentage mortality of 16.44. In 17 of the fatal cases the serum was injected *in extremis*, death following a few hours subsequently, and in 2 others the patients died from other causes, when the symptoms of meningitis had disappeared. If these 19 cases be eliminated, the statistics give a mortality of 47 in 383, or 12.27 per cent. The percentage mortality of the patients who were infected at the same period but did not receive serum treatment was, approximately, 65—a difference which is eloquent testimony to the efficacy of the serum. Administration of the serum (by the intraspinous method) generally produces a marked sedative effect in from twenty-four to forty-eight hours. There is a diminution of the coma, headache, delirium, and insomnia; the temperature falls, and may return to normal either rapidly or by a gradual decline of three or four days' duration. There is also an amelioration in the general condition and in the ocular, auditory, and paralytic troubles. Daily examination of the cerebro-spinal fluid also reveals the favourable progress of the treatment. The connective tissue cells disappear; the degenerated polynuclears diminish in number and are replaced by normal polynuclears; the meningococci become rarer and those which persist exhibit signs of bacteriolysis; at this stage culture inoculations prove sterile. Dopter states that in serum-treated cases the duration of the disease does not, on the average, exceed from eight to twelve days, although there are some obstinate cases which last from three to four weeks. The method of administering the serum is of high importance. Neither subcutaneous nor intravenous inoculation is efficacious. In order to manifest its active properties, the serum must be brought into direct contact with the affected meninges, and must, therefore, be introduced into the spinal canal after lumbar puncture. In exceptional cases direct intraventricular inoculation has been recommended. It is important to employ large doses. With the adult, 20, 30, 40, or even 45 c.cm. can be easily injected into the spinal canal, after an equivalent amount of cerebro-spinal fluid has been previously withdrawn by lumbar puncture. With the infant, even when less than a year old, from 10 up to as much as 30 c.cm. can be injected without difficulty. Repeated dosage is required. Except in the slight cases it is rare that a single injection, even with a big dose, is capable of completely mastering the disease. After a single injection there may be an amelioration of all the symptoms, which may give the impression that repetition is unnecessary; but experience shows that a day or two afterwards there will be a recrudescence of the disease, pointing to the necessity for further inoculations. Hence many investigators have found it advantageous to inject systematically for three or four consecutive days, even when the first injection produces a marked amelioration. In spite of the best method of administration, the serum sometimes fails to do good. These cases Dopter classes as follows: (1) The affection assumes a fulminating form; (2) the serum is injected too late; the case is of the septicaemic or hypertoxic variety, with very numerous petechiae and extra-meningeal deposits of meningococci (bronchopneumonia, pericarditis, nephritis, etc.); (4) the cerebral phenomena are very marked, and point to lesions situated on the convexity of the brain; (5) the serum appears to do good at first, but the symptoms soon reappear, and only partially recede after each successive injection; then, after a time the symptoms pass into a chronic state, and the meningococcus fails to disappear from the cerebro-spinal fluid; the explanation of these last cases is not very clear.

277. The Effect of Repeated Small Doses of Quinine on the Blood.

DE SANDRO (*Rif. Med.*, March 7th, 1910), experimenting on dogs with reference to the effect of quinine in small and repeated doses on the blood, concludes as follows: Seven dogs were used; 4 of these (including a control animal) were experimented upon for ninety-five days, and 3 for eighty-three days. The daily dose of quinine (divided into

two) was 40 cgr. of the bichloride salt to every 70 kilog. of body weight. Under this treatment the amount of haemoglobin increased from the third and fourth days up to the seventh, and remained at that level (varying from 3 to 13) during the course of treatment. *Pari passu* with the increase in haemoglobin there was a corresponding but slightly smaller increase in the number of red corpuscles. The leucocytes increased to double and sometimes treble the initial number. During the whole period of cirrhosization there was no poikilocytosis, no anisocytosis, no anisochromia, no cyanophile corpuscles, no polychromatophile erythrocytes, and no erythroblasts. The viscosity of the corpuscles was not changed. The polynuclear neutrophiles were increased (10 to 13 per cent.); there was a relative diminution in the number of lymphocytes and large mononuclear cells. The globular resistance was slightly augmented and the coagulation of the blood a little retarded. On the whole it may be said that in small daily doses quinine improves the state of the blood by raising the haemoglobin index, by increasing the number of red corpuscles, and by inducing a certain degree of leucocytosis; in larger doses the contrary effect is produced.

278. Treatment of Chorea in Children.

ALLAN (*Amer. Journ. Med. Sci.*, February, 1910) insists upon the value in chorea of complete rest in bed in assisting to allay muscular irritability and mental instability. The length of time varies in each case, few requiring to be kept in bed longer than six weeks, while a few days may suffice in the very mildest cases, followed by rest on a couch for several hours a day, and avoidance of all violent exercise or excitement. Since there is the possibility of serious cardiac involvement even in the mildest cases, rest in bed at the commencement is important on this ground alone. Isolation with a nurse may be necessary, especially where there are neurotic relatives. In acute cases a fluid diet of milk, egg flip, beef tea, etc., should be given, chronic cases requiring an ordinary diet with an extra quantity of milk, and regular action of the bowels is important. The application of a hot pack is often beneficial in inducing sleep, and during convalescence and in mild cases cold sprays are invaluable if followed by a healthy reaction. Skilled massage night and morning is useful after the subsidence of acute symptoms, especially when there is any muscular wasting or tendency to paralysis. Of drugs, arsenic and acetyl-salicylic acid appear to give the best results, the practice of giving enormous doses of salicylate of sodium being deprecated as too risky a procedure. Arsenic may be given in gradually increasing doses, commencing with 3 to 5 minims of the liquor arsenicalis three times a day, increasing the dose by 2 minims every second day until 20 minims are being taken in each dose, when the dosage is gradually decreased in the same ratio down to 5 minims thrice daily, which is continued for some weeks. The author regards acetyl-salicylic acid as the drug *par excellence* for the treatment of chorea, and he has used it in all his cases during the last four years without failing to effect a cure. The drug is best given in suspension in a mixture, and for children at puberty 90 to 120 grains may be given daily after meals, thereby avoiding any tendency to gastric symptoms. The dose should be gradually decreased on the cessation of movements, and continued in small doses for several weeks. During convalescence iron, combined with arsenic or cod-liver oil, is necessary to overcome the anaemia, and after recovery the child's life must be regulated to prevent relapses, prompt measures being adopted on the slightest threatening of a recurrence.

PATHOLOGY.

279. Tuberculous Infection in Laundries.

O. ROEPKE (*Zeit. f. Tuberkulose*, December, 1909) has carried out a series of investigations as to the danger of the spread of tuberculosis from infection originating in the soiled clothing, handkerchiefs, and bed linen of tuberculous patients. Bernheim and Roblot, from observations in the Paris dispensaries, concluded that dirty linen may be the cause of tuberculous infection, and Landouzy found that of 1,202 washerwomen and 388 washermen in Paris a third part contracted tuberculosis of the respiratory passages usually in a very acute form. It is known also that local tuberculosis not very infrequently affects the fingers of washerwomen. The possibility of drops of sputum containing bacilli being deposited more especially upon the handkerchiefs of phthisical patients, but also upon the body linen and bedclothes, is obvious, while in intestinal or urogenital forms of tuberculosis the underclothing and bed linen are unavoidably contaminated by faeces, urine, pus, etc., containing bacilli. If the dirty clothes are moved about from place to place before washing, dust containing bacteria is in danger of being scattered and risk of infection incurred. The prophylactic measure is to prevent as far as possible the development of the washing dust. In private houses this can be easily accomplished, and, as the author has shown in a previous article, it is enough to soak the clothing in a 1 to 2 per cent. solution of raw lysoform before it is washed; to ensure safety the handkerchiefs are put directly after use into a 2 per cent. solution for twenty-four hours. In hospitals and sanatoriums, however, this procedure cannot be adopted because it is necessary to sort the linen before it is disinfected. The author's observations were made in the sorting room of the Stadtwald Sanatorium, in which the washing is each week sorted and fastened into bundles, the process taking about an hour and being carefully done, under the superintendence of a sister. Twelve sterilized test objects were placed in the room, six at distances of 5–50 cm. (approximately 2 in.–19½ in.) from the floor and six of 100–150 cm. (39⅓–59 in.) approximately. At the end of the process the test objects were wiped with gauze tampons which had been previously sterilized and moistened with sterilized salt solution. Guinea-pigs were then inoculated either directly with the tampons or after incubation at 20° C. in bouillon for twenty-four hours. The result of the experiments was to show that the "washing dust" contained both pyogenic organisms and tubercle bacilli. The former were very virulent if the dust was obtained from the test objects which had been placed near the ground and if incubation at 20° C. had been carried out; the dust from the objects placed higher up was so poor in bacteria as to give rise after incubation only to a local pyogenic process. Tubercle bacilli could not be shown experimentally to be present on test objects higher than 1 to 1½ metres (39⅓ in. to 59 in. approximately) from the floor. The next question to decide was whether those who sorted the linen could act as carriers of tubercle bacilli. It was found that the dust settled on the workers, but that the virulence of the dust as tested by animal experiment was small; the animals did not succumb nor sicken severely. The dust which had settled on the head and face of the woman who did the actual sorting and therefore who had her head close to the ground, was alone able to produce tuberculous changes. The third point was how to prevent the possibility of infection by dust by means of soaking the clothing. For this purpose vats filled with lysoform solution were placed round, one with 1 per cent. solution for coloured materials, another for white, a third with 2 per cent. solution for handkerchiefs, and also one filled with soap powder solution for the reception of washing much soiled with blood, pus, etc., and a fifth for articles, such as stockings, which could neither be soaked nor washed in the machine. Each piece was put separately into the appropriate receptacle. Even with the greatest care some dust settled on test objects placed on the floor, and also on the face and hair of the woman who carried out the procedure, but on intraperitoneal injection into animals the dust only gave rise to quite small tuberculous changes. The conclusions of greatest practical importance are that the virulence of the pyogenic organisms in the dust is small unless they are incubated for twenty-four hours, and that the danger of infection from pyogenic organisms to those handling the linen is small; and similarly, that the self-protective powers of the healthy sound adult should as a rule be adequate to paralyse the danger of infection from tubercle bacilli, where due care in the manipulation of the material is employed. The great prophylactic measure is to avoid unnecessary moving about of the soiled objects in order to scatter a minimum of dust, and if this be done the dangers are no greater than those of ordinary life. Further prophylactic measures are to allow the dust to settle on the floor of the sorting room, and then to take it up with dusters made damp with lysoform solution, and to frequently disinfect the room with formaldehyde; also to advise those who do the work not to bend near the floor, to breathe with shut mouth, and, not only afterwards to wash the hands, but to rub the face, hair, and neck with a towel moistened with lysoform solution. The lysoform solution used for the washing can be used again, but the 2 per cent. solution for the handkerchiefs should always be freshly prepared.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

280. Meningism.

MENINGISM is the term used to describe a clinical picture like true meningitis but in which there are no pathological changes in the meninges, and which tends to rapid and complete recovery when the patient is relieved of the toxaemia which is almost always the cause of the condition. In this condition the symptoms are somewhat as follows—Langley Porter (*Arch. of Pediat.*, January, 1910): The patient, frequently a child suffering from an acute disease, is found to be in an irritable, restless, semi-somnolent, or even comatose, condition. It gives voice from time to time to a "cephalic" cry. Nearly always the patient is found lying on the side with the knees drawn up, the abdomen retracted, the head drawn back, and opisthotonos may appear. The pupils may be irregular in size, and one or both may be fixed; there may be ocular paralysis varying from time to time in intensity. In all the cases seen by the author Kernig's sign has been present; there will be a changing Babinski-Oppenheim phenomenon, and the knee-jerk may be exaggerated on one side; the respiration may be irregular but usually is not so; the pulse is often hurried in proportion to the temperature, which is almost invariably high. In diagnosing this condition from meningitis blood counts and lumbar puncture may give great help. It has, however, been shown by Hutinel that the characteristic cytological picture found after lumbar puncture in tuberculous meningitis may be found at times in other conditions giving rise to meningeal irritation—the blood count also may be misleading. In meningeal irritation, however, as distinguished from meningitis, the fluid obtained by lumbar puncture is clear, contains only a trace of albumen, does not develop the spider-web coagulum on standing, and has the normal reducing power with Fehling's solution, flows without any evidence of increased pressure, shows no organisms on examination, and gives rise to no bacterial growth when inoculated on various media. The presence of an increased number of polynuclear cells indicates acute meningitis, and lymphocytosis is a suggestive but not infallible sign of tuberculous meningitis. Pneumonia, typhoid fever, rheumatism, malaria, diphtheria, and the exanthemata—the diseases most often accompanied by this clinical picture—all show such definite signs and symptoms that one can generally be certain of arriving at a correct diagnosis if we make a careful examination of the patient. In the absence of signs suggesting any of these diseases, the faeces must be searched for parasites, especially if the blood show a high eosinophile count. The author thinks it quite probable that the symptoms of meningitis, of meningism, and of the mild degrees of muscle disturbance in children with pyrexia, are all alike evidences of toxic irritation of the neurons, the only difference being that in meningitis the toxins are to a large extent produced locally in the cerebro-spinal spaces, and cause pathological changes in the meninges as well as in the central structures.

281. Polymorphic Septicaemic Fevers.

RUMMO (*Rif. Med.*, Nos. 32–43, 1909), in a series of twelve lectures, discusses the so-called auto-toxic fevers—typhoid, paratyphoid, Malta fever, coli-bacillary and cryptogenetic fevers—and attempts to clarify some of our ideas on these various conditions. They all have this in common—namely, the presence of germs in the blood. High temperature, with certain reserves, suggests typhoid infection; the fever here is apt to take on a more regular type than in paratyphoid or Malta fever. Enlargement of the spleen takes place early and is noticeable in typhoid, whilst in paratyphoid and Malta fever the enlargement occurs later on in the disease, and is not usually very marked. Low vascular tension, roseola, and typhoid state are much more likely to be seen in typhoid, the rashes in paratyphoid and Malta fever being more varied, and in these latter diseases profuse sweating is more common. In typhoid leucopenia is present, whilst in paratyphoid the usual blood formula is an oligo-cyto-chromaemia. In the case of mixed infection the symptoms may be correspondingly deranged. Paratyphoid and mixed infections are apt to be of more prolonged duration than simple typhoid.

282. Gastric Capacity of Infants.

MOSENTHAL (*Arch. of Pediat.*, October, 1909) points out that certain facts brought forward in the study of the physiology of the digestive organs indicate that the accepted figures for gastric capacity need some revision, for whilst the figures represent accurate anatomic measurements of the stomach, the "physiologic capacity" is a figure at variance with the "anatomic quantity." The author carried out his observations on children at the New York Foundling Hospital. Each child was fed every three hours; the amount of milk given at a time was never forced, and in no case was there any regurgitation, vomiting, or sign of overfeeding. The milk was increased in quantity only when the infants emptied every bottle greedily and did not appear satisfied with the size of their meal. In 24 cases the maximum number of ounces taken for at least one-third of the nursings during a period of several days is taken as the figure representing the ounces of milk ingested at each nursing, and after death the gastric capacity was ascertained with as little disturbance of the natural conditions as possible, a water pressure of 6 in. being employed to distend the stomach. With few exceptions the results obtained by the author show that the infant ingested more fluid at a nursing than the volume of its stomach contents, showing that the physiologic capacity of the infant's stomach is considerably larger than its anatomic capacity. From his observations the author concludes that the gastric capacity of infants as measured *post mortem* or *intra vitam* is a false guide to the amount of milk that should be given at each feed; the amount of milk given at each feed should exceed the measured gastric capacity of the child by a considerable margin. Further, the intervals between the feeds should never be less than two and a half hours for breast-fed children and three hours for bottle-fed.

SURGERY.

283. Unilateral Exclusion of the Pylorus.

VON EISELSBERG (*Wien. klin. Woch.*, January 13th, 1910) finds that, though the results of gastro-enterostomy in pyloric obstruction due to ulcer or new growth are usually good, in some cases irritation of the ulcerated surface is still produced by ingesta, and pain persists. To avoid this irritation is of especial importance in cases in which the indication for an operation is recent haemorrhage. The best means—failing excision—is unilateral exclusion of the pylorus. Either before or after the performance of gastro-enterostomy the stomach is completely divided between a pair of Doyen's or Kocher's clamps on the cardiac side of the disease. The edges of the wound are separately sutured, so as to form two sacs, of which that on the cardiac side communicates with the intestine by the gastro-enterostomy wound. In the writer's first three cases he employed anterior antecolic gastro-enterostomy, but he now prefers the posterior retrocolic variety. The operation is indicated not only in cases of pyloric ulcer or growth with haemorrhage, but in those cases in which the surgeon is doubtful whether he should excise the ulcer or growth, or simply perform gastro-enterostomy, owing to either the patient's condition or to the presence of adhesions. Even carcinomata are benefited by the absence of food, and grow more slowly after exclusion of the pylorus. The operation is probably justifiable only in disease at or near the pylorus, though one case suggests that even in ulceration of the cardiac end of the stomach it may be more effectual than gastro-enterostomy alone. In a woman aged 33, gastro-enterostomy was performed on January 2nd, 1899, for gastric pain, dilatation and stagnation of food accompanied by emaciation. There was a deep crateriform ulcer of the pylorus, which caused considerable stenosis, and was so adherent posteriorly as to render excision impossible. The symptoms subsided, but five months after the operation there was severe gastric pain with haematemesis. On September 6th, 1899, laparotomy was again performed. The pyloric ulcer was smaller, but not suitable for excision. The stomach was completely divided as the first stage of pyloric exclusion, and it was then found that there was a second ulcer of the size of a shilling near the cardiac orifice, immediately behind the

lesser curvature. Excision was impossible owing to the position of the ulcer. The operation of exclusion was completed, and the wound healed by first intention. Though the chances of benefit seemed remote there was great improvement, and after keeping to a milk diet during nine months the patient could eat anything, and four years later was in robust health. In another case a man, aged 62, could only avoid vomiting by daily irrigation of the stomach and a most restricted diet. The stomach was dilated, and in the pyloric region was a hard, nodular tumour, adherent to the pancreas posteriorly, which was supposed to be a carcinoma on the site of an old ulcer. Unilateral exclusion of the pylorus followed by gastro-enterostomy was performed. From that date the pain finally disappeared, and three months later the patient had gained 33 lb. Eleven months after the operation no tumour could be felt, and after 4 years the man was in excellent health. The cause of death, six years after the operation, could not be ascertained. Of the writer's 12 cases 4 are recent, so that the final results cannot be stated. Of the remaining 8 the operation failed in its object in only one. In this the gastric troubles returned, and death occurred from haematemesis eight months after the operation. Such an eventuality is not unknown after excision of ulcers, and obviously more cannot be expected from exclusion of the pylorus. In one case the patient was under observation thirteen years, during which time he remained in good health. Jonnesco, who has performed the operation in 9 cases, believes that the operation will prevent perforation and lessen the chances of malignant degeneration of a pyloric ulcer—an event which is not uncommon years after the performance of gastro-enterostomy alone. Good results have also been reported by Busch (7 cases), Payr, and Sacharow.

284. Gastrotomy for the Removal of Foreign Bodies.

M. BORCHARDT describes two cases in which gastrotomy had to be performed for the purpose of removing foreign bodies from the stomach under peculiar circumstances (*Berl. klin. Woch.*, February 21st, 1910). The first patient was one of those sword-swallowing jugglers who had in the course of time gained considerable skill in passing rigid and dangerous instruments into his stomach. He extended his tricks by passing a long glass tube with an electric light globe attached to the lower end into his stomach, and thus performing a sort of gastrodiaphony before his spectators. In doing this, however, the tube broke off. He applied at once to the hospital for assistance, and a piece of glass tube, of the size of a small finger, and about 23 cm. (nearly 10 in.) in length, was removed. The patient did well, and within three weeks was again swallowing all sorts of things, but he avoided glass henceforward. The second patient was more difficult to handle. He complained of pain radiating from the umbilicus, pain in the caecal region, and tenderness in the epigastrium and right hypochondrium. He ascribed the pains to a nail which he had swallowed three months previously. *X*-ray examination revealed a peculiarly shaped foreign body in the stomach, a shadow in the gluteal region, and another in the umbilical region. The stomach shadow was diagnosed as consisting of nails, as several points could be been. Gastroscopical examination confirmed the diagnosis. The stomach was opened, but difficulty was experienced in pulling the organ out of the wound. Pointed bodies were felt within the organ, and it was therefore decided to pack around the organ with gauze, and to open it within the abdominal cavity; 103 nails, 3 screws, 1 brass chain, 1 safety pin, and 1 sewing needle were recovered. The symptoms desisted for a time, but returned after about five weeks. A fresh exploratory operation was undertaken, but without success. It appeared later that the nails, etc., had been swallowed for a bet of sixpence.

285. X-Ray Examinations of the Mastoid Region.

LANGE (*American Quarterly of Roentgenology*, December, 1909) states that in *x*-ray examinations of the mastoid region the oblique postero-lateral view gives the clearest and most extensive mastoid profile. The pyramid is thus thrown forward, and the mastoid details, especially the groove for the lateral sinus, are shown better than in any other position. To obtain this view the patient lies on his side, with the mastoid to be radiographed resting against the plate, and the rays are directed from above (cephalad) and behind, entering obliquely just below the parietal eminence of the upper side, and pointing towards the mastoid process of the opposite side. The most favourable angle is obtained when the axis of the compression cylinder is tilted upwards (cephalad) at the angle of either 20 or 25 degrees (according to the type of skull) from the plane of the skull-base (Reid's base-line), and inclined backwards 10 or 20 degrees from a plane passing vertically (assuming the patient to be erect) through both external auditory meati. Both sides must be skiagraphed, and if the exposure be under ten seconds, and a few minutes be allowed to elapse between exposures for a partial cooling of the tube, the same tube may be advantageously used for both exposures to ensure equality of definition and penetration. The *x*-ray examination of the mastoid process is valuable in both its anatomical and its clinical aspect. From the former standpoint information concerning the mastoid may be gained that may prove of great value in operating in this region. The clinical aspect, especially in the milder acute cases, is on less certain ground. The chief field for research is to determine whether the milder pathological changes, such as inflammation and suppuration of the mastoid mucosa without gross bone destruction, will always show upon the skiagram, and whether indications for operation can be deduced therefrom.

OBSTETRICS.

286. Disadvantages of Conservative Caesarean Section.

COUVELAIRE (*Ann. de gynéc. et d'obstét.*, November, 1909) condemns the routine practice of conservative Caesarean section. In a critical analysis of reported results in the clinics of the advocates of this operation, he shows that repeated Caesarean sections on the same patients have not been followed by so favourable results as many have maintained, whilst sterilization has been practised in many instances by the same operators, who were thus compelled ultimately to defeat the object of the conservative operation. He concludes that there is always one danger after convalescence, and that lies in the uterine wound. Its cicatrix remains as a permanent line of fibrous tissue which can never become muscle fibre, so that the perfect musculature of the uterus, absolutely essential for natural labour, is spoilt. The cicatrix is always liable to yield during a future pregnancy or labour. Couvelaire reminds obstetricians who talk about the "good surgery" principle said to be manifest in those who save the uterus in all cases, that the surgeon who sutures intestine, stomach, or bladder has not to take into account this special danger attending suture of the uterus. Conservative section cannot be indefinitely repeated, cases performed for the third or fourth time with satisfactory results are exceptional, for, as a rule, later operations are liable to bad post-operative complications, hence the frequent necessity for sterilization. Indeed, Couvelaire concludes his summary, after declaring that it should only be attempted in very carefully selected cases, by saying that sooner or later Caesarean section must have as an inevitable corollary —sterilization. He adds some instructive drawings showing the Caesarean cicatrix in uteri ultimately removed by Porro's operation.

287. Suture Material for Caesarean Section.

HERGOTT (*Ann. de gynéc. et d'obstét.*, November, 1909) insists that Caesarean section is not merely a simple affair of two incisions and two lines of suture, as some operators have made out. The relative advantages of silkworm gut, silk, and catgut must be seriously considered. Catgut is absorbable, but it is not easy to render aseptic, and is very liable to give way before the wound has united firmly. Experience has taught him that both these accidents may occur in hospital practice, where all facilities for perfection of technique are at hand. In one case Hergott operated where delivery was impeded by a dermoid cyst in the broad ligament. The uterine wound and the parietal peritoneum were closed with catgut, the recti with interrupted silk sutures, the integument with silkworm gut. The temperature rose on the second day; on the fifth a flood of pus and serous fluid escaped from the vagina, then an abscess developed above the pubes and another at the level of the umbilicus, both being promptly opened and drained. On the fifteenth day, as the uterus was being irrigated to clear away the purulent fluid which still issued from it, some of the fluid came away through the wound made to open the umbilical abscess. The intrauterine irrigations were discontinued, the abscesses were washed out, and on the seventeenth day a catgut suture, 3 in. long, came away from the cavity of the suprapubic abscess. The wounded parts healed rapidly forthwith. In another instance the catgut yielded too soon. The operation was performed on an undersized woman with contracted pelvis. The uterus on this occasion was closed with silk sutures

the peritoneal and muscular layers of the abdominal wound with catgut, but, Hergott adds, not from the stock which he generally availed himself of when he operated. The integuments were united with silkworm gut. On the eleventh day Hergott removed these silkworm gut sutures, as they were beginning to cut the skin, whilst the wound seemed otherwise to be healing well. On the next day the wound came open, and the intestines were exposed, the catgut having yielded. In spite of all care, the patient died thirty-six hours later. Hergott quotes two other cases where catgut sutures yielded; in both the operation had been performed for pelvic contractions without any septic complication. In a third (Lepage), not only did the catgut yield, but flooding set in, and the uterus had to be amputated. On the other hand, Hergott reports a case where the advantages of silk were manifest. A primipara in labour during a bad attack of influenza, with extreme pulmonary congestion, required Caesarean section, on account of a pelvic tumour. There was constant cough. Hergott removed an infant over 6 lb. in weight; the uterine, as well as the parietal wound, was closed with silk sutures, silkworm gut was applied to the integuments, but no catgut was used. The coughing continued for nearly a fortnight, requiring opiates, and Hergott felt certain that catgut would never have resisted the strain. The uterine tissues tolerate silk very well. The author quotes cases where that material had been used, and was found to have ensured a good cicatrix when a secondary Caesarean section was performed. In one case a silk inserted in the first was eliminated during convalescence from the second operation. Hergott, in conclusion, warns the operator against passing the silk too deeply so that it traverses a portion of the uterine cavity, as it may include a piece of retained membrane.

GYNAECOLOGY.

288. Operative Treatment of Utero-Vaginal Prolapse.

G. A. CASALIS (*Journ. of Obst. and Gyn. of the Brit. Emp.*, October and November, 1909) discusses the statics of the pelvic viscera and their relationship to the operative treatment of utero-vaginal prolapse. Anatomically he decides that: (1) The pelvic viscera are both suspended and supported; (2) that the "pelvic floor" forms one solid mass separating the pelvic cavity from the exterior, just as the anterior abdominal wall separates the abdominal cavity from the exterior; (3) that it includes part of the viscera, as well as the so-called ligaments of the uterus, of which they are an integral part; (4) that relaxation of part or the whole of this fibro-muscular, cellular, vascular, and peritoneal diaphragm results in the production of the different forms of pelvic displacement; (5) that relaxation of the upper pelvic segment leads to retrodeviations and partial uterine descent—that of the lower pelvic segment to cystocele, colpocele, and rectocele; that of the upper and lower to classical prolapse. The intensification of the combined conditions to hernia of the pelvic contents or total prolapse. Retroversion of the uterus from a practical point of view is to be looked upon as a condition of mild descensus uteri, and though a retroversion may exist without an apparent cystocele or colpocele, careful examination will almost always show a shallowness of the vaginal fornices and an unusually roomy condition of the upper vaginal segment indicative of some degree of descent of the whole uterine plane. If the condition is temporary, intrauterine treatment may be all that is necessary, or it may be supplemented by straightening of the uterus by an intrauterine stem, the application of a Hodge pessary, or by tamponade of the uterus. If the uterus is fixed, treatment is to be directed to the pathological conditions of the tubes and ovaries. For a permanently retroflexed or retroverted uterus, which gives rise to symptoms, Alexander's operation in uncomplicated cases gives excellent results. Gilliam's operation is superior to Alexander's in that, with the abdominal incision, it gives opportunities of dealing with any abnormalities of the tubes and ovaries which may be found to exist, and which if untreated might finally destroy the benefit of the operation. On the other hand, Gilliam's intra-abdominal fixation of the round ligament divides the pelvic cavity into three segments, and favours the occurrence of strangulation of the intestine. In one of the author's cases the patient died some time after the operation as a result of this accident. Simpson's retroperitoneal shortening of the round ligaments obviates this danger, and Simpson's operation presents all the advantages without the disadvantages of Alexander's operation. When the uterus is enlarged and heavy, and the perivascular sheaths overstretched, something more than a mere suspension becomes necessary. The author finds that the Alexandroff-Tweedy and Donald operations, whose aim, according to Fothergill's phrase, is "to take up the slack in some degree," lack, as far as the uterus itself is concerned "the precision and the *raison d'être* of sound surgery, whatever future they may have as adjuncts to colpo-perineorrhaphies. With regard to ventrifixation, the author endorses the view that it is to be accepted as an axiom that ventrifixation ought never to be performed on any woman likely to be pregnant, but where it must be performed, the fixing sutures are to be applied close to the cervico-corporeal juncture and on the anterior uterine surface. Ventrifixation is, however, the operation which specially belongs to the period of the menopause, and should be combined with plastic operations on the vagina and perineum. In cases of prolapse the surgical treatment concerns itself almost exclusively with the reconstruction of the lower pelvic fibro-muscular diaphragm. When there is no material damage of the "pelvic floor," Hegar's operation is one of the the best. It is, however, obviously insufficient in the majority of cases of procidentia in which the injuries to the perineum involve laceration of the muscles of the sacral segment of the pelvic floor and of the deepest layer of the pelvic fasciae; in these cases the author performs Lawson Tait's colpo-perineorrhaphy as modified by Doleris and Pozzi, and adds also a myorrhaphy of the levator ani. In cases complicated by an extensive cystocele, Casalis performs an operation very similar to that recommended by Donald, in which the whole of the lower portion of the bladder wall is freed from the cervix and vagina anteriorly, the latter is resected as widely as necessary, the bladder pushed back into the pelvic cavity, and the incision closed by a mattress suture which involves first the deep fascial layers and finally the vaginal mucous membrane. Recent cases of complete prolapse may sometimes be benefited by the methods used in incomplete prolapse, but as a rule these are inadequate. The best treatment is that by vaginal or abdominal hysterectomy with suture in the middle line, and if possible to the abdominal incision of the over-stretched perivascular sheaths. In extreme cases the interposition operation may be tried, or when everything else fails Muller's excision of the whole vaginal canal. In the author's opinion prolapse should always be operated upon.

THERAPEUTICS.

289. The Immunizing Power of Quinine.

FERRANNINI (*Rif. Med.*, March 14th, 1910), in the course of certain researches with reference to quinine in relation to malaria, gives his results as regards the so-called immunizing property of quinine, which, as he points out, is different from its prophylactic power. He finds that solutions of bichloride of quinine—not less than 1 in 10—give a non-persistent cloudiness with normal blood serum, whilst other quinine salts in varying degrees of concentration give a persistent precipitate. No appreciable quantity of quinine could be detected in the blood of animals cinchonized for a considerable period when the administration of quinine was suspended. The serum reaction in animals under quinine for long periods cannot be considered as a true reaction of immunity. The blood serum of cinchonized animals has no agglutinating power for bacteria. Cinchonization does not confer any special bacteriolytic power on blood serum, nor does it modify the phagocytic power nor the opsonic index. Quinine has no immunizing property, but this is not the same thing as saying it is of no use as a prophylactic.

290. Alcoholic Applications in Typhoid Fever.

CHEINISSE (*Sem. méd.*, November 17th, 1909) advocates strongly, as an alternative to cold bathing in typhoid fever, the application of alcohol to the abdomen. He applies a compress, consisting of a quadruple fold of absorbent cotton wool, wrung out of alcohol sufficiently to prevent dripping. Over this he places a second compress of cold water, in order to weaken the alcohol a little, and so prevent irritation of the skin, the whole being covered by an impervious bandage. The water compress should be changed every hour, but the one containing alcohol may be allowed to remain double that time. It may be necessary to lubricate the skin with a little lanoline, if irritation should occur, but such inconveniences have not been found to intervene with any degree of frequency. This treatment has been followed in twelve cases of enteric fever, and although the number

is not great, the cases themselves were of considerable severity, and no untoward results were experienced. It has been particularly valuable in the case of children, where the tendency to heart weakness renders cold bathing dangerous; and the author recommends that his treatment should be invariably preferred in such cases.

291. Muscular Stimulation by Electricity.

A long report upon the subject of muscular exercise by electrical means was prepared by Laquerrière and Delherm for the 1910 Congress of Physiotherapy (*Arch. d'élec. méd.*, February 25th, 1910). After dealing with generalized stimulation of the body by Bergonie's method, in which large electrodes are used, and which is of special value in obesity and uric diathesis, they consider in fuller detail the various methods of localized stimulation in atrophies and muscular impotence. In the case of muscles showing complete reaction of degeneration, the form of current which it is desirable to use differs with the different cases, but the authors believe that an interrupted galvanic current is the most convenient method of bringing about the contraction of muscles which are very degenerated. Electro-mechanotherapy, in which the electrical contraction is employed to move some outside resistance or to lift a weight, is proscribed, because muscular fatigue is thereby augmented. When the muscles show incomplete reaction of degeneration, Leduc's current appears to be a good excitant. In the case of muscles having no reaction of degeneration, belonging to a member which has suffered a violent traumatism, the faradic wave spaced out is the most agreeable and the best tolerated at the beginning of the treatment. In the later stages of the case, electro-mechanotherapy by means of the undulated current is indicated. It often happens in these cases that the muscular contractions made by means of the current are of smaller amplitude than those produced voluntarily, but the authors state that the voluntary contraction is due as much to the accessory muscles as to the muscle affected. Under localized electrization, on the other hand, only the affected muscle is excited, and it is its action alone which is registered. The different electrical modalities should follow one another more or less quickly in the treatment of muscular atrophies, but electro-mechanotherapy should only be applied upon those muscles which react well to the tetanizing current. In protopathic muscular atrophies the stimulation should be applied moderately, by preference in the form of brief, spaced-out faradic shocks. In infantile paralysis, upon muscles showing reaction of degeneration, rhythmic galvanization is advisable, and upon those presenting only a diminution of contractility the galvano-faradic current may be used. The static spark moved over the muscle is useful as an agent for restoring mobility in subjects whose sensibility is obtuse. In paralysis associated with hysteria faradization constitutes an excellent re-educative procedure by causing the contraction of the paralysed muscles. In comparing electrization with purely mechanical methods, the authors say that the current, quite apart from its value as a gymnastic exercise and considered from the trophic point of view alone, may be placed in an equal position to the best massage. In cases of severe neuritis, when the nerve fails to transmit the voluntary excitation; in conditions of obesity and hysteria, and wherever mechanical exercises cannot well be applied, a localized electrical current enables the operator to bring about the individual contraction of such muscles as he pleases, and for as long a time and in such a manner as he pleases. The authors also state categorically that, other things being equal, the electrically provoked contraction causes a smaller amount of fatigue than the voluntary contraction.

292. Suppurating Folliculitis Barbae Cured by the X Rays.

H. Méret has contributed to the Société de Radiologie Médicale, of Paris, a case of suppurating folliculitis of the beard which has been cured by radiotherapy after two relapses (*Bull. et mém.*, January, 1910). The patient was a soldier, aged 21. In June, 1908, three or four little pustules made their appearance on the middle of the left cheek. There was also red pigmentation, accompanied by slight itching. Various preparations failed to cure the lesions, which, indeed, increased in area. On examining the patient with a view to *x*-ray application, Méret found an oval, erythematous patch, measuring 4 by 5 centimetres, on the left cheek. Its surface was covered with pustules, which surrounded the hairs in the characteristic manner. The extraction of the hair provoked vivid pain. In the middle of the patch there was a small follicular abscess, from which tiny drops of pus exuded on pressure. The itching, meanwhile, had become very intense, especially at night. The first irradiation was made on September 3rd, the dose being 3 H., with rays 4 to 5 Benoist. The patient then went on manœuvres, and was not seen again by the radiotherapeutist until September 21st, when the lesions were slightly modified, and many hairs had fallen out spontaneously, and the others could be extracted without provoking the least pain. Applications of van Swieten's solution and sulphur pomade were made after epilation. By October 6th the skin was whole and supple and the pustules had disappeared. With the regrowth of hair, however, the lesions reappeared, and by November 26th yellowish pustules surrounded the hairs, and the skin was deeply infiltrated. Another irradiation of 3 H. was given. Epilation followed, and the crusts and pustules disappeared. An irradiation of 2 H. was given at the end of December, with the object of retarding the regrowth. A second relapse took place in March, 1909, three months after epilation, and another irradiation of 3 H. was made. Epilation was obtained a month later, and by the beginning of May the skin had become smooth; but a further irradiation was made as a precautionary measure. The regrowth of hair commenced on July 12th, and on this occasion there was no accident, the skin being whole and supple, the tint normal, and the cure definite. Méret thinks that the *x* rays act especially as a depilatory agent in folliculitis; the lesions are not really modified until after the fall of the hair. Although he prescribed a sulphur pomade to be used between the irradiations, it did not prevent relapses, and he thinks its efficacy is doubtful. He believes that one may cure even an extensive folliculitis by radiotherapy only, although this view was not endorsed by the other speakers in the subsequent discussion.

PATHOLOGY.

293. The "Iced Liver" of Curschmann.

In 1884 Curschmann described a form of chronic hyperplastic perihepatitis in which the liver acquires a thick, white capsule, the condition being associated with chronic inflammation of the peritoneum, pleura, and pericardium in most cases. L. Gazzotti (*Il Policlinico*, sez. med., Rome, 1909, xvi, p. 381) describes a case in which this condition appeared to follow a traumatic peritonitis. The patient, a man of 51, who had had malaria at 20 and influenza at 28, received a kick in the right iliac region from a horse in June, and was in bed and feverish for a fortnight afterwards. He then got up, but suffered from abdominal pains and gastro-intestinal disturbances, and in September came into hospital with ascites and oedema of the legs. Four months later he died, after the abdomen had been tapped eight times; the fluid drawn off on the last four occasions was tinged with blood. The abdominal veins were prominent, showing a *caput Medusae*. At the *post-mortem* examination there was a double pleural effusion, blood-stained on the right side; the right pleura was thickened, the left normal. The pericardium contained excess of fluid, and the heart was normal. The abdominal cavity was distended with blood clots and ascitic fluid; there were many peritoneal adhesions, and the great omentum was thickened and adherent; the liver was hidden behind the costal edge and generally adherent; the kidneys were congested. The liver was small, weighing 32 oz., and globular in shape, the left and right lobes being no longer distinguishable; its anterior edge was rounded and irregular, the surface was coarsely nodular, the capsule irregularly thickened (averaging 3 mm.), opaque, and white. The walls of the gall bladder were thickened. On section, strands of greyish-white fibrous tissue were seen running from the capsule into the hepatic tissue. The spleen weighed 18 oz.; its capsule was tense and diffusely thickened; its substance was firm, and on section the trabeculae were clearly visible, but the follicles were not. Microscopically, the thickened capsule of the liver was composed of bundles of connective tissue, in which were numerous fissures parallel with the hepatic surface; some of these were lined with endothelium. The fibrosis of the liver tissue was most marked near the surface, where, too, an infiltration with small round cells occurred in both the connective tissue and the lobules. The liver cells in the more fibrotic parts showed an irregular adenomatous disposition, with numerous newly-formed bile capillaries; the whole liver showed evidence of chronic venous engorgement, although the portal and hepatic veins showed no gross obstruction. Atrophy and fatty degeneration of the liver cells were marked; the vessels seemed normal; many of the smaller bile ducts were dilated. The hepatic fibrous tissue contained numerous plasma cells, and inside the lobules a good deal of elastic tissue was detected.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

294. The Frequency of Tuberculosis in Childhood.

THE difficulty of applying the local tuberculin tests to school children is, according to H. Nothmann (*Berl. klin. Woch.*, February 28th, 1910), insurmountable, and in no other way can the true frequency of tuberculosis in childhood be ascertained. He, however, considers that it is worth while investigating the conditions obtaining in children in orphan asylums, institutions, clinics, and polyclinics, although he realizes that the morbidity among such children will be higher than it is among the total child population. He has investigated this subject. In Vienna and in Munich the incidence of tuberculosis, as evidenced by the various tuberculin reactions, rises from 7 per cent., 9 per cent., and 10 per cent. (according to the test employed) during the first year of life, to 60 per cent., 68 per cent., and 94 per cent. during the period from 10 to 14 years. In Berlin Müller found 9 per cent. for the first year, 22.4 per cent. for the second year, 30.5 per cent. for the period 2 to 4, 36.8 per cent. from 4 to 6, and 53.7 per cent. from 10 to 14. Petruschky found in Danzig none in the first year, 50 per cent. from 1 to 6, and 74 per cent. from 7 to 14. Engel and Bauer, working in the Children's Asylum in Düsseldorf, found 16.5 per cent. in the fourth year of life, and a morbidity which rose up to 53 per cent. in the fourteenth year. The author's own investigations in the same town showed the following results:

Years of Life.	No. of Cases.	Positive Reactions.	Percentages.
3–5	15	7	47.0
6–7	25	14	56.0
8–9	41	29	70.7
10–11	54	44	81.5
12–14	97	82	84.5
15–17	12	12	100.0

In explanation for the greater number of tuberculous children in his investigations as compared with Engel and Bauer's, he states that he did not regard a case as negative unless two attempts with Pirquet's test and one with the "dépôt" test (subcutaneous reaction) proved negative, while the latter classified their cases after a single Pirquet test. He does not undertake to discuss the absolute value of the dépôt reaction in detecting a latent tuberculosis. He admits that the incidence will be different in better situated children, but his figures justify him in regarding tuberculosis as a children's disease, and in requiring that the children's doctor should adopt means to prevent its occurrence in children.

295. Gall Stones and Diseases of the Biliary System.

HENRY ROTH (*Med. Record*, April 23rd, 1910) urges physicians to attend the operations on their patients for gall stones, in order that they may see the conditions as they exist, when many obscure symptoms will be explained. He outlines the various changes that may occur in gall stones and gall-bladder diseases. The relation between the biliary passages and stomach, duodenum, and pancreas are embryological, anatomical, and physiological. He sums up the results of 32 operations done at the Lebanon Hospital, and gives histories of several cases. Cholecystotomy was done in 27 cases, cholecystectomy in 3. When the natural flow of bile is interfered with stagnation occurs, and this is combined with infection from the intestine or by way of the portal system. Thus a catarrhal inflammation results. The colon and typhoid bacilli are most often found, but streptococcus, staphylococcus, and pneumococcus are also present. Cholecystitis is a well-known complication of typhoid fever. Pregnancy predisposes to gall-bladder infection. There may be gall stones associated with only slight changes in the bladder; they produce erosions, and inflammation ensues. Associated with empyema of the gall bladder there may be cholangitis and localized peritonitis, with or without adhesions. This may go on to infection and gangrene. A calculus may pass from the cystic into the common duct, and then into the intestine at the papilla. Reinfection of the bile passages frequently occurs with calculi in the common duct, resulting in contraction of the gall bladder. Pressure of a calculus in the common duct will cause pancreatitis. Benign tumours of the passages are rare; malignant ones are common from irritation of stones that have not given any symptoms. Symptoms in the little passages may be caused by irritation, migration, and obstruction. They consist in pain, biliary colic, nausea and vomiting, swelling, jaundice, and in acute cases of fever. The differential diagnosis is given.

296. Local Temperatures in Phthisis.

FRUGONI AND LEIDI (*Rif. Med.*, February 21st, 1910), by means of specially constructed thermometers with long horizontal spiral bulbs, have tested the local temperature of affected parts of the lung in phthisis. The thermometers, suitably protected from radiation with cotton-wool, were kept in position for a period of thirty to forty minutes. The cases were tested by means of hypodermic injections of tuberculin (in small doses), and it was found there was local rise of a temperature corresponding to the affected part, even in cases where there was little or no rise in the general temperature. This rise varied from three-tenths to seven-tenths of a degree. Possibly this method of research may be of some value in the early diagnosis of tuberculous disease of the lung.

297. Fetal Asphyxiation by Coal Gas.

TISSIER (*Progrès méd.*, November 20th, 1909) relates a case which proves the possibility of the passage of carbonic oxide through the placenta. A woman, aged 29, attempted suicide by means of ordinary gas, to which she was exposed for about twelve hours in a closed room. Nine or ten hours after she was discovered her child was born, neither pale nor congested, but with the rosy hue which generally indicates poisoning with CO. Spectral analysis of the blood gave negative results, but a small amount of carbonic oxide was found, less than half the proportion which proves fatal in the adult, showing that infants are peculiarly susceptible to this poison. The mother recovered.

SURGERY.

298. Breast Cancer Operations.

ALADAR FISCHER (*Pester med.-chir. Presse*, Nos. 6 and 7, 1910) shows how the results of operations upon cancer of the breast have improved with a more definite knowledge of the lymph channels and with more radical measures. The operation which he himself makes use of is Halsted's operation modified in detail as a result of his own experience. Fischer's incision begins in the upper third of the upper arm, a little behind the anterior axillary fold in full abduction of the limb, and runs on to the thorax along the anterior fold. His incision is a little different from that of Halsted, and more nearly resembles that of Collins, Warren, and Willy Meyer. It may be objected that it leaves a scar in the axillary fold, but, as the author has found, the scar is pliable, and causes no difficulty. The advantage of the incision is that it exposes the glands round the axillary vein and also the great veins themselves, and therefore the most troublesome part of the operation—the freeing of the great veins—can be done at the beginning. Kocher's incision makes no scar in the axillary fold, but does not lead so directly down on to the axillary vein, and Kocher working from the posterior fold comes last on to the axillary vein. Another advantage of clearing out the axilla at the beginning of the operation is that the vessels leading from the axilla to the thoracic wall are tied, and the haemorrhage caused by the removal of the thoracic covering is lessened. Fischer does not follow Halsted in clearing out the supraclavicular fossa in every case, but only where the intraclavicular glands are affected; and the prognosis for such cases must be unfavourable. He also leaves the clavicular portion of the pectoralis major, on the ground that the blood and lymph supply of the clavicular portion is distinct from that of the sternal portion, and

therefore from that of the mamma, so that the radical nature of the operation is not affected when the clavicular portion is left, while the future usefulness of the arm is much increased. The pectoralis minor is always removed. The immediate mortality of the operation is very small. Out of 65 cases operated upon by the above method, the primary operative mortality was *nil*, though one patient died shortly after the operation of carcinoma of the lung and pleura and another of uraemia, the result of an old nephritis; the results are also exceedingly good as regards the later motility of the arm and absence of oedema. With regard to the future history of the patients, the necessary facts were only known about the 21 patients who were private and not hospital cases. Of these 21 cases, 16 had been operated on in July, 1906. Six of them were alive and well when the present paper was published. At this time 11 had already been operated on five or more years before, and of these, 4 (that is, 36.3 per cent.) were alive and well. Of the 10 cases of death, 1 died of intercurrent disease without any sign of relapse, 1 died within six months from pneumonia the course of which was suggestive of the presence of pleural or mediastinal metastasis. One died four and a half years after operation from metastatic growths in the cord. Another died two and a half years after operation from a cancerous abdominal growth. In only 6 cases were there local relapses, three of them occurring during the first year. The result is, therefore, that in more than a third of the cases there was permanent recovery, and in little more than one-third of the cases was there a local relapse.

299. Cystine Calculus in the Bladder of a Child.

E. LOUMEAU (*Prov. méd.*, April 9th, 1910) points out the extreme rarity of this condition—there have been only 50 or 60 cases published during the past century—and mentions that Woollaston in 1840 was the first to remove from the bladder of an infant a calculus of this description. He goes on to say that the appearance of cystine in the urine and its precipitation in the form of calculi in one of the urinary passages denotes a disorder of nutrition. Cystine must be regarded as a traditional product between the albuminoids or ingested proteids which contain sulphur and sulphates which represent the terminal stage of complete oxidation. It is therefore in an organism in which delayed or partial oxidation occurs that cystinuria will manifest itself, leading to, as is now agreed, a depraved hepatic function. It is related to leucinuria, itself an intermediary stage between proteids and urea. As the result of imperfect oxidation leucin appears in the urine in similar circumstances to those related above in the case of cystinuria, and this is equally applicable to the commencement of other disturbed conditions of urinary elimination. These disturbances, moreover, although varied in appearance, possess a certain community of origin, and are frequently associated in the same subject. The author then goes on to relate the history of the case. The child numbered among its forebears a great grandfather who died of stone, a maternal grandfather who died of diabetes, and a grandmother on the maternal side, the latter still in good health, who suffers from biliary colic terminated by the expulsion of biliary calculi; the father is in good health, bright and alert, as is also the mother, who has only had the one pregnancy. From the age of 7 months the child began to have frequent and pressing micturition, especially during the day, accompanied by every evidence of extreme suffering, with constant interruptions of the flow of urine. Sleep was frequently broken by cries and terrifying dreams, followed by a voluntary or involuntary flow of urine; there was at no time any evidence of convulsions or haematuria. The infant on examination was found to be normally developed, but pale and listless; the urine, instead of the usual lemon colour, was of a light green, like absinthe diluted with water. There was some balanitis, but this was dismissed as having anything to do with the trouble. An exploratory sound was passed under anaesthesia, and a calculus being found, the bladder was opened through the hypogastrium, having been in the meantime filled with a warm solution. The bladder was found to be healthy, and the stone was removed. It was now closed by a double plane of catgut sutures and the abdominal wound united by horsehair with the exception of a small opening left suprapubically for a drainage tube. The catheter previously passed into the bladder was left in position, and an antiseptic and absorbent dressing applied to the abdomen and perineum. In twenty-four hours the suprapubic drain was removed, and in forty-eight hours the catheter was also withdrawn, and a fortnight after the operation everything had healed by first intention, the little patient passing urine easily and without suffering. The subsequent history showed a gain in weight, and marked improvement in the health and spirits of the child. The urine, however, still remained slightly green in colour, and contained a quantity of uric acid and cystine. After giving a minute chemical analysis of the calculus removed, which was 25 mm. in length and 18 mm. in width, and weighed 3 grams, Loumeau goes on to say that the persistence of cystinuria after operation shows the permanence of the disturbance of nutrition which preceded the formation of the first calculus and the possibility of recurrence, especially with such a hereditary history. He proposes to submit the little patient to a series of dietary tests, and if possible arrive at a dietetic formula as a suitable *modus vivendi* in such cases.

300. Results of Operations for Pancreatic Obstruction.

CHARLES H. CHETWOOD (*Med. Record*, April 23rd, 1910) summarizes the results obtained by him in 100 operations for prostatic obstruction. The operation of prostatectomy, suprapubic or perineal, is a complete one, attended with excellent results in suitable cases and relatively good results in less favourable ones. The mortality-rate is not high; it favours somewhat the perineal route. Some complications, recto-vesical fistula and urinary incontinence, occur in perineal operations, and hardly at all in the suprapubic method. Residual urine entirely disappears when the prostate is completely removed and the vesical orifice cleared of obstructions. If they continue it is because of the conditions existing before operation in the bladder which still continue. Few operations in surgery show a better progress in the last decade. Different types of prostatic disease should be distinguished and treated differently.

OBSTETRICS.

301. Incarceration of Gravid Uterus in Ventral Hernia: Caesarean Section.

WERDER of Pittsburg (*Trans. Southern Surg. and Gyn. Assoc.*, vol. xxi, 1909) operated on a woman aged 39 who had already had children. Her doctor was called in because she had been suffering for a fortnight from severe intermittent abdominal pains and a flow of blood from the vagina. The body of the uterus, of the size of a normal six months gestation, was defined lying outside the abdominal cavity in a hernial sac above the umbilicus, which was extremely thin, tense, and ulcerated at some points. The uterus could not be reduced. The fetal outline could be very distinctly defined; the vagina was drawn up as a funnel-shaped canal; the cervix was quite out of reach. After three days, when vomiting and constipation had set in, Werder operated. The hernial sac was opened and some loops of distended intestine were readily reduced. The uterus, however, could not be returned to the abdominal cavity, as the neck of the hernial sac was not more than 3 in. in diameter. Caesarean section was at once performed, the child and placenta being readily extracted through a median incision. The uterine wound was closed with two layers of chromicized catgut for the muscular wall and two of the same material for the serous coat. The patient's condition did not allow of a radical operation on the hernia, but much of the skin was excised. The child lived one hour. The patient was attacked with lobar pneumonia, recovered, but died of facial erysipelas twenty-three days after the operation. The supraumbilical position of the hernia was remarkable.

302. Appendicitis Complicating Pregnancy.

FINDLEY (*Amer. Journ. Obstet.*, December, 1909) has had 7 cases of appendicitis complicating pregnancy, labour, and the puerperium within eighteen months. He concludes, on the strength of his own experience and that of others, that pregnancy does not incite a primary attack of appendicitis, but recurrent attacks may be precipitated by pregnancy, labour, and the puerperium. Severe attacks may be confounded with puerperal infection of the uterus and its appendages. Mild attacks of appendicitis do not alter the course of pregnancy. Severe attacks commonly interrupt pregnancy, and may lead to the death of the fetus before or shortly after birth. Death of the fetus is ascribed to non-viability, toxaemia, and septicaemia. A woman in the child-bearing period, who has experienced one or more attacks of appendicitis, should undergo operation because of the liability of a recurrent attack in the event of pregnancy, Severe cases require operation with-

out delay. When occurring near term or during labour the pregnancy should be speedily terminated, immediately after which the appendix should be removed. Early drainage is imperative when an appendical abscess has formed, lest the contracting uterus, which forms part of the abscess wall, may drive the pus into the general peritoneal cavity. When an operation is undertaken in the course of pregnancy, every effort should be put forth to prevent miscarriage. Rest should be enjoined, opiates administered, and the uterus handled and exposed as little as possible during the different steps of the operation.

GYNAECOLOGY.

303. Twenty-four Cases of Hysterectomy.

SOUBEYRAN (*Prov. méd.*, January, 1910) presents the notes of 24 hysterectomies performed for uterine fibromyomata. He found that the size of the tumours varied considerably, the largest being 12 kilos in weight and two others weighing 9 kilos. He classifies them according to position; 3 were situated upon the fundus of the uterus, 9 upon the wall either anterior or posterior, 4 were subperitoneal, 5 in the ligaments, and 7 he describes as diffuse. While the shape and difference in symmetry of the tumours was remarkable, there was little to note with regard to the surface or consistency, but the question of degeneration proved important and significant. In 1 case he observed a calcareous degeneration consisting of two large uterine calculi. This form of degeneration is recognized and generally attributed to atheroma, but in this case the alteration in the vessels and in the lymphatic spaces suggested that the lymph plays an important part in calcification. In 1 case he met with cystic degeneration, and in 1 with suppuration; he calls attention to the rarity of this latter form. He considered that in this case suppuration was the result of pregnancy, which caused the tissues to soften and become a medium for infection after delivery. Associated with fibromata he has twice found ovarian tumours—in 1 case a cystic tumour, in the other a genuine fibroma of the ovary. In 2 cases the condition was complicated by an extrauterine pregnancy, the ovum having ruptured the tube; in 2 also appendicitis was present, while in 1 a long Meckel's diverticulum was found adherent to the tumour. The most frequent complication was diseased appendages, either thickened, fibrous, or adherent tubes, salpingitis, or hydrosalpinx, sclerotic and cystic ovaries, and lesser inflammatory conditions of the parts. These lesions have generally an infective origin, but may also be due to disturbance of the local circulation resulting from the presence of the tumour. In all these cases the main symptom was metrorrhagia, only 2 of the cases being without it. Two cases failed to recover, 1 dying of sepsis, 1 of pneumonia. Before operation the vagina was well disinfected and swabbed with tincture of iodine, and a large rubber tube was used for the purpose of draining through the vagina. He considers this drainage a great safeguard against infection and useful where there are varicose vessels in the pelvis. It also permits the abdominal wall to be well sutured, and the passage of germs through the vagina up into the pelvic cavity has never been clearly demonstrated. Probably this system of drainage adds to the safety of the operation. He fixes the tube with a catgut thread and withdraws it on the fifth day. In none of these cases was it considered wise to preserve the ovaries, since ovaries which appear healthy are so frequently found not to be so under the microscope. He records one accident, the bladder being opened whilst making the incision, it having been pushed up by the very large tumour which had developed in the ligament. It was immediately sutured and no ill effects were experienced. Intervention is the safer course to pursue with tumours; if they are left it is necessary to watch the patient carefully with a view to interfering at any moment if required; it is not possible to count upon the retrogression of these tumours when the menopause occurs.

304. A Third Ovary: Cystic Disease.

SIPPEL (*Monats. f. Geb. u. Gyn.*, March, 1910) recently read before a society a note of a case where the importance lay more in the question of the existence of a third ovary than in the nature of the tumour which was removed. A girl aged 22 suffered from great distension of the abdomen, reaching to the ribs. The abdomen was opened, and a tumour was enucleated from the right broad ligament, with which it was entirely invested. This tumour was a cystadenoma serosum papillare, or "papillomatous cyst." The Fallopian tube was stretched over its surface, the ovarian ligament was thickened and also elongated, and ran under the tumour outwards to a body which was found to be the normal right ovary, separated from the tumour above it by loose connective tissue. Sippel gave reasons for believing that since ovarian cysts, papillomatous as well as glandular (cystadenoma pseudo-mucinosum, the common multilocular tumour), spring from the germinal or superficial epithelium of the ovary, the tumour in his case must have arisen in a separate piece of germinal epithelium lying between the folds of the broad ligament.

THERAPEUTICS.

305. Anticholera Serum.

SALIMBENI (*Ann. de l'Inst. Pasteur*, January 25th, 1910) has employed serum-therapy in the treatment of cholera cases in St. Petersburg. The serum he used was obtained from three horses which had been highly immunized against soluble cholera toxin. The strength of the serum was such that 0.025 c.cm. neutralized, after ten minutes' contact *in vitro*, two fatal doses of a toxin of which 1 c.cm. represented the minimal lethal dose for a guinea-pig weighing about 250 grams. Forty-two cases were treated, 19 of these being clinically very severe, 10 severe, 7 moderately serious, and 6 slight. The number of deaths was 10, giving a percentage mortality of 23.8. This figure contrasts favourably with the official returns of the total cholera deaths during the same period, which showed a case mortality of 45.6 per cent. The serum to be injected was always mixed with physiological saline solution in order to repair the loss of water which the organism always undergoes in cholera. The author finds that after a subcutaneous injection of from 500 to 600 c.cm. of a mixture of the serum with saline solution one of three things happens: either (1) the liquid is very rapidly absorbed and has nearly disappeared as soon as the injection is finished, or (2) the liquid is absorbed with difficulty and there is a considerable local oedema two hours after inoculation, or (3) the liquid is not absorbed at all. He has not lost a single case when the liquid was rapidly absorbed; in such cases a second subcutaneous injection has only rarely been necessary, and an intravenous injection has never been required. When the liquid was absorbed with difficulty he was able to save some of the patients by giving a second dose, intravenously, one or two hours after the first injection. But when no absorption of the subcutaneous dose took place, subsequent inoculations by the intravenous method proved to be of no avail. As regards the dosage of serum to be employed, the author recommends that in all cases, whether severe, moderately severe, or only slight, an initial quantity of 100 c.cm. or more should be given. For the severe or very severe cases, where a second injection, administered intravenously, is called for, a dose of from 50 to 100 c.cm. of serum is recommended. Further injections are rarely required. In an exceptional case he gave 350 c.cm. of serum in twenty-six hours; this was the biggest dose given in the cases which recovered. The favourable influence of the serum is manifested more or less rapidly, according to the gravity of the case. When the pulse is failing it takes from two to eight hours to influence it by subcutaneous injection, but intravenous inoculation brings it back very promptly. Attacks of cramp are also ameliorated by the serum; vomiting becomes less frequent and less violent, and ceases completely in from six to eighteen hours after the commencement of the treatment; respiratory distress diminishes, and the patient begins to feel much more comfortable. The diarrhoea is not appreciably checked during the first twenty-four hours; it then diminishes very rapidly, and the stools become coloured. Cyanosis disappears more or less rapidly, according to the gravity of the attack, and at the same time the skin becomes warm, and is covered with sweat. The urine, particularly in the serious cases, may take from twenty-four to forty-eight hours to reappear. In order to secure good results with the serum prompt intervention and close personal attention are requisite. One must not simply inject the serum and then wait till next day to see what happens. The patient must be closely and constantly watched throughout the treatment, and a repetition of the injection must be made when indicated. And, above all, it is important to commence the treatment at the onset of the disease. Hence, when an epidemic prevails, house-to-house visits should be made, instead of waiting until the patient is brought to the hospital *in extremis*.

306. The So-called Cure of Malaria.

Mircoli (*Gazz. degli Osped.*, February 13th, 1910) objects to the statement that malaria is cured when a patient recovers from the febrile attack and is restored to his normal health. All that is really cured in these cases, he says, is the fever; the disease still remains in a more or less latent condition, as is proved by the frequency of relapses in non-malarial districts, and by the long train of malarial symptoms. A true cure would mean that no relapses occur without a fresh infection, and that we are cognizant of all the processes of destruction, not only of the malarial parasite, but of its reproductive elements. Quinine never accomplishes the destruction of all the haemosporoids circulating during a given attack. The protozoa may even themselves acquire an immunity against quinine. The very reproductive elements themselves (? spores) have been classed in the category of the ultra-visible, so that statements as to their destruction become still more valueless. The so-called race immunity against malaria is a figment, in the author's view, and mulattos and negroes are refractory only because they are already affected with malaria, just as a syphilitic is immune against fresh syphilis. The hard, enlarged spleen in malarics in an expression of the sequelae of malaria and not of malaria itself; the spleen acts passively as a mere reservoir. No true cure of malaria can therefore be accepted; it can only be cured in the same sense and to the same degree that, for example, syphilis or trypanosomiasis can be. Prophylaxis by means of arsenic is one of the best means we have at present towards a real cure of the disease.

307. Digitalis and Camphor in Croupous Pneumonia.

Quisling (*Tidskrift for den Norske Laegeforening*, No. 3, 1910) recommends the use of a combination of digitalis and camphor in croupous pneumonia. The mortality from this disease in Norway since 1902 has varied from 13 to 15 per cent. The author has treated 65 patients by this method and has had only 2 deaths. He reminds us that digitalis really acts as an antiphlogistic in pneumonia, as by stimulation of the vagus the diastole is prolonged and the venous circulation through the lungs facilitated. By this depletion of the overfilled lungs the exudation in the alveoli is lessened. He further points out that although the various active principles of digitalis cause contraction of the arterioles and hence an increased peripheral arterial pressure, it has been proved by Mellin that this does not occur in the pulmonic system except by intravenous injection of digitalin. Therefore the action of digitalis becomes doubly useful in pneumonia; but to have this effect it must be given early and in large doses. To counteract the danger of large doses of this drug the author combines the digitalis with camphor, on account of the latter's known power to stimulate the nervous apparatus of the heart, as well as its stimulating action on the vasomotor and respiratory centres. The author uses a 1 per cent. infusion of digitalis with an equal quantity of camphor emulsion in tablespoonful doses every hour during the first twelve hours, and afterwards every other hour. Each tablespoon will therefore contain 0.15 gram of digitalis and about 0.0375 gram of camphor. He gives half this dose to children between 10 and 15, but has not used the drug for children under 5. Among authors who have recommended the use of digitalis in pneumonia, the author mentions Petresco (*Therap. Monatsschrift*, 1891) and Fikl (*Wiener med. Zeitschrift*, 1891). The former has treated 825 patients with digitalis with a mortality of only 2.06 per cent., and Fikl has used it in the garrison hospital in Vienna and had in 60 cases no mortality.

308. Electrical Treatment of Gonorrhoeal Epididymitis.

Ladislaus Austerveil (*Pester med.-chir. Presse*, No. 3, 1910) recommends the electrical treatment of acute gonorrhoeal epididymitis. The electrical treatment of this condition was tried as long ago as 1869, and with good results, but it has since fallen into disuse, and is not mentioned even in the best books on physical therapy. On theoretical grounds treatment by the galvanic current would appear likely to do good because of its pain relieving and antiphlogistic action, and also because by its action in strengthening the blood and lymph circulation it tends to promote absorption of subacute and chronic exudates. Remak, in his latest work, recommends the use of a weak galvanic current for gonorrhoeal epididymitis, while Mathieu, Dehlerum, and P. Lazarus mention that good results have been obtained from a strong current of 20 to 60 milliampères applied for from one to two hours. Six cases are given to illustrate the effect of treatment. These cases confirm the results of Winkler and Becker, in that the condition improved in a few days; the inflammatory exudation, if it did not altogether disappear in the time, yet ceased to advance, the pain disappeared, and the patient was not obliged to remain in bed for a fortnight, but could return to work within a few days; the whole process healed in from five to eight days, but the exudate was not fully absorbed for from five to six days longer. The method is very simple; any small portable apparatus can be used, because any apparatus will give a current of 0.2 to 0.4 or 0.5 milliampère. The application is stabile.

PATHOLOGY.

309. Miliary Aneurysms in Cerebral Apoplexy.

Charcot and Bouchard taught in 1868 that miliary aneurysms of the cerebral arteries in the brain are chiefly important on account of their relationship to cerebral haemorrhage. L. Pick (*Berl. klin. Woch.*, February 21st and 28th, 1910) discusses the actual conditions met with in apoplexy and compares his own studies with the older doctrines. After having reviewed the history of the literature of this subject, he selects the teaching of Orth, Kaufmann, and Pöhlmann, for special criticism. The first-named pathologist regarded spontaneous apoplexy as resulting from an atheromatous process of the large and small arteries, with aneurysmal dilatation of the small arteries and capillaries. He further suggested that haemorrhage might arise without any recognizable changes in the vessels. Kaufmann regarded miliary aneurysms as true aneurysms, and went so far as to ascribe these to a hyaline degeneration of the vessels. Aschoff's textbook contains a chapter by Benda, who states that the so-called miliary aneurysms are not true aneurysms, but merely haemorrhages into the sheaths of the arteries. Pöhlmann believes that miliary aneurysms of the small and smallest cerebral arteries are true aneurysms, and are either associated with changes in the vessel wall or not so associated. The media are most frequently affected either by fatty metamorphosis, hyaline degeneration or by simple absence, or the media and the intima, but never the intima alone, may be affected. The author has therefore considered it necessary to examine the finer structure and histogenesis of the cerebral aneurysms, and for this purpose his assistant, A. G. Ellis, has investigated the brains of 30 persons dead of cerebral apoplexy, using the most modern methods of maceration and teasing, as well as fixing and hardening. In 20 cases Ellis found small aneurysms, varying in size around $\frac{1}{2}$ mm. in diameter, and having a dark-red colour. The shape was usually round or spindle shaped, and they were firm. Besides, he found some ruptured sacs, measuring from 1.5 to 8 mm. in diameter. The majority of these aneurysms were false or spurious aneurysms, while some had the characters of dissecting aneurysms. There was but little capsulation or true wall formation around these false aneurysms, and the whole appearance suggested that the sacs had but a short life. In order to clear up much of what still was obscure, Pick had recourse to a simple method of demonstrating the aneurysms. Using the "biological shaker," he immersed the brains in physiological saline solution in a bottle and placed the bottles in the shaker, running the latter gently for from eight to ten hours. In this way the vessels were isolated and the brain substance was shaken clear of the arterial tree. From the preparations gained in this way he found that the haemorrhages which cost the patients their lives were always derived from larger and, at all events, over-miliary aneurysms. At times one aneurysm ruptured in several places, while at other times several aneurysms ruptured simultaneously. The histological examination revealed that these sacs were either circumscribed blood clots in circumvascular lymphatic spaces—that is, false dissecting aneurysms—true dissecting aneurysms, or spurious aneurysms. The ruptured over-miliary aneurysms were all spurious. Pick gives much information with regard to the histological structure of these ruptured and unruptured false aneurysms, reproduces macroscopical and microscopical pictures of the arteries and sacs, and discusses the results of his researches in some detail. He deduces from his investigations that the importance of the miliary aneurysms of the cerebral vessels, according to Charcot and Bouchard's doctrine, has been greatly overrated.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

310. Examination of the Stools in Infancy.

F. HECHT (*Wien. med. Klin.*, February 27th, 1910) discusses the value of examination of the stools in the case of infants. Recent workers have shown that the proteids in the stools of infants are not derived from the food, but from the intestinal secretions; and Prausnitz teaches that proteids should not any longer be classified according to whether they are easily or with difficulty absorbed, but rather according to the effect they have in regulating the greater or less loss of proteids in the intestinal secretions. The search for casein in the stools is therefore of no value. If the stools are offensive owing to putrefactive changes, the indication is to treat by giving carbohydrates, a measure which Escherich recommended by way of intestinal antisepsis twenty years ago. It is also to be observed that the hunger stools of infants have an alkaline reaction and easily decompose, whether the hunger is due to too little milk or to milk poor in fat. The carbohydrate contents of the stool are next considered. Sugar is very seldom found in the stools of infants, and then only in insignificant quantities. The search for decomposition products is of more value. It is not only of interest what amounts of organic acids are present in the intestinal canal, but also what kinds of acids. Thus, lactic acid and acetic acid are much better borne than butyric acid, the presence of which in the stool can often be recognized by the unpleasant smell. A strongly acid reaction of the stools is usually a sign, especially when the child is on cow's milk, that the amount of sugar should be diminished; such stools are often seen if large amounts of milk sugar are added to diluted milk. In breast-fed children, with strongly acid, watery stools which spurt out, who suffer from restlessness and meteorism, the amount of milk taken is to be diminished and the breast only given five times a day, while before each meal some saccharine water may be given. Farinaceous food can be given earlier than is usual, but a careful watch should be kept on the result for at least eight weeks; the microchemical test with Lugol's solution may be very useful. Some highly dextrinized foods—as, for instanee, Mellin's food—may have an effect similar to that of sugar in producing strongly acid stools, and in this case they should be replaced by less highly dextrinized foods. The most important constituent of the food to observe in the stools is the fat. According to the view of Czerny and his school, fat leaves the intestine in the form of a combination of fatty acids with alkaline base, that is, as a soap, and injures the body by causing a reduction of the general alkalinity of the system. Recently Finkelstein has called attention to the view that fat does harm in the stages in which he describes as a decomposition stage, and frequently produces the condition which used to be described as atrophy. The presence of fat in the stools of infants is therefore of great significance, and it is also of interest whether it leaves the body in the form of a free fatty acid or of a soap. If there is excess of fat in the stools of a breast-fed child, the amount taken and the number of meals should be diminished, or some food poor in fat only may be added, such as skim milk, etc. In institutions the milk may be drawn off and the cream removed with the help of centrifugalization. Gregor observed that slimy dyspeptic stools are seen in healthy breast-fed children if the mother's milk is too poor in fat. During the first weeks, even in healthy children, mucus is often present in the stools, and as a general thing it may be said that mucus in the stools in children is not the token of any intense intestinal disease. Stools which contain bloody or purulent mucus should receive a bacteriological examination.

311. Gastric Pain.

LEVEN (*La Clinique*, January 28th, 1910) points out that pain in the region of the stomach may be of two kinds, solar and visceral, and he emphasizes the necessity of distinguishing between them, in the interests of diagnosis, prognosis and treatment. Solar pain is due to hyperaesthesia of the solar plexus, and is characterized by attacks varying in intensity and frequency, but always situated in the middle line between the xiphoid cartilage and the umbilicus. If the pain is dependent on pressure, the skin should be raised and pinched so as to distinguish between cutaneous hyperaesthesia and true solar pain. When this pain exists by itself, simple dyspepsia may safely be diagnosed, unaccompanied by any visceral lesion, such as ulcer, cancer, syphilis, or gastric tuberculosis. If a gastric lesion should co-exist, a special pain is present besides the solar pain, situated at a definite fixed point, shown, by radioscopic investigation, to be the seat of the local lesion. This is the visceral pain, situated always in some part of the stomach itself, and always more or less to the left of the middle line of the body. In one case cited by Leven the patient complained of serious gastric troubles, and *x*-ray examination showed a bilocular condition of the stomach, which, taken in connexion with the cachectic condition and the gravity of the symptoms, seemed to point to an organic cancerous lesion. Suitable medication relieved the patient and cured the solar pain, but emaciation continued, and a fixed visceral pain persisted in the contracted portion indicated by the radioscope. Before resorting to operation a course of mercury and iodide was tried, with the result that the pain diminished after the second injection, and finally disappeared, the patient being definitely cured, putting on flesh and digesting her food thoroughly; proving that the case was one of a syphilitic lesion of the stomach, complicated by dyspepsia.

312. The Vision of General Paralytics.

RODIET AND PANSIER contribute to the *Recueil d'ophtalmologie* for October, 1909, a paper on this subject. Many authors state that amblyopia is an early sign of the disease; in fact, it may often appear before any other sign, preceding inequality and deformity of the pupils. The amblyopia may be due to a retrobulbar neuritis, which can often be traced to intoxication with tobacco or alcohol. But there may be an essential amblyopia associated with changes in the optic nerve which end in complete atrophy and amaurosis. The lesions, if any, seen ophthalmoscopically present nothing characteristic. Optic neuritis is not infrequent, and develops slowly into secondary atrophy. *Post-mortem* examination shows degeneration of the nerve fibres the result of pressure caused by hyperplastic sclerosis of the neuroglial connective tissue.

SURGERY.

313. Momburg's Method of Preventive Haemostasis.

AUVRAY (*Bull. et mém. de la Soc. de Chir. de Paris*, No. 8, 1910) discusses at length the information derived from recent medical literature on the practical value and the indications of Momburg's method of preventing haemorrhage during severe operations on the pelvis and the lower limb. The object of this method is to set up complete haemostasis in the lower half of the body, by effecting tight constriction of the trunk between the thorax and the iliac crest by a rubber tube. Momburg makes from two to four turns of this tube around the abdomen, and then tightens the coils until the pulsations of the femoral artery are arrested. As it has hitherto been applied in more than 100 cases some definite conclusions may now be formed as to its practical value. The list of cases in which the method has been tested is a varied one, as it includes not only such operations as amputation of the thigh, disarticulation at the hip, and partial resection of the pelvis, but also hysterectomy, and in obstetrical practice it has been applied for the arrest of haemorrhage due to placenta praevia and uterine atony. With regard to its haemostatic value, every surgeon who has tried this method regards it as one capable of assuring an absolutely complete arrest of haemorrhage in all parts of the body below the umbilicus. The author asserts that there is no difference of opinion on this point, and he refers to a case of removal of the lower limb at the hip, in which not a drop of blood was discharged from the extensive raw surfaces during the application of the elastic cord. There are, however, well founded objections to an indiscriminate use of this method. The forcible compression of the trunk has in many instances, and especially in old and feeble subjects, caused serious disturbances of the circulation. The increased blood pressure in the regions above the elastic cord imposes on the heart a very sudden and excessive strain, which if not overcome by a thoroughly sound and vigorous organ may lead directly

to collapse and death, and, if the patient recover, to later disturbance of the cardiac functions. Attention has been directed to the occurrence in some cases of temporary paralysis of the bladder and rectum. It is stated that in the collection of cases analysed there is no report of any lesion of the abdominal viscera. It is hinted, however, that the intestinal canal below the seat of constriction may be intensely congested. The following is a brief review of the bad and disquieting results that have in some few instances followed the practice of Momburg's method: Several cases of collapse due to disturbance of the circulation; 3 cases of grave and persistent heart trouble; 1 case of expulsion of blood from the mouth with no serious after-effects; 1 case of temporary disturbance of the vesical functions; 1 case in which disturbances of the functions of both bladder and rectum lasted over five months; 1 case of very acute pain in the lower limbs which lasted for some hours; 1 case of gangrene of the thigh; and, finally, 1 case of transient intestinal haemorrhage. In his final comment Auvray expresses the opinion that Momburg's method of arresting haemorrhage, although its real value has yet to be determined, has at the present day fair claims for regard as a legitimate procedure. Still, it is pointed out, the accidents and incidents associated with its application in many cases indicate that it should be used with care and consideration, and be looked upon as an exceptional resource when the surgeon has to deal with extremely feeble subjects in whom the smallest loss of blood might be fatal. When applied it should be on the conditions that the patient be not advanced in years, and that the heart and vascular system be in a good condition.

314. Terminal Arterial Anaesthesia.

Ransohoff (*Ann. of Surg.*, April, 1910) describes a method of inducing local anaesthesia by the direct injection of cocaine into the artery supplying the seat of operation. The anaesthesia thus induced is called terminal, as the cocaine is carried by the capillaries to the individual nerve endings. The solution is diffused through the capillary walls into the surrounding tissues, and very little, if any, is returned through the veins to the general circulation. It is, the author acknowledges, applicable only to a limited group of cases, and particularly in operations on the upper extremity, where the main arterial trunks may be exposed with little difficulty. In operations on the foot also this method may be used with advantage. This method is practised in the following manner: the main artery supplying the seat of the injury or disease is exposed under infiltration anaesthesia, and then an Esmarch's tourniquet is applied to the limb above the proposed point of arterial injection. The tourniquet while constricting the veins should not be applied so tightly as to interfere with the arterial circulation. From 4 to 8 c.cm. of a 5 per cent. solution of cocaine should be injected through a very fine needle into the artery in the direction of the blood stream. This method the author regards as an ideal one for certain areas of the body where general anaesthesia is contraindicated. Its great advantage, the author asserts, is its safety, which depends on the small quantity of dilute cocaine solution that is used, and its probable diffusion into the tissues. It seems, however, that the author's views on the merits and safety of the procedure here described are founded more on the results of laboratory work than on surgical experience.

315. Death by Asphyxia in Radioscopic Examination of the Oesophagus.

A case of death from asphyxia in the course of a radioscopic examination of the oesophagus has been reported by Desternes to the Society of Medical Radiology of Paris (*Bull. et mém.*, March, 1910). The patient was a man, aged 59 years, who had suffered from dysphagia for six months, with a sudden aggravation of the condition just before examination. A diagnosis of neoplastic narrowing of the oesophagus was made, and this was confirmed by a screen examination with the *x* rays. Bismuth was unable to pass the oesophageal constriction. The patient had an enlarged heart and aorta and a limitation of the thoracic expansion. A few moments after the examination had concluded he staggered and fell unconscious. Vain efforts were made at inspiration; the body stiffened, the chest was covered with perspiration, and death ensued within two minutes. There was no cry or cough. An autopsy revealed a neoplasm of the oesophagus, causing a great narrowing at a point about 2 cm. above the bifurcation of the trachea. A tiny fistula, the orifice of which measured scarcely 2 mm., communicated between the oesophagus and the trachea, and the walls of the larynx and trachea were covered with fine particles of bismuth. The bismuth milk had passed from the oesophagus into the respiratory passages, which it had suddenly obstructed. The leakage, however, was not due to the capillary fistula, which was much too small to be responsible for it; and it appeared that by violent efforts at deglutition the patient had projected directly into the larynx the liquid which flowed back from the oesophagus, the reflex nervous imbibition instantly provoking laryngotracheal anaesthesia. The fluid which thus found its way into the respiratory passages could not have exceeded 50 grams, and in view of the tolerance of the trachea for liquids it was rather surprising that an amount so small should have produced such consequences. But the asthenic state of the patient, the site of the lesion and its connexion with the pneumogastric and laryngeal nerves, the limitation of the respiratory expansion, and the dilated heart and enlarged aorta must all be taken into account.

OBSTETRICS.

316. The Treatment of Placenta Praevia.

In common with a number of other German gynaecologists and obstetricians, W. Hannes (*Muench. med. Woch.*, December 21st, 1909) takes up his pen to wield it against Sellheim and Krönig, who advocate severe surgical procedures for the treatment of every uninfected case of placenta praevia. Sellheim performs an abdominal section, while Krönig prefers anterior hysterotomy. Hannes points out that the conditions under which these authors perform their operations are not often prevailing. They consist in the freedom of infection and the continuation of the life of the child. Since the surgeon usually only sees the patient after the midwife and others have examined her frequently, and often after tamponage has been carried out, but few cases are in a reliably aseptic condition. The life of the child in many cases cannot be saved, either because the child is not yet viable, or because the detachment of a large portion of the placenta has deprived it of sufficient oxygen to withstand even a short period of labour. After dealing with the results obtained by means of combined version (Braxton Hicks), in which the maternal mortality has been reduced to between 7 and 10 per cent. and that of the child stands at between 60 and 80 per cent., he turns to the results which he has obtained by means of hystereurysis. He finds that when a placenta praevia case is bleeding the cervix is always sufficiently dilated to admit of the passage of one finger. It is then an easy manner to dilate manually until Braun's cigar-shaped dilator can be passed. The bag is introduced with the aid of the hystereurysis forceps. The bag is then gradually filled with from 500 to 600 c.cm. of an aseptic or mildly antiseptic fluid, the forceps being gradually opened during this procedure. After the forceps are removed, the tube of the dilator is weighted by not more than 500 or 700 grams. Fixed in this manner, the bag not only arrests the haemorrhage, but it also exercises a permanent and equal pressure on the paracervical ganglia, thus inducing strong pains within a short time. Violent traction or inelastic bags cannot act as this dilator does. The dilator must be applied inside the amnion. For this purpose, the membranes must be carefully ruptured or the placenta itself, if the membranes cannot be reached, cleanly perforated. Great care must be exercised not to detach more of the placenta than has already been detached, in order not to deprive the child of a full supply of oxygenated blood. Hannes deals with 246 cases. Of these, 143 were dealt with by means of the hystereurysis. The infantile mortality was 51 per cent. On closer examination of his cases, he finds that if he only includes those children which were viable and still alive when the cases were admitted in hospital, as many as 75 per cent. of the children were born and kept alive for at least three days. In the cases delivered in the poliklinic—that is, in the patients' own houses—83 per cent. were saved. Of his 143 cases dealt with in this manner, 8 mothers lost their lives = 5.5 per cent. Of these 8, 2 died of air emboli, 1 of an uncompensated cardiac affection during the puerperium, 1 died of haemorrhage from a tear in the cervix (this death was due to a technical error, and occurred while the method was just being introduced). One woman was admitted in a very anaemic condition, and died of this condition, while the remaining 3 died of sepsis. Of these, 1 was in high fever when admitted, 1 became infected in her own home, and the third was infected at a manual separation of the placenta. He believes that these results are better than any operation can yield. The number of mothers who lost their lives from the method—

that is, whose death was due to the placenta praevia treated by Braun's bag—represents a smaller mortality percentage than any surgical operation for this condition could yield. The results with regard to the children are better than those obtained by any other method; and, finally, he points out that since the majority of placenta praevia cases must be treated as soon as the diagnosis is made if the best results are aimed at, the general practitioner has a chance, by means of the hystereurysis treatment, of dealing successfully with the cases himself.

317. Interstitial Ectopic Pregnancy Complicated by Tubo-ovarian Abscess.

STURMDORF (*Amer. Journ. Obstet.*, February, 1910) was consulted by a woman, aged 28, who had been married for years, and had never until recently been pregnant nor subject to any pelvic or other illness. Hitherto, until seven weeks previously, she had menstruated regularly; then, when two weeks overdue, she suspected pregnancy, and submitted to an attempt to induce abortion. An irregular, occasionally profuse, discharge of blood set in, and continued for the following four or five weeks without any pain or tenderness. The temperature was normal, the pulse slightly accelerated, and anaemia slight, without leucocytosis. A soft, irregular, elastic mass filled the pelvis on the left side, and was closely connected with the uterus, which seemed to be normal in dimensions and consistence; nothing abnormal could be defined on the right side. Ectopic gestation was diagnosed. Abdominal section was performed, and the uterus was found to be imbedded in extensive organized adhesions. The mass on the left, which had been diagnosed as the gestation sac, proved to be an old tubo-ovarian abscess, whilst the junction of the right cornu to the Fallopian tube was marked by a soft swelling, which was found to be a tubo-uterine gestation sac. The parts were removed and preserved. The coexistence of a tubo-ovarian abscess with the abnormal gestation, and the internal evidence of extensive infection with so little constitutional disturbance was remarkable in this case.

GYNAECOLOGY.

318. Cancer of the Fallopian Tube.

ALBAN DORAN (*Journ. of Obstet. and Gyn. of Brit. Emp.*, January, 1910) describes a case of primary cancer of the Fallopian tube which occurred in his own practice in 1899. The patient was a unipara, aged 60, and had been sent because of a large abdominal tumour first noticed five months previously; the tumour reached nearly to the level of the ensiform cartilage. The catamenia had ceased at the age of 47, but the patient stated that a regular show reappeared at the age of 57, and that the last show had been observed about six months before she came for treatment. At the operation a cyst was exposed, with dull white vascular walls, containing several pints of reddish-brown fluid; the cyst had opened up the left broad ligament, and the uterine part of the left Fallopian tube ran into the cyst, and contained papillomatous masses. Some growths in the cyst had perforated the cyst wall and grown over the back of the uterus and Douglas's pouch. Strong adhesions had formed between the capsule and the intestines. The uterus was not enlarged. The patient recovered from the operation, and returned home free from pain or from dysuria, from which she had previously suffered, but died of a recurrence apparently within two years of the operation. An examination of the tumour after removal was carried out, not by Doran but by Targett, and showed that the disease was primary villous carcinoma of the Fallopian tube, with secondary infection of an ovarian cyst, lymphatic glands, uterus, etc. The article also contains a review of the cases described in the literature, and a tabulated record of 38 cases, a continuation of the series of 50 cases which the author had previously collected and published. From these cases it appears that primary cancer of the tube is most frequent at and for a few years after the menopause, but in two cases the age was under 30. Nineteen of the 38 patients had been pregnant once and in 11 cases there was no record; it seems most probable, therefore, that the disease is more common in parous women. In 25 cases there was pain, and judging from the two series of cases it is concluded that there is pain when there is obstruction to the escape of the watery fluid secreted by the new growth. A swelling of some kind was noted in all but 4 of the 38 cases. If a tumour distinct from the uterus can be made out the most important symptom is discharge, and a free watery discharge was noted in more than 27 per cent. of the recorded cases. Taking the two series together fibroid tumour was present as a complication in 9 per cent. and ovarian cyst in 10 per cent. Ascites was only present in two instances in the later series. Evidence of peritoneal effusion caused by escape of discharge from the tube into the peritoneal cavity was only to be found in one case of primary cancer, although it was a marked symptom in the first instance of innocent papilloma of the tube which was recorded at length; in other words, in cancer of the tube the ostium, as a rule, becomes closed very early. There was a distinct history of pelvic inflammation in 9 cases and a suspicious history in 12. Reviewing the whole series of cases the author inclines to the view that the inflammatory theory of origin is the most probable. In more than one-third of all the cases the disease was bilateral. All but 1 of the 38 cases underwent operation, with only two immediate deaths; in the first series 4 cases of death due to the operation were given. The after-histories of the cases was, as a whole, unsatisfactory—a not surprising fact for a disease difficult of diagnosis. Two additional cases are reported, one of them probably a case of sarcoma in which there was a discharge of a pink, glairy, sticky fluid.

THERAPEUTICS.

319. X-Ray Treatment of Graves's Disease.

SCHWARZ, of Vienna (*Arch. d'élec. méd.*, April 10th, 1910), claims that radiotherapeutic treatment of Graves's disease has as high a percentage of success as the surgical method, and has none of the danger and pain incident to the latter. He insists, moreover, that *x* rays in exophthalmic goître have a distinct etiological basis, one of their general properties being their power to diminish glandular secretions. Soon after the irradiation of the thyroid a modification of the nervous symptoms is generally observed, and this is frequently followed by a sudden change in the general nutrition. In some cases the patient puts on weight very rapidly; a gain of 6 or 8 kilograms (13 or 17 lb.) in a month is quite common. Within a short time there is often also a diminution of the exophthalmos, although this is a most persistent symptom, especially in cases of long standing. Out of 40 cases under the author's observation, after radiotherapeutic treatment had been applied for a mean period of three months, there was increase of weight in 26; diminution of the pulse-rate in 36; amelioration of the nervous symptoms in every case; of the exophthalmos in 15; of the goître in 8. The improvement is constant for the nervous symptoms, and almost constant for the tachycardia, and on this latter point Kraus is quoted as saying that when the tachycardia has disappeared for a certain time, one may consider Graves's disease as cured. although other symptoms may continue. On these grounds the author claims 90 per cent. of successes for radiotherapy, which is at least equal to the percentage of operative successes. As to technique, he points out that the skin of the cervical region is normally more sensitive than that of other regions of the body, and that this sensibility is further increased in sufferers from Graves's disease. Therefore too strong doses must not be given. He irradiates the neck, first in the anterior direction, then in the left and right lateral directions, with rays filtered through a piece of glass of 2 mm. thickness. The dose is $\frac{1}{3}$ Sabouraud, or 2 kaloms of the Schwarz Fällungs-radiometer, applied at intervals of three weeks; that is to say, first week, neck, anterior direction, $\frac{1}{2}$ Sabouraud; the following week, right lateral direction, $\frac{1}{3}$ Sabouraud; a week later, left lateral direction, $\frac{1}{2}$ Sabouraud; and recommencing eight days later with the same dose in the anterior direction. This cycle of irradiations must be followed uninterruptedly, frequently for six months.

320. Alcohol Injections in Trigeminal Neuralgia.

JULIUS DONATH (*Pester med.-chir. Presse*, February 6th, 1910) has for more than a year treated cases of severe trigeminal neuralgia by injection of 80 to 90 per cent. alcohol to which cocaine is added to the amount of 0.25 gram (3.85 grains) of cocaine muriat. to 100 grams (3.52 oz. av.) of alcohol. The cocaine is not an essential part of the treatment. If the neuralgia is limited to the N. supraorbitalis, N. infraorbitalis, or N. mentalis, the injections are made into the supraorbital notch or the infraorbital or mental canals respectively; and even in cases where the neuralgia seems to be more central injections into the peripheral nerve most strongly affected

sometimes gives complete relief. Thus in the case of a man, aged 65, who had suffered for six years from neuralgia which began in the left orbit and spread to the left cheek and to the corresponding side of the neck, one injection of the alcohol cocaine solution into the N. infra-orbitalis brought about cessation of the pain not only in this nerve, but in the eye, cheek, and neck. When injections are made over the eye oedema of the eyelid sometimes results but disappears in from one to two days. In more extensive neuralgias more centrally situated, the injections are to be made at the exit of the second and third branches from the base of the skull. For these injections the author uses the more simple method of Levy and Baudoin, in which entrance is made from the cheek, rather than that of Schlosser-Ostwald from the mouth. The injection needs to be practised first on the dead body, a procedure which is unnecessary when dealing only with the more limited peripheral neuralgias first described. The cases treated by injections were as a rule severe, and of years' duration. The results reported are wonderfully good. One case is that of a woman, aged 66, who had suffered for fourteen months from severe attacks of pain, which lasted for hours and became daily more frequent. During an attack she could neither speak, eat, sleep, or even swallow. Injections of alcohol were made three times into the foramen ovale and once into the infraorbital canal. The pains in the third division ceased after the first injection. The patient left the hospital completely recovered, and a year later was still free from pain. Other examples are given. On the strength of his experience the author urges the necessity of making trial of the alcohol cocaine injections before proceeding to more drastic surgical measures.

321. The Action of Quinine on the Kidneys.

Ferrannini (*Rif. Med.*, March 28th, 1910) has carried out a series of researches *in vitro* and *in vivo* with a view to determining what action, if any, quinine in moderate or in prolonged doses has on the kidney. In the doses usually given it appears to have a slightly deleterious effect on the secreting portion of the kidney substance, although it is true under average doses the kidney lesions after prolonged use of the drug are very slight, yet they are recognizable, and the author gives photomicrographs of the histological appearances. From the cryoscopic experiments *in vitro* it appears that to be innocuous the quinine must not pass through the kidneys in stronger solution than 1 per cent.; above this it injures the kidney tissue. In the ordinary doses, by the time the quinine reaches the kidney *in vivo* it is in solution at a percentage well below the danger index.

322. Constipation in Babies.

Coolidge (*Bulletin Lying-in Hospital City of New York*, September, 1909) finds that more babies are brought to the hospital for the treatment of constipation than for any other disease. Whether breast-fed or bottle-fed they appear to suffer equally from this condition. In most cases it is attributable to improper feeding either of the child or the mother; some children have a weakness of the rectal muscles which makes expulsion difficult; when it is due to defective portal circulation and lack of bile secretion it is not likely to be successfully treated till the child is old enough to take solid food and systematic exercise. The mother of a constipated baby is often constipated herself or she drinks large quantities of tea, which is alone enough to constipate a child. She is advised to limit her tea to one small weak cup per day, and to use cocoa, malted milks, or gruels made of oatmeal mixed with milk. Bran gems are effective in curing the condition in both mother and child. If a baby is not gaining steadily and seems poorly nourished, the milk is analysed and may reveal low fats or proteids, or if the quality is good the quantity may be deficient as shown by weighing the baby before and after the feeds. If possible the milk should be improved by proper diet and rest; where this cannot be obtained it is necessary to resort to partial feeding, a method which is very successful in overcoming the constipation. Breast feeding should not be given up entirely till alternate feeding with the breast and bottle has had a thorough trial. Water should be given to the baby between each meal about ½ to 2 oz. according to age. After the age of 4 months, ½ to 2 oz. of orange juice is added to the water which is given in divided doses during the twenty-four hours. Beef juice may be given in the same way, and is often helpful in obstinate cases of constipation; if needful, a teaspoonful of olive oil once or twice daily, or the same amount of milk of magnesia can be administered. It is necessary to establish a regular habit, and this necessity must be impressed upon the mothers. It is encouraging to find how much better a mother who has had instruction cares for the second and third babies than she did for the first. Condensed milk is a cause of constipation, and the change to fresh cow's milk may cure the condition. If not, oatmeal water is taken as the diluent or a little higher fat used in the formula, or both fats and proteids are increased. Another method is to omit the milk sugar or cane sugar in the formula and to substitute the same amount of one of the best malted foods, it is not only laxative, but also exerts a certain influence on the curd of cow's milk, and so aids digestion. Lime water is very constipating in some cases, then it is better to give sodium bicarbonate instead, or milk of magnesia, the dose of the latter should be the minimum that will secure one free stool a day. When too large a percentage of fat is given the stools are very light in colour, and the fat is apt to cause constipation if it is above 4 per cent. Massage of the abdomen is an assistance in connexion with other methods, and may be taught to the more intelligent mother. When the cause is muscular atony, the oil enema can be used, or a soap suppository or a stick, till the muscles are stronger, and the child can take exercise. Older babies of one or two years are given apple sauce, prune jelly, oatmeal, and Graham mush or bran gems. This coarse food that leaves a large residue is often all that is need to correct constipation in them.

PATHOLOGY.

323. Opsonic Index in Acute Leukaemia.

Parvu and G. Foy (*Tribune méd.*, February 19th, 1910) discuss the opsonic index and the phagocytic power of the white blood corpuscles in acute leukaemia. The same authors have previously investigated the same conditions in myelogenous leukaemia, and found that in this disease only from 31 per cent. to 51 per cent. of the polynuclear leucocytes retain their power of phagocytosis whatever serum is added, and found also that the opsonic index of the blood serum in myelogenous leukaemia is diminished. Recently two cases of acute leukaemia with typical symptoms of haemorrhage, fever, very rapid deglobulization, and gingivitis, have come under their care. Examination of the blood showed that the number of polynuclear leucocytes had fallen to 14, 10, or even 6 per cent., while 80 per cent. of the white cells were a young form of leucocyte—large, basophile, non-granular, mononucleated cells. The authors carried out a series of investigations similar to those previously made for myelogenous leukaemia. They found that: (1) The mononuclear cells which formed so large a majority of the whole had no power of phagocytosis; (2) the opsonic index of the serum was very much reduced—a condition also met with in other forms of anaemia; (3) the phagocytic power of the small number of polynuclear leucocytes present in the blood was very markedly increased. The authors suggest that young forms of leucocytes do not possess any phagocytic power—a theory which would explain the absence of phagocytosis by the mononuclear cells above described.

324. Cultivations of the Typhoid Bacillus from Blood.

Gildemeister (*Arb. aus dem kaiserl. Gesundheitsamte*, Bd. xxxiii, H. 3, 1910) finds that in the cultivation of typhoid bacilli from blood the use of bile may be dispensed with, and replaced by distilled water or even tap water. Water dissolves blood more quickly than bile does, and has the advantage of always being available. The technique is essentially the same. The clotted blood is broken up as finely as possible with sterile instruments, and the liquid is then drawn up with a sterile pipette and used at once for culture, from eight to ten times the bulk of distilled water being used for each culture tube. The inoculated tubes are well shaken up several times and incubated at 37°, a further shaking being given after the cultures have been an hour or more in the incubator. On the next day four or five loopfuls of the culture are inoculated on to agar or Drigalski plates. If no growth results, the test is made again after forty-eight hours' incubation of the original culture. The author finds that his method is eminently successful in yielding cultures of typhoid bacilli from very small quantities of clotted blood. In a further series of experiments he ascertained that equally successful results could be obtained when the freshly drawn blood was dropped directly into distilled water or tap water.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

325. Spasm of Sigmoid Flexure.

FRANZ JORDAN VON SZENTGYÖRGY (*Pester med.-chirurg. Presse*, Nos. 14 and 15, 1910) describes two cases of spasm of the sigmoid flexure occurring in nervous patients, and bringing about a serious and in one case even a most dangerous condition. The first case was that of a man 72 years of age, who had suffered for ten years from intestinal atony, but in whom the condition had not been recognized because of the daily regular passage of a motion. This patient had a large number of attacks of spasm. The second of these attacks began with loss of appetite, nausea, sense of abdominal distension and slight shivering. The temperature was 37.5° C. (99.5° F.). On palpating the abdomen, the descending colon could be felt along its whole extent as a resistant tumour of the thickness of the forearm. Castor oil was given and 9 litres of faeces evacuated, but the condition did not improve, but became for a time worse; the resistance, however, localized itself more in the sigmoid flexure. Calomel was next tried, but in spite of several watery stools, had very little effect upon the condition. Castor oil was again given, and immense quantities of faeces were passed, and in addition thirty-two grape stones which must have been in the intestine for weeks were evacuated. In spite of treatment, the symptoms continued, although to a slighter extent, and after about two weeks oedema of the left lower limb was found to be present due to thrombosis of the femoral vein. In the author's opinion the thrombosis was inflammatory in origin, and depended on infection spreading from an erosion of the sigmoid flexure. Washing out of the sigmoid flexure was ordered and was followed by the evacuation of an immense quantity of masses of mucus; with continuation of the treatment recovery rapidly followed. In another later attack there was a remarkable simulation of biliary colic, and treatment by hot compresses and morphine injections was adopted after a consultation with two colleagues. The patient became rapidly worse, and when seen next day the condition was as follows: The patient was delirious with sunken face, dry hot tongue and quick small pulse; crepitant râles were heard over the lungs behind and to the right, there was frequent retching, meteorism; temperature, 40° C. (104° F.); the meteorism was so severe that the author decided to try the effect of castor oil, and improvement began as soon as the first dose had acted. The patient recovered from this attack, but later continued to have mild attacks, which usually began after some period of excitement, and from which he recovered in two or three days, being treated by evacuation of the intestine and application of hot fomentations. The second patient, 57 years of age, had suffered for years from chronic constipation with resulting nervous symptoms. In this case the attacks were never so severe as in the preceding one, but in one attack, in spite of treatment by purgatives and injections, the pains persisted for weeks, and the patient, in consequence, took hardly any food; the whole condition improved for the better as soon as castor oil was administered. The first case illustrates the possibility of the occurrence of symptoms dangerous to life, either locally or in the lungs; the rapid recovery from lung symptoms which resulted from the administration of cod-liver oil is to be ascribed to the return of the diaphragm to its normal position. The primary cause of the sigmoid flexure spasm is, according to the author, atony of the intestine followed by a general intoxication which affects the nervous system; a vicious circle is finally instituted. Castor oil is to be regarded as the specific means of treatment, and gives a prompt result without increasing spasm by giving rise to irritation; injections of warm water succeeded in one case in which castor oil had brought about improvement but not recovery, and it is obvious that warm water is especially suited to lessen spasm.

326. Moro's Tuberculin Test

W. CHLUMSKY (*Wien. klin. Rundsch.*, April 3rd, 1910) has made trial of the tuberculin ointment test for tuberculosis introduced by Moro two years ago. The ointment is a 60 per cent. old tuberculin ointment in lanolin. Small quantities, the size of a linseed, are rubbed into the skin in the neighbourhood of the xiphoid process, the bend of the elbow, the mammary, or the scapular region. At first the author was accustomed to have the ointment rubbed in for half a minute and the site left uncovered afterwards for about ten minutes; later, however, the time of rubbing was increased to from one to two minutes, and the test, if it gave negative results, was repeated. The effect of these precautions was that in some cases in which the test was negative at first, a positive result was afterwards obtained. In positive cases small reddened vesicles, the size of a millet seed, formed usually on the first or second day, but sometimes as late as the fourth or fifth day, on the skin where the ointment had been rubbed in. The vesicles dried up after a few days, but with a strong reaction they might still be clearly seen after ten to fourteen days. In none of the author's cases were any vesicles seen except at the site of application of the ointment; in this particular his results differed from that of Moro. The reaction was much better marked in well nourished than in poorly fed, depressed children, in whom, in spite of the presence of manifest tuberculosis, the result was almost always negative. Control experiments with lanolin instead of the ointment were carried out, and gave uniformly negative results. A total of 53 cases were tested; 24 of them were undoubtedly tuberculous, and usually gave a typical picture of surgical tuberculosis, with fistulae and cold abscesses. Of these 24, 14 gave a positive and 10 a negative reaction; 2 out of 6 healthy adults gave positive reactions, in one of them v. Pirquet's test had also been positive. Twenty-three cases under treatment for affections other than tuberculosis were tested, with 6 positive results. If from these 6 cases be subtracted 4 scrofulous cases—2 of scoliosis and 2 of osteomyelitis—it leaves 2 only which gave positive reactions without any discoverable sign of tuberculosis. All the children tested were between 1 and 12 years of age, and came from the poorest class; probably, therefore, the positive results were due to the presence of some latent tuberculous area. The author concludes that Moro's test is fairly sensitive, though not absolutely reliable. It is especially suitable for supporting a diagnosis in the initial stage of tuberculous disease. The test is very simple, needs no special preparations, is painless, and is especially to be recommended for the general practitioner. The tuberculin ointment can be obtained in tubes; 10 grams (154.3 grains) prove enough for use in 100 cases. The author adds a note to say that he has since employed the ointment in a further 100 cases, with results similar to those already described.

327. Early Diffuse Syphilis of the Nervous System.

L. SPIELMAN, WALVIN, AND BÉNECH (*Prov. Méd.*, April 30th, 1910) relate a case of this nature. The patient was a man of 28 years, muscular, and of good constitution. He had had no previous illness, and his parents, brothers, and sisters were all in good health. There was no neurotic strain in the family. He had served for four years in the army in Algeria, and since his stay abroad has taken absinthe freely, as well as large quantities of wine at meals. The patient was first seen on October 1st, 1909, and was found to be suffering from a urethral discharge, with considerable oedema of the prepuce, it being found impossible to expose the glans. Two very indurated oval masses were to be felt through the prepuce, one on the dorsal surface, the other on the ventral aspect of the glans. The date of these appearances and the history of the case pointed to their being syphilitic in character, and the prepuce being incised the diagnosis was confirmed by finding two hard chancres in the positions indicated above, the dorsal one being in a sloughing condition. Mercurial treatment was at once commenced in the form of oil injections. Some days after a roseolous rash appeared, to be followed almost immediately by a general papulo-squamous syphilide. On November 25th the treatment was altered to the mercury biniodide, and the cutaneous lesions rapidly improved. The disease seemed to be pursuing a normal course, when, on December 20th, the patient suddenly became melancholy, refused food, spoke to no one, and exhibited suicidal tendencies. He complained of severe lancinating pains, girdle in character, and cramps in the lower extremities. His gait became heavy and tottering, and he walked about with his legs apart, hardly raising his heels from the

ground. He exhibited Romberg's sign, but there was no Babinski, although the knee-jerks were exaggerated. There was hyperaesthesia of the lower limbs except on the inside of the thighs, where there were zones of anaesthesia. Pressure on the thighs and legs caused severe pain. There was frequency of micturition, but the sphincters were normal, as were the organs of special sense. These nervous manifestations lasted for eight days, when the patient developed a complete right facial paralysis, accompanied by severe pain all over the right side of the face and behind the ear. It was now decided to give injections of calomel, and this was begun on December 27th. Under this treatment there was rapid improvement. The pains became less, the patient walked with less difficulty, and in less than a month after the commencement of this treatment the facial paralysis had disappeared, and in another fortnight the condition of the patient, with the exception of slight paresis of the lower limbs and some exaggeration of the knee-reflexes, was almost normal. The writers believe that syphilis can affect the peripheral nerves like any other infection or intoxication, and go on to say that the whole course of the illness before and after treatment goes to prove its specific character, while the early appearance of multiple neuritis, coexisting as it did with the typical cutaneous lesions, corroborate the nature of the malady. If the nervous symptoms had gone no further than the evidence of the affected peripheral nerves, the case might quite justly have been called one of syphilitic multiple neuritis. But the addition of the later symptoms detailed above complicated the clinical picture, showing, as the writers believe, that the central nervous system was also affected. They believe that the case quoted is similar to those to which attention has been drawn by Fournier, and referred to as disseminated syphilis of the central nervous system. In this case the cerebrum, medulla, and peripheral nerves appear to have been attacked simultaneously, and the writers think that the immediate and intensive antisyphilitic treatment materially lessened the severity of the attack. They then discuss the pathology of the facial paralysis, and, after referring to the various theories of its causation, express their belief that it was a neuritis purely, and part of the general infection. The case goes to prove that syphilis can affect the nervous system quite early in the infection, and in this widespread fashion, and shows the necessity for early recognition of the primary sore. They further add that early mercurial treatment is imperative, and that a variation in the form of the drug used is of advantage. In this case calomel injections gave the best results.

SURGERY.

328. Extirpation of Cervical Glands in Cancer of Bucco-Pharyngeal Cavity.

MORESTIN (*Bull. et mém. de la Soc. Anatom. de Paris*, No. 2, 1910), insisting on the importance of systematic extirpation of glands as the essential condition of success in the operative treatment of cancer, describes the technical details of his method of dissecting away the glandular structures of the carotid, submaxillary, and supraclavicular regions in operable cases of malignant disease of the tongue and pharynx. The glands should not be removed together with the primary growth in a single operation, except the disease involves the base of the tongue or the pharynx. If the operative treatment be carried over two or three sittings the prospects of a good ultimate result will be much improved, and the benefit thus gained will compensate the patient for the risks and discomforts of repeated intervention. Each secondary operation should be practised, as a rule, after an interval varying from eight to fifteen days, according to the condition of the patient and the results of the previous attempt. In the author's method of removing the glandular structures, the skin flaps are formed by three lines of incision which meet at a common point in front of the body of the hyoid bone. One of these lines runs from the tip of the mastoid process, the second from the symphysis of the mandible, and the third from the clavicle just behind the insertion of the posterior margin of the sterno-mastoid muscle. In reflecting the superior and posterior flaps it is advisable, the author holds, to dissect up with the skin the fibres of the platysma. A long and full description is given of the further dissection, which differs in no essential points from that practised by other surgeons with the aim of removing from the submaxillary region and the anterior triangle of the neck as much as possible of the cellular tissue and all the glandular structures of these regions. No gland, it is pointed out, is attacked individually; the chains of glands enclosed in all their natural coverings are, together with the surrounding cellular tissue, removed in a single large mass. It is essential, the author insists, to practise an ablation *en masse*, and in the dissection to avoid any division of a single gland or any laceration of a glandular capsule. The surgeon, if he finds any indication of extra-glandular diffusion of the disease, should not hesitate to apply his knife to every suspect structure that can be destroyed without considerable and marked physiological detriment. Such indications are to be met by extending to a greater or less extent the range of the operation. If any collection of enlarged and indurated glands be found to have contracted close adhesions with the sterno-mastoid, this muscle must be regarded as suspect and the whole of it from mastoid process to clavicle be removed, care being taken to preserve the spinal accessory nerve. At the same time it is necessary, the author insists, to sacrifice the internal jugular vein. It may be advisable to remove also one or more of the following structures: A part of the parotid, one or both of the two portions of the digastric muscle, and the omo-hyoid. The operation to be complete must sometimes include in its different stages resection of the facial hypoglossal and pneumogastric nerves, and, moreover, of the external carotid artery. The author gives a brief review of the results in each instance of the suppression of these structures. He states that the removal or the enervation of the digastric muscle, even when bilateral, will not seriously interfere with the action of the lower jaw. The sterno-mastoid, it is held, is a muscle that can be readily dispensed with, as its action in moving the head and neck can be taken on by the posterior rotator muscles. Resection of the internal jugular vein, when unilateral, causes but little trouble save a temporary headache, but when practised on both sides of the neck it is a very serious operation. The results of unilateral division of the vagus are uncertain; in one of the author's cases no trouble save hoarseness followed, while in another case the patient suffered from intense tachycardia and severe dyspnoea. Resection or ligature of the internal carotid and the common trunk can hardly be regarded as legitimate steps in an operation for the removal of cancerous glands in which it is necessary to make a free dissection and thus to divide many collateral vessels.

329. Treatment of Prostatic Enlargement by Dilatation.

SITER (*Ann. of Surg.*, April, 1910), at a recent meeting of the Philadelphia Academy of Surgery, said that the Bottini operation having been practically discarded, the only procedure left for the relief of the symptoms of prostatic hypertrophy is extirpation of the enlarged gland. There are, however, he states, so many cases in which prostatectomy is contraindicated by the risks of profound anaesthesia and shock, that it is advisable to find out some other method of affording relief. A case is referred to in which the author, after having been compelled by the bad effects of ether on the patient to discontinue a suprapubic prostatectomy, dilated the prostatic urethra with his finger through the incised bladder. In this and 20 other cases in which he has since employed this procedure, the results, the author asserts, have been satisfactory in every way. Digital dilatation, it is suggested, has the following points in its favour: Absence of shock, brief duration of the intervention, avoidance of secondary haemorrhage, and also of post-operative incontinence. The operation can be done without waiting for the disappearance of the long continued and troublesome cystitis from which so many subjects of enlarged prostate suffer before they come under surgical treatment. This method is simple and safe, and can, if it be necessary, be readily repeated.

330. Volkmann's Ischaemic Paralysis.

KIRMISSON (*Rev. d'orthop.*, No. 2, 1910) throws some fresh light on the pathology and treatment of the post-traumatic condition known as Volkmann's ischaemic paralysis, which is characterized by induration of the muscles of the forearm and functional impairment and contraction of the hand and fingers. By his own experience, and also by a study of the literature of this affection, the author has been led to the conclusion that at present it is not free from some obscurity, and that in regard to both its pathology and its treatment there are still some doubtful points. Further research is still needed, but cases of this acquired deformity rarely come under notice. The facts that have hitherto been established indicate, the author holds, that Volkmann's ischaemic contracture cannot be regarded as a pathological entity always presenting the

same form. Although in many cases the muscular lesion constitutes the whole affection, there are, on the other hand, many cases in which there is also a nervous lesion. It is necessary, therefore, in every case to bear this probable association in mind, and if there be good grounds for assuming that such association exists, the surgeon should always begin his treatment by liberating the nerve trunks of the forearm, with the hope of removing the contracture of the muscles. If, in spite of the intervention on the nerves, the contracture persists, the operative treatment should consist either in tenoplasty with the object of elongating the muscles, or in osseous resection with the object of adapting the length of the bones of the forearm to that of the retracted muscles. The nature of the treatment, and especially its prognosis, would be influenced by the duration of the lesion and the degree of its symptoms. If the case be a recent one and the muscular fibres have retained their normal aspect, it is very probable that liberation of the nerves will give a good result. On the other hand, no such result can be expected from a like treatment in old and severe cases, in which the muscular fibres have completely disappeared and been replaced by fibrous tissue. In such cases benefit can only be obtained by having recourse, according to the nature of the case, either to osseous resection or tenoplasty.

OBSTETRICS.

331. The Thyroid and the Toxaemia of Pregnancy.

G. GRAY WARD (*Surg., Gynaec., and Obstet.*, December, 1909) in a contribution, the Relation of the Thyroid Gland and Thyroidism to the Toxaemia of Pregnancy, comes to the following conclusions: The thyroid gland is in all probability concerned in promoting nitrogenous metabolism. There is considerable evidence that it normally hypertrophies during pregnancy and plays an important part in the increased nitrogenous metabolic processes incident to that state. It is very probable that the toxaemia of pregnancy is largely dependent upon faulty metabolism, or at least an insufficient metabolism is an accompaniment which greatly adds to the seriousness of the condition. Failure of the thyroid gland to hypertrophy during pregnancy is probably followed by insufficient metabolism, and may result in the various forms of toxaemia of pregnancy. Graves's disease, by materially altering the quantity and quality of the thyroid secretion, has an important influence on metabolic processes; therefore, if associated with pregnancy when metabolism is naturally increased, it becomes a grave complication. When there is a failure of the normal hypertrophy of the thyroid gland during pregnancy, and when there is a diseased thyroid, as in Graves's disease, the administration of thyroid substance, by supplying the deficiency of the normal thyroid secretion and by diuretic action, may materially improve a faulty metabolism, and thus have a favourable influence upon the manifestations of the toxaemia of pregnancy. The use of a saline extract of thyroid proteids made from fresh normal human glands is much more efficient in rapidity and reliability of action than the sheep thyroids as ordinarily prepared, therefore much more satisfactory results may be expected from its use. The hypodermic administration of thyroid proteids is greatly superior to oral administration, especially when used in cases of toxic vomiting of pregnancy, or in eclampsia. As the whole subject is yet so very obscure, much further research work along the same lines and many clinical observations are essential to a more definite understanding of the relationship of the thyroid gland to toxaemia, but in view of some results already obtained the field is at least promising. Lastly, further research may show that the parathyroids have an important relation to the manifestations of the toxaemia of pregnancy.

GYNAECOLOGY.

332. The Significance of Leucorrhoea.

AUGUSTIN H. GOELET (*Med. Record*, May 7th, 1910) thinks that the symptom leucorrhoea is, both by the laity and by the general practitioner, generally disregarded and considered either as of little account or as the natural condition in a woman, whether married or single. On the contrary, he thinks that it is always an indication of a diseased condition of the endometrium or other genital structure. He goes carefully over the significance of the condition at different ages from childhood to old age. In children a discharge from the vagina too often indicates a gonorrhoeal infection obtained by contact with soiled clothing, bedding, or the use of public toilets. If this be neglected, later in life the adnexa and uterus may be found involved. Foreign bodies, rectal irritation, and uncleanliness are other causes of infection. In young women before marriage any discharge should cause examination for gonococci. Masturbation should also be sought for. In married women a disregarded discharge in the husband, which he has believed cured, is often a cause of infection. Patients should be educated to a knowledge of the dangers to the unsuspecting wife. When gonorrhoea is contracted after marriage cohabitation should be refrained from until a cure has been obtained. The cervix is here the most frequent seat of infection. Streptococcus and staphylococcus infection in the wife may be communicated to the husband. We should be on the look-out for cancer of the endometrium producing a discharge, for pelvic congestion, and for irritating substances used in the douche. After the menopause cancer and senile endometritis cause leucorrhoea.

THERAPEUTICS.

333. Spastic Constipation and its Treatment.

THESEN (*Tidskrift for den Norske Laegeforening*, December 15th, 1909), in a lecture on spastic constipation, points out that, as a rule, this is but one of the symptoms of neurasthenia, but at the same time there are many neurasthenics who suffer from other kinds of constipation. According to the author, the most characteristic physical sign of this affection is found on exploration of the rectum. Instead of finding a cavity filled with faeces, as is common in other forms of constipation, the rectum fits closely round the examining finger, almost like the finger of a glove. Sometimes there is even difficulty in inserting it. Faeces are seldom found. There is no pain or tenderness about the anus and the surroundings of the rectum are, as a rule, healthy. On insertion of the rectoscope, which is sometimes difficult, one occasionally finds the veins of the mucous membrane abnormally large. Patients with this affection very often also suffer from hyperchlorhydria and spasms of the pylorus. If such a patient should go for a week or longer without any action of the bowels, the condition described by Leube as "ileus spasticus" is apt to occur, which is important to remember, as such patients have sometimes been subjected to unnecessary operations. The treatment of spastic constipation is, according to the author, very successful, if individualized and the general neurasthenic condition taken into account. For instance, one patient, a professional musician, was cured by being forbidden all music and sent to the hills on a ski-ing tour. Another, an overworked official, was told to keep away from his office for a few weeks and spend the day at his piano, when his nervous system recovered its stability and his constipation was cured. Sport and gymnastics, if not overdone, are useful in this as in other nervous complaints, but abdominal massage, as a rule, makes the patient worse. Senger of Vienna, who is of the opinion that the spasms are restricted to the lower part of the rectum, uses an apparatus for dilating it forcibly, but the author has not been successful with his method. The author advocates a rich and varied diet for these patients, especially one rich in fats, but materials mechanically irritating must be avoided. Sour milk to which fresh cream has been added is useful. To patients suffering from hyperchlorhydria he orders, during the cooler months, olive oil in doses of 3 to 6 tablespoonsful daily. Ordinary water enemas are, as a rule, useless, but Fleiner, who first described and named this disorder, uses enemas of olive oil, and these the author has found very useful if given in the following manner: After the patient has gone to bed and assumed the horizontal position, a soft rectal sound is inserted and attached to an irrigator containing 2 to 4 decilitres olive oil at a temperature of 40° C., and the oil is allowed to flow in freely. The patient is instructed to keep the oil in until the following morning, which as a rule is easy. Such an enema usually produces a copious evacuation. Most of the ordinary purgatives are, of course, contraindicated in this affection, but salines may be used if necessary, as they act less by increasing the tonicity than by preventing absorption of water by the bowel. A little Apenta water every morning has proved useful for a time. Patients with hyperchlorhydria are benefited by magnesia powders after meals. Belladonna has been lauded as a specific in this affection, but it often fails, probably because it must be given in doses too small to have the desired effect on the bowel. It is either given as the extract, usefully combined with magnesia, or as a suppository, as strong as possible. The author uses 3 cg. of the extract in each suppository three times a day.

334. Treatment of Deep-seated Cancers by Radium.

Dominici and Chéron brought before the International Congress of Physiotherapy some interesting conclusions with regard to the use of radium in the deeper cancers (*Arch. d'élec. méd.*, March 25th, 1910). The method which they prefer is the introduction of radiferous tubes into the neoplastic masses. These tubes containing free salt have been made in such a manner as only to allow the ultra-penetrating radiation to pass. They are of silver or gold, the metallic thickness being ½ mm,, and enclose from 5 mg. to 5 or even 10 cg. of pure sulphate of radium. This radiferous apparatus, hermetically sealed, is then pushed into the fistulous tracts or embedded in the neoplasms, often by surgical intervention, such as tapping with the bistoury. It is the nature of the tumour rather than its volume which decides the success of the radium method. Lymphadenomata yield well to such treatment. In these cases one may use a varnish apparatus on a metallic or linen base, containing 1 cg. of pure sulphate of radium distributed over a surface of 50 to 100 square cm., the radiation being filtered by traversing ½ mm. of lead. The form and size of the apparatus vary according to the character and site of the lymphadenoma, but the radiferous tube containing 5 mg. of pure sulphate of radium frequently has the advantage over the surface applicators and can bring about the regression of large neoplasms. The authors cite one case of lymphadenoma of the parotid region, the region being entirely hypertrophied, and the tumour encroaching upon the temporal region above and the maxillary region in front. It was judged to be inoperable. An incision with the bistoury was made in the centre of the neoplasm, and a gold tube containing 5 mg. of radium bromide, of 4,300 activity, was introduced. The apparatus was maintained in position for five days, when there was evident improvement, and at the end of seven weeks this improvement had become a definite cure. In the treatment of embryonic sarcoma radium has a considerable regressive action, and in cases where the growth is situated under the skin the treatment of choice is to hide two or three radiferous tubes containing 5 cg. of pure sulphate of radium in the volume of the tumour, maintaining them in that position for two or three days. The same method is useful in the treatment of developed epitheliomas of the mucosa. In cancers of the stomach it is possible to obtain a temporary amelioration by means of a varnish apparatus measuring 28 to 30 sq. cm., and containing 5 cg. of pure sulphate of radium. The radiation is filtered through 2 mm. of lead, and is left in one position upon the epigastric region for twenty-four hours. The apparatus is employed in this fashion for eight or ten days, and replaced two or three times upon each zone. The application brings about a diminution of the pain and of the dyspeptic troubles, but so far as there is any reduction in the size of the tumour it probably refers to the juxta-neoplastic mass of inflammation, and not to the cancer proper. Indeed, such tumours are not really ameliorated or cured except by being directly submitted to the radiferous tubes after laparotomy. Of all the neoplasms of the digestive tract, cancers of the rectum yield most readily to radium. As to cancers of the buccal mucosa, these, save in the labial zone, are not generally ameliorated or cured by surface applications of radium. In cancers of the breast—except in cases which are operable, when, of course, surgical measures are indicated—the authors state categorically that the treatment of choice is the introduction of radiferous tubes in silver, containing 5 to 10 cg. of pure sulphate of radium, into the neoplastic mass. Each application lasts from twenty-four to seventy-two hours. The embedded radium effect may be supplemented by surface applications of radium in varnish.

335. Enesol Treatment of Syphilis.

C. Fraenkel and J. Kahn (*Wien. med. Klin.*, February 13th, 1910) contribute a note on the treatment of syphilis by enesol—a soluble salt of mercury and arsenic. Enesol can be obtained in ampullae, each containing 2 c.cm., and for hospital practice in tubes containing from 30 to 60 c.cm. The method of administration employed by the authors was by intramuscular injections into the glutei. The injections were made throughout the treatment daily for periods of ten days, with intervals of four or five days between each period, The dose was 1 c.cm., increasing to 2 c.cm. In only 29 cases was the treatment continued until the Wassermann reaction became negative, because many of the patients discontinued attendance too early. Notes of 10 cases are given. The authors find that the symptoms of constitutional syphilis disappear in a short—often a surprisingly short—time under enesol, especially condylomata and general exanthemata; specific angina is more resistant to treatment. As compared with injections of insoluble salts of mercury, injections of enesol are equally effective, cause less pain, and are less toxic. In many cases the enesol injections were almost painless; in no case did a firm, painful infiltration of the subcutaneous tissues develop, even though as many as fifty injections were made. In no case, either, did the injections give rise to the troublesome affections of the buccal cavity so often seen after sublimate injections; in a few cases slight inflammation of the gums was seen, but it usually quickly yielded to treatment with chromic acid, and the injections were not discontinued. The Wassermann reaction became negative in 2 cases after 30 c.cm. of enesol had been injected, in 3 cases after 30 to 50 c.cm., in 7 cases after 50 to 70 c.cm., and in 4 cases after 70 to 100 c.cm. Altogether 55 per cent. of the 29 cases finally gave a negative reaction, as compared with 24 per cent. of 112 cases treated for about the same length of time by inunctions of grey ointment. In 3 cases in which 300 grams (10.6 oz.) of grey ointment had been rubbed in and in 1 in which 350 (12.4 oz.) had been used a negative reaction was not obtained, but was obtained in all the cases after a further treatment by twenty injections of enesol. As a rule the patients put on weight while under treatment with enesol.

PATHOLOGY.

336. The Relation of Trauma to Cancer Formation.

Phelps (*Ann. of Surg.*, May, 1910) remarks that the relation of traumatism to cancer has become of great medico-legal importance. He quotes a recent case in which compensation was awarded an individual who developed a scirrhous nodule twenty-one months after incurring a slight contusion. The bruise was so slight that it received no attention from the doctors who treated the patient at the time for a fractured rib on the other side. The decision of the court in this case only reflects the widely held belief that the causal relation of injury to cancer is an established fact accepted by those writers who may justly be considered "authorities." The author proceeds to an extended survey of the literature of cancer pathology from Hippocrates onward. The humoral theories of the early writers persisted practically unchanged so late as the end of the seventeenth century. During the eighteenth century cancer was very generally considered to be due to inflammation, traumatic or other, and this view dominated pathology for the first half of the nineteenth. An examination of the work of 238 authors writing in the years 1850–1909 shows that only 9 per cent. have at any time stated that, in their opinion, transient injuries may be a cause of cancer. Sarcoma, as structurally an essentially distinct disease, is not considered. At the present day Laker and Williams repudiate traumatism altogether, while Rodman and Menetrier restrict its influence to cases of repeated injury, continued irritation, and chronic inflammation. The author, in his own practice, has seen no instance of cancer which he could attribute to contusion or sudden violence. A search for illustrative cases in the literature from 1850 onwards produces only thirty-four, excluding sarcomata, duct cancers from inflamed nipples and long continued occupation pressure upon the male breast. Of these the evidence in 18 cases is so vague and contradictory as to be valueless. In 7 cases there is a history of a primary inflammatory process or haemorrhage. There remain nine examples of "acute traumatic malignancy"; these tumours, in the great majority of cases, if not in all, are to be regarded as sarcomata. In no single instance is there reliable evidence of cancer following a single contusion; nor is there any adequate theoretical explanation of such an event. On the other hand, the sequence of malignancy and chronic inflammatory processes must be admitted. The acute traumatic cases are difficult of explanation, but would seem to depend upon a constitutional disposition to malignancy so intense as to respond with disproportionate violence to a comparatively trivial provocation. Even the most convinced believers in the influence of trauma admit that the essential cause of cancer is some unknown constitutional condition. The great majority of cases occur apart from any manifest exciting cause. While individual writers have attributed cancer to various causes, as heredity, errors of diet, and the like, it is still the general opinion that these conditions, like age and sex, favour rather than cause the growth of the disease. If the parasitic theory, which may be regarded as still *sub judice*, be rejected, we must confess that the proximate cause which transforms an irritated surface, an inflammatory condition, or a benign tumour into a malignant growth is still unknown.

THE

British Medical Journal.

THE JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

SUPPLEMENT

CONTAINING

PROCEEDINGS OF COUNCIL

REPORTS OF STANDING COMMITTEES

MEETINGS OF BRANCHES AND DIVISIONS

PROGRAMME OF ANNUAL MEETING

MEDICAL BILLS IN PARLIAMENT

PROCEEDINGS OF THE GENERAL MEDICAL COUNCIL

ETC.

VOLUME I, 1910.

London:

PRINTED AND PUBLISHED AT THE OFFICE OF THE BRITISH MEDICAL ASSOCIATION,
429, STRAND, W.C.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JANUARY 1st, 1910.

CONTENTS.

	PAGE
Matters Referred to Divisions:	
QUESTIONS FOR PARLIAMENTARY CANDIDATES ON SUBJECTS AFFECTING THE PUBLIC HEALTH AND THE MEDICAL PROFESSION	
The Seventy-eighth Annual Meeting of the British Medical Association.—PROGRAMME OF BUSINESS ...	3
Meetings of Branches and Divisions:	
Bath and Bristol Branch: Trowbridge Division	5
Edinburgh Branch: Southern Division	5
Glasgow and West of Scotland Branch: Glasgow Central Division	6
Gloucestershire Branch	6
Lancashire and Cheshire Branch: Blackburn Division ...	6
,, ,, ,, ,, Southport Division ...	6
Southern Branch: Portsmouth Division	7
South Midland Branch: Buckinghamshire Division	7
South Wales and Monmouthshire Branch: Monmouthshire Division	7
Ulster Branch: Belfast Division	8
Worcestershire and Herefordshire Branch	8
Yorkshire Branch: Leeds Division...	8

	PAGE
ASSOCIATION NOTICES.—ANNUAL SUBSCRIPTION, 1910—COUNCIL MEETING	9
VITAL STATISTICS	9
NAVAL AND MILITARY APPOINTMENTS	10
HOSPITALS AND ASYLUMS:	
Suffolk District Asylum	11
The Royal Asylum, Perth	11
Inverness District Asylum	11
VACANCIES AND APPOINTMENTS	12
BIRTHS, MARRIAGES, AND DEATHS	12
RECENT PUBLICATIONS	12
DIARY FOR THE WEEK	12
THE BRITISH MEDICAL ASSOCIATION AND THE BRITISH MEDICAL JOURNAL	13
CALENDAR	16

SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs. BY ORDER.

MATTERS REFERRED TO DIVISIONS.

MEDICO-POLITICAL COMMITTEE.

MEMORANDA AND QUESTIONS ON PARLIAMENTARY SUBJECTS AFFECTING THE PUBLIC HEALTH AND THE MEDICAL PROFESSION, SUBMITTED FOR THE CONSIDERATION OF PARLIAMENTARY CANDIDATES.

QUESTIONS FOR PARLIAMENTARY CANDIDATES. COPIES of these questions have been sent to the Honorary Secretaries of every Division in the United Kingdom. Accompanying the questions was a request that each Division should at once seek to interview each Candidate for Parliamentary Constituencies within its area, and offer him, if elected, the cordial co-operation of the Division in considering parliamentary questions affecting the public health or the medical profession.

I.—MEDICAL AND DENTAL ACTS CONSOLIDATION BILL.

MEMORANDUM—

The last amendment of the Medical Acts took place in 1886 and of the Dentists Acts in 1878. It is the general opinion of the medical profession that important modifications are required in the law affecting medical education and registration, and also as to the position of unregistered and unqualified persons who practise medicine or dentistry for gain. It is also highly desirable that the Medical and Dentists Acts should be consolidated in one Act.

The changes which those who have considered the subject deem desirable are as follows:

1. That at least half the members of the General Medical Council should be directly elected by the general body of medical and dental practitioners in the country, instead of the large majority, as at present, being appointed by the universities or corporations, bodies financially interested in the examining and licensing of students and practitioners.
2. That the General Medical Council should have complete control over the registration and education of medical and dental students, including fixing the standard of preliminary general education requisite for admission to medical study.
3. That there be a "one-portal" system for admission to medical and dental practice respectively—namely, through a State Examination, conducted by the General Medical Council under the supervision of the Privy Council.
4. That the practice of medicine or dentistry by unregistered persons, or by companies, and the signing of medical certificates by unregistered persons be more completely prevented.

QUESTIONS—

1. Would you support in Parliament a Bill for the consolidation of the Medical and Dental Acts incorporating the above principles?
2. Would you support the appointment of a Royal Commission to investigate the whole subject of the law affecting Medical Registration and the practice of medicine and dentistry by unregistered persons?

II.—DEATH REGISTRATION AND CORONERS' LAW.

MEMORANDUM—

The present Acts have proved an insufficient protection to the public against the risk of murder on the one hand, and against the possibility of premature burial on the other. For these reasons it is proposed that it should be illegal to dispose of a body until the death has been registered, and to base the registration on a certificate that the fact of the death has been verified by actual inspection by a medical practitioner,

The present Acts do not afford a trustworthy basis for the vital statistics necessary for sanitary legislation, and from the lack of the registration of stillbirths give no protection against the wilful destruction of infant life, a matter of serious national anxiety.

QUESTIONS—

Would you support Parliamentary amendments of the law as to Death Registration based on the following principles?

1. That no body should be buried except upon production of a Registrar's Certificate or a Coroner's Order, and that no death should be registered except upon production of medical certificates in statutory form of the fact that death has actually occurred and of its cause, or upon a Coroner's Order.
2. That the medical certificate of the cause of death be given by a medical practitioner who has been actually in attendance within a specified period, and the certificate of the fact of death be given by a medical practitioner who has satisfied himself of the fact after inspection of the body, and that a statutory fee be paid for each certificate.
3. That where the statutory medical certificates are not received by the Registrar, he shall report the death to the Coroner, or in Scotland to the Procurator Fiscal; that the Coroner shall instruct a medical officer, specially appointed for the purpose by the County Council, to view, examine, and report on the body in conjunction with the medical practitioner in attendance, if any, or any practitioner called in, at, or about the time of death; and that medical practitioners be paid a statutory fee for preliminary information furnished to a Coroner for his assistance in deciding as to the necessity of an inquest.
4. That stillbirths be certified and registered in a manner similar to deaths.

III.—Public Health Officers Bill.

MEMORANDUM—

Experience has proved that for all medical officers whose duties may from time to time bring them into conflict with the interests or opinions of members of the local governing bodies, it is essential, if the duties are to be performed in the interests of the community and not of the individual governor, that the medical officer should be afforded such security of tenure as is provided (*a*) by appointments being made without reference to time and subject to notice on either side, and (*b*) by requiring the consent of a Central Department, usually the Local Government Board, to his dismissal. In England, by the recent Housing, Town Planning, etc., Act, County Medical Officers of Health, henceforth to be appointed, have been added to the number of those enjoying this security, which already included Medical Officers of Health in London and Poor Law Medical Officers in England and Wales, but not Public Vaccinators nor Poor Law Medical Officers in Scotland. It is very important that the security should be extended in England and Wales to District Medical Officers of Health, who, indeed, need such protection more than the officers of responsible bodies such as County Councils.

In the Public Health Officers Bill, introduced into Parliament by Sir Walter Foster, these reforms are incorporated, and advantage has been taken of the opportunity to provide a standard of qualification for Medical Officers of Health and for Sanitary Inspectors.

To afford a means by which officers of advancing years may be removed without hardship to the individual, a scheme of superannuation is necessary.

QUESTIONS—

Would you support in Parliament the following alterations of the law? namely:

1. That Medical Officers of Health generally and Sanitary Inspectors in England and Wales should have the same security of tenure as is at present enjoyed by Medical Officers of Health in the Counties, in London and in Scotland, also by Poor Law Medical Officers in England and Wales; that is, that they should not be appointed for a limited period only, and that they should not be removable except with the consent of the Local Government Board.
2. That the qualification for Medical Officers of Health in England and Wales be raised to a standard analogous to that prescribed for Scotland, and that a qualification satisfactory to the Local Government Board be required for Sanitary Inspectors.
3. That Medical Officers of Health and Sanitary Inspectors be placed on the same footing as Poor Law Medical Officers as regards superannuation.

IV.—Midwives Act, 1902.

MEMORANDUM—

The Midwives Act, 1902, has imposed on midwives a statutory obligation to advise that the assistance of registered medical practitioners be sought in certain emergencies. The urgency of such calls, often from persons of whom he has no previous knowledge, allows the practitioner no time to satisfy himself as to the prospect of payment, or to put into action the ordinary Poor Law machinery for medical relief to the very poor. It is submitted that in order that medical help may be rendered without undue delay on the one hand, or frequent hardship to members of the medical profession on the other, the State should at least guarantee the payment of the practitioner's fee. The Departmental Committee of the Privy Council, appointed to investigate the working of the Midwives Act, has recommended that this guarantee should be given.

QUESTION—

Would you support in Parliament legislation imposing upon County Councils or local supervising authorities, or in the alternative, the Poor Law authorities, the duties of paying or guaranteeing fees to practitioners called in under the requirements of the Act to assist midwives in emergencies, the amount of such fees to be determined by, or in accordance with, orders of the Local Government Board?

V.—Nurses' Registration.

MEMORANDUM—

The evidence given before the Select Committee of the House of Commons on the subject of Nurses' Registration, and the report of that Committee, sufficiently indicated the strength of the opinion among nurses and others who have given special attention to the subject that there should be a system of State Registration of Nurses, *which would afford a guarantee of training, and, if proper disciplinary powers were entrusted to the Board, a guarantee of good conduct.* The careful consideration of this subject by the British Medical Association for three years indicated the strong preponderant opinion in the medical profession in favour of the State Registration of Nurses. In the opinion of the Association any central board appointed for the purpose should consist of direct representatives of nurses and of the medical profession, respectively, in equal proportions.

QUESTION—

1. Would you support in Parliament a Bill for the State Registration of Nurses on the general lines of the recommendations of the Select Committee of the House of Commons on the subject, but the Central Nursing Board being constituted as above described?

THE SEVENTY-EIGHTH ANNUAL MEETING

OF THE

BRITISH MEDICAL ASSOCIATION,

LONDON,

JULY 26TH TO JULY 29TH, 1910.

President:
Sir WILLIAM WHITLA, M.D., LL.D., Professor of Materia Medica and Therapeutics, Queen's College, Belfast.

President-elect:
H. T. BUTLIN, D.C.L., LL.D., P.R.C.S., Consulting Surgeon, St. Bartholomew's Hospital, London.

Past President:
SINCLAIR WHITE, M.D., M.Ch., F.R.C.S., Senior Honorary Surgeon, The Royal Infirmary, Sheffield.

Chairman of Representative Meetings:
HAMILTON ASHLEY BALLANCE, M.S., Surgeon, Norfolk and Norwich Hospital, Norwich.

Chairman of Council:
EDMUND OWEN, LL.D., D.Sc., F.R.C.S., Consulting Surgeon to St. Mary's Hospital, London, W.

Treasurer:
EDWIN RAYNER, M.D., F.R.C.S., Consulting Surgeon, Stockport Infirmary, Stockport.

The Seventy-eighth Annual Meeting of the British Medical Association will be held in London in July, 1910. The President's Address will be delivered on Tuesday, July 26th, and the Sections will meet on the three following days. The Annual Representative Meeting will begin on Friday, July 22nd, 1910.

PROGRAMME OF BUSINESS.

The Address in Medicine will be delivered by JOHN MITCHELL BRUCE, M.D., F.R.C.P., London.
The Address in Surgery will be delivered by HARRY GILBERT BARLING, B.S., F.R.C.S., Birmingham.

THE SECTIONS.

The scientific business of the meeting will be conducted in twenty-one Sections, which will meet on Wednesday, July 27th, Thursday, July 28th, and Friday, July 29th.

The President, Vice-Presidents, and Honorary Secretaries of each Section constitute a Committee of Reference for that Section, and exercise the power of inviting, accepting, or declining any paper, and of arranging the order in which accepted papers shall be read. Communications with respect to papers should be addressed to one of the Honorary Secretaries.

A paper read in the Section must not exceed fifteen minutes, and no subsequent speech must exceed ten minutes.

Papers read are the property of the British Medical Association, and cannot be published elsewhere than in the BRITISH MEDICAL JOURNAL *without special permission.*

The following are the general arrangements so far as they are yet complete:

ANAESTHETICS.

President: FREDERIC WILLIAM HEWITT, M.V.O., M.D., London.

Vice-Presidents: DONALD C. A. MCALLUM, Edinburgh; GEORGE ROWELL, F.R.C.S., London; ALEXANDER WILSON, F.R.C.S., Manchester.

Honorary Secretaries: Miss ADA M. BROWNE, L.S.A., 64, Belsize Park, N.W.; WILLIAM JOSEPH MCCARDIE, M.B., 89, Cornwall Street, Birmingham; HERBERT J. SCHARLIEB C.M.G., M.D., 149, Harley Street, W.

ANATOMY.

President: Professor ARTHUR KEITH, F.R.C.S. London.

Vice-Presidents: Professor DAVID HEPBURN, M.D., Cardiff; FREDK. GYMER PARSONS, F.R.C.S., London; Professor GRAFTON ELLIOTT SMITH, M.D., F.R.S., Manchester; Professor ARCHIBALD WATSON, M.D., Adelaide; Professor WILLIAM WRIGHT, F.R.C.S., London.

Honorary Secretaries: Professor A. CAMPBELL GEDDES, M.D., Dublin; ALEX. MACPHAIL, M.B., Anatomy Dept., Medical School, Charing Cross Hospital, W.C.

BACTERIOLOGY.

President: CHARLES J. MARTIN, M.B., F.R.S., London.

Vice-Presidents: JOHN W. H. EYRE, M.D., London Professor ARTHUR H. WHITE, L.R.C.P.I., Dublin.

Honorary Secretary: JOHN CHARLES GRANT LEDINGHAM, M.B., Lister Institute, Chelsea Gardens, S.W.; CARL HAMILTON BROWNING, M.D., 128, Byres Road, Glasgow.

DERMATOLOGY.

President: PHINEAS ABRAHAM, M.D., London.

Vice-Presidents: WALTER G. SMITH, M.D., Dublin W. KENNETH WILLS, M.R.C.S., Bristol.

Honorary Secretaries: WILLIAM GRIFFITH, M.B., 1, Chester Gate, Regent's Park, N.W.; R. CRANSTON LOW, 6, Castle Terrace, Edinburgh; G. NORMAN MEACHEN, M.D., 11, Devonshire Street, W.

Diseases of Children.

President: Archibald E. Garrod, M.D., London.

Vice-Presidents: Chas. P. B. Clubbe, M.R.C.S., Sydney; Thomas Sinclair Kirk, M.B., Belfast; H. D. Rolleston, M.D., London; Francis James Stewārd, M.S., F.R.C.S., London.

Honorary Secretaries: Harold Arthur Thomas Fairbank, M.S., 137, Harley Street, W.; Francis W. Goyder, F.R.C.S., "Marley House," Bradford; Jas. Hugh Thursfield, M.D., 84, Wimpole Street, W.

Gynaecology and Obstetrics.

President: Mrs. Mary A. D. Scharlieb, M.D., London.

Vice-Presidents: John W. Ballantyne, M.B., Edinburgh; Comyns Berkeley, M.B., London; John A. C. Kynoch, M.B., Dundee; Thomas Wilson, M.D., Birmingham; Thomas H. Wilson, F.R.C.P.I., Dublin.

Honorary Secretaries: W. Blair Bell, M.D., 7, Rodney Street, Liverpool; Carlton Oldfield, M.D., 32, Park Square, Leeds; George F. Darwall Smith, F.R.C.S., 30, Wimpole Street, W.

Laryngology.

President: Herbert Tilley, M.D., London.

Vice-Presidents: J. Lacy Firth, M.D., Bristol; A. Brown Kelly, M.D., Glasgow; Stephen Paget, F.R.C.S., London; H. Betham Robinson, M.S., F.R.C.S., London.

Honorary Secretaries: Geo. Nixon Biggs, M.B., 30, Harley Street, W.; Henry John Davis, M.B., 8, Portman Street, W.; John Smith Fraser, F.R.C.S., 36, Moray Place. Edinburgh.

Medical Sociology.

President: James Alexander Macdonald, M.D., Taunton.

Vice-Presidents: R. Cochrane Buist, M.D., Dundee; Major Greenwood, M.D., London; Hugh R. Ker, F.R.C.S.Edin., London; Professor James T. J. Morrison, M.B., Birmingham.

Honorary Secretaries: Donald John Armour, F.R.C.S., 89, Harley Street, W.; Harvey Hilliard, M.R.C.S., 30, Wilton Place, Knightsbridge, S.W.

Medicine.

President: R. W. Philip, F.R.C.P.Edin., Edinburgh.

Vice-Presidents: Professor Harry B. Allen, M.D., Melbourne; George A. Heron, F.R.C.P., London; Walter K. Hunter, M.D., Glasgow; Henry L. McKisack, M.D., Belfast; George R. Murray, M.D., Manchester; Sidney P. Phillips, M.D., London.

Honorary Secretaries: H. Morley Fletcher, M.D., 98, Harley Street, W-; Herbert French, M.D., 62, Wimpole Street, W.; John Hay, M.D., 12, Rodney Street, Liverpool.

Navy, Army, and Ambulance.

President: Colonel Andrew Clark, R.A.M.C.T., London.

Vice-Presidents: Fleet Surgeon Percy W. Bassett-Smith, R.N., Haslar; Lieutenant-Colonel James Harper, R.A.M.C.T., London; Lieutenant-Colonel Michael W. H. Russell, R.A.M.C., London; Lieutenant-Colonel Robert J. S. Simpson, C.M.G., R.A.M.C., London.

Honorary Secretaries: Staff Surgeon James Garfit Wallis, M.B., R.N., Royal Naval Barracks, Chatham; Major Alfred Percy Blenkinsop, R.A.M.C., c.o. Messrs. Holt and Co., 3, Whitehall Place, S.W.; Major Arthur M. Connell, R.A.M.C.T., 79, Hanover Street, Sheffield.

Odontology.

President: J. Howard Mummery, M.R.C.S., London.

Vice-Presidents: William Donald Anderson, F.F.P.S., L.D.S., Glasgow; W. H. Dolamore, M.R.C.S., London; William Hern, L.D.S., London; John Mathieson MacMillan, L.D.S., Glasgow; Herbert Williams, M.D., Londonderry.

Honorary Secretaries: Ernest B. Dowsett, L.D.S., 1, Gloucester Street, W.; A. Hopewell-Smith, L.D.S., 58, Park Street, Park Lane, W.; Cyril H. Howkins, L.D.S., 83A, Edmund Street, Birmingham.

Ophthalmology.

President: Charles Higgens, F.R.C.S., London.

Vice-Presidents: Major Robert H. Elliot, I.M.S., M.D., Madras; Henry L. Ferguson, F.R.C.S.I., Dunedin; Cecil E. Shaw, M.D., Belfast; George Wm. Thompson, F.R.C.S., London.

Honorary Secretaries: N. Bishop Harman, F.R.C.S., 108, Harley Street, W.; Arthur Henry Haven Sinclair, M.D., 5, Walker Street, Edinburgh.

Otology.

President: Edward Law, M.D., London.

Vice-Presidents: Albert Alexander Gray, M.D., Glasgow; Hunter F. Tod, M.D., London; Frederick H. Westmacott, F.R.C.S., Manchester.

Honorary Secretaries: Cecil Irving Graham, F.R.C.S., 47, Queen Anne Street, W.; Herbert James Marriage, F.R.C.S., 109, Harley Street, W.

Pathology.

President: S. G. Shattock, F.R.C.S., London.

Vice-Presidents: Frederick W. Andrewes, M.D., London; Ernest F. Bashford, M.D., London; Professor Stuart McDonald, M.B., Newcastle.

Honorary Secretaries: Julius Meyer Bernstein, M.B., Woodstock Avenue, Golder's Green, N.W.; Arthur E. Boycott, M.D., Guy's Hospital, London, S.E.; Ernest E. Glynn, M.B., 62, Rodney Street, Liverpool.

Pharmacology and Therapeutics.

President: Professor Arthur Robertson Cushny, M.D., F.R.S., London.

Vice-Presidents: Edmund H. Colbeck, M.D., London; Robert Hutchison, M.D., London.

Honorary Secretaries: Arthur Frederick Hertz, M.D., 1, Weymouth Street, Portland Place, W.; Douglas Chalmers Watson, M.D., 22, Coates Crescent, Edinburgh.

Physiology.

President: Professor William Henry Thompson, M.D., Dublin.

Vice-Presidents: John Scott Haldane, M.D., F.R.S., Oxford; Professor Percy Theodore Herring, M.D., St. Andrews, N.B.

Honorary Secretaries: T. Graham Brown, M.B., Physiological Department, University, Glasgow; Joseph Strickland Goodall, M.B., Physiological Laboratory, Middlesex Hospital, W.

Psychological Medicine and Neurology.

President: Theophilus B. Hyslop, M.D., London.

Vice-Presidents: Archibald R. Douglas, L.R.C.P., Lancaster; William Graham, M.D., Belfast; Thomas D. Greenlees, M.D., London; J. Risien Russell, M.D., London; David G. Thomson, M.D., Norwich.

Honorary Secretaries: Arthur Stanley Barnes, M.D., 141, Great Charles Street, Birmingham; Robert Hunter Steen, M.D., The Hollies, Dartford; Reginald John Stillwell, M.R.C.S., Moorcroft, Hillingdon, Uxbridge.

Radiology and Medical Electricity.

President: J. Mackenzie Davidson, M.B., London.

Vice-Presidents: C. Thurstan Holland, M.R.C.S., Liverpool; H. Lewis Jones, M.D., London; Cecil R. C. Lyster, M.R.C.S., London; William F. Somerville, M.D., Glasgow.

Honorary Secretaries: W. Ironside Bruce, M.D., 10, Chandos Street, W.; Leonard A. Rowden, M.B., 32, Park Square, Leeds.

STATE MEDICINE.

President: The Right Hon. Sir WALTER FOSTER, P.C., M.D., D.C.L., London.

Vice-Presidents: FRANCIS W. CLARK, M.D., Hong Kong; S. MONCKTON COPEMAN, M.D., F.R.S., London; THOMAS W. H. GARSTANG, M.R.C.S., Altrincham; HERBERT JONES, L.R.C.S.I., D.P.H., Hereford; CHARLES E. PAGET, M.R.C.S., Northampton.

Honorary Secretaries: GEO. FREDERICK MCCLEARY, M.D., 7, Belsize Park Gardens, Hampstead, N.W.; JOHN EDWARD SANDILANDS, M.R.C.S., Town Hall, Kensington, W.

SURGERY.

President: Sir VICTOR HORSLEY, F.R.C.S., M.B., F.R.S., London.

Vice-Presidents: FREDERICK DOUGAN BIRD, M.R.C.S., Melbourne; JOHN BLAND-SUTTON, F.R.C.S., London; Professor A. J. MCAULEY BLAYNEY, F.R.C.S.I., Dublin; GEORGE H. MAKINS, C.B., F.R.C.S., London; F. N. GISBORNE STARR, M.B., Toronto; Professor HY. ALEXIS THOMSON, M.D., Edinburgh.

Honorary Secretaries: HERBERT SHERWELL CLOGG, M.S., 143, Harley Street, W.; DOUGLAS DREW, F.R.C.S., 6, Wimpole Street, W.; WILLIAM J. GREER, F.R.C.S.I., 19, Gold Tops, Newport, Mon.

TROPICAL MEDICINE.

President: FLEMING M. SANDWITH, M.D., London.

Vice-Presidents: HENRY P. KEATINGE, M.B., Cairo; GEORGE C. LOW, M.B., London; LAURANCE DUDLEY PARSONS, M.B., Gibraltar; Colonel JAMES R. ROBERTS, I.M.S., F.R.C.S., Indore, C. India; RAGHAVENDRA ROW, M.D., Bombay.

Honorary Secretaries: H. SINCLAIR COGHILL, M.B., London School of Tropical Medicine, Royal Albert Dock, E.; WILLIAM THOMAS PROUT, C.M.G., M.B., 78, Rodney Street, Liverpool; EMRYS ROBERTS, L.R.C.P.I., 5, Buckingham Place, Queen's Road, Clifton, Bristol.

PROVISIONAL TIME TABLE.

FRIDAY, JULY 22ND, 1910.

2.30 P.M.—Annual General Meeting, followed by Representative Meeting.

SATURDAY, JULY 23RD, 1910.

9.30 A.M.—Representative Meeting.

MONDAY, JULY 25TH, 1910.

10 A.M.—Representative Meeting.
7.30 P.M.—Annual Conference of Secretaries of Divisions and Branches.

TUESDAY, JULY 26TH, 1910.

10 AM.—Council Meeting.
10.30 A.M.—Representative Meeting.
Religious Services.
2.30 P.M.—Adjourned General Meeting.
Induction of President.
8.30 P.M.—President's Address.

WEDNESDAY, JULY 27TH, 1910.

9.30 A.M.—Council Meeting.
10 A.M. to 1 P.M.—Sectional Meetings.
12.30 P.M.—Address in Medicine.

THURSDAY, JULY 28TH, 1910.

9.30 A.M.—Council Meeting.
10 A.M. to 1 P.M.—Sectional Meetings.
12 30 P.M.—Address in Surgery.
7.30 P.M.—Annual Dinner.

FRIDAY, JULY 29TH, 1910.

10 A.M. to 1 P.M.—Sectional Meetings.

SATURDAY, JULY 30TH, 1910.

Excursions.

Honorary Local Secretaries—

Dr. EDWARD W. GOODALL,
Eastern Hospital, Homerton, N.E.

Dr. WILLIAM GRIFFITH,
1, Chester Gate, Regent's Park, N.W.

Dr. LAURISTON E. SHAW,
64, Harley Street, W.

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

BATH AND BRISTOL BRANCH:
TROWBRIDGE DIVISION.

A MEETING of this Division was held at the Town Hall, Trowbridge, on December 18th, 1909. Dr. RATTRAY was in the chair, and there were present Drs. Adye, Bond, Flemming, Haydon, Locket, Shorland, Pearse.

Confirmation of Minutes.—The minutes of the last meeting were read, confirmed, and signed.

Vote of Condolence.—The SECRETARY announced the sudden death in Formosa of Dr. Padgett Tayler, formerly of Trowbridge, and was asked to express the sympathy of the meeting to his widow and to his father, Dr. Tayler.

Report on a Special Class of Consultants.—The report of the Central Ethical Committee on this subject was discussed, and it was resolved:

That there is not at present sufficient evidence of the need of the action suggested.

Bradford Rules.—Consideration of this subject was deferred to a larger meeting, and till the question of the Division boundaries had been settled.

Model Rules of Public Medical Service.—A letter from the Medical Secretary of the Association was read on this question. A committee, consisting of Drs. Adye, Bond, Rattray, Shorland, H. P. Tayler, and Pearse, was formed to consider the rules and report to a meeting to which all practitioners within the Division should be summoned.

Voluntary Aid Detachments.—The CHAIRMAN raised the question of fees for ambulance lectures to voluntary aid detachments. Dr. FLEMMING explained that the matter was under the consideration of the Council. Resolved:

That as in the opinion of this meeting the spread of this movement will gradually absorb all other ambulance work for which remuneration is now demanded, this Division requests the Council to consider this point when the question of remuneration for ambulance lectures to voluntary aid detachments again comes before them.

Extension of Boundaries.—The SECRETARY reported that a petition had been sent to the Central Council by practitioners in Calne asking that they might be incorporated in the Trowbridge Division; and that similar action was contemplated by the Chippenham practitioners.

Wilts County Council and Bacteriological Examinations.—Dr. ADYE raised the question of the absence of facilities for bacteriological examinations and the consequent difficulties in public health administration. The Secretary was instructed to forward to the County Council a resolution of the meeting drawing attention to the urgent necessity for the provision of such facilities.

BATH AND BRISTOL BRANCH.

WE are asked to supply an accidental omission in the report of the meeting of this Branch held on November 24th, 1909, which was published in the SUPPLEMENT exactly as received. It should have been stated that Dr. G. H. H. Almond read a paper entitled Theoretical Considerations of Pulmonary Auscultation. Remarks were made on the paper by Mr. Munro Smith.

EDINBURGH BRANCH:
SOUTHERN DIVISION.

A GENERAL meeting of this Division was held in the Students' Union, Teviot Place, on Friday, December 17th, 1909, at 8.15 p.m.; Dr. MATHESON was in the chair. There were present: Drs. A. Walker, M. Dewar, H. Jameson, J. Allan, G. Dickson, Meikle, J. Stevens, E. Price, S. Paterson. Dr. Lundie, President, and Dr. Proudfoot, Vice-President, were unavoidably absent.

Confirmation of Minutes.—The minutes of the previous meeting were read, approved, and signed.

Annual Representative Meeting.—Dr. A. WALKER, the Representative, gave in his report, and on the

motion of the Chairman was cordially thanked for his services at the Representative Meeting at Belfast.

Proposed Accident Assurance Policy.—The Division protested against the proposal contained in Minute 33 of the Belfast meeting to establish an accident assurance policy in connexion with the Journal.

Proposed Increased Number of Representatives.—The Division also opposed the proposal contained in Minute 278 of the Belfast meeting to increase the number of Representatives by the addition of one for every 50, 75, or 100 members of a Division.

Proposed Hospital for Women.—The proposal to erect a hospital in Edinburgh for diseases peculiar to women was then discussed, and disapproved of by the meeting, as the local medical profession had not been consulted, and as there was in the city an ample supply of medical charities. The Secretary was instructed to ask the Secretaries of the Branch Council to call a meeting for the purpose of making inquiries into the proposed medical charity.

Special Class of Consultants.—The report on a special class of consultants was then discussed and generally approved of.

Medical Inspection and Treatment of School Children.—The report of the Scottish Committee on the medical inspection of school children and the treatment of those found deficient was considered and approved, the Secretary being asked to write to the Secretary of the Committee to the effect that "the School Board Authority in Scotland are neither empowered to treat children nor to pay for treatment."

Unqualified Practice by Masseurs.—The Chairman called attention to the fact that certain masseurs in Edinburgh diagnose and treat cases, and it was resolved that masseurs who are known to do so should not be employed by medical men.

Lectures on Medical Ethics.—On the motion of Dr. Dewar, it was agreed that a lecture or lectures to medical graduands on medical ethics should be started in Edinburgh.

Vote of Thanks to Chairman.—A vote of thanks to the Chairman closed the meeting.

GLASGOW AND WEST OF SCOTLAND BRANCH:

Glasgow Central Division.

An ordinary meeting of this Division was held in the Faculty Hall, 242, St. Vincent Street, Glasgow, on Thursday, December 16th, 1909, at 4.15 p.m. Dr. Robert Jardine was in the chair, and the following members were present: Drs. W. S. Syme, J. C. Christie, James Grant Andrew, W. D. Inglis Pollock, Robert Perry, John Adams, H. Wright Thomson, A. A. MacLeod, A. W. Russell, John Wright, Peter Maguire, James Erskine, and P. Napier Grant, Honorary Secretary.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Representative at Annual Representative Meeting.—Dr. John Adams was re-elected as Representative to the Representative Meeting for the ensuing year.

Special Class of Consultants.—A committee consisting of the following gentlemen was formed to consider and report to a future meeting of the Division: Dr. Robert Jardine, Chairman, and Drs. J. Wright, John Adams, James Erskine, Robert Perry, J. Grant Andrew, and P. Napier Grant, Secretary.

Medical Inspection and Treatment of School Children.—As this matter is at the moment being attended to by the Branch Council it was only discussed, and the Secretary was instructed to communicate the finding of the meeting to the Secretary of the Branch:

> That this Division is of opinion that every child found defective and requiring medical treatment should in the first instance be referred by the school doctor to its parents' family medical attendant for further treatment.

Model Rules of a Public Medical Service.—The committee appointed to consider the question of special class of consultants was delegated to report upon this matter to a future meeting of the Division.

Firm of Unregistered Practitioners.—The Honorary Secretary was instructed as to the reply to be given to an inquiry from the Medico-Political Committee of October 29th concerning the supposed operations of a firm of unregistered practitioners in the Division area, and to add that the Division strongly advised the Medico-Political Committee to take steps to have the legislative Acts of the country brought into an efficient and up-to-date condition, so that unqualified practice and quackery generally may be combated; that unqualified practice is in the Division becoming a very general thing and little short of a public scandal, much money being squandered thereby by persons who are considered to be able to discriminate in an intelligent way.

Next Meeting.—The Executive Committee have arranged that the next meeting of the Division will, with the consent of the directors of the Glasgow Maternity Hospital, be held in that institution on a date to be arranged in January, 1910.

GLOUCESTERSHIRE BRANCH.

A general meeting of the Branch was held at the Cheltenham General Hospital on December 16th, 1909, at 7 p.m. The President was in the chair and twenty members present.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Communications.—Dr. Norman H. Pike showed a case of irido-cyclitis, and one of cerebro-spinal rhinorrhoea, and gave interesting notes on each. A discussion followed by the President and Messrs. Dykes-Bower, Wayland Ancrum, Carter and Cardew. Dr. Wayland Ancrum read some notes on three cases: (1) Gastrotomy for a swallowed florin. (2) Gastro-jejunostomy in a lady of 84. (3) Gastric ulcer and hour-glass contraction occurring in a case previously operated upon for perforated gastric ulcer. The cases were discussed by the President and Messrs. Cuthbert and Soutar. Mr. J. Howell made some remarks on a case of strangulated femoral hernia, with opening of bladder at time of operation.

Representative at Annual Representative Meeting.—The Secretary (Dr. Finlay), proposed by the President, seconded by Dr. Soutar, was elected as Representative at the next Representative Meeting, 1910.

LANCASHIRE AND CHESHIRE BRANCH:

Blackburn Division.

A meeting of this Division was held on December 21st, 1909. Dr. Bannister, President, was in the chair, and there were present Drs. Owen, Prebble, Macklin, Jones, Jamieson, Rigby, and Greenwood.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Special Class of Consultants.—Dr. Rigby then introduced the discussion of the report of the British Medical Association on a special class of consultants. Several members took part in the debate ensuing, and it was resolved that the Division was in favour of the recognition of a special class of consultants on the lines indicated in the report, and of the Association prescribing regulations for the conduct of the practice of such a class. The Division further expressed the opinion that the recognition of a special class of consultants on the lines indicated in the report should be confined practically to large towns possessing teaching medical institutions, and that the system could not be applied to such towns as Blackburn.

Public Medical Services.—Dr. Greenwood then read the model rules issued by the Council of the Association on public medical services, but it was felt that the question was too large for this Division to express any opinion thereon at the present time.

Southport Division.

A special meeting of this Division was held at the Temperance Institute on December 20th, 1909, at 8 p.m. Dr. Barwise was in the chair and there were present Drs. Ashworth, Mewburn Brown, Cox, Gill, Littler, Mackay, Pridie, Speirs, and Harris.

Apology for Non-attendance.—There was an apology for absence from Dr. Walker.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Unqualified Practice.—The report of the subcommittee appointed to ascertain the conditions of unqualified practice in Southport was submitted. It had been handed to the Medical Officer of Health (Dr. Weaver), who had undertaken to transmit it to the Local Government Board. The report was approved and adopted.

Special Class of Consultants.—The report of the Central Ethical Committee on this subject was considered. After much discussion, it was decided unanimously to answer as follows:

Question A.—Is the Division in favour of the recognition of a special class of consultant, on the lines indicated in this report?

Reply.—Yes, subject to comments below.

Question B.—Is the Division in favour of the Association prescribing regulations for the conduct of the practice of such a class?

Reply.—Yes, subject to comments below.

In reply to the request for comments on the report, the Division expressed the following opinion:

"Considering the conditions of present medical practice, we think that there are many difficulties in the way of any regulations prescribed by the Association being generally accepted. We are of opinion that such regulations as may be thought desirable after due consideration of all the aspects of practice, both in the metropolis and the provinces, in large cities as well as in country districts, should be published as suggestions rather than prescriptions; that the Association should ascertain to what extent they would be accepted by consultants generally, and if found generally or even largely acceptable, should publish, for the information of the profession, the names of those willing to accept them. We consider, however, that at present no effort should be made to make regulations ethically binding. They should rather be regarded as a means of educating professional opinion towards an ideal. The suggested regulations should be submitted to the Divisions for criticism before being presented to the Representative Meeting."

Rules for Public Medical Services.—Model rules for public medical services submitted to the Division by the Medico-Political Committee were considered, both in their local and general bearing, and it was ultimately unanimously decided to refer the subject to a subcommittee for consideration and report. The subcommittee was duly appointed.

Representative at Annual Representative Meeting.—Dr. Gill was nominated for election at the next meeting as Representative in Representative Meetings.

SOUTHERN BRANCH:
PORTSMOUTH DIVISION.

A MEETING of this Division was held at Portsmouth Medical Library, Portsmouth, at 3.45 p.m., on December 16th, 1909, Dr. T. A. COLT, Chairman of the Division, in the chair. There were present: Drs. C. A. Scott Ridout, C. P. Childe, E. J. Biden, Lysander Maybury, H. C. Crawley, Thos. Holmes, C. C. Claremont, John Phillips, Montague Way, Carling, J. Ward Cousins, and B. H. Mumby.

Confirmation of Minutes.—The minutes of the meeting held on May 14th were read and confirmed.

Special Class of Consultants.—The Central Ethical Committee's report as to recognition of a special class of consultants were considered (SUPPLEMENT, November 27th, 1909):

(*a*) Is the Division in favour of the recognition of a special class of consultant on the lines indicated in this report?

Upon this being put to the meeting the answer was in the negative.

(*b*) Is the Division in favour of the Association presenting regulations for the conduct of such a class?

Upon this being put to the meeting the answer was in the negative. Dr. L. MAYBURY proposed, and Dr. J. WARD COUSINS seconded:

That this Division is of opinion that the formation of a class of pure consultants is ideal, but that in the present state of the profession it would be difficult, if not quite impossible, by regulations to formulate such a class as suggested. This Division sees no objection to consultants forming a class of pure consultants at their own initiative.

The resolution was carried—9 for, and 1 against, after Drs. HACKMAN, CHILDE, SCOTT RIDOUT, CLAREMONT, CRAWLEY, MONTAGUE WAY, and T. HOLMES had joined in the discussion. Dr. CLAREMONT proposed, and Dr. HOLMES seconded:

That this Division deprecates members of the profession adopting distinctive titles, suggesting that they are practising exclusively as consultants when this is not the actual fact.

This was carried by 4 for and 2 against. Dr. CLAREMONT proposed, and Dr. HOLMES seconded:

That this Division strongly deprecates any list of the special class of consultants being prepared and issued by the Association.

This was carried *nemine contradicente*.

Election of Representative.—Dr. L. MAYBURY proposed, and Mr. CHILDE seconded:

That Dr. Mumby be elected the Representative of the Division in Representative Meetings.

SOUTH MIDLAND BRANCH:
BUCKINGHAMSHIRE DIVISION.

A MEETING of this Division was held on December 8th, 1909, at the Royal Bucks Hospital, Aylesbury. Dr. BAKER was in the chair, and there were present Drs. Bradbrook, Cook, Graham, Hardwicke, Gardner, Larking, Macfarland, Morrison, Perrin, Reynolds, Rose, Parrott, Shaw, E. O. Turner, West, and the House-Surgeon, the total number being seventeen.

Ambulance Lectures.—In addition to the ordinary business a discussion took place on the giving of ambulance lectures by practitioners and what was a proper fee to charge. Free lectures were deprecated by all. If the class who joined could not afford to pay a fee, they should get up a subscription among the better class to defray the expense. Finally, the following resolution was carried by 11 votes to 1:

That the minimum fee for a course of lectures (not less than five and pupils not to exceed thirty) in connexion with the British Red Cross Association and the St. John Ambulance Committee shall be £5 5s.

An amendment that the minimum fee should be £3 3s was lost by 10 votes to 4.

Acromegaly.—Dr. SHAW showed a case of acromegaly and read a paper on the disease that was much appreciated. A discussion took place afterwards.

Annual Representative Meeting.—The REPRESENTATIVE (Dr. Bradbrook) gave an account of the annual meeting at Belfast. A hearty vote of thanks was accorded to him for his services, and it was hoped that he would continue to represent the Division.

Club Fees in Aylesbury.—It was decided that the Division support by every means in its power the efforts now being made by the practitioners in Aylesbury to raise the club fees from 4s. to 5s. per annum.

Special Class of Consultants.—The memorandum in reference to a special class of consultants was considered, and it was generally condemned.

Dinner.—A dinner took place at the Crown Hotel after the meeting, at which twelve were present, and a very enjoyable evening was spent.

SOUTH WALES AND MONMOUTHSHIRE BRANCH:
MONMOUTHSHIRE DIVISION.

A MEETING of the medical profession residing in Monmouthshire was held under the auspices of the Monmouthshire Division in the Newport and Monmouthshire Hospital on Monday, November 15th, 1909. Dr. O. E. B. MARSH, Chairman of the Division, presided, and the attendance numbered thirty-three.

Poor Law Report.—The Medical Secretary of the Association, Mr. SMITH WHITAKER, delivered an able and interesting address on the report of the Royal Commission on the Poor Law in its relation to the medical profession. The address was followed by a discussion, in which the following took part: Drs. C. B. GRATTE, S. HAMILTON, A. G. LAWRENCE, W. J.

GREER, W. D. STEEL, T. MORRELL THOMAS, A. GARROD THOMAS, and J. MCGINN. Mr. SMITH WHITAKER replied.

Vote of Thanks.—A very hearty vote of thanks to Mr. Smith Whitaker was proposed by the CHAIRMAN, seconded by Dr. LAWRENCE, and carried unanimously. Mr. SMITH WHITAKER briefly acknowledged it.

A meeting of the Division was held in the Newport and Monmouthshire Hospital on Friday, November 26th. Dr. W. F. NELIS presided, and the attendance numbered sixteen.

Apology for Non-attendance.—An apology was received from the Chairman (Mr. O. E. B. Marsh), for his unavoidable absence.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Election of Representative at Representative Meeting.—Mr. W. J. Greer was unanimously elected Representative.

Ebbw Vale Disputes.—The HONORARY SECRATARY and Dr. COWIE reported progress in the Ebbw Vale dispute.

Consultants.—The report of the Central Ethical Committee on this subject was considered, and the following resolutions were passed:

1. That the Division is in favour of the recognition of a special class of consultants on the lines laid down in the report, but does not think it practicable in the present state of organization of the profession.
2. That the Division is in favour of the Association prescribing regulations for the conduct of the practice of such a class for use when the proper time comes.

Papers.—Dr. J. L. THOMAS (Brynmawr) read a paper on some cases of high temperature in pregnancy due to infection by the *Bacillus coli*. The paper was discussed by Drs. C. S. VINES, T. M. THOMAS, C. B. GRATTE, W. J. GREER, S. HAMILTON and the CHAIRMAN, and Dr. J. L. THOMAS replied. Dr. C. B. GRATTE read notes on a case of wound of the brachial artery by a dog bite. The paper was discussed by Drs. W. J. GREER and F. R. BURPITT, and Dr. GRATTE replied.

Specimens.—Dr. T. M. THOMAS showed the following specimens: (1) Undescended testis with torsion removed from a baby. (2) Carcinoma of rectum removed by Ball's operation.

ULSTER BRANCH.

BELFAST DIVISION.

A MEETING of this Division was held in the Medical Institute on December 16th, 1909, Dr. CHARLES KEVIN in the chair.

The Death of the Hon. Archibald Gordon.—Sir JOHN BYERS moved, Dr. JOHN CAMPBELL seconded, and it was carried unanimously:

> That the Belfast Division of the British Medical Association desire to express their sincere sympathy with Their Excellencies the Lord Lieutenant of Ireland and the Countess of Aberdeen (who are both honorary members of the British Medical Association) in the irreparable bereavement that they have sustained by the loss of their youngest son the Hon. Archibald Gordon, who, although still young, had already given ample promise of a brilliant career.

Special Class of Consultants.—The Division considered the report of the Central Ethical Committee concerning the special class of consultants. Dr. CECIL SHAW moved, and Dr. J. SIMPSON seconded:

> That the Belfast Division, having considered the report on the special class of consultants, is of opinion that the suggested scheme is undesirable and unworkable from the point of view of the public and the medical profession, and answers the questions in the negative.

This was unanimously agreed to.

Reports of Poor Law Commission.—Dr. A. TRIMBLE read a paper on the reports of the Poor Law Commission, and their bearing on the medical profession. After an interesting discussion, the proceedings terminated.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.

A JOINT meeting of this Branch and the Gloucestershire Branch was held on November 25th at the Herefordshire General Hospital, GEORGE CROWE, M.D., President, in the chair. There were present twenty-nine members representing both Branches.

Paper.—Mr. G. SCOTT WILLIAMSON read a paper on immuno-therapy in acute streptococcal infections, with illustrative cases of *post-partum* and acute rheumatic fever and malignant endocarditis. The paper was followed by a demonstration on "Haematology for the general practitioner," with illustrations. The paper and demonstration were highly appreciated by those present. A discussion followed the paper, and many questions were asked. Drs. CROWE and BRAMWELL and Mr. CUTHBERT took part in the discussion, and Mr. WILLIAMSON thereafter replied.

Vote of Thanks.—At the conclusion of the discussion a hearty vote of thanks was proposed by the PRESIDENT to Mr. Scott Williamson for his most instructive and illuminating paper. This was carried by acclamation.

Medical Treatment and Inspection of School Children.—The meeting then considered a most important resolution in reference to the treatment of school children as the result of medical inspection. The resolution was submitted, *pro forma*, by Mr. HERBERT JONES and seconded by Dr. J. STEED. A discussion followed, and members put forward their respective views from the standpoints of the general practitioner and honorary medical staff to hospitals. Drs. MABYN READE, J. MARTIN, G. CROWE, DARLING, BRAMWELL, CUTHBERT, GOLD, FINDLAY, PIKE, and WOOD spoke to the resolution, and an amendment by Dr. G. CROWE being accepted, it was unanimously resolved as follows:

> That in the opinion of the above Branches it is undesirable that the numerous cases which must arise as the result of the medical inspection of school children should receive general treatment in hospitals to which an honorary staff is attached, and would suggest to the education authorities that they should make arrangements for the requisite treatment by the medical men in their respective districts; and that such cases should not be treated in general hospitals unless recommended by a medical practitioner.

Further that it be an instruction to honorary secretaries to intimate to the proper authorities the foregoing and following resolution which was unanimously adopted at the last Annual Representative Meeting at Belfast:

> That the Association should oppose the reference of school children, found upon medical inspection to be defective, to public medical charities for treatment, whether or not accompanied by payments or subsidies.

YORKSHIRE BRANCH:

LEEDS DIVISION.

A MEETING of this Division was held in the Board Room of the General Infirmary, Leeds, on November 16th, 1909, the CHAIRMAN OF THE DIVISION (Dr. Nightingale of Horsforth) presiding.

Special Class of Consultants.—The members decided against the recognition of a special class of consultants.

Annual Representative Meeting.—Thereafter the Representative to the Belfast Meeting read his report, and, among other things, said he was struck with the enormous amount of work done by the meeting. He said that, although at present the Representatives were in general not expert speakers and debaters, they were receiving the training which made debaters and which led men to approach important questions in a statesmanlike fashion. He said he was sure that in the future the annual parliament of the Association would have great influence both with the public and with the profession of medicine, and he was assured in his own mind that the Association had not yet seen its palmiest days. Although the subject of the proposed Charter was for the present laid aside, it must again come up in the near future, for an Association representing all shades of medical opinion of the British Empire could not afford to rest satisfied till it had obtained rights which were the possession of small medical corporations representing only one section of medical opinion, and an Association having a membership of 20,000 and an open debating assembly would be less likely to abuse its privileges than a close body managed by a

select few. Dr. Sharp was thanked for his report and for his attendance at Belfast.

Communications.—Dr. CHURTON read notes on and demonstrated (1) a case of cerebral tumour in a girl of 10, and (2) a case of cerebellar tumour in a boy of 13. On account of time, a paper by Dr. Sharp on intermittent aphasia and hemiplegia was held over till the next meeting.

Next Meeting.—It is hoped to hold the next meeting at the Women and Children's Hospital in February.

☞ *To ensure the insertion of notices in this column, they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

Association Notices.

ANNUAL SUBSCRIPTION, 1910.

MEMBERS are reminded that the Annual Subscription, amounting to 25s., falls due on January 1st.

Cheques or Postal Orders should be made payable to the British Medical Association, and crossed London County and Westminster Bank.

In the case of Colonial Members the subscription should be paid to the Honorary Treasurer of their respective Branches.

COUNCIL MEETING.

A MEETING of the Council will be held at 2 o'clock in the afternoon of Wednesday, January 26th, in the Council Room at 429, Strand, London, W.C.

By Order,
GUY ELLISTON.
Financial Secretary and Business Manager.

December 30th, 1909.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BURMA BRANCH.—The annual meeting of this Branch will be held at the New General Hospital, Rangoon, during the first week in February, commencing on Wednesday, February 2nd, and ending on Saturday, February 5th, 1910. Arrangements will be made by the Managing Committee to put up members coming from the districts. *Programme.*—Wednesday, February 2nd, at 9.30 p.m., address by the President, followed by inspection of museum. On Thursday, February 3rd, at 5 p.m., in the Medical Section, a discussion on the "Spread of Tuberculosis in Burma" will be opened by the President. Members intending reading papers on some point in connexion with tuberculosis are asked to communicate with the Honorary Secretary, and limit the length of their papers to ten minutes, informing him the subject of their paper. The Museum will be open from 9 a.m. to 6 p.m. to all medical men, of all grades down to the hospital assistant class, who are cordially invited to visit the Museum. The annual dinner will take place on Friday, February 4th, at 8.15 p.m., Honorary Dinner Secretary, Dr. Pedley.—E. R. ROST, Major, I.M.S., General Hospital, Rangoon.

METROPOLITAN COUNTIES BRANCH: KENSINGTON DIVISION.—The Executive Committee has the pleasure to announce that Sir Almroth Wright has consented to give an address and demonstration on Vaccine Therapy on Thursday, February 3rd, 1910, at 4.30 p.m., at St. Mary's Hospital.—H. BECKETT-OVERY, Honorary Secretary, 24, Alexander Square, S.W.

METROPOLITAN COUNTIES BRANCH: LAMBETH DIVISION.—A meeting of this Division will be held on Thursday, January 13th, at 4 p.m., at the Lambeth Infirmary, Brook Street, S.E., when Dr. E. W. Goodall will read a paper, illustrated by lantern slides, on Some of the Difficulties of the Diagnosis of Common Infectious Diseases.—H. CHARLES CAMERON, M.B., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH; ST. PANCRAS AND ISLINGTON DIVISION.—A meeting of this Division will be held at the Midland Grand Hotel on January 12th, 1910, at 9 for 9.15 p.m. Dr. R. M. Beaton, L.C.C., will open a discussion on School Clinics.—WILLIAM GRIFFITH, M.B., Honorary Secretary.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 7,715 births and 4,926 deaths were registered during the week ending Saturday, December 18th, 1909. The annual rate of mortality in these towns, which had been 16.4, 16.5, and 16.6 per 1,000 in the three preceding weeks, declined again during the week under notice to 15.0 per 1,000. The rates in the several towns ranged from 5.1 in King's Norton, 7 6 in Leyton, 8.4 in York, 9 2 in West Hartlepool, 9.4 in Croydon, 10.1 in Willesden, 10.4 in Smethwick, and 10 5 in Burton-on-Trent to 19.2 in Salford, 19.6 in Stockport and in Tynemouth, 20.2 in Ipswich, 20.6 in Sunderland, 20 8 in St. Helens, 20.9 in Blackburn, 22 2 in Oldham, 22 6 in Burnley, 24.2 in Hanley, and 29.2 in Swansea. In London the rate of mortality was 14.3 per 1,000, while it averaged 15.2 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 0 8 per 1,000 in the seventy-six towns; in London this death-rate was equal to 0.7 per 1,000, while among the seventy-five other large towns it ranged upwards to 2 0 in Coventry and in Merthyr Tydfil, 2 2 in West Bromwich, in Birkenhead and in St. Helens, 2 3 in Rhondda, 3.0 in Hanley, and 3.7 in Swansea. Measles caused a death-rate of 1.1 in Northampton, 1.6 in Swansea, and 2.3 in Hanley; whooping-cough of 1 0 in Sunderland, 1.1 in St. Helens, 1.3 in Birkenhead, and 2 1 in Swansea; "fever" of 1.1 in St. Helens, and diarrhoea of 1 3 in Coventry and 1 5 in Smethwick. The mortality from scarlet fever and from diphtheria showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The Metropolitan Asylums Hospitals contained 4 small-pox patients at the end of the period referred to, against 3 on each of the two preceding Saturdays; one new case was admitted in each of the last two weeks. The number of scarlet fever cases under treatment in these hospitals and in the London Fever Hospital, which had been 2,518, 2,488, and 2,475, at the end of the three preceding weeks, had further fallen to 2,403 at the end of the week under notice; 254 new cases were admitted during the week, against 264, 281, and 266, in the three preceding weeks.

In seventy-six of the largest English towns, including London, 6,520 births and 4,854 deaths were registered during the week ending Saturday, December 25th, 1909. The annual rate of mortality in these towns, which had been 16.5, 16.6, and 15.0 per 1,000 in the three preceding weeks, rose again last week to 15.4 per 1,000. The rates in the several towns ranged from 7.6 in Hornsey, 7.7 in King's Norton, 8.5 in Willesden, 8.9 in Smethwick, 9.4 in Devonport, 9 8 in East Ham, 9.9 in Walthamstow, and 10.0 in Croydon and in Grimsby, to 20.2 in Bournemouth and in Blackburn, 20.4 in Huddersfield. 22.1 in Burnley, 22.2 in Oldham, 24 0 in Merthyr Tydfil, 24.6 in Bury, 25.8 in Middlesbrough, 27.0 in Wigan, 29.2 in Swansea, and 29.5 in Hanley. In London the rate of mortality was 15.1 per 1,000, while it averaged 15.5 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 0.9 per 1,000 in the seventy-six towns; in London the death-rate from these diseases was 0.7 per 1,000, while among the seventy-five other large towns the rates ranged upwards to 2.1 in Walsall, 2.2 in West Bromwich and in St. Helens, 2.3 in Wigan and in Rochdale, 2.8 in Ipswich, 3.4 in Birkenhead, 3.7 in Swansea, and 3.8 in Hanley. Measles caused a death rate of 1.1 in Swansea, 1.4 in Ipswich, 2.6 in Birkenhead, and 3.0 in Hanley; scarlet fever of 1.1 in St. Helens and 1.2 in Wigan; diphtheria of 1.1 in Huddersfield; whooping-cough of 1.0 in West Ham, 1.1 in Swansea, and 1.4 in Ipswich and in Halifax; "fever" of 1.1 in St. Helens; and diarrhoea of 1.6 in Walsall, in Rotherham, and in Swansea. No fatal case of small-pox was registered in any of the seventy-six towns last week. The number of small-pox patients remaining under treatment in the Metropolitan Asylums Hospitals at the end of the week was 4, against 3 and 4 at the end of the two preceding weeks. The number of scarlet fever patients in these hospitals and the London Fever Hospital, which had been 2,488, 2,475, and 2,403 at the end of the three preceding weeks, had further fallen to 2,361 at the end of last week; 224 new cases were admitted during the week, against 281, 266, and 254 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday, December 18th, 1909, 868 births and 700 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 22.3 and 23.8 per 1,000 in the two preceding weeks, fell again in the week under notice to 19.6 per 1,000, but was 4.6 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scottish towns the death-rates ranged from 12.5 in Paisley and 12.8 in Leith to 18 8 in Dundee and 23.0 in Glasgow. The death-rate from the principal infectious diseases averaged 2.1 per 1,000 in these towns, the highest rates being recorded in Glasgow and Edinburgh. The 384 deaths registered in Glasgow included 42 which were referred to measles, 2 to scarlet fever, 4 to diphtheria, 3 to whooping-cough, 2 to enteric fever, and 4 to diarrhoea Four fatal cases of measles and 4 of whooping-cough were recorded in Edinburgh; 2 of diarrhoea in Dundee; and 3 of scarlet fever in Aberdeen.

During the week ending Saturday last, December 25th, 1909, 807 births and 697 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 23.8 and 19.6 per 1,000 in the two preceding weeks, further declined last week to 19 5 per 1,000, but was 4.1 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scottish towns the death-rates ranged from 14.4 in Greenock and 15.5 in Aberdeen, to 22 6 in Perth, and 23.4 in Dundee. The death-rate from the principal infectious diseases averaged 2.4 per 1,000 in the eight towns, the highest rates being recorded in Glasgow and Perth. The 359 deaths registered in Glasgow included 34 which were referred to measles, 4 to scarlet fever, 7 to diphtheria, 8 to whooping-cough, 3 to enteric fever, and 5 to diarrhoea. Six fatal cases of measles, 2 of diphtheria, and 2 of diarrhoea were recorded in Edinburgh, and 4 of diarrhoea in Dundee.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, December 18th, 1909, 556 births and 475 deaths were registered in the twenty-two principal urban districts of Ireland, as against 532 births and 508 deaths in the preceding period. The annual death-rate in these districts, which had been 21.0, 20.1, and 23.2 per 1,000 in the three preceding weeks, fell to 21.7 per 1,000 in the week under notice, this figure being 6 7 per 1,000 higher than the mean annual death-rate in the seventy-six English towns for the corresponding period. The figures in Dublin and Belfast were 19 4 and 23.9 respectively, those in other districts ranging from 6.6 in Queenstown and 9.8 in Kilkenny, to 36.8 in Drogheda and 40.9 in Lisburn, while Cork stood at 23.3, Londonderry at 18.1, Limerick at 15.0, and Waterford at 33.1. The zymotic death-rate in the twenty-two districts averaged 1.2 per 1,000, as against 1.4 per 1,000 in the preceding period.

Naval and Military Appointments.

EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

FIELD officer just returned from abroad is willing to exchange to India. Apply to Eastern Exchange, c.o. Messrs. Holt and Co.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: Fleet Surgeon P. B. HANDYSIDE, M.B., Staff Surgeon E. COX, M.B., and Surgeon A. R. FISHER, to the *Minotaur*, on recommissioning, January 4th; Fleet Surgeon T. AUSTEN to the *Vernon*, January 4th; Staff Surgeon C. E. C. STANFORD, M.B., to the *Jupiter*, January 4th; Surgeon S. S. H. SHANNON, to the *Leda*, January 4th; Staff Surgeon R. ST. G. S. BOND, M.B., to the *Victory*, additional, for disposal, December 31st, 1909; Staff Surgeon J. G. WATT to the *Mars*, December 31st, 1909; Staff Surgeon R. B. SCRIBNER to the *Terror*, additional, January 1st, and to the *Alert*, on commissioning, undated; Surgeon A. DAVIDSON, M.B., to the *Caesar*, December 31st, 1909; Surgeon G. C. CROSS, to the *Hannibal*, December 31st, 1909; Surgeon N. H. MUMMERY to the *Pembroke*, additional, for disposal, December 31st, 1909.

ARMY MEDICAL SERVICE.

LIEUTENANT-COLONEL R. PORTER, M.B., Administrative Medical Officer at Belfast, has been appointed Principal Medical Officer in the Western Command, vice Colonel G. T. Goggin.

ROYAL ARMY MEDICAL CORPS.

Lieutenant-Colonel H. GREANY, M.D., has been appointed Senior Medical Officer, Ceylon, vice Lieutenant-Colonel N. Manders, Royal Army Medical Corps.

Captain J. W. S. SECCOMBE, who is serving in India, is appointed Specialist in the Prevention of Disease, from October 25th, 1909.

INDIAN MEDICAL SERVICE.

CAPTAIN G. E. STEWART, M.B., is detailed to proceed to Somaliland on field service with the 127th Baluch Light Infantry, of which regiment he is the Medical Officer.

The King has approved the promotion of Captain T. H. DELANY, M.D., to be Major, and of Lieutenant J. F. JAMES, M.B., to be Captain. Both of these promotions have already been announced in the BRITISH MEDICAL JOURNAL.

His Majesty has also sanctioned the retirement from the service of Lieutenant-Colonel E. H. BROWN, M.D., and the resignation of Lieutenant A. B. ZORAB. These also have already appeared in the BRITISH MEDICAL JOURNAL.

Lieutenant-Colonel T. D. C. BARRY, Bombay, has retired from the service from November 18th, 1909. He was appointed Assistant Surgeon, March 31st, 1887, and became Lieutenant-Colonel, March 31st, 1907.

Lieutenant H. H. THORBURN, M.B., is promoted to be Captain, from September 1st, 1909. His commission as Lieutenant dates from September 1st, 1906.

Lieutenant-Colonel J. SYKES, Bengal, is permitted to retire from the service, from December 14th, 1909. He was appointed Surgeon, October 31st, 1879, and became Lieutenant-Colonel, October 31st, 1899. He served with the Mahsud Waziri Expedition in 1881, and in the Egyptian war in 1882, when he was present at the action of Kassassin and at the battle of Tel-el-Kebir, receiving a medal with clasp and the Khedive's bronze star.

Captain A. D. WHITE, M.B., is appointed Specialist in Advanced Operative Surgery, 8th (Lucknow) Division, from September 17th, 1909.

SPECIAL RESERVE OF OFFICERS.

INFANTRY.

SURGEON-LIEUTENANT-COLONEL M. O. COLEMAN, M.D., 4th Battalion East Surrey Regiment, relinquishes his commission, November 30th, 1909; he retains his rank and uniform.

ROYAL ARMY MEDICAL CORPS.

Supplementary List.—GEORGE H. USMAR (late Lieutenant, Royal Army Medical Corps) to be Lieutenant, with seniority as from August 24th, 1908. To be Lieutenants on probation: JOHN INKSTER, M.B., November 24th, 1909; IAN D. DICKSON, JOHN M'G. SCOTT, THOMAS E. GUTHRIE, WILLIAM T. GRAHAM, and CHARLES S. SANDEMAN, December 17th, 1909.

TERRITORIAL FORCE.

ROYAL ARMY MEDICAL CORPS.

Fifth London Field Ambulance.—Captain E. B. DOWSETT to be Major, December 22nd, 1909.

Third Lowland Field Ambulance.—Lieutenant H. A. LEEBODY, M.B., to be Captain, November 19th, 1909.

Second West Riding Field Ambulance.—FRANCIS G. DOBSON, M.B., to be Lieutenant, November 13th, 1909.

Third Wessex Field Ambulance.—LESLIE RAWES to be Lieutenant, November 10th, 1909.

Attached to Units other than Medical Units.—Captain H. W. WILLIAMS, M.B., resigns his commission, September 17th, 1909. Lieutenant H. K. LACEY resigns his commission, November 7th, 1909.

For Attachment to Units other than Medical Units.—Surgeon-Lieutenant-Colonel and Honorary Surgeon-Colonel JOHN ADAM, M.D., from the 1st (Ross Highland) Volunteer Battalion, Seaforth Highlanders (Ross-shire Buffs, the Duke of Albany's), to be Lieutenant-Colonel, with the honorary rank of Surgeon-Colonel, with precedence as in the Volunteer Force, dated April 1st, 1908.

CHANGES OF STATIONS.

THE following changes of stations amongst the officers of the Army Medical Service have been officially reported to have taken place during November, 1909:

	FROM	TO
Surgeon-General P. M. Ellis	Naini Tal	Lucknow (8th Division).
Colonel H. J. W. Barrow	Dalhousie	Lahore.
,, G. W. Robinson	Pretoria	Cape Town.
,, F. B. Maclean	Secunderabad	Lucknow.
,, L. E. Anderson	Naini Tal	Allahabad.
,, E. Butt, F.R.C.S.I.	Secunderabad	Calcutta.
Lieut.-Col. F. J. Jencken, M.B.	Meerut	Netley.
,, R. J. S. Simpson, C.M.G., M.B.	R.A.M. Coll.	London.
,, E. H. L. Lynden-Bell, M.B.	Allahabad	Meerut.
,, H. L. E. White	Crete	Malta.
,, L. W. Swabey	Sitapur	Aden.
,, J. R. Forrest	Maymyo	Ireland.
,, G. E. Hale, D.S.O.	Rawal Pindi	London.
,, A. T. I. Lilly	Canterbury	Belgaum.
,, R. Caldwell, F.R.C.S.	Parkhurst	South Africa.
,, S. Powell, M.D.	Rangoon	Maymyo.
,, C. T. Blackwell, M.D.	Belgaum	E. Command.
,, S. R. Wills	Holywood	India.
,, S. C. Philson	London Dist.	,,
,, W. B. Day, M.B.	Chester	Shrewsbury.
,, A. Kennedy	Aden	Netley.
,, J. J. Gerrard, M.B.	Malta	York.
,, J. S. Davidson, M.B.	Woolwich	Allahabad.
,, J. F. Donegan	Alexandria	Parkhurst.
,, G. H. Barefoot	Dinapore	Bareilly.
,, T. du B. Whaite, M.B.	Gibraltar	Canterbury.
,, H. T. Knaggs, M.B.	Cairo	Alexandria.
Major C. H. Hale, D.S.O.	Strensall	York.
,, B. H. Scott	Barry Camp	Edinburgh.
,, E. A. Burnside	Mount Abu	S. Command.
,, C. R. Elliott, M.D.	Dublin	Lahore.
,, J. C. Weir, M.B.	Naini Tal	Lucknow.
,, B. J. Inniss	Delhi	Meerut.
,, R. C. Thacker	Karachi	Irish Comm'd.
,, S. F. Clark, M.B.	Middleburg, Cape Colony	Maritzburg.
,, J. Girvin	Hyderabad	Colaba.
,, J. H. E. Austin	Hounslow	London.
,, E. McK. Williams	York	Sheffield.
,, O. L. Robinson	Netley	India.
,, J. C. Jameson, M.B.	—	Khartoum
,, T. McDermott, M.B.	Allahabad	Lucknow.
,, N. Marder	Netley	Cosham.
,, C. E. Pollock	Malta	London.
,, A. F. Tyrrell	Gibraltar	Cork.
,, H. A. Berryman	,,	Chester.
,, C. M. Fleury	Tidworth	Warwick.
,, A. E. Master, M.B.	Malta	Chatham.
,, G. Dansey-Browning	Colchester	Aldershot.
,, E. S. Clark, M.B.	Nowshera	Irish Com'd.
,, M. Boyle, M.B.	Lucknow	N. Comd.
,, P. Evans, M.B.	Egypt	Devonport.
,, C. K. Morgan, M.B.	,,	Dundalk.
,, St. J. B. Killery	Ranikhet	Shahjehanpur.
,, E. C. Hayes	Netley	Cosham.
,, H. Hewetson	Straits Settlements	E. Command.
,, M. P. Corkery	Jhansi	Mount Abu.
,, J. Poe, M.B.	Aldershot	South Africa.
,, H. O. B. Rowne-Mason	London Dist.	India.
Captain F. J. C. Heffernan, F.R.C.S.	Lucknow	Dinapore.
,, A. E. Thorp	Cosham	Weymouth.
,, H. Herrick	Karachi	Hyderabad.
,, F. J. Brakenridge	Egypt	London.
,, H. Simson	London	India.
,, E. E. Ellery	,,	Egypt.
,, H. S. Anderson	Malta	Cork.
,, C. S. Smith, M.B.	Belfast	Mullingar.
,, A. H. Safford	Allahabad	Fyzabad.
,, W. C. Croly	Queenstown	R.A.M. Coll.
,, F. P. Lauder	Aldershot	Portland.
,, A. C. Adderley	Leeds	R.A.M. Coll.
,, C. R. L. Ronayne, M.B.	Warrington	Preston.
,, R. F. Ellery	Devonport	India, N. Army
,, J. F. Whelan, M.B.	Liverpool	R.A.M. Coll.
,, W. M. Power	Tidworth	Jamaica.
,, C. D. Myles, M.B.	Curragh	R.A.M. Coll.
,, W. L. Steele	Chester	,,
,, J. L. Jones	Woolwich	,,
,, E. S. Worthington	Colchester	,,
,, A. J. W. Wells	Aldershot	,,
,, E. E. Parkes, M.B.	Mill Hill	Netley.
,, F. E. Rowan-Robinson, M.B.	Woolwich	R.A.M. Coll.
,, J. H. R. Winder, M.D.	Dublin	,,
,, M. F. Foulds	Chatham	Belfast.
,, D. L. Harding, F.R.C.S.I.	Chester	R.A.M. Coll.
,, A. McMunn	Belfast	,,
,, M. C. Beatty, M.B.	Enniskillen	,,
,, T. F. Ritchie, M.B.	Fermoy	,,
,, A. W. Sampey	Dublin	,,
,, W. Davis	,,	India.
,, L. Cotterill	Edinburgh	R.A.M. Coll.
,, W. J. S. Harvey	Bere Island	,,
,, H. H. Kiddle	Aldershot	,,
,, W. F. Tyndale, C.M.G., M.B.	Bulford	,,
,, J. McKenzie, M.B.	Aldershot	,,
,, N. D. Walker, M.B.	Woolwich	,,
,, H. J. Crossley	Bury	,,
,, R. B. Ainsworth	Dover	,,
,, C. A. J. A. Balck, M.B.	Hornsea	,,
,, R Storrs	Bulford	,,
,, R. L. V. Foster, M.B.	Fermoy	Fethard.
,, F. A. H. Clarke	Sheffield	R.A.M. Coll.
,, G. A. K. H. Reed	Maidstone	,,
,, J. W. S. Seccombe	Dalhousie	Bangalore.
,, J. M. H. Conway, F.R.C.S.	Richmond	R.A.M. Coll.
,, H. V. Bagshawe	Woolwich	,,
,, P. G. Easton	Aldershot	,,
,, W. W. Browne	Dublin	,,
,, R. Rutherford, M.B.	Edinburgh	,,

		FROM	TO
Captain	W. D. C. Kelly, M.B.	Aldershot	R.A.M. Coll.
,,	N. E. J. Harding, M.B.	Aberdeen	,,
,,	R. J. Franklin	Glasgow	,,
,,	J. G. Bell, M.B.	Newport	Liverpool.
,,	F. W. W. Dawson, M.B.	Woolwich	R.A.M. Coll.
,,	J. E. H. Gatt, M.D.	Limerick	,,
,,	R. M. Rankin, M.B.	Woolwich	,,
,,	T. S. Coates, M.B.	Manchester	,,
,,	C. W. Holden	Tientsin	Peking.
,,	G. H. J. Brown, M.B.	Ranikhet	Delhi.
,,	B. H. V. Dunbar, M.D.	York	Leeds.
,,	D. Ahern	Queenstown	R.A.M. Coll.
,,	D. G. Carmichael	Trawsfynydd Camp	Newport, Mon.
,,	C. Bramhall	York	Lichfield.
,,	J. H. Duguid, M.B.	Fort George	R.A.M. Coll.
,,	B. G. Patch	Multan	Irish Comm'd.
,,	T. S. Dudding	Shrewsbury	Bury.
,,	R. H. MacNicol, M.B.	Maymyo	Scottish Com.
,,	S. L. Pallant	Mhow	E. Command.
,,	C. R. Sylvester-Bradley	Meerut	,,
,,	W. MacD. MacDowall	Ambala	Irish Comm'd.
,,	A. C. Osburn	Maymyo	Mandalay.
,,	F. J. Turner	Jubbulpore	Scottish Com.
,,	G. F. Rugg	Colchester	R.A.M. Coll.
,,	M. F. Grant	Karachi	Quetta.
,,	R. J. Cahill, M.B.	Cherat	Dehra Dun.
,,	C. Ryley	Shoeburyness	R.A.M. Coll.
,,	G. A. D. Harvey	Cairo	Khartoum.
,,	H. C. Winckworth	Malta	Cork Dist.
,,	H. W. Russell, M.D.	Ashton	R.A.M. Coll.
,,	A. T. Frost, M.B.	Curragh	,,
,,	K. A. C. Doig	Bareilly	Muttra.
,,	C. R. Millar	Fethard	R.A.M. Coll.
,,	R. J. B. Buchanan	Winchester	Portsmouth.
,,	G. S. Wallace, M.B.	Aldershot	R.A.M. Coll.
,,	R. G. Meredith, M.B.	Crete	Malta.
,,	P. Power, M.B.	Belfast	R.A.M. Coll.
,,	G. H. Rees, M.B.	—	Egypt.
,,	W. R. Galwey, M.B.	Willsworthy Camp	Ferozepore.
,,	F. Forrest	Multan	Ambala.
,,	T. W. O. Sexton	Standerton	Pretoria.
,,	A. C. Vidal	Cosham	South Africa.
Lieutenant	W. H. Forsyth, M.B.	Bloemfontein	Middelburg.
,,	A. H. Heslop, M.B.	Barian	Sialkot.
,,	R. W. D. Leslie	Crete	Malta.
,,	C. Scaife, M.D.	Kirkee	Khandalla.
,,	D. M. Corbett, M.B.	Dagshai	Ambala.
,,	D. Coutts, M.B.	Cawnpore	Allahabad.
,,	A. H. Jacob	Campbellpore	Rawal Pindi.
,,	W. K. Beaman	Crete	Malta.
,,	A. Fortescue, M.B.	Netley	Lucknow.
,,	F. H. M. Chapman	Tidworth	Lucknow.
,,	M. P. Leahy, M.B.	Curragh	India.
,,	W. G. Aviss	York	Quetta.
,,	M. O. Wilson, M.B.	Belgaum	Hyderabad.
,,	T. H. Scott, M.B.	Ferozepore	Dalhousie.
,,	T. McC. Phillips, M.B.	Colchester	Lucknow.
,,	G. Petit	Bulford	Tidworth.
,,	D. B. McGrigor, M.B.	Maidstone	Quetta.
,,	R. G. S. Gregg, M.B.	Dublin	Lucknow.
,,	W. A. Spong, M.B.	York	Quetta.
,,	R. F. O'T. Dickinson	Limerick	Poona.
,,	A. Hendry, M.B.	Bulford	,,
,,	C. P. O'Brien Butler	Limerick	,,
,,	J. R. Lloyd	Ross	,,
,,	J. F. Grant, M.B.	Fermoy	Lucknow.
,,	H. H. Blake, M.B.	Ayr	,,
,,	W. J. Dunn, M.B.	Warley	Mill Hill.
,,	A. H. T. Davis	Lichfield	Bangalore.
,,	A. M. Pollard	Cosham	Winchester.
,,	E. V. Vaughan, M.B.	Cork	Queenstown.
,,	A. W. Byrne, M.B.	Wrexham	Lancaster.
,,	G. H. Stack, M.B.	Aldershot Command	Ewshott.
,,	S. W. Kyle, M.B.	Omagh	Enniskillen.
,,	A. D. Stirling, M.B.	Preston	Ashton.
,,	A. W. Bevis	Gravesend	Chatham.
,,	O. W. McSheehy, M.B.	Devonport	Tregantle.
,,	C. L. Franklin, M.B.	Pembroke Dk.	Manchester.
,,	J. R. Yourell, M.B.	Belfast	Enniskillen.

Lieutenant-Colonel W. KEAYS, F.R.C.S.I., retired pay, has been placed in medical charge of troops at Weymouth, vice Lieutenant-Colonel J. D. Crowe, Honorary Brigade Surgeon, retired pay.

Hospitals and Asylums.

SUFFOLK DISTRICT ASYLUM.

THE annual report for 1908 of Dr. James R. Whitwell, the medical superintendent of this asylum, shows that on January 1st, 1908, there were 870 patients on the registers, and on the last day of the year 875. Of this last number 780 belonged to the district, an increase for the year on the Suffolk patients of 17. The total cases under care during the year numbered 1,100, and the average number daily resident 875. During the year 230 were admitted, of whom 219 were Suffolk patients. Of the total, 203 were direct, and the remainder indirect admissions. With regard to duration of disorder in the direct admissions, in 81 the attacks were first attacks within three, and in 21 more within twelve months of admission; in 49 not-first attacks within twelve months; in 10 it was unknown whether they were first attack cases or not, and in the remainder the attacks were of more than twelve months' duration on admission. The direct admissions were classified according to the forms of mental disorder into: Mania of all kinds, 77; melancholia of all kinds, 61; senile and secondary dementia, 17; delusional insanity, 17; insanity with epilepsy, 13; general paralysis, 5; congenital or infantile defect, 6; the 3 male remainder being cases of confusional insanity, primary dementia, stupor, and gross brain lesion. The small numbers of general paralytics and congenital imbeciles is worthy of note. As to the more important etiological factors, alcohol was assigned in 20, or just under 10 per cent., influenza in 10, and syphilis in only 1; critical periods in 73; diseases of the nervous system in 18, including epilepsy in 10; various bodily affections in 14; bodily trauma in 22; and mental stress in 74. An insane heredity was ascertained in 76 or 37.4 per cent., a neurotic heredity in 9, and of epilepsy and of alcoholism in 1 each. During the year 42 patients were discharged as recovered, giving a recovery-rate on the direct admissions of 22.44 per cent., 49 as relieved, and 75 as not improved. During the year, also, 105 died, giving a death-rate on the average numbers resident of 12.0 per cent. The deaths were due in 17 to nervous diseases, with only 5 from general paralysis; in 9 to diseases of heart and blood vessels; in 1 to pleurisy; in 15 to chronic Bright's disease; in 28 to senile decay; in 1 to fractured spine; and in the remainder to general diseases, including 21 deaths, or 20 per cent. of the total deaths, from tuberculous diseases. An inquest was held on the patient who died from fractured spine, due to an accidental fall, no blame being attributed to any one.

THE ROYAL ASYLUM, PERTH.

THE annual report for the year 1908 of Dr. A. R. Urquhart, Physician-Superintendent of the James Murray's Royal Asylum, Perth, shows that on January 1st, 1908, there were 122 patients in the asylum, and on the last day of the year 127. The total cases under care during the year numbered 159, and the average number daily resident 123.28. During the year 37 were admitted, of whom 32 were first and 5 not-first admissions. In only 12 were the attacks first attacks within three, and in 2 more within twelve, months of admission; in 12 the attacks were not-first attacks within twelve and in 11 more the attacks, whether first attacks or not, were of more than twelve months' duration on admission. The number of recoverable cases admitted was 21, and nearly every case admitted was found to be subject to more or less severe physical disorder. The admissions were classified according to the forms of mental disorder into: Mania of all kinds, 16; melancholia of all kinds, 10; dementia, 6; delusional insanity, 4; and circular insanity, 1. As to causation, alcoholism was asigned in 5, influenza in 3, diseases of the nervous system in 5, other bodily disorders in 25, bodily trauma and physical stress in 4, and mental stress in 11. An insane heredity was ascertained in 20, of neuroses in 9, and of alcoholism in 2, giving a total neuropathic heredity in 31 of the 37 admissions, or in over 80 per cent. During the year 8 were discharged as recovered, giving a recovery-rate on the admissions of 21.62 per cent., as compared with the average for this institution of 38.09 per cent.; also 12 as relieved and 8 as not improved. During the year 4 died, giving a death-rate on the average number resident of 3.24 per cent.; the deaths were due in 2 from heart disease, 1 from exhaustion after acute mania, and 1 from pulmonary consumption. The general health was good throughout the year, and, except for one case of erysipelas, no case of zymotic disease occurred. There were no serious accidents, and only few and slight injuries had to be recorded among turbulent and feeble cases.

INVERNESS DISTRICT ASYLUM.

THE annual report for the year ended May 15th, 1909, by Dr. T. C. Mackenzie, the medical superintendent of this asylum, shows that on May 16th, 1908, there were 682 patients on the asylum register, and on May 15th, 1909, 705. In view of the steady increase in the average number of patients in this asylum—from 544 in 1899 to 691 in the year under review—Dr. Mackenzie has recommended for boarding-out in private dwellings as many as he considered suitable for it. During the twelve months ended May 15th last 22 were discharged unrecovered to the care of their relatives or were boarded-out, and 32 discharged on probation, of whom only 2 were found to be unsuitable. During the year 165 were admitted, of whom 123 were first and 42 not-first admissions. Of the total number, in 72 the attacks were first attacks within three, and in 33 more within twelve, months of admission; in 37 not-first attacks within twelve months, and in the remainder the attacks were either of more than twelve months (15) or congenital cases (8). The admissions were classified according to the forms of mental disorder into: Mania of all kinds, 52; melancholia of all kinds, 83: secondary, senile, and organic dementia, 16; general paralysis, 5; congenital mental defect, 8; and not insane, 1. During the year 58 were discharged as recovered, giving a recovery-rate on the admissions of 35.2 per cent., 15 as relieved, and 16 as not improved. Also during the year 53 died, giving a death-rate on the average numbers resident of 7.6 per cent. The deaths were due in 11 to nervous diseases, with only 3 deaths from general paralysis; in 6 to diseases of the heart and blood vessels; in 3 to respiratory diseases, and in the remainder to general and local diseases, including 19 deaths from pulmonary tuberculosis, and 5 from senile decay. No less than 35.8 per cent. of the total deaths thus resulted from pulmonary consumption. All deaths were from natural causes, and the general health was good throughout the year.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

ABERDEEN ROYAL INFIRMARY.—Assistant Surgeon.

BELGRAVE HOSPITAL FOR CHILDREN, Clapham Road, S.W.—House-Surgeon. Honorarium at the rate of £20 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Senior House-Surgeon. Salary, £85 per annum.

BOURNEMOUTH: ROYAL BOSCOMBE AND WEST HANTS HOSPITAL.—House-Surgeon. Salary, £80 per annum.

BRIGHTON: SUSSEX COUNTY HOSPITAL.—Third House-Surgeon. Salary, £50 per annum.

BRISTOL ROYAL INFIRMARY.—Honorary Dental Anaesthetist.

BRISTOL UNIVERSITY.—(1) Demonstrator of Anatomy; (2) Demonstrator in Physiology. Salary, £80 per annum, rising to £200 each.

BUXTON: WYE HOUSE ASYLUM.—Assistant Medical Officer (male). Salary at the rate of £120 per annum.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

DUBLIN: NATIONAL UNIVERSITY OF IRELAND.—Extern Examiners for Chemistry, Anatomy, Physiology, Materia Medica, Medicine, Medical Jurisprudence and Hygiene, Pathology, Surgery, Ophthalmic Surgery, Midwifery.

GRIMSBY AND DISTRICT HOSPITAL.—House-Surgeon. Salary, £120 per annum.

HÔPITAL FRANÇAIS, Shaftesbury Avenue, W.C.—Second Resident Medical Officer. Salary, £50 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Surgeon. Salary, £30 for six months and £2 10s. washing allowance.

LIVERPOOL SCHOOL OF TROPICAL MEDICINE.—Research Students on Malaria, Parasitology, and Pathological Chemistry. Salaries, £150 to £250 per annum.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Pathologist and Bacteriologist. Honorarium at the rate of 50 guineas per annum.

LONDON THROAT HOSPITAL, Great Portland Street, W.—House-Surgeon. Honorarium, £50 a year.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Hampstead and Northwood.—Physician.

OTAGO UNIVERSITY, Dunedin, N.Z.—Bacteriologist and Lecturer in Public Health. Salary, £500 per annum.

PRESTON ROYAL INFIRMARY.—Junior House-Surgeon. Salary, £60 per annum.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—Weber-Parkes prizes and medals.

ROYAL WATERLOO HOSPITAL FOR CHILDREN.—Honorary Physician to Out-patients.

SEAMEN'S HOSPITAL SOCIETY.—Assistant Physician and Assistant Surgeon at the Dreadnought Hospital, Greenwich.

SOUTHAMPTON: FREE EYE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

STIRLINGSHIRE SECONDARY EDUCATION COMMITTEE.—Two Medical Inspectors. Salary, £300 per annum.

STOCKPORT INFIRMARY.—Junior House-Surgeon. Salary, £80 per annum.

WEST BROMWICH DISTRICT HOSPITAL.—Resident Assistant House-Surgeon. Salary, £75 per annum.

WEST LONDON HOSPITAL, Hammersmith Road, W.—Surgeon.

WESTMINSTER HOSPITAL, S.W.—Assistant Pathologist and Curator of the Museum.—Salary, 100 guineas a year.

WEST RIDING OF YORKSHIRE COUNTY COUNCIL, Wakefield.—Medical Inspector of School Children. Salary, £300 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces vacancies at Berkhamsted, co. Hertford; South Birmingham, co. Warwick.

APPOINTMENTS.

BANKS, I., M.D., R.U.I., District Medical Officer of the Merthyr Tydfil Union.

CLARK, Miss Catherine S., M.B., Ch.B., Assistant Medical Officer, Edinburgh School Board.

CLARK, George S., M.A., B.Sc., M.B., Ch.B., Assistant Medical Officer, Edinburgh School Board.

FITZWILLIAMS, Duncan C. L., M.D., M Ch., F.R.C.S., Surgeon to Out-patients to St. Mary's Hospital, Paddington.

HOUGHTON, Leonard F., M.R.C.S., L.R.C.P.Lond., Resident Physician on Salt Spring Island, British Columbia.

HUDSON, Arthur Cyril, M.A., M.D., B.C.Cantab., F.R.C.S.Eng., Curator and Librarian to the Royal London Ophthalmic Hospital (Moorfields Eye Hospital).

HUGHES, Gerald S., M.B, B.S.Lond., F.R.C.S.Eng., Surgeon (with care of Out-patients) to the York County Hospital.

ISAAC, R. J., L.R.C.P. and S.Edin., L.F.P.S.Glas., District Medical Officer of the Swansea Union.

JONES, A. Mason, M.B., Ch.B., House-Surgeon to the Cardiff Infirmary.

KEATES, C. C., M.R.C.S., L.R.C.P., Resident Assistant Medical Officer to the Wandsworth Union Infirmary.

MCDOWALL, Colin, M.D.Durh., M.R.C.S., Senior Medical Officer of Cheddleton County Asylum, Staffordshire.

MACMAHON, A. P., M.B., B.Ch.R.U.I, Certifying Factory Surgeon for the Clondalkin District, co. Dublin.

MARSHALL, J. D., M.B., Ch.B.Vict., M.R.C.S.Eng., L.R.C.P.Lond., Honorary Medical Officer to the Wilkinson Sanatorium, Bolton.

ROBINS, J. N., M.A.Camb., M.R.C.S., L.R.C.P., District Medical Officer of the Medway Union.

SALISBURY, C. R., M.R.C.S., L.R.C.P., D.P.H., Resident Medical Officer to the Central London District Schools, Hanwell, W.

SHAW, W. F., M.D.Vict., Pathologist to St. Mary's Hospitals, Manchester.

STEVENSON, Dorothy W., M.B., Ch.B.Edin., School Medical Officer for Hanley, Staffordshire.

WATSON, J. N., M.R.C.S., L.R.C.P., Medical Officer of Health, Cricklade and Wootton Bassett Rural District.

WILSON, C. E. A., M.B., B.Ch.Oxon., District Medical Officer of the Midhurst Union.

WILSON, C. M., M.B., B.S., M.R.C.S., L.R.C.P., Medical Registrar to St. Mary's Hospital, Paddington.

WEBSTER, A. G., M.R.C.S.Eng., L.R.C.P.I., District Medical Officer of the Huddersfield Union.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d, which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

NEWTON.—On December 27th, 1909, at "Tylecote," Ranmoor, Sheffield, the wife of Duncan Gray Newton, M.B., C.M., F.R.C.S.Edinburgh, a son.

PATTON.—On December 8th, 1909, at Madras, the wife of Captain W. S. Patton, M.B.Edin., I.M.S., of a son.

DEATH.

TAYLER.—On December 17th, 1909, at Dai-to-tei, Formosa, George Padgett Tayler, M.B., eldest son of G. C. Tayler, M.D., of Trowbridge, Wilts, aged 35, suddenly (by cable).

RECENT PUBLICATIONS.

Obstetrics for Nurses. By Joseph B. de Lee, A.M., M.D. Third edition. Philadelphia and London: W. B. Saunders Company. (Cr. 8vo, pp. 512.)

This is a revised and enlarged edition of a book by the Professor of Obstetrics of the North-Western University in Chicago, first published some five years ago. It covers a great deal of ground, and is excellently illustrated. The aim set before the nurse, so far as the needs of the ordinary run of obstetric cases is concerned, is very high, but the book is none the worse for that, perhaps, and in any case there is an appendix specially dealing with obstetric work amongst the poorer classes.

Dietetics for Nurses. By Julius Friedenwald, M.D., and John Ruhräh, M.D. Second edition. 1909. Philadelphia and London W. B. Saunders Company. (Cr. 8vo, pp. 395.)

This is a revised and enlarged edition of a work to which we directed favourable attention some three years ago. Its authors are both Professors in the College of Physicians and Surgeons at Baltimore. Some of the tables regarding food values might be simplified with advantage. Why expect the searcher after the caloric value of an average sized orange to divide 11,904 by 150?

DIARY FOR THE WEEK.

TUESDAY.

ROYAL SOCIETY OF MEDICINE:

PATHOLOGICAL SECTION.—Laboratory meeting at University College Hospital Medical School, at 8.30 p.m.

THURSDAY.

NORTH-EAST LONDON CLINICAL SOCIETY, Prince of Wales's Hospital, Tottenham, 4.15 p.m.—Lantern Lecture: Dr. F. M. Sandwith: Malaria, with special reference to its Diagnosis and Treatment.

ROENTGEN SOCIETY, 20, Hanover Square, W., 8.15 p.m.—Paper: Dr. Lazarus-Barlow: On Radio-activity.

FRIDAY.

ROYAL SOCIETY OF MEDICINE:

LARYNGOLOGICAL SECTION, 20, Hanover Square, 8.30 p.m.—Cases and Specimens.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Thursday, 4.30 p.m., Lecture: Laryngeal Tuberculosis.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin. Tuesday, Medical. Wednesday, Surgical. Thursday, Surgical. Friday, Ear, Nose, and Throat. Lectures at 5.15 p.m. each day will be given as follows: Monday, Serum Diagnosis of Syphilis. Tuesday, Indications for Abdominal Operations. Wednesday, Suppuration in the Maxillary Antrum. Thursday, The Treatment of High Blood Pressure.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Thursday, 4 p.m., Opening Lecture. Friday, Clinic: 10 a.m., Surgical Out-patient; 2.30 p.m., Operations; Clinics: Medical Out-patient, Eye; 3 p.m., Medical In-patien

THE BRITISH MEDICAL ASSOCIATION.

THE BRITISH MEDICAL JOURNAL.

The British Medical Association, established in 1832, exists for the promotion of medicine and the allied sciences, and the maintenance of the honour and interests of the medical profession.

The British Medical Journal, published by the Association for the increase and dissemination of medical knowledge and the discussion of scientific, political and social questions affecting the medical profession, has gained an important circulation throughout the world, and is one of the chief means by which the clinical and scientific work accomplished by British workers is brought to the knowledge of the profession in foreign countries.

The Divisions and Branches of the British Medical Association established throughout the United Kingdom and in most other parts of the British Empire, hold periodical meetings, and a General Meeting of the Association, which all members are entitled to attend, is held once a year. All the proceedings, scientific, clinical, and medico-political, of the Annual General Meeting are promptly reported in The British Medical Journal, and an Epitome of Current Medical Literature, devoted mainly to analyses of foreign medical publications, is published weekly. For the convenience of members, the proceedings of the Association, including those of its Divisions and Branches, relating to medico-political and administrative matters are collected in a Supplement, which forms a part of each weekly issue of The British Medical Journal.

The British Medical Journal, while not neglecting to record the progress of the sciences of physiology, pathology and bacteriology, to the advancement of which the Association annually allots a sum of over £1,000 in Research Scholarships and Grants, is mainly devoted to practical and social medicine, and publishes in every number clinical lectures, essays, addresses, and reports, the majority of the latter being short notes from general practice, the value of which is recognised not only at home, but abroad, being frequently quoted in foreign medical publications.

The British Medical Journal is forwarded weekly, post free, to every member of the British Medical Association wherever he may reside. The annual subscription to the Association is twenty-five shillings. Every medical practitioner who is registered in the United Kingdom, or who, being resident elsewhere in the British Empire, possesses recognised medical qualifications, is eligible to be elected a member of the British Medical Association.

If resident in the United Kingdom or any other part of the Empire where there is a Branch of the Association, a candidate for election should apply to the Honorary Secretary of the Branch, or if resident in a district where there is no Branch, to the Financial Secretary and Business Manager, 429, Strand, London, W.C., who will in all cases supply the necessary form and other information.

HONORARY SECRETARIES OF BRANCHES.

ENGLAND AND WALES.

BATH AND BRISTOL. Mr. W. M. BEAUMONT, 4, *Gay Street, Bath*; and Dr. NEWMAN NEILD, 9, *Richmond Hill, Clifton, Bristol.*
BIRMINGHAM. Mr. ALBERT LUCAS, 9, *Easy Row, Birmingham.*
BORDER COUNTIES. Dr. G. R. LIVINGSTONE, 47, *Castle Street, Dumfries.*
CAMBRIDGE AND HUNTINGDON. Dr. H. B. RODERICK, 19, *Trumpington Street, Cambridge.*
DORSET AND WEST HANTS. Dr. JAMES DAVISON, *Streateplace, Bath Road, Bournemouth.*
EAST ANGLIAN. Dr. B. H. NICHOLSON, *East Lodge, Colchester*; Mr. H. A. BALLANCE, 46, *Prince of Wales Road, Norwich*; and Dr. GUTCH, 30, *Fonnereau Road, Ipswich.*
EAST YORK AND NORTH LINCOLN. Dr. E. TURTON, 1, *Albion Street, Hull.*
GLOUCESTERSHIRE. Dr. D. E. FINLAY, *Wells Dene, Park Road, Gloucester.*
LANCASHIRE AND CHESHIRE. Mr. F. CHARLES LARKIN, 54, *Rodney Street, Liverpool.*
METROPOLITAN COUNTIES. Dr. E. W. GOODALL, *Eastern Fever Hospital, Homerton, N.E.*
MIDLAND. Dr. ROBERT SEVESTRE, 119, *London Road, Leicester.*
NORTH OF ENGLAND. Dr. DAVID F. TODD, *Beech House, Sunderland.*
NORTH LANCASHIRE AND SOUTH WESTMORLAND. Mr. A. S. BARLING, 2, *Queen Square, Lancaster.*
NORTH WALES. Dr. H. JONES ROBERTS, *Llywenarth, Pen-y-Groes, R.S.O.*
OXFORD AND READING. Dr. W. DUIGAN, 66, *Woodstock Road, Oxford.*
PERTHSHIRE. Dr. W. A. TAYLOR, 10, *Marshall Place, Perth.*
SHROPSHIRE MID AND WALES. Dr. R. H. URWICK, 11, *Dogpole, Shrewsbury.*
SOUTH EASTERN. Dr. EDWIN A. STARLING, *Chillingworth House, Lansdowne Road, Tunbridge Wells.*
SOUTHERN. Mr. H. J. MANNING, *Laverstock House Asylum, Salisbury.*
SOUTH MIDLAND. Dr. E. H. HARRIES-JONES, 16, *Castilian Street, Northampton*
SOUTH WALES AND MONMOUTHSHIRE. Dr. ALFRED HANSON, 10, *Cleveland Terrace, Walter Road, Swansea.*
SOUTH WESTERN. Mr. RUSSELL COOMBE, 5, *Barnfield Crescent, Exeter.*
STAFFORDSHIRE. Dr. G. PETGRAVE JOHNSON, 2, *Brook Street, Stoke-on-Trent.*
WEST SOMERSET. Mr. W. B. WINCKWORTH, *Sussex Lodge, Taunton.*
WORCESTERSHIRE AND HEREFORDSHIRE. Dr. C. S. MORRISON, *Firbank, Burghill, Hereford.*
YORKSHIRE. Dr. ADOLPH BRONNER, 33, *Manor Row, Bradford.*

SCOTLAND.

ABERDEEN. Dr. J. F. CHRISTIE, 7, *Alford Place, Aberdeen*; and Dr. T. FRASER, 45, *Elmbank Terrace, Aberdeen.*
BORDER COUNTIES. Dr. G. R. LIVINGSTONE, 47, *Castle Street, Dumfries.*
DUNDEE. Dr. R. COCHRANE BUIST, 166, *Nethergate, Dundee*; *and* Dr. A. P. LOW, *Stirling Street, Dundee.*
EDINBURGH. Dr. F. D. BOYD, C.M.G., 22, *Manor Place, Edinburgh.*
FIFE. Mr. R. BALFOUR GRAHAM, *Seaview House, Leven.*
GLASGOW AND WEST OF SCOTLAND. Dr. WM. D. MACFARLANE, Jun., 17, *Woodside Crescent, Glasgow W.*
NORTHERN COUNTIES OF SCOTLAND. Dr. J. MUNRO MOIR, 4, *Ardross Terrace, Inverness.*
STIRLING. Dr. G. CLARK STEWART, 19, *Graham's Road, Falkirk.*

IRELAND.

CONNAUGHT. Dr. JOHN MILLS, *District Asylum, Ballinasloe.*
LEINSTER. Professor A. H. WHITE, *Malvern, Terenure Road, Dublin.*
MUNSTER. Mr. PHILIP G. LEE, 26, *Patrick's Hill, Cork.*
SOUTH EASTERN OF IRELAND. Dr. JAMES QUIRKE, *Piltown, Co. Kilkenny.*
ULSTER. Dr. CECIL E. SHAW, 29, *University Square, Belfast.*

BRITISH DOMINIONS BEYOND THE SEAS.

ASSAM. Dr. W. A. MURRAY, *Assam Bengal Railway, Lumding, Assam.*
BARBADOS. Dr. W. B. GRANNUM, *Norham, Barbados.*
BERMUDA. Dr. W. E. TUCKER, *Hamilton, Bermuda.*
BOMBAY. Dr. D. R. BARDI, *Albert Building, Fort Bombay.*
BORDER BRANCH, SOUTH AFRICA. Dr. D. M. MACGREGOR, *East London, Cape Colony.*
BRISBANE AND QUEENSLAND. Dr. A. B. BROCKWAY, 51, *Wickham Terrace, Brisbane.*
BRITISH GUIANA. Dr. K. S. WISE, *Public Hospital, Georgetown, Demerara.*
BURMA. Major E. R. ROST, I.M.S., *Rangoon.*
CAPE OF GOOD HOPE: EASTERN PROVINCE. Dr. E. G. DRU DRURY, *Grahamstown.*
CAPE OF GOOD HOPE: WESTERN PROVINCE. Dr. H. A. MOFFAT, *Norwich Union Building, St. George's Street, Cape Town.*
COLOMBO AND CEYLON. Dr. S. C. PAUL, *Ward Place, Colombo.*
GIBRALTAR. Dr. L. D. PARSONS, *Castle Road, Gibraltar.*
GRIQUALAND WEST. Dr. GEO. MINTER BROWN, *Beaconsfield, Cape Colony.*
HALIFAX, NOVA SCOTIA. Dr. D. T. C. WATSON, 108, *Charles and Agricola Streets, Halifax, Nova Scotia.*
HONG KONG. Dr. J. H. SANDERS, *Matilda Memorial Hospital, Hong Kong.*
JAMAICA. Dr. G. F. DA COSTA, 14, *Duke Street, Kingston, Jamaica.*
MALAYA. Dr. G. A. FINLAYSON, *Municipal Offices, Singapore.*
MALTA AND MEDITERRANEAN. Dr. J. S. GALIZIA, 30, *Strada Ghar-id-Dud, Sliema, Malta.*
MELBOURNE AND VICTORIA. Dr. HENRY LAURIE, 49, *Brighton Road, St. Kilda, Victoria.*
NATAL. Dr. P. MURISON, *Durban.*
NEW ZEALAND. Dr. H. E. GIBBS, 123, *Willis Street, Wellington, New Zealand.*
ST. JOHN, NEW BRUNSWICK. Dr. WM. WARWICK, 185, *Princess Street, St. John, N.B.*
SASKATCHEWAN. Dr. J. A. CULLUM, *Regina, Saskatchewan, Canada.*
SOUTH AUSTRALIA. Dr. HENRY F. NEWLAND, *North Terrace, Adelaide.*
SOUTH INDIA AND MADRAS. Dr. MD. AZIZULLAH, 37, *Janay Jehan Khan Road, Triplicane, Madras.*
SYDNEY AND NEW SOUTH WALES. Dr. R. H. TODD, *Northfield Chambers, Phillip Street, Sydney.*
TORONTO. Dr. W. B. THISTLE, 171, *College Street, Toronto.*
TRANSVAAL. Dr. G. D. MAYNARD, *P.O. Box* 1286, *Pretoria.*
TRINIDAD AND TOBAGO. Dr. E. PRADA, *St. Clair, Port of Spain*
WESTERN AUSTRALIA. ALBERT E. MARTIN, M.D., F.R.C.S., *Surrey Chambers, St. George's Terrace, Perth.*

It is the custom to publish in each issue of The British Medical Journal, in addition to numerous clinical papers, one or more clinical lectures or addresses on clinical subjects. Among those for the publication of which during 1910 arrangements have already been made, are the following :—

ON PNEUMONIA, by WILLIAM OSLER, M.D., F.R.S., *Regius Professor of Medicine, Oxford.*

ON PLEURAL EFFUSION, by SIR THOMAS OLIVER, M.D., F.R.C.P., *Physician Royal Victoria Infirmary, Newcastle-on-Tyne ; Professor of Physiology University of Durham.*

ON MENTAL AND CARDIAC STRAIN, by SIR LAUDER BRUNTON, M.D., F.R.S., *Consulting Physician to St. Bartholomew's Hospital.*

ON DISEASE OF THE HEART AND CIRCULATION and ON THE TREATMENT OF DYSPEPSIA, by DAVID DRUMMOND, M.A., M.D., *Senior Physician Royal Victoria Infirmary, Newcastle-on-Tyne, and Joint Lecturer on the Principles and Practice of Medicine in the University of Durham.*

ON THE CHARACTER OF FLUIDS WITHDRAWN FROM THE PERITONEAL SAC IN CASES OF ASCITES AND OTHER ACCUMULATIONS, by R. G. HEBB, M.D., F.R.C.P., *Physician to the Westminster Hospital, Consulting Pathologist Queen Charlotte's Hospital.*

ON RHEUMATISM AND RHEUMATOID CONDITIONS, by CHARLES J. MACALISTER, M.D., *Lecturer on Clinical Medicine University of Liverpool, and Honorary Physician and Lecturer on Practical Medicine Liverpool Royal Southern Hospital.*

ON INJURIES OF THE HEART, by J. BLAND-SUTTON, F.R.C.S., *Senior Surgeon Chelsea Hospital for Women, Surgeon and Lecturer on Surgery Middlesex Hospital.*

ON THE USES OF COLCHICUM, by G. A. GIBSON, M.D., F.R.C.P., *Physician Royal Infirmary, Edinburgh, Consulting Physician Deaconesss Hospital.*

ON SOME POINTS IN THE SURGERY OF THE BRAIN, by SIR VICTOR HORSLEY, F.R.S., F.R.C.S., *Surgeon to the National Hospital for the Paralysed and Epileptic, Queen Square.*

ON THE CEREBELLUM AND ITS AFFECTIONS, being the Lettsomian Lectures, by J. S. RISIEN RUSSELL, M.D., F.R.C.P., *Physician University College Hospital.*

ON ANOREXIA NERVOSA, by W. HALE WHITE, M.D., F.R.C.P., *Senior Physician Guy's Hospital.*

ON NERVE STORMS, by GUTHRIE RANKIN, M.D., F.R.C.P., *Physician Seamen's Hospital Society, and Royal Waterloo Hospital for Children and Women.*

ON THE TREATMENT OF TYPHOID FEVER, by F. J. SMITH, M.D., F.R.C.P., *Physician and Senior Pathologist London Hospital.*

ON THE TREATMENT OF CANCER OF THE ŒSOPHAGUS, by W. ARBUTHNOT LANE, M.S., *Surgeon to Guy's Hospital, and to the Hospital for Sick Children, Great Ormond Street.*

ON SOME POINTS IN DISEASES OF THE STOMACH, by CHARLES BOLTON, M.D., M.R.C.P., *Assistant Physician University College Hospital.*

ON THE SURGICAL TREATMENT OF GASTRIC ULCER AND THE COMPLICATIONS OF ULCER, by KEITH W. MONSARRAT, F.R.C.S. ED., *Surgeon to the Northern Hospital, and Lecturer on Clinical Surgery University of Liverpool.*

ON THE EARLY DIAGNOSIS OF CARCINOMA OF THE STOMACH, by C. W. MANSELL MOULLIN, M.D., F.R.C.S., *Senior Surgeon London Hospital.*

ON DUODENAL ULCER, by A. F. HERTZ, M.D., *Assistant Physician and Physician in Charge Electrical Department Guy's Hospital ; Demonstrator in Morbid Anatomy Guy's Hospital Medical School.*

ON APPENDIX DYSPEPSIA, by B. G. A. MOYNIHAN, M.S., F.R.C.S., *Surgeon Leeds General Infirmary.*

ON THE DIAGNOSIS OF ACUTE INTESTINAL OBSTRUCTION, by H. BETHAM ROBINSON, M.D., M.S., F.R.C.S., *Lecturer on Practical Surgery St. Thomas's Hospital ; Consulting Surgeon East London Hospital for Children.*

ON THE SURGERY OF THE HEPATIC AND COMMON BILE DUCTS, WITH NOTES OF A SUCCESSFUL CASE OF HEPATICO-CHOLEDOCHOSTOMY, by J. LYNN THOMAS, C.B., F.R.C.S., *Surgeon Cardiff Infirmary.*

ON THE TREATMENT OF INGUINAL HERNIA BY OPERATION, by C. YELVERTON PEARSON, F.R.C.S. Eng., M.D.R.U.I., *Surgeon Cork North Infirmary, Professor of Surgery Queen's College, Cork.*

ON THE TREATMENT OF CHRONIC NEPHRITIS, by ALFRED G. BARRS, M.D., F.R.C.P., *Honorary Physician Leeds General Infirmary, Professor of Medicine University of Leeds.*

ON SEPTIC PYELITIS AND PYELONEPHRITIS, by W. P. HERRINGHAM, M.D., F.R.C.P., *Physician and Lecturer on Forensic Medicine, St. Bartholomew's Hospital, and Consulting Physician Paddington Green Children's Hospital.*

ON URÆMIC RASHES, by H. D. ROLLESTON, M.D., F.R.C.P., *Senior Physician St. George's Hospital, Physician Victoria Hospital for Children.*

ON SUGGESTIONS CONCERNING THE RELATIONS OF TUBERCLE, SYPHILIS, AND MALIGNANT DISEASE, by J. RUTHERFORD MORISON, F.R.C.S., *Senior Surgeon Newcastle-on-Tyne Royal Victoria Infirmary.*

ON TUBERCULOUS DISEASE OF JOINTS, by F. C. WALLIS, F.R.C.S., *Surgeon to Charing Cross Hospital.*

ON RADIUM: SOME OF ITS PHYSICAL AND THERAPEUTIC PROPERTIES, by J. MACKENZIE DAVIDSON, M.B., C.M., *Medical Officer in Charge Röntgen Ray Department, Royal London Ophthalmic Hospital, and Consulting Medical Officer X-Ray Department, Charing Cross Hospital.*

ON THE SURGICAL TREATMENT OF CERTAIN CASES OF GLYCOSURIA, by A. W. MAYO ROBSON, F.R.C.S., *Emeritus Professor of Surgery University of Leeds; Honorary Surgeon Dreadnought Hospital.*

ON ELASTIC TRACTION IN SURGERY, by G. A. WRIGHT, F.R.C.S., *Surgeon Manchester Royal Infirmary, Consulting Surgeon Hospital for Children, Pendlebury; Professor of Surgery University of Manchester.*

ON DERANGEMENTS OF THE KNEE, by ROBERT JONES, F.R.C.S. Ed., *Honorary Surgeon Royal Southern Hospital, and Surgeon Liverpool Country Hospital for Children.*

ON A TRAUMATIC CAUSE OF CHRONIC MASTITIS, by G. LENTHAL CHEATLE, C.B., F.R.C.S., *Surgeon King's College Hospital.*

The Annual Meeting for 1910 will be held in London. In addition to the address of the President, Mr. Butlin, and the addresses in Medicine and Surgery, and the proceedings of the Annual Representative Meeting, which begins on Friday, July 22nd, full reports of the meetings of the Sections will be published in The British Medical Journal at an early date after the meeting.

The membership of the British Medical Association is twenty-one thousand. The circulation of The British Medical Journal is between twenty-four and twenty-five thousand a week; it reaches every part of the British Empire and every civilized country in the world.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
JANUARY.	
1 SATURDAY ..	SUBSCRIPTIONS to the British Medical Association for 1910 become due.
2 Sunday ..	
3 MONDAY ..	
4 TUESDAY ..	
5 WEDNESDAY	LONDON: Medico-Political Committee, 2 p.m.
6 THURSDAY ..	LONDON: Hospitals Committee, 2.30 p.m.
7 FRIDAY ..	LONDON: Organization Committee, 10 a.m. LONDON: Central Ethical Committee, 2 p.m. LONDON: Territorial Forces Committee, 3 p.m.
8 SATURDAY ..	LONDON: Standing Library Subcommittee, 11.15 a.m. LONDON: Science Committee, 12 noon.
9 Sunday ..	
10 MONDAY ..	LONDON: Colonial Committee, 2.45 p.m.
11 TUESDAY ..	LONDON: Public Health Committee, 3 p.m.
12 WEDNESDAY	LONDON: Special Poor Law Reform Committee, 2.30 p.m. ST. PANCRAS AND ISLINGTON DIVISION, *Metropolitan Counties Branch*, Midland Grand Hotel, 9 for 9.15 p.m.
13 THURSDAY..	BIRMINGHAM BRANCH, Medical Institute, Edmund Street, 3.30 p.m. LAMBETH DIVISION, *Metropolitan Counties Branch*, Lambeth Infirmary, Brook Street, S.E., 4 p.m.

Date.	Meetings to be Held.
JANUARY *(Continued).*	
14 FRIDAY ..	
15 SATURDAY ..	
16 Sunday ..	
17 MONDAY ..	
18 TUESDAY ..	
19 WEDNESDAY	LONDON: Journal and Finance Committee, 2.30 p.m. CARDIFF DIVISION, *South Wales and Monmouthshire Branch*, Cardiff.
20 THURSDAY ..	LONDON: Metropolitan Counties Branch Council, 4.30 p.m.
21 FRIDAY ..	HAMPSTEAD DIVISION, *Metropolitan Counties Branch*, Great Central Hotel, Marylebone, Dinner to Dr. Ford Anderson. TOTTENHAM DIVISION, *Metropolitan Counties Branch*, 6, Crescent Road, Crouch End, 9.15 p.m.
22 SATURDAY ..	
23 Sunday ..	
24 MONDAY ..	
25 TUESDAY ..	
26 WEDNESDAY	**London: Central Council, 2 p.m.** BATH AND BRISTOL BRANCH, Bristol. RICHMOND DIVISION, *Metropolitan Counties Branch*, Royal Hospital, Richmond, 8.30 p.m.
27 THURSDAY ..	

Printed and Published by the British Medical Association at their Offices, No. 429, Strand, in the Parish of St. Martin-in-the-Fields in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JANUARY 8TH, 1910.

CONTENTS.

	PAGE
Meetings of Branches and Divisions:	
Metropolitan Counties Branch: Hampstead Division... ...	17
Lancashire and Cheshire Branch: Blackburn Division ...	17
ASSOCIATION NOTICES.—ANNUAL SUBSCRIPTION, 1910—COUNCIL MEETING	18
VITAL STATISTICS	18
NAVAL AND MILITARY APPOINTMENTS	18
VACANCIES AND APPOINTMENTS	19
BIRTHS, MARRIAGES, AND DEATHS	19
PUBLISHERS' ANNOUNCEMENTS	19
DIARY FOR THE WEEK	20
CALENDAR	20

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

METROPOLITAN COUNTIES BRANCH:
HAMPSTEAD DIVISION.

A MEETING of this Division was held on December 17th, 1909, at the Hampstead Conservatoire, at 4.30 p.m., Mr. H. W. ARMIT in the chair.

Papers.—Dr. E. A. DORRELL read a paper on refraction of the eyes in children, which was heard with great interest.

Special Class of Consultants.—A discussion took place on the report of the Central Ethical Committee on a special class of consultants. Dr. OPPENHEIMER moved that the reply to Question 1 be in the following terms:

> That the Division is in favour of the recognition of a class of pure consultants but not on the lines indicated in the report.

Members who supported the resolution considered that the report was bad in principle, and took exception to many of the recommendations, especially those in regard to the consultant's collaboration with a practitioner not the medical attendant of the patient, which was regarded as a most awkward one. It was thought that the rules and recommendations were acceptable neither to the consultant nor to the general practitioner. A suggestion to refer the report to a sub-committee, on the ground that it would not help the matter forward to return an answer of mere disagreement with the proposals, but that some suggestions should accompany the answer sent by the Division, was moved and seconded. But when it was pointed out that it was chiefly on account of the necessity for mature and deliberate consideration and useful suggestion that the first resolution had been moved, Dr. Oppenheimer's proposal was agreed to, and it was further resolved to refer the report to the Executive Committee of the Division for criticism and suggestions.

Treatment of School Children.—Understanding that the London County Council could not give a definite answer to the proposals put forward by the Public Medical Service before the end of February, 1910, and in consideration of the necessity of treating children in the meantime, Mr. ARMIT proposed, and it was resolved:

> That the Division will raise no objection to the continuance of the present temporary arrangements for the treatment of school children until Easter.

The meeting adjourned about 6.30 p.m.

LANCASHIRE AND CHESHIRE BRANCH:
BLACKBURN DIVISION.

A MEETING of this Division was held on December 31st, 1909. Dr. BANNISTER (Chairman) presided, and there were present Drs. Prebble, Jamieson, Postlethwaite, Gregson, Greenwood.

Confirmation of Minutes.—The minutes of the last meeting were confirmed.

Questions to Candidates for Parliament.—It was resolved that the memoranda and questions on Parliamentary subjects sent by the British Medical Association to Divisions, and which affect the medical profession and public health, should be sent to Parliamentary candidates in this district—namely, Lord Robert Cecil, Sir Thomas Barclay, Mr. Bowles, Mr. Snowdon (Blackburn); Mr. Rutherford and Mr. Hindle (Darwen); Mr. Jessel and Mr. Baker (Accrington); and Mr. Shackleton and Mr. Smith (Clitheroe). The Secretary was also instructed to send a covering explanatory letter to each candidate, which he did the same evening, as follows:

Health Office, Blackburn,
December 31st, 1909.

Dear Sir,—As the Honorary Secretary of the Blackburn Division of the British Medical Association, which has a membership of 21,000, I have been instructed to send the enclosed questions to you with a request that you may be able to answer them. Will you kindly let me have them back as early as possible, in order that they may be submitted to a future meeting of the Division before the General Election? Our Division considered that you would prefer to send the returns by post than to receive a deputation at this busy time. I enclose stamped addressed envelope.

I am,
Your obedient servant,
ALFRED GREENWOOD.

☞ *To ensure the insertion of notices in this column, they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

Association Notices.

ANNUAL SUBSCRIPTION, 1910.

MEMBERS are reminded that the Annual Subscription, amounting to 25s., is now due.

Cheques or Postal Orders should be made payable to the British Medical Association, and crossed London County and Westminster Bank.

In the case of Colonial Members the subscription should be paid to the Honorary Treasurer of their respective Branches.

COUNCIL MEETING

A MEETING of the Council will be held at 2 o'clock in the afternoon of Wednesday, January 26th, in the Council Room at 429, Strand, London, W.C.

By Order,

GUY ELLISTON.

Financial Secretary and Business Manager.

December 30th, 1909.

BRANCH AND DIVISION MEETINGS TO BE HELD

BIRMINGHAM BRANCH: CENTRAL DIVISION. — A general meeting of this Division will be held at the Medical Institute on Wednesday, January 19th, at 4 p.m., to consider the Central Ethical Committee's report on the "Recognition of a special class of consultants."—A. W. NUTHALL and W. T. LYDALL, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: KENSINGTON DIVISION.—The Executive Committee has the pleasure to announce that Sir Almroth Wright has consented to give an address and demonstration on Vaccine Therapy on Thursday, February 3rd, at 4.30 p.m., at St. Mary's Hospital.—H. BECKETT-OVERY, Honorary Secretary, 24, Alexander Square, S.W.

METROPOLITAN COUNTIES BRANCH: LAMBETH DIVISION.—A meeting of this Division will be held on Thursday, January 13th, at 4 p.m., at the Lambeth Infirmary, Brook Street, S.E., when Dr. E. W. Goodall will read a paper, illustrated by lantern slides, on Some of the Difficulties of the Diagnosis of Common Infectious Diseases.—H. CHARLES CAMERON, M.B., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH; ST. PANCRAS AND ISLINGTON DIVISION.—A meeting of this Division will be held at the Midland Grand Hotel on January 12th, at 9 for 9.15 p.m. Dr. R. M. Beaton, L.C.C., will open a discussion on School Clinics.—WILLIAM GRIFFITH, M.B., Honorary Secretary.

ULSTER BRANCH.—The winter meeting of this Branch will be held in Belfast on Thursday, January 27th, at 4 p.m. Members having communications to make to the meeting are requested to send particulars not later than January 17th to CECIL SHAW, M.D., Honorary Secretary, 29, University Square, Belfast.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 7,744 births and 5,277 deaths were registered during the week ending Saturday last, January 1st. The annual rate of mortality in these towns, which had been 15.0 and 15.4 per 1,000 in the two preceding weeks, further rose last week to 16 7 per 1,000. The rates in the several towns ranged from 4 5 in Handsworth (Staffs), 7.0 in King's Norton and in Bury, 8 0 in East Ham and in Leyton, 8.2 in Hornsey, and 9.1 in Willesden, to 22.3 in Middlesbrough, 23.2 in Sunderland, 23.3 in Halifax and in Merthyr Tydfil. 24.8 in Huddersfield, 25.1 in Ipswich, 25 8 in Hanley, 27.3 in Barrow-in-Furness, and 28.0 in Birkenhead. In London the rate of mortality was 16 2 per 1,000, while it averaged 16.9 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 0.9 per 1,000 in the seventy-six towns; in London these diseases caused a death-rate of 0.7 per 1.000, while among the seventy-five other towns the rates ranged upwards to 2'1 in Northampton and in Plymouth, 2.2 in West Bromwich and in Smethwick, 2 3 in Sunderland, 2.4 in Salford, 2.7 in Swansea, 3.3 in Barrow-in-Furness, 4.3 in Birkenhead, and 6.1 in Hanley. Measles caused a death rate of 1.6 in Swansea, 2.1 in Northampton, and 3.4 in Birkenhead; diphtheria of 2.5 in Barrow-in-Furness, and 3.0 in Hanley; whooping-cough of 1.5 in Walthamstow and in Smethwick, 1.6 in Derby, and 2.3 in Hanley; and diarrhoea of 2.0 in Stockton-on-Tees. The mortality from scarlet fever and from enteric fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The number of small-pox patients under treatment in the Metropolitan Asylums Hospitals, which had been 4 on each of the two preceding Saturdays, was again 4 at the end of last week; one new case was admitted during each of the last four weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospitals, which had declined from 2,810 to 2,361 in the eleven preceding weeks, was 2,362 on Saturday last; 244 new cases were admitted during the week, against 266, 254, and 224 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday last, January 1st, 781 births and 675 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 23 8, 19.6, and 19 5 per 1,000 in the three preceding weeks, further declined to 18.9 in the week under notice, but was 2 2 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scottish towns the death-rates ranged from 12.5 in Paisley and 13.5 in Aberdeen, to 23.7 in Dundee and 23.8 in Greenock. The death-rate from the principal infectious diseases averaged 2.4 per 1,000 in these eight towns, the highest rates being recorded in Glasgow and Edinburgh. The 347 deaths registered in Glasgow included 49 which were referred to measles, 3 to scarlet fever, 4 to diphtheria, 3 to whooping-cough, and 3 to diarrhoea. Thirteen fatal cases of measles were recorded in Edinburgh, and 4 of diarrhoea in Aberdeen.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, December 25th, 1909, 402 births and 399 deaths were registered in the twenty-two principal urban districts of Ireland, as against 556 births and 508 deaths in the preceding period. The annual death-rate in these districts, which had been 20.1, 23.2, and 21.7 per 1,000 in the three preceding weeks, fell to 18.2 per 1,000 in the week under notice, this figure being 2.8 per 1,000 higher than the mean annual death-rate in the seventy-six English towns for the corresponding period. The figures in Dublin and Belfast were 19.6 and 19.4 respectively, those in other districts ranging from 4 8 in Sligo and 6.9 in Armagh to 31.0 in Portadown and 33.5 in Ballymena, while Cork stood at 11.6, Londonderry at 18.1, Limerick at 16.4, and Waterford at 13.6. The zymotic death-rate in the twenty-two districts averaged 0.8 per 1,000, as against 1.2 per 1,000 in the preceding period.

During the week ending Saturday, January 1st, 684 births and 557 deaths were registered in the twenty-two principal urban districts of Ireland, as against 402 births and 399 deaths in the preceding period. The annual death-rate in these districts, which had been 23.2, 21.7, and 18 2 per 1,000 in the three preceding weeks, rose to 25.4 per 1,000 in the week under notice, this figure being 8.7 per 1,000 higher than the mean annual death-rate in the seventy-six English towns for the corresponding period. The figures in Dublin and Belfast were 25.9 and 25.6 respectively, those in other districts ranging from 8 0 in Dundalk and 11.7 in Waterford, to 43 1 in Ballymena and 43 2 in Sligo, while Cork stood at 28.8, Londonderry at 21.7, and Limerick at 21 9. The zymotic death-rate in the twenty-two districts averaged 1 5 per 1,000, as against 0.8 per 1,000 in the preceding period.

Naval and Military Appointments.

EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s 6d, which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

FIELD officer just returned from abroad is willing to exchange to India. Apply to Eastern Exchange, c.o. Messrs. Holt and Co.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: Staff Surgeon W. P. DYER, to the *Edgar*, for medical charge on the voyage home, undated; Staff Surgeon J. VERDON, to the *Kinsha*, on recommissioning; Surgeon G. F. SYMS, to the *Bellerophon*, December 24th, 1909; Surgeon H. W. NICHOLLS, to the *Moorhen*, December 24th, 1909; Surgeon M. P. FITZGERALD, M B., to the *Robin*, December 24th, 1909; Surgeon A. G. MALCOLM, M.B., to the *Implacable*, December 24th, 1909; Surgeon J. H. BURDETT, to the *Superb*, December 24th, 1909; Surgeon A. A. SANDERS, M.B., to the *Indomitable*, December 24th, 1909; Surgeon W. P. HINGSTON, to the *Pembroke*, additional, for disposal, December 22nd, 1909, and to the *Patrol*, December 24th, 1909; Surgeon R. P. M. ROBERTS, to the *Teal*, additional, December 24th, 1909, and on recommissioning; Surgeon G. A. JACKSON, M B., to the *Woodcock*, additional, December 24th, 1909, and on recommissioning; Surgeon C. ROSS, M.B., to the *Woodlark*, on recommissioning; Surgeon W. H. EDGAR, M.B., to the *Snipe*, additional, December 24th, 1909, and on recommissioning; Surgeon M. J. LAFFAN, M B., to the *Edgar*, for duty on the voyage out, to join at Gibraltar, December 24th, 1909, and to the *Bramble*, on recommissioning; Surgeon G. G. VICKERY, M.B., to the *Britomart*, December 24th, 1909, and on recommissioning; Surgeon B. R. BICKFORD, to the *Thistle*, additional, December 24th, 1909, and on recommissioning; Surgeon A. J. MACDIARMID, M.B., to the *Waterwitch*, additional, December 24th, 1909, and on recommissioning; Surgeon C. F. BAINBRIDGE, M.B., to the *Widgeon*, additional, December 24th, 1909, and on recommissioning; Staff Surgeon R. W. G. STEWART, M.B., to the *Melpomene*, on recommissioning, January 11th; Staff Surgeon E. C. SAWDY, to the *Hampshire*, December 31st, 1909; Surgeon T. CREASER, M.B., to the *Victory*, additional, for disposal, undated.

ARMY MEDICAL SERVICE.

COLONEL J. M. JONES is placed on retired pay, January 2nd. He was appointed Surgeon, March 6th, 1880; Surgeon-Major, March 6th, 1892; Lieut.-Colonel, March 6th, 1900; and Colonel, September 18th, 1907. He served in the Zulu war in 1879 as a Civil Surgeon, receiving a medal with clasp. At the time of his retirement he was Principal Medical Officer in Egypt.

Lieutenant-Colonel T. J. R. LUCAS, C.B., M.B., from the Royal Army Medical Corps, is promoted to be Colonel, vice J. M. Jones, January 2nd.

Colonel Lucas's previous commissions are thus dated: Surgeon, February 5th, 1881; Surgeon-Major, February 5th, 1893; and Lieutenant-Colonel, February 5th, 1901. His war record is as follows: Egyptian Expedition, 1882-4, including the action at Kassassin of August 28th and battle of Tel-el-Kebir (mentioned in dispatches, medal with clasp; bronze star); Soudan, 1884, battles of Teb and Tamai (mentioned in dispatches, 2 clasps). Soudan Expedition, 1884-5, with camel bearer company, action of Abu Klea and engagements near Metammeh (2 clasps). Soudan Frontier Field Force, 1885-6. Burma, 1892-3, operations in the Northern Chin Hills (mentioned in dispatches, medal with clasp). South African War, 1899-1902, in charge of No. 4 General Hospital, including operations in Natal and relief of Ladysmith (several times mentioned in dispatches, Queen's medal with clasp, King's medal with 2 clasps, and appointed C.B.)

ROYAL ARMY MEDICAL CORPS.

Major M. SWABEY, who is serving in India, is appointed Specialist in Midwifery and Diseases of Women and Children in the 5th (Mhow) Division.

TERRITORIAL FORCE.

ROYAL GARRISON ARTILLERY.

Cornwall (Duke of Cornwall's).—Surgeon-Lieutenant E. G. ANDREW. to be Surgeon-Captain, October 5th, 1909.

INFANTRY.

Seventh and Eighth Battalions (Leeds Rifles) the Prince of Wales's Own (West Yorkshire) Regiment.—Surgeon-Captain ALEXANDER MACKENZIE, M.B., resigns his commission, November 20th, 1909.

ROYAL ARMY MEDICAL CORPS.

First South Midland Mounted Brigade Field Ambulance.—DOUGLAS M. SPRING, M.B., to be Lieutenant, October 30th, 1909.

Yorkshire Mounted Brigade Field Ambulance.—GEORGE S. WILLIAMSON, to be Lieutenant, November 1st, 1909.

Third London (City of London) Field Ambulance—Supernumerary Lieutenant R. M. VICK, is restored to the Establishment, December 8th, 1909.

Second Lowland Field Ambulance.—Lieutenant J. K. PATRICK, M.B, to be Captain, December 8th, 1909.

First North Midland Field Ambulance.—Lieutenant E. A. WRAITH, to be Captain, November 26th, 1909.

Second North Midland Field Ambulance—Major W. P. PEAKE, to be Lieutenant-Colonel, November 5th, 1909.

First South Midland Field Ambulance.—Lieutenant G. W. CRAIG, to be Captain, October 8th, 1909.

Third Northern General Hospital.—Major W. S. PORTER, M.D., to be Lieutenant-Colonel, April 18th, 1909.

Attached to Units other than Medical Units.—Lieutenant D. H. WEIR, M.D, to be Captain, August 10th, 1909. Captain H. N. A. TAYLOR, M.D., is restored to the Establishment, September 6th, 1909. Lieutenant HENRY GOUDIE to be Captain, November 5th, 1909. Captain C. A. GOULLET to be Major, December 5th, 1909.

For Attachment to Units other than Medical Units.—Surgeon-Lieutenant-Colonel and Honorary Surgeon-Colonel F. J. WALKER, M.D., from the 5th Battalion the Lincolnshire Regiment, to be Lieutenant-Colonel with the honorary rank of Surgeon-Colonel, September 1st, 1909.

TERRITORIAL DECORATION.

THE undermentioned officers have been granted the Territorial Decoration under the terms of the Royal Warrant, dated August 17th, 1909:

INFANTRY,

Fourth Battalion the Duke of Edinburgh's (Wiltshire Regiment).—Surgeon-Major and Honorary Surgeon-Lieutenant-Colonel H. P. TAYLER, M.B.

ROYAL ARMY MEDICAL CORPS.

First West Lancashire Field Ambulance.—Lieutenant-Colonel F. J. KNOWLES.

Second Lowland Field Ambulance.—Lieutenant-Colonel A. D. MOFFAT.

Major W. H. BROWN, attached to the Northumberland (Fortress) Royal Engineers.

Major and Honorary Surgeon-Lieutenant-Colonel F. V. ADAMS, attached to the 5th Battalion, The Cameronians (Scottish Rifles).

Lieutenant-Colonel and Honorary Surgeon-Colonel DAVID LENNOX, M.D., attached to the 4th (City of Dundee) Battalion, The Black Watch (Royal Highlanders).

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

ABERDEEN ROYAL INFIRMARY.—Assistant Surgeon.

ASHTON-UNDER-LYNE: DISTRICT INFIRMARY AND CHILDREN'S HOSPITAL.—Senior House-Surgeon. Salary, £120 per annum and fees.

BRISTOL ROYAL INFIRMARY.—Honorary Assistant Dental Surgeon.

BRISTOL UNIVERSITY.—(1) Demonstrator of Anatomy; (2) Demonstrator in Physiology. Salary, £80 per annum, rising to £200 each.

CALCUTTA: LADY DUFFERIN VICTORIA HOSPITAL.—Senior House-Surgeon. Salary, Rs.250 per mensem.

CAMBRIDGE: ADDENBROOKE'S HOSPITAL.—Second House-Surgeon. Salary, £60 per annum.

CANCER HOSPITAL, Fulham Road, S.W.—Surgical Registrar. Honorarium, 50 guineas per annum.

CARDIFF INFIRMARY.—House-Surgeon. Honorarium, £30 for six months.

CARDIFF MENTAL HOSPITAL, Whitchurch, near Cardiff.—Physiological Chemist for research work. Salary, £200 per annum.

CARLISLE NON-PROVIDENT DISPENSARY.—Resident Medical Officer. Salary £150 per annum.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.—Senior House-Surgeon. Salary, £120 per annum.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Pathologist. Salary, 100 guineas per annum.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

GRIMSBY AND DISTRICT HOSPITAL.—House-Surgeon. Salary, £120 per annum.

HANTS COUNTY HOSPITAL, FAREHAM.—Third Assistant Medical Officer. Salary, £160 per annum.

JOHANNESBURG HOSPITAL.—Medical man to take charge of X-Ray and Electrical Department. Salary at the rate of £500 per annum.

LANARK COUNTY COMMITTEE ON SECONDARY EDUCATION.—Two Juuior Medical Inspectors. Salary, £250 per annum each.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Pathologist and Bacteriologist. Honorarium at the rate of 50 guineas per annum.

LONDON THROAT HOSPITAL, Great Portland Street, W.—House-Surgeon. Honorarium, £50 a year.

METROPOLITAN EAR, NOSE, AND THROAT HOSPITAL, Grafton Street, W.—Assistant-Surgeon.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Hampstead and Northwood.—Physician.

NEW ZEALAND: OTAGO UNIVERSITY, Dunedin.—Bacteriologist and Lecturer in Public Health, duties to include Health Officer. Salary, £500 per annum, rising to £600.

PRESTON ROYAL INFIRMARY.—Junior House-Surgeon. Salary, £60 per annum.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W.—Pathologist and Registrar. Remuneration at the rate of £80 per annum.

ROYAL NAVY.—Two Dental Surgeons for the Naval Forces in the United Kingdom. Salary, £1 per diem.

ROYAL WATERLOO HOSPITAL FOR CHILDREN.—Honorary Physician to Out-patients.

RYDE: ROYAL ISLE OF WIGHT COUNTY HOSPITAL.—Resident House-Surgeon (male). Salary £125 per annum.

ST. PETER'S HOSPITAL, Henrietta Street, W.C.—Three Clinical Assistants for the Out-patient Department.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W.—Clinical Assistants.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Junior House-Surgeon. Salary at the rate of £80 per annum.

SEAMEN'S HOSPITAL SOCIETY.—Assistant Physician and Assistant Surgeon at the Dreadnought Hospital, Greenwich.

SOUTHAMPTON: FREE EYE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

STOCKPORT INFIRMARY.—Junior House-Surgeon. Salary, £80 per annum.

WEST END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM.—(1) Honorary Gynaecologist. (2) Honorary Assistant-Surgeon.

WEST LONDON HOSPITAL, Hammersmith Road, W.—Surgeon.

WEST RIDING OF YORKSHIRE COUNTY COUNCIL, Wakefield.—Medical Inspector of School Children. Salary, £300 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces vacancies at Aberdeen, co. Aberdeen; Eyam, co. Derby; and Skibbereen, co. Cork.

APPOINTMENTS.

MINETT, E. P., M.R.C.S., L.R.C.P.Lond., Bacteriologist to the Royal London Ophthalmic Hospital (Moorfields Eye Hospital).

RAYNER, H. H., M.B., B.Ch.Vict., F.R.C.S.Eng., Honorary Surgeon for Children at the Northern Hospital, Manchester.

ROSS, J. Macdonald, M.B., Ch.B., D.P.H., Parochial Medical Officer, Public Vaccinator, and Medical Officer of Health, Parish of Morvern, Argyllshire

---

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d, which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTH.

MARTIN.—On January 1st, 1910, at 49, Hollycroft Avenue, Hampstead, N.W., to Dr. and Mrs. Alfred E. Martin, a son. West Australian and New Zealand papers please copy.

DEATHS.

HEYWOOD SMITH.—On January 2nd, at 40, Portland Court, W., Emily Ann Gertrude, wife of Heywood Smith, M.D, aet. 67.

JOY.—On January 4th, 1910, at the Manor House, Tamworth, John Holmes Joy, M.A., M.D., J.P., H.M. Coroner for East Staffs, in his 68th year.

PUBLISHERS' ANNOUNCEMENTS.

MR. ROBERT CULLEY, of the Methodist Publishing House, will shortly issue a new series of "National Health Manuals," under the able editorship of Dr. T. N. Kelynack. All forms of social effort and enterprise, in so far as they touch medico-sociological problems, will be dealt with. It is stated that each chapter in every volume will be written by a well-known medical expert. The series will consist of twelve volumes. The first volume, dealing with "Infancy," will appear early in the new year.

We have received a copy of *Saunders' Illustrated Catalogue of Medical and Surgical Publications* revised to November, 1909, and incorporating many new books and new editions. Detailed

particulars of each book are given, and many beautifully executed specimens of the illustrations of the publications are given. Particular attention may be called to the specimen plate from Dr. William H. Deaderick's *Practical Study of Malaria*, in which the various forms of malarial parasites are shown delicately coloured.

A new edition of Shakespeare's works is announced. The publishers are the Caxton Publishing Company, and the editor is Dr. Sidney Lee. It is pointed out that for some forty years no completely annotated edition entitled to standard rank in right both of typographic form and scholarship has been issued. This undertaking is now about to be realized, and the first few volumes will be issued immediately. The work has been in progress for six years. The editor has associated with himself some of the foremost Shakespearian scholars and critics, including Professors Dowden, Raleigh, Brander Matthews, and Saintsbury, together with Messrs. Theodore Watts Dunton, William Archer, Austin Dobson, Edmond Gosse, Arthur Symons, Andrew Lang, and others. W. E. Henley and A. C. Swinburne were associated with the early stages of the enterprise, and their work is also included. The most eminent living artists, among others being Frank Brangwin, Arthur Rackham, Hon. John Collier, Solomon J. Solomon, Byam Shaw, Frank Dicksee, Bernard Partridge, and J. Walter West, have been selected to illustrate the plays, and their original designs are reproduced as frontispieces. The issue of the *Caxton Shakespeare* will consist of twenty volumes, square octavo, beautifully printed in bold type.

DIARY FOR THE WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Pathological evening. Specimens will be exhibited by Dr. Parkes Weber.

TUESDAY.

ROYAL SOCIETY OF MEDICINE;

MEDICAL AND SURGICAL SECTIONS, 20, Hanover Square, 5.30 p.m.—Adjourned Joint Debate on The Diagnosis and Treatment of Duodenal Ulcer.

SOCIETY FOR THE STUDY OF INEBRIETY, 11, Chandos Street, W., 4 p.m.—Discussion on Alcoholism and Crime, to be opened by Dr. A. Wilson.

WEDNESDAY.

HUNTERIAN SOCIETY, London Institution, Finsbury Circus, 8.30 p.m.—The second Hunterian Lecture; Mr. Mansell Moullin: On the Early Diagnosis of Carcinoma of the Stomach.

UNITED SERVICES MEDICAL SOCIETY, Royal Army Medical College, Grosvenor Road, S.W., 8.30 p.m.—Paper: Lieutenant-Colonel J. B. Wilson, R.A.M.C.: Management of Venereal Disease at Woolwich.

THURSDAY.

ROYAL SOCIETY OF MEDICINE:

OBSTETRICAL AND GYNAECOLOGICAL SECTION, 20, Hanover Square, 7.45 p.m.—(1) Exhibition of Specimens. (2) Short Communication: Dr. Inglis Parsons: Notes on a Case of Prolapsus Uteri with Severe Cardiac Disease, operated on under Local and Spinal Analgesia. (3) Paper: Mrs. Scharlieb: The Relative Frequency of Malignancy in Ovarian Tumours.

FRIDAY.

ROYAL SOCIETY OF MEDICINE:

CLINICAL SECTION, 20, Hanover Square, 8 p.m.—Demonstration of Cases.

POST-GRADUATE COURSES AND LECTURES.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin. Tuesday, Medical. Wednesday, Surgical. Thursday, Surgical. Friday, Ear, Nose, and Throat. Lectures at 5.15 p.m. each day will be given as follows: Monday, Ophthalmia Neonatorum. Tuesday, Post-operative Treatment of Abdominal Cases. Wednesday, A New Cardinal Principle in the Treatment of Disease, and its Application in Disorders of the Nose and Throat. Thursday, Asthma and its Treatment.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics, 10 a.m., Surgical Out-patient. 2.30 p.m., Medical Out-patient: Nose, Throat, and Ear; 4.30 p.m., Medical In-patient. Tuesday, 10 a.m., Medical Out-patient Clinic; 2.30 p.m., Operations; Clinics: Surgical, Gynaecological, 4.30 p.m. Lecture: The Patient's Constitution. Wednesday, 2.30 p.m., Medical Out-patient, Skin and Eye Clinics; *X* rays. Thursday, 2.30 p.m., Gynaecological Operations; Clinics: Medical Out-patient; Surgical Out-patient; 3 p.m., Medical In-patient; Lecture: Pulmonary Dilatation and Emphysema (Second Lecture). Friday, Clinic: 10 a.m., Surgical Out-patient; 2.30 p.m., Operations; Clinics: Medical Out-patient, Eye; 3 p.m., Medical In-patient.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
JANUARY.	
8 SATURDAY ..	LONDON: Standing Library Subcommittee, 11.15 a.m. LONDON: Science Committee, 12 noon.
9 Sunday ..	
10 MONDAY ..	LONDON: Colonial Committee, 2.45 p.m.
11 TUESDAY ..	LONDON: Public Health Committee, 3 p.m.
12 WEDNESDAY	LONDON: Journal and Finance Subcommittee, *re* Secretariat, 1 p.m. LONDON: Special Poor Law Reform Committee, 2.30 p.m. ST. PANCRAS AND ISLINGTON DIVISION, *Metropolitan Counties Branch*, Midland Grand Hotel, 9 for 9.15 p.m.
13 THURSDAY..	BIRMINGHAM BRANCH, Medical Institute, Edmund Street, 3.30 p.m. LAMBETH DIVISION, *Metropolitan Counties Branch*. Lambeth Infirmary, Brook Street, S.E., 4 p.m.
14 FRIDAY ..	
15 SATURDAY ..	
16 Sunday ..	
17 MONDAY ..	
18 TUESDAY ..	
19 WEDNESDAY	LONDON: Journal and Finance Committee, 2.30 p.m. CARDIFF DIVISION, *South Wales and Monmouthshire Branch*, Cardiff. CENTRAL DIVISION, *Birmingham Branch*, General Meeting, Medical Institute, 4 p.m.

Date.	Meetings to be Held.
JANUARY *(Continued).*	
20 THURSDAY ..	LONDON: Metropolitan Counties Branch Council, 4.30 p.m.
21 FRIDAY ..	HAMPSTEAD DIVISION, *Metropolitan Counties Branch*, Dinner to Dr. Ford Anderson, Great Central Hotel, Marylebone. TOTTENHAM DIVISION, *Metropolitan Counties Branch*, 6, Crescent Road, Crouch End, 9.15 p.m.
22 SATURDAY ..	
23 Sunday ..	
24 MONDAY ..	
25 TUESDAY ..	
26 WEDNESDAY	**London: Central Council, 2 p.m.** BATH AND BRISTOL BRANCH, Bristol. RICHMOND DIVISION, *Metropolitan Counties Branch*, Royal Hospital, Richmond, 8.30 p.m.
27 THURSDAY ..	ULSTER BRANCH, Winter Meeting, Belfast, 4 p.m.
28 FRIDAY ..	BIRMINGHAM BRANCH, Pathological and Clinical Meeting, Medical Institute, Edmund Street, 8 p.m. CITY DIVISION, *Metropolitan Counties Branch*, Business Meeting, Great Eastern Hotel, 4 p.m. HAMPSTEAD DIVISION, *Metropolitan Counties Branch*, 8.30 p.m.
29 SATURDAY..	
30 Sunday ..	
31 MONDAY ..	

Printed and Published by the British Medical Association at their Offices, No. 429, Strand, in the Parish of St. Martin-in-the-Fields in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JANUARY 15TH, 1910.

CONTENTS.

	PAGE
Meetings of Branches and Divisions:	
Cape of Good Hope—Western Province Branch	21
Metropolitan Counties Branch: Chelsea Division	21
ASSOCIATION NOTICES.—ANNUAL SUBSCRIPTION, 1910—	
COUNCIL MEETING	22
VITAL STATISTICS	22
NAVAL AND MILITARY APPOINTMENTS	22
VACANCIES AND APPOINTMENTS	23
BIRTHS, MARRIAGES, AND DEATHS	
PUBLISHERS' ANNOUNCEMENTS	23
RECENT PUBLICATIONS	24
DIARY FOR THE WEEK	24
CALENDAR	4

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

CAPE OF GOOD HOPE—WESTERN PROVINCE BRANCH.

THE annual meeting of this Branch was held at Capetown on November 26th, 1909. Dr. JASPER ANDERSON, President, was in the chair, and twenty members were present.

Confirmation of Minutes.—The minutes of the annual meeting of 1908 were read and confirmed.

Reports.—The reports of the following were read and adopted: The Council, Treasurer, and Parliamentary, Library, Science, and Ethical Committees.

Election of Officers.—The election of officers for 1910 resulted as follows: *President*, Dr. J. Petersen; *Vice-President*, Dr. L. Beck; *Treasurer*, Dr. J. H. de Villiers; *Secretary*, Dr. C. T. Anderson; *Council*, Dr. Jasper Anderson (*ex officio*), Drs. Hazell, Moffat, McLachlan, and F. Morris.

METROPOLITAN COUNTIES BRANCH: CHELSEA DIVISION.

A MEETING was held at the Chelsea Town Hall on January 4th, Dr. JAMES YOUNG in the chair. Dr. P. H. Parsons was absent through illness.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Apology for Non-attendance.—A letter was read from Dr. O'Sullivan apologizing for his absence from several meetings on account of indifferent health.

Fulham Board of Guardians.—A letter was read from the Clerk to the Fulham Board of Guardians as follows:

> I am directed by the guardians of this parish to advert to your letter of the 13th of November, and to state that they have this day (December 29th, 1909) addressed a letter to each medical practitioner in Fulham, of which the accompanying is a copy. The period within which the notification is to be made is extended to fourteen days, and the condition as to the period within which the arrangement was to be in operation is withdrawn.

The Secretary was directed to send a formal acknowledgement thereof.

Research Defence Society.—A letter was read from the Research Defence Society.

Medical Practitioners and Midwives.—A letter was read from the Medico-Political Committee of the Association, enclosing a copy of a circular letter addressed by the Manchester Corporation to the councils of large boroughs concerning the recommendations of the Departmental Committee on the Midwives Act. This letter agrees with the view expressed by the Association before the Departmental Committee on the Midwives Act, namely: That payment of medical practitioners called in to assist midwives should be made through the local supervising authority rather than through the board of guardians. The Medico-Political Committee therefore urged the Division to take immediate action by forwarding a letter to the local authority, stating the concurrence of the Division with this particular recommendation of the Manchester Corporation. In view of the recent offer of the Fulham Board of Guardians, it was decided to take no action in the matter at present.

Questions to Candidates for Parliament.—A letter was read from the Medico-Political Committee enclosing questions to be submitted to candidates for Parliament at the approaching general election. The Secretary was instructed to send a copy of these questions to the candidates for Chelsea and Fulham.

Application of Rates for Support of Hospitals.—In the absence of Dr. Fletcher the following resolution standing in his name was put from the Chair, and carried *nemine contradicente*:

> That the Executive of the British Medical Association be instructed to take the opinion of an eminent counsel with a view, if his opinion be favourable, of bringing an action or actions to test—
>
> (*a*) Whether the London County Council or any other public authority is within its legal rights in applying a portion of the rates in such a manner as to seriously interfere with the means of livelihood of the section of the community affected thereby;
>
> (*b*) Whether any such public authority can legally apply a portion of the rates for the partial support of hospitals, charities, or similar institutions, or any of them, whether supported wholly or in part by voluntary contributions;
>
> (*c*) Whether the governors or managers of the above institutions, or any of them, can legally accept any payment whatever from their patients for advice or treatment;
>
> (*d*) Whether the above institutions, or any of them, can legally make any bargain or enter into any arrangement with any such public authority for any pecuniary consideration whatever to medically or surgically treat persons sent to them by such public authority.

Audit of Accounts.—The Chairman was requested to audit the accounts of the Division for the past year.

Association Notices.

ANNUAL SUBSCRIPTION, 1910.

MEMBERS are reminded that the Annual Subscription, amounting to 25s., is now due.

Cheques or Postal Orders should be made payable to the British Medical Association, and crossed London County and Westminster Bank.

In the case of Colonial Members the subscription should be paid to the Honorary Treasurer of their respective Branches.

COUNCIL MEETING.

A MEETING of the Council will be held at 2 o'clock in the afternoon of Wednesday, January 26th, in the Council Room at 429, Strand, London, W.C.

By Order,

GUY ELLISTON.

Financial Secretary and Business Manager.

December 30th, 1909.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BIRMINGHAM BRANCH: CENTRAL DIVISION. — A general meeting of this Division will be held at the Medical Institute on Wednesday, January 19th, at 4 p.m., to consider the Central Ethical Committee's report on the "Recognition of a special class of consultants."—A. W. NUTHALL and W. T. LYDALL, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: KENSINGTON DIVISION.—The Executive Committee has the pleasure to announce that Sir Almroth Wright has consented to give an address and demonstration on Vaccine Therapy on Thursday, February 3rd, at 4.30 p.m., at St. Mary's Hospital.—H. BECKETT-OVERY, Honorary Secretary, 24, Alexander Square, S.W.

SOUTH-EASTERN BRANCH: BRIGHTON, EASTBOURNE, HASTINGS, SEVENOAKS, AND TUNBRIDGE WELLS DIVISIONS.—A conjoint meeting of these Divisions will be held on Friday, January 21st, at the General Hospital, Tunbridge Wells (by kind permission of the House Committee). The chair will be taken by Dr. W. Wallis, Chairman of the Tunbridge Wells Division, at 5.30 p.m. An address will be given by Mr. J. Smith Whitaker, Medical Secretary to the Association, entitled: "The Reports of the Royal Commission on the Poor Laws as affecting the Medical Profession." The Chairman invites members to tea at 5 p.m. Dinner at the Calverley Hotel at 7.30 p.m.; tickets 6s. each, exclusive of wine.—G. R. MARSH, Brighton; W. MUIR SMITH, Eastbourne; G. VICKERMAN HEWLAND, Hastings; P. A. MANSFIELD, Sevenoaks; E. A. STARLING, W. B. WARDE, Tunbridge Wells.

SOUTH-EASTERN BRANCH: FOLKESTONE DIVISION. — The annual meeting of the Folkestone Division and of the Folkestone, Ashford, and Dover Constituency will be held at the Hotel Burlington, Folkestone, on Thursday, January 27th, at 7.15 p.m. Agenda: (1) To elect officers, the Representative of the Division on the Branch Council, and the members of the Executive Committee. (2) To elect the Representative of the Division in the Representative Meeting of the Association. (3) To receive the annual report of the Executive Committee. (4) To consider any business of the Annual Representative Meeting. (5) To transact any business that may be transacted at an ordinary meeting. The annual dinner will take place at 8 p.m. Tickets, 5s., exclusive of wine.—P. VERNON DODD, M.D., Honorary Secretary.

SOUTH-EASTERN BRANCH: GUILDFORD DIVISION.—The next meeting of this Division will be held at the Royal Surrey County Hospital on Friday, January 28th, at 4.30 p.m. Dr. A. Hope Walker, Chairman of the Division, will preside. Tea will be provided at 4.15 p.m. Agenda: (1) Minutes of the last meeting. (2) Dr. F. Edward Pearse (Ripley) will read a paper on The Report of the Royal Commission on the Poor Law as affecting General Practitioners, to be followed by a discussion. (3) Matters referred to Divisions for consideration and discussion. (*a*) Report of Central Ethical Committee on a Special Class of Consultants. (*b*) Model rules for public medical services. (*c*) Resolutions of the Annual Representative Meeting, July, 1909, on medical inspection of school children and treatment of those found defective. (*d*) Circular letter of the Manchester Corporation *re* payment of medical men called in by midwives. (4) Letter from Research Defence Society. (5) Any other business.—H. B. BUTLER, East Dale, Guildford; E. J. SMYTH, Maythorne, Guildford, Honorary Secretaries.

ULSTER BRANCH.—The winter meeting of this Branch will be held in Belfast on Thursday, January 27th, at 4 p.m. Members having communications to make to the meeting are requested to send particulars not later than January 17th to CECIL SHAW, M.D., Honorary Secretary, 29, University Square, Belfast.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,662 births and 4,735 deaths were registered during the week ending Saturday last, January 8th. The annual rate of mortality in these towns, which had been 15.0, 15.4, and 16.7 per 1,000 in the three preceding weeks, declined again last week to 14.8 per 1,000. The rates in the several towns ranged from 6.3 in East Ham, 6.5 in Handsworth (Staffs), 7.4 in Hornsey, 8.3 in Coventry, 8.7 in Norwich, 9.2 in West Ham, and 9.4 in Smethwick, to 20.4 in Nottingham, 21.1 in Rhondda, 21.3 in West Bromwich, 22.3 in Stockton-on-Tees, 22.9 in Huddersfield, 23.4 in Birkenhead, 23.5 in Warrington, and 25.4 in Hanley. In London the rate of mortality was equal to 14.2 per 1,000, while it averaged 15.0 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 0.8 per 1,000 in the seventy-six towns; in London the death-rate from these diseases was 0.7 per 1,000, while in the other towns it ranged upwards to 2.3 in Sunderland, 2.5 in Plymouth, 2.6 in Birkenhead and in Swansea, 2.8 in Tynemouth and 3.0 in Hanley. Measles caused a death-rate of 1.6 in Swansea and 1.7 in Birkenhead; scarlet fever of 1.8 in Tynemouth; diphtheria of 1.5 in Hanley; whooping-cough of 1.0 in Sunderland, 1.1 in Huddersfield, 1.3 in Newport (Mon.), and 1.7 in Plymouth; and diarrhoea of 1.1 in Swansea and 1.5 in Hanley. The mortality from enteric fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The Metropolitan Asylums Hospitals contained 5 small-pox patients at the end of last week, against 4 at the end of each of the three preceding weeks; two new cases were admitted during the week. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had been 2,361 and 2,362 on the two preceding Saturdays, had declined to 2,256 on Saturday last, the 8th instant; 212 new cases were admitted during the week, against 254, 224, and 244 at the end of the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday last, January 8th, 986 births and 740 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 19.6, 19.5, and 18.9 per 1,000 in the three preceding weeks, rose again last week to 20.4 per 1,000, and was 5.6 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scottish towns the death-rates ranged from 13.8 in Leith and 16.3 in Aberdeen, to 26.6 in Perth, and 26.7 in Dundee. The death-rate from the principal infectious diseases averaged 2.6 per 1,000, the highest rates being recorded in Glasgow, Aberdeen, and Greenock. The 351 deaths registered in Glasgow included 52 from measles, 2 from scarlet fever, 5 from diphtheria, 3 from whooping cough, 2 from "fever," and 7 from diarrhoea. Three fatal cases of measles, 2 of scarlet fever, 2 of whooping-cough, and 2 of diarrhoea, were recorded in Edinburgh; 2 of scarlet fever in Greenock; and 5 of diarrhoea in Aberdeen, and 3 in Dundee.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, January 8th, 689 births and 435 deaths were registered in the twenty-two principal urban districts of Ireland, as against 684 births and 557 deaths in the preceding period. The annual death rate in these districts, which had been 21.7, 18.2, and 25.4 per 1,000 in the three preceding weeks, fell to 19.7 per 1,000 in the week under notice, this figure being 4.9 per 1,000 higher than the mean annual death-rate in the seventy-six English towns for the corresponding period. The figures in Dublin and Belfast were 21.1 and 19.7 respectively, those in other districts ranging from 4.1 in Drogheda and 7.8 in Galway to 29.4 in Newry and 31.7 in Tralee, while Cork stood at 18.5, Londonderry at 20.4, Limerick at 21.9, and Waterford at 11.7. The zymotic death-rate in the twenty-two districts averaged 1.6 per 1,000, as against 1.5 per 1,000 in the preceding period.

Naval and Military Appointments.

EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

FIELD officer just returned from abroad is willing to exchange to India. Apply to Eastern Exchange, c.o. Messrs. Holt and Co.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: Surgeon T. F. O'KEEFE, M.B., to the *Victory*, additional, for disposal, January 4th; Surgeon E. M. W. HEARN, M.B., to the *Victory*, additional, for twenty-one days' full-pay sick leave, commencing December 13th, 1909.

Mr. W. S. ROSS, M.B., civil practitioner, has been appointed Surgeon and Agent at Greystones, vice Price, January 3rd.

ROYAL NAVAL VOLUNTEER RESERVE.

DAVID D. M. MACINTYRE, M.B., has been appointed Surgeon, December 30th, 1909.

ARMY MEDICAL SERVICE.

ROYAL ARMY MEDICAL CORPS.

MAJOR C. W. H. WHITESTONE, M.B., who is serving in India, is confirmed in the appointment of Staff Officer for Medical Mobilization Stores, 1st (Peshawar) Division, from December 4th, 1909.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL T. GRAINGER, M.D., Bengal, is appointed Principal Medical Officer, Burmah Division, vice Colonel H. K. McKay, C.B., C.I.E., retired.

Lieutenant-Colonel T. D. C. BARRY, Bombay, is permitted to retire from the service, from November 18th, 1909. He was appointed Surgeon March 31st, 1887, and became Lieutenant-Colonel, March 31st, 1907.

The retirement from the service, from February 21st, 1910, is also announced of Lieutenant-Colonel R. R WEIR, M.B., Bengal. His first appointment bears date September 30th, 1882; that of Lieutenant-Colonel, September 30th, 1902.

Major JAY GOULD, M B., Bengal, assumed the duties of Staff Officer, Medical Mobilization Stores, 3rd (Lahore) Division, from December 15th, 1909.

SPECIAL RESERVE OF OFFICERS.

ROYAL ARMY MEDICAL CORPS.

Supplementary List.—PHILIP W MATHEW and ASTON R. DALE to be Lieutenants on probation, November 29th, 1909; GORDON R. WARD and DONALD MACKINNON to be Lieutenant on probation, December 7th, 1909.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

SURGEON-CAPTAIN E. H. TIPPER, not having signified his wish to serve in the Territorial Force, is struck off the strength of the regiment, March 31st, 1909.

TERRITORIAL FORCE.

INFANTRY,

SURGEON-CAPTAIN W. A. PRIDE, M B., 4th (Renfrewshire) Battalion Princess Louise's (Argyll and Sutherland Highlanders), resigns his commission, December 6th, 1909.

ROYAL ARMY MEDICAL CORPS.

Third West Lancashire Field Ambulance.—Captain C. W. S. SABERTON, M B., resigns his commission, November 27th, 1909.

First South Midland Field Ambulance.—Lieutenant S. G. BARLING to be Captain, December 8th, 1909.

Third Welsh Field Ambulance.—Captain D. L. DAVIES, M.B., resigns his commission, December 1st, 1909.

Second Southern General Hospital.—Major A. L. FLEMMING resigns his commission, November 27th, 1909.

Attached to Units other than Medical Units.—Lieutenant W. FITZPATRICK to be Captain, October 28th, 1909: Captain W. T. HANNAH, M.D., to be Major, December 2nd, 1909.

The Volunteer Officers' Decoration has been conferred upon the following officers: Surgeon-Major JOSEPH FULLER, Wessex Divisional Engineers (retired); Surgeon-Major JOSEPH ADAMS, M.B., 4th Battalion the Prince of Wales's Volunteers (South Lancashire Regiment); Surgeon-Major G. H. DARWIN, M.D., 6th Battalion the Manchester Regiment (retired); Surgeon-Lieutenant ARTHUR GOULSTON, 1st Devonshire Royal Garrison Artillery (Volunteers). (retired); Surgeon-Major G. O C. MACKNESS, M.D, the Tay Division (Electrical Engineers) Royal Engineers (Volunteers), (retired); Surgeon-Major and Honorary Surgeon-Lieutenant-Colonel (Brigade-Surgeon-Lieutenant-Colonel, Senior Medical Officer, Norfolk Volunteer Infantry Brigade) C. A. O OWENS, M.D., 4th Volunteer Battalion the Norfolk Regiment (retired); Surgeon-Major SAMUEL MACVIE, M B., 2nd (Berwickshire) Volunteer Battalion the King's Own Scottish Borderers (retired); Surgeon-Major WALTER SANDEMAN, M.B., 2nd Volunteer Battalion the Highland Light Infantry (retired).

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

ABERDEEN ROYAL INFIRMARY.—Assistant Surgeon.

ASHTON-UNDER-LYNE: DISTRICT INFIRMARY AND CHILDREN'S HOSPITAL.—Senior House-Surgeon. Salary, £120 per annum and fees.

BIRMINGHAM: GENERAL HOSPITAL.—(1) Three Surgical Casualty Officers, (2) House-Physician, (3) House-Surgeon, (4) Resident Pathologist. Salary in each case at the rate of £50 per annum.

BRISTOL ROYAL INFIRMARY.—Honorary Assistant Dental Surgeon.

BURNLEY: VICTORIA HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

CALCUTTA: LADY DUFFERIN VICTORIA HOSPITAL.—Senior House-Surgeon. Salary, Rs 250 per mensem.

CANCER HOSPITAL, Fulham Road, S.W.—Surgical Registrar. Honorarium, 50 guineas per annum.

CARDIFF INFIRMARY.—House-Surgeon. Honorarium, £30 for six months.

CARDIFF MENTAL HOSPITAL, Whitchurch, near Cardiff.—Physiological Chemist for research work. Salary, £200 per annum.

CHELTENHAM GENERAL HOSPITAL.—(1) House-Physician, (2) House-Surgeon. Salary, £70 per annum each.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.—Senior House-Surgeon. Salary, £120 per annum.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Pathologist. Salary, 100 guineas per annum.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

DUBLIN: NATIONAL UNIVERSITY OF IRELAND.—Extern Examiners in Chemistry, Anatomy, Physiology, Materia Medica, Medicine, Medical Jurisprudence and Hygiene, Pathology, Surgery, Ophthalmic Surgery, Midwifery.

HANTS COUNTY HOSPITAL, Fareham.—Third Assistant Medical Officer. Salary, £160 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Physician. Salary, £30 for six months and £2 10s. washing allowance.

JOHANNESBURG HOSPITAL.—Medical man to take charge of X-Ray and Electrical Department. Salary at the rate of £500 per annum.

LEEDS: HOSPITAL FOR WOMEN AND CHILDREN.—House-Surgeon. Salary at the rate of £50 per annum.

LONDON THROAT HOSPITAL, Great Portland Street, W.—House-Surgeon. Honorarium, £50 a year.

METROPOLITAN EAR, NOSE, AND THROAT HOSPITAL, Grafton Street, W.—Assistant Surgeon.

MILLER GENERAL HOSPITAL, Greenwich Road, S.E.—Honorary District Medical Officer.

NEW HOSPITAL FOR WOMEN, Euston Road, N.W.—Two Clinical Assistants for Out-patient Department.

OLDHAM INFIRMARY.—Second House-Surgeon until May next, and then eligible for election to senior post. Salary at the rate of £100 and £120 per annum respectively.

POPLAR HOSPITAL FOR ACCIDENTS, E.—Assistant House-Surgeon. Salary at the rate of £80 per annum.

PRESTON ROYAL INFIRMARY.—Junior House-Surgeon. Salary, £60 per annum.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Member of the Court of Examiners.

ROYAL WATERLOO HOSPITAL FOR CHILDREN.—Honorary Physician to Out-patients.

ST. MARY'S HOSPITAL, Paddington.—Resident Casualty House-Surgeon. Salary, £100 per annum.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W.—Clinical Assistants.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Junior House-Surgeon. Salary at the rate of £80 per annum.

STOCKPORT INFIRMARY.—Junior House-Surgeon. Salary, £80 per annum.

WEST END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM.—(1) Honorary Gynaecologist. (2) Honorary Assistant Surgeon.

WEST LONDON HOSPITAL, Hammersmith Road, W.—Honorary Clinical Assistant in the Dental Department.

WOLVERHAMPTON AND MIDLAND COUNTIES EYE INFIRMARY.—House-Surgeon. Salary, £80 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces vacancies at Settle and West Huddersfield, co. York; and Charing, co. Kent.

Correction.—In the announcement of the vacancies for Demonstrators of Anatomy and Physiology at the Bristol University, published in the two last issues of the JOURNAL, the salary in each case should have been £180 (not £80, as printed) per annum, rising to £200.

APPOINTMENTS.

AUBREY, T., M B.Lond., M R C.S.Eng., Medical Officer of Health to the Warmley District Council.

COLE, Samuel John, L R.C.P.Lond., M.R.C.S.Eng., Medical Inspector of Schools for the Administrative County of West Suffolk.

FREER, R., M D Camb, Certifying Factory Surgeon for the Rugeley District, co. Stafford.

GORDON, T. E., F.R.C.S Ire., Surgeon to the Orthopaedic Hospital, Dublin.

HARVEY, Robert J., F.R.C.S.Ire., Surgeon to the Richmond Hospital, vice Sir William Thomson, C.B. deceased.

JONES, A. Mason, M.B., Ch.B.Edin., House-Surgeon to the Cardiff Infirmary.

KEATES, C. C., M R C.S., L.R.C.P., Assistant Medical Officer, Wandsworth Union Infirmary.

MAIR, James, M.B., C.M.Glas., D.P.H., Medical Officer of Health and Medical Inspector of School Children, Harrogate Town Council.

MEARNS, J A., M B., Ch.B.Aberd., District Medical Officer of the Leicester Parish.

PEARSON, William. M.D., B.C.L., Assistant Surgeon to the Adelaide Hospital, Dublin.

RUXTON, H. W. B, M.B., B.S.Aberd., Assistant Medical Officer to the Infirmary and Gordon Road Workhouse of the Parish of Camberwell.

STEVENS, Bertram Crossfield, M.D., M.S., D.P.H., an Assistant Medical Officer and Inspector of School Children to the Ayr County Council.

WILLIAMS, H. W. S., M.R.C.S., L R.C.P Lond., Certifying Factory Surgeon for the Holywell District, co. Flint.

WILLIAMSON, Oliver K., M.A., M.D.Cantab, F.R.C.P., Physician to Out-patients, Hampstead General Hospital.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s 6d, which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTH.

MYERS.—January 9th, in Dominica, B.W. Indies, to Mr. A. A. Myers, M.R.C.S., etc., and Mrs. Myers—a daughter.

DEATH.

HEELAS.—On January 4th, Walter Wheeler Heelas, M.R.C.S., L.R.C.P.Lond., of Wolverhampton, second son of D. Heelas, The Holt, Wokingham, Berks.

PUBLISHERS' ANNOUNCEMENTS.

MESSRS. J. AND A. CHURCHILL will issue very shortly a work entitled *The Practice of Surgery*, by W. G. Spencer, Surgeon to the Westminster Hospital, and G. E. Gask, Assistant Surgeon to St. Bartholomew's Hospital. It contains 1,250 royal octavo pages, with 700 black and white figures, 28 skiagram plates, and 20 coloured plates. The same publishers have in preparation a new edition of *Galabin's Midwifery* under the editorship of the author and Dr. G. F. Blacker, Obstetric Physician to University College Hospital. Dr. Lawrence, Curator of the Museum at University College Hospital Medical School, has prepared most of the drawings. Another work of which a new edition will be published by the same firm, is Drs. Goodhart and Still's

Diseases of Children. The editing has now devolved entirely upon Dr. Still, Professor of Diseases of Children at King's College Hospital. The new edition, unlike its many predecessors, will be illustrated.

RECENT PUBLICATIONS.

Where Knife is Driven. A story by Max Trotter, M.D. London: Arthur H. Stockwell. (Cr. 8vo pp. 80.)

This is a "shocker," and not a particularly good one. The author does not show that he possesses much of the knowledge usually implied by the letters "M.D."

DIARY FOR THE WEEK.

TUESDAY.

ROYAL SOCIETY OF MEDICINE:

PATHOLOGICAL SECTION, 20, Hanover Square, 8 p.m.—Communications: Mr. Walter Edmunds: Action of Thyroid and Antithyroid Preparations. Dr. P. J. Cammidge and Dr. Senion: An Experimental Investigation of the Origin and Cause of the "Pancreatic" (Cammidge) Reaction in the Urine. Mr. S. G. Shattock: Oöphorectomy and the Growth of the Pelvis in the Cow. Dr. Herbert French: (1) A Case of Extensive but not Complete Destruction of the Adrenal Capsules by Caseation without Symptoms of Addison's Disease; (2) Pigmentary Deposits in Liver and Pancreas in Bronzed Diabetes. Mr. E. O. Thurston: Chylous Cyst from the Neck.

THURSDAY.

ROYAL SOCIETY OF MEDICINE:

DERMATOLOGICAL SECTION, 20, Hanover Square, 5 p.m.—Demonstration of Cases and Specimens.

FRIDAY.

ROYAL SOCIETY OF MEDICINE:

ELECTRO-THERAPEUTICAL SECTION, 20, Hanover Square, 8.30 p.m.—Paper: Dr. J. A. Voorthuis (Holland): The Use of the Static Brush and Flame Discharge in the Treatment of Some Skin Diseases.

SOCIETY OF TROPICAL MEDICINE AND HYGIENE, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—A discussion on Ankylostomiasis will be opened by Sir Thomas Oliver, Newcastle-on-Tyne. A paper on Ankylostomiasis in Natal will be read by Dr. John J. Elliott, Rostrevor. The paper by Dr. A. Balfour and Captain Douglas Thomson, R.A.M.C., on Leishman Nodules will be again brought up for discussion.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Thursday, 4.30 p.m., Lecture: Antral Suppuration.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstrations, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat at noon and 4 p.m., Monday, and noon Thursday; Skin, at noon and 4 p.m., Thursday, and noon, Friday; Eye, 11 a.m., Wednesday and Saturday; Radiography, 4 p.m., Thursday. Special Lectures: Monday, 3.15 p.m., Neuritis; Thursday, 3.15 p.m., Some Points Relating to Movable Kidney.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22 Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m., each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Ear, Nose, and Throat. Lectures at 5.15 p.m. each day will be given as follow: Monday, Heart Disease of Middle Life; Tuesday, Acute Encephalitis and Acute Poliomyelitis in the Year 1909; Wednesday, On the Treatment of Syphilis; Thursday, Fetid Breath.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Recent Observations on Acute Poliomyelitis; Friday, 3.30 p.m., Cerebellar Disease.

NORTH-EAST LONDON POST GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, 10 a.m., Surgical Out-patient Clinic; 2.30 p.m., Medical Out-patient Clinic; Nose, Throat, and Ear Diseases; 4.30 p.m., Medical In-patient Clinic. Tuesday, 10 a.m., Medical Out-patient Clinic; 2.30 p.m., Operations; Surgical Clinic; Gynaecological Clinic; 4.30 p.m., Lecture demonstration: Difficulties in Anaesthesia. Wednesday, 2.30 p.m., Medical Out-patient Clinic; Diseases of the Skin; Diseases of the Eye; *x* rays. Thursday, 2.20 p.m., Gynaecological Operations; Medical Out-patient Clinic; Surgical Out-patient Clinic; 3 p.m., Medical In-patient Clinic; 4.30 p.m., Lecture: Infancy and Allied Disorders in Children (first lecture). Friday, 10 a.m., Clinic; Surgical Out-patient; 2.30 p.m., Operations; Clinics: Medical Out-patient; Eye; 3.30 p.m., Medical In-patient.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
JANUARY.	
16 Sunday ..	
17 MONDAY ..	
18 TUESDAY ..	
19 WEDNESDAY	LONDON: Journal and Finance Committee, 2.30 p.m. CARDIFF DIVISION, *South Wales and Monmouthshire Branch*, Cardiff. CENTRAL DIVISION, *Birmingham Branch*, General Meeting, Medical Institute, 4 p.m.
20 THURSDAY ..	LONDON: Metropolitan Counties Branch Council, 4.30 p.m.
21 FRIDAY ..	BRIGHTON, EASTBOURNE, HASTINGS, SEVENOAKS, AND TUNBRIDGE WELLS DIVISIONS. *South-Eastern Branch*, Conjoint Meeting, General Hospital, Tonbridge, 5.30 p.m.; Tea, 5 p.m.; Dinner, Calverley Hotel, 7.30 p.m. HAMPSTEAD DIVISION, *Metropolitan Counties Branch*, Dinner to Dr. Ford Anderson, Great Central Hotel, Marylebone. TOTTENHAM DIVISION, *Metropolitan Counties Branch*, 6, Crescent Road, Crouch End, 9.15 p.m.
22 SATURDAY ..	
23 Sunday ..	
24 MONDAY ..	
25 TUESDAY ..	LONDON: Medico-Political Parliamentary Subcommittee, 2.15 p.m.
26 WEDNESDAY	London: Central Council, 2 p.m. BATH AND BRISTOL BRANCH, Bristol. RICHMOND DIVISION, *Metropolitan Counties Branch*, Royal Hospital, Richmond, 8.30 p.m.
27 THURSDAY ..	FOLKESTONE DIVISION, *South-Eastern Branch*, Annual Meeting of the Division and the Folkestone, Ashford, and Dover Constituency, Hotel Burlington, Folkestone, 7.15 p.m.; Annual Dinner, 8 p.m. ULSTER BRANCH, Winter Meeting, Belfast, 4 p.m.
28 FRIDAY ..	BIRMINGHAM BRANCH, Pathological and Clinical Meeting, Medical Institute, Edmund Street, 8 p.m. CITY DIVISION, *Metropolitan Counties Branch*, Business Meeting, Great Eastern Hotel, 4 p.m. GUILDFORD DIVISION, *South-Eastern Branch*, Royal Surrey County Hospital, 4.30 p.m.; Tea, 4.15 p.m. HAMPSTEAD DIVISION, *Metropolitan Counties Branch*, 8.30 p.m.
29 SATURDAY ..	
30 Sunday ..	
31 MONDAY ..	
FEBRUARY.	
1 TUESDAY ..	
2 WEDNESDAY	BURMA BRANCH, New General Hospital, Rangoon, 9.30 p.m.
3 THURSDAY ..	BURMA BRANCH, Medical Section, New General Hospital, Rangoon, 5 p.m. KENSINGTON DIVISION, *Metropolitan Counties Branch*, St. Mary's Hospital, 4.30 p.m.

Printed and Published by the British Medical Association at their Offices, No. 429, Strand, in the Parish of St. Martin-in-the-Fields in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JANUARY 22ND, 1910.

CONTENTS.

	PAGE
The Seventy-eighth Annual Meeting of the British Medical Association.—PROGRAMME OF BUSINESS ...	25
Meetings of Branches and Divisions:	
Border Counties Branch	28
Lancashire and Cheshire Branch: St. Helens Division ...	28
Metropolitan Counties Branch: Lambeth Division	28
" " " Walthamstow Division ...	28
ASSOCIATION NOTICES.—ANNUAL SUBSCRIPTION, 1910—	
COUNCIL MEETING	29
VITAL STATISTICS	30
NAVAL AND MILITARY APPOINTMENTS	31
VACANCIES AND APPOINTMENTS	31
BIRTHS, MARRIAGES, AND DEATHS	31
RECENT PUBLICATIONS	31
PUBLISHERS' ANNOUNCEMENTS	31
DIARY FOR THE WEEK	31
CALENDAR	32

THE SEVENTY-EIGHTH ANNUAL MEETING

OF THE

BRITISH MEDICAL ASSOCIATION,

LONDON,

JULY 26TH TO JULY 29TH, 1910.

President:

Sir WILLIAM WHITLA, M.D., LL.D., Professor of Materia Medica and Therapeutics, Queen's College, Belfast.

President-elect:

H. T. BUTLIN, D.C.L., LL.D., P.R.C.S., Consulting Surgeon, St. Bartholomew's Hospital, London.

Past President:

SINCLAIR WHITE, M.D., M.Ch., F.R.C.S., Senior Honorary Surgeon, The Royal Infirmary, Sheffield.

Chairman of Representative Meetings:

HAMILTON ASHLEY BALLANCE, M.S., Surgeon, Norfolk and Norwich Hospital, Norwich.

Chairman of Council:

EDMUND OWEN, LL.D., D.Sc., F.R.C.S., Consulting Surgeon to St. Mary's Hospital, London, W.

Treasurer:

EDWIN RAYNER, M.D., F.R.C.S., Consulting Surgeon, Stockport Infirmary, Stockport.

The Seventy-eighth Annual Meeting of the British Medical Association will be held in London in July, 1910. The President's Address will be delivered on Tuesday, July 26th, and the Sections will meet on the three following days. The Annual Representative Meeting will begin on Friday, July 22nd, 1910.

PROGRAMME OF BUSINESS.

The Address in Medicine will be delivered by JOHN MITCHELL BRUCE, M.D., F.R.C.P., London.

The Address in Surgery will be delivered by HARRY GILBERT BARLING, B.S., F.R.C.S., Birmingham.

THE SECTIONS.

The scientific business of the meeting will be conducted in twenty-one Sections, which will meet on Wednesday, July 27th, Thursday, July 28th, and Friday, July 29th.

The President, Vice-Presidents, and Honorary Secretaries of each Section constitute a Committee of Reference for that Section, and exercise the power of inviting, accepting, or declining any paper, and of arranging the order in which accepted papers shall be read. Communications with respect to papers should be addressed to one of the Honorary Secretaries.

A paper read in the Section must not exceed fifteen minutes, and no subsequent speech must exceed ten minutes.

Papers read are the property of the British Medical Association, and cannot be published elsewhere than in the BRITISH MEDICAL JOURNAL *without special permission.*

The following are the general arrangements so far as they are yet complete:

Anaesthetics.

President: Frederic William Hewitt, M.V.O., M.D., London.

Vice-Presidents: Donald C. A. McAllum, Edinburgh; George Rowell, F.R.C.S., London; Alexander Wilson, F.R.C.S., Manchester.

Honorary Secretaries: Miss Ada M. Browne, L.S.A., 64, Belsize Park, N.W.; William Joseph McCardie, M.B., 89, Cornwall Street, Birmingham; Herbert J. Scharlieb C.M.G., M.D., 149, Harley Street, W.

Anatomy.

President: Professor Arthur Keith, F.R.C.S., London.

Vice-Presidents: Professor David Hepburn, M.D., Cardiff; Fredk. Gymer Parsons, F.R.C.S., London; Professor Grafton Elliott Smith, M.D., F.R.S., Manchester; Professor Archibald Watson, M.D., Adelaide; Professor William Wright, F.R.C.S., London.

Honorary Secretaries: Professor A. Campbell Geddes, M.D., Dublin; Alex. Macphail, M.B., Anatomy Dept., Medical School, Charing Cross Hospital, W.C.

Bacteriology.

President: Charles J. Martin, M.B., F.R.S., London.

Vice-Presidents: John W. H. Eyre, M.D., London; Professor Arthur H. White, L.R.C.P.I., Dublin.

Honorary Secretaries: Carl Hamilton Browning, M.D., 128, Byres Road, Glasgow; John Charles Grant Ledingham, M.B., Lister Institute, Chelsea Gardens, S.W.

Dermatology.

President: Phineas Abraham, M.D., London.

Vice-Presidents: Robert Alfred Bolam, M.D., 3, Queen's Square, Saville Row, Newcastle-on-Tyne; Walter G. Smith, M.D., Dublin; W. Kenneth Wills, M.R.C.S., Bristol.

Honorary Secretaries: William Griffith, M.B., 1, Chester Gate, Regent's Park, N.W.; G. Norman Meachen, M.D., 11, Devonshire Street, W.; J. Goodwin Tomkinson, M.D., Western Infirmary, Glasgow.

Diseases of Children.

President: Archibald E. Garrod, M.D., London.

Vice-Presidents: Chas. P. B. Clubbe, M.R.C.S., Sydney; Thomas Sinclair Kirk, M.B., Belfast; H. D. Rolleston, M.D., London; Francis James Steward, M.S., F.R.C.S., London.

Honorary Secretaries: Harold Arthur Thomas Fairbank, M.S., 137, Harley Street, W.; Francis W. Goyder, F.R.C.S., "Marley House," Bradford; Jas. Hugh Thursfield, M.D., 84, Wimpole Street, W.

Gynaecology and Obstetrics.

President: Mrs. Mary A. D. Scharlieb, M.D., London.

Vice-Presidents: John W. Ballantyne, M.D., Edinburgh; Comyns Berkeley, M.B., London; Professor John A. C. Kynoch, M.B., Dundee; Thomas Wilson, M.D., Birmingham; Thomas H. Wilson, F.R.C.P.I., Dublin.

Honorary Secretaries: W. Blair Bell, M.D., 7, Rodney Street, Liverpool; John Prescott Hedley, M.B., 11, John Street, Berkeley Square, W.; Carlton Oldfield, M.D., 32, Park Square, Leeds.

Laryngology.

President: Herbert Tilley, F.R.C.S., London.

Vice-Presidents: J. Lacy Firth, M.D., Bristol; A. Brown Kelly, M.D., Glasgow; Stephen Paget, F.R.C.S., London; H. Betham Robinson, M.S., F.R.C.S., London.

Honorary Secretaries: Geo. Nixon Biggs, M.B., 30, Harley Street, W.; Henry John Davis, M.B., 8, Portman Street, W.; John Smith Fraser, F.R.C.S., 36, Moray Place. Edinburgh.

Medical Sociology.

President: James Alexander Macdonald, M.D., Taunton.

Vice-Presidents: R. Cochrane Buist, M.D., Dundee; Major Greenwood, M.D., London; Hugh R. Ker, F.R.C.S.Edin., London; Professor James T. J. Morrison, M.B., Birmingham.

Honorary Secretaries: Donald John Armour, F.R.C.S., 89, Harley Street, W.; Harvey Hilliard, M.R.C.S., 30, Wilton Place, Knightsbridge, S.W.; James Henry Taylor, M.B., 299, Eccles New Road, Salford.

Medicine.

President: R. W. Philip, F.R.C.P.Edin., Edinburgh.

Vice-Presidents: Professor Harry B. Allen, M.D., Melbourne; George A. Heron, F.R.C.P., London; Walter K. Hunter, M.D., Glasgow; Henry L. McKisack, M.D., Belfast; George R. Murray, M.D., Manchester; Sidney P. Phillips, M.D., London.

Honorary Secretaries: H. Morley Fletcher, M.D., 98, Harley Street, W.; Herbert French, M.D., 62, Wimpole Street, W.; John Hay, M.D., 12, Rodney Street, Liverpool.

Navy, Army, and Ambulance.

President: Colonel Andrew Clark, R.A.M.C.T., London.

Vice-Presidents: Fleet Surgeon Percy W. Bassett-Smith, R.N., Haslar; Lieutenant-Colonel James Harper, R.A.M.C.T., London; Lieutenant-Colonel Michael W. H. Russell, R.A.M.C., London; Lieutenant-Colonel Robert J. S. Simpson, C.M.G., R.A.M.C., London.

Honorary Secretaries: Staff Surgeon James Garfit Wallis, M.B., R.N., Royal Naval Barracks, Chatham; Major Alfred Percy Blenkinsop, R.A.M.C., c.o. Messrs. Holt and Co., 3, Whitehall Place, S.W.; Major Arthur M. Connell, R.A.M.C.T., 79, Hanover Street, Sheffield.

Odontology.

President: J. Howard Mummery, M.R.C.S., London.

Vice-Presidents: William Donald Anderson, F.F.P.S., L.D.S., Glasgow; Arthur W. W. Baker, M.D., L.D.S., Dublin; W. H. Dolamore, M.R.C.S., London; William Hern, L.D.S., London; John Mathieson MacMillan, L.D.S., Glasgow; Herbert Williams, M.D., Londonderry.

Honorary Secretaries: Ernest B. Dowsett, L.D.S., 1, Gloucester Street, W.; A. Hopewell-Smith, L.D.S., 58, Park Street, Park Lane, W.; Cyril H. Howkins, L.D.S., 83A, Edmund Street, Birmingham.

Ophthalmology.

President: Charles Higgens, F.R.C.S., London.

Vice-Presidents: Major Robert H. Elliot, I.M.S., M.D., Madras; Henry L. Ferguson, F.R.C.S.I., Dunedin; Cecil E. Shaw, M.D., Belfast; George Wm. Thompson, F.R.C.S., London.

Honorary Secretaries: N. Bishop Harman, F.R.C.S., 108, Harley Street, W.; Arthur Henry Haven Sinclair, M.D., 5, Walker Street, Edinburgh.

OTOLOGY.

President: EDWARD LAW, M.D., London.

Vice-Presidents: ALBERT ALEXANDER GRAY, M.D., Glasgow; HUNTER F. TOD, M.D., London; FREDERICK H. VESTMACOTT, F.R.C.S., Manchester.

Honorary Secretaries: CECIL IRVING GRAHAM, F.R.C.S., 7, Queen Anne Street, W.; HERBERT JAMES MARRIAGE, F.R.C.S., 109, Harley Street, W.

PATHOLOGY.

President: S. G. SHATTOCK, F.R.C.S., London.

Vice-Presidents: FREDERICK W. ANDREWES, M.D., London; ERNEST F. BASHFORD, M.D., London; Professor STUART MCDONALD, M.B., Newcastle.

Honorary Secretaries: JULIUS MEYER BERNSTEIN, M.B, Woodstock Avenue, Golder's Green, N.W.; ARTHUR E. BOYCOTT, M.D., Guy's Hospital, London, S.E.; ERNEST E. GLYNN, M.B., 62, Rodney Street, Liverpool.

PHARMACOLOGY AND THERAPEUTICS.

President: Professor ARTHUR ROBERTSON CUSHNY, M.D., F.R.S., London.

Vice-Presidents: EDMUND H. COLBECK, M.D., London; ROBERT HUTCHISON, M.D., London.

Honorary Secretaries: ARTHUR FREDERICK HERTZ, M.D., 1, Weymouth Street, Portland Place, W.; DOUGLAS CHALMERS WATSON, M.D., 22, Coates Crescent, Edinburgh.

PHYSIOLOGY.

President: Professor WILLIAM HENRY THOMPSON, M.D., Dublin.

Vice-Presidents: JOHN SCOTT HALDANE, M.D., F.R.S., Oxford; Professor PERCY THEODORE HERRING, M.D., St. Andrews, N.B.

Honorary Secretaries: T. GRAHAM BROWN, M.B., Physiological Department, University, Glasgow; JOSEPH STRICKLAND GOODALL, M.B., Physiological Laboratory, Middlesex Hospital, W.

PSYCHOLOGICAL MEDICINE AND NEUROLOGY.

President: THEOPHILUS B. HYSLOP, M.D., London.

Vice-Presidents: ARCHIBALD R. DOUGLAS, L.R.C.P., Lancaster; WILLIAM GRAHAM, M.D., Belfast; THOMAS D. GREENLEES, M.D., London; J. RISIEN RUSSELL, M.D., London; DAVID G. THOMSON, M.D., Norwich.

Honorary Secretaries: ARTHUR STANLEY BARNES, M.D., 141, Great Charles Street, Birmingham; ROBERT HUNTER STEEN, M.D., The Hollies, Dartford; REGINALD JOHN STILLWELL, M.R.C.S., Moorcroft, Hillingdon, Uxbridge.

RADIOLOGY AND MEDICAL ELECTRICITY.

President: J. MACKENZIE DAVIDSON, M.B., London.

Vice-Presidents: C. THURSTAN HOLLAND, M.R.C.S., Liverpool; H. LEWIS JONES, M.D., London; CECIL R. C. LYSTER, M.R.C.S., London; WILLIAM F. SOMERVILLE, M.D., Glasgow.

Honorary Secretaries: W. IRONSIDE BRUCE, M.D., 10, Chandos Street, W.; LEONARD A. ROWDEN, M.B., 32, Park Square, Leeds.

STATE MEDICINE.

President: The Right Hon. Sir WALTER FOSTER, P.C., M.D., D.C.L., London.

Vice-Presidents: FRANCIS CLARK, M.D., M.R.C.P., D.P.H., Hong Kong; S. MONCKTON COPEMAN, M.D., F.R.S., London; THOMAS W. H. GARSTANG, M.A., M.R.C.S., D.P.H., Altrincham; HERBERT JONES, L.R.C.S.I., D.P.H., Hereford; CHARLES E. PAGET, M.R.C.S., Northampton.

Honorary Secretaries: GEO. FREDERICK MCCLEARY, M.D., 7, Belsize Park Gardens, Hampstead, N.W.; JOHN EDWARD SANDILANDS, M.R.C.S., Town Hall, Kensington, W.

SURGERY.

President: Sir VICTOR HORSLEY, F.R.C.S., M.B., F.R.S., London.

Vice-Presidents: FREDERICK DOUGAN BIRD, M.R.C.S., Melbourne; JOHN BLAND-SUTTON, F.R.C.S., London; Professor A. J. MCAULEY BLAYNEY, F.R.C.S.I., Dublin; GEORGE H. MAKINS, C.B., F.R.C.S., London; F. N. GISBORNE STARR, M.B., Toronto; Professor HY. ALEXIS THOMSON, M.D., Edinburgh.

Honorary Secretaries: HERBERT SHERWELL CLOGG, M.S., 143, Harley Street, W.; DOUGLAS DREW, F.R.C.S., 6, Wimpole Street, W.; WILLIAM J. GREER, F.R.C.S.I., 19, Gold Tops, Newport, Mon.

TROPICAL MEDICINE.

President: FLEMING M. SANDWITH, M.D., London.

Vice-Presidents: HENRY P. KEATINGE, M.B., Cairo; GEORGE C. LOW, M.B., London; LAURANCE DUDLEY PARSONS, M.B., Gibraltar; Colonel JAMES R. ROBERTS, I.M.S., F.R.C.S., Indore, C. India; RAGHAVENDRA ROW, M.D., Bombay.

Honorary Secretaries: H. SINCLAIR COGHILL, M.B., London School of Tropical Medicine, Royal Albert Dock, E.; WILLIAM THOMAS PROUT, C.M.G., M.B., 78, Rodney Street, Liverpool; EMRYS ROBERTS, M.D., 5, Buckingham Place, Queen's Road, Clifton, Bristol.

PROVISIONAL TIME TABLE.

FRIDAY, JULY 22ND, 1910.
2.30 P.M.—Annual General Meeting, followed by Representative Meeting.

SATURDAY, JULY 23RD, 1910.
9.30 A.M.—Representative Meeting.

MONDAY, JULY 25TH, 1910.
10 A.M.—Representative Meeting.

TUESDAY, JULY 26TH, 1910.
10 AM.—Council Meeting.
10.30 A.M.—Representative Meeting.
2.30 P.M.—Adjourned General Meeting.
Induction of President.
4 P.M.—Annual Conference of Secretaries of Divisions and Branches.
8.30 P.M.—President's Address.

WEDNESDAY, JULY 27TH, 1910.
9.30 A.M.—Council Meeting.
10 A.M. to 1 P.M.—Sectional Meetings.
12.30 P.M.—Address in Medicine.
3 P.M.—Religious Services.

THURSDAY, JULY 28TH, 1910.
9.30 A.M.—Council Meeting.
10 A.M. to 1 P.M.—Sectional Meetings.
12 30 P.M.—Address in Surgery.
7.30 P.M.—Annual Dinner.

FRIDAY, JULY 29TH, 1910.
10 A.M. to 1 P.M.—Sectional Meetings.

SATURDAY, JULY 30TH, 1910.
Excursions.

Honorary Local Secretaries—

Dr. EDWARD W. GOODALL,
Eastern Hospital, Homerton, N.E.

Dr. WILLIAM GRIFFITH,
1, Chester Gate, Regent's Park, N.W.

Dr. LAURISTON E. SHAW,
64, Harley Street, W.

Meetings of Branches & Divisions.

[The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the JOURNAL.*]*

BORDER COUNTIES BRANCH.

A MEETING of this Branch was held at the Crichton Royal Institution, Dumfries, on Friday, November 26th, 1909. Dr. MURDOCH of Annan in the chair. Twenty-five members were present at the meeting.

Confirmation of Minutes.—The minutes of the previous meeting were read and approved, and signed by the Chairman.

Apologies for Non-attendance.—The SECRETARY intimated apologies from seventeen members.

The late Dr. Mitchell.—The CHAIRMAN referred to the loss the Branch and the British Medical Association had sustained in the death of Dr. Mitchell; and it was unanimously agreed that the Secretary be instructed to convey to Mrs. Mitchell the sympathy of the Branch.

Report from Executive Commitee of Scottish Division.—The SECRETARY read a report from the Executive Committee of the Scottish Division regarding the steps taken in connexion with the case of Rodger *v.* Herbertson. On Dr. MAXWELL ROSS'S motion, it was unanimously agreed to receive the report and acquiesce in the view taken by that committee.

Crichton Royal Institution.—Dr. EASTERBROOK then explained the plans of the new buildings at the Crichton Royal Institution, and afterwards showed the members over some of the new buildings, and demonstrated several cases of interest.

Dinner.—Dinner was afterwards served at the Station Hotel, and one of the most successful Branch meetings brought to a close.

LANCASHIRE AND CHESHIRE BRANCH:
ST. HELENS DIVISION.

A MEETING of the St. Helens Division was held on Wednesday, January 12th, in the Fleece Hotel, St. Helens. There were present Dr. REID, Chairman of the Division, in the chair; and Drs. Bassett, Kerr, Graham, Merrick, Dowling, Paterson, Donnellan, and Buchan.

Confirmation of Minutes.—The minutes of the meeting of November 10th, 1909, and of the Executive Committee meeting of January 5th, 1910, were read and approved.

Parliamentary Election, 1910.—The replies of the candidates for St. Helens and Newton were submitted and considered. They were as follows: (1) St. Helens: Mr. Glover, the retiring member, answered favourably to all the questions except I (1), to which he reserved his answer until he saw the bill; Mr. Rigby Swift gave a general reply, not binding himself to any of the questions submitted (2) Newton Division: Mr. Seddon, the retiring member, answered favourably to all the questions, adding also that he would support legislation for the rebate of spirit duty on drugs; Lord Wolmer gave a generally favourable reply, promising to consult on medical questions the local Division of the Association. It was resolved that the Secretary be instructed to thank the candidates for their replies, and that the matter be left to the individual members.

Manchester Corporation and the Midwives Act—The circular letter of the Medico-Political Committee of December 29th, 1909, was read; and it was resolved to write to the Local Supervising Authority of the County Borough of St. Helens supporting the attitude of the Corporation of Manchester in endeavouring to have medical men paid by town councils and not by boards of guardians.

Special Class of Consultants.—The letter of November 10th, 1909, and the report of the Central Ethical Committee were read, and the questions put by that Committee to the Division were voted upon, with the following result: On Question A, 7 favourable, 2 unfavourable; on Question B, 9 favourable.

Public Medical Service.—The letter of December 7th, 1909, and the model rules of a public medical service, of the Medico-Political Committee, were submitted; but it was resolved that, as the question did not in the meantime arise locally, the matter lie in abeyance.

Research Defence Society.—The letter of December 21st, 1909, of the Secretary of the Research Defence Society was read, and it was resolved:

> That the society be thanked for its communication, and that the Secretary of the Division act as a corresponding member of the society for the district.

Medical Inspection of School Children.—The letter from the Medico-Political Committee of January 6th, and the memorandum attached, was read. and it was resolved that as these questions had been settled locally and no further change was anticipated, no action be meantime taken.

This was all the business.

METROPOLITAN COUNTIES BRANCH:
LAMBETH DIVISION.

A MEETING of this Division was held at the Lambeth Infirmary, Brook Street, on Thursday, January 13th, at 4 p m., Dr. J. V. C. DENNING, Vice-Chairman, in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Paper.—Dr. E. W. GOODALL then showed upon the lantern an excellent series of slides selected to show the common confusions and mistakes which might occur in the diagnosis of measles, German measles, chicken-pox, small-pox, and scarlet fever, and laid stress upon the various points attention to which might prevent error. In the discussion which followed, Dr. ATKINSON, Dr. CAMERON, Dr. DENNING, Dr. COHEN, and others took part.

The late Dr. J. H. Wells.—A proposal was carried to circulate among members of the Division an appeal for subscriptions to the fund raised on behalf of the widow and children of the late Dr. J. H. Wells. Dr. TANNER personally addressed the members present, and explained the circumstances of the case.

Special Class of Consultants.—Reports of the Central Ethical Committee (*a*) upon a special class of consultants, (*b*) upon the establishment of a public medical service, were discussed and laid upon the table.

Votes of Thanks.—Votes of thanks were passed to Dr. Goodall for a remarkably interesting paper and to Dr. Quarry and the Lambeth Board of Guardians for their kind hospitality.

WALTHAMSTOW DIVISION.

A MEETING of this Division was held on Thursday, December 16th, 1909, at St. Catherine's Schoolroom, Leytonstone, at 4 p.m. Dr. HARFORD presided, and sixteen members and visitors attended.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Acute Intestinal Obstruction.—A paper on acute intestinal obstruction was then read by Mr. H. BETHAM ROBINSON, Surgeon to St. Thomas's Hospital, of which the following is a synopsis:

1. Acute obstruction.
   - (*a*) Internal strangulation.
   - (*b*) Volvulus.
   - (*c*) Obstruction by a foreign body such as gall stone.
   - (*d*) Acute intussusception.
2. Significance of terms "obstruction" and "strangulation."
3. Consideration of abdominal signs and symptoms in general.
4. Diagnostic symptoms in the different groups of acute obstruction with illustrative cases.
5. Simulation of acute obstruction by many lesions.
   - (*a*) Appendicitis.
   - (*b*) Perforation of the stomach, duodenum, and other viscera.
   - (*c*) Acute affections of gall bladder and pancreas.
   - (*d*) Twisting of pedicle in tumours of ovary and uterus.
   - (*e*) Rupture of extrauterine fetation.
   - (*f*) Thrombosis of mesenteric vessels.
6. Diagnosis of above lesions.

The paper aroused great interest. A discussion followed, in which the following gentlemen took part: Drs. HICKMAN, BERRILL, WARD, and SHADWELL. Mr. ROBINSON replied to questions. A vote of thanks to Mr. Robinson was proposed by Dr. TODD WHITE and seconded by Dr. JAMES CLARKE. This was unanimously accorded, and Mr. Robinson then left.

Correspondence.—Letters from Mr. Herbert Tanner and the Medical Secretary were read.

A Local Sewage Problem.—The meeting then discussed a local sewage problem. Dr. HARFORD proposed:

That some action be taken.

Dr. SHADWELL seconded the resolution, which was carried. Dr. WISE proposed:

That the respective medical officers of health should be asked to attend a meeting and lay the facts before the members.

This was carried. It was ultimately agreed that preliminary inquiry should be made by the Chairman and Secretary. The meeting then ended.

☞ *To ensure the insertion of notices in this column, they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

Association Notices.

ANNUAL SUBSCRIPTION, 1910.

MEMBERS are reminded that the Annual Subscription, amounting to 25s., is now due.

Cheques or Postal Orders should be made payable to the British Medical Association, and crossed London County and Westminster Bank.

In the case of Colonial Members the subscription should be paid to the Honorary Treasurer of their respective Branches.

COUNCIL MEETING.

A MEETING of the Council will be held at 2 o'clock in the afternoon of Wednesday, January 26th, in the Council Room at 429, Strand, London, W.C.

By Order,

GUY ELLISTON.

Financial Secretary and Business Manager.

December 30th, 1909.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BURMA BRANCH.—The annual meeting of this Branch will be held at the New General Hospital, Rangoon, during the first week in February, commencing on Wednesday, February 2nd, and ending on Saturday, February 5th. Arrangements will be made by the Managing Committee to put up members coming from the districts. *Programme.*—Wednesday, February 2nd, at 9.30 p.m., address by the President, followed by inspection of museum. On Thursday, February 3rd, at 5 p.m., in the Medical Section, a discussion on the "Spread of Tuberculosis in Burma" will be opened by the President. Members intending reading papers on some point in connexion with tuberculosis are asked to communicate with the Honorary Secretary, and limit the length of their papers to ten minutes, informing him the subject of their paper. The Museum will be open from 9 a.m. to 6 p.m. to all medical men, of all grades down to the hospital assistant class, who are cordially invited to visit the Museum. The annual dinner will take place on Friday, February 4th, at 8.15 p.m., Honorary Dinner Secretary, Dr. Pedley. It has been decided to allow each member one visitor's ticket. The cost of the dinner, including wines, which is estimated to come to about Rs. 10 each, will be equally divided amongst members attending the dinner. Attendance at this dinner is optional. Members are requested to intimate their intention of being present at this dinner to Dr. Pedley. During this day it is proposed to arrange visits to places of interest to the Association. On Saturday, February 5th, 5 to 8 p.m., in the Surgical Section, a discussion on "Compound Depressed Fractures of the Skull" will be opened by Major Duer, F.R.C.S. Papers from members on this subject should be limited to ten minutes. Members intending to read a paper on some point in connexion with this subject are asked to communicate with the Honorary Secretary, mentioning the particular point they wish to bring forward, so as to avoid overlapping. Committee of Management: Chairman, Major Barry; Dinner Secretary, Dr. Pedley; General Secretary, Major Rost. Museum: Major Rost (Foods and Drugs), Captain Williams (Instruments), Captain Whitmore (Pathology). It is hoped that members will communicate with the Museum Committee any specimens, photos, microscopic slides, drawings, plans, or anything of interest they have to show, and dispatch these so that they reach Rangoon at least one week before the meeting. A full description must accompany each specimen.—E. R. ROST, Major, I.M.S., General Hospital, Rangoon.

LANCASHIRE AND CHESHIRE BRANCH.—The Branch Council will meet in Manchester on Wednesday, February 16th, at 4.30 p.m.—F. CHARLES LARKIN, Branch Secretary.

LANCASHIRE AND CHESHIRE BRANCH: WARRINGTON DIVISION.—A special meeting of this Division will be held at the Infirmary, Warrington, on Tuesday, January 25th, at 4.30 p.m. Agenda: "Special Class of Consultants" (BRITISH MEDICAL JOURNAL, November 27th, 1909). The ordinary business of the Division. An executive committee meeting will (as arranged, be held at 4 p.m., before the Division meeting.—T. A. MURRAY, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: KENSINGTON DIVISION.—Sir Almroth Wright will give a demonstration and address on Vaccine Therapy to the members of the Division at St Mary's Hospital, Paddington, on Thursday, February 3rd, at 4.30 p.m. All members of the profession who live in the Division are invited. The Executive Committee wishes to draw attention to an appeal on behalf of the family of the late Dr. J. H. Wells.—H. BECKETT-OVERY, Honorary Secretary, South Kensington, S.W.

METROPOLITAN COUNTIES BRANCH: NORWOOD DIVISION.—The next meeting of this Division will be held at the Hospital for Sick Children, Lower Sydenham, on Thursday, January 27th, at 4 p.m., Dr Umney in the chair, to consider the report of the Central Ethical Committee upon a special class of consultants. The wards and other buildings of the hospital will be open for inspection. Clinical cases will be demonstrated by members of the staff. Dr. G. B. Batten will give a demonstration on the therapeutic uses of solid CO_2.—J. A. HOWARD, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: ST. PANCRAS AND ISLINGTON DIVISION.—A special meeting of this Division will be held on Wednesday, January 26th, at the Midland Grand Hotel, at 9 p.m. Debate on Public Medical Service, to be opened by Mr. H. W. Armit.—W. GRIFFITH, M.B., Honorary Secretary.

SOUTH-EASTERN BRANCH: FOLKESTONE DIVISION.—A meeting of the Folkestone Division will be held at the Hotel Burlington, Folkestone, on Thursday, January 27th, at 7.15 p.m. The annual dinner will take place at 8 p.m. Tickets, 5s. each. Agenda: To consider the Central Ethical Committee's report on the recognition of a special class of consultants. All members of the South-Eastern Branch are invited to attend and introduce professional friends.—P. VERNON DODD, M.D., Honorary Secretary.

SOUTH-EASTERN BRANCH: GUILDFORD DIVISION.—The next meeting of this Division will be held at the Royal Surrey County Hospital on Friday, January 28th, at 4.30 p.m. Dr. A. Hope Walker, Chairman of the Division, will preside. Tea will be provided at 4.15 p.m. Agenda: (1) Minutes of the last meeting. (2) Dr. F. Edward Pearse (Ripley) will read a paper on The Report of the Royal Commission on the Poor Law as affecting General Practitioners, to be followed by a discussion. (3) Matters referred to Divisions for consideration and discussion. (*a*) Report of Central Ethical Committee on a Special Class of Consultants. (*b*) Model rules for public medical services. (*c*) Resolutions of the Annual Representative Meeting, July, 1909, on medical inspection of school children and treatment of those found defective. (*d*) Circular letter of the Manchester Corporation *re* payment of medical men called in by midwives. (4) Letter from Research Defence Society. (5) Any other business.—H. B. BUTLER, East Dale, Guildford; E. J. SMYTH, Maythorne, Guildford, Honorary Secretaries.

ULSTER BRANCH.—The winter meeting of this Branch wil be held in Belfast on Thursday, January 27th, at 4 p.m.—CECIL SHAW, M.D., Honorary Secretary, 29, University Square, Belfast.

Vital Statistics.

VITAL STATISTICS OF LONDON DURING THE FOURTH QUARTER OF 1909.

[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.]

IN the accompanying table will be found summarized the vital statistics of the City of London and of the metropolitan boroughs, based upon the Registrar-General's returns for the fourth quarter of the year 1909. The mortality figures in the table relate to the deaths of persons actually belonging to the various boroughs, and are obtained by distributing the deaths in institutions among the several boroughs in which the deceased persons had previously resided. The 28,150 births registered in London during the three months under notice were equal to an annual rate of 23·4 per 1,000 of the population, estimated at 4,833,938 persons in the middle of last year; in the corresponding quarters of the three preceding years the rates were 25·5, 24·4, and 23·6 per 1,000 respectively, the average rate in the fourth quarter of the ten years 1899–1908 being 26.6 per 1,000. The birth-rates last quarter ranged from 11·9 in the City of London, 12·1 in Hampstead, 14·4 in the City of Westminster, 15·0 in Chelsea, 16·0 in Kensington, and 17·9 in Paddington, to 28·7 in Poplar, 29·8 in Bethnal Green, 30·8 in Stepney, 31.2 in Bermondsey, 32.1 in St. Marylebone, and 35·4 in Finsbury.

During last quarter the deaths of 16,271 persons belonging to London were registered, equal to an annual rate of 13·5 per 1,000, against 15·4, 14.3, and 13·7 in the corresponding period of the three preceding years; in the fourth quarters of the ten years 1899–1908 the death-rate averaged 16·5 per 1,000. The death-rates in the several boroughs last quarter ranged from 8.5 in Hampstead, 10·2 in Stoke Newington, 10·6 in Lewisham, 11·0 in Wandsworth, 11·4 in Fulham, and 11·7 in Woolwich, to 15·6 in Stepney, 16·1 in Southwark, 16.2 in Bethnal Green, 17·1 in Shoreditch, 17·2 in Bermondsey, 17·9 in Finsbury, and 19.2 in the City of London.

The 16,271 deaths from all causes last quarter included 933 which were referred to the principal infectious diseases; of these one resulted from small-pox, 136 from measles, 86 from scarlet fever, 131 from diphtheria, 239 from whooping-cough, 36 from enteric fever, and 304 from diarrhœa, but not any from typhus or from ill-defined pyrexia. These 933 deaths were equal to an annual rate of 0·77 per 1,000, or 0·70 per 1,000 less than the average rate in the corresponding period of the ten preceding years. The lowest death-rates from these diseases last quarter were 0·22 in Stoke Newington, 0.26 in Hampstead, 0·37 in Kensington, in the City of Westminster, and in Holborn, and 0·39 in Lewisham; the highest rates were 1.23 in Deptford, 1.34 in Bethnal Green, 1·35 in Finsbury, 1.49 in Shoreditch, 1·54 in the City of London, 1·55 in Stepney, and 1·82 in Poplar. The greatest proportional mortality from measles was recorded in Hackney, the City of London, Bethnal Green, Stepney, Poplar, and Deptford; from scarlet fever in Fulham, Islington, Finsbury, Bethnal Green, Bermondsey, Lewisham, and Woolwich; from diphtheria in Hammersmith, Fulham, Chelsea, Holborn, Shoreditch, Bethnal Green, and Lambeth; from whooping-cough in St. Marylebone, the City of London, Shoreditch, Stepney, Poplar, Deptford, and Greenwich; from "fever" in the City of London, the City of Westminster, Hampstead, Finsbury, and Deptford; and from diarrhœa in Fulham, Finsbury, Shoreditch, Bethnal Green, Poplar, and Bermondsey. The fatal case of small-pox belonged to Stepney.

During the quarter under notice the deaths from phthisis among London residents numbered 1,619, and were equal to an annual rate of 1·34 per 1,000, against 1.59, 1.34, and 1·35 in the three preceding fourth quarters; the average rate in the corresponding period of the ten years 1899–1908 was 1.63 per 1,000. The death-rates from this disease last quarter ranged from 0.65 in Lewisham, 0.66 in Stoke Newington, 0·68 in Hampstead, 0·83 in Kensington, 0·87 in Greenwich and in Woolwich, and 0.93 in Wandsworth, to 1·65 in Chelsea, 1.72 in St. Pancras, 1.77 in Southwark, 1·79 in Holborn, 1·82 in Stepney, 1.86 in Bermondsey, 2.20 in the City of London, and 2·32 in Finsbury.

Infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 116 per 1,000; in the corresponding quarter of the three preceding years the rates were 122, 131, and 123 per 1,000 respectively, the ten years' average for the fourth quarter of the year being 140 per 1,000. The lowest rates for infant mortality last quarter were recorded in St. Marylebone, Hampstead, Stoke Newington, Holborn, Wandsworth, and Lewisham, and the highest rates in Hammersmith, Chelsea, the City of London, Shoreditch, and Bethnal Green.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 7,941 births and 4,785 deaths were registered during the week ending Saturday last, January 15th. The annual rate of mortality in these towns, which had been 16.7 and 14.8 per 1,000 in the two preceding weeks, rose again last week to 14.9 per 1,000. The rates in the several towns ranged from 3·7 in Hornsey, 5·7 in Willesden, 7.4 in King's Norton, 8·5 in Warrington, 8·6 in Leyton, and 8·9 in West Ham, to 20·1 in York, 20·7 in Rhondda, 20·9 in Burnley, 21.3 in Birkenhead, 21·4 in Stockton-on-Tees, 21·6 in Swansea, 22·8 in Oldham and in Rotherham, and 26·1 in Ipswich; in London the rate of mortality was 14·6 per 1,000. The death rate from the principal infectious diseases averaged 0.9 per 1,000 in the seventy-six towns; in London also the death-rate from these diseases was 0.9 per 1,000, while among the seventy-five other large towns the rates ranged upwards to 2·1 in Swansea, 2·2 in Hanley, in West Bromwich and in Oldham, 2.3 in Rhondda, 3·8 in Birkenhead, 3·9 in Burnley and 4·1 in Ipswich. Measles caused a death rate of 1.1 in Northampton, 1.4 in Wallasey, 2.6 in Birkenhead, 2·7 in Ipswich, and 2.9 in Burnley; diphtheria of 1.2 in King's Norton, 1.5 in Hanley, 1.6 in Barrow-in-Furness, and 1.8 in Devonport; whooping-cough of 1.1 in Swansea, 1.2 in Aston Manor and in Plymouth, and 1.4 in Ipswich; and diarrhœa of 1.1 in Rhondda. The mortality from scarlet fever and from enteric fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The Metropolitan Asylums Hospitals contained 4 small-pox patients at the end of last week, against 5 at the end of the previous week. The number of scarlet fever patients under treatment in these hospitals and in the London Fever Hospital, which had been 2,362 and 2,256 at the end of the two preceding weeks, had further declined to 2,172 at the end of last week; 200 new cases were admitted during the week, against 224, 244, and 212 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday last, January 15th, 874 births and 604 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 19.6, 19·5, and 18·9 per 1,000 in the three preceding weeks, further declined last week to 16.7 per 1,000, but was 1·8 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scottish towns the death-rates ranged from 11·5 in Aberdeen and 15·1 in Paisley, to 23·0 in Dundee and 25·2 in Perth. The death-rate from the principal infectious diseases averaged 2·3 per 1,000 in the eight towns, the highest rates being recorded in Glasgow and Dundee. The 277 deaths registered in Glasgow included 31 which were referred to measles, 6 to scarlet fever, 3 to diphtheria, 2 to whooping-cough, 3 to enteric fever, 2 to cerebro-spinal meningitis, and 4 to diarrhœa. Six fatal cases of measles, 3 of diphtheria, and 4 of diarrhœa were recorded in Edinburgh; and 2 of scarlet fever, 2 of diphtheria and 4 of diarrhœa, in Dundee.

Analysis of the Vital Statistics of the Metropolitan Boroughs and of the City of London after Distribution of Deaths occurring in Public Institutions during the Fourth Quarter of 1909.

BOROUGHS.	Estimated Population middle of 1909.	Births.	Deaths.	Annual Rate per 1,000 Living.			Deaths from Principal Infectious Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric Fever.	Ill-defined Pyrexia.	Diarrhœa.	Phthisis.	Deaths of Children Under 1 Year of Age to 1,000 Births.
				Births.	Deaths.	Principal Infectious Diseases.												
COUNTY OF LONDON ...	4,833,938	28,150	16,271	23.4	13.5	0.77	933	1	136	86	131	239	—	36	—	304	1,619	116
Paddington	151,955	680	471	17.9	12.4	0.69	26	—	4	3	5	4	—	2	—	8	43	122
Kensington	183,683	734	561	16.0	12.3	0.37	17	—	4	2	1	3	—	—	—	7	38	138
Hammersmith ...	125,704	680	430	21.7	13.7	0.66	21	—	1	1	5	2	—	2	—	10	33	153
Fulham	176,406	990	500	22.5	11.4	0.99	44	—	1	5	11	7	—	—	—	20	65	119
Chelsea	75,249	282	276	15.0	14.7	0.69	13	—	3	1	3	3	—	1	—	2	31	145
City of Westminster	168,883	606	539	14.4	12.8	0.37	15	—	—	3	4	—	—	4	—	4	52	112
St. Marylebone ...	126,027	1,008	452	32.1	14.4	0.67	21	—	—	1	3	10	—	—	—	7	50	70
Hampstead	94,185	283	200	12.1	8.5	0.26	6	—	—	—	1	—	—	2	—	3	16	85
St. Pancras	237,422	1,224	839	20.7	14.2	0.43	25	—	1	3	2	8	—	3	—	8	102	125
Islington	351,202	1,936	1,203	22.1	13.7	0.56	49	—	4	9	9	14	—	1	—	12	125	107
Stoke Newington ...	54,423	251	138	18.5	10.2	0.22	3	—	—	—	1	—	—	—	—	2	9	76
Hackney	237,601	1,341	746	22.6	12.6	0.65	38	—	13	3	6	7	—	1	—	8	62	98
Holborn	53,802	335	192	25.0	14.3	0.37	5	—	—	—	2	1	—	—	—	2	24	66
Finsbury	95,289	841	425	35.4	17.9	1.35	32	—	4	3	2	3	—	2	—	18	55	114
City of London ...	18,193	54	87	11.9	19.2	1.54	7	—	2	—	—	3	—	1	—	1	10	148
Shoreditch	114,802	788	490	27.5	17.1	1.49	43	—	5	1	6	11	—	—	—	20	43	159
Bethnal Green ...	131,516	977	532	29.8	16.2	1.34	44	—	12	6	5	5	—	1	—	15	48	145
Stepney	312,525	2,403	1,218	30.8	15.6	1.55	120	1	41	7	10	30	—	4	—	27	142	129
Poplar	171,965	1,229	652	28.7	15.2	1.82	78	—	19	2	3	31	—	2	—	21	50	137
Southwark	211,125	1,375	850	26.1	16.1	0.89	47	—	2	3	7	15	—	2	—	18	93	130
Bermondsey	127,569	993	546	31.2	17.2	0.98	31	—	1	5	—	7	—	—	—	18	59	130
Lambeth	324,188	1,979	1,062	24.5	13.1	0.58	46	—	2	6	13	12	—	2	—	11	126	102
Battersea	186,036	1,025	595	22.1	12.8	0.73	34	—	3	2	4	7	—	2	—	16	61	138
Wandsworth	297,646	1,661	820	22.4	11.0	0.40	31	—	4	1	4	12	—	1	—	9	69	84
Camberwell	283,022	1,564	885	22.2	12.5	0.52	37	—	—	3	8	7	—	—	—	19	96	111
Deptford	118,583	741	405	25.1	13.7	1.23	36	—	7	2	4	16	—	2	—	5	38	119
Greenwich	111,014	583	345	21.0	12.5	0.91	25	—	3	2	3	11	—	1	—	5	24	120
Lewisham	160,749	840	425	21.0	10.6	0.39	16	—	—	7	5	2	—	—	—	2	26	79
Woolwich	133,374	748	389	22.5	11.7	0.69	23	—	—	5	4	8	—	—	—	6	29	102

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, January 15th, 595 births and 492 deaths were registered in the twenty-two principal urban districts of Ireland, as against 689 births and 435 deaths in the preceding period. The annual death rate in these districts, which had been 18 2, 25 4, and 19.7 per 1 000 in the three preceding weeks, rose to 22 3 per 1,000 in the week under notice, this figure being 7 4 per 1.000 higher than the mean annual death-rate in the seventy-six English towns for the corresponding period. The figures in Dublin and Belfast were 22 1 and 22 7 respectively, those in other districts ranging from 6 6 in Queenstown and 9 6 in Ballymena to 42 3 in Tralee and 45 5 in Lisburn, while Cork stood at 23 3, Londonderry at 22 8, Limerick at 30 1, and Waterford at 23 4 The zymotic death-rate in the twenty-two districts averaged 1 3 per 1,000, as against 1 6 per 1,000 in the preceding period.

Naval and Military Appointments.

EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s 6d, which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

FIELD officer just returned from abroad is willing to exchange to India. Apply to Eastern Exchange, c.o. Messrs. Holt and Co.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: Staff Surgeon E. C. SAWDY to the *Jupiter*, supernumerary, January 11th; Staff Surgeon J G. WATT and Surgeon G C CROSS to the *Sutlej*, supernumerary, January 11th; Surgeon A. DAVIDSON, M B., to the *Magnificent*, supernumerary, January 11th; Staff Surgeon R S. OSBORNE to the *Vivid*. additional, to be lent temporarily to Plymouth Hospital, January 12th; Fleet Surgeon A. H. JEREMY, M B, and Surgeon A. C. WILSON to the *Andromeda*, January 13th, and to the *Monmouth*, on recommissioning, undated; Staff Surgeon C. H. J ROBINSON and Surgeon G D. WALSH to the *Andromeda* for the voyage home on the *Monmouth* paying off. undated; Surgeon F. W. QUIRK to the *Dwarf*, additional, January 14th, and on recommissioning, undated; Surgeon L C E MURPHY to the *Commonwealth*, January 15th; Surgeon A H. P. RICHARDSON to the Royal Marine Dépôt, Deal, to join on completion of foreign service leave.

Deputy Inspector-General A W. WHITLEY has been awarded the Greenwich Hospital pension of £ 0 a year in the vacancy caused by the death of Deputy Inspector-General A. W. Blake on December 4th, 1909. Deputy Inspector-General Whitley retired from the service in 1894.

TERRITORIAL FORCE.

ROYAL ARMY MEDICAL CORPS.

First Highland Field Ambulance.—Major A. W. MACINTOSH, M.D., resigns his commission, December 8th, 1909.

Second Wessex Field Ambulance.—DAVID MACNAIR to be Lieutenant, December 3rd, 1909.

Attached to Units other than Medical Units.—Captain and Honorary Surgeon-Major C S. DE SEGUNDO, M B., to be Major, July 3rd, 1909. Lieutenant FREDERICK PHILIP, M.B., to be Captain, December 2nd, 1909.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

BOOTLE BOROUGH HOSPITAL.—(1) Honorary Physician; (2) Clinical Assistant for Ophthalmic Department. Salary, £50 per annum.

BRISTOL DISPENSARY.—Medical Officer.

BRISTOL ROYAL INFIRMARY.—(1) Honorary Dental Anaesthetist. (2) Honorary Assistant Dental Surgeon.

BRISTOL UNIVERSITY.—Demonstrator of Anatomy. Salary, £180 per annum, rising to £200.

BURNLEY: VICTORIA HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

CALCUTTA: LADY DUFFERIN VICTORIA HOSPITAL.—Senior House-Surgeon. Salary, Rs.250 per mensem.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—House-Physician. Salary, £70 per annum.

CHELTENHAM GENERAL HOSPITAL.—(1) House-Physician; (2) House-Surgeon. Salary, £70 per annum each.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.—Junior House Surgeon. Salary, £60 per annum.

EALING HOSPITAL.—Honorary Ophthalmic Surgeon.

ENNISKILLEN: FERMANAGH COUNTY HOSPITAL.—House-Surgeon. Salary, £72 per annum.

HÔPITAL FRANÇAIS. Shaftesbury Avenue, W.C.—Senior Resident Medical Officer. Salary, £100 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Physician. Salary, £30 for six months and £2 10s. washing allowance.

KELLING OPEN-AIR SANATORIUM.—Resident Medical Officer Salary commencing £250.

LEEDS: HOSPITAL FOR WOMEN AND CHILDREN.—House-Surgeon. Salary at the rate of £50 per annum.

LEEDS INFECTIOUS DISEASES HOSPITAL AND SANATORIUM.—Resident Medical Officer. Salary at the rate of £110 per annum.

LEEDS TUBERCULOSIS ASSOCIATION.—Resident Medical Officer for the Sanatorium at Gateforth. Salary at the rate of £100 per annum.

LEEDS UNIVERSITY SCHOOL OF MEDICINE.—Research Assistant Salary, £100 per annum.

LIVERPOOL UNIVERSITY: CANCER RESEARCH LABORATORY. Research Worker. Salary commencing £150 per annum

LONDON THROAT HOSPITAL. Great Portland Street, W.—House-Surgeon Honorarium £50 a year.

MANCHESTER NORTHERN HOSPITAL FOR WOMEN AND CHILDREN.—(1) Honorary Assistant Physician for Diseases of Children; (2) Assistant Medical Officer.

OLDHAM INFIRMARY.—Second House-Surgeon until May next, and then eligible for election to senior post Salary at the rate of £100 and £120 per annum respectively.

OXFORD: RADCLIFFE INFIRMARY AND COUNTY HOSPITAL.—(1) House-Surgeon; (2) Junior House-Surgeon. Salary at the rate of £80 per annum each.

RHONDDA, GLAM: MAINDY AND EASTERN COLLIERIES, Ton-Pentre.—Medical Attendant to the Workmen.

SUNDERLAND INFIRMARY.—Two Male House-Surgeons. Salary, £80 per annum each.

THROAT HOSPITAL, Golden Square, W.—Surgical Registrar. Honorarium, 20 guineas per annum.

UNIVERSITY COLLEGE HOSPITAL. Gower Street, W.C.—Medical Officer in Charge of Electro-Radiographic Department.

WOLVERHAMPTON AND MIDLAND COUNTIES EYE INFIRMARY. House-Surgeon. Salary, £80 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces vacancies at Wootton Bassett, co. Wilts, and Rayleigh, co. Essex.

APPOINTMENTS.

ALLEN, Mrs. Dexter, M B., reappointed House-Surgeon to the Oxford Eye Hospital.

ATKINS, Geo E., M R C.S, L R C.P., Medical Officer of Health for the Urban District of Wombwell and Certifying Factory Surgeon for the Wombwell and Darfield Districts.

DONALDSON, Robert, M A, M B. Ch.B., F R C S.Edin., Honorary Anaesthetist to the Royal Southern Hospital, Liverpool.

HEATH, Oliver, M A, B C Camb., etc., Assistant Curator of the Museum and Assistant Pathologist to St. Mary's Hospital, Paddington, W.

MAYER Clifford, M.D, B.S Lond., M R C.S., L R.C.P., D T.M. and H. Camb., Chief Medical Officer to the State of Baroda, and Physician to the Gaekwar.

MORTON, A. Stanford, F R.C.S, Consulting Ophthalmic Surgeon to the Central London Throat and Ear Hospital.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s 6d, which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTH.

TURNER.—At 22, Jesmond Road, Newcastle-upon-Tyne, on the 8th inst., to Mr. and Mrs. G. Grey Turner, a daughter.

MARRIAGE.

HUGHES—TRIBE.—On January 17th, at St. Mary's, Bryanston Square, W., by the Rev. M. W. T. Conran, SS J E., Frank Percival Hughes, M.B., B.S. (formerly of Bristol), to Alice Mary, widow of the late Dr. Herman Tribe, of Chatham.

DEATH.

POWELL.—On the 6th inst., at Hafod Villa, Swansea, Mary Beatrice, the wife of Thomas Morgan Jones Powell, M.B.Lond., aged 40 years.

RECENT PUBLICATIONS.

Consultations Médicales Françaises. No. 12, l'Avortement. Paris A. Poinat, Publisher. 1909 Pp. 16.

In this, the concluding fasciculus for the year 1909 of this monthly publication, Dr. P. Rudaux, a physician-accoucheur to the hospitals in Paris, deals with abortion and its treatment and prevention. It belongs to a series of monographs on various subjects, each obtainable post free for about 6d.

PUBLISHERS' ANNOUNCEMENTS.

MESSRS. BAILLIÈRE, TINDALL, AND COX inform us that His Majesty the King has been graciously pleased to accept a copy of *Pulmonary Tuberculosis and Sanatorium Treatment*, by Dr. C. Muthu, Physician to the Mendip Hills Sanatorium, Wells, Somerset.

DIARY FOR THE WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8 p m.—Clinical Evening.

ROYAL SOCIETY OF MEDICINE:

ODONTOLOGICAL SECTION, 20, Hanover Square, 8 p.m.—Papers:—Dr. Eyre and Mr. J. Lewin Payne: The Bacteriology of Pyorrhoea Alveolaris and the Results of Treatment by Vaccines. Mr. Kenneth Goadby: The Vaccine Treatment of Early Cases of Pyorrhoea Alveolaris.

TUESDAY.

ROYAL SOCIETY OF MEDICINE:

MEDICAL SECTION, 20, Hanover Square, 5 30 p.m.—Paper:—Dr. Llewellyn Phillips: Treatment of Tetanus by Intraspinal Injection of Magnesium Sulphate.

WEDNESDAY.

HUNTERIAN SOCIETY, London Institution, Finsbury Circus, 8.30 p.m.—Clinical and Pathological Evening.

THURSDAY.

HARVEIAN SOCIETY OF LONDON, Stafford Rooms, Titchborne Street, Edgware Road, 8.30 p m—Clinical Evening.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 11, Chandos Street, Cavendish Square, W. 8 p m., Card Exhibits. 8 30 p m, Papers:—Dr. F. E Batten: Note on a Case of Bilateral Ophthalmoplegia Externa in an Infant. Mr M S Mayou: Congenital Anterior Synechiae with Ophthalmos. Mr. M. L. Hepburn: Xerosis of the Conjunctiva and Night Blindness.

ROYAL SOCIETY OF MEDICINE:

BALNEOLOGICAL AND CLIMATOLOGICAL SECTION, 20, Hanover Square, 5.30 p m—Paper:—Dr. Ackerley: Saline Waters and the Use and Abuse of Common Salt.

NEUROLOGICAL SECTION, 20, Hanover Square 8 30 p m.—Discussion: Syphilitic and Metasyphilitic Diseases of the Nervous System, to be opened by Dr. Frederick Mott, F.R.S.

FRIDAY.

ROYAL SOCIETY OF MEDICINE:

EPIDEMIOLOGICAL SECTION, 20, Hanover Square, 8 30 p m—Paper:—Dr. F. Graham Crookshank: The Control of Scarlet Fever.

SECTION OF DISEASE IN CHILDREN, 20, Hanover Square, 4.30 p m.—(1) Cases and Specimens. (2) Papers:—Dr. A. E Russell: A Case of Cyclic Vomiting in a Child. Dr. Donald Carter: Infant Feeding.

POST-GRADUATE COURSES AND LECTURES.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street W.C.—Thursday, 4 p m., Selected Cases from the Medical Wards.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a m.; Medical and Surgical Clinics, 2 15 p m. and 3 15 p.m. respectively; Operations, 2 p m. Special Clinics: Ear and Throat at noon and 4 p m., Monday, and noon Thursday; Skin, at noon and 4 p.m., Thursday, and noon, Friday; Eye, 11 a m., Wednesday and Saturday; Radiography, 4 p m, Thursday. Special Lectures: Tuesday, 3 15 p m., Mr. Carless: Some Cases of Sarcoma of the Femur; Friday, 2.15 p m., Dr. Rose Bradford: Pyelonephritis.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week at 4 p m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday Eye. Lectures, at 5.15 p m. each day, will be given as follows: Monday, The Examination of Insane Criminals; Tuesday, The Treatment of Septic Conditions; Wednesday. On Dysmenorrhoea; Thursday, Eye Symptoms and Signs in Nervous Diseases.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3 30 p m.. Paraplegia; Friday, 3 30 p.m., Gait as a Means of Diagnosis.

NORTH-EAST LONDON POST GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics. 2 30 p m., Medical Out patient: Nose, Throat, and Ear; 4 30 p m., Medical In-patient. Tuesday, 10 a m., Medical Out-patient Clinic; 2 30 p.m, Operations; Clinics: Surgical, Gynaecological. Wednesday, 2 30 p m, Medical Out-patient, Skin and Eye Clinics; *X* Rays; 4 30 p m, Lecture: The Removal of Superfluous Hairs by Electrical Methods. Thursday. 2 30 p m, Gynaecological Operations; Clinics: Medical Out-patient; Surgical Out-patient; 3 p m., Medical In-patient. Lecture: Idiocy and Allied Disorders in Children (Second Lecture). Friday, 2 30 p m., Operations; Clinics: Medical Out-patient, Eye; 3 p m., Medical In-patient.

POST-GRADUATE COLLEGE, West London Hospital, Hammersmith, W.—The following are the arrangements for next week:—Daily, Medical and Surgical Clinics: 2 p m, Operations and *X* Rays; 2 30 p.m. Monday and Thursday, and Wednesday, 2 p m., and Saturday, 10 a.m., Diseases of the Eyes; Tuesday and Friday, 10 a m., Gynaecological Operations; 2 p m. (and Wednesday and Saturday, 10 a m), Diseases of Throat, Nose, and Ear; 2 30 p m., Diseases of the Skin; Wednesday and Saturday, 10 a m, Diseases of Children; Wednesday, 2.30 p m., Diseases of Women. At 10 a.m., Monday and Thursday, Surgical Registrar, Demonstration of Cases; Friday, Medical Registrar, Demonstration of Medical Cases; at 12 noon, Thursday, Pathological Demonstration; at 12.15 p m, Wednesday, Practical Medicine; at 5 p m, Monday, Practical Surgery; Tuesday, Clinical Pathology; Wednesday, Medicine; Thursday, Adolescent Insanity; Friday, *X*-Ray Examination of the Digestive System.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
JANUARY.	
23 Sunday ..	
24 MONDAY ..	
25 TUESDAY ..	LONDON: Medico-Political Parliamentary Subcommittee. 2.15 p.m. WARRINGTON DIVISION, *Lancashire and Cheshire Branch*, Special Meeting, Infirmary, Warrington, 4.30 p.m.; Executive Committee, 4 p m.
26 WEDNESDAY	**London: Central Council, 2 p.m.** BATH AND BRISTOL BRANCH, Bristol. RICHMOND DIVISION, *Metropolitan Counties Branch*, Royal Hospital, Richmond, 8.30 p.m. ST. PANCRAS AND ISLINGTON DIVISION, *Metropolitan Counties Branch*, Special Meeting, Midland Grand Hotel, 9 p.m.
27 THURSDAY ..	FOLKESTONE DIVISION, *South-Eastern Branch*, Hotel Burlington, Folkestone, 7.15 p.m.; Annual Dinner, 8 p.m. NORWOOD DIVISION, *Metropolitan Counties Branch*, Hospital for Sick Children, Lower Sydenham, 4 p m. ULSTER BRANCH, Winter Meeting, Belfast, 4 p.m.
28 FRIDAY ..	BIRMINGHAM BRANCH, Pathological and Clinical Meeting, Medical Institute, Edmund Street, 8 p.m. CITY DIVISION, *Metropolitan Counties Branch*, Business Meeting, Great Eastern Hotel, 4 p.m. GUILDFORD DIVISION, *South-Eastern Branch*, Royal Surrey County Hospital, 4.30 p.m.; Tea, 4.15 p.m. HAMPSTEAD DIVISION, *Metropolitan Counties Branch*, 8.30 p.m.

Date.	Meetings to be Held.
JANUARY *(Continued).*	
29 SATURDAY..	
30 Sunday ..	
31 MONDAY ..	
FEBRUARY.	
1 TUESDAY ..	
2 WEDNESDAY	BURMA BRANCH, New General Hospital, Rangoon, 9.30 p.m.
3 THURSDAY ..	BURMA BRANCH, Medical Section, New General Hospital, Rangoon, 5 p.m. KENSINGTON DIVISION, *Metropolitan Counties Branch*, St. Mary's Hospital, 4.30 p.m.
4 FRIDAY ..	BURMA BRANCH, Annual Dinner, 8.15 p.m.
5 SATURDAY ..	BURMA BRANCH, Surgical Section, New General Hospital, Rangoon, 5 p.m. to 8 p.m.
6 Sunday ..	
7 MONDAY ..	
8 TUESDAY ..	
9 WEDNESDAY	
10 THURSDAY ..	BIRMINGHAM BRANCH, Medical Institute, Edmund Street, 3.30 p.m.
11 FRIDAY ..	
12 SATURDAY ..	
13 Sunday ..	
14 MONDAY ..	
15 TUESDAY ..	

Printed and Published by the British Medical Association at their Offices, No. 429, Strand, in the Parish of St. Martin-in-the-Fields in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JANUARY 29TH, 1910.

CONTENTS.

	PAGE
Meetings of Branches and Divisions:	
Birmingham Branch: Central Division	33
Cape of Good Hope—Eastern Province Branch	33
Gibraltar Branch	34
ASSOCIATION NOTICES.—ANNUAL SUBSCRIPTION, 1910	35
NAVAL AND MILITARY APPOINTMENTS	36
VITAL STATISTICS	37
VACANCIES AND APPOINTMENTS	39
BIRTHS, MARRIAGES, AND DEATHS	39
DIARY FOR THE WEEK	39
PUBLISHERS' ANNOUNCEMENTS	40
CALENDAR	40

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

BIRMINGHAM BRANCH: CENTRAL DIVISION.

A GENERAL meeting of this Division was held at the Medical Institute on January 19th, at 3.30 p.m. Dr. W. R. JORDAN (Chairman) presided, and there were twenty-eight other members present.

Confirmation of Minutes.—The minutes of the previous meeting were read, confirmed, and signed.

Apologies for Non attendance.—Apologies for non-attendance were received from Dr. Branson, and Professors Barling and Morrison.

Scale of Fees for Midwives' Calls.—The HONORARY SECRETARY reported that he had forwarded a copy of the resolution passed by the Division as to the scale of fees payable by the guardians for midwives' calls to the clerk to the guardians, and read a letter in which the clerk informed him that after due consideration the guardians had decided to continue the present scale of fees until the end of next June. It was resolved that the thanks of the Division be conveyed to the guardians for their action.

West Bromwich Education Committee.—With reference to the matter submitted by Dr. Manley at the last meeting, the HONORARY SECRETARY reported that he had sent a copy of the resolution to Dr. Manley, who had reported that the Education Committee at West Bromwich had decided against making a grant to the local hospital for work done for children found defective on medical inspection. It was resolved to thank Dr. Manley for taking this matter up and for bringing it before the Division.

Special Class of Consultants.—The Central Ethical Committee's report on a special class of consultants was then considered. The CHAIRMAN, on behalf of the Executive, moved:

> That this Division expresses the opinion that, while in favour of the recognition of a special class of consultants, it considers any attempt to establish such a class at the present time to be impracticable.

This was seconded by Mr. NUTHALL, and discussed by Drs. DENNE, NEAL, KIRBY, OAKES and STANLEY BARNES, and Messrs. PRIESTLEY SMITH, LEEDHAM-GREEN, and LUCAS. Several amendments were moved, but eventually were withdrawn in favour of one to divide the original resolution into two parts. This was carried and the following resolutions submitted:

1. That this Division is in favour of the recognition of a special class of consultants.
2. That this Division is of opinion that any attempt to establish such a class at the present time is impracticable.

In this form both resolutions were carried, the first by 11 to 4, the second by 14 to 1, in each case several members abstaining from voting.

This concluded the business of this meeting.

CAPE OF GOOD HOPE—EASTERN PROVINCE BRANCH.

A MEETING of this Branch was held at Grahamstown at 8 p.m., on Friday, December 10th, 1909, at the Library of the Association at Rhodes College. Dr. G. E. FITZGERALD was in the chair, and there were present Drs. J. Bruce-Bays, A. Cowper, R. T. Harrison, R. C. Mullins, G. C. Purvis, and E. G. Dru Drury; also, as visitors, Professor J. E. Duerden (Rhodes College), and Wm. Robertson, M.R.C.V.S., and Mr. J. H. L. Lyons (both of the Veterinary Laboratory).

Confirmation of Minutes.—The minutes of the meeting of October 8th, 1909, were read and confirmed.

Branch Library.—Six duplicate keys were laid on the table. It was resolved that a deposit of 2s. 6d. should be paid by each member receiving a key of the Branch Library, the deposit to be returnable in exchange for the surrender of the key. It was resolved that the new shelving for books and specimens erected on the south wall, and the fresh paper on the walls, be approved and paid for as soon as the account is rendered.

Annual Representative Meeting.—The minutes of the Annual Representative Meeting held at Belfast, and the official *précis* of it, were laid on the table.

Proposed South African Committee.—A memorandum of the Organization Committee on the proposed South African Committee was also laid on the table. The Secretary was instructed to prepare a *précis* of the latter document and of the present position of the movement to obtain the committee.

Ethical Cases and Non-Members.—A letter was read on the method of procedure in ethical cases where non-members are involved, and advising secretaries of the risk of libel actions which they may inadvertently incur by writing to third persons about the actions of non-members of the Association.

Presentation to Library.—The SECRETARY presented Volumes I and II of the *British Journal of Children's Diseases* and four binding covers for the remaining volumes to the Library.

Nomination of Officers.—Nominations for the various offices for the year 1910 were then made, and will

appear on the ballot papers before the February meeting. Drs. FitzGerald and Purvis were elected auditors, and Dr. G. F. Lillie was elected Curator of the Museum, and authority was granted to purchase a book for the purpose of a catalogue.

Paper.—Dr. BRUCE-BAYS read a paper entitled Food and its Poisons, which, after dealing with some local experiences, surveyed a very large number of recorded instances of food poisons. All present joined in the discussion; a vote of thanks to Dr. Bruce-Bays was passed, and it was resolved to ask Dr. Darley Hartley to publish.

Storage of Supplies.—It was resolved:

That, in the opinion of this meeting of the Eastern Province Branch of the British Medical Association, it is imperative that the municipal council should adopt regulations to control the preparation, storage, and sale of bread and the storage and sale of meat and milk in Grahamstown.

Meat Inspection.—It was resolved:

That Mr. Lyons be invited to give a practical demonstration on methods of meat inspection at the April meeting of the Branch.

Dinner.—It was resolved:

That the annual meeting in February, 1910, be preceded by a dinner.

GIBRALTAR BRANCH.

A GENERAL meeting of this Branch was held at the Colonial Hospital, Gibraltar, Dr. P. F. LYONS in the chair. There were also present Fleet Surgeon P. Kidd, Staff Surgeons W. H. Daw and B. Hall, Drs. L. H. Gill, J. J. Vasquez, and L. D. Parsons.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Annual General Meeting and Dinner.—The annual general meeting and dinner were arranged to take place on February 24th.

Paper.—Staff Surgeon DAW read a paper on three cases of somewhat sudden death.

Specimen.—Staff Surgeon HALL showed a portion of a tapeworm with head and hooklets intact.

Case.—Dr. LYONS showed a case of ichthyosis, and gave a short summary of a case of Addison's disease, which members saw afterwards at the patient's house.

Gangrene of the Penis.—Dr. L. D. PARSONS related the following case:

J. P., a cab-driver aged 31, and a native of Gibraltar, was admitted to the Colonial Hospital under his care on August 30th, 1909, when he was acting for the surgeon, who was away from the colony on vacation leave. The patient was suffering from gangrene of the penis. He had been seen by a local practitioner outside, and had complained of fever, but said nothing of the local condition. Finding himself getting no better, he called in another local practitioner, who, noticing a very foul odour in the room, questioned the man, who admitted having something the matter with his penis; when this was seen, there was no doubt of the serious nature of affairs. The man was sent up to hospital, and operated upon without delay. The temperature was over 103° F. on admission. The penis was found to be gangrenous for more than half its length from the suspensory ligament. The scrotum was split in half, the penis removed down to ½ in. of the crura, and the urethra sewn to the edge of the skin in the usual way below and posterior to the scrotum. A few days after the operation the whole of the left side of the abdomen became inflamed, and abscesses formed about 3 in. above the pubic arch and along the left side, between the ribs and the crest of the ilium. Under an anaesthetic these were opened and drained. From the very beginning the patient had large doses of polyvalent serum (20 c.cm.) almost daily. Some very large sloughs separated from the abdominal wall through the incisions made at the second operation, and the portions of the crura left behind also sloughed off, becoming gangrenous. The patient had suffered from syphilis, and had marks of tertiary syphilis on his shins, and he had only recently been married. All the wounds gradually healed up, and when he was handed over on October 19th to the surgeon, after his return from leave, all that remained to heal was a small granulating wound above the pubes. This healed gradually, and the patient was discharged by the surgeon on October 30th quite well.

Foreign Body in Oesophagus.—Dr. L. D. PARSONS reported the following case:

A. B., aged 30, a native of Gibraltar, was admitted to the Colonial Hospital at 5 a.m. on October 8th, 1909, having swallowed a plate with two false teeth. The patient had been indulging in alcohol the previous evening, and had dropped asleep with the plate in his mouth. He wakened up suddenly in the early hours of the morning, and realized to his dismay that he had swallowed his plate of false teeth, and that they had stuck in his throat. The medical officer on duty made several attempts to extract the foreign body, but without success, and the patient was admitted to hospital under the care of Dr. Parsons. When seen about 10 a.m. he was looking nervous and worried, and had the stale smell of alcohol in his breath. There was no difficulty in respiration. A swelling could be seen in the neck about 1 in. above the sterno-clavicular joint on the left side, and just internal to the inner border of the sterno-mastoid muscle. Under chloroform at 1 p.m., an incision was made about 3 in. in length over the swelling and along the anterior margin of the left sterno-mastoid muscle. The trachea was retracted to the right, and the common sheath of the carotid, internal jugular and vagus to the left, and the oesophagus exposed. A curved hook was passed below the oesophagus, and lifted this structure up into the wound. An incision was made over the foreign body after fixing the oesophagus with volsella forceps, the incision being well to the left; two pearly white incisor teeth then appeared. The wound had to be slightly enlarged with blunt-pointed scissors, and the foreign body, after some difficulty, was extracted. It was found that one of the hooks of the plate had fixed itself into the wall of the oesophagus. The plate was of irregular shape, 1⅛ in. long, curved and with three hooks, two at one end and one at the other. The wound in the oesophagus was closed by a row of interrupted fine catgut sutures and packed with gauze, and two drainage tubes inserted and abundant dressings applied. The patient was put to bed with sandbags on each side of the neck, and the wound frequently dressed, and his mouth washed out often with antiseptics. No food was given by the mouth for eight days, the patient being fed per rectum. He was then given liquids, and at the end of each feed given some diluted brandy to swallow with the idea of keeping the oesophagus aseptic. There was some suppuration and a slight rise of temperature for the first few days, but recovery was uneventful, and he was finally discharged from the hospital on October 25th, 1909, with a soundly healed scar, and as well as he was before his unfortunate accident.

Dr. Parsons added that the patient said he had resolved to be a total abstainer.

Operation for Brain Lesion.—Dr. L. D. PARSONS related the following case:

B. F., aged 57, a native of Gibraltar, and an engine driver, was brought to the hospital in December, 1908. He was nervous and depressed, complained of pain in his head, and had suffered some time from insomnia. His daughter said that for a week he had not slept at all; then he began to talk nonsense and had hallucinations of hearing, and thought people were after him. Dr. Parsons treated him symptomatically, and warned his daughter that he was practically insane and she should get him certified. He continued more or less in this state of mind for three months, being visited at his home by a local practitioner. Finally he became so unmanageable that, on his daughter's application, the police magistrate appointed two medical men to examine him, and he was certified insane on July 17th, 1909, and admitted to the local asylum. There he remained for three weeks, when Dr. Parsons saw him in consultation with Dr. Gill, the acting medical officer. He was quiet, and when his attention was attracted would answer questions. He swayed about from side to side, groaning and moaning, complained of severe pain in his head, and had constant conjugate deviation of his eyes alternately from side to side. With difficulty the fundus was examined, and clearly-marked retinitis pigmentosa was found. There was a scar on the vault of the skull to the right of the middle line, due (he said) to a railway accident seventeen years ago. The conclusion arrived at was that there was some irritative lesion of the brain, most likely at the seat of the scar, and operation was suggested. After the necessary legal authority he was transferred to the Colonial Hospital under the care of Dr. Parsons on August 12th, 1909. The head was carefully shaved and prepared, and on August 14th Dr. Parsons trephined his skull over the vertex to the right of the middle line at its highest part and somewhat to the occipital side of a line drawn from one auditory meatus to the other—in fact, over the situation of the Rolandic fissure. The skull appeared thicker than normal and the bone somewhat adherent to the dura mater, which also appeared thicker than usual. A circular piece of bone, about ¾ in. in diameter, was removed, and the dura mater incised and the pia mater exposed. Some fluid escaped. Nothing further was done beyond stopping haemorrhage and closing down the flap with uninterrupted sutures of silkworm gut. A small gauze drain was inserted. The relief to the clinical symptoms was immediate. The movements of the eye stopped immediately and the patient felt easier and slept well. Unfortunately, owing to the heat and the patient perspiring, the dressings on his scalp acted like an incubator, and a pustular eruption came out all over the scalp outside the immediate operation area. His temperature went up to 105° F., the eruption spread to the neck and back, and the vesicles exuded an irritative fluid, which acted as a blistering fluid, and clinically he looked like a patient suffering from erysipelas. His condition in the first week after operation was very critical. He was treated with large doses of polyvalent serum hypodermically, and an autogenous vaccine was prepared from cultures taken from his pustules, which showed a pure culture of staphylococcus. He gradually improved, but had several attacks of skin trouble with vesication like weeping eczema. This affected his scrotum, back, and legs. The scalp wound healed, despite all this, by first intention, the gauze drain being removed at the

first dressing. The mental condition improved from the very first. He gained weight, became quite cheerful, and finally was discharged from hospital on October 28th, 1909, cured, and the following week resumed his usual duties.

He has since remained well. His name was removed from the lunatic asylum register on September 25th, 1909.

Carbuncle.—Dr. PARSONS reported the following case:

A Frenchman aged 49, acting as an assessor for a marine insurance company, came to Gibraltar in October on business connected with a collision between two steamers. When he left Marseilles early in October, he had a small boil on the back of his neck. This gradually grew worse, and he placed himself in the hands of a local practitioner who treated him for some time, but the local condition becoming worse instead of better he was admitted into hospital under the care of Dr. Parsons on October 28th, 1909. He was a healthy-looking man of good physique. The temperature on admission was normal. On the back of his neck was a large angry vesicular area which looked like a carbuncle, but there was a central necrotic area of purplish-black which looked somewhat like a malignant pustule, and as Dr. Parsons had not yet had the opportunity of seeing anthrax, he asked the opinion of the surgeon of the hospital, who diagnosed it as a case of anthrax. Swabs and glass smears of the pustular discharge were taken and these were examined in the Sanitary Commissioner's laboratory. Cultures showed a pure growth of staphylococcus with no anthrax bacilli. Surrounding the central pustule were a large number of pustules at the roots of the hairs extending for a distance of 4½ to 5 in. from side to side, and from the margin of the hairy scalp to about 1 in. above the spine of the seventh cervical vertebra. This area was painted with liniment of iodine while waiting for the laboratory report, and on the seventh day of his stay in hospital (November 3rd) the whole of this area was excised under chloroform. The temperature, which was normal on admission, rose to 101.6° F. on the 29th, 100.5° on the 30th; it was normal on the morning of the 31st, and 100° F. to 101·2° F. on the three succeeding days, being 101° F. on the day of operation, November 3rd. The portion of skin excised was a mass of sloughing suppurating tissue and extended down to the level of the deep fascia and ligamentum nuchae. The temperature dropped to subnormal the day after the operation, rose to 99° F. the same evening, and was normal on the morning of November 5th. The wound did not look at all healthy. It did not appear that a sufficiently large amount of skin had been removed, and portions of the skin near the hairy scalp were undermined and suppuration was most abundant and very thick. The area outside the wound was much inflamed and angry up to the ears and the patient did not look at all well. His condition seemed so grave that his wife was telegraphed for. Judging from the temperature alone there would have seemed no cause for alarm. He was, however, seen by the French medical officer of a French man-of-war at that time in harbour here, and he agreed that the patient's wife should be summoned. Dr. Parsons then determined to try serum treatment, and injected him with 20 c.cm. of a polyvalent serum prepared by B. W. and Co. The temperature rose that evening to 101° F., and fell again the next morning to normal. He had 10 c.cm. of serum on November 6th, with an evening rise to 99.6° F., which was maintained the following morning, but fell in the evening to 98° F., rising on the morning of the 8th to normal. On that day he was given an injection of half a cubic centimetre of a staphylococcic vaccine equivalent to 50 million dead bacteria; the temperature rose to 99.8° F. the same evening and remained up the following day (9th), dropped to normal on the morning of the 10th, rose again the same evening to 100° F., and was subnormal (97.8° F.) on the morning of the 11th. On that day the vaccine was repeated, and for the three succeeding days the temperature varied from subnormal to 99.5° F. The condition of the wound markedly improved after the second injection, and at that time a dressing of salt solution was substituted for iodine lotion with striking results. The sloughs seemed to come away much more easily, there was less pain, and the patient slept better. He was given a mixture containing citric acid internally. On November 14th the dose of vaccine was doubled, and the reaction was almost *nil*, the temperature rising to 99° F. only in the evening. For the three following days the temperature was subnormal. The local improvement was maintained, and there was now a clean granulating surface. The double dose (1 c.cm.) of vaccine was repeated on the 18th, with no change of temperature, the thermometer registering 98° F. only until the 21st, when it reached normal. The wound was making such excellent progress that no further vaccine injections were given. The dressing with salt solution was continued until the patient left on November 29th. There was then a granulating surface of about 3 in. by 2 in. His wife was shown how to dress him, and he was discharged on November 29th.

A noticeable feature in this case was the marked improvement following the vaccine injections and the salt solution dressings. At one time Dr. Parsons despaired of saving this patient's life, and it was very gratifying to all concerned to see him leave the hospital so well.

Exophthalmic Goitre.—Dr. PARSONS showed a case of exophthalmic goitre.

☞ *To ensure the insertion of notices in this column, they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

Association Notices.

ANNUAL SUBSCRIPTION, 1910.

MEMBERS are reminded that the Annual Subscription, amounting to 25s., is now due.

Cheques or Postal Orders should be made payable to the British Medical Association, and crossed London County and Westminster Bank.

In the case of Colonial Members the subscription should be paid to the Honorary Treasurer of their respective Branches.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BURMA BRANCH.—The annual meeting of this Branch will be held at the New General Hospital, Rangoon, during the first week in February, commencing on Wednesday, February 2nd, and ending on Saturday, February 5th. Arrangements will be made by the Managing Committee to put up members coming from the districts. *Programme.*—Wednesday, February 2nd, at 9.30 p.m., address by the President, followed by inspection of museum. On Thursday, February 3rd, at 5 p.m., in the Medical Section, a discussion on the "Spread of Tuberculosis in Burma" will be opened by the President. Members intending reading papers on some point in connexion with tuberculosis are asked to communicate with the Honorary Secretary, and limit the length of their papers to ten minutes, informing him the subject of their paper. The Museum will be open from 9 a.m. to 6 p.m. to all medical men, of all grades down to the hospital assistant class, who are cordially invited to visit the Museum. The annual dinner will take place on Friday, February 4th, at 8.15 p.m., Honorary Dinner Secretary, Dr. Pedley. It has been decided to allow each member one visitor's ticket. The cost of the dinner, including wines, which is estimated to come to about Rs. 10 each, will be equally divided amongst members attending the dinner. Attendance at this dinner is optional. Members are requested to intimate their intention of being present at this dinner to Dr. Pedley. During this day it is proposed to arrange visits to places of interest to the Association. On Saturday, February 5th, 5 to 8 p.m., in the Surgical Section, a discussion on "Compound Depressed Fractures of the Skull" will be opened by Major Duer, F.R.C.S. Papers from members on this subject should be limited to ten minutes. Members intending to read a paper on some point in connexion with this subject are asked to communicate with the Honorary Secretary, mentioning the particular point they wish to bring forward, so as to avoid overlapping. Committee of Management: Chairman, Major Barry; Dinner Secretary, Dr. Pedley; General Secretary, Major Rost. Museum: Major Rost (Foods and Drugs), Captain Williams (Instruments), Captain Whitmore (Pathology). It is hoped that members will communicate with the Museum Committee any specimens, photos, microscopic slides, drawings, plans, or anything of interest they have to show, and dispatch these so that they reach Rangoon at least one week before the meeting. A full description must accompany each specimen.—E. R. ROST, Major, I.M.S., General Hospital, Rangoon.

EDINBURGH BRANCH.—The winter clinical meeting of the Edinburgh Branch will be held in the Royal Infirmary, on Friday, February 25th. The other Scottish Branches have as usual been invited to join in the meeting. The museum will be open from 11 a.m. onwards. Arrangements will be made for holding special clinics during the forenoon. The clinical meeting will be held in the Royal Infirmary, at 4 p.m. Dinner in the Royal British Hotel, Princes Street, at 6.30 p.m., morning dress; dinner ticket, 5s. Members who have patients, specimens, etc., for exhibition, are requested to communicate with the Senior Secretary not later than February 16th.—FRANCIS D. BOYD, MICHAEL DEWAR, Honorary Secretaries.

LANCASHIRE AND CHESHIRE BRANCH.—The Branch Council will meet in Manchester on Wednesday, February 16th, at 4.30 p.m.—F. CHARLES LARKIN, Branch Secretary.

LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—A general meeting of the Division will be held at the Brooklands Hotel at 4.30 p.m. (prompt), on Wednesday, February 9th. Further particulars in future notice.—H. G. COOPER, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: KENSINGTON DIVISION.—Sir Almroth Wright will give a demonstration and address on Vaccine Therapy to the members of the Division at St. Mary's Hospital, Paddington, on Thursday, February 3rd, at 4.30 p.m.

All members of the profession who live in the Division are invited. The Executive Committee wishes to draw attention to an appeal on behalf of the family of the late Dr. J. H. Wells.—H. BECKETT-OVERY, Honorary Secretary, South Kensington, S.W.

SOUTH-MIDLAND BRANCH: BEDFORD AND HERTS DIVISION.—A general meeting of the Bedford and Herts Division will be held at Bedford County Hospital, Bedford, on Thursday, February 10th, at 3 p.m., Dr. J. W. Bone in the chair. Agenda: Minutes. Letters and communications. Manchester Corporation and the Midwives Act. The medical inspection and treatment of school children. Any other business which may arise.—E. H. COBB, Honorary Secretary.

SOUTH-WESTERN BRANCH.—Preliminary notice. An intermediate meeting of the Branch will be held at Exeter on Thursday, February 10th. Members desirous of submitting cases, specimens, etc., or with notices of motion to present, are requested to communicate with the Honorary Secretary not later than February 3rd.—RUSSELL COOMBE, Honorary Secretary.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE

WALTER G. EDWARDS, formerly a Surgeon in His Majesty's Fleet, has been re-entered as a Surgeon in His Majesty's Fleet, dated June 9th, 1902.

The following appointments have been made at the Admiralty: Staff Surgeon LLEWELLYN LINDOP, to the *Algerine*, additional, January 17th, and on recommissioning, undated; Surgeon JOHN BOURDAS, to the *Excellent*, January 17th.

ARMY MEDICAL SERVICE.

COLONEL G. T. GOGGIN is placed on retired pay, January 14th. He was appointed Surgeon, March 6th, 1880; Surgeon-Major, March 6th, 1892; granted the rank of Lieutenant-Colonel, March 6th, 1900, and made Colonel, September 6th, 1907. He served in the South African war in 1899–1902, as Senior Medical Officer, Principal Medical Officer of an Infantry Division, and was present at the relief of Ladysmith, at the actions of Colenso, Spion Kop, Vaal Krantz, the Tugela Heights, Pieters Hill, and Laings Nek; he was also in operations in the Transvaal and in the Orange River Colony in which latter he had charge of a general hospital; he was several times mentioned in dispatches, and received the Queen's medal with six clasps and the King's medal with two clasps. He was Principal Medical Officer, Western Command, to which he was appointed October 4th, 1907.

Lieutenant-Colonel ROBERT PORTER, M.B., from the Royal Army Medical Corps, to be Colonel, vice G. T. Goggin, January 14th. Colonel Porter's previous commissions are thus dated: Surgeon, February 5th, 1881; Surgeon-Major, February 5th, 1893; and Lieutenant-Colonel, February 5th, 1901. He was with the Ashanti Expedition in 1895–6, being honourably mentioned and receiving a star; he was also in the South African war in 1899–1902, being present in operations in Natal, including actions at Elandslaagte and Lombard's Kop and the defence of Ladysmith; he was also in operations in the Transvaal, Orange River Colony, and Cape Colony, and has the Queen's medal with five clasps and the King's medal with two clasps.

The undermentioned officers, who are serving in India, are appointed Honorary Surgeons to the Governor-General, from January 1st: Surgeon-General A. T. SLOGGETT, C.M.G., Principal Medical Officer, 6th (Poona) Division; Colonel R. H. FORMAN, M.B., Principal Medical Officer, Bombay Brigade; Lieutenant-Colonel R. S. F. HENDERSON, M.B., Secretary to the Principal Medical Officer, H.M.'s Forces in India.

Surgeon-General F. W. TREVOR, C.B., M.B., Principal Medical Officer in India, is appointed an Honorary Surgeon to the King, vice Surgeon-Major-General C. D. Madden, C.B., deceased, January 6th.

Major C. E. POLLOCK, Royal Army Medical Corps, to be a Deputy Assistant Director-General (attached to the Department of the Director of Military Operations), vice Lieutenant-Colonel W. G. MACPHERSON, C.M.G., M.B., Royal Army Medical Corps, whose tenure of that appointment has expired, dated December 29th, 1909.

ROYAL ARMY MEDICAL CORPS.

Captain J. W. L. SCOTT, who is serving in India, is appointed Specialist in Electrical Science in the 4th (Quetta) Division, from the date of assuming the duties.

Captain F. J. BRAKENRIDGE has received the Royal permission to accept the Imperial Ottoman Order of the Osmanieh, Fourth Class, conferred upon him by the Khedive of Egypt, in recognition of valuable services rendered by him.

The following officers are seconded: Captain JOHN POWELL, M.B., for service with the Egyptian Army, September 22nd, 1909; and Lieutenant STEPHEN FIELD, for service under the Colonial Office, October 1st, 1909.

Lieutenant W. P. MCARTHUR, from the Seconded List, is restored to the establishment, December 1st, 1909. He was appointed on probation, January 30th, 1909.

Lieutenant-Colonel F. J. JENCKEN, M.B., has been appointed Officer in Charge, Royal Victoria Hospital, Netley, vice Colonel T. P. Woodhouse.

Major C. B. MARTIN, M.B., has been appointed Registrar and Secretary, Royal Victoria Hospital, Netley, vice Major O. L. Robinson.

Major R. C. THACKER retires on retired pay, January 26th. He was appointed Surgeon-Captain, February 5th, 1887; and became Major, February 5th, 1899. He was with the Tirah Expeditionary Force on the North-West Frontier of India in 1897–8, receiving a medal with two clasps; and in the South African war in 1899–1902, being present in operations in Orange River Colony and Cape Colony, for which he received the Queen's medal with two clasps and the King's medal with two clasps.

INDIAN MEDICAL SERVICE.

THE retirement from the service of Surgeon-General Sir G. BOMFORD, K.C.I.E., M.D., Director-General, which was announced some time ago in the BRITISH MEDICAL JOURNAL, is gazetted, to date from January 1st.

Lieutenant V. B. GREEN-ARMYTAGE is appointed Specialist in Midwifery and the Diseases of Women and Children, Burmah Division, from September 18th, 1909.

SPECIAL RESERVE OF OFFICERS.

ROYAL ARMY MEDICAL CORPS.

Correction.—In the Supplementary List under this heading, in the SUPPLEMENT of January 15th, p. 23, the name printed as DONALD MACKINNON should have been RONALD MACKINNON, M.B.

TERRITORIAL FORCE.

INFANTRY.

Fifth Battalion the South Staffordshire Regiment.—Surgeon-Major J. S. WILSON, M.D., from the 2nd Volunteer Battalion the South Staffordshire Regiment, to be Surgeon-Major, with precedence as in the Volunteer Force, dated April 1st, 1908. He is promoted to be Surgeon-Lieutenant-Colonel, May 7th, 1908

Sixth Battalion the Sherwood Foresters (Nottinghamshire and Derbyshire Regiment).—Surgeon-Lieutenant A. W. SHEA to be Surgeon-Captain, April 1st, 1908.

ROYAL ARMY MEDICAL CORPS.

Sixth Battalion South Staffordshire Regiment.—Major VINCENT J. MAGRANE is granted the honorary rank of Lieutenant-Colonel. Major and Honorary Lieutenant-Colonel Vincent J. Magrane resigns his commission, and is granted permission to retain his rank and to wear the prescribed uniform. Served in South Africa, 1902, in command of Volunteer Company South Staffordshire Regiment (Queen's medal, two clasps). V.D., 1907.

Third North Midland Field Ambulance.—CHARLES A. STIDSTON, M.D., to be Lieutenant, December 7th, 1909.

Sanitary Service.—CHARLES M. FEGEN to be Captain, whose services will be available on mobilization, January 7th.

Attached to Units other than Medical Units.—The transfer from the 2nd Volunteer Battalion the South Staffordshire Regiment of Surgeon-Major J. S. WILSON, M.D., which was announced in the *London Gazette* of November 6th, 1908, is cancelled. He is promoted to be Lieutenant-Colonel, dated May 8th, 1908. He resigns his commission, retaining his rank and uniform, dated October 31st, 1909.

For Attachment to Units other than Medical Units—GEORGE D. COLLEN, M.D., to be Lieutenant, December 16th, 1909.

CHANGES OF STATIONS.

THE following changes of stations amongst the officers of the Army Medical Service have been officially reported to have taken place during December, 1909:

		FROM		TO
Surgeon-General	O. E. P. Lloyd, V.C.	Meerut ...	...	South Africa.
Colonel	T. M. Corker, M.D.	Edinburgh	...	Egypt.
,,	F. B. Maclean	Lucknow	...	Meerut.
,,	M. W. Kerin	Bareilly	...	Lucknow.
,,	T. P. Woodhouse	Netley ...	...	Edinburgh.
Lieut.-Col.	C. E. Nichol, D.S.O., M.B.	Aldershot	...	India.
,,	J. M. Reid, M.D.	Hong Kong	...	London.
,,	T. B. Winter...	Bareilly	...	Chakrata.
,,	C. Birt	Malta ...	...	R.A.M. Coll.
,,	R. S. F. Henderson, M.B.	Simla ...	...	Calcutta.
,,	J. Meek, M.D.	Poona ...	...	Simla.
,,	C. T. Blackwell, M.D. ...	—		Woolwich.
,,	M. T. Yarr, F.R.C.S.I. ...	Dublin ...	...	Edinburgh.
,,	H. M. Adamson, M.B. ...	Irish Com'd.	...	York.
,,	J. V. Salvage, M.D. ...	London	...	India.
,,	F. S. Le Quesne, V.C. ...	Dinapore	...	E. Command.
,,	R. H. Penton, D.S.O. ...	York ...	...	India.
Major	J. Ritchie, M.B.	Woolwich	...	,,
,,	M. P. C. Holt, D.S.O.	Kasauli	...	Ambala.
,,	H. I. Pocock	Kailana	...	Shahjehanpur.
,,	R. C. Thacker	—		Cork District.
,,	E. M. Hassard	Shorncliffe	...	India.
,,	J. Girvin	Colaba ...	...	Deolali.
,,	H. E. Winter	,,		E. Command.
,,	F. Smith, D.S.O.	Murree...	...	Rawal Pindi.
,,	E. E. Powell	Aldershot	...	Bordon.
,,	J. W. Jennings, D.S.O.	Mandalay	...	W. Command.
,,	C. W. H. Whitestone, M.B. ...	Cherat ...	...	Peshawar.
,,	G. W. Tate, M.B.	Dundalk	...	Dublin.
,,	S. H. Withers, M.B.	Gharial	...	Ambala.
,,	L. P. More, M.B.	Murree...	...	Rawal Pindi.
,,	R. F. E. Austin	Chatham	...	India.
,,	C. E. Pollock	—		War Office.
,,	C. M. Fleury	Warwick	...	Tidworth.
,,	E. S. Clark. M.B.	—		Belfast Dist.
,,	K. M. Cameron, M.B.	Simla ...	...	Calcutta.
,,	M. Boyle, M.B.	—		Leeds.
,,	F. Kiddle, M.B.	Wellington	...	Roy. Hospital, Chelsea.
,,	L. F. Smith, M.B.	Woolwich Arsenal		India.
,,	St. J. B. Killery	Shahjehanpur		Bareilly.
,,	H. Hewetson	—		Mill Hill.
,,	W. E. Hudleston	Mhow ...	...	S. Command.
,,	S. L. Cummins, M.B.	Netley ...	...	London.
,,	H. V. Dillon, retired pay ...	Trowbridge	...	Scarborough.
Captain	P. H. Collingwood	Hong Kong	...	S. Command.
,,	A. E. Thorp	Weymouth	...	Cosham.
,,	H. Herrick	Hyderabad	...	Karachi.
,,	E. P. Hewitt	Norwich	...	India.
,,	H. D. Packer	Devonport	...	Crown Hill.
,,	R. A. Cunningham, M.B. ...	Netley ...	...	Agra.
,,	H. E. M. Douglas, V.C., D.S.O.	Egypt ...	...	R.A.M. Coll.
,,	H. S. Anderson	Cork ...	...	Fermoy.
,,	R. L. Argles	Multan...	...	Ferozepore.
,,	E. G. Ford, M.B.	Bradford	...	India.
,,	J. G. Churton	Aldershot	...	,,
,,	C. H. Carr, M.D.	Oxford ...	...	Tidworth.
,,	R. T. Brown, M.D.	Colchester	...	India.
,,	G. Baillie, M.B....	Tidworth	...	Bulford.
,,	R. L. Popham	Curragh	...	Dublin.
,,	S. B. Smith, M.D.	Kilbride	...	Dublin.
,,	E. E. Parkes, M.B.	Netley ...	...	Plymouth.
,,	W. F. Ellis	Dalhousie	...	Lahore.
,,	J. W. S. Seccombe	Bangalore	...	Jullundur.
,,	F. C. Lambert	Capetown	...	S. Command.

		FROM	TO
Captain	B. H. V. Dunbar, M.D. ..	Leeds	Richmond. Yorks.
,,	B. G. Patch	— ...	Enniskillen.
,,	S. L. Pallant	— ...	Chatham.
,,	C. R. Sylvester-Bradley ...	— ...	Warley.
,,	S. E. Lewis, M.B.	Simon's Town	E. Command.
,,	W. MacD. MacDowall ...	— ...	Cork District.
,,	W. Wiley, M.B.	Bangalore ...	S. Command.
,,	K. A. C. Doig	Muttra	Bareilly.
,,	L. V. Thurston	Jubbulpore ...	Jullundur.
,,	H. H. A. Emerson, M.B. ...	Bermuda ...	E. Command.
,,	T. Scatchard	Agra	Dehra Dun.
,,	C. J. Wyatt, M.B.	Straits Settlements	Scottish Command.
,,	A. D. O'Carroll, M.B.	Dagshai ...	Ambala.
,,	C. R. M. Morris, M.B.	Sialkot	Dehra Dun.
,,	R. E. U. Newman, M.B. ...	Kalabagh ...	Cp. Haveliyan.
Lieutenant	W. Mitchell, M.B.	Sabathu ...	Ambala.
,,	C. H. Denyer...	Calcutta ...	Jubbulpore.
,,	O. R. McEwen	Khyra-Gali ...	Multan.
,,	T. H. Scott, M.B.	Dalhousie ...	Lahore.
,,	G. F. Dawson, M.B. ...	Colchester ...	India.
,,	H. V. B. Byatt	Bulford ...	,,
,,	R. E. Todd, M.B.	Pembroke D'k.	Egypt.
,,	H. Gibson	Portsmouth ...	Cosham.
,,	J. A. Renshaw	Dover	Rawal Pindi.
,,	R. De V. King	Ewshot ...	,,
,,	H. W. Carson, M.B. ...	Manchester ...	,,
,,	F. T. Dowling, M.B. ...	Wedgenock Cp.	,,
,,	R. F. O'T. Dickinson ...	Poona	Jubbulpore.
,,	A. Hendry, M.B.	,,	Mhow.
,,	J. R. Lloyd	,,	Jubbulpore.
,,	F. M. Hewson	Newbridge ...	Curragh.
,,	C. Clarke, M.B.	Shorncliffe ...	Dover.
,,	A. R. Wright, M.B. ...	—	Bordon.
,,	T. B. Nicholls, M.B. ...	Cosham ...	Hilsea.
,,	F. H. Somers-Gardner, M.B.	Reading ...	Bordon.
,,	C. H. O'Rorke, M.B. ...	Curragh ...	Kildare.
,,	H. F. Joynt, M.B.	Woolwich ...	Hounslow.
,,	A. S. M. Winder, M.B. ...	Dublin	Curragh.
,,	P. G. M. Elvery	,,	,,

ROYAL HOSPITAL, CHELSEA.

LIEUTENANT-COLONEL R. J. C. COTTELL, Royal Army Medical Corps, from Deputy Surgeon, to be Physician and Surgeon, vice Colonel C. Seymour, M.B., whose period of appointment has expired, January 1st.

Major FREDERICK KIDDLE, M.B., Royal Army Medical Corps, to be Deputy Surgeon, vice Lieutenant-Colonel R. J. C. Cottell, January 1st. Major Kiddle is seconded whilst holding this appointment.

COLONIAL MEDICAL SERVICE.

THE following have been appointed to the Staff: J. R. P. ALLIN, L.R.C.P., L.R.C.S., L.M.Irel., Southern Nigeria; T. HOOD RANKIN, M.B., Ch.B.Glasg., Southern Nigeria; C. W. O'KEEFFE, L.R.C.S., L.R.C.P.Irel., L.A.H.Dubl., Southern Nigeria; G. M. GRAY, M.D.Glas., Southern Nigeria; J. W. ARCHIBALD, M.B., Ch.B.Aberd., Southern Nigeria.

Other Colonies.

Mr. R. P. COCKIN, M.B., B.C.Cantab., lately an officer of the West African Medical Staff, has been appointed a District Medical Officer in Cyprus. Mr. P. HARPER, M.R.C.S.Eng., L.R.C.P.Lond., has been selected for appointment as Medical Officer in Fiji. Mr. R. COX, M.B., B.S., R.U.I., has been selected for appointment as House-Surgeon in the Medical Department of the Federated Malay States.

Retirements.

T. E. FRAZER TOOVEY, F.R.C.S., L.R.C.P.Edin., L.F.P.S.Glasg., L.M.Rotunda, Medical Officer, Southern Nigeria, retires with gratuity from August 9th, 1909. R. P. COCKIN, M.B., B.C.Camb., Medical Officer, Southern Nigeria, retires from August 31st, 1909. W. R. LARBALESTIER, M.R.C.S.Eng., L.R.C.P.Lond., L.D.S., Medical Officer, Southern Nigeria, resigns from October 5th, 1909. A. E. OAKELEY, M.R.C.S.Eng., L.R.C.P.Lond., Medical Officer, Northern Nigeria, resigns from October 20th, 1909.

Transfer.

C. C. ROBINSON, M.B.Lond., M.R.C.S.Eng., L.R.C.P.Lond., Medical Officer, Southern Nigeria, transferred to Straits Settlements from September 24th, 1909.

Promotions.

T. E. RICE, L.S.A., Senior Medical Officer, Gold Coast, to be Senior Sanitary Officer, Gold Coast. G. C. WALKER, M.B., Ch.B.Victoria, M.R.C.S.Eng., L.R.C.P.Lond., D.P.H.Lond., Medical Officer, Gold Coast, to be Sanitary Officer, Gold Coast.

Reappointment.

H. W. GUSH, M.B., Ch.B.Edin., late Medical Officer, Gold Coast, to be Medical Officer, Northern Nigeria, from January 5th, 1910.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 7,554 births and 4,749 deaths were registered during the week ending Saturday last, January 22nd. The annual rate of mortality in these towns, which had been 14.8 and 14.9 per 1,000 in the two preceding weeks, declined again to 14.8 per 1,000 last week. The rates in the several towns ranged from 6.8 in King's Norton, 8.5 in Hornsey and in Newport (Mon.), 8.8 in Willesden, 8.9 in York, 9.1 in Hastings, and 9.7 in Aston Manor, to 19.1 in Sunderland, 19.7 in Hull and in Merthyr Tydfil, 21.3 in Ipswich, 22.8 in Bury, 22.9 in Barrow-in-Furness and in Rhondda, and 23.7 in Swansea. In London the rate of mortality was 14.5 per 1,000, while it averaged 14.9 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 0.9 per 1,000 in the seventy-six towns; in London these diseases caused a death-rate of 0.8 per 1,000, while among the seventy-five other large towns the rates ranged upwards to 2.2 in Hanley, 2.9 in West Bromwich, 3.2 in Swansea, 3.3 in Barrow-in-Furness, and 4.1 in Ipswich. Measles caused a death-rate of 1.3 in Birkenhead, 1.5 in West Bromwich, 1.6 in Northampton, 2.1 in Swansea, and 3.4 in Ipswich; scarlet fever of 1.2 in Aston Manor; diphtheria of 1.5 in Hanley and 2.5 in Barrow-in-Furness; whooping-cough of 1.1 in Hull, 1.5 in Walthamstow, in Hastings, and in Bootle, and 1.9 in West Hartlepool; and "fever" of 1.2 in Devonport. The mortality from diarrhoea showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The Metropolitan Asylums Hospitals contained 3 small-pox patients at the end of last week, against 5 and 4 at the end of the two preceding weeks. The number of scarlet fever cases under treatment in these hospitals and in the London Fever Hospital, which had been 2,362, 2,256, and 2,172 at the end of the three preceding weeks, had further declined to 2,069 on Saturday last; 204 new cases were admitted during the week, against 244, 212, and 200 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday last, January 22nd, 829 births and 563 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 20.4 and 16.7 per 1,000 in the two preceding weeks, further declined last week to 15.5 per 1,000, but was 0.7 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scottish towns the death-rates ranged from 11.2 in Aberdeen and 11.4 in Leith, to 17.7 in Greenock and 20.8 in Dundee. The death-rate from the principal infectious diseases averaged 2.1 per 1,000 in the eight towns, the highest rates being recorded in Glasgow and Greenock. The 263 deaths registered in Glasgow included 39 which were referred to measles, 2 to scarlet fever, 4 to diphtheria, 3 to enteric fever, and 5 to diarrhoea. Six fatal cases of measles and 4 of diarrhoea were recorded in Edinburgh; 2 of diphtheria and 3 of diarrhoea in Dundee; 2 of diphtheria in Aberdeen; and 2 of whooping-cough in Greenock.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, January 22nd, 545 births and 422 deaths were registered in the twenty-two principal urban districts of Ireland, as against 595 births and 492 deaths in the preceding period. The annual death-rate in these districts, which had been 25.4, 19.7, and 22.3 per 1,000 in the three preceding weeks, fell to 19.1 per 1,000 in the week under notice, this figure being 4.3 per 1,000 higher than the mean annual death-rate in the seventy-six English towns for the corresponding period. The figures in Dublin and Belfast were 22.5 and 16.7 respectively, those in other districts ranging from 4.8 in Sligo and 4.9 in Kilkenny to 33.5 in Ballymena and 37.8 in Newry, while Cork stood at 15.1, Londonderry at 14.4, Limerick at 20.5, and Waterford at 17.5. The zymotic death-rate in the twenty-two districts averaged 1.3, or the same as in the preceding period.

ENGLISH URBAN MORTALITY IN THE FOURTH QUARTER OF 1909.

[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.]

IN the accompanying table will be found summarized the vital statistics of seventy-six of the largest English towns, based upon the Registrar-General's weekly returns for the fourth quarter of last year. The 100,041 births registered in these towns during the quarter under notice were equal to an annual rate of 24.4 per 1,000 of the population, estimated at 16,445,281 persons in the middle of last year; in the corresponding quarters of the three preceding years the birth-rates were 26.5, 25.5, and 25.0 per 1,000 respectively. In London the birth-rate last quarter was equal to 23.4 per 1,000, while it averaged 24.9 in the seventy-five other large towns, and ranged from 13.5 in Hornsey, 15.0 in Bournemouth, 15.4 in Hastings, 15.9 in Halifax, 18.0 in Bradford, and 18.1 in Handsworth (Staffs), to 31.1 in Rotherham, 31.2 in Hanley, 31.8 in Swansea, 32.6 in Tynemouth, 36.7 in Merthyr Tydfil, and 41.6 in Rhondda.

The 58,573 deaths registered in these towns last quarter were equal to an annual rate of 14.3 per 1,000, the death-rate in the fourth quarter of the three preceding years having been 16.2, 15.4, and 14.8 per 1,000 respectively. The death-rate in London last quarter was equal to 13.5 per 1,000, while it averaged 14.6 per 1,000 in the seventy-five other large towns, and ranged from 8.8 in Handsworth (Staffs), 9.2 in Hornsey, in East Ham, and in King's Norton, 9.5 in Croydon, and 9.6 in Leyton, to 18.2 in Wigan, 18.6 in Liverpool, 18.9 in Middlesbrough, 19.6 in Oldham, 19.9 in Merthyr Tydfil, 21.2 in Swansea, and 22.4 in Hanley.

The 58,573 deaths from all causes included 3,838 which were referred to the principal infectious diseases; of these, 4 resulted from small-pox, 569 from measles, 449 from scarlet fever, 600 from diphtheria, 749 from whooping-cough, 271 from "fever" (principally enteric), and 1,196 from diarrhoea. These 3,838 deaths were equal to an annual rate of 0.94 per 1,000, the death-rates from the same diseases in the corresponding periods of the three preceding years having been 1.72, 1.68, and 1.49 per 1,000. The rate of mortality in London last quarter from these principal infectious diseases was 0.77 per 1,000; in the seventy-five other large towns the rate averaged 1.01 per 1,000, and ranged from 0.25 in Croydon, 0.29 in Bournemouth, 0.33 in York, 0.36 in Hastings, 0.39 in Brighton, 0.46 in Tottenham, and 0.48 in Reading, to 1.83 in Ipswich, 1.99 in West Bromwich, 2.05 in Birkenhead, 2.07 in Rhondda, 2.16 in Swansea, 2.21 in Merthyr Tydfil, and 4.61 in Hanley.

The 569 deaths from measles were equal to an annual rate of 0.14 per 1,000; in London the death-rate from this disease was 0.11 per 1,000, while among the seventy-five other large towns it ranged upwards to 0.51 in West Bromwich, 0.64 in Burnley, 0.70 in Ipswich, 0.82 in Swansea, 1.07 in Northampton, 1.09 in Birkenhead, and 2.27 in Hanley. The 449 fatal cases of scarlet fever corresponded to a rate of 0.11 per 1,000; in London the scarlet fever death-rate was only 0.07 per 1,000, but among the other towns it ranged upwards to 0.26 in Birmingham and in Merthyr Tydfil, 0.27 in Salford, 0.28 in Bolton, 0.31 in Wigan and in Rochdale, 0.38 in Blackburn, and 0.40 in Coventry. The 600 deaths from diphtheria were equal to an annual rate of 0.15 per 1,000; the rate in London was 0.11, but ranged upwards in the other towns to 0.35 in Sunderland, 0.36 in Hull, 0.37 in Burton-on-Trent, 0.43 in Halifax, 0.45 in Barrow-in-Furness, 0.51 in Salford, and 0.82 in Hanley. The 749 fatal cases of whooping-cough corresponded to a rate of 0.18 per 1,000; in London the death-rate from this disease was 0.20 per 1,000, while the highest rates in the seventy-five other large towns were 0.41 in Walthamstow, 0.44 in Leicester, 0.51 in Merthyr Tydfil, 0.53 in Sunderland, 0.65 in Swansea, and 0.70 in Ipswich. The 271 deaths referred to "fever" were equal to an annual rate of 0.07 per 1,000; in London the "fever" death-rate was only 0.03 per 1,000, but among the other large towns it ranged upwards to 0.27 in Grimsby, 0.28 in West Bromwich, 0.29 in Hanley, 0.30 in Portsmouth and in Bolton, and 0.31 in Wigan. The 1,196 fatal cases of diarrhoea corresponded to a rate of 0.29 per 1,000, which was 0.04 per 1,000 more than the mortality in London from the same cause; among the seventy-five other large towns the highest death-rates from diarrhoea were 0.72 in South

Analysis of the Vital Statistics of Seventy-six of the Largest English Towns during the Fourth Quarter of 1909.

Towns.	Estimated Population middle of 1909.	Births.	Deaths.	Annual rate per 1,000 Living.			Deaths from Principal Infectious Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Fever.	Diarrhoea.	Deaths of Children under one year of age to 1,000 Births.	Rate per cent. of Uncertified Deaths.
				Births.	Deaths.	Principal Infectious Diseases.										
76 Towns	16,445,281	100,041	58,573	24.4	14.3	0.94	3,838	4	569	449	600	749	271	1,196	128	0.8
75 Provincial Towns	11,611,343	71,981	42,302	24.9	14 6	1.01	2,905	3	433	363	469	510	235	892	133	1.1
London	4,833,938	28,150	16,271	23.4	13.5	0.77	933	1	136	86	131	239	36	304	116	0.1
Croydon	161,078	909	380	22.6	9.5	0.25	11	—	—	3	3	1	1	3	64	—
Willesden	160,424	1,007	401	25.2	10.0	0.63	25	—	4	4	4	2	—	11	89	0.5
Hornsey	95,628	323	219	13.5	9.2	0.80	19	—	10	1	5	—	—	3	74	—
Tottenham	129,464	934	394	28.9	12.2	0.46	15	—	1	—	6	5	—	3	107	—
West Ham	321,767	2,095	1,049	26.1	13 1	1.16	93	—	11	13	11	25	6	27	116	0.3
East Ham	149,575	848	344	22.7	9.2	0.67	25	—	—	5	4	9	3	4	104	—
Leyton	129,614	750	309	23.2	9 6	0.56	18	—	—	—	8	7	1	2	71	—
Walthamstow	136,602	777	340	22.8	10.0	0.89	30	—	2	4	4	14	1	5	107	0.3
Hastings	68,165	261	196	15.4	11.5	0.36	6	—	—	—	1	3	—	2	80	1.0
Brighton	130,926	645	502	19.8	15.4	0.39	13	—	—	1	2	3	2	5	121	0.2
Portsmouth	214,726	1,454	713	27.2	13.3	1.07	57	—	1	9	15	2	16	14	91	0.4
Bournemouth	72,368	270	214	15.0	11.9	0.29	5	—	1	—	2	1	—	1	100	—
Southampton	124,667	710	404	22.8	13.0	0.55	17	—	—	1	3	4	2	7	87	—
Reading	82,995	420	216	20.3	10 4	0.48	10	—	2	—	3	—	—	5	88	2.8
Northampton	97,752	501	332	20.6	13.6	1.43	35	—	26	—	4	—	1	4	138	0.6
Ipswich	74,889	422	287	22.6	15.4	1.83	34	—	13	—	3	13	2	3	118	—
Great Yarmouth	53,430	343	220	25.7	16.5	1.04	14	—	—	—	1	3	—	10	120	—
Norwich	124,136	708	391	22.9	12.6	0.56	17	—	—	4	3	—	3	7	99	1.0
Plymouth	124,180	691	444	22.3	14.3	0.90	28	—	—	2	5	12	2	7	117	—
Devonport	83,103	554	244	26.7	11.8	0.77	16	—	—	1	5	1	—	9	108	—
Bristol	377,642	2,043	1,169	21.7	12.4	0.73	69	—	28	2	15	4	4	16	101	0.1
Hanley	68,831	535	385	31.2	22.4	4.61	79	—	39	2	14	5	5	14	202	1.0
Burton-on-Trent	54,453	270	174	19.9	12.8	0.51	7	—	—	—	5	1	—	1	107	1.7
Wolverhampton	104,633	584	362	22.4	13.9	0.73	19	—	8	2	1	2	3	3	144	0.3
Walsall	99,399	669	369	27.1	14 9	1.29	32	—	2	5	1	3	—	21	161	0.8
Handsworth	70,186	316	154	18.1	8.8	0.63	11	—	—	1	2	4	—	4	98	1.3
West Bromwich	70,457	519	282	29.5	16 1	1 99	35	—	9	3	3	4	5	11	162	2.5
Birmingham	563,629	3,447	1,995	24.5	14.2	1.04	146	—	3	37	19	32	10	45	135	3.2
King's Norton	81,632	446	188	21.9	9.2	0.69	14	—	—	3	7	2	—	2	81	1.6
Smethwick	70,377	483	214	27.5	12.2	1.19	21	—	—	2	4	6	3	6	126	0.5
Aston Manor	85,257	460	262	21.6	12.3	0.66	14	—	—	1	1	6	—	6	141	0.4
Coventry	80,163	606	312	30.3	15.6	1.45	29	—	7	8	2	5	1	6	109	2.9
Leicester	244,255	1,282	840	21.1	13.8	0.69	42	—	—	1	3	27	1	10	137	0.4
Grimsby	73,036	548	260	30.1	14.3	0 82	15	—	—	—	2	2	5	6	137	1.2
Nottingham	263,443	1,579	1,034	24.0	15.7	0.85	56	—	4	5	13	6	8	20	135	0 4
Derby	129,411	724	443	22.4	13.7	0.68	22	—	3	2	2	9	—	6	142	—
Stockport	103,706	656	431	25.4	16 7	0.80	21	—	4	—	5	—	—	12	165	0.2
Birkenhead	121,123	862	533	28.5	17.7	2.05	62	—	33	4	5	11	3	6	152	0.4
Wallasey	71,004	412	241	23.3	13.6	0.91	16	—	8	3	1	—	—	4	102	0.8
Liverpool	760,357	5,483	3,531	28.9	18.6	1.36	257	—	22	41	28	57	19	90	156	2.4
Bootle	69,393	527	291	30.5	16.8	0.76	13	—	2	4	2	3	—	2	135	5.8
St. Helens	95,161	703	404	29.6	17.0	1.39	33	—	—	6	3	9	6	9	188	3.7
Wigan	90,678	647	412	28.6	18.2	1.42	32	—	—	7	4	4	7	10	199	0.2
Warrington	72,276	554	269	30.7	14.9	0.61	11	—	—	2	6	—	2	1	116	4.5
Bolton	187,824	1,047	714	22.4	15.2	0.96	45	—	2	13	2	4	14	10	152	0.3
Bury	59,234	284	217	19.2	14.7	0.55	8	—	—	2	1	1	—	4	141	1.8
Manchester	655,435	4,224	2,807	25.8	17.2	0.98	160	—	33	39	24	9	12	43	147	0.8
Salford	241,950	1,548	1,062	25.7	17.6	1.76	106	—	14	16	31	8	7	30	161	0.5
Oldham	143,301	853	702	23.9	19.6	0.83	29	—	—	1	2	7	2	17	189	0.1
Rochdale	89,653	504	348	22.5	15.6	0.56	13	—	1	7	1	3	1	—	103	2.9
Burnley	106,267	610	470	23.0	17.7	1.78	47	—	17	5	4	2	2	17	187	0.9
Blackburn	136,959	684	560	20.0	16.4	1.36	46	—	—	13	7	2	7	17	148	1.4
Preston	118,519	699	466	23.7	15.8	1.23	36	—	4	2	4	6	4	16	155	2.8
Barrow-in-Furness	62,996	390	218	24.8	13.9	1.47	23	—	—	3	7	6	2	5	123	3.2
Huddersfield	94,739	534	406	22.6	17.2	0.88	21	—	—	4	5	2	2	8	99	0.5
Halifax	111,911	445	420	15.9	15 1	1.03	29	—	—	4	12	9	—	4	139	1.9
Bradford	293,983	1,321	1,023	18.0	14.0	0.61	45	—	5	11	11	4	4	10	136	0.3
Leeds	484,012	2,511	1,648	20.8	13 7	0.71	85	—	19	3	12	14	13	24	119	0.2
Sheffield	470,958	3,069	1,493	26.1	12.7	0.61	71	—	5	13	10	6	7	30	110	1.5
Rotherham	65,070	504	230	31.1	14.2	0.99	16	—	1	—	1	—	4	10	131	1.3
York	87,004	513	247	23.7	11.4	0.33	7	—	3	—	1	2	1	—	94	—
Hull	275,552	1,899	1,072	27.6	15.6	1.43	99	2	6	3	25	18	5	40	140	0.7
Middlesbrough	105,255	783	496	29.8	18.9	1.34	35	—	2	—	6	7	4	16	172	1.4
Stockton-on-Tees	53,417	337	172	25.3	12.9	0.53	7	—	1	—	—	2	—	4	119	1.2
West Hartlepool	79,686	465	205	23.4	10 3	0.75	15	—	3	2	2	5	2	1	110	1.0
Sunderland	159,378	1,092	694	27.5	17.5	1.56	62	—	2	4	14	21	4	17	179	2.9
South Shields	117,627	810	454	27.6	15 5	1.39	41	—	1	5	6	6	2	21	175	4.4
Gateshead	131,024	891	450	27.3	13 8	1.15	38	—	1	1	7	8	—	21	174	4.7
Newcastle-on-Tyne	281,584	1,793	1,012	25.5	14 4	0.80	55	—	11	6	11	14	4	9	139	0.1
Tynemouth	55,808	453	213	32.6	15.3	0.79	11	—	1	3	2	—	—	5	124	2.3
Newport (Mon.)	78,336	567	292	29.0	15.0	0 96	19	—	9	1	2	1	3	3	146	—
Cardiff	195,303	1,178	615	24.2	12.6	0.52	26	—	7	1	3	5	1	9	113	—
Rhondda	135,894	1,410	534	41.6	15.8	2.07	70	—	14	6	9	5	3	33	125	—
Merthyr Tydfil	78,365	717	388	36.7	19 9	2.21	43	—	8	5	5	10	1	14	187	1.0
Swansea	98,308	779	520	31.8	21.2	2.16	53	1	20	1	2	16	2	11	187	1.0

Shields and in Merthyr Tydfil, 0.75 in Great Yarmouth, 0 82 in Hanley, 0.85 in Walsall, and 0.97 in Rhondda. Of the 4 deaths from small-pox 2 belonged to Hull, 1 to London, and 1 to Swansea.

Infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 128 per 1,000 last quarter, against 138, 154, and 146 in the corresponding quarters of the three preceding years. In London the rate of infant mortality in the quarter under notice was 116 per 1,000, while it averaged 133 in the seventy-five other large towns, and ranged from 64 in Croydon, 71 in Leyton, 74 in Hornsey, 80 in Hastings, 81 in King's Norton, 87 in Southampton, 88 in Reading, and 89 in Willesden, to 187 in Burnley, in Merthyr Tydfil, and in Swansea, 188 in in St. Helens, 189 in Oldham, 199 in Wigan, and 202 in Hanley.

The causes of 497, or 0.8 per cent., of the deaths registered in the seventy-six large towns last quarter were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Croydon, Hornsey, Tottenham, East Ham, Leyton, Bournemouth, Southampton, Ipswich, Great Yarmouth, Plymouth, Devonport, Derby, York, Newport, Cardiff, and Rhondda; among the other towns the proportion per cent. of uncertified deaths ranged upwards to 3.2 in Birmingham and in Barrow-in-Furness, 3.7 in St. Helens, 4 4 in South Shields, 4.5 in Warrington, 4.7 in Gateshead, and 5.8 in Bootle.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

BIRMINGHAM MATERNITY HOSPITAL.—House-Surgeon (Lady). Salary at the rate of £50 per annum.

BRISTOL ROYAL INFIRMARY.—(1) Honorary Dental Anaesthetist. (2) Honorary Assistant Dental Surgeon.

BRISTOL UNIVERSITY.—(1) Demonstrator of Anatomy. (2) Demonstrator of Physiology. Salary, £180 per annum, rising to £200 each.

CALCUTTA: LADY DUFFERIN VICTORIA HOSPITAL.—Senior House-Surgeon. Salary, Rs.250 per mensem.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—House-Physician. Salary, £70 per annum.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.—Junior House Surgeon. Salary, £60 per annum.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST. Victoria Park, E.—House-Physician (male). Salary at the rate of £75 per annum.

EDINBURGH: ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN.—Four Resident Medical Officers.

ENNISKILLEN: FERMANAGH COUNTY HOSPITAL.—House-Surgeon. Salary, £72 per annum.

GLAMORGAN COUNTY COUNCIL.—Medical Inspector of Children in Public Elementary Schools. Salary, £300 per annum.

GREAT YARMOUTH HOSPITAL.—House-Surgeon. Salary, £100 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Physician. Salary, £30 for six months and £2 10s. washing allowance.

ITALIAN HOSPITAL, Queen Square, W.C.—Honorary Assistant Physician (Out-patients).

LEEDS TUBERCULOSIS ASSOCIATION.—Resident Medical Officer for the Sanatorium at Gateforth. Salary at the rate of £100 per annum.

KING WILLIAMSTOWN, CAPE OF GOOD HOPE: Grey Hospital.—Resident House-Surgeon. Salary at the rate of £250 per annum.

KING'S COLLEGE HOSPITAL.—Junior House-Anaesthetist. Salary at the rate of £50 per annum.

LAMBETH PARISH.—District Medical Officer and Medical Officer for the Home for the Aged Poor. Salary for each appointment £150 per annum.

LIVERPOOL UNIVERSITY: CANCER RESEARCH LABORATORY.—Research Worker. Salary commencing £150 per annum.

LONDON TEMPERANCE HOSPITAL.—Assistant House-Surgeon. Honorarium at the rate of 100 guineas per annum.

LONDON THROAT HOSPITAL, Great Portland Street, W.—House-Surgeon. Honorarium, £50 a year.

MANCHESTER NORTHERN HOSPITAL FOR WOMEN AND CHILDREN.—(1) Honorary Assistant Physician for Diseases of Children; (2) Assistant Medical Officer.

METROPOLITAN EAR, NOSE AND THROAT HOSPITAL, Graft Street, W.—Anaesthetists.

OXFORD: RADCLIFFE INFIRMARY AND COUNTY HOSPITAL.—(1) House-Surgeon; (2) Junior House-Surgeon. Salary at the rate of £80 per annum each.

ROYAL NATIONAL ORTHOPAEDIC HOSPITAL, Great Portland Street, W.—Surgical Registrar. Honorarium, £105.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN, Leicester Square, W.C.—Pathologist. Salary, £200 per annum.

ST. PETER'S HOSPITAL FOR STONE, Etc., Henrietta Street, W.C.—Junior House-Surgeon. Salary at the rate of £50 per annum.

SALISBURY INFIRMARY.—Assistant House-Surgeon. Salary, £50 per annum.

SOUTHPORT INFIRMARY.—Junior House and Visiting Surgeon (Male). Salary at the rate of £70 per annum.

SUNDERLAND INFIRMARY.—Two Male House-Surgeons. Salary, £80 per annum each.

UNIVERSITY COLLEGE HOSPITAL, Gower Street, W.C.—Medical Officer in Charge of Electro-Radiographic Department.

WOLVERHAMPTON AND MIDLAND COUNTIES EYE INFIRMARY.—House-Surgeon. Salary, £80 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces vacancies at Maiden Newton, co. Dorset; Leuchars, co. Fife; and Lytham, co. Lancaster.

APPOINTMENTS.

AUBREY, T., M.B.Lond., Medical Officer of Health, Warmley Rural District.

CARTER Humphrey G., M.B., Ch.B., Resident House-Surgeon to the Surgical Out-patient Department of the Edinburgh Royal Infirmary.

CHEESE, F W., M.D.Durh., Certifying Factory Surgeon for the Harpenden District, co. Hertford.

COURT, Arthur, M.B., B.C.Camb., Medical Officer and Public Vaccinator for the Staveley District of the Chesterfield Union.

COURTNEY, H. G. S., M.R.C.S., L.R.C.P., District Medical Officer of the Luton Union.

CRAIG, J., M.B., Ch.B.Glasg., Medical Officer of Health, Church Urban District.

CURTIS, Henry, B.S., F.R.C.S., Assistant Surgeon to the Dreadnought Hospital, Greenwich, and Joint Teacher of Operative Surgery at the London School of Clinical Medicine.

DRAPES, T. L., M.R.C.S., L R.C.P., Medical Officer of Health, Chepstow Urban and Port Districts.

EADIE, A. W., M.B., B.S.Glas., Resident Assistant Medical Officer, Burnley Union Workhouse.

ERSKINE, A. M., M.D., R.U.I., Certifying Factory Surgeon for the Goole District, co. York.

FARBSTEIN, J. H., M.B., B.S.Lond., Resident Medical Officer of the Workhouse of the Kingston-upon-Hull Incorporation.

FRASER, G. M., M.B., Assistant Medical Officer to the Workhouse and Cottage Homes of the Aston Union.

FREER, R., M.D.Camb., Medical Officer of Health, Rugeley Urban District.

GIBB, W. S., M.B., C.M.Edin., District Medical Officer of the Hartlepool Union.

GILDER, M. D. D., F.R.C.S., House-Surgeon to University College Hospital.

MARSDEN, E. Maude, M.B., Ch.B.Vict., House-Surgeon to St. Mary's Hospitals, Manchester.

MARTIN, P. S., M.R.C.S., L.R.C.P., House-Surgeon to University College Hospital.

MILES, Alexander, M.D., F.R.C.S.Edin., Surgeon to the Royal Infirmary, Edinburgh.

MORISON, J. Rutherford, M.B., F.R.C.S Edin., Professor of Surgery in the University of Durham College of Medicine, Newcastle-on-on-Tyne.

PEARCE, George Harper, D.P.H.(Camb.), Medical Officer of Health and Medical Officer to the Education Committee of the Borough of Batley.

STEADMAN, F. S. J., M R.C S., L.R.C.P., L.D.S., Honorary Dental Surgeon to the Metropolitan Hospital.

WATSON, A. Pirie, M.A., M.B., Ch.B., Clinical Assistant to the Surgical Out-patient Department of the Edinburgh Royal Infirmary.

WATSON, C. Gordon, F.R.C.S., Assistant Surgeon to St. Bartholomew's Hospital.

WEBBER, L. M., M.R.C.S., L.R.C.P., Second Resident Assistant Medical Officer of the Lewisham Union Infirmary.

GUY'S HOSPITAL, S.E.—The following have been appointed Dental House-Surgeons: F. Bocquet Bull, C. H. Bradnam, R. W. Powell.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

BIRKS.—On January 16th, at Petersburg, South Australia, the wife Melville Birks, M.B., F.R.C.S.Eng., of a son.

TRIST.—January 22nd, at Crest House, Putney Bridge Road, S.W., the wife of John Ronald Rigden Trist, of a daughter.

WILSON.—On January 7th, at Paddock, Huddersfield, the wife of David Wilson, Junr., M.B., M.R.C.S., of a daughter.

DEATH.

WEIR.—On the 18th inst., in London, suddenly during an operation, Archibald Weir, L.R.C.P. and S.Edin., lately of St. Giles, Malvern Link.

DIARY FOR THE WEEK.

TUESDAY.

ROYAL SOCIETY OF MEDICINE:

PATHOLOGICAL SECTION, National Hospital, Queen Square, W.C., 8.30 p m.—Dr. F. W. Mott, F.R.S., and Dr. Edgar Silvester: Changes in the Nerve Cells of a Man who Died Seven Hours after receiving a Current of 10 000 Volts. Dr. F. W. Mott, F.R.S: Two Specimens from Professor Marinesco illustrating Regeneration of Nerves. Dr. A. J. Ball: Two Cases of Cyst of Choroid Plexus. Dr. Batten and Dr. Gordon Holmes: A Recent Case of Acute Poliomyelitis. Dr. Hinds Howell: Two Cases of Tumour of the Pineal Gland. And other communications.

THERAPEUTICAL AND PHARMACOLOGICAL SECTION, 20, Hanover Square, W., 4 30 p m.—Paper: Dr. Bashford, The Immunity Reaction of Cancer. Professor W. E. Dixon will open a discussion on Proprietary, Patent, and Secret Remedies.

THURSDAY.

NORTH-EAST LONDON CLINICAL SOCIETY, Prince of Wales's Hospital, Tottenham, 4.15 p.m.—Clinical Cases. Election of Members.

FRIDAY.

ROYAL SOCIETY OF MEDICINE:

LARYNGOLOGICAL SECTION, 20, Hanover Square, 5 p.m.—Cases and Specimens.

SECTION OF ANAESTHETICS, 20, Hanover Square, 8 30 p m.—Adjourned discussion on Mr. Bellamy Gardner's paper on Lymphatism will be opened by Dr. Farquhar Buzzard.

SATURDAY.

ROYAL SOCIETY OF MEDICINE:

OTOLOGICAL SECTION, 20, Hanover Square, 10 a.m.—Cases and Specimens.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Tuesday, 3.45 p.m., Nose; Thursday, 4.30 p.m., Syphilis of the Throat; Friday, 3.45 p.m., Labyrinth.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C., Thursday, 4 p.m.—Spinal Caries.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively: Operations, 2 p.m. Special Clinics: Ear and Throat at noon and 4 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Thursday, and noon, Friday; Eye, 11 a.m., Wednesday and Saturday; Radiography, 4 p.m., Thursday. Special Lectures: Wednesday, 3.30 p.m., The Normal Fundus Oculi and its Common Anomalies; Thursday, 2.30 p.m., Meningitis and its Treatment; Friday, 3.15 p.m., Operative and Post-operative Accidents and Complications.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week, at 4 p.m. each day: Monday, Skin. Tuesday, Medical. Wednesday, Surgical. Thursday, Surgical. Friday, Ear, Nose, and Throat. Lectures, at 5.15 p.m. each day, will be given as follows: Monday, Treatment of the Surgical Forms of Tuberculosis by Koch's Human Tuberculin. Tuesday, Affections of the Eye caused by Inflammation of the Accessory Sinuses of the Nose. Wednesday, The Treatment of Mastoiditis. Thursday, Some Painful Surgical Conditions of the Feet.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Researches in Otology; Friday, 3.30 p.m., Surgery of Paralytic Deformities.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, 10 a.m., Surgical Out-patient Clinic; 2.30 p.m., Medical Out-patient Clinic: Nose, Throat, and Ear Diseases; 4.30 p.m., Medical In-patient Clinic. Tuesday, 10 a.m., Medical Out-patient Clinic; 2.30 p.m. Operations; Surgical Clinic; Gynaecological Clinic; 4.30 p.m., Lecture: Intussusception. Wednesday, 2.30 p.m., Medical Out-patient Clinic; Diseases of the Skin; Diseases of the Eye; *X* Rays. Thursday, 2.20 p.m., Gynaecological Operations; Medical Out-patient Clinic; Surgical Out-patient Clinic; 3 p.m., Medical In-patient Clinic. Friday, 10 a.m., Clinic: Surgical Out-patient; 2.30 p.m., Operations; Clinics; Medical Out-patient; Eye; 3.30 p.m., Medical In-patient.

POST-GRADUATE COLLEGE, West London Hospital, Hammersmith Road, W.—The following are the arrangements for next week: Daily, 2 p.m. Medical and Surgical Clinics; *X* Rays; 2.30 p.m., Operations. Monday and Thursday and Wednesday, 2 p.m., and Saturday, 10 a.m., Diseases of the Eyes. Tuesday and Friday, 10 a.m., Gynaecological Operations; 2 p.m. (and Wednesday and Saturday, 10 a.m.), Diseases of Throat, Nose, and Ear; 2.30 p.m., Diseases of the Skin. Wednesday and Saturday, 10 a.m., Diseases of Children. Wednesday, 2.30 p.m., Diseases of Women. Lectures: At 10 a.m., Monday and Thursday, Demonstration by Surgical Registrar; Friday, Demonstration by Medical Registrar. At 12 noon, Thursday, Pathological Demonstration. At 12.15 p.m., Tuesday and Wednesday, Practical Medicine. At 5 p.m., Monday, Practical Surgery; Tuesday, Gynaecology; Wednesday, Medicine; Thursday, The Significance of Ocular Paralysis in the Diagnosis of Nervous Disease; Friday, Sleeping Sickness.

PUBLISHERS' ANNOUNCEMENTS.

WE are informed that the St. Catherine Press, Limited, York Buildings, Adelphi, W.C., is about to publish a new volume by Dr. T. N. Kelynack, editor of the *British Journal of Tuberculosis*. It will be very fully illustrated and provided with maps. Full particulars will be given of the health and sports stations in Norway and Sweden suited to the requirements of English health and holiday seekers. The volume is to be published at 1s. net.

We are informed that Messrs. J. and A. Churchill are about to publish *The Malaria Fevers, Haemoglobinuric Fever, and the Blood Protozoa of Man*, by Charles F. Craig, M.D., Captain, Medical Corps, U.S. Army. The book will be profusely illustrated by four coloured plates, twenty-five clinical charts, and twenty-eight photomicrographs and drawings.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
FEBRUARY.	
1 TUESDAY ..	
2 WEDNESDAY	BURMA BRANCH, New General Hospital, Rangoon, 9.30 p.m.
3 THURSDAY ..	BURMA BRANCH, Medical Section, New General Hospital, Rangoon, 5 p.m. KENSINGTON DIVISION, *Metropolitan Counties Branch*, St. Mary's Hospital, 4.30 p.m.
4 FRIDAY ..	BURMA BRANCH, Annual Dinner, 8.15 p.m.
5 SATURDAY ..	BURMA BRANCH, Surgical Section, New General Hospital, Rangoon, 5 p.m. to 8 p.m.
6 Sunday ..	
7 MONDAY ..	LONDON: Standing Ethical Subcommittee, 2 p.m.
8 TUESDAY ..	
9 WEDNESDAY	ALTRINCHAM DIVISION, *Lancashire and Cheshire Branch*, General Meeting, Brooklands Hotel, 4.30 p.m.
10 THURSDAY ..	BEDFORD AND HERTS DIVISION, *South Midland Branch*, General Meeting, Bedford County Hospital, Bedford, 3 p.m. BIRMINGHAM BRANCH, Medical Institute, Edmund Street, 3.30 p.m. SOUTH-WESTERN BRANCH, Intermediate Meeting, Exeter.
11 FRIDAY ..	
12 SATURDAY ..	
13 Sunday ..	
14 MONDAY ..	

Date.	Meetings to be Held.
FEBRUARY *(Continued).*	
15 TUESDAY ..	
16 WEDNESDAY	CARDIFF DIVISION, *South Wales and Monmouthshire Branch*, Cardiff. LANCASHIRE AND CHESHIRE BRANCH, Meeting of Branch Council, Manchester, 4.30 p.m.
17 THURSDAY ..	LONDON: Metropolitan Counties Branch Council, 4.30 p.m.
18 FRIDAY ..	
19 SATURDAY ..	
20 Sunday ..	
21 MONDAY ..	
22 TUESDAY ..	
23 WEDNESDAY	BATH AND BRISTOL BRANCH, Bath. RICHMOND DIVISION, *Metropolitan Counties Branch*, Royal Hospital, Richmond, 8.30 p.m.
24 THURSDAY ..	
25 FRIDAY ..	BIRMINGHAM BRANCH, Pathological and Clinical Section, Medical Institute, Edmund Street, 8 p.m. CITY DIVISION, *Metropolitan Counties Branch*, conjointly with Aesculapian Society, Metropolitan Hospital, 4 p.m. EDINBURGH BRANCH, Winter Clinical Meeting, Royal Infirmary; Museum, 11 a.m. onwards; Special Clinics during forenoon; Clinical Meeting, 4 p.m.; Dinner, Royal British Hotel, Princes Street, 6.30 p.m. HAMPSTEAD DIVISION, *Metropolitan Counties Branch*, 8.30 p.m.

Printed and Published by the British Medical Association at their Offices, No. 429, Strand, in the Parish of St. Martin-in-the-Fields in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, FEBRUARY 5TH, 1910.

CONTENTS.

	PAGE
Matters Referred to Divisions:	
INTERIM REPORT TO DIVISIONS REVIEWING THE RELIEF OF DISTRESS AS AT PRESENT CONDUCTED	41
Meetings of Branches and Divisions:	
Metropolitan Counties Branch: Kensington Division	48
,, ,, ,, City Division	54
,, ,, ,, Stratford Division	54
Edinburgh Branch	54
Perthshire Branch	55
Queensland Branch	55
South-Eastern Branch: Canterbury and Faversham Division ...	55
,, ,, Folkestone Division	55
ASSOCIATION NOTICES.—ANNUAL SUBSCRIPTION, 1910 ...	56
BRITISH MEDICAL ASSOCIATION LIBRARY	56
MEMBERS ELECTED DURING THE DECEMBER QUARTER	57
VITAL STATISTICS	60
NAVAL AND MILITARY APPOINTMENTS	61
CENTRAL MIDWIVES BOARD	61
HOSPITALS AND ASYLUMS:	
Govan District Asylum, Paisley	62
Surrey County Asylum, Brookwood	62
Glasgow Eye Infirmary	62
VACANCIES AND APPOINTMENTS	62
BIRTHS, MARRIAGES, AND DEATHS	63
DIARY FOR THE WEEK	63
PUBLISHERS' ANNOUNCEMENTS	64
CALENDAR	64

SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs.

BY ORDER.

MATTERS REFERRED TO DIVISIONS.

SPECIAL POOR LAW REFORM COMMITTEE.

INTERIM REPORT TO DIVISIONS REVIEWING THE RELIEF OF DISTRESS AS AT PRESENT CONDUCTED.

MEMORANDUM.

1. The Council of the Association has appointed a Committee—

To consider the Reports of the Royal Commission on the Poor Law as affecting the medical profession, and to report thereon to the Council with recommendations as to any action which should be taken by the Association.

Interim Report on Existing Conditions.

2. The Committee is not yet in a position to issue Recommendations for the consideration of the Divisions, but in the meantime the Council considers that the issue of a Memorandum describing existing forms of relief may be of assistance to the Divisions in any preliminary consideration of the subject which they may desire to undertake.

Summary of Criticisms by the Poor Law Commission on Existing System of Medical Assistance.

3. A review of the statements made by both Sections of the Royal Commission in reference to medical relief shows that the principal allegations against the present system are:—

(*a*) The existence of a great deal of overlapping both of one Public Service with another and of all Public Services with Medical Charity and Provident Medical Institutions. This is also shown by the Table of Forms of Medical Relief. (*See* Appendix II.)

(*b*) That the conditions imposed on the grant of medical relief are applied on no consistent principle and in a capricious manner, and that when they are deterrent they frequently deter the wrong people. This is shown by the expressed opinions of the Commissioners:—

The Majority sum up their criticisms of the present position in the following statement:—

"The present situation would seem to be that medical relief is not legally deterrent in the sense that there is no legal disability attached to it. In practice, however, it is deterrent to those who dislike having recourse to the Poor Law, and to those who do not care for the Poor Law doctor; while it is unduly attractive to those who like getting something for nothing. Thus, the service rendered is in proportion neither to merit nor to needs."
("Majority Report," Part 5, Chap. 3, Par. 234.)

The Minority condemn the existing system as involving:—

"Delay and reluctance in the application of sick persons for treatment, hesitation and delay in beginning the treatment, and, in strictly administered districts, actual refusal of all treatment to persons who are in need of it, but who can manage to pay for some cheap substitute." (Chapter V, Conclusion 2.)

(*c*) That the medical relief granted generally only has reference to the immediate necessities of the case, and that no attempt is made to deal with the hygienic conditions under which the patients live, or to make the system preventive as well as curative.

(*d*) That the Poor Law Medical Service is very commonly undervalued by the Guardians, and its officers are underpaid.

The Standpoint of the Association.

4. In the consideration by the Association of questions such as the present it is always necessary to keep clear the distinction between the two aspects in which the Association may be called upon to express an opinion as a body representative of the Medical Profession, namely, first, as to the arrangements which, in the opinion of the Association, would be best calculated to fulfil the objects in view as regards the interests of the community, and secondly, with respect to those interests of the profession as a whole, or of individual members of the profession, which may be affected by the proposals under consideration. While making these distinctions, however, it will be found that the true interests of the community and those of the medical profession invariably coincide; and, therefore, any scheme suggested for providing medical assistance to the poor which does not recognise this fact will prove ultimately to be unsound.

Questions affecting the Community.

5. As affecting the interests of the community the question for the Association is whether any given proposals will make for efficiency, or otherwise, of the medical service. General questions of politics or of social theory must therefore be avoided. The only capacity in which the Association can speak with recognised authority in questions affecting the interest of the community is that of expert adviser upon professional matters. Any recommendations which the Association may make to the Government or public authorities, based solely upon considerations in regard to which the public would recognise its authority. will undoubtedly command respect and consideration.

Questions specially affecting the Medical Profession.

6. As matters affecting the interests of the profession, the Association must consider, in the present case, (*a*) the effect of any proposed reform of the Poor Law upon the interests of the medical profession as a whole, (*b*) how it would affect the position of existing medical officers, and (*c*), what would be the position of future medical officers under the scheme.

Reference to the Royal Commission and Range of Subjects covered thereby.

7. The Reference to the Royal Commission on the Poor Laws was as follows :—

"To inquire :

"(1) Into the working of the laws relating to the relief of poor persons in the United Kingdom ;

"(2) Into the various means which have been adopted outside of the Poor Laws for meeting distress arising from want of employment, particularly during periods of severe industrial depression ;

and to consider and report whether any, and if so, what, modification of the Poor Laws or changes in their administration, or fresh legislation for dealing with distress are advisable."

Both in the Report of the Commission signed by the majority of its members, and in the independent Reports and Memorandums which have been issued by some of the Commissioners, the Reference has been so interpreted as to include the consideration of every agency, public or private, through which persons, *poor or otherwise*, are provided with any of the requirements of life at the public expense or at the expense of private individuals or bodies.

8. In both the majority and minority Reports great stress is laid upon the overlapping of agencies for relief and consequent waste and other evils. The recommendations of both sections of Commissioners may be described succinctly as having for one object the reducing to order of the existing methods of relief. The differences in their recommendations depend chiefly upon differences as to the methods of future administrative organisation.

Defects of Existing Methods.

9. From a consideration of both Reports and of the discussions which have ensued since their publication the Committee is convinced that a grasp of the following points is essential :—

(i) That the existing methods of providing relief to members of the community are very numerous. (*See* paragraph 10 and Appendix I.)

(ii) That these methods frequently overlap. (*See* paragraph 12 and Appendix II.)

(iii) That even in the distribution of public funds there is no uniform application of any test, "destitution" or other, to distinguish—

(*a*) Those who should not be relieved from public funds ; and

(*b*) Of persons relieved at the public expense, those who should be compelled to appeal to the Poor Law for such relief. (*See* also paragraph 14.)

Table of Agencies for the Relief of the Poor.

10. In order that these points may be realised by the Divisions a Table (see Appendix I) is appended in which all forms of relief are stated, and those from public funds classified according to whether

(A) A test is usually applied.
(B) A test is not usually applied.
(C) The application of a test depends upon the caprice of the local authority administering the fund.

11. The Table in itself suffices to demonstrate the truth of the statement that the existing methods of providing relief to members of the community are very numerous.

Table of Medical Relief. (*Appendix II.*)

12. The overlapping of such methods in the case of medical relief is illustrated by this Table.

Similar tables might be constructed to illustrate the same point in the case of other forms of relief.

13. One result of the overlapping pointed out by all the Royal Commissioners is the frequent breakdown in practice of the application of "destitution tests," and other efforts to exclude from relief persons deemed to be unsuitable.

14. The Table also demonstrates the present want of uniformity in the application of tests by public authorities. It shows that a case which is refused relief by one authority, as the result of application of some test, may obtain the desired relief from some other authority without inquiry of any kind, and without any attempt to recover the cost. Under the Public Health Act, Municipalities have wide powers as regards the provision of medical relief, but they have no statutory power of recovering the cost of the grant of such relief, except in the case of persons maintained in hospitals or other places for the reception of the sick. Moreover, in some districts persons requiring certain kinds of relief would be compelled to apply to the Poor Law for such relief, while in other districts the relief would be granted by other public authorities, such as the Health Committee or the Education Committee.

General Commentary.

15. While, from the public point of view, the defects here indicated are detrimental because they lead to waste and inefficiency in the services, and promote thriftlessness and demoralisation in, or entail injustice to, the recipients, from the professional point of view their influence is equally to be deplored. As officers of voluntary charities, members of the medical profession are nearly always unpaid, in provident institutions the rate of the remuneration which they accept is admittedly inadequate, and this is also true with regard to a large number of the salaries of medical officers paid by public funds. To add to the work of these unpaid or underpaid officials by including patients who do not properly belong to them would be a great injustice. It would equally be unjust from want of organisation to transfer from private practitioners to one or other of these official medical officers patients who would otherwise pay for their treatment. The profession would be doubly damaged, for it would be defrauded of its just payment, and its unity destroyed by the dissensions which would inevitably be introduced by unfair competition.

16. In a subsequent Report Recommendations as to the policy to be adopted by the Association with respect to the reform of the abuses above indicated, will be submitted for the consideration of the Divisions.

Responsibility of the Divisions.

17. In the meantime, the Council would urge the Divisions to take into their most earnest consideration two matters which must assume primary importance in the steps taken by the Association for carrying out any scheme of reform. The first of these is the improvement of the organisation of the Divisions, especially by the most strenuous efforts to include in their membership all reputable local practitioners. The statement by both the Majority and the Minority of the Royal Commissioners of the reasons for the under-payment both of Poor Law Medical Officers and of medical men engaged in various forms of contract practice, is a reflection upon the union and organisation of the medical profession which the Association exists to promote. It is incumbent upon the Divisions to remove this reproach with the least possible delay. Secondly, it is clear that the problem of Poor Law Reform, and of the reform of public medical services in general, is closely bound up with the question of the provident arrangements through which medical attendance and medical requisites should be readily obtainable by all but the poorest of the community.

The future Organisation of Contract Practice.

18. Suggestions for the organisation of Public Medical Services under the control of the profession have been circulated for the consideration of the Divisions. These will afford a basis for the discussion of the attitude of the Divisions towards contract arrangements of all kinds for the supply of medical attendance. An additional reason for the Association giving prompt and thorough consideration to these questions is the fact that public statements have been made by responsible Ministers of the Crown that in the near future some scheme of Sickness and Invalidity Insurance analogous to that existing in Germany will be brought into operation in this country. One effect of such a scheme would inevitably be the provision of medical attendance on the whole of the wage-earning classes on some kind of contract basis.

Proposed Departmental Committee to consider the Medical Aspects of Poor Law Reform.

19. Having regard to the importance of the medical aspects of Poor Law reform, the Council has already urged upon the Government the appointment of a Departmental Committee for the consideration of the organisation of Medical Assistance as a separate problem, and specially to co-ordinate and systematise the work of the various agencies now administering medical assistance to persons in sickness.

Principles submitted for the Consideration of Divisions.

20. The Council has also felt justified in formulating at once for the consideration of the Divisions, the following general conclusions upon which their opinion is invited :

That any system of medical assistance, to prove satisfactory to the ratepayers, to the beneficiaries, or to the medical profession must include the following principles :—

(i) That medical services rendered on behalf of the State should be paid for by the State.
(ii) That the payment should be adequate and in accordance with the professional services required.
(iii) That there should be adequate medical representation on all Committees formed to control medical assistance.

APPENDIX I.

TABLE OF AGENCIES FOR RELIEF OF THE POOR.

The various agencies for relief of the poor, medical and otherwise, may be classified as follows :—

(I) Public Funds.
(II) Organised Charity.
(III) Provident organisations not wholly self-supporting.
(IV) Individual Charity.

These may be sub-divided as follows :—

(I) PUBLIC FUNDS.

(A) *Cases in which a test is usually applied.*

(*a*) Through Poor Law, including all forms of relief administered by the Boards of Guardians.
(*b*) Relief administered through Distress Committees.
(*c*) Provision for the aged administered through Pensions Committees.
(*d*) Education and maintenance given in industrial schools and training ships, under the control of the Home Office.
(*e*) Midwives Supervising Authorities.
(*f*) Various provisions made by Local Authorities under the supervision of the Watch Committees such as the use of the Police for distribution of clothing, and the payment for medical assistance in emergency cases through the Police.
(*g*) Treatment at hospitals of persons referred by Boards of Guardians and other public authorities under special arrangements.

Note.—In the majority of cases the "test," or other means adopted for securing that persons shall not receive at the public expense that which they can afford to provide for themselves, takes the form of inquiry before relief is granted and refusal of relief to persons considered not to require it. In other cases the relief applied for is granted, with or without previous inquiry, and the cost of such relief recovered from those who are found to be able to pay.

The system of confining the grant of relief to those who are considered not to be able to provide for themselves, applies to all the cases under (*b*), (*c*), (*e*), and the first part of (*f*) in the above Table. The system of recovery of cost is adopted in the cases under (*d*) and the second part of (*f*). Under the Poor Law both systems are in operation, the rule being to inquire before the grant of relief, while the Authority always retains power to recover the cost.

(B) *Cases in which a test is not usually applied.*

(*a*) Provision of Education by Local Authorities, supplemented by public funds, in accordance with the Education Acts. Also grants from public funds to Educational Charities such as Secondary Schools, Technical Schools, and Universities, and provision of scholarships, &c.
(*b*) Provisions made by the State, or by Local Authorities, for the protection of the health of individuals at the public expense in the general interests of the community, such as, for example, the employment of Factory Inspectors, the medical inspection of school children, and the general work of Local Sanitary Authorities.
(*c*) Provision of baths, laundries, cleansing stations, &c.
(*d*) Provision of public parks, Museums, Libraries, Concerts, and other means of recreation.

(C) *Cases in which the application of a test depends upon the caprice of the Local Authority.*

(*a*) Provision of meals to school children.
(*b*) Treatment of school children found upon inspection to be defective.
(*c*) The duties of Sanitary Committees involving treatment of individuals.
(*d*) Provision of public creches.
(*e*) Grants in aid of District Nursing.

(II) ORGANISED CHARITY.

(Organised Charity may be supported by subscriptions or endowments. Very often, endowments and donations are applied to the same objects. The distinction of charity in gifts of things and money on the one hand, and personal service on the other hand, is important.)

(*a*) Almshouses. Charitable Pensions.
(*b*) Dorcas Societies and the Clothing Charities.
(*c*) Benevolent Funds of various Professions and Trades.
(*d*) Hospitals of all kinds. (These frequently receive grants from Boards of Guardians, Education Committees, and other Public Authorities.)
(*e*) Public Schools, Grammar Schools, Universities, and other educational endowments and benevolences. (These frequently are assisted also by grants from public funds.)
(*f*) District Nursing Associations.
(*g*) Ambulance Associations.
(*h*) Children's Care Committees.
(*i*) Guilds of Health, and similar organisations.
(*j*) Charities specially organised by, or attached to, various religious bodies. These include examples of nearly all the items mentioned in the preceding Subsections.

(III) PROVIDENT ORGANISATIONS NOT WHOLLY SELF-SUPPORTING.

(*a*) Many Provident Dispensaries and other forms of Contract Medical Practice.
(*b*) Other provident funds in which the contributions of the members do not defray the entire cost of the benefits conferred but have to be supplemented by donations.

(IV) INDIVIDUAL CHARITY.

Individual charity is not capable of classification. The individual may give his money or his time for any of the purposes mentioned under any of the classes previously named.

APPENDIX (II).

MEDICAL RELIEF.

SHOWING (*a*) OVERLAPPING, AND (*b*) WANT OF UNIFORMITY IN APPLICATION OF TEST.

A.—Non-Institutional.

(N.T.) = No Test applied.
(T.) = Test applied.
(T.V.) = Test variable.

Forms.	Agencies.					
	Public.			Charitable.		Provident.
	Poor Law. (1)	Sanitary Authority. (2)	Other Public Authority. (3)	Hospital. (4)	Other. (5)	(6)
1. Vaccination	Public Vaccinator. (N.T.)	In Scotland, Re-vaccination during epidemics. (N.T.)				
2. Disinfection, Isolation, and other Sanitary Provisions, *e.g.*, provision of Antitoxins, Visitation of Health Visitors, &c. (*See* also No. 16)	...	Medical Officer of Health and Staff. (N.T.)				
3. Treatment of Infectious Diseases at home	Poor Law Medical Officer. (T.)	...	...	...	Free Dispensaries	Provident Dispensaries and other Contract Practice Organisations
4. Provision for treatment of certain contagious diseases, *e.g.*, Ringworm Schools, &c.	Poor Law Medical Officer. (T.)	Out-Patient Departments at Isolation Hospital, Baths, &c. (N.T.)	Education Committee. (N.T.)	Out-Patient Departments	Free Dispensaries	Contract Practice Organisations
5. Provision for diagnosis and home treatment of Ophthalmia Neonatorum. (*See* also No. 17)	Poor Law Medical Officer. (T.V.)	Medical Officer of Health and Payment by Sanitary Committee. (T.)	...	...	Free Dispensaries	Contract Practice Organisations
6. Provision for Pregnancy and Lying-in. (*See* also No. 20)	Poor Law Medical Officer. (T.)	Provision for Medical Attendance. (T.)	...	Extern Obstetric Department	Charitable Societies	Contract Practice Organisations
7. Provision of milk and other meals, under medical supervision, for delicate children	Poor Law Medical Officer. (T.)	In some districts. (N.T.)	...	...	Charitable Societies	
8. Restaurants for Nursing Mothers	...	In some places. (N.T.)	...	...	Charitable Societies	
9. Medical and Dental Inspection	...	...	Education Committee. (N.T.)			

A.—Non-Institutional—*continued.*

Forms.	Agencies.					
	Public.			Charitable.		Provident.
	Poor Law. (1)	Sanitary Authority. (2)	Other Public Authority. (3)	Hospital. (4)	Other. (5)	(6)
10. Provision for treatment (medical and dental) of Children found Defective on Inspection. (*See* also No. 24)	Poor Law Medical Officer. (T.)	....	Education Committee (School Clinics). (T.)	Out-Patient Departments, sometimes subscribed to by Education Committee.* (T.)	Free Dispensaries, sometimes with subscriptions from Sanitary or Education Authorities	Contract Practice Organisations
11. Provision for treatment of certain Mental Cases. (*See* No. 21)	Boarded out and reported on from time to time by Poor Law Medical Officer. (T.)	...	...	Out-Patient Departments		
12. Provision for disease or injury not necessitating rest in bed. (*See* also No. 16)	Poor Law Medical Officer. (T.)	Provision of Medicines for Diarrhœa or Epidemics (Rare.) (N.T.) Phthisis Dispensaries and Home Visitation. (N.T.)	Free Turkish Baths. (Baths Committee)	Out-Patient Departments	Free Dispensaries, sometimes subscribed to by Sanitary Authorities	Provident Dispensaries and other Contract Practice Organisations
13. Provision for disease or injury necessitating— (*a*) Rest in bed; (*b*) Nursing. (*See* also No. 24)	(*a*) and (*b*) Poor Law Medical Officer. (T.)	Employment of Nurses for infectious cases, under Public Health Amendment Act. (N.T.)	...	Home Visiting Staff	Free Dispensaries and Charitable Societies (*a*) and (*b*)	Contract Practice Organisations assisted as to (*b*) by Charitable Societies.
14. Provision for Street Accidents and similar emergency cases. (*See* also No. 29	...	...	Police Surgeon or private practitioner called in by Police (Watch Committee). (N.T.)	Out-Patient Departments	Free Dispensaries	
15. Provision of surgical and other necessities, *e.g.*, Artificial Limbs, Spectacles, Trusses	Poor Law Medical Officer. (T.)	...	Education Committee (Spectacles). (T.)	Out-Patient Departments	Free Dispensaries and various Societies	Contract Practice Organisations (special grants)

* Test consists in enquiry by Hospital Almoners when such are employed

B.—Institutional.

Forms.	Agencies.					
	Public.			Charitable.		Provident.
	Poor Law. (1)	Sanitary Authority. (2)	Other Public Authority. (3)	Hospital. (4)	Other. (5)	(6)
16. Provision for treatment of Infectious Diseases. (*See* also No. 2)	Poor Law Infirmaries (T.), Metropolitan Asylums Board. (N.T.)	Isolation Hospital. (T.V.)	...	Special and General		
17. Provision for treatment of Ophthalmia Neonatorum. (*See* also No. 5)	Poor Law Infirmaries. (T.)	Provision by Sanitary Authority	...	General and Special	Cottage Hospitals	Cottage Hospitals
18. Sanatoriums for Tuberculosis	Poor Law Sanatoriums. Also subscriptions by Guardians to Private Sanatoriums. (T.)	Municipal Sanatoriums (rare). Subscriptions to Charitable Sanatoriums. (T.)	...	Attached to Voluntary Hospitals, General and Special	Charitable Societies and Funds	Institutions belonging to Contract Practice Organisations. Also subscriptions to charitable institutions
19. Provision for treatment of Venereal Diseases	Poor Law Infirmaries. (T.)	...	...	General and Special		
20. Provision for Pregnancy and Lying-in. (*See* also No. 6)	Poor Law Infirmaries. (T.)	...	...	Hospitals ...	Charitable Societies	
21. Provision for Mental Cases. (*See* also No. 11)	Asylums (T.) and subscriptions to Charitable Institutions	Asylums. (T.)	Education Committee. (N.T.)	Hospitals ...	Various Societies and Private Charity	
22. Inebriety Homes and Reformatories	...	...	Payments by Treasury and by Counties and County Boroughs, also subscriptions to Private Institutions. (N.T.)	...	Inebriates' Homes	
23. Provision for treatment of Epilepsy	Poor Law Colonies and Schools. (T.) Also subscriptions to Charitable Societies and Colonies	Provision is made by some Sanitary Authorities	Education Committee. (N.T.)	...	Charitable Societies and Colonies	
24. Provision for disease or injury necessitating— (*a*) Rest in bed, or (*b*) Special nursing, or (*c*) Special medical skill. (*See* also Nos. 10, 12, and 13)	Poor Law Infirmaries (T.V.). Also subscriptions to Voluntary Hospitals. (T.)	Municipal Hospital (rare). (N.T.) Also subscriptions to Voluntary Hospitals	Education Committee (Epileptics, Blind, and Cripples)	In-Patient Department (*a*), (*b*), and (*c*)	Cottage Hospitals	Cottage Hospitals and Contract Practice Organisations

B.—Institutional—*continued*

Forms.	Agencies.					
	Public.			Charitable.		Provident.
	Poor Law. (1)	Sanitary Authority. (2)	Other Public Authority. (3)	Hospital. (4)	Other. (5)	(6)
25. Convalescent Homes ...	In connection with Isolation Hospitals, Metropolitan Asylums Board. (N.T.)	In connection with Isolation Hospitals. (T.V.)	...	Hospitals and Hospital Funds	Various Societies and Private Charity	Contract Practice Organisations
26. Provision for Sea Bathing and Mineral Water Treatment	Contributions by Guardians to charitable institutions. (T.)	...	...	Special Hospitals and subscriptions from Hospital Funds	Charitable Societies and Funds	Institutions belonging to Contract Practice Organisations. Also subscriptions to charitable institutions
27. Provision for Deaf and Dumb, Blind and Cripples	Subscriptions to Charitable Institutions by Guardians. (T.)	...	Education Committee. (N.T.)	Special ...	Charitable Societies	
28. Homes for Incurables	Infirmaries (T.)	Sanitary or Special Committee	...	Hospitals for Incurables, Homes for the Dying	Charitable Societies	
29. Provision for Street Accidents and similar emergency cases. (*See* also No. 14.)	Infirmaries. (N.T.)	...	...	In-Patient Department		

Note.—It will be observed that the various forms of Medical Relief mentioned in the foregoing Table may be roughly classified under the following headings, though there is no clear line of demarcation between the various classes :—

(*a*) Services rendered primarily in the public interest for the protection of other members of the community. (Numbers 1 to 5 and 16 to 19 inclusive.)

(*b*) Services rendered for the protection of the health of puerperal women and infants. (Numbers 6 to 8 inclusive, and Number 20.)

(*c*) Services specially for the maintenance of the health of children. (Numbers 9 and 10.)

(*d*) Mental Cases :—Motive, partly treatment of the patient for his own sake, partly segregation in the interest of the community. (Numbers 11, and 21 to 23 inclusive.)

(*e*) Other cases. (Numbers 12 to 15 and 24 to 29 inclusive.)

February 2nd, 1910.

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

METROPOLITAN COUNTIES BRANCH:

KENSINGTON DIVISION.

A MEETING of this Division was held at the Kensington Town Hall on November 25th, 1909.

The Administration of a Voluntary Hospital.

Mr. E. W. MORRIS, Secretary of the London Hospital, read a paper on The Administration of a Voluntary Hospital (Use, Misuse, and Abuse).

He said: Last autumn the London Hospital was favoured with a visit by the members of the Kensington Division of the British Medical Association. That visit was chiefly confined to an inspection of the work which the hospital was doing from a medical and surgical point of view. Cases of interest or of difficulty in the wards at the time were discussed, and the theatres, the laboratories, the museums, the lecture theatres, and the *post-mortem* rooms were visited. We at the hospital have a very pleasant memory of that day.

Your late chairman, Dr. Rice Oxley, intimated to me last October that perhaps, considering the amount of interest which the public were now taking in the administration of our hospitals, a second visit to the London Hospital would be of use in order to give the authorities an opportunity of explaining this very important side of hospital work.

On second thoughts, however, it seemed unnecessary to ask you all to trouble to travel to the wilds of Whitechapel to hear a few remarks which could just as well be made at your head quarters here. And so it has come about that I have the honour of standing before you this afternoon. As a mere layman standing before this assembly of wise and learned doctors, I am filled with diffidence, not to say embarrassment. I pray you, of your charity, deal as kindly with me as did the other lions with the Daniel of long ago.

There can be no doubt about it that every other man you meet in the street knows exactly how a hospital ought to be managed. He knows all about the shocking extravagance that goes on. He could tell you if he chose that he has discovered that every patient treated is of the standing of a wealthy company director; that the hospital is, in fact, nothing but a Private Nursing Home for the Governors and their friends. He knows that the medical and surgical staff are there simply to learn, and that by their hospital experiments they are enabled to charge huge fees to their patients in the West End. And as to charity, the less said about that the better. For the presence of these wise men in the street amongst us we have to thank that portion of the daily and weekly press which has discovered that it pays to point out faults rather than merits, failures rather than successes, defeats rather than victories. These journals pretend that they adopt this course for the public good, and in doing so are greater hypocrites than any they condemn. "Better know the truth" is their motto, which they proceed to carry out by telling the truth which has mud and unpleasantness in it, and omitting the truth that has sunshine and fresh air in it.

There is nothing which will so draw out the eloquence of the hospital critic as the question of hospital extravagance. He has got hold of a catch phrase—"the cost per bed." This he obtains by taking the total expenditure of a hospital and dividing by the number of beds occupied. He does this with several hospitals, and he discovers that at one hospital a bed costs, say, £70 a year, at another £80, and at another £90. Here is a scandal. He condemns the high cost, he commends the low cost, and would commend it more were it lower. How he would have admired the "London" a hundred years ago when its cost per bed was about £17 a year!

I need not point out to you who have all been hospital men that there are several questions we must ask this gentleman before his figures are of any use to us whatsoever in forming an opinion. How many patients go through its beds each year? What does it do for the patient? Does it simply relieve that patient, cure him of a disease, or does it also aim at destroying that disease altogether? Is its work confined to the patients within its walls, or is it also benefiting those who will never enter them? Does all its expenditure go to its beds? May it not have a disproportionately large and important out-patient department? May it not have expensive departments which are not common to all hospitals? Has it or has it not expensive research laboratories? What degree of brotherliness does it offer to its patients? Our critic must be prepared to answer these and many more questions before we are interested in his arithmetic.

Let me now give you as shortly as possible an outline of the administration of the London Hospital to-day. These are facts and are easily stated. Our difficulties come when we try to understand where these facts are leading us, what are their tendencies.

The London Hospital is the property of the governors. It was founded by governors 160 years ago and has been supported by its governors ever since, and is now. An annual subscriber of 5 guineas is an annual governor, and a donor of 30 guineas is a life governor. A court of governors is held every quarter, and at these courts appointments are made, resignations received, by-laws enacted, etc. The whole policy of the hospital is determined by the governors at these courts. At the court which sits in December the House Committee for the ensuing year is chosen. The House Committee consists of thirty governors and sits every week; at its first meeting after its election it selects its chairman. It reports to the quarterly courts all that it has done during the quarter and its decisions are either confirmed or referred back for further consideration.

The staff of the London consists of five surgeons, each with an assistant surgeon; and five physicians, each with an assistant physician. There are also, of course, surgeons and physicians to special departments—eyes, throat, skin, etc. A surgeon and his assistant surgeon is called a "firm." A physician and his assistant physician is called a "firm." Every "firm" has a house-physician or house-surgeon, who is resident in the hospital and watches over the patients between the visits of the staff. The physicians and surgeons have about 60 beds each. They visit the hospital on three days a week, and one of the conditions of their appointment is that they see each of their cases at least once a week. They do not see out-patients.

The assistant physicians and assistant surgeons have 20 beds each. They also visit the hospital three times a week; on two of their visits they see out-patients, and on the other they visit their beds. If they decide to admit out-patients to the beds they must do so in the order of three patients to the beds of their chief, and then one to their own. They may not choose cases.

At the main entrance to the hospital is the Receiving Room, to which every patient who enters the hospital must first come. This Receiving Room is "run" by seven senior and highly qualified men, who work through the twenty-four hours in shifts. The Receiving Room is never closed, night or day. These men have to find out, not all that may be the matter with a patient, but under which one of three heads he comes.

1. Is he very seriously ill? Then he must be admitted into the beds at once.
2. Is he only slightly ill or injured? Then he is given one treatment and sent away.
3. Does he come between these two groups? Then he is directed to the out-patient department for further treatment.

There is nothing to which I need specially draw your attention in the first two groups; as hospital men yourselves you are familiar with ward work and with "casualty." But I must speak rather more fully of the out-patient department.

When the patient arrives there he finds that he has to pass the inquiry office. Here he has to give satisfactory replies to such questions as, What are you earning? Are you in regular work? How many are dependent on you? What is your address? What is your rent? Have you seen a doctor at all outside? Whether the replies are satisfactory or not, the patient sees the doctor on the first occasion. He will find himself stopped, however, on his next visit if the officer's suspicions have been confirmed by subsequent inquiries. As a very complete card index register is kept, such a patient would probably find that he was known if he ever tried to visit the hospital again for any reason whatever, and also any members of his family. When the patient has passed the inquiry office, he in due course sees the doctor. After seeing the doctor, and before obtaining his medicine, he has an interview with one or other of the lady almoners. A word or two about the duties of these ladies may be of interest.

The day is past when a hospital or any other charity may be regarded as a unit. Charity must now be regarded rather as a chain. The different forms of charity are links in that chain. The value of the links in any chain is their dependence on the other links and co-operation with the other links. A lady almoner is a lady who has had a period of training in social questions generally, and especially in the various organizations of charitable help. She knows all about Labour Bureaux, Emigration Societies, Sick Room Aid Societies, Prevention of Cruelty to Children Societies, Discharged Prisoners' Aid Societies, Home Nursing Associations, Convalescent Homes, Societies for the Prevention of the Spread of Phthisis, Provident Dispensaries, Poor Law Infirmaries, Apprenticeship Associations, and so on. Can you not see the immense advantage to a hospital when such a person brings her expert knowledge to bear on the patient? Watch her at work a minute. Here comes a young girl of 19 who has just seen the doctor. Incipient phthisis. The doctor has ordered a quart of milk a day and fresh air in plenty. He might as well have ordered champagne and oysters and a sea voyage. All are impossible to a girl who is earning about 5s. a week by working from dark to dark at stitching dress shirts or evening blouses. Then the almoner gets to work. Health visitors are sent to the home to make sure that other members of the family are not infected, and they are taught the advantage of open windows. Arrangements are made for the patient herself to go away to a convalescent home or sanatorium, she always being urged to contribute if possible. While she is there every endeavour is made to find for her on her return work more healthy and open—in the country if possible. I need not enlarge on such a case further. Your imagination can help you, and you will understand what it means to have every patient coming under such treatment. The work of the hospital is raised in value, because it is availing itself of the work which other organizations are doing, and it economizes its forces in refraining from doing what others are doing much better. Overlapping of effort, the wasteful fault of modern charity, is prevented. I have the report of our almoners before me here, and I should like to read you one or two extracts from it:

> Four hundred and ten patients have been found able to pay the small weekly charge made by the Provident Medical Association Dispensaries, and they have been encouraged to join their local branches for minor ailments. One of the rules of this Association is "that patients requiring further advice or treatment than they are able to receive from the local doctors, are referred to their nearest hospital." Sixty-seven families, or 124 persons, who have been accustomed to visit the hospital on every occasion of illness, have joined the Whitechapel Branch, and others have become members of the Stratford and Hackney Branches.
>
> In 38 cases of acute illness the daily visit of a nurse has been arranged, and this has proved a great help to the patients.

7.4 per cent. of the total number of patients interviewed were found, on inquiry, to be able to pay for treatment privately. Their books were therefore cancelled after reference to the doctor in charge of the case. Many of these were found to be quite able to pay a consultant's fees if necessary.

The following cases may be cited as examples:

(*a*) A. P., suffering from bronchitis, stated that his doctor had urged him to come to the hospital. This was discovered to be incorrect. He owned a coffee house, his takings averaging £12 a week. He told the almoner "that he had paid a consultant's fee of 4 guineas on one occasion, and was therefore 'entitled' to hospital treatment for the rest of his life!"

(*b*) J. S., who stated that he was out of work, was found, on inquiry, to be the son of a master tailor, employing, even in the slack season, nine men and four or five girls. The home was exceedingly comfortable, and it was obvious that the family was in a position to pay for the treatment required.

(*c*) F. M. attended the hospital for some time, and his mother applied to the almoner for a "letter" for a convalescent home. On going into the case, it was found that the father was an East End merchant in a large way of business. He considered that, "as the hospital had *thousands of pounds*, he might as well have some of them," although he acknowledged that he could pay for any necessary treatment. It was ascertained later that the mother was paying £10 10s. a week in a nursing home, in addition to her doctor's fees and those of a consultant once in four days. Unfortunately, although dismissed from the London Hospital, we have reason to believe that the child has been sent to another hospital in the West End.

It has been found necessary to refer 9 cases to the National Society for the Prevention of Cruelty to Children; convictions against the parents have been obtained in two instances.

As it is impossible to deal adequately with a patient unless full consideration be given to the whole of his or her family, we hope that, in many cases, the inquiry instituted by the hospital has led to lasting benefit to other members of the family. Thus, when going into the circumstances of a patient, we frequently hear of a boy or girl who is leaving school and for whom the parents have no ideas as to future work. In 24 cases we have been able to refer them to apprenticeship or skilled labour committees, and we hope that these children may start in life with a good trade in their hands, which will prevent their drifting into the ranks of the "casual labourer," nor, in the future, are they likely to become the habitués of the hospital out-patient departments for trivial ailments.

The phthisical cases have received special care and attention. Those on the medical side been visited at home and urged to take the necessary precautions with regard to the sputum, washing of clothes, cleansing of the home, etc. In many cases the patients have been induced to have a separate bedroom, or, where this has not been possible, to sleep in a separate bed. Open windows are made a *sine qua non*, and, when necessary, arrangements have been made to supply extra nourishment.

I should like to say in passing that I think it is rather hard lines that a hospital should have to face this expense of almoners alone. All charities benefit by them. Nowadays the multiplicity of charities must be almost confusing to the philanthropic. May I suggest that a fund for the provision of lady almoners would help al lcharities?

I must just refer to out-patients' payments. Every patient who is able must pay 3d. for one week's supply of medicine or dressings. Roughly, about half pay, because the following are exempt—those who receive advice only, children under 12, those sent up by a doctor, those out of work.

I need not weary you with the various safeguards we adopt in buying, storing, and distributing; in our rules for the nursing staff and the lay staff; in our arrangements in case of fire and our alarm system for calling immediate help to any part; our pension scheme would hardly interest you, nor would the way our books are kept. So I will not talk about these, although I shall, of course, be glad enough to answer any questions on any of these points that you may care to ask.

I will pass on to what seems to me to be the most important question that a hospital official has to face, and which has to be answered before long, whether he choose to ignore it or not. The question is this: Where are the hospitals going? A simple question enough. But it is more important than the price of coal, or the uniform system of accounts, or the investment of legacies, or any other of the hundred-and-one things which worry the officials. I assure you that it is my belief that unless the voluntary hospitals wake up to the facts and very much alter their systems they *may* not be in existence in ten years from now, and certainly will not be in existence in twenty years from now. Of course the buildings will probably be in existence and certain work will be done, but they will not be voluntary hospitals.

As I have not changed my opinions since last autumn, when I read a paper on this subject before the Hospital Officers' Association, I should like to quote from that paper.

When you and I were young we were probably troubled by a mathematical master, full of curiosity, whose great quest in life was to know what would happen to some object if it were acted upon by different forces at various angles at the same time. His question used to take this form: If an object be acted upon by three forces of x, y, and z pounds respectively at angles of 25 degrees to each other, what will be the direction in which the object will move, and what will be its velocity? He usually threw in a few extras in the way of friction and so on for those of us who were clever at these sums. He illustrated his meaning by always talking of billiard balls.

I will ask you to do some such sum now. The modern voluntary hospital is your object, your billiard ball. The object is acted upon, so far as I can see, by four forces. They are:

1. The sick poor who cannot afford the treatment they require to restore them to the health necessary to make them useful members of the community.
2. Generous people who are willing to pay for such treatment for others.
3. The medical men who provide the skilled treatment.
4. Medical students who must use the hospitals as educational centres.

These are, I think, the only forces of any importance which are acting upon the modern hospital.

They are not all acting in parallel directions—that is to say, they are not all pushing in exactly the *same* direction nor yet in exactly the *opposite* direction to one another. They are acting at an *angle* to each other. Each influences the others. The direction in which the object will move depends upon the force of each and upon the angle of each. It will not move in the same direction if any one of these forces be removed. That is your sum. And here is your first difficulty—that all these four forces are changing so rapidly that they change almost while you are doing your sum.

Your only guide as to *how* they are changing is to look back and note how they *have* changed. Let us do this, then.

First, the sick poor.

How have they changed? I must ask you to bear with me while we examine the beginning, the foundation of two of our oldest hospitals. The two oldest by far are the royal hospitals of St. Bartholomew's and St. Thomas's.

St. Bartholomew's was founded in 1123 by Rahere. Rahere was court jester to the Conqueror's son, Henry I, who was the gentleman known to us all as the person who "never smiled again," hence he had no further use for Rahere, and Rahere became pious in his old age and philanthropic. We see the same tendency to-day. Henry presented him with a site in the Smoothfields (now *Smith*field) in the west of the city of London. Here Rahere built a priory. The Spital was added later. The staff of the Spital as of the Priory were the religious brethren or monks. The Priory of St. Bartholomew continued to do its beneficent work until about 1536, when Henry VIII seized it along with some 3,000 other religious houses, and appropriated its income. This was a calamity to the city of London. The city merchants complained of the unpleasantness of the sick and infectious lying and sometimes dying on their doorsteps. Dives objected to Lazarus. So the mayor and aldermen petitioned the King, and two years after the King handed the management of St. Bartholomew's Spital to the mayor. Henry VIII thus became the second founder, and hence St. Bartholomew's ranks as one of the royal hospitals. The King endowed the hospital (from what, by the way, had been its *own* emoluments) with land and property to the amount of 500 marks a year on condition that the citizens of London provided a like sum.

St. Thomas's was founded in the reign of William Rufus by an old lady who made a fortune by running a ferry over the Thames where London Bridge now stands. With her fortune she built and endowed a convent near her house in Southwark. For this deed she was canonized under the title of St. Mary Overie (St. Mary over River). This convent was burnt down in 1212, and the Southwark monks removed to a site which was the site of the old St. Thomas's Hospital, where London Bridge Station now stands. It had no doubt varying fortunes until 1538, when Henry VIII seized it as he had done St. Bartholomew's. The establishment appears to have been returned to the citizens, not in Henry VIII's time, but in that of his young son Edward VI. It was refounded and re-endowed by him, and hence St. Thomas's became a royal hospital.

As compared with these two all the other hospitals in London are modern, most of them having been founded between 1700 and 1800, and we need not here refer to them.

This much is clear: that the class of people—the destitute—which the founders of these hospitals had in view, and the class which they actually did relieve, were exactly the class that our modern Poor Law infirmaries relieve. And one cannot help coming to the conclusion, by reading some of the literature of the time, that, for instance, the wealthy merchants of London were quite as anxious that the hospital of St. Bartholomew should continue to exist on their own behalf as on behalf of the destitute sufferers themselves. The sick poor on their doorsteps were a nuisance and a danger; better herd them in a priory.

In these old days the noble class and the serf class were distinctly separated, and even in the eighteenth century, during which most of our other hospitals were founded, the line between gentle and common, rich and poor, master and servant, was very much more distinctly drawn than now. In the older minutes of even such a modern hospital as the "London" the sick poor were almost always referred to as "miserable objects." No living man would to-day stand such patronage as these patients had to stand from the governors.

After treatment they had to return humble thanks to the committee for their relief. What they might and might not do was set down with such humiliating detail as would only be found in a modern prison, if there.

Now, what are the changes we see in the sick poor? First, a change in their character. Secondly, a change in their social state.

As to the poor patient's change of character, he by no means looks upon himself as a "miserable object." He is probably a member of some trade union. He joins associations to resist the power of the rich. He is, perhaps, a socialist. He has his own member of Parliament. He does not accept favours; he claims rights. His tendency is to claim free healing as he claims free education for his children and free food and old age pensions.

As to the change in social status. The sick poor of our modern hospitals is often a person who is not poor *except to meet sickness;* he cannot possibly afford the heavy expenses of modern methods of healing, whether medical or surgical, so he gradually drifted to the hospitals where such skilled attention could be had for the asking. He came at first with some diffidence, but this is now getting somewhat threadbare; he accepts the state of things as he finds them. The necessity of laying by for sickness or of insuring against sickness becomes less and less; he takes the *free* relief in sickness into consideration when making up his annual budget. In many cases he expects free attention for his wife during her confinement, although the event was long foreseen, and should have been provided for by thrifty saving. This class of sick poor is quite different from the other. He does not take his blessings as a *right;* he has simply grown used to the existing state of things and accepts them without question. He, too, is no "miserable object."

For his existence the hospitals are themselves

largely to blame; they have assisted to make him what he is. They have said, "This struggling shopkeeper, this poor city clerk, cannot possibly afford the skilled attention, surgical and nursing, for the operation of removal of appendix, or for gastric ulcer; we must help him;" and that was right.

But it was not right to turn the hospital into a hotel, and so also to provide him with free food, free medicine, free warmth, free light, free service, and afterwards probably a free holiday at the seaside in a convalescent home. Please do not misunderstand me. I am not saying that *all* hospital patients are of these types; many of them have made a fine, but losing, fight before they asked for the hospital's help, and probably most secretaries can remember a case when we would have bitten out our tongue rather than have said what we did, not knowing all. But I do not think these legitimate cases need blind our eyes to the changes which have taken place in the character and the status of the sick poor as a whole.

Now we come to the changes in the second force—the generous-minded donors, the financial supporters of the hospitals.

This force is changing because of the changes in the first.

Hospital boards know that to keep up subscription lists becomes a harder and ever harder struggle. The old appeal to the pity of the public is rapidly losing its power. Letters are constantly received from former subscribers withdrawing their support because of the unpleasant attitude taken up by the "working man." I had one not very long ago, pointing out that the average working man was taking such keen interest in himself, with his Workmen's Compensation Acts and so on, that it was hardly to be expected that his hated rival, the financier and capitalist, should longer subscribe to his well-being. He *took* so much that little was left to be given.

So other methods of inducing the charitable to give are tried. We point out that the old institutions of the priory order existed chiefly for the poor to *die* in, but now these modern hospitals exist to *restore* men to their work; we point out what an asset to the nation a modern hospital is, when, through modern methods, the average residence comes down and the wage earner returns to his family not in sixty days but twenty; we are disheartened by the reply that what probably happens is that your patient leaves the hospital a potential if not actual striker, and that many incomes have fallen 25 per cent. on account of the uncertainty of labour.

Then we draw attention to the educational side of hospital life; that the whole world profits by it; or to the preventive branch of modern medicine, that this, at any rate, is of national importance. "Then why does not the nation appreciate it and help it?" replies our rich friend. You cannot say, what you know to be true—namely, that it is good for a man to help another of his own free will and at his own sacrifice, even should that other be unworthy; the nation will be the loser, will lose that which is of all things most worth keeping, if it becomes charitable by Act of Parliament. And yet I cannot but foresee a gradual lessening in effectiveness of force 2 because of the changes which are taking place in force 1.

Now we come to the third force, the medical staff.

Of course, in the case of St. Bartholomew's and St. Thomas's, for some hundreds of years the medical and surgical help was rendered by the monks. In the hospitals of the eighteenth century the surgeons and physicians, judging from the minutes of my own hospital, were gentlemen who gave their services as freely and as generously as the men who gave their money. The staff sat on the board, and were themselves liberal subscribers I cannot see what they gained by their services to those hospitals which sprang up just after the year 1700. Now that is, of course, very much changed. A man, if he aims at consultant practice, must be on the staff of some well-known hospital, and the staff of any hospital could be filled three times over were it necessary. The public have just discovered that it pays a man a hundredfold to be on the staff of a hospital, and from a former state of adoration for the man who gave his services to the sick and suffering they have gone to the other extreme and fancy that every hospital doctor is very much "on the make." This is ridiculous. A man does not *join* the staff of a hospital for charitable reasons, but that is no reason that he may not be a most charitable man when he is *on* the staff. We all know what a valuable asset it is to our voluntary hospitals this high-toned *esprit* which is difficult to define but which marks the voluntary hospital off distinctly from the average Poor Law infirmary. We all know the surgeon who works for the poor, and often the grumbling poor, with no regard for hours, and who makes many a voluntary journey to his hospital, far beyond his legal obligations, for reasons of large-hearted humanity. This valuable *esprit* in the voluntary hospitals is of such ethereal nature and delicate growth that one almost fears to tamper with the present conditions of hospital life for fear one kill it.

But undoubtedly the "kudos" of being on the staff of a well-known hospital is immense. The opportunity of meeting students, the future general practitioners, is of the greatest importance. The great benefit to the man himself, so far as his own experience is concerned, is obvious. The possibilities of his work too have changed for the better. He is now assisted in his researches by expert bacteriologists working in finely equipped laboratories. Another expert scientist works in a clinical laboratory, and to him is handed over the duty, performed in a more or less rule of thumb method previously, of examining urine, stomach contents, specimens of sputum, and taking blood counts, etc. Trained pathologists, too, are at his service. The old hospital dispenser of fifty years ago has been replaced by a trained chemist whose knowledge of drugs and their active principles is at the service of the staff; it is not sufficient for him to know, nowadays, that morphine comes from the poppy and has such and such an action on such and such nerve centres; that strychnine is found in nux vomica, and has a stimulating action on such and such muscles; he must now know something of *why* a group of atoms in certain combination (making morphine) are *likely* to have a certain action, and *why* the same atoms in another combination (making strychnine), are *likely* to have another action. He is expected to appreciate the fact that bread, containing carbon, hydrogen, oxygen and nitrogen, is a food, while atropine, containing the same four elements and these only, is a deadly poison; his acquaintance with theories based on these facts is assumed and he will be consulted on such matters. Obviously the conditions of the staff have changed. I think there need be no question of paying them in money for many years to come, for they already "have their reward." And as the work of the staff has changed, so the *purpose* for which the hospital *exists* has partly changed. *All* benefit by it, the rich and the poor. The hospitals do infinitely more good than did the old hospitals of a hundred years ago, and infinitely more good than their founders ever foresaw. Dives and Lazarus are both benefited, although Dives may never enter its walls.

And now the last of the four forces, the medical students. This, a comparatively new force, has become one of immense power and importance. It affects the third force tremendously. The presence of that most pertinacious critic, the medical student, is the cause of much of the high quality of the work in the hospitals. You must *know* when you talk to a student, you must not think. He wants to know all about causes, not simply about effects; about the disease, not simply about its symptoms. He acts as the "fierce light" that beats on all the surgeon does. And who shall say what is the power for good of this ever-present element of youth in our hospitals? Patients gain in every way by the presence of the student.

I think the various changes I have referred to fairly sum up the alterations that have taken place in the forces which act upon a modern hospital.

If they acted fairly and were well balanced you would have the ideal hospital.

You would only treat the sick who really and truly could not afford to treat themselves; those who could afford to pay something would disdain to accept the whole if they could pay for part; they would not at any rate accept the hospital's charity habitually, they would not become paupers. They would, as a matter of course, join sick clubs and provident dispensaries, and the hospitals would co-operate with these, as consultants; your subscribers, knowing that their gifts were honourably and wisely dispensed, would be more willing to help; the nation, recognizing that the work was national as well as for the individual, would be willing to help, but in such a way as not to emasculate the generous giver nor to do anything to interfere with the hereditary characteristic of each hospital, nor to hamper its help by much red tape. The staff and the students would always put the patient first, the student and education second. And "Poor Law" would co-operate.

One of our most serious difficulties in this country is the entire lack of sympathy between the Poor Law and the hospitals, and one can but hope that some good will come from the suggestions of the Poor Law Commission. My experience is that one constantly meets irritating difficulties when you have to transfer this or that case to an infirmary from your wards; if you send an out-patient to the infirmary via the relieving officer, he is almost certain to turn up again in the course of three or four days. And yet the hospital's work in saving men and women from being a burden to the rates, by giving them timely assistance, is tremendous. I asked one of our physicians to give me a list of cases which came under his care as the result of unhealthy surroundings, and he gave me such a list under the following heads: Diseases caused by improper feeding, by overcrowding, by dirt and long hours. I need not give you the list.

All these the hospital helps to keep at work, and it is not fair that the hospitals should be saddled with all the expense of these long-time cases brought about by their unhygienic surroundings.

In conclusion, I will summarize what I have said in order to show the direction in which the forces are pushing our hospitals.

The individuality of our hospitals is such an important feature in obtaining the best help and work that I think it will be maintained. Financially it is important, because, as we all have noticed, certain families *attach* themselves to a hospital and support it generation after generation; less important subscribers, too, take a special pride in the hospital of their choice, they interest themselves in its history, and watch its career with affection. This trait would be lost if the hospitals were all forced into one mould by some central governing board. With the voluntary staff this individuality is of more importance than with the subscribers. The friendly jealousy and rivalry between the staffs of the hospitals is a thoroughly good thing. It would be lost if by some central body the hospitals all were painted the same monotonous dull grey.

I think State aid will come, but not State control. The State aid must be so rendered as not to free the supporters of the hospital from their responsibility. If done financially it must be by adding a percentage to the subscriptions, or by an annual grant dependent upon the quality of the hospital's work as reported by a trained Government inspector, somewhat on the lines of the grants made from the King's Fund, or by a grant to new and expensive departments. I hope, personally, it will take the form, not only of money grants, but of some real and practical assistance in the working. I should like this to be by the formation of a department to control in some new way the public health. This department should bring into line by authoritative powers the voluntary hospitals, which should still be voluntary, and the Poor Law infirmaries, which should still be rate-supported, and, like the voluntary hospitals, eligible to receive State aid. Officers of superior status to the present "relieving officers" should be appointed, and these should act as *almoners* both to the hospitals *and* the Poor Law; and to such an officer all applications for medical relief by the poor should be made. Offices for such a purpose should be easily found and be numerous, and they should carry a distinctive hanging sign, such as a red cross. On sending a case to the hospital, this officer, should he consider the patient cannot afford a private doctor, should state what he thinks the patient can pay, if anything. A percentage of such payment should go to the surgeon who does the operation or to the physician who treats the case. Such an officer would be instructed to give precedence to those patients who had shown an exercise of thrift by sick insurance, by joining a sick club or provident dispensary.

Parish doctors, or medical men of a similar status, State paid and independent of the guardians, should be multiplied; and the relieving officer should have power to send a case to one of those for home treatment *or* to the hospital or the infirmary. No person should be admitted to the hospital (always excepting emergency cases) otherwise than by these officers' order, except "request" cases from subscribers at the discretion of the board. The medical staff should have similar rights to send "request" cases. Request cases should not necessarily be free.

Teaching of students should be conducted at the free beds only, and both in the infirmary as well as the hospital.

Accidents and casuals would be treated at once, of course; this should not necessarily free the patient from charges later, however.

County hospitals should be dotted round and well outside all large towns, fed (by motor ambulances) by all the town hospitals, and to these all cases should be transferred as soon as possible from the town hospitals. I am no believer in wounds being affected by town air in these days of aseptic surgery; they heal in towns just as well as anywhere else in the majority of cases. Every one knows, however, of the immense help to a patient it is if he can convalesce in a change of air. The after-effects of a serious illness or operation are much reduced. The State might well assist in this part of the work.

The out-patient departments of all hospitals will decrease. They will become more and more of consultative use.

These are the things I see ahead for our hospitals; and by some such system the genuine poor will still be assisted, while the abuse of hospitals by the lazy and the misuse by the thriftless will be prevented.

Mr. Herbert Tanner thought that, although they were grateful for what was being attempted, the present system, as described by Mr. Morris, did not remove the evil; in his opinion the only efficient almoners were the practitioners outside the hospitals, who had the best means of judging who were fit persons for hospital treatment, by their knowledge of the patient's pathological as well as his social and pecuniary condition. Mr. Tanner quoted many instances of hospital abuse within his own cognizance and of recent date; he also drew attention to an advertisement of a hospital having only just over 100 beds, which boasted of having 66,000 patients' attendances in one year; he thought these figures were startling, and were food for thought in relation to the matter being discussed. He thought that the medical almonership would remove that serious strain of professional good fellowship—which was recognized as existing, and as growing in intensity—between the private practitioner and his hospital staff brother. Mr. Tanner quoted one or two instances in which the system he advocated was in force with most satisfactory results, especially as to reviving amicable relations between the two classes of the profession. Medical almonership would also save the hospital's funds; it would at once enlist the direct sympathy and assistance of the private practitioner, conditions which certainly did not exist now, and on Hospital Sunday he would then show his sympathy practically with the cause of hospital work and its funds, it would tend to purify the quality of charitable subscriptions, some of which under the present conditions repre-

sented commercial rather than charitable acts. Mr. Tanner confidently hoped to see this system adopted as a policy by the Association.

Dr. J. H. DAUBER (Chairman of the Westminster Division) said he had listened to Mr. Morris's address with the greatest interest. Seldom had the question of hospital management been presented to any audience more clearly and concisely, or with more sympathy and freedom from bias and preconceived prejudice. He trusted the address would be printed and circulated, for so lucid and interesting a presentment of the hospital question should be accessible to every one. He himself held very strong and clear views on the subject, and he was particularly pleased to note that Mr. Morris expressed concurrence with him in many important respects. But, first, he desired to express his agreement with the opinion of a previous speaker as to the comparative futility of hospital almoners. He was attached to the staff of a hospital—a special hospital, too—so that he feared he was an object of dislike and distrust to many gathered there that afternoon; still, he hoped they would hear him for a few minutes. At the Hospital for Women, Soho, they had a lady almoner, but the patients came from all parts of London, from the suburbs, from distant counties, and even from over-sea. He asked, How was it possible for any almoner to ascertain the veracity of statements made by patients living at a distance? All such statements were obviously incapable of verification, as the expense and time involved would be prohibitive. He entirely agreed with the same speaker that the patient's own doctor was the best almoner, and if it could be arranged that no cases, other than urgent ones, should be seen at hospitals without a letter of recommendation from a medical man, hospital abuse and out-patient overcrowding would automatically cease at once, from the very day that such a rule came into existence. At the same time, all medical men were liable to make mistakes, both in diagnosis and treatment, and he doubted if the subscribers to hospitals would consent that the liberty of action of patients should be so curtailed that there should be no alternative court of appeal, which would be the case if patients could not present themselves at a hospital except with their doctor's sanction and approval. It would be placing a tremendous power in the hands of the general practitioner, who could veto or not, as he pleased, all hospital attendance. Moreover, instances were not unknown where patients had only been sent to hospital when their last fee had been extracted from them. At his hospital a great number of the patients presented themselves with doctors' cards or letters; such patients were always doubly welcome, and received precedence of others. He thought the special hospitals should receive more sympathetic treatment than they did at the hands of the general practitioner, because no man could expect to be an expert aurist, ophthalmologist, or gynaecologist, all in one, and the special hospitals did not compete with the family physician to anything like the same extent as the general hospitals, which often dealt only with common and minor ailments. What particularly pleased him in Mr. Morris's address was the recognition of the principle that contributory payments should be demanded from all patients above those in necessitous circumstances according to their means, and for their medical treatment as well as for their sustenance and nursing. For this radical revolution in hospital management he had himself long contended. He felt sure it was bound to come in this country as it had in others. It was only a question of time. Other classes beyond the poor flocked into the wards of hospitals for the sake of the scientific treatment they received there and which they could not obtain in their own homes or elsewhere. He went so far as to consider that all classes of the community, even dukes if they so wished—that poor, but deserving class, as Lord Rosebery described them—should be eligible for admission to the public hospitals, but not, of course, to the free wards. The system in vogue in the United States, many of our Colonies and in foreign countries too numerous to mention, was that there were three classes of wards: first, the free wards where patients paid nothing at all, or just what they could, even if only a shilling, half a crown, or five shillings a week. (In the Scandinavian hospitals no contribution from a patient, however small, was despised.) Incidentally he might mention that these free wards were the only wards placed under the exclusive care of the hospital staff. Secondly, there were the semi-private wards where patients paid 1, 2, or 3 guineas a week, and fees to the doctors in proportion. In some hospitals in London patients paid as much as 3 guineas a week for board and nursing, but were prohibited by the rules from paying any fee to the surgeon or physician who attended them. He could not speak in terms of too strong condemnation of such an arrangement and its obvious injustice to the medical profession. Thirdly, there were the private rooms reserved for the richer classes and corresponding to private rooms in nursing homes. The refusal by some hospitals to receive any payments from patients he considered quixotic. He instanced a case of an old woman who on entering a certain hospital offered her small income of 11s. a week to the hospital so long as she was within its walls. This was refused as being against the rules. Yet at the same time this hospital was advertising for funds; pleading for help on the one hand, while rejecting it when proffered on the other. He considered such finance radically unsound, and not fair to the subscribers. Dr. Dauber particularly wished it to be observed that in the countries he had named the hospital staffs had charge of the free beds only, the semi-private and private wards being thrown open to the entire medical profession. The two principles he desired to emphasize and to see enforced were these: First, that if patients contributed towards their sustenance and nursing in hospital they should also pay something to the surgeon or physician for their operations or medical treatment. Secondly, that there should be no monopoly in the care of patients in these private wards, a monopoly that would be too readily reserved to themselves by certain self-elected oligarchies unless such action were firmly resisted. There were some men at the present time on the staffs of hospitals who posed as if they were the very "elect," the "chosen people," who seemed to think it impious for any one but themselves to remove an appendix or even a tonsil. The British Medical Association cordially disliked monopoly and privilege, and was for a fair field and no favour; otherwise it would be unworthy of its name. Given the right of all to attend their patients in the private wards, the whole profession would be thus welded together by common aims and interests, and not torn asunder into two hostile camps, as a previous speaker had depicted the present position. All would have a share and interest in hospitals instead of, as now, many being oppressed by them and counting them as formidable rivals. He considered that the situation should at length be frankly faced, and the lead of other countries followed. He advocated checking the reckless admission of out-patients by requiring from them certificates of suitability for hospital treatment, while with regard to in-patients he would set apart a portion, perhaps a third of the beds in each hospital, for the reception of paying patients. These beds would be more than self-supporting, and would thus greatly ease the financial position of hospitals, while they would enable those who could do so to pay in whole or part for their maintenance and medical treatment, instead of, as at present, being a needless and unjustifiable burden upon the hospital resources. But, as he had said before, these paying beds in his opinion should be as open to the humblest members of the medical profession as are the present nursing homes.

Dr. BECKETT-OVERY said that Mr. Morris and the speakers following him had put the matter so clearly before them that there was little left to add. He did wish, however, to refer to one point, and that was the enormous work thrown on the junior members of the staff of a hospital. The larger number of patients were seen by the men who were not yet on the permanent staff. Often—he spoke from experience—one man was obliged to see casual and old patients in

such numbers that any proper examination and treatment was impossible. He admitted frankly that he had been a great offender, for on many occasions, after having worked conscientiously for an hour or two, he would be told there were 30, or 40, or 50 more old and new patients to be seen. This meant that the major part of the old patients merely had "Rep. mist.," and this went on week after week. It was not fair to the man who was obliged to do the work or to the patients.

Dr. ATKINSON and others also spoke.

Vote of Thanks.—Dr. BUTTAR, the Chairman, proposed a hearty vote of thanks to Mr. Morris for coming to address the Division. This was carried with acclamation, and Mr. MORRIS replied.

CITY DIVISION.

A GENERAL meeting of the Division was held at the Abercorn Rooms, Great Eastern Hotel, Liverpool Street, on Friday, January 28th, at 4 p.m. Dr. A. WITHERS GREEN, Chairman of the Division, presided, and there were twelve members present.

Confirmation of Minutes.—The minutes of the previous meeting were read, confirmed, and signed by the CHAIRMAN.

The late Dr. Wells.—A letter was read from Dr. H. Tanner advocating the claims of the appeal on behalf of the family of the late Dr. Wells. A leaflet had been circulated with the notice of the meeting. The Honorary Secretary announced the donations already received. It was resolved to keep the list open for fourteen days longer, and that the subscriptions be announced at the next meeting.

Research Defence Society.—A letter from the Honorary Secretary of the Research Defence Society was read, and Dr. Goodall consented to act as local representative.

Annual Report to Branch Council.—The annual report of the Division to the Branch Council was read, and the accounts, duly audited, were presented.

Special Class of Consultants.—The report from the Central Ethical Committee was introduced by the CHAIRMAN, and, after discussion, it was resolved that Questions A and B be answered affirmatively, with the following expression of opinion and resolution:

The Division quite feels that some action should be taken in the matter without delay, and resolved:

A. That the Division approves of a list being formed by the Association, and published in the JOURNAL, of special consultants who would only see patients at the patients' homes in consultation with the medical attendant and at their own consulting rooms either on the recommendation of, or the introduction by, a medical practitioner.

B. That another list be made of those who, while not refusing to see a patient at their own consulting rooms, would, however, charge such patient coming alone or without introduction an extra fee of one guinea or more.

Medical Inspection and Treatment of School Children.—The CHAIRMAN introduced the question of the medical inspection and treatment of school children, and the letter from the Medical Secretary having been read, on the motion of Dr. GOODALL, seconded by Dr. HUNT, it was resolved:

That this matter, being actively dealt with by the Branch Council, is left with confidence in their hands.

Questions to Parliamentary Candidates.—The HONORARY SECRETARY reported that the questions to the parliamentary candidates had been forwarded with the following covering letter:

Sir,

On behalf of the City Division, representing locally the British Medical Association, which comprises over 22,000 Medical Practitioners within the Empire, I am desired to forward you the enclosed list of memoranda on matters affecting the Public Health or the Medical and allied professions and to ask your kind consideration of them and your replies to the questions on one of the forms.

It is not asked that you should receive a deputation on this occasion, but that should important questions concerning Public Health or the Medical Profession come under consideration in Parliament, you would allow the Division to approach you on the matter; whilst if at any time information on those subjects is desired by you the Association will gladly furnish it so far as it is able.

I am,
Faithfully yours,
A. G. SOUTHCOMBE, M.D.,
Hon. Sec., City Division.

The questions and covering letter had been sent to 21 candidates within the Division area. Only 7 replies had been received, of which only 3 answered the questions seriatim. Of these 7 candidates only 1 was successful at the polls.

Manchester Corporation and Payments to Medical Men for Calls by Midwives.—The HONORARY SECRETARY read a letter from the Medical Secretary and the Appendix B, and after discussion by the CHAIRMAN and Drs. HUNT, GOODALL, and MAJOR GREENWOOD, it was resolved on the motion of Dr. GOODALL, seconded by Dr. F. WALLACE:

That the letter—Appendix B—be sent to the Borough Councils within the Division.

The meeting then terminated.

STRATFORD DIVISION.

A MEETING of this Division was held on Thursday, January 20th, at the Alexandra Hotel, Stratford, E., Mr. COUZENS in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and approved.

An Appeal.—A letter in regard to an appeal on behalf of a charitable object was read, and the HONORARY SECRETARY undertook to forward any subscriptions received.

Replies from Parliamentary Candidates.—The replies received from the various parliamentary candidates within the Division to the questions addressed to them by the Association were presented.

Address.—Afterwards Sir R. DOUGLAS POWELL delivered a very able and interesting address on Tuberculosis. A general discussion followed, and the lecturer, having replied to questions raised, was awarded a very hearty vote of thanks.

EDINBURGH BRANCH.

AN ordinary meeting of the Branch was held in the hall of the Royal College of Physicians on Wednesday, January 26th, at 4 p.m. There were over thirty members present, with Dr. WM. RUSSELL in the chair.

Apologies for Non-attendance.—Apologies for absence were received from Dr. James, Dr. Boyd, and Dr. McKenzie Johnston.

Confirmation of Minutes.—The minutes of the last meeting were read, approved, and signed.

Salary of Assistant School Board Medical Officer.—It was reported that the question of a minimum salary of £250 of the assistant School Board medical officers in the district had now been settled. A letter from the Medico-Political Committee referring to this matter, and congratulating the Branch on the successful issue of its action, was read.

Draft Charter.—Letters from the Yorkshire, Oxford and Reading, and South-Western Branches *re* the amendment of the Draft Charter were also read.

Treasurer's Report.—The TREASURER submitted his financial statement for the past year. Drs. CUMMING and LUNDIE audited the accounts, and reported that they had been found correct. Dr. Ritchie, on the motion of the CHAIRMAN, was awarded a vote of thanks.

Confirmation of Rule.—Dr. DEWAR moved:

That the rule passed at the annual meeting, July 7th, 1909, be confirmed.

Dr. WALKER seconded. The motion was unanimously approved.

Proposed New Hospital for Women.—Dr. RONALDSON moved:

That the proposed new hospital on a contributory basis for women in Edinburgh, with a limited staff, is undesirable.

Dr. CRANSTON LOW seconded the motion. Dr. JOHN MCLAREN moved the direct negative, seconded by Dr. LACKIE. After considerable discussion a vote was taken, when 24 voted for the motion and 4 for the amendment, several not voting. The motion was adopted.

Proposed Paying Nursing Home.—The CHAIRMAN suggested, before the next resolution was submitted, that the words "or hospital" after the word "home"

be deleted. This was agreed to. Dr. KEPPIE PATERSON then moved:

> That a scheme be approved for a paying nursing home open to all medical or surgical patients, male or female, to be attended by any physician or surgeon of the patient's choice.

Dr. CHALMERS WATSON seconded. The SECRETARY read a letter from Dr. Hamilton (Hawick), who was unable to be present, describing the manner in which the Hawick Cottage Hospital and similar hospitals in England and Scotland were conducted. There was no amendment, and the motion was approved unanimously.

Conference with Charity Organization Society.—A deputation, consisting of the President, the two Secretaries, Dr. Keppie Paterson, and Dr. Cranston Low, was appointed to attend any conference which the Charity Organization Society may see fit to call for the consideration of the whole subject.

Vote of Thanks.—A vote of thanks to the Chairman closed the meeting.

PERTHSHIRE BRANCH.

THE annual meeting of this Branch was held at Perth, Dr. BRUCE, President, in the chair. There were present Colonel Moffett, Drs. Edwardes, McEwan, Lyell, Burnett, R. Stirling, Alcock, M. Hume, McLeish, Robertson (Scone), Trotter, Menzies, Haig, and Taylor. Dr. Buist of Dundee was present as the guest of the Branch, and Drs. Smith and Burgess guests of members.

New Member.—At a meeting of the council held before the annual meeting, Dr. William Leslie Burgess, of the Royal Infirmary, Perth, was elected a member of the Association and Branch.

Confirmation of Minutes.—The minutes of previous meetings were read, approved, and signed by the President.

Apologies for Non-attendance.—Apologies for non-attendence were intimated from Drs. Urquhart and Paton (Perth Branch), Drs. Alexander James and Boyd (Edinburgh Branch), Drs. Dow and Balfour Graham (Fifeshire Branch), etc.

Report of Council.—Dr. TAYLOR reported that there had been during the year four meetings of council, three ordinary meetings, including the present one, and two special meetings. The average attendance had been ten at the ordinary meetings and five at the council meetings. He stated that much time and consideration had been given by the Branch to many important questions of great interest both to the public and to the medical profession, from ophthalmia neonatorum and patent medicines to restriction of motor speed to ten miles per hour in Perth, which was of equal concern to medical men in the city.

Report of Representative.—Dr. HAIG reported on all the interesting subjects considered at the annual meeting in Belfast, and, on the motion of the PRESIDENT, a hearty vote of thanks was accorded to him

Treasurer's Report.—The Treasurer was unfortunately prevented from being present, and his report was deferred to an early meeting of the Branch.

Paper.—Dr. BRUCE, of Murthly Asylum, then read a paper on the Effect of Bacterial Vaccines on Nutrition which will be published in full. After discussion, Dr. R. STIRLING proposed a hearty vote of thanks to Dr. Bruce, which was accorded unanimously.

"*Secret Remedies.*"—Dr. TROTTER moved and Dr. HAIG seconded that copies of "Secret Remedies," as issued by the British Medical Association, should be bought by the Branch and distributed to various public libraries in the county. After discussion this was approved, the number and destination to be reported by the Secretaries at an early meeting of the Branch.

Dinner.—Thereafter the members dined in the hotel, with Drs. Buist, Burgess, and Smith as guests.

QUEENSLAND BRANCH.

THE annual meeting of the Branch was held on Friday, December 10th, 1909, in the Technical College, Brisbane. Dr. L'ESTRANGE, President, was in the chair.

Reports of Council, etc.—The reports of the Council and Librarian, and the financial statement were read and adopted.

Election of Officers.—The PRESIDENT announced the election of the following officers for 1910: *President*, Dr. Hardie; *Vice-Presidents*, Dr. Sandford Jackson, Dr. Guy L'Estrange; *Treasurer*, Dr. Alex. Marks; *Auditors*, Drs. Carvosso and Stewart; *Curator*, Dr. A. B. Brockway; *Council*, Drs. Turner, Robertson, Kerr Scott, and Espie Dods; *Honorary Secretary*, Dr. Donald A. Cameron.

Presidential Address.—The PRESIDENT read his address on Eugenics in the Light of Higher Civilization.

Installation of New President.—Dr. HARDIE then took the chair; he thanked the members for electing him President, and moved a hearty vote of thanks to Dr. L'Estrange for his address.

SOUTH-EASTERN BRANCH:

CANTERBURY AND FAVERSHAM DIVISION.

A MEETING of this Division was held at the Town Hall, Sittingbourne, on January 13th, Dr. PRIDEAUX SELBY presiding. The following members were present: Drs. Evers, Garrett, Gosse, Grayling, Hayward, Henchley, Noble, Reid, Robson, Selby, and Willan. The following attended as visitors: Drs. Duke, Fisher, Gowland, Henderson, Norwood, Taylor, Waugh, and Colonel Thomson, I.M.S.

Luncheon.—Before the meeting the Chairman entertained the members to luncheon at the Bull Hotel.

Apology for Non-attendance.—A letter of apology was read from Dr. Barrett Heggs (Honorary Secretary), who was unable to attend through illness. Sympathy was expressed, and Dr. Gosse was asked to act in his place.

Confirmation of Minutes.—The minutes of the previous meeting were confirmed.

Next Meeting.—It was resolved that the next meeting should take place at Faversham on Thursday, April 14th, and Dr. Evers was elected chairman of the meeting.

Bradford Rules.—The ethical rules as to appointments, etc., known as the Bradford Rules, including Rule Z, were adopted unanimously by the Division, and the Honorary Secretary was instructed to forward copies to those members not present at the meeting.

Surgical Aspect of the Tonsils.—An interesting address was given by Mr. GEORGE E. WAUGH (Great Ormond Street Hospital) on the surgical aspect of the tonsils. After discussing the anatomical relations of the glands and their similarity to other lymphatic glands, Mr. Waugh emphasized the tendency of the tonsils to become septic, and as troublesome as oral sepsis, producing a similar chronic state of toxaemia. He advocated and performed "tonsillectomy" in those cases, and in cases (of which he found many) where the guillotine had failed to relieve. The operation was then fully described. The chief point was finding the capsule; then enucleation was easy, and with little haemorrhage. The address was followed by a discussion, to which Mr. Waugh replied.

Postponement of Paper.—Dr. SELBY consented to postpone his paper (as it was getting late) until the next meeting.

Vote of Thanks.—A hearty vote of thanks was accorded to Mr. Waugh for his paper, and to Dr. Selby for his hospitality.

FOLKESTONE DIVISION.

A MEETING of the Folkestone Division took place at the Burlington Hotel, Folkestone, on Thursday, January 27th, at 7.15 p.m., Dr. CHAMBERS occupying the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Special Class of Consultants.—The CHAIRMAN brought forward in a concise form the Central Ethical Committee's Report on the recognition of a special class of consultants. The following questions were answered:

1. Is the Division in favour of the recognition of a special class of consultants on the lines indicated in the report?—Answer: Yes.

2. Is the Division in favour of the Association prescribing special regulations for the conduct of the practice of such a class?—Answer: No.

There were no critisms or comments on any portion of the report.

Dinner.—After the meeting thirty-one members sat down to a combined dinner with the Folkestone Medical Society, under the chairmanship of Dr. P. LEWIS.

Association Notices.

ANNUAL SUBSCRIPTION, 1910.

MEMBERS are reminded that the Annual Subscription, amounting to 25s., is now due.

Cheques or Postal Orders should be made payable to the British Medical Association, and crossed London County and Westminster Bank.

In the case of Colonial Members the subscription should be paid to the Honorary Treasurer of their respective Branches.

BRANCH AND DIVISION MEETINGS TO BE HELD.

EDINBURGH BRANCH.—The winter clinical meeting of the Edinburgh Branch will be held in the Royal Infirmary, on Friday, February 25th. The other Scottish Branches have as usual been invited to join in the meeting. The museum will be open from 11 a.m. onwards. Arrangements will be made for holding special clinics during the forenoon. The clinical meeting will be held in the Royal Infirmary, at 4 p.m. Dinner in the Royal British Hotel, Princes Street, at 6.30 p.m., morning dress; dinner ticket, 5s. Members who have patients, specimens, etc., for exhibition, are requested to communicate with the Senior Secretary not later than February 16th.—FRANCIS D. BOYD, MICHAEL DEWAR, Honorary Secretaries.

LANCASHIRE AND CHESHIRE BRANCH.—The Branch Council will meet in Manchester on Wednesday, February 16th, at 4.30 p.m.—F. CHARLES LARKIN, Branch Secretary.

LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—A general meeting of the Division will be held on Wednesday, February 9th, at the Brooklands Hotel. 4.30 p.m. (prompt), Business; 5.20 p.m., Paper by Dr. Savatard (Honorary Assistant Physician, Manchester Skin Hospital), "The Use and Abuse of Light Treatment; 7 p.m., Dinner at the Brooklands Hotel. Members are requested to provide themselves with tea before coming into the meeting. Agenda: (1) Minutes of December 1st, 1909. (2) Apologies for absence. (3) Minutes of last two Committee Meetings. (4) Circular, Special Class of Consultants. (5) Model Rules of a Public Medical Service. (6) Treatment of School Children. (7) Circular, Manchester Corporation *re* Payment of Medical Men called in by Midwives. (8) Election of Representatives for Representative Meetings. (9) Letter, Dr. Gough: "Recission of Resolution advocating that all Medical Officers of Health should be Whole-timers."—H. G. COOPER, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—The next meeting of the City Division will be held conjointly with the Aesculapian Society at the Metropolitan Hotel, Kingsland, N.E., on Friday, February 25th, at 4 p.m., when the alterations and improvements to the hospital will be on view.—A. G. SOUTHCOMBE, M.D., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: LAMBETH DIVISION.—A meeting of this Division will take place on Thursday, February 17th, in the Medical School, Guy's Hospital, at 4 p.m., when Dr. H. S. French will read a paper upon Some Forms of Pyuria. There will be a demonstration of cases from the wards by the Medical and Surgical Registrars. The museum, library, and school buildings will be open for inspection.—H. CHARLES CAMERON, Honorary Secretary.

SOUTH-EASTERN BRANCH: ISLE OF THANET DIVISION.—The next meeting of this Division will be held at the Royal Sea Bathing Hospital, Margate, on Friday, February 11th, at 4.15 p.m., F. E. Nicol, M.B., in the chair. Agenda: B. H. Spilsbury, M.B.Oxon. (Pathologist, St. Mary's Hospital, London) will give a Demonstration on Clinical and Pathological Cases, with Demonstration of Specimens. Any other Business. Tea will be served during the meeting. All members of the Association are invited to attend these meetings, and to introduce professional friends.—HUGH M. RAVEN, Broadstairs, Honorary Divisional Secretary.

SOUTH-MIDLAND BRANCH: BEDFORD AND HERTS DIVISION.—A general meeting of the Bedford and Herts Division will be held at Bedford County Hospital, Bedford, on Thursday, February 10th, at 3 p.m., Dr. J. W. Bone in the chair. Agenda: Minutes. Letters and communications. Manchester Corporation and the Midwives Act. The medical inspection and treatment of school children. Any other business which may arise.—E. H. COBB, Honorary Secretary.

SOUTH-WESTERN BRANCH.—An intermediate meeting of the Branch will be held at Exeter on Thursday, February 10th.—RUSSELL COOMBE, Honorary Secretary.

BRITISH MEDICAL ASSOCIATION LIBRARY.

BOOKS NEEDED TO COMPLETE SERIES.

THE Librarian will be glad to receive any of the following volumes, which are needed to complete series in the Library:

American Climatological Transactions. Vols. 1, 4, 5, 6.
———— Dermatological Association Transactions. Vols. 5, 7, 8, 11, and 29.
———— Journal of the Medical Sciences. New series, vols. 4, 5, 1842–3; vols. 14, 15, 1847–8; vols. 18–30, 1850; vol. 33, 1857; vol. 46, 1864–5; vol. 59; or any parts of these vols.
———— Journal of Ophthalmology. Vols. 1–9.
———— Laryngological Association. Transactions. Vols. 1–6, 8–9.
———— Medical Association. Transactions, 2, 4, 6, 7, 11, 12, 14, 15, 16, 19, 20, 22, 31, after vol. 33, and the *Journal*.
———— Otological Society. Transactions. Vol. 3, part 2, 1883.
———— Public Health Association. Transactions. Any vols.
Analyst. Vols. 1–24.
Archiv für Dermatologie und Syphilis. 1892 and 1893.
Annals of Surgery. Vols. 14, 26, 27.
Archives Générales de Médecine. Third new series 7–8 (1839–40); 4th series, 10–17, 20–25, 1852–55, 1858–64, 1872–1897; 1846–55 inclusive; 1857–64 inclusive; 1871.
———— of Ophthalmology. Vols. 1–3, 6, 7, 14, 15, 16 and 20.
———— of Otology. Vols. 1–7, and 20–22.
———— de Parasitologie. Vols. 1–8.
———— of Pediatrics. Vols. 1–11.
Asylum Journal of Mental Science. Vol. 1, 1854.
Bentley and Trimen. Atlas of Medicinal Plants.
British Journal of Dermatology. Vol. 2, part 3.
British Laryngological and Rhinological Association, 1896–7–8–9, 1900–01–02, and since 1903.
Caledonian Medical Journal. Vol. 1 prior to 1894.
Carmichael Essays. Rivington, 1879.
Centralblatt für Augenheilkunde. Hirschberg. All prior to 1891; Index to 1891.
Centralblatt für Bakteriologie. Bound volumes prior to 1899.
———— für medicinischen Wissenschaften. Vols. 1–19.
Congrès Français de Chirurgie. Transactions 1, 2, 3, 6, and 10, and all since 11th.
———— Internat. d'Obstétrique et de Gynécologie. 3. Amsterdam, 1899.
Congress für Innere Medicin, Verhandlungen. 1–12, 14, and since 18.
Dermatological Congress. Vienna, 1892.
Dublin Quarterly Journal of the Medical Sciences. Vols. 1, 10, 17, 20, 28, and 35–40.
Edinburgh Obstetrical Transactions. Vol. 5.
Glasgow Medical Journal. 1833–1868.
———— Pathological Society. Transactions 1 and 2.
Guy's Hospital Gazette. Nos. 1 and 5. 1872.
Indian Medical Gazette. 1868–1884.
International Congress of School Hygiene. Transactions of First Congress, Nuremberg.
International Congress of Hygiene. Transactions of Congresses 1–6 and 10–12.
———— Ophthalmological Congress. Transactions of Fifth; New York, 1876.
Johns Hopkins Hospital Bulletin. Vols. 1 to 10.
Journal of Laryngology. Vols. 1 to 9.
New York State Journal of Medicine, 1906.
Ophthalmic Review. January, 1882.
Pediatrics, prior to 1902.
Provincial Medical and Surgical Journal. March to September, 1841, and May 11th, 1852.
Recueil d'ophtalmologie, prior to 1893.
Revue générale d'ophtalmalogie, prior to 1893.
St. Bartholomew's Hospital Gazette. Vols. 1-6.
St. George's Hospital Gazette. Vols. 1-7.
St. Mary's Hospital Gazette. Vols. 1-5.
Sei-i-kwai Medical Journal. Vols. 1-11.
Semaine Médicale, prior to 1884. Titles for 1884 and 1892.
South African Medical Journal. February, April, 1895. Titles, Vols. 3 and 4.

MEMBERS ELECTED DURING THE DECEMBER QUARTER.

UNDER BY-LAWS 2 AND 3.

BY THE COUNCIL.

Clark, Richard Foster, Staff Surg., R.N., M.R.C.S.Eng., L.R.C.P.Lond., D.P.H.Lond.
Connal, Andrew, M.D., Ch.B., Yaba, Lagos, West Africa
McVean, Norman Neil George Cowan, Lieut., I.M.S., M.B., Ch.B.Edin.
Phillips, John Alfred Steele, Lieut., I.M.S., L.R.C.P.and S.Edin., F.C.P.Glas.
Rai, Dewan Hakumat, Lieut., I.M.S., M.B., Ch.B.Edin.
Thomson, Chas. Glendinning, Capt., R.A.M.C., M.B.Tor., L.R.C.P. & S.Ed., L.F.P. & S.Glas.
Willan, Reginald, M.R.C.S., L.R.C.P., Baro, Northern Nigeria
Willan, Richard, Surg., R.N., M.R.C.S.Eng., L.R.C.P.Lond.

BY BRANCH COUNCILS.

Barbados Branch.

Alleyne, J. D., Esq., Westbury Road, Barbados
Manning, G., Esq., General Hospital, Barbados

Bath and Bristol Branch.

Clarke, Cecil, Esq., 17, Elmdale Road, Tyndall's Park, Bristol
Dalby, A. W., Esq., Frome
Goss, E. S., Esq., 1, Circus, Bath
Iles, Arthur E., Esq., Cotham Lawn, Cotham Park, Bristol
Joll, Cecil A., M.B., 14, Elton Terrace, Bishopston, Bristol
Mackay, H. J., M.D., Devizes
Morgan, J. T. H., Esq., Timsbury
Mumford, W. G., F.R.C.S., 18, Circus, Bath
Stone, B. A. W., Esq., Caerbaden, Bath
Stone, R. D. A., Esq., Urchfont
Taylor, W. Peach, Esq., Keynsham
Wanklyn-James, C. W., Esq., 246, Wells Road, Knowle

Birmingham Branch.

Ball, Lawrence, M.B., General Hospital, Birmingham
Banks, R. McL., M.B., Roxbury House, Redditch
Buchanan, Donald, M.B., General Dispensary, Ladywood, Birmingham
Burnett, Edward, M.B., 22, Lillington Road, Leamington
Clark, Hilda, M.B., Maternity Hospital, Birmingham
Clarke, Mary, M.B., 37, York Road, Edgbaston
Heald, S. L., M.B., 4, Albany Road, Coventry
Helby, E. H., Esq., The Medical Officer's House, H.M. Prison, Winson Green
Hodgson, H. W., Esq., Barnsley Hall Asylum, Bromsgrove
Hughes, P. T., M.B., Barnsley Hall, Bromsgrove
Jordan, Rose, M.B., Children's Hospital, Broad Street, Birmingham
Kidd, H. Cameron, F.R.C.S., Bromsgrove
Oates, H. J., M.B., St. Nicholas Street, Coventry
Peirce, J. E., Esq., 3, Church Green East, Redditch
Stephens, F. A., Captain R.A.M.C., R.A.M.C. Head Quarters, Witton Road, Aston
Terry, H. C., M.B., Queen's Hospital, Birmingham
Ward, B. J., F.R.C.S., 133, Edmund Street, Birmingham
Wilkinson, K. D., M.B., Queen's Hospital Birmingham

Bombay Branch.

Anklesaria, D. E., Esq., B. J. Medical School, Ahmedabad
Battliwalla, S. S., Esq., Gulchehs Lodge, Soparibang, Parel
Dunn, L. Eleanor, M.B., Zenana Medical Mission, Broach
Fernandes, C., Esq., Fernville, Girgaum Bk. Rd., Bombay
Kaka, D. L., Esq., 336, Grant Road, Bombay
Khandwalla, T. C., Esq., Kalyan, Thana District, Bombay
Kothawalla, D. E., Esq., Surat
Price, R. H., Major, I.M.S., 122, Rajputana Infantry, Ahmedabad

Border Counties Branch.

Carlyle, P. M., M.B., Milnholm, Langholm, Dumfriesshire

Brisbane and Queensland Branch.

Roe, R. W. E., Esq., Dalby

Burma Branch.

Mullan, B. N., M.B., Mandalay
Shaw, W. S. J., M.B., Capt. I.M.S., Supt. Lunatic Asylum, Rangoon
Sommers, W. B., M.B., c.o. Burma Oil Co., Ltd., Rangoon

Cambridge and Huntingdon Branch.

Day, W. F. L., M.B., Roydon
Jenkins, R. S., Esq., Gamlingay
Scales, F. S., M.B., Redcourt, Adams Road, Cambridge
Scruby, Zilla M., M.B., Kenilworth, St. Mary's Street, Ely

Colombo, Ceylon, Branch.

Ekanayake, H. E., Esq., Aranayake, Ceylon
Garden, A. S., M.B., Galle Face Hotel, Colombo
Kumarasamy, M. M., Esq., 42, Hultsdorp, Colombo
Poulier, A. J., Esq., The Lunatic Asylum, Colombo

East Anglian Branch.

Schilling, G., Esq., Kessingland

East York and North Lincoln Branch.

Davy, G. H., M.B., 84, Beverley Road, Hull
Hanley, John Joseph, Esq., 7, Jarratt Street, Hull
Webster, Hugh, Esq., 26, Lister Street, Hull
Wyatt, W. L., Esq., Inglewood, Hornsea

Edinburgh Branch.

Brown, A. Johnstone, Esq., 12, Newington Road, Edinburgh
Cowan, Geoffrey, M.B., 3, Abbotsford Park, Edinburgh
Cunningham, Barbara M., M.D., Branxholme, Hawick
Gordon, W. L., M.B., 19, Atholl Crescent, Edinburgh
Graham, Jas. M., M.B., 8, Cluny Gardens, Edinburgh
Poidevin, L. O. S., Esq., 10, Braid Crescent, Edinburgh
Robinson, Joseph, M.B., Joppa, Edinburgh
Stewart, George, M.B., Dunraven, Lasswade, Midlothian

Fife Branch.

Derrick, Thomas, M.B., The Towers, Dysart
Drummond, G. T., M.B., Cardenden
Stephen, Alex., M.B., Gowrie Cottage, Lochgelly
Todd, W. J. N., Esq., Locharaig, Glencraig, Lochgelly
Wight, George, M.B., Buccleuch Villa, Burntisland

Glasgow and West of Scotland Branch.

Brown, T. Graham, M.B., Physiology Department, University of Glasgow
Ciaramelli, Anthony, M.D., 148, Norfolk Street, Glasgow

Gilchrist, James, M.B., 54, Whitevale Street, Glasgow
Graham, Mary P., M.B., Morton Terrace, Bridge of Weir
Jones, Henry E., M.B., 3. Bellahouston Terrace, Ibrox, Glasgow
Lawrie, W. J., M.D., 6, Barns Street, Ayr
Martin, Matthew, M.B., Glencairn, Parkhead, Glasgow
Ward, A. E., Esq., 4, Broomhill Gardens, Partick, Glasgow
Young, R. F., M.B., 252, Bath Street, Glasgow

Gloucestershire Branch.

Greene, R. D. L., M.B., Royal Infirmary, Gloucester

Halifax, Nova Scotia, Branch.

Farrel, E. D., M.D., 48, Morris Street, Halifax
Fraser, D. R., Esq., Montague, P.E.I.
Moore, E. F., Esq., Wolfville
Morton, C. S., Esq., 100, Pleasant Street, Halifax
Warburton, James, Esq., Charlottetown, P.E.I.
Weatherbe, Philip, Esq., 209, Pleasant Street, Halifax

Jamaica Branch.

Gedean, E. de M., Esq., Port Antonia, Jamaica

Lancashire and Cheshire Branch.

Carson, J. H., Esq., 72, Cross Lane, Salford
Fleming, William, M.B., 5, Park Vale Road, Walton, Liverpool
Hamilton, A. G., M.B., Eastcote, Hoole, Chester
Hodgson, Stanley, M.D., The Crescent, Salford
McGlade, F. J., M.B., 66, Rochdale Road, Blackley, Manchester
Paterson, Robert, M.B., 247, Boundary Street, Liverpool
Sarjant, F. P., M.B., 1, Palatine Road, Withington, Manchester

Leinster Branch.

Baker, Lily A., M.B., 18, Upper Merrion Street, Dublin
Gibson, Mary K., M.B., Bray
Hayes, M. R. J., F.R.C.S.I., 35, Upper Fitzwilliam Street, Dublin
Nesbitt, G. E., M.B., 28, Lower Fitzwilliam Street, Dublin
Stone, C. A., M.B., Foxrock
Webb, Mrs. Ella G. A., M.D., 20, Hatch Street, Dublin
Wilson, T. Henry, F.R.C.P.I., 81, Merrion Square, Dublin

Malaya Branch.

Scott, G. Waugh, M.B., care of Messrs. Guthrie and Co., Limited, Singapore

Melbourne and Victoria Branch.

Anderson, J. F., Esq., Woodend, Victoria
Barrett, Edith, Howe Crescent, South Melbourne
Bennett, F. G., Esq., 103, Lewisham Road, Prahran, Victoria
Bird, R. K., Esq., Natimuk, Victoria
Brown, A. A., Esq., Fairfield, Victoria
Burton, W. H., Esq., Richmond, Victoria
Cahill, H. J., Esq., Punt Road, Prahran, Victoria
Campbell, Maud, Apollo Bay, Victoria
Clarke, P. G., Esq., Rosedale, Victoria
Connell, E. J., Esq., Warrnambool, Victoria
Damman, G. W., Esq., Nathalia, Victoria
Dane, P. G., Esq., Beach Avenue, Elwood, Victoria
Davis, John R., Esq., 2, Parliament Place, Melbourne
Degenhardt, A., Esq., Northcote, Victoria
Deravin, A. F., Esq., Casterton, Victoria
Deravin, G. W., Esq., Inglewood, Victoria
Donaldson, W. H., Esq., 105, Drummond Street, Carlton, Victoria
Elcoate, R. L., Esq., Tarnagulla, Victoria
Ferris, F. A., Esq., Weinberg Road, Hawthorn, Victoria
Fetherstonhaugh, C., Esq., Williamstown, Victoria
Foster, B., Esq , Horsham, Victoria
Gibbs, R. H., Esq., Colac, Victoria
Hawkins, Ethel M., Eye and Ear Hospital, Melbourne
Herlitz, H , Esq., East Melbourne
Hicks, J. H. C., Esq., Beeac, Victoria
Holmes, M. J., Esq., Sanatorium, Greenvale, Victoria
Ingham, J. H., Esq , Dimboola, Victoria
Kelly, J. P., Esq., Hawthorn, Victoria
Kelly, J. P., Esq., Dookie, Victoria
Kennedy, J., Esq., Alfred Hospital, Prahran, Victoria
Lamble, G., Esq., Queen's College, Carlton, Victoria
Lemon, F. A., Esq., Armadale, Victoria
Ley, F. A., Esq., Tatura, Victoria
Marwood, A. W., Esq., Geelong, Victoria
Maxwell, C., Esq., Frankston, Victoria
Meares, A. G., Esq., Melbourne Mansions, Melbourne
Morton, W. A., Esq., Merino, Victoria
Nankivell, A. Y., Esq., 161, Hotham Street, East Melbourne
Newman, F. J., Esq., Geelong, Victoria
O'Donnell, N. M., Esq., North Melbourne
Pinnock, D. D., Esq., Ballarat Hospital, Ballarat
Praagst, G. D., Esq., Murchison, Victoria
Praagst, L. F., Esq., North Brighton, Victoria
Riordan, T. F., Esq., Carlton, Victoria
Ruddle, R. G., Esq., Daylesford, Victoria
Shaw, C. G., Esq., Ormond College, Melbourne
Shaw, P., Esq., Hospital for Insane, Kew, Victoria
Somers, J. E., Esq., Mornington, Victoria
Spring, J. P., Esq., Minyip, Victoria
Spring, J. F., Esq., Walpole Street, Kew, Victoria
Steven, A., Esq., St. Kilda, Victoria
Trinca, A. J., Esq., Hawthorn, Victoria
Wadelton, H. G., Esq., Hospital for Insane, Beechworth, Victoria
Weir, A. A., Esq., Terang, Victoria
Woinarski, V. J. Z., Esq., North Melbourne

Metropolitan Counties Branch.

Alston, James, M.B., 57, Marquis Road, Canonbury, N.
Andrewes, Frederick William, M.D., F.R.C.P., 31, Hampstead Lane, Highgate, N.
Baker, Elizabeth Adelaide, L.R.C.P.and S.Ed., 92, Lower Road, Rotherhithe, S.E.
Barker, John Collier, Esq., Marburg, Watford
Bartlett, George Bertram, Esq., London Hospital, E.
Bates, Joah Edward Lionel, Esq., 113, Central Hill, Norwood, S.E.
Becker, Jonathan Ernest Augustus George, M.B., 87, Belgrave Road, S.W.
Bell, John William, Esq., 125, Harley Street, W.
Burgess, Mildred Mabel, M.D., 7, Brixton Hill, S.W.
Burnett, John Duncan, M.B., Faithlie House Watford
Canney, James Robertson Campbell, M.B., University College Hospital, Gower Street, W.C.
Carnegie, Robert, M.B., 52, Elderfield Road, Clapton, N.E.
Clark, James Aitken, M.B., Lieut., R.A.M.C., Royal Army Medical College, Grosvenor Road, S.W.
Clatworthy, John Hunter, M.D., 145, Denmark Hill, S.E.
Collen, George Denbigh, M.D., 39, Carleton Road, Tufnell Park, N.
Collins, Francis Garland, Esq., West Ham Infirmary, Leytonstone
Comerford, Beaumont Harry, M.D., 3, Chester Terrace, Eaton Square, S.W.
Cooper, Arthur Tanner, Esq., 87, Great Portland Street, W.
Cope, Vincent Zachary, M.D., 12, Westbourne Square, W.
Danvers, Herbert, M.D., 29, Weymouth Street, W.
Darker, George Fitzjames, Esq., 2, Middle Temple Lane, E.C.
Davies, Hugh Morriston, M.D., F.R.C.S., 49, Wimpole Street, W.
Davies-Colley, Robert, F.R.C.S., 24, St. Thomas Street, S.E.
Davis, Edward David Darelan, Esq., 33, Wimpole Street, W.
De Quadros, Michael Anthony, Esq., 94, Brownhill Road, Catford, S.E.
Dickinson, Evelyn Elizabeth, M.B., 128, Fellows Road, Hampstead, N.W.
Dickinson, William Gilbert, M.D., "Elmbank," West Hill, Putney Heath, S.W.
Douglas, Ethel Adelaide, M.B., 11, Castellian Mansions, W.
Douglas, Reginald Inglis, M.B., 500, Lordship Lane, S.E.
Dove, Percy William, M.B , 84, Crouch Hill, N.
Dowling, Stanislaus Marcus, Esq., Myr Hall, Woodford Green
Duncan, Horace, M.B., 11, Bolton Street, Piccadilly, W.
Dunning, John Beatson, Esq., 11, Bernard Street, Russell Square, W.C.
Edgelow, Percy, Esq., 94, Harley Street, W.
Eichholz, Alfred, M.D., Board of Education, Whitehall, S.W.
Elliott, Thomas Renton, M.D., University College Hospital, W.C.
Faulder, Thomas Jefferson, M.B., F.R.C.S., 6, Harley Street, W.
Fawssett, Francis William, M.B., 260, Fore Street, Upper Edmonton, N.
Finny, Cecil Edward, M.D., 19, Herne Hill, S.E.
Fitzgerald, Gerald, M.B., 11, King William Street, E.C.
Fleming, Alexander, M.B., F.R.C.S., 67, Upper Berkeley Street, W.
Forbes, John, M.B., 1, Hurdwick Place, Harrington Square, N.W.
Forsbrook, William Henry Russell, M.D., 40, Lower Belgrave Street, S.W.
Franklin, Philip Julius, Esq., 104, Priory Road, Kilburn, N.W.
Galloway, John Dobie, Esq., 97, Browning Road, Manor Park, E.
Gandy, Eric Worsley, Esq., The Hill Top, Norwood, S.E.
Giuseppi, Paul Leon, M.B., F.R.C.S., 80, Palace Gardens Terrace, W.
Glaister, John Norman, Esq., 96, Upper Street, Islington, N.
Glasson, Charles James, M.D.Brux., 80A, Brook Street, Grosvenor Square, W.
Glover, James Alison, M.D., 25, Highbury Place, N.
Goodhart, Gordon William, M.B., 25, Portland Place, W.
Govan, Robert, M.B., 2, Queen's Road, Peckham, S.E.
Green, Frederick, M.D., 9, Old Burlington Street, W.
Hancock, George Charles, Esq., Feldholm, Queen's Ride, Barnes, S.W.
Hardenberg, Emile John Frank, Esq., Cliveden, Chingford, N.E.
Hare, Dorothy C., M.D., Lyceum Club, 128, Piccadilly, W.
Harmer, William Douglas, M.B., F.R.C.S., 45, Weymouth Street, W.
Harris, Frederic Rosenberg, Esq., 28, Harvard Road, Gunnersbury, W.
Hastings, Somerville, M.S., F.R.C.S., 51, New Cavendish Street, W.
Haverson, James John, Esq., 62, Grafton Road, N. Plastow, E.
Hayes, James, Esq., Dunnegan, Longton Grove, Sydenham, S.E.
Hedley, John Prescott, M.B., 11, John Street, Berkeley Square, W.
Henry, George Nicol, M.B., 160, Kennington Road, S.E.
Hicks, John Athelstan Braxton, M.B., B.S., 20, Lupus Street, St. George's Square, S.W.
Hobbs, Roland Augustus, Esq., 29, Randolph Crescent, W.
Hopewell-Smith, Arthur, Esq., 58, Park Street Park Lane, W.
Holthusen, Alan William, M.B., 34, Sebert Road, Forest Gate, E.
Hughes, Cecil, M.B., 44, Welbeck Street, W.
Hume, John, M.D., 15, Acre Lane, Brixton, S.W.
Humphreys, Charles Style, M.D.Brux., 20, Avenue Crescent, Mill Hill Park, Acton, W.
Hyde, Henry, Surgeon-Lieutenant-Colonel, M.R.C.S., L.R.C.P., 17, Madeley Road, Ealing, W.
Jennings, John Frederick, M.B., F.R.C.S., 13, John Street, W.
Johnson, Robert G., M.B., 110, Evering Road, Stoke Newington, N.
Jones, Edmund Benjamin, F.R.C.S., "Chatsworth," North End Road, Hampstead, N.W.
Jones, Harold Evelyn, Esq., Wadham House, Toynbee Hall, E.
Kemp, William Rous, Esq., 241, New Cross, Road, S.E.
Kent, Hugh Braund, M.B., Guy's Hospital, S.E.
Khambata, Ratanshaw B., Esq., St. Bartholomew's Hospital, E.C.
Kidd, Francis Seymour, M.B., F.R.C.S., 41, Wimpole Street, W.
Kirton, Charles Imray, M.B., Ashville, Honor Oak, S.E.
Laing, James Thomas Currie, M.B., 7, Gloucester Place, W.
Lakin, Charles Ernest, M.D., F.R.C.S., 2, Park Crescent, Portland Place, W.
Latham, Arthur, M.D., F.R.C.P., 38, Portland Place, W.
Lawrence, Sidney Cameron, M.B., 7, Latymer Road, Lower Edmonton, N.
Lawrie, Alexander, M.B., 453A, New Cross Road, S.E.
Leeson, John Rudd, M.D., Clifden House, Twickenham
Lowry, Ernest W., Esq., 53, Kew Bridge Road, Brentford
McCarthy, Denis, M.B., 79, Long Lane, S.E.
McGachen, Frederick William Dobson, M.D., 65, Oakley Square, N.W.
McGavin, Lawrie Hugh, F.R.C.S., 6, Mansfield Street, Cavendish Square, W.
Mackenzie, Hector G. G., M.B., 24, Arterberry Road, Wimbledon, S.W.

Mackintosh, John Stewart, Esq., 2, Platt's Lane, Hampstead, N.W.
McManus, Michael, Esq., 268, Walworth Road, S.E.
McQuiban, William, M.B., 156, Lordship Road, Stoke Newington, N.
Maitland, Lytton, M.D, Sion House, Clapton, N.E.
Marshall, Thomas, Esq., 5, Crescent Place. W.C.
Mason, James, M.D., 224, Goldhawk Road, Shepherd's Bush, W.
Miles, William Ernest, F.R.C.S., 3, Upper Wimpole Street, W.
Millar, William, M.B., 139, West Green Road, South Tottenham, N.
Millar, Wm. Heptinstall, M.D.Brux., 26, Streatham Hill, S.W.
Mitchell, Charles, M.B., 79, Harcourt Terrace, S.W.
Moorshead, Robert Fletcher, M.B., F.R.C.S., 87, Palace Road, Tulse Hill Park, S.W.
Morrison, Daniel, M.B., 14, Emmanuel Road, Balham, S.W.
Morson, Albert Clifford, Esq., 16, Elsworthy Road, Primrose Hill, N.W.
Mushé, William Austin, Esq., 82, Cazenove Road, Stamford Hill, N.
Nathan, Sidney Herbert, M.D., 50, Harrington Gardens, S.W.
Niall, Eugene, M.D., 2, Arlington Street, Piccadilly, W.
Noble, Frank Stanley, M.D., 43, Albemarle St., Piccadilly, W.
Norbury, Lionel Edward Close, M.B., F.R.C.S., St. Thomas's Hospital, S.E.
Oliver, Norman H., Esq., 51, Whitbread Road, Brockley, S.E.
Orton, Loraine, Esq., "Prioryholme," Priory Road, Hornsey, N.
Parsons, Frederick Gymer, F.R.C.S., St. Thomas's Hospital, S.E.
Peile, William Hall, M.D., 34, Rutland Gate, S.W.
Pelly, Frank Le Quesne, M.B., 9, Highgate Road, N.W.
Petrie, George Ford, M.D., Lister Institute, Chelsea Gardens, S.W.
Pinchin, Arthur John Scott, M.D., St. Thomas's Hospital, S.E.
Pinto, Joseph Orphino, L.R.C.P.and S., Major, I.M.S., retired, c.o. Messrs. Grindlay and Co., 54, Parliament Street, S.W.
Pinto-Leite, Hubert, Esq., 24, Fellows Road, South Hampstead, N.W.
Pringle, John James, M.B., F.R.C.P., 23, Lower Seymour Street, W.
Prior, Edward Symes, Esq., Bolingbroke Hospital, Wandsworth Common, S.W.
Pywell, Percy Dodd, Esq., 174, York Road, Lambeth, S.E.
Rathbone, Miss May, L.M.S.S.A., F.L.S., 11, Luxborough House, Northumberland Street, W.
Rattray, Patrick Whyte, M.B., F.R.C.S., 17, Pemberton Gardens, N.
Rees, Alfred Ernest Carey, M.B., 63, Upper Gloucester Place, N.W.
Reilly, F. Bradshaw, Esq., 233, Victoria Park Road, N.E.
Richardson, Horace, Esq., 530, Commercial Road, E.
Rischbieth, Harold, M.D., F.R.C.S., London Hospital, E.
Robbins, Tom Wiltshire, Esq., 142, St. Alban's Road, Watford
Rose, Alexander, M.D., 237, Selhurst Road, South Norwood, S.E.
Rowlands, Robert Pugh, M.S., F.R.C.S., 12, Queen Anne Street, W.
Rutter, George Herbert, M.B., 32, Palace Road, Streatham Hill, S.W.
Ruxton, Herbert William Black, M.B., Camberwell Infirmary, S.E.
Sachs, Alford Ludovicus, Esq., 62, Wimpole Street, W.
Samuel, Henry Charles, Esq., 32, Blackhorse Road, Walthamstow
Sargent, Percy, M.B., F.R.C.S., 67A, Harley Street, W.
Schofield, Samuel Robert, M.B., 1, Phillimore Gardens, Kensington, W.
Shemmonds, J. O., Esq., 168, The Broadway, West Hendon, N.W.
Shepherd, Henry Brooks, Esq., 7, Portland Place, W.
Simpson, Charles Stanley, Esq., 150, Southgate Road, N.
Sladen, Edward Sidney St. Barbe, M.D., Oriental Club, W.
Smale, Herbert, Esq., 22A, Cavendish Square, W.
Smith, Gayton Warwick, M.D., Middlesex County Asylum, Tooting, S.W.
Smith, Raymond Broadley Etherington, M.B., F.R.C.S., The Warden's House, St. Bartholomew's Hospital, E.C.
Snell, Edmund George Carruthers, Esq., 131, Green Street, Bethnal Green, N.E.
Spears, Robert, Esq., 293, West Green Road, S. Tottenham, N.
Sprigge, S. Squire, M.D., 5, Douro Place, W.
Taylor, Robert, M.D., 1, Pembury Road, Clapton, N.E.
Thomas, Arthur Hitchings, Esq., High Street, Viewsley, Middlesex
Thomson, John Gordon, M.B., The Infirmary, Brunswick Square, Camberwell, S.E.
Thornton, Jeremiah Armitage, Esq., 573, Romford Road, Forest Gate, E.
Thyne, William, M.D., Tudor House, High Street, Barnet
Toland, Charles Kirk, M.B., Morley House, Bruce Road, Bow, E.
Toogood, Frederick Sherman, M.D., 388, High Street, Lewisham, S.E.
Trotter, Wilfred, M.S., F.R.C.S., 101, Harley Street, W.
Underhill, Thomas Hill, M.B, 74, Herne Hill, S.E.
Van Ingen, Alice, M.D., 1, South Hill Park, Hampstead, N.W.
Vickery, Alice Drysdale, L.R.C.P.I., 28, Carson Road, W. Dulwich, S.E.
Vining, Charles Wilfred, M.D., 16, Queen's Walk, Ealing, W.
Walker, George Edward, Esq., 60, Gordon Rd., Ealing, W.
Wall, George Braithwaite, Esq., 70, Upper Tulse Hill, S.W.
Warren, Alfred Castle, M.D., 15, Lansdowne Crescent, Notting Hill, W.
Watson, Frederick, M.B., The Grange, East Finchley, N.
Welply, Louis, M.B., 355, Romford Road, Forest Gate, E.
Whitaker, George Herbert, Esq, White Lodge, South Norwood Park, S.E.
Willey, Florence Elizabeth, M.D., 1A, Devonshire Street, W.
Williamson, Herbert, M.B., 84, Wimpole Street, W.
Wilson, Henry Adrian Fitzroy, Esq., 12, Cheyne Court, Chelsea. S.W.
Wood, Guy, M.B., 49, Gordon Square, W.C.
Yorke-Davies, Wynne, Esq., 44, Harley St., W.

North of England Branch.

Braithwaite, E. C., M.B., 7, Chillingham Road, Newcastle-on-Tyne
Burman, C. E. L., M.B., Alnwick
Cormick, F. B., M.B., Hetton-le-Hole
Davies, Frank A., M.B., Allendale
Dunn, A. G., M.B., The Dispensary, Nelson Street, Newcastle-on-Tyne
Eddlestone, N. A., M.B., 1, Laburnham Avenue, Whitley Bay
French, John Charles, Esq., 50, Marlborough Street, Seaham Harbour
Harbottle, George W., M.B., 1, Rectory Road, Gosforth
Hunter, Henry, M.B., Mickle, Stocksfield-on-Tyne
Ker, William P., Esq., Otterburn
Lloyd, George E., M.B., Corbridge-on-Tyne
Loughridge, James A., M.B., Amble
McAleenan, H. R., M.B., 2, Garden Terrace, Blaydon-on-Tyne
Martin, John H., M.B., 4, Grange Terrace, Sunderland
Newton, Sir Henry W., L.F.P.S., 2, Ellison Place, Newcastle-on-Tyne
Rodgers, A. N. E., M.B., 2, Ward Terrace, Sunderland
Shand, G. E., M.B., Scotswood-on-Tyne
Trotter, Thomas B., Esq., Hirst
Welsh, John G., Esq., Bellingham
Wood, F. T. H., M.B., Harewood Terrace, Darlington
Wormald, T. D., M.B., Union Workhouse, Newcastle-on-Tyne

North Lancashire and South Westmorland Branch.

Nowell, G. H., M.B., Bolton-le-Sand
Reed, E. W., M.B., 77, Abbey Road, Barrow in-Furness
Riddell, David, M.D., Highgate, Kendal

North Wales Branch.

Davies, Arnold, M.B., Westbury Mount, Menai Bridge
Lowe, Henry, Esq., Ty Croes, Anglesey
Parry-Edwards, O. J., M.B., Mynyddygof, Bodedern, Valley, Anglesey
Roberts-Williams, Hugh, Esq., Buckley

Shropshire and Mid-Wales Branch.

Bigley, F. W. Hudson, M.D., Much Wenlock
Girdlestone, G. R., M.B., Oswestry

South-Eastern Branch.

Duke, H. D., Esq., Kent and Canterbury Hospital, Canterbury
Grandy, W. E., M.D., 1, Pevensey Road, St. Leonards-on-Sea
Wiglesworth, T. R., M.D., Danedale Lodge, Minster, Sheerness

South-Eastern of Ireland Branch.

O'Brien, T. G., Esq., Rock View, Stoneyford, co. Kilkenny

South Midland Branch.

Turner, A. H., Esq., Beaconsfield

South Wales and Monmouthshire Branch.

Armstrong, A. K., Esq., Singleton House, Monmouth
Evans, E. A., Esq., 4, Northampton Place, Swansea
Evans, Trevor, Esq., 11, Picton Place, Swansea
Mackenzie, A. D., M.B., County Hospital, Newport, Mon.

Staffordshire Branch.

Mayne, W. J. F., M.B., 6. King Street, Newcastle
Payne, Catherine, M.B., Haywood Hospital, Burslem

Stirling Branch.

Brown, William, M.B., Camelon, Falkirk

Sydney and New South Wales Branch.

Boyd, James, F.R.C.S.Edin., Moree
Bridgford, Mary E., L.R.C.P., 441, Riley Street, Surry Hills
Harris, M. H., M.B., Moree
Johnson, H. H., M.B., Callan Park
Oliver, A. C., Esq., Armadale

Toronto Branch.

Dales, Walter, M.D., Sturgeon Falls, Ontario
Paterson, R. K., M.D., 472, Gilmour Street, Ottawa
Walker, T. W., M.D., Ridgetown, Ontario
Wallace, F. W., M.D., Dunsford, Ontario

Ulster Branch.

Clarke, J. J., M.B., 7, Seymour Street, Lisburn
Gregg, E. A., Esq., Union Infirmary, Belfast
Hill, S. W., M.B., Pound Street, Larne
Lyttle, G. G., M.B., Easton, Osborne Park, Belfast
MacKenzie, W. R., Esq., 7, University Square, Belfast
Montgomery, Alex., M.B., Fitzwilliam Place, Belfast
Stevenson, C. A., M.D., 111, Spencer Road, Waterside, Londonderry
Williamson, Florence E., The Infirmary, Lurgan

Worcestershire and Herefordshire Branch.

Bates, Tom, jun., M.B., 33, The Tything, Worcester
Slinger, Robert T., F.R.C.S., 3, Castle Street, Worcester

Yorkshire Branch.

Chambers, E. J., Esq., 18, Hall Gate, Doncaster
Dixon, R. G., M.B., 15, Main Street, Bingley
Doudney, Leslie, Esq., 23, Hall Gate, Doncaster
King, William W., F.R.C.S., Jessop Hospital for Women, Sheffield
Murphy, T. F., Esq., 403, Staniforth Road, Sheffield
Sandiford, R. B., Esq., High View, Normanton
Scholefield, Henry, M.B., Viewfield, Altofts
Taylor, J. W., Esq., Oaklands, Methley
Thompson, H. M., M.B., Grimethorpe, Barnsley
Wiltshire, H. P., Esq., White Hall, Hemsworth, near Wakefield

Vital Statistics.

EPIDEMIC MORTALITY IN LONDON.

[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.]

THE accompanying diagram shows the prevalence of the principal epidemic diseases during the fourth quarter of last year; the fluctuations of each disease and its relative fatality compared with that in the corresponding periods of other recent years can thus be readily seen.

Small-pox.—One fatal case of small-pox, which belonged to the Borough of Stepney, was registered during the quarter under notice. Twelve small-pox patients were admitted into the Metropolitan Asylums Hospitals, but only one case remained under treatment at the end of the quarter.

Measles.—The fatal cases of measles, which had been 1,155, 843, and 207 in the three preceding quarters, further declined last quarter to 136, and were 213 fewer than the corrected average number in the corresponding period of the five preceding years. Among the several boroughs this disease was proportionally most fatal in Hackney, the City of London, Bethnal Green, Stepney, Poplar, and Deptford.

Scarlet Fever.—The deaths from scarlet fever, which had been 109, 109, and 80 in the three preceding quarters, rose again to 86 in the three months under notice, but showed a decline of 78 from the corrected average number. The greatest proportional mortality from this disease was recorded in Fulham, Islington, Finsbury, Bethnal Green, Bermondsey, Lewisham, and Woolwich. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals, which had been 2,412, 2,539, and 2,717, at the end of the three preceding quarters, had declined again to 2,329 at the end of last quarter; 3,705 new cases were admitted during the quarter, against 3,892, 4,086, and 4,500 in the three preceding quarters.

Diphtheria.—The fatal cases of diphtheria, which had been 234, 146, and 113, in the three preceding quarters, rose again last quarter to 132, but were 79 fewer than the corrected average number. This disease was proportionally most fatal in Hammersmith, Fulham, Chelsea, Holborn, Shoreditch, Bethnal Green, and Lambeth. There were 904 diphtheria patients under treatment in the Metropolitan Asylums Hospitals at the end of last quarter, against 1,103, 890, and 901, at the end of the three preceding quarters; 1,372 new cases were admitted during the quarter, against 1,678, 1,395, and 1,354, in the three preceding quarters.

Whooping-cough.—The deaths from whooping-cough, which had been 364, 429, and 228 in the three preceding quarters, rose again last quarter to 241, and were 53 above the corrected average number in the corresponding period of the five years 1904-8. The highest death-rates last quarter from whooping-cough were recorded in St. Marylebone, the City of London, Shoreditch, Stepney, Poplar, Deptford, and Greenwich.

"*Fever.*"—Under this heading are included deaths from typhus, from enteric fever, and from ill-defined pyrexia. The deaths referred to these different forms of "fever," which had been 60, 29, and 28 in the three preceding quarters, increased to 39 in the quarter under notice and were 58 below the average; no death from typhus or from ill-defined pyrexia was registered during the quarter. Enteric fever was proportionally most fatal in the Cities of London and Westminster, and in Hampstead, Finsbury, and Deptford. The number of enteric fever patients under treatment in the Metropolitan Asylums Hospitals, which had been 87, 58, and 75 at the end of the three preceding quarters, had declined again to 62 at the end of the year; 120 new cases were admitted last quarter, against 182, 105, and 132 in the three preceding quarters.

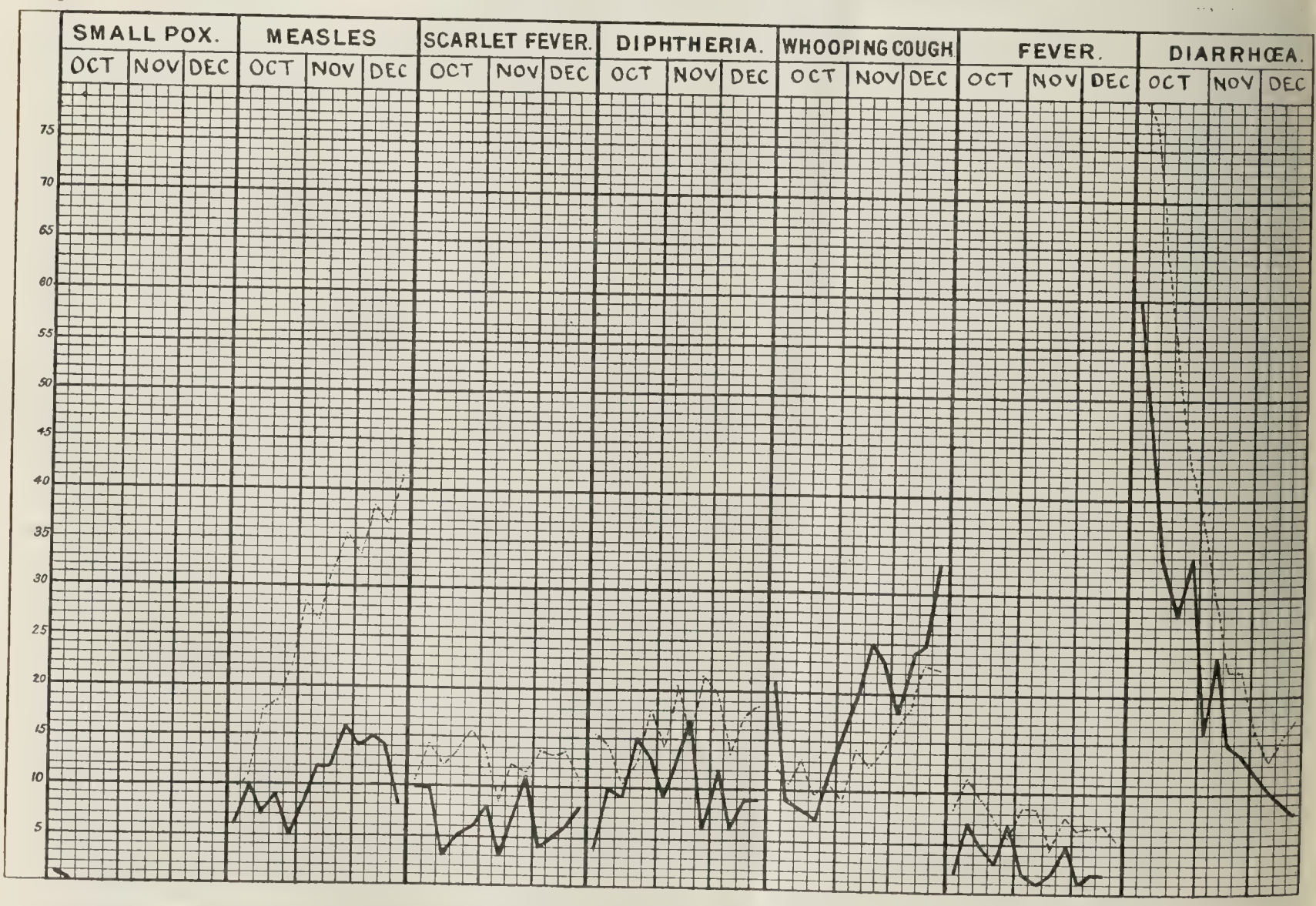
Diarrhoea.—The 312 deaths from diarrhoea in London last quarter showed a decline of 187 from the corrected average number. The greatest proportional mortality from this disease was recorded in Fulham, Finsbury, Shoreditch, Bethnal Green, Poplar, and Bermondsey.

In conclusion, it may be stated that the 947 deaths in London referred to the principal epidemic diseases last quarter were more than 37 per cent. below the average. The lowest death-rates from these diseases in the aggregate were recorded in Kensington, Westminster, Hampstead, Stoke Newington, Holborn, and Lewisham; and the highest rates in Finsbury, the City of London, Shoreditch, Bethnal Green, Stepney, Poplar, and Deptford.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 7,282 births and 5,213 deaths were registered during the week ending Saturday last, January 29th. The annual rate of mortality in these towns, which had been 14.8, 14.9, and 14.8 per 1,000 in the three preceding weeks, increased to 16.3 per 1,000 last week. The rates in the several towns ranged from 5.3 in Hornsey, 8.5 in Willesden, 9.0 in Southampton, 9.5 in Derby, 10.0 in East Ham, and 10.5 in Reading, in King's Norton, and in South Shields, to 21.7 in Halifax, 21.8 in Coventry, 22.2 in Rhondda, 22.4 in Liverpool, 22.8 in Wallasey, 23.1 in York, 23.5 in Newport (Mon.), 25.5 in Bury, and 26.9 in Hanley. In London the rate of mortality was 15.7 per 1,000, while it averaged 16.5 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.1 per 1,000 in the seventy-six towns; in London also the death-rate from these diseases was 1.1 per 1,000, while among the seventy-five other large towns the rates ranged upwards to 2.9 in Plymouth, in Wallasey, and in Sunderland, 3.1 in Devonport, 3.4 in Ipswich and in Birkenhead, and 3.8 in West Hartlepool. Measles caused a death-rate of 1.4 in Ipswich and in Wallasey, 1.6 in Northampton and in Swansea, and 1.7 in Birkenhead; scarlet fever of 1.0 in Burnley and in Sunderland, and 1.1 in Huddersfield; diphtheria of 1.4 in Halifax and 1.5 in Hanley; whooping-cough of 2.1 in Ipswich and in Warrington, 2.5 in Plymouth and in West Hartlepool, and 3.1 in Devonport; and "fever" of 1.6 in Rotherham. The mortality from diarrhoea showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The Metropolitan Asylums Hospitals contained 2 small-pox patients at the end of last week, against 5, 4, and 3 on the three preceding Saturdays. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 2,256,

DEATHS FROM EPIDEMIC DISEASES IN LONDON DURING THE FOURTH QUARTER OF 1909.



NOTE.—The black lines show the *recorded* number of deaths from each disease during each week of the quarter. The dotted lines show the *average* number of deaths in the corresponding weeks of the five preceding years, 1904-8.

2,172, and 2,069 at the end of the three preceding weeks, had further declined to 1,993 at the end of last week; 193 new cases were admitted during the week, against 212, 200, and 204 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday last, January 29th, 783 births and 693 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 20.4, 16 7, and 15 5 per 1,000 in the three preceding weeks, rose again last week to 19.1 per 1,000, and was 2.8 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scottish towns the death-rates ranged from 15.6 in Paisley and 15.9 in Edinburgh to 22.4 in Perth and 31.9 in Greenock. The death-rate from the principal infectious diseases averaged 2.7 per 1,000, the highest rates being recorded in Glasgow and Greenock. The 326 deaths registered in Glasgow included 44 which were referred to measles, 3 to scarlet fever, 3 to diphtheria, 2 to whooping-cough, 2 to enteric fever, and 5 to diarrhoea. Eight fatal cases of measles and 6 of diarrhoea were recorded in Edinburgh; 3 of diphtheria, 2 of whooping-cough, and 3 of diarrhoea in Dundee; 4 of diphtheria in Aberdeen; 3 of diarrhoea in Leith; and 2 of whooping-cough in Greenock.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, January 29th, 543 births and 467 deaths were registered in the twenty two principal urban districts of Ireland, as against 545 births and 422 deaths in the preceding period. The annual death-rate in these districts, which had been 19.7, 22.3, and 19.1 per 1,000 in the three preceding weeks, rose to 21.1 per 1,000 in the week under notice, this figure being 4.8 per 1,000 higher than the mean annual death-rate in the seventy-six English towns for the corresponding period. The figures in Dublin and Belfast were 21.7 and 20.1 respectively, those in other districts ranging from 4.7 in Wexford and 5.2 in Portadown, to 31.7 in Tralee and 63.7 in Lisburn, while Cork stood at 21.9, Londonderry at 21.6, Limerick at 16.4, and Waterford at 13 6. The zymotic death-rate in the twenty-two districts averaged 1.4 per 1,000, as against 1.3 per 1,000 in the preceding period.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

IN accordance with the provisions of an Order in Council of April 1st, 1881, the following Inspectors-General of Hospitals and Fleets have been placed on the Retired List at their own request: H. T. Cox and L. H. KELLETT, M.D., M.A., December 6th, 1909. Consequent thereon the undermentioned promotions have been made from the same date: Deputy Inspectors-General CHARLES JAMES and A. W. MAY, to be Inspectors-General of Hospitals and Fleets in His Majesty's Fleet. Fleet Surgeons T. J. CROWLEY, M.D., and D. T. HOSKYN, M.B,, to be Deputy Inspectors-General of Hospitals and Fleets in His Majesty's Fleet.

Inspector-General Cox's commissions are thus dated: Surgeon, March 30th, 1872; Staff Surgeon, September 30th, 1883; Fleet Surgeon, November 12th, 1892; Deputy Inspector-General, January 1st, 1900; Inspector-General, January 25th, 1906. He served on shore throughout the Ashanti war in 1873-4, receiving a medal; and he was in the *Amethyst* during the engagement with the Peruvian rebel turret-ship *Huascar* off Ylo in May, 1877.

Inspector-General James's previous commissions are thus dated: Surgeon, September 29th, 1877; Staff Surgeon, September 29th, 1889; Fleet Surgeon, March 2nd, 1894; and Deputy Inspector-General, January 4th, 1904. He was Surgeon of the *Tenedos* during the Zulu war in 1879, receiving a medal. He received the expression of their Lordships' great satisfaction at the display of zeal and devotion to duty manifested during the epidemic of yellow fever at Jamaica when attached to the hospital, 1882.

Inspector-General Kellett was appointed Surgeon, September 30th, 1876; Staff Surgeon, September 30th, 1888; Fleet Surgeon, April 27th, 1893; Deputy Inspector-General, December 5th, 1903; and Inspector-General, January 17th, 1909. He was with the Royal Marine Battalion defending Suakin from June, 1884, to April, 1885; he was Principal Medical Officer with the battalion during the operations in the Eastern Soudan in 1885, and was present at the actions at Hasheen, at the attack on Sir J. McNeil's zareba, and at the capture of Tamaai, receiving a medal with two clasps and the Khedive's bronze star.

Inspector-General May was appointed Surgeon, March 30th, 1878; Staff Surgeon, March 30th, 1890; Fleet Surgeon, August 21st, 1894; and Deputy Inspector-General, February 7th, 1905. He was Surgeon of the *Achilles* during the Egyptian war, 1882 (medal and Khedive's bronze star). He landed with the Naval Brigade for service with the Nile Expedition for the relief of General Gordon at Khartoum, 1884–85 (Camel Corps), and was present in the *Sophia* at the relief of Sir C. Wilson; he was mentioned in dispatches for his attention to the wounded under fire (clasp).

Deputy Inspector-General Crowley joined the department as Surgeon, February 26th, 1883; was made Staff Surgeon, February 26th, 1895; and Fleet Surgeon, February 26th, 1899.

Deputy Inspector-General Hoskyn's previous commissions are dated: Surgeon, February 26th, 1883; Staff Surgeon, February 26th, 1895; and Fleet Surgeon, February 26th, 1899. When Surgeon of the *Curaçoa* on the Australian Station, 1894, at Apia, in Samoa, he received an address from the people of Apia for his generous and devoted services to the sick. It says, "In a time of war and sickness you became the benefactor of these islands. Your rare skill enabled you to save the lives of many whose loss we should otherwise be mourning," etc. A graceful letter was also written to the wife of Dr. Hoskyn, who received the thanks of King Malietoa and the Samoan Government, for services rendered to the wounded during the rebellion in Samoa in 1894.

Deputy Inspector-General W. H. NORMAN has been appointed to Plymouth Hospital, vice A. W. May, promoted, January 26th.

Deputy Inspector-General S. T. O'GRADY, has been placed on the retired list at his own request, with the rank of Inspector-General, January 26th. He was appointed Surgeon, March 31st, 1877; Staff Surgeon, March 31st, 1889; Fleet Surgeon, December 16th, 1893: and Deputy Inspector-General, February 18th, 1904. He received an expression of their Lordships' appreciation of his administration o Yarmouth Hospital while Fleet Surgeon in charge of that establishment.

The following appointments have been made at the Admiralty: Fleet Surgeon A. G. WILDEY, to the *Jupiter*, February 4th; Fleet Surgeon E. C. CRIDLAND, M.B., to the *Illustrious*, February 8th; Staff Surgeon H. SPICER, M.B., to the *Venerable*, February 4th; Staff Surgeon W. H. S. SEQUEIRA, M.B., to the *Repulse*, February 4th; Staff Surgeon R. A. ROSS, M.D., to the *Argyll*, on recommissioning, February 8th; Deputy Inspector-General W. H. NORMAN, to Plymouuth Hospital, January 26th; Fleet Surgeon P. V. JACKSON, to Haulbowline Hospital, January 26th; Fleet Surgeon R. H. J. BROWNE, to the *Ganges*, for Shotley Training Establishment, January 26th; Staff Surgeon G. GIBSON, to the *Bellona*, on commissioning, February 8th; Staff Surgeon W. H. POPE, to the *Vulcan*, February 8th; Staff Surgeon G. E. DUNCAN, to the *Sentinel*, on recommissioning, February 8th; Staff Surgeon J. C. G. REED, to the *Sapphire*, additional, February 8th, and on recommissioning, undated; Fleet Surgeon E. R. DIMSEY, D.S.O., to the *Lord Nelson*, January 28th.

ARMY MEDICAL SERVICE.

ROYAL ARMY MEDICAL CORPS.

CAPTAIN G. H. RICHARD is placed temporarily on the retired list, on account of ill health, January 25th. He was appointed Lieutenant, July 30th, 1904, and made Captain, January 30th, 1908.

Lieutenant R. G. S. GREGG, M.B., Brigade Laboratory, Calcutta, is appointed Specialist in the Prevention of Diseases from November 15th, 1909.

Captain J. G. BERNE retires on retired pay, February 2nd. He was appointed Surgeon Lieutenant January 28th, 1898, and made Captain January 28th, 1901. He served at Sierra Leone in 1898–9, receiving a medal with clasp, and in the South African war in 1899–1902, being present in operations in the Orange Free State, including the action at Dreifontein, where he was slightly wounded; he was mentioned in dispatches and received the Queen's medal, with six clasps, and the King's medal, with two clasps.

Lieutenants L. C. HAYES, M.B., and B. G. GOODWIN, from the Seconded List, are restored to the establishment, January 11th. They were appointed on probation, July 31st, 1909.

INDIAN MEDICAL SERVICE.

COLONEL R. D. MURRAY, M.B., Bengal, is permitted to retire from the service, from March 29th next. He joined the Bengal Medical Department as an Assistant Surgeon, March 31st, 1875, and became Colonel, March 29th, 1905. He was with the Burmese Expedition in 1886–7, being mentioned in dispatches, and receiving a medal with clasp.

Lieutenant-Colonel T. GRAINGER, M.D., Bengal, is appointed Principal Medical Officer, Burma Division.

The *Gazette of India* of January 1st announces the promotion of Lieutenant-Colonel C. P. LUKIS, M.D., Bengal, to be Surgeon-General from January 1st, and confirms his appointment as Director-General of the Indian Medical Service from the same date. He was appointed to the Bengal Medical Department as Surgeon, March 31st, 1880, and became Lieutenant-Colonel twenty years thereafter. His war record comprises service with the Mahsood Wuzeeree expedition in 1881, and with the Zhob Valley expedition in 1884.

Lieutenant-Colonel G F. A. HARRIS, Bengal, Officiating Inspector-General of Civil Hospitals, United Provinces, has been selected to succeed Colonel R. Macrae, M B., as Inspector-General of Civil Hospitals, Bengal, at the end of February.

Colonel W. A. QUAYLE, M.D., Principal Medical Officer, Aden Brigade, is granted sixty days' privilege leave in India, from January 30th.

ROYAL MILITIA OF THE ISLAND OF JERSEY.

Medical Company.—CHARLES N. LE BROCQ to be Surgeon-Lieutenant, January 8th.

TERRITORIAL FORCE.

ROYAL ARMY MEDICAL CORPS.

Attached to Units other than Medical Units.—Lieutenant J. F. CROMBIE to be Captain, June 24th, 1909. Captain J. R. ARMSTRONG, M.D., resigns his commission, January 1st.

CENTRAL MIDWIVES BOARD.

A MEETING of the Central Midwives Board was held at Caxton House, Westminster, on January 27th, with Dr. F. H. CHAMPNEYS in the chair.

Representation on the Board.

A letter was received from the Town Clerk of Norwich, forwarding a resolution of the Health Committee of the Corporation suggesting that the Municipal Corporations Association should be represented on the Central Midwives Board.

Midwife's Deputy.

A letter was considered from Mr. M. H. Pope inquiring whether Section 1 (4) of the Midwives Act wholly debars a midwife from deputing a competent, though uncertified, woman to visit a patient on her behalf. The Board directed that Mr. Pope be informed that Section 1 (4) of the Midwives Act is to be read in conjunction with Rule 2 (11).

Enrolment of Midwives.

A letter was considered from the Clerk of the Privy Council as to the proposed amendment of Rule B 3, so as to empower the Board to enrol women who, though qualified under Section 2 of the Midwives Act, failed to claim the Board's certificate before April 1st, 1905. The Board decided that the Privy Council be thanked for their letter, and that the suggestion contained therein as to an alternative method of amending Rule B be adopted.

Refusal of Doctor to Attend when Summoned by Midwife.

A letter was read from the Honorary Secretary of the East Malling Nursing Association as to the refusal of a local medical practitioner to attend when summoned on the advice of a midwife, in the manner provided by the rules. The Board decided that the reply be that the Board has no power to enforce the attendance of a doctor, even on the midwife's request, but that the Board understands that the Malling Guardians will pay the doctor for his attendance in suitable cases. In any event the midwife has discharged her duty when she has advised, as required by the Rules, that the presence of a doctor is necessary.

Operative Interference by Midwives.

A letter was read from the County Medical Officer for Staffordshire, inquiring the Board's opinion as regards operative interference by midwives when in attendance on lying-in women, with special reference to the case of a midwife, recently cautioned by the Board for inserting two stitches in a ruptured perineum. The Board decided that the Chairman be requested to reply to the letter.

Payment to Medical Men for Statutory Declarations.

A letter was considered from Mr. Bertram, the Board's solicitor, asking the Board to sanction the payment of a fee to medical practitioners for making statutory declarations in penal cases. The Board decided that the solicitor be authorized to pay a fee of one guinea in such cases.

Conduct of Cases Against Midwives.

The Board having considered the suggestion made by Mr. C. E. Longmore, Clerk to the Herts County Council, that, on the hearing of a charge alleged against a midwife, the Local Supervising Authority should have the conduct of the case, decided that Local Supervising Authorities be asked to communicate their views on the subject.

Hospitals and Asylums.

GOVAN DISTRICT ASYLUM, PAISLEY.

THE annual report for the twelve months ended May 14th, 1909, of Dr. W. R. Watson, the medical superintendent of this asylum, shows that on May 15th, 1908, there were 580 patients on the register and 581 on May 14th, 1909. The total cases under care during the year numbered 776, and the average number daily resident 578.8. During the year 196 were admitted, of whom 170 were first and 26 not-first admissions. In 132 the attacks were first attacks within three, and in 6 more within twelve months of admission; in 46 not-first attacks within twelve months and in the small remainder the attacks were of more than twelve months' duration (5), of congenital origin (4), or of unknown duration (3) on admission. So far as duration of disorder is concerned, therefore, the admissions were not of an unfavourable character. They were classified according to the forms of mental disorder into: Mania, 59; melancholia, 48; dementia, 42; delusional insanity, 18; general paralysis, 12; acquired epilepsy, 6; alcoholic insanity, 5; puerperal insanity, 2; and congenital defect, 4. With regard to causation, Dr. Watson furnishes tables showing the assigned etiological factors as to 114 patients admitted suffering from first attacks of insanity, and also an analysis of these tables giving the following percentages: Alcoholic intemperance in 12.1 per cent., an insane heredity in 13.5 per cent., whilst 16.6 per cent. suffered from cardio-vascular diseases, and 9.3 per cent. from some form of abdominal disease. During the year 79 were discharged as recovered, giving the high recovery-rate on the total admissions of 40.3 per cent., 12 as relieved, and 52 as not improved; also 72 died during the year, giving a death-rate on the average numbers resident of 9.2 per cent. These deaths were due in 36 to cerebro-spinal diseases, including 15 deaths from general paralysis; in 29 to thoracic diseases, with 8 deaths from pulmonary consumption; in 4 to abdominal diseases, including 1 death from tuberculous enteritis, and 3 to general diseases. The proportion of tuberculous to total deaths—12.5 per cent.—was therefore low as compared with county and borough asylums generally, and also with the returns of previous years at this asylum. On the other hand, the Commissioner, Dr. Macpherson, points out that general paralysis, which only a few years ago was an infrequent disease in this asylum, is now the most prominent among the causes of death. No serious accident occurred during the year, and the general health appears to have been good.

SURREY COUNTY ASYLUM, BROOKWOOD.

THE annual report for the year 1908 of Dr. J. E. Barton, the medical superintendent of this asylum, shows that on January 1st, 1908, there were 1,382 patients in the asylum, and that on December 31st there were 1,389. The total cases under care during the year numbered 1,761, and the average number daily resident 1,393. During the year 379 were admitted, of whom 326 were first admissions, 43 not-first admissions, and 10 retransfers. Of the total number 68 were between 50 and 60 years of age, and 65 more over 60 years. In 159 the attacks were first attacks within three, and in 65 more within twelve months of admission; in 84 not-first attacks within twelve months of admission, and in the remainder the attacks were either of more than twelve months' duration (44), or of congenital origin (17), or of unknown duration (10) on admission. They were classified according to the forms of mental disorder into: Mania of all kinds, 113; melancholia of all kinds, 77; senile and secondary dementia, 45; general paralysis, 19; epileptic insanity, 18; primary dementia, 24; confusional insanity, 1; insanity with gross brain lesion, 5; congenital or infantile defect, 26; and not insane, 4. As to probable causation, alcohol was assigned in 46, or 12.1 per cent., syphilis in 10, and other toxic causes in 15; critical periods in 49 (old age in 33), epilepsy in 17, the puerperal state in 11, bodily trauma in 10, and mental stress in 75. An insane heredity was ascertained in 99, or 23.4 per cent. Of the total admissions recovery was considered probable in 25 per cent. During the year 133 were discharged as recovered, giving a recovery-rate on the admissions of 38.8 per cent., 77 as relieved, and 14 as not improved; also during the year 148 died, giving a death-rate on the average numbers resident of 10.62 per cent. The deaths were due in 54 to cerebro-spinal diseases, including 25 deaths from general paralysis; in 47 to chest diseases, including 11 from pulmonary consumption; in 26 to abdominal diseases, with 10 deaths from dysentery; and in the remainder to general diseases, including 13 from senile decay. Influenza of a mild type prevailed during the year, and dysentery and diarrhoea continued to occur. Although considerable overcrowding was present in some parts of the asylum. the general health was satisfactory, and serious accidents were few in number.

GLASGOW EYE INFIRMARY.

AT the eighty-sixth annual meeting of this Infirmary, Sir James King, Bart., presiding, it was stated that the number of cases treated in the hospital during the past year was 1,700, and the out-patients numbered 22,773. Of these 5,633 were relieved or cured by operations, and only 297 were dismissed as incurable. Reference was made to the sudden death during the year of Dr. Meighan, who had been a member of the staff for thirty-six years. Reference was also made to the retirement of the secretary, Mr. W. G. Black, who had acted in that capacity for twenty-five years with great zeal and unfailing courtesy. The nursing staff has been increased during the year, while an honorary medical electrician and two honorary anaesthetists have been added to the medical staff.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

BEDFORD COUNTY HOSPITAL.—House-Physician. Salary, £60 per annum.

BOLINGBROKE HOSPITAL, Wandsworth Common, S.W.—Ophthalmic Surgeon.

BRISTOL ROYAL INFIRMARY.—(1) Two House-Physicians; (2) One House-Surgeon; (3) One Obstetric and Ophthalmic House-Surgeon; (4) One Throat, Nose, and Ear House-Surgeon; (5) One Casualty Officer; (6) Honorary Dental Anaesthetist; (7) Honorary Assistant Dental Surgeon. Salary, for (1) and (2) £100 per annum, for (3) and (4) £75 per annum, and (5) £50 per annum.

CANCER HOSPITAL, Fulham Road, S.W.—Medical Officer in charge of Electrical Department. Honorarium, £26 5s. per annum.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—House-Physician Salary, £70 per annum.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House-Physician (male). Salary at the rate of £75 per annum.

EDINBURGH: ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN.—Four Resident Medical Officers.

EXETER: ROYAL DEVON AND EXETER HOSPITAL.—Assistant House-Surgeon (male). Salary, £60 per annum.

GREAT YARMOUTH HOSPITAL.—House-Surgeon. Salary, £100 per annum.

INFANTS' HOSPITAL, Vincent Square, Westminster.—Pathologist.

KING WILLIAMSTOWN, CAPE OF GOOD HOPE: GREY HOSPITAL.—Resident House-Surgeon. Salary at the rate of £250 per annum.

LEAMINGTON: WARNEFORD, LEAMINGTON, AND SOUTH WARWICKSHIRE GENERAL HOSPITAL. — Two Resident Medical Officers. Salary, £100 and £65 per annum respectively.

LEICESTER INFIRMARY.—Assistant House-Surgeon. Salary at the rate of £60 per annum.

LIVERPOOL WORKHOUSE HOSPITAL.— Assistant on Medical Staff. Salary, £100 per annum, with additional £20 for examining applicants for out-relief, and further £20 as curator of surgical instruments of the hospital.

MANCHESTER: ST. MARY'S HOSPITAL FOR WOMEN AND CHILDREN.—Fourth House-Surgeon Honorarium £25 for six months.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—Pathologist. Salary at the rate of £100 per annum.

NEWPORT AND MONMOUTHSHIRE HOSPITAL.—House-Surgeon. Salary, £60 per annum.

NORTHAMPTON GENERAL HOSPITAL.—House-Surgeon (male). Salary £90 per annum, increasing to £100.

OXFORD: RADCLIFFE INFIRMARY AND COUNTY HOSPITAL.—(1) House-Surgeon; (2) Junior House-Surgeon. Salary at the rate of £80 per annum each.

PERTH DISTRICT ASYLUM, Murthly.—Assistant Physician. Salary, £120 per annum.

PLAISTOW: ST. MARY'S HOSPITAL FOR WOMEN AND CHILDREN.—Assistant Resident Medical Officer.—Salary at the rate of £80 per annum.

ROTHERHAM HOSPITAL.—Senior House-Surgeon (male). Salary, £110 per annum.

ROYAL NATIONAL ORTHOPAEDIC HOSPITAL. Great Portland Street, W.—Surgical Registrar. Honorarium, £105.

ST. PETER'S HOSPITAL FOR STONE, Etc., Henrietta Street, W.C. —Junior House-Surgeon. Salary at the rate of £50 per annum.

SALISBURY INFIRMARY.—Assistant House-Surgeon. Salary, £50 per annum.

SHEFFIELD ROYAL INFIRMARY.—(1) Junior Assistant House-Surgeon; (2) Assistant House-Physician. Salary, £65 and £60 per annum respectively.

SHEFFIELD UNIVERSITY.—Junior Demonstrator of Pathology. Salary, £150 per annum.

SHERWOOD FOREST SANATORIUM FOR CONSUMPTION, near Mansfield.—Resident Medical Officer (female). Salary, £100 per annum.

SHREWSBURY BOROUGH.—Medical Officer of Health. Salary, £500 per annum.

SOUTHAMPTON FREE EYE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

SOUTH SHIELDS: INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Senior House-Surgeon (male). Salary, £100 per annum.

WEST LONDON HOSPITAL, Hammersmith Road, W.—(1) Two House-Physicians; (2) Three House-Surgeons.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces vacancies at Chapel-en-le-Firth, co. Derby, and Nigg, co. Kincardine.

APPOINTMENTS.

ANDERSON, W. W., M.B., Ch.B.Edin., District Medical Officer of the Berkhamsted Union.

BELL, J. H., M.D., Third Medical Officer of County Lunatic Asylum, Halton, near Warwick.

DALY, Ashley S., M.R.C.S., L.R.C.P., Anaesthetist and Assistant Instructor in Anaesthetics at the London Hospital.

ETHERINGTON-SMITH, R. B., M.A., M.B., B.C.Cantab., F.R.C.S.Eng., Assistant Surgeon, West London Hospital, and Surgical Registrar, St. Bartholomew's Hospital.

EVANS, H. W., M.R.C.S., L.R.C.P., District Medical Officer of the Newport (Salop) Union.

GILLESPIE, J. R., M.B., B.Ch., R.U.I., Assistant Medical Officer to the Hants County Council.

GREEVES, Reginald A., M.B, B.S.Lond., F.R.C.S.Eng., Surgical Registrar to the Cancer Hospital, London.

HERMON, J. M., M.D Edin., Medical Officer of the Workhouse of the Wakefield Union.

HOLMAN, T. E., L.S.A., District Medical Officer of the Uckfield Union.

HOLROYDE, G., M.R.C.S., L.R.C.P., District Medical Officer of the Kendal Union.

KEANE, F., M.B., B.Ch., R.U.I., Certifying Factory Surgeon for the Ballina District, co. Mayo.

JONES, C. A., M.R.C.S., L.R.C.P, Medical Officer of Health, Penarth Urban District.

JUKES, G., L.R.C.P. and S.Edin., Medical Officer of Health of the Rebchester Workhouse and District Medical Officer of the Preston Union.

LATHAM, Arthur, M.D.Oxon., F.R.C.P Lond., Physician to the Mount Vernon Hospital for Consumption and Diseases of the Chest, Hampstead and Northwood.

LEEMING, A., M.B., B.S.Lond., District and Workhouse Medical Officer of the Sudbury Union.

LEGAT, R. E, M.B., C.M.Edin., Public Vaccinator to the Warmly Union, Mangotsfield District.

MAWBY, F. W, L.S.A., Certifying Factory Surgeon for the Littleport District, co. Cambridge.

MELVILLE, S. L, L.S.A., Medical Officer of Health, Middlewich Urban District.

MIDDLEMISS, George Whitson, M.B., B.S., B.Hy., D.P.H., Certifying Factory Surgeon for Settle District, vice J. W. Edgar, M.D., deceased.

PRIOR, J., M.R.C.S., L.R.C.P., District Medical Officer of the Dewsbury Union.

QUINE, A. E., M.B., B.S.Vict., Senior Resident Assistant Medical Officer, Whitechapel Union Infirmary.

RAYMENT, E. W., M.B., C.M.Edin., Certifying Factory Surgeon for the Pewsey District, co. Wilts.

RHODES, T Basil, M.B., B.S.Dunelm., House Governor and Secretary to the North Staffordshire and Eye Hospital, Hartshill, Stoke-on-Trent.

SMAIL, J. A., M.B, B.S.Edin., District Medical Officer of the Rothbury Union.

STEVENS, A. E., M.D Durh., District Medical Officer of the Horsham Union.

THYNE, W., M.D.Edin., Certifying Factory Surgeon for the Barnet District, co. Hertford, and District and Workhouse Medical Officer of the Barnet Union.

TROTTER, T. B., L.R.C.P. and S Edin., District Medical Officer of the Morpeth Union.

WOODMAN, E. M., M.B., B.S.Lond., Assistant Medical Superintendent, St. Pancras Parish Infirmary.

MANCHESTER ROYAL INFIRMARY.—The following reappointments have been made:

Resident Medical Officer, Manchester Royal Infirmary.—F. E. Tylecote, M.D.Vict., M.R.C.P.

Resident Medical Officer, Barnes Convalescent Home.—D. E. Core, M.B., Ch.B.Vict.

Director of the Clinical Laboratory.—G. E. Loveday, M.B., B.C. Cantab., M.R.C.S., L.R.C.P.

Senior Anaesthetist.—A. F. Thompson, M.B., Ch.B.Vict.

Second Anaesthetist.—S. R. Wilson, M.B., B.S.Lond, M.B., Ch.B. Vict.

Junior Anaesthetist.—R. A. H. Atkinson, M.B., Ch.B.Vict.

Medical Officer for Radiography and Electricity Department.—A. E. Barclay, M.A., B.C.Cantab., M.R.C.S., L.R.C.P.

Medical Officers, Central Branch.—J. P. Buckley, B.A Cantab., M.B., B.S.Lond.; J. Morley, M.B., Ch.B.Vict.

Gynaecological House-Surgeon.—F. G. Wrigley, M.B., Ch.B.Vict.

E. B. Leech, M.D.Vict., M.R.C.P., has been appointed Medical Registrar.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTH.

DEANESLY.—On January 27th, at Claremont, Wolverhampton, the wife of Edward Deanesly, F.R.C.S., of a son.

DIARY FOR THE WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 9 p.m.—The First Lettsomian Lecture, to be delivered by Dr. J. S. Risien Russell, on The Cerebellum and Its Affections.

TUESDAY.

ROYAL SOCIETY OF MEDICINE:

SURGICAL SECTION, 20, Hanover Square, 5.30 p.m.—Papers: Mr. E. W. Hey Groves, Radical Operation for Cancer of the Pylorus; Mr. Somerville Hastings, Rupture of the Tunica Vaginalis in Hydroceles.

WEDNESDAY.

HUNTERIAN SOCIETY, London Institution, Finsbury Circus, E.C., 8.30 p.m.—Annual Oration: Dr. R. Fortescue Fox, Some Principles in the Treatment of Chronic Disease.

UNITED SERVICES MEDICAL SOCIETY, Royal Army Medical College, Millbank, 8 30 p.m.—Paper: Major F. J. Wade-Brown, R.A.M.C.: Medical Staff Rides.

THURSDAY.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 11, Chandos Street, Cavendish Square, W., 8 p.m.—Clinical evening.

ROYAL SOCIETY OF MEDICINE:

OBSTETRICAL AND GYNAECOLOGICAL SECTION, 20, Hanover Square, 7.45 p.m.—(1) Exhibition of Specimens. (2) Short Communications: Dr. W. Alexander, Post-peritoneal Haematocele Complicating a Large Uterine Fibroid. Paper: Dr. Hastings Tweedy, Modern Methods of Delivery in Contracted Pelves.

FRIDAY.

ROYAL SOCIETY OF MEDICINE:

CLINICAL SECTION, 20, Hanover Square, 8 p.m.—(1) Demonstration of Clinical Cases. (2) Paper: Dr. Essex Wynter, Aneurysm of the Descending Thoracic Aorta.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Tuesday, 3.45 p.m., Tracheoscopy; Friday, 3.45 p.m., Clinical Pathology.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C., Thursday, 4 p.m.—Demonstration of Selected Medical Cases.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat at noon and 4 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Thursday, and noon, Friday; Eye, 11 a.m., Wednesday and Saturday; Radiography, 4 p.m., Thursday. Special Lectures: Monday, 4 p.m., Indications for Mastoid Operation; Wednesday, 2.15 p.m., Diabetes.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week, at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Ear, Nose, and Throat; Lectures, at 5.15 p.m. each day, will be given as follows: Monday, Removal of Stones from the Ureter; Tuesday, Extra-Genital Chancres; Wednesday, Cases of Mental Disorder; Thursday, Bullous Eruptions.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday and Friday, 3.30 p.m., Clinical Lecture.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics. 2.30 p.m., Medical Out-patient: Nose, Throat, and Ear; 4.30 p.m., Medical In-patient. Tuesday, 10 a.m., Medical Out-patient Clinic; 2.30 p.m., Operations; Clinics: Surgical, Gynaecological; 4.30 p.m., Lecture: Intussusception. Wednesday, 2.30 p.m., Medical Out-patient, Skin and Eye Clinics; *X* Rays. Thursday, 2.30 p.m., Gynaecological Operations; Clinics: Medical Out-patient; Surgical Out-patient; 3 p.m., Medical In-patient. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Eye; 3 p.m., Medical In-patient.

POST-GRADUATE COLLEGE, West London Hospital, Hammersmith Road, W.—The following are the arrangements for next week: Daily, 2 p.m., Medical and Surgical Clinics; *X* Rays; 2.30 p.m., Operations. Monday, Wednesday, and Thursday, 2 p.m., and Saturday, 10 a.m., Diseases of the Eyes. Tuesday and Friday, 10 a.m., Gynaecological Operations; 2 p.m. (and Wednesday and Saturday, 10 a.m.) Diseases of Throat, Nose, and Ear; 2.30 p.m., Diseases of the Skin. Wednesday and Saturday, 10 a.m., Diseases of Children. Wednesday, 2.30 p.m., Diseases of Women. At 10 a.m., Monday and Thursday, Demonstration by Surgical Registrar; Friday, Demonstration by Medical Registrar. At 12 noon, Pathological Demonstration. At 12.15 p.m., Wednesday, Practical Medicine. At 5 p.m., Monday, Practical Surgery; Tuesday, The Serious Valve Diseases of the Heart; Wednesday, Local Anaesthetics; Thursday, Urinary Surgery; Friday, Insanity at the Decline of Life.

PUBLISHERS' ANNOUNCEMENTS.

IN Messrs. Nisbet and Co's list of "new and forthcoming books" the following relate to medicine or the medical profession: *Nisbet's Medical Directory for 1910; Scarlet Fever: A Plea for the Home Treatment and Prevention*, by Robert Milne, M.D.Aber., Medical Officer of Dr. Barnardo's Homes and Hospital. Both these works are said to be now ready. The same firm announces a new series of medical handbooks for the student and the practitioner under the title of *Modern Clinics*. Among these are: *Injuries and Diseases of the Knee-joint, Considered from a Clinical Aspect*, by Sir William H. Bennett, C.B., K.C.V.O., F.R.C.S., with sixteen full-page illustrations; *Common Affections of the Liver*, by W. Hale White, M.D., F.R.C.P.; *Gall Stones and Diseases of the Bile Ducts*, by J. Bland-Sutton, F.R.C.S., with forty-seven illustrations; *Cancer of the Stomach*, by A. W. Mayo Robson, D.Sc., F.R.C.S., with forty-eight illustrations; *Injuries of Nerves and Their Treatment*, by James Sherren, F.R.C.S.Eng., with sixty illustrations.

We have received the first number of a new monthly periodical, entitled *The Perfumery and Essential Oil Record*, which will deal with perfumery and essential oil products and their application, among other things, to the practice of pharmacy. The editor is Mr. John C. Umney, F.C.S., and the publishing offices are at 8, Serle Street, London, W.C.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
FEBRUARY.	
6 Sunday ..	
7 MONDAY ..	LONDON: Standing Ethical Subcommittee, 2 p.m.
8 TUESDAY ..	
9 WEDNESDAY	ALTRINCHAM DIVISION, *Lancashire and Cheshire Branch*, General Meeting, Brooklands Hotel; Business, 4.30 p.m.; Paper, 5.20 p.m.; Dinner, 7 p.m.
10 THURSDAY ..	BEDFORD AND HERTS DIVISION, *South Midland Branch*, General Meeting, Bedford County Hospital, Bedford, 3 p.m. BIRMINGHAM BRANCH, Medical Institute, Edmund Street, 3.30 p.m. SOUTH-WESTERN BRANCH, Intermediate Meeting, Exeter.
11 FRIDAY ..	ISLE OF THANET DIVISION, *South-Eastern Branch*, Royal Sea Bathing Hospital, Margate, 4.15 p.m.
12 SATURDAY ..	
13 Sunday ..	
14 MONDAY ..	
15 TUESDAY ..	
16 WEDNESDAY	CARDIFF DIVISION, *South Wales and Monmouthshire Branch*, Cardiff. LANCASHIRE AND CHESHIRE BRANCH, Meeting of Branch Council, Manchester, 4.30 p.m.
17 THURSDAY ..	LONDON: Metropolitan Counties Branch Council, 4.30 p.m. LAMBETH DIVISION, *Metropolitan Counties Branch*, Medical School, Guy's Hospital, 4 p.m.

Date.	Meetings to be Held.
FEBRUARY *(continued).*	
18 FRIDAY ..	LONDON: Special Poor Law Reform Committee, 2.30 p.m.
19 SATURDAY ..	
20 Sunday ..	
21 MONDAY ..	
22 TUESDAY ..	
23 WEDNESDAY	BATH AND BRISTOL BRANCH, Bath. RICHMOND DIVISION, *Metropolitan Counties Branch*, Royal Hospital, Richmond, 8.30 p.m.
24 THURSDAY ..	
25 FRIDAY ..	BIRMINGHAM BRANCH, Pathological and Clinical Section, Medical Institute, Edmund Street, 8 p.m. CITY DIVISION, *Metropolitan Counties Branch*, conjointly with Aesculapian Society, Metropolitan Hospital, 4 p.m. EDINBURGH BRANCH, Winter Clinical Meeting, Royal Infirmary; Museum, 11 a.m. onwards; Special Clinics during forenoon; Clinical Meeting, 4 p.m.; Dinner, Royal British Hotel, Princes Street, 6.30 p.m. HAMPSTEAD DIVISION, *Metropolitan Counties Branch*, 8.30 p.m.
26 SATURDAY ..	
27 Sunday ..	
28 MONDAY ..	

Printed and Published by the British Medical Association at their Offices, No. 429, Strand, in the Parish of St. Martin-in-the-Fields in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, FEBRUARY 12TH, 1910.

CONTENTS.

	PAGE
Matters Referred to Divisions:	
REPORT OF COUNCIL ON THE RELATION OF HOMOEOPATHS TO THE ASSOCIATION	65
British Medical Association: Proceedings of Council: Minutes. — Apologies. — Deaths. — Journal and Finance Committee. — Organization Committee. — Science Committee. — Central Ethical Committee. — Medico-Political Committee. — Public Health Committee. — Hospitals Committee. — Colonial Committee. — Special Poor Law Reform Committee. — Territorial Forces. — Arrangements Committee. — Candidates. — Public Vaccinators	67
Meetings of Branches and Divisions:	
Lancashire and Cheshire Branch: Bury and Rochdale Divisions	69
" " " " Salford Division	69
Metropolitan Counties Branch: Norwood Division	69
ASSOCIATION NOTICES	70
VITAL STATISTICS	70
NAVAL AND MILITARY APPOINTMENTS	70
VACANCIES AND APPOINTMENTS	71
BIRTHS, MARRIAGES, AND DEATHS	71
DIARY FOR THE WEEK	71
RECENT PUBLICATIONS	72
PUBLISHERS' ANNOUNCEMENTS	72
CALENDAR	72

SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs. BY ORDER.

MATTERS REFERRED TO DIVISIONS.

(For Consideration by Divisions preparatory to discussion in the Annual Representative Meeting.)

CENTRAL ETHICAL COMMITTEE.

REPORT OF COUNCIL ON THE RELATION OF HOMŒOPATHS TO THE ASSOCIATION.

Reference.

The Annual Representative Meeting at Sheffield passed the following Resolution :—

> That it be an instruction to the Council to consider the whole question of the relation of Homœopaths to the Association.

Memorandum.

The Reference entails consideration of the following matters :—

(i) Whether the persons in question may or should be elected Members of the Association ;
(ii) Whether or upon what terms those who are Members should be permitted so to remain ; and
(iii) What degree of professional recognition such persons should receive from Members of the Association.

In regard to the first and second considerations, attention must be given to the past action of the Association and to the position created by the present Regulations, and by the practice of the Central Council and Branch Councils, upon which the Regulations confer a discretion in these matters.

Past Action of the Association.

The older records bearing upon the subject are in some measure imperfect, but the following statement is believed to be accurate so far as it goes :—

In 1851 Resolutions were passed by the Annual General Meeting to the effect that Homœopaths should not be elected as Members of the Association, and disapproval was expressed of any school of medicine retaining any teacher who upheld the teaching of Homœopathy.

In 1852 a Resolution was passed that a clause be included in the By-laws, requiring candidates for election to the Association to state in writing that they neither were, nor intended to become, Homœopaths, but it appears doubtful whether this Resolution was actually given effect to by the necessary amendment of the By-laws being carried out.

In 1858 and 1861 Resolutions were passed by General Meetings repeating and confirming the Resolutions previously adopted on the subject.

It is not clear what action was taken to make the above Resolutions effective, and, before the next recorded act of the Association in connection with this subject, fundamental changes were introduced into its constitution, by the incorporation of the Association as a Limited Company in 1873, and by the adoption of certain By-laws in 1882. These changes would put out of operation any pre-existing Regulation which was not in terms incorporated in the new Regulations.

In 1885 the Council remitted the subject to the Branches, and a plebiscite was taken in each Branch, the result being an expression of opinion that avowed Homœopaths should

not be elected as Members, but that any Members professing Homœopathy should not be expelled. Again, it appears that the expression of opinion was permitted to remain inoperative, the steps necessary to make it legally effective, namely, by an alteration of the By-laws, not being taken.

In 1897 the Council replied to representations from a Branch that every effort was made to prevent the election of Homœopaths, "although there was nothing in the existing By-laws making their election illegal."

Under the regulations at that time in force the Central Council elected "unattached" Members, and it was a rule that the Homœopathic Directory should be searched for the information of the Council.

The above narrative shows that, in the period of the history of the Association prior to the adoption of the new regulations in the year 1902, notwithstanding repeated expressions of opinion adverse to Homœopaths, the legal steps which it was always within the power of the Association to take to exclude such Members absolutely from membership were not taken, the matter being left, as at present, to the discretion of the electing bodies. Moreover, the records have not disclosed any instance of a Member being expelled on the ground of his profession of Homœopathic doctrine or practice as a Homœopath.

Position under the Present Regulations.

When the new constitution was under consideration in the years 1900–1902, no suggestion was made by any Branch for inclusion of any provision against Homœopaths becoming, or remaining, Members, and no provision of the kind was made. The election of new Members is vested unreservedly (*a*) in the Councils of the Branches, as regards those candidates who reside within their respective areas, and (*b*) in the Central Council, as regards those candidates who do not reside within the area of any Branch. The Councils of some Branches do not as a matter of practice elect any person whom they have reason to believe to be practising as a Homœopath.

The only conditions of election laid down by the Regulations are (*a*) that the candidate shall be registered in the Medical Register of the United Kingdom, or (*b*) that, if resident within the area of any Colonial Branch and not registered in the United Kingdom, he shall hold such qualifications, if any, as that Branch shall by its Rules have declared that it will recognise as qualifying for membership.

Concerning the necessity of Medical Registration it is to be noted that the Medical Act expressly provides that the name of no person shall be erased from the Medical Register on the ground of his having adopted any theory of medicine or surgery.

The present regulations therefore contain nothing which would exclude any person from election on the ground of his having adopted Homœopathic or other peculiar theories of medicine or surgery. At the present time some Homœopathic practitioners are Members of the Association, and their Membership, unless terminated by death or resignation, could be terminated only by expulsion. Those whose names appear in the Homœopathic Directory for 1905 included one who is at present a Member of the Birmingham Branch three who are Members of the Lancashire and Cheshire Branch, nine Members of the Metropolitan Counties Branch, three Members of the South-Eastern Branch. and two Members of the South-Western Branch.

Under the regulations expulsion of a Member resident in the United Kingdom must be the joint act of the Branch to which he belongs and of the Central Council. The Colonial Branches have power of expulsion without reference to the Central Council.

Hitherto no Branch has made representations to the Central Council concerning a Member, with a view to his expulsion, on the ground of his profession of Homœopathy or on the ground of any acts, connected with practice a Homœopath, alleged to be unprofessional, nor has any action been taken by the Council of any Colonial Branch on the subject.

Professional Recognition of Homœopaths.

The Association has expressed the following opinion on the subject of consultation, which bears upon the professional recognition of Homœopaths :—

EXTRACT FROM REPORT ON "ETHICS OF CONSULTATION" (ADOPTED BY ANNUAL REPRESENTATIVE MEETING AT SHEFFIELD, 1908).

. . . . . .

4. *Refusal to Meet.*

"It is the duty of a practitioner to refuse to meet in consultation :—

"(*a*) .....

"(*b*) A practitioner whose exclusive profession of any peculiar system of treatment would render consultation futile.

"(*c*) .....

The above is the only matter affecting the professional recognition of Homœopaths upon which the Central Ethical Committee has hitherto had occasion to express an opinion. It is the rule of the Committee not to make general pronouncements, except either as arising out of individual cases brought to its notice, or under specific instructions from the Council or Representative Meeting. No such case has come before it, and, apart from the present reference no such instruction has been received.

Recommendations.

Concerning the future relation of the Association to Homœopaths, the Council recommends :—

(1) That the Association should not attempt to pronounce, in this or in any other connection, what constitutes sound doctrine in medicine or surgery, nor condemn individual practitioners on the ground that they hold peculiar views of pathology or treatment, or give effect to such views in the practice of their profession.

(2) That the Association should express the opinion that it is contrary to the recognised principles of professional conduct for any medical practitioner to advertise the holding of peculiar views of pathology or treatment, or the fact that his practice is based thereon, as a means of attracting to himself patients.

(3) That, accordingly, the Association should express its disapproval of the conduct of those medical practitioners who permit the publication of their names in the Homœopathic Directory or similar compilations, or who make use of door-plates or similar means to intimate to the public that they are guided in their practice by peculiar theories of pathology or treatment.

(4) That if the above recommendations (2) and (3) are approved, practical effect should be given to them by an expression of opinion of the Representative Meeting : (*a*) that it is desirable that the bodies which have the power of electing Members should not elect those who are reasonably believed to have acted unprofessionally in any of the ways stated ; and (*b*) that, concerning those who are already Members, the disciplinary powers of the Council and of the Branches should be duly exercised if, and when, cases of the kind are brought under their notice in conformity with the ordinary Rules of Procedure of the Association in ethical matters.

Association Intelligence.

PROCEEDINGS OF COUNCIL.

AT a Meeting of the Council held at 429, Strand, London, W.C., on Wednesday, January 26th, 1910 at 2 o'clock in the afternoon,

Present:

Mr. EDMUND OWEN, LL.D., London, Chairman of Council, in the Chair.

Sir WILLIAM WHITLA, M.D., Belfast, President.

Mr. H. T. BUTLIN, P.R.C.S., D.C.L., LL.D., London, President-elect.

Dr. SINCLAIR WHITE, Sheffield, Past-President.

Mr. H. A. BALLANCE, M.S., Chairman of Representative Meetings.

Dr. EDWIN RAYNER, Stockport, Treasurer.

Dr. JOHN FORD ANDERSON, London
Dr. JAMES GRANT ANDREW, Glasgow
Inspector-General ROBERT BENTHAM, R.N., ret., London (Representative of Royal Navy Medical Service)
Dr. R. C. BUIST, Dundee
Dr. W. A. CARLINE, Lincoln
Mr. ANDREW CLARK, D.Sc., London
Professor HENRY CORBY, M.D., Cork
Dr. EDWARD CURETON, Shrewsbury
Dr. JAMES DAVISON, Bournemouth
Mr. E. J. DOMVILLE, Exeter
Mr. A. J. DREW, Oxford
Dr. DAVID EWART, Chichester (New Zealand Branch)
Mr. J. H. EWART, Eastbourne
Dr. A. C. FARQUHARSON, Bishop Auckland
Mr. C. E. S. FLEMMING, Bradford-on-Avon
Mr. T. W. H. GARSTANG, Altrincham
Dr. DAVID GOYDER, Bradford
Dr. T. D. GREENLEES, London (Cape of Good Hope, Eastern Province; Cape of Good Hope, Western Province; and Border Branches)
Dr. G. E. HASLIP, London
Sir VICTOR HORSLEY, F.R.S., London
Dr. R. MCKENZIE JOHNSTON, Edinburgh
Mr. R. J. JOHNSTONE, Belfast
Mr. HERBERT JONES, Hereford
Colonel C. H. JOUBERT DE LA FERTÉ, I.M.S., Weybridge (Representative of the Indian Medical Service)
Mr. HUGH R. KER, London
Mr. R. H. KINSEY, Bedford
Mr. F. C. LARKIN, Liverpool
Mr. ALBERT LUCAS, Birmingham
Dr. J. A. MACDONALD, Taunton
Dr. CHARLES MACFIE, Bolton
Dr. D. J. MACKINTOSH, M.V.O., Glasgow
Dr. EWEN J. MACLEAN, Cardiff
Dr. HERBERT MANLEY, West Bromwich
Dr. C. J. MARTIN, F.R.S., London (Sydney and New South Wales Branch)
Dr. J. M. MASON, London (New Zealand Branch)
Dr. C. G. D. MORIER, London (South Australian and West Australian Branches)
Dr. B. H. NICHOLSON, Colchester
Dr. F. M. POPE, Leicester
Dr. T. WHITEHEAD REID, Canterbury
Dr. H. JONES ROBERTS, Penygroes
Mr. W. ST. A. ST. JOHN, Derby
Dr. LAURISTON E. SHAW, London
Lieutenant-Colonel R. J. S. SIMPSON, C.M.G., London (Griqualand West, Natal, and Transvaal Branches)
Dr. W. MITCHELL STEVENS, Cardiff
Mr. C. R. STRATON, Wilton
Dr. J. H. TAYLOR, Salford
Dr. ALEXANDER TROTTER, Perth
Mr. T. JENNER VERRALL, Brighton
Mr. D. J. WILLIAMS, Llanelly
Lieut.-Col. E. M. WILSON, C.B., C.M.G., South Farnborough (Representative of the Army Medical Service)

MINUTES.

The Minutes of the last Meeting, held on October 27th, 1909, having been printed and circulated, and no objections having been received, were duly confirmed.

APOLOGIES.

Letters of apology for non-attendance were received from Mr. J. Ward Cousins, Mr. G. Young Eales, Dr. George Edmond, Dr. Wm. Hall, Dr. C. H. Milburn, Dr. J. Munro Moir, Dr. T. G. Nasmyth, Dr. Cecil E. Shaw, Dr. D. F. Todd, Dr. Denis Walshe, and Professor A. H. White.

DEATHS.

The replies to Resolutions of Condolence passed by the Council upon the deaths of Dr. Radcliffe Crocker, Dr. Bridgwater, and Dr. Rayner Batten, were read and ordered to be entered on the Minutes.

JOURNAL AND FINANCE COMMITTEE.

The TREASURER presented the Minutes of the Journal and Finance Committee of January 19th, 1910.

Reports relating to the issue of the SUPPLEMENT to Non-Members; the control of advertisements in the JOURNAL; the proposed issue of an Accident Policy; and the duties of the Secretariat, were approved and adopted.

Consequent upon the success and continued sale of the book, *Secret Remedies*, a further edition is to be printed.

The accounts for the quarter ending December 31st last, amounting to £13,050 0s. 6d., were approved, and the Treasurer was empowered to pay those remaining unpaid, amounting to £4,095 13s. 2d.

The remainder of the Minutes were approved.

ORGANIZATION COMMITTEE.

Mr. ANDREW CLARK presented the Report of the Organization Committee of December 7th, 1909, and January 7th, 1910.

The Council proposes to request the Branches to approach the Officials of the Medical Students' Unions or Societies, suggesting the desirability of Addresses being given at their Meetings on Medico-Political or Medico-Ethical subjects, and that the Branches be informed that the Organization Committee will be prepared to arrange for speakers if required.

In the event of the formation of a British Medical Association Student's Union, and whenever the Association's General Meeting is in a University town, members of the Union will be eligible for all the social functions, and a special Meeting to discuss some matter of common interest to students will be arranged.

In the event of the formation of such a Union not being completed by the time of the Annual Meeting of 1910, the local Executive Committee of the London Meeting will be requested to make some arrangement for the admission of medical students to social functions.

Each Colonial Division having an Honorary Secretary and the necessary organization is granted separate Representation in Representative Meetings for the year 1910–11.

In exercise of the power conferred upon it under By-law 24 of the Association, the Council adopted the scheme for the grouping of Branches in the United Kingdom for the election of Members of the Central Council, both under By-law 25 and By-law 27 for the year 1910–11.

Also, the Council adopted the scheme of grouping of Branches outside the United Kingdom for the election of seven Members of the Central Council for the year 1910–11. It will be pointed out to the Branches in question that if they consider any change desirable for future years, notice should be given as soon as possible, in order that the matter may be considered by the Annual Representative Meeting of 1910.

A Supplementary Grant of £10 was made to the Guernsey and Alderney Division towards the expenses of a Division Library, with a request that the Division furnish full details of the way in which the money is spent.

On the Motion that the remainder of the Report be approved, an Amendment was moved by Dr. MCKENZIE JOHNSTON, seconded by Mr. DOMVILLE, that the Council regrets that the clauses submitted by the Organization Committee to the Privy Council do not go sufficiently far to meet the objections that have been raised to the Draft Charter, and that otherwise the remainder of the Report be approved. The Amendment was put and declared lost. The remainder of the Report was then approved.

SCIENCE COMMITTEE.

Dr. POPE presented the Report of the Science Committee of January 8th, 1910.

To give effect to Minute 238 of the Annual Representative Meeting, 1909, the Council decided (i) to call the attention of Divisions and Branches to the fact that it is open to them to request any of their Members to take part in the proceedings of any

Section, and (ii) to report to the next Annual Representative Meeting that this action has been taken.

To give effect to Minute 240 of the Annual Representative Meeting, 1909, the Council will report to the next Annual Representative Meeting that the Library already opens an hour earlier than any other medical library; that there is no evidence of a general desire for the proposed change, the approximate cost of which would be £100 per annum; and that the only way of estimating the popularity of such an extension of time would be to keep the Library open until 8 p.m. for a trial period.

The Council authorized the lending of the books referred to in the Report of the Science Committee, and that lists of the whole of the books in the Library available for lending be printed, and that they be supplied to Members requiring them at the price of 1s. each, postage free.

Dr. Grant Andrew was appointed a member of the Science Committee, *vice* Dr. Nasmyth, resigned.

The remainder of the Report was approved.

[The Chairman of Council vacated the chair, which was thenceforth occupied by the TREASURER.]

CENTRAL ETHICAL COMMITTEE.

Dr. MACLEAN presented the Report of the Central Ethical Committee of January 7th and January 12th, 1910.

With reference to the instruction of the Annual Representative Meeting at Sheffield to report on the whole question of the relation of Homœopaths to the Association, the Council adopted the Report submitted by the Central Ethical Committee for circulation to the Divisions (see SUPPLEMENT, p. 65) and submission to the next Annual Representative Meeting.

The Council approved emendations of the Report on the Ethics of Consultation submitted by the Central Ethical Committee, as giving effect to instructions contained in Minutes 38–40 of the Representative Meeting, 1909.

The Hampstead Hospital Dispute.

It was decided, *nemine contradicente*, that no further action be taken in respect of three Members in the matter of the Hampstead General Hospital dispute.

The Council expressed its concurrence in the following Resolution of the Metropolitan Counties Branch:

> That the Council, recognizing that Dr. Knowsley Sibley has loyally observed the Rules of the Association in the matter of the Hampstead Hospital appointment, desires to express its sympathy with him in the position in which he has been placed.

The remainder of the Report was approved.

MEDICO-POLITICAL COMMITTEE.

Dr. MACDONALD presented the Report of the Medico-Political Committee of January 5th, 1910.

The Council approved of a Conference of representatives of the Association with representatives of the British Pharmaceutical Conference being held.

A Model Scheme, submitted by the Committee, of arrangements for the notification and treatment of cases of Ophthalmia Neonatorum in areas in which it is made a notifiable disease was approved, and will be issued forthwith to the Divisions for their consideration and guidance.

The following definitions of the terms "support" of the Association, and "approval" by the Association, will be added to the Regulations of the Central Emergency Fund:—

By the terms "support" of the Association, and "approval" by the Association, shall be understood:

Support promised, and approval given, by

(i) The Representative Meeting of the Association; or

(ii) The Council of the Association; or

(iii) Any Standing Committee of the Association or Special Committee appointed by the Representative Meeting or Council, or Sub-committee of such Committee, acting under the authority of a Resolution of the Representative Meeting or Council; or

(iv) Any Branch or Division acting under the authority of a Resolution of the Representative Meeting or Council, or on behalf of a Central Standing Committee or Special Committee acting under such authority.

The remainder of the Report was approved.

PUBLIC HEALTH COMMITTEE.

Mr. DOMVILLE presented the Report of the Public Health Committee of January 11th, 1910.

The Public Health Committee was authorized to proceed with the drafting of a Bill for the Superannuation of Public Health Officers.

The Council desires to point out, for the information of Members generally, that the Association has uniformly supported, in any disputes with Local Authorities, individual Medical Officers of Health, irrespective of whether they were part-time or whole-time officers; that the intention of the Members of the Association has been uniformly expressed in favour of the continuance in office of the present holders of part-time appointments, subject, of course, as in the case of the Poor Law Medical Officers, to the exigencies of the public service; and that the term "future appointments," contained in Minute 234 of the Annual Representative Meeting, 1909, is understood by the Council to apply only in case of vacancies caused by voluntary retirement of the present holders of appointments.

The remainder of the Report was approved.

HOSPITALS COMMITTEE.

Dr. LAURISTON SHAW presented the Report of the Hospitals Committee of January 6th, 1910, which was approved.

COLONIAL COMMITTEE.

Dr. MORIER presented the Report of the Colonial Committee of January 10th, 1910, which was approved.

SPECIAL POOR LAW REFORM COMMITTEE.

Dr. MACDONALD presented the Report of the Special Poor Law Reform Committee of November 5th, December 3rd and 22nd, 1909, and January 12th, 1910.

The Council expressed the opinion that any system of Medical Assistance, to prove satisfactory to the ratepayers, the beneficiaries, or to the medical profession, must include the following principles:

(i) That medical services rendered on behalf of the State should be paid for by the State.

(ii) That the payment should be adequate and in accordance with the professional services required.

(iii) That there should be adequate medical representation on all Committees formed to control Medical Assistance.

The Interim Report to the Divisions was approved. [This Report was published in the SUPPLEMENT of February 5th, p. 41.]

The remainder of the Report was approved.

TERRITORIAL FORCES.

Mr. ANDREW CLARK presented the Report of the Territorial Forces Committee of December 7th, 1909, and January 7th, 1910.

The Council decided that, in the opinion of the Association, no medical man should be expected to give instruction in First Aid and Field Nursing without suitable remuneration, but that officers in command of Voluntary Aid Detachments should keep their Detachments efficient without remuneration. This opinion will be circulated forthwith to the Honorary Secretaries of Divisions, with the request that the Divisions take suitable action. At the same time, the Divisions will be asked what action, if any, they have taken with reference to the Resolution on Ambulance Work of the Representative Meeting, 1905 (Leicester Meeting).

The remainder of the Report was approved.

ARRANGEMENTS COMMITTEE.

The CHAIRMAN OF COUNCIL reported the action taken by this Committee, which was duly approved.

CANDIDATES.

The eight Candidates whose names appeared on the Notice convening the Meeting were elected Members of the British Medical Association.

PUBLIC VACCINATORS.

The vote of thanks accorded to the British Medical Association for the help rendered by it to the Association of Public Vaccinators of England and Wales during the past year was received and ordered to be entered on the Minutes.

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

LANCASHIRE AND CHESHIRE BRANCH:

BURY AND ROCHDALE DIVISIONS.

A JOINT meeting of these two Divisions was held on February 1st in the Athenaeum, Bury. Dr. DEANS, Chairman of the Bury Division, presided.

Confirmation of Minutes.—The minutes of the last joint meeting were read and approved.

Apology for Absence.—A letter of apology was read from Dr. Thorp, the Chairman of the Rochdale Division.

Report of Representative Meeting.—Dr. BROWN gave an interesting account of the work of the Belfast Meeting, and a vote of thanks was accorded to him for his services.

Part-time Appointments.—The question of the undesirability of the appointments of medical officers of health and school inspectors being held by general practitioners was discussed, and it was resolved:

That in small towns and districts where it is impossible to appoint a whole-time school inspector the Board of Education should be asked to instruct the part-time officer particularly to refer cases for treatment to their private practitioner.

Election of Representatives.—Dr. Brown (Bacup) was elected Representative and Dr. Taylor (Heywood) Deputy Representative for the Annual Meeting.

Infamous Conduct.—The question of degrees of punishment for degrees of infamous conduct was raised, and the Representatives were instructed to bring the matter forward at the next meeting of the Branch Council.

Payment under Midwives Act.—The Secretary was instructed to write to the Town Clerk of Bury supporting the circular letter of the Manchester Corporation.

SALFORD DIVISION.

A MEETING of this Division was held at the Grosvenor Hotel, Manchester, on January 27th. Dr. A. C. CLARKE was in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Action of Executive Committee.—A resolution was passed unanimously approving and endorsing the action of the Executive Committee in connexion with the dispute about Hope Hospital.

Research Defence Society.—A letter was read from Mr. Stephen Paget, Honorary Secretary of the Research Defence Society, and the Honorary Secretary of the Division was appointed to correspond.

The Representative Meeting.—Dr. TAYLOR, as the Division Representative at the Annual Meeting, gave a short summary of the work of the Representative Meeting at Belfast, and was accorded a vote of thanks for his services. He was also unanimously elected to represent the Division at the London meeting.

Hope Hospital.—The HONORARY SECRETARY read letters which he had sent to the Salford Board of Guardians, in which he asked for information as to the intentions of the guardians with regard to appointments of a medical superintendent and resident medical officers at Hope Hospital. The reply from the clerk to the guardians was to the effect that the guardians "had no observations to make." This amounted to a refusal of all information. It was then unanimously resolved that until satisfactory confirmation is obtained of the report that the guardians intend to appoint a medical superintendent on satisfactory terms, the *Warning Notice* shall be continued in the JOURNAL. It was further resolved to forward a copy of the Honorary Secretary's letters asking for information to the Local Government Board, with the reply from the guardians, as showing that the guardians have refused necessary information to the profession. A subcommittee was also appointed to consult with the present visiting medical officer of Hope Hospital, with a view to obtain for him, if possible, satisfactory compensation for the determination of his appointment which has resulted from the new arrangements at Hope Hospital.

A Special Class of Consultants.—This report of the Central Ethical Committee was considered, and it was resolved unanimously:

That the recognition of a special class of consultants on the lines indicated by the report is not practicable at present, and the Division is not in favour of the Association prescribing regulations for the purpose.

Hospital Treatment of School Children. — The Secretary was instructed to forward to the Salford Education Authorities and to the Salford Royal Hospital a copy of the resolution of the Association which opposes the sending of school children found defective to charitable hospitals for treatment.

METROPOLITAN COUNTIES BRANCH:

NORWOOD DIVISION.

A MEETING o this Division was held at the Home and Hospital for Sick Children, Lower Sydenham, on January 27th, at 4 p.m., Dr. W. F. UMNEY in the chair; seventeen members were present.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

The late Dr. J. H. Wells.—Mr. HERBERT TANNER urged the members of the Division to contribute as largely as possible to the fund now being raised on behalf of the widow and children of the late Dr. J. H. Wells, and it was decided to issue a circular to all members of the Division with the next notice of meeting.

Special Class of Consultants.—After some discussion of the Report of the Central Ethical Committee on a Special Class of Consultants, the Honorary Secretary was directed to reply to Question A, "Yes"; to Question B, "This Division does not consider this practicable." Further, it was resolved, on the motion of Dr. SWAYNE, seconded by Dr. BURGESS:

That this Division, while approving of the Report, and agreeing that much overlapping of professional work undoubtedly results, sees many difficulties in the way of publishing lists of special consultants. It, however, considers that the subject is worthy of further consideration.

Demonstration.—Dr. G. BATTEN gave a most interesting demonstration on the preparation and method of using solid CO_2, and illustrated the method by treating cases of port wine naevus and warts.

Inspection of Wards and Buildings.—The hospital was open for inspection.

Next Meeting.—It was decided to hold the next meeting at Streatham on February 24th at 4 p.m.

ANNUAL SUBSCRIPTION, 1910.

MEMBERS are reminded that the Annual Subscription, amounting to 25s., is now due.

Cheques or Postal Orders should be made payable to the British Medical Association, and crossed London County and Westminster Bank.

In the case of Colonial Members the subscription should be paid to the Honorary Treasurer of their respective Branches.

☞ *To ensure the insertion of notices in this column, they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

Association Notices.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH: BATH DIVISION.—The next meeting of this Division will be held on Friday, February 18th, at the Royal United Hospital, Bath, at 5 p.m. Agenda: Model Rules of a Public Medical Service; Medical Treatment of School Children.—D. LESLIE BEATH, Honorary Secretary.

EDINBURGH BRANCH.—The winter clinical meeting of the Edinburgh Branch will be held in the Royal Infirmary, on Friday, February 25th. The other Scottish Branches have as usual been invited to join in the meeting. The museum will be open from 11 a.m. onwards. Arrangements will be made for holding special clinics during the forenoon. The clinical meeting will be held in the Royal Infirmary, at 4 p.m. Dinner in the Royal British Hotel, Princes Street, at 6.30 p.m., morning dress; dinner ticket, 5s. Members who have patients, specimens, etc., for exhibition, are requested to communicate with the Senior Secretary not later than February 16th.—FRANCIS D. BOYD, MICHAEL DEWAR, Honorary Secretaries.

GLOUCESTERSHIRE BRANCH.—A general meeting of the Branch will be held at the General Hospital, Cheltenham, on Thursday, February 17th, 1910, at 7 p.m. Agenda:—(1) Minutes of last meeting. (2) Mr. C. L. Coode: An Abdominal Emergency. (3) Dr. S. T. Pruen: Further Notes on Strokes. (4) Mr. J. Howell: Paper, Acute Peritonitis. The Secretary will be pleased to hear from any member who will show cases or pathological specimens at future meetings during this session. There will be a supper afterwards at the Cosy Corner, Promenade (tickets 3s. 6d. each, exclusive of wine).—D. E. FINLAY, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH.—The Branch Council will meet in Manchester on Wednesday, February 16th, at 4.30 p.m.—F. CHARLES LARKIN, Branch Secretary.

LANCASHIRE AND CHESHIRE BRANCH: WARRINGTON DIVISION.—A scientific meeting will be held at the Infirmary, Warrington, on Tuesday, February 22nd, at 8 30 p.m. Dr. O. T. Williams, Assistant Physician, Royal Infirmary, Liverpool, will read a paper entitled, "Aids to the Diagnosis and Treatment of Epidemic Cerebro-spinal Fever (Spotted Fever)."—T. A. MURRAY, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—The next meeting of the City Division will be held conjointly with the Aesculapian Society at the Metropolitan Hotel, Kingsland, N.E., on Friday, February 25th, at 4 p.m., when the alterations and improvements to the hospital will be on view.—A. G. SOUTHCOMBE, M.D., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: LAMBETH DIVISION.—A meeting of this Division will take place on Thursday, February 17th, in the Medical School, Guy's Hospital, at 4 p.m., when Dr. H. S. French will read a paper upon Some Forms of Pyuria. There will be a demonstration of cases from the wards by the Medical and Surgical Registrars. The museum, library, and school buildings will be open for inspection.—H. CHARLES CAMERON, Honorary Secretary.

METROPOLITAN COUNTY BRANCH: RICHMOND DIVISION.—A special meeting of this Division will be held at the Royal Hospital, Richmond, on Wednesday, March 2nd, at 4 o'clock, p.m.—G. CARDNO STILL, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: ST. PANCRAS AND ISLINGTON DIVISION.—An ordinary meeting of this Division will be held on Friday, February 18th, in Theatre No. 1, University College Hospital Medical School, at 9 p.m. Dr. E. W. Goodall will give an address "On Some Points in the Diagnosis of the Common Eruptive Infectious Diseases."—A. BROWN, Honorary Secretary.

SOUTH-EASTERN BRANCH: FOLKESTONE DIVISION.—Preliminary Notice:—A meeting will take place on Thursday, March 3rd. All members of the Association are invited to attend and to introduce professional friends. Agenda: (1) Minutes. (2) A paper will be read by Dr. Eastes on "Gall Stones." (3) Association Business.—P. VERNON DODD, M.D., Honorary Secretary.

STAFFORDSHIRE BRANCH.—The second general meeting of the session will be held at the North-Western Hotel, Stafford, on Thursday, February 24th, 1910. The President will take the chair at 5.15 p.m. Business: (1) Minutes of the last ordinary general meeting. (2) Correspondence. (3) Exhibition of Living Cases. (4) Paper, "Bedside Manners of Prominent London Physicians and Surgeons of To-day," by C. M. Mitchell, Esq. (5) Paper, "Some Problems of Medical Inspection of Elementary Schools," by John Priestley, Esq. (6) Exhibition of Pathological Specimens, etc. Dinner, 7.15 p.m.; charge 5s.—G. PETGRAVE JOHNSON, Stoke-on-Trent, Honorary Secretary.

YORKSHIRE BRANCH: LEEDS DIVISION.—A meeting of this Division will be held in the Women and Children's Hospital, Leeds, at 4 p.m., on Tuesday, February 15th. Those who have any communications to make, or cases or specimens to show, should send notice of their intention to Dr. Sharp, Cavendish Road, Leeds.—JAMES ALLAN, Honorary Secretary.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,420 births and 5,436 deaths were registered during the week ending Saturday last, February 5th. The annual rate of mortality in these towns, which had been 14.9, 14 8, and 16.3 per 1,000 in the three preceding weeks, further rose last week to 17.0 per 1,000. The rates in the several towns ranged from 6.0 in East Ham, 8.0 in King's Norton, 9.1 in Willesden, 11.1 in Hornsey and in Reading, and 11.5 in Handsworth (Staffs), to 21.1 in Coventry and in Bury, 21.2 in Blackburn, 21.3 in Hastings and in Tynemouth, 21.4 in Stockton-on-Tees, 22.3 in Liverpool, 23.7 in Barrow-in-Furness and in Swansea, and 31.4 in Hanley; in London the rate of mortality was 17 2 per 1,000. The death-rate from the principal infectious diseases averaged 1.1 per 1,000 in the 76 towns; in London these diseases caused a death-rate of 1.2 per 1,000, while in the other towns the rates ranged upwards to 2.6 in Merthyr Tydfil, 2 8 in Burton-on-Trent, 2.9 in Burnley, 3.0 in Hanley, 3.3 in Barrow-in-Furness, 3.9 in Newport (Mon.), 5 3 in Hastings, and 5 7 in West Hartlepool. Measles caused a death-rate of 1.5 in West Bromwich, 1 6 in Swansea, and 3 0 in Hastings; scarlet fever of 1.0 in Stockport and in Burnley, 1.1 in St. Helens, and 1.3 in Coventry; diphtheria of 1.1 in Salford, 1.2 in King's Norton, 1.5 in Hanley, and 1.9 in West Hartlepool; whooping-cough of 2 2 in Smethwick, 2.3 in Hastings, 2.5 in Barrow-in-Furness, 2.8 in Burton-upon-Trent, 3 8 in West Hartlepool, and 3.9 in Newport (Mon.); and diarrhoea of 1.2 in Rochdale. The mortality from enteric fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The Metropolitan Asylums Hospitals contained 2 small-pox patients at the end of last week, against 5, 4, 3, and 2 on the four preceding Saturdays. The number of scarlet fever patients under treatment in these hospitals and in the London Fever Hospital, which had been 2,172, 2,069, and 1,993 at the end of the three preceding weeks, had further declined to 1,937 at the end of last week; 213 new cases were admitted during the week, against 200, 204, and 193 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday last, February 5th, 926 births and 744 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 16.7, 15.5, and 19.1 por 1,000 in the three preceding weeks, further rose last week to 20 5 per 1,000, and was 3.5 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scottish towns the death-rates ranged from 15.4 in Perth and 17.4 in Aberdeen to 26.4 in Dundee and 29.8 in Greenock. The death-rate from the principal infectious diseases averaged 2.8 per 1,000, the highest rates being recorded in Glasgow and in Greenock. The 343 deaths registered in Glasgow included 37 which were referred to measles, 7 to scarlet fever, 8 to diphtheria, 5 to whooping-cough, 2 to enteric fever, and 8 to diarrhoea. Six fatal cases of measles, 3 of scarlet fever, 2 of diphtheria, and 4 of diarrhoea were recorded in Edinburgh; 2 of diphtheria and 3 of diarrhoea in Dundee; 2 of diphtheria in Aberdeen; 2 of whooping-cough in Leith; and 2 of measles in Greenock.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, February 5th, 694 births and 552 deaths were registered in the twenty-two principal urban districts of Ireland, as against 543 births and 467 deaths in the preceding period. The annual death-rate in these districts, which had been 22.3, 19.1, and 21.1 per 1,000 in the three preceding weeks, rose to 25.0 per 1,000 in the week under notice, this figure being 8.0 per 1,000 higher than the mean annual death-rate in the seventy-six English towns for the corresponding period. The figures in Dublin and Belfast were 29.8 and 22.0 respectively, those in other districts ranging from 4.0 in Dundalk and 10.6 in Tralee to 33.0 in Queenstown and 51.5 in Newtownards, while Cork stood at 31.5, Londonderry at 14.4, Limerick at 27.3, and Waterford at 21.4. The zymotic death-rate in the twenty-two districts averaged 1.5 per 1,000, as against 1.4 per 1,000 in the preceding period.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

SURGEONS OSWALD MILLS, L. M. MORRIS, A. K. SMITH-SHAND, M.B., W. H. MUMMERY, JOHN FULLARTON, M.B., W. N. L. CHERRY, and T. W. MYLES, M.B., B.A., are promoted to be Staff Surgeons, February 8th. Their first appointment bears date February 8th, 1902.

The following appointments have been made at the Admiralty:—Fleet Surgeon R. MILLER, M.B., and Staff Surgeon W. W. KEIR, M.B., to the *London*, on recommissioning, February 8th; Staff Surgeon P. K. NIX, M.B., to the *Téméraire*, January 31st; Fleet Surgeon J. MENARY, M.D., and Staff Surgeon J. MARTIN, to the *Magnificent*, on recommissioning, February 8th, and to the *Bulwark*, on becoming the flagship, undated; Staff Surgeon E. F. ELLIS to the *Wildfire*, February 7th; Staff Surgeon H. W. B. SHEWELL, M.B., to the *Arrogant*, February 2nd; Staff Surgeon H. L. NORRIS to the *Vivid*, additional, for disposal, February 2nd; Staff Surgeon G. M. EASTMENT to the *Pembroke*, additional, for disposal, February 7th; Surgeon W. HUTCHESON, M.B., to the *Redbreast*, additional, February 2nd, and on recommissioning, undated; Surgeon W. G. EDWARDS to the *Black Prince*, February 2nd; Fleet Surgeon E. C. CRIDLAND, M.B., to the

Illustrious, on recommissioning, February 15th; Surgeon G. C. CROSS to the *Argyll*, on recommissioning, February 8th; Staff Surgeon H. L. NORRIS, lent to the Royal Naval College, Osborne, February 5th.

TERRITORIAL FORCE.

For Attachment to Units other than Medical Units.—Surgeon Major J. W. NICHOLSON, from the 5th Battalion the Lincolnshire Regiment, to be Major, with precedence as from January 28th, 1909, December 24th, 1909. Surgeon-Captain J. M. DUNCAN, M.B., from the 5th Battalion the Lincolnshire Regiment, to be Captain, with precedence as from July 4th, 1903, December 24th, 1909. HAROLD L. HESLOP, M.D., to be Lieutenant, January 11th.

Vacancies and Appointments.

VACANCIES.

ABERDEEN SCHOOL BOARD.—Assistant Medical Officer. Salary, £250 per annum.

BELFAST: FORSTER GREEN HOSPITAL FOR CONSUMPTION AND CHEST DISEASES.—Resident Physician. Salary at the rate of £150 per annum.

BIRMINGHAM: GENERAL HOSPITAL.—House-Surgeon for six months, eligible for re-election. Salary, £50.

BOLINGBROKE HOSPITAL, Wandsworth Common, S.W.—Ophthalmic Surgeon.

BRADFORD ROYAL INFIRMARY.—(1) Two House-Surgeons; (2) House-Physician. Salary, £100 per annum each.

BRIGHTON: ROYAL ALEXANDRA HOSPITAL FOR SICK CHILDREN.—(1) House-Surgeon. Salary at the rate of £80 per annum. (2) Honorary Skiagrapher.

BRISTOL ROYAL INFIRMARY.—(1) Two House-Physicians; (2) One House-Surgeon; (3) One Obstetric and Ophthalmic House-Surgeon; (4) One Throat, Nose, and Ear House-Surgeon; (5) One Casualty Officer; (6) Honorary Dental Anaesthetist; (7) Honorary Assistant Dental Surgeon. Salary for (1) and (2) £100 per annum, for (3) and (4) £75 per annum, and (5) £50 per annum.

BUENOS AIRES: BRITISH HOSPITAL.—(1) Senior Resident Medical Officer, salary, £250 per annum, rising to £300; (2) Assistant Resident Medical Officer, salary, £200 for first year and £225 for second.

CAMBRIDGE: ADDENBROOKE'S HOSPITAL.—House-Physician. Salary at the rate of £60 per annum.

CANCER HOSPITAL, Fulham Road, S.W.—Medical Officer in charge of Electrical Department. Honorarium, £26 5s. per annum.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—House-Physician. Salary, £70 per annum.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Registrar.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Pathologist. Salary, 100 guineas per annum.

DORSET COUNTY HOSPITAL, DORCHESTER.—House-Surgeon. Salary, £100 per annum.

EASTERN DISPENSARY, Leman Street, E.—Physician Accoucheur. Honorarium, £25.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—(1) Surgeon; (2) Assistant Surgeon; (3) Ophthalmic Surgeon.

EXETER: ROYAL DEVON AND EXETER HOSPITAL.—Assistant House-Surgeon (male). Salary, £60 per annum.

HARROGATE INFIRMARY.—House-Surgeon. Salary, £75 per annum.

KETTERING AND DISTRICT GENERAL HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

KING WILLIAMSTOWN, CAPE OF GOOD HOPE: GREY HOSPITAL.—Resident House-Surgeon. Salary at the rate of £250 per annum.

LEAMINGTON: WARNEFORD, LEAMINGTON, AND SOUTH WARWICKSHIRE GENERAL HOSPITAL.—(1) Two Resident Medical Officers; salary, £100 and £65 per annum respectively. (2) Honorary Ophthalmic Surgeon.

LEICESTER INFIRMARY.—Assistant House-Surgeon. Salary at the rate of £60 per annum.

MACCLESFIELD GENERAL INFIRMARY.—(1) Senior House-Surgeon; (2) Junior House-Surgeon. Salary, £100 and £60 per annum respectively.

MANCHESTER: COUNTY ASYLUM, PRESTWICH.—Junior Assistant Medical Officer. Salary, £150 per annum, increasing to £250.

NEWCASTLE-ON-TYNE EYE INFIRMARY.—House-Surgeon (non-resident). Salary, £100 per annum.

NEWPORT AND MONMOUTHSHIRE HOSPITAL.—House-Surgeon. Salary, £60 per annum.

NORTHAMPTON GENERAL HOSPITAL.—House-Surgeon (male). Salary, £90 per annum, increasing to £100.

PLAISTOW: ST. MARY'S HOSPITAL FOR WOMEN AND CHILDREN.—Assistant Resident Medical Officer. Salary at the rate of £80 per annum.

ROTHERHAM HOSPITAL.—Senior House-Surgeon (male). Salary, £110 per annum.

ROYAL LONDON OPHTHALMIC HOSPITAL, City Road, E.C.—Assistant Surgeon.

ROYAL NATIONAL ORTHOPAEDIC HOSPITAL, Great Portland Street, W.—Surgical Registrar. Honorarium, £105.

SHEFFIELD UNIVERSITY.—Junior Demonstrator of Pathology. Salary, £150 per annum.

SHERWOOD FOREST SANATORIUM FOR CONSUMPTION, near Mansfield.—Resident Medical Officer (female). Salary, £100 per annum.

SHREWSBURY BOROUGH.—Medical Officer of Health. Salary, £500 per annum.

SOUTHAMPTON FREE EYE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

SWANSEA GENERAL AND EYE HOSPITAL.—House-Surgeon, Salary, £75 per annum and £12 allowance for holiday locum.

TOXTETH PARK TOWNSHIP WORKHOUSE AND INFIRMARY.—Assistant Resident Male Medical Officer. Salary, £100 per annum.

WEST END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM, PARALYSIS, AND EPILEPSY, Welbeck Street, W.—In-patients' Physician.

WEST HAM UNION.—Third Assistant Medical Officer for the Infirmary. Salary, £120 per annum.

WEST LONDON HOSPITAL, Hammersmith Road, W.—(1) Two House-Physicians; (2) Three House-Surgeons.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces a vacancy at Rostrevor, co. Down.

APPOINTMENTS.

HARCOURT, C. Harold, M.B., Ch.B.Birm., M.R.C.S.Eng., L.R.C.P.Lond., Surgical Casualty Officer to the General Hospital, Birmingham.

STEVENS, A. N., M.R.C.S., L.R.C.P.Lond., D.P.H.Camb., Medical Officer of Health, Borough and Port of Great Yarmouth.

STEVENSON, James, M.B., Ch.B.Glasg., Medical Officer for the Eastern District of Clydebank, vice Dr. James Stevenson, deceased.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

GOWLAND.—On February 4th, at 1, Clegg Street, Oldham, to Dr. and Mrs. Gowland a son.

SHARP.—On February 7th, 1910, at Brant Broughton, Newark-on-Trent, the wife of Percy Sharp, L.R.C.P., M.R.C.S., L.S.A., of a daughter.

URQUHART.—On February 6th, at Aberfeldy House, Shepperton-on-Thames, Middlesex, the wife of Alex. Urquhart, M.A., M.D., D.P.H., of a son.

DEATHS.

CROMPTON—On the 29th ult., at Nelson House, Manchester, Harold J. Crompton, M.D., D.P.H., Resident Medical Officer, Prestwich County Asylum, aged 37 years.

MURRAY.—February 1st, 1910, at 3, College Square, East Belfast, Margaret W., wife of Dr. H. Buchanan Murray. Interment on 4th inst.

PARSONS.—On February 3rd, at Hillymead, Seaton, Devon, Dr. Frederick William Parsons, late of Wimbledon, aged 66.

DIARY FOR THE WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Papers:—Dr. A. H. N. Lewers: A Case of Panhysterectomy for Carcinoma of the Body of the Uterus, in which an Infiltrated Portion of the Bladder was Removed. Dr. Victor Bonney: Treatment of Uterine Haemorrhage.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Professor Arthur Keith: The Anatomy of the Negro and Negroid Races.

TUESDAY.

MEDICO-LEGAL SOCIETY, 11, Chandos Street, W., 8.15 p.m.—Papers:—J. Howell Evans, F.R.C.S.: The Value of the Ear in Identification. James Scott, M.B., Governor of H.M. Prison, Holloway: The Death Penalty.

ROYAL SOCIETY OF MEDICINE:
PATHOLOGICAL SECTION, 20, Hanover Square, W., 8.30 p.m.—Papers:—Dr. H. R. Dean: A Note on Some of the Factors concerned in Serum Diagnosis of Syphilis. Mr. E. Groves: A Case of Spontaneous Fracture arising from a Condition of Osteitis of Obscure Nature. Mr. S. G. Shattock and Mr. L. S. Dudgeon: Experiments in Grafting Fetal Cartilage.

WEDNESDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Professor Arthur Keith: The Anatomy of the Negro and Negroid Races.

THURSDAY.

HARVEIAN SOCIETY OF LONDON, Stafford Room, Titchborne Street, Edgware Road, W., 8.30 p.m.—Paper:—Mr. Gay French: Some Points on Middle-Ear Suppuration, its Sequelae and Treatment.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—First Milroy Lecture, by Mr. A. G. R. Foulerton: The Streptotrichoses and their Relation to Tuberculosis.

ROYAL SOCIETY OF MEDICINE:
DERMATOLOGICAL SECTION, 20, Hanover Square, W., 5 p.m.—Demonstration of Clinical Cases.

FRIDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Professor Arthur Keith: The Anatomy of the Negro and Negroid Races.

ROYAL SOCIETY OF MEDICINE:
ELECTRO-THERAPEUTICAL SECTION, 20, Hanover Square, W., 8.30 p.m.—Papers:—Dr. Thurstan Holland: Points in the Diagnosis of Ureteral Calculi. Dr. Howard Humphris: The Static Wave Current and Other Forms of Static Electricity.

POST-GRADUATE COURSES AND LECTURES.

BROMPTON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, S.W.—Wednesday, 4 p.m.—Fibroid Lung.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Lectures: Tuesday, 3.45 p.m., External Ear and Labyrinth; Thursday, 4.30 p.m., When to Operate in Middle-Ear Suppuration; Friday, 3.45 p.m., External Ear and Labyrinth.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2 15 p.m. and 3 15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat at noon and 4 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p m., Thursday, and noon Friday; Eye, 11 a.m., Wednesday and Saturday; Radiography, 4 p m., Thursday. Special Lectures: Monday, 2.15 p.m., Burns; Tuesday, 2.15 p.m., Anaemia.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Ear, Nose, and Throat. Lectures at 5 15 each day will be given as follows: Monday, Recent Developments in Serum Diagnosis; Tuesday, Lateral Curvature of the Spine (continued); Wednesday, Heart Disease in Children; Thursday, Conditions which Simulate Phthisis in Children.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p m., Clinical Lecture; Friday, 3.30 p.m., Ocular Paralysis.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, 10 a.m., Surgical Out-patient Clinic: 2 30 p m, Medical Out-patient Clinic: Nose Throat, and Ear Diseases; 4.30 p.m., Medical In-patient Clinic. Tuesday, 10 a.m., Medical Out-patient Clinic; 2.30 p m., Operations; Surgical Clinic; Gynaecological Clinic; 4 30 p m., Demonstration: Selected Medical Cases. Wednesday, 2.30 p.m., Medical Out-patient Clinic; Diseases of the Skin; Diseases of the Eye; *X* Rays. Thursday, 2 20 p m., Gynaecological Operations; Medical Out-patient Clinic; Surgical Out-patient Clinic; 3 p.m., Medical In-patient Clinic; 4 30 p m., Lecture: The Feeding of Infants. Friday, 10 a m., Clinic: Surgical Out-patient; 2 30 p.m., Operations; Clinics; Medical Out-patient; Eye; 3 30 p m., Medical In-patient.

POST-GRADUATE COLLEGE, West London Hospital, Hammersmith Road, W.—The following are the arrangements for next week:—Daily: Medical and Surgical Clinics, 2 p.m.; Operations, 2 p.m.; *X* Rays, 2 p m. Monday, Surgical Registrar, 10 a.m.; Eye, 2 p.m. Tuesday, Gynaecological Operations. 10 a.m.; Throat, Nose, and Ear, 2 p m.; Skin. 2 p.m. Wednesday, Disease of Children, 10 a m; Throat, Nose, and Ear Operations, 10 a.m; Practical Medicine, 12.15 p.m.; Eye, 2 p m.; Gynaecology, 2 p.m. Thursday, Surgical Registrar, 10 a.m.; Eye, 2 p m.; Orthopaedic, 2 p.m. Friday, Medical Registrar, 10 a.m.; Gynaecological Operations, 10 a m.; Throat, Nose, and Ear, 2 p m.; Skin, 2 p m. Saturday, Diseases of Children, 10 am. Lectures: 5 p.m., Monday, Gynaecology; Tuesday, Clinical; Wednesday, Medicine; Thursday, Rectal Surgery; Friday, Cases of Skin Disease.

RECENT PUBLICATIONS.

Handbuch der gesamten Therapie. Von Drs. F. Penzoldt und R. Stintzing. IV Auflage, Lfg. 2–8. Jena: G. Fischer. 1909. (Sup. roy. 8vo. Subscription price for the seven volumes, M 100).

The first two volumes of the fourth revised edition have been completed, and the fasciculus issued at the end of December goes to p. 340 of the third volume. The first volume comprises the treatment of infectious diseases and of poisoning; the second of diseases of metabolism, of the blood and lymphatic systems, and of the digestive organs. The first parts of the third volume are concerned with diseases of the organs of respiration.

Index du Progrès Médical. Paris: 41, Rue des Ecoles. 1909. (Pp. 1016. Post free, 12 francs)

This is a development of the special issue of *Progrès Médical* issued annually for the information of French students and practitioners of medicine. It contains summaries of the regulations of all Faculties of Medicine in France, descriptions of all medical, pharmaceutical, and midwifery institutions and societies in Paris; a complete list of legally qualified medical men in France; and some information regarding medical schools throughout the world. On the subjects with which it deals it is a mine of useful information.

PUBLISHERS' ANNOUNCEMENTS.

MESSRS. CASSELL will publish during the spring, *Radium-therapy*, translated by Dr. S. Ernest Dore from the French of Drs. Wickham and Degrais, with an introduction by Sir Malcolm Morris; and *A Manual of Operative Surgery*, in two volumes, by Sir Frederick Treves and Jonathan Hutchinson, F.R.C.S.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
FEBRUARY.	
13 Sunday ..	
14 MONDAY ..	
15 TUESDAY ..	LEEDS DIVISION, *Yorkshire Branch*, Women and Children's Hospital, Leeds, 4 p.m.
16 WEDNESDAY	CARDIFF DIVISION, *South Wales and Monmouthshire Branch*, Cardiff. LANCASHIRE AND CHESHIRE BRANCH, Meeting of Branch Council, Manchester, 4.30 p.m.
17 THURSDAY ..	LONDON: Metropolitan Counties Branch Council, 4.30 p.m. GLOUCESTERSHIRE BRANCH, General Meeting, General Hospital, Cheltenham, 7 p.m.; Supper, Cosy Corner, Promenade, afterwards. LAMBETH DIVISION, *Metropolitan Counties Branch*, Medical School, Guy's Hospital, 4 p.m.
18 FRIDAY ..	LONDON: Special Poor Law Reform Committee, 2.30 p m. BATH DIVISION, *Bath and Bristol Branch*, Royal United Hospital, Bath, 5 p.m. ST. PANCRAS AND ISLINGTON DIVISION, *Metropolitan Counties Branch*, Theatre No. 1, University College Hospital Medical School, 9 p.m.
19 SATURDAY ..	
20 Sunday ..	
21 MONDAY ..	

Date.	Meetings to be Held.
FEBRUARY *(continued).*	
22 TUESDAY ..	LONDON: Hospitals Subcommittee, 4 p m. WARRINGTON DIVISION, *Lancashire and Cheshire Branch*, Scientific Meeting, Infirmary, Warrington, 8.30 p.m.
23 WEDNESDAY	LONDON: Medico-Political Committee, District Nurses and Midwives Subcommittee. BATH AND BRISTOL BRANCH, Bath. RICHMOND DIVISION, *Metropolitan Counties Branch*, Royal Hospital, Richmond, 8.30 p m.
24 THURSDAY ..	STAFFORDSHIRE BRANCH, General Meeting, North Western Hotel, Stafford, 5.15 p.m.; Dinner, 7.15 p.m.
25 FRIDAY ..	LONDON: Medico Political Committee, Medical Inspection and Treatment of School Children Subcommittee, 3 p.m. BIRMINGHAM BRANCH, Pathological and Clinical Section, Medical Institute, Edmund Street, 8 p m. CITY DIVISION, *Metropolitan Counties Branch*, conjointly with Aesculapian Society, Metropolitan Hospital, 4 p.m. EDINBURGH BRANCH, Winter Clinical Meeting, Royal Infirmary; Museum, 11 a.m onwards; Special Clinics during forenoon; Clinical Meeting, 4 p.m.; Dinner, Royal British Hotel, Princes Street, 6.30 p.m. HAMPSTEAD DIVISION, *Metropolitan Counties Branch*, 8.30 p.m.

Printed and Published by the British Medical Association at their Offices, No. 429, Strand, in the Parish of St. Martin-in-the-Fields in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, FEBRUARY 19TH, 1910.

CONTENTS.

	PAGE
Meetings of Branches and Divisions:	
Birmingham Branch	73
Glasgow and West of Scotland Branch: Glasgow Eastern Division	73
Metropolitan Counties Branch: Hampstead Division	73
" " St. Pancras and Islington Division	73
North of England Branch: North Northumberland Division	74
South-Eastern Branch: Guildford Division	74
" " Maidstone Division	75
Ulster Branch	75
Worcestershire and Herefordshire Branch: Worcester Division	75
Yorkshire Branch: Halifax Division	75
ASSOCIATION NOTICES.—ANNUAL SUBSCRIPTION, 1910	76
NAVAL AND MILITARY APPOINTMENTS	77
VITAL STATISTICS	78
VACANCIES AND APPOINTMENTS	79
BIRTHS, MARRIAGES, AND DEATHS	79
RECENT PUBLICATIONS	79
DIARY FOR THE WEEK	80
CALENDAR	80

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

BIRMINGHAM BRANCH.

AN ordinary meeting of this Branch was held on February 10th at the Medical Institute. Dr. SHORT was in the chair, and forty-two members were present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Apology for Non-attendance.—An apology for absence was received from Dr. Herbert Manley, the President of the Branch.

Cases.—Dr. ARTHUR LOXTON showed a case of multiple subcutaneous tumours. Mr. GEORGE HEATON showed two specimens of enlarged prostate with calculi.

Phthisis in Birmingham.—Dr. DOUGLAS STANLEY read a paper on "Phthisis in Birmingham," in which he dealt with the scheme of the Health Committee for dealing with cases of phthisis, and the class of case treated at the Municipal Sanatorium, together with the results. The paper was discussed by Drs. OAKES, ALFRED CARTER, MELSON, KNOBEL, HENTON WHITE, VOKES, BAGSTER-WILSON, LOXTON, and SHORT, and by Messrs. LEEDHAM-GREEN and EDGE. Dr. DOUGLAS STANLEY replied.

GLASGOW AND WEST OF SCOTLAND BRANCH: GLASGOW EASTERN DIVISION.

A MEETING of this Division was held in Bellgrove United Free Church Hall on February 3rd, at 4 p.m. Dr. JOHN PATRICK, Chairman of the Division, presided, and the following members were present: Drs. Malcolm Black, W. L. Muir, W. J. H. Sinclair, H. A. McLean, R. McC. Service, John Porter, P. S. Buchanan, Thomas Russell, James Craig, W. H. Brown, and William Bryce, Honorary Secretary.

Confirmation of Minutes.—The minutes of the last meeting were read, approved, and signed by the Chairman.

Special Class of Consultants.—The report of the Central Ethical Committee with regard to a special class of consultants was considered. After a very general expression of opinion, it was decided to answer both questions in the affirmative, but to add as a comment that so far as Glasgow is concerned we have no difficulties in regard to our relations with consultants.

Rules for a Public Medical Service.—The model rules for a public medical service were considered at length, and the decisions of the Executive Committee were put from the chair, and in all cases carried, although amendments were proposed to several.

Inspection and Treatment of School Children.—The resolutions of the Annual Representative Meeting with regard to the examination of school children and the treatment of those found defective were very thoroughly explained by Dr. W. L. MUIR, the Divisional Representative.

Research Defence Society.—A letter from the Research Defence Society was read, and Dr. W. J. H. Sinclair consented to act as local representative. This terminated the business of the meeting.

METROPOLITAN COUNTIES BRANCH: HAMPSTEAD DIVISION.

A MEETING of this Division was held at the Hampstead Public Library, Arkwright Road, on Friday, January 28th, at 8.30 p.m., Mr. H. W. ARMIT in the chair.

The late Dr. J. H. Wells.—An appeal on behalf of the widow of the late Dr. J. H. Wells was made by Mr. TANNER, and the HONORARY SECRETARY undertook to receive contributions from the members of the Division towards the fund that is being raised for her benefit. Sympathetic references were made to the sad and untimely death of so promising a worker as Dr. Wells.

Peripheral Paralysis.—Dr. LEWIS JONES delivered a lecture on peripheral paralysis of the upper limb and allied conditions (with lantern illustrations), which was heard with great interest. In the discussion which followed, Drs. ARMIT, DAVY, T. WILSON, WARE, and PARSONS took part. After the thanks of the Division had been conveyed to Dr. Lewis Jones by the CHAIRMAN, the meeting terminated.

ST. PANCRAS AND ISLINGTON DIVISION.

A MEETING of this Division was held on January 10th.

School Clinics.—Dr. BEATON delivered an address on school clinics. He made reference to what had been done in this country and in other countries as far as medical inspection and medical treatment of school children was concerned, and suggested that it might be the wisest plan for them to consider what had been done, and was being done, in London. He had a very distinct conviction as to who was primarily responsible for the medical well-being of the child, holding that this duty devolved upon the parents and guardians and not upon the State. The parent might fail in his duty because he was careless in the matter of the physical well-being of his child, or because, through

some vicious habits of his own, he might utterly neglect his child, while yet another class might not have the means to procure the necessary attention. Every one who had looked into this subject must have been startled by the large number of our school children who were in need of medical treatment, and who were left untreated. The average attendance in public elementary schools in London was 760,000. It was estimated—and the figures were approximately correct—that 60,000 of these suffered from defective vision; 15,000 from affections of the ear, throat, and nose; 5,000 from ringworm and allied diseases, while from 70 to 90 per cent.—somewhere about 500,000—suffered from defective teeth. The State said that the local education authority must medically inspect the children in public elementary schools; that they might medically treat them; that parents who allowed their children to suffer from lack of treatment might be punished; and that the expense of medical treatment might be recovered from parents who were able to pay. Medical inspection of school children, which had a small beginning under the late School Board, was now being carried out under a scheme inaugurated by the present medical officer of health (educational), assisted by a band of school doctors and nurses; the question of the medical treatment of school children was still under discussion, though a beginning had been made for the treatment of eyes, ears, and skin diseases. To consider which was the best way of giving force to the Education (Administrative Provisions) Act, 1907, a hybrid committee consisting of members of the London County Council Education Committee and outside authorities was appointed. This committee met, took evidence, considered the whole subject, and presented two reports. The majority report was in favour of the medical treatment of school children being undertaken at school clinics, and the minority reported in favour of the work being undertaken by hospitals, dispensaries, and medical institutions. The minority report was agreed to by the Education Committee and the London County Council, and what work was being done in this direction was practically being done by the hospitals. Those in favour of school clinics suggested that in the centre of certain districts a house should be taken and fitted up like the out-patient department in a hospital for the treatment of the eyes, ears, skin, and teeth of the school children whose parents were unable to pay for such treatment; that the work of these school clinics should be under the supervision of the medical officer (education) and carried out by school doctors appointed by the Council for this purpose. They would thus be under the complete control of the London County Council, both as to their finances and efficiency. These school clinics would be placed in positions easily accessible to the school children, who could be taken to and from the schools by a teacher, with great saving of time and expense to the parents and with less interference with the school work. On the other hand, the hospitals were not readily accessible to a great number of children, especially in the south-east of London; the hospital authorities made it part of the arrangement that the Council should in no way interfere; the expense to the parent going to and from the hospital and waiting there was very considerable; and there was much interference with the educational work of the school. The general medical practitioner, looking at the question of the medical treatment of school children, would be forced to confess that, under present arrangements, his part in this great and important work was a negligible quantity, and he must feel that the increasing tendency to municipalize medical work was slowly crushing him out. The position was so serious that something should be done, and done speedily, to enable the medical practitioner to cope successfully with the present tendency to municipalization. Briefly, what was needed was (1) united action among general practitioners; (2) the organization in each district of a Public Medical Service. That the London County Council was willing to recognize the efforts of a Public Medical Service was shown by the fact that they had consented to the treatment of school children in Hampstead by the medical men in that district and was sympathetically watching the experiment. What was being done in Hampstead could be successfully done in St. Pancras, Islington, and the other boroughs of London.

NORTH OF ENGLAND BRANCH:
NORTH NORTHUMBERLAND DIVISION.

AN ordinary meeting of this Division was held on January 27th at the Infirmary, Alnwick. There were present: Drs. Scott Purves, Burrow, Moyse, Pringle, and Burman.

Apologies for Non-attendance.—Apologies for absence were received from Drs. Main and Robson.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Northumberland County Nursing Association.—The SECRETARY read correspondence with the Secretaries of the Northumberland County Nursing Association and its local branch regarding the advertisement of the Alnwick maternity nurse, and the correspondence was discussed.

Collection of Accounts.—A letter from Mr. Garforth Drury, with terms for collecting outstanding accounts, was read, and the Secretary was requested to write for further particulars and to bring up the question at the next meeting.

New Members.—The SECRETARY reported the addition of three new members, and stated that there were only four members of the profession in actual practice in the Division area remaining outside the Association.

Tea.—Tea was provided by Dr. Pringle.

SOUTH-EASTERN BRANCH:
GUILDFORD DIVISION.

A MEETING of this Division was held at the Royal Surrey County Hospital on January 28th, at 4.30 p.m. Dr. A. HOPE WALKER, Chairman of the Division, presided, and seventeen other members and visitors were present.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Change of Boundary.—It was resolved:

> That, subject to the approval of the Croydon Division, the boundary of the Guildford Division be altered so as to include Oxshott and Leatherhead, at present part of the former Division.

Paper.—Dr. F. EDWARD PEARSE (Ripley) read a paper on the Report of the Poor Law Commission as affecting General Practitioners, in which he called attention to the dangers of encroachment on the field of general practice which might result if the proposals of the Majority Report of the Commission become law. A discussion ensued, in which the CHAIRMAN and several other members took part. The following resolution was then carried unanimously:

> That this meeting of the Guildford Division views with uneasiness the proposed changes in the administration of the Poor Law Medical Service as contemplated by the Majority Report of the Commission, especially as they would affect the field of general practice, and desires to bring the matter before the Central Council of the Association, with a view to safeguarding the interests of the general practitioner, and for reference to the Divisions and to the Annual Representative Meeting.

Report on Special Class of Consultants.—The report of the Central Ethical Committee on a special class of consultants was considered, and it was resolved:

> That it is not desirable to mark off any special class of consultants in the way proposed in the report of the Central Ethical Committee, as it would probably not remove the difficulties which at present exist, and would very likely raise fresh causes of friction among different members of the consulting profession; it would also in many cases be impracticable, both from the patients' and the practitioners' point of view, to follow hard and fast regulations as on the lines proposed.

Medical Inspection and Treatment of School Children—It was resolved:

> That the resolutions of the Annual Representative Meeting held in July, 1909, on the above matter be approved, and that the attention of the committees of voluntary hospitals

in the Division be called to the policy of the Association as set forth in Minute 79 in regard to the reference of such children to public medical charities for treatment.

Payment of Practitioners called in by Midwives.—The letter of the Manchester Corporation *re* payment of medical men called in by midwives was considered. It was resolved to approve the terms of the letter, and to acquaint the local authority of the fact in the terms of the draft letter sent to the Divisions.

Public Medical Services.—The attention of members was called by the HONORARY SECRETARY to the model rules for public medical services, but it was agreed to take no action in the matter at present.

Research Defence Society.—The attention of members was called to a letter from the Honorary Secretary of the society, and its main objects briefly explained by the HONORARY SECRETARY of the Division. The meeting then adjourned.

MAIDSTONE DIVISION.

A MEETING of this Division was held at Kent County Asylum, Barming Heath, on Friday, February 4th, at 3.30 p.m., Dr. H. WOLSELEY LEWIS in the chair. There were also present Drs. C. Pye Oliver, Douglas, Parr-Dudley, G. Baynton Forge, R. T. Caesar, sen., W. Shaw, C. Killick, Keith, Bovey, Gibb, Falwasser, Captain Dill, M.D., R.A.M.C., and G. Potts, Secretary.

Minutes.—The minutes of the previous meeting were read.

Training of Voluntary Aid Detachments.—Arising out of the minutes, in regard to the following resolution:

> That it is the opinion of this meeting of the Maidstone Division of the British Medical Association that the training of the personnel of the proposed voluntary aid detachments being work for the State, should not be given gratuitously, but should be paid for according to the rate of the St. John Ambulance Association, namely, one guinea per lecture and subsequent instruction,

Dr. C. PYE OLIVER proposed the following amendment:

> That Territorial officers be not included in this minute, but should a fee be offered to them, Territorial officers shall be at liberty to accept such fee.

The amendment was seconded and put to the meeting and carried, the voting being 10 for, 1 against, 3 neutral. The minutes were then confirmed.

Apologies for Non-attendance.—Letters of regret for non-attendance were read from Drs. Joyce, Wood, Roberts, Sanders, and Mapleton.

Midwives and Medical Practitioners.—The SECRETARY read a communication from Mr. Smith Whitaker, Medical Secretary, *re* Manchester Corporation and payment of medical men called in by midwives. This was ordered to stand over to the next meeting, when Dr. Howarth, medical officer of health to the Kent County Asylum, will be asked to attend and to be kind enough to give his opinion on the matter.

Bearsted and Thurnham Nursing Association.—A letter from the Honorary Secretary of the Bearsted and Thurnham Nursing Association was read, in which it was suggested that the scale of fees for Classes iii and iv in their prospectus be raised to 15s. The Honorary Secretary was instructed to write to the Honorary Secretary of the Nursing Association again stating that the Classes iii and iv were not proper objects for charitable assistance.

East Malling Nursing Association.—Dr. PARR-DUDLEY called attention to a recent letter from the East Malling Nursing Association, and requested the view of the meeting thereon. After some discussion, at Dr. PARR-DUDLEY'S suggestion this was allowed to stand over to the next meeting.

Balance Sheet.—The balance sheet for 1909 was presented.

ULSTER BRANCH.

THE winter meeting of this Branch was held in the Medical Institute, Belfast, on Thursday, January 27th, at 4 p.m., Dr. ST. GEORGE, and subsequently Sir JOHN BYERS, in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Report of Council.—The Council report was read by the Honorary Secretary, Dr. CECIL SHAW. It stated that the following had been elected members of the Branch: Drs. J. J. Clarke (Lisburn), S. W. Hill (Larne), C. A. Stevenson (Derry), E. A. Gregg and G. G. Lyttle (Belfast).

Research Defence Society.—The HONORARY SECRETARY made a brief statement regarding the Research Defence Society and invited members to join, which several did at the close of the meeting.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH:

WORCESTER DIVISION.

A GENERAL meeting of this Division was held at the General Infirmary, Worcester, on January 28th, at 4.30 p.m. Dr. GEO. W. CROWE (Chairman) presided, and there were present: Drs. T. Bates, sen., T. Bates, jun., J. N. F. Fergusson, T. P. Gostling, A. O. Holbeche, S. C. Legge, H. E. Moore, Mabyn Read, E. S. Robinson, R. T. Slinger, and H. Neville Crowe (Honorary Secretary).

Confirmation of Minutes.—The minutes of the previous meeting were read, confirmed, and signed.

The late Dr. A. M. Weir.—Dr. G. W. CROWE proposed and Dr. A. O. HOLBECHE seconded the following resolution:

> That the sincere condolence of the Division should be expressed to the widow and family of the late Dr. A. M. Weir, who was a member of this Division.

This was carried unanimously, and the Honorary Secretary was requested to convey to Mrs. Weir the wish of the meeting.

Transference of Members to Another Division.—A letter was read from the Honorary Secretary of the Bromsgrove Division, asking if Drs. Knobel and Mogg could be transferred from the Worcester to the Bromsgrove Division. This was agreed to.

Special Class of Consultants.—The Central Ethical Committee's report on a special class of consultants was considered. It was resolved:

> That this Division does not consider the proposals practical except in the largest towns, and is not in favour of the Association prescribing rules for the conduct of the practice of such a class.

Payment of Medical Men called in by Midwives.—The circular letter of the Manchester Corporation was read, and the Honorary Secretary was requested to forward to the Borough Councils of Worcester and Kidderminster the draft letter suggested by the Medico-Political Committee.

Rules for a Public Medical Service.—The model rules for a Public Medical Service suggested by the Medico-Political Committee were discussed, after which the CHAIRMAN proposed and Dr. ROBINSON seconded:

> That the Division approve, in general, of the establishment of such a service, but does not commit itself to details.

This proposition was carried by 11 votes to 1.

Paper and Demonstration.—Mr. BERNARD J. WARD, Assistant Surgeon, Queen's Hospital, Birmingham, read a paper entitled "Accuracy in the Diagnosis of Urinary Disease." The paper was listened to with very great interest, and Mr. Bernard Ward subsequently demonstrated the use of the cystoscope, and showed several pathological specimens, as well as photographs and coloured plates. The CHAIRMAN (Dr. G. W. Crowe), in proposing a hearty vote of thanks to Mr. Ward for his very interesting and instructive paper, voiced the appreciation of the meeting. Mr. BATES, jun., seconded the vote of thanks, which was given with acclamation.

Clinical Cases.—Dr. G. W. CROWE showed two cases of phthisis in children successfully treated with tuberculin injections. The cases were examined and discussed by the members present. This concluded the business of the meeting.

YORKSHIRE BRANCH:
HALIFAX DIVISION.

A MEETING of this Division was held at Webster's Café on Friday, January 28th, at 8.30 p.m. Dr. MARSHALL presided, and thirteen other members were present.

Confirmation of Minutes.—The minutes of the previous meeting were read and approved.

Apology for Non-attendance.—Dr. Drury, who was in London on Association business, wrote expressing inability to attend.

Special Class of Consultants.—The letter of November 10th, 1909, was read, and the report of the Central Ethical Committee on the subject was considered. A resolution—

> That the whole scheme was impracticable and outside medical politics—

was carried unanimously. One member thought it was an attempt to make a corner in consultants. To Question A, the reply was, "No."

Public Medical Service.—The letter of December 7th, 1909, was read, and an outline of the Medico-Political Committee's report was given. It was then resolved:

> That the formation of such a service is not at present considered advisable in this district.

Manchester Corporation and the Midwives Act.—The letter of December 29th, 1909, was read, and the circular letter of the Manchester Corporation was explained. It was resolved that the draft letter be not sent to the Halifax Corporation. It was thought to be a matter of indifference what authority paid, as the members were still of opinion that payment ought to be made in every case where a medical practitioner attends at the call of a midwife (under the Act of 1902).

Medical Inspection and Treatment of School Children.—The letter of January 6th was read and the Medico-Political Committee's advice was noted. It was decided to send copies of the report to the medical men interested.

Questions to Parliamentary Candidates.—Letters, together with the memoranda and questions, were sent to six candidates within the Division. Only two replies were received, and both were favourable to all questions.

Research Defence Society.—A letter was read from the Honorary Secretary of this society, and Dr. Fred. Whitaker was appointed to act as local representative.

Medical Men and Police Evidence.—The question of the payment of medical practitioners for supplying evidence to the police was brought forward by a member of the Division. A small committee was appointed to consider the whole question of police fees and to interview the Chief Constable.

Dinner Committee.—The selection of this committee was postponed until the annual meeting.

The meeting then terminated.

☞ *To ensure the insertion of notices in this column, they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

Association Notices.

ANNUAL SUBSCRIPTION, 1910.

MEMBERS are reminded that the Annual Subscription, amounting to 25s., is now due.

Cheques or Postal Orders should be made payable to the British Medical Association, and crossed London County and Westminster Bank.

In the case of Colonial Members the subscription should be paid to the Honorary Treasurer of their respective Branches.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH.—The fourth ordinary meeting of the session will be held at the Museum, Bath, on Wednesday evening, February 23rd, at 8 o'clock, Mr. G. Munro Smith, President. A discussion on the Surgical Treatment of the Various Forms of Goitre will be opened by Sir Victor Horsley, F.R.S. A council meeting will be held at 7.55 p.m.—W. M. BEAUMONT, NEWMAN NEILD, Honorary Secretaries, Bath.

EDINBURGH BRANCH.—The winter clinical meeting of the Edinburgh Branch will be held in the Royal Infirmary, on Friday, February 25th. The other Scottish Branches have as usual been invited to join in the meeting. The museum will be open from 11 a.m. onwards. Arrangements will be made for holding special clinics during the forenoon. The clinical meeting will be held in the Royal Infirmary, at 4 p.m. Dinner in the Royal British Hotel, Princes Street, at 6.30 p.m., morning dress; dinner ticket, 5s.—FRANCIS D. BOYD, MICHAEL DEWAR, Honorary Secretaries.

LANCASHIRE AND CHESHIRE BRANCH: WARRINGTON DIVISION.—A scientific meeting will be held at the Infirmary, Warrington, on Tuesday, February 22nd, at 8.30 p.m. Dr. O. T. Williams, Assistant Physician, Royal Infirmary, Liverpool, will read a paper entitled, "Aids to the Diagnosis and Treatment of Epidemic Cerebro-spinal Fever (Spotted Fever)."—T. A. MURRAY, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—The next meeting of the City Division will be held conjointly with the Aesculapian Society at the Metropolitan Hotel, Kingsland, N.E., on Friday, February 25th, at 4 p.m., when the alterations and improvements to the hospital will be on view.—A. G. SOUTHCOMBE, M.D., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: RICHMOND DIVISION.—The next meeting will be held on Wednesday, February 23rd, at the Royal Hospital, Richmond, at 8.30 p.m., when H. J. Curtis, F.R.C.S., will read a paper on Interesting Cases of Abdominal Surgery, including Some Rare Forms of Intestinal Obstruction. Note.—A special meeting of the Division will be held on Thursday, March 3rd, at 4 o'clock, p.m., and not on March 2nd as previously arranged.—G. CARDNO STILL, Honorary Secretary.

MIDLAND BRANCH: LEICESTER AND RUTLAND DIVISION.—A meeting of the Division will be held at the Leicester Infirmary on Wednesday, February 23rd, at 4.15 p.m. Agenda: Minutes of previous meeting. Clinical cases to be shown in the wards by the honorary surgeons. Any other business.—WILFRED E. GIBBONS, Honorary Secretary, Leicester.

SOUTH-EASTERN BRANCH: BROMLEY DIVISION.—A meeting of this Division will be held at the Bell Hotel, Bromley, on Thursday, February 24th, at 8.30 p.m., Dr. Scott in the chair. All members of the medical profession residing in the Division are invited to attend. Members are requested to read before the date of the meeting the SUPPLEMENTS of the JOURNAL mentioned in the agenda. Agenda: (1) To appoint a Representative for Representative Meeting. (2) To consider the Interim Report of the Special Poor Law Reform Committee (SUPPLEMENT, February 5th, 1910). (3) To consider the report of the Central Ethical Committee on (*a*) the Relation of Homoeopaths to the Association (SUPPLEMENT, February 12th, 1910); (*b*) on Special Class of Consultants. (4) To consider a communication from the Medico-Political Committee on (*a*) Model Rules of a Public Medical Service; and (*b*) the Manchester Corporation and Payment of Medical Men called in by Midwives. (5) To consider a letter from the Medical Secretary regarding Instruction and First Aid, and Free Nursing to Voluntary Aid Detachments.—A. TENNYSON SMITH, M.D., Honorary Secretary.

SOUTH-EASTERN BRANCH: FOLKESTONE DIVISION.—Preliminary Notice:—A meeting will take place on Thursday, March 3rd. All members of the Association are invited to attend and to introduce professional friends. Agenda: (1) Minutes. (2) A paper will be read by Dr. Eastes on "Gall Stones." (3) Association Business.—P. VERNON DODD, M.D., Honorary Secretary.

SOUTH-EASTERN BRANCH: MAIDSTONE DIVISION.—The next meeting of this Division will be held on Friday, March 25th, 1910, at 3.30 p.m. The Executive meeting will be at 3 p.m. Any member having subjects to bring forward is requested to communicate with the Honorary Secretary, as early as possible.—GEORGE POTTS, Honorary Secretary, Ophthalmic Hospital, Maidstone.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: MONMOUTHSHIRE DIVISION.—A meeting of this Division will be held in the Pontypool and District Hospital on Friday, February 25th, at 3.15 p.m.—R. J. COULTER, W. BASSET, Newport, Honorary Secretaries.

STAFFORDSHIRE BRANCH.—The second general meeting of the session will be held at the North-Western Hotel, Stafford, on Thursday, February 24th, 1910. The President will take the chair at 5.15 p.m. Business: (1) Minutes of the last ordinary general meeting. (2) Correspondence. (3) Exhibition of Living Cases. (4) Paper, "Bedside Manners of Prominent London Physicians and Surgeons of To-day," by C. M. Mitchell, Esq. (5) Paper, "Some Problems of Medical Inspection of Elementary Schools," by John Priestley, Esq. (6) Exhibition of Pathological Specimens, etc. Dinner, 7.15 p.m.; charge 5s.—G. PETGRAVE JOHNSON, Stoke-on-Trent, Honorary Secretary.

YORKSHIRE BRANCH.—The next meeting of the Branch will be held at the Bull Hotel, Wakefield, on Wednesday, March 16th, at 4 o'clock. Council meeting at 3.15. Members intending to read papers, show cases, or propose new members are requested to communicate at once with the Honorary Secretary. Members will dine together at 6.30.—ADOLPH BRONNER, Bradford, Honorary Secretary.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

SURGEON A. DAVIDSON, M.B., has been transferred to the *Bulwark*, March 18th.

ARMY MEDICAL SERVICE.
ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL J. R. YOURDI, M.B., is placed on retired pay, February 6th. He was appointed Surgeon, July 30th, 1881; Surgeon-Major, July 30th, 1893; and Lieutenant-Colonel, July 30th, 1901. He served in the Egyptian war in 1882, first with the Army Hospital Corps at Alexandria, and afterwards in medical charge of a battery of Royal Artillery at Ramleh, receiving a medal and the Khedive's bronze star.

The undermentioned Lieutenants, from the Seconded List, are restored to the establishment from the dates specified: E. M. PARSONS-SMITH, January 30th, 1910; W. H. O'RIORDAN, January 31st, 1910. They were appointed on probation, January 30th, 1909.

The following Captains are promoted to be Majors, dated January 28th: E. T. INKSON, V.C., P. H. COLLINGWOOD, C. J. O'GORMAN, D.S.O., R. S. H. FUHR, D.S.O., H. P. W. BARROW, and D. HARVEY, M.B. Their previous commissions are dated: Major Inkson—Lieutenant, July 27th, 1899; Captain, November 29th, 1900. Majors Collingwood and O'Gorman—Surgeon-Lieutenant, January 28th, 1898; Captain, January 28th, 1901. Major Fuhr—Lieutenant, July 27th, 1898; Captain, July 27th, 1901. Majors Barrow and Harvey—Lieutenant, January 28th, 1899; Captain, January 28th, 1902. Their war records are as follow: Major Inkson—South African war, 1899–1902, including relief of Ladysmith, and actions at Colenso, Spion Kop, Vaal Kranz, the Tugela Heights, and Pieters Hill, and operations in the Transvaal and Orange River Colony; he was mentioned in dispatches, promoted to be Captain, received the Queen's medal with five clasps and the King's medal with two clasps, and awarded the Victoria Cross for the following service: "On February 24th, 1900, Lieutenant Inkson carried Second Lieutenant Devenish (who was severely wounded and unable to walk) for three or four hundred yards under a heavy fire to a place of safety. The ground over which Lieutenant Inkson had to move was much exposed, there being no cover available." Major Collingwood—was Senior Medical Officer during the operations in the hinterland of Aden in 1903-4. Major O'Gorman—South African war in 1899–1902, including the defence of Kimberley, operations in the Transvaal and Orange River Colony, and actions at Lindley and Rhenoster River (mentioned in dispatches, Queen's medal with three clasps, King's medal with two clasps, and D.S.O.). Major Fuhr—South African war, 1899-1901, including the relief of Ladysmith, actions at Colenso, Spion Kop, Vaal Kranz, the Tugela Heights and Pieters Hill, and operations in the Orange Free State and the Transvaal (mentioned in dispatches, Queen's medal with six clasps, and D.S.O.). Majors Barrow and Harvey—South African war, 1900–2, and present in operations in the Transvaal, Orange River Colony, and Cape Colony (Queen's medal with three clasps and King's medal with two clasps).

Captain J. G. BERNE retires, receiving a gratuity, and not as stated in the *London Gazette* of February 1st (BRITISH MEDICAL JOURNAL, February 5th).

Lieutenant-Colonel L. W. SWABEY, who is serving on the Indian Establishment, took over the duties of Principal Medical Officer, Aden Brigade, in addition to his own duties, from January 31st.

The following Lieutenants are confirmed in that rank: GILBERT G. COLLET, M.B., FRANCIS W. M. CUNNINGHAM, M.B., HARRY R. EDWARDS, RUPERT H. NOLAN, WILLIAM MATHIESON, GILBERT H. DIVE, ROBERT GALE, M.B., ALFRED G. JONES, M.B., KENNETH COMYN, ARTHUR S. CANE, JOHN M. WEDDELL, CHARLES M. NICOL, M.B., ARTHUR P. O'CONNOR, M.B., THOMAS H. DICKSON, M.B.. HUGH G. ROBERTSON, M.B., HERBERT V. STANLEY, M.B., PHILIP C. FIELD, RONALD M. DAVIES, M.B., RICHARD C. G. M. KINKEAD, M.B., EDWARD C. STONEY, M.B. They were appointed on probation as follows: Lieutenant Collet, August 1st, 1908; Lieutenants Cunningham, Edwards, Nolan, and Mathieson, January 30th, 1909; all the other officers cited, July 31st, 1909.

Supernumerary Lieutenant C. T. V. BENSON, from the Seconded List, is restored to the Establishment, January 30th. He was appointed on probation, January 30th, 1909.

INDIAN MEDICAL SERVICE.

LIEUTENANT T. D. MURISON is appointed Specialist in Mental Science, Northern Army, from December 1st, 1909.

The retirement from the service of Surgeon-General Sir G. BOMFORD, K.C.I.E., M.D., Bengal, particulars of which have already appeared in the BRITISH MEDICAL JOURNAL, has received the approval of the King.

Lieutenant-Colonel T. R. MULRONEY, M.D., Bengal, has retired from the service, from August 13th, 1909. He was appointed Surgeon, March 31st, 1880, and became Lieutenant-Colonel, March 31st, 1900.

Lieutenant-Colonel J. L. POYNDER, Madras, also retires, from December 12th, 1909. He joined the department as an Assistant-Surgeon, October 31st, 1879, and was made Lieutenant-Colonel, October 31st, 1899.

Surgeon-General C. P. LUKIS, M.D., Director-General, has been nominated an additional member of the Legislative Council of the Governor-General of India.

The retirement, dated January 6th, 1910, is also announced of Lieutenant-Colonel W. G. P. ALPIN, M.D., Bengal. His first appointment is dated April 1st, 1884; that of Lieutenant-Colonel, April 1st, 1904. He was with the Soudan Expedition in 1885, being present at the action of Tofrek, and receiving a medal with two clasps and the Khedive's bronze star; he was also with the Chitral Relief Force in 1895, receiving a medal with clasp.

Lieutenant R. H. BOTT is appointed Specialist in Advanced Operative Surgery, 4th (Quetta) Division, from November 10th, 1909.

Colonel R. W. S. LYONS, M.D., Bombay, is appointed Principal Medical Officer, Kohat Brigade, from January 2nd.

Colonel R. D. MURRAY, M.B., Bengal, retires from the service, from March 29th. He was appointed Assistant Surgeon, March 31st, 1875, and Colonel, March 29th, 1905. He served with the Burmese Expedition in 1886–7, was mentioned in dispatches, and received a medal with clasp. Lieutenant-Colonel J. ANDERSON, M.B., Bengal, also retires, from April 1st. He joined the department as Surgeon, September 30th, 1878, and was made Lieutenant-Colonel, September 30th, 1898. He took part in the Afghan war in 1879-80, being present at the action at Jugdulluck (medal).

SPECIAL RESERVE OF OFFICERS.
ROYAL ARMY MEDICAL CORPS.

Supplementary List.—GEORGE E. SHAND, M.B., to be Lieutenant (on probation), January 20th.

TERRITORIAL FORCE.
ROYAL ARMY MEDICAL CORPS.

Second East Anglian Field Ambulance.—Captain J. OLDFIELD, M.D., to be Major, January 6th.

First West Lancashire Field Ambulance.—The appointment of Captain A. J. EVANS is antedated to July 14th, 1909.

Third North Midland Field Ambulance.—ERNEST W. STRANGE, M.D., to be Lieutenant, December 24th, 1909.

Attached to Units other than Medical Units.—Lieutenant J. G. MILLER, M.B., to be Captain, November 17th, 1909.

CHANGES OF STATIONS.

THE following changes of stations amongst the officers of the Army Medical Service have been officially reported to have taken place during January, 1910:

		FROM	TO
Colonel	R. Porter, M.B.	Belfast	Chester.
Lieut.-Col.	R. I. D. Hackett, M.D.	Bordon	South Africa.
,,	R. J. S. Simpson, C.M.G., M.B.	London	Woolwich.
,,	C. Birt	Malta	London.
,,	J. R. Forrest	Maymyo	Buttevant.
,,	S. E. Duncan	Birmingham	South Africa.
,,	R. Caldwell, F.R.C.S.	Parkhurst	Wynberg.
,,	G. G. Adams	Cosham	India.
,,	M. O'Halloran, M.D.	Woolwich	Brighton.
,,	H. D. Rowan, M.B.	Murree	Rawal Pindi.
,,	H. Carr, M.D.	Netley	India.
,,	H. M. Adamson, M.B.	York	Newcastle.
,,	A. R. Aldridge, M.B.	Simla	Aldershot.
,,	G. F. H. Marks, M.D.	Newcastle-on-Tyne	India.
,,	F. S. Le Quesne, V.C.	Dinapore	Woolwich.
Major	W. C. Poole, M.B.	Buttevant	India.
,,	E. A. Burnside	Mount Abu	Golden Hill.
,,	B. J. Inniss	Meerut	Eastern Com.
,,	G. T. Rawnsley	Bordon	Aldershot.
,,	H. E. Winter	Colaba	Chatham.
,,	B. Forde, M.B.	Bloemfontein	Pretoria.
,,	J. W. Jennings, D.S.O.	Mandalay	Warrington.
,,	F. W. Hardy, M.B.	Golden Hill	London
,,	C. Dalton	Aden	Irish Comd.
,,	J. D. Alexander, M.B.	Cahir	Shwebo.
,,	E. W. Slayter, M.B.	Secunderabad	Wellington.
,,	W. D. Erskine, M.B.	Khartoum	York.
,,	H. W. K. Read	Landour	N. Command.
,,	K. B. Barnett, M.B., F.R.C.S.I.	Dover	Shorncliffe.
,,	J. E. Carter, M.B.	Pretoria	Landguard Frt.
,,	R. J. Blackham	Cherat	Peshawar.
,,	H. W. Grattan	R.A.M.Coll.	India.
,,	M. MacG. Rattray, M.B	Bangalore	E. Command.
,,	J. Poe, M.B.	Aldershot	Bloemfontein.
,,	F. S. Penny, M.B.	Shoeburyness	Chatham.
,,	J. D. G. Macpherson, M.B.	Meerut	Mount Abu.
,,	E. A. Bourke	Bloemfontein	Capetown.
,,	M. M. Lowsley	Aldershot	Secunderabad.
Captain	C. J. O'Gorman, D.S.O.	Scarborough	India.
,,	G. J. S. Archer, M.B.	Belfast	Secunderabad.
,,	A. E. Thorp	Cosham	Tidworth.
,,	C. W. Mainprise	Aldershot	Rawal Pindi.
,,	H. D. Packer	Crown Hill	Devonport.
,,	A. O. B. Wroughton	Shorncliffe	Canterbury.
,,	F. J. Palmer	Cork	India.
,,	H. M. Morton, M.B.	Aldershot	South Africa.
,,	J. Matthews	Karachi	Ewshott.
,,	B. F. Wingate	Solon	Ferozepore.
,,	P. S. O'Reilly	Sitapur	Wellington.
,,	H. C. R. Hime, M.B.	Aldershot	India.
,,	J. F. Martin, M.B.	Woolwich	R.M. Coll., Sandhurst.
,,	E. McDonnell, M.B.	Aldershot	Bermuda.
,,	J. Powell, M.B.	—	Egypt. Army.
,,	L. M. Purser, M.B.	Colchester	India.
,,	F. McLennan, M.B.	Barry	Fort George.
,,	J. Dorgan, M.B.	Kinsale	Cork.
,,	E. Bennett	Wolv'rh'mpt'n	Derby.
,,	F. P. Lauder	Portland	Aldershot.
,,	W. L. Bennett, M.B., F.R.C.S.Edin.	Warrington	Bermuda.
,,	J. H. Brunskill, M.B.	Dalhousie	Aldershot.
,,	R. F. M. Fawcett	Bulford	Gosport.
,,	G. F. Sheehan	Curragh	Dublin.
,,	A. H. McN. Mitchell	Plymouth	Netley.
,,	J. W. S. Seccombe	Jullundur	Bangalore.
,,	S. M. W. Meadows	Rawal Pindi	E. Command.
,,	D. S. Skelton	Uganda	S. Command.

		FROM	TO
Captain	H. B. Kelly, M.B.	Dublin	Curragh.
,,	J. M. M. Crawford, F.R.C.S.I.	Guildford	Woolwich.
,,	R. H. MacNicol, M.B.	Maymyo	Edinburgh.
,,	S. E. Lewis, M.B.	Simon's Town	Norwich.
,,	J. D. Richmond, M.B.	Quetta	Irish Comd.
,,	W. MacD. MacDowall	Ambala	Buttevant.
,,	T. J. Wright	Tipperary	Bere Island.
,,	F. J. Turner	Jubbulpore	Glasgow.
,,	C. H. Turner	Murree	Rawal Pindi.
,,	R. B. Hole, M.B.	Quetta	Irish Comd.
,,	G. E. Cathcart	Khanspur	Rawal Pindi.
,,	H. Harding, M.B.	Quetta	S. Command.
,,	J. A. Turnbull	Cherat	Nowshera.
,,	M. F. Grant	Quetta	S. Command.
,,	M. D. Ahern	Ferozepore	Irish Comd.
,,	H. T. Wilson	Barian	Rawal Pindi.
,,	H. C. Winckworth	Cork	Limerick.
,,	L. V. Thurston	Jullundur	Nowshera.
,,	A. W. Gater	Cliffdon	Jullundur.
,,	R. J. B. Buchanan	Portsmouth	Cosham.
,,	G. B. F. Churchill	Lucknow	Bhamo.
,,	W. G. Maydon	Dinapore	Bangalore.
,,	H. H. A. Emerson, M.B.	Bermuda	Canterbury.
,,	A. E. S. Irvine	Potchefstroom	Simonstown.
,,	P. Farrant	Jamaica	S. Command.
,,	C. F. White, M.B.	Darjeeling	Shwebo.
,,	V. C. Honeybourne	Upper Toppa	Rawal Pindi.
,,	C. T. Edmunds	Cherat	Peshawar.
,,	V. G. Johnson	Peshawar	Nowshera.
,,	R. E. U. Newman, M.B.	Camp Haveligan	Hutti Camp.
,,	M. G. Dill, M.B.	Landguard Fort	Maidstone.
,,	A. C. Vidal	Cosham	Bloemfontein.
Lieutenant	A. Fortescue, M.B.	Lucknow	Cawnpore.
,,	F. H. M. Chapman	,,	Darjeeling.
,,	M. O. Wilson, M.B.	Hyderabad	Karachi.
,,	A. C. Elliott, M.B.	Sialkot	Attock.
,,	E. M. Middleton	Kuldana	Rawal Pindi.
,,	H. S. Dickson	Colchester	Gibraltar.
,,	R. E. Todd, M.B.	Pembroke Dck.	Alexandria.
,,	J. A. Renshaw	Rawal Pindi	Peshawar.
,,	R. De V King	,,	Ambala.
,,	R. G. S. Gregg, M.B.	Lucknow	Calcutta.
,,	F. T. Dowling, M.B.	Rawal Pindi	Nowshera.
,,	J. C. L. Hingston	Barry	Edinburgh.
,,	J. R. Lloyd	Jubbulpore	Jhansi.
,,	J. F. Grant, M.B.	Lucknow	Benares.
,,	H. H. Blake, M.B.	,,	Allahabad.
,,	F. H. Bradley	Barry Camp	Edinburgh.
,,	J. W. Houston, M.B.	Dublin	India
,,	A. Shepherd, M.B.	Lichfield	Sheffield.
,,	W. J. Dunn, M.B.	Mill Hill	Colchester.
,,	W. J. Tobin	Aldershot	Bordon.
,,	C. Ryles, M.B.	Chatham	Landguard Ft.
,,	T. J. Mitchell, M.B.	Barry Camp	Aberdeen.
,,	F. H. Somers-Gardner, M.B.	Bordon	Cosham.
,,	G. H. Stack, M.B.	Ewshott	Aldershot.
,,	S. W. Kyle, M.B.	Eniskillen	Belfast.
,,	S. S. Dykes, M.B.	Barry Camp	Edinburgh.
,,	R. C. Priest, M.B.	Colchester	Gt. Yarmouth.
,,	O. W. McSheehy, M.B.	Tregantle	Falmouth.
,,	M. J. Williamson, M.B.	Bulford	Tidworth.
,,	J. R. Hill, M.B.	Preston	Warrington.
,,	J. R. Yourell, M.B.	Enniskillen	Londonderry.

Vital Statistics.

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL]

THE Registrar-General has just issued his return relating to the births and deaths in the fourth quarter of last year, and to the marriages in the three months ending September last. The number of persons married during that period was equal to an annual rate of 16.4 per 1,000, or 0.9 per 1,000 less than the average rate in the corresponding period of the ten preceding years.

The births registered in England and Wales during the three months under notice numbered 219,182, and were equal to an annual rate of 24.3 per 1,000 of the population, estimated at 35,756,615 persons in the middle of last year; this birth-rate is 2.3 per 1,000 below the mean rate in the ten preceding fourth quarters, and is the lowest birth-rate recorded in the corresponding period of any year since civil registration was established. The birth-rates in the several counties last quarter ranged from 17.7 in Carnarvonshire, 18.3 in Sussex, 20.2 in Northamptonshire, 20.5 in Dorsetshire and in Somersetshire, and 20.6 in Cornwall, to 27.9 in Northumberland, 28.8 in Nottinghamshire, 29.9 in Carmarthenshire, 31.3 in Durham, 34.2 in Glamorganshire, and 34.7 in Monmouthshire. In seventy-six of the largest English towns, including London, the birth-rate averaged 24.4 per 1,000; in London the rate was 23.4 per 1,000, while the mean rate was 24.9 per 1,000 in the seventy-five other large towns, and ranged from 13.5 in Hornsey, 15.0 in Bournemouth, 15.4 in Hastings, 15.9 in Halifax, 18.0 in Bradford, and 18.1 in Handsworth (Staffs), to 31.1 in Rotherham, 31.2 in Hanley, 31.8 in Swansea, 32.6 in Tynemouth, 36.7 in Merthyr Tydfil, and 41.6 in Rhondda.

The excess of births over deaths during the quarter under notice was 91,819, against 89,760, 89,641, and 90,061 in the corresponding quarters of the three preceding years. From a return issued by the Board of Trade, it appears that the passenger movement between the United Kingdom and places outside Europe resulted in a nett balance outward of 49,224 persons. There was an outward balance of 22,289 English passengers, of 602 Welsh, of 6,712 Scottish, of 4,243 Irish, and of 16,810 of foreign nationality; while there was an inward balance of 1,432 British Colonial passengers.

The 127,363 deaths registered last quarter were equal to an annual rate of 14.1 per 1,000, which was 1.9 per 1,000 less than the average rate in the corresponding period of the ten preceding years, and was lower than the rate in the fourth quarter of any previous year. The lowest county death-rates during the quarter under notice were 11.2 in Berkshire, 11.4 in Middlesex, 11.5 in Essex, 11.6 in Kent, and 11.8 in Surrey; the highest rates were 16.1 in Glamorganshire, 16.3 in Staffordshire, 16.4 in Lancashire, 16.7 in Cumberland, 16.9 in Denbighshire, and 18.0 in Carmarthenshire. In seventy-six of the largest towns, with an aggregate population of over sixteen millions, the corrected death-rate was 15.2 per 1,000; in 143 smaller towns, with an aggregate population of over five millions, the corrected rate was 14.5 per 1,000; while in the remainder of the country it was 13.2 per 1,000. In London the rate of mortality was 13.5 per 1,000, while among the seventy-five other towns the rates ranged from 8.8 in Handsworth (Staffs), 9.2 in Hornsey, in East Ham, and in King's Norton, 9.5 in Croydon, and 9.6 in Leyton, to 18.2 in Wigan, 18.6 in Liverpool, 18.9 in Middlesbrough, 19.6 in Oldham, 19.9 in Merthyr Tydfil, 21.2 in Swansea, and 22.4 in Hanley.

The 127,363 deaths from all causes included 8,318 which were referred to the principal infectious diseases; of these, 2,339 resulted from diarrhoea, 1,721 from measles, 1,434 from whooping-cough, 1,361 from diphtheria, 842 from scarlet fever, 614 from "fever" (principally enteric), and 7 from small-pox. The aggregate mortality from these diseases was at the annual rate of 0.92 per 1,000, or 0.55 per 1,000 less than the average rate in the corresponding quarter of the ten preceding years. Of the 7 deaths from small-pox, 2 belonged to Hull, 1 to Stepney, and 1 to Swansea.

The rate of infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 117 per 1,000, against an average rate of 140 in the fourth quarter of the ten preceding years. Among the several counties the rate of infant mortality ranged from 67 in Berkshire, 70 in Wiltshire, 71 in Buckinghamshire and in Dorsetshire, and 74 in Hampshire and in Hertfordshire, to 130 in Glamorganshire, 137 in Northumberland, 149 in Durham, 150 in Lancashire, and 158 in Staffordshire. In the seventy-six large towns the mean rate of infant mortality was 128 per 1,000; in London the rate was 116 per 1,000, while it averaged 133 in the seventy-five other large towns, and ranged from 64 in Croydon, 71 in Leyton, 74 in Hornsey, 80 in Hastings, and 81 in King's Norton, to 187 in Burnley, in Merthyr Tydfil, and in Swansea, 188 in St. Helens, 189 in Oldham, 199 in Wigan, and 202 in Hanley.

The death-rate among persons aged 1 to 60 years was equal to 6.9 per 1,000 of the population estimated to be living at this group of ages, the average rate in the ten preceding fourth quarters being 8.1 per 1,000. In the seventy-six large towns the mortality at this age-period averaged 7.2 per 1,000; in London the rate was 6.8 per 1,000, while among the other towns it ranged from 4.2 in Handsworth (Staffs), 4.3 in King's Norton, 4.4 in Hornsey, and 4.5 in Croydon and in East Ham, to 10.0 in Oldham, 10.2 in Middlesbrough and in Merthyr Tydfil, 10.3 in Liverpool, 10.5 in Swansea, and 12.1 in Hanley.

Among persons aged 60 years and upwards the mortality last quarter was equal to 68.9 per 1,000 of the population living at those ages, against an average rate of 68.0 per 1,000 in the corresponding quarter of the ten preceding years. The rate in the seventy-six large towns was 73.7 per 1,000; in London it was 69.6, while in the other towns it ranged from 51.4 in Handsworth (Staffs), 52.7 in Croydon, 53.5 in Devonport, 57.4 in King's Norton, and 57.6 in Coventry, to 96.0 in Rochdale, 96.2 in Blackburn, 97.0 in Wallasey, 98.9 in Hanley, and 100.1 in Oldham.

The mean temperature of the air last quarter was above the average in London and in the East of England, but was slightly lower than the average in all other districts; the rainfall in most districts exceeded the average, the excess amounting to over 30 per cent. in the Eastern and South-Eastern districts. The total duration of bright sunshine was generally in excess of the average.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,416 births and 5,311 deaths were registered during the week ending Saturday last, February 12th. The annual rate of mortality in these towns, which had been 14.8, 16.3, and 17.0 per 1,000 in the three preceding weeks, declined again last week to 16.6 per 1,000. The rates in the several towns ranged from 7.5 in Willesden, 8.3 in East Ham, 8.8 in Halifax, 9.0 in Hornsey, 9.8 in Leyton, 10.3 in Derby, 10.6 in Barrow-in-Furness, 10.7 in Southampton, and 10.8 in Smethwick, to 21.0 in Hanley, 21.3 in Oldham, 21.4 in Stockton-on-Tees, 21.5 in Liverpool, 22.8 in Stockport, 22.9 in Brighton, 23.7 in Swansea, 23.8 in Burnley, and 24.6 in Devonport. In London the rate of mortality was 17.5 per 1,000, while it averaged 16.3 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.0 per 1,000 in the seventy-six towns; in London these diseases caused a death-rate of 1.1 per 1,000, while among the seventy-five other towns the rates ranged upwards to 2.6 in Walthamstow, 2.7 in Ipswich and in St. Helens, 3.2 in Coventry and in Swansea, 3.4 in Burnley, 4.9 in Devonport, and 5.1 in West Hartlepool. Measles caused a death-rate of 1.4 in Ipswich and in Wallasey, and 1.6 in Swansea; scarlet fever of 1.9 in Burnley; diphtheria of 1.1 in Salford; whooping-cough of 1.3 in Ipswich and in Newport (Mon.), 1.4 in Smethwick, 1.6 in Barrow-in-Furness, 1.8 in Aston Manor, 2.2 in Walthamstow, 4.3 in Devonport, and 5.1 in West Hartlepool; and diarrhoea of 1.1 in Northampton and 1.5 in West Bromwich. The mortality from enteric fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The number of scarlet fever cases under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospitals, which had been 2,069, 1,993, and 1,937 at the end of the three preceding weeks, had further declined to 1,881 at the end of last week; 212 new cases were admitted during the week, against 204, 193, and 213 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday last, February 12th, 908 births and 615 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 15.5, 19.1, and 20.5 per 1,000 in the three preceding weeks, declined again last week to 17.0 per 1,000, but was 0.4 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scottish towns the death-rates ranged from 11.7 in Paisley and 12.4 in Aberdeen, to 21.5 in Dundee and 27.6 in Greenock. The death-rate from the principal infectious diseases averaged 2.5 per 1,000 in the eight towns, the highest rates being recorded in Glasgow and Greenock. The 304 deaths registered in Glasgow included 43 which were referred to measles, 3 to scarlet fever, 4 to diphtheria, 5 to whooping-cough, 2 to enteric fever, and 4 to diarrhoea. Nine fatal cases of measles, 3 of diphtheria, and 2 of diarrhoea were recorded in Edinburgh; 2 of diphtheria and 3 of diarrhoea in Dundee; and 2 of measles in Greenock.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, February 12th, 646 births and 575 deaths were registered in the twenty-two principal urban districts of Ireland, as against 694 births and 552 deaths in the preceding period. The annual death-rate in these districts, which had been 19.1, 21.1, and 25.0 per 1,000 in the three preceding weeks, rose to 26.0 per 1,000 in

the week under notice, this figure being 9.4 per 1,000 higher than the mean annual death-rate in the seventy-six English towns for the corresponding period. The figures in Dublin and Belfast were 26.4 and 22.9 respectively, those in other districts ranging from 12.0 in Dundalk and 14.4 in Sligo, to 46.6 in Galway and 53 1 in Lurgan, while Cork stood at 26.7, Londonderry at 20.4, Limerick at 16.4, and Waterford at 44.8. The zymotic death-rate in the twenty-two districts averaged 1.4 per 1,000, as against 1.5 per 1,000 in the preceding period.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

BARNSLEY: BECKETT HOSPITAL AND DISPENSARY.—Honorary Ophthalmic Surgeon.

BATH ROYAL UNITED HOSPITAL.—House-Physician. Salary, £80 per annum,

BIRMINGHAM: QUEEN'S HOSPITAL.—Pathologist. Honorarium, £100 per annum.

BIRMINGHAM UNIVERSITY.—Assistant Lecturer on Pathology and Bacteriology. Stipend, £50 per annum.

BRADFORD ROYAL INFIRMARY.—(1) Two House-Surgeons; (2) House-Physician. Salary, £100 per annum each.

BRIGHTON: ROYAL ALEXANDRA HOSPITAL FOR SICK CHILDREN.—House-Surgeon. Salary at the rate of £80 per annum.

BRIGHTON: SUSSEX COUNTY HOSPITAL.—Second House-Surgeon. Salary, £60 per annum.

BUENOS AIRES: BRITISH HOSPITAL.—(1) Senior Resident Medical Officer; salary, £250 per annum, rising to £300. (2) Assistant Resident Medical Officer; salary, £200 for first year and £225 for second.

CAMBRIDGE: ADDENBROOKE'S HOSPITAL.—House-Physician. Salary at the rate of £60 per annum.

CANCER HOSPITAL, Fulham Road, S.W.—Medical Officer in charge of Electrical Department. Honorarium, £26 5s. per annum.

CHELTENHAM GENERAL HOSPITAL.—House-Surgeon. Salary, £70 per annum.

DORSET COUNTY HOSPITAL, DORCHESTER.—House-Surgeon. Salary, £100 per annum.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—(1) Assistant Surgeon; (2) Ophthalmic Surgeon.

HADDINGTON: COUNTY COUNCIL OF HADDINGTONSHIRE.—County and District Medical Officer, to act also as Medical Officer under the School Boards. Combined salary, £500 per annum.

KETTERING AND DISTRICT GENERAL HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

KING'S LYNN: WEST NORFOLK AND LYNN HOSPITAL.—House-Surgeon. Salary, £100 per annum.

LEAMINGTON: WARNEFORD, LEAMINGTON, AND SOUTH WARWICKSHIRE GENERAL HOSPITAL.—Two Resident Medical Officers. Salary, £100 and £65 per annum respectively.

LIVERPOOL: DAVID LEWIS NORTHERN HOSPITAL.—(1) House-Physician; (2) Two House-Surgeons. Salary at the rate of £60 per annum.

LIVERPOOL DISPENSARIES.—Head-Surgeon. Salary, £170 per annum, rising to £200.

MACCLESFIELD GENERAL INFIRMARY.—(1) Senior House-Surgeon; (2) Junior House-Surgeon. Salary, £100 and £60 per annum respectively.

MANCHESTER: COUNTY ASYLUM, PRESTWICH.—Junior Assistant Medical Officer. Salary, £150 per annum, increasing to £250.

NEWCASTLE-ON-TYNE EYE INFIRMARY.—Non-resident House-Surgeon. Salary, £100 per annum.

NEW HOSPITAL FOR WOMEN, Euston Road, N.W.—Surgical Assistant.

NORTHAMPTON COUNTY BOROUGH.—Assistant Medical Officers of Health. Salary, £250 per annum.

NOTTINGHAM GENERAL DISPENSARY.—Assistant Resident Surgeon at Branch (male). Salary, £160 per annum.

PERTH COUNTY EDUCATION COMMITTEE.—School Medical Officer. Salary, £350 per annum, rising to £400.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W.—Resident Medical Officer for Out-patient Department. Salary at the rate of £60 per annum.

ROTHERHAM HOSPITAL.—Senior House-Surgeon (male). Salary, £110 per annum.

ROYAL LONDON OPHTHALMIC HOSPITAL, City Road, E.C.—Assistant Surgeon.

ST. MARY'S HOSPITAL, Paddington.—Resident Assistant Anaesthetist. Salary at the rate of £100 per annum.

SHEFFIELD UNIVERSITY.—Junior Demonstrator of Pathology. Salary, £150 per annum.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—Assistant House-Surgeon. Salary, £82 per annum.

SWANSEA GENERAL AND EYE HOSPITAL.—House-Surgeon. Salary, £75 and £12 allowance for holiday locum.

VENTNOR: ROYAL NATIONAL HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Assistant Resident Medical Officer. Salary, £100 per annum.

WEST HAM UNION.—Third Assistant Medical Officer for the Infirmary. Salary, £120 per annum.

WEST LONDON HOSPITAL, Hammersmith Road, W.—(1) Two House-Physicians; (2) Three House-Surgeons.

RTIFYING FACTORY SURGEON.—The Chief Inspector of Factories announces a vacancy at Widnes, co. Lancaster.

APPOINTMENTS.

ALLAWAY, E. E., M.B., Ch.B.Aberd., Resident Assistant Medical Officer, Nottingham Parish Infirmary.

ATKINS, G. E., M.R.C.S., L.R.C.P., Medical Officer of Health, Wombwell Urban District.

BAKER, Madeleine S., M.B., B.Ch.Dub.Univ., Assistant Medical Officer to the Consumption Sanatoria of Scotland, Bridge of Weir.

BALDWIN, Aslett, F.R.C.S.Eng., Surgeon to the West London Hospital.

BOND, C. Hubert, D.Sc., M.D.Edin., Lecturer on Mental Diseases at the Middlesex Hospital Medical School.

BYRNE, J. A., L.M.S.S.A., Resident Assistant Medical Officer of the Infirmary and Workhouse of the Prestwich Union.

DEVANE, J. F., M.B., B.Ch., F.R.C.S.I., D.P.H., Visiting Physician to the Limerick County Infirmary.

FARNCOMBE, W. T., M.D.Brux., M.R.C.S., L.R.C.P., Certifying Factory Surgeon for the South Birmingham District, co. Warwick.

FLOOD, Richard, M.B., B.Ch., R.U.I., Medical Officer and Medical Officer of Health, Newry No. 2 Dispensary District, and Registrar of Births, Deaths, and Marriages for same district.

HEATH, H. Llewellyn, D.P.H.Camb., Bacteriologist to the East Suffolk and Ipswich Hospital.

LAWRENCE, C. A., L.R.C.P. and S.Edin., Certifying Factory Surgeon for the Polmont District, co. Stirling.

MCBRIDE, J. B., L.R.C.P. and S.Ire., Certifying Factory Surgeon for the Berkhamsted District, co. Hertford.

MACINTYRE, Hugh, M.B., C.M.Glasg., Medical Officer of Health for the Parish of Kilarrow and Kilmeny.

MILLER, James, M.D., Medical Officer of the Burgh of Kirkintilloch.

MORGAN, G. F. Elliot, D.P.H., M.R.C.S., L.R.C.P.Lond., Honorary Consulting Physician to the Hartlepools Hospital.

O'RORKE, F. T., L.R.C.P. and S.Irel., Certifying Factory Surgeon for the Westport District, co. Mayo.

PINDER, A. H., M.R.C.S., L.R.C.P., District Medical Officer of the West Derby Union.

PIRIE, W. R., M.B., C.M.Aberd., Certifying Factory Surgeon for the Aberdeen District, co. Aberdeen.

WALL, D. L., M.B., Ch.B.Edin., Medical Officer of Health, Hoo Rural District.

WILLS, R. G., M.A., M.B., B.C.Cantab., M.R.C.S.Eng., L.R.C.P.Lond., Honorary Physician to the Bootle Borough Hospital.

WOODWARK, A. S., M.D., M.R.C.P.Lond., Physician to the Royal Waterloo Hospital for Children and Women.

CHELSEA HOSPITAL FOR WOMEN, S.W.—The following have been appointed Clinical Assistants:
U. Zachary Cope, M.D., M.S.; Major B. H. Deare, I.M.S., M.R.C.S., L.R.C.P.; P. Gorrie, M.B., Ch.B.

SAMARITAN FREE HOSPITAL FOR WOMEN, N.W.—The following have been appointed Clinical Assistants:
Hy. Braund, M.R.C.S., L.R.C.P.; Dr. Harding; Henry Wilcox, M.D.; Dr. H. C. Woodyatt.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTH.

SMYTH.—On February 10th, at 2, Lyford Road, Wandsworth Common, to Dr. and Mrs. Smyth, twin sons.

STRATFORD.—On February 8th, at 108, Earl's Court Road, Kensington, W., the wife of Howard M. Stratford, M.R.C.S., L.R.C.P.Lond., of a son.

DEATHS.

CLARKE.—On February 14th, 1910, at Kotona, Huddersfield, Thomas Kilner Clarke, M.A., F.R.C.S., J.P., aged 66.

EVANS.—On February 6th, at his residence, Cartref, Dovercourt, Essex, Samuel Evans, M.R.C.S.Eng., L.R.C.P.Lond., aged 63 years.

GENT.—On February 5th, 1910, after a few days' illness, George Sidney Gent, M.R.C.S., L.S.A., of 131, Coronation Road, Bristol, aged 49 years.

RECENT PUBLICATIONS.

Light, Pigmentation, and New Growth: Being an Essay on the Genesis of Cancer. By W. Watkins-Pitchford, M.D., F.R.C.S. Privately printed. (Roy. 8vo, pp. 100.)

This is the full text of a paper communicated by Dr. Watkins-Pitchford to the South African Medical Congress, Durban, in August, 1909. The author published an abstract of his arguments and conclusions in the BRITISH MEDICAL JOURNAL of August 21st, 1909, p. 442.

Balnéo Guide en Suisse. Par le Dr. Eugène de la Harpe. Paris: A. Maloine. 1909. (Cr. 8vo, pp. 296; one coloured map.)

The author is Privat-docent in balneotherapy at the University of Lausanne, and the book gives brief particulars with regard to the principal spas, climatic stations, and hydrotherapeutic establishments in Switzerland. The Introduction contains a short general disquisition on the climate of Switzerland in relation to altitude.

Mushrooms and their Cultivation. By T. W. Saunders, F.L.S. London: W. H. and L. Collingridge. (Cr. 8vo, pp. 80; thirty-eight illustrations. 1s.)

Designed to meet the requirements of amateurs who wish to grow mushrooms for home consumption in the open air, or in sheds, cellars, or greenhouses. It contains a chapter on the cooking of mushrooms and another on other edible fungi. Like other books by the editor of *Amateur Gardening*, it is of a most practical character.

DIARY FOR THE WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 9 p.m.—Dr. J. S. Risien Russell: The Second Lettsomian Lecture on The Cerebellum and Its Affections.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Professor Arthur Keith: The Anatomy of the Negro and Negroid Races.

TUESDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Second Milroy Lecture by Mr. Arthur G. Foulerton: The Streptotrichoses and their Relationship to Tuberculosis.

ROYAL SOCIETY OF MEDICINE:

MEDICAL SECTION, 20, Hanover Square, W., 5.30 p.m.—Discussion on Pericarditis with Effusion as Determined by Operation or Necropsy, to be opened by Dr. Samuel West.

WEDNESDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Professor W. Sampson Handley: The Surgery of the Lymphatic System.

THURSDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W, 5 p.m.—Third Milroy Lecture by Mr. Arthur G. Foulerton: The Streptotrichoses and their Relationship to Tuberculosis.

ROYAL SOCIETY OF MEDICINE:

NEUROLOGICAL SECTION, 20, Hanover Square, W., 8.30 p.m.—Papers and Specimens:—Dr. Hinds Howell: Tumours of the Pineal Body. Dr. Campbell Thomson: Thrombosis causing Left Fifth Nerve Anaesthesia, and Hemianalgesia of the Same Side. Dr. Wilfred Harris: A Case of Thrombosis of the Posterior Inferior Cerebellar Artery, followed by Severe Trigeminal Neuralgia in the Analgesic Facial Area.

FRIDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Professor W Sampson Handley: The Surgery of the Lymphatic System.

ROYAL SOCIETY OF MEDICINE:

SECTION OF DISEASES OF CHILDREN, 20, Hanover Square, W., 4.30 p.m.—Demonstration of Cases and Specimens.

EPIDEMIOLOGICAL SECTION, 20, Hanover Square, W., 8.30 p.m.—Paper:—Dr. J. E. Sandilands: The Communication of Diarrhoea from the Sick to the Healthy.

POST-GRADUATE COURSES AND LECTURES.

BROMPTON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, S.W.—Wednesday, 4 p.m., Surgical Complications of Pulmonary Tuberculosis.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat at noon and 4 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Thursday, and noon Friday; Eye, 11 a.m., Wednesday and Saturday; Radiography, 4 p.m., Thursday. Special Lectures: Wednesday, 2.15 p.m., Muscular Atrophy; Friday, 2.15 p.m., Cerebral Haemorrhage.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Eye. Lectures at 5.15 p.m. each day will be given as follow: Monday, Aortic Regurgitation; Tuesday, Acute Infection of the Kidney with *B. coli*; Wednesday, Tuberculosis in Childhood; Thursday, The Modern Treatment of Pulmonary Tuberculosis.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday and Friday, 3.30 p.m., Clinical Lecture.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics. 2.30 p.m., Medical Out-patient: Nose, Throat, and Ear; 4.30 p.m., Medical In-patient. Tuesday, 10 a.m., Medical Out-patient Clinic; 2.30 p.m., Operations; Clinics: Surgical, Gynaecological; 4.30 p.m., Special Pathological Demonstration. Wednesday, 2.30 p.m., Medical Out-patient, Skin and Eye Clinics; *X* Rays. Thursday, 2.30 p.m., Gynaecological Operations; Clinics: Medical Out-patient; Surgical Out-patient; 3 p.m., Medical In-patient, 4.30 p.m., Demonstration of Selected Surgical Cases. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Eye; 3 p.m., Medical In-patient.

POST-GRADUATE COLLEGE, West London Hospital, Hammersmith, W.—The following are the arrangements for next week:—Daily: Medical and Surgical Clinics, 2 p.m; Operations, 2 p.m.; *X* Rays, 2 p.m. Monday, Surgical Registrar, 10 a.m.; Eye, 2 p.m. Tuesday, Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday, Diseases of Children, 10 a.m.; Throat and Nose Operations, 10 a.m.; Practical Medicine, 12.15 p.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday, Surgical Registrar, 10 a.m.; Eye, 2 p.m.; Pathological Demonstration, 12 noon; Orthopaedics, 2 p.m. Friday, Medical Registrar, 10 a.m.; Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday, Diseases of Children, 10 a.m. Lectures: 5 p.m., Monday, Practical Surgery; Tuesday, Clinical Pathology; Wednesday, Anaesthetics; Thurday, Vascular Diseases of the Brain and their Treatment; Friday, General Treatment of Mental Diseases.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
FEBRUARY.	
20 Sunday ..	
21 MONDAY ..	
22 TUESDAY ..	LONDON: Hospitals Subcommittee, 4 p.m. WARRINGTON DIVISION, *Lancashire and Cheshire Branch*, Scientific Meeting, Infirmary, Warrington, 8.30 p.m.
23 WEDNESDAY	LONDON: Medico-Political Committee, District Nurses and Midwives Subcommittee, 3 p.m. BATH AND BRISTOL BRANCH, Museum, Bath, 8 p.m.; Council Meeting, 7.55 p.m. LEICESTER DIVISION, *Midland Branch*, Leicester Infirmary, 4.15 p.m. RICHMOND DIVISION, *Metropolitan Counties Branch*, Royal Hospital, Richmond, 8.30 p.m.
24 THURSDAY ..	BROMLEY DIVISION, *South-Eastern Branch*, Bell Hotel, Bromley, 8.30 p.m. STAFFORDSHIRE BRANCH, General Meeting, North Western Hotel, Stafford, 5.15 p.m.; Dinner, 7.15 p.m.
FEBRUARY *(continued)*.	
25 FRIDAY ..	LONDON: Medico Political Committee, Medical Inspection and Treatment of School Children Subcommittee, 3 p.m. BIRMINGHAM BRANCH, Pathological and Clinical Section, Medical Institute, Edmund Street, 8 p.m. CITY DIVISION, *Metropolitan Counties Branch*, conjointly with Aesculapian Society, Metropolitan Hospital, 4 p.m. EDINBURGH BRANCH, Winter Clinical Meeting, Royal Infirmary; Museum, 11 a.m. onwards; Special Clinics during forenoon; Clinical Meeting, 4 p.m.; Dinner, Royal British Hotel, Princes Street, 6.30 p.m. HAMPSTEAD DIVISION, *Metropolitan Counties Branch*, 8.30 p.m. MONMOUTHSHIRE DIVISION, *South Wales and Monmouthshire Branch*, Pontypool and District Hospital, 3.15 p.m.
26 SATURDAY ..	
27 Sunday ..	
28 MONDAY ..	

Printed and Published by the British Medical Association at their Offices, No. 429, Strand, in the Parish of St. Martin-in-the-Fields in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, FEBRUARY 26TH, 1910.

CONTENTS.

	PAGE
The Seventy-eighth Annual Meeting of the British Medical Association.—PROGRAMME OF BUSINESS ...	81
Meetings of Branches and Divisions:	
Assam Branch	84
Gloucestershire Branch	87
Metropolitan Counties Branch: Kensington Division	88
,, ,, ,, Lambeth Division	88
,, ,, ,, Stratford Division	88
ASSOCIATION NOTICES.—ANNUAL SUBSCRIPTION, 1910 ...	88
MIDWIVES ACT, 1902.—Circular by the Local Government Board	89
NAVAL AND MILITARY APPOINTMENTS	89
VITAL STATISTICS	89
VACANCIES AND APPOINTMENTS	91
BIRTHS, MARRIAGES, AND DEATHS	91
RECENT PUBLICATIONS	91
DIARY FOR THE WEEK	91
CALENDAR	92

THE SEVENTY-EIGHTH ANNUAL MEETING

OF THE

BRITISH MEDICAL ASSOCIATION,

LONDON,

JULY 26TH TO JULY 29TH, 1910.

President:

Sir WILLIAM WHITLA, M.D., LL.D., Professor of Materia Medica and Therapeutics, Queen's College, Belfast.

President-elect:

H. T. BUTLIN, D.C.L., LL.D., P.R.C.S., Consulting Surgeon, St. Bartholomew's Hospital, London.

Past President:

SINCLAIR WHITE, M.D., M.Ch., F.R.C.S., Senior Honorary Surgeon, The Royal Infirmary, Sheffield.

Chairman of Representative Meetings:

HAMILTON ASHLEY BALLANCE, M.S., Surgeon, Norfolk and Norwich Hospital, Norwich.

Chairman of Council:

EDMUND OWEN, LL.D., D.Sc., F.R.C.S., Consulting Surgeon to St. Mary's Hospital, London, W.

Treasurer:

EDWIN RAYNER, M.D., F.R.C.S., Consulting Surgeon, Stockport Infirmary, Stockport.

The Seventy-eighth Annual Meeting of the British Medical Association will be held in London in July, 1910. The President's Address will be delivered on Tuesday, July 26th, and the Sections will meet on the three following days. The Annual Representative Meeting will begin on Friday, July 22nd, 1910.

PROGRAMME OF BUSINESS.

The Address in Medicine will be delivered by JOHN MITCHELL BRUCE, M.D., F.R.C.P., London.

The Address in Surgery will be delivered by HARRY GILBERT BARLING, B.S., F.R.C.S., Birmingham.

THE SECTIONS.

The scientific business of the meeting will be conducted in twenty-one Sections, which will meet on Wednesday, July 27th, Thursday, July 28th, and Friday, July 29th.

The President, Vice-Presidents, and Honorary Secretaries of each Section constitute a Committee of Reference for that Section, and exercise the power of inviting, accepting, or declining any paper, and of arranging the order in which accepted papers shall be read. Communications with respect to papers should be addressed to one of the Honorary Secretaries.

A paper read in the Section must not exceed fifteen minutes, and no subsequent speech must exceed ten minutes.

Papers read are the property of the British Medical Association, and cannot be published elsewhere than in the BRITISH MEDICAL JOURNAL *without special permission.*

The following are the general arrangements so far as they are yet complete:

ANAESTHETICS.

President: Frederic William Hewitt, M.V.O., M.D., London.

Vice-Presidents: Donald C. A. McAllum, Edinburgh; George Rowell, F.R.C.S., London; Alexander Wilson, F.R.C.S., Manchester.

Honorary Secretaries: Miss Ada M. Browne, L.S.A., 64, Belsize Park, N.W.; William Joseph McCardie, M.B., 89, Cornwall Street, Birmingham; Herbert J. Scharlieb C.M.G., M.D., 149, Harley Street, W.

ANATOMY.

President: Professor Arthur Keith, F.R.C.S., London.

Vice-Presidents: Professor David Hepburn, M.D., Cardiff; Fredk. Gymer Parsons, F.R.C.S., London; Professor Grafton Elliot Smith, M.D., F.R.S., Manchester; Professor William Wright, F.R.C.S., London.

Honorary Secretaries: Professor A. Campbell Geddes, M.D., Dublin; Alex. Macphail, M.B., Anatomy Dept., Medical School, Charing Cross Hospital, W.C.

BACTERIOLOGY.

President: Charles J. Martin, M.B., F.R.S., London.

Vice-Presidents: John W. H. Eyre, M.D., London; Professor Arthur H. White, L.R.C.P.I., Dublin.

Honorary Secretaries: Carl Hamilton Browning, M.D., Pathological Department, University of Glasgow; John Charles Grant Ledingham, M.B., Lister Institute, Chelsea Gardens, S.W.

DERMATOLOGY.

President: Phineas Abraham, M.D., London.

Vice-Presidents: Robert Alfred Bolam, M.D., Newcastle-on-Tyne; Walter G. Smith, M.D., Dublin; W. Kenneth Wills, M.R.C.S., Bristol.

Honorary Secretaries: William Griffith, M.B., 1, Chester Gate, Regent's Park, N.W.; G. Norman Meachen, M.D., 11, Devonshire Street, W.; J. Goodwin Tomkinson, M.D., Western Infirmary, Glasgow.

DISEASES OF CHILDREN.

President: Archibald E. Garrod, M.D., London.

Vice-Presidents: Chas. P. B. Clubbe, M.R.C.S., Sydney; Thomas Sinclair Kirk, M.B., Belfast; H. D. Rolleston, M.D., London; Francis James Steward, M.S., F.R.C.S., London.

Honorary Secretaries: Harold Arthur Thomas Fairbank, M.S., 137, Harley Street, W.; Francis W. Goyder, F.R.C.S., "Marley House," Bradford; Jas. Hugh Thursfield, M.D., 84, Wimpole Street, W.

GYNAECOLOGY AND OBSTETRICS.

President: Mrs. Mary A. D. Scharlieb, M.D., London.

Vice-Presidents: John W. Ballantyne, M.D., Edinburgh; Comyns Berkeley, M.B., London; Professor John A. C. Kynoch, M.B., Dundee; Thomas Wilson, M.D., Birmingham; Thomas H. Wilson, F.R.C.P.I., Dublin.

Honorary Secretaries: W. Blair Bell, M.D., 7, Rodney Street, Liverpool; John Prescott Hedley, M.B., 11, John Street, Berkeley Square, W.; Carlton Oldfield, M.D., 32, Park Square, Leeds.

LARYNGOLOGY.

President: Herbert Tilley, F.R.C.S., London.

Vice-Presidents: J. Lacy Firth, M.D., Bristol; A. Brown Kelly, M.D., Glasgow; Stephen Paget, F.R.C.S., London; H. Betham Robinson, M.S., F.R.C.S., London.

Honorary Secretaries: Geo. Nixon Biggs, M.B., 30, Harley Street, W.; Henry John Davis, M.B., 8, Portman Street, W.; John Smith Fraser, F.R.C.S., 36, Moray Place. Edinburgh.

MEDICAL SOCIOLOGY.

President: James Alexander Macdonald, M.D., Taunton.

Vice-Presidents: R. Cochrane Buist, M.D., Dundee; Major Greenwood, M.D., London; Hugh R. Ker, F.R.C.S.Edin., London; Professor James T. J. Morrison, M.B., Birmingham.

Honorary Secretaries: Donald John Armour, F.R.C.S., 89, Harley Street, W.; Harvey Hilliard, M.R.C.S., 30, Wilton Place, Knightsbridge, S.W.; James Henry Taylor, M.B., 299, Eccles New Road, Salford.

The following is a list of the subjects selected for discussion by the officers of this Section. A syllabus is appended in each case.

I.—State Sickness Insurance (Provision of Medical Attendance) as Affecting the Public Health and the Medical Profession.

1. *The Public Health.*

A. Summary of the existing systems of medical relief of the wage-earning classes, including:

(i) Private medical practice.
(ii) Contract medical practice.
(iii) Charitable services.
(iv) Public services.

B. Examination of the efficiency of such treatment, and consideration of the effects on the community of inefficiency, particularly in respect of the delay in obtaining proper treatment, and consequent prolongation of treatment or permanent disability.

C. Desirability of public provision to facilitate prompt treatment.

D. Importance of maintaining the provident element in such provision.

E. Examination of the effects of a system of national insurance in providing that prompt medical attendance shall be within the reach of every wage-earner, under conditions which secure:

(i) That he shall contribute to the cost.
(ii) That he shall have a measure of control over the provision made.

2. *As Affecting the Medical Profession.*

A. Defects of existing arrangements, particularly as regards underpayment or non-payment of those members of the profession who attend the wage-earning classes.

B. Advantages of a system of national insurance as affording means whereby the profession, if it take the proper steps, may secure adequate remuneration and satisfactory conditions of service.

C. Examination of the objections to a system of national insurance, especially:

(i) That it would perpetuate the present evils of contract medical practice.
(ii) That it would deprive the medical practitioner of his independence.

D. Indirect effects of a system of national insurance on:

(i) Charitable medical organizations.
(ii) The Poor Law medical service.

II.—Social Aspects of the Falling Birth-Rate.

1. The facts: (*a*) Comparative national statistics; (*b*) comparative social statistics—that is, evidence as to the relative rates of decline in various social strata.

2. The factors: (*a*) spontaneous; (*b*) artificial.

3. The effects: (*a*) on selection, reproductive from more fertile classes natural, comparative class death-rates, infantile and juvenile; (*b*) on national efficiency, industrial, professional, and military; (*c*) on character, individual and national.

Problems for Discussion.

(*a*) Biological gain or loss in the process and its controllability.

(*b*) Methods of control, economic, ethical, medical.

III.—THE ECONOMIC BASIS OF HOSPITAL MANAGEMENT.

1. *Provision of Funds :—*
Proportion of payments by—

i. Public grants:
Asylum boards,
Corporations,
Boards of guardians,
Education committees.

ii. Charitable or philanthropic:
Sunday funds,
Works collections,
Private subscribers and endowments.

iii. Payments by patients.

2. *Conditions of Admission :—*
In and out patients:

i. Free,
ii. Subscribers' letters,
iii. Partial payments,
iv. Recommendation by public bodies,
v. Almoners.

3. *Professional :—*
Staff:

i. Public subscriptions,
ii. Private subscriptions.

Principles of Resolutions adopted by the Association.

In the case of patients maintained from public funds, the medical service should be paid.

In the case of patients maintained from charitable funds, the medical service should be charitable.

In the case of patients paying for themselves, the medical service should be chosen by the patient and paid for by him.

4. *The Economic Basis of the Out-patient Department :—*

(*a*) Consultative.

(*b*) Dispensary:

i. From the professional point of view,
ii. From the patient's point of view,
iii. From the hospital point of view.

MEDICINE.

President: R. W. PHILIP, F.R.C.P.Edin., Edinburgh.

Vice-Presidents: Professor HARRY B. ALLEN, M.D., Melbourne; GEORGE A. HERON, F.R.C.P., London; WALTER K. HUNTER, M.D., Glasgow; HENRY L. MCKISACK, M.D., Belfast; GEORGE R. MURRAY, M.D., Manchester; SIDNEY P. PHILLIPS, M.D., London.

Honorary Secretaries: H. MORLEY FLETCHER, M.D., 98, Harley Street, W.; HERBERT FRENCH, M.D., 62, Wimpole Street, W.; JOHN HAY, M.D., 12, Rodney Street, Liverpool.

NAVY, ARMY, AND AMBULANCE.

President: Colonel ANDREW CLARK, A.M.S., London.

Vice-Presidents: Fleet Surgeon PERCY W. BASSETT-SMITH, R.N., Haslar; Lieutenant-Colonel JAMES HARPER, R.A.M.C.T., London; Lieutenant-Colonel MICHAEL W. H. RUSSELL, R.A.M.C., London; Lieutenant-Colonel ROBERT J. S. SIMPSON, C.M.G., R.A.M.C., London.

Honorary Secretaries: Staff Surgeon JAMES GARFIT WALLIS, M.B., R.N., Royal Naval Barracks, Chatham; Major ALFRED PERCY BLENKINSOP, R.A.M.C., c.o. Messrs. Holt and Co., 3, Whitehall Place, S.W.; Major ARTHUR M. CONNELL, R.A.M.C.T., 79, Hanover Street, Sheffield.

ODONTOLOGY.

President: J. HOWARD MUMMERY, M.R.C.S., L.D.S. London.

Vice-Presidents: WILLIAM DONALD ANDERSON, F.F.P.S., L.D.S., Glasgow; ARTHUR W. W. BAKER, M.D., L.D.S., Dublin; W. H. DOLAMORE, M.R.C.S., L.R.C.P., L.D.S., London; WILLIAM HERN, M.R.C.S., L.D.S., London; JOHN MATHIESON MACMILLAN, L.R.C.P. and S. Edin., L.D.S., Glasgow.

Honorary Secretaries: ERNEST B. DOWSETT, M.R.C.S., L.R.C.P., L.D.S., 1, Gloucester Street, W.; A. HOPEWELL-SMITH, M.R.C.S., L.R.C.P., L.D.S., 58, Park Street, Park Lane, W.; CYRIL H. HOWKINS, M.R.C.S., L.R.C.P., L.D.S., 83A, Edmund Street, Birmingham.

OPHTHALMOLOGY.

President: CHARLES HIGGENS, F.R.C.S., London.

Vice-Presidents: HENRY L. FERGUSON, F.R.C.S.I., Dunedin; CECIL E. SHAW, M.D., Belfast; GEORGE WM. THOMPSON, F.R.C.S., London.

Honorary Secretaries: N. BISHOP HARMAN, F.R.C.S., 108, Harley Street, W.; ARTHUR HENRY HAVEN SINCLAIR, M.D., 5, Walker Street, Edinburgh.

OTOLOGY.

President: EDWARD LAW, M.D., London.

Vice-Presidents: ALBERT ALEXANDER GRAY, M.D., Glasgow; HUNTER F. TOD, M.D., London; FREDERICK H. WESTMACOTT, F.R.C.S., Manchester.

Honorary Secretaries: CECIL IRVING GRAHAM, F.R.C.S., 47, Queen Anne Street, W.; HERBERT JAMES MARRIAGE, F.R.C.S., 109, Harley Street, W.

PATHOLOGY.

President: S. G. SHATTOCK, F.R.C.S., London.

Vice-Presidents: FREDERICK W. ANDREWES, M.D., London; ERNEST F. BASHFORD, M.D., London; Professor STUART MCDONALD, M.B., Newcastle.

Honorary Secretaries: JULIUS MEYER BERNSTEIN, M.B., Woodstock Avenue, Golder's Green, N.W.; ARTHUR E. BOYCOTT, M.D., Guy's Hospital, London, S.E.; ERNEST E. GLYNN, M.B., 62, Rodney Street, Liverpool.

PHARMACOLOGY AND THERAPEUTICS.

President: Professor ARTHUR ROBERTSON CUSHNY, M.D., F.R.S., London.

Vice-Presidents: EDMUND H. COLBECK, M.D., London; ROBERT HUTCHISON, M.D., London.

Honorary Secretaries: ARTHUR FREDERICK HERTZ M.D., 1, Weymouth Street, Portland Place, W. DOUGLAS CHALMERS WATSON, M.D., 22, Coates Crescent Edinburgh.

PHYSIOLOGY.

President: Professor WILLIAM HENRY THOMPSON, M.D., Dublin.

Vice-Presidents: JOHN SCOTT HALDANE, M.D., F.R.S., Oxford; Professor PERCY THEODORE HERRING, M.D., St. Andrews, N.B.

Honorary Secretaries: T. GRAHAM BROWN, M.B., Physiological Department, University, Glasgow; JOSEPH STRICKLAND GOODALL, M.B., Physiological Laboratory, Middlesex Hospital, W.

The two following discussions have been provisionally arranged:

1. The Food Requirements of Man for Subsistence and Work.

2. The Factors which make for an Efficient Circulation.

PSYCHOLOGICAL MEDICINE AND NEUROLOGY

President: Theo. Bulkeley Hyslop, M.D., F.R.S.E., London.

Vice-Presidents: Archibald R. Douglas, L.R.C.P., Lancaster; William Graham, M.D., Belfast; Thomas D. Greenlees, M.D., London; J. Risien Russell, M.D., London; David G. Thomson, M.D., Norwich.

Honorary Secretaries: Arthur Stanley Barnes, M.D., 141, Great Charles Street, Birmingham; Robert Hunter Steen, M.D., The Hollies, Dartford; Reginald John Stillwell, M.R.C.S., Moorcroft, Hillingdon, Uxbridge.

RADIOLOGY AND MEDICAL ELECTRICITY.

President: J. Mackenzie Davidson, M.B., London.

Vice-Presidents: C. Thurstan Holland, M.R.C.S., Liverpool; H. Lewis Jones, M.D., London; Cecil R. C. Lyster, M.R.C.S., London; William F. Somerville, M.D., Glasgow.

Honorary Secretaries: W. Ironside Bruce, M.D., 10, Chandos Street, W.; Leonard A. Rowden, M.B., 32, Park Square, Leeds.

The subjects for discussion have not yet been selected, but it is proposed to set apart a special time for the exhibition by lantern of radiograms of subjects of peculiar interest, and members having lantern slides are requested to communicate with the Honorary Secretaries.

STATE MEDICINE.

President: The Right Hon. Sir Walter Foster, P.C., M.D., D.C.L., London.

Vice-Presidents: Francis Clark, M.D., M.R.C.P., D.P.H., Hong Kong; S. Monckton Copeman, M.D., F.R.S., London; Thomas W. H. Garstang, M.A., M.R.C.S., D.P.H., Altrincham; Herbert Jones, L.R.C.S.I., D.P.H., Hereford; James Malcolm Mason, L.R.C.P., D.P.H., London; Charles E. Paget, M.R.C.S., Northampton.

Honorary Secretaries: Geo. Frederick McCleary, M.D., 7, Belsize Park Gardens, Hampstead, N.W.; John Edward Sandilands, M.R.C.S., Town Hall, Kensington, W.

SURGERY.

President: Sir Victor Horsley, F.R.C.S., M.B., F.R.S., London.

Vice-Presidents: Frederick Dougan Bird, M.R.C.S., Melbourne; John Bland-Sutton, F.R.C.S., London; Professor A. J. McAuley Blayney, F.R.C.S.I., Dublin; George H. Makins, C.B., F.R.C.S., London; F. N. Gisborne Starr, M.B., Toronto; Professor Hy. Alexis Thomson, M.D., Edinburgh.

Honorary Secretaries: Herbert Sherwell Clogg, M.S., 143, Harley Street, W.; Douglas Drew, F.R.C.S., 6, Wimpole Street, W.; William J. Greer, F.R.C.S.I., 19, Gold Tops, Newport, Mon.

The following subjects have been selected for discussion:

1. The Principles which should Govern the Operative Treatment of Simple Fractures.
2. The Surgical Treatment of Exophthalmic Goître.

TROPICAL MEDICINE.

President: Fleming M. Sandwith, M.D., London.

Vice-Presidents: Henry P. Keatinge, M.B., Cairo; George C. Low, M.B., London; Laurance Dudley Parsons, M.B., Gibraltar; Colonel James R. Roberts, I.M.S., F.R.C.S., Indore, C. India; Raghavendra Row, M.D., Bombay.

Honorary Secretaries: H. Sinclair Coghill, M.B., London School of Tropical Medicine, Royal Albert Dock, E.; William Thomas Prout, C.M.G., M.B., 78, Rodney Street, Liverpool; Emrys Roberts, M.D., 5, Buckingham Place, Queen's Road, Clifton, Bristol.

PROVISIONAL TIME TABLE.

Friday, July 22nd, 1910.
2.30 p.m.—Annual General Meeting, followed by Representative Meeting.

Saturday, July 23rd, 1910.
9.30 a.m.—Representative Meeting.

Monday, July 25th, 1910.
10 a.m.—Representative Meeting.

Tuesday, July 26th, 1910.
10 am.—Council Meeting.
10.30 a.m.—Representative Meeting.
2.30 p.m.—Adjourned General Meeting. Induction of President.
4 p.m.—Annual Conference of Secretaries of Divisions and Branches.
8.30 p.m.—President's Address.

Wednesday, July 27th, 1910.
9.30 a.m.—Council Meeting.
10 a.m. to 1 p.m.—Sectional Meetings.
12.30 p.m.—Address in Medicine.
3 p.m.—Religious Services.

Thursday, July 28th, 1910.
9.30 a.m.—Council Meeting.
10 a.m. to 1 p.m.—Sectional Meetings.
12.30 p.m.—Address in Surgery.
7.30 p.m.—Annual Dinner.

Friday, July 29th, 1910.
10 a.m. to 1 p.m.—Sectional Meetings.

Saturday, July 30th, 1910.
Excursions.

Honorary Local Secretaries—

Dr. Edward W. Goodall,
Eastern Hospital, Homerton, N.E.

Dr. William Griffith,
1, Chester Gate, Regent's Park, N.W.

Dr. Lauriston E. Shaw,
64, Harley Street, W.

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* Journal.]

ASSAM BRANCH.

The annual meeting of this Branch was held at Dibrugarh on January 16th, 1910. In the absence of the President, Lieutenant-Colonel Carroll was called to the chair. There were also present: Drs. Witham, Macnamara, Gregorson, Findlay, Smythe, Foster Falkiner, Murray, and Captain Church, I.M.S.

Apology for Non-attendance.—The Secretary read a letter of apology for absence from the President, Dr. Winchester.

Report of Council.—The Secretary then read the report of the Council as follows:

In accordance with the resolution passed at the last annual meeting steps have been taken by your Council towards the founding of a Pasteur Institute in this province. The Assam Branch of the Indian Tea Association was approached, and after some correspondence your Council was asked to appoint a subcommittee to investigate and report. Drs. Winchester, Macnamara, and Murray, were appointed, and their report (copies of which are now circulated) was read at the annual meeting of the Tea Association. The consideration of it was postponed, but we are informed that its reception was very favourable. The matter now rests there.

On the motion of Dr. McCombie your Council moved the Tea Association to send cases of Naga sore to Major Rogers for investigation. This was taken up with alacrity and 3 cases were sent to Calcutta.

Unfortunately it was somewhat late in the season and the results at present are not definite, but Major Rogers in his report is hopeful of finding a method of treatment and prophylaxis; this investigation should be taken up again next rains.

Election of Officers.—The meeting then proceeded to the election of officers for the ensuing year. Dr. Witham, proposed by Dr. GREGORSON and seconded by Dr. SMYTHE, was unanimously elected President. Dr. Macnamara, Nazira P.O., Assam, proposed by Lieutenant-Colonel CARROLL and seconded by Dr. FALKINER, was unanimously elected Honorary Secretary and Treasurer. Members of Council were left to be elected by a postal vote, according to rule.

Dr. J. D. GREGORSON read a paper entitled, On Some Problems in Coolie Practice. The first problem he wished to bring to their notice was as to the cause of what was apparently ankylostomiasis taking on a virulently epidemic form from time to time. It appeared to him that, knowing how often ankylostomiasis was the cause of a certain group of symptoms, there was a tendency, when these symptoms were found, to jump to the conclusion that they must be attributed to the ankylostoma. In former days, now happily past, if a man had fever in this country it was practically always diagnosed as malaria. Thus kala-azar for years was reckoned as a chronic malaria, until its definite cause was discovered. It also was at one time put down to the account of the ankylostoma worm. What he now had to suggest was that possibly they were still accusing this worm of causing many illnesses with which it had little or nothing to do. On the other hand, they might also be failing to recognize its capabilities for harm in other directions.

On most tea gardens the treatment for the prevention of ankylostomiasis was much the same. The coolies were more or less regularly inspected by the medical officer, their tongues and conjunctivae being examined for any sign of anaemia. The names of those showing such signs were put on a list so that they could as soon as convenient be treated with some anthelmintic, it almost always being taken for granted that the anaemia was due to ankylostomiasis. These coolies were also daily given medicine containing iron in some form. In spite of this it was found that some gardens produced a much larger number of cases of oedema than others, and that on some these cases were much less amenable to treatment than they were on others similarly situated. Further, on the same garden in different years, the conditions of work, pay, etc., remaining the same, the percentage of these intractable oedema cases increased enormously. It was, he thought, now generally conceded that the symptoms attributed to the presence of the ankylostoma were caused by a toxin manufactured by the worm. Was it possible that at times the worm was capable of producing the toxin in greater quantity or in greater strength than normally, or must they look to some other factor having nothing to do with the worm for the cause of these epidemics? If these epidemics occurred throughout the country at the same time one could imagine that they were due to climatic causes favouring the larvae of the worm during their life in the soil, but the epidemics were often quite local, occurring on one garden and leaving a neighbouring garden untouched. This year on one of his gardens he had had a most severe epidemic of oedema and dropsy. For nine years that garden had been under a system of prophylaxis against ankylostomiasis. Every coolie, man, woman, and child, had been seen about every three months, and if showing the least sign of anaemia had been treated with beta naphthol or eucalyptus, and in the earlier years with thymol. The garden had for years been a very healthy one except for one year when epidemic dysentery and cholera did much damage. In spite of this, during the summer of this year the sick list mounted higher and higher, and the hospital became filled. Patients would usually first come complaining of weakness only, but sometimes of fever. On examining them, pitting of the skin over the shin bone was usually found. On inspecting the coolies on the garden who were not complaining of sickness, large numbers of them were also found to be suffering from this incipient oedema. In some of the cases the percentage of haemoglobin was remarkably reduced, but in others with marked oedema it remained as high as 70 per cent., which was not much, if at all, below the normal in the tea-garden coolie. After the serious character of the epidemic was realized, all coolies found with slight oedema were put on half-work with full pay, getting leave at 12 noon each day. This and treatment with iron, arsenic, and beta naphthol, seemed to arrest many of the cases, but the oedema seldom disappeared under three to four weeks. When the last trace of oedema was gone the coolie was put on to full work again, and a good many relapsed. Other cases, however, in spite of half-work and treatment, got steadily worse, drifted into hospital, eventually died. One or two of these died suddenly with signs of fluid in the pericardium; the majority, however, after the oedema had greatly increased, developed foul-smelling mucous diarrhoea, and others, again, simply became weaker and weaker, until they, their whole bodies swollen and bloated, passed away almost imperceptibly. In the majority of out-patients treated with beta naphthol ankylostoma were found in varying quantities, but in others no trace of worms was found. Of course, it was impossible to have all the stools examined, and in the great majority he was personally unable to carry out the examination, and had to trust to his native assistants, who, however, were very efficient at the work. He was unable to carry out as complete an investigation into these cases as he wished, but he picked out 10 of the cases in hospital, and had tabulated the results of what few observations he had time to make in these cases.

No. and Sex.	Stool.	Urine.	Blood.	Result.
			Per cent.	
1. M.	Hard. No eggs. No worms	Sp gr. 1015. Albumen present	Haemoglobin... ... 50 No parasites Polymorphonuclears 66.4 Large mononuclears 15.3 Small mononuclears 14.3 Eosinophiles... ... 3.3 Indefinite 9.7	Still on half-work.
2. F.	Soft. No eggs found. Some ankylostoma found after beta naphthol	Sp gr. 1002. No albumen	Polymorphonuclears 54.5 Large mononuclears 18.3 Small mononuclears 19.2 Eosinophiles... ... 8.0	Still anaemic.
3. F.	Soft, normal. Eggs and many worms found	Sp.gr. 1005. No albumen	Haemoglobin... ... 40 Polymorphonuclears 40 Large mononuclears 30 Small mononuclears 26 Eosinophiles... ... 4	Recovered.
4. F.	Soft, normal. No eggs. One ankylostoma after beta naphthol	Sp.gr. 1005. No albumen	Haemoglobin... ... 60 Polymorphonuclears 37 Large mononuclears 17.6 Small mononuclears 12.8 Eosinophiles... ... 31.4 Indefinite 1.2	Recovered.
5. M.	Loose, fermented. No eggs. No worms	Sp.gr. 1006. No albumen	Not examined	Half-work.
6. F.	Loose, offensive, with mucus. No eggs	Sp.gr. 1005. No albumen	Not examined	Dead.
7. M.	Loose, with mucus. Trichocephalus and ankylostoma eggs	Sp.gr. 1006. No albumen	Haemoglobin... ... 30 Polymorphonuclears 54 Large mononuclears 14.7 Small mononuclears 11.4 Eosinophiles... ... 19.6 Indefinite 0.3	Recovered.
8. F.	Loose. Trichocephalus. ascaris, and ankylostoma eggs	Sp.gr. 1005. No albumen	Haemoglobin... ... 30 Polymorphonuclears 40.7 Large mononuclears 21.7 Small mononuclears 20.1 Eosinophiles 17.5	Recovered.
9. F.	Loose and fermenting. Eggs and worms of ankylostoma	Sp.gr. 1008. No albumen	Not examined	Dead.

One of them might be neglected, as he was found to be an instance of ordinary Bright's disease, and his case had not been tabulated. He mentioned this to show how easy it was to arrive at an absolutely wrong diagnosis, due to the fact that it was impossible to examine every single case with that thoroughness which was essential, and it was very hard to get one's subordinates to realize the importance of examining each system in detail.

On looking at the table, it was seen that four out of the nine stools examined neither showed eggs of intestinal parasites under the microscope, nor were worms found on giving beta naphthol. In one of the others (No. 4) no eggs were found, and only one ankylostoma after beta naphthol. Yet in this case a very marked eosinophilia of no less than 31 per cent. was obtained. This was probably due to the fact that the patient was recovering, it having been shown by Drs. Boycott and Haldane that in old cases of ankylostomiasis a sudden increase in the eosinophiles was of good import. In one case eggs of *Trichocephalus trichiurus* were found accompanying ankylostoma eggs, and in another case both *Ascaris* and *Trichocephalus* eggs were found. The urine of all the cases presented one most uniform character—namely, an extraordinary low specific gravity. In only one case was the specific gravity above 1010, and in this case it was 1015, and some albumen was found. In no other case was albumen found.

The differential blood counts were remarkable only in that the large mononuclear elements were almost always increased and that in several of the cases there was a marked eosinophilia. The red cells showed nothing remarkable and no malarial parasites were found, nor was any pigment found in the large mononuclears. The garden was one which, as a rule, was remarkably free from malaria; it was hard, therefore, to account for the mononuclear increase. Haemoglobin percentages were reduced, but not so much as one would have expected having regard to the amount of dropsy present. There were haemic murmurs in some cases and the pulse was usually rapid. Temperature subnormal, with, in one or two cases, occasional rises up to 99 5° or 100° in the evening. Nothing was noted in the nervous system, the reflexes showing no change. No rash was ever observed on the skin. He hoped that this short and imperfect account of the outstanding features of the complaint would be sufficient to enable them to recognize it if it had come before them in any of their garden hospitals. When he told them that they had about 71 cases admitted into hospital and about 207 who had to go on half-work at one time, and that there was a very heavy death-rate, they would understand why he found it difficult to put all this trouble down to uncomplicated ankylostomiasis—a disease which, with persistent watching, one had no great trouble, as a rule, in keeping in check. His reason for bringing the epidemic to their notice was to see whether any of them could suggest any cause for the same other than ordinary ankylostomiasis. The questions which he put to himself were as follows:

Why, if the disease was ankylostomiasis pure and simple, was it that this year this garden had suffered so severely, being under practically the same conditions as in former years? It was hard to see why the ankylostoma should have increased this year to such an extent on this garden, whereas in a neighbouring garden, three miles off, it had been, if anything, less in evidence than usual.

What other known disease was there that would account for the signs and symptoms? There was, of course, epidemic dropsy to be considered. In epidemic dropsy, from the literature of the subject, there seemed to be a marked tendency to attack many of one household. This was certainly observed during this epidemic on some occasions, but the epidemic was so widespread amongst the population of the lines that it would have been rather extraordinary were it only to have attacked one or two members of each household. In epidemic dropsy a rash, sometimes purpuric in nature, seemed to be very common. In none of his cases did he come across this. In spite of these two facts he would not like to state positively that the disease was not epidemic dropsy superadded to ankylostomiasis, and it must be remembered that Captain T. H. Delany was of opinion that it had existed more or less in Sylhet and Shillong ever since 1879, and if so, why not in the Assam Plain? Captain D. Munro also considered that it had existed for years on the Darjiling tea gardens. He had been unable in the literature of epidemic dropsy to find any reference to the very low specific gravity of the urine found in his cases, nor had he been able to find any records of differential leucocyte counts, although he was inclined to think that Major Leventon informed him that Delany had found eosinophilia during his investigation of the so-called beri beri in the gaols in their province. Diarrhoea appeared to be a common symptom in epidemic dropsy, and also was so in this epidemic, but only in the more advanced cases. Of the nature of the diarrhoea, whether with much mucus, as in his cases, or whether a simple watery diarrhoea, he had been unable to find out. Rogers simply said that several loose stools were passed daily, unattended with pain.

Another disease in the country which was very often followed by general dropsy was dysentery. This might of course be simply due to its debilitating effects both on the blood and circulation, but in phthisis, also a very debilitating disease, dropsy comparatively rarely although occasionally occurred. Was it possible that this chronic, terribly stubborn dysentery which occurred there was really a general disease, and that it might at times be represented by these oedema epidemics, while at other times the bowels were attacked from the first? They would doubtless say that these were wild hypotheses, with little or no facts on which to base them, but until they had some institute of the Kasauli type in Assam they were unlikely to get any facts about the dysentery there. Most of their cases conformed more to the descriptions of amoebic than to those of bacillary dysentery, and he had found *amoeba* on various occasions, but how came it, if it was the same *amoeba* as that say in the Philippines, that they got so few liver abscess cases?

Before leaving the fascinating and important subject of metazoan parasites, he wished to draw attention to a point which, in the light of modern knowledge, seemed to have been somewhat neglected. It appears evident that metazoan parasites, as a rule, only arrived in the intestine of man for the purpose of producing their kind. Thus *Trichinae* through the migration of its larvae produced trichinosis. The larvae of ankylostoma did not migrate, so far as they knew, from the intestine to the muscles, but the work of Looss and others prove that the larva did penetrate the skin, getting into the blood stream, and eventually into the lungs and air passages. Bentley described its producing the water itch, which they all knew so well, while on its passage through the skin. If it produced this irritation on a hardy tissue like the skin, how much more likely was it to cause irritation while passing through the delicate mucous membrane of the air cells and air passages? Might it therefore not be one of the predisposing causes of the pneumonia which they saw out there and which became epidemic on gardens and yet did not appear to be spread direct from man to man. One would find many cases of pneumonia in one garden hospital, but all from different lines, and one would go on to the next garden hospital and find not a single case of pneumonia.

Again, what other disease might these migrating worms not be guilty of carrying? It seemed hard to imagine an aseptic ankylostoma larva passing through the dirty skin of a coolie's foot from faeces-laden earth. Might not the rare cases of tetanus with no history of injury be brought about in some such way, and anthrax also could possibly be so communicated in cases where other sources of infection were not found?

There was another series of cases he wished to bring before them. Enteric fever was comparatively rare in this district among the natives, but he had come across a few cases, and this year had a series of 7 cases on one of his gardens.

The blood of all was sent to the Pasteur Institute, Kasauli, and the first three gave Widal's reaction in 1 in 80 dilution, whereas the last two cases gave no agglutination in dilutions of 1 in 20. The first three cases were in adult males; of the last two, one was in a boy of 15 and the other in a girl of 10 years. The temperature charts were all very like each other, except that the first and the last cases only had fever for twelve and thirteen days respectively, while the second, third, and fourth cases had fever for forty-two, twenty-three, and seventy days respectively. The second case ended in death; the rest recovered. The second case had been in hospital for some time with some obscure mental symptoms before he was attacked. The pulse was as a rule slow in all cases, and in all some looseness of bowel was noted, the third having occasional slight haemorrhages. The spleen was enlarged in every case. A few crepitations were found in the lung in some of the cases, and in the first case slight albuminuria was present. In the two cases—namely, the first and last—in which the fever was only present for twelve and thirteen days respectively, there was a history of previous injury.

His reason for bringing these cases before them was to elicit information as to the prevalence of typhoid amongst the coolie population, and also to get their opinions as to whether all his cases were typhoid or not. It was strange that the Widal reaction was negative in the case of the two children, although the case of the girl was clinically very much like enteric, while that of the boy, in which the fever terminated on the thirteenth day, was very like that of the man whose fever terminated on the twelfth day, but who gave a positive Widal. Fevers lasting more than nine days were uncommon in his practice, but he felt much inclined to attribute them to typhoid or paratyphoid—pneumonia, phthisis, or other obvious cause being absent.

The author then proceeded to call attention to another disease several cases of which he had observed. It was a very fatal disease, and he had only found it occurring in children. He related the following case:

The boy, a bright, intelligent youngster of about 3 years, was admitted on June 24th with debility and slight oedema of the feet. On the 27th black spots began to appear on the skin of the lower extremities, and on the 28th, when he saw the patient, the condition was as follows: The spots were round, slightly raised in the centre, and about $\frac{1}{4}$ in. across. The raised part was about the size of a pin's head and harsh to the sense of touch; the blackness of the spots faded slightly to a dark brown at the margins. There was one patch about 2 in. across on the right thigh which was very dark towards the edges but dry, grey, and scaly inside. In other places one or more spots were seen to be coalescing. The face was oedematous and the feet markedly so. Nothing abnormal was found in the urine or by microscopic examination of the blood, the haemoglobin being between 60 per cent. and 71 per cent. The temperature was normal. He saw the boy again five days later, on July 3rd, when fresh black patches were found on the face, chest, abdomen, and scrotum. The blackened epidermis had begun to peel off from some of the older patches, leaving raw, red excoriations underneath, as though the child had scraped itself on gravel. One or two of the patches on the now very oedematous legs had their black epidermis separated from the skin underneath by fluid, but where there was no oedema the epidermis simply wrinkled up and peeled off. The epidermis was peeling off the penis and the scrotum. On the 7th the Dr. Babu reported that the eruption was practically all over the body except on the soles of feet and palms of the hands, and describes the excoriated patches as looking like a burnt ulcer. There was some looseness of the bowels and the child was very exhausted. On the 10th the author again saw the child, and there were several patches as large as 5 in. by 3 in. with no epidermis left. The pigmented parts were now a dense black. There was some discharge from the mouth, and one bright-red area on the hard palate, and the gums were swollen; but these mouth symptoms might have been due to mercurial treatment which had been administered. The child was photographed by Mr. Copeland on the 11th, and died exhausted on the 12th, remaining intelligent until close to the end. There was never any albumen in the urine, and the temperature remained normal throughout. This case was very typical of several he had seen, and, being anxious for a diagnosis, he sent pieces of liver, lungs, kidneys, suprarenal glands, thyroid and mesenteric glands home to Dr. Newham, of the School of Tropical Medicine in London, who kindly made sections, but reported that he found absolutely nothing abnormal in them. Crocker described a disease under the heading "pemphigus foliaceus," which to some extent resembled the affection under discussion. In his five cases, all in adults, the disease, however, appeared to have been very chronic, and Crocker makes no mention of oedema or of pigmentation. He also found fluid in all the skin lesions, whereas in his cases only in a few was fluid found. He had only in one instance seen any reason to believe the disease to be infectious, two children of one family having contracted it and died within a few weeks of each other. He hoped that if any of them had seen this disease they would be able to recognize it from this description, and that they would state their opinion as to diagnosis.

Administration of Quinine.—Dr. MACNAMARA introduced a discussion on quinine administration, in which most of the members present took part.

Vote of Thanks to Retiring Secretary.—Dr. WITHAM proposed, and Dr. GREGORSON seconded, a vote of thanks to Dr. Murray, who is resigning the secretaryship owing to being transferred to Chittagong, for his services in helping to start the Branch. This was cordially voted. Dr. MURRAY replied. This ended the business.

Dinner.—The members afterwards dined together at the Dibrugarh Club as the guests of Dr. Findlay.

GLOUCESTERSHIRE BRANCH.

A GENERAL meeting of this Branch was held at the Royal Infirmary, Gloucester, on January 20th, at 7 p.m.; the PRESIDENT was in the chair, and twenty-one members were present.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Cerebral Syphilis.—Dr. MACLEOD MUNRO read notes on a case of cerebral syphilis. The case was discussed by the PRESIDENT, Dr. PRUEN, Dr. PIKE, and Dr. AFFLECK.

Cases, Specimens, etc.—Mr. CUTHBERT showed: (*a*) A patient with pes cavus and doubtful hereditary ataxy: (*b*) specimen, flesh mole from uterus; (*c*) skiagram of wired fractured olecranon. Dr. CROSBY showed a skiagram of wired fractured olecranon. Dr. FINLAY showed an anencephalic monster with spina bifida.

Malignant Disease of Tongue.—Mr. CUTHBERT read a paper on the diagnosis and treatment of malignant disease of the tongue, illustrated by specimens. The points to which he drew special attention were: (1) The importance of early diagnosis by clinical examination. (2) The avoidance of treatment by antisyphilitic remedies in order to clear up diagnosis. (3) Preliminary antisepsis of the mouth and careful attention to the teeth for a few days before the operation was time well spent. (4) Suspicious growths or ulcers should be entirely removed for microscopic examination at a time when everything has been explained to the patient, and when every preparation has been made to carry out any operation that may be thought necessary; but in certain cases in which it is advisable to save as much time as possible at the operation a preliminary section of the growth should be cut for microscopic report, after careful disinfection of the mouth has been done for a few days, the section to be made with the precautions of passing provisional sutures, so that the edges can be brought together after the application of actual cautery or pure carbolic acid. (5) In every case of removal of half or all of the tongue a preliminary laryngotomy should be done and the

pharynx plugged, thereby preventing all possibility of blood going down the throat. (6) The cut surfaces after the tongue is removed should be brought together as close as possible to reduce the healing surface to the utmost. (7) The position of the patient in bed after the operation should be lying down without a pillow, with head inclined well forward and on the wound side, so that all fluids may run out of the mouth; the mouth should be frequently syringed out with antiseptic fluids. (8) The patient should not receive nourishment by the mouth at all for the first twenty-four hours, but rectal saline and nutrient enemata if thought desirable. A teaspoonful dose of hot water may, however, be given by the mouth, and after twenty-four hours other fluid nourishment may be tentatively given, if it can be swallowed easily. (9) In cases where the more extensive operation has been done the patient should be fed by a small tube passed very cautiously up the nose and down the oesophagus for a short distance, connected by a funnel, taking care that no food runs out of the tube in its withdrawal. (10) In dissecting the anterior triangle, about ten days after the first operation, every precaution for asepsis should be taken, and the whole area shut off with a Kocher's screen. The dissection should be done elaborately, and the words of a distinguished surgical teacher must be remembered: "Anatomical considerations must be made subservient to the one grand purpose of the operation—*eradication of the disease*." (11) Whatever might or might not be the value of post-operative *x*-ray exposure, there seemed to be abundant evidence to show that proliferation of cancer cells was altered by its use. Mr. Cuthbert said he would strongly urge the continuance of such treatment over long periods after an operation for the eradication of cancer.

METROPOLITAN COUNTIES BRANCH:

KENSINGTON DIVISION.

A MEETING of the Kensington Division was held at St. Mary's Hospital (Inoculation Department) on February 3rd, at 4.30 p.m. Dr. BUTTAR presided, and there were nearly 100 members and friends present.

Vaccine Therapy.—Sir ALMROTH WRIGHT gave a short introductory address on vaccine therapy, and also described the demonstrations which were to follow. Dr. RICE OXLEY proposed, and Dr. BUTTAR seconded, a hearty vote of thanks to Sir Almroth Wright for his kindness and hospitality, which was carried with acclamation.

Demonstrations.—After tea had been partaken of, the members attended a number of demonstrations conducted by Drs. Fleming, Martley, Barry Morgan, Noon, Freeman, Matthews, and Beaton. The meeting was the most numerously attended of any hitherto held by the Kensington Division, and was a most successful one.

LAMBETH DIVISION.

A GENERAL meeting of this Division took place in the Medical School, Guy's Hospital, on Thursday, February 17th, at 4 p.m. Dr. W. H. B. STODDART was in the chair, and twenty-three members and four visitors were present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Pyuria.—Dr. H. S. FRENCH read a paper upon some forms of pyuria. He dealt especially with the pyelitis of pregnancy, but emphasized the occurrence of a precisely similar condition in unmarried women, and in males. Illustrative cases were quoted, and the treatment discussed. In the discussion which followed, the CHAIRMAN, Dr. CAPES, Dr. DENNING, Dr. CAMERON, and Dr. CLATWORTHY took part.

Cases.—A number of cases of medical and surgical interest were shown in the Wills Library by the Medical and Surgical Registrars.

Votes of Thanks.—Votes of thanks were accorded to Dr. French for his interesting paper, and to the authorities of Guy's Hospital for their entertainment.

STRATFORD DIVISION.

A MEETING of this Division was held on Thursday, February 17th, at the Alexandra Hotel, High Street, Stratford, E. Mr. COUZENS was in the chair

Confirmation of Minutes.—The minutes of the previous meeting were read and approved.

The late Dr. Stanley Atkinson.—A reply to the vote of condolence on the death of Dr. Stanley B. Atkinson, a member of this Division, was read.

Questions to Candidates for London County Council.—The questions to be put to the candidates for the London County Council elections were considered.

Address.—Dr. W. J. HADLEY (London Hospital) then delivered a most interesting address on "Some Intestinal Ulcerations," which was listened to with great interest, and after discussion a hearty vote of thanks was awarded the lecturer.

☞ *To ensure the insertion of notices in this column, they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

Association Notices.

ANNUAL SUBSCRIPTION, 1910.

MEMBERS are reminded that the Annual Subscription, amounting to 25s., is now due.

Cheques or Postal Orders should be made payable to the British Medical Association, and crossed London County and Westminster Bank.

In the case of Colonial Members the subscription should be paid to the Honorary Treasurer of their respective Branches.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BORDER COUNTIES BRANCH: SCOTTISH DIVISION.—A clinical meeting of this Division will he held on Friday, March 4th, in the Dumfries and Galloway Royal Infirmary, at 3 p.m. Members desiring to show cases or specimens, etc., are requested to communicate with the Secretary. The Executive Committee of the Division will meet at 2 15 p m., for the further consideration of the ethical matters arising out of a recent parish appointment. —GEORGE R. LIVINGSTON, Honorary Secretary.

SOUTH-EASTERN BRANCH: FOLKESTONE DIVISION.—A meeting of the Folkestone Division will be held at the house of Dr. Calverley, 21, Earl's Avenue, on Thursday, March 3rd, at 8.30 p.m., Dr. Chambers in the chair. All members of the South-Eastern Branch are invited to attend and to bring professional friends. Agenda: (1) Minutes. (2) To consider the Report of the Central Ethical Committee on the Relation of Homoeopaths to the Association. (3) A paper will be read by Dr. Eastes on Gall Stones.—P. VERNON DODD, M.D., Honorary Secretary.

SOUTH-EASTERN BRANCH: MAIDSTONE DIVISION.—The next meeting of this Division will be held on Friday, March 25th, 1910, at 3.30 p.m. The Executive meeting will be at 3 p.m. Any member having subjects to bring forward is requested to communicate with the Honorary Secretary, as early as possible. —GEORGE POTTS, Honorary Secretary, Ophthalmic Hospital, Maidstone.

SOUTH-EASTERN OF IRELAND BRANCH.—A meeting of this Branch, as also a meeting of the Branch Council, and the local Division, will be held at the Club House, Carlow, on March 2nd, at 5 30 p.m. Agenda: (1) Minutes. (2) Letters of apology, (3) Correspondence. (4) Any other business.—J. QUIRKE. Piltown, Honorary Secretary.

YORKSHIRE BRANCH.—The next meeting of the Branch will be held at the Bull Hotel, Wakefield, on Wednesday, March 16th, at 4 o'clock. Council meeting at 3.15. Members intending to read papers, show cases, or propose new members are requested to communicate at once with the Honorary Secretary. Members will dine together at 6.30.—ADOLPH BRONNER, Bradford, Honorary Secretary.

MIDWIVES ACT, 1902.

CIRCULAR BY THE LOCAL GOVERNMENT BOARD.

THE following circular, dated February 18th, 1910, has been issued by the Local Government Board to Boards of Guardians:

SIR,

I am directed by the Local Government Board to draw the attention of the Guardians to the report of the Departmental Committee appointed to consider the working of the Midwives Act, 1902 (Parliamentary Paper, Cd. 4822), and more particularly to those recommendations in the report which deal with the payment of fees to medical practitioners summoned by midwives in cases of emergency, and to those relating to the supply and training of midwives so far as the Guardians are concerned.

Payments to Medical Practitioners summoned by Midwives in Cases of Emergency.

The Committee recommend (paragraphs 71 and 77 of the report) that the Act of 1902 should be amended so as to give any medical practitioner summoned by a midwife in cases of emergency "a secure expectation of payment"; and that the Poor Law Authority should be responsible for the fee, when the medical man cannot otherwise obtain payment, and should be empowered, if they think fit, to charge the fee paid as "relief on loan."

Full effect could not be given to this recommendation without legislation, but the Board regard it as of immediate importance that medical practitioners should, so far as practicable, feel assured of a reasonable payment for their services in such cases; and they desire to impress upon Boards of Guardians that they should give effect, if they have not already done so, to the suggestion made in the circular letter of 29th July, 1907—viz., that medical men and certified midwives practising in the poor law union should be informed that, as regards any poor person in whose case the attendance of a registered medical practitioner is required (*see* Rule E 18 of the Rules of the Central Midwives Board), the Guardians will be prepared to exercise their powers under Section 2 of the Poor Law Amendment Act, 1848, and to pay a reasonable remuneration to the medical man called in.

The Board think that any medical practitioner who makes a claim on the Guardians for a fee in such a case might properly be asked to state definitely that after making reasonable efforts he had failed to secure payment from the person attended.

The Supply and Training of Midwives.

The Committee had under their consideration, in connexion with the supply of midwives, the question of the appointment of salaried midwives by the poor law authority; but it will be observed (paragraph 107) that they regard as preferable an extended utilization of voluntary agencies by that authority.

Reference is made in paragraph 39 of the report to the powers possessed by Guardians to contribute to the support of district nursing associations. Such support should be given in return for and in reasonable proportion to the services rendered, and the Committee, in pointing out that the exercise of these powers has been found to be both advantageous and economical, recommend that the attention of Boards of Guardians should be drawn to their powers in this respect, and to the advantages which both the poor under their charge and the community generally should derive from a liberal exercise of such powers.

The Board concur in these conclusions, and they will be prepared to give their favourable consideration to any application from the Guardians for sanction to such payments.

In regard to midwifery training in poor law institutions, the Board have pleasure in drawing the attention of Guardians to the Committee's remarks in paragraph 45 of the report, as to the value of the training afforded in such institutions.

The Committee express the view that the use of such institutions for the training of midwives "should be encouraged and, if possible, developed," and (paragraph 50) that the expediency of the further utilization of the maternity wards in such institutions for the purpose of teaching midwifery should be impressed on Boards of Guardians. The Guardians will note that in the opinion of the Committee it is the wish of the Central Midwives Board "to utilize such establishments for the training of midwives to the fullest possible extent" (paragraph 44).

Some misapprehension has hitherto existed, as pointed out in the report (paragraph 46), as to the possibility of affording midwifery training to nurses in the poor law service where the institution has not been recognized by the Central Midwives Board as a training school. It should be clearly understood that, although poor law institutions in which there is not sufficient material for the training of more than two or three candidates in a year cannot properly be recognized as training schools, the desired result can practically be attained if the medical officer is approved as a teacher by the Central Midwives Board (paragraph 47).

The Board feel sure that the Guardians will give careful consideration to the suggestions and recommendations of the Committee, and that they will, so far as practicable, take the necessary steps to carry them into effect.

I am, Sir,

Your obedient Servant,

H. C. MONRO,

The Clerk to the Guardians. Secretary.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty:—Deputy Inspector-General T. J. CROWLEY, M.D., to the *President*, additional, for the Medical Department, Admiralty, March 4th, and to the Medical Department, Admiralty, vice James, April 1st; Staff Surgeon W. H. POPE to the *Sapphire*, additional, February 8th, and on recommissioning, February 15th; Surgeon T. F. O'KEEFE, M.B., to the *Victory*, additional, for the *Swift*, February 14th. and to the *Blenheim*, additional, for the *Swift*, on commissioning; Staff Surgeon P. L. CROSBIE to the *Vivid*, additional, for disposal, February 16th; Surgeon T. W. JEFFERY to the *Victory*, for the Royal Naval Barracks, March 1st.

ARMY MEDICAL SERVICE.

SURGEON-GENERAL W. W. KENNY M.B., from South Africa, has been appointed Principal Medical Officer, Northern Command, York.

Colonel R. PORTER, M.B., has been appointed Principal Medical Officer, Western Command, vice Colonel G. T. Goggin.

ROYAL ARMY MEDICAL CORPS.

The following gentlemen are appointed Lieutenants (on probation), dated January 28th:—JOHN GILMOUR, M.B.; WILFRID W. TREVES, M.B.; JOHN T. SIMSON, M.B.; CAMPBELL ROBB, M.B.; and ERIC T. GAUNT, M.B.

Lieutenant (on probation) J. T. SIMSON, M.B., is seconded under the provisions of Article 300, Royal Warrant for Pay and Promotion, 1909.

Lieutenant T. T. H. ROBINSON, M.B., to be Captain, October 4th, 1909. He was appointed Lieutenant, January 30th, 1906.

INDIAN MEDICAL SERVICE.

COLONEL R. W. S. LYONS. M.D., Bombay, has been appointed Principal Medical Officer, Kohat Brigade.

SPECIAL RESERVE OF OFFICERS.

ROYAL ARMY MEDICAL CORPS.

Supplementary List.—The following are appointed Lieutenants (on probation): STEPHEN GORDON, January 13th; EBEN S. B. HAMILTON, January 24th; LEOPOLD T. POOLE, January 25th.

TERRITORIAL FORCE.

ROYAL ARMY MEDICAL CORPS.

Attached to Units other than Medical Units,—Lieutenant A. B. SLOAN, M.D., to be Captain, October 28th, 1909; Lieutenant F. W. LONGHURST, to be Captain, January 16th.

For Attachment to Units other than Medical Units.—WILLIAM J. GREY (late Lieutenant, Queen's Rifle Volunteer Brigade, the Royal Scots, Lothian Regiment), to be Lieutenant, January 1st.

Vital Statistics.

VITAL STATISTICS OF METROPOLITAN BOROUGHS DURING 1909.

[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.]

IN the accompanying table will be found summarized the vital statistics of the City of London and of each of the metropolitan boroughs, based upon the Registrar-General's quarterly returns for the year 1909. The mortality figures relate to the deaths of persons actually belonging to the various boroughs, and are obtained by distributing deaths occurring in institutions to the boroughs in which the deceased persons had previously resided.

The 117,547 births registered in London during 1909 were equal to an annual rate of 24.4 per 1,000 of the population, estimated at 4,833,938 persons in the middle of that year. This is the lowest annual birth-rate ever recorded for London, and is 3.3 per 1,000 below the average rate for the ten years 1899–1908. The birth-rates last year ranged from 13.2 in the City of London, 13.6 in Hampstead, 15.0 in the City of Westminster, 17.4 in Kensington, 17.5 in Chelsea, and 18.3 in Stoke Newington, to 30.5 in Shoreditch and in Bethnal Green, 31.5 in Stepney, 31.8 in Bermondsey, 32.1 in St. Marylebone, and 35.8 in Finsbury.

The deaths of London residents registered during the year numbered 67,632, and were equal to a rate of 14.0 per 1,000 persons living, the rates in the three preceding years being 15.1, 14.6, and 13.8 per 1,000; in the ten years 1899–1908 the death-rate averaged 16.3 per 1,000. The rates last year ranged from 8.9 in Hampstead, 10.3 in Lewisham, 11.3 in Stoke Newington, 11.9 in Wandsworth and in Woolwich, and 12.0 in Fulham, to 16.8 in Southwark and in Bethnal Green, 18.8 in Bermondsey, 19.0 in Shoreditch, 19.2 in Finsbury, and 20.3 in the City of London.

During the year under notice 6,285 deaths were referred to the principal infectious diseases; of these, 2 resulted from small-pox, 2,324 from measles, 383 from scarlet fever, 605 from diphtheria, 1,246 from whooping-cough, 146 from enteric fever, 2 from ill defined pyrexia,

Analysis of the Vital Statistics of the Metropolitan Boroughs and of the City of London after Distribution of Deaths occurring in Public Institutions during 1909.

BOROUGHS.	Estimated Population middle of 1909.	Births.	Deaths.	Annual Rate per 1,000 Living.			Deaths from Principal Infectious Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric Fever.	Ill-defined Pyrexia.	Diarrhoea.	Phthisis.	Deaths of Children Under 1 Year of Age to 1,000 Births.
				Births.	Deaths.	Principal Infectious Diseases.												
COUNTY OF LONDON ...	4,833,938	117,547	67,632	24.4	14.0	1.31	6,285	2	2,324	383	605	1,246	—	146	2	1,577	6,337	107
Paddington	151,955	2,895	1,956	19.1	12.9	0.91	136	—	36	14	10	36	—	4	—	36	164	108
Kensington	183,683	3,188	2,440	17.4	13.3	1.00	183	—	58	9	19	40	—	8	—	49	176	119
Hammersmith ...	125,704	2,888	1,791	23.0	14.3	1.67	210	—	80	11	23	47	—	5	—	44	137	125
Fulham	176,406	4,199	2,113	23.9	12.0	1.57	276	—	74	10	40	49	—	4	—	99	205	111
Chelsea	75,249	1,310	1,084	17.5	14.4	1.00	75	—	24	6	15	13	—	2	—	15	109	114
City of Westminster	168 883	2,518	2,212	15.0	13.1	0.63	104	1	25	18	18	19	—	7	—	16	225	103
St. Marylebone ..	126,027	4,041	1,836	32.1	14.6	0.83	105	—	33	8	9	25	—	1	—	29	170	64
Hampstead	94,185	1,282	839	13.6	8.9	0.52	50	—	14	4	5	18	—	5	—	4	57	77
St. Pancras	237,422	5,248	3,510	22.2	14.8	0.97	230	—	105	17	27	30	—	6	—	45	382	109
Islington	351.202	7,993	4,913	22.8	14.0	1.22	423	—	199	26	30	86	—	13	—	69	430	105
Stoke Newington ...	54,423	995	612	18.3	11.3	0.63	34	—	10	3	2	14	—	1	—	4	45	82
Hackney	237,601	5,588	2,988	23.6	12.6	0.93	220	—	57	10	19	51	—	6	—	77	289	98
Holborn	53,802	1,438	836	26.8	15.6	0.85	45	—	14	3	3	15	—	1	—	9	110	70
Finsbury	95,289	3,400	1,829	35.8	19.2	2.36	224	—	85	11	14	51	—	3	—	60	211	108
City of London ...	18,193	240	368	13.2	20.3	0.72	13	—	6	—	—	4	—	1	—	2	39	117
Shoreditch	114,802	3,492	2,178	30.5	19.0	2.87	328	—	130	9	22	72	—	6	—	89	200	146
Bethnal Green ...	131,316	3,999	2,201	30.5	16.8	1.99	260	—	79	25	17	40	—	4	—	95	202	134
Stepney	312,525	9,828	4,759	31.5	15.3	1.68	526	1	236	26	51	69	—	6	—	137	521	115
Poplar	171,965	5,027	2,787	29.3	16.3	2.37	405	—	156	23	20	84	—	13	—	109	221	133
Southwark	211.125	5,720	3,528	27.2	16.8	1.67	350	—	127	14	33	57	—	6	—	113	377	124
Bermondsey	127,569	4,048	2,388	31.8	18.8	2.74	348	—	200	15	9	55	—	2	—	67	227	140
Lambeth	324,188	8,444	4,544	26.1	14.1	1.19	387	—	104	27	58	85	—	9	1	103	455	97
Battersea	186,036	4,253	2.416	22.9	13.0	1.29	239	—	90	8	22	63	—	7	—	49	227	112
Wandsworth	297,646	6,936	3,524	23.4	11.9	0.96	286	—	111	14	27	69	—	6	1	58	275	87
Camberwell	283,022	6,550	3,776	23.2	13.4	1.08	306	—	105	17	43	52	—	5	—	84	337	102
Deptford	118 583	3,047	1,611	25.8	13.6	1.51	178	—	67	12	15	47	—	6	—	31	148	104
Greenwich	111,014	2,492	1,350	22.5	12.2	1.03	114	—	38	9	7	20	—	4	—	36	110	100
Lewisham	160,749	3,507	1,656	21.9	10.3	0.58	93	—	6	15	21	20	—	2	—	29	128	75
Woolwich	133,374	2,981	1,587	22.4	11.9	1.02	137	—	55	19	26	15	—	3	—	19	160	81

and 1,577 from diarrhoea, but not any from typhus fever. These deaths were equal to a rate of 1 31 per 1,000, or 0.63 per 1,000 less than the average rate in the ten preceding years. Among the several boroughs the death-rates last year from the principal infectious diseases ranged from 0.52 in Hampstead, 0 58 in Lewisham, 0 63 in Stoke Newington and in the City of Westminster, 0.72 in the City of London, and 0 83 in St. Marylebone, to 1.67 in Southwark and in Hammersmith. 1 68 in Stepney, 1.99 in Bethnal Green, 2 36 in Finsbury, 2.37 in Poplar, 2.74 in Bermondsey, and 2.87 in Shoreditch. The greatest proportional mortality from measles was recorded in Hammersmith, Finsbury, Shoreditch, Poplar, Stepney, and Bermondsey. Scarlet fever was proportionally most fatal in the City of Westminster, Finsbury, Bethnal Green, Poplar, Bermondsey, and Woolwich; 16,183 scarlet fever patients were admitted to the Metropolitan Asylums Hospitals last year, against 18,622, 23,953, and 20,862 in the three preceding years; 2,329 cases remained under treatment at the end of the year, against 3,787, 4,956, and 3,498 at the end of the three preceding years. The highest death-rates from diphtheria were recorded in Hammersmith, Fulham, Chelsea, Shoreditch, Lambeth, and Woolwich; there were 5,799 cases of diphtheria admitted to the Metropolitan Asylums Hospitals last year, against 6,478, 7,303, and 6,797 in the three preceding years; 904 diphtheria patients remained under treatment in these hospitals at the end of the year, against 995, 1,168, and 1,241 at the end of the three preceding years. Whooping-cough was proportionally most fatal in Hammersmith, Finsbury, Shoreditch, Poplar, Bermondsey, and Deptford. The greatest proportional mortality from enteric fever was recorded in Hampstead, Shoreditch, Poplar, and Deptford; 539 enteric fever patients were admitted to the Metropolitan Asylums Hospitals last year, against 934, 768, and 708 in the three preceding years; 62 cases remained under treatment at the end of the year, against 134, 119, and 147 at the end of the three preceding years Diarrhoea was proportionally most fatal in Fulham, Finsbury, Shoreditch, Bethnal Green, Poplar, Southwark, and Bermondsey. The 2 fatal cases of small-pox belonged respectively to the City of Westminster and Stepney.

The 6,337 deaths from phthisis during the year were equal to a rate of 1.31 per 1,000; in the three preceding years the rates were 1.44, 1 40, and 1.32 per 1,000. The phthisis death-rates last year ranged from 0.61 in Hampstead, 0.80 in Lewisham, 0.83 in Stoke Newington, 0.93 in Wandsworth, 0.96 in Kensington, and 0.99 in Greenwich, to 1.75 in Shoreditch, 1.78 in Bermondsey, 1.79 in Southwark, 2.05 in Holborn, 2 15 in the City of London, and 2 22 in Finsbury; in the three last-named boroughs, which constitute the central group, the mean death-rate from phthisis was 2.16 per 1,000, while among the other groups the rates were 1 57 in the eastern, 1,25 in the northern and in the southern, and 1.16 in the western group.

Infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 107 per 1,000 last year, against 131, 116, and 113 in the three preceding years; in the ten years 1899–1908 the rate of infant mortality averaged 137 per 1,000. The lowest rates last year were 64 in St. Marylebone, 70 in Holborn, 75 in Lewisham, 77 in Hampstead, 81 in Woolwich, and 82 in Stoke Newington; the highest rates were 124 in Southwark, 125 in Hammersmith, 133 in Poplar, 134 in Bethnal Green, 140 in Bermondsey, and 146 in Shoreditch.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,284 births and 5,055 deaths were registered during the week ending Saturday last, February 19th. The annual rate of mortality in these towns, which had been 16 3, 17.0, and 16.6 per 1,000 in the three preceding weeks, further declined last week to 15.8 per 1,000. The rates in the several towns ranged from 7.4 in Hornsey, 9.1 in Aston Manor, 9.2 in King's Norton, 9.3 in Wallasey, 9.7 in Willesden, 10.1 in Handsworth (Staffs), 10.2 in Tottenham, and 10.5 in Reading and in Cardiff, to 20.2 in Hanley, 20.3 in Bolton and in Rhondda, 21.1 in Liverpool, 21.8 in Burnley, 22.2 in Swansea, 22 8 in Hastings, and 23.9 in Birkenhead. In London the rate of mortality was 16.3 per 1,000, while it averaged 15 7 per 1,000 in the seventy five other large towns. The death-rate from the principal infectious diseases averaged 1.0 per 1,000 in the seventy-six towns; in London these diseases caused a death-rate of 1.2 per 1,000, while among the seventy-five other large towns the rates ranged upwards to 2.5 in West Hartlepool, 2.6 in Swansea, 3.0 in Hanley, 3 4 in Ipswich, and 5.8 in Burnley. Measles caused a death-rate of 1.6 in Swansea, 3 4 in Ipswich, and 5.3 in Burnley; diphtheria of 1.4 in Halifax; and whooping-cough of 1.3 in Newport (Mon.), 1.5 in Walthamstow and in Hastings, 1.6 in Gateshead, and 2.5 in West Hartlepool. The mortality from scarlet fever, from enteric fever, and from diarrhoea showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The number of scarlet fever patients remaining under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,993, 1,937, and 1,881 at the end of the three preceding weeks, had further declined to 1,784 at the end of last week; 215 new cases were admitted during the week, against 193, 213, and 212 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday last, February 19th, 870 births and 643 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 19.1, 20.5, and 17.0 per 1,000 in the three preceding weeks, rose again last week to 17.7 per 1.000, and was 1.9 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scottish towns the death-rates ranged from 10.6 in Paisley and 16 0 in Aberdeen to 28.0 in Perth and 34.7 in Greenock. The death-rate from the principal infectious diseases averaged 1.9 per 1,000 in these towns, the highest rates being recorded in Dundee and Greenock. The 287 deaths registered in Glasgow included 27 which were referred to measles, 4 to scarlet fever, 2 to diphtheria, 4 to whooping-cough, and 4 to diarrhoea. Four fatal cases of measles and 2 of whooping-cough were recorded in Edinburgh; 2 of diphtheria and 6 of diarrhoea in Dundee; and 2 of measles in Leith and 3 in Greenock.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, February 19th, 569 births and 503 deaths were registered in the twenty-two principal urban districts of Ireland, as against 646 births and 575 deaths in the preceding period. The annual death-rate in these districts, which had been 21.1, 25.0, and 26 0 per 1.000 in the three preceding weeks, fell to 22.8 per 1,000 in the week under notice, this figure being 7 0 per 1 000 higher than the mean annual death-rate in the seventy-six English towns for the corresponding period. The figures in Dublin and Belfast were 29.6 and 20 8 respectively, those in other districts ranging from 27.9 in Dundalk and 19.2 in Sligo, to 44.2 in Kilkenny, while Cork remained at 26 7, Londonderry stood at 14 4, Limerick at 12 3, and Waterford at 29.2. The zymotic death-rate in the twenty-two districts averaged 1.4 per 1,000, being the same rate as in the preceding period.

Vacancies and Appointments.

VACANCIES.

BARNSLEY: BECKETT HOSPITAL AND DISPENSARY.—Honorary Ophthalmic Surgeon.

BATH ROYAL UNITED HOSPITAL. — House-Physician. Salary, £80 per annum.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—(1) Resident Medical Officer; (2) Resident Surgical Officer. Salary. £80 per annum each.

BIRMINGHAM: QUEEN'S HOSPITAL.—Pathologist. Honorarium, £100 per annum.

BIRMINGHAM UNIVERSITY.—Assistant Lecturer on Pathology and Bacteriology. Stipend, £50 per annum.

BRADFORD CHILDREN'S HOSPITAL. — House-Surgeon (male). Salary, £100 per annum.

BUENOS AIRES: BRITISH HOSPITAL. — (1) Senior Resident Medical Officer; salary, £250 per annum, rising to £300. (2) Assistant Resident Medical Officer; salary, £200 for first year and £225 for second.

BURTON-ON-TRENT INFIRMARY.—House-Surgeon. Salary, £120 per annum.

CARDIFF: UNIVERSITY COLLEGE OF SOUTH WALES.—(1) Professor of Pathology and Bacteriology. (2) Lecturer in Histology and Embryology. Salary, £450 and £200 per annum respectively.

CARLISLE: CUMBERLAND INFIRMARY.—Resident Medical Officer (male), to act as House-Physician and House-Surgeon for six months each. Salary at the rate of £80 and £100 per annum respectively.

CHELTENHAM GENERAL HOSPITAL.—House-Surgeon. Salary, £70 per annum.

CHICHESTER: WEST SUSSEX AND EAST HANTS HOSPITAL.—Honorary Assistant Surgeon.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—(1) House-Physician (male); salary at the rate of £75 per annum. (2) Physician to Out-patients; honorarium, 40 guineas per annum.

CREWE BOROUGH.—Temporary Assistant to the Medical Officer of Health. Salary at the rate of £6 6s. per week.

DOWNPATRICK: DOWN DISTRICT LUNATIC ASYLUM.—Junior Assistant Medical Officer. Salary, £130 per annum, rising to £150.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House-Surgeon (male). Salary at the rate of £75 per annum.

GATESHEAD COUNTY BOROUGH. — Assistant School Medical Officer. Salary, £250 per annum.

HADDINGTON: COUNTY COUNCIL OF HADDINGTONSHIRE.—County and District Medical Officer, to act also as Medical Officer under the School Boards. Combined salary, £500 per annum.

HUDDERSFIELD INFIRMARY.—(1) Senior Assistant House-Surgeon. (2) Junior House Surgeon (males). Salary, £80 and £60 per annum respectively.

HULL VICTORIA CHILDREN'S HOSPITAL. — Lady Assistant House-Surgeon. Salary, £40 per annum.

LIVERPOOL: DAVID LEWIS NORTHERN HOSPITAL.—(1) House-Physician; (2) Two House-Surgeons. Salary at the rate of £60 per annum.

LIVERPOOL DISPENSARIES.—Head Surgeon. Salary, £170 per annum, rising to £200.

LIVERPOOL: ROYAL SOUTHERN HOSPITAL.—(1) House-Physician. (2) House-Surgeon. Salary at the rate of £60 per annum each.

MANCHESTER CHILDREN'S HOSPITAL.—Male Resident Medical Officer. Salary for first six months, £40; for second six months, £50.

MANCHESTER ROYAL INFIRMARY.—Assistant Medical Officer to the Convalescent Hospital, Cheadle. Salary at the rate of £80 per annum.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Hampstead and Northwood.—Clinical Assistants.

NORWICH: NORFOLK EDUCATION COMMITTEE. — Assistant Medical Officer. Salary, £250 per annum.

NORWICH: NORFOLK AND NORWICH HOSPITAL. — Assistant House-Surgeon. Honorarium, £20 for six months.

NOTTINGHAM: GENERAL HOSPITAL.—Honorary Physician.

PETERBOROUGH INFIRMARY.—House-Surgeon (male). Salary, £100 per annum.

PRESTWICH: COUNTY ASYLUM.—Junior Assistant Medical Officer. Salary, £150 per annum, increasing to £250

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W. — Resident Medical Officer for Out-patient Department. Salary at the rate of £60 per annum.

ROTHERHAM HOSPITAL.—Senior House-Surgeon (male). Salary, £110 per annum.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Dental Surgeon in Out-patient Department.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN, Leicester Square, W.C.—(1) Physician; (2) Assistant Physician.

SHEFFIELD UNIVERSITY.—Junior Demonstrator of Pathology. Salary, £150 per annum.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—Assistant House-Surgeon. Salary, £82 per annum.

VENTNOR: ROYAL NATIONAL HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Assistant Resident Medical Officer. Salary, £100 per annum.

WALSALL AND DISTRICT HOSPITAL. —Senior House-Surgeon. Salary, £100 per annum.

WARRINGTON INFIRMARY AND DISPENSARY.—Junior House-Surgeon. Salary at the rate of £100 per annum.

WISBECH: NORTH CAMBRIDGESHIRE HOSPITAL.—Male Resident Medical Officer. Salary, £150 per annum.

CERTIFYING FACTORY SURGEON. — The Chief Inspector of Factories announces a vacancy at Biggar, co. Lanark.

APPOINTMENTS.

BROOKS, S. J., M.R.C.S., L.S.A., Certifying Factory Surgeon for the Eyam District, co. Derby.

BROWNE, Henry, L.R.C.P.Lond., M.R.C.S.Eng., Medical Officer of the Amesbury Workhouse and Union, and Public Vaccinator of the District.

CLOW, D., M.B., Ch.B.Edin., Assistant Medical Officer to the Home for Aged Poor of the Bradford (Yorks) Union.

EVANS, J. A., M.R.C.S., L.R.C.P., District Medical Officer of the Penistone Union.

LANGDON, H. C. T., B.A., M.R.C.S., L.R.C.P., D.P.H.Camb., Medical Officer of Health, Borough of Mansfield.

LAWSON, Arnold, F.R.C.S.Eng., L.R.C.P.Lond., M.D.Brux., Assistant Ophthalmic Surgeon to the Middlesex Hospital.

LITTLEDALE, H. E., M.D., B.S.Dub., Certifying Factory Surgeon for the Charing District, co. Kent.

MARTIN, J. F. G., M.B., B.Ch., R.U.I., District Medical Officer of the Downham Union.

MANCHESTER ROYAL INFIRMARY.—The following appointments have been made:

Senior House-Surgeons.—T. W. Todd, M.B., Ch.B.Vict; E. E. Hughes, M.B., Ch.B.Vict.

Junior House-Surgeons.—N. T. K. Jordan, M.R.C.S., L.R.C.P.; C. T. H. Newton, M.B., Ch.B.Edin.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

LEGAT.—On February 18th, at Murray House, Staple Hill, Bristol, the wife of R. Eddowes Legat, of a son.

SCROGGIE.—At "Finchley," Harley's Road, Kilpauk, Madras, on January 7th, 1910, the wife of Captain W. R. J. Scroggie, I.M.S., of a daughter.

DEATHS.

LAWSON.—On February 22nd, 1910, after a prolonged illness, Henry Augustus Wellesley Lawson, L.R.C.P.and S.Edin., of 23, Holly Road, Cambridge Park, Leystonstone, N.E., aged 51 years.

MCKEE.—On February 22nd, 1910, at his residence, 1, Victoria Avenue, Harrogate, James Herbert McKee, M.D., eldest son of John McKee, Wyncroft, Adelaide Park, Belfast. Funeral private to Belfast.

MANNING.—On February 20th, at Laverstock, after a long illness most bravely and patiently borne, Henry John Manning, of Laverstock House, Salisbury, aged 74.

PODMORE.—On February 16th, at The Cottage, South Parade, Chiswick, Robert Podmore, M.R.C.S.Eng., aged 57, eldest son of the Rev. Thompson Podmore, formerly of Elstree Hill School, and Headmaster of Eastbourne College, late Rector of Aston-le-Walls, Northamptonshire. Interred in Chiswick Cemetery.

RECENT PUBLICATIONS.

Bulletin de l'Office International d'Hygiène Publique. Tome I. No. 12 (1909). Paris: Office International d'Hygiène Publique. (Fr. 1.)

This number contains an article on the etiology and prophylaxis of pellagra, together with notes upon the prevalence of the disease in various countries.

DIARY FOR THE WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Papers: (1) Sir J. Broadbent, Bart., M.D.: Some Difficulties in Prognosis in Cases of Atypical Pyrexia in Pneumonia in Adults. (2) Dr. Reginald Miller: On Some Cases of Protracted Pyrexia in Pneumonia in Children.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Dr. Peter Thompson: Some Embryological Problems in Relation to Medicine.

ROYAL SOCIETY OF MEDICINE:

ODONTOLOGICAL SECTION, 20, Hanover Square, W., 8 p.m.—Paper:—Mr. Stanley P. Mummery: Some Experiments on the Relative Susceptibility of Different Teeth to Dental Caries. Casual Communications:—Mr. Charles A. Clark: (1) A Sterilizable Film Holder for *X*-Ray Work; (2) A Method of Ascertaining the Relative Position of Unerupted Teeth by Means of Film Radiographs.

TUESDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—First Goulstonian Lecture by Dr. J. S. Bolton: A Contribution to the Localization of Cerebral Functions based on the Clinico-Pathological Study of Mental Disease.

ROYAL SOCIETY OF MEDICINE:

PATHOLOGICAL SECTION, King's College, W.C., 8.30 p.m.—Laboratory meeting.

THERAPEUTICAL AND PHARMACOLOGICAL SECTION, 20, Hanover Square, W., 4.30 p.m.—Adjourned Discussion on Proprietary, Patent, and Secret Remedies. Dr. John Cowan: The Treatment of Infective Endocarditis.

WEDNESDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Dr. Peter Thompson: Some Embryological Problems in Relation to Medicine.

THURSDAY.

HARVEIAN SOCIETY OF LONDON, Stafford Rooms, Titchborne Street, Edgware Road, W., 8.30 p m.—Discussion on Labour in Contracted Pelves, with Special Reference to the Justifiability of Pubiotomy, to be opened by Dr. G. F. Blacker.

NORTH-EAST LONDON CLINICAL SOCIETY, Prince of Wales's Hospital, Tottenham, 4.15 p m.—Clinical Cases.

ROENTGEN SOCIETY, 20, Hanover Square, 8 15 p.m.—Ordinary General Meeting. Paper—Mr. C. A. Clark, L D.S.: Dental *X* Ray Technique. Demonstrations—Mr. F. H. Glew will show a Radium Collector for Atmospheric Electricity. Dr. William Hampson will explain and demonstrate the use of a new appliance for the Production of Pencils of Carbonic Acid Snow for the Cold Caustic Treatment.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p m.—Second Goulstonian Lecture by Dr. J. S. Bolton: A Contribution to the Localization of Cerebral Function based on the Clinico-Pathological Study of Mental Disease.

FRIDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m —Professor R. H. Paramore: The Evolution of the Pelvic Floor in Non-mammalian Vertebrates and Pronograde Mammals.

ROYAL SOCIETY OF MEDICINE:

SECTION OF ANAESTHETICS, 20, Hanover Square, W., 8 30 p m.—Discussion: The Choice of an Anaesthetic, to be opened by Dr. Dudley Buxton.

LARYNGOLOGICAL SECTION, 20, Hanover Square, W., 5 p.m. —Cases and Specimens.

SATURDAY.

ROYAL SOCIETY OF MEDICINE:

OTOLOGICAL SECTION, 20, Hanover Square, W., 10 a.m.—Cases and Specimens:—Mr. A. H. Cheatle: Twenty Specimens of Chronic Middle-Ear Suppuration and its Sequelae. Mr. W. Milligan: (1) Pedunculated Papilliform Growth Springing from the Posterior Border of the Cartilaginous Meatus. (2) Large Naso-Pharyngeal Growth in a Boy. (3) Demonstration of Kuhn's Instruments for Per-oral Intubation. Dr. Dan McKenzie: (1) Case with well-defined and Transitory Ménière's Symptoms. (2) ? Othaematoma. Dr. Alexander Sharp: Audible Tinnitus. Mr. J. Arnold Jones: Mucous Polypus Presenting at the Pharyngeal Orifice of the Left Eustachian Tube in a Man suffering from Bilateral Chronic Adhesive Otitis Media. Mr. Hunter Tod: (1) Osteomyelitis of Temporal Bone. (2) Subdural Abscess and Excephalitis of Left Temporosphenoidal Lobe, with Aphasia.

POST-GRADUATE COURSES AND LECTURES.

BROMPTON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, S.W.—Wednesday, 4 p.m., Open and Closed Pulmonary Tuberculosis.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Tuesday and Friday, 3.45 p.m., Accessory Sinuses. Thursday, 4.30 p.m., Suppuration of the Accessory Sinuses.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a m.; Medical and Surgical Clinics, 2.15 p m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat at noon and 4 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Thursday, and noon Friday; Eye, 11 a.m., Wednesday and Saturday; Radiography, 4 p m., Thursday. Special Lectures: Monday, 4 p.m., Operations in Tubercle of Larynx. Tuesday, 3.15 p.m., Actinomycosis. Wednesday, 3 30 p.m., Ophthalmoscopic Appearances in Typical Diseases of the Fundus Oculi.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day:—Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Ear, Nose, and Throat. Lectures at 5.15 p m. each day will be given as follow: Monday, The Surgical Treatment of Certain Cases of Glycosuria; Tuesday, The Manipulative Treatment of Congenital Dislocation of the Hip; Wednesday, The Results of Experimental Cancer Research; Thursday, After-Effects of Head Injuries.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Peripheral Neuritis; Friday, 3.30 p.m., Clinical Lecture.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, 10 a.m., Surgical Out-patient Clinic: 2.30 p.m., Medical Out-patient Clinic: Nose, Throat, and Ear Diseases; 4 30 p.m., Medical In-patient Clinic. Tuesday, 10 a m., Medical Out-patient Clinic; 2.30 p m, Operations, Surgical Clinic; Gynaecological Clinic; 4 30 p.m., Lecture: Some Points in the Surgery of the Aged. Wednesday, 2 30 p.m., Medical Out-patient Clinic; Diseases of the Skin; Diseases of the Eye; *X* Rays. Thursday, 2 20 p m., Gynaecological Operations; Medical Out-patient Clinic; Surgical Out-patient Clinic; 3 p m., Medical In-patient Clinic. Friday, 10 a m., Clinic: Surgical Out-patient; 2.30 p.m., Operations; Clinics; Medical Out-patient; Eye; 3.30 p.m., Medical In-patient.

POST-GRADUATE COLLEGE, West London Hospital, Hammersmith, W.—The following are the arrangements for next week:—Daily: Medical and Surgical Clinics, 2 p.m.; Operations, 2 p m.; *X* Rays, 2 p.m. Monday, Surgical Registrar, 10 a.m.; Eye, 2 p.m. Tuesday, Gynaecological Operations, 10 a m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday, Diseases of Children, 10 a.m.; Throat and Nose Operations, 10 a.m.; Practical Medicine, 12 p.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday, Surgical Registrar, 10 a m.; Eye, 2 p.m.; Pathological Demonstration, 12 noon; Orthopaedics, 2 p.m. Friday, Medical Registrar, 10 a.m.; Gynaecological Operations, 10 a m; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday, Diseases of Children, 10 a m. Lectures: 5 p m., Monday, Examination of Children's Teeth; Tuesday, Cerebral Haemorrhage; Wednesday, *X*-Ray Diagnosis; Thursday, Practical Surgery; Friday, Clinical Lecture.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
MARCH.	
1 TUESDAY ..	
2 WEDNESDAY	SOUTH-EASTERN OF IRELAND BRANCH, Meeting of Branch Council and Local Division, Club House, Carlow, 5.30 p.m.
3 THURSDAY ..	LONDON: Medico Political Medical Inspection and Treatment of School Children Subcommittee, 3 p.m. FOLKESTONE DIVISION, *South-Eastern Branch*, 21, Earls Avenue, 8 30 p m. RICHMOND DIVISION, *Metropolitan Counties Branch*, Special Meeting, Royal Hospital, Richmond, 4 p.m.
4 FRIDAY ..	LONDON: Special Poor Law Reform Committee, 2.30 p.m. LONDON: Territorial Forces Committee, 3 p.m. SCOTTISH PART DIVISION, *Border Counties Branch*, Clinical Meeting, Dumfries and Galloway Royal Infirmary, 3 p.m.; Executive Committee, 2.15 p.m.
5 SATURDAY ..	
6 Sunday ..	
7 MONDAY ..	LONDON: Standing Ethical Subcommittee, 2 p.m.
MARCH *(continued)*.	
8 TUESDAY ..	
9 WEDNESDAY	
10 THURSDAY ..	BIRMINGHAM BRANCH, Medical Institute, Edmund Street, 3.30 p.m.
11 FRIDAY ..	
12 SATURDAY ..	
13 Sunday ..	
14 MONDAY ..	
15 TUESDAY ..	
16 WEDNESDAY	CARDIFF DIVISION, *South Wales and Monmouthshire Branch*, Cardiff. RICHMOND DIVISION, *Metropolitan Counties Branch*, Medico-Political Meeting, Royal Hospital, Richmond, 8.30 p m. YORKSHIRE BRANCH, Bull Hotel, Wakefield, 4 p.m.; Council Meeting, 3.15 p.m.; Dinner, 6.30 p.m.
17 THURSDAY ..	LONDON: Metropolitan Counties Branch Council, 4.30 p.m. CITY DIVISION, *Metropolitan Counties Branch*, Brooke House, Upper Clapton, 8.30 p.m.

Printed and Published by the British Medical Association at their Offices, No. 429, Strand, in the Parish of St. Martin-in-the-Fields in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MARCH 12TH, 1910. [DOUBLE NUMBER.

CONTENTS.

	PAGE
Meetings of Branches and Divisions:	
Birmingham Branch: Coventry Division	93
Cambridge and Huntingdon Branch	93
Edinburgh Branch	93
Glasgow and West of Scotland Branch: Dumbartonshire and Argyllshire Division	94
Lancashire and Cheshire Branch: Ashton-under-Lyne Division	95
" " " " Manchester (South) Division	95
" " " " Warrington Division	95
Metropolitan Counties Branch: Chelsea Division	95
" " " Norwood Division	96
" " " Richmond Division	96
" " " Wandsworth Division	96
Southern Branch: Portsmouth Division	96
" " Winchester Division	97
South Wales and Monmouthshire Branch: Swansea Division	97
ASSOCIATION NOTICES.—Annual Meeting, London, 1910, Academic Dress	97
GENERAL MEDICAL COUNCIL: EXECUTIVE COMMITTEE	98
CENTRAL MIDWIVES BOARD	100
HOSPITALS AND ASYLUMS:	
King Edward's Hospital Fund for London	100
Royal Edinburgh Asylum for the Insane	100
NAVAL AND MILITARY APPOINTMENTS	101
VITAL STATISTICS	102
VACANCIES AND APPOINTMENTS	103
BIRTHS, MARRIAGES, AND DEATHS	103
PUBLISHERS' ANNOUNCEMENTS	103
RECENT PUBLICATIONS	103
DIARY FOR THE WEEK	104
CALENDAR	104

Meetings of Branches & Divisions.

[The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the JOURNAL.*]*

BIRMINGHAM BRANCH:
COVENTRY DIVISION.

A GENERAL meeting of this Division was held at the hospital on February 15th. Dr. SNELL took the chair in the absence of Dr. Rice.

Model Rules for a Public Medical Service.—It was decided to defer consideration of this report for the present, as the provision for medical aid for the poor in the city was adequate to the needs of the community.

Midwives and Doctors' Fees.—The general principle of payment through the local supervising authority rather than by the guardians of the poor was approved.

Paper.—Dr. V. PENDRED (Honorary Secretary) read a paper on Sanatoriums for Tuberculous Workers. He urged that, owing to the immense difficulty of inducing workers to enter sanatoriums in the early stages of phthisis, and the consequent failure to cure the disease, they were economically unsound. Useless lives were merely protracted to be an increased danger to the community and to keep alive the tuberculosis problem for our successors. The paper was adversely criticized by Drs. SNELL, ORTON, and RICE, and supported in its main contentions by Drs. ROLLASON and PHILLIPS.

Abuse of Hospitals, especially of Out-patient Departments.—Dr. PHILLIPS opened a discussion on this subject, and insisted upon the flagrant abuse at the Coventry Hospital. He advocated the appointment of an almoner. Dr. RICE feared the imposition of a municipal rate in support of hospitals, as that would result in citizens claiming treatment as a right, as they now did at the fever hospitals. Dr. MILNER MOORE suggested that renewed inquiries should be made as to the extent of the abuse, and that the results should be laid before the committee of the hospital. Dr. SNELL said that any effective action could only be taken in conjunction with the medical staff. He proposed:

> That the medical staff of the Coventry Hospital be requested to co-operate with the Division to deal with the abuse of the out-patient department.

This was agreed to, and the Secretary directed to send the resolution to the medical staff.

CAMBRIDGE AND HUNTINGDON BRANCH.

A MEETING of this Branch was held at Addenbrooke's Hospital, Cambridge, on Friday, March 4th, at 2.30 p.m., the PRESIDENT (Professor G. Sims Woodhead) in the chair. There were twenty-four members present.

Confirmation of Minutes.—The minutes of the December meeting were read and confirmed.

Specimens.—The PRESIDENT showed a specimen of *Heart-block*, and referred to the excellent work done by the late Dr. G. G. Ellett on this subject. Dr. MILLER demonstrated the *Auriculo-ventricular node and bundle of His* dissected out in a bullock's heart. Dr. RODERICK exhibited several recent pathological specimens.

Case.—Mr. WHERRY showed a patient suffering from *Conjunctival pemphigus.*

Communications.—Mr. COOK read notes of a case of *Impacted gall stone* in the small intestine, and of a case of early *Extrauterine gestation.* Dr. GRAHAM read notes of a case of *Poisoning by oil of wintergreen.*

EDINBURGH BRANCH.

THE winter clinical meeting of the Edinburgh Branch was held in the Royal Infirmary, Edinburgh, on Friday, February 25th, and was attended by nearly 200 members.

Museum.—The museum, which was housed in the pathological department, was under the personal supervision of Dr. F. D. Boyd, and was laid out with the assistance of Dr. Shennan. It was certainly the feature of the meeting, and proved a great attraction to both town and country members. Prominent among the exhibits was a series of lifelike casts representing a variety of skin diseases, shown by Dr. Cranston Low and Miss Rae; a large number of beautiful radiographs showing tuberculous diseases and injuries of bones and joints and a unique fracture dislocation of the shoulder, shown stereoscopically by Dr. Edmund Price; a very fine series of photographs and radiographs of rodent ulcers, naevi, papilloma, etc., before and after treatment, by Dr. Dawson Turner; and an excellent demonstration by *x*-ray photography of injuries and diseases in children, by Dr. J. W. L. Spence. A very large and interesting collection of anatomical and pathological specimens was exhibited by Dr. A. H. F. Barbour, Dr. Lewis Beesly, Mr. Hodsdon, Dr. A. Bruce, Dr. E. Bramwell, Professor Caird, Professor Sir Thomas Fraser, Mr. Cathcart, Mr. George Chiene, Dr. Comrie, Mr. Cotterill, Mr. Dowden, Dr. Eason, Dr. William Fordyce, Dr. Fleming, Mr. Miles, Mr. Scott Carmichael, Dr. James Miller, Dr. Munro Moir, Mr. Scot Skirving, Dr. Shennan, Mr. Struthers, Mr. Henry Wade, and Mr. Wallace. In the Microscopical Section beautiful

demonstrations were tabled by Dr. J. S. Fraser, Dr. Philip, Dr. Cranston Low, Major Marshall, Dr. Shennan, Miss Marshall, Royal Asylum, and Dr. Chalmers Watson. Interesting charts were shown by Dr. Boyd, illustrating the influence of a salt-poor diet on certain forms of oedema and the value of "hunger days" in diabetes mellitus. Dr. T. D. Luke showed an electrical oven for preparing sour milk. During the course of the day demonstrations on venereal disease were given by Mr. DOWDEN; of cases illustrative of the mobile treatment of fractures, by Mr. WADE; in the electrical rooms showing the physical properties of radium and methods of application in the treatment of disease, by Dr. DAWSON TURNER; in the dermatological department by Dr. NORMAN WALKER; of ophthalmic cases by Dr. GEORGE MACKAY, Dr. J. V. PATERSON, Dr. A. H. H. SINCLAIR, and Dr. H. M. FRAQUAIR; of ear and throat cases by Dr. LOGAN TURNER, Dr. FARQUHARSON, and Dr. W. G. PORTER; and of the hot-air and light treatment of chronic rheumatism at 18, Minto Street, by Dr. A. D. WEBSTER.

Clinical Surgical Meeting.—The clinical surgical meeting was held in the large surgical theatre at 4 o'clock, with Dr. ALEX. JAMES, President, in the chair. There was a large attendance. Mr. STRUTHERS, Mr. GEO. CHIENE, Mr. STILES, Professor CAIRD, Mr. COTTERILL, Mr. CATHCART, Mr. WALLACE, Mr. MILES, Mr. SCOT SKIRVING, and Mr. W. J. STUART showed a large number of patients after operation.

Clinical Medical Meeting.—The clinical medical meeting was held in the extramural clinical medical theatre at 5 o'clock, with Dr. JAMES in the chair. Dr. E. BRAMWELL, Dr. FLEMING, Dr. BYROM BRAMWELL, Dr. A. BRUCE, Dr. PHILIP, Dr. WM. RUSSELL, Dr. HARRY RAINY, and Dr. J. EASON presented patients suffering from diseases of the nervous, circulatory, and pulmonary systems.

Dinner.—The members, with covers laid for 74, dined in the Royal British Hotel, Princes Street, in the evening. The President (Dr. Alex. James) occupied the chair, with Dr. Matheson, Dr. Boyd, and Dr. James Hunter, acting as croupiers, and a very enjoyable evening was spent. After the toast of the King had been honoured, apologies for unavoidable absence were intimated from Dr. Norman Walker and Mr. Hodsdon (members of the General Medical Council); Lieutenant-Colonel Heuston, P.M.O.; Colonel Warburton; Dr. Mitchell, President, Aberdeen Branch; Dr. Fraser, Secretary, Aberdeen Branch; Professor Kynoch, President, and Drs. Buist and Low, Secretaries, Dundee Branch; Dr. Dow, President, Fife Branch; Dr. Bruce, President, and Dr. Trotter, Joint Secretary, Perth Branch; Dr. Smith (Dingwall), President, and Dr. Munro Moir (Inverness), Secretary, Northern Counties Branch; Dr. W. D. MacFarlane, Secretary, Glasgow and West of Scotland Branch; and Dr. Clark Stewart, Secretary, Stirling Branch. The toast of the "Imperial Forces," proposed in a racy speech by the PRESIDENT, in which he advocated compulsory service, was replied to by Lieutenant-Colonel CATHCART. The "Public Health Committee of the City of Edinburgh," was given by Dr. WM. RUSSEL, President-elect, and acknowledged by Convener MACPHERSON. Professor STOCKMAN (Glasgow) gave the toast of the "British Medical Association." Dr. BALFOUR GRAHAM (Leven) replied, advocating more union. The health of the President was proposed by Dr. Livingstone (Dumfries) in a laudatory speech. At intervals Drs. GEO. MACKAY, BRUCE, JOHN M. DARLING, HAULTAIN, CALVERT (Melrose), MAIN (Hang Chow), and JAMES, enlivened the company with song and story. The meeting was brought to a close with the toast of "Floreat Res Medica."

GLASGOW AND WEST OF SCOTLAND BRANCH:
DUMBARTONSHIRE AND ARGYLLSHIRE DIVISION.

A GENERAL meeting of the Division was held in Dr. Hunter's house, Millig, Helensburgh, on Saturday, February 19th, at which nine members were present.

Confirmation of Minutes.—The minutes of the last meeting were read, and after adoption were signed by the Chairman, Dr. Hunter.

Special Class of Consultants.—On the question raised on the report on a special class of consultants it was unanimously agreed to reply in the affirmative to the two questions submitted for discussion—namely:

1. Is the Division in favour of the recognition of a special class of consultants on the lines indicated in the report?
2. Is the Division in favour of the Association prescribing regulations for the practice of such a class?

At the same time the members were of opinion that this procedure was only applicable to the large towns and cities, and not to the smaller towns and country districts.

Model Rules of a Public Medical Service.—The decision of the meeting was that such a public medical service was neither necessary nor desirable so far as the Division was concerned, but it was felt that for some districts the scheme might work very well, and in that respect it was approved of, but the members would not commit themselves as to details.

Medical Inspection of Schools.—The members were unanimous in supporting the scale of fees suggested for the medical officers—namely: For the principal officer a minimum of £500, and for the assistants a minimum of £250. For part-time payment it was agreed to support the 10s. per hour rate. The meeting did not consider the appointment of the medical officer of health as principal officer for a county essential in any district. As these appointments are at present under discussion in Dumbartonshire and Argyllshire, the Honorary Secretary was instructed to convey these decisions to the officials concerned.

Instruction in First Aid and Field Nursing to Voluntary Departments, and Ambulance Work in General.—As no record was to be found of the action of the Division with regard to the resolution of the Annual Representative Meeting of 1905, which approved a report of the Medico-Political Committee, to the effect that the time had now arrived when all ambulance work should be treated as a matter of business and not of philanthropy, the matter was discussed, and the members were unanimous in supporting the resolution. None of the members knew of any instance in the Division in which ambulance lectures were paid for, with the exception of the lectures delivered in connexion with the School Boards.

Interim Report on Poor Law.—It was agreed to support the three conclusions arrived at by the Committee:

1. That medical services rendered on behalf of the State should be paid for by the State.
2. That the payment should be adequate and in accordance with the professional services rendered.
3. That there should be adequate medical representation on all committees formed to control medical assistance.

Relation of Homoeopaths to the Association.—All the questions were answered in the affirmative; but with regard to Question A the members felt that circumstances might arise to modify their decision. The questions were:

A. Is the Division of opinion that the Association should not attempt to pronounce in this or in any other connexion what constitutes sound doctrine in medicine or surgery, nor condemn individual practitioners on the ground that they hold peculiar views of pathology or treatment or give effect to such views in the practice of their profession?

B. Is the Division of opinion that the Association should express the opinion that it is contrary to the principles of professional conduct for any medical practitioner to advertise the holding of peculiar views of pathology or treatment, or the fact that his practice is based thereon, as a means of attracting to himself patients?

C. Is the Division of opinion that the Association should express its disapproval of the conduct of those medical practitioners who permit the publication of their names in the *Homoeopathic Directory* or similar compilations, or who make use of doorplates or similar means to intimate to the public that they are guided in their practice by peculiar theories of pathology or treatment?

D. If the reply of the Division to the above questions B and C is in the affirmative, is the Division of opinion that it is desirable that the bodies which have the power of electing members should not elect those who are reasonably believed to have acted unprofessionally in any of the ways stated?

E. In the same event, as stated in the previous question, is the Division of opinion that, concerning those who are already members, the disciplinary powers of the Council and of the Branches should be duly exercised if and when cases of the

kind are brought under their notice in conformity with the ordinary rules of procedure of the Association in ethical matters?

Questions to Parliamentary Candidates.—The questions sent to the four Parliamentary candidates in the Division and the answers received were read.

Research Defence Society.—A communication from Mr. Stephen Paget, Honorary Secretary of the Research Defence Society, was read, and the Secretary was instructed to acknowledge same.

LANCASHIRE AND CHESHIRE BRANCH:

ASHTON-UNDER-LYNE DIVISION.

THE annual meeting was held on February 11th.

Confirmation of Minutes.—The minutes of the last annual meeting were read and confirmed.

Annual Report and Balance Sheet.—The SECRETARY read the annual report, and presented the annual balance sheet, which were adopted. In consequence of the adverse balance revealed it was decided that no payment be made to the Representative till the Division be solvent, and a Committee was appointed to consider and report on the financial position of the Division.

Election of Officers.—The following officers and Committee were appointed:—*Chairman*, Dr. Booth, Dukinfield; *Vice-Chairman*, Dr. Infield, Hyde; *Representative on the Branch Council*, Dr. Crawshaw, Ashton; *Honorary Secretary and Treasurer*, Dr. Bishop, Stalybridge; *Committee*, Drs. Hilton, Price, Ralphs, Fox, Clarke, Talbot, Walters, Bleasdale, Hughes, Twomey, and Cheetham.

Annual Dinner.

The annual dinner was held on Tuesday, February 22nd, at the George and Dragon Hotel, Ashton. Dr. BOOTH, of Dukinfield, Chairman of the Division, presided over a gathering of members and friends to the number of thirty. After dinner the usual loyal toasts were given by the Chairman. Mr. G. D. TELFORD, of Manchester, in a humorous speech, submitted the toast of the evening, namely, "The Ashton-under-Lyne Division and its Chairman."

Other toasts were duly honoured, and the rest of the evening passed with music, recitations, and anecdotes. Amongst the gentlemen who contributed to the entertainment were Mr. Lingard, Mr. Harold Hyde, Dr. Bleasdale, Mr. Tattersall, etc. Dr. Corns, as toast-master, added much to the enjoyment of the evening.

MANCHESTER (SOUTH) DIVISION.

THE fourth meeting of the session was held at the house of the Chairman, Dr. M. Russen Rhodes, Bridge House, Didsbury, at 4 p.m. on Wednesday, February 9th. Dr. RUSSEN RHODES was in the chair, and the following thirteen members were also present: Drs. Boyd, Carnwath, Chevers, Cotterill, Grant Davie, Edlin, Godson, Gregory, Crichton Hood, Mitchell, Sawers Scott, Simcock, and Stocks.

Apologies for Non-attendance.—Drs. Hopkinson, Goodfellow, and McDougall wrote regretting their unavoidable absence.

Confirmation of Minutes.—The minutes of the last meeting (December 14th, 1909) were read and confirmed. Arising out of the minutes the SECRETARY read the replies of the local parliamentary candidates to the questions submitted at the recent General Election.

Special Class of Consultants.—Questions A and B were both answered in the negative, and the following resolution was adopted *nemine contradicente*:

> That this Division, whilst realizing the profoundly unsatisfactory relationship between the different classes of medical practitioners, and being of opinion that the ethical rules regarding supersession should be binding equally on the consultant as on the general practitioner, does not consider that the scheme outlined in the report is feasible, and therefore answers both questions at the end of the report in the negative.

National Deposit Friendly Society.—A letter from the Joint Committee was read advising practitioners to see that when attendance is made upon members of this society the patients should be charged full ordinary fees, and any payment made by the society should be regarded as merely "payment on account." It was proposed by Dr. SCOTT, seconded by Dr. CARNWATH, and carried, with 3 dissentients:

> That the Joint Committee be requested to bring this subject to the notice of all medical men practising in the Manchester and Salford area.

Manchester Corporation and Payment of Medical Men called in by Midwives.—The letter of the Manchester Corporation was approved, and the Secretary was instructed to write to the authorities concerned in the terms of the draft letter. The Secretary was also instructed to bring forward at another meeting the subject of the administration of fees to medical men called in by midwives.

Model Rules of a Public Medical Service.—The subject was referred to the committee for consideration and report, and the Secretary was instructed to obtain copies for distribution to all the members.

Medical Inspection and Treatment of School Children.—Owing to the lateness of the hour, consideration of this report was deferred.

WARRINGTON DIVISION.

A SCIENTIFIC meeting of this Division was held on Tuesday, February 22nd. Present: Dr. G. W. JOSEPH, J.P., in the chair; Drs. Burrowes, Jago, Hutt, Langdale, D. H. Anderson, Law, G. H. Joseph, Bowden, and Murray; Drs. Manson, Robinson, and Binns (visitors). An apology was received from Dr. Edwards for not being able to attend.

Cerebro-Spinal Fever.—Dr. O. T. WILLIAMS, of the Royal Infirmary, Liverpool, read a paper on aids to diagnosis and treatment of cerebro-spinal fever. A hearty vote of thanks was given to Dr. Williams for his very interesting and instructive paper. Drs. G. W. JOSEPH, HUTT, MANSON, LANGDALE, LAW, ROBINSON, and BURROWES spoke upon the paper.

METROPOLITAN COUNTIES BRANCH:

CHELSEA DIVISION.

A MEETING of the Division was held at the Fulham Town Hall on March 1st, Dr. M. J. WILLIAMS in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Letters.—The following letters were read: (1) From the Chairman of the Division (Dr. P. H. Parsons), apologizing for his absence, and enclosing the sum of £2 12s. 6d. subscriptions to the Wells Fund, which the Secretary was instructed to forward to the *Lancet* as a first instalment. (2) From the Secretary of the Branch Council *re* the following resolutions passed by this Division on December 7th, 1909:

> (*a*) That this meeting recognizes the necessity for a union of medical practitioners with Parliamentary representation, and requests the Executive of the British Medical Association to ascertain the wishes of members in the United Kingdom by referendum at the earliest possible date.
>
> (*b*) That a copy of the above resolution be sent to the Branch Council requesting them to take the necessary steps to have it carried into effect.

The Branch Council passed the following resolution:

> That the Council thoroughly sympathizes with the resolution of the Chelsea Division and recommends that the Division shall instruct their Representative to bring up the question at the Representative Meeting, and in the meantime to obtain, if possible, the co-operation of other Divisions.

On the proposition of Dr. FLETCHER, seconded by Dr. YOUNG, and carried *nemine contradicente*, the SECRETARY was instructed to circularize all the Divisions in the United Kingdom, asking for their support in this matter. (3) From the Medical Secretary of the Association, acknowledging copies of a resolution passed by this Division on January 4th last on the subject of the legal right of the London County Council or any other public authority to apply the rates in payments to hospitals or other charities. He reports that the matter has already received consideration by the Medico-Political Committee, which decided to ask the

opinion of the Metropolitan Counties Branch, after which the matter is to be referred to the Parliamentary Subcommittee. (4) From the Medical Secretary with reference to subjects for discussion at the next annual meeting of the Association. (5) The SECRETARY reported that he had dispatched copies of the memoranda and questions drawn up by the British Medical Association to the four Parliamentary candidates for Chelsea and Fulham at the last General Election, and that one only had been acknowledged (by T. J. Hoare, Esq., M.P.). That gentleman expressed his readiness, if elected, to take no action with reference to the Medical Act Amendment Bill until he had consulted the representatives of the Association. In the case of the London County Council elections, one only (R. C. Norman, Esq.) out of the eight candidates for Chelsea and Fulham had replied to the inquiries.

Annual Report.—A copy thereof, audited by Dr. Young, was passed round for inspection, and it was duly confirmed.

Poor Law Reform Committee.—The Interim Report of the Poor Law Reform Committee (see SUPPLEMENT to BRITISH MEDICAL JOURNAL of February 5th) was considered. After considerable discussion the general conclusions of the Special Poor Law Reform Committee met with the unanimous approval of the meeting.

Report on Homoeopathy.—This was considered, and the various questions submitted by the Central Ethical Committee were duly answered.

Special Class of Consultants.—The meeting was in favour of the recognition of a special class of consultants on the lines indicated in the report of the Central Ethical Committee, with the proviso that the Association should prescribe regulations for the conduct of the practice of such a class. The meeting was also of opinion that a list of such consultants should be supplied to each Division.

Election of Representative for the Next Representative Meeting.—Dr. Fletcher was appointed.

Dinner Committee.—Drs. Bedford, Coltart, Lee, and the Secretary were elected to make the necessary arrangements for the annual dinner of the Division in April.

New Members.—The SECRETARY appealed to members to make a special effort to induce medical men to join the Association, as they were doing in other Divisions of the metropolis.

Bolingbroke Hospital.—The administration of the Bolingbroke Hospital was described in a short address by Mr. Charles Ryall, F.R.C.S., to whom a hearty vote of thanks was accorded.

NORWOOD DIVISION.

A MEETING of this Division was held at the Streatham Hall, on Thursday, February 24th, at 4 p.m., Dr. W. G. BIGGER in the chair. Thirty-three members and visitors were present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Wells Fund.—Arising out of the minutes, the HONORARY SECRETARY announced that the contributions to the Wells Fund amounted to £12 18s. 6d., and it was decided to send this sum to the Secretary of the fund, and to keep the list open another month.

Correspondence.—A letter from the Territorial Forces Committee *re* voluntary aid detachments and the payment of ambulance (first-aid) teaching was considered. The Honorary Secretary was instructed to reply that in most cases ambulance instruction was given gratuitously, and that when remuneration was made it was not adequate.

Poor Law Reform Committee.—The interim report of the Poor Law Reform Committee was discussed, and the Honorary Secretary was instructed to reply that the Division agreed with the general conclusions of the Committee.

Next Meeting.—It was decided to hold the next meeting on Thursday, March 24th, at the Lewisham Infirmary, and to ask Dr. Toogood to take the chair thereat.

Paper.—A paper on Colitis was read by Dr. A. VOELCKER.

Lantern Demonstration.—A series of slides illustrating various subjects of surgical interest was shown by Mr. STANLEY BOYD.

RICHMOND DIVISION.

A GENERAL meeting of this Division was held on Wednesday, February 23rd, at the Royal Hospital, Richmond. Mr. HENRY CURTIS read an instructive paper on some interesting cases of abdominal surgery, including some rare forms of intestinal obstruction. After some remarks on diagnosis, and reference to two recent cases of perforative peritonitis for which right colostomy had been performed, and to three cases of obstruction due to (*a*) strangulated femoral hernia, (*b*) malignant disease of the left ovary and rectum adjacent, (*c*) malignant disease of the bladder and rectum, details were given of the following series of cases, the patients being all Matabeles, Cases 2 and 3 being women: (1) Self-inflicted wound of a hernial protrusion transfixing bowel and mesentery; fatal internal and external haemorrhage. (2) Large umbilical protrusion simulating a reducible hernia, found to be a trabeculated sac only, containing free ascitic fluid (cirrhosis of the liver); radical cure; recovery. (3) Tubercle of the extraperitoneal tissue of the anterior abdominal wall, associated with pleurisy and adhesive peritonitis (polyorrhomenitis); laparotomy; cure. (4) Volvulus of the small intestine in connexion with a hernia into the duodeno-jejunal fossa; reduction; death subsequently from cardiac failure. (5) Volvulus of the caecum and strangulation of the descending colon by a traction diverticulum secondary to chronic peritonitis; death, unrelieved. Specimens, sketches, photographs, and diagrams illustrated the paper.

An interesting discussion followed, and Mr. CURTIS replied.

Vote of Thanks.—A hearty vote of thanks was accorded to Mr. Curtis for his instructive paper.

WANDSWORTH DIVISION.

A MEETING of this Division was held at the Wandsworth Town Hall on Thursday, February 24th, at 8.45 p.m., Dr. MACKINTOSH in the Chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Report of the Council re Homoeopaths.—The report was considered, and the recommendations of the Council agreed to. Dr. NASH, seconded by Dr. CARMICHAEL, proposed:

> That no registered medical practitioner who practises as a homoeopath be admitted a member of the Association.

The proposal was lost.

Poor Law Reform Committee.—The Interim Report of the Poor Law Reform Committee was considered. The Division agreed with the general conclusions of the Committee. Dr. FOTHERGILL proposed:

> This Division would urge the Central Council to forward at once for the consideration of those members of Parliament who have decided to introduce a Bill, based on the lines of the Minority Report, a copy of the resolutions sent to the Prime Minister proposing a Departmental Committee to consider the medical aspects of Poor Law reform.

The resolution was seconded by Dr. BIGGS, and carried unanimously.

SOUTHERN BRANCH:
PORTSMOUTH DIVISION.

A CLINICAL meeting of this Branch was held at Southsea on February 16th. Dr. COLT, Chairman, presided, and seventeen members were present.

Cases.—Dr. CRAWLEY showed a case of obstructed labour, due to a conjugate of less than 3 in., in which Mr. Childe had successfully performed Caesarean section. Mr. CHILDE made some remarks upon the case, and upon two others on which he had operated. Mr. RIDOUT showed two cases of submucous resection of the nasal septum, and described the operation.

Communication.—Dr. L. MAYBURY read notes of a case of pneumonia which had been successfully treated by Professor Paul's antipneumococcal serum.

Specimens.—Mr. BURROWS showed a mesenteric chylous cyst which he had removed; also two prostates, one of which had been removed from a patient aged 91 years. Mr. CHILDE showed a spindle-celled sarcoma of the upper jejunum, which had been removed by enterectomy; a case of acute intussusception of the jejunum, occurring in a young adult, removed by enterectomy: also a case of tuberculous kidney and ureter, in which abdominal nephrectomy and complete ureterectomy had been performed. Dr. LEON showed slides and specimens illustrating the various forms of anaemia.

WINCHESTER DIVISION,

THE spring meeting of this Division was held at the Royal Hants County Hospital, Winchester, on Wednesday, February 16th, at 3.30 p.m.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Letters.—The following letters were read and discussed:—(1) From Dr. Petrie (Barclay House, Yateley). (2) From Research Defence Society. (3) From Manchester Corporation. (4) From Dr. Gordon (Salisbury Division). (5) From the Medical Secretary. (6) From Special Poor Law Reform Committee.

Research Defence Society.—Dr. Briscoe (Alton) was unanimously elected corresponding member for the Research Defence Society.

Poor Law Report.—It was resolved that a special meeting be held in the month of March or April to consider the Poor Law Report, and that the Medical Secretary be invited to attend and address the meeting on the report.

Fees for Ambulance Lectures.—The following resolution, proposed by Dr. HOYLE, was carried unanimously:

> That this meeting of the Winchester Division is of opinion that a fee should be charged for lectures given to the British Red Cross Society, and that the fee for each course of lectures be 5 guineas, and further refers the question of remuneration of ambulance lecturers to the British Red Cross Society to the Branch Council, with the request that the opinion of the Central Council be obtained, with a view to the latter body bringing the matter before the Representative Meeting.

Payment of Staffs of Voluntary Hospitals.—Dr. LYSTER moved that it be an instruction to the Representative of the Division in the Annual Representative Meeting of the Association to bring forward at the next Representative Meeting the following motion:

> That the Council be instructed to prepare a report for consideration of the Divisions and the Representative Meeting on the advisability of all members of the staffs of voluntary hospitals being paid for their services.

This was carried unanimously.

Medical Practitioners and Midwives.—It was resolved that the draft letter from the Medico-Political Committee on Payment of Medical Men called in by Midwives should be sent to various governing bodies in the county.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: SWANSEA DIVISION.

A MEETING of this Division was held at the Swansea General Hospital on January 13th, Dr. E. LE CRONIER LANCASTER in the chair.

Special Class of Consultants.—The report of the Central Ethical Committee on a special class of consultants was fully discussed, and it was decided to answer the questions at the end of the report as follows:

> A. Is the Division in favour of the recognition of a special class of consultants on the lines indicated in this report? No.
> B. No.

The following criticism was added:

> This Division considers that the recognition of a special class of consultants is impracticable, especially in smaller towns and country districts, and, in any case, it is an attempt to coerce the general public.

Midwives Act.—A circular letter recently issued by the Manchester Corporation to the councils of large boroughs concerning the recommendation of the Departmental Committee on the Midwives Act was read and discussed. The following resolution was carried unanimously:

> That in the opinion of this Division the fees of medical practitioners called in under the Midwives Act should, as far as practicable, be paid through the local supervising authorities and not through the boards of guardians.

It was then resolved that a letter embodying this resolution should be sent to the Town Clerks of the Boroughs of Swansea and Neath, and to the Clerk of the County Council of Glamorgan, to be forwarded to the respective Midwives Supervising Authorities.

Medical Inspection and Treatment of School Children.—A letter was read from the Medical Secretary concerning medical inspection and treatment of school children, drawing attention to the resolutions of the Representative Meeting on the matter, and the importance of prompt action being taken by the Divisions on the lines indicated in the report. In the discussion which followed it was elicited that the education authorities of the Borough of Swansea and the County Council of Glamorgan had under consideration the steps they should take for the provision of treatment of school children found upon inspection to be defective. The following resolution was passed:

> That a special meeting of the Executive Committee be called to consider the matter, with power to co-opt certain members who would be helpful in the deliberation of the subject.

Representative at Representative Meetings.—Dr. L. FREEMAN MARKS, who had been nominated by the Executive Committee, was unanimously elected as Representative of the Division at Representative Meetings of the Association.

Association Notices.

ANNUAL MEETING, LONDON, 1910.

THE Executive Committee of the Annual Meeting at its meeting on March 8th adopted the following resolution:

> That academic dress or uniform be worn on the three following occasions, namely: Tuesday evening at the Presidential Address; Wednesday afternoon at the Church Service in Westminster Abbey; and on Wednesday evening at the Conversazione at the Guildhall by the Lord Mayor and Corporation.

BRANCH AND DIVISION MEETINGS TO BE HELD

BORDER COUNTIES BRANCH: ENGLISH DIVISION.—A general meeting of the English Division of the Border Counties Branch will be held at Whitehaven on Friday, April 1st. Any members wishing to read papers or show cases are requested to communicate with the Honorary Secretary.—S. E. RIGG, Honorary Secretary, 1, Alfred Street North, Carlisle.

LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—A special meeting of the Division will be held in the Board Room of the Altrincham Hospital on Thursday, March 17th, at 5 p.m. prompt. Tea will be served at 4.30 p.m. Further particulars in future notice.—H. G. COOPER, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: KENSINGTON DIVISION.—The next meeting of the Division will be held at the Town Hall, Kensington, on Monday, March 21st, at 4.30 p.m. Agenda: (1) Minutes of the two previous meetings. (2) The Treatment of School Children. The Branch Council requests the Divisions at as early a date as possible to co-ordinate arrangements in the Divisions through which children can be treated by local registered medical practitioners. (3) Proposed Public Medical Service. The Executive Committee have not found it possible to nominate a subcommittee as requested by the Division, and it has been decided to invite volunteers. (4) The report of the Council on the Relation of Homoeopaths to the Association (see BRITISH MEDICAL JOURNAL, SUPPLEMENT, February 12th). (5) The interim report of the Special Poor Law Reform Committee (see SUPPLEMENT of February 5th). (6) Correspondence.—H. BECKETT OVERY, Honorary Secretary, South Kensington, S.W.

METROPOLITAN COUNTIES BRANCH: LAMBETH DIVISION.—The next meeting of this Division of the Metropolitan Counties Branch will be held on Thursday, March 17th, at 4 p.m., at the Evelina Hospital. Agenda: (1) To consider the Report of the Council on the Relation of Homoeopaths to the Association. (2) To consider the interim report of the Special Poor Law Reform Committee. (3) Paper by Dr. David Forsyth: A Rational System of Infant Feeding. (4) Demonstration of Cases of Congenital Idiocy by Dr. H. C. Mann.—H. CHARLES CAMERON, Honorary Secretary, 6, St. Thomas's Street, S.E.

METROPOLITAN COUNTIES BRANCH: NORWOOD DIVISION.—The next meeting of this Division will be held at the Lewisham Infirmary on Thursday, March 24th, at 4 p.m., Dr. Toogood in the chair.—J. A. HOWARD, M.D., Honorary Secretary.

NORTH WALES BRANCH.—The spring meeting of the Branch will be held at Carnarvon on Tuesday, March 29th. Members having papers to read, cases or specimens to show, are requested to intimate their intention to the Honorary Secretary on or before the 18th instant.—H. JONES ROBERTS, Honorary Secretary, Llywenarth, Penygroes, S.O.

SOUTH-EASTERN BRANCH: MAIDSTONE DIVISION.—The next meeting of this Division will be held on Tuesday, March 29th, 1910, at 3.30 p.m. The Executive meeting will be at 3 p.m. Any member having subjects to bring forward is requested to communicate with the Honorary Secretary, as early as possible. —GEORGE POTTS, Honorary Secretary, Ophthalmic Hospital, Maidstone.

SOUTH MIDLAND BRANCH: BUCKS DIVISION.—A meeting of this Division will be held at the Royal Bucks Hospital, Aylesbury, on Wednesday, March 16th, at 3.30 p.m. Tea will be provided. Agenda: Proposed inclusion of Farnham Royal in area of Division. Parliamentary Candidates and the Division. New Method of Election of Central Council. Paper by Dr. A. H. Hogarth: The Tuberculosis Problem. Payment of Medical Men called in by Midwives: Manchester Corporation Circular; proposed Letter to Bucks County Council. Homoeopaths and the Association: Questions to be answered. Interim report of Poor Law Reform Committee (see SUPPLEMENT, February 5th). Notice of any Resolutions to be sent to Annual Representative Meeting.—ARTHUR E. LARKING, Honorary Secretary.

WEST SOMERSET BRANCH.—The next meeting of this Branch will be held at the Taunton and Somerset Hospital on Tuesday, March 15th, at 3.30 p.m., when the President, Mr. C. Farrant, will take the chair. It is intended to make the meeting to a large extent a clinical one. The following communications are promised:—T. S. Balfour, M.D.: A Case of Pseudologia fantastica. L. H. C. Birkbeck, M.B.: (i) A Naevus treated by Carbon Dioxide Snow. (ii) Actinomycosis. (iii) Multiple Exostoses in a Boy of 12. C. Farrant: (i) Stone removed from Bladder. (ii) Portion of Skull removed for Depressed Fracture. A. J. H. Iles: (i) The Value of *X* Rays in the Diagnosis of Obscure Abdominal Pain (with illustrative skiagrams). (ii) The Successful Treatment of Rodent Ulcer, Rheumatoid Arthritis, Gout, Nerve Pains, Haemorrhoids, and Neurasthenia, by suitable Electric Ions (with illustrative cases). (iii) A Case showing the Reaction of Inoperable Glands of Neck to Injections of Tuberculin combined with Exposures to *X* Rays. A. E. Joscelyne: A Case of Littre's Hernia. W. H. Maidlow, M.D., F.R.C.S.: Notes on Six Recent Emergencies. Special Poor Law Reform Committee: Dr. Macdonald will briefly review the interim report of this Committee (published in BRITISH MEDICAL JOURNAL SUPPLEMENT of February 5th), and the Branch will be asked to express their opinion on the following resolutions: Does the Branch agree with the following general conclusions of the Committee? "That any system of medical assistance, to prove satisfactory to the ratepayers, to the beneficiaries, or to the medical profession, must include the following principles: (1) That medical services rendered on behalf of the State should be paid for by the State. (2) That the payment should be adequate and in accordance with the professional services required. (3) That there should be adequate medical representation on all committees formed to control medical assistance." After the meeting those present will be entertained to tea by the President.—W. B. WINCKWORTH, Honorary Secretary.

YORKSHIRE BRANCH.—The next meeting of the Branch will be held at the Bull Hotel, Wakefield, on Wednesday, March 16th. The Council will meet at 3.30. Business: Election of new members. The Council is comprised of the following members: The President, President-elect, the Vice-Presidents, and Drs. and Messrs. J. Allan, A. H. Bampton, F. J. Burman, H. J. Campbell, R. F. Castle, J. F. Cheesewright, A. Drury, T. W. Griffith, A. J. Hall, J. B. Hall, W. H. Horrocks, James Kaye, F. H. Knaggs, J. C. Murray, J. Nightingale, H. J. Roper, E. M. Sooly, and A. R. Stoddart. The Branch meeting will be held at 4 p.m., when the following business will be transacted. (*a*) Cases and Specimens: Mr. J. F. Dobson (Leeds) will show: (1) Specimens from Two Cases of Partial Gastrectomy. (2) Pyloric Ulcer; Rodman's Operation. (3) Ulcer of Anterior Surface of Stomach: Excised. (4) Duodenal Ulcer: Excised. (5) Radiograph (by Dr. Rowden) of a Case of Hour-glass Contraction of the Stomach: Gastro-gastrostomy. (*b*) Papers: (1) Dr. Roulston (Wakefield), Stone Mason's Phthisis and its Etiology. (2) Dr. Veitch (Harrogate), Some Remarks on Vaccine Therapy, with Reference to Cases. (3) Dr. Croft (Leeds), Remarks on the Treatment of Chorea in Pregnancy. (4) Dr. Oldfield (Leeds), Treatment of Puerperal Septic Diseases. (5) Dr. Kaye (Wakefield), The Care of Children after Medical Inspection. Dr. Kaye will be pleased to meet members who wish to inspect the County Laboratory at the County Hall (Room 27) at 2.30. Members will dine together at the Bull Hotel at 6.30. Members who intend staying for the dinner should communicate at once with Dr. Walker, The Elms, Wakefield.—ADOLPH BRONNER, Honorary Secretary, 33, Manor Row, Bradford.

GENERAL MEDICAL COUNCIL:

EXECUTIVE COMMITTEE.

A MEETING of the Executive Committee of the General Medical Council was held on February 21st, with Sir DONALD MACALISTER, President, in the chair. The other members present were: Dr. Norman Moore, Mr. Tomes, Dr. McVail, Sir John Moore, Sir Charles Ball, and Dr. Langley Browne.

NEW MEMBER.

It was announced that Mr. Arthur Trehern Norton, C.B., F.R.C.S., had been appointed representative of the Apothecaries' Society of London in the room of Sir Hugh Beevor. The committee adopted a resolution expressing its sense of the valuable services which had been rendered by Sir Hugh Beevor during the last ten years, particularly in connexion with the Students' Registration Committee and the Executive Committee. Sir Henry Morris was co-opted a member of the Executive Committee, in the vacancy caused by the retirement of Sir Hugh Beevor.

INDIAN MEDICAL SERVICE.

A table was submitted showing the results of the competition held in January, 1910, for commissions in the Indian Medical Service. It appeared that there had been 27 candidates, of whom 1 withdrew, and 1 who held the diplomas of the Conjoint Board in Scotland failed to obtain the total number of marks; the remaining 25 qualified, and of these 13 received commissions. The diplomas held by these 13 were: The Conjoint Board in England 4, the Conjoint Board in Scotland 2, the University of Durham 1, University of London 2, University of Manchester 1, University of Glasgow 3.

THE APOTHECARIES' HALL, DUBLIN.

Correspondence with the Privy Council as to a petition of the Apothecaries' Hall of Ireland was considered; the petition prayed the Privy Council to direct the General Medical Council to "re-schedule" the preliminary examination of the Hall as sufficient for registration in the *Medical Students' Register*. The Privy Council asked for the observations of the General Medical Council on the petition. A memorandum containing the observations of the Council was considered, adopted, and directed to be transmitted to the Lord President.

The memorandum pointed out that the scope and purpose of the examination which the Apothecaries' Hall, Dublin, was empowered by statute to hold had no relation to the question, which alone concerned the General Medical Council from the point of view of general education—namely, that of a student who desires to enter on a course of study which shall fit him for the efficient practice of medicine, surgery, and midwifery, as a fully qualified medical man. The memorandum proceeded to point out that the Apothecaries' Hall was free, whether its preliminary examination was "recognized" by the Council or not, to impose any educational test it thought desirable on candidates for its own licence. Of such private tests the Council took no cognizance, and the Council's refusal to "recognize" them for other purposes constituted no interference with the discretion, the duty, or the privileges of the Apothecaries' Hall. But the practical effect of "scheduling" its examination in the list of recognized examinations issued by the General Medical Council and of registering students who had passed no other, would be to give the examination a public or general status, and to affirm that in the Council's opinion the examination was one that should be accepted by other licensing bodies as a sufficient test for candidates proceeding to professional examinations held by them. The Council had considered the matter on several occasions,* and was not prepared to assume that responsibility. The licensing bodies which had hitherto, in the exercise of their own discretion, accepted the Council's Register of Students and the Council's list of recognized examinations in general education, would be justified in withdrawing their acceptance if an examination were included which the Council was not in a position to guarantee, and which was

* A report of the debate on this subject, which took place at the meeting of the General Medical Council last session, will be found in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of December 4th, 1909, p. 358.

held by a non-educational body whose statutory authority and competence to conduct it were open to serious question. The result of such withdrawal would be to endanger the whole system of preliminary examination and registration of students, which had been established at considerable expense by the Council in the interest of the public, and which had been approved as valuable by the experience of the licensing bodies and of the profession generally.

DISPENSING OF POISONS BY MEDICAL PRACTITIONERS.

The following letter was read:

Privy Council Office,
London, S.W.,
January 24th, 1910.

Sir,—I am directed by the Lord President of the Council to state that His Majesty's Coroner for the Western Division of London has reported to the Home Secretary the case of an inquest held by him at Fulham on the 4th instant, on Amelia Pratt, who died from strychnine poisoning, which poison had been placed by the medical man in attendance in some medicine in mistake for chloroform water.

The bottles containing the strychnine and chloroform water respectively, which were produced from the doctor's dispensary, were found to be almost identical in size and appearance, and the jury in giving their verdict desired the Coroner to call the attention of the proper authorities to the case with a view to legislation which would make the use of distinctive bottles for poison compulsory.

I am to enclose a copy of the Order of Council of 5th June, 1902, approving regulations made by the Pharmaceutical Society of Great Britain for the keeping, dispensing, and selling of poisons within the meaning of the Pharmacy Acts, and to request that you will move the General Medical Council to favour His Lordship with any observations they may have to make on the suggestion that the regulations in question should be extended—by legislation—to medical men.

A report of the proceedings at the inquest referred to will be found in the *Pharmaceutical Journal* for January 8th at page 34, and for January 22nd at pages 76 and 86.

I am, Sir,
Your obedient servant,
ALMERIC FITZROY.

The Registrar,
General Medical Council.

The following are the regulations as approved by the Order of Council of June 5th, 1902. They apply to the poisons within the meaning of the Pharmacy Act, 1868, and the penalty for contravention is £5 for each offence.

For the Keeping, Dispensing, and Selling of Poisons.

1. That in the keeping of poisons each bottle, vessel, box, or package containing a poison be labelled with the name of the article, and also with some distinctive mark indicating that it contains poison.

2. Also that in the keeping of poisons each poison be kept on one or other of the following systems, namely:

(*a*) In a bottle or vessel tied over, capped, locked, or otherwise secured in a manner different from that in which bottles or vessels containing ordinary articles are secured in the same warehouse, shop, or dispensary; or

(*b*) In a bottle or vessel rendered distinguishable by touch from the bottles or vessels in which ordinary articles are kept in the same warehouse, shop, or dispensary; or

(*c*) In a bottle, vessel, box, or package kept in a room or cupboard set apart for dangerous articles.

3. That in the dispensing and selling of poisons all liniments, embrocations, lotions, and liquid disinfectants containing poison be sent out in bottles rendered distinguishable by touch from ordinary medicine bottles, and that there also be affixed to each such bottle (in addition to the name of the article, and to any particular instructions for its use) a label giving notice that the contents of the bottle are not to be taken internally.

The Executive Committee having considered the matter adopted the following resolution:

That the Lord President be informed that the suggestion that the regulations in question should be extended, by legislation, to medical men has been laid before the Executive Committee, and that the Committee approves such extension, as tending to ensure the safety of the public.

INTERNATIONAL CONGRESSES OF MEDICINE.

A communication was received from the Privy Council stating that it was proposed to appoint Dr. F. W. Pavy, F.R.S., to the Board of Management of the International Congresses of Medicine, and the Committee adopted a resolution informing the Lord President that it entirely approved of the proposed appointment.

THE ROYAL FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

The Committee had before it a report by the legal advisers of the Council, obtained in response to a request addressed to the General Medical Council by the Scottish Branch Council on January 8th, asking what steps, if any, were necessary to register the Faculty's diplomates under the new title. The opinion of the legal advisers was that the statutory title of the Faculty must be retained in the *Medical Register* until a new Act of Parliament had been obtained authorizing the registrars to alter it. The Scottish Branch Council was informed accordingly.

ANAESTHETICS BILL.

The Committee also considered a communication received from the Privy Council informing the Council that (as was stated in our report of the meeting of the Council of the College on February 10th, published in the BRITISH MEDICAL JOURNAL of February 19th, p. 480) the Council of the Royal College of Surgeons of England was of opinion that the last five words (printed in italics) of the following conclusion of the General Medical Council should be omitted:

5. That, having regard to existing conditions, it is also desirable in the public interest that duly qualified dental practitioners should be authorized to administer certain specified anaesthetics, such as nitrous oxide gas, for the purpose of inducing unconsciousness or insensibility to pain *during dental operations, or procedures.*

The grounds for recommending this omission were expressed by the Council of the College in the following paragraph:

Having regard to the fact that the services of a medical practitioner with special experience in the administration of anaesthetics, and equipped with the necessary appliances, are often not available, the Council believe that it is not to the advantage of the public, or of the medical profession, that dentists should be debarred from administering nitrous oxide gas and the other anaesthetics to be specified in the Schedule to the Act as employable by them, for operations performed by duly qualified medical practitioners.

The Executive Committee adopted the following resolution:

That the Lord President be informed that the words proposed to be omitted were inserted advisedly by the Council, and in the opinion of the Executive Committee it is desirable in the public interest that they should be retained. The Executive Committee would point out that cases may occur in which, during the course of medical or surgical operations, commenced under anaesthesia produced by nitrous oxide or other "specified" preparation, it is found necessary at a later stage to resort to more potent anaesthetics such as chloroform or ether. In such a case it might endanger the patient's safety and the success of the operation were the anaesthetist unqualified to administer the latter, as under the legislation proposed an anaesthetist possessed only of a dental qualification would be.

THE APOTHECARIES' SOCIETY, LONDON.

It was reported that the Registrar had by direction communicated with the Apothecaries' Society of London in regard to a private bill which that body was promoting for the purpose of obtaining further powers to grant diplomas in public health, school hygiene, tropical medicine, and dentistry. A reply had been received to the effect that the Court of the society would be pleased to learn the views of the Executive Committee upon the bill, and as far as possible to fall in with any suggestions which the Committee might make. The Executive Committee had before it the following resolution submitted by the Dean of the Royal Dental Hospital of London and the London School of Dental Surgery on behalf of the medical committee of the hospital:

That this Committee is of opinion that the power sought by the Society of Apothecaries to hold examinations for testing the fitness of persons to practise dentistry or dental surgery and to grant certificates of such fitness, is not expedient, and is not to the public advantage, and this Committee is opposed to the clause in the bill now being promoted by the society.

The legal advisers of the Council made a statement with regard to the matter; and the Executive Committee approved a letter which the President had written to the Privy Council calling attention to certain objections which might be taken to legislation of the kind proposed as embodied in a private bill.*

* As will be seen from a parliamentary note published elsewhere the Speaker ruled the bill out of order, and it was withdrawn.

PRACTICE BY BRITISH PRACTITIONERS IN FOREIGN COUNTRIES.

Mr. King was thanked for his labours in preparing, under the supervision of the Registrar, a pamphlet respecting the conditions under which British practitioners are permitted to practise in foreign countries, and in British Colonies and possessions.

DENTAL EDUCATION AND EXAMINATION.

It was reported that the case referred to under this heading in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of December 4th, 1909, p. 362, had been appealed by the applicant to the Privy Council, and that the Council had dismissed the appeal, the decision of the General Medical Council being thus upheld.

FINANCE.

Tables showing accounts of receipts and expenditure of the Council, its Branch Councils and Committees and the Dental Fund for 1909, were submitted and appended to the minutes:

The income received direct by the General Medical Council being derived from the sale of the *Medical Register* and certain other publications (not including the *British Pharmacopoeia*), rom the fees for the registration of Colonial and foreign qualifications, from rent of freehold property, and from interest on deposit, is small. For the year ending December 31st, 1909, the total received from these sources was £881 13s. The expenditure was £6,916 5s. 11d., and the deficiency was made up by contributions from the Branch Councils as follows:

	£	s.	d.
English	3,233	8	8
Scottish	2,095	15	5
Irish	705	8	10
	6,034	12	11

The balance sheet gives the total assets of the General Council as £27,804 13s. 6d., the freehold site and buildings in Oxford Street as altered being put down at £24,878. Practically the whole of this last-mentioned amount has been borrowed from the English Branch Council, which, nevertheless, has a surplus of nearly £7,000 invested in Consols, and cash in hand or at the bank to the amount of £618. The Scottish Branch Council has £4,297 invested, £840 on deposit, and £47 in hand. The Irish Branch Council shows a deficit of £128.

During the year the English Branch Council received in registration fees, £3,181; the Scottish, £2,518; and the Irish, £886.

The receipts and expenditure in connexion with the *British Pharmacopoeia* are shown separately. The number of copies of the *Pharmacopoeia* for 1898 sold during the year was 1,044, and of the *Indian and Colonial Addendum*, 13. A sum of £900 was on deposit to the credit of the Fund, and the income from these various sources amounted to £391 11s. 2d. The expenditure was as follows:—Binding, £39 4s.; conference, library printing, etc., £24 0s. 6d.; grant to Dr. Tirard, £50; Committee of Reference, £100; Pharmacopoeia Committee, £83 19s.—total, £257 19s. 6d., leaving a surplus (with surplus from previous years) of £1,180 9s. 5d.

The accounts of the Dental Registration Fund are also shown separately. The total receipts amounted to £1,148 8s. 7d., and the total expenditure to £898 13s., leaving a surplus of £249 15s. 7d. The assets of the Fund are £9,000 in Consols, and £904 cash at bankers.

CENTRAL MIDWIVES BOARD.

A MEETING of the Central Midwives Board was held at Caxton House, Westminster, on February 24th, with Dr. F. H. CHAMPNEYS in the chair.

Discontinuance of Attendance by Midwife.

A recommendation from the Penal Cases Committee in regard to a certain midwife was that she should be cautioned as to her methods of practice, and "especially as to discontinuing attendance on the tenth day in cases where the patient is then not well."

The SOLICITOR to the Board said it had been argued that if a patient could not get up, a midwife should not cease attendance.

Mr. PARKER YOUNG pointed out that the wording might be misunderstood in the case of a midwife who ought to send for a doctor.

After the CHAIRMAN had observed that a midwife should not leave a patient who was ill, it was agreed that the words should be altered as follows, "especially as to her duty with regard to advising medical help in a case where the patient is not well."

Pemphigus in the Practice of a Midwife.

A letter was considered from the Clerk of the Council, transmitting a copy of a report by Dr. Monckton Copeman, Medical Inspector of the Local Government Board, on an outbreak of pemphigus occurring in the practice of a midwife.

The Board decided that the Privy Council be asked to furnish copies of the report for the use of members of the Board.

Payment to Medical Practitioners Called in by Midwives.

A letter was considered from the Local Government Board, transmitting a copy of the circular to Boards of Guardians[1] dealing further with the payment of medical practitioners summoned, on the advice of a midwife, in cases of emergency, and with the supply and training of midwives.

The Board decided that the Local Government Board be informed that the Central Midwives Board approves the circular.

Examinations at Cardiff.

A letter was considered from the Registrar of the University College of South Wales and Monmouthshire, applying for permission to hold the written examinations at the college at Cardiff, with forms of undertaking signed by Professor D. Hepburn, Dr. E. J. Maclean, and Dr. H. T. Samuel, the proposed supervisors.

The Board decided that permission be granted.

Conduct of Penal Business.

A letter was considered from Mr. C. E. Longmore, Clerk of the Herts County Council, forwarding a copy of a resolution passed by that council as to the conduct of the penal business of the Board. A draft letter to be sent to local supervising authorities, asking their opinion as to the suggestion of the Herts County Council that on the hearing of a charge against a midwife the local supervising authority should have the conduct of the case, was settled, and the Board directed that the letter be circulated to the local supervising authorities.

Hospitals and Asylums.

KING EDWARD'S HOSPITAL FUND FOR LONDON.

THE annual meeting of the President and General Council of King Edward's Hospital Fund for London was held at Marlborough House on March 3rd, under the chairmanship of H.R.H. the Prince of Wales. The proceedings, which were of a formal character, consisted mainly in the presentation and adoption of the report of the General Council and the accounts for the year 1909. The chief matters contained in the reports were noticed in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of December 18th, 1909. The total receipts for the year were £258,926, while the amount distributed was £150,000, being an increase of £10,000 over the sum distributed in 1908; for the first time, therefore, the sum mentioned by His Majesty the King at the inauguration of the fund had been attained. The total sum distributed among hospitals, convalescent homes, and consumptive sanatoriums since the commencement of the fund now exceeded £1,000,000.

ROYAL EDINBURGH ASYLUM FOR THE INSANE.

PHYSICIAN SUPERINTENDENT'S ANNUAL REPORT.

THE report presented to the annual meeting of the Royal Edinburgh Asylum for the Insane by Dr. George M. Robertson, the Physician Superintendent, stated that both on January 1st and on December 31st, 1909, there were 752 patients under treatment. There were 209 admissions. The total number under treatment during the year was 961. The number discharged was 147, and 62 patients died. The average number of patients resident during the year was 736.

Statistics.

Admissions.—The admissions, which have been falling for the last five years, were 30 less than in 1908. The decrease is due to the opening and gradual development of Bangour Village for the reception of Edinburgh patients, all of whom were formerly sent to the West House. The admissions to the West House were very much fewer than in 1900 and 1901, when, owing to the South African war, the casual labourer, getting abundant employment, drank to excess, and swelled the admission-rate of insanity. In spite, however, of bad times and the increased duty, in 19 per cent. of the male admissions and in 10 per cent.

[1] SUPPLEMENT to the BRITISH MEDICAL JOURNAL, February 26th, p. 89.

of the female admissions alcohol was alleged to have been a factor in the causation of the insanity. The total percentage was 14.3, as compared with only 10.8 in the previous year. There were 14 cases of general paralysis admitted, and *all* were males.

Private Patients.—Although among the poor the amount of insanity occurring during the year seemed to have been average, the number of private patients admitted had never been exceeded. The number of admissions to Craig House alone was above the average of recent years, and many of these desired accommodation and attendance of a special character, which were available. The number admitted to the West House at the £45 rate was again very high. The managers were desirous that this provision of a comfortable nature for the care and treatment of insane patients belonging to families of the professional and educated classes should be widely known, as it was to supply the wants of these classes that the institution was originally established. In some cases families who had lived in comfort and even refinement, when times were prosperous, could not afford more than £32 10s., the rate charged for the wards in which the parochial patients were also treated. Many of these were assisted out of trust funds in the hands of the managers to get the benefits of the higher rate. This was an inestimable boon to many. The extent of this charity might be judged by the fact that out of 160 patients treated in the intermediate (or £45) wards, at least a quarter would not be entitled to these benefits but for the supplementary grant obtained from the Charity and Bevan Funds.

Discharges.—The recovery-rate was 32 per cent. of the total number of admissions, which was slightly higher than last year.

Deaths.—The total number of deaths was 62, or 8.4 per cent. of the average number resident, and 6.5 per cent. of the total number under treatment. The number of deaths in 1908 was actually and proportionately less than it had been for twenty years, and in 1909 there were 2 fewer.

General Health.—The general health of the patients in the West House had improved very greatly. Doubtless the removal of Edinburgh patients to Bangour Village and the consequent relief of overcrowding was by far the most important factor in effecting this improvement. The greater employment of the open-air treatment was also a factor.

Phthisis.—There were only 3 deaths from phthisis, all males; 2 of these had been admitted suffering from the disease. In 3 other deaths phthisis was present as a secondary cause.

General Paralysis.—There were 15 deaths from general paralysis of the insane; 13 were men, and 2 women.

Administration.

General History.—The history of the year might be summed up in the word "organization." In every department of the institution efforts had been made towards greater efficiency.

The Staff.—The staff of supervisory officials had been largely increased with the object of subdividing and specializing the labours for which a few senior officials were previously held responsible and of making the work of supervision more thorough. The nursing and domestic staff had been strengthened by the appointment of ten heads of departments, who were fully responsible, under the Lady Superintendent and the matrons, for the efficiency of their subdivisions. Better arrangements had been made for the comfort of the staff.

Asylum being Hospitalized.—As the work of the staff had naturally assumed features of a more hospital character, hospital-trained nurses had been introduced. Every practice peculiar to asylums had been put under suspicion. Hospitalism was what was aimed at more and more.

Padded Rooms.—The padded room, invented about 66 years ago by Conolly, had been discarded. Yet Conolly was the great apostle of non-restraint and the humane system of treatment for the insane. The padded room was, of course, an advance; it was a substitute for the less humane methods of mechanical restraint by strait-jackets and straps, which he had discarded. In many cases the necessity for such restraints was due to the bad treatment of patients by attendants. The result was that many were violent and aggressive, and considerable risk was run when restraints were removed for the first time. For ten years the system of non-restraint was not officially recommended by the authorities because of this danger. Tactful management from the moment patients entered the asylum obviated the necessity for such methods. Cases of furious or raging mania, described in those days, were now never seen. The staff was probably two or three times larger than in those days, and there was a large night staff, whereas there was none then. The attendants and nurses of to-day were carefully trained and highly skilled, were of a much more intelligent and respectable class, and were much more numerous. Conolly wrote of the nursing staff of his day that they "were worse dressed and wilder looking than the generality of the patients."

Sick Nursing.—The introduction of so many hospital-trained nurses on the staff had necessarily improved the quality of the nursing given to the sick and infirm, and it was now extended to patients who a few years ago would have received no attention of this kind at all. A natural accompaniment of these changes had been the great development of bed-treatment for acute cases of insanity. French physicians had first pointed out that the insane man was usually a sick and exhausted man who needed rest; moreover, the patient himself was made to realize the fact that he was regarded as a person in ill-health, and that he was under medical treatment, and not restraint.

Female Nurses.—A secondary feature, also in harmony with this system, which had been attended with the most gratifying results, was the extension of the care and supervision of male patients by female nurses and matrons. This had been particularly successful at Craig House. Exclusive of the nurses in the gentlemen's hospital, there were four ladies acting under the Lady Superintendent, they directed the management of the gentlemen's wards and villas, and were responsible for everything. Their presence was a guarantee of gentle and refined methods; they had added greatly to the domestic comforts of the patients, and had introduced by their companionship a homely feeling which did not exist before, but was much appreciated by the gentlemen.

Laboratory Methods in Diagnosis.

A year ago an excellent laboratory was provided. Last year pathological rooms and a mortuary were added. The work of this department dealt much more with the treatment of the living than with the examination of the dead. Methods of clinical investigation had increased greatly in number and complexity. Hence a special staff was necessary, and excellent and valuable work was being done.

Diagnosis of General Paralysis.—As an instance of those recent methods of research, no better example could be given than those on which reliance was now placed for the diagnosis of general paralysis of the insane. The disease had been known for about 100 years, and had received more attention at the hands of alienists than any other form of mental disease, yet until four or five years ago there was no certainty in some cases that the diagnosis was correct. Now it was possible to diagnose the presence of this disease in the earliest stage with absolute certainty by means of tests—chemical and microscopical—applied to the blood and cerebro-spinal fluid. Dr. Ford Robertson, the Pathologist of the Scottish Asylums, had continued to receive during the year all those facilities for work which he had enjoyed in the past.

Dr. Clouston.

Dr. Clouston's portrait by Mr. Fiddes Watt, which was presented to the managers by his friends and admirers, has now been hung in the Great Hall at Craig House. The artist was to be congratulated on having produced a very striking likeness.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty:—Fleet Surgeon A. MACLEAN, M.B., and Staff Surgeon G. M. EASTMENT, to the *Vanguard*, on recommissioning, March 1st; Fleet Surgeon E. SUTTON, to the *Bulwark*, on recommissioning, March 1st, and to the *Magnificent*, on transfer of the Flag, March 18th; Staff Surgeon H. P. TURNBULL, to the *Hannibal*, February 21st, and on recommissioning, March 1st; Staff Surgeon R. M. RICHARDS, to the *Vivid*, additional, for disposal, March 1st; Surgeon A. DAVIDSON, M.B., to the *Bulwark*, additional, on transfer of the Flag, March 18th; Fleet Surgeon G. H. FOOTT, M.D., to the *Albemarle*, on recommissioning, February 25th; Fleet Surgeon J. MOORE, M.D., and Staff Surgeon N. H. HARRIS, to the *Shannon*, on recommissioning, March 1st; Staff Surgeon J. D. S. MILLN, M.B., to the *Encounter*, on recommissioning, undated; Staff Surgeon N. H. MUMMERY, to the *Hawke*, March 8th, and to the *Encounter*, on recommissioning, undated; Staff Surgeon E. R. GRAZEBROOK and Surgeon H. A. BROWNING, to the *Hawke*, for the voyage home on the *Encounter* recommissioning, undated; Staff Surgeon D.W. HEWITT, M.B., to the *Emerald*, April 16th; Surgeon W. BASTIAN, to the *Sutlej*, additional, March 1st; Staff Surgeon P. L. CROSBIE to Queensferry Sick Quarters, February 16th; Staff Surgeon J. MACDONALD, M.D., to the *Vivid*, additional, for disposal, February 16th; Surgeon J. McA. HOLMES, M.B., to the *Pembroke*, additional, for disposal, March 1st; Fleet Surgeon C. S. WOODWRIGHT to the *Roxburgh*, on recommissioning, March 15th; Fleet Surgeon G. A. S. BELL, and Surgeon K. H. HOLE, M.B., to the *Russell*, on recommissioning, March 22nd; Staff Surgeon F. BOLSTER, M.B., and Surgeon F. G. H. R. BLACK, to the *Duke of Edinburgh*, on recommissioning, March 15th; Staff Surgeon S. ROACH to the *Pembroke*, March 15th; Staff Surgeon C. B. FAIRBANK to the *Victorious*, on recommissioning, March 22nd; Staff Surgeon J. N. ROBERTSON, M.B., to be lent to the *Shannon* temporarily, undated; Staff Surgeon R. St. G. S. BOND, M.B., to be lent to Chatham Dockyard, undated; Surgeon C. R. WORTHINGTON, to the *Defiance*, undated; Staff Surgeons R. WATERFIELD and G. S. DAVIDGE to the *St. George*, on commissioning, March 15th; Surgeon H. A. KELLOND-KNIGHT to the *Bulwark*, additional, March 2nd; Surgeon C. A. G. PHIPPS to the *Seagull*, and for torpedo gunboats of H. F. III., engaged in exercises, March 4th; Deputy Inspector-General A. J. J. JOHNSTON to the Royal Naval Barracks, Malta, March 27th; Deputy Inspector-General W. M. CRAIG, M.B., to the Royal Naval Hospital, Malta, March 27th.

ARMY MEDICAL SERVICE.

SURGEON-GENERAL WILLIAM L. GUBBINS, C.B., M.V.O., M.B., Honorary Surgeon to the King, from Deputy Director-General, to be Director-General, and to rank as Lieutenant-General, vice Sir A. Keogh, K.C.B., M.D., March 6th. He entered the service as Surgeon, September 30th, 1873; was made Surgeon-Major, September 30th, 1885; granted the rank of Lieutenant-Colonel, September 30th, 1893; made Brigade Surgeon-Lieutenant-Colonel, November 30th, 1896; promoted to be Colonel, November 29th, 1900; and Surgeon-General (ranking as Major-General), August 27th, 1903. He served in the Afghan war in 1878–80 with the Bazar Valley, Mohmand, and Ghilzai Expedition, receiving a medal. During the South African war in 1900–1901 he was Principal Medical Officer of an Infantry Division, and Principal Medical Officer Pretoria and District, from July 28th, 1900, and was present at the relief of Kimberley and in operations in the Orange Free State (including actions at Paardeberg, Poplar Grove, and Dreifontein) and in the Transvaal; he was mentioned in dispatches, received the Queen's medal with five clasps, and promoted to be Colonel. He was made an Honorary Surgeon to the King, October 19th, 1909. His numerous staff appointments include—Assistant Director, Army Medical Service, January 11th, 1899, to December 22nd, 1899; Principal Medical Officer of

a Division, South Africa, November 29th, 1900, to September 11th, 1901; Principal Medical Officer, Home District, February 6th, 1902; Principal Medical Officer, Bombay, November 20th, 1903, to June 20th, 1905; Principal Medical Officer, Eastern Command, India, from June 21st, 1905; Principal Medical Officer in India, June 26th, 1906, to June 23rd 1908; Deputy-Director-General, Army Medical Service, June 24th, 1908.

Surgeon-General Sir ALFRED KEOGH, K.C.B., M.D., is placed on retired pay, March 6th. His commissions are thus dated:—Surgeon, March 6th, 1880; Surgeon-Major, March 6th, 1892; Lieutenant-Colonel, March 6th, 1900; Colonel, December 2nd, 1904; Surgeon-General (ranking as Major-General), December 2nd, 1904; and Surgeon-General (ranking as Lieutenant-General), January 1st, 1905. During the South African war in 1899–1901 he had charge of a General Hospital, and was present in operations in Cape Colony, in the Orange River Colony, and in the Transvaal. He was mentioned in dispatches, promoted to be Lieutenant-Colonel under Article 362 of the Royal Warrant, granted the Queen's medal with four clasps, and appointed C.B. He was Deputy Director-General of the Army Medical Service from January 1st, 1902, till December 31st, 1904, and made Director-General, January 1st, 1905, at which time he was appointed Honorary Physician to the King. He was promoted to be K.C.B., June 29th, 1906.

Colonel WILLIAM BABTIE, V.C., C.M.G., M.B., from Inspector of Medical Services, to be Deputy Director-General, and is granted the temporary rank of Surgeon-General while so employed, vice Surgeon-General W. L. Gubbins, C.B., M.V.O., M B., March 6th. Colonel Babtie was appointed Surgeon, July 30th, 1881; Surgeon-Major, July 30th, 1893; Lieutenant-Colonel, November 29th, 1900; and Colonel, March 12th, 1907. He was Staff Officer to the Principal Medical Officer, Natal, during the South African war in 1899–1900, and was present at the relief of Ladysmith, in the actions at Colenso, Spion Kop, Vaal Kranz, the Tugela Heights, and Pieters Hill, and in operations in Natal (including the action at Laing's Nek) and the Transvaal; he was mentioned in dispatches, promoted to be Lieutenant-Colonel, granted the Queen's medal with five clasps, and awarded the Victoria Cross.

Lieutenant-Colonel W. G. MACPHERSON, C.M.G., M.B., from the Royal Army Medical Corps, to be Colonel, vice W. Babtie, V.C., C.M.G., M.B., March 6th. Colonel Macpherson's previous commissions are thus dated: Surgeon, February 3rd, 1883; Surgeon-Major, February 3rd, 1895; Lieutenant-Colonel, February 3rd, 1903. He was attached to the Japanese army in Manchuria during the Russo-Japanese war in 1904–5, and was granted the next higher rate of pay of his rank; he also received the Japanese war medal and the Order of the Sacred Treasure (third class).

ROYAL ARMY MEDICAL CORPS.

The following officers, who are serving in India, are appointed Specialists in the subjects named, with effect from the dates of assuming duties: Advanced Operative Surgery, Captain J. G. CHURTON, 1st (Peshawar) Division. Electrical Science. Captain J. W. L. SCOTT, 4th (Quetta) Division. Midwifery and Diseases of Women and Children, Major M. SWABEY, 5th (Mhow) Division.

Colonel H. J. W. BARROW, Principal Medical Officer, 3rd (Lahore) Division, is granted leave out of India for ninety days from April 8th.

Captain J. R. CAUTLEY retires, receiving a gratuity, March 2nd. He was appointed Lieutenant, November 29th, 1900, and made Captain, November 29th, 1903.

The undermentioned Lieutenants to be Captains, dated January 30th: GERALD H. STEVENSON, M.B., JOHN H. SPENCER, M.B., WILLIAM H. FORSYTH, M.B., ARCHIBALD C. AMY, M.B., ALFRED H. HESLOP, M.B., WRIGHT MITCHELL, M.B., JAMES A. B. SIM, M.B., EDWARD J. ELLIOT, M.B., EDWARD GIBBON, M.B., ROBERT W. D. LESLIE, ERNEST B. LATHBURY, CECIL SCAIFE, M.D., DANIEL M. CORBETT, M.B., MICHAEL J. LOCHRIN, ERNEST D. CADDELL, M.B., BENJAMIN JOHNSON, WILLIAM E. C. LUNN, M.B., JOHN R. FOSTER, WILLIAM W. BOYCE, DUNCAN COUTTS, M.B., ARTHUR M. BENETT, GEORGE P. A. BRACKEN, JAMES A. BENNETT, M.B., WHITEFORD J. E. BELL, M.B., CHARLES W. BOWLE, HECTOR L. HOWELL, WILLIAM F. M. LOUGHNAN, THOMAS W. BROWNE, WILLIAM I. THOMPSON, M.B., CARLISLE KELLY, M.B., DENNIS T. MACCARTHY, M.B., ERNEST C. PHELAN, M.B., JOHN J. O'KEEFE, M.B., EDWARD J. KAVANAGH, M.B., ARTHUR H. JACOB. Their first appointment bears date July 30th, 1906.

Lieutenant STEPHEN FIELD, from the Seconded List, is restored to the establishment, January 29th. He was placed on the Seconded List for special employment in Somaliland, January 15th, 1909.

Lieutenant MALCOLM LECKIE is seconded for service with the Egyptian army, February 11th.

Captain W. B. FRY is seconded for service with the Egyptian army, February 21st.

INDIAN MEDICAL SERVICE.

THE undermentioned Lieutenants are promoted to be Captains from October 4th, 1909: N. N. G. C. MCVEAN, M.B., R. F. HEBBERT, J. SMALLEY, M.B., W. M. THOMSON, M.B., F. H. SALISBURY, M.B., F. C. FRASER, M.D. Their first appointment bears date September 1st, 1906.

The following are promoted to be Captains from February 2nd: O. A. R. BERKELEY-HILL, M.B., W. L. HARNETT, M.B., J. D. SANDES, M.B., W. P. G. WILLIAMS, M.B., A. H. NAPIER, M.B., G. HOLROYD, M.B., A. E. GRISEWOOD, M.B., D. L. GRAHAM, M.B., R. B. NICHOLSON, G. S. HUSBAND, M.B., J. A. CRUICKSHANK, J. A. S. PHILLIPS, E. D. SIMSON, M.B., P. M. RENNIE, M.B. They were appointed Lieutenants, February 2nd, 1907.

The promotion to be Captain, which was dated September 1st, 1909, of Lieutenant J. F. JAMES, M.B., is cancelled.

Captain A. E. J. LISTER, M.B., is appointed Surgeon to the Commander-in-Chief in India.

Captain H. S. MATSON, Brigade Laboratory, Kohat, has been appointed Specialist in the Prevention of Disease.

Lieutenant-Colonel W. H. BURKE, M.B., Bombay, is permitted to retire from the service, from January 1st. He was appointed Assistant Surgeon, September 30th, 1882, and became Lieutenant-Colonel, September 30th, 1902. He took part in the Burmese Expedition in 1886–7, was mentioned in dispatches, and received a medal with clasp.

The retirement, dated February 10th, is also announced of Lieutenant-Colonel J. C. MARSDEN, Madras, who joined the department as Assistant Surgeon, October 31st, 1879, and was made Lieutenant-Colonel, October 31st, 1899.

Lieutenant-Colonel C. M. MOORE, M.D., Bombay, is appointed to officiate as Staff Officer, Divisional Medical Mobilization Stores, 4th (Quetta) Division, from May 26th.

Captain A F. HAYDEN, M.B., is transferred to the temporary half-pay list, from January 6th. He was appointed Lieutenant, September 1st, 1905, and made Captain, September 1st, 1908.

Lieutenant A. de C. C. CHARLES, 3rd (Lahore) Division, has been appointed Specialist in Advanced Operative Surgery, from January 1st.

SPECIAL RESERVE OF OFFICERS.

ROYAL ARMY MEDICAL CORPS.

THE following to be Lieutenants (on probation): GEORGE H. STEVENSON, January 20th; SIDNEY J. STEWART, M.D., January 28th; KEITH B. MACGLASHAN, February 1st; GEORGE B. MCCAUL, M.D., February 2nd.

JAMES B. WILLIAMSON, M.B., to be Lieutenant (on probation), February 12th.

WEST AFRICAN MEDICAL STAFF.

THE following gentlemen have been appointed to the West African Medical Staff: T. F. Bayfield, M.D., C.M.McGill, L.R.C.S., L.R.C.P. Edin., Gold Coast, February 9th. W. J. B. Carter, M.R.C.S.Eng., L.R.C.P.Lond. (lately employed as Medical Officer for plague work, Gold Coast), Gold Coast, February 2nd. G. J. W. Keigwin, L.R.C.S., L.R.C.P.Edin., L.F.P.S.Glasg., L.S.A., Gold Coast, February 9th. A. Lundie, M.B., Ch.B.Edin., B.Sc.St. Andrews, Gold Coast, February 9th. W. H. Sieger, M.B., Ch.B.Glasg., Southern Nigeria, February 9th.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,056 births and 4,702 deaths were registered during the week ending Saturday, February 26th. The annual rate of mortality in these towns, which had been 17.0, 16.6, and 15.8 per 1,000 in the three preceding weeks, further declined in the week under notice to 14.7 per 1,000. The rates in the several towns ranged from 6.9 in Hornsey, 7.0 in Walthamstow, 7.2 in Willesden, 7.3 in East Ham, 9.1 in Aston Manor, and 9.8 in Southampton, to 19.0 in Plymouth and in Newport (Mon.), 19.3 in Bury, 19.8 in Hastings, 21.0 in Hanley, 21.5 in Huddersfield, 24.2 in Oldham, and 26.2 in Burnley. In London the rate of mortality was 14.8 per 1,000. The death-rate from the principal infectious diseases averaged 0.8 per 1,000 in the seventy-six towns; in London this death-rate was equal to 1.0 per 1,000, while among the other large towns these infectious diseases caused death-rates ranging upwards to 2.1 in Birkenhead, 2.2 in Smethwick, 2.3 in Hastings, 2.6 in Swansea, 3 0 in Hanley, and 3.9 in Burnley. Measles caused a death-rate of 1.5 in Hastings, 2.1 in Swansea, and 2.9 in Burnley; scarlet fever of 1.3 in Coventry and 1.5 in Hanley; diphtheria of 1.1 in Huddersfield; whooping-cough of 1.3 in West Hartlepool and in Sunderland, and 1.7 in Plymouth; and diarrhoea of 1.4 in Halifax. The mortality from scarlet fever and from enteric fever showed no marked excess in any of the large towns. One fatal case of small-pox was registered in Nottingham, but none in any other of the seventy-six towns. The number of scarlet fever cases under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,937, 1,881, and 1,784 at the end of the three preceding weeks, had further declined to 1,765 at the end of the period dealt with; 193 new cases were admitted during the week, against 213, 212, and 215 in the three preceding weeks.

In seventy-six of the largest English towns, including London, 8,691 births and 4,650 deaths were registered during the week ending Saturday last, March 5th. The annual rate of mortality in these towns, which had been 16 6, 15.8, and 14.7 per 1,000 in the three preceding weeks, further declined to 14.5 per 1,000 last week. The rates in the several towns ranged from 7.0 in West Hartlepool, 7.8 in Willesden, 8.0 in Reading, 8 6 in Tottenham, in Leyton, and in King's Norton, 9.0 in Hornsey, 9.1 in Derby, and 9.2 in Devonport, to 19.2 in Ipswich and in Oldham, 19.8 in Huddersfield, 20.6 in Walsall, 21.0 in Hanley, 21.4 in Burnley, 22.1 in Birkenhead, 22.7 in Swansea, and 23.9 in Wigan. The mortality from the principal infectious diseases averaged 1 0 per 1,000 in the seventy-six towns; in London the death-rate from these diseases was 1.2 per 1,000, while it ranged upwards in the other towns to 2.1 in Ipswich, 2.2 in Hanley and in Smethwick, 2.3 in Hastings, 2.4 in Middlesbrough. 3.8 in Birkenhead and 3.9 in Burnley. Measles caused a death-rate of 1.3 in Croydon and in Merthyr Tydfil, 1.5 in Hastings, 2.1 in Ipswich and in Birkenhead, 2.2 in Hanley, and 2.4 in Burnley; scarlet fever of 1.0 in Burnley; diphtheria of 1.2 in King's Norton, 1.5 in Middlesbrough, 1.7 in Ports mouth, and 1.8 in Tynemouth; whooping-cough of 1.1 in Rhondda, 1.3 in West Hartlepool, and 1.6 in Barrow-in-Furness; enteric fever of 1.1 in Wigan; and diarrhoea of 1.1 in St. Helens. One fatal case of small-pox was registered in Newcastle-on-Tyne, but none in any other of the seventy-six towns. The number of scarlet fever patients remaining under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital at the end of the week was 1,766, against 1,881, 1,784, and 1,765 at the end of the three preceding weeks; 211 new cases were admitted during the week, against 212, 215, and 193 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday, February 26th, 867 births and 588 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 17.0 and 17.7 per 1,000 in the two preceding weeks, declined again to 16.2 per 1,000 in the week under notice, but was 1.5 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scottish towns the death-rates ranged from 12.8 in Paisley and 14.7 in Dundee, to 20.4 in Leith and 24.1 in Greenock. The death-rate from the principal infectious diseases averaged 2.2 per 1,000 in the eight towns, the highest rates being recorded in Glasgow and Greenock. The 270 deaths registered in Glasgow included 29 which were referred to measles, 6 to scarlet fever, 7 to diphtheria, 6 to whooping-cough, 3 to enteric fever, and 4 to diarrhoea. Five fatal cases of measles and two of scarlet fever were recorded in Edinburgh; 2 of diarrhoea in Paisley; 3 of measles in Leith; and 3 of measles and 2 of enteric fever in Greenock.

During the week ending Saturday last, March 5th, 912 births and 590 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 17.0, 17.7, and 16.2 per 1,000 in the three preceding weeks, was 16.3 per 1,000 last week, and was 1.8 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scottish towns the death-rates ranged from 10.6 in Paisley and 12.0 in Edinburgh to 18.6 in Leith and 27.6 in Greenock. The death-rate from the principal infectious diseases averaged 2.2 per 1,000 in these eight towns, the highest rates being recorded in Leith and Greenock. The 299 deaths registered in Glasgow included 28 which were referred to measles, 3 to scarlet fever, 9 to diphtheria, 3 to enteric fever, and 6 to diarrhoea. Two fatal cases of measles were recorded in Edinburgh, 6 in Leith, and 3 in Greenock; 3 of enteric fever in Greenock; and 2 of diarrhoea in Dundee, and 3 in Aberdeen.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, February 26th, 606 births and 503 deaths were registered in the twenty-two principal urban districts of Ireland, as against 569 births and 503 deaths in the preceding period. The annual death-rate in these districts, which had been 25 0, 26.0, and 22.8 per 1,000 in the three preceding weeks, remained at 22 8 per 1,000 in the week under notice, this figure being 8.1 per 1,000 higher than the mean annual death-rate in the seventy-six English towns for the corresponding period. The figures in Dublin and Belfast were 28.0 and 18.7 respectively, those in other districts ranging from 3.9 in Galway and 9.6 in Sligo, to 46.2 in Newry and 74.0 in Tralee. Cork fell to 23.3 and Londonderry to 10.8, Limerick was 21.9, and Waterford 17.5. The zymotic death-rate in the twenty-two districts averaged 1.3 per 1,000.

During the week ending Saturday, March 5th, 652 births and 495 deaths were registered in the twenty-two principal urban districts of Ireland, as against 606 births and 503 deaths in the preceding period. The annual death-rate in these districts, which had been 26.0, 22.8, and 22.8 per 1,000 in the three preceding weeks, fell to 22.4 per 1,000 in the week under notice, this figure being 7.9 per 1,000 higher than the mean annual death-rate in the seventy-six English towns for the corresponding period. The figures in Dublin and Belfast were 25.2 and 22.0 respectively, those in other districts ranging from 4.8 in Sligo and 8.4 in Newry, to 33.5 in Ballymena and 38.8 in Galway, while Cork stood at 23.3, Londonderry at 25.2, Limerick at 13.7, and Waterford at 17.5. The zymotic death-rate in the twenty-two districts averaged 1.4 per 1,000, as against 1.3 per 1,000 in the preceding week.

Vacancies and Appointments.

VACANCIES.

AYLESBURY: ROYAL BUCKINGHAMSHIRE HOSPITAL.—Male House-Surgeon. Salary £100 per annum, increasing to £120.

BATH: ROYAL MINERAL WATER HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

BATH ROYAL UNITED HOSPITAL.—House-Physician. Salary, £80 per annum.

BIRMINGHAM: QUEEN'S HOSPITAL.—House-Surgeon. Salary at the rate of £50 per annum.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—House-Surgeon. Salary at the rate of £50 per annum.

CHELTENHAM GENERAL HOSPITAL.—House-Surgeon. Salary, £70 per annum.

CHICHESTER: WEST SUSSEX AND EAST HANTS GENERAL INFIRMARY.—Honorary Physician.

DENBIGH: DENBIGHSHIRE INFIRMARY. — House-Surgeon. Salary, £100 per annum.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Assistant Resident Medical Officer. Salary at the rate of £50 per annum.

DREADNOUGHT HOSPITAL, Greenwich.—(1) Two House-Physicians. (2) Two House Surgeons. Salary, £50 per annum each.

DUBLIN: ROYAL VICTORIA EYE AND EAR HOSPITAL.—House-Surgeon. Salary, £40 per annum.

HULL ROYAL INFIRMARY.—House-Physician. Salary, £100 per annum.

LEAMINGTON · WARNEFORD, LEAMINGTON, AND SOUTH WARWICKSHIRE GENERAL HOSPITAL.—(1) Honorary Physician. (2) Junior Resident Medical Officer; salary, £65 per annum.

LEEDS GENERAL INFIRMARY.—Assistant Clinical Pathologist. Salary, £150 per annum.

LIVERPOOL: HOSPITAL FOR WOMEN.—House-Surgeon, for six months. Honorarium, £50.

LIVERPOOL: ROYAL SOUTHERN HOSPITAL. — Honorary Surgeon.

LONDON SCHOOL OF MEDICINE FOR WOMEN, Hunter Street, W.C.—Lecturer in Gynaecology.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon. Salary, £60 per annum.

MANCHESTER ROYAL INFIRMARY.—House-Physician, for six months.

MIDDLESBROUGH: NORTH RIDING INFIRMARY. — House-Surgeon. Salary, £100 per annum.

MIDDLESEX HOSPITAL, W.—Medical Registrar.

NORWICH: JENNY LIND INFIRMARY FOR CHILDREN.—Lady Resident Medical Officer. Salary, £50 per annum.

NOTTINGHAM: GENERAL HOSPITAL.—Honorary Physician.

PRINCE OF WALES'S GENERAL HOSPITAL, Tottenham, N.—Clinical Assistant for the Ear, Nose, and Throat Department.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, E.—(1) Pathological Registrar. (2) Assistant Resident Medical Officer. (3) House-Surgeon. (4) Surgeon in charge of out-patient department. Salary at the rate of—for (1) £200 per annum, for (2) £75, and (3) £60.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House-Surgeon. Salary, £80 per annum.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—House-Physician. Salary at the rate of £60 per annum.

ST. PAUL'S HOSPITAL FOR SKIN AND GENITO-URINARY DISEASES, Red Lion Square, W.C.—Clinical Assistants in Out-patient Department.

SALFORD UNION.—Two Male Resident Medical Officers at the Union Infirmary. Salary, £120 per annum each.

SHEFFIELD ROYAL HOSPITAL.—Assistant House-Physician. Salary, £50.

SHEFFIELD: ROYAL INFIRMARY.—Seventh Resident Medical Officer. Salary, £60 per annum.

SHEFFIELD UNIVERSITY.—Demonstrator in Anatomy. Salary, £150 per annum.

TORQUAY: TORBAY HOSPITAL.—House-Surgeon. Salary, £100 per annum and £5 for lectures to nurses.

VENTNOR: ROYAL NATIONAL HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Assistant Medical Officer. Salary, £100 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces vacancies at: Burntisland, co. Fife; Lichfield, co. Stafford; Markfield, co. Leicester; Snaith, co. York; Whaley Bridge, co. Chester.

APPOINTMENTS.

BUTLER, T. Harrison, M.A., M.D., B.Ch.Oxon., M.R.C.S., L.R.C.P., Honorary Ophthalmic Surgeon to the Warneford, Leamington, and South Warwickshire Hospital.

HEPBURN, Malcolm L., M.D., B.S Lond., F.R.C.S.Eng., Assistant Surgeon to the Royal London Ophthalmic (Moorfields) Hospital.

ST. THOMAS'S HOSPITAL.—The following house officers have been appointed:

Casualty Officers and Resident Anaesthetists.—G. B. Wainwright, B.A.Cantab., M.R.C.S., L.R.C.P.; L. S. T. Burrell, M.A.Cantab., M.R.C.S., L.R.C.P.; R. Cox, B.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P.; L. B. Perry, B.C.Cantab., M.R.C.S., L.R.C.P.; L. Meakin, M.A., B.C.Cantab., M.R.C.S., L.R.C.P.; G. Hoffmann, B.A.Cantab., M.R.C.S., L.R.C.P.

Casualty Assistants.—E. M. Lauderdale, B.A.Cantab., M.R.C.S., L.R.C.P.; E. A. Seymour, M.R.C.S., L.R.C.P.

Resident House-Physicians.—W. W. C. Topley, B.A.Cantab., M.R.C.S., L.R.C.P.; H. P. Newsholme, B.A., M.B., B.Ch.Oxon., B.Sc.Lond.; F. C. Pridham, M.R.C.S., L.R.C.P.; H. Bowring, B.A.Cantab., M.R.C.S., L.R.C.P.; M. E. Dellschaft, B.A.Cantab., M.R.C.S., L.R.C.P.

Resident House-Surgeons.—B. C. Maybury, M.R.C.S., L.R.C.P.; A. F. Morcom, B.A.Cantab., M.R.C.S., L.R.C.P.; J. S. Hopwood, M.R.C.S., L.R.C.P.; W. R. Parkinson, M.R.C.S., L.R.C.P.

House-Surgeon to Block 8.—W. B. Johnson, M.B., B.S.Lond., M.R.C.S., L.R.C.P.

Obstetric House-Physicians.—(Senior) J. L. Graham-Jones, B.A.Cantab., M.R.C.S., L.R.C.P.; (Junior) M. W. Baker, B.A., B.C.Cantab., M.R.C.S., L.R.C.P.

Ophthalmic House-Surgeons.—(Senior) T. C. R. Archer, M.R.C.S., L.R.C.P.; (Junior) W. Victor Corbett, M.R.C.S., L.R.C.P.

Clinical Assistants.—Throat: (Senior) W. G. Howarth, M.A., M.B., B.C.Cantab., F.R.C.S.Eng.; W. L. Pink, M.R.C.S., L.R.C.P. Skin: W. N. Child, M.A.Cantab., M.R.C.S., L.R.C.P. Ear: (Senior) W. G. Howarth, M.A., M.B., B.C.Cantab., F.R.C.S.Eng.; W. L. Pink, M.R.C.S., L.R.C.P. Children's Medical: L. M. Routh, M.R.C.S., L.R.C.P. (Ext.); C. Newcomb, B.A.Oxon., M.R.C.S., L.R.C.P. Mental: W. Victor Corbett, M.R.C.S., L.R.C.P.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTH.

WALDO.—On March 5th, at 40, Lansdowne Road, Holland Park, W., the wife of Frederick Joseph Waldo, M.D., of a daughter.

DEATHS.

EYRE.—On Sunday, March 6th, Leslie Graeme, aged 3 months, the youngest son of Dr. and Mrs. John Eyre.

FISH.—On March 7th, at Denver, Mill Road, West Worthing, Cecil Edgar Fish, B.A., M.B., B.C.Camb., M.R.C.S., L.R.C.P.Lond., of the Vale of Clwyd Sanatorium, Llanbedr Hall, Ruthin, North Wales.

WRIGHT.—On February 28th, at Markfield, Alfred John Wright, M.R.C.S., L.S.A., aged 47.

PUBLISHERS' ANNOUNCEMENTS.

MR. H. K. LEWIS will shortly publish a collection of studies and essays by the late Dr. Thomas Logan. The collection will be issued in three volumes, entitled *Biological Physics, Physic, and Metaphysics*. The editors are Dr. Quintin M'Lennan and Mr. P. Henderson Aitken, M.A., B.Sc., D.Litt. Another work shortly to be issued by the same firm is by Dr. William Gordon, of Exeter, on *The Influence of Strong, Prevalent, Rain-bearing Winds on the Prevalence of Phthisis*. This work will be illustrated by upwards of twenty maps printed in colours, which make very clear the points which the author seeks to establish. Amongst works just issued may be mentioned Dr. Richard Greeff's *Atlas of External Diseases of the Eye*, translated by Dr. P. W. Shedd, and Professor Feodor Krause's *Surgery of the Brain and Spinal Cord, based on Personal Experiences*, translated by Professor Herman A. Haubold, and an interesting pamphlet by Dr. Walter G. Walford on *Cerebral Congestion and Tight Neck Clothing as an Insidious Cause for Many Disorders*. Mr. Lewis recently published in handy volume form the articles contributed to this JOURNAL by Dr. Eustace Smith on *Some Common Remedies and their Use in Practice*, which was noticed fully in our issue of February 25th. He has also just issued the second volume of Binnie's *Operative Surgery*, completing the fourth edition of the work. This volume deals with operations on the extremities, vascular system, etc., and is uniform in style, binding, illustrations, etc., with Vol. I.

RECENT PUBLICATIONS.

The Hospital Service Book (revised and enlarged). By the Rev. C. Pankhurst Baxter. Nineteenth thousand. London: Henry Frowde. 1909. (Pott 8vo, pp. 234. Cloth 1s., paste-grain limp 2s.)

A small volume containing short services and hymns for use in the wards of hospitals and infirmaries, compiled by a hospital chaplain and approved by the bishops of many dioceses, including the present Bishop of London, to whom it is dedicated.

DIARY FOR THE WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, W., 8.30 p.m.—Discussion on the Treatment of Colitis, to be opened by Dr. H. P. Hawkins and Mr. H. Stansfield Collier.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Professor George Coats: Researches on Congenital Abnormalities of the Eye.

TUESDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Second Lumleian Lecture by Professor W. Osler, F.R.S.: Angina Pectoris.

ROYAL SOCIETY OF MEDICINE:

PATHOLOGICAL SECTION, 8.30 p.m.—Papers:—Dr. W. H. Willcox: Gastric Analysis. Dr. F. H. Thiele: Observations on the Pathology of Pernicious Anaemia. Dr. Parkes Weber: A Case of Bile producing Primary Carcinoma of the Liver.

WEDNESDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Professor George Coats: Researches on Congenital Abnormalities of the Eye.

THURSDAY.

HARVEIAN SOCIETY OF LONDON, Stafford Rooms, Titchborne Street, Edgware Road, W., 8.30 p.m.—Harveian Lecture by Dr. Leonard Guthrie: Remarks on Hydrocephalus.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Third Lumleian Lecture by Professor W. Osler, F.R.S.: Angina Pectoris.

ROYAL SOCIETY OF MEDICINE:

DERMATOLOGICAL SECTION, 5 p.m.—Cases:—Dr. J. H. Sequeira: Keratodermie Blenorrhagique. Dr. J. H. Sequeira (with Dr. Graham Little): Pseudo-xanthoma Elasticum. Dr. Graham Little: Case for Diagnosis. And other cases.

FRIDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Mr. Sydney Scott: The Physiology of the Human Labyrinth.

ROYAL SOCIETY OF MEDICINE:

ELECTRO-THERAPEUTICAL SECTION, 8.30 p.m.—Dr. Franz M. Goedel: The Normal and Pathological Stomach and the Intestines shown by *X*-Ray Examination. (With Demonstrations and Cinemato-Roentgenograms.)

SOCIETY OF TROPICAL MEDICINE AND HYGIENE, 11, Chandos Street, W., 8.30 p.m.—Papers: Notes on some Cases of Fever with an Urticarial Rash occurring in the Yangtzse Valley, by Alexander C. Lambert, M.D., Kiu-Kiang. A Problem in Typhoid Fever Prophylaxis and the Solution of Same, by Emmett I. Vaughn, M.D., District Physician, Gatun, Canal Zone. The Duration of Latency of Malarial Infection, by Surgeon Lieutenant-Colonel Oswald Baker, M.D., I.M.S.(ret.).

POST-GRADUATE COURSES AND LECTURES.

BROMPTON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, S.W.—Wednesday, 4 p.m., Pleurisy.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Lectures: Tuesday, 3.45 p.m., Nose. Friday, 3.45 p.m., Labyrinth.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat at noon and 4 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Thursday, and noon Friday; Eye, 11 a.m., Wednesday and Saturday; Radiography, 4 p.m., Thursday. Special Lectures: Tuesday, Diseases of the Heart, 2.15 p.m.; Thursday, Migraine, 2.30 p.m.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week, at 4 p.m. each day: Monday, Skin. Tuesday, Medical. Wednesday, Surgical. Thursday, Surgical. Friday, Ear, Nose, and Throat. Lectures, at 5.15 p.m. each day, will be given as follows: Monday, Paralysis of Motor Cranial Nerves (with lantern illustrations). Tuesday, The Treatment of Chronic Dysentery. Wednesday, On Surgical Cases. Thursday, Itching Skin Eruptions.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday and Friday, 3.30 p.m., Hemiplegia and its Treatment.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics, 2.30 p.m., Medical Out-patient: Nose, Throat and Ear; 4.30 p.m., Medical In-patient. Tuesday, 10 a.m., Medical Out-patient Clinic; 2.30 p.m., Operations; Clinics: Surgical, Gynaecological; 4.30 p.m., Lecture, The Relative Values of Deep, Light, and Incomplete Narcosis. Wednesday, 2.30 p.m., Medical Out-patient, Skin and Eye Clinics; *X* Rays. Thursday, 2.30 p.m., Gynaecological Operations; Clinics: Medical Out-patient; Surgical Out-patient; 3 p.m., Medical In-patient, 4.30 p.m., Lecture: The Influence of Ovariotomy on Woman's Character. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Eye; 3 p.m., Medical In-patient.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith, W.—The following arrangements are for next week: Daily arrangements, Medical and Surgical Clinics 2 p.m.; Operations, 2 p.m. Monday: Surgical Registrar, 10 a.m.; Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat and Nose Operation, 10 a.m.; Practical Medicine, 12.15 p.m.; Eye, 2 p.m.; Gynaecological, 2 p.m. Thursday: Surgical Registrar, 10 a.m.; Pathological, 12 noon; Eye, 2 p.m.; Orthopaedic, 2 p.m. Friday: Medical Registrar, 10 a.m.; Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m.; Lectures at 5 p.m.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
MARCH.	
15 TUESDAY ..	WEST SOMERSET BRANCH, Taunton and Somerset Hospital, 3.30 p.m.
16 WEDNESDAY	BUCKINGHAMSHIRE DIVISION, *South Midland Branch*, Royal Bucks Hospital, Aylesbury, 3.30 p.m. CARDIFF DIVISION, *South Wales and Monmouthshire Branch*, Cardiff. RICHMOND DIVISION, *Metropolitan Counties Branch*, Medico-Political Meeting, Royal Hospital, Richmond, 8.30 p.m. YORKSHIRE BRANCH, Bull Hotel, Wakefield, 4 p.m.; Council Meeting, 3.15 p.m.; Dinner, 6.30 p.m.
17 THURSDAY ..	LONDON: Contract Practice Special Subcommittee, *re* the Postal Medical Service (afternoon). LONDON: Contract Practice Special Subcommittee, *re* Conditions of Service of Pathologists and Bacteriologists (afternoon). ALTRINCHAM DIVISION, *Lancashire and Cheshire Branch*, Special Meeting, Board Room, Altrincham Hospital, 5 p.m. Tea, 4.30 p.m. CITY DIVISION, *Metropolitan Counties Branch*, Brooke House, Upper Clapton, 8.30 p.m. LAMBETH DIVISION, *Metropolitan Counties Branch*, Evelina Hospital, 4 p.m. LONDON: Metropolitan Counties Branch Council, 4.30 p.m.

Date.	Meetings to be Held.
MARCH *(continued)*.	
18 FRIDAY ..	LONDON: Medico-Political Contract Practice Subcommittee, 11 a.m. LONDON: Joint Meeting of the Poor Law Reform Committee and Contract Practice Subcommittee, 2.30 p.m. TOTTENHAM DIVISION, *Metropolitan Counties Branch*, 88, High Road, Wood Green, 9.15 p.m.
19 SATURDAY ..	OXFORD: School Athletics Subcommittee, 12 noon.
20 Sunday ..	
21 MONDAY ..	LONDON: Standing Ethical Subcommittee, 2 p.m. KENSINGTON DIVISION, *Metropolitan Counties Branch*, Town Hall, Kensington, 4.30 p.m.
22 TUESDAY ..	LONDON: Capitation Grants Subcommittee. LONDON: Subcommittee on Amendment of Existing By-laws as to Election of Representatives. LONDON: Subcommittee on Organization of Medical Students. LONDON: Subcommittee on Standing Orders of Representative Meeting and Council.
23 WEDNESDAY	
24 THURSDAY ..	NORWOOD DIVISION, *Metropolitan Counties Branch*, Lewisham Infirmary, 4 p.m.

Printed and Published by the British Medical Association at their Offices No. 429, Strand, in the Parish of St. Martin-in-the-Fields in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MARCH 19TH, 1910.

CONTENTS.

	PAGE
THE MEDICAL TREATMENT OF THE POOR. By P. R. Cooper, M.D., F.R.C.S., Bowdon, Manchester	105
THE REPORT OF THE POOR LAW COMMISSION AND GENERAL PRACTITIONERS. By F. Edward Pearse, M.R.C.S.Eng., L.R.C.P.Edin.	106
THE NATIONAL POOR LAW REFORM ASSOCIATION ...	108
Meetings of Branches and Divisions:	
Bath and Bristol Branch: Trowbridge Division	109
East Anglian Branch	110
Gloucestershire Branch	110
Lancashire and Cheshire Branch: Blackburn Division ...	110
Metropolitan Counties Branch: City Division	110
Midland Branch: Nottingham Division	111
Southern Branch: Salisbury Division...	111
South Wales and Monmouthshire Branch: Monmouthshire Division	112
South-Western Branch: Exeter Division	112
The Seventy-eighth Annual Meeting of the British Medical Association.—Programme of Business ...	113
ASSOCIATION NOTICES.—Notice of Changes of Boundaries of Divisions and Branches	112
VITAL STATISTICS	116
NAVAL AND MILITARY APPOINTMENTS	118
VACANCIES AND APPOINTMENTS	119
BIRTHS, MARRIAGES, AND DEATHS	119
RECENT PUBLICATIONS	120
DIARY FOR THE WEEK	120
CALENDAR	120

THE

MEDICAL TREATMENT OF THE POOR.

By P. R. COOPER, M.D., F.R.C.S.,

BOWDON, MANCHESTER.

In the British Medical Journal of February 19th I wrote suggesting that the best solution of this great and pressing problem lies not in the establishment of a State medical service—either on the lines of the provident dispensary (Majority Report recommendation), or on the lines of the present district union medical officership (Minority Report recommendation)—but in a system of medical insurance, which shall cover medical attendance, provision of medicines, etc., and which should, in the case of the poor, be wholly or partly subsidised by the State. The fees, which should be acceptable to the medical profession, would be paid direct to the medical man, according to the work done, out of the general insurance fund.

I have been asked to formulate a scheme. Although not yet prepared with full details—which, I conceive, will have to be thoroughly threshed out by a departmental inquiry and in the Divisions of the Association—I respectfully submit the following outline to the consideration of my fellow practitioners. For the purpose of our present discussion the sick poor may be classified into:

(*a*) *Destitutes.*—That is, those who have no money and can therefore pay nothing for medical attendance. This includes the infirm and dependent, and the wholly, or almost wholly, workless, most of whom are now treated as paupers.

(*b*) *Indigents.*—That is, those who have ordinarily not enough to live upon, and who can, therefore, pay little, if anything, for medical attendance. This includes the great class on the border-line of pauperism, many who, through lack of employment, meagre wages, improvident living, etc., generally live from hand to mouth, and are quite unable, or at any rate mostly neglect to, make any provision for "rainy days," sickness, etc. I would fix the wage limit of this class at £1 a week. Any one earning on an average less than this, especially if a married man with a young family to support, is, in my opinion, quite unable to pay anything towards the cost of medical attendance in case of the illness of himself or his family.

(*c*) *Wage-earners Averaging from £1 to £2 a Week.*—These, if single, can certainly afford to pay *something* for medical attendance; as, however, unless in some club or dispensary, they have rarely made provision for such attendance, and as in most cases when work stops pay stops, and the other expenses of illness absorb all, or more than all, the spare cash, they are certainly unable to pay at the time, and only too frequently neglect to do so afterwards; if married, however, and with a family of three or more children to clothe and feed, as well as ordinary household expenses to meet, there is obviously little scope left for paying the doctor.

(*d*) *Wage-earners Averaging from £2 to £4 a Week.*—Here, no doubt, payment can and generally is made for ordinary illnesses, but for exceptional illnesses, especially if affecting the breadwinner of the family, this is impossible. The doctor, knowing this, frequently foregoes his proper charges; more frequently, perhaps, he gets little or nothing in the way of remuneration, and has the disagreeable option of dunning or county-courting his former patients.

(*e*) *Wage-earners of from £4 to £6 per Week.*—Even here—and perhaps in cases of higher wages than this—in not a few instances, sickness proves so heavy a handicap that medical fees cannot be met, and few medical men would go the length of "selling up" their patients to obtain even what they considered as a just remuneration for work done.

My proposals with regard to the medical treatment of these various classes are as follows:

The ideal method all round would, in my opinion, be for each patient to have his own medical attendant, chosen by himself, who would watch over him and take a personal interest in his case throughout (even visiting him occasionally when, for operation or isolation, it becomes necessary to remove him to a hospital or other institution), the fees for such attendance being fixed at a minimum acceptable to the profession of, say, 2s. 6d. for each ordinary visit, excluding medicines, etc., the cost of this to be defrayed out of a medical insurance fund. This fund, in the cases of classes (*a*) and (*b*) would have to be entirely provided by the State, but in the case of classes (*c*) and (*d*) could be partly contributed by the State, with, possibly, something also by the employer.

It may be deemed advisable at present to restrict the application of the principle of State medical insurance to classes (*c*) and (*d*)—that is, where contributions can be made by the individual, or, in the case of families, by the head of the family, and to be supplemented by the State. As class (*a*) is already, and would certainly continue to be, catered for by the State, this leaves class (*b*)—that is, the indigents—still to be provided for.

If the pauper disqualification were removed, there is little doubt most of those in class (*b*) would gravitate into class (*a*)—that is, as they would be unable to pay for private medical attendance, they would be entitled to receive State-provided medical service. On the other hand, those who could make some contribution towards medical attendance, and preferred not to have the district medical officer, should be encouraged to make provision for such by being admitted to the benefits of sickness insurance, their contributions being supplemented by the State. If funds would not allow of a proper individual fee being paid to a medical man for attending such cases, they might be treated on dispensary lines, as approved by the British Medical Association, although I cannot think that this will prove the final and satisfactory solution of the treatment of these cases. It will, I suppose, always be necessary to have hospitals for the treatment of certain cases, but there can be no doubt that the provision of efficient treatment at home or within reach will largely curtail work at present done by hospitals, to the benefit alike of patients and general practitioners. The establishment of nursing homes within the means of the poor will also prove a boon to patients and practitioners. For special cases, clinics might be established, at which specialists could attend at stated hours at reduced fees. By all these means, the profession could meet the public, and assist the working of the insurance scheme.

PLAN FOR MEDICAL TREATMENT OF POOR.

(*a*) *Destitutes.*

(1) Whole of medical attendance to be paid for by State. (2) Each penniless individual to be entitled without pauper disqualification to free medical attendance either (*a*) at home, (*b*) at surgery, (*c*) at hospital or dispensary. (3) The medical men employed by the State to be paid by the State a fee of not less than 2s. 6d. for each ordinary visit (extra for special visits and special cases, and for mileage beyond one mile from surgery); or in case of hospital appointment a salary of not less than £250 for whole-time non-resident appointment, £200 for whole-time resident appointment, and a fair proportion for part-time appointments; consultations, and operations by consulting physicians and surgeons, to be paid extra according to a recognized scale of fees.

(*b*) *Indigents.*

(1) Those who can pay nothing towards medical attendance to be treated as Class (*a*). (2) Those who can pay *something* towards medical attendance, and prefer not to be treated by State medical officers, to be assisted by the State contributions towards *medical insurance fund;* (3) out of which fees are paid direct to medical men, fees to be not less than 2s. 6d. for ordinary visits, not including medicines, etc. (4) Clinics or dispensaries, to be subsidised by State—partly out of insurance fund—being provided, if necessary, on lines approved by British Medical Association.

(*c*) *Wage-earners of £1 to £2 per Week.*

(1) Here contributions of, say, 6d. in the £ by individual, or a proportionate amount by head of family in case of a family; (2) assisted by contributions from State, and possibly also from employer, to *medical insurance fund.* (3) From this cost of medical attendance is paid direct to medical man who attends. The fees being not less than in (*a*) for *home* visits. (4) Out-patients being treated either at surgery, dispensary, clinic, or special hospital out-patients at a scale of fees to be fixed by the profession. (5) Operation cases, etc., treated at hospitals or nursing homes by special grants.

(*d*) *Wage-earners of £2 to £4 and Upwards.*

(1) Here contributions per individual or per family should be larger—say 1s. in the £; (2) and probably only in exceptional cases will an additional contribution be needed by the State. (3) Most cases will be treated, in first instance, at any rate, as private patients under the practitioner of their choice; fees varying from 2s. 6d. to 3s. 6d. per ordinary visit, paid direct to medical attendant. (4) Special cases could be treated at special clinics or nursing homes, as on the Continent, within the means of these patients, fees being met by special grants from the insurance fund.

Emergency Cases.

Emergency cases would be treated, in the first instance, at any rate, by the most readily available medical man, or at the nearest hospital, and subsequently transferred, as soon as fit, to their own medical men, the doctor who attended in the emergency being duly remunerated for his services out of the insurance fund.

Hospitals and Nursing Homes.

Hospitals also should receive a proportion of insurance fund towards expenses, etc., according to work done, and the medical men, who at present give their services to hospitals and charities of various kinds, should also be remunerated, although here the remuneration might be nominal.

Apart from general and special hospitals, private nursing homes should be provided, to which poorer patients could be sent, where they could be attended by their own medical men, when attendance at home was, for various reasons, not considered advisable. Clinics might also be established at which specialists could attend at stated hours at reduced fees. Such institutions should be partly subsidised and partly kept up by fees paid out of the common insurance fund as part of the necessary "medical expenses."

In conclusion, I would urge that some such scheme as this be submitted as early as possible to the consideration of the Divisions throughout the country. Let us at least agree as to what we consider should be the minimum fee for a visit quite irrespective of the patient's circumstances, it being clearly understood that that fee shall fitly repay us for the work done, and that if we attend for less we are giving so much of our services for nothing—in fact, being exploited by the public. Personally, I would not include provision of medicines, dressings, etc., in this minimal fee. These for the very poor could be supplied at public dispensaries upon any doctor's signed and dated prescription; for the better-to-do the local chemist would answer, his charges also being paid out of the insurance fund as part of the necessary medical expenses.

THE REPORT OF THE POOR LAW COMMISSION AND GENERAL PRACTITIONERS.*

BY

F. EDWARD PEARSE, M.R.C.S.ENG., L.R.C.P.EDIN.

THE Majority Report of the Poor Law Commission on 1,679 Poor Law districts in the United Kingdom is a voluminous Blue Book of 1,238 pages, the perusal of which only an enthusiast or a man of leisure would undertake. Of the eighteen members forming the Commission only one was a doctor (Dr. A. A. Downes, an inspector under the Local Government Board).

The new Poor Law authority the establishment of which is recommended by the Majority is to be known as the Public Assistance Authority, and it would be a statutory committee of the county council, or in county boroughs of the county borough council.

One-half of the committee would be elected from the county or borough council; the other half would not be members of the council, but elected from outside—for example, ex-guardians and members of the Charity Organization Society and similar philanthropic organizations.

The Public Assistance Authority, in order to secure help in administering medical relief, would be required to appoint a Medical Assistance Committee, to which it may delegate the whole of its medical work. This committee would consist of members of the Public Assistance Authority and representatives of the Health Committee of the county council, and also of the local Branches of the British Medical Association. It would also have power to co-opt representatives of local hospitals, county or borough nursing associations, and registered friendly societies. This Medical Assistance Committee, it will be noticed, would be appointed by the Public Assistance Authority, which would itself be a committee appointed by the county council.

The scheme of medical relief is:

1. To co-ordinate, and, when necessary, to supplement, the medical institutions of the county or county borough, and to

* Paper read at a meeting of the Guildford Division, January, 1910.

suggest methods of co-operation with the sanitary authorities and the authorities in charge of voluntary hospitals.

2. To organize an outdoor and provident medical service, easily accessible in all parts of the county or county borough; this service to include the provision of competent midwives.

3. To develop an adequate nursing service throughout the county or county borough, preferably in connexion with voluntary nursing associations.

4. To subscribe, when necessary, towards these purposes.

5. To arrange for adequate supervision of, and to report on, the efficiency and adequacy of the medical institutions and medical service throughout the county or county borough.

The new authority would be required to develop a system of paying and free cottage hospitals in conjunction with voluntary and endowed charities, including provision for midwifery cases, and would be required to approach any free or provident medical institution, including private medical clubs already existing in the district, and invite them to fall in with the scheme; refusal, however, would not check procedure.

The majority of the Commission considered it desirable that the services of all the competent medical practitioners in the locality (note the word "competent") should be available for the members of the provident dispensaries, that any member should be allowed to choose his own doctor, and that membership shcuild include the *right* to (1) unlimited medical service, and (2) admission to Poor Law infirmary or voluntary general hospital on the recommendation of a doctor.

The Poor Law authority would give financial support to the provident dispensaries partly by subsidies from the rates and partly by paying the fees of the pauper members, that is, the aged and widows with young children. These pauper members would have the right also to choose their own doctor.

Any applicant not a member of the provident dispensary or society might apply to the Poor Law doctor; but when the office of Poor Law doctor was abolished his duty would devolve upon the dispensary doctors, among whom, it will be remembered, would be included all the competent medical practitioners in the locality. No disfranchisement should attach to any form of medical assistance.

The chief points in the above scheme are:

I.

The establishment of a great system of provident dispensaries subsidised by the rates, and including existing private medical clubs, friendly societies, etc. Every inducement is to be offered to the working classes below a certain wage to join these dispensaries.

I would like to deal more at length with the words "below a certain wage."

With regard to this wage limit, the Commissioners are apparently not unmindful of the possibility of abuse, and as a sop to us general practitioners they recommend that "the British Medical Association suggest a scale of fees and wage limit to be applied by their local branches as local circumstances may suggest"; but at the same time the Commission expressly deprecate any investigation into the means of the members of the provident dispensaries. Please note, gentlemen, what they say: "The independent workman who joins the dispensary would be guaranteed adequate medical assistance in sickness at a cheaper rate than he could obtain from an ordinary medical practitioner."

He would have a choice of doctor; he would secure for himself institutional treatment, if such treatment were necessary, and his self-respect would be additionally increased by dispensing, in his case, with all the irritating requirements of investigation into his pecuniary resources. How, Sir, under these conditions, could the British Medical Association draw up any scale of wage limit: and, if they attempted it, on whose heads would the odium lie? Why, upon us general practitioners.

I would remind you of the reply of Mr. Moffrey (Parliamentary Agent, Manchester Unity Oddfellows), at a conference on February 6th, 1909, when he stated that he "was not ready to admit for one moment that a wage limit was either proper or practicable."

II.

Subscription to a dispensary is to entitle members (including certain pauper members) to the right to choose their own doctors and to institutional treatment. All applicants for medical relief to be treated at once—at present by the district medical officers, ultimately by a dispensary doctor.

In other words, a public system, supported by public money, of free medical relief on a basis of contract practice.

I should mention here that Dr. Downes, Miss Octavia Hill, and the four Commissioners forming the Minority disagreed with these medical recommendations.

It is obvious that the adoption of this report would increase enormously medical contract practice, as the more members subscribing to the local provident dispensary the less public money would be required, which, from the ratepayers' point of view, would be an advantage. Those engaged in philanthropic work would encourage more than ever what they would consider such a spirit of self-help among the poor; and district visitors, clergymen, etc., would become active agents. Doubtless the local gentry would also help by inducing their own servants to join these dispensaries, and by so doing would seriously affect the already too small income we general practitioners earn.

What is the present remuneration of dispensary or friendly societies' doctors? Contract practice, as you know, means underpayment, which may or may not be due to competition amongst ourselves. This, at least, is the way the Commission soothe their consciences and at the same time throw upon us the responsibility for this form of sweating.

Take, for instance, the report of the Manchester and Salford Provident Dispensary Association for 1908:

> Membership, 15,348.
> Subscription, 1d. per week.
> Entrance fee, 6d. each person, 1s. for a family.
> Remuneration of medical officer, ½d. per week divided according to the number of patients he sees, as members choose their own doctor.
> Prescriptions dispensed, 130,620, that is, an average of 8.5 per member.
> The remuneration, which varies in different branches, was highest at Pendleton, where the doctor received 8½d. per case or visit, and lowest at Lower Broughton, where it was 6½d.

Can anything be more *infra dig.* than that an educated gentleman should have to depend more or less on a veiled form of touting as to the larger or smaller share of the 8½d. or 6½d. to come to him? The comment of the BRITISH MEDICAL JOURNAL is very telling.

> As a pure charity, something may be said for the dispensaries, but that almost completely exhausts the recommendation to medical men.

The recommendations of the Poor Law Commission are, indeed, against the interests of the profession. They involve the creation of a vast new system of contract practice which would be attended by all the present-day evils, and would bring about a serious restriction of the field of private practice.

It would do yet more; it would divide the general body of medical men into two classes—the dispensary doctors and the others. Consider for one moment the difficulty of the majority of general practitioners who are earning a few hundreds a year, mostly by moderate fees of 2s. 6d., 3s. 6d., or 5s. a visit, with medicine. What are they to do? Many of them very highly qualified, and second to none in diagnostic skill and professional abilities. A decision, most momentous, is forced upon them. Are they to throw in their lot with the "competent medical practitioners" in the locality as dispensary doctors; or are they to take the only other course, namely, join the higher grade of medical men who are earning a living, either by specializing or competing for patients among those whose wealth or position makes them ineligible for dispensary treatment? In the former their social position would suffer, their income would be precarious, with no pension to look forward to and no asset in the shape of a practice to dispose of. In the latter the field of practice would be so limited as to make success almost entirely dependent upon the possession of a private income.

Gentlemen, can we do nothing to avert a condition of affairs that cannot but fail to affect adversely a large majority of us general practitioners, and to make the prospect of providing for our old age more and more visionary?

THE NATIONAL POOR LAW REFORM ASSOCIATION.

A NATIONAL POOR LAW ASSOCIATION has been formed, with Lord George Hamilton, Chairman of the Royal Commission on the Poor Laws, as president. Its objects are stated to be as follows:

To promote as far as possible the concentration of all forms of public assistance under a single authority, instead of dispersing them among different central or local departments as proposed by the Minority Report.

To become a centre for consultation and co-operation amongst the promoters of Poor Law reform.

To place before the public information as to the reports and recommendations of the Royal Commission on the Poor Laws and Relief of Distress.

To issue papers, provide lecturers, and hold meetings in support of these objects.

The offices of the association are at 5, Adam Street, Adelphi, London, W.C., and its secretary is Mr. W. H. Whatley. Early in February Lord George Hamilton issued the following memorandum:

Memorandum.

An association is being formed in order to place before the public full information as to the report and recommendations of the Royal Commission on the Poor Laws and Relief of Distress, and to promote necessary changes in the law, and administration of public relief on the general lines laid down by the majority of the Commission.

It is recognized that there is some difference of opinion amongst those who desire the reform rather than the "break up" of the Poor Law. Some of these desire to introduce certain reforms in administration recommended by the Majority Report of the Commission, but do not desire to make any reform in the constitution of boards of guardians. Others take a similar line, but would be prepared to accept some changes in the constitution of boards of guardians provided they remained for the most part a directly elected *ad hoc* authority. Others, again, are strongly in favour of some such system of public assistance as recommended by the majority of the Royal Commission as an alternative to the present Poor Law.

It is, however, believed that persons interested in the reform of Poor Law administration may find a common basis of action in the paramount principles—first, that a single administration for public assistance is on all grounds better than a divided administration by departments, as proposed in the Minority Report; and, second, that any measures of reform should aim at encouraging self-reliance rather than dependence on the State.

It is obvious that such a combination would have great advantages. It would bring together many who now stand apart, and yet are actuated by similar desires for reform; and, however they may differ on points of secondary importance, are utterly opposed to the administrative proposals of the Minority Report.

These proposals, which have for some time been widely and persistently advocated, cannot but lead, if adopted, to the enfeeblement of the national character and to an intolerable increase in public expenditure.

A meeting of the supporters of the new association was held at the Queen's Hall, Langham Place, London, W., on Tuesday last, when Lord GEORGE HAMILTON, who was in the chair, briefly outlined the functions of the proposed association. Its general purpose would be, he said, to advocate the reforms put forward by the Majority Report of the Royal Commission. He did not ask or expect, however, that all who joined would consider themselves pledged to those proposals; if they were in sympathy with the spirit and trend of the report it was sufficient. It was with great regret, he added, that they found themselves compelled to establish such an association. They had hoped that the public would have been allowed, without prejudice, to form its own judgement upon the two reports. But Mr. and Mrs. Sidney Webb had apparently appropriated the Minority Report as their copyright, and their crusade in its favour was being assisted by socialistic organization. The state of things revealed by the Commission's investigations was such that he would readily welcome any proposals, whatever their source, provided that the proposals themselves were sound. The genesis of reform, after all, was a small matter. At the same time, the fact that the proposals emanated from socialist quarters, while it did not justify rejection offhand, made it necessary to subject them to a judicial and critical examination. If the public once got the idea that the only alternatives were the Minority Report and the unaltered present system, it would prefer to do nothing rather than embark upon the wild and uncontrollable adventure which was involved in the Minority proposals. He went on to compare the two reports in detail. So far as examination and criticism of the existing system were concerned, the reports were very much in accord. Both condemned the lack of classification, the insufficiency of curative and restorative treatment, the inadequacy of out-relief. Both agreed that any system of treatment should be connected up with a continuous attempt to strike at the sources of destitution and pauperism. Even on the practical side with regard to the feeble-minded and also with regard to superseding the existing system of election of boards of guardians, they were fairly in agreement. But from the point of view of methods there were irreconcilable differences. The Majority proposed that one authority only in each district should be entitled to grant gratuitous relief out of the public funds; the Minority proposed the establishment of five separate authorities, each under the control of a separate department of State. The Majority proposed to treat the family as a whole; the Minority to disintegrate the family system by parcelling out its items under separate authorities. He believed that under the Minority system, within a very short space of time, the whole of the relief must become gratuitous—there could be no recovery. The Minority proposed that an army of officials should be set loose to enforce relief, not only during the period of destitution, but in anticipation of it and subsequent to it. With regard to medical relief, the Majority proposed to set up a great contributory system so as to facilitate the means of obtaining medical assistance by the poor when in need of it. But the Minority proposed to hand over the whole business of medical relief to the public health authority. The services now rendered by this body were almost entirely gratuitous, and it was a foregone conclusion that within a short time medical relief also would be entirely gratuitous, thereby striking a fatal blow at all the medical clubs and provident medical institutions in the country, while the work and standing of the hospitals, depending as they did upon voluntary contributions, would be undermined and upset. He characterized the departmental idea shadowed forth in the Minority Report as a curious revival of mediaeval legislation which must result in the permanent tutelage of the able-bodied man to the State. Under the plea of breaking up the Poor Law a ubiquitous system of bureaucracy was to be established. The expenditure would be enormous. It would double, if not very much more than double, the present expenditure of 15 millions in England on Poor Law administration. This gigantic system of outlay would gradually throttle contributory and provident organization. What mutual aid could do, on the other hand, if judiciously encouraged by the State, was admirably described in Mrs. Bosanquet's *The Strength of a People*, and the first object of the association they were cradling would be to develop that strength, and not to weaken the sturdy fibres of independence and self-help.

Lady LAURA RIDDING, who followed, thought that the State should be a great moral institution for the education of the whole race. That was the definition given by the German academic socialists of forty years ago. What did they mean by educating the race? She quoted Dr. Rigg as follows:

An educated man is a man who has the power and habit of forethought and self-control, and has also knowledge and mental discipline adequate to his position and opportunities in life. So an educated nation is one which, taken collectively, may be said to have the power and habit of forethought and self-control, and has also knowledge and mental discipline adequate to its position and opportunities. Class by class, this character should be predicable of all the people of the whole nation.

How large a part of that education of the race, she continued, had to be done by the individuals themselves. Self-control could, of course, be inculcated by the teacher but it could only be gained by the efforts of the scholars. Therefore, if the State was to be a true teacher its greatest work would lie, not in legislative experiment and interference, but in encouraging every class to feel profound conviction as to its social duty. The whole course of English history was one of sturdy independence, individualism, and self-help. It had developed thus because, since the thirteenth century, it had been rooted in the soil of personal liberty. Therefore, she looked with alarm at the menace to personal liberty involved in the drastic proposals of the Minority Report. If carried out, the nation would be making as great a *volte-face* as that of an over

occupied mother who, having rather neglected her nursery, and allowed her children to have perhaps too much freedom, suddenly, when those children were nearly grown up, began to exercise a persistent, jealous, and minute interference with their personal liberty of action. Any such interference on the part of the State would be resented by the stalwarts of the nation, who, unlike the people of some other nations, had not been broken in from the birth to State interference and regulation. The school of self-help was to be superseded by an enormous ramification of State-regulated bureaux, the officers of which were to be a sort of universal providence to the people, and to organize their lives for them from the cradle to the grave. Torpor, helplessness, and fawning servility would take the place of sturdy independence, and, to quote Macaulay's satire, there would be a system of continual spying and eavesdropping—a Lady Bountiful in every parish, a Paul Pry in every house.

Mr. P. E. PILDITCH, the Chairman of the Local Government Committee of the London County Council, thought that there was much in the existing system which could with advantage be retained, and that any changes should only be constructive and evolutionary. In discussing the impracticability of the Minority proposals, he said that the item of expense—as, to take one instance only, in the handing over of medical relief to the public health authority—was not only disregarded by such a system, but was studiously placed in the background. Moreover, apart from the question of expense, it would not be possible under the Minority proposals to have the amount of co-operation between the different persons administering the different branches of public assistance which was really necessary if the work was to be efficiently carried out.

Mr. C. S. LOCH, a member of the late Poor Law Commission, said that one of the most striking parts of the investigation bore upon the question of outdoor relief. The extremely unsatisfactory nature of the relief itself had often impressed him in his work on relief committees. They frequently found the case of a large family, with ample means between them, one or two members of which were in receipt of relief, while all of them remained under conditions contrary to morality and hygiene. What was wanted was an inquiry into the actual cases of distress, and an attempt to deal with these cases as they were found to prevail. This was proposed in the Majority Report. Above all things concentration was wanted, and experience showed that wherever a multiple system of inspection, such as was foreshadowed by the Minority Report, was adopted, there was overlapping, incompetence, and lavish expenditure. He did not consider that destitution was a disease at all, and it could not be abolished by any mechanical method—certainly not by making the home an analysed thing, without body and soul—but only by invoking self-support, moral dignity and earnestness of purpose. He pleaded for a joining of hands over this great issue. The situation called for the proper treatment of the individual case, for association in relief work, and for a unity of method and purpose which would prevent decline into pauperism.

All the foregoing had spoken to a resolution, which at this point was carried unanimously. It ran as follows:

(*a*) That the present Poor Law system urgently calls for reform.
(*b*) That a single administration for Public Assistance is on all grounds better than a divided administration by departments as proposed by the Minority Report.
(*c*) That any measures of reform should aim at encouraging independence and mutual aid rather than wholesale dependence on the State, as advocated by the Minority Report.

A further resolution was also unanimously carried to the effect:

That this meeting approves the formation of a National Poor Law Reform Association to carry out the above and cognate objects, and appoints the following members to form the Executive Committee with power to add to their number: Lord George Hamilton, Sir Melvill Beachcroft, Mr. W. A. Bailward, Miss Beeton, Messrs. E. Bond and C. S. Loch, Miss Lonsdale, Mr. T. Mackay, Mrs. Mallet, Mr. F. Morris, Mrs. Mylne, Messrs. P. E. Pilditch and H. J. Torr. Honorary Treasurer: Mr. R. Malcolm. Honorary Secretaries: Messrs. T. Hancock Nunn and C. J. Hamilton.

Mr. T. MACKAY, who moved this second resolution, said that the misfortune which had to be dealt with was one and not several. It was the failure of the responsible head of the family to maintain himself and those dependent upon him. At present something less than 3 per cent. of the population received relief. A very elementary knowledge of political arithmetic would show that five authorities, each armed with a staff of canvassers and all the apparatus of advertisement, would largely multiply the percentage of dependents. He spoke strongly against the collectivist character of the Minority proposals, and said that their tendency would be not to break up the Poor Law, but to break up the economic basis of society. The only historical analogy he could think of was the bloodshed and violence necessary to restore order in Paris after the disastrous experiment of the national workshops in 1848. Although the Act of 1834 had failed to effect the reforms that had been hoped, there was nothing wrong with the principles laid down, except that in deference to a more sensitive generation some restatement of the doctrine of deterrents might be advisable. The Act of 1834 broke down because of the absence of guarantees that the local administrators should be judicial and expert persons, able to maintain a correct and balanced attitude in a difficult situation. This matter must be set right in any reform of the Poor Law, and he suggested that there was a close analogy between the appointment of justices of the peace and of administrators of the Poor Law.

In responding to a vote of thanks, moved by Mr. H. NIELD, M.P., Lord GEORGE HAMILTON defined one of the purposes of the new association as that of "keeping fluffy-headed people straight."

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

BATH AND BRISTOL BRANCH:

TROWBRIDGE DIVISION.

A MEETING of this Division was held at the Town Hall, Trowbridge, at 3 p.m. on March 5th. There were present: Dr. RATTRAY (in the chair), Drs. G. C. Tayler, H. P. Tayler, H. C. Tayler, F. E. Tayler, Locket, Flemming, Bond, and Pearse.

Confirmation of Minutes.—The minutes of the last meeting were read, confirmed, and signed.

Vote of Condolence.—The Secretary was instructed to convey the sympathy of the meeting to Mrs. Boileau on the occasion of the death of her husband, Lieutenant-Colonel Boileau, R.A.M.C.(ret.).

Research Defence Society.—A communication was read from the Secretary of this society, and Dr. H. P. Tayler was appointed corresponding member for the Division.

Questions Submitted to Parliamentary Candidates.—The report of the Executive Committee on this matter was submitted, and the SECRETARY stated that the replies received had been forwarded to the Central Office.

Wiltshire Working Men's Conservative Benefit Society.—The SECRETARY reported that his attention had been drawn to a new rule of this society lowering the age limit for the admission of juvenile members, and that apparently the medical officers had not been consulted. He was instructed to write to all members of the Division, advising them to decline to accept juveniles under the original age limit.

Payment of Medical Men called in to Assist Midwives.—A letter from the Medical Secretary, covering the circular from the Manchester Corporation, was read. It was decided to defer the matter in view of the recent order of the Local Government Board on the subject.

Field Nursing and First Aid.—A letter from the Medical Secretary on this subject was read. The Secretary was instructed to forward to all members the opinion of the Council that the preliminary instruction required for voluntary aid detachments

should be suitably remunerated; and also to inquire what remuneration, if any, members received for ordinary ambulance work.

Relation of Homoeopaths to the Association.—The report of Council on this subject was considered, and the various questions discussed. Questions A, B, C, D, were answered in the affirmative; under Question E it was felt that disciplinary powers should not be exercised against existing members of the Association.

Medical Inspection and Treatment of School Children.—A letter from the Medical Secretary on this subject was read. The Secretary was instructed to write to the Secretary of the Bath Division asking that if application were made to the staff of the Bath hospitals for treatment of children from any area in the Trowbridge Division, the opinion of the members of this Division might be sought before action was taken. Dr. H. P. TAYLER drew attention to the action taken by some of the London hospitals, and proposed a resolution expressing regret that such action should have been taken. This was seconded by Dr. FLEMMING, and passed unanimously.

Election to Central Council.—A letter was read from the Medical Secretary drawing attention to the new method of election of members to the Central Council.

EAST ANGLIAN BRANCH.

A MEETING of the Council of the East Anglian Branch was held at the Crown and Anchor Hotel, Ipswich, on March 9th. Dr. W. H. SLIMON, President, was in the chair, and there were present Messrs. Elliston, Brogden, Gutch, and Nicholson.

New Members.—The following ladies and gentlemen were elected members: Rhoda H. Butler, M.B., B.S., Norwich; Somerton Clark, M.B., B.Ch., Felixstowe; W. F. Corfield, M.B., B.S., Colchester; Noel Coward, M.B., B.Ch., Colchester; J. P. Dee, M.D., Walton-on-Naze; W. J. Dunn, M.B., B.Ch., Warley; Edw. Johnson, M.B., B.Ch., Bury St. Edmunds; Ada McLaren, M.B., B.Ch., Colchester; J. C. Mead, M.B., B.S., F.R.C.S., Lowestoft; D. M. Mathieson, M.D., Norwich; C. R. Nicholson, M.R.C.S., Rochford; R. Spearman, M.B., B.C., Clacton-on-Sea; A. N. Stevens, M.R.C.S., Great Yarmouth; H. A. Watney, M.B., B.S., Halstead.

Reports of Divisions.—The reports of the Divisions were examined and capitation grants fixed.

Branch Accounts.—The Branch accounts were examined and the report arranged.

GLOUCESTERSHIRE BRANCH.

A GENERAL meeting of this Branch was held at the Cheltenham General Hospital on February 17th, at 7 p.m. The PRESIDENT was in the chair. Thirty members were present.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Communications.—Dr. CARTER showed a case of *Lymphangioma of tongue.* Mr. C. L. COODE read notes on an *Abdominal emergency* in which acute liver enlargement was thought to be due to mitral stenosis, with change in the nodal rhythm of the heart. A discussion followed by the PRESIDENT, Dr. CARTER, Dr. HEBBLETHWAITE, Mr. CUTHBERT, Dr. AFFLECK, and Dr. LONGRIDGE, in which embolism of the hepatic artery, of a mesenteric artery, or toxaemic condition were suggested as causes. Dr. S. T. PRUEN read an interesting paper entitled, Further Notes on *Strokes.* A discussion followed by the PRESIDENT, Dr. CARTER, Dr. SOUTAR, Dr. CARDEW, and Dr. AFFLECK.

LANCASHIRE AND CHESHIRE BRANCH:

BLACKBURN DIVISION.

A MEETING of this Division was held on March 4th. Dr. BANNISTER, the Chairman, presided, and there were present: Drs. Macklin, Moir, Henry, Prebble, Barr, Beatson, Butterfield, Jamieson, Gregson, Burnham Smith, Taylor, Owen, Keighley, and Greenwood (Honorary Secretary).

Confirmation of Minutes.—The minutes of the last meeting were confirmed.

Relation of Homoeopaths to the Association.—Dr. BURNHAM SMITH read the report of the Council of the British Medical Association on the relation of homoeopaths to the Association. A discussion arose, and the following recommendations of the Council were adopted *nemine contradicente*:

1. That the Association should not attempt to pronounce, in this, or any other connexion, what constitutes sound doctrine in medicine or surgery, nor condemn individual practitioners on the ground that they hold peculiar views of pathology or treatment, or give effect to such views in the practice of their profession.
2. That the Association should express the opinion that it is contrary to the recognized principles of professional conduct for any medical practitioner to advertise the holding of peculiar views of pathology or treatment, or the fact that his practice is based thereon, as a means of attracting to himself patients.
3. That, accordingly, the Association should express its disapproval of the conduct of those medical practitioners who permit the publication of their names in the *Homoeopathic Directory* or similar compilations, or who make use of doorplates or similar means to intimate to the public that they are guided in their practice by peculiar theories of pathology or treatment.
4. That if the above recommendations (2) and (3) are approved, practical effect should be given to them by an expression of opinion of the Representative Meeting: (*a*) That it is desirable that the bodies which have the power of electing members should not elect those who are reasonably believed to have acted unprofessionally in any of the ways stated; and (*b*) that, concerning those who are already members, the disciplinary powers of the Council and of the Branches should be duly exercised if, and when, cases of the kind are brought under their notice in conformity with the ordinary rules of procedure of the Association in ethical matters.

A further meeting was held on March 10th. Dr. BANNISTER, the Chairman, presided, and there were present: Drs. Henry, Macklin, Ballantyne, Jamieson, Beatson, Burnham Smith, Taylor, Aitken, Moir, Prebble, and Greenwood (Honorary Secretary).

Report of Poor Law Reform Committee.—Dr. BANNISTER, in the absence of Dr. Heywood, opened the discussion on the report of the Poor Law Reform Committee of the British Medical Association respecting medical matters. The following resolutions were passed unanimously:

1. That medical services rendered on behalf of the State should be paid for by the State, subject to the proviso that in the opinion of this Division no scheme of treatment can be considered satisfactory unless all medical men have an opportunity of being employed therein, and unless each patient has an opportunity of choosing his own medical attendant.
2. That the payment should be adequate, and in accordance with the professional services required.
3. That there should be adequate medical representation on all committees formed to control medical assistance.

Recruiting Campaign.—It was resolved that the Secretary should send a list of all unattached medical men to the members present at this meeting, and to those members who usually attended the Division meetings. It was also resolved, that the Secretary write to Mr. Smith Whitaker, asking him to address a meeting at Blackburn at which special efforts will be made to obtain the presence of all medical men in the district who have hitherto not joined the British Medical Association.

METROPOLITAN COUNTIES BRANCH:

CITY DIVISION.

A MEETING of this Division was held, conjointly with the Aesculapian Society, at the Metropolitan Hospital on Friday, February 25th, C. GORDON WATSON, F.R.C.S., President of the Society, in the chair. Between forty and fifty members attended.

Inspection of the Hospital.—After viewing the recent structural alterations and enlargements of the hospital and the new departments, tea was served in the board room.

Cases.—Subsequently a series of cases of interest from the wards were shown by the staff, concluding with an exhibition of the application of the solidified CO_2 vapour.

Vote of Thanks to Honorary Staff.—On the motion of Dr. A. WITHERS-GREEN, Chairman of the City Division, a vote of thanks was unanimously tendered to the honorary staff for their invitation and hospitality

---

MIDLAND BRANCH:
NOTTINGHAM DIVISION.

A SPECIAL meeting of the Division was held on Wednesday, February 23rd, at the George Hotel, at 4.30 p.m. Dr. EVAN POWELL, Chairman, presided, and there were present: Drs. A. Fulton, A. M. Webber, R. B. Purves, F. R. Mutch, J.P., W. G. Laws, (Miss) L. D. Fairfield, A. C. Reid, G. O. Gauld, J. Battersby, W. T. Rowe, and H. Bell Tawse, and Messrs. J. F. D. Willoughby, J.P., J. H. Cox, W. Tibbles, W. Windley, A. R. Tweedie, R. Giddings, R. M. Hamilton, and G. A. Ferraby, and Dr. Thomson Henderson, Honorary Secretary. Dr. A. B. Dunne, Medical Inspector of School Children, Nottingham Education Committee, was present by invitation.

Confirmation of Minutes.—The minutes of the previous meeting were read, confirmed, and signed.

Appointment of Divisional Organizing Secretary.—The appointment of Mr. G. S. O'Rorke, M.A., LL.D., as Divisional Organizing Secretary was announced and confirmed.

Election of Representative.—Dr. Adam Fulton was appointed to represent this Division.

Special Class of Consultants.—The Central Ethical Committee's report was submitted by the CHAIRMAN for consideration. The question was discussed at length. Mr. R. GIDDINGS moved that the answers to the questions A and B, set out at the conclusion of the report, be in the affirmative. Mr. W. TIBBLES seconded. After observations from Mr. J. H. COX, Mr. A. R. TWEEDIE moved as an amendment that the Division was not in favour of the recognition of a special class of consultants on the lines set out in the report and that the answers to questions A and B be in the negative. Dr. H. BELL TAWSE seconded. After observations from Mr. G. A. FERRABY and the HONORARY SECRETARY, the amendment was put and carried by 21 votes to 3.

Medical Inspection and Treatment of School Children.—A letter from head quarters on this matter was read to the meeting by the HONORARY SECRETARY. The CHAIRMAN stated that the opinion of the meeting was required on the points set out in the letter referred to, and that Dr. A. B. Dunne, Medical Inspector of School Children under the Nottingham Education Committee, had kindly attended in order to give the meeting information of the practice which obtained locally, so that it would be seen in what manner the local practitioner was affected and whether harmfully or not. Dr. W. T. ROWE, Mr. R. GIDDINGS, Dr. F. R. MUTCH, and the HONORARY SECRETARY addressed the meeting. Dr. REID proposed that:

> This meeting hereby confirms the resolutions passed by the Annual Representative Meeting (July, 1909), and specifically that the Association should oppose the reference of school children found upon medical inspection to be defective, to public medical charities for treatment, whether or not accompanied by payments or subsidies.

Dr. A. FULTON seconded. Mr. R. GIDDINGS moved as an amendment that:

> In the opinion of this meeting the effect of item No. 94 of the said resolutions would be to bring about the creation of a special class of medical practitioners for the treatment of defective school children, and that with such exceptions the said resolutions be confirmed.

Mr. W. TIBBLES seconded. After observations by Dr. F. R. MUTCH and the CHAIRMAN, Dr. DUNNE addressed the meeting and explained the practice which obtained locally. After further and lengthy discussion the amendment was put and was lost by 6 votes to 8. The proposition was then put and carried *nemine contradicente*. Mr. J. H. COX moved that a committee be appointed to interview the boards of hospitals which undertake the matter of treating school children. Dr. REID seconded. Dr. F. R. MUTCH advocated that an inquiry officer should be appointed by the boards of such hospitals to inquire into the position of the parents of children presenting recommendations. Dr. ROWE said that this matter had already been considered by the board and had been rejected. He moved as an amendment:

> That the question of appointing a committee to interview the boards be deferred for the present.

The HONORARY SECRETARY seconded, and the amendment was carried.

SOUTHERN BRANCH:
SALISBURY DIVISION.

A MEETING of the Division was held in the Infirmary, Salisbury, on Wednesday, March 9th, at 8.15 p.m.

Dinner.—The meeting was preceded by dinner at the County Hotel at 7 p.m. There were present at the meeting: Mr. C. A. Ensor (Chairman), Mr. L. S. Luckham, Dr. R. C. Monnington, Mr. A. Atkinson, Mr. F. E. Row (visitor), Mr. C. R. Straton, Dr. H. P. Blackmore, Mr. W. Gordon, Mr. J. Armitage, Dr. E. T. Fison, Mr. P. Ellis, Mr. L. D. Saunders, Mr. J. E. Gordon (Honorary Secretary).

Confirmation of Minutes.—The minutes of the last meeting were read and approved.

Apologies for Non-attendance.—Letters were read from Messrs. March, Baskin, and Ward, regretting non-attendance at meeting.

The late Mr. H. J. Manning.—The Secretary was requested to write to the widow of the late Mr. H. J. Manning, expressing the sympathy of the Division with her and her family in their recent bereavement, and the following resolution was carried unanimously:

> That this meeting desires to place on record the great loss the Salisbury Division has sustained through the death of the late Mr. Manning, one of the founders and oldest members of the Division, and whose services to the British Medical Association in this district will never be forgotten.

Election of Representative.—Mr. C. R. Straton was unanimously elected as the Representative of the Division.

Nomination of Branch Secretary.—The meeting approved of the nomination of Dr. R. C. Monnington as Secretary of the Branch.

Rule Z.—Mr. STRATON proposed the adoption of Rule Z as an addition to the rules of the Division.

Research Defence Society.—A communication was read from the Research Defence Society. The meeting decided that, whilst in sympathy with the movement, there is no antagonistic feeling in the district at present, and should occasion arise the Division would be willing to take whatever steps necessary to combat such mistaken ideas.

Grouping of Branches.—A letter was read announcing the grouping of the Southern Branch with the Oxford and Reading and North-Eastern Branches for voting purposes.

Letter from Medical Secretary.—A letter was read from the Medical Secretary *re* medical sociology and payment of medical men called in to assist midwives. These matters were deferred.

Special Class of Consultants.—On this subject the meeting was of opinion that it is premature to express an opinion. Unanimous (13 voted).

Report of Poor Law Reform Committee.—To the question submitted the answer was unanimously in the affirmative (13 voted).

Relation of Homoeopaths to the Association.—To the questions submitted the answer was unanimously in the affirmative (13 voted).

Rules of a Public Medical Service.—The following resolution was proposed by Mr. J. E. GORDON, seconded by Dr. FISON, and carried unanimously:

> That the discussion of the subject be postponed, and a committee be appointed to consider the subject, should occasion arise necessitating the formation of a public medical service.

Ambulance Work and Red Cross Society.—The meeting did not arrive at any definite decision on the subject.

Specimen.—Dr. FISON showed a specimen of cystic kidneys and carcinoma of the stomach occurring in the same patient.

The meeting then terminated.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: MONMOUTHSHIRE DIVISION.

A MEETING of this Division was held at the Pontypool and District Hospital on Friday, February 25th. Dr. O. E. B. MARSH (Chairman), presided, and the following were also present: Drs. J. Glendinning, J. H. Elliott, G. Calwell, W. J. Greer, R. W. Haslett, A. H. James, W. R. Mitchell, T. McAllen, H. S. Elworthy, R. A. Cowie, S. Hamilton, E. Ryan, and R. J. Coulter, Honorary Secretary.

Apologies for Non-attendance.—Apologies for inability to attend were received from Drs. Mulligan and Nelis.

Confirmation of Minutes.—The minutes of the previous ordinary and special meetings were read and confirmed.

Report re Disputes.—A report on the position of the Ebbw Vale dispute recording substantial progress was presented and discussed.

Recommendation from Executive Committee.—The following recommendation of the Executive Committee was unanimously adopted:

> That it is advisable that members of the Division when advertising for assistants should intimate that a preference will be given to those who are members of the Association.

Research Defence Society.—A letter was read from the Honorary Secretary of the Research Defence Society, suggesting the formation of a branch of the society in the neighbourhood.

Papers and Clinical Cases.—The CHAIRMAN read a paper on three cases of duodenal ulcer associated with acute glycosuria. This was discussed by Drs. ELWORTHY, GREER, HASLETT, JAMES, and HAMILTON. The following cases were shown: (1) Persistent thyroglossal duct, by Dr. HASLETT; (2) movable enlargements of the ends of the ulnae, by Dr. MCALLEN (for Dr. Mulligan); (3) a patient from whose eye a fragment of steel had been removed by Haab's giant electro-magnet, by Dr. COULTER.

Tea.—At the conclusion of the meeting tea was provided for those present by the members of the Staff of the Pontypool and District Hospital.

SOUTH-WESTERN BRANCH: EXETER DIVISION.

A MEETING of this Division was held at the Royal Devon and Exeter Hospital on February 24th, Mr. DOMVILLE being in the chair.

Matters Referred to Divisions.—The following were discussed: (1) The report of the Medico-Political Committee on the Medical Inspection and Treatment of School Children; (2) the interim report on the Poor Law; (3) the report of the Council on the Relation of Homoeopaths to the Association; (4) the question of Remuneration for Lectures to Voluntary Aid Detachments. With regard to the latter, resolutions fixing a scale of fees for lectures and for holding examinations, were reaffirmed, and the Honorary Secretary was directed to send a copy of these resolutions to each member of the Division.

☞ *To ensure the insertion of notices in this column, they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

Association Notices.

NOTICE OF CHANGES OF BOUNDARIES OF DIVISIONS AND BRANCHES.

THE following change has been made in accordance with the Regulations of the Association, and takes effect from the date of publication of this notice:

> That Belbroughton and Feckenham be transferred from the area of the Worcester Division of the Worcestershire and Herefordshire Branch to the area of the Bromsgrove Division of the Birmingham Branch.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BORDER COUNTIES BRANCH: ENGLISH DIVISION.—A general meeting of the English Division of the Border Counties Branch will be held at Whitehaven on Friday, April 1st. Any members wishing to read papers or show cases are requested to communicate with the Honorary Secretary.—S. E. RIGG, Honorary Secretary, 1, Alfred Street North, Carlisle.

EAST ANGLIAN BRANCH.—The spring meeting of this Branch will be held at the Palace Hotel, Southend, on Thursday, April 7th. Members wishing to read papers or to show cases or specimens should communicate at once with the Honorary Secretary, B. H. NICHOLSON, East Lodge, Colchester.

LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—A general meeting of the Division will be held at the Greenbank Hotel, Northwich, on Wednesday, April 20th, at 5 p.m. A discussion will be held on the position of the general practitioner under the schemes in the Reports of the Royal Commission on Reform of the Poor Laws. Dr. J. H. Taylor, of Salford, has promised to attend and take part in the discussion. Dinner will be held after the meeting if a sufficient number of members promise to attend. Members who wish to stay for dinner are kindly requested to intimate their intention at once to the Honorary Secretary, H. G. COOPER.

METROPOLITAN COUNTIES BRANCH: KENSINGTON DIVISION.—The next meeting of the Division will be held at the Town Hall, Kensington, on Monday, March 21st, at 4.30 p.m. Agenda: (1) Minutes of the two previous meetings. (2) The Treatment of School Children. The Branch Council requests the Divisions at as early a date as possible to co-ordinate arrangements in the Divisions through which children can be treated by local registered medical practitioners. (3) Proposed Public Medical Service. The Executive Committee have not found it possible to nominate a subcommittee as requested by the Division, and it has been decided to invite volunteers. (4) The report of the Council on the Relation of Homoeopaths to the Association (see BRITISH MEDICAL JOURNAL, SUPPLEMENT, February 12th). (5) The interim report of the Special Poor Law Reform Committee (see SUPPLEMENT of February 5th). (6) Correspondence.—H. BECKETT OVERY, Honorary Secretary, South Kensington, S.W.

METROPOLITAN COUNTIES BRANCH: NORWOOD DIVISION.—The next meeting of this Division will be held at the Lewisham Infirmary on Thursday, March 24th, at 4 p.m., Dr. Toogood in the chair.—J. A. HOWARD, M.D., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—A meeting of those members of the medical profession resident and practising in the London County Council Wandsworth electoral area will be held at the Town Hall on Wednesday, March 23rd, at 8.30 p.m., Dr. Malcolm Mackintosh, Chairman of the Division, in the chair. Agenda: Consideration of a scheme acceptable to the Day School Subcommittee of the London County Council for the treatment by local doctors of Wandsworth school children found on inspection to be defective.—E. ROWLAND FOTHERGILL, Honorary Secretary to the Subcommittee of the Division Executive Committee.

NORTH WALES BRANCH.—The spring meeting of the Branch will be held at Carnarvon on Tuesday, March 29th.—H. JONES ROBERTS, Honorary Secretary, Llywenarth, Penygroes, S.O.

SOUTH-EASTERN BRANCH: MAIDSTONE DIVISION.—The next meeting of this Division will be held on Tuesday, March 29th, 1910, at 3.30 p.m. The Executive meeting will be at 3 p.m. Any member having subjects to bring forward is requested to communicate with the Honorary Secretary, as early as possible.—GEORGE POTTS, Honorary Secretary, Ophthalmic Hospital, Maidstone.

SOUTH-EASTERN OF IRELAND BRANCH.—A meeting of this Branch, as also a meeting of the Branch Council and the local Division, will be held at the Adelphi Hotel, Waterford, on April 6th, at 3.30 p.m. Agenda: (1) Minutes of last meeting. (2) Letters of apology. (3) Correspondence. (4) Nomination of officers. (5) Any other business. Luncheon at 2.30.—J. QUIRKE, Honorary Secretary, Piltown.

SOUTH MIDLAND BRANCH: NORTHAMPTONSHIRE DIVISION.—A meeting of the Division will be held in the Board Room of the Northampton General Hospital on Tuesday, April 5th, at 2.30. The meeting will be preceded by a luncheon at Franklin's Restaurant at 1.30. The Honorary Secretary will be much obliged if those desiring to attend the luncheon will let him know at least two days beforehand. Agenda: (1) Report of Executive Committee. (2) Consideration of Ethical Committee's Report on Homoeopathy (BRITISH MEDICAL JOURNAL, SUPPLEMENT, February 12th, 1910). (3) Consideration of Report of Special Poor Law Reform Committee (BRITISH MEDICAL JOURNAL, SUPPLEMENT, February 5th, 1910). (4) Election of members of the Division to the committee of the Northamptonshire Amateur Athletic Club. (5) Clinical cases and specimens. (6) Any other business.—PEVERELL S. HICHENS, Honorary Secretary, Northampton.

The London University, Imperial Institute.

THE BRITISH MEDICAL ASSOCIATION.

78th ANNUAL MEETING, LONDON, JULY 26th to JULY 29th, 1910.

THE Annual General Meeting of the British Medical Association this year will be held on July 26th, 27th, 28th, and 29th, in the University of London and the adjacent collegiate buildings at South Kensington.

The Annual Representative Meeting, which will assemble on Friday afternoon, July 22nd, will, it is understood, meet in the Council Chamber of the Guildhall, by kind permission of the Lord Mayor and Corporation of the City of London.

The seat of the University was removed to the Imperial Institute Buildings at South Kensington in March, 1900. The main central portion of this fine building, including the great hall and grand entrance, and the east wing and its accessory structures are appropriated to the use of the University. The illustration on this page, reproduced by permission from an etching published by the University, is taken from the east end, and shows the main front.

The University possesses a large number of spacious rooms which will be available for the general purposes of the Annual Meeting, including the Reception Room, Pathological Museum, and the Annual Exhibition, as well as for some of the Sections. Other accommodation for Sections will be provided in the several buildings of the Imperial College of Science and Technology.

The South Kensington stations of the District Railway and of the Brompton and Piccadilly Electric Tube are about five minutes' walk from the University buildings, and omnibus lines pass along Cromwell Road to the south, and Kensington Gore to the north, within about five minutes' walk.

President:

Sir WILLIAM WHITLA, M.D., LL.D., Professor of Materia Medica and Therapeutics, Queen's College, Belfast.

President-elect:

H. T. BUTLIN, D.C.L., LL.D., P.R.C.S., Consulting Surgeon, St. Bartholomew's Hospital, London.

Past President:

SINCLAIR WHITE, M.D., M.Ch., F.R.C.S., Senior Honorary Surgeon, The Royal Infirmary, Sheffield.

Chairman of Representative Meetings:

HAMILTON ASHLEY BALLANCE, M.S., Surgeon, Norfolk and Norwich Hospital, Norwich.

Chairman of Council:

EDMUND OWEN, LL.D., D.Sc., F.R.C.S., Consulting Surgeon to St. Mary's Hospital, London.

Treasurer:

EDWIN RAYNER, M.D., F.R.C.S., Consulting Surgeon, Stockport Infirmary, Stockport.

Honorary Local Secretaries of the London Meeting:

Dr. EDWARD W. GOODALL, Eastern Hospital, Homerton, N.E.

Dr. WILLIAM GRIFFITH, 1, Chester Gate, Regent's Park, N.W.

Dr. LAURISTON E. SHAW, 64, Harley Street, W.

PROGRAMME OF BUSINESS.

The Address in Medicine will be delivered by JOHN MITCHELL BRUCE, M.D., F.R.C.P., London.

The Address in Surgery will be delivered by HARRY GILBERT BARLING, B.S., F.R.C.S., Birmingham.

THE SECTIONS.

The scientific business of the meeting will be conducted in twenty-one Sections, which will meet on Wednesday, July 27th, Thursday, July 28th, and Friday, July 29th.

The President, Vice-Presidents, and Honorary Secretaries of each Section constitute a Committee of Reference for that Section, and exercise the power of inviting, accepting, or declining any paper, and of arranging the order in which accepted papers shall be read. Communications with respect to papers should be addressed to one of the Honorary Secretaries.

A paper read in the Section must not exceed fifteen minutes, and no subsequent speech must exceed ten minutes.

Papers read are the property of the British Medical Association, and cannot be published elsewhere than in the BRITISH MEDICAL JOURNAL *without special permission.*

The following are the general arrangements so far as they are yet complete:

ANAESTHETICS.

President: FREDERIC WILLIAM HEWITT, M.V.O., M.D., London.

Vice-Presidents: DONALD C. A. MCALLUM, Edinburgh; GEORGE ROWELL, F.R.C.S., London; ALEXANDER WILSON, F.R.C.S., Manchester.

Honorary Secretaries: Miss ADA M. BROWNE, L.S.A., 64, Belsize Park, N.W.; WILLIAM JOSEPH MCCARDIE, M.B., 89, Cornwall Street, Birmingham; HERBERT J. SCHARLIEB C.M.G., M.D., 149, Harley Street, W.

ANATOMY.

President: Professor ARTHUR KEITH, F.R.C.S., London.

Vice-Presidents: Professor DAVID HEPBURN, M.D., Cardiff; FREDK. GYMER PARSONS, F.R.C.S., London; Professor GRAFTON ELLIOT SMITH, M.D., F.R.S., Manchester; Professor WILLIAM WRIGHT, F.R.C.S., London.

Honorary Secretaries: Professor A. CAMPBELL GEDDES, M.D., Dublin; ALEX. MACPHAIL, M.B., Anatomy Dept., Medical School, Charing Cross Hospital, W.C.

BACTERIOLOGY.

President: CHARLES J. MARTIN, M.B., F.R.S., London.

Vice-Presidents: JOHN W. H. EYRE, M.D., London; Professor ARTHUR H. WHITE, L.R.C.P.I., Dublin.

Honorary Secretaries: CARL HAMILTON BROWNING, M.D., Pathological Department, University of Glasgow; JOHN CHARLES GRANT LEDINGHAM, M.B., Lister Institute, Chelsea Gardens, S.W.

DERMATOLOGY.

President: PHINEAS ABRAHAM, M.D., London.

Vice-Presidents: WALTER G. SMITH, M.D., Dublin; W. KENNETH WILLS, M.R.C.S., Bristol.

Honorary Secretaries: WILLIAM GRIFFITH, M.B., 1, Chester Gate, Regent's Park, N.W.; G. NORMAN MEACHEN, M.D., 11, Devonshire Street, W.; J. GOODWIN TOMKINSON, M.D., 9, Sandyford Place, Glasgow.

DISEASES OF CHILDREN.

President: ARCHIBALD E. GARROD, M.D., London.

Vice-Presidents: CHAS. P. B. CLUBBE, M.R.C.S., Sydney; THOMAS SINCLAIR KIRK, M.B., Belfast; H. D. ROLLESTON, M.D., London; FRANCIS JAMES STEWARD, M.S., F.R.C.S., London.

Honorary Secretaries: HAROLD ARTHUR THOMAS FAIRBANK, M.S., 137, Harley Street, W.; FRANCIS W. GOYDER, F.R.C.S., "Marley House," Bradford; JAS. HUGH THURSFIELD, M.D., 84, Wimpole Street, W.

GYNAECOLOGY AND OBSTETRICS.

President: Mrs. MARY A. D. SCHARLIEB, M.D., London.

Vice-Presidents: JOHN W. BALLANTYNE, M.D., Edinburgh; COMYNS BERKELEY, M.B., London; Professor JOHN A. C. KYNOCH, M.B., Dundee; THOMAS WILSON, M.D., Birmingham; THOMAS H. WILSON, F.R.C.P.I., Dublin.

Honorary Secretaries: W. BLAIR BELL, M.D., 7, Rodney Street, Liverpool; JOHN PRESCOTT HEDLEY, M.B., 11, John Street, Berkeley Square, W.; CARLTON OLDFIELD, M.D., 32, Park Square, Leeds.

LARYNGOLOGY.

President: HERBERT TILLEY, F.R.C.S., London.

Vice-Presidents: J. LACY FIRTH, M.D., Bristol; A. BROWN KELLY, M.D., Glasgow; STEPHEN PAGET, F.R.C.S., London; H. BETHAM ROBINSON, M.S., M.B., London.

Honorary Secretaries: GEO. NIXON BIGGS, M.B., 30, Harley Street, W.; HENRY JOHN DAVIS, M.B., 8, Portman Street, W.; JOHN SMITH FRASER, M.B., 36, Moray Place, Edinburgh.

The subjects selected for discussion are: (1) The Technique of the Direct Examination of the Oesophagus and Lower Air Passages; and (2) Vasomotor Rhinitis. (Further particulars will be published later.)

MEDICAL SOCIOLOGY.

President: JAMES ALEXANDER MACDONALD, M.D., Taunton.

Vice-Presidents: R. COCHRANE BUIST, M.D., Dundee; MAJOR GREENWOOD, M.D., London; HUGH R. KER, F.R.C.S.Edin., London; Professor JAMES T. J. MORRISON, M.B., Birmingham.

Honorary Secretaries: DONALD JOHN ARMOUR, F.R.C.S., 89, Harley Street, W.; HARVEY HILLIARD, M.R.C.S., 30, Wilton Place, Knightsbridge, S.W.; JAMES HENRY TAYLOR, M.B., 299, Eccles New Road, Salford.

The following is a list of the subjects selected for discussion by the officers of this Section:

1. State Sickness Insurance (Provision of Medical Attendance) as affecting the Public Health and the Medical Profession.
2. Social Aspects of the Falling Birth-Rate.
3. The Economic Basis of Hospital Management.

MEDICINE.

President: R. W. PHILIP, F.R.C.P.Edin., Edinburgh.

Vice-Presidents: Professor HARRY B. ALLEN, M.D., Melbourne; GEORGE A. HERON, F.R.C.P., London; WALTER K. HUNTER, M.D., Glasgow; HENRY L. MCKISACK, M.D., Belfast; GEORGE R. MURRAY, M.D., Manchester; SIDNEY P. PHILLIPS, M.D., London.

Honorary Secretaries: H. MORLEY FLETCHER, M.D., 98, Harley Street, W.; HERBERT FRENCH, M.D., 62, Wimpole Street, W.; JOHN HAY, M.D., 12, Rodney Street, Liverpool.

NAVY, ARMY, AND AMBULANCE.

President: Colonel ANDREW CLARK, A.M.S.(T.F.) London.

Vice-Presidents: Fleet Surgeon PERCY W. BASSETT-SMITH, R.N., Haslar; Lieutenant-Colonel JAMES HARPER, R.A.M.C.T., London; Lieutenant-Colonel

MICHAEL W. H. RUSSELL, R.A.M.C., London; Lieutenant-Colonel ROBERT J. S. SIMPSON, C.M.G., R.A.M.C., London.

Honorary Secretaries: Staff Surgeon JAMES GARFIT WALLIS, M.B., R.N., Royal Naval Barracks, Chatham; Major ALFRED PERCY BLENKINSOP, R.A.M.C., c.o. Messrs. Holt and Co., 3, Whitehall Place, S.W.; Major ARTHUR M. CONNELL, R.A.M.C.T., 79, Hanover Street, Sheffield.

The Committee of this Section suggest the following subjects:

1. Tuberculosis in the Navy.
2. Naval Recruits, Common Causes of Failure.
3. Ventilation and Air Supply in Modern War Ships.
4. Colour Vision.
5. Non-Venereal Bubo.
6. Administration of Morphine Hypodermically during Action.
7. Selection of Suitable Surgical Cases for Transport in the Field.
8. Control of Infectious Disease Contacts in the Field.
9. Isolation of Disease Carriers and Methods of Dealing with them.
10. Local and Spinal Analgesia in Relation to Active Service.
11. Medical Transport.
12. The Organization and Training of the Royal Army Medical Corps (Territorial Force).
13. A System of Training for Field Ambulances of the Royal Army Medical Corps (Territorial Force) during both the Non-training and Training Periods.
14. Education and Intelligence of Recruits for the Royal Army Medical Corps (Territorial Force).
15. Working of a National Red Cross Society, its Organization and Rôle.
16. The Geneva Convention of 1906.

ODONTOLOGY.

President: J. HOWARD MUMMERY, M.R.C.S., L.D.S., London.

Vice-Presidents: WILLIAM DONALD ANDERSON, F.F.P.S., L.D.S., Glasgow; ARTHUR W. W. BAKER, M.D., L.D.S., Dublin; W. H. DOLAMORE, M.R.C.S., L.R.C.P., L.D.S., London; WILLIAM HERN, M.R.C.S., L.D.S., London; JOHN MATHIESON MACMILLAN, L.R.C.P. and S. Edin., L.D.S., Glasgow.

Honorary Secretaries: ERNEST B. DOWSETT, M.R.C.S., L.R.C.P., L.D.S., 1, Gloucester Street, W.; A. HOPEWELL-SMITH, M.R.C.S., L.R.C.P., L.D.S., 58, Park Street, Park Lane, W.; CYRIL H. HOWKINS, M.R.C.S., L.R.C.P., L.D.S., 83A, Edmund Street, Birmingham.

OPHTHALMOLOGY.

President: CHARLES HIGGENS, F.R.C.S., London.

Vice-Presidents: HENRY L. FERGUSON, F.R.C.S.I., Dunedin; CECIL E. SHAW, M.D., Belfast; GEORGE WM. THOMPSON, F.R.C.S., London.

Honorary Secretaries: N. BISHOP HARMAN, F.R.C.S., 108, Harley Street, W.; ARTHUR HENRY HAVEN SINCLAIR, M.D., 5, Walker Street, Edinburgh.

OTOLOGY.

President: EDWARD LAW, M.D., London.

Vice-Presidents: ALBERT ALEXANDER GRAY, M.D., Glasgow; HUNTER F. TOD, M.D., London; FREDERICK H. WESTMACOTT, F.R.C.S., Manchester.

Honorary Secretaries: CECIL IRVING GRAHAM, F.R.C.S., 47, Queen Anne Street, W.; HERBERT JAMES MARRIAGE, F.R.C.S., 109, Harley Street, W.

PATHOLOGY.

President: S. G. SHATTOCK, F.R.C.S., London.

Vice-Presidents: FREDERICK W. ANDREWES, M.D., London; ERNEST F. BASHFORD, M.D., London; Professor STUART MCDONALD, M.B., Newcastle.

Honorary Secretaries: JULIUS MEYER BERNSTEIN, M.B., 10, Bentinck Street, Cavendish Square, W.; ARTHUR E. BOYCOTT, M.D., Guy's Hospital, London, S.E.; ERNEST E. GLYNN, M.B., 62, Rodney Street, Liverpool.

PHARMACOLOGY AND THERAPEUTICS.

President: Professor ARTHUR ROBERTSON CUSHNY, M.D., F.R.S., London.

Vice-Presidents: EDMUND H. COLBECK, M.D., London; ROBERT HUTCHISON, M.D., London.

Honorary Secretaries: ARTHUR FREDERICK HERTZ, M.D., 1, Weymouth Street, Portland Place, W.; DOUGLAS CHALMERS WATSON, M.D., 22, Coates Crescent, Edinburgh.

PHYSIOLOGY.

President: Professor WILLIAM HENRY THOMPSON, M.D., Dublin.

Vice-Presidents: JOHN SCOTT HALDANE, M.D., F.R.S., Oxford; Professor PERCY THEODORE HERRING, M.D., St. Andrews, N.B.

Honorary Secretaries: T. GRAHAM BROWN, M.B., Physiological Department, University, Glasgow; JOSEPH STRICKLAND GOODALL, M.B., Physiological Laboratory, Middlesex Hospital, W.

The two following discussions have been provisionally arranged:

1. The Food Requirements of Man for Subsistence and Work.
2. The Factors which make for an Efficient Circulation.

PSYCHOLOGICAL MEDICINE AND NEUROLOGY.

President: THEO. BULKELEY HYSLOP, M.D., F.R.S.E., London.

Vice-Presidents: ARCHIBALD R. DOUGLAS, L.R.C.P., Lancaster; WILLIAM GRAHAM, M.D., Belfast; THOMAS D. GREENLEES, M.D., London; J. RISIEN RUSSELL, M.D., London; DAVID G. THOMSON, M.D., Norwich.

Honorary Secretaries: ARTHUR STANLEY BARNES, M.D., 141, Great Charles Street, Birmingham; ROBERT HUNTER STEEN, M.D., The Hollies, Dartford; REGINALD JOHN STILLWELL, M.R.C.S., Moorcroft, Hillingdon, Uxbridge.

RADIOLOGY AND MEDICAL ELECTRICITY.

President: J. MACKENZIE DAVIDSON, M.B., London.

Vice-Presidents: C. THURSTAN HOLLAND, M.R.C.S., Liverpool; H. LEWIS JONES, M.D., London; CECIL R. C. LYSTER, M.R.C.S., London; WILLIAM F. SOMERVILLE, M.D., Glasgow.

Honorary Secretaries: W. IRONSIDE BRUCE, M.D., 10, Chandos Street, W.; LEONARD A. ROWDEN, M.B., 32, Park Square, Leeds.

The subjects for discussion have not yet been selected, but it is proposed to set apart a special time for the exhibition by lantern of radiograms of subjects of peculiar interest, and members having lantern slides are requested to communicate with the Honorary Secretaries.

STATE MEDICINE.

President: The Right Hon. Sir WALTER FOSTER, P.C., M.D., D.C.L., London.

Vice-Presidents: FRANCIS CLARK, M.D., M.R.C.P. D.P.H., Hong Kong; S. MONCKTON COPEMAN, M.D., F.R.S., London; THOMAS W. H. GARSTANG, M.A., M.R.C.S., D.P.H., Altrincham; HERBERT JONES, L.R.C.S.I., D.P.H., Hereford; JAMES MALCOLM MASON, M.D.Brux., L.R.C.P., D.P.H.Camb., London; CHARLES E. PAGET, M.R.C.S., Northampton.

Honorary Secretaries: GEO. FREDERICK MCCLEARY, M.D., 7, Belsize Park Gardens, Hampstead, N.W.; JOHN EDWARD SANDILANDS, M.R.C.S., Town Hall, Kensington, W.

SURGERY.

President: Sir VICTOR HORSLEY, F.R.C.S., M.B., F.R.S., London.

Vice-Presidents: FREDERICK DOUGAN BIRD, M.S., M.R.C.S., Melbourne; JOHN BLAND-SUTTON, F.R.C.S., London; Professor A. J. MCAULEY BLAYNEY, F.R.C.S.I., Dublin; GEORGE H. MAKINS, C.B., F.R.C.S., London; F. N. GISBORNE STARR, M.B., Toronto; Professor HY. ALEXIS THOMSON, M.D., Edinburgh.

Honorary Secretaries: HERBERT SHERWELL CLOGG, M.S., 143, Harley Street, W.; DOUGLAS DREW, F.R.C.S., 6, Wimpole Street, W.; WILLIAM J. GREER, F.R.C.S.I., 19, Gold Tops, Newport, Mon.

The following subjects have been selected for discussion:

1. The Principles which should Govern the Operative Treatment of Simple Fractures.
2. The Surgical Treatment of Exophthalmic Goître

TROPICAL MEDICINE.

President: FLEMING M. SANDWITH, M.D., London.

Vice-Presidents: HENRY P. KEATINGE, M.B., Cairo; GEORGE C. LOW, M.B., London; LAURANCE DUDLEY PARSONS, M.B., Gibraltar; Colonel JAMES R. ROBERTS, I.M.S., F.R.C.S., Indore, C. India; RAGHAVENDRA ROW, M.D., Bombay.

Honorary Secretaries: H. SINCLAIR COGHILL, M.B., London School of Tropical Medicine, Royal Albert Dock, E.; WILLIAM THOMAS PROUT, C.M.G., M.B., 78, Rodney Street, Liverpool; EMRYS ROBERTS, M.D., 5, Buckingham Place, Queen's Road, Clifton, Bristol.

PROVISIONAL TIME TABLE.

FRIDAY, JULY 22ND, 1910.
2.30 P.M.—Annual General Meeting, followed by Representative Meeting.

SATURDAY, JULY 23RD, 1910.
9.30 A.M.—Representative Meeting.

MONDAY, JULY 25TH, 1910.
10 A.M.—Representative Meeting.

TUESDAY, JULY 26TH, 1910.
10 AM.—Council Meeting.
10.30 A.M.—Representative Meeting.
2.30 P.M.—Adjourned General Meeting. Induction of President.
4 P.M.—Annual Conference of Secretaries of Divisions and Branches.
8.30 P.M.—President's Address.

WEDNESDAY, JULY 27TH, 1910.
9.30 A.M.—Council Meeting.
10 A.M. to 1 P.M.—Sectional Meetings.
12.30 P.M.—Address in Medicine.
3 P.M.—Religious Services.

THURSDAY, JULY 28TH, 1910.
9.30 A.M.—Council Meeting.
10 A.M. to 1 P.M.—Sectional Meetings.
12.30 P.M.—Address in Surgery.
7.30 P.M.—Annual Dinner.

FRIDAY, JULY 29TH, 1910.
10 A.M. to 1 P.M.—Sectional Meetings.

SATURDAY, JULY 30TH, 1910.
Excursions.

The Executive Committee of the Annual Meeting at its meeting on March 8th adopted the following resolution:

That academic dress or uniform be worn on the three following occasions, namely: Tuesday evening at the Presidential Address; Wednesday afternoon at the Church Service in Westminster Abbey; and on Wednesday evening at the Conversazione at the Guildhall by the Lord Mayor and Corporation.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,288 births and 4,361 deaths were registered during the week ending Saturday last, March 12th. The annual rate of mortality in these towns, which had been 15.8, 14.7, and 14.5 per 1,000 in the three preceding weeks, further declined last week to 13.6 per 1,000. The rates in the several towns ranged from 4.9 in King's Norton, 7.5 in Tottenham, 7.8 in Warrington, 8.0 in Devonport, 8.2 in Leyton, 8.3 in West Hartlepool, 8.5 in Willesden, and 9.0 in Hornsey and in Southampton, to 19.0 in Merthyr Tydfil, 19.2 in Coventry and in Birkenhead, 19.4 in Stockport, 21.6 in Swansea, and 23.3 in Stockton-on-Tees; in London the rate of mortality was 13.4 per 1,000. The death-rate from the principal infectious diseases averaged 0.9 per 1,000 in the seventy-six large towns; in London these diseases caused a death-rate of 1.0 per 1,000, while among the seventy-five other large towns the rates ranged upwards to 1.9 in Coventry, in Stockton-on Tees, and in West Hartlepool, 2.0 in Stockport and in Hull, 2.3 in Hastings, 2.8 in Burton-on-Trent, and 3.9 in Burnley. Measles caused a death-rate of 1 5 in Hanley, in West Bromwich, and in Burnley; scarlet fever of 1.1 in Wigan and 1.9 in Coventry; diphtheria of 1.5 in Burnley; whooping-cough of 1.1 in Hornsey and in Birmingham, 1.3 in West Hartlepool, 1.6 in Barrow-in-Furness, 2.3 in Hastings, and 2.8 in Burton-on-Trent; and diarrhoea of 1.5 in Middlesbrough. The mortality from enteric fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The number of scarlet fever cases under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,784, 1,765, and 1,766 at the end of the three preceding weeks, had declined to 1,754 at the end of last week; 199 new cases were admitted during the week, against 215, 193, and 211 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday last, March 12th, 865 births and 622 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 16.2 and 16.3 per 1,000 in the two preceding weeks, further rose to 17.2 last week, and was 3.6 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scottish towns the death-rates ranged from 11.7 in Paisley and 14.6 in Aberdeen, to 19.6 in Edinburgh and 24.8 in Greenock. The death-rate from the principal infectious diseases averaged 2.3 per 1,000, the highest rates being recorded in Leith and Greenock. The 286 deaths registered in Glasgow included 24 which were referred to measles, 2 to scarlet fever, 5 to whooping-cough and 4 to diarrhoea. Three fatal cases of measles, 2 of whooping-cough, and 2 of diarrhoea were recorded in Edinburgh; 3 of measles, 2 of scarlet fever, 2 of whooping-cough, and 2 of diarrhoea in Dundee; 2 of diphtheria and 2 of diarrhoea in Aberdeen; 5 of measles in Leith; and 11 of measles, 2 of whooping-cough, and 2 of diarrhoea in Greenock.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, March 12th, 608 births and 482 deaths were registered in the twenty-two principal urban districts of Ireland, as against 652 births and 495 deaths in the preceding period. The annual death-rate in these districts, which had been 22.8, 22.8, and 22.4 per 1,000 in the three preceding weeks, fell to 22.0 per 1,000 in the week under notice, this figure being 8.4 per 1,000 higher than the mean annual death-rate in the seventy-six English towns for the corresponding period. The figures in Dublin and Belfast were 24.8 and 21.6 respectively, those in other districts ranging from 4.8 in Sligo and 5.3 in Tralee to 32.7 in Drogheda and 46.1 in Queenstown, while Cork stood at 20.5, Londonderry at 18.0, Limerick at 15.0, and Waterford at 27.3. The zymotic death-rate in the twenty-two districts averaged 1.3 per 1,000, or the same as in the preceding week.

ENGLISH URBAN MORTALITY DURING 1909.

[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.]

IN the accompanying table will be found summarized the vital statistics of the seventy-six large towns dealt with in the Registrar-General's weekly and quarterly returns. During the fifty-two weeks ending January 1st, 1910, 421,052 births were registered in these towns, equal to an annual rate of 25.7 per 1,000 of the population, estimated at 16,445,281 persons in the middle of last year; in the three preceding years the birth-rates were 27.9, 27.0, and 26.9 per 1,000 respectively. In London the rate was 24,2 per 1,000, while it averaged 26.3 in the seventy-five other towns, and ranged from 15.1 in Hastings, 15.3 in Hornsey, 16.5 in Halifax, 16.7 in Bournemouth, 18.8 in Bradford, and 20.1 in Northampton, to 32.1 in St. Helens, 32.5 in Coventry, 33.0 in Swansea, 33.5 in Tynemouth, 35.7 in Merthyr Tydfil, and 41.2 in Rhondda.

The deaths registered in the period under notice numbered 240,374, and were equal to an annual rate of 14.7 per 1,000; the death-rates in these towns in the three preceding years were 15.9, 15.4, and 14.9 per 1,000 respectively. The rate of mortality in London last year was 14.0 per 1,000; in the seventy-five other towns the mean rate was 14.9 per 1,000, the several rates ranging from 8.3 in Hornsey, 9.6 in Walthamstow, 9.8 in Handsworth (Staffs) and in King's Norton, 9.9 in East Ham, 10.3 in Leyton, and 10.4 in Willesden, to 18.0 in Salford, 18.1 in Hanley, 18 6 in St. Helens, 19.0 in Liverpool, 19.1 in Wigan, in Oldham, and in Middlesbrough, and 19.4 in Swansea,

The 240,374 deaths from all causes in these towns last year included 23,107 which were referred to the principal infectious diseases; of these, 14 resulted from small-pox, 7,810 from measles, 1,826 from scarlet fever, 2,409 from diphtheria, 3,872 from whooping-cough, 953 from "fever" (principally enteric), and 6,223 from diarrhoea. The death-rate from these diseases in the aggregate was 1.42 per 1,000 last year, against 1.88, 2.24, and 1.54 in the three preceding years. Compared with the average rates in the five preceding years the mortality from each of these diseases, except measles, showed a decline. In London the mortality from these infectious diseases last year was equal to 1.31 per 1,000, while among the other towns the rates ranged from 0.33 in Hastings, 0.46 in Hornsey, 0.47 in Burton-on-Trent, 0.55 in Bournemouth and in York, and 0.65 in Brighton, to 2.24 in West Ham, 2.26 in Bootle, 2.30 in Wolverhampton, 2.43 in Hanley, 2.45 in Salford, 2.48 in Middlesbrough, 2.60 in Wigan, 3.02 in Warrington, and 3.66 in St. Helens. The 7,810 fatal cases of measles caused a death-rate of 0.48 per 1,000; in London also the death-rate from measles was 0.48 per 1,000, while among the

Analysis of the Vital Statistics of Seventy-six of the Largest English Towns during 1909.

Towns.	Estimated Population middle of 1909.	Births.	Deaths.	Annual rate per 1,000 Living.			Deaths from Principal Infectious Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Fever.	Diarrhoea.	Deaths of Children under one year of age to 1,000 Births.	Rate per cent. of Uncertified Deaths.
				Births.	Deaths.	Principal Infectious Diseases.										
76 Towns	16,445,281	421,052	240,374	25.7	14.7	1.42	23,107	14	7,810	1,826	2,409	3,872	953	6,223	118	0.8
75 Provincial Towns	11,611,343	304,493	172,742	26.3	14.9	1.45	16,822	12	5,486	1,443	1,804	2,626	805	4,646	122	1.1
London	4,833,938	116,559	67,632	24.2	14.0	1.31	6,285	2	2,324	383	605	1,246	148	1,577	108	0.1
Croydon	161,078	3,915	1,880	24.4	11.7	0.67	107	—	21	10	24	30	3	19	80	0.1
Willesden	160,424	4,039	1,670	25.2	10.4	1.08	172	—	43	17	10	43	6	53	97	0.5
Hornsey	95,628	1,456	793	15.3	8.3	0.46	44	—	12	2	10	12	—	8	61	—
Tottenham	129,464	3,792	1,485	29.4	11.5	0.74	96	—	16	9	21	27	—	23	89	—
West Ham	321,767	8,744	4,504	27.2	14.0	2.24	716	—	220	53	41	186	8	208	124	0.1
East Ham	149,575	3,520	1,471	23.6	9.9	1.10	166	—	57	15	24	32	5	33	100	0.1
Leyton	129,614	3,116	1,325	24.1	10.3	0.93	120	—	30	9	27	31	4	19	82	—
Walthamstow	136,602	3,291	1,306	24.2	9.6	0.96	131	—	32	12	15	46	3	23	91	0.2
Hastings	68,165	1,028	848	15.1	12.5	0.33	21	—	1	3	7	3	—	7	79	0.8
Brighton	130,926	2,675	1,994	20.5	15.3	0.65	84	—	1	8	19	22	6	28	96	0.2
Portsmouth	214,726	5,820	3,045	27.2	14.2	1.42	302	—	104	19	66	27	32	54	96	0.6
Bournemouth	72,368	1,205	921	16.7	12.8	0.55	40	—	7	3	8	9	—	13	100	0.3
Southampton	124,667	2,938	1,660	23.6	13.4	1.05	130	—	—	5	19	42	12	52	106	—
Reading	82,995	1,733	953	20.9	11.5	0.91	75	—	35	4	9	—	3	24	95	2.7
Northampton	97,752	1,957	1,296	20.1	13.3	0.76	74	—	32	4	10	—	3	25	110	1.2
Ipswich	74,889	1,795	988	24.0	13.2	0.73	55	—	16	4	6	15	3	11	92	—
Great Yarmouth	53,430	1,356	935	25.4	17.5	1.39	74	—	15	—	4	33	—	22	125	—
Norwich	124,136	3,004	1,717	24.3	13.9	1.54	191	—	84	9	18	20	9	51	119	0.8
Plymouth	124,180	2,772	1,799	22.4	14.5	1.20	150	—	53	6	19	24	9	39	131	—
Devonport	83,103	2,163	961	26.1	11.6	1.16	96	—	23	1	20	4	8	40	96	—
Bristol	377,642	8,503	4,785	22.6	12.7	0.87	330	8	89	13	54	54	12	100	100	0.1
Hanley	68,831	2,139	1,244	31.2	18.1	2.43	167	—	52	4	33	16	22	40	155	0.6
Burton-on-Trent	54,453	1,203	651	22.2	12.0	0.47	25	—	1	—	9	5	1	9	102	2.2
Wolverhampton	104,633	2,484	1,666	23.8	16.0	2.30	239	—	150	7	11	38	3	30	138	0.5
Walsall	99,399	2,773	1,442	28.0	14.5	1.73	172	—	47	12	8	25	5	75	139	0.6
Handsworth	70,186	1,437	688	20.5	9.8	0.97	68	—	18	8	11	12	2	17	85	2.5
West Bromwich	70,457	2,134	1,073	30.4	15.3	1.95	137	—	57	13	10	16	7	34	123	3.1
Birmingham	563,629	14,977	8,667	26.6	15.4	2.03	1,135	—	522	104	88	147	22	252	134	3.3
King's Norton	81,632	1,868	795	22.9	9.8	1.02	83	—	33	15	25	4	—	6	72	2.4
Smethwick	70,377	1,989	898	28.3	12.8	2.01	141	—	62	4	11	20	5	39	113	0.6
Aston Manor	85,257	2,016	1,106	23.7	13.0	1.75	149	—	77	12	8	12	4	36	124	0.5
Coventry	80,163	2,601	1,283	32.5	16.0	1.88	150	—	66	17	11	31	5	20	97	2.7
Leicester	244,255	5,343	3,139	21.9	12.9	1.22	299	—	100	22	14	52	6	105	127	0.6
Grimsby	73,036	2,194	970	30.1	13.3	1.09	79	—	3	2	7	12	18	37	118	1.4
Nottingham	263,443	6,745	4,277	25.7	16.3	1.67	440	—	143	10	26	59	20	182	150	0.5
Derby	129,411	3,213	1,724	24.9	13.4	1.26	160	—	46	4	33	42	2	33	123	—
Stockport	103,706	2,729	1,702	26.4	16.5	1.40	144	—	38	14	22	20	5	45	132	0.2
Birkenhead	121,123	3,732	1,926	30.9	15.9	1.17	142	—	40	16	18	15	5	48	123	0.4
Wallasey	71,004	1,824	905	25.8	12.8	0.92	65	—	14	20	9	—	3	19	83	0.9
Liverpool	760,357	23,586	14,436	31.1	19.0	2.11	1,602	—	465	210	115	226	55	531	144	2.7
Bootle	69,393	2,115	1,172	30.6	16.9	2.26	157	—	73	15	9	3	3	54	122	3.5
St. Helens	95,161	3,050	1,765	32.1	18.6	3.66	346	—	192	33	11	66	13	31	150	3.5
Wigan	90,678	2,852	1,723	31.5	19.1	2.60	234	—	84	16	7	49	16	62	173	0.1
Warrington	72,276	2,257	1,232	31.3	17.1	3.02	219	—	106	21	24	9	14	45	130	3.4
Bolton	187,824	4,634	2,832	24.7	15.1	1.13	212	—	43	25	17	32	33	62	128	0.6
Bury	59,234	1,227	958	20.8	16.2	1.12	66	—	16	4	5	16	4	21	130	1.6
Manchester	655,435	18,197	11,710	27.8	17.9	1.81	1,189	—	402	173	113	127	92	282	134	0.8
Salford	241,950	6,724	4,342	27.9	18.0	2.45	594	—	194	83	106	47	43	121	141	0.5
Oldham	143,301	3,912	2,727	27.4	19.1	1.09	157	—	47	16	14	16	12	52	119	0.1
Rochdale	89,653	2,034	1,448	22.7	16.2	0.68	61	—	17	10	13	6	3	12	104	2.5
Burnley	106,267	2,660	1,704	25.1	16.1	1.30	137	—	21	16	15	16	8	61	156	1.1
Blackburn	136,959	3,128	2,222	22.9	16.3	1.49	203	—	42	52	20	23	18	48	126	1.4
Preston	118,519	3,034	1,871	25.7	15.8	1.30	154	—	19	8	11	66	11	39	136	2.8
Barrow-in-Furness	62,996	1,641	766	26.1	12.2	0.66	41	—	1	6	14	6	5	9	81	1.8
Huddersfield	94,739	2,318	1,540	24.5	16.3	1.04	98	—	19	9	20	15	10	25	95	0.5
Halifax	111,911	1,840	1,547	16.5	13.9	0.77	86	—	3	19	27	17	7	13	97	1.0
Bradford	293,983	5,507	4,251	18.8	14.5	0.68	202	—	24	21	51	45	15	46	116	0.3
Leeds	484,012	11,004	6,784	22.8	14.1	0.80	390	—	78	11	64	83	43	111	122	0.1
Sheffield	470,958	13,236	7,077	28.2	15.1	1.78	842	—	415	42	38	54	33	260	118	1.4
Rotherham	65,070	2,048	859	31.6	13.2	1.21	78	—	14	—	9	7	10	38	116	2.0
York	87,004	2,069	989	23.8	11.4	0.55	48	—	4	2	5	14	3	20	99	0.1
Hull	275,552	8,077	4,106	29.4	14.9	1.38	378	2	86	10	62	49	12	157	114	0.8
Middlesbrough	105,255	3,344	2,004	31.9	19.1	2.48	260	—	63	2	22	70	16	87	158	1.0
Stockton-on-Tees	53,417	1,411	742	26.5	13.9	1.19	63	—	31	2	4	12	1	13	120	0.9
West Hartlepool	79,686	1,906	941	24.0	11.8	1.67	133	—	95	5	12	9	3	9	113	0.6
Sunderland	159,378	4,659	2,693	29.3	16.9	1.98	315	—	164	16	32	37	14	52	135	2.5
South Shields	117,627	3,397	1,774	29.0	15.1	1.37	161	—	38	19	20	36	4	44	137	3.6
Gateshead	131,024	3,755	1,655	28.7	12.7	0.91	118	—	26	14	16	17	1	44	112	5.7
Newcastle-on-Tyne	281,584	7,677	4,166	27.3	14.8	1.22	344	—	113	32	54	72	17	56	119	0.1
Tynemouth	55,808	1,867	964	33.5	17.3	1.46	81	—	13	11	12	20	1	24	129	1.9
Newport (Mon.)	78,336	2,480	1,193	31.7	15.3	1.51	118	—	77	2	8	3	5	23	115	0.3
Cardiff	195,303	5,025	2,558	25.8	13.1	0.85	165	1	22	7	14	51	7	63	103	0.1
Rhondda	135,894	5,577	2,214	41.2	16.3	1.91	260	—	48	15	34	27	4	132	129	0.5
Merthyr Tydfil	78,365	2,787	1,383	35.7	17.7	1.68	131	—	35	21	15	18	4	38	143	0.7
Swansea	98,308	3,235	1,902	33.0	19.4	2.15	210	1	36	5	6	76	4	82	159	0.5

other towns it ranged upwards to 0.99 in Newport (Mon.), 1.03 in Sunderland, 1.05 in Bootle, 1.20 in West Hartlepool, 1.44 in Wolverhampton, 1.47 in Warrington, and 2.02 in St. Helens. The 1,826 deaths from scarlet fever corresponded to a rate of 0.11 per 1,000; in London the death-rate from this disease was only 0.08, but among the other towns it ranged upwards to 0 22 in Bootle, 0.26 in Manchester, 0.27 in Merthyr Tydfil, 0.28 in Wallasey and in Liverpool, 0.29 in Warrington, 0.34 in Salford, 0.35 in St. Helens, and 0.38 in Blackburn. The 2,409 fatal cases of diphtheria were equal to a rate of 0.15 per 1,000; in London the mortality from this cause was 0.13 per 1,000, while among the other towns the highest rates were 0.25 in Rhondda, 0.26 in Derby, 0.31 in Portsmouth and in King's Norton, 0.33 in Warrington, 0.44 in Salford, and 0.48 in Hanley. The 3,872 deaths from whooping-cough corresponded to a death-rate of 0 24 per 1,000; in London the rate was 0.26 per 1,000, while among the other towns the mortality ranged upwards to 0.54 in Wigan, 0.56 in Preston, 0 58 in West Ham, 0.62 in Great Yarmouth, 0.67 in Middlesbrough, 0.70 in St. Helens, and 0.78 in Swansea. The 953 deaths referred to "fever" were equal to a rate of 0.06 per 1,000; in London the "fever" death-rate was only 0.03, while among the other towns the highest rates were 0.15 in Portsmouth, in Rotherham, and in Middlesbrough, 0.18 in Wigan, in Bolton, and in Salford, 0.19 in Warrington, 0.25 in Grimsby, and 0.32 in Hanley. The 6,223 fatal cases of diarrhoea caused a death-rate of 0.38 per 1,000; in London the death-rate from this disease was 0.33, while the rates in the other towns ranged upwards to 0 62 in Warrington, 0.65 in West Ham, 0 69 in Nottingham and in Wigan, 0.70 in Liverpool, 0.76 in Walsall, 0.78 in Bootle, 0.83 in Middlesbrough, 0 84 in Swansea, and 0.97 in Rhondda. The 14 deaths from small-pox included 8 which belonged to Bristol, 2 to London, 2 to Hull, 1 to Cardiff, and 1 to Swansea.

Infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 118 per 1,000; in London the rate was 108 per 1,000, while it averaged 122 in the seventy-five other large towns, and ranged from 61 in Hornsey, 72 in King's Norton, 79 in Hastings, 80 in Croydon, 81 in Barrow-in-Furness, 82 in Leyton, 83 in Wallasey, and 85 in Handsworth (Staffs), to 150 in Nottingham and in St. Helens, 155 in Hanley, 156 in Burnley, 158 in Middlesbrough, 159 in Swansea, and 173 in Wigan.

The causes of 2,037, or 0.8 per cent., of the deaths in the seventy-six towns last year were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Hornsey, Tottenham, Leyton, Southampton, Ipswich, Great Yarmouth, Plymouth, Devonport, and Derby; the highest proportions of uncertified deaths were 3.1 per cent. in West Bromwich, 3.3 in Birmingham, 3.4 in Warrington, 3.5 in Bootle and in St. Helens, 3.6 in South Shields, and 5.7 in Gateshead.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE

THE following appointments have been made at the Admiralty: Staff Surgeon F. J. L. P. MCKENNA, M.B., to the *Leander*, additional, for the *Tyne*, on recommissioning, March 15th; Surgeon E. M. W. HEARN M.D., to the *Victory*, additional, for disposal, March 9th.

ARMY MEDICAL SERVICE.

COLONEL T. J. R. LUCAS, C.B., M.B., who is serving in India, is appointed Principal Medical Officer, Abbottabad and Sialkot Brigades.

ROYAL ARMY MEDICAL CORPS.

Major L. F. SMITH, M.B., Brigade Laboratory, Nowshera, is appointed Specialist in the Prevention of Disease, from January 8th.

Lieutenant-Colonel A. R. ALDRIDGE, M.B., has been appointed Instructor, School of Army Sanitation, at the Royal Army Medical Corps School of Instruction, vice Colonel R. H. Firth, who has proceeded to India.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL T. GRAINGER, M.D., Bengal, is promoted to be Colonel from December 3rd, 1909. He was appointed Assistant Surgeon, October 1st, 1885, and made Surgeon-Lieutenant-Colonel, May 20th, 1898. He served with the Sikkim expedition in 1888 (medal with clasp); with the Hazara expedition in 1891 (clasp); and with the Tirah Expeditionary Force on the North-West Frontier of India in 1897-8, being present at the action at Dargai and at the capture of the Sampagha and Arhanga Passes (mentioned in dispatches, promoted to be Lieutenant-Colonel, and medal with two clasps).

Colonel H. K. MCKAY, C.B., C.I.E., Bengal, is permitted to retire from the service, from December 3rd, 1909. He joined the department as an Assistant Surgeon, September 30th, 1873, and became Colonel, December 3rd, 1904. He was with the Naga expedition in 1875; in the Afghan war in 1878-80, for which he received a medal; and with the Mahsood Waziri expedition in 1881.

Colonel H. St. C. CARRUTHERS, Madras, is appointed Principal Medical Officer, Secunderabad Brigade.

Major J. DAVIDSON, M.B., Brigade Laboratory, Dehra Dun, is appointed Specialist in the Prevention of Disease, from December 10th, 1909.

GENERAL RESERVE OF OFFICERS.

CAPTAIN R. S. RODGER, M.B., is removed on completion of the period of service prescribed by Article 532, Royal Warrant for Pay and Promotion, 1909, dated February 24th.

TERRITORIAL FORCE.

ROYAL ARMY MEDICAL CORPS.

Third London General Hospital.—Major S. P. PHILLIPS, M.D., to be Lieutenant-Colonel, December 5th, 1909. Captain S. H. C. MARTIN, M.D., to be Major, December 5th, 1909. Sir VICTOR A. H. HORSLEY, Kt., M.B., F.R.C.S.Eng., F.R.S., to be Captain, whose services will be available on mobilization, February 13th.

For Attachment to Units Other than Medical Units.—NORMAN S. CARMICHAEL, M.B., to be Lieutenant, December 30th, 1909. DONALD J. ARMOUR, F.R.C.S.Eng., to be Lieutenant, February 1st. Captain JOHN FORBES, M.B., from the 1st London (City of London) Field Ambulance, Royal Army Medical Corps, to be Captain, February 2nd.

Attached to Units other than Medical Units.—Captain JOHN ALLISON M.D., to be Major, December 19th, 1909. Captain GEORGE MELVILLE, M.B., resigns his commission, January 26th.

CHANGES OF STATIONS.

THE following changes of stations amongst the officers of the Army Medical Service have been officially reported to have taken place during February, 1910:

		FROM	TO
Surgeon-General	W. W. Kenny, M.B.	South Africa	N. Command.
Lieut.-Col.	F. P. Nichols, M.B.	Jullundur	Jersey.
,,	H. S. McGill	Poona	Secunderabad.
,,	R. H. Firth	Aldershot	India.
,,	G. Wilson, M.B.	Multan	E. Command.
,,	B. T. McCreery, M.B.	Agra	Fyzabad.
,,	S. R. Wills	—	Agra.
,,	H. D. Rowan, M.B.	Rawal Pindi	Aldershot.
,,	H. E. Cree	Chatham	India.
,,	A. A. Sutton, D.S.O.	Woolwich	W. Africa.
,,	D. M. O'Callaghan	Kuldana	Aldershot.
,,	R. H. Penton, D.S.O.	York	Poona.
Major	J. Ritchie, M.B.	Woolwich	Multan.
,,	J. C. Morgan	Cahir	Dublin.
,,	E. M. Hassard	Shorncliffe	Lahore.
,,	J. Thomson, M.B.	—	Pretoria.
,,	H. E. Winter	Chatham	Gravesend.
,,	F. W. Hardy, M.B.	London	Colchester.
,,	A. Pearse	Woolwich	Chatham.
,,	C. Dalton	Aden	Dublin.
,,	O. L. Robinson	—	Meerut.
,,	W. D. Erskine, M.B.	York	Strensall.
,,	A. J. Chambers	Netley	South Africa.
,,	A. F. Tyrrell	Cork	Queenstown.
,,	C. T. Samman	Shorncliffe	India.
,,	D. J. Collins, M.B.	Wynberg	Dublin.
,,	K. M. Cameron, M.B.	Calcutta	Aldershot.
,,	John M. Buist, M.B.	Wynberg	S. Command.
,,	E. B. Steel, M.B.	Neemuch	Jhansi.
,,	H. W. Grattan	R.A.M.Coll.	Lucknow.
,,	E. W. W. Cochrane, M.B.	Aldershot	Bermuda.
,,	W. E. Hudleston	Mhow	Gosport
,,	M. MacG. Rattray, M.B.	Bangalore	Gravesend.
,,	H. O. B. Browne-Mason	London	Poona.
,,	W. P. Gwynn	Quetta	Karachi.
,,	A. H. O. Young	Bermuda	N. Command.
,,	E. T. Inkson, V.C.	Bangalore	St. Thomas's Mount.
,,	P. H. Collingwood	Hong Kong	Devonport.
Captain	A. E. Thorp	Tidworth	Bulford.
,,	E. P. Hewitt	Norwich	Secunderabad.
,,	J. W. Leake	Devonport	W. Africa.
,,	N. J. C. Rutherford, M.B.	Canterbury	S. Africa.
,,	F. J. Palmer	Cork	Meerut.
,,	H. Simson	London	Ahmednagar.
,,	A. L. A. Webb	R.A.M.C. Coll.	W. Africa.
,,	O. W. A. Elsner	Dublin	S. Africa.
,,	J. H. R. Bond	York	Mhow.
,,	E. B. Knox, M.D.	Colchester	Northampton.
,,	E. W. Siberry	—	Pretoria.
,,	E. G. Ford, M.B.	Bradford	Rawal Pindi.
,,	L. M. Purser, M.B.	Colchester	Sialkot.
,,	H. B. Fawcus, M.B.	R.A.M.C. Coll.	S. Africa.
,,	G. Carroll	Templemore	,,
,,	G. Baillie, M.B.	Bulford	W. Africa.
,,	R. F. Ellery	Devonport	Benares.
,,	R. F. M. Fawcett, M.B.	Gosport	Bulford.
,,	R. N. Woodley	Cork	Cahir.
,,	W. Davis	Dublin	Bareilly.
,,	J. W. S. Seccombe	Bangalore	Jullundur.
,,	J. A. W. Webster	Gravesend	Shoeburyness.
,,	F. C. Lambert	Capetown	Cosham.
,,	P. J. Hanafin	Wynberg	S. Command.
,,	J. D. Richmond, M.B.	Quetta	Cork District.
,,	E. M. Glanvill, M.B.	Harrismith	S. Command.
,,	M. C. Wetherell, M.D.	Roorkee	Meerut.
,,	H. C. Hildreth	Maymyo	Ireland.
,,	W. MacD. MacDowall	Buttevant	Devonport.
,,	R. T. Collins	Chakrata	Meerut.
,,	A. L. Otway, M.B.	Mhow	Ireland.
,,	E. C. Whitehead, M.B.	Pretoria	,,
,,	W. Wiley, M.B.	Bangalore	Netley.
,,	R. J. Cahill, M.B.	Dehra Dun	Bangalore.
,,	H. B. Connell	Aldershot	West Africa.
,,	J. H. Campbell, M.B.	Allahabad	Lucknow.
,,	L. V. Thurston	Nowshera	Peshawar.
,,	G. Ormrod, M.B.	Landour	Roorkee.
,,	A. M. Rose, M.B.	Bermuda	Aldershot.
,,	T. Scatchard	Dehra Dun	Agra.
,,	E. L. Moss	Chaubuttia	Bareilly.
,,	P. Farrant	Jamaica	Birmingham.
,,	C. J. Wyatt, M.B.	Straits Settlements	Piershill.
,,	H. Stewart, M.B.	Peshawar	Ferozepore.
,,	F. Forrest	Ambala	Kasauli.
,,	C. R. M. Morris, M.B.	Dehra Dun	Sialkot.
,,	R. E. U. Newman, M.B.	Hutti Camp	Rawal Pindi.
,,	F. D. G. Howell	Chakrata	Multan.
,,	D. DeC. O'Grady	Nowshera	Rawal Pindi.
Lieutenant	A. C. Amy, M.B.	Ranikhet	Bareilly.
,,	A. H. Heslop, M.B.	Sialkot	Rawal Pindi.
,,	E. D. Caddell, M.B.	Ambala	Sabathu.
,,	C. W. Bowle	Dalhousie	Multan.
,,	W. I. Thompson, M.B.	Naini Tal	Lucknow.
,,	S. Field	Somaliland	E. Command.
,,	F. H. M. Chapman	Darjeeling	Lebong.
,,	M. P. Leahy, M.B.	—	Poona.
,,	D. F. Mackenzie, M.B.	Lebong	Calcutta.
,,	G. F. Dawson, M.B.	Colchester	Meerut.
,,	H. V. B. Byatt	Bulford	Poona.
,,	G. Petit	Tidworth	India.
,,	F. J. Stuart, M.B.	Chatham	,,
,,	J. B. Hanafin	Cork	,,
,,	H. Gibson	Cosham	,,
,,	C. A. T. Conyngham, M.B.	Curragh	,,
,,	H. W. Carson, M.B.	Rawal Pindi	Nowshera.
,,	J. C. L. Hingston	Barry	S. Command,
,,	F. Worthington, M.B.	Somaliland	Ireland.
,,	A. L. Stevenson, M.B.	Dublin	Curragh.
,	B. Varvill	Hilsea	India.
,	A. Shepherd, M.B.	Sheffield	,,
	W. J. Dunn, M.B.	Colchester	,,

		FROM	TO
Lieutenant	F. B. Dalgliesh	Netley	India.
,,	M. Leckie	Chatham ...	Egyptn. Army.
,,	S. G. Walker, M.B... ...	Netley	India.
,,	C. E. L. Harding, M.B. ...	Poona	Purandhur.
,,	F. M. Hewson	Curragh ...	India.
,,	A. L. Foster	Aldershot ...	,,
,,	C. M. Rigby	Dover	,,
,,	T. S. Eves, M.B.	Dublin	,,
,,	L. Murphy	Cosham ...	,,
,,	J. S. McCombe, M.B. ...	Bulford ...	,,
,,	W. J. Tobin	Bordon... ...	,,
,,	R. O'Kelly	Aldershot ...	,,
,,	C. Ryles, M.B.	Landguard Ft.	,,
,,	D. S. Buist, M.B.	Woolwich ...	Kingston-on-Thames
,,	G. G. Collet, M.B.	—	Aldershot.
,,	C. H. O'Rorke, M B. ...	Kildare... ...	Birr.
,,	A. W. Byrne, M.B.... ...	Lancaster ...	Manchester.
,,	G. H. Stack, M.B.	Aldershot ...	W. Africa.
,,	J. A. Manifold, M.B. ...	Piershill ...	Edinburgh.
,,	R. C. Priest, M.B.	Gt. Yarmouth	Colchester.
,,	O. W. McSheehy, M.B. ...	Falmouth ...	Devonport.
,,	M. J. Williamson, M.B. ...	Tidworth ...	Bulford.
,,	C. L. Franklin, M.B. ...	Manchester ...	Bury.
,,	J. J. D. Roche, M.B. ...	Curragh ...	Dublin.
,,	J. R. Hill, M.B.	Warrington ...	Chester.
,,	J. R. Yourell, M.B. ...	Londonderry...	Belfast.

The undermentioned Lieutenants, appointed on probation January 30th, 1909, are stationed as follow: F. W. M. Cunningham, Curragh; H. R. Edwards, Woolwich; R. H. Nolan, Aldershot; W. Mathieson, Woolwich.

The following, appointed on probation July 31st, 1909, are thus stationed: G. H. Dive, London; R. Gale, M.B., London; A. G. Jones, M.B., Tidworth; K. Comyn, Woolwich: A. S. Cane, London; J. M. Weddell, London; C. M. Nicol, M.B., Colchester; A. P. O'Connor, M.B., Dover; T. H. Dickson, M.B., Curragh; H. G. Robertson, M.B., Sheffield; H. V. Stanley, M.B., Cork; P. C. Field, Aldershot; R. M. Davies, M.B., Chatham; R. C. G. M. Kinkead, M.B., Cork; E. C. Stoney, M.B., Colchester.

Lieutenant-Colonel R. D. Hodson, retired pay, has been placed in medical charge of troops at Trowbridge.

Vacancies and Appointments.

VACANCIES.

BATH: ROYAL MINERAL WATER HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

BLACKBURN AND EAST LANCASHIRE INFIRMARY.—Junior House-Surgeon. Salary to commence at £80 per annum, with additional allowance of £5.

BRIGHTON: SUSSEX COUNTY HOSPITAL.—House-Physician. Salary, £70 per annum.

BRISTOL GENERAL HOSPITAL.—(1) House-Physician, (2) Casualty House-Surgeon, (3) Assistant House-Physician. Appointments for six months. Salary, £60.

BRISTOL ROYAL HOSPITAL FOR SICK CHILDREN AND WOMEN.—Assistant House-Surgeon. Salary, £50 per annum.

CANCER HOSPITAL, Fulham Road, S.W.—House-Surgeon. Salary, £70 per annum.

CARDIFF: UNIVERSITY COLLEGE OF SOUTH WALES AND MONMOUTHSHIRE.—(1) Professor of Pathology and Bacteriology. (2) Professor of Histology and Embryology. Salary, £450 and £200 per annum respectively.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—Clinical Assistant.

CHELTENHAM GENERAL HOSPITAL.—House-Surgeon. Salary, £70 per annum.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Assistant Resident Medical Officer. Salary at the rate of £50 per annum.

DREADNOUGHT HOSPITAL, Greenwich.—(1) Two House-Physicians. (2) Two House-Surgeons. Salary, £50 per annum each.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Second Medical Officer (male) to the Casualty Department. Salary at the rate of £40 per annum.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road, S.E.—Ten qualified Clinical Assistants in Out-patient Department.

FARNINGHAM AND SWANLEY: HOMES FOR LITTLE BOYS.—Medical Officer. Salary, £100 per annum.

LEAMINGTON: WARNEFORD, LEAMINGTON, AND SOUTH WARWICKSHIRE GENERAL HOSPITAL.—(1) Honorary Physician. (2) Junior Resident Medical Officer; salary, £65 per annum.

LEEDS PUBLIC DISPENSARY.—Junior Resident Medical Officer. Salary, £100 for first year, increasing £10 on reappointment.

LIVERPOOL: ROYAL SOUTHERN HOSPITAL.—Honorary Surgeon.

LONDON THROAT HOSPITAL, Great Portland Street, W.—Two Assistant Anaesthetists.

MANCHESTER: ANCOATS HOSPITAL.—Assistant House-Surgeon. Salary, £75 per annum.

MANCHESTER: MONSALL FEVER HOSPITAL.—Medical Superintendent. Salary, £425 per annum.

MANCHESTER NORTHERN HOSPITAL FOR WOMEN AND CHILDREN.—Pathologist. Honorarium, £10 per annum.

MANCHESTER ROYAL INFIRMARY.—Medical Officer for Accidents and Out-patients at Central Branch. Salary at the rate of £100 per annum.

MANCHESTER: VICTORIA MEMORIAL JEWISH HOSPITAL, Cheetham.—Honorary Assistant Anaesthetist.

MIDDLESBROUGH: NORTH RIDING INFIRMARY.—House-Surgeon. Salary, £100 per annum.

NATIONAL HOSPITAL FOR DISEASES OF THE HEART, Soho Square, W.—Honorary Assistant Physician.

NOTTINGHAM GENERAL DISPENSARY.—Assistant Residen Surgeon (male). Salary, £160 per annum.

NOTTINGHAM: GENERAL HOSPITAL.—Honorary Physician.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House-Surgeon. Salary, £80 per annum.

ROYAL EAR HOSPITAL, Dean Street, Soho, W.—House-Surgeon. Honorarium, £40 per annum.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—House-Physician. Salary at the rate of £60 per annum.

ST. MARK'S HOSPITAL FOR CANCER, FISTULA, ETC., City Road, E.C.—Three qualified Clinical Assistants.

ST. MARYLEBONE GENERAL DISPENSARY, Welbeck Street, W.—Honorary Anaesthetist.

SHEFFIELD ROYAL HOSPITAL.—Assistant House-Physician. Salary, £50.

SHEFFIELD UNIVERSITY.—Demonstrator in Anatomy. Salary, £150 per annum.

SHREWSBURY: SALOP AND MONTGOMERY ASYLUM.—Junior Male Assistant Medical Officer. Salary, £150 per annum.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—Assistant House-Surgeon. Salary, £82 per annum.

TORQUAY: TORBAY HOSPITAL.—House-Surgeon. Salary, £100 per annum and £5 for lectures to nurses.

VENTNOR: ROYAL NATIONAL HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Assistant Medical Officer. Salary, £100 per annum.

WAKEFIELD GENERAL HOSPITAL.—House-Physician. Salary, £100 per annum.

WALSALL AND DISTRICT HOSPITAL.—Senior House-Surgeon (male). Salary, £100 per annum.

WEST LONDON HOSPITAL, Hammersmith Road, W.—(1) Clinical Assistants. (2) Three Casualty Officers.

YORK DISPENSARY.—Resident Medical Officer (lady). Salary, £130 per annum.

CERTIFYING FACTORY SURGEON.—The Chief Inspector of Factories announces a vacancy at Alfreton, co. Derby.

APPOINTMENTS.

BROWNE, H., L.R.C.P., M.R.C.S., District and Workhouse Medical Officer of the Amesbury Union.

CUNNINGHAM, H. H. B., M.D., F.R.C.S.I., M.R.C.S Eng., Examiner in Ophthalmology and Otology in the National University of Ireland.

DAWSON, R. B., L.M.S.S.A., Certifying Surgeon, Maiden Newton District, co. Dorset.

ERSKINE, A. McConnell, M D., R.U.I., District and Workhouse Medical Officer of the Goole Union.

FISHER, F. P., M.B., District Medical Officer of the Stourbridge Union.

HAY, Percival J., M.D.Edin., Honorary Ophthalmic Surgeon to the Beckett (General) Hospital, Barnsley.

HICKEY, G., M.B., M.Ch.R.U.I., Surgeon to the Sunderland Police.

KING, Robert, M.D., Assistant School Medical Officer to the Secondary Education Committee of Kincardineshire.

LYNHAM, J. E. A., M.B., B.Ch.R.U.I., Assistant Medical Officer to the Woolwich Union Infirmary.

MCCARTAN, M. J., L.R.C.P. and S.Irel., Certifying Factory Surgeon for the Rostrevor District, co. Down.

MCCONNELL, Adams A., B A., M.B, B.Ch., B.A.O.Dubl. Univ, Assistant Surgeon to the Richmond Hospital, Dublin,

MACDIARMID, P., M.B., Ch.B.Edin., Medical Officer of Walton Workhouse, West Derby Union.

MEARS, J. B., L.R.C.P. and S.Edin., L.F.P.S.Glasg., appointed Certifying Factory Surgeon for the Leuchars District, co. Fife.

MOULD, G. T., M.R.C.S.Eng., L.R.C.P.Lond., Chief Clinical Assistant to the Royal London Ophthalmic Hospital.

ORR, Thomas, M.D., B.Sc.Glasg, Medical Officer of Health for the Borough of Shrewsbury.

POWELL, D. A., M.B., Third Assistant Medical Officer, Bethnal Green Parish Infirmary.

ROSSITER, H. T., M.R.C.S., L.R.C.P., House-Surgeon to the Radcliffe Infirmary, Oxford.

SKENE, T. A., M.D.Aberd., Certifying Factory Surgeon for the Nigg District, co. Kincardine.

STEELE-PERKINS, D. S., L.R.C.P and S.Edin., L.F.P.S.Glasg., District Medical Officer of the Honiton Union.

STRATFORD, Howard M., M.R.C.S., L.R C.P.Lond., Registrar to the Central London Throat and Ear Hospital.

WEAR, Algernon, M.D.Durh., Medical Officer to the Leeds Education Committee.

WESTERN, Miss R. H., M.B., B.S., Resident Assistant Medical Officer, Birkenhead Union Workhouse.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTH.

WHARTON.—On March 11th, at Hopwood House, Lees Road, Oldham, the wife of Edgar Wharton, M.B., Ch B., B.Sc , of a son.

DEATHS.

BOILEAU.—March 4th, at Trowbridge, John Peter Hamilton Boileau, Lieutenant-Colonel, late Army Medical Staff, son of the late Lestock Francis Boileau, R.N., Inspecting Commander of Coast-guards, aged 68.

COLLINSON.—On March 8th, at 32, Winckley Square, Preston, Lancs., Clara, wife of F. W. Collinson, M.D.Edin., M.R.C.P.Lond., F.R.C.S.Edin.

RUTHERFORD.—On the 8th inst., at Mountainhall, Dumfries, in his 71st year, James Rutherford, M.D., F.R.C.P.E., for twenty-five years Medical Superintendent of the Crichton Royal Institution.

RECENT PUBLICATIONS.

The Practical Medicine Series. Vol. X. Series 1909. Chicago: The Year Book Publishers; and Glasgow: G. Gillies and Company. (Pp. 248. Price 6s.)

This is the concluding volume of the issue for 1909 of a kind of year book supplying short abstracts of the principal publications relating to the subject of each volume which have appeared in the preceding twelve months. The general editor is Dr. G. P. Head, of Chicago, the authors of the present volume, which deals with nervous mental diseases, being Drs. H. T. Patrick and C. L. Mix. The former is Professor of Neurology in the Chicago Polyclinic, and the latter Professor of Physical Diagnosis in the North-Western University Medical School.

The Public Schools Year Book: the Official Book of Reference of the Headmasters' Conference. Twenty-first year of publication, 1910, Edited by H. F. W. Deane, M.A., F.S.A., and W. A. Evans, M.A. London (The Year Book Press): Swan Sonnenschein. (Cr. 8vo, pp. 740. 3s. 6d.)

In this the twenty-first year of publication the *Year Book* has become the official book of reference of the Headmasters' Conference. It contains a summary of the work of the Conference, information as to governing bodies, as to admission to public schools, lists of entrance scholarships at the schools, and particulars as to conditions of admission to the universities, public services and professions, together with a list of preparatory schools. It will be useful to parents as well as teachers.

Enzyklopädie der mikroskopischen Technik. Edited by P. Ehrlich, Max Mosse, R. Krause, H. Rosin, and the late K. Weigert. Vol. i. A.–K. Second edition. Berlin and Vienna. 1910. Urban and Schwarzenberg.

The first of the two volumes of the second edition of this voluminous and apparently comprehensive encyclopaedia on microscopical technique has just been issued, and it is announced that the second and final volume will be ready in the summer. A review will be published when the complete work is in our hands.

DIARY FOR THE WEEK.

POST-GRADUATE COURSES AND LECTURES.

BROMPTON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, S.W.—Wednesday, 4.0 p.m.: Basal Cavities.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Lectures: Tuesday, 3.45 p.m., Tracheoscopy, etc. Friday, 3.45 p.m., Anaesthetics.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical. Lectures at 5.15 p.m. each day will be given as follows: Monday, Intestinal Stasis; Tuesday, The Detective Spirit in Dermatology; Wednesday, The Treatment of Naevi and Moles; Thursday, Placenta Praevia.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics, 2.30 p.m., Medical Out-patient: Nose, Throat and Ear; 4.30 p.m., Medical In-patient. Tuesday, 10 a.m., Medical Out-patient Clinic; 2.30 p.m., Operations; Clinics: Surgical, Gynaecological. Wednesday, 2.30 p.m., Medical Out-patient, Skin and Eye Clinics; *X* Rays; 4.30 p.m., Special Demonstration of Selected Eye Cases. Thursday, 2.30 p.m., Gynaecological Operations; Clinics: Medical Out-patient; Surgical Out-patient; 3 p.m., Medical In-patient. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Eye; 3 p.m., Medical In-patient.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith, W.—The following are the arrangements for next week:—Daily arrangements: Medical and Surgical Clinics, 2 p.m.; Operations, 2 p.m.; *X* Rays, 2 p.m.; Monday: Surgical Registrar, 10 a.m.; Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat and Nose Operations; Practical Medicine, 12.15 p.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday: Surgical Registrar, 10 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Medical Registrar, 10 a.m.; Gynaecological Operations, 10 a.m.; Throat, Nose and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m. Lectures at 5 p.m.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
MARCH.	
19 SATURDAY ..	OXFORD: School Athletics Subcommittee, 12 noon.
20 Sunday ..	
21 MONDAY ..	LONDON: Standing Ethical Subcommittee, 2 p.m. KENSINGTON DIVISION, *Metropolitan Counties Branch*, Town Hall, Kensington, 4.30 p.m.
22 TUESDAY ..	
23 WEDNESDAY	LAMBETH DIVISION, *Metropolitan Counties Branch*, Town Hall, 8.30 p.m.
24 THURSDAY ..	LONDON: Capitation Grants Subcommittee. LONDON: Subcommittee on Amendment of Existing Articles as to Election of Representatives. LONDON: Subcommittee on Organization of Medical Students. LONDON: Subcommittee on Standing Orders of Representative Meeting and Council. NORWOOD DIVISION, *Metropolitan Counties Branch*, Lewisham Infirmary, 4 p.m.
25 FRIDAY ..	BIRMINGHAM BRANCH, Pathological and Clinical Section, Medical Institute, Edmund Street, 8 p.m. HAMPSTEAD DIVISION, *Metropolitan Counties Branch*, 4.30 p.m.
26 SATURDAY ..	
27 Sunday ..	
28 MONDAY ..	
29 TUESDAY ..	MAIDSTONE DIVISION, *South-Eastren Branch*, 3.30 p.m.; Executive Meeting, 3 p.m. NORTH WALES BRANCH, Spring Meeting, Carnarvon.
30 WEDNESDAY	BATH AND BRISTOL BRANCH, Bristol.
31 THURSDAY ..	
APRIL.	
1 FRIDAY ..	LONDON: Special Poor Law Reform Committee, 2.30 p.m. ENGLISH DIVISION, *Border Counties Branch*, General Meeting, Whitehaven.
2 SATURDAY ..	LONDON: Science Committee, 12 noon.
3 Sunday ..	
4 MONDAY ..	LONDON: Naval and Military Committee, 2.30 p.m.
5 TUESDAY ..	LONDON: Organization Committee, 10.45 a.m. NORTHAMPTONSHIRE DIVISION, *South Midland Branch*, Board Room, Northampton General Hospital, 2.30 p.m.; Luncheon, Franklin's Restaurant, 1.30 p.m.
6 WEDNESDAY	LONDON: Medico-Political Committee, 2 p.m. SOUTH-EASTERN OF IRELAND BRANCH, Meeting of Branch, Branch Council, and Local Division, Adelphi Hotel, Waterford, 3.30; Luncheon, 2.30 p.m.
7 THURSDAY ..	LONDON: Hospitals Committee, 2.30 p.m. EAST ANGLIAN BRANCH, Spring Meeting, Palace Hotel Southend.
8 FRIDAY ..	LONDON: Central Ethical Committee, 2 p.m.
9 SATURDAY ..	
10 Sunday ..	
11 MONDAY ..	LONDON: Colonial Committee, 2.45 p.m.

Printed and Published by the British Medical Association at their Offices, No. 429, Strand, in the Parish of St. Martin-in-the-Fields in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MARCH 26TH, 1910.

CONTENTS.

	PAGE
Poor Law Reform	
THE PREVENTION OF DESTITUTION BILL	121
ADMINISTRATION OF OUTDOOR RELIEF—Circular by the Local Government Board...	123
Meetings of Branches and Divisions:	
Bombay Branch	125
Cape of Good Hope—Eastern Province Branch	125
Gibraltar Branch	126
Glasgow and West of Scotland Branch: Glasgow North-Western Division	126
Malaya Branch	126
Metropolitan Counties Branch: Hampstead Division	127
" " " Lambeth Division	127
" " " Stratford Division	128
" " " Westminster Division ...	128
Natal Branch	128
North Lancashire and South Westmorland Branch: Furness Division	128
South-Eastern Branch: Folkestone Division	128
" " Guildford Division	129
Southern Branch: Guernsey and Alderney Division	129
South Midland Branch: Buckinghamshire Division	129
West Somerset Branch	129

	PAGE
ASSOCIATION NOTICES.—Annual Representative Meeting, 1910: Date of Meeting; Last Day for Reception of Notices of Motion. —Council Meeting	130
CENTRAL MIDWIVES BOARD	130
NAVAL AND MILITARY APPOINTMENTS	131
HOSPITALS AND ASYLUMS:	
The City Dispensary, London	131
Bradford Children's Hospital	131
Royal Halifax Infirmary	131
Bingley Cottage Hospital	131
VACANCIES AND APPOINTMENTS	131
RECENT PUBLICATIONS	132
PUBLISHERS' ANNOUNCEMENTS	132
CALENDAR	132

POOR LAW REFORM.

THE PREVENTION OF DESTITUTION BILL.

THIS bill, which embodies the recommendations of the Minority Report of the Royal Commission on the Poor Law, is down for second reading on April 8th. Sir Robert Price, who is sponsor for the bill, drew first place in the ballot for private members' bills, and so was able to choose an excellent day for discussing the proposals on the second reading. The supporters of the measure are Mr. Robert Harcourt, Sir George White, Mr. Barnes, Mr. Hills, Mr. Mond, Mr. George Roberts, Mr. Henry Walker, and Mr. Greenwood, from which it will be seen that it has support from all sections of the House, except the Irish members.

When the second reading is moved there is sure to be a very interesting discussion, but even if the second reading were carried, it is not likely that any further progress could be made this year. The interest will centre in the attitude taken by the Government, as indicative of the line it is inclined to take in dealing with the Report of the Royal Commission. The declarations of the Opposition leaders will also be most instructive as regards their future action.

The bill is divided into four parts:

I.—GENERAL AND LABOUR.

The first part is General and Labour. After giving the short title as the Prevention of Destitution Act, 1910, and excluding Ireland from its operation, it proposes that the Act should come into force on the 1st day of January after its passing. Then after a page of definitions, Clause 5 enacts the establishment of a Minister for Labour, who is to sit in the House of Commons, to appoint a secretary and such assistant secretaries and officers as may be sanctioned by the Treasury, and draw for himself a salary of £5,000 a year. He will, in short, be the head of a department like the Board of Trade or the Local Government Board, and all the duties in connexion with labour now transacted by the Home Office and the Board of Trade will be transferred by Schedules 6 and 7 to the Ministry of Labour.

II.—THE NON-ABLE-BODIED.

Part II, which forms the great body of the bill, comprises Clauses 12 to 69, both inclusive, and this is the part which mostly interests the medical profession, inasmuch as it deals very thoroughly with Poor Law problems. It has a series of subtitles, the first being:

Prevention of Destitution.

By Clause 12 it would make it the duty of the council of every county and of every county borough to ascertain the extent and nature of the destitution existing in its area; whether "such destitution arises from or in connexion with sickness or accident, infirmity, mental defect, neglect of infants under school age or children of school age, unemployment, or any other cause," and to take steps to prevent such destitution, and to provide assistance when expedient. The powers of boards of guardians would be transferred to these councils and the boards of guardians abolished, but persons qualified to be guardians would be qualified to be members of the councils if elected. The pauper disqualification for the franchise would be abolished, and the property of boards of guardians, their rights and liabilities, would be transferred to the councils. Clauses 12, 13, and 17 are so important that we give them in full.

12. It shall be the duty of the council of every county and of every county borough (hereinafter referred to as "the council") to ascertain the extent and nature of the destitution existing among the inhabitants of their area, whether such destitution arises from or in connexion with sickness or accident, infirmity, mental defect, neglect of infants under school age or children of school age, unemployment, or any other cause, and to take such steps as seem to them desirable within the powers conferred upon them by Parliament as far as possible to prevent or arrest the operation of the causes of such destitution, and to provide, in accordance with the statutes and regulations for the time being in force, whatever public assistance of persons within their district the council may deem expedient.

13 (1) Save as hereinafter provided there shall be transferred to the council all the powers and duties, including those specifically mentioned in the Second, Third, and Fifth Schedules to this Act, relating to the prevention of destitution and to the relief or treatment of the poor for the time being within their area now vested in or imposed upon parishes, townships, churchwardens, overseers of the poor, boards of guardians justices of the peace, and the Local Government Board.

(2) Subject to adjustment as hereinafter provided, all the powers and duties, property, rights, and liabilities of overseers

and boards of guardians in respect of valuation, assessment, and rating, and in respect of the registration of births, marriages, and deaths, are hereby transferred to and vested in the councils of boroughs, urban districts other than boroughs, rural districts, and metropolitan boroughs, and all references in connexion with such powers and duties to the Poor Law union area shall be read as if the words "borough" or "urban district" or "rural district" or "metropolitan borough," as the case may be, were substituted therefor.

17. Subject to adjustment as hereinafter provided, all the property, rights, and liabilities of the boards of guardians of the unions wholly or partly within the area of the county or county borough are hereby transferred to the council of such county or county borough.

It is contemplated in Clause 18 that the councils would work by committees, to whom it would be able to delegate all powers, except the power of raising a rate or borrowing money. The encouragement of voluntary agencies is also referred to in Clause 19, which would give powers to associate local agencies with the subcommittees of the council.

Children of School Age.

Clauses 20 to 27 deal with children of school age in relation to the Education Acts and the Board of Education.

Infants, Sick, and Infirm.

Next come Clauses 28 and 29, which run as follows:

28. (1) Every council shall establish a health committee, constituted in accordance with a scheme to be made by the council and approved by the Local Government Board.

(2) Such scheme may provide for the appointment as members of such health committee of non-members of the council, including women, in such numbers, if any, as may be desired by the council, but the committee shall include at least two women, and the number of non-members of the council shall not exceed one-third of the total number of members of the committee.

29. All matters relating to the exercise by the council of their powers under sections twelve, thirteen, and seventeen of this Act, so far as they relate to the prevention of destitution among or to the provision of public assistance for the infants under school age, the sick and infirm, and the aged for whom institutional accommodation is provided, including all powers and duties relating to vaccination, and all matters heretofore referred to the Public Health and Housing Committee of the council, and all matters relating to the exercise by the council of the powers conferred by the Acts mentioned in the Third and Fourth Schedules to this Act, shall stand referred to the Health Committee.

The next succeeding clauses deal with the parliamentary aid grant, which it is proposed should be limited to 4 millions a year for seven years, and then be subject to revision. These grants would be called health grants, and would be paid to each county or county borough council under regulations made by the Local Government Board. The amount would be fixed by the Board each year at a rate per head, called the national minimum health expenditure, to represent the least sum at which the authority can efficiently discharge its duties. In a similar way the Local Government Board would determine the local rate for all the counties and county boroughs, to be called the standard average health rate. No grants would be allowed to a council which had not, in the opinion of the Local Government Board, expended a sum equal to the national minimum health expenditure. In case of a deficiency arising from the standard health rate being insufficient during the last preceding year, then there would be paid by the Exchequer a sum, to be called the primary health grant, equal to the deficiency. A secondary health grant would also be made in the current year in certain cases. All these grants would be given under certificate of the Local Government Board.

District Health Authorities might be constituted by the council of any county from any non-county borough or urban district council within the county entitled under the Education Act, 1902, to become a local education authority under Part III of that Act, and to such a district health authority might be devolved the powers and duties vested in the council under Clauses 12, 13, and 17, as applied by Clause 29. By Clause 34 it is proposed that any district health authority which desires the powers should enter into an agreement with the council of the county for the exercise of such powers, subject to the general supervision of the county medical officer, and the co-ordination of the work with that of the county medical service. Differences between the council and the health authorities would be settled by the arbitration of the Local Government Board. When such an agreement is made, Clause 35 (1) transfers to the district health authority "such powers and duties of boards of guardians relating to domiciliary medical attendance and the outdoor medical service of the Poor Law unions wholly or partially within the area of such district health authority as may be agreed upon," and the county council would not afford medical relief to any person residing in such district otherwise than as may be agreed upon. The district health authority would have the same powers as regards medical relief as the county council, subject to the provisions against overlapping. In Clause 36 provisions are laid down for applying these agreements between the London County Council and the metropolitan borough councils.

The Aged.

Clauses 38 to 41 deal with the aged, and would enact that every council should have power, under regulations made by the Treasury or other pension authority under the Old Age Pensions Act, to award local pensions to persons not entitled to pensions under the Old Age Pensions Act, and this power is extended to non-county boroughs and urban districts which are authorities under the Old Age Pensions Act.

The Mentally Defective.

The mentally defective are dealt with under Clauses 42 to 50. Every council would be required to establish a committee for the mentally defective on which non-members of the council (one-third) including women (at least 2), might serve, and it would apply the powers given under Clauses 12, 13 and 17 as regards the mentally defective, including matters hitherto vested in or referred to the Asylums Committee. The appointment and control of visiting committees of asylums would be given to this committee, which would have all powers with reference to the apprehension of lunatics under Sections 13, 14 and 15 of the Lunacy Act, 1890. A Parliamentary grant in aid amounting to one million annually for seven years, subject to revision every seven years would be given in lieu of the grants now provided. The conditions of the grant are set forth in Clause 47 and in subsequent clauses it is proposed to enact that non-county boroughs and urban district councils which are lunacy authorities should be responsible instead of county councils, but the county in such case would not raise any sum for expenses in their areas.

Provision against Overlapping and for Recovery of Cost.

Administration is provided for under Clauses 51 to 59. First, power would be given to the county or borough council to appoint a Public Assistance (Co-ordination) Committee, on which it is contemplated but not required that members of the Education, Health, Pension, and Mentally Defective Committees should sit. Next, every council would be required to appoint one or more officers, to be called Registrars of Public Assistance, and such subordinate officers as may be necessary to (1) prevent any improper overlapping between the public assistance granted from different sources to the same person or to different members of the same family; (2) to secure that all domiciliary assistance is given in accordance with statutes and regulations as resolved by the council; and (3) to provide for recovery of cost in certain cases and to ensure that no person entitled to public assistance and in need shall fail to obtain it.

It would be the duty of the council to keep a register as a record of all public assistance given within its area. To prevent overlapping it would be the duty of the committee to issue certificates of non-overlapping in all cases of grants of public assistance otherwise than reception into an institution and medicines, before such assistance was given, except in cases of sudden or urgent necessity. Institutional treatment might be afforded by the council to necessitous persons. While Clause 57 states the duty of

the council to recover in proper cases the cost of public assistance, the next clause provides that "nothing in this Act shall deprive any person of his right to relief under the Poor Relief Act, 1601, or any other Act," and he shall be able to apply for relief and receive it from any committee. Every council would provide and maintain within the districts into which it shall have divided its area an office for the Registrar of Public Assistance and his staff, and, where necessary, a local receiving-house for the temporary accommodation of persons in urgent need. Persons would not be allowed to remain in such houses more than one week, unless under exceptional circumstances reported to the Local Government Board.

Expenses.

By Clause 60 it is proposed to provide that the county fund or borough fund or rate should bear the expenses incurred under the Act, separate accounts to be kept for each department of expenditure and a proper audit made. Powers would be given as to borrowing and the issue of precepts, and by Clause 64 the powers of overseers would be transferred to the councils, while the poor rate would be abolished and a parish rate substituted in rural parishes not forming part of a borough or urban district. It is provided that when the bill becomes an Act a commission should be appointed to decide the best mode of so adjusting the boundaries of any existing authorities transferred that every authority be wholly within the area of one county or county borough, and also to decide on the best way of dealing with the property, powers, and liabilities of the transferred authorities.

Under a long clause covering more than two pages the rights, powers, duties, and liabilities of officials affected by the bill are dealt with at length, and provision made as to transference, compensation, additional remuneration, and superannuation.

III.—THE ABLE-BODIED UNEMPLOYED.

The able-bodied unemployed would be placed under the Ministry of Labour, which is to prevent unemployment as far as possible, and grant public assistance to the unemployed under suitable conditions. The Ministry of Labour would be divided into six departments:

1. The National Labour Exchange.
2. The Trade Insurance Division.
3. The Industrial Regulation Division.
4. The Statistical Division.
5. The Emigration and Immigration Division.
6. The Maintenance and Training Division.

The powers given to the Board of Trade under the Labour Exchanges Act, 1909, would be taken over, and advisory committees appointed in various localities; and unemployment would be supervised, regulated, controlled, and relieved. Insurance against unemployment would be made in connexion with trade societies, and for this purpose a grant of £500,000 a year from the Treasury is proposed.

The powers of the Board of Trade as regards the regulation of the hours and conditions of labour would be given to the third division of the Ministry of Labour, while the statistics of the labour market, wages, hours, and conditions of labour, would be also transferred.

The Minister of Labour would establish receiving houses, and day and residential colonies and training establishments for able-bodied persons for whom the labour exchanges could find no employment. The dependents of persons under training might be placed for home aliment in charge of the council and the local public assistance committee of the area in which they lived. In addition to ordinary training colonies, others of a reformatory character might be established to which able-bodied persons who would not work might be committed for twelve months or less.

In addition to these measures steps would be taken to regularize and distribute national works so as to provide a more equal demand for labour.

IV.—APPLICATION TO SCOTLAND.

This part applies the Act to Scotland, and would make the necessary modifications to meet the conditions in that country. It consists of Clauses 86 to 95 inclusive.

SCHEDULES.

There are seven schedules setting forth enactments repealed: Poor Law (School Children) powers transferred to Councils, Poor Law (Health) powers transferred to Councils, Public Health Acts referred to Health Committees, Council and Poor Law powers referred to Committees for the Mentally Defective, Board of Trade powers transferred to Minister for Labour, and Home Office Powers transferred to the Minister for Labour.

MATTERS NOT INCLUDED.

The bill is the bill of the friends of the Minority Report, but is limited to the points which require legislative enactment. It does not, as the Memorandum prefixed to it states, include the amendments of the Lunacy Acts or the Education Acts proposed either by the Royal Commission on the Care and Control of the Feeble-minded or by the Poor Law Commission, nor yet the necessary changes in the statutes relating to Exchequer contributions. Nor does it, save by the grant of the necessary general powers to the departments concerned, attempt to prescribe the administrative orders and rules which, in substitution for the present Poor Law Orders of the Local Government Board, may be found necessary to give effect to the changes proposed.

ADMINISTRATION OF OUTDOOR RELIEF.

CIRCULAR BY THE LOCAL GOVERNMENT BOARD.

THE Local Government Board (England and Wales) has issued to boards of guardians a Circular dated March 18th, 1910,* stating that the Board has had under consideration the recommendations of the Royal Commission on the Poor Laws and Relief of Distress with regard to the methods and principles which should govern the administration of public relief. The Circular is designed to draw the attention of guardians to certain of these recommendations, and at the same time to set out briefly the main principles on which relief to the poor in England and Wales is based, together with some suggestions for improving the machinery of administration.

After some general observations on the objects and conditions of the grant of relief, the Circular discusses the general principles governing outdoor relief, including outdoor medical relief, and concludes with paragraphs on the necessity for co-operation between charities and the Poor Law.

The Grant of Relief.

The opening paragraphs are as follows:

The State has imposed upon the guardians of the poor the duty of relieving the destitute, and in order to enable them to discharge this duty has empowered them to expend funds contributed from the Imperial taxes or raised from the local rates; but the State has also imposed conditions which control and limit this expenditure. The funds in the hands of the guardians are raised compulsorily, and not by voluntary contributions, and they are therefore not in a position to dispense charity at will.

Relief from public funds may only be given within the limits prescribed by the law, and the law as it at present stands limits such relief to cases of destitution. The guardians are entrusted with the task of deciding upon the evidence before them whether a particular person whose case is under consideration is or is not destitute; and in determining this question they have to remember that a person may be destitute in respect of the want of some particular necessity of life without being destitute in all respects—as, for instance, a person who is not destitute in the sense that he is entirely devoid of the means of subsistence may yet be destitute in that he is unable to provide for himself the particular form of medical attendance or treatment of which he is in urgent need.

Moreover, the relief given should be of such a nature that, while it meets the needs of the recipient, it is also in accordance

* To be obtained through any bookseller from Messrs. Wyman and Sons, Fetter Lane, London, E.C.

with the interests of the community at large. It is obviously not in accordance with the interests of the community that the amount or description of the relief granted should be such as either to discourage the recipient from striving to regain his independence, or to induce others who are still independent to relax their efforts to maintain their present position.

The Board recognizes that the circumstances of all unions are not the same, and that consequently it would be inexpedient to issue a complete code of rules relating to the administration of relief. At the same time the fundamental principles which should govern the administration of relief and the manner in which such principles should be carried into practice are generally applicable to the circumstances of all parts of the country.

General Principles Governing Outdoor Relief.

The Board considers that the conclusions of the Royal Commission are in substantial agreement with the policy of the Department, as expressed in the numerous orders, instructions, and circular letters issued from time to time, and states as follows:

The Commissioners have indicated that in their judgement insufficient inquiry into the circumstances of applicants is the chief cause of the defects on which they lay most stress. These defects are:

1. The grant of outdoor relief which is inadequate, because it does not sufficiently meet the actual necessities of the case;
2. The giving of indiscriminate or unconditional outdoor relief; and
3. The lack of uniformity in the principles on which outdoor relief is administered.

It is clear that the first point to be observed in a proper and businesslike administration of relief is that the guardians should endeavour to acquire a complete knowledge of the circumstances and needs of the applicant, and should inform themselves, by every means in their power, of the resources of the applicant, so that they may be in a position to form a considered judgement as to the necessities of the case and the right mode of dealing with it.

The question whether outdoor rather than indoor relief should be given should be decided by principles based on sound public policy, and "upon the guardians devolves the arduous and responsible duty of exercising a wise discrimination in each case which comes before them, so as to ensure that any relief which they may decide to grant shall be subject to such conditions as will check the supply of future pauperism."

When relief has once been given, the case should be kept under close and careful supervision, to ascertain whether it has ceased to be necessary or is insufficient or inappropriate. With reference to defects discovered in public health conditions, the Circular contains the following observations:

Where the guardians or their officers find that the poor are living in insanitary dwellings, the attention of the Sanitary Authority, whose powers have recently been enlarged under the Housing, Town Planning, etc., Act, 1909, should be called to the fact. In London it is the duty of the relieving officer, under Section 3 of the Public Health (London) Act, 1891, to give to the Sanitary Authority information of dwellings which are overcrowded or injurious to health. The Board may remind the guardians, too, that under Article III of the Order of February 12th, 1879, it is the duty of every Poor Law medical officer to give notice to the Sanitary Authority of cases of contagious, infectious, or epidemic disease of a dangerous character occurring among the poor under his care, and that by the Public Health (Tuberculosis) Regulations, 1908, he is required similarly to notify cases of pulmonary tuberculosis. It is desirable that there should be a close co-operation between the guardians' officers and the officers of the Sanitary Authority. Such co-operation is valuable in securing that curative treatment should be undertaken at an early stage, not only giving to the patient an improved prospect of recovery, but also diminishing the number of cases in which permanent chargeability is caused by disease.

Administrative Machinery.

While recognizing that the appointment by guardians of separate relief committees for different areas may be necessary in some populous areas, the Board considers that the arrangement is apt to lead to want of uniformity, and expresses the opinion that a useful rule, capable of general application, is that each committee should be representative of all parts of the union and not a particular area only, and that a guardian should not adjudicate upon applications from residents in the parish or ward which he represents. As a general rule, all fresh applications for relief should in the first instance be considered and decided upon by the whole board of guardians, the functions of the relief committees being limited to the supervision of the cases and the renewal of the relief where the circumstances are not altered.

With regard to relieving officers, the Board, while holding that, where possible, a relieving officer should perform all the duties attached to the office, considers that in urban areas where there is much poverty a division of the duties is usually desirable, so that the time of the district relieving officers may be devoted mainly to their principal duties of visiting and investigation; in such districts a superintendent relieving officer should be appointed to exercise educative control and supervision over the district officers, and possibly one or more general relieving officers to perform such special duties as those in connexion with lunatics, or with settlement and removal. With regard to the selection of persons for appointment as relieving officers, the following observations are made:

The Board desire particularly to impress upon guardians the necessity of appointing suitable and well qualified persons to the office of relieving officer. The duties obviously require in a special degree the qualities of sympathy, firmness, and tact, and it is most desirable that preference should be given to candidates who have had previous experience of similar duties. The Board have observed with regret that some boards of guardians have in the past made appointments to this and other offices which suggest that efficiency has not been the primary consideration, but they hope that, in the interests of Poor Law administration generally, the guardians will now recognize more fully the obligation imposed by the position of trust which they hold, and will be guided solely by regard for the welfare of those committed to their care. In populous areas, and for posts such as that of superintendent relieving officer, it will be specially important that men with sufficient training and experience in the duties should be appointed; thus persons who have acted as assistant relieving officers may be selected as district officers, and the higher posts may well be regarded as affording further opportunities for promotion for those who have proved their capacity in district work.

Case Paper System.

The Circular proceeds to advise the general adoption of the Case Paper System as recommended by the Royal Commission, and adds that it is proposed at an early date to make it compulsory. When this has been done a special report will in all cases be required from the relieving officer on the conditions of any children whose parents are in receipt of outdoor relief.

Outdoor Medical Relief.

The paragraph on this matter is as follows:

"In the administration of outdoor medical relief the same care should be observed by the guardians as in the case of ordinary outdoor relief.

"While there should be precautions to prevent an undue resort to medical relief at the cost of the rates, it is important that every facility should be provided to enable the sick poor to obtain the medical assistance of which they stand in need. For this purpose the medical relief districts should be so arranged that the services of the district medical officer may be readily available, and steps should be taken to ensure that there is no unnecessary delay in obtaining a medical order.

"It is especially important that the guardians should be able to supply the services of nurses in case of need. Nurses are generally best provided through the agency of local nursing associations, and the Board are willing, as in the past, to sanction subscriptions by the guardians for this purpose. In a recent circular letter the Board made a similar suggestion as regards midwives.

"The Board recognize that much good is done by means of provident dispensaries and medical clubs, and they consider it desirable that the guardians should avoid action which may have the result of discouraging membership of such societies."

Co-operation between Charity and the Poor Law.

The Circular concludes as follows:

Guardians who strive to act as conscientious trustees in the application to the relief of destitution of money raised compulsorily from ratepayers, many of whom are themselves not far removed from indigence, will avail themselves of the help of the great stream of voluntary charity—of charity not consisting alone of material gifts, but of contributions of time,

effort, and goodwill. Rightly used, such charity will provide forms and means of assistance which are beyond the power of the Poor Law machinery; but the co-operation between the compulsory and the voluntary forces must be intelligent and organized. If it is not, both will be rendered less effective.

So long ago as 1869 Mr. Goschen, in the minute [then issued by the Board], pointed out the need of an understanding between the Poor Law authorities and those administering charities, in order to avoid the evils resulting from a double distribution of relief to the same person, and to secure that the most effective use should be made of charitable contributions. The minute laid down the principle that the Poor Law authorities should confine their operations to those persons who were actually destitute and for whom they were legally bound to provide, while the charitable organizations, whose alms could in no case be claimed as a right, would most appropriately assist those who though not actually destitute might for the want of timely assistance become so.

It was also pointed out that where charitable agencies considered it within their province to aid persons in receipt of Poor Law relief it was desirable that they should do so, not by affording additional means of income, but by supplying once for all such articles as did not clash with or overlap the relief administered by the guardians.

A valuable suggestion was contained in the minute which the Board would wish to see largely adopted. It was that detailed information as to all persons in the district receiving relief, whether Poor Law or charitable, should be collected and made available for the use of every agency, official or private, engaged in the relief of the poor. In some places steps have been taken by the guardians in concert with the charitable and other agencies to provide a register of the kind indicated, and great benefit is found to result.

The Board are ready to encourage and support any proposals which the guardians may make in this direction or otherwise with a view to securing more efficient co-operation between charity and the Poor Law.

Meetings of Branches & Divisions.

[The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the JOURNAL.]

BOMBAY BRANCH.

A MEETING of the members of the Branch was held in the University Library on Thursday, February 17th, at 5.30 p.m., when Dr. SORAB K. NARIMAN, the Vice-President, took the chair. The following members were also present: Drs. M. N. Kapadia, D. E. Sabja, B. P. Karani, M. P. Kerrawalla, H. J. Dadysett, J. C. Balsara, H. W. Anklesaria, K. S. Engineer, Miss A. M. Benson, M.D., Dr. (Miss) Jalibai Engineer, Assistant-Surgeon J. Samuel, Lieutenant-Colonel H. P. Dimmock, I.M.S., and the Honorary Secretary (Dr. D. R. Bardi).

Tea.—Half an hour was spent in social intercourse, when the members were entertained to tea.

Confirmation of Minutes.—The minutes of the last meeting of the members were read, confirmed, and signed by the Chairman.

Exhibits.—Dr. H. J. DADYSETT showed the following apparatuses: (1) Dr. Bussard's aërothermic apparatus for dry catarrh of the middle ear; (2) Dr. Low's kalvolin apparatus for suppurative catarrh of the middle ear; (3) Dadysett's furuncle knife; (4) Dr. Lake's turbinotome; and (5) Dr. Gruber's ear polypus forceps.

Paper.—Dr. H. J. DADYSETT then read a paper entitled a Plea for Early Operation in Cancer, with notes on cases of carcinoma of the throat observed in Bombay. In the discussion which followed, Dr. M. P. KERRAWALLA urged a plea for early diagnosis of cancer, and said that for early operation early diagnosis was imperative.

Votes of Thanks.—Dr. SORAB NARIMAN proposed a hearty vote of thanks to Dr. H. J. Dadysett, both for his very interesting paper and the various apparatuses he had so kindly demonstrated. After a hearty vote of thanks to the Chairman the meeting was dissolved.

CAPE OF GOOD HOPE—EASTERN PROVINCE BRANCH.

THE annual meeting of this Branch was held at Steinman's Hotel, Grahamstown, at 7.30 p.m., on Friday, February 18th. Dr. G. E. FITZGERALD was in the chair, and there were present: Drs. A. Cowper, P. B. Grenfell (Alexandria), R. T. Harrison, R. C. Mullins, C. F. Lillie, G. B. Pitman (Bedford), E. G. Dru Drury, also Professor Cory, of Rhodes University, as visitor.

Dinner.—The meeting was preceded by a dinner.

Confirmation of Minutes.—The minutes of the meeting, December 10th, 1909, were read and confirmed.

Model Health Regulations for Grahamstown.—A letter was read from the Town Clerk announcing that the Sanitary Committee had recommended the Council to adopt model health regulations for the city of Grahamstown.

Colonial Medical Council.—A *précis* of the proceedings of the Colonial Medical Council was laid on the table.

Letter from Transvaal Medical Society.—A letter from the Transvaal Medical Society on legislation under the Union was referred to the Parliamentary Committee for report.

Letter from Dr. Greenlees.—A letter was read from Dr. Greenlees offering hospitality to members of the Branch at the London meeting in July.

Apology.—Wire of apology from Dr. Jones-Phillipson, Port Alfred.

Scale of Fees.—A letter from Dr. S. Smyth (Seymour) on the scale of fees was read.

South African Committee.—A letter from Mr. J. Smith Whitaker announced the fact that a South African Committee had been constituted by the Central Council on October 27th, 1909.

Reports of Secretary and Treasurer.—The report of the Secretary and that of the Treasurer were laid on the table.

Library.—It was resolved that the Council should be empowered to apply to the Central Council for a £5 grant in aid of the library.

Reports and Lists of Members.—It was resolved that reports and lists of members be printed.

Election of Officers.—Dr. FITZGERALD then announced the result of the ballot, which was as follows:—*President*, Dr. P. B. Grenfell (*ex officio*); *Vice-President*, Dr. E. G. Dru Drury (Grahamstown); *Honorary Secretary and Treasurer*, Dr. R. T. Harrison (Grahamstown); *Council*, Dr. J. Bruce-Bays (Grahamstown), Dr. A. Cowper (Grahamstown), Dr. G. E. FitzGerald (Grahamstown), Dr. C. F. Lillie (Grahamstown), Dr. R. C. Mullins (Grahamstown), Dr. J. B. Greathead (Colesberg), Dr. C. E. Jones-Phillipson (Port Alfred), Dr. Geo. Pitman (Bedford), Dr. W. Scott (Somerset East); *Member of Central Council*, Dr. T. D. Greenlees (London); *Member of South African Committee*, Dr. J. Bruce Bays.

Rules for South African Committee.—The additions to the rules to cover the newly-formed South African Committee were then proposed, seconded, and carried, with the substitution of the words "be bound by" for "obey" in Rule 7*a*. Addition to Rule 4:

> The Secretary shall furnish to the South African Committee any copies of the annual report and balance sheet, rules, minutes of meetings, lists of members and all other documents that he may be required by that Committee to furnish.

Add between Rules 7 and 8:

> Rule 7*a*: The members of the Cape of Good Hope, Eastern Province Branch, shall be bound by the decisions of the South African Committee in all matters that may be lawfully referred to it. They shall have a right of appeal to the Central Council of the Association.

President's Address.—Dr. G. B. GRENFELL, having taken the chair, read the Presidential address, Some Notes on Country Practice in South Africa.

Votes of Thanks.—Votes of thanks were accorded to Dr. Grenfell, the out-going President, and to the Secretary for his invaluable six years' services.

Ethical Committee.—It was resolved that the Branch Council be the Ethical Committee for 1910.

Paper.—Dr. PURVES read a note on recurrent carcinoma of the face treated with his sheep serum, which had repeatedly lowered the temperature and had apparently relieved the pain. Illustrative sections under four microscopes were shown.

Notice of Amendment.—Dr. FITZGERALD gave notice to amend Rule 12 by deleting Section 5.

GIBRALTAR BRANCH.

THE annual general meeting of this Branch was held on February 24th at the Assembly Rooms, Dr. OMAN taking the chair during the absence of Colonel Murray, who arrived late.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Report of Branch Council.—The Branch Council's report was read.

Election of Officers.—Dr. Lilly (Deputy Inspector-General) was unanimously elected *President* and Dr. Lyons *Vice-President.* Dr. L. D. Parsons was re-elected *Secretary and Treasurer. Branch Council*, Dr. Oman, Major Fowler, Staff Surgeon Hall, Dr. Abrines, and Dr. Gill.

Representative of Branch.—Dr. L. D. Parsons was elected Representative of the Branch for the forthcoming Annual Meeting. The appointment of delegates (if any) was deferred till nearer the time.

Annual Dinner.—After the meeting the following sixteen members and four guests sat down to dinner: Dr. Lilly, Dr. Waters, Colonel Murray, Lieutenant-Colonel Faunce, Dr. Oman, Dr. Mathew, Mr. Frere, Dr. Parsons, Major Howell, Mr. King, Dr. Gill, Dr. Lyons, Dr. Vasquez, Dr. Stone, Mr. Abrines, Major Fowler, Mr. Parodi, Dr. Abrines, Dr. Hall, and Dr. Daw.

GLASGOW AND WEST OF SCOTLAND BRANCH:
GLASGOW NORTH-WESTERN DIVISION.

A MEETING of this Division was held in the Burgh Hall, Hillhead, on Wednesday, March 9th, at 8.30 p.m. Dr. MORTON was in the chair. There were present: Drs. Richmond, Buchanan, Snodgrass, Barbour, Whitehouse, A. T. Campbell, J. H. Campbell, Mackintosh, and Caskie. Dr. Roberts, School Medical Officer to the Glasgow School Board, and Dr. A. Brown, School Medical Officer to the Govan School Board, also attended by invitation.

Confirmation of Minutes.—The minutes of the last meeting were read and approved.

Questions to Parliamentary Candidates.—The SECRETARY intimated that he had received replies to the memorandum and questions which had been sent to the parliamentary candidates for the Division from Sir J. Stirling Maxwell, Sir F. Pollock, Sir H. Craik, Mr. H. A. Watt, and Mr. R. Balfour. While reserving the right to further consideration of the details, the majority of the candidates had given satisfactory replies.

Treatment of Defective School Children.—The CHAIRMAN explained the nature of the circular which had been received relating to the treatment of defective school children, and referred to the presence of the two school medical officers. Dr. BROWN was then invited to open the discussion on the subject, of which he said there was little experience in Scotland. The primary duty of school boards was to inspect the children, to discover those that were defective, and to refer them to the parents to have them treated. From the school board point of view there were four methods by which the treatment could be carried out, namely:

1. By hospitals and dispensaries.
2. Poor Law and provident dispensaries.
3. School clinics.
4. General practitioners.

He referred to a report adopted by a subcommittee, lay and medical, to whom the question of treatment and the methods available for such treatment had been referred, which had been presented to the London County Council, and whether such treatment should be undertaken by the Council or by existing institutions. The Council, as a result, made arrangements with thirteen metropolitan hospitals for the treatment of cases, and they hope to recover the amount contributed—namely, £5,000 to £6,000 under the new Act. The London County Council rejected the idea of establishing school clinics. In populous districts small rooms might be taken for the treatment of affections of the ear, eye, nose, and throat, or school boards might establish, under their own control, institutions or small dispensaries for the same purpose. In other districts medical practitioners might be appointed or a special staff appointed—that is, whole-time officers. The difficulty arose in the treatment of necessitous cases, when no fee could be obtained. If no treatment was carried out at home and the cases gravitated to dispensaries or hospitals, how were the medical staff to be remunerated? His own opinion was that notification should in the first place be sent to the parents, explaining the nature of the defect and referring them to their own medical attendant for treatment. The nurse called afterwards and ascertained if treatment was being carried out, and in necessitous cases, where there was a large family with small wage earnings, such should be referred, after investigation, to charitable institutions. Dr. ROBERTS, on being invited by the Chairman to address the meeting, stated that the diagnosis of defective school children was made by the school medical officer, and when any defect was discovered the parent was informed, by means of a printed card, in the ordinary way, and was urged to seek medical advice. The educational authorities considered that the treatment should depend on the parent. If the parents were poor, the case was referred to the hospital; if under the Poor Law, to the parish doctor. The school nurse visited cases, and ascertained if anything was being done; after two months, if nothing had been done, the parent, if in England, was prosecuted, and several cases had been tried in Liverpool. He then alluded to the arrangements which the Bradford School Board had made in the establishment of a school clinic of fourteen rooms, with three medical officers to attend to the various conditions of the children. Drs. ROBERTS and BROWN stated that no treatment was undertaken by whole or part-time medical officers of their respective boards at present, but a donation was given to the Glasgow Eye Infirmary. The Scottish Education Act gives full power to the School Board when the parent fails to do his duty. The CHAIRMAN then read the minutes of the Representative Meeting which had been approved by the Committee, and several questions were addressed to, and answered by, the school medical officers. Dr. WHITEHOUSE mentioned that there had been a large increase of cases for operation at the Throat Hospital during the month of January. The CHAIRMAN thought the real difficulty occurred in discriminating those parents who could not pay, but Dr. BROWN suggested that the nurse might be able to ascertain whether the parents were necessitous or not. Questions were asked about cases sent into the hospital by the School Board, and also cases treated by the part-time officers, which were answered and explained; also if the school medical officers would co-operate with the private practitioners. If any payment was given to the private practitioner, Dr. MACKINTOSH considered the School Board would expect to have some control.

Votes of Thanks.—The CHAIRMAN conveyed the thanks of the meeting to Drs. Roberts and Brown for their attendance at the meeting, and for the information they had given of the arrangements made by the School Boards of Glasgow and Govan.

Proposed Payment of Hospital Staffs.—Dr. WHITEHOUSE handed in a motion for next meeting, namely:

> That all members of the medical staff of hospitals should receive an honorarium.

MALAYA BRANCH.

THE annual meeting of the Branch was held at Kuala Lumpur, Federated Malay States, during the Chinese new year holidays, February 10th to 12th. At the opening meeting, which was held at the Institute of Medical Research on Thursday afternoon, there were present Lieutenant-Colonel Barratt, R.A.M.C., Drs. McDowell, Watson, Fraser, Stanton, Freer, Travers, McClosky, Wellington, Masters, Whittle, McGregor, Cooper, and Finlayson. The chair was occupied by the PRESIDENT (Dr. G. D. Freer).

Confirmation of Minutes.—The minutes of the previous annual meeting were read and confirmed.

Report and Statement of Accounts.—The Honorary Secretary's report and the Honorary Treasurer's statement of accounts were submitted and passed.

Election of Office-bearers.—The following gentlemen were elected by ballot office-bearers for session, 1910: *President:* Dr. M. Watson, Klang. *President-elect:* Dr. J. Kirk, Penang. *Vice-Presidents:* Singapore, Dr. D. J. Galloway; Penang, Dr. Avetoom; Federated Malay States, Dr. G. D. Freer. *Members of Council:* Singapore, Dr. R. D. Keith, Dr. Fowlie, Dr. More; Penang, Dr. G. W. Park; Federated Malay States, Dr. Lucy. *Secretary:* Dr. W. MacDougall. *Treasurer:* Dr. G. E. Brooke. *Representatives on S.S. and F.M.S. Medical Council:* Singapore, Dr. Middleton, Dr. Galloway; Penang, Dr. Avetoom, Dr. Kirk. *Representative on Council, S.S. and F.M.S. Medical School:* Dr. Lim Boon Keng.

Installation of New President.—Dr. WATSON thereupon took the chair vacated by the retiring President.

Ankylostomiasis.—After thanking the members for the honour bestowed upon him by their suffrage, the PRESIDENT introduced a discussion upon ankylostomiasis. He was of opinion that, though a considerable percentage of the estate coolies harboured the parasite, in only a few instances did the ankylostomata exist in such numbers as to produce any marked pathological condition. Various points—for example, mode of infection, treatment by varied drugs, isolation of infected individuals, the disposal of faeces—were entered into by other members in the course of the debate.

Cases.—Dr. STANTON demonstrated several varieties of intestinal parasites, etc. Dr. MCCLOSKY showed a Chinese boy, suffering from leprosy, who had undergone a prolonged course of nastin treatment. The disease had been somewhat alleviated, several of the nodules being considerably reduced, while others had almost disappeared.

President's Address.—On Friday forenoon Dr. M. WATSON delivered his Presidential address on malaria. By maps and charts he illustrated the incidence of the disease on estates in the district of Klang, and showed how a definite scheme of drainage had materially reduced the disease in the low-lying districts, while in the hilly parts, especially adjacent to jungle, the case-incidence and death-rate remained extremely high. This was accounted for, he said, by the fact that in the former one found *Anopheles* which were not readily infected by the parasite of malaria, while in the latter one found types which were ready carriers. He touched upon the results obtained by the systematic exhibition of quinine, but upheld the opinion that the drainage of a malarious area was of far greater utility for the eradication of the disease. A cordial vote of thanks was given to the President for his highly interesting address.

Communications.—Dr. MCCLOSKY read notes on several cases which had occurred at the District Hospital, Kuala Lumpur, including three cases of vesical calculus on whom lateral lithotomy had been performed, and two instances of oesophageal stricture. Dr. WELLINGTON gave a short report on the results obtained by different vaccines imported from England.

"At Home."—In the afternoon the Federated Malay States members held an "at home" at the Institute, which was attended by a considerable section of the general public. The buildings and grounds were thrown open to the visitors, who were hospitably entertained, and for whose enlightenment the Director, Dr. Fraser, and Dr. Stanton had arranged a number of interesting specimens.

Beri-beri.—On Saturday forenoon Dr. FRASER gave an account of his recent work on beri-beri, elaborating the paper which has just been published. He described fully the microscopical appearances of the different varieties of rice and their chemical constitution. He also exhibited specimens of rice in the stages of preparation for the market and the animals on which the experiments were being performed. A short discussion followed, in which Drs. FREER, TRAVERS, and BRADDON (attending as a guest) took part.

Visit to Hospitals, etc.—On Saturday morning the visitors were conducted round the hospitals, while the afternoon was spent by some on a motor trip to the Batu Caves. Others competed on the golf links for a cup, presented by Dr. M. Watson, to be played for annually—medal round on club handicap. This was won by Dr. McClosky.

Annual Dinner.—The annual dinner was held in the Masonic Hall in the evening, when seventeen members sat down to table. Dr. WATSON was in the chair, while Dr. FREER occupied the seat of croupier.

METROPOLITAN COUNTIES BRANCH:

HAMPSTEAD DIVISION.

A MEETING of this Division was held on Friday, February 25th, at the Hampstead Conservatoire, at 8.30 p.m., Mr. H. W. ARMIT in the chair.

Hampstead Hospital.—A short discussion took place on the Hampstead Hospital question in its present development. The following proposals, put forward by the Executive Committee, were postponed owing to the very short time which was available for their discussion:

(i) That the practice of inserting warning notices in the BRITISH MEDICAL JOURNAL be discontinued.
(ii) That the Council be requested to delete from its minutes all proceedings relating to the expulsion of members in connexion with a warning notice, and to offer reinstatement to all members affected.

The action of the committee in withdrawing the Warning Notice, in accordance with the following resolution, was approved:

Inasmuch as the Association has been either unwilling or unable to enforce the observance of the Warning Notice with respect to the Hampstead Hospital, the Divisional Committee sees no use in its continuance, and has no course open but to withdraw it.

Protozoology and its Medical Aspects.—At 9 p.m. Professor MINCHIN delivered a very interesting lecture, "Protozoology and its Medical Aspects." The lecture was illustrated by many beautiful drawings exhibiting the life-history of the chief pathogenic protozoa. In the discussion which followed Drs. ARMIT, FORD ANDERSON, and PARSONS took part.

Vote of Thanks.—Dr. CORAM JAMES moved and Dr. FORD ANDERSON seconded a vote of thanks to Professor Minchin, which was carried with acclamation. The meeting terminated about 11 p.m.

LAMBETH DIVISION.

A MEETING of this Division was held on Thursday, March 17th, at 4 p.m., in the Evelina Hospital, Dr. W. H. B. STODDART in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Poor Law Reform.—Affirmative replies were sent to all the questions appended to the Interim Report of the Poor Law Reform Committee.

Relation of Homoeopaths to the Association.—Affirmative replies were sent to the first three questions appended to the Report of Council on the Relation of Homoeopaths to the Association.

Infant Feeding.—A paper was read by Dr. DAVID FORSYTH upon a rational system of infant feeding. He pointed out how great was the loss of heat from the relatively large surface of the young infant. It had been calculated that 80 per cent. of the food was devoted to the restoration of the heat lost in an infant. Weight, therefore, and not age should determine the amount of food given. In hot weather the amounts should be diminished; when perspiration occurred it should be given more diluted. In thin children care should be taken to diminish this loss of heat. In the discussion which followed, Dr. DENNING, Dr. SPON, Dr. CLATWORTHY, Dr. CAMERON, Dr. ROBERTS, and the CHAIRMAN took part.

Demonstration of Cases.—Dr. H. C. MANN showed a series of cases illustrating different types of mental defect in children.

Votes of Thanks.—Votes of thanks were accorded to Dr. Forsyth and to Dr. Mann, as well as to the authorities of the Evelina Hospital for their kindness in providing accommodation and entertainment.

STRATFORD DIVISION.

A MEETING of this Division was held at the Alexandra Hotel, High Street, Stratford, on Thursday, March 17th, Mr. COUSENS, F.R.C.S., presiding.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Address.—Mr. A. H. TUBBY, F.R.C.S., gave a very interesting address on the treatment of some common deformities of childhood. The lecture was very highly appreciated by the members present, and, after Mr. Tubby had answered several questions, he was accorded a cordial vote of thanks.

WESTMINSTER DIVISION.

AN ordinary meeting of this Division was held at St. George's Hospital, S.W., on Tuesday, March 1st, at 8.15 p.m., the President, Dr. DAUBER, in the chair.

Hampstead Hospital.—The following resolution was carried unanimously:

> That the Westminster Division, British Medical Association, regard the final settlement of this question with grave dissatisfaction, considering that, after inquiries and deliberations extending over two years, the extraction of a tardy and unpublished apology from the offending members to be a weak and unjust conclusion to so important an issue, and one subversive of the discipline of the Association.
>
> The Westminster Division demands a clear and explicit ruling as to: (*a*) The meaning and extent of a "Warning Notice" published in the JOURNAL, (*b*) the consequences to members who disregard it—believing that such uncertainty as has been shown in the discussion of this matter lowers the British Medical Association in the opinion of the profession, and tends to prevent practitioners from becoming members.

Dr. KNOWSLEY SIBLEY made a statement.

Poor Law Reform Committee.—The interim report of the Special Poor Law Reform Committee was then considered, and all the questions asked were answered in the affirmative.

Relation of Homœopaths to the Association.—The question of the relation of homœopaths to the Association was then considered, and answers sent to the questions asked. With regard to Question E the following answer was sent:

> That, in view of the breakdown of the disciplinary powers of the Central Council over the Hampstead dispute, the Division is of opinion that the Council should not move in cases such as those referred to under Question E.

Paper.—Dr. ALLPRESS SIMMONS then read a paper on the equipment and organization of the *x*-ray and electro-therapeutical department of a general hospital.

X-ray Demonstration.—This was followed by a demonstration of the *x*-ray department of St. George's Hospital.

Vote of Thanks.—After a cordial vote of thanks to Dr. Simmons and the authorities of St. George's Hospital the meeting terminated.

NATAL BRANCH.

THE annual meeting of this Branch was held at the Royal Hotel, Durban, on Friday, February 4th, at 8.15 p.m. Dr. DUMAT, President, was in the chair, and there were present: Drs. Hyslop, Pitchford, Roycroft, from the Maritzburg Division; Drs. McKenzie, Pearson, Bonnar, Copley, Smythe, Knight, Peverley, Del Castillo, Howden, Aubrey, Burnand, Cross, Dyer, Fernandez, Francois, Murray Gray, Hayden, Harrison, Hira Maneck, Nichol, Mackay, Reynolds, Rouillard, and the Honorary Secretary.

Apologies for Non-attendance.—Letters of apology for absence were received from Drs. Campbell Watt, Pringle, and Freer, of the Maritzburg Division; and Drs. Campbell and Edwards of the Durban Division.

Confirmation of Minutes.—The minutes of the previous Branch meeting were read and confirmed.

General Report of Branch.—The general report of the Branch, which had been circulated previously to members, was taken as read and adopted without comment.

Treasurer's Report.—Dr. COPLEY drew attention to several items in the statement of revenue and expenditure for the year. After explanation had been given of these items by the HONORARY SECRETARY, the Treasurer's report, on the motion of Dr. COPLEY, seconded by Dr. HYSLOP, was adopted.

Election of Office-bearers.—The PRESIDENT read out the result of the voting for the Council. The following were declared duly elected: Drs. Murison, Dumat, Pearson, Pitchford, Addison, and Campbell. The election of President was taken by ballot, and Dr. Murison elected. Dr. Pitchford was elected Vice-President, Dr. Pringle was re-elected Treasurer, and Dr. Murray Gray was elected Honorary Secretary.

Delegates to Annual Meeting.—No nominations being forthcoming, this matter was referred to the Divisions to elect representatives and communicate the result to the Branch Honorary Secretary.

Election of Representative to Representative Meeting.—As no name was forthcoming for this post, it was also referred to the Divisions.

Next Election of Office-bearers.—It was unanimously agreed that the next office-bearers be selected from the Maritzburg Division, and that the next annual meeting be held at Maritzburg.

South African Committee Regulations.—These were laid on the table and explained by the PRESIDENT. Drs. Hyslop and Campbell Watt were appointed delegates from the Natal Branch to the South African Committee, British Medical Association.

Beit Memorial Fellowships for Medical Research.—The Honorary Secretary was instructed to take immediate steps to make suitable official representation to the Hon. the Colonial Secretary for Natal to obtain his sympathy and assistance in securing for South Africa the benefit of some of these fellowships, in order that investigations may be carried out on the spot in connexion with many diseases prevalent in this country.

Votes of Thanks.—The retiring President, Dr. Dumat, did not give an address, but a vote of thanks was proposed by Dr. HYSLOP, seconded by Dr. BONNAR, to the President for his services during the past year. This was carried with acclamation. Dr. Murison was in the same way thanked for his services as Secretary. The meeting then ended.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH:

FURNESS DIVISION.

A MEETING of this Division was held in the Masonic Club, Barrow, at 3.15 p.m. on March 17th. There were present: Drs. Daniel, Harper, Callaghan, Alexander, Rutherford, and Livingston.

Confirmation of Minutes.—The minutes of the last meeting were read and adopted.

Treatment of Defective School Children.—This subject was considered, and it was decided that as no steps were being taken locally in the matter it was not desirable that action be taken. The Division would wait and watch.

Discussions at Annual Meeting.—The notice is too short for action to be taken this year, but it will be kept in mind for next year.

Special Class of Consultants.—The feeling of the meeting was that the matter did not affect this district.

Inquiry into Unqualified Practice.—The Secretary was instructed to write to the Medical Secretary to ask if this inquiry was still going on; also to give shortly an account of unqualified practice locally.

Public Medical Service.—A committee was appointed to discuss the question before bringing it up at a Divisional meeting.

SOUTH-EASTERN BRANCH:

FOLKESTONE DIVISION.

A MEETING of this Division was held on Thursday, March 3rd, at the house of Dr. Calverley, 21, Earl's Avenue, at 8.30 p.m. Dr. CHAMBERS occupied the chair. The following members were also present: Drs. Eastes, Davies, Perry, Tyson, Sworder, Major Paulk, Lewis, Wilgress, Calverley, Barrett, Scoones, Evans, Packman, and Dodd.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Relation of Homoeopaths to the Association.—The meeting then considered the report of the Central Ethical Committee on the relation of homoeopaths to the Association. Five questions sent from head quarters on the subject were discussed. It was then proposed by Dr. EASTES and seconded by Dr. PERRY:

> That the Division is of opinion that the Association should not attempt to pronounce what constitutes sound doctrine in medicine or surgery, nor condemn individual practitioners on the ground that they hold peculiar views of pathology or treatment.

This was carried unanimously.

Paper.—Dr. EASTES read an interesting paper on gall stones, and the following took part in the discussion which followed: Drs. TYSON, LEWIS, DAVIES, SWORDER, CALVERLEY, and CHAMBERS.

GUILDFORD DIVISION.

A MEETING of this Division took place at the Royal Surrey County Hospital, Guildford, on Friday, March 18th, at 4.30 p.m. Dr. A. HOPE WALKER, Chairman of the Division, presided.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Paper.—Dr. THOMAS HORDER (London) read an interesting paper on clinical medicine as an aid to pathology, in which he pointed out the importance of a careful study of the clinical signs of disease, especially in view of the present-day tendency to rely implicitly on the results of bacteriological examinations in order to arrive at a diagnosis of the patient's condition, and the consequent treatment by vaccines, etc., which too often proved quite useless. Questions were asked by several members, to which Dr. Horder replied.

Case.—Dr. A. H. GIFFORD showed a case of omental cyst, in which an operation had been performed, and which had presented great difficulty in diagnosis.

Matters Referred to Divisions.—The attention of members was called by the HONORARY SECRETARY to the following reports:

(*a*) Special Poor Law Reform Committee;
(*b*) The Relation of Homoeopaths to the Association.

No discussion took place on any of these matters.

Vote of Thanks.—The meeting terminated with a hearty vote of thanks to Dr. Horder for his interesting paper.

SOUTHERN BRANCH:
GUERNSEY AND ALDERNEY DIVISION.

A MEETING of this Division was held on February 26th in the offices of the Guernsey Board of Health. Eleven members were present.

Division's New Home.—The PRESIDENT congratulated the Division on meeting in their new home, granted by the kindness of the Board of Health for the purposes of housing the Divisional Library and of the regular meetings, and a vote of thanks was accorded to the Honorary Secretary for the successful result of his negotiations with the Board.

Honorary Secretary's Report.—Among the matters reported to the meeting by the Honorary Secretary were (1) the acceptance by the Board of Health of the suggestion of the Division that the £1 1s. a week rate at the Isolation Hospital should be abolished, and that only two classes of patients be recognized, free and private, the latter paying from £2 2s. a week upwards; (2) that he had secured the conviction with the maximum fine of £20, or three months' imprisonment (fine paid), of F. H. Roussel for illegal (unregistered) practice; (3) that the new lunacy law had passed the States of Guernsey, and was now before the Privy Council.

Matters referred to the Division.—The meeting considered the documents submitted to the Division by the Medical Secretary, and appointed a subcommittee to report to the next meeting on (1) model rules for a public medical service; (2) medical inspection and treatment of school children; (3) interim report on English Poor Law.

Ambulance and First Aid Lectures.—Dr. M. H. BULTEEL reported that fees were paid in Guernsey for ambulance and first aid lectures at the rate of £2 2s. for five lectures and £1 1s. for examinations, and that he had to give no bandaging classes. The fees were not considered inadequate.

The Association and Homoeopaths.—The relation of homoeopaths to the Association was considered, and the Secretary was directed to write to the Medical Secretary to point out that before Divisions were asked to give an important vote on this question more information was desirable as to the medical, surgical, and obstetrical training and practice of homoeopaths.

The late Dr. H. J. Manning.—The Secretary was directed to convey the sympathy of the Division to the family of the late Dr. Manning of Salisbury, whose work as Branch Secretary was so well known and appreciated by all the Southern Divisions.

SOUTH MIDLAND BRANCH:
BUCKS DIVISION.

A MEETING was held at the Royal Bucks Hospital on Wednesday, March 16th. There were twenty members present. The chair was taken by Dr. BAKER, and others attending were Dr. Linnell, President of the Branch; Drs. Benson, Bradbrook, Buxton, Carruthers, Eagles, Graham, Hogarth, Hardwicke, Kerr, Kennish, Larking, Perrin, Magrath, H. Rose, A. T. Turner, E. O. Turner, West, and Colonel Giles.

Apologies for Non-attendance.—Apologies were received from Drs. Reynolds, Wheeler, Gardner, and Shaw.

Boundaries of Division.—It was resolved to apply for Farnham Royal to be joined to the Bucks Division.

Election of Central Council.—The SECRETARY explained the new method of electing the Central Council.

The Tuberculosis Problem.—Dr. HOGARTH, Medical Officer of Health for the County, read an interesting paper on the "The Tuberculosis Problem," and a discussion took place.

Medical Practitioners and Midwives.—It was decided to support the Manchester Corporation in their project to make the local supervising authority pay the fees of medical men called in by midwives rather than the Poor Law guardians, and to write to the Bucks County Council and other bodies on the subject. It was also decided to protest against the Newport Pagnell Guardians offering a fee of only 10s. to medical men called in by midwives; also against their proposal that other medical men should be called in only after the district medical officers had been applied to.

Poor Law Reform.—The Poor Law Reform Committee's report was referred to and their recommendations agreed to, and a resolution was passed trusting that they would expedite the issue of their further recommendations, so that the Divisions could discuss them and instruct their Representatives before the annual meeting.

Relation of Homoeopaths to the Association.—The questions relating to homoeopaths were all answered in the affirmative.

WEST SOMERSET BRANCH.

THE spring meeting of this Branch was held at the Taunton and Somerset Hospital on March 15th, the President, Mr. C. FARRANT, in the chair. There were present twenty members and one visitor.

Confirmation of Minutes.—The minutes of the last meeting were read and signed.

Red Cross Society.—The SECRETARY called attention to several inquiries he had received concerning the fees, if any, to be charged for instructing members of this and other societies. A discussion followed, but no resolution was adopted as Dr. MACDONALD informed the meeting that a decision on the matter might be expected in July as a result of the annual meeting of the Association.

Poor Law Reform.—Dr. MACDONALD reviewed the interim report of this Committee, and after various comments had been made the following resolutions were passed unanimously:

1. That medical services rendered on behalf of the State should be paid for by the State.
2. That the payment should be adequate and in accordance with the professional services required.
3. That there should be adequate medical representation on all committees formed to control medical assistance.

Cases.—A number of instructive and interesting cases were then shown by Drs. BALFOUR, BIRKBECK, FARRANT, A. J. H. ILES, and JOSCELYNE.

Tea.—At the conclusion of the meeting the members were entertained to tea by the President.

Association Notices.

ANNUAL REPRESENTATIVE MEETING, 1910.

DATE OF MEETING.

THE Annual Representative Meeting of the Association, 1910, will be held in the Court of Common Council Chamber, Guildhall, London, on Friday, July 22nd, 1910, and following days as may be required.

NOTICES OF MOTION: LAST DAY FOR RECEPTION.

ATTENTION is drawn to the fact that Notices of Motion from Divisions and Branches for the consideration of the Annual Representative Meeting in London in July, relating either to the alteration of the By-laws (Article XLVII), or to questions affecting the honour and interests of the profession (Article XXXI), must be published in the BRITISH MEDICAL JOURNAL not later than the issue of April 23rd, 1910, and for this purpose should be received by the Medical Secretary not later than Monday, April 18th.

By Order,

J. SMITH WHITAKER,
Medical Secretary.

COUNCIL MEETING.

A MEETING of the Council will be held at 2 o'clock in the afternoon of Wednesday, April 27th, in the Council Room at 429, Strand, London, W.C.

By Order,

GUY ELLISTON.
Financial Secretary and Business Manager.

March 24th, 1909.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BORDER COUNTIES BRANCH: ENGLISH DIVISION.—A general meeting of the English Division of the Border Counties Branch will be held at Whitehaven on Friday, April 1st. Any members wishing to read papers or show cases are requested to communicate with the Honorary Secretary.—S. E. RIGG, Honorary Secretary, 1, Alfred Street North, Carlisle.

EAST ANGLIAN BRANCH.—The spring meeting of this Branch will be held at the Palace Hotel, Southend, on Thursday, April 7th. Members wishing to read papers or to show cases or specimens should communicate at once with the Honorary Secretary, B. H. NICHOLSON, East Lodge, Colchester.

EAST ANGLIAN BRANCH: WEST NORFOLK DIVISION.—The next meeting of this Division will be held at the West Norfolk and Lynn Hospital on Thursday, March 31st, at 3.15 p.m.—J. R. FORREST, Honorary Secretary, Somerville, Terrington St. John, Wisbech.

LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—A general meeting of the Division will be held at the Greenbank Hotel, Northwich, on Wednesday, April 20th, at 5 p.m. A discussion will be held on the position of the general practitioner under the schemes in the Reports of the Royal Commission on Reform of the Poor Laws. Dr. J. H. Taylor, of Salford, has promised to attend and take part in the discussion. Dinner will be held after the meeting if a sufficient number of members promise to attend. Members who wish to stay for dinner are kindly requested to intimate their intention at once to the Honorary Secretary, H. G. COOPER.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH.—A meeting of the Branch will be held at the Hotel, Grange-over-Sands, on Wednesday, April 6th, at 2.30 p.m. Dr. Alexander will read a paper on Refraction Work in General Practice. Dr. Hogarth will read a note on Spinal Analgesia. Any member willing to show cases or specimens is requested to be good enough to send details to A. S. BARLING, Honorary Secretary.

NORTH WALES BRANCH.—A meeting of the Branch will be held at the Royal Hotel, Carnarvon, on Tuesday, March 29th, at 2.15 p.m. Agenda: (1) To read the minutes of the last meeting; (2) to read correspondence; (3) to receive the report of the Branch Council; (4) to read the financial statement for 1909; (5) to elect five representatives of the Branch on the Court of Governors of the University College of North Wales. The following papers will be read, specimens shown, etc.:—Dr. Price Morris: A case of Senile Gangrene of the Foot. Mr. R. H. Mills-Roberts, C.M.G.: A case of Excision of the Wrist, and will show some other Clinical Cases. Mr. K. W. Monsarrat: The Use of Bismuth Paste in Chronic Sinuses. Mr. J. Howell Evans: Some Points in the Treatment of Pruritus Vulvae. Mr. Rushton Parker: A Denture for Upper Jaw Filling Gap in Septum after Excision. Dr. J. Hill Abram: Surgery in Stomach Disease. Dr. A. J. Wallace: Note on Scopolamine in Normal Labour. Drs. O. T. Williams and E. R. Evans: An Unusual Case of Bone Disease. Dr. R. J. M. Buchanan: Cardiac Syphilis. Dr. H. Jones Roberts: A Case of Ruptured Urethra. Dinner at 6 p.m.; tickets, 5s. It will greatly facilitate the arrangements for the dinner if members who intend being present will kindly notify the Honorary Secretary before Saturday, March 26th. The Branch Council will meet at 1.30 p.m.—H. JONES ROBERTS, Honorary Secretary, Llywenarth, Penygroes, S.O.

SOUTH-EASTERN BRANCH: ISLE OF THANET DIVISION.—A clinical meeting of this Division will be held at the Royal Sea Bathing Hospital, Margate, on Friday, April 1st, at 4 p.m., Mr. W. G. Sutcliffe in the chair.—HUGH M. RAVEN, Honorary Divisional Secretary.

SOUTH-EASTERN BRANCH: MAIDSTONE DIVISION.—The next meeting of this Division will be held on Tuesday, March 29th, 1910, at 3.30 p.m. The Executive meeting will be at 3 p.m. Any member having subjects to bring forward is requested to communicate with the Honorary Secretary, as early as possible.—GEORGE POTTS, Honorary Secretary, Ophthalmic Hospital, Maidstone.

SOUTH-EASTERN OF IRELAND BRANCH.—A meeting of this Branch, as also a meeting of the Branch Council and the local Division, will be held at the Adelphi Hotel, Waterford, on April 6th, at 3.30 p.m. Agenda: (1) Minutes of last meeting. (2) Letters of apology. (3) Correspondence. (4) Nomination of officers. (5) Any other business. Luncheon at 2 30.—J. QUIRKE, Honorary Secretary, Piltown.

SOUTH MIDLAND BRANCH: NORTHAMPTONSHIRE DIVISION.—A meeting of the Division will be held in the Board Room of the Northampton General Hospital on Tuesday, April 5th, at 2.30. The meeting will be preceded by a luncheon at Franklin's Restaurant at 1.30. The Honorary Secretary will be much obliged if those desiring to attend the luncheon will let him know at least two days beforehand. Agenda: (1) Report of Executive Committee. (2) Consideration of Ethical Committee's Report on Homoeopathy (BRITISH MEDICAL JOURNAL, SUPPLEMENT, February 12th, 1910). (3) Consideration of Report of Special Poor Law Reform Committee (BRITISH MEDICAL JOURNAL, SUPPLEMENT, February 5th, 1910). (4) Election of members of the Division to the committee of the Northamptonshire Amateur Athletic Club. (5) Clinical cases and specimens. (6) Any other business.—PEVERELL S. HICHENS, Honorary Secretary, Northampton.

CENTRAL MIDWIVES BOARD.

A MEETING of the Central Midwives Board was held at Caxton House, Westminster, on March 17th, with Dr. F. H. CHAMPNEYS in the chair.

Training of Midwives.

The Board considered the lists of approved institutions, teachers, and midwives, and agreed that a "List of institutions in which pupil midwives may be trained under the Rules of the Central Midwives Board" be substituted for the "List of Institutions approved as Training Schools" hitherto in use. The Secretary was instructed to communicate with the

Secretary of the Royal Derby and Derbyshire Nursing Association as to complaints which have been received in connexion with the training of candidates at that institution. Pending a satisfactory explanation of the complaints alleged, it was decided to withhold the Board's renewal of approval, as from April 1st next, of the association mentioned as an institution in which pupil midwives may be trained.

Suspension of Midwives.

The Board, having had brought to its notice the undue length of the period for which midwives are in some cases suspended by the local supervising authorities, directed that inquiry be made of the local supervising authority for the county of Norfolk as to the reason of the suspension of a certain midwife for a perion of six weeks after a fatal case of puerperal fever.

New Rule.

The following new rule, enabling the Central Midwives Board to admit to the Roll a candidate who, though duly qualified under Section 2 of the Midwives Act, failed to claim the Board's certificate during the two years' period of grace which ended on March 31st, 1905, was sanctioned by an Order of Council of March 14th:

Rule B. 2. A candidate who has failed to claim to be certified under the Midwives Act within the time limited by Section 2 of the Act, and who satisfies the Central Midwives Board that, but for her failure so to claim, she would have been entitled to be certified under the Act, may be admitted by the Central Midwives Board to the Roll of Midwives upon such conditions as the Central Midwives Board shall think fit, and shall receive a certificate in the form set out in the schedule, and her name shall be entered by the secretary on the Roll of Midwives. (Schedule, Form II, B.) Provided always that no such candidate shall be admitted to the Roll of Midwives after September 30th, 1910.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

FLEET SURGEON J. L. BARRINGTON is promoted to be Deputy Inspector-General, January 26th. He was appointed Surgeon, February 26th, 1883; Staff Surgeon February 26th, 1895; and Fleet Surgeon, February 26th, 1899.

The following appointments have been made at the Admiralty: Fleet Surgeon J. A. KEOGH, M.B., to the *Cochrane*, March 14th; Fleet Surgeon L. BIDWELL to the *Vanguard*, March 14th; Fleet Surgeon J. C. DURSTON to the *Cyclops*, March 14th; Fleet Surgeon J. C. WOOD to the *Natal*, March 14th; Staff Surgeon E. T. P. EAMES to the *Cressy*, March 14th; Staff Surgeons F. F. LOBB and J. BOYAN to the *Victory*, additional, for disposal, April 5th; Staff Surgeon A. R. H. SKEY, M.B., to the *Juno*, March 14th; Staff Surgeon W. R. TRYTHALL to the *Isis*, March 14th; Staff Surgeon E. O. B. CARBERY, M.B., to the *Vernon*, March 14th; Surgeon E. R. L. THOMAS to the *Argonaut*, March 14th; Surgeon T. E. BLUNT and G. E. HAMILTON, M.B., to the *Vivid*, additional, March 14th; Surgeon W. C. B. SMITH to the *Wildfire*, additional, for disposal, April 5th; Surgeon H. S. TURNER to the *Vivid*, additional, for disposal, April 5th; Fleet Surgeon A. G. W. BOWEN and Surgeon W. G. EDWARDS to the *Black Prince*, on recommissioning, April 5th. The following are appointed to the *President*, additional, for Hospital Course, dated April 4th: Fleet Surgeon J. C. FERGUSON, M.B., J. F. HALL, M.B., A. MACLEAN, M.B., H. CLIFT, and G. LEY, Staff Surgeons W. H. O. GARDE, J. H. FERGUSON, S. H. FACEY, J. P. H. GREENHALGH, M.D., J. MACDONALD, M.D., A. J. HEWITT, J. MOWAT, M.B., and J. W. CRAIG, M.B., Surgeons C. A. G. PHIPPS, A. B. MARSH, J. McA. HOLMES, M.B., and J. W. CRAIG, M.B.

Mr. J. J. MCARTHUR, M.B., civil practitioner, has been appointed Surgeon and Agent at Pennan, undated.

ARMY MEDICAL SERVICE.

COLONELS J. F. SUPPLE, C.B., retired pay, and J. F. WILLIAMSON, C.B., retired pay, have been selected for rewards for distinguished and meritorious service.

ROYAL ARMY MEDICAL CORPS.

Lieutenant-Colonel F. P. NICHOLS, M.B., has been appointed Senior Medical Officer, Jersey District, vice Lieutenant-Colonel J. R. Yourdi, M.B.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL G. F. A. HARRIS, M.D., Officiating Inspector-General of Civil Hospitals, United Provinces, is appointed to be Inspector-General of Civil Hospitals, Bengal, from March 1st.

Lieutenant-Colonel C. C. MANIFOLD, Bengal, is appointed to officiate as Inspector-General of Civil Hospitals, United Provinces.

TERRITORIAL FORCE.

ROYAL ARMY MEDICAL CORPS.

Third Northern General Hospital.—Captain A. YOUNG, M.B., to be Major, April 18th, 1909; he resigns his commission, November 20th, 1909. Captain A. R. HALLAM, M.D., to be Major, November 20th, 1909.

For Attachment to Units other than Medical Units.—Lieutenant A. W. W. SWETTENHAM, from the South Wales Mounted Brigade Field Ambulance, Royal Army Medical Corps, to be Lieutenant, January 1st.

Hospitals and Asylums.

THE CITY DISPENSARY, LONDON.

THE annual report of the City Dispensary, Dowgate Hill, E.C., relates to the one hundred and twenty-first year of the work of this institution. It is pointed out that, in spite of its age, its invested property only produces £85 a year. The year ended with an excess of expenditure over income of £20, the total ordinary income being £912 and the total expenditure £932. The patients attended, including those on the books at the beginning of the year, numbered 9,228. Their attendances, on the other hand, numbered 20,032, the work done including 47 operations under anaesthesia and a certain number of visits to patients in their own homes. An examination of the income and expenditure account shows that the total cost of each patient was 2s., and the total cost of each patient's attendance $11\frac{1}{10}$d. The latter is a somewhat higher figure than the average of the out-patient departments of most hospitals, but the cost of each patient is somewhat less. Moreover, the expenses include the payment of small honoraria to the medical staff, which work out, it would appear, at the rate of 3d. for each patient's attendance.

BRADFORD CHILDREN'S HOSPITAL.

THE report presented to the annual court of governors of this hospital, held under the chairmanship of the Lord Mayor, showed a deficit of over £700 on the year's working. Increased subscriptions were, it was added, necessary, especially as it was desirable to complete the hospital by the building of two new wards. In reference to the mooted amalgamation of Bradford hospitals in the new infirmary buildings, Mr. H. J. Jeffery said that the experience and example of other towns showed that in certain classes of cases special hospitals were desirable, and that children's treatment was better carried on apart from adults. Moreover, an amalgamation would probably result in a shrinkage of subscriptions.

ROYAL HALIFAX INFIRMARY.

AT the annual meeting of the governors of the Royal Halifax Infirmary it was reported that the number of persons treated during the year was 10,839, the number of in-patients being 2,079. The average cost for each occupied bed was £69 15s. 4d. Two donations of £1,000 each were announced. Since the meeting the president of the hospital has received a donation of £5,000 from Mrs. Wood of Liverpool, a daughter of a former mayor of Halifax.

BINGLEY COTTAGE HOSPITAL.

AT the annual meeting, held at the Town Hall, Bingley, on February 2nd, it was stated in the annual report that 153 patients had been admitted into the hospital, as against 119 in the previous year. The expenditure was £689 13s. 4d.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

BLACKBURN AND EAST LANCASHIRE INFIRMARY.—Junior House-Surgeon. Salary to commence at £80 per annum, with additional allowance of £5.

BRISTOL GENERAL HOSPITAL.—(1) House-Physician, (2) Casualty House-Surgeon, (3) Assistant House-Physician. Appointments for six months. Salary, £60.

BRISTOL ROYAL HOSPITAL FOR SICK CHILDREN AND WOMEN.—Assistant House-Surgeon. Salary, £50 per annum.

CANCER HOSPITAL, Fulham Road, S.W.—House-Surgeon. Salary, £70 per annum.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House-Physician (male). Salary at the rate of £75 per annum.

CROYDON COUNTY BOROUGH HOSPITAL.—Senior Resident Medical Officer and Bacteriologist. Salary, £160 per annum.

DARLINGTON HOSPITAL AND DISPENSARY.—House-Surgeon. Salary, £120 per annum.

DREADNOUGHT HOSPITAL, Greenwich.—(1) Assistant Physician; (2) Pathologist; (3) Two House-Physicians; (4) Two House-Surgeons Salary for (2) £100 per annum, and for (3) and (4) £50 per annum.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Second Medical Officer (male) to the Casualty Department. Salary at the rate of £40 per annum.

KIDDERMINSTER INFIRMARY AND CHILDREN'S HOSPITAL.—House-Surgeon. Salary, £100 per annum.

LEAMINGTON: WARNEFORD, LEAMINGTON, AND SOUTH WARWICKSHIRE GENERAL HOSPITAL.—(1) Honorary Physician. (2) Junior Resident Medical Officer; salary, £65 per annum.

LEICESTERSHIRE AND RUTLAND ASYLUM, Narborough.—Junior Assistant Medical Officer (male). Salary, £150 per annum, rising to £180.

LEITH HOSPITAL.—Anaesthetist.
LIVERPOOL: ROYAL SOUTHERN HOSPITAL. — Honorary Surgeon.
LONDON FEVER HOSPITAL, Islington, N.—Honorary Surgeon.
LONDON THROAT HOSPITAL, Great Portland Street, W.—Two Assistant Anaesthetists.
MANCHESTER: NORTHERN HOSPITAL FOR WOMEN AND CHILDREN.—Pathologist. Honorarium, £10 per annum.
MIDDLESBROUGH: NORTH RIDING INFIRMARY. — House-Surgeon. Salary, £100 per annum.
MIDDLESEX HOSPITAL, W.—Third Assistant to the Director of the Cancer Research Laboratories. Salary, £150 per annum.
NEWCASTLE-ON-TYNE: HOSPITAL FOR SICK CHILDREN.—Male Resident Officer. Salary, £100 per annum.
NOTTINGHAM GENERAL DISPENSARY.—Assistant Resident Surgeon (male). Salary, £160 per annum.
ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House-Surgeon. Salary, £80 per annum.
ROYAL EAR HOSPITAL, Dean Street, Soho, W.—House-Surgeon. Honorarium, £40 per annum.
ROYAL NATIONAL ORTHOPAEDIC HOSPITAL.—Resident House-Surgeon. Salary, £100 per annum.
ST. MARYLEBONE GENERAL DISPENSARY, Welbeck Street, W.—Honorary Anaesthetist.
SHEFFIELD ROYAL HOSPITAL.—Assistant House-Physician. Salary, £50.
SHEFFIELD UNIVERSITY.—Demonstrator in Anatomy. Salary, £150 per annum.
SHREWSBURY: SALOP AND MONTGOMERY ASYLUM.—Junior Male Assistant Medical Officer. Salary, £150 per annum.
THROAT HOSPITAL, Golden Square, W.—Resident House-Surgeon. Salary, £75 per annum.
WAKEFIELD GENERAL HOSPITAL.—House-Physician. Salary, £100 per annum.
WAKEFIELD: WEST RIDING OF YORKSHIRE.—(1) Assistant to the County Medical Officer; (2) Bacteriologist. Salary, £250 per annum, rising to £300 each.
WEST LONDON HOSPITAL, Hammersmith Road, W.—(1) Clinical Assistants; (2) three Casualty Officers.
YORK DISPENSARY.—Two Resident Medical Officers. Salary, £130 per annum each.

APPOINTMENTS.

FORTESCUE-BRICKDALE, J. M., M.A., M.D.Oxon, Physician to Clifton College.
KINMONT, Patrick, M.D., F.R.C.S., Honorary Visiting Medical Officer to the Newark Hospital.
MATHEWS, T. G., M.D.Edin., one of the Medical Referees under the Workmen's Compensation Act, 1906, for County Court Circuit No. 3.
MITCHELL, H. M., M.B., C.M.Aberd., Medical Officer and Public Vaccinator for No. 2 District of the West Derby Union.
STRATFORD, H. M., M.R.C.S., L.R.C.P.Lond., Registrar to the Central London Throat and Ear Hospital.
TURNER, A. C., L.R.C.P. and S.Edin., Surgeon of the E Division of the Manchester Police Force.
UNIVERSITY COLLEGE HOSPITAL.—The following appointments have been made:

House-Surgeon.—C. W. Morris, M.R.C.S., L.R.C.P.
House-Physician.—H. L. Tasker, M.R.C.S., L.R.C.P.
Obstetric Assistant.—D. J. Harries, B.Sc., M.B., B.S., M.R.C.S., L.R.C.P.

RECENT PUBLICATIONS.

Neurasthénie et Névroses, leur guérison définitive en cure libre. Par Dr. Paul-Emile Lévy. Deuxième édition. Paris: Félix Alcan. 1910. (Cr. 8vo, pp. 407. Fr. 4.)

The first edition of this book was reviewed about a year ago, when the treatment recommended by the author was explained (vol. i, 1909, p. 725). The new edition is practically a reprint of the first, with a few corrections and additions.

PUBLISHERS' ANNOUNCEMENTS.

MR. H. J. GLAISHER (Wigmore Street, London, W.) has nearly ready for publication a work entitled *Mind and Health: The Mental Factor in Treatment, with Special Reference to Neurasthenia, etc.*, by Edwin Ash, M.D.Lond.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
MARCH.	
27 Sunday ..	
28 MONDAY ..	
29 TUESDAY ..	MAIDSTONE DIVISION, *South-Eastern Branch*, 3.30 p.m.; Executive Meeting, 3 p.m. NORTH WALES BRANCH, Royal Hotel, Carnarvon, Branch Council, 1.30 p.m.; Meeting, 2.15 p.m.; Dinner, 6 p.m.
30 WEDNESDAY	LONDON: Medico-Political Medical Inspection and Treatment of School Children Subcommittee, 2.30 p.m. BATH AND BRISTOL BRANCH, Bristol.
31 THURSDAY ..	WEST NORFOLK DIVISION, *East Anglian Branch*, West Norfolk and Lynn Hospital, 3.15 p.m.
APRIL.	
1 FRIDAY ..	LONDON: Conference between Special Poor Law Reform Committee and Contract Practice Subcommittee, 2 p.m. ENGLISH DIVISION, *Border Counties Branch*, General Meeting, Whitehaven.
2 SATURDAY ..	LONDON: Science Committee, 12 noon.
3 Sunday ..	
4 MONDAY ..	
5 TUESDAY ..	LONDON: Organization Committee, 10.45 a.m. NORTHAMPTONSHIRE DIVISION, *South Midland Branch*, Board Room, Northampton General Hospital, 2.30 p.m.; Luncheon, Franklin's Restaurant, 1.30 p.m.

Date.	Meetings to be Held.
APRIL *(continued)*.	
6 WEDNESDAY	LONDON: Medico-Political Committee, 2 p.m. NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH, Hotel, Grange-over-Sands, 2.30 p.m. SOUTH-EASTERN OF IRELAND BRANCH, Meeting of Branch, Branch Council, and Local Division, Adelphi Hotel, Waterford, 3.30; Luncheon, 2.30 p.m.
7 THURSDAY ..	LONDON: Hospitals Committee, 2.30 p.m. EAST ANGLIAN BRANCH, Spring Meeting, Palace Hotel Southend. LONDON: Metropolitan Counties Branch Council, Special Meeting, 4.30 p.m.
8 FRIDAY ..	LONDON: Central Ethical Committee, 2 p.m.
9 SATURDAY ..	
10 Sunday ..	
11 MONDAY ..	LONDON: Colonial Committee, 2.45 p.m.
12 TUESDAY ..	LONDON: Public Health Committee, 3 p.m.
13 WEDNESDAY	
14 THURSDAY ..	
15 FRIDAY ..	
16 SATURDAY ..	
17 Sunday ..	
18 MONDAY ..	
19 TUESDAY ..	
20 WEDNESDAY	LONDON: Journal and Finance Committee, 2.30 p.m. ALTRINCHAM DIVISION, *Lancashire and Cheshire Branch*, General Meeting, Greenbank Hotel, Northwich, 5 p.m.

Printed and Published by the British Medical Association at their Offices, No. 429, Strand, in the Parish of St. Martin-in-the-Fields in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, APRIL 2ND, 1910.

CONTENTS.

	PAGE
Medical Treatment of School Children:	
DEPUTATION TO THE MEDICAL OFFICER OF THE BOARD OF EDUCATION	133
Meetings of Branches and Divisions:	
Bath and Bristol Branch: Trowbridge Division	139
Birmingham Branch	139
Border Counties Branch: Scottish Division	140
Fife Branch and Division	140
Metropolitan Counties Branch: City Division	141
" " " Richmond Division	141
" " " Wandsworth Division	142
Munster Branch	144
South-Eastern of Ireland Branch	144
Southern Branch: Jersey Division	144
South Wales and Monmouthshire Branch: Monmouthshire Division	144

	PAGE
ASSOCIATION NOTICES.—Annual Representative Meeting, 1910: Date of Meeting; Last Day for Reception of Notices of Motion.—Council Meeting.—Annual Subscription, 1910	145
NAVAL AND MILITARY APPOINTMENTS	146
VITAL STATISTICS	146
HOSPITALS AND ASYLUMS:	
Birmingham Hospitals	146
Incorporated Dental Hospital of Ireland	147
VACANCIES AND APPOINTMENTS	147
DIARY FOR THE WEEK	148
BIRTHS, MARRIAGES, AND DEATHS	148
CALENDAR	148

British Medical Association.

MEDICAL TREATMENT OF SCHOOL CHILDREN.

DEPUTATION TO THE MEDICAL OFFICER OF THE BOARD OF EDUCATION.

ON March 23rd Dr. Newman, accompanied by Mr. Selby-Bigge, C.B. (Principal Assistant Secretary to the Board), and Mr. W. R. Davies, C.B. (one of the Senior Examiners of the Board), received a deputation representing the British Medical Association. The objects of the deputation were:—

To draw attention to the present scheme of the Education Committee of the London County Council for the treatment of school children found on medical inspection to be defective, and to point out that, in the opinion of the Metropolitan Counties Branch, the scheme is inadequate for dealing with an admitted public evil, and unsatisfactory both from a public and medical point of view, and to set forth the principles laid down by the British Medical Association as being necessary for the formation of a scheme which shall be adequate and satisfactory both to the public and to the medical profession; to state the efforts made by the British Medical Association in the public interest to promote the establishment of a system of medical inspection of elementary school children, and for the establishment of an adequate medical service for dealing with those found defective; to state the objections to the present scheme under the following heads:

(*a*) Its inadequacy for prevention of national physical deterioration. Treatment only accorded to a few.
(*b*) The misuse of charitable institutions and charitable medical service involved.
(*c*) The lack of charitable institutions in many large areas.
(*d*) The lack of provision for transport.
(*e*) The evasion by the London County Council of its responsibility in the matter.
(*f*) The deprivation of medical practitioners settled in London areas of many of their patients.
(*g*) The absence of any provision for dealing with defective teeth.
(*h*) Generally the deficiencies of the scheme from the public and medical point of view.

To suggest the principles of a satisfactory scheme:

(*a*) A properly organized school medical service staffed by medical practitioners already settled in the areas of the schools.
(*b*) School clinics or recognized surgeries.
(*c*) Appointment of specialists.

And to ask the Board to withhold its support of the proposal to use charitable institutions.

The deputation consisted of Dr. J. Ford Anderson (President of the Metropolitan Counties Branch), Dr. H. Beckett Overy, Mr. Powell Evans, Dr. M. I. Finucane, Dr. E. W. Goodall, Dr. Harvey Hilliard, Dr. J. A. Howard, the Chairman (Sir Victor Horsley), and the Honorary Secretary (Dr. W. Griffith), of the School Children's Committee of the Metropolitan Counties Branch, and of Dr. C. E. S. Flemming, Dr. Charles Macfie, members of the Central Council of the Association, together with the Medical Secretary and Deputy Medical Secretary of the British Medical Association.

Sir VICTOR HORSLEY said the deputation were anxious to discuss the points arising on the objects of the deputation as stated above, and suggested that it would be more convenient to do so by way of conversation than set speeches. That being so, he would only for the moment deal with two points. The Branch Council were extremely anxious to know what argument influenced the Board in its approval of the scheme put forward by the London County Council, because it was quite obvious that the question might be approached from several points of view. When it was approached from the medical point of view there did not seem to be any reasonable grounds, speaking from the public standpoint—namely, the desirability of preventing national physical deterioration. The scheme of the County Council only provided at present for the treatment of very few children, but the numbers requiring treatment and careful attention were enormous. For instance, in the scheme there was a total absence of any provision for dealing with diseases of the teeth but it was chiefly, how-

ever, diseases of the eye, ear, and nose, to which the profession desired to draw attention as regarded inadequacy of the scheme of the County Council. The scheme put forward by the County Council provided that a certain number of the children should be dealt with at each of the London hospitals, which were charitable institutions, but the number of those charitable institutions was small, and they were situated in the centre of London, and no provision for transport of children to the institutions had been made by the County Council. Moreover, the actual figures given by the County Council respecting the number of children that could be treated at each institution was very small; so that of the whole number requiring treatment only a very small percentage could be dealt with during the coming year, during which it was understood the system was on probation. Therefore, from a medical point of view, the scheme was inadequate and must remain inadequate in relation to the treatment of the children. There were further considerations which the Metropolitan Counties Branch were anxious to press from the same point of view upon the attention of the Board. The scheme involved the use of charitable institutions for a national purpose. The Branch was quite aware of the document issued by the Board previous to the adoption of the scheme by the London County Council, in which it was shadowed forth that the local authorities might subscribe to voluntary charitable institutions for the purpose of treating children, but that was a question of principle upon which the Branch took issue. The opinion of the Branch was that the State was not justified in employing charitable institutions for the purpose, but that the State should organize a school medical service, and that charitable institutions ought not to be employed in the manner indicated. It would be asked, Had the Metropolitan Counties Branch any alternative proposal to offer? The British Medical Association had considered the question of principle, and had approved a method of dealing with the difficulty which had been put into operation within the metropolitan area, to which his remarks were confined, namely, that if the school medical service were properly organized, and were staffed by practitioners resident in the area which the schools served, then the most practicable plan was for school children to be brought to the school clinic, or to a recognized surgery for treatment. When he said a school medical service staffed by the general practitioners of the district, he trusted the Board would recognize that that in no way was meant to prejudice the employment of specialists. Although there were many general practitioners in certain districts who specialized in their own way as, for instance, in the problem of refraction, and who would be chosen by the local authority, still the staff of a school clinic of the kind suggested would welcome the employment of specialists in any particularly difficult case. From the public point of view, he thought the scheme supported by the Metropolitan Counties Branch one better calculated to secure the immediate and adequate treatment of children than the scheme put forward by the County Council Other members of the deputation would deal with the different points as they arose, but Sir Victor again asked if Dr. Newman could afford the Metropolitan Counties Branch information as to the reasons which had chiefly dictated the action of the Board of Education in temporarily or provisionally approving the London County Council scheme.

Mr. C. E. S. FLEMMING, speaking on behalf of the Central Executive of the British Medical Association, endorsed the pronounced opinion of the Association as expressed at Representative Meetings and Council meetings—namely, that the Association should oppose the reference of school children found upon medical inspection to be defective to public medical charities for treatment, whether accompanied by payment or subsidies. The last point was important, because it was held that payment by subsidy or otherwise made no difference to the principle at all, and that there was no objection to the treatment by provident dispensaries, or other contract practice organizations, of children found upon inspection to be defective, provided that the remuneration of the practitioner was adequate to the work done. The Association felt very strongly as to that sort of work being done by charitable institutions, because it was held that the principle was quite wrong, and that the staffs of the charitable institutions were put in a very ambiguous and false position. If such institutions were paid for the work done the members of the staff could hardly consider themselves as honorary officers, for they must take part in the treatment of the patients thus sent to the institutions. Further, there was a very important question which arose from the fact that by sending such large numbers of patients to be treated at charitable institutions the work of not only general practitioners but also specialists was very seriously and unfairly interfered with.

Dr. E. W. GOODALL (Honorary Secretary of the Metropolitan Counties Branch), dealing with the misuse of charitable institutions and charitable medical service involved in the scheme of the London County Council, said that some of the members of the deputation did not quite understand how the matter had come to be dealt with by the London County Council under the Education (Administrative Provisions) Act. It was felt by some that the Council was not entitled to make the provisions it had with respect to voluntary hospitals under the terms of the Act, and more information was required on that head. In addition, voluntary hospitals were supported by money left by various benefactors for special purposes, and the Metropolitan Counties Branch held strongly that to send children as the London County Council now sent them was a considerable abuse of voluntary charities. Large buildings had been erected and funds set aside for definite purposes which were now being used for children, who, the Branch contended, as they were now being looked after by the State, should be paid for by the State. Hitherto the staffs had given their services to the hospitals on the distinct understanding that they were voluntary institutions, but now the staffs were going to be asked to look after these children for no remuneration. Whilst it was true that the London County Council were going to pay some of the voluntary hospitals certain sums of money, yet that money would be paid in a lump sum, and the London County Council would have no control over the way in which it was apportioned. For instance, in one case £50 was going to be paid where a clinical assistant was appointed, but there was no law or Act which would compel the hospitals actually to give that £50 to the clinical assistant. The County Council was going to pay £50 *plus* so much a head for the children at a certain hospital, and there, so far as the County Council was concerned, the matter ended. That there should be no control over the funds that were paid to the general hospitals was a distinct abuse of the hospitals and the objects for which they were intended. There had arisen in recent years among the general practitioners of London a strong feeling as to the abuse of the out-patient department, and the County Council's method of dealing with this matter made that question more acute, for the number of out-patients would be augmented.

Dr. FINUCANE, speaking as a school medical officer and as a general practitioner, emphasized the deficiencies of the scheme, which he said involved a waste of public money, because money would be paid to the hospitals for the treatment of children when there was no necessity for it. Children were taken out of the hands of the private medical practitioner against the wish of the parent and ordered to go to the school medical officer when the parent was able to pay for private medical treatment. In addition, patients thus sent to the hospitals were lost to the private medical practitioner. He thought the policy of the Board should be altered in some way to meet the demands of the medical profession as expressed through the Metropolitan Counties Branch.

Dr. HARVEY HILLIARD spoke with reference to the inadequacy of hospital treatment as at present organized by the London County Council. It was evident

from the speeches of certain members of that Council that they were in favour of the subsidy of hospitals, on the ground that children sent to such institutions obtained the best possible treatment at the hand of specialists, and therefore it was the Council's duty to provide the very best that could be obtained for public money. He did not think the members of the London County Council, or, indeed, the Board of Education, realized the fallacy of such an argument. Speaking as a member of the staff of a large London hospital, he had experience of the way children were treated at the out-patient department; for instance, children suffering from diseases of the throat, such as adenoids and affections of the tonsils, came in great numbers; the work was done under high pressure, and the actual honorary officer of the staff in charge of the department saw an extremely small proportion of the total number of the children sent, who were operated upon partly by students who were qualified to operate, and partly by clinical assistants; a small proportion only of the children were operated upon by men of wide experience, such as the members of the County Council had in view. He thought, therefore, that if the members of the County Council and the Board of Education were aware of those facts, they would view perhaps more favourably the proposals of the British Medical Association in suggesting that the children should be treated by practitioners of experience in the areas served by the schools. That would surely be better than that the children should be operated upon by students or clinical assistants. Another important point in the opinion of the members of the Branch was the absence of provision for defective teeth, which of all diseases of school children seemed to be the most common. The provision for the feeding of school children was rendered nugatory if the children had not proper teeth with which to masticate their food. Any scheme receiving the sanction of the Board should certainly include treatment for defective teeth and the numerous diseases arising therefrom, and the Metropolitan Counties Branch trusted that the Board of Education, before passing the provisional regulations of the County Council and allowing the subsidization of public hospitals, would consider that point and see how inadequate the present provisions were, and how much better were the proposals put forward by the British Medical Association for the provision of school clinics or surgeries within the areas served by the schools, in which clinics or surgeries the teeth would be properly attended to.

Dr. CHARLES MACFIE said that while a responsibility involving the health of the nation had been placed upon the Board of Education, it had only discharged it up to a point; it sought to put the responsibility on to others, and in so doing had unknowingly exploited the medical profession connected with hospitals, and exploited to some extent the charitably disposed, because the majority of hospitals were carried on under charitable conditions. There were so many patients for the hospitals that proper treatment could not be afforded and carried out, while at the same time there were in the various districts medical men able and willing, for a reasonable remuneration, to carry out the necessary treatment.

Dr. NEWMAN said that it would be of interest to the President of the Board of Education to hear precisely what scheme the British Medical Association or the Metropolitan Counties Branch had for avoiding the alleged difficulties of the London County Council scheme.

Sir VICTOR HORSLEY said, in the first place, that the British Medical Association in Representative Meeting had expressed an opinion condemnatory of the employment of charitable institutions for the purposes of the Act; and, secondly, had expressed its opinion that the work could be done by the practitioners in any district served by schools, who were willing to undertake the work and who would be chosen and appointed by the Local Education Authority.

Dr. NEWMAN said such a procedure would mean either that all the practitioners in the district would do the work, or that some of them would do it; if it were confined to some of them that would involve a selective basis.

Sir VICTOR HORSLEY did not agree, because there were many practitioners in the district who would not care to do the work, and from those practitioners would be chosen the staff of the clinic or recognized surgeries, as the case might be. In one or two districts in London at the present moment elaborate schemes for the establishment of clinics staffed by practitioners of the district were already being discussed in negotiation with the London County Council. Dr. J. A. Howard of Norwood, who was present, was representative of one such scheme. Others were those proposed in Wandsworth and Hampstead. So far as the Association were concerned, it had simply in general terms laid down principles, the first of which was that medical service should be paid for; and secondly, that charitable institutions should not be employed.

Dr. NEWMAN asked whether such clinics were to be staffed by members of the medical profession in the district, however numerous, who were willing to serve.

Sir VICTOR HORSLEY said the members of the staff would be selected by the Local Education Authority from among those willing to serve.

Dr. NEWMAN: Then there would be some who would be willing to serve who would not be chosen and who would be disappointed?

Sir VICTOR HORSLEY assented, but said that as in any other case of competition for public medical attendance, the medical profession were willing to undergo such disappointment, although he did not think the profession would call it a disappointment. Further, the opinion of the Association, as evidenced in discussion, although it had not been formulated in a resolution, was that the appointment of such officers should be terminable at the end of a period such as, for instance, three years, and that then the appointment should be again thrown open to the practitioners of the district. If the Board of Education was of opinion that hardships would be inflicted by selection by the Local Education Authority, that difficulty would be got over by the terminability of the appointment.

In reply to further questions by Dr. NEWMAN, Sir VICTOR HORSLEY said the idea was that the staff selected should work at a centre belonging to the Local Education Authority. Under the Norwood scheme and the Wandsworth scheme the direction of the clinic would be in the hands of the staff. The British Medical Association had discussed the question of a "recognized" surgery both from the urban point of view and the rural point of view, and had introduced the term "recognized surgery" to suit the sparsely populated rural districts, it being obvious that the authority could not be expected to constitute in a sparsely populated country district a highly organized clinic which would suit an urban population, and for that reason it was assumed that for the purposes of the Act and to meet the wishes of the Board certain surgeries would be chosen and recognized as the centre for particular districts to which children could go for attendance. The point whether the surgeries should be in the hands of the private practitioners or in the hand of the Local Education Authority had never been discussed by the British Medical Association. If in a sparsely populated district only one out of four practitioners was willing to do the work, in that case the children should go to that one medical practitioner's surgery.

Dr. NEWMAN asked whether, if there were four medical men in a rural district with a scattered population, and one of them received all the medical treatment of school children, the other three would be satisfied.

Sir VICTOR HORSLEY replied that they might, but he could not tell; but at Eastbourne, when the public medical service was organized, out of sixty or seventy medical practitioners, only a very few undertook the work. Such a point would have to be determined by local conditions. If two medical men expressed themselves willing to do the work, naturally the

surgeries of both would be "recognized surgeries." There had never in the mind of the Association been any difficulty on such a point.

Dr. NEWMAN: Whether the surgery belonged to one private practitioner, or to the State through the local authority, do you say that the medical practitioners in the district would be satisfied that all the child treatment should go to one centre?

A Member of the Deputation: No.

The MEDICAL SECRETARY of the British Medical Association (Dr. Whitaker) thought that the point was covered by the definite resolution of the Representative Meeting on the subject:

> That in sparsely populated districts such provision should be made by the "recognition" of the surgeries of private practitioners as places at which treatment may be obtained at the public expense.

Dr. NEWMAN said he had understood that it was proposed that the selected practitioners would be taken from those medical men in the district who were willing to do the work, that the Local Education Authority would choose its staff from among them. That would leave some rather disappointed gentlemen among the willing ones who would find in a district that the stream of child treatment was going away from their hands. His question to the Association was, Would that satisfy three out of the four? With great respect to any divergence of views—and he knew how extremely difficult such points were—he must press the question because it was very relevant and germane for the Board to know how the Association proposed to work the scheme. He thought the President of the Board of Education would naturally ask what the proposition of the British Medical Association was, and for himself he did not gather there was complete unanimity in the deputation as to what that scheme was.

Sir VICTOR HORSLEY said he had simply quoted the expression of opinion in the Representative Meeting of the Association.

Dr. NEWMAN asked whether the fact had not been overlooked that the Local Education Authority might make its selection so that a "disappointed man" would be left out continually year after year because the authority might not think him a suitable man to appoint, and might appoint the same man or set of men again and again.

Dr. FORD ANDERSON said that was not expected, and would be objected to. The Hampstead scheme, for instance, did not provide for the selection of medical officers by the Local Education Authority, but was a scheme for public medical service by which all the medical men willing to undertake the treatment of school children would band together, and those who did not wish to take it would remain outside.

Dr. NEWMAN said, having regard to the terms of the Hampstead scheme, he could not agree with what Dr. Ford Anderson said, because the scheme contained the words, "the qualifications of doctors selected to carry out the work shall be approved by the Council."

Dr. FORD ANDERSON: Yes, "approved"; but the selection is made by the public medical service.

Dr. NEWMAN: Supposing the Council, as Local Education Authority, did not approve?

Dr. FORD ANDERSON: If they did not approve, I think probably it would break up the London County Council work of the public medical service.

Mr. SELBY-BIGGE inquired whether the public medical service in Hampstead was selected from among those willing to take part in the work or whether it included the whole.

Dr. FORD ANDERSON replied that a selection would be made from the public medical service, but the scheme was only in its infancy. He did not suppose that there would be any disappointments, because the selection would be made in such a way as to cast no reflection upon the adequacy of any one person.

Dr. NEWMAN observed that the British Medical Association represented very strongly all members of the British medical profession, and quite rightly, as part of the justification of its existence, did not consider the interest of one section alone. It did not seem to him that the scheme put forward differed in principle from the London County Council's scheme in the sense of disappointing certain members of the medical profession who were not chosen for the work. There would be still medical men to be left out, and there was still going to be the practitioner who would say, "This scheme hits me, and takes my patients away," whether it be to the school clinic run by the Local Education Authority or to a hospital subsidised by the Local Education Authority. There would still be the general practitioner who would be hit.

Dr. FORD ANDERSON said that the essence of the Hampstead scheme was that the medical profession in the locality were unanimous in support of the public medical service, and were agreed on the subject. The matter was only at the beginning, and in Hampstead they were only promised for the first year 400 cases, but when Hampstead got its due it was expected there would be fully 4,000 cases. It was not every one in the district who wanted to do the work. Those who desired it were comparatively few, and if one or two were left out that year, they might be selected next year? That was determined by rota.

Dr. NEWMAN asked whether the London County Council as the Local Education Authority had approved the rota.

Dr. FORD ANDERSON replied that the County Council had not asked about that so far, but would probably accept what was decided in Hampstead.

Dr. NEWMAN said that the County Council had informed the Board that the Council was going to "approve or otherwise" of the qualification of the doctors selected to carry out the treatment. Did Dr. Ford Anderson say that that was not so?

Dr. FORD ANDERSON replied that that was with regard to the qualification of the doctors. That had been accepted, but only for one year; and if it were found that the restriction interfered with the medical man's liberty in any way, the whole thing would be thrown up. While it was an objectionable clause, it had been accepted for the sake of giving the matter a fair trial.

Dr. J. A. HOWARD said that in the Norwood Division of the British Medical Association a committee had been appointed consisting of the Executive Committee of the Division, and some added private practitioners who were not members of the Association. That had been done by means of a public meeting fully advertised to every member of the profession in the locality. At that meeting the committee was appointed; it had drawn up a scheme which with one or two exceptions, had been accepted by the London County Council, as Local Education Authority. As to the selection of the staff, the proposition was to write personal individual letters to every practitioner in the neighbourhood, stating the work to be done and asking for applications containing any special qualifications of the medical practitioner as to his ability to do the work. It was proposed that the appointment should be approved by the medical officer of the London County Council, should only be for one year, and that all names should be put upon a list for service, to be taken in rotation. That the Local Education Authority had approved. Dr. Howard further explained, in answer to questions by Dr. NEWMAN, that the committee simply sent up the applications without making appointments themselves, and the authority finally selected the staff, the authority making the rota. In reply to Mr. SELBY-BIGGE, he said the authority divided the rota up into yearly groups, and any one in the area willing to do the work had a right to be put upon the rota by the local authority, provided his qualifications were such that he was considered a competent man. Continuing, he said that the work was to be done at a centre in West Norwood, which would belong to the local committee. There had been some contention with the London County Council as to who should pay for the initial equipment.

In answer to further questions by Mr. SELBY-BIGGE, Dr. HOWARD said there was only one centre in Norwood; they were promised a considerable number of cases, which, however, would not draw child patients away from private practitioners in Norwood. The

question of safeguarding the local practitioner had been very much discussed, and the London County Council had proposed that a Care Committee should deal with the matter. In Norwood it was desired that the child should be referred in the first place to any medical practitioner in the neighbourhood, who would say whether he would be able to undertake the case himself. If that medical man did not wish, or was unable to take the case, it would be referred back to the school official, and from him to the school clinic. If there were any difficulty about the child not attending before the medical man when directed, that would have to be dealt with by the Care Committee.

Dr. NEWMAN, dealing with the heads of the London County Council scheme, said he gathered that the deputation was not opposed to it as a whole, but to certain parts of it.

Sir VICTOR HORSLEY replied that the British Medical Association would not object to a scheme which did not conflict with the Association's principles. With regard to the individual attempts which had been made in particular parts of London to devise schemes that did not conflict with the principles of the British Medical Association, naturally the Association would be quite willing to enter upon and negotiate with the County Council.

In further answer to Dr. NEWMAN, Sir VICTOR HORSLEY expressed the opinion that it was not quite fair to say that the Association was not against the whole of the scheme, but only the hospital part, because the British Medical Association had been throughout fighting against the London County Council scheme as it was first put forward. The schemes since propounded, in consequence of discussion inside the Association, did not originate in the County Council at all. First had come the Hampstead scheme, then the Norwood, then the Wandsworth, and then the Woolwich. While the Association approved those schemes, he desired to defend it from being thought to be approving or being responsible for the London County Council's scheme as a whole.

Dr. W. GRIFFITH observed that the strong objection to the County Council scheme was its utter inadequacy to deal with all cases.

Dr. NEWMAN said that it seemed to be a fair rejoinder that the County Council had to begin somewhere.

Dr. GRIFFITH replied in the affirmative, but emphasized the fact that the inadequacy of the scheme was the Association's strong point.

Dr. NEWMAN again pointed out that the County Council had to begin somewhere. The Association said, "You have begun at the wrong point; you have begun at the hospital point." It was impossible in two or three days to complete a scheme covering the metropolis.

Sir VICTOR HORSLEY said the Association had pointed out the impossibility of the scheme being carried out.

The MEDICAL SECRETARY (Dr. Whitaker) desired to clear up a point between Dr. Newman and Dr. Howard. The words of the scheme with which Dr. Howard was concerned were: "The staff will be appointed from among the medical practitioners of the neighbourhood by the Medical Officer of the London County Council Education Department, according to certain standards of qualification agreed upon between the Committee" (the local committee of the local doctors) "and the London County Council. Note. Any suitable candidate" ("suitable" evidently in the intention of both parties, the Education Medical Officer as representing the County Council and the local committee as representing the local practitioners) "beyond those immediately required to be put on a rota for service." The Wandsworth scheme was very similar. There was an apparent dilemma, because, if they had selected people, the local doctors would be disappointed; and, if there were not selected people, the Education Authority, not having any voice, would also suffer from not being considered.

Dr. NEWMAN: It would be impracticable to work?

Dr. WHITAKER replied in the affirmative, and on that point he suggested that the Norwood scheme and the Wandsworth scheme and the other schemes gave a solution as regarded disappointment, because there would be no disappointment. He did not agree that under the schemes the general practitioners would lose their patients, because the people to be treated were those who could not afford to pay for themselves. Those who could pay would be referred to their own doctor *ab initio*. Answering Mr. Selby-Bigge's question as to whether patients would not be sent to the school clinic when a parent who could afford to pay said he preferred the school clinic, Dr. Whitaker said the Association was only proceeding upon the lines of what the local authorities in different parts of the country had laid down, namely, that the authorities were going to insist in the first instance that those who could pay would have to pay, whether under the Act which dealt with medical treatment or otherwise. At present, the policy of the country—although it might be altered later—was that those who could afford to pay must pay. With regard to the disappointment of the practitioner, the point was that there would be no disappointment under a scheme which was the result of an agreement between the local profession and the local authority. If the local authorities entered into negotiations with the local profession and arrived at an agreement, then the question of disappointment of individual practitioners through their being excluded from participation in the scheme would be done away with.

Dr. FORD ANDERSON said it was understood that at Hampstead the local practitioners were not to be appointed by the Education Authority, but were to be appointed as provided by the scheme, and were to be approved by the Education Medical Officer of the County Council. The deputation that waited upon Mr Blair in connexion with the matter was very much disposed to throw up the scheme because of that provision; but it had been pointed out that it was only a formal matter, and that it would not be a member of the County Council, but the official Medical Officer, who would be at liberty to look on while treatment was proceeding. That was not objected to, especially as it was only for one year; but objection would certainly have been raised if it had been known that the medical men who were to do the work were to be appointed by the London County Council.

Dr. NEWMAN suggested that Hampstead was on the horns of a dilemma. If a certain number of medical men were selected by any process to be thought of to be on the staff of an institution receiving patients that were taken away from other practitioners, the same difficulty arose as with regard to a school clinic, in which medical men selected by any method would be receiving certain remuneration for taking such patients as in the hospital they would receive no remuneration for at all. Was there any difference in principle *qua* the practitioner left out, for whom the Association was concerned mainly? There would only be a few selected. What was the difference between the scheme at Hampstead and the Norwood scheme *qua* the medical practitioner who was left out apart from inadequacy of treatment?

Dr. FORD ANDERSON remarked that there was practical unanimity in Hampstead.

Dr. NEWMAN said that while there might be unanimity in Hampstead, Hampstead was only one of twenty-nine different areas in London. What had to be dealt with was the whole area of London and the country.

Dr. FORD ANDERSON reiterated that Hampstead was unanimous, and thought that the same unanimity would be obtained elsewhere.

Sir VICTOR HORSLEY said that a similar question, although not in connexion with school children, had been raised before in many parts of the country, and it had been supported as a principle by the whole Association, that if an appointment were to be made in any given district, and if the medical practitioners of that district were called together, and the matter was put before them, and they were allowed to vote upon it, they were satisfied. Dr. Newman, if he might say so, seemed to be rather under the impression that

there was a great amount of dissatisfaction existing in the profession. That was true with regard to the London County Council scheme, because it violated the principle of the British Medical Association. The London County Council scheme with regard to hospitals which Dr. Newman put as a parallel to Norwood and Wandsworth was not a parallel.

Dr. Newman agreed that it was not a parallel but a contrast.

Sir Victor Horsley said it was the exact opposite. Medical men would be carrying out work which ought to belong to other members of the profession, and there were other members of the profession who had never been consulted at all. Therein lay the difficulty.

Dr. Newman said that was so far as regarded consultation.

Sir Victor Horsley agreed, and said that if the Board would take into their confidence the members of the profession in any given district, those men would choose who should serve the State and do this work, and no one would be disappointed if he had had the chance of discussing the question at a meeting. That was the principle upon which the British Medical Association was working, and that was the principle embodied in the Norwood scheme and the Hampstead scheme, and would be the principle in any other scheme in which the Board of Education acted towards the medical profession in the manner in which he suggested, namely, that they should be treated with confidence. But to appoint over the heads of the medical profession individuals such as the staffs of the great London hospitals, and to tell those men in those hospitals to treat children brought from all the outlying parts of London, which was what was being attempted, was a scheme to which the Association offered an uncompromising opposition, because, in the first place, as the Association had pointed out, it was inadequate for the national purpose, and secondly, constituted really a gross injury to the medical profession.

Dr. Finucane instanced a case in which a child had been brought from Hoxton to be treated at the Charing Cross Hospital.

Dr. Cox (Deputy Medical Secretary, British Medical Association) said that Dr. Newman had asked in what way would the medical practitioner who was not selected under any of the proposed schemes be better off than he was under the hospital scheme where he was also left out in the cold. The great difference seemed to him to be that under any scheme in the preparation of which the local practitioner co-operated he would have a chance of being appointed at some time, but under the hospital scheme he would always be left out.

Dr. Newman gathered that the British Medical Association was in favour of the Norwood and Hampstead schemes, and hoped that the Board would sanction them.

Dr. Ford Anderson and Sir Victor Horsley assented, and the latter said that the hospital scheme should be abrogated in favour of the scheme of the British Medical Association.

Dr. Newman, replying to the deputation, said he was there in a very limited capacity. He had received an instruction from the President of the Board to receive the deputation in order that there might be an ample opportunity of the Association laying its views orally before the Board. His (Dr. Newman's) duty was, therefore, a very clear one. It was to receive the deputation on behalf of the President of the Board and to express what he (Dr. Newman) quite sincerely expressed—namely, his pleasure at receiving the deputation and hearing their views so fully stated. The rest of his duty was also quite clear—namely, to report to the President of the Board what had happened. It would be quite out of place for him, especially in the presence of the Principal Assistant Secretary, to say anything at all with regard to what reasons had guided the Board in its various lines of policy in the past. Those lines of policy were set out clearly and explicitly in the circulars which had been issued by the Board, but there were one or two points in those lines of policy as to which it was desirable to remind the deputation. In the first place, treatment was a power and not a duty; it was something which the Local Education Authority might or might not undertake, and the Board of Education had no power whatever to say to the Authority — the London County Council to wit — "You must, or you shall, undertake such and such treatment"; or, in fact, treatment of any kind. Proposals for treatment must emanate entirely from the Local Education Authority, and not from the Board of Education. That Board had duties with regard to medical inspection, but it had not parallel duties with regard to medical treatment. Questions of treatment were submitted to the Board from the Local Education Authority, and the Board had power only to sanction or not to sanction such arrangements. Its power, therefore, even when the proposal came, was an indirect power, and it had no right or authority to initiate the proposal of treatment. In the next place, a provision had been added to Section 13 of the Act which suggested that recourse should be had—it was, in point of fact, in the mind of Parliament, and was in fact mentioned in Parliament at the time of the debate on the clause—that recourse should be had in the first instance to the use of voluntary agencies; and common sense also dictated precisely the same course—that before any authority should embark upon schemes the area of each local authority would have to be considered as to whether or not there were institutions existing — hospitals, dispensaries, or school clinics — which might be used; and it was only when it was found that the private practitioner, in the first place, had failed or was not available, or, secondly, that such institutions did not exist, that the Board had advised the local authorities that it was prepared to consider proposals for embarking upon the institution of schemes such as those which had been suggested at Norwood and Hampstead. The Board's duty was therefore a duty of sanctioning and not a duty of initiating any policy whatever with regard to treatment. That might be right or wrong, but that was the duty which Parliament had placed upon the Board. In giving sanction, then, to the proposals which had come before the Board, certain lines of policy had been followed, and those lines were set out, as he thought would be admitted, fairly explicitly in Circular No. 596. In that circular was a section, No. 7, subdivided into subsections (*a*) to (*h*), in which treatment was broadly considered and in which suggestions were made as to how authorities should, in the view of the Board, set to work to consider their proposals of treatment. Paragraphs (*a*) to (*c*) dealt with improvement in school conditions in a general way—a kind of treatment, it was true, but not the treatment that was being discussed with the deputation. The first paragraph which dealt with the kind of treatment under discussion was paragraph (*d*), under which, where a child was found defective on inspection, it should in all cases be referred to the private practitioner employed by the parent, or most easily available. He gathered that that was a principle vital to the interests of the medical profession, and a principle to be agreed upon. He thought it was agreed that that should be the first reference. It was only when that reference broke down that other things should be considered, and that was the line which the Board had followed, as he submitted, with some degree of strictness in the consideration of schemes proposed to them by different Local Education Authorities. When the ordinary practitioner was not available, it was for one of two reasons: either the patient was too poor to pay the fee, and therefore did not go to him; or secondly, the medical practitioner was unwilling or unable to give the treatment required—as, for example, in the case of refraction work, or the removal of adenoids, or the treatment of ringworm by *x* rays. Those were three instances where the private practitioner was not always in a position to treat the child. Then the question arose in every district in England—not only in the metropolis

—what was to be done with a defective child who on reference to the private practitioner did not receive treatment for such reasons, and who was, therefore, being untreated? It was for the Local Education Authority to suggest to the Board what its proposals were. What the Board could do could only be done indirectly, but what had been done he (Dr. Newman) submitted had been done very largely along the lines and principles of the Association—the principles which had been emphasized there that day—that such assistance should only be obtained out of the rates for necessitous cases, and that only children for whom treatment could not otherwise be provided should be considered in such schemes. As stated by him in his report to Mr. Runciman, the schemes suggested had been various. The London County Council had in its wisdom, after due deliberation, determined on a large and comprehensive scheme. It had said: "Where there are hospitals we will use the hospitals; but where there are none we must invent or conceive some other arrangement." The Board had taken all the three sections of the London County Council scheme as an experiment, and it was only as an experiment that the sanction of the Board was given; the Board would watch and observe, and was watching and observing carefully, how the scheme was working in London. It was a scheme for which a good deal could be said. It was a scheme which had disadvantages; the deputation said it was likely to break down. That might be so or not, but surely it was a fair and reasonable thing to allow that a great authority like the London County Council could conceive its own schemes, and know its own business to a certain extent, and to give it a fair trial, as had been proposed in the letter which was issued on December 14th and which sanctioned, under certain conditions, and certain provisions, the experiment in London—an experiment which the deputation themselves admitted was in part (as instanced at Hampstead, Norwood, Wandsworth, and possibly at Woolwich) satisfactory, and in part was making for the principles for which the Association stood. He was bound to say finally, although he had not the benefit of a written statement as to what was actually proposed by the Association, that it might be said, whatever scheme was proposed by the Association, or other bodies, there would be, at all events in the early stages, very considerable difficulties to meet. It was a platitude to say that they were passing through a very important and perhaps vital transitional period for the medical profession. Each scheme must be taken, as far as it possibly could be taken, on its merits and as an experiment, seeing where it worked, where it succeeded, and where it failed. The Board, with only the indirect power he had spoken of—without power of initiation or direction to the local authority—had to consider the principles of the schemes suggested. He was not sure whether the London County Council scheme, even as it was then before the Board, was complete. He was speaking absolutely from memory, but he rather thought there was no evidence that the present scheme of the London County Council was a final and complete proposal. Therefore it was still more difficult to judge, directly and immediately, as to whether or not the scheme as a whole would not meet, in part at all events—although the Association might feel entitled to say it was inadequate—some of the needs of the 44,000 children who, according to the Council's estimate, would require treatment. In conclusion, he thanked the deputation for attending, and said that the Board would carefully consider the proposals laid before them; it would be his duty to see that their views were laid in due course before the President.

Dr. FORD ANDERSON thanked Dr. Newman and Mr. Selby-Bigge for the kind way in which they had listened to the deputation, and for their lucid comments upon the points under discussion. He was sorry, however, that the deputation would have to go away without knowing what was to be done, but he quite understood that it was impossible for Dr. Newman to tell them at present.

Mr. SELBY BIGGE inquired whether the deputation were aware of the Board's letter to the London County Council.

Sir VICTOR HORSLEY replied that it had not been circulated to them.

Mr. SELBY-BIGGE stated the letter from the Board to the London County Council was as follows:

The Board of Education have had under consideration the letter . . . submitting for sanction, under S. 13 (1) (*b*) of the Education (Administrative Provisions) Act, 1907, the Council's detailed proposals for the medical treatment of school children at certain hospitals. It is observed that the Council, in submitting this proposal, recognize that the arrangement cannot be regarded as other than tentative, and that approval is asked for it for a period of twelve months only. In these circumstances the Board do not think it necessary to refer in detail to the many important questions, alike of principle and of detail, involved in the proposal, but it will be understood that the Board, no less than the Council, must regard this scheme as experimental, and while accepting it on that basis, will subject its working to careful scrutiny. The Board will therefore, during the next twelve months, take such measures as may be appropriate to ascertain how far the proposal embodies, or may be regarded as leading up to, a scheme for attending to the health and physical condition of school children which will be effective, adequate, and economical, and they will endeavour to form a considered opinion upon the question whether the arrangement is suitable, with or without modification, for continuation after the experimental period. It is presumed that all reasonable facilities will in fact be afforded to the medical officers of the Board observing the working of the arrangement. The Board assume, and this must be regarded as a condition of their approval, that the Authority will themselves reconsider the whole situation at, or towards the end of, the experimental period, and will furnish a report to the Board upon the general working of the scheme in its administrative, educational, and medical aspects. Subject to the preceding remarks, the Board, under Section 13 (1) (*b*) of the Education (Administrative Provisions) Act, 1907, hereby sanction for the year ending December 31st, 1910, the Council's arrangements for attending to the health and physical conditions of school children as follows:

(*a*) The total expenditure under the arrangement not to exceed £6,000 in the period specified.

(*b*) Payments to the several hospitals (8) named in the enclosure to Mr. Blair's letter to be made at the rates, for the number of cases, and on the conditions there specified.

He thought that would throw some light on the discussion which had taken place.

The deputation then withdrew.

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

BATH AND BRISTOL BRANCH:

TROWBRIDGE DIVISION.

A SPECIAL meeting of the Division was held in the Town Hall, Trowbridge, on March 19th, to consider the interim report of the Poor Law Reform Committee. There were present: Dr. RATTRAY (in the chair), Drs. G. C. Tayler, H. P. Tayler, H. C. Tayler, F. E. Tayler, Flemming, Tubb-Thomas, Locket, Bond, and Pearse.

Confirmation of Minutes.—The minutes of the previous meeting were read, confirmed, and signed.

Report of Poor Law Reform Committee.—Dr. FLEMMING introduced the discussion on the report, which was continued by most of the members present. The general conclusions of the Poor Law Reform Committee were accepted, and the following motion was also carried unanimously:

That it would be advisable that any scheme for a Public Medical Service, as contemplated by the Poor Law Reform Committee, should be initiated and controlled by the central office of the Association.

BIRMINGHAM BRANCH.

AN ordinary meeting of this Branch was held on March 10th at the Medical Institute. In the absence of the President (Dr. Herbert Manley), through ill health, Dr. NOTLEY took the chair. There were forty members present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed and signed.

Annual Report of Branch.—The annual report of the Branch to the Central Council on the membership and financial position of the Branch and on its proceedings during the year 1909 was read and considered. It was resolved:

That the report be approved and entered on the minutes.

Research Defence Society.—Professor LEITH made a short statement on the work of the Research Defence Society.

Change of Boundaries of Bromsgrove Division.—A letter from the Medical Secretary regarding the change of boundaries of the Bromsgrove Division was read and approved.

Intraperitoneal Rupture of Bladder.—Mr. VICTOR MILWARD showed a man aged 26 on whom he had operated for intraperitoneal rupture of the bladder.

On January 23rd last he had drunk several pints of beer, but had micturated half an hour before the accident. At 9.45 p.m. he was standing on a chair facing its back, when the chair tipped forward and its back caught him across the abdomen. Mr. Milward saw the patient four hours after the accident, and he was then fairly comfortable, with a pulse of 80. On admission, however, there had been a little blood *per urethram*, and a catheter had drawn off a few ounces of bloody urine. In the absence of all symptoms of peritonitis it was decided to watch the case until some more localizing symptoms of kidney or bladder showed themselves. At 4.0 a.m., January 24th, the patient had sudden and severe abdominal pain. The abdomen was now opened over the urinary bladder and a rent was discovered on the peritoneal surface 2½ in. long. It was sewed together with a double layer of chromicized catgut. A slight amount of urinous fluid was found in the lower part of abdominal cavity which was mopped dry and the external wound was completely closed. The bladder was drained by a catheter which was retained in the urethra for nine days, and the patient was put to bed in Fowler's position with continuous saline per rectum. In the first three days there was a considerable amount of meteorism, but this was overcome by enemata and hypodermic injections of eserine salicylate gr. $\frac{1}{60}$ quartis horis.

He afterwards made excellent progress and was discharged perfectly well on February 19th.

Papers.—Mr. VICTOR MILWARD read a paper on transplantation of the imperfectly descended testicle, with an account of a new operation. This was discussed by Messrs. LEEDHAM-GREEN and SEYMOUR-BARLING, and Mr. VICTOR MILWARD replied. Mr. LEEDHAM-GREEN read a paper on the surgical treatment of exophthalmic goître. This was discussed by Dr. CODD, Mr. GEORGE HEATON, Dr. STACEY WILSON, Dr. MELSON, and Dr. HENTON WHITE. Mr. LEEDHAM-GREEN replied.

BORDER COUNTIES BRANCH:
SCOTTISH DIVISION.

A CLINICAL meeting of this Division was held at the Dumfries and Galloway Royal Infirmary on Friday afternoon, March 4th. Dr. BELL (Lockerbie) was in the chair. Apologies for non-attendance from four members were intimated by the SECRETARY.

Confirmation of Minutes.—The minutes of the last meeting were read and approved and signed by the Chairman.

Caesarean Section.—The CHAIRMAN then indicated the order of business for the meeting, explaining that convalescent patients and specimens would be shown in the Board Room. Afterwards members would be taken to the wards, and then there would be a demonstration in the *x*-ray department. The Chairman then called upon Dr. LIVINGSTON to show his cases. The first patient (a case of Caesarean section in eclampsia) he was unable to show, as the patient had not arrived, but he hoped to be able to show her and her baby, 4½ months old, at a subsequent meeting.

Spinal Anaesthesia.—Dr. LIVINGSTON showed an old man operated upon for an irreducible right femoral hernia. Dr. Livingston explained that he had brought this case forward because spinal anaesthesia had been used. It seemed to him that it might interest members and introduce the subject of spinal anaesthesia for discussion. He emphasized the reasons which led him to adopt the method in this case, and remarked upon the complete anaesthesia of the part during the whole operation, which lasted about thirty minutes, also the complete absence of any bad symptoms, shock being almost absent and the patient's convalescence very rapid. Stovaine in combination with strychnine was used. This seemed to be a very useful addition to the means of producing anaesthesia, and although Dr. Livingston did not look upon it as likely to supersede chloroform, etc., it seemed to him that it was a method country practitioners familiar with the operation and modern surgical technique might very well employ in suitable cases. The operation was not difficult, but required infinite care and scrupulous surgical cleanliness. A discussion followed upon the uses and limitations of spinal anaesthesia, especially in its applications in country practice. Dr. SYME pointed out certain dangers. Dr. EASTERBROOKE pointed out that spinal puncture was not always such an easy operation as might be supposed from Dr. Livingston's account. Drs. KERR, MARTIN, RODGER, BRYSON, and SCOTT took part in the discussion. Dr. Livingston replied that while fully realizing the dangers and difficulties of the procedure, they were not so great as to debar a country practitioner from making use of this operation in suitable cases.

Specimens.—Dr. LIVINGSTON also showed a *Carcinoma of the bowel* which had caused acute obstruction not by occlusion of the lumen of the bowel but by causing a twist. Also a *Gangrenous and perforated appendix* removed from a man of over 70, who made a good recovery after the operation; also an *Abdominal swab removed from the bladder* of a patient upon whom abdominal hysterectomy had been performed four and a half months before. The absence of symptoms until the swab had worked its way into the bladder was dwelt upon. The patient was shown in perfect health.

Stereoscopic Photographs.—Dr. W. S. SYME of Glasgow was then called upon by the Chairman to show his specimens. He showed (1) stereoscopic photographs of various steps of Killian's operation for frontal sinus disease and of patients operated on by this and other methods; (2) a specimen to demonstrate the relations of the sphenoidal sinus and posterior ethmoidal cells to the optic and trifacial nerves; (3) parts of temporal bones removed *post mortem* from patients who died as a result of suppurative disease from the middle ear spreading to the intracranial cavity; (4) larynx and pharynx removed by transverse resection for malignant disease; (5) coloured sketch of, and specimen from, a case of simple polypus of a vocal cord. Some discussion took place on the points raised by Dr. Syme, who suitably replied.

Visit to Wards.—Dr. KERR then conducted the members round his wards, showing a series of patients who had been operated upon for appendicitis; three had been cases of the worst possible type. Dr. Kerr explained in detail the methods which he adopted in dealing with these cases, and the methed of drainage he employed. An acute mastoid recently operated upon, and other cases, were shown.

Demonstration in Electrical Department.—The meeting was then adjourned for tea, and Dr. ROBSON afterwards gave a demonstration in the electrical department.

The meeting was attended by twenty-five members, and proved one of the most successful Division meetings yet held.

FIFE BRANCH AND DIVISION.

AN ordinary general meeting of the Branch and Division was held at Thornton on March 17th, Dr. W. B. DOW, LL.D. (President) in the chair. There was a small attendance of members.

Recently Deceased Members.—The HONORARY SECRETARY intimated that at a previous meeting of the Branch Council the President had referred in feeling terms to the loss the Branch had sustained through the recent death of Dr. Spence, Burntisland, who had been the first President of the Branch, and all along took a great interest in its affairs, and whose wise counsels and genial presence would be sadly missed

and he had also referred to the death of Dr. Constable' Leuchars, one of the oldest and most respected members of the profession in the county. The members present approved of the very appropriate references by the President to the recent deaths of two such respected members, and agreed that excerpts from the minutes should be sent to the relatives.

Questions to Parliamentary Candidates.—The HONORARY SECRETARY reported that, as is usual at General Election times, he had received from the Medical Secretary certain memoranda and questions on parliamentary subjects, which were recommended to be submitted for the consideration of parliamentary candidates within the area of the Branch, and he reported that he had issued these memoranda to the candidates for East Fife, West Fife, the Universities of Edinburgh and St. Andrews, St. Andrews Burghs, Stirling Burghs, and Kirkcaldy Burghs, and had received replies from three of the candidates.

Poor Law Reform Committee.—The meeting considered the interim report on Poor Law by the British Medical Association Special Committee. As it was impossible to go into this matter in full detail, it was agreed, after consideration, that the three conclusions arrived at by the Special Committee be approved :

(*a*) That medical services rendered on behalf of the State should be paid for by the State ; (*b*) that the payment should be adequate and in accordance with the professional services rendered; (*c*) that there should be adequate medical representation on all committees formed to control medical assistance.

Public Medical Service.—In regard to the report by the Branch Council on a public medical service, the HONORARY SECRETARY reported that the Branch Council had considered this matter at a meeting held on January 13th and agreed to delay coming to any finding, and the meeting approved of the recommendations of the Branch Council.

Special Class of Consultants.—The Branch Council, at its meeting on January 13th, considered the report on a special class of consultants, and agreed to recommend the Branch not to approve of this, and therefore to take no further action. This the meeting approved of.

First Aid and Ambulance Work.—A letter from the Medical Secretary, regarding instruction in first aid to voluntary aid detachments (Red Cross Society) and ambulance work in general, was considered. With regard to the position of the doctor as lecturer to those proposing to qualify as members of voluntary aid detachments and also as to his position as lecturer on ambulance work in general, the meeting came to no special finding, and it was left to the option of the doctor to give his services free or otherwise.

Relation of Homoeopaths to the Association.—It was agreed to answer all the questions asked by the Central Ethical Committee regarding this matter in the affirmative.

Research Defence Society.—The HONORARY SECRETARY submitted a letter from Mr. Stephen Paget, Honorary Secretary of the Research Defence Society, asking that the society and its objects might be brought under the notice of the members of the Branch, and also that a corresponding member might be appointed. The meeting expressed hearty approval of the objects of the society, and the Honorary Secretary, who is a member of the society, was asked to undertake the duties of corresponding member, which he agreed to do. It was also agreed to subscribe to the funds of the society.

Election to Central Council.—The HONORARY SECRETARY submitted a letter from the Secretary of the Organization Committee with reference to the election of members to the Central Council by the Branch and by the grouped Representatives, and the course suggested in the said letter by the Organization Committee was approved of. He also read a letter from Dr. Nasmyth, in which he indicated that he did not desire to be nominated for re-election as Representative of the Branch on the Central Council.

The Conscience Clause and Vaccination.—The HONORARY SECRETARY desired to call the attention of the members of the Branch to the practice of a great number of parents—in his experience, at least—in taking advantage of the conscience clause exempting them from the responsibility of having their children vaccinated, which, looking to the future, he viewed with great apprehension, if the custom were equally prevalent elsewhere, and he proposed that the Branch Council should bring this matter under the notice of the Central Council, and suggest that they might call for returns bearing on the subject from the Local Government Board for Scotland, and thereafter, if thought advisable, take the necessary steps to get the offending clause repealed. Other members spoke in a similar strain, and it was agreed to take the course proposed by the Honorary Secretary.

METROPOLITAN COUNTIES BRANCH:

CITY DIVISION.

A MEETING of the Division was held at Brooke House, Upper Clapton, by invitation of Drs. J. O. Adams and Gerald Johnston, on Thursday, March 17th, at 8 30 p.m. Dr. A. WITHERS-GREEN, Chairman of the Division, presided. Eleven members and one visitor were present.

Invitation to Non-Members.—It was unanimously resolved that non-members be invited to attend meetings.

Poor Law Reform Committee.—The interim report of the Special Poor Law Reform Committee was considered. In answer to the questions, propositions (1) and (2) were agreed to. To proposition (3) the following resolution, proposed by Dr. GOODALL and seconded by Dr. MAJOR GREENWOOD, was, after discussion, carried *nemine contradicente :*

> That this Division considers that the third of the three principles submitted for its opinion by the Special Poor Law Reform Committee is impracticable, and is, moreover, quite opposed to modern ideas; and that the control of Poor Law and contract practice from the point of view of the medical profession is only to be obtained by the combination of the profession as a whole.

Relation of Homoeopaths to the Association.— The report on this subject was discussed. Questions A, B, C, D of the report were answered affirmatively. The reply to Question E was in the negative.

Instruction in First Aid to the Territorial Force, and Ambulance Work in General.—After full discussion, the opinion of the meeting was that, as the instruction to the Territorial Force Voluntary Aid Detachments comes under the practice and regulations of the St. John Ambulance Brigade, whose certificate is requisite to qualify for membership, the resolution of the Division of March 23rd, 1905, be affirmed—namely :

> That services for ambulance work as to instruction, examination, and judging competitions, should not be treated as matters of philanthropy ; that when a fee is charged it should not be less than the usual full fee, and that details as to services and fees be left to each Division to decide according to local requirements and custom.

Medical Treatment of School Children.—A letter and questions from the Medical Secretary of March 8th were read, and on discussion it appeared that the members present had no knowledge of arrangements made by the London County Council other than those already published. It was decided to ask members to report upon cases coming under their notice.

Contract Practice Committee.—Drs. E. A. Lermitte and A. Tynan Swan were duly nominated to serve on the Contract Practice Committee of the Branch as members not engaged, and engaged, respectively in contract practice.

Vote of Thanks.—The meeting closed with a vote of thanks to Drs. Adams and Johnston for their hospitality.

Postponement of Demonstration of Skin Diseases.—The clinical demonstration of skin diseases by Dr. J. H. Sequeira has been postponed until later in the session.

RICHMOND DIVISION.

A MEETING of this Division was held at the Royal Hospital, Richmond, on March 16th.

Supervision of Midwives.—The action of the Surrey County Council in transferring the supervision of

midwives in their area from registered medical practitioners to an official possessing no medical qualification was considered. The position of affairs was shown by the scheme of Mr. W. A. Chapman in the report of the Sanitary Committee of the Surrey County Council, of which he is chairman. This was to the effect that the Lady Superintendent of the Surrey County Nursing Association should be appointed inspector of midwives for the county in place of the twenty-four medical officers of health who have hitherto done the work. Several reasons were urged why such a scheme should be adopted—among others, economy, uniformity of report, and that the work was essentially a woman's work. The meeting was of opinion that, even if this arrangement proved economical, it could only be at the sacrifice of efficiency, and they considered that adequate supervision and administration could not, under local circumstances, be secured without the assistance of the local medical officer of health. The members were unanimously of opinion that a protest should be lodged at once. After further discussion, it was proposed, seconded, and carried:

That the Richmond Division of the British Medical Association regret that the Surrey County Council should have made arrangements in regard to the inspection of midwives, which it considers will impair the efficiency of the work and be prejudicial to the public health, and that a copy of this resolution be sent to the Surrey County Council, together with a covering letter, setting forth in detail the reasons for this resolution.

WANDSWORTH DIVISION.

A MEETING of registered medical practitioners resident and practising in the Wandsworth London County Council electoral area (excluding Streatham Ward) was held on Wednesday, March 23rd, at the Town Hall.

Medical Inspection and Treatment of School Children.—The meeting was called by the Executive Committee of the Wandsworth Division to consider a scheme for the treatment of school children found on inspection to be defective, which had been prepared and accepted by the Day Schools Subcommittee of the London County Council, after negotiating with a special subcommittee of the Executive Committee. Dr. MALCOLM MACKINTOSH, Chairman of the Division, took the chair, twenty-eight other doctors being present. The CHAIRMAN gave a summary of the powers of the London County Council under the Education (Administrative Provisions) Act, 1907, Section 13, the principles adopted by the Association, and of the successful endeavours of the Executive Committee to arrange for the treatment of the children locally by the local doctors. He also pointed out the great importance to the local doctors of securing the management of the scheme. The London County Council had stated that those sections of the scheme which were marked with an asterisk would be a necessity in any scheme adopted. The subsequent discussion lasted three hours, a very large majority of those present taking an active part. The scheme, with the fundamental principles, as given below was the one ultimately adopted. Resolutions were also passed stating (1) that one centre for treatment would be insufficient, (2) that a medical certificate should be the only pass to the clinic, and (3) that the London County Council scheme for payment by parents should be actively opposed.

The meeting closed at 11.30 p.m. with the usual votes of thanks.

FUNDAMENTAL PRINCIPLES.

It is recommended that the local medical profession should adopt the following resolutions, which have been declared by the Representative Meeting of the British Medical Association to be its policy:

1. In treatment the nurse should act under the instruction and supervision of the practitioner in charge of the patient.
2. That the duties of the nurse should be defined in written rules.
3. That the Division should oppose the reference of school children, found upon medical inspection to be defective, to public medical charities for treatment, whether or not accompanied by payments or subsidies.
4. That the Division should oppose any scheme of provision for the treatment of school children, found upon inspection to be defective, which rests on the reference of such children to the Poor Law, pending such reforms as may result from the consideration of the Reports of the Royal Commission on the Poor Law.
5. That, under existing conditions, the most satisfactory provision for the treatment of school children, found upon inspection to be defective, is by placing them under the care of private practitioners.
6. That the work should be entrusted to private practitioners, who shall discharge their duties at a convenient centre.
7. That payment under any scheme should be made on a scale agreed upon between the local medical profession, as represented by the Wandsworth Division of the British Medical Association, and the local Education Authority (London County Council).

SCHEME.

The number of Schools within the area is nineteen provided, fifteen non-provided. Attendance 34,000 (about).

*1. The Scheme will be carried out by Committees under the direct control of the Wandsworth Division of the British Medical Association.

*2. The arrangements in the first instance will be only for Ears, Eyes, and Throats. Ringworm will only be arranged for at the houses of local doctors. Teeth will not be arranged for until the L.C.C. desires, when the following Scheme will allow of expansion so as to include this item.

*3. There will be one Centre at which the treatment will be carried out. It will be situated in proximity to the Town Hall, near where the electric trams converge from all parts of the electoral area.

*4. A house, which shall be approved of by the L.C.C., shall be rented on agreement for one year. The L.C.C. will accept the Scheme for one year, subject to annual revision and to termination at the end of each year by three months' notice on either side.

5. The necessary fittings would be:

Electric light, washing basins, dark room for eye examination, operating table, towels, etc., hot and cold water, furniture, mattresses or other suitable arrangements for children to lie on after anaesthetics, two small beds for emergency use, etc.

Operating and other instruments, and anaesthetics, will be provided by each member of the staff as he may require.

The L.C.C. will obtain a grant of £50, which will be expended on the necessary fittings at the discretion of the House Committee.

*6 The number of the Staff depends on the number of patients. The L C C. will guarantee to send 1,500 patients a year, of which 1,000 will probably be eye cases and 500 ear, nose, and throat cases.

*Each member of the Staff will be expected to devote two or three hours on one afternoon in each week of at least forty-four weeks of the year to his department. He will not only see patients whom he has asked to come for further treatment, but must also be prepared to attend to on an average at least eight to ten new cases per afternoon.

*The number of the Staff will be three for eyes; two for ears, nose, and throat; and two for giving anaesthetics. The remuneration of the Staff will be £50 each per annum.

*7. No payment made shall entitle the London County Council to representation on the House Committee; but nothing in the agreement shall prevent the Council's representative from visiting the premises when treatment is being given.

*8. The L.C.C. will pay to the recognized Hon. Treasurer of the House Committee every quarter at the rate of 2s. per patient. Should a child suffer not only from eye defects but also from either an ear, a nose, or a throat defect, it will count as two patients. Otherwise each child will count as one patient, however defective. The grant per annum from the L.C.C. will not be less than £150. The voucher for the payment of this capitation grant shall be form B.

*9. There will be provided by the L.C.C. one nurse for six half days a week. Also, a servant will be provided by the House Committee.

10 The procedure by which the patient will reach the clinic will be as follows:

(*a*) On inspection, the child, if found defective, will be given a card with a counterfoil (Form A) to take to the parents or guardian.

(*b*) The doctor will treat the child if in his opinion the parent or guardian can meet the expense necessary for the required treatment.

*(*c*) If the parent or guardian cannot afford the necessary expense, then either the doctor or the local Care Committee, after due inquiry, will give a recommendation to the clinic. (Form B.) No other children will be received for treatment.

(*d*) The doctor attending the child will fill in the counterfoil of the card (form A), which must be sent by the parents or guardian to the Head Master or Mistress of the child's department. This card will state that the child is under treatment.

(*e*) The School Inspector will be provided each week with a list of new patients in attendance at the clinic, as also with the names and addresses of those who have failed to attend as instructed.

(*f*) The recommendation to the clinic (form B) must be taken to the clinic during certain hours in the morning, when the day and time for the child to attend will be decided. This recommendation can be posted to the clinic if preferred, with a stamped addressed envelope for its return after the day and time for attendance have been filled in.

11. The staff will be elected after the following procedure:

*(*a*) The whole of the medical profession resident and practising within the area provided for will be circularized annually in May.

They will be asked to apply, if they desire to be appointed, by a certain date; and to state on the form of application their experience, qualifications, etc.

(*b*) If an insufficient number of suitable applications are received, applications will be asked for from all registered medical practitioners resident and practising in such other districts of the Wandsworth Division as the Executive Committee of the Division shall determine.

(*c*) If only sufficiently suitable applications are received, the applicants will be appointed for one year as from the end of the school year (that is, July 21st, about).

(*d*) If more than sufficient suitable applications are received, a special selection committee will be formed by the Executive Committee of the Division of an equal number of members and non-members of the Association, not resident in the electoral area, to select the staff.

*(*e*) The final election will rest with the medical officer for the time being, of the Education Department of the L.C.C.

(*f*) The staff will retire annually at the end of the school year, but can apply for re-election. If more than sufficient applications are received in the second and following years, those who have not already held the post will be elected, if suitable, in preference to previous holders of the posts.

12. Committees for conduct of clinic:

(i) There will be a House Committee formed of five local doctors, not being members of the Staff, resident and practising within the area controlled by the clinic, together with the Chairman of the Division and the Chairman of the Staff Committee as *ex officio* members. The Committee will elect its own Chairman, Honorary Secretary, and Honorary Treasurer. The five local doctors will be elected by the medical men resident and practising in the electoral area annually in June, by nomination and voting through the post. The election will be conducted by the Executive Committee of the Division.

(ii) There will be a Committee of the Staff, who will elect their own Chairman and Honorary Secretary.

*13. Treatment of ringworm by *x* rays. The procedure outlined in paragraph 11 will be followed in order to appoint doctors willing that children should attend at their surgeries. The remuneration will be 17s. a patient, accounts being paid quarterly.

*14. No medicines, spectacles, or other items will be dispensed. Prescriptions will be given when necessary. Arrangements will be made by the House Committee for patients to obtain the necessary spectacles at the prices now adopted by the Royal London Ophthalmic Hospital, Moorfields; and for the dispensing of prescriptions for drugs at reduced charges by certain approved chemists, who will return the prescription to the clinic.

15. The House Committee will engage clerical assistance.

The following resolutions will be submitted to the meeting:

1. That the Report of the Executive Committee of the Wandsworth Division be received.
2. That the Report be adopted.
3. That it be left to the Executive Committee of the Wandsworth Division to complete the negotiations with the L.C.C., and to take all necessary steps in order to inaugurate the Wandsworth Clinic in accordance with the above scheme as amended.

* The L.C.C. has stipulated for these conditions to be in the agreement entered into with the Wandsworth Division.

FORM A.

London County Council.

To the Parents or Guardian

has been examined and is found to be defective in . You are required to consult a doctor immediately, and to return the attached form after being completed to the Head of the School without any delay.

.....
School Medical Officer.

.....*19*

London County Council.

To the Head {master / mistress} of

School.

This is to certify that I have examined and am undertaking of the necessary treatment.

he will be absent from School under my care for weeks.

.....
Registered Medical Practitioner.

.....*19*

Address.....

.....

FORM B.

(FRONT.)

To the Wandsworth School Clinic.

I have seen and am of opinion that ...he is a suitable patient for treatment at the School Clinic.

_____
Registered Medical Practitioner.
or Hon. Secretary of School Care Committee.

_____*19* *Address*

In signing this Certificate the Signator is requested to keep in view two points:
(*a*) That the applicant is not in a position to pay for treatment.
(*b*) That the case is, from the Clinic point of view, suitable for treatment.

Only cases of Ringworm and of Eye, Throat and Nose defects of children of school age and who attend a L.C.C. Provided or Non-Provided School are eligible.

(BACK.)

To the Parents or Guardian.

You must send in charge of a responsible adult person, if you do not come yourself, to the School Clinic, situated at on the day of 19 punctually at p.m., to see the doctor.

Electric Trams pass near the Town Hall, which is within a few minutes' walk of the house.)

MUNSTER BRANCH.

A GENERAL meeting of this Branch was held on Saturday, March 12th, Professor H. CORBY, M.D., in the chair.

Apologies for Non-attendance.—Apologies for non-attendance were received from the President and Dr. O. McCarthy.

Poor Law Reform Committee.—The interim report of the Special Poor Law Reform Committee was read, and the three following principles were agreed to:

1. That medical services rendered on behalf of the State should be paid for by the State.
2. That the payment should be adequate, and in accordance with the professional service required.
3. That there should be adequate medical representation on all Committees formed to control medical assistance.

Relation of Homoeopaths to the Association.—The report of Council on the relation of homoeopaths to the Association was read and discussed. The replies to the questions were arrived at:—A, negative; B, C, D, E in the affirmative.

Voluntary Aid Detachments and Ambulance Work.—Ambulance work not being carried out in the area of the Branch, the Branch could not arrive at any resolution in the matter.

Medical Sociology.—The business of the proposed Section for Medical Sociology was read and approved; also the instruction of the Annual Representative Meeting at Belfast (Minute 28). No action was taken.

Special Class of Consultants.—The report of the Central Ethical Committee was read and discussed, and the following resolution was adopted:

> Considering the local conditions under which medical practice is conducted in the South of Ireland, we cannot take an active part in this matter.

Election of Council.—The recommendation of the Council was read and approved, and also that, as regards election by "voting papers," the Munster Branch is "independent."

Balance Sheet.—The balance sheet of the Branch for the year 1909 was submitted, showing a credit balance in favour of the Branch of £62 15s. 3d.

New Members.—Drs. G. H. Powell (Crosshaven, co. Cork), M. J. Hayes (Castletown-Berehaven, co. Cork), and J. J. Byrnes (Bruree, co. Limerick) were elected members of the Association.

Medico-Ethical Case.—The Cork medical profession having had under consideration the matter of consultations between a physician and a German practitioner unregistered in the United Kingdom, request that the case be stated fully by the Honorary Secretary, and forwarded to the Central Ethical Committee for their consideration and report. It was unanimously decided that the request of the Cork medical profession be granted, and the Honorary Secretary was directed to prepare the report as mentioned and forward it as soon as possible.

SOUTH-EASTERN OF IRELAND BRANCH.

THE first meeting of the Branch for this session was held at the Club House, Carlow, on March 2nd, at 5.30 p.m., J. H W. JELLETT (the President) in the chair. There were also present Drs. Charles James, J. B. Hackett, J. V. Ryan, G. Mackesy, Kidd, and R. B. Carey, Acting Honorary Secretary.

Confirmation of Minutes.—The minutes of the last meeting were read and signed.

Correspondence.—Letters of reply were read from Mr. Farmer and Dr. Wm. Shee in response to resolutions of condolence and regret respectively.

Election of Members on Central Council.—A discussion took place, and it was unanimously resolved that the Honorary Secretary be requested to circularize all the members of this Branch as soon as the date of election of members of Council appears in the JOURNAL, asking them to vote for the member recommended by this Branch, as it appears that for the future only one is to be elected to represent this Branch *jointly* with the Connaught Branch on the Central Council.

Research Defence Society.—The work of the Research Defence Society was discussed, and it was suggested that the Honorary Secretary take up the office of corresponding secretary to the society.

Life Insurance Companies.—After a desultory discussion on the subject of life insurance companies and their fees for medical examinations, tea was served, and the meeting came to a close.

SOUTHERN BRANCH:

JERSEY DIVISION.

A MEETING of this Division was held at 56, Bath Street, on Tuesday, March 15th. Dr. H. C. MAJOR occupied the chair, and there were seven members present.

Votes of Condolence.—The Secretary was instructed to convey votes of condolence to the widows of the late Dr. Henry John Manning and Dr. Augustin Le Rossignol.

A Public Medical Service.—The question of a Public Medical Service was carefully considered, and referred to the Executive Committee for further consideration and report.

Relation of Homoeopaths to the Association.—The printed questions asked by the Ethical Committee with regard to the relation of homoeopaths to the Division were all answered in the affirmative.

SOUTH WALES AND MONMOUTHSHIRE BRANCH:

MONMOUTHSHIRE DIVISION.

A SPECIAL meeting of this Division was held in the Newport and Monmouthshire Hospital on Friday, March 18th. The Chairman, Dr. O. E. B. MARSH, presided, and the following were also present: Drs. Nelis, Haslett, Howard Jones, Cowie, Glendinning, Garrod Thomas, Burpitt, Hamilton A. G. Lawrence, O. W. Morgan, E. Y. Steele, Neville, Frost, Acomb, Gratte, Vines, Donovan, and R. J. Coulter and W. Basset, Honorary Secretaries.

Reports re Disputes.—Reports on the position of the disputes at Ebbw Vale and Abertysswg were presented and discussed.

Payment of Medical Men called in to assist Midwives.—The HONORARY SECRETARY reported that, on the instructions of the Executive Committee, he had written to the Chairman of the Sanitary Committee to support the circular of the Manchester Corporation in favour of the payment of medical men called in to assist midwives through the Sanitary Committees rather than through the Boards of Guardians, and had sent copies of the letter to the medical members of the Sanitary Committee.

Report on Public Medical Service.—The HONORARY SECRETARY reported that the proposed rules for a Public Medical Service had been carefully considered by the Executive Committee, and that a meeting of members of the medical profession in Newport had been held under the joint auspices of the Division and the Newport Medical Society, at which a committee had been appointed to consider the advisability of starting a Public Medical Service in that town.

Vote to Branch Contract Practice Committee.—On the recommendation of the Executive Committee, a sum of 5 guineas was voted from the funds of the Division to the Branch Contract Practice Committee for secretarial expenses.

Medical Inspection of School Children.—The report on the resolutions of the Annual Representative Meeting of July, 1909, on medical inspection of school children and treatment of those found defective, was received and considered.

Poor Law Reform Committee.—The interim report of the Special Poor Law Reform Committee was considered, and the questions appended to it were all answered in the affirmative.

Relation of Homoeopaths to the Association.—The report of Council on the relation of homoeopaths to the Association was considered, together with the following recommendations of the Council:

1. That the Association should not attempt to pronounce, in this or in any other connexion, what constitutes sound doctrine in medicine or surgery, nor condemn individual

practitioners on the ground that they hold peculiar views of pathology or treatment, or give effect to such views in the practice of their profession.

2. That the Association should express the opinion that it is contrary to the recognized principles of professional conduct for any medical practitioner to advertise the holding of peculiar views of pathology or treatment, or the fact that his practice is based thereon, as a means of attracting to himself patients.
3. That, accordingly, the Association should express its disapproval of the conduct of those medical practitioners who permit the publication of their names in the *Homœopathic Directory* or similar compilations, or who make use of door-plates or similar means, to intimate to the public that they are guided in their practice by peculiar theories of pathology or treatment.
4. That if the above recommendations 2 and 3 are approved, practical effect should be given to them by an expression of opinion of the Representative Meeting: (*a*) That it is desirable that the bodies which have the power of electing members should not elect those who are reasonably believed to have acted unprofessionally in any of the ways stated; and (*b*) that, concerning those who are already members, the disciplinary powers of the Council and of the Branches should be duly exercised if, and when, cases of the kind are brought under their notice in conformity with the ordinary rules of procedure of the Association in ethical matters.

These were approved with the exception of No. 4 (*b*), with regard to which the Division was of opinion that each case should be judged on its merits.

Instruction in First Aid and Field Nursing to Voluntary Aid Detachments.—The circular of the Territorial Forces Committee on this subject was considered, and the following resolution was unanimously passed, and the Honorary Secretaries were instructed to send copies of it to the Secretary of the Monmouthshire Territorial Army Association and to Sir Herbert Perrott:

That in the opinion of the Monmouthshire Division of the British Medical Association all ambulance instruction should be paid for, and no member of the Division should give the preliminary instruction necessary to qualify for membership of a Voluntary Aid Detachment without suitable remuneration.

☞ *To ensure the insertion of notices in this column, they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

Association Notices.

ANNUAL REPRESENTATIVE MEETING, 1910.

DATE OF MEETING.

THE Annual Representative Meeting of the Association, 1910, will be held in the Court of Common Council Chamber, Guildhall, London, on Friday, July 22nd, 1910, and following days as may be required.

NOTICES OF MOTION: LAST DAY FOR RECEPTION.

ATTENTION is drawn to the fact that Notices of Motion from Divisions and Branches for the consideration of the Annual Representative Meeting in London in July, relating either to the alteration of the By-laws (Article XLVII), or to questions affecting the honour and interests of the profession (Article XXXI), must be published in the BRITISH MEDICAL JOURNAL not later than the issue of April 23rd, 1910, and for this purpose should be received by the Medical Secretary not later than Monday, April 18th.

By Order,

J. SMITH WHITAKER,
Medical Secretary.

COUNCIL MEETING.

A MEETING of the Council will be held at 2 o'clock in the afternoon of Wednesday, April 27th, in the Council Room at 429, Strand, London, W.C.

By Order,

GUY ELLISTON.
Financial Secretary and Business Manager.

March 24th, 1909.

ANNUAL SUBSCRIPTION, 1910.

MEMBERS are reminded that the Annual Subscription, amounting to 25s., is now due.

Cheques or Postal Orders should be made payable to the British Medical Association, and crossed London County and Westminster Bank.

In the case of Colonial Members the subscription should be paid to the Honorary Treasurer of their respective Branches.

BRANCH AND DIVISION MEETINGS TO BE HELD.

EAST ANGLIAN BRANCH.—The spring meeting of this Branch will be held at the Palace Hotel, Southend, on Thursday, April 7th. Programme of Proceedings: 12.30 o'clock, Council Meeting. 1 o'clock, luncheon, 3s. 6d. Members are requested to intimate if they intend being present on or before Monday, April 4th. 2.30 o'clock, General Meeting. Agenda: (1) Minutes of last meeting. (2) Dr. Milner Burgess will propose the following resolution: "That it would be to the advantage of the Branch if some short annual report of its proceedings with discussions thereon could be published, as under present methods much valuable information is wasted." (3) W. H. Slimon, M.D., President of the Branch, will read a paper on Menorrhagia and Metrorrhagia. (4) Robert Hutchison, M.D., Physician to the London Hospital, will read a paper on The Therapeutic Uses of Diet. (5) George Pernet, M.D., will read a paper on The Intramuscular Treatment of Syphilis. 4.30 o'clock, Afternoon Tea, by the kind invitation of the South Essex Division, in the New Winter Gardens of the Palace Hotel. Ladies are also invited. Exhibits of surgical instruments, drugs, electrical apparatus, etc.—B. H. NICHOLSON, H. A. BALLANCE, J. GUTCH, Honorary Secretaries.

LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—A general meeting of the Division will be held at the Greenbank Hotel, Northwich, on Wednesday, April 20th, at 5 p.m. A discussion will be held on the position of the general practitioner under the schemes in the Reports of the Royal Commission on Reform of the Poor Laws. Dr. J. H. Taylor, of Salford, has promised to attend and take part in the discussion. Dinner will be held after the meeting if a sufficient number of members promise to attend. Members who wish to stay for dinner are kindly requested to intimate their intention at once to the Honorary Secretary, H. G. COOPER.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—The next meeting of the Division will take place conjointly with the Walthamstow Division at Walthamstow Hospital on April 21st, when Sir Victor Horsley will deliver an address.—A. G. SOUTHCOMBE, M.D., Honorary Secretary.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH.—A meeting of the Branch will be held at the Hotel, Grange-over-Sands, on Wednesday, April 6th, at 2.30 p.m. Dr. Alexander will read a paper on Refraction Work in General Practice. Dr. Hogarth will read a note on Spinal Analgesia. Any member willing to show cases or specimens is requested to be good enough to send details to A. S. BARLING, Honorary Secretary.

SOUTH-EASTERN OF IRELAND BRANCH.—A meeting of this Branch, as also a meeting of the Branch Council and the local Division, will be held at the Adelphi Hotel, Waterford, on April 6th, at 3.30 p.m. Agenda: (1) Minutes of last meeting. (2) Letters of apology. (3) Correspondence. (4) Nomination of officers. (5) Any other business. Luncheon at 2.30.—J. QUIRKE, Honorary Secretary, Piltown.

SOUTH MIDLAND BRANCH: NORTHAMPTONSHIRE DIVISION.—A meeting of the Division will be held in the Board Room of the Northampton General Hospital on Tuesday, April 5th, at 2 30. The meeting will be preceded by a luncheon at Franklin's Restaurant at 1.30. The Honorary Secretary will be much obliged if those desiring to attend the luncheon will let him know at least two days beforehand. Agenda: (1) Report of Executive Committee. (2) Consideration of Ethical Committee's Report on Homoeopathy (BRITISH MEDICAL JOURNAL, SUPPLEMENT, February 12th, 1910). (3) Consideration of Report of Special Poor Law Reform Committee (BRITISH MEDICAL JOURNAL, SUPPLEMENT, February 5th, 1910). (4) Election of members of the Division to the committee of the Northamptonshire Amateur Athletic Club. (5) Clinical cases and specimens. (6) Any other business.—PEVERELL S. HICHENS, Honorary Secretary, Northampton.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

DEPUTY INSPECTOR-GENERAL J. L. BARRINGTON has been appointed to Hong Kong Hospital vice W. Tait, M B , to date April 20th.

Deputy Inspector-General D. T. HOSKYN, M B , has been appointed to Haslar Hospital, vice J. Crowley, M D , to date April 30th.

The following appointments have been made at the Admiralty: Fleet Surgeon H E. TOMLINSON to the *Vanguard*, April 4th; Fleet Surgeon W. BETT to the *Pomone*, additional, for the Royal Naval College, Dartmouth, April 5th; Fleet Surgeon H. W. MACNAMARA to the *Sutlej*, April 5th; Surgeon E. M. W. HEARN, M D., to the *Vindictive*, on commissioning, April 5th.

Mr. E. A. KING, civil practitioner, has been appointed Surgeon and Agent at Burntisland, March 22nd.

ARMY MEDICAL SERVICE.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL J. R. STUART, M.B , is placed on retired pay, March 18th. He was appointed Surgeon, February 3rd, 1883; Surgeon-Major, February 3rd, 1895; and Lieutenant-Colonel, February 3rd, 1903. He served with the Nile Expedition in 1898, and was present at the battle of Khartoum, receiving the Egyptian medal with clasp and the British medal.

Lieutenant-Colonel B. T. MCCREERY, M B., is placed temporarily on the half-pay list on account of ill health, March 6th.

Captain H. SIMPSON, Brigade Laboratory, Ahmednagar, is appointed Specialist in the Prevention of Disease, from January 1st.

INDIAN MEDICAL SERVICE.

THE King has been pleased to approve the promotion to be Surgeon-General of Lieutenant-Colonel C. P. LUKIS, M B , F.R C.S , particulars of which have already appeared in the BRITISH MEDICAL JOURNAL.

The Royal sanction has also been given to the retirement from the service of Lieutenant-Colonels J P. BARRY, M D. (since deceased), and R. R WEIR, M B., both of which have already been announced in the BRITISH MEDICAL JOURNAL

The following admissions to be Lieutenants in the Indian Medical Service, dated July 31st, 1909, have also received the Royal approval: CHARLES H. SMITH, M D., F.R.C.S , ALAN MACD. DICK, M B., THOMAS J. C EVANS, ROBERT I BINNING, M B., MAURICE J. HOLGATE, M.B., TREVOR L. BOMFORD, M.B , GRAHAM R. LYNN, LOUIS H. L. MACKENZIE, M B., JOHN MCD. ECKSTEIN, WILLIAM A M. JACK, M B., ALEXANDER C. ANDERSON, DUNCAN G. COOPER, M.B., DAVID ARTHUR, M B., WILLIAM L. FORSYTH, M.B , KESHAV S THAKUR, MOHAMED A. RAHMAN, EDWARD H. V. HODGE, M B , GERALD T. BURKE, M.B., HERBERT R. B. GIBSON, M.B., MARK A. NICHOLSON.

The undermentioned officers are appointed Honorary Surgeons on the personal staff of the Governor-General of India from January 1st: Surgeon-General A. T. SLOGGETT C.M.G., R.A.M.C., Principal Medical Officer, 6th (Poona) Division. Colonel R. H. FORMAN, M.B., R.A.M.C., Principal Medical Officer, Bombay Brigade. Lieutenant-Colonel R. S. F. HENDERSON, M.B., R.A.M.C. Secretary to the Principal Medical Officer, His Majesty's Forces in India.

SPECIAL RESERVE OF OFFICERS.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT C. V. NICOLL, from the Army Medical Reserve, to be Lieutenant, retaining the rank and seniority which he held in the Army Medical Reserve, February 28th.

GEORGE F. RANDALL to be Lieutenant (on probation), February 11th.

ARMY MEDICAL RESERVE.

LIEUTENANT A. C. ADAMS resigns his commission, February 28th.

TERRITORIAL FORCE.

ROYAL FIELD ARTILLERY.

First South Midland (Gloucestershire) Brigade.—Surgeon-Captain W. J. HILL resigns his commission, February 8th

First Welsh (Howitzer) Brigade.—Surgeon-Captain D. A. DAVIES, M.B., to be Surgeon-Major, July 1st, 1909.

ROYAL ARMY MEDICAL CORPS.

Third Lowland Field Ambulance.—Lieutenant W. K. MACDONALD, M.B., resigns his commission, February 8th. JAMES YOUNG, M.B., F.R C S Edin., to be Lieutenant, February 8th

First Welsh Field Ambulance.—EDMUND V. CONNELLAN to be Lieutenant, February 1st.

Third Welsh Field Ambulance.—Captain G. A. STEPHENS, M.D., to be Major, September 2nd, 1908.

For Attachment to Units other than Medical Units.—ERNEST A. BOXER to be Lieutenant, November 24th, 1909. FREDERIC R SUTTON, M.D., to be Lieutenant, January 14th. HENRY HALTON, M.D. (late Surgeon-Captain, 1st Lancashire Royal Engineers, Volunteers), to be Captain, February 1st. JOHN B. ROUS to be Lieutenant February 8th.

Attached to Units other than Medical Units.—Captain J. B. JAMIESON to be Major, July 31st, 1909.

First London (City of London) Field Ambulance.—DUNCAN C. L. FITZWILLIAMS, M.D., F.R.C.S.Eng and Edin., to be Lieutenant, January 3rd.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,379 births and 4,323 deaths were registered during the week ending Saturday, March 19th The annual rate of mortality in these towns, which had been 14 7, 14.5, and 13.6 per 1,000 in the three preceding weeks, further fell to 13 5 per 1,000 in the week under notice. The rates in the several towns ranged from 3.9 in Rotherham, 4.3 in King's Norton, 5 8 in Hornsey and in Handsworth (Staffs) 5.9 in Walthamstow, and 8.2 in Tottenham, to 17 5 in Preston, 17 8 in Warrington, 18 0 in Barrow-in-Furness, 19 2 in Ipswich, 19.4 in Great Yarmouth, 24.2 in Huddersfield, and 27.1 in Rochdale; in London the rate of mortality was 13.2 per 1,000. The death-rates from the principal infectious diseases averaged 1 0 per 1,000 in the seventy-six towns; and ranged upwards to 2 9 in Burnley, 3.0 in Hanley, 3.1 in Devonport, 3.3 in Barrow-in-Furness, 3 8 in Hastings, and 4.8 in Ipswich; in London the death-rate from these diseases was 1 0 per 1.000. Measles caused a death-rate of 1 1 in Swansea and in Northampton, 1 5 in Stockport and in Burnley, 2 2 in Hanley, 3.8 in Hastings, and 4 1 in Ipswich; diphtheria of 1 0 in Burnley; whooping-cough of 1 3 in Birkenhead and in Newport (Mon.), 1.9 in West Hartlepool, and 2 5 in Devonport and in Barrow-in-Furness; and diarrhoea of 1 4 in Warrington. The mortality from scarlet fever and from enteric fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The number of scarlet fever cases under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,766 and 1,754 at the end of the two preceding weeks, had further declined to 1 713 at the end of the week under notice; 180 new cases were admitted during the week, against 1 93, 211, and 199 in the three preceding weeks.

In seventy-six of the largest English towns, including London, 7 755 births and 4,448 deaths were registered during the week ending Saturday last, March 26th. The annual rate of mortality in these towns, which had been 14 5, 13 6, and 13 5 per 1,000 in the three preceding weeks, rose last week to 13 9 per 1,000. The rates in the several towns ranged from 4 2 in Hornsey, 6 8 in King's Norton, 7 7 in East Ham, 7 8 in Willesden, 8 4 in Hastings, 8 5 in Walthamstow, 8 6 in Leyton, and 8.7 in Great Yarmouth, to 18 3 in West Bromwich 18 4 in Burnley, 18 5 in Blackburn, 18 6 in Liverpool, 18 7 in South Shields, 19.6 in Barrow-in-Furness 19 8 in Huddersfield, 20.3 in Tynemouth, 20 4 in Grimsby, 21.3 in Stockport, and 23 7 in Swansea; in London the rate of mortality was 13 5 per 1 000 The death-rate from the principal infectious diseases averaged 1 0 per 1,000 in the seventy-six large towns; in London these diseases caused a death-rate of 1 1 per 1,000, while among the seventy-five other large towns the rates ranged upwards to 1 9 in Salford, in Blackburn, and in Hull, 2.2 in South Shields, 2 4 in Liverpool, 2 5 in Stockport, and 4 5 in Hanley. Measles caused a death-rate of 1.1 in Hull, 1 3 in Merthyr Tydfil 1 5 in Stockport and in Burnley, and 3 0 in Hanley; scarlet fever of 1.1 in Blackburn; diphtheria of 1.1 in St. Helens; and whooping-cough of 1 2 in Devonport, in Aston Manor, and in Liverpool, 1 3 in West Hartlepool and in South Shields, 1 5 in Hastings, and 1 6 in Barrow-in-Furness. The mortality from enteric fever and from diarrhoea showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The number of scarlet fever cases under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,766, 1,754, and 1,713 at the end of the three preceding weeks had declined to 1,650 at the end of last week; 173 new cases were admitted during the week, against 211, 199, and 180 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday last, March 26th, 850 births and 556 deaths were registed in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 16 5, 17 2, and 16 9 in the three preceding weeks, fell to 15 3 last week, and was 1.4 per 1,000 above the mean rate during the same period in the seventy-six large English towns Among these Scottish towns the death-rates ranged from 12 3 in Edinburgh and 12 6 in Perth to 20 2 in Dundee and 21 3 in Greenock The death-rate from the principal infectious diseases averaged 2.1 per 1.0 0, the highest rates being recorded in Dundee and Greenock. The 263 deaths in Glasgow included 19 which were referred to measles, 2 to scarlet fever, 6 to whooping-cough, and 5 to diarrhoea. Three fatal cases of measles were recorded in Edinburgh; 9 of measles and 2 of diarrhoea in Dundee; 3 of diphtheria in Aberdeen, and 7, 4, and 3 cases of measles in Greenock, Leith, and Paisley respectively.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, March 19th, 578 births and 419 deaths were registered in the twenty-two principal urban districts of Ireland, as against 608 births and 482 deaths in the preceding period. The annual death-rate in these districts, which had been 22.8, 22.4, and 22 0 per 1,000 in the three preceding weeks, fell to 19.0 per 1,000 in the week under notice, this figure being 5.5 per 1,000 higher than the mean annual death-rate in the seventy-six English towns for the corresponding period. The figures in Dublin and Belfast were 18 4 and 21 7 respectively, those in other districts ranging from 3.9 in Galway and 4 0 in Dundalk to 28 7 in Ballymena and 42 3 in Tralee, while Cork stood at 19 9, Londonderry at 9 6, Limerick at 19.1, and Waterford at 13.6. The zymotic death-rate in the twenty-two districts averaged 1.5 per 1 000, as against 1 3 per 1,000 in the preceding week.

Hospitals and Asylums.

BIRMINGHAM HOSPITALS.

The General Hospital.

THE annual report of the General Hospital shows that 69,829 patients were treated in 1909, and that of these 5,511 were in-patients and 64 318 out-patients. The attempt to send trivial cases to dispensaries, general practitioners, clubs, or elsewhere, according to circumstances, resulted in 2,370 patients being referred in this way. Of these 61 were medical out-patients, 15 surgical out-patients, 163 medical casualties, and 2 131 surgical casualties. Many of these cases after treatment for a short period were found to be trivial and then referred elsewhere.

With the view of making the *X*-Ray Department up to date and as perfect as possible it has been reorganized, and structural alterations made at a cost of nearly £200, while appliances, fittings, and apparatus to the value of £300 were purchased through the liberality of a member of the board, who desires his name to remain anonymous. Two beds have been dedicated by donations of £1,250—one by Mrs. Rickards to the memory of the late Dr. Edwin Rickards, who was honorary physician to the hospital from 1874 to 1904; the other to the memory of the late Mr. G E. Belliss, a former member of the board. A very handsome and well-equipped horse ambulance was presented to the hospital by Sir John C. Holder, Bart., to take the place of the old one for the removal of patients to the Jaffray Branch Hospital. Owing to the increased demands on the nursing staff, and to enable the nurses to have more time off duty, their number has been increased by 14, making the nursing staff 120. The amount received from the distribution of the Hospital Sunday Fund was £1,356, and from the Hospital Saturday Fund £3,150. The sum of £2,500 was received on account of the proceeds of the Triennial Musical Festival; this is less than usual, the sum received in 1906 being £4,416 The ordinary income for 1909 was £19,048, and this included £7,163 by subscriptions, £7,721 by dividends, etc., £648 by donations, and £2,453 being half the legacies. The extraordinary income was £7,006, making a total income from all sources of £26,055. The total expenditure of the year was £27,122. The deficit, which at the end of 1908 was £10 060, was therefore increased to £11,427. The board views with considerable concern the continued falling off in the annual subscriptions, as well as the increasing overdraft at the bank, and urges the necessity for new and increased annual subscriptions. At the Jaffray Branch Hospital 390 patients were treated in 1909. Of these, 219 were cured, 92 much relieved, 7 relieved, 9 were returned to the General Hospital, 10 died, and 53 remained in the wards at the end of the year. The total expenditure was £2 891, and there was a deficit of £558. which had to be taken from the accounts of the General Hospital.

The Queen's Hospital.

The hospital has lost by death, as the result of an accident, its distinguished senior physician, Dr. Arthur Foxwell, and in the annual report the committee place in the forefront public acknowledgement of their sense of this deep loss. Dr. Foxwell adorned the medical staff for twenty years, and by his conspicuous ability and attractive personality he greatly enhanced, throughout the city and the country, the reputation of the hospital which he served so faithfully. The number of patients treated during 1909 was 42,457, and of these 3,128 were in patients and 39,329 out patients. The committee have shown their cordial sympathy with the aims of the new Provident Dispensary by instructing the medical staff to refuse treatment, other than first aid, to such cases as in their discretion ought to be relieved elsewhere than in the out-patient department of the hospital. The new block, which at the date of the last annual report had only been occupied for six months, continues to prove satisfactory, and the increased accommodation has gone far to remove the pressure previously existing, though it has not abolished it. The roof ward has proved valuable in the open-air treatment of both medical and surgical cases, and has been continuously occupied since its opening in February, 1909. The new *x*-ray installation has given valuable results, both diagnostic and therapeutic, and the total number of cases radiographed since December 1st, 1908, was 280 The ordinary income of the year was £10,947, of which £3 025 was derived from annual subscriptions, £2,131 from invested property, and £1,283 from payments by patients The hospital has received £2 100 from the Hospital Saturday Fund, £1 294 from the Hospital Sunday Fund, £200 from the trustees of the Muntz Fund, and £200 from Mr. George Stanley, being a share of the gate-money of the Birmingham Trades Exhibition, making a total of £2,200 received from this source. The expenditure was £17,177, leaving a deficiency of £6,230 on the year, this amount being charged to the legacies and exceptional donations suspense account. The committee earnestly appeal for more financial support, for the income of the hospital has materially decreased, owing to the realization of investments to help to defray the cost of the new buildings, and the annual expenditure has largely and permanently increased as the result of the additional beds now provided.

INCORPORATED DENTAL HOSPITAL OF IRELAND.

THE annual meeting of the association in connexion with the Incorporated Dental Hospital was held in Dublin on February 16th. The annual report stated that the work done continued to show steady progress. During the year the board had lost some of the oldest and best friends of the hospital, including, amongst others, Dr. Richard Theodore Stack, the founder of the institution. An advantageous alteration in the boundary line of the hospital holding made by arrangement with the Board of Trinity College would greatly facilitate its extension when the time came for taking this step. In the meantime, to meet the pressing need for expansion of premises, the board had leased a portion of an adjoining house, which is now utilized for the anaesthetic department and for lecture rooms. During the year under review 14,468 dispensary cases had received advice and treatment, 2,133 anaesthetics had been given, and 8,180 fillings had been made. The total number of students and pupils now attending the hospital was 48—a most satisfactory increase.

Vacancies and Appointments.

VACANCIES.

BARNSLEY: BECKET HOSPITAL.—Second House-Surgeon. Salary, £60 per annum.

BIRKENHEAD UNION.—Junior Resident Assistant Medical Officer for the Infirmary and Sanatorium. Salary, £100 per annum.

BIRMINGHAM CITY ASYLUM.—Junior Resident Medical Officer. Salary, £150 per annum.

BRISTOL GENERAL HOSPITAL.—(1) House-Physician, (2) Casualty House-Surgeon, (3) Assistant House-Physician. Appointments for six months. Salary, £60

BUCKS COUNTY EDUCATION COMMITTEE.—Assistant School Medical Officer. Salary, £250 per annum

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—Assistant Surgeon.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—House-Surgeon, non-resident. Honorarium, 40 guineas a year.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Clinical Assistant.

CROYDON GENERAL HOSPITAL.—Medical Officer to take charge of Department for Radiography.

DARLINGTON HOSPITAL AND DISPENSARY.—House-Surgeon. Salary, £120 per annum.

DREADNOUGHT HOSPITAL, Greenwich.—Assistant Physician.

EDINBURGH HOSPITAL FOR WOMEN AND CHILDREN.—Resident Medical Officer (female).

HAMPSTEAD GENERAL HOSPITAL.—(1) House-Physician, (2) House-Surgeon. Salary at the rate of £70 per annum each.

HEREFORD COUNTY AND CITY ASYLUM, Burghill.—Junior Male Assistant Medical Officer. Salary, £120 per annum, rising to £150.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—(1) Casualty Medical Officer Salary, £200 per annum (2) House-Surgeon. Salary, £30 for six months, and £2 10s. washing allowance.

HULL ROYAL INFIRMARY.—Assistant House-Surgeon. Salary, £80 per annum.

ILKESTON BOROUGH.—School Medical Officer and Assistant Medical Officer of Health. Salary, £250 per annum.

LONDON COUNTY ASYLUM, Horton, Epsom.—Junior Assistant Medical Officer. Salary, £160 per annum.

LONDON FEVER HOSPITAL, Islington, N.—Honorary Surgeon.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon. Salary, £60 per annum.

MIDDLESEX HOSPITAL, W.—(1) Aural Surgeon. (2) Third Assistant to the Director of the Cancer Research Laboratories. Salary, £150 per annum.

NEW HOSPITAL FOR WOMEN, Euston Road, N.W.—Surgeon on the In-patient Staff.

RICHMOND: ROYAL HOSPITAL.—Assistant House-Surgeon. Salary, £70 per annum.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House-Surgeon. Salary, £80 per annum.

ROYAL EAR HOSPITAL, Dean Street, Soho, W.—House-Surgeon. Honorarium. £40 per annum

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Clinical Pathologist Honorarium, 50 guineas.

SALFORD ROYAL HOSPITAL.—House-Surgeon (male). Salary at the rate of £60 per annum.

SHEFFIELD ROYAL HOSPITAL.—Assistant House-Physician. Salary, £50.

SHEFFIELD UNIVERSITY.—Demonstrator in Anatomy. Salary, £150 per annum.

SOUTHAMPTON: ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—Junior House-Surgeon. Salary, £60 per annum.

SOUTHWARK UNION INFIRMARY.—Assistant (Male) Medical Officer. Salary, £100 per annum.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—Assistant House-Surgeon. Salary, £82 per annum.

STOKE-ON-TRENT: NORTH STAFFORDSHIRE INFIRMARY, Hartshill.—House-Physician (male), Salary, £100 per annum.

TAUNTON AND SOMERSET HOSPITAL.—Resident Assistant House-Surgeon. Salary at the rate of £50 per annum.

THROAT HOSPITAL, Golden Square, W.—Resident House-Surgeon. Salary, £75 per annum.

UNIVERSITY COLLEGE HOSPITAL.—Mechanical Assistant in the Electro-Radiographic Department. Salary, £78 per annum.

YORK COUNTY HOSPITAL.—House-Surgeon Salary, £100 per annum.

YORK DISPENSARY.—Two Resident Medical Officers. Salary, £130 per annum each.

CERTIFYING FACTORY SURGEON.—The Chief Inspector of Factories announces a vacancy at Denbigh, co. Denbigh.

APPOINTMENTS.

EMRYS JONES, F., B.A.Cantab., L.M.S.S.A.Lond., Radiographer to the Midland Eye Hospital, Birmingham.

EVANS, E. Laming, M.A., M.D., B.C. Cantab., F.R.C.S.Eng., Surgeon to the Surgical Aid Society Salisbury Square, E.C.

POTTS, George, F.R.C.S.Edin., Honorary Aural Surgeon to the Kent County Ophthalmic Hospital.

EDINBURGH ROYAL INFIRMARY.—The following appointments have been made:

Resident Physicians.—J. J. M. Shaw, M.B., Ch.B., to Professor Sir T. R. Fraser; J. K. Milne Dickie M.B., Ch.B., to Professor Greenfield; Leonard Leslie, M.B., Ch.B., to Professor Wyllie; H. Faithful Smith, M.B., Ch.B., to Dr. Bramwell; D. Maxwell Ross, M.B., Ch.B., to Dr. Gibson; W. F. Buist, M.B., Ch.B., to Dr. Bruce; W. Francis Christie, M.B., Ch.B., to Dr. Philip.

Resident Surgeons.—F. W. Hay, M.B., Ch.B., to Professor Thomson; George E. King, M.B., Ch.B., to Mr. Cotterill; George H. Sinclair, M.B., Ch.B., to Mr. Cathcart; L. E. Barrington Ward, M.B., Ch.B., to Mr. Hodsdon; W. M. Menzies, M.B., Ch.B., to Mr. Wallace; John Crocket, M.B., Ch.B., to Mr Miles; Frank E. Jardine, M.B., Ch.B., to Dr. Barbour; G. E. G. Mackay, M.B., Ch.B., to Mr. Brewis.

Non-Resident House-Physicians — Arthur Verge, M.B., F.R.C.S Edin., to Dr. Norman Walker; R. Murdoch Matheson, M.D., etc., to Dr. Lovell Gulland.

Non-Resident House-Surgeons.—George L. Cawkwell, M.B., Ch.B., to Dr. George Mackay; Raymond Verel, M.B., Ch.B., to Dr. Logan Turner; J. Spencer-Daniell, M.B., Ch.B., to Dr. Malcolm Farquharson; L. C. Peel Ritchie, F.R.C.S.Edin, to Mr Dowden

Clinical Assistants.—Ian D. Dickson, M.B., Ch.B., and William Stewart, M.B., Ch.B., to Professor Sir T. R. Fraser; Alexander G. M. Grant, M.B., Ch.B., to Professor Wyllie; Allan G. Hamilton, M.B., Ch.B., to Dr. Bramwell; John Henderson, M.B., Ch.B., to Dr. Gibson; R. C. Macqueen, M.B., Ch.B., to Dr. Bruce; John M. Scott, M.B., Ch.B., to Dr Philip; Henry J Dunbar, M.D., F.R.C.S.Edin., to Dr. Lovell Gulland (medical waiting room); J. H. Harvey Pirie, M.D., F.R.C.P.Edin., to Dr. Graham Brown; Norman S. Carmichael, M.B., Ch.B., to Dr. Boyd; Charles M'Neil, M.D., etc., to Dr. Fleming; Kenneth Mackenzie, M.B., Ch.B., to Dr. Rainy; H. S. Reid, M.D., etc., to Dr. Chalmers Watson; Roy Russell Kerr, M.B., Ch.B., to Professor Thomson; H. M. Traquair, M.D, etc., to Dr. Sym; Henry A. V. Loots, M.B., Ch.B., to Dr. Malcolm Farquharson.

DIARY FOR THE WEEK.

MONDAY.

ROYAL SOCIETY OF MEDICINE:

ODONTOLOGICAL SECTION, 15, Cavendish Square, 8 p.m.—1. Paper:—Dr. R Ackerley: Observations on the Condition of the Mouth in 1 000 Consecutive Cases of Chronic Disease. 2. Communications:—Mr. Herbert Tilley: Two Cases of Suppurating Dental Cysts invading the Antrum. Mr. W. de C. Prideaux: (1) A Case of Vertical Fracture through the Mandible and Canine Tooth; (2) a Case of Rupture of a Gastric Ulcer while in a Dental Chair.

THURSDAY.

NORTH-EAST LONDON CLINICAL SOCIETY, Prince of Wales's Hospital, Tottenham, 4.15 p.m.—Agenda: Discussion on Vaccine Therapy, to be opened by Dr. G. Macdonald.

ROYAL SOCIETY OF MEDICINE:

EPIDEMIOLOGICAL SECTION, 15, Cavendish Square, W., 8.30 p.m.—Paper:—Dr. Niven: Summer Diarrhoea and Enteric Fever.

FRIDAY.

ROYAL SOCIETY OF MEDICINE:

CLINICAL SECTION, 15, Cavendish Square, W., 8.30 p.m.—Cases and Specimens.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Lectures: Tuesday, 3.45 p.m., External and Middle Ear. Friday, 3.45 p.m., External and Middle Ear.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

EMRYS-JONES.—On March 22nd, at The Crest, Hill Crest Road, Moseley, Birmingham, the wife of Franklin Emrys-Jones, of a son.

PHILLIPS.—On March 22nd, the wife of Miles H. Phillips, B.S., F.R.C.S., of 420, Glossop Road, Sheffield, of a son.

MARRIAGE.

BARK—OLIVER.—On March 10th, at St. Luke's, Walton, Liverpool, by the Rev. G. H. Casson, C.M.S., Uganda, Ernest Gilbert Bark, M.B., B.S.Lond., of Liscard, Cheshire, elder son of Ernest Bark, M.R.C.S., L.R.C.P., of Handsworth, Birmingham, to Emily, daughter of Mrs. Oliver, of Walton, and of the late William Oliver.

DEATH.

BRODIE.—At West Ealing, on March 12th, 1910, of pneumonia following upon influenza, William Haig Brodie, M.D., F.R.C.S., aged 53 years.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
APRIL.	
2 SATURDAY ..	LONDON: Science Committee, 12 noon.
3 Sunday ..	
4 MONDAY ..	
5 TUESDAY ..	LONDON: Organization Committee, 10.45 a.m. NORTHAMPTONSHIRE DIVISION, *South Midland Branch*, Board Room, Northampton General Hospital, 2.30 p.m.; Luncheon, Franklin's Restaurant, 1.30 p.m.
6 WEDNESDAY	LONDON: Medico-Political Committee, 2 p.m. NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH, Hotel, Grange-over-Sands, 2.30 p.m. SOUTH-EASTERN OF IRELAND BRANCH, Meeting of Branch, Branch Council, and Local Division, Adelphi Hotel, Waterford, 3 30; Luncheon, 2.30 p.m.
7 THURSDAY ..	LONDON: Hospitals Committee, 2.30 p.m. EAST ANGLIAN BRANCH, Spring Meeting, Palace Hotel, Southend; Council Meeting, 12.30 p.m.; Luncheon, 1 p.m.; General Meeting, 2.30 p.m.; Tea, 4.30 p.m. LONDON: Metropolitan Counties Branch Council, Special Meeting, 4.30 p.m.
8 FRIDAY ..	LONDON: Central Ethical Committee, 2 p.m.
9 SATURDAY ..	
10 Sunday ..	
11 MONDAY ..	LONDON: Colonial Committee 2.45 p.m.
12 TUESDAY ..	LONDON: Public Health Committee, 3 p.m.
13 WEDNESDAY	

Date.	Meetings to be Held.
APRIL *(continued).*	
14 THURSDAY ..	
15 FRIDAY ..	
16 SATURDAY ..	
17 Sunday ..	
18 MONDAY ..	
19 TUESDAY ..	
20 WEDNESDAY	LONDON: Journal and Finance Committee, 2.30 p.m. ALTRINCHAM DIVISION, *Lancashire and Cheshire Branch*, General Meeting, Greenbank Hotel, Northwich, 5 p.m.
21 THURSDAY ..	CITY DIVISION, *Metropolitan Counties Branch*, Conjoint Meeting with Walthamstow Division, Walthamstow Hospital. LONDON: Metropolitan Counties Branch Council, 4.30 p.m.
22 FRIDAY ..	
23 SATURDAY ..	
24 Sunday ..	
25 MONDAY ..	
26 TUESDAY ..	
27 WEDNESDAY	**London: Central Council, 2 p.m.** BATH AND BRISTOL BRANCH, Bath.
28 THURSDAY ..	
29 FRIDAY ..	BIRMINGHAM BRANCH. Pathological and Clinical Section, Medical Institute, Edmund Street, 8 p.m. HAMPSTEAD DIVISION, *Metropolitan Counties Branch*, 8.30 p.m. RICHMOND DIVISION, *Metropolitan Counties Branch*, Clinical Meeting, Royal Hospital, Richmond, 8.30 p.m.
30 SATURDAY ..	

Printed and Published by the British Medical Association at their Offices, No. 429, Strand, in the Parish of St. Martin-in-the-Fields in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, APRIL 9TH, 1910.

CONTENTS.

	PAGE
Matters Referred to Divisions:	
NOTICE OF MOTION.—Proposed Amendment of By laws: Election of Council	159
Meetings of Branches and Divisions:	
Burma Branch	149
Glasgow and West of Scotland Branch	151
" " " " Glasgow Central Division	155
" " " " Glasgow Eastern Division	155
Lancashire and Cheshire Branch: Southport Division	156
Metropolitan Counties Branch: Hampstead Division	156
North of England Branch: North Northumberland Division	157
Oxford and Reading Branch: Oxford Division	157
South-Eastern Branch: Isle of Thanet Division	158
Southern Branch: Portsmouth Division	159
Yorkshire Branch	159
ASSOCIATION NOTICES.—Annual Representative Meeting, 1910: Date of Meeting; Last Day for Reception of Notices of Motion.—Council Meeting.—Notice of Changes of Boundaries of Divisions and Branches	159
MIDWIVES BILL (1910)	160
NAVAL AND MILITARY APPOINTMENTS	162
VITAL STATISTICS	162
HOSPITALS AND ASYLUMS:	
The Royal Dental Hospital of London	162
National Maternity Hospital, Dublin	163
The Children's Hospital, Birmingham	163
VACANCIES AND APPOINTMENTS	163
BIRTHS, MARRIAGES, AND DEATHS	164
RECENT PUBLICATIONS	164
DIARY FOR THE WEEK	164
CALENDAR	164

SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions (p. 159), until the subjects have been discussed by the Division to which he belongs. BY ORDER.

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL]

BURMA BRANCH.

THE annual meeting of this Branch took place in Rangoon on Wednesday, February 2nd, 1910, and three following days. Two large wards in the New General Hospital were prepared, one for the meetings and the other as a museum. A number of medical men came in from the districts to take part in the meeting, and at the opening address there was a good attendance.

Presidential Address.

The presidential address by Colonel KING, C.I.E., I.M.S., was delivered at 9.30 p.m. on the first day. He said:

In the midst of the activities of life, there are periods both in the affairs of individuals and societies when it is advisable to form some estimate of the resultant of efforts. With this Branch of the British Medical Association it has been customary at the end of each calendar year to review our position, professionally and financially. The latter aspect our Honorary Secretary and Treasurer will doubtless deal with; as to the former, we pause to ascertain whether we have, as members of a powerful Association which numbers in its ranks many thousands of medical men throughout the civilized world, upheld those honourable traditions, and have striven for that attainment of professional progress which is the avowed object of every member. Happily, our organization is such that a cessation of interest in professional matters by one or more Branches can affect but little the advance of the whole organization. In default, as individuals, we cull our information from a representative journal containing wide-world literature. Yet there is, I imagine, so complete and active a spirit amongst us, that no Branch would like to find at the end of the year that it had not in some measure contributed to general progress. Thus, I think, the Burma Branch, though necessarily small in comparison with its prototypes in other parts of the world, has not failed in its duty. A survey of the highly interesting professional papers read and discussions thereon for the past year shows that our members are keenly alive to the necessity of availing themselves of every possible increment of professional knowledge.

Much attention has been directed by the Secretary and other office-bearers to development of the Branch in the direction of bringing within its folds medical men not necessarily occupying official positions, whose previous failure to join us was probably owing to the preponderance of the official element in this country. Indeed, our last general meeting at which I attended was specially devoted to this particular end, and I am glad to find that it bore fruit by bring about the enrolment of many experienced private practitioners.

In the matter of organization and protection of our mutual interests, the most important point discussed during the year was the question of registration of qualified practitioners. Beyond a general approval of the principle, it has not yet been possible to make any advance in respect to details, but I trust that the excellent opportunity afforded by the assembly of this general meeting, embracing members from up-country, will be taken advantage of, so as to bring about a definite decision. The question is one which it is not advisable to approach lightly or to deal with in the absence of careful discussion and the evoking of various opinions. Having regard to the actual position of Western medical science in this country, we may, by hasty representations, render the matter either a farce or bring about a complete abortion. I find that, according to the programme laid down for our guidance, this important question will come up for discussion this evening immediately after my addressing you. Unless, however, by your vote you disapprove of this course, I suggest that both this question, as well as the election of officers for the current year, be deferred till a later day in our programme—say Saturday, after the completion of our surgical papers—with the object of securing an interchange of views with those medical men who have joined us from up country stations, and have not yet had the opportunity of perusing papers in this

connexion. The subjects are doubtless inter-related, as the voting for office-bearers would naturally be guided, in large part, by the views that individual members may hold on the registration question. In this manner, I think, we are likely to have a better opportunity of reaching at once both sound and unanimous opinions.

I do not think it would subserve any useful end were I, after the manner of a catalogue, to recount the various advances made during the year by the profession at large or this Branch in particular. So enormous has the field of medical specialism become, in response to advance of science in all its branches, that even were I to risk trespassing upon your patience, I should but find that I had failed to deal adequately with the refinements of various specialisms, with which, at the present day, it is absolutely impossible for any individual medical man in general practice to be fully acquainted. Hence, indeed, the necessity for specialisms and their natural outgrowth, for the specialist but fulfils the conditions of the nursery rhyme, which lays down that "One thing at a time, and that done well, is a very good rule, as many can tell." But if you recognize that the specialist is the natural outcome of progress, I trust also you will agree with me it is quite within the bounds of ordinary professional discretion that we should not accept him invariably at his own value. The general practitioner in this must not allow his comrade in harness to run away with the bit. Much as we benefit by his labours, it is not an unkind criticism to state that the specialist is liable to become a man of one idea; and were the profession not to bring him from time to time to the bar of average intelligence, there would be danger of absence of that scientific advance which a specialist would himself be the first to contend should be untrammelled. Indeed, it has always seemed to me that it is not until some grade of reaction has set in, following the boom of a specialism, that real progress has been secured. For example, most here can well remember the unrestrained enthusiasm, followed by a series of disappointments, as to the use of Koch's old tuberculin; yet, in due course, an assured place for it and for its more recently produced congeners has been found. The vaunting of "high-frequency currents" has been followed by a similar temporary depression as to the sphere of utility; but again there has been secured a definition of functions. *X* rays, and latterly radium, have in many details been overboomed, but an important residuum of truth remains to their credit. Surgeons have apparently run wild on the subject of appendicitis, but we look forward to a period of less surgical interference and less dread in bowel affections generally of the use of opium. On the sanitary side of the profession there have been, within recent times, notable instances of overbooming. Thus, a generation back, the dry earth system of conservancy represented the ideal of the sanitarian. To-day he confines its use within certain limits, and dreads it as a factor in typhoid spread; he would fain forget the nitrifying microbe in favour of fire, and is utopian enough to believe that both solid and liquid excreta can be destroyed economically in all places and in all climates. By one school quinine prophylaxis is regarded as the height of sanitary acumen in the destruction of the malaria protozoon, regardless of whether the people are willing or unwilling to be thus dry-nursed, and regardless of whether the total quinine available at the present day in the whole world would be sufficient for requirements. It is content to believe, without taking the trouble to enter into details, that sanitary staffs and sanitary engineering works are financially prohibitive. Yet a specialist of this type recently advocated a scheme which, if applied to this country, would cost, exclusive of quinine, Rs. 1,65,000 per annum for maintenance of the distributing agency. In the treatment of plague, specialism and one idea have particularly run riot. One authority would inoculate a continent regardless of volition of the people or cost; and another, undeterred by the evidence of recurring expenditure, would wage eternal war upon a population of rats which, within food limits, progresses by geometrical proportion. No greater following after one idea can be imagined than the results secured by the Bombay plague specialists. Time after time, in their laboratory results, they point to infectivity in other respects than by direct transference by the flea. But they have but one formula for treating of such refinements. Such possible and perhaps less frequent modes of infection they would declare are of but "minor epidemiological import," thus ignoring the vital sanitary question of control of spread of plague from locality to locality by complete and efficiently educated sanitary staffs in favour of mitigation of epidemics in areas already attacked, both in respect to human and rat population. Gigantic efforts by the sanitarian of this nature in the treatment of epidemics impress the layman hugely. Indeed, they are both magnificent and expensive; but they are not sanitation. The reward of the efforts of the sanitarian should be the limitation of spread of plague, and this can only be secured by an organized staff that is in the field *in front of plague advance*, not solely in its rear, dealing with the untoward results of neglect of the axiom that "prevention is better than cure." A further notable boom on the sanitary side by specialists has been the use of septic tanks. But a short time back neither corporations nor sanitarians seemed capable of thinking otherwise than in septic tanks, as the last word in conservancy. Apparently the day is at hand when these will no longer be regarded as a panacea.

Whilst the British Medical Association endeavours to maintain the status of individuals of the profession and of the profession generally, it has always carefully abstained from any approach towards political agitation. Were it not to do so, Parliament would have to deal with a factor in politics of great influence. Were each general practitioner, instead of remaining neutral in accordance with professional ethics of ancient date, to canvass amongst his patients for the support of candidates for Parliament pledged to support subjects of medical and sanitary interest, we could not fail to possess the right to dictate in matters as to which we are at present content to advise, and, thereafter, incontinently leave to the discretion of laymen. The Association has hitherto confined itself to making special representations where any branch of the profession, or individual, has been injuriously affected by adverse official proposals—notably, it bestirred itself in the case of the R.A.M.C., whence, indirectly, the I.M.S. also have, in recent years, been greatly indebted to the attitude assumed by the Association. The method pursued at present will be found in the copy of the BRITISH MEDICAL JOURNAL received this week. Under the head of "General Election" there is the following statement: "Questions to Medical Parliamentary Candidates.—A copy of the memoranda and questions on parliamentary subjects affecting the public health and the medical profession (see SUPPLEMENT, January 1st), was sent to each of the following medical candidates for Parliament, with a letter expressing the hope that the candidate would (*a*) answer the questions, and (*b*) find himself able, if elected, to give a general support to the policy of the Association, except when it might conflict with party obligations." It will be seen that the "hope" is expressed that our views may be adopted, guarded however by the significant denial of any attempt at political pressure by the clause, "except when it might conflict with party obligations." I fear that aloofness from politics of this pronounced type is out of date in a period when Socialists and Labourites, and their allies, form a sufficiently strong party to divert equable taxation and threaten our Second Chamber. If these changes in the constitution of political power are not carefully watched, and we fail to adapt ourselves to new conditions by reason of the fetish of traditions and ancient ethics, we shall, as a profession, find ourselves isolated and defenceless, and naturally laymen will continue to accept us at our own diffident valuation. In explanation of my meaning, I have but to refer, on the one hand, to the prolonged and expensive course of professional training which medical men have to undergo

at the present day, and on the other to the frequent press records of their treatment at the hands of public and official bodies composed of men of other professions, who obtain their position of domination by an infinitely less arduous career. Tacitly, by their toleration, members of the medical profession admit that the study of medical science so dulls the brain that they are unfit to direct, as well as to advise, public bodies.

In illustration of the present condition of affairs, I would invite your attention to the fact that the President of the Local Government Board in England has under his orders the Medical Officer of the Board, upon the soundness of whose advice depends the health of the nation and largely the safety of its trade. During the reign of the Honourable the East India Company the professions of medicine and engineering must, in the process of evolution of officialdom, have had equally good opportunities for attainment of power; but whilst it is to the credit of engineers that they have had the practical common sense to aspire to and attain positions of trust as secretaries of the governments they serve, and have a member for Public Works with the Government of India, the profession of medicine and sanitation, weighed down by its monkish traditions, has gained for itself no greater place than the recognition of its presence being an unavoidable, but readily negligible, item. Yet both in Great Britain and in India the responsibilities of public health in its relation to national prosperity are sufficiently large to have been declared by eminent authorities from time to time to demand the presence of a Minister of Public Health. Whether this ambition, in relation to present diffidence, be too gross for laymen to accept or not in respect to India, it ought to be obvious to our parent Association that it is within its power by political pressure to secure for our profession, in the interests of medical and sanitary advance, a recognized position in the Government machinery at least no less definite than held by the Public Works Department and the Departments of Commerce and Industry and of Agriculture. The profession of medicine and sanitation in India is from time to time reproached by professional journals as to its failure to impress governments with the necessity for adopting certain obviously desirable measures. Let those who think reforms are necessary see to it that they help the profession in India by a judicious use of political pressure.

If its interests at present be not political, the parent society is at least cosmopolitan enough to take note with satisfaction of the advance made by the Government of Burma in medical matters. Thus, it cannot fail to be of interest to the profession generally that the Government of Burma has determined to materially improve the prospects of our co-workers, the hospital assistants, and probably also of civil assistant surgeons, and has turned its attention to improved hospital construction and appliances in conformity with the demand for better asepsis, and that a striking instance of this tendency is found in the New General Hospital, Rangoon, where we are now assembled. But it would doubtless regard with regret the fact that in a country where so many races are assembled together, and where opportunities of pathological study are so great, it has not as yet been possible to find funds for various accessory buildings, more especially for a pathological laboratory and museum. Nevertheless, we have reason to be glad that the importance of pathological science has been duly recognized by the recent appointment of an active member of our Branch, Captain Whitmore, as the provincial specialist.

But, gentlemen, whilst many of you may dissent from my opinion as to future evolution of the parent Association, I am sure we are all content to recognize that the free discussions and exchange of personal experience amongst medical brethren, such as brought about by the appointment of Branches of the British Medical Association in all countries, have become of special benefit to the medical profession. We find ourselves able to encourage the progress of individual opinions and specialisms, and yet by mutual consultation assess them at their true value. In this prime object of our existence, I hold, the Burma Branch has not failed in the past year; and I trust, with ever increasing numbers, we shall have the pleasure during 1910 of seeing our position further consolidated on a basis that will at once be professionally helpful and socially pleasant, so that frequent meetings and friendly discussions may yield ever increasing increments to our professional knowledge.

In conclusion, I would, in the name of the Branch, express our hearty welcome to all our visitors and to those up-country members who have been good enough to be present at our gathering. It is with much regret, I am sure, that you will note that one of our vice-presidents, Lieutenant-Colonel Davis, is unable to be with us to-night on account of illness, and that Major Rost, our hard-working Secretary, is likewise disabled. Lieutenant-Colonel Bell also expresses regret at non-attendance owing to ill health. We had hoped to have our discussion aided by that enthusiastic pathologist, Major Leonard Rogers, but, unfortunately for us, duty has called him elsewhere. I am sure you will agree with me that a vote of thanks is due to members of the Committee of Management and the Committee for the Museum —Major Barry, Dr. Pedley, Major Rost, and Captain Whitmore—on whom considerable labour has fallen in bringing about this meeting. [This vote of thanks was carried unanimously.]

(To be continued.)

GLASGOW AND WEST OF SCOTLAND BRANCH.

A SPECIAL meeting of the Branch and medical practitioners resident in Glasgow and district was held in the Faculty Hall, 242, St. Vincent Street, Glasgow, on Thursday, March 17th, at 4.15 p.m.: Professor STOCKMAN in the chair.

Medical Inspection and Treatment of School Children.

The Branch considered the following resolutions as approved by the Branch Council:

1. That the Branch should oppose the reference of school children found upon medical inspection to be defective, to public medical charities for treatment.
2. That the Branch should oppose any scheme for the treatment of school children, found upon medical inspection to be defective, which rests on the reference of such children to the Poor Law, pending such reform as may result from the consideration of the Report of the Royal Commissioners on the Poor Law.
3. That under existing conditions the most satisfactory provision for the treatment of school children, found upon medical inspection to be defective, whose parents cannot afford to pay for such treatment, is by placing them under the care of private practitioners, who should be adequately remunerated out of public funds without intervention from the Poor Law.
4. That the work should be entrusted to private practitioners, who shall discharge their duties at a convenient centre.

The following is a report of the debate:

Dr. GRANT ANDREW, Representative on Central Council: To-day we are not asked to consider any scheme or method. That is important; and I, or rather the Chairman, would like any subsequent speaker not to discuss any method or scheme in particular. We are here to discuss fundamentals which ought to underlie any scheme or method which the Board may consider. These fundamental principles —namely, the resolutions submitted—are the principles of the Representative Meeting of the British Medical Association held last year at Belfast, approved of by the Central Council in London, and unanimously approved of by the local Branch Council. What we have to deal with to-day are those essential principles which ought to underlie and form the basis of any scheme or method. Now, what are these fundamental principles? The first is that, given a child found upon inspection to be defective, whose parents cannot provide for the payment of the treatment of that child, that defective child should not be sent to a charitable institution for treatment, whether that charitable institution is subsidised or not. That is the first and most important

principle. The only argument I have heard in favour of that principle is this: It has been said that the school authority is in the position of a large party of philanthropists, or in the position of an employer of labour, who gives a large sum or donation to a special or a general hospital, and feels itself qualified by virtue of that subscription to receive medical treatment for any case that is sent him. Now to my mind these two are not analogous. The school authority is not like a large-hearted philanthropist who gives of his own means. The school authority gives of means that are rate-provided, provided in part by you and by me. I feel that I should strongly object to have to pay to the School Board, and then have the means by which I have to give that payment taken from me again with regard to treatment. That is the one and only argument I have heard in favour of that principle. The second principle is that this defective child should not be considered a pauper. I do not think we need fear that second resolution, because if the parents themselves get to understand that the children are considered, are treated under the Poor Law, they will be the first to object, so that it is simply put down because in some districts the cases are being treated under the Poor Law. How, then, is it to be treated, and who is to pay for the treatment? Resolution 3 states that the proper person to pay for this treatment is the Education Authority. That is the gist of the whole matter. The Education Authority ought to pay for the treatment. Now, they have already admitted that principle, because I understand they have given a donation of £50 to the Eye Infirmary. By doing so they admit the principle that they are the people who ought to pay, when the parent cannot, for effective treatment. The Education Committee of the London County Council has already given a grant to a school clinic in Norwood, and I expect it will also give a grant to one to be established in Wandsworth; so that the principle of the school authority being the person who should provide for the payment of treatment of these defective children is, I think, correct. Who should be the person to derive the benefit? Why, the medical practitioner. I feel very strongly that if, as suggested in Resolution 4, places, centres, or schools are established under the school authority, the practitioners themselves will share in the benefit by having the cases sent to these particular centres, and there treated by them at the expense of the school authority. This is the policy of the British Medical Association. We want that policy not to be the policy only of the Association, but of the local profession in this district, and I therefore have much pleasure in hoping that these resolutions will become the unanimous finding of the meeting.

The Chairman: After this full explanation I think the best plan of procedure is for me to put the resolutions separately from the chair. You understand that these are just principles, and that we have met to-day to elect the committee, who will make themselves thoroughly acquainted with the local requirements and the local conditions of the Glasgow and West of Scotland district. That committee will formulate a scheme, which will be reported to a Branch meeting, and then we can criticize the scheme in detail. Of course, we shall be happy to hear any criticisms upon the resolutions.

Dr. Muir suggested the insertion of the words "whether subsidised by subsidy or otherwise," saying he was quoting the phraseology of the British Medical Association Representative Meeting at Belfast.

Dr. McPherson (Bothwell): I do not think that is necessary. Is this a universal rule, or is it imperative that we should not send these children to the institution? Take the case of the eye. The man with a large club practice would find it better to send these cases to the Eye Infirmary. Would this preclude him from sending them to a public charity?

Dr. Syme: It occurred to me that even when school clinics are established there must be a good many cases which cannot be treated and would have to be referred to a charitable institution for proper treatment. Also, of course, I can quite understand that there are cases which are neither Poor Law cases nor yet cases for the medical practitioner to undertake at the public expense, and which would be sufficiently remunerative for him to undertake on his own account, and which he would like to have treated as is the ordinary case coming directly from him from time to time. This resolution is worded wrongly. No cases should be referred directly from the school from the inspectors to public charities. With that we are all in sympathy. This is one of the troubles of medical inspection of school children, and is capable of causing a good deal of ill feeling among general practitioners. Who is to direct the reference of the defective children to public charities? At any rate, we must think of what is best for the child.

Dr. Robertson (Hamilton): This means that the Branch is opposed to the reference of children "directly." If it is conducted in a straightforward manner there should be no difficulty in referring defective children to their own medical men, by whom they would then be considered in the ordinary run of business and in the ordinary way. That would leave out of account certain children whose parents have really no medical man, where, I think, the public charities have no difficulty in dealing with these children. Clinics would do away with that, and if clinics are now instituted it is not difficult to tell when these come that they are proper subjects for charitable treatment.

Dr. J. P. Duncan: There is one criticism on this. There is no reason in the world why a specialist should not be on the school clinics. If you maintain this—it will be rather difficult to do it, so as to indicate that the medical practitioner, after seeing the case and finding that he cannot deal with it, refers it to a public charity—you are defeating one of the objects for which we are fighting, namely, that the medical treatment of the children should be paid for by the Education Authority. There is no reason why there should not be specialists for all the ordinary specialities that are required for children. I have had some considerable experience of dealing with children of a very low class. In one particular case there is a specialist appointed at a school at which I attend, and, apart from a few cases of eye, we have very little difficulty. It strikes me that these school clinics could quite well have eye, ear, or throat men on each of them, and that these would be paid by the school authority. Therefore, before you do anything to this resolution, you should consider that matter carefully, because, if you in any way indicate that these school children should be referred to public medical charities, you to that extent give away the object for which we are fighting.

Dr. McFarlane: I think the best criticism we have had of this resolution comes from Dr. Syme. The word "direct" reference puts matters right. Dr. Duncan's point is covered by the third resolution, or probably by the third and fourth taken together. It is quite certain that there are a large number of instances of children whom we cannot preclude from going to the general charities, and we would not wish to do so. What we wish to do is to ensure reference to public charities by medical practitioners wherever possible. The resolution we are specially discussing is covered entirely by the introduction of the word "direct," which Dr. Syme suggests.

Dr. W. L. Muir: Unless Dr. Syme were talking as if we were legislating this matter for Glasgow alone, you have an outlying portion of our Branch, scattered over the western isles, and Argyleshire, sparsely populated places where it is absolutely impossible that school clinics should be founded. I think there is a want here in our billet with regard to this matter. Here is the thing just exactly bearing on the point by the Representative Meeting at Belfast:

> In a sparsely populated district such recognition should be made of the surgeries of private practitioners at which treatment could be done at the public expense.

Dr. McFarlane: That is covered by Resolutions 3 and 4

Dr. Muir: I am very much inclined to agree with Dr. Duncan and what he proposes, that it be carried

on the terms here stated. I should have seconded him. You must consider that the School Board of Glasgow is a body able to pay, and they can get money to any extent, whether to pay the specialist or the ordinary general practitioner.

Dr. ROBERTSON: That suggestion is that they should have under no circumstances power to get charitable medical advice. I honestly feel that the words you have here are perfectly sound from my own experience. I find that even now I see coming into the public dispensary people who have a card saying that they have adenoids, and at once they are treated and well treated. I cannot see why, if the School Board have plenty of money, this should be done at a public dispensary. I cannot see why they should be done by a specialist. We have no right to have our specialists in these public dispensaries working for nothing. These men have sufficient work, and if the School Board are going to crowd people with special diseases on these men certainly they must be paid just as if the cases had come from a private practitioner. Dr. Duncan proposes to second the principle as utterly wrong whereby we should allow anybody to get charitable advice or medicine.

Dr. ROBERTSON (Hamilton): I should like to say, as a member of a School Board myself, that under the Education Act we cannot disburse money for the purposes of paying medical attendance and appliances for defective children. This morning, before I left home, I called on the chairman of our board at Hamilton, and he referred me to the Act on the matter. We both went to our clerk, who is a legal agent, and he told me that under no circumstances can you disburse money from the rates to pay for attendance on school children. I was rather surprised at that, and I just want to interpose, after the remarks, that it would be well for us to look at the Act to see that we have the power to pay for the attendance of private practitioners.

Dr. MCFARLANE: May I ask you how it is that the School Board are allowed to pay subsidies to special hospitals? Is that allowed by the Act? We have that case in point as having been really done in Glasgow—a subsidy has been given to a special hospital by the Glasgow School Board. I presume if they can do that they can pay for medical practitioners as well.

Dr. ROBERTSON: We have not the power to pay a practitioner; they have got to get them for themselves.

Dr. DUNCAN: I do not think that the mere fact is that we object to sending a child to a charitable institution. If we see a child who would be better treated there, because the child is condemned by a school inspector, are we not at liberty to send it to our public institutions? By this means we are going to increase the work of the public charities. When you have school clinics it will be time enough to do this. I may have twenty cases I would like to send to these public charities. I do not see that the "direct" interferes with me, or the difficulty is got over.

Dr. CHARLES ROBERTSON: The whole principle is whether the School Board are going to pay for this treatment or whether they are not. If they are going to pay for the treatment of these children, then the word "direct" is going to pull the whole thing down. There will be a great increase in the rates. On whom will that increase be spent? We will have to go on doing the work for nothing. Is that fair to us or to the profession at large? We are now gathered to-day for the purpose of overcoming that idea. The time is coming when we will have to charge for the medical work done. If you give them a loophole by saying you can send certain cases, you will find that they will send them all to the public dispensary, and will do away with the principle we are endeavouring to establish to day, that whatever such medical work is done by the medical profession it should be paid for by the School Board.

Dr. MCFARLANE: The reason I introduced this word "direct" into the resolution is because I think it embodies the principle which Dr. Robertson has just now spoken to. We wish to prevent the School Board sending children *en bloc* to charities without their medical practitioners knowing that they are going there. We do not wish to overload the dispensaries and public hospitals.

Dr. R. A. ROBERTS (Medical Officer, Glasgow School Board): The board have powers not only to pay for the treatment, they have power to pay for feeding and attendance; but the main thing we are working upon in Glasgow just now is the necessity of carrying out medical inspection as the primary intention of the Act, and then to impress upen the parent the responsibility of correcting that defect, to bring home to their consciousness that it is necessary to put the child into good health, and very strongly to urge them to seek proper medical advice. We can refer them to the hospital only in cases where it is absolutely necessitous and urgent, which must necessarily be done in the interests of the children, and done without delay.

Dr. BOXER: Should the medical inspection be entirely confined to the medical inspector of the School Board?

Dr. SYME: The reason why I introduced the word "direct" is that if you leave it out you coerce the practitioner. I really think that if all cases are to be referred to school clinics you are coercing the practitioner into this line of treatment when he disapproves of it, and he is the best judge of his patient's need. Afterwards, with the special advantages that the school clinics get from the treatment of school children, they will come to be the best authorities on these special diseases.

Dr. ROBERTSON (Hamilton): I want to be perfectly sure that School Boards have the power to pay out of the rates for the medical attendance upon defective children, as to supply glasses if there is error in the eyesight. I understood that by defective children is meant cripples and suchlike, not children with error in the eyes or any special disease.

CHAIRMAN: The matter, I think, has been sufficiently discussed, and both points have been forcibly brought out. I moved from the chair the resolution as it stands, and there is the word "direct" to be put before "reference" as an amendment.

Vote.—Amendment, 24; resolution, 12. Resolution as amended then carried.

On the motion for the second resolution from the Chair,

Dr. W. L. MUIR observed that there was a certain proportion of children who were already under the Poor Law, and who must go to the Poor Law medical officer. While that did not interfere with this resolution, these children should not be sent there by the School Board directly.

The resolution was unanimously passed.

On the consideration of the third resolution,

Dr. GRANT ANDREW pointed out that the term "private practitioner" included any man who specializes in the ear, eye, or throat. He also added that the Education Committee of the London County Council had already given a large sum of money to the Norwood Division of London for the founding of a school clinic, so that the money must be directly given by them; and that the same had already been done in Bedford.

Dr. ROBERTSON (Hamilton) asked if "public fund" referred to "school rates." Being answered affirmatively, he said that the School Board he was associated with refused directly to pay anything whatever out of the rate for medical attendance, or any treatment of any child.

Dr. DUNCAN: If the child is starving, do they not feed it?

Dr. ROBERTSON: That is quite a different matter. That does not refer to medical treatment, though apparently money has already been given for treatment, whether illegally or not.

Dr. MUIR: Is that Act for Scotland and England not on the same lines?

Dr. WILLIAM WATSON: There is considerable doubt about that. There is in Scotland, I am certain, no such cases where it has occurred that money has been taken from the rates. I feel, on consideration, that it

might be desirable to pause. I foresee a difficulty. It will come to be that the School Board will have the whole of the influence in the matter. It will be entirely impossible to dissociate the school clinic and the provision of the treatment. This is the first time the State has interfered between the child and the home. It is the first time they attempted in ordinary life, apart from Poor Law cases, to interfere in the treatment of children; and if we go to establishment of school clinics, I am afraid we will be doing one of the most serious things for future practice. If the school authority establishes school clinics, I feel certain that in the near future we will have some considerable difficulty in having the profession as remunerative as it is at the present time. The School Board can disburse money for the clothing, feeding, and medical inspection of children, but I am afraid in Scotland it does not spend money for the treatment of children. That could be easily carried through by an Act of the department before this resolution of school clinics could be adopted by you. What would be the best thing? As you well know, the different positions in connexion with school clinics fall into the hands of a few men, and if these men become known, all the better class work will fall into their hands in this connexion. The private practitioner has simply got to think before he accepts this.

Dr. DUNCAN: I am absolutely in favour of the resolution as it stands, dealing with those children whose parents cannot afford such treatment. My point is that at present these parents cannot afford to pay, and these children are sent to public hospitals, and we have to do the work for nothing. I do not care how they arrange it, so long as somebody pays. I do not think we should go on treating children for nothing if we can get paid for it, so I strongly approve of this, that the private practitioner should be adequately remunerated out of public funds.

Dr. ROBERTS: The difficulty would be that the children of these parents would go to these clinics and the general practitioners would lose them, if you are going to confine it to absolutely necessitous children.

Dr. CHARLES ROBERTSON: That is what our aim is to do. I fail to see what Dr. Watson says about school clinics. It has nothing to do with it; I think, if we insist on getting payment out of public funds for those necessitous children, we will be able ourselves to protect the private practitioner from being at a loss in competition with the clinic, if they are established.

Dr. WATSON: The point is, I cannot quite understand how these cases should be referred to private practitioners without some definite practitioners being appointed, so that this scheme leads to more appointments. The practitioners cannot be thus promiscuously referred to. These people are presumed not to have any definite medical attendant, and they will practically be referred to an institution or to some one appointed by the board. These men appointed would necessarily become recognized as specialists. Otherwise, the motion is inexplicable, unless there is some definite medical man referred to as the private practitioner, to whom the cases should be referred.

Dr. MCPHERSON (Bothwell): Take the case of a country village which is a colliery village, peopled by workmen and their families who work in the colliery, and attended by one practitioner. Has the authority any right to appointment of another medical practitioner, or do we understand that the usual doctor should get this work? Then as to talking about public doctors, it is all very well, but the gentlemen who work in that way are delighted to do so—they are "casting their bread upon the waters."

A MEMBER asked if this would refer to *any* medical private practitioner, so long as the parent produced evidence that a qualified medical practitioner had been attending.

Dr. ROBERTS thought the plan would work in the country districts, but in the larger centres the board would scarcely be willing to pay the fees of any practitioner the patient might chose. There would always be the question of the difference of fees in different men, and singly it would amount to a good deal in the course of a year. The board would chose a practitioner themselves, as well as pay him an annual sum which would come to much less in proportion.

Dr. WATSON: That is my point. For junior students there is some person usually referred to. A board could never consent to pay the fees of many cases. It could never be carried out at a reasonable rate, and this is what we have to pause over.

Dr. DUNCAN: We are here as the British Medical Association to formulate what we want. Some of the members are speaking not only as doctors, but as members of School Boards, and they are prejudiced by their position. We are here to say what we want as doctors. We want to say so and to get it. This is a very serious matter, and not to be befogged by outside considerations. We are going to try and get paid for this work; how are we best to do it?

The CHAIRMAN: Of course, we should be obliged to our colleagues for the benefit of their experience. I would ask Dr. Watson if he has any amendment to propose or alternatives to offer which are better than this motion.

A MEMBER: I do not think this resolution is very well put. I can quite see that there must be very many cases which should be referred to the private practitioners, and should be paid for by the School Board. It should be the object of the board to have the children properly treated. That is our point of view, and if we leave it out I think a wrong impression would get abroad that we wanted to get paid for this work. We want to do the best for our patients, for these defective children. I do not think the resolution is properly worded in that way. The most satisfactory way is not to send all children to a private practitioner. Provision might be made whereby parents who cannot afford to pay for such treatment may place their children under some recognized practitioner.

Dr. WATSON: I think Dr. Duncan might be rather pleased to be guided by those in contact with public affairs. There might be a considerable political agitation. The family practitioner of the child who is found to be defective by the school inspector is the proper person to treat it, and his fees incurred by the parent in connexion with the treatment should be recoverable from the Education Authority.

Dr. ROBERTSON (Hamilton): I would still have you clearly understand that, if I am properly advised, you cannot pay for this out of the school rates under the present Act. It appears to me that there is only one way out of the difficulty, and that is to get the Act amended in such a manner that a practitioner can be appointed and paid by the boards of the various parishes. In the outlying parishes we would have a very great difficulty. At your doors you have a great many institutions that you can refer a child to. I want to impress upon you that we must have the Act amended. The Act provides for the feeding and clothing of children under a board, but does not provide for payment of a medical practitioner to attend on them, and payable out of the public funds—that is, the funds collected from the rates.

Dr. CAMPBELL: The Act says "medical appliances." Does that mean spectacles and crutches? In the Act of 1908 the boards have power already to take charge of the child, and that covers medical treatment.

Dr. GRANT ANDREW: The words of the Act are "medical aid."

Dr. CHARLES ROBERTSON: I do not think it matters whether the boards have power or not; we are not here to discuss that; we are here to express an opinion.

Dr. WATSON: The chief difficulty is in recognized cases where they are unable to pay in the poorest districts. Why they should be excluded I cannot understand. You drive these children to the charitable institutions, whereas if this resolution were worded in such a manner as to cover them it would give greater power in making payment for attendance recoverable for them. That the fees should be recoverable on the part of the family medical practitioner is different from the loose way

of asking that these cases should be referred to any medical practitioner.

Various members questioned what public funds and who would be responsible for payment, as nothing in the resolution stated these points.

Dr. CHARLES ROBERTSON: You must understand that when a case comes to the family medical practitioner it is his case and his treatment. The treatment recommended by the board officer may not be correct. It might be possible for him to suggest that adenoids should be removed when there are none. The medical officer could only send the child to have its deafness removed, and not simply to get adenoids removed. The family practitioner must follow his own treatment.

Dr. Watson's amendment in written form was then submitted as follows:

> In cases of defective children, that the medical officer refer the cases to the family medical practitioner, whose fees in connexion with necessary treatment be recoverable from the local Education Authority.

On the vote the amendment received 22 votes, the motion 9 votes. The amendment then became the finding of the meeting. The third resolution was adopted *nem. con.*

On the motion for the fourth resolution, the CHAIRMAN explained that the word "centre" referred, as in the case of a small town, to a convenient place, such as a room in a local hospital, where special apparatus could be kept such as the ordinary practitioner did not usually keep in his consulting room. There were cases which would require Roentgen rays, for which apparatus would have to be supplied at some convenient centre, and some person to use it. In cases of deaf-mutism there would be a necessity for some one being entrusted with the special work, and where special appointments were made this officer would have to discharge these duties. Of course, they were all private practitioners unless they were salaried State officials.

Dr. GUNN moved that the Resolution No. 4 be deleted.

Dr. WATSON: This matter is ostensibly for the purpose of protecting the rights of the private practitioner. But if special medical officers are appointed, they will discharge all the duties as arranged for by the board, and the private practitioner is left. There is a difference in the case of the specialist; we wish to protect the general man. We wish to see that no special man be appointed. The board would naturally arrange for special medical officers to attend at centres.

Dr. ROBERTSON: That is hardly our business, as to what the boards will do. We are here to express our opinions of what we want for ourselves. We are here to defend the interests of the private practitioner, and Resolution 4 is exactly what we require.

Dr. GRANT ANDREW: You must have a centre; and it is absolutely necessary in some cases. It might be different in the country, where each successive man has to deal with particular cases, but when you have to deal with a tremendous number, as in the city, you will require to have some definite centres. I do not see that the work need be done by a specialist.

The CHAIRMAN: At the Council meeting this was discussed and was left in, largely through Dr. Marshall of Rothesay, the President elect. He said there were several practitioners in Rothesay who were able to apply Roentgen rays and such things, and that they had an installation at the hospital which it would be a most convenient thing if they were allowed to use.

Dr. WATSON: Is this not rather defeating your first resolution? I cannot see, if you have adopted Resolution 3—that these cases be referred to the family doctor—that all the private work cannot be done in the practitioner's own consulting room. Leave this open, because this is private work we are dealing with. I beg to support the deletion of the motion. Obviously every one cannot undertake cases of ringworm, and there must be some appointed for the special work, and he will have a centre to work from. This again implies a series of appointments, which we want to avoid, as far as possible.

Dr. BOXER seconded the deletion of the resolution.

On the vote the amendment received 16 votes, the motion 11 votes. The amendment became the finding of the meeting.

After discussion the following Committee was appointed to conserve the interests of the general practitioners in connexion with the development of any scheme for the medical treatment of school children found upon inspection to be defective, with power to add to their number: Professor Stockman, Dr. Grant Andrew, Dr. McIntosh, Dr. R. A. Roberts, Dr. Wilson (Lanarkshire), Dr. McPherson, Dr. Robertson (Hamilton), Dr. J. P. Duncan, Dr. William Watson, Dr. Syme, and W. D. Macfarlane, Honorary Secretary.

GLASGOW CENTRAL DIVISION.

AN ordinary meeting of this Division was held in the Faculty Hall, 242, St. Vincent Street, on Tuesday, March 8th. Dr. ROBERT JARDINE presided; and there were present Drs. Robert Perry, Charles Workman, Ernest T. Roberts, J. Nigel Stark, Wm. Cullen, Peter Maguire, Jas. Grant Andrew, W. D. Macfarlane, jun., J. C. Christie, and P. N. Grant, Honorary Secretary.

Special Class of Consultants.—The report on this subject was considered.

Public Medical Service.—Model rules of a public medical service were considered, and it was agreed:

> That if such a system of medical attendance is to become general throughout the country, they are of opinion that these rules for a public medical service are on good lines, but would advise that the working out of the details be left to the heads of the Association, who should have full experience of the requirements of such a scheme.

Medical Inspection and Treatment of School Children.—It was decided to let the Branch deal with this matter.

Report on the Poor Laws.—It was decided that the reply to the questions was to be in the affirmative

Relation of Homoeopaths to the Association.—The question of the relation of homoeopaths to the Association was fully discussed.

GLASGOW EASTERN DIVISION.

A MEETING of this Division was held in Bellgrove United Free Church Hall on March 29th. Dr. JOHN PATRICK, Chairman of the Division, presided, and the following members were present: Drs. Malcolm Black, W. L. Muir, P. S. Buchanan, James Battersby, James Craig, J. Wishart Kerr, Wm. J. Logie, and Wm. Bryce, Honorary Secretary.

Confirmation of Minutes.—The minutes of the last meeting were read, approved, and signed by the Chairman.

Interview with Medical Secretary.—The SECRETARY reported on his interview with Mr. Smith Whitaker, the Medical Secretary, during his recent visit to Glasgow.

Poor Law Reform.—The questions sent down for the consideration of the Division were, on the recommendation of the Executive Committee, all answered in the affirmative.

Relation of Homoeopaths to the Association.—The recommendation of the Executive Committee, homologating the proposals of the Central Council, was moved by Dr. J. WISHART KERR, seconded by Dr. W. L. MUIR, and carried unanimously.

Organization of Division.—With a view to the better organization of the Division it was resolved to form ward committees, each consisting of three members, who were to supervise medical matters in their respective wards, and specially to get in touch with those medical men who were not members of the Association, and use their endeavours to get them to join. Eleven committees were then appointed, and the Secretary instructed to issue a circular to the gentlemen named intimating their appointment and expressing the hope that they would see their way to act.

This was all the business, and the meeting terminated.

LANCASHIRE AND CHESHIRE BRANCH:
SOUTHPORT DIVISION.

A MEETING of this Division was held on March 23rd at the Temperance Institute. Dr. BARWISE, the Chairman, presided, and there were present: Drs. G. R. Anderson, Ashworth, Baildon, Bentall, Mewburn Brown, Holt, Horn, Lewis, Maccall, Martin, A. W. Popert, Pridie, Russel, Schofield, Speirs, Swete-Evans, Sykes, and Harris.

Apologies for Non-attendance. — Apologies for absence were received from Drs. Gill and Walker.

Confirmation of Minutes.—The minutes of the last special meeting, and of three meetings of the subcommittee appointed for consideration of the Model Rules for Public Medical Services, were read and confirmed.

Public Medical Service.—The chief poinis which had been considered by the subcommittee were the recommendations of the Poor Law Commission for the establishment of public dispensaries and the probability of their legislative adoption; the relation such dispensaries might have to the treatment of school children found defective, and the treatment of patients under possible schemes of Government invalidity insurance; the probability of success of a provident dispensary established locally on terms satisfactory to the profession; the relationship of such a dispensary in the way of competition or co-operation with benefit societies and clubs and with the outdoor visiting and out-patient work of the Southport Infirmary, also the possibility of help from the Southport Provident Society. The Chairman of the Infirmary Committee and the Chairman of the Provident Society Committee had been approached and had responded sympathetically. The subcommittee had considered the model rules, expressed a general approval, and suggested conditions as to terms of subscription, wage limit, extras, etc. They recommended that a meeting of all the members of the profession resident in Southport, Birkdale, and Ainsdale should be called for the consideration of the subject. The meeting discussed the subcommittee's report from the point of view of the desirability or the undesirability of provident dispensaries in the interests of the profession, the need of such an institution locally, and the possibility of injury, rather than benefit, accruing from its establishment. There was some hostile criticism and no strong support of the scheme, such support as was given being founded mainly on the consideration that if such institutions were not started on lines formulated by the profession they were likely to be forced upon it by Government legislation in the near future, in accordance with the recommendations contained in the report of the Poor Law Commission. Eventually the following resolution was carried unanimously:

> That in view of this question of public medical services being discussed at the forthcoming annual meeting of the Association in London, the proposal for calling a meeting of the profession in Southport be deferred until after that event, and that before such meeting be called the subcommittee is requested to approach the Provident Society Committee and the Infirmary Committee to ascertain definitely their attitude as to co-operation in any scheme of the kind.

Poor Law Reform.—The interim report to Divisions on Poor Law reform was considered, and it was unanimously agreed:

> That any system of medical assistance, to prove satisfactory to the ratepayers, to the beneficiaries, or to the medical profession, must include the following principles:
> 1. That medical services rendered on behalf of the State should be paid for by the State.
> 2. That the payment should be adequate and in accordance with the professional services required.
> 3. That there should be adequate medical representation on all committees formed to control medical assistance.

Medical Sociology.—A letter was read from the Medical Secretary drawing attention to the Section of Medical Sociology in the programme of the forthcoming annual meeting, with suggestions.

Relation of Homoeopaths to the Association.—The report of the Council on the relation of homoeopaths to the Association was considered, and all the "Recommendations" contained in it were carried unanimously.

First Aid, etc.—The SECRETARY reported his replies to letters of inquiry from the Medical Secretary respecting "Instruction in First Aid and Field Nursing to Voluntary Aid Detachments"; also respecting "Medical Treatment of School Children."

Questions to Parliamentary Candidates. — The SECRETARY also reported that the candidates for Southport at the late parliamentary election had been interviewed by the Chairman and himself, acting under instruction from the Executive Committee, and that affirmative replies had been obtained from both candidates to all the questions contained in the Association's form.

Representative at Representative Meeting. — Dr. STANLEY A. GILL, who had been nominated at the meeting in December, was unanimously elected the Division's Representative at Representative Meeting.

METROPOLITAN COUNTIES BRANCH:
HAMPSTEAD DIVISION.

A MEETING of this Division was held on Friday, April 1st, at 4.30 p.m., at the Central Library, Arkwright Road, N.W.

Warning Notices.—A discussion took place on the general question of Warning Notices in relation to the Association and the present powers of the authorities to enforce the observance of them. It was resolved to instruct the Representative of the Division to bring before the Representative Meeting the following proposal:

> That the practice of inserting Warning Notices in the BRITISH MEDICAL JOURNAL be discontinued, and that the Council be requested to delete from its minutes all proceedings relating to the expulsion of members in connexion with a Warning Notice and to offer reinstatement to all members affected.

Dr. CUNNINGTON and Dr. PERCY EVANS desired their dissent to be recorded, and Dr. Ford Anderson in a letter also objected, and desired his objection to be recorded.

Election of Representative.—Mr. H. W. Armit was again unanimously elected to the honour of Representative of the Division.

Contract Practice Committee.—Dr. A. R. Roche, as a member engaged in contract practice, and Dr. Oakley, as a member not so engaged, were elected to represent the Division on the Contract Practice Committee of the Branch.

Sanatoriums for Workers suffering from Tuberculosis.—On this matter the general principle in regard to payments was upheld, but no opinion was expressed as regards individuals.

Special Class of Consultants.—In regard to this subject the Division expressed itself in favour of the recognition of a special class of pure consultants, but not on the lines indicated in the report. The Division is of opinion:

> 1. That the term "consultant," as applied to a special class, should not be used in any document issued by the Association until that term has been satisfactorily defined.
> 2. Such a term, as a generic title, should be reserved for those who practise exclusively in co-operation with the patient's regular medical attendant.
> 3. The conduct of the practice of such a class should be governed by the regulations set forth in the memorandum entitled, "The Ethics of Consultation" (BRITISH MEDICAL JOURNAL, SUPPLEMENT, May 9th, 1908).

Poor Law Reform.—The interim report of the Special Poor Law Reform Committee was considered. The Division expressed its agreement with the general conclusions set forth in the report, and, in regard to the future organization of contract practice, pointed out that obviously the whole of the wage-earning classes will *not* be included in any national scheme of sickness and invalidity insurance leading to the provision of medical attendance on a contract basis, as forecasted in the report, but that a wage limit will probably be fixed.

Relation of Homœopaths to the Association.—On this question the following conclusions were arrived at:

1. The Division agrees that the Association should not attempt to pronounce what constitutes sound doctrine in medicine and surgery, etc.
2. The Division would prefer to see this recommendation deleted as being unnecessary and irrelevant in the present narrow consideration.
3. The Division does not discountenance the display of door-plates, nor the issue of a homœopathic directory.
4. Seeing that the authorities are either unwilling or unable to exercise disciplinary powers in all cases submitted to them, the Division is of opinion that this recommendation is futile.

The Wells Fund.—It was resolved to keep this fund open for another month.

Boundaries.—The suggestions for alteration of boundaries were referred back to the committee.

NORTH OF ENGLAND BRANCH:

NORTH NORTHUMBERLAND DIVISION.

AN ordinary meeting of this Division was held at the Blue Bell Hotel, Belford, on March 24th. There were present: Drs. Purves, Macaskie, Macdonald, Dey, Philipson, Forrest, R. A. Welsh, Moyse, and Burman. Dr. SCOTT PURVES occupied the chair.

Apologies for Non-attendance.—Apologies for absence were received from Drs. Main and Robson.

Confirmation of Minutes.—The minutes of the last ordinary meeting were read and confirmed.

Collection of Accounts.—The SECRETARY read correspondence with two solicitors as to terms for collecting accounts on behalf of members of the Division, and it was proposed by Dr. MACASKIE, seconded by Dr. MOYSE, and carried unanimously, that Mr. Andrew B. Hindmarsh of Alnwick be appointed solicitor for this purpose to the Division, and the Secretary was instructed to send notice of the appointment to each member of the Division; he was also requested to invite members, in connexion with the formation of a black list (as per resolution carried at last October meeting), to give the present address and, if known, the address to which those leaving the district are going, and to intimate the *very bad* payers by underlining their names.

Medical Practitioners and Midwives.—It was decided that the Secretary should communicate with the local supervising authority on the lines of the letter drafted by the Medical Secretary on the question of payment of medical men called in by midwives.

Public Medical Service.—It was decided that the Secretary should procure copies of the model rules of a public service, and send one to each member of the Division in order that they may be prepared to discuss the question of the advisability of adopting the same at a subsequent meeting.

Medical Inspection and Treatment of School Children.—The SECRETARY read the letter on this subject, and he was requested to inform the committee of the fact that the Education Authority had begun the actual treatment in so far as it related to errors of refraction, this work to be performed by one of the whole-time inspectors now carrying out the duties without any increase of salary.

Special Class of Consultants.—The report on this subject was considered, and the Secretary was instructed to answer both questions in the affirmative.

Poor Law Reform.—The letter of the Special Poor Law Reform Committee was read, and the members were requested carefully to preserve the SUPPLEMENT to the BRITISH MEDICAL JOURNAL for February 5th, 1910, for future consideration, and the Secretary was instructed to answer the questions, and support the conclusions of the committee as read.

Relation of Homœopaths to Association.—The report of Council on the relation of homœopaths to the Association was discussed, and the Secretary was instructed to answer the questions—A, no; B, yes; C, yes; D, yes; E, yes.

First Aid and Ambulance Instruction.—The letter from the Territorial Forces Committee was read and discussed, and finally it was proposed by Dr. MACASKIE, seconded by Dr. MACDONALD, and carried unanimously:

That a fee of not less than five guineas be made for a course of lectures on first aid or home nursing.

The Secretary was instructed to reply to the inquiry of the Medical Secretary as to ambulance work in general in this Division.

Paper.—Dr. MACASKIE read an interesting paper upon a method whereby members may assist each other in collecting for remembrance matters of medical and surgical interest. On discussion of the paper, the suggestions were considered a most likely means of helping the members of the Division, and Dr. Macaskie was thanked for his paper. The scheme is to be incorporated shortly, and will be forwarded to members of the Division in alphabetical order.

Tea.—The members afterwards had tea together.

OXFORD AND READING BRANCH:

OXFORD DIVISION.

A MEETING of this Division was held on March 24th at the Radcliffe Infirmary, Oxford, at 3 p.m. Dr. CAUDWELL, of Woodstock (Chairman), presided, and thirty-two members were present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Tuberculosis in Oxford.—Dr. ORMEROD (M.O.H.) read the report of the subcommittee appointed to deliberate with him on the methods of dealing with tuberculosis in Oxford. It was resolved that the report be typed and forwarded to every member of the Division, and a vote of thanks was accorded to Dr. Ormerod for the trouble he had taken in the matter.

Postal Referendum.—Dr. COLLIER made a statement *re* the postal referendum, and explained the position of the petitioning Branches in the matter.

British Medical Benevolent Fund.—On a motion of the CHAIRMAN a collection was made, as at the last meeting, on behalf of the British Medical Benevolent Fund; £1 3s. 6d. was collected. The Chairman strongly advocated the use of these informal collections throughout all Divisional meetings in this country.

Business Meeting.—The SECRETARY gave notice of a business meeting of the Oxford and Reading Branch to be held in the middle of May at Oxford.

Status Lymphaticus.—Dr. CHEATLE (Burford) read notes of a case of status lymphaticus.

The patient when a boy aged 11 suffered from attacks of fainting on three or four occasions; they did not recur for two years, but the boy was of very nervous disposition. When 14 years old he had twelve similar attacks in one year, the faints lasting from two to three minutes, followed by vomiting. There were no enlarged tonsils or adenoids, nor were any enlarged lymphatic glands to be felt. He improved under bromides and arsenic, but two years later, when aged 16, he had a fainting attack with sickness, and the following day fainted on his way to school, and died after a brief period of stertorous breathing. An important feature of the family history was the recorded death of a younger sister, aged 9, from a fright. Dr. Cheatle's case at the autopsy revealed an enlarged thymus gland, weighing 2½ oz., measuring 4½ in. by 3 in., and overlapping the upper portion of the pericardium. There was enlargement of the bronchial and mesenteric glands; no enlargement of the spleen. The persistence and hypertrophy of the thymus was sometimes, Dr. Cheatle stated, associated with the condition known as "thymic asthma"; its effects might be mechanical, by pressure on the heart, great vessels, or nerves (vagus and recurrent laryngeal), or it might be met with in persons of the lymphatic-chlorotic constitution. Thymus extract injected into dogs had produced a lowering of blood pressure, followed by dyspnœa and death. A flask-shaped shadow had been noticed under *x* rays.

With regard to treatment, the important points were the avoidance of shock and excitement, or of very hot or cold baths, and the prevention of acute infections and of sudden backward movements of the head. Temporary intubation with a long tube, reaching the bifurcation of the trachea, had been practised in thymic asthma. Orchitis had been found to follow resection of the gland. Dr. CROLY (Charlbury) mentioned a case of sudden death in a healthy-looking girl; an enlarged thymus was found *post mortem*. Dr. GIBSON demonstrated the specimen; there was hyperplasia of all the tissue elements, which looked as if irritated by some inflammatory product.

Microscopically in Hassel's corpuscles were found a few short Gram-negative bacilli. In the discussion which followed, Dr. DUIGAN dealt with the diagnosis of lymphatism and its practical difficulties. Enlargement of the spleen and of the cervical and other palpable lymphatic glands was frequently absent, and he doubted the possibility of percussing out the enlarged thymus, except in extreme cases. He thought the hyperplasia of the lingual and pharyngeal lymphoid tissues was perhaps the most definable sign, and finally discussed the question of anaesthetics in these cases. Dr. ALDEN, Dr. COLLIER, and Dr. BOISSIER took part in the discussion.

Abdominal Tumours.—Mr. E. C. BEVERS described 3 cases of abdominal tumour in which he had operated:

1. A case of large fibroid attached by a narrow neck to the uterus, which itself had been rotated back to front and contained a mucous polyp. The woman, aged 34, had suffered for seven years from a swelling in the abdomen, and four days before admission had had an attack of pain and vomiting after stooping. A rounded tumour was found in the mid-line of the hypogastrium, and another, which was extremely tender, in the right iliac fossa. At operation this latter swelling was found to be the twisted uterus, and this together with the fibroid was removed.

2. A large ovarian tumour, in a woman aged 50, of eight years' standing, underwent a sudden twisting of its pedicle. This was accompanied by pain and vomiting. Pulse 104, temperature 102° F. On operating, Mr. Bevers evacuated 18 pints of very offensive fluid, and feared there had been a perforation of the gut into the cyst. The latter was removed with great difficulty, being adherent to almost every organ in the abdomen. The pedicle was twisted three times round itself. No perforation was found, and the contamination of the cyst contents was no doubt due to the colon bacillus.

3. Another ovarian cyst with twisted pedicle in an old woman aged 81. She was admitted with symptoms of intestinal obstruction of three days' standing. At operation a cyst the size of a fetal head was found, with its pedicle incompletely twisted, corkscrew fashion. The tumour, distended by the twist of its pedicle, had pressed on the colon, and caused obstruction. This patient, like the two former cases, made a good recovery.

Mr. WHITELOCKE complimented Mr. Bevers on his success in dealing with these cases, and a discussion ensued on the causation of twisting of pedicles. Replying, Mr. BEVERS said that in nearly all such cases some history of a slight straining effort could be elicited, followed by pain and vomiting, which was evidence of the twist.

Therapeutic Value of Mental Suggestion.—Dr. H. E. WINGFIELD opened a discussion on the therapeutic value of mental suggestion. Defining hypnotism as an artificially-produced state in which an individual could resist suggestion with less ease than in his normal condition, he explained the part which the subconsciousness took in the causation of this increased suggestibility. He gave some striking instances of the working of the subconsciousness, of acts performed in the waking state by the subconscious memory. After rousing from the hypnotic state, the patient would perform some act which had been suggested to him during hypnosis, though he had no conscious memory of such suggestion. The consciousness of hypnosis was therefore the subconsciousness; it was identical with that which governed automatic writing. The waking consciousness guarded the subconsciousness, and it was the latter which was suggestible. Hypnosis split the two forms of consciousness and left the subconsciousness to the mercy of suggestion. Dealing with the methods of hypnotism, Dr. Wingfield emphasized the importance of attention, stillness, and concentration. Good results could be obtained with very slight hypnosis—to the extent of being able to open the eyes with effort—as in the case of a lady whose stammer was cured by suggestion in this condition, and in whom deeper hypnosis was unobtainable. Concentration, however, on something was essential. The patient's attention was attracted by a piece of glass, then by gazing into the operator's eyes; sleepiness was thus induced and the eyelids closed. Gentle stroking of the eyelids and limbs followed, and then pressure on the forehead, with the suggestion that the eyes could not be opened; this might have to be repeated four or five times. Once the state of consciousness was limited, suggestion did the rest. In stage 1 reflex voluntary movements—for example, sneezing, swallowing, and breathing—could be inhibited. In stage 2 all voluntary movements could be inhibited—inhibitory suggestion. In stage 3 movements could be compelled—imperatory suggestion. The final stages were those of hallucination, loss of memory, and somnambulism. Among the diseases most amenable to hypnotism, Dr. Wingfield had found dipsomania took a high place; over 70 per cent. had remained well for years. Drug habits, such as morphine and cocaine, were less satisfactory; deep and prolonged hypnosis was necessary. Hysteria and neurasthenia were difficult to deal with, and psychoanalysis was more suitable for these. In hysteria there was some painful idea or memory, suppressed in the subconsciousness, and this had undergone conversion into physical pain. It often took a long time to elicit these painful ideas, which were chiefly of a sexual nature. Suggestion was very valuable in sexual disorders, such as primary vaginismus and impotence; it was also successful in cases of constipation and in labour cases. Its effect in epilepsy was less good; insomnia could be cured in those who were susceptible to hypnosis. In the discussion which followed, Professor MCDOUGALL drew attention to the increasing use of the slighter forms of hypnosis, though many cases required the deeper stages. In his opinion the necessary skill and tact could be acquired only by the expert. Dr. COLLIER remarked on the great change in the opinion of the profession in respect to hypnotism; as evidence of this he cited the Harveian Oration by Dr. Savage. Organic causes of disease had always to be excluded, but otherwise all physicians practised mental suggestion in advising their patients. Dr. NEIL, of the Warneford Asylum, said that hypnotism had proved disappointing in the treatment of active insanity. He gave an analysis of the mental phenomena of mania, melancholia, and paranoia, and showed how little effect suggestion had in these conditions.

Vote of Thanks.—A vote of thanks to Dr. Wingfield was proposed by Mr. WHITELOCKE, seconded by Dr. O'KELLY, and carried *nem. con.* Dr. WINGFIELD briefly responded.

SOUTH-EASTERN BRANCH:
ISLE OF THANET DIVISION.

A MEETING of this Division was held at the Seabathing Hospital, Margate, on February 11th, 1910. Fifteen members and three visitors were present.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Specimens.—The following pathological specimens were shown: (*a*) Stone in the kidney; (*b*) carcinoma of breast; (*c*) case of dermatitis herpetiformis.

Demonstration.—Dr. SPILSBURY (St. Mary's Hospital) gave a demonstration and clinical exposition of cases of interest: (*a*) Melanotic sarcoma; (*b*) carcinoma of rectum and stomach; (*c*) acute glanders; (*d*) lymphosarcoma of small intestine. The demonstration was illustrated by specimens and microscopic slides.

A MEETING of this Division was held at the Seabathing Hospital, Margate, on April 1st. Nine members and three visitors were present.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Correspondence.—Correspondence was dealt with.

Specimens.—The following pathological specimens were demonstrated: (*a*) Ovarian cyst from a woman of 74; (*b*) phosphatic stone removed from the bladder; (*c*) series of agar tubes on which were grown a series of cultures of different organisms isolated from the sinuses of tuberculous lesions.

Skiagrams.—A series of skiagrams of cases of interest were demonstrated: (*a*) Caries sicca; (*b*) myeloid sarcoma.

Cases.—Twelve cases of interest in the wards were visited and discussed.

Annual Meeting.—It was decided to hold the annual meeting at Minster early in the summer, and Dr. Watts was elected chairman.

SOUTHERN BRANCH:
PORTSMOUTH DIVISION.

A CLINICAL meeting of the Division was held at Southsea on March 24th. Dr. COLT, Chairman, presided, and seventeen members were present.

Cases.—Dr. COLE-BAKER showed cases of wired olecranon and radius and ulna. Mr. RIDOUT showed a case of modified mastoidectomy with preservation of the ossicles. Dr. DAVIS TAYLOR showed two cases of exophthalmic goitre successfully treated with thyroidectin.

Papers.—Dr. CARLING read a paper on a case of acute inversion of the uterus following labour. Mr. CHILDE read a paper on some surgical points in ulcer of the stomach and duodenum. Dr. HOLMES read a paper on puerperal pyaemia based on ten cases. Dr. DAVIS TAYLOR read a paper on a case of recurrent pneumococcus infection successfully treated by a vaccine.

Specimens.—Dr. L. MAYBURY showed specimens of adhesions of aortic valves by calcareous deposit, and of multiple fibromyomata of the uterus.

YORKSHIRE BRANCH.

A MEETING of the Yorkshire Branch was held at the Bull Hotel, Wakefield, on Wednesday, March 16th, Dr. GODFREY, President, in the chair.

New Members.—The following were elected members of the Association: William Appleyard, F.R.C.S., Bradford; Charles Henry Bullen, M.D., Stillington, Easingwold; Alexander McConnell Erskine, M.D., Goole; Richard C. Jamison, M.B., Leeds; George W. Gostling, M.B., York; John Reginald Lambert, M.B., Leeds; James D. Mackay, M.B., The Woodlands, near Doncaster; Frederic William Martin, M.R.C.S., Wellholme, Brighouse; Leonard Alfred Rowden, M.B., Leeds; William Thompson, M.B., Mytholmroyd; John William Thomson, M.B., Wakefield; R. A. Veale, M.D., Leeds.

Annual Reports.—The annual reports and financial statements of the Divisions were presented.

Specimens.—Mr. J. F. DOBSON (Leeds) showed the following specimens: (1) Specimens from two cases of partial gastrectomy; (2) pyloric ulcer, Rodman's operation; (3) ulcer of anterior surface of stomach, excised; (4) duodenal ulcer, excised; (5) radiograph (by Dr. Rowden) of a case of hour-glass contraction of the stomach, gastro-gastrostomy.

Papers.—The following papers were read and discussed:—Dr. VEITCH (Harrogate): Some remarks on vaccine therapy, with reference to cases. Dr. CROFT (Leeds): Remarks on the treatment of chorea in pregnancy. Dr. OLDFIELD (Leeds): Treatment of puerperal septic diseases.

County Laboratories.—Dr. Kaye (M.O.H., Wakefield) kindly showed some of the members round the County Laboratory.

Dinner.—After the meeting, members dined together at the Bull Hotel.

Association Notices.

COUNCIL MEETING.

A MEETING of the Council will be held at 2 o'clock in the afternoon of Wednesday, April 27th, in the Council Room at 429, Strand, London, W.C.

By Order,
GUY ELLISTON.
Financial Secretary and Business Manager.

March 24th, 1909.

MATTERS REFERRED TO DIVISIONS.

ANNUAL REPRESENTATIVE MEETING, 1910.

DATE OF MEETING.

THE Annual Representative Meeting of the Association, 1910, will be held in the Court of Common Council Chamber, Guildhall, London, on Friday, July 22nd, 1910, and following days as may be required.

NOTICE OF MOTION.

PROPOSED AMENDMENT OF BY-LAWS.

Election of Council.

By the CARDIFF DIVISION:

That By-law 23 be amended by the inclusion of a new Subclause as follows, to be Subclause (*d*), the present Subclause (*d*) being made Subclause (*e*):

(*d*) 4 by the Representative Meeting, which shall have power to elect such members at such time and in such manner as the Meeting may decide, provided that the term of office of each member so elected shall expire at the close of the Annual Representative Meeting next following the date of his election.

NOTICES OF MOTION: LAST DAY FOR RECEPTION.

ATTENTION is drawn to the fact that Notices of Motion from Divisions and Branches for the consideration of the Annual Representative Meeting in London in July, relating either to the alteration of the By-laws (Article XLVII), or to questions affecting the honour and interests of the profession (Article XXXI), must be published in the BRITISH MEDICAL JOURNAL not later than the issue of April 23rd, 1910, and for this purpose should be received by the Medical Secretary not later than Monday, April 18th.

By Order,
J. SMITH WHITAKER,
Medical Secretary.

NOTICE OF CHANGES OF BOUNDARIES OF DIVISIONS AND BRANCHES.

THE following change has been made in accordance with the Regulations of the Association, and takes effect from the date of the publication of this notice:

That Calne be transferred from the area of the Bath Division of the Bath and Bristol Branch to the area of the Trowbridge Division of that Branch.

BRANCH AND DIVISION MEETINGS TO BE HELD.

LANCASHIRE AND CHESHIRE BRANCH.—A meeting of the Branch Council will be held at the Liverpool Medical Institution on Wednesday, April 13th, at 4.30 p.m.—F. CHARLES LARKIN, Honorary Secretary, 54, Rodney Street, Liverpool.

LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—A general meeting of the Division will be held at the Greenbank Hotel, Northwich, on Wednesday, April 20th, at 5 p.m. Business: (1) A discussion will be held on the position of the general practitioner under the schemes in the Reports of the Royal Commission on the Reform of the Poor Laws. Dr. J. H. Taylor, of Salford, has promised to attend and take part in the discussion. (2) Consideration of Ethical Committee's Report on Homoeopathy (SUPPLEMENT, February 12th). (3) Question of instruction in first aid and field nursing to voluntary aid detachments. (4) Alteration in election of Central Council. (5) Medical treatment of school children. (N.B.—Trains leave Hale 4.6, 4.48, 5.18; return from Northwich

6.18, 7.10, 8.45) Dinner will be arranged at 7 p.m., if members wish it, but the Honorary Secretary must have definite replies not later than Monday, April 18th.—H. G. COOPER, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—The next meeting of the Division will take place conjointly with the Walthamstow Division at Walthamstow Hospital on April 21st, when Sir Victor Horsley will deliver an address.—A. G. SOUTHCOMBE, M.D., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: RICHMOND DIVISION.—The next meeting of this Division will be held at the Royal Hospital, Richmond, on Wednesday, April 27th, at 8.30 p.m., *not on Friday, April 29th, as announced in the Calendar of April 2nd.* The annual meeting will be held on May 25th.—G. CARDNO STILL, M.B., Honorary Secretary, 1, St. Stephen's Gardens, Twickenham.

MIDWIVES BILL, 1910.

MEMORANDUM.

THIS Bill, now before the House of Lords, is for the most part founded upon the Report of the Departmental Committee appointed to consider the working of the Midwives Act, 1902 (1909, Cd. 4822), but departs from the recommendations of that Committee in one or two details.

The effect of the reconstitution of the Central Midwives Board is to increase the number of the Board from nine to thirteen members, representation being given to the following bodies, who were previously unrepresented:

(1) The Local Government Board;
(2) The Association of Municipal Corporations;
(3) The Society of Medical Officers of Health;
(4) The British Medical Association.

The member appointed by the last-mentioned Association must be a medical practitioner. No special qualification is prescribed in the case of the members appointed by the other new bodies.

In addition to this increase in numbers, the qualifications of the members appointed by the Incorporated Midwives Institute and the Royal British Nurses Association have been altered. In the future the members appointed by these bodies must be certified midwives. At present the member appointed by the Incorporated Midwives Institute must be a medical practitioner, whilst with respect to the member appointed by the Royal British Nurses Association no special qualifications are required.

A BILL intituled an Act to amend the Midwives Act, 1902.

Be it enacted by the King's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:

CENTRAL MIDWIVES BOARD.

1. *Alteration of Constitution of Central Midwives Board.*—(1) As from such day as the Lord President of the Council may fix, the Central Midwives Board shall consist of—

(*a*) Two persons (one of whom shall be a woman) to be appointed by the Lord President of the Council, and one person to be appointed by the Local Government Board.
(*b*) Four duly qualified medical practitioners, one to be appointed by the Royal College of Physicians of London, one by the Royal College of Surgeons of England, one by the Society of Apothecaries of London, and one by the British Medical Association.
(*c*) Two certified midwives to be appointed, one by the Incorporated Midwives Institute, and one by the Royal British Nurses Association.
(*d*) Four persons to be appointed, one by the County Councils Association, one by the Association of Municipal Corporations, one by the Society of Medical Officers of Health, and one by the Queen Victoria's Jubilee Institute of Nurses.

The term of office of a medical practitioner appointed under paragraph (*b*) shall be one year; in the case of other members the term of office shall be three years. A member retiring at the expiration of his term of office shall be eligible for reappointment. Any vacancy occurring by the retirement, death, or resignation of a member shall be filled by a member appointed by the person or body by whom the member so retiring, dying, or resigning was appointed. The Board may act notwithstanding a vacancy in their number.

(2) Section three of the Midwives Act, 1902 (hereinafter referred to as the principal Act), shall have effect as if the foregoing provisions were substituted for so much of that section as is repealed by this Act.

(3) Nothing in this section shall affect the tenure of office of any member of the Central Midwives Board who holds office at the day so fixed, except that the members who then hold office as representatives of the Incorporated Midwives Institute and the Royal British Nurses Association shall cease to hold office.

2. *Future Revision of Constitution of Central Midwives Board.*—(1) The Central Midwives Board may at any time represent to the Privy Council that it is expedient to modify the constitution of the Board either by—

(*a*) Increasing or diminishing the number of persons appointed by any body or person; or
(*b*) Abolishing the power of appointment by any body or person; or
(*c*) Conferring on any body or person a power of appointment of one or more persons; or
(*d*) Altering the term of office or qualifications of any members.

(2) The Privy Council before considering such representation shall cause it to be laid before both Houses of Parliament.

(3) If either House of Parliament within forty days (exclusive of any period of adjournment for more than one week) next after such representation has been laid before the House presents an address to His Majesty declaring that the representation or any part thereof ought not to be given effect to, no further proceedings shall be taken in respect of the representation in regard to which the address has been presented; but if no such address is presented by either House within such forty days as aforesaid the Privy Council may, if they think fit, report to His Majesty that it is expedient to give effect to the representation; and it shall be lawful for His Majesty by Order in Council to give effect to the same, and any Order in Council so made shall have effect as if enacted in this Act.

3. *Amendment of Section Five of the Principal Act with Respect to Financc.*—The apportionment between the several counties and county boroughs of any balance against the Central Midwives Board shown in any financial statement made under section five of the principal Act and approved by the Privy Council shall be in proportion to the population of those counties and county boroughs according to the returns of the last published census for the time being, instead of in the proportion mentioned in the said section.

4. *Amendment of Section Seven of Principal Act as to Evidence.*—The following paragraph shall be added to section seven of the principal Act:

> A certificate under the hand of the Secretary of the Board that the name of a woman whose name appears in the roll of midwives has been removed from the roll shall be evidence that such woman is not certified under this Act.

5. *Payment of Travelling Expenses of Members.*—The Central Midwives Board may, if they think fit, pay to the members of the Board such reasonable travelling expenses as, subject to the approval of the Privy Council, may be allowed by the Board.

6. *Annual Report.*—The Central Midwives Board shall make to the Privy Council an annual report of their proceedings, containing such particulars as the Privy Council may direct.

PROVISIONS AS TO MIDWIVES.

7. *Fees for Keeping Name on Roll.*—Every certified midwife shall on or before the thirty-first of March in each year send to the Central Midwives Board on a form to be supplied by the Board for the purpose her name and address, together with a fee of one shilling, and if any certified midwife in any year fails to comply with this requirement her name shall be removed from the roll and thereupon her certificate shall be deemed to be cancelled; but where her name has been so removed on account of such non-compliance she

shall at any subsequent time be entitled to have her name restored to the roll and the cancellation of her certificate rescinded on the payment of a fee not exceeding five shillings.

8. *Provisions as to Suspension.*—(1) The power of the Central Midwives Board to frame rules deciding the conditions under which midwives may be suspended from practice shall include a power of framing rules—

(*a*) Authorizing the Board to suspend a midwife from practice for such period as the Board think fit, in lieu of striking her name off the roll, and to suspend from practice until the case has been decided, and (in the case of an appeal) until the appeal has been decided, any midwife accused before the Board of disobeying rules or regulations or of other misconduct;

(*b*) Authorizing the local supervising authority which takes proceedings against a midwife either before a court of justice or the Central Midwives Board to suspend her from practice until the case has been decided.

(2) Where in pursuance of any power conferred by any such rule a midwife has been suspended from practice pending the decision of her case by a court or the Board and the case is decided in her favour, or where in pursuance of the duty imposed by paragraph (3) of section eight of the principal Act a midwife has been suspended from practice in order to prevent the spread of infection, the Central Midwives Board or the local supervising authority by whom she was suspended may, if they think fit, pay her such reasonable compensation for loss of practice as under the circumstances may seem just.

9. *Expenses of Midwives.*—(1) The Central Midwives Board may, if they think fit, pay all or any part of the expenses incurred by any midwife who may be required to appear before them in her own defence, and all forms required to be filled up and returned to the Central Midwives Board shall be supplied gratis by the Board to certified midwives.

(2) All other forms and books which certified midwives are required to fill up or use shall be supplied to them gratis by the local supervising authority.

(3) Where any such form is required to be returned by post to the Board or the authority either the form shall be supplied duly stamped or a duly stamped envelope shall be supplied with the form.

10. *Offences by Midwives.*—(1) Where the Central Midwives Board decide upon the removal from the roll of the name of any midwife they may, in addition, prohibit her from attending women in child-birth in any other capacity, but such decision of the Board shall be subject to the like appeal as their decision to remove her name from the roll, and if any woman so prohibited acts in contravention of the prohibition, she shall be liable on summary conviction to a fine not exceeding *ten* pounds, unless she proves that she acted in a case of emergency.

(2) Any woman whose name is ordered to be removed from the roll for disobeying rules or regulations, or for other misconduct shall within fourteen days from the making of the order surrender her certificate to the Central Midwives Board, and, if she fails to do so, shall be liable on summary conviction to a fine not exceeding *five pounds*.

11. *Notification of Practice.*—(1) Where a woman certified under the principal Act, who has not given to the local supervising authority such a notice as is mentioned in section ten of the principal Act attends any woman in child-birth in any capacity other than that of midwife, and a duly qualified medical practitioner is not present at the time of the birth, she shall, within forty-eight hours from the birth, give to the local supervising authority notice in writing of the fact that she so attended, and if she omits to do so shall be liable on summary conviction to a fine not exceeding *five pounds*, but nothing in this section shall be construed as exempting any woman practising as a midwife or holding herself out as so practising from the obligation to give any notice which, under section ten of the principal Act, she is required to give.

(2) Where a woman certified under the principal Act has given a notice in compliance with section ten of that Act and subsequently changes her address, she shall, within forty-eight hours after such change, give notice of the change to every local supervising authority to which she had previously given notice under that section, and if she omits to do so shall, on summary conviction, be liable to a fine not exceeding *five pounds*.

12. *Reciprocal Treatment of Midwives Certified in Other Parts of His Majesty's Dominions.*—(1) Any woman who produces evidence satisfactory to the Central Midwives Board that she has been trained as a midwife and certified in any other part of His Majesty's dominions in which there is for the time being in force any Act or ordinance for the certification and registration of midwives under a public authority, and which admits to its register midwives certified under the principal Act on reciprocal terms, shall on payment of the like fee as is payable in ordinary cases be entitled to be certified under the principal Act; provided that the standard of training and examination required in such other part of His Majesty's dominions is in the opinion of the Central Midwives Board equivalent to the standard adopted by the Board.

(2) If any question arises under this section as to the right of a woman to be certified under the principal Act the question shall be determined by the Privy Council.

PROVISIONS AS TO LOCAL SUPERVISING AUTHORITIES.

13. *Power of Local Supervising Authorities to Contribute to Training of Midwives.*—A local supervising authority may aid the training of midwives, whether within or without their area, and may make grants for the purpose.

14. *Repeal of Section Nine of the Principal Act.*—Section nine of the principal Act (which enables county councils to delegate their powers and duties to district councils) shall be repealed; and where at the commencement of this Act any powers or duties have been delegated under that section the delegation shall, as from the commencement of this Act, be revoked.

15. *Powers of Entry.*—For the purpose of exercising the powers of supervision over midwives conferred on local supervising authorities, any officer appointed by such an authority for the purpose may at all reasonable times enter any premises which he has reason to believe to be a lying-in home conducted for profit within the area of the authority and in which he has reason to believe that a certified midwife is employed or practises, or that a woman not a certified midwife practises in contravention of the principal Act, and any person who wilfully obstructs any such officer in the performance of his duties shall on summary conviction be liable to a fine not exceeding *five pounds*.

16. *Notification to Local Supervising Authorities of Removal of Names from Roll.*—Where the name of a woman has been removed from the roll of midwives the Central Midwives Board shall forthwith give notice of the fact to all local supervising authorities concerned.

PAYMENT OF FEES OF MEDICAL PRACTITIONERS CALLED IN ON ADVICE OF MIDWIVES.

17. *Payment of Fees of Medical Practitioners called in on Advice of Midwives.*—(1) Where a duly-qualified medical practitioner has been summoned upon the advice of a certified midwife attending a woman in child-birth to render her assistance in a case of emergency in pursuance of any rule framed by the Central Midwives Board, he shall, subject to regulations to be made by the Local Government Board, be entitled to recover from the board of guardians of the Poor Law union in which the woman resided such fee in respect of his attendance as may be fixed by those regulations.

(2) The payment of such fees may, if the board of guardians think fit, be treated as relief by way of loan and be recoverable accordingly.

(3) Every board of guardians shall in each quarter send to every local supervising authority concerned a

list of the cases within the area of the authority in respect of which fees have been paid by the board of guardians under this section.

GENERAL.

18. *Action by General Medical Council.* — The General Medical Council may for the purposes of section three of the principal Act, act through their Executive Committee instead of through the English Branch Council.

19. *Short Title, Construction, Commencement, and Repeal.*—(1) This Act may be cited as the Midwives Act, 1910, and shall be construed with the principal Act, and that Act and this Act may be cited together as the Midwives Acts, 1902 and 1910.

(2) This Act shall come into operation *on the first day of January nineteen hundred and eleven.*

(3) The provisions of the principal Act specified in the schedule to this Act are hereby repealed, but this repeal, so far as it applies to section three of the principal Act, shall not take effect until such day as the Lord President of the Council may fix for the reconstitution of the Central Midwives Board.

SCHEDULE.

PROVISIONS OF PRINCIPAL ACT REPEALED.

Section 3 from the beginning to "reappointment for a like period."

In section 5 the words "in proportion to the number of midwives who have given notice during the year of their intention to practise in those areas respectively."

Section 9.

In section 10 the words "or to the body to whom for the time being the powers and duties of the local supervising authority shall have been delegated under this Act," and the words "or delegated body."

Section 17 from "The General Medical Council" to the end of the section.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

SURGEON A. A. CHANCELLOR, M.B., has been placed on the retired list, March 24th. He was appointed Surgeon, May 23rd, 1904.

Fleet Surgeon A. E. KELSEY, M.B., has been placed on the retired list, March 29th. His commissions are thus dated: Surgeon, November 11th, 1891; Staff Surgeon, November 11th, 1899; and Fleet Surgeon, November 11th, 1907.

The following appointments have been made at the Admiralty: Fleet Surgeon C. S. FACEY, M.B., to the *President*, additional, for three months' civil hospital course, April 4th; Surgeon H. F. BRIGGS, M.B., to the *Leander*, March 30th; Staff Surgeon E. S. TUCK to the *Victorious*, March 31st; Staff Surgeon C. B. FAIRBANK to the *Flora*, March 31st; Surgeon W. C. B. SMITH to the *Triton*, April 2nd.

Mr. W. J. O'DOHERTY, civil practitioner, has been appointed Surgeon and Agent at Teelin and Malinmore (Glen Bay), April 1st.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL D. S. E. BAIN, Madras, is permitted to retire from the service from April 5th. He was appointed Assistant Surgeon, March 31st, 1879, and made Lieutenant-Colonel, March 31st, 1899.

TERRITORIAL FORCE.

ROYAL FIELD ARTILLERY.

Third Wessex Brigade.—Surgeon-Lieutenant-Colonel A. KINSEY-MORGAN resigns his commission, February 21st; he retains his rank and uniform.

INFANTRY.

Fourth Battalion the Oxfordshire and Buckinghamshire Light Infantry.—Surgeon-Lieutenant H. DE B. DWYER to be Surgeon-Captain, February 3rd.

ROYAL ARMY MEDICAL CORPS.

First Home Counties Field Ambulance.—Lieutenant J. WARD to be Captain, February 1st.

For Attachment to Units other than Medical Units.—HUGH DAVIES, M.B., F.R.C.S.Eng., to be Lieutenant, December 11th, 1909; CHARLES P. WOODSTOCK to be Lieutenant, January 1st; WILLIAM R. WILSON to be Lieutenant, January 10th.

COLONIAL MEDICAL SERVICES.

THE following changes in the Colonial Medical Services are notified by the Colonial Office:

WEST AFRICAN MEDICAL STAFF.—*Retirement:* J. TICHBORNE, M.D., B.Ch.Dubl., Senior Medical Officer, Gold Coast, retires on pension. *Promotions:* J. A. PICKELS, M.B., B.S.Lond., M.R.C.S.Eng., L.R.C.P.Lond., D.P.H.Liver., Senior Medical Officer, Southern Nigeria, to be Senior Sanitary Officer, Southern Nigeria; H. B. S. MONTGOMERY, L.R.C.S., L.R.C.P.Ire., Medical Officer, Gold Coast, to be Senior Medical Officer, Gold Coast; R. LAURIE, M.B., Ch.B.Glas., L.M.Dubl., B.Sc., Public Health (Edinburgh), Medical Officer, Southern Nigeria, to be Junior Sanitary Officer, Southern Nigeria. *Appointment:* W. H. PEACOCK, M.B., B.S.Durh., Southern Nigeria.

OTHER COLONIES.—*Appointments:* Mr. W. J. WOODMAN, M.R.C.S.Eng., L.R.C.P.Lond., Assistant Colonial Surgeon in British Honduras; Mr. J. F. O'BRIEN, M.B., Ch.B. (Royal University of Ireland), a Medical Officer in the Straits Settlements.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,159 births and 4,614 deaths were registered during the week ending Saturday last, April 2nd. The annual rate of mortality in these towns, which had been 13.6, 13.5, and 13 9 per 1,000 in the three preceding weeks, rose again last week to 14.4 per 1,000 The rates in the several towns ranged from 8 0 in East Ham, 8.2 in Willesden, 8 3 in Halifax, 8 5 in Walthamstow, 8.7 in Handsworth (Staffs), and 9.0 in Hornsey and in Leicester, to 18.5 in Ipswich, 18.8 in Oldham, 18.9 in Burnley, 19 0 in Brighton, 19.1 in Devonport, 19.4 in Plymouth, 19 7 in Liverpool, and 24.3 in Merthyr Tydfil and in Swansea. The death-rate from the principal infectious diseases averaged 1.0 per 1,000 in the seventy-six large towns and in London, while among the seventy-five other large towns the rates ranged upwards to 2.4 in Liverpool, 2.5 in Devonport, 2.7 in Ipswich, 3.3 in Merthyr Tydfil, 3.7 in Hanley, and 4.4 in Burnley. Measles caused a death-rate of 1.6 in Cardiff, 2.2 in Hanley and in Bootle, 2.6 in Merthyr Tydfil, and 2 9 in Burnley; and whooping-cough of 1.1 in Birmingham, 1.3 in Birkenhead and in Newport (Mon.), 1.5 in Hastings and in Wolverhampton, and 2.5 in Devonport. The mortality from scarlet fever, from diphtheria, and from enteric fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The number of scarlet fever cases under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,713 and 1,650 at the end of the two preceding weeks, had further declined to 1,611 at the end of the week under notice; 158 new cases were admitted during the week, against 180 and 173 in the two preceding weeks.

HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday last, April 2nd, 930 births and 656 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 17.2, 16.9, and 15.3 in the three preceding weeks, rose to 18.1 last week, and was 3.7 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scottish towns the death-rates ranged from 14.3 in Aberdeen and 15.9 in Edinburgh to 25 4 in Dundee and 26 9 in Greenock. The death-rate from the principal infectious diseases averaged 2.3 per 1,000, the highest rates being recorded in Dundee and in Greenock. The 297 deaths in Glasgow included 10 which were referred to measles, 2 to scarlet fever, 1 to diphtheria, 4 to whooping-cough, 1 to "fever," and 10 to diarrhoea. Four fatal cases of measles were recorded in Edinburgh, 7 in Greenock, 4 in Edinburgh and in Leith, and 2 in Paisley.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, March 26th, 610 births and 466 deaths were registered in the twenty-two principal urban districts of Ireland, as against 578 births and 419 deaths in the preceding period. The annual death-rate in these districts, which had been 22.4, 22.0, and 19.0 per 1,000 in the three preceding weeks, rose to 21.1 per 1,000 in the week under notice, this figure being 7.2 per 1,000 higher than the mean annual death-rate in the seventy-six English towns for the corresponding period. The figures in Dublin and Belfast were 22.6 and 16.7 respectively, those in other districts ranging from 11.7 in Waterford and 13.2 in Queenstown to 40.9 in Lisburn and 44.2 in Kilkenny, while Cork stood at 22.6, Londonderry at 22.8, and Limerick at 27.3. The zymotic death-rate in the twenty-two districts averaged 1.2 per 1,000, as against 1.5 per 1,000 in the preceding week.

During the week ending Saturday, April 2nd, 661 births and 457 deaths were registered in the twenty-two principal urban districts of Ireland, as against 610 births and 466 deaths in the preceding period. The annual death-rate in these districts, which had been 22.0, 19.0, and 21.1 per 1,000 in the three preceding weeks, fell to 20.7 per 1,000 in the week under notice, this figure being 6.3 per 1,000 higher than the mean annual death-rate in the seventy-six English towns for the corresponding period. The figures in Dublin and Belfast were 19.8 and 18.4 respectively, those in other districts ranging from 4.5 in Lisburn and 11.4 in Newtownards to 46 2 in Clonmel and 52.8 in Sligo, while Cork stood at 32.9, Londonderry at 13.2, Limerick at 23.2, and Waterford at 19.5. The zymotic death-rate in the twenty-two districts averaged 1.2 per 1,000, or the same as in the preceding week.

Hospitals and Asylums.

THE ROYAL DENTAL HOSPITAL OF LONDON.

THE report presented to the annual meeting of the Royal Dental Hospital of London (Leicester Square) stated that the total number of patients during the year was 21,215, and that their attendances numbered 56,308. Of the total amount received for the general maintenance fund (£4,175 6s. 2d.) £500 was contributed by King Edward's Hospital Fund, £355 6s. 8d. by the Hospital Sunday Fund, and £90 by the Hospital Saturday Fund. The sum of £1,368 8s. had been expended on the renovation of the inner surface of the walls of the hospital, and especially in fitting the walls of the operating room with tiles. The report of the medical committee showed that the fillings and other conservative operations numbered 17,553. A very large number of extractions were done, and appliances had been supplied to 347 patients. The work done in the pathological department had included not only bacteriological and histological examinations, but also the preparation of vaccines for the treatment of suppurative conditions in connexion with the teeth. In the *x*-ray department an apparatus for taking stereoscopic radiographs had been installed, and altogether 317 cases had been examined. As the occasional onset of haemorrhage some hours after dental operations is an unavoidable complication, the Medical Committee had drawn up instructions to patients on this point. In view of the new regulations of the Royal College of Surgeons of England requiring all candidates for the L.D.S. to obtain a certificate of having received practical

instruction in the administration of the anaesthetics in general use in dental surgery, a scheme for the therapeutical and practical teaching was formulated, and Dr. Dudley Buxton undertook to give a short course of lectures on the theory of the subject.

NATIONAL MATERNITY HOSPITAL, DUBLIN.

AT the annual meeting in the Mansion House of the National Maternity Hospital, Holles Street, Dublin, on February 16th, over which the Most Rev. Dr. Donnelly, Bishop of Canea, presided, Dr. A. J. Horne, President of the Royal College of Physicians and Master of the Hospital, read the fifteenth annual report, which stated that during the past year the posts of masters had become vacant owing to the period of office of Dr. P. J. Barry and Dr. A. G. Horne having expired, and that the board had unanimously re-elected Dr. A. G. Horne and had elected Dr. R. J. White as masters for a period of ten years. The governors expressed their great appreciation of the valuable services rendered by Dr. P. J. Barry to the hospital from its inception. During the year ending March 31st, 1909, 772 cases had been admitted to the maternity wards and 100 cases to the gynaecological wards, while the total number of deaths was only 3. In the extern maternity department 1,048 cases were attended by the doctors and nurses, over 10,000 visits had been paid to patients at their own homes, and 4,443 cases had been treated at the hospital dispensary. The new operating theatre, which was now efficiently equipped, had proved most useful during the year.

THE CHILDREN'S HOSPITAL, BIRMINGHAM.

THE annual report of the Children's Hospital showed that the number of patients treated during 1909 was 15,240 as against 15,387 in 1908. The average detention rate of the in-patient had been as follows: 1909, 20.9 days; 1908, 16.9 days. The average weekly cost for each person maintained in the hospital, including staff and patients, was 4s. 2d. Little progress has been made with the new building scheme, though the lease of the present building has nearly expired. The new site in Ladywood Road had been bought and paid for, but the committee had, including promises unredeemed, only the sum of £3,450 which could be devoted to the new building, but £50,000 was needed. The accounts for the year showed a deficiency of £466, as against £294 for the preceding year. This was the worst result for many years, and was due to an unavoidable increase in the expenditure. The amount of work devolving on the medical staff had been largely increased by the systematic medical inspection of school children. This was specially shown in the increase in the number of patients suffering from adenoids and enlarged tonsils.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

ASHTON-UNDER-LYNE UNION.—Assistant Resident Medical Officer of the Workhouse. Salary, £150 per annum.

BANBURY: HORTON INFIRMARY.—House-Surgeon. Salary, £80 per annum.

BARROW-IN-FURNESS: NORTH LONSDALE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

BATH: ROYAL MINERAL WATER HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

BELGRAVE HOSPITAL FOR CHILDREN, Clapham Road, S.W.—Assistant Surgeon.

BIRKENHEAD UNION.—Junior Resident Assistant Medical Officer for the Infirmary and Sanatorium. Salary, £100 per annum.

BIRMINGHAM GENERAL HOSPITAL.—(1) Assistant Surgeon; honorarium, £50 per annum. (2) Assistant House-Surgeon for three months; salary at the rate of £40 per annum.

BOLINGBROKE HOSPITAL, Wandsworth.—Two House-Surgeons. Salary at the rate of £75 per annum.

BRECKNOCK COUNTY AND BOROUGH INFIRMARY.—Resident House-Surgeon. Salary, £120 per annum.

BRIGHTON: SUSSEX COUNTY HOSPITAL.—Third House-Surgeon. Salary, £50 per annum.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—Assistant Surgeon.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House-Physician (male). Salary at the rate of £75 per annum.

COLCHESTER: ESSEX COUNTY HOSPITAL.—(1) House-Physician. (2) House-Surgeon. Salary, £80 per annum each.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Assistant Resident Medical Officer. Salary at the rate of £50 per annum.

HAMPSTEAD GENERAL HOSPITAL.—(1) House-Physician. (2) House-Surgeon. Salary at the rate of £70 per annum each.

HEMEL HEMPSTEAD: WEST HERTS HOSPITAL.—House-Surgeon. Salary, £100 per annum.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—House-Physician. Honorarium, 30 guineas for six months.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—(1) Casualty Medical Officer. Salary, £200 per annum. (2) House-Surgeon. Salary, £30 for six months, and £2 10s. washing allowance.

HULL ROYAL INFIRMARY.—Assistant House-Surgeon. Salary, £80 per annum.

KIDDERMINSTER INFIRMARY AND CHILDREN'S HOSPITAL.—House-Surgeon. Salary, £100 per annum.

LEEDS GENERAL INFIRMARY.—Clinical Pathologist. Salary, £300 per annum.

LEEDS: HOSPITAL FOR WOMEN AND CHILDREN.—House-Surgeon. Salary at the rate of £50 per annum.

LEICESTER INFIRMARY.—House-Physician. Salary at the rate of £100 per annum.

LIVERPOOL: STANLEY HOSPITAL.—Two Junior House-Surgeons. Salary, £70 and £60 per annum respectively.

MIDDLESBROUGH: NORTH RIDING INFIRMARY.—Assistant House-Surgeon. Salary, £75 per annum.

MIDDLESEX HOSPITAL, W.—Aural Surgeon.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—Assistant House-Surgeon. Honorarium £20 for six months.

PORTSMOUTH PARISH.—Second Assistant Resident Medical Officer for the Workhouse, Workhouse Infirmary, and Children's Home. Salary, £120 per annum, rising to £130.

PRINCE OF WALES'S GENERAL HOSPITAL, Tottenham, N.—(1) House-Surgeon. (2) House-Physician. (3) Junior House-Surgeon. (4) Junior House-Physician. Salary at the rate of £75 per annum for (1) and (2) and £40 per annum for (3) and (4).

READING: ROYAL BERKSHIRE HOSPITAL.—(1) House-Surgeon. (2) Second House-Surgeon. Salary at the rate of £80 and £60 per annum respectively.

ROCHDALE INFIRMARY.—Junior House-Surgeon. Salary, £80 per annum, rising to £100.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House-Surgeon. Salary, £80 per annum.

ROYAL EAR HOSPITAL, Dean Street, Soho, W.—Honorary Assistant Anaesthetist.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—(1) Male House-Physician. (2) Male House-Surgeon. (3) Female House-Physician. (4) Female House-Surgeon. (5) Female Senior Obstetric Assistant. Salary, £50 per annum attached to (5).

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Clinical Pathologist. Honorarium, 50 guineas.

ROYAL LONDON OPHTHALMIC HOSPITAL, City Road, E.C.—Bacteriologist. Salary, £120 per annum.

RUTLAND COUNTY COUNCIL.—County Medical Officer of Health and County School Medical Officer. Salary, £400 per annum.

ST. GEORGE'S HOSPITAL, S.W.—Assistant Surgeon.

SHEFFIELD ROYAL HOSPITAL.—Assistant House-Physician. Salary, £50.

SOUTHAMPTON: ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—Junior House-Surgeon. Salary, £60 per annum.

TAUNTON: TAUNTON AND SOMERSET HOSPITAL.—Resident Assistant House-Surgeon. Salary at the rate of £50 per annum.

TRANSVAAL GOVERNMENT LABORATORIES.—Assistant Bacteriologist. Salary, £400 per annum, rising to £500.

WESTERN OPHTHALMIC HOSPITAL, Marylebone Road, N.W.—Assistant Surgeon.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary, £80 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces a vacancy at Kilsyth, co. Stirling.

APPOINTMENTS.

ALEXANDER, Miss Jamesina, M.B., D.P.H., Assistant Medical Inspector under Aberdeen School Board.

BADCOCK, V. E., M.D.Durh., District Medical Officer of the Glendale Union.

BULLOCK, C. P., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Oswestry Corporation.

CRAKE, H. M., M.D.Vict., D.P.H., Medical Officer of Health (District 1), Calcutta.

DE VINE, A. W. S., L.S.A., District Medical Officer of the Hereford Union.

GATER, H. J., L.M.S.S.A.Lond., L.M.R.C.P.Irel., Clinical Assistant to St. Paul's Hospital for Skin and Genito-Urinary Diseases.

GRAY, H. M. W., M.B., F.R.C.S., Surgeon to the Royal Aberdeen Hospital for Sick Children, vice Dr. George Rose, resigned.

LINDSAY, W. M., M.B., Ch.B.Glasg., Certifying Factory Surgeon for the Biggar District, co. Lanark.

MCCANN, D., L.R.C.P.and S.Irel., District Medical Officer of the Leeds Union.

MCDOUGALL, J. T. M., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Southampton Union.

O'CONOR, H. S., L.R.C.P.and S.Edin., District Medical Officer of the Oswestry Corporation.

PARSONS, Leonard, M.D.Lond., M.R.C.P., Honorary Pathologist to Queen's Hospital, Birmingham.

PURDY, J. S., M.D., C.M.Aberd., D.P.H.Camb., Chief Health Officer, Tasmania, vice J. S. C. Elkington, M.D., D.P.H.Lond., appointed Commissioner of Health, Queensland.

ROSE, George, M.B., C.M., D.P.H.Aberd., Chief Medical Inspector under the Aberdeen School Board.

ROYLE, Miss E. M., M.D.Vict.Manch., Assistant Medical Officer of the City of London Union Workhouse.

SUTHERLAND, C. R., L.R.C.P.and S.Edin., District Medical Officer of the Houghton-le-Spring Union.

THOMPSON, Herbert P., M.D., F.R.C.S.E., Honorary Physician to Heatherdene Convalescent Home of the Sunderland Infirmary at Harrogate.

WILKES, G. A., M.D.Birm., District Medical Officer of the Aston Union.

WOODYATT, B. H., L.R.C.P.and S.Edin., District Medical Officer of the Northwich Union.

WRIGHT, T., M.B., Ch.B.Edin., Certifying Factory Surgeon for the Burntisland District, co. Fife.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

MARRIAGES.

HODDER—HADDON.—On Wednesday, March 30th, at Emmanuel Church, Cambridge, by the Rev. W. B. Selbie, Principal of Mansfield College, Oxford, Dr. Andrew Edward Hodder, of 280, Gidlow Lane, Wigan, to Mary, elder daughter to Dr. A. C. Haddon, F.R.S., and Mrs. Haddon, of Inisfail, Hills Road, Cambridge.

WILLAN—SHAWYER.—On March 31st, at St. Cuthbert's Church, Carlisle, Robert Joseph Willan, M.S., F.R.C.S.Eng., second son of John Willan, J.P., Shincliffe, near Durham, to Dorothy Eleanor, second daughter of J. B. Shawyer, Carlisle.

DEATHS.

BEACH.—On March 30th, at Chandos Lodge, Alton, Hants, Ada Cecilia, the wife of Dr. Fletcher Beach, aged 46 years.

MILWARD.—On March 31st, after a short illness, at 13, Rotton Park Road, Edgbaston, Frederic Victor Milward, F.R.C.S., aged 40.

WILSON.—On March 26th, at 21, Rosebery Crescent, Jesmond, Newcastle-on-Tyne, Sarah Hassall, the wife of Thomas Wilson, M.R.C.S., L.R.C.P. (formerly of Wallsend-on-Tyne), aged 65 years.

RECENT PUBLICATIONS.

The City of London Year Book and Civic Directory for 1910. London: W. H. and L. Collingridge. (Pp. 407. 5s.)

A successor to the *City of London Directory*, giving information as to all official institutions carrying on their work within the City of London, including guilds, charities, and the principal exchanges. Also included are directories of all members of exchanges and of freemen of the City. A useful book to those ever having business in the City.

The Schoolmaster's Year Book and Directory, 1910. Eighth annual issue. London: Swan Sonnenschein and Co. (Crown 8vo, pp. 443 and 698.)

Part I reviews the past year and gives information regarding preliminary examinations, educational societies and organizations, administration of secondary education, together with a good deal of miscellaneous information. Part II is a directory of persons holding office in all recognized secondary schools, and of the schools themselves. A useful book, which should be well supported by those for whose benefit it is more particularly designed.

DIARY FOR THE WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Clinical Meeting.

WEDNESDAY.

HUNTERIAN SOCIETY, London Institution, Finsbury Circus, 8.30 p.m.—Discussion on Vaccine Therapy, introduced by Dr. Hale White.

UNITED SERVICES MEDICAL SOCIETY, Royal Army Medical College, Grosvenor Road, S.W., 8.30 p.m.—Paper:—Lieutenant-Colonel H. E. Deane, R.A.M.C.: Records of Pulse-rates after Exercises of Various Kinds in Trained and Untrained People.

THURSDAY.

HARVEIAN SOCIETY OF LONDON, Stafford Rooms, Titchborne Street, Edgware Road, W., 8.30 p.m.—Papers:—(1) Dr. Leonard Williams: Surgeons, some Mortals, and the Climacteric. Dr. E. I. Spriggs: The Treatment of Indigestion.

ROYAL SOCIETY OF MEDICINE:

OBSTETRICAL AND GYNAECOLOGICAL SECTION, 15, Cavendish Square, W., 7.45 p.m.—(1) Exhibition of specimens. (2) Paper:—Dr. Henry Jellett: The Place of Caesarean Section in the Treatment of Placenta Praevia.

FRIDAY.

ROYAL COLLEGE OF SURGEONS, Lincoln's Inn Fields, 5 p.m.—Professor Keith: Demonstrations of Specimens in the Museum illustrating Irregularities in the Development and Position of the Kidneys.

ROYAL SOCIETY OF MEDICINE:

ELECTRO-THERAPEUTICAL SECTION, 15, Cavendish Square, W., 8.30 p.m.—(1) Paper:—Dr. Howard Pirie: The Disappearance of Enlarged Glands in Lymphadenoma under Treatment by *X* Rays. (2) Discussion: The Relative Value of the Various Types of High-tension Transformers used for the Production of *X* Rays; to be opened by Dr. Reginald Morton. (3) Demonstrations: New Stereoscopes.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C., Friday, 3.45 p.m.—Lecture: Clinical Cases.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Wednesday, 4 p.m., The Diagnosis, Prognosis, and Treatment of Pneumonia.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
APRIL.	
10 Sunday ..	
11 MONDAY ..	
12 TUESDAY ..	LONDON: Public Health Committee, 3 p.m.
13 WEDNESDAY	LONDON: Conference between Special Poor Law Reform Committee and Contract Practice Subcommittee, 2 p.m. LANCASHIRE AND CHESHIRE BRANCH, Meeting of Branch Council, Liverpool Medical Institution, 4.30 p.m.
14 THURSDAY ..	
15 FRIDAY ..	
16 SATURDAY ..	
17 Sunday ..	
18 MONDAY ..	
19 TUESDAY ..	
20 WEDNESDAY	LONDON: Journal and Finance Committee, 2.30 p.m. ALTRINCHAM DIVISION, *Lancashire and Cheshire Branch*, General Meeting, Greenbank Hotel, Northwich, 5 p.m.
21 THURSDAY ..	CITY DIVISION, *Metropolitan Counties Branch*, Conjoint Meeting with Walthamstow Division, Walthamstow Hospital. LONDON: Metropolitan Counties Branch Council, 4.30 p.m.
22 FRIDAY ..	
23 SATURDAY ..	
24 Sunday ..	
25 MONDAY ..	
26 TUESDAY ..	
27 WEDNESDAY	**London: Central Council, 2 p.m.** BATH AND BRISTOL BRANCH, Bath. RICHMOND DIVISION, *Metropolitan Counties Branch*, Clinical Meeting, Royal Hospital, Richmond, 8.30 p.m., *(not 29th as previously announced).*
28 THURSDAY ..	
29 FRIDAY ..	BIRMINGHAM BRANCH, Pathological and Clinical Section, Medical Institute, Edmund Street, 8 p.m. HAMPSTEAD DIVISION, *Metropolitan Counties Branch*, 8.30 p.m.
30 SATURDAY ..	
MAY.	
1 Sunday ..	
2 MONDAY ..	
3 TUESDAY ..	
4 WEDNESDAY	
5 THURSDAY ..	

Printed and Published by the British Medical Association at their Offices, No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, APRIL 16TH, 1910.

CONTENTS.

	PAGE
Meetings of Branches and Divisions:	
Gloucestershire Branch	165
Lancashire and Cheshire Branch: Altrincham Division ...	165
" " " " Manchester (South) Division...	166
Metropolitan Counties Branch: Walthamstow Division ...	166
Midland Branch: Nottingham Division	166
South-Eastern Branch: Brighton Division	166
South-Eastern of Ireland Branch	167
South Midland Branch: Northamptonshire Division	167
Staffordshire Branch: South Staffordshire Division	167
ASSOCIATION NOTICES.—Annual Representative Meeting, 1910: Date of Meeting; Last Day for Reception of Notices of Motion.—Council Meeting	168
BRITISH MEDICAL ASSOCIATION LIBRARY	169
NAVAL AND MILITARY APPOINTMENTS	169
VITAL STATISTICS	169
HOSPITALS AND ASYLUMS:	
The Italian Hospital, London	170
Royal Victoria Eye and Ear Hospital, Dublin	170
South Wimbledon, Merton, and District Cottage Hospital ...	171
VACANCIES AND APPOINTMENTS	171
BIRTHS, MARRIAGES, AND DEATHS	171
RECENT PUBLICATIONS	172
DIARY FOR THE WEEK	172
CALENDAR	172

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

GLOUCESTERSHIRE BRANCH.

A GENERAL meeting of the Branch was held at the Royal Infirmary, Gloucester, on March 17th, at 7 p.m. The PRESIDENT was in the chair, and thirty-one members present.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Address.—Mr. J. HOWELL gave an address on acute peritonitis. A discussion followed by the PRESIDENT, Mr. BUCKELL, Mr. CUTHBERT, Mr. ELLIS, Dr. COLLINS, Dr. PRUEN, Dr. CARTER, Dr. AFFLECK, and Dr. BRAMWELL.

Instruction in First Aid, etc.—A letter was read from the Territorial Forces Committee *re* instruction in first aid and field nursing to Voluntary Aid Detachments. After a discussion, it was proposed by Dr. CARTER, seconded by Dr. CUTHBERT, and carried that:

> Medical practitioners should not be expected to give the preliminary instruction necessary to qualify for membership of a detachment without suitable remuneration.

LANCASHIRE AND CHESHIRE BRANCH:

ALTRINCHAM DIVISION.

A SPECIAL meeting of this Division was held on Thursday afternoon, March 17th, at the Board Room of the Altrincham Hospital. Tea was served at 4.30 p.m. Business commenced at 5 p.m., Dr. GOLLAND in the chair. There were also present: Drs. Luckman, Gough, Garstang, Hines, H. G. Cooper, Southam, C. E. Smith, W. C. Renshaw, Ransome, Rothwell, T. Ll. Fennell, P. L. Cooper, Lyon, H. S. Renshaw, G. E. Anderson, Riley, Savatard, Golland, G. H. Smith, Clarke, J. C. Smyth, Luck, C. A. K. Renshaw, C. J. Renshaw, Tattersall, Cox, Owen-Jones, Woodyatt, Ashe, Melland.

Apologies for Non-attendance.—Apologies for non-attendance were received from Drs. Hutton, Williamson, Cross-Surridge, Phillips, Turner, Browne.

Presentation to Dr. Garstang.—The CHAIRMAN, on the opening of the meeting, presented Dr. T. W. H. Garstang with a handsome solid silver cigar box and a cheque as a mark of the esteem with which the members of the Division held Dr. Garstang, and as some slight recognition of his six years' valuable services both to the Altrincham Division and to the British Medical Association. Dr. GARSTANG made a short speech in reply, thanking the Division for the appreciation of his services and their kindness.

Whole-time Medical Officers of Health.—Dr. GOUGH then moved his resolution:

> That the resolution—"That health officers should give their whole time to the work"—be rescinded.

Dr. Gough made a long and able speech in proposing his resolution. Dr. C. J. RENSHAW seconded the resolution. Dr. GARSTANG replied, upholding the original resolution suggested by the Council of the British Medical Association. Drs. P. R. COOPER, H. S. RENSHAW, LUCKMAN, C. A. K. RENSHAW, ROTHWELL, H. G. COOPER, and GOLLAND also spoke. Dr. GOUGH made a short reply. On the resolution being put to the meeting, it was carried by 12 votes to 6. The meeting then adjourned.

Manchester (South) Division.

The fifth meeting of the Division was held at the house of Dr. Goodfellow, 60, Palatine Road, West Didsbury, at 4 p.m., on Friday, March 11th. Dr. Russen Rhodes presided, and there were present Drs. Boyd, Vipont Brown, Cotterill, Grant Davie, Edlin, Godson, Goodfellow, Heathcote, Hopkinson, McDougall, Mitchell, Sawers Scott, Simcock, and Stocks.

Confirmation of Minutes.—The minutes of the last meeting (February 9th) were read and confirmed.

Correspondence.—(1) A letter from Dr. J. F. Webb, of Gorton, regarding a recent appointment by the Manchester City Council of a police surgeon to the E Division was considered and referred to the Joint Committee. (2) A member sought advice regarding a request from the Registrar-General "for further information as will assist in the classification of the cause of death." The Secretary was directed to write to the Medical Secretary for legal particulars. (3) A letter from the Territorial Forces Committee on instruction in first aid and field nursing to voluntary aid detachments as well as ambulance work in general was read and the subsequent questions answered. (4) A letter from the Organization Committee regarding the election of the Central Council for the year 1910–11 was read and explained.

Terms of Employment, other than Fees, in Clubs.—After discussion the subject was referred to the Joint Committee.

Relation of Homoeopaths to the Association.—The report on this subject was considered, and, on the proposal of Dr. Cotterill, all the questions were answered in the affirmative.

The Medical Tariff as Issued by the Manchester Medico-Ethical Association.—It was felt that this tariff was not sufficiently up to date, and the subject of a medical tariff was referred to the Joint Committee.

The Question of Fees in Midwifery.—This matter was referred to the Joint Committee, to be included in their consideration of a medical tariff.

Medical Inspection and Treatment of School Children.—This subject was again deferred to the next meeting.

METROPOLITAN COUNTIES BRANCH:

Walthamstow Division.

A meeting of this Division was held at the Walthamstow Hospital on Thursday, March 17th, at 4 p.m. Eighteen members and visitors were present. Dr. C. F. Harford presided.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Correspondence.—Letters from Mr. Herbert Tanner and the Medical Secretary were read and considered.

Medical Inspection and Treatment of School Children.—The question of arrangements made by education authorities for the treatment of school children found defective by the school medical inspectors was discussed, and, as far as could be elicited from the knowledge of those present, no definite arrangements had been made anywhere within the area of the Division.

Contract Practice Committee.—The meeting then proceeded to elect two members to the Branch Contract Practice Committee, as requested by the Branch Council. Dr. Price was elected as a member not engaged in contract practice, and Dr. Macgregor elected as a member engaged in contract practice.

Cases.—The following cases were then shown by members: (1) Dr. Price, mediastinal tumour; (2) Dr. Barrs, enlarged testicle; (3) Dr. Macgregor, congenital heart; (4) Dr. Oakeley, malformation of the palate and pharynx through syphilis. A specimen of mediastinal tumour was shown by Dr. Price, and a specimen of an extrauterine fetus with envelope removed entire was shown by Dr. Barrs.

Papers.—Dr. Price read a short paper on mediastinal tumours. Dr. Stimson read the notes of the case of extrauterine fetation from which the specimen was removed. Dr. Macgregor read a short paper on congenital heart disease. Dr. A. Berrill read a short paper entitled, A Few Remarks on Some Pulmonary Conditions, referring particularly to cases of one-sided bronchitis, which he believed to be of influenzal origin. A discussion followed in which Drs. Samuels, Hickman, and Eldred took part. Dr. Price read a paper on the treatment of chorea, which gave rise to a discussion in which Drs. A. Berrill, C. F. Harford, and Hickman took part.

Vote of Thanks.—A vote of thanks to those members and friends who had shown cases and read papers terminated the meeting.

MIDLAND BRANCH:

Nottingham Division.

A combined meeting of this Division with the Nottingham Medico-Chirurgical Society was held on Wednesday, April 6th, Mr. A. Fulton in the chair.

Diabetes Insipidus.—Dr. F. H. Jacob remarked on the mysterious pathology of diabetes insipidus, a disease in which excessive polyuria was accompanied by progressive wasting. He related one case where the only pathological lesion was cystic disease of both kidneys. In another case the patient, a lad of 19 years, used to pass from 10 to 15 pints daily of urine of a specific gravity of 1002. The urea estimate was only 0.46 per cent. In this patient, after some months, optic atrophy developed, causing blindness. This led Dr. Jacob to favour the theory that the disease was due to diminished secretion of the anterior or glandular lobe of the pituitary body, as a tumour of this lobe would cause diminished secretion, and experiments of excision of this lobe in dogs were followed by excessive polyuria.

Intestinal Obstruction.—Mr. W. M. Willis, in a short paper on some cases of intestinal obstruction, demonstrated the use of the sigmoidoscope. Of intestinal carcinomata, 80 per cent. occurred in the rectum and lower sigmoid, 15 per cent. in the rest of the large intestine, and 5 per cent. in the small intestine. These figures showed the great use of this instrument. He introduced it without an anaesthetic, and with the patient in the knee-elbow position. Great care should be taken, as perforation had occurred with this. He showed a specimen (sarcoma) of the sigmoid removed twelve months ago after the diagnosis had been made with the sigmoidoscope. Drs. Fulton, Jacob, Hogarth, Webber, Watson, and Cattle joined in the discussion.

SOUTH-EASTERN BRANCH

Brighton Division.

An ordinary meeting of this Division was held at the Dispensary, Queen's Road, Brighton, on Wednesday, March 30th, at 4.30 p.m. Mr. A. J. Martineau was in the chair, and eleven members attended the meeting.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Research Defence Society.—With regard to the election of a corresponding member for the Research Defence Society, it was decided that as there was a local branch of the Research Defence Society it was inexpedient for the Division to appoint a corresponding member.

Perforated Gastric Ulcer.—Dr. Marsh showed a patient on whom he had operated for perforated gastric ulcer.

The patient, a man 31 years of age, had been treated in the Portsmouth Infirmary for gastric ulcer from December 9th to December 25th, 1909. Afterwards he obtained employment as a labourer at the Brighton Electric Light Works at Southwick. He came as an out-patient to the dispensary on February 24th, complaining of vomiting and haematemesis, usually coming on about four or five hours after a meal, and for this he had had to

leave off work. On March 10th, after a light breakfast of cocoa and bread and butter about 8.30 a.m., he started for the dispensary, having to walk about two miles before he got into an omnibus. This was about 10 a.m., and very soon afterwards he was seized with very severe abdominal pain. After getting out of the omnibus he had to walk about half a mile to reach the dispensary. He stopped at a friend's house on the way, where he rested for a time and had some brandy. He arrived at the dispensary soon after 11 a.m. in a collapsed condition, with a rigid abdomen and his face covered with perspiration. He was admitted into the Carr-Burton Hospital attached to the dispensary, and the operation took place soon after 1 p.m. On opening the abdomen gas escaped. The stomach was drawn down, and lymph found on the anterior surface towards the right-hand side. Higher up the ulcer with the perforation could be felt, as also some enlarged glands. The right rectus was divided by a transverse incision, and the ulcer brought into view, showing mucus with altered food and blood escaping. Finally some clear yellow bile escaped. After cleaning away all that had escaped the perforation was stitched up with silk sutures and then covered in by further suturing. The rectus was united by three salmon-gut sutures, and the rest of the wound stitched up in the ordinary way, a roll of wet gauze being inserted down to the ulcer. This was removed on the following day. Constant saline infusion was kept up for some time after the operation, and healing took place without any rise of temperature.

The ulcer was supposed to be due in great part to dental caries.

Poor Law Reform.—An interim report of the Special Poor Law Reform Committee was considered, and the specific questions were answered in the affirmative.

Pathological Branch of Public Health Service.—The following resolution was passed:

> That the Brighton Division empowers its Representative to move at the annual meeting that the Central Council of the Association do seek information from the Divisions as to the need for a pathological branch of the public health service, and report on the same to the annual meeting of 1911.

SOUTH-EASTERN OF IRELAND BRANCH.

A MEETING of this Branch was held at the Adelphi Hotel, Waterford, on April 6th, at 3.30 p.m., Dr. J. W. H. JELLETT, President, in the chair. Others present were: Drs. P. J. Murphy, D. Walshe, R. B. Carey, J. W. Mackesy, R. R. O'Brien, J. M. Morrissey, J. T. White, J. Power, J. J. Hogan, J. A. Oakshott, and J. Quirke, Honorary Secretary.

Confirmation of Minutes.—The minutes of the last meeting were read and signed.

Apologies for Non-attendance.—Letters of apology were read from Drs. Walker and Laffan.

Election to Central Council.—It was proposed by Dr. POWER and seconded by Dr. WALSHE:

> That, pending further information, the resolution *re* the election of members on the Central Council passed at Carlow on March 2nd be and hereby is rescinded.

Election of Office-bearers.—It was proposed by Dr. MURPHY, and seconded by Dr. MACKESY, that Dr. Laffan be elected Representative at the Representative Meeting. It was proposed by Dr. JELLETT and seconded by Dr. CAREY, that Dr. Power be elected President-elect for the year 1910–11, and that Dr. Quirke be re-elected Honorary Secretary. It was proposed by Dr. MACKESY, and seconded by Dr. MURPHY, that Dr. Carey be re-elected Honorary Treasurer, and that he be also elected to represent the Branch on the Irish Committee; and that Dr. Jellett be nominated to succeed Dr. Power on the Branch Council.

Poor Law Medical Service.—It was proposed by Dr. WALSH, and seconded by Dr. MORRISSEY:

> That the Honorary Secretaries of Divisions summon meetings of the Poor Law medical officers of their respective Divisions to discuss the circular recently issued by the Irish Committee, and to report to next meeting.

New Member.—At a meeting the Branch Council Dr. Hamilton Macmullen was elected a member of the Branch.

Luncheon.—On the conclusion of the business of the meeting, the President entertained the members at luncheon.

SOUTH MIDLAND BRANCH:

NORTHAMPTONSHIRE DIVISION.

A MEETING of the Division was held in the Board Room of the Northampton General Hospital on Tuesday, April 5th, at 2.30, after luncheon at Franklin's Restaurant; Dr. MAGUIRE was in the chair. There were also present Drs. Oldacres, Darley, Harries-Jones, Lloyd-Evans, O'Rafferty, Beatty, C. J. Evans, Terry, Robson, Baxter, Hichens, Odgers, Wagstaffe, and Buszard, making fifteen in all.

Confirmation of Minutes.—The minutes were read and confirmed.

Questions to Parliamentary Candidates.—The HONORARY SECRETARY reported on the fact that the Committee had met and circularized the candidates for Parliament with the usual nebulous result.

Assistant Medical Officers of Health for Northampton.—The HONORARY SECRETARY also reported that the action taken over the post of assistant medical officer of health to Northampton had resulted in the salary being raised from £200 to £250, the minimum considered advisable by the Association.

Relation of Homoeopaths to the Association.—The report on the relation of homoeopaths to the Association was then discussed, and also the interim report of the Special Poor Law Reform Committee.

Northants Amateur Athletic Club.—Mr. Odgers and Dr. Robson were elected to represent the Division on the Northants Amateur Athletic Club.

Specimens and Cases.—Dr. HICHENS showed a heart from a patient who had died from infective endocarditis, and a specimen of a remarkable case of oesophageal dilatation in an achondroplasic dwarf due apparently to transposition of the oesophagus to the right side of the spine. Mr. HARRIES-JONES showed a case of tuberculosis of the conjunctiva; and Dr. ROBSON and Dr. BUSZARD showed a case of cerebral tumour, presumably of the pons Varolii.

STAFFORDSHIRE BRANCH:

SOUTH STAFFORDSHIRE DIVISION.

A MEETING of this Division was held on April 7th.

Matters Referred to Divisions.—The following matters referred to Divisions were considered: Special Class of Consultants (3); Report on Poor Law Commission (10); Relation of Homoeopaths (11). Answers to these were forwarded to the Medical Secretary. Public Medical Service (5). After consideration of this question the following resolution was passed:

> Without committing itself to any definite view with regard to public medical service, the Division emphasizes the need of safeguarding the interests of the profession, especially, *inter alia*, as to the proper wage limit in any form of contract practice.

Payment for Assisting Midwives.—In regard to the question of payment for assisting midwives the following resolution was passed:

> That the secretary send copies of Appendix B to the town clerk of Wolverhampton and the clerk to the Staffordshire Council with the following alterations: After the words "Council desires" insert "to emphasize the fact that a suitable fee should in all cases be paid to medical men called in by midwives in all cases of difficulty, and to", and that "the payment" should read "this payment", and that the words "of medical . . . midwives" be omitted.

ANNUAL SUBSCRIPTION, 1910.

MEMBERS are reminded that the Annual Subscription, amounting to 25s., is now due.

Cheques or Postal Orders should be made payable to the British Medical Association, and crossed London County and Westminster Branch.

In the case of Colonial Members the subscription should be paid to the Honorary Treasurer of their respective Branches.

☞ *To ensure the insertion of notices in this column, they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

Association Notices.

ANNUAL REPRESENTATIVE MEETING, 1910.

DATE OF MEETING.

THE Annual Representative Meeting of the Association, 1910, will be held in the Court of Common Council Chamber, Guildhall, London, on Friday, July 22nd, 1910, and following days as may be required.

NOTICES OF MOTION: LAST DAY FOR RECEPTION.

ATTENTION is drawn to the fact that Notices of Motion from Divisions and Branches for the consideration of the Annual Representative Meeting in London in July, relating either to the alteration of the By-laws (Article XLVII), or to questions affecting the honour and interests of the profession (Article XXXI), must be published in the BRITISH MEDICAL JOURNAL not later than the issue of April 23rd, 1910, and for this purpose should be received by the Medical Secretary not later than Monday, April 18th.

By Order,
J. SMITH WHITAKER,
Medical Secretary.

COUNCIL MEETING.

A MEETING of the Council will be held at 2 o'clock in the afternoon of Wednesday, April 27th, in the Council Room at 429, Strand, London, W.C.

By Order,
GUY ELLISTON.
Financial Secretary and Business Manager.
March 24th, 1909.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BIRMINGHAM BRANCH: CENTRAL DIVISION.—A general meeting of the Division will be held at 3.30 p.m. on Wednesday, April 20th, at the Medical Institute. Business: To elect a representative on the Branch Council. To consider the Interim Report of the Poor Law Reform Committee. To consider the Council's report, "On the Relation of Homoeopaths to the Association." To consider the Memorandum from the Territorial Forces Committee, "Instruction in First Aid and Field Nursing to Voluntary Aid Detachments," etc.—A. W. NUTHALL, W. T. LYDALL, Honorary Secretaries.

BORDER COUNTIES BRANCH.—The spring meeting of this Branch will be held at Penrith at an early date. Members desirous of reading papers, showing cases or specimens, etc., are requested to communicate with the Secretary forthwith.—GEORGE R. LIVINGSTON, Honorary Secretary.

DORSET AND WEST HANTS BRANCH.—The spring meeting of this Branch will be held in the Hotel Mont Doré, Bournemouth, on Wednesday, May 11th. Members wishing to read papers, show cases, or exhibit specimens, should communicate with the Honorary Secretary not later than Thursday, April 28th.—JAMES DAVISON, Honorary Secretary, "Streateplace," Bournemouth.

GLOUCESTERSHIRE BRANCH.—A general meeting of the Branch will be held at the General Hospital, Cheltenham, on Thursday, April 21st, 1910, at 7 p.m. There will be a supper afterwards at The Cosy Corner, Promenade (tickets 3s. 6d. each, exclusive of wine).—D. E. FINLAY, Honorary Secretary, Gloucester.

LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—A general meeting of the Division will be held at the Greenbank Hotel, Northwich, on Wednesday, April 20th, at 5 p.m. Business: (1) A discussion will be held on the position of the general practitioner under the schemes in the Reports of the Royal Commission on the Reform of the Poor Laws. Dr. J. H. Taylor, of Salford, has promised to attend and take part in the discussion. (2) Consideration of Ethical Committee's Report on Homoeopathy (SUPPLEMENT, February 12th). (3) Question of instruction in first aid and field nursing to voluntary aid detachments. (4) Alteration in election of Central Council. (5) Medical treatment of school children. (N.B.—Trains leave Hale 4.6, 4.48, 5.18; return from Northwich 6.18, 7.10, 8.45.) Dinner will be arranged at 7 p.m., if members wish it, but the Honorary Secretary must have definite replies not later than Monday, April 18th.—H. G. COOPER, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: WARRINGTON DIVISION.—The annual meeting of the Division will be held at the Infirmary, Warrington, on Tuesday, May 3rd, at 4 p.m. Agenda: To elect officers, the representative on Branch Council, and the ordinary members of the Executive Committee, etc.—T. A. MURRAY, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—The next meeting of the Division will take place conjointly with the Walthamstow Division at Walthamstow Hospital on April 21st, when Sir Victor Horsley will deliver an address.—A. G. SOUTHCOMBE, M.D., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: RICHMOND DIVISION.—The next meeting of this Division will be held at the Royal Hospital, Richmond, on Wednesday, April 27th, at 8 30 p.m., *not on Friday, April 29th, as announced in the Calendar of April 2nd.* The annual meeting will be held on May 25th.—G. CARDNO STILL, M.B., Honorary Secretary, 1, St. Stephen's Gardens, Twickenham.

METROPOLITAN COUNTIES BRANCH: WALTHAMSTOW DIVISION.—The next meeting of this Division (conjoint with the City Division) will be held on Thursday, April 21st, at 4 p.m., at the Walthamstow Hospital. Agenda: (1) Minutes. (2) Letters. (3) Paper by Sir Victor Horsley: "The Causes and Treatment of Pressure within the Skull" (an abstract of this paper will be forwarded to members prior to the meeting). (4) Any other business. Visitors are invited.—A. POTTINGER ELDRED, Honorary Secretary.

MIDLAND BRANCH: LEICESTER AND RUTLAND DIVISION.—A meeting of the Division will be held at Loughborough, on Wednesday, April 20th, at 4 p.m., at 20, Woodgate, the house of Dr. Reginald Paul, who has kindly offered his hospitality to the members of the Division. Agenda: Minutes of previous meeting. Nomination of two representatives to serve on the Board of Governors of the Leicester Infirmary. Nomination of a candidate for election to the Central Council of the Association. Paper (with lantern slides) on "Some Problems of Mammary Disease," by Mr. W. Sampson Handley, M.S., F.R.C.S., Hunterian Professor of Surgery and Pathology in the Royal College of Surgeons. Any other business.—WILFRED E. GIBBONS, Honorary Secretary.

NORTHERN COUNTIES OF SCOTLAND BRANCH.—A general meeting of the Branch will be held at the Northern Infirmary, Inverness, on Saturday, April 30th, at 3 p.m. Business: (1) Consideration of Interim Report of Poor Law Reform Committee (BRITISH MEDICAL JOURNAL, SUPPLEMENT, February 12th); (2) Relation of Homoeopaths to the Association; (3) Medical Inspection and treatment of School Children. (4) Election to Central Council; (5) Election of Representative in Representative Meeting; (6) Clinical Cases and Specimens. (7) Any other business.—J. MUNRO MOIR, M.D., Honorary Secretary.

STAFFORDSHIRE BRANCH.—The third general meeting of the session will be held at the Victoria Hotel, Wolverhampton, on Thursday, April 28th. The President, Dr. W. G. Lowe, will take the chair at 5.35 p.m. Business: (1) Minutes of the last general meeting. (2) Correspondence. (3) Exhibition of Living Cases. (4) Paper:—Dr. H. C. Mactier: Infant Feeding. (5) Paper:—Dr. Frederick Edge: The Uterus in Hysterectomy. (6) Exhibition of Pathological Specimens, etc. Dinner 7 p.m., charge 5s.—G. PETGRAVE JOHNSON, Honorary General Secretary.

ULSTER BRANCH.—The spring meeting will be held in Londonderry, on Saturday, April 30th. Members having communications to make to the meeting are requested to send particulars not later than April 20th to CECIL E. SHAW, Honorary Secretary, 29, University Square, Belfast.

BRITISH MEDICAL ASSOCIATION LIBRARY.

BOOKS NEEDED TO COMPLETE SERIES.

THE Librarian will be glad to receive any of the following volumes, which are needed to complete series in the Library:

American Climatological Transactions. Vols. 1, 4, 5, 6.
——— Dermatological Association Transactions. Vols. 5, 7, 8, 11, and 29.
——— Journal of the Medical Sciences. New series, vols. 4, 5, 1842–3; vols. 14, 15, 1847–8; vols. 18–30, 1850; vol. 33, 1857; vol. 46, 1864–5; vol. 59; or any parts of these vols.
——— Journal of Ophthalmology. Vols. 1–9.
——— Laryngological Association. Transactions. Vols. 1–6, 8–9.
——— Medical Association. Transactions, 2, 4, 6, 7, 11, 12, 14, 15, 16, 19, 20, 22, 31, after vol. 33, and the *Journal*.
——— Otological Society. Transactions. Vol. 3, part 2, 1883.
——— Public Health Association. Transactions. Any vols.
Analyst. Vols. 1–24.
Archiv für Dermatologie und Syphilis. 1892 and 1893.
Annals of Surgery. Vols. 14, 26, 27.
Archives Générales de Médecine. Third new series 7–8 (1839–40); 4th series, 10–17, 20–25, 1852–55, 1858–64, 1872–1897; 1846–55 inclusive; 1857–64 inclusive; 1871.
——— of Ophthalmology. Vols. 1–3, 6, 7, 14, 15, 16 and 20.
——— of Otology. Vols. 1–7, and 20–22.
——— de Parasitologie. Vols. 1–8.
——— of Pediatrics. Vols. 1–11.
Asylum Journal of Mental Science. Vol. 1, 1854.
Bentley and Trimen. Atlas of Medicinal Plants.
British Journal of Dermatology. Vol. 2, part 3.
British Laryngological and Rhinological Association, 1896–7–8–9, 1900–01–02, and since 1903.
Caledonian Medical Journal. Vol. 1 prior to 1894.
Carmichael Essays. Rivington, 1879.
Centralblatt für Augenheilkunde. Hirschberg. All prior to 1891; Index to 1891.
Centralblatt für Bakteriologie. Bound volumes prior to 1899.
——— für medicinischen Wissenschaften. Vols. 1–19.
Congrès Français de Chirurgie. Transactions 1, 2, 3, 6, and 10, and all since 11th.
——— Internat. d'Obstétrique et de Gynécologie. 3. Amsterdam, 1899.
Congress für Innere Medicin, Verhandlungen. 1–12, 14, and since 18.
Dermatological Congress. Vienna, 1892.
Dublin Quarterly Journal of the Medical Sciences. Vols. 1, 10, 17, 20, 28, and 35–40.
Edinburgh Obstetrical Transactions. Vol. 5.
Glasgow Medical Journal. 1833–1868.
——— Pathological Society. Transactions 1 and 2.
Guy's Hospital Gazette. Nos. 1 and 5. 1872.
Indian Medical Gazette. 1868–1884.
International Congress of School Hygiene. Transactions of First Congress, Nuremberg.
International Congress of Hygiene. Transactions of Congresses 1–6 and 10–12.
——— Ophthalmological Congress. Transactions of Fifth; New York, 1876.
Johns Hopkins Hospital Bulletin. Vols. 1 to 10.
Journal of Laryngology. Vols. 1 to 9.
New York State Journal of Medicine, 1906.
Ophthalmic Review. January, 1882.
Pediatrics, prior to 1902.
Provincial Medical and Surgical Journal. March to September, 1841, and May 11th, 1852.
Recueil d'ophtalmologie, prior to 1893.
Revue générale d'ophtalmalogie, prior to 1893.
St. Bartholomew's Hospital Gazette. Vols. 1-6.
St. George's Hospital Gazette. Vols. 1-7.
St. Mary's Hospital Gazette. Vols. 1-5.
Sei-i-kwai Medical Journal. Vols. 1-11.
Semaine Médicale, prior to 1884. Titles for 1884 and 1892.
South African Medical Journal. February, April, 1895. Titles, Vols. 3 and 4.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

SURGEON H. W. W. TOWNSEND has been allowed to withdraw from the service with a gratuity, April 6th. He was appointed Surgeon, November 29th, 1897.

Surgeon F. COCK has been appointed to the *Pembroke*, additional, for disposal, April 5th, and to the *Hearty*, on recommissioning, April 19th.

ARMY MEDICAL SERVICE.

SURGEON-GENERAL J. C. DORMAN, C.M.G., M.B., is appointed an Honorary Physician to the King, vice Surgeon-General Sir A. KEOGH, K.C.B., M.D., retired, March 6th.

ROYAL ARMY MEDICAL CORPS.

Captain A. J. W. WELLS retires, receiving a gratuity, April 13th. Appointed Lieutenant, January 29th, 1901, he became Captain, January 29th, 1904. He served in the South African war in 1901–2, being present in operations in the Transvaal and Cape Colony, and receiving the Queen's medal with four clasps.

Lieutenant F. L BRADISH is promoted to be Captain, January 30th. His commission as Lieutenant bears date July 30th, 1906.

Major J. G. MCNAUGHT, M.D., having attained the standard required by paragraph 15 of the regulations relating to the study of foreign languages, 1909, is qualified to be an interpreter in Cape Dutch. He was already qualified as an interpreter in French.

Lieutenant-Colonel E. J. E. RISK, from Bloemfontein, has been appointed Administrative Medical Officer at Belfast.

The undermentioned officers, who are serving in India, have been appointed specialists in the subjects named: Captain P. DWYER, M.B., Brigade Laboratory, Aden, Prevention of Disease; Captain E. T. INKSON, V.C., 9th (Secunderabad) Division, Dermatology; Captain F. J. PALMER, 7th (Meerut) Division, Advanced Operative Surgery; Major S. A. ARCHER, 3rd (Lahore) Division, Ophthalmology; Captain M. C. WETHERELL, M.D., 7th (Meerut) Division, Electrical Science; Major G. B. RIDDICK, Burmah Division, Electrical Science; Captain L. M. PURSER, M.B., 2nd (Rawal Pindi) Division, Otology and Rhinology; Major M. M. LOWSLEY, 3rd (Lahore) Division, Midwifery and Diseases of Women and Children.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL G. F. A. HARRIS. M.D., Bengal, is promoted to be Colonel, from March 1st. He was appointed Surgeon September 30th, 1878, and made Lieutenant-Colonel September 30th, 1898. He was in the Afghan war in 1880, receiving a medal.

Colonel R. MACRAE, M.B., Bengal, is permitted to retire from the service from March 1st. He joined the department as an Assistant Surgeon, March 31st, 1875, and became Colonel February 12th, 1905. He served in the Afghan war in 1878–80, and was present in the operations in the Koorum Valley, in the Jugdulluck Pass, in the expedition to Sherpore in 1879, and in the operations in the Logar and Maidan Valleys (medal with clasp).

Captain C. A. F. HINGSTON is appointed to act as Personal Assistant to the Surgeon-General with the Government of Madras.

SPECIAL RESERVE OF OFFICERS.

ROYAL ARMY MEDICAL CORPS.

CHARLES M. PAGE, M.B., to be Lieutenant (on probation), March 14th.

TERRITORIAL FORCE.

YEOMANRY.

Westmorland and Cumberland.—Surgeon-Major J. E. BOWSER, M.B., resigns his commission, retaining his rank and uniform, February 22nd

INFANTRY.

Seventh Battalion the Manchester Regiment.—Surgeon-Lieutenant (Captain and Honorary Major, Volunteers) J. C. NICHOL, M.D., resigns his commission, January 31st; he retains his rank and uniform.

ROYAL ARMY MEDICAL CORPS.

First South-Western Mounted Brigade Field Ambulance.—ROBERT P. BEATTY, M.D., to be Lieutenant, February 15th.

First West Riding Field Ambulance.—Lieutenant A. B. S. STEWART to be Captain. February 15th.

Second London (City of London) General Hospital.—HUGH M. RIGBY, M.B., F.R.C.S.Eng., to be Captain, whose services will be available on mobilization, March 19th.

For Attachment to Units other than Medical Units.—JAMES L. JOYCE to be Lieutenant, January 5th; JAMES M. KIRKNESS, M.B., to be Lieutenant, February 1st; STANLEY F. LINTON, M.B., to be Lieutenant, February 9th; FREDERICK W. SYDENHAM, M.D., F.R.C.S.Edin., to be Lieutenant, February 11th.

Attached to Units other than Medical Units.—Lieutenant DAVID WESTWOOD, M.B., to be Captain, January 28th; Captain ALEXANDER ROXBURGH, M.D., resigns his commission, February 22nd.

Vital Statistics.

VITAL STATISTICS OF LONDON DURING THE FIRST QUARTER OF 1910

IN the accompanying table will be found summarized the vital statistics of the City of London and of the metropolitan boroughs, based upon the Registrar-General's returns for the first quarter of the year. The mortality figures in the table relate to the deaths of persons actually belonging to the various boroughs, and are obtained by distributing the deaths in institutions among the several boroughs in which the deceased persons had previously resided The 29,719 births registered in London during the three months under notice were equal to an annual rate of 24.5 per 1,000 of the population, estimated at 4,872,702 persons in the middle of the year: in the first quarter of the three preceding years the rates were 26.7, 26.9, and 29.3 per 1,000 respectively, the average rate in the corresponding period of the ten years 1900–9 being 28 9 per 1,000. The birth-rates last quarter ranged from 13 3 in Hampstead, 15.1 in the City of Westminster, 15.2 in the City of London, 16 2 in Kensington, 16.3 in Chelsea, and 17 9 in Stoke Newington to 30 8 in Shoreditch, 31.9 in Stepney, 32.3 in Bethnal Green, 33.6 in Bermondsey, 34.4 in St. Marylebone, and 37.7 in Finsbury.

During last quarter the deaths of 17,327 London residents were registered, equal to an annual rate of 14 3 per 1,000, against 18 5, 17.0, and 19.0 per 1,000 in the corresponding quarter of the three preceding years; the average rate in the first quarter of the ten years 1900–9 was 18.4 per 1,000. Among the several boroughs the crude death-rates last quarter ranged from 10 0 in Hampstead, 11.2 in Lewisham, 11.5 in Fulham and in Wandsworth, 12.4 in Woolwich and 12.6 in Battersea to 17.1 in Bermondsey, 17.3 in Bethnal Green, 17.4 in Holborn and in Southwark, 18.1 in Shoreditch, 18.3 in the City of London, and 19.3 in Finsbury.

The 17,327 deaths from all causes last quarter included 1,209 which were referred to the principal infectious diseases; of these, 247 resulted from measles, 73 from scarlet fever, 126 from diphtheria, 589 from whooping-cough, 35 from enteric fever, 2 from ill-defined pyrexia,

Analysis of the Vital Statistics of the Metropolitan Boroughs and of the City of London after Distribution of Deaths occurring in Public Institutions during the First Quarter of 1910.

Boroughs.	Estimated Population middle of 1910.	Births.	Deaths.	Annual Rate per 1,000 Living.			Deaths from Principal Infectious Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric Fever.	Ill-defined Pyrexia.	Diarrhoea.	Phthisis.	Deaths of Children Under 1 Year of Age to 1,000 Births.
				Births.	Deaths.	Principal Infectious Diseases.												
COUNTY OF LONDON ...	4,872,702	29.719	17,327	24.5	14.3	0.98	1,209	—	247	73	126	589	—	35	2	137	1,557	101
Paddington	153,004	746	513	19.6	13.4	1.42	54	—	24	3	5	14	—	3	—	5	36	102
Kensington	184,635	745	597	16.2	13.0	0.53	24	—	6	1	3	6	—	3	—	5	44	107
Hammersmith ...	127,413	751	431	23.6	13.6	1.23	39	—	25	2	4	3	—	—	—	5	36	105
Fulham	181,282	1,096	520	24.3	11.5	1.26	57	—	11	3	7	27	—	1	—	8	35	92
Chelsea	75,457	307	279	16.3	14.8	0.80	15	—	10	—	—	1	—	2	—	2	30	98
City of Westminster	167.233	628	549	15.1	13.2	0.32	14	—	3	1	1	3	—	—	—	6	63	104
St. Marylebone ...	125,195	1,073	483	34.4	15.5	1.15	36	—	3	2	2	25	—	1	—	3	38	82
Hampstead	95,729	317	239	13.3	10.0	0.42	10	—	10	—	—	—	—	—	—	—	18	73
St. Pancras	237,792	1,344	863	22.7	14.6	0.74	44	—	3	4	5	25	—	—	—	7	86	94
Islington	353.356	2,072	1,240	23.5	14.1	0.98	87	—	1	5	9	60	—	2	1	9	101	106
Stoke Newington ...	54,838	245	182	17.9	13.3	0.29	4	—	—	—	—	1	—	1	—	2	9	57
Hackney	239,979	1,417	841	23.7	14.1	0.99	59	—	19	3	2	31	—	—	—	4	71	100
Holborn	53,142	360	230	27.2	17.4	0.91	12	—	—	—	2	6	—	1	—	3	36	67
Finsbury	94,578	888	454	37.7	19.3	0.96	23	—	1	2	6	10	—	—	—	4	42	95
City of London ...	17,132	65	78	15.2	18.3	0.23	1	—	—	—	—	1	—	—	—	—	7	31
Shoreditch	114,387	877	516	30.8	18.1	1.62	46	—	15	2	6	15	—	—	—	8	67	116
Bethnal Green ...	131,579	1,059	568	32.3	17.3	1.25	41	—	13	1	5	15	—	1	—	6	52	130
Stepney	314,379	2.499	1,229	31.9	15.7	1.54	121	—	18	4	12	72	—	3	—	12	125	105
Poplar	172,432	1,281	700	29.8	16.3	1.73	74	—	11	—	8	43	—	4	—	8	69	120
Southwark	211,832	1,401	917	26.5	17.4	0.99	52	—	9	4	5	23	—	2	—	9	107	116
Bermondsey	127,238	1,067	542	33.6	17.1	0.85	27	—	3	3	7	10	—	—	—	4	60	111
Lambeth	327,074	2,098	1,146	25.7	14.1	0.56	46	—	2	10	8	19	—	4	—	3	94	77
Battersea	188,222	1,092	592	23.3	12.6	0.99	47	—	17	2	3	17	—	1	1	6	48	110
Wandsworth	305,838	1,688	880	22.1	11.5	0.70	53	—	4	6	4	34	—	2	—	3	68	93
Camberwell	286,058	1,630	955	22.9	13.4	0.72	52	—	6	3	6	28	—	2	—	7	85	99
Deptford	119 642	732	493	24.5	16.5	1.89	56	—	16	2	2	36	—	—	—	—	40	133
Greenwich	112,935	625	409	22.2	14.5	2.36	66	—	14	1	4	43	—	1	—	3	33	128
Lewisham	164,899	883	462	21.5	11.2	0.64	27	—	3	3	7	10	—	1	—	3	22	86
Woolwich	135,422	733	419	21.7	12.4	0.66	22	—	—	6	3	11	—	—	—	2	35	91

and 137 from diarrhoea, but not any from small-pox or from typhus. These 1,209 deaths were equal to an annual rate of 0.98 per 1,000, or 0 61 per 1,000 less than the average rate in the corresponding period of the ten preceding years. The lowest death-rates from these diseases last quarter were 0 23 in the City of London, 0.29 in Stoke Newington, 0.32 in the City of Westminster, 0.42 in Hampstead, 0.53 in Kensington, and 0.86 in Lambeth; the highest rates were 1.42 in Paddington, 1.54 in Stepney, 1.62 in Shoreditch, 1 73 in Poplar, 1.89 in Deptford, and 2.36 in Greenwich. The greatest proportional mortality from measles was recorded in Paddington, Hammersmith, Chelsea, Shoreditch, Deptford, and Greenwich; from scarlet fever in Paddington, Holborn, Southwark, Bermondsey, Lambeth, Wandsworth, and Woolwich; from diphtheria in Finsbury, Shoreditch, Poplar, Bermondsey, and Lewisham; from whooping-cough in Fulham, St. Marylebone, Islington, Stepney, Poplar, Deptford, and Greenwich; and from diarrhoea in Fulham, Holborn, Finsbury, Shoreditch, Bethnal Green, Poplar, and Southwark. The 35 deaths from enteric fever included 4 in Poplar, 4 in Lambeth, and 3 each in Paddington, Kensington, and Stepney.

During the quarter under notice the deaths from phthisis among persons belonging to London numbered 1,557, and were equal to an annual rate of 1 28 per 1,000; the rates in the corresponding quarter of the three preceding years were 1.73, 1.56, and 1.65, and averaged 1.72 in the same quarter of the ten years, 1900–9. The death-rates from this disease ranged last quarter from 0 54 in Lewisham, 0.66 in Stoke Newington, 0.75 in Hampstead, 0.77 in Fulham, 0.89 in Wandsworth, 0.94 in Paddington, and 0.96 in Kensington, to 1.64 in the City of London, 1.78 in Finsbury, 1.89 in Bermondsey, 2.03 in Southwark, 2.35 in Shoreditch, 2.72 in Holborn.

Infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 101 per 1,000 last quarter, against 132, 110, and 112 in the corresponding period of the three preceding years, the average rate in the first quarter of the ten years, 1900–9, being 124 per 1,000. The lowest rates of infant mortality last quarter were recorded in St. Marylebone, Hampstead, Stoke Newington, Holborn, the City of London, and Lewisham; and the highest rates in Shoreditch, Bethnal Green, Poplar, Southwark, Bermondsey, Battersea, Deptford, and Greenwich.

HEALTH OF ENGLISH TOWNS.

In seventy-seven of the largest English towns, which now include the recently-extended borough of Dewsbury and the newly-created county borough of Stoke-on-Trent, 8,804 births and 4,857 deaths were registered during the week ending Saturday last, April 9th. The annual rate of mortality in the former seventy-six had been 13 5, 13 9, and 14 4 per 1,000 in the three preceding weeks; last week the rate in the seventy-seven towns was 14.9 per 1,000. The rates in the several towns ranged from 4.2 in Hornsey, 6.2 in Reading, 7 8 in Southampton, 9 2 in Walthamstow, 9.3 in Wolverhampton, and 9.4 in Leyton and in Handsworth (Staffs), to 19.4 in Great Yarmouth, 19.6 in Newport (Mon.), 19.8 in Huddersfield, 21.2 in Rotherham, 21.3 in Oldham, and 22.9 in Rhondda. The death-rate from the principal infectious diseases averaged 1.1 in the seventy-seven large towns and in London, while among the seventy-six other large towns the rates ranged upwards to 2.2 in Bootle, 2 3 in Hastings and in Rhondda, 2.5 in Oldham, 3.1 in Liverpool, and 3.3 in Merthyr Tydfil. Measles caused a death-rate of 1.2 in Liverpool and in York, 1.3 in Cardiff, 1.5 in Bootle and in Burnley, and 2.0 in Merthyr Tydfil; scarlet fever of 1.3 in Newport (Mon.) and in Merthyr Tydfil; and whooping-cough of 1.3 in West Hartlepool, 1.5 in Hastings, 1.7 in Birkenhead, 1.8 in Devonport and in King's Norton, and 2 2 in Oldham. The mortality from diphtheria and from enteric fever showed no marked excess in any of the large towns. Two fatal cases of small-pox were registered during the week, one belonging to Blackburn and one to Sheffield. The number of scarlet fever cases under treatment in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 1,713, 1,650, and 1,611 at the end of the three preceding weeks, had further declined to 1,554 at the end of the week under notice; 166 new cases were admitted during the week, against 180, 173 and 158 cases in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

During the week ending Saturday last, April 9th, 978 births and 659 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 16 9, 15.3, and 18.1, in the three preceding weeks, rose to 18 2 last week, and was 3.3 per 1,000 above the mean rate during the same period in the seventy-seven large English towns. Among these Scottish towns the death-rates ranged from 11.8 in Aberdeen and 14.5 in Edinburgh, to 29.1 in Greenock and 29.4 in Dundee. The death-rate from the principal infectious diseases averaged 3.4 per 1,000, the highest rates being recorded in Dundee and in Greenock. The 312 deaths in Glasgow included 15 which were referred to measles, 6 to scarlet fever, 6 to diphtheria, 2 to whooping-cough, 1 to typhus, and 11 to diarrhoea. Eleven fatal cases of measles were recorded in Edinburgh, 28 in Dundee, 6 in Leith, and 14 in Greenock. Three fatal cases of diphtheria were recorded in Greenock.

Hospitals and Asylums.

THE ITALIAN HOSPITAL, LONDON.

Cav. A. Martin-Franklin, Chargé d'Affaires, Italian Embassy, presided at the annual meeting of the Italian Hospital, Queen Square, on February 26th. The annual report stated that 877 in-patients and 4,401 out-patients had been treated during the year; of these, 1,800 were British subjects. The chairman, in moving the adoption of the report, said that the King of Italy had recently expressed to him his interest in the hospital, to which the Italian Government has again made its annual grant of £100. He regretted that the year's work showed a deficit of £580. General Sir J. Ramsay Slade, K.C.B., chairman of the committee, who seconded, expressed the opinion that the deficit must be explained by the fact that the hospital was so little known either to Londoners in general or to Italians resident in the metropolis. Votes of thanks to King Edward's Fund, moved by Lord Edmund Talbot, M.P., and to the Metropolitan Hospital Sunday and Saturday Funds, moved by Dr. Vincent Dickinson, were adopted.

ROYAL VICTORIA EYE AND EAR HOSPITAL, DUBLIN.

At the annual meeting of the Royal Victoria Eye and Ear Hospital the Secretary made the satisfactory announcement that the estimate of £10,000 for the out-patient building which it is proposed to erect, had proved to be excessive, and that the whole fund required for the purpose is under £9,000. Up to the present only £5,000 has been contributed, and it is hoped that

the further sum necessary will soon be subscribed. An average of 131 out-patients were seen daily at the hospital during the past year.

SOUTH WIMBLEDON, MERTON, AND DISTRICT COTTAGE HOSPITAL.

THE annual report of this institution, recently issued, states that the total number of patients under treatment during 1909 was 259, compared with 237 in the previous year. The number of deaths was 9; accident and other cases receiving first aid numbered 100; the number of operations performed under anaesthetics was 177. There was a decrease of 2s. 6¾d. in the average cost of each in-patient per week, and of 4s. 9d. in the average total cost of each in-patient. Grants were received from the Metropolitan Hospital Sunday Fund and the Hospital Saturday Fund of £53 10s. and £32 respectively. The statement of accounts showed that the income amounted to £640 16s. 4d., and the expenditure to £654 11s. 10d., leaving a debit balance of £13 15s. 6d.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

BANBURY: HORTON INFIRMARY.—House-Surgeon. Salary, £80 per annum.

BELGRAVE HOSPITAL FOR CHILDREN, Clapham Road, S.W.—Assistant Surgeon.

BOLINGBROKE HOSPITAL, Wandsworth.—Two House-Surgeons. Salary at the rate of £75 per annum.

BURY INFIRMARY.—(1) Senior House-Surgeon. Salary, £110 per annum. (2) Junior House-Surgeon. Salary, £80 per annum, rising to £90.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—House-Surgeon. Salary, £80 per annum

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—Clinical Assistant.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—(1) Clinical Assistant. (2) House-Physician (male); salary at the rate of £75 per annum.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Assistant Resident Medical Officer. Salary at the rate of £50 per annum.

DOUGLAS: NOBLE'S ISLE OF MAN GENERAL HOSPITAL AND DISPENSARY.—Resident House-Surgeon. Salary, £90 per annum.

HEMEL HEMPSTEAD: WEST HERTS HOSPITAL.—House-Surgeon. Salary, £100 per annum.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—House-Physician. Honorarium, 30 guineas for six months.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—(1) Casualty Medical Officer. Salary, £200 per annum. (2) House-Surgeon. Salary, £30 for six montks, and £2 10s. washing allowance.

KENT: HOME FOR LITTLE BOYS, Farningham and Swanley. Medical Officer. Salary, £100 per annum.

LEEDS GENERAL INFIRMARY.—Clinical Pathologist. Salary, £300 per annum.

LEICESTER INFIRMARY.—House-Physician. Salary at the rate of £100 per annum.

LEICESTER POOR-LAW INFIRMARY.—Resident Second Assistant Medical Officer. Salary, £120 per annum.

LONDON LOCK HOSPITAL.—Surgeon to Out-patients.

MANCHESTER ROYAL INFIRMARY.—Honorary Assistant Surgeon.

MIDDLESBROUGH: NORTH RIDING INFIRMARY.—Assistant House-Surgeon. Salary, £75 per annum.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Hampstead.—House-Physician. Salary, £75 per annum.

NATIONAL DENTAL HOSPITAL, Great Portland Street, W.—Assistant Dental Surgeon.

NEWCASTLE-ON-TYNE DISPENSARY.—Visiting Medical Attendant. Salary, £160 for first year, rising to £180.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—Assistant House-Surgeon. Honorarium £20 for six months.

OLDHAM GENERAL INFIRMARY.—(1) Senior House-Surgeon. (2) Second House-Surgeon. (3) Third House-Surgeon. Salary, £120, £100, and £80 per annum respectively.

PADDINGTON GREEN CHILDREN'S HOSPITAL, W.—(1) House-Physician. (2) House-Surgeon. Salary at the rate of 50 guineas per annum each.

PRINCE OF WALES'S GENERAL HOSPITAL, Tottenham, N.—(1) House-Surgeon. (2) House-Physician. (3) Junior House-Surgeon. (4) Junior House-Physician. Salary at the rate of £75 per annum for (1) and (2) and £40 per annum for (3) and (4).

QUEEN CHARLOTTE LYING-IN HOSPITAL, Marylebone Road, N.W.—Assistant Resident Medical Officer, to proceed to appointment of Senior Resident after four months. Salary at the rate of £50 and £60 per annum respectively.

READING: ROYAL BERKSHIRE HOSPITAL.—(1) House-Surgeon. (2) Second House-Surgeon. Salary at the rate of £80 and £60 per annum respectively.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House-Surgeon. Salary, £80 per annum.

ROYAL LONDON OPHTHALMIC HOSPITAL, City Road, E.C.—Bacteriologist. Salary, £120 per annum.

RUTLAND COUNTY COUNCIL.—County Medical Officer of Health and County School Medical Officer. Salary, £400 per annum.

SHEFFIELD ROYAL HOSPITAL.—Assistant House-Physician. Salary, £50.

SOUTHWARK UNION INFIRMARY.—Assistant (male) Medical Officer. Salary, £100 per annum.

TAUNTON AND SOMERSET HOSPITAL.—Resident Assistant House-Surgeon. Salary at the rate of £50 per annum.

TRANSVAAL GOVERNMENT LABORATORIES.—Assistant Bacteriologist. Salary, £400 per annum, rising to £500.

TUNBRIDGE WELLS GENERAL HOSPITAL.—Junior Resident Medical Officer (male). Salary, £80 per annum.

WALSALL AND DISTRICT HOSPITAL.—Junior House-Surgeon. Salary, £80 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary, £80 per annum.

YORK DISPENSARY.—Resident Medical Officer. Salary, £130 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announcies vacancies at Ballindalloch, co. Banff; Carnmoney, co. Antrim; Harris, co. Inverness; Navan, co. Meath; Limavady, co. Londonderry; Wintney, co. Oxford; Insch, co. Aberdeen; Tarbert, co. Argyll, Lisdoonvarna, co. Clare.

APPOINTMENTS.

ALLEN, Jas. D. C., M.B., C.M.Edin., Honorary Anaesthetist to the Derbyshire Royal Infirmary.

BRAITHWAITE, L. R., F.R.C.S., Third Assistant Surgeon, Leeds General Infirmary.

BURKE, P. T., M.D., M.Ch.R U.I., Certifying Factory Surgeon for the Skibbereen District, co. Cork.

CLARK, H. A., M B., C.M.Edin., Certifying Factory Surgeon for the Snaith District, West Riding of Yorks.

COUPLAND, J. A., F.R.C.S., Fourth Assistant Surgeon, Leeds General Infirmary.

FEARNLEY, J., M.R.C.S., L.R.C.P., Assistant Medical Officer, Stepney Union Workhouse.

GRANT, J. A. S., M.B., Ch.B.Aberd., Certifying Factory Surgeon for the Montrose District, co. Forfar.

HANDFIELD-JONES, R., M.D., M.R.C.S., L.R.C.P., L S.A., Honorary Physician to the Warneford, Leamington, and South Warwickshire Hospital.

HARKNESS, R. C., M.B , Ch.B.Edin., House-Physician, Manchester Royal Infirmary.

HAYES, G. Constable, F.R.C.S., Surgeon in Charge of Ophthalmic Out-patients, Leeds General Infirmary.

HAYNES, H. G. L , M.R.C.S., L.R.C.P., Certifying Factory Surgeon for the Markfield District, co. Leicester.

KING, Jas. W., M.B., B.S.Durham, Honorary Anaesthetist to the Derbyshire Royal Infirmary.

MACFETRIDGE, W. C., M.D.Dub., First Assistant Medical Officer, Bermondsey Parish Infirmary.

MAWBY, F. W., L S.A., District Medical Officer of the Ely Union.

MORT, Spencer, M.B., Ch.B.Glas., Medical Superintendent of the Edmonton Infirmary.

NEWHAM, H. Basil, M.R.C.S.Eng., L.R C.P.Lond., D.P H.Camb., D.T.M. and H.Camb., Director of the London School of Tropical Medicine.

OLLERENSHAW, Robert, M.D Vict., F.R.C.S.Eng., Medical Officer of the Central Branch, Manchester Royal Infirmary.

ORR, Thomas, M.D., Medical Officer of Health, Shrewsbury Town Council.

PRICE, Alfred R., M B., Ch.B.Edin., House-Physician to the General Hospital, Birmingham.

RAMSBOTTOM, J., M.B., Ch.B.Vict., House-Physician, Manchester Royal Infirmary.

TOMKYS, L. S., M R.C.S., L.R.C.P., Certifying Factory Surgeon for the Lichfield District, co. Stafford.

EDINBURGH ROYAL INFIRMARY.—The following appointments have been made:

Clinical Tutor to Mr. Miles: James Lochhead, M.D Edin., B.Sc.

Resident Physician: R. W. L. Todd, M.B., Ch.B., B.Sc., to Dr. Russell.

Resident Surgeons: M. A. Lindsay, M.B., Ch.B., to Professor Caird; J. D. Bowie, M.B., Ch.B., J. C. Drysdale, M.B., Ch.B., and W. L. Owen-Taylor, M.B., Ch.B., to Mr. Wade (Surgical Out-patient Department).

Clinical Assistants: A. H. Elmslie, M.B., Ch.B., to Professor Greenfield; Thomas Welsh, M.B , Ch.B., to Dr. Russell; G. A. Davies, M.D., and Thomas H. Balfour, M.B., Ch.B., to Dr. Logan Turner; and A. Pirie Watson, M.A., M.B., Ch.B., to Mr. Wade (Surgical Out-patient Department).

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

ALPIN.—On March 21st, at White Hall, Abridge, Essex, the wife of Lieutenant-Colonel W. Alpin, I.M.S. (retired), of a son.

CUNNINGHAM.—On March 29th, at 29, Sussex Place, Regent's Park, the wife of J. F. Cunningham, F.R.C.S., of a son.

MARRIAGE.

CROSS—COND.—On Saturday, April 9th, at St. Anne's Church, Moseley, Birmingham, by Rev. Charles E. Hopton, M.A., Arthur James Cross, M B., C.M.Edin., of Dalton-in-Furness, to Katherine May Cond, of 134, Salisbury Road, Moseley.

RECENT PUBLICATIONS.

The Social Calendar, 1910. Edited by Mrs. Hugh Adams and Edith A. Browne. London: Adam and Charles Black. (Cr. 8vo, pp. 129. 2s. 6d.)

To those persons of either sex who, when they read a newspaper announcement of some future event in which they would like to take part, are not sufficiently methodical always to follow Captain Cuttle's advice, "When found, make a note of," the handbook edited by Mrs. Hugh Adams and Edith A. Browne will be useful. It is written rather from the point of view of the Londoner, but gives particulars of a good many other engagements, such as the Northern Meeting and the Dublin Horse Show.

DIARY FOR THE WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, W., 8.30 p.m.—Discussion:—Inheritance in Haemophilia, to be opened by Dr. W. Bulloch and Dr. Paul Fildes.

ROYAL COLLEGE OF SURGEONS, Lincoln's Inn Fields, 5 p.m.—Professor Shattock: Demonstration of Specimens illustrating Carcinoma.

WEDNESDAY.

ROYAL SOCIETY OF MEDICINE:

BALNEOLOGICAL AND CLIMATOLOGICAL SECTION, 15, Cavendish Square, W., 5.30 p.m.—(1) Adjourned discussion on Arthritis Deformans, to be reopened by Dr. A. E. Garrod. (2) Paper:—Dr. Leigh Canney (Assouan): The Climate of Egypt and North Africa in Relation to the Treatment of Disease.

THURSDAY.

ROYAL SOCIETY OF MEDICINE:

DERMATOLOGICAL SECTION, 11, Chandos Street, W., 5 p.m.—Cases and Specimens.

FRIDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Oliver-Sharpey Lecture by Dr. F. W. Mott, F.R.S.: The Cerebro-spinal Fluid.

ROYAL COLLEGE OF SURGEONS, Lincoln's Inn Fields, 5 p.m.—Professor Keith: Demonstrations of Specimens illustrating Malformations and Cysts of the Ovaries and Female Appendages.

ROYAL SOCIETY OF MEDICINE:

SECTION OF DISEASES OF CHILDREN, 11, Chandos Street, W., 4.30 p.m.—(1) Cases and Specimens. (2) Paper:—Dr. F. Langmead: On 80 Consecutive Cases of Wasting Infants Fed on Undiluted Citrated Milk.

EPIDEMIOLOGICAL SECTION, 15, Cavendish Square, W., 8.30 p.m.—Paper:—Dr. Sheridan Delépine: Contribution to the Study of the Influences Determining the Prevalence of Bovine Tuberculous Mastitis.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Lectures: Tuesday, 3.45 p.m.: Accessory Sinuses. Friday, 3.45 p.m.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Wednesday, 4 p.m.—Intrathoracic Growths.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat at noon and 4 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Thursday, and noon, Friday; Eye, 11 a.m., Wednesday and Saturday; Radiography, 4 p.m., Thursday. Special Lectures: Monday, 3.15 p.m., Treatment of Cardiac Dilatation; Thursday, 3.15 p.m., Treatment of Tuberculous Glands.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Medical; Friday, Eye. Lectures at 5.15 p.m. each day will be given as follows: Monday, Mind Blindness; Tuesday, Modern Treatment of Hay Fever; Wednesday, Neurasthenia and Psychasthenia; Thursday, Diagnosis and Indications for Operation in Suppurative Disease of the Labyrinth.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
APRIL.	
17 Sunday ..	
18 MONDAY ..	
19 TUESDAY ..	
20 WEDNESDAY	LONDON: Organization Committee, 11 a.m. LONDON: Journal and Finance Committee, 2.30 p.m. ALTRINCHAM DIVISION, *Lancashire and Cheshire Branch*, General Meeting, Greenbank Hotel, Northwich, 5 p.m. CENTRAL DIVISION, *Birmingham Branch*, Medical Institute, 3.30 p.m. LEICESTER AND RUTLAND DIVISION, *Midland Branch*, 20, Woodgate, Loughborough, 4 p.m.
21 THURSDAY ..	CITY DIVISION, *Metropolitan Counties Branch*, Conjoint Meeting with Walthamstow Division, Walthamstow Hospital. GLOUCESTERSHIRE BRANCH, General Meeting, General Hospital, Cheltenham, 7 p.m.; Supper, Cosy Corner, Promenade, afterwards. LONDON: Metropolitan Counties Branch Council, 4.30 p.m.
22 FRIDAY ..	
23 SATURDAY ..	
24 Sunday ..	
25 MONDAY ..	
26 TUESDAY ..	
27 WEDNESDAY	LONDON: Stewart Prize Subcommittee, 12 noon. **London: Central Council, 2 p.m.** BATH AND BRISTOL BRANCH, Bath. RICHMOND DIVISION, *Metropolitan Counties Branch*, Clinical Meeting, Royal Hospital, Richmond, 8.30 p.m., *(not 29th as previously announced).*

Date.	Meetings to be Held.
APRIL *(continued).*	
28 THURSDAY ..	STAFFORDSHIRE BRANCH, General Meeting, Victoria Hotel, Wolverhampton, 5.35 p.m.; Dinner, 7 p.m.
29 FRIDAY ..	BIRMINGHAM BRANCH. Pathological and Clinical Section, Medical Institute, Edmund Street, 8 p.m. HAMPSTEAD DIVISION, *Metropolitan Counties Branch*, 8.30 p.m.
30 SATURDAY ..	NORTHERN COUNTIES OF SCOTLAND BRANCH, General Meeting, Northern Infirmary, Inverness, 3 p.m. ULSTER BRANCH, Spring Meeting, Londonderry.
MAY.	
1 Sunday ..	
2 MONDAY ..	LONDON: Standing Ethical Subcommittee, 2 p.m.
3 TUESDAY ..	WARRINGTON DIVISION, *Lancashire and Cheshire Branch*, Annual Meeting, Infirmary, Warrington, 4 p.m.
4 WEDNESDAY	
5 THURSDAY ..	
6 FRIDAY ..	
7 SATURDAY ..	
8 Sunday ..	
9 MONDAY ..	
10 TUESDAY ..	
11 WEDNESDAY	DORSET AND WEST HANTS BRANCH, Spring Meeting, Hotel Mont Doré, Bournemouth.
12 THURSDAY ..	
13 FRIDAY ..	
14 SATURDAY ..	

Printed and Published by the British Medical Association at their Offices No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, APRIL 23RD, 1910.

CONTENTS.

	PAGE
Notices of Motion at Annual Representative Meeting:	
A.—Notices Affecting Regulations of Association	173
B.—Notices Affecting Administration of Association	173
C.—Notices Affecting Policy of Association	174
Meetings of Branches and Divisions:	
East Anglian Branch	175
Lancashire and Cheshire Branch: Rochdale Division	175
Metropolitan Counties Branch: Kensington Division	176
South-Eastern Branch: Maidstone Division	176
The Seventy-eighth Annual Meeting of the British Medical Association.—PROGRAMME OF BUSINESS ...	177
ASSOCIATION NOTICES.—Annual Representative Meeting, 1910: Date of Meeting.—Council Meeting	182
BRITISH MEDICAL ASSOCIATION LIBRARY	183
BRITISH MEDICAL ASSOCIATION SCHOLARSHIPS AND GRANTS IN AID OF SCIENTIFIC RESEARCH ...	183
NAVAL AND MILITARY APPOINTMENTS	184
VITAL STATISTICS	184
HOSPITALS AND ASYLUMS:	
Oxford Eye Hospital	186
The Birmingham and Midland Hospital for Women	186
Royal Victoria Hospital, Belfast	186
Paisley Infirmary	186
Birmingham Lying-in Charity	187
VACANCIES AND APPOINTMENTS	187
BIRTHS, MARRIAGES, AND DEATHS	187
PUBLISHERS' ANNOUNCEMENTS	187
DIARY FOR THE WEEK	188
CALENDAR	188

SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs. BY ORDER.

MATTERS REFERRED TO DIVISIONS.

ANNUAL REPRESENTATIVE MEETING IN LONDON.

FRIDAY, JULY 22ND, 1910, AND FOLLOWING DAYS.

NOTICES OF MOTION.

THE following Notices of Motion have been received for discussion by the Annual Representative Meeting of the Association, to be held in London, July 22nd, 1910, and following days:—

A.—NOTICES AFFECTING REGULATIONS OF ASSOCIATION.

Election of Council.

By CARDIFF DIVISION:

That By-law 23 be amended by the inclusion of a new Subclause as follows, to be Subclause (*d*), the present Subclause (*d*) being made Subclause (*e*):

(*d*) 4 by the Representative Meeting, which shall have power to elect such members at such time and in such manner as the Meeting may decide, provided that the term of office of each member so elected shall expire at the close of the Annual Representative Meeting next following the date of his election.

Membership.

By WIGAN DIVISION:

That in order to bring as large a number of the profession as possible into close touch with Medical Politics and Sociology there shall be two kinds of membership of the Association:

(*a*) Full membership at present rate with the existing privileges.

(*b*) Part membership at, say, ten shillings a year, which should entitle such member to attend Divisional and general Branch meetings and to receive the SUPPLEMENT weekly, but not the JOURNAL itself.

By DUNDEE BRANCH:

That no member shall be able effectively to resign his membership while any discussion as to the conditions of professional employment is in progress between the Association and any organized body, public or other, affecting the area of his Branch or Division, and that it be an instruction to Council to prepare the necessary amendments of the Articles or Ordinances and By-laws.

Elections.

By DUNDEE BRANCH:

That it be an instruction to the Council to adjust the Regulations of the Association so as to provide as far as possible for the conduct of all elections in the Association by the method of the transferable vote.

B.—NOTICES AFFECTING ADMINISTRATION OF ASSOCIATION.

Uniform Ethical Rules for Association.

By WATFORD AND HARROW DIVISION:

That it is desirable that all members of the Association should be bound by a uniform Code of Ethical Rules instead of having varying codes for different Divisions.

Grouping.

By BOMBAY BRANCH:

That the present grouping of Indian Branches with Burmah, Hong Kong, China, and Ceylon Branches will cause a great delay in any communication likely to be carried on between the grouped Branches. That it would be better to give one member to the following Branches—namely, Bombay, Punjab, South Indian and Madras, and Assam, and another to the other Branches—namely, Burmah, Colombo Ceylon, and Hong Kong and China.

By CAPE OF GOOD HOPE—WESTERN PROVINCE BRANCH:

That the South African Branches, including over 500 members, be represented by one member of Council.

Matters Referred to Divisions.

BY WEST SUFFOLK DIVISION:

That in the opinion of the Representative Meeting it is desirable, as a means of awakening fresh interest in the work of the Association, that when matters are referred to Divisions in the SUPPLEMENT of the JOURNAL, a blank leaf, naming the subjects, should be inserted in the same SUPPLEMENT, and attention called to it in the "Special Notice to Members."* Upon this leaf any member who is unable to attend the meeting of his Division, when these subjects are placed on the agenda, may write his opinion and send it to the Secretary of his Division to be considered at the meeting.

*[EXISTING FORM OF SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this SUPPLEMENT, which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs.

Words Proposed by West Suffolk Division to be Added.

"If unable to attend the Division meeting, he should write his opinion on the blank leaf attached, and send it to the Secretary of his Division."]

Articles in "British Medical Journal."

By CHELSEA DIVISION:

That this meeting requests the Council to advise the Journal Committee to insert on the leader page of every issue of the JOURNAL a disclaimer, stating that the views expressed in the articles therein represent the opinions of the writer only, and not necessarily those of the general body of the British Medical Association; and that all articles be signed.

C.—NOTICES AFFECTING POLICY OF ASSOCIATION.

Medical Officers of Health.

By RICHMOND and SALFORD DIVISIONS:

That Minute 234 of the Annual Representative Meeting, 1909, be rescinded.

(*Minute 234 Referred to.*

Resolved: That the Recommendation of the Committee, as amended, be approved, namely:

That in the interests of the public health, and in view of the multiplicity of duties thrown upon medical officers of health by recent enactments, it is desirable that in future appointments medical officers of health should be required to devote their whole time to the duties of their office, and be debarred from private practice except as consultants; that they should be adequately paid, and, if necessary, districts should be grouped for the purpose; and that it is further desirable that medical officers of health should be protected in carrying out their duties, and be secured from capricious dismissal or reduction of salary, and that they be allowed to participate in any superannuation scheme approved by a Local Government Board.)

Medical Appointments in Public Medical Services in General.

By SALFORD DIVISION:

That in every form of public medical service the system of part-time appointments of medical practitioners should be maintained as far as such appointments can be made consistently with the requirements of the services, and that all public medical officers should be protected in carrying out their duties, should be secured from capricious dismissal or reduction of salary, and should be allowed to participate in any superannuation scheme approved by a Local Government Board.

Ethics of Consultation.

By SALFORD Division:

That the following principles dealing with the ethics of medical consultation be approved:

(*a*) When a patient who has not previously been seen in consultation calls on a consultant at his rooms without introduction from a general practitioner, inquiry should be made in every case as to whether the patient is under the care of any practitioner.

(*b*) If it is ascertained that the patient is not under the care of another practitioner, there is nothing ethically wrong in the consultant prescribing at his rooms for the patient; but it is inadvisable for any practitioner who wishes recognition as a consultant to attend any patient at the patient's own home except in co-operation with a general practitioner.

(*c*) If it is ascertained that the patient is under the care of another practitioner, it is the duty of the consultant to use every endeavour to persuade the patient to allow him to communicate with the attending practitioner, but should the patient refuse this permission, the consultant has the right to make an examination and to express an opinion, but not to undertake the treatment of the case.

Parliamentary Representation.

By CHELSEA DIVISION:

That this Meeting recognizes the necessity for a Union of Medical Practitioners with Parliamentary representation, and requests the Council of the British Medical Association to ascertain the wishes of members in the United Kingdom by referendum at the earliest possible date.

Payment of Hospital Staffs.

By WINCHESTER DIVISION:

That the Council be instructed to prepare a Report for consideration of the Divisions and the Representative Meeting on the advisability of all members of the Staffs of Voluntary Hospitals being paid for their services.

Pathological Branch of Public Health Service.

By BRIGHTON DIVISION:

That the Central Council of the Association do seek information from the Divisions as to the need for a pathological branch of the public health service, and report on the same to the Annual Meeting of 1911.

Riders by Coroners' Juries to their Verdicts.

By MANCHESTER SOUTH DIVISION:

That whereas the Report of the Coroners Commission recognizes the appending of a rider by the jury to their verdict, and in view of the fact that a rider is a judgement (frequently carrying with it a severe penalty) on one who is not on trial, who has no opportunity of defence and who may be absent or entirely ignorant of what is taking place, and is therefore an infraction of every principle of law and justice, it be an instruction to the Council to oppose to the uttermost in future legislation any such right of a jury to add a rider.

Prescribing by Chemists.

By EAST NORFOLK DIVISION:

That the British Medical Association should take immediate steps to stop illegal prescribing by chemists, as also the indiscriminate sale by them of abortifacients.

Ambulance Lectures to British Red Cross Society.

By WINCHESTER DIVISION:

That a fee should be charged for ambulance lectures given to the British Red Cross Society, and that the fee be £5 5s. for each course of lectures.

By direction of the Chairman of Representative Meetings,

J. SMITH WHITAKER, *Medical Secretary.*

April 20th, 1910.

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL]

EAST ANGLIAN BRANCH.

THE spring meeting of the East Anglian Branch was held at the Palace Hotel, Southend, on Thursday, April 7th.

COUNCIL MEETING.

The council meeting was held at 12.30 o'clock. The PRESIDENT, Dr. W. H. Slimon, was in the chair. Dr. Cardy Bluck and Dr. Nicholson were also present. Letters of regret for absence were received from Dr. Minns, Dr. Thomson, Mr. Ballance, and Dr. Gutch.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

New Members.—The following gentlemen were elected members; C. W. T. Baldwin, M.R.C.S., L.R.C.P., Westcliff; W. B. Marshall, M.R.C.S., L.R.C.P., Norwich; W. Miller, M.D., Rayleigh; Ernest Ragg, M.B., B.S., Southend.

Nomination of Officers.—The following gentlemen were nominated officers for 1910–11: *President-elect*, S. H. Burton, Esq., F.R.C.S., Norwich. *Vice-Presidents*, R. W. Brogden, M.B., Ipswich; D. G. Thomson, M.D., Thorpe, Norwich; W. H. Slimon, M.D., Clacton-on-Sea. *Secretary for Essex*, B. H. Nicholson, M.B., Colchester. *Secretary for Norfolk*, H. A. Ballance, M.S., Norwich. *Secretary for Suffolk*, J. Gutch, M.D., Ipswich. *General Secretary and Treasurer of the Branch*, B. H. Nicholson, M.B., Colchester.

Date of Annual Meeting.—It was agreed that the date of the annual meeting at Thetford should be left to the President-elect and Dr. Gutch.

Luncheon.—Luncheon was served at the Palace Hotel.

GENERAL MEETING.

The general meeting was held at 2.30 o'clock. Dr. SLIMON, President of the Branch, was in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Proposed Publication of Proceedings.—Dr. MILNER BURGESS proposed the following resolution:

That it would be to the advantage of the Branch if some short report of its proceedings, with discussion thereon, could be published, as under present methods much valuable information is wasted.

The resolution was seconded and agreed to.

Papers.—Dr. W. H. SLIMON read a paper on menorrhagia and metrorrhagia. The paper was discussed by Dr. BURGESS and others, and Dr. SLIMON replied. Dr. ROBERT HUTCHISON, of the London Hospital, read a paper on the therapeutic uses of diet. The paper was discussed by Dr. CURL, Dr. SLIMON, and others, and Dr. HUTCHISON replied. Dr. GEORGE PERNET (London) read a paper on the intramuscular treatment of syphilis.

Tea.—Afternoon tea was partaken of in the Winter Gardens by the kind invitation of the South Essex Division.

Exhibits.—Surgical instruments were shown by Down Brothers, drugs by Burroughs Wellcome and Co., electrical apparatus by Davison and Co., and multostat by Sanitas Ltd.

LANCASHIRE AND CHESHIRE BRANCH:

ROCHDALE DIVISION.

THE annual meeting was held in the Wellington Hotel, Rochdale, on Thursday, April 14th, Dr. THORP (Todmorden) in the chair. There were present: Dr. Brown (Bacup), Dr. Taylor (Heywood), and Drs. Baldwin, Bateman, Brentnall, Lord, McMaster, Melvin, Menzies, Walker, Wallace, and Ward (all of Rochdale).

Confirmation of Minutes.—The minutes of the last annual meeting were read and confirmed.

Election of Officers.—The following officers were unanimously elected for the ensuing year: *Chairman*, Dr. Menzies (Rochdale); *Vice-Chairman*, Dr. Wallace (Rochdale); *Secretary*, James Melvin (Rochdale); *Representative on Branch Council*, Dr. Brown (Bacup).

Executive Committee.—It was moved by the SECRETARY and seconded by Dr. LORD:

That the following, along with the officers, form the Executive Committee: Drs. Brentnall, Kerr, and Walker (Rochdale), and Dr. Thorp (Todmorden).

Annual Report.—The SECRETARY read the annual report as follows: Membership on December 31st, 1908, 45; increases (new members 3, through change of address 4), 7; losses (arrears 1, through change of address 3), 4; net membership on December 31st, 1909, 48. The balance sheet, without a grant from the Branch Council, showed a balance to the good of £4 11s.

Poor Law Reform.—The interim report of the Special Poor Law Reform Committee of the British Medical Association was considered. The Division agreed with the general conclusions of the Committee:

1. That medical services rendered on behalf of the State should be paid for by the State.

Yes, unanimously.

2. That the payment should be adequate and in accordance with the professional services required.

Yes, unanimously.

3. That there should be adequate medical representation on all committees formed to control medical assistance.

Yes, unanimously. Dr. BROWN moved, Dr. WALLACE seconded, and it was carried unanimously:

That a special committee be appointed, composed of Drs. Bateman, Brentnall, McMaster, and the Secretary, to watch the interests of the Division in connexion with Poor Law reform, and to call a meeting of the Division when they think necessary.

Relation of Homoeopaths to the Association.—The report of Council on the relation of homoeopaths to the Association was discussed. The questions, A, B, C, D, and E were taken seriatim, and the reply to each was in the affirmative unanimously.

Election to Central Council.—The amendment of by-laws regarding the election of Council proposed by the Cardiff Division was considered. It was agreed:

That it be left in the hands of the Representative to vote as he thinks best for the interests of the Division.

MOTIONS FROM THE DIVISION TO ANNUAL REPRESENTATIVE MEETING.

Election of President of Association.—Dr. BROWN moved, Dr. TAYLOR seconded, and it was carried unanimously:

That with regard to the appointment of the President of the British Medical Association, the Representative Meeting resolves that the Council should consider the question of the abolition of the custom of choosing the President from the place in which the Annual Meeting is held, and to the fact that eminence in the scientific side of the profession should not outweigh years of strenuous work on behalf of the Association. They should also bear in mind in appointing to this—the highest honour—that of the 22,000 members by far the greatest majority are general practitioners.

Fixity of Tenure for Medical Officers of Health.—Dr. BATEMAN moved, Dr. BRENTNALL seconded, and it was carried unanimously:

That in the interests of public health, medical officers of health should have security of tenure, and that in all boroughs and large urban districts, where practicable, whole-time appointments be made with adequate salary.

Dr. BATEMAN moved, Dr. BROWN seconded, and it was carried with one dissentient:

That Resolution 234 be rescinded.

The British Medical Journal.—Dr. WALLACE moved, Dr. TAYLOR seconded, and it was carried unanimously:

That the JOURNAL of the British Medical Association exists among other things as the medium of expressing the views of its members, and that any article or letter, if excluded, the Editor should reply within a reasonable time, stating the reason for its exclusion. If the member be not satisfied with the explanation, the question shall be referred to the Library Committee or other referees.

Proposed Two Grades of Subscriptions.—Moved by Dr. WALKER, seconded by Dr. BROWN, and carried unanimously:

That there be two grades of subscriptions—one as at present to include membership of Association and JOURNAL; and one, say at 10s. 6d. annually, to include membership and the SUPPLEMENT of the JOURNAL only.

METROPOLITAN COUNTIES BRANCH:

KENSINGTON DIVISION.

A MEETING of the Division was held at the Kensington Town Hall, on Monday, March 21st, at 4.30 p.m. Dr. BUTTAR, the Chairman of the Division, presided. Thirty-two members were present.

Confirmation of Minutes.—The minutes of the medico-political meeting of December 30th, 1909, and the scientific meeting at St. Mary's Hospital were read and confirmed.

An Ethical Case.—The report of the Branch Council on an ethical matter was read.

Wells Fund.—Mr. HERBERT TANNER announced that members of the Division had subscribed about £20 towards the Wells Fund.

Treatment of School Children and the Proposed Public Medical Service.—After a lengthy discussion it was decided that a joint committee should be appointed to draw up a scheme for the treatment of the school children found on inspection to be defective, and also to consider the possibility of forming a public medical service. The following were then elected members of the Committee: Dr. Ethel Bentham, Dr. A. J. Carter, Dr. C. Huddart, Dr. Brindley James, Dr. W. Kingdon, Mr. Herbert Tanner, Dr. E. F. Travers, Dr. Winifred Warner, Dr. Buttar (Chairman of the Division), and Dr. Beckett-Overy (Honorary Secretary).

Committee of the Branch on Contract Practice.—Mr. H. H. Sturge and Mr. Herbert Tanner were nominated as members of the Committee of the Branch on Contract Practice.

Relation of Homoeopaths to the Association.—The report of the Council on the relation of homoeopaths to the Association was discussed. The recommendations of the Council were approved.

Poor Law Reform.—The Interim Report of the Special Poor Law Reform Committee was considered. The Division approved of the general principles formulated by the Committee.

Nominations for Branch Council, and Central Council.—It was decided to nominate Dr. A. J. Rice-Oxley as one of the Representatives of the Branch on the Central Council, and Dr. Charles Buttar as a Vice-President of the Branch.

Correspondence.—Several letters were read, and the meeting concluded.

SOUTH-EASTERN BRANCH:

MAIDSTONE DIVISION.

A MEETING of this Division was held at the West Kent General Hospital, Maidstone, on Tuesday, March 29th, at 3.30 p.m., Dr. W. DOUGLAS in the chair. There were present: Drs. E. J. Wood, F. T. Travers, A. C. Black, C. Pye Oliver, A. T. Falwasser, A. M. Whitestone, A. Sharpin, A. D. Parr-Dudley, R. T. Caesar, senr., and W. Potts.

Apologies for Non-attendance.—Letters regretting non-attendance were received from Drs. Joyce, Lewis, and Mapleton.

Bearsted and Thurnham Nursing Association.—Letters were read from the Honorary Secretary, Bearsted and Thurnham Nursing Association, regarding the change in the rules of their association—namely, to alter the definition of Classes III and IV, as on circular, to Class III subscribers 5s. to 10s. yearly, Class IV subscribers of over 10s., also to erase the 12s. 6d. fee for confinements without doctor for Class IV. Mr. TRAVERS proposed and Mr. FALWASSER seconded that the following resolution be sent to the Honorary Secretary of the Bearsted and Thurnham Nursing Association:

That the Maidstone Division of the British Medical Association is of the unanimous opinion that Classes III and IV should be wholly omitted.

The proposed alteration of rules by the Bearstead and Thurnham Nursing Association appears to do away with any definition of persons eligible for Classes III and IV, and only divides them according to the amounts paid, without reference to their positions or their ability to undertake their own expenses without assistance from charity.

Carried unanimously.

Medical Men and Midwives.—A letter from Mr. Smith Whitaker, Medical Secretary, was read referring to the Manchester Corporation and fees paid to medical men called in by midwives. The Honorary Secretary was instructed to forward the letter to the Clerk to the Kent County Council.

Research Defence Society.—A letter was read from Mr. Stephen Paget referring to the Research Defence Society. This was adjourned.

Proposed Invitation to Branch Council.—A letter from Dr. Tennyson Smith (Bromley Division) was read, asking the Maidstone Division to invite the Branch Council to meet in Kent in 1911 and to appoint a President-elect and Vice-President for that year.

Annual Dinner.—May 10th, 1910, was fixed for the annual dinner (6s., exclusive of wines), Dr. Macnaughton-Jones kindly consenting to give an address at the meeting to be held earlier. It is particularly requested that all members desiring to be present at the dinner will kindly inform the Honorary Secretary at once in order that arrangements may be made.

ANNUAL SUBSCRIPTION, 1910.

MEMBERS are reminded that the Annual Subscription, amounting to 25s., is now due.

Cheques or Postal Orders should be made payable to the British Medical Association, and crossed London County and Westminster Branch.

In the case of Colonial Members the subscription should be paid to the Honorary Treasurer of their respective Branches.

The University of London, Imperial Institute.

THE BRITISH MEDICAL ASSOCIATION.

78th ANNUAL MEETING, LONDON, JULY 26th to JULY 29th, 1910.

THE Annual General Meeting of the British Medical Association this year will be held on July 26th, 27th, 28th, and 29th, in the University of London and the adjacent collegiate buildings at South Kensington.

The Annual Representative Meeting, which will assemble on Friday afternoon, July 22nd, will meet in the Council Chamber of the Guildhall, by kind permission of the Lord Mayor and Corporation of the City of London.

The seat of the University was removed to the Imperial Institute Buildings at South Kensington in March, 1900. The main central portion of this fine building, including the great hall and grand entrance, and the east wing and its accessory structures are appropriated to the use of the University. The illustration on this page, reproduced by permission from an etching published by the University, is taken from the east end, and shows the main front.

The University possesses a large number of spacious rooms which will be available for the general purposes of the Annual Meeting, including the Reception Room, Pathological Museum, and the Annual Exhibition, as well as for some of the Sections. Other accommodation for Sections will be provided in the several buildings of the Imperial College of Science and Technology.

The South Kensington stations of the District Railway and of the Brompton and Piccadilly Electric Tube are about seven minutes' walk from the University buildings, and omnibus lines pass along Cromwell Road to the south, and Kensington Gore to the north, within about five minutes' walk.

President:

Sir WILLIAM WHITLA, M.D., LL.D., Professor of Materia Medica and Therapeutics, Queen's College, Belfast.

President-elect:

H. T. BUTLIN, D.C.L., LL.D., F.R.C.S., Consulting Surgeon, St. Bartholomew's Hospital, London.

Past President:

SINCLAIR WHITE, M.D., M.Ch., F.R.C.S., Senior Honorary Surgeon, The Royal Infirmary, Sheffield.

Chairman of Representative Meetings:

HAMILTON ASHLEY BALLANCE, M.S., Surgeon, Norfolk and Norwich Hospital, Norwich.

Chairman of Council:

EDMUND OWEN, LL.D., D.Sc., F.R.C.S., Consulting Surgeon to St. Mary's Hospital, London.

Treasurer:

EDWIN RAYNER, M.D., F.R.C.S., Consulting Surgeon, Stockport Infirmary, Stockport.

Honorary Local Secretaries of the London Meeting:

Dr. EDWARD W. GOODALL, Eastern Hospital, Homerton, N.E.

Dr. WILLIAM GRIFFITH, 1, Chester Gate, Regent's Park, N.W.

Dr. LAURISTON E. SHAW, 64, Harley Street, W.

PROGRAMME OF BUSINESS.

The Address in Medicine will be delivered by John Mitchell Bruce, M.D., F.R.C.P., London.

The Address in Surgery will be delivered by Harry Gilbert Barling, B.S., F.R.C.S., Birmingham.

THE SECTIONS.

The scientific business of the meeting will be conducted in twenty-one Sections, which will meet on Wednesday, July 27th, Thursday, July 28th, and Friday, July 29th.

The President, Vice-Presidents, and Honorary Secretaries of each Section constitute a Committee of Reference for that Section, and exercise the power of inviting, accepting, or declining any paper, and of arranging the order in which accepted papers shall be read. Communications with respect to papers should be addressed to one of the Honorary Secretaries.

A paper read in the Section must not exceed fifteen minutes, and no subsequent speech must exceed ten minutes.

Papers read are the property of the British Medical Association, and cannot be published elsewhere than in the British Medical Journal *without special permission.*

The following are the general arrangements so far as they are yet complete:

ANAESTHETICS.

President: Frederic William Hewitt, M.V.O., M.D., London.

Vice-Presidents: Donald C. A. McAllum, Edinburgh; George Rowell, F.R.C.S., London; Alexander Wilson, F.R.C.S., Manchester.

Honorary Secretaries: Miss Ada M. Browne, L.S.A., 64, Belsize Park, N.W.; William Joseph McCardie, M.B., 89, Cornwall Street, Birmingham; Herbert J. Scharlieb, C.M.G., M.D., 149, Harley Street, W.

The following subjects have been selected for discussion:

Wednesday, July 27th.—10 a.m., The Percentage System of Chloroform Administration.

Thursday, July 28th.—10 a.m., The "Open" System of Ether Administration. 11 a.m., The Prevention and Treatment of Surgical Shock during Inhalation Anaesthesia.

Friday, July 29th.—10 a.m., The Present Position and Limitations of Spinal Analgesia.

Should time permit, the following subjects will also be discussed: Acidosis; The Anaesthetization of Diabetic Subjects; and The Use of Morphine and Other Drugs prior to Anaesthesia.

It has been arranged to hold an exhibition of past and present anaesthetic apparatus and appliances under the auspices of the Medical Museum Committee of the meeting, and a special committee has been appointed by the officers of the Section to select those modern anaesthetic appliances which seem to them worthy of exhibition. Members of the Association attending the Annual Meeting will therefore be in a position to make themselves acquainted with the most recent and trustworthy methods of anaesthetizing. Further information can be obtained on application to Miss A. M. Browne, Honorary Curator, Anaesthetic Section of the Medical Museum, 429, Strand, London, W.C.

ANATOMY.

President: Professor Arthur Keith, F.R.C.S., London.

Vice-Presidents: Professor David Hepburn, M.D., Cardiff; Fredk. Gymer Parsons, F.R.C.S., London; Professor Grafton Elliot Smith, M.D., F.R.S., Manchester; Professor William Wright, F.R.C.S., London.

Honorary Secretaries: Professor A. Campbell Geddes, M.D., Dublin; Alex. Macphail, M.B., Anatomy Dept., Medical School, Charing Cross Hospital, W.C.

BACTERIOLOGY.

President: Charles J. Martin, M.B., D.Sc., F.R.S., London.

Vice-Presidents: John W. H. Eyre, M.D., London; Professor Arthur H. White, L.R.C.P.I., Dublin.

Honorary Secretaries: Carl Hamilton Browning, M.D., Pathological Department, University of Glasgow; John Charles Grant Ledingham, M.B., Lister Institute, Chelsea Gardens, S.W.

The following subjects have been chosen for the work of the Section:

Wednesday, July 27th.—Discussion on Recently Acquired Knowledge concerning the Bionomics of Pathogenic Organisms, and its Bearing on the Spread of Disease. To be opened by Dr. A. C. Houston (London).

Thursday, July 28th.—Joint Discussion with the Pathological Section on Complement-Deviation Methods in Diagnosis. To be opened by Professor Wassermann (Berlin).

Friday, July 29th.—Papers on Bacteriological Subjects.

DERMATOLOGY.

President: Phineas Abraham, M.D., London.

Vice-Presidents: Walter G. Smith, M.D., Dublin; W. Kenneth Wills, M.R.C.S., Bristol.

Honorary Secretaries: William Griffith, M.B., 1, Chester Gate, Regent's Park, N.W.; G. Norman Meachen, M.D., 11, Devonshire Street, W.; J. Goodwin Tomkinson, M.D., 9, Sandyford Place, Glasgow.

The following preliminary programme has been arranged:

Wednesday, July 27th.—Discussion on Modern Methods in the Diagnosis and Treatment of Syphilis.

Thursday, July 28th.—Discussion on the Influence of Diet in Diseases of the Skin. At 12.30 p.m., jointly with the Section of Laryngology, Demonstration on Radium, by Dr. Louis Wickham, Paris.

Friday, July 29th.—Papers on Dermatological Subjects. Exhibition of Cases.

DISEASES OF CHILDREN.

President: Archibald E. Garrod, M.D., London.

Vice-Presidents: Chas. P. B. Clubbe, M.R.C.S., Sydney; Thomas Sinclair Kirk, M.B., Belfast; H. D. Rolleston, M.D., London; Francis James Steward, M.S., F.R.C.S., London.

Honorary Secretaries: Harold Arthur Thomas Fairbank, M.S., 137, Harley Street, W.; Francis W. Goyder, F.R.C.S., "Marley House," Bradford; Hugh Thursfield, M.D., 84, Wimpole Street, W.

The following subjects have been selected for discussion:

Wednesday, July 27th.—Discussion on the Diagnosis and Treatment of Non-Tuberculous Joint Disease. To be opened by Dr. Coutts.

Thursday, July 28th.—Discussion on the Diagnosis and Treatment of Infections of the Urinary Tract by *Bacillus coli*. To be opened by Dr. John Thomson, Dr. Dudgeon, and Mr. J. G. Pardoe, F.R.C.S.

Friday, July 29th.—Papers.

GYNAECOLOGY AND OBSTETRICS.

President: Mrs. Mary A. D. Scharlieb, M.D., London.

Vice-Presidents: John W. Ballantyne, M.D., Edinburgh; Comyns Berkeley, M.B., London; Professor John A. C. Kynoch, M.B., Dundee; Thomas Wilson,

M.D., Birmingham; THOMAS H. WILSON, F.R.C.P.I., Dublin.

Honorary Secretaries: W. BLAIR BELL, M.D., 7, Rodney Street, Liverpool; JOHN PRESCOTT HEDLEY, M.B., 11, John Street, Berkeley Square, W.; CARLTON OLDFIELD, M.D., 32, Park Square, Leeds.

The Committee has selected two subjects for discussion as follows:

1. The Treatment of Fibromyomata Complicating Pregnancy. To be introduced by Dr. W. H. H. Tate.

2. Dysmenorrhoea, its Causes and Treatment. To be introduced by Dr. John Phillips.

It has been arranged for a section of the Pathological Museum to be specially set aside for the exhibition of specimens, microscopic slides, photographs, etc., relating to Adenomyoma of the Uterus. The Committee will also be glad to receive other specimens of interest.

LARYNGOLOGY.

President: HERBERT TILLEY, F.R.C.S., London.

Vice-Presidents: J. LACY FIRTH, M.D., Bristol; A. BROWN KELLY, M.D., Glasgow; STEPHEN PAGET, F.R.C.S., London; H. BETHAM ROBINSON, M.S., M.B., London.

Honorary Secretaries: GEO. NIXON BIGGS, M.B., 30, Harley Street, W.; HENRY JOHN DAVIS, M.B., 8, Portman Street, W.; JOHN SMITH FRASER, M.B., 36, Moray Place, Edinburgh.

The following preliminary programme has been arranged:

Wednesday, July 27th.—10 a.m., Discussion on the Technique of the Direct Examination of the Oesophagus and Lower Air Passages. To be introduced by Professor Dr. Von Eicken (Freiburg), and Dr. D. R. Paterson (Cardiff).

Thursday, July 28th.—10 a.m., Discussion on Vasomotor Rhinitis. To be introduced by Dr. H. S. Birkett (Montreal), and Mr. E. B. Waggett (London).

Friday, July 29th.—10 a.m., Special Papers.

In order to save time and to facilitate the necessary arrangements, all communications relating to the exhibition of preparations, specimens, drawings, etc., may be addressed to Mr. H. W. Armit, Honorary Secretary, Medical Museum Committee of the British Medical Association, Lister Institute of Preventive Medicine, Chelsea, London, S.W.

MEDICAL SOCIOLOGY.

President: JAMES ALEXANDER MACDONALD, M.D., Taunton.

Vice-Presidents: R. COCHRANE BUIST, M.D., Dundee; MAJOR GREENWOOD, M.D., London; HUGH R. KER, F.R.C.S.Edin., London; Professor JAMES T. J. MORRISON, M.B., Birmingham.

Honorary Secretaries: DONALD JOHN ARMOUR, F.R.C.S., 89, Harley Street, W.; HARVEY HILLIARD, M.R.C.S., 30, Wilton Place, Knightsbridge, S.W.; JAMES HENRY TAYLOR, M.B., 299, Eccles New Road, Salford.

The following is a list of the subjects selected for discussion by the officers of this Section. A syllabus is appended in each case.

I.—STATE SICKNESS INSURANCE (PROVISION OF MEDICAL ATTENDANCE) AS AFFECTING THE PUBLIC HEALTH AND THE MEDICAL PROFESSION.

1. *The Public Health.*

A. Summary of the existing systems of medical relief of the wage-earning classes, including

(i) Private medical practice.
(ii) Contract medical practice.
(iii) Charitable services.
(iv) Public services.

B. Examination of the efficiency of such treatment, and consideration of the effects on the community of inefficiency, particularly in respect of the delay in obtaining proper treatment, and consequent prolongation of treatment or permanent disability.

C. Desirability of public provision to facilitate prompt treatment.

D. Importance of maintaining the provident element in such provision.

E. Examination of the effects of a system of national insurance in providing that prompt medical attendance shall be within the reach of every wage-earner, under conditions which secure:

(i) That he shall contribute to the cost.
(ii) That he shall have a measure of control over the provision made.

2. *As Affecting the Medical Profession.*

A. Defects of existing arrangements, particularly as regards underpayment or non-payment of those members of the profession who attend the wage-earning classes.

B. Advantages of a system of national insurance as affording means whereby the profession, if it take the proper steps, may secure adequate remuneration and satisfactory conditions of service.

C. Examination of the objections to a system of national insurance, especially:

(i) That it would perpetuate the present evils of contract medical practice.
(ii) That it would deprive the medical practitioner of his independence.

D. Indirect effects of a system of national insurance on:

(i) Charitable medical organizations.
(ii) The Poor Law medical service.

II.—SOCIAL ASPECTS OF THE FALLING BIRTH-RATE.

1. The facts: (*a*) Comparative national statistics; (*b*) comparative social statistics—that is, evidence as to the relative rates of decline in various social strata.

2. The factors: (*a*) spontaneous; (*b*) artificial.

3. The effects: (*a*) on selection, reproductive from more fertile classes natural, comparative class death-rates, infantile and juvenile; (*b*) on national efficiency, industrial, professional, and military; (*c*) on character, individual and national.

Problems for Discussion.

(*a*) Biological gain or loss in the process and its controllability.

(*b*) Methods of control, economic, ethical, medical.

III.—THE ECONOMIC BASIS OF HOSPITAL MANAGEMENT.

1. *Provision of Funds:—*
Proportion of payments by—

i. Public grants:
Asylum boards,
Corporations,
Boards of guardians,
Education committees.

ii. Charitable or philanthropic:
Sunday funds,
Works collections,
Private subscribers and endowments.

iii. Payments by patients.

2. *Conditions of Admission:—*
In and out patients:

i. Free,
ii. Subscribers' letters,
iii. Partial payments,
iv. Recommendation by public bodies,
v. Almoners.

3. *Professional:—*
Staff:

i. Public subscriptions,
ii. Private subscriptions.

Principles of Resolutions adopted by the Association.

In the case of patients maintained from public funds, the medical service should be paid.

In the case of patients maintained from charitable funds, the medical service should be charitable.

In the case of patients paying for themselves, the medical service should be chosen by the patient and paid for by him.

4. *The Economic Basis of the Out-patient Department:—*

(*a*) Consultative.
(*b*) Dispensary:

i. From the professional point of view,
ii. From the patient's point of view,
iii. From the hospital point of view.

MEDICINE.

President: R. W. PHILIP, M.D., Edinburgh.

Vice-Presidents: Professor HARRY B. ALLEN, M.D., Melbourne; GEORGE A. HERON, M.D., London; WALTER K. HUNTER, M.D., Glasgow; HENRY L. MCKISACK, M.D., Belfast; GEORGE R. MURRAY, M.D., Manchester; SIDNEY P. PHILLIPS, M.D., London.

Honorary Secretaries: H. MORLEY FLETCHER, M.D., 98, Harley Street, W.; HERBERT FRENCH, M.D., 62, Wimpole Street, W.; JOHN HAY, M.D., 12, Rodney Street, Liverpool.

The following preliminary programme has been arranged:

Wednesday, July 27th.—Morning: Discussion on the Causes, Diagnosis, and Treatment of Acidosis. To be opened by Professor Edsall of Philadelphia. Selected Papers. Afternoon: Clinical Cases.

Thursday, July 28th.—Morning: Discussion on the Treatment of Chronic Constipation. To be opened by Dr. J. F. Goodhart. Selected Papers. Afternoon: Clinical Cases.

Friday, July 29th.—Morning. Selected Papers. Afternoon: Clinical Cases.

Members who desire to take part in either of the above discussions, or to read a paper before the Section should communicate as soon as possible with the Honorary Secretaries.

NAVY, ARMY, AND AMBULANCE.

President: Colonel ANDREW CLARK, A.M.S.(T.F.) London.

Vice-Presidents: Fleet Surgeon PERCY W. BASSETT-SMITH, R.N., Haslar; Lieutenant-Colonel JAMES HARPER, R.A.M.C.T., London; Lieutenant-Colonel MICHAEL W. H. RUSSELL, R.A.M.C., London; Lieutenant-Colonel ROBERT J. S. SIMPSON, C.M.G., R.A.M.C., London.

Honorary Secretaries: Staff Surgeon JAMES GARFIT WALLIS, M.B., R.N., Royal Naval Barracks, Chatham; Major ALFRED PERCY BLENKINSOP, R.A.M.C., c.o. Messrs. Holt and Co., 3, Whitehall Place, S.W.; Major ARTHUR M. CONNELL, R.A.M.C.T., 79, Hanover Street, Sheffield.

The Committee of this Section suggest the following subjects:

1. Tuberculosis in the Navy.
2. Naval Recruits, Common Causes of Failure.
3. Ventilation and Air Supply in Modern War Ships.
4. Colour Vision.
5. Non-Venereal Bubo.
6. Administration of Morphine Hypodermically during Action.
7. Selection of Suitable Surgical Case for Transport in the Field.
8. Control of Infectious Disease Contacts in the Field.
9. Isolation of Disease Carriers and Methods of Dealing with them.
10. Local and Spinal Analgesia in Relation to Active Service.
11. Medical Transport.
12. The Organization and Training of the Royal Army Medical Corps (Territorial Force).
13. A System of Training for Field Ambulances of the Royal Army Medical Corps (Territorial Force) during both the Non-training and Training Periods.
14. Education and Intelligence of Recruits for the Royal Army Medical Corps (Territorial Force).
15. Working of a National Red Cross Society, its Organization and Rôle.
16. The Geneva Convention of 1906.

ODONTOLOGY.

President: J. HOWARD MUMMERY, M.R.C.S., L.D.S., London.

Vice-Presidents: WILLIAM DONALD ANDERSON, F.F.P.S., L.D.S., Glasgow; ARTHUR W. W. BAKER, M.D., L.D.S., Dublin; W. H. DOLAMORE, M.R.C.S., L.R.C.P., L.D.S., London; WILLIAM HERN, M.R.C.S., L.D.S., London; JOHN MATHIESON MACMILLAN, L.R.C.P. and S. Edin., L.D.S., Glasgow.

Honorary Secretaries: ERNEST B. DOWSETT, M.R.C.S., L.R.C.P., L.D.S., 1, Gloucester Street, W.; A. HOPEWELL-SMITH, M.R.C.S., L.R.C.P., L.D.S., 58, Park Street, Park Lane, W.; CYRIL H. HOWKINS, M.R.C.S., L.R.C.P., L.D.S., 83A, Edmund Street, Birmingham.

The following programme has been arranged:

Wednesday, July 27th.—Special Discussion on the Prevention of Dental Caries, to be taken under the following headings: (1) The Effect of Various Food Stuffs. To be opened by Dr. Sim Wallace. (2) The Care of the Mouth during General Disorders. (3) The Influence of Climate, etc. To be opened by Mr. A. S. Underwood.

Thursday, July 28th.—The Effect of Variations in the Buccal Secretions, and the Part Played by Bacteria Normally Present. To be opened by Mr. Kenneth W. Goadby. The Need for the Correction of Malposition of the Teeth. To be opened by Mr. J. H. Badcock. The Correction of the Effects of Drugs taken as Medicine. To be opened by Dr. Harold Austen. The Reasons for Susceptibility and Natural Immunity. To be opened by Mr. Howard Mummery.

Friday, July 29th.—Papers.

OPHTHALMOLOGY.

President: CHARLES HIGGENS, F.R.C.S., London.

Vice-Presidents: HENRY L. FERGUSON, F.R.C.S.I., Dunedin; CECIL E. SHAW, M.D., Belfast; GEORGE WM. THOMPSON, F.R.C.S., London.

Honorary Secretaries: N. BISHOP HARMAN, F.R.C.S., 108, Harley Street, W.; ARTHUR HENRY HAVEN SINCLAIR, M.D., 5, Walker Street, Edinburgh.

The following discussions have been arranged:

1. The Future of Ocular Therapeutics: (*a*) Local and General. To be opened by Dr. G. A. Berry (Edinburgh). (*b*) Bacterial Products. To be opened by Dr. J. W. H. Eyre (London).

2. The More Chronic Forms of Anterior Uveal Inflammation: (*a*) Extra-Ocular Manifestations. To be opened by Mr. Holmes Spicer (London). (*b*) Intra-Ocular Manifestations. To be opened by Mr. Stephen Mayou (London).

3. The Diagnostic Values of Ophthalmoplegia, Partial and Total. To be opened by Dr. Risien Russell (London).

On the third day the following resolution will be brought forward.

In view of the importance of obtaining continuity of treatment of defects of vision in school children throughout the period of education, and of proper co-ordination of medical inspection and treatment, it is the opinion of the Ophthalmological Section of the Association that the organization of school clinics is desirable.

OTOLOGY.

President: EDWARD LAW, M.D., London.

Vice-Presidents: ALBERT ALEXANDER GRAY, M.D., Glasgow; HUNTER F. TOD, M.D., London; FREDERICK H. WESTMACOTT, F.R.C.S., Manchester.

Honorary Secretaries: CECIL IRVING GRAHAM, F.R.C.S., 47, Queen Anne Street, W.; HERBERT JAMES MARRIAGE, F.R.C.S., 109, Harley Street, W.

The following subjects have been selected for special discussion:

Wednesday, July 27th.—Discussion on Aural Tuberculosis in Children. [The discussion will be limited to diagnosis, prognosis, and treatment, without details of operative procedure.]

Thursday, July 28th.—Discussion on the Diagnosis and Treatment of Infective Labyrinthitis.

Friday, July 29th.—Papers.

Members are invited to contribute any preparations, specimens, or drawings, or any instruments or apparatus pertaining to the work of the Section, which have been designed by themselves, in order that the Committee of the Section may make arrangements to form a special exhibit of such objects.

PATHOLOGY.

President: S. G. SHATTOCK, F.R.C.S., London.

Vice-Presidents: FREDERICK W. ANDREWES, M.D., London; ERNEST F. BASHFORD, M.D., London; Professor STUART MCDONALD, M.B., Newcastle.

Honorary Secretaries: JULIUS BERNSTEIN, M.B., 10, Bentinck Street, Cavendish Square, W.; ARTHUR E. BOYCOTT, M.D., Guy's Hospital, London, S.E.; ERNEST E. GLYNN, M.B., 62, Rodney Street, Liverpool.

The following is the provisional programme for the Annual Meeting:

Wednesday, July 27th.—Dr. Mott, F.R.S., will read a paper on the Effects of Alcohol on the Nervous System, with the object of raising a discussion on the effects of alcohol. Papers bearing on the effects of alcohol in general will be acceptable.

Thursday, July 28th.—A conjoint meeting will be held with the Section of Bacteriology, when Professor Wassermann will open a discussion on the Complement-Deviation Method of Diagnosis.

Friday, July 29th.—Dr. Bernstein will summarize several cases of Actinomycosis, with the object of inducing others to record their experiences. Other papers will be announced later.

NOTE.—Members desiring to contribute papers to this Section are requested to send notice thereof, with abstract, at the earliest opportunity, to Dr. Julius Bernstein, 10, Bentinck Street, W.

Arrangements will be made for the exhibition in the Pathological Museum of specimens illustrating the work of the Section. Members wishing to exhibit specimens or photographs should communicate with the Secretary of the Pathological Museum, Mr. H. W. Armit, Lister Institute of Preventive Medicine, S.W.

PHARMACOLOGY AND THERAPEUTICS.

President: Professor ARTHUR ROBERTSON CUSHNY, M.D., F.R.S., London.

Vice-Presidents: EDMUND H. COLBECK, M.D., London; ROBERT HUTCHISON, M.D., London.

Honorary Secretaries: ARTHUR FREDERICK HERTZ, M.D., 1, Weymouth Street, Portland Place, W.; DOUGLAS CHALMERS WATSON, M.D., 22, Coates Crescent, Edinburgh.

The following subjects have been selected for discussion:

1. The Effect of Digitalis on the Human Heart.
2. Treatment with Lactic Acid Organisms.

PHYSIOLOGY.

President: Professor WILLIAM HENRY THOMPSON, M.D., Dublin.

Vice-Presidents: JOHN SCOTT HALDANE, M.D., F.R.S., Oxford; Professor PERCY THEODORE HERRING, M.D., St. Andrews, N.B.

Honorary Secretaries: T. GRAHAM BROWN, M.B., Physiological Department, University, Glasgow; JOSEPH STRICKLAND GOODALL, M.B., Physiological Laboratory, Middlesex Hospital, W.

It has been arranged provisionally to hold two discussions:

1. The Food Requirements of Man for Subsistence and Work.
2. The Factors which make for an Efficient Circulation.

PSYCHOLOGICAL MEDICINE AND NEUROLOGY.

President: THEO. BULKELEY HYSLOP, M.D., F.R.S.E., London.

Vice-Presidents: ARCHIBALD R. DOUGLAS, L.R.C.P., Lancaster; WILLIAM GRAHAM, M.D., Belfast; THOMAS D. GREENLEES, M.D., London; J. RISIEN RUSSELL, M.D., London; DAVID G. THOMSON, M.D., Norwich.

Honorary Secretaries: ARTHUR STANLEY BARNES, M.D., 141, Great Charles Street, Birmingham; ROBERT HUNTER STEEN, M.D., The Hollies, Dartford; REGINALD JOHN STILLWELL, M.R.C.S., Moorcroft, Hillingdon, Uxbridge.

The following subjects have been selected for special discussion:

Wednesday, July 27th.—Discussion on Marriage and Insanity. To be opened by G. H. Savage, M.D., London.

Thursday, July 28th.—Discussion on the Treatment of Tabes. To be opened by J. Risien Russell, M.D., London.

Friday, July 29th.—Papers.

Members are invited to contribute any preparations, specimens or drawings, or any instruments or apparatus pertaining to the work of the Section, which have been designed by themselves, in order that the Committee of the Section may make arrangements to form a special exhibit of such objects.

RADIOLOGY AND MEDICAL ELECTRICITY.

President: J. MACKENZIE DAVIDSON, M.B., London.

Vice-Presidents: C. THURSTAN HOLLAND, M.R.C.S., Liverpool; H. LEWIS JONES, M.D., London; CECIL R. C. LYSTER, M.R.C.S., London; WILLIAM F. SOMERVILLE, M.D., Glasgow.

Honorary Secretaries: W. IRONSIDE BRUCE, M.D., 10, Chandos Street, W.; LEONARD A. ROWDEN, M.B., 32, Park Square, Leeds.

The subjects for discussion have not yet been selected, but it is proposed to set apart a special time for the exhibition by lantern of radiograms of subjects of peculiar interest, and members having lantern slides are requested to communicate with the Honorary Secretaries.

STATE MEDICINE.

President: The Right Hon. Sir WALTER FOSTER, P.C., M.D., D.C.L., London.

Vice-Presidents: FRANCIS CLARK, M.D., M.R.C.P., D.P.H., Hong Kong; S. MONCKTON COPEMAN, M.D., F.R.S., London; THOMAS W. H. GARSTANG, M.A., M.R.C.S., D.P.H., Altrincham; HERBERT JONES, L.R.C.S.I., D.P.H., Hereford; JAMES MALCOLM MASON, M.D.Brux., L.R.C.P., D.P.H.Camb., London; CHARLES E. PAGET, M.R.C.S., Northampton.

Honorary Secretaries: GEO. FREDERICK MCCLEARY, M.D., 7, Belsize Park Gardens, Hampstead, N.W.; JOHN EDWARD SANDILANDS, M.R.C.S., Town Hall, Kensington, W.

The following discussions have been arranged:

1. The Relation of Poor Law Reform to Public Health Administration. To be opened by Mrs. Sydney Webb, followed by Mr. C. S. Loch, and Dr. R. A. Lyster (County M.O.H. Hants).
2. Town Planning in Relation to Public Health. To be opened by Dr. John Robertson (M.O.H. Birmingham), followed by Mr. Raymond Unwin, and Mr. Fremantle (County M.O.H. Herts).
3. The Provision of Medical Treatment by Local Education Authorities. To be opened by Dr. James Kerr, followed by Professor Kenwood.
4. The Influence of Elementary Schools on the Spread of Infectious Disease.
5. The Etiology and Prevention of Summer Diarrhoea.
6. The Administrative Control of Ophthalmia Neonatorum. To be opened by Dr. Geo. Reid (County M.O.H. Staffordshire), followed by Mr. Falker, and Mr. Bishop Harman.
7. The Reform of Death Certification.

SURGERY.

President: Sir VICTOR HORSLEY, F.R.C.S., M.B., F.R.S., London.

Vice-Presidents: FREDERICK DOUGAN BIRD, M.S., M.R.C.S., Melbourne; JOHN BLAND-SUTTON, F.R.C.S., London; Professor A. J. MCAULEY BLAYNEY, F.R.C.S.I., Dublin; GEORGE H. MAKINS, C.B., F.R.C.S., London; F. N. GISBORNE STARR, M.B., Toronto; Professor HY. ALEXIS THOMSON, M.D., Edinburgh.

Honorary Secretaries: HERBERT SHERWELL CLOGG, M.S., 143, Harley Street, W.; DOUGLAS DREW, F.R.C.S., 6, Wimpole Street, W.; WILLIAM J. GREER, F.R.C.S.I., 19, Gold Tops, Newport, Mon.

The following subjects have been selected for discussion:

Wednesday, July 27th.—The Principles which should Govern the Operative Treatment of Simple Fractures.

Thursday, July 28th.—The Surgical Treatment of Exophthalmic Goître.

TROPICAL MEDICINE.

President: FLEMING M. SANDWITH, M.D., London.

Vice-Presidents: HENRY P. KEATINGE, M.B., Cairo; GEORGE C. LOW, M.B., London; LAURANCE DUDLEY PARSONS, M.B., Gibraltar; Colonel JAMES R. ROBERTS, I.M.S., F.R.C.S., Indore, C. India; RAGHAVENDRA ROW, M.D., Bombay.

Honorary Secretaries: H. SINCLAIR COGHILL, M.B., London School of Tropical Medicine, Royal Albert Dock, E.; WILLIAM THOMAS PROUT, C.M.G., M.B., 78, Rodney Street, Liverpool; EMRYS ROBERTS, M.D., 5, Buckingham Place, Queen's Road, Clifton, Bristol.

PROVISIONAL TIME TABLE.

FRIDAY, JULY 22ND, 1910.
2.30 P.M.—Annual General Meeting, followed by Representative Meeting.

SATURDAY, JULY 23RD, 1910.
9.30 A.M.—Representative Meeting.

MONDAY, JULY 25TH, 1910.
10 A.M.—Representative Meeting.

TUESDAY, JULY 26TH, 1910.
10 AM.—Council Meeting.
10.30 A.M.—Representative Meeting.
2.30 P.M.—Adjourned General Meeting. Induction of President.
4 P.M.—Annual Conference of Secretaries of Divisions and Branches.
8.30 P.M.—President's Address.

WEDNESDAY, JULY 27TH, 1910.
9.30 A.M.—Council Meeting.
10 A.M. to 1 P.M.—Sectional Meetings.
12.30 P.M.—Address in Medicine.
3 P.M.—Religious Services.

THURSDAY, JULY 28TH, 1910.
9.30 A.M.—Council Meeting.
10 A.M. to 1 P.M.—Sectional Meetings.
12.30 P.M.—Address in Surgery.
7.30 P.M.—Annual Dinner.

FRIDAY, JULY 29TH, 1910.
10 A.M. to 1 P.M.—Sectional Meetings.

SATURDAY, JULY 30TH, 1910.
Excursions.

The Executive Committee of the Annual Meeting at its meeting on March 8th adopted the following resolution:

That academic dress or uniform be worn on the three following occasions, namely: Tuesday evening at the Presidential Address; Wednesday afternoon at the Church Service in Westminster Abbey; and on Wednesday evening at the Conversazione at the Guildhall by the Lord Mayor and Corporation.

☞ *To ensure the insertion of notices in this column, they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

Association Notices.

ANNUAL REPRESENTATIVE MEETING, 1910.

DATE OF MEETING.

THE Annual Representative Meeting of the Association, 1910, will be held in the Court of Common Council Chamber, Guildhall, London, on Friday, July 22nd, 1910, and following days as may be required.

By Order,
J. SMITH WHITAKER,
Medical Secretary.

COUNCIL MEETING.

A MEETING of the Council will be held at 2 o'clock in the afternoon of Wednesday, April 27th, in the Council Room at 429, Strand, London, W.C.

By Order,
GUY ELLISTON.
Financial Secretary and Business Manager.

March 24th, 1909.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH: BATH DIVISION.—The annual meeting of the Bath Division will be held at the Royal United Hospital, Bath, on Friday, May 20th, at 5.30 p.m. Business: (1) Election of Officers. (2) Election of a Representative for the Annual Meeting in London. (3) Any other business.—D. LESLIE BEATH, Honorary Secretary.

BORDER COUNTIES BRANCH.—The spring meeting of this Branch will be held at Penrith on Thursday, April 28th, in the George Hotel. Detailed circular will be issued shortly, meantime members desirous of showing cases, etc., will kindly communicate with the Honorary Secretary.—G. R. LIVINGSTON, Honorary Secretary, Dumfries.

DORSET AND WEST HANTS BRANCH.—The spring meeting of this Branch will be held in the Hotel Mont Doré, Bournemouth, on Wednesday, May 18th. Members wishing to read papers, show cases, or exhibit specimens, should communicate with the Honorary Secretary not later than Thursday, May 5th.—JAMES DAVISON, Honorary Secretary, "Streateplace," Bournemouth.

LANCASHIRE AND CHESHIRE BRANCH: WARRINGTON DIVISION.—The annual meeting of the Division will be held at the Infirmary, Warrington, on Tuesday, May 3rd, at 4 p.m. Agenda: To elect officers, the representative on Branch Council, and the ordinary members of the Executive Committee, etc.—T. A. MURRAY, Honorary Secretary.

LEINSTER BRANCH.—The annual general meeting of this Branch will be held in the Royal College of Physicians, Kildare Street, Dublin, on Thursday, May 5th, at 4.30 p.m. Any member having subjects of professional interest to bring forward should communicate as soon as possible with the Honorary Secretary, ARTHUR H. WHITE, Malvern, Terenure Road, Dublin.

METROPOLITAN COUNTIES BRANCH.—A conference between the medical staffs of the metropolitan hospitals and the members of the Metropolitan Counties Branch will be held in St. James's Vestry Hall, Piccadilly, on Wednesday, May 4th, at 4.30 o'clock, with a view to securing a common action towards placing the question of the treatment of school children found on inspection to be defective in a position which shall be satisfactory to the interests of the public and the profession.—E. W. GOODALL and W. GRIFFITH, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: KENSINGTON DIVISION.—A special meeting of the Kensington Division will he held at the Kensington Town Hall on Friday, April 29th, at 4.30 p.m., to

discuss the Report on a Special Class of Consultants. Dr. Fred. J. Smith, Physician to the London Hospital, has kindly consented to open the discussion, and other well-known men will take part.—H. BECKETT-OVERY, Honorary Secretary, 24, Alexander Square, South Kensington, S.W.

METROPOLITAN COUNTIES BRANCH: LAMBETH DIVISION.—The annual general meeting of this Division will take place at 4 p.m. on May 5th, at Bethlem Royal Hospital. Agenda: (1) The election of officers for the ensuing year 1910–11. (2) Dr. W. H. B. Stoddart will give a demonstration of cases from the wards.—H. CHARLES CAMERON, 6, St. Thomas's Street, S.E., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: RICHMOND DIVISION.—A clinical meeting of this Division will be held at the Royal Hospital, Richmond, on Wednesday, April 27th, at 8.30 p.m. Miss Martha Adams, M.B., will show: (1) Three cases of cardiac disease in the same family; (2) Lymphangioma of the tongue in a boy 12 years of age; (3) A case of ichthyosis in a girl. C. S. Blair, M.D., will show ophthalmic cases. L. Clark Newton, M.B., will read notes on an unusual case of epilepsy. Members are invited to show cases or read notes, of which notice need not be given.—G. CARDNO STILL, M.B., Honorary Secretary.

NORTHERN COUNTIES OF SCOTLAND BRANCH.—A general meeting of the Branch will be held at the Northern Infirmary, Inverness, on Saturday, April 30th, at 3 p.m. Business: (1) Consideration of Interim Report of Poor Law Reform Committee (BRITISH MEDICAL JOURNAL, SUPPLEMENT, February 12th); (2) Relation of Homoeopaths to the Association; (3) Medical Inspection and treatment of School Children. (4) Election to Central Council; (5) Election of Representative in Representative Meeting; (6) Clinical Cases and Specimens. (7) Any other business.—J. MUNRO MOIR, M.D., Honorary Secretary.

NORTH OF ENGLAND BRANCH: SUNDERLAND DIVISION.—Sir Victor Horsley, F.R.S., will give an address entitled "Diagnosis and Treatment of Cerebral Tumours" (illustrated by lantern slides), in the Subscription Library, Fawcett Street, Sunderland, on Tuesday, April 26th, at 4.15 p.m. The annual dinner will be held in the evening at the Grand Hotel, Sunderland, at 7.15. Tickets 7s. 6d. each.—D. F. TODD, Honorary Secretary. Sunderland.

STAFFORDSHIRE BRANCH.—The third general meeting of the session will be held at the Victoria Hotel, Wolverhampton, on Thursday, April 28th. The President, Dr. W. G. Lowe, will take the chair at 5.35 p.m. Business: (1) Minutes of the last general meeting. (2) Correspondence. (3) Exhibition of Living Cases. (4) Paper:—Dr. H. C. Mactier: Infant Feeding. (5) Paper:—Dr. Frederick Edge: The Uterus in Hysterectomy. (6) Exhibition of Pathological Specimens, etc. Dinner 7 p.m., charge 5s.—G. PETGRAVE JOHNSON, Honorary General Secretary.

ULSTER BRANCH.—The spring meeting will be held in Londonderry, on Saturday, April 30th.—CECIL E. SHAW, Honorary Secretary, 29, University Square, Belfast.

BRITISH MEDICAL ASSOCIATION LIBRARY.

BOOKS NEEDED TO COMPLETE SERIES.

THE Librarian will be glad to receive any of the following volumes, which are needed to complete series in the Library:

American Climatological Transactions. Vols. 1, 4, 5, 6.
———— Dermatological Association Transactions. Vols. 5, 7, 8, 11, and 29.
———— Journal of the Medical Sciences. New series, vols. 4, 5, 1842–3; vols. 14, 15, 1847–8; vols. 18–30, 1850; vol. 33, 1857; vol. 46, 1864–5; vol. 59; or any parts of these vols.
———— Journal of Ophthalmology. Vols. 1–9.
———— Laryngological Association. Transactions. Vols. 1–6, 8–9.
———— Medical Association. Transactions, 2, 4, 6, 7, 11, 12, 14, 15, 16, 19, 20, 22, 31, after vol. 33, and the *Journal*.
———— Otological Society. Transactions. Vol. 3, part 2, 1883.
———— Public Health Association. Transactions. Any vols.
Analyst. Vols. 1–24.
Archiv für Dermatologie und Syphilis. 1892 and 1893.
Annals of Surgery. Vols. 14, 26, 27.
Archives générales de Médecine. Third new series 7–8 (1839–40); 4th series, 10–17, 20–25, 1852–55, 1858–64, 1872–1897; 1846–55 inclusive; 1857–64 inclusive; 1871.
———— of Ophthalmology. Vols. 1–3, 6, 7, 14, 15, 16 and 20.
———— of Otology. Vols. 1–7, and 20–22.
———— de Parasitologie. Vols. 1–8.
———— of Pediatrics. Vols. 1–11.
Asylum Journal of Mental Science. Vol. 1, 1854.
Bentley and Trimen. Atlas of Medicinal Plants.
British Journal of Dermatology. Vol. 2, part 3.
British Laryngological and Rhinological Association, 1896–7–8–9, 1900–01–02, and since 1903.
Caledonian Medical Journal. Vol. 1 prior to 1894.
Carmichael Essays. Rivington, 1879.
Centralblatt für Augenheilkunde. Hirschberg. All prior to 1891; Index to 1891.
Centralblatt für Bakteriologie. Bound volumes prior to 1899.
———— für medicinischen Wissenschaften. Vols. 1–19.
Congrès Français de Chirurgie. Transactions 1, 2, 3, 6, and 10, and all since 11th.
———— Internat. d'Obstétrique et de Gynécologie. 3. Amsterdam, 1899.
Congress für innere Medicin, Verhandlungen. 1–12, 14, and since 18.
Dermatological Congress. Vienna, 1892.
Dublin Quarterly Journal of the Medical Sciences. Vols. 1, 10, 17, 20, 28, and 35–40.
Edinburgh Obstetrical Transactions. Vol. 5.
Glasgow Medical Journal. 1833–1868.
———— Pathological Society. Transactions 1 and 2.
Guy's Hospital Gazette. Nos. 1 and 5. 1872.
Indian Medical Gazette. 1868–1884.

British Medical Association.

SCHOLARSHIPS AND GRANTS IN AID OF SCIENTIFIC RESEARCH.

SCHOLARSHIPS.

THE Council of the British Medical Association is prepared to receive applications for Research Scholarships as follows:

1. An ERNEST HART MEMORIAL SCHOLARSHIP, of the value of £200 per annum, for the study of some subject in the department of State Medicine.
2. THREE RESEARCH SCHOLARSHIPS, each of the value of £150 per annum, for research into some subject relating to the Causation, Prevention, or Treatment of Disease. Each Scholarship is tenable for one year, commencing on October 1st, 1910. A Scholar may be reappointed for not more than two additional terms.

The conditions of the award of Scholarships are stated in the Regulations, a copy of which will be supplied on application to the Medical Secretary of the Association, 429, Strand, London, W.C.

GRANTS.

The Council of the British Medical Association is also prepared to receive applications for Grants for the Assistance of Research into the causation, treatment, or prevention of disease. Preference will be given, other things being equal, to members of the medical profession, and to applicants who propose as subjects of investigation problems directly related to practical medicine.

The conditions of the award of Grants are stated in the Regulations, a copy of which will be supplied on application to the Medical Secretary of the Association, 429, Strand, London, W.C.

Applications.

Applications for Scholarships and Grants for the year 1910–11 must be made not later than June 20th, 1910, in the prescribed form, a copy of which will be supplied by the Medical Secretary on application.

Each application should be accompanied by testimonials, including a recommendation from the head of the laboratory, if any, in which the applicant proposes to work, setting out the fitness of the candidate to conduct such work, and the probable value of the work to be undertaken. This is not intended, however, to prevent applications for grants in aid of work which need not be performed in a recognized laboratory.

J. SMITH WHITAKER, *Medical Secretary.*

429, Strand, London, W.C.,
April 20th, 1910.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

The following appointments have been made at the Admiralty: Fleet Surgeon J. C. Wood and Surgeon J. Barrett, M.B., to the *Collingwood*, on commissioning, April 19th; Staff Surgeon M. H. Knapp to the *Natal*, April 19th; Staff Surgeon J. C. Rowan, M.B., to the *Mars*, on recommissioning, April 19th; Surgeon E. R. L. Thomas to the *Research*, for the surveying season, April 13th; Staff Surgeon J. Boyan to the *Pembroke*, for the Royal Naval Barracks, temporarily, April 15th; Staff Surgeon R. M. Richards to the *Vivid*, additional, for the *Theseus*, April 28th; Staff Surgeon H. C. Whiteside to the *Vivid*, additional, for disposal, April 28th; Staff Surgeon F. F. Lobb to the *Ganges*, for Shotley Training Establishments, and for duties in connexion with physical training, April 15th; Fleet Surgeon J. Andrews, M.B., to the *Exmouth*, April 24th; Fleet Surgeon W. J. Colborne to Pembroke Dockyard, April 24th; Fleet Surgeon C. S. Woodwright to the *Leviathan*, April 24th; Fleet Surgeon C. Bradley, M.D., to the *Roxburgh*, April 24th; Fleet Surgeon E. R. Dimsey, D.S.O., and Surgeon A. T. Rivers to the *St. Vincent*, on commissioning, May 3rd; Fleet Surgeon G. G. Borrett and Surgeon H. S. Turner to the *Lord Nelson*, May 3rd; Fleet Surgeon L. Bidwell to the *Crescent*, May 3rd; Surgeon J. E. Johnston, M.B., to the *Ringdove*, on recommissioning, May 3rd.

ARMY MEDICAL SERVICE.

Royal Army Medical Corps.

Lieutenant-Colonel S. E. Duncan retires on retired pay, April 20th. His commissions are thus dated: Surgeon, January 31st, 1885; Surgeon-Major, May 1st, 1897; Lieutenant-Colonel, January 31st, 1905. He was in the South African war in 1900-2, and was present in operations in the Orange Free State (including actions at Hautnek, Vet River, and Zand River), in the Transvaal (including actions near Johannesburg, and Diamond Hill), and in Cape Colony (Queen's medal with four clasps, and the King's medal with two clasps).

Lieutenant W. W. Treves, M.B., is seconded under the provisions of Article 300, Royal Warrant for Pay and Promotion, 1909, April 1st.

INDIAN MEDICAL SERVICE.

Lieutenant-Colonel D. S. E. Bain, Madras, is permitted to retire from the service from April 5th. He was appointed Assistant Surgeon, March 31st, 1879, and made Lieutenant-Colonel, March 31st, 1899.

TERRITORIAL FORCE.

Royal Army Medical Corps.

Third East Anglian Field Ambulance.—Major and Honorary Surgeon Lieutenant-Colonel H. T. Challis, M.D., from the List of Officers Attached to Units other than Medical Units, to be Major, with the honorary rank of Surgeon-Lieutenant-Colonel, February 1st.

Attached to Units other than Medical Units.—Lieutenant John Allan, M.B., to be Captain, October 7th, 1909. Lieutenant H. W. A. Cowan, M.B., resigns his commission, February 23rd.

A second school of instruction for the Territorial Royal Army Medical Corps has been established at Woolwich, and has been allotted to the 2nd London Territorial Division. The school already existing at Calthorpe Street, Gray's Inn Road, has been allotted to the 1st London Territorial Division.

CHANGES OF STATIONS.

The following changes of stations amongst the officers of the Army Medical Service have been officially reported to have taken place during March, 1910:

		FROM	TO
Colonel	W. G. Macpherson, C.M.G., M.B.	London ...	Malta.
Lieut.-Col.	T. J. O'Donnell, D.S.O. ...	Quetta	Aden.
,,	E. J. E. Risk...	Bloemfontein	Belfast.
,,	C. E. Nichol, D.S.O., M.B.	Aldershot ...	Maymyo.
,,	G. Wilson, M.B.	Multan... ...	Dover.
,,	W. C. Beevor, C.M.G., M.B.	Dalhousie ...	Bangalore.
,,	H. A. Haines, M.D. ...	Fyzabad ...	S. Command.
,,	H. J. Fletcher, M.B. ...	Sialkot... ...	Rawal Pindi.
,,	S. Powell, M.D.	Maymyo ...	Rangoon.
,,	W. T. Swan, M.B.	Chakrata ...	Netley.
,,	G. G. Adams...	Cosham ...	Hyderabad.
,,	P. C. H. Gordon	Rangoon ...	Bulford.
,,	H. Carr, M.D.	Netley	Jullundur.
,,	H. E. Cree	Chatham ...	Jhansi.
,,	H. Cocks, M.B.	Wellington ...	E. Command.
,,	F.W.G. Gordon-Hall, M.B.	Muttra	Scottish Command.
,,	H. P. G. Elkington ...	Jhansi	Irish Command.
,,	G. F. H. Marks, M.D. ...	Newcastle-on-Tyne	Ferozepore.
,,	H. W. Austin	Glasgow ...	Aldershot.
Major	C. H. Hale, D.S.O.	York	Strensall.
,,	B. H. Scott	Edinburgh ...	War Office.
,,	W. C. Poole, M.B.	Buttevant ...	Rawal Pindi.
,,	B. J. Inniss	Meerut... ...	Gravesend.
,,	A. P. Blenkinsop	—	R.A.M. Coll.
,,	A. J. Luther	Thayetmyo ...	Irish Command.
,,	T. B. Beach	Woolwich ...	Aldershot.
,,	H. J. Parry, D.S.O., M.B. ...	Pietermaritzburg	S. Command.
,,	T. W. Gibbard, M.B.	Dagshai ...	London.
,,	W. D. Erskine, M.B.	Strensall ...	York.
,,	H. W. K. Read	Landour ...	Beverley.
,,	A. F. Tyrrell	Queenstown ...	Fermoy.
,,	J. B. Anderson	Benares ...	London.
,,	E. M. Williams	Fermoy ...	India.
,,	E. B. Steel, M.B.	Jhansi	Neemuch.
,,	L. F. Smith, M.B.	Woolwich ...	Nowshera.
,,	J. Grech	Meerut... ...	W. Command.
,,	St. J. B. Killery	Bareilly ...	Jersey.
,,	G. T. K. Maurice	Muttra	S. Command.
,,	G. B. Riddick	Calcutta ...	Maymyo.
Major	W. P. Gwynn	Karachi ...	Quetta.
,,	M. M. Lowsley	Secunderabad.	Ambala.
,,	E. T. Inkson, V.C.	St. Thomas's Mount	Bangalore.
,,	C. J. O'Gorman, D.S.O.... ...	Scarborough ...	Nowshera.
Captain	S. O. Hall	Secunderabad.	Fermoy.
,,	S. G. Butler	—	Pretoria.
,,	B. F. Wingate	Ferozepore ...	Secunderabad.
,,	H. C. R. Hime, M.B.	Aldershot ...	Bangalore.
,,	E. G. Ford, M.B.	Rawal Pindi ...	Dehra Dun.
,,	F. S. Walker, F.R.C.S.I. ...	Crownhill ...	Cahir.
,,	W. Bennett, M.B.	Cork	India.
,,	T. E. Fielding, M.B.	— ...	London Dist.
,,	J. G. Churton	Aldershot ...	Peshawar.
,,	A. F. Weston	Cosham ...	Netley.
,,	R. T. Brown, M.D.	Colchester ...	Maymyo.
,,	W. B. Fry...	London.s. ...	Egypt. Army.
,,	W. J. Waters	Devonport ...	Crownhill.
,,	H. A. Davidson, M.B. ...	Queenstown ...	Buttevant.
,,	G. F. Sheehan	Dublin	India.
,,	R. N. Woodley	Cahir	Bulford.
,,	A. J. Hull	Jutogh	E. Command.
,,	P. G. Hyde, M.B.	Queenstown ...	Dublin.
,,	S. M. W. Meadows	Rawal Pindi ...	Chatham.
,,	D. S. Skelton	Uganda ...	Tregantle.
,,	F. C. Lambert	Cosham ...	Netley.
,,	T. E. Harty	Mandalay ...	E. Command.
,,	D. P. Watson, M.B.	Aden	W. Command.
,,	F. M. M. Ommanney	,, ...	E. Command.
,,	O. Ievers, M.B.	Pretoria ...	Wynberg.
,,	J. T. McEntire, M.B.	Potchefstroom	N. Command.
,,	J. D. Richmond, M.B.... ...	Quetta	Fermoy.
,,	E. M. Glanvill, M.B.	Harrismith ...	Devonport.
,,	R. T. Collins	Meerut... ...	E. Command.
,,	A. C. Osburn	Mandalay ...	Sheerness.
,,	J. Fairbairn, M.B.	Colaba	Scottish Command.
,,	J. H. Douglass, M.D.	Secunderabad	Irish Command.
,,	R. R. Lewis	,,	Aldershot.
,,	A. L. Otway, M.B.	Mhow	Dublin Dist.
,,	R. B. Hole, M.B.	Quetta	Queenstown.
,,	H. Harding, M.B.	,, ...	Portland.
,,	M. F. Grant	,, ...	Netley.
,,	D. P. Johnstone	Maymyo ...	W. Command.
,,	E. H. M. Moore	Potchefstroom	,,
,,	M. D. Ahern	Ferozepore ...	Queenstown.
,,	P. Dwyer, M.B.	Jubbulpore ...	Aden.
,,	J. H. Campbell, M.B.... ...	Lucknow ...	Allahabad.
,,	M. Sinclair, M.B.	Sialkot... ...	Irish Command.
,,	K. A. C. Doig	Bareilly ...	Shahjehanpur
,,	G. B. F. Churchill	Bhamo... ...	Meiktila.
,,	J. E. Hoar	Secunderabad	St. Thomas's Mount.
,,	E. G. R. Lithgow	Rawal Pindi ...	Aden.
,,	C. E. W. S. Fawcett, M.B. ...	Bangalore ...	Maymyo.
,,	C. J. Wyatt, M.B.	Piershill ...	Edinburgh.
,,	A. C. Amy, M.B.	Bareilly ...	Dehra Dun.
Lieutenant	M. P. Leahy, M.B. ...	Poona	Kirkee.
,,	M. O. Wilson, M.B. ...	Karachi ...	Quetta.
,,	W. B. Purdon, M.B. ...	Rangoon ...	Maymyo.
,,	F. J. Stuart, M.B.	Chatham ...	Lucknow.
,,	J. B. Hanafin, F.R.C.S.I.	Cork	Rawal Pindi.
,,	H. Gibson	Cosham ...	Poona.
,,	D. B. McGrigor, M.B. ...	Quetta	Dehra Dun.
,,	H. P. Hart, M.B.	— ...	Rangoon.
,,	R. F. O'T. Dickinson ...	Jubbulpore ...	Jhansi.
,,	A. E. B. Jones, M.D. ...	— ...	Rangoon.
,,	J. F. Grant, M.B.	Benares ...	Dehra Dun.
,,	J. E. Ellcome	Tregantle ...	India.
,,	R. M. Dickson, M.B. ...	Glasgow ...	,,
,,	F. Worthington, M.B. ...	Somaliland ...	Cork District.
,,	F. H. Bradley	Edinburgh ...	India.
,,	A. L. Stevenson, M.B. ...	Curragh ...	,,
,,	J. W. Houston, M.B. ...	Dublin... ...	Poona.
,,	A. Shepherd, M.B.... ...	Sheffield ...	Lucknow.
,,	A. L. Foster	Aldershot ...	Rawal Pindi.
,,	T. S. Eves, M.B.	Dublin... ...	Lucknow.
,,	D. S. Buist, M.B.	Kingston-on-Thames	London Dist.
,,	A. M. Pollard	Winchester ...	Golden Hill.
,,	E. V. Vaughan, M.B. ...	Queenstown ...	Fermoy.
,,	C. H. O'Rorke, M.B. ...	Birr	Curragh.
,,	P. S. Tomlinson	Birmingham ...	Tidworth.
,,	A. D. Stirling, M.B. ...	Ashton... ...	Scottish Command.
,,	O. W. McSheehy, M.B. ...	Devonport ...	Worcester.
,,	J. R. Hill, M.B.	Chester ...	Monmouth.
,,	W. Mathieson	Woolwich ...	London.
,,	A. G. Jones, M.B.	Tidworth ...	Coventry.

Vital Statistics.

ENGLISH URBAN MORTALITY IN THE FIRST QUARTER OF 1910.

[Specially Reported for the "British Medical Journal."]

In the accompanying table will be found summarized the vital statistics for seventy-six of the largest English towns, based upon the Registrar-General's weekly returns for the first quarter of the year. The 105,883 births registered in these towns during the quarter were equal to an annual rate of 25.4 per 1,000 of the population, estimated at 16,713,617 persons at the middle of the year; in the corresponding quarters of the three preceding years the rates were 28.0, 28.3, and 26.7 per 1,000 respectively. In London the birth-rate last quarter was equal to 24.5 per 1,000, while it averaged 25.8 in the seventy-five other large towns, and ranged from 14.0 in Hastings, 14.4 in Hornsey, 16.1 in Halifax, 16.8 in Bournemouth, 18.3 in Bradford, 18.4 in Northampton, and 19.4 in Brighton and in Plymouth, to 32.1 in Coventry, in Wigan, and in Newport (Mon.), 32.2 in Tynemouth, 33.7 in Swansea, 33.9 in St. Helens, 34.2 in Middlesbrough, 35.1 in Merthyr Tydvil, and 43.6 in Rhondda.

Analysis of the Vital Statistics of Seventy-six of the Largest English Towns during the First Quarter of 1910.

Towns.	Estimated Population middle of 1910.	Births.	Deaths.	Annual rate per 1,000 Living.			Deaths from Principal Infectious Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Enteric Fever.	Diarrhoea.	Deaths of Children under to one year of age 1,000 Births.	Rate per cent. of Uncertified Deaths.
				Births.	Deaths.	Principal Infectious Diseases.										
76 Towns	16,713,617	105,883	61,863	25.4	14.8	0.97	4,043	2	804	388	579	1,609	195	466	115	0.8
75 Provincial Towns	11,840,915	76,164	44,536	25.8	15.1	0.96	2,836	2	557	315	453	1,020	160	329	120	1.1
London	4,872,702	29,719	17,327	24.5	14.3	0.98	1,207	—	247	73	126	589	35	137	101	0.1
Croydon	164,485	979	530	23.9	12.9	0.41	17	—	12	—	1	4	—	—	98	—
Willesden	166,088	927	396	22.4	9.6	0.57	24	—	8	—	6	7	—	3	84	0.5
Hornsey	98,561	354	211	14.4	8.6	0.32	8	—	—	2	1	2	1	2	73	0.5
Tottenham	132,803	913	387	27.4	11.6	0.57	19	—	2	1	—	12	2	2	89	—
West Ham	328,585	2,270	1,043	27.7	12.7	1.05	86	—	17	4	15	37	3	10	102	0.1
East Ham	156,208	846	380	21.7	9.8	0.46	18	—	2	2	3	9	—	2	108	—
Leyton	133,436	777	376	23.4	11.3	0.84	28	—	6	6	4	7	—	5	82	—
Walthamstow	141,748	809	395	22.9	11.2	0.90	32	—	2	—	3	24	—	3	130	—
Hastings	68,520	239	272	14.0	15.9	2.11	36	—	16	—	1	19	—	—	126	—
Brighton	131,900	638	511	19.4	15.5	0.31	10	—	—	2	1	3	2	2	122	—
Portsmouth	217,989	1,448	836	26.6	15.4	1.02	55	—	1	11	19	14	9	1	112	0.5
Bournemouth	73,947	309	242	16.8	13.1	0.60	11	—	—	2	5	2	—	2	91	0.4
Southampton	127,157	732	386	23.1	12.2	0.60	19	—	—	—	7	6	—	6	77	—
Reading	84,355	416	241	19.8	11.5	0.34	7	—	—	1	—	1	2	3	94	3.3
Northampton	99,113	452	333	18.4	13.5	1.01	25	—	16	—	—	4	2	3	133	1.8
Ipswich	75,936	437	339	23.1	17.9	2.32	44	—	32	—	1	11	—	—	135	—
Great Yarmouth	53,715	332	204	24.8	15.2	0.36	5	—	—	1	1	3	—	—	90	—
Norwich	125,446	725	452	23.2	14.5	0.47	15	—	6	1	2	1	—	5	117	0.7
Plymouth	126,266	611	513	19.4	16.3	1.11	35	—	—	—	1	28	1	5	136	—
Devonport	84,695	501	319	23.7	15.1	1.66	35	—	1	1	6	24	2	1	126	—
Bristol	382,550	2,067	1,251	21.7	13.1	0.63	61	—	25	2	10	15	2	7	101	0.2
Hanley	69,672	518	355	29.8	20.4	2.71	47	—	18	3	12	6	3	5	207	1.1
Burton-on-Trent	54,977	278	174	20.3	12.7	0.94	13	—	1	—	1	10	1	—	86	1.1
Wolverhampton	105,962	579	349	21.9	13.2	0.38	10	—	1	1	—	7	—	1	136	—
Walsall	101,035	714	361	28.3	14.3	0.68	17	—	1	3	3	4	—	6	120	1.1
Handsworth	72,355	380	179	21.1	9.9	0.34	6	—	—	3	—	3	—	—	92	0.6
West Bromwich	71,138	556	261	31.4	14.7	1.18	21	—	9	2	2	2	1	5	115	2.3
Birmingham	570,113	3,871	2,315	27.2	16.3	1.13	162	—	—	27	20	90	6	19	143	3.4
King's Norton	84,673	426	180	20.2	8.5	0.61	13	—	—	3	7	3	—	—	49	1.7
Smethwick	72,350	509	239	28.2	13.3	1.11	20	—	—	2	2	11	2	3	122	0.4
Aston Manor	86,269	510	278	23.7	12.9	1.12	24	—	—	4	1	16	—	3	133	1.1
Coventry	81,449	651	323	32.1	15.9	1.14	23	—	1	10	5	2	2	3	115	1.2
Leicester	248,374	1,319	772	21.3	12.5	0.73	45	—	—	7	2	32	1	3	144	0.9
Grimsby	74,283	550	274	29.7	14.8	0.37	7	—	—	—	1	5	1	—	111	1.1
Nottingham	266,471	1,728	1,054	26.0	15.9	0.87	56	1	15	7	11	9	5	8	118	0.4
Derby	131,256	738	408	22.6	12.5	0.64	21	—	—	1	9	6	4	1	88	—
Stockport	105,087	683	464	26.1	17.7	1.11	29	—	15	2	7	3	—	2	135	0.9
Birkenhead	122,431	886	579	29.0	19.0	2.00	61	—	28	4	6	18	1	4	121	1.0
Wallasey	73,173	405	264	22.2	14.5	1.08	20	—	11	2	2	1	3	1	91	1.1
Liverpool	767,606	5,900	3,711	30.8	19.4	1.73	330	—	69	44	31	139	13	34	140	2.4
Bootle	70,548	531	265	30.2	15.1	0.85	15	—	3	2	1	8	1	—	100	2.3
St. Helens	96,523	815	367	33.9	15.3	0.87	21	—	—	7	5	4	2	3	96	5.2
Wigan	91,732	735	380	32.1	16.6	0.95	22	—	—	4	6	2	6	4	125	—
Warrington	73,295	560	284	30.6	15.5	0.59	11	—	—	1	1	6	—	3	113	3.2
Bolton	190,315	1,091	687	23.0	14.5	0.63	30	—	—	7	7	9	3	4	107	0.4
Bury	59,409	319	256	21.5	17.3	0.28	4	—	—	—	1	—	1	2	97	0.8
Manchester	716,354	5,131	3,027	28.7	16.9	0.98	176	—	31	23	27	57	9	29	114	0.9
Salford	244,636	1,680	957	27.5	15.7	1.20	73	—	18	8	23	7	5	12	117	0.6
Oldham	144,411	945	690	26.3	19.2	1.01	36	—	2	1	5	11	4	13	101	0.1
Rochdale	90,497	525	390	23.3	17.3	0.39	9	—	—	2	1	3	1	2	118	1.8
Burnley	107,448	695	514	25.9	19.2	3.02	81	—	49	14	7	7	1	3	155	1.4
Blackburn	137,972	756	527	22.0	15.3	0.65	22	—	3	11	3	1	1	3	143	2.1
Preston	119,253	735	518	24.7	17.4	0.57	17	—	—	3	3	5	3	3	135	4.4
Barrow-in-Furness	63,689	413	260	26.0	16.4	1.89	30	—	—	1	7	20	—	2	184	2.3
Huddersfield	94,702	510	451	21.6	19.1	1.13	27	—	1	7	5	10	2	2	110	0.2
Halifax	112,818	454	375	16.1	13.3	0.89	25	—	1	2	15	2	1	4	97	1.9
Bradford	295,865	1,349	1,114	18.3	15.1	0.80	59	—	27	6	12	5	5	4	115	0.3
Leeds	490,985	2,765	1,732	22.6	14.1	0.67	84	—	9	10	16	31	9	9	116	0.1
Sheffield	478,763	3,284	1,673	27.5	14.0	0.57	67	—	3	7	17	27	3	10	115	1.3
Rotherham	66,414	518	226	31.3	13.6	0.60	10	—	1	1	1	1	3	3	116	1.3
York	88,159	533	310	24.3	14.1	0.14	3	—	2	—	—	—	1	—	84	0.3
Hull	280,006	2,047	1,197	29.3	17.1	1.00	70	—	14	4	18	24	7	3	130	1.0
Middlesbrough	107,014	913	422	34.2	15.8	0.90	24	—	—	1	11	3	—	9	110	0.7
Stockton-on-Tees	53,680	408	223	30.5	16.7	0.89	12	—	5	2	2	2	1	—	127	—
West Hartlepool	81,814	456	275	22.4	13.5	2.20	45	—	—	—	6	38	—	1	140	0.7
Sunderland	161,083	1,087	697	27.1	17.4	1.27	51	—	6	4	8	24	5	4	144	2.4
South Shields	119,737	801	414	26.8	13.9	1.01	30	—	3	2	2	18	3	2	122	3.1
Gateshead	133,676	912	451	27.4	13.5	0.84	28	—	5	3	3	13	1	3	149	5.5
Newcastle-on-Tyne	285,951	1,892	1,009	26.5	14.2	0.54	39	1	—	4	13	10	5	6	116	0.1
Tynemouth	56,378	452	234	32.2	16.6	0.77	11	—	—	2	4	—	2	3	104	1.3
Newport (Mon.)	79,729	639	293	32.1	14.7	1.56	31	—	4	—	2	23	2	—	102	—
Cardiff	199,189	1,197	670	24.1	13.5	0.84	42	—	15	5	5	8	2	7	129	—
Rhondda	138,674	1,507	614	43.6	17.8	1.16	40	—	3	6	2	18	2	9	153	1.0
Merthyr Tydfil	79,522	696	346	35.1	17.5	1.40	28	—	11	4	1	10	—	2	131	—
Swansea	98,817	830	531	33.7	21.6	1.95	48	—	26	—	4	13	—	5	145	—

The 61,863 deaths registered in these towns last quarter were equal to an annual rate of 14.8 per 1,000; in the first quarters of the three preceding years the rates were 19.0, 17.9, and 18.7 per 1,000 respectively. The death-rate in London last quarter was equal to 14.3 per 1 000, while it averaged 15.1 in the seventy five other large towns among which the rates ranged from 8.5 in King's Norton, 8.6 in Hornsey, 9.6 in Willesden, 9.8 in East Ham, 9 9 in Handsworth (Staffs), 11.2 in Walthamstow, and 11.3 in Leyton, to 19 0 in Birkenhead, 19.1 in Huddersfield, 19 2 in Oldham and in Burnley, 19.4 in Liverpool, 20.4 in Hanley, and 21.6 in Swansea.

The deaths in these seventy-six towns last quarter included 4,043 which were referred to the principal infectious diseases; of these, 2 resulted from small-pox, 804 from measles, 388 from scarlet fever, 579 from diphtheria, 1,609 from whooping-cough, 195 from enteric fever, and 466 from diarrhoea. These 4,043 deaths were equal to an annual rate of 0.97 per 1,000, the death-rates from the same diseases in the corresponding period of the three preceding years having been 1.46, 1.37, and 1.74 per 1,000. Among the several towns the death-rates from these diseases last quarter ranged from 0.14 in York, 0 28 in Bury, 0.31 in Brighton, 0.32 in Hornsey, 0 34 in Reading and in Handsworth (Staffs), 0.36 in Great Yarmouth, and 0.37 in Grimsby, to 1.89 in Barrow-in-Furness, 1.95 in Swansea, 2.00 in Birkenhead, 2.11 in Hastings, 2.20 in West Hartlepool, 2.32 in Ipswich, 2.71 in Hanley, and 3.02 in Burnley. The 804 deaths from measles were equal to a rate of 0.19 per 1,000; in London the death-rate from this disease was 0.20 per 1,000, while among the seventy-five other large towns the rates ranged upwards to 0 60 in Wallasey, 0.65 in Northampton, 0.92 in Birkenhead, 0.94 in Hastings, 1.04 in Hanley, 1.06 in Swansea, 1.69 in Ipswich, and 1.83 in Burnley. The 388 fatal cases of scarlet fever corresponded to an annual rate of 0.09 per 1,000; in London the rate was only 0.06, while among the seventy-five other large towns the highest rates were 0.19 in Birmingham and in Aston Manor, 0.20 in Portsmouth and in Merthyr Tydfil, 0.23 in Liverpool, 0.29 in St. Helens, 0.30 in Huddersfield, 0.32 in Blackburn, 0.49 in Coventry, and 0.52 in Burnley. The 579 deaths from diphtheria were equal to a rate of 0.14 per 1,000; in London the diphtheria death-rate was 0.10 per 1,000, while among the seventy-five other large towns it ranged upwards to 0.29 in West Hartlepool, 0.33 in King's Norton, 0.35 in Portsmouth, 0.38 in Salford, 0.41 in Middlesbrough, 0.44 in Barrow-in-Furness, 0.53 in Halifax, and 0.69 in Hanley. The 1,609 fatal cases of whooping-cough were equal to a rate of 0.39 per 1,000; in London the mortality from this cause was at the rate of 0.48 per 1,000, while among the other large towns the rates ranged upwards to 0.73 in Burton-on-Trent and in Liverpool, 0.74 in Aston Manor, 0.89 in Plymouth, 1.11 in Hastings, 1.14 in Devonport, 1.16 in Newport (Mon.), 1.26 in Barrow-in-Furness, and 1.86 in West Hartlepool. The 195 deaths from enteric fever were equal to an annual rate of 0.05 per 1,000; in London the rate was 0.03 per 1,000, while among the seventy-five other large towns the highest rates were 0.12 in Derby, 0.14 in Tynemouth, 0.16 in Wallasey, 0 17 in Portsmouth and in Hanley, 0.18 in Rotherham, and 0.26 in Wigan. The 466 fatal cases of diarrhoea corresponded to a rate of 0.11 per 1,000; this was also the rate in London, while among the other large towns the rates ranged upwards to 0.20 in Salford and in Swansea, 0.21 in Tynemouth, 0.24 in Wallasey, 0.26 in Rhondda, 0.28 in West Bromwich, 0.29 in Hanley, 0.34 in Middlesbrough, and 0.36 in Oldham. Of the two deaths from small-pox, one belonged to Nottingham and one to Newcastle-on-Tyne.

Infant mortality, measured by the proportion of deaths among children under one year of age to registered births, was equal to 115 per 1,000 last quarter, against 136, 124, and 123 per 1,000 in the corresponding periods of the three preceding years. In London the rate of infant mortality in the quarter under notice was 101 per 1,000, while it averaged 120 in the seventy-five other large towns, and ranged from 49 in King's Norton, 73 in Hornsey, 77 in Southampton, 82 in Leyton, 84 in Willesden and in York, 86 in Burton-in-Trent, and 88 in Derby, to 143 in Birmingham and in Blackburn, 144 in Leicester and in Sunderland, 145 in Swansea, 149 in Gateshead, 153 in Rhondda, 155 in Burnley, 184 in Barrow-in-Furness, and 207 in Hanley.

The causes of 511. or 0.8 per cent., of the deaths in these seventy-six towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in twenty of these towns; among the other towns the proportion per cent. of uncertified deaths ranged upwards to 3.1 in South Shields, 3.2 in Warrington, 3.3 in Reading, 3.4 in Birmingham, 4.4 in Preston, 5.2 in St. Helens, and 5.5 in Gateshead.

HEALTH OF ENGLISH TOWNS.

IN seventy-seven of the largest English towns 8,696 births and 4,872 deaths were registered during the week ending Saturday last, April 16th. The annual rate of mortality in the seventy-six or seventy-seven towns, which had been 13.9, 14.4, and 14.9 in the three preceding weeks, further rose last week to 15.0 per 1,000. The rates in the several towns ranged from 4.2 in Hornsey, 6.8 in King's Norton, 7.6 in Burton-on-Trent, 8.3 in East Ham and in Tynemouth, and 8.5 in Willesden, to 19.7 in Devonport, 20.1 in Preston, 20.3 in Newport (Mon.), 20.7 in Liverpool, 21.0 in Merthyr Tydfil, and 23.3 in Stockport. The death-rate from the principal infectious diseases averaged 1.2 per 1,000 in the seventy-seven large towns; in London the rate was equal to 1.3 per 1,000, while among the seventy-six other large towns the rates ranged upwards to 2.0 in Newport (Mon.), 2.9 in Liverpool, 3.0 in Hastings and in Bootle, 4.3 in Devonport, and 5.2 in Merthyr Tydfil. Measles caused a death-rate of 1.9 in Burton-on-Trent, 2.2 in Bootle, and 5.2 in Merthyr Tydfil; and whooping-cough of 1.3 in Birkenhead, in West Hartlepool, and in Newport (Mon.), 1.4 in Grimsby and in Liverpool, 2.3 in Hastings, and 2.5 in Devonport. The mortality from scarlet fever, from diphtheria, or from enteric fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The number of scarlet fever cases under treatment in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 1,650, 1,611, and 1,554 at the end of the three preceding weeks, had further declined to 1,535 at the end of the week under notice; 197 new cases were admitted during the week, against 173, 158, and 166 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday last, April 16th, 934 births and 699 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 15.3, 18.1, and 18.2 in the three preceding weeks, further rose to 18.5 last week, and was 3.5 per 1,000 above the mean rate during the same period in the seventy-seven large English towns. Among these Scottish towns the death-rates ranged from 5.6 in Perth and 9.0 in Aberdeen to 26.9 in Greenock and 28.5 in Dundee. The death-rate from the principal infectious diseases averaged 2.7 per 1,000, the highest rates being recorded in Greenock and in Dundee. The 335 deaths in Glasgow included 17 which were referred to measles, 1 to scarlet fever, 4 to diphtheria, 4 to whooping-cough, and 6 to diarrhoea. Six deaths from measles were recorded in Edinburgh, 29 in Dundee, and 9 in Greenock.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, April 9th, 691 births and 512 deaths were registered in the twenty-two principal urban districts of Ireland, as against 661 births and 457 deaths in the preceding period. The annual death-rate in these districts, which had been 19 0, 21.1, and 20.7 per 1,000 in the three preceding weeks, rose to 23.2 per 1 000 in the week under notice, this figure being 8.3 per 1,000 higher than the mean annual death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 23 4 and 22.4 respectively, those in other districts ranging from 5.3 in Tralee and 14.0 in Wexford to 36 4 in Lisburn and 39.9 in Dundalk, while Cork stood at 34.2, Londonderry at 15.6, Limerick at 17.8, and Waterford at 17.5. The zymotic death-rate in the twenty-two districts averaged 1.5 per 1,000, as against 1.2 per 1,000 in the preceding week.

During the week ending Saturday, April 16th, 644 births and 512 deaths were registered in the twenty-two principal urban districts of Ireland, as against 691 births and 512 deaths in the preceding period. The annual death-rate in these districts, which had been 21.1, 20.7, and 23.2 per 1,000 in the three preceding weeks, remained unaltered at 23.2 per 1,000 in the week under notice, this figure being 8.2 per 1,000 higher than the mean annual death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 21.5 and 24.9 respectively, those in other districts ranging from 8.9 in Lurgan and 9.6 in Sligo to 34.3 in Newtownards and 36.4 in Lisburn, while Cork stood at 22.6, Londonderry at 20.4, Limerick at 20.5, and Waterford at 33.1. The zymotic death-rate in the twenty-two districts averaged 1.8 per 1,000, as against 1.5 per 1,000 in the preceding week.

Hospitals and Asylums.

OXFORD EYE HOSPITAL.

THE annual report of the Oxford Eye Hospital for the year 1909 shows a considerable increase in out-patient and in-patient work. Of the children attended 111 were sent by medical inspectors of schools. The connexion of the institution with the university has been emphasized by adding to its general committee a nominee of the Hebdomadal Council, and the professional staff strengthened by the acceptance of the post of honorary consulting physician by Dr. William Osler, Regius Professor of Medicine. Gratification is expressed at the success of the sixth annual post-graduate course, and of the subsequent congress of ophthalmic surgeons, and note made of the fact that three months' clinical work at the hospital is one of the obligations imposed on candidates for the new diploma in ophthalmology. The work in this connexion recently undertaken by the hospital and the claims to support arising therefrom are described in a special note by Mr. Doyne. In respect of finances, the year ended apparently with a deficit of £90, but the accounts are not published in accordance with the revised system of hospital accounts, as they should be at an institution of this importance.

THE BIRMINGHAM AND MIDLAND HOSPITAL FOR WOMEN.

THE thirty-ninth annual report of the Birmingham and Midland Hospital for Women shows that during 1909 the number of new cases at the out-patient department was 3,867, being an increase of 294 on the previous year. The total number of new and old cases was 18,792; 834 patients were admitted to the in-patient department, being an increase of 92 on the number of the previous year. Of these, 92 were paying patients. There were 799 operations, and the number of cases involving abdominal section was 471; of these, 12 died, giving a death-rate of 2.5 per cent. The ordinary income included £1,246 from subscriptions, £284 from the Hospital Saturday Fund, £500 from registration fees, £1,298 from grateful patients, and £936 from investments. The total expenditure was £6,954, being £1,585 in excess of the income. Miss Avins has given a donation of £1,000 for the purpose of endowing a bed in the new ward.

ROYAL VICTORIA HOSPITAL, BELFAST.

THE medical report presented to the annual meeting of this institution, at which the Lord Mayor of Belfast (Mr. R. J. McMordie) took the chair, stated that 1,355 new medical and 1,713 new surgical cases had been admitted during the year. There had been 62 deaths (4.57 per cent.) in the medical and 80 in the surgical wards (4.68 per cent.); 1,342 surgical operations were performed. The number of new cases treated in the out-patient department, including 1,340 ambulance cases, was 29,830. Attention was drawn to the necessity of further development and enlargement of a vaccine and an electric department.

PAISLEY INFIRMARY.

AT the annual meeting of Paisley Infirmary reference was made to the recent opening of the addition to the Nurses' Home, the gift of Mr. Peter Coats. The directors in their report also referred to the generosity of Mr. Coats in acquiring four additional properties in Stock Street, removing the buildings and carrying the infirmary wall round the ground, which had been laid out as two tennis courts, one in turf and the other in asphalte. The latter was being constructed so that it could be flooded in winter and used for skating.

BIRMINGHAM LYING-IN CHARITY.

DURING 1909 the number of cases admitted into the hospital was 379, and 1,680 cases were attended in the district, as compared with 370 and 1,547 in the previous year. The number of pupils trained was 55. A great amount of time was devoted to instructing pupils in theory and practical work, and the board considers the course of training followed equal to that of any other similar hospital. The income and expenditure account showed an adverse balance of £705.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

BRISTOL GENERAL HOSPITAL.—Casualty House-Surgeon. Salary, £60 per annum.

BRISTOL ROYAL HOSPITAL FOR SICK CHILDREN AND WOMEN.—Senior Resident Officer. Salary, £100 per annum.

BURY INFIRMARY.—(1) Senior House-Surgeon; (2) Junior House-Surgeon. Salary, £110 and £80 per annum respectively.

BUXTON: DEVONSHIRE HOSPITAL.—Assistant House-Surgeon. Salary, £70 per annum.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—House-Surgeon. Salary, £80 per annum.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C. — House-Surgeon, non-resident. Honorarium, 40 guineas a year.

CHORLEY: RAWCLIFFE HOSPITAL. — House-Surgeon (male). Salary for first six months at the rate of £90 per annum, increasing to £100.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Clinical Assistant.

DENBIGH: DENBIGHSHIRE INFIRMARY. — House-Surgeon. Salary, £100 per annum.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Assistant Resident Medical Officer. Salary at the rate of £50 per annum.

DOUGLAS: NOBLE'S ISLE OF MAN GENERAL HOSPITAL AND DISPENSARY.—Resident House-Surgeon. Salary, £90 per annum.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road, S.E.—House-Surgeon. Salary at the rate of £60 per annum.

GUILDFORD: ROYAL SURREY COUNTY HOSPITAL.—Assistant House-Surgeon. Salary, £50 per annum.

HEMEL HEMPSTEAD: WEST HERTS HOSPITAL.—House-Surgeon. Salary, £100 per annum.

HULL ROYAL INFIRMARY.—(1) House-Physician; (2) Assistant House-Surgeon; (3) Casualty House-Surgeon. Salary for (1) £100, for (2) £80 per annum, and for (3) at the rate of £60 per annum for first six months, rising to £80.

LANCASHIRE EDUCATION COMMITTEE.—Two School Medical Inspectors. Salaries £250 per annum, increasing to £400.

LEEDS GENERAL INFIRMARY.—(1) House-Physician; (2) House-Surgeon; (3) Ophthalmic House-Surgeon. Salary of £50 per annum attached to No. (3).

LEYTON, WALTHAMSTOW, AND WANSTEAD CHILDREN'S AND GENERAL HOSPITAL.—Resident House-Surgeon. Salary, £100 per annum.

LONDON COUNTY COUNCIL.—Women Medical Practitioners as Lecturers in First Aid, Home Nursing, Health, and Infant Care. Salary, £1 1s. a lecture.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT AND CHEST.—Resident Medical Officer for In-patient Department, Bowdon. Salary, £100 per annum.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, Chenies Street, W.C.—Resident Pathologist. Remuneration, a proportion of the fees.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Hampstead. — House-Physician. Salary, £75 per annum.

NEWCASTLE-ON-TYNE DISPENSARY.—Visiting Medical Attendant. Salary, £160 for first year, rising to £180.

NORTH STAFFORDSHIRE INFIRMARY, Hartshill.—Junior House-Surgeon. Salary at the rate of £50 per annum.

OLDHAM GENERAL INFIRMARY.—(1) Senior House-Surgeon. (2) Second House-Surgeon. (3) Third House-Surgeon. Salary, £120, £100, and £80 per annum respectively.

QUEEN CHARLOTTE LYING-IN HOSPITAL, Marylebone Road, N.W.—Assistant Resident Medical Officer, to proceed to appointment of Senior Resident after four months. Salary at the rate of £50 and £60 per annum respectively.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William Street, W.C.—House-Surgeon. Salary, £50 per annum. The present Assistant House-Surgeon is a candidate, and, if appointed, an Assistant House-Surgeon will be required. Salary, £40 per annum.

RUTLAND COUNTY COUNCIL.—County Medical Officer of Health and County School Medical Officer. Salary, £400 per annum.

ST. GEORGE'S UNION INFIRMARY, Fulham Road, S.W.—Second Assistant Medical Officer. Remuneration, £120 per annum.

SHEFFIELD ROYAL HOSPITAL. — Assistant House-Physician. Salary, £50.

SWANSEA GENERAL AND EYE HOSPITAL.—House-Physician. Salary, £75 per annum.

TAUNTON AND SOMERSET HOSPITAL. — Resident Assistant House-Surgeon. Salary at the rate of £50 per annum.

YORK DISPENSARY.—Resident Medical Officer. Salary, £130 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces vacancies at Newport, co. Mayo, and Dungiven, co. Londonderry.

MEDICAL REFEREE.—A vacancy is announced for a Medical Referee under the Workmen's Compensation Act, 1906, for County Court Circuit No. 1.

APPOINTMENTS.

BATLEY, A. B., L.R.C.P.Lond., M.R.C.S.Eng., Bacteriologist in joint charge of the new Department for Therapeutic Inoculation at the Royal Boscombe and West Hants Hospital.

BOYLAN, D., M.B., B.Ch., R.U.I., Certifying Factory Surgeon in Ballycastle, co. Antrim.

CURTIS, George Herbert, M.R.C.S.Eng., L.R.C.P.Lond., L.D.S.Eng., Honorary Dental Surgeon to the Royal Hospital for Diseases of the Chest, City Road, E.C.

DOUGLAS-CRAWFORD, D., F.R.C.S.Eng., Honorary Surgeon to the Royal Southern Hospital, Liverpool.

FACEY, W. E., B.A., M.B.Camb., M.R.C.S.Eng., Bacteriologist in joint charge of the new Department for Therapeutic Inoculation at the Royal Boscombe and West Hants Hospital.

GALLAGHER, Miss F. A., M.B., B.S.Glas., Assistant Medical Officer to the Merthyr Tydfil Union Infirmary.

GRIFFITH, William, M.B., Ch.B.Vict., M.R.C.P.Lond., Physician to St. John's Hospital for Diseases of the Skin, Leicester Square.

GRUNER, Oskar C., M.D.Lond., Pathologist to the Royal Victoria Hospital, Montreal, and Lecturer in Pathology at McGill University.

HICKS, J. A. Braxton, M.B., B.S.Lond., Assistant Pathologist and Curator of the Museum to Westminster Hospital, S.W.

HULE, R. E. V., B.A., M.R.C.S., Anaesthetist to the Samaritan Free Hospital for Women, Marylebone Road, N.W.

MOORE, S. P., M.B., Ch.B.Edin., House-Surgeon at the Torbay Hospital, Torquay.

PHILLIPS, Hubert, M.R.C.S., Clinical Assistant to the Chelsea Hospital for Women.

PLANCK, Charles, M.A.Cantab., M.R.C.S., L.R.C.P.Lond., Medical Superintendent to the Brighton County Borough Asylum, Hayward's Heath.

RICHARDS, Joseph Stewart, M.D., B.S.Lond., Honorary Medical Officer to the Croydon General Hospital.

SIBLEY, W. Knowsley, M.A., M.D.Camb., M.R.C.P.Lond., Assistant Physician to St. John's Hospital for Diseases of the Skin, Leicester Square.

STEELE, Russell, M.D., M.R.C.S., Honorary Consulting Surgeon to the West Herts Hospital, Hemel Hempstead.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTH.

SEALE.—On April 10th, at The Shrubbery, Farnborough, Kent, the wife of E. A. Seale, B.A., M.D., of a son.

MARRIAGES.

BROWN—IRONSIDE.—On April 18th, at All Saints' Church, Edinburgh, by the Rev. Arthur Still-Hill, M.A., Uriah Findlater Farrel Brown, M.B., Ch.B., Edinburgh University (late of H.M. Civil Service, Jamaica), to Jane, eldest daughter of Mr. and Mrs. John Ironside, Grenvilla, Penicuik, Midlothian.

GLENNIE—HASTINGS.—At St. Andrew's Cathedral, Singapore, on April 18th, by the Venerable Archdeacon H. C. Izard, Colonial Chaplain, John Arthur Rinder Glennie, M.B., C.M., D.P.H., eldest son of the late Arthur Glennie, Fernyflatt, Kinneff, Kincardineshire, to Dora Mary, second daughter of Major-General F. E. Hastings, C.B., Indian Army. (By cable.)

SEDGWICK—WYLIE.—On April 16th, at St. Saviour's Church, Hampstead, N.W., by the Rev. G. A. Herklots, M.A., Vicar, assisted by the Rev. Dr. Wallace, Vicar of St. Luke's, Burdett Road, E., George Henry Sedgwick, M.R.C.S., L.R.C.P., of Rotherham, younger son of George Sedgwick, of Park View, Demesne Road, Manchester, H.M. Inspector of Schools, to Kathleen, younger daughter of James Hamilton Wylie, M.A., D.Litt., of Lawn Road, Hampstead, late H.M. Divisional Inspector of Schools.

STEVENSON—VERRAN.—On April 14th, at the Streatham Wesleyan Church, by the Rev. T. H. Barratt, B.A., assisted by the Rev. Frederick Green, Claude Maberley Stevenson, M.B., B.C., of 237, Chesterton Road, Cambridge, son of the late Sir Thomas Stevenson, M.D., to Dorothy Thirza, second daughter of Joseph Verran, of Streatham Hill, S.W.

WATSON—ROYSE.—On April 12th, at H.B.M. Consulate, Alexandria, Egypt, and afterwards at All Saints' Church, Ramleh, by the Rev. E. H. Blyth, M.A., Chaplain, Robert Nimmo Watson, M.R.C.S.Eng., L.R.C.P.Lond., of Harrogate, youngest son of the late Thomas Watson, of Invercargill, New Zealand, to Nora, third daughter of the late William Royse, of Dunedin, New Zealand. New Zealand papers please copy.

PUBLISHERS' ANNOUNCEMENTS.

MESSRS. CONSTABLE AND COMPANY will publish very shortly a book of pocket size entitled, *A Guide to the Preservation of Health in West Africa*, by Henry Strachan, F.L.S., C.M.G., Principal Medical Officer in Southern Nigeria. This booklet should be welcomed by all who have to live in that district, where the care of health on certain definite lines is necessary. Messrs. Constable will also shortly publish the English edition of a series of essays dealing with the question of the introduction of an international language for the advancement of science. Such a language has been constructed by an international commission which includes among its members many eminent scientists and scholars. The English edition has an introduction by Professor F. G. Donnan.

DIARY FOR THE WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Papers: (1) Mr. Frederick Eve: A Series of 20 Cases of Operation for Gastroptosis, with the Ultimate Results. (2) Dr. Robert Hutchison: The Treatment of Gastroptosis.

ROYAL SOCIETY OF MEDICINE:

ODONTOLOGICAL SECTION, 15, Cavendish Square, W., 8 p.m.—(1) Paper: Mr. A. Hopewell Smith: Two Odontoceles and some other Cysts. (2) Notes: Mr. C. Schelling: (*a*) Two Cases of Suppuration in the Maxilla, and (*b*) a Case of Neuralgia due to Impacted Lower Wisdom Teeth, in all of which Skiagrams helped the Diagnosis. Mr. Herbert Tilley: Two Cases of Suppurating Dental Cysts invading the Antrum. Mr. W. Rushton: A Case of Painful Attrition.

TUESDAY.

MEDICO-LEGAL SOCIETY, 11, Chandos Street, W., 8.15 p.m.—Paper: The Legal Responsibilities of Hospital Authorities to Patient, by J. W. Ross Brown.

ROYAL SOCIETY OF MEDICINE:

MEDICAL SECTION, 15, Cavendish Square, W., 5.30 p.m.—Paper: Dr. J. E. Squire, C.B.: Hospital Infection of Tuberculosis, as exemplified by the Records of the Resident Staff of the Mount Vernon Hospital for the past Fifteen Years.

WEDNESDAY.

HUNTERIAN SOCIETY, London Institution, Finsbury Circus, E.C., 8 p.m.—Annual General Meeting. 8.30 p.m.—Resumption of the discussion on Vaccine Therapy, by Dr. Horder and Dr. Dudgeon.

THURSDAY.

ROYAL SOCIETY OF MEDICINE:

NEUROLOGICAL SECTION, at the National Hospital, Queen Square, W.C., 4.30 p.m.—Clinical meeting.

FRIDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Oliver-Sharpey Lecture by Dr. F. W. Mott, F.R.S.: The Cerebro-spinal Fluid.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Lectures: Tuesday, 3.45 p.m.: Larynx. Friday, 3.45 p.m.: Larynx.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Wednesday, 4 p.m.—Asthma.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat at noon and 4 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Thursday, and noon, Friday; Eye, 11 a.m., Wednesday and Saturday; Radiography, 4 p.m., Thursday. Special Lectures: Monday, 2.15 p.m., Some Surgical Principles and their Application; Thursday, 4.0 p.m., Epileptic Manifestations.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Medical: Friday, Eye. Lectures at 5.15 p.m. each day will be given as follows: Monday, The Cerebral Circulation; Tuesday, Ulcer of Stomach and Duodenum; Wednesday, Concomitant Strabismus; Thursday, Aneurysm of the Thoracic Aorta.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith, W.—The following are the arrangements for next week: Daily arrangements: Medical and Surgical Clinics, 1 p.m.; Operations, 2 p.m.; *X* Rays, 2 p.m. Monday: Surgical Registrar, 10 a.m.; Eye, 2 p.m. Tuesdays: Gynaecological Operations, 10 a.m.: Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat and Nose Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday: Surgical 10 a.m.; Pathological Demonstration, 12 noon; Eye, Registrar, 2 p.m.; Orthopaedics, 2 p.m. Friday: Medical Registrar, 10 a.m.; Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m.; Eye, 10 a.m.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
APRIL.	
24 Sunday ..	
25 MONDAY ..	
26 TUESDAY ..	SUNDERLAND DIVISION, *North of England Branch*, Subscription Library, Fawcett St., Sunderland 4.15 p.m.; Annual Dinner, Grand Hotel, 7.15 p.m.
27 WEDNESDAY	LONDON: Stewart Prize Subcommittee, 12 noon. **London: Central Council, 2 p.m.** BATH AND BRISTOL BRANCH, Bath. RICHMOND DIVISION, *Metropolitan Counties Branch*, Clinical Meeting, Royal Hospital, Richmond, 8.30 p.m., *(not 29th as previously announced).*
28 THURSDAY ..	BORDER COUNTIES BRANCH, Spring Meeting, George Hotel, Penrith. STAFFORDSHIRE BRANCH, General Meeting, Victoria Hotel, Wolverhampton, 5.35 p.m.; Dinner, 7 p.m.
29 FRIDAY ..	BIRMINGHAM BRANCH, Pathological and Clinical Section, Medical Institute, Edmund Street, 8 p.m. HAMPSTEAD DIVISION, *Metropolitan Counties Branch*, 8.30 p.m. KENSINGTON DIVISION, *Metropolitan Counties Branch*, Special Meeting, Kensington Town Hall, 4.30 p.m.
30 SATURDAY ..	NORTHERN COUNTIES OF SCOTLAND BRANCH, General Meeting, Northern Infirmary, Inverness, 3 p.m. ULSTER BRANCH, Spring Meeting, Londonderry.
MAY.	
1 Sunday ..	
2 MONDAY ..	

Date.	Meetings to be Held.
MAY *(continued).*	
3 TUESDAY ..	WARRINGTON DIVISION, *Lancashire and Cheshire Branch*, Annual Meeting, Infirmary, Warrington, 4 p.m.
4 WEDNESDAY	LONDON: Standing Ethical Subcommittee, 11 a.m. LONDON: Contract Practice Subcommittee, 2 p.m. METROPOLITAN COUNTIES BRANCH, Conference between Medical Staffs of Metropolitan Hospitals and Members of Branch, St. James's Vestry Hall, 4.30 p.m.
5 THURSDAY ..	LAMBETH DIVISION, *Metropolitan Counties Branch*, Annual General Meeting, Bethlem Royal Hospital, 4 p.m. LEINSTER BRANCH, Annual General Meeting, Royal College of Physicians, Kildare Street, Dublin, 4.30. p.m.
6 FRIDAY ..	
7 SATURDAY ..	
8 Sunday ..	
9 MONDAY ..	
10 TUESDAY ..	
11 WEDNESDAY	
12 THURSDAY ..	
13 FRIDAY ..	
14 SATURDAY ..	
15 Sunday ..	
16 MONDAY ..	
17 TUESDAY ..	
18 WEDNESDAY	DORSET AND WEST HANTS BRANCH, Spring Meeting, Hotel Mont Doré, Bournemouth.

Printed and Published by the British Medical Association at their Offices No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, APRIL 30TH, 1910.

CONTENTS.

	PAGE
Meetings of Branches and Divisions:	
Burma Branch	189
Dorset and West Hants Branch: Bournemouth Division	195
Metropolitan Counties Branch: Stratford Division ...	195
Midland Branch: Boston and Spalding Division ...	195
South Wales and Monmouthshire Branch: Swansea Division ...	195
ASSOCIATION NOTICES.—Annual General Meeting.—Annual Representative Meeting	196
NATIONAL POOR LAW REFORM ASSOCIATION ...	197
CENTRAL MIDWIVES BOARD	198
LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY	199
HOSPITALS AND ASYLUMS: Some Institutions for the Feeble-minded	200
NAVAL AND MILITARY APPOINTMENTS	201
VITAL STATISTICS	202
VACANCIES AND APPOINTMENTS	203
BIRTHS, MARRIAGES, AND DEATHS	203
DIARY FOR THE WEEK	204
CALENDAR	204

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

BURMA BRANCH.

(Continued from page 151.)

THE annual meeting of this Branch took place in Rangoon on Wednesday, February 2nd, 1910, and three following days. Two large wards in the New General Hospital were prepared, one for the meetings and the other as a museum.

Museum.

After the address those present were invited to inspect the museum, which had been arranged most efficiently by the committee.

In the museum the principal exhibit and that which attracted most attention was the display by Messrs. Burroughs, Wellcome and Co. of "Tabloid" and "Soloid" brand medicine cases for the pocket, carriage, or motor car, and several new varieties of first-aid cases of most compact and elegant appearance; with an interesting series of photographs of the cases supplied by this firm for use on various historical expeditions—notably that used in Stanley's march through Central Africa; Nansen's tablcid medicine belt; Lieutenant Shackleton's case used in the recent antarctic expedition, and that presented to the hospital ship *Maine* during the relief of Peking. Another notable feature of this exhibit was the set of compressed bandages and dressings designed to occupy only one-tenth of the space usually required for such goods. The serums and vaccines displayed represent the latest advance of science in combating disease, and were the subject of many inquiries by interested members of the medical profession. Vaporoles—sterile solutions of various patent alkaloids for hypodermic injection were also shown; each a dose of the utmost accuracy—very necessary where (as in some cases) a dose of $\frac{1}{600}$ grain is all that should be used. Interest was also shown in the various Wellcome brand chemicals and galenicals on view, the feature of these being the very high standard of purity attained in their preparation by this well-known firm.

Combined with this display were the stands of Messrs. De Souza and Co., who have Messrs. Burroughs Wellcome and Co.'s dépôt for Burma. These stands carried a varied assortment of optical goods and a quantity of "Cyllin" disinfectant and medical specialities, together with a large variety of standardized drugs and chemicals bearing the well-known "Dah" brand, as well as a number of up-to-date surgical instruments, ligatures, and dressings calculated to meet the most exacting requirements of the modern surgeon, especially worthy of notice being the very fine major operation cases and sterilizers on view.

Noticeable among the large displays was that of Messrs. Smith, Stanistreet, and Co., of Calcutta, who showed a very fine selection of microscopes from firms of such wide reputation as Messrs. Leitz, Voigtlander, and Watson, which attracted the attention of every microscopist and bacteriologist. In addition, a few specimens of new types of aseptic hospital furniture, operation tables, and some extremely delicate ear, nose, and throat instruments formed a display which enhanced the already high reputation of this firm.

The N.W. Soap Company of Calcutta and Meerut were also in evidence with a wide assortment of their toilet and medicated soaps, the low prices of which were in marked contrast to their excellent quality.

A novel exhibit was that of Messrs. V. G. Nahapiet and Co., who showed a new form of sterilizer for preserving meat, vegetables, fish, milk, eggs, and even flowers, specimens of which were sterilized on the opening day of the congress, and remained to all appearance perfectly sweet throughout the four days they were shown. This firm also exhibited in another section of the museum specimens of durolite, a flexible substitute for glass for windows, skylights, transparent roofing, etc., as well as decolite and urolite, new fireproof compositions for the floors and walls of buildings constructed from or intended for storing inflammables. These are said to resist

the most intense heat, and to have passed intact through what would ordinarily have proved most destructive fires.

The firm of Parke, Davis and Co. confined their attention to standardized fluid extracts for the preparation of tinctures, bacterial vaccines prepared under the supervision of Sir Almroth Wright in the laboratory of St. Mary's Hospital, London, and hydrogen peroxide.

The medical fraternity showed considerable interest in the vaccines, as this form of treatment is now engaging the attention of scientists all over the world; and the wide range of dosage in which these are prepared will enable the general practitioner to employ these with very little difficulty for a number of the diseases commonly met with in India and Burma.

Messrs. Oppenheimer and Co. were represented by a display of izal, the well-known disinfectant, and izal preparations. In addition, much interest was shown in a very attractive set of instruments from the well-known German firm of Jelter and Scherer; these being frequently handled and commented on by those members of the Congress specially interested in surgical work.

The King-Scherer Company of New York were ably represented by their Burma agents, the Sun Drug Company, who demonstrated the Michael's automatic suture set with metal sutures (this being in some instances highly praised), while a May's applicator and curette was the subject of much curiosity. Among this collection of instruments various patterns of tonsillotomes, automatic abdominal retractors, flushing curettes, all metal hypodermic syringes, and gold-plated suture needles were the subject of much comment, the varieties of instruments shown numbering over 200. Messrs. Dey Brothers and Co. exhibited a variety of preparations by the Bengal Chemical and Pharmaceutical Works, some of the preparations of indigenous drugs being quite excellent examples of elegant pharmacy; while other portions of their exhibit were the preparations of well-known American firms. Messrs. S. C. Sircar and Co. were also in evidence with a stand of various patent medicines and proprietary remedies.

A very fine collection of water-colour drawings of the Cucurbitaceae of Burma was lent by Mrs. W. G. King. These were all extremely accurate reproductions of the leaves, flowers, and fruit of the numerous varieties of this natural order, and the characteristics which differentiate the various species of their family were all defined. The collection as a whole would lend itself admirably to reproduction, and would be of great assistance to any botanist writing a history of the flora of Burma.

Notes on the Pathological Museum.

By CAPTAIN WHITMORE, I.M.S.

I have to apologize to the meeting for the somewhat meagre display in this section of the museum, but I hope that in judging our endeavours it will be borne in mind that this attempt at forming a museum here in Burma is very young, quite a newborn babe into the world of medical activities, but a babe to whom I think that we should all wish long life and steady growth. For it is to a well developed flourishing museum that we should come for a crystallizing and definite shaping of the many theories and ideas that come to us in our daily work, but which so frequently fade away again unless we are able to refer to the large collections of pathological and clinical material to be found only in a well-stocked, well-attended central museum. It is therefore the proper and main function of a museum to arrange and classify large series of specimens bearing upon definite points in disease or clinical medicine and only a very subsidiary and minor activity to be a storehouse for the rare and the curious; for we learn but little from the latter, while from the wise arranging of the former our whole knowledge is refreshed and often light is shed upon what has previously been in our minds only a dim and hazy conception.

Therefore it has been my hope to gradually build up here in Rangoon a pathological museum with definite aims and upon definite lines, and it is to illustrate the lines upon which I hope the work will gradually develop, rather than with any hopes to greatly interest you in what has been already done, that I have put forward the specimens now before the meeting. I would particularly draw your attention to the series of specimens of bowel diseases, Class A 1 to 11 and 29 to 39. You will see that here in Burma there are two very distinct types of "dysentery," corresponding, I think, to the well-known classification of amoebic and bacillary dysentery; but while the lesions of the amoebic type are well known and easily recognized, I fancy that those of what I think is the bacillary type are much less understood. In the latter the lesions not infrequently occur in the small as well as in the large bowel (see specimen No. 6); in the extensive ulcerative amoebic variety the small bowel is not affected.

Specimen No. 10 shows very typical perforation due to dysenteric ulceration, and you will notice how hopeless this condition is from a surgical point of view, the whole of the neighbouring gut being so thinned and rotten as to make repair hopeless, this being in striking contrast to the perforation due to typhoid ulcerations, of which there are two examples, specimens Nos. 23 and 24. With regard to typhoid perforations, I have put up before the specimens copies of the charts of the three cases which have come to my notice during the last eighteen months. You will notice from those charts that in each of the cases a diagnosis of perforation would not have been very difficult had the cases been correctly read. Special prominence should be given to the pulse-rate and pulse character.

I am aware that certain members of the Branch are particularly interested in intestinal toxaemia. I would draw their attention to specimens Nos. 1 and 2 and the culture No. 3. In this connexion I desire to point out that up to the present our facilities for much bacteriological work have been very limited, but we hope in the future to endeavour to carry out work upon the bacteriological nature of the "diarrhoeas" of which we see so much in this hospital. A certain number of specimens of intestinal obstruction are shown, Nos. 13 to 22, and it was hoped to be able to show a much larger series and to be able to make some comments upon the pathological lesions which might have been useful to those members actively engaged in surgical practice. However, the specimens are still too few to make criticism of very much use; I would point only to the importance of what is apparently a damage to the vascular supply of the intestine leading to gangrene in the already gravely affected intestinal tissue and hence to acute post-operative peritonitis (vide specimens Nos. 18 to 21), and as a surgeon I would venture to plead for greater courage in resection of the bowel in cases of obstruction; the extent to which bowel may be removed is well shown by specimen No. 22.

In connexion with abdominal surgery, specimens Nos. 12 and 27 illustrate two small operations which I think might be tried more frequently. The method of omental fixation shown probably acts through provision of a portal of drainage into the extra-peritoneal tissues, and with this view definitely in mind we have once or twice turned a portion of the rectus muscle into the abdominal cavity.

Specimens Nos. 38 and 39 show typical examples of stomach disease from natives. I am of opinion that, owing to the difficulty of obtaining a correct history from many of our native patients, these chronic stomach diseases are very infrequently diagnosed, and it is by the early diagnosis of those conditions that a considerable advance in the surgery among natives might possibly be made. Specimen No. 28 is a grave warning to all abdominal surgeons to perfect to the highest possible pitch the organization of their operating theatre.

A very obscure abdominal lesion is shown in specimen No. 36. This was apparently a vasomotor lesion, but the causation remained quite undiscovered.

In Class B you will find a series of heart and aortic lesions. The point that I have been particularly desirous to bring home to members is that syphilis is the greatest cause of cardiac disease, at all events as met with in this hospital. The bearing of this upon treatment is of course obvious, and I think that I may say that since this fact has been accepted by the medical staff here, the treatment of our heart cases has been much more rational, and has led to much more satisfactory results. Specimens Nos. 1 and 2 are two exceedingly interesting specimens showing the effect of syphilis upon the heart muscle itself. You will notice that in the lower specimen of the two the disease has caused an aneurysm of the heart—a rare condition. The importance of looking for and being able to recognize changes in the heart muscle is often of very great importance in investigating police cases and cases of sudden death which so often become police inquiry cases owing to the great capacity for gossip and exaggeration possessed by friends and neighbours—a capacity not confined to any particular race of men, uneducated or educated.

If our ward observations and clinical records were improved and amplified, many of these cases of syphilitic heart lesion would probably furnish us with excellent material for the investigation of the effects of disease upon the auriculo-ventricular band or bundle of His. As an illustration of my meaning, I would draw your attention to specimen No. 5 and the attached diagrams. In sclerotic changes of the heart wall the influence of the implication of this bundle upon the functions of the heart are now well recognized.

Specimen No. 13 is an example of injury to the heart. This bruising and consequent injury of the heart muscle cannot be so very uncommon, and yet I do not think that it is often given a thought in considering injuries to the chest. Three cases in which I believed such injury to exist have come to my notice during the last three years, the specimen shown being from one of them. I am glad to say that in the latter case the diagnosis was proposed and acted upon in the way of treatment—so far as any treatment could be suggested—during the life of the patient.

Specimens Nos. 3, 4, 5, and 6 are examples of our commonest form of heart disease—namely, syphilitic disease of the first part of the aorta. In a paper fairly recently read before the Branch, I have put forward the clinical side of such cases as these specimens are obtained from; I would here only add to what I said then that it is found that in the majority of such cases the blood pressure is abnormally high, and that improvement in the general condition of the patient does not take place until this abnormally high blood pressure begins to fall. Captain Williams has recently brought to the notice of the members of the Branch the great utility of sodium nitrite as an adjuvant to the more usual forms of treatment; while fully agreeing with the theoretical basis of this suggestion I am not convinced of the speedy or certain action of the drug.

To contrast with these cases of presumably syphilitic origin we have presented one or two specimens (Nos. 7, 8, 9, and 11) of valvular disease from other causes. It will be noticed that there is no example of acute rheumatic cardiac disease; in my rather short experience in Rangoon this type of heart disease is exceedingly rare, and although I know that rheumatism and rheumatic affections bulk largely in our returns, yet I am quite sure that true rheumatic fever, or the true joint rheumatism of childhood, is extremely rare.

Specimens Nos. 14, 15, 16, are aneurysms of rather special interest. The owner of No. 14 was shown before the Branch meeting three or four days before he died, and yet no one could detect trustworthy signs of aneurysm. It is unnecessary to remind you how common aneurysm is here among natives of all classes; generally as the result of untreated or ill-treated syphilis, and I put these specimens forward only to point out how obscure the signs may be, and how difficult it may be to arrive at a correct diagnosis. In this connexion, the more widespread and improved x-ray installation now being furnished to this province may be of considerable service.

Specimen No. 15 is a sad example of the disastrous effects that may result from the unfortunate native habit of dodging about from one medical man to another.

Knowing that the meeting was to consider tuberculosis in its various aspects, I have tried to collect a few specimens bearing upon the subject under discussion. Time has been too short to collect any large number of specimens, and, moreover, we have been hampered by having no glass ware in stock; but specimens Nos. 1 to 5, Class C, are of some interest as illustrating the mode of spread and possible ill effects of tuberculosis according to the position and nature of the tuberculous deposits. As you are aware, there has been very much controversy during the last three or four years with reference to the relative importance of primary infection by the respiratory passages and that by the bowel; the practical importance of the question is, of course, obvious. My impression from the mortuary experience is that primary infection by the bowel is fairly common with us. Specimen No. 5 is probably an example of such infection.

In Class D, "malignant growths," are shown one or two specimens which are intended to remind you of certain special characteristics of malignant disease as met with in this country. Specimens Nos. 1 and 2 are typical examples of cheek epithelioma, which is the commonest of the epitheliomata treated in this hospital. It probably originates from the irritation of betel chewing, and is extremely difficult to deal with surgically, as so much of the cheek has to be removed. The repair of the cheek I have found much facilitated by splitting half the tongue horizontally and utilizing the resulting flaps to form a new cheek. Among the photographs you will see one of a woman in which this was done; she was free from recurrence for six months. Afterwards I lost sight of her.

Specimen No. 2 is the only example of epithelioma originating in the tongue that I have seen here; curiously it was in a woman.

Specimen No. 3 is apparently a primary carcinoma of the liver. This affection, so rare in Europe, seems to be not nearly so uncommon among natives, both Indians and Burmans. I have seen 9 such cases while working in this hospital, and from time to time have heard of other cases in the districts. The symptoms and signs are extremely misleading, unless the likelihood of such disease is kept in mind; the first case which I saw I diagnosed liver abscess and opened the man's abdomen. Considering that the new growth may be very soft and even liquefied, such a mistake is not unlikely. Secondary deposits appear to be rare, but in one case I found a tiny deposit, about the size of a marble, in one lung.

For sarcomata the neck appears to be the favourite site. Specimen No. 5 shows a fairly typical encapsuled and haemorrhagic sarcoma removed from the neck of a Burman. Two or three photos illustrate the condition as usually met with among the patients attending hospital; the growth seems to begin in the neighbourhood of the parotid gland and grow downwards, but in one case I suspected it being a growth in connexion with the carotid gland; however, I do not remember that in this case the histological structure was investigated. They are always difficult tumours to remove, for wherever they may originate they always have intimate connexion with the carotid sheath and its contents. Specimen No. 6 is interesting as an example of what at first sight appeared to be a very large inoperable growth of the thigh, but of which after careful examination it was decided to attempt the removal and save the limb; during the operation it was found that the growth arose from quite a narrow root, apparently in the fascia between the tensor vaginae femoris, rectus femoris, and sartorius muscles; it was completely encapsuled save at this spot, and removal was consequently very easy and the prognosis was quite good. The photos—not very good—illustrate the condition before and after operation.

Among the miscellaneous specimens there is shown a peculiar unilateral kidney degeneration, specimens Nos. 1, 2, and 3. This is not very uncommon among natives of India. I cannot make any suggestion as to causation. As a rule, the other kidney undergoes much compensating enlargement, so that the diseased kidney has atrophied a long time before death, and possibly the atrophy is due to some disease of childhood.

Specimen No. 7 is presented as a reminder to energetic surgeons as to the unfortunate possibilities attending crushing of vesical calculi in cases of young children.

In the "Microscope" Section there is nothing very new, the specimens having been prepared more with the idea of affording any of you, who so wished, to refresh his memory upon any ordinary point with which, from want of opportunity for this work, he might have become unfamiliar.

Among the specimens of "malaria" I have put up a few specimens—Nos. 4 to 8—to try and combat the idea so widely held that in a patient suffering from malarial fever the taking of quinine may hinder the finding of the parasites, even though a fair height of temperature still persists. I would most strongly assert that the taking of quinine only prevents the finding of the parasite by destroying the parasite in the peripheral blood, and that as soon as that is accomplished the fever (so far as malarial infection is responsible) likewise disappears, and does not reappear unless parasites are again alive in the peripheral blood stream and demonstrable by proper search.

Specimen No. 12 shows fairly typical Leishman-Donovan bodies. So far as my own experience goes I have not up to the present come across a case of this disease undoubtedly contracted in Burma; the few cases which we have seen here have been all, save one, obviously imported cases, and the possible exception had been in Burma only two years. I have punctured several enlarged spleens of persons native to Burma, but I have never detected the bodies in any of these. I should be glad to receive from members in other parts of the country specimens from cases which they may come across likely to be suffering from the disease; but I would remind them that splenic puncture is not devoid of danger, and in many parts of India has, I understand, been abandoned as a justifiable diagnostic procedure.

Considering the prevalence of piroplasmosis among dogs of this country, I thought that some of you might be interested in seeing an example of this parasite obtained from a young puppy of Captain Williams.

During two or three months at the end of the year the laboratory has been employed in making some investigations upon phagedaenic or sloughing ulcers. The synopsis of our investigations is very briefly shown in the specimens Nos. 15 to 20. These investigations are now temporarily suspended, owing to the dry weather and consequent lack of material, and we have not arrived at any definite conclusions. However, it seems likely that the phagedaenic character of the ulcers is due to the presence of the long bacillus shown, but that this bacillus is generally a secondary and probably largely saprophytic organism in ulcers or sores primarily due to other organisms or causes. Special attention is invited to the spirochaete-like organism in specimen No. 17, and also to the very practical point of the effect of hydrogen peroxide upon sores containing the long bacillus.

The section containing a small collection of the biting flies of Burma has been so clearly and well put up by Hospital Assistant Gurudatta Sarin that further comment is quite needless on my part. I would only point out that in forming such a collection we are practically entirely dependent upon outside contributors, and assure those members who are interested in such a subject that we are always very glad to receive any specimens that they come across during their tours, etc.

During the last few weeks we have been trying the Wassermann serum reaction for the diagnosis of syphilis; at the present time we cannot claim that we are satisfied with our knowledge or technique, but probably very shortly we will feel ourselves able to carry out the reaction satisfactorily, and I have therefore asked Assistant Surgeon Mangesh Row to put up before the meeting some explanation of the reaction and its possible utility. The Assistant Surgeon has ingeniously prepared a small and simple model which will explain at a glance the basis of the reaction.

SECOND DAY, THURSDAY, FEBRUARY 3RD, 1910.

The Prevention of Tuberculosis in Burma.

THE Medical Section met at 5 p.m. to discuss the prevention of the spread of tuberculosis in Burma.

The PRESIDENT (Colonel King, C.I.E.) opened the discussion with a paper, in which he said that he had felt special interest in this matter during his tenure of office, as he felt impressed on arrival in Burma with the fact that sanitary and hospital returns relating to this subject pointed to a special danger to the Burman population. Thus they would find in his report on hospital administration that he recorded in 1905 that tuberculous diseases amounted to ½ per cent. of the total treated in the Rangoon and Moulmein hospitals, and in 1907, in his sanitary administration report, he suggested that the existence of both human and bovine tuberculosis in Rangoon demanded careful attention. In 1907 he showed that amongst 2,094 cases treated in hospitals not less than 728 came from Mandalay district. In that year leaflets were distributed in the vernacular for use in connexion with out-patients suffering from tuberculosis, warning them as to the infectiveness of the disease, care of the sputa, etc. For the initiation of this useful measure his then Deputy Sanitary Commissioner, Major Lalor, was largely responsible. It was difficult, in the absence of a sanitary service in this country, to state to what extent, and in what particular localities and amongst what class of the people, tuberculosis was chiefly found. The general impression amongst medical men there was that this disease was largely on the increase, and threatened to become a serious danger to both the Indian and Burman, and more especially the latter. Some idea of the prevalence of the disease might be gathered by an appeal to sick and invaliding certificates as given by medical officers. In Rangoon the senior and the junior civil surgeons between them gave forty-seven such certificates in cases of Burmans and Indians during 1909. All the individuals concerned were officials, and therefore presumably were in a condition to resist infection by reason of suitable food supply and environment. Unfortunately, also, as officials they were in a singularly good position to spread the disease in the midst of office staffs. In 1906 he inspected the Ghurkha Battalion of Military Police at Myitkyina, where the presence of tuberculosis had elicited the special attention of Dr. Evers. Precautions were taken by him and by his successors, Dr. Fink and Lieutenant Mackie, I.S.M.D.; but it could not be said, although the condition was now more hopeful, that the disease had been stamped out. Indeed, as they would have to consider what remedial measures should be applied for the repression of tuberculosis amongst the general population, he invited their attention to the actual difficulties which exist at Myitkyina, and which were more or less typical of conditions that must be also found amongst undisciplined populations. The men were considerable owners of cows, and used milk freely. Amongst these cows tuberculosis was believed to exist. But, being Indians, they made a point of objecting to diagnosis by tuberculin injection, or even by the ophthalmic reaction. It was true they heated and perhaps boiled milk used for dietetic purposes, but their women freely handled cow dung (for leeping their houses and the making of dung-cake for fuel), which was a recognized source of infectivity, according to the Royal Commission on Tuberculosis. In contrast, the Burman did not take milk largely, and if he did, he would not take the trouble to boil it. Tuberculosis was more frequent, according to Major Evans, the head of the Veterinary Department in

Burma, amongst imported Indian breeds than indigenous Burmans. There was not much difference between the Burman and Indian as to habits of spitting, whilst the houses used by both classes lent themselves to retention of infective sputa, which might attach itself to the bamboo flooring or reach the ground below. There was superadded in respect to this particular battalion the unfortunate fact that men who were invalided for tubercle, instead of proceeding to India, settled down in the milk village in the neighbourhood; so that merely getting rid of men out of the battalion did not limit sources of infection, in the absence of laws authorizing compulsory segregation. A portion of an inquiry into the conditions necessarily was whether particular companies, or particular barracks or houses in family lines were infected. Observation on these details had been maintained since 1906, but they were less fruitful than might be hoped, owing to the fact that the men were liable to be shifted to various outposts about every six months, and that the result of these movements on particular men must be allowed for before arriving at a conclusion.

The speaker gave details of the Myitkyina cases as types of difficulties to be met, and said they were at once confronted with the important question as to whether or not tuberculosis in man should be rendered a notifiable disease, and if so, whether segregation should be compulsory. Subject to the fact that the range of error would be very great, there seemed no reason why it should not be rendered a notifiable disease in large towns, as the disease was commonly recognized by Burmans. But if it were compulsory, the addition of punitive clauses would be necessary. Of samples of compulsory segregation they had the Leper Act in respect to paupers in actual operation, with, however, the curious omission in Burma of not providing accommodation for females.

It might safely be said that the public mind was not yet sufficiently educated to accept such a condition. In short, first efforts would apparently most advisedly be framed on the principle of the giving of effective advice. In respect to cattle, although they had the sample of an epizootic disease Act which could enable animals to be segregated, the expense of working the system would be great, and would be liable to much opposition by certain classes of Asiatics. Then, again, they had the problem of advising the people as to the infectivity of the disease by means of sputa. This had already been met in parts in 1907 by the distribution of leaflets to patients. Obviously, a most important point would be that the recently instituted teaching of hygiene in schools should be improved, so as to embrace the important point of tuberculosis prevention. In all other matters—in pushing advice amongst the people, in bringing home to them the necessity of improvement of ventilation of dwellings, the cessation of distribution of infection by spitting, and the adaptation of houses for prevention of prolonged retention of infective sputa, advising as to their correct disposal and methods of personal hygiene, combined with partial home segregation of the patient—there was no better way of reaching the population than by the employment of a completely organized public sanitary service, having in its executive grades a sufficiency of highly educated certificated sanitary inspectors. Such a service was recommended by the speaker in 1906, and was approved by the Government of Burma, and he could only suppose that want of funds had prevented its being finally sanctioned. This service would certainly be capable of identifying the centres of spread, and, as members of the service would be strictly Burmans, capable of understanding their own people, it might be safely assumed—as he found by practical experience in working with a similar class of men in the Madras Presidency—that they would soon produce a public opinion in favour of definite sanitary action. These two methods—school hygiene and the employment of a sanitary service—should, he thought, be their first step. Although they might be aided, they certainly could not be replaced by the distribution of mere tracts and leaflets. Again, there was a possibility of erecting sanatoriums where patients might at once receive the benefit of special treatment, and at the same time furnish practical demonstration of the advantages of the infectivity of tuberculosis being under skilled control. Quite two years back the Senior Civil Surgeon, Rangoon, Lieutenant-Colonel Davis, informed the speaker that he hoped to be able to initiate a movement in Rangoon for the erection of a sanatorium, and Colonel Davis felt confident that he could secure the necessary subscriptions. Unfortunately, a sudden illness required absence to Europe, and Colonel Davis's scheme fell through. The fact, however, that an officer who had had so large experience of conditions in Burma had faith in the possibility of securing at least one such institution by private subscription amongst Asiatics went to show that it was reasonable to hope that this idea would still be received with favour, if supported by the influence of that Branch.

Dr. PEDLEY read a paper entitled, "A Suggestion with Regard to the Prevention of Tuberculosis in Burma." They had to ask themselves, What was being done for the prevention of disease in Burma? At the very start they were met with the difficulty that they had absolutely no reliable statistics, even as to the prevalence of the disease. In the Provincial Sanitary Report deaths were returned under the head of "respiratory disease," and here the mortality from these causes would appear to be very low. Where, however, the large proportion of the total deaths were returned as due to fevers it was impossible to say how many deaths from tuberculosis might be reported under this term. Among the Burmese in Rangoon the great majority of deaths from pulmonary tuberculosis occurring in women were attributed to the cessation of menstrual flow, and unless haemorrhage from the lungs occurred in the cases of men, deaths were as likely to be reported as due to fever as to cough.

In Rangoon, in 1907, 1,316 deaths were attributed to respiratory diseases, excluding tubercle of the lung; 350 were reported as due to tuberculosis of the lung. At the General Hospital there were 85 deaths from respiratory disease excluding tubercle, and 50 deaths due to tubercle of the lung, a much more serious ratio than that obtained outside. In the provincial report on hospitals and dispensaries for three years—1905 to 1907—it was said that during this period 4,216 cases of tuberculous diseases were treated and that there was a diminution of 2,925 cases on the total of the three previous years. Under the head of "Respiratory diseases other than tuberculosis" there were 210,542 cases treated, showing an increase of 23,405 on the previous triennium. The annual sanitary reports for the province gave the total deaths from respiratory diseases as 6,800 for the year 1908.

It was not his intention now to discuss these figures. His impression was that as regards the prevalence of tuberculosis and pulmonary tuberculosis they were useless, except that they gave a hope that throughout the rest of the country pulmonary tuberculosis was not as prevalent as it was amongst the Burmese in Rangoon. And in Rangoon they could not obtain any reliable statistics. But those who had been in practice any time in that city must have come to the conclusion that this disease was claiming far too many victims among certain classes of the population. In his experience the Burmese and Chinese were the chief sufferers. One met with cases amongst the mixed races of Burmans and Mohammedans, and they were common amongst the Madrasis who belong to the domestic servant class. It was comparatively rare amongst Eurasians here, and exceedingly rare to find a European sufferer.

After referring to what was being done in Europe for the stamping out of tuberculosis, he went on to ask what they as a body of scientific men were doing in this matter for the people amongst whom they were living. Those who came much in contact with the people knew that sheer ignorance was at the root of the evil. They knew, too, that their habits and mode of life in a crowded city like Rangoon were absolutely conducive to the spread of this disease. Their treatment of pulmonary tuberculosis was eminently unsatisfactory, and they were doing nothing worth mentioning to prevent the spread of the disease amongst one of the best and kindest nations under the British Raj. His reason for bringing the subject forward was

to beg them to consider seriously whether they, working together as members of the Burma Branch of the British Medical Association, could not commence an active campaign against tuberculosis in Rangoon and throughout Burma.

He had no intention of proposing any elaborate or expensive scheme for the founding of sanatoriums or special hospitals. He knew that such proposals would be useless. But what he believed that they as a body might do was to endeavour to enlist the sympathy and aid of the philanthropic public and the Government in propagating amongst the Burmese and others their views upon the prevention of this disease. Much of the good work which was being done in this direction at home was not expensive. He had, through the kindness of the Honorary Secretary of the National Association for the Prevention of Consumption and other forms of Tuberculosis, received several specimens of the literature published by that association. He had put them into a case in the museum. They chiefly consisted of notices, advertisements, and little pamphlets explaining in the simplest and most convincing language how the humblest individual might assist in the prevention of the disease. In Burma, he believed, a far larger proportion of the population could read than in Russia or Spain. In the Burmese they had to deal with a people who read and think, and who were proving reasonable and adaptable to the methods of Western civilization; amongst them good work might be done.

If such printed matter as this, carefully adapted to the national thoughts and customs of these people, were widely scattered, if the children in the schools were taught a few of the elementary facts of the case, he believed that much suffering and terrible loss of life might be greatly diminished, and with the growth of knowledge altogether prevented.

Major Berry, I.M.S., said, as superintendent of the General Hospital, he took an interest in the segregation of tuberculous patients, and thought it feasible to have a special hospital. It ought not to be expensive, and he thought it ought to be started. Colonel King's sanitary inspectors would help to diagnose cases and fill the special hospital.

Lieutenant-Colonel Frenchman said 50 per cent. of the sickness among prisoners was due to tubercle. The victims came chiefly from crowded localities.

Dr. Douglas agreed to a large extent with all that the President had said. He thought little good would come from pamphlets. Good might be done by lantern lectures and pictures. If they wanted to educate the native they must show him, in a hospital or a garden village, modern methods. His idea would be to have a small modern village. He would allow the patients plenty of liberty and admit their friends to see them. There must be a lot of tubercle in Rangoon of which they did not know. The Registration Act would perhaps help them. The returns now of diseases were vague. It would be a good thing to have a sort of State medical service, which would not interfere with present-day methods. Medical officers would then be appointed who would visit houses.

Major Pridmore said the Burmese understood something of leprosy, and a segregation hospital for this disease appealed to them. They had yet to teach them that tubercle was just as dangerous, and spreads in much the same way, and then they would have no difficulty in persuading them to come into a special hospital.

Captain Whitmore regretted that he had no Calmette reaction statistics ready. He had been using it for six months, and was convinced of its utility. He found the ophthalmic reaction the most useful. With regard to what had been said by the other speakers, he agreed that there was sufficient material for a special hospital, and he also suggested the establishment of a home for better class people. He also advocated healthier conditions in schools.

Captain Knapp referred to the association of morphinism and tubercle. He was convinced that there was a close connexion. In his gaol experience he had been struck by the large number of cases of abdominal tuberculosis, and he thought that the morphine habit had something to do with it.

Captain Good thought that Captain Whitmore had hit the right nail on the head when he attacked schools.

Dr. Nolan did not think it possible to teach the people the infectivity of the disease.

Captain Baket spoke as a Burman. He said it would be a great work to educate Burmans as had been suggested. What had taken England so many years to learn would not be learnt easily by the Burman. Teach a loogyi (he said) what a germ is, and you have done a great work. Government must take measures; it might be approached on the question of translating sanitary works and books on hygiene into Burmese.

Dr. Joy said that teaching the Burmans on these matters was not a question of years but of generations. The reason why Catholic missionaries were successful in getting converts was that they bagged the children.

Summing up, the President said he considered that throughout the discussion there had been a solid coincidence in main principles. The statement of Lieutenant-Colonel Frenchman that no less than 52 per cent. of the mortality in Burma gaols was due to tuberculous diseases was a valuable contribution to the question of its prevalence in this province, and emphasized the necessity for action. All the speakers were essentially in favour of adopting methods at the start which should not come under the meaning of compulsion. They desired to educate and lead the Burman to appreciate the danger by which he was surrounded and to adopt reasonable preventive measures. One method of teaching they were all unanimous as to the desirability of—namely, the increased teaching of hygiene so as to embrace tuberculosis in schools. In treating of sanatoriums, some would limit it to a hospital type, others to a voluntary resort to a health village; but all were agreed that admission should be voluntary, and that the influence of control of infective sputa would be of enormous advantage. Others would favour very fully his suggestion as to the connexion between control of this disease by means of the various powers and persuasive tendencies of a well organized sanitary service. Now if they considered the one important point of a sanatorium, however small, affording a practical method of teaching, it would be seen that the detail of its approaching the type of a hospital for the poor or the rich or be a well conducted health village mattered very little. They must see that if they possessed a sanitary service they commanded the best possible teaching by example and precept, and that its existence was not incompatible with the scattering of literature. On the contrary, it would furnish the particular agency best fitted for such distribution, especially if, in certain areas, female sanitary inspectors were also employed. Hence he had no hesitation in saying that the sense of the meeting was fairly well summed up in the following resolution, which he would ask them to consider:

(1) That this Branch of the British Medical Association would invite the attention of the Government of Burma to the prevalence of tuberculous diseases amongst the population of this country, which is becoming an increasing danger to the population generally and to Bermans in particular, and that in this, as in all matters connected with the public health, it is essential, as a first step towards control and prevention, that an organized sanitary service be instituted in this province. (2) That it is desirable that the efforts of this service be aided by an extension of the present course of school hygiene so as to embrace necessary sanitary details as to prevention of tuberculosis.

This resolution was seconded by Dr. Pedley, and carried unanimously.

(3) That a sanatorium be erected for the benefit of at least one important town population (preferably for Rangoon), so that the curative and preventive influence capable of being exercised by such institutions may be practically demonstrated to the people.

This resolution was seconded by Major Barry, and carried unanimously.

(*To be continued.*)

DORSET AND WEST HANTS BRANCH:
BOURNEMOUTH DIVISION.

A MEETING of this Division was held in the Medical Society's Rooms, Bournemouth, on Wednesday, April 20th, Dr. ELEANOR BOND in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Nomination of Candidates to Central Council.—The Division nominated Dr. James Davison as a candidate for election to the Central Council.

Special Class of Consultants.—Questions (*a*) and (*b*) were answered in the negative.

Relation of Homœopaths to the Association.—Questions A, B, C, D, E: Yes.

Poor Law Reform.—The Interim Report of the Special Poor Law Reform Committee was approved, and the three specific questions answered in the affirmative.

Next Meeting.—It was resolved to hold the next meeting of the Division on May 14th at Wimborne.

METROPOLITAN COUNTIES BRANCH:
STRATFORD DIVISION.

A MEETING of this Division was held in the Alexandra Hotel, High Street, Stratford, on Thursday, April 14th, Mr. COUSENS, F.R.C.S., in the chair.

Discussion on Fractures.—The CHAIRMAN introduced a discussion on fractures, and in the course of his remarks he gave many useful hints on the treatment of fractures based on cases which had come under his care. Many of the members took part in the discussion and gave their experience of unusual cases.

MIDLAND BRANCH:
BOSTON AND SPALDING DIVISION.

AN ordinary meeting was held at the White Hart Hotel, Boston, on April 15th, at 2.30 p.m. Dr. HUSBAND was in the chair, and there were also present Drs. Allan, Braithwaite, Mason, Miller, Moxham, Pilcher, Slocock, South, Spilsbury, R. Tuxford, Wilson, Witham, and Dr. Reckitt (by invitation). Mr. Laws, Honorary Surgeon to the Nottingham and Midland Eye Infirmary, also attended.

Confirmation of Minutes.—The minutes were first read and confirmed.

An Ethical Question.—The SECRETARY reported that he had not yet heard from the Medico-Ethical Committee with reference to the question of "the medical man covering the chemist."

Postponement of Meeting.—The meeting in Stamford, which was to have been held in May, was postponed as the Midland Branch was meeting in Lincoln in June.

Paper.—Mr. LAWS was next introduced by the CHAIRMAN and asked to read his paper on the treatment of squint. This was listened to with great interest, and discussed by various members afterwards.

Vote of Thanks.—Dr. SOUTH proposed, and Dr. WITHAM seconded, a hearty vote of thanks to Mr. Laws for his highly interesting and instructive paper, which was received with unanimous approval.

Treatment of School Children.—Dr. SOUTH raised this question, as he found some school medical officers did not always refer children found defective to their parents' medical attendants. After some discussion Dr. WILSON proposed, and Dr. MILLER seconded, the following resolution:

> That in the opinion of the Division every child found defective from whatever cause should be referred by the school medical officer to the medical attendant of the child's parents.

This was carried unanimously.

Tea.—The members had tea in the hotel afterwards.

SOUTH WALES AND MONMOUTHSHIRE BRANCH:
SWANSEA DIVISION.

A MEETING of the Swansea Division was held at the Swansea Hospital on Thursday, March 24th, at 8.15 p.m. Dr. LANCASTER was in the chair, and there were present Drs. Reid, Hanson, Veale, Brook, John Davies, Thornton, Isaacs, Cormack, Kingston, Urban Marks, Roberts, Cameron, Francis, Trevor Evans, and L. Freeman Marks (Honorary Secretary).

Confirmation of Minutes.—The minutes of the meeting held on March 10th were read and signed by the Chairman as correct.

Cases.—Notes of cases were read by Drs. CORMACK, THORNTON, REID, and BROOK.

South Wales Nursing Association.—The objects, rules, and constitution of the South Wales Nursing Association being brought before the meeting, a further discussion on the matter took place. The following resolution, proposed by Mr. BROOK and seconded by the CHAIRMAN, was then unanimously passed:

> That this meeting of the Swansea Division, having duly considered the objects and rules of the South Wales Nursing Association, desires to signify:
>
> (i) Its approval of the training of midwives to obtain the certificate of the Central Midwives Board, and the provision of them for villages and country districts.
>
> (ii) Its approval of the utilization of Queen Victoria's Jubilee Nurses as educational factors—for example, for practical instruction in sick nursing and elementary hygiene.
>
> (iii) Its protest against women who have received a short period of district training being called "nurses," and thus in the popular mind being put on the same status as a fully trained nurse, because (*a*) the proposed time of training is entirely inadequate, as is also the teaching, there being an entire absence of any systematized medical or hospital training; (*b*) there is no guarantee that an adequate standard will be reached before a certificate is given, for there appears to be no provision for any examination as to the proficiency which the candidate has attained either in theory or practice; (*c*) there will be the danger of these so-called village nurses posing before the general public as fully-trained nurses after their contract with the South Wales Nursing Association has terminated. In cases of serious illness there will be a real danger to the community at large, besides it being a gross injustice to those women who have spent time and money in obtaining full training.
>
> (iv) Its protest against certified midwives indiscriminately taking charge of medical and surgical cases, because (*a*) they have not been adequately trained for such work; (*b*) midwives should not attend septic or infectious diseases.

Medical Officership to Commercial Travellers' Association.—A letter was read from the Secretary of the Contract Practice Committee of the South Wales and Monmouthshire Branch, British Medical Association, stating that the question of the medical officership to the Commercial Travellers' Association had been considered, and that the committee unanimously disapproved of that class of contract practice, and recommended the Swansea Division to take such steps as they may think desirable to discourage it.

A MEETING of the Division was held at the Swansea Hospital on Thursday, April 14th, at 3.30 p.m.; Dr. LANCASTER was in the chair, and there were present Drs. T. D. Griffiths, Hanson, Brook, Arnallt Jones (Aberavon), D. Arthur Davies, Begg, Roberts, Cameron, Frank G. Thomas, Urban Marks, Thomas John, D. J. Morgan (M.O.H. Swansea), Alban Evans, Abel Davies (Gowerton), Trevor Evans, John Davies, W. L. Griffiths, Kemp, John (Llangennith), Griffiths (Pontardulais), and L. Freeman Marks (Honorary Secretary).

Confirmation of Minutes.—The minutes of the meeting held on March 24th were read and signed by the Chairman as correct.

Proposed Bacteriological Laboratory.—Dr. T. D. GRIFFITHS introduced the subject of the establishment in Swansea of a fully equipped laboratory and the appointment of a whole-time pathologist and bacteriologist, for the following reasons:

(i) The increasing importance of pathology and bacteriology in the diagnosis and treatment of disease.

(ii) The increase in complexity and range of both these sciences which renders an up-to-date practical knowledge impossible except to those who devote the whole of their time to

their study. (This was urged by the deputation to the Works and Sanitary Committee of the Swansea Town Council appointed by the Division on October 20th, 1907.)

(iii) The increase in size and importance of the town and district as a manufacturing centre, and the fact that the establishment of such an institution would bring Swansea into line with other towns of similar importance.

(iv) The prevalence among the population of industrial diseases, the pathology and pathogeny of which are still obscure—for example, lead poisoning, pitch warts, and pitch epithelioma, nickel poisoning, etc.

Dr. T. D. GRIFFITHS then proposed, and Dr. ARNALLT JONES seconded, and it was carried *nem. con.*:

That it is desirable to establish in Swansea a fully equipped pathological and bacteriological laboratory.

Dr. T. D. GRIFFITHS further proposed, and Mr. BROOK seconded, the following proposition:

That it is desirable to appoint a whole-time pathologist and bacteriologist at the hospital.

This was carried by 10 for the motion and 1 against. (The smallness of the numbers voting was accounted for by several members having to leave on account of the lateness of the hour.) Mr. BROOK proposed, and Dr. ALBAN EVANS seconded, and it was carried:

That a subcommittee be appointed to consider and report on the steps to be taken to further the objects of these resolutions.

Drs. Lancaster, Daniel E. Evans, Brook, Arnallt Jones, D. J. Morgan, and D. J. Williams (Llanelly) were nominated to serve on this subcommittee, with power to add to their number.

The other items on the agenda were omitted for lack of time.

Association Notices.

ANNUAL GENERAL MEETING.

Notice is hereby given that the 1910 Annual General Meeting of the British Medical Association will be held in the Court of Common Council Chamber, Guildhall, London, on Friday, July 22nd, 1910, at Ten a.m.

[*This Meeting is to comply with Article XII, and will adjourn forthwith until Tuesday, July 28th, at 2.30 o'clock.*]

ANNUAL REPRESENTATIVE MEETING.

Also, notice is hereby given that the 1910 Annual Representative Meeting will be held in the Court of Common Council Chamber, Guildhall, London, on Friday, July 22nd, 1910 (and following days as required), immediately after the Annual General Meeting, fixed for Ten a.m., on Friday, July 22nd.

BY ORDER OF THE COUNCIL,

GUY ELLISTON,

Financial Secretary and Business Manager.

April, 1910.

ELECTION OF CENTRAL COUNCIL 1910-11.

NOTICE is hereby given that nominations of candidates for election of Members of Council by Branches or groups of Branches in the United Kingdom by voting papers for the year 1910-11 must be forwarded to reach the Financial Secretary and Business Manager, at the Office of the Association, not later than Monday, May 23rd, 1910, and that each nomination must be on the prescribed form, copies of which will be furnished by the Financial Secretary and Business Manager upon application.

Separate forms have been prepared for a nomination by a Division and for a nomination by any three Members respectively, and those applying are requested to state for which purpose the form is desired.

Voting papers containing the names of all candidates duly nominated will be issued from the Central Office on Saturday, June 11th, and will be returnable not later than Saturday, June 18th.

By Order of the Council,

GUY ELLISTON,

Financial Secretary and Business Manager.

April 28th.

BRANCH AND DIVISION MEETINGS TO BE HELD.

ABERDEEN BRANCH. — *Election of Representative of the Branch on the Council of the Association.*—Nominations for the above office should be sent to the Honorary Secretary of the Branch, T. FRASER, 45, Elmbank Terrace, Aberdeen, before May 16th.

BATH AND BRISTOL BRANCH: BATH DIVISION.—The annual meeting of the Bath Division will be held at the Royal United Hospital, Bath, on Friday, May 20th, at 5.30 p.m. Business: (1) Election of Officers. (2) Election of a Representative for the Annual Meeting in London. (3) Any other business.—D. LESLIE BEATH, Honorary Secretary.

DORSET AND WEST HANTS BRANCH.—The spring meeting of this Branch will be held in the Hotel Mont Doré, Bournemouth, on Wednesday, May 18th. Members wishing to read papers, show cases, or exhibit specimens, should communicate with the Honorary Secretary not later than Thursday, May 5th.—JAMES DAVISON, Honorary Secretary, "Streateplace," Bournemouth.

DORSET AND WEST HANTS BRANCH: BOURNEMOUTH DIVISION.—The annual meeting of the Division will be held on Saturday, May 14th. Business: Election of officers and other business.—E. KAYE LE FLEMING, Honorary Secretary.

DUNDEE BRANCH.—The annual meeting of this Branch will be held in University College, Dundee, on Friday, May 6th, at 4.30 p.m. Dr. McVail, M.O.H. for Stirlingshire, will give an address on the Medical Aspects of the Prevention of Pauperism. Dinner will be served in the Queen's Hotel, Dundee, at 6.30 p.m. —R. C. BUIST and A. P. LOW, Honorary Secretaries.

LANCASHIRE AND CHESHIRE BRANCH: ROCHDALE DIVISION.—A joint meeting of this Division and the Rochdale and District Medical Society will be held in the Wellington Hotel, Drake Street, Rochdale, on Thursday, May 12th, at 8.30 p.m., when an address will be delivered by Dr. Taylor of Salford, a member of the Central Council of the British Medical Association, on Poor Law Reform, with special reference to the establishment of a State Medical Service. The extreme importance and urgency of this matter renders it desirable that every member of both societies should make a point of being present at this meeting.—JAMES MELVIN, Newbold Hall, Rochdale; J. CUTHBERTSON WALKER, Waithlands, Rochdale.

LANCASHIRE AND CHESHIRE BRANCH: ST. HELENS DIVISION.—A meeting of this Division will be held at the Fleece Hotel: St. Helens, on Wednesday, May 4th, at 8.45 p.m. Business. Minutes; Poor Law Reform; Election to Central Council; Election of Office-bearers and Executive Committee; and other business.—JOHN J. BUCHAN, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: WARRINGTON DIVISION.—The annual meeting of the Division will be held at the Infirmary, Warrington, on Tuesday, May 3rd, at 4 p.m. Agenda: To elect officers, the representative on Branch Council, and the ordinary members of the Executive Committee, etc.—T. A. MURRAY, Honorary Secretary.

LEINSTER BRANCH.—The annual general meeting of this Branch will be held in the Royal College of Physicians, Kildare Street, Dublin, on Thursday, May 5th, at 4.30 p.m. Any member having subjects of professional interest to bring forward should communicate as soon as possible with the Honorary Secretary, ARTHUR H. WHITE, Malvern, Terenure Road, Dublin.

METROPOLITAN COUNTIES BRANCH.—A conference between the medical staffs of the metropolitan hospitals and the members of the Metropolitan Counties Branch will be held in St. James's Vestry Hall, Piccadilly, on Wednesday, May 4th, at

.30 o'clock, with a view to securing a common action towards lacing the question of the treatment of school children found n inspection to be defective in a position which shall be atisfactory to the interests of the public and the profession.—. W. GOODALL and W. GRIFFITH, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH.—The annual meeting of he Branch will be held on Thursday, June 23rd, at 4.30 p.m., t 429, Strand, W.C. Agenda: (*a*) To receive the report of the lection of new officers. (*b*) To receive the annual report of the Council of the Branch and the annual financial statement.) To receive the annual report of the Representatives of the Branch on the Central Council. (*d*) To make new rules or alter r repeal existing rules. (*e*) Any other business. (*f*) Presi-ent's Address. Nominations for the offices of President-elect, our Vice-Presidents, Honorary Treasurer, and two Honorary Secretaries must be sent to Dr. Goodall, Eastern Hospital, Homerton, N.E., not later than May 28th. Nominations may e made by a Division or by twelve members of the Branch, and nust be in writing and signed by the Honorary Secretary of the Division or by the twelve members.—E. W. GOODALL, W. GRIFFITH, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: LAMBETH DIVISION.—The nnual general meeting of this Division will take place at 4 p.m. n May 5th, at Bethlem Royal Hospital. Agenda: (1) The lection of officers for the ensuing year 1910-11. (2) Dr. W. H. B. Stoddart will give a demonstration of cases from the wards.—H. CHARLES CAMERON, 6, St. Thomas's Street, S.E., Honorary Secretary.

MIDLAND BRANCH: LINCOLN DIVISION.—The annual meeting of this Division will be held in the Guildhall, Lincoln, on Thursday, May 19th, at 3.30 p.m. Agenda: (*a*) To elect officers, the Representative on the Branch Council, and the ordinary members of the Executive Committee. (*b*) Consideration of the interim report of the Special Poor Law Reform Committee and the answering of certain questions relative thereto (see SUPPLEMENT, BRITISH MEDICAL JOURNAL, February 5th, 1910). (*c*) Consideration of the report of the Council on the Relation of Homoeopaths to the Association and the answering of certain questions relative thereto (see SUPPLEMENT, BRITISH MEDICAL JOURNAL, February 12th, 1910). (*d*) To decide whether the Division should initiate any subject for discussion at the Annual Meeting of the Association, or enter into preliminary discussion of any subject to be brought forward at that meeting. (*e*) Other business. Any member desiring to read papers or show cases or specimens is requested to communicate with J. S. CHATER, Honorary Secretary, 10, Steep Hill, Lincoln.

NORTHERN COUNTIES OF SCOTLAND BRANCH.—A general meeting of the Branch will be held at the Northern Infirmary, Inverness, on Saturday, April 30th, at 3 p.m. Business: (1) Consideration of Interim Report of Poor Law Reform Committee (BRITISH MEDICAL JOURNAL, SUPPLEMENT, February 12th); (2) Relation of Homoeopaths to the Association; (3) Medical Inspection and treatment of School Children. (4) Election to Central Council; (5) Election of Representative in Representative Meeting; (6) Clinical Cases and Specimens. (7) Any other business.—J. MUNRO MOIR, M.D., Honorary Secretary.

SOUTH-EASTERN OF IRELAND BRANCH.—The annual meeting of this Branch, also a meeting of Branch Council and local Division, will be held at the Victoria Hotel, Kilkenny, on Wednesday, May 4th, at 5.30 p.m. Agenda: (1) Minutes of last meeting. (2) Letters of apology. (3) Correspondence. (4) Election of office-bearers. (5) To elect new member. (6) Any other business. (7) Dinner at 6.30.—J. QUIRKE, Honorary Secretary, Piltown.

ULSTER BRANCH.—The spring meeting will be held in Londonderry, on Saturday, April 30th.—CECIL E. SHAW, Honorary Secretary, 29, University Square, Belfast.

NATIONAL POOR LAW REFORM ASSOCIATION.

THE first public meeting of the National Poor Law Reform Association since its formation in March last was held at St. James's Hall, London, on April 22nd. Lord GEORGE HAMILTON presided, and there was a very large attendance. The threefold resolution was carried by an overwhelming majority. It ran as follows:

(*a*) That any measures of reform should aim at encouraging independence and mutual aid.

(*b*) That a single administration for public assistance is on all grounds better than a divided administration by departments.

(*c*) That, inasmuch as heavy taxation, whether imperial or local, tends to curtail enterprise and employment, the bulk of the expenditure proposed by the Minority Report would intensify the evils it is intended to remove.

A letter was read from Mr. Walter Long, who, it was expected, would have delivered the principal speech. Mr. Long was evidently not prepared to associate himself with any particular propaganda. "It seems to me," he wrote, "that the wise course for the present is to hold our hands and carefully consider the mass of information which the really splendid labours of your Commission have placed at our disposal." He went on to say that he thought it "undesirable that there should be any impression abroad that those of us who have been connected with the Poor Law administration in the past have definitely made up our minds as to the machinery necessary to give effect to reforms which changed conditions may render desirable."

Lord GEORGE HAMILTON'S speech was in part a recapitulation of his argument at the meeting which saw the formation of the association.[1] He explained the causes which led up to the appointment of the Commission, the composition and method of working of that body, and the considerable extent to which its eighteen members were in agreement. He had done his best to prevent the issue of two reports, knowing that the one would be set up against the other, that the forces of reform would be divided, and urgent amendments of the present system postponed. He saw the reason for the Minority Report in the fact that the investigations had brought to light unpleasant revelations relating to the seamy side of our civilization; and this, in the minds of those who held socialist opinions, was held to justify a socialist propaganda. He criticized that report on various grounds, and sketched the difficulty of the problem in the case of people between the ages of 16 and 60, who would fall within the scope of its manifold provisions. These people could not be placed under the category either of youth or age. They were not able-bodied, but they were not unable to work. They were not in thoroughly good health, but they were not in need of constant medical attendance. They were not people of strong character, but they were not sufficiently feeble-minded or feeble-willed to justify their detention. They belonged to the class which had failed because they did not come up to the standard of efficiency which would enable them permanently to earn a livelihood. He foresaw that such a class would be a source of continual friction between the committees to which the different members would be apportioned under the Minority system. He attacked that report also because it divided up the family. The sense of family life was not so strong as it used to be, particularly among the people to whom these provisions would relate, and if it were further disintegrated by officially parcelling out its items under different authorities it would be a matter of great difficulty to bring them together again. He attacked it also because it would strike a blow at that slow-grown system of mutual aid and voluntary co-operation which made our country in this respect the envy of all others. Lord George mentioned that, in the course of his labours as Chairman of the Commission, he had made it his duty always to ask those in charge of institutions how the people under their care compared with those of the previous generation. Almost invariably the answer was to the effect that those who came within the province of relief at the present day were not so vicious or so criminally disposed as their predecessors, but from the point of view of reformation or rehabilitation they were more difficult. Several of the witnesses added that they feared the conditions existing in this country were such as to produce increasingly a class whose object it was "to slope through life, doing as little as possible for themselves and getting as much as possible outside."

A clever speech, but occasionally straying rather wide of Poor Law reform, was then delivered by Mr. HAROLD COX, who took occasion to express his regret at the speech delivered recently by Mr. Balfour in the House of Commons when the Minority Report came under discussion. The ex-Premier had spoken as if principles were of no importance in such a matter as

[1] BRITISH MEDICAL JOURNAL, SUPPLEMENT, March 19th, 1910, p. 108.

this, and all that it was necessary to care about were a few details. In private life, if a man were without principles, he was described as an unprincipled man, but in public life the absence of principles was to be considered a matter of pride! Mr. Cox attacked the Minority Report on the ground of its socialist character, and said incidentally that in his opinion the institution of private property was one of the greatest inventions of the human race, and that its continuance was bound up with our future welfare. He criticized the so-called deterrents which figured in the report, on the ground that they were chiefly nominal. For example, relief was to be given to a poor woman and her children when her husband was out of work. Who was to define the term "poor," which had a different meaning in different classes of society? By the condition under which relief was to be given she had to refrain from seeking industrial employment. But why should she seek industrial employment when she was receiving relief? Further, she must attend to her children. But how was this to be ensured? Was a county council official to sit on her doorstep all day long, watching what she did with her children? Another reason for which Mr. Cox disliked the Minority Report was the absence of political disfranchisement. The provision that no person receiving relief should be disfranchised was the more remarkable because it was suggested that many of the people who were out of work were in that condition because they were deficient mentally as well as physically. He regarded the political franchise as a privilege and not as a right, and certainly as a privilege to be forfeited with the forfeiture of independence, which was involved in the acceptance of gratuitous relief. In the course of his speech Mr. Cox told a story, not strictly to the point, but illustrative of the lack of self-help among a particular class. A young woman, living in the suburbs, having read certain articles in the newspapers, decided to emigrate to Canada. A lady, who knew she was not well furnished with resources, took the trouble to make all sorts of inquiries and to conduct all necessary business on her behalf. But before the intending emigrant could actually start for Canada it was necessary that she should go to South Kensington to interview the lady superintendent of the Emigration Registration Agency. "Oh, no! I could not possibly go to South Kensington all alone," was her reply. And she still remained in the suburbs. Mr. Cox vouched for the absolute accuracy of the story. "If we are all going to be taught to lean upon the State, upon whom is the State going to lean?" was his concluding remark. "Let us be careful that we do not base our social system upon the failures of the community."

Mr. H. J. Torr laid stress upon the necessity of associating voluntary assistance with Poor Law administration, and said that in the course of his own experience with the Church Army he had found that that body owed its success to the principle of providing the opportunity for people to help themselves, and that when it went beyond that and attempted to set the individual on his feet without his active co-operation it inevitably failed.

Mrs. C. J. Hamilton claimed that the Majority Report was in no sense doctrinaire. It offered the opportunity for the official forces and the voluntary forces to come together in a co-operation which was impossible under the present system of Poor Law administration.

Mr. J. T. Helby was the final speaker in support of the resolutions. His long experience in connexion with the Metropolitan Asylums Board had, he said, convinced him of the evils arising out of a duplication of administrations. The work of that body in dealing with the imbecile and of the London County Council in dealing with the insane might well be brought under one authority. Only recently the London County Council was about to build another asylum, when it was found that the Metropolitan Asylums Board had vacancies for about 500 inmates, and thereupon the Council took 450 of these places. He thought that much more efficient care could be taken of deficient children, including ophthalmic cases and ringworm cases, if they were all brought under one authority; at present feeble-minded children in homes scattered throughout London under the Metropolitan Asylums Board were attending the schools of the London County Council. He thought also that an enormous amount of money was wasted in buildings, and that there were enough buildings available at present in London for the whole of the classification of the poor. Great economy might be effected in this respect and a much better system of contracting inaugurated if it were possible to centralize administration, and he trusted that Poor Law reform would shape itself in the direction of one authoritative body instead of a divided administration by departments.

The meeting concluded with votes of thanks, moved and seconded respectively by Sir Melvill Beachcroft and Mr. C. S. Loch.

CENTRAL MIDWIVES BOARD.

Special meetings of the Central Midwives Board were held at Caxton House, Westminster, on April 19th and 20th, with Dr. F. H. Champneys, who was unanimously re-elected chairman for another year, in the chair.

Midwives Struck off the Roll.

The following charges, amongst others, were investigated, and the names were directed to be erased:

Margaret Barnett, *Esther Farrall*, *Mary Ann Neale*, and *Elizabeth Williams*, that being in attendance as midwives at confinements, the children suffering from inflammation of the eyes, the midwives did not explain that the cases required the attendance of registered medical practitioners, nor did they hand to the nearest relatives or friends present the form of sending for medical help, properly filled up and signed, in order that these might be immediately forwarded to the medical practitioners, as required by Rule E 19 (5).

Henrietta Chinn, that being in attendance as a midwife at a confinement, she was uncleanly in person, house, clothing, and appliances.

Margaret Davies and *Esther Letherin* for drunkenness.

Annie Hardstaff, that being in attendance as a midwife at a confinement, the child suffering from inflammation about the navel, she did not send for a doctor.

Margaret Middlemiss, that being in attendance as a midwife at a confinement, the presentation being abnormal, she did not send for a doctor.

Sarah Timson, that on January 23rd, 1909, having received a written direction from Dr. Arthur King, Medical Officer of Health for the Urban District of Watford, to discontinue attendance at any confinements for one week, and to disinfect herself, her clothing, and her appliances to the satisfaction of the Local Supervising Authority, on account of one of her children suffering from diphtheria, she nevertheless attended three confinements during the five days following the receipt of Dr. King's direction, without having undergone adequate disinfection.

Mary Weddell, that being in attendance as a midwife at a confinement, the patient suffering from excessive bleeding before the birth of the child, she did not send for a doctor.

Elizabeth White, that being in attendance as a midwife at a confinement, the child having been born apparently dead, she made no effort to carry out any method of resuscitation.

Mary Backhouse, that being in attendance as a midwife at a confinement and present on the occurrence of rigor, she did not take the patient's temperature nor send for a doctor.

Sarah Beeston, that being in attendance as a midwife at a confinement, the lochia being persistently offensive from the first, she did not send for a doctor.

Ann Foley, that being in attendance as a midwife at a confinement, the patient suffering from severe rigor and sickness and subsequently from abdominal pain and constant sickness, she did not send for a doctor.

Frances Rebecca Llewellyn, that having been engaged as a midwife at a confinement, the patient suffering from recurrent haemorrhages, she did not send for a doctor.

Susanna Thomas, that without reasonable excuse and with intent to evade supervision, she persistently refused to submit her bag and appliances for inspection by the duly appointed officer of the Local Supervising Authority.

Midwives Cautioned.

The following midwives were cautioned after charges against them had been considered:

Elizabeth Baverstock, Adelaide Harker, Arabella Matilda Hopton, Sarah Jane Long, Sarah King.

Midwives Censured.

The following were censured after charges alleged against them had been considered:

Elizabeth Mary Dean, Elizabeth Hill, Hannah Howe, Elizabeth Wilding, Elizabeth Anderson, Mary Frankham, Alice Turner, and Sarah Wainwright.

An ordinary meeting of the Board was held on pril 21st, with Dr. F. H. CHAMPNEYS in the chair.

Male Midwives.

A letter was read from Dr. H. Scurfield, Medical fficer of Health, Sheffield, in which he observed that as midwifery is neither medicine nor surgery he did ot know whether it would be considered 'covering' or a medical man to keep an unqualified dispenser who attended midwifery cases." Dr. Scurfield also ointed out that it did not appear from Section 1 of he Midwives Act, 1902, that it was an offence for an nqualified male midwife to undertake midwifery. he Board directed the Secretary to reply that the est course for Dr. Scurfield to follow would be to pply to the General Medical Council.

Advertising.

A letter was considered from a certified midwife dvertising a patent medicine.

The Board decided that the midwife be informed hat if she did not forthwith discontinue the use of he letters C.M.B. affixed to her name, and the adver- ising of the patent medicine, she would be cited to ppear before the Board.

Suspension of Midwives.

Letters were read from the Inspector of Midwives or Norfolk as to the period of suspension of a midwife o which the Board had taken exception.

The Board decided that the Local Supervising uthority be informed that no suspension should be or a longer period than was necessary for adequate lisinfection.

Admission to the Roll.

The Board having considered the procedure on pplication to be certified under Rule B 2 and the fee o be charged, decided—

1. That the form of application, and the certificate in support hereof be the same as used in similar applications down to March 31st, 1905.
2. That the fee payable be one guinea.
3. That the grant of a certificate without requiring training or examination be limited to those who have been practising, and desire to continue to practise, as midwives in England or Wales.

LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY.

THE annual general meeting of the London and Counties Medical Protection Society was held at 31, Craven Street, Strand, on April 27th, with Dr. G. A. HERON in the chair.

The annual report of the council contained an account of a complaint from a member that in the prosecution of parents for not sending their children to school his certificates had not been accepted by the magistrates as justifying the absence of the children from school. He was advised that his certificates were of the nature of evidence, and that the magistrates could deal with them as with other evidence. If injustice was done, it was for the persons prosecuted to appeal. The only remedy the medical man giving the certificates would have if they were disbelieved was to call public attention to the matter and show that he was right in giving the certificates. Suggestions were made to the member as to improvements in his methods of giving such certificates. Another member complained that the husband of a patient whom he attended in her confinement refused to pay the fee of a doctor who was called in to assist him owing to the delivery being a difficult one. The husband said that the member had bungled the case and that a second doctor was unnecessary. The member was advised that the second doctor, who was called in by the husband to assist the member, had better demand his fee direct, and enforce payment of it. No allegation of want of skill or care on the part of the member could be pleaded as a ground for not paying the doctor called in to assist him. Another member, who had been called by the owner of a car to attend a man injured by the car, was advised that the owner having authorized the attendance was liable for the member's fee for first aid; but, unless the owner authorized subsequent attendances on the injured man, he would not be liable to the doctor for the fees for such subsequent attendance. A member was asked by a solicitor to give an opinion as to whether the mental condition of one of his patients was normal or not. The member was advised that he should refuse absolutely to give any such information as to his patient, unless with an express written permission from the patient, or as a subpoenaed witness compelled to give expert evidence in the witness-box. A member asked whether it was his duty to notify the police in a case of suspected attempt at suicide. He was advised that he certainly ought not to notify the police of anything coming to his knowledge in professional confidence. The only justification for breach of professional confidence is, he was told, absolute legal compulsion. In cases of attempted suicide he ought to take suitable precautions for the safety of his patient, but otherwise he should not even mention the case to any one. Many members were advised in reference to various difficulties arising in connexion with their being summoned or subpoenaed to give evidence in courts of law. In one case a member was advised that a medical man called in as an expert witness is allowed special remuneration, but that there is no special rate fixed, a reasonable amount being allowed for his loss of time, the nature of the evidence being also taken into consideration. He may before being sworn refuse to give evidence on the grounds that he has not been paid, or that he has been paid insufficiently, but he must make the objection before taking the oath. If served with a subpoena he must of course attend the court; but when called upon to give evidence may then raise his objection, when the judge will decide whether or not the fee demanded is reasonable. Under the heading of "Contract Practice and Clubs" the following case is given. A medical officer of a friendly society was sent for to see a member. He found that the patient was being attended by another doctor. He told the patient that he could not attend him while the other doctor was in attendance, and retired. Next day the club secretary called on the doctor and ordered him, before a number of his patients, to go and see the man. The doctor refused to go, but later on yielded to requests that he should go, on being promised that the doctor in attendance should be told. The patient died that night. Later on the doctor received a letter from the club secretary, telling him that the club committee had "very carefully considered his negligence with regards Bro. ———, and had fined him (the doctor) £3 3s. for same." On behalf of the medical officer, the club secretary was told that the allegations of negligence were entirely repudiated, and that the doctor would not submit to their illegal attempt to impose upon him a fine for refusing to interfere with the patient of another medical man. At a general meeting of the club a little later the fine was rescinded by votes of the members. In the opinion of the council of the society the notification of infectious disease gave rise to fewer difficulties now than it did some years ago; but, owing to errors of diagnosis, it was still a source of accusations and of claims against doctors when a case was notified as infectious that was not so, or was said not to be so. Notification of childbirth had been thrust upon medical men unjustly and without fee; several members were advised how to reply to the letters addressed to them by the medical officers of health of their district in reference to the notification of births, and they were advised as to their legal position when not themselves notifying the birth of a child although they had attended the mother in her confinement. A member was informed that the Notification of Births Act was enforced as a rule only in those districts in which the local authority adopted it, and that it was the duty of the local authority by whom the Act was adopted to bring the provisions to the attention of all medical practitioners and midwives practising in the area.

The CHAIRMAN, in moving the adoption of the annual report, said that the steady increase in the number of members was a matter for congratulation. He had no sympathy with men who, having failed to join such a society, fell into trouble and then appealed to the members of the profession for charity. The council of the society had approved the following resolution:

> That, having regard to the proposed payment by boards of guardians of the doctors called in to assist midwives, the London and Counties Medical Protection Society recommends the medical men in each union to meet and confer on the subject, and to agree as to what fee, or fees, they will accept, and then combine to insist on such fee or fees being paid (or guaranteed) by the guardians, and paid on the statement of the medical man that he is unable to obtain payment of his fee from the patient or her representatives.

The local authorities settled the fee to be paid, and the medical profession were not consulted. He urged doctors in every locality, when the local authorities were considering the fees, to meet and agree on a fee, and take care that the local authorities knew that the doctors would not work for less. The day for sentiment had passed; he did not object in the least to the term "trades union"—the point was to secure adequate pay for work done by medical men. He concluded by making a statement showing the satisfactory condition of the finances of the society.

After the annual report and balance sheet had been unanimously agreed to, and the transaction of formal business, the meeting terminated.

Hospitals and Asylums.

SOME INSTITUTIONS FOR THE FEEBLE-MINDED.

WE have before us the last annual reports of three important English institutions for mentally defective children and adults,* and it may be of interest to consider them together, and also an appeal recently issued on behalf of the Princess Christian's Farm Colony. In this way we shall best realize the process of evolution in the ameliorative treatment of this class that has been, and is now, in progress.

Earlswood Asylum.

Taking first the Report of the Earlswood Asylum (which, though not stated, must, we think, be the sixty-second), we remark first a note of regret that at the time of its presentation in April last only about half of the £6,000 urgently needed for the rebuilding of the north-west block had been received in response to the appeal of the board, and that a large loan from the bankers had been necessitated in view of the dangerous condition of a portion of the structure. The unfortunate necessity which has of late years arisen of practically rebuilding the whole edifice has kept the number of patients who could be accommodated comparatively low; as the Medical Superintendent, Dr. C. Caldecott, states, the average number resident during the year 1908 was only 444, 307 male and 137 females; 43 patients were admitted during the year; 32 were discharged "relieved," and 16 died; on December 31st, 1908, the number resident was 440. Of those admitted, 58 per cent. were under 14 years of age, 28 per cent. between 15 and 20, and 14 per cent. over 20 years old; 9 of these cases were epileptic, 1 was a cretin, and 1 a "Mongolian" imbecile. The prognosis of the majority of those admitted is said to be favourable as regards permanent benefit by treatment and training in the institution.

The total number of deaths during the year was 16, being at the rate of 3.6 per cent. upon the average number resident in 1908; tuberculosis, in one of its forms, was responsible for as many as 10 out of the 16 deaths—that is, 62.5 per cent. of the whole. Of those who died, 6 were over the age of 45, and three had been in residence nearly fifty years. Dr. Caldecott points out that an increase in the death-rate will necessarily occur in proportion to the number of patients kept for life, and states that 20 per cent. of those now resident are of that class. The general health of the establishment had been satisfactory; an extensive epidemic of influenza occurred, but no outbreak of "zymotic disease." With regard to the high death-rate from tuberculosis we would remark that for some reason it seems much in excess of the average, which Dr. Caldecott recently stated had been 39.2 per cent. out of 1,000 consecutive deaths. Is it possible that the high proportion of autopsies made last year—13 out of 16 deaths—may have revealed more tubercle than had previously been suspected?

Interesting information is given with regard to the results of educational and industrial training, and as to amusements and recreations; but perhaps the most instructive parts of Dr. Caldecott's report are his comments upon the report of the Royal Commission on the Feeble-minded. From the practical standpoint which his position gives him he questions the wisdom of some of their recommendations—for example, the advisability of including "lunatics" and "persons of unsound mind" under the term "mentally defective," inasmuch as up to the present the term "mentally deficient" has been applied only to "congenitally mentally deficient persons." He urges that it will be a retrograde step to "once more include idiots, imbeciles, and feeble-minded persons under the same category as lunatics, and will tend to prejudice parents against having their weak-minded children certified if they are to be considered to be in the same class as lunatics." He thinks rather that distinction should be made between mentally deficient and mentally affected persons. Further, he questions the desirability of increasing the number of small homes for the class of feeble-minded, on the ground of the superior economy and efficiency of institutions accommodating, "say, 600 or 800."

Royal Albert Asylum, Lancaster.

Passing now to the annual report for the year ending June 30th, 1909, of the Royal Albert Asylum at Lancaster, which we may designate the Earlswood of the North, we observe in the first place that it is a younger institution than the latter by some twenty years. Founded and maintained as both are (to a large extent) by charitable contributions, the Royal Albert has been particularly fortunate in munificent benefactions, and the report of the Central Committee shows that during the year under review a total of £7,123 7s. 9d. had been received in annual subscriptions, donations, and legacies. In addition, no less than £13,418 12s. 8d. had been received in large and small amounts as payments for patients, and on June 30th, 1909, the credit balance stood at £1,218 17s., as compared with £943 5s. 10d. on July 1st, 1908.

The institution had to deplore the death during the year of the Right Hon. Sir John T. Hibbert, for eighteen years the much-esteemed Chairman of the Central Committee; the Earl of Lathom had succeded to the vacant post. In order to remove misconceptions of its scope and objects it was proposed to incorporate the asylum under the amended title of "The Royal Albert Institution, Lancaster," a designation more likely to impress the public mind with its main function as "a training institution for the feeble-minded of the northern counties." We have been glad, however, to note (subsequent to the issue of the report) that the committee has lately had under its serious consideration the feasibility of providing custodial accommodation of those who have undergone training, but still need permanent care—a provision much needed to supplement existing arrangements.

From the report of the Medical Superintendent, Dr. Archibald Douglas, we learn that 65 patients had been admitted during the year, 34 had been discharged, and 13 had died, and that the number in the asylum on June 30th, 1909, was 678, of whom 431 were males and 247 females. The average number resident during the twelve months had been 661, and on this number the deaths showed the low percentage of 1.96. The aggregate number of deaths from the various forms of tuberculous disease is not stated; but we find recorded 1 death from tuberculosis, 2 from acute phthisis, and 1 from "chronic meningitis." During the previous ten years the average annual death-rate had been calculated at 2.35 per cent., and that from clearly defined tuberculous disease at about 0.9 per cent. The mortality during the period covered by the report thus seems to have been unusually low, notwithstanding the fact that the institution had suffered from many cases of infectious disease—45 of measles, 33 of mumps, and 16 of varicella. The Medical Superintendent attributes the introduction of infection in many instances to excessive visiting by friends of patients and the custom of annual holidays for the inmates, both of which he is anxious should be curtailed. He also recommends the provision of additional quarantine accommodation to supplement the infirmary service. From a comprehensive table appended to his report it appears that, from the opening of the institution on December 14th, 1870, to June 30th, 1909, the total number of patients admitted was 2,937; the number discharged was 1,700—of whom 27.41 per cent. were returned as "much

* (1) Report of the Earlswood Asylum. 1909. (2) Forty-fifth Annual Report, Royal Albert Asylum, Lancaster, 1909. (3) The Incorporated Lancashire and Cheshire Society for the Permanent Care of the Feeble-Minded. Eleventh Annual Report, 1909.

nproved" and 57.06 as "moderately" or "slightly" mproved, leaving 15.53 per cent. "not improved"—and 59 had died.

The Lancashire and Cheshire Permanent Care Society.

The eleventh annual report of the Lancashire and Cheshire Society for the Permanent Care of the Feeble-minded—practically the report for 1909 of the Sandlebridge Schools and Colony, Cheshire—affords a contrast to the two reports noticed above. It must be remembered that whereas Earlswood and the Royal Albert Institution are carried on under the provisions of the Idiots Act, 1886, and receive idiots and imbeciles certified as such, the term "feeble-minded" being used by them to include patients of the higher imbecile type, the Sandlebridge residential schools have been established under the Education (Defective and Epileptic Children) Act of 1899, and the inmates are certified under that Act as simply "mentally defective." This distinction, it must be admitted, is a subtle one; and, as legal detention of the latter class only extends to 16 years of age, the permanent care insisted on by the Lancashire and Cheshire Society is at present dependent upon the mutual good will of those cared for and their voluntary guardians. So far the experience of the Sandlebridge Colony goes to show that there is little practical difficulty—save that of funds—in retaining, for as long as may be desired, the inmates who have from childhood been trained to the ways of the colony, and none are received older than 13. The report, indeed, tells us that the committee has no intention of parting with any of the boys and girls, but, if means are not forthcoming, it may be necessary to stop admitting new cases in spite of an ever-increasing stream of applications. Extensions are urgently required to meet the needs of the "grown-up boys," and a plea is put in for means to erect a separate house on the estate for 30 "men" who have been trained at Sandlebridge to work on the land. At the end of the year there were 100 boys and 18 men in the colony, the youngest boy being 5 years of age and the "oldest man nearly 21." It is cheering to learn that "the young men are increasingly satisfactory as they grow older." All of them are at work on the farm or in the gardens, and one of them milks six cows every day. There are also "67 girls and 19 women" under care, those classed as "women" being over 16 years of age. A very great improvement is noted in the behaviour of the older girls during the year. "Always more difficult than the boys, they had been giving a great deal of trouble; but judicious management and quiet regular treatment had done much for them." They seem chiefly to be employed at present in the household and laundry work of the establishment and in sewing; but it is hoped before long to have other interesting and profitable occupations for them, amongst which we would suggest dairy work and some suitable horticultural employment. On October 1st, 1909, the total number of inmates of the colony was 204 (in the proportion of about 3 males to 2 females), 44 more than in 1908. Only one death occurred during the year (from severe epilepsy); 4 cases were discharged, one being that of an older girl who had developed acute mania. The total deaths since the opening of the establishment in 1902 numbered only 4; 7 inmates altogether have been discharged and 7 others removed by their parents, which seems a satisfactory record in the absence of statutory powers of detention.

The report of the Medical Officer (Dr. James McIlraith, of Alderley Edge) is of the briefest; it states that the general health was excellent, and that the only cases of infectious disease during the year had been two of chickenpox. Two surgical cases had been successfully treated at the Manchester Children's Hospital at Pendlebury. Elsewhere it is reported that a trained nurse had been appointed to take charge of slight ailments and hurts, under the doctor's orders. The want of a hospital (contemplated as a memorial to the late Dr. Ashby) is pointed out, being needed to supersede existing sick rooms, and to afford isolated accommodation for cases of infectious disease. Only one case of phthisis is known to exist in the colony, and it is claimed that the risks of tuberculous disease, which we have seen are considerable where large numbers of the mentally defective are congregated under one roof, are much diminished when they are distributed amongst several detached houses, as at Sandlebridge, and have to go out every day to school and to their occupations. An interesting account of the schools (under Miss Wyatt) is given, and the addition of a sense-training room, for the use especially of lower-grade children, is contemplated. Illustrations of the work of the colonists, more particularly on the farm, embellish the report, and the management is to be congratulated on the fact that, although the work of the inmates can as yet hardly be called remunerative, the year's profit on the farm and gardens has amounted to £565, after paying an annual rent to the society of £170.

The Princess Christian's Farm Colony.

The National Association for the Feeble-minded (the offices of which are at Denison House, Vauxhall Bridge Road, S.W.) has issued an appeal for £8,000 to enable it: (1) To clear off the debt on the estate near Tonbridge of 170 acres acquired for the colony; (2) to build more homes there; and (3) to establish a school and homes for feeble-minded children of both sexes. The published letter bears the signatures of Lady Frederick Brudenell-Bruce, President of the Assoeiation; of Sir William Chance, Chairman of Executive Committee; of Mr. W. H. Dickinson, M.P., and Mr. C. S. Loch (Secretary, Charity Organization Society), both members of the late Royal Commission on the Feeble-minded; and of Dr. G. H. Savage. It points out that the only effectual way to grapple with the problem of degeneracy is to prevent the multiplication of the unfit, and that segregation from early life of the feeble-minded apart from the general population is the best means of attaining this end. Consequently, the National Association, which for the last fifteen years has had varied experience in the management of scattered homes for the feeble-minded of both sexes, desires to concentrate its efforts on the development of a comprehensive colony on the estate of 170 acres it has acquired near Tonbridge. Here it has at present a farm settlement for twenty working lads, and it is desired, without delay, to erect, on another portion of the estate, a home for working girls, at an expense of about £1,500. Later it is hoped to establish homes and schools for feeble-minded children, so that the colony will afford accommodation for the permanent care of mentally defective of both sexes and all ages. The cost of maintenance, beyond what is earned by the colonists themselves, will, to a large extent, be met by payments for inmates by Poor Law guardians, education committees, and other public bodies, but for initial expenses the association has to depend on charitable contributions. An urgent appeal is made for the sum necessary to enable the committee to proceed at once with the home for girls, the foundation stone of which the Princess Christian is willing to lay on June 3rd next, when she will formally inaugurate the colony. It is to be hoped that funds will be forthcoming for this desirable national object, which aims not only at the amelioration of the individual, but at the prevention of the deterioration ofth e race.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: Fleet Surgeon J. L. SMITH, M.V.O., M.B., to the *President*, additional, for one month for the Medical Department, and then to the Medical Department, vice Pryn, on the expiration of his foreign service leave; Fleet Surgeon C. L. W. BUNTON, M.B., and Surgeon F. G. HITCH, M.B., to the *Suffolk*, on recommissioning, May 3rd; Fleet Surgeon E. F. MORTIMER to the *Carnarvon*, on recommissioning, May 3rd; Surgeon J. E. JOHNSTON, M.B., lent to the *Circe*, temporarily, April 20th; Surgeon H. F. BRIGGS, M.B., to the *Leander*, additional, for the *Tyne*, April 20th; Surgeon G. F. SYMS to the *Exmouth*, May 3rd; Surgeon H. A. KELLOND-KNIGHT, to the *Bellerophon*, May 3rd; Surgeon J. H. WRIGHT, M.B., to the *Bulwark*, additional, undated; Fleet Surgeon O. W. ANDREWS, M.B., and Surgeon W. BASTIAN to the *Bacchante*, on recommissioning, May 3rd; Staff Surgeon L. A. BAISS to the *Prince George*, temporarily, May 3rd; Staff Surgeon S. T. REID to the *Antrim*, on recommissioning, May 3rd; Surgeon G. E. HAMILTON, M.B., to the *Argonaut*, temporarily, April 25th; Surgeon E. A. G. WILKINSON, to Malta Hospital, April 25th; Surgeon A. DAVIDSON, M.B, to the *King Edward VII*, April 25th.

ARMY MEDICAL SERVICE.

SURGEON-GENERAL P. M. ELLIS retires on retired pay, April 23rd. He was appointed Surgeon, August 5th, 1877; Surgeon-Major, August 5th, 1889; Surgeon-Lieutenant-Colonel, August 5th, 1897; Colonel, August 13th, 1904; and Surgeon-General, December 31st, 1908. He was with the Burmese Expedition in 1886-7, receiving a medal with clasp.

Colonel J. G. MACNEECE to be Surgeon-General, vice P. M. Ellis, April 23rd. Surgeon-General MacNeece's previous commissions are thus dated: Surgeon, August 4th, 1878; Surgeon-Major, August 4th, 1890; Lieutenant-Colonel, August 4th, 1898; Colonel, June 4th, 1905. His war record includes: Operations of Bozdar Field Force, 1881; Zhob Valley Expedition, 1884; Afghan war, 1878-80, including the Siege of Kandahar and battle of September 1st (medal with clasp); South African war, 1899-1901, in charge of a general hospital (mentioned in dispatches, Queen's medal with three clasps).

ROYAL ARMY MEDICAL CORPS.

The following Lieutenants, from the Seconded List, are restored to the establishment, dated April 1st: F. R. LAING, M.B., and J. T. SIMSON, M.B. Lieutenant Laing was appointed on probation, July 31st, 1909; Lieutenant Simson, January 10th, 1910.

Lieutenant R. F. O'T. DICKINSON, Brigade Laboratory, Jhansi, India, is appointed Specialist in the Prevention of Disease, from February 18th.

INDIAN MEDICAL SERVICE.

THE undermentioned Majors are promoted to be Lieutenant-Colonels from March 31st: A. J. MACNAB, J. JACKSON, M.B., H. SMITH, M.D., C. N. C. WIMBERLEY, M.B., E. W. HORE, M.B., A. STREET, M.B., J. B. JAMESON, M.B., W. D. SUTHERLAND, M.B., P. CARR-WHITE, M.B., E. H. WRIGHT, W. MOLESWORTH, M.B., C. F. FEARNSIDE, M.B., C. A. JOHNSTON, M.B., G. G. GIFFARD. Their previous commissions are dated: Surgeon, March 31st, 1890; Major, March 31st, 1902. Their war records include: Lieutenant-Colonel Macnab—Hazara Expedition, 1891 (medal with clasp); Chitral Relief Force, 1895 (medal with clasp); North-West Frontier of India campaign in 1897-8 (two clasps); operations in Somaliland, 1903-4 (medal with clasp). Lieutenant-Colonel Wimberley—Chitral Relief Force, 1895 (medal with clasp); North-West Frontier of India campaign, 1897-8 (two clasps); Tirah Expeditionary Force, 1897-8 (clasp); Tibet, 1903-4 (mentioned in dispatches, medal with clasp). Lieutenant-Colonel Street—Second Miranzai Expedition, 1891 (medal with clasp). Lieutenant-Colonel Jameson—Second Miranzai Expedition, 1891 (medal with clasp); North-West Frontier of India campaign, 1897-8 (mentioned in dispatches, medal with clasp); Tirah Expeditionary Force, 1897-8 (clasp). Lieutenant-Colonel Sutherland—Operations on the North-East Frontier of Burma, 1891-2. Lieutenant-Colonel Carr-White—Burmese campaign, 1891-2 (medal with clasp); North-West Frontier of India campaign, 1897-8 (medal with clasp). Lieutenant-Colonel Molesworth—With the Wuntho Field Force, Burma, 1891 (medal with clasp). Lieutenant-Colonel Fearnside—Chin Hills, Burma, 1892-3 (medal with clasp). Lieutenant-Colonel Johnston—Manipore Expedition, 1891 (medal with clasp); North-East Frontier of Burma, 1891-2 (mentioned in dispatches, clasp); Tirah Expeditionary Force, 1897-8 (medal with clasp); China, 1900 (medal).

Lieutenant N. S. SIMPSON is promoted to be Captain, from September 1st, 1909. His first appointment dates from September 1st, 1906.

Lieutenant-Colonel C. C. MANIFOLD, Bengal, is confirmed in the appointment of Inspector-General of Civil Hospitals, United Provinces, from March 1st.

The undermentioned officers are appointed Specialists in the subjects named: Prevention of Disease—Captain H. G. S. WEBB, Brigade Laboratory, Jubbulpore, from January 19th; Captain E. W. C. BRADFIELD, 7th (Meerut) Division, from March 1st.

TERRITORIAL FORCE.

ROYAL ARMY MEDICAL CORPS.

First South Midland Field Ambulance.—EDWARD J. BOOME, M.B., to be Lieutenant, February 19th.

First Scottish General Hospital.—Captain PETER MITCHELL, M.D., from the 1st Highland Field Ambulance, R.A.M.C., to be Captain, February 1st. He is promoted to be Major, April 2nd.

Fourth Northern General Hospital.—Captain F. B. COOPER, M.B., resigns his commission, September 24th; FRANK ALCOCK, M.D., to be Captain, whose services will be available on mobilization, February 14th.

For Attachment to Units other than Medical Units.—THOMAS H. WARD, M.D., to be Lieutenant, March 1st; LIONEL H. MOISER, M.B., to be Lieutenant, March 11th; WILLIAM T. STORRS to be Lieutenant, February 21st; Surgeon-Captain F. W. JOHNSON, M.B., from the 8th Battalion The Sherwood Foresters (Nottinghamshire and Derbyshire Regiment), to be Captain, with precedence as from August 4th, 1906, dated February 25th, 1910.

Attached to Units other than Medical Units.—Lieutenant W. G. PAGET to be Captain, February 25th.

Vital Statistics.

EPIDEMIC MORTALITY IN LONDON.

THE accompanying diagram shows the prevalence of the principal epidemic diseases during the first quarter of the year; the fluctuations of each disease and its relative fatality compared with the average in the corresponding periods of recent years can thus be readily seen.

Small-pox.—No death from this disease was recorded last quarter, and no cases of small-pox were admitted to the Metropolitan Asylums Hospitals during the quarter.

Measles.—The fatal cases of measles, which had been 843, 207, and 136 in the three preceding quarters, rose again last quarter to 251, but were 364 fewer than the corrected average for the corresponding period of the five preceding years. Among the several metropolitan boroughs this disease was proportionally most fatal in Paddington, Hammersmith, Chelsea, Shoreditch, Deptford, and Greenwich.

Scarlet Fever.—The deaths from scarlet fever, which had been 109, 80, and 86 in the three preceding quarters, declined to 73 in the quarter under notice, and were 63 below the corrected average number. This disease was proportionally most fatal in Paddington, Holborn, Southwark, Bermondsey, Lambeth, Wandsworth, and Woolwich. The Metropolitan Asylums Hospitals contained 1,584 scarlet fever patients at the end of March last, against 2,539, 2,717, and 2,329 at the end of the three preceding quarters; 2,507 new cases were admitted during the quarter, against 4,086, 4,500, and 3,705 in the three preceding quarters.

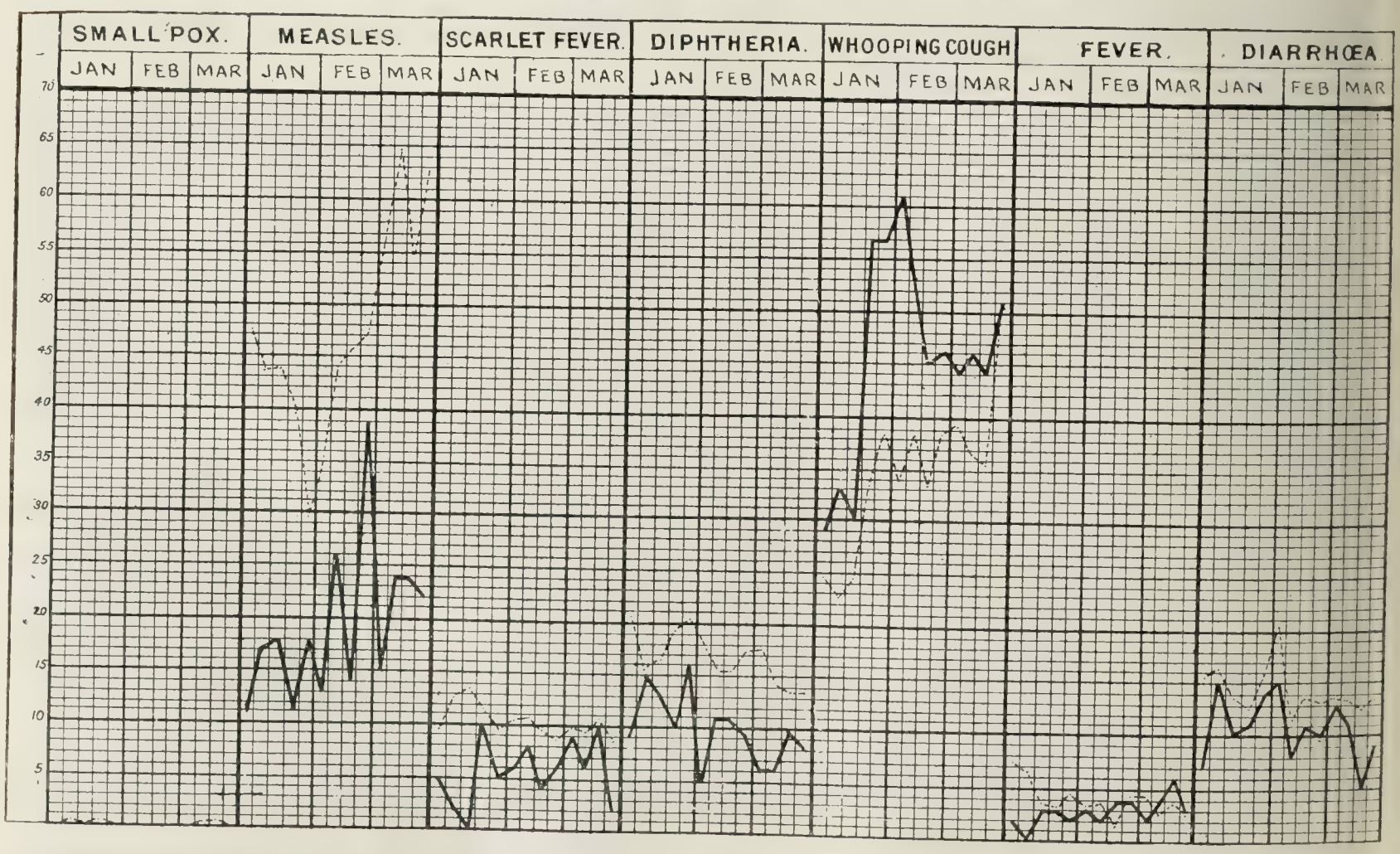
Diphtheria.—The fatal cases of diphtheria, which had been 113 and 132 in the two preceding quarters, declined again last quarter to 129, and were 89 below the corrected average number. The greatest proportional mortality from this disease was recorded in Finsbury, Shoreditch Poplar, Bermondsey, and Lewisham. The number of diphtheria patients under treatment in the Metropolitan Asylums Hospitals, which had been 890, 901, and 904 at the end of the three preceding quarters, had declined again to 852 at the end of last quarter; the number of cases admitted during the quarter was 1,169, against 1,395, 1,354, and 1,372 in the three preceding quarters.

Whooping-Cough.—The deaths from whooping-cough, which had been 429, 228, and 241 in the three preceding quarters, further rose last quarter to 596, and were 145 in excess of the corrected average number in the first quarters of the five preceding years. Among the several metropolitan boroughs this disease was proportionally most fatal last quarter in Fulham, St. Marylebone, Islington, Stepney, Poplar, Deptford, and Greenwich.

"*Fever.*"—Under this heading are included deaths from typhus, from enteric fever, and from ill-defined pyrexia. The deaths referred to these different forms of "fever," which had been 29, 28, and 39 in the three preceding quarters, were 38 last quarter, and were 15 below the corrected average number. Two deaths were attributed to ill-defined pyrexia but not any to typhus fever; of the fatal cases of enteric fever 4 belonged to Poplar, 4 to Lambeth, and 3 each to Paddington, Kensington, and Stepney. There were 84 enteric fever patients under treatment in the Metropolitan Asylums Hospitals at the end of last quarter, against 75 and 62 at the end of the two preceding quarters; 145 new cases were admitted during the quarter, against 132 and 120 in the two preceding quarters.

Diarrhoea.—The 139 deaths from diarrhoea in London last quarter showed a decline of 48 from the corrected average number. This disease was proportionally most fatal in Fulham, Holborn, Finsbury, Shoreditch, Bethnal Green, Poplar, and Southwark.

DEATHS FROM EPIDEMIC DISEASES IN LONDON DURING THE FIRST QUARTER OF 1910.



NOTE.—The black lines show the *recorded* number of deaths from each disease during each week of the quarter. The dotted lines show the *average* number of deaths in the corresponding weeks of the five preceding years, 1905-9.

In conclusion, it may be stated that the 1,226 deaths in London referred to the principal epidemic diseases last quarter were more than 6 per cent. below the average. The lowest death-rates from these diseases in the aggregate were recorded in Kensington, the City of Westminster, Hampstead, Stoke Newington, the City of London, and Lambeth; and the highest rates in Paddington, Shoreditch, Stepney, Poplar, Deptford, and Greenwich.

HEALTH OF ENGLISH TOWNS.

In seventy-seven of the largest English towns 8,195 births and 4,467 deaths were registered during the week ending Saturday last, April 23rd. The annual rate of mortality in the seventy-six or seventy-seven towns, which had been 14 4, 14 9, and 15 0 in the three preceding weeks, declined last week to 13 7 per 1,000. The rates in the several towns ranged from 5.7 in Burton-on-Trent, 6 5 in Handsworth (Staffs), 6.6 in Walthamstow, 7.7 in York, 7.9 in Hornsey, and 8 5 in Willesden, to 8.5 in Sunderland and in Tynemouth, 19 0 in Middlesbrough, 19 8 in Liverpool, 20 3 in Merthyr Tydfil, 20 6 in Preston, and 21 3 in Oldham. The death-rate from the principal infectious diseases averaged 1.1 per 1,000 in the seventy-seven large towns; in London the rate was equal to 1.0 per 1,000, while among the seventy-six other large towns the rates ranged upwards to 2.6 in Birkenhead, 2 9 in Liverpool, in Rochdale, and in Stockton-on-Tees, 3.1 in Devonport, and 3.3 in Merthyr Tydfil. Measles caused a death-rate of 1.1 in Liverpool, 1.3 in East Ham, 1 5 in Stoke-on-Trent, 1.8 in Bradford, and 2.6 in Merthyr Tydfil; scarlet fever of 1.0 in Sunderland; diphtheria of 1.2 in Rochdale; whooping-cough of 1.3 in Birkenhead and in South Shields, 1.4 in Liverpool, 2 2 in Bootle, and 2.5 in Devonport: and diarrhoea of 1.5 in Walsall. The mortality from enteric fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The number of scarlet fever cases under treatment in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 1,611, 1,554, and 1,535 at the end of the three preceding weeks, had further declined to 1,510 at the end of the week under notice; 196 new cases were admitted during the week, against 158, 166, and 197 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

During the week ending Saturday last, April 23rd, 969 births and 590 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 18.1, 18.2, and 18 5 in the three preceding weeks, declined to 16 3 last week, and was 2.6 per 1,000 above the mean rate during the same period in the seventy-seven large English towns. Among these Scottish towns, the death-rates ranged from 7 8 in Leith and 13 2 in Aberdeen to 26.1 in Dundee and 26.2 in Greenock. The death-rates from the principal infectious diseases averaged 2.4 per 1,000, the highest rates being recorded in Greenock and in Dundee. The 270 deaths in Glasgow included 18 which were referred to measles, 1 to scarlet fever, 3 to diphtheria, 2 to whooping-cough, and 7 to diarrhoea. Seven deaths from measles were recorded in Edinburgh, 24 in Dundee, and 9 in Greenock.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, April 23rd, 643 births and 494 deaths were registered in the twenty-two principal urban districts of Ireland, as against 644 births and 512 deaths in the preceding period. The annual death-rate in these districts which had, been 20.7, 23 2, and 23.2 per 1,000 in the three preceding weeks fell to 22.4 per 1,000 in the week under notice, this figure being 8.7 per 1,000 higher than the mean annual death-rate in the seventy-six English towns for the corresponding period. The figures in Dublin and Belfast were 24.3 and 21.3 respectively, those in other districts ranging from 4.8 in Ballymena and 8.4 in Newry, to 40.1 in Newtownards and 45.0 in Drogheda, while Cork stood at 23.3, Londonderry at 13.2, Limerick at 19.1, and Waterford at 29.2. The zymotic death-rate in the twenty-two districts averaged 1.9 per 1,000, as against 1.8 per 1,000 in the preceding period.

Vacancies and Appointments.

VACANCIES.

ALNWICK INFIRMARY.—House-Surgeon. Salary, £140 per annum.

BATH: ROYAL MINERAL WATER HOSPITAL.—Resident Medical Officer. Salary, £100 per anuum.

BIRMINGHAM AND MIDLAND EAR AND THROAT HOSPITAL.—House-Surgeon. Salary at the rate of £70 per annum.

BIRMINGHAM: ROYAL ORTHOPAEDIC AND SPINAL HOSPITAL.—Honorary Surgeon.

BRIGHTON COUNTY BOROUGH ASYLUM, Haywards Heath.—First Assistant Medical Officer and Pathologist. Salary, £250 per annum, rising to £300.

BRISTOL EYE HOSPITAL.—House-Surgeon. Salary, £80 per annum.

BRISTOL GENERAL HOSPITAL.—Medical and Surgical Registrars.

BRISTOL ROYAL INFIRMARY.—Honorary Medical Registrar.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—House-Surgeon. Salary, £80 per annum.

CHESTER: COUNTY ASYLUM.—Third Assistant Medical Officer. Salary, £160 per annum.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Assistant Resident Medical Officer. Salary at the rate of £50 per annum.

DOUGLAS: NOBLE'S ISLE OF MAN GENERAL HOSPITAL AND DISPENSARY.—Resident House-Surgeon. Salary, £90 per annum.

GLOUCESTERSHIRE ROYAL INFIRMARY AND EYE INSTITUTION.—Assistant House-Surgeon. Salary at the rate of £80 per annum.

GUILDFORD: ROYAL SURREY COUNTY HOSPITAL.—Assistant House-Surgeon. Salary, £50 per annum.

HALIFAX: ROYAL HALIFAX INFIRMARY.—Second House-Surgeon. Salary, £100 per annum.

HEMEL HEMPSTEAD: WEST HERTS HOSPITAL.—House Surgeon. Salary, £100 per annum.

HULL ROYAL INFIRMARY.—(1) House-Physician. (2) Assistant House-Surgeon. (3) Casualty House-Surgeon.—Salary for (1) £100, for (2) £80 per annum, and for (3) at the rate of £60 per annum for first six months, rising to £80.

ITALIAN HOSPITAL, Queen Square, W.C.—(1) Honorary Assistant Physician to Out-patients; (2) Honorary Anaesthetist.

LANCASHIRE EDUCATION COMMITTEE.—Two School Medical Inspectors. Salaries, £250 per annum, increasing to £400.

LEICESTER INFIRMARY.—(1) Assistant House-Physician. (2) Assistant House-Surgeon. Salary at the rate of £60 per annum.

LONDON COUNTY COUNCIL.—Medical Examiner to men working at the Woolwich Tunnel. Remuneration at the rate of £10 a month.

LONDON HOSPITAL, E.—Assistant Surgeon.

LONDON THROAT HOSPITAL, Great Portland Street, W.—House-Surgeon. Honorarium at the rate of £50 per annum.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT AND CHEST.—Resident Medical Officer for In-patient Department, Bowdon. Salary, £100 per annum.

NORTH STAFFORDSHIRE INFIRMARY, Hartshill.—Junior House-Surgeon. Salary at the rate of £50 per annum.

NOTTINGHAM GENERAL HOSPITAL.—Locumtenent for three and a half months. Salary, £45.

PAISLEY INFECTIOUS DISEASES HOSPITAL.—Resident Medical Officer and Assistant Bacteriologist. Salary, £130 per annum.

PLYMOUTH: SOUTH DEVON AND EAST CORNWALL HOSPITAL.—(1) House-Surgeon. (2) House-Physician. Salary at the rate of £100 and £75 per annum respectively.

SALFORD UNION INFIRMARY.—Male Resident Assistant Medical Officer. Salary, £120 per annum.

SHEFFIELD ROYAL HOSPITAL.—Assistant House-Physician. Salary, £50.

SOUTHWARK UNION INFIRMARY.—Assistant (male) Medical Officer. Salary, £100 per annum.

TYNEMOUTH VICTORIA JUBILEE INFIRMARY, North Shields.—House-Surgeon. Salary, £100 per annum.

WESTERN OPHTHALMIC HOSPITAL, Marylebone Road, N.W.—Honorary Anaesthetist.

WEST RIDING ASYLUM, Wadsley.—Fifth Assistant Medical Officer (male). Salary, £140 per annum, rising to £160.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary, £80 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces vacancies at Blackford, co. Perth; Gainsborough, co. Lincoln; and Radstock, co. Somerset.

MEDICAL REFEREE.—The Home Secretary announces a vacancy as Medical Referee under the Workmen's Compensation Act, 1906, for County Court Circuit No. 4.

APPOINTMENTS.

Anderson, H. Graeme, M.B., Ch.B Glasg., F.R.C.S.Eng., Registrar and Pathologist to the Metropolitan Hospital, London.

Ballance, H. Stanley, M.D., B.S.Lond., M.R.C.S., L.R.C.P., Honorary Surgeon to the Weston-super-Mare Hospital.

Bayliss, A. D. E, M.R.C.S., L.R.C.P., House-Physician to University College Hospital.

Brownlow, H. L., F.R.C.S.Eng., Certifying Factory Surgeon for the Henley-on-Thames District, co. Oxford.

Cormick, F B., M.B., C.M., Medical Superintendent to the Hetton District Isolation Hospital, vice J. R. Sutherland, L.R.C.S., deceased.

Dally, J. F. Halls, M.A., M.D.Cantab., M.R.C.P., Assistant Physician to the National Hospital for Diseases of the Heart, Soho Square.

Dawnay, A. H. Payan, F.R.C.S., Assistant Surgeon to the Western Ophthalmic Hospital, Marylebone Road.

Eason, A. M., L.R.C.P. and S.Edin., D.P.H., Certifying Factory Surgeon for the Lytham District, co. Lancaster.

Fletcher, James, M.D., C.M., D.P.H.Aberd., Medical Superintendent of Monsall Fever Hospital, Manchester.

Grieves, J. P., M.R.C.S., L.R.C.P.Lond., Certifying Factory Surgeon for the Portishead District of the Counties of Gloucester and Somerset.

Howard, A., M.B., B.S., Certifying Factory Surgeon for the Chapel-en-le-Frith District, co. Derby.

Lewis, W. C., M.R.C.S., L.R.C.P.Lond., Certifying Factory Surgeon for the Denbigh District, co. Denbigh.

Toovey, Thos. E. Frazer, F.R.C.S.Edin., Surgeon to the Madeira Marmore Railway, Porto Velho, Brazil.

Welch, T. A., L.R.C.P. and S.Edin., Certifying Factory Surgeon for the Whaley Bridge District, co. Chester.

Wilson, Alex., M.B., Ch.B., Assistant to the Professor of Anatomy in Sheffield University.

Leeds General Infirmary.—The following appointments have been made by the Faculty:
House-Physician to Dr. Barrs: G. H. Cross, M.B.Oxon.
House-Surgeon to Mr. Littlewood: B. R. Vickers, M.D.Lond.
Resident Obstetric Officer: A. W. Hansell.
Resident Medical Officer at the Convalescent Hospitals.—S. M. Hepworth, M.B., Ch. B.Leeds.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

Johnson.—On April 12th, at 17, St. John's Wood Road, N.W., the wife of John J. Johnson, M.B., Ch.B., of a son.

Woakes.—On the 26th inst., at 46, Wimpole Street, the wife of Claud Woakes, of a daughter.

MARRIAGE.

Dighton—Hirsch.—On April 23rd, at Marylebone Church, by the Vicar, Charles Allen Adair Dighton, of Scarborough, to Dora F. M. Hirsch, eldest daughter of the late Mrs. F. E. Hirsch, The Elms, Gresford.

DIARY FOR THE WEEK.

MONDAY.

ROYAL COLLEGE OF SURGEONS, Lincoln's Inn Fields, 5 p.m.—Professor Shattock: Demonstration of specimens illustrating repair.

TUESDAY.

ROYAL SOCIETY OF MEDICINE:
THERAPEUTICAL AND PHARMACOLOGICAL SECTION, 15, Cavendish Square, W., 4.30 p.m.—Papers: (1) Dr. C. Bolton: Some Points in the Treatment of Gastric Ulcer. (2) Dr. Langdon Brown: An Inquiry into the Value of Rectal Feeding.

THURSDAY.

HARVEIAN SOCIETY OF LONDON, Paddington Infirmary, 8.30 p.m.—Clinical evening.

NORTH-EAST LONDON CLINICAL SOCIETY, Prince of Wales's Hospital, Tottenham, 4.15 p.m.—Clinical meeting.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 11, Chandos Street, Cavendish Square, W., 8 p.m.—Exhibition of card cases. (2) Papers: (*a*) H. Herbert: A New Operation for Glaucoma; (*b*) J. Herbert Fisher: Congenital Word Blindness; (*c*) A. Bronner: Some Cases of Hypopyon Keratitis Treated with Pyocyanase; (*d*) Ernest Clarke: Optic Atrophy following the use of Orsudan and Soamin.

RÖNTGEN SOCIETY, 20, Hanover Square, 8.15 p.m.—Paper: Mr. J. H. Gardiner: Quantitive Measurements of the Conversion of Kathode Rays into Roentgen Rays by Antikathodes of Different Metals.

FRIDAY.

ROYAL SOCIETY OF MEDICINE:
LARYNGOLOGICAL SECTION, 11, Chandos Street, W., 5 p.m.—Exhibition of cases.

SATURDAY.

ROYAL SOCIETY OF MEDICINE:
OTOLOGICAL SECTION, 11, Chandos Street, W., 10 a.m.—Cases and specimens.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Tuesday, 3.15 p.m.: Nose. Friday, 3.45 p.m.: Labyrinth.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton Road, S.W., Wednesday, 4 p.m.—Lesion Simulating Laryngeal Tuberculosis.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W., Thursday, 4 p.m.—Pericarditis.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat at noon and 4 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Thursday, and noon, Friday; Eye, 11 a.m., Wednesday and Saturday; Radiography, 4 p.m., Thursday. Special Lectures: Wednesday, 3.30 p.m., Sympathetic Ophthalmitis; Thursday, 2.30 p.m., Duodenal Ulcer; Friday, 2.15 p.m., Angina.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Museum Demonstration; Friday, Ear, Nose, and Throat. Lectures at 5.15 p.m. each day will be given as follows: Monday, Malta Fever; Tuesday, Localization by means of *X* Rays; Wednesday, Optic Atrophy (with lantern slides); Thursday, The Operation of Laryngo Fissure and its Indications.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Paralysis of Cranial Nerves. Friday, 3.30 p.m., Functional Localization of the Brain.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith, W.—Daily arrangements: Medical and Surgical Clinics, 2 p.m.; Operations, 2 p.m.; *X* rays, 2 p.m. Mondays: Surgical Registrar, 10 a.m.; Eye, 2 p.m. Tuesdays: Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesdays: Diseases of Children, 10 a.m.; Throat and Nose Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursdays: Surgical Registrar, 10 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m.; Orthopaedics, 2 p.m. Fridays: Medical Registrar, 10 a.m.; Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturdays: Diseases of Children, 10 a.m.; Eye, 10 a.m.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
APRIL.	
30 SATURDAY ..	NORTHERN COUNTIES OF SCOTLAND BRANCH, General Meeting, Northern Infirmary, Inverness, 3 p.m. ULSTER BRANCH, Spring Meeting, Londonderry.
MAY.	
1 Sunday ..	
2 MONDAY ..	
3 TUESDAY ..	WARRINGTON DIVISION, *Lancashire and Cheshire Branch*, Annual Meeting, Infirmary, Warrington, 4 p.m.
4 WEDNESDAY	LONDON: Standing Ethical Subcommittee, 11 a.m. LONDON: Contract Practice Subcommittee, 2 p.m. METROPOLITAN COUNTIES BRANCH, Conference between Medical Staffs of Metropolitan Hospitals and Members of Branch, St. James's Vestry Hall, 4.30 p.m. ST. HELENS DIVISION, *Lancashire and Cheshire Branch*, Fleece Hotel, St. Helens, 8.45 p.m. SOUTH-EASTERN OF IRELAND BRANCH, Annual Meeting of Branch, also meeting of Branch Council and Local Division, Victoria Hotel, Kilkenny, 5.30 p.m.; Dinner, 6.30 p.m.
5 THURSDAY ..	LAMBETH DIVISION, *Metropolitan Counties Branch*, Annual General Meeting, Bethlem Royal Hospital, 4 p.m. LEINSTER BRANCH, Annual General Meeting, Royal College of Physicians, Kildare Street, Dublin, 4.30 p.m.
6 FRIDAY ..	
7 SATURDAY ..	

Date.	Meetings to be Held.
MAY *(continued)*.	
8 Sunday ..	
9 MONDAY ..	
10 TUESDAY ..	
11 WEDNESDAY	
12 THURSDAY ..	
13 FRIDAY ..	
14 SATURDAY ..	BOURNEMOUTH DIVISION, *Dorset and West Hants Branch*, Annual Meeting.
15 Sunday ..	
16 MONDAY ..	
17 TUESDAY ..	
18 WEDNESDAY	DORSET AND WEST HANTS BRANCH, Spring Meeting, Hotel Mont Doré, Bournemouth.
19 THURSDAY ..	LONDON: Conference between Representatives of the Association and Representatives of British Pharmaceutical Conference, 3 p.m. Preliminary Conference of British Medical Association Representatives, 2 p.m. LONDON: Metropolitan Counties Branch Council, 4.30 p.m. LINCOLN DIVISION, *Midland Branch*, Annual Meeting, Guildhall, Lincoln, 3.30 p.m.
20 FRIDAY ..	BATH DIVISION, *Bath and Bristol Branch*, Annual Meeting Royal United Hospital, Bath, 5.30 p.m.
21 SATURDAY ..	
22 Sunday ..	
23 MONDAY ..	
24 TUESDAY ..	

Printed and Published by the British Medical Association at their Offices No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MAY 7TH, 1910.

CONTENTS.

	PAGE
Matters Referred to Divisions:	
PUBLIC MEDICAL SERVICES	205
BRITISH MEDICAL ASSOCIATION LIBRARY	207
ASSOCIATION NOTICES.—Annual General Meeting.—Annual Representative Meeting.—Election of Central Council 1910-11.—Notice of Changes of Boundaries of Divisions and Branches ...	207
BRITISH MEDICAL ASSOCIATION: SCHOLARSHIPS AND GRANTS IN AID OF SCIENTIFIC RESEARCH ...	208
COUNCIL REPORT [APPENDIX]: Attendances of Council, Committees, and Subcommittees for 1909-10	209
Meetings of Branches and Divisions:	
Bath and Bristol Branch	216
Birmingham Branch: Central Division	216
Gloucestershire Branch	216
Metropolitan Counties Branch: Walthamstow and City Divisions	216
Medical Treatment of School Children in London: Conference of Metropolitan Counties Branch and Medical Staffs of Metropolitan Hospitals	217
CENTRAL MIDWIVES BOARD	221
HOSPITALS AND ASYLUMS: Medical Inspection of Children in Orphanages, Institutions for the Blind, Deaf and Dumb, etc.	221
NAVAL AND MILITARY APPOINTMENTS	222
VITAL STATISTICS	222
VACANCIES AND APPOINTMENTS	223
BIRTHS, MARRIAGES, AND DEATHS	223
RECENT PUBLICATIONS	223
PUBLISHERS' ANNOUNCEMENTS	223
DIARY FOR THE WEEK	224
CALENDAR	224

SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs. BY ORDER.

MATTERS REFERRED TO DIVISIONS.

PUBLIC MEDICAL SERVICES.

Model Rules issued by the Council of the Association for the consideration of the Divisions.

PART I.

OBJECT AND CONSTITUTION.

1. *Object.*—The Public Medical Service of is an Association of Medical practitioners constituted to organise the provision of medical attendance and medicine for persons unable to pay the ordinary medical charges in the usual manner.

2. *Members.*—Any duly registered medical practitioner practising in , or the neighbourhood, whose professional conduct is in conformity with the Rules for the time being in force of the Division of the British Medical Association, may become a Member of the Service upon signing an undertaking to abide by these Rules, provided that a practitioner who has not resided for six months in or the neighbourhood, shall not be eligible for membership unless he be the successor in practice or a partner of a Member.

Members may be Honorary or Acting. An "Acting" Member is one who undertakes the medical attendance of Subscribers to the Service upon the terms laid down in its Rules. An "Honorary" Member is a Member who has signed the undertaking to abide by these Rules but who does not undertake ordinary medical attendance in connection with the Service.

3. *Officers and Committee.*—The Officers of the Service shall be a Chairman, Vice-Chairman, Honorary Treasurer, and an Honorary Secretary, all of whom must be Members of the Service. The Officers, together with representatives Members, nominated by the local Division of the British Medical Association, and representatives nominated by the staffs of any allied hospitals (all of which representatives may or may not be Members of the Service), shall form the Committee of the Service. By the term "allied hospital" shall be understood a hospital which co-operates with the Service in the manner from time to time laid down in the Model Principles of Hospital Management approved by the British Medical Association.

Meetings.

4. *Annual General Meeting.*—An Ordinary General Meeting of the Members, called "the Annual Meeting," shall be held in of each year. At this Meeting the Officers and Members of the Committee, other than the representatives of the local Division of the British Medical Association and of any allied hospital shall be elected, the Honorary Secretary shall present the Report of the Committee, and the Honorary Treasurer shall present the accounts of the Service for the past year.

5. *Special Meeting.*—A Special General Meeting of the Members may be convened at any time by the Committee, and shall be convened by the Secretary on the requisition of Members.

6. *Quorum.*—At a General Meeting (ordinary or special) Members shall be a Quorum.

7. *Notice.*—Subject to the provision hereinafter contained for days' notice in the case of a proposed alteration of Rules, at least days' notice of every General Meeting and of the business thereof shall be given by the Secretary to all Members, but the accidental omission to give notice to any Member shall not invalidate the proceedings of a meeting. The notice of a General Meeting (and also a Member's requisition for a General Meeting) shall state the agenda thereat, and no matters not arising out of the agenda shall be dealt with at that meeting.

8. *Election of Officers.*—At each Annual General Meeting all the Officers and Members of Committee other than the outside representatives shall retire, but shall be eligible for re-election.

9. *Powers of Committee.*—The Committee may make rules for its meetings, and fix a quorum. Subject to such regulations not inconsistent with these Rules as may from time to time be prescribed by the Members in general meeting, the Committee shall deal with all such matters as the appointment of dispensers, clerks, collectors and auditors, the making of arrangements with chemists, and the leasing of premises (if any), and shall manage all the other affairs of the Service not required to be dealt with at a general meeting.

10. *Members not to accept Lower Rates.*—No Member shall take, or continue to treat, any *contract* patient *at a lower rate* than the subscriptions prescribed in these Rules.

No Member shall hold any appointment as Medical Officer to a club, or conduct any club of his own, except at a higher rate than the subscriptions prescribed in these Rules.

11. *Canvassing, Advertising and Collecting.*— No Member shall canvass or advertise for patients, and no canvassing or advertising shall be permitted by, or on behalf of, the Service, or any Member thereof.

No Member shall employ a Collector to collect subscriptions from contract patients at their homes, or be a Medical Officer to a society other than a Public Medical Service or Provident Dispensary approved by the local Division of the British Medical Association which employs such a Collector.

12. *Expulsion of Members.*—If any Member shall be found by the . . . . . Division of the British Medical Association guilty of violation of the Rules of the Division with reference to professional conduct, or of other conduct detrimental to the honour and interests of the profession, or calculated to bring the profession into disrepute, he shall, *ipso facto*, cease to be a Member of the Service. Further, if any Member shall wilfully commit any breach of these Rules (after having had his attention called to such breach by the Committee) he may be expelled from Membership by the vote of three-fourths of the Members present and voting at a general meeting.

13. *Alteration of Rules.*—These Rules shall not be altered except with the consent of two-thirds of the Members present and voting at a general meeting, provided also that days' notice of the terms of any proposed alteration of the Rules shall have been given in the agenda.

PART II.

SUBSCRIBERS.

14. *Admission.*—The following persons shall be eligible as Subscribers, and may be admitted by any Acting Member after medical examination :—

(*a*) Any single person whose earnings, inclusive of board, do not exceed shillings a week.

(*b*) Any married person, the earnings of whose family do not exceed shillings a week, with an extra allowance of shillings a week for each child wholly dependent upon him.

(*c*) The child of any such married person, not being under or over years of age.

(*d*) Subject to the approval of the Committee, any person not included in any of the foregoing classes whom an Acting Member may deem suitable.

If any Subscriber shall, in the opinion of the Committee, cease to be eligible, his name shall be removed from the list of Subscribers.

15. *Subscriptions.*—Subscriptions shall be paid in advance as follows :—

1. On admission a fee of for medical examination.
2. For persons over years, and under years at the time of admission a week, but in the case of families of four or more children not being under nor over years of age, three only shall be charged for, the other child or children being entered on the family card as a free beneficiary or beneficiaries.
3. For persons over years at the time of admission, subscriptions shall be at the higher rate of per week.
4. For persons actually suffering from illness at the time of admission, such special entrance fee, and such rate, as may in each case be approved by the Committee.

16. *Arrears.*—A Subscriber whose subscriptions are . . . . weeks or more in arrear, at least one week's notice in writing having been given him, shall be struck off the list of Subscribers, and shall not be re-admitted within one year of his being so struck off, except on payment of all arrears or such part thereof as may be approved by the Committee.

17. *Choice of Medical Attendant.*—A Subscriber shall, on admission, and at such other times as are provided by these Rules, choose his medical attendant from the Members of the Service who are willing to attend him, and shall for the time being be entitled to the services of such Member only.

The contract of the Subscriber shall be with his medical attendant only, and not with the Service or other Members of the Service.

Except by the consent of both Members concerned, the Subscriber shall not change his medical attendant more than once in a calendar year, giving at the least a month's notice terminating on the 31st December.

The Member in charge of a case may, on the ground of wilful disobedience or misconduct on the part of the Subscriber, refuse further attendance.

18. *Subscribers' Cards.*—Every Subscriber shall on admission be supplied with a card, which shall refer to these Rules, and on which shall be set forth such information, including the name and hours of the Subscriber's medical attendant, as may be approved by the Committee, provided that in the case of persons members of one family, and with one medical attendant, one card shall suffice (*see* Rule 15, 2). Failing production of the card, attendance may be refused.

19. *Privileges of Subscribers.*—A Subscriber in accordance with these Rules, shall be entitled to receive from his own medical attendant so long as his subscriptions are not in arrear :—

(i) Medical and surgical treatment at the (surgery of his medical attendant) *or* (dispensary of the Service) within the hours mentioned on his card.

(ii) When his condition requires, medical and surgical treatment at his place of dwelling, other than night calls and special visits as hereinafter defined.

(iii) All needful medicines and first dressings for wounds and other injuries.

Provided that a domestic servant shall not be entitled to claim attendance at her employer's house, but may do so at her own home if within the limits of the practice of her Medical Attendant.

20. *Limitation of Benefits.*—Subscribers shall not be entitled, in consideration of their ordinary subscriptions :—

(i) To medical service in respect of any of the following matters, except upon payment of the fees specified in the following Table :—

	£	s.	d.
(*a*) Confinements			
(*b*) Miscarriages			
(*c*) Vaccinations			
(*d*) Fractures			
(*e*) Dislocations			
(*f*) Consultations { Ordinary attendant			
(*f*) Consultations { Consultant			
(*g*) Administration of general or local Anæsthetics ... { general			
(*g*) Administration of general or local Anæsthetics ... { local ...			
(*h*) Night calls, *i.e.*, visits made between (8) p.m. and (8) a.m., in response to calls received within these hours			
(*i*) Special Visits, *i.e.*, visits made in response to, and on the same day as calls received after a.m., or made on Sundays by the Subscriber's desire...			
(*j*) Certificates			

(ii) To medical attendance in respect of illness arising from confinement or miscarriage within one month, operations requiring local or general anæsthesia, or operative dentistry, the fees for which shall be specially arranged ;

(iii) To medical service in respect of illness the consequence of personal misconduct;

(iv) To cod liver oil, linseed meal, leeches, serum, oxygen;

(v) To bottles, jars, dressings or bandages (except for first dressings).

PART III.

FINANCE AND MISCELLANEOUS PROVISIONS.

21. *Member's List of Subscribers.*—The Committee shall supply each Member of the Service with a List of Subscribers contracting with him and entitled to his services, and monthly with a list of additions and corrections.

22. *Payments.*—All payments made by a subscriber shall be the exclusive property of the Member who is his Medical Attendant at the time when such payment becomes due subject only to a rateable deduction for the expenses of collection and the general expenses of the Service.

23. *Former Members.*—The subscriptions collected for any former Member of the Service, and not already paid to him before the date of termination of his Membership, shall be paid to him as soon as conveniently may be, with the proper deduction of his share of the common expenses, and the subscribers whose Medical Attendant he was shall have the right to choose as Medical Attendant any other Member who is willing to attend.

24. *Money collected.*—All moneys collected shall be paid into a Bank, to the credit of the Treasurer.

25. *Distribution of Subscriptions.*—The Treasurer shall, on the usual quarter days, after payment of, and provision for, all current expenses, distribute the balance of the moneys collected to the Members entitled thereto.

26. *Sale of Member's Interest.*—A Member may sell to any person qualified for Membership his interest in the Service as part of his practice, and in connection with a sale of that practice, but not otherwise. The purchaser of a Member's interest shall become entitled thereto upon becoming a Member of the Service.

27. *Collectors.*—Collectors shall be paid by salary and not by commission.

28. *Interpretation.*—In these Rules, where the context does not forbid, words importing the masculine gender shall include the feminine, and words in the singular shall include the plural, and *vice versâ*.

BRITISH MEDICAL ASSOCIATION LIBRARY.

BOOKS NEEDED TO COMPLETE SERIES.

THE Librarian will be glad to receive any of the following volumes, which are needed to complete series in the Library:

American Climatological Transactions. Vols. 1, 4, 5, 6.
———— Dermatological Association Transactions. Vols. 5, 7, 8, 11, and 29.
———— Journal of the Medical Sciences. New series, vols. 4, 5, 1842–3; vols. 14, 15, 1847–8; vols. 18–30, 1850; vol. 33, 1857; vol. 46, 1864–5; vol. 59; or any parts of these vols.
———— Journal of Ophthalmology. Vols. 1–9.
———— Laryngological Association. Transactions. Vols. 1–6, 8–9.
———— Medical Association. Transactions, 2, 4, 6, 7, 11, 12, 14, 15, 16, 19, 20, 22, 31, after vol. 33, and the *Journal*.
———— Otological Society. Transactions. Vol. 3, part 2, 1883.
———— Public Health Association. Transactions. Any vols.
Analyst. Vols. 1–24.
Annals of Surgery. Vols. 13, 14, 26, 27.
Journal of Laryngology. Vols. 1 to 9.
Montreal Medical Journal, prior to 1900.
New York State Journal of Medicine, 1906.
Ophthalmic Review. January, 1882.
Pediatrics, prior to 1902.
Provincial Medical and Surgical Journal. March to September, 1841, and May 11th, 1852.
Recueil d'ophtalmologie, prior to 1893.
Revue générale d'ophtalmalogie, prior to 1893.
St. Bartholomew's Hospital Gazette. Vols. 1-6.
St. George's Hospital Gazette. Vols. 1-7.
St. Mary's Hospital Gazette. Vols. 1-5.
Sei-i-kwai Medical Journal. Vols. 1-11.
Semaine Médicale, prior to 1884. Titles for 1884 and 1892.
South African Medical Journal. February, April, 1895. Titles, Vols. 3 and 4.
United States Department of Agriculture, Bureau of Animal Industry. Reports 1–7 10-14.

☞ *To ensure the insertion of notices in this column, they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

Association Notices.

ANNUAL GENERAL MEETING.

Notice is hereby given that the 1910 Annual General Meeting of the British Medical Association will be held in the Court of Common Council Chamber, Guildhall, London, on Friday July 22nd, 1910, at Ten a.m.

[*This Meeting is to comply with Article XII, and will adjourn forthwith until Tuesday, July 28th, at 2.30 o'clock.*]

ANNUAL REPRESENTATIVE MEETING.

Also, notice is hereby given that the 1910 Annual Representative Meeting will be held in the Court of Common Council Chamber, Guildhall, London, on Friday, July 22nd, 1910 (and following days as required), immediately after the Annual General Meeting, fixed for Ten a.m., on Friday, July 22nd.

BY ORDER OF THE COUNCIL,

GUY ELLISTON,

Financial Secretary and Business Manager.

April, 1910.

ELECTION OF CENTRAL COUNCIL 1910-11.

NOTICE is hereby given that nominations of candidates for election of Members of Council by Branches or groups of Branches in the United Kingdom by voting papers for the year 1910-11 must be forwarded to reach the Financial Secretary and Business Manager, at the Office of the Association, not later than Monday, May 23rd, 1910, and that each nomination must be on the prescribed form, copies of which will be furnished by the Financial Secretary and Business Manager upon application.

Separate forms have been prepared for a nomination by a Division and for a nomination by any three Members respectively, and those applying are requested to state for which purpose the form is desired.

Voting papers containing the names of all candidates duly nominated will be issued from the Central Office on Saturday, June 11th, and will be returnable not later than Saturday, June 18th.

By Order of the Council,

GUY ELLISTON,

Financial Secretary and Business Manager.

April 28th.

NOTICE OF CHANGES OF BOUNDARIES OF DIVISIONS AND BRANCHES.

Norwood Division: Greenwich Division.

THE following change has been made in accordance with the Regulations of the Association, and takes effect from the date of publication of this notice:

That the Norwood Division of the Metropolitan Counties Branch be divided into two parts: One part, to consist of Norwood, Dulwich, Sydenham, Forest Hill, Penge, and Anerley, to be known as the Norwood Division; the other part, to consist of Blackheath, Lee, Lewisham, Catford, Deptford, and Greenwich, to be known as the Greenwich Division.

BRANCH AND DIVISION MEETINGS TO BE HELD

ABERDEEN BRANCH.—*Election of Representative of the Branch on the Council of the Association.*—Nominations for the above office should be sent to the Honorary Secretary of the Branch, T. FRASER, 45, Elmbank Terrace, Aberdeen, before May 16th.

BATH AND BRISTOL BRANCH: BATH DIVISION.—The annual meeting of the Bath Division will be held at the Royal United Hospital, Bath, on Friday, May 20th, at 5.30 p.m. Business: (1) Election of Officers. (2) Election of a Representative for the Annual Meeting in London. (3) Any other business.—D. LESLIE BEATH, Honorary Secretary.

BATH AND BRISTOL BRANCH: BRISTOL DIVISION.—The annual meeting of this Division will be held at University College, Bristol, in the Medical Library, at 5.30 p.m., on Monday, May 23rd. Business: Election of officers and other business.—NEWMAN NEILD, Honorary Secretary.

BIRMINGHAM BRANCH.—The annual meeting of this Branch will be held on Thursday, June 2nd, at 4 p.m., at the Medical Institute, Edmund Street. Nominations of officers must be sent to Albert Lucas, 9, Easy Row, not later than May 19th. Professor Gilbert Barling will give the presidential address.—ALBERT LUCAS, J. FURNEAUX JORDAN, Honorary Secretaries.

DORSET AND WEST HANTS BRANCH.—The spring meeting of this Branch will be held in the Hotel Mont Doré, Bournemouth, on Wednesday, May 18th.—JAMES DAVISON, Honorary Secretary, "Streateplace," Bournemouth.

DORSET AND WEST HANTS BRANCH: BOURNEMOUTH DIVISION.—The annual meeting of the Division will be held on Saturday, May 14th. Business: Election of officers and other business.—E. KAYE LE FLEMING, Honorary Secretary.

GLOUCESTERSHIRE BRANCH.—The annual meeting of this Branch will be held at Stroud on Thursday, May 19th.—D. E. FINLAY, Honorary Secretary, Gloucester.

LANCASHIRE AND CHESHIRE BRANCH: ROCHDALE DIVISION.—A joint meeting of this Division and the Rochdale and District Medical Society will be held in the Wellington Hotel, Drake Street, Rochdale, on Thursday, May 12th, at 8.30 p.m., when an address will be delivered by Dr. Taylor of Salford, a member of the Central Council of the British Medical Association, on Poor Law Reform, with special reference to the establishment of a State Medical Service. The extreme importance and urgency of this matter renders it desirable that every member of both societies should make a point of being present at this meeting.—JAMES MELVIN, Newbold Hall, Rochdale; J. CUTHBERTSON WALKER, Waithlands, Rochdale.

METROPOLITAN COUNTIES BRANCH: WALTHAMSTOW DIVISION.—A general meeting of medical practitioners residing within the area of the Walthamstow Division will be held on Tuesday, May 10th, at 4 p.m., in the Lecture Hall of the Wesleyan Church School at the corner of James Lane, High Road, Leyton. Business: To consider the promotion of a medical service for school children. Sir Victor Horsley will address the meeting. All medical practitioners will be welcomed. The nearest station is the Midland.

MIDLAND BRANCH: LINCOLN DIVISION.—The annual meeting of this Division will be held in the Guildhall, Lincoln, on Thursday, May 19th, at 3.30 p.m. Agenda: (*a*) To elect officers, the Representative on the Branch Council, and the ordinary members of the Executive Committee. (*b*) Consideration of the interim report of the Special Poor Law Reform Committee and the answering of certain questions relative thereto (see SUPPLEMENT, BRITISH MEDICAL JOURNAL, February 5th, 1910). (*c*) Consideration of the report of the Council on the Relation of Homoeopaths to the Association and the answering of certain questions relative thereto (see SUPPLEMENT, BRITISH MEDICAL JOURNAL, February 12th, 1910). (*d*) To decide whether the Division should initiate any subject for discussion at the Annual Meeting of the Association, or enter into preliminary discussion of any subject to be brought forward at that meeting. (*e*) Other business. Any member desiring to read papers or show cases or specimens is requested to communicate with J. S. CHATER, Honorary Secretary, 10, Steep Hill, Lincoln.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH: FURNESS DIVISION.—The annual meeting will be held on Friday, May 27th, at 3.15 p.m., in the Masonic Club, Barrow. Business: (1) Annual report. (2) Election of office-bearers. (3) Dr. Pooley will propose this resolution: "In all cases in which a partner, after introduction or otherwise, sells his practice to a successor, all clubs shall be taken over by the successor at 4s. 4d. per head per annum; and all members of this Division agree not to take any such clubs within twelve months of transference." (4) The following resolution, submitted by the Chelsea Division: "That this meeting recognizes the necessity for a Union of Medical Practitioners with Parliamentary Representation, and requests the Executive of the British Medical Association to ascertain the wishes of members in the United Kingdom by referendum at the earliest possible date." (5) Dr. Williams: Case of Locomotor Ataxy. (6) Dr. Harper will open a discussion on the Use and Abuse of Midwifery Forceps. (7) Dr. J. A. Reed: Notes of a Case of Inversion of the Uterus. Any other business. As the Committee is anxious to make this chiefly a clinical meeting, will all members who can show cases or specimens kindly communicate with the Secretary?—JOHN LIVINGSTON, Honorary Secretary.

SOUTH-EASTERN BRANCH: BROMLEY DIVISION.—A meeting of this Division will be held at the Bell Hotel, Bromley, on Thursday, May 12th, at 8.30 p.m. Agenda: (1) Minutes of last meeting. (2) Discussion *re* Branch meeting, 1911. (3) Communication from Metropolitan Counties Branch. (4) Communication from Chelsea Division. (5) Other business.—A. TENNYSON SMITH, Honorary Secretary.

ULSTER BRANCH.—The annual meeting of this Branch will be held in Belfast on Thursday, June 2nd. Members having communications to make to the meeting are requested to send particulars of the same to the Honorary Secretary not later than May 21st. Nominations for the posts of President, Treasurer, and Secretary, each signed by two members, should be sent not later than May 12th to CECIL SHAW, M.D., Honorary Secretary, 29, University Square, Belfast.

British Medical Association.

SCHOLARSHIPS AND GRANTS IN AID OF SCIENTIFIC RESEARCH.

SCHOLARSHIPS.

THE Council of the British Medical Association is prepared to receive applications for Research Scholarships as follows:

1. An ERNEST HART MEMORIAL SCHOLARSHIP, of the value of £200 per annum, for the study of some subject in the department of State Medicine.
2. THREE RESEARCH SCHOLARSHIPS, each of the value of £150 per annum, for research into some subject relating to the Causation, Prevention, or Treatment of Disease. Each Scholarship is tenable for one year, commencing on October 1st, 1910. A Scholar may be reappointed for not more than two additional terms.

The conditions of the award of Scholarships are stated in the Regulations, a copy of which will be supplied on application to the Medical Secretary of the Association, 429, Strand, London, W.C.

GRANTS.

The Council of the British Medical Association is also prepared to receive applications for Grants for the Assistance of Research into the causation, treatment, or prevention of disease. Preference will be given, other things being equal, to members of the medical profession, and to applicants who propose as subjects of investigation problems directly related to practical medicine.

The conditions of the award of Grants are stated in the Regulations, a copy of which will be supplied on application to the Medical Secretary of the Association, 429, Strand, London, W.C.

Applications.

Applications for Scholarships and Grants for the year 1910–11 must be made not later than June 20th, 1910, in the prescribed form, a copy of which will be supplied by the Medical Secretary on application.

Each application should be accompanied by testimonials, including a recommendation from the head of the laboratory, if any, in which the applicant proposes to work, setting out the fitness of the candidate to conduct such work, and the probable value of the work to be undertaken. This is not intended, however, to prevent applications for grants in aid of work which need not be performed in a recognized laboratory.

J. SMITH WHITAKER, *Medical Secretary.*

429, Strand, London, W.C.,
April 20th, 1910.

COUNCIL REPORT.

[APPENDIX.]

ATTENDANCES OF COUNCIL, COMMITTEES, AND SUBCOMMITTEES FOR 1909-10.

The following Return of Attendances at Meetings of Council, Committees, and Subcommittees is published in accordance with the provisions of Standing Order 14.

COUNCIL.

Members of Council.	July 27, 1909.	July 28, 1909	July 29, 1909.	Oct. 27, 1909.	Jan. 26, 1910.	April 27, 1910.	Total.
OWEN, Mr, EDMUND, London (Chairman) ...	1	1	1	1	1	1	6
Whitla, Sir Wm., Belfast (President)	1	—	—	—	1	—	2
Butlin, Mr., London (President-elect)	—	—	—	1	1	1	3
White, Dr. Sinclair, Sheffield (Past President) ...	1	1	1	1	1	1	6
Ballance, Mr H. A., Norwich (Chairman of Representative Meetings)	1	1	1	1	1	1	6
Rayner, Dr. Edwin, Stockport (Treasurer) ...	1	1	1	1	1	1	6
Anderson, Dr. J. Ford, London	1	1	1	1	1	1	6
Andrew, Dr. J. Grant, Glasgow	1	1	1	1	1	1	6
Bentham, Inspector-General R., R.N., London ...	—	1	1	1	1	1	5
Branfoot, Surgeon-General A. M., C.I.E. Hemel Hempstead	—	—	—	—	—	—	—
Buist, Dr. R. C., Dundee	—	1	1	1	1	—	4
Carline, Dr. W. A., Lincoln	1	1	—	1	1	1	5
Clark, Mr. Andrew, London	—	1	1	1	1	1	5
Corby, Professor H., Cork	1	1	1	—	1	—	4
Cousins, Mr. J. Ward, Southsea	1	1	1	—	—	1	4
Cureton, Dr. Edward, Shrewsbury	—	—	—	—	1	1	2
Davison, Dr. Jas., Bournemouth	1	1	1	1	1	1	6
Domville, Mr. E. J., Exeter	1	1	1	1	1	1	6
Drew, Mr. A. J., Oxford...	1	1	—	1	1	1	5
Eales, Mr. G. Young, Torquay	—	—	—	1	—	1	2
Edmond, Dr. George, Aberdeen...	—	—	—	1	—	1	2
Ewart, Dr. David, Chichester	—	—	—	1	1	1	3
Ewart, Mr. J. H., Eastbourne	1	1	1	1	1	1	6
Farquharson, Dr. A. C., Bishop Auckland ...	1	1	1	1	1	1	6
Flemming, Mr. C. E. S., Bradford-on-Avon ...	—	—	—	1	1	1	3
Francis, Dr. H. A., London	—	—	—	1	—	1	2
Garstang, Mr. T. W. H., Altrincham	1	1	—	1	1	1	5
Goyder, Dr. D., Bradford	1	1	1	1	1	1	6
Greenlees, Dr. T. D., London	1	1	1	1	1	1	6
Hall, Dr. Wm., Lancaster	—	—	—	1	—	1	2
Haslip, Dr. G. E., London	—	—	—	1	1	1	3
Horsley, Sir Victor, F.R.S., London	1	1	—	1	1	1	5
Johnston, Dr. R. McKenzie, Edinburgh ...	—	—	—	1	1	1	3
Johnstone, Mr. R. J., Belfast	1	1	—	—	1	1	4
Jones, Mr. Herbert, Hereford	1	1	1	1	1	1	6
Joubert de la Ferté, Col. C. H., I.M.S., Weybridge	1	1	—	1	1	—	4
Ker, Mr. Hugh R., London	1	1	1	1	1	1	6
Kinsey, Mr. R. H., Bedford	1	1	1	1	1	1	6
Larkin, Mr. F. C., Liverpool	1	1	1	1	1	1	6
Lucas, Mr. Albert, Birmingham	1	1	—	1	1	1	5
Macdonald, Dr. J. A., Taunton	1	1	1	1	1	1	6
Macfie, Dr. Chas., Bolton	1	1	1	1	1	1	6
Mackintosh, Dr. D. J., M.V.O., Glasgow ...	—	1	1	1	1	1	5
Maclean, Dr. E. J., Cardiff	—	—	—	1	1	1	4
Manley, Dr. Herbert, West Bromwich	1	1	1	1	1	1	6
Martin, Dr. C. J., F.R.S., London	—	—	—	1	1	1	3
Mason, Dr. J. M., London...	—	—	—	1	1	1	3
Milburn, Dr. C. H., Hull	—	—	—	—	—	1	1
Moir, Dr. J. Munro, Inverness	1	1	1	1	—	1	5
Morier, Dr. C. G. D., London	—	—	—	1	1	1	3
Nasmyth, Dr. T. G., Edinburgh	1	1	—	1	—	1	4
Nicholson, Dr. B. H., Colchester	1	1	—	1	1	1	5
Pope, Dr. F. M., Leicester	—	1	—	1	1	1	4
Reid, Dr. T. Whitehead, Canterbury (dead) ...	1	1	1	1	1	—	5
Roberts, Dr. H. Jones, Penygroes	—	—	—	1	1	1	3
St. John, Mr. W. St. A., Derby	1	—	1	1	1	1	5
Shaw, Dr. Cecil E., Belfast	1	1	1	1	—	1	5
Shaw, Dr. Lauriston E., London	1	1	1	1	1	1	6
Simpson, Lieut.-Col. R. J. S., C.M.G., London ...	—	—	—	1	1	1	3
Stevens, Dr. W. Mitchell, Cardiff	1	1	1	1	1	1	6
Straton, Mr. C. R., Wilton	1	1	1	1	1	1	6
Syme, Mr. G. A. (Melbourne and Victoria Branch)	—	1	1	1	—	—	3
Taylor, Dr. J. H., Salford	1	1	1	1	1	1	6
Todd, Dr. D. F., Sunderland	1	1	1	1	—	1	5
Trotter, Dr. A., Perth	1	1	1	1	1	1	6
Twynam, Dr. G. E., London	—	—	—	—	—	—	—
Verrall, Mr. T. Jenner, Bath	1	1	1	—	1	1	5
Walshe, Dr. D., Graigue	1	1	1	—	—	—	3
White, Professor A. H., Dublin...	—	1	1	1	—	1	4
Williams, Mr. D. J., Llanelly	1	1	1	1	1	1	6
Wilson, Lieutenant-Colonel E. M., C.B., C.M.G., Farnborough	1	—	1	1	1	1	5

ARRANGEMENTS COMMITTEE.

Members of Committee.	Oct. 15, 1909.	Nov. 6, 1909.	Nov. 17, 1909.	Total.
CHAIRMAN OF COUNCIL (Chairman)	—	1	1	2
President (*ex officio*)	—	—	1	1
Chairman of Representative Meetings (*ex officio*) ...	—	1	1	2
Treasurer (*ex officio*)	—	1	1	2
Andrew, Dr. J. Grant, Glasgow	—	—	1	1
Drew, Mr. A. J., Oxford	—	1	1	2
Hall, Dr. Wm., Lancaster	—	1	—	1
Lucas, Mr. Albert, Birmingham	—	1	1	2
Nicholson, Dr. B. H., Colchester	—	—	—	—
Shaw, Dr. Cecil E., Belfast	—	1	—	1
Local Representatives:				
President-elect	1	—	1	2
Anderson, Dr. J. Ford, London	1	—	1	2
Clark, Mr. Andrew, London	1	—	1	2
Ker, Mr. Hugh R., London	1	—	1	2
Robinson, Mr. Betham, London	1	—	1	2
Shaw, Dr. Lauriston E., London	1	—	1	2

CENTRAL ETHICAL COMMITTEE.

Members of Committee.	Oct. 8, 1909.	Jan. 7, 1910.	Jan. 12, 1910.	April 8, 1910.	Total.
MACLEAN, Dr. E. J., Cardiff (Chairman)	1	1	1	1	4
President (*ex officio*)	—	—	—	—	—
Chairman of Representative Meetings (*ex officio*) ...	—	1	—	—	1
Chairman of Council (*ex officio*)	1	—	—	—	1
Treasurer (*ex officio*)	—	—	1	1	2
Bateman, Dr. A. G., London	1	1	1	1	4
Ewart, Mr. J. H., Eastbourne	1	1	1	1	4
Goff, Dr. Bruce, Bothwell, N.B.	1	1	—	1	3
Kinsey, Mr. R. H., Bedford	1	1	1	1	4
Langdon-Down, Dr. R. L., Hampton Wick	1	1	1	1	4
Lee, Dr. Philip G., Cork	1	1	—	1	3
Milburn, Dr. C. H., Hull	1	—	—	1	2
Shaw, Dr. Lauriston E., London	1	1	1	1	4
Straton, Mr. C. R., Wilton	1	1	1	1	4

STANDING ETHICAL SUBCOMMITTEE.

Members of Committee.	Nov. 1, 1909.	Nov. 29, 1909.	Dec 20, 1909.	Feb. 7, 1910.	March 7, 1910.	March 21, 1910.	Total.
CHAIRMAN OF CENTRAL ETHICAL COMMITTEE (Chairman)	1	1	1	1	1	1	6
Bateman, Dr. A. G., London	1	1	1	1	1	1	6
Kinsey, Mr. R. H , Bedford	1	1	1	1	1	1	6
Langdon-Down, Dr. R., Hampton Wick	1	1	1	1	1	1	6
Owen, Mr. Edmund, London	—	—	—	—	1	—	1
Shaw, Dr. Lauriston E., London	1	1	1	1	1	1	6

ETHICAL RULES SUBCOMMITTEE.

Members of Committee.	March 14, 1910.	Total.
CHAIRMAN OF CENTRAL ETHICAL COMMITTEE (Chairman)	1	1
Langdon-Down, Dr. R., Hampton Wick	1	1

COLONIAL COMMITTEE.

Members of Committee.	Oct. 11, 1909.	Jan. 10, 1910.	Total.
MORIER, Dr. C. G. D., London (Chairman)	1	1	2
President (*ex officio*)	—	—	—
Chairman of Representative Meetings (*ex officio*) ...	—	—	—
Chairman of Council (*ex officio*)	—	1	1
Cousins, Mr. J. Ward, Portsmouth	1	1	2
Ewart, Dr. David, London	1	—	1
Francis, Dr. H. A., London	—	1	1
Greenlees, Dr. T. D., London	1	1	2
Mason, Dr. J. M., London	—	1	1
Simpson, Lieut.-Col., C.M.G., London	1	1	2
Meeting of Colonial Representatives on Central Council to elect 5 members from their number to serve upon the Colonial Committee:			
Ewart, Dr. David (New Zealand Branch)	1	—	1
Greenlees, Dr. T. D. (Cape of Good Hope Branch) ...	1	—	1
Martin, Dr. C. J., F.R.S. (Sydney and N.S.W. Branch)	1	—	1
Morier, Dr. C. G. D. (S. and W. Australia Branch) ...	1	—	1
Simpson, Lieut.-Col. R. J. S, C.M.G. (Griqualand, Natal and Transvaal Branch)	1	—	1
Syme, Mr. G. A. (Melbourne and Victoria Branch) ...	1	—	1

CONFERENCE BETWEEN SPECIAL SUBCOMMITTEE OF COLONIAL COMMITTEE AND COLONIAL RECEPTION COMMITTEE OF ANNUAL MEETING, 1910.

Members of Committee.	Feb. 23, 1910.	Total.
MORIER, Dr. C. G. D., London (Chairman)	1	1
Anderson, Dr. J. Ford, London	1	1
Armour, Mr. Donald, London	1	1
Greenlees, Dr. T. D., London	1	1
Mason, Dr J. M., London	1	1
Symonds, Mr. Charters, London	1	1
Twynam, Dr. G. E., London	1	1
Williams, Dr. A. H., Harrow	1	1

ELECTION RETURNS COMMITTEE.

Members of Committee.	July 28, 1909.	Total.
CLARK, Mr. ANDREW, London (Chairman)	1	1
Chairman of Representative Meetings	1	1
Treasurer	1	1
Buist, Dr. R. C., Dundee	1	1
Domville, Mr. E. J., Exeter	1	1
Joubert de la Ferté, Col. C. H., Weybridge	1	1
Kinsey, Mr. R. H., Bedford	1	1
Macdonald, Dr. J. A., Taunton	1	1

HOSPITALS COMMITTEE.

Members of Committee.	Oct. 7, 1909.	Jan. 6, 1910.	April 7, 1910.	Total.
KER, Mr. HUGH R., London (Chairman)	1	1	1	3
Reid, Dr. T. Whitehead, Canterbury (late Chairman) (dead)	—	—	—	1
President (*ex officio*)	—	—	—	—
Chairman of Representative Meetings (*ex officio*) ...	—	—	—	—
Chairman of Council (*ex officio*)	1	—	1	2
Treasurer (*ex officio*)	—	—	—	—
Anderson, Dr. J. Ford, London	1	1	1	3
Johnstone, Mr. R. J., Belfast	1	1	1	3
Joubert de la Ferté, Colonel C. H, I.M.S., Weybridge	1	—	—	1
Mackintosh, Dr. D. J., M.V.O., Glasgow	1	1	1	3
Pope, Dr. F. M., Leicester	1	—	—	1
Roberts, Dr. H. Jones, Penygroes	—	—	—	—
St John, Mr. W. St. A., Derby	—	—	—	—
Shaw, Dr. Lauriston E., London	1	1	1	3
Trotter, Dr. A., Perth	1	—	1	2

HAMPSTEAD HOSPITAL SUBCOMMITTEE.

Members of Committee.	Oct. 7, 1909.	Oct. 27, 1909.	Feb. 22, 1910.	Total.
THE LATE CHAIRMAN OF HOSPITALS COMMITTEE (Dr. Reid) (Chairman)	—	1	—	1
Pope, Dr. F. M., Leicester	1	1	1	3
Shaw, Dr. Lauriston E., London	1	1	1	3

KING'S COLLEGE HOSPITAL SUBCOMMITTEE.

Members of Committee.	Nov. 11, 1909.	Total.
THE LATE CHAIRMAN OF HOSPITALS COMMITTEE (Dr. Reid) (Chairman)	1	1
Anderson, Dr J. Ford, London	1	1
Ker, Mr. Hugh R., London	1	1
Shaw, Dr. Lauriston E., London	1	1

IRISH COMMITTEE.

Members of Committee.	July 26, 1909.	Oct. 16, 1909.	Jan 15, 1910.	Total.
SHAW, Dr. CECIL E., Belfast (Chairman)	1	1	—	2
President (*ex-officio*)	—	—	—	—
Chairman of Representative Meetings (*ex officio*) ...	—	—	—	—
Chairman of Council (*ex officio*)	—	—	—	—
Treasurer (*ex officio*)	—	—	—	—
Carey, Dr. R. B., Borris	—	1	—	1
Cooke, Dr. J. G., Londonderry	1	—	—	1
Corby, Professor Henry, Cork	—	1	—	1
Craig, Dr. James, Dublin	1	1	1	3
Darling, Dr. J. S., Lurgan	1	1	1	3
Giusani, Dr. J. J., Cork	—	—	—	—
Johnstone, Mr. R. J., Belfast	1	1	—	2
Kenny, Dr. J. M., Granard	1	1	1	3
Lee, Dr. Philip G., Cork	—	—	1	1
Mahon, Dr. R. B., Ballinrobe	1	—	1	2
Mills, Dr John, Ballinasloe	1	1	1	3
Quirke, Dr. James, Piltown	—	1	—	1
Walshe, Dr. Denis. Graigue	—	1	1	2
White, Professor A. H., Dublin (Honorary Secretary)	1	1	1	3

JOURNAL AND FINANCE COMMITTEE.

Members of Committee.	Oct. 20, 1909.	Jan. 19, 1910.	April 20, 1910.	Total.
TREASURER (Chairman)	1	1	1	3
President (*ex officio*)	–	–	–	–
Chairman of Representative Meetings (*ex officio*) ...	–	1	1	2
Chairman of Council (*ex officio*)	1	1	1	3
Buist, Dr. R. C., Dundee	1	–	–	1
Carline, Dr. W. A., Lincoln	1	1	1	3
Goyder, Dr. D., Bradford	1	1	–	2
Haslip, Dr. G. E., London	1	1	–	2
Horsley, Sir Victor, F.R.S., London	1	1	1	3
Johnston, Dr. R. McKenzie, Edinburgh	1	1	1	3
Ker, Mr. Hugh R., London	1	1	1	3
Larkin, Mr. F. C, Liverpool	1	1	1	3
Macdonald, Dr. J. A., Taunton	–	1	1	2
Verrall, Mr. T. Jenner, Bath	1	1	1	3
Williams, Mr. D. J., Llanelly	1	–	1	2

JOURNAL AND FINANCE SUBCOMMITTEE *RE* DUTIES OF SECRETARIAT.

Members of Committee.	Nov. 26, 1909	Dec. 22, 1909	Jan. 12, 1910.	Total.
TREASURER (Chairman)	1	1	1	3
Chairman of Representative Meetings	1	1	1	3
Chairman of Council	1	1	–	2
Haslip, Dr. G. E., London	1	1	–	2
Horsley, Sir Victor, F.R.S., London	1	1	1	3
Macdonald, Dr. J. A., London	–	–	–	–

JOURNAL AND FINANCE SUBCOMMITTEE.

(A) *Re* ISSUE OF SUPPLEMENT TO NON-MEMBERS; (B) APPOINTMENT OF A SUBCOMMITTEE TO CONTROL ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL; (C) ACCIDENT POLICY.

Members of Committee.	Nov. 26, 1909.	April 13, 1910.	Total.
BUIST, Dr. R. C, Dundee (Chairman)	1	1	2
Chairman of Representative Meetings	1	–	1
Chairman of Council			
Treasurer	1	1	2
Chairman Medico-Political Committee	–	–	–
Chairman of Ethical Committee	1	–	1
Haslip, Dr. G. E, London	1	1	2
Ker, Mr. Hugh R., London	–	1	1
Verrall, Mr, T. Jenner, Bath	–	–	–

MEDICO-POLITICAL COMMITTEE.

Members of Committee.	Oct 6, 1909.	Jan. 5, 1910.	April 6, 1910.	April 13, 1910	Total.
MACDONALD, Dr. J. A., Taunton (Chairman)	1	1	1	1	4
President (*ex officio*)	–	–	–	–	–
Chairman of Representative Meetings (*ex officio*) ...	1	1	–	1	3
Chairman of Council (*ex officio*)	–	1	–	–	1
Treasurer (*ex officio*)	–	–	–	1	1
Armit, Mr. H. W., Wembley	1	1	1	1	4
Domville, Mr. E. J. (Chairman of Public Health Committee)	1	1	1	–	3
Flemming, Mr. C. E. S., Bradford-on-Avon	1	1	1	1	4
Fothergill, Dr. E. R., London	1	1	1	1	4
Fullerton, Mr. Andrew, Belfast	1	–	–	–	1
Lawson, Dr. D., Nordrach-on-Dee, N.B.	–	1	–	1	2
Macfie, Dr. Charles, Bolton	1	1	1	1	4
Nash, Mr. E. H. T., Wimbledon	1	1	1	–	3
Straton, Mr. C. R., Wilton	1	1	1	1	4
Taylor, Dr. J. H., Salford	1	1	1	1	4
Todd, Dr. D. F., Sunderland	1	–	1	–	2
Verrall, Mr. T. Jenner, Bath	1	1	1	1	4

MEDICO-POLITICAL SUBCOMMITTEE *RE* PAYMENT OF CORONERS' FEES TO NAVAL SURGEONS.

Members of Committee.	Nov. 5, 1909.	Total.
CHAIRMAN OF REPRESENTATIVE MEETINGS	1	1
Chairman of Medico-Political Committee (*ex officio*) ...	1	1
Biden, Fleet Surgeon E. J., R.N., Fareham	1	1
Verrall, Mr. T. Jenner, Bath	1	1

CONTRACT PRACTICE SUBCOMMITTEE.

Members of Committee.	Sept. 22, 1909.	Dec. 8, 1909.	March 18, 1910.	Total.
CHAIRMAN OF REPRESENTATIVE MEETINGS (Chairman)	1	1	1	3
Chairman of Medico-Political Committee (*ex officio*) ...	1	–	1	2
Domville, Mr. E. J., Exeter	–	1	1	2
Flemming, Mr. C. E. S., Bradford-on-Avon	1	1	1	3
Fothergill, Dr. E. R., London	–	1	1	2
Lawson, Dr. David, Nordrach-on-Dee	1	1	1	3
Nash, Mr. E. H, T, Wimbledon	1	1	1	3
Owen, Mr. Edmund, London	–	1	–	1
Straton, Mr. C. R., Wilton	1	1	1	3
Taylor, Dr. J. H., Salford	1	1	1	3
With—				
Greer, Mr. W. J., Newport, Mon.	1	1	1	3
Howell, Dr. R. E., Middlesbrough	–	1	1	2
Lydall, Dr. W. T., Birmingham	1	1	1	3
Rose, Mr. Percy, London	1	1	1	3
Williams, Dr. A. H., Harrow	1	1	1	3
*Todd, Dr. D. F., Sunderland	1	–	–	1
Bateman, Dr. A. G., London	–	1	–	1
Maclean, Dr. E. J., Cardiff	–	1	–	1
Anderson, Miss L. Garrett, M.D., London	1	1	–	2
Thorne, Miss May, M.D., London	1	1	–	2
*Jackson, Mr, George, Plymouth	1	–	–	1

* Ceased to be a member after September 22nd, 1909.

CONTRACT PRACTICE SPECIAL SUBCOMMITTEE *RE* FEDERATED SOCIETIES' MEDICAL BENEFIT ASSOCIATION, AND METROPOLITAN PROVIDENT MEDICAL ASSOCIATION.

Members of Committee.	Jan. 19, 1910.	Total.
CHAIRMAN OF CONTRACT PRACTICE SUBCOMMITTEE (Chairman)	1	1
Chairman of Medico-Political Committee	–	–
Chairman of Public Health Committee	1	1
Fothergill, Dr. E. R., London	1	1
Rose, Mr. Percy, London	1	1
Representatives of Metropolitan Counties Branch:		
Armit, Mr. H. W.	1	1
Capes, Dr. Robert	–	–
Southcombe, Dr. A. G.	1	1

CONTRACT PRACTICE SPECIAL SUBCOMMITTEE *RE* PATHOLGISTS AND BACTERIOLOGISTS.

Members of Committee.	March 17, 1910	Total.
CHAIRMAN OF CONTRACT PRACTICE SUBCOMMITTEE (Chairman)	1	1
Armit, Mr. H. W., Wembley	1	1
Greer, Mr. W. J., Newport, Mon.	1	1
Nash, Mr. E. H. T. (Wimbledon)	1	1
Pathological Society of Great Britain:		
Andrewes, Dr. F. W.	1	1
Boycott, Dr. A. E.	1	1

CONTRACT PRACTICE SPECIAL SUBCOMMITTEE *RE* INSTRUCTION IN HYGIENE.

Members of Committee.	Jan. 11, 1909.	Total.
CHAIRMAN OF CONTRACT PRACTICE SUBCOMMITTEE (Chairman)	1	1
Nash, Mr. E. H. T., Wimbledon	1	1
Chairman of Public Health Committee	1	1
Treasurer	1	1

CONTRACT PRACTICE SPECIAL SUBCOMMITTEE *RE* POSTAL MEDICAL SERVICE SUBCOMMITTEE.

Members of Committee.	March 17, 1910.	Total.
CHAIRMAN OF CONTRACT PRACTICE SUBCOMMITTEE (Chairman)	1	1
Fothergill, Dr. E. R., London	1	1
Rose, Mr. Percy, London	—	—
Taylor, Dr. J. H., Salford	1	1
Williams, Dr. Alfred H., Harrow	1	1

CORONERS SUBCOMMITTEE.

Members of Committee.	Nov. 10, 1909.	Nov. 17, 1909.	Dec. 1, 1909.	Total.
VERRALL, Mr. T. JENNER, Brighton	1	1	1	3
Chairman of Medico-Political Committee (*ex officio*) ...	—	—	—	—
Armit, Mr. H. W., Wembley	1	1	1	3
Atkinson, Dr. W. A., London	1	1	1	3
Bateman, Dr. A. G., London	1	1	1	3
Finucane, Dr. Morgan, London	1	1	1	3
Fothergill, Dr. E. R., London...	1	1	1	3
Horsley, Sir Victor, F.R.S., London	1	1	1	3
Nash, Mr. E. H. T., Wimbledon	1	1	1	3
Parkinson, Mr. C. H. W., Wimborne	1	1	1	3
Todd, Dr. D. F., Sunderland	—	1	—	1
Woods, Dr. Hugh, London	1	1	1	3

DISTRICT NURSES AND MIDWIVES SUBCOMMITTEE.

Members of Committee.	Nov. 10, 1909.	Dec. 22, 1909.	Feb. 23, 1910	Total.
FLEMMING, Mr. C. E. S., Bradford-on-Avon (Chairman)	1	1	1	3
Chairman of Medico-Political Committee (*ex officio*) ...	—	—	—	—
Fothergill, Dr. E. R., London	1	1	1	3
Nash, Mr. E. H. T., Wimbledon	1	1	1	3
Straton, Mr. C. R., Wilton	1	1	1	3
Taylor, Dr. J. H., Salford	1	1	1	3
Andrews, Dr. H. Russell, London	—	1	1	2
Coombe, Mr. Russell, Exeter	1	—	—	1
Drury, Mr. Arthur, Halifax	—	1	1	2
Helme, Dr. T. A., Manchester...	—	—	1	1
Maclean, Dr. E. J., Cardiff	1	—	—	1
Stephenson, Mr. Sydney, London	1	1	—	2

INDIAN HOSPITALS SUBCOMMITTEE.

Members of Committee.	Oct. 27, 1909.	Total.
JOUBERT DE LA FERTÉ, Colonel C. H., I.M.S., Weybridge	1	1
Chairman of Medico-Political Committee (*ex officio*)...	1	1
Chairman of Representative Meetings	1	1
Chairman of Council	1	1
Browne, Surgeon-General W. R., C.I.E., I.M.S., London	1	1
Reid, Dr. T. Whitehead, Canterbury (dead)	1	1

LIFE INSURANCE (FEES FOR MEDICAL EXAMINATION) SUBCOMMITTEE.

Members of Committee.	Dec. 8, 1909.	Total.
CHAIRMAN OF REPRESENTATIVE MEETINGS	1	1
Chairman of Medico-Political Committee, *ex officio* ...	—	—
Lawson, Dr. David, Banchory	1	1
Macfie, Dr. Charles, Bolton	1	1
With—		
Kirby, Dr. E. D., Edgbaston	1	1
Shadwell, Dr. St. Clair B., London	1	1
Swayne, Dr. F. G., London	1	1

MEDICAL INSPECTION AND TREATMENT OF SCHOOL CHILDREN SUBCOMMITTEE

Members of Committee.	March 3, 1910,	March 30, 1910.	April 4, 1910.	Total.
HORSLEY, Sir VICTOR, F.R.S., London (Chairman) ...	1	1	1	3
Chairman of Representative Meetings				
Chairman of Medico-Political Committee (*ex officio*)...	—	—	—	—
Flemming, Mr. C. E. S., Bradford-on-Avon (Vice-Chairman)	1	1	—	2
Fothergill, Dr. E. R., London...	1	1	1	3
Macfie, Dr. Chas., Bolton	1	1	—	2
Nash, Mr. E. H. T., London	1	1	1	3
Rayner, Dr. Edwin, Stockport	1	1	—	2
Todd, Dr. D. F., Sunderland	—	1	—	1
With—				
Andrew, Dr. J. Grant, Glasgow	1	1	—	2
Beckett-Overy, Dr. H., London	—	1	—	1
Fremantle, Mr. F. E., London	1	1	1	3
Greenwood, Dr. Alfred, Blackburn	1	1	—	2
Jones, Mr. Herbert, Hereford...	1	—	1	2
Kerr, Dr. James, London	—	—	1	1
Langdon-Down, Dr. R. L., Hampton Wick	—	1	—	1
Williams, Dr. A. H., Harrow	1	1	—	2

PARLIAMENTARY SUBCOMMITEE.

Members of Committee.	Dec. 16, 1909.	Jan. 25, 1910.	Total.
VERRALL, Mr. T. JENNER, Bath (Chairman)	1	1	2
Chairman of Medico-Political Committee (*ex officio*)...	—	—	—
Armit, Mr. H. W., Wembley	1	1	2
Domville, Mr. E. J., Exeter	1	1	2
Flemming, Mr. C. E. S., Bradford-on-Avon	—	—	—
Fullerton, Mr. Andrew, Belfast	—	—	—
Macfie, Dr. Chas., Bolton	1	1	2
Straton, Mr. C. R., Salisbury	1	1	2
With—			
Buist, Dr. R. C., Dundee	1	1	2
Horsley, Sir Victor, F.R.S., London	1	1	2
Larkin, Mr. F. C., Liverpool	1	1	2
Maclean, Dr. E. J., Cardiff	—	—	—
Swayne, Dr. F. G., London	1	—	1

SPIRITUAL HEALING SUBCOMMITTEE.

Members of Committee.	Dec. 29, 1909.	Total.
NASH, Mr. E. H. T., London (Chairman)	1	1
Chairman of Medico-Political Committee (*ex officio*)...	—	—
Armit, Mr. H. W., Wembley	1	1
Macfie, Dr. Chas., Bolton	1	1
With—		
Buttar, Dr. Chas., London	1	1
Buzzard, Dr. E. F., London	—	—
Helme, Dr. T. A., Manchester	—	—
Macdonald, Dr. J. A., Taunton	1	1
Scharlieb, Mrs. Mary, M.D., London	—	—
Thomson, Dr. D. G., Norwich	—	—
Woods, Dr. J. F., London	1	1

NAVAL AND MILITARY COMMITTEE.

Members of Committee.	Oct. 4, 1909.	Total.
JOUBERT DE LA FERTÉ, Colonel C. H., I.M.S., Weybridge (Chairman)	1	1
President (*ex officio*)	—	—
Chairman of Representative Meetings (*ex officio*) ...	—	—
Chairman of Council (*ex officio*)	1	1
Treasurer (*ex officio*)	—	—
Bentham, Inspector-General R., R.N., London ...	1	1
Biden, Fleet Surgeon E J., R.N., Fareham	1	1
Browne Surg.-General W. R., C I.E., I.M.S., London	1	1
Cuffe, Sir Charles, K.C.B., London	1	1
Giles, Surg.-Col. P. B., V.D. (R.A.M.C.T.), Bletchley ...	—	—
Twiss, Lieutenant-Colonel G. E., R.A.M.C., Sholing ...	1	1

OPHTHALMIA NEONATORUM COMMITTEE.

Members of Committee.	Oct 2, 1909.	Total.
STEPHENSON, Mr. SYDNEY, London (Chairman) ...	1	1
President (*ex officio*)	—	—
Chairman of Representative Meetings (*ex officio*) ...	—	—
Chairman of Council (*ex officio*)	—	—
Treasurer (*ex officio*)	1	1
Buist, Dr. R. C., Dundee	—	—
Helme, Dr. T. A., Manchester	1	1
Martin, Dr. C. J., F.R.S., London	1	1
Shaw, Dr. Cecil E., Belfast	—	—
Representatives of Societies—		
Andrews, Dr. H. Russell, London	1	1
Carpenter, Dr. George, London (dead)	—	—
Lawson, Mr. Arnold, London	—	—
Sergeant, Dr. E., Preston	—	—

ORGANIZATION COMMITTEE.

Members of Committee.	Sept. 14, 1909.	Oct. 5, 1909.	Dec. 7, 1909.	Jan. 7, 1910.	April 5, 1910.	April 20, 1910.	Total.
CLARK, Mr. ANDREW, London (Chairman)	1	1	1	1	1	1	6
President (*ex officio*)	—	—	—	—	—	1	1
Chairman of Representative Meetings (*ex officio*) ...	1	—	1	1	1	1	5
Chairman of Council (*ex officio*)	—	1	—	—	—	—	1
Treasurer (*ex officio*)	—	1	1	—	1	—	3
Davison, Dr. James, Bournemouth	1	1	1	1	1	1	6
Garstang, Mr. T. W. H., Altrincham	1	1	1	1	1	—	5
Greenlees, Dr. T. D., Streatham	1	1	1	—	—	1	4
Larkin, Mr. F. C., Liverpool	1	1	1	—	1	1	5
Moir, Dr. J. Munro, Inverness	1	1	1	—	1	—	4
Todd, Dr. D. F., Sunderland	1	1	1	—	1	1	5
Co-opted—							
Horsley, Sir Victor, F.R.C.S., London	—	1	1	—	—	1	3
Kirby, Dr. E. D., Edgbaston	1	1	1	1	1	1	6
Macdonald, Dr. J. A., Taunton	—	1	—	—	—	1	2
Verrall, Mr. T. Jenner, Bath	1	1	—	—	1	1	4
White, Prof. A. H., Dublin	—	1	1	—	—	—	

CAPITATION GRANTS SUBCOMMITTEE.

Members of Committee.	Nov. 24, 1909	March 24, 1910	Total.
LARKIN, Mr. F. C., Liverpool (Chairman)	1	1	2
Chairman of Organization Committee	1	1	2
Treasurer	1	1	2
Davison, Dr. James, Bournemouth	1	1	2
Kirby, Dr. E. D., Edgbaston	1	1	2

CONFERENCE OF SECRETARIES SUBCOMMITTEE.

Members of Committee.	Nov. 24 1909.	Total.
LARKIN, Mr. F. C., Liverpool (Chairman)	1	1
Clark, Mr. Andrew, London	1	1
Griffith, Dr. W., London	1	1

ORGANIZATION SUBCOMMITTEE *RE* GROUPING OF BRANCHES, ETC.

Members of Committee.	Nov 5, 1909.	Total.
CHAIRMAN OF ORGANIZATION COMMITTEE	1	1
Chairman of Representative Meetings	1	1
Mr. T. W. H. Garstang, Altrincham	1	1
Mr. T. Jenner Verrall, Bath	1	1

SUBCOMMITTEE ON ORGANIZATION OF MEDICAL STUDENTS.

Members of Committee.	Nov. 24, 1909.	March 24, 1910.	Total.
LARKIN, Mr F. C, Liverpool (Chairman)	1	1	2
Chairman of Organization Committee	1	1	2
Kirby, Dr. E. D., Edgbaston	1	1	2
Shaw, Dr. Lauriston E. London	1	1	2

SUBCOMMITTEE ON STANDING ORDERS OF REPRESENTATIVE MEETING AND COUNCIL.

Members of Committee.	Feb. 1, 1910	March 24, 1910.	Total.
CHAIRMAN OF ORGANIZATION COMMITTEE (Chairman)	1	1	2
Chairman of Representative Meetings		1	1
Chairman of Council	1		1
Macdonald, Dr. J. A., Taunton	1	1	2

SUBCOMMITTEE ON AMENDMENT OF REGULATIONS AS TO ELECTION OF REPRESENTATIVES IN REPRESENTATIVE MEETINGS.

Members of Committee.	Mar. 24, 1910.	Total.
CHAIRMAN OF ORGANISATION COMMITTEE	1	1
Chairman of Representative Meetings	1	1
Buist, Dr. R. C., Dundee	1	1
Larkin, Mr. F. C., Liverpool	1	1
Macdonald, Dr. J. A., Taunton	1	1

PUBLIC HEALTH COMMITTEE.

Members of Committee.	Oct. 12, 1909.	Jan. 11, 1910.	April 12, 1910.	Total.
DOMVILLE, Mr. E. J., Exeter (Chairman)	1	1	1	3
President (*ex officio*)				
Chairman of Representative Meetings *ex officio*) ...		1		1
Chairman of Council (*ex officio*)	1	1		2
Treasurer (*ex officio*)		1		1
*Farquharson, Dr. A. C., Bishop Auckland	1		1	2
Garstang, Mr. T. W. H., Altrincham	1	1	1	3
Goyder, Dr. D., Bradford	1	1	1	3
Jones, Mr. Herbert, Hereford...	1	1	1	3
Manley, Dr. Herbert, West Bromwich		1		1
Nasmyth, Dr. T. G., Edinburgh	1			1

* See Attendance Book, January 11th, 1910.

EMERGENCY SUBCOMMITTEE.

Members of Committee.	Aug. 30, 1909.	Oct. 5 1909.	Total.
CHAIRMAN OF PUBLIC HEALTH COMMITTEE (Chairman)	1	1	2
Garstang, Mr. T. W. H., Altrincham		1	1
Goyder, Dr. D., Bradford		1	1
Jones, Mr. Herbert, Hereford...	1	1	2
Manley, Dr. Herbert, West Bromwich	1		1

SUBCOMMITTEE *RE* BILLS.

Members of Committee.	Feb. 18, 1910.	April 12, 1910.	April 22, 1910.	Total.
CHAIRMAN OF PUBLIC HEALTH COMMITTEE (Chairman)	1	1	1	3
Jones, Mr. Herbert, Hereford...	1	1	1	3

SUBCOMMITTEE *RE* NOTIFICATION OF TUBERCULOSIS.

Members of Committee.	Oct. 5, 1909.	Total.
CHAIRMAN OF PUBLIC HEALTH COMMITTEE (Chairman)	1	1
Garstang, Mr. T. W. H., Altrincham	1	1
Goyder, Dr. David, Bradford	1	1
Jones, Mr. Herbert. Hereford	1	1
Nasmyth, Dr. T. G., Edinburgh		

SCIENCE COMMITTEE.

Members of Committee.	Oct. 2, 1909.	Jan 8, 1910.	April 2, 1910.	Total.
POPE, Dr. F. M , Leicester (Chairman)	1	1	1	3
President (*ex officio*)				
Chairman of Representative Meetings (*ex officio*) ...				
Chairman of Council (*ex officio*)				
Treasurer (*ex officio*)	1		1	2
Andrew, Dr. J. Grant, Glasgow			1	1
Bradford, Professor Rose, F.R.S., London				
Buist, Dr. R. C., Dundee		1	1	2
Dixon, Professor W. E , Cambridge	1	1	1	3
Haldane, Dr. J. S., F.R.S., Oxford		1	1	2
Martin, Dr. C. J., F.R.S., London	1	1		2
Nasmyth, Dr. T. G., Dunfermline				
Shaw, Dr. Cecil E., Belfast	1	1	1	3
White, Professor A. H., Dublin	1		1	2
White, Dr. Sinclair, Sheffield	1	1	1	3

SUBCOMMITTEE ON ATHLETICISM IN SCHOOLS.

Members of Committee.	March 19, 1910.	Total.
CHAIRMAN OF SCIENCE COMMITTEE (Chairman) ...	1	1
Armstrong, Dr. H. G , Wellington, Berks	1	1
Collier, Dr. Wm., Oxford ... —	1	1
Haldane, Dr. J. S., F.R.S., Oxford	1	1
Shelley, Dr. C. E., Hertford	1	1
Simey, Dr. A. I., Rugby	1	1

STANDING LIBRARY SUBCOMMITTEE.

Members of Committee.	Dec 3, 1909.	Jan 8, 1910	Total.
CHAIRMAN OF SCIENCE COMMITTEE (Chairman) ...	1	1	2
Martin, Dr. C. J., F.R.S., London	1	—	1
Williams, Dr. Dawson, London	1	1	2

STEWART PRIZE SUBCOMMITTEE.

Members of Committee.	April 27, 1910.	Total.
CHAIRMAN OF SCIENCE COMMITTEE (Chairman) ...	1	1
Treasurer	1	1
Dixon Professor W. E., Cambridge	1	1
Martin, Dr. C. J., F.R.S., London	1	1
White, Professor A. H., Dublin	1	1

SCOTTISH COMMITTEE.

Members of Committee.	Oct. 1, 1909.	Jan. 21, 1910.	Total.
BUIST, Dr. R. C., Dundee (Chairman)...	1	1	2
President (*ex officio*)	—	—	—
Chairman of Representative Meetings (*ex officio*) ...	—	—	—
Chairman of Council (*ex officio*)	—	—	—
Treasurer (*ex officio*)	—	—	—
Andrew, Dr. J. Grant, Glasgow	1	1	2
Boyd, Dr. F. D., Edinburgh	—	—	—
Christie, Dr. J. F., Aberdeen	—	—	—
Dewar, Dr. M., Edinburgh	1	—	1
Edmond, Dr. George, Aberdeen	—	—	—
Fraser, Dr. T., Aberdeen	—	—	—
Graham, Dr. R. Balfour, Fife...	—	—	—
Johnston, Dr. R. McKenzie, Edinburgh	1	1	2
Livingston, Dr. G. R., Dumfries	1	1	2
Low, Dr. A. P., Dundee	1	—	1
Macfarlane, Dr. W. D., jun., Glasgow	—	1	1
Mackintosh, Dr. D. J., M.V.O., Glasgow	1	1	2
Moir, Dr. J. Munro, Inverness (Honorary Secretary)...	1	1	2
Nasmyth, Dr. T. G., Dunfermline	—	—	—
Stewart, Dr. G. Clark, Falkirk	—	—	—
Taylor, Dr. W. A., Perth	—	1	1
Trotter, Dr. A., Perth	1	1	2

SPECIAL POOR LAW REFORM COMMITTEE.

Members of Committee.	Oct. 1, 1909	Nov. 5, 1909.	Dec. 3, 1909.	Dec. 22, 1909.	Jan. 12, 1910	Feb. 18, 1910.	March 4, 1910.	Mar. 18, 1910.	Total.
MACDONALD, Dr. J. A., Taunton (Chairman) ...	1	1	1	—	—	1	—	1	5
President (*ex officio*)	—	—	—	—	—	—	—	—	—
Chairman of Representative Meetings (*ex officio*)	1	1	1	1	1	—	—	1	6
Chairman of Council (*ex officio*)	1	1	1	1	—	—	—	—	4
Treasurer (*ex officio*)	—	—	—	1	—	—	—	1	2
Anderson, Dr. J. Ford, London	1	1	1	1	1	1	1	1	8
Buist, Dr. R. C., Dundee	—	1	1	1	—	1	—	—	4
Darling, Dr. J. S., Lurgan	—	1	1	—	—	—	—	—	2
Domville, Mr. E. J., Exeter	1	1	1	1	1	1	1	1	8
Fleming, Mr. C. E. S, Bradford-on-Avon ...	1	1	1	1	1	—	1	1	7
Fothergill, Dr. E. R., London	1	1	1	1	1	1	1	1	8
Garstang, Mr. T. W. H., Altrincham	1	1	1	1	1	1	1	1	8
Greenwood, Dr. Major, London	1	1	1	1	1	1	1	1	8
Jones, Mr. Herbert, Hereford	1	—	1	—	1	1	1	1	6
McVail, Dr. J. C., Glasgow	—	—	—	—	—	1	1	1	3
Mahon, Dr. D. R., Ballinrobe	—	—	1	—	—	—	—	—	1
Moir, Dr. J. Munro, Inverness	—	—	1	—	—	1	1	—	3
Pope, Dr. F. M., Leicester	1	—	—	—	—	—	—	—	1
Shaw, Dr. Lauriston E., London	1	1	1	1	1	1	1	1	8
Straton, Mr. C. R., Wilton	1	1	1	1	1	—	1	1	7
Taylor, Dr. J. H., Salford	1	1	1	1	1	1	1	1	8

CONFERENCES BETWEEN SPECIAL POOR LAW REFORM COMMITTEE AND CONTRACT PRACTICE SUBCOMMITTEE.

Members of Committee.	March 18, 1910.	April 1, 1910.	April 13, 1910.	Total.
MACDONALD, Dr. J. A. (Chairman)	1	1	1	3
President (*ex officio*)	—	—	—	—
Chairman of Representative Meetings (*ex officio*) ...	1	1	1	3
Chairman of Council (*ex officio*)	—	—	1	1
Treasurer (*ex officio*)	1	1	1	3
Anderson, Dr. J. Ford, London	1	1	1	3
Anderson, Miss L. Garrett, M.D., London	—	1	—	1
Bateman, Dr. A. G., London	—	1	—	1
Buist, Dr. R. C., Dundee	—	1	1	2
Darling, Dr. J. S., Lurgan	—	1	—	1
Domville, Mr. E. J., Exeter	1	1	—	2
Flemming, Mr. C. E. S, Bradford-on-Avon	1	1	1	3
Fothergill, Dr. E. R., London...	1	1	1	3
Garstang, Mr. T. W. H., Altrincham	1	1	1	3
Greenwood, Dr. Major, London	1	1	1	3
Greer, Mr. W. J., Newport, Mon.	1	1	1	3
Howell, Dr. R. E., Middlesbrough	1	1	1	3
Jones, Mr. Herbert, Hereford	1	1	—	2
Lawson, Dr. David, Banchory, N.B.	1	1	1	3
Lydall, Dr. W. T., Birmingham	1	1	—	2
Maclean, Dr. Ewen J., Cardiff	—	1	1	2
McVail, Dr. J. C., Glasgow	1	1	—	2
Mahon, Dr. D. R., Ballinasloe	—	—	—	—
Moir, Dr. J. Munro, Inverness	—	—	1	1
Nash, Mr. E. H. T., London	1	1	—	2
Pope, Dr. F. M., Leicester	—	—	—	—
Rose, Mr. Percy, London	—	—	—	—
Shaw, Dr. Lauriston E., London	1	1	1	3
Straton, Mr. C. R., Wilton	1	1	1	3
Taylor, Dr. J. H., Salford	1	1	1	3
Thorne, Dr. May	—	—	—	—
Williams, Dr. A. H., Harrow	1	1	1	3

TERRITORIAL FORCES COMMITTEE.

Members of Committee.	Dec 7, 1909.	Jan 7 1910	Mar. 4, 1910.	Total.
CLARK, Colonel ANDREW, London (Chairman) ...	1	1	1	3
Chairman of Representative Meetings (*ex officio*) ...	1	—	—	1
Chairman of Council (*ex officio*)	1	—	—	1
Elliston, Col. G. S., Felixstowe	—	—	1	1
Giles, Surg.-Col. P. B., V.D. (R.A.M.C.T.), Bletchley ...	—	1	1	2
Milburn, Colonel C. H., Hull	1	—	1	2
Moir, Lt.-Col. J. Munro, Inverness	1	—	1	2
Roberts, Major Jones, Penygroes	—	—	—	—
Thomas, Colonel J. Raglan, Exeter	—	—	1	1
Todd, Major D. F., Sunderland	1	—	—	1
White, Lt.-Col. Sinclair, Sheffield	1	1	1	3

THERAPEUTIC COMMITTEE.

Members of Committee.	Oct 30 1909.	Total.
TIRARD, Dr. NESTOR, London (Chairman)	1	1
President (*ex officio*)	—	—
Chairman of Representative Meetings (*ex officio*) ...	—	—
Chairman of Council (*ex officio*)	—	—
Treasurer (*ex officio*)	—	—
Brown, Dr. T. E. Burton, Brondesbury	—	—
Cushny, Professor A. R., F.R.S., London	1	1
Davy, Dr. Henry, Exeter	1	1
Dixon, Professor W. E., M.D., Cambridge	—	—
Greenish, Professor, London	1	1
Marshall, Professor C. R., M.D., Dundee	1	1
Martin, Dr. C. J., F.R.S., London	1	1
Shaw, Dr. Lauriston E., London	—	—
Smith, Dr. F. J., London	1	1
Stockman, Professor Ralph. Glasgow...	—	—
Wild, Professor R., M.D., Manchester	1	—

Meetings of Branches & Divisions.

BATH AND BRISTOL BRANCH.

The sixth ordinary meeting of the session was held at Bath on April 27th. Dr. Shingleton Smith took the chair, and there were twenty-eight members and visitors present.

Communications.—Dr. Mary Morris showed a case of congenital deformity of the arm and leg. Dr. Geo. Parker read notes on biliary and intestinal sand, and Dr. Shingleton Smith, Dr. Alexander, Dr. Newman Neild, Dr. Watson Williams, and Dr. Kennedy joined in the discussion which ensued. Dr. Watson Williams related a case of chronic suppuration in extraordinarily large frontal sinuses cured by the osteoplastic method of operation, and showed the patient. Dr. R. Waterhouse read a paper on bromoform poisoning, with an account of two cases. Dr. Martin and Dr. Alexander commented upon the paper. Dr. G. H. H. Almond described a case of oxycephaly, and showed the patient. The case was illustrated by lantern slides by Mr. W. M. Beaumont. Remarks were made by Dr. Waterhouse and Dr. Kennedy.

BIRMINGHAM BRANCH:
Central Division.

A general meeting of the Division was held at 3.30 p.m. on Wednesday, April 20th, at the Medical Institute. In the absence of Dr. Walter R. Jordan, Dr. Branson (Vice-Chairman) presided, and there were twenty other members present.

Confirmation of Minutes.—The minutes of the previous meeting were read, confirmed, and signed.

Apology for Non-attendance.—An apology for non-attendance was announced from Mr. J. F. Jordan.

The late Professor Taylor.—Dr. Walter Jordan, who had now arrived, moved the following resolution:

> The members of the Central Division desire to place on record the deep sense of loss that they feel at the deaths of Professor John Taylor, Dr. Thomas Richards, and Mr. Victor Milward, and to assure the relations of their profound sympathy with them in their bereavement.

This was seconded by Dr. Aldren, and carried unanimously, all members present rising in their places.

Election of Extra Representative.—The Chairman next invited nominations for an extra representative on the Branch Council, to which the Division had become entitled owing to increase in members. Drs. Aldren, Branson, and Stanley were nominated, but, as the two latter expressed their inability to serve, the Chairman pronounced Dr. Aldren duly elected.

Poor Law Reform.—The Interim Report of the Poor Law Reform Committee was next considered. The Division unanimously decided to agree with the general conclusions of the Committee.

Relation of Homoeopaths to the Association.—The Report of the Council on the relation of homoeopaths to the Association was discussed at length, the resolutions moved on behalf of the Executive being carried in each case. All the questions were answered in the affirmative, but the Representative was instructed to move as an addition to B the words:

> or to associate himself with any institution devoted to practice based upon peculiar views of pathology or treatment.

Instruction in First Aid, etc.—The Honorary Secretary read the memorandum from the Territorial Forces Committee, "Instruction in First Aid and Field Nursing to Voluntary Aid Detachments," and after some discussion the following recommendation was unanimously approved:

> That medical practitioners should not be expected to give the preliminary instruction necessary to qualify for membership of a detachment without suitable remuneration.

GLOUCESTERSHIRE BRANCH.

A general meeting of this Branch was held at the Cheltenham General Hospital on April 21st, at 7 p.m. The President was in the chair, and twenty-three members present.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Relation of Homoeopaths to the Association.—The meeting answered the following question from the Central Ethical Committee in the affirmative: "Is the Division of opinion that the Association should not attempt to pronounce, in this or any other connexion, what constitutes sound doctrine in medicine or surgery, nor condemn individual practitioners on the ground they hold peculiar views of pathology or treatment, or give effect to such views in the practice of their profession?"

Poor Law Reform.—The meeting also agreed to the following conclusions of the Special Poor Law Reform Committee:

> That any system of medical assistance, to prove satisfactory to the ratepayers, to the beneficiaries, or to the medical profession, must include the following principles:
>
> 1. That medical services rendered on behalf of the State should be paid for by the State.
> 2. That the payment should be adequate and in accordance with the professional services required.
> 3. That there should be adequate medical representation on all committees formed to control medical assistance.

Paper.—Dr. Collins read a paper on the Value of an Examination of the Cerebro-spinal Fluid in General Practice. A discussion followed, by the President, Dr. H. Bramwell, Dr. Carter, Dr. Pike.

Specimens.—Dr. Burt and Dr. Collins showed specimens from a case of lymphatism which died under an anaesthetic, and read notes of several cases.

Annual Meeting.—The annual meeting will be held at Stroud on May 19th.

METROPOLITAN COUNTIES BRANCH:
Walthamstow and City Divisions.

A conjoint meeting of the Walthamstow and City Divisions was held in the out-patient department of the Walthamstow Hospital on Thursday, April 21st, at 4 p.m. Twenty-five members and several visitors were present. Dr. R. Jones presided, in the unavoidable absence of the Chairman.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Apologies for Non-attendance.—Apologies for non-attendance were received from Drs. Harford and Goodall.

School Children Committee.—A letter from the School Children Committee of the Branch was read and referred to the Executive Committee for consideration.

Increased Pressure within the Skull.—A paper entitled "The Causes and Treatment of Increased Pressure within the Skull" was then read by Sir Victor Horsley, and a number of most interesting lantern slides were exhibited by the lecturer in illustration of his masterly discourse. In the course of the lecture Sir Victor Horsley dealt with the construction of the skull and the nature of its contents, emphasizing the supreme importance of the falx and tentorium in limiting the direction of the pressure. The circulation of the cerebro-spinal fluid was described, together with the chief points of obstruction to its flow. Two forms of pressure, solid and fluid, were commented upon and their results in causing sensory and motor alterations, each of a definite character, according to their location, were lucidly described. The treatment of hydrocephalus by repeated aspiration and pressure by elastic bandage deeply impressed his audience. Vomiting in cases of increased pressure was stated to be always due to direct pressure upon the medulla, and it was pointed out that great increase of pressure in other situations within the skull might exist without any vomiting whatever. A discussion followed, and questions were asked by Drs. R. Jones, Basil Price, and Corner. Sir Victor Horsley replied to the questions as they arose.

Vote of Thanks.—A vote of thanks to Sir Victor Horsley was proposed by Dr. C. H. Wise, and seconded by Dr. Corner. This was accorded with acclamation. Sir Victor Horsley thanked the audience in a few well chosen words, and the meeting then terminated.

METROPOLITAN COUNTIES BRANCH:
WANDSWORTH DIVISION.

A Correction.—In Form B. of the scheme of the Wandsworth Division for the treatment of school children found on medical inspection to be defective, published in the SUPPLEMENT of April 2nd, p. 143, the word "Ear" was inadvertently omitted between the words "Eye" and "Throat" in the eighth line from the foot of the page. The sentence should read as follows: Only cases of Ringworm and of Eye, Ear, Throat, and Nose defects of children of school age and who attend a L.C.C. Provided or Non-Provided School are eligible.

MEDICAL TREATMENT OF SCHOOL CHILDREN IN LONDON.

METROPOLITAN COUNTIES BRANCH.

A CONFERENCE of the Metropolitan Counties Branch of the British Medical Association and of the medical staffs of the metropolitan hospitals, on the subject of medical treatment of school children found on medical inspection to be defective, was held at St. James's Vestry Hall, Piccadilly, on Wednesday, May 4th. Dr. FORD ANDERSON (Chairman of the Metropolitan Counties Branch) was in the Chair, and the hall was crowded, every seat being occupied.

Dr. FORD ANDERSON, in opening the proceedings, stated that the meeting had been convened by the Metropolitan Counties Branch to confer with the staffs of hospitals in order to arrive at some conclusions as to the method in which the treatment of children who were found defective should be carried out. The aim was by friendly discussion to in some way co-ordinate views on the subject, and, in the words of the circular calling the meeting, to place it "on a basis which shall meet the urgent public needs of the national physique, and at the same time fully satisfy the just interests of the profession." The importance of the subject was very great; it was important to the public, to the children, and to the medical profession. Moreover, it was most urgent. Its urgency arose from the fact that it was new work, and while the work was, so to speak, young, was the time to give it an impress which would carry it through a long existence. The Chairman referred to the extent to which the medical profession suffered from medical institutions founded in a casual way, without patient deliberation on the part of the profession. Such institutions were very often founded by the goodwill of some benevolent person, and, as the years rolled on, acquired a hard crust of evil tradition very difficult to break down. It must be the wish of all present that in the case of the treatment of school children no similar mistake should be made, but that the matter should be put upon a proper basis. It was always the first step which had to be considered, and if the first step were right everything would go on well. The present opportunity was an admirable one, because those concerned had, so to speak, a clean sheet. Nothing of the sort had been done before, and what was to be done rested upon the decision of the medical profession, because what the profession decided the public, as represented by municipal bodies, must accept. He trusted that the "clean sheet" would not be blurred in any way, and that an undesirable institution would not be transmitted to posterity. The Conference had to deal with a novelty. The Education (Administrative Provisions) Act, 1907, had conferred upon the London County Council, amongst other authorities, a command to inspect, and permission to treat, school children found defective. Availing itself of that permission, the London County Council had been trying to provide for children suffering from diseases of the eye, throat, nose, and ear, and ringworm; but, unfortunately, its methods did not meet with the approval of the British Medical Association. It remained for the Conference to express its opinion whether the British Medical Association was right in its decision to oppose as much as it could the reference of such children to the hospitals, and he trusted those present would give the matter most careful consideration. He then called upon Sir Victor Horsley to move the resolutions.

Sir VICTOR HORSLEY said that the resolutions he would propose were as follows:

1. That, in the opinion of this Conference, the provisional arrangements made by the London County Council for the medical treatment of elementary school children are wholly inadequate for this national purpose, and involve abuses of charitable medical institutions.
2. That in the opinion of this Conference, provision should be made by the London County Council for the medical treatment of school children at suitable centres by local medical practitioners.

This national question was raised by the House of Commons passing the Act providing for the medical inspection of school children. Unfortunately the intention of the Legislature, which was founded on the report of the Committee of the House of Commons on the physical deterioration of the nation, had never been fulfilled; there was no education authority at the present moment which had inspected all the children under its care. The physical census of the nation which Parliament intended had therefore not yet been obtained. In this respect the London education authority was perhaps no worse than any other. But the London Education Authority (that was to say, the school medical officer) had discovered that far more children required medical treatment and medical attention than even were estimated two years ago by the subcommittee of the London County Council; and therefore the absence of this complete medical inspection was in itself a national question. The meeting, however, had not assembled to discuss that, but he mentioned it because it affected the basis of certain estimates which he would have to refer to later. The British Medical Association foresaw from the first that medical treatment must follow medical inspection, and that medical treatment—and medical inspection, of course, as well—could not be properly carried out unless there was a medical bureau on the Board of Education. It would probably be remembered that after the meeting of Representatives in Caxton Hall three years ago the Association pressed upon the Board of Education the institution of a national bureau. That proposal was carried, and fortunately at the head of that bureau was now Dr. Newman, the former medical officer of health for Finsbury. The question of medical treatment had not come before the House of Commons till 1907, when it was passed, as had been said, in a promiscuous way. The London County Council, in order to find out how much it would have to do, appointed a subcommittee of its Education Committee, and co-opted on to that subcommittee representatives of various medical bodies. They invited the British Medical Association to send a representative, and he, (Sir Victor Horsley), was chosen. The subcommittee of the County Council examined into the whole question to ascertain how many children there were requiring treatment, and how the treatment was to be carried out in the most efficient way. Without going into the matter in detail, it might be said that the subcommittee reported that the most efficient way was to collect the children in centres or clinics in the neighbourhood of the schools. Next appeared the unfortunate Circular 596 of the Board of Education, which contained a passage suggesting that perhaps the Education Authorities would better begin the work by endeavouring to get the charitable institutions in their district to take it up. But the subcommittee of the County Council had already pointed out that the charitable institutions in the metropolis were all clustered together in the centre. Dr. Newman in his reply to the deputation from the Metropolitan Counties Branch the other day (SUPPLEMENT, April 2nd, p. 133) stated that the House of Commons had already threshed out the use of charitable institutions and intended it to take place. He (Sir Victor) was not aware that the House of Commons had done anything of the kind, and asked Dr. Newman for the reference to the debate in the House of Lords. The debate to which Dr. Newman

referred him took place in 1906, and referred not to charitable institutions but to the Children's Happy Evenings Association, which was a different thing altogether. So there was no basis whatever for the assertion which was to be found in this unfortunate circular of the Board of Education that the charitable institutions of the metropolis were to be employed in this manner. This circular, however, had the natural effect of leading other people into error. It led the London County Council into error. The County Council, instead of accepting the report of its own subcommittee dividing the metropolis into clinic districts, threw out the report, and, behind the back of the medical profession, which after all was to carry out the work, instituted negotiations with various charitable institutions. The scheme which it put forward had to be referred constitutionally to the Board of Education. The Metropolitan Counties Branch, becoming aware of this, immediately approached the Board of Education, referred to the subcommittee's report of the County Council, and endeavoured to get the Board to consider the matter more from a national standpoint; that was, not to regard it as a matter of mere expediency, but to put it on a proper basis. Mr. Runciman, however, had already made up his mind to allow the County Council scheme to be on trial for a year, and that was the position at the present time. He was sorry that any member of the staff of hospitals should have agreed to the scheme of the County Council, because he must have had before him in the BRITISH MEDICAL JOURNAL of January 9th, 1909, p. 96, the report which showed that the scheme was a chaos of charity and business; it was neither one thing nor the other. And further that the report of the Annual Meeting of the Association at Belfast indicated that it was a wrong principle altogether for the State to endeavour to get new services carried out on its behalf by, as it were, trading on the charitable institutions of the country. He would point out that only very few hospitals had consented to work this scheme, even for the provisional period of one year. University College Hospital, for which he could speak, asked at the outset for the cost of installation, and was refused, and therefore naturally declined to have anything further to do with the scheme. Other hospitals were in the same position. Members of the London County Council went to the length of getting charitable people to give sums of money to install these clinics in the charitable institutions themselves—a confused medley, as he had before said of charity and business. He would not dwell upon the question of the abuse of the charities, but would turn at once to the inadequacy of the London County Council scheme, and would point out that the second resolution on the paper indicated a better method. With regard to the inadequacy of the London County Council scheme, the subcommittee of the London County Council had shown that an enormous number of children required attention, yet the scheme only provided for about a quarter of them; and for these over so long a period of time that it was calculated that some of them would not be treated for fifteen months. From the point of view, therefore, of number of children to be treated and the provision made for them, the County Council scheme was hopelessly inadequate. The hospitals themselves had not adequate capacity or provision, but in his opinion the most flagrant blot on the scheme was the fact that the hospitals are not situated in the areas where the children were. That would not have mattered so much had the County Council organized a scheme to transport them from north, south, east, and west to the hospitals; but it had not. No transport whatever was being provided for the children, and from that point of view alone it seems that the scheme must break down; and from the accounts he received from the hospitals it was already breaking down. The vital nature of this question of transportation and the necessity of having places to treat the children in close proximity to the schools had been brought out by the subcommittee of the County Council eighteen months ago, so there was no excuse for pushing on with a scheme founded on such erroneous principles. An efficient scheme must provide for the work being carried on in centres convenient for the schools providing the children. The last point in this matter of inadequacy to which he wished to refer was the dental question brought by the Association before Dr. Newman. The medical profession was more anxious on this question than any other; for, with regard to the matter of the physical deterioration of the nation it was perfectly well known that the condition of the children's teeth was perhaps the most elementary fact to be attended. Nevertheless the scheme of the County Council made no provision whatever for dealing with the teeth. The reason why it did not was that it had been informed by the dental profession that the only way of dealing with the children's teeth satisfactorily would be by having suitable centres or clinics in the districts; the hospitals could not do it. The dental hospitals acted in a much more public spirited manner than some of the general hospitals because they refused to accept the proposal to do the work for the County Council. He considered that this last point was one of the most important reasons for driving home the necessity for the British Medical Association's scheme being carried out in preference to that of the London County Council. With regard to the second resolution the British Medical Association had taken steps to obtain the opinion of the profession, and this took time. Therefore, at the Representative Meeting at Belfast last year all that could be done was to lay down certain general principles. Those principles were agreed to, and were contained in the memorandum before the meeting. The memorandum was only a draft, but it was allowed to be put before the meeting in consequence of the great urgency of the matter. The document must not be regarded as absolutely final, though it might be taken as practically final. The general resolutions come to at Belfast laid down the principle that State medical treatment of a community ought not to be done through charitable institutions, and went on to suggest ways in which medical service could be carried out with profit to the community and in the interests of the profession. The document indicated model schemes by which the school treatment of children might be managed, giving details of three schemes actually being organized in Norwood, Wandsworth, and Hampstead. The whole principle dealing with this question as it presented itself to the British Medical Association at the present time was thus before the meeting. The memorandum applied to the whole country, but as regards London the Divisions of the Association were holding meetings to consider the subject. The hope was that the whole metropolis would be treated on the same footing; that the present County Council scheme would be given up at the end of the present provisional year, and that there would be established a proper body for the school medical service in each Division of the metropolis. By doing this the children would receive prompt and proper treatment. In conclusion, he submitted that at any rate the scheme of the draft memorandum was a concrete scheme, having none of the defects of the County Council scheme, which he considered to be wholly inadequate. He begged to move the adoption of the resolutions.

Dr. FINUCANE, in seconding the resolutions, said that in regard to the action of those medical men who differed from the views which had been put forward, and who had joined themselves, at any rate up to the present, against the settled policy of the British Medical Association, he did not wish to use any harsh words or unduly to criticize their action, but he awaited with some curiosity and interest some explanation of how it was that they found themselves able to adopt the course they had, and to differ from the Association, which looked after all the political, social, and economic questions connected with the work of the profession. If those medical men had followed the question of the medical inspection and treatment of school children, they could not, if they

had been true to the principles of the profession, have sanctioned for one moment the action which certain hospitals had taken. He concluded by expressing the hope that the Association would be able to put forward a concrete scheme for dealing thoroughly next year with this great national question.

The CHAIRMAN then invited discussion upon the resolutions.

Mr. STANLEY BOYD, Chairman of the Committee appointed to negotiate on behalf of certain London hospitals with the Education Committee of the London County Council, said that when the London hospitals were approached by the London County Council it was not understood that all school children should be seen at the hospitals, and he thought that to describe the scheme as inadequate was not quite fair. With regard to teeth, that was a matter still under consideration, and he did not think the Conference was in possession of the London County Council's full scheme. At a meeting of representatives of ten London hospitals the view of the British Medical Association that school clinics ought to be attended by medical practitioners in the neighbourhood was strongly urged, but the interests of the hospitals had also to be considered. Experience had shown that the expectation of a large increase of child patients in consequence of the medical officers' reports was not fulfilled, and in the largest London hospital, after a slight increase, the figures had sunk to the normal. The question was, What would happen if the hospitals declined to see school children? He thought that if they were taken away there would be no child patients left for the hospitals, and there would be no material for the student, and no experience to be gained in the treatment of eyes, nose, ears, or anything else. More than that, the establishment of school clinics for the treatment of children would inevitably result in beds being established, and the school clinic would grow into a children's hospital, and general hospitals would to a very large extent be robbed of material for instruction in children's diseases. Under rules which had been drawn up the London County Council investigated the financial position of the children's parents, and at the London and Charing Cross Hospitals, at least, no child was dealt with unless the case had passed the almoner. With regard to the payment by the London County Council to the hospital for treatment of cases, it had been agreed that anything over and above out-of-pocket expenses should go to the profession. It was urged that the London hospitals, massed in the centre of London, could not possibly deal with all the children, but it was only possibly deal with all the children, but it was only right by reason of the advantage to the students and lack of disadvantage to the patient, that they should have their share, and finally, although it was not a great argument, it would be a relief to the rates.

Mr. HARRISON CRIPPS said such a difficult question as that before the meeting could only be dealt with by looking at it from different aspects. He considered it a gross abuse for the London County Council to send school children to the public hospitals. The object of hospitals was not to give indiscriminate charity to a large population perfectly well able to pay for its own medical attendance. He deprecated the overcrowding of the out-patient department, which meant that the patients were not attended to properly. Hospitals should be looked upon as institutions for affording medical and surgical relief to people which they could not obtain elsewhere, at the same time maintaining moderate out-patient departments to educate students and provide a future generation of practitioners. He maintained that the great majority of parents in London, including the better class of working man and artisan, were able to pay for medical treatment of their children, and there was no excuse for the children being sent to the hospitals at all. He did not agree with the previous speaker that school clinics would develop into children's hospitals, and pointed out that whilst the medical practitioner did not receive remuneration for seeing children in the general hospitals, he would be properly paid for seeing them in the school clinics. The medical profession was always willing to give its services to those whose illnesses urgently demanded it, and who could not afford to pay, but medical men should not be called upon to give their services when the services ought to be paid for. Therefore he most earnestly objected to the scheme of the London County Council which proposed that children should be sent to the public hospitals of the country and charitable institutions.

Dr. ARCHER disputed the statement that all cases of school children going to the public hospitals were investigated by the hospital authorities or the County Council as to their fitness for treatment or as to their financial position. The procedure the County Council adopted with regard to these children was that the medical officer gave a card to the child to take to its parents, saying: "Your child is suffering from a disease of the throat—namely, adenoid; and you are forthwith to take it to a medical practitioner for treatment." If the parents took no notice of that, in the course of a week or two they receive another card: "Inasmuch as you are obviously unable to pay for the treatment of your child, an appointment has been made for you to take it at — o'clock on Tuesday afternoon to the Charing Cross Hospital, where treatment will be given." If the parents took no notice of that, a week or two later they received another card: "Finding that you have taken no notice of the previous card sent to you in regard to your child, another appointment has been made for you to take your child on Wednesday afternoon to the Charing Cross Hospital for treatment, and if you fail in so doing you will be proceeded against under the Cruelty to Children Act for causing unnecessary trouble to your child." He had had more than one case of that description brought to him as a private medical practitioner. The parent had said: "What have we to do, sir? We do not want to take the child to the hospital—we would rather bring it to you; but they are going to take us to the Old Bailey." No investigation had taken place in regard to the fitness of such children for hospital treatment, and the parent had not even been asked. The parents were unwilling to take their children to the hospital unless they thought it absolutely necessary, but if they did not they were to be proceeded against.

Dr. LAURISTON SHAW thought most of those who differed most strongly from their colleagues in the past would be very glad for the explanation of the position that the hospitals had taken up on this question. They ought all to agree with Mr. Stanley Boyd that at the time when these hospitals were negotiating with the London County Council very little arrangement had been made or seemed likely to be made for the efficient treatment of these children in any other manner—that was to say, the general practitioner had not aroused himself, and had not recognized his responsibility in the matter. From that point of view there was much to be said for the hospitals, because, as a temporary measure it was perhaps desirable that they should step into the breach; but he hoped that they would recognize now that that position of things had entirely passed away. He desired to bring home to the staffs of the hospitals that seeing these children was a real abuse of charity; and that the first resolution was not a mere empty formula.

Dr. MICHAEL said that it might be putting the matter on a low basis, but he held that this was to the general practitioner, after all, a matter of sheer bread and butter; it meant his absolute existence. If the medical attendance on these children was taken away from the general practitioner, it seemed to him that the private practitioner's practice would be very badly cut into, and that nearly one-half of his practice would be taken away. Therefore he felt that there was no general practitioner in England who would not oppose to the best of his ability the treatment of these children by any of the large hospitals. There was already a suitable centre in many of the districts in London to which those children could be sent for treatment. There were in London to his knowledge thirty, if not more, well-known

dispensaries, many of them formed on a provident basis, and to them were attached the local medical practitioners, mostly those best known in the neighbourhood of the dispensary. These places were more suitable for the reception of such work as had been defined. Nearly every member of the medical profession could be attached to these dispensaries, and they could treat the eye, ear, nose, throat, or ringworm, as the case might be, and there would be no necessity for these children to go to the hospitals.

Dr. SWAYNE said, in reference to Mr. Stanley Boyd's remarks, that under the Norwood scheme there would be two beds for patients who were ill after an anaesthetic, but the clinic could not develop into a children's hospital because the cases were selected before they came there, and there would be a rigid rule to prevent any other cases being attended to at the clinic.

Dr. SIDNEY PHILLIPS maintained that the meeting was not a conference between the Branch and the medical staffs of metropolitan hospitals, because in his opinion before a conference could be held between two parties it was necessary for both to confer. As it was, he could not discover that any overtures had been made to the London hospitals. It might be that some of the members of the staffs were also members of the Association, and were present in that capacity, but they did not attend as delegates. He therefore considered that the heading of the circular was a misrepresentation, and entirely misleading.

Dr. FINUCANE, as a point of order, asked whether that statement was correct.

The CHAIRMAN ruled that the speaker was in order, as it was a matter of opinion.

Dr. PHILLIPS, continuing, said that the London County Council issued two reports—one a Majority Report signed by 11 members and one a Minority Report signed by 9 members, and that it was the merest chance that the Majority Report was not the Minority Report, and vice versa, as one member's motor car broke down and another member got tired and went home. He asked his hearers to wait a little before utterly condemning the London County Council scheme, which, after all, had only just started operation, and was only an experiment for a year. He asked why, because a child went to the board school, and was sent to the hospital after being examined as to means by an almoner, the hospital should refuse to treat him, when if a child of a needy person went in the ordinary way he would be treated without question. The diatribes he had heard were outside the question. ("No, no.") He asked if his interrupters denied that the cases had to be submitted to the almoner. (Cries of "Yes," and "The almoner is no good.") The fact that the almoner might be no good had nothing to do with the point. If the almoner did not act properly, that was a matter to be inquired into; but it was quite a different thing to say because some part of the machinery did not work properly that they were not to go to the almoner at all. Sir Victor Horsley had argued that the proposals were inadequate because of the large number of children to be treated, but he did not say that a large proportion of those children were children of persons who could afford to pay for them, and he felt, therefore, that he could not accept Sir Victor's reasons for saying that the hospitals would be inadequate; he believed they would be found perfectly adequate. (A voice: "The principle is wrong.") It was not a matter of principle. It had been shown by the figures brought forward that the hospitals could not receive the children. It was said that this was an abuse of charitable institutions. Surely that was a matter of opinion, and it was for the people who supplied the money to say how it should be applied. A woman might bring a child to the hospital and say: "This child has adenoids." She would be asked, "How do you know?" and she would reply, "Because he snores." Then she would be told, "Very well, we will treat him." Noticing that she had another child they would ask her why she had brought him, and she would reply, "Because the school medical officer told me to." Thereupon they would immediately tell her to take it away on the ground that it was not eligible for treatment. [At this point there was a considerable amount of interruption, and the speaker was understood to say that the interrupters were very like antivivisectionists in that they dared to abuse hospitals and charge them with diversion of funds, because they could not bring a slander action; if they dared to do that with an individual they would instantly have an action brought against them. (Cries of "No, no.")] It was quite a new principle to say that people who supplied the money were not entitled to say what should be done with it.

Dr. ARCHER pointed out that the words "diversion of public funds" did not appear in the resolutions.

Dr. SIDNEY PHILLIPS replied that he was reading from a printed paper sent out by the Branch. He sympathized with the general practitioner, but this money did not come out of the general practitioner's pocket.

A VOICE: We are all ratepayers.

Dr. SIDNEY PHILLIPS said that the money paid over to the hospitals would not otherwise go to the general practitioner. The general practitioner did not, as a rule, undertake these cases. (Cries of "Oh!") That, at any rate, was his belief. He would conclude by saying that in his opinion the resolutions were entirely premature, and he disagreed with the suggestion that the arrangement made by the London County Council "involved an abuse."

Dr. R. M. BEATON desired to move an amendment to the resolution, which he said, though verbal, was of importance. He suggested the omission from the first resolution of the words "for this national purpose," because they were dealing with a London matter and not a national one. He also suggested that at the end of the resolution, after the words "medical institutions," the words "and unfairness to the medical profession" should be added. That was their opinion, and he saw no reason why they should not say so. He was a member of the subcommittee of which Dr. Phillips and Sir Victor Horsley were members; he had the advantage also of being a member of the London County Council, and he watched the matter right through the Education Committee, of which he was also a member. Mr. Stanley Boyd and Dr. Phillips had done their best with a very bad case. It was stated that south of St. Thomas's and Guy's Hospitals there was no other hospital until Woolwich was reached, and that one-third of the children of London were not provided with a hospital. When the distance the children had to go, the time they had to wait, and the fact that they had to be accompanied by their father, mother, sister, or some one at great expense to themselves and loss of work, were taken into consideration, it would be seen that the whole thing was inadequate; but the medical profession would not be able to do much unless it made up its mind to be united. It had been felt strongly that if the children of London were to be looked after, the medical men in each neighbourhood should look after them. In Hampstead half a dozen men had suggested that they would see the children of Hampstead, and they had taken a house and fitted it up, and children were going there; and he thought that what had been done there could be done in other places, and that if medical men made their voices heard they would be able to have school clinics attended by a medical practitioner.

Dr. BECKETT-OVERY, in seconding the amendment, expressed the opinion that Dr. Phillips was under a misapprehension as to the procedure adopted by the London County Council. He could vouch for two cases which showed that there was no attempt to exclude any child, no matter what the parents were earning; and he had the parents' permission to give the details. It was beyond question that the hospitals were inadequate to give proper treatment. The London County Council looked upon the matter as a business affair, and he assured the Conference that the County Council were going to take advantage of the far-reaching powers of the Act to exact 4s. a child from all parents earning over 27s. a week. There was

no charity so far as the London County Council were concerned; it was merely using the hospitals as a convenience for getting the children treated at 4s. a head.

Dr. SIDNEY PHILLIPS interjected the remark that he had known cases rejected by the hospital—a course to which the County Council agreed.

Continuing, Dr. BECKETT-OVERY said that care committees in many cases were forestalling the issue of the County Council's certificate to the parent to take the child to obtain medical relief, and were sending the children off to the hospital in the ordinary way before obtaining a certificate. That very grave abuse existed was proved by the cases he had mentioned, in which the parents were quite willing to pay a good fee.

The CHAIRMAN announced that the mover and seconder of the resolution were willing to accept the amendment before the meeting.

Dr. SPRIGGS, speaking with reference to St. George's Hospital, said that the governors of the hospital laid down a rule that the hospital should not make a profit on the transaction and that the subscribers should not support it. A calculation had been made as to what it would cost the hospital, based on the cost of the out-patient department, and the board said if that sum were received they were prepared to grant facilities. It was true that the buildings of the hospital were used, yet that was a saving for the ratepayers, and with the payment agreed on, involved no abuse of the charity. It had been urged upon the governors of the hospital by the staff that any movement such as was suggested must not exploit the medical profession. It might exploit the medical profession if the services of the consulting staff were used to treat children when the staff were not paid, and it might harm the medical profession if children were treated who would otherwise have paid fees to their own practitioners; but he could assure those present that no more strenuous words had been used that afternoon than had been used in the committee rooms where he had been to point out that such a thing must not be allowed to happen. The particular machinery proposed at St. George's was that the London County Council should first make sure that the children could not pay, and, secondly, the hospital itself refuse to agree to treat the children except on the condition that the hospital's own almoner had a right to investigate the cases. If any injustice were done, he could assure the meeting that the most careful consideration would be given to the matter by the committee of the hospital. The hospital had formed the view that treating children for ringworm, and estimating refraction, and doing operations for tonsils and adenoids for children who had passed the double test would not deprive medical practitioners of income, the more so when it was remembered that such children were those who would have attended the hospital in the ordinary course. The Hospital Board had discussed the amount of remuneration to be paid, and had taken the amount suggested by the British Medical Association. Further, general practitioners were not deprived of these salaries, for the staff of St. George's had not accepted the appointments, which had been filled in almost every case by general practitioners in the neighbourhood, who had previously given their services to the poor as clinical assistants. He thought that other arrangements should be made in districts distant from hospitals, but believed that at St. George's neither the subscribers, the profession at large, nor the general practitioner, had been exploited.

Dr. JOSIAH OLDFIELD desired to put three points. First, that the hospitals should always deal with voluntary patients only. The hospitals were for the poor, but only for the voluntary poor. The moment the State compelled a patient to be treated that patient should not be treated by a hospital. Secondly, the moment the State compelled a patient to be treated the State should pay for the treatment of that patient, and immediately the State paid for the treatment of a patient the State should pay the local practitioner. Thirdly, the only person to decide whether a child was suitable for hospital treatment or not should be the local medical practitioner, and the moment the State decided to pay the fee, whatever it be, it should be paid to the local practitioner. If he decided that the case was one for hospital treatment, then, immediately the child went there, it should not be paid for by the State; and if local school clinics be established, they should be open to all members of the medical profession, and not only to a few private practitioners.

Sir VICTOR HORSLEY said he did not think any answer was required from him to the various points raised.

Dr. SPRIGGS suggested that the first resolution should be taken in two parts. He would vote for it up to the words "wholly inadequate for this national purpose," but the latter part he must vote against.

The CHAIRMAN declined to accept the suggestion.

The first resolution, as amended, was put and carried, three voting against. The second resolution was carried *nem. con.*

The proceedings then terminated.

CENTRAL MIDWIVES BOARD.

A SPECIAL meeting of the Central Midwives Board was held at Caxton House, Westminster, on April 26th, with Dr. F. H. CHAMPNEYS in the chair, at which the bill to amend the Midwives Act, 1902, was considered. (The text of the bill was published in the SUPPLEMENT of April 9th, 1910, p. 160.)

The provisions as to the reconstitution of the Central Midwives Board and as to the payment ef fees to medical practitioners called in on the advice of midwives by Boards of Guardians were considered, and the discussion adjourned.

Hospitals and Asylums.

MEDICAL INSPECTION OF CHILDREN IN ORPHANAGES, INSTITUTIONS FOR THE BLIND, DEAF AND DUMB, ETC.

IN the autumn of 1909 the Executive Council of the National League for Physical Education and Improvement decided to institute an investigation into the medical inspection of inmates of orphanages, institutions for the blind, deaf and dumb, etc., as a fitting continuation of the work of its Special Committee on the Medical Inspection of School Children.

REPORT.

1. *Institutions.*

With this end in view question sheets were sent out on October 22nd, 1909, to 135 institutions, limiting the inquiry to those which, on the authority of the *Charities Register and Digest* for 1908, had accommodation for 40 children and upwards. This resulted in replies from 47 organizations, or 34.87 of the whole.

2. *Inmates.*

The total number of inmates covered by these answers was 13,652. One of the institutions contained no fewer than 4,100 children under one control, although cared for in 104 separate homes, in addition to a large number of children boarded out.

3. *Age on Entering.*

The children enter up to 10 years of age; in 5, or 10.6 per cent., of the institutions they are taken in up to 1 year old; in 8, or 17 per cent., from 1 to 4 years; in 28, or 59.5 per cent, from 5 to 7; and in 5, or 10.6 per cent., from 8 to ten years of age.

4. *Age on Leaving.*

They leave the institution in the large majority of cases (38, or 80.8 per cent.) between 14 and 16, although one emigrates them from 10 years upwards, another sends them out from 12, and yet another keeps them till 18. In 8 institutions the girls are kept on two or more years later than the boys.

5. *Medical Officers.*

Of the total number of institutions under review, 38, or 80.8 per cent, reported that they had salaried or honorary medical officers. It was also reported that in one institution with 80 inmates there was a resident medical officer, in four others he lived in an adjoining house, and three other medical officers were in telephonic communication with the home. In 7 institutions it was reported that the medical officer pays daily visits, in 7, once a week or oftener, and in 13 others he calls periodically. In the rest no reference is made to the frequency of visits of the medical officer.

6. *Education.*

The education is carried on entirely in the home in 35, or 74.4 per cent., of the institutions, and in 10, or 21.2 per cent., the inmates attend public elementary schools. Two of the larger homes educate partly in their own, partly in public schools.

7. *Provision for Treatment of Defects found in Elementary School Inspection.*

In the 10 institutions where the children go to public schools, defects discovered in the course of the ordinary school medical examination are, with one exception, treated by the medical officer attached to the institution, or at his discretion, in local hospitals or in the infirmary.

8. *Medical Inspection.*

Provision is made in 17 institutions, or 36.1 per cent., for periodical or frequent inspection, apart from medical treatment when ill, and the teeth are, as a rule, more frequently examined than other organs. Out of the 13,652 children with which this report deals, 9,869 are medically examined periodically. Examination on admission only is made in 8, or 17 per cent., of the homes, and 5 others repeat the examination at irregular intervals.

9. *Special Examinations.*

Medical examination with special reference to diseases of the eye, ear, nose, and throat, and teeth, on or before admission, is a rule in 41, or 87.2 per cent., of the homes, but is not insisted on in 4. In one institution it is only done if considered necessary. In 25, or 53.1 per cent., of the homes under review, such examination is continued at intervals during the children's stay. In 5 it is not done at all after admission, and in 11, or 23.4 per cent., the inmates are examined with reference to these organs whenever it is thought advisable. One institution has the teeth examined quarterly, another half-yearly, while in another case a dentist attends weekly.

10. *Records.*

Turning now to the question of annual entries in a special register, recording height, weight, chest measurement, acuity of sight and hearing, etc., we find that the weight is more frequently recorded than any other particular—in 23, or 48.9 per cent., instances. Height follows this very closely, being registered in 21, or 44.6 per cent., cases, while chest measurement is dealt with in 15, or 31.7 per cent., and sight and hearing in 14, or 29.7 per cent., cases. The medical officer's observations regarding the condition of the eyes, ears, nose and throat, and teeth, or any disease, deformities, or defects of general health are, however, recorded, at least annually, in 20, or 42.5 per cent. of the institutions.

11. *Treatment of Defects and Ailments.*—Any defects and ailments found at such examination are treated by the medical officers or consulting staff in 27, or 57.4 per cent., of the homes under review, and in 5 by specialists at the expense of the home. Minor operations are performed by the medical staff in 16, or 34 per cent.; in public hospitals in 11, or 23.4 per cent.; and in either one or the other in 7, or 14.8 per cent. of the homes; 15, or 31.9 per cent., reporting that they have their own infirmary or private hospital.

12. *General Remarks.*

Dealing now with general matters, we find that one institution has its own sanatorium for incipient consumptive cases, at which an open-air school is held. Another home has a country branch, where inmates who are out of sorts or recuperating after illness are sent. Five institutions lay stress on the physical training given, to which, in addition to good diet, fresh air, and careful attention, the good health prevalent among the inmates is largely ascribed.

13. *Conclusions and Recommendations.*

In view of the foregoing summary of the investigation carried on, the Council of the National League for Physical Education and Improvement regrets to find that, more particularly among the smaller institutions, inadequate provision is made for the regular and systematic medical inspection of the inmates of such homes, and recommends the more general use by medical officers of some form of register whereby the results of each inspection may be the more easily recorded and compared.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: Staff Surgeon R. S. OSBORNE to the *President*, additional, for the Royal Naval College, Greenwich, temporary, April 30th; Staff Surgeon A. W. B. LIVESAY, M.B., to the *Cornwall*, April 29th; Staff Surgeon E. T. P. EAMES to the *Devonshire*, May 10th; Staff Surgeon E. G. E. O'LEARY to the *Donegal*, and as Acting Interpreter in French, on recommissioning, May 17th; Staff Surgeon M. H. KNAPP and Surgeon J. J. H. ROONEY to the *Natal*, on recommissioning, May 10th; Surgeon G. R. MCCOWEN, M.B., to the *Donegal*, on recommissioning, May 17th; Staff Surgeon R. ST. G. S. BOND to the *Crescent*, temporarily, May 3rd.

ROYAL ARMY MEDICAL CORPS.

EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

FIELD OFFICER, who has been home one year, wishes to exchange to India.—Address Exile, care of Messrs. Holt and Co., 3, Whitehall Place, London.

ARMY MEDICAL SERVICE.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL C. L. JOSLING retires on retired pay, May 4th. He was appointed Surgeon, May 30th, 1885; Surgeon-Major, May 30th, 1897; and Lieutenant-Colonel, May 30th, 1905. He served in the operations against the Sofas, on the West Coast of Africa, in 1893-4 (mentioned in dispatches, medal with clasp); with the Ashanti expedition, 1895-6 (star); in the operations in Sierra Leone in 1898-9; and in the South African war in 1899-1902 as Principal Medical Officer, Rhodesian Field Force, and was present in operations in Rhodesia, the Transvaal, and Cape Colony (King's medal with two clasps).

The undermentioned Captains are promoted to be Majors, dated April 27th: G. J. S. ARCHER, M.B., ROBERT SELBY, M.B., S. O. HALL, A. E. WELD, J. S. GALLIE, F. J. C. HEFFERNAN, A. E. THORP, HENRY HERRICK, JAMES COWAN, M.B., A. R. O'FLAHERTY, H. B. G. WALTON, and E. P. HEWITT. Their previous commissions are dated: Lieutenant, July 27th, 1898; Captain, July 27th, 1901. Their war records include:—Major Archer—South African war, 1899-1902, including operations in Cape Colony and the Transvaal (Queen's medal with three clasps, King's medal with two clasps). Major Selby—South African war, 1899-1902, including the actions at Talana and Lombard's Kop, the defence of Ladysmith, and operations in the Transvaal (Queen's medal with three clasps, King's medal with two clasps). Major Weld—South African war, 1900-2, including the defence of Ladysmith (Queen's medal with clasp, King's medal with two clasps). Major Heffernan—West Africa, 1901 (medal with clasp). Major Herrick—South African war, 1902 (Queen's medal). Major O'Flaherty—Operations in Sierra Leone, 1898-9 (medal with clasp); South African war, 1902, including operations in Cape Colony (Queen's medal with three clasps). Major Walton—Operations in Sierra Leone, 1898-9 (medal with clasp); South African war in 1899-1902, including operations in the Orange Free State, Cape Colony, and the Transvaal, and actions at Vet River, Zand River, near Johannesburg, Pretoria, Diamond Hill, and Belfast (Queen's medal with five clasps, King's medal with two clasps). Major Hewitt—South African war, 1899-1901, including operations in the Transvaal, Orange River Colony, and Cape Colony, the relief of Kimberley, and actions at Paardeberg, Poplar Grove, Dreifontein, Karee Siding, Houtnek (Thoba Mountain), Vet River, Zand River, near Johannesburg, Pretoria, Diamond Hill, Wittebergen, and Colesberg (Queen's medal with five clasps).

Captain C. SCAIFE, M.D., Brigade Laboratory, Colaba, India, has been appointed Specialist in the Prevention of Diseases, from March 25th.

Colonel C. H. BURTCHAELL, M.B., Staff Officer to the Principal Medical Officer, Irish Command, is appointed Assistant Director-General of the Army Medical Service, from June 1st. Major C. DALTON succeeds Lieutenant-Colonel Burtchaell as Staff Officer.

SPECIAL RESERVE OF OFFICERS.

ROYAL ARMY MEDICAL CORPS.

THE following Lieutenants (on probation) are confirmed in that rank: GEORGE ROLLASON, W. H. L MCCARTHY, M.B., IAN D. DICKSON, J. MCG. SCOTT, T. E. GUTHRIE, W. T GRAHAM, C. S. SANDEMAN.

EDWARD T. HOLLAND to be Lieutenant (on probation), March 28th.

TERRITORIAL FORCE.

ROYAL ARMY MEDICAL CORPS.

Second West Riding Brigade.—Surgeon-Lieutenant-Colonel and Honorary Surgeon-Colonel ISAAC MOSSOP resigns his commission, January 16th; he retains his rank and uniform.

Second Wessex Field Ambulance.—Major A. B. SOLTAU, M.D., to be Lieutenant-Colonel, April 1st.

First Northern General Hospital.—FREDERICK C. PYBUS, M.B., F.R.C.S.Eng., to be Captain, whose services will be available on mobilization, March 17th.

For Attachment to Units other than Medical Units.—ROBERT N. WALLACE, M.B., to be Lieutenant, March 19th.

Attached to Units other than Medical Units.—Lieutenant JOHN MCWATT, M.B., resigns his commission, February 23rd. Captain T. E. FIELDING, M.B., Royal Army Medical Corps, to be an Adjutant of a School of Instruction, April 2nd.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN seventy-seven of the largest English towns, 8,388 births and 4,249 deaths were registered during the week ending Saturday last, April 30th. The annual rate of mortality in these towns, which had been 14.9, 15.0, and 13.7 in the three preceding weeks, declined again last week to 13.1 per 1,000. The rates in the several towns ranged from 5.9 in Leyton, 6.1 in Bury, 6.9 in Hornsey, 7.2 in Willesden and in Handsworth (Staffs), and 7.9 in Smethwick and in Aston Manor, to 18.5 in Tynemouth, 19.0 in Middlesbrough, 19.4 in Stockport, 20.6 in Oldham, 20.7 in Wallasey, 21.0 in Merthyr Tydfil, and 21.8 in Burnley. The death-rate from the principal infectious diseases averaged 1.1 per 1,000 in the seventy-seven large towns; in London the rate was equal to 1.0 per 1,000, while among the seventy-six other large towns the rates ranged upwards to 2.7 in Liverpool, 2.8 in Warrington, 3.1 in Devonport, 3.3 in East Ham, and 7.2 in Merthyr Tydfil. Measles caused a death-rate of 1.6 in Swansea, 1.8 in Bradford, 2.7 in East Ham, and 6.6 in Merthyr Tydfil; scarlet fever of 1.1 in St. Helens; diphtheria of 1.0 in Middlesbrough; whooping-cough of 1.8 in Oldham, 2.0 in Gateshead, 2.1 in Warrington, and 2.5 in Devonport; and diarrhoea of 1.4 in Smethwick. The mortality from enteric fever showed no marked excess in any of the large towns. One fatal case of small-pox belonging to Hull was registered during the week. The number of scarlet fever cases under treatment in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 1,554, 1,535, and 1,510, was 1,509 at the end of the week under notice; 192 new cases were admitted during the week, against 166, 197, and 196 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday last, April 30th, 998 births and 630 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 18.2, 18.5, and 16.3 in the three preceding weeks, rose to 17.4 last week, and was 4.3 per 1,000 above the mean rate during the same period in the seventy-seven large English towns. Among these Scottish towns the death-rates ranged from 11.7 in Paisley and 13.2 in Aberdeen to 22.0 in Greenock and 32.8 in Dundee. The death-rates from the principal infectious diseases averaged 2.1 per 1,000, the highest rates being recorded in Greenock and in Dundee. The 280 deaths in Glasgow included 5 which were referred to measles, 3 to scarlet fever, 1 to diphtheria, 5 to whooping-cough, and 7 to diarrhoea. Thirty-two deaths from measles were recorded in Dundee, 3 in Paisley, and 3 in Greenock.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, April 30th, 703 births and 485 deaths were registered in the twenty-two principal urban districts of Ireland, as against 643 births and 494 deaths in the preceding period. The annual death-rate in these districts, which had been 23.2, 23.2, and 22.4 per 1,000 in the three preceding weeks, fell to 22.0 per 1,000 in the week under notice, this figure being 8.9 per 1,000 higher than the mean annual death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 23.9 and 23.1 respectively, those in other districts ranging from 4.8 in Sligo and 6.9 in Armagh to 29.5 in Kilkenny and 37.4 in Wexford, while Cork stood at 19.9, Londonderry at 20.4, Limerick at 19.1, and Waterford at 23.4. The zymotic death-rate in the twenty-two districts averaged 1.8 per 1,000, as against 1.9 per 1,000 in the preceding week.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

BANBURY: HORTON INFIRMARY.—House-Surgeon. Salary, £80 per annum.

BATH: ROYAL MINERAL WATER HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

BIRMINGHAM GENERAL DISPENSARY.—(1) Resident Surgeon; salary, £170 per annum. (2) Temporary Resident Surgeon; salary, £4 4s. per week.

BIRMINGHAM AND MIDLAND EAR AND THROAT HOSPITAL.—House-Surgeon. Salary at the rate of £70 per annum.

BRIGHTON COUNTY BOROUGH ASYLUM, Haywards Heath.—First Assistant Medical Officer and Pathologist. Salary, £250 per annum, rising to £300.

BRIGHTON: SUSSEX COUNTY HOSPITAL.—Secretary. Salary, £250 per annum, and £100 allowance in lieu of apartments and board.

BRISTOL EYE HOSPITAL.—House-Surgeon. Salary, £80 per annum.

BRISTOL ROYAL INFIRMARY.—Honorary Medical Registrar.

BRIXTON DISPENSARY, Water Lane, S.W.—Resident Medical Officer. Salary, £150 per annum.

BURY INFIRMARY.—Junior House-Surgeon. Salary, £80 per annum, increasing to £90.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—Honorary Surgeon.

CHESTER: COUNTY ASYLUM.—Third Assistant Medical Officer. Salary, £160 per annum.

FLEETWOOD: ROSSALL SCHOOL.—Resident Medical Officer. Salary, £250 per annum, rising to £300.

GLOUCESTERSHIRE ROYAL INFIRMARY AND EYE INSTITUTION.—Assistant House-Surgeon. Salary at the rate of £80 per annum.

GORDON HOSPITAL FOR RECTAL DISEASES, Vauxhall Bridge Road, S.W.—House-Surgeon.

HALIFAX: ROYAL HALIFAX INFIRMARY.—Second House-Surgeon. Salary, £100 per annum.

ITALIAN HOSPITAL, Queen Square, W.C.—(1) Honorary Assistant Physician (out-patients); (2) Honorary Anaesthetist.

LANCASHIRE EDUCATION COMMITTEE.—Two School Medical Inspectors. Salaries, £250 per annum, increasing to £400.

LEICESTER POOR LAW INFIRMARY.—Second Assistant Medical Officer. Salary, £120 per annum.

LIVERPOOL STANLEY HOSPITAL.—Honorary Surgeon.

LONDON HOSPITAL, E.—Assistant Surgeon.

LONDON THROAT HOSPITAL, Great Portland Street, W.—House-Surgeon. Honorarium at the rate of £50 per annum.

MANCHESTER CORPORATION.—Female Medical Officer under Midwives Act. Salary, £250 per annum.

MANCHESTER VICTORIA MEMORIAL JEWISH HOSPITAL, Cheetham.—Resident Medical Officer (lady). Salary at the rate of £80 per annum.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, Chenies Street, W.C.—Pathologist (resident). Remuneration, a proportion of the fees (guaranteed minimum, £120 per annum).

METROPOLITAN DISPENSARY, Fore Street, E.C.—Medical Officer. Salary, £175 per annum.

MILLER GENERAL HOSPITAL, Greenwich Road, S.E.—Honorary Physician.

MOUNT VERNON HOSPITAL FOR CONSUMPTION.—Clinical Assistants for the hospital at Hampstead, and out-patient department, Fitzroy Square, W.

NOTTINGHAM GENERAL HOSPITAL.—Locumtenent for three and a half months. Salary, £45.

PLYMOUTH: SOUTH DEVON AND EAST CORNWALL HOSPITAL.—(1) House-Surgeon. (2) House-Physician. Salary at the rate of £100 and £75 per annum respectively.

PUBLIC DISPENSARY, Drury Lane, W.C.—Resident Medical Officer. Salary, £105 per annum.

ROSS AND CROMARTY COUNTY COMMITTEE.—Medical Inspector of School Children. Salary, £250 per annum.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C.—Hunterian Professors and Arris and Gale Lecturer.

SHEFFIELD ROYAL HOSPITAL.—Assistant House-Physician. Salary, £50.

SOUTHPORT INFIRMARY.—Junior House and Visiting Surgeon. Salary commencing at the rate of £70 per annum.

SOUTH SHIELDS: INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Senior House-Surgeon (male). Salary, £100 per annum.

SOUTHWARK UNION INFIRMARY.—Assistant (male) Medical Officer. Salary, £100 per annum.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—House-Surgeon. Salary, £100 per annum.

TAUNTON AND SOMERSET HOSPITAL.—Resident Assistant House-Surgeon. Salary at the rate of £50 per annum.

TYNEMOUTH VICTORIA JUBILEE INFIRMARY, North Shields.—House-Surgeon. Salary, £100 per annum.

WEST RIDING ASYLUM, Wadsley.—Fifth Assistant Medical Officer (male). Salary, £140 per annum, rising to £160.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary, £80 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces vacancies at Elstree, co. Hertford, and West Huddersfield, co. York.

APPOINTMENTS.

BREBNER, C. S., M.D.Edin., D.P.H.Camb., Certifying Factory Surgeon for the Widnes District, co. Lancaster.

BURTON, W. R., L.R.C.P. and S.Irel., District Medical Officer of the Spalding Union.

CORKER, J., M.B., B.Ch., R.U.I., Assistant Medical Officer of the Walton Workhouse of the West Derby Union.

CURRIE, Oswald James, M.B Lond., M R.C.S.Eng., Honorary Visiting Surgeon to the Wynberg Hospital, Cape Town.

GILLESPIE, W. J., B.A.Lond., L.S.A., District Medical Officer of the Poplar Borough Parish.

HINCKS, T. E., M.B., Ch.B.Edin., District Medical Officer of the Hay Union.

HOWELL, H. T., M.R.C.S, L.R.C.P., Assistant Medical Officer, Fulham Parish Infirmary.

LANDER, H. W. G., M.B., C.M.Edin., District Medical Officer of the Bakewell Union.

MCCONNELL, A. J., M.B., B.S.Edin., Resident Assistant Medical Officer to the Toxteth Park Township Workhouse.

PARRY-EDWARDS, O. J., M.B., B.Ch Dubl., Medical Officer, Bodedern District, and Public Vaccinator, and Medical Officer of the Valley Workhouse of the Holyhead Union.

ROWLETTE, Robert J., B A., M.D.Dubl., Visiting Physician to Jervis Street Hospital, Dublin.

SCRASE, J. J. S., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Newton Abbot Union.

SHORNEY, Herbert Frank, M.D., F.R.C.S.Eng., Honorary Assistant Ophthalmic Surgeon to the Adelaide Hospital.

SOMERVILLE, H., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Bedford Union.

STIEBEL, C., M B.Camb., Assistant Medical Officer to the St. Marylebone Parish Infirmary.

TONGE-SMITH, W., M.D.Aberd., D.P.H., District Medical Officer of the Pocklington Union.

TREVOR-ROPER, B. W. E., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Alnwick Union.

TUBBY, A. H., M.S., F.R.C.S., Honorary Consulting Surgeon to Christ's Hospital.

WAITE, J. T., L.R.C.P. and S.Edin., District Medical Officer of the West Ashford Union.

WALKER, G. L., L.S.A., District Medical Officer of the Pontefract Union.

EDINBURGH ROYAL INFIRMARY.—The following gentlemen have been appointed Clinical Assistants: L. F. Bianchi, F.R.C.S.E., to Dr. Norman Walker; M. C. R. Grahame, L.R.C.P.E., L.R.C S.E., to Professor Caird; V. H. Gordon, M.B., Ch.B., to Mr. Hodsdon.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

BRODRIBB.—On April 28th, the wife of Dr. Arthur W. Brodribb, of White Rock, Hastings, of a son.

DUNNETT.—On April 30th, 1910, at 7, Ascott Avenue, Ealing, Agnes Dunnett, M.B.Lond., wife of Lionel Francis Dunnett, of a son.

MORISON.—At 1, Claremont Place, Newcastle-upon-Tyne, on April 27th, the wife of Professor Rutherford Morison, of a son.

MARRIAGES.

CANE—TIMS.—On April 27th, at Great St. Mary's Church, Cambridge, by the Rev. Lestock de Brisay (cousin of the bride), assisted by the Rev. E. G. Swain, Vicar of Stanground, Peterborough (late Chaplain of King's College, Cambridge), and the Rev. H. D. de Brisay (great-uncle of the bride), and the Rev. A. H. F. Boughey, Vicar, Arthur Skelding Cane, B.A.Camb., Royal Army Medical Corps, second son of Dr. and Mrs. Cane, of Eastbourne, to Enid Frances Mary, only daughter of Dr. and Mrs. Marett Tims, of Brookside, Cambridge.

ELLIOT—REID.—On April 28th, at St. Luke's Pro-Cathedral, Brisbane, by Archdeacon Le Fanu, Henry P. Elliot, M.B., C.M.Edin., of St. George, Queensland, son of Robert John Elliot, of Bramfield, Godalming, to Elena, daughter of John Reid, of Binalong, New South Wales. (By cable.)

DEATH.

MORISON.—At 1, Claremont Place, Newcastle-upon Tyne, on May 2nd, Lull, wife of Rutherford Morison,

RECENT PUBLICATIONS.

Records of Sport. Seventh edition. London: The Royal Insurance Company. (Pp. 197. Free on application.)

A volume of pocket size, containing a list of all "records" in every kind of sport up to the end of 1909 and the principal cricket fixtures for the current year. Brief summaries of the salient points of the history of each sport are included. A useful book for students of "form" and the smoking-room bookshelf.

PUBLISHERS' ANNOUNCEMENTS.

IN Mr. John Murray's list of forthcoming publications, dated April, is the *Prevention of Malaria*, by Professor Ronald Ross. The book, which is illustrated, contains a short history of paludism (malaria), a compendium of facts about the disease, its distribution, discussions on various points; details, descriptions, and comparisons of the various antipaludic measures; a discussion of the cost; the antipaludic strategy and State policy; accounts of work done in various parts of the world and its results, and condensed accounts of the parasites, the

mosquitos, and the necessary technique. Mr. Murray will also issue a book by the same author, entitled *Philosophies*, which is described as a series of verses written in India between 1881 and 1889, mostly in connexion with the author's researches on paludism.

DIARY FOR THE WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W.—8 p.m., Annual Meeting and Election of Officers. 8.30 p.m., Tropical Diseases (Epidiascopic). Demonstrations:—(1) Sir Patrick Manson: Malaria. (2) Dr. F. M. Sandwith: *Ankylostomum Duodenale* and Entrance of the Larvae into the Human Body. (3) Dr. Carnegie Brown: Tropical Dysentery. (4) Dr. A. W. G. Bagshawe: Sleeping Sickness.

TUESDAY.

ROYAL SOCIETY OF MEDICINE:
SURGICAL SECTION, at the Botanical Theatre, University College, W.C., 5 p.m.—Discussion on The Present Position of the Treatment of Syphilis; to be opened by Mr. Ernest Lane.

WEDNESDAY.

UNITED SERVICES MEDICAL SOCIETY, Royal Army Medical College, S.W., 4.30 p.m.—Clinical Demonstrations.

THURSDAY.

ROYAL SOCIETY OF MEDICINE:
OBSTETRICAL AND GYNAECOLOGICAL SECTION, 15, Cavendish Square. W., 7.45 p.m.—Papers:—(1) Dr. F. J. McCann: Caesarean Section in the Treatment of Eclampsia Gravidarum. (2) Dr. A. J. Wallace: The Life-history of Fibromyomata of the Uterus.

FRIDAY.

ROYAL SOCIETY OF MEDICINE:
CLINICAL SECTION, 15, Cavendish Square, 8.30 p.m.—(1) Demonstrations:—Dr. Henry Head: Clinical Methods for Testing Sensations. (2) Cases and Specimens.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C., 3.45 p.m.—Lecture: Tracheoscopy, etc.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Wednesday, 4 p.m., Bronchiectasis.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Thursday, 4 p.m., Fractures.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat at noon and 4 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Thursday, and noon, Friday; Eye, 11 a.m., Wednesday and Saturday; Radiography, 4 p.m., Thursday. Special Lectures: Monday, 4 p.m., Nasal Obstruction; Wednesday, 2.15 p.m., Empyema; Thursday, 4 p.m., Some Aspects of Rheumatism in Early Life.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week, at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Medical; Friday, Ear, Nose, and Throat. Lectures, at 5.15 p.m. each day, will be given as follow: Monday, Some Common Difficulties in Forceps Delivery; Tuesday, Suggestion, Hypnotism, and Telepathy; Wednesday, Injuries of the Heart; Thursday, Internal Derangements of the Knee-joint.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Functional Localization in the Brain; Friday, 3.30 p.m., Tabes Dorsalis.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith.—Daily arrangements: Medical and Surgical Clinics, 2 p.m.; Monday, Surgical Registrar, 10 a.m.; Pathology, 12 noon; Eye, 2 p.m. Tuesday, Gynaecology, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday, Diseases of Children, 10 a.m.; Throat and Nose Operations. Practical Medicine, 12.15 p.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday, Surgical Registrar, 10 a.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday, Medical Registrar, 10 a.m.; Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday, Diseases of Children, 10 a.m.; Eye, 10 a.m. Lectures: Monday, 5 p.m., Throat, Nose, Ear; Tuesday, 5 p.m., Acute Rheumatism; Wednesday, 5 p.m., Practical Medicine; Thursday, 5 p.m., Throat, Nose, Ear; Friday, 5 p.m., Cases of Skin Disease.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
MAY.	
8 Sunday ..	
9 MONDAY ..	
10 TUESDAY ..	WALTHAMSTOW DIVISION, *Metropolitan Counties Branch*, General Meeting of Practitioners, Lecture Hall, Wesleyan Church School, James Lane, High Road, Leyton, 4 p.m.
11 WEDNESDAY	
12 THURSDAY ..	ROCHDALE DIVISION, *Lancashire and Cheshire Branch*, Joint Meeting with Rochdale and District Medical Society, Wellington Hotel, Drake Street, Rochdale, 8.30 p.m. BROMLEY DIVISION: *South-Eastern Branch*, Bell Hotel, Bromley, 8.30 p.m.
13 FRIDAY ..	
14 SATURDAY ..	BOURNEMOUTH DIVISION, *Dorset and West Hants Branch*, Annual Meeting.
15 Sunday ..	
16 MONDAY ..	
17 TUESDAY ..	
18 WEDNESDAY	DORSET AND WEST HANTS BRANCH, Spring Meeting, Hotel Mont Doré, Bournemouth.
19 THURSDAY ..	LONDON: Conference between Representatives of the Association and Representatives of British Pharmaceutical Conference, 3 p.m. Preliminary Conference of British Medical Association Representatives, 2 p.m. LONDON: Metropolitan Counties Branch Council, 4.30 p.m. GLOUCESTERSHIRE BRANCH, Annual Meeting. Stroud. LINCOLN DIVISION, *Midland Branch*, Annual Meeting, Guildhall, Lincoln, 3.30 p.m.

Date.	Meetings to be Held.
MAY *(continued)*.	
20 FRIDAY ..	BATH DIVISION, *Bath and Bristol Branch*, Annual Meeting Royal United Hospital, Bath, 5.30 p.m.
21 SATURDAY ..	
22 Sunday ..	
23 MONDAY ..	BRISTOL DIVISION, *Bath and Bristol Branch*, Annual Meeting, Medical Library, University College, Bristol, 5.30 p.m.
24 TUESDAY ..	
25 WEDNESDAY	BATH AND BRISTOL BRANCH, Annual Meeting. Bath. CARDIFF DIVISION, *South Wales and Monmouthshire Branch*, Annual Meeting, Cardiff. RICHMOND DIVISION, *Metropolitan Counties Branch*, Annual Meeting, Royal Hospital Richmond, 8.30 p.m.
26 THURSDAY ..	
27 FRIDAY ..	LONDON: Conference between Special Poor Law Reform Committee and Contract Practice Subcommittee, 2 p.m. CITY DIVISION, *Metropolitan Counties Branch*, Annual Meeting, Hackney Town Hall, 4 p.m. FURNESS DIVISION, *North Lancashire and South Westmorland Branch*, Annual Meeting, Masonic Club, Barrow, 3.15 p.m. HAMPSTEAD DIVISION, *Metropolitan Counties Branch*, 4.30 p.m. TOTTENHAM DIVISION, *Metropolitan Counties Branch*, Annual Meeting, Tottenham Hospital, 4.30 p.m.
28 SATURDAY ..	

Printed and Published by the British Medical Association at their Offices, No. 429, Strand, in the Parish of St. Martin-in-the-Fields in the County of Middlesex

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MAY 14TH, 1910.

CONTENTS.

	PAGE
Special Representative Meeting.—PRELIMINARY NOTICE ...	232
Meetings of Branches and Divisions:	
Burma Branch	225
Bombay Branch	229
Dorset and West Hants Branch: West Dorset Division ...	229
Glasgow and West of Scotland Branch: Glasgow North-Western Division	229
Lancashire and Cheshire Branch: Blackburn Division ...	230
" " " " Warrington Division ...	230
Metropolitan Counties Branch; Hampstead Division	230
" " " " Lambeth Division	230
North of England Branch: Gateshead Division	231
South-Eastern Branch: Canterbury and Faversham Division ...	231
Southern Branch: Guernsey and Alderney Division ...	231
Ulster Branch	231
ASSOCIATION NOTICES.—Election of Central Council 1910–11 ...	232
BRITISH MEDICAL ASSOCIATION:	
SCHOLARSHIPS AND GRANTS IN AID OF SCIENTIFIC RESEARCH ...	233
NAVAL AND MILITARY APPOINTMENTS	233
VITAL STATISTICS	234
HOSPITALS AND ASYLUMS:	
Wimbledon Cottage Hospital	235
VACANCIES AND APPOINTMENTS	235
BIRTHS, MARRIAGES, AND DEATHS	235
PUBLISHERS' ANNOUNCEMENTS	236
DIARY FOR THE WEEK	236
CALENDAR	236

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

BURMA BRANCH.

(Continued from page 194.)

THIRD DAY.

Annual Dinner.—ON Friday, February 4th, the annual dinner took place, through the kindness of the members of the German Club, in their beautiful ballroom. His Honour the Lieutenant-Governor and Lady White, Sir Charles Fox, and the Bishop of Rangoon were present; several ladies were among the guests. After dinner His Honour and Lady White, with the other guests and members, visited the museum, and appeared to be much interested in the exhibits. It is to be regretted that, owing to the lateness of the hour, many of the exhibitors were not present. The ladies appeared to be attracted most by the microscopic specimens, among which were plague and tubercle bacilli, and malarial parasites. There was also a large demand for blood-pressure readings. Other attractions were exhibits of new articles of furniture which have been especially designed for the new hospital. A practical demonstration of x rays with one of Cox's field portable coils was given, and the rays emanating from 5 mg. of radium were shown on a fluorescent screen. The radium was in a small glass tube, in front of which was placed a sheet of brass of 1 mm. thickness. The rays appeared as a luminous point on the screen, having penetrated the sheet of brass.

FOURTH DAY.

Compound Depressed Fractures of Skull.—On Saturday, February 5th, the Surgical Section met to discuss the subject of compound depressed fractures of the skull. Major DUER, who was unable to be present, sent a paper, which was read by Colonel KING, to open the discussion. He said there was no class of injuries in which the occurrence of sepsis and infective processes was attended with more disastrous results than in compound depressed fractures of the skull. The subject was one on which those who had held the post of resident medical officer at the Rangoon General Hospital were particularly qualified to speak. It was important to remember that a compound depressed fracture might exist without any of the classical symptoms of concussion and compression. Where there was the least doubt the wound must be thoroughly explored. In these injuries, as in many others, one did not wait for symptoms to arise in order to confirm the diagnosis. This was especially necessary where the fracture was likely to be of the punctured variety, and also in fractures of the orbital plate resulting from stabs of the orbit by more or less pointed weapons. Whenever there was suspicion of the latter the wound should be enlarged, and the finger passed into the orbit to examine the orbital plate. It would be interesting to know whether cerebral symptoms were more frequently absent among the less civilized races than among more highly educated persons. Their frequent absence in the cases met with in hospital practice in that country led him to believe this to be the case. In regard to prognosis, Major Rost had furnished him with some figures from the Rangoon General Hospital. In the twelve years 1897–1908 very nearly 500 cases were operated on, with a mortality of about 26 per cent. A certain number of compound depressed fractures of the skull must, for various reasons, be rapidly fatal, and would not therefore be included in this list. A number of those escaping death would suffer from paralysis of varying degree, epilepsy, mental impairment, etc. There could be little doubt that much of the mortality among the 500 cases was due to sepsis. The greater the injury to the brain and its protecting structures the more likely was

sepsis to spread in a wound which must necessarily, from the circumstances attending its infliction, be septic. Therefore, it was mainly by striving for the attainment and maintenance of asepsis that they might hope to reduce the mortality of these injuries. The first point in treatment was to endeavour to render the wound and its neighbourhood aseptic. Of course, the entire scalp would be shaved and cleansed. While this was being done he would suggest, quite theoretically, having had no practical experience of it in these cases, the application of a cupping glass of sufficient size to enclose the wound in order to protect it, and by its suction to cause a flow of blood and serum which would seem likely to be useful in cleansing it, and possibly have also some of the beneficial effects claimed by Bier. There might be difficulty in applying a cupping glass to the curved surface of the scalp; an inflatable rim would overcome this. Lieutenant Wright, I.M.S., had suggested to him that a cupping glass might increase haemorrhage to such an extent that the vacuum would be so rapidly replaced by blood that it would not adhere, and its use would be impracticable; that it would increase the liability to haematoma; and possibly also have a bad effect on bruised and exposed brain. Still he thought it might be practicable and useful in some of the cases. Whether an antiseptic should be applied to the wound now and during the operation, or whether the tissues, freed from grosser particles, might be better able to deal with the invisible when unirritated by any antiseptic, appeared a subject well worthy of discussion. Personally he would only employ sterile water or sterile salt solution. Having dealt with the wound and its vicinity, the patient would be anaesthetized, if not already unconscious. He believed, though that did not concern them so much in India, that chloroform was generally admitted to be the best anaesthetic in operations involving the brain. All depressed bone would be raised, and loose and partially separated fragments would be removed, the wound being enlarged if necessary. No doubtful pieces should be left behind. Loose fragments of bone should certainly not be replaced. Personally he had never had much success with this. He knew nothing as to the disabilities entailed by the loss of considerable bone from the vault of the skull, and if the vulnerability of the individual was thereby seriously increased. Silver plates and the like, as far as he knew, had disappeared, perhaps because there was no need for them. In suturing the wound, as it was most undesirable that any accumulation of blood and serum, readily susceptible of decomposition, should occur, it would seem advisable to employ interrupted sutures of some non-absorbent material, such as silkworm gut or celluloid thread, as few in number, and tied as loosely as was consistent with the approximation of its edges. When the forehead was involved, a subcutaneous suture might perhaps be employed for cosmetic reasons. Though this was somewhat beside the subject, he would strongly commend the subcutaneous suture in wounds and plastic operations of the face. Compound depressed fractures of the skull, in his experience, which, however, was not very recent, were seldom followed by tetanus. He could not remember a case. Therefore it was perhaps unnecessary to treat all with antitetanic serum, which he believed to be a routine practice in some hospitals in the East when dealing with wounds from which tetanus seemed likely to arise. He had no experience of polyvalent antistreptococcus serum used as a prophylactic, but, having in view the terrible results of infection of compound depressed fractures by septic organisms, he brought it forward as a suggestion. When septic meningitis and encephalitis were suspected it should undoubtedly be used without delay. The patient having been operated on, dressed, injected if it was considered necessary with antitetanic and antistreptococcus serum, was put to bed in a quiet dark room, and should be disturbed as little as possible. A dose of calomel might be advisable. Water might be given *ad libitum*, but he inclined to the opinion that no food whatever should be allowed for three or four days at least. A small dose of morphine might be required at first, but was probably better avoided if possible. The early detection of intracranial inflammation could alone give hope for successful treatment. Where the cerebral symptoms resulting from the injury were marked and persistent, the diagnosis of its onset must be a matter of extreme difficulty. It probably, in most cases, arose by direct extension from the wound, and appeared early, generally from the third to the fifth day. The presence of Kernig's sign, and the examination of the cerebro-spinal fluid obtained by lumbar puncture gave valuable indications. In fact, the latter might be employed daily in bad cases, so that the earliest information possible might be obtained. A rise in pressure of the cerebro-spinal fluid would also be of significance. A rigor, the onset of severe headache, restlessness, irritability, and irregular fever would undoubtedly indicate the necessity for opening up the wound. If the dura mater was untorn and was found bulging and congested it should be freely incised. The brain would bulge into the wound, and gauze drains might be beneficially inserted between it and the dura. The prognosis would depend entirely on whether the process remained localized or became general. It seemed probable that general leptomeningitis was always fatal, and that, if treatment for intracranial inflammation was to be of avail, it must be exceedingly prompt. Spinal puncture might be useful not only in diagnosis but also in treatment. In this connexion he mentioned the case of a European boy aged 3 years. He had a temperature of 105° for seven days, and all the symptoms of the acute cerebro-spinal infection. The lumbar spine was tapped, and cultures were made from the fluid on agar and also from the peripheral blood. Pure staphylococcus resulted. A vaccine was prepared and within two days was injected. Improvement was rapid. He made a complete recovery, all symptoms, such as optic neuritis, fever, irritability, rapidly subsiding. The objection that suggested itself in the cases they were considering was the time it takes, probably forty-eight hours, to prepare the vaccine. Possibly an emulsion prepared immediately might be employed. Hernia cerebri was always a sign of intracranial mischief, and was due to inflammation of the brain and meninges. The treatment was to enlarge the opening in the bone and thereby endeavour to relieve the increased intracranial pressure. It must not be forgotten that signs of intracranial inflammation might be due to a cerebral abscess near the wound or on the opposite side arising in brain tissue injured by *contrecoup*. In intracranial complications the possible value of a decompression operation might well be borne in mind. Harvey Cushing, in operation on the brain, changed the first dressing in forty-eight hours, and removed the drains (if used) and all sutures. He thought they might safely follow this advice in the cases they were considering. The condition of the wound might give valuable indications. If it showed signs of inflammation he again suggested the frequent and prolonged use of the cupping glass. He had found it very useful in unhealthy wounds and sores of all kinds, and it did not appear to him absolutely impossible that it might prevent the spread of infection to the membranes and brain. It was also very efficacious in assisting drainage.

Major BARRY said that in all head injuries accompanied by a wound of the scalp the wound must be examined digitally, enlarging the wound if necessary. Examination by a probe was unsatisfactory and misleading. He saw no reason to suppose natives exhibit fewer cerebral symptoms than Europeans, in whom injuries of this nature were less common than in natives. The cerebral and posterior parts of the base of the brain lay on a water bed formed by the cerebrospinal fluid contained in the subarachnoid space between the arachnoid and the pia mater. It was only the under-surface of the frontal lobe that lay in contact with the bony floor of the base of the brain. A large number of the depressed fractures of the skull were situated on the fore part of the head; the force of

the blow drove the brain backwards and downwards on to this water cushion, which saved it from injury. In his opinion, blows on the front of the skull had a much better prognosis than those situated elsewhere. In a series of thirty-seven consecutive operations for compound depressed fracture of the skull the mortality was 34.6 per cent.; out of this number ten were situated on the frontal bone. The mortality amongst these ten cases was 20 per cent. He did not like Major Duer's idea of applying a cupping glass. It seemed likely that the injury to the brain would be increased, and also the tendency to hernia cerebri. In his experience septic meningitis had occurred but rarely, except in those cases where the brain substance had been extensively lacerated. It was in this very class of cases that he thought cupping would do harm. It would increase the extravasation of blood into the cerebral tissues, and very possibly determine the death of bruised portions of brain matter. The very free haemorrhage from scalp wounds itself acted, he believed, in a beneficial manner by washing the dirt out of the wound, but this was quite different from increasing the hyperaemia of the brain. The wound could be efficiently protected in other ways whilst the rest of the scalp was cleaned. He saw no advantage in replacing bone, which was often bruised and acted as a foreign body, and he had twice removed crowns of bone from cases operated on elsewhere. Tetanus was very uncommon; possibly the free haemorrhage from the scalp, as mentioned before, might, by flushing the wound, have prevented this. Also, as a rule, instruments inflicting the wound were comparatively clean. Deprivation of food, though perhaps ideal, would in Burma result in patients leaving hospital. Diet should be low, but not abolished. Lumbar puncture was more theoretical than practical, certainly in private cases. He suggested that the organism would not be found in the cerebro-spinal fluid in the lumbar region till infection had become generalized. The object aimed at was to diagnose infection while it was still localized. As a means of isolating a micro-organism and preparing a vaccine it might have a future before it. Cushing's method of dressing was what had been customary in Rangoon General Hospital. Major Barry then drew attention to *dah* (sword) cuts of the head, which were comparatively frequent in Burma. These cases presented some difficulties. It was a recognized rule that all compound depressed fractures of the skull must be explored and the depressed bone elevated. With *dah* cuts of the head the case was different. Some required surgical treatment and some might be left alone. With an idea of forming some lines to go on in these cases a number of experiments were carried out on dead bodies, and a number of patients closely observed. It was found for practical purposes that the injuries arising from *dah* cuts of the head might be classified as follows:

1. Complete removal of a piece of skull and scalp.
2. Removal of a shaving of skull which remains adherent to a flap of scalp.
3. Vertical wounds of the skull:
   (*a*) Partially through thickness of skull;
   (*b*) Completely through thickness of skull.
4. Wounds accompanied by depression of the bone of the skull.

1. In such cases as long as the piece of bone did not consist of the whole thickness of the skull the wounds usually might be dressed antiseptically, and did not require any further operation. As a rule they did well, and in one or two cases examined *post mortem* there was no fracture or depression of the inner table of the skull. When, however, the whole thickness of the skull was removed the wounds generally did badly, for the brain was almost invariably injured, and hernia cerebri and meningitis were common.

2. In such cases the wounds usually did well. It had been found best to readjust the flap, with its shaving of bone attached back into its original position with sutures through the scalp without further operation; but if, as sometimes happened, the shaving of bone was so bent and distorted that the flap would not lie smooth and flat back in its original position, the piece of bone should be trimmed up with bone-cutting forceps till the flap could be made to lie easily and smoothly. Again, should dirt, as not infrequently happened, have been so ground into the wound that it could not be satisfactorily cleaned, it was as a rule best to remove the shaving of bone entirely from the flap, thus ensuring thorough drainage, for it was often very difficult to allow for thorough and free drainage when adjusting a flap of bone and scalp, and should it appear likely that suppuration would ensue the shaving of bone was best removed.

3. By a vertical wound of the skull was meant a wound occasioned by a blow delivered at right angles to the curvature of the skull at the point of receipt of the injury. These wounds naturally occurred chiefly on the vertex of the skull, but might occasionally be delivered laterally. This class of wounds was especially important, owing to the resulting injury to the inner table of the skull, and also possibly as a consequence to the brain substance beneath.

These wounds might, for the purpose of treatment, be again subdivided into three minor classes:

1. Wounds in which the outer table of the skull is cut into, but not completely divided.
2. Wounds dividing the outer table and cutting into the middle or cancellous table of the skull.
3. Wounds completely dividing the skull.

It was in wounds of the above nature that the question of the operation of trephining most frequently arose, and it was often a very difficult question to decide. The following views had been arrived at after the performance of a considerable number of *post-mortem* examinations, and as the result of numerous experiments on the dead body. In the first place it was of great importance to estimate whether the blow was received at right angles to the curvature of the skull or not. Many blows, though struck vertically, on coming in contact with the skull glanced sideways, and whether this had taken place or not could almost always be determined by a careful examination of the wound itself. Should, therefore, the blow be a glancing one, and should there be no grave head symptoms pointing to compression or severe injury of the brain substance, the wounds in Classes 1 and 2 as a rule required no operation, and might be treated as ordinary scalp wounds exposing the bone of the skull. Should, however, the direction of the wound be at right angles to the curvature of the skull wounds in Class 1 only might be left alone. Those, however, in Class 2 under these circumstances required more thorough treatment, for there was almost invariably fracture and comminution of the inner table of the skull, and as a consequence not infrequently laceration of the brain substance beneath. In wounds falling into Class 3 he should always advise trephining and thorough examination of the wound, whether the blow happened to have been actually vertical to the curvature of the skull or not. The inner table in these cases also was almost always comminuted and fractured, and till the wound had been thoroughly searched it was as a rule impossible to discover the true condition of affairs inside the skull.

4. Incised wounds of the skull with depression of the bone should be treated as ordinary compound depressed fractures of the skull, and the depressed bone elevated, and, if necessary, removed.

Captain WILLIAMS said he had most carefully gone through the records of *all* fractures of the skull brought to the hospital during the year 1909, and he could vouch personally for the accuracy of the figures. He himself performed all but one of the operations, and he had seen and followed the case operated upon by the other surgeon. The total number of cases was 34. Of these 5 were fractures of the base, all of whom died; 29 were fractures of the vault, of whom 3 died; 2 were classified as "relieved," and 24 were "cured"; of the 2 classified as "relieved," 1 was taken away by his friends in a dying condition, the other one he wished to speak of later. Of the 29 fractures of the vault, 23 were depressed and required operation; the remaining 6 either died shortly after admission, or there was no depression. Of the 23 depressed fractures 14 were trephined, and in the

remaining 9 it was possible to elevate the fragments without using the trephine. He handed round for inspection a new and deadly weapon—a hunting crop—which the young bucks of Rangoon almost always now carried. A number of the compound depressed fractures were caused by this class of weapon, and they would readily appreciate what a dangerous punctured fracture could be produced, especially by the pointed end, with extensive laceration of the inner table. On several occasions he had operated upon compound depressed fractures in which there was only a small wound of the outer table, but on trephining extensive comminution of the inner table was found, with detached fragments requiring removal. The prognosis in most of the ordinary compound depressed fractures, when brought to hospital in time, was exceedingly good. It depended on the degree of sepsis present in the wound, and the possibility or otherwise of cleaning it, and whether the dura mater was injured or not. He always anxiously looked for the latter point. If the membranes were uninjured the patient had a very good chance of recovery; if, on the other hand, the membranes had been torn, it was very possible, unless the patient had been brought to hospital in time, that sepsis would result, and sometimes end fatally from meningitis or encephalitis with brain abscess. The prevention of sepsis was of vital importance; the wounds should be thoroughly cleansed. As regards this thorough cleansing, Professor Nancrede said:

> Suppose a recent head injury just brought into the hospital, how should we proceed? Do not carelessly pass the forefinger through the filthy blood-matted hair and explore at once the depths of the wound to ascertain its nature, as is too commonly the rule, but carefully shave the scalp, scrub it with a nail-brush, soap, and water, remove all fatty matter with ether or turpentine and alcohol, completing the disinfection by a thorough irrigation with mercury bichloride solution.

When the patient was under an anaesthetic it would be well in some cases to cut away any badly contused portions of the scalp which could not be disinfected. The vital importance of operating on all compound depressed fractures was very forcibly impressed on his mind during the past year by the case to which he had referred, which had been discharged as "relieved."

> The patient was a roadside stall seller who had been hit on the head with a pair of tongs. He was admitted to hospital on July 31st, 1909, with the following injuries: (1) A contused lacerated wound, 1 in. by ¼ in., fracturing the right frontal bone with slight depression; (2) a contused wound 1½ in. by ¼ in., over the occipital bone. As the depression was very slight and the wound could apparently be thoroughly cleansed he was not trephined. The wound over the frontal bone healed up quickly and the posterior wound more slowly. On account of the latter he was detained in hospital for sixteen days. He refused to stay in hospital any longer, and after discharge was under the care of a native medical practitioner. The temperature was normal throughout except for a slight rise on August 12th. He showed no symptoms of brain injury and did not even complain of headache. His dead body was brought back to hospital five days after discharge. *Post-mortem* examination revealed a large abscess on the right frontal lobe. The skull, which showed laceration of the inner table which had torn through the membranes, and through which the brain had become infected, was shown.

As regards the actual operation of trephining, it was of great practical importance to make use of the horseshoe-shaped incision, as recommended by Sir Victor Horsley, with, if possible, its base towards where the blood supply comes from. This incision should be made even in doubtful cases down to the bone, and the skin flap rapidly reflected. By doing this the numerous bleeding points were seen, and could quickly be clipped. It was quite justifiable to clip the whole thickness of the skin in such cases as, on account of the good blood supply, sloughing did not ensue, and it was most difficult to clip the actual cut end of the artery here. As regards trephining, he found that in 99 per cent. of cases the smallest sized trephine was sufficient. On two occasions lately he had operated on depressed fractures involving sinuses; one involved the superior longitudinal sinus, and the other the torcular Herophili. There was very profuse haemorrhage, which, however, was easily arrested by plugging the wound, and leaving in the plug for twenty-four hours. Both patients made a good recovery. Asepsis was, of course, of vital importance in such cases. He took great trouble in that hospital to cleanse the skin wound thoroughly, and very often went so far as to excise the edges of it. The bone and surface of the brain were thoroughly irrigated with saline solution, and a small curette was used to set free dirt which had been ground in. In conclusion, he said that, of the 23 cases which were operated on and were cured, their average stay in hospital only amounted to sixteen days.

After remarks by Captain WHITMORE, a paper by Major Dee, who was unable to attend, was read. He said there were three points he wished to bring forward:

1. Symptoms which pointed to intracranial haemorrhage and of which no special note was made in textbooks.
2. Treatment of extradural haemorrhage.
3. A reference to the condition known as late traumatic apolexy.
4. A short history of a few cases.

1. There was a history of a blow and the patient was semiconscious, could be roused up pretty easily, possibly answered to his name, stuck out his tongue, etc., and was nothing more than drowsy. Nothing definite could be obtained from the friends. If there was a wound at all it was of such a nature that fracture or depression could only be guessed at. Now textbooks laid down very definite signs and symptoms, but he did not often meet with them in practice, and the point he wished to emphasize was that in a case such as he had described, if he found that the pulse was only 65 or under, and more specially if there was a rise of temperature however slight, he considered himself warranted in making a diagnosis of pressure—nearly always due to haemorrhage—and trephining. So far he had never found the diagnosis so based to be incorrect.

2. In regard to the treatment of haemorrhage, to start with, one usually trephined over the seat of fracture, and the bleeding was probably occurring several inches away from that spot, and to turn out the whole of a blood clot was by no means easy. Furthermore, the haemorrhage was often of an alarming nature and the patient not equal to a prolonged operation. Personally he turned out as much of the clot as he could, cut away the bone with a rongeur forceps in the direction the haemorrhage appeared to be coming from; but if he failed to find the vessel, or the bleeding point appeared to be some distance away, he plugged the space between the brain and dura mater with a long narrow strip of gauze often using sufficient force to cause some depression of the brain. He had managed to save a pretty few desperate cases by this method, and he did not consider it by any means necessary to remove the whole of the clot, more especially if to do so meant the cutting away of a considerable portion of bone. The chief source of danger was sepsis. This was always avoidable in simple fractures, though a source of grave anxiety in those of the compound variety. Removing clot was not easy; it was as difficult as to pick up pieces of jelly in the fingers. With reference to late traumatic apoplexy or subdural haemorrhage, Major Dee gave some illustrative cases.

Colonel KING, in summing up, congratulated the Section on the interesting papers and discussion, and suggested that the proceedings of the Association should be published regularly.

Registration of Medical Practitioners.—Then followed a business meeting. The first business was the discussion of the question of registration of medical practitioners, which was brought forward by the PRESIDENT. A draft form, prepared by the Branch Association in Bombay, had been circulated to the members. Major BARRY proposed and Major PRIDMORE seconded that the draft as prepared by the Bombay Branch be adopted. The object of the Registration Act is to have an authenticated list of all properly qualified medical practitioners governed by a medical council such as exists in Great Britain. Captain WHITMORE, in rising to propose an amendment, said they must agree as to the constitution of the council which they proposed to form. He did not

agree to an independent council, but thought it better to have a central council to which all the provincial councils would be linked. In this manner unity would be ensured. "The Bombay draft," he said, "does not make it plain that registration only applies to medical practitioners who practise European methods only, and I propose, as an amendment, that the matter be referred to a special committee." Dr. PEDLEY seconded this amendment. Dr. DOUGLAS said he would like to make some remarks about the question of medical practitioners and chemists' shops. The question should be considered in connexion with the Registration Act. It was very derogatory to the profession for doctors to be druggists, and it led to many abuses. It was, he considered, a grave impropriety for a doctor to be a scientific man and also to sell quack proprietary articles. Colonel KING said that such matters would naturally come up and be settled by the Medical Council. Captain Whitmore's amendment was then put to the meeting and carried. The following were elected to act as a subcommittee: Lieutenant-Colonel Davis, Dr. Pedley, Captain Whitmore, Dr. Douglas, Dr. Frindlay, Major Barry, Dr. Nandi, and Lieutenant-Colonel Bell. The Secretary of the Branch was asked to call the first meeting.

Election of Officers.—The next business was the election of officers for the ensuing year. Colonel King was re-elected President and Colonel Davis and Dr. Pedley Vice-Presidents; Major Rost was elected as Honorary Secretary and Treasurer; and the following gentlemen were elected as members of the Council: Major Pridmore, Major Barry, Captain Whitmore, Dr. Parakh, and Dr. Joy.

Vote of Thanks to Chairman.—A vote of thanks to the Chairman having been proposed by Colonel FRENCHMAN and carried, the proceedings closed.

BOMBAY BRANCH.

A MEETING of the Bombay Branch was held in the University Library on Thursday, March 17th, at 6 p.m., when Dr. SORAB K. ENGINEER, the Vice-President, occupied the chair. There were present Drs. B. P. Karani, Sorab Engineer, Miss S. M. Bleeson, M.D., and several other members, besides the Honorary Secretary, Dr. D. R. Bardi.

Confirmation of Minutes.—The minutes of the last meeting were read, confirmed, and signed by the Chairman.

Election of Representative.—Lieutenant-Colonel L. F. Childe, I.M.S., M.B.Lond., was elected a Representative of the Branch in Representative Meeting for 1910-11.

Grouping of Indian Branches with Malay, Ceylon, etc.—As to the grouping of Indian Branches with Malay, Ceylon, Burma, Hong Kong, and China Branches, it was resolved to inform the Medical Secretary that the Representative of this Branch will move a resolution as follows regarding the grouping of Branches for electing a member of the Central Council:

> That the present grouping of Indian Branches with Burma, Hong Kong, China, and Ceylon Branches will cause a great delay in any communications likely to be carried on between the grouped Branches. That it would be better to give one member to the following Branches—namely, Bombay, Madras, Punjab, and Assam, and another to the other Branches—namely, Burma, Ceylon, Malay, Hong Kong, and China.

Vote of Thanks.—After a vote of thanks to the Chairman the meeting was dissolved.

DORSET AND WEST HANTS BRANCH:

WEST DORSET DIVISION.

THE annual meeting of this Division was held on April 27th at the Yeatman Hospital, Sherborne. There were twelve members present.

Election of Officers.—The following officers were elected for the ensuing year: *Chairman*, G. C. J. Flower; *Vice-Chairman*, Mr. W. Caswell Spooner; *Honorary Secretary*, Mr. T. MacCarthy; *Representatives on Branch Council*, Messrs. Curme, Macdonald, Whittingdale, Morrice, and Unwin; *Executive Committee*, the above, with Messrs. Cosens, Marsh, Manning, Hawkins, and Goode; *Representative of Division*, Lieutenant-Colonel Decimus Curme, M.D.

Matters Referred to Divisions.—The following matters referred to the Divisions were considered:

Report on Special Class of Consultants: Report of Council on Homoeopaths.—Replies on these subjects were forwarded to the Medical Secretary.

Territorial Forces Committee.—The opinion of the Council that "medical practitioners should not be expected . . . suitable remuneration," was affirmed. The Division has taken no steps in the matter (Minute 107, Annual Representative Meeting). Ambulance work in this Division is most frequently gratuitous.

Poor Law Reform.—The interim report of the Special Poor Law Reform Committee was discussed, and answers were forwarded to the Medical Secretary.

Medical Inspection and Treatment of School Children.—Recommendations H to N were unanimously affirmed.

Central Council for 1910-11.—Dissatisfaction was expressed with the grouping, as in all probability the representation of the Dorset and West Hants Branch would cease.

Parliamentary Representation of the Profession.—Communications from the Chelsea Division *re* Parliamentary representation of the medical profession was laid on the table.

Report of the Representative.—The REPRESENTATIVE read his report of the Annual Meeting, when satisfaction was expressed at the work of the Representative Meeting and of the Representative of the Division.

GLASGOW AND WEST OF SCOTLAND BRANCH:

GLASGOW NORTH-WESTERN DIVISION.

A MEETING of this Division was held in the Burgh Hall, Hillhead, on April 27th. Dr. MORTON presided, and there were also present Drs. Buchanan, Donald, Whitehouse, A. K. Chalmers, and Caskie (Honorary Secretary).

Apology for Non-attendance.—An apology was intimated from Dr. Macintosh.

Confirmation of Minutes.—The minutes of last meeting were read and approved.

Public Health Medical Service.—The report of the committee appointed to consider the circular regarding the public medical service was read, and after some discussion and expression of opinion the CHAIRMAN moved that it be received and remitted for further consideration, which was approved.

Poor Law Reform.—The interim report of the Poor Law Reform Committee was then considered and the circular read. After some reference by Dr. A. K. CHALMERS to the Majority and Minority Reports of the committee the questions contained in the schedule were answered in the affirmative.

The Relation of Homoeopaths to the Association.—The report of the Council on the relation of homoeopaths to the Association was considered and discussed. Question A was answered in the affirmative. Question B—the answer was, Yes, in any lay paper. Question C—By a majority of five to one this was answered in the negative.

Instruction in First Aid.—The circular on instruction in first aid and field nursing to Volunteer Aid Detachments was then read and considered. It was stated that, while the lectures are free, the examiners received a fee, and that, as the Territorial Services are free, the instruction should be free. Dr. A. K. CHALMERS considered that the work should be done gratuitously, but the men should be recognized by being enrolled *à la suite*. Ultimately it was suggested that the Secretary be instructed to write Colonel Barnes for information on the subject.

Payment of Hospital Medical Staffs.—Dr. WHITEHOUSE proposed the motion, of which he had given notice, namely:

> That all members of the medical staff of hospitals [should receive an honorarium.

Having no personal end to gain, he considered that all outlays and incidental expenses, such as cab and car fares, should be defrayed, and that the attention of the directors and managers of hospitals should be directed to this matter. Recently anaesthetists had been appointed to several hospitals without remuneration, and, while chiefs received honoraria, the assistants received no acknowledgement. In the subsequent discussion Dr. CHALMERS said this subject was associated with the organization of a system of medical relief, with the administration of hospitals, and with the question of hospital abuse, and it was ultimately agreed to remit the motion to the Branch Council.

Vote of Thanks.—The meeting terminated with a vote of thanks to the Chairman.

LANCASHIRE AND CHESHIRE BRANCH:

BLACKBURN DIVISION.

THE annual meeting of this Division was held on Wednesday, May 4th, Dr. BANNISTER in the chair. There were also present: Drs. Henry, Moir, Butterfield, Postlethwaite, Ballantyne, Prebble, Jones, Allcock, Macklin, Keighley, and Greenwood.

Confirmation of Minutes.—The minutes of the last annual meeting, held on May 18th, 1909, were read and confirmed.

Work of the Division.—The CHAIRMAN (Dr. Bannister) made an interesting statement concerning the work carried out by the Division during the past twelve months. He referred to the marked increase in the number of members, and said that he hoped in the future more enthusiasm and energy would be displayed by the members of the Division in the valuable work of the Association.

Election of Officers.—The following were elected officers for the ensuing year: *Chairman*, Dr. Moir; *Vice-Chairman*, Dr. Rigby; *Secretary and Treasurer*, Dr. Greenwood; *Representatives on the Branch Council*, Drs. Prebble and Henry; *Representative in Representative Meeting*, Dr. Prebble; *Executive Committee*, Drs. Bannister, Butterfield, Ballantyne, and Macklin.

Proprietary Medicines and the Medical Profession.—It was moved, seconded, and resolved unanimously that Dr. Ballantyne be asked to open a discussion at a future meeting with reference to "Proprietary Medicines and the Position of the Medical Profession," as a preliminary step to the amendment of the present law on these matters.

Vote of Thanks.—It was moved, seconded, and resolved that the best thanks of the meeting be given to Dr. Moir for the steps which he had taken personally respecting the manufacture and sale by lay persons of a medicine called Korpusdoon.

Invitation to Branch.—It was moved, seconded, and resolved that the Blackburn Division should invite the Lancashire and Cheshire Banch to hold their annual meeting for 1911 in Blackburn.

WARRINGTON DIVISION.

THE annual meeting of this Division was held on Tuesday, May 3rd, at the Infirmary, Warrington. Dr. JOSEPH, J.P. (Chairman), presided, and there were present Drs. Bowden, Burrowes, Hutt, G. H. Joseph, Naden, J.P., Law, Edwards, D. H Anderson, Bennett, Langdale, McKee, and Murray. Mr. Larkin, F.R.C.S., Secretary of the Branch, was also present.

Apology for Non-attendance.—An apology for absence was received from Dr. Jno. Hutchinson.

Election of Officers.—The following were elected officers for the ensuing year: *Chairman*, Dr. Edwards; *Vice-Chairman*, Dr. Bowden; *Honorary Secretary and Treasurer*, T. A. Murray; *Representative on Branch Council*, Dr. Burrowes; *Three Members (together with the Officers) on Executive Committee*, Drs. Joseph, J.P., Langdale, and Hutt.

Quarterly Meetings.—Quarterly meetings were fixed for the second Tuesday in June, September, December, and March, at 4 p.m.

Clinical Meetings.—It was decided to hold six clinical meetings (commencing at 8.30 p.m.) on dates to be fixed later. It was resolved that members of the Warrington Medico-Ethical Society should be invited to take part in the clinical meetings.

Letter from Chelsea Division.—A letter from the Chelsea Division was deferred to next meeting.

Central Council (1910) Election.—Mr. LARKIN made some references to this question, and it was afterwards unanimously resolved to nominate and support Mr. Larkin and Dr. Taylor. It was also resolved to request the Representative to support Mr. Garstang.

Votes of Thanks.—Votes of thanks were unanimously passed to the Chairman for his services during the past year, and to the Board of Management of the Infirmary for the use of the board room for the Division meetings.

METROPOLITAN COUNTIES BRANCH:

HAMPSTEAD DIVISION.

A MEETING of the Hampstead Division was held on Friday, April 29th, at 8.30 p.m., at the Hampstead Conservatoire, Dr. OPPENHEIMER in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Apologies for Non-attendance.—Letters of apology for non-attendance were read from Mr. H. W. Armit (Chairman of the Division) and Dr. Roche.

Parliamentary Representation for Medical Practitioners.—The request of the Chelsea Division for support of their resolution in favour of parliamentary representation for medical practitioners was referred to the Committee to be dealt with.

Hampstead Council of Social Welfare.—It was decided to send representatives to the Hampstead Council of Social Welfare, the selection of suitable members being left to the Committee.

Nominations.—It was unanimously resolved to make the following nominations: For Branch Representatives on the Central Council, Mr. H. W. Armit, Dr. Major Greenwood; for Vice-President of the Branch, Dr. H. J. Macevoy; for Honorary Secretary of the Branch, Mr. W. B. Parsons.

Boundaries of Division.—It was resolved to suggest the inclusion of the Kentish Town District on the Hampstead side of Kentish Town Road and Highgate Road in the Division, and to extend the southern boundary to St. John's Wood Road.

LAMBETH DIVISION.

THE annual general meeting of this Division was held at Bethlem Royal Hospital on Thursday, May 5th, at 4 p.m., Dr. W. H. B. STODDART in the chair. There were twenty-four members and three visitors present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Election of Officers.—The following officers were then elected: *Chairman*, Dr. W. H. B. Stoddart; *Vice-Chairman*, Dr. J. V. C. Denning; *Honorary Secretary*, Mr. T. B. Layton; *Representatives upon the Branch Council*, Dr. R. Capes, Dr. Herbert Taylor, and Honorary Secretary *ex officio*; *Executive Committee*, Dr. W. A. Atkinson, Dr. G. F. Grant, Dr. T. H. P. Peers, Dr. J. H. Clatworthy, Dr. G. Stoddart, Dr. H. C. Cameron.

Election of Representatives at Representative Meetings.—Dr. R. Esler was unanimously elected Representative, and Dr. R. Capes, also unanimously, Deputy Representative.

Votes of Thanks.—Hearty votes of thanks were accorded to the retiring officers, Drs. Jaynes, Spon, Sturges-Jones, Edelsten, and Cameron for the work which they had done.

Treatment of School Children.—Dr CAPES proposed, and Dr. ESLER seconded:

> That the Executive Committee be summoned within seven days to arrange for a general meeting of all practitioners within the Divisional area at some public place; and that, at this meeting, the committee shall present a scheme for the organization of practitioners in the Division to carry out the treatment of school children attending London County Council schools who are found defective upon inspection.

Demonstration of Cases.—The CHAIRMAN then gave an interesting demonstration of cases from the wards.

Tea.—Tea was provided by the kindness of the authorities of Bethlem Hospital.

NORTH OF ENGLAND BRANCH:

GATESHEAD DIVISION.

Model Rules for a Public Medical Service.—A meeting was held in April to consider the model rules for a public medical service in conjunction with the proposal made by the Royal Commission on the Poor Law. A very long discussion took place, in which all the members present took part. It was very plainly pointed out that under the suggested rules there was nothing proposed to ensure that the thriftless would join, and there was great danger that such a scheme would only be taken advantage of by those who at present pay in the ordinary way for their attendance. It was further felt to be a retrograde step to take to establish a wholesale system of contract practice on the principle of the family club when the Division has for years past been doing all that lay in its power with a view to doing away with this form of practice altogether. The following resolution was passed:

> That this Division, though feeling that the model rules for a public medical service are greatly preferable to the suggestion laid down in the Majority Report of the Poor Law Commission, considers that the establishment of such a service on the basis of contract practice is essentially a retrograde step, and contrary to the interests of the public and profession. The Division feels that the plan would be taken advantage of by the thrifty and provident only, while the thriftless and improvident would still remain in their present unsatisfactory condition.

SOUTH EASTERN BRANCH:

CANTERBURY AND FAVERSHAM DIVISION.

A MEETING of this Division was held at Faversham Cottage Hospital on April 21st, Dr. CHARLES J. EVERS, M.O.H., presiding.

Luncheon. — Before the meeting the CHAIRMAN entertained the members at luncheon.

Vote of Condolence.—A very sincere vote of condolence, in which the Thanet Division joined, was proposed by the CHAIRMAN, Dr. Evers, and seconded by Dr. GOSSE, and was passed unanimously, to Mrs. Whitehead Reid and family in their sad bereavement. The meeting expressed its deep appreciation of the great loss this Division, the South-Eastern Branch, the Association, and medical profession as a whole had suffered by the death of so valuable and esteemed a member as the late Dr. Whitehead Reid of Canterbury.

Confirmation of Minutes.—The minutes of the previous meeting were confirmed.

Next Meeting.—It was resolved to call a special meeting at the Faversham Cottage Hospital on June 2nd, at 3 p.m.

Correspondence.—A letter was read from the Thanet Division expressing their sincere regret at the loss to the Canterbury and Faversham Division by the death of Dr. Whitehead Reid. A grant of £16 was received from the South-Eastern Branch for 1910–11. A letter from the Honorary Secretary, Bromley Division, concerning the Annual Meeting of the Branch for 1911, was read. A letter from the Medico-Political Committee, as to medical treatment of school children, was read.

State Sickness Insurance.—A letter from the Medical Secretary submitting the programme of the Section of Medical Sociology at the coming Annual Meeting was read. It was resolved that the subject of State sickness insurance (provision of medical attendance) as affecting the public health and the medical profession be placed on the agenda for discussion at the June meeting.

Poor Law Reform.—The principles submitted to Divisions in the Interim Report of the Special Poor Law Reform Committee (SUPPLEMENT, February 5th, 1910) were approved.

Paper.—Mr. PRIDEAUX SELBY, M.R.C.S., read a most interesting and instructive paper upon A Few Points in Treatment not Generally Found in Books. The paper was greatly appreciated and was followed by discussion, to which Mr. SELBY replied.

Votes of Thanks.—A hearty vote of thanks was accorded Mr. Selby for his paper and Dr. Evers for his hospitality.

SOUTHERN BRANCH:

GUERNSEY AND ALDERNEY DIVISION.

A MEETING of the Guernsey and Alderney Division was held on April 29th, in the Library Room of the Board of Health Offices. Fourteen members were present; Major MYLES, R.A.M.C.(ret.), in the chair.

Correspondence.—After the formal business, the HONORARY SECRETARY read correspondence with Dr. Gallard of Fulham, with the Medical Secretary regarding non-delivery of library books promised in 1905, and handed round the programme of the Section of Medical Sociology at the next Annual Meeting.

Clinical Case.—Dr. AIKMAN showed a boy who had been previously exhibited on November 13th, 1909. It was then a case of swelling in the region of the lowest part of the right parotid gland, made tense by stooping the head, and capable of being emptied by pressure over the cheek. On operation Dr. Aikman found over the angle of the jaw an afferent blood vessel, which he ligatured and divided. The swelling had greatly diminished, and did not now fill; and the patient's appearance had been greatly improved.

Library.—The Divisional Library Trust Deed was read by Dr. BULTEEL, and signed by all the members present, the library being vested in a body of six trustees on behalf of all the subscribing members.

Matters Referred to Divisions. — The committee appointed on February 26th to report on communications from the Medical Secretary handed in their report. The model rules of a public medical service will be considered at a later meeting of the Division. The Division considered that it was inadvisable for the British Medical Association to formulate a policy as to the relations of its members with homoeopaths so long as the General Medical Council retains the names of the latter on the *Medical Register*. A committee was appointed to take up the question of medical inspection of school children, and to watch, on behalf of the profession, the development of educational legislation now pending in the States of Guernsey. The Honorary Secretary was instructed to convey to the Council the Guernsey Division's complete agreement with the three general conclusions of the interim report of the Special Poor Law Reform Committee; and to express the Division's opinion that the said interim report had been very clearly and ably set out, and that the Council's action in the matter had been timely and judicious.

Annual Meeting and Dinner.—The date of the annual meeting and dinner was fixed for May 26th.

ULSTER BRANCH.

THE spring meeting of this Branch was held in the Harbour Office, Londonderry, on Saturday, April 30th, Dr. THOMAS MCLAUGHLIN (Londonderry), and subsequently Dr. DARLING (Lurgan), in the chair.

Confirmation of Minutes.—The minutes were read and confirmed.

Apologies for Non-attendance. — The HONORARY SECRETARY (Dr. Cecil Shaw) read apologies from the President (Dr. Moorhead, Cootehill) and Dr. Calwell.

Report of Council.—The report of Council, which was read by the HONORARY SECRETARY, stated that Dr. E. A. Cody (Belfast) and Dr. A. Patton (Castlecaulfield) had been elected members, and that the annual meeting of the Branch was arranged for Thursday, June 2nd.

Luncheon.—After the meeting the Honorary Secretary of the Londonderry Division (Dr. J. G. Cooke) entertained the members present to luncheon in the Northern Counties Hotel.

☞ *To ensure the insertion of notices in this column, they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

Association Notices.

SPECIAL REPRESENTATIVE MEETING.

PRELIMINARY ANNOUNCEMENT.

A Special Representative Meeting will be held on Tuesday, June 28th, 1910, at 3 p.m., and the following day, if necessary, for the consideration of proposals submitted by the Council as the result of a communication received from the Privy Council with respect to the application of the Association for a Royal Charter. An Extraordinary General Meeting will be held on Wednesday, June 29th, for the confirmation of the decisions of the Representative Meeting. The Agenda of both Meetings will be issued at an early date.

BY ORDER OF THE COUNCIL,

GUY ELLISTON,
Financial Secretary and Business Manager.

J. SMITH WHITAKER,
Medical Secretary.

May 11th, 1910.

ELECTION OF CENTRAL COUNCIL 1910-11.

NOTICE is hereby given that nominations of candidates for election of Members of Council by Branches or groups of Branches in the United Kingdom by voting papers for the year 1910-11 must be forwarded to reach the Financial Secretary and Business Manager, at the Office of the Association, not later than Monday, May 23rd, 1910, and that each nomination must be on the prescribed form, copies of which will be furnished by the Financial Secretary and Business Manager upon application.

Separate forms have been prepared for a nomination by a Division and for a nomination by any three Members respectively, and those applying are requested to state for which purpose the form is desired.

Voting papers containing the names of all candidates duly nominated will be issued from the Central Office on Saturday, June 11th, and will be returnable not later than Saturday, June 18th.

By Order of the Council,

GUY ELLISTON,
Financial Secretary and Business Manager.

April 28th.

BRANCH AND DIVISION MEETINGS TO BE HELD

ABERDEEN BRANCH.—*Election of Representative of the Branch on the Council of the Association.*—Nominations for the above office should be sent to the Honorary Secretary of the Branch, T. FRASER, 45, Elmbank Terrace, Aberdeen, before May 16th.

BATH AND BRISTOL BRANCH: BATH DIVISION.—The annual meeting of the Bath Division will be held at the Royal United Hospital, Bath, on Friday, May 20th, at 5.30 p.m. Business: (1) Election of Officers. (2) Election of a Representative for the Annual Meeting in London. (3) Any other business.—D. LESLIE BEATH, Honorary Secretary.

BATH AND BRISTOL BRANCH: BRISTOL DIVISION.—The annual meeting of this Division will be held at University College, Bristol, in the Medical Library, at 5.30 p.m., on Monday, May 23rd. Business: Election of officers and other business.—NEWMAN NEILD, Honorary Secretary.

BIRMINGHAM BRANCH.—The annual meeting of this Branch will be held on Thursday, June 2nd, at 4 p.m., at the Medical Institute, Edmund Street. Nominations of officers must be sent to Albert Lucas, 9, Easy Row, not later than May 19th. Professor Gilbert Barling will give the presidential address.—ALBERT LUCAS, J. FURNEAUX JORDAN, Honorary Secretaries.

BIRMINGHAM BRANCH: CENTRAL DIVISION.—The annual meeting of the Division will be held at 3.30 p.m. on Wednesday, June 15th, at the Medical Institute, for the purpose of electing a Chairman, Vice-Chairman, and two Honorary Secretaries for the ensuing year. Nominations in writing for these offices must reach the Honorary Secretaries not later than May 25th.—A. W. NUTHALL, W. T. LYDALL, Medical Institute, Edmund Street, Birmingham.

DORSET AND WEST HANTS BRANCH.—The spring meeting of this Branch will be held in the Hotel Mont Doré, Bournemouth, on Wednesday, May 18th.—JAMES DAVISON, Honorary Secretary, "Streateplace," Bournemouth.

DORSET AND WEST HANTS BRANCH: BOURNEMOUTH DIVISION.—The annual meeting of the Division will be held on Saturday, May 14th. Business: Election of officers and other business.—E. KAYE LE FLEMING, Honorary Secretary.

EAST ANGLIAN BRANCH.—The annual meeting will be held at Thetford on Tuesday, June 14th. Members wishing to show cases or specimens or read papers should communicate at once with Dr. Gutch, Ipswich.—B. H. NICHOLSON, Honorary Secretary of Branch.

EAST YORK AND NORTH LINCOLN BRANCH.—The annual meeting of this Branch will be held at the Royal Infirmary, Hull, on Thursday, June 16th, at 12.30 p.m. Nomination of officers must be sent to the Honorary Secretary not later than June 2nd.—EDWARD TURTON, Honorary Secretary, 1, Albion Street, Hull.

GLASGOW AND WEST OF SCOTLAND BRANCH.—The annual meeting of the Branch will be held on Friday, May 27th, at 8.30 p.m., in Grosvenor Restaurant, Gordon Street, Glasgow.—WM. D. MACFARLANE, Junr., Honorary Secretary.

GLOUCESTERSHIRE BRANCH.—In consequence of the death of His late Majesty, the annual meeting and dinner, which had been fixed for May 19th, are postponed till Thursday, June 9th.—DOUGLAS FINLAY, Honorary Secretary, Gloucester.

METROPOLITAN COUNTIES BRANCH.—The annual meeting of the Branch will be held on Thursday, June 23rd, at 4.30 p.m., at 429, Strand, W.C. Agenda: (*a*) To receive the report of the election of new officers. (*b*) To receive the annual report of the Council of the Branch and the annual financial statement. (*c*) To receive the annual report of the Representatives of the Branch on the Central Council. (*d*) To make new rules or alter or repeal existing rules. (*e*) Any other business. (*f*) President's Address. Nominations for the offices of President-elect, four Vice-Presidents, Honorary Treasurer, and two Honorary Secretaries must be sent to Dr. Goodall, Eastern Hospital, Homerton, N.E., not later than May 28th. Nominations may be made by a Division or by twelve members of the Branch, and must be in writing and signed by the Honorary Secretary of the Division or by the twelve members.—E. W. GOODALL, W. GRIFFITH, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: NORWOOD DIVISION.—The general meeting and annual dinner will be held on May 26th, at 7 p.m., at Queen's Hotel, Upper Norwood, Dr. T. D. Greenlees in the chair.—J. A. HOWARD, Honorary Secretary, Upper Norwood.

MIDLAND BRANCH: LINCOLN DIVISION.—The annual meeting of this Division will be held in the Guildhall, Lincoln, on Thursday, May 19th, at 3.30 p.m. Agenda: (*a*) To elect officers, the Representative on the Branch Council, and the ordinary members of the Executive Committee. (*b*) Consideration of the interim report of the Special Poor Law Reform Committee and the answering of certain questions relative thereto (see SUPPLEMENT, BRITISH MEDICAL JOURNAL, February 5th, 1910). (*c*) Consideration of the report of the Council on the Relation of Homoeopaths to the Association and the answering of certain questions relative thereto (see SUPPLEMENT, BRITISH MEDICAL JOURNAL, February 12th, 1910). (*d*) To decide whether the Division should initiate any subject for discussion at the Annual Meeting of the Association, or enter into preliminary discussion of any subject to be brought forward at that meeting. (*e*) Other business. Any member desiring to read papers or show cases or specimens is requested to communicate with J. S. CHATER, Honorary Secretary, 10, Steep Hill, Lincoln.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH: FURNESS DIVISION.—The annual meeting will be held on Friday, May 27th, at 3.15 p.m., in the Masonic Club, Barrow. Business: (1) Annual report. (2) Election of office-bearers. (3) Dr. Pooley will propose this resolution: "In all cases in which a partner, after introduction or otherwise, sells his practice to a successor, all clubs shall be taken over by the

ıccessor at 4s. 4d. per head per annum; and all members of is Division agree not to take any such clubs within twelve onths of transference." (4) The following resolution, sub-itted by the Chelsea Division: "That this meeting recognizes .e necessity for a Union of Medical Practitioners with Parlia-entary Representation, and requests the Executive of the ritish Medical Association to ascertain the wishes of members the United Kingdom by referendum at the earliest possible ite." (5) Dr. Williams: Case of Locomotor Ataxy. (6) Dr. arper will open a discussion on the Use and Abuse of Mid-ifery Forceps. (7) Dr. J. A. Reed: Notes of a Case of Inversion the Uterus. Any other business. As the Committee is ıxious to make this chiefly a clinical meeting, will all members ho can show cases or specimens kindly communicate with the ecretary?—JOHN LIVINGSTON, Honorary Secretary.

SHROPSHIRE AND MID-WALES BRANCH.—A meeting of this ranch will be held on May 31st, when, among other subjects, ıe model rules of a Public Medical Service, referred by the ouncil of the Association to the Divisions, will be considered. opies of the rules will be circulated before the meeting to all ıembers of the Branch.

SOUTH-EASTERN BRANCH: FOLKESTONE DIVISION.—The nnual meeting of the Folkestone Division and of the Folke-tone, Ashford, and Dover Constituency will be held at the lotel Wampach, Castle Hill Avenue, Folkestone, on Wednesday, lay 25th, at 8.30 p.m. Agenda: (1) To elect officers, the Repre-entative of the Division on the Branch Council, and the mem-ers of the Executive Committee. (2) To elect the Representative f the constituency in the Representative Meeting of the Asso-iation. (3) To receive the annual report of the Executive ommittee. (4) To consider any business of the Annual epresentative Meeting. (5) To transact any business that nay be transacted at an ordinary meeting. (6) To alter the y-law relating to the date for holding the annual meeting. 7) Dr. Menzies will open a discussion on the Medical Inspection f School Children. All members of the South-Eastern Branch re invited to attend and introduce professional friends.—. VERNON DODD, M.D., Folkestone, Honorary Secretary.

SOUTH-EASTERN BRANCH: REIGATE DIVISION.—The annual neeting will be held at the Reigate and Redhill Hospital, on Thursday, May 19th, 1910, at 4 p.m., Dr. Berridge in the chair. Tea will be provided at the hospital. Agenda: (1) The minutes of the last meeting. (2) The election of officers. (3) To discuss matters referred to the Division by the Central Committees, namely: (*a*) Report on special class of consultants; (*b*) Medical nspection and treatment of school children; (*c*) Reform of Poor Law; (*d*) Relation of homoeopaths to the Association. (4) Any other business. All members of the Branch are invited to attend and to introduce professional friends. The Honorary Secretary will be glad if members will inform him if they will be able to attend the meeting.—JOHN G. OGLE, Honorary Secretary, Tower House, Reigate.

SOUTH MIDLAND BRANCH.—The annual meeting will be held at Bedford, on Thursday, June 16th, under the presidency of Dr. H. Skelding. The President has promised to show some cases, and hopes for some discussion of these. This will be followed by the President's address, and then Mr. H. D. Rolles-on (St. George's Hospital) will address the meeting on Acute Arthritis of Doubtful Origin. Members are invited to read papers or show cases. The meeting, and the luncheon which will precede it, will be held at the County Hospital, Bedford.—E. HARRIES-JONES, Northampton, Honorary Secretary.

SOUTH MIDLAND BRANCH: BEDFORD AND HERTS DIVISION.—The annual meeting of the Division will be held at Whitehill, Luton, by kind permission of Mr. H. Durler, on Tuesday, May 17th, at 3 p.m., Dr. J. W. Bone in the chair. Agenda: Confirmation of minutes of last meeting; election of officers for ensuing year; any other business that may arise. A paper will be read by Dr. Nestor Tirard, Senior Physician, King's College Hospital, on Some Forms of Diarrhoea. The Chairman invites members of the Division to lunch, at 1.30, at Whitehill, Luton. There will be a meeting of the Executive Committee at 2.45.—G. H. GOLDSMITH, Honorary Secretary, Harpur Place, Bedford.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The annual meeting of this Branch will be held at Newport (Mon.), on Thursday, June 9th. Nomination of officers must be sent in writing to the Honorary Secretary not less than three weeks before the annual meeting.—ALFRED HANSON, Swansea, Honorary Secretary.

ULSTER BRANCH.—The annual meeting of this Branch will be held in Belfast on Thursday, June 2nd. Members having communications to make to the meeting are requested to send particulars of the same to the Honorary Secretary not later than May 21st.—CECIL SHAW, M.D., Honorary Secretary, 29, University Square, Belfast.

British Medical Association.

SCHOLARSHIPS AND GRANTS IN AID OF SCIENTIFIC RESEARCH.

SCHOLARSHIPS.

THE Council of the British Medical Association is prepared to receive applications for Research Scholarships as follows:

1. An ERNEST HART MEMORIAL SCHOLARSHIP, of the value of £200 per annum, for the study of some subject in the department of State Medicine.
2. THREE RESEARCH SCHOLARSHIPS, each of the value of £150 per annum, for research into some subject relating to the Causation, Prevention, or Treatment of Disease. Each Scholarship is tenable for one year, commencing on October 1st, 1910. A Scholar may be reappointed for not more than two additional terms.

The conditions of the award of Scholarships are stated in the Regulations, a copy of which will be supplied on application to the Medical Secretary of the Association, 429, Strand, London, W.C.

GRANTS.

The Council of the British Medical Association is also prepared to receive applications for Grants for the Assistance of Research into the causation, treatment, or prevention of disease. Preference will be given, other things being equal, to members of the medical profession, and to applicants who propose as subjects of investigation problems directly related to practical medicine.

The conditions of the award of Grants are stated in the Regulations, a copy of which will be supplied on application to the Medical Secretary of the Association, 429, Strand, London, W.C.

Applications.

Applications for Scholarships and Grants for the year 1910–11 must be made not later than June 20th, 1910, in the prescribed form, a copy of which will be supplied by the Medical Secretary on application.

Each application should be accompanied by testimonials, including a recommendation from the head of the laboratory, if any, in which the applicant proposes to work, setting out the fitness of the candidate to conduct such work, and the probable value of the work to be undertaken. This is not intended, however, to prevent applications for grants in aid of work which need not be performed in a recognized laboratory.

J. SMITH WHITAKER, *Medical Secretary.*

429, Strand, London, W.C.,
April 20th, 1910.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

FLEET SURGEON L. BIDWELL has been placed on the retired list at his own request, May 2nd. His commissions are dated: Surgeon, February 21st, 1889; Staff Surgeon, February 21st, 1897; Fleet Surgeon, February 21st, 1905. Fleet Surgeon E. P. MOURILYAN, M.B., has also been placed on the retired list, with the rank of Deputy Inspector-General, April 25th. His commissions are dated, Surgeon, February 22nd, 1888; Staff Surgeon, February 22nd, 1890; Fleet Surgeon, February 22nd, 1904. Whilst Surgeon of the *Doris* he served with the Naval Brigade during the South African war in 1899-1900, and was present at the actions of Modder River, Magersfontein, Paardeberg, and Dreifontein, at the occupation of Bloemfontein, and the relief of Wepener; during the severe outbreak of enteric fever at Bloemfontein in April, 1900, he was attached to the Industrial Home Hospital; he has received the Queen's medal with three clasps.

The following appointments have been made at the Admiralty: Staff Surgeon H. L. NORRIS to the *Vivid*, May 7th; Staff Surgeon O. MILLS to the *Vivid*, additional, to be lent to Plymouth Hospital, May 21st, and to Plymouth Hospital, vice Eastment, June 21st; Staff Surgeon W. P. WALKER, M.B., to Plymouth Hospital, May 23rd; Surgeon G. M. LEVICK to the *Pembroke*, additional, for disposal, April 15th; Staff Surgeon F. R. MANN to the *Victory*, additional, for disposal, May 7th.

Surgeon L. S. WHITWAM, M.B., is promoted to be Staff Surgeon, from February 28th, 1910. He was appointed Surgeon, February 26th, 1900.

Surgeons J. G. PEEBLE, M.B., and E. R. L. THOMAS are also promoted to be Staff Surgeons, dated February 8th, their first appointments being dated February 8th, 1902.

ARMY MEDICAL SERVICE.

MAJOR B. H. SCOTT, Royal Army Medical Corps, to be a Deputy Assistant Director-General at the War Office, vice Major H. J. M. Buist, D.S.O., M.B., whose tenure of that appointment has expired, May 1st.

ROYAL ARMY MEDICAL CORPS.

Major C. H. HOPKINS is placed temporarily on the half-pay list on account of ill-health, April 30th. He joined the department as Surgeon-Lieutenant, July 28th, 1897, and became Major, July 28th, 1909. He served with the Nile Expedition in 1898, and was present at the battle of Khartoum, receiving the British medal and the Khedive's medal with clasp.

Lieutenant-Colonel S. WESTCOTT, C.M.G., who is serving in India, is appointed an Honorary Surgeon to the Governor-General.

Lieutenant-Colonel E. H. L. LYNDEN-BELL, M.B., who is serving in India, is appointed to officiate as Principal Medical Officer, 7th (Meerut) Division, in addition to his own duties.

ROYAL ARMY MEDICAL CORPS.

EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

FIELD OFFICER, who has been home one year, wishes to exchange to India.—Address Exile, care of Messrs. Holt and Co., 3, Whitehall Place, London.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL W. B. BROWNING, C.I.E., Madras, retires from the service from May 17th. He was appointed Assistant Surgeon, March 31st, 1880, and became Lieutenant-Colonel, March 31st, 1900.

The promotion to be Colonels of Lieutenant-Colonels T. GRAINGER, M.D., Bengal, and G. F. A. HARRIS, M.D., Bengal, which has been already announced in the BRITISH MEDICAL JOURNAL, has received the approval of the King.

The promotion to be Captains of the undermentioned Lieutenants, already mentioned in the BRITISH MEDICAL JOURNAL, has also received the Royal sanction: H. H. THORBURN, M.B., N. N. G. C. MCVEAN, M.B., R. F. HEBBERT, JAMES SMALLEY, M.B., W. M. THOMPSON, M.B., F. H. SALISBURY, M.B., F. C. FRASER, M.D., O. A. R. BERKELEY-HILL, M.B., W. L. HARNETT, M.B., F.R.C.S., J. D SANDES, M.B., W. P. G. WILLIAMS, M.B., A. H. NAPIER, M.B., GILBERT HOLROYD, M.B., A. E. GRISEWOOD, M.B., D. L. GRAHAM, M.B., R. B. NICHOLSON, G. S. HUSBAND, M.B., J. A. CRUIKSHANK, J. A. S. PHILLIPS, E. D. SIMSON, M.B., P. M. RENNIE, M.B.

The following Captains are promoted to be Majors, dated January 28th, 1910: GODFREY TATE, M.B., R. F. BAIRD, A. T. GAGE, M.B., GEORGE MCPHERSON, M.B., A. G. SARGENT, W. H. COX, D.S.O., DE VERE CONDON, M.D., HENRY KIRKPATRICK, M.B., F. D. S. FAYRER, P. K. CHITALE, WILLIAM LETHBRIDGE, M.D., THOMAS HUNTER, M.D., W. R. BATTYE, M.B., F.R.C.S., GEORGE HUTCHESON, M.D., W. G. LISTON, M.D., HAROLD BOULTON, M.B., R. W. ANTHONY, M.B., F.R.C.S.E., E. F. G. TUCKER, M.B., G. E. STEWART, M.B., F.R.C.S.E., F. S. C. THOMPSON, M.B., J. W. WATSON, M.B. Of the foregoing, the previous commissions of Majors Tate to Lethbridge are dated: Lieutenant, January 28th, 1898; Captain, January 28th, 1901; of Majors Hunter to Watson—Lieutenant, July 27th, 1898; Captain, July 27th, 1901. Such as have war records in the Army Lists are as follow: Major Tate—China, 1900 (medal); North-West Frontier of India campaign, 1908. Major Baird—Tibet, 1903-4 (medal with clasp). Majors McPherson, Hutcheson, and Tucker—China, 1900 (medal). Major Cox—China, 1900 (medal); Waziristan, North-West Frontier of India, 1901-2 (mentioned in dispatches, medal with clasp, D.S.O.). Major Boulton—Operations in Somaliland, 1901 (mentioned in dispatches, medal with clasp). Major Anthony—Operations against the Ogaden Somalis in British East Africa, 1901 (medal with clasp). Major Stewart—China, 1900 (medal); capture of Nodiz Fort, Mekran, 1901. Major Thompson—China, 1900 (medal); employed with hospital ship *Hardinge*, Somaliland, 1903-4 (medal with clasp); operations in the hinterland of Aden, 1903-4.

Lieutenant-Colonel C. C MANIFOLD, M.B., Bengal, is promoted to be Colonel from March 29th. He was appointed Surgeon, March 31st, 1887, and became Lieutenant-Colonel, November 29th, 1900. He took part with the Tirah Expeditionary Force in 1897-8, receiving a medal with clasp, and in the China war in 1900, when he was at the relief of Pekin and in the actions at Peitsang and Yangtsun; he was mentioned in dispatches, promoted to be Lieutenant-Colonel, and received a medal with clasp.

Lieutenant-Colonel J. A. BURTON, having arrived from the 9th (Secunderabad) Division, assumed charge of the office of Principal Medical Officer, Aden Brigade, on April 18th.

Lieutenant-Colonel J. ANDERSON, M.B., Bengal, retires from the service, from April 1st He was appointed Surgeon, September 30th, 1878, and became Lieutenant-Colonel, September 30th, 1898. He was in the Afghan war in 1879-80, and was present in the action at Jugdulluck, receiving a medal.

Lieutenant-Colonel G. H. D. GIMLETTE, C.I.E., M.D., Bengal, also retires, from April 1st. He entered the department as Surgeon, March 31st, 1879, and was made Lieutenant-Colonel, March 31st, 1899. He served in the Egyptian war in 1882, and was present at the battle of Tel-el-Kebir, and in the pursuit to Zagazig (medal with clasp and Khedive's bronze star).

The following Lieutenants are promoted to be Captains, from February 2nd: S. B. MEHTA, P. K. TARAPORE, D. D. KAMAT, A. F. BABONAU, M.B.

Major W. SELBY, D.S.O., has been appointed an Honorary Surgeon to the Governor-General of India.

The following retirements from the service have been approved by the King; they have all been previously announced in the BRITISH MEDICAL JOURNAL namely: Colonel H. K. MCKAY, C.B., C.I.E.: Lieutenant-Colonels ARTHUR BOWN, JOSEPH SYKES, W. H. BURKE, M.B., and J. C. MARSDEN; Colonels RODERICK MACRAE, M.B., and R. D. MURRAY, M.B.

The undermentioned officers are appointed Specialists in the subjects named, from the dates specified: Advanced Operative Surgery—Captain C. H. BRODRIBB, M.B., 5th (Mhow) Division, January 19th; Lieutenant A. G. COULLIE, M.B., 9th (Secunderabad) Division, February 27th. Prevention of Disease—Lieutenant A. J. H. RUSSELL, M.B., Brigade Laboratory, Secunderabad, March 4th; Lieutenant J. J. H. NELSON, M.B., Brigade Laboratory, Bangalore, March 2nd.

SPECIAL RESERVE OF OFFICERS.

ROYAL ARMY MEDICAL CORPS.

DUNCAN MACFADYEN, M.B., to be Lieutenant (on probation) February 26th.

TERRITORIAL FORCE.

ROYAL ARMY MEDICAL CORPS.

Welsh Border Mounted Brigade Field Ambulance.—Lieutenant WILLIAM SMITH, from the Eastern Mounted Brigade Field Ambulance, R.A.M.C., to be Lieutenant, March 1st.

First East Lancashire Field Ambulance.—JOSEPH M. POSTLETHWAITE to be Lieutenant, February 2nd; Lieutenant CECIL W. HUT resigns his commission, March 31st.

Third East Lancashire Field Ambulance.—HENRY H. RAYNER, M.B., F.R.C.S.Eng., to be Lieutenant, February 3rd.

First Southern General Hospital.—Major R. M. SIMON, M.D., to be Lieutenant-Colonel, August 5th, 1909; Captain J. W. RUSSELL, M.D. to be Major, August 5th, 1909.

TERRITORIAL FORCE DECORATION.

THE King has been pleased to confer the Territorial Decoration upon the undermentioned officers: Surgeon-Lieutenant-Colonel R. E. Wood Lanarkshire Yeomanry; Surgeon-Major A. COSGRAVE, 3rd East Lancashire Brigade Royal Field Artillery; Major J. B. BERRY, R.A.M.C. attached to the 3rd Home Counties (Cinque Ports) Brigade, Royal Field Artillery; Major W. B. MACKAY, M.D., R.A.M.C., attached to the 7th Battalion the Northumberland Fusiliers; Major R. STIRLING, M.D. R.A.M.C., attached to the 6th (Perthshire) Battalion the Black Watch (Royal Highlanders).

COLONIAL MEDICAL SERVICES.

THE following changes in the Colonial Medical Services are notified by the Colonial Office:

WEST AFRICAN MEDICAL STAFF.—*Appointments:* G. DE P. D'AMICO M.R.C.S.Eng., L.R.C.P.Lond., M.D.Louvain, Gold Coast; G. F. FORD L.R.C.S., L.R.C.P.Edin., L.F.P.S.Glasg., Gold Coast; J. A. HARLEY M.B., Ch.B.Edin., Gambia; A. HUTTON, M.B., Ch.B.Aberd., Northern Nigeria; J. LINDSAY, M.B., Ch.B.Edin., Northern Nigeria; R. C. MACPHERSON, M.B., Ch.B.Glasg., Southern Nigeria. Mr. A. Hutton has been seconded in his appointment for a year to enable him to hold the post of Demonstrator in the London School of Tropical Medicine. *Transfer:* Mr. F. J. A. BALDWIN, M.R.C.S.Eng., L.R.C.P.Lond., Medical Officer, has been transferred from the Gambia to Southern Nigeria. *Death:* R. WELPLY, L.R.C.S., L.R.C.P.Ire., Medical Officer, Southern Nigeria.

OTHER COLONIES AND PROTECTORATES.—*Appointments:* Mr. B. W. CHERRETT, M.R.C.S.Eng., L.R.C.P.Lond., M.B., B.S.Lond., D.P.H.Lond., to be a Medical Officer in the East Africa Protectorate; Mr. E. MINETT, M.R.C.S.Eng., L.R.C.P.Lond., D.P.H.Cantab., M.D.Brux., to be Assistant Government Bacteriologist in British Guiana; Mr. PUGH, M.R.C.S.Eng., L.R.C.P.Lond., to be a Medical Officer in the East Africa Protectorate; Mr. G. M. SANDERSON, M.R.C.S.Eng., L.R.C.P.Lond., to be a Medical Officer in the Nyasaland Protectorate.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN seventy-seven of the largest English towns, 8,476 births and 4,2[illegible] deaths were registered during the week ending Saturday last, May 7th. The annual rate of mortality in these towns, which had been 15.0, 13.[illegible] and 13.1 per 1,000 in the three preceding weeks was again 13.1 per 1,0[illegible] last week. The rates in the several towns ranged from 5.8 in Hornsey 6.3 in Willesden and in Tottenham, 6.6 in Leyton, 7.2 in Handsworth (Staffs), and 7.4 in Wigan, to 19.2 in Liverpool, 19.3 in Manchester and in Dewsbury, 19.4 in Great Yarmouth, 19.9 in Oldham, 21.6 in Merthyr Tydfil, and 22.3 in Stockton-on-Tees. The death-rate from the principal infectious diseases averaged 1.2 per 1,000 in the seventy-seven large towns and in London, while among the seventy-six other large towns it ranged upwards to 2.8 in Burton-on-Trent and in Manchester, 3.0 in Bootle, 3.3 in Merthyr Tydfil, and 3.5 in South Shields. Measles caused a death-rate of 1.6 in Croydon, 1.[illegible] in East Ham, 1.9 in Burton-on-Trent, and 2.0 in Merthyr Tydfil; diphtheria of 1.4 in Bournemouth and 1.5 in Bootle; whooping-cough of 1.1 in Manchester and in Oldham, 1.3 in Birkenhead and in West Hartlepool, 1.4 in Bolton, 1.5 in Salford, 1.6 in Rotherham, and 2.2 in South Shields. The mortality from scarlet fever, from enteric fever or from diarrhoea showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The number of scarlet fever cases under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,535, 1,510, and 1,509 at the end of the three preceding weeks, has further declined to 1,506 at the end of the week under notice; 179 new cases were admitted during the week, against 197, 196, and 192 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday last, May 7th, 980 births and 56[illegible] deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 18.5, 16.3, and 17.4 in the three preceding weeks, declined to 15.6 last week, and was 2.5 per 1,000 above the mean rate during the same period in the seventy-seven large English towns. Among these Scottish towns the death-rate ranged from 9.0 in Leith and 11.8 in Aberdeen to 17.7 in Greenock and 24.8 in Dundee. The death-rates from the principal infectious diseases averaged 2.4 per 1,000, the highest rates being recorded in Greenock and Dundee. The 250 deaths in Glasgow included 13 which were referred to measles, 5 to scarlet fever, 1 to diphtheria, 7 to whooping-cough, and 5 to diarrhœa. Seven deaths from measles were recorded in Edinburgh, 26 in Dundee, and 5 in Greenock, and 2 deaths from diphtheria in Paisley.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, May 7th, 629 births and 443 deaths were registered in the twenty-two principal urban districts of Ireland as against 703 births and 485 deaths in the preceding period. The annual death-rate in these districts, which had been 23.2, 22.4, and 22.[illegible] per 1,000 in the three preceding weeks, fell to 20.1 per 1,000 in the week under notice, this figure being 7.0 per 1,000 higher than the mean annual death-rate in the seventy-seven English towns for the corresponding

g period. The figures in Dublin and Belfast were 16.7 and 22.3 spectively, those in other districts ranging from 4.0 in Dundalk and 4 in Lurgan to 44.2 in Kilkenny and 61.3 in Drogheda, while Cork stood 25 3, Londonderry at 18.0, Limerick at 12.3, and Waterford at 29.2. he zymotic death-rate in the twenty-two districts averaged 1.9 per 000, as against 1.8 per 1,000 in the preceding week.

Hospitals and Asylums.

WIMBLEDON COTTAGE HOSPITAL.

THE fortieth annual report of this institution, recently published, stated that the number of patients in hospital on January 1st, 1909, was 17, while 242 were admitted during the year, making a total of 259—108 males and 151 females. Of these, 207 recovered, 17 were relieved, 2 not relieved, 5 were discharged, 14 died, and 14 still remained in hospital at the end of the year. The average number resident daily was 14.82; the average residence of each patient was 20.88 days. The weekly average cost of each patient was £1 1s. 10d. The total number of patients admitted to the hospital since its foundation was 4,148. Twenty-two out-patients received treatment in the course of the year, involving 100 attendances. The statement of accounts was satisfactory, the income being £1,037 and the expenditure £877. Grants of £50 from King Edward's Hospital Fund, of £61 15s. from the Hospital Sunday Fund, and of £36 from the Hospital Saturday Fund were acknowledged.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

BANBURY: HORTON INFIRMARY.—House-Surgeon. Salary, £80 per annum.

BIRMINGHAM GENERAL DISPENSARY.—(1) Resident Surgeon; salary, £170 per annum. (2) Temporary Resident Surgeon; salary, £4 4s. per week.

BIRMINGHAM: GENERAL HOSPITAL.—House-Physician. Salary, £50 per annum.

BRISTOL EYE HOSPITAL.—House-Surgeon. Salary, £80 per annum.

BRISTOL ROYAL INFIRMARY.—Honorary Medical Registrar.

BRITISH LYING-IN HOSPITAL, Endell Street, W.C.—Resident Medical Officer. Salary at the rate of £50 per annum.

BRIXTON DISPENSARY, Water Lane, S.W.—Resident Medical Officer. Salary, £150 per annum.

BURY INFIRMARY.—Junior House-Surgeon. Salary, £80 per annum, increasing to £90 after six months.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—(1) Honorary Surgeon; (2) House-Surgeon. Salary, £80 per annum.

DUDLEY: GUEST HOSPITAL.—Assistant House-Surgeon. Salary, £75 per annum.

FLEETWOOD: ROSSALL SCHOOL.—Resident Medical Officer. Salary, £250 per annum, rising to £300.

FOLKESTONE: VICTORIA HOSPITAL.—House-Surgeon. Salary, £100 per annum.

GLENLIVET DISTRICT, Banffshire.—Medical Officer for the District. Salary, £45 per annum.

GUILDFORD: ROYAL SURREY COUNTY HOSPITAL.—Assistant House-Surgeon. Salary, £50 per annum.

HEMEL HEMPSTEAD: WEST HERTS HOSPITAL.—House-Surgeon. Salary, £100 per annum.

JERSEY GENERAL DISPENSARY AND INFIRMARY.—Resident Medical Officer. Salary, £100 per annum.

LONDON THROAT HOSPITAL, Great Portland Street, W.—House-Surgeon, non-resident. Honorarium, £50 per annum.

MANCHESTER CORPORATION.—Female Medical Officer under Midwives Act. Salary, £250 per annum.

MANCHESTER: COUNTY ASYLUM, Prestwich. — (1) Junior Assistant Medical Officer. Salary, £150 per annum, increasing to £250. (2) Locum tenens. Salary, £4 4s. per week.

MANCHESTER: ST. MARY'S HOSPITALS FOR WOMEN AND CHILDREN.—House-Surgeon. Honorarium at the rate of £50 per annum.

MILLER GENERAL HOSPITAL, Greenwich Road, S.E.—Honorary Physician.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Northwood.—House-Physician. Salary, £75 per annum.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Senior House-Physician. Salary, £50 per annum.

NOTTINGHAM GENERAL HOSPITAL.—Locumtenent for three and a half months. Salary, £45.

REDHILL: EARLSWOOD ASYLUM.—Junior Assistant Medical Officer. Salary, £130 per annum, rising to £150.

ROYAL WATERLOO HOSPITAL FOR CHILDREN AND WOMEN, S.E.—Surgeon to the Throat, Nose, and Ear Department.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William Street, W.C.—Clinical Assistants.

ST. PAUL'S HOSPITAL FOR SKIN AND GENITO-URINARY DISEASES, Red Lion Square, W.C.—Assistant House-Surgeon. Honorarium, £10 10s. for six months.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Junior House-Surgeon. Salary at the rate of £80 per annum.

SHEFFIELD ROYAL HOSPITAL.—Assistant House-Physician. Salary, £50.

SOUTH SHIELDS: INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Senior House-Surgeon (male). Salary, £100 per annum.

SWANSEA GENERAL AND EYE HOSPITAL.—House-Physician. Salary, £75 per annum.

TAUNTON AND SOMERSET HOSPITAL.—(1) House-Surgeon; (2) Resident Assistant House-Surgeon. Salary at the rate of £100 and £50 per annum respectively.

UNIVERSITY OF LONDON.—Research Studentship in Physiology, value £50 for one year.

VENTNOR: ROYAL NATIONAL HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Two Assistant Resident Medical Officers, Salary, £100 per annum each.

VICTORIA HOSPITAL FOR CHILDREN, Tite Street, S.W.—House-Surgeon for six months. Salary, £30.

WEST END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM, PARALYSIS, AND EPILEPSY, Welbeck Street, W.—Out-patients' Physician.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician for six months.

WESTMORLAND CONSUMPTION SANATORIUM. — Assistant Resident Physician. Salary, £100 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary, £80 per annum.

MEDICAL REFEREE.—The Home Secretary announces a vacancy as Medical Referee under the Workmen's Compensation Act 1906 for County Court Circuit No. 49.

APPOINTMENTS.

BIRD, A. C., M.R.C.S., L.R.C.P., District Medical Officer of the Honiton Union.

CAMPBELL, R. H., M.B., Ch.B.Glas., House-Surgeon to the Hampstead General Hospital with which is amalgamated the North-West London Hospital.

CLAPHAM, H., M.R.C.S., L.R.C.P., Medical Officer of Health of the Thorney Rural District.

DEWAR, T. F., M.D.Aberd., Medical Inspector under the Local Government Board for Scotland.

DIXON, T. Benjamin, M.R.C.S., L.R.C.P., Medical Officer to the Bristol Dispensary.

GREEN, S. B., M.B.Lond., District and Workhouse Medical Officer of the Parish of Bristol.

GRIEVE, K. K., M.B., Ch.B.Edin., Resident Assistant Medical Officer of the Salford Union Infirmary.

HARWOOD, T. E., M.B., Ch.B.Edin., House-Physician to the Hampstead General Hospital with which is amalgamated the North-West London Hospital.

HASTINGS, Somerville, M.S., F.R.C.S., Surgeon to the Ear and Throat Department of the Middlesex Hospital.

HOSSACK, William C., M.D.Aberd., Medical Officer of Health for the Port of Calcutta.

LINDSAY, C. H., M.D.Edin., D.P.H.Camb., District Medical Officer of the Prescot Union.

MITCHELL, G., M.B., Ch.B.Aberd., Certifying Factory Surgeon for the Insch District, co. Aberdeen.

MOXON, Frank, M.B., B.S.Durh., Assistant in the Refraction Department for School Children, at the Hospital for Sick Children, Great Ormond Street.

PARKER, J. C., M.B., Ch.B.Edin., Certifying Factory Surgeon for the Kilsyth District, co. Stirling.

PATRICK, J. King, M.B., Ch.B., D.P.H., Assistant Medical Officer and Medical Inspector of School Children to County of Ayr.

PELL, W., M.R.C.S., L.R.C.P., District Medical Officer of the Parish of Bethnal Green.

STEWART, Matthew J., M.B., Ch.B.Glas., Clinical Pathologist to the Leeds General Infirmary, vice Dr. O. C. Gruner.

WALKER, G. L., L.S.A., District Medical Officer of the Goole Union.

WILLIAMS, Richd., M.R.C.S., etc., Oculist for the County of Carnarvon by the Education Authority.

YELF, R. E. B., M.B., C.M.Edin., Medical Officer of Health of the Stow-on-the-Wold Rural District.

GUY'S HOSPITAL.—The following appointments have been made:

W. M. Mollison, M.C.Cantab., F.R.C.S.Eng., Aural Surgeon.

A. R. Thompson, Ch.M.Vict., F.R.C.S., Surgeon to the newly established Genito-Urinary Department.

A. F. Hertz, M.D.Oxon., Physician for Nervous Diseases with charge of Out-Patients.

KING'S COLLEGE HOSPITAL.—The following appointments on the Honorary Medical Staff have been made:

Urban Pritchard, M.D.Edin., Consulting Aural Surgeon.

Arthur H. Cheatle, F.R.C.S., Lecturer in and Teacher of Aural Surgery.

G. J. Jenkins, F.R.C.S., Assistant Aural Surgeon.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTH.

GARDNER-MEDWIN.—On May 4th, at Wavertree, Liverpool, the wife of F. M. Gardner-Medwin, M.R.C.S., L.R.C.P., of a son.

PUBLISHERS' ANNOUNCEMENTS.

MESSRS. J. AND A. CHURCHILL have just ready for publication a new edition of Volume II of *Allen's Commercial Organic Analysis*. It has been rewritten under the editorship of Dr. H. Leffmann and Mr. W. A. Davis, B.Sc. The subjects and authors are as follows: Fixed oils, fats, and waxes, by C. A. Mitchell; special characters and methods, by L. Archbutt; butter fat, by C. Revis and E. R. Bolton; lard, by C. A. Mitchell; linseed oil, by C. A. Klein; higher fatty acids, by W. Robertson; soap, by H. Leffmann; glycerol, by W. A. Davis; cholesterols, by J. A. Gardner; wool fat and cloth oils, by A. H. Gill. The same firm will also publish a work entitled *Post-mortem Manual*, an illustrated handbook of morbid anatomy and *post-mortem* treatment, by C. R. Box, M.D., F.R.C.P., Physician to Out-patients, St. Thomas's Hospital.

DIARY FOR THE WEEK.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Lecture, Friday, 3.45 p.m., Mouth and Teeth.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Wednesday, 4 p.m., Foreign Bodies in the Air Passages.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Thursday, 4 p.m., Influenzal Meningitis.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat, at noon and 4 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Thursday, and noon, Friday; Eye, 11 a.m, Wednesday and Saturday; Radiography, 4 p.m., Thursday. Special Lectures: Wednesday, 3 30 p.m., Sympathetic Ophthalmitis; Thursday, 4 p.m., Infantile Feeding.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week, at 4 p m. each day: Tuesday, Medical; Wednesday, Surgical; Thursday, Museum Demonstration. Lectures, at 5.15 p m. each day, will be given as follow: Tuesday, How to Treat Sore Throat; Wednesday, Headaches in Relation to Obstructions in the Nasal Passages; Thursday, The Treatment of Internal Piles.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Friday, 3.30 p.m., Clinical Lecture.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, 10 a.m., Surgical Out-patient Clinic; 2.30 p.m., Medical Out-patient Clinic: Nose, Throat, and Ear Diseases. Tuesday, 10 a.m., Medical Out-patient Clinic; 2.30 p.m., Operations; Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient; 4.30 p.m., Lecture: Irregularity of the Heart: Its Causes and Significance. Wednesday, 2.30 p.m., Medical Out-patient Clinic: Diseases of the Skin; Diseases of the Eye; *X* Rays. Thursday, 2.20 p.m., Gynaecological Operations; Medical Out-patient Clinic; Surgical Out-patient Clinic; 3 p m., Medical In-patient Clinic; Lecture: Surgical Tuberculosis. Friday, 10 a.m., Clinic: Surgical Out-patient; 2.30 p.m, Operations; Clinics: Medical Out-patient; Eye; 3.30 p.m., Medical In-patient.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Daily arrangements: Medical and Surgical Clinics, 2 p m.; Operations, 2 p.m.; *X* Rays, 2 p.m. Tuesday: Gynaecology, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Practical Medicine, 12 15 p.m.; Eye, 2 p m.; Gynaecology, 2 p.m. Thursday, Surgical Registrar, 10 a.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Medical Registrar, 10 a.m.; Gynaecology, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m.; Eye, 10 a m. Lectures, at 5 p.m.: Tuesday, Typhoid; Wednesday, *X*-ray Examination of the Digestive System, illustrated; Thursday, Operations for Hernia; Friday, Cases of Skin Diseases.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
MAY.	
14 SATURDAY ..	BOURNEMOUTH DIVISION, *Dorset and West Hants Branch*, Annual Meeting.
15 Sunday ..	
16 MONDAY ..	
17 TUESDAY ..	BEDFORD AND HERTS DIVISION, *South Midland Branch*, Annual Meeting, Whitehill, Luton, 3 p.m.; Lunch, 1.30 p.m.; Executive Committee, 2.45 p.m.
18 WEDNESDAY	LONDON: Contract Practice Subcommittee, 2 p m. DORSET AND WEST HANTS BRANCH, Spring Meeting, Hotel Mont Doré, Bournemouth.
19 THURSDAY ..	LONDON: Conference between Representatives of the Association and Representatives of British Pharmaceutical Conference, 3 p.m. Preliminary Conference of British Medical Association Representatives, 2 p.m. LONDON: Metropolitan Counties Branch Council, 4.30 p.m. LINCOLN DIVISION, *Midland Branch*, Annual Meeting, Guildhall, Lincoln, 3.30 p.m. REIGATE DIVISION, *South-Eastern Branch*, Annual Meeting, Reigate and Redhill Hospital, 4 p.m.
20 FRIDAY ..	BATH DIVISION, *Bath and Bristol Branch*, Annual Meeting Royal United Hospital, Bath, 5.30 p.m.
21 SATURDAY ..	
22 Sunday ..	
23 MONDAY ..	BRISTOL DIVISION, *Bath and Bristol Branch*, Annual Meeting, Medical Library, University College, Bristol, 5.30 p.m.

Date.	Meetings to be Held.
MAY *(continued)*.	
24 TUESDAY ..	BATH AND BRISTOL BRANCH, Annual Meeting. Bath. CARDIFF DIVISION, *South Wales and Monmouthshire Branch*, Annual Meeting, Cardiff.
25 WEDNESDAY	FOLKESTONE DIVISION, *South-Eastern Branch*, Annual Meeting of Division, and Folkestone, Ashford, and Dover Constituency, Hotel Wampach, Castle Hill Avenue, Folkestone, 8.30 p.m. RICHMOND DIVISION, *Metropolitan Counties Branch*, Annual Meeting, Royal Hospital Richmond, 8.30 p.m.
26 THURSDAY ..	NORWOOD DIVISION, *Metropolitan Counties Branch*, General Meeting and Annual Dinner. Queen's Hotel, Upper Norwood, 7 p.m.
27 FRIDAY ..	LONDON: Conference between Special Poor Law Reform Committee and Contract Practice Subcommittee, 2 p.m. CITY DIVISION, *Metropolitan Counties Branch*, Annual Meeting, Hackney Town Hall, 4 p.m. FURNESS DIVISION, *North Lancashire and South Westmorland Branch*, Annual Meeting, Masonic Club, Barrow, 3.15 p.m. GLASGOW AND WEST OF SCOTLAND BRANCH, Annual Meeting, Grosvenor Restaurant, Gordon Street, Glasgow, 8.30 p m. HAMPSTEAD DIVISION, *Metropolitan Counties Branch*, 4.30 p.m. TOTTENHAM DIVISION, *Metropolitan Counties Branch*, Annual Meeting, Tottenham Hospital, 4.30 p.m.
28 SATURDAY ..	

Printed and Published by the British Medical Association at their Offices, No. 429, Strand, in the Parish of St. Martin-in-the-Fields in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MAY 21ST, 1910.

CONTENTS.

PAGE

Special Representative Meeting.—PRELIMINARY NOTICE ... 282

Matters Referred to Divisions:

PROVISIONAL AGENDA FOR ANNUAL REPRESENTATIVE MEETING 237

APPENDICES ... ... 242 to 248

ANNUAL REPORT OF COUNCIL:— Finance. — Organization.—Science.—Medical Ethics.—Medico-Political.—Public Health and Poor Law.—Hospitals.—Naval and Military.—Scotland.—Ireland.—The Branches outside the United Kingdom 248 to 277

ASSOCIATION NOTICE.—Election of Central Council 1910–11 ... 278

VACANCIES AND APPOINTMENTS 283

BIRTHS, MARRIAGES, AND DEATHS 284

PAGE

Association Intelligence: Proceedings of Council:

Minutes. — Apologies. — Deaths.—Hampstead Hospital.—Presidential Badge. — Section of Anaesthetics —British Medical Benevolent Fund.—Lister Institute.—Journal and Finance Committee.—Organization Committee.—Science Committee.—Central Ethical Committee.—Medico-Political Committee.—Public Health Committee.—Hospitals Committee.—Scottish Committee.—Irish Committee.—Special Poor Law Committee.—Territorial Committee —Special Representative Meeting.—Candidates Elected to the Association.—Societies' Applications.—Appointment of Solicitor to the Association.—Report of Council ... ... 279 to 282

DIARY FOR THE WEEK 284

CALENDAR 284

SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs. BY ORDER.

MATTERS REFERRED TO DIVISIONS.

British Medical Association.

Annual Representative Meeting, 1910.

THE Annual Representative Meeting will be held in the Court of Common Council Chamber, Guildhall, London, on Friday, July 22nd, 1910, and following days as may be necessary.

On the Friday the Meeting will immediately follow the Annual General Meeting to be held at 10 a.m.

PROVISIONAL AGENDA.

ORDER OF BUSINESS.

A. Reception of Return of Representatives Elected.

1. **Motion:** That the Return of election of Representatives of Divisions for the year 1910–11 be received, approved, and entered on the Minutes.

2. **Motion:** That the Notices (if any) of appointment of substitutes for Representatives under Article XXX and By-law 19 be received, approved, and entered on the Minutes.

B. Standing Orders.

(For Standing Orders as adopted at Belfast, see Appendix A, page 242.)

3. **Motion:** That the Standing Orders, submitted by the Chairman, be adopted as Standing Orders of the Meeting.

The Chairman will submit the Standing Orders adopted at Belfast (see page 242), with the addition of the following new Standing Orders proposed by the Council, and subject to such other additions and such alterations as may hereafter be notified to the Representatives:

Section III of Standing Orders ("Procedure"):

Election of Members of Council by grouped Representatives. (Proposed new Standing Orders.)

1. That the election take place at the time of the Annual Representative Meeting.

2. That a nomination for a Member of Council to be elected by any group of Representatives be required to be made by a Division or a Representative of a Division included in the group.

3. That nominations be required to be on the form appended. (See Appendix B, page 245.)

4. That nominations be received up to the end of the first hour of the third day's session of the Annual Representative Meeting.

5. That there be issued to each Representative or Deputy Representative of a Constituency in the United Kingdom in attendance at the Meeting a voting paper containing the names of all candidates duly nominated for election as Members of Council by the group to which such Representative belongs.

6. That the voting paper be in the form appended. (See Appendix C, page 246.)

7. That the voting papers be returned to the Medical Secretary within one hour from the commencement of the fourth day's Session of the Annual Representative Meeting.

8. That in the event of equality of votes the election be determined by the aggregate number of Members in the Constituencies represented by the voters for each candidate, as in the case of a card vote.

9. That the details of the voting be placed before and verified by the Chairman before being declared.

C. Annual Report of Council.

(For Annual Report of Council, 1909-10, see page 248.)

4. **Motion:** That the Annual Report of the Council for the year 1909-10, and Estimate of Income and Expenditure for the year 1910, be received.

5. **Motion** (By the Chairman): That all Motions by Divisions or Branches which relate to matters dealt with in the Annual Report of Council be considered as amendments or riders to the Recommendations, if any, to which they are relevant, or to the Motion: "That the remainder of the Report under the heading . . . be approved."

6. **Motion:** That paragraphs 1 to 4 of the Annual Report of the Council be approved (page 248).

7. **Motion:** That the Financial Statement and Balance Sheet for the year 1909 be approved (pages 249–256).

8. **Motion:** That paragraph 7 (Estimate of Receipts and Expenditure for 1910) be approved (page 256).

9. **Motion:** That paragraph 8 (Apportionment of Members' Subscriptions) be approved (page 256).

10. **Motion:** That paragraph 9 (Issue of SUPPLEMENT to Non-members) be approved (page 256).

11. **Motion:** That paragraphs 10 to 13 (Control of Advertisements in JOURNAL) be approved (page 256).

12. **Motion:** That paragraph 14 (Duties of Secretariat) be approved (page 256).

13. **Motion:** That paragraphs 15 to 20 (*re* Accident Policy in connexion with BRITISH MEDICAL JOURNAL) be approved (pages 256–257).

14. **Motion:** That paragraph 22 (Medical Benevolence) be approved (page 257).

15. **Motion:** That paragraphs 23 to 27 (the BRITISH MEDICAL JOURNAL) be approved (pages 257–258).

Articles in "British Medical Journal."

16. **Rider** by CHELSEA DIVISION:

That this Meeting requests the Council to cause to be inserted on the leader page of every issue of the JOURNAL a disclaimer, stating that the views expressed in the articles therein, represent the opinions of the writer only, and not necessarily those of the general body of the British Medical Association; and that all articles be signed.

(SUPPLEMENT, April 23rd.)

Articles and Letters forwarded by Members to "British Medical Journal."

17. **Rider** by ROCHDALE DIVISION:

That the JOURNAL of the British Medical Association is, among other things, the medium for expressing the views of its Members, and if any article or letter be excluded, the Editor should reply within a reasonable time, stating the reason for its exclusion. If the Member be not satisfied with the explanation, the question shall be referred to the Journal Committee.

(SUPPLEMENT, April 23rd.)

ORGANIZATION.

Capitation Grants.

18. **Motion:** That the following Recommendation of Council be adopted (paragraph 38 of Report, page 259).

That, concerning the following Motion, submitted by a Division to the Annual Representative Meeting, 1909, and referred by that Meeting (Minute 195) to the Council for consideration, namely:

194. That in view of the facts (1) that the policy of the Association is to consider the Division as the primary unit, each Division being free to govern itself in such manner as it shall think fit; (2) that the decision as to what additional subjects shall be forwarded to the Divisions for consideration rests with the Representative Body and the Central Council, and not the Branch Councils, this Representative Body considers that it is illogical any longer to place in the hands of Branch Councils the funds for distribution to the Divisions, while at the same time depriving them of any control over the objects for which the money is used, and instructs the Central Council to so amend the By-laws as to place the distribution in the hands of the Central Council, which can make Capitation Grants to all Divisions and Branch Councils as may be required,

it is inadvisable to adopt the policy referred for the consideration of the Council.

Election of Representatives.

19. **Motion:** That the following Recommendation of Council be adopted (paragraph 41 of Report, page 260):

That the Meeting approve of the principle that each Constituency elect at least one Representative and (in the United Kingdom) an additional Representative for each 100 members after the first 50, and that on a card vote the voting power of a Constituency which has more than one Representative be equally divided among all the Representatives of that Constituency.

Formation of British Medical Students' Union.

20. **Motion:** That the following Recommendation of Council be adopted (paragraph 49 of Report, page 260):

That the instruction contained in Minute 197 of the Annual Representative Meeting, 1909, relative to the formation of a British Medical Students' Union, be continued.

Appointment of President of Association.

21. **Rider** by ROCHDALE DIVISION:

That, with regard to the appointment of the President of the British Medical Association, the Representative Meeting resolves that the Council should consider the question of the abolition of the custom of choosing the President from the place in which the Annual Meeting is held, and the fact that eminence in the scientific side of the profession should not outweigh years of strenuous work on behalf of the Association. They should also bear in mind in appointing to this—the highest honour—that of the 22,000 Members by far the greatest majority are general practitioners.

(SUPPLEMENT, April 23rd.)

22. **Motion:** That the remainder of the Annual Report of Council under heading "Organization" (paragraphs 28 to 54, pages 258–260) be approved.

Membership.

23. **Rider** by ROCHDALE DIVISION:

That there be two grades of subscriptions—one as at present, to include membership of Association and JOURNAL; and one, say at 10s. 6d. annually, to include membership and the SUPPLEMENT of the JOURNAL only, and that the Council be instructed to take the necessary steps for the requisite alterations of the Regulations of the Association.

(SUPPLEMENT, April 23rd.)

24. **Rider** by WIGAN DIVISION:

That in order to bring as large a number of the profession as possible into close touch with Medical Politics and Sociology there shall be two kinds of membership of the Association:

(*a*) Full membership at present rate with the existing privileges.

(*b*) Part membership at, say, ten shillings a year, which should entitle such Member to attend Divisional and general Branch meetings and to receive the SUPPLEMENT weekly, but not the JOURNAL itself.

(SUPPLEMENT, April 23rd.)

25. **Rider** by DUNDEE BRANCH:

That no Member shall be able effectively to resign his membership while any discussion as to the conditions of professional employment is in progress between the Association and any organized body, public or other, affecting the area of his Branch or Division, and that it be an instruction to Council to prepare the necessary amendments of the Articles and By-laws.

(SUPPLEMENT, April 23rd.)

Grouping.

26. **Motion** (from the Chair): That the Grouping of Divisions and Branches in the United Kingdom for the election of Members of Council for the year 1911-12 be the same as for the year 1910-11.

27. **Motion** (from the Chair): That the Grouping of Divisions and Branches not in the United Kingdom for the election of Members of Council for the year 1911-12 be the same as for the year 1910-11.

28. **Rider** (arising out of paragraph 43 of Report, "Grouping of Branches," page 260) by BOMBAY BRANCH:

That the present grouping of Indian Branches with Burma, Hong Kong, China, and Ceylon Branches will cause a great delay in any communication likely to be carried on between the grouped Branches. That it would be better to give one Member to the following Branches—namely, Bombay, Punjab, South Indian and Madras, and Assam; and another to the other Branches—namely, Burma, Colombo Ceylon, and Hong Kong and China.

(SUPPLEMENT, April 23rd.)

(For present grouping of Branches not in United Kingdom see Appendix D, page 246.)

29. **Rider** (arising out of paragraph 43 of Report, "Grouping of Branches," page 260) by CAPE OF GOOD HOPE—WESTERN PROVINCE BRANCH:

That the South African Branches, including over 500 members, be represented by one member of Council.

(SUPPLEMENT, April 23rd.)

Elections.

30. **Rider** by DUNDEE BRANCH:

That it be an instruction to the Council to take the necessary steps for the adjustment of the Regulations of the Association so as to provide as far as possible for the conduct of all elections in the Association by the method of the transferable vote.

(SUPPLEMENT, April 23rd.)

Matters Referred to Divisions.

31. **Rider** (arising out of Report of Council under heading "Organization,") by WEST SUFFOLK DIVISION:

That in the opinion of the Representative Meeting it is desirable, as a means of awakening fresh interest in the work of the Association, that when matters are referred to Divisions in the SUPPLEMENT of the JOURNAL, a blank leaf, naming the subjects, should be inserted in the same SUPPLEMENT, and attention called to it in the "Special Notice to Members."* Upon this leaf any Member who is unable to attend the meeting of his Division, when these subjects are placed on the agenda, may write his opinion and send it to the Secretary of his Division to be considered at the meeting.

*[EXISTING FORM OF SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this SUPPLEMENT, which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs.

Words Proposed by West Suffolk Division to be Added.

"If unable to attend the Division meeting, he should write his opinion on the blank leaf attached, and send it to the Secretary of his Division."]

(SUPPLEMENT, April 23rd.)

SCIENCE.

32. **Motion:** That the following Recommendation of Council be adopted (paragraph 55 of Report, page 269):

That, having regard to the considerable facilities for research which at present exist in various parts of the country, and the heavy financial requirements of such an undertaking, it is inadvisable for the British Medical Association to attempt to establish a Central Research Laboratory.

33. **Motion:** That the remainder of the Report under heading "Science" (paragraphs 55 to 61, pages 269–270) be approved.

MEDICAL ETHICS.

34. **Motion:** That the following Recommendation of Council be adopted (paragraph 63, page 270):

That having regard to the replies received from the Divisions, the Representative Meeting does not deem it advisable to proceed at present to the drafting of any regulations to govern a special class of consultants.

35. **Motion:** That the remainder of the Report under the heading "Medical Ethics" (paragraphs 62 to 72, pages 270–271) be approved.

Ethics of Consultation.

36. **Rider** (in connexion with paragraph 64—Ethics of Consultation) by SALFORD DIVISION:

That the following principles dealing with the ethics of medical consultation be approved:

(*a*) When a patient who has not previously been seen in consultation calls on a consultant at his rooms without introduction from a general practitioner, inquiry should be made in every case as to whether the patient is under the care of any practitioner.

(*b*) If it is ascertained that the patient is not under the care of another practitioner, there is nothing ethically wrong in the consultant prescribing at his rooms for the patient; but it is inadvisable for any practitioner who wishes recognition as a consultant to attend any patient at the patient's own house except in co-operation with a general practitioner.

(*c*) If it is ascertained that the patient is under the care of another practitioner, it is the duty of the consultant to use every endeavour to persuade the patient to allow him to communicate with the attending practitioner, but should the patient refuse this permission, the consultant has the right to make an examination and to express an opinion, but not to undertake the treatment of the case.

(SUPPLEMENT, April 23rd.

Uniform Ethical Rules for Association.

37. **Rider** by WATFORD AND HARROW DIVISION:

That it is desirable that all Members of the Association should be bound by a uniform Code of Ethical Rules instead of having varying codes for different Divisions.

(SUPPLEMENT, April 23rd.)

MEDICO-POLITICAL.

Rules of Nursing Associations.

38. **Motion:** That the following Recommendation of Council be adopted (paragraph 87, page 272):

That the following Model Rules for inclusion in the Rules of District Nursing Associations be adopted in place of those approved by the Annual Representative Meeting, 1909 (Minute 128):

1. The nurse shall in every case carry out the directions of the Registered Medical Practitioner in attendance.

2. The nurse, when requested in an emergency, may visit and render first aid to any person without awaiting instructions from a doctor.

3. If, in the nurse's opinion, the attendance of a doctor is necessary, she must insist that he be sent for; and if for any reason his services are not immediately available, she must, if the case be still one of urgency, remain with the patient and do her best until he arrive, or until the emergency is over.

Should the advice to call in a doctor be not acted upon, the nurse must at once leave and report the case to her Secretary, and must not attend again except in case of fresh emergency.

4. Should any further attendance be requested by the patient after the emergency is over, the nurse must explain that the doctor will decide whether or not this is necessary.

5. No attendance after a first visit shall be given by a nurse unless she has informed a doctor and received his instructions with regard to the case, if any.

6. Apart from her duties as a certified midwife, a nurse must on no account prescribe or administer on her own responsibility such drugs for her patients as should only be prescribed by a medical man.

7. It is desirable to obtain the co-operation of all the medical men in the district, and in the larger associations to obtain, if possible, the assistance of one or more of them on the Committee.

(Attention is drawn to the fact that the machinery of the local Divisions of the British Medical Association is available for this purpose.)

8. No midwife in the employment of a Nursing Association should accept an engagement without first asking the patient to state and herself registering, the name of the doctor to be called in should any emergency arise.

9. A nurse shall in no case attempt to influence a patient in the choice of a doctor.

10. No person shall be employed by the ..... Association as a midwife, or received for training as a midwife, without having first signed an agreement not to practise as a midwife within a radius of.....miles from.....within a period of.....after leaving the service of the Association, without the consent in writing of the Association.

NOTE.—For the Model Rules as adopted at Belfast *see* Appendix E, page 247.

Instruction in Hygiene, Nursing, First Aid, etc.

39. **Motion:** That the following Recommendation o Council be adopted (paragraph 101, page 274):

That Members of the Medical Profession should be suitably remunerated for teaching subjects in connexion with the Public Health, such as Nursing, First Aid to the Injured, and Hygiene, and that the fee adopted by the London County Council of £1 1s. for each lecture is one which appears suitable for general adoption.

Ambulance Lectures to British Red Cross Society.

40. **Rider** by WINCHESTER DIVISION:

That a fee should be charged for ambulance lectures given to the British Red Cross Society, and that the fee be £5 5s. for each course of lectures.

(SUPPLEMENT, April 23rd.)

41. **Motion:** That the remainder of the Report of Council under heading "Medico Political" (paragraphs 73 to 112, pages 271–275) be approved.

Prescribing by Chemists.

42. **Rider** (in connexion with paragraph 97, page 273, Unqualified Practice—Appointment of Royal Commission) by EAST NORFOLK DIVISION:

That the British Medical Association should take immediate steps to stop illegal prescribing by chemists, as also the indiscriminate sale by them of abortifacients.

(SUPPLEMENT, April 23rd.)

Riders by Coroners' Juries to their Verdicts.

43. **Rider** by MANCHESTER SOUTH DIVISION:

That whereas the Report of the Coroners Departmental Committee recognizes the appending of a rider by the jury to their verdict, and in view of the fact that a rider is a judgement (frequently carrying with it a severe penalty) on one who is not on trial, who has no opportunity of defence and who may be absent or entirely ignorant of what is taking place, and is therefore an infraction of every principle of law and justice, it be an instruction to the Council to oppose to the uttermost in future legislation any such right of a jury to add a rider.

(SUPPLEMENT, April 23rd.)

Parliamentary Representation.

44. **Rider** by CHELSEA DIVISION:

That this Meeting recognizes the necessity for a Union of Medical Practitioners with Parliamentary representation, and requests the Council of the British Medical Association to ascertain the wishes of Members in the United Kingdom by referendum at the earliest possible date.

(SUPPLEMENT, April 23rd.)

PUBLIC HEALTH AND POOR LAW.

45. **Motion:** That the Report of Council under heading "Public Health and Poor Law," paragraphs 113–124, pages 275–276) be approved.

Medical Officers of Health.

46. **Amendment** (arising out of paragraphs 113–5 of Report of Council, page 275) by RICHMOND, ROCHDALE, and SALFORD DIVISIONS:

That Minute 234 of the Annual Representative Meeting, 1909, be rescinded.

Minute 234 Referred to.

[Resolved: That the Recommendation of the Committee, as amended, be approved, namely:

That in the interests of the public health, and in view of the multiplicity of duties thrown upon medical officers of health by recent enactments, it is desirable that, in future appointments, medical officers of health should be required to

devote their whole time to the duties of their office, and be debarred from private practice, except as consultants; that they should be adequately paid, and, if necessary, districts should be grouped for the purpose; and that it is further desirable that medical officers of health should be protected in carrying out their duties, and be secured from capricious dismissal or reduction of salary, and that they be allowed to participate in any superannuation scheme approved by a Local Government Board.)

(SUPPLEMENT, April 23rd.)]

[For the convenience of Representatives the Report which was before the Annual Representative Meeting, 1909, and upon consideration of which the above Resolution was carried, is appended. *See* Appendix F.]

47. **Rider** by ROCHDALE DIVISION:

That in the interests of public health medical officers of health should have security of tenure, and that in all boroughs and large urban districts, where practicable, whole-time appointments be made with adequate salary.

(SUPPLEMENT, April 23rd.)

Medical Appointments in Public Medical Services in General.

48. **Rider** by SALFORD DIVISION:

That in every form of public medical service the system of part-time appointments of medical practitioners should be maintained as far as such appointments can be made consistently with the requirements of the services, and that all public medical officers should be protected in carrying out their duties, should be secured from capricious dismissal or reduction of salary, and should be allowed to participate in any superannuation scheme approved by a Local Government Board.

(SUPPLEMENT, April 23rd.)

Pathological Branch of Public Health Service.

49. **Rider** by BRIGHTON DIVISION:

That the Central Council of the Association do seek information from the Divisions as to the need for a pathological branch of the public health service, and report on the same to the Annual Meeting of 1911.

(SUPPLEMENT, April 23rd.)

HOSPITALS.

Payment for Compensation Certificates.

50. **Motion:** That the following Recommendation of Council be adopted (paragraph 125, page 276):

That the fee for a certificate of the kind referred to in Minute 148 of the Representative Meeting, 1909, should not be less than one guinea.

[Minute 148 of Annual Representative Meeting, 1909, referred to:

148. Resolved: That, in the opinion of the Representative Meeting, any member of an honorary or paid medical or surgical staff of a hospital who signs any certificate or gives any report on any case under the Workmen's Compensation Act, ought to receive personally the usual fee in full.]

51. **Motion:** That the remainder of the Report of Council under heading "Hospitals" (paragraphs 125-130, page 276) be approved.

Payment of Hospital Staffs.

52. **Rider** by WINCHESTER DIVISION:

That the Council be instructed to prepare a Report for consideration of the Divisions and the Representative Meeting on the advisability of all members of the Staffs of Voluntary Hospitals being paid for their services.

(SUPPLEMENT, April 23rd.)

NAVAL AND MILITARY.

53. **Motion:** That the Report of Council under heading "Naval and Military" (paragraphs 131–4, pages 276–277) be approved.

SCOTLAND.

54. **Motion:** That the Report of Council under heading "Scotland" (paragraphs 135–8, page 277) be approved.

IRELAND.

55. **Motion:** That the Report of Council under heading "Ireland" (paragraphs 139–40, page 277) be approved.

THE BRANCHES OUTSIDE THE UNITED KINGDOM.

56. **Motion:** That the Report of Council under heading "The Branches outside the United Kingdom" (paragraphs 141–4, page 277) be approved.

GENERAL APPROVAL OF ANNUAL REPORT.

57. **Motion:** That, subject to the Amendments and other Resolutions adopted by the Meeting with reference thereto, the Annual Report of Council be approved as a whole.

D. Special Reports of Council (if any).

E. Election of Officers.

Elect a Chairman of Representative Meetings and a Deputy Chairman of Representative Meetings for the year 1910-11.

F. Election of Council.

(i) Election of 12 Members of Council by Grouped Representatives. [For Nomination Forms and Voting Papers *see* Appendices B and C, pages 245, 246.]

(ii) Election of Members of Council to represent Royal Navy Medical Service, Army Medical Service, and Indian Medical Service.

G. Election of Committees.

Election of members of Finance, Organization, Journal, Central Ethical, Medico-Political, Public Health, Hospitals, Naval and Military, and Colonial Committees; and other Committees, if any.

H. Standing Orders.

Consider proposed amendments of Standing Orders, other than those relating to the order of business.

I. Any other Business.

J. Confirm Minutes.

By Order,

J. SMITH WHITAKER,
Medical Secretary.

APPENDIX A.

STANDING ORDERS

RELATIVE TO

BUSINESS AT REPRESENTATIVE MEETINGS

(As adopted at Belfast, 1909).

I.—ORDER OF BUSINESS.

(A) *Annual Representative Meeting.*

1. Except as may be otherwise determined in the manner prescribed by the Standing Orders, the order of business shall be as follows:

i. **Election Returns.**—Receive the return of the Election of Representatives of Divisions for the year, and receive notices, if any, of the appointment of substitutes for Representatives under Article XXX.

ii. **Standing Orders.**—Adopt Standing Orders.

iii. **Annual Report of Council.**—Receive the Annual Report of the Council and Financial Estimate, presented under By-law 35, and consider motions relating to the adoption thereof in whole or in part.

iv. **Special Reports of Council.**—Receive Special Reports of the Council, if any, in the order in which the Council shall submit them for consideration, and consider motions for the adoption thereof in whole or in part.

v. **Reports of Committees (if any).**—Receive Reports of Committees, if any, and consider motions for the adoption of the same in whole or in part.

vi. **Consider By-laws.**—Consider, in such order as the Meeting shall determine, any motions placed upon the Agenda of the Meeting by which it is proposed to make By-laws or to alter or repeal existing By-laws.

vii. **Consider other Motions by Divisions or Branches.**—Consider, in such order as the Meeting shall determine, any motions placed upon the Agenda of the Meeting by Divisions or Branches, relating to the honour and interests of the Medical Profession or of the Association.

viii. **Election of Officers.**—Elect a Chairman of Representative Meetings and a Deputy-Chairman of Representative Meetings for the year.

ix. **Election of Members of Medico-Political and Ethical Committees.**—Elect at such time before the conclusion of the third day's proceedings, as the Chairman may, pursuant to Standing Order III, 16, prescribe:

(*a*) Six Members of the Association to serve on the Medico-Political Committee for the ensuing year.

(*b*) Five Members of the Association to serve on the Ethical Committee for the ensuing year.

(*c*) Such Members of other Committees, if any, as it falls to the Representative Meeting to elect.

x. **Amendment of Standing Orders.**—Consider proposed amendments of Standing Orders other than those relating to the order of business.

2. General Order of Daily Sessions: Confirmation of Minutes.—The matters described in Clause 1 shall be considered in the order therein prescribed, or as otherwise duly determined, from day to day until the completion thereof, or until the expiration of four days from the first day of the Meeting, whichever shall first occur; provided that at each daily session after the first the Meeting shall, before proceeding to the consideration of the matters aforesaid, (A) confirm the Minutes of the Proceedings of the previous daily session; (B) consider motions, if any, relating to the order of business of the day. At the conclusion of the business of the last daily ssssion the Meeting shall confirm the Minutes thereof for presentation to the Council.

3. Hours of Daily Sessions.—All Representative Meetings not concluded by 6.30 p.m. shall stand adjourned either to 8 p.m. of the same day, or to the next day, as may be decided by a show of hands. All such Meetings shall stand adjourned at 10 p.m.

4. Varying Order of Business.—The order of business may be varied, either at the commencement or after the expiration of two hours from the commencement of any daily session, by the vote of two-thirds of those present and voting.

5. Precedence of Motions of which Notice Given.—Motions and amendments of which notice shall have been given to the Secretary of the Meeting in time for them to be circulated with the Minutes of the previous day's proceedings, shall have precedence, in the order in which such notice shall have been given, over those relating to the same subject, or otherwise having a like claim to precedence in the order of business, of which such notice has not been given.

6. Motions on the Same Subject.—If two or more of the motions placed on the Agenda of the Meeting by the Council and by Divisions and Branches shall appear to the Chairman to relate to the same subject he shall ascertain the will of the Meeting in respect of the consideration of one of such motions as an original motion, and of the others as amendments thereto, in such order as the Meeting may determine.

7. Motions on Subjects dealt with in Reports.—If any Motion placed upon the Agenda shall in the opinion of the Chairman relate to the same subject as a Recommendation or other portion of a Report submitted by the Council or by a Committee, the Chairman shall ascertain the will of the Meeting as to whether the said Motion shall be considered as an Amendment or Rider to the adoption or approval of the said Recommendation or other portion of a Report.

8. Resolutions involving Special Expenditure. — Every Resolution involving special expenditure shall, before final adoption by the Representative Meeting, be remitted to the Finance Committee for report to a later Session.

(B)—*Special Representative Meetings.*

1. Read Authority for Convening Meeting.—Read the Resolution of Council, or the requisition from Divisions, in pursuance of which the Meeting is convened.

2. Notice of Substitutes.—Receive notices, if any, of the appointment of substitutes for Representatives.

3. Order of Business.—If the Meeting is convened to consider more than one matter, determine the order in which such matters shall be considered.

4. Special Business.—Consider the matters which the Meeting is specifically convened to consider, in order determined by the Meeting.

5. Minutes.—Confirm the Minutes of the Meeting for presentation to the Council.

II.—COMPOSITION AND ARRANGEMENT OF THE MEETING.

1. Composition.—The persons constituting the Meeting, hereinafter called members of the Meeting, shall be those duly elected Representatives of Divisions, or substitutes duly appointed under Article XXX and By-law 19, of whose election or appointment the

General Secretary shall have received due notice, together with Members of Council for the time being.

2. Arrangement.—Distinctive seats shall be provided for the following groups of persons respectively, namely:

(A) Representatives of Divisions.

(B) Members of Council who are not Representatives of Divisions or Officers of the Association.

(C) Officers of the Association, present in virtue of their office, or at the request of the Meeting, for the assistance thereof.

(D) Members of the Association who are not Representatives of Divisions or Members of Council.

(E) Reporters representing such journals as may be authorized by the Chairman, subject to the approval of the Meeting.

3. Withdrawal of Strangers.—It shall be competent at any time for a member of the Meeting to move that persons who are not members of the Meeting be requested to withdraw, or that persons who are not members of the Association be requested to withdraw, but it shall rest in the discretion of the Chairman to submit or not to submit such motion to the Meeting.

III.—PROCEDURE.

1. Temporary Chairman.—In the absence of the Chairman of Representative Meetings, the Deputy Chairman shall preside; or, if he be also absent, the Chairman of Council or the Treasurer, if present, shall take the chair, and call upon the Meeting to appoint a temporary Chairman.

2. Minutes.—Minutes shall be taken of the proceedings of the Meeting, and the same shall be duly entered in a book provided for the purpose. The Minutes of each daily session of the Annual Representative Meeting shall be printed and circulated to the members of the Meeting. Minutes (if) (when) printed in the Daily Journal of the Annual Meeting shall be deemed thereby to have been circulated as required by this order.

3. Attendance.—No Representative shall leave the Meeting without permission obtained personally from the Chairman at the time of leaving. If during any daily session of a Representative Meeting it shall at any time appear to the Chairman that a quorum is not present, the roll shall be called of Representatives appointed to attend the Meeting, and those Representatives who are found to be then absent, not having previously obtained leave from the Chairman, shall be deemed to have been absent from the said session. A list of members reported as absent from any daily session or sessions of a Representative Meeting shall be supplied at the close of such Meeting to the Chairman and shall by him be transmitted to the Council, together with such explanations of the cause of absence as any members so reported may have furnished to him in writing.

4. Reports: Notice.—Subject as hereinbefore provided' no Report by the Council, or by a Committee, to the Representative Meeting shall be considered by the Meeting unless it shall have been sent to the Divisions and published in the JOURNAL at least one month before such Meeting. The exceptions to this rule shall be—

(A) That the Council shall submit, in addition to their Annual Report, a Supplementary Report dealing with those matters of importance, arising subsequent to the issue of the Annual Report, in which action has been taken, or action by the Representative Meeting is recommended.

(B) That any Special Committee appointed by the Representative Meeting shall report in accordance with the terms of the instructions given to such Committee by the Meeting.

5. Form of Reports.—Reports of Council and Reports, if any, of Standing Committees, to the Representative Meeting shall comprise the following:

(A) A list of matters referred by the Representative Meeting to the Council or Committee.

(B) Reports with specific recommendations upon all matters in which the Council or Committee considers that action should be taken involving a new declaration of policy or expenditure not already authorized.

(C) A short report of all action taken by the Council or Committee in accordance with instructions of the Meeting.

(D) A list of matters under consideration but not completed.

6. Presentation of Reports.—The Report of the Council or of a Committee shall be presented by the Chairman, or, in his absence, by a Member, of the body submitting such Report, who shall move:

(1) That the Report be received.

(2) That the Recommendations, if any, be adopted.

(3) That the rest of the Report be approved.

The adoption of each Recommendation shall be the subject of a separate motion. The approval of the rest of the Report shall be moved as a whole, unless the Chairman rule or the Meeting resolve that the approval of each paragraph, or of any specified paragraph, be the subject of a separate Motion.

7. Amendments and Riders.—

(1) To a motion that the Report be received, no amendment shall be moved.

(2) To a motion that a Recommendation be adopted, amendments may be moved.

(3) To a motion that a Report, or a specified paragraph of a Report, be approved, an amendment may be moved to the effect that the Meeting do disagree with, or do refer back to the Committee, any specified portion thereof, or that with reference thereto the meeting do express an opinion in terms stated.

8. Procedure as to Other Motions.—Motions placed on the Agenda of the Meeting by a Branch shall be introduced by a member of Council elected by the Branch, and motions so placed by a Division shall be introduced by the Representative thereof.

9. Absence of Authorized Mover of Adoption of Report or Other Motion.—In the absence of any member authorized to make any motion referred to in Standing Order III, any other member deputed by such member may make such motion on his behalf, and if no member shall have been so deputed, such motion shall be made formally by the Chairman.

10. Seconding Motions.—No seconder shall be required for any of the motions referred to in Standing Orders III, 6 and 8. All other motions and all amendments shall be required to be moved and seconded.

11. References to Central Executive.—Each motion or amendment which is of the nature of an instruction or reference to any central executive body, other than a Committee specially appointed by the Representative Meeting, shall be moved in the form of an instruction or a reference to the Council.

12. Recission of Resolutions.—No motion to rescind any resolution of a Representative Meeting, arrived at after due consideration of the Divisions, shall be in order at any subsequent Representative Meeting, unless at least two months' notice of such proposed motion shall have been given to the Divisions through the SUPPLEMENT to the JOURNAL.

13. Time Limits of Speeches.—(A) A member of the Meeting shall be allowed to speak for fifteen minutes in moving a resolution which does not require seconding, and for ten minutes in moving any other resolution, or any amendment. Except as aforesaid, no speech shall exceed five minutes.

Reducing Time Limit.—(B) The Meeting may at any period of any session reduce the time to be allowed to speakers, whether in moving resolutions or otherwise, during the remainder of such session.

14. Mode of Voting—Show of Hands.—Only Representatives of Divisions shall vote on any question before the Meeting.

Voting shall be by show of hands, except in the cases following, namely:

Vote by Card.—(A) If, upon the Chairman proceeding to take the vote of the Meeting upon any motion or amendment, any Representative of a Division shall move that the said vote be taken by card, and twenty Representatives rise in their places in support of such motion, the vote shall be taken by card, and the names of those voting for and against such motion or amendment, of those not voting, and of the Constituencies which they severally represent, shall be entered on the Minutes.

Division.—(B) If the Chairman, after taking a vote by show of hands upon any motion or amendment, shall be of opinion that the numbers of members voting for and against such motion or amendment are not thereby ascertained with sufficient accuracy, he shall have power to direct that the Meeting shall divide upon the said motion or amendment.

15. Election of Chairman and Deputy Chairman of Representative Meetings.

NOMINATION.

Nominations for the office of Chairman of Representative Meetings, and Deputy Chairman of Representative Meetings for the year, shall be handed in writing to the Secretary of the Meeting not later than the termination of the second day's proceedings. Each nomination shall be signed by the nominator, and shall contain a declaration that the candidate nominated has agreed to serve.

VOTING.

The names of all candidates duly nominated shall be placed in a voting paper, which shall be issued and collected at such times as the meeting shall direct. Each voter shall number the names of the candidates for each office in the order of his preference.

SCRUTINY.

The Scrutineers shall proceed as follows:

(a) *Count.*

On the first count each candidate shall be credited with the number of votes given by those voters who have numbered him (1), and if any candidate be found to have received an absolute majority of votes cast he shall be declared to be elected.

(b) *Exclusion and Transfer.*

If no candidate be thus elected, that candidate who has received fewest votes shall be excluded, and his votes shall be transferred to the candidates respectively numbered as next preference on his voting papers, and any candidate now found to have an absolute majority shall be declared to be elected.

(c) If, after the first transfer, no candidate be declared to be elected, the procedure of exclusion and transfer shall be repeated, and so on until one candidate is declared to be elected.

(d) *Exceptions.*

(1) If on a count between three candidates no candidate be found to be elected, and the candidates who have fewer have an equal number of votes, the preferences on the voting papers of the highest candidate shall, for the time being, be credited to the other two candidates, and that candidate who has fewer votes shall be excluded.

(2) If on a count between two candidates, after the others have been excluded, the votes are equal, that candidate who has the larger number of first preference votes shall be declared to be elected.

(3) In any case of equality subsisting after this procedure, one of the candidates shall be excluded by lot.

(4) Any voting paper shall become invalid if its preferences be exhausted before a candidate is declared elected.

ENTRANCE INTO OFFICE.

Except with regard to *ex officio* membership of Council and Committees, the Chairman and Deputy Chairman so elected shall not assume their functions until the close of the Annual Meeting.

16. Election of Committees.—Nominations for election by the Representative Meeting of members of Standing Committees shall be handed in writing to the Secretary of the Meeting not later than the termination of the second day's proceedings. Each nomination shall be signed by the nominator and shall contain a declaration that the candidate nominated has agreed to serve. No member shall be eligible for nomination who, having been a member of a Standing Committee during the previous year, shall have failed to attend at least half the meetings of the Committee for that year. The names of all candidates duly nominated shall be included in a voting paper issued to each voter, and shall be arranged in three lists, one of those residing in England and Wales, one of those residing in Scotland, and one of those residing in Ireland. Each voter shall be entitled to vote for not more candidates than there are members to be elected, and of these not more than two-thirds of the total number shall be those of candidates in the English list, not more than one-fourth in the Scottish list, and not more than one-fourth in the Irish list. In counting the votes, the candidates on the English list who have obtained the highest number of votes, being not more than one-half of the total number of members to be elected, the candidates on the Scottish list who have obtained the highest number of votes, being not more than one-fourth of the total number to be elected, and the candidates on the Irish list who have obtained the highest number of votes, being not more than one-fourth of the total number to be elected, shall be deemed to be elected. If any place on the Committee be still vacant, that candidate or those candidates shall be deemed to be elected who shall have obtained the highest number of votes irrespective of the list in which the name of any such candidate appears. Scrutineers to conduct the election shall be nominated by the Chairman, and the details of the voting shall be placed before and verified by the Chairman before being declared to the Meeting.

IV.—RULES OF DEBATE.

1. Every member shall be seated except the one who may be addressing the Meeting, and when the Chairman rises no one shall continue standing, nor shall any one rise until the Chair is resumed.

2. A member of the Meeting shall stand when speaking, and shall address the Chair.

3. A member who speaks shall direct his speech strictly to the motion under discussion, or to a motion or amendment to be proposed by himself, or to a question of order.

4. A member shall not address the Meeting more than once on any motion or amendment, but the mover of an original resolution may reply, and in his reply shall strictly confine himself to answering previous speakers, and shall not introduce any new matter into the debate; provided always that a member may speak to a point of order, or, by consent of the Meeting, in explanation of some material part of a speech made by him, which he believes to have been misunderstood.

5. A motion or amendment once made and seconded shall not be altered or withdrawn without the consent of the Meeting.

6. An amendment shall be either—

To leave out words;
To leave out words and insert or add others;
To insert or add words;

or in such form as shall be approved of by the Chairman, provided always that the amendment be relevant to the motion on which it is moved, and be not equivalent to the direct negative thereof.

7. No notice of motion, or amendment to any motion before the Meeting, not already published, shall be considered by the Meeting until a copy of the same with the name of the proposer has been handed in in writing to the Chairman.

8. Whenever an amendment upon an original motion has been moved and seconded no second or subsequent amendment shall be moved until the first amendment shall have been disposed of, but notice of any number of amendments may be given.

9. If any amendment be rejected other amendments may be moved on the original motion. If an amendment be carried, the amendment, or motion as amended, shall take the place of the original motion, and shall become the question upon which any further amendment may be moved.

10. If it be proposed and seconded that the Meeting do now adjourn, or that the debate be adjourned, or that the Meeting do proceed to the next business, or that the question be now put, such motion shall immediately be put to the vote without discussion, except as to the time of adjournment, provided always that the Chairman shall have power to decline to put to the Meeting the motions that the Meeting do proceed to the next business, or that the question be now put.

11. A motion that the Meeting do now adjourn, or that the Meeting do now proceed to the next business, or that the debate be now adjourned, or that the question be now put, shall not be made within a period of one hour after a previous motion to the like effect, unless, in the opinion of the Chairman, the circumstances are materially altered.

12. Smoking shall not be allowed during such time as the Chairman is in the Chair.

V.—SUSPENSION OF STANDING ORDERS.

Any one or more of the Standing Orders, in any case of urgency, or upon motion made on notice given through the Daily Journal, may be suspended at any Meeting, so far as regards any business of such Meeting, provided that three-fourths of those present and voting shall so decide.

APPENDIX B.

Nomination Form.

BRITISH MEDICAL ASSOCIATION.

ANNUAL REPRESENTATIVE MEETING, 1910.

ELECTION OF CENTRAL COUNCIL, 1910–11.

By-law 23 (c).—Election of Twelve Members of Council by the Representatives in Representative Meetings grouped topographically.

Nomination Form.

(I) BY A DIVISION.

Branches included in the Group—

.....

.....

.....

Constituencies in the Group—

.....

.....

.....

By instruction of the Division I hereby nominate

.....

of .....

.....

as a candidate for election by the Representatives of Constituencies in the above-mentioned group as a member of the Central Council of the Association.

.....
Honorary Secretary.

.....
Division.

July , 1910.

I hereby declare my willingness to serve, if elected, as a member of the Central Council for the year 1910–11.

Candidate's Signature.....

July , 1910.

BRITISH MEDICAL ASSOCIATION.

ANNUAL REPRESENTATIVE MEETING, 1910.

ELECTION OF CENTRAL COUNCIL, 1910–11.

By-law 23 (c).—Election of Twelve Members of Council by the Representatives in Representative Meetings grouped topographically.

Nomination Form.

(II) BY A REPRESENTATIVE OF A DIVISION INCLUDED IN THE GROUP.

Branches included in the Group—

.....

.....

.....

Constituencies in the Group—

.....

.....

.....

I, the undersigned, hereby nominate

.....

of.....

.....

as a candidate for election by the Representatives of Constituencies in the above-mentioned group as a member of the Central Council of the Association.

.....
Representative.

.....*Division.*

July , 1910.

I hereby declare my willingness to serve, if elected, as a member of the Central Council for the year 1910–11.

Candidate's Signature .....

July , 1910.

APPENDIX C.

Form of Voting Paper.

BRITISH MEDICAL ASSOCIATION.

ANNUAL REPRESENTATIVE MEETING, 1910.

Election of Twelve Members of the Central Council by the Representatives in Representative Meetings grouped topographically.

Group.....

Branches included in the group—

Constituencies in the Group.	*Representatives.*
.....	.....
.....	.....
.....	.....

The following Members of the Association have been duly nominated as candidates for election, and have expressed their willingness to serve.

Names and addresses of candidates:—

.....

.....

.....

.....

.....

.....

Each voter is requested to mark with a **X** the name of not more than one candidate, and to sign the paper at the foot, stating the name of the Constituency which he represents, and of the Branch to which it belongs.

Signature of voter.....

Constituency represented .....

..... *Branch*

APPENDIX D.

Grouping of Branches not in United Kingdom, approved by Council, January 26th, 1910.

Branches, and Membership of each.		Membership of Group.	Members of Council to be elected.
South Australian	157		
Western Australian	99	720	1
Melbourne and Victoria ...	464		
Sydney and New South Wales	693		
Brisbane and Queensland ...	164	857	1
New Zealand	421	421	1
Ottawa (no Branch)	10		
Quebec (no Branch)	12		
Montreal	57		
Halifax, Nova Scotia	77		
Bermuda...	13		
St. John, New Brunswick ...	37	625	1
Saskatchewan	27		
Toronto	328		
Manitoba and West of Canada (no Branch)	32		
British Columbia (no Branch)	32		
Barbadoes	34		
Jamaica	47		
Trinidad and Tobago	26	162	1
Leeward Islands	15		
British Guiana	40		
Bombay	155		
Punjab (no Branch)	21		
Bengal (no Branch)			
Burma	63		
South Indian and Madras ...	166	784	1
Colombo, Ceylon	147		
*Assam	23		
Malaya	88		
Hong Kong and China... ...	121		
Cape of Good Hope (Western)	137		
Cape of Good Hope (Eastern)	52		
Cape of Good Hope (Border)...	60		
Griqualand West (including Orange River Colony) ...	36		
Transvaal	104	677	1
Natal	121		
West Africa (no Branch) ...	80		
Egyptian...	37		
Malta and Mediterranean ...	31		
Gibraltar	19		
Members on Continent of Europe (no Branches)			

*** New Branch.**

APPENDIX E.

Model Rules for Suggestion by Divisions for Inclusion in the Rules of District Nursing Associations (as adopted by the Annual Representative Meeting, Belfast).

That, in the opinion of the Representative Meeting, the following Rules are suitable for suggestion by Divisions as Model Rules for inclusion in the rules of local District Nursing Associations:

(1) The nurse shall in every case carry out the directions of the Registered Medical Practitioner in attendance.

(2) The nurse, when requested in an emergency, may visit and render first aid to any person without awaiting instruction from a doctor.

(3) If, in the nurse's opinion, the attendance of a doctor is necessary, she must insist that he be sent for; and if for any reason his services are not immediately available, she must, if the case be still one of urgency, remain with the patient and do her best until he arrive or until the emergency is over.

Should the patient refuse to have a doctor, the nurse must at once leave and report the case to her Secretary.

(4) Should any further attendance be requested by the patient after the emergency is over, the nurse must explain that the doctor will decide whether or not this is necessary.

(5) No attendance after a first visit shall be given by a nurse unless she has received directions with regard to the case from a doctor.

(6) Apart from her duties as a certificated midwife, no nurse is allowed to administer on her own responsibility or prescribe any sort of drug for internal use.

(7) The Association shall consist of all Subscribers of ..... and donors of ..... to the Association, together with all registered medical practitioners resident and practising in the area of the Association.

(8) No midwife in the employment of a Nursing Association should accept an engagement without first asking the patient to state, and herself registering the name of, the doctor to be called in, should any emergency arise.

(9) A nurse shall in no case attempt to influence a patient in the choice of a doctor.

Resolved: That it be referred to the Council to draft a suitable Rule to give effect to the principle of the following Motion:

That, in order to protect her employers and the local medical profession, any midwife or woman employed to be trained as a midwife by a Nursing Association or similar Body, should be required, previous to her engagement, to enter into a bond not to practise midwifery for a certain period of time, and within a certain radius after leaving the service of her employers.

APPENDIX F.

PUBLIC HEALTH COMMITTEE.

REPORT ON DESIRABILITY OF HEALTH OFFICERS BEING REQUIRED TO GIVE THEIR WHOLE TIME TO THE WORK (AS SUBMITTED TO THE ANNUAL REPRESENTATIVE MEETING, BELFAST).

INTRODUCTORY.

The Annual Representative Meeting at Sheffield instructed the Council to refer the following proposition for the consideration of the Divisions:

That Health Officers should give their whole time to the work.

The Council has thought it desirable that the Divisions should have the assistance in their deliberations of an explanatory Memorandum prepared by the Public Health Committee, which is now submitted accordingly.

The object of the Memorandum is to set forth as clearly and impartially as possible the more important considerations, on both sides of the question, which require duly weighing before any decision is arrived at. It is proposed that upon receipt of the expressions of opinion of the Divisions, a Report indicating a definite policy in accordance with the general tenor of those replies shall be prepared, which, after submission to the Divisions and adoption, if approved, by the Annual Representative Meeting, will constitute the declared policy of the Association on the subject.

REFERENCE.

As there is possibility of doubt as to the intended scope of the proposition stated in the Resolution of the Representative Meeting, the Committee thinks it well to make clear the exact question which it understands that the Divisions are desired to discuss—namely, that by the term "Health Officers" are to be understood for the present purpose Medical Officers of Health only, and that by "giving their whole time to the work" is meant to their public work as distinguished from private practice.

If these assumptions are correct, the question referred may conveniently be stated as follows:

Should Medical Officers of Health be debarred from engaging in private practice?

For the information of the Divisions, it may be stated that Medical Officers of Health appointed by County Councils are already required (by Section 17 of the Local Government Act, 1888) to devote their whole time to the duties of the office.

A.—*Reasons in Favour of Whole-time Appointments.*

The more important reasons which have at various times been assigned in favour of whole-time appointments are:

(1) That the duties are usually of such a character as to need the undivided attention of the officer, and should not be liable to suffer from the conflicting claims of private practice upon his time and energies.

(2) That the statutory and other responsibilities of a Medical Officer of Health are such as may frequently make it his duty to take action prejudicial to the interests of individuals, some of whom, if he is engaged in private practice, may be his patients, and that he ought not to be put in the position of having to choose between offending them and neglecting the enforcement of the law.

(3) That, apart from questions specially affecting his own patients, a medical officer engaged in private practice is more likely to be influenced by local prejudices than a whole-time officer.

(4) That specialization in public health work is desirable.

(5) That the appointment of whole-time officers is preferable, from the purely professional point of view, because (*a*) there is less likelihood of friction arising in their case than in that of part-time officers when their public duties bring them into contact with the private patients of other practitioners, (*b*) because a Medical Officer of Health who is engaged in private practice receives, in his official capacity, introductions to potential patients in ways which, though perfectly legitimate, are not open to his fellow practitioners in the same district.

(6) As showing the tendency of public opinion among those who give special attention to Public Health, it is to be noted that the Royal Commission on Labour, the Housing Commission of 1885, and the Select Committee on the Housing of the Working Classes Acts Amendment Bill of 1906, have all reported in favour of the Medical Officer of Health giving his whole time to the work, coupling with this a recommendation that he be given reasonable security of tenure of office. The views held by the Local Government Board, as indicated in the Reports issued from the Medical Department of the Board during many years past, and more particularly of late years, are very distinctly in favour of Medical Officers of Health being debarred from private practice.

B.—*Reasons Against Whole-time Appointments.*

As against the adoption of a uniform rule of whole-time appointments it is urged:

(1) That the appointment of part-time officers is more economical, particularly in the case of thinly populated rural districts, many of which could not by themselves afford the salaries of whole-time officers.

(2) That if such districts are in all cases (as already in some cases) combined into districts large enough to pay an adequate salary to a whole-time officer, the needs of each locality cannot receive the same close and prompt attention as from several part-time officers.

(3) That for the same amount of salary practitioners of a higher professional standing can be obtained if they are allowed to engage also in private practice than if they are required to give their whole time to the work.

(4) That the clinical experience and the closer knowledge of the homes of people obtained in private practice increase the usefulness of the Medical Officer of Health.

(5) That from the professional point of view it is preferable that the emoluments should be distributed over a larger number of members of the profession than would be the case if all such appointments were whole-time.

N.B.—It will be understood that the above paragraphs, headed A and B, are simply statements of views put forward by advocates of either opinion, and do not in either case necessarily express the opinions of the Committee.

Question Submitted.

The Division is requested to express its opinion for or against the proposition,

"That Medical Officers of Health should be debarred from engaging in private practice,"

and to add any qualifications, comments, or additional suggestions bearing on the matter which it may desire.

British Medical Association.

ANNUAL REPORT OF COUNCIL.

1. The Council is glad to say that the British Medical Association, after an interval of fifteen years, is again to hold its Annual Meeting in London.

Under the distinguished presidency of Mr. Henry T. Butlin, President of the Royal College of Surgeons, the scientific work and deliberations as to general policy at the 78th Annual Meeting are assured of being worthy of the best traditions of the Association.

THE BELFAST MEETING.

2. The Council takes this opportunity of again congratulating Sir William Whitla, and those who worked with him, on the great success of their labours for the comfort and enjoyment of all who attended the Belfast meeting.

In this connexion the Council and the Members of the Association at large much appreciated the great personal interest shown by Their Excellencies the Viceroy of Ireland and Lady Aberdeen in their daily attendances at the Meetings.

RETIREMENT OF CHAIRMAN OF COUNCIL AND TREASURER.

3. With the presentation of this Report, Mr. Edmund Owen and Dr. Edwin Rayner will have completed three years of office as Chairman of Council and Treasurer respectively.

During the three years for which Mr. Owen has held the office of Chairman of Council it has been necessary to deal with matters of the greatest importance, and most critical character, as affecting the prosperity of the Association and its capacity for promoting the welfare of the Profession. During this difficult period Mr. Owen has conducted the proceedings of the Council with a tact, firmness, and courtesy of which the Council desires to express its deep sense, and furthermore to declare its recognition of the time and energy which Mr. Owen has devoted, outside the Council Chamber, to the affairs of the Association, and of the concern which he has always manifested for its success.

The position of Treasurer has also involved much sacrifice of time, and has demanded close personal attention, as owing to the rebuilding of the premises the resources of the Association have required very careful handling.

The Council desires to place on record its deep appreciation of the valuable work Dr. Rayner has accomplished, and to extend to him, on behalf of the Association, the sincere thanks of all Members for his continuous attention to its affairs.

ATTENDANCES OF COUNCIL AND COMMITTEES.

4. In the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of May 7th will be found the Attendances of Members of the Council, Committees, and Subcommittees. From this it will be seen that the Committee work of the Association has been exceedingly heavy, and the Council takes this opportunity of expressing its deep gratitude to the Chairmen and Members of Committees for their devotion to the interests of the Association.

INSTRUCTIONS OF ANNUAL REPRESENTATIVE MEETING, 1909.

5. A list is appended of all Resolutions of the Annual Representative Meeting at Belfast which contain instructions to the Council. References are given in the list to the paragraphs of the Annual Report in which the action taken under each instruction, and of the present position of the matter, are stated.

FINANCE.

FINANCIAL STATEMENT, 1909.

6. In presenting the Financial Statement for the year ending 31st December, 1909, in comparison with the previous year the expenditure has increased by £1,864, but owing to increased revenue it has been possible to carry £262 more to reserve than in the year 1908.

The liabilities of the Association are somewhat heavier, due primarily to the cost of producing the book "Secret Remedies," but the Assets have increased by £750 due to the sale of the book.

The loan for the rebuilding of the Strand premises stands at the total of £43,754, an amount it is hoped it will not be necessary to increase.

The freehold premises stand in the books at some £605 less than in the previous year, owing to the sale of a small strip of land at the rear of the site.

After meeting all expenses and making reasonable provision for depreciation there is a surplus on the year's working of £995, leaving the Association with a balance of £104,199 of Assets over Liabilities.

(*a*) *Revenue Account.*

The Revenue or Profit and Loss Account for the year shows that General Association expenses have increased by just on £1,450.

For the first time since the rebuilding of the new premises the burden of finding the interest on the borrowed capital falls upon the current revenue, while during the year only a small proportion of the rent was forthcoming from the ground floor.

The corner shop in the Strand has been let, and as other tenants are found, the Association will feel the benefit of having dealt with its property on a comprehensive basis.

Central Meeting expenses have increased by some £200.

The increased expenditure is not made up in any one sum, but is consequent upon the activities of Committees.

The Poor Law Committee was not sitting in 1908, and has involved an expenditure of £123. Taking the Committees as a whole the expenditure in railway fares represents an increase of £100, and the printings an increase of £80.

(*b*) *Central Premises Expenses.*

Here the increase shows some £260. With a larger building the cleaning and heating has cost more and the rating of the Strand properties is higher than the temporary premises occupied by the Association.

(*c*) *Central Printing, Stationery, and Postage.*

An increase is shown here of £96. The general printing has been rather less; the postage in the Medical Secretary's department has increased by close on £40, while the stationery has gone up by £77.

(*d*) *Central Staff Expenses.*

The £483 additional expenditure is due to the increasing of the salaries of officials, while in the year under review the Association has enjoyed for a full twelve months the services of a Deputy Medical Secretary.

The travelling expenses show an increase due to the Association meeting at some distance from the Head Office.

(*e*) *Library Account.*

Owing to the rearrangement of the Library, during the year it has been necessary to have the assistance of a clerk.

(*f*) *Journal Account.*

The production of the JOURNAL would appear to have cost the Association £927 more than in the previous year, but by reference to Schedule G, it will be noticed that the amount charged against the subscriptions of the Association to produce the JOURNAL is less by £851 than in the previous year.

In the Editorial Department the expenditure has varied little. Less was spent on analyses but the legal expenses were increased. The total increase is only £52.

(*g*) *Managerial.*

Under Managerial Expenses, Compositor's wages and the machining of the JOURNAL show a saving of £37, notwithstanding that owing to the increase in the Membership and the sales of the JOURNAL during the year it was necessary to print 25,632 more copies than in the previous year. Paper has cost less by £178, the market going rather in favour of buyers. The postage for the despatching of the JOURNAL shows a small increase. This is influenced by the Membership, and by the weight of the foreign edition. The variation of the foreign postage by ½*d.* per week represents from £500 to £600 on the year.

(*h*) *Secret Remedies.*

It will be observed that in this account £937 is entered for the cost of producing the book "Secret Remedies."

The sale of the book has met with considerable success. By the end of 1909 over 42,000 copies had been printed and since sold, while a steady sale is still going on.

As a result of the publication of "Secret Remedies," after paying all expenses for printing, advertising, and publishing, there is a net profit of £271, while in addition the Association has a publication that is likely to secure a steady sale for some time to come. Under Sundries there is an increase of some £20 owing to the purchase of a Typewriter.

(*i*) *Revenue.*

In looking to the Revenue, it is gratifying to record an increased return of £537 from advertisements, notwithstanding the fact that many advertisements have been tendered for insertion in the JOURNAL and refused as being unsuitable or opposed to the principles laid down by the Association in the matter of advertisements that may properly be published in the JOURNAL.

Sundry sales for the Journals, binding covers, and reprints has been progressive.

The discounts on machining and paper are naturally less as expenditure decreases.

If the cost of producing the book "Secret Remedies," and the profits from the sales thereof, be alienated from the Journal Account, the total expenditure on the JOURNAL for the year has diminished, while the revenue has increased by £570. Thus the total cost to the Association for producing the BRITISH MEDICAL JOURNAL for the period under review as compared with the previous year is less by £580.

(*j*) *Capitation Grants to Branches.*

The amount of Capitation Grants distributed to Branches is less by £1,470. During the year 2*s.* as against 4*s.* was distributed to Home Branches, but Branches outside the United Kingdom received the full 4*s.* per head.

(*k*) *Subscription Losses.*

It has been found necessary to write off less by £36 than in the previous year. Although the provision for contingent loss may appear large, assuming that none of this money is ultimately recovered, the loss on subscriptions represents only a fraction over 3 per cent., which it is believed compares favourably with loss of subscriptions by other corporate bodies.

(*l*) *Depreciation.*

In the case of the Library, and Plant and Type, the same amount as in former years has been provided for depreciation.

With Furniture and Fittings, £200 has been written off. This is less than in the year 1908, but then it was considered prudent to write off a large amount having regard to the fact that the Association was taking possession of the new premises and some of the furniture could not be worked in.

At the present time, having regard to the contingent possibility of a claim for total loss by fire, it is considered that the furniture and fittings stand at a reasonable figure in your Assets.

(*m*) *Investments.*

The investments of the Association show a further shrinkage, an unfortunate experience that is general with all holders of gilt-edged securities.

(*n*) *General Summary.*

In conclusion it is gratifying to note that the Revenue of the Association shows the largest expansion during the last five years. At the same time expenditure has increased by £1,864.

British Medical Association.

Balance Sheet 31st December, 1909.

Dr. **Cr.**

LIABILITIES.

	£ s. d.	£ s. d.
To Subscriptions paid in advance	375 7 6	
,, Advertisements ditto	1,105 12 2	
,, Contributions	808 3 9	2,289 3 5
,, Scholarships	162 10 0	
,, Reporting	55 2 6	
,, Engraving	46 7 3	
,, Printing Journal	396 3 0	
,, Paper for Journal	766 13 1	
,, Miscellaneous Printing	1,128 19 6	
,, Stationery	158 1 0	
,, Repairs	51 5 9	
,, Legal Charges	195 9 2	
,, Rates and Taxes, Insurance and Electricity	441 0 4	
,, Plant and Type	39 2 8	
,, Editorial Expenses	29 2 0	
,, Sundries	126 2 8	
,, Library Books, &c.	120 1 1	
,, New Premises	190 0 0	3,906 0 0
,, London County and Westminster Bank—Amount of Loan at December 31st, on Account of New Building, secured by Deposit of Deeds of Freehold Property		43,754 10 7
,, Subscriptions due to Branches, December 31st, 1909		352 8 8
TOTAL LIABILITIES		50,302 2 8
,, OFFICE STAFF SUPERANNUATION FUND—		
,, Amount Invested per contra		3,174 18 11
,, Surplus Account—		
Balance on January 1st, 1909	103,814 9 10	
Balance of Income over Expenditure for 1909 brought from Revenue Account	995 18 0	
	104,810 7 10	
Less Expenditure, &c., incurred in removing to New Premises	610 19 8	
Balance being total of Excess of Assets over Liabilities ...		**104,199 8 2**
		£157,676 9 9

ASSETS.

	£ s. d.	£ s. d.
By Subscriptions in arrears		2,358 19 0
,, Advertisements ,, ...		3,321 4 1
,, Sundry Sales ,, ...		931 3 2
,, Furniture and Fixtures		663 8 8
,, Library		2,032 12 8
,, Plant and Type		2,036 1 2
,, Stock of Paper in hand for printing Journal		304 9 9
,, Accrued Rent		262 3 10
,, Cash at Office		44 7 10
,, Cash at London County and Westminster Bank (being Branch Subscriptions in hand December 31st, 1909)		352 8 8
,, Cash at London County and Westminster Bank on Current Account		312 3 0
,, INVESTMENTS—		
,, Freehold Site, 429, Strand, Agar Street, and Harvey's Buildings, as at 31st December, 1909	86,020 0 0	
,, Less amount realised for Strip of Land sold	605 0 0	
		85,415 0 0
,, Amount Expended on New Building to December 31st, 1909		43,843 9 0
,, £3,200 Bank of England Stock @ 256		8,192 0 0
,, £6,400 Midland Railway 2½% Perpetual Guaranteed Preferential Stock @ 69¼		4,432 0 0
,, OFFICE STAFF SUPERANNUATION FUND—		
Investments as per Separate Account	3,161 12 6	
Cash at Bank	13 6 5	
		3,174 18 11
		£157,676 9 9

(The above Assets do not include the unexpended balances of Capitation Grants held by the various Branches.)

Revenue or Profit and Loss Account for the Year ending 31st December, 1909.

		1908.		1909.	
		£ s. d.	£ s. d.	£ s. d.	£ s. d.
General Association Expenses	*Abstract A* ...	2,197 19 8		3,645 10 5	
Central Meeting Expenses	,, *B* ...	3,706 19 7		3,915 2 8	
Central Premises Expenses	,, *C* ...	1,524 6 9		1,783 15 1	
Printing, Stationery and Postage Expenses ...	,, *D* ...	1,161 13 6		1,257 15 1	
Central Staff Expenses	,, *E* ...	4,504 8 9		4,987 0 9	
Library Account	,, *F* ...	256 2 9		331 7 5	
Journal Account Expenses	,, *G* ...	33,155 19 6		34,082 5 1	
Capitation Grants to Branches	... ...	3,750 14 6		2,279 2 8	
Subscriptions Written off for Deaths, Arrears, &c.	... ...	912 11 4		876 13 5	
		£51,170 16 4		£53,158 12 7	
Library—Written off towards Depreciation ...	200 0 0		200 0 0		
Plant and Type—Ditto	500 0 0		500 0 0		
Furniture and Fittings—Ditto	500 0 0		200 0 0		
Investments—Ditto	384 0 0		560 0 0		
		1,584 0 0		1,460 0 0	
		£52,754 16 4		£54,618 12 7	
Balance of Income over Expenditure carried to Balance Sheet...		732 16 7		995 18 0	
		£53,487 12 11		£55,614 10 7	

	1908.	1909.
	£ s. d.	£ s. d.
Subscriptions	26,717 1 7	26,810 14 2
Journal Account, Total Receipts ... ... See *Abstract G* ...	26,258 7 4	28,036 2 4
Interest on Investments and Rent accrued	442 15 0	702 3 10
Returned Scientific Grants	69 9 0	65 10 3
	£53,487 12 11	£55,614 10 7

Abstract A.]

General Association Expenses.

	1908. £ s. d.	1909. £ s. d.
Auditors' Fee	105 0 0	105 0 0
Bank Charges and Interest on Loan	97 10 2	1,668 8 1
Legal Expenses	658 7 8	628 3 6
Research Scholarships	612 10 0	362 10 0
Scientific Grants	339 0 0	350 0 0
Office—Petty Cash	159 18 5	159 6 1
Supplementary Grant to Contract Practice Committee of South Wales and Monmouthshire Branch	150 0 0	—
Sundries	175 13 5	372 2 9
	£2,197 19 8	£3,645 10 5

Abstract B.]

Central Meetings Expenses.

	1908. £ s. d.	£ s. d.	1909. £ s. d.	£ s. d.
Annual Meeting—Cost of *Daily Journal*	193 10 0		152 0 0	
" " Expenses of Sections	66 17 2	260 7 2	39 2 6	191 2 6
Representative Meetings—				
Railway Fares	267 1 10		370 10 0	
Printing	519 18 0		347 9 5	
Sundries	—		24 4 2	
		786 19 10		742 3 7
Council—				
Railway Fares	591 9 10		631 6 8	
Printings	80 15 1		120 18 3	
Reporting	45 13 6		48 16 6	
		717 18 5		801 1 5
Railway Fares to Secretaries of Branches and Divisions		29 7 6		44 11 10
		1,794 12 11		1,778 19 4

Committees.

Arrangements Committee—				
Railway Fares	40 12 0		24 1 6	
Miscellaneous Printings	11 4 0		5 13 0	
		51 16 0		29 14 6
Central Ethical Committee—				
Railway Fares	150 17 10		103 2 9	
Miscellaneous Printings	79 2 5		119 8 6	
Reporting	—		7 17 6	
		230 0 3		230 8 9
Chairmen of Committees—				
Railway Fares	—	—	—	8 6 0
Chloroform Committee—				
Railway Fares	—	8 13 8	—	—
Colonial Committee—				
Railway Fares	0 8 0		1 19 2	
Miscellaneous Printings	2 9 6		3 8 3	
		2 17 6		5 7 5
Election Returns Committee—				
Railway Fares	—	—	10 0 3	
Miscellaneous Printings	—	11 19 6	34 15 0	44 15 3
Hospitals Committee—				
Railway Fares	74 19 2		64 13 3	
Miscellaneous Printings	19 2 6		28 12 0	
		94 1 8		93 5 3
Irish Committee—				
Railway Fares	56 12 8		54 4 10	
Miscellaneous Printings	6 8 0		4 14 6	
		63 0 8		58 19 4
Carried forward		2,257 2 2		2,249 15 10

Committees—*continued.*

	1908. £ s. d.	£ s. d.	1909. £ s. d.	£ s. d.
Brought forward		2,257 2 2		2,249 15 10
Journal and Finance Committee—				
Railway Fares	74 18 1		120 14 5	
Miscellaneous Printings	39 11 0		39 0 9	
Reporting	31 10 0		22 1 0	
		145 19 1		181 16 2
Medico-Political Committee—				
Railway Fares	375 6 8		361 0 6	
Miscellaneous Printings	151 14 6		212 13 3	
		527 1 2		573 13 9
Naval and Military Committee—				
Railway Fares	12 17 3		11 5 1	
Miscellaneous Printings	6 5 6		5 3 6	
		19 2 9		16 8 7
Ophthalmia Neonatorum Committee—				
Railway Fares	—	2 17 6	23 0 3	
Miscellaneous Printings	—	—	29 3 3	
				52 3 6
Organisation Committee—				
Railway Fares	147 1 6		190 1 4	
Miscellaneous Printings	123 3 6		141 3 0	
		270 5 0		331 4 4
Permanent Assistant Medical Secretary Committee—				
Railway Fares	18 15 8			
Miscellaneous Printings	0 11 0			
		19 6 8		—
Poor Law Committee—				
Railway Fares	—		103 11 7	
Miscellaneous Printings	—		19 15 3	
		—		123 6 10
Premises Committee—				
Railway Fares	31 4 6		25 17 10	
Miscellaneous Printings	7 0 0		7 18 9	
		38 4 6		33 16 7
Public Health Committee—				
Railway Fares	56 10 6		83 12 2	
Miscellaneous Printings	15 4 6		15 16 3	
		71 15 0		99 8 5
Science Committee—				
Railway Fares	115 8 2		102 17 3	
Miscellaneous Printings	27 12 3		41 14 9	
		143 0 5		144 12 0
Scottish Committee—				
Railway Fares	21 2 8		32 5 9	
Miscellaneous Printings	2 5 6		3 13 6	
		23 8 2		35 19 3
Special Finance Inquiry Committee—				
Railway Fares	—	0 12 6	—	—
Spiritual Healing Sub Committee—				
Railway Fares	—	—	—	4 3 0
Territorial Forces Committee—				
Railway Fares	—	—	4 11 8	
Miscellaneous Printings	—	—	1 4 9	
				5 16 5
Therapeutic Committee—				
Railway Fares	—	23 13 1	—	20 18 6
Uterine Cancer Committee—				
Railway Fares	17 17 9		1 13 0	
Miscellaneous Printings	5 19 0		4 16 6	
		23 16 9		6 9 6
United Kingdom Hospital Conference—				
Railway Fares	21 16 4		—	
Miscellaneous Printings	43 18 6		—	
		65 14 10		—
Paper for Miscellaneous Printing in connection with Committees	—	75 0 0		35 10 0
		£3,706 19 7		£3,915 2 8

Abstract C.]

Central Premises Expenses.

	1908. £ s. d.	1909. £ s. d.
Cleaning Offices	208 0 0	314 6 11
Coals, Coke and Wood...	51 9 3	106 7 3
General Repairs and Upkeep	25 3 9	60 9 9
Rates and Taxes, Insurance, Electricity, and Rent	1,239 13 9	1,302 11 2
	£1,524 6 9	£1,783 15 1

Abstract D.]

Central Printing, Stationery and Postage Expenses.

	1908.	1909.
	£ s. d.	£ s. d.
General Printing	199 0 0	185 10 0
Office—General Postage :—		
Financial Secretary and Business Manager's Department	399 13 6	393 8 2
Medical Secretary's Department	103 18 11	142 15 9
Stationery	459 1 1	533 1 2
	£1,161 13 6	£1,257 15 1

Abstract E.]

Central Staff Expenses.

	1908		1909.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Financial Secretary and Business Manager	800 0 0		900 0 0	
Assistant Secretary	325 0 0		350 0 0	
Clerical Staff, General Office, Journal, Subscription and Advertisement Departments	2,749 1 10		2,723 10 9	
		3,874 1 10		3,973 10 9
Less Proportion of Salaries debited to Journal Account		1,979 2 0		1,990 2 6
		1,894 19 10		1,982 8 3
Medical Secretary	750 0 0		900 0 0	
Deputy Medical Secretary	125 0 0		560 0 0	
Assistant Medical Secretary	250 0 0		262 10 0	
Clerical Staff (Medical Secretary's Department) ...	672 8 0		797 18 0	
		1,797 8 0		2,430 8 0
Donation to Charing Cross Hospital		10 10 0		10 10 0
Pension—Late General Secretary and Manager		300 0 0		—
TRAVELLING EXPENSES :—				
Financial Secretary and Business Manager's Department		73 3 2		89 16 3
Medical Secretary's Department...		128 7 9		143 18 3
Amount Voted to Office Staff Superannuation Fund		300 0 0		300 0 0
		£4,504 8 9		£4,987 0 9

Abstract F.]

Library Account.

		£ s. d.		£ s. d.
1909.			1909.	
Jan. 1.	To Balance	2,097 18 7	Dec. 31. By Librarian's Salary	250 0 0
Dec. 31.	,, Purchase of Books	104 11 0	,, Librarian's Clerk's Salary	58 15 0
	,, Binding Books	30 3 1	,, Printing and Posting of Circulars, &c.	22 1
	,, Librarian's Salary	250 0 0		331 7 5
	,, Librarian's Clerk's Salary	58 15 0	Amount written off for Depreciation	200 0 0
	,, Printing and Postage of Circulars, &c.	22 12 5	Balance carried to Balance Sheet	2,032 12 8
		£2,564 0 1		£2,564 0 1

Abstract G.]

JOURNAL ACCOUNT.

Income and Expenditure Account for the year ending 31st December, 1909.

	1908. £ s. d.	1909. £ s. d.
EDITORIAL.		
Salaries—Editor	1,000 0 0	1,000 0 0
,, Assistant Editor	750 0 0	750 0 0
,, Sub-Editor	300 0 0	400 0 0
,, Clerical Staff	461 12 6	481 12 0
Contributions and Reporting	3,430 19 1	3,307 5 4
Engraving	242 13 9	254 2 8
Legal Expenses	14 1 2	100 10 6
Postage	72 10 0	77 6 8
Analyses	218 3 3	149 2 0
Travelling Expenses, Papers, &c.	154 0 3	178 15 7
Advance Slips circulated to the Press	31 4 9	28 8 9
	6,675 4 9	6,727 3 6
MANAGERIAL.		
JOURNAL—Compositors' Wages, Machining, &c.	8,192 4 0	8,455 12 6
,, Paper	8,666 5 4	8,488 18 1
SUPPLEMENT—Compositors' Wages, Machining, &c.	992 7 0	989 5 0
,, Paper	976 5 0	981 11 0
Postage for dispatch of JOURNAL	4,454 1 0	4,476 12 9
Address Bands for Issuing JOURNAL	467 4 9	461 5 9
Proportion of Manager's and Clerks' Salaries	1,979 2 0	1,996 2 6
General Postage	112 10 0	144 10 0
General Printing	30 9 9	46 14 1
Reprints	148 15 2	168 2 9
Secret Remedies	—	937 5 9
Stationery (Ledgers, Letter Books, &c.)	112 0 0	137 0 0
Travelling Expenses	19 10 9	22 1 5
Compositors' Sick Fund	10 10 0	10 10 0
Sundries	19 10 0	39 10 0
	£33,155 19 6	£34,082 5 1

	1908. £ s. d.	1909. £ s. d.
Advertisements	22,448 3 8	22,985 1 5
Sundry Sales—Journals	2,428 1 8	2,474 18 10
,, Reading and Binding Covers, &c.	80 5 1	95 3 8
,, Reprints	231 17 2	267 18 8
,, Secret Remedies	—	1,208 19 10
Sale of Waste, &c.	39 2 4	29 11 0
Discounts on Machining, Paper, &c.	1,030 17 5	974 8 11
	26,258 7 4	28,036 2 4
Balance from Subscriptions for the cost of production and issue of the Journal	6,897 12 2	6,046 2 9
	£33,155 19 6	£34,082 5 1

New Premises Account.

1909.		£ s. d.
Jan. 1.	To Balance	38,586 3 8
Dec. 31.	,, Fees to Mr. Percy Adams (architect)	200 0 0
	,, Clerk of Work's Salary	91 0 0
	,, Messrs. Prestige & Co. (Builders)	4,000 0 0
	,, ,, Shoolbred (Council Seats)	496 9 0
	,, Blinds and Curtains, &c.	239 8 1
	,, Electric Fittings	10 8 3
	,, Completion of Ground Floor Premises	190 0 0
		£43,843 9 0

1909.		£ s. d.
Dec. 31.	By Balance	43,843 9 0
		£43,843 9 0

Stewart Fund.

£579 4 per cent. Caledonian Railway Debenture Stock.

1909.		£ s. d.
Jan. 1.	To Balance brought over from 1908	28 13 0
Dec. 31.	,, Interest	21 17
		£50 10 8

1909.		£ s. d.
Dec. 31.	By Cash at Bank	50 10 8
		£50 10 8

Middlemore Fund.

£666 13s. 4d. 3 per cent. North British Railway Debenture Stock.

		£ s. d.			£ s. d.
1909.			1909.		
Jan. 1.	To Balance brought over from 1908	44 3 11	Dec. 31.	By Cash at Bank	63 1 11
Dec. 31.	,, Interest	18 18 0			
		£63 1 11			£63 1 11

Francis Fowke Bequest.

£700 Midland Railway 2½% Perpetual Guaranteed Preferential Stock.

		£ s. d.			£ s. d.
1909.			1909.		
Dec. 31.	To Interest	14 7 9	Dec. 31st.	By Cash at Bank	14 7 9

Office Staff Superannuation Fund.

Dr.

		£ s. d.	£ s. d.
1909.			
Jan. 1.	To Balance brought over from 1908	2,726 5 10	
Dec. 31.	,, Less amount written off Investment	51 16 11	
			2,674 8 11
	,, Payments by Members of Staff		107 9 8
	,, Vote from General Funds		300 0 0
	,, Interest on Investments		93 0 4
			£3,174 18 11

Cr.

		£ s. d.
1909.		
Dec. 31.	By Balance carried down—	
	,, Cash at Bank	13 6 5
	INVESTMENTS—	
	,, £600 Cape of Good Hope 3 per cent. Stock @ 85	513 0 0
	,, £100 Bristol Corporation 3½ per cent. Redeemable Stock, bought 1906	100 0 0
	,, £650 Midland Railway 2½ per cent. Consolidated Perpetual Guaranteed Stock @ 69¼	450 2 6
	,, £200 New Zealand 4 per cent. 1929 Stock @ 105...	210 0 0
	,, £400 New Zealand 3 per cent. Stock @ 85⅝	344 0 0
	,, £200 Furness Railway Consolidated 4 per cent. Preferential Stock @ 92	184 0 0
	,, £250 Bank of England Stock @ 256	640 0 0
	,, £400 India Stock 3 per cent. @ 84½	338 0 0
	,, £450 Stockton-on-Tees Corporation 3 per cent. Redeemable Stock	382 10 0
		£3,174 18 11

Having examined the Balance Sheet, dated 31st December, 1909, and Accounts with the books and vouchers of the Association, and having received all the information and explanations we have required, we report that the Balance Sheet is, in our opinion, properly drawn up so as to exhibit a true and correct view of the state of the affairs of the Association according to the best of our information and the explanations given to us and as shown by the books of the Association.

We have verified the Investments of the Association on General Account and on account of the Trust Funds shown and of the Office Staff Superannuation Fund, and we have verified the possession by the Bankers of the Association of the Deeds of the Freehold Property.

EDWIN RAYNER,
Honorary Treasurer.

GUY ELLISTON,
Financial Secretary and Business Manager.

PRICE, WATERHOUSE, & CO.,
3, Frederick's Place, Old Jewry, E.C.,
19th April, 1910.

Briefly summarised 1908 compared with the previous year shows £995 carried to reserve. Revenue increased by £2,127, and Expenditure by £1,864. In comparison, however, there were four items of expenditure in the year 1908 totalling £912, which did not occur in the year 1909.

The Revenue has for many years responded in a remarkable manner to the heavy demands made upon it, but the ratio has reached a point that must again be a cause of some anxiety.

ESTIMATE OF RECEIPTS AND EXPENDITURE FOR 1910.

7. In submitting Estimate of Receipts and Expenditure for the current year, it is calculated that, after all expenses are paid, there may be a surplus of £300.

EXPENDITURE.

	£
General Association Expenses	3,650
Central Meeting Expenses	4,500
Central Premises Expenses	1,850
Central Printing, Stationery, and Postages	1,500
Central Staff Expenses	5,000
Library	600
JOURNAL Account	34,300
Capitation Grants to Branches	2,300
Arrears of Subscriptions	900
Depreciation of Furniture, Plant, and Type	1,000
	55,600
ESTIMATED SURPLUS	300
	£55,900

RECEIPTS.

	£
Subscriptions	27,000
Advertisements	23,000
Sundry Sales of Journals, etc.	2,800
Investments	2,100
Discounts on Purchases of Paper	1,000
	£55,900

APPORTIONMENT OF MEMBERS' SUBSCRIPTIONS.

8. The following table shows how the subscription of 25*s.* has been apportioned for defraying the expenses of the Association for the year ending December 31st, 1909. Details of expenditure under each head are given in the various schedules of the Financial Statement for the year :—

	£	£	*s.*	*d.*
General Association Expenses	3,645	0	3	4
Central Meeting Expenses	3,915	0	3	8
Central Premises	1,783	0	1	7
Printing, Stationery, and Postage	1,257	0	1	2
Library	331	0	0	3
Central Staff Expenses	4,987	0	4	7
Journal and Supplement, Advertisements, &c.	6,046	0	5	6
Written off Subscriptions	876	0	0	9
Written off for depreciation of Investments, Plant, and Type	1,460	0	1	3
Balance carried to surplus	995	0	0	9
Capitation Grants	2,279	0	2	2
		£1	5	0

ISSUE OF SUPPLEMENT TO NON-MEMBERS.

9. In accordance with the instruction contained in Resolution 20 of the Belfast Representative Meeting, the Council reports that it is impracticable to withhold the Supplement of the JOURNAL from Non-Members. The Supplement was established, in 1905, so that Members might more conveniently find the account of Association business. After an experimental period—the issue was occasional, as matter offered—it was deemed essential to make it weekly. This is made possible only by transferring certain matters from the body of the JOURNAL. If the Supplement is to be issued to Members only, certain matters would have again to go into the body of the JOURNAL, and the weekly issue of the Supplement would be impracticable. There would be no monetary saving, and it is doubtful whether the Post Office might not take exception to the issue of a Supplement which was not an essential part of the JOURNAL. It is also believed to be in the interest of the Association that its proceedings should as a rule be accessible to the public. Matters which it is thought advisable to issue to Members only are issued in bulk to the Secretaries of Divisions, and are by them included with the summons to the next Division meeting. This procedure is economical, more secure than would be its issue with the JOURNAL, and more likely to arrest the attention of the individual Members.

CONTROL OF ADVERTISEMENTS IN JOURNAL.

10. At Belfast the following motion of the Birmingham Central Division was referred to the Council for consideration and Report :—

> That the Council instruct the Journal and Finance Committee to appoint annually a Sub-Committee for the revision of advertisements ; and that no advertisement be accepted for publication in the BRITISH MEDICAL JOURNAL until it has been approved by the Sub-Committee ; and the Sub-Committee shall not allow any advertisement to appear which contains misleading or exaggerated statements, nor any advertisement of any preparation or appliance which is advertised elsewhere than in the medical press as a remedy for any morbid condition, and is of such a character that its use demands medical supervision in the interests of the patient, or which is anywhere advertised in misleading or exaggerated terms. (Minute 31.)

11. The Council has given the matter careful consideration. Advertisements being received right up to the time of the JOURNAL going to press, it is of primary importance for the issue of the JOURNAL that the decision as to the admission should be prompt. The control is at present in the hands of the Financial Secretary and Business Manager, and, in accordance with a Resolution of the Representative Meeting at Sheffield, all advertisements of professional import are submitted to the Medical Secretary, and in cases of doubt the Chairman of the Ethical or other Committee concerned is consulted. If necessary, the Committee concerned is consulted. In practice, advertisements such as are referred to in the Resolution of the Birmingham Central Division are not sought, and if tendered they are refused.

12. The Council believes that it is impracticable for a special Sub-Committee to control advertisements, and is of the opinion that the present executive can perform the duty. The Council is always prepared to take into consideration information as to advertisements which may be considered undesirable.

13. The details of the executive administration of this work have also received consideration.

DUTIES OF THE SECRETARIAT.

14. In accordance with the following instruction of the Annual Representative Meeting at Belfast :—

> *Minute* 56.—That it be referred to the Council to define the duties of this office—that is, the office of Financial Secretary and Business Manager, referred to in the previous resolution of the Meeting—and of that of Medical Secretary, in accordance with the principles set forth in Minute 544 of the Annual Representative Meeting of July, 1908 :

the Council has defined in detail the duties of the Financial Secretary and Business Manager, and the Medical Secretary, in so far as these had not been already determined by decisions of the Representative Meeting and of the Council.

RE ACCIDENT POLICY IN CONNECTION WITH THE BRITISH MEDICAL JOURNAL.

15. Arising out of Minute 33 of the Annual Representative Meeting at Belfast,

> (33) Resolved (61 to 39) : That the Council take into consideration the advisability of adding an Accident Policy in connection with the BRITISH MEDICAL JOURNAL :

the Council reports to the Representative Meeting that it has been advised under the present Memorandum of Association that the Establishment of a Sickness and Accident insurance policy in connection with the BRITISH MEDICAL JOURNAL is legally impracticable upon any footing which would involve the Association in pecuniary liability. Further, that in the opinion of the Council it would lower the prestige of the BRITISH MEDICAL JOURNAL and be otherwise inexpedient to institute such a policy even if there were no legal obstacle. The Council also desires to report to the Annual Representative Meeting that the Medical Insurance Committee is in a position to offer to individual Members on

exceptionally favourable terms insurance not only against sickness and accident, but against every form of risk.

16. The Council has ascertained that there is no obstacle to Representatives upon the Medical Insurance Committee being nominated by the Association at the request of such Committee, and the Council has already received a request from that Committee to so nominate.

17. The Council, in arriving at its conclusions as to the inexpediency of issuing a Sickness and Accident Policy in connection with the BRITISH MEDICAL JOURNAL, was influenced by the fact that in its opinion the prestige of the BRITISH MEDICAL JOURNAL would thereby suffer. The conditions of insurances at present offered in connection with journals were carefully studied, and it was found that they were so limited by restrictions that the Council considered that any protection it could offer in this way would not afford the protection desired by Members of the Association. Under a comprehensive Sickness and Accident Policy on any terms not supported by actuarial figures, the protection would be so limited as to be illusory and might create a false sense of security. For the information of the Representative Meeting the actuarial figures of the Medical Sickness Society are appended; this Society is worked on exceedingly economical lines.

Medical Sickness, Annuity and Life Assurance Society.

Sickness or Accident Pay.

18. The following are the rates, according to the age at entry up to 49, as approved by the Consulting Actuary. The premiums are payable annually or half-yearly (in advance).

Of £4 4*s.* per Week.

TABLE A.—Premium payable to secure £4 4*s.* per week during incapacity, whether caused by *Sickness or Accident.* The full amount of Sick Pay is payable for the first six months of protracted illness, and one half the full Sick Pay for the remainder of the same attack (Rule XII). All Sick Pay and Premiums cease at age 65.

Age last Birthday.	Annual.	Half-yearly.	Age last Birthday.	Annual.	Half-yearly
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
21	5 17 10	3 0 6	36	8 4 8	4 4 6
22	5 19 9	3 1 6	37	8 8 6	4 6 6
23	6 2 7	3 2 11	38	8 13 2	4 8 10
24	6 4 10	3 4 0	39	8 17 11	4 11 4
25	6 7 0	3 5 2	40	9 2 5	4 13 8
26	6 9 6	3 6 6	41	9 7 6	4 16 3
27	6 12 4	3 8 0	42	9 12 6	4 18 10
28	6 15 6	3 9 7	43	9 18 6	5 1 11
29	6 19 0	3 11 4	44	10 3 11	5 4 8
30	7 2 6	3 13 2	45	10 10 4	5 7 11
31	7 5 0	3 14 6	46	10 16 11	5 11 4
32	7 9 2	3 16 6	47	11 3 7	5 14 9
33	7 12 4	3 18 2	48	11 11 2	5 18 8
34	7 15 10	4 0 0	49	11 18 2	6 2 2
35	7 19 11	4 2 1			

Of £3 3*s.* per Week.

TABLE B.—Premium payable to secure £3 3*s.* per week during incapacity, whether caused by *Sickness or Accident.* The full amount of Sick Pay is payable for the first six months of protracted illness, and one half the full Sick Pay for the remainder of the same attack (Rule XII). All Sick Pay and Premiums cease at age 65.

Age last Birthday.	Annual.	Half-yearly.	Age last Birthday.	Annual.	Half-yearly.
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
21	4 8 5	2 5 4	36	6 3 6	3 3 5
22	4 9 8	2 6 1	37	6 6 4	3 4 10
23	4 11 10	2 7 2	38	6 9 10	3 6 8
24	4 13 5	2 8 0	39	6 13 4	3 8 5
25	4 15 8	2 9 1	40	6 16 10	3 10 4
26	4 17 6	2 10 1	41	7 0 7	3 12 2
27	4 19 5	2 11 1	42	7 4 9	3 14 4
28	5 1 7	2 12 2	43	7 9 2	3 16 7
29	5 4 2	2 13 6	44	7 13 4	3 18 8
30	5 6 5	2 14 8	45	7 17 8	4 1 0
31	5 9 0	2 15 11	46	8 2 10	4 3 7
32	5 11 10	2 17 5	47	8 7 7	4 6 0
33	5 14 0	2 18 6	48	8 13 7	4 9 1
34	5 16 11	3 0 0	49	8 18 8	4 11 8
35	6 0 0	3 1 8			

Of £2 2*s.* per Week.

TABLE C.—Premium payable to secure £2 2*s.* per week during incapacity, whether caused by *Sickness or Accident.* The full amount of Sick Pay is payable for the first six months of protracted illness, and one half the full Sick Pay for the remainder of the same attack (Rule XII). All Sick Pay and Premiums cease at age 65.

Age last Birthday.	Annual.	Half-yearly.	Age last Birthday.	Annual.	Half-yearly.
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
21	2 18 11	1 10 3	36	4 2 4	2 2 3
22	2 19 11	1 10 9	37	4 4 3	2 3 3
23	3 1 4	1 11 6	38	4 6 7	2 4 5
24	3 2 5	1 12 0	39	4 9 0	2 5 8
25	3 3 6	1 12 7	40	4 11 3	2 6 10
26	3 4 9	1 13 3	41	4 13 9	2 8 2
27	3 6 2	1 14 0	42	4 16 3	2 9 5
28	3 7 9	1 14 10	43	4 19 3	2 11 0
29	3 9 6	1 15 8	44	5 2 0	2 12 4
30	3 11 3	1 16 7	45	5 5 2	2 14 0
31	3 12 6	1 17 3	46	5 8 6	2 15 8
32	3 14 7	1 18 3	47	5 11 10	2 17 5
33	3 16 2	1 19 1	48	5 15 7	2 19 4
34	3 17 11	2 0 0	49	5 19 1	3 1 1
35	4 0 0	2 1 1			

19. The amounts paid by the Sickness and Accident Fund during the six years, 1903–1908, were as follows:—

Year	No. of Members.	£
1903	2,274	9,663
1904	2,336	10,566
1905	2,429	11,132
1906	2,488	11,493
1907	2,583	12,700
1908	2,723	14,447

20. During the year 1908, with a membership of 2,723, the total number of sickness and accident claims was 726, as against 668, with a membership of 2,583 in the preceding year. Of these, 653 were sickness claims, and 73 arose from accidents of various kinds. Among the accidents, 14 were met with in bicycling, 16 in riding or driving, 7 in motoring, and 18 were poisoned wounds. The average duration of sickness was 6 weeks, 4 days; 32 members were in benefit during the whole year.

Resolutions of Representative Meeting involving Special Expenditure.

21. The instruction, contained in Minute 59 of the Annual Representative Meeting at Belfast, that the Council, before reporting to the Representative Meeting upon any Motion on the Agenda of the Meeting which involves special expenditure, should consult the Branch or Division concerned, has been noted for future guidance.

MEDICAL BENEVOLENCE.

22. During the past year £587 have been collected through the Central Office on behalf of the British Medical Benevolent Fund, £450 on behalf of the Epsom College Benevolent Fund, and £30 on behalf of the Royal Medical Benevolent Fund Society of Ireland.

The Council earnestly pleads for more generous support of these valuable Institutions.

THE BRITISH MEDICAL JOURNAL.

23. The Council believes that the BRITISH MEDICAL JOURNAL continued during 1909 to discharge in an increasingly satisfactory way one of its chief functions, which is the dissemination of trustworthy information as to the advance of clinical medicine, surgery, and obstetrics, and of the pathological and bacteriological investigations to which that advance is in a large measure due. The extension of the more refined methods of clinical research to everyday clinical practice is one of the most marked features of the present development of medical science. Among such extensions one of the most striking is the increasing reliance placed upon serum reactions in the diagnosis of disease. A recent instance is afforded by the serum reaction in syphilis, which has been found of great practical value in the recog nition of the late as well as of the early manifestations of

that disease. Numerous improvements and simplifications of the technique have been introduced, and the subject has therefore made considerable demands on space. A great deal of work is also being done to elucidate the pathology and to assist in the early diagnosis of cancer. As a result of this, a number of communications on that subject were published, including an important analytical paper by the President-Elect. A plate was also published of coloured illustrations, showing that some conditions of the tongue, previously regarded as pre-cancerous, are in reality true cancer in an early stage, an observation the practical importance of which in relation to treatment need not be insisted on. A very large number of papers founded on clinical experience gained in general practice, including records of individual cases, valuable on account of their rarity, or owing to the favourable effects of the treatment adopted, were published either in the reports of the scientific proceedings of Branches and Divisions or as separate communications. The Council believes that in this way many observations which would otherwise be lost are preserved and made useful to the Profession. In dealing with the scientific proceedings of the Annual Meeting, the plan adopted some years ago was continued, and the arrangements for their preparation and printing were so made that the publication of ordinary original articles was not interrupted. The printing of these proceedings was completed a fortnight earlier than in any of the preceding eight years, despite the fact that the number of Sections was slightly above the average.

24. The progress of Medicine abroad is reflected in the Epitome of Current Medical Literature, in the reviews of foreign books, an increasing number of which are received year by year, owing doubtless to the high reputation of the Journal as one of the most important and widely circulated medical periodicals of the world, and in the letters of special correspondents in the various foreign centres of medical activity.

25. The Journal has the no less important function in the corporate life of the Association of disseminating information as to the social, political, and economic questions which interest the Profession, and this function is discharged by the publication of Government and Parliamentary Reports in full or in abstract, and of reports of committees of the Association itself, mainly in the weekly Supplement, of editorial articles founded on information specially collected, of which those on psychical healing and on proprietary remedies and foods may be quoted as examples, and of correspondence indicating the opinions of members on medical questions of the day.

26. The publication early in the year of the Report of the Royal Commission on the Poor Laws and Relief of Distress, appointed in 1905, necessitated the devotion of a great deal of space to the elucidation and discussion of the many important questions affecting the medical profession raised by the recommendations of the majority and minority Reports of the Commission. An analysis of the Report was published within a few days of its issue, and subsequently similar analyses were published of the volumes issued later by the Commission as appendices to its Report. In addition many papers and addresses as well as numerous editorial articles appeared, and a lively correspondence arose. In this way the divers opinions of members of the Association engaged in various departments of practice, and therefore regarding the questions raised from different points of view, have been placed before the Association, and the Journal has thus been able not only to arouse the interest of Members in a matter of first-rate importance, affecting both the social and scientific interests of the Profession, but has been able also to do something towards the elucidation of the problems involved.

27. In connexion with a review of the two volumes containing Lord Lister's collected Papers, a photographic portrait taken in Edinburgh in 1856 was published as a special plate. It is believed that this representation of the founder of modern surgery at the beginning of his career has been valued by members as a pendant to the reproduction of Mr. Rivière's portrait painted in 1902, when, honoured by his Sovereign, by the Profession of Medicine, and by men of science throughout the world, Lord Lister had withdrawn from active work. The Council is glad to know that in his retirement Lord Lister retains his active interest in science, and in the welfare of the Profession, the efficiency of which he has done so much to advance.

ORGANISATION.

Membership of the Association.

28. The total Membership of the Association on December 31st, 1909, was 21,405, being an increase of 242 over the previous year, as compared with an increase of 39 during the year 1908.

29. From the table given below it will be seen that this greater increase of membership is due both to an increase in the number of new Members and to a decrease in resignations and deaths.

Variations in Membership, 1908–9.

1908.			1909.		
New Members		1,023	New Members		1,148
Resignations	584		Resignations	496	
Deaths	244		Deaths	218	
Arrears	153		Arrears	190	
Expulsions.....	3		Expulsions.....	1	
	---	984	Removed from Medical Register	1	
				---	906
Increase ...		39	Increase ...		242

Obituary.

30. Name.	Offices held in the Association, if any.
Dr. Rayner W. Batten ...	Formerly a Representative of Gloucestershire Branch on Central Council for several years.
Lieut.-Col. John Peter Hamilton Boileau	A member of the old Committee of Council.
Dr. Thomas Bridgwater ...	A Vice-President of the Association and formerly President of the Council.
Dr. Ernest Herbert Cobb ...	Honorary Secretary and Treasurer of the Bedford and Herts Division.
Mr. Edward Chas. Cripps ...	Ex-President of the Gloucestershire Branch.
Dr. H. Radcliffe Crocker ...	A Vice-President, Treasurer of the Association, 1906–08, and for many years Representative of the Metropolitan Counties Branch on the Central Council.
Dr. William Arthur Foxwell	Vice-President of Section of Medicine at Belfast, 1909.
Prof. Alexander Fraser ...	President of Section of Ophthalmology at Toronto, 1906.
Mr. Thomas Evan Jones ...	President of the North Wales Branch, 1874.
Dr. W. Kennedy	Ex-President, Northern Counties of Scotland Branch.
Sir Stephen Mackenzie ...	President of the Metropolitan Counties Branch, 1902.
Mr. Henry John Manning...	Honorary Secretary and Treasurer of the Southern Branch and Representative on Central Council for many years.
Dr. Harrison Mitchell ...	Ex-President of the Border Counties Branch, Representative of English Division in Representative Meetings, 1906–8.
Dr. Samuel Holgate Owen...	Formerly Chairman of the Manchester West Division.
Mr. Henry K. Ramsden ...	Representative of Chelsea Division in Representative Meetings, 1908–9.
Dr. W. B. Ransom	Member of Local Committee, Nottingham Meeting, 1892.
Dr. T. Whitehead Reid ...	Member of Central Council and Chairman of Hospitals Committee.
Dr. John Milson Rhodes ...	Chairman, South Manchester Division.

Name.		Office held in the Association, if any.
Dr. W. G. Rockwood	...	Formerly President of the Ceylon Branch.
Dr. Ernest Alfred Snape	...	Formerly a member of the Metropolitan Counties Branch Council.
Sir Wm. Thomson, C.B.	...	Formerly a member of the Central Council.

31. Dr. Samuel Alexander; Dr. John Edward Allen; Dr. Stanley Bean Atkinson; Dr. Hugh Arthur; Mr. Robert James Bedford; Dr. Hubert Elwyn Biss; Dr. James Bisshopp; Brigade-Surgeon Edward Joseph Boulton; Dr. Percy Boulton; Dr. Christian Wm. Branch; Mr. William Browne; Dr. W. B. Cheadle; Dr. Edward Clapton; Dr. James Clark; Dr. Thomas Kilner Clarke; Dr. William Clibbon; Dr. John Cockton; Mr. H. H. Clutton; Dr. William Joseph Collins; Dr. J. Constable; Dr. James Allan Coutts; Dr. Alex. Craig; Prof. D. J. Cunningham, F.R.S.; Col. George McBride Davis, C.B.; Dr. Andrew James Duncan; Mr. Samuel Evans; Dr. Wm. Ferris; Dr. O. H. Garland; Mr. George Sidney Gent; Dr. Thomas Graham; Mr. Robert Marcus Gunn; Surg.-Major Thomas Egerton Hale, V.C.; Dr. F. J. Vincent Hall; Mr. William Ilbert Hancock; Mr. Herbert L. Hawksley; Dr. Thomas Crawford Hayes; Col. Frederick William Lloyd Hodder; Dr. J. F. Hopgood; Dr. William Hunter (Hong Kong); Mr. Charles Robert Bell Keetley; Dr. George Skene Keith; Dr. Charles Kennedy; Mr. Arthur Kingsland; Mr. Henry Augustus Wellesley Lawson; Dr. George Stretton Leeds; Dr. Augustin A. Le Rossignol; Lieut.-Col. Alexander Long, R.A.M.C.; Dr. O. S. MacDonald; Dr. James Herbert McRee; Dr. John Campbell Mackenzie; Dr. T. McIlvoy; Lieut.-Col. Henry James McLaughlin; Dr. George Archibald Maconachie; Mr. Edward Marsh; Dr. W. Page May; Dr. Thomas Spence Meighan; Mr. Philip Edward Muskett; Mr. F. H. Pitts-Tucker; Mr. Robert Podmore; Mr. Herbert Murray Ramsay; Dr. Cecil Arthur Reynolds; Dr. John Ellison Richards; Dr. Henry Roscoe; Dr. John Latham Rushton; Dr. James Rutherford; Dep. Inspector-General Thomas Seccombe; Dr. Wm. Skinner; Dr. Robert Spence; Dr. Henry Stilwell; Dr. Hackworth Stuart; Dr. Charles Bell Taylor; Dr. George Padgett Taylor; Dr. John William Taylor; Dr. Evan Thomas; Dr. William Donald Urquhart; Dr. John Waggett; Mr. William Warwick Wagstaffe; Mr. Archibald Weir; Dr. J. H. Williams; Mr. Alfred Edward Wilmot; Dr. George Morton Wilson; Mr. Alfred John Wright; Dr. E. Adam Howie Wylie.

ANNUAL REPORTS.

32. The Annual Reports of Divisions and Branches afford gratifying evidence of the increasing consolidation of the organisation of the Association under the Constitution of 1902, and of the much greater interest taken not only by Members but also by non-members in the work of the Association.

33. A considerable awakening of interest has been caused during the year under review by the action of Local Authorities in the matter of Medical Inspection and Treatment of School Children, and by the publication of the Reports of the Royal Commission on the Poor Law. As a result Members of the Association and other members of the Profession are being constrained to recognise the vital importance to their own interests of an effective organisation of the Profession, and the fact that such an organisation can be obtained only through the British Medical Association.

SOUTH AFRICAN COMMITTEE.

34. The Council has pleasure in reporting that the Constitution of a South African Committee, desired by the South African Branches, has at length been effected. The Council has conferred upon the Committee the widest powers which the present Regulations of the Association permit, and has indicated the intention of further extending these powers so soon as this becomes practicable through the grant of a Charter, or through the action which the Annual Representative Meeting at Belfast determined (Minute 216) should be taken in the event of the Charter not being obtained.

35. The Council is assured that the Annual Representative Meeting will concur in desiring the greatest prosperity for the South African Committee, and for the South African Branches under its guidance.

ANALYSIS OF BRANCH REPORTS.

36. A tabular analysis of the Annual Reports of the Branches will be found on pages 13–21.

CAPITATION GRANTS.

Working of New System.

37. The accounts of the Branches for the year 1909 show the result of the first year's working of the new system of award of Capitation Grants, which resulted from an alteration of the By-laws by the Annual Representative Meeting at Sheffield, whereby a discretion was conferred upon the Council as to the amount of the Grant (being not more than 4*s.* per head) that should be awarded to each Branch. Grants not exceeding 2*s.* per head were made by the Council during the year, with an intimation to each Branch that additional Grants would be made if required by any Branch for the purpose of carrying on its work. No applications for increased Grants were made during the year 1909. Two applications have been received subsequently, and are under consideration. On the evidence at present before it, the Council is satisfied that there has been no interference with the efficiency of the work of the Branches through the adoption of the new system, and that there is a considerable saving for the time being to the funds of the Association.

Proposal to make Grants direct to Divisions.

38. Concerning the following Motion, submitted by a Division to the Annual Representative Meeting and referred by the Meeting (Minute 195) to the Council for consideration:—

> 194. That in view of the facts (1) that the policy of the Association is to consider the Division as the primary unit, each Division being free to govern itself in such manner as it shall think fit; (2) that the decision as to what additional subjects shall be forwarded to the Divisions for consideration rests with the Representative Body and the Central Council, and not the Branch Councils; this Representative Body considers that it is illogical any longer to place in the hands of Branch Councils the funds for distribution to the Divisions, while at the same time depriving them of any control over the objects for which the money is used, and instructs the Central Council to so amend the By-laws as to place the distribution in the hands of the Central Council, which can make Capitation Grants to all Divisions and Branch Councils as may be required.

Recommendation.

The Council recommends:

> That it is inadvisable to adopt the policy referred for the consideration of the Council under the Minutes above mentioned.

ELECTION OF REPRESENTATIVES.

Grouping for 1910–11.

39. With slight exception, due to the development of the Association, the Divisions have been grouped for the election of Representatives for the year 1910–11 as for the year 1909–10.

Proposed New Basis of Election.

40. The Council has considered the following instruction of the Annual Representative Meeting:—

> *Minute* 278.—That it be referred to the Council to consider the advisability of bringing before the next Representative Meeting such Amendments of the By-laws as are necessary to give effect to the following motions:—
>
> *Election of Representatives.*
>
> That in By-law 25 (1)* the words "each such Constituency being entitled to elect one Representative," be deleted;
>
> That in By-law 25 (2),* for the first word of line 2, "one" substitute "a," and after the word "Constituency" insert the words "to elect one Member"; at the end add the words "Any Division having more than 50 Members may elect

* The numbers refer to paragraphs of By-law 25 under the Draft Charter, which were as follows:—

REPRESENTATIVE BODY.

Formation of Constituencies.

25.—(1) Representatives of Divisions shall be elected by Constituencies formed as follows, each such Constituency being entitled to elect one Representative.

(2) Any Division having not less than fifty members may form one Constituency, and except as hereinafter provided every Division having less than fifty members shall be grouped by the Council with another Division, or with other Divisions, to form a Constituency having not less than fifty members.

another additional Representative for every complete 50 (75, 100, or other number) additional Members."

41. Being satisfied that the present system of election has resulted in some cases in the formation of several Divisions in large cities, in order to secure representation, although the local work could probably have been better carried out by a single Division, and being satisfied, also, that the existing system does not give sufficient weight and influence to the large Divisions, the Council considers it advisable to allow such Constituencies to elect more than one member each.

Recommendation.

The Council recommends :

That each Constituency elect at least one Representative and (in the United Kingdom) an additional Representative for each 100 members after the first 50 and that on a card vote the voting power of a Constituency which has more than one Representative be equally divided among all the Representatives of that Constituency.

ELECTION OF COUNCIL FOR THE YEAR 1910–11.

Grouping of Branches.

42. In accordance with the new By-laws relating to the election of the Council adopted at Belfast, it has fallen to the Council to carry out, for the year 1910–11, the duty of grouping the Branches for the election of members of Council which it will in future rest with the Annual Representative Meeting to determine. After twice consulting those Branches in the area of which certain difficulties arose, the Council has deemed it advisable to adhere to the scheme of grouping which was recommended in connection with the Charter to the Annual Representative Meeting at Sheffield, the only departure being that the Divisions of the Metropolitan Counties Branch, together with the Bromley and Croydon Divisions of the South-Eastern Branch, have been constituted as one group electing four members instead of as four groups each electing one member.

43. As regards the Branches outside the United Kingdom, the Council, on the advice of the Colonial Committee, has modified the scheme of grouping placed before the Annual Representative Meeting at Sheffield, by according additional representation to the Australasian Branches corresponding to their large membership.

Procedure for Election of Members of Council.

44. It has fallen to the Council also during the year to determine various details of procedure in connection with the election of the Council. Difficulties have been experienced, especially in connection with the election by the Branches outside the United Kingdom, which it is hoped may be avoided in future years when all concerned have had experience of the new procedure.

45. It will in future rest with the Representative Meeting to determine the procedure to be followed in the election of Members of Council by the grouped Representatives. Standing Orders for this purpose, and also as to the election of Members of Council to represent the Navy, Army and Indian Medical Services will be submitted for adoption by the Meeting.

APPOINTMENT OF STANDING COMMITTEES OF THE ASSOCIATION.

46. The alteration by the Annual Representative Meeting at Belfast of the By-laws relating to the election of Standing Committees has necessitated the consideration of various questions of procedure both of the Representative Meeting and of the Council. The Council will submit to the Annual Representative Meeting various necessary amendments of the Standing Orders of the Representative Meeting relating to this matter.

ANNUAL CONFERENCE OF SECRETARIES.

47. Upon consideration of the Report of the Conference of Honorary Secretaries of Divisions and Branches held at Belfast, the Council has decided again to convene such a Conference in connection with the forthcoming Annual Meeting. It is hoped that in addition to exchanging views for their mutual benefit, the Honorary Secretaries may be able, as in previous years, to render valuable assistance to the Central Executive of the Association by their suggestions upon administrative matters on which their official experience specially qualifies them to advise.

ORGANISATION OF MEDICAL STUDENTS.

Addresses to Students in Medical Schools.

48. The Council has considered the Resolution of the Annual Representative Meeting, that it should be an instruction to the Council to provide for Addresses to be given by members of the Association to Students in the Medical Schools on Medico-Political and Medico-Ethical questions.

The Council has requested the Branches to approach the officials of the Medical Students Unions, or Societies, suggesting the desirability of Lectures being given at their meetings, on Medico-Political or Medico-Ethical subjects, and has promised to assist in providing speakers, if so desired.

Formation of a British Medical Students' Union.

49. Concerning Minute 197 of the Annual Representative Meeting, namely :—

197. Resolved: That the Council should be instructed to investigate and report as to the feasibility of forming a British Medical Students' Union or a similar body under the auspices of this Association, with Branches in all towns having Medical Schools, which shall act as a nursery for future members of the Association.

The Council is not yet in a position to report fully, but regards the question of the formation of a Medical Students' Union as one of great importance, and considers it advisable to make further enquiries before submitting definite recommendations on the subject.

Recommendation.

The Council recommends :—

That the instruction in regard to the formation of a British Medical Students' Union, contained in Minute 197 of the Annual Representative Meeting, Belfast, be continued.

50. In the meantime, the Council, being of opinion that in the event of the formation of a Medical Students' Union under the auspices of the Association it would be desirable that facilities should be afforded to the members of such Union to take part in the social functions of the Annual Meeting, has asked the local Executive of the forthcoming London Meeting to make arrangements for the admission of medical students to the social functions.

APPLICATION FOR A CHARTER.

51. In accordance with the instructions of the Annual Representative Meeting at Belfast, the Organisation Committee submitted to the Privy Council an amended Draft Charter giving effect to those concessions to various opposing bodies which were approved by the Representative Meeting.

52. A communication was received from the Privy Council in April, 1910, informing the Association that the concessions offered had not diminished to any appreciable extent the objections of the opposing bodies, and enquiring whether the Association desired to be heard by Counsel in support of its application. The Privy Council has been informed, in accordance with the decision of the Representative Meeting at Belfast (*Minute* 213), that the Association does not feel justified in incurring the great expense which a Hearing by Counsel would entail, and has therefore decided not to ask to be heard by Counsel in support of its application.

53. In view of the communications above mentioned, the Council has decided to convene a Special Representative Meeting to be held on Tuesday, June 28th, and following day if necessary, for the consideration of proposals which will be set forth in a Special Report of the Council to be issued at an early date. These proposals include a Draft of new Articles of Association and By-laws, prepared in accordance with the instruction contained in Minute 217 of the Annual Representative Meeting at Belfast. If these are approved by the Special Representative Meeting, they will be submitted for adoption by the two General Meetings of the Association required by Statute, the first of which will be held on Wednesday, June 29th.

MATTERS UNDER CONSIDERATION.

54. Provision of Official Maps (Minute 198).
Affiliation of Kindred Associations (Minute 199).
Promulgation of Policy of the Association (Minute 271).

ANALYSIS OF BRANCH REPORTS FOR 1909.

Branch.	Membership.		Financial Statement.						Meetings.						Notes on matters of Branch Organisation, and on other questions of local interest (1909), including the effect on the work of the Branch of the coexistence of other local Medical Societies.
	On December 31st, 1908.	On December 31st, 1909.	Balance from 1908.	Deficit (if any) from 1908.	Receipts for 1909.	Expenditure, 1909.	Balance to 1910.	Deficit (if any) to 1910.	Branch.	Scientific.	Medico-Political, Ethical, &c	Social Functions.	Average Attendance.	Branch Council.	
BRANCHES IN THE UNITED KINGDOM.			£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.							
Aberdeen	169	164	114 5 6½	—	19 2 0	16 4 0	117 3 6½	—	3	—	—	2	15	5	The Branch holds its Clinical Meetings along with the Aberdeen Medico-Chirurgical Society, which meets monthly during the Winter Session—October till May.
Bath and Bristol	389	409				No Return.									
Birmingham	498	510	72 5 9	—	53 14 0	90 3 0	35 16 9	—	7	6	3	1	35	7	The Honorary Secretaries consider that the other Medical Societies have very slight effect on the attendance at Branch Meetings, and that they do not interfere with the efficiency of the work of the Branch in maintaining the interest of the profession.
Border Counties	150	142	33 19 0	—	16 2 0	—	—	—	—	—	—	—	—	—	
Cambridge and Huntingdon ..	154	152	40 18 4	—	20 9 0	26 15 3½	34 12 0½	—	3	2	1	2	29·6	5	Branch has arrangement with the Cambridge Medical Society whereby all meetings, except the Annual Meetings, of the Society and the Branch are open to Members of both Societies. Branch holds its meetings in March, July (Annual), and December, and the Cambridge Medical Society in January, February, April, May, June, October, and November This has resulted in a better attendance at both sets of meetings, and has avoided the Societies clashing. All medico-political, ethical and kindred matters are reserved to the Branch Meetings, but clinical and scientific subjects can be brought up at either.
Connaught	39	42				No Return.									
Dorset and West Hants ..	220	216	102 14 0		23 12 0	19 12 3	106 13 9	—	5	3	2	—	28	5	
Totals	—	—	364 2 7½	—	132 19 0	152 14 6½	294 6 1	—	—	—	—	—	—	—	

Branch.	Membership.		Financial Statement.						Meetings.						Notes on matters of Branch Organisation, and on other questions of local interest (1909), including the effect on the work of the Branch of the coexistence of other local Medical Societies.
	On December 31st, 1908.	On December 31st, 1909.	Balance from 1908.	Deficit (if any) from 1908.	Receipts for 1909.	Expenditure, 1909.	Balance to 1910.	Deficit (if any) to 1910.	Branch.	Scientific.	Medico-Political, Ethical, &c.	Social Functions.	Average attendance.	Branch Council.	
			£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.							
Dundee	109	111	41 17 0	—	11 12 0	12 0 0	41 8 7	—	5	1	3	1	22	7	There is a local Medical Society of much longer standing than the local Branch. The area and membership of the Forfarshire Medical Association and the Dundee Branch are practically the same. The discussion of scientific and clinical matters is left to the Forfarshire Medical Association, except for a clinical meeting held by the Branch every other year. The attendance at the meetings of both Societies is practically the same, both in number and personnel.
East Anglian	439	442	93 8 8	—	46 6 0	58 12 5	81 2 3	—	3	3	—	3	47	4	The Branch meetings are well attended.
East York and North Lincoln	160	179	6 2 6	—	18 2 0	20 15 8	3 8 10	—	1	—	—	1	—	3	The whole of the work of this Branch, both scientific and ethical, is done by the two Divisions.
Edinburgh	401	412	172 15 4½	—	43 2 0	79 7 10	136 9 6½	—	4	1	2	1	48	10	The Branch has been very active during the year. A special meeting was held for the discussion of a new Hospital for Women.
Fife	78	80	34 11 5	—	8 11 3	26 12 4	16 10 4	—	2	1	—	1	—	3	Important matters in connection with contract medical practice in the collieries have been under consideration by the Colliery Surgeons' Committee, and it is hoped that ultimately these deliberations may be attended with beneficial results.
Glasgow and West of Scotland	687	672	312 3 2	—	91 9 10	114 5 11	289 7 1	—	3	1	2	—	70	12	The other medical societies do not affect the work of the Branch.
Gloucestershire	142	137	19 10 6	—	16 9 6	27 17 10	8 2 2	—	10	8	4	8	24·6	9	There is no other Medical Society.
Lancashire and Cheshire ..	1,649	1,629	714 5 4	—	188 11 0	142 15 3	761 1 1	—	2	2	2	2	171	5	There is no local society corresponding in area with the Branch. The Local Medical Societies compete with the Divisions. A Science Committee has been created with a view to organising the scientific work of the Branch and of its Divisions. The expenditure for the year is much below

																			the normal, as grants have only been made to Divisions requiring money. More than half of the Divisions have been called upon to use their accumulated balances to meet their current expenditure.
LEINSTER	302	289	25	9	10	—	31	6	0	65	9	3	—	8	13	3	1	—	1	1	28	7	Resolutions in reference to the Nurses Registration Bill were before the Branch Council. A Science Committee was established towards end of year. There is no doubt whatever that the number of other medical societies in Dublin enormously lessens interest in the Branch and Association.
METROPOLITAN COUNTIES ..	2,718	2,969	949	9	7	—	290	18	8	510	17	11½	729	10	3½	—	2	—	2	—	75	12	The Council and its Emergency Committee have had several meetings and devoted a considerable amount of time to the question of medical inspection of school children, and have corresponded with the Board of Education and L.C.C. on the subject. The matter is still under consideration.
MIDLAND	539	550	171	16	7	—	74	2	8	89	10	0	156	9	3	—	1	1	—	—	37	3	It is not thought that other loca Medical Societies make much difference to the Branch Meetings, but they probably do to the Divisional Meetings.
MUNSTER	101	98	62	17	7	—	13	14	10	13	17	2	62	15	3	—	2	—	2	—	13	1	The Cork Medical and Surgical Association does the scientific and social work. The Cork Medical profession embraces ethical matters for Cork City. The Branch is of the greatest importance for dealing with the general interests of the profession in Munster and elsewhere. The meetings apart from the Annual General Meeting are summoned as occasion requires. Also the members are furnished from time to time with reports and resolutions affecting general interests.
NORTH OF ENGLAND	682	702										No	Return.										
NORTHERN COUNTIES OF SCOTLAND	113	116	28	12	4	—	12	12	0	22	2	8	19	1	8	—	3	3	3	—	30	3	
N. LANCASHIRE AND S. WESTMORELAND	125	124	66	15	8	—	13	16	1	6	10	6	74	1	3	—	2	2	—	—	21	2	
TOTALS	—	—	2699	15	6½	—	860	13	10	1190	14	9½	2379	7	7	8	13	3	—	—	—	—	—	—	

Branch.	Membership.		Financial Statement.						Meetings.						Notes on matters of Branch Organisation, and on other questions of local interest (1909), including the effect on the work of the Branch of the coexistence of other local Medical Societies.
	On December 31st, 1908.	On December 31st, 1909.	Balance from 1908.	Deficit (if any) from 1908.	Receipts for 1909.	Expenditure, 1909.	Balance to 1910.	Deficit (if any) to 1910.	Branch.	Scientific.	Medico-Political, Ethical, &c.	Social Functions.	Average attendance.	Branch Council.	
			£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.							
North Wales	203	199	45 19 1	—	29 7 2	17 16 10	57 9 5	—	2	2	1	2	42	3	The meetings of the Branch held during the year were very well attended, and devoted mainly to clinical work, the contributions being of a very interesting nature. The meetings of the Divisions have been chiefly devoted to the consideration of medico-political and ethical matters.
Oxford and Reading	287	290	93 16 3	—	30 10 0	51 10 5	77 15 10	—	2	2	1	1	40 to 50	2	The Reading Pathological Society and the Oxford Medical Society hold very successful meetings in their respective towns, but do not materially affect the attendance of the one or two meetings of the Branch held during the year.
Perth	—	—	31 17 11	—	6 8 3	9 18 4	28 7 10	—	6	2	5	2	10	5	Motor Car 10 M.P.H. limit, the only question of local interest dealt with, but unfortunately without complete success. No other medical societies exist now in Perthshire. There is much lack of interest on the part of Town Members of the Branch. County Members do take more interest.
Shropshire and Mid-Wales ..	132	129	28 15 8	—	13 8 0	21 5 11	20 8 0	—	5	4	1	1	25	3	There are no other local medical societies.
South-Eastern	1,270	1,044	768 3 2½	—	142 13 4	156 1 3½	754 15 3	—	1	—	—	1	65	4	The question of the partition of the Branch which has been raised in the Council was referred to the Divisions, a majority opposed it and at the Annual Meeting it was resolved to take no further action.
South-Eastern of Ireland ..	58	56	3 15 5	—	7 18 0	8 9 8	3 3 9	—	7	5	2	5	9·3	2	
outhern	417	427				No Return.									
South Midland	203	254	32 0 0	—	27 6 6	26 3 8	33 2 10	—	2	2	—	2	27½	3	Local Societies at Kettering, Rugby, and Bedford, which have no effect on attendance or efficiency of Branch meetings.
South Wales and Monmouthshire.	533	553	78 0 7	—	57 2 0	90 0 0	45 2 7	—	4	3	1	1	33	6	

SOUTH WESTERN	454	454	74 16 0	—	47 12 0	91 19 2	30 8 10	—	5	3	1	—	20	9	One meeting at Plymouth was entirely spoiled by the Plymouth Medical Society arranging a meeting for the evening of the date of the Branch Meeting. The arrangement of the Divisions of the Branch is still unsettled, but it is hoped that it will shortly be completed. The appointment to School Inspectorships in Cornwall has received the attention of the Branch Members resident in Cornwall. The Cornwall County Nursing Association Rules have also occupied the attention of the Cornish Members. Practice by unqualified persons—the circular of the Local Government Board has been considered. The new grouping of Branches has received consideration. Fees paid by Guardians for assisting midwives, and fees for medical witnesses under the Workmen's Compensation Act have been considered.
STAFFORDSHIRE	206	204	124 3 10	—	20 18 0	13 17 3	131 4 7	—	4	4	—	4	20	3	There are no other local Medical Societies in North Staffordshire, but I believe there is a local society at Burton-on-Trent.
STIRLING	67	66	38 9 1	—	7 2 0	6 3 9	39 7 4	—	3	2	1	—	15	2	
ULSTER	357	409	69 1 2	—	43 14 0	72 4 1	40 11 1	—	4	—	—	1	30	7	The local Society—the Ulster Medical Society—works in complete harmony with the Branch, meeting with it occasionally to discuss medico-political questions when such arise. The Branch meetings are held in the afternoon, and draw a larger proportion of country men than do the meetings of the Ulster Medical Society, which are generally evening meetings. The Branch organised and carried through successfully the Belfast Meeting of the Association, July, 1909.
WEST SOMERSET	72	71	44 10 0	—	7 14 0	5 8 7	45 13 11	—	4	3	3	2	15¼	4	
WORCESTERSHIRE AND HEREFORDSHIRE	130	137	64 15 5½	—	13 10 0	30 18 5	27 7 8½	—	3	3	1	—	23	3	A Conference of the Branch with the Gloucester Branch was held in November in reference to cases sent to Hospitals in consequence of the Medical Inspection of School Children, and a unanimous resolution was passed with an intimation to the respective Branch Secretaries that the Local Authorities concerned should be informed that such cases should not receive general treatment in Hospitals to which an Honorary Staff is attached, and would suggest to the Education Authority that they should make arrangements for the requisite treatment by the medical men in their respective districts; and further, that such cases should not be treated in general Hospitals unless recommended by a medical practitioner. The authorities were also informed of the Resolution unanimously adopted at Belfast by the Representative Meeting that school children should not be referred to Public Medical Charities for treatment found defective on Medical Inspection, whether or not accompanied by payments or subsidies. Hereford and Worcester have each a local Medical Society. The former is in a state of suspended animation for the want of an annual dinner, and the latter, I am informed by the Division Secretary, is fruitful and active in Medical and Social work, and does not affect the efficiency of Division.
YORKSHIRE	910	903	180 10 0	—	99 2 4	138 1 10	141 10 6	—	3	—	—	—	35	3	Only 30 new members have been elected during the year and the total membership is 903, which is a decrease of seven. The Wakefield and Doncaster Division has been reorganised and has 59 members. Several of the Divisions have dealt with the question of the Medical Inspection of School Children. The Sheffield Division made a successful protest against the Education Authority subscribing to the Hospitals for recommends for treatment of medically inspected school children. The Branch meetings are not well attended. This is chiefly due to the fact that a great deal of the work formerly done by the Branches is now allocated to the Divisions, and many of the older members who used to attend the Branch Meeting regularly no longer do so, therefore the attendance at the Division meetings, with two or three exceptions is extremely small, and as far as the Yorkshire Branch is concerned there is no doubt that formerly matters of importance to the profession were much more thoroughly discussed at the Branch meetings than they are now at the Division meetings. In several of the large towns the existence of a strong local medical society no doubt has an effect on the attendance at the Branch meetings.
TOTALS	—	—	1683 13 8	—	554 5 7	739 19 2½	1476 9 5½	—	—	—	—	—	—	—	

BRANCH.	MEMBERSHIP.		FINANCIAL STATEMENT.						MEETINGS.						Notes on matters of Branch Organisation, and on other questions of local interest (1909), including the effect on the work of the Branch of the coexistence of other local Medical Societies.
	On December 31st, 1908.	On December 31st, 1909.	Balance from 1908.	Deficit (if any) from 1908.	Receipts for 1909.	Expenditure, 1909.	Balance to 1910.	Deficit (if any) to 1910.	Branch.	Scientific.	Medico-Political, Ethical, &c.	Social Functions.	Average attendance.	Branch Council.	
BRANCHES OUTSIDE THE UNITED KINGDOM.			£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.							
ASSAM	18	24				No	Return.								
BARBADOES	32	34				No	Return.								
BERMUDA	12	12				No	Return.								
BOMBAY	108	159	18 1 5	—	35 16 4	24 12 5	29 5 4	—	5	4	1	3	13	3	The most important question discussed by the Medical Profession this year was that of the "Registration of Medical Practitioners in India." The Medico-Ethical Committee of the Branch, after discussing the whole question, deputed Lieutenant-Colonel H. P. Dimmock, I.M.S. (their Vice-President), to introduce the question in an address to be delivered before a meeting of the profession to be called under the auspices of the Branch. This was done in August, 1909, when over 100 medical men met in the University Library, and by a majority of 93 passed a Resolution definitely emphasizing the necessity for a Registration Act, and appointed a Representative Committee to give effect to the Resolution. This Committee consisted of Representatives of all the existing medical societies in Bombay and the senior members of the profession with Representatives of the various services and the Council of the Branch. Amongst others the Military Assistant Surgeons and Civil Medical Assistants (who are diplomates of Indian Colleges, authorised to practise Medicine, Surgery, and Midwifery in India) were each represented by one member from their services. The Committee entrusted the question to a Sub-Committee, who considered the whole question, and their report was accepted by the Committee after minor changes.
BORDER BRANCH, SOUTH AFRICA	56	60				No	Return.								
BRISBANE AND QUEENSLAND ..	153	163	127 9 5	—	354 15 8	347 3 5	130 2 1	—	12	12	—	—	15	12	
BRITISH GUIANA .. .	40	39	14 0 1½	—	8 3 6	5 17 4	16 6 3½	—	4	4	—	—	15	3	Matters of public health were largely dealt with this year, more particularly antimosquito sanitation, water supplies, and leprosy. It is difficult to maintain the interest of the profession, since the great distances, the exigencies of a Government Medical Service, and the lack of easy and rapid transport, prevent more than a few medical men meeting together.
BURMA	57	69	56 19 9½	—	95 5 2½	88 8 0	64 17 0	—	12	5	—	—	14	1	

CAPE OF GOOD HOPE, EASTERN ..	52	58	11 5 1	—	17 3 6	34 18 11	—	6 10 4	6	4	6	1	7	4	No other local medical societies exist. Large attendance is prevented by the prohibitive distances and inconvenient train services. *Matters dealt with:* Formation of South African Committee of British Medical Association; Treatment of highly-paid Officials of Railway under Railway Sick Fund Board's Contracts; Report of Select Parliamentary Commission of Colonial Medical Council; Publication of Proceedings of the Colonial Medical Council; Amendment of Medical Acts; Vaccination of white population; Model Regulations for the control of storage and sale of bread, meat, and milk.
CAPE OF GOOD HOPE, WESTERN	137	137			No Return.										
COLOMBO, CEYLON	151	150	30 8 11	—	227 15 11	237 1 11	21 2 11	—	7	—	—	2	96	2	
EGYPT	38	37			No Return.										
GIBRALTAR	19	19	9 14 5	—	3 8 0	1 8 3	11 14 2	—	2	1	1	1	10	5	There were no questions of special local interest dealt with by the Branch. There is no local medical society apart from the Branch.
GRIQUALAND WEST	41	36			No Return.										
HALIFAX, NOVA SCOTIA	85	81	46 13 10	—	17 5 4	12 17 0	51 2 2	—	15	14	--	1	17·8	4	
HONG KONG AND CHINA ..	116	124			No Return.										
JAMAICA	50	49			No Return.										
LEEWARD ISLES	17	15			No Return.										
			$ c.		$ c.	$ c.	$ c.								
MALAYA	91	94	229 37	—	791 67	609 34	411 70	—	—	--	—	—	—	—	There has been no meeting in any of the Divisions during the year, as it has been found impossible to persuade any member either to read a paper or bring forward any subject for discussion. It is to be hoped that in the ensuing session the members will take a keener interest in the work of the Branch, as it is only at such meetings that a full interchange of ideas on any medical question can take place.
MALTA AND MEDITERRANEAN ..	32	31			No Return.										
			£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.							
MELBOURNE AND VICTORIA ..	441	504	101 3 11	—	365 4 0	596 12 3	132 15 8	—	14	14	—	—	46	18	
MONTREAL	59	58			No Return.										
NATAL	124	119	167 14 6	—	150 4 7	162 2 8	155 6 5	—	2	1	2	1	21	3	
TOTALS	—	—	573 11 5 + $229 c.37	—	1575 2 0½ + $791 c.67	1511 2 2 + $609 c.34	612 12 0½ + $411 c.70	—	—	—	—	—	—	—	

BRANCH.	MEMBERSHIP.		FINANCIAL STATEMENT.						MEETINGS.						Notes on matters of Branch Organisation, and on other questions of local interest (1909), including the effect on the work of the Branch of the coexistence of other local Medical Societies.
	On December 31st, 1908.	On December 31st, 1909.	Balance from 1908.	Deficit (if any) from 1908.	Receipts for 1909.	Expenditure, 1909.	Balance to 1910.	Deficit (if any) to 1910.	Branch.	Scientific.	Medico-Political, Ethical, &c.	Social Functions.	Average attendance.	Branch Council.	
			£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.							
NEW ZEALAND	395	426	155 1 0	—	958 14 0	721 6 8	392 9 1	—	2	1	1	3	35	4	The Branch Council have pleasure in reporting a considerable increase in membership, 44 new members having been added to the roll during the past year. The membership of the Branch is now 432.

At the four Quarterly Meetings of the Council held during the year all Divisions were well represented, and a large amount of business was dealt with.

Medical Practitioners Registration Bill.—At the last Annual Meeting it was unanimously resolved that immediate steps be taken to, if possible, bring about an amendment of the Medical Practitioners Registration Act of 1869, so as to bring the law in New Zealand in conformity with the Australian and English Acts, and a Committee was set up to further that object with the least possible delay. The Committee, after several interviews with the Minister of Public Health, succeeded in drawing up a Bill which, in the opinion of this Council, meets the views of Members in every essential respect. Unfortunately, however, owing to the shortness of the last Session of Parliament, the introduction of the Bill has had to be postponed until next Session. There is every reason to hope that a good workable measure will find its place upon the Statute Book during the 1910 Session.

Representation on Central Council.—The Members of the Branch will have learned with some surprise that a recommendation was recently made by the Colonial Committee of the Central Council that New Zealand be grouped with the Australian Branches for the purposes of representation, and that such group should be entitled to only one delegate. Our representatives upon the Central Council, who have succeeded in getting consideration of the matter postponed, have been instructed to strongly oppose the proposed grouping, as there is no community of interest between the Commonwealth and New Zealand, and such a step would mean practical disfranchisement of the New Zealand Branch.

New Divisions.—The Central Council has approved the application of the Members resident in the Poverty Bay District to be constituted a separate Division of the New Zealand Branch. Application has also been made to form a new division on the west coast of North Island, extending from Otaki to Wanganui.

New Zealand Medical Journal.—The *Journal* has been published regularly during the year, and that increasing interest is being taken in it is proved by the fact that the Editor has been kept fairly well supplied with copy of considerable interest. The Canterbury Division is the only one that has regularly furnished a full report of its meetings, but the Hawke's Bay and South Canterbury Divisions are now doing so, and it is hoped that all Divisions will shortly appoint local secretaries, whose duty it will be to forward a *précis* of the work done at divisional meetings for publication in the *Journal*. The resident medical officers of the chief hospitals have also promised to assist with papers, until such time as Medical and Surgical Registrars are appointed in the large centres.

Finance.—Owing to the rapid increase in our membership, combined with careful management, the Branch is now in a stronger position financially than at any period of its existence. The statement of accounts for the year shows a substantial balance to credit of the Branch funds.

| | | |

REPRESENTATIVES OF DIVISIONS AT SECTIONS.

60. In accordance with the instruction contained in Minute 238 of the Representative Meeting at Belfast, the Council has called the attention of the Divisions to the fact that it is open to them to request any of their members to take part in the proceedings of any Section of the Annual Meeting of the Association.

ATHLETICISM IN SCHOOLS.

61. The Council has considered the following Resolution of the Section of Medicine at the Annual Meeting at Belfast :—

> That the Medical Section of the British Medical Association meeting at Belfast desires to suggest to the Central Council that they should take into their consideration the question of securing a professional announcement as to the most suitable manner in which athleticism in schools may be so organised and controlled as to achieve the maximum of benefit, and to reduce to a minimum any risk of harm to the individual schoolboy.

The matter having been referred to a Committee in which the Association has had the advantage of the assistance of gentlemen specially qualified to advise on the subject, the Council has decided to make the following Pronouncement, and steps are being taken to give it wide publicity :—

> That it is desirable that a Pronouncement should be made by the Association on the subject of Athleticism in Schools, as follows :—
>
> (1) A due amount of regular bodily exercise for each individual is one essential element in any complete scheme of education. The fitness, or otherwise, of a pupil to undertake and to benefit by exercise must always be largely determined by the conditions of his every-day life at school. In this connection his diet, the times and arrangement of his meals, the nature, conditions, and duration of the mental work demanded of him, and the amount of healthy sleep secured to him, are all of vital importance.
>
> (2) All the pupils of any school should be under the personal supervision of a single medical authority, whether this consists of the School Medical Officer or (as may be advisable in very large schools) of a Medical Board specially constituted to that end.
>
> (3) Every boy should be subjected to a thorough medical examination by the School Medical Authority when he first enters the school. This may reveal obvious defects or disabilities in some instances; and in other cases may show the need for special observation during, at any rate, the earlier years of school life.
>
> (4) A boy's fitness for physical exertion depends upon his physical and constitutional ability, and is not to be gauged merely by his age, which, taken by itself, is often a misleading criterion of strength and endurance.
>
> (5) It is most desirable that a course of systematised physical training should be adopted for all boys in schools.
>
> (6) Careful observation of the behaviour of the new and younger boys during their ordinary games, &c., and of the physical effects thus produced upon them individually, affords a valuable means of estimating the fitness of each for subsequently undertaking more strenuous exertion.
>
> (7) It is most important that there should be an ample interval (one hour at least) between the end of a substantial meal and the beginning of strenuous exercise. There is clear evidence that the neglect of this elementary rule is responsible for a very large proportion of the evils which have been attributed to over-exertion alone. The nature, quality, and quantity of food, and hours of meals, require careful consideration and adjustment.
>
> (8) Special caution is required in permitting a resumption of active exercise to convalescents—particularly after diphtheria, influenza (including "influenzal catarrhs"), rheumatism and measles, *and* during a period of rapid growth.
>
> (9) Paper-chases, school and house runs should be distinguished from races; but so far as they include the element of competition, and, therefore, to some extent, the strain of racing, boys should be selected and grouped for a specified distance in accordance with their physical capacity. The plan of running all boys—the young and the older, the strong and the less vigorous—together, over the same distance, is not to be recommended. Whenever, for any reason, such a plan is adopted, special measures must be taken to ensure that the smaller and weaker boys are not called upon for excessive or too prolonged exertion.
>
> Evidence, obtained from a great many schools, upon the results of long-distance races, shows that they very seldom entail risk, provided that the competitors are selected and watched during practice with the care and precautions already indicated.
>
> (10) Medical examination and skilled supervision are also needed in regard to rowing, boxing, and swimming. Competitions in long-distance diving and in long-distance swimming are dangerous for young adolescents.
>
> (11) The above considerations as to periodical medical examination and careful individual supervision are equally applicable in the case of girls engaging in active exercises.

The British Medical Association wishes gratefully to recognise the work previously done on this subject by the Medical Officers of Schools Association. This has been of the greatest assistance in preparing the present Pronouncement, which, to a great extent, embodies the Resolutions formulated by the Medical Officers of Schools Association and adopted in March, 1909.

MEDICAL ETHICS.

SPECIAL CLASS OF CONSULTANTS.

62. The Report on the Recognition of a Special Class of Consultants was circulated to the Divisions in accordance with the instruction of the Annual Representative Meeting in November 1909. The analysis of the replies received from the Divisions up to April 8th, 1910, is as follows :—

Answers to Questions.

To the first question—

Yes	45
No	36

To the second question—

Yes	29
No	38

The answers to the first question in the Report, namely :—

> Is the Division in favour of the recognition of a special class of consultant on the lines indicated in this Report?

were—

Yes	39
No	32

The answers to the second question, namely :—

> Is the Division in favour of the Association prescribing Regulations for the conduct of the practice of such a class?

were—

Yes	25
No	34

Recommendation.

63. Upon consideration of these Replies the Council recommends :—

> That having regard to the repnes received from the Divisions, it is inadvisable to proceed at present to the drafting of any regulations to govern a special class of consultants.

ETHICS OF CONSULTATION.

64. In accordance with the instruction of the Representative Meeting at Belfast (Minute 40) verbal amendments have been made in the second paragraph of the Report on the Ethics of Consultation in order to remove the ambiguity then pointed out. The Report is filed in the Central Office for reference, and for issue to each new Honorary Secretary and to inquirers as a statement of the opinions of the Association upon the various matters referred to therein.

THE RELATION OF THE ASSOCIATION TO HOMŒOPATHS.

65. The Report on the relation of the Association to Homœopaths which the Council was instructed to prepare by the Representative Meeting at Sheffield, and which was not ready for consideration at Belfast, was issued to the Divisions in February, 1910. The analysis of the Replies of the Divisions and a Recommendation of the Council thereon will be included in the Supplementary Report of the Council.

REPUBLICATION OF ARTICLES ON MEDICAL SUBJECTS.

66. The decision of the Representative Meeting that it is the professional duty of Medical Authors of Articles in Medical Journals to co-operate with the Proprietors and Editors of those Journals in preventing improper use of such Articles for the purpose of advertisement, has been duly noted for the guidance of the Council. Steps have been taken to bring this pronouncement systematically under the notice of contributors to the BRITISH MEDICAL JOURNAL.

POSITION OF PRACTITIONERS EXAMINING ON BEHALF OF INTERESTED PERSONS.

67. The Council has prepared a special Report on the position of Practitioners who examine patients on behalf of persons other than the patients themselves. This special Report will be issued to the Divisions at the earliest date practicable, and will be placed before the Representative Meeting with a Report on the replies of Divisions received up to that date.

CASES BEFORE THE GENERAL MEDICAL COUNCIL.

68. The Central Ethical Committee has reported to the Council that it has investigated the circumstances of four cases in which application has been made by Divisions or Branches to the Association to bring the conduct of medical practitioners under the notice of the General Medical Council. In each case the Central Ethical Committee, acting under the authority delegated to it by the Council, has been satisfied that circumstances existed which should be brought within the cognisance of the General Medical Council, and the necessary steps to that end have been taken in the name of the Association.

HAMPSTEAD HOSPITAL.

69. The Council has had under consideration the Hampstead Hospital Dispute which was the subject of a special instruction of the Annual Representative Meeting at Belfast. At the time of that Representative Meeting it was known that three Members who had been called upon by the Council in the previous January to take certain action had not taken that action, but an opportunity had been left to them still to do so. Immediately after the Representative Meeting they were called upon to declare definitely what action they were prepared to take, and their replies were referred to the Metropolitan Counties Branch, of which they were members.

70. Representations subsequently made by the Branch were considered by the Council at its January Meeting, when it was decided to accept the expression of regret tendered by the three Members, and the assurance which they at the same time gave that they would co-operate with the Association with a view to bringing about an amicable settlement of the dispute. In view of this expression of regret and assurance, it was decided to take no further action.

CASES OF EXPULSION.

71. The Council regrets to have to report that it has found it necessary to remove from membership of the Association five Members who accepted, and continued to hold, appointments while knowing that such action was in opposition to the declared views of the Branches of which they were Members.

AMENDMENT OF WARNING NOTICE REGULATIONS.

72. Cases brought to the notice of Central Committees within the last three years have led to the conclusion that amendments of the Regulations relating to the Warning Notice are desirable. Action in the matter was deferred until cases turning upon alleged disregard of the Notice under existing conditions should have been disposed of, but amendments are now under consideration, and it is hoped that they will be effected before the Annual Representative Meeting.

MEDICO-POLITICAL.

CONTRACT PRACTICE.

Federated Friendly Societies Medical Benefit Association.

73. The advisability of supporting the Federated Societies Medical Benefit Association (Minute 274, Annual Representative Meeting) has received consideration in conference with Representatives of the Metropolitan Counties Branch. The Branch has been informed that the case of this Association cannot be distinguished on grounds of principle from ordinary Friendly Societies, and has been informed that any action taken with regard to it should form part of an organised movement for improving the conditions of Friendly Society appointments generally in the Metropolis. The Metropolitan Counties Branch is taking action in the matter.

Public Medical Service.

74. The question of the drafting of a scheme for a comprehensive Public Medical Service (Minute 118, Annual Representative Meeting) is receiving consideration in connection with the subject of the Reform of the Poor Law, to which it is closely related. The Council is not yet in a position to report.

Formulation of Resolutions on Contract Practice.

(Minute 119 of Annual Representative Meeting.)

75. This subject is under consideration.

Conference with Representatives of Friendly Societies.

76. Definite arrangements have been made for the periodical holding, on occasion, of Conferences between Representatives of the Association and Representatives of the leading Friendly Societies, under the Chairmanship of Sir Edward Brabrook, in continuance of the Conference organised by the Charity Organisation Society, as reported to the Annual Representative Meeting at Belfast.

77. It has been agreed that the Conferences shall be purely advisory for the present, the resolutions passed being expressions of opinion of those attending only, and not regarded as binding the bodies which they represent. It is believed that Conferences thus limited in scope may be of service to both parties represented, and that for the time being it would be unwise to attempt to give authority greater than that stated to the decisions.

Action taken in Contract Practice Cases.

78. Action has been taken since the last Representative Meeting in the following cases of dispute in connection with Contract Practice Appointments:—Llanbradach (Colliery Appointment), Colchester (Liverpool Legal Friendly Society Appointments), Kelty, N.B. (Colliery), Eastchurch (Medical Benefit Society), Great Yarmouth (Friendly Society Medical Institute), Brodsworth (Colliery), Ebbw Vale (Colliery), Wheldale (Colliery), Wallsend (Shipyard and Nursing Association), Warrington (Works Club), Ammanford (Colliery), Walney Island (Friendly Society), Aberaman (Colliery), Coventry (Dispensary), Burwell (Friendly Society), Cwmavon (Workmen's Fund), Burnley (Medical Aid Association), Wroughton (Friendly Society), Preston (Friendly Society), Salisbury (Friendly Society).

PUBLIC APPOINTMENTS.

Action taken with respect to Appointments of School Medical Officers and other Public Appointments.

79. Action has also been taken during the year with respect to the following public appointments:—Essex (Lady Medical Inspector of School Children), Fife County (Lady Medical Inspector of School Children), Forfarshire (Lady Medical Inspector of School Children), Bradford (Assistant to the School Medical Superintendent), Glasgow (Part-time School Medical Officers), Edinburgh (Lady School Medical Officer), Hanley (Lady School Medical Officer), Grimsby (Medical Inspector of School Children), Glamorgan County (Medical Inspector of School Children), Bromley (Temporary Lady School Medical Officer).

Postal Medical Service.

80. An application was received from the Postal Medical Officers' Association in September for assistance from the British Medical Association in the matter of the alleged inadequacy of the fees offered by the Government to the Postal Medical Officers for medical examination of civil servants in connection with the new pension scheme. Owing to the insufficiency of information furnished, the Association was unable to give the desired assistance. In view of this case and of several applications from members of the Association to take action with regard to the condition of the Postal Medical Service, a renewed application was made to the Postal Medical Officers' Association to supply that detailed information as to the conditions of that Service for which the British Medical Association has repeatedly asked, and without which the Association could have no sure basis for action. Failing the desired assistance from the Postal Medical Officers' Association, it has been decided to proceed with an independent inquiry.

MEDICAL INSPECTION AND TREATMENT OF SCHOOL CHILDREN.

Action of London County Council with regard to Treatment of School Children at Hospitals.

81. As directed by the Representative Meeting (Minutes 99, 100), communications were addressed to the members of the Staffs of London Hospitals, the Medical Committees of these Hospitals and the Education Committee of the London County Council, expressing the regret of the Association that the London County Council had made arrangements for the treatment of some school children by the Voluntary Hospitals. The London County Council replied that they had given careful consideration to the representations, but did not propose to take any steps. Of the 1,242 members of Hospital Staffs addressed only six replied. Replies were received from sixteen Hospitals, most of whom stated that every care would be taken to exclude children who were found to be unfit subjects for gratuitous treatment.

82. Only one Division availed itself of the offer made, in accordance with Minute 103, to send a similar communication to provincial bodies corresponding to those mentioned in Minute 100.

Importance of Prompt Action on the lines indicated in the Report on Medical Inspection.

83. In accordance with Minute 104, a copy of the Medical Inspection Report, with the Recommendations as amended by the Meeting, was sent to Chairmen, Secretaries and Representatives of Divisions, together with a Memorandum on the importance of the Divisions taking prompt action on the lines indicated in the report. A considerable number of Divisions have availed themselves of the offer made to send a copy to any local member of the profession who was employed in administrative duties connected with Medical Inspection, or who was a public representative on one of the local bodies responsible for Inspection. The replies received from the Divisions to the communications above stated have satisfied the Council as to the necessity of the elaboration of definite suggestions for the assistance of the Divisions in dealing with the problems which arise in connection with the treatment of school children. A provisional scheme is in process of preparation, and will be circulated for preliminary consideration by the Divisions. After their comments have been received and considered, a revised scheme of suggestions will be issued.

NURSING.

Registration of Nurses.

84. The Prime Minister, in his reply to a Deputation representative of various Nursing Associations which waited upon him in the summer of 1909, indicated the impossibility of the Government giving any facilities in Parliament for a Bill on the subject so long as those interested in the matter were divided among themselves. As a result, Conferences of Representatives of various bodies concerned were convened by Lord Ampthill, who has shown a special interest in the subject, and carried a Bill through the House of Lords in the Session of 1909. The British Medical Association acceded to an invitation to take part in these Conferences, which resulted in the preparation of a Bill agreed to by all who took part. The representations of the British Medical Association were successful in securing all the provisions upon the importance of which the Representative Meeting has insisted. The Bill in question has now been introduced by Mr. Ferguson in the House of Commons.

Rules of Nursing Associations.

85. The Model Rules for District Nursing Associations approved by the Representative Meeting (Minutes 128, 129) were forwarded to the Queen Victoria's Jubilee Institute, and a Deputation from the Association met a Committee of the Institute in conference on February 14th, 1910. The suggested Rules of the Institute were considered, in conjunction with the suggested Model Rules of the Association, and various alterations in the former were agreed to as meeting the views of the Association. These, it is understood, will be given effect to in revised Model Rules for Nursing Associations affiliated to the Institute, to be issued shortly.

86. This result has made desirable certain amendments of form and wording of the Model Rules provisionally approved by the Representative Meeting at Belfast, so that they may be in keeping with those agreed upon with the Jubilee Institute.

Recommendation.

87. The Council recommends:—

That the following Model Rules for inclusion in the Rules of District Nursing Associations be adopted in place of those approved by the Annual Representative Meeting at Belfast:—

1. The nurse shall in every case carry out the directions of the Registered Medical Practitioner in attendance.

2. The nurse, when requested in an emergency, may visit and render first-aid to any person without awaiting instruction from a doctor.

3. If, in the nurse's opinion, the attendance of a doctor is necessary, she must insist that he be sent for; and if for any reason his services are not immediately available, she must, if the case be still one of urgency, remain with the patient and do her best until he arrive, or until the emergency is over.

Should the advice to call in a doctor be not acted upon, the nurse must at once leave and report the case to her Secretary, and must not attend again except in case of fresh emergency.

4. Should any further attendance be requested by the patient after the emergency is over, the nurse must explain that the doctor will decide whether or not this is necessary.

5. No attendance after a first visit shall be given by a nurse unless she has informed a doctor and received his instructions with regard to the case, if any.

6. Apart from her duties as a certified midwife, a nurse must on no account prescribe or administer on her own responsibility such drugs for her patients as should only be prescribed by a medical man.

7. It is desirable to obtain the co-operation of all the medical men in the district, and in the larger Associations to obtain, if possible, the assistance of one or more of them on the Committee.

(Attention is drawn to the fact that the machinery of the local Divisions of the British Medical Association is available for this purpose.)

8. No midwife in the employment of a Nursing Association should accept an engagement without first asking the patient to state, and herself registering, the name of the doctor to be called in should any emergency arise.

9. A nurse shall in no case attempt to influence a patient in the choice of a doctor.

10. No person shall be employed by the ..... Association as a midwife, or received for training as a midwife, without having first signed an agreement not to practise as a midwife within a radius of.....miles from .....within a period of.....after leaving the service of the Association, without the consent in writing of the Association.

MIDWIVES.

Administration of the Midwives Act, 1902.

88. Since the Annual Representative Meeting at Belfast, the Report of the Departmental Committee of the Privy Council on the working of the Midwives Act has appeared and has received careful consideration through a Special Sub-Committee. The recommendations of the Departmental Committee include many of the reforms which were suggested by the Association in its evidence, the main difference being that the Poor Law Authority is recommended as being the proper body to pay medical men called in to assist midwives, instead of the Sanitary Authority as suggested by the Association. A further report on this matter will be presented later, but in the meantime it is gratifying to observe that the Government has recently introduced into the House of Lords a Bill to amend the Midwives Act, 1902, which includes a provision that the British Medical Association shall appoint one member of the Central Midwives Board.

Subsidising of Midwives.

89. The following Motion (Minute 132 of the Representative Meeting) is under consideration :—

That the Central Council be instructed to consider the following subject, to consult the Divisions thereon, and to report on it to the next Annual Representative Meeting :—

That the subsidising of midwives by Public Authorities, Nursing Associations, and similar bodies is undesirable in districts where adequate medical attendance is available, and that in the interests of the parents and child any assistance rendered should take the form of partially or entirely providing a registered medical practitioner and nurse.

Manchester Corporation and Payment of Medical Men called in to assist Midwives.

90. The Midwives Supervising Committee of Manchester through the Medical Officer of Health for that City, brought to the notice of the Association representations which were being made by the Manchester Corporation to the larger County Boroughs throughout the Kingdom, in favour of the payment of Medical Practitioners, called in to assist midwives, through the Sanitary Authority rather than through Boards of Guardians. The Association was asked to endorse this policy, by making representations through its Divisions to the County Boroughs whom the Manchester Corporation had approached. This action of the Corporation being entirely in accordance with the already declared policy of the Association, a circular was issued to the Divisions urging them to give support on this point, whilst guarding themselves from being understood to approve the scale of fees suggested by the Manchester Corporation. Several Divisions have so approached their Borough Councils.

OPHTHALMIA NEONATORUM.

91. The Council at its Meeting in October adopted the following Recommendations of the Ophthalmia Neonatorum Committee, and took the necessary action to carry them into effect :—

(*a*) That the Local Government Board be urged to take all steps in its power with a view to Ophthalmia Neonatorum being made compulsorily notifiable, and that the Divisions of the Association be requested to urge this upon the Local Authorities.

(*b*) That the Divisions of the Association be urged to use every effort to secure the carrying out of the suggestions contained in paragraphs (*b*), (*c*), (*d*) and (*f*) of the Recommendations as finally approved.

(*c*) That representations be made to the Central Midwives Board and Privy Council, by deputation if necessary, that the presence of purulent vaginal discharges should be included by the rules of the Midwives Board among the conditions for which medical help should be summoned.

(*d*) That all necessary steps be taken to secure the periodical distribution of the circular to Midwives, on the subject of Ophthalmia Neonatorum, which the Central Midwives Board has prepared.

(*e*) That the reference to the Special Ophthalmia Neonatorum Committee be discharged, and that it be referred to one of the Standing Committees of the Association to give effect to the recommendations now approved.

92. As regards the third Recommendation, it has been ascertained that the Central Midwives Board has already taken steps to alter its Rules in the manner indicated, and the alteration will come into effect at the end of this year.

Gratuitous Treatment.

93. The opinion of the Representative Meeting on the subject of the gratuitous treatment of Ophthalmia Neonatorum (Minute 185) has been noted for the guidance of the Council.

Local Arrangements for Treatment.

94. Since the last Representative Meeting Ophthalmia Neonatorum has been made a notifiable disease in the Potteries Towns, and a scheme was drawn up by a Special Committee of the North Staffordshire Division acting in co-operation with the Central Executive, whereby the interests of the local practitioners should be safeguarded in accordance with Minute 185 of the Representative Meeting at Belfast, namely :—

That, in the matter of the treatment of Ophthalmia Neonatorum, this Meeting expresses the view that the Public Authorities should not be relieved at the expense of the charitable and of the medical profession of duties which appropriately belong to such public authority.

95. Consideration of the scheme submitted by the North Staffordshire Division led to the adoption by the Council of a Model Scheme, for the guidance of Divisions in whose areas Ophthalmia Neonatorum is made a notifiable disease.

PREVALENCE OF TRACHOMA.

96. On the suggestion of the Section of Ophthalmology at Belfast the Council has drawn the attention of the Local Government Boards and Boards of Education of the United Kingdom to the prevalence of Trachoma amongst the lower classes, to its effects on the sight, to its contagious nature, and to the importance of preventing the contagion of the inmates of the Institutions under the control of these Boards.

UNQUALIFIED PRACTICE—APPOINTMENT OF ROYAL COMMISSION.

97. In considering the action to be taken under Minute 116 of the Representative Meeting, by which the Council was instructed to approach the Government with a view to the appointment of a Royal Commission to inquire into the effects of unqualified practice, it has been necessary to have regard to the representations already made by the General Medical Council to the Government on this subject, and to the action subsequently taken by the Government. The Privy Council, in co-operation with the Local Government Board, addressed inquiries to the Medical Officers of Health as to the prevalence of unqualified practice in their respective districts, and the Home Secretary, in reply to a question in the House, indicated that no action would be taken by the Government until the results of such inquiries were ascertained. These results are not yet announced, but having before it evidence of the very imperfect character of

the Government inquiry thus carried out, the Council has decided to undertake an independent inquiry through the machinery of the Association. The Council believes that if properly carried out, such an inquiry must afford evidence which will satisfy the public, as well as the Government, of the need for action to remedy the defects of the existing medical law. Attainment of this result must, however, depend mainly upon the extent to which the Divisions and the individual members of the Profession are prepared to render their indispensable assistance.

The Medical Profession as a Career.

98. The question of the desirability of drawing the attention of Head Masters of Schools to the overcrowded state of the Medical Profession is under consideration.

Conditions of Service of Pathologists and Bacteriologists.

99. The conditions of service of Pathologists and Bacteriologists attached to public institutions and bodies, referred by the Representative Meeting to the Council (Minute 172) are still under consideration.

Instruction in Hygiene.

100. With reference to the following motion before the Annual Representative Meeting, referred to the Council for Report—

> *Minute* 275.—That, in view of the large sums of public money paid to those who give technical instruction in agriculture and various trades, of the cost to the community of the maintenance of hospitals and sanatoria for the treatment and cure of disease, much of which is preventable, and of the recognition by the Legislature of public health lectures as a part of technical education, qualified for a share in the local grants, the services of members of the medical profession in giving instruction in hygiene should no longer be treated as a matter of philanthropy; that medical practitioners should not lecture gratuitously for philanthropic societies such as the Women's National Health Association, which, while deserving of sympathy and encouragement, afford, by their existence, evidence of the neglect by the Government, central and local, in matters of sanitation and public health; but that such societies should co-operate with the county councils in the selection of lecturers who should be remunerated in part at least from public funds;

Recommendation.

101. The Council recommends:

That Members of the Medical Profession should be suitably remunerated for teaching subjects in connection with the Public Health, such as Nursing, First Aid to the Injured, and Hygiene, and that the fee adopted by the London County Council of £1 1*s.* for each Lecture is one which appears suitable for general adoption.

Ambulance Instruction.

102. On several occasions during the past few years questions have arisen as to the proper attitude to be observed by Members of the Association as regards instruction and examination in Ambulance Work. The question was raised in an acute form during the past session by the operations of the Red Cross Society and the St. John Ambulance Association. In connection with the scheme of Voluntary Aid Detachments, these Societies were endeavouring, in some parts of the country, to persuade medical practitioners to supply gratuitously the instruction necessary to qualify for admission to the Voluntary Aid Detachments. The Council expressed the opinion, which was specially circulated to the Divisions,

> That, in the opinion of the Association, no medical man should be expected to give instruction in First Aid and Field Nursing without suitable remuneration, but that officers in command of Voluntary Aid Detachments should keep their Detachments efficient without remuneration.

At the same time, Divisions were asked what action they had taken to give effect to the decision of the Representative Meeting of 1905, that the time had now arrived when Ambulance Work should be treated as a matter of business and not of philanthropy. A special report will be made when a sufficient number of replies from the Divisions has been received.

Spiritual Healing.

103. The investigation, reported to the Representative Meeting of last year, into the matter of "Spiritual Healing" has not made rapid progress. The Council hopes, however, soon to be in a position to report.

Medical Motorists and Duty on Petrol.

104. In accordance with the promise given by the Chancellor of the Exchequer to the Deputation of medical practitioners who waited upon him on July 1st, 1909, as reported to the Belfast Representative Meeting, a proviso was introduced into the Finance Bill whereby a rebate of one-half of the duty was to be allowed to medical practitioners in respect of Petrol consumed in motor cars when in use for professional purposes.

Proposed Conference with the British Pharmaceutical Conference upon the question of Dispensing by Medical Practitioners.

105. The President of the British Pharmaceutical Conference having approached the Association with regard to the holding of a Conference between the two bodies for the purpose of discussing the various aspects of the question of dispensing by medical practitioners, arrangements have been made for such a Conference to be held on May 19th, 1910.

Gratuitous Treatment of Hospital Patients in India.

106. The Council has drawn the attention of the Secretary of State for India to the objections from the standpoint of both the Profession and the Public to a recent Order issued by the Government of Madras, to the effect that the medical services of Hospitals are to be placed at the disposal of all members of the community irrespective of means or social position.

Questions to Parliamentary Candidates.

107. In view of the recent General Election the Memoranda and Questions to Parliamentary Candidates were revised and issued to the Divisions, with a request that they should bring them before the notice of their local Candidates.

108. Information has been received that 69 Divisions approached the local Candidates and a large number of the replies of these gentlemen were forwarded and are being classified for future use. The work done by some of the Divisions in approaching, and in many cases personally interviewing Candidates, cannot fail to be of advantage to the Parliamentary work of the Association.

109. A special letter was sent to the Medical Candidates for Parliament, and a report of their answers was published in the British Medical Journal, January 15th, 1910, p. 165.

Rating of a Surgery upon the Basis of a Place of Business.

110. In October last a Member of the Association asked whether the Association would assist him in the matter of the increased assessment of his house, which, though the rental was only £42, had been assessed for rating at £44 instead of as formerly at £33.

111. From inquiries made, the action in this case appeared to be part of a definite scheme of the local Assessment Authority to raise the rating of all doctors' houses, on the ground that they should be assessed upon the same basis as shops. If successful in one district, such a system would undoubtedly spread throughout the country. The Solicitor of the Association was accordingly instructed to take the case up, on behalf of the member, as one affecting the general interest of the profession. Notice was given of

appeal to Quarter Sessions, whereupon the Assessment Committee withdrew from its position and agreed as follows :—

(*a*) That the assessment should be restored to the original amount.

(*b*) That the difference between the rates paid, under protest, on the higher assessment, and those which would have been paid in the ordinary way, be refunded to the medical practitioner concerned.

(*c*) That the Assessment Committee pay ten guineas towards the costs incurred by the Association.

ACTION TAKEN IN REGARD TO CERTAIN RESOLUTIONS OF THE ANNUAL REPRESENTIVE MEETING, 1909.

112. The Resolutions of the Annual Representative Meeting on the following subjects have been noted as Declarations of Policy for the guidance of the Council :—

Employment of Medical Inspectors of School Children under the guise of Assistant Medical Officers of Health (Minute 62).

Systems of Payment of School Medical Officers (Minutes 64–67).

Duties of School Nurse (Minutes 72–74).

Treatment of School Children found Defective (Minutes 79, 80, 81, 86, 87, 88, 94, 95).

Security of Tenure for School Medical Officers (Minutes 97, 98).

Representation of the Association on the Central Midwives Board (Minute 105).

Gratuitous Treatment of Ophthalmia Neonatorum (Minute 185).

PUBLIC HEALTH AND POOR LAW.

WHOLE-TIME MEDICAL OFFICERS OF HEALTH.

113. The Council has noted for its guidance the declaration of policy of the Association contained in the following Resolution adopted by the Annual Representative Meeting at Belfast on the recommendation of the Council :—

> *Minute* 234.—That, in the interests of the public health and in view of the multiplicity of duties thrown upon medical officers of health by recent enactments, it is desirable that, in future appointments, medical officers of health should be required to devote their whole time to the duties of their office, and be debarred from private practice, except as consultants ; that they should be adequately paid, and, if necessary, districts should be grouped for the purpose ; and that it is further desirable that medical officers of health should be protected in carrying out their duties, and be secured from capricious dismissal or reduction of salary, and that they be allowed to participate in any superannuation scheme approved by a Local Government Board.

114. In view of correspondence which appeared in the BRITISH MEDICAL JOURNAL, and other communications which apparently arose from a misunderstanding of the meaning of the foregoing Resolution, the Council, in January, resolved that it be pointed out for the information of members generally, (*a*) that the Association has uniformly supported in disputes with local authorities individual Medical Officers of Health, whether part-time or whole-time officers ; (*b*) that the intention of the Association had been uniformly expressed in favour of the continuance in office of the present holders of part-time appointments, subject to the exigencies of the public Service ; and (*c*) that the term "future appointments" contained in Minute 234 was understood by the Council to apply only in case of voluntary retirement of the present holders of appointments.

115. Having regard to the Resolution of the Representative Meeting in favour of the system of appointment of Medical Officers of Health to give their whole time to the duties of the office, and having reason to believe that a Bill to provide security of tenure of office for all officers would meet with considerable opposition in Parliament, the Council has redrafted the Public Health Officers Bill of the Association The Bill now provides that Medical Officers of Health giving their whole time to the service shall not be appointed for a limited period only, and shall only be removable with the consent of the Local Government Board, and that the Local Government Board may insist upon the same terms of appointment for part-time Medical Officers of Health in cases where the Board, in the public interest, shall deem it desirable.

HOUSING AND TOWN PLANNING ACT.

116. The progress of the Housing and Town Planning Bill through both Houses of Parliament was carefully watched on behalf of the Association, and action taken, as opportunity offered, to secure the adoption of provisions satisfactory to the Profession in those matters in which it is specially concerned. An attack was made on the principle of security of tenure, even as regards County Medical Officers of Health, but was successfully resisted. The Association endeavoured to amend the Bill by providing that Borough and District Medical Officers of Health, as well as County Medical Officers, should be removable only with the consent of the Local Government Board, and that none of these Officers should be appointed for a limited period only. The efforts of the Association were unsuccessful, but the opposition was based upon technical grounds of Parliamentary procedure only, and the Council has reason to believe that the precedent afforded by the Housing and Town Planning Act as regards County Medical Officers will afford material assistance towards securing similar protection for District Medical Officers of Health. The Council desires to record the indebtedness of the Association to Lord Harrowby and Lord Lytton, and to Sir Walter Foster and Mr. G. N. Barnes, and other Members of the House of Commons, for their assistance in connection with this matter.

POSTAL OFFICIALS AND VACCINATION.

117. Attention was called by the Postal Medical Officers Association to a Circular issued by the Postmaster-General announcing that in future Candidates for employment who have conscientious objection to re-vaccination may be allowed exemption by making a statutory declaration that they conscientiously believe that re-vaccination would be prejudicial to their health.

118. Representations were made by the Council to the Postmaster General of the regret with which the Association had heard of the relaxation in a public Department of preventive measures against such a serious disease as small-pox.

ACTION TAKEN WITH REGARD TO PUBLIC HEALTH AND POOR LAW APPOINTMENTS.

119. Action has been taken by the Council with regard to the following public appointments :—

> Newcastle-on-Tyne (Public Vaccinators), Hampstead (Public Vaccinators), Lutterworth (Poor Law Medical Officer), Sudbury (Poor Law Medical Officer and Public Vaccinator), Whitechapel (Poor Law Infirmary Medical Superintendent), Dundonald (Parish Medical Officer of Health), Salford (Poor Law Hospital appointment), Partick (Medical Officer of Health), Lanark (Assistant Medical Officer of Health), Northampton (Assistant Medical Officer of Health), Great Yarmouth (Assistant Medical Officer of Health), Newcastle-under-Lyme (Medical Officer of Health), Paisley (Assistant Medical Officer of Health), and Ilkeston (Assistant Medical Officer of Health and School Medical Officer).

SALARY OF WHOLE-TIME ASSISTANT MEDICAL OFFICERS OF HEALTH.

120. The Resolution of the Annual Representative Meeting at Belfast (Minute 225) as to the minimum salary of Whole-time Assistant Medical Officers of Health has been noted as a Declaration of the Policy of the Association, and effect has already been given to it.

POOR LAW REFORM.

121. In June last the Council appointed a Special Committee to consider the Reports of the Royal Commission on the Poor Law as affecting the Medical Profession, and to

report thereon, with Recommendations as to any action which should be taken by the Association.

122. The Committee has held frequent meetings, and has had the advantage of hearing the views of the Poor Law Medical Officers Association and of the Infirmary Medical Superintendents Society, expressed by Deputations. An Interim Report was issued to the Divisions and appeared in the Supplement to the BRITISH MEDICAL JOURNAL of February 5th, 1910.

123. The Council has urged upon the Government the desirability of appointing a Departmental Committee for the consideration of the organisation of medical assistance, as a separate problem, and specially the co-ordination of the various agencies now administering medical assistance. It was also suggested that the British Medical Association should be represented on any Committee appointed to consider this matter. The Home Secretary, to whom this communication was referred by the Prime Minister, has informed the Council that the matter is under consideration and that a further reply will shortly be sent.

124. It is hoped to issue a further Interim Report at a date which will allow its being taken into consideration by the Divisions before its discussion in the Annual Representative Meeting.

HOSPITALS.

PAYMENT FOR COMPENSATION CERTIFICATES.

125. The Representative Meeting decided (Minute 148) that any member of an honorary or paid medical or surgical staff of a hospital who signs a certificate for, or gives a report on, any case under the Workmen's Compensation Act ought to receive personally the usual fee in full. The Meeting further instructed the Council to report on the amount of such fees.

Recommendation.

The Council recommends :—

That the fee for a certificate of the kind referred to in Minute 148 of the Representative Meeting, 1909, should not be less than one guinea.

KING'S COLLEGE HOSPITAL.

126. With the object of giving effect to Minute 171 of the Annual Representative Meeting at Belfast, the Hospitals Committee, by instruction of the Council, has conferred with the South London Hospitals Committee and with the Medical Committee of King's College Hospital on the subjects referred to in the Resolution of the Meeting. A Report of the result of the negotiations cannot as yet be submitted, but it is hoped to include it in the Supplementary Report of the Council.

HAMPSTEAD GENERAL HOSPITAL.

127. The negotiations which were in progress at the last Annual Representative Meeting, with a view to the settlement of the difficulties between the Council of the Hampstead Hospital and the local profession, were continued by the Hospitals Committee, but it was eventually found impracticable to arrive at any decision while certain ethical questions were pending. When these had been disposed of, as stated in paragraph 64 of the Report, a Sub-Committee of the Hospitals Committee met in conference members of the Staff of the Hospital, but the intervention of the Central Executive on the matter then ceased, owing to the receipt of an intimation from the Division that they proposed to negotiate directly with the Council of the Hospital.

BARRY MUNICIPAL HOSPITAL.

128. The questions of staffing of the Barry Municipal Hospital, upon which the Association was applied to by the local Medical Profession and by the District Council to advise, and which were under consideration at the time of the Representative Meeting at Belfast, have been settled during the year. The principle of employment of the local general practitioners, acting on a rota, as the Staff of the Hospital has been accepted by the District Council, and the Council has agreed to pay such practitioners for their services. The arrangement arrived at is that four medical practitioners shall be on duty at one time, serving for a period of three months. Each practitioner is paid £10 for each three months' period of service. This rate, though lower than the local practitioners or the Association consider satisfactory, has been accepted for the time being, in order to give the new system a trial.

UNITED KINGDOM HOSPITALS CONFERENCE.

129. The Council reported to the last Representative Meeting the difficulties which had prevented the convening of another United Kingdom Hospitals Conference, but expressed the belief that, through the re-organisation of the Hospitals Association, these difficulties might be overcome. Information has now been received that the Hospitals Association has been re-organised under the title of the "British Hospitals Association," upon what it is hoped may be a permanent basis, as a body representative of those who are engaged in the actual administration of Hospitals. The British Hospitals Association proposes to hold an annual Conference, and has expressed its desire to confer with representatives of the British Medical Association, when opportunity may offer, upon subjects of Hospital Management which are of interest both to the administrative authorities of Hospitals and to the Medical Profession.

RESOLUTIONS OF ANNUAL REPRESENTATIVE MEETING, 1909.

130. The following Resolutions of the Annual Representative Meeting have been noted as Declarations of Policy for the guidance of the Council :—

Certificate of Suitability for Hospital Treatment (Minute 141).

Definition of "Nursing Home" (Minute 142).

Fresh Public Medical Institutions (Minutes 150–2).

Representation of local medical profession on Boards of Hospitals and similar bodies (Minute 157).

Contributions to Hospitals by Employers of Labour and by Employees (Minute 159).

NAVAL AND MILITARY.

FEES PAYABLE BY NATIVES TO OFFICERS OF THE INDIAN MEDICAL SERVICE.

131. It was reported to the last Representative Meeting that representations had been made to the Government that the Order of 1st July, 1907, restricting the fees payable by natives to Officers of the Indian Medical Service without previous consent of the Government was oppressive and unnecessary. No reply other than a formal acknowledgment being forthcoming, Mr. J. D. Rees, M.P., was approached, and kindly asked questions in the House bearing upon the matter, The Secretary of State for India having replied that he was still in communication with the Government of India, the Council asked that pending the settlement of the questions which have arisen between the India Office and the Government of India, the Notification in question might be suspended. This request has been referred by the Secretary of State to the Government of India.

THE MEDICAL DEPARTMENT OF THE TERRITORIAL FORCE.

Territorial Forces Committee.

132. In view of the importance of the questions arising in connection with the Medical Department of the Territorial Forces, the Council at its meeting in October appointed a

new Special Committee, called the Territorial Forces Committee, to consider and report on these matters. On its advice, the Council passed the Resolution already shown on page 32 (paragraph 95).

Representation to War Office.

133. Representations have been made to the War Office in regard to the Staff of Instructors for Medical Units, the inadequacy of the Fee for medical examination of recruits, the payment of a Quartermaster for each General Hospital, the proper payment of Medical Officers when in Camp, various matters in relation to equipment of Medical Units, and the composition of the Territorial Advisory Council.

Representations to County Associations.

134. The following resolutions were forwarded to the County Associations :—

(i) That, in the opinion of the Association, it is desirable that Officers commanding General Hospitals should have a seat on the County Associations of the counties in which the hospitals are situated :

(ii) That, in the opinion of the Association, it is of urgent importance that each Medical Unit should be provided with its own Drill Hall.

The reception was most encouraging, and justifies the Council in believing that much useful work lies before the Association in connection with this branch of the Military Medical Service of the Crown.

SCOTLAND.

State Registration of Nurses.

135. The question of State Registration of Nurses as affecting Scotland has received the attention of the Scottish Committee during the past year. The Council approved that steps should be taken to secure the recognition of the following principles in any Bill supported by the Association, and they were incorporated in the Bill approved by the Conference in which the Association was represented (*see* paragraph 84, page 272) :—

(*a*) That there should be a uniform system of Registration throughout the kingdom.

(*b*) That there should be a separate Scottish Council to control the Registration of Nurses in Scotland.

(*c*) That the recognition of the Institutions for training, and the conduct of the examinations should be under the control of the Scottish Executive Council.

Report by Royal Commission on Feeble-Minded.

136. Arrangements have been made to press upon the Government certain matters with reference to the Amendments of the Lunacy Law which are not included in the Recommendation of the General Board of Lunacy.

Memorandum on Medical Inspection of School Children.

137. A Memorandum on Medical Inspection of School Children and the Treatment of those found Defective, with special reference to Scottish conditions, has been circulated to the Scottish Branches and Divisions.

Royal Commission on the Poor Laws.

138. The Report on Scotland of the Royal Commission on the Poor Laws is receiving the consideration of the Committee.

IRELAND.

Irish Report of Royal Commission on Poor Laws.

139. The Irish Report of the Royal Commission on the Poor Laws has been fully considered by the Irish Committee, and the Committee has issued a circular to all Poor Law Medical Officers in Ireland in order to ascertain their opinion on certain specific questions.

Dairies, Cowsheds, and Milkshops (Ireland) Order, 1908

140. The Veterinary Medical Association of Ireland requested the opinion of the Association as to whether medical practitioners should accept the office of Inspectors under the Dairies, Cowsheds, and Milkshops Order. The matter was referred to the Irish Committee which decided that some of the duties could be most efficiently carried out by a Veterinary Surgeon, but that as part of the duty of the Medical Officer of Health in each district is to supervise all the buildings, &c., in his district, the latter officer should in all cases be the supreme officer, the Veterinarian sending his reports through the Medical Officer of Health ; also, that the duties of the Veterinarians appointed under the Order should be defined by the Local Government Board.

THE BRANCHES OUTSIDE THE UNITED KINGDOM.

Medical Registration.

(*a*) *In Australia and South Africa.*

141. Representations have been made to the New South Wales Branch and to the South African Branches as to the advisability of their taking the line of the other Dominions so far as Medical Registration is concerned.

(*b*) *In Sierra Leone.*

142. The Colonial Secretary has been asked by the Council to take steps to bring the Medical Ordinance for Sierra Leone into harmony with Ordinances in force in other British Dependencies. The Sierra Leone Ordinance, unlike the Medical Ordinances of most British Dependencies, merely provides for a penalty for the wrongful assumption of title, and does not forbid, under penalty, the practice of Medicine by unqualified persons.

(*c*) *In India.*

143. The question of adopting a Medical Act for India, which is arousing considerable interest in that country, is receiving the attention of the Council.

Scope of Work of the Colonial Committee.

144. The possibility of widening the scope of the Colonial Committee and bringing it into closer relationship with the Branches outside the United Kingdom is at present under consideration. It is proposed to hold a Conference at the time of the Annual Meeting, between the Committee and representatives of Colonial Branches attending the Annual Meeting.

The Executive Committee of the Annual Meeting has kindly undertaken the organisation, if practicable, of a Dinner at which Members of the Association from the Dominions beyond the Seas may meet Members of the Central Executive of the Association.

EDMUND OWEN,
Chairman of Council.

17*th May*, 1910.

APPENDIX.

LIST OF MATTERS REFERRED TO THE COUNCIL BY THE ANNUAL REPRESENTATIVE MEETING AT BELFAST, 1909.

Minute of A.R.M.	*Subject.*	*Para. of Report.*
20	Issue of Supplement to Non-Members ...	9
31	Advertisements in BRITISH MEDICAL JOURNAL	10–13
33	Accident Policy in connection with JOURNAL	15–20
35	Re-publication of Articles in Medical Journals	66
37	Recognition of a Special Class of Consultants	62–63
38–9	Report on Ethics of Consultation ...	64
40A	Position of Practitioners examining on behalf of interested persons	67
56	Definition of duties of Financial Secretary and Business Manager and of Medical Secretary	14
59	Resolutions of Representative Meeting involving Special Expenditure... ...	21
62	Employment of Medical Inspectors of School Children under the guise of Assistant Medical Officers of Health ...	112
64–7	Systems of Payment of School Medical Officers	112
72–4	Duties of School Nurse in connection with Inspection and Treatment ...	112
79	Reference of School Children to Medical Charities	81–82
80–1	Treatment of School Children	83 & 112
83–95 97–98	Security of Tenure for School Medical Officers	112
99–100 103–4	Action of London County Council with regard to Treatment of School Children at Hospitals	81–82
105	Representation of the Association on the Central Midwives Board	88
114	Nurses' Registration (Scotland)	84
115–6	Proposed Royal Commission on effects of Unqualified Practice	97
117–8	Comprehensive Public Medical Service ...	74
119	Contract Practice (Resolutions on) ...	75
128, 129	Rules of Nursing Association	85–87
131	Circular to Head Masters of Schools on the Medical Profession as a Career ...	98
132	Subsidizing Midwives	89
141	Certificates of Suitability for Hospital Treatment	130
142	Definition of Nursing Home	130
145, 220	United Kingdom Hospitals Conference...	129
148-9	Payment for Compensation Certificates...	125
150–2	Fresh Public Medical Institutions ...	130
157–8	Representation of Local Medical Profession on Boards of Hospitals and similar Bodies	130
159	Contributions to Hospitals by Employers of Labour and by Employees	130
169	Hampstead Hospital Dispute ...	69–70 & 127
171	King's College Hospital	126
172	Conditions of Service of Pathologists and Bacteriologists	99
177–8, 180, 190	Ophthalmia Neonatorum Report... ...	91–92
185	Treatment of Ophthalmia Neonatorum by public authorities	93–95
194–5	Method of Distribution of Capitation Grants	37
197	Organisation of Medical Students ...	49–50
198	Provision of Official Maps	54
199	Affiliation of kindred Associations ...	54
200	Addresses to Medical Students	48
207, 210, 212–3, 216–7	Application for Royal Charter	51–53
225	Salary of Whole-time Assistant Medical Officer of Health	120
234	Whole-time Medical Officers of Health	113–115
238	Representatives of Divisions at Sections of the Annual Meeting	60
240	Hours of Admission to Library	57
242	Provision of Central Research Laboratory	55
248	Proposed Materia Medica Committee ...	56
260, 265	Amendment of Existing By-laws ...	42–43
271	Promulgation of Policy of the Association	54
272–4	Federated Societies' Medical Benefit Association	73
275–7	Instruction in Hygiene and similar subjects	100–101
278	Proposed Amendment of Regulations as to Election of Representatives in the Representative Meeting	40–41

Association Notice.

ELECTION OF CENTRAL COUNCIL 1910-11.

NOTICE is hereby given that nominations of candidates for election of Members of Council by Branches or groups of Branches in the United Kingdom by voting papers for the year 1910-11 must be forwarded to reach the Financial Secretary and Business Manager, at the Office of the Association, not later than Monday, May 23rd, 1910, and that each nomination must be on the prescribed form, copies of which will be furnished by the Financial Secretary and Business Manager upon application.

Separate forms have been prepared for a nomination by a Division and for a nomination by any three Members respectively, and those applying are requested to state for which purpose the form is desired.

Voting papers containing the names of all candidates duly nominated will be issued from the Central Office on Saturday, June 11th, and will be returnable not later than Saturday, June 18th.

By Order of the Council,

GUY ELLISTON,

Financial Secretary and Business Manager.

April 28th.

Association Intelligence.

PROCEEDINGS OF COUNCIL.

AT a Meeting of the Council held at 429, Strand, London, W.C., on Wednesday, April 27th, 1910, at 2 o'clock in the afternoon,

Present:

Mr. EDMUND OWEN, LL.D., D.Sc., London, Chairman of Council, in the Chair.

Mr. H. T. BUTLIN, P.R.C.S., D.C.L., LL.D., London, President-elect.

Dr. SINCLAIR WHITE, Sheffield, Past-President.

Mr. H. A. BALLANCE, Chairman of Representative Meetings.

Dr. EDWIN RAYNER, Stockport, Treasurer.

Dr. FORD ANDERSON, London
Dr. GRANT ANDREW, Glasgow
Inspector-General ROBERT BENTHAM, R.N., ret., London (Representative of Royal Navy Medical Service)
Dr. W. A. CARLINE, Lincoln
Mr. ANDREW CLARK, D.Sc., London
Mr. J. WARD COUSINS, Portsmouth
Dr. EDWARD CURETON, Shrewsbury
Dr. JAMES DAVISON, Bournemouth
Mr. E. J. DOMVILLE, Exeter
Mr. A. J. DREW, Oxford
Mr. G. YOUNG EALES, Torquay
Dr. GEORGE EDMOND, Aberdeen
Dr. DAVID EWART, Chichester (New Zealand Branch)
Mr. J. H. EWART, Eastbourne
Dr. A. C. FARQUHARSON, Bishop Auckland
Mr. C. E. S. FLEMMING, Bradford-on-Avon
Dr. H. A. FRANCIS, London (Brisbane and Queensland Branch)
Mr. T. W. H. GARSTANG, Altrincham
Dr. DAVID GOYDER, Bradford
Dr. T. D. GREENLEES, London (Cape of Good Hope, Eastern Province; Cape of Good Hope, Western Province; and Border Branches)
Dr. WILLIAM HALL, Lancaster
Dr. G. E. HASLIP, London
Sir VICTOR HORSLEY, F.R.S., London
Dr. R. MCKENZIE JOHNSTON, Edinburgh
Mr. R. J. JOHNSTONE, Belfast
Mr. HERBERT JONES, Hereford
Mr. HUGH R. KER, London
Mr. R. H. KINSEY, Bedford
Mr. F. C. LARKIN, Liverpool
Mr. ALBERT LUCAS, Birmingham
Dr. J. A. MACDONALD, Taunton
Dr. CHARLES MACFIE, Bolton
Dr. D. J. MACKINTOSH, M.V.O., Glasgow
Dr. EWEN J. MACLEAN, Cardiff
Dr. HERBERT MANLEY, West Bromwich
Dr. C. J. MARTIN, F.R.S. London (Sydney and New South Wales Branch)
Dr. J. M. MASON, London (New Zealand Branch)
Dr. J. MUNRO MOIR, Inverness
Dr. C. G. D. MORIER, London (South Australian and West Australian Branches)
Dr. C. H. MILBURN, Hull
Dr. T. G. NASMYTH, Edinburgh
Dr. B. H. NICHOLSON, Colchester
Dr. F. M. POPE, Leicester
Dr. H. JONES ROBERTS, Penygroes
Mr. W. ST. A. ST. JOHN, Derby
Dr. CECIL E. SHAW, Belfast
Dr. LAURISTON E. SHAW, London
Lieutenant-Colonel R. J. S. SIMPSON, C.M.G., London (Griqualand West, Natal, and Transvaal Branches)
Dr. W. MITCHELL STEVENS, Cardiff
Mr. C. R. STRATON, Wilton
Dr. J. H. TAYLOR, Salford
Dr. D. F. TODD, Sunderland
Dr. ALEXANDER TROTTER, Perth
Mr. T. JENNER VERRALL, Brighton
Professor A. H. WHITE, Dublin
Mr. D. J. WILLIAMS, Llanelly
Lieut.-Colonel E. M. WILSON, C.B., C.M.G., South Farnborough (Representative of the Army Medical Service)

MINUTES.

The Minutes of the last Meeting were amended in accordance with notice given, and confirmed as so amended.

APOLOGIES.

Read letters of apology for non-attendance from the President, Dr. Buist, Professor Corby, and Colonel Joubert de la Ferté.

DEATHS.

The CHAIRMAN OF COUNCIL reported the deaths of Mr. H. J. Manning, Lieutenant-Colonel Boileau, and Dr. Whitehead Reid, and was requested to forward letters of condolence to the families of the deceased gentlemen.

HAMPSTEAD HOSPITAL.

Upon consideration of a communication from the Council of the Metropolitan Counties Branch, the Council decided that the documents which were before the Council on January 26th, when the decision with reference to the Hampstead Hospital case was arrived at, should be circulated to the Representatives in the Representative Meeting.

PRESIDENTIAL BADGE.

Dr. FORD ANDERSON, President of the Metropolitan Counties Branch, reported that the Branch Council proposed to commemorate the holding of the Seventy-Eighth Annual Meeting of the Association in London by presenting to the Association, on behalf of the Metropolitan Counties Branch, a Presidential Badge of Office to be worn by each successive President on ceremonial occasions.

SECTION OF ANAESTHETICS.

A letter from Dr. F. W. Hewitt, M.V.O., President of the Section of Anaesthetics, was referred to the Special Chloroform Committee with the request that the Committee submit its Report to the Council at the Meeting on June 29th, and that Dr. Hewitt be informed that in this way it will be included in the Supplementary Report of Council which will be published in the JOURNAL early in July.

BRITISH MEDICAL BENEVOLENT FUND.

A letter from the British Medical Benevolent Fund, expressing its thanks to the Association for continuing to collect money on behalf of the Fund, was ordered to be entered on the Minutes.

LISTER INSTITUTE.

A letter from the Assistant Secretary of the Lister Institute, asking the Association to appoint a Representative on the Council of the Institute, was referred to the Science Committee.

JOURNAL AND FINANCE COMMITTEE.

The TREASURER presented the Minutes of the Journal and Finance Committee of April 20th, 1910.

The Financial Statement for year ending December 31st, 1909, as certified by the auditors, was approved, and, in accordance with By-law 35, was ordered to be presented to the Annual General Meeting and the Annual Representative Meeting (see p. 249).

The accounts for the quarter ending March 31st, amounting to £12,561 10s. 1d., were received and approved, and the Treasurer was empowered to pay those remaining unpaid, amounting to £3,357 1s. 3d.

A grant of £2,000 was voted towards defraying the expenses of the London Meeting, 1910, £1,000 to be available on application by July 1st, and the balance by August 2nd. In the event of certain contingencies, it is understood that the sum by which the grant exceeds the surplus shall rank for a *pro rata* return in the same manner as the subscriptions collected by the Local Executive Committee from the Metropolitan Counties Branch.

The remainder of the Minutes were approved.

ORGANIZATION COMMITTEE.

Mr. ANDREW CLARK presented the Report of the Organization Committee of April 5th and 20th, 1910.

The Council expressed its approval of the principle that a Branch Council should be responsible for reviving the work of the Association in the area of an inactive Division, pending reorganization, and that Branches be advised to incorporate a provision in their Rules accordingly.

The Council approved the forms of nomination paper for use in connexion with the election of Members of Council by the Branches in the United Kingdom by Voting Paper. All nominations are required to be on the prescribed forms.

The following scheme of dates for the year 1910 was

adopted for the election by voting paper of Members of Council by Branches in the United Kingdom:

Date when announcement as to receiving nominations should appear in the Journal	April 30th.
Last day for receipt of nominations ...	May 23rd.
Day of issue of voting papers from Central Office	June 11th.
Last day for receipt of voting papers at Central Office	June 18th.
Announcement of result in Journal ...	July 2nd.

In lieu of the former grouping of the Divisions of the Metropolitan Counties Branch, and the Bromley and Croydon Divisions of the South-Eastern Branch, for the election of four Members of the Central Council, 1910–11, it was decided that they should constitute a single group electing four Members, and that the election of those Members should be conducted by the method of the single transferable vote.

The Organization Committee was authorized to take, on behalf of the Council, any action necessary in connexion with the election of Members of Council by Branches outside the United Kingdom.

The Council laid down the following provisions for the election of Members of Council by the grouped Representatives for the year 1910–11, and recommend the Representative Meeting to adopt the same as the Standing Orders to govern subsequent elections:

1. That the election take place at the time of the Annual Representative Meeting.
2. That a nomination for a Member of Council to be elected by any group of Representatives be required to be made by a Division or a Representative of a Division included in the group.
3. That nominations be required to be on the Form contained in Appendix B to the Quarterly Report of the Organization Committee.
4. That nominations be received up to the end of the first hour of the third day's Session of the Annual Representative Meeting.
5. That there be issued to each Representative or Deputy Representative of a Constituency in the United Kingdom, in attendance at the Meeting, a voting paper containing the names of all Candidates duly nominated for election as Members of Council by the group to which such Representative belongs.
6. That the voting paper be in the form contained in Appendix C to the Quarterly Report of the Organization Committee.
7. That the voting papers be returned to the Medical Secretary within one hour from the commencement of the fourth day's Session of the Annual Representative Meeting.
8. That in the event of equality of votes the election be determined by the aggregate number of Members in the Constituencies represented by the voters for each Candidate as in the case of a card vote.
9. That the details of the voting be placed before, and verified by, the Chairman before being declared.

With reference to the Election of Representatives in Representative Meetings, the Council submits, for the consideration of the next Annual Representative Meeting, the proposal that each Constituency elect at least one Representative and (in the United Kingdom) an additional Representative for each 100 members after the first 50, and that on a card vote the voting power of a Constituency which has more than one Representative be equally divided among all the Representatives of that Constituency.

The Treasurer was authorized, in conference with the Chairman of the Capitation Grants Subcommittee, to make a Grant not exceeding 1s. per head to those Branches in the United Kingdom which appear to them to need the money, and have furnished Reports to the satisfaction of the Capitation Grants Subcommittee. The determination of the Annual Grants were deferred to the June Meeting of the Council.

The Grants to Branches outside the United Kingdom for the year 1910 are to be at the rate of 4s. for each Member on the Annual List.

A Supplementary Grant of £25 was made to the Hong Kong and China Branch for the development of the Library.

The Council decided to report to the Annual Representative Meeting that it regards the question of the formation of a Medical Students' Union as one of great importance, and considers it advisable to make further inquiries before submitting definite recommendations, and that it be recommended that the instruction contained in Minute 197 of the Annual Representative Meeting, 1909, be continued.

The Medical Secretary's Address to Divisions on Poor Law Reform as Affecting the Medical Profession will be reprinted in pamphlet form, after publication in the British Medical Journal, for the use of those Divisions which desire it.

Certain alterations in the Rules of the Cape of Good Hope, Eastern Province Branch, were approved.

A Branch of the Association is to be formed, designated the Baluchistan Branch, and composed of the Members of the Association resident within the area of the Baluchistan Agency.

The Council has granted independent representation to the Trowbridge Division, the Norwood Division, and the Greenwich Division. Otherwise the Divisions in the United Kingdom are provisionally grouped for representation in Representative Meetings for the year 1910–11, in the same manner as for the year 1909–10.

The Organization Committee was authorized finally to determine the grouping of Divisions in the United Kingdom as soon as possible after the information contained in the Annual List of Members is available.

The remainder of the Quarterly Report was approved.

The Council considered a communication received from the Privy Council relative to the application of the Association for a Royal Charter, and decided upon certain proposals to be submitted to a Special Representative Meeting and Extraordinary General Meeting. The Chairman of Representative Meeting, the Chairman of Council, and the Chairman of the Organization Committee were authorized to fix the dates of the Meetings, and to make all necessary arrangements.

The Council approved a form of Voting Paper as the Form to be used, subject to the exception hereinafter mentioned, for the election of Members of Council by Voting Papers in the United Kingdom. The Chairman of Council and the Chairman of the Organization Committee were authorized to sanction such modifications of the Form as may be necessary to meet the circumstances of exceptional cases.

The remainder of the Report was approved.

Science Committee.

Dr. Pope presented the Report of the Science Committee of April 2nd, 1910.

The Council approved the following report:—

That it is desirable that a Pronouncement should be made by the Association on the subject of Athleticism in Schools, as follows:

(1) A due amount of regular bodily exercise for each individual is one essential element in any complete scheme of education. The fitness, or otherwise, of a pupil to undertake and to benefit by exercise must always be largely determined by the conditions of his everyday life at school. In this connexion his diet, the times and arrangement of his meals, the nature, conditions, and duration of the mental work demanded of him, and the amount of healthy sleep secured to him, are all of vital importance.

(2) All the pupils of any school should be under the personal supervision of a single medical authority, whether this consists of the School Medical Officer or (as may be advisable in very large schools) of a Medical Board specially constituted to that end.

(3) Every boy should be subjected to a thorough medical examination by the School Medical Authority when he first enters the school. This may reveal obvious defects or disabilities in some instances, and in other cases may show the need for special observation during, at any rate, the earlier years of school life.

(4) A boy's fitness for physical exertion depends upon his physical and constitutional ability, and is not to be gauged merely by his age, which, taken by itself, is often a misleading criterion of strength and endurance.

(5) It is most desirable that a course of systematized physical training should be adopted for all boys in schools.

(6) Careful observation of the behaviour of the new and younger boys during their ordinary games, etc., and of the physical effects thus produced upon them individually, affords a valuable means of estimating the fitness of each for subsequently undertaking more strenuous exertion.

(7) It is most important that there should be an ample interval (one hour at least) between the end of a substantial meal and the beginning of strenuous exercise. There is clear evidence that the neglect of this elementary rule is responsible for a very large proportion of the evils which have been attributed to over-exertion alone. The nature, quality, and quantity of food, and hours of meals, require careful consideration and adjustment.

(8) Special caution is required in permitting a resumption of active exercise to convalescents—particularly after diphtheria, influenza (including "influenzal catarrhs"), rheumatism and measles, *and* during a period of rapid growth.

(9) Paper-chases, school and house runs should be distinguished from races; but so far as they include the element of competition, and, therefore, to some extent, the strain of racing, boys should be selected and grouped for a specified distance in accordance with their physical capacity. The plan of running all boys—the young and the older, the strong and the less vigorous—together, over the same distance, is not to be recommended. Whenever, for any reason, such a plan is adopted, special measures must be taken to ensure that the smaller and weaker boys are not called upon for excessive or too prolonged exertion.

Evidence, obtained from a great many schools, upon the results of long-distance races, shows that they very seldom entail risk, provided that the competitors are selected, and watched during practice with the care and precautions already indicated.

(10) Medical examination and skilled supervision are also needed in regard to rowing, boxing, and swimming. Competitions in long-distance diving and in long-distance swimming are dangerous for young adolescents.

(11) The above considerations as to periodical medical examination and careful individual supervision are equally applicable in the case of girls engaging in active exercises.

The British Medical Association, in making this Pronouncement, wishes gratefully to recognize the work previously done on this subject by the Medical Officers of Schools Association. This has been of the greatest assistance in preparing the present Pronouncement, which, to a great extent, embodies the Resolutions formulated by the Medical Officers of Schools Association and adopted in March, 1909.

The Council recorded its thanks for the great amount of care and labour expended by the Editor and the Librarian in the preparation of the Lending Department of the Library.

The remainder of the Report was approved.

CENTRAL ETHICAL COMMITTEE.

Dr. MACLEAN presented the Report of the Central Ethical Committee of April 8th, 1910.

The Report on the Position of Practitioners examining on behalf of Interested Persons was approved for issue to the Divisions, in accordance with Minute 40*a* of the Representative Meeting, 1909, and submission to the Representative Meeting, 1910, as an interim Report. A further Report will be issued after consideration of the replies from the Divisions.

The Council reports to the Representative Meeting that, after due consideration of the replies received from the Divisions, it is not advisable to proceed at present to the drafting of any Regulations to govern a Special Class of Consultants.

The Council considered and dealt with five cases of Members recommended for expulsion.

The remainder of the Report was approved.

MEDICO-POLITICAL COMMITTEE.

Dr. MACDONALD presented the Report of the Medico-Political Committee of April 6th and 13th, 1910.

The Council having considered Minute 275 of the Annual Representative Meeting, Belfast, will report to the Annual Representative Meeting that the Council recognizes the importance of duly qualified Lecturers being employed in the preparation of candidates for Voluntary Aid Detachments, and in the work included under the title of Public Health by Education Authorities, and is of opinion that, while Officers in command of Voluntary Aid Detachments should keep their Detachments efficient without remuneration, all other Members of the Profession should be suitably remunerated for teaching subjects in connexion with the Public Health, such as Nursing, First Aid to the Injured, and Hygiene, and that the fee adopted by the London County Council of £1 1s. for each Lecture is one which appears suitable for general adoption.

The Contract Practice Report of 1905 will be reprinted for issue to those requiring it, and when the reconsideration of the subject of Contract Practice is complete, 5,000 copies will be printed, containing such additional matter as the Medico-Political Committee may think desirable. The copies will be placed on sale at 1s. each.

The Annual Representative Meeting will be recommended to adopt the following Model Rules for District Nursing Associations in substitution for those approved by the Annual Representative Meeting, 1909, and to authorize that they be issued to Divisions as suitable for recommendation to District Nursing Associations for inclusion in their Rules:

1. The nurse shall in every case carry out the directions of the Registered Medical Practitioner in attendance.

2. The nurse, when requested in an emergency, may visit and render first aid to any person without awaiting instruction from a doctor.

3. If, in the nurse's opinion, the attendance of a doctor is necessary, she must insist that he be sent for; and if for any reason his services are not immediately available, she must, if the case be still one of urgency, remain with the patient and do her best until he arrive, or until the emergency is over.

Should the advice to call in a doctor be not acted upon, the nurse must at once leave and report the case to her Secretary, and must not attend again except in case of fresh emergency.

4. Should any further attendance be requested by the patient after the emergency is over, the nurse must explain that the doctor will decide whether or not this is necessary.

5. No attendance after a first visit shall be given by a nurse unless she has informed a doctor and received his instructions, if any, with regard to the case.

6. Apart from her duties as a certified midwife, a nurse must on no account prescribe or administer, on her own responsibility, such drugs for her patients as should only be prescribed by a medical man.

7. It is desirable to obtain the co-operation of all the medical men in the district, and in the larger Associations to obtain, if possible, the assistance of one or more of them on the Committee.

(Attention is drawn to the fact that the machinery of the local Divisions of the British Medical Association is available for this purpose.)

8. No midwife in the employment of a Nursing Association should accept an engagement without first asking the patient to state, and herself registering, the name of the doctor to be called in should any emergency arise.

9. A nurse shall in no case attempt to influence a patient in the choice of a doctor.

10. No person shall be employed by the..... Association as a midwife, or received for training as a midwife, without having first signed an agreement not to practise as a midwife within a radius of.....miles from.....within a period of .....after leaving the service of the Association, without the consent in writing of the Association.

Having regard to the urgency of the issue to the Divisions of the model scheme of the arrangements for the treatment of School Children, the Committee was authorized to issue the scheme when completed without further reference to the Council.

The remainder of the Report was approved.

PUBLIC HEALTH COMMITTEE.

Mr. DOMVILLE presented the Report of the Public Health Committee of April 12th, 1910.

The Public Health Officers Bill of the Association was approved, subject to any necessary alterations

suggested by Counsel, and the Chairman of the Public Health Committee was authorized to make arrangements necessary for the introduction of the Bill into Parliament.

The Public Health Officers Superannuation Bill of the Association was approved, subject to alterations advised by Counsel, and the Chairman of the Public Health Committee was authorized to make necessary arrangements for the introduction of the Bill into Parliament.

The Chairman of the Public Health Committee (Mr. Domville), Mr. Garstang, and Mr. Herbert Jones were appointed to represent the Association at the forthcoming Congress at the Royal Sanitary Institute to be held at Brighton in September.

Dr. Goyder was appointed to represent the Association at the Congress of the Royal Institute of Public Health to be held at Birkenhead in July.

The Council is of opinion that the enactment of the Quinquennial Enumeration of the population is essential to the promotion of the Public Health.

With reference to the need for a more frequent Enumeration of the population of the Country than that at present in vogue, a communication is to be forwarded to the principal Members of the Government in similar terms to the communication forwarded to the Government by the Society of Medical Officers of Health.

The remainder of the Report was approved.

HOSPITALS COMMITTEE.

Mr. HUGH KER presented the Report of the Hospitals Committee of April 7th, 1910.

Dr. Donald J. Mackintosh, M.V.O. (Medical Superintendent of the Western Infirmary, Glasgow), was recommended to the Committee of the Bolton Infirmary and Dispensary as an expert eminently qualified to undertake the inquiry which that body desires to have made.

The remainder of the Report was approved.

SCOTTISH COMMITTEE.

Dr. MUNRO MOIR presented the Report of the Scottish Committee, which was approved.

IRISH COMMITTEE.

Dr. CECIL SHAW presented the Report of the Irish Committee, which was approved.

SPECIAL POOR LAW COMMITTEE.

Dr. MACDONALD presented the Report of the Special Poor Law Committee of February 18th, March 4th and 18th, and April 1st and 13th, 1910.

The Committee was authorized to employ, at an expense not exceeding £100, a Special Commissioner to visit those Countries (especially Belgium, France, and Germany) in which systems of State Invalidity Insurance are in operation, to investigate the conditions of employment of Medical Practitioners in connexion therewith.

The Special Poor Law Reform Committee was authorized to prepare and issue to the Divisions, if found desirable, a Second Interim Report on its work.

The remainder of the Report was approved.

TERRITORIAL COMMITTEE.

Colonel ANDREW CLARK presented the Report of the Territorial Committee of March 4th, 1910, which was approved.

SPECIAL REPRESENTATIVE MEETING.

In the event of a Special Representative Meeting being convened before the Annual Meeting, the following Notice of Motion by the Cardiff Division, published in the BRITISH MEDICAL JOURNAL of April 9th, 1910, will be included in the Agenda.

Notice of Motion.

PROPOSED AMENDMENT OF BY-LAWS.

Election of Council.

That By-law 23 be amended by the inclusion of a new Sub-clause as follows, to be Sub-clause (*d*), the present Sub-clause (*d*) being made Sub-clause (*e*) :

(*d*) 4 by the Representative Meeting, which shall have power to elect such Members at such time and in such manner as the Meeting may decide, provided that the term of office of each Member so elected shall expire at the close of the Annual Representative Meeting next following the date of his election.

CANDIDATES ELECTED TO THE ASSOCIATION.

The twelve Candidates whose names appeared on the Notice convening the Meeting were duly elected Members of the British Medical Association.

SOCIETIES' APPLICATIONS.

Permission to hold Meetings during the Annual Meeting of the British Medical Association was granted to the following: National Temperance League; Poor Law Medical Officers' Association; Irish Medical Graduates' Association; Society of Members of the Royal College of Surgeons of England; the Medical Library Association and the Association of Medical Officers of Health.

APPOINTMENT OF SOLICITOR TO THE ASSOCIATION.

Mr. W. E. Hempson was reappointed Solicitor to the Association for the ensuing twelve months.

REPORT OF COUNCIL.

The Report of Council as amended was approved, and ordered to be circulated in accordance with By-law 35.

Association Notices.

SPECIAL REPRESENTATIVE MEETING.

PRELIMINARY ANNOUNCEMENT.

A Special Representative Meeting will be held on Tuesday, June 28th, 1910, at 3 p.m., and the following day, if necessary, for the consideration of proposals submitted by the Council as the result of a communication received from the Privy Council with respect to the application of the Association for a Royal Charter. An Extraordinary General Meeting will be held on Wednesday, June 29th, for the confirmation of the decisions of the Representative Meeting. The Agenda of both Meetings will be issued at an early date.

BY ORDER OF THE COUNCIL,

GUY ELLISTON,
Financial Secretary and Business Manager.

J. SMITH WHITAKER,
Medical Secretary.

May 11th, 1910.

BRANCH AND DIVISION MEETINGS TO BE HELD

BATH AND BRISTOL BRANCH: BRISTOL DIVISION.—The annual meeting of this Division will be held at University College, Bristol, in the Medical Library, at 5.30 p.m., on Monday, May 23rd. Business: Election of officers and other business.—NEWMAN NEILD, Honorary Secretary.

GLASGOW AND WEST OF SCOTLAND BRANCH.—The annual meeting of the Branch will be held on Friday, May 27th, at 8.30 p.m., in Grosvenor Restaurant, Gordon Street, Glasgow.—WM. D. MACFARLANE, Junr., Honorary Secretary.

GLASGOW AND WEST OF SCOTLAND BRANCH: GLASGOW EASTERN DIVISION.—The annual meeting of this Division will be held in the Glasgow District Mental Hospital, Woodilee, Lenzie, on Wednesday, May 25th, at 4 p.m. Dr. Hamilton C. Marr and the Assistant Medical Officers of Woodilee will give: (1) A Lantern and Microscopical Demonstration on the Neurone; (2) A Clinical Demonstration, with special reference to cases of General Paralysis of the Insane, the differentiation of cases simulating this affection, and the advantages of treatment by Arsenical Preparations in such cases. Agenda of Business: (1) Minutes of last meeting. (2) Election of Office-bearers for 1910–11. (3) Notices of Motion for Annual Representative Meeting (see SUPPLEMENT, BRITISH MEDICAL JOURNAL, April 23rd,

1910). (4) Alteration of Article of Association viii. It is recommended by the Executive Committee that the first six lines be deleted and the following substituted: "Any member whose subscription shall not have been paid on or before June 30th of the current year shall receive a second notice requesting payment, and if the subscription is still unpaid by September 30th, he shall, without prejudice to his liability to the Association, be suspended from all privileges of membership; and at the end of the year, if the arrears be still unpaid, he shall, *ipso facto*, cease to be a member." (5) Any other competent business.—WILLIAM BRYCE, 30, Armadale Street, Dennistoun, Glasgow, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH.—The annual meeting of the Branch will be held on Thursday, June 23rd, at 4.30 p.m., at 429, Strand, W.C. Agenda: (*a*) To receive the report of the election of new officers. (*b*) To receive the annual report of the Council of the Branch and the annual financial statement. (*c*) To receive the annual report of the Representatives of the Branch on the Central Council. (*d*) To make new rules or alter or repeal existing rules. (*e*) Any other business. (*f*) President's Address. Nominations for the offices of President-elect, four Vice-Presidents, Honorary Treasurer, and two Honorary Secretaries must be sent to Dr. Goodall, Eastern Hospital, Homerton, N.E., not later than May 28th. Nominations may be made by a Division or by twelve members of the Branch, and must be in writing and signed by the Honorary Secretary of the Division or by the twelve members.—E. W. GOODALL, W. GRIFFITH, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: NORWOOD DIVISION.—The general meeting and annual dinner will be held on May 26th, at 7 p.m., at Queen's Hotel, Upper Norwood, Dr. T. D. Greenlees in the chair.—J. A. HOWARD, Honorary Secretary, Upper Norwood.

METROPOLITAN COUNTIES BRANCH: WESTMINSTER DIVISION.—A meeting of this Division will be held at the Criterion Restaurant, Piccadilly Circus, W., on Thursday, May 23rd. Dinner at 7.30 p.m. Meeting, 8.30 p.m., *re* medical treatment of London County Council school children in area of the Westminster Division (Boroughs of Westminster and Holborn) found defective on medical inspection. Addresses by Sir Victor Horsley, Dr. Archer, and others. Members of the medical profession in the area of the two boroughs are cordially invited to attend.—J. HOWELL EVANS, Honorary Secretary.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH: FURNESS DIVISION.—The annual meeting will be held on Friday, May 27th, at 3.15 p m., in the Masonic Club, Barrow. Business: (1) Annual report. (2) Election of office-bearers. (3) Dr. Pooley will propose this resolution: "In all cases in which a partner, after introduction or otherwise, sells his practice to a successor, all clubs shall be taken over by the successor at 4s. 4d. per head per annum; and all members of this Division agree not to take any such clubs within twelve months of transference." (4) The following resolution, submitted by the Chelsea Division: "That this meeting recognizes the necessity for a Union of Medical Practitioners with Parliamentary Representation, and requests the Executive of the British Medical Association to ascertain the wishes of members in the United Kingdom by referendum at the earliest possible date." (5) Dr. Williams: Case of Locomotor Ataxy. (6) Dr. Harper will open a discussion on the Use and Abuse of Midwifery Forceps. (7) Dr. J. A. Reed: Notes of a Case of Inversion of the Uterus. Any other business. As the Committee is anxious to make this chiefly a clinical meeting, will all members who can show cases or specimens kindly communicate with the Secretary?—JOHN LIVINGSTON, Honorary Secretary.

SOUTH-EASTERN BRANCH: FOLKESTONE DIVISION.—The annual meeting of the Folkestone Division and of the Folkestone, Ashford, and Dover Constituency will be held at the Hotel Wampach, Castle Hill Avenue, Folkestone, on Wednesday, May 25th, at 8.30 p.m. Agenda: (1) To elect officers, the Representative of the Division on the Branch Council, and the members of the Executive Committee. (2) To elect the Representative of the constituency in the Representative Meeting of the Association. (3) To receive the annual report of the Executive Committee. (4) To consider any business of the Annual Representative Meeting. (5) To transact any business that may be transacted at an ordinary meeting. (6) To alter the by-law relating to the date for holding the annual meeting. (7) Dr. Menzies will open a discussion on the Medical Inspection of School Children. All members of the South-Eastern Branch are invited to attend and introduce professional friends.—P. VERNON DODD, M.D., Folkestone, Honorary Secretary.

SOUTH MIDLAND BRANCH: BEDFORD AND HERTS DIVISION.—The annual meeting of the Division will be held at Whitehill, Luton, by kind permission of Mr. H. Durler, on Tuesday, May 24th, at 3 p.m., Dr. J. W. Bone in the chair. Agenda: Confirmation of minutes of last meeting; election of officers for ensuing year; any other business that may arise. A paper will be read by Dr. Nestor Tirard, Senior Physician, King's College Hospital, on Some Forms of Diarrhoea. The Chairman invites members of the Division to lunch, at 1.30, at Whitehill, Luton. There will be a meeting of the Executive Committee at 2.45.—G. H. GOLDSMITH, Honorary Secretary, Harpur Place, Bedford

SOUTH WALES AND MONMOUTHSHIRE BRANCH: MONMOUTHSHIRE DIVISION.—The annual meeting of this Division will be held in the Newport and Monmouthshire Hospital on Friday, May 27th, at 3.15 p.m.—R. J. COULTER, W. BASSET, Honorary Secretaries.

ROYAL ARMY MEDICAL CORPS.

EXCHANGE.

FIELD OFFICER, who has been home one year, wishes to exchange to India.—Address Exile, care of Messrs. Holt and Co., 3, Whitehall Place, London.

Vacancies and Appointments.

VACANCIES.

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES.—Clinical Assistant. Honorarium at the rate of 52 guineas per annum.

BOMBAY MUNICIPALITY.—Analyst and Bacteriologist. Salary, Rs.600 per mensem, plus half fees recovered for private analyses.

BRISTOL EYE HOSPITAL.—House-Surgeon. Salary, £80 per annum.

BRISTOL ROYAL INFIRMARY.—Honorary Medical Registrar.

BURY INFIRMARY.—Junior House-Surgeon. Salary, £80 per annum, rising to £90.

BUXTON: WYE HOUSE ASYLUM.—Male Assistant Medical Officer. Salary at the rate of £120 per annum.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—(1) Honorary Surgeon; (2) House-Surgeon. Salary, £80 per annum.

ESSEX EDUCATION COMMITTEE, CHELMSFORD.—School Medical Officer. Salary, £350 per annum, rising to £450.

FOLKESTONE: VICTORIA HOSPITAL.—House-Surgeon. Salary, £100 per annum.

GUILDFORD: ROYAL SURREY COUNTY HOSPITAL.—Assistant House-Surgeon. Salary, £50 per annum.

HEMEL HEMPSTEAD: WEST HERTS HOSPITAL.—House-Surgeon. Salary, £100 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Assistant Casualty Medical Officer. Salary, £30 for six months, and £2 10s. washing allowance.

JERSEY GENERAL DISPENSARY AND INFIRMARY.—Resident Medical Officer. Salary, £100 per annum.

LEEDS INFECTIOUS DISEASES HOSPITALS AND SANATORIUM.—Two Resident Medical Officers. Salary at the rate of £110 per annum.

LIVERPOOL DISPENSARIES.—Assistant Surgeon. Salary, £100 per annum.

LONDON COUNTY COUNCIL.—Woman Inspector under the Midwives Act. Salary, £250 per annum, rising to £350.

LONDON THROAT HOSPITAL, Great Portland Street, W.—House-Surgeon, non-resident. Honorarium, £50 per annum.

MANCHESTER: COUNTY ASYLUM, Prestwich.—(1) Junior Assistant Medical Officer. Salary, £150 per annum, increasing to £250. (2) Locum tenens. Salary, £4 4s. per week.

MANCHESTER: ST. MARY'S HOSPITALS FOR WOMEN AND CHILDREN.—House-Surgeon. Honorarium at the rate of £50 per annum.

MANCHESTER TOWNSHIP.—Junior Resident Assistant Medical Officer at the Workhouse, Crumpsall. Salary, £110 per annum.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Northwood.—House-Physician. Salary, £75 per annum.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Clinical Assistants for the Hospital at Hampstead and Out-patient Department, Fitzroy Square.

NATIONAL ASSOCIATION FOR THE ESTABLISHMENT AND MAINTENANCE OF SANATORIA FOR WORKERS SUFFERING FROM TUBERCULOSIS.—Assistant Medical Officer for the Benenden Sanatorium. Salary, £80 per annum.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Senior House-Physician. Salary, £50 per annum.

NEW ZEALAND: WHANGAREI HOSPITAL.—Medical Superintendent. Salary, £450 per annum.

NOTTINGHAM GENERAL HOSPITAL.—Assistant House-Surgeon. Salary, £60 per annum.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, E.—(1) House-Physician. (2) Two House-Surgeons. Salary at the rate of £60 per annum each.

REDHILL: EARLSWOOD ASYLUM.—Junior Assistant Medical Officer. Salary, £130 per annum, rising to £150.

RYDE: ROYAL ISLE OF WIGHT COUNTY HOSPITAL.—Resident House-Surgeon (Male). Salary, £125 per annum.

ST. MARK'S HOSPITAL FOR CANCER, FISTULA, ETC., City Road, E.C.—House-Surgeon. Salary, £80 per annum.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Junior House-Surgeon. Salary at the rate of £80 per annum.

SEAMEN'S HOSPITAL SOCIETY: ALBERT DOCK HOSPITAL, E.—(1) Senior House-Surgeon. Salary at the rate of £75 per annum, and additional £25 for acting as Registrar. (2) House-Surgeon. Salary at the rate of £50 per annum.

SHEFFIELD ROYAL HOSPITAL.—Assistant House-Physician. Salary, £50.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—House-Surgeon. Salary, £100 per annum.

STOCKPORT INFIRMARY.—Junior House-Surgeon (male). Salary, £80 per annum.

WEST END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM, PARALYSIS, AND EPILEPSY, Welbeck Street, W.—Out-patients' Physician.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician for six months.

WESTMORLAND CONSUMPTION SANATORIUM.—Assistant Resident Physician. Salary, £100 per annum.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

DEATH.

BABER.—On May 14th, at 62, Brook Street, W., Edward Cresswell Baber, M.B.Lond., aged 59. Friends kindly accept this intimation.

DIARY FOR THE WEEK.

MONDAY.

KING'S COLLEGE: Physiological Laboratory, 4.30 p.m.—Lecture by Professor F. W. Mott, F.R.S.: The Relationship of the Brain to Voice.

ROYAL SOCIETY OF MEDICINE:

Special meeting, Morley Hall, George Street, Hanover Square, W., 5 p.m.—Discussion on Vaccine Therapy: Its Administration, Value, and Limitations; to be opened by Sir Almroth Wright, F.R.S.

ODONTOLOGICAL SECTION, 15, Cavendish Square, W., 8 p.m.—Paper:—Mr. Douglas E. Caush: The Spindles of von Ebner (illustrated by lantern slides). Casual communications:—Mr. Arthur S. Underwood: Some Egyptian Skulls. Mr. G. Thomson: A Case showing the Result of Extraction of the Six-year-old Molars.

TUESDAY.

MEDICO-LEGAL SOCIETY, 11, Chandos Street, W., 8.15 p.m.—Paper:—The Policy of the English Poor Law and Its Proposed Medical Reform, by Dr. Major Greenwood.

ROYAL SOCIETY OF MEDICINE:

MEDICAL SECTION, 15, Cavendish Square, W., 5.30 p.m.—Annual meeting and election of officers.

WEDNESDAY.

ROYAL SOCIETY OF MEDICINE:

Special meeting, Morley Hall, George Street, Hanover Square, W., 5 p.m.—Resumption of discussion on Vaccine Therapy: Its Administration, Value, and Limitations, by Dr. Hale White and others.

THURSDAY.

ROYAL SOCIETY OF MEDICINE:

OBSTETRICAL AND GYNAECOLOGICAL SECTION, 15, Cavendish Square, W., 7.45 p.m.—(1) Annual meeting and election of officers. (2) Papers:—Dr. F. J. McCann: Caesarean Section in the Treatment of Eclampsia Gravidarum. Dr. A. J. Wallace: Contribution to the Life-history of Fibromyomata of the Uterus.

FRIDAY.

ROYAL SOCIETY OF MEDICINE:

SECTION OF DISEASE IN CHILDREN, 11, Chandos Street, W., 4.30 p.m.—Cases and specimens.

SECTION OF ANAESTHETICS, 15, Cavendish Square, W., 6 p.m.—Annual meeting and election of officers.

EPIDEMIOLOGICAL SECTION, 15, Cavendish Square, W., 8.30 p.m.—Papers and discussion.

SATURDAY.

ROYAL SOCIETY OF MEDICINE:

SECTION OF BALNEOLOGY AND CLIMATOLOGY, Buxton.—Annual meeting for election of officers and visits to the Devonshire Hospital and Baths.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Lectures, Tuesday and Friday, 3.45 p.m., External and Middle Ear.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Wednesday, 4 p.m., Inflammatory Lesions in the Neighbourhood of the Diaphragm.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Thursday, 4 p.m., Demonstration of Selected Surgical Cases in the Ward.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat, at noon and 4 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Thursday, and noon, Friday; Eye, 11 a.m., Wednesday and Saturday; Radiography, 4 p.m., Thursday. Special Lectures: Tuesday, 3.15 p.m., Cancer of the Intestines Friday, 2.15 p.m., Chronic Peritonitis.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Clinical Lecture. Friday, 3.30 p.m., Optic Neuritis.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics, 2.30 p.m., Medical Out-patient: Nose, Throat and Ear. Tuesday, 10 a.m., Medical Out-patient Clinic; 2.30 p.m., Operations; Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient; 4.30 p.m., Demonstration of Selected Medical Cases. Wednesday, 2.30 p.m., Medical Out-patient, Skin and Eye Clinics; *X* Rays; 4.30 p.m., Special Demonstration of Selected Eye Cases. Thursday, 2.30 p.m., Gynaecological Operations; Clinics: Medical Out-patient; Surgical Out-patient; 3 p.m., Medical In-patient; 4.30 p.m., Lecture; Surgical Diseases of the Pancreas. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Eye; 3 p.m., Medical In-patient.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Daily arrangements: Medical and Surgical Clinics, 2 p.m.; Operations, 2 p.m.; *X* Rays, 2 p.m. Tuesday: Gynaecology, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Practical Medicine, 12.15 p.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday, Surgical Registrar, 10 a.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Medical Registrar, 10 a.m.; Gynaecology, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m.; Eye, 10 a.m. Lectures, at 5 p.m.: Monday, Operations for Appendicitis; Tuesday, Insects as Carriers of Disease in Tropical Medicine; Wednesday, What can be Learnt from a Blood Examination; Thursday, Practical Surgery; Friday, Clinical Pathology.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
MAY.	
23 MONDAY ..	BRISTOL DIVISION, *Bath and Bristol Branch*, Annual Meeting, Medical Library, University College, Bristol, 5.30 p.m. WESTMINSTER DIVISION, *Metropolitan Counties Branch*, Criterion Restaurant, Dinner, 7.30, Meeting, 8.30 p.m.
24 TUESDAY ..	BEDFORD AND HERTS DIVISION, *South Midland Branch*, Whitehill, Luton, 3 p.m.; Lunch, 1.30 p.m.; Executive Committee, 2.45 p.m.
25 WEDNESDAY	BATH AND BRISTOL BRANCH, Bath. CARDIFF DIVISION, *South Wales and Monmouthshire Branch*, Cardiff. GLASGOW EASTERN DIVISION, *Glasgow and West of Scotland Branch*, Glasgow District Mental Hospital, 4 p.m. FOLKESTONE DIVISION, *South-Eastern Branch*, Annual Meeting of Division, and Folkestone, Ashford, and Dover Constituency, Hotel Wampach, Folkestone, 8.30 p.m. RICHMOND DIVISION, *Metropolitan Counties Branch*, Annual Meeting, Royal Hospital Richmond, 8.30 p.m.
26 THURSDAY ..	NORWOOD DIVISION, *Metropolitan Counties Branch*, General Meeting and Annual Dinner. Queen's Hotel, Upper Norwood, 7 p.m.
27 FRIDAY ..	LONDON: Conference between Special Poor Law Reform Committee and Contract Practice Subcommittee, 2 p.m. CITY DIVISION, *Metropolitan Counties Branch*, Annual Meeting, Hackney Town Hall, 4 p.m. FURNESS DIVISION, *North Lancashire and South Westmorland Branch*, Annual Meeting, Masonic Club, Barrow, 3.15 p.m. GLASGOW AND WEST OF SCOTLAND BRANCH, Annual Meeting, Grosvenor Restaurant, Gordon Street, Glasgow, 8.30 p.m. HAMPSTEAD DIVISION, *Metropolitan Counties Branch*, 4.30 p.m. MONMOUTHSHIRE DIVISION, *South Wales and Monmouthshire Branch*, Newport and Monmouthshire Hospital, 3.15. TOTTENHAM DIVISION, *Metropolitan Counties Branch*, Annual Meeting, Tottenham Hospital, 4.30 p.m.

Printed and Published by the British Medical Association at their Offices, No. 429, Strand, in the Parish of St. Martin-in-the-Fields in the County of Middlesex

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MAY 28TH, 1910.

CONTENTS.

	PAGE
Matters Referred to Divisions:	
AGENDA OF SPECIAL REPRESENTATIVE MEETING	285
SPECIAL REPORT OF COUNCIL	287
APPENDIX TO SPECIAL REPORT OF COUNCIL—	
Draft New Articles of Association of the British Medical Association	290
Draft New By-laws of the British Medical Association ...	294
General Medical Council:	
PRESIDENT'S ADDRESS, ETC.	311
ASSOCIATION NOTICES.—Special Representative Meeting ...	309
BRITISH MEDICAL ASSOCIATION LIBRARY	311
NAVAL AND MILITARY APPOINTMENTS	315
VITAL STATISTICS	316
HOSPITALS AND ASYLUMS	317
VACANCIES AND APPOINTMENTS	318
BIRTHS, MARRIAGES, AND DEATHS	319

	PAGE
Meetings of Branches and Divisions:	
Border Counties Branch	302
Dundee Branch	302
Lancashire and Cheshire Branch: Manchester (South) Division	302
" " " Rochdale Division ...	303
Leinster Branch	303
Metropolitan Counties Branch: Chelsea Division	305
" " " City Division	305
" " " Walthamstow Division ...	306
Midland Branch: Lincoln Division	306
Northern Counties of Scotland Branch	306
North Wales Branch	308
Oxford and Reading Branch	308
South-Eastern of Ireland Branch	308
Stirling Branch...	309
Worcestershire and Herefordshire Branch	309
DIARY FOR THE WEEK	319
RECENT PUBLICATIONS	320
CALENDAR	320

SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs. BY ORDER.

MATTERS REFERRED TO DIVISIONS.

AGENDA

OF

SPECIAL REPRESENTATIVE MEETING

TO BE HELD ON

TUESDAY, JUNE 28th, 1910, at 3 p.m.,

and, if necessary, the following day, in the

CONNAUGHT ROOMS, FREEMASONS' HALL,

GREAT QUEEN STREET, LONDON, W.C.

(For Standing Orders specially relating to Business of Special Representative Meetings, see SUPPLEMENT of BRITISH MEDICAL JOURNAL of May 21st, 1910, page 242.)

Resolutions convening Meeting.

1. Read: Resolutions of Council in pursuance of which the Meeting is convened, namely:

Resolved: That the Council give instructions for the convening of a Special Representative Meeting and an Extraordinary General Meeting, for the consideration of the new Draft Articles and By-laws, including the alternative Draft By-laws recommended by the Council, and such other business as the Council may decide, and that it be referred to the Chairman of Council, the Chairman of Representative Meetings, and the Chairman of the Organization Committee, to fix the date of such Meetings and to draft the Notices convening such Meetings and the Agenda thereof, in conference with the Solicitor of the Association and with Counsel, and that, in the event of a Special Resolution for the adoption of the new Draft Articles and By-laws being carried by the statutory three-fourths majority of the Extraordinary General Meeting, an Extraordinary General Meeting for the confirmation of such Special Resolution be convened.

Resolved: That the Council submit to the Special Representative Meeting, proposed to be held for the consideration of new Articles and By-laws, a special Report on the reply received from the Privy Council to the application of the Association for a Royal Charter of Incorporation, and upon the action which should now be taken, in accordance with Minute 216 of the Representative Meeting at Belfast, in order to obtain the necessary extension of the powers of the Association; and that it be recommended to the Representative Meeting:

That the Council be instructed to take all necessary steps with a view to the formation of a new Company, under the title of the British Medical Association incorporated in the same manner as the existing Company, but with a Memorandum of Association providing for all the objects which are detailed in Clause 2 of the Draft Charter applied for by the Association.

Resolved: That, in the event of it being found necessary to convene a Special Representative Meeting before the Annual Meeting, the following Notice of Motion by the Cardiff Division, published in the BRITISH MEDICAL JOURNAL of April 9th, 1910, be included in the Agenda for the consideration of such Special Representative Meeting:

Notice of Motion.

PROPOSED AMENDMENT OF BY-LAWS.

Election of Council.

That By-law 23 be amended by the inclusion of a new Subclause as follows, to be Subclause (*d*), the present Subclause (*d*) being made Subclause (*e*):

(*d*) 4 by the Representative Meeting, which shall have power to elect such Members at such time and in such manner as the Meeting may decide, provided that the term of office of each Member so elected shall expire at the close of the Annual Representative Meeting next following the date of his election.

Motion: That the Resolutions of Council in pursuance of which the Meeting is convened be entered on the Minutes.

Appointment of Substitutes.

2. Receive: Notice of Appointment of Substitutes for Representatives.

Motion: That the Notice of Appointment of Substitutes for Representatives be entered on the Minutes.

Order of Business.

3. **Motion:** That the Business before the Meeting be considered in the following order:

(*a*) Consider: Notice of Motion by the Cardiff Division for the amendment of the existing By-law 23, referred by the Council for the consideration of the Special Representative Meeting.

(*b*) Receive: The Special Report of the Council on the Charter, and the action taken under Minutes 216 and 217 of the Annual Representative Meeting at Belfast, and Recommendations arising therefrom.

(*c*) Consider: The new Draft Articles and By-laws submitted by the Council and the alternative forms of Draft By-laws 20, 41, and 56 placed before the Meeting by order of the Council.

(*d*) Consider: Recommendation of the Council as to the best means of obtaining the necessary extension of powers of the Association.

AMENDMENT OF PRESENT BY-LAWS.

By-law 23: Election of Council.

4. **Motion** by CARDIFF DIVISION: That By-law 23 be amended by the inclusion of a new Subclause as follows, to be Subclause (*d*), the present Subclause (*d*) being made Subclause (*e*):

(*d*) 4 by the Representative Meeting, which shall have power to elect such Members at such time and in such manner as the Meeting may decide, provided that the term of office of each Member so elected shall expire at the close of the Annual Representative Meeting next following the date of his election.

[*Existing By-Law 23.*

COUNCIL.

23. *Composition.*

The Council shall be composed of the Members *ex officio* mentioned in Article XXXVIII and of Members elected in manner following, namely:

(*a*) 24 by the Branches and Divisions of the Association in the United Kingdom which shall be grouped for that purpose as hereinafter mentioned;

(*b*) 7 by the Branches of the Association not in the United Kingdom which shall be grouped for that purpose as hereinafter mentioned;

(*c*) 12 by the elected Representatives of the Constituencies comprised in the Branches and Divisions of the Association in the United Kingdom, which Branches and Divisions shall be formed for that purpose into 12 Groups as hereinafter mentioned, the Representatives of all the Constituencies in each such Group being entitled together to elect one Member of Council.

(*d*) One Medical Officer on the active or retired list of each of the following services—namely: The Royal Navy Medical Service, the Army Medical Service, and the Indian Medical Service, to be elected by the Representative Meeting from Officers nominated by the Council, but so that no Officer shall be elected who shall have retired from the active list more than five years before the election.]

REPORT OF COUNCIL.

5. Receive: Special Report of Council (*see p.* 287).

Motion: That the Special Report of Council to the Meeting be received and entered on the Minutes.

DRAFT NEW ARTICLES AND BY-LAWS (*see p.* 290).

6. **Motion:** That the Draft New Articles and By-laws submitted by the Council be considered in the following order:

(*a*) The Draft Articles.

(*b*) By-laws 1–19, inclusive.

(*c*) By-law 20 in the alternative forms in which it is submitted by the Council.

(*d*) By-laws 21–40, inclusive.

(*e*) By-law 41, and, if the motion by the Cardiff Division has been carried, the amended form of the By-law proposed by that Division.

(*f*) By-laws 42–55 inclusive.

(*g*) By-law 56 in the alternative forms in which it is submitted by Council.

(*h*) By-laws 57–73 inclusive and the Schedule to the By-laws.

7. **Motion:** That the Draft Articles of Association submitted by the Council be approved.

8. **Motion:** That Draft By-laws 1–19 inclusive be approved.

9. **Motion:** That Draft By-law 20 be approved.

10. **Amendment** by the COUNCIL:

That for Draft By-law 20 contained in the print of Draft New Articles and By-laws there be substituted the following:

Grants to Branches: Ordinary.

(1) The Treasurer of the Association shall annually pay or allow, out of the funds of the Association, to the Treasurer of each Branch, such sum not exceeding four shillings as the Council shall order to be paid, in respect of each Member of that Branch whose name appears in the Annual List for the time being in force.

(2) A grant made under this By-law to any Branch shall be applied at the discretion of that Branch in or towards

defraying expenses properly incurred in using such of the means for the attainment of the objects of the Association as that Branch may for the time being be competent to use.

11. **Motion:** That Draft By-laws 21–40 inclusive be approved.

12. **Motion:** That Draft By-law 41 be approved.

13. **Amendment** by CARDIFF DIVISION:

That By-law 41 be amended by the inclusion of a new Subclause as follows, to be Subclause (*d*), the present Subclause (*d*) being made Subclause (*e*):

(*d*) 4 by the Representative Meeting, which shall have power to elect such Members at such time and in such manner as the Meeting may decide, provided that the term of office of each Member so elected shall expire at the close of the Annual Representative Meeting next following the date of his election.

14. **Motion:** That Draft By-laws 42–55 inclusive be approved.

15. **Motion:** That Draft By-law 56 be approved.

16. **Amendment** by the COUNCIL:

That for Draft By-law 56 contained in the print of Draft New Articles and By-laws there be substituted the following:

Election of Chairman of Representative Meetings.

The Chairman of Representative Meetings shall be elected annually at the Annual Representative Meeting, and shall enter upon the duties of his office at the close of the Meeting, and shall continue in office until the close of the next succeeding Annual Representative Meeting, and shall be re-eligible. He shall not while holding office as Chairman act personally as the Representative of any Constituency, but the Constituency which he represents at the time of his election to the said office shall be entitled to select (in manner provided by By-law 32) a Deputy to act on his behalf as Representative during such time as he holds the said office.

17. **Motion:** That Draft By-laws 57–73 inclusive and the Schedule to the By-laws be approved.

18. **Motion:** That the Draft Articles and By-laws be approved as a whole, in accordance with the foregoing Resolutions, and that the Chairman be authorized to submit the same to the Extraordinary General Meeting to be held on Wednesday, June 29th, 1910, and to the necessary confirmatory Extraordinary General Meeting, in order that they may be adopted, in accordance with the requirements of the Companies Acts, as the Regulations of the Association in substitution for all existing Regulations.

19. **Motion:** That the following Recommendation of the Council be adopted:

That the Council be instructed to take all necessary steps with a view to the formation of a new Company, under the title of the British Medical Association, incorporated in the same manner as the existing Company, but with a Memorandum of Association providing for all the objects which are detailed in Clause 2 of the Draft Charter applied for by the Association.

Confirmation of Minutes.

20. **Motion:** That the Minutes of the Meeting be confirmed for presentation to the Council.

By Order,
J. SMITH WHITAKER,
Medical Secretary.

SPECIAL REPORT OF COUNCIL.

Action taken under Instructions of the Representative Meeting at Belfast arising out of the consideration of the Draft Charter, and Proposals now submitted, pursuant to Instructions of the Representative Meeting, with reference to the adoption of new Articles and By-laws and the best means to be taken to obtain the additional powers required by the Association.

The Annual Representative Meeting at Belfast resolved as follows:

Minutes 207-212.

That the Organization Committee be accorded full power to act on behalf of, and in the name of, the Representative Meeting of the British Medical Association in respect of the consideration by the Privy Council of the following points concerning the Charter now before the Council:

1. Register of Members of the Profession.
2. Adjudication between Members of the Medical Profession who are not also Members of the British Medical Association.
3. Right of all Members of the Medical Profession, whether Members of the Association or not, to approach or appeal to the various ethical bodies and authorities of the Association.
4. Establishment of a Benevolent Fund in competition with existing Funds, provident or otherwise.
5. To grant that thirty Members of Council present and voting may determine a Referendum by postal vote.

Minute 213.

That this Meeting decides that the Association shall not go to a hearing before the Privy Council on the application for a Charter.

Minute 216.

That, in the event of the Petition for the Charter being refused, and in respect that the powers now possessed by the Association do not entitle it to grant the more important requirements of the South African Branches, this Meeting instructs the Council to take into consideration how, with the least possible delay, the Association may acquire such additional powers as will enable it to do so.

Minute 217.

That the following words be added (to the foregoing Resolution): and to prepare such alterations of the Articles and By-laws as are necessary to bring all the Regulations of the Association into accordance with those which have been approved by the Association in the Draft Charter, and to submit such amended Articles and By-laws for the approval of a Representative Meeting, and, as regards the Articles, of the Statutory General Meetings required by the Companies Acts.

Action taken under Minutes 207–212 and 213: Correspondence with the Privy Council concerning the Draft Charter.

As stated in Paragraph 51 of the Annual Report of the Council (BRITISH MEDICAL JOURNAL SUPPLEMENT, May 21st, 1910, page 260), the Organization Committee submitted to the Privy Council a revised Draft of the Charter giving effect to those concessions which the Representative Meeting approved. In April, 1910, an intimation was received from the Privy Council that these concessions had not appreciably diminished the objections of opponents, and the Association was asked whether it desired to be heard by Counsel in support of its application. Having regard to Minute 213 of the Representative Meeting, the Council has replied that the Association is not prepared to incur the expense which a Hearing by Counsel would involve.

Instructions Contained in Minutes 216 and 217.
(a) Extension of Powers, and (b) Alteration of Present Articles and By-laws.

In these circumstances, it has become the duty of the Council to consider the contingent instructions contained in Minutes 216 and 217 of the Representative Meeting at Belfast, the first of these relating to the question of other possible means of obtaining the extension of powers desired by the Association, in the event of the application for a Royal Charter being unsuccessful, and the second relating to such alterations of the present Articles and By-laws as might be necessary to bring them into conformity with those Regulations which the Association has approved in the Draft Charter, Ordinances, and By-laws.

ALTERATION OF PRESENT ARTICLES AND BY-LAWS.

Inasmuch as the alterations of the Articles and By-laws necessary to bring them into harmony with the Regulations contained in the Draft Charter, Ordinances, and By-laws are entirely within the power of the Association itself, as at present constituted, this matter can be more easily disposed of, and is first dealt with in the present Report. A draft of new Articles and By-laws has been prepared by Mr. T. R. Colquhoun Dill, the Counsel who drafted the Charter, Ordinances, and By-laws, and has been so framed as to correspond exactly with the provisions of the Charter, Ordinances, and By-laws which were before the Annual Representative Meeting at Belfast. A copy of the Draft Articles and By-laws so prepared is appended to this Report (see page 290).

In respect of some of the By-laws the attention of the Council has been drawn to certain Amendments which the Council thinks it desirable that the present opportunity should be taken to effect.

Having regard to the terms of the instruction of the Representative Meeting, the Council has not felt justified, however, in definitely carrying out these Amendments in the document submitted. It is considered more suitable that they should be submitted separately in alternative clauses.

DRAFT BY-LAW 20.

Grants to Branches: Ordinary.

Experience of the new system of distribution of Capitation Grants, under the By-laws approved by the Representative Meeting at Sheffield, leads the Council to the conclusion that the wording of Draft By-law 20 may with advantage be simplified. On reference to that By-law as first shown in the print of the Draft New By-laws submitted herewith, corresponding to the Draft Charter By-law, it will be seen to contain a provision that the grants to Branches should be calculated on the basis of so much per head of those Members who have paid their full annual subscription for the year, or who, being elected after the 1st July, have paid half the current annual subscription. When the amounts per head of capitation grants to Branches were fixed by the By-laws the provision in question served an object which has disappeared now that these amounts are placed at the discretion of the Council, and under existing circumstances it introduces an unnecessary complication into the system of distribution of grants. The Council therefore proposes that subparagraph (1) of By-law 20 be amended to read as follows:

> (1) The Treasurer of the Association shall annually pay or allow, out of the Funds of the Association, to the Treasurer of each Branch, such sum not exceeding Four Shillings as the Council shall order to be paid, in respect of each Member of that Branch whose name appears in the Annual List for the time being in force.

If the above Amendment be approved, subparagraph (3) of By-law 20 becomes unnecessary. Also, the discretion conferred upon the Council under subparagraph (1) of the By-law renders the discretion given to the Treasurer under subparagraph (4) unnecessary.

The Council, therefore, recommends that subparagraphs (3) and (4) of Draft By-law 20 be deleted and that the By-law as a whole be amended to read as follows:

Grants to Branches: Ordinary.

> (1) The Treasurer of the Association shall annually pay or allow, out of the funds of the Association, to the Treasurer of each Branch, such sum not exceeding Four Shillings, as the Council shall order to be paid, in respect of each Member of that Branch whose name appears in the Annual List for the time being in force.
>
> (2) A Grant made under this By-law to any Branch shall be applied at the discretion of that Branch in or towards defraying expenses properly incurred in using such of the means for the attainment of the objects of the Association as that Branch may for the time being be competent to use.

DRAFT BY-LAW 41.

Composition of Council.

By-law 41 of the Draft By-laws now submitted corresponds with By-law 23 of the present By-laws. The Cardiff Division having given notice of a proposed Amendment of By-law 23, which was published in the BRITISH MEDICAL JOURNAL of April 9th, 1910, and would in the ordinary course have come before the Annual Representative Meeting for approval or otherwise, the Council has considered it convenient that this should be placed before the Special Representative Meeting. In this way the provisions of the amendment, if approved, will take effect at the ensuing Annual Representative Meeting, while if it be not approved the matter will be disposed of.

If the Amendment proposed by the Cardiff Division be approved as affecting the present By-laws, it will doubtless also be approved as affecting By-law 41 of the new Draft By-laws submitted herewith.

DRAFT BY-LAW 56.

Election of Chairman of Representative Meetings.

Concerning By-law 56, it has been brought to the notice of the Council that, unintentionally, a provision introduced into the Draft Charter By-law 53, with the object of enabling the Constituency represented by the Chairman of Representative Meetings to appoint another Representative, and repeated in the By-law now under consideration, has been so framed as to have the effect, when read in conjunction with By-law 31 of Draft Charter (By-law 35 of By-laws now submitted), of disqualifying the Chairman of Representative Meetings of any year for re-election to that position for the succeeding year.

The Council Recommends:

That By-law 56 be adopted in the following form:

By-law 56.

Officers: Election of Chairman of Representative Meetings.

> The Chairman of Representative Meetings shall be elected annually at the Annual Representative Meeting, and shall enter upon the duties of his office at the close of the Meeting, and shall continue in office until the close of the next succeeding Annual Representative Meeting, and shall be re-eligible. He shall not while holding office as Chairman act personally as the Representative of any Constituency, but the Constituency which he represents at the time of his election to the said office shall be entitled to select (in manner provided by By-law 32) a Deputy to act on his behalf as Representative during such time as he holds the said office.

EXTENSION OF POWERS OF THE ASSOCIATION.

The question has been carefully considered as to how the Association may best obtain, failing the grant of a Royal Charter, those extended powers which it considers necessary for the due fulfilment of its general object of the maintenance of the honour and interests of the Medical Profession, and which either

are clearly not covered, or in some instances are not with certainty covered, by the present Memorandum of Association.

The full powers desired by the Association and referred to in Minute 216 of the Representative Meeting at Belfast as necessary to meet the wishes of the South African Branches, were set forth in Clause 2 of the Draft Charter as follows:

2.—(1) We do hereby declare the objects of the Association to be the promotion of the medical and allied sciences, the maintenance of the honour and interests of the Medical Profession and of the Members thereof collectively and individually, and the co-operation of the Members of the Association for their mutual assistance and support in all matters affecting them in their professional capacity, including the encouragement, promotion or provision of means for protecting Members and their families against the exigencies of age, sickness, death or misfortune.

(2) Without prejudice to the generality of the foregoing objects and to the other powers conferred by these presents and so that the said objects and powers shall be in no wise restricted by the powers next hereinafter specified, We do hereby expressly declare that for the attainment of the aforesaid objects the Association may adopt any or all of the following means, that is to say:

(i) May hold meetings and conferences at any place in the United Kingdom or in any part of Our Dominions or elsewhere for the discussion of the affairs, interests, and duties of the medical profession and for promoting personal and friendly intercourse between Members of the Association and between members of the medical profession in general.

(ii) May provide, equip, manage, and carry on circulating and other libraries and rooms and buildings for social intercourse for the benefit of Members of the Association and of the medical profession in general.

(iii) May compile, revise, publish and distribute or sell lists of medical practitioners and records of events, transactions and proceedings of interest to the members of the medical profession.

(iv) May publish periodically and sell the BRITISH MEDICAL JOURNAL or any other journal of a character specially adapted to the needs of the medical profession.

(v) May encourage research in the medical and allied sciences by grants from the funds of the Association, by the establishment of scholarships, prizes or rewards and in such other manner as the Association may determine upon.

(vi) May originate, support, promote, and oppose alterations in the law of the United Kingdom or any British Colony or Dependency affecting the Public Health or the Medical Profession and may promote the candidature of any Member of the Association for Parliament or for any British Legislative Assembly.

(vii) May take or defend and assist persons in taking or defending any legal proceedings civil or criminal (including proceedings before the General Medical Council) in which in the opinion of the Association the honour or interests of the Medical Profession or of any Member of the Association in his professional capacity or any question of professional principle is or are involved, and may establish, contribute to, organize, and manage a fund or funds for the purposes aforesaid.

(viii) May provide facilities for sales or transfers of medical practices, for the arrangement of medical partnerships, and for the engagement of qualified assistants and temporary substitutes for medical practitioners being Members of the Association.

(ix) May contribute to and assist in the organization and management of any provident or benevolent fund, existing at the date of this Our Charter, for the benefit or assistance of members of the Medical Profession and their families or dependents, in any case in which the Association shall be represented upon the body managing such fund; and in the event at any time of there being no such existing fund in respect of which the Association shall be so represented, may establish, endow, contribute to, organize, and manage a fund or funds for the purposes aforesaid.

(x) May establish, endow, contribute to, organize and manage provident or benevolent funds for the benefit or assistance of the staff employed by the Association.

(xi) May undertake and carry out the execution of any trusts which the Association may deem to be directly or indirectly conducive to the interests of the Association, or of the Medical Profession or any branch thereof.

(xii) May take such other means (whether of the same nature as the means hereinbefore stated or not) as may seem to the Association incidental or conducive to the promotion or carrying out of the foregoing objects or any of them.

The Representative Meeting and Divisions are aware that full inquiry was made, before the Charter was applied for, as to the possibility of so amending the present Memorandum of Association as to cover the various additional objects which are desired. The opinions of high legal authorities reported to the Representative Meeting at Leicester showed that it was at least doubtful whether the High Court, whose consent is necessary for an alteration of the Memorandum of Association, would sanction such an enlargement of the objects of the existing Company as was desired. This procedure was therefore abandoned.

Of the various remaining courses open to the Association the Council is of opinion that the simplest and most satisfactory in every respect will be the formation of a new Company, incorporated under a Memorandum of Association covering all the objects which the Association desires to be in a position to undertake, and otherwise constituted in the same manner as the present Company. The objections above mentioned to the alteration of the Memorandum of an existing Company would not apply to the framing of the Memorandum of a new Company. The Articles and By-laws of the new Company might be identical with those which the Special Representative Meeting approves, and Extraordinary General Meetings adopt, as the result of the consideration of the proposals of the Council referred to in the earlier portion of this Report.

The Council has considered the possible alternatives of (1) continuing the existing Company and carrying out by means of Trusts or subsidiary Companies, under the control of the Association, those objects which are not covered by the present Memorandum of Association; (2) converting the Association into an unincorporated Society, and protecting the Funds and managing some of the affairs of the Association, such as the BRITISH MEDICAL JOURNAL, by a subsidiary Company; and (3) converting the Association into a registered Friendly Society. The Council is satisfied that each of these procedures would be open to greater objection than the formation of a new Company under the Companies Acts as proposed, and

Recommends:

That the Council be instructed to take all necessary steps with a view to the formation of a new Company, under the title of the British Medical Association, incorporated in the same manner as the existing Company, but with a Memorandum of Association providing for all the objects which are detailed in Clause 2 of the Draft Charter applied for by the Association.

APPENDIX
TO
SPECIAL REPORT OF COUNCIL.

Proposed New Articles and By-laws, prepared in accordance with Minute 217 of Annual Representative Meeting, 1909.

ARTICLES OF ASSOCIATION
OF THE
BRITISH MEDICAL ASSOCIATION.

I. INTERPRETATION.

1. In these Articles of Association (where not repugnant to the context) the words and expressions following have the meanings hereinafter assigned to them respectively :—

"The Association" means the above-named Association.

"The Regulations" means the Regulations contained in these Articles of Association, with such modifications thereof or additions thereto as may from time to time be in force.

"The By-laws" means the By-laws set forth in the Schedule hereto, or other the By-laws of the Association for the time being in force.

"The Council" means the Council hereinafter mentioned.

"The Journal" means the journal to be published as hereinafter provided.

"Division" and "Branch" mean, respectively, a Division and Branch constituted as hereinafter provided.

"Existing" means existing at the time when these Regulations come into operation.

Expressions defined in the Companies (Consolidation) Act, 1908, shall have the meanings so defined.

2. The Interpretation Act, 1889, shall apply for the purpose of the interpretation of the Regulations as it applies for the purpose of the interpretation of an Act of Parliament.

II. MEMBERSHIP.

Existing and Future Members.

3.—(1) The existing Members of the Association are those whose names are entered in the Register of Members of the Association as Members at the time when these Articles come into operation.

(2) Future Members shall be those persons who, being eligible, shall, after the date when these Articles come into operation, be duly elected in such manner and upon such conditions as may be prescribed from time to time by the By-laws.

Eligibility.

4. Any Medical Practitioner registered in the United Kingdom under the Medical Acts, and any Medical Practitioner residing within the area of any Branch of the Association situate in any part of the British Empire other than the United Kingdom, who is so registered or possesses such medical qualification as shall, subject to the By-laws, be prescribed by the Rules of the said Branch, shall be eligible as an ordinary Member of the Association. Subject as aforesaid the mode and conditions of election to membership shall from time to time be determined by or in accordance with the By-laws.

Honorary and Extraordinary Members.

5.—(1) The Association shall have power to elect as Honorary Members such persons, and in such manner as the By-laws may provide, and to admit Members so elected to such privileges (other than that of voting as Members of the Association) as may from time to time be conferred on them by or under the By-laws.

(2) Each Division or Branch shall have power to admit to certain of the privileges of membership of such Division or Branch, other than that of voting: (*a*) Members of the Association who are not entitled to be Ordinary Members of such Division or Branch; and (*b*) Members of the Medical Profession, or persons distinguished in other sciences, who are not eligible as Ordinary Members of the Association. The By-laws may prescribe the designation under which persons shall be admitted to such privileges, the nature of the privileges to be conferred upon them, and the conditions of admission thereto.

Subscriptions.

6. Save as otherwise provided by the By-laws every Member shall pay to the Association a subscription of such amount as may for the time being be prescribed by the By-laws. The said subscription shall be considered due in advance on the 1st of January of each year, or in the case of Members elected during the year, at the time of election.

7. Each year's subscription shall entitle the Member to all privileges of membership of the Association, including that of receiving the Journal for the current year, and to the ordinary privileges of membership of that Division and of that Branch of which he is an ordinary Member.

Re-eligibility.

8. No person who shall have been a Member of the Association and ceased to be such shall be eligible for re-election until he shall have paid all arrears of subscription (if any) due from him to the Association at the date when his former membership ceased, and no person whose former membership shall have been terminated by reason of his conviction or expulsion as hereinafter provided shall, without the previous sanction of the Council, be eligible for re-election by any Branch Council.

Duration of Membership.

9. Every Member, whether an existing Member or a future Member, shall remain a Member until his membership is terminated in accordance with the provisions hereinafter contained.

Termination of Membership.

10. Membership of the Association may be terminated in any of the following ways, namely:

(*a*) By resignation, subject to such notice as may be prescribed by the By-laws and subject to the provisions of the next succeeding Article.

(*b*) *Ipso facto*, save as hereinafter provided, by default in the payment of subscriptions to the Association for such period as may be prescribed by the By-laws.

(*c*) *Ipso facto* (i) upon sentence (after conviction in a Court of Justice of any crime) to imprisonment with hard labour without the option of a fine, or to any greater punishment; or (ii) upon erasure from the Medical Register under Section 29 of the Medical Act of 1858; or (iii) upon erasure from the Medical Register of any British Colony or Dependency on the ground of professional misconduct; or (iv) upon forfeiture through misconduct of the medical qualification by virtue of which the Member shall have been eligible for membership.

(*d*) By expulsion (after the enquiry and in the manner prescribed in the next succeeding Article) on the ground that the conduct of the Member is detrimental to the honour and interests of the Medical Profession or Association, or calculated to bring the Profession into disrepute, or on the ground that the Member has wilfully and persistently refused to comply with the Regulations of the Association or the Rules of any Division or Branch of which he may be a Member.

Expulsion.

11. (*a*) The Council shall have power, on the representation of any Division or Branch, and after due enquiry, of which not less than fourteen days' notice specifying a time and place at which he may be heard in his defence, shall have been served on the Member in the manner prescribed by the By-laws, finally to expel from membership of the Association any Member of such Division or Branch whose conduct shall be held by the Council to be such as renders him liable to expulsion under paragraph (*d*) of the last preceding Article.

(*b*) The Council of each Branch not in the United Kingdom having a membership of not less than thirty shall have power on the representation of any two Members of such Branch and at a Special Meeting convened at not less than one month's notice, and after due enquiry of which not less than twenty-eight days' notice in writing, specifying a time and place at which he may be heard in his defence, shall have been given to the Member, to expel from membership of the Association any Member of such Branch whose conduct shall be held by the Council of the Branch to be such as renders him liable to expulsion under paragraph (*d*) of the last preceding Article.

(*c*) A majority of two-thirds of those present and voting at a Meeting, whether of the Council or of a Branch Council, shall be required for the purpose of exercising the powers conferred by the last two preceding clauses.

(*d*) An expelled Member shall, notwithstanding that he has ceased to be a Member, be liable to pay all sums due from him to the Association, or any Division or Branch thereof, at the time of his expulsion.

(*e*) No Member, in regard to whom a representation as aforesaid has been made, or whose conduct is under investigation, or is the subject of enquiry by the Council, or by a Branch Council, or by any Council or Committee of a Division, or by any Committee authorized in that behalf by any such Council as aforesaid, shall be capable of effectively resigning his membership of the Association, nor shall his membership be terminated in pursuance of paragraph (*b*) of the last preceding Article, or of any By-law, until the investigation or enquiry is completed and the decision thereunder is made known. An enquiry or investigation shall, for the purpose of this clause, be deemed to commence at the time when the matter of such investigation or enquiry is first brought officially under the notice of the body authorized by or in pursuance of this Article to make such investigation or enquiry.

III. Divisions or Branches.

Formation.

12. The members of the Association shall be formed into separate local bodies styled Divisions and Branches.

13. (1) Each Division shall have a local area to be determined as hereinafter provided and a Branch shall be a Division or a group of Divisions.

(2) Subject in the case of Divisions and Branches not in the United Kingdom to the provisions of the By-laws, it shall rest with the Council from time to time to determine, recognize, and declare by resolution published in the Journal, what bodies of Members shall be Divisions, and what Divisions and groups of Divisions shall be Branches of the Association, and what shall be the local area of each Division, and accordingly the Council shall have full power from time to time to amalgamate, subdivide, and modify Divisions and Branches and the local areas thereof. Nevertheless, not less than one calendar month's notice in all cases shall be given (in the manner prescribed by the By-laws) to any Division or Branch in whose boundaries or area any change is proposed.

Boundaries.

14. In determining the boundaries or areas of Divisions and Branches, the Council shall have regard to the expressed wishes of the local bodies concerned, and to the facilities of communication by railway and otherwise, and the opportunities thus afforded to Members of local bodies for meeting to transact the business thereof, and to the expediency of making such boundaries coincide with those of Parliamentary constituencies, counties, or other administrative divisions of the country.

Membership.

15. Every Member whose address as registered for the time being in the books of the Association is at a place situate within the area of any Division shall, *ipso facto*, be an ordinary Member of that Division and of no other, and every Ordinary Member of a Division shall, *ipso facto*, be an Ordinary Member of the Branch which comprises that Division and of no other.

Grants.

16. The By-laws may provide for contributions, grants, and subscriptions out of the general funds of the Association to Divisions or Branches, and may impose on the Members of any Division or Branch such obligations towards the Association and the Division and Branch respectively as may seem expedient.

Autonomy.

17. (*a*) Subject to the Regulations and the By-laws each Division and each Branch shall be free to govern itself in such a manner as it shall think fit, and for that purpose to make from time to time such Rules as it may think fit, and to repeal or alter the same, and when it shall consider it expedient.

(*b*) The Rules so made, and for the time being in force, shall be binding on the Members constituting the Division or Branch in reference to which they are made. Provided that, except in the cases specified in the By-laws, such Rules shall be submitted for approval to the Council, and shall not come into operation unless and until they are approved by the Council.

IV. General Meetings of the Association.

Annual General Meeting.

18. The Annual General Meeting of the Association shall be held at such time (not being more than fifteen months after the holding of the last preceding Annual General Meeting) and place as may be fixed by the Council, and if no time is so fixed shall be held on the 20th October (or if that day be a Sunday on the 21st October), and if no place is so fixed shall be held at the registered office of the Association.

Extraordinary General Meetings.

19. All General Meetings other than the Annual General Meeting shall be called Extraordinary General Meetings.

20. The Council may, whenever it thinks fit, and it shall, upon a requisition made in writing as hereinafter provided by any 100 or more Members, convene an Extraordinary General Meeting for the purpose of transacting any such business as by Statute or by the Regulations or the By-laws is appointed to be transacted by a General Meeting.

21. Any such requisition shall state the object of the Meeting proposed to be called, such object being to transact some business which by Statute or by the Regulations or the By-laws is required to be transacted by a General Meeting, and the said requisition shall be left at the registered office of the Association.

22. Upon the receipt of such a requisition the Council shall forthwith proceed to convene a General Meeting, and if it do not do so within twenty-one days from the leaving of the requisition, any 100 Members may themselves convene a Meeting for the object specified in the requisition.

Notice of Meetings.

23. Seven days' notice at the least of the holding of a General Meeting, specifying the place, the day, and the hour of meeting, and in the case of special business, the nature of such business, shall be given to the Members in the manner prescribed by the By-laws, but the non-receipt of such notice by or accidental omission to give such notice to any Member shall not invalidate the proceedings at any General Meeting. When it is proposed to pass a Special Resolution, the two requisite Meetings may be convened by one and the same notice, and it shall be no objection to such notice that it only convenes the second Meeting contingently on the Resolution being passed by the requisite majority at the first Meeting, or that it does not specify the day for the second Meeting otherwise than by stating that the same will be held at an interval of fourteen clear days from the day on which the first Meeting is concluded.

Business of Annual General Meeting.

24. The business of an Annual General Meeting shall be (*a*) such business as by Statute or by the Regulations or

the By-laws shall for the time being be appointed to be transacted at such Meeting; and (*b*) the reception of the addresses and other communications, and the discussion of such matters pertaining to the Medical and Allied Sciences as the Council shall have arranged to be received or discussed at such Meeting.

25. The Council shall arrange the order of business of an Annual General Meeting, and shall fix the times at which matters described under the heads (*a*) and (*b*) of the last preceding Article shall respectively be considered. At the expiration of the time appropriated for the transaction of any particular business, any portion of such business remaining for consideration shall be adjourned by the Chairman without discussion to such time as may have been appointed by the Meeting for the resumed consideration of business of that description.

Annual Scientific Meetings.

26. The Council shall at least once a year arrange Meetings or Conferences, alone or in conjunction with other bodies, which it shall be open to every Member of the Association to attend, for the purpose of receiving addresses or other communications relating to the medical or allied sciences, and discussing such subjects pertaining thereto as the Council may think proper, and the Council may arrange to hold such Meetings or Conferences in the United Kingdom or abroad. When held in the United Kingdom, one such Meeting shall be convened at the same place as the Annual General Meeting of the Association, and in connection, but so as not to conflict therewith. For the more convenient consideration of the matters to be discussed, the Council may provide that they shall be considered in Sectional Meetings, and the Council shall appoint a President and other Officers of such Section as well as readers of any addresses that may be given.

Special Business of General Meetings.

27. Special business includes all business discussed or transacted at Extraordinary Meetings, and also all business discussed or transacted at Annual General Meetings, except the ordinary business referred to in Article 24. No business shall be discussed or transacted in any General Meeting as special business, except such business as by Statute must be dealt with by Special Resolution, and such business as the Regulations or By-laws of the Association may at any time expressly require to be dealt with in General Meetings.

Procedure at General Meetings.

28. Subject as provided in the Regulations the proceedings at any General Meeting shall be such as may from time to time be prescribed by the By-laws and any Resolution passed at any such Meeting shall (save as hereinafter provided) be subject to the provision as to Referendum hereafter contained.

V. REPRESENTATIVE BODY.

General Powers.

29. Subject to the provisions of any statute the general control and direction of the policy and affairs of the Association shall be vested in a body of Representatives styled "the Representative Body" and composed of members of the Association elected by the Divisions in the manner prescribed by the By-laws, and of the Members of the Council for the time being in office or elected to take office.

Representative Meetings.

30.—(1) The Representative Body shall hold an annual meeting (hereinafter called the "Annual Representative Meeting"), and may hold other meetings (hereinafter called "Special Representative Meetings").

(2) No Member of the Association who is not a Member of the Representative Body, shall be entitled to take part in any Representative Meeting.

(3) Subject as provided in the Regulations the mode of convening Representative Meetings and the proceedings thereat and relating thereto shall be such as may from time to time be prescribed by the By-laws.

Resolutions.

31.—(1) Subject as provided by the Regulations a resolution of the Representative Body (not being a resolution inconsistent with the provisions of any statute or of the Memorandum of Association) which affects the funds of the Association, or relates to the Regulations, or By-laws, or to the policy of the Association in matters affecting the honour or interests of the medical profession and is carried by a majority of not less than two-thirds of the votes given thereon in the manner prescribed by the By-laws, or which relates to any other business within the powers of the Representative Body, and is carried by a simple majority, shall be deemed to be a decision of the Association.

(2) Provided that no resolution of the Representative Body to make any addition to or any amendment, alteration, or repeal of any Regulation or By-law, or to make any new regulation or By-law, shall have any operation unless a proposal to make the same shall have been previously approved and submitted to the Representative Body, either by the Council, or by a Branch, or by a Division, and shall have been published in the Journal, not less than two months before the Annual Representative Meeting, or one month before the Special Representative Meeting at which such resolution is passed.

VI. REFERENDUM.

32. In respect of every resolution of a General Meeting of the Association (except a resolution capable of being confirmed as a special resolution or a resolution confirming as a special resolution a resolution previously passed, or an extraordinary resolution or a resolution relating solely to the procedure of the Meeting), and in respect of every resolution of the Representative Body the following provisions shall have effect:

(*a*) Within three months after the date on which the resolution is passed the Council shall hold a Meeting for the purpose of considering the resolution. Such Meeting may be convened by a notice given either before or after or during the progress of the Meeting at which the resolution is passed.

(*b*) The Council, at its said Meeting, may approve the resolution, and shall be deemed to have approved the same unless one half at least of the total number of the Council be present, and it be determined by a majority of not less than two-thirds of the votes given on the question that the resolution does not properly represent the wishes of the Association, and that a Referendum is expedient.

(*c*) If the Council at its said Meeting determine in manner aforesaid that a Referendum is expedient then an officer of the Association to whom such duty shall be assigned by the Council shall as soon as may be after the said meeting, and not later than eight weeks from the date thereof, send by post to the Secretary of each Division of the Association a requisition requiring him within four weeks to convene a Meeting of the members of his Division (hereinafter called "the Division Meeting") for the purpose of considering the resolution and shall with each such requisition transmit such observations on the subject of the resolution as the Council may direct.

(*d*) The Secretary of each Division shall convene the Division Meeting accordingly and shall immediately after the holding thereof certify in writing to the Council the number of the votes given at the Division Meeting for and against the resolution.

(*e*) If the aggregate number of votes given for the resolution at all the Division Meetings shall exceed the aggregate number of votes given against the resolution at all the Division Meetings, or if no vote shall be given at any Division Meeting against the resolution the same shall be deemed to have been approved on a Referendum. Provided that for the purpose of this provision

no vote shall be reckoned unless the same shall be included in such certificate as aforesaid and such certificate shall have been received at the Head Office of the Association within four months after the date of the said meeting of the Council.

(*f*) If the said Meeting of the Council shall not be held within the said period of three months, or if the requisition prescribed by paragraph (*c*) of this Article shall not have been issued within the said period of eight weeks, then the resolution shall come into operation immediately upon the expiration of the said period of three months or of the said period of eight weeks (as the case may be). Save as aforesaid the resolution shall have no operation unless and until it shall have been approved either by the Council or on a Referendum as hereinbefore provided and if and when so approved the same shall come into operation as a valid and effectual decision of the Association.

(*g*) The fact of the resolution having been so approved shall be forthwith published in the Journal.

VII. COUNCIL.

Composition.

33. The Council shall be composed of the President of the Association, the President-Elect, the Past-President, the Chairman of Representative Meetings, the Chairman of Council, the Past Chairman of Council, and Treasurer *ex officio*, and of Members of the Association elected by the bodies, and in the manner prescribed in that behalf by the By-laws.

Powers and Duties.

34. It shall be the duty of the Council to carry into execution resolutions passed by a General Meeting or of the Representative Body, and administer the affairs of the Association in accordance with the Memorandum of Association and the Regulations and the By-laws, and the Council shall exercise such powers and do such acts and things as may be exercised or done by the Association, and are not by the provisions of any Statute or of the Regulations or the By-laws directed to be exercised or done by a General Meeting or by the Representative Body.

VIII. PUBLICATIONS.

Journal.

35. A Journal, under the title of the BRITISH MEDICAL JOURNAL, shall be published weekly in London by the Association, and shall be conducted by a paid Editor, who shall be responsible for all that appears therein, except such matters as are inserted in accordance with the Regulations and By-laws, or by direction of the Council. The Editor shall be appointed by and be subject to the control of the Council.

Other Publications.

36. Such lists of medical practitioners' records of transactions and other papers of interest to the medical profession shall be published as and when the Council may think fit.

IX. OFFICERS.

37. There shall be the following officers of the Association—namely, a President, a President-Elect, a Past-President, a Chairman of Representative Meetings, a Chairman of Council, Vice-Presidents, and a Treasurer. The Officers aforesaid shall hold office for such term, and shall have and enjoy such duties, powers, and privileges as shall be determined from time to time by the By-laws.

X. COMMITTEES.

38. Committees may be appointed in such manner and having such powers as may be prescribed by the By-laws or as the Representative Body or the Council, subject to the provision of the By-laws, may think proper.

XI. EXPENSES.

39.—(1) The expenses, as defined in the By-laws, within the United Kingdom of Members of Council and Representatives of Divisions attending any Representative Meeting shall be defrayed out of the general funds of the Association.

Attendance of Representatives of Divisions for this purpose shall be construed to mean attendance at each Session of the Representative Meeting, unless the Council shall be satisfied that good cause existed for absence from any particular Session or Sessions. The expenses, defined as aforesaid, within the United Kingdom of all Members attending Meetings of Council or of Committees and of all Members authorized by the Representative Body or by the Council to attend, and attending, any Conference shall be defrayed in like manner.

(2) The Council shall (subject as hereinbefore provided) determine what shall be considered an attendance for the purpose of this Article.

XII. FINANCIAL AND OTHER REPORTS AND AUDIT.

40. The Council shall annually prepare a Balance Sheet and Financial Statement of the Association for the past year, an Estimate of the probable income and expenditure of the Association for the coming year, and a Report of the general state and proceedings of the Association for the past year to be presented to the Annual Representative Meeting. Such Balance Sheet and Statement shall be audited by a professional Accountant and a copy of the same as audited and also a copy of such Estimate and Report shall be sent to the Secretary of every Branch and Division, and published in the Journal not less than two months before the said Meeting.

41. In addition to the above-mentioned Report, the Council shall have power to present to any Representative Meeting such further report or reports as it may deem advisable, and the same shall be published in the Journal if time permits.

XIII. BY-LAWS.

42. Save so far as determined by Statute or by the Regulations the constitution and mode of government of the Association, the rights and obligations of every Member and separate body of Members thereof, the appointment, duties, powers, and privileges of all Officers, and of all Councils, Committees, and governing and administrative bodies both of the Association and of every Division and Branch, shall be such as may from time to time be prescribed and determined by or in accordance with the By-laws, and the By-laws may from time to time be added to, amended, altered, or repealed by the Representative Body, subject to the provisions hereinbefore contained with respect to a resolution of that body for the purposes aforesaid.

43. The By-laws set forth in the Schedule hereto (including the Schedule to the said By-laws) are hereby approved by the Association, and shall remain in force until and save in so far as the same shall be added to, amended, altered, or repealed in pursuance of the foregoing powers.

XIV. SAVING FOR EXISTING CONSTITUTION.

44. The existing Representatives of Divisions of the Association shall be deemed to be the Representatives duly elected under these Articles and the By-laws, and shall continue to hold office as such until their successors are appointed in pursuance of the Regulations and the By-laws and the existing Members of the Council of the Association shall be deemed to be the Members of and to form the Council constituted under these Articles and the By-laws and shall continue to act as such until a new Council is elected in pursuance of the Regulations and the By-laws and all existing Officers and Committees of the Association shall continue to hold their respective offices and discharge their respective duties and receive such emoluments, if any, as pertain to the offices which they fill until it shall be otherwise determined in pursuance of the Regulations and the By-laws and the existing Divisions and Branches of the Association, with their Officers, Councils, and Committees shall be deemed to be Divisions and Branches, Officers, Councils, and Committees constituted or appointed in pursuance of these Articles and the By-laws, and shall continue until it shall be otherwise determined as aforesaid.

The Schedule above Referred to.

BY-LAWS
OF
THE BRITISH MEDICAL ASSOCIATION.

I. INTERPRETATION.

1. In these By-laws (where not repugnant to the context)—

(1) The expression "The Regulations" means the above Articles of Association with such modifications thereof or additions thereto as may from time to time be in force.

(2) Words occurring in these By-laws and also occurring in the Regulations shall bear the same respective meanings in these By-laws as they bear in the Regulations.

2. The Interpretation Act, 1889, shall apply for the purpose of the interpretation of these By-laws as it applies for the interpretation of an Act of Parliament.

3. These By-laws shall be construed so as not to conflict with the Regulations.

II. MEMBERSHIP.

Application.

4. Every candidate for membership of the Association shall apply for election in writing, addressed to the Association, and stating his agreement, if elected, to abide by the Regulations and By-laws, and the Rules of the Division and Branch to which he may at any time belong, and to pay his subscription for the current year.

Election by Branches.

5.—(1) In the case of a Branch in the United Kingdom, the mode of election of new members shall be as follows:—Every candidate who resides within the area of a Branch shall forward his application to the Secretary of such Branch. Notice of the proposed election shall be sent by the Branch Secretary to the Association at the Head Office, and to every member of the Branch Council, and the candidate, if not disqualified by any regulation of the Association, may be elected a Member of the Association by the Branch Council at any meeting thereof held not less than seven days (or such longer period as the Branch may by its Rules prescribe) after the date of the said notice. A Branch may require that each candidate for election shall furnish a certificate signed by two Members (either of the Association, or of the Branch, or of the Division in which he resides, as the Rules of the Branch may prescribe) stating that from personal knowledge they consider him a suitable person for election.

(2) In the case of a Branch not in the United Kingdom the mode of election shall be such as may, with the consent of the Council, be prescribed by the Rules of the Branch.

Election by the Council.

6. Every candidate who does not reside within the area of any Branch shall forward his application to the Association at the Head Office, together with a certificate signed by three Members of the Association stating that from personal knowledge they consider him a suitable person for election. Notice of the proposed election shall be sent by the Association from the Head Office to every Member of the Council, and the candidate, if not disqualified by any of the Regulations or the By-laws, may be elected a Member of the Association by the Council at any Meeting thereof held not less than one month after the date of the said notice.

Election of Officers of Services.

7. Notwithstanding anything contained in either of the two last preceding By-laws, officers of the Navy, Army, and Indian Medical Service on the Active List, are eligible for election through the Council or a Branch without any such certificate as therein mentioned.

Honorary Members.

8. The election of Honorary Members shall be by the Representative Body, on the recommendation of the Council. Honorary Members shall have none of the liabilities of Members as regards subscriptions, and shall not be entitled to any vote, but shall have such privileges as may be conferred upon them by resolution of the Representative Body. Every Honorary Member shall cease to be such Member upon a resolution of the Council to that effect passed by a majority of not less than two-thirds of those present and voting, and confirmed by the Representative Body.

Extraordinary Members—"Associate" "Complimentary."

9. Extraordinary Members shall be either Associate or Complimentary Members. Any Division or Branch may elect as an Associate Member any Ordinary Member of any other Division or Branch, and may elect as a Complimentary Member any qualified medical practitioner or person distinguished in science resident within the area of the Division or Branch, but not eligible for ordinary membership of the Association. Divisions or Branches may by their local Rules confer on Extraordinary Members such privileges other than that of voting, and impose such conditions of election as they may think desirable, subject to the sanction of the Council.

Annual List of Members.

10. In the month of May in each year a List of Members of the Association shall be prepared and published stating the names and addresses of the Ordinary Members of each Division and Branch as shown by the Register (to be kept by the Association at the Head Office) of Members of the Association on April 30th of that year, and those named in the said List as Members of any Division or Branch and no others shall be deemed to be the Ordinary Members of such Division and Branch at the date of the publication of such list for all the purposes of the Regulations and the By-laws. Such list is hereinafter referred to as the "Annual List."

III. SUBSCRIPTIONS.

Amount.

11. Except in the case of Members elected on or after the first of July in any year, the subscription to the Association shall be twenty-five shillings. A Member admitted on or after the first of July in any year shall pay half the current subscription for that year.

To whom paid.

12. Subscriptions shall be paid by all Members to the Treasurer, or to such persons (if any) as the Treasurer may authorise to receive subscriptions on his behalf (of which authorisation notice shall be given to all Members concerned).

Arrears of Subscription, Cessation of Membership.

13.—(1) Any Member whose subscriptions shall not have been paid on or before the 31st December of the current year shall, without prejudice to his liability to the Association, be suspended from all privileges of membership, and at the end of the succeeding year, if the arrears be still unpaid, he shall *ipso facto* (but save as otherwise provided by the Regulations), cease to be a Member.

(2) No Member shall (except in case of his expulsion, or of his ceasing to be a Member under the provisions of Clause (*c*) of the 10th Article of Association or under the previous provision of this By-law) cease to be a Member without having given one month's previous notice in writing of his intention in that behalf to the Association at the Head Office, and having paid all arrears of subscriptions (if any) due from him.

Special Subscriptions to Divisions and Branches.

14. It shall be competent for any Division or Branch offering special privileges to its Members to require a special subscription from those Members who desire to avail themselves of such special privileges, and it shall likewise be competent for any Division or Branch to charge such special subscription as it may think proper

to its Extraordinary Members; but no Ordinary Member of any Division or Branch in the United Kingdom shall be called upon to pay any further subscription than that paid to the Association as a condition of enjoying any ordinary privilege of membership of such Division or Branch.

Special Subscriptions to Branches not in the United Kingdom.

15.—(1) It shall also be competent for any Branch not in the United Kingdom by Rule (approved as hereinafter mentioned) to require each Member of such Branch to pay (in addition to his subscription to the Association and to any such special subscription) an annual subscription of such amount as may be deemed by such Branch to be necessary for defraying expenses occasioned by the special circumstances of such Branch, and not capable of being defrayed out of any grant from the funds of the Association made in pursuance of the By-laws.

(2) No such Rule shall have effect unless and until it shall have been approved by the Branch and by the Council in accordance with the following provisions.

(3) Approval by the Branch may be given either (*a*) by a majority of not less than three-fourths of the Members of the Branch, voting by means of voting papers sent to all such Members (in such manner as the Rules of the Branch may prescribe) not less than two months before the result of such voting is ascertained; or (*b*) by a majority of not less than three-fourths of the Members present and voting at a General Meeting of the Branch specially convened to consider the proposed Rule, of which Meeting not less than twenty-one days' notice shall have been given to all the Members of the Branch.

(4) In the event of such Rule being approved at a General Meeting of the Branch under paragraph (3) (*b*) hereof, a copy of such Rule, together with a copy of this By-law, shall be sent to every member of the Branch, and the Secretary or other responsible Officer of the Branch shall certify to the Council that such copies have been so sent, and such Rule shall not be approved by the Council (*a*) until the expiration of six months from the date of such Certificate; or (*b*) if the Council shall, within the said period of six months, have received a representation in writing, purporting to be signed by not less than one-eighth of the total number of Members of the Branch (as appearing in the Annual List for the time being in force), praying that the said Rule be not approved.

IV. DIVISIONS AND BRANCHES.

Local Management: Branches.

16. The management of the affairs of each Branch shall, save as otherwise provided in the By-laws, be vested in a Branch Council, composed of the following Members:—

(*a*) Those Members of the Council who are elected (as hereinafter provided), by the Branch or by any group of Branches to which the Branch belongs (or wholly or in part) by Representatives of Constituencies comprised in the Branch.
(*b*) The Members elected to represent on the Representative Body the Divisions comprised in the Branch.
(*c*) Such Officers of the Branch as the Branch shall declare to be members *ex officio* of the Branch Council.
(*d*) In the case of a Branch comprising more Divisions than one, Members elected by such Divisions in such manner that the number to be elected by each Division shall be as nearly as possible proportionate to the Membership of such Division

Branches not in the United Kingdom: Special Powers.

17.—(1) A Branch not in the United Kingdom shall be competent from time to time to adopt by the vote of a General Meeting of the Branch, and without the approval of the Council, and use, at the expense of its own Members, and for their benefit, or for the benefit of the local profession, any means authorised by the Memorandum of Association for the attainment of any of the objects of the Association, notwithstanding that such means shall not have been adopted, or shall not for the time being be used by the Association generally, but without power to impose any liability upon, or to pledge the credit of the Association in connection with any act, matter, or thing done in pursuance of, or arising out of such adoption or user. Any such adoption shall forthwith be notified to the Council by the Branch.

(2) A Branch not in the United Kingdom shall be competent from time to time to adopt by the vote of a General Meeting of the Branch, and without the approval of the Council, Rules dealing with all or any of the following matters, which Rules shall be binding upon the Members of the Branch:—

(i) The number and area of the Divisions of the Branch.
(ii) The number, duties, and designation of office bearers of the Branch, provided that the Branch shall at all times have an Honorary Secretary, who shall be the official medium of communication with the Association and with other Branches and Divisions.
(iii) The holding of Meetings of the Branch and the business to be considered thereat, but so as not to conflict with the Regulations as to the autonomy of Divisions.
(iv) The voting by proxy at any such Meeting and at any Meeting of the Council of the Branch.
(v) The eligibility of practitioners not registered in the United Kingdom for election by the Branch as Members of the Association.
(vi) The privileges of ordinary Membership of the Branch, other than the right to attend Meetings convened for the consideration of Association business.
(vii) Any other matter as to which the Council may, from time to time, authorise the Branches not in the United Kingdom to make Rules without the approval of the Council.

Local Management: Divisions.

18. The management of the affairs of each Division shall, save as otherwise provided in the By-laws, be vested in an Executive Committee composed of the following members:—

(*a*) The Member representing the Division on the Representative Body;
(*b*) The Member or Members representing the Division on the Branch Council;
(*c*) Such other Members elected by the Division as the Division may determine.

Divisions not in the United Kingdom: Special Powers.

19. A Division not in the United Kingdom shall be competent from time to time to adopt, by the vote of a General Meeting of the Division, and without the approval of the Council, Rules dealing with all or any of the following matters, which Rules shall be binding upon the Members of the Division to which they relate:—

(i) The number, duties, and designation of office bearers of the Division, provided that the Division shall at all times have an Honorary Secretary, who shall be the official medium of communication with the Association, and with other Divisions and Branches.
(ii) The holding of Meetings of the Division and the business to be considered thereat, but so as not to conflict with the By-laws as to the holding of Meetings of Constituencies for the election, and, if necessary, for the instruction of Representatives, and for considering the Agenda of Representative Meetings.
(iii) The voting by proxy at any such Meeting and at any Meeting of the Executive Committee of the Division.
(iv) Any other matter as to which the Council may, from time to time, authorize the Divisions not in the United Kingdom to make Rules without the approval of the Council.

Grants to Branches: Ordinary.

20.—(1) The Treasurer of the Association shall annually pay, or allow out of the funds of the Association, to the

Treasurer of each Branch, such sum not exceeding four shillings, as the Council shall order to be paid, for each Member of the said Branch who has paid to the Association the full current annual subscription for that year, and such sum, not exceeding two shillings, as the Council shall order to be paid, for each Member elected after the 1st July, who has paid to the Association half the current annual subscription.

(2) A Grant made under this By-law to any Branch shall be applied at the discretion of that Branch in or towards defraying expenses properly incurred in using such of the means for the attainment of the objects of the Association as that Branch may for the time being be competent to use.

(3) For the purposes of this By-law, those named in the Annual List for the time being in force, as Members of any Branch, shall be deemed to be Members of the said Branch for the year in which such Annual List is published, and those elected by any Branch Council, whose membership dates from July 1st in any year, and has been notified to the Council, shall be deemed to be Members of the said Branch for the ensuing half year.

(4) Provided that it shall be competent for the Treasurer in any year to make grants on account to any Branch prior to the publication of the Annual List for that year.

Alternative Form of By-law 20 Recommended by Council.

Grants to Branches: Ordinary.

(1) The Treasurer of the Association shall annually pay or allow, out of the funds of the Association, to the Treasurer of each Branch, such sum not exceeding four shillings as the Council shall order to be paid, in respect of each member of that Branch whose name appears in the Annual List for the time being in force.

(2) A Grant made under this By-law to any Branch shall be applied at the discretion of that Branch in or towards defraying expenses properly incurred in using such of the means for the attainment of the objects of the Association as that Branch may for the time being be competent to use.

Supplementary Grants.

21. In addition to the grants made in pursuance of the last preceding By-law, the Council, on the application of any Division or Branch, shall have power to make a Supplementary Grant of such amount as the Council may deem proper. Every application by a Division, not itself a Branch, shall be forwarded through the Branch Council, whose duty it shall be to transmit the same to the Council, with such comment (if any) as the Branch Council may deem expedient.

22. All applications for Supplementary Grants shall be referred by the Council to the Organization Committee for report thereon, and, in considering the same, the said Committee and Council shall have regard to the evidence of work done by or through the agency of such Division or Branch for the Association or the Medical Profession.

Application of Grants.

23. Out of the moneys received by way of grant from the Association as aforesaid each Branch shall (so far as possible) defray all its expenses, and shall also pay to each Division of the Branch such sum as the Branch Council may consider necessary to enable the Division to defray its expenses.

Annual Reports.

24. During the month of January in every year each Division shall furnish to the Branch Council a report of its proceedings during the previous year, a Statement of its numbers and a Financial Statement in such form as the Council may from time to time prescribe, and shall also transmit to the Council a copy of the Report and Statements so furnished. Not later than March 15th in every year every Branch shall furnish to the Council a like Report and like Statements as to the proceedings, numbers and finances of the Branch.

V. PROCEEDINGS AT GENERAL MEETINGS.

Chairman.

25. The President of the Association, if present, shall preside as Chairman at the opening of every General Meeting. In the absence of the President, the Chairman of Council shall preside, and in his absence, a Chairman shall be appointed by the Meeting.

Quorum.

26. Except as hereinafter provided in this Article no business shall be transacted in any General Meeting unless there be present a quorum of not less than 100 Members. If within one hour from the time appointed for the Meeting such quorum be not present, the Meeting, if convened upon the requisition of Members, shall be dissolved. In any other case it shall stand adjourned to the same day in the following week, at the same time and place, and if at such adjourned Meeting a quorum be not present, those present shall be deemed to be a quorum.

Adjournment of Meetings.

27. The Chairman of any General Meeting may, with the consent of the Meeting, adjourn any business from time to time and from place to place, but no business shall be transacted at any adjourned Meeting other than the business left unfinished at the Meeting from which the adjournment took place.

Voting at General Meetings.

28. At a General Meeting, unless a poll is demanded in writing by at least five Members, a declaration by the Chairman that a Resolution has been carried, or carried by a particular majority, or lost or not carried by a particular majority, and an entry to that effect in the book of proceedings of the Association shall be sufficient evidence of the fact without proof of the number or proportion of the votes recorded in favour of or against any such Resolution. If a poll be demanded by five Members or more, the same shall be taken in such manner and either at once or after an interval or adjournment, as the Chairman directs, and the result of such Poll shall be deemed to be the Resolution of the Association in General Meeting. On a show of hands every Member present in person shall have one vote, and upon a Poll every Member present in person shall have one vote. Votes must be given personally. In case of any equality of votes at any General Meeting, the Chairman shall have a second or casting vote.

VI. REPRESENTATIVE BODY.

Formation of Constituencies.

29.—(1) Representatives of Divisions shall be elected by Constituencies formed as follows: each such Constituency being entitled to elect one Representative.

(2) Any Division having not less than fifty Members may form one Constituency, and except as hereinafter provided every Division having less than fifty Members shall be grouped by the Council with another Division, or with other Divisions, to form a Constituency having not less than fifty Members.

(3) Provided that the Council shall have power to give separate representation to Divisions having fewer than fifty Members in those cases in which it appears to the Council that special difficulties exist as to the holding of joint meetings with neighbouring Divisions.

(4) In no case shall the total number of Constituencies formed throughout the Association exceed 300.

(5) Subject as aforesaid the Constituencies shall be formed and may be from time to time altered by the Council, and the Council shall publish lists of the Constituencies as and when it may think expedient.

Election of Representatives.

30.—(1) The Representative shall be elected, not more than nine months nor less than four weeks, before the Annual Representative Meeting at which he takes office, by a General Meeting, or by voting papers sent to each Member of the Constituency as the said Constituency may decide.

(2) The said Meeting shall be convened (or where the election is by voting papers, the voting papers shall be despatched) by the Secretary of the Division forming the Constituency, or in the case of a Constituency comprising more Divisions than one, by the Secretary of one of those Divisions to be chosen by the Secretaries of those Divisions, and if they cannot agree, by the Council.

(3) Where the election is by voting papers, a Meeting of the Members of the Constituency (convened as aforesaid) shall be held after the election, and not less than twenty-one days before the date of the Annual Representative Meeting, for the purpose of considering the Agenda of that Representative Meeting and instructing the Representative thereon, and if such Meeting of the Members of the Constituency shall not be held, the Representative of the Constituency shall not be entitled to attend the Representative Meeting.

(4) The person acting under Clause (2) of this By-law shall, not less than fourteen days before the Annual Representative Meeting, give notice to the Association at the Head Office of the name and address and mode of election of the Representative elected by the Constituency, and if the election was by voting papers, shall submit satisfactory evidence as to the holding of the subsequent Meeting of the Members of the Constituency, and the Chairman of Representative Meetings, or any person authorized by him in that behalf, shall, on being satisfied as to the matters aforesaid, cause a ticket of admission to the Meeting to be issued to such Representative.

Term of Office.

31. The Representative of a Constituency shall come into office at the commencement of the Annual Representative Meeting next succeeding the date of his election, and shall continue in office until the commencement of the Annual Representative Meeting in the following year, and shall be re-eligible.

Substitutes for Representatives.

32. In the event of a Representative of any Constituency being unable or unwilling to attend a Representative Meeting, the said Constituency shall have power to select a Representative (not being the Representative, whether original or substituted, of any other Constituency), to act at the said Meeting in his stead, such selection may be made by the Constituency in General Meeting or by such Officer or Member of the Division or Divisions composing the Constituency as may have been authorised by the Rules of the Division or Divisions or by a Resolution of the Constituency to make such selection.

Convening of Annual Representative Meetings.

33. The Annual Representative Meeting shall be convened in every year by the Council, and shall be held at such time and place as shall have been prescribed by the Association in the previous Annual Representative Meeting, and if no time or place shall have been so prescribed, the same shall be determined by the Council. All persons who have been elected to take office as Members of Council at the close of an Annual Representative Meeting shall be entitled to take part in such Meeting.

Special Representative Meetings.

34.—(1) Representatives Meetings, other than the Annual Representative Meeting, shall be styled Special Representative Meetings, and shall be convened at any time by the Chairman of Representative Meetings on the requisition of the Council, or on the requisition of not less than seven Constituencies.

(2) At least fourteen days' notice of such Meeting shall be given in the Journal, and such notice shall indicate the object for which Meeting is convened.

(3) No business shall be dealt with by a Special Representative Meeting other than that for which it is specifically convened.

Business of Annual Representative Meeting.

35. The business of the Annual Representative Meeting shall be to elect a Representative of a Constituency as the Chairman of Representative Meetings, and also a Representative of a Constituency as Deputy-Chairman; to elect a President of the Association; to elect twelve members of the Council, and such other Officers and such Members of Committees as by the Regulations or By-laws may be required to be so elected; to consider the election of Honorary Members when recommended by the Council; to appoint a place at which the next Annual Representative Meeting shall be held; to consider the Annual Financial Statement and Balance Sheet presented by the Council; to appoint an Auditor or Auditors (who shall be a professional Accountant or professional Accountants) and to fix his or their remuneration; to consider Reports of the Council, Reports of Committees instructed to report to such Meeting, and Reports of Branches and motions relating to the adoption of such Reports in whole or in part; to make new Regulations or By-laws, and alter and repeal Regulations or By-laws, and to consider any Resolution relating to the honour and interest of the medical profession or of the Association which shall have been adopted by any Division or Branch; provided that any such Resolution proposing material alteration of the Constitution or Policy of the Association shall have been submitted through the Journal for the consideration of all the Divisions not less than three months previously.

Chairman.

36. At every Representative Meeting the Chairman of Representative Meetings, when present, and in his absence the Deputy-Chairman of Representative Meetings, when present, shall preside. In the absence of both the said Officers the Meeting shall appoint a Chairman from its own number.

Voting.

37.—(1) In any Representative Meeting only Representatives of Constituencies and Members of Council representing the Navy, Army, and Indian Medical Services shall be entitled to vote.

(2) Voting shall be by show of hands, unless before such vote is taken twenty Representatives present request that the vote shall be taken by card, in which case every Representative of a constituency shall record as many votes as there are Members in the Constituency which he represents, according to the Annual List then in force. Members of Council representing the Navy, Army, and Indian Medical Services shall not take part in a vote taken by card.

(3) In voting upon any matter upon which a Constituency has passed a resolution within the three months immediately preceding such Meeting, the Representative of that Constituency shall be under obligation to vote in accordance with such resolution.

(4) The Chairman shall in the case of an equality of votes have a casting vote, but shall not otherwise be entitled to vote.

Quorum.

38. No business shall be transacted at any Representative Meeting unless there be present at least one-half of the number of Representatives appointed to attend such Meeting.

Adjournment.

39. Any Representative Meeting may be adjourned from day to day until the completion of its business.

Minutes.

40. The Minutes of every Representative Meeting shall, after confirmation, be transmitted by the Chairman thereof to the Council for presentation to its next Meeting.

VII. COUNCIL.

Composition.

41. The Council shall be composed of the Members *ex officio* mentioned in the Regulations and of Members elected in manner following, namely:—

(*a*) Twenty-four by the Branches and Divisions of the Association in the United Kingdom which shall be grouped for that purpose as hereinafter mentioned.

(*b*) Seven by the Branches of the Association not in the United Kingdom which shall be grouped for that purpose as hereinafter mentioned.

(*c*) Twelve by the elected Representatives of the Constituences comprised in the Branches and Divisions of the Association in the United Kingdom, which Branches and Divisions shall be formed for that purpose into twelve groups as hereinafter mentioned, the Representatives of all the Constituencies in each such Group being entitled together to elect one Member of Council.

(*d*) One Medical Officer on the active or retired list of each of the following Services, namely:—The Royal Navy Medical Service, the Army Medical Service, and the Indian Medical Service, to be elected by the Representative Body from Officers nominated by the Council, but so that no Officer shall be elected who shall have retired from the active list more than five years before the election.

[*Amendment of By-law 41, Proposed by Cardiff Division.*

That By-law 41 be amended by the inclusion of a new Subclause as follows, to be Subclause (*d*), the present Subclause (*d*) being made Subclause (*e*):

(*d*) Four by the Representative Meeting, which shall have power to elect such Members at such time and in such manner as the Meeting may decide, provided that the term of office of each Member so elected shall expire at the close of the Annual Representative Meeting next following the date of his election.]

Grouping of Branches.

42 The grouping of the Branches and Divisions for the purpose of the election of Members of the Council by Branches and Divisions and by Representatives of Constituencies shall be such as shall from time to time be prescribed by the Representative Body.

Mode of Election by Groups in the United Kingdom.

43.—(1) The election of twenty-four Members of Council by the Branches or Groups of Branches and Divisions in the United Kingdom shall be by means of voting papers sent by post by the Association from the Head Office to each Member of every Branch comprised in the Group.

(2) The said voting papers shall contain the names of those candidates who have been nominated either (*a*) by a Division or (*b*) in writing signed by not less than three Members of any such Branch and sent to the Association at the Head Office on or before an appointed day, of which not less than fourteen days' notice has been given in the Journal.

(3) The said voting papers shall contain such other particulars (if any), and shall be sent to the Association at the Head Office within such time as the Council may from time to time prescribe by notice given as aforesaid.

(4) The expenses of the said election shall be borne by the Association.

Mode of Election by Groups not in the United Kingdom.

44.—(1) The election of seven Members of Council by the Groups of Branches not in the United Kingdom shall be by voting papers sent by post by the Secretary of each Branch comprised in the Group to each Member of that Branch.

(2) The said voting papers shall contain the names of those candidates who have been nominated either (*a*) by a Division or (*b*) in writing, signed by not less than three Members of any such Branch on or before an appointed day, of which such notice shall have been given in the Journal as the Rules of the Branch may prescribe.

(3) The said voting papers shall contain such other particulars (if any), and shall be sent to such one of the said Secretaries (hereinafter called "the Returning Officer"), and within such time as the Council may from time to time prescribe by notice given as aforesaid.

(4) It shall be the duty of the Returning Officer to count the votes given for each candidate and to make a return of the result of the election to the Association at the Head Office.

(5) The expenses incurred by each Branch in respect of the election shall be borne by the Association.

Mode of Election by Representatives of Constituencies.

45. The mode of election of twelve Members of Council by the Representatives of Constituencies shall be such as shall be prescribed by the Representative Body.

Qualification.

46 No person shall be eligible for election as a Member of Council to represent a Branch or Group of Branches in the United Kingdom (whether the election be by the Branch or Group or by the Representatives of Constituencies) unless at the time of his election he shall be a Member of that Branch or of a Branch comprised in that Group.

Term of Office of Members of Council elected by Branches.

47.—(1) Each Member of Council elected by a Branch or Group or by the Representatives of Constituencies in the United Kingdom shall hold office for one year, and at the end of that time shall be eligible for re-election unless he have served as the Representative on the Council of one and the same Branch or Group for six years successively, in which case he shall for one year be incapable of being elected as such Representative.

(2) Each Member of Council elected by a Branch or Group not in the United Kingdom or elected to represent the Royal Navy Medical Service, the Army Medical Service, or the Indian Medical Service, shall hold office for such period not exceeding three years as the electing body may determine, and at the expiration of such period shall be eligible for re-election, provided that no such Member shall be re-elected so as to make his period of continuous service as the Representative on the Council of one and the same Branch or Group exceed six years.

(3) Each of the terms of office mentioned in this By-law shall be calculated from the close of an Annual Representative Meeting.

Completion of Council.

48. The proceedings for the election of Members of Council shall be conducted in such manner and at such times as to secure that a complete Council shall be in office at the close of the Annual Representative Meeting of each year.

Powers of Incomplete Council.

49. In default of, and until election of, a Member or Members by any body authorized to elect, or, so far as such election shall not be complete, all the powers conferred on the Council shall belong to and be exercised by the Members *ex officio* thereof alone, and such other Members (if any) of the Council as may have been duly elected by bodies authorized to elect.

Casual Vacancies.

50. Any casual vacancy occurring in the Council not less than four months before the Annual Representative Meeting amongst the Members of Council elected by Representatives of Constituencies shall be filled by the Chairman of Representative Meetings. Any other vacancy which may so occur shall be filled by the body which appointed the Member of Council whose place shall have so become vacant, and the election to fill such last-mentioned vacancy shall be conducted in the same manner as the annual election. Any person so chosen shall retain his office so long only as the Member in whose office such casual vacancy shall have occurred would have retained the same if such vacancy had not occurred.

Proceedings.

51. The Council shall meet not less than four times a year and shall be presided over by the Chairman of the Council, or, in his absence, by a Chairman to be appointed by the Meeting from its own number.

52. Meetings of the Council shall be held at such time and place and upon such notice as the Council shall appoint.

53. No business shall be transacted at any Meeting of the Council unless at least 15 Members be present.

54. The Chairman of Council may if he think fit and shall upon receiving a requisition signed by not less than

fifteen Members of the Council, and specifying the business for which a Special Meeting is required, call together a Special Meeting thereof. No business shall be transacted at a Special Meeting other than that for which such Meeting is called.

VIII. OFFICERS.

55. The President of the Association shall be elected annually at the Annual Representative Meeting, and shall enter upon the duties of his office at the next Annual Representative Meeting and until then shall bear the title of President-Elect. At the expiration of his year of office as President he shall be designated Past-President, and shall hold office as such for one year.

56. The Chairman of Representative Meetings shall be elected annually at the Annual Representative Meeting. He shall enter upon the duties of his office at the close of the Meeting, and shall not, during his term of office, act as the Representative of any Constituency. Any Constituency of which, at the time of his election, he was a Representative shall be entitled to elect another in his stead.

[*Alternative Form of By-law 56, Recommended by Council.*

Election of Chairman of Representative Meetings.

The Chairman of Representative Meetings shall be elected annually at the Annual Representative Meeting, and shall enter upon the duties of his office at the close of the Meeting, and shall continue in office until the close of the next succeeding Annual Representative Meeting, and shall be re-eligible. He shall not while holding office as Chairman act personally as the Representative of any Constituency, but the Constituency which he represents at the time of his election to the said office shall be entitled to select (in manner provided by By-law 32) a Deputy to act on his behalf as Representative during such time as he holds the said office.]

57. The Chairman of Council shall be elected by the Council from its own number, and shall hold office for such term and discharge such duties as shall be determined by the Council. During his term of office and for one year thereafter he shall be a Member of the Council *ex-officio*, and for that period any Group of Branches which at the time of his election he represented on the Council shall be entitled to elect another Member of Council in his stead.

58. The Treasurer shall be elected at an Annual Representative Meeting, and shall hold office for three years. He shall receive all moneys payable to the Association, and discharge all accounts which have been ordered by the Council to be paid.

59.—(1) In the event of the death during his term of office, or the resignation of the President, the President-Elect, the Chairman of Representative Meetings, or the Treasurer, the vacancy thus created shall be filled until the next Annual Representative Meeting, in the manner following, namely:—

(*a*) In the case of the President, the Past-President shall discharge the duties of the office.

(*b*) In the case of the President-Elect, the Council shall appoint a President-Elect in his stead.

(*c*) In the case of the Chairman of Representative Meetings the Deputy-Chairman shall discharge the duties of the office.

(*d*) In the case of the Treasurer the Council shall appoint a Treasurer in his stead.

(2) In the event of a vacancy occurring in any of the executive offices above mentioned through circumstances not provided for in this By-law it shall rest with the Council to make such appointment or other provision as it may deem expedient for the discharge of the duties of the said office until the next Annual Representative Meeting.

60. The Council shall have power to nominate for election at the Annual Representative Meeting those Members who by their services to the Association are, in the opinion of the Council, worthy of election as Vice-Presidents. No special privilege shall attach to the office of Vice-President, and such office shall be held for life unless terminated by resignation or by a vote of the Association in Representative Meeting assembled on a motion brought forward by the Council.

61. All salaried officers shall be appointed and may be dismissed by the Council, and shall hold office for such period and perform such duties and receive such remuneration as the Council may from time to time determine.

IX. COMMITTEES AND STANDING COMMITTEES.

62. The Representative Body and the Council shall respectively have power to appoint Committees with such powers as may to them seem necessary or convenient, and to fix the quorum thereof and lay down Rules for regulating the proceedings of such Committees.

63. The President of the Association, the Chairman of Representative Meetings, the Chairman of Council, and the Treasurer shall be Members *ex-officio* of all Committees.

64. Without prejudice to the foregoing By-laws, there shall be Standing Committees called by the names, composed in the manner, and having the powers and duties set forth in the Schedule to these By-laws.

65. Each Standing Committee shall appoint from its own number a Member of Council as Chairman.

66. If any appointed Member of a Standing Committee shall be absent from three successive Meetings of that Committee (except in case of illness or for some reason approved by the Chairman of that Committee) he shall be deemed to have resigned his membership of that Committee, and that Committee shall fill the vacancy so created.

67. All Standing Committees shall report to and act under the instructions of the Council.

68. Every Standing Committee shall have power to appoint Sub-Committees for the purposes of any of its powers or duties, and any such Sub Committee may include persons who are not Members of the Association.

X. EXPENSES.

69. The expenses of any person which in pursuance of the 39th Article of Association are to be defrayed out of the general funds of the Association, are the first-class travelling expenses within the United Kingdom of that person.

XI. SEAL.

70. The Council shall provide for the safe custody of the seal of the Association, and the seal shall not be used except in pursuance of a resolution of the Council, and in the presence of at least one Member of the Council and of a Secretary of the Association, who shall sign every instrument to which the seal is affixed.

XII. GENERAL.

Notices.

71.—(1) A notice may be served by the Association upon any Member, either personally or by sending it through the post in a prepaid letter, addressed to such Member at his last known address, or by publication of such notice in the Journal, and sending a copy of the Journal containing such notice to such Member, prepaid and addressed as above mentioned.

(2) A notice may be served on any Division or Branch by serving the same as aforesaid on the Secretary of such Division or Branch, and if there be none, then on any two Members of such Division or Branch.

(3) Any notice, if served by post, shall be deemed to have been served on the day following that on which the letter, or a copy of the Journal containing the same, is posted, and in proving such service it shall be sufficient to prove that the letter, or a copy of the Journal containing the notice, was properly addressed and put into the Post Office.

72. Where by the Regulations or the By-laws any act or thing is required to be done by the Association, the same may be done by such officer of the Association as the Council may appoint for the purpose.

Validity of Proceedings.

73. The proceedings of the Representative Body or of the Council, or of any Branch Council or Committee or other Body acting under the Regulations or the By-laws, shall not be invalidated by any accidental omission to give any notice thereby required or by any vacancy among their Members, or by any defect in the election or qualification of any of their Members.

THE SCHEDULE TO THE BY-LAWS.

STANDING COMMITTEES.

MEMBERS (in addition to the Members *ex officio* mentioned in By-law 63) and POWERS and DUTIES.

Note.—Where no Members are mentioned in this Schedule, the Members *ex officio* alone will constitute the Committee.

Name of Committee.	Additional Members *ex officio*.	Appointed Members.			Duties, Powers, &c.
		Appointed by the Representative Body.	Appointed by the Council.	Appointed by other Bodies.	
Finance ...	The Chairman of each of the following Committees—Organisation, Journal, Science, Medico-Political and Central Ethical.	4	4	2 Members appointed by the Journal Committee.	To certify the accounts prior to their presentation to the Council; to advise the Council on the administration of any funds held in trust by the Association, and of the Superannuation Fund. When necessary, the appointment of administrators for any such funds; to report to the Council and to the Representative Body on the financial bearings of any proposals involving special expenditure; to supervise and report to the Council on the general working and organisation of the Central Office.
Organisation	...	3	3	...	To consider and advise upon questions affecting the interpretation or alteration of the Regulations and the By-laws; to deal with questions as to the boundaries or area, the grouping for electoral purposes, and the Rules (other than those relating to ethical matters) of Divisions and Branches and combinations thereof, and the ordinary and supplementary grants to Branches and Divisions, and to exercise such powers as may be conferred upon it by the Council in advising and assisting Divisions and Branches in the strengthening of their organisation. This Committee shall have power to add to its number for special purposes a limited number of Members specially qualified to assist in its work.
Journal ...	...	3	3	...	To consider and report to the Council upon any matters connected with the Journal or other publications of the Association, and to appoint annually two Members of the Committee to serve on the Finance Committee.
Premises ...	...	...	...	...	To consider and report to the Council upon the management of the land and house property of the Association.
Science ...	...	...	8	...	To advise and, when so directed, act for the Council in all matters not specially referred to other Committees which concern the work of the Association for the promotion of the Medical and allied Sciences, including the conditions of award of Scholarships, Grants, or Medals (except the Gold Medal of the Association) given by the Association, or under Trusts undertaken by the Association, the assistance of the Officers of the Sections at the Annual Scientific Meeting, the arrangement of Committees for special Scientific work, the encouragement and assistance of the Scientific work of the Branches and Divisions, and all matters connected with the Library and its management. The Committee shall have power to co-opt, for the consideration of the award of Scholarships, Grants, and Medals, Members, not exceeding four in number, specially qualified to assist in its work.
Central Ethical	...	6	6	...	To advise the Council on questions connected with Rules of Divisions and Branches relating to professional conduct, to investigate and report to the Council upon the cases of Members whose conduct is to be considered by the Council on the representation of Divisions or Branches pursuant to the Regulations, and generally to advise and, where so directed, act for the Council on all questions of professional conduct; also to adjudicate in matters of dispute as to professional conduct arising between Members of the Association or Members of the Profession, or at the discretion of the Committee to refer any question arising in connection with such a dispute to any Division or Branch, or to any Divisions or Branches jointly, for investigation or for adjudication subject to an appeal to the Committee; and so that any person directly concerned in such a dispute shall have a right of appeal to the Council from the decision of the Committee, and that the decision of the Committee subject to such appeal, and the decision of the Council upon any such appeal shall be binding upon the parties and upon all Members of the Association.

STANDING COMMITTEES—*continued.*

Name of Committee.	Additional Members *ex officio.*	Appointed Members.			Duties, Powers, &c.
		Appointed by the Representative Body.	Appointed by the Council.	Appointed by other Bodies.	
Medico-Political	...	6	6	...	To deal with all matters involving the public relations of the Profession not specially referred to other Committees.
Public Health	...	3	3	...	To consider questions relating to Public Health and the Poor Law Medical Service.
Hospitals ...	...	6	6	...	To consider and report to the Council upon questions concerning Hospitals and other Medical Charities, and the professional interests of the Medical Officers of those institutions.
Naval and Military	The Representatives on the Council of the Royal Navy Medical Service, the Army Medical Service, and the Indian Medical Service.	2	2	...	To consider matters relating to the Royal Navy Medical Service, the Army Medical Service, the Indian Medical Service, and the Royal Army Medical Corps (Territorial).
Colonial	All the Members of the Council who represent Colonial Branches.	2	2	...	To consider questions specially relating to the Branches not in the United Kingdom.
Scottish ...	The Secretary of each Scottish Branch. All the Members of the Council who represent Scottish Branches.	...	...	...	To consider all matters specially concerning Scotland. It shall have an Honorary Secretary, resident in Scotland, and shall meet at such place and time as the Committee may itself direct.
Irish ...	The Secretary of each Irish Branch. All the Members of the Council who represent Irish Branches.	...	...	1 Member or, if the Secretary of the Branch is a Member of the Council, 2 Members, appointed by each Irish Branch. Any Member specially appointed by the Leinster Branch or by the Ulster Branch shall be a practitioner not resident in Dublin or Belfast.	To consider all matters specially concerning Ireland. It shall have an Honorary Secretary, resident in Ireland, and shall meet at such place and time as the Committee may itself direct. This Committee shall have power to add to its number not more than 3 Members to represent districts which are not otherwise represented thereon.

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL]

BORDER COUNTIES BRANCH.

A GENERAL meeting of the Border Counties Branch of the British Medical Association was held in the George Hotel, Penrith, on Thursday, April 28th. Dr. MURDOCH (Annan), President of the Branch, was in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read, approved, and signed by the President.

Apologies for Non-attendance.—The SECRETARY intimated that apologies had been received from sixteen members.

The late Dr. Stewart Lockie.—Dr. MURDOCH then referred to the death of Dr. Stewart Lockie, of Carlisle, and moved:

> That the members of the Border Counties Branch of the British Medical Association, having heard with deep regret of the death of Dr. Stewart Lockie, desire to place on record their appreciation of his services as a member and official of this Branch of the Association. He was a member from its formation in 1868 until he retired from practice. He acted as honorary secretary for two years (being the second to hold this office), and when he resigned in 1887 he was appointed president. He always took an active interest in the welfare and progress of the Branch. He frequently contributed papers to its meetings, and took a leading part in the discussions.
>
> Many members have also been indebted to him for wise counsel in their work, their households, and their persons. The members of the Border Counties Branch beg to offer their deepest sympathy to Miss M. A. Lockie and his other relations.

It was unanimously agreed that a copy of this motion, which was seconded by Dr. BIRD (Carlisle), be sent to Miss M. A. Lockie.

Demonstrations.—Dr. EDINGTON then demonstrated a case of pseudo-hypertrophic muscular atrophy in the advanced stages of that disease, and explained that this was the patient which he had shown at the Branch meeting at Penrith four years ago. Dr. SYME (Glasgow) showed a man twelve months after an operation for extensive intranasal sarcoma. The operation performed was that known as Moore's. The nose was split in the middle line, and to get better access parts of both nasal bones and the ascending processes of both maxillae were removed. It was found necessary to clear out the whole of the intranasal structures with the ethmoidal cells on both sides, and to open into both antral and sphenoidal cavities. The resulting deformity is not very marked, and there has been no recurrence of the disease.

Paper.—Dr. EDINGTON then read a short paper on arterio-sclerosis of the cerebral vessels in young females with symptoms resembling hysteria. Several members spoke, and Dr. EDINGTON replied. Dr. MURDOCH moved a vote of thanks to Dr. Edington for his paper.

Part-time Medical Officers of Health.—The PRESIDENT then called upon Dr. FISHER to give his address upon the position and duties of part-time medical officers of health. A prolonged discussion followed. The SECRETARY pointed out that as the conditions prevailing in the area of the Scottish Division of the Branch were somewhat different from those in the area of the English Division, it was not really a matter upon which the Branch should form any definite resolution, and that it was rather one for the Divisions to take up and instruct their Representatives to the Annual Representative Meeting.

Elections to Central Council.—The SECRETARY explained that the Border Counties Branch is now associated with the County Divisions of the Glasgow and West of Scotland Branch, and also with the Stirling Branch, as regards the election of Central Council for the year 1910–11 by voting paper. Dr. MAXWELL ROSS moved, and Dr. BOWSER seconded, a motion to the effect that the Secretary be instructed to try and arrange a conference of the Secretaries of the various Divisions concerned with a view to obtaining some similar arrangement to that which has existed with the North Lancashire Branch in the election of a Representative of the Central Council.

Specimens.—Dr. LIVINGSTON then showed two specimens from acute abdominal cases, and explained that he brought them to illustrate the importance of avoidance of delay. The first, a piece of gangrenous small intestine, 7 in. in length, removed from a patient who was the subject of a strangulated femoral hernia, and who made an uninterrupted recovery after the operation. The other, a carcinoma of the sigmoid flexure, which caused acute obstruction, not by closure of the lumen but by causing a twist, was obtained *post mortem*; the patient was sent into the Dumfries and Galloway Royal Infirmary in a moribund condition, acute obstruction having set in some days before. The bowel was opened above the obstruction, and a Paul's tube inserted. The fatal termination, Dr. Livingston considered, could have been averted had the patient been placed under surgical care at an earlier stage.

This was all the business.

DUNDEE BRANCH.

Election of Officers.—At the annual meeting of this Branch the following office-bearers were elected: *President*, D. Laing (Arbroath); *President-elect*, C. S. Young (Dundee); *Past-President*, J. A. C. Kynoch (Dundee); *Vice-Presidents*, H. E. Fraser (Dundee), D. Wardrop (Alyth); *Treasurer*, D. N. Greig (Dundee); *Secretaries*, R. Cochrane Buist (Dundee), A. P. Low (Dundee); *Council*, W. E. Foggie (Dundee) (elected 1909), M. Connon (Montrose) (elected 1909), A. D. Yule (Arbroath) (elected 1909), G. A. Pirie (Dundee), C. Kerr (Dundee), N. J. Sinclair (Forfar); *Representative for Representative Meeting*, A. P. Low.

LANCASHIRE AND CHESHIRE BRANCH: MANCHESTER SOUTH DIVISION.

A MEETING of the Division was held at the house of Dr. Vipont Brown, 2, Birch Lane, Longsight, at 3.45 p.m., on Tuesday, April 12th, 1910. Dr. RUSSEN RHODES presided, and there were also present Drs. Boyd, Vipont Brown, Christie, Cotterill, Grant Davie, Edlin, Godson, Gregory, Crichton Hood, Jones, McDougall, Mitchell, Sawers Scott, and Stocks.

Apology for Absence.—Dr. Chevers wrote expressing his regret at his inability to attend.

Confirmation of Minutes.—The minutes of the last meeting (March 11th) were read and confirmed.

The Registrar-General and Information as to Cause of Death.—A letter was read from the Medical Secretary *re* right of a Registrar-General to obtain further particulars regarding "cause of death." In it he stated he believed that there was no obligation upon medical men to give the additional particulars applied for with the object of making the national vital statistics more accurate. Where the answer was given he thought it to be an act of grace on the part of the practitioner. The Secretary was directed to reply quoting from the Births and Deaths Registration Act, 1874, pointing out that under Section 39 a person required by the Act failing to give information concerning a death to a registrar incurs a penalty of 40s., and a similar penalty is imposed if he fails to comply with any requisition of the registrar made in pursuance of these Acts. If this was the law in the case of a local registrar, the Secretary was directed to ask if the Registrar-General had not similar power? and, if so, any reply given by medical men which embodied an expert opinion regarding the "cause of death" could not be looked upon as "an act of grace."

The late Dr. F. W. Jordan.—The CHAIRMAN then referred in appropriate terms to the death of our esteemed late member, Dr. F. W. Jordan, of Heaton Chapel, and informed the Division that it was represented at the funeral by himself and the Secretary. A resolution of sympathy with Mrs. Jordan and family

was passed, and the Secretary was empowered to forward it to Mrs. Jordan.

Medical Inspection and Treatment of School Children.—All the recommendations from A to I inclusive, as well as K and M, were carried unanimously, with the proviso that in Recommendation I the word "direct" should be inserted before the word "reference," so that it should read:

That the Association should oppose the *direct* reference of school children . . . to public medical charities for treatment.

Recommendation J—carried; 8 for, 2 against.
" L—carried; 8 for, 7 against.
" N—lost; 3 for, 10 against.

The Secretary was requested to record the numbers voting.

Poor Law Reform.—All the recommendations made in the interim report of the Special Poor Law Reform Committee were agreed to unanimously.

Riders by Coroners' Juries to Verdicts.—It was proposed and carried unanimously that the Representative be directed to move the following resolution at the Representative Meeting in London:

That whereas the report of the Coroners Commission recognizes the appending of a rider by the jury to their verdict, and in view of the fact that a rider is a judgement (frequently carrying with it a severe penalty) on one who is not on trial, who has no opportunity of defence, and who may be absent or entirely ignorant of what is taking place, and is therefore an infraction of every principle of law and justice, it be an instruction to the Council to oppose to the uttermost in future legislation any such right of a jury to add a rider.

Joint Committee—Rules approved by the Special Committee of Consultants and General Practitioners.—The Secretary was instructed to print the alterations and new rules upon the agenda of the next meeting, giving the requisite fourteen days' notice, so that they might be adopted by the Division and become ethically binding on its members.

Congratulations to Dr. Niven.—The Secretary was directed to write to Dr. Niven, Medical Officer of Health, Manchester, a member of this Division, offering the hearty congratulations of the Division on the recent honour conferred upon him by Aberdeen University.

ROCHDALE DIVISION.

A JOINT meeting of the Rochdale Division and the Rochdale and District Medical Society was held in the Wellington Hotel, Rochdale, on Thursday, May 12th, 1910. The following members of the British Medical Association were present: Dr. Menzies, of Rochdale, in the chair; Dr. Brown, of Bacup; Drs. Kerr and Turnbull, of Bury; Drs. Geddes, Hitchon, and Taylor, of Heywood; Drs. Baldwin, Bateman, Brentnall, Carse, Henry, Hodgson, McMaster, Melvin, Standing, Walker, Wallace, and Ward, of Rochdale; and Dr. Taylor, of Salford.

Poor Law Reform.—Dr. TAYLOR, of Salford, gave an interesting and exhaustive address on Poor Law Reform with Special Reference to the Establishment of a State Medical Service. He first went through the recommendations of the Minority Report, pointing out the good also the weak points, then went through the Majority Report with its recommendation of a wholesale formation of clubs. He then gave an account of the system carried out in Germany with its sickness and invalidity insurance, the contributions being partly paid for by the men themselves, partly by the employers, and partly by the Government. He next spoke about the system which is being carried out in France. Coming back to England. What do the medical men in this country want? (1) A new army of whole-time medical officers, and the general practitioner wiped out of existence. (2) Or the club system extended and the middlemen to reap the benefit. He deprecated any system which introduced any body between the medical attendant and his patient. (3) Or a system of pooling by which the medical man was paid for every visit he made or consultation he had. He thought the last system was fairest, and that if they were united they could make the Government come to their terms and not force anything upon them as had been done in the past and this could only be done through the British Medical Association. He finished his paper by asking for criticism so that he could find out the views of the Division. A discussion took place in which the following took part: Drs. BROWN, HODGSON, TAYLOR, WALKER, KERR, and GEDDES.

Vote of Thanks.—The SECRETARY moved, and Dr. BATEMAN seconded the following resolution:

That the best thanks of this meeting be given Dr. Taylor for his able and lucid address.

This was put to the meeting and carried unanimously. Dr. TAYLOR replied.

LEINSTER BRANCH.

THE thirty-third annual meeting of the Leinster Branch of the British Medical Association was held on May 9th in the Hall of the Royal College of Physicians, Kildare Street, Dublin. Dr. KIDD presided, and among those present were: Dr. Rayner (Treasurer of the Association), Sir William Smyly, Surgeon-General Bourke, C.B., Drs. J. P. Garland, Ella G. Webb, Sir Charles Cameron, C.B., J. Stirling Greer, J. A. Matson, P. N. Creagh, Andrew Charles, Robert J. Rowlette, Major Tate, R.A.M.C., R. C. Peacocke, Furlong, J. C. McWalter, James Craig, G. Ryan, and Arthur H. White.

Confirmation of Minutes.—The minutes of the last year's meeting were read, confirmed, and signed.

Apologies for Non-attendance.—Letters of apology were received from forty-four members.

Report of Council.—The annual report of the Council was read as follows: Your Council met seven times during the year, and elected seventeen new members. The Branch membership on December 31st, 1909, was 289. Death has been busy with our members during the past year. In Sir William Thomson we lost one who had been a former secretary and Past-President of the Branch, and in him the Irish dispensary doctors will miss a good friend. His work, however, on their behalf lives, as the report drawn up by him many years ago for the BRITISH MEDICAL JOURNAL, and which cost him prodigious labour, furnishes the best and most complete presentment of the case of the dispensary doctors that has yet been written. In the late Professor Fraser the Branch lost one of its most devoted scientific members. Death took him unawares, and unfortunately much unique knowledge disappeared with him. We also have to deplore the loss of Drs. J. J. Murphy, E. Moran, E. F. Hanrahan, and L. A. Hare. Your Council have taken steps to form a science subcommittee in the hope of being able to make small money grants to assist any junior men engaged in, or anxious to undertake, original investigations. We hope the central authorities will assist us in this matter. There is no city of the size and importance of Dublin in the United Kingdom, and we might almost say Europe, so poor in funds for the furtherance of scientific medical research. The subcommittee consists of eight members—three elected by your Council, and *ex officio* the President and Secretary of the Branch, and one Representative co-opted from each of the three medical schools. On the recommendation of this subcommittee the Branch Council have spent £30 to take over and catalogue upwards of 1,000 (15 in. by 12 in.) negatives of the late Professor Fraser's dissections. The Council hope that these may be studied, and that subsequently the best of them may be annotated and published. Your Council regret that the Branch Divisions are not in a satisfactory condition. For two or three years the Dublin Division was fairly energetic, but latterly it has been in a state of what your Council hope is only one of suspended animation. It is difficult enough to induce the members to display even a slight interest in matters which affect the majority of them, and, that being so, it is easy to understand the soporific effect on the members generally, and on the Divisional Secretary of the vast mass of literature sent round to the Division concerning subjects which, however burning on the other side of the Irish Sea, are very fortunately perhaps

not of the slightest interest to our members on this side. Since last year the Central Council has been reduced in size, and the mode of election thereto altered. Ireland in the matter of representation on the Central Council has been treated very generously, and this Branch, which in recent years has been linked with the South-Eastern of Ireland Branch for the election of two members, will in future act independently in the election of one member. Dr. R. C. Peacocke moved the adoption of the annual report, and, in doing so, referred to the lack of interest taken in the Association in Dublin. He was, he said, Secretary of the East Leinster Division, which numbered about 100 members. If he got five or six members present at their annual meeting he thought that he had done very well. The Dublin members of their profession did not realize what could be done by the British Medical Association if they took an interest in the matter. Dr. Garland seconded the motion. The Chairman said that a possible explanation of the apparent apathy in regard to the Association was that in Dublin they had a considerable number of medical associations, which had been started with the object of advancing medical science. This might prevent members from exhibiting the interest they would otherwise show by attending the meetings. The report was adopted unanimously.

Election of Officers.—The following officers were elected for 1910–11: *President*, Sir William Smyly, M.D.; *President-elect*, Sir Arthur Chance, F.R.C.S.; *Vice-Presidents*, H. T. Bewley, M.D., and J. B. Story, F.R.C.S.; *Representatives on the Irish Committee*, James Craig, M.D., and J. M. S. Kenny, M.B.; *Honorary Secretary and Treasurer*, Professor White, Royal College of Surgeons, Dublin.

Vote of Thanks to Retiring Chairman.—Sir William Smyly, the new President, having taken the chair, Dr. Furlong moved a vote of thanks to Dr. Kidd for his services during his year of office. Dr. Garland seconded, and briefly alluded to Dr. Kidd's connexion with the Irish Medical Association. The motion was passed. Dr. Kidd, in returning thanks, said that he thought that the Irish Medical Association and the British Medical Association might work hand in hand. They were all Irishmen, and perhaps the interests of the Irish Association were nearer their hearts than those of the British Association; but at the same time they believed that their interests in Ireland could not only be fostered but furthered by the advice and assistance of such an organization as the British Medical Association. That Association numbered 21,000 members, and its power and influence were being more and more felt every day. The Association would certainly render every assistance in its power to its poorer sister on this side of the Channel.

President's Address.

Sir William Smyly then deliverd his presidential address. Having returned thanks for his election, he said that the chronic dissatisfaction of the Poor Law medical officers was soon to be decided for weal or woe; and it behoved all those who were directly or indirectly interested in that settlement to bestir themselves, and to bring all the influence they could command to bear upon those who had legislative power in Ireland and in Great Britain, to bring about such a solution of this problem as should prove to be most advantageous to the relief of the sick poor, to the advancement of the medical profession, and to the public purse. He proposed to deal with the subject from the medical man's point of view. And from that aspect of the question he asked how could the wishes of the medical profession in Ireland be pressed forward except through that organization, and that of the Irish Medical Association? He thought it should be the duty—as it certainly was in the interest of every medical practitioner in Ireland—to be a member of either or both of these Associations. Twelve months ago he had the honour to be President of the Irish Medical Association, and he was happy to have that opportunity of expressing his admiration for the whole-hearted and enthusiastic manner in which the officers of that Association attended to the interests and welfare of the medical profession in Ireland. But in working with both Associations it had occurred to him, and doubtless it had to others also, that much, if not most, of the work that came before both Associations was the same, and that much expenditure of time, labour, and expense might be saved if in matters of common interest, at least, both could work together. As regarded that Branch, they could not disregard the immense importance of their union with that great Association, which was the largest and most influential medical association in existence, and the members of which encircled the globe. He could assure them that the members of the Association across the water took a very lively interest in the welfare of the profession in Ireland, and were ready and willing to help in any well-considered plan for the alleviation of the grievances of the Poor Law medical officers. The Irish Medical Association had for its main object the redress of grievances; but there were two defects in the agitation. There was a want of publicity outside Ireland, and, it was right to say, a want of that cohesion and unity of action among the medical officers whose interests were involved, without which no great changes could be achieved. Wider knowledge and deeper sympathy were needed, and these were attained through the British Medical Association. They were all agreed that reform of the Irish Poor Law medical service was urgently required, and they were equally unanimous in their determination that it should be reformed, and that they should spare no effort to achieve that end. But were they equally unanimous in the policy by which it was to be achieved? There were three separate plans at present in the field: (1) The existing system, which it was hoped to modify so that the medical officers should receive adequate salaries, an annual holiday, and a retiring pension; (2) the plan proposed by the Viceregal Commission—the conversion of the Poor Law Medical into a State Medical Service in which the whole of the salaries of medical officers, instead of half, as at present, should be paid by the State; and (3) the county system suggested by the Royal Commission. This was a compromise between the other two. Dealing with these schemes, Sir William said that it was impossible to doubt that such a Commission was not in a position to form a correct opinion as to the requirements of this country, and to formulate a scheme more in consonance with the wishes of its inhabitants than the Royal Commission, most of whom paid a hurried visit to Ireland, and the others did not come at all.

A vote of thanks to Sir W. Smyly for his address on the motion of Dr. Rowlette, seconded by Dr. Furlong, was passed with acclamation.

Poor Law Medical Service.

The following resolution was proposed by Dr. Kidd:

> That the Leinster Branch of the British Medical Association desires again to place on record its general support of the findings of the Viceregal Commission on the Poor Law, and more especially its support of the recommendation that a national medical service should be established.

Dr. Andrew Charles seconded the motion.

Dr. McWalter, speaking in opposition to the motion, said that one objection was that they would never get a national medical service, and another was that if they did it would be a very bad thing. The theory was that the State contributed half the cost of the Poor Law medical service in Ireland. The fact was that in 1902 the Treasury contributed £80,000, which was half the cost in that year. It made a bargain with the Irish representatives, and arranged to pay £80,000 as a fixed yearly sum in future. Since then the cost of the service had gone up, and the £80,000 did not now represent anything like half the cost of the administration of the Poor Law service in Ireland. In fact, the sum contributed was now only about one-third. Dr. McWalter estimated that the cost of the national service under the proposed scheme would amount to £160,000 annually, and the Treasury was not likely to consent to such a scheme, even if

every one in Ireland was unanimous on the point, and therefore there was not the remotest chance of their obtaining this amount from the Treasury. If they had a State medical service they could not have it restricted to Irishmen solely. It would be open to Englishmen, Scotsmen, and Welshmen. They would probably have a Welshman in Connemara and a Highlander in Dublin.

Dr. RAYNER, Treasurer of the British Medical Association, stated that the British Medical Association was developing a scheme which would be submitted to the Government, and he thought that when Dr. McWalter saw the scheme he would be more in harmony with it.

Dr. ROWLETTE said that if the British Medical Association proposed to treat the problem in Great Britain and Ireland as one, he would support Dr. McWalter.

The HONORARY SECRETARY said the central authorities of the British Medical Association had no desire to force any plan of their own on them; on the contrary, he knew they would give them all the assistance in their power to carry out any measure of reform on which they set their hearts.

The CHAIRMAN, in closing the discussion, said he thought that such a body as the Viceregal Commission would hardly hold out the prospect of establishing such a service if it was utterly impossible of attainment. He hoped that during the ensuing year they would awake from their apathy and do something in the matter.

The resolution was carried, and the proceedings concluded.

METROPOLITAN COUNTIES BRANCH:

CHELSEA DIVISION.

A MEETING of this Division was held at the Chelsea Town Hall on May 3rd, at 3.30 p.m., Dr. P. H. PARSONS in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed,

Letters.—The following were read: (1) From the Chelsea Board of Guardians, consenting under certain conditions to pay a fee of 1 guinea to medical men in their parish called upon by midwives to attend emergency cases. (2) From the Secretary of the Metropolitan Counties Branch, with reference to nominations of the officers of the Branch. This was referred to the next meeting of the Executive Committee of the Division.

Election of Two Members on the Contract Practice Committee of the Branch.—This was referred to the next meeting of the Executive Committee; so also was the consideration of the question of *Fees for First Aid Instruction.*

Report of the Dinner Committee.—The SECRETARY reported that less than twenty members had expressed a desire to purchase tickets for a dinner in April, and the Committee advised that it should be postponed until the Meeting of the Association in July. This was agreed to.

Hour of Meeting.—Dr. YOUNG moved and Dr. SIMON seconded:

> That in future the meetings of the Division be held at 4 p.m. and 9.15 p.m. alternately.

This was agreed to.

Treatment of School Children.

A meeting of the medical practitioners of Chelsea and Fulham was held at the Chelsea Town Hall on May 3rd at 4 p.m., Dr. P. H. PARSONS in the chair. Present: Drs. Badgerow, Penny, Gans, Grosvenor, Butler, Bonney, Young, Lee, Bedford, Hamilton, Williams, Simon, Donald, W. Wells, Dally, Bevan, Robinson, Campbell Boyd, Coltart, Keen, Gallard. The SECRETARY stated that the meeting was called at the instance of the School Children Committee of the Branch to discuss the following resolution of the Branch Council, dated March 17th, 1910:

> That the Branch Council requests the Divisions at as early a date as possible to co-ordinate arrangements in the Divisions through which school children can be treated by local registered medical practitioners.

Sir VICTOR HORSLEY (representing the School Committee of the Branch) gave a summary of the resolutions on this subject which were passed at the last Representative Meeting, and also of the negotiations which had taken place with the Education Authority of the London County Council. He then submitted the following suggestions, which were afterwards put as resolutions, all of which were carried unanimously:

1. That it is desirable that the local profession should arrange with the local Education Authority for the medical treatment of children found defective upon medical inspection.
2. That the areas for which the local profession should make arrangements should be those of Chelsea and Fulham.
3. That the scheme to be adopted should be that of treatment at a centre or centres.
4. That the following committee be appointed to negotiate with the local Education Authority, and to report to another meeting of the local profession as soon as the negotiations are completed, namely: Drs. Bedford, Bonney, Butler, Campbell Boyd, Hamilton, Keen, Lee, O'Sullivan, Parsons, Williams, Young and Gallard (members of the Executive Committee of the Division), and Drs. Badgerow, Gans, Grosvenor, and Penny (representing practitioners who are not members of the Association).

Dr. HOWARD (Norwood Division) gave an interesting and lucid account of the progress of the negotiations between his Division and the Education Authority of the London County Council. He also described in detail the scheme which they had proposed, and which he believed was on the point of being accepted.

Vote of Thanks.—On the proposition of the CHAIRMAN, a hearty vote of thanks was passed to Sir Victor Horsley and Dr. Howard.

CITY DIVISION.

A GENERAL meeting of members of the profession practising within the area of the City Division was held in the Council Chamber of the Shoreditch Town Hall on Friday, May 13th, at 4 p.m., to discuss the present position of the question of the treatment of school children under the London County Council. Dr. A. WITHERS GREEN, Chairman of the Division, presided, and there were present Drs. Major Greenwood, Goodall, Fennell, Goitein, Snell, Garrett, Hunt, Fryer, Jaffé, Darker, Swan, Watson, Berdoe, Stanhope Dawson, Cockell, Udall, Spoor, and others, totalling 22; 356 notices had been issued, showing a response of about 1 in 16, or a little over 6 per cent.

The Treatment of School Children under the London County Council.

The CHAIRMAN, before introducing the subject, feelingly referred to the national loss in the death of His late Majesty King Edward VII. He then briefly mentioned the various agencies spoken of as capable of dealing with the treatment of school children, but more especially dwelt upon the necessity for harmonization of the profession as a whole and the importance of dealing with the present position of affairs in an active manner.

Dr. E. W. GOODALL described the situation at present existing under the London County Council scheme, which is provisional for this year, but renewable, and enumerated the different methods by which this fresh work on cases hitherto untreated for the greater part could be dealt with under the following heads:

1. By reference to the family medical attendant.
2. By contract practice.
3. By Poor Law.
4. By public charities.
5. By school clinics, or at local centres, or at surgeries of private practitioners.

He explained the scheme already adopted at Norwood and by other Divisions in and near London.

Dr. MAJOR GREENWOOD, whilst agreeing that treatment was requisite, considered that school clinics would tend to develop into general out-patient departments, equally capable of being abused, as lacking the preventive action of the hospital almoner, and would prefer that cases requiring public aid should be referred to the Poor Law.

A MEMBER referred to a growing custom of the hospitals accepting the London County Council scheme of payment *per capita*, deferring treatment

of the children until a paper was produced from the London County Council education officer, so ensuring payment, but meanwhile depriving the child of its previous right to hospital treatment.

Dr. J. W. HUNT said the position had to be regarded from three aspects—(1) of the child, (2) of the ratepayer, (3) of the medical profession—and dealt with each successively. He pointed out that the unity of the dental profession had prevented abuse of the dental hospitals by the children being sent there, and that private dentists having required adequate payments to be made, the London County Council had abandoned for the present the urgent need of treatment of the teeth of the children. Dr. Hunt strongly objected to sending the children to the Poor Law, which was quite inadequate for dealing with such numbers; he would prefer school clinics, with almoners, as minimizing the evils of gratuitous attendance.

Dr. STANHOPE DAWSON, a member of the Health Committee of the Hackney Borough Council, dealt with the matter from the point of view of the great national importance of the question as regards future generations of citizens.

Dr. DARKER and others also spoke. A full discussion of the subject then took place, which showed how the necessity for unity in the profession was recognized.

Appointment of Committee.—It was proposed by Dr. GOODALL, seconded by Dr. HUNT, and carried:

> That a committee be formed of seven selected members, with the acting Chairman and Honorary Secretary of the Division *ex officio*, four of such members to be members of the British Medical Association and three non-members, with power to add to their number, to confer, and report to a subsequent meeting of the profession.

The following were nominated:—*Members:* Drs. A. Withers Green, Goodall, Hadfield, Garrett. *Non-members:* Drs. Berdoe, Cockell, Stanhope Dawson. Dr. A. Withers Green being unable to accept owing to pressure of engagements connected with the Annual Meeting of the Association, Dr. J. J. Jaffé was nominated, and has consented to act.

WALTHAMSTOW DIVISION.

A GENERAL meeting of the medical men residing within the Walthamstow Division of the British Medical Association was held in the Lecture Hall of the Wesleyan Schools, Leyton High Road, on Tuesday, May 10th, 1910, at 4 p.m. Thirty-one gentlemen—twenty members, eleven non-members—were present. Dr. ROBERT JONES presided.

Apologies for Non-attendance.—Apologies for non-attendance were received from Drs. Harford, Ambrose, Dykes, and Alldrich. Dr. ROBERT JONES opened the proceedings by briefly outlining the circumstances which gave rise to the meeting.

Treatment of Children found Defective on Medical Inspection.

Sir VICTOR HORSLEY addressed the meeting. A resolution:

> That in the opinion of this meeting it is desirable that the local profession should arrange with the local Education Authority for the medical treatment of children found defective upon medical inspection,

was proposed, seconded, and carried unanimously. The next matter considered was, "For what areas should the local profession make arrangements?" It was decided that three areas—namely, Leyton with Leytonstone, Walthamstow, and the area for which the Essex County Council is Education Authority, should be arranged for. The next point considered was, "Shall the scheme to be adopted be (1) treatment at doctors' surgeries; (2) treatment at a centre or centres; (3) or treatment on both schemes?" It was decided that treatment at a centre or centres should be adopted for Leyton and Walthamstow, but in the more sparsely populated districts by voucher at the doctor's surgery.

Appointment of Committee to Confer with Education Authorities.—The meeting next proceeded to elect a committee to open negotiations with the local Education Authorities. It was proposed by Dr. WISE and seconded by Dr. SHADWELL that the committee be formed of seven gentlemen from each area, 21 in all, together with the Secretary and Chairman *ex officio*. Carried *nemine contradicente*. It was proposed by Dr. JONES, seconded by Dr. SHADWELL, "That of each seven four shall be members and three non-members of the Association." An amendment, "That five shall be members of the Association and two non-members," was proposed by Dr. ALEXANDER and seconded by Dr. NORMAN. The amendment was put to the meeting and lost. The original resolution was then carried. The following gentlemen were elected on the committee:—Essex County Council Education Authority—*Members:* Dr. Ward, Dr. Norman, Dr. Berrill, Dr. Brickwell; *Non-members:* Dr. Ambrose, Dr. Argles, Dr. Geo. Collins. Leyton and Leytonstone Education Authority—*Members:* Dr. Harford, Dr. Panting, Dr. Coutts, Dr. Bonnefin; *Non-members:* Dr. Alldrich, Dr. F. Baillie, Dr. Paice. Walthamstow Education Authority—*Members:* Dr. Jackson, Dr. Shadwell, Dr. Wise, Dr. Horner; *Non-members:* Dr. Brunton, Dr. Bintcliffe, Dr. Borland.

Vote of Thanks.—A hearty vote of thanks was accorded to Sir Victor Horsley, and the meeting then terminated.

MIDLAND BRANCH:
LINCOLN DIVISION.

THE annual meeting of this Division was held on May 19th in the Guildhall, Lincoln, Dr. CARLINE being in the chair.

Election of Officers.—Officers for the ensuing year were elected.

Poor Law Reform.—Next the interim report of the Poor Law Reform Committee was discussed, and the questions the Division was asked to reply to all answered in the affirmative.

Relation of Homoeopaths to the Association.—The report of the Council on the relation of homoeopaths to the Association was next considered, and all the questions replied to affirmatively.

The Division and the Annual Representative Meeting.—It was decided that the Division should neither initiate any subject for discussion at the Annual Meeting of the Association nor enter into preliminary discussion of any subject to be brought forward at that meeting.

Fees for Certification of Pauper Lunatics.—The CHAIRMAN drew attention to the fact that certain union medical officers in Lincolnshire only received half-guinea fees for certifying pauper lunatics. The Secretary was therefore requested to send a letter to all practitioners within the Divisional area asking them to decline to accept less than one guinea, and pointing out at the same time that the magistrate called in fixed the fee and not the guardians. He was also requested to send a copy to the Secretary of the North Lincoln Division.

Tea.—The members were subsequently entertained to tea by the Chairman.

NORTHERN COUNTIES OF SCOTLAND BRANCH.

A MEETING of the Branch was held at the Northern Infirmary, Inverness, on Saturday, April 30th, Dr. BRODIE CRUICKSHANK (Nairn) in the chair. The following members were present: Drs. H. S. Macdonald, Forsyth, Macfadyen, Murray, T. C. Mackenzie, F. M. Mackenzie, Hunter, Luke, Lang, and Moir (Inverness), Campbell, Stephen (Elgin), Wilson and Sutter (Nairn), Kaye (Strathpeffer), Bruce (Dingwall), and Knox (Gairloch).

Confirmation of Minutes.—The minutes of the meeting held at Elgin on October 31st, 1909, were read and approved.

Apologies for Non-attendance.—Apologies were intimated from Drs. Mackenzie (Stornoway), Johns (Nairn), Miller (Fort William), Simpson (Golspie), Pender Smith (Dingwall), and several others.

Relation of Homoeopaths to the Association.—The circular from the Central Ethical Committee on the report of Council on the relations of homoeopaths to the Association was read, and it was resolved to answer Question A in the negative, Questions B, C, D, and E in the affirmative.

Medical Inspection and Treatment of School Children found Defective.

The HONORARY SECRETARY (Dr. Munro Moir) detailed the scheme drawn up by the Scottish Committee, more especially with reference to medical inspection and the salaries which the Committee considered should be given to medical inspectors. It was considered desirable to have the Scottish Committee's circular published in the JOURNAL. The following is the text of the circular:

At the last meeting of the Scottish Committee the question of the appointment of Medical Inspectors of School Children was under consideration, and it was resolved that a Memorandum in accordance with the conclusions of the Annual Representative Meeting should be drawn up embracing the chief points in connexion with these appointments affecting the medical practitioner. As stated in the Medico Political Committee's Report for 1908, it wholly rests with the medical profession to consider and recommend the ways in which provision should be made to ensure proper conditions of employment and adequate remuneration for the practitioners engaged in the work, and also to ensure that public funds should not be employed to establish a system of unfair competition with private practitioners.

Three points require to be carefully considered by the Branches and Divisions: (1) As to the nature of the appointment, whether it should be a whole-time appointment or a part-time one; (2) as to remuneration; (3) as to the treatment of school children found defective.

1. *Appointments.*—For the duties of Medical Inspection in large centres, such as Edinburgh, Glasgow, Aberdeen, and Dundee, and in the Counties, a whole-time officer should be appointed, with one or more assistants under him; in certain districts it is proposed to appoint the Medical Officer of Health the principal officer, who would have the supervision of and be responsible for the proper working of Inspection by his Assistants. In sparsely populated educational areas the principle of part-time Medical Officer might be adopted.

2. *Remuneration.*—As to the salary of a whole-time Medical Officer. In large towns, such as Edinburgh and Glasgow, and in the Counties, the principal Medical Officer should not have less than £500 a year, and if assistants are to be appointed, whether male or female, the salary should not be less than £250 per annum, and the local profession should see that this is carried out. Should a less salary be offered, steps should at once be taken to prevent practitioners applying for these posts. Payment of part-time Medical Inspectors should be by time or by salary fixed according to the number of children in the educational area. If payment per child examined be adopted (a system which is not to be recommended), the fee should not be less than 2s. 6d. per head. The part-time payment scale should be arranged with reference to the time devoted to the work, *e.g.*, as the Glasgow Branch recommend, 10s. per hour.

3. *The Question of the Medical Treatment of School Children Found to be Defective.*—This requires careful consideration. When a child is found on medical inspection to be in need of medical attention, the question arises as to the treatment. In the majority of cases the parents are in a position to pay for medical attendance, and the inspecting officer should inform the parents of the need and instruct them to secure without delay the advice of a medical practitioner.

The profession should oppose the reference by the School Authorities of school children found upon inspection to be defective to public medical charities for treatment.

In cases where the parents are unable to pay for medical treatment, arrangements might be made for treatment by private practitioners, who should be paid out of public funds without the intervention of the Poor Law authorities. If such a scheme should be adopted, payment should be made on a scale agreed upon by the medical profession, as represented by the Local Branch or Division of the British Medical Association and the Local Education Authority. Each district should settle its own scheme. In certain districts the medical profession has decided that the treatment should be provided in conveniently situated buildings. This method is known as the School Clinic.

It is only by unanimity in the profession that one can hope for any satisfactory arrangement being arrived at in connexion with the foregoing points, and the Scottish Committee would urge upon the Branches and Divisions that when any appointment under the Education Authority is about to be made, every care should be taken to secure fair and adequate conditions, both as to the nature and duties of the appointment and the question of remuneration. The Branches and Divisions should at once take steps to secure the loyal co-operation of all members of the profession in their district, as this is a fundamental condition of effective action to convince the Educational Authorities that only by granting fair and adequate conditions of service can they secure medical officers who by their professional attainments and character will command the confidence of the community.

R. COCHRANE BUIST, *Chairman.*
J. MUNRO MOIR, *Hon. Secretary.*

Regarding the medical treatment of those children found defective certain general principles were adopted:

1. That the Branch should oppose any scheme which refers school children found upon medical inspection to be defective to public medical charities for treatment.
2. That the Branch should oppose any scheme for the treatment of school children, found upon medical inspection to be defective, which rests on the reference of such children to the Poor Law, pending such reform as may result from the consideration of the Royal Commission on the Poor Law.
3. That under existing conditions the most satisfactory provision for the treatment of school children, found on inspection to be defective, whose parents cannot afford to pay for treatment, is by placing them under the care of a private practitioner, who should be adequately remunerated out of public funds without the intervention from the Poor Law.
4. In case of defective children, that the medical officer refer the cases to the family medical practitioner, whose fees in connexion with necessary medical treatment be recoverable from the Local Educational Authority.
5. That the work should be entrusted to private medical practitioners, who will discharge their duties at a convenient centre.

The Branch hoped that at an early date the Central Council will be able to give the Branches some definite principles on which a plan may be devised for the treatment of children found defective.

Representative in Representative Meetings.—Dr. BRODIE CRUICKSHANK (Nairn) was appointed Representative in Representative Meetings.

Central Council.—It was agreed to nominate Dr. J. Munro Moir as a candidate for election to the Central Council.

Clinical Cases.—Dr. HUNTER (Inverness), showed a patient who received a penetrating wound of the left eye in the inner ciliary region, caused by a small chisel. In spite of as thorough cleansing as possible, signs of commencing panophthalmitis appeared within twenty-four hours marked by chemosis of the conjunctiva, iritis, with severe pain in eye and brow. Injection of 2,000 units of antidiphtheritic serum gave almost immediate relief to pain, and the inflammatory process did not advance. Serum was used three times. Present condition (two months and a half after the injury): The eye was perfectly quiet and normal in appearance except for a small wound in the iris at the site of the injury; the pupil reacted moderately to atropine; tension normal. The fundus could not be seen by ophthalmoscopic examination owing to opacities in the vitreous, in part at least the remains of haemorrhage. Vision did not serve to count fingers, but tended to improve. Dr. SUTTER (Nairn) showed a patient operated on by Mr. H. M. W. Gray (Aberdeen) in August, 1906, for epithelioma ani, when the epithelioma was excised, the rectum closed, and Tuttle's operation for colostomy performed. After three years and four months there were no signs of a recurrence of the disease; but the case was more

particularly interesting from the fact that the patient had very complete control over the bowels through the very ingenious artificial sphincter formed by making a channel under the aponeurosis of the left external oblique muscle for about 1½ in., and ending in an artificial anus just over Poupart's ligament. The patient, a miller and crofter as well, appeared in excellent health, and had been able to do his work since his recovery with little inconvenience, and, as occasion demanded, even up to eighteen hours daily. He had one regular action of the bowels every morning, and had required no aperient medicine for over two years. He did not require to use a modified hernia truss as recommended, but only a pad of absorbent wool with an ordinary canvas belt. Very seldom did he pass flatus involuntarily, and it did not prevent him attending church or market every week. This new operation gave general satisfaction to the members present, and they recognized that it was a considerable improvement on anything that had been performed in this direction, as it removed the stigma which was hitherto attached to this operation — namely, the general discomfort and the passing of faeces and flatus involuntarily. Dr. GORDON LANG showed two cases: (1) The case of a lad of 16, who had 4 in. of the front of the right tibia removed for a large Brodie's abscess of that bone. The skin had been tacked with ordinary tacks (nickel-plated) on to the healthy surface of the bone, as far down into the wound as it would go. Healing had gone on uninterruptedly, and the duration of the case had been much abridged. (2) A case of a penetrating wound of the skull in a boy of 6, for which trephining had been done. The wound was caused by a piece of iron, and part of the inner table had been carried about 1½ in. into the brain. Recovery had taken place by first intention.

NORTH WALES BRANCH.

THE spring meeting of the Branch was held at the Royal Hotel, Carnarvon, on Tuesday, March 29th, Dr. H. GREY-EDWARDS (Bangor), the President, in the chair, and there were thirty-five members present.

Confirmation of Minutes.—The minutes of the last meeting were read, confirmed, and signed.

Report of Branch Council.—The HONORARY SECRETARY read the report of the Branch Council, which had met prior to the meeting. The report was approved and adopted.

Financial Statement.—The financial statement for the year 1909, which showed a balance of £57 9s. 5d. to the credit of the Branch, was submitted, received, and adopted.

Election of Representative on Central Council.—It was unanimously resolved to nominate Dr. H. Jones Roberts as a Representative of the grouped Branches on the Central Council, and that the President, Dr. R. Arthur Prichard, and Dr. John Evans be requested to sign the nomination paper on behalf of the Branch.

Election of Representatives on the Court of Governors of the University College of North Wales.—It was unanimously agreed that Drs. E. D. Evans (Wrexham), John Evans (Carnarvon), Richard Jones (Blaenau Festiniog), R. Arthur Prichard (Conway), and H. Jones Roberts (Penygroes) be re-elected for a period of five years.

Welsh Committee.—It was unanimously agreed;

> That this Branch considers that a Welsh Committee to deal with matters affecting Wales, on the same lines as the Scottish and Irish Committees already in existence, should be formed, and that the co-operation of the South Wales and Monmouthshire Branch be sought to petition the Central Council to appoint such a committee.

Papers.—The following communications were read: Mr. R. H. MILLS-ROBERTS, C.M.G.: A case of excision of the wrist. The case was shown, as also were cases of double amputation of the arms and multiple hydatids in the abdominal cavity. Dr. H. JONES ROBERTS: Case of ruptured urethra. Mr. K. W. MONSARRAT: The use of bismuth paste in chronic sinuses. Mr. J. HOWELL EVANS: Some points in the treatment of pruritus vulvae. Mr. RUSHTON PARKER: A denture for upper jaw filling in gap in septum after excision. Dr. J. HILL ABRAM: Surgery in stomach disease. Dr. A. J. WALLACE: Scopolamine in normal labour. Dr. O. T. WILLIAMS: An unusual case of bone disease. Dr. R. J. M. BUCHANAN: Cardiac syphilis.

Vote of Thanks.—A cordial vote of thanks was passed to the readers of papers.

Dinner.—After the meeting the members dined together.

OXFORD AND READING BRANCH.

A SPECIAL general meeting of the Branch was held on Friday, May 13th, at the Radcliffe Infirmary, Oxford, to discuss certain questions sent down to the Divisions by the Central Council. In the absence of Mr. Whitelocke, President of the Branch, Dr. CAUDWELL, Chairman of the Oxford Division, took the chair, and twenty-eight members, including one from Reading, were present.

Minutes.—It was agreed to postpone the reading of the minutes of the last meeting of the Branch till the next meeting, to be held at Reading in June.

Poor Law Reform.—The SECRETARY introduced the Interim Report of the Special Poor Law Reform Committee, together with the Model Rules of a Public Medical Service. The latter were considered too detailed in character to warrant present discussion. The three questions of the Poor Law Reform Committee were put to the meeting by the Chairman, and were answered in the affirmative *nemine contradicente*. It was the opinion of the meeting that some further definition of "services rendered on behalf of the State" was required.

Relation of Homoeopaths to the Association.—The relation of homoeopaths to the Association was next dealt with, and the questions asked by the Central Ethical Committee. A, B, C, D, and E were answered in the affirmative *nemine contradicente*.

Payment for Ambulance Lectures.—The question of payment for ambulance lectures was discussed. Dr. DENING (Gloucester) said he had recently given a course of lectures gratuitously, but was not in favour of the principle. Dr. TURRELL (Oxford) gave his experience as a past honorary surgeon to the local St. John Ambulance Association. Having given more than one course of lectures gratis, he gave notice that he would not be able to attend all their regular meetings in future, but would lecture when specially called upon to do so. In course of time he received a peremptory notice of dismissal from his post, in consequence of his irregular attendance. Mr. STYLES (Gloucester) had given lectures without fee for the Red Cross Society, but did not intend to do so again. He believed the gratis system was usual in Gloucestershire, parts of Worcestershire, also in Warwickshire and Bucks. Dr. BRUNYATE suggested that the Branch should fix a minimum fee, but Mr. DREW thought that should be left in the hands of the Central Council. The following resolution was put and carried *nemine contradicente*:

> That the Representatives of the Oxford and Reading Divisions be instructed to support a resolution that all ambulance lectures and examinations be adequately paid for.

Special Class of Consultants.—The report of the Central Ethical Committee on a special class of consultants was laid before the meeting. It was the general feeling of the meeting that this was too difficult and delicate a matter to be discussed effectively by the Branch, and it was agreed that the report be laid upon the table.

Apologies for Non-attendance.—Letters of regret at their inability to attend the meeting have been received from the following members: Professor Osler, Dr. Marriott, Dr. Maples, and Dr. Collier.

SOUTH-EASTERN OF IRELAND BRANCH.

THE annual meeting of this Branch was held at the Victoria Hotel, Kilkenny, on Wednesday, May 4th, at 5.40 p.m. Dr. J. H. W. JELLETT, President, was in the chair. The other members present were: J. B. Hackett, K. Buggy, Chas. James, P. O'Gorman, Denis Walshe, Geo. Mackesy, C. Moloney, J. Shee, R. R. O'Brien, T. Laffan, and J. Quirke (Honorary Secretary).

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Apologies for Non-attendance.—Apologies for non-attendance were read from Drs. Hourigan and Madden.

Installation of New President.—On the motion of Dr. HACKETT, seconded by Dr. LAFFAN, Dr. R. R. O'Brien (Clonmel) took the chair as President for 1910–11.

Election of Office-bearers. — The following were elected office-bearers for the ensuing year: *President-elect*, J. Power, M.B. (Ardfinnan); *Honorary Secretary*, J. Quirke; *Representative on Irish Committee and Honorary Treasurer*, R. B. Carey; *Representative on Central Council*, D. Walshe; *Representative at Representative Meeting*, T. Laffan; *Branch Council*, Drs. Hackett, James, H. Kidd, Mackesy, Morris, Jellett, and Ryan.

Vote of Thanks.—A vote of thanks to the retiring Chairman was proposed by Dr. BUGGY and seconded by Dr. LAFFAN, to which the retiring PRESIDENT suitably replied.

Nomination for Election on Central Council.—It was proposed by Dr. LAFFAN and seconded by Dr. SHEE:

> That the name of Dr. D. Walshe be forwarded to the Medical Secretary for nomination as Representative on the Central Council of the South-Eastern of Ireland and Connaught Branches.

Vote of Condolence.—It was proposed by Dr. LAFFAN and seconded by Dr. MACKESY:

> That a vote of condolence be forwarded to the widow and relatives of Dr. D. J. Carroll, late of Clonmel.

New Member.— Dr. Matthew Madden, F.R.C.S.I. (Golden, co. Tipperary), was elected a member.

Dinner.—The members dined together at 6.30 p.m.

STIRLING BRANCH.

THE annual general meeting was held in the Clackmannan County Hospital, Alloa, on Wednesday, May 11th, at 3 p.m. There were present: Drs. Greig, Moorhouse, Brown, Leslie, Currie, Watt, Shanks, Griffiths, Dyer, Strachan, Beveridge, Wilson, Cunningham, Mitchell, and Stewart. Dr. Walker Downie (Glasgow) was also present.

The Death of King Edward.—The VICE-PRESIDENT (Dr. Moorhouse) made fitting reference to the death of King Edward.

Confirmation of Minutes. — The minutes of the autumn meeting were read, approved, and signed by the VICE-PRESIDENT.

Election of Office-bearers.—The following gentlemen were elected for the ensuing year: *President*, Dr. John Strachan (Dollar); *Vice-President*, Lieutenant-Colonel F. J. Greig, R.A.M.C., ret. (Stirling); *Representative*, Dr. George Gardner (2A, George Street, Falkirk); *Secretaries*, Dr. George Clark Stewart (19, Graham's Road, Falkirk), Dr. J. E. Moorhouse (Melville Terrace, Stirling); *Council*, Drs. Hunter, Sloan, Highet, and Mitchell.

Report of Council.—The Council reported that three meetings of the Branch had been held during 1909. The average attendance was 16. Membership of the Branch, 65. The balance of funds at the end of 1908 was £38 9s. 1d., at the end of 1909 £39 7s. 4d.

Address.—Dr. WALKER DOWNIE (Glasgow) gave an instructive address on suppurative affections of the nasal accessory sinuses, illustrated by a lantern demonstration. He discussed fully the anatomy, pathology, and symptomatology of the various affections. Treatment was carefully considered, and a number of the instruments used were shown. On the motion of the PRESIDENT (Dr. Mitchell) the lecturer was awarded a hearty vote of thanks for his address.

Vote of Thanks.—Through the kindness of the managers and matron of the hospital the members were entertained to afternoon tea, and a vote of thanks to the managers and matron terminated the proceedings.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.

A MEETING of this Branch was held at the General Infirmary, Worcester, on Thursday, May 5th. In the absence of the President (Dr. G. Crowe), the VICE-PRESIDENT (Dr. John Steed) occupied the chair. Twenty-one members were present.

Confirmation of Minutes.—The minutes of the two previous meetings were read and confirmed.

Paper. — Dr. GEORGE ALEXANDER SUTHERLAND (London) read a paper entitled, The Significance of some Symptoms in the Medical Examination of Children. Dr. Sutherland shortly drew attention to particular types or groups of cases puzzling in consequence of the symptom-complex presented and the treatment actually found beneficial, both in hospital and private practice, mentioning, among other interesting classes, cases of infantile neurasthenia and suspected tuberculous complaints. A discussion ensued, in which Drs. STEED, MABYN REED, MILLER, GOSTLING, BATES, jun., and POLLARD took part. Dr. SUTHERLAND having replied to various points referred to by the speakers, a hearty vote of thanks to Dr. Sutherland was unanimously adopted, on the motion of Dr. STEED.

Cases.—Dr. BERTRAM ADDENBROOKE exhibited two cases of rodent ulcer and one of multiple warts successfully treated with radium. Mr. C. S. MORRISON read a short paper, and showed a case of von Recklinghausen's disease in a man, aged 33, the first pigmentary mark having showed itself at school age (under 12). Dr. JOHN WILKINSON showed a female suffering from Graves's disease in whom all the cardinal symptoms of the disease were present, and whom he proposed to treat with the milk of a thyrodectomized goat. Mr. T. BATES, jun., presented the following very interesting cases: (1) Hodgkin's disease in a woman who had the history of specific infection. (2) A boy in whom excision of the knee and ankle for an old flaccid infantile paralysis had markedly improved the usefulness of the limb. (3) A man with fracture of both patellae of twenty years' standing, radiograph pictures very clearly indicating the extent and degree of displacement of the broken ends. Mr. T. P. GOSTLING exhibited specimens removed from a case of double pyosalpinx. On cutting through the specimens he believed them to be of tuberculous origin, but at the time of the operation it was left an open question whether they were not due to gonorrhoeal infection.

Annual Meeting.—At the close of the meeting it was resolved to hold the annual meeting at Hereford on June 23rd prox., and that members should be invited to dine together.

Association Notices.

SPECIAL REPRESENTATIVE MEETING.

A Special Representative Meeting will be held on Tuesday, June 28th, 1910, at 3 p.m., in the Connaught Rooms, Freemasons' Hall, Great Queen Street, London, W.C, and the following day, if necessary, for the consideration of proposals submitted by the Council as the result of a communication received from the Privy Council with respect to the application of the Association for a Royal Charter. An Extraordinary General Meeting will be held on Wednesday, June 29th, for the confirmation of the decisions of the Representative Meeting. The Agenda of the Special Representative Meeting will be found at p. 285.

BY ORDER OF THE COUNCIL,

GUY ELLISTON,
Financial Secretary and Business Manager.

J. SMITH WHITAKER,
Medical Secretary.

May 26th, 1910.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BIRMINGHAM BRANCH.—The annual meeting of this Branch will be held on Thursday, June 2nd, at 4 p.m., at the Medical Institute, Edmund Street. Professor Gilbert Barling will give the presidential address.—ALBERT LUCAS, J. FURNEAUX JORDAN, Honorary Secretaries.

BIRMINGHAM BRANCH: CENTRAL DIVISION.—The annual meeting of the Division will be held at 3.30 p.m. on Wednesday, June 15th, at the Medical Institute, for the purpose of electing a Chairman, Vice-Chairman, and two Honorary Secretaries for the ensuing year.—A. W. NUTHALL, W. T. LYDALL, Medical Institute, Edmund Street, Birmingham.

EAST ANGLIAN BRANCH.—The annual meeting will be held at Thetford on Thursday, June 16th. Members wishing to show cases or specimens or read papers should communicate at once with Dr. Gutch, Ipswich.—B. H. NICHOLSON, Honorary Secretary of Branch.

EAST YORK AND NORTH LINCOLN BRANCH.—The annual meeting of this Branch will be held at the Royal Infirmary, Hull, on Thursday, June 16th, at 12.30 p.m. Nominations of officers must be sent to the Honorary Secretary not later than June 2nd.—EDWARD TURTON, Honorary Secretary, 1, Albion Street, Hull.

EDINBURGH BRANCH.—The annual meeting of the Edinburgh Branch will be held in the Hall of the Royal College of Surgeons on Friday, June 10th, at 4.15 p.m.

EDINBURGH BRANCH: SOUTH-EASTERN COUNTIES DIVISION.—The annual meeting of this Division will be held in the Railway Hotel, St. Boswells, on Monday, June 13th, at 3.30 p m., Dr. Tyrrell, Galashiels, presiding. Business: 1. Minutes of last meeting. 2. Annual Report. 3. Election of Office-bearers. 4. Consideration of following reports: (1) Relation of Homoeopaths to the Association; (2) Special Poor Law Reform Committee; (3) Medical Inspection of School Children and Treatment of those found Defective; (4) Consideration of Model Rules of Proposed Public Medical Service. 5. Instructions to Representative. 6. Any other business.—JOHN JEFFREY, Honorary Secretary.

GLOUCESTERSHIRE BRANCH.—The annual meeting of this Branch will be held at the Hospital, Stroud, on Thursday, June 9th, at 6.30 p.m. Agenda: (1) Election of officers and ordinary members on the Branch Council. (2) To receive the annual report of the Branch Council. (3) To consider the business of the Annual Representative Meeting. Any member having any matter which he would like brought by the Branch Representative before the Annual Representative Meeting of the Association, is requested immediately to send notice of same to the Honorary Secretary for discussion at the annual meeting of the Branch. (4) To make new rules, or alter or repeal existing rules. Any member desiring any alteration, etc., of rules, or new rule made, is requested to send the Honorary Secretary immediate notice of same. (5) Address by Dr. Leonard Williams (London): The Quickening Spirit. There will be a dinner at 7.45 p.m at the Imperial Hotel, Stroud; tickets 5s. each (inclusive of wine). Those intending to remain for the dinner (and it is hoped all will do so) are requested notify the President, Mr. A. B. Davies, not later than Tuesday, June 7th.—D. E. FINLAY, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH.—The annual meeting will be held at Burnley on the afternoon of Wednesday, June 15th. Members desiring to read papers, show cases, or otherwise to contribute to the scientific and clinical programme are requested to communicate at once with F. CHARLES LARKIN, Branch Secretary, 54, Rodney Street, Liverpool.

LANCASHIRE AND CHESHIRE BRANCH: BLACKPOOL DIVISION.—A meeting of the members of the above Division will be held on May 31st, at 8 30 p.m., at Jenkinson's Café, Talbot Square, Blackpool. Agenda: (1) Minutes of general meeting, March 9th, 1910. (2) Letter from Dr. T. W. H. Garstang. (3) Letter from Honorary Secretary, Chelsea Division. (4) Letters from Medical Secretary, British Medical Association: (*a*) *re* Medical inspection of school children; (*b*) *re* Annual Meeting. (5) Report of Executive Committee. (6) Election of officers for ensuing year. (7) Election of Representative on Branch Council. (8) Election of Representative at Representative Meeting. (9) Nomination of candidates for Central Council. (10) Any other business.—E. W. REES JONES, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: BURY DIVISION.—The annual meeting of the Division will be held in the Athenaeum, Bury, on Tuesday, May 31st, at 8.30 p.m., to be followed by a joint meeting with the Bury Medical Society, to consider the Medical Aspects of Poor Law Reform —J. CAMERON TURNBULL, M.D., Milton Terrace, Walmersley Road, Bury, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH.—The annual meeting of the Branch will be held on Thursday, June 23rd, at 4.30 p.m., at 429, Strand, W.C. Agenda: (*a*) To receive the report of the election of new officers. (*b*) To receive the annual report of the Council of the Branch and the annual financial statement. (*c*) To receive the annual report of the Representatives of the Branch on the Central Council. (*d*) To make new rules or alter or repeal existing rules. (*e*) Any other business. (*f*) President's Address. Nominations for the offices of President-elect, four Vice-Presidents, Honorary Treasurer, and two Honorary Secretaries must be sent to Dr. Goodall, Eastern Hospital, Homerton, N.E., not later than May 28th. Nominations may be made by a Division or by twelve members of the Branch, and must be in writing and signed by the Honorary Secretary of the Division or by the twelve members.—E. W. GOODALL, W. GRIFFITH, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—The first meeting of the School Children Committee will be held on May 31st at the Liverpool Street Hotel, Dr. E. A. Lermitte, Chairman of the Division, in the chair.—A. G. SOUTHCOMBE, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: KENSINGTON DIVISION.—*The Medical Treatment of School Children.*—The London County Council having decided to undertake the treatment of school children who are found upon inspection to be suffering from certain diseases, has made arrangements with certain hospitals which in the opinion of the Association are unsatisfactory and inadequate. The Metropolitan Counties Branch of the Association has therefore asked the Divisions to make arrangements for the treatment of the children by the local medical practitioners. In Wandsworth and Norwood this has been done, the County Council has agreed to the schemes, and has arranged the matter of payment and equipment. The Executive Committee of the Kensington Division has therefore called a meeting of the whole of the practitioners in the Kensington Division—that is, the boroughs of Kensington, Paddington, and Hammersmith, which will be held at the Kensingston Town Hall, on Thursday, June 2nd, at 4.30 p.m., which practitioners are earnestly invited to attend. The following resolutions will be moved: (1) It is desirable that the local profession shall arrange with the London County Council for the treatment of children found upon inspection to be defective. (2) This meeting approves of the principles formulated in the resolutions of the Annual Representative Meeting of the British Medical Association at Belfast in 1909. (3) The area to be arranged for shall be the area of the Kensington Division. (4) That a committee be appointed consisting partly of members of the Association, and partly of non-members practising in the Division to forthwith enter into negotiations with the London County Council for the treatment of the children on the lines of the draft scheme issued by the Council of the Association. A memorandum including a draft model scheme for the assistance of Divisions when arranging with education authorities for the treatment of school children found upon inspection to be defective is in course of being issued and will be available for the information of all those who wish to attend the meeting. The Honorary Secretary will be glad to forward copies as soon as they are ready to any practitioners who may apply for them.—H. BECKETT-OVERY, 24, Alexander Square, South Kensington, S.W., Honorary Secretary.

MUNSTER BRANCH.—The annual general meeting of this Branch will be held on Saturday, June 18th, at 4 30 p.m , in the Rooms of the Cork Medical Society, 74, South Mall, Cork. Representatives, Officers, and Council for 1910–11 will be elected, and any other necessary business transacted.—PHILIP G. LEE, 26, St. Patrick's Hill, Cork, Honorary Secretary.

SHROPSHIRE AND MID-WALES BRANCH.—A meeting of this Branch will be held on May 31st, when, among other subjects, the model rules of a Public Medical Service, referred by the Council of the Association to the Divisions, will be considered. Copies of the rules will be circulated before the meeting to all members of the Branch.

SOUTH-EASTERN BRANCH.—The sixty-sixth annual meeting of the Branch will be held at the Albany Hotel, Hastings, on Wednesday, June 15th, at 2.15 p.m. Dr. Allfrey (President-elect) kindly invites members to lunch at the Albany Hotel, Hastings, from 1 to 2 p.m. Agenda:—In addition to the business of an ordinary meeting: (1) To receive the report of the election of new officers who shall thereupon take office. (2) To receive the annual report of the Council on the affairs of the Branch and the annual financial statement. (3) Alteration of rule proposed by the Council, "That in Rule 7, (a), (2), the words 'two weeks' be inserted instead of 'one month' in line 9." The effect of this is that names of candidates will have to be before the Council two weeks, instead of one month, previous to election. After the meeting members will be driven to Fairlight and the neighbourhood, and the party are very kindly invited to tea at Fairlight Place by the Rev. W. C. and Mrs. Sayer-Milward. Those who intend to be present at the lunch, the drive, or the dinner are requested to signify their intention to Dr. G. Vickerman Hewland, 4, Eversfield Place, St. Leonards-on-Sea, not later than Saturday, June 11th.—E. A. STARLING, Honorary Secretary, Tunbridge Wells.

SOUTH-EASTERN OF IRELAND BRANCH.—A meeting of this Branch, as also a meeting of the Branch Council and the local Division, will be held at the Council Chamber, Clonmel, on Wednesday, June 15th, at 12 o'clock noon. Members who

intend to read papers or exhibit cases will please communicate with the Honorary Secretary at least one week before the date of meeting.—J. QUIRKE, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The annual meeting of this Branch will be held at Newport (Mon.), on Thursday, June 9th.—ALFRED HANSON, Swansea, Honorary Secretary.

SOUTH MIDLAND BRANCH.—The annual meeting will be held at Bedford, on Thursday, June 16th, under the presidency of Dr. H. Skelding. The President has promised to show some cases, and hopes for some discussion of these. This will be followed by the President's address, and then Mr. H. D. Rolleston (St. George's Hospital) will address the meeting on Acute Arthritis of Doubtful Origin. Members are invited to read papers or show cases. The meeting, and the luncheon which will precede it, will be held at the County Hospital, Bedford.—E. HARRIES-JONES, Northampton, Honorary Secretary.

SOUTH MIDLAND BRANCH: NORTHAMPTONSHIRE DIVISION.—The annual meeting of the Division will be held in the Board Room of the Northampton General Hospital on Tuesday, June 7th, at 2.30. It will be preceded by a luncheon at Franklin's Restaurant at 1.30. Members desiring to attend the luncheon should notify the Secretary two days beforehand. Business: Minutes. Annual report of the Division. Election of officers for the ensuing year. Address: The Treatment of Eclampsia and Allied Diseases, by Dr. J. S. Fairbairn, Assistant Obstetric Physician, St. Thomas's Hospital. Any other business.—Honorary Secretary, Dr. HICHENS, 45, Sheep Street, Northampton.

ULSTER BRANCH.—The annual meeting of this Branch will be held in Belfast on Thursday, June 2nd.—CECIL SHAW, M.D., Honorary Secretary, 29, University Square, Belfast.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.—The annual meeting of this Branch will be held at Hereford on Thursday, June 23rd, at 3 p.m. Members wishing to show cases or specimens or read papers should communicate with the Honorary Secretary not later than June 13th. Business: Election of officers. To receive the annual report of the Council of the Branch and annual financial statement. Any other business. Members will dine together subsequently to the meeting.—C. S. MORRISON, Honorary Secretary.

BRITISH MEDICAL ASSOCIATION LIBRARY.

BOOKS NEEDED TO COMPLETE SERIES.

THE Librarian will be glad to receive any of the following volumes, which are needed to complete series in the Library:

American Climatological Transactions. Vols. 1, 4, 5, 6.
———— Dermatological Association Transactions. Vols. 5, 7, 8, 11, and 29.
———— Journal of the Medical Sciences. New series, vols. 4, 5, 1842–3; vols. 14, 15, 1847–8; vols. 18–30, 1850; vol. 33, 1857; vol. 46, 1864–5; vol. 59; or any parts of these vols.
———— Journal of Ophthalmology. Vols. 1–9.
———— Laryngological Association. Transactions. Vols. 1–6, 8–9.
———— Medical Association. Transactions, 2, 4, 6, 7, 11, 12, 14, 15, 16, 19, 20, 22, 31, after vol. 33, and the *Journal*.
———— Otological Society. Transactions. Vol. 3, part 2, 1883.
Glasgow Medical Journal. 1833–1868.
———— Pathological Society. Transactions 1 and 2.
Guy's Hospital Gazette. Nos. 1 and 5. 1872.
Indian Medical Gazette. 1868–1884.
International Congress of School Hygiene. Transactions of First Congress, Nuremberg.
International Congress of Hygiene. Transactions of Congresses 1–6 and 10–12.
———— Ophthalmological Congress. Transactions of Fifth; New York, 1876.
Jahresbericht von Neurologie und Psychiatrie, 1, 5–9, 11–13.
Journal of Laryngology. Vols. 1 to 9.
Montreal Medical Journal, prior to 1900.
New York State Journal of Medicine, 1906.
Ophthalmic Review. January, 1882.
Pediatrics, prior to 1902.
Provincial Medical and Surgical Journal. March to September, 1841, and May 11th, 1852.
Recueil d'ophtalmologie, prior to 1893.
Revue générale d'ophtalmalogie, prior to 1893.
St. Bartholomew's Hospital Gazette. Vols. 1-6.
St. George's Hospital Gazette. Vols. 1-7.
St. Mary's Hospital Gazette. Vols. 1-5.
Sei-i-kwai Medical Journal. Vols. 1-11.

GENERAL COUNCIL
OF
MEDICAL EDUCATION AND REGISTRATION.

SUMMER SESSION, 1910.

Tuesday, May 24th, 1910.

Sir DONALD MACALISTER, K.C.B., President, in the Chair.

THE ninety-first session of the General Council of Medical Education and Registration began at the offices of the Council, 299, Oxford Street, on Tuesday, May 24th, at 2 p.m.

NEW MEMBERS.

Sir HENRY MORRIS introduced Mr. Arthur Trehern Norton, C.B., F.R.C.S., as Representative of the Apothecaries' Society of London for one year from February 6th, 1910. Sir JOHN MOORE introduced Sir William Whitla, M.A., M.D., LL.D., as Representative of the Queen's University of Belfast for the term of three years from April 16th, 1910. Dr. NORMAN MOORE introduced Arthur Newsholme, M.D., as Crown nominee for England for a term of five years from May 15th, 1910.

PRESIDENT'S ADDRESS.

The PRESIDENT then delivered the following address (during the reading of the first part of the President's Address the members of the Council stood up):

The Death of King Edward VII.

GENTLEMEN,—We meet on the day associated for generations with the illustrious name of Queen Victoria, amid the tokens of a nation's mourning for the passing of her illustrious son and successor on the throne. In the sudden grief which has stricken the royal house and all the subjects of the Crown, the members of our profession have shared to the full. They can appreciate, better, perhaps, than others, the kingly courage of our late beloved Sovereign, who under the approaches of his malady refused to yield to any but the last inexorable summons, and while conscious life remained strove resolutely to fulfil the duties of his exalted station. Nine years ago the Council at his accession hailed His Majesty as one who had ever evinced a wise and effectual interest in all that concerned his people's health. His reign, short as it was, abundantly justified the acclamations with which it began. It will ever be memorable on account of the beneficent undertakings for the well-being of his subjects which King Edward initiated or fostered, no less than for its great achievements in the cause of peace and concord among the nations. Happily for us, His Majesty King George has already shown that his royal father's interests and sympathies are also his own, and that we may confidently reckon on his enlightened solicitude for every national institution whose purpose is to further the moral and physical amelioration of the peoples committed to his care.

It will, doubtless, be your desire that I should presently, as our first business, propose from the Chair that the Council tender to His Gracious Majesty a humble and loyal Address, expressive of our sympathy with the personal sorrow of the Royal Family, and of our devotion to His Majesty's Throne and Person. Its terms may well echo those of the Address which His late Majesty was pleased to accept in 1901, for our feelings and our hopes concerning King George are in perfect consonance with those we sought to express in approaching King Edward.

Changes in Membership.

After ten years of valued service, Sir Hugh Beevor and Sir William Henry Power have retired from the Council. The one in relation to the work of the Executive and of the Students' Registration Committee, and the other in relation to that of the Public Health

Committee, have long enjoyed the Council's confidence, and repeatedly earned its gratitude. We part from each with a sense of personal loss, for each made himself a friend as well as a colleague; and we trust that each will carry with him a cordial remembrance of the Council and its activities. Mr. Arthur Trehern Norton, C.B., will in future represent the Apothecaries' Society of London, and Dr. Arthur Newsholme, who worthily occupies Sir William Henry Power's position at the Local Government Board, now succeeds him here by the appointment of His Majesty in Council. To them, and to Sir William Whitla, the representative of the new Queen's University of Belfast, whose eminence is recognized wherever scientific therapeutics are studied, we offer the right hand of fellowship. We are sure that they will find in the Council fresh opportunities of applying their talents and their experience for the benefit of the public.

Finance.

Before long we may expect the further addition of three new members to our number, by appointment of the Universities of Wales and of Bristol, and by direct election of a fourth representative of the registered practitioners of England and Wales. The problem of accommodating the Council thus enlarged may offer some difficulty; but meanwhile the Registrar has, by some readjustment of seats, made provision that will meet the immediate need. We are still faced by the problem of finance. By such husbanding of our resources as is practicable we have reduced the deficit of £656, reported last year, to a deficit of only £146 in the financial year now closed. But with the prospect of a costly election in the near future, and the greater expense of a larger membership, it is scarcely possible to expect that income and expenditure will so nearly balance during the succeeding years. The cost of our judicial proceedings is hardly within our control; and, though we have sought a way of lessening it through some process of delegation, the acumen of our advisers has not yet succeeded in discovering a method that is free from legal or practical objections.

The Revision of the Medical Register.

The task of exhaustively revising the *Medical Register*, begun by the Registrar and his staff in 1908, has now been completed, with the result that the volume is probably more accurate than it has ever been before. The work has involved an enormous amount of correspondence with practitioners all over the world, and much research in books of reference, university and college lists, and colonial Registers. In one year over 14,000 alterations or additions had to be made in the *Register*, many perhaps trivial in character, but all necessary for correctness. Taking account of the fees paid for the entry of additional qualifications and the like, the cost of the whole revision is less than £165; and in view of the fact that during the process communication has been established, directly or indirectly, between the Office and every person whose name is on the *Register*, it will be agreed that though the labour involved has been heavy, the charge on the Council's funds has been justifiable and moderate. Special thanks are due to the Registrar for directing the operations, and to Mr. King, Mr. Cockington, and Mr. Storr for carrying them out with efficiency.

Canada.

Turning to external matters, I have to report that the Legislature of Prince Edward Island has passed an Act enforcing a five years' course of study, at an approved University or School of Medicine, on candidates for the qualifying examinations conducted by its Medical Council. The Executive Committee has accordingly agreed to recognize the Provincial diploma or licence in medicine, surgery, and midwifery as a qualification registrable in the *Colonial List*, in pursuance of His late Majesty's Order in Council of January 10th, 1910.

Information has reached me that a conference is about to meet in Canada, at which representatives of the medical authorities of the several Provinces will discuss the possibility of Federal action in regard to medical registration within the Dominion. Should the conference lead to the ultimate establishment of a Canadian Medical Register in place of or in addition to the numerous Provincial Registers now in use, the question of reciprocity as between this country and the Dominion would be greatly simplified. I cannot help expressing the hope that this result may be speedily attained. It would certainly strengthen the bonds that unite us to our professional brethren beyond the seas were British medical qualifications, whether registered in the *Home* or the *Colonial List*, to become valid throughout the Empire.

The Apothecaries' Society of London.

Our Legal Adviser's attention was called to a private bill which was introduced in the House of Commons early in the year at the instance of the Apothecaries' Society of London. The bill proposed to authorize the Society to confer diplomas in dental surgery, and in various special branches of medicine. It also proposed that the Medical Council should be required to accept certain of these diplomas for registration, under suitable conditions, though similar diplomas conferred by other licensing bodies are not at present registrable under any conditions. The Executive Committee was advised that the proposals referring to the Medical Council involved an amendment of the Medical Acts, which, if made at all, should be made by means of a public Act, and should be rendered applicable to other licensing bodies. A representation to this effect was accordingly transmitted to the Government. On the matter coming before the House of Commons in March, the Speaker ruled that the proposals in question were not of such a nature as should be dealt with by a private bill, and the measure was thereupon withdrawn from the consideration of the House.

The Apothecaries' Hall of Ireland.

The Executive Committee has also been informed that the Privy Council received a petition from the Apothecaries' Hall of Ireland, praying that the General Medical Council might be directed to recognize the Preliminary Examination in general education held by the Apothecaries' Hall as sufficient for the registration of medical students. The Lords of the Council decided that the subject-matter of the petition did not fall within their purview, and informed the governing body that they were unable to comply with the prayer of the petition.

Departmental Committee on Coroners.

The Departmental Committee on Coroners, which was instructed by the Secretary of State for the Home Department to report also on the subject of anaesthetics, has issued its conclusions. These are in general accordance with the resolutions adopted by the Council at its last session. The resolutions have also (except as to one point of detail) been endorsed by the Council of the Royal College of Surgeons of England, and have been favourably received by other authorities. It is to be hoped that, for the protection of the public, steps may soon be taken to regulate by law the administration of anaesthetics, and to restrict this important branch of medical practice to persons who are duly qualified to conduct it with safety.

The Interpretation of the Dentists Act.

By a recent judgement the House of Lords has finally decided that Section 3 of the Dentists Act imposes on an unqualified person no restriction other than the prohibition to use a title (such as "Dentist" or "Dental Practitioner") implying that he is registered. The clause which other Courts had regarded as implying a wider prohibition, namely, the prohibition of any claim to be "specially qualified to practise dentistry," whether expressed by the use of a title or conveyed by general words importing personal skill and competence, is now decided to be no more than synonymous with previous clauses, and therefore to be in itself mere surplusage.

The Insufficiency of the Medical and Dentists Acts.

The Dentists Act has hitherto been thought more stringent than the Medical Act, if not quite so stringent as the law dealing with veterinary practice. But the former Act now proves, when interpreted by the ultimate tribunal, to afford no greater protection to the public against the unqualified practice of dental surgery than the Medical Act affords against the unqualified practice of medicine, and much less than the law confers with regard to the medical treatment of domestic animals. So long as the unqualified person avoids the direct use of certain professional titles, he may use such other misleading descriptions as his ingenuity suggests, and the present law imposes no restraint upon him. On April 1st in the present year the provisions of the Midwives Act came into full operation, and it is now a punishable offence for a woman habitually and for gain to practise midwifery, or to call herself a midwife, unless she is legally certified and enrolled. But any person, however ignorant, may habitually and for gain undertake to practise medicine, surgery, or dentistry, without being required by law to furnish any evidence of his training or skill. The public who resort to him must perforce accept his own statements as to his competency to treat their disorders.

There are not wanting indications that the public are becoming aware of the insufficiency of the existing law. The wide publicity given to the House of Lords' judgement has not been without effect in this direction, so far as concerns the dental branch of surgery. The Report on Anaesthetics has called attention to the unprotected state of the public in another direction. And now I learn with much satisfaction, through Sir Almeric FitzRoy, that arrangements are in progress for the publication, in the form of a parliamentary paper, of the information on the subject of unqualified medical practice collected by the Local Government Board. That department, we are told, has received a large body of valuable and important evidence in response to the circulars which, at the instance of this Council, it issued to the medical officers of health throughout the country. For the formation of an enlightened public opinion, and, may I add, of an enlightened parliamentary opinion, an authoritative compilation of the kind now promised is almost a pre-requisite. I trust its publication will prove to be only the first fruit of the labours of Dr. Langley Browne's Committee on Unqualified Practice.

Medical Legislation.

The experience of the past year or two has taught me that measures are not infrequently introduced into Parliament, by private members, which include provisions bearing on the practice of medicine, and affecting directly or indirectly the medical interests of the public. Unless, however, these measures attract attention in the public press, they are apt to escape notice, even in cases where it is highly expedient that the Medical Council should be cognizant of their terms. By the courtesy of the Privy Council Office and of the Colonial Office we are now usually notified of measures having this character that are introduced under Government authority, and I have reason to believe that such representations as the Council has thought fit to offer on these have received careful consideration by the officials concerned. In order that the like opportunity should be afforded you in the case of private members' proposals, I have endeavoured to get the Council placed on the list of institutions to which copies of all bills ordered to be printed are regularly sent from the Vote Office. Through the kind mediation of Mr. G. H. Radford, M.P., this privilege has been granted to the Council, and all bills are now forwarded to the Registrar as they are printed. Members may at any time consult the file, which will henceforth be preserved in the office for the information of the Council. In your name I have tendered to Mr. Radford the Council's thanks for the service he has thus rendered us.

Draft Charter of the British Medical Association.

With reference to the Charter sought for by the British Medical Association, there is reason to believe that the objections to some of its proposals, which were formulated by our Legal Advisers, have been held deserving of consideration by the authorities. The Council will receive due notice from the Privy Council should any formal steps in relation to the further progress of the Charter be decided upon.

Disciplinary Cases.

A considerable proportion of our time at this session will, I regret to say, be occupied by inquiries into charges against registered practitioners. Some have been convicted of offences against the law; others are complained of by public bodies, including the British Medical Association, for conduct which is alleged to be unworthy of professional men. In view of the fact that the Council now includes several new members, it will be necessary for me to repeat a warning already given at the suggestion of our Legal Advisers—namely, that those who are members of the Association, or of any other body at whose instance complaints are brought before the Council, should take no part in the hearing or determination of the charges in question.

VOTE OF THANKS.

On the motion of Dr. LITTLE, seconded by Dr NORMAN MOORE, the best thanks of the Council were accorded to the President for his address.

ADDRESS TO THE KING.

The PRESIDENT proposed from the Chair:

That a humble address to His Majesty the King be adopted by the Council, and transmitted through the Secretary of State for the Home Department.

This was agreed to.

BUSINESS COMMITTEE.

It was agreed on a motion from the Chair that the Business Committee be reappointed and that Dr. Norman Moore be reappointed chairman.

STATISTICS.

The following yearly tables for 1909 were received and entered on the minutes.

(*a*) I and II Tables showing Results of Professional Medical Examinations during 1909.

(*b*) Table showing Results of Professional Examinations for Qualifications in Sanitary Science, Public Health, or State Medicine during 1909.

(*c*) Table showing Results of Professional Dental Examinations during 1909.

(*d*) Table showing Results of Preliminary Examinations during 1909.

(*e*) Answers sent by the Medical Authorities as to the exemptions granted by them in any part of their Examinations during the year 1909.

(*f*) Table showing Results of Competition held in January, 1910, for Commissions in the Indian Medical Service.

RECIPROCITY WITH PRINCE EDWARD ISLAND.

The following report made by the Executive Committee pursuant to the Standing Order was received and entered on the minutes.

REPORT.

The Executive Committee report that Part II of the Medical Act, 1886, having been extended by an Order in Council to the Province of Prince Edward Island (see Executive Committee Minutes of February 21st, 1910, p. 4) they have considered the conditions under which medical qualifications granted in the Province shall be recognized for registration in the *Colonial List* of the *Medical Register* of the United Kingdom, and on May 23rd, 1910, adopted the following resolution:

"That any person who holds the Licence of the Medical Council of the Province of Prince Edward Island, granted after examination in Medicine, Surgery, and Midwifery, together with the Licence to practise in the Province, shall be entitled to be registered in the *Colonial List* of the *Medical Register*, provided he satisfies the Registrar of the General Medical Council regarding the other particulars set forth in Part II of the Medical Act, 1886."

DONALD MACALISTER,
President.

UNQUALIFIED MEDICAL PRACTICE.

The Executive Committee reported that in response to an inquiry a communication had been received from the Clerk of the Privy Council, stating that a large body of valuable and important evidence had been received by the Local Government Board in response to the circulars issued by them to the medical officers of health, and that arrangements were in progress for the publication, in the form of a Parliamentary paper, of such parts of the information collected as might be found expedient.

Dr. LANGLEY BROWNE moved:

> That the thanks of the Council be conveyed to the Privy Council and to the Local Government Board for their inquiries on the matter of unqualified practice.

Dr. LATIMER, in seconding, added that the time seemed very opportune for further steps to be taken to restrict the sale of quack medicines by unqualified persons. At the present time medicines of the most potent kind, especially soothing syrups, might be sold on a large scale, and a great deal of mortality result from their use, yet no action was taken to see that a label was affixed to the bottle stating its contents, and warning the public as to the danger attendant on its use. He hoped the Government, when its attention was called to the evidence, would be convinced that the time had arrived when such a label should be affixed to every bottle or box of pills so that the public might be able to discriminate between the wholesome and unwholesome. Further, it was an extraordinary thing that herbalists should be allowed to practise under the pseudo-sanction of the Legislature, and also to sell drugs without any qualification whatever. He hoped that the Legislature would see proper to restrict this abuse, or to prevent persons practising without any legal qualification or any qualification at all.

The motion was then agreed to.

THE "MEDICAL REGISTER."

The following report by the Registrar as to steps taken for the revision of the *Medical Register* was received and entered on the Minutes:

REPORT BY THE REGISTRAR

AS TO THE STEPS TAKEN FOR THE REVISION OF THE "MEDICAL REGISTER" IN 1909.

For some years now it has been the custom to correct the *Medical Register* twice in five years, once on the occasion of the election of Direct Representatives, and, apart from that, once by means of circulars, one-third of the persons on the *Register* having had circulars sent to them on each of the three years intervening between the quinquennial elections. As, notwithstanding this practice, many inaccuracies were known still to exist, it was felt that the time had come for an exhaustive revision of the *Register*, for by this means only it would be possible to remove the names of many who were probably dead, but about whom no authentic information could be obtained. The work of preparing the inquiries was accordingly put in hand in the autumn of 1908. By arrangement with the Registrar of the Scottish Branch Council, the office in London undertook to issue and collect all the papers appertaining to that Branch, as well as those for England, sending on the replies that belonged to Scotland to be dealt with there. This was a convenient arrangement, as it insured that the same system was adopted, and the London office, which was obliged to employ some additional assistance temporarily, was in a position enabling it to deal with the extra work. The Irish Branch preferred to do its own work, which was very much less than that of either of the other two Branches, but it was kept informed of the exact procedure which was being adopted, and the registrar of that Branch cordially assisted to make the whole process a success.

Slips from the *Register* containing the name, address, and qualifications of every practitioner had to be first cut out and pasted on to forms, envelopes had to be addressed and checked, and the forms and covering letters to be inserted. This work occupied nearly four months, for the total number of communications sent out from London was 32,720, and from the Irish office 4,610, making together 37,330. The difference between this number and the total of those on the *Register* (40,257) is accounted for by the fact that inquiries were not sent to those whose names appeared as belonging to the Navy, Army, or Indian Medical Services, the lists of which had been carefully revised previously. All the inquiries were posted on Monday, February 1st, except those for the Colonies and abroad, which were posted on the previous Friday to catch the mail.

In order that the inquiry in progress might be brought home to all practitioners, arrangements were made with Messrs. W. H. Smith and Son, whereby a circular letter was sent to all the leading daily newspapers in London, the provinces, and the Colonies, drawing attention to the matter, and asking those who had received no circular to apply for one at once. All the newspapers, with one or two exceptions of no importance, were good enough to insert the letter free of charge, with the result that many practitioners with whom it would have been difficult to get into touch communicated with the office. The medical journals, with their usual courtesy, were also kind enough to draw special attention to the revision.

The correspondence that ensued was enormous; merely to open the circulars which were returned loose occupied four people for a fortnight, but, in addition, many practitioners preferred to send their replies in envelopes, many at the end of two or three days wrote to ask why they had had no acknowledgement, many stated that they had received no enquiry, and many wished to register additional qualifications. In due course, however, the papers were sorted, and the names of all who had answered were ticked off in the working copy of the *Register*, the corrections and additional qualifications were entered in the copy for the printer and in the file, and acknowledgements were sent to all who notified changes. In regard to the circulars which had been returned through the Dead Letter Office, further steps had to be taken. Every one of these was carefully inspected to see that it had been correctly sent to the registered address, and then search was made in all the available books of reference to find some means of communication. Messrs. Churchill's and Messrs. Nisbet's *Medical Directories* were of great assistance, and the university and college lists also gave much help, especially in cases where practitioners had changed their names without notification to the office. Failing these, search was made in such of the Colonial Medical Registers as we possessed, and in one way and another it was possible to re-address inquiries in nearly 700 cases, with the result that a large number of practitioners were saved from erasure.

It is estimated that during the year the number of changes of address in the *Medical Register* amounted to not less than 10,000, the deaths recorded numbered 713, additional qualifications and changes of name, etc., 1,018, and erasures under Section XIV 960, making a total of about 13,000 entries, many of which involved corrections in several places, and the whole of which had to pass through the London office. Besides this, 1,137 new names were registered. It must not be inferred that all the alterations of address were necessarily changes of residence; in many cases the changes were merely trivial, such as the addition of the name of a house to its number or the deletion of the name, or a record of some slight change made by postal or municipal authorities; but the work involved was the same and two entries at least were required for each alteration.

By Section XIV of the Medical Act, 1858, the Registrars are authorized to remove names from the *Register* if no answer be returned to their inquiries, but this power has hitherto not been exercised until other efforts to communicate with the practitioners concerned have been made.

In the present case it was decided that a second inquiry should be sent to all those who had not replied by the end of April, and these inquiries, which in the case of England and Scotland numbered 4,100 and in the case of Ireland numbered 822, were sent out on April 30th. All these inquiries were *registered*, and the result of this proved very satisfactory, as in the majority of cases a reply was received, or the letter was duly returned through the Dead Letter Office. Many practitioners in answering the registered inquiry expressed their thanks for the trouble which had been taken to give them another chance of replying.

By the end of August information had been received in regard to all names on the *Register*, with the exception in the case of England and Scotland of 584 names and in the case of Ireland of 134 names. In order to make quite sure that there should be no case of hardship due to want of adequate notice, yet a third inquiry—which was also *registered*—was sent to all these persons. Also, without waiting in this case for the return of the letters through the Dead Letter Office, each name was hunted up in the various books of reference, which have been referred to above, and, if possible, still another inquiry was sent.

In the end it only remained to take off reluctantly the names of those who still remained liable to erasure under Section XIV either from the return of the inquiries through the Dead Letter Office, or from the neglect to make any reply. The number amounted to 463 English, 362 Scotch, 135 Irish; a total of 960. The revision is now complete, but it would be unduly optimistic to say that the *Medical Register* is now entirely correct, and this search has only emphasized the impossibility of having an absolutely correct book. One or two instances may be given:

1. In December, 1908, a practitioner notified a change of address, and in February, 1909, an inquiry to that address was returned marked "Not known." It is also quite a common thing for cards acknowledging the receipt of a notification of a change of address to be returned marked "Gone away."

2. An inquiry sent to a registered address came back through the Dead Letter Office; there being reason, however, to believe that the address was correct, another inquiry was sent with a notification that the first had come back. The second inquiry was then returned as correct without any comment from the practitioner.

3. In another case of a letter returned through the Dead Letter Office a second inquiry was sent to another address that had been discovered. It was returned with the registered address marked as correct. Inquiry having been made if this was intended, the answer came back that it was not, but that the address we had discovered for ourselves was the proper one.

The utmost that can be said is that it is believed that communication has been established directly or indirectly between the office and every person whose name is on the *Register* during the past fifteen months. Everything that can be done by the office to make the inquiry accurate and not to inflict hardship on the individual has been done. It is feared that the revision has not been concluded without some mistakes, but, where they have been made, it has not been for want of trouble to try and prevent them; however much care in checking is taken, the factor of "human error" is bound to be one which cannot be completely eliminated.

But the immediate accuracy of the *Register* is not all that has been attained. The Colonial Office noticed the letter in the newspapers referred to above, and wrote suggesting that instructions should be sent by it to all the Crown colonies directing that the authorities should send annually to the office lists of all the practitioners in the various Government services. This was gladly accepted, and the Council will now receive every year official information as to many practitioners abroad, who are always the most difficult to trace. The navy, army, and Indian Medical Services already supply information as to practitioners in their employ.

One of the difficulties in making the *Register* an exact enumeration of the qualified practitioners in the United Kingdom is the fact that it is quite possible for a practitioner to practise for many years after his name has been taken off the *Register* under Section XIV, the chief reason being that the Government has not seen its way to supply all officials, such as registrars of deaths, with official copies of the *Register*, for purposes of reference, and, even when a copy is supplied, it does not appear that it is always consulted. In order that this unsatisfactory state of affairs may be brought to an end, arrangements have been made with the Registrars-General in England and Scotland to supply the superintendent registrars of deaths with copies of the *Register* at the Council's expense for this one year, and they have kindly undertaken to give instructions that the names of all practitioners who sign certificates during the year are to be looked up; in Ireland the circumstances are somewhat different, but the names of practitioners signing certificates will be looked up in the *Register* by the authorities at Dublin Castle, the Council undertaking to pay for the extra labour involved. The expense to the Council of this attempt to minimize unregistered practice will be about £330; but some of this may be recovered, and in any case it is of great importance that the provisions of the Medical Act should be carried out.

It also came to the notice of the Council that the Board of Trade, in accepting medical officers for the marine service, had been in the habit of being satisfied with the production of a practitioner's original registration certificate. In one case the certificate accepted was at least thirty-five years old, and it is obvious that such a course was very undesirable because, under such conditions, it was possible for a practitioner whose name had long disappeared from the *Register*, or had even been erased from it for a penal offence, to obtain an appointment as medical officer on a ship. The attention of the Marine Department of the Board of Trade was drawn to this matter, and the Board has been good enough to promise that in future the current *Medical Register* alone shall be accepted as evidence of registration.

In these ways it is hoped that registration may have the importance which was contemplated by the Act, and that practitioners may be brought to realize that there are advantages in keeping their registered names and addresses correct.

The report concluded with a statement of the cost of the work; the following is a summary of the expenditure:

	Gross Cost.	Less Extra Fees.	Nett Cost.	Cost per Practitioner.	
				Gross.	Nett.
	£ s. d.	£	£ s. d.	d.	d.
English Branch	263 16 10	180	83 16 10	2.99	0.89
Scottish Branch	144 10 10	106	38 10 10		
Irish Branch	52 19 6	11	41 19 6	2.76	2.18
	461 7 2	297	164 7 2		

Thus for a total nett expenditure of £164 7s. 2d. (of which about £88 was charged in the accounts for 1908) the whole of the *Register* had been exhaustively examined.

SITTING IN CAMERA.

The Council then went into camera for the consideration of private business and strangers were directed to withdraw. On readmission, no announcement was made to the public, and the Council proceeded to the election of committees.

COMMITTEES.

The following committees were appointed:

The Executive Committee.—Dr. Norman Moore, Sir Henry Morris, Dr. Langley Browne, Sir John Batty Tuke, Dr. McVail, Sir John Moore, Sir Charles Ball.

The Pharmacopoeia Committee.—The President, Dr. Norman Moore, Dr. Barrs, Sir John Moore, Sir Geo. Philipson, Sir Thomas Fraser, Sir William Whitla, Dr. Caton, Dr. McVail.

The Finance Committee.—Mr. C. S. Tomes (Chairman), the President, Sir Henry Morris, Sir John Batty Tuke, Dr. Little.

The Dental Committee.—The President, Sir Henry Morris, Mr. Tomes, Dr. Hodsdon, Sir Thomas Myles.

The Dental Education and Examination Committee.—Mr. Tomes (Chairman), Sir Henry Morris, Dr. Knox, Dr. Finlay, Sir Thomas Myles, Sir Charles Ball.

The Students' Registration Committee.—Dr. Norman Moore, Dr. Adye-Curran, Sir John Batty Tuke, Sir Christopher Nixon, Dr. Mackay, Dr. Dixon Mann.

The Penal Cases Committee.—Dr. Saundby, Mr. Tomes, Dr. Finlay, Sir Christopher Nixon.

The Council then adjourned.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

STAFF SURGEONS T. T. JEANS, M.B., J. H. PEAD, M.B., M.A., G. R. MACMAHON, M.B., B.A., R. T. GILMOUR, H. C. ARATHOON, T. W. PHILIP, M.B., M.A., R. S. BERNARD, L. KILROY, J. MOWAT, M.B., S. H. BIRT, M. H. KNAPP, R. D. JAMESON, and H. S. BURNISTON have been promoted to the rank of Fleet Surgeon, with seniority of May 16th. Their previous commissions are dated: Surgeon, May 16th, 1894; Staff Surgeon, May 16th, 1902.

The following appointments have been made at the Admiralty: Staff Surgeon W. P. DYER to Portsmouth Dockyard, June 1st; Staff Surgeon N. J. ROCHE to the *Sutlej*, additional, June 1st; Surgeons H. BURNS, M.B., R. J. G. PARNELL, F. L. SMITH, M.B., C. D. BELL, M.B., and A. G. V. FRENCH, to the *Victory*, additional, for disposal, June 9th; Surgeons J. H. B. MARTIN, M.B., M. H. LANGFORD, C. G. SPRAGUE, and A. C. RUSACK, M.B., to the *Vivid*, additional, for disposal, June 9th; Surgeons T. C. PATTERSON, M.B., A. FAIRLEY, M.B., F. C. SEARLE, and W. E. LLOYD, to the *Pembroke*, additional, for disposal, June 9th; Surgeon J. P. BERRY, M.B., to the *Wildfire*, additional, for disposal, June 9th; Fleet Surgeon H. B. HALL, M.B., and Surgeon A. F. FLEMING, to the *Lancaster*, on recommissioning, May 31st; Staff Surgeon J. BOYAN to the *Bulwark*, additional, for disposal, May 23rd; Surgeon G. D. WALSH to the *Pembroke*, for the Royal Naval Barracks, May 23rd; Surgeon A. O. HOOPER, M.B., to the *Vivid*, May 31st; Fleet Surgeon E. J. FINCH, M.D., temporarily, and Surgeon W. E. LLOYD to the *Dominion*, on recommissioning, June 7th; Fleet Surgeon J. K. ROBINSON, M.B., to the *Caesar*, on recommissioning, June 7th; Surgeon J. HADWEN, M.B., to the *Pembroke*, additional, for disposal, June 7th; Staff Surgeon R. S. OSBORNE to the *Lord Nelson*, undated; Staff Surgeon R. L. DICKINSON to the *Black Prince*, temporarily, May 23rd; Surgeon W. BRADBURY, M.B., to the *Hebe*, on commissioning, May 21st; Fleet Surgeon C. BRADLEY, M.D., to the *Eagle*, May 23rd; Fleet Surgeon H. C. ARATHOON, to the *Hermione*, on recommissioning, undated; Staff Surgeons P. H. M. STAR and O. REES, M.D., and Surgeon G. A. S. HAMILTON, to the *Gibraltar*, for the voyage home, undated; Staff Surgeon F. R. MANN, to the *Blake*, June 1st; Staff Surgeon J. C. BRINGAN, M.B., to Haslar Hospital, June 1st; Staff Surgeon C. H. J. ROBINSON, to the *Roxburgh*, May 23rd; Staff Surgeon J. MARTIN and Surgeon H. H. BABINGTON, to the *Gibraltar*, June 1st, and to the *Fox*, on recommissioning, undated; Surgeon A. R. DAVIDSON, M.B., to the *Gibraltar*, June 1st, and to the *Proserpine*, on recommissioning, undated; Surgeons L. WARREN, M.B., and J. M. GORDON, M.B., to the *Victory*, additional, for disposal, May 25th; Surgeon A. B. COX, M.B., to the *Vivid*, additional, for the Royal Naval Barracks, etc., May 25th; Surgeon J. A. THOMPSON, M.B., to the *Pembroke*, additional, for disposal, June 2nd; Surgeon G. E. HAMILTON, M.B., to Yarmouth Hospital, June 2nd; Surgeon C. J. AVELING, to the *Argonaut*, and for a division of special service vessels, June 2nd; Surgeon W. P. YETTS, to the *Pembroke*, additional, for disposal, June 4th; Surgeon J. L. BARFORD, to the *Pembroke*, additional, for disposal, June 11th; Surgeon T. E. BLUNT, to the *Espiègle*, May 23rd.

ROYAL ARMY MEDICAL CORPS.

EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

FIELD OFFICER, who has been home one year, wishes to exchange to India.—Address Exile, care of Messrs. Holt and Co., 3, Whitehall Place, London.

ARMY MEDICAL SERVICE.

SURGEON-GENERAL J. G. MACNEECE is appointed Principal Medical Officer, 8th (Lucknow) Division, vice P. M. Ellis, retired; Colonel M. W. KERIN, who has been officiating, rejoins his substantive appointment as Principal Medical Officer, Bareilly and Garhwal Brigades.

ROYAL ARMY MEDICAL CORPS.

CAPTAIN R. J. C. THOMPSON is seconded for service with the Egyptian Army, April 29th.

Lieutenant R. DE V. KING resigns his commission, May 14th. He was appointed Lieutenant, July 29th, 1907.

Major H. J. M. BUIST, D.S.O., M.B., late Deputy Assistant Director-General at the War Office, has joined the London District.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL D. B. SPENCER, Bengal, retires from the service, from May 17th. He was appointed Surgeon, March 31st, 1883, and became Lieutenant-Colonel, March 31st, 1900. His war record

includes—The Soudan expedition, 1885, including the actions of Hasheen and Tofrek and the capture of Tamai (medal with two clasps, bronze star); Burmese campaign, 1886-8 (medal with two clasps); Lushai expedition, 1892; China war, 1900, as Senior Medical Officer at Tientsin (mentioned in dispatches, medal).

Lieutenant H. M. INMAN is promoted to be Captain, from February 2nd. His first appointment bears date February 2nd, 1907.

Captain G. C. L. KERANS, 8th (Lucknow) Division, is appointed Specialist in Ophthalmology, from March 15th; and Lieutenant A. M. JUKES, M.D., Brigade Laboratory Shillong, to be Specialist in the Prevention of Disease March 8th.

TERRITORIAL FORCE.

INFANTRY.

Fifth Battalion the King's Own (Royal Lancaster) Regiment.—ARTHUR H. FALKNER (late Lieutenant, Royal Army Madical Corps, Territorial Force), to be Lieutenant, March 24th.

Fourth Battalion Alexandra, Princess of Wales's Own (Yorkshire Regiment).—Surgeon-Lieutenant C. B. WHITEHEAD, M.B., to be Surgeon-Captain, September 24th, 1909.

ROYAL ARMY MEDICAL CORPS.

First Lowland Field Ambulance.—Lieutenant A. JUBB, M.D., resigns his commission, February 22nd.

First South-Western Mounted Brigade Field Ambulance.—The appointment to a Lieutenancy of ROBERT M. BEATTY, M.D., which appeared in the *London Gazette* of April 1st, is cancelled.

First Wessex Field Ambulance.—Major R. PICKARD, M.D., to be Lieutenant-Colonel, March 29th.

For Attachment to Units other than Medical Units.—ERNEST W. REED, M.B., to be Lieutenant, March 19th. FRANK M. BINGHAM to be Lieutenant, March 24th. WILLIAM C. F. HARLAND, M.B., to be Lieutenant, April 6th. ANDREW G. T. HANKS to be Lieutenant, April 6th.

Attached to Units other than Medical Units.—Lieutenant E. F. MACL. NEAVE, M.D., to be Captain, July 14th, 1908. Lieutenant D. R. TAYLOR to be Captain, February 18th. Lieutenant A. H. FALKNER resigns his commission, March 24th. Lieutenant J. H. P. PATON, M.B., resigns his commission, March 31st. Lieutenant A. INNES to be Captain, April 10th.

CHANGES OF STATIONS.

THE following changes of stations amongst the officers of the Army Medical Service have been officially reported to have taken place during April, 1910:

		FROM		TO
Colonel	E. Butt, F.R.C.S.I.	Calcutta		Darjeeling.
Lieut.-Col.	S. Townsend, M.D.	Dover		Canterbury.
,,	R. I. D. Hackett, M.D.	Bordon		Pretoria.
,,	W. W. Pike, D.S.O., F.R.C.S.I.	Darjeeling		Tidworth.
,,	F. H. M. Burton, M.D.	Hounslow		Colchester.
,,	R. R. H. Moore, M.D.	Netley		Bulford.
,,	H. A. Haines, M.D.	Fyzabad		Portsmouth.
,,	R. Caldwell, F.R.C.S.	Wynberg		Pretoria.
,,	H. J. Fletcher, M.B.	Rawal Pindi		Sialkot.
,,	S. Powell, M.D.	Rangoon		Rawal Pindi.
,,	F. W. C. Jones, M.B.	Colchester		Tidworth.
,,	R. H. Hall, M.D.	,,		Bedford.
,,	C. A. Lane, M.B.	Tidworth		Hounslow.
,,	M. O'Halloran, M.D.	Brighton		Shorncliffe.
,,	J. H. Daly	Tipperary		Dalhousie.
,,	H. Cocks, M.B.	Wellington		Woolwich.
,,	F. W. G. Gordon-Hall, M.B.	Muttra		Glasgow.
,,	H. P. G. Elkington	Jhansi		Buttevant.
,,	C. H. Burtchaell, M.B.	Dublin		London.
,,	R. W. Wright	Woolwich		Shoeburyness.
,,	T. Du B. Whaite, M.B.	Canterbury		Woolwich.
Major	J. W. Bullen, M.D.	Madras		Wellington.
,,	J. Thomson, M.B.	Pretoria		Harrismith.
,,	A. W. Bewley	Agra		Landour.
,,	B. Forde, M.B.	Pretoria		Wynberg.
,,	J. D. Ferguson, D.S.O.	Aldershot		London.
,,	F. J. Wade-Brown	Kirkee		Cork.
,,	G. J. Buchanan, M.B.	Bareilly		Chaubuttia.
,,	J. F. M. Kelly, M.B.	Buttevant		Potchefstroom
,,	J. G. McNaught, M.D.	Pretoria		Capetown.
,,	H. W. K. Read	Beverley		Pontefract.
,,	A. J. Chambers	Netley		Pretoria.
,,	C. T. Samman	Shorncliffe		Dinapore.
,,	E. M. Williams	Fermoy		Calcutta.
,,	J. R. McMunn	Pretoria		Netley.
,,	A. E. Master, M.B.	Chatham		Woolwich.
,,	John M. Buist, M.B.	Wynberg		Netley.
,,	A. E. Milner	London Dist.		S. Command.
,,	C. W. Profeit, M.B.	Bulford		London.
,,	G. T. K. Maurice	Muttra		Bulford.
,,	M. MacG. Rattray, M.B.	Gravesend		Brighton.
,,	H. G. Martin	Agra		Lebong.
,,	J. D. G. Macpherson, M.B.	Mount Abu		Pachmarhi.
,,	A. H. O. Young	Bermuda		Halifax.
Captain	F. J. C. Heffernan, F.R.C.S.I.	Dinapore		Lucknow.
,,	D. E. Curme	Aldershot		Ewshott.
,,	N. J. C. Rutherford, M.B.	Canterbury		Harrismith.
,,	E. E. Ellery	—		Cairo.
,,	O. W. A. Elsner	Dublin		Pretoria.
,,	H. M. Morton, M.B.	Aldershot		Potchefstroom.
,,	E. B. Knox, M.D.	Northampton		Ipswich.
,,	J. Matthews	Ewshott		Karachi.
,,	A. M. MacLaughlin, M.B.	—		London Dist.
,,	F. W. Cotton	—		Western Comd.
,,	R. L. Argles	Ferozepore		Solon.
,,	W. Bennett, M.B.	Cork		Calcutta.
,,	H. B. Fawcus, M.B.	R.A.M. Coll.		Bloemfontein.
,,	G. Carroll	Templemore		Potchefstroom
,,	R. L. Popham	Dublin		Cork.
,,	G. F. Sheehan	,,		Calcutta.
,,	A. J. Hull	Jutogh		Dover.
,,	S. M. Adye-Curran	Kilkenny		Bere Island.
,,	A. H. Hayes	Leeds		R.A.M. Coll.
,,	S. M. W. Meadows	Chatham		Landguard Fort.
,,	F. C. Lambert	Netley		Cosham.
,,	F. M. M. Ommanney	Aden		Colchester.
,,	H. H. J. Fawcett	Gosport		Cosham.
Captain	G. A. Kempthorne	Lahore		Dalhousie.
,,	N. E. Dunkerton	Pretoria		E. Command.
,,	P. J. Hanafin	Wynberg		Gosport.
,,	J. D. Richmond, M.B.	Fermoy		Kilkenny.
,,	H. C. Hildreth, F.R.C.S.Ed.	Maymyo		Dublin Dist.
,,	W. MacD. MacDowall	Devonport		Okehampton.
,,	R. T. Collins	Meerut		Woolwich.
,,	J. Fairbairn, M.B.	Colaba		Edinburgh.
,,	J. H. Douglass, M.D.	Secunderabad		Dublin Dist.
,,	A. L. Otway, M.B.	Mhow		Kilbride.
,,	F. H. Noke, M.B.	Purandhur		Aldershot.
,,	E. C. Whitehead, M.B.	Pretoria		Cork.
,,	G. E. Cathcart	Rawal Pindi		W. Command.
,,	H. Harding, M.B.	Portland		Cosham.
,,	J. A. Turnbull	Nowshera		Scottish Comd.
,,	F. J. Garland, M.B.	Aden		W. Command.
,,	A. A. Meaden	Neemuch		Nasirabad.
,,	R. J. Cahill, M.B.	Bangalore		Madras.
,,	A. S. Arthur, M.B.	Nasirabad		Scottish Comd.
,,	M. Sinclair, M.B.	Sialkot		Cork District.
,,	J. P. Lynch	Meiktila		Ranikhet.
,,	R. J. C. Thompson	Pretoria		Egypt.
,,	C. W. O'Brien	Peshawar		Aden.
,,	J. M. B. Rahilly, M.B.	—		Cairo.
,,	G. E. Ferguson	Alexandria		Cyprus.
,,	C. E. W. S. Fawcett, M.B.	Maymyo		Shwebo.
,,	E. G. Anthonisz	Madras		Bangalore.
,,	E. T. Potts, M.D.	Pretoria		Harrismith.
,,	W. McConaghy, M.B.	,,		S. Command.
,,	T. S. Blackwell	Secunderabad		Bhamo.
,,	A. S. Littlejohns	Pretoria		Potchefstroom
,,	A. H. Bond	Rangoon		Naini Tal.
,,	L. G. Gibson	Jullundur		Dagshai.
,,	E. Gibbon, M.B.	—		Cairo.
,,	C. Scaife, M.D.	Khandalla		Colaba.
Lieutenant	S. Field	Somaliland		Chatham.
,,	F. H. M. Chapman	Lebong		Darjeeling.
,,	W. G. Aviss	Quetta		Karachi.
,,	G. F. Rudkin	Wellington		Madras.
,,	H. V. B. Byatt	Poona		Khandalla.
,,	G. Petit	Tidworth		Meerut.
,,	F. J. Stuart, M.B.	Lucknow		,,
,,	W. R. O'Farrell	—		Cairo.
,,	J. C. L. Hingston	Edinburgh		Cosham.
,,	A. E. B. Jones, M.D.	Rangoon		Shwebo.
,,	A. Hendry, M.B.	Mhow		Neemuch.
,,	J. R. Lloyd	Jhansi		Jubbulpore.
,,	F. Worthington, M.B.	Somaliland		Buttevant.
,,	F. H. Bradley	Edinburgh		Lucknow.
,,	B. Varvill	Hilsea		Quetta.
,,	A. Shepherd, M.B.	Lucknow		Agra.
,,	W. J. Dunn, M.B.	Colchester		Poona.
,,	F. B. Dalgliesh	Netley		,,
,,	S. G. Walker, M.B.	,,		Lucknow.
,,	F. M. Hewson	Curragh		Quetta.
,,	T. S. Eves, M.B.	Lucknow		Lebong.
,,	L. Murphy	Cosham		Bangalore.
,,	J. S. McCombe, M.B.	Bulford		,,
,,	W. J. Tobin	Bordon		,,
,,	C. McQueen	—		Pretoria.
,,	R. O'Kelly	Aldershot		Bangalore.
,,	C. Ryles, M.B.	Landguard Fort		Karachi.
,,	A. M. Pollard	Golden Hill		Winchester.
,,	G. S. Parkinson	Belfast		Athlone.
,,	R. C. Priest, M.B.	Colchester		Bury St. Edmunds.
,,	O. W. McSheehy, M.B.	Worcester		Devonport.
,,	M. J. Williamson, M.B.	Bulford		Larkhill C'mp.
,,	C. L. Franklin, M.B.	Bury		Ashton.
,,	M. White, M.B.	Aldershot		Bordon.
,,	A. G. Jones, M.B.	Coventry		Bulford.
,,	A. P. O'Connor, M.B.	Dover		Shorncliffe.

COLONIAL MEDICAL SERVICE.

MAJOR O. J. CURRIE, M.B., late Natal Field Artillery, has been appointed to the command of B Company, Cape Medical Corps.

Vital Statistics.

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

[SPECIALLY REPORTED FOR THE "BRITISH MEDICAL JOURNAL."]

THE Registrar-General has just issued his return relating to the births and deaths in the first quarter of this year, and to the marriages in the fourth quarter of 1909. The marriage-rate during that period was equal to 15.5 per 1,000 of the population; this rate was 1.6 per 1,000 below the average in the ten preceding fourth quarters, and is the lowest rate recorded for that period in any year.

The 221,719 births registered in England and Wales during the quarter ending March last were equal to an annual rate of 24.9 per 1,000 of the population, estimated at 36,169,150 persons in the middle of the year; this birth-rate is 3.1 per 1,000 below the average rate in the corresponding quarter of the ten preceding years, and is the lowest birth-rate on record in the first quarter of any year since civil registration was established. Among the several counties the birth-rates ranged from 17.4 in Carnarvonshire, 18.2 in Sussex, 19.0 in Northamptonshire, 20.2 in Kent, 20.3 in Buckinghamshire, and 20.4 in Hertfordshire, to 28.4 in Staffordshire, 28.8 in the North Riding of Yorkshire, 29 9 in Nottinghamshire, 31.1 in Durham, 31.5 in Carmarthenshire, 34 7 in Glamorganshire, and 35.2 in Monmouthshire. In seventy-six of the largest towns, including London, the birth-rate averaged 25.4 per 1,000, and ranged from 14.0 in Hastings, 14.4 in Hornsey, 16.1 in Halifax, 16.8 in Bournemouth, 18.3 in Northampton and in Bradford, to 32.2 in Tynemouth, 33.7 in Swansea, 33.9 in St. Helens, 34.2 in Middlesbrough, 35.1 in Merthyr Tydfil, and 43.6 in Rhondda.

The births registered in England and Wales during the quarter under notice exceeded the deaths by 85,298, against 69,267, 83,784, and 68,295 in the corresponding quarters of the three preceding years. From a return issued by the Board of Trade it appears that the passenger movement between the United Kingdom and places outside Europe resulted in a net balance outward of 72,612 passengers, compared with

a net balance outward of 48,703 in the corresponding period of the previous year. There was a net balance outward of 30,395 English passengers, 634 Welsh, 9,678 Scottish, 3,066 Irish, and 29,606 foreigners, while there was an inward balance of 767 British Colonial passengers.

During the first quarter of the year the deaths of 136,421 persons were registered, equal to an annual rate of 15.3 per 1,000; this rate is 3.0 per 1,000 less than the average rate in the corresponding quarters of the ten preceding years, and is the lowest death-rate recorded in the first quarter of any year since civil registration was established. The lowest county death-rates last quarter were 11.2 in Middlesex, 12.7 in Essex, 13.4 in Kent, 13.6 in Leicestershire, 13.7 in Northamptonshire, and 13.9 in Surrey and in Berkshire; the highest rates were 17.5 in Cumberland and in Glamorganshire, 17.7 in Cornwall, 17.8 in Oxfordshire, 18.1 in Monmouthshire, 19.7 in Carmarthenshire, and 19.9 in Denbighshire. In seventy-six of the largest towns the rate averaged 14.8 per 1,000, and ranged from 8.5 in King's Norton, 8.6 in Hornsey, 9.6 in Willesden, 9.8 in East Ham, and 9.9 in Handsworth (Staffs), to 19.0 in Birkenhead, 19.1 in Huddersfield, 19.2 in Oldham and in Burnley, 19.4 in Liverpool, 20.4 in Hanley, and 21.6 in Swansea.

The 136,421 deaths from all causes in England and Wales last quarter included 7,453 which were referred to the principal infectious diseases; of these, 2,648 resulted from whooping-cough, 1,578 from measles, 1,253 from diphtheria, 866 from diarrhoea, 690 from scarlet fever, 403 from enteric fever, 1 from typhus, 6 from ill-defined pyrexia, and 8 from small-pox. The death-rate from these diseases in the aggregate was equal to 0.85 per 1,000, or 0.46 per 1,000 below the average rate in the corresponding period of the ten preceding years.

The rate of infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 115 per 1,000, or 19 per 1,000 less than the average rate in the ten preceding first quarters. Among the counties the rates of infant mortality ranged from 72 in Hertfordshire, 77 in Middlesex, 87 in Dorsetshire, and 88 in Surrey and in Somersetshire to 131 in Monmouthshire, 139 in Durham, 146 in Cumberland, 148 in Glamorganshire, 154 in Denbighshire, and 176 in Carmarthenshire. In seventy-six of the largest towns the rate of infant mortality was 115 per 1,000, being equal to the rate for the whole country; the lowest rates were 49 in King's Norton, 73 in Hornsey, 77 in Southampton, 82 in Leyton, and 84 in Willesden and in York; while the highest rates were 145 in Swansea, 149 in Gateshead, 153 in Rhondda, 155 in Burnley, 184 in Barrow-in-Furness, and 207 in Hanley.

The mortality among persons aged 1 to 60 years was at the rate of 7.2 per 1,000 of the population estimated to be living at this group of ages, and was 1.7 per 1,000 below the average rate for the first quarter of the ten preceding years. In seventy-six of the largest towns the death-rate at this age-group averaged 7.5 per 1,000, and ranged from 4.2 in Handsworth (Staffs) and in King's Norton, 4.3 in Hornsey, 4.4 in East Ham, and 4.5 in Reading, to 10.3 in Hanley, 10.6 in Liverpool, 10.7 in Burnley and in Huddersfield, 10.8 in Birkenhead, 11.1 in Oldham, and 11.5 in Swansea.

Among persons aged 60 years and upwards the death-rate last quarter was equal to 80.5 per 1,000, the mean rate in the ten preceding first quarters having been 88.4 per 1,000. In the seventy-six large towns the death-rate at this group of ages averaged 82.0 per 1,000, the lowest rates being 57.5 in Hornsey, 59.4 in Gateshead, 60.8 in King's Norton, 62.5 in Leyton, and 64.8 in Leicester, and the highest rates 99.1 in St. Helens, 99.7 in Burnley, 99.9 in Rochdale and in Swansea, 102.5 in Preston, 107.5 in Oldham, and 113.8 in Bury.

The mean temperature of the air was above the average last quarter; in most districts the rainfall exceeded the average, the excess amounting to as much as 25 per cent. in the South-East and 28 per cent. in the North-West of England; the duration of bright sunshine was largely in excess of the average.

HEALTH OF ENGLISH TOWNS.

In seventy-seven of the largest English towns 9,095 births and 4,482 deaths were registered during the week ending Saturday, May 14th. The annual rate of mortality in these towns, which had been 13.7, 13.1, and 13.1 per 1,000 in the three preceding weeks, rose to 13.8 per 1,000 during the week under notice. The rates in the several towns ranged from 4.9 in King's Norton, 5.5 in Walthamstow, 6.2 in Devonport, 6.5 in Handsworth (Staffs), and 6.6 in Willesden and in Burton-on-Trent to 18.5 in Salford and in Oldham, 19.1 in West Bromwich, 19.7 in Manchester, 20.3 in Merthyr Tydfil, 20.4 in Burnley, and 21.5 in Huddersfield. The death-rate from the principal infectious diseases averaged 1.3 per 1,000 in the seventy-seven large towns and in London, while among the seventy-six other large towns it ranged upwards to 2.8 in Tynemouth, 2.9 in Manchester, 3.9 in Burnley, and 5.9 in Bootle and in Merthyr Tydfil. Measles caused a death-rate of 1.1 in Liverpool, 1.4 in Bradford, 1.9 in Burton-on-Trent, 2.0 in Stockport and in Dewsbury, 4.4 in Bootle, and 5.2 in Merthyr Tydfil; whooping-cough of 1.2 in Plymouth, in King's Norton, and in Liverpool, 1.3 in Newport (Mon.), 1.5 in Manchester, and 2.4 in Burnley; and diarrhoea of 1.2 in Gateshead and 1.8 in Tynemouth. The mortality from scarlet fever, from diphtheria, or from enteric fever showed no marked excess in any of the large towns. One fatal case of small-pox belonging to South Shields was registered during the week. The number of scarlet fever cases under treatment in the Metropolitan Asylum Hospitals and the London Fever Hospital, which had been 1,510, 1,509, and 1,506 at the end of the three preceding weeks, had further declined to 1,476 at the end of the week under notice; 177 new cases were admitted during the week, against 196, 192, and 179 in the three preceding weeks.

In seventy-seven of the largest English towns, 6,019 births and 4,043 deaths were registered during the week ending Saturday last, May 21st. The annual rate of mortality in these towns, which had been 13.1, 13.1, and 13.8 per 1,000 in the three preceding weeks, declined to 12.4 per 1,000 last week. The rates in the several towns ranged from 6.5 in Handsworth (Staffs), 6.7 in East Ham, 7.0 in Leyton, 7.4 in Hornsey, and 7.8 in Great Yarmouth, to 17.9 in Preston, 18.5 in Middlesbrough, 19.0 in Newport (Mon.), 22.8 in Stockport, 23.1 in Tynemouth, and 27.5 in Merthyr Tydfil. The death-rate from the principal infectious diseases averaged 1.2 per 1,000 in the seventy-seven large towns; in London the rate was equal to 1.3 per 1,000, while among the seventy-six other large towns it ranged upwards to 2.6 in Newport (Mon.), 2.9 in Stockton-on-Tees, 3.0 in Manchester, 4.7 in Burton-on-Trent, and 7.2 in Merthyr Tydfil. Measles caused a death-rate of 1.9 in Stockton-on-Tees, 2.5 in Stockport, 2.8 in Burton-on-Trent, and 6.6 in Merthyr Tydfil; and whooping-cough of 1.8 in Manchester, 1.9 in Burton-on-Trent, and 2.0 in Newport (Mon.). The mortality from scarlet fever, from diphtheria, or from enteric fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The number of scarlet fever cases under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,509, 1,506, and 1,476 at the end of the three preceding weeks, was again 1,476 at the end of the week under notice; 190 new cases were admitted during the week, against 192, 179, and 177 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday, May 14th, 1,047 births and 555 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 16.3, 17.4, and 15.6 in the three preceding weeks, further declined to 15.3 in the week under notice, and was 1.5 per 1,000 above the mean rate during the same period in the seventy-seven large English towns. Among these Scottish towns the death-rates ranged from 11.5 in Aberdeen and 12.0 in Leith to 21.3 in Greenock and 25.4 in Dundee. The death-rate from the principal infectious diseases averaged 2.2 per 1,000, the highest rates being recorded in Greenock and in Dundee. The 248 deaths in Glasgow included 9 which were referred to measles, 3 to scarlet fever, 2 to diphtheria, 6 to whooping-cough, and 7 to diarrhoea. Three deaths from measles were recorded in Edinburgh, 31 in Dundee, and 4 in Greenock.

During the week ending Saturday last, May 21st, 872 births and 562 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 17.4, 15.6, and 15.3 in the three preceding weeks, rose to 15.5 last week, and was 3.1 per 1,000 above the mean rate during the same period in the seventy-seven large English towns. Among these Scottish towns the death-rates ranged from 11.2 in Aberdeen and 12.6 in Leith to 15.9 in Edinburgh and 20.8 in Dundee. The death-rate from the principal infectious diseases averaged 1.7 per 1,000, the highest rates being recorded in Greenock and in Dundee. The 267 deaths in Glasgow included 10 which were referred to measles, 1 to scarlet fever, 1 to diphtheria, 5 to whooping-cough, and 6 to diarrhoea. Twenty-three deaths from measles were recorded in Dundee, 3 in Paisley, and 4 in Greenock.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, May 14th, 657 births and 471 deaths were registered in the twenty-two principal urban districts of Ireland, as against 629 births and 443 deaths in the preceding period. The annual death-rates in these districts, which had been 22.4, 22.0, and 20.1 per 1,000 in the three preceding weeks, rose to 21.3 per 1,000 in the week under notice, this figure being 7.5 per 1,000 higher than the mean annual death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 22.0 and 22.7 respectively, those in other districts ranging from 4.1 in Drogheda and 4.8 in Ballymena to 44.3 in Lurgan and 51.3 in Clonmel, while Cork stood at 18.5, Londonderry at 19.2, Limerick at 13.7, and Waterford at 11.7. The zymotic death-rate in the twenty-two districts averaged 1.9 per 1,000, or the same as in the preceding week.

During the week ending Saturday, May 21st, 501 births and 431 deaths were registered in the twenty-two principal urban districts of Ireland, as against 657 births and 471 deaths in the preceding period. The annual death-rate in these districts, which had been 22.0, 20.1 and 21.3 per 1,000 in the three preceding weeks, fell to 19.5 per 1,000 in the week under notice, this figure being 7.1 per 1,000 higher than the mean annual death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 15.9 and 23.6 respectively, those in other districts ranging from 6.6 in Queenstown and 8.9 in Lurgan to 37.4 in Wexford and 38.8 in Galway, while Cork stood at 22.6, Londonderry at 15.6, Limerick at 10.9, and Waterford at 17.5. The zymotic death-rate in the twenty-two districts averaged 2.7 per 1,000, as against 1.9 per 1,000 in the preceding week.

Hospitals and Asylums.

SANATORIUM REPORTS.

THE end of the first quarter of the year sees the publication of the annual reports of various charitable institutions, and amongst them the records of the previous year's work in the sanatoriums for consumptives.

The third annual report of King Edward VII Sanatorium, Midhurst, includes the period from July, 1908, to July, 1909, and shows that the beds have been kept full, 292 patients having been under treatment during the twelve months. It is noted that the relative proportion of early cases is small, only 25 per cent. of all the cases admitted. A careful statistical summary is given of all cases, divided into three groups according to the classification (Turban-Gerhardt) adopted by the International Tuberculosis Committee. Work of some kind in the garden and grounds was given to 75 per cent. of Group I, whilst in Group II 50 per cent., and only 21 per cent. in Group III, were able to work. The after-history of patients who have been discharged in previous years has been followed up, and the results agree in the main with the experience of other sanatoriums. Some useful observations with regard to secondary infections and the effects of vaccines of streptococci and staphylococci on the temperature and opsonic index, come from the laboratory of the institution, as also some observations confirming the results of Rosenberger as to the presence of tubercle bacilli in the blood of consumptives.

The *Winsley Sanatorium* for the poorer consumptives of the counties of Gloucester, Somerset, and Wilts issues its fifth annual report. Forty-three of its 68 beds are leased to various local authorities in the three counties, and during the year (1909) 248 patients were admitted. Only 24 per cent. of the admissions were good cases, but even this is an improvement on previous years; 84 per cent. of Class I (good cases) were discharged fit for work, 57 per cent. of Class II, and 29 per cent. of Class III.

The *Blencathra Sanatorium* (Cumberland) is, like Winsley, one of the sanatoriums which owes its existence to the National Association for the Prevention of Consumption. The report for 1909 records another year of good work, but expresses regret that there has been a falling off in the number of patients, and

deplores the difficulty of getting patients in the early stages of the disease; 103 patients were under treatment during the year, of whom only 3 per cent. were in Class I, 63 per cent. in Class II, and 34 per cent. in Class III.

The *National Sanatorium Association's Institution at Benenden* treated 229 patients during the year, the proportion of early cases being much greater than in the other institutions mentioned. Nearly 40 per cent. belonged to Class I, 27 per cent. to Class II, and 33 per cent to Class III. This marked difference between the Benenden admissions and those of other sanatoriums in regard to the proportion of early cases is of great significance when it is borne in mind that the National Association for the Establishment and Maintenance of Sanatoriums for Workers suffering from Tuberculosis is in close connexion with the large friendly societies, and that the patients at Benenden are members of these societies. It is evident that when a man is in a club which ensures sick pay in case of disablement from illness he is more likely to seek advice early and can more easily afford to enter a sanatorium than the man who has no such provision. This is a matter of the utmost importance and worthy of the most careful consideration, especially in view of the fact brought out in the Benenden report, as in all the others, that the benefit of treatment is most marked and most lasting when the patient comes under treatment in the early stage of the disease. In this connexion there is a note of some interest in the Secretary's report for 1909 of the Post Office Branch of the National Association. The Post Office Sanatorium Society maintains 35 beds at Benenden, and a table in its report shows that, of the Post Office patients, 45.5 per cent. were classed as early cases on admission, as against 37.5 per cent. of the patients from other societies who were so classed. This seems to indicate the value of a complete medical organization in addition to the advantage of sick benefits, the medical department of the Post Office being, perhaps, more complete than that of the majority of friendly societies. Though undoubtedly the provision of sick pay is one of the very important factors in bringing patients under treatment in the early and curable stage of pulmonary tuberculosis, there is also reason to believe that the failure to recognize the nature of the mischief when the patient first seeks advice cannot altogether be left out of account. The official medical officer of a Government department can insist upon a more complete examination than most patients will willingly allow to their private doctor. The examination of the reports of several institutions engaged in a common work, though under somewhat dissimilar conditions, may sometimes furnish information and bring out points which cannot be obtained even by the close examination of each report singly.

CITY OF LONDON ASYLUM, STONE, NEAR DARTFORD.

THE statistical tables, published as an appendix to the annual report of Dr. R. Hunter Steen, the resident physician and medical superintendent of this asylum, for the year 1909, show that on January 1st, 1909, there were 579 patients in the asylum, and on the last day of the year 583. The total cases under care during the year numbered 723, and the average number daily resident 577. During the year 144 were admitted, of whom 136 were first admissions. In 54 the attacks were first attacks within three and in 18 more within twelve months of admission; in 26 not-first attacks within twelve months, and in the remainder the illness was either of more than twelve months' duration (41), of congenital origin (2), or of unknown duration. Of the total admissions 37 were transfers from other institutions; and, taking into consideration the average duration of illness, the prospects of recovery were not great. Dr. Steen says that of the total admissions recovery was deemed probable in only 26. The admissions were classified according to the various forms of mental disorder into: Mania of all kinds, 42; melancholia of all kinds, 42; senile and secondary dementia, 10; delusional insanity, 16; general paralysis, 10; dementia praecox, 6; acquired epilepsy, 5; insanity with gross brain lesion, 3; other less common forms of insanity, 6; and congenital defect, 4. As to probable causation in the admissions, excluding the 37 transfers, alcohol was assigned in only 5, or less than 5 per cent.; acquired syphilis in 4, and tuberculosis in 1; critical periods in 9, diseases of the nervous system in 8, other bodily diseases in 2, bodily trauma in 4, mental stress in 23, and in 28 no cause was assigned. An insane heredity was ascertained in only 4, and an epileptic and a neurotic heredity in 1 each. During the year 32 were discharged as recovered, giving a recovery-rate on the admissions of 33.43 per cent., 65 as relieved, and 12 as not improved. During the year 31 died, giving the low death-rate on the average numbers resident of 5.37 per cent. The deaths were due in 14 to cerebro-spinal diseases, including 7 deaths from general paralysis of the insane, in 3 to heart disease, in 1 to cerebral haemorrhage and in 1 to pleurisy, in 4 to chronic Bright's disease, and in the remainder to general diseases, including 4 deaths from tuberculosis. All deaths were from natural causes, and the general health appears to have been good throughout the year.

ST. ANDREW'S HOSPITAL FOR MENTAL DISEASES, NORTHAMPTON.

THE annual report for the year 1909 of Dr. Joseph Bayley, the medical superintendent of this private asylum, shows that the certified patients on the hospital registers on January 1st, 1909, numbered 423, and on the last day of the year 426. The total cases under care during the year numbered 510, and the average number daily resident 421. These figures show slight increases on those of the last few years. During the year 87 were admitted, of whom 65 were direct and 22 indirect admissions. Of the direct admissions, in 18 the attacks were first attacks within three, and in 11 more within twelve months of admission; in 21 not-first attacks within twelve months; and in the remainder the attacks were of more than twelve months' duration on admission. Of the indirect admissions or transfers, the attacks were first attacks in 17 and not-first attacks in 5. The total admissions were classified according to the forms of mental disorder into: Mania of all kinds, 32; melancholia of all kinds, 30; senile and secondary dementia, 5; delusional insanity, 4; stupor, 4; primary dementia, 2; general paralysis, 3; insanity with epilepsy and confusional insanity, 2 each; insanity with gross brain lesion, alternating insanity, and congenital defect, 1 each. As to causation, and considering only the direct admissions, alcohol was assigned as cause in none, and acquired syphilis in 4; critical periods in 5; the puerperal state in 3; diseases of the nervous system in 7; other bodily diseases in only 1; and sunstroke in 2. As is usual with patients of this class, mental stress was operative in a large number; in this instance in 26. An insane heredity was ascertained in 3, a neurotic heredity in 8, and congenital mental or moral defect existed in 6. During the year 33 were discharged as recovered, giving a recovery-rate on the direct admissions of 50.7 per cent., or of recoveries in the direct admissions on the direct admissions of 43.0 per cent.; also 6 as relieved and 18 as not improved. During the year 27 died, giving a death-rate on the average numbers resident of 6.4 per cent. The deaths were due in 8 to cerebro-spinal diseases; in 5 to diseases of the heart and blood vessels; in 2 to respiratory diseases; in 3 to pulmonary and in 1 to general tuberculosis; in 7 to senile decay; and in 1 to senile gangrene. All deaths were due to natural causes, the general health was good throughout the year, and no case of infectious disease occurred among the patients. During the year 184 patients visited Bryn-y-Neuadd, the fine seaside dependency of the hospital at Llanfairfechan, whose house and villas were occupied during the whole year. The Commissioners in Lunacy made their usual visits to the hospital and Bryn-y-Neuadd, and found the whole maintained in admirable order. The report shows that the hospital is in a flourishing financial condition and that the committee is still developing the charitable side of the work in accordance with the intentions of the founders. During the year 107 patients were assisted in their payments, of whom 51 belonged to the county of Northampton, the total sum expended on the assistance rendered amounting to £4,017 1s.

HARROGATE ROYAL BATH HOSPITAL.

THE report presented to the annual meeting of this hospital showed that 1,528 patients had been admitted during the year—1,109 being treated in the hospital and 419 in the home. The average weekly number of patients under treatment had been 113. The balance sheet was satisfactory.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

BETHLEM HOSPITAL.—Two Resident House-Physicians. Honorarium, £25 per quarter each.

BEVERLEY: EAST RIDING LUNATIC ASYLUM.—Second Assistant Medical Officer. Salary, £150 per annum.

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES.—Clinical Assistant. Honorarium at the rate of 52 guineas per annum.

BRECKNOCK COUNTY AND BOROUGH INFIRMARY.—Resident House-Surgeon. Salary, £120 per annum.

BRISTOL CITY HOSPITALS.—Resident Medical Officer at the Ham Green Fever Hospital. Salary, £200 per annum, increasing to £250.

BRISTOL EYE HOSPITAL.—House-Surgeon. Salary, £80 per annum.

BRISTOL ROYAL INFIRMARY.—Honorary Medical Registrar.

BRIXTON DISPENSARY, Water Lane, S.W.—Resident Medical Officer. Salary, £150 per annum.

BURY INFIRMARY.—Junior House-Surgeon. Salary, £80 per annum, rising to £90.

CARDIFF INFIRMARY.—(1) House-Surgeon; (2) House-Surgeon for the Ophthalmic and Ear and Throat Departments. Honorarium, £50 for six months each.

COVENTRY AND WARWICKSHIRE HOSPITAL.—(1) Honorary Aural Surgeon. (2) Junior House-Surgeon; salary, £80 per annum.

DERBYSHIRE ROYAL INFIRMARY.—Honorary Assistant Physician.

EDINBURGH ROYAL INFIRMARY.—Assistantship in the Pathological Department. Honorarium, 50 guineas.

FOLKESTONE: VICTORIA HOSPITAL.—House-Surgeon. Salary, £100 per annum.

GLOUCESTERSHIRE ROYAL INFIRMARY AND EYE INSTITUTION.—Assistant House-Surgeon. Remuneration at the rate of £80 per annum.

GUILDFORD: ROYAL SURREY COUNTY HOSPITAL.—Assistant House-Surgeon. Salary, £50 per annum.

HEMEL HEMPSTEAD: WEST HERTS HOSPITAL.—House-Surgeon. Salary, £100 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Assistant Casualty Medical Officer. Salary, £30 for six months, and £2 20s. washing allowance.

HULL ROYAL INFIRMARY.—Casualty House-Surgeon. Salary at the rate of £60 per annum for six months or £80 for twelve months.

ISLE OF WIGHT UNION.—Medical Officer and Public Vaccinator for the Cowes District. Salary, £90 per annum and fees.

ITALIAN HOSPITAL, Queen Square, W.C.—House-Surgeon. Salary at the rate of £60 per annum.

LEICESTER BOROUGH ASYLUM.—Junior Assistant Medical Officer. Salary, £160 per annum, increasing to £200.

LEICESTER INFIRMARY.—(1) Second House-Surgeon; (2) Assistant House-Surgeon. Salary at the rate of £100 and £60 per annum respectively.

LEICESTER PARISH.—Second Resident Assistant Medical Officer to the Poor Law Infirmary. Salary, £120 per annum.

LIVERPOOL STANLEY HOSPITAL.—Temporary House-Surgeon for two months. Salary 2 guineas per week.

MANCHESTER ROYAL INFIRMARY.—(1) Assistant Surgical Officer; (2) Assistant Medical Officer to the Convalescent Hospital. Salary at the rate of £35 and £80 per annum respectively.

MANCHESTER TOWNSHIP.—Junior Resident Assistant Medical Officer at the Workhouse, Crumpsall. Salary, £110 per annum.

MARYLEBONE PARISH INFIRMARY.—Medical Superintendent. Salary, £450 per annum.

MIDDLESBROUGH: NORTH RIDING INFIRMARY.—Assistant House-Surgeon. Salary, £75 per annum.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Northwood.—House-Physician. Salary, £75 per annum.

NATIONAL ASSOCIATION FOR THE ESTABLISHMENT AND MAINTENANCE OF SANATORIA FOR WORKERS SUFFERING FROM TUBERCULOSIS.—Assistant Medical Officer for the Benenden Sanatorium. Salary, £80 per annum.

NEW ZEALAND: WHANGAREI HOSPITAL.—Medical Superintendent. Salary, £450 per annum.

NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL, Hartshill.—(1) Resident Surgical Officer. Salary, £120 per annum. (2) Junior House-Surgeon. Salary at the rate of £50 per annum.

NOTTINGHAM GENERAL HOSPITAL.—Assistant House-Surgeon. Salary, £60 per annum.

PLAISTOW: MEDICAL MISSION HOSPITAL.—Woman Assistant Doctor for Dispensary.

PORTSMOUTH BOROUGH.—Assistant Medical Officer for the Inspection of School Children. Salary, £250 per annum, rising to £300.

REDHILL: EARLSWOOD ASYLUM.—Junior Assistant Medical Officer. Salary, £130 per annum, rising to £150.

RENFREW COUNTY COMMITTEE ON SECONDARY EDUCATION.—Two School Medical Inspectors. Salary in each case, £300 per annum, rising to £350.

ROYAL WATERLOO HOSPITAL FOR CHILDREN AND WOMEN, S.E.—Junior Resident Medical Officer. Salary at the rate of £40 per annum.

RYDE: ROYAL ISLE OF WIGHT COUNTY HOSPITAL.—Resident House Surgeon (Male). Salary, £125 per annum.

ST. ANDREWS UNIVERSITY.—Additional Examiners in Materia Medica, Forensic Medicine and Public Health, Surgery and Clinical Surgery, Medicine and Clinical Medicine, Midwifery and Gynaecology, Anatomy.

ST. PAUL'S HOSPITAL FOR SKIN AND GENITO-URINARY DISEASES, Red Lion Square, W.C.—Assistant House-Surgeon. Honorarium, £10 10s. for six months.

SALFORD UNION INFIRMARY.—Male Resident Assistant Medical Officer. Salary, £120 per annum.

SALISBURY INFIRMARY.—Assistant House-Surgeon. Salary, £50 per annum.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Junior House-Surgeon. Salary, £80 per annum.

SEAMEN'S HOSPITAL SOCIETY: ALBERT DOCK HOSPITAL, E.—(1) Senior House-Surgeon. Salary at the rate of £75 per annum, and additional £25 for acting as Registrar. (2) House-Surgeon. Salary at the rate of £50 per annum.

SHEFFIELD ROYAL HOSPITAL.—Assistant House-Physician. Salary, £50.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—House-Surgeon. Salary, £100 per annum, increasing to £110.

STOCKPORT INFIRMARY.—Junior House-Surgeon (male). Salary, £80 per annum.

SOUTHWARK UNION INFIRMARY.—Assistant (male) Medical Officer. Salary, £80 per annum.

TAUNTON: TAUNTON AND SOMERSET HOSPITAL.—Resident Assistant House-Surgeon. Salary at the rate of £50 per annum.

UNIVERSITY COLLEGE HOSPITAL, Gower Street, W.C.—Assistant Physician.

VENTNOR: ROYAL NATIONAL HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Two Assistant Resident Medical Officers. Salary, £100 per annum.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician for six months.

WESTMORLAND CONSUMPTION SANATORIUM.—Assistant Resident Physician. Salary, £100 per annum.

CERTIFYING FACTORY SURGEON.—The Chief Inspector of Factories announces a vacancy for the Mottram and Glossop District.

APPOINTMENTS.

ASH, Edwin, M.D.Lond., Assistant Physician to the Italian Hospital, London.

BARLING, Seymour, M.B., M.S.Lond., F.R.C.S., Assistant Surgeon to the General Hospital, Birmingham.

BARWICK, R. L., M.R.C.S., L.R.C.P., District Medical Officer of the Lancaster Union.

DAVIES, D. Leighton, M.D., M.S.Lond., F.R.C.S.Eng., L.R.C.P.Lond., Honorary Assistant Ophthalmic Surgeon to the Cardiff Infirmary.

FORDYCE, W., M.D., F.R.C.P.Edin., Gynaecologist to the Leith Hospital, vice J. Haig Ferguson, M.D., F.R.C.P.Edin., resigned.

GILROY, E. W., M.D., District and Workhouse Medical Officer of the Hemel Hempstead Union.

KINMOUTH, G. H., L.R.C.S., L.R.C.P.Irel., Certifying Factory Surgeon for the Lisdoonvarna District, co. Clare.

LOUGHRIDGE, J. C., L.R.C.P. and S.Edin., L.F.P.S Glasg., Certifying Factory Surgeon for the Cammoney District, co. Antrim.

LYND, J. C., L.R.C.P. and S.Edin., L.F.P.S.Glasg., Certifying Factory Surgeon for the Limavady District, co. Londonderry.

MCVAIL, Miss Elizabeth, M.B., Ch.B.Glasg., D.P.H., Lady Inspector to the Local Government Board for Scotland.

MARTIN, A. G., M.B., Ch.B Edin., Certifying Factory Surgeon for the Dungiven District, co. Londonderry.

MARTYN-CLARK, W. Ireland, M.B., Ch.B.Edin., District Medical Officer of the North Bierley Union.

MITCHELL, George, M.D. Aberd., D.P.H., Chief School Medical Officer to the Aberdeen Education Committee.

MOXON, Frank, M.B., B.S.Durh., Assistant in the Refraction Department for School Children, Royal London Ophthalmic Hospital, Moorfields.

PASSMORE, J. E. S., M.R.C.S., L.R.C.P., Certifying Factory Surgeon for the Gainsborough District, co. Lincoln.

PIRIE, A. J., M.B., Ch.B.Aberd., Certifying Factory Surgeon for the Ballindalloch District, co. Banff.

ROSS, C. H. G., M.B., B.Ch., R.U.I., Certifying Factory Surgeon for the Navan District, co. Meath.

SHARP, P. J., M.B., C.M.Edin., Certifying Factory Surgeon for the Blackford District, co. Perth.

SHERLOCK, Henry Gregg, F.R.C.S., Professor of Dentistry in the Royal College of Surgeons in Ireland.

TAYLOR, G., M.B., Ch.B.Vict., Medical Officer of Health of the Failsworth Urban District.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTH.

HEFFERNAN.—At Dublin, on May 19th, 1910, the wife of Lieutenant-Colonel W. Heffernan, R.A.M.C., of a daughter.

DEATHS.

BENNEE.—At Sheffield on May 17th, after a short illness, Albert Edward Bennee, M.B., Ch.B., Demonstrator of Pathology at Sheffield University. (African papers please copy.) Friends please accept this (the only) intimation.

CANE.—On May 10th, suddenly, at The Gables, Belvedere, Kent, Howard Cane, M.D., aged 59.

FIDDIAN.—On May 23rd, at 23, The Walk, Cardiff, Alexander Paull Fiddian, M.B.Lond., in his 66th year, of pneumonia.

HENDERSON.—At Southfield House, Wakefield, on May 22nd, John Henderson, M.A., M.B. and C.M., D.P.H., in his 54th year.

DIARY FOR THE WEEK.

MONDAY.

KING'S COLLEGE PHYSIOLOGICAL LABORATORY, 4.30 p.m.—Lecture by Professor F. W. Mott, F.R.S.: The Relationship of the Brain to Voice.

WEDNESDAY.

ROYAL SOCIETY OF MEDICINE, Morley Hall, George Street, Hanover Square, W., 5 p.m.—Discussion on Vaccine Therapy, its Administration, Value, and Limitations, by Dr. William Bulloch and others.

THURSDAY.

NORTH-EAST LONDON CLINICAL SOCIETY, Prince of Wales's Hospital, Tottenham, 4.15 p.m.—Election of Officers, 1910-11. Cases and Specimens.

ROENTGEN SOCIETY, 20, Hanover Square, W., 8.15 p.m.—Papers:—Dr. Howard Pirie: Practical Observations on Everyday *X*-Ray and Electrical Work; Filtration of Rays; Measurement of Rays; Rapid Stereoscopic Method, etc. Dr. R. Knox: Recent Improvements in Radiographic Technique. Demonstration:—Dr. Hampson: A New Form of Apparatus for Producing Rhythmical Variations in the Strength of Electrical Currents.

FRIDAY.

ROYAL SOCIETY OF MEDICINE:

ELECTRO-THERAPEUTICAL SECTION, 15, Cavendish Square, W., 8.30 p.m.—Annual General Meeting and Election of Officers. Paper:—Dr. Joseph Bolton: The Relief of Symptoms of Prostatic Obstruction by Electrical Treatment. Discussion on the Relative Value of Various Types of High-Tension Transformer (including Coil) used for the production of *X* Rays, to be opened by Dr. Reginald Morton.

LARYNGOLOGICAL SECTION, 15, Cavendish Square, W., 5 p.m.—Cases and Specimens.

SATURDAY.

ROYAL SOCIETY OF MEDICINE:

OTOLOGICAL SECTION, 11, Chandos Street, W., 10 a.m.—Annual General Meeting and Election of Officers. Paper:—Dr. Wyatt Wingrave: Notes on the Pathology of Cholesteatoma. Cases and Specimens.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Lectures: Tuesday, 3.45 p.m., Pharynx and Naso-Pharynx. Friday, 3.45 p.m., Clinical Cases.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Wednesday, 4 p.m., Aortic Incompetence and its Clinical Lesions.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Thursday, 4 p.m.—Hysteria in Childhood.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat, at noon and 4 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Thursday, and noon, Friday; Eye, 11 a.m., Wednesday and Saturday; Radiography, 4 p.m. Thursday Special Lectures: Wednesday, 2.15 p.m., Tremors and Convulsive Movements; Friday, 3.15 p.m., The Surgery of Urethral Stricture.

MEDICAL GRADUATES COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Medical; Friday, Eye. Lectures at 5.15 p.m. each day will be given as follows: Monday, Diagnosis of Disseminated Sclerosis; Tuesday, Demonstration of Mental Cases; Wednesday, On the Treatment of certain Fractures; Thursday, The Diagnosis and Treatment of Papilloma of the Bladder.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday and Friday, 3.30 p.m., Eye Signs and Symptoms in Nervous Disorders.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, 10 a.m., Surgical Out-patient Clinic; 2.30 p.m., Medical Out-patient Clinic: Nose, Throat, and Ear Diseases. Tuesday, 10 a.m., Medical Out-patient Clinic; 2.30 p.m., Operations. Clinics: Surgical, Gynaecological, 3.30 p.m.; Medical In-patient, 4.30 p.m.; Special Demonstration of Selected Skin Cases. Wednesday, 2.30 p.m., Medical Out-patient Clinic: Diseases of the Skin; Diseases of the Eye; *X* Rays. Thursday, 2.20 p.m., Gynaecological Operations; Medical Out-patient Clinic; Surgical Out-patient Clinic; 3 p.m., Medical In-patient Clinic. Friday, 10 a.m., Clinic: Surgical Out-patient; 2.30 p.m., Operations; Clinics: Medical Out-patient; Eye; 3.30 p.m., Medical In-patient.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith, W.—Daily arrangements: Medical and Surgical Clinics, 2 p.m.; Operations, 2 p.m.; *X* Rays, 2 p.m. Monday: Surgical Registrar, 10 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat, Nose and Ear Operations, 10 a.m.: Practical Medicine, 12.15 p.m.; Eye 2 p.m.; Gynaecology 2 p.m. Thursday: Surgical Registrar, 10 a.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Medical Registrar, 10 a.m.; Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin., 2 p.m. Saturday: Diseases of Children, 10 a.m.; Eye, 10 a.m. Lectures at 5 p.m.: Monday, Ocular Symptoms in General Disease; Tuesday, Sleeping Sickness; Wednesday, Practical Medicine; Thursday, Surgery of Gastric Ulcer; Friday, Clinical Lecture, with cases.

RECENT PUBLICATIONS.

The Pharmaceutical Pocket Book 1910–11. Edited by John Humphrey. London: The Pharmaceutical Press (Simpkin, Marshall, Hamilton, Kent and Co.) Pp. 412.

A neat booklet affording a great variety of information concerning dispensing, chemical and bacteriological analysis, the training of pharmacists and the examinations they have to undergo. Though not designed for medical men it would often be found useful by them as a ready reference book on sundry points with which it is useless to load the memory.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
	MAY.
29 Sunday ..	
30 MONDAY ..	London: Standing Ethical Subcommittee, 2 p.m.
31 TUESDAY ..	BLACKPOOL DIVISION, *Lancashire and Cheshire Branch*, Jenkinson's Café, Talbot Square, Blackpool, 8.30 p.m. CITY DIVISION, *Metropolitan Counties Branch*, School Children Committee, Liverpool Street Hotel. SHROPSHIRE AND MID-WALES BRANCH.
	JUNE.
1 WEDNESDAY	
2 THURSDAY ..	BIRMINGHAM BRANCH, Annual Meeting, Medical Institute, Edmund Street, 4 p.m. KENSINGTON DIVISION, *Metropolitan Counties Branch*, Kensington Town Hall, 4.30 p.m. ULSTER BRANCH, Annual Meeting, Belfast.
3 FRIDAY ..	
4 SATURDAY ..	
5 Sunday ..	
6 MONDAY ..	
7 TUESDAY ..	NORTHAMPTONSHIRE DIVISION, *South Midland Branch*, Annual Meeting, Board Room, Northampton General Hospital, 2.30 p.m.; Luncheon, Franklin's Restaurant, 1.30 p.m.
8 WEDNESDAY	
9 THURSDAY ..	GLOUCESTERSHIRE BRANCH. Annual Meeting, Hospital, Stroud, 6.30 p.m.; Dinner, Imperial Hotel, Stroud, 7.45 p.m. SOUTH WALES AND MONMOUTHSHIRE BRANCH, Annual Meeting, Newport (Mon.).

Date.	Meetings to be Held.
	JUNE *(continued).*
10 FRIDAY ..	(EDINBURGH BRANCH, Annual Meeting, Hall of the Royal College of Surgeons, 4.15 p.m.
11 SATURDAY ..	
12 Sunday ..	
13 MONDAY ..	SOUTH-EASTERN COUNTIES DIVISION, *Edinburgh Branch*, Annual Meeting, Railway Hotel, St. Boswells, 3.30 p.m.
14 TUESDAY ..	
15 WEDNESDAY	CENTRAL DIVISION, *Birmingham Branch*, Annual Meeting, Medical Institute, 3.30 p.m. LANCASHIRE AND CHESHIRE BRANCH, Annual Meeting, Burnley. SOUTH-EASTERN BRANCH, Annual Meeting, Albany Hotel, Hastings, 2.15 p.m.; Luncheon, 1 to 2 p.m. SOUTH-EASTERN OF IRELAND BRANCH, Meeting of Branch, also meeting of Branch Council and Local Division, Council Chamber, Clonmel, 12 noon.
16 THURSDAY ..	EAST ANGLIAN BRANCH, Annual Meeting, Thetford. EAST YORK AND NORTH LINCOLN BRANCH, Annual Meeting, Royal Infirmary, Hull, 12.30 p.m. SOUTH MIDLAND BRANCH, County Hospital, Bedford; Luncheon preceding Meeting.
17 FRIDAY ..	
18 SATURDAY ..	MUNSTER BRANCH, Annual General Meeting, Rooms of the Cork Medical Society, 74, South Mall, Cork, 4.30 p.m.
19 Sunday ..	
20 MONDAY ..	
21 TUESDAY ..	

Printed and Published by the British Medical Association at their Offices, No. 429, Strand, in the Parish of St. Martin-in-the-Fields in the County of Middlesex

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JUNE 4TH, 1910.

CONTENTS.

	PAGE
Meetings of Branches and Divisions:	
Bath and Bristol Branch	321
Dorset and West Hants Branch: Bournemouth Division ...	321
East Anglian Branch: North Suffolk Division	322
Lancashire and Cheshire Branch: Southport Division ...	322
Metropolitan Counties Branch: Kensington Division	322
The Seventy-eighth Annual Meeting of the British Medical Association.—PROGRAMME OF BUSINESS ...	326
MEMBERS ELECTED DURING THE MARCH QUARTER ...	334
ASSOCIATION NOTICES.—Special Representative Meeting.—Notice of Formation of a New Branch of the Association ...	338
BRITISH MEDICAL ASSOCIATION LIBRARY	339
CENTRAL MIDWIVES BOARD	358
VITAL STATISTICS	358
NAVAL AND MILITARY APPOINTMENTS	359
VACANCIES AND APPOINTMENTS	359
BIRTHS, MARRIAGES, AND DEATHS	359

	PAGE
General Medical Council:	
Medical Disciplinary Cases	340
Dental Disciplinary Cases	353
Committees	354
Examinations for the Services	355
The Apothecaries' Society of London	355
Public Health Committee	355
The Apothecaries' Hall of Dublin	355
Separate Examinations in Final Subjects	355
Practical Examinations in Ophthalmology, Otology, and Laryngology	356
Proposed Inspection of Dental Examinations	356
Report of Pharmacopoeia Committee	356
Report of Finance Committee	356
Extension of the Midwives Act to Ireland	357
The Position of Chemistry, Physics, Botany, and Zoology in the Curriculum	357
Vote of Thanks	358
Death of King Edward VII	358
PUBLISHERS' ANNOUNCEMENTS	359
DIARY FOR THE WEEK	360
CALENDAR	360

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

BATH AND BRISTOL BRANCH.

THE annual meeting was held at Bath on May 25th. Thirty-five members were present. A letter of apology was read from Mr. Munro Smith, President, regretting absence through ill health.

Confirmation of Minutes.—The minutes of the last annual meeting were read.

Installation of New President.—The chair was taken by Dr. RATTRAY, of Frome, the incoming President, who delivered his inaugural address on post-graduate study. A vote of thanks to the President for his interesting address was moved by Dr. NORBURN, seconded by Mr. L. E. V. EVERY CLAYTON, and carried unanimously.

Report of Council.

The report of the Council was read by the Bath SECRETARY as follows:

The Council have much pleasure in reporting another successful year's work. The total number of members is now 417, of whom 253 are in the Bristol and 164 in the Bath District. There is a total increase of 15 members as compared with 1908. There have been some losses by death, and the Council regret to record among these, in the Bath District, Mr. C. Reid of Swindon, Mr. R. G. Worger of Radstock, who was elected a member and died within a year, and Lieutenant-Colonel Boileau, M.D., a distinguished officer of the Army Medical Service; in the Bristol District, Surgeon-General Bainbridge and Dr. Gent.

The following members have been elected to represent the Divisions on the Branch Council: For Trowbridge, no return; for Bristol, Dr. J. O. Symes, Dr. Harry Grey, Dr. H. S. Ballance, Dr. Every Clayton, Dr. Logan, and Dr. Young; for Bath, Dr. Whitby, Dr. Wigmore, Mr. Crisp, Mr. Bloxam, and Dr. Waterhouse.

The financial condition of the Branch is satisfactory, although the grant from head quarters, which has been reduced from 4s. per head in 1908 to 2s. per head in 1909, necessitates the utmost economy.

The scientific work of the session has been quite up to the standard of previous years. The clinical evening in Bristol in January was most successful, both from the interesting nature of the diseases and from the thorough way in which the details of the cases were presented. The Bath meeting in February was largely attended, when Sir Victor Horsley opened a discussion on "The surgical treatment of the various forms of goître."

There have been one or two ethical cases brought before the Council during the year, and they have been satisfactorily arranged.

Disputes between clubs and their medical officers have occurred. In one case the Council are pleased to record that their support has been of considerable use to the members affected. As a result of the co-operation of the Branch in another case a member has been enabled to raise his charge from 4s. per member to 5s., and he has recently written to the Council a letter thanking them for their aid in the matter.

DORSET AND WEST HANTS BRANCH:
BOURNEMOUTH DIVISION.

THE annual meeting of this Division was held in the Medical Society's Rooms, Bournemouth, on Saturday, May 14th, Dr. ELEANOR C. BOND in the chair. Twenty-one members were present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Report and Financial Statement.—The report and financial statement were read by the HONORARY SECRETARY and passed.

Election of Officers.—The following were elected officers for the ensuing year: *Chairman*, Mr. F. C. A. Bushman; *Vice-Chairman*, Dr. E Kaye Le Fleming; *Honorary Secretary and Treasurer*, Dr. Eleanor C. Bond; *Representative of Division*, Dr. W. Johnson Smyth; *Representatives on Branch Council*, Drs. Bond, Bushman, Field, Fowler, Parkinson, Ramsay, and Johnson Smyth; *Executive Committee*, The above, with Drs. Davison, Montgomery, and Simmons.

Public Medical Services.—After discussion it was agreed to appoint a subcommittee composed of members representing the Bournemouth Provident Medical Association and country practitioners, who should consider the circular and report to the Division at a subsequent meeting.

Parliamentary Representation of the Profession.—The letter from the Chelsea Division was considered. The meeting was not in favour of its proposals.

Vote of Condolence.—It was proposed by Mr. Alexander, and seconded by Dr. H. Simmons, that a letter of condolence be sent to Dr. W. S. Richardson in his recent bereavement.

EAST ANGLIAN BRANCH:

North Suffolk Division.

The annual meeting of this Division was held at the Lowestoft Hospital on Thursday, May 19th, at 4.30 p.m.

Election of Officers.—The following were elected officers for the ensuing year: *Chairman*, G. H. Ransome; *Vice-Chairman*, W. L. Bell; *Honorary Secretary and Treasurer*, W. Tyson; *Honorary Assistant Secretary*, S. Barradell Smith; *Representative on Branch Council*, H. M. Evans; *Representative for Representative Meeting*, A. C. Mayo; *Executive Committee*, H. M. Evans, H. P. Hilsham, A. Marshall, R. T. Worthington.

LANCASHIRE AND CHESHIRE BRANCH:

Southport Division.

The annual meeting of the Division was held at the Temperance Institute on May 25th at 8 p m. Present: Dr. Barwise (in the chair); Drs. Anderson, Baildon, Bentall, Brown, Littler, Maccall, Popert, Russel, Speirs, Sykes, and Harris.

Apologies for Non-attendance.—Apologies for absence were received from Drs. Ashworth, Gill, Schofield, and Walker.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Report of Executive Committee.—The annual report of the Executive Committee was read.

Election of Officers.—The following officers were elected: *Chairman*, J. H. Sykes, M.D; *Vice-Chairman*, R. M. Littler, Esq.; *Honorary Secretary and Treasurer*, R. Harris, M.B.; *Representatives on Branch Council*, Percy Ashworth, M D., and R. Harris, M.B.; *Representative for Representative Meeting*, Stanley A. Gill, M.D. (already elected); *Deputy*, R. Harris, M.B.; *Executive Committee*, W. Barwise, Esq., S. M. Brown, M.D., J. C. Russel, M.D., W. R Speirs, M.B.

Notices of Motion.—None of the notices of motion in the British Medical Journal Supplement of April 23rd were discussed, it being understood that, unless they should be brought up at a subsequent meeting, they would be left to the judgement of the Representative.

Public Medical Service.—The model rules for a Public Medical Service, published in the Supplement of May 7th, were mentioned, but having been already dealt with, were not further discussed.

Parliamentary Representation of the Profession.—The following resolution by the Chelsea Division was submitted:

> That this meeting recognizes the necessity for a union of medical practitioners with parliamentary representation, and requests the Executive of the British Medical Association to ascertain the wishes of members in the United Kingdom by referendum at the earliest possible date.

After discussion, it was resolved unanimously:

> That the resolution does not meet with the approval of this Division.

Vote of Thanks to Representatives on Council.—A suggestion that a Divisional official nomination should be given to the retiring Representatives of the Branch on the Central Council who are standing for re-election was considered, and the following resolution was passed unanimously:

> That this Division expresses its cordial appreciation of the assiduous services of the Representatives of the Branch on the Central Council, and records its hearty thanks for the same, but does not think it desirable to take any action as a Division in the forthcoming election.

The Application for a Royal Charter.—The Secretary was instructed to call a meeting of the Division at a suitable date to consider the special report of the Central Council about to be issued respecting the application to the Privy Council for a Royal Charter.

METROPOLITAN COUNTIES BRANCH:

Kensington Division.

A special meeting of the Kensington Division was held at the Town Hall, Kensington, on Friday, April 29th.

Special Class of Consultants.

The report of the Central Ethical Committee on a special class of consultants was discussed. Dr. Fred. J. Smith, Physician to the London Hospital, in response to the invitation of the Executive Committee, opened the discussion with an address which was closely followed by those present—forty in number.

Dr. Chas Buttar, Chairman of the Division, presided, and after referring to the importance of the matter, called upon Dr. F. J. Smith, who said:

In opening the discussion on "A Special Class of Consultants," a subject sent down from head quarters for consideration by Divisions, I hesitated for some time as to the best way to do it—that is, whether to take the report of head quarters and merely pick out sentences and points for criticism, or to take a wider view of the question and dig a little deeper into the matter. I finally decided, at any rate for publication, to take the latter course, and hope you may have patience to listen to me for a while in my endeavour to point out to you the principles underlying the relationship of consultant to general practitioner.

Consultants and General Practitioners.

We may commence, then, with one very fundamental and pertinent question, What is the object of a man in spending (or having spent for him) a thousand pounds or more of money and five years or more of time in obtaining a licence or diploma to practise medicine? and, further, in adding thereto a degree of a university, or in taking out some additional diploma in some department of medicine? The very obvious and indisputable answer is—To earn a living (we need not discuss or consider those blessed with a competence who do these things *pour passer le temps*) in an honest and honourable manner.

This being granted as the object, we may classify the means and methods subsequent to qualification by which men hope to obtain it, and these divide themselves more or less naturally into groups and subgroups as follows:

1. The fighting services—army, navy, and Indian medical.

2. The civil services or Government appointments, of which there are many, and their numbers are daily increasing:

Post Office.
Medical officers of health } part or whole time.
School medical officers }
Lunacy medical officers, asylums, etc.
Workhouse medical officers.
Factory surgeons.
Insurance medical officers (private appointments).
Medical officers to county councils.
Parish medical officers.
Colonial medical officers.
And many others.

3. Private but official appointments in connexion with teaching schools and universities:

Anatomy.
Physiology.
Chemistry } often non-medical
Biology }
Bacteriology, including vaccination and opsonization.
Pathology.
Clinical pathology.
Electrical therapeutics.
X-ray work.
Balneology.

Some of which work and appointments imply pure laboratory engagements only and some trench on the clinical aspects as well.

4. Clinical workers or direct unofficial healers of the sick necessitating personal interviews with the patients—in other words, with the public. These constitute at present by far the larger proportion of the profession, though whether this will continue to be the case is an open question in view of the present tendency to increase Group 2. Of them we may make several subgroups, more or less distinct:

SUBGROUP 1.—*Specialists.*

Eye.	Heart.
Ear, nose, and throat.	Lungs.
Gynaecologists.	Nerves.
Anaesthetists.	Electricity and *x* rays.
Dentists.	Radium, the possessors of.
Dermatologists.	Balneologists.
Gout.	Dieteticians.

SUBGROUP 2.

General practitioners.	Surgeons.
Physicians.	

Trouble has arisen in the profession from the idea that the members of Classes 2 and 3, whose main business is laboratory and official work, have trespassed on the domain of Class 4, and that members of Class 4, Subgroup 1, have similarly trespassed on the domain of Subgroup 2, and I might add, from my own personal point of view, that members of Subgroup 2 have trespassed on their fellow members' domains.

[I am not in a position to talk about the trespasses of Class 2 on Class 4, but, judging by the correspondence in our JOURNAL, I suspect that this question is one of much more serious import to the general practitioner, and will become much more acute in the future than the one we are asked to discuss.]

Stripped of verbiage and trimming, the complaints are:

1. That the public is choosing to ignore the general practitioner in order to go direct to one whom he thinks is superior in knowledge; and

2. That when the general practitioner sends a patient to one of these superior persons, such patient does not return to the general practitioner, but continues in attendance on the superior person.

The cure for these complaints, which you are asked to discuss, as suggested by the British Medical Association, is a warning off of each class and subgroup from the domain of the others. It is worth while to see how the trouble has arisen, and then we can discuss the cure.

The origin of the trouble undoubtedly lies in some of the following considerations:

1. A subsidiary one may be dismissed at once as extra professional, but, all the same, a real one—namely, the ease of locomotion, which enables a man to seek a centre of medical skill with less loss of time than is involved in a cross-country journey of a few miles.

2. We have to go back scarcely beyond the memory of men still alive to reach a time when medical knowledge, let alone medical education, was but a tithe of what it is to-day, and (say) fifty years ago a very wide gulf separated men with a teaching or hospital appointment from the general practitioner, a gulf which on the one hand has been very much narrowed by advances both in knowledge and in education, but on the other hand has been kept open by the steady development of specialism—so that the skill and knowledge of the average practitioner of to-day are far and away greater than that of a teacher of fifty years ago, and the efficiency of the specialist finds no basis from which it can be compared with anything possessed by his predecessors. Consequent on this increased knowledge and efficiency, the idea that it is only a member of a teaching staff or indeed a specialist who is a consultant must be given up, for everybody is now, or considers himself equal to the task of throwing light on the case of a brother practitioner or of treating his cases for him on more scientific principles. So as we are all consultants we must all be general practitioners—at any rate, not to anticipate my own remedy too much, one must say here that if we are to warn consultants off the domain of the others as a class, we must equally warn the general practitioners off the consultants' domain and forbid them to consult, and warn surgeons off the physicians' ground, which is my own grumble.

3 In the last twenty or thirty years there has been an enormous increase in the number of hospitals built for all sorts of purposes, special and general, and run on all sorts of lines, charitable, half and half, or on purely commercial ones, which hospitals in their turn have been staffed by men who, though, perhaps, originally in general practice, have by their connexion with the establishment attained to a general status somewhat (in the eyes of the public, at all events) superior to that of the men who have not been so connected.

[This must now be accepted as a fact. The objects, the ethics, and the personnel, and the management of these hospitals offer a very wide field for discussion, but this is quite beside our present purpose, as are the same points in connexion with nursing homes, which are really hospitals in all but name.]

From the founding and working of these hospitals there have quite naturally and inevitably followed two or three consequences which might almost be said to be the very crux and kernel of our present subject.

There is the tremendous increase in that class of practitioner who has obtained a greater or less special experience in investigating cases of some obscurity in diagnosis and in treating by special therapeutical measures cases of chronic ailments, diagnosis and treatment both requiring more elaborate methods and special laboratory or institutional apparatus than lie within the power of the average general practitioner.

The existence and the increase of this class has to be accepted as a fact, just as the hospitals which gave rise to it are facts. We have admitted that the object of every medical practitioner is to make a living, and these men therefore have to do the same. How are they to do it? They have no large clientèle of pupils to send them cases in after-life, consequently they have to adopt other means to spread their fame, by methods every whit as honourable as those pursued by any consultant, specialist, or general practitioner; in fact, they become specialists, many of them, in some direction or another. One instals in his house an excellent electrical plant, another fits up a bacteriological laboratory, another forms a small pathological institute, and so on; and then they one and all make it their earnest endeavour to improve their skill, their knowledge, and therefore their reputation, and quite rightly too. Nor are they morally obliged to keep their reputation a secret from the public at large; in fact, their object must be to spread it abroad amongst possible clients by all honourable means, such as the publication of successful cases in professional journals, by lectures, and by papers read before societies—all of which they hope will reach a lay as well as a professional audience. We arrive, then, finally at the conclusion that the number of consultants almost equals the number of the profession altogether. The school medical officer will very soon be recognized as a consultant for children's ailments.

The Remedy.

I have, I am afraid, tried your patience sorely with tracing the origin of our troubles, and now we must come to the remedy. We have seen that we are all professional rivals (believe me, it is not the general practitioner who is the only one hit, and hit hard, by

modern conditions); how are we to make this rivalry as little unpleasant as possible, to prevent it from leading to unseemly bickering and to bitter quarrels? I know of only one short answer to the problem: "Be honourable and honest, and put yourself in the other man's place and see how you would like it." The general principles of this idea I have elaborated recently at some little length in a paper read by me before the students at the London Hospital and published in our *Hospital Gazette* (copies were handed round at the meeting).

The Public.

It is well known that men in the mass or crowds have a psychology all their own, but crowds in this sense never attempt to apply to a doctor, and therefore when one speaks from a medical point of view of the interests of the public we are speaking of the interests of single individuals, each acting in his individual capacity.

Now as regards his own health, and perhaps even more as regards his wife's or child's health, it is mere folly to think that a man will not wish to get the best advice that his money or social circumstances will permit; and this wish is a very legitimate one, and to attempt to baulk it savours very much of a bad policy, bad for the sick individual and bad for the population at large, and when the attempt becomes known, bad for the doctor who makes it. (It is this wish which leads to so much real hospital abuse, with which we are not now concerned.)

It will, then, naturally be asked what is meant by the best advice. The answer which the British Medical Association suggests may be given is that at least two doctors should be looking after the patient. The public says, Why should I pay for two when one is sufficient? and certainly common sense says, Why, indeed?

The answer the public would give is that the best advice obviously means the best treatment. Let us see how an ordinary person—a layman—sets about obtaining this.

He may ask his lay friends; he may ask his general medical adviser, if he has one; he may consult the columns of the press, lay or professional; or he may act on his own opinion and go direct to a medical man of any sort, and I have no hesitation in saying that his fate depends, first, last, and all the time, on the honesty of the man whom he reaches by one of these methods; and let me say that not one of the groups or subgroups set out above has a monopoly of honesty—it is a quality very fairly shared by them all, and it is really only the black sheep in each group that have roused the present state of tension. The British Medical Association retorts, Well, laws are meant to restrain would-be evildoers, and the honest men need not be frightened.

This sounds very nice, but the Association forgets my first original question, and when it would try to prevent a man earning his living by honourable methods, it obviously concludes that the whole profession is one big rogue, and puts restrictions on all its members on this plea—restrictions naturally resented by those of us who think we are passing honest.

As a consultant myself, will you forgive me if I sketch for you my own ideas of honesty in my own class first.

First and foremost, I say straight out that I am acting quite honestly in treating to the best of my ability any patient who comes to me and tells me definitely that he has no local doctor, and from this position I have no intention of receding. But I must defend myself by saying that I make it an absolute rule, without any exception, to put the question to every—apparently—independent patient; nor do I stop there, for if I believe his case to be one that could be as well treated at home, I am somewhat persistent in asking his permission to let me send him to a local doctor with a note from me, which note contains all that I have to suggest by way of treatment—generally including a prescription.

I have my own little grumble here—namely, that upon more than one occasion I have had a rude reply, telling me to make up my own medicine, that the doctor in question is not a chemist, etc. Needless to say, I have thereupon taken the patient as my own, either privately, if he could pay, or as a hospital patient, if too poor to pay for a long attendance. I admit the men who write such letters are rare, but they exist; they probably represent the few dishonest general practitioners.

If the patient is sent to me by a professional brother, I must claim that it would no more occur to me to try to keep such a patient as my own than it would to try to steal a general practitioner's purse—unless indeed, as happens occasionally, the patient is sent with a request that I would keep him under observation, or, as very rarely happens, I cannot pretend to give a diagnosis without further observation, in which case I have perhaps on half a dozen occasions put such a patient into a home for a few days to complete the diagnosis, but never for complete treatment.

If the patient be sent to me by a dentist, as happens fairly often, I treat him as though he had come on his own account and make persistent endeavours to put him in a general practitioner's hands for continued treatment; if he equally persistently refuses, I accept him as my own.

Lastly, if I visit a patient in consultation I may again claim that I would upon no account see such patient at his house or my own without the consent and possibly the presence (at my own house) of the doctor with whom I saw him.

These rules that I lay down for myself seem to me not to be ethical rules but ordinary honesty, and I should consider myself simply dishonest if I broke them without just cause.

You may, then, well ask what do I call just cause.

I have already illustrated one such—namely, a rude letter from the general practitioner in question.

There is one other of very rare occurrence, but it does happen now and again—namely, that it comes to my knowledge that the general practitioner is not acting honestly by his patient in the way of the treatment we agreed upon; such a case did actually happen to me a few weeks ago. You may say two blacks don't make a white, which is true in general, but not here, for the general practitioner's black is against the patient's interest, as well as indirectly against mine; my black is distinctly in the patient's interest, though it may be also against my own. I do claim that the patient's interest is my first care.

There is another group of cases which I consider I can accept—namely, those who are sent home by old patients or by my friends with the express and deliberate object of putting themselves under my sole charge, believing that I can treat them better than any one else. I confess that with this group my conscience is not easy until I have put the matter in all its bearings very clearly before the patient or his friends, including naturally the difference they will find in the fees; the amount of these is the most common deterrent. I also make a practice of telling them, if I can do so, that they will be just as well treated at home by a general practitioner; if they do not like and will not have the one they have been to, I go to the length of hunting one up for them in the *Directory*, within reasonable distance of their home. If they still desire to be treated by me, I consider I am absolutely at liberty to treat such a case without dishonesty to any one.

The General Practitioner's Point of View.

On entering into and all through practice, what is the main object of a general practitioner? We have already replied, To make a living. But there still remains this aspect of it and further question, What is the best way of making a living? And undoubtedly this can easily be answered, Gain the goodwill of your fellows by honesty and uprightness, by playing the game, and gain the confidence of your patients by fair dealing with them and by showing them that you are making their interests your first concern, whether by your own skill or by seeking for further advice when you feel that this might result in benefit to a patient.

Just as a dishonest consultant occasionally steals a patient, so a dishonest general practitioner keeps a patient to himself long after he has discovered that he cannot without further advice on diagnosis or treatment do the best possible for such patient.

Let me conclude, then, with this suggested remedy: Let us all be honest with our patients and make their interests our first consideration, and let me advise you as general practitioners never to send a patient to a consultant whom you have personally found acting dishonestly to you.

[Dr. Smith then made some criticisms of the suggested rules, which he thought were unnecessary and not likely to promote harmony in the profession.]

Dr. LAURISTON SHAW said that as a member of the Central Ethical Committee he had been already obliged to consider the report somewhat carefully, and he could not refuse the Chairman's kind invitation to attend this Divisional meeting and take part in its discussion. He felt some diffidence in taking part in the discussion, because he was so confident of the need of some change in existing conditions that he feared, in attacking a system, he might be considered to be criticizing men (many his best friends) who were in a perfectly honourable manner working under it. Most emphatically he dissented from Dr. Frederick Smith's contention that their professional difficulties were due to dishonesty on one side or the other. He hoped, in discussing this matter, they whould all give each other credit for honestly endeavouring to do their best for the public and the profession. No better argument for the need of better organization of their arrangements for professional co-operation could be adduced than Dr. Smith's graphic description of the growing multiplicity of specialisms. To deny that there should be any further organization of the profession than that members of those numerous branches should be turned loose to secure the fundamental necessity of making each a living for himself honestly was equivalent to the teaching of anarchy. The growth of specialism was a chief reason for the *evolutionary*, not *revolutionary*, proposal put forward in the report. No general practitioner could deal with every aspect of phenomenal work. In many specialisms the devotion necessary to secure the highest skill must make the specialist not altogether a fit person to take independent charge of cases. These two facts made it desirable that freedom of consultation between the two classes of general and special practitioner should be encouraged. Certainly they were not encouraged if the specialist undertook independent practice. It was not dishonesty which led the practitioner to fear the result upon his practice of frequent consultations with men who were his competitors. It was his natural desire to continue to perform his chief object in life as laid down by Dr. Smith—namely, to earn his own living.

While the proposed step of recognizing a special class of pure consultants was becoming forced upon them by the development of their profession, they were fortunately not without an example of a similar arrangement working successfully in a sister profession. They could not doubt that the freedom with which a solicitor would consult a barrister whenever he thought his client's interests demanded it was largely due to the fact that there was no chance of the barrister subsequently becoming his competitor.

In discussing this question with colleagues, Dr. Shaw found the belief existing that their present methods were a backsliding from a more perfect system in the past, and that in the golden days every hospital physician and surgeon was a pure consultant. But men whose memories went far back told him this was not so. Two or three generations ago there was hardly an eminent surgeon who would not treat a pneumonia, and all physicians were family practitioners. The consultant who, it was believed, first took up the position of refusing to visit patients in their homes except in co-operation with a general practitioner was still happily with them, and his was undoubtedly a first step which would eventually lead to the full development of the proposals of the report.

Dr. Smith had spoken of the young would-be consultant attached to a small hospital writing papers for the medical journals, which he justifiably hoped might come into lay hands and improve his practice. The speaker thought that this was an undesirable way of seeking professional advancement either for the young consultant or the old. One of the chief advantages of the proposals now submitted would be that a consultant's appeal to be allowed to be of use in his profession would be addressed not to the public, who could not judge of his worth, but to his professional colleagues, who were well equipped for the purpose. In conclusion, Dr. Shaw commended the report to the serious attention of the Division as a means of greatly increasing the usefulness of the profession to the community.

Mr. HERBERT TANNER proposed the following resolution:

> That the term "consultant" should only be applied to those who conduct their practice on the lines of the relationship of barrister and solicitor—that is, who treat patients only in co-operation with their usual medical attendants; and that this Division would be pleased to be able to recognize those who practise (or who will undertake to practise) on the principles embodied in the above definition.

He thought the resolution good, in that it defined the vague term "consultant"; he thought it a good reply to Question A. There was much that was nebulous in medicine, and to attempt to discuss a matter which was not clearly defined was absurd; in the past there was no line between (so-called) consultant and (so-called) general practitioner. This resolution drew a definite line.

Dr. F. E. TRAVERS seconded the resolution.

Dr. BRINDLEY JAMES was of opinion that no one should receive the title of consultant who did not practise as an adviser to a practitioner who might call him in consultation, and that on no grounds whatsoever should he take up the treatment and care of patients, but in conjunction with the practitioner who called him in. Dr. James said that from his early days of apprenticeship he was taught that a consultant was an adviser and not a treater of cases on his own account, as Dr. Smith was in the practice of doing. He begged strongly to support the notice of motion.

Dr. HASLIP said: I had no intention to speak when I came to the meeting, but I must confess I have been surprised at the remarks of Dr. F. J. Smith upon the report of the Association sent to this Division for their consideration. He does not appreciate the object of the Association, and he appears to have failed to understand the idea and intention. I speak as a general practitioner, and I consider we should have special consultants—medical work is changing. I have seen great changes in the character of our work the twenty years I have been in practice—in fact, I have seen changes in the last ten years. There is no doubt a special class of consultants will be required, but I question if any rules of the British Medical Association are going to make them. I understand a pure consultant to be of the definition given by Dr. Tanner—the relationship of solicitor to barrister; although it is unfortunate that there is a great agitation being carried on, headed by Sir Edward Clarke and other prominent barristers, to do away with this distinction—it might be better to say barrister and a barrister taking special—which I believe limits the fee and class of case. Personally I think our Colleges of Surgeons and Physicians, who are practically a ring—a trust in the profession—should make certain restrictions to those taking the Fellowship. A Fellow of the College of Physicians should only be for those in the profession of certain standing, and who are willing to be known as consultants and not practise as general practitioners. It is surprising the poor position our medical schools of England take on the Continent; they think very little of them, simply because our hospital men have not the time and opportunity to develop upon the special original lines which professors and assistant professors follow on the Continent. Our system is wrong; we require men who will devote their time to original and special work, independent of private practice, and when they are known in the profession.

they will be supported, and this new class of consultants will, I am sure, raise the prestige of the profession.

Dr. BECKETT-OVERY said that it seemed to him the opener of the discussion was unaware of certain facts and conditions of practice; for instance, he had asserted that a consultant was always called in either for diagnosis or treatment. Surely the commonest cause was for the purpose of satisfying the relatives or the patient. It was a means of sharing the responsibility. Of course there were many cases when help in diagnosis or treatment was needed. With regard to what should constitute a consultant, it appeared to him that Dr. F. J. Smith had not realized what was taking place in London at the present time. Even the registrar of many of the hospitals, including many of the small special hospitals, was required to be engaged in "consulting practice only." He might therefore spend his spare time in any other way save that of general practice, the result being that men without private means were severely handicapped. Moreover, the tendency to compel a man to specialize from the moment he had finished his resident or minor appointments at his hospital had very real dangers. It must tend to narrow a man's outlook. It seemed obvious that a man who had specialized to such an extent needed another man to co-operate with him, or there was very real danger to the patient. A distinction should be made between a specialist and a consultant; a man might be one without being the other, or he might be both. He resented the imputation that a general practitioner could not maintain his knowledge of asepsis sufficiently to make it advisable for him to wash out a tuberculous bladder. Surely the technique of asepsis and antisepsis was a ritual which once learnt and really grasped should and could be carried out as long as a man was in practice, whether he was performing a vaccination or a major operation. Dr. Beckett-Overy hoped that the Division would support the resolution, and answer the questions in the affirmative. There was no suggestion or intention of making any compulsory regulations. The scheme was that of recognizing a special class who would conform to certain rules.

Dr. ETHEL BENTHAM said she thought Dr. Smith was inclined to treat a really serious matter almost too lightly. He appeared to consider that the difficulties in the relation between consultant and general practitioner were largely imaginary, and that, in so far as they did exist, they might always be explained as "dishonesty" on the part of one or the other. This was unjust to both. Circumstances were too strong for them. They must recognize that the profession was in a state of continuous evolution, and new rules must be made to fit new conditions. There was a genuine need in these days of many specialisms for a practitioner to seek advice and help frequently in difficult cases, and it was to the advantage of patient, general practitioner, and consultant that it should be so. But it could not be done if the consultant was at liberty to undertake the case as his own. Dr. Smith had instanced the difficulty a consultant would be in if he had to send back a patient under special and difficult treatment to a general practitioner incompetent to give it. This case, however, need never arise. In such a case there was no reason why a consultant should not give the treatment; but it must be in association with the general practitioner, who would remain in general charge of the patient, and might be present or not at the special treatment, as was most convenient. There would be little real difficulty in drawing the line of demarcation.

Dr. RICE-OXLEY also spoke, and Dr. F. J. SMITH replied.

The resolution was carried *nem. con.*, and the meeting decided to answer the questions put by the Central Ethical Committee in the affirmative, thus supporting the proposals to recognize a special class of consultants.

Vote of Thanks.—The CHAIRMAN proposed a hearty vote of thanks to Dr. F. J. Smith for coming to open the discussion, which was carried with acclamation.

British Medical Association.

SEVENTY-EIGHTH ANNUAL MEETING, LONDON, JULY 26th–29th, 1910.

THE SECTIONS.

THE scientific business of the meeting will be conducted in twenty-one Sections, which will meet on Wednesday, July 27th, Thursday, July 28th, and Friday, July 29th.

The following information, which includes all that had been received down to and including May 31st, is additional to that given when the programme of the Annual Meeting was last published (April 23rd).

The Honorary Secretaries of Sections who have not supplied full information including synopses of the remarks to be made by members introducing discussions are urgently requested to send this information without delay in order that it may be embodied in a full programme which it is proposed to publish in an early issue. According to the regulations of the Association such synopses ought to have been received on or before May 28th.

ANAESTHETICS.

President: FREDERIC WILLIAM HEWITT, M.V.O., M.D., London.

Vice-Presidents: DONALD C. A. MCALLUM, Edinburgh; GEORGE ROWELL, F.R.C.S., London; ALEXANDER WILSON, F.R.C.S., Manchester.

Honorary Secretaries: Miss ADA M. BROWNE, L.S.A., 64, Belsize Park, N.W.; WILLIAM JOSEPH MCCARDIE, M.B., 89, Cornwall Street, Birmingham; HERBERT J. SCHARLIEB, C.M.G., M.D., 49, Wimpole Street, W.

The following subjects have been selected for discussion:

Wednesday, July 27th.—10 a.m., Discussion on The Percentage System of Chloroform Administration. To be opened by Dr. Dudley Buxton and Professor Waller, F.R.S. The following among others will also speak: Mr. Alexander Wilson, F.R.C.S., and Dr. Herbert Scharlieb.

The following are synopses of the two opening papers:

(*a*) Dr. DUDLEY BUXTON: Unless chloroform differs from all other drugs it must produce effects proportional to the strength of the dose inhaled. It possibly affects different individuals more or less when the same strength of dose is given as do other drugs; the difference is one of degree, not of kind. Idiosyncrasy, if it exists, is displaced in this way, a small dose producing unusually severe effects. Chloroform, it has been stated, produces results which vary in degree directly as the strength of the vapour inhaled. The evidence of this was produced by Snow, Bert, Clover, Dubois, Lister. The work of the Special Chloroform Committee of the British Medical Association supports their view. Waller has insisted upon this, and advanced evidence to prove it. The evidence from all sources is in part derived from experiment upon the lower animals and in part by clinical examination of patients subjected to chloroform inhalations. Admitting that chloroform acts proportionally to the strength of the vapour inhaled, it is necessary to supply means whereby exact dosing may be obtained. Do the common methods in use provide any exact dosage? Examination of these methods: The open method, by douche, by dropping; method by mixtures; method by inhalers, the plenum inhalers; the draw-over inhalers. The heads under which it is suggested the discussion shall be considered are: (i) The desirability of accepting a maximum strength of vapour of chloroform for ordinary cases. (ii) Whether present methods supply

an adequate means of supplying and controlling the strength of vapour supplied. (iii) Whether dosimetry offers a more efficient means of achieving this end. (iv) What is the best known way of practising dosimetry in chloroform inhalation which is applicable to everyday work by practitioners who are not experts. (v) What are the objections to dosimetry, and how such objections may be met. (vi) Failing dosimetry in chloroform inhalation, what safeguards can be offered which will give promise of safe anaesthesia by that anaesthetic. (vii) What criteria of safety are best, those derived from observing the effects of doses of the anaesthetic, the amount of which can only be guessed by such effects; or those derived from an accurate knowledge obtained from experiments which have proved that certain percentages of chloroform produce certain effects.

(*b*) Professor WALLER: It is desirable that the inhalation of chloroform vapour should be uniform and, as far as possible, continuous, at a percentage of between 1 and 2. This indication can be fulfilled without apparatus, but is most easily fulfilled with the aid of apparatus. Apparatus worked on the *plenum* principle is preferable to apparatus on the *vacuum* principle. Any increase of respiratory work by obstruction of the airway is an unfavourable condition.

Thursday, July 28th.—10 a.m., Discussion on The "Open" System of Ether Administration. To be opened by Mr. Bellamy Gardner and Mr. A. L. Flemming; to be followed by Mr. G. Rowell, F.R.C.S., Mr. H. J. Paterson, F.R.C.S., Dr. Alexander Brownlee, Mr. E. J. Quirk, Mr. G. A. H. Barton.

The following are synopses of the two papers introductory to this discussion:

(*a*) Mr. BELLAMY GARDNER: (1) The open system consists in the avoidance of all extrinsic mechanical factors which otherwise cause laboured respiration in the patient. (2) Abolition of the rebreathing of expiratory products. *Method:* A preliminary hypodermic injection of atropinae sulphatis gr. $\frac{1}{120}$, which keeps the air passages clear of mucus, prevents sweating, and diminishes surgical shock. This is combined in very athletic, nervous and alcoholic subjects with morphinae acetatis gr. $\frac{1}{6}$. *Apparatus:* A wire mask covered with twelve layers of gauze intended to be laid upon a gauze face pad, and a large ether drop bottle. A surgical mouth prop for insertion between the side teeth, and a tongue clip to maintain an oral airway. After the operation the patient to be propped up in bed and encouraged to clear the airways if mucus be present. *Results:* Surgical anaesthesia of a singularly perfect type, with regular, moderately deep respiration, strong pulse, absence of reflex disturbance by operative measures, and entire absence of after-sickness in the great majority of cases. *Remarks:* The method is suitable for all kinds of abdominal and other operations requiring complete muscular relaxation. The safety and obtundent effect of ether in preventing shock are remarkably apparent. The danger of acidosis with chloroform in cases of acute septic infection and in children is entirely avoided, and adds greatly to its value. Dental operations may safely be performed in the dental chair in the sitting position under its influence. *Warnings:* An inelastic chest wall, chronic bronchitis, and emphysema are complete contraindications, acute bronchitis and pneumonia being liable to ensue in such subjects.

(*b*) Dr. A. L. FLEMMING: (1) The property which ether possesses of increasing the activity of the respiratory machine is probably a potent factor in rendering the anaesthesia produced by this drug comparatively free from symptoms of danger. (2) During anaesthesia by this method there is especial need of caution as regards the collection of mucus in the trachea and larynx, which accumulation, when it occurs, may give rise to a marked respiratory and circulatory depression not necessarily accompanied by cyanosis.. (3) In absence of cyanosis the anaesthesia of open ether may not be accompanied by any noticeable increase in the tendency to haemorrhage during operation.

11 a.m., Discussion on The Prevention and Treatment of Surgical Shock during Inhalation Anaesthesia. To be opened by Mr. G. Rowell, F.R.C.S., Dr. Crile, Mr. Lockhart Mummery, F.R.C.S., Mr. M. J. D. Malcolm, F.R.C.S.; followed by Professor Leonard Hill, F.R.S., Mr. H. J. Paterson, F.R.C.S.

The following are synopses of three of the opening papers:

(*a*) Mr. ROWELL will briefly review the phenomena observed clinically, and allude to the almost general acceptance of Dr. Crile's view that the one essential characteristic of shock is a low blood pressure. Attention will then be drawn to the intimate connexion of shock with the nature and dose of the particular anaesthetic employed, with the previous condition of the patient, with obstructed respiration during the administration, and with the duration and character of the operation. The protective influence of ether, particularly when administered by the open method, will then be considered, and the propositions advanced that to prevent shock in severe cases the most important means at disposal are: (1) The use of "open ether" except in rare instances; (2) free saline transfusion subcutaneously before and during the administration; and (3) the use of the extract of the infundibular portion of the pituitary gland. The principle upon which the treatment of shock depends is the restoration of the blood pressure with the immediate object of resuscitating the centres.

(*b*) Mr. P. LOCKHART MUMMERY: For the purpose of this discussion, shock may be defined as a condition of lowered blood pressure resulting from exhaustion of the vasomotor centres. The prevention of shock is best secured by: (1) Taking steps to keep the patient warm during the operation; (2) using ether or a mixture of ether and chloroform whenever shock is anticipated, in preference to chloroform: (3) the use of the Trendelenburg position tends to prevent shock by increasing the circulation in the vital centres, but it is most important that the patient's abdomen should be bandaged before lowering the table; (4) it seems certain that shock is more readily set up under light than under deep anaesthesia, but this is to a considerable extent counterbalanced by the fact that deep anaesthesia itself tends to produce shock; (5) the administration of morphine just before the administration of a general anaesthetic undoubtedly helps to prevent the occurrence of shock, and is in my opinion of great value as a preventive. The treatment of shock depends for its success upon maintaining the blood pressure at or near the normal level by artificial means until such time as the vasomotor centres have recovered. Strychnine or any kind of stimulant is absolutely contraindicated, and will do serious harm. In the absence of other drugs, small doses of morphine are beneficial. Most reliance should be placed upon: Bandaging firmly the limbs and abdomen, maintenance of the head-down position, intravenous infusion with saline solution with the addition of adrenalin in serious cases. The drug, however, of most value is extract of the infundibular portion of the pituitary gland. This drug should be administered at the first sign of shock, and repeated in an hour. In all cases of shock the administration of easily assimilated nourishment is of the highest importance; this is often overlooked.

(*c*) Mr. J. D. MALCOLM: The facts recorded by George W. Crile in his works on shock will be accepted as of the utmost value. His interpretation of these facts will be regarded as altogether erroneous and misleading as a guide to treatment. His assertion that a low blood pressure must be due to vascular relaxation will be rejected as obviously inconsistent with the well-known fact that haemorrhage lowers blood pressure. It will be pointed out that all Crile's argument is built upon this too-comprehensive statement, and that his theory that the vasomotor centres are paralysed in shock is therefore unproved. Attention will be drawn to the work of W. T. Porter, M. G. Seelig, Eugene Boise, and others, who have found these centres active in every stage of shock. The vascular conditions in the state of shock

will be attributed to an intense stimulation to contraction of the vascular system, affecting primarily the arterioles and venous radicles, but extending to all the vessels and followed by an escape of serum from the blood into the tissues and by a loss of fluid from the body as sweat. It will be argued that this loss of fluid may lower the blood pressure to a fatal extent. It will be urged that if the vessels relapse after being tensely contracted and after profuse sweating has been established—that is to say, if a tendency to recovery begins after a severe or prolonged injury has been inflicted—the blood pressure in the large vessels must fall very low, and it will be pointed out that this low blood pressure does not arise because the vascular capacity becomes excessive, nor because the vasomotor centres are paralysed, but because the volume of the blood is relatively diminished. The danger of death from collapse at this time will be considered obvious. It will be advised that treatment should be divided into two stages—that in the first stage, when the causes of shock are active, measures should be taken to prevent vascular contraction; whilst later, when the causes of shock cease to act, the treatment should be directed to the prevention of a too rapid dilatation of the vessels and to filling them up with fluid. Yandell Henderson's theory of the relationship of acapnia to shock will be referred to as promising valuable therapeutic developments. It will be held that, if his views are confirmed, the prevention of shock should come under the complete control of the anaesthetist in all ordinary cases.

Friday, July 29th.—10 a.m., Discussion on The Present Position and Limitations of Spinal Analgesia. To be opened by Dr. J. Blumfeld, Mr. E. Canny Ryan, F.R.C.S.I., Dr. W. J. McCardie. The following will also take part in the discussion: Mr. Lawrie McGavin, F.R.C.S., Captain Houghton, R.A.M.C., Mr. H. Tyrrell Gray, F.R.C.S., Miss Taylor, M.D., Mr. Cecil Hughes, Mr. G. A. H. Barton.

Syllabus of the two opening papers:

(*a*) Dr. W. J. McCARDIE: (1) Drugs commonly and recently used; (2) death-rate, danger-rate, percentage of failures, and psychical effect as compared with general anaesthesia; (3) local surgical effect—for example, on muscular relaxation, bleeding, etc.; (4) shock and blood pressure from surgeon's and patient's point of view; (5) after-effects—testimony of nurses, etc.; (6) suitable cases.

(*b*) Dr. J. BLUMFELD: (1) The results obtained up to the present time by the use of spinal analgesia do not warrant its being employed as a routine anaesthetic under ordinary circumstances. (2) There are certain special cases in which probably spinal analgesia should be used in preference to any of the present methods of employing general anaesthesia. (3) Opinion is still divided as to which is the best drug to employ for the purposes of spinal analgesia, and whether the analgesic should or should not be used in conjunction with suprarenal preparations or with strychnine. (4) The use of spinal analgesia for operations above the umbilicus is at present too uncertain as to its efficiency or too dangerous in its attendant symptoms to justify its employment. (5) Apart from all other considerations, the presence of consciousness on the part of the patient during operation is a thing which is in many cases highly disadvantageous.

Should time permit, the following subjects will also be discussed: Acidosis; The Anaesthetization of Diabetic Subjects; and The Use of Morphine and Other Drugs prior to Anaesthesia.

The President of the Section (Dr. Hewitt, M.V.O.) gives notice that he will move, and Mr. Digby Cotes-Preedy, Barrister-at-Law, will second, the following recommendation to the Council of the British Medical Association:

> The Section of Anaesthetics fully approve the form of the proposed legislation suggested by the General Medical Council and by the Departmental Committee of the Home Office respectively, and recommend the Council of the British Medical Association, on behalf of the Association, to take such steps as they may think desirable to represent to the Privy Council and to the Home Secretary the need for the proposed legislation in the interests of the public safety.

It has been arranged to hold an exhibition of past and present anaesthetic apparatus and appliances under the auspices of the Medical Museum Committee of the meeting, and a special committee has been appointed by the officers of the Section to select those modern anaesthetic appliances which seem to them worthy of exhibition. Members of the Association attending the Annual Meeting will therefore be in a position to make themselves acquainted with the most recent and trustworthy methods of anaesthetizing. Further information can be obtained on application to Miss A. M. Browne, Honorary Curator, Anaesthetic Section of the Medical Museum, 429, Strand, London, W.C.

BACTERIOLOGY.

President: CHARLES J. MARTIN, M.B., D.Sc., F.R.S., London.

Vice-Presidents: JOHN W. H. EYRE, M.D., London; Professor ARTHUR H. WHITE, L.R.C.P.I., Dublin.

Honorary Secretaries: CARL HAMILTON BROWNING, M.D., Pathological Department, University of Glasgow; JOHN CHARLES GRANT LEDINGHAM, M.B., Lister Institute, Chelsea Gardens, S.W.

The following subjects have been chosen for the work of the Section:

Wednesday, July 27th.—Discussion on Recently Acquired Knowledge concerning the Bionomics of Pathogenic Organisms, and its Bearing on the Spread of Disease. To be opened by Dr. A. C. Houston (London).

The following is a synopsis of Dr. HOUSTON'S paper:

Distinction between (*a*) the passive accidental transmitters, and (*b*) the storehouses or manufactories of disease; and the importance of trying to bridge over the gap which links together in some mysterious fashion successive epidemics. Consideration of some of the agencies concerned, or supposed to be concerned, in the propagation of disease, and their relative importance: Soil; air; defective drains, sewage emanations, foul smells, etc.; water (description of two microbes isolated from river water, the one closely resembling Gaertner's bacillus and the other *B. typhosus*); sewage; solid foods; liquid foods; dust; direct personal infection, ambulatory cases; "carriers," infections through animals, flies, and insects. Danger of exaggerating the influence of (*a*) the passive non-multiplying, and underestimating the importance of (*b*) the active multiplying agencies of disease; and suggestions that future progress in preventive medicine lies not in purifying sewage and water, in preserving our foods from pollution, in building on virgin soil, in perfection of drainage arrangements and in ventilation, but in searching for, and when found in treating and rendering inoperative, the "producers" of disease. Other points considered are (1) whether, in view of existing knowledge respecting carrier cases in typhoid fever, views as to the infectious periods of other diseases do not require reconsideration; (2) the question of dose in relation to infection, and the possibility of enhanced virulence, seasonally or occasionally; (3) the bearing of recent discoveries on future legislation. Finally, it is suggested that the key to further progress probably lies in studying living, not dead, matter.

Thursday, July 28th.—Joint Discussion with the Pathological Section on Complement-Deviation Methods in Diagnosis. To be opened by Professor Wassermann (Berlin).

Friday, July 29th.—Papers on Bacteriological Subjects.

DERMATOLOGY.

President: PHINEAS ABRAHAM, M.D., London.

Vice-Presidents: ALFRED EDDOWES, M.D., London; GEORGE PERNET, M.D., London; WALTER G. SMITH, M.D., Dublin; ROBERT BRIGGS WILD, M.D., Manchester.

Honorary Secretaries: WILLIAM GRIFFITH, M.B., 1, Chester Gate, Regent's Park, N.W.; G. NORMAN MEACHEN, M.D., 11, Devonshire Street, W.; J. GOODWIN TOMKINSON, M.D., 9, Sandyford Place, Glasgow.

The following programme has been arranged:

Wednesday, July 27th.—Discussion on Modern Methods in the Diagnosis and Treatment of Syphilis.

Thursday, July 28th.—Discussion on the Influence of Diet in Diseases of the Skin. At 12.30 p.m., jointly with the Section of Laryngology, Demonstration on Radium, by Dr. Louis Wickham, Paris.

Friday, July 29th.—Paper on Palæogenesis as illustrated in Certain Affections of the Skin, by Sir Jonathan Hutchinson, LL.D., M.D. Papers upon the following subjects have also been promised and accepted, many of which will be illustrated by lantern slides:

1. The Serum Diagnosis of Syphilis.
2. On Some Rashes of Doubtful Origin met with in the Acute Infectious Diseases.
3. An Unusual Case of Toxic Dermatitis, with remarks on Symmetrical Skin Eruptions.
4. A Case of Pemphigus Vegetans, with remarks on Treatment.
5. An Investigation of a Plant Dermatitis or Lily Rash amongst Flower Gatherers and Packers in the Scilly Islands.
6. The Use of Solid Carbon Dioxide in Dermatology.
7. Note on the Use of the Arylarsonates in Inveterate Psoriasis.
8. Some Varieties of Molluscum Contagiosum.
9. Some Cases of Actinomycosis.
10. The Treatment of *X*-ray Burns.
11. Vaccine Therapy in Diseases of the Skin.

Cases of interest will be shown at the Section each morning at 10 a.m., in addition to drawings, photographs, and microscopic sections.

DISEASES OF CHILDREN.

President: ARCHIBALD E. GARROD, M.D., London.

Vice-Presidents: CHAS. P. B. CLUBBE, M.R.C.S., Sydney; THOMAS SINCLAIR KIRK, M.B., Belfast; H. D. ROLLESTON, M.D., London; FRANCIS JAMES STEWARD, M.S., F.R.C.S., London.

Honorary Secretaries: HAROLD ARTHUR THOMAS FAIRBANK, M.S., 137, Harley Street, W.; FRANCIS W. GOYDER, F.R.C.S., "Marley House," Bradford; HUGH THURSFIELD, M.D., 84, Wimpole Street, W.

The following subjects have been selected for discussion:

Wednesday, July 27th.—Discussion on the Diagnosis and Treatment of Non-Tuberculous Joint Diseases in Children. To be opened by Dr. Coutts and Mr. E. M. Corner. The following gentlemen will take part in the discussion: Mr. Robert Jones, Mr. W. B. Parsons, Mr. J. Keogh Murphy, and Mr. H. Tyrrell Gray.

The following is an abstract of Mr. CORNER'S paper:

From a surgical point of view, the discussion of the inflammation of joints of non-tuberculous origin offers great opportunities for excursions into the more or less enchanting and romantic regions of haemophilia and kindred conditions. Tempting though that prospect may be, it offers a very unpractical review of the subject, a surgeon seeing few cases of such affections. The most frequent cases of inflammation of joints to be seen in the surgical wards of a children's hospital are undoubtedly those due to tuberculous disease. Next in frequency would be cases which are mistaken for tuberculous disease. These latter are members of a large class of infective diseases of joint, the infection not being due to the tubercle bacillus. The more subacute or chronic the infection, the greater similitude to the clinical pictures in the textbooks ascribed to tuberculous disease. In the more acute forms they approach the clinical condition ascribed to septic arthritis. Of these infective, but non-tuberculous, diseases of joints, several varieties will be brought forward illustrating this the most frequent class of non-tuberculous arthritis seen in the practice of the surgical diseases of children. Such examples will include cases due to streptococcus infection, staphylococcus infection, pneumococcic infection, uncertain infections; infections of joints with the colon bacillus, the typhoid bacillus, the influenza bacillus, after specific fevers, gonorrhoea, injury, surgical operations, etc. In the disease of children such conditions have a distinct peculiarity as contrasted with the corresponding conditions of adults. In children the joint disease is not infrequently secondary to a blood stream infection of the bone in the neighbourhood of the joint, the acute joint disease being secondary to the acute bone disease. Diagnosis will be briefly discussed. The treatment must consist of rest followed by massage, or operative measures, both being aided by medicinal and vaccine treatments.

Thursday, July 28th.—Discussion on the Diagnosis and Treatment of Infections of the Urinary Tract by the *Bacillus coli*. To be opened by Dr. John Thomson, Dr. Dudgeon, and Mr. John Pardoe. Dr. J. Porter Parkinson will join in the discussion.

The following is an abstract of Dr. THOMSON'S paper:

Many different pathogenic organisms have been shown to be capable, under certain conditions, of infecting the urinary tract in children. The *Bacillus coli*, however, is to blame in such a vast majority of the cases of urinary infection met with in ordinary practice that it seems best to devote all the short time at our disposal to considering the recognition and treatment of its effects. Under normal circumstances, the urine successfully resists the invasion of the *Bacillus coli* by which it is constantly threatened. When certain incompletely known conditions are present, however, these organisms do gain entrance and swarm in the urine without causing more than a trivial local irritation. If the resistance of the parts is further weakened, or the bacilli more aggressive, inflammation is set up in the mucous membrane. This is most commonly limited to the bladder, but often extends to the ureters and pelves, and may even invade the parenchyma of the kidneys. These inflammatory conditions are commonest in bottle-fed babies of the female sex; but they may occur in boys also, and at any age. In whatever part of the urinary tract the inflammation is present, the urine is generally acid and contains, after the first few days, numerous pus cells and crowds of bacilli, and the *local* symptoms are slight. If there is cystitis only, the *general* symptoms also are such as may escape notice. Whenever the disease spreads to the pelvis, however, marked general disturbance and misery at once appear, with a typhoid-like pyrexia, ushered in, in most of the female cases at least, by faintness, shiverings, actual rigors, or convulsions. A more or less definite tenderness on pressure over the corresponding parts of the surface of the trunk can sometimes also be made out. In the *treatment* of all degrees of *Bacillus coli* inflammation of the urinary tract it is important to administer plenty of fluid and to encourage the action of the bowels. Three methods of attacking the bacteria have been extensively tried—by antiseptics, by alkalis, and by serums or vaccines. (1) Treatment by antiseptics, such as urotropine, helmitol, and salol, has been generally found disappointing, being ineffectual and apt to be followed by relapses. (2) The administration of potassium citrate in sufficient amount to render the urine alkaline and to keep it so for some weeks is very successful in the acute cases, so long as the kidneys have not become severely affected. (3) The use of serums or vaccines has given varying results, having led to speedy cure in some acute cases but not in others, and being as futile as all other therapeutic measures in those with a chronic course. The prognosis in the acute cases, when treated early, is generally very good; but if the treatment is delayed or ineffective the risk of

extension of the disease to the kidney is probably considerable.

Friday, July 29th.—Papers (titles to be announced later).

ODONTOLOGY.

President: J. HOWARD MUMMERY, M.R.C.S., L.D.S., London.

Vice-Presidents: WILLIAM DONALD ANDERSON, F.F.P.S., L.D.S., Glasgow; ARTHUR W. W. BAKER, M.D., L.D.S., Dublin; W. H. DOLAMORE, M.R.C.S., L.R.C.P., L.D.S., London; WILLIAM HERN, M.R.C.S., L.D.S., London; JOHN MATHIESON MACMILLAN, L.R.C.P. and S. Edin., L.D.S., Glasgow.

Honorary Secretaries: ERNEST B. DOWSETT, M.R.C.S., L.R.C.P., L.D.S., 1, Gloucester Street, W.; A. HOPEWELL-SMITH, M.R.C.S., L.R.C.P., L.D.S., 58, Park Street, Park Lane, W.; CYRIL H. HOWKINS, M.R.C.S., L.R.C.P., L.D.S., 83A, Edmund Street, Birmingham.

The following programme has been arranged:

Wednesday, July 27th.—Special Discussion on the Prevention of Dental Caries, to be taken under the following headings: (1) The Effect of Various Food Stuffs. To be opened by Dr. Sim Wallace. (2) The Care of the Mouth during General Disorders. To be opened by Dr. Hector Mackenzie. (3) The Influence of Climate, etc. To be opened by Mr. A. S. Underwood.

Thursday, July 28th.—Special Discussion on the Prevention of Dental Caries (continued)—(4) The Effect of Variations in the Buccal Secretions, and the Part Played by Bacteria Normally Present. To be opened by Mr. Kenneth W. Goadby. (5) The Need for the Correction of Malposition of the Teeth. To be opened by Mr. J. H. Badcock. (6) The Correction of the Effects of Drugs taken as Medicine. To be opened by Dr. Harold Austen. (7) The Reasons for Susceptibility and Natural Immunity. To be opened by Mr. Howard Mummery.

Friday, July 29th.—Paper: The Value of Teeth to the Human Economy, by J. G. Turner.

OPHTHALMOLOGY.

President: CHARLES HIGGENS, F.R.C.S., London.

Vice-Presidents: HENRY L. FERGUSON, F.R.C.S.I., Dunedin; CECIL E. SHAW, M.D., Belfast; GEORGE WM. THOMPSON, F.R.C.S., London.

Honorary Secretaries: N. BISHOP HARMAN, F.R.C.S., 108, Harley Street, W.; ARTHUR HENRY HAVEN SINCLAIR, M.D., 5, Walker Street, Edinburgh.

The following discussions have been arranged:

1. The Future of Ocular Therapeutics: (*a*) Local and General. To be opened by Dr. G. A. Berry (Edinburgh). (*b*) Bacterial Products. To be opened by Dr. J. W. H. Eyre (London).

The following is a syllabus of Dr. BERRY'S paper:

Undoubted advances in ocular therapeutics have been few of recent years, though, particularly as regards local treatment, the number of new substances and new methods employed have been considerable. Modern treatment professes to be "rational," and is based on indications afforded by advances in scientific knowledge; there are great difficulties in complying with these indications, and rational treatment, though making progress, is often no more efficacious than the older empirical methods of treatment. Various reasons why this should be the case: Directions in which views as to treatment tend towards change and advance. General treatment: Influence of current scientific investigations. The position and scope of general as opposed to local treatment in eye affections. Reasons for efficacy of various empirically established lines of treatment in the light of modern knowledge, etc.

2. The More Chronic Forms of Anterior Uveal Inflammation: (*a*) Extra-Ocular Manifestations. To be opened by Mr. Holmes Spicer (London). (*b*) Intra-Ocular Manifestations. To be opened by Mr. Stephen Mayou (London).

The following are synopses of the two opening papers:

(*a*) Mr. HOLMES SPICER: Incidence as to age and sex. Conditions of general health in relation thereto. The local signs: Involvement of the cornea, involvement of the deeper parts. Pathological and bacteriological investigations. Treatment: Local applications, surgical methods, ionization, vaccine.

(*b*) Mr. STEPHEN MAYOU: Cyclitis. (1) The nature and sources of the infection and the means by which it is conveyed to the eye. Staphylococcal. Tuberculous. Syphilitic. The reason why both eyes are not infrequently affected. (2) The intra-ocular manifestations. K. P. Its origin and diagnostic significance. The changes in the iris. Cause of the lenticular opacity. The manifestations in the choroid. The variations in the tension of the eye mainly dependent on changes in the vitreous. (3) The means of diagnosis. The value of tests to determine the presence of organisms within the body—for example, von Pirquet's and Wassermann's reactions. The value of the local reaction after the injections of toxins into the blood. The direct bacteriological diagnosis by examination of the aqueous. (4) The treatment by vaccines.

3. The Diagnostic Values of Ophthalmoplegia, Partial and Total. To be opened by Dr. Risien Russell (London).

The following is a syllabus of Dr. RISIEN RUSSELL'S paper:

The value of ophthalmoplegia in the diagnosis of organic as opposed to functional affections of the nervous system. What estimate can be formed of the probable nature of the case from a study of the ophthalmoplegia alone. The conclusions justified by a knowledge of the mode of onset and progress of the paralysis. The significance of the combination in which the ocular muscles are affected. The value of associated ocular phenomena as aids to a correct diagnosis. The deductions that are warranted when other cranial nerves are concomitantly affected. Is a diagnosis ever justified from a study of the ophthalmoplegia in conjunction with symptoms, without the additional assistance that can be derived from a general physical examination of the patient? The importance of a knowledge of the general physical state before a correct conclusion can be formed. To what extent ophthalmoplegia is of assistance in the diagnosis of intracranial disease from general affections of the nervous system.

On the third day the following resolution will be brought forward.

> In view of the importance of obtaining continuity of treatment of defects of vision in school children throughout the period of education, and of proper co-ordination of medical inspection and treatment, it is the opinion of the Ophthalmological Section of the Association that the organization of school clinics is desirable.

PHARMACOLOGY AND THERAPEUTICS.

President: Professor ARTHUR ROBERTSON CUSHNY, M.D., F.R.S., London.

Vice-Presidents: EDMUND H. COLBECK, M.D., London; ROBERT HUTCHISON, M.D., London.

Honorary Secretaries: ARTHUR FREDERICK HERTZ, M.D., 1, Weymouth Street, Portland Place, W.; DOUGLAS CHALMERS WATSON, M.D., 22, Coates Crescent, Edinburgh.

The programme, as at present arranged, is as follows:

Wednesday, July 27th.—Discussion on Treatment with Lactic Acid Organisms. To be opened by O. F. F. Grünbaum, M.D., D.Sc., F.R.C.P., R. Tanner Hewlett, M.D., F.R.C.P., and Alexander Bryce, M.D., and will be discussed by Dr. Vaughan Harley, Dr. Saundby, Dr. Willcox, Dr. T. D. Luke, and Dr. Craven Moore.

The following are synopses of the opening papers:

(*a*) Dr. GRÜNBAUM: (1) Evidence from experiments by various authors that it is the presence of lactic acid in the intestinal tract that modifies the growth of

the various bacilli which normally inhabit this region, and that the main advantage gained by the administration of the bacillus rather than its product is that the antiseptic is manufactured in the place where it is needed, and does not run the risk of being absorbed before it reaches that part. (2) During administration it is necessary that for a time the diet shall be such as to permit the bacillus to multiply in the intestine, and the organism given must be vigorous, and a strain which manufactures large quantities of lactic acid from carbohydrates. There are a number of different kinds of bacilli and cocci which conform to this, but there is an advantage in using a pure culture rather than a culture of several micro-organisms, in that it gives the medical man a chance to determine rapidly by the microscope whether there is any great accidental contamination. (3) The diseases which are apparently improved by the treatment come under three headings: (*a*) Those suffering from toxaemia, or rather those who either absorb toxins with abnormal ease, or have difficulty in eliminating them; (*b*) those who suffer from irritation of the intestinal mucosa caused by some micro-organism which cannot flourish in an acid medium; (*c*) a certain percentage of individuals who suffer from *maladie imaginaire*, and in whom this treatment acts by suggestion.

(*b*) Dr. TANNER HEWLETT: 1. The bacteriology of sour milks. 2. Influence of the ingestion of soured milk on the lactose-fermenting organisms of the digestive tract. 3. Influence of the ingestion of soured milk on the putrefactive organisms of the digestive tract. 4. Influence of the ingestion of soured milk on the chemical changes occurring in the digestive tract. 5. The bacteriology of various commercial preparations employed in the preparation of soured milk.

(*c*) Dr. ALEXANDER BRYCE: The indiscriminate use of curdled milk by no means free from risk. The most notable and serious deleterious effect of its use is rheumatism in some form or other. Explanation of this untoward result, with illustrative cases. Indications for the use of lactic acid therapy. Cases in which it is quite unsuitable. Curdled milk valuable as a nutrient more frequently than as a therapeutic agent.

Thursday, July 28th.—Discussion on the Effect of Digitalis on the Human Heart. To be opened by Professor Wenckebach, of Gröningen, and James Mackenzie, M.D., and will be discussed by Sir Lauder Brunton, Professor Faust (Würzburg), Dr. Turnbull, Dr. Windle, Dr. Lewis, and Dr. Gossage.

The following is an abstract of Dr. MACKENZIE'S paper:

A preliminary investigation into the action of cardiac drugs revealed the fact that some that are supposed to have a powerful effect in treatment are entirely without effect, while others of the digitalis group, which had been supposed to be capricious or uncertain in their action, were found to be very reliable, provided the nature of the disease from which the individuals were suffering was taken into consideration. Moreover, the great advances that have been made in late years in recognizing the nature and mechanism of many cardiac phenomena enable the observer to detect the actual effect of certain remedies on the heart with great precision. From these considerations a plan has been instituted in the cardiac wards of Mount Vernon Hospital for the purpose of studying the effect of drugs upon the heart, and it is intended to describe the methods employed, and to indicate the results, with particular reference to the action of digitalis.

Other papers have been promised by Dr. Fortescue Brickdale, Dr. Crichton Miller, Professor Dixon, Dr. H. H. Dale, Professor Faust, and Dr. Ninian Bruce.

PHYSIOLOGY.

President: Professor WILLIAM H. THOMPSON, M.D., Dublin.

Vice-Presidents: JOHN SCOTT HALDANE, M.D., F.R.S., Oxford; Professor PERCY THEODORE HERRING, M.D., St. Andrews, N.B.

Honorary Secretaries: T. GRAHAM BROWN, M.B., Physiological Department, University, Glasgow; J. STRICKLAND GOODALL, M.B., Physiological Laboratory, Middlesex Hospital, W.

The following programme has up to now been arranged:

Wednesday, July 27th.—Opening remarks by the President, Professor W. H. Thompson. Discussion on the Food Requirements of Man for Sustenance and Work. To be opened by Lieutenant-Colonel Melville, R.A.M.C. The following will also speak: Professor J. G. Hopkins, Professor Haldane, Dr. M. S. Pembrey, Dr. Robert Hutchison.

Thursday, July 28th.—Discussion on the Factors that make for an Efficient Circulation. To be opened by Professor E. A. Schäfer. The following will also take part in the debate: Messrs. Geo. Oliver, M. S. Pembrey, J. Mackenzie, Professor Starling, Dr. Hill, and Professor McWilliam.

Friday, July 29th.—Papers: Dr. Edridge-Green, Some Visual Phenomena connected with the Yellow Spot. Professor Haldane and Dr. Douglas have also promised a paper.

PSYCHOLOGICAL MEDICINE AND NEUROLOGY.

President: THEO. BULKELEY HYSLOP, M.D., F.R.S.E., London.

Vice-Presidents: ARCHIBALD R. DOUGLAS, L.R.C.P., Lancaster; WILLIAM GRAHAM, M.D., Belfast; THOMAS D. GREENLEES, M.D., London; J. RISIEN RUSSELL, M.D., London; DAVID G. THOMSON, M.D., Norwich.

Honorary Secretaries: ARTHUR STANLEY BARNES, M.D., 141, Great Charles Street, Birmingham; ROBERT HUNTER STEEN, M.D., City of London Mental Hospital, Dartford; REGINALD JOHN STILWELL, M.R.C.S., Moorcroft, Hillingdon, Uxbridge.

The following subjects have been selected for special discussion:

Wednesday, July 27th.—Discussion on Marriage and Insanity. To be opened by G. H. Savage, M.D., London.

Thursday, July 28th.—Discussion on the Treatment of Tabes. To be opened by J. Risien Russell, M.D., London.

Friday, July 29th.—Papers.

Members are invited to contribute any preparations, specimens or drawings, or any instruments or apparatus pertaining to the work of the Section, which have been designed by themselves, in order that the Committee of the Section may make arrangements to form a special exhibit of such objects. In order to save time and to facilitate the necessary arrangements, all communications relating to the exhibition of preparations, specimens, drawings, etc., may be addressed to Mr. H. W. Armit, Honorary Secretary, Medical Museum Committee, British Medical Association, Lister Institute of Preventive Medicine, Chelsea, London, S.W.

RADIOLOGY AND MEDICAL ELECTRICITY.

President: J. MACKENZIE DAVIDSON, M.B., London.

Vice-Presidents: C. THURSTAN HOLLAND, M.R.C.S., Liverpool; H. LEWIS JONES, M.D., London; CECIL R. C. LYSTER, M.R.C.S., London; WILLIAM F. SOMERVILLE, M.D., Glasgow.

Honorary Secretaries: W. IRONSIDE BRUCE, M.D., 10, Chandos Street, W.; LEONARD A. ROWDEN, M.B., 32, Park Square, Leeds.

The following programme has been arranged:

Wednesday, July 27th.—Addresses by the President of the Section and Sir J. J. Thomson, F.R.S.

Papers:

JONES, Dr. Lewis. On the Treatment of some Corneal Ulcers by Zinc Ions.
HOLLAND, Mr. Thurstan. A New Screen for the Screen Examination of Patients in the Upright Position.
MORTON, Dr. Reginald. Some Bony Changes Observed in a Case of Chronic X Ray Dermatitis.
SOMERVILLE, Dr. Treatment by High Frequency.

Thursday, July 28th.—Papers:

JELLINEK, Dr. On Electro-Pathology.
FREUND, Dr. On the Conditions Necessary to Obtain Radical Cures from *X*-Ray Treatment.
TURNER, Dr. Dawson, and Dr. T. GEORGE. Some Experiments on the Effects of the *X* Ray in Therapeutic Doses on the Growing Brains of Rabbits.
BAILEY, Dr. Fred. Description of a Method of Treatment by Radiant Heat and Iodine Ionization.
ROWDEN, Dr. Leonard. The Value of Screen Examination in the Diagnosis of Renal Calculus.
SIMPSON, Dr. J. B. The Advantages of *X* Rays in Country Practice.
SIMMONS, Dr. The Constitution and Organization of the *X*-Ray Department of a General Hospital.

Friday, July 29th.—Papers:

LAZARUS-BARLOW, Dr. On the Skotographical Properties of Tissue.
BARCLAY, Dr. The Normal and Pathological Stomach as seen by *X* Rays.
WENCKEBACH, Professor. A New Stand for *X*-Ray Work.
ORTON, Dr. Harrison. Some Points in the *X*-Ray Diagnosis of Pulmonary Tuberculosis.
JORDAN, Dr. Alfred. Types of Phthisis from the Radiographer's Point of View.
PIRIE, Dr. Hyperhydrosis Cured by *X* Rays.

STATE MEDICINE.

President: The Right Hon. Sir WALTER FOSTER, P.C., M.D., D.C.L., London.

Vice-Presidents: FRANCIS CLARK, M.D., M.R.C.P., D.P.H., Hong Kong; S. MONCKTON COPEMAN, M.D., F.R.S., London; THOMAS W. H. GARSTANG, M.A., M.R.C.S., D.P.H., Altrincham; HERBERT JONES, L.R.C.S.I., D.P.H., Hereford; JAMES MALCOLM MASON, M.D.Brux., L.R.C.P., D.P.H.Camb., London; CHARLES E. PAGET, M.R.C.S., Northampton.

Honorary Secretaries: GEO. FREDERICK MCCLEARY, M.D., 7, Belsize Park Gardens, Hampstead, N.W.; JOHN EDWARD SANDILANDS, M.D., Town Hall, Kensington, W.

The following discussions have been arranged:

1. The Relation of Poor Law Reform to Public Health Administration. To be opened by Mrs. Sidney Webb, followed by Mr. C. S. Loch, Dr. Ford Anderson, Dr. H. Cooper Pattin (M.O.H., Norwich), Dr. J. F. J. Sykes (M.O.H., St. Pancras), and Dr. R. A. Lyster (County M.O.H. Hants).

The following is an abstract of Mrs. WEBB'S paper:

The sweeping condemnation of the existing Poor Law Medical Service that the recent Royal Commission unanimously pronounced did not proceed from any dissatisfaction with the Poor Law medical officers, but from public health considerations. The defects revealed by the Commission are (1) the failure to provide any treatment at all for many cases, and to reach the others at the incipient stage; (2) the "deterrent" effect of the relieving officer and of the whole Poor Law system; (3) the adverse influence on treatment of the unsatisfactory system of remuneration of the district medical officer and of its inadequacy; (4) the saddling of the district medical officer with the cost of drugs, etc.; (5) the failure to provide for nursing, suitable nourishment, and convalescence; (6) the lack of connexion between the domiciliary and the institutional treatment; (7) the inadequacy of the mixed workhouse as a general hospital (in structure, in method of government, in professional staffing, in equipment, etc.); (8) the lack of suitable provision for (*a*) phthisis, (*b*) measles and whooping-cough, etc. The position is complicated by the amount, hitherto unrealized, of duplication and overlapping of rival rate-supported medical agencies. The ubiquitous public health medical service (with its 700 municipal hospitals, treating 100,000 patients annually, opening their doors to one disease after another and beginning to add out-patient departments; its growing staffs of "health visitors," giving "hygienic advice"; its domiciliary nursing staffs, its "milk dispensaries,' its "school clinics") is rapidly coming to deal with as many individual cases annually as the Poor Law. Both alike are undermining the general practitioner. Three courses are open: (1) The *status quo*, with minor improvements, tempting to many, but (*a*) not practicable; (*b*) would mean still more undermining the private practitioner. (2) The Majority Report, based on extension of "provident" system and "contract practice." This (*a*) does not stop the overlap; (*b*) leaves both the Poor Law and the public health service to develop at the cost of the private practitioner; (*c*) giving up the "deterrent" Poor Law system. (3) The Minority Report unites the Poor Law medical service and the public health medical service *en bloc*, saving all personal rights, in a combined county medical service, under health committees and Minister for Health. It provides instant treatment for all in need, but safeguards private practice by providing for rigorous charge and recovery, so as to discourage resort to it, to all families above bare subsistence (say, 3s. per week per adult unit).

2. Town Planning in Relation to Public Health. To be opened by Dr. John Robertson (M.O.H. Birmingham), followed by Dr. E. W. Hope (M.O.H., Liverpool), Mr. Raymond Unwin, Mr. T. C. Horsfall, and Mr. Fremantle (County M.O.H. Herts).

3. The Provision of Medical Treatment by Local Education Authorities. To be opened by Dr. James Kerr, followed by Professor Kenwood, Dr. Barwise (County M.O.H., Derbyshire), Dr. H. Cooper Pattin (M.O.H., Norwich), and Dr. R. H. Lyster (County M.O.H., Hants).

4. The Influence of Elementary Schools on the Spread of Infectious Disease.

5. The Etiology and Prevention of Summer Diarrhoea. To be opened by Dr. Niven (M.O.H., Manchester), followed by Dr. Boobbyer (M.O.H., Nottingham).

6. The Administrative Control of Ophthalmia Neonatorum. To be opened by Dr. Geo. Reid (County M.O.H. Staffordshire), followed by Mr. Falkner and Mr. Bishop Harman.

7. The Reform of Death Certification. To be opened by Sir William Collins, followed by Dr. R. A. Lyster (County M.O.H., Hants).

SURGERY.

President: Sir VICTOR HORSLEY, F.R.C.S., M.B., F.R.S. London.

Vice-Presidents: FREDERICK DOUGAN BIRD, M.S., M.R.C.S., Melbourne; JOHN BLAND-SUTTON, F.R.C.S., London; Professor A. J. MCAULEY BLAYNEY, F.R.C.S.I., Dublin; GEORGE H. MAKINS, C.B., F.R.C.S., London; F. N. GISBORNE STARR, M.B., Toronto; Professor HY. ALEXIS THOMSON, M.D., Edinburgh.

Honorary Secretaries: HERBERT SHERWELL CLOGG, M.S., 143, Harley Street, W.; DOUGLAS DREW, F.R.C.S., 6, Wimpole Street, W.; WILLIAM J. GREER, F.R.C.S.I., 19, Gold Tops, Newport, Mon.

The following programme has been arranged:

Wednesday, July 27th.—Discussion on the Principles which should Govern the Operative Treatment of Simple Fractures. To be opened by Mr. Arbuthnot Lane. The following gentlemen will take part in the discussion: Messrs. Gilbert Barling, E. Deanesly, W. G. Spencer, C. H. Fagge, Maynard Smith, Robert Jones, Heygate Vernon, H. J. Paterson, R. H. A. Whitelocke, Crawford Renton, W. Wheeler, Archibald Young, C. J. Morton, E. Hey Groves, Donald Armour, Andrew Fullerton, A. S. Barling.

The following is a synopsis of Mr. Lane's paper:

(1) The possibility of effecting the restoration of a broken bone to its normal form by any means other than operative. (2) The results of such treatment. (3) The value of radiography. (4) The advantages gained by operative interference. (5) The best operative technique. (6) Any special objection to operation whether general or local.

The title of this discussion has been purposely chosen with the view of obtaining a definite and authoritative statement with regard to when it is essential that operative treatment should be undertaken.

At the present time the question of the complete restoration of a fractured bone is of primary importance from a medico-legal point of view, and is very incompletely discussed in works on surgery; of equal importance is the correct interpretation of a radiogram of a fractured bone.

The attention of those taking part in the discussion is directed to the above suggestions.

It is desired that records or statistics of individual cases should not be presented to the Section.

Thursday, July 28th.—Discussion on the Surgical Treatment of Exophthalmic Goître. To be opened by Professor Theodore Kocher and Dr. Hector Mackenzie. The following gentlemen will take part in the discussion: Messrs. G. Heaton, Robert Campbell, R. Kennedy, Gilbert Barling, Donald Armour, E. Deanesly, C. H. Fagge, W. G. Spencer, Thelwall Thomas, F. Greaves, E. Hey Groves, Wilfred Trotter, C. Leedham Green.

Friday, July 29th.—The time at the disposal of the Section is limited, but it is proposed that the following papers should be read in the order indicated:

BIRD, Mr. Fred. D. (Melbourne). Conditions Simulating Cancer of the Stomach.
THOMSON, Professor Alexis. The Pathological Anatomy of Cancer of the Stomach and the Conditions which are mistaken for it. (With lantern demonstration.)
PATERSON, Mr. H. J. Early Diagnosis and Treatment of Gastric Cancer.
DEANESLY, Mr. E. Excision of Gastric Ulcers.
WHEELER, Mr. W. Two Cases of Extensive Disease of the Stomach Treated by Gastrectomy.
MILES, Mr. W. Ernest. The Radical Abdomino-perineal Operation for Cancer of the Rectum and of the Pelvic Colon, with a table showing the results of 24 cases in which the method has been employed.
BOND, Mr. C. J. Remarks on a Method of Establishing Colotomy Openings and Ureteral Permanent Fistulae by means of Elevated and more Readily Controlled Mucous Openings. (With lantern slides.)
MACLAURIN, Mr. C. (Sydney). The Clinical Manifestations, Diagnosis, and Treatment of Liver Hydatid.
KENNEDY, Mr. R. A Case of Suture of the Circumflex Nerve.
BIDWELL, Mr. L. Hepatic Abscess following Acute Appendicitis.
MACLENNAN, Mr. Alex. Fracture of the Carpal Scaphoid.
MUMMERY, Mr. P. Lockhart. The Operative Treatment of Chronic Mucous and Ulcerative Colitis.
ENGLISH, Mr. T. Crisp. Cholecystectomy. Illustrated by drawings and statistics.
MOULLIN, Mr. C. Mansell. The Action of Gastro-enterostomy in cases of Gastric and Duodenal Ulcer in which there is no Mechanical Difficulty.
FENWICK, Mr. E. Hurry. Removal of the Urinary Bladder.

A demonstration of neurological (surgical) cases will be given at the National Hospital, Queen Square, on the afternoon of Wednesday, 27th, by the President of the Section and the surgical staff of the hospital.

TROPICAL MEDICINE.

President: FLEMING M. SANDWITH, M.D., London.

Vice-Presidents: HENRY P. KEATINGE, M.B., Cairo; GEORGE C. LOW, M.B., London; LAURANCE DUDLEY PARSONS, M.B., Gibraltar; Colonel JAMES R. ROBERTS, I.M.S., F.R.C.S., Indore, C. India; RAGHAVENDRA ROW, M.D., Bombay.

Honorary Secretaries: H. SINCLAIR COGHILL, M.B., London School of Tropical Medicine, Royal Albert Dock, E.; WILLIAM THOMAS PROUT, C.M.G., M.B., 78, Rodney Street, Liverpool; EMRYS ROBERTS, M.D., 5, Buckingham Place, Queen's Road, Clifton, Bristol.

The following subjects have been selected for discussion:

Wednesday, July 27th.—10 a.m., Human Trypanosomiasis. The discussion will be opened by Colonel Sir David Bruce, C.B., F.R.S.

Thursday, July 28th.—10 a.m., Special Factors Influencing the Suitability of Europeans for Life in the Tropics. The discussion will be opened by Lieutenant-Colonel Sir R. H. Charles, K.C.V.O., M.D.

The following is a syllabus of the paper of Sir R. HAVELOCK CHARLES:

The classes of people affected by the discussion. The tropics—torrid zone: Meaning of the terms. (1) Local conditions: (*a*) Climatic—torrid and third temperate zones; (*b*) racial surroundings—civilization or non-civilization; customs due to religious beliefs; innate inertia. (2) Character of the European, his temperament and physique. (3) Three factors peculiar to the tropics: What they tend to produce; the physiological effect on the European; the pathological consequences. Two things required for a good crop: (*a*) Good seed (*b*) suitable soil. Tropical parasitic life. "Acclimatization": What it is; its consequences; possible results when the sojourner in the tropics returns to Europe; a severe illness in the tropics; subsequent necessity. The best type of man for the tropics. The best type of woman to accompany him; her trials. The woman to be shunned. The man *not* wanted. Some "unfit" who may, and do, live at ease in the tropics. Consideration of tropical factors in passing candidates for Government or private service in the tropics; the side of the employer of labour; the side of the would-be emigrant; assurance offices. Returned "old Indians": What they are; where are those who went out with them, and why? The man that nothing can kill; the danger of his example and immunity. The best endowment for life and service in the tropics; the three qualifications; the greatest of these three.

Friday, July 29th, 10 a.m., will be devoted to miscellaneous subjects.

The following papers have been accepted:

ARCHIBALD, Captain, R.A.M.C. Human Botriomycosis.
BALFOUR, Dr. Andrew. The Question of Water Supply in the Tropics as Illustrated by the Supply for Khartum.
BIRT, Lieutenant-Colonel C., R.A.M.C. Phlebotomus Fever.
FÜLLEBORN, Professor. Demonstration on the Development and Morphology of Microfilaria.
PEARSE, Dr. T. Frederick. Epidemic Dropsy.

The Museum Committee will be glad to receive pathological specimens, microscopic preparations, drawings or photographs of any subject connected with tropical medicine. Lantern demonstrations will be especially welcomed.

PROVISIONAL TIME TABLE.

FRIDAY, JULY 22ND, 1910.
2.30 P.M.—Annual General Meeting, followed by Representative Meeting.

SATURDAY, JULY 23RD, 1910.
9.30 A.M.—Representative Meeting.

MONDAY, JULY 25TH, 1910.
10 A.M.—Representative Meeting.

TUESDAY, JULY 26TH, 1910.
10 AM.—Council Meeting.
10.30 A.M.—Representative Meeting.
2.30 P.M.—Adjourned General Meeting. Induction of President.
4 P.M.—Annual Conference of Secretaries of Divisions and Branches.
8.30 P.M.—President's Address.

WEDNESDAY, JULY 27TH, 1910.
9.30 A.M.—Council Meeting.
10 A.M. to 1 P.M.—Sectional Meetings.
12.30 P.M.—Address in Medicine.
3 P.M.—Religious Services.

THURSDAY, JULY 28TH, 1910.
9.30 A.M.—Council Meeting.
10 A.M. to 1 P.M.—Sectional Meetings.
12.30 P.M.—Address in Surgery.
7.30 P.M.—Annual Dinner.

FRIDAY, JULY 29TH, 1910.
10 A.M. to 1 P.M.—Sectional Meetings.

SATURDAY, JULY 30TH, 1910.
Excursions.

The Executive Committee of the Annual Meeting at its meeting on March 8th adopted the following resolution:

That academic dress or uniform be worn on the three following occasions, namely: Tuesday evening at the Presidential Address; Wednesday afternoon at the Church Service in Westminster Abbey; and on Wednesday evening at the Conversazione at the Guildhall by the Lord Mayor and Corporation.

MEMBERS ELECTED DURING THE MARCH QUARTER.

UNDER BY-LAWS 2 AND 3.

BY THE COUNCIL.

Fry, Arthur Brownfield, Capt., I.M.S., M.D., M R.C.S., L.R.C.P.Lond.
Huskinson, Harold, Staff Surg., R.N., M.B., B.S., M.R.C.S., L.R.C.P.
Keatinge, Henry Pottinger, M.B., F.R.C.S., Kasr el Ainy House, Cairo
McConaghy, Christopher Birdwood, Captain, I.M.S., M.B., Ch.B.
McCowan, Gerald Roche, Surg., R.N., M.D., C.M.McGill, L.M., L.S A.
MacDiarmid, Alexander James, Surg., R.N., M.B., Ch.B.
Maclaren, Harriet Joanna Campbell, M.B., Ch.B., Bettiah, India
Malcolm, Alfred Graham, Surg., R.N., M.B., Ch.B.St. And.
Ricketts, William Symonds Percival, M.B., C.M.Edin., 128, Rione Amedeo, Naples
Sanders, Arthur Addison, Surg., R.N., M.B., Ch.B.
Simpson, Frank Tomisman, M.B.Durh., Jamadoba, P.O., B.N. Ry. Dist., Maubhum, Bengal
Wilson, James Leitch, M.B., Ch.B.Edin. Bayview, Tortola, Virgin Islands

BY BRANCH COUNCILS.

Aberdeen Branch.

Brown, John, M.B., 230, Rosemount Place, Aberdeen
Colt, G. H., F.R.C.S., 12, Bonaccord Square, Aberdeen

Bath and Bristol Branch.

Attridge, R. J., M.B., Eastern Dispensary, Bath
Holmes, John, Esq , Avebury, Wilts
Taylor, S. H. S., M.B., Lacock, Chippenham
Watson, John N., Esq., Wootton Bassett

Birmingham Branch.

Eberhardt, F. C., Esq., 35, Soho Avenue, Handsworth
Fisher, F. P., M.B., Talbot House, Brierley Hill
Hird, A. E. Wilson, Esq., General Hospital, Birmingham
Johnson, Thos. Esq., Woodsetton, near Dudley
Mogg, J. A. Hill, Esq., Feckenham, Worcs.
Petrie, John M., M.D., 371, Moseley Road, Birmingham
Price, H. J. D'Arcy G., Esq., Whitehall Lodge, Great Bridge, Staffs
Saundby, Professor Robert, M.D., LL.D., 140B, Great Charles Street, Birmingham

Bombay Branch.

Battliwalla, D. H. L., Esq., Cleveland Hill, Worlee, Bombay
Dastur, H. P., Esq., The New Pharmacy, Tardeo, Bombay
Dhuru, R. K., Esq., 173, Lower Mahim, Dadar, Bombay
Laskari, J. F., Esq., Machlipit, Surat
Mayer, C. A. L., M.D., Baroda
Mody, S. H., Esq., 2A, Main Street, Poona
Pestonji, S., Esq., Kimari, Karachi

Border Branch (South Africa).

Dunn, D. D., M B., Indwe
Hugo-Hamman, D. J., M.B., Queenstown
Uppleby, D. J., Esq., East London

Border Counties Branch.

Dunlop, J. K., M.B., Kirkconnel

Brisbane and Queensland Branch.

Archdall, M., M.B., Winton
Breinl, Anton, Esq., Townsville, N. Queensland
Brown, E. E., M.B., Ipswich
Butcher, C. B. Deane, Esq., Pittsworth
Croll, Dr., General Hospital, Brisbane
Ellerton, H. B., Esq., Asylum for Insane, Goodna
Fox, A. W., Esq., Mitchell
MacDonald, A. J., Esq., Laidley
McKenna, T. R., Esq., Neil Street, Toowoomba
McKillop, L. M., Esq., Blackall
Michod, F. A. H., M.B., Longreach
Morris, Luther, Esq., Gympie Hospital
Ormiston, Dr. Isabel, Children's Hospital, Brisbane
Pearse, W. H., Esq., Stannary Hills
Redmond, Leonard, Esq., Charters Towers
Sapsford, C. P., Esq., Toowong
Schmidt, E., Esq., Warwick Hospital
Stewart, J. Marie, Toogoolawah
Wallace, Robert, M.B., Mt. Molloy, North Queensland

Burma Branch.

Aung-Tun, Mg., M.B., Civil General Hospital, Rangoon
Crump, S. T., Captain I.M.S., General Hospital, Rangoon

Cambridge and Huntingdon Branch.

Gurney, A. Mabel, M.B., 7, Elm Terrace, Cambridge

Cape of Good Hope Eastern Province Branch.

Malan, J. du Toit, Esq., Colesberg

Cape of Good Hope Western Province Branch.

Eyre, G. G., M.B., Claremont, Capetown
Marais, D. P., M.D., Three Anchor Bay, Capetown

Colombo, Ceylon, Branch.

Coorey, E. A., M D., "Bolton," Bambalapitiya, Ceylon
Dias, R. V., Esq., General Hospital, Colombo
Walpole, D. V., Esq., Civil Hospital, Newera Eliya, Ceylon

Connaught Branch.

Conway, T. W., Esq., Castlegarren, Sligo
Fair, R. Campbell, Esq., May Fair, Ballinasloe
Laird, John, Esq., 1, Wine Street, Sligo
MacDowel, E.C., M.D., The Mall House, Sligo

Dundee Branch.

Campbell, Donald, M.D., Cardowan, Edzell
Craig, D. D., M.B., Royal Infirmary, Dundee
Cunningham, A. T., M.B., Royal Infirmary, Dundee
Forgan, Miss Elizabeth B., Dundee
Gow, P. F., M.B., Royal Infirmary, Dundee
Robertson, W. L., M.B., 16, Ainslie Place, Dundee
Wilson, Alexander, M.B., Royal Infirmary, Dundee

East Anglian Branch.

Baldwin, C. W. T., Esq., Headlands, Westcliff-on-Sea
Butler, Miss Rhoda H., M.B., Bir House, Norwich
Clark, Somerton, M.B., Brynora, Felixstowe
Corfield, W. F., M.B., 23, Wellesley Road, Colchester
Coward, Noel, M.B., Essex County Hospital, Colchester
Dee, J. P., M D., Walton-on-Naze
Dunn, W. J., M.B., Lieutenant R.A.M.C., Warley
Johnson, Edward, M.B., West Suffolk General Hospital, Bury St. Edmunds
McLaren, Miss Ada, M.B., 14, Beverley Road, Colchester
Marshall, W. B., Esq., 214, Unthank Street, Norwich
Matheson, D. Morley, M.D., 24, Kingsley Road, Norwich
Mead, John C., F.R.C.S., 55, High Street, Lowestoft
Miller, W., M.D., Rayleigh
Nicholson, C. R., Esq., Rochford
Spearman, R., M.B., Beta House, Clacton-on-Sea
Stevens, A. N., Esq., 14, Princes Road, Great Yarmouth
Watney, H. A., M.B., The Red House, Halstead
Wragg, Ernest, M.B., 98, York Road, Southen on-Sea

East York and North Lincoln Branch.

Farbstein, John H., M.B., The Workhouse, Anlaby Road, Hull
Posnett, Edward, M.D., 7, Hainton Avenue, Grimsby

Edinburgh Branch.

Keay, J. W., M.D., 12, Brougham Place, Edinburgh
McKenzie, John, M.B., Newtongrange, Midlothian

Ross, Donald, M.B., Roxburgh District Asylum, Melrose
Traquair, H. M., M.D., 2, Learmouth Gardens, Edinburgh

Fife Branch.

McEwan, Duncan, M.B., The Croft, Markinch
McWhan, A. A., M.B., County Buildings, Cupar
Mallace, A. C., M.B., 38, New Row, Dunfermline

Glasgow and West of Scotland Branch.

Brown, W. H., M.D., 158, Whitehill Street, Dennistoun
Forsyth, Thomas, M.B., 11, Annfield Place, Dennistoun
Gilmore-Cox, Martha Jane, M.B., 39, West Bank Terrace, Hillhead
Glen, David, M.B., 549, Alexandra Parade, Dennistoun
Harrington, A. W., M.D., 9, Burnbank Terrace, Glasgow
Kilpatrick, D. Ross, M.D., 3, Belmont Street, Glasgow
Logie, Wm. J., M.B., 9, Moss Street, Dennistoun
Macgregor, John F., M.D., Green Lodge, Greenhead, Glasgow
Peel, A. A., M.B., 48, Queen Mary Avenue, Crosshill
Rankin, Wm , M.B., 17, Fitzroy Place, Glasgow
Sinnette, Malcolm B. G., M.B., Stobhill Hospital, Springburn, Glasgow
Taylor, E. Graham, Esq., 95, Hyndland Road, Glasgow
Taylor, Robert, M.B., 19, Dalkeith Avenue, Dumbreck, Glasgow
Weir, E. Roberts, M.B., 112, Castle Street, Glasgow
Whitfield, J. B., M.B., Ravenshurst, Larch Road, Dumbreck, Glasgow

Gloucestershire Branch.

Cullen, W. B., M.B., Halsey House, Cheltenham

Halifax, Nova Scotia, Branch.

Chamberlain, Harry B., Esq., Halifax
McEwan, H. E., Esq., O'Leary Station, P.E.I.
Ralph, J. R., Esq., Charlottetown, P.E.I.

Hong Kong and China Branch.

Bryson, A. C., M.B., Chiao Tso, Honan
Coppinger, F. R., M.B., Lieutenant I.M.S., Kowloon, Hong Kong
Fowler, Henry, Esq., London Mission Hospital, Siao Kan
Graham, Andrew, Esq., Church of Scotland Mission, Ichang
Hobson, H. G., Esq., 28, Nathan Road, Kowloon Hong Kong

Lancashire and Cheshire Branch.

Allen, T. P., M.B., Sedgley View, Bury New Road, Prestwich
Ashby, H. T., M.B., 3, Lancaster Road, Didsbury, Manchester
Ashcroft, E. M., M.B., 248, Stockport Road, Levenshulme
Aspinall, H., Esq., 5, Greenough Street, Wigan
Bateson, Henry, M.D., The Limes, Walkden, nr. Manchester
Baxendale, Alexander, Esq., 511, Halliwell Road, Bolton
Beaton, G. D. M., M.B., Denmark Place, Accrington
Binns, George, M.B., Stoodley, Stockton Heath, Warrington
Brechin, Forrest, M.B., Brownlow Hill Infirmary, Liverpool
Brentnall, S. B., M.B., Harelands, Rochdale
Bridge, H. N., M.B., 348, Padiham Road, Burnley
Briggs, Walter, M.B., 129, Montague Street, Blackburn
Buchan, T. K., M.B., The Infirmary, Blackburn
Bullough, W. A., M.B., Royal Albert Edward Infirmary, Wigan
Butterfield, Frank, M.B., 206, Montague Street, Blackburn
Byrne, J. A., Esq., Booth Hall Infirmary, Blackley, Manchester
Cox, W. J., M.B., Brookfield House, Marple Bridge, nr. Stockport
Craig, C. McK., M.D., 8, Parkfield Street, Moss Lane East, Manchester
Davies, G. H., Esq., 91, Preston Road, Blackburn
Donnellan, J. A., M.B., 24, Westfield Street, St. Helens
Fletcher, R. B., M.D., Willow Bank, Great Clowes Street, Manchester
Foley, Vera, M.B., 19, Bromley Road, St. Anne's-on-Sea
France, C. F., Esq., Dicconson House, Wigan
Gibson, C. R., M.B., 94, Russell Road, Wavertree, Liverpool
Hodgkinson, A., M.B., Ivy Lodge, Froghall Lane, Warrington
Hurter, H. R., M.D., Trapont House, Cressington Park, Liverpool
James, W. R. W., Esq , 44, Upper Parliament Street, Liverpool
Joynson, G. G., Esq., 1, Queen's Road, Southport
Keighley, J. W., M.B., 5 and 7, Lambeth Street, Blackburn
Kinghorn, A. M., M.B., 304, Great Cheetham Street, Manchester
Kitchen, H. E., Esq., 112, Cheetham Hill Road, Manchester
Knight, C. G., M.B., 7, Manchester Road, Chorlton-cum-Hardy
Lancaster, L. T., M.B., Rockdale, Clitheroe
Lazenby, F. H., Esq., Hawthorne Villa, Church Lane, Moston, Manchester
Ledger, A. G. K., M.D., Westerton, Coppull
Linton, S. F., M.B., Public Health Office, Blackburn
Macintyre, D. D. F., M.D., Board of Trade Offices, Liverpool
McKenzie, A. E., Esq., 193, Ormskirk Road, Wigan
McLaren, J. B., M.B., 2, Howard Street, Salford
McMorland, J. B., M.B., 231, Great Clowes Street, Higher Broughton, Manchester
McNiff, Michael, M.B., 493, Liverpool Street, Seedley, Manchester
Marshall, H. F., F.R.C.S.E., 254, Park Lane, Macclesfield
Moore, W. S., M.B., Blackley House, Blackley, Manchester
Nightingale, Roland, M.B., Brunswick House, Portwood, Stockport
Nutter, W. J., M.B., 160, Whalley Old Road, Blackburn
Ormiston, Margaret G., M.B., 132, Acomb Street, Whitworth Park, Manchester
Ramsbottom, E. N., Esq., Kildonan House, Horwich
Rayner, H. H., F.R.C.S., 14, St. John Street, Manchester
Rolland, William, M.D., Burnside, Blackburn Road, Bolton
Savatard, L. C., Esq., Heyesleigh, Timperley
Schofield, F. W., M.B., 80, Bramhall Lane, Stockport
Smith, Margaret M., M.B., Public Health Office, Manchester
Smith, W. A., M.B., 2, Belgrave Square, Darwen
Swete-Evans, W. B., M.B., 158, Lord Street, Southport
Tindall, J. B., Esq., Grove House, Preston
Townley, R. W., F.R.C.S.Edin., Deveron House, Clayton-le-Moors, Accrington
Turner, C. W., Esq., The Grove, Henrietta Street, Leigh
Turner, S. B., Esq., St. Leonard's, Prenton, Birkenhead
Ward, J. S., Esq., 1, Queen Victoria Street, Rochdale
Watson, Luther, Esq., Mayfield, Sale
Wilson, G. R., M.B., Audley Place, Blackburn
Yorke, Warrington, M.D., 3, Eshe Road, Blundellsands

Leinster Branch.

Kennedy, Denis, F.R.C.S.I., 68, Merrion Square, Dublin
MacCallum, Alexandra B., M.B., Drumcondra Hospital, Dublin
Moore, Brindley H., M.B., 37, Merrion Avenue, Blackrock, Dublin

Malaya Branch.

Barratt, H. J., Lt.-Col., R.A.M.C., Raffles Hotel, Singapore
Ferguson-Davie, Mrs. C. E., M.D., Bishop's House, Singapore
Gray, John, M.B., General Hospital, Singapore
Livesey, S. M., M.B., Medical School, Singapore
Lorimer, A. P. G., M.B., Lieut., I.M.S., Alexandra Barracks, Singapore
McHutchison, G. B., M.D., General Hospital, Singapore
Weber, H. C., M.D., Johore Bharu
Webster, J. S., M.B., General Hospital, Singapore
Wertheim, S., M.D., 6, Battery Road, Singapore
Whittle, E. D., Esq., General Hospital, Singapore

Malta and Mediterranean Branch.

Bernard, A. V., M.D., 133, Sda. Britannica, Valetta
Hitch, F. G., M.B., Surgeon, R.N., H.M.S. *Suffolk*, Mediterranean

Melbourne and Victoria Branch.

Barnard, J. F., Esq., Wangaratta, Victoria
Bird, W. J., Esq., Northcote, Victoria
Breton, H., Esq., Terang, Victoria
Butchardt, J. E., Esq., Austin Hospital, Heidelberg, Victoria
Dawson, W. C., M.B., Walhalla, Victoria
de Garis, Dr. Mary C., Sandringham, Victoria
Fairley, J. F., Esq., Melbourne Hospital
Forshaw, W. J., Esq., Stawell, Victoria
Fowler, R., Esq., Melbourne Hospital
Fullerton, R. J., Esq., Bendigo, Victoria
Harse, W. T., Esq , Sandringham, Victoria
Hurley, T. E., Esq., Melbourne Hospital
Irving, Harold, Esq., Glen Thompson, Victoria
Johnson, J. H., Esq., Alexandra, Victoria
Jones, D. E., Esq., 156, Collins Street, Melbourne
Ker, T. C., M.B., Rowan Street, Bendigo, Victoria
Kidd, L. S., Esq., Bright, Victoria
King, C. E., Esq., Children's Hospital, Carlton, Victoria
Lease, C. R., Esq , Rochester, Victoria
McCausland, S. R., Esq., Stanley, Tasmania
McDonald, S. F., Esq., Infectious Diseases Hospital, Fairfield, Victoria
Maplestone, P. A., Esq., 42, Story Street, Parkville, Victoria
Miller, A. G., Esq., Melbourne Hospital
Moreton, F. Esq., Fyansford, Geelong, Victoria
Morgan, A. W., Esq., Geelong Hospital, Victoria
Muir, W. C. C., M.B., 377, Church Street, Richmond, Victoria
Nesbitt, M. D., Esq., Berringa, Victoria
Newton, H. A. S., Esq., Monaro, Elsternwick, Victoria
O'Brien, J. A., jun., Esq., Mary Street, Hawthorn, Victoria
Perrins, R. B., Esq., Balaclava, Victoria
Rutter, J. H., Esq., Yarram, Victoria
Sweetnam, H. W., Esq., Launceston, Tasmania
Upjohn, W. E., Esq., Melbourne Hospital
Vogler, H. H., Esq., Yarra Glen, Victoria
West, G. R., Esq., Kaniva, Victoria
Wilson, W. E., Esq., Melbourne Hospital
Wood, F. A., Esq., Toorak, Victoria

Metropolitan Counties Branch.

Adams, George E. D'Arcy, M.D., 1, Clifton Gardens, W.
Adams, Jas. Milner, M.B., Watergate House, Adelphi, W.C.
Aitken, Andrew Blair, M.B., F.R.C.S., Hampden House, Phoenix Street, N.W.
Air, Samuel Henry Cummings, M.B., 205, Selhurst Road, South Norwood, S.E.
Allaun, Israel, Esq., 129, Green Lanes, N.
Andeen, George Frederick, L.A.H.Dub., c.o. Thos. Cook and Sons, Ludgate Circus, E.C.
Badgerow, George Washington, M.D., F.R.C.S., 3, Hans Crescent, S.W.
Bailey, William Henry, M.D., Featherstone Hall, Southall
Bain, Edward Walter, M.B., F.R.C.S., 40, Devonshire Street, W.
Bankart, Arthur Sydney Blundell, F.R.C.S., 9, Devonshire Street, W.
Barton, Bertram Henry, M.B., 26, Hindes Rd., Harrow
Beadel, Algernon James, Esq., Langley Park, Mill Hill, N.W.
Bensted, Lewin, Esq., Rutland House, Colney Hatch Lane, Muswell Hill, N.
Bernard, Christian Constance, L.M.S.S.A., 4, Nottingham Place, W.
Bonnefin, F. Henry, Esq., 202, High Road, Leytonstone
Brand, George Henry, M.D., 26, Great Tower Street, E.C.
Brown, John, Esq., 19, Blackhorse Road, Walthamstow
Browne, Harry Fleming, M.B., 36A, New Cavendish Street, W.
Browne, James, M.D., 49, Belgrave Road, S.W.
Carswell, Robert, M.B., 1, Allfarthing Lane, Wandsworth, S.W.
Carter, Arthur J., Esq., 75, Shepherd's Bush Road, W.
Carter, Ronald, M.R.C.S., L.R.C.P., M.D.Brux., 11, Leonard Place, Kensington, W.
Chaikin, George, Esq., 47, White Lion Street, Norton Folgate, E.
Chaplin, Thomas Hancock Arnold, M.D., 41, Finsbury Square, E.C.
Chubb, Elsie Mary, M.B., 8, Hunter Street, W.C.
Connor, Samuel Grahame, M.B., 42, Oxford Street, W.

Crean, Thomas Joseph, V.C., F.R.C.S.I., 13, Queen Street, Mayfair, W.
Cyriax, Richard Julius, Esq., 4, Craven Hill, Lancaster Gate, W.
Dale, Henry Hallett, M.D., Winsford, Burbage Road, Herne Hill, S.E.
Darling, Harry Cecil Rutherford, M.B., 126 Euston Road, N.W.
Davison, Rashell Thomas, M.D., Vernham, New Malden, Surrey
Dixson, Charles Frederick Lyne, M.D., 51, Woodhurst Road, Acton, W.
Dodd, Stanley, M.B., 11, Wimpole Street, W.
Dorran, Isaac, Esq., 38, Old Street, E.C.
Eaton, Irene Davy, M.B., 95, Parliament Hill Mansions, N.W.
Erskine, John Wilson, M.B., 145, Beaufort Street, Chelsea, S.W.
Evans, Charles Hotham, Esq., 56, Wolfington Road, West Norwood, S.E.
Evans, Douglas Gordon, M.B., 254, Gloucester Terrace, Hyde Park, W.
Evans, Jessie Downie Granger, M.B., 75, Craven Park Road, Willesden, N.W.
Eyre, Charles Roland Babington, Esq., 11, Christchurch Avenue, Brondesbury, N.W.
Farrant, Rupert, F.R.C.S., 9, Gerrard Street, W.
Fleming, George Gilbert, M.D., Sidbury Lodge, Edgware
Fletcher, Rev. George Rory John, M.R.C.S., L.S.A., The Presbytery, Hillside Road, Streatham Hill, S.W.
Fort, Henry Richard Trecothick, Esq., Shire Lane, Chorley Wood, Herts
Fox, Francis, Esq., 15, Arundel Gardens, Kensington Park, W.
Fox, Selina Fitzherbert, M.D., 44, Grange Road, Bermondsey, S.E.
Frank, Philip, M.D., 3, Elvaston Place, S.W.
Fraser, David Hammand, M.B., 319A, Brixton Road, S.W.
Fraser, Margaret Helen, M.B., 4, Nottingham Place, W.
Gazdar, Gertrude, M.B., Rosslyn, North End Road, Hampstead, N.W.
Gilchrist, Norman S., M.B., 1, Colyton Road, E. Dulwich, S.E.
Glendinning, Bryden, M.S., F.R.C.S., 7, Devonshire Place, W.
Gompertz, Richard, M.B., Bridge House, Berkhamsted
Goodchild, Thomas Archibald, Esq., 154, Queen's Road, N.E.
Graham, Cecil Irving, F.R.C.S., 47, Queen Anne Street, W.
Green, Vincent, M.D., Greyroofs, Wimbledon Hill, S.W.
Hall, William Henry Arthur Gordon, M.B., c.o. Messrs. Grindlay and Co., 54, Parliament Street, S.W.
Hambleton, Godfrey William, Esq., 17, Finsbury Pavement, E.C.
Hancock, Frank Thompson, Esq., Clovelly, Hounslow
Harris, William Roberts, Esq., The Infirmary, Lewisham, S.E.
Hartigan, Thomas, M.D., 168, Gloucester Terrace, W.
Hazel, Wm. Francis, Esq., 71, Oakley Square, N.W.
Herdman, Ronald Tydd, M.B., C.M.Edin., 95, Crouch Hill, N.
Hill, Leonard E., M.B., F.R.S., Osborne House, Loughton
Howard, Arthur Henry Howard, Esq., Charing Cross Hospital, W.C.
Hughes, Ernest Cranmer, F.R.C.S., 26, St. Thomas's Street, S.E.
Hume, Douglas Walker, M.B., St. Bartholomew's Hospital, E.C.
Jeans, A. Norman, Esq., 8, Hamlet Road, Upper Norwood, S.E.
Jones, Bevington Sydney, Esq., 97, Louisville Road, Upper Tooting, S.W.
Jones, Rowland Francis Hugh, Esq., Sundon House, Church Hill, Walthamstow
Joynt, Edward Percival Hearne, M.B., 54, Manor Park, Lee, S.E.
Kaka, Sorabji Manekji, Esq., Walden Chambers, High Street, Marylebone, W.
Keane, Edward Dawson, M.B., 20, Golborne Road, W.
King, Charlotte Alice, M.B., 22, Dalebury Road, Upper Tooting, S.W.
King, David Barty, M.D., 13, Queen Street, Mayfair, W.
Lambkin, Ernest Charles, M.B., Lieut. R.A.M.C., c.o. Messrs. Holt and Co., Pall Mall, S.W.
Lash, Henry Andrew, Esq., c.o. Messrs. Grindlay and Co., 54, Parliament Street, S.W.
Layton, Thomas Bramley, M.S., F.R.C.S., Guy's Hospital, S.E.
Lewis, Frederick William, M.B., 9, Foulden Road, Stoke Newington, N.
Lloyd, Langford Newman, D.S.O., M.R.C.S. Eng., L.R.C.P.Lond., Capt. R.A.M.C., 51, Calthorpe Street, W.C.
Lonnon, Frederick, Esq., 77, Denmark Hill, S.E.
Lowe, Frederick Boulton, Esq., 43, Thurlow Park Road, Dulwich, S.E.
McCombie, Duncan Alex., M.B., 188, Commercial Road, E.
McDonagh, James Eustace Radclyffe, F.R.C.S., 19, Harley Street, W.
McGregor, Beatrice Anne, M.B., 10, Leopold Road, Wimbledon, S.W.
Mackeith, John, M.B., 127, Kennington Park Road, S.E.
Maclean, Kenneth, F.R.C.S.Ed., 82, Tollington Park, N.
McMunn, Andrew, L.R.C.P., L.R.C.S.I., Capt. R.A.M.C., 40, West Kensington Mansions, W.
MacNab, John Theodore, M.B., 272, Balham High Road, S.W.
MacNalty, Arthur Salusbury, M.B., Brompton Hospital, S.W.
McPherson, Joseph Clarke, M.B., 16, The Circus, Greenwich, S.E.
Mecredy, Emily Mary Spencer, M.D., 32, Mecklenburgh Square, W.C.
Mordaunt, Ethel Amy, L.R.C.P., L.R.C.S. Edin., Holmwood, Newstead Road, Lee, S.E.
Mummery, Stanley Parkes, Esq., 10, Cavendish Place, W.
Neatby, Edwin Awdas, M.D., 82, Wimpole Street, W.
Norman, Hubert James, M.B., Camberwell House, Peckham Road, S.E.
Oakeley, Henry Eckley Herbert, Esq., Walthamstow Hospital, N.E.
Oates, Geoffrey Eugene, M.D., 88, Carlton Mansions, W.
O'Ferrall, Edward French, Esq., 360, Coldharbour Lane, Brixton, S.W.
Olsen, Alfred Berthier, Esq., 7, Manchester Square, W.
Patterson, Norman, M.B., F.R.C.S., 29, Queen Anne Street, W.
Patteson, Elizabeth, M.B., 69, Portsdown Road, W.
Pollard, George Frederick, M.D., 24, Uxbridge Road, Hanwell, W.
Powell, Henry William Fitzgerald, M.D., 5, Harley Street, W.
Power, Thomas, Esq., 153, East India Dock Road, E.
Purnell, Charles Arthur, M.B., 19, Micheldever Road, Lee, S.E.
Quirk, Edward J. J., Esq., Charing Cross Hospital, W.C.
Reidy, Jeremiah, M.B., 314, Commercial Road, E.
Richards, John Evans, M.B., 67, High Street, Stoke Newington, N.
Ridewood, Harold Edward, M.D., F.R.C.S., London Hospital, E.
Roberts, Adeline Mary, M.B., 43, Devonshire Street, W.
Roberts, James Ernest Helme, M.B., F.R.C.S., Pathological Department St. Bartholomew's Hospital, E.C.
Robertson, James S., Esq., 14, Derwent Road, Palmer's Green, N.
Rocha, John Gomes Da, M.B., 4, St. John's Park Mansions, Pemberton Gardens, N.
Routh, Laurence Melville, Esq., 52, Montagu Square, London, W.
Rupp, Karl, Esq., 86, London Road, Forest Hill, S.E.
Rygate, Brougham Robert, M.B., 126, Cannon Street Road, E.
Sanderson, Alice Emilie, M.B., The Mount, Montpelier Road, Ealing, W.
Scharlieb, Mary Ethel Sim, L.S.A., 149, Harley Street, W.
Sharma, Jugal Kishore, Esq., The Eastern Hospital, Homerton, N.E.
Shaw, Ernest Henry, Esq., 70, Parkhurst Road, Holloway, N.
Shelley, Rachel Hicks, M.B., 3, Hampton Road, Hampton Hill
Shipway, Francis Edward, M.D., 27, Welbeck Street, W.
Smelt, Charles Allen Casterton, M.B., 371, Holloway Road, N.
Smith, Ebenezer Stanley, M.D., 68, Wimpole Street, W.
Smith, Percy Montague, M.D., F.R.C.S., 288, Earl's Court Road, S.W.
Smith, Walter Hugh Montgomery, Esq., 204, Selhurst Road, South Norwood, S.E.
Spencer, Matthew Henry, M.D., 92, Oxford Gardens, W.
Spurr, Frederick, Esq., 427, Commercial Road, E.
Stanham, William Charles, Esq., 353, Wick Road, N.E.
Stevenson, William Sinclair, M.B., 2, Prince Arthur Road, Hampstead, N.W.
Stocks, Reginald Woolsey, Esq., 421, Wandsworth Road, S.W.
Storey, Percy Arthur, Esq., 246, Marylebone Road N.W.
Sullivan, Patrick, Esq., Rose House, Primrose Road, South Woodford
Swain, Edward, Esq., Walton Lodge, Hampton Hill
Swallow, James Dodd, M.D., Clifton Lodge, Clarence Road, Clapham Park, S.W.
Sworn, Alfred George, M.B., 5, Highbury Crescent, N.
Taylor, George Frederick Noel, Esq., 128, Mansfield Road, N.W.
Thomson, Alfred Kerr, M.B., 60, Cambridge Gardens, W.
Thomson, George Lewis, M.B., Western Hospital, Seagrave Road, Fulham, S.W.
Tocher, George, Esq., 226, Mitcham Road, Tooting, S.W.
Travers, Ernest Frank, M.D., 22, Upper Phillimore Place, W.
Turnbull, Jane Holland, M.D., 11, Brunswick Square, W.C.
Turner, Edward Beadon, F.R.C.S., 31, Sussex Gardens, W.
Turtle, James, Esq., 35, High Street, Homerton, N.E.
Turtle, William Reginald Margetts, Esq., West Ham Infirmary, Leytonstone
Voisey, Clement Bernard, M.D., F.R.C.S., 11, Kensington Gardens Square, W.
Ward, Gordon Reginald, Esq., Westminster Hospital, S.W.
Watkin, Paul I. Euan, Esq., 175, Barking Road, Canning Town, E.
West, Charles Ernest, F.R.C.S., 60, Queen Anne Street, W.
Wheeler, Francis James, Esq., 43, Sunderland Road, Forest Hill, S.E.
White, Clifford, M.D., 49, Wimpole Street, W.
Whitlock, Ernest William, Esq., 63, Bassett Road, North Kensington, W.
Wilkins, Trevor Hamilton, Esq., 72, Southfield Road, Bedford Park, W.
Williamson, David James, M.D., 21, St. Stephen's Square, W.
Willis, Herbert George, M.B., Middlesex County Asylum, Tooting, S.W.
Wilson, Frederick Wallace, Esq., 9, Fore Street, E.C.
Wilson, Lilian Ethel, M.B., 25, Alfred Road, Acton, W.
Wilson, Samuel Alexander Kinnier, M.B., 63, Wimpole Street, W.
Winder, John, Esq., 43, The Avenue, Bedford Park, W.
Winslow, L. S. Forbes, M.B., 57, Devonshire Street, W.
Woodforde, Alfred William George, M.B., Mile End Infirmary, Bancroft Road, E.
Ziemann, Herman P., M.D., 166, Walm Lane, N.W.

Midland Branch.

Black, Kenneth, F.R.C.S., General Hospital, Nottingham
Blair, Alexander, M.B., Church Terrace, Long Sutton
Clare, T. C., M.B., 59, Highcross Street, Leicester
Cowper, C. M. L., Esq., Peatling House, Lutterworth
Cowper, S. B., Esq., Park House, Blaby
Dawson, H. G. W., M.B., 93, Green Hill, Derby
Hepworth, W. J. H., Esq., The Old Vicarage, Hyson Green, Nottingham
Hunt, Sydney, Esq., West Road, Spondon, Derby
Johnson, T. A., M.B., Leicester Infirmary
MacKellar, J. M., M.B., 419, Nottingham Road, Nottingham
Thompson, J. H., M.B., 217, Arkwright Street, Nottingham
Williams, E. R., Esq., The Cottage, Billesdon

Munster Branch.

Byrnes, J. J., Esq., Bruree
Hayes, M. J., Esq., Castletown-Berehaven
Powell, G. H., Esq., Ardnalee, Crosshaven

Natal Branch.

Glashan, H. W., M.B., Pietermaritzburg
Lacey, A. R., Esq., Sydenham, Natal

New Zealand Branch.

Good, H. A., Esq., Whangarei
Harvey, F. N., Esq., Napier
Huntley, Edith A., M.D., Kelburne, Wellington
Ick-Hewins, E. T. J., Esq., Warkworth
Lindon, E. H., M.B., Dunedin
MacDiarmid, J. B., M.B., Hawera
Palmer, A. E., Esq., Featherston
Stenhouse, J. S., Esq., Owaka
Tolhurst, St. J. A. M., M.B., Wellington

Northern Counties of Scotland Branch.

Anderson, G. Victor, M.B., 6, Station Road, Dingwall
Grant, J. McPherson, M.B., 1, View Place Inverness
Somerville, J. A., M.B., 3, Albany Gardens, Invergordon

North of England Branch.

Cammock, Wm. R., M.B., Thornaby Hospital, Stockton-on-Tees
Carson, Francis S., Esq., Monkwearmouth Hospital, Sunderland
Dalgliesh, Chas. A. S., M.D., Ashmore Terrace, Sunderland
Drummond, Hamilton, M.B., 6, Saville Place, Newcastle-on-Tyne
Drummond, Horsley, M.B., 6, Saville Place, Newcastle-on-Tyne
Fraser, W. Sinclair, Esq., Coquet House, Benwell, Newcastle-on-Tyne
Laverick, F. R. H., M.D., 41, Heaton Road, Newcastle-on-Tyne
Lyle, S., M.B., 4, West End Terrace, Stockton-on-Tees
Murray, Wm., Esq., Bon Lea Terrace, Thornaby-on-Tees
Smail, John A., M.B., Rothbury
Trevor-Roper, Bertie W. E., M.B., Glanton, S.O.

North Lancashire and South Westmorland Branch.

Hunter, Douglas W., M.B., Royal Albert Asylum, Lancaster

North Wales Branch.

Barrett, W. E., F.R.C.S.Edin., Rysseldene, Colwyn Bay
Blake, Lilian M., L.R.C.P. and S.Edin., Netherhurst, Colwyn Bay
Owen, Robert, M.D., 288, High Street, Connah's Quay
Smith, G. F. R., M.B., Clarence House, Rhyl
Taylor, Thomas, M.B., 28, Grosvenor Road, Wrexham

Perthshire Branch.

Burgess, W. L., M.B., Royal Infirmary, Perth
Macdiarmid, John, M.B., Leslie Street, Blairgowrie

Saskatchewan Branch.

Black, J. C., M.D., 2119, Broad Street, Regina
Ellis, F. J., M.D., Regina

Shropshire and Mid Wales Branch.

Luethgen, C. W. L., M.B., Cressage, near Shrewsbury
Power, P. M., Esq., County Asylum, Shrewsbury

South Australian Branch.

Cowan, D. R. W., M.B., Adelaide Hospital
Drew, W. A. V., M.B., Bordertown
Erichsen, M., M.B., Pinnaroo
Frayne, E. J., M.B., Mallala

South-Eastern Branch.

Caesar, Richard T., jun., Esq., Maidstone
Cooke, Emily S., L.M.S.S.A., Burnmoor, Sutton
Greenways, C. M., Esq., 291, High Street, Plumstead
Holman, C. C., M.B., Gate House, East Hoathly
Jackson, T. S., Esq., Fleatham, College Lane, East Grinstead
Jamison, Reginald, F.R.C.S., 20, London Road, Horsham
Jones, W. W., M.D., Wilton House, Victoria Road, Worthing
Martin, Mary E., L.R.C.P. and S.Ed., 3, Palmeira Terrace, Hove
Miller, T. M., Esq., General Hospital, Tunbridge Wells
Palmer, B. H., M.B., Victoria Hospital, Folkestone
Storrs, W. T., Esq., Hallgate, Lonsdale Gardens, Tunbridge Wells
Waldron, C. E., Esq., General Hospital, Tunbridge Wells
Wilson, C. E. A., M.B., Petworth
Wynne, W. C. P., Esq., Brambletye, Limpsfield

South-Eastern of Ireland Branch.

Macmullen, Hamilton, M.D., Bagenalstown
Madden, M. J., F.R.C.S.I., Golden

Southern Branch.

Bell, K. D., Surgeon R.N., R. N. Barracks, Portsmouth
Bird, E. Beverley, Esq., 46, Elm Grove, Southsea
Cooper, W. F., Esq., 55, Shirley Road, Southampton
Laurie, R. D., M.B., Royal Hants County Hospital, Winchester
Sircom, E. R., Esq., Cromwell House, Kent Road, Southsea
Ward, A. E. J., Esq., 87, Brown Street, Salisbury
Way, J. H. F., Esq., 151, Victoria Road North, Southsea

South Indian and Madras Branch.

Hirsch, Leonard, Captain I.M.S., Royapettah Hospital, Madras
Macphail, Miss A. M., L.R.C.P., Medical Mission, Royapuram
Menon, E. Kunjuni, M.B., Ernakalam, Cochin State
Ramarau, C. A. Siva, Esq., 31, Mukkatal Street, Pursewalkum, Madras

South Midland Branch.

Charles, C. P., Esq., Hitchin
Cox, E. A., Esq., Holly House, Long Buckby, Rugby
Hogarth, A. H., M.B., County Hall, Aylesbury
Hopkins, W. D., Esq., 134, Dunstable Road, Luton
Mawhood, R. H., Esq., County Hospital, Bedford
Pocock, A. R. G., M.D., Beaconsfield
Smith, C. Charnock, Esq., Woburn

South Wales and Monmouthshire Branch.

Brookes, A. E., M.B., Bradbury House, Llanelly
Calwell, G., M.B., Abersychan
Connellan, E. V., Esq., 168, Caerleon Road, Newport
Cook, John, Esq., 39, Alexandra Road, Newport
Cumberlege, G. I., M.D., 1, Ninian Road, Roath Park, Cardiff
Davies, Henry, M.B., Abergwynfi, Port Talbot
Elliott, J. H., M.D., Pontypool
Gregg, T. A., Esq., Greystone, Newbridge
Grimth, John R., Esq., Argoed
Groves, Henry C., Esq., Chippenham House, Monmouth
Hughes, R. Morgan, Esq., Le Vallor, Machen
James, J. Owen, Esq., Abertillery
James, G. Prosser, Esq., 19, Victoria Square, Penarth
Jones, G. D. Edwards, F.R.C.S., 39, High Street, Cardigan
Kingston, C. S., Esq., St. Thomas, Swansea
McAllen, T. J., M.B., Pontnewynydd
McCormac, S., M.B., Pontnewydd
Mills, Henry, Esq., Victoria, Mon.
Mullan-Feroze, D. F., Esq., Bron-y-garn, Maesteg
O'Neill, J. J., M.B., Clydach Vale, Rhondda
Porter, J. J., Esq., 32, Bernard Street, Swansea
Scott, Neil C., M.B., County Hospital, Newport
Tresawna, W. S., M.B., Abergavenny
Williams, R. A., M.B., Bryn Siriol, Ogmore Vale
Withington, E. T., M.B., Manorbier, R.S.O.

South-Western Branch.

Bramley-Moore, John, Esq., Melrose, Woolacombe
Coutts, J. M. S., M.D., 5, Park Place, Torquay
Ewbank, A. G., Esq., Brookfield, Colyton
Palmer, F. W. M., M.D., 13, Orchard Gardens, Teignmouth
Perry, G. D., Esq., Bampton Street, Tiverton
Porter, G. F., M.D., South Devon Hospital, Plymouth
Warren, J. G., Esq., Park House, Lynton
., M.B., St. Tudy

Staffordshire Branch.

Buchanan, T. G., M.B., The Infirmary, Burton-on-Trent
Day, George, F.R.C.S.Ed., 61A, Lichfield Street, Hanley
Johnston, James, M.B., Fair View, Oakhill, Stoke-on-Trent
Newton, F. M., Esq., The Union Hospital, Stoke-on-Trent
Reid, James, Esq., Fenton, Stoke-on-Trent
Stidston, C. A., M.D., Holly Dene, Penn, Wolverhampton
Walton, W. R., Esq., Oakdene, Milton, Stoke-on-Trent

Stirling Branch.

Dillon, F., M.B., Rosehill Terrace, Falkirk

Sydney and New South Wales Branch.

Brooke, Baron, Esq., Chatswood
Child, Sophia R., M.B., Royal Hospital for Women, Paddington
Collier, F. W. D., M.B., Plattsburg
Cook, S. L., M.B., Victoria Road, Marrickville
Fahy, F. J., M.B., High Street, Waratah
Fielder, Sydney, Esq., Gosford
Fisher, W. E., F.R.C.S., Bligh Street, Sydney
Foley, John H., Esq., Coff's Harbour
Godfrey, P. J., Esq., Teralba
Golledge, K. A., M.B., Sydney Hospital
Graham, D. H., M.B., Wyong
Graham, John B., M.D., 201, Macquarie Street, Sydney
Grieves, T. A., Esq., Stockton
Hill, D. B., M.B., Barren Jack
Hollywood, Jas. J., M.B., West Maitland
Hughes, Jas. C., M.B., St. Vincent's Hospital, Darlinghurst
Macfarlane, J. S., M.B., Maclean
Macintosh, C. L. S., M.B., Goulburn Hospital
McPhee, Vincent J., M.B., Stanmore
Oxenham, H. B., M.B., Newcastle Hospital
Parkinson, H. H., M.B., Merchant Street, Stanmore
Pittman, E. E., M.B., Royal Prince Alfred Hospital, Camperdown
Prevost, Richard, M.B., Wahroonga
Priestley, Henry, M.B., Royal Prince Alfred Hospital, Camperdown
Retallack, C., F.R.C.S.Edin., North Sydney
Roger, Robert, M.B., Scone
Setzke, Edgar F., M.D., 145, Elizabeth Street, Sydney
Tomlinson, G. L., M.B., Teralba
Walter, Henry, M.B., Katoomba
Williamson, Wm. C., M.D., Parramatta
Wilson, John B., Esq., Portland
Wilson, J. P., M.B., G.P.O. Sydney

Toronto Branch.

Forster, F. J. R., M.D., 48, Albert Street, Stratford, Ontario
Lyon, E. J., M.D., Guelph, Ontario
McDonald, Wm., M.D., Annan, Ontario
McVicar, C. S., M.D., 192, Dowling Avenue, Toronto
Mitchell, J. P., M.D., Cobourg, Ontario

Transvaal Branch.

Landon, T. H. W., Esq., 56, Turf Club Street, Turffontein, Johannesburg

Ulster Branch.

Condy, E. M., M.B., Ardmore, Malone Park, Belfast
Patton, Alex., M.B., Castlecaulfield

West Somerset Branch.

Murphy, C. F., Esq., Monmouth House, Chard
Thompson, C. H. B., Esq., 2, The Avenue, Taunton

Worcestershire and Herefordshire Branch.

Hartley, J. A., M.D., Bridport, Malvern
Williams, A. H., Esq., 48, Bromyard Road, Worcester

Yorkshire Branch.

Appleyard, William, F.R.C.S., 2, Marlboro' Road, Bradford
Bullen, C. H., M.D., Stillington, Easingwold
Erskine, A. McC., M.D., Boothferry Road, Goole
Gostling, G. W., M.B., 25 Stonegate, York
Jamison, R. C., M.B., 33, Harehills Lane, Leeds
Lambert, J. R., M.B., West Lodge, Farsley, Leeds
Mackay, Jas. D., M.B., The Woodlands Doncaster
Martin, F. W., Esq., Wellholme, Brighouse
Rowden, L. A., M.B., 32, Park Square, Leeds
Thompson, William, M.B., Calder Grange, Mytholmroyd
Thomson, J. W., M.B., Northgate House, Wakefield
Veale, R. A., M.D., General Infirmary, Leeds

Association Notices.

SPECIAL REPRESENTATIVE MEETING.

A Special Representative Meeting will be held on Tuesday, June 28th, 1910, at 3 p.m., in the Connaught Rooms, Freemasons' Hall, Great Queen Street, London, W.C., and the following day, if necessary, for the consideration of proposals submitted by the Council as the result of a communication received from the Privy Council with respect to the application of the Association for a Royal Charter. An Extraordinary General Meeting will be held on Wednesday, June 29th, for the confirmation of the decisions of the Representative Meeting. The Agenda of the Special Representative Meeting was published in the Supplement of May 28th, p. 285.

BY ORDER OF THE COUNCIL,

GUY ELLISTON,
Financial Secretary and Business Manager.

J. SMITH WHITAKER,
Medical Secretary.

May 26th, 1910.

NOTICE OF THE FORMATION OF A NEW BRANCH OF THE ASSOCIATION.

Baluchistan Branch.

NOTICE is hereby given of the following resolution adopted on April 27th, 1910, by the Central Council:

That a Branch of the Association be formed, designated the Baluchistan Branch, and composed of the Members of the Association resident within the area of the Baluchistan Agency.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BIRMINGHAM BRANCH: CENTRAL DIVISION.—The annual meeting of the Division will be held at 3.30 p.m. on Wednesday, June 15th, at the Medical Institute, for the purpose of electing a Chairman, Vice-Chairman, and two Honorary Secretaries for the ensuing year.—A. W. NUTHALL, W. T. LYDALL, Medical Institute, Edmund Street, Birmingham.

BORDER COUNTIES BRANCH.—The annual meeting will be held at the Station Hotel, Carlisle, on Friday, June 24th, at 3 p.m.—G. R. LIVINGSTON, M.D., Honorary Secretary.

BORDER COUNTIES BRANCH: SCOTTISH DIVISION.—The annual meeting of this Division will be held at the Dumfries and Galloway Royal Infirmary on Friday, June 10th, at 3 p.m.—G. R. LIVINGSTON, M.D., Honorary Secretary, Dumfries.

EAST ANGLIAN BRANCH.—The annual meeting will be held at Thetford on Thursday, June 16th. Members wishing to show cases or specimens or read papers should communicate at once with Dr. Gutch, Ipswich.—B. H. NICHOLSON, Honorary Secretary of Branch.

EAST ANGLIAN BRANCH: WEST NORFOLK DIVISION.—The annual meeting of this Division will be held on Thursday, June 30th, at 3.30 p.m., at the West Norfolk and Lynn Hospital.—J. L. FORREST, Honorary Secretary.

EAST YORK AND NORTH LINCOLN BRANCH.—The annual meeting of this Branch will be held at the Royal Infirmary, Hull, on Thursday, June 16th, at 12.30 p.m.—EDWARD TURTON, Honorary Secretary, 1, Albion Street, Hull.

EDINBURGH BRANCH.—The annual meeting of the Edinburgh Branch will be held in the Hall of the Royal College of Surgeons on Friday, June 10th, 1910, at 4 p.m. Business: (1) Report of Branch Council. (2) Election of office-bearers. The Council beg to nominate the following as office-bearers for the year:—President, William Russell, M.D.; President-elect, John R. Hamilton, M.D.; Vice-Presidents, A. A. Matheson, M.D., and T. R. Ronaldson, M.D.; Treasurer, James Ritchie, M.D.; Honorary Secretaries, Michael Dewar, M.D., and E. W. Scott Carmichael, F.R.C.S. (3) Discussion: The Future Prospects and Position of the Medical Profession under the Poor Law Commission Proposals and a Public Medical Service; introduced by Dr. Dewar. The following is a synopsis:—The Royal Commission on Poor Law Reform; the Majority and Minority Reports; reference to Report on Scotland and Dr. McVail's Report; points of agreement and difference; criticism of reports; objections from public and medical aspects; question of reform of existing Poor Law System; short review of Public Medical Service Scheme; suggestion for establishing a reformed Poor Law Service for the destitute, and a Public Medical Service for the class above, including all families under a certain wage limit; method of overcoming objection of Friendly Societies to a wage limit. The members of the Branch will dine at the Royal British Hotel, Princes Street, at 6.30 o'clock. Members intending to be present are requested to notify the Honorary Secretaries. Motor meeting: It has been suggested that a combined motor meeting of the Border Counties and Edinburgh Branches should be held at Moffat. Those members who have motor cars and are willing to co-operate are requested to communicate with Dr. Michael Dewar.—FRANCIS D. BOYD and MICHAEL DEWAR, Honorary Secretaries.

EDINBURGH BRANCH: SOUTH-EASTERN COUNTIES DIVISION.—The annual meeting of this Division will be held in the Railway Hotel, St. Boswells, on Monday, June 13th, at 3.30 p.m., Dr. Tyrrell, Galashiels, presiding. Business: 1. Minutes of last meeting. 2. Annual Report. 3. Election of Office-bearers. 4. Consideration of following reports: (1) Relation of Homœopaths to the Association; (2) Special Poor Law Reform Committee; (3) Medical Inspection of School Children and Treatment of those found Defective; (4) Consideration of Model Rules of Proposed Public Medical Service. 5. Instructions to Representative. 6. Any other business.—JOHN JEFFREY, Honorary Secretary.

FIFE BRANCH.—The annual meeting will be held at the Hotel, Thornton, on Thursday, June 16th, at 3 p.m.—R. BALFOUR GRAHAM, Honorary Secretary.

GLOUCESTERSHIRE BRANCH.—The annual meeting of this Branch will be held at the Hospital, Stroud, on Thursday, June 9th, at 6.30 p.m. Agenda: (1) Election of officers and ordinary members on the Branch Council. (2) To receive the annual report of the Branch Council. (3) To consider the business of the Annual Representative Meeting. Any member having any matter which he would like brought by the Branch Representative before the Annual Representative Meeting of the Association, is requested immediately to send notice of same to the Honorary Secretary for discussion at the annual meeting of the Branch. (4) To make new rules, or alter or repeal existing rules. Any member desiring any alteration, etc., of rules, or new rule made, is requested to send the Honorary Secretary immediate notice of same. (5) Address by Dr. Leonard Williams (London): The Quickening Spirit. There will be a dinner at 7.45 p.m. at the Imperial Hotel, Stroud; tickets 5s. each (inclusive of wine). Those intending to remain for the dinner (and it is hoped all will do so) are requested notify the President, Mr. A. B. Davies, not later than Tuesday, June 7th.—D. E. FINLAY, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH.—The annual meeting will be held at Burnley on the afternoon of Wednesday, June 15th. Members desiring to read papers, show cases, or otherwise to contribute to the scientific and clinical programme are requested to communicate at once with F. CHARLES LARKIN, Branch Secretary, 54, Rodney Street, Liverpool.

LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—A committee meeting will be held at Dr. Gough's at 4.50 p.m. on Thursday, June 9th. The annual general meeting of the Division will be held at Altrincham on Wednesday, June 22nd.—H. G. COOPER, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: WARRINGTON DIVISION.—The quarterly meeting of the Warrington Division will be held at the Infirmary, Warrington, on Tuesday, June 14th, at 4.30 p.m.—T. A. MURRAY, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH.—The annual meeting of the Branch will be held on Thursday, June 23rd, at 4.30 p.m., at 429, Strand, W.C. Agenda: (*a*) To receive the report of the election of new officers. (*b*) To receive the annual report of the Council of the Branch and the annual financial statement. (*c*) To receive the annual report of the Representatives of the Branch on the Central Council. (*d*) To make new rules or alter or repeal existing rules. (*e*) Any other business. (*f*) President's Address.—E. W. GOODALL, W. GRIFFITH, Honorary Secretaries.

MIDLAND BRANCH: LEICESTER AND RUTLAND DIVISION.—A special meeting of the Division will be held at the Leicester Infirmary on Wednesday, June 8th, 1910, at 4.15 p.m. Business: Consideration of the special report of the Council with reference to the adoption of new Articles and By-laws, and the best means to be taken to obtain the additional powers required by the Association. Consideration of proposed new Articles and By-laws. In view of the vital importance to the future of the Association of the matters to be considered, it is hoped that members will make a special effort to be present at the meeting, and vote on the questions to be submitted. The report of the Council, with the proposed new Articles and By-laws, is contained in the SUPPLEMENT of the BRITISH MEDICAL JOURNAL, May 28th, 1910.—R. WALLACE HENRY, Honorary Secretary, Leicester.

MUNSTER BRANCH.—The annual general meeting of this Branch will be held on Saturday, June 18th, at 4 30 p.m., in the Rooms of the Cork Medical Society, 74, South Mall, Cork. Representatives, Officers, and Council for 1910-11 will be elected, and any other necessary business transacted.—PHILIP G. LEE, 26, St. Patrick's Hill, Cork, Honorary Secretary.

NORTH WALES BRANCH: SOUTH CARNARVON AND MERIONETH DIVISION.—The annual meeting of the Division will be held at the Golden Lion Hotel, Dolgelley, on Thursday, June 16th, at 2 p.m. Members having papers to read, cases to show, or any other business to bring before the meeting are requested to communicate by June 9th with the Honorary Secretary, HENRY GLADSTONE JONES, Plas Gwilym, Criccieth.

SOUTH-EASTERN BRANCH.—The sixty-sixth annual meeting of the Branch will be held at the Albany Hotel, Hastings, on Wednesday, June 15th, at 2.15 p.m. Dr. Allfrey (President-elect) kindly invites members to lunch at the Albany Hotel, Hastings, from 1 to 2 p.m. Agenda:—In addition to the business of an ordinary meeting: (1) To receive the report of the election of new officers who shall thereupon take office. (2) To receive the annual report of the Council on the affairs of the Branch and the annual financial statement. (3) Alteration of rule proposed by the Council, "That in Rule 7, (a), (2), the words 'two weeks' be inserted instead of 'one month' in line 9." The effect of this is that names of candidates will have to be before the Council two weeks, instead of one month, previous to election. After the meeting members will be driven to Fairlight and the neighbourhood, and the party are very kindly invited to tea at Fairlight Place by the Rev. W. C. and Mrs. Sayer-Milward. The Dinner will be held at 6.30 p.m., charge 6s., wine will be provided by the local members. Those who intend to be present at the lunch, the drive, or the dinner are requested to signify their intention to Dr. G. Vickerman Hewland, 4, Eversfield Place, St. Leonards-on-Sea, not later than Saturday, June 11th.—E. A. STARLING, Honorary Secretary, Tunbridge Wells.

SOUTH-EASTERN OF IRELAND BRANCH.—A meeting of this Branch, as also a meeting of the Branch Council and the local Division, will be held at the Council Chamber, Clonmel, on Wednesday, June 15th, at 12 o'clock noon. Agenda: (1) Minutes of last meeting; (2) letters of apology; (3) correspondence; (4) that the subject of the Medical Attendant of the Clonmel Foresters be entertained; (5) to consider special report and proposals of the Council respecting Royal Charter (see SUPPLEMENT, May 28th), and to give any necessary instructions to the Representative; (6) luncheon. Members who intend to read papers or exhibit cases will please communicate with the Honorary Secretary at least one week before the date of meeting.—J. QUIRKE, Honorary Secretary.

SOUTH MIDLAND BRANCH.—The annual meeting will be held at Bedford, on Thursday, June 16th, under the presidency of Dr. H. Skelding. The President has promised to show some cases, and hopes for some discussion of these. This will be followed by the President's address, and then Mr. H. D. Rolleston (St. George's Hospital) will address the meeting on Acute Arthritis of Doubtful Origin. Members are invited to read papers or show cases. The meeting, and the luncheon which will precede it, will be held at the County Hospital, Bedford.—E. HARRIES-JONES, Northampton, Honorary Secretary.

SOUTH MIDLAND BRANCH: NORTHAMPTONSHIRE DIVISION.—The annual meeting of the Division will be held in the Board Room of the Northampton General Hospital on Tuesday, June 7th, at 2.30. It will be preceded by a luncheon at Franklin's Restaurant at 1.30. Members desiring to attend the luncheon should notify the Secretary two days beforehand. Business: Minutes. Annual report of the Division. Election of officers for the ensuing year. Address: The Treatment of Eclampsia and Allied Diseases, by Dr. J. S. Fairbairn, Assistant Obstetric Physician, St. Thomas's Hospital. Any other business.—Honorary Secretary, Dr. HICHENS, 45, Sheep Street, Northampton.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The annual meeting of this Branch will be held at Newport (Mon.), on Thursday, June 9th.—ALFRED HANSON, Swansea, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: MONMOUTHSHIRE DIVISION.—A special meeting of this Division will be held in the Newport and Monmouthshire Hospital on Friday, June 10th, 1910. A meeting of the Division will also be held at The Cedars, Chepstow, on Thursday, July 7th, 1910.—R. J. COULTER, S. HAMILTON, Newport, Honorary Secretaries.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.—The annual meeting of this Branch will be held at Hereford on Thursday, June 23rd, at 3 p.m. Members wishing to show cases or specimens or read papers should communicate with the Honorary Secretary not later than June 13th. Business: Election of officers. To receive the annual report of the Council of the Branch and annual financial statement. Any other business. Members will dine together subsequently to the meeting.—C. S. MORRISON, Honorary Secretary.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH: HEREFORD DIVISION.—The annual meeting of this Division will be held on June 15th, at 3.15 p.m., at the General Hospital.—ARTHUR WOOD, Honorary Secretary.

YORKSHIRE BRANCH.—The annual meeting of this Branch will be held at the University, Sheffield, on Wednesday, June 22nd. The Council will meet at 3.30 p.m.; general meeting, 4 o'clock. Election of officers; report of council; president's address. Members intending to read papers, make any communications, propose new members, etc., are requested to communicate with the Secretary at once. Annual dinner, 6.30 p.m.—ADOLPH BRONNER, 33, Manor Row, Bradford, Honorary Secretary.

BRITISH MEDICAL ASSOCIATION LIBRARY.

BOOKS NEEDED TO COMPLETE SERIES.

THE Librarian will be glad to receive any of the following volumes, which are needed to complete series in the Library:

American Climatological Transactions. Vols. 1, 4, 5, 6.
———— Dermatological Association Transactions. Vols. 5, 7, 8, 11, and 29.
———— Journal of the Medical Sciences. New series, vols. 4, 5, 1842–3; vols. 14, 15, 1847–8; vols. 18–30, 1850; vol. 33, 1857; vol. 46, 1864–5; vol. 59; or any parts of these vols.
———— Journal of Ophthalmology. Vols. 1–9.
———— Laryngological Association. Transactions. Vols. 1–6, 8–9.
———— Medical Association. Transactions, 2, 4, 6, 7, 11, 12, 14, 15, 16, 19, 20, 22, 31, after vol. 33, and the *Journal*.
———— Otological Society. Transactions. Vol. 3, part 2, 1883.
———— Public Health Association. Transactions. Any vols.
Analyst. Vols. 1–24.
Annals of Surgery. Vols. 13, 14, 26, 27.
Archiv für Dermatologie und Syphilis. 1892 and 1893.
Archives générales de Médecine. Third new series 7–8 (1839–40); 4th series, 10–17, 20–25, 1852–55, 1858–64, 1872–1897; 1846–55 inclusive; 1857–64 inclusive; 1871.
———— of Ophthalmology. Vols. 1–3, 6, 7, 14, 15, 16 and 20.
———— of Otology. Vols. 1–7, and 20–22.
———— de Parasitologie. Vols. 1–8.
———— of Pediatrics. Vols. 1–11.
Asylum Journal of Mental Science. Vol. 1, 1854.
Bentley and Trimen. Atlas of Medicinal Plants.
British Journal of Dermatology. Vol. 2, part 3.
British Laryngological and Rhinological Association, 1896–7–8–9, 1900, and since 1903.
Caledonian Medical Journal. Vol. 1 prior to 1894.
Carmichael Essays. Rivington, 1879.
Centralblatt für Augenheilkunde. Hirschberg. All prior to 1891; Index to 1891.
Centralblatt für Bakteriologie. Bound volumes prior to 1899.
———— für medicinischen Wissenschaften. Vols. 1–19.
Congrès Français de Chirurgie. Transactions 1, 2, 3, 6, and 10, and all since 11th.
Glasgow Medical Journal. 1833–1868.
———— Pathological Society. Transactions 1 and 2.
Guy's Hospital Gazette. Nos. 1 and 5. 1872.
Indian Medical Gazette. 1868–1884.
Journal of Laryngology. Vols. 1 to 9.
Montreal Medical Journal, prior to 1900.
New York State Journal of Medicine, 1906.
Ophthalmic Review. January, 1882.
Pediatrics, prior to 1902.
Provincial Medical and Surgical Journal. March to September, 1841, and May 11th, 1852.
Recueil d'ophtalmologie, prior to 1893.
Revue générale d'ophtalmalogie, prior to 1893.
St. Bartholomew's Hospital Gazette. Vols. 1-6.
St. George's Hospital Gazette. Vols. 1-7.
St. Mary's Hospital Gazette. Vols. 1-5.
Sei-i-kwai Medical Journal. Vols. 1-11.

GENERAL COUNCIL

OF

MEDICAL EDUCATION AND REGISTRATION.

SUMMER SESSION, 1910.

MEDICAL DISCIPLINARY CASES.

Sir DONALD MACALISTER, K.C.B., President, in the Chair.

THE CASE OF MR. DAVID THOMAS JONES.

ON Wednesday, May 25th, the Council considered the case of David Thomas Jones, registered as of Rock House, Wostenholme Road, Sheffield, M.R.C.S.Eng., 1890, L.R.C.P.Lond., 1890, who had been summoned to appear before the Council on the following charge, as formulated by the Council's Solicitor:

That you have knowingly authorized or allowed an unqualified and unregistered person—namely, one William Perry—to attend and prescribe for patients in your name and on your behalf, and in particular to attend one Alice Hannah Nicholson in her confinement, and subsequently to fill in for the signature of Joseph Nicholson, her husband, the notification of birth required by the statute containing, amongst other particulars, the statement that you were the doctor attending the case.

And that in relation thereto you have been guilty of infamous conduct in a professional respect.

The PRESIDENT stated that this was the first case which had been brought before the Council in which the complainants were the British Medical Association. In consequence of a decision of the Council on May 29th, 1907, he wished to warn any members of the British Medical Association, should any be present, to take no part in the hearing or determination of the case.

Dr. SAUNDBY wished it to be recorded that he took no part in the determination of the case.

Sir WILLIAM WHITLA thought that as President of the British Medical Association he not only ought not to sit, but that he should withdraw from the council chamber and take a seat in the gallery.

Dr. MANN and Dr. NEWSHOLME also announced their intention of taking no part in the determination of the case, and withdrew.

Mr. Bodkin appeared as Legal Assessor, and Mr. Winterbotham as Solicitor to the Council. Mr. Smith Whitaker (Medical Secretary of the British Medical Association), assisted by Mr. Hempson, solicitor, attended on behalf of the British Medical Association, the complainants. Mr. Waddy, instructed by Mr. E. Wing, solicitor, of Sheffield, appeared for the accused practitioner.

The SOLICITOR read the charge.

Mr. SMITH WHITAKER said the case was one of considerable public importance, and some of its features of a painful character. He would show the Council why the British Medical Association had felt compelled to bring cases of this kind before it. In the case in question certain correspondence which took place between Dr. Scurfield, Medical Officer of Health for Sheffield, and the Registrar of the General Medical Council would be placed before the Council. In that correspondence the circumstances of the case were reported to the Registrar, and the Council was asked to take the matter up. In accordance with the standing orders of the Council the Registrar had to reply that the Council could not take up the matter unless some one appeared as complainant. The medical officer of health and the coroner of Sheffield both felt that it was no part of their duty to appear as complainants. The matter was brought to the attention of the local practitioners by several members of the public who, in view of the finding of the coroner's jury, considered it a public scandal that the circumstances in which Mr. Perry had been employed to act on behalf of Dr. Jones should not be looked into by the General Medical Council. The local practitioners felt that if they as a body or any individual one of them appeared as complainants, they would be open to the imputation of personal jealousy or animus, a risk which they did not feel called upon to incur. The facts were then reported to the British Medical Association, and the Association felt that the case was one which should be brought in some way before the Council, and concluded that, under the circumstances, it was the duty of the Association to bring the charge. The facts in respect of which the charge arose were simple, and from the statement put in by Dr. Jones, which he would no doubt support by evidence, did not seem to be disputed. Dr. Jones had agreed to attend Mrs. Nicholson in her confinement. He did see her on several occasions during the month preceding her confinement, but on the day of the event he was unable to attend. William Perry was Dr. Jones's dispenser, and appeared sometimes to act on his behalf in an emergency. He held no qualifications of any kind for attending a case of midwifery. No partner of the practice being available on this occasion, Mr. Perry attended Mrs. Nicholson, and delivered her of twins on Saturday, July 24th. Perry left word that Dr. Jones would attend next day. He did not attend, but Perry again attended Mrs. Nicholson, and also on the following Tuesday. Dr. Jones did not see Mrs. Nicholson from the Saturday till the following Wednesday. She was not seen by any other medical practitioner. On Wednesday Dr. Jones called and found her to be suffering from puerperal septicaemia, and said that she must be removed to some institution. The Jessop Hospital was full, so Mrs. Nicholson had to be removed to the workhouse infirmary, where she came under the care of Dr. Waldon, the resident surgeon, and Mr. Gale, the visiting surgeon. Unfortunately she died in the workhouse. Mr. Whitaker wished to leave the details of the clinical aspect of the case untouched, but the question the Council had to consider was the action of Dr. Jones in allowing Perry to attend professionally on his behalf, and the question whether the death of the person whom he attended could in any way be attributed to the fact that Perry had attended in the place of Dr. Jones was not the issue before the Council. The case emphasized the danger of registered practitioners allowing themselves to be represented by unqualified persons in any circumstances, even in such circumstances of urgency as might be alleged in the present case. The matters concerning the death of the woman came under the notice of the Medical Officer of Health for Sheffield through one of the inspectors of midwives who visited the house and reported the circumstances to the medical officer of health, who noted that in the notification of birth certificate, which had been sent to him under the Notification of Births Act, the name of the medical man in attendance was given as Dr. Jones, whereas from a report he received from the inspector it appeared that in fact the woman had been delivered by Mr. Perry. Dr. Jones was asked for an explanation. Dr. Jones sent to the medical officer of health a statement of facts, which would be put before the Council. An application was made to the Home Secretary, the woman having been already buried, for an order for exhumation, which was sanctioned. An inquest was held, and the evidence to be laid before the Council consisted to a great extent of the witnesses' depositions which were given at the inquest. Mr. Newton, the coroner's clerk, would be called to speak to the depositions. The coroner's jury found death was due to natural causes, expressing an opinion that it was not proper that this woman should not have been attended by a qualified medical practitioner. Those were the main facts of the case. Allegations had been made against the British Medical Association, such as were usually made in similar cases, of their action being through personal jealousy, but Mr. Whitaker felt sure that the Council would exonerate the Association from all such imputations. He desired to say, on behalf of the Association, that it felt very strongly the undesirability of medical practitioners being allowed, in any avoidable circumstances, to substitute for their services those of an unqualified person, and it was for that reason, and that reason

only, that the case was brought before the Council in order that it should have an opportunity of pronouncing its opinion upon the question.

The following is the text of the documents in the case:

EVIDENCE IN SUPPORT OF THE COMPLAINT.

Statutory Declaration of Frank Edwin Newton, dated March 5th, 1910.

"I, FRANK EDWIN NEWTON, of Gosforth House, Dronfield, in the County of Derby, do solemnly and sincerely declare as follows:—

"1. I am managing clerk in the employ of Messieurs Wightman and Parker, who are Solicitors practising at Number 25, Change Alley, in the City of Sheffield aforesaid.

"2. The senior partner of the said firm of Messieurs Wightman and Parker is Dossey Wightman, Esq, who is His Majesty's Coroner for the said City.

"3. On the 9th day of August, 1909, Dr. Harold Scurfield, the Medical Officer of Health for the City of Sheffield, called at the office of the said Dossey Wightman and informed me that on the 24th day of July, 1909, a woman named Alice Hannah Nicholson, the wife of Joseph Nicholson, of 123, Pearl Street, Sheffield, aforesaid, was confined, giving birth to twins, and had been attended at and subsequent to the confinement by an unqualified man, who was believed to be the Dispenser and Surgery Attendant for the said David Thomas Jones, and that after urgent requests by the said Joseph Nicholson the said David Thomas Jones (who had been retained in anticipitation of the confinement) went to see the said Alice Hannah Nicholson on the 28th day of July, 1909, and found her in a serious condition, and at once ordered her removal to the Ecclesall Union Workhouse, where she was attended by Dr. Charles Edward Waldron, who was acting as locumtenens for the Resident Medical Officer of the said Workhouse, and he found the said Alice Hannah Nicholson suffering from puerperal fever, death taking place on the 2nd day of August, 1909.

"4. In consequence of the report made to me by the said Harold Scurfield, the Coroner's Officer, William Jackson, was instructed to make inquiries into the matter and report to the Coroner the result of such inquiries.

"5. On or about the 13th day of August, 1909, I interviewed Joseph Nicholson, the husband of the deceased woman, and I read over to him a written statement which had been taken by the said William Jackson, and he verbally confirmed the said statement, which is now in my possession. A copy of such statement is now shown to me and marked 'A.'

"6. On or about the 16th day of August, 1909, I had an interview with William Perry, who is Dispenser and Surgery Attendant to the said David Thomas Jones, and I took down in writing a statement of the evidence which he was able and prepared to give with reference to his attendances on the deceased woman, Alice Hannah Nicholson. The said statement, which is now in my possession, was read over by me to the said William Perry, who signed the same in my presence. A copy of such statement is now shown to me and marked 'B.'

"7. On the 17th day of August, 1909, the whole of the papers containing particulars of the case were sent by the said Dossey Wightman to the Secretary of State at the Home Office, who was asked to give his decision as to the necessity of exhuming the body of the said Alice Hannah Nicholson and holding an inquest. The Secretary of State replied to the effect that the question was a matter for the said Dossey Wightman in his discretion to decide.

"8. On the 31st day of August, 1909, the said Joseph Nicholson called at my office and I interviewed him. He made a request in writing that the body of his wife should be exhumed for the purpose of a *post-mortem* examination and an inquest being held. The said Joseph Nicholson stated to me that he believed that if his wife had been attended at her confinement by a qualified medical man her life would have been saved.

"9. On the 3rd day of September, 1909, the said Dossey Wightman signed an Order for exhumation of the body of the said Alice Hannah Nicholson, and such Order was served by me the same day on Richard Melling Prescott, Esquire, the Town Clerk for the City of Sheffield as representing the Burial Authority.

"10. On the 7th day of September, 1909, I was present at the exhumation of the body of the said Alice Hannah Nicholson at Norton Cemetery, and subsequently attended the *post-mortem* examination, which was conducted by Alexander Garrick Wilson, F.R.C.S.(England), in the presence of other medical practitioners.

"11. On the said 7th day of September, 1909, I attended at the Cross Scythes Inn, Derbyshire Lane, Sheffield, where an inquest was held on the body of the said Alice Hannah Nicholson, such inquest being conducted by the said Dossey Wightman and a jury, who were duly sworn by the said Dossey Wightman. I have in my possession the original depositions of the respective witnesses who gave evidence (after being duly sworn by the said Dossey Wightman) at the inquest, such depositions being in the handwriting of the said Dossey Wightman, and they accurately record what took place at each inquest. A copy of the said depositions are now shown to me and marked 'C.'

"12. At the inquest the statement of the said Joseph Nicholson referred to in paragraph 5 of this declaration was then read over to him, the said Joseph Nicholson, who thereupon confirmed the same after having been duly sworn by the said Dossey Wightman.

"13. The said Charles Edward Waldron at the said inquest had read over to him by the said Dossey Wightman a statement which he, the said Charles Edward Waldron, had prepared on the 13th day of August, 1909, and he thereupon confirmed the same after having been duly sworn by the said Dossey Wightman. Such statement is now in my possession, and a copy is now shown to me and marked 'D.'

"14. At the inquest the said William Perry was duly sworn by the said Dossey Wightman, and the statement referred to in paragraph 6 of this declaration was read over to him by the said Dossey Wightman, and the said William Perry duly confirmed the same.

"15. The said David Thomas Jones gave evidence at the said inquest, and was duly sworn before doing so. The said Dossey Wightman took down in writing the evidence then given by the said David Thomas Jones, and I was present and saw the said David Thomas Jones sign such deposition.

"16. The said Dossey Wightman at the inquest summed up the facts of the case, and the jury then retired to consider their verdict, and found that the deceased died from natural causes, and added that they thought she should have been attended by a fully qualified doctor from the first."

The following are the four exhibits referred to in the above Declaration:

"A."

"STATEMENT taken from JOSEPH NICHOLSON, 143, Pearl Street, *re* Alice Nicholson (deceased).

"About June 16th, 1909, my wife being pregnant, I engaged Dr. Jones, Wostenholme Road, to attend her during confinement. From that date he visited her about sixteen times, and supplied her with several bottles of medicine.

"Dr. Jones promised to attend my wife himself, if possible, at her confinement, but when my wife was taken ill on Saturday, July 24th, he was unable to come and sent his assistant, who arrived about 12.30 p.m. and delivered my wife of twins. He visited her again on Sunday, July 25th, about noon, and on Tuesday, July 27th, about 11.45 a.m.

"On Wednesday, July 28th, Dr. Jones visited my wife in the evening about 6.30 p.m. I did not see the Doctor myself, but was told he stayed about an hour. He ordered her removal to the Ecclesall Union Hospital and my wife was taken away in the ambulance about 7.45 p.m.

"On Thursday, July 29th, I received a message from the Ecclesall Union telling me my wife was seriously ill. I saw her at the above institution at 11.30 a.m. the same day, when she told me she was very comfortable and had been very kindly treated. I spoke to the Doctor who told me my wife was suffering from Puerperal Fever and was hopelessly ill. I visited her several times a day at the Union Hospital until her death which occurred on Monday, August 2nd, 1909.

"JOSEPH NICHOLSON.

"Witness,
"William Jackson, P.C. 38,
"Coroner's Officer."

"B."

"William Perry, of Rock House, Wostenholme Road, Sheffield, says:

"I am a dispenser and surgery attendant for Dr. D. T. Jones of the same address. I have been with Dr. Jones in the capacity stated two years last June. I am not a qualified medical practitioner. I do not visit patients, excepting in cases of emergency. On July 24th last I was at the Queen's Road (branch) Surgery, and about 12.30 p.m. or 12.45 p.m. I received a telephone message from Rock House to call at 123, Pearl Street. I went soon after receiving the call. I do not know who it was that telephoned me. When I got there I found Mrs. Nicholson there in bed. She said she was very ill, that she had been under treatment for six weeks by Dr. Jones. I asked what was the matter, and she said she had a pain in the lower part of the body. I examined her and found that she was in labour and not in a fit state to be left. A child was partly born. I stayed with her, and very shortly after my arrival I delivered her of twins. When I got home I reported to Dr. Jones what had happened. The delivery was normal and without difficulty. The mother was in a very weak condition. I called again on Sunday, July 25th (the following day), about midday or a little later. My intention was to get a form of notification to the medical officer of health filled in. The form was one reporting the birth. I took the opportunity of taking her temperature, which I found normal. She appeared, and said she was, very comfortable. There was nothing on this occasion to suggest that the woman was in any but the usual state attendant on a confinement. I reported the woman's condition to Dr. Jones on my return. The next time I called was on July 27th. This call was at the doctor's request, the hour was about 1.30 p.m. The temperature was normal. She did not complain of any pain except headache. She appeared to be going on very well considering the condition she was in at the commencement. I do not remember seeing Mr. Nicholson on that occasion. This was the last time I saw deceased. I know nothing about Mr. Nicholson sending for Dr. Jones on July 28th. At my call on July 25th I filled up the body of the form of notification before named at the house in Mr. Nicholson's presence, and the latter signed it. I posted it to Dr. Scurfield to save Mr. Nicholson the trouble of doing so. Not at any time when I called and saw Mrs. Nicholson did I notice any suspicious signs of puerperal fever. I had not been near a confinement case for two months previous to this one. I

reported to Dr. Jones after each visit the state of the patient. I have heard nothing more of this case since my call at the house on 27th July last.

"WM. PERRY.

"Witness—
"Frank E. Newton,
"25, Change Alley, Sheffield."

"C."

City of Sheffield. } "THE INFORMATIONS OF WITNESSES severally taken and acknowledged on behalf of Our Sovereign Lord the King, touching the death of Alice Hannah Nicholson at the Cross Scythes Inn, Derbyshire Lane, in the City of Sheffield, on September 7, 1909, before me, Dossey Wightman, Gentleman, His Majesty's Coroner for the said City, on an Inquisition then and there taken on view of the body of the said Alice Hannah Nicholson, then and there lying dead as follows, to wit:—

"JOSEPH NICHOLSON says: The statement now read and made by me is correct.

"JOSEPH NICHOLSON."

"ALEXANDER GARRICK WILSON: I am a surgeon and did not attend deceased. I have made a *post-mortem* examination; Dr. Waldron, Dr. Jones, Dr. Graham Simpson, Dr. Williams, and Dr. Phillips were also present. I found no outward marks. Internally the organs were healthy, but consistent with a death by blood poisoning. The womb showed she had recently been confined. I found no tear of the neck or any evidence of injury. The lining of the womb showed inflammation. The site of the afterbirth was deranged and grey in colour; no evidence of any afterbirth being retained. I found nothing suspicious in any way. The body is in a very good state of preservation. Deceased died from purely natural causes, and that would include puerperal septicaemia.

"A. GARRICK WILSON."

"CHARLES EDWARD WALDRON: The statement now read and made by me is correct. I believe the condition found on deceased might have arisen in any case, even with an obstetric specialist, but in this case I think there was neglect by leaving part of the afterbirth.

"C. E. WALDRON."

"DAVID THOMAS JONES: I am a surgeon at Sheffield. William Perry has been my dispenser and surgery attendant for the last two and a half years. I knew him to be an unqualified man. He had my instructions to attend my patients in case of emergency and the absence of myself, my two partners, and a qualified assistant. I considered him absolutely competent, subject to his reporting to any of us after attending. He informed me when he came he had attended 200 cases of confinement without mishap. I promised the husband of deceased to attend her personally if possible. I did not send Perry to this case. I intended to go but was detained by other urgent cases. I found Mr. Perry had gone. He reported to me that deceased had been delivered of twins and that all was right, and that the afterbirth was composed of two portions adherent, that included that the afterbirth was quite amenable and entire and covered with membrane, and intact. Next day, the 25th, I had a very busy morning with a serious operation, and knowing it would be evening before I could get to deceased, I asked Mr. Perry to call to get particulars for notifying the birth and that he might see deceased. He went, and reported that deceased was doing well. That morning I had three cases to see, and had a confinement which was not over until 11 p.m. Next day neither I nor Mr. Perry saw her. Next day I was busy at a confinement which developed suspicious circumstances, rendering it dangerous for me to go to deceased, but I asked Mr. Perry to go. He went, and reported to me that all was right. That was about 2.30 p.m. That night I went to the suspicious confinement. At 3 p.m. deceased's husband sent up a request for me to come personally. I promised to go in a couple of hours. I went, and found deceased with a high temperature and the discharge smelling, and suspicious circumstances of septicæmia. I then made an examination and washed out the womb with disinfectant, and advised her removal to the Ecclesall Workhouse. I telephoned for a bed, and she was removed within an hour. That was on the 28th. In my opinion the suspicions of septicaemia were not visible when Mr. Perry last saw deceased. I believe the same would have occurred if deceased had been attended by a fully qualified man, and no examination ever takes place so long as the patient is doing well. I went the first time I could. I did not send any of my qualified partners because I considered it a simple case and Mr. Perry was competent.

"D. T. JONES."

"D."

"Ecclesall Bierlow Union Infirmary,
"The Edge,
"Sheffield.

"Alice Nicholson, aged 40.

"The patient was admitted to the above Institution on the evening of July 28th, 1909. She gave a history that she was delivered of twins on the Saturday before (July 24th), but had never felt quite well since then. On admission she was very collapsed and anaemic—obviously had recently lost a quantity of blood—and, in my opinion, was a case of septic infection. On examination I found the uterus large and soft, and on examination per vaginam I found the os fairly widely open, and the uterus contained very foul smelling material. I gave an anaesthetic at once, and cleared out the uterus, extracting many decomposed pieces of placenta and shreds, also some old blood clot. The whole of the material removed would be about sufficient to cover the palm of one hand. I gave an intrauterine douche at once, and the patient rallied for a day or two with saline injections, etc., but eventually died on the 2nd August. The case was certatnly one of retained piece of placenta and was very obviously septic, because, from the start, it was very difficult to keep the room free from the smell caused by the septic discharge from the vagina. The children are alive and are going on satisfactorily.

"C. E. WALDRON, M.R.C.S.Eng., L.R.C.P.Lond.,
"*Acting R.M.O. Ecclesall Union Infirmary.*
"13*th August*, 1909."

Statutory Declaration of William Swallow, dated March 5th, 1910.

"I, WILLIAM SWALLOW, of 6, Firs Hill Road, Pitsmoor, in the City of Sheffield, do hereby solemnly and sincerely declare as follows:—

"1. I am Confidential and Correspondence Clerk to Harold Scurfield, Doctor of Medicine and Medical Officer of Health for the City of Sheffield.

"2. It is part of my duty to open all letters addressed to the said Medical Officer of Health.

"3. Under Section 1 of the Notification of Births Act, 1907, it is the duty of the father of the child, if he is actually residing at the house where the birth takes place at the time of its occurrence, and of any person in attendance upon the mother at the time of or within six hours after the birth, to give notice in writing of the birth to the Medical Officer of Health of the District in which the child is born within thirty-six hours after the birth.

"4. On the 26th day of July, 1909, I received a notification of the birth on the 24th day of July, 1909, of a male and female child to one Alice Nicholson, the wife of Joseph W. Nicholson, of 123, Pearl Street, in the City of Sheffield. I have now in my possession such notification, a copy of which is now shown to me and marked 'E.'

"5. I am informed and believe that such notification is with the exception of the signature 'Joseph Nicholson' in the handwriting of William Perry who is the Dispenser and Surgery Attendant to the said David Thomas Jones."

"E."

"Medical Officer of Health,
"Town Hall,
"Sheffield:
"Received 26th July, 1909."
"CITY OF SHEFFIELD.

"NOTIFICATION OF BIRTHS ACT, 1907.
"NOTICE TO MEDICAL OFFICER OF HEALTH OF BIRTH OF CHILD.

"Full Name of Parents. { Mother, Alice Nicholson. Father, Joseph Nicholson.
"Address of Parents—123, Pearl St.
"Address where Birth took place—123, Pearl St.
"Date of Birth—July 24th, 1909.
"Time of Day—1.30 p.m.
"Male or Female Child—Male and Female.
"Live-born or Still-born—Live-born.
"Name of Doctor attending—D. T. Jones.
"Name of Midwife attending—
"Signature of Person giving information—
"JOSEPH NICHOLSON.
"Date—July 25th, 1909.
"Time of Posting 2 p.m."

Statutory Declaration of Arthur Knight Gale, dated March 7, 1910.

"I, ARTHUR KNIGHT GALE, of 'Chilworth,' Woodseats, in the City of Sheffield, do hereby solemnly and sincerely declare as follows:

"1. I am a Member of the Royal College of Surgeons (England), and am a Licentiate of the Royal College of Physicians (London).

"2. I am the Visiting Medical Officer for the Ecclesall Bierlow Poor Law Union Workhouse.

"3. On the 28th day of July, 1909, Charles Edward Waldron, M.R.C.S., L.R.C.P., was *locum tenens* for George Beley, the resident Medical Officer to the said Ecclesall Union Workhouse.

"4. On the 30th day of July, 1909, I visited the Ecclesall Workhouse Hospital, and was informed by the said Charles Edward Waldron that Alice Hannah Nicholson, the wife of Joseph Nicholson, of 123, Pearl Street, in the City of Sheffield, had been admitted into the Victoria ward of the said Hospital on the evening of the 28th day of July, 1909.

"5. The said Charles Edward Waldron informed me that on admittance to the said Hospital the said Alice Hannah Nicholson was in a state of collapse and anaemic, obviously having lost a quantity of blood, and that, in his opinion, it was a case of septic infection, and that on examination he found the uterus

large and soft, and that on further examination, per vaginam, he found the os fairly widely open and the uterus containing very foul smelling material, and after giving the said Alice Hannah Nicholson an anaesthetic he cleared out the uterus and extracted many decomposed pieces of placenta shreds and blood clot, and that the whole of the material removed would be sufficient to cover the palm of the hand. An intrauterine douche was given the patient.

"6. On the said 30th day of July, 1909, I saw the said Alice Hannah Nicholson and made a general examination of her, and from what I saw I am of the opinion that the report given to me by the said Charles Edward Waldron was correct. I did not make an examination per vaginam, as the said Alice Hannah Nicholson was then in a critical condition.

"7. I believe I attended the said Alice Hannah Nicholson subsequent to the 30th day of July, 1909, but I have no record of having done so. Saline injections were given to her, but she died on the 2nd day of August, 1909.

"8. I am of opinion that septic poisoning arising from a retained piece of placenta was the cause of death."

Statutory Declaration of Alexander Garrick Wilson, dated March 5, 1910.

"I, ALEXANDER GARRICK WILSON, of Riverdale Road, in the City of Sheffield, do hereby solemnly and sincerely declare as follows:—

"1. I am a Fellow of the Royal College of Surgeons of England.

"2. I was instructed by Dossey Wightman, Esq., the Coroner for the City of Sheffield, to attend the exhumation of the body of Alice Hannah Nicholson at the Norton Cemetery on the 7th day of September, 1909. The body was removed to an outhouse attached to the Caretaker's dwelling-house at the said Cemetery, and I there made by instructions of the said Coroner a *post-mortem* examination. There were present the following medical men, Mr. Charles Edward Waldron, who was acting as *locum tenens* at the time for the House-Surgeon of the Ecclesall Union Workhouse, the said David Thomas Jones, Mr. Miles H. Phillips and Mr. Graham Simpson, who were present at the request of the said David Thomas Jones, and Ralph Paul Williams, the Deputy Medical Officer of Health for the City of Sheffield.

"3. I was informed that the death had taken place on the 2nd day of August, 1909, and I found the body was in a very good state of preservation. There were no outward marks of violence, and internally the organs were generally healthy. The condition of the womb showed that she had recently been confined. The was no tearing of the neck of the womb or any evidence of injury. The whole lining of the womb was in an inflamed state. There was no evidence of any portion of the placenta having been retained nor anything else that would account for the inflammation.

"4. The result of my examination was purely negative. The inflammation might have arisen from natural causes of which no evidence remains or might have arisen through lack of sufficient cleanliness on the part of the person attending the deceased during her confinement."

EVIDENCE OF THE ACCUSED PRACTITIONER.

Letter from Mr. Jones in answer to the Registrar's request for an explanation:

"It is not true; I have never covered Mr. Perry nor anyone else in my life.

"I have been twenty years in practice in Sheffield, having paid £1,000 for the practice, which is mainly carried on amongst the poor.

"It is a very busy practice and keeps on increasing, the result being that one has to pay the penalty of success by being subject to the spite and jealousies of one's opponents.

"The practice consists of three residences, where two of my partners (Dr. James and Dr. Phillips Jones) as well as myself reside, and a branch where my third partner, Dr. Charles Greer, resides.

"The four establishments are connected by telephone, and we all have our special hours consulting, which are marked up on a card in the waiting room, Mr. Perry doing the dispensing for all of us, but no consulting or visiting.

"During the visiting hours the four qualified men drop in at frequent intervals, and we try to manage that, every twenty minutes or so, one or other of us turn in so as to deal with emergencies.

"Up to three years ago the dispenser was always a senior student at the hospital: my brother, who is now a partner, acting in that capacity for four years, being followed by another student who is now qualified, Dr. Clark, of Rotherham, and he in turn succeeded by another student who is also qualified, Dr. W. Harrison, of Stockport.

"Three years ago there was not a student available, and in reply to an advertisement I obtained the services of Mr. Perry, an old régime man.

"He started his career under the late Dr. Shaw, who was on the staff at the Royal Infirmary, Sheffield, and was with him several years.

"It was Dr. Shaw's intention to get him qualified. Unfortunately Dr. Shaw died, and there was no alternative for Mr. Perry but to continue as an unqualified assistant, inasmuch as he had no money.

"It seems that Mr. Perry had a deal of experience in the old days when unqualified assistants were allowed, having attended over 300 confinements.

"Our practice is highly organized, and we endeavour never to lose an emergency case.

"With this object in view, Mr. Perry kept on the spot during the visiting hours in order to render first aid to any emergency case until one of us turned up, and the first partner that called took over the case and afterwards attended to it.

"If the case could wait, he never touched it, but it waited till one of us appeared.

"Surely this is not covering, but acting under strict personal supervision; if this can be strained to mean covering, then all I say is that I have never understood the meaning of the word, and half the practitioners in this country are covering.

"He never has taken any part in the visiting, the four partners being sufficient to do all. All he did was an occasional emergency call if none of us were about, which rarely happened. It would have to be a case which would not brook of delay, and he simply rushed off to hold the fort till one of us turned up to attend the case.

"We did all the consulting and all the visiting, and we have never represented him as being anything but the dispenser.

"Surely this is not covering, but acting under strict supervision.

"Since the unfortunate occurrence to Mrs. Nicholson we have absolutely forbidden him attending to even emergencies, and we have had an extra qualified man down for emergencies. Since October accordingly we have five qualified men in the practice.

"Mr. Perry last November married a lady of means, who has undertaken to find the money to get him qualified. They live in a nice private villa in the suburbs, and he turns up to do the dispensing from 9–11, and 6–8 daily. During the rest of the day he is reading for his Prelim., being coached by the well-known coach Professor Roone, B.A., B.Sc., London, 47, Fentonville Street, and intends presenting himself in June with a view of entering the Sheffield School of Medicine in October. He has not seen a patient since the end of August either in the surgery or outside, although to all intents and purposes he is a *bonâ fide* student.

"MRS. NICHOLSON'S CASE.

"Mrs. Nicholson was a poor cripple, the mother of a large family living in a small house in one of the poorest streets in the district.

"I attended her from June 16th to July 1st at her house for hysteria, and was sent for at all times on the plea that she was dying, twice being in the middle of the night.

"All these attendances I personally put in. I strongly advised her to get confined at the Jessop Hospital, as with her large family, and absence of sanitary arrangements at home, she was likely to do better at an institute.

"She blankly refused to go, and I accordingly promised to do my best for her.

"On July 21st they sent for me in a great hurry. I went, and found it was a false alarm.

"July 24th they sent up again and asked me to call in the course of the round, as they thought she was starting labour.

"I told them that I had an appointment at an urgent case and would be round in a couple of hours, but that if she got worse they were to send up again.

"In half an hour they sent up again, stating that she was very bad, and that they wanted somebody at once.

"The maid, who took the message, telephoned down to the branch where I was expected to call next, stating that I was wanted immediately; all the partners were out on their round, and Mr. Perry answered the telephone.

"He knew I was attending her, and as the message was so urgent, and they wanted somebody at once, he rushed off thinking he would be able to come back and report.

"It was only when he reached the house that he found out it was a confinement.

"She was on the floor with one child in the act of being born.

"It was impossible for him to leave.

"Quarter of an hour later the second child was born naturally; and in another quarter of an hour the after-birth came away of its own accord.

"He was not in the house more than an hour.

"He reported to me twins; easy natural labour; that the after-birth had come away of its own accord; that it was perfect, being composed of one mass divided into two separate halves adherent at the margins, quite smooth along its entirety, being surrounded with membrane.

"That it was expelled of its own accord as one entire mass with two separate cords attached, that he had examined it carefully and found it perfect, and that she was quite comfortable and doing well.

"I accordingly put her on my visiting book to be seen next day (Sunday).

"Sunday morning was a particularly busy morning; I had a couple of operations, and some special examinations, which I had to do myself.

"As I particularly wanted to see Mrs. Nicholson myself on account of my promise to look after her I asked Mr. Perry to call round and inform them that I was delayed and would not be able to call until the evening.

"At the same time he was to leave a '*Notification Form*' for them to fill up and post. The Medical Officer of Health lays great stress upon getting notice early of births in poor districts in order that lady inspectors may leave printed instructions regarding the diet of the baby, so as to lower as far as possible the great infantile mortality which exists in the large towns.

"With this object in view he has asked the co-operation of the Sheffield doctors.

"I accordingly carry these forms in my midwifery bag (though a post-card is sufficient with the bare announcement of the birth of the child); when I am leaving the house after the birth of the baby, I leave one of the forms for the father to fill up and post.

"Mr. Perry gave Nicholson the message about my not being able to call until evening, and gave him the form to fill up.

"Like many of the poorer classes, he was bewildered by the form, and asked Mr. Perry if he would mind filling it up as he was no scholar. Mr. Perry did so, Nicholson signing the form.

"*The So-called Certificate.*

"I am laying great stress on this, as it was the red herring drawn across the trail at the inquest when it became evident that there had been no justification for the exhumation or the inquest.

"The Coroner, taking advantage of a privileged position, made remarks on this point which were absolutely unjustifiable, and had no bearing on the inquiry whatever.

"By some process of reasoning Mr. Perry was supposed to have signed my name, when he had simply written down the name of the doctor who would be attending the case through.

"It was written Sunday morning, when it was expected that I would be calling that evening and taking up the subsequent attendance.

"I maintain that the form was correctly filled. When I do a confinement for another doctor I give one of these forms as usual, and ask the people of the house to fill it up.

"If I were asked to fill up the form for them I should put down the doctor for whom I was doing the case, and not my name, as the doctor attending.

"The reason for getting the doctor's name is so that the medical officer might ring up later on if he wished to inquire about the progress of the baby.

"It would be no good ringing me up, as I would not be in attendance, but had only acted in an emergency for a brother medical, who would then take up the future attendance.

"The form was signed by Nicholson, and I enclose a duplicate for your perusal.*

"Mr. Perry, after a chat with Nicholson, was asked as long he was in the house to go up to see Mrs. Nicholson.

"He accordingly did so, and found her in good condition.

"*Now comes an important point.*

"My Monday's visiting list is always marked and drawn out for me by my dispenser Sunday afternoon after dinner.

"When it came to marking Mrs. Nicholson, I told him that as it would be late Sunday night when I should be seeing her she wouldn't need to be seen afterwards till Tuesday.

"Thus I had made full arrangement for seeing her Sunday night, but a confinement detained me till after eleven, and it was too late.

"Ours is a very busy practice: one of my partners was away, and I was overworked.

"This is the only excuse for the fact that I clean forgot her existence next day.

"Her name was not on the visiting list for that day; it was a very busy day, and doing the visits purely from the lists I really overlooked her.

"*Tuesday.*

"On Tuesday, however, she was on my list again, and now I was particularly anxious to see her, as I recognized that I had forgotten her the day before, but it seemed as if it was not to be.

"So busy was I that I had to get an operation done by Mr. George Wilkinson, of the Royal Hospital, at a patient's house at 9 a.m. in order to give me time to get through my work. My brother was also there assisting.

"Immediately the operation was over I drove straight to see Mrs. Nicholson, but on the way was called in to see a Mrs. Thompson, whom I had delivered a week before.

"She had developed a temperature and her discharge had become fetid.

"I dreaded septicaemia, and I dared not go on to Mrs. Nicholson for fear of infecting her.

"*What was I to do?*

"One of my partners was away, another was in attendance on a septic case and was off confinements, and my brother had a confinement on beyond his residence, three miles away.

"*I was in a quandary.*

"I had arranged for Miles Phillips, the obstetric specialist, to meet me at Mrs. Thompson's the next morning at 10, and then I would be guided by him as to whether the case was infective, and consequently whether it would be safe for me to attend Mrs. Nicholson.

"I accordingly decided that I had better ask Mr. Perry to drop round and explain to them that I was again prevented from calling that day, but that I would call without fail the next day.

"I lent him my thermometer and asked him to take the temperature and pulse and to ask to see the napkin, and to come back and report to me.

"I had made up my mind that if she were not doing well I would telephone to my brother to see her later.

"Mr. Perry reported pulse, temperature, and discharge normal, and that she was doing well.

"Accordingly I thought that it was unnecessary to bring my brother specially up that evening, taking into consideration the certainty that either he or I would be seeing her early next morning.

"*Wednesday.*

"Next morning (Wednesday) Dr. Miles Phillips telephoned that he had an urgent operation, and asked me to postpone the consultation till 4. At 3 o'clock they sent up from Mrs. Nicholson stating that she was very bad and that they would like me to call myself as soon as possible. I stated that I would be round in a couple of hours. Phillips met me at Mrs. Thompson's at 4, and declared the case to be sapraemia and not infective, and that it would be quite safe for me to go to Mrs. Nicholson.

"I accordingly went down straight to see her, made a careful examination, and found her suffering from puerperal septicaemia. She was in a dirty condition, being dependent for her nursing upon her neighbours, and her napkin had not been changed since the previous night.

"I washed out her uterus with disinfectants and told her that her only chance of recovery was at a hospital.

"The Jessop was full: I rang up the Workhouse Hospital myself, and got her removed within an hour.

"Now, if I had anything to conceal, I would not have sent her into the enemy's camp: in other words, I would not have sent her to an institution where the visiting doctor is one of our keenest opponents.

"It was the easiest thing for me to have left the poor woman die at home, when I could have given the death certificate, and nothing more would have been heard of it.

"I was determined, however, to give her the best chance of recovery, and I feel that I, at all events, have clean hands in this business.

"I have, however, nothing but contempt for a public institute which, in order to pay off a petty grudge, converts itself into a detective agency.

"I maintain that if the *locum* had found anything out of the ordinary it was his duty to preserve it, ring me up, and give me the opportunity of seeing it.

"The following day I went away for my usual summer holiday, the same day as I have gone for the last twenty years.

"When I returned an exhumation and inquest were held; *why, I do not know.*

"I sent the case into the workhouse as a case of puerperal septicaemia, and Dr. Waldron, the *locum* at the workhouse, who was off to the West Coast of Africa a few days after the inquest, certified the cause of death as puerperal septicaemia. If everything were not above board, why did he give the *death certificate?*

"The inquest was, however, held, the jury unanimously finding that death was due to *natural causes*. All the medical men present were of opinion that the same sequence of events would have occurred if any medical man had delivered her and put in the subsequent attendance.

"After the inquest Nicholson called in tears to say how sorry he was that he had allowed himself to be persuaded to sign the letter asking for an exhumation, and that the evidence at the inquest had satisfied him that everything had been done for his wife.

"That he is satisfied is proved by the fact that I have been his medical attendant since, having attended him and different members of the family on three separate occasions since:

"November 12th—November 16th, 1909.
"December 6th—December 24th, 1909.
"January 26th—February 1st, 1910.

"His eldest daughter is at the present time under my treatment.

"*Anonymous letter.*

"A few weeks after the inquest Nicholson brought me an anonymous letter, which I have by me at the present time, enclosing a newspaper account of the inquest, and a stamped envelope addressed to the Medical Council, with a draft of a letter which he was to rewrite and sign and then post, stating that if he did so he would probably get £500. Naturally they were all typewritten. I consider that the writing of anonymous letters is the most despicable cowardice imaginable, equivalent to the poisoning of the enemy's wells in warfare. It is supposed that all things are fair in love and war, but the line should surely be drawn at this as being unworthy of the best traditions of a noble profession.

"This, then, is the full account of an unfortunate incident.

"Nobody regrets it more than I do, and if I could recall the past most gladly would I do so.

"It is, however, such an occurrence as might happen to any medical man.

"I have, moreover, made a repetition impossible by engaging another qualified man.

"Since October we have been five qualified men in the practice, one for each branch, with a reserve man in addition.

"Mr. Perry lives out in a private house, and only turns up to do the dispensing mornings and evenings, the rest of the day being occupied in reading for his Medical Preliminary.

"Where the covering comes in I fail to see; it is simply a distortion of facts to apply the name to it at all.

"It was simply a *chapter of accidents* from beginning to end that prevented my turning up on each occasion as I intended.

"D. T. Jones.

"Rock House,
"Wostenholme Road,
"Sheffield:
"April 27th, 1910."

* See Exhibit "E" above.

FURTHER EVIDENCE OF THE ACCUSED PRACTITIONER.

"Rock House,
"Wostenholme Road,
"Sheffield,
"May 17th, 1910.

"Sir,—I would consider it a favour if you made the following alterations in my report:

"(*a*) *Page 1 (page 10 of documents).*—Leave out 'the result being that one has to pay the penalty of success by being subject to the spite and jealousies of one's opponents.'

"(*b*) *Page 10 or thereabouts (page 16 of documents).*—Leave out 'Now if I had had anything to conceal I would not have sent her into the enemy's camp; in other words, I should not have sent her into an institution where the visiting doctor is one of our keenest opponents.'

"And substitute:

'Now if I had anything to conceal I would not have sent her into a public institution.'

Same page.—Leave out 'I have, however, nothing but contempt for a public institute which, in order to pay off a petty grudge, converts itself into a detective agency.'

"These alterations will not alter the value of the report, but it will take away the personal element.

"I wrote it out in a great hurry, as witness the fact that I had not preserved a copy and you had to furnish me with one, and had not time to revise it.

"I felt a sense of personal injustice while writing it, but after perusing it at leisure it is my wish to withdraw these items and make the suggested alterations.

"Believe me,
"Yours truly,
"D. T. JONES."

Mr. FRANK NEWTON, in reply to Mr. WHITAKER, stated that the declaration handed to him was his declaration.

In answer to Mr. WADDY, the witness said his declaration was made after full inquiry with regard to all the circumstances. He did not know that Mr. Nicholson was still a patient of Dr. Jones. He had not seen him since the inquest. Mr. Nicholson called on him on August 31st of his own accord, and the witness wrote a letter for Mr. Nicholson carrying out Mr. Nicholson's wishes that his wife's body should be exhumed. He could not tell the reason why that letter was not included in his deposition; it certainly was not left out because the suggestion of exhumation was his and the letter his.

In re-examination by Mr. WHITAKER, the witness said the letter correctly represented the substance of the statement Mr. Nicholson made to him, without any additions of his own. The declaration was prepared by Messrs. Neal from information he supplied them.

In answer to the LEGAL ASSESSOR, Mr. WHITAKER stated that Messrs. Neal were solicitors, of Sheffield, and were employed by the British Medical Association to assist in the preparation of the case.

Mr. WM. SWALLOW, confidential and correspondence clerk to Dr. Scurfield, spoke to the truth of the contents of his declaration.

Dr. ARTHUR KNIGHT GALE, of Sheffield, was next called, and stated that his declaration was true.

In cross-examination, he said that the opinion he had come to as stated in his deposition was formed partly from the conversations he had had with Dr. Waldron and partly from his own observations.

In answer to the PRESIDENT the WITNESS said he personally examined the woman abdominally, and felt her pulse, which was very poor.

Mr. SMITH WHITAKER then read the declaration of Dr. Alexander Wilson, who was not able to be present.

Dr. HAROLD SCURFIELD, Medical Officer of Health for the City of Sheffield, was the next witness. He had thirteen women inspectors of midwives working under him in Sheffield. Their principal duty was to visit children who were reported as being neglected and to make inquiries with regard to cases of puerperal fever. The notification of birth in this case was sent to his office on July 26th. It was of the birth of twins. On July 29th he received a notification from the Ecclesall Infirmary that Alice Nicholson had been admitted the previous night suffering from puerperal fever. On July 30th one of the midwives inspectors visited 123, Pearl Street, Ecclesall, to make inquiries both as to the origin of the disease and as to what was necessary in the way of disinfection. On July 30th the entry read: "Mother and babies removed to Ecclesall. Mother very ill with puerperal fever." On August 6th another visit was paid, and the entry was, "Said to have been delivered by Dr. Perry, who dispensed for Dr. Jones at his dispensary." These facts were brought to his notice, and it appeared that the woman had never been attended in her confinement by a woman at all. On account of the circumstances he wrote two letters to Dr. Jones. He sent a statement to the city coroner on August 12th, 1909, and it was as a result of that statement that the inquest was held. He also communicated with the General Medical Council. The practice he had adopted in Sheffield was that, if an unqualified woman attended a confinement and death resulted from puerperal fever or other disease of childbirth, he invariably wrote to the coroner, and asked that an inquest should be held, with the idea that the unqualified woman was guilty of manslaughter. In that particular sense the only difference was that it was an unqualified man who had attended a woman at childbirth. He took exactly the same course, and went to the coroner's office and explained the facts. He found that the burial had taken place, and wrote asking that the body should be exhumed. When the coroner expressed his intention of holding an inquest, he had an interview with him, and the coroner mentioned that the question of an unqualified man acting for a doctor or a case of covering was not a case for him; the object of holding the inquest was to see how the woman met with her death. The coroner advised the witness to write to the General Medical Council, and expressed his intention of doing the same. He (the witness) wrote to the General Medical Council asking that it should be represented at the inquest. He had considerable correspondence with the General Medical Council on the point, and the substance was that the Council was unable to take any action in the matter. In his last letter to the Council he pointed out that the question of covering had nothing to do with him as medical officer of health. He was simply interested to see that the Midwives Act was carried out. He had no personal feeling in the matter. He did not even know Dr. Jones by sight, and he did not know him now. In bringing the matter to the notice of the General Medical Council he was actuated only by the sense of his official duty. His strong feeling was that it was absolutely unfair that unqualified women should be charged with manslaughter for attending a confinement with bad results, and that an unqualified man should be let off scot-free.

In cross-examination, he said that he had come from Sheffield purposely to endeavour to bring it home to the minds of the members of the General Medical Council that he had absolutely no feeling against Dr. Jones.

Mr. WADDY asked if anybody had asked if he had.

The WITNESS replied that he had been informed by the Medical Secretary of the British Medical Association that Dr. Jones had hinted that this prosecution was inspired by some sort of malice or professional jealousy, not on his part, but on the part of somebody else, and that was why he had come to say that there was no truth in such a suggestion.

This closed the complainant's case.

Mr. WADDY said he preferred to call his witnesses before the Council first, and conclude with his address.

He then called Dr. DAVID THOMAS JONES, who said he had carried on his profession for twenty years. It was a working-class practice, and he had three partners—Dr. James, Dr. Phillip Jones, and Dr. Charles Greer. Since the difficulty with Mrs. Nicholson he employed a fully qualified assistant. His practice consisted of four separate establishments, each under the control of one of the partners. Mr. Perry had been engaged for two years as dispenser and surgery attendant to the partnership. He was attached to the Queen's Road branch of the practice, and did not dispense outside that branch. Perry had never been allowed to visit in a consulting sense, although he had attended something like 300 confinements before he came to Dr. Jones. The case of Mrs. Nicholson was the only confinement which Perry had attended. He

had never attended other patients unless one of the partners had been present to supervise. In emergency cases Perry had had permission to go and render first aid, to be followed up as soon as possible by one of the firm. Dr. Jones considered he was quite justified in allowing Perry to visit such cases. If an accident occurred at one of the numerous works and no one of the partners was in, Perry would go to prepare the way as it were, and give temporary aid. Except this preparation he had nothing to do with actual cases. Although the charge formulated by the Council's Solicitor charged him with having allowed Perry to prescribe for patients, he had never done so, except in the sense already mentioned of making preparations. The Nicholsons had been patients of Dr. Jones for about twelve months. They were still his patients. In Dr. Jones's ledger there were attendances since the date of Mrs. Nicholson's death. Between June 16th and July 21st he paid seventeen visits, and they were all personal attendances. On the occasion in question he asked Perry to call on the Nicholsons, as he (Dr. Jones) had a special examination to do personally. He afterwards learnt that Perry had delivered Mrs. Nicholson of twins, that the labour was natural and proper. The form of notification of birth filled up by Perry was correct, although he (Dr. Jones) had not attended the actual labour. Perry was asked by Mr. Nicholson to do so. On the Sunday night Dr. Jones was called to another confinement in Hill Street, and was detained there till 11 o'clock, or he would have carried out his original intention of seeing Mrs. Nicholson on the Sunday evening. On the Tuesday he was on his way to visit her and called on a Mrs. Washington, whom he had delivered about ten days before, and found a discharge, which he assumed to be septicaemia. He therefore concluded it would be dangerous to visit Mrs. Nicholson, and as his partners were engaged, he sent Perry round to examine the clothing, as to the condition of the discharge, and take the temperature, and to make a report, from which he (Dr. Jones) would decide whether he should bring his partner up specially to see the case. There was no foundation for the statement that Mr. Nicholson had made urgent requests for himself to attend the case. The first call he received was at 3 o'clock on the Wednesday. Since this case became matter of comment he had engaged a qualified assistant, and had absolutely forbidden Perry to attend even emergency cases.

Cross-examined by Mr. Smith Whitaker: He endeavoured so to organize his practice that every case that came to his surgery should be attended by either himself or partner or somebody connected with the practice; he did not mean that it should not go to another practitioner. In Sheffield, as elsewhere, practitioners saw cases for one another. It was a fact that he allowed Perry to attend emergency cases, but only to render first aid and not actual medical attendance. This case was an exceptional one. Perry knew Mrs. Nicholson was under treatment, and he went to do anything he could for the patient till he (Dr. Jones) turned up. Perry never attended confinements except in the presence of one of the partners. He certainly was of opinion Perry was right in putting his (Dr. Jones) name in the notification form as the doctor attending the case, but in filling in the particulars he exceeded his authority.

Re-examined by Mr. Waddy: He had no opportunity of reading his depositions given before the coroner before signing them.

By the President: Perry would only attend a case in emergency to render whatever help he could. Perry was merely a dispenser and never prescribed medicines, neither did he administer anaesthetics. In his deposition before the coroner he (Dr. Jones) had stated that Mr. Perry had attended 300 cases of confinement and had had a great deal of experience and was quite competent to attend a confinement even by himself.

Mr. Waddy, in summing up the case for the accused practitioner, wished to emphasize the fact that there was no middle course open to it, because the result of the present inquiry must either be an acquittal of the charge or else a result so severe in its aspect that it would involve the deprivation of the means of livelihood to Dr. Jones. Certain matters had been introduced into the case which were quite outside the real issue which the Council had to decide. For instance, the conduct or misconduct of Perry in filling in the notification form was not the question before them. They had to deal with the charge as formulated by the Solicitor to the Council, and although other matters had been introduced which did not appear to him to be of importance, he did not shut his eyes to the fact that the matters which he had to deal with were matters of great difficulty. Another difficulty in his way was that some one—he did not suggest it was the highly respectable body by whom the charge was brought forward, or the gentleman who had conducted the case so fairly—had got a little hysterical about the case, because, having found out what had happened as the result of the attendance of Perry upon this woman, without probably intending to do what was unfair, they did not pursue those steps which would have been dictated by ordinary principles of fair play, because the medical officer of health, having had a statement made to him, writes to the person against whom the statement was made, and, getting no reply, he writes again; and then, without telephoning to the man's house, he sets the whole of the business in operation by going round to the coroner's officer, and by making statements which in form were of a very unfortunate character. No opportunity, however, was afforded to Dr. Jones to give an explanation. If members of the Council had formed even any hostile judgement as to the character of the reply which Dr. Jones had sent to the Council, he would ask those members to remember that when Dr. Jones came back from his holidays he found an extraordinary condition of things—namely, that these people had actually in his absence, without any communication ever reaching him with regard to it, and without his knowing anything about it, gone through the extra solemn machinery of actually having the body of this unfortunate woman, who had been his patient for some time, exhumed after the medical men at the hospital had given a certificate of death in the ordinary form. Then the jury actually found a verdict of death from natural causes. Then an anonymous letter is sent to Mr. Nicholson in order to try and induce him to become the complainant to this Council. Those were grievances which Dr. Jones had in his mind, and that was why he put his letter in the form in which he (Mr. Waddy) thought was reprehensible and which Dr. Jones also recognized was reprehensible. That was why he asked the Council not to let their minds be swayed by the fact that there appeared any expressions which might have been put in another form and which might have been expressed differently. Dr. Jones had been twenty years building up a practice in a working-class district in Sheffield, a practice which he paid £1,000 for twenty years ago, and which had grown so much that three other partners had been added to it, and yet it was said that his misconduct in regard to the employment of Mr. Perry in the case of Mrs. Nicholson, which was the only case which had been brought forward, had been such that he had been guilty of conduct so infamous that he was to be deprived of his means of livelihood. A medical man might make mistakes of judgement and a medical man might misunderstand even the rules of his own profession when put in forms which might be said to be ambiguous. He was not concerned with saying whether Dr. Jones's interpretation was correct or incorrect as to Perry having been sent out in cases of emergency. He might have been right and he might have been wrong, but if his opinion had been formed under circumstances where he had striven to keep within an honest interpretation of his professional honour, he asked the Council to be very slow before it said that he had been guilty of infamous conduct in a professional respect. Counsel then dealt with the facts in order of date. The case he put before the Council for Dr. Jones was that at most he had not appreciated strictly that

there was a point beyond which he might not go in sending Perry to exceptional cases. That had been corrected, and never would occur again, and he asked the Council to say that even supposing any part of the charge was made out—and he suggested none was made out—it was not so serious that the Council should come to the conclusion that Dr. Jones's name should be removed from the *Medical Register*.

On the motion of Dr. NORMAN MOORE, it was agreed that the Standing Orders should be suspended to enable the Council to conclude this case, and to hear an application in the case of Dr. Taylor.

Mr. WHITAKER said that, in presenting the case, the British Medical Association suffered from the difficulty that a great deal of the evidence, from the circumstances, was that given at the coroner's inquest, and from the fact that the death had had to be inquired into from two entirely different points of view. In the first place, Dr. Scurfield brought the matter under the notice of the coroner, who thought it his duty to inquire into it from the point of view of how the woman came by her death, and whether Dr. Jones was in any way guilty of negligence or culpable in relation to the circumstances which led up to her death. Then there was the part Dr. Jones took in allowing Mr. Perry to attend the woman, and it was inevitable that the evidence given before the coroner was the most convenient form in which to place the matter before the Council. Then it had been suggested that these proceedings had been inspired by some improper feeling towards Dr. Jones. As to whether Dr. Scurfield's action was or was not fair to Dr. Jones, or whether he had or had not a detached and impartial mind was not the question. He was a public official, having a sense of his public duty, and his mind could not be detached, and could not be impartial in any matter. There was no evidence whatever in this case of any personal animus towards Dr. Jones. Dr. Scurfield having the case reported to him felt it was one which ought to be inquired into by the coroner, and which ought to be inquired into by the General Medical Council, and he took every step in his power to secure that the inquiry should take place. That was the reason the case came before the Council, irrespective of the question it had to consider. The important and essential question in the case was whether or not Dr. Jones was justified in allowing Mr. Perry to attend Mrs Nicholson on his behalf. The idea of sending him ought never to have entered Dr. Jones's mind, and if Mr. Perry had done so in Dr. Jones's absence on the Saturday that ought to have been the last occasion on which he attended the woman. When Dr. Jones found he was in a dilemma on the Sunday, and unable to attend her, and that none of his partners could attend, he should at once have asked one of his professional brethren to do so for him, and not to have sent an unqualified person again and again on his behalf. The whole course of Dr. Jones's action as brought before the Council illustrated an entire want of appreciation on his part of the pronouncement which the Council had from time to time made as to medical practitioners substituting the services of unqualified persons for their own services. With regard to the notification of birth, the statement that Dr. Jones was in attendance on Mrs. Nicholson was a misleading one, and it did not give the medical officer of health the information which by the Act of Parliament it was intended he should possess; and, further, that Mr. Perry ought not to have been placed in the position of saying whether Dr. Jones was or was not in attendance. The position that the British Medical Association took up was that there was a lamentable want of appreciation still existing in the minds of some members of the medical profession as to the importance of the Council's pronouncements on the subject of attendance by unqualified persons on behalf of qualified medical practitioners. The Association had no grievance whatever against Dr. Jones. They were there in what they believed to be the discharge of a public duty. They believed that when a case of this kind occurred the Council should be given an opportunity of pronouncing upon it in the public interest, in order that such pronouncement may be given so that there should not be such a want of appreciation of this matter as the facts of the case under consideration appeared to indicate.

Strangers and parties were directed to withdraw On readmission,

The PRESIDENT announced the decision of the Council as follows:

Mr. David Thomas Jones, I have to inform you that the Council have judged you to have been guilty of infamous conduct in a professional respect. and have directed the Registrar to erase from the *Medical Register* the name of David Thomas Jones.

THE CASE OF MR. HENRY VERNON TAYLOR.

On Wednesday, May 25th, the Council also considered the case against Henry Vernon Taylor, registered as of 234, Alfreton Road, Nottingham, M.B., Bac. Surg., 1905, Univ. Edin., who had been summoned to appear before the Council on the following charge, as formulated by the Council's Solicitor:

1. That you have associated yourself with, and have acted as medical officer of, a friendly society called the Premier Assurance Collecting Society, which systematically practises canvassing for the purpose of procuring patients, and that you have approved or acquiesced in such canvassing.
2. That you have also employed persons to canvass for patients on your own behalf.

And that in relation thereto you have been guilty of infamous conduct in a professional respect.

The complainants are the British Medical Association.

Mr. Smith Whitaker (Medical Secretary) and Mr. Hempson (solicitor) appeared for the British Medical Association; Mr. Wright (solicitor) appeared for Mr. Taylor.

Mr. SMITH WHITAKER said a communication had been received from Dr. Taylor's solicitor, who was prepared to make a statement, which might considerably shorten the hearing of the case.

Mr. WRIGHT said he had had an opportunity of going through the evidence submitted to the Council, and would say at once that the main facts with regard to canvassing by the collector Dr. Taylor fully and freely admitted. At the same time, he desired to point out that it was discovered by Dr. Taylor himself in March last, before there was any suggestions of proceedings being taken against him, and he immediately dropped all connexion with the society, and had not since attended any of the patients connected with it. He admitted full responsibility, without reservation, for the acts of the collector, and, as to his failure to make more careful inquiry as to what was going on, he was, perhaps, professionally negligent. There was no other offence alleged against him. He was one of the youngest practitioners in Nottingham, and, if he had known earlier that canvassing was taking place, the severance of his connexion with this society would also have taken place earlier. He desired to express his regret for having transgressed the rules of the profession, and to assure the Council that, so far as he (Dr. Taylor) was concerned, he would have no connexion with any society in which canvassing by collectors or agents was involved.

Mr. SMITH WHITAKER, in view of this statement on Dr. Taylor's behalf, was authorized by the British Medical Association to say that the Association fully recognized that there were facts and circumstances in connexion with this case which distinguished it from some cases of canvassing that had been before this Council. Mr. Whitaker was proceeding to state the object with which the British Medical Association had brought the case to the notice of the Council, when

The PRESIDENT expressed the opinion that this need not be gone into, and inquired whether it was desired to proceed with the case.

Mr. WHITAKER replied in the affirmative, and said that the Association desired that the facts of the case should be established in such a way as that it would serve as a warning in other cases of the kind. But, after consultation with the Chairman of his Committee, he would withdraw it.

Leave was then given to withdraw the case, and

The PRESIDENT said that it would be placed on record that it was a case of this nature, and that

the Council, after hearing statements from the representatives of both sides, agreed to the withdrawal of the inquiry.

The Case of Mr. Charles Lyddon.

The Council on May 26th proceeded to the consideration of the case of Charles Lyddon, registered as of 26, East Beckett Street, Burmantofts, Leeds, M.R.C.S.Eng., 1865, L.R.C.P.Edin., 1873, L.S.A.Lond., 1873.

Mr. Byron appeared as Legal Assessor, and Mr. Winterbotham as Solicitor to the Council.

The complainants were not represented, and Dr. Lyddon appeared in person.

The Solicitor read the charge as follows:

That you have knowingly associated in practice with an unqualified and unregistered person, namely one Charlton Forman, and in particular

1. That you have knowingly authorized or allowed the said Charlton Forman to exhibit his name at your surgery at 26, East Beckett Street, Leeds.

2. That you have knowingly authorized or allowed the said Charlton Forman to attend and prescribe for patients in your name and on your behalf and to sign in your name documents purporting to be medical certificates of the unfitness of children to attend school without having yourself attended the children and thereby have enabled the said Charlton Forman to act in relation to these cases as if he were a person duly qualified and registered. In particular the said Charlton Forman has attended and prescribed for, and has signed in your name, such certificates in respect of the following persons, namely—Jessie Wain, Hilda Wain, Herbert Plant, Florrie Garrett, and John William Akeroyd;

And also on the following charge.

3. That you have knowingly authorized or allowed the said Charlton Forman to fill up and sign in your name on the forms supplied by the Registrar of Births and Deaths two certificates of the cause of death—namely, in the cases of Gertrude Renoncie and Ernest Woolford, certifying that you attended each of such persons in her and his last illness and when you last saw each of them alive, whereas in fact you had not attended the said Gertrude Renoncie or seen her during her illness, but the said Charlton Forman had alone attended her, and that you had only visited the said Ernest Woolford alternately with the said Charlton Forman.

And that in relation thereto you have been guilty of infamous conduct in a professional respect.

The Solicitor stated that the case had been brought to the attention of the Association by the Leeds Education Department. Prior to 1905 Forman was in the employment of Dr. John O'Neill of Leeds, but then entered the service of Dr. Lyddon. The admitted evidence was that the registered address in the *Medical Register* had been rented since 1905 by Mr. Forman; in fact, it was Forman's surgery and not Lyddon's at all. The two had occupied it jointly, and shared the profits. With regard to school certificates, every school certificate given from the surgery had been signed by Forman; also almost the whole of the death certificates had been signed by Forman. During the last five years he had signed thirty certificates yearly in the name of Dr. Lyddon. The Solicitor then dealt with the correspondence in the case, and stated that Dr. Lyddon had said in his letters that he had only authorized Forman to sign a few certificates for him, and then only where he (Dr. Lyddon) had seen the patient. When the Council wrote to Dr. Lyddon asking for his explanation, the letter was apparently taken to Forman and he answered it. Since the complaint the only alteration seemed to have been that Forman now signed certificates with Dr. Lyddon's name "per pro C. Forman," but in all cases Forman paid the visits, saw the children, and generally wrote out the certificate in the presence of the person who went to get it. Dr. Lyddon never saw the patient at all, and was not present when Forman wrote the certificate. A prosecution was instituted against Forman for forgery, and evidence was given at considerable length. In the result the jury found him guilty of forgery, recommending him strongly to mercy on the ground of the negligence of Dr. Lyddon, and the judge sentenced Forman to pay a fine of 40s.

Mr. Jabez Capes, who was the superintendent of the Attendance Officer's Department at Leeds, stated that two declarations made by him were true.

Mr. Forman stated that the statements contained in his declarations made on April 26th were true. He first took the Beckett Street premises in 1906. They were taken in his name and he was the tenant, and he paid the rent. From that time he had assisted Dr. Lyddon in his profession. He was known in the neighbourhood and Dr. Lyddon was not. He introduced patients to Dr. Lyddon. Dr. Lyddon did very little of the work. He signed death certificates in Dr. Lyddon's name. All the counterfoils were filled up by him. He stated at the assizes that he had signed about thirty certificates each year. Looking at the book recording the visits, the Witness said that 90 per cent. of them were his own.

Cross-examined by Dr. Lyddon, the Witness said it was not true to say that when patients came to the house he stated that Dr. Lyddon was out when, as a fact, he was in. He further stated that it was not true to say that Dr. Lyddon had done the work. It was also not true to say that Dr. Lyddon had said that when he had seen a patient he (Forman) might sign Dr. Lyddon's name, but not otherwise.

In answer to the Legal Assessor, the Witness said that at the assizes he was charged with forgery of a death certificate, the forgery alleged being that he had signed Dr. Lyddon's name without his knowledge or authority. He was defended by Mr. Waddy as Counsel, and Dr. Lyddon was called as a witness. Dr. Lyddon gave evidence to the effect that he gave him (Forman) no authority to sign his name to any document. He (Forman) then went into the witness-box and denied that, but the jury convicted him. He had known Dr. Lyddon since 1905. He first got into communication with him by advertising. He advertised for a qualified medical man with a view to a partnership. The advertisement was answered, and that was how he got into touch with him. He had had no experience except as an unqualified assistant to Dr. Lyddon and other doctors. He had been connected with the work for twenty-six years. The profits of the business with Dr. Lyddon were to be divided equally. He made out an account and gave Dr. Lyddon his share. If £3 a week had been taken he would hand to Dr. Lyddon 30s. of it and keep 30s. for himself. He paid the rent and rates and purchased the drugs out of his share. All the furniture in the house was his own. When he had messages to attend patients he himself attended. He used to see Dr. Lyddon nearly every day. He discussed with him in a good many instances the cases he was attending, and told him the nature of the illness. He put down what he thought was the matter with the patient, and then Dr. Lyddon went and saw the patient, and after he had attended he (Forman) went the day after. Dr. Lyddon was away sometimes for a week, sometimes for a fortnight, or a month or six weeks. Seven or eight times a year he would be away. No other registered practitioner took Dr. Lyddon's place during the time he was away; he (Forman) had it all to do.

In reply to the President, the Witness stated that the advertisement for a qualified medical man appeared in the *Yorkshire Post*. He did not remember the exact terms of it, but he thought they were: "Wanted, a qualified medical man at once, with a view to partnership."

In answer to Dr. Saundby, he said he did not describe himself as anything; he called it "a good opening; apply at Newspaper Box." He got several answers; probably two dozen or more. He wrote to Dr. Lyddon, who was one of the applicants. He told Dr. Lyddon he (Forman) was not qualified.

Cross-examined by Dr. Lyddon, the Witness stated that Dr. Lyddon had never said to him that in case of any difficulty he (Forman) was to call in a medical man, and he (Lyddon) would pay. It was not true to say that Lyddon had often told him to stick to his dispensing, and that he (Lyddon) would do the visiting, because one was qualified and the other not.

The President, referring to a book, remarked that there were the names of several persons in it who appeared to be members of clubs, and inquired who attended those members. The Witness replied that they were lodges that he introduced to Dr. Lyddon, and Dr. Lyddon attended them, on the understanding that he (Mr. Forman) was engaged.

Dr. MCVAIL inquired what proportion of the work done in the course of a month or a quarter of a year was done by the witness, and he replied between 80 and 90 per cent.

In reply to Dr. NORMAN WALKER, the WITNESS said that Dr. O'Neil had several clubs, but only one was transferred to him, and that was transferred by him to Dr. Lyddon through his (Forman's) recommendation. The clubs knew when he was with Dr. O'Neil that he (Forman) was not qualified.

Answering a question by Dr. BARRS, the WITNESS said he had received no medical education at all, and had not done any university or college work.

Mrs. GARRETT, examined by the Solicitor to the Council, confirmed the declaration which she had made. About the middle of February of this year her daughter was ill and unable to attend school. She went to 26, East Beckett Street, to call in Dr. Lyddon, and saw Mr. Forman. The next day Dr. Lyddon called and said her daughter had bronchitis, and he told her to go to the surgery for some medicine. As her daughter was unable to attend school, the school board officer left a certificate to be signed by the doctor. She asked Dr. Lyddon to sign it, and he told her to take it to the surgery. She did so, and left it for a day or two, and then went and asked for it. It was given to her by Mr. Forman, and was signed "C. Lyddon, M.R.C.S.," in Mr. Forman's handwriting.

Dr. Lyddon did not desire to ask any question.

Mrs. MARY ELIZABETH WAIN, examined by the Solicitor to the Council, confirmed her statutory declaration. Dr. Lyddon originally attended her four or five years ago. Since then, and at the time mentioned in the declaration, only Mr. Forman called and saw her children and gave the certificates in respect of them. They were signed at the surgery by Mr. Forman.

Dr. Lyddon asked no question.

Mrs. MARY WOOLFORD, examined by the Solicitor to the Council, confirmed her statutory declaration. She was confined in February of this year, and Mr. Forman, whom she knew as "Dr. Forman," attended her. Dr. Lyddon saw her the following and alternate days for about a fortnight, and then the child died. The certificate of death was brought two days after to her house by Mr. Forman.

The SOLICITOR observed that this certificate had been put to Mr. Forman, who admitted it was in his handwriting.

Cross-examined by Dr. LYDDON: He (Dr. Lyddon) saw the child two hours before it died.

The SOLICITOR said he had other witnesses to the same effect, but as Dr. Lyddon had not cross-examined he did not think it necessary to call them.

Dr. LYDDON, addressing the Council on his own behalf, said that he had no proof to adduce or witnesses to call before the Council. Mr. Forman was merely the dispenser and surgery attendant, to which duties he was to give his whole time. He had attended patients in Dr. Lyddon's absence, and had concealed the fact from him in order that he might misappropriate the money, and he had signed his name on death and other certificates without any authorization from Dr. Lyddon to do so, and without his knowledge or consent. He only authorized Mr. Forman to sign certificates for him in those cases in which he (Dr. Lyddon) had seen the patient first. He was very sorry that he had done so, and he knew he ought not to have done it, but it was an error of judgement and nothing else.

Mr. BODKIN, in order to make the position clear, pointed out to Dr. Lyddon that he was entitled to address the Council as a party to the charge, and then to go into the witness-box, if he desired, to give evidence in support of his case and be subject to cross-examination by the solicitor; but if he wished his defence to remain on the statements he had made he was entitled to do so.

Dr. LYDDON had nothing more to say, and did not desire to address the Council further in reply.

Strangers and the parties were directed to withdraw. On readmission,

The PRESIDENT announced the decision of the Council as follows:

Mr. Charles Lyddon, I have to inform you that the Council have judged you to have been guilty of infamous conduct in a professional respect, and have directed the Registrar to erase from the *Medical Register* the name of Charles Lyddon.

THE CASE OF JAMES FORREST, M.B., B.S.EDIN.

On Thursday, May 26th, the Council began the consideration of the case of James Forrest, formerly registered as of Blackburn, Lancs., afterwards as of 77, Park Lane, Croydon, and now as of 60, Gordon Mansions, Gower Street, W.C., M.B., Bac. Surg., 1897, Univ. Edin., who had been summoned to appear before the Council on the following charge as formulated by the Council's Solicitor:

That you have asssociated yourself as a member of its committee, and also as one of its surgeons, with an institution called the "Eye and Ear Clinique," and also the "National Eye Hospital," and the "National Eye, Ear, Nose, and Throat Hospital," of 123, Oxford Street, London, W., which advertises by pamphlets and in the public press for paying patients.

And that in relation thereto you have been guilty of infamous conduct in a professional respect.

The PRESIDENT intimated that as this was a case which had been brought forward by the British Medical Association, it was necessary that members of the Council who were also members of the Association should take no part in it. Dr. SAUNDBY, Sir WILLIAM WHITLA, and Dr. DIXON MANN intimated their intention not to take any part in the proceedings.

Mr. Washington, solicitor, appeared for Dr. Forrest.

Mr. Smith Whitaker and Mr. Hempson appeared for the complainants, the British Medical Association.

Mr. WHITAKER said that the case resembled in some features the case of the Birmingham Consultative Institute, in respect of which the Council some years ago expressed condemnation of the conduct of the medical officer. As in that case, so in this, there had been considerable advertising of the institution. Reduced fees were stated to be charged to patients. In both cases, the Birmingham case and the present, the reason put forward for the establishment of the institutions was that it was meeting an alleged public need, the needs of that class of the community between those who had to accept charitable treatment at hospitals and those who could afford to be full-paying patients. The facts of this particular case were not in dispute. At the Clinique established at 123, Oxford Street, Dr. Forrest attended patients who applied for treatment. Such patients were charged half a guinea for the first attendance and five shillings for each successive attendance. Advertisements of the Clinique, of which examples were before the Council, had appeared from time to time in the public press, notably in the Sunday papers. Those advertisements referred to the Clinique as the "Half-guinea hospital" and "The Eye and Ear Clinique." It was also stated in the advertisements that the doctors in attendance were fully qualified specialists. Mr. Whitaker submitted that the question the Council had to consider was whether medical practitioners should be allowed, by surrounding themselves by the apparatus of a committee and of a hospital, to advertise indirectly in a way in which they would not be permitted to advertise directly in their personal capacity. In the defence before the Council it was admitted by Dr. Forrest that he had advertised in the press, but he denied that he had been guilty of any infamous conduct. In support of that denial he enclosed a copy of *Lloyd's Weekly*, in which there were advertisements of other hospitals. Such advertisements had appeared for years. Of course the Council could take no action against doctors concerned with those various institutions, as there was no complainant. Up to the present no person had brought forward any complaint against these advertising hospitals. Mr. Whitaker submitted that other cases must be left out of consideration, and this case, as every other, considered on its own merits. The Council would have before them such facts as the British Medical Association was able to present, and any question relating to the conduct of the other institutions referred to in the defence of Dr. Forrest was not before the Council. The Council had not to judge whether such cases were or were not comparable to the case in question.

Other advertising institutions seemed to treat persons who were believed to be fitting recipients of charity, and there was at least some degree of inquiry in order to ascertain whether applicants ought to be treated at reduced fees. There was no evidence that the other institutions named were carried on for paying patients as was the case here. The Council had before it the fact that the Clinique charged half a guinea and then 5s. for treatment, and therefore could not claim to be a charitable institution. There was no selection of fitting recipients of treatment at these fees. He believed that the Council would desire to look at this case from the point of view whether it supplied any public necessity. He submitted to the Council that there was no public necessity for the existence of the methods of the institution.

Mr. GEO. THOS. COOPER, examined by Mr. SMITH WHITAKER, said he lived at 193, Balaam Street, Plaistow, and was dispenser to Dr. Kennedy. He confirmed the statements contained in his declaration, and identified the exhibits mentioned therein.

Mr. WM. TYRRELL, examined by Mr. SMITH WHITAKER, said he was clerk to Mr. Hempson, of 35, King Street, Cheapside. He had made a declaration which he confirmed, and also identified the exhibits contained in it. When he first went to the institution a nurse asked him if he had been there before. He replied, No; and she inquired, "Who recommended you?" He said he had seen the advertisement in the *Daily Express*, and she wrote on the patient's card, *Daily Express*. He then saw Dr. Forrest, and described the interview with him in his declaration, which he now confirmed as correct. On March 15th he again saw Dr. Forrest, who tested his sight, and the result of that interview as set out in his declaration was correct.

Cross-examined by Mr. WASHINGTON, he said that he went to this institution first of all to get information for the purpose of this inquiry on behalf of his principal. He did not say the purpose for which he came. He told Dr. Forrest he wished to be treated because of his connexion with the Territorials, which was true. It would not have done for him to disclose the purpose for which he went there. He believed there was nothing the matter with his sight, but Dr. Forrest said that there was, and he disagreed with his treatment because he could not see out of the glasses which he gave him. When he first went to the institution a copy of the *Lancet* which contained his name was lying on the table, but it did not strike him as curious as he had seen it in other places. It often appeared in the *Lancet* in connexion with these cases. He purposely gave a false name because he did not want Dr. Forrest to know who he was. He did so for the purpose of getting evidence for this inquiry, but could not say that the end justified the means. He simply obeyed instructions. He would not have given a false name but for the fact of his seeing the *Lancet* there with his name in it. There was nothing the matter with his sight so far as he knew, but he had been told by the sergeant-major of his regiment that he saw too much of the target, and he told Dr. Forrest so. He treated him for astigmatism. He asked Dr. Forrest for a certificate for the purpose of showing his sergeant-major. He did not ask for a receipt for the same purpose, but merely for a receipt.

Re-examined by Mr. SMITH WHITAKER: His object in going to the institution was to carry out his instructions to get facts as to the methods by which patients were treated and examined at this institution.

This closed the case on behalf of the complainants.

Mr. WASHINGTON said he would call Dr. Forrest and address the Council subsequently.

Dr. JAMES FORREST, examined by Mr. WASHINGTON, said he was a Bachelor of Medicine, a Bachelor of Surgery, and a Fellow of the Royal College of Surgeons of Edinburgh. He had been connected with this institution for three years, and before this had had considerable experience with diseases of the eye, throat, and ear, and had been engaged at one of the eye hospitals in London. At present he had received no remuneration for his services to this institution. It was established not for a profit, but to meet what was considered a public need—for people who could not afford to pay the high prices of the Harley Street physicians—by a committee of lay people, who decided to advertise it in the daily press. He and other medical men objected to the tenor of the advertisements, and owing to that it was not inserted, and the other advertisements contained merely a bald statement of the facts. They were influenced to do so by the fact that other hospitals advertised in all the Sunday papers, and the fact that the revenue of those hospitals was derived from paying patients to the extent of about 80 per cent. If the Council was of opinion that advertising in this way ought not to take place, he was quite willing to advise his committee to give it up altogether. Advertising was done merely to give publicity to the institution.

Cross-examined by Mr. SMITH WHITAKER: He was a member of the committee of the hospital, and accepted a certain responsibility of what was done by it. He did not justify the description of himself by Mr. Helme, the secretary of the hospital, "as a well-known specialist," although he would admit that there was an advantage in a description of that kind being given to him. People seeing the advertisement in the newspapers in which the address of the secretary was given would naturally write to him for information, and one of the pamphlets would be sent to him, but they were not given unless specially asked for. The object of giving the pamphlets was to make the institution more widely known, but he did not regard it as in competition with other hospitals. The reason they desired publicity was because the institution was self-supporting. He objected to most of the testimony of Mr. Tyrrell, although he was aware most of it had not been challenged.

In re-examination by Mr. WASHINGTON, the WITNESS stated that one of the principal objects of the Clinique at present was to get sufficient money to establish an in-patient department. So far the institution had not been successful enough to even pay Dr. Forrest his £100 a year. He had not received a penny during the three years.

In answer to Mr. BODKIN, the WITNESS stated he had been connected with the Clinique from its commencement. He took no part in forming it. Mr. Yates, a consulting engineer of Reigate, had started the idea. Dr. Ramage, his late colleague at the Clinique, had brought him into touch with the Clinique. They had been both at the same hospital previously. With regard to his letter being addressed from 6, Gloucester Road, Regent's Park, he had had the use of the surgery there for consulting, by arrangement with a doctor friend. Dr. Ramage used to live there. Dr. Forrest lived there temporarily, and so came to write from there. Dr. Ramage died in April last. The meetings which resulted in the establishment of the Clinique were held at the Hotel Cecil. With regard to the advertising, perhaps £40 had been so expended. The Clinique had at different times been called the National Eye Hospital, the National Eye, Ear, Nose, and Throat Hospital, and was now the Eye and Ear Clinique. Mr. Yates, the founder of the Clinique, guaranteed £5,000, to be expended by the committee. Nearly £2,000 had been already expended. The advertisements complained of had not been inserted in papers more than once. The witness did not approve of all the advertisements. He (the witness) did not give the address of his surgery at Croydon to patients who attended the Clinique.

In answer to the PRESIDENT, the witness stated that the revenue of the Clinique was devoted to the current expenses and general up-keep. He was working without remuneration. He had a consulting practice in Croydon, and also he was surgeon at the Eye and Ear Hospital at Croydon. At the Clinique patients were prescribed for and given the option of obtaining their glasses from the Clinique or elsewhere. If they got them through the Clinique, they got them at regular hospital prices. Dr. Forrest said he was appointed by three members of the committee as surgeon, and then appointed a member of the Committee of Management. He was still at the Croydon Eye and Ear Hospital.

In answer to Dr. MCVAIL, witness said that the Clinique had been in existence three years. He had been connected with it from the beginning.

The PRESIDENT inquired the size of the Croydon Hospital which Dr. Forrest attended. Witness replied that there were five beds and about 5,000 out-patients yearly. He (the witness) was not the only surgeon.

The PRESIDENT wished to know whether Mr. Washington would care to make an application for an adjournment in order to enable him to produce further evidence.

Mr. WASHINGTON replied that he would gladly avail himself of the opportunity of an adjournment to produce the books and accounts of the Clinique, and also, if possible, to call members of the committee.

Mr. WHITAKER, in view of the fact that Dr. Forrest had challenged most of the evidence of Mr. Tyrrell, asked that Mr. Tyrrell should be recalled for further examination.

In reply to the PRESIDENT, Mr. WASHINGTON said that he had it in mind to apply to bring further evidence. If the Council had any doubt as to there being a bona fide committee he would apply for an adjournment in order to bring some member of it before them and the books for inspection.

The PRESIDENT: Do you make that application?

Mr. WASHINGTON: I do.

Strangers and the parties were directed to withdraw. On readmission,

The PRESIDENT said the case was adjourned until the following day in order to enable Mr. Washington to obtain further evidence.

Mr. WASHINGTON did not know if Mr. Yates was accessible, but he could get the books if nothing else.

The PRESIDENT: And might I suggest the secretary?

Mr. WASHINGTON said the secretary was available, but it was Mr. Yates he wanted. Could the Council give him a week?

The PRESIDENT: That is quite impossible. And Mr. Whitaker's application to ask Mr. Tyrrell further questions had better stand over till to morrow.

When the case was called on Friday, May 27th, neither Dr. Forrest nor Mr. Washington, his solicitor, appeared.

Mr. Smith Whitaker and Mr. Hempson (solicitor) appeared for the British Medical Association.

Mr. WINTERBOTHAM (Solicitor to the Council) said the Registrar had received a letter, signed "James Forrest," written yesterday, as follows:

Sir,—*Re* Eye and Ear Clinique.—Owing to the interval of adjournment being so brief, I find it impossible to secure the attendance of any of the committee to-morrow afternoon at 4 o'clock. Under these circumstances I tender the resignation of my registration to the Council and beg they will direct my name to be erased from the *Medical Register*. I may state that whatever the verdict of the Council may be with regard to my association with the Eye and Ear Clinique, I have determined to have my name expunged from the *Register*, partly as a protest against the anomaly of the methods of the British Medical Association and partly owing to the conviction that the diagnosis and treatment of ophthalmic, nasal, and aural affections will in the near future be undertaken by a distinct body of men in the same manner as dental affections has become.

The Solicitor to the Council said that he had also received a letter from the solicitors as follows:

Dear Sir,—We hear this morning from our client that he has sent in his resignation to the Council. Therefore there will be no need to attend the adjourned inquiry to-day on his behalf. We give this notice out of courtesy to the Council.

Upon receipt of the letter he had telephoned to the solicitors pointing out the false position in which it seemed to him (Mr. Winterbotham) personally Dr. Forrest would put himself, and urging him to appear to-day before the Council, but he had not responded to that suggestion.

The PRESIDENT said that a telegram had also been sent by the Registrar asking Dr. Forrest to attend at 4 o'clock.

Mr. SMITH WHITAKER said that correspondence had passed between Mr. Hempson, the Solicitor of the Association, and the solicitor to Dr. Forrest. If the Council thought it desirable, he would call Mr. Hempson to prove it.

In reply to the CHAIRMAN, he said he had no evidence to show that the correspondence had reached Dr. Forrest.

Mr. HEMPSON pointed out that he could not communicate with Dr. Forrest direct; it must be done through his solicitor. He felt it right to put this correspondence before the Council, and he informed the solicitor that he should do so.

The LEGAL ASSESSOR observed that one of the letters from Mr. Hempson to Dr. Forrest's solicitor was dated May 27th.

Mr. HEMPSON said that was so. The first communication he received was from Dr. Forrest's solicitors at 11.30 that morning, and he replied at once sending his letter by special messenger.

The LEGAL ASSESSOR pointed out that at the time the letter from Messrs. Hickling, Washington, and Pasmore reached Mr. Hempson, it was possible they had ceased to act for Dr. Forrest.

Mr. HEMPSON said he had thought of that too, and he had received a telegram from them in reply, which he would hand to the Council.

The PRESIDENT said he was advised that the correspondence was not admissible, and called on Mr. Smith Whitaker to reply.

Mr. SMITH WHITAKER then renewed his application to recall Mr. Tyrrell, in view of the fact that his evidence had been challenged by Dr. Forrest in cross-examination.

Leave having been given,

The LEGAL ASSESSOR observed that the evidence should be confined to the one question—namely, whether the statutory declaration of Mr. Tyrrell was true in substance and in fact.

Mr. WILLIAM TYRRELL, recalled, said, in reply to Mr. SMITH WHITAKER, that the declaration made by him in April, 1910, was based on an interview which took place in March. He was able to vouch in April for what took place at the interview in March by reference to notes made by himself immediately after the interview. He had them with him, and they were available now, if the Council required them. He again confirmed the declaration which he had made as true in substance and in fact.

By the PRESIDENT: The conversation detailed in his declaration represented actually what passed at the interview.

Mr. SMITH WHITAKER, in replying on the case, pointed out that the Council had had before them evidence of the connexion of Dr. Forrest with the Eye and Ear Institution which passed by the name of "The Eye and Ear Clinique"; "The National Eye, Ear, Nose and Throat Hospital," and other names. From the evidence the Council must, he thought, have been satisfied that Dr. Forrest took a large part in the management of the institution and was to a great extent responsible for the advertisements which had been proved before it. The suggestion he had made in his opening was that a medical practitioner should not be permitted through such an institution as this to be a party to advertisements which he would not be permitted to do in his own name, and with that submission he left the matter in the hands of the Council.

Strangers and the parties were directed to withdraw. On readmission,

The PRESIDENT announced the decision of the Council as follows:

I have to announce that the case against James Forrest is adjourned to the November session in order to enable him to bring further evidence in answer to the charge.

THE CASE OF WILLIAM GORDON HANNA.

On May 27th the Council considered the case of William Gordon Hanna, registered as of Pleck House, Whalley Road, Accrington, M.D., Q.Univ.Irel. 1880, L.M.K.Q.C.P.Irel. 1883, L.R.C.S.Edin. 1899, who had been summoned to appear before the Council on the following charge as formulated by the Council's Solicitor:

That you were on February 1st, 1910, convicted at the Manchester Assizes of feloniously using an instrument with intent to procure miscarriage, and sentenced to five years' penal servitude.

The SOLICITOR (Mr. Winterbotham) read the charge, and put in the certificate of conviction. He said he had received a letter dated May 7th from the accused practitioner from Lewes Prison to the effect that having undergone two trials in respect of the charge, and as he was suffering from weakness of the heart, he did not feel able to undergo the strain of a further inquiry, and left his case in the hands of the General Medical Council.

Strangers were then directed to withdraw. On readmission,

The PRESIDENT announced the judgement of the Council as follows:

I have to announce that William Gordon Hanna having been proved to have been convicted of a felony, the Registrar has been directed to erase his name from the *Medical Register*.

THE CASE OF MR. DONALD MURDOCH.

On May 27th the Council also considered the case of Donald Murdoch, registered as of 28, Delancey Street, Camden Town, N.W., Lic. Soc. Apoth. Lond. 1871, M.R.C.S.Eng. 1872, who had been summoned to appear before the Council on the following charge as formulated by the Council's Solicitor:

"That you were convicted on January 1st, 1910, at the Clerkenwell Police Court of being drunk and disorderly, and sentenced to one month's imprisonment, with hard labour.

"That you were also convicted on April 28th, 1910, at the Bow Street Police Court, of being drunk, and fined ten shillings.

"That you have been four times previously convicted, of which the following are the particulars:

Date of Conviction.	Offence.	Conviction.
January 2nd, 1908 ...	Drunk ...	Fined 5s. or 1 day's imprisonment.
March 5th, 1908 ...	Drunk ...	Fined 21s. or 14 days' imprisonment.
January 19th, 1909 ...	Drunk ...	Fined 20s. or 7 days' imprisonment.
July 30th, 1909	Drunk and disorderly	14 days' imprisonment with hard labour.

The SOLICITOR (Mr. Winterbotham), having read the charge, said the following letter had been received from the accused practitioner:

"11, Millman Street,
"Holborn, W.C.,
"May 18, 1910.

"Sir,—In reply to your notice of the 11th inst., on behalf of the General Medical Council, that I was convicted of being drunk and disorderly upon certain occasions as specified, I deeply regret to have to acknowledge that most of the cases are true as having been drunk, and I beg to place before the Council, by way of extenuation, the following circumstances, namely:

"(*a*) That of my becoming intoxicated by a very small quantity of alcoholic beverage, and that I have never had any craving for drink.

"(*b*) That of being enticed to drink by others where I have resided, who took no heed or care of me after becoming intoxicated.

"(*c*) That I am not an habitual drunkard, as defined under the Inebriates Act, as dangerous to myself, to others, or incapable of managing my affairs.

"I also beg to submit that my professional career has been both harsh and punishing, working very hard for nearly twenty years in an impoverished neighbourhood (Rotherhithe, London, S.E.), and during that period, after much thought, brought into existence what I considered to be novel and important projections, such as First Aid to the Injured or suddenly Afflicted (1874); Notification of Infectious Diseases (1880); and Teaching Women (generally) Practical Hygiene (1886).

"The first of these was refused at Scotland Yard (police as the basis), but twelve years after it was adopted.

"The second was unpopular for many years after its issue; the effect of this upon my career was immediate, my own practice rapidly declined.

"In the year 1888 I left Rotherhithe and went to Devonshire, broken in health; returned to London in 1890, and ceased from active practice in 1893.

"About the year 1886 (quoting from memory) I entered into a controversy as to medical men being permitted to employ unqualified assistants, taking the side that the former should not be, with the most disastrous result—my own brother being convicted of the same.

"For some time I have been seriously thinking of resuming practice; the state of my health is now quite restored, except for an occasional attack of angina pectoris, and I feel quite equal to resuming my professional duties.

"I shall attend the meeting of the Council at 3.30 o'clock in the afternoon of May 26th next, at 299, Oxford Street, London, W., and trust that after considering the above statement that the Council will ultimately accede to my request of permitting my name to remain upon the *Medical Register*.

"I am, Sir,
"Yours truly,
"DONALD MURDOCH.

"To William H. Winterbotham, Esquire,
"Solicitor to the General Medical Council,
"1, New Court, Carey Street, London, W.C."

Subsequently to the receipt of this letter Mr. Murdoch had written saying he had given notice to the Registrar of the General Medical Council of his intention to retire from medical practice and requesting that his name be removed from the *Medical Register*.

Strangers were directed to withdraw. On readmission,

The PRESIDENT announced the judgement of the Council as follows:

I have to announce that Donald Murdoch having been proved to have been convicted of the divers misdemeanours alleged against him in the notice of inquiry, the Registrar has been directed to erase his name from the *Medical Register*.

THE CASE OF MR. ROBERT ORR, M.B., B.S.

The case of Robert Orr, registered as of Ceres, Fifeshire, M.B., B.S., 1901, Univ. Glas., was considered on Friday, May 27th. Mr. Orr appeared in person.

The REGISTRAR read the charge:

"That you were on October 1st, 1907, convicted at the Sheriff Court of Fife at Cupar of the following offence, namely, of assaulting a Constable of the Fifeshire Constabulary, while engaged in the execution of his duty.

"And that you were on July 6th, 1909, convicted of the following offence, namely, of breach of the peace and of assaulting James Arthur, Helen White or Arthur, Catherine Dempsey or Kerr, and Catherine Quin."

On November 25th, 1909, the President announced the decision of the Council as follows:

"Mr. Orr, the Council has given careful consideration to the question of your convictions and the circumstances connected therewith, and has decided to postpone judgement thereon till the May Session, when you will be required to be present, and it will be in your interest to produce on that occasion testimony from persons of position in your own neighbourhood as to your character and conduct in the interval."

Mr. ORR, in answer to the PRESIDENT, said that certain testimonials had been forwarded to the Council. Several of these were read. He was deeply grieved at his conduct, and he assured the Council that if the present matter were overlooked he would do his utmost to be more careful in the future. He had resigned his public appointments, and he meant to leave the district. This affair had caused him considerable mental worry; it had also involved him in great financial loss. He hoped the Council would favourably consider his case.

Strangers were directed to withdraw. On readmission,

The PRESIDENT announced the decision of the Council as follows:

Mr. Orr, I have to announce to you that the Council have considered again the fact of your conviction, as also the certificates which you have tendered, and have not directed the Registrar to erase your name from the *Medical Register*; but they have authorized me to give you a solemn warning as to the habit which has led to this conviction, and to inform you that should any further conviction in regard to you be reported to the Council, they would take a much more serious view of the case than they have taken on the present occasion.

THE CASE OF MR. CHARLES FREDERICK DILLON SHAW-MACKENZIE.

The case of Mr. C. F. D. Shaw-Mackenzie, registered as care of Messrs. Duncan and Duncan, Solicitors, Dingwall, M.B., Mast. Surg., 1885, Univ. Edin., was also considered on May 27th. The REGISTRAR read the following charge:

"That you were on February 8, 1908, convicted of the following misdemeanour at the Petty Sessions at Whitby, in the County of York—namely, of being unlawfully guilty, while drunk, of disorderly behaviour at Ruswarp.

"And that you were on January 25, 1909, convicted of the following misdemeanour at the Petty Sessions at Wigton, in the County of Cumberland—namely, of being drunk and incapable in Eden Street, Silloth."

On November 26, 1909, the President announced the decision of the Council as follows:

"I have to announce that the Council has found that Mr. Charles Frederick Dillon Shaw-Mackenzie has been proved to

have been convicted of the misdemeanours alleged against him in the Notice of Inquiry, and that the Council has decided to postpone judgement thereon till the May Session, when he will be required to be present, and to produce on that occasion testimony from persons of position as to his character and conduct in the interval.

The SOLICITOR read a testimonial which had been sent to the Council.

Strangers were directed to withdraw. On their readmission,

The PRESIDENT announced the judgement of the Council as follows:

I have to announce that Charles Frederick Dillon Shaw-Mackenzie, having been proved to have been convicted of divers misdemeanours alleged against him in the Notice of Enquiry, the Council have directed the Registrar to erase from the *Medical Register* the name of Charles Frederick Dillon Shaw-Mackenzie.

THE CASE OF MR. JEAN LEON LOUIS.

The case of Mr. J. L. Louis, registered as of 40, Castlereagh Street, New Silksworth, near Sunderland, M.B., Bac. Surg., 1899, Univ. Edin., was considered on May 27th.

The REGISTRAR read the charge as follows:

That you were at the Durham Assizes, held on November 8th, 1909, convicted of publishing a defamatory libel of and concerning Elizabeth Ann Pollard and Jane Pollard, and ordered to enter into your own recognisances with one surety to be of good behaviour and to come up for judgement if called upon, and to pay all costs of prosecution.

Mr. Louis appeared in person.

The SOLICITOR read the convictions and referred to a newspaper report of the trial.

Mr. LOUIS said that the letter he wrote was extremely private, and he did not intend to do the ladies any harm.

The SOLICITOR read the letter written by the accused, also a letter written by his solicitor addressed to the Council.

Strangers were directed to withdraw. On their readmission,

The PRESIDENT announced the judgement of the Council as follows:

Mr. Louis, I have to announce to you that, it having been proved that you have been convicted of the misdemeanour alleged against you in the notice of inquiry, the Registrar has been directed to erase your name from the *Medical Register*.

Mr. LOUIS: I am extremely sorry, sir.

DENTAL DISCIPLINARY CASES.

On Friday, May 27th, the Council considered the following dental disciplinary cases, with regard to which it had before it reports of the Dental Committee setting out the facts as found by that Committee.

Mr. Bodkin appeared as legal assessor, and Mr. Winterbotham as solicitor to the Council.

The Case of Mr. Ernest Horne.

Mr. R. W. Turner, instructed by Messrs. Bowman and Curtis-Hayward, solicitors, appeared for the British Dental Association.

Mr. Horne appeared in person.

The REGISTRAR read the report of the Dental Committee, which stated that the case was considered by the Committee on November 22nd, 1909, when Mr. Horne attended personally.

Mr. Horne gave evidence on his own behalf, admitting that he had used certain cards in connexion with his practice by way of advertisement, but in the course of his evidence the fact was elicited that he was carrying on a branch practice at Saxmundham, Suffolk, by an unregistered assistant who did the whole work except operations performed under anaesthetics, which Mr. Horne stated that he always performed himself. The Committee thereupon, without finding the facts, postponed the inquiry into the charge in order that Mr. Horne might be able to add to the evidence he had given some more satisfactory assurance not only as regards the practice of advertising, but also as regards the matters stated by himself in evidence aforesaid.

The case was further considered by the Dental Committee on May 23rd, 1910, when the following parties attended before the Committee and were duly heard, namely, the said Ernest Horne, represented by Mr. Seth J. Bailey, solicitor, of Lowestoft.

The complainants, the British Dental Association, represented by Mr. R. W. Turner, counsel, instructed by Messrs. Bowman and Curtis-Hayward, solicitors.

The Committee found that the following facts were established by the evidence:

The said Ernest Horne was registered in the *Dentists' Register* on December 9th, 1878, as "In practice before July 22nd, 1878," and his address in the *Register* for the current year is Gildencroft, London Road, Lowestoft, N.

The said Ernest Horne has advertised his professional practice by exhibiting cards containing statements claiming the use, in the painless extraction of teeth, of a wonderful preparation of his own, and comparing this with common fluids used by some; also containing a comparison of the fees charged by him with those charged by other dentists.

The said Ernest Horne has also carried on his branch practice at Saxmundham by means of an unregistered assistant, whom he has knowingly permitted and employed to perform operations in dental surgery.

The said Ernest Horne states that he has discontinued all advertising and has discharged the unqualified assistant at Saxmundham, and he gave the Committee his underfaking that he will not in future advertise or employ any unqualified assistant in the carrying on of his dental practice.

In reply to the PRESIDENT, Mr. HORNE said he had nothing material to add to the statement contained at the end of the report. He desired to give an undertaking that he would not in future advertise or employ any unqualified assistant in the carrying on of his dental practice.

Mr. TURNER, on behalf of the complainants, in reply to the PRESIDENT, said they had made inquiries and discovered that no further attempt had been made to issue advertisements; it was clear Mr. Horne did not, at the time, appreciate his position. The branch had been closed, and Mr. Horne was now carrying on his business in a professional manner. The complainants did not wish to press the charge unduly.

Strangers were directed to withdraw. On their return,

The PRESIDENT announced the judgement of the Council as follows:

Mr. Ernest Horne, the Council have considered the report of the Dental Committee and the assurance which you have given as to advertising and the employment of unqualified assistants in the future, and have authorized me to inform you that they have not directed the Registrar to erase your name from the *Dentists' Register*.

Mr. HORNE: Thank you very much.

The Case of Mr. Thomas Abraham Rogers.

Mr. Rogers did not appear. The complainants, the British Dental Association, were represented by Mr. R. W. Turner, instructed by Messrs. Bowman and Curtis-Hayward, solicitors.

The REGISTRAR read the Dental Committee's report:

The case was considered on May 23rd, 1910, when the respondent did not attend, and the due service of the notice was proved to the Committee.

The Committee found that the following facts were established by the evidence:

The said Thomas Abraham Rogers was registered in the *Dentists' Register* on August 29th, 1878, as "In practice before July 22nd, 1878." His address in the *Register* for 1910 is 258, Caledonian Road, London, N.

The said Thomas Abraham Rogers has habitually permitted an unqualified person named Merton to attend patients and perform dental operations upon them and to practise dentistry on his behalf and in his name at 41, High Street, Watford; 17, High Street, Hemel Hempsted; and High Street, Berkhamsted, all in the county of Herts.

The said Thomas Abraham Rogers has also widely advertised his professional practice by various objectionable methods, namely:

(*a*) By the issue and circulation of a card containing laudatory statements as to his own skill and methods, and claims of superiority over other practitioners.

(*b*) By advertisements in the public press, also containing laudatory statements as to his own skill and methods.

The SOLICITOR read a letter from the respondent respecting his inability to attend owing to a previous engagement, and stating that two years ago he had sold his practice to Merton, who insisted on his right to use his (Mr. Rogers's) name. Mr. Rogers did not object to his name being removed from the *Register*. A telegram was sent to Mr. Rogers, who replied that he had gone on a motor tour.

Strangers were directed to withdraw. On their readmission,

The PRESIDENT announced the judgement of the Council as follows:

I have to announce that on the facts found in the report of the Dental Committee the Council have judged Thomas

Abraham Rogers to have been guilty of infamous or disgraceful conduct in a professional respect, and have directed the Registrar to erase from the *Dentists' Register* the name of Thomas Abraham Rogers.

The Case of Mr. Edward Joseph Regan.

The Registrar read the report of the Dental Committee, which considered the case on May 23rd, 1910, when the respondent was represented by Mr. S. B. Gottlieb, solicitor, but did not himself attend.

The Committee found that the following facts were established by the evidence:

The said Edward Joseph Regan was registered in the *Dentists' Register* on July 11, 1879, as "In practice before July 22, 1878." His address in the *Register* for 1910 is 7, College Terrace, Swiss Cottage, London, N.W.

(1) The said Edward Joseph Regan has permitted an unqualified person named Louis Dupan to practise in his name or in succession to him as a dentist on premises belonging to him at 5, Stretford Road, Manchester; that he thereby enabled the said Louis Dupan to practise as if he were qualified and to advertise such practice by the use of the name of the said Edward Joseph Regan in connexion therewith in a circular or pamphlet issued by the said Louis Dupan, and containing laudatory statements as to the skill and methods of the said Edward Joseph Regan.

(2) The said Edward Joseph Regan has advertised his professional practice at 21, College Crescent, London, N.W., by the issue of a pamphlet or circular of an objectionable character and containing statements implying praise of his own skill and methods.

The Solicitor representing the said Edward Joseph Regan made a statement on his behalf, but called no evidence, and stated that the said Edward Joseph Regan left the matter in the hands of the Committee. He declined a suggestion made by the Committee to adjourn the inquiry for the attendance of his client.

The evidence before the Committee consisted of the oral evidence of William Fletcher Thomas Brown and the following documents, namely:

(1) A Statement by Norman G. Bennett, dated March 31, 1910.

(2) A Statutory Declaration by the said William Fletcher Thomas Brown, dated April 1, 1910.

(3) and (4) Two circulars exhibited thereto.

(5) Letter from the said Edward Joseph Regan to the Registrar, dated April 12, 1910.

(6) Letter from the Registrar to the said Edward Joseph Regan, dated May 4, 1910.

(7) Letter from the said Edward Joseph Regan to the Solicitor, dated May 14, 1910.

Mr. Regan was represented by Mr. S. B. Gottlieb, solicitor; Mr. R. W. Turner and Mr. R. Bell Hart, instructed by Messrs. Bowman and Curtis-Hayward, solicitors, appeared for the complainants, the British Dental Association.

The President pointed out that the facts as found could not now be challenged, but the Council would listen to Mr. Regan's statement upon the report of the Dental Committee.

Mr. Regan, after apologizing for his non-attendance before the Committee on account of illness, said he was quite unaware of having offended against any of the written laws of the Council. He left Manchester five years ago, and the man in question had been carrying on the business ever since under his own name. He could not see how he could possibly be charged with having covered him. When he knew that this circular had been issued with his (Mr. Regan's) name upon it, he informed the individual that he had no business to do this, whereupon he promised to destroy any circulars in his possession, and not to offend again. So far as was in his power, he (Mr. Regan) was quite willing to conform to the laws of the Council; indeed, he had always endeavoured to abide by its rules. If he had committed any offence it was entirely by inadvertence and in ignorance. He would undertake not to offend in future.

Mr. Turner, in answer to the President, said that it was rather a serious case, because Mr. Regan had permitted, under terms of which they knew nothing, a former assistant to carry on business under his (Mr. Regan's) name.

Strangers were directed to withdraw. On their readmission,

The President announced the decision of the Council as follows:

Mr. Regan, the Council have considered the facts proved in the report of the Dental Committee, but have not proceeded to pronounce judgement in your case till the November Session, when you will be required to produce evidence as to your conduct, with special reference to your having ceased all relations with unqualified practitioners and advertising.

Erasure of Name of Deceased Person on Register.

The President: No person has appeared as complainant in this matter, but the Dental Committee has had the case before it.

The Registrar read the report of the Dental Committee.

The Dental Committee have held an inquiry, in pursuance of the powers conferred upon them by the Dentists Act of 1878, for the purpose of ascertaining whether the person registered in the *Dentists' Register* with the name and particulars as follows:

Name.	Address.	Date of Registration.	Description and Date of Qualification.
George Norman	25, The Grove, Hammersmith, London, W.	1878, October 15	In practice before July 22, 1878

is deceased, and whether the said entry has been correctly made or fraudulently caused to be made in the said *Register*, and should be erased therefrom. The enquiry was held on May 23, 1910. Notice was given to Mr. Barrett (otherwise George Norman), the person at the date of the notice carrying on practice as a dentist at 25, The Grove, Hammersmith, aforesaid, who did not attend the inquiry, but was represented by Mr. Mould, instructed by Messrs. Ellis and Collier, solicitors. The enquiry was attended by the British Dental Association, represented by Mr. R. W. Turner, counsel, instructed by Messrs. Bowman and Curtis-Hayward, solicitors; also by Mr. Andrew McCrae.

The Committee find that the following facts were established by the evidence:

(1) The person registered in the *Dentists' Register* as George Norman as aforesaid is deceased.

(2) The person now practising as a dentist at 25, The Grove, Hammersmith, aforesaid, is not the George Norman who was registered on October 15th, 1878.

(3) The said registration has been continued or maintained up to the present time by replies to inquiries purporting to be signed, but not in fact signed, by the said George Norman.

Mr. Mould, instructed by Messrs. Ellis and Collier, solicitors, represented Mr. Barrett (otherwise George Norman).

Mr. R. W. Turner, instructed by Messrs. Bowman and Curtis-Hayward, solicitors, also Mr. Andrew McCrae, appeared for the complainants, the British Dental Association.

Mr. Turner, replying to the President, said he had nothing to say, having regard to the terms of the report.

Mr. Mould: I would like to make a few remarks.

The Legal Assessor intimated that if Mr. Mould desired to discuss the position of Mr. Barrett, or any other person carrying on the practice at 25, The Grove, Hammersmith, at the present time, that was in no way involved in these proceedings. The object of these proceedings was to consider whether the name of George Norman, registered on October 15th, 1878, and continued since, was still to remain on the *Register*.

Mr. Mould: Under those circumstances, nothing that I could say would usefully assist the Council.

Strangers were directed to withdraw. On their return,

The President announced the decision of the Council, as follows:

That it having been established as a fact, proved in the report of the Dental Committee, that the person originally registered as George Norman is deceased, the Registrar has been directed to erase his name from the *Dentists' Register*.

Thursday, May 26th, 1910.

Sir Donald MacAlister, K.C.B., President, in the Chair.

In addition to the disciplinary cases heard on this day, the Council transacted the following business:

Committees.

The nominations of the Branch Councils for the following committees were adopted:

The Examination Committee.—Dr. Taylor, Dr. Saundby, Dr. Caton (nominated by the English Branch Council), Sir Thomas Fraser, Dr. Finlay, Dr. McVail (nominated by the Scottish

Branch Council), Sir John Moore, Sir Charles Ball, Dr. Kidd (nominated by the Irish Branch Council).

The Education Committee.—Dr. Norman Moore, Sir George Philipson, Sir John Williams (nominated by the English Branch Council), Dr. Mackay, Mr. Hodsdon, Dr. Knox (nominated by the Scottish Branch Council), Sir Thomas Myles, Sir C. Nixon, Dr. Little (nominated by the Irish Branch Council).

The Public Health Committee.—Dr. Cocking, Dr. Newsholme, Dr. McManus (nominated by the English Branch Council), Dr. Norman Walker, Sir John Tuke, Dr. McVail (nominated by the Scottish Branch Council), Sir John Moore, Dr. Adye-Curran, Dr. Kidd (nominated by the Irish Branch Council).

EXAMINATIONS FOR THE SERVICES.

A report by the Examination Committee on the returns as to examinations for the Services, received since the least session of the Council, was received and entered on the minutes.

Dr. MCVAIL moved, and it was resolved, that the Report of the Examination Committee be received and entered on the minutes.

The report consisted of the following analysis of the returns:

Candidates Submitted Themselves Who held Qualifications from	At the Examination for the Indian Medical Service held in January, 1910.		Total of Successful and Unsuccesful Candidates.
	Rejected.	Passed.	
English Conjoint Board	0	8	8
Apothecaries' Society of London ...	0	3	3
University of Oxford	—	—	—
,, Cambridge	0	2	2
,, Durham	0	1	1
,, London	0	4	4
Victoria University of Manchester	0	1	1
University of Birmingham	—	—	—
,, Liverpool	—	—	—
,, Leeds	—	—	—
,, Sheffield	—	—	—
Scottish Conjoint Board	2	*5	7
University of Edinburgh	0	4	4
,, Aberdeen	0	1	1
,, Glasgow	—	—	—
,, St. Andrews	—	—	—
Irish Conjoint Board	—	—	—
Apothecaries' Hall, Dublin... ...	—	—	—
University of Dublin	—	—	—
Royal University of Ireland ...	0	2	2
Indian and Colonial Universities...	0	3	3
Total	2	34	36
	27 Candidates	27 Candidates	
	holding Qualifications from 34 Bodies.		

*One holding also the F.R.C.S.Edin., and one the D.P.H.Camb.

THE APOTHECARIES' SOCIETY OF LONDON.

Mr. NORTON moved, Sir HENRY MORRIS seconded, and it was resolved:

That Mr. H. S. Pendlebury, F.R.C.S., be appointed Assistant Examiner in Surgery to the Apothecaries' Society of London, *vice* Mr. Stonham, who retires by rotation.

PUBLIC HEALTH COMMITTEE.

On the motion of Sir JOHN MOORE, seconded by Dr. NORMAN MOORE, a report from the Public Health Committee was received, entered in the minutes, and the recommendations contained therein adopted. The Council, Sir JOHN MOORE said, had already recognized certain commands in India, and those commands had now been subdivided into ten divisions. Nine of those divisions complied with the regulations of the Council, and the Committee recommended the Council to recognize those nine divisions. The Army Board asked that Quetta also should be recognized, but when the regulations of the General Medical Council were brought to its notice the request as far as Quetta was concerned was withdrawn.

Saturday, May 28th, 1910.

Sir DONALD MACALISTER, K.C.B., President, in the Chair.

THE APOTHECARIES' HALL OF DUBLIN.

On the motion of Dr. MCVAIL, Chairman of the Examination Committee, seconded by Sir JOHN MOORE, it was resolved that the report by the Examination Committee on the final examination held at the Apothecaries' Hall, Dublin, in April, 1910, be received and entered on the minutes; and Dr. MCVAIL moved, and Dr. DIXON MANN seconded, the adoption of the following report and recommendation of the Education Committee:

The Assistant Examiners report their satisfaction with the examination of the Apothecaries' Hall, Dublin, held in April, 1910.

The Assistant Examiners state that in the written examination in medicine five questions had to be answered, and that the time allowed was one and a half hours; that in the surgical paper five questions had to be answered, and the time allowed was one and a half hours; and that in midwifery, with gynaecology, five questions had to be answered, and the time allowed was one and a half hours.

The Examination Committee recommends that the attention of the Apothecaries' Hall should be directed to the recommendation of the Medical Council that, on an average, half an hour should be allowed for each written question.

Dr. ADYE-CURRAN thought it was within the power of each examining body to make its own regulations, although, doubtless, a recommendation from the Council would carry great weight. He hoped that on this occasion the report on the examination at the Apothecaries' Hall would be allowed to pass without any slur being cast upon it, as this matter had already been threshed out *ad nauseam*.

Dr. MCVAIL said the matter had been before the Council on a previous occasion, when this regulation was reaffirmed. He did not know whether the Apothecaries' Hall was referred to then, but other bodies were. It took more than half an hour to answer some questions adequately, and therefore the Examination Committee thought it right that the attention of the Apothecaries' Hall should be drawn to the recommendation.

Dr. ADYE-CURRAN suggested that the recommendation of the report should be made general, and the reference to the Apothecaries' Hall should be deleted.

Dr. MCVAIL agreed to this.

The PRESIDENT said the resolution as amended would be that the attention of the Apothecaries' Hall be called to this existing recommendation, which was applicable to all bodies.

The resolution as amended was then carried.

SEPARATE EXAMINATIONS IN FINAL SUBJECTS.

The Examination Committee presented a report, in accordance with the minute of the Council of November 26th, 1909, instructing it to report on the question of allowing candidates to enter separately for each of the subjects of the final examination in medicine, surgery, and midwifery.

The Committee pointed out that the subjects mentioned constituted numbers IX, X, and XI of the fifteen subjects of the curriculum recommended by the Council, and were included in the final examination of all the qualifying bodies, though in some cases other subjects were also included in that examination. The memorandum stated that there is considerable diversity of procedure amongst the various licensing authorities. At some of the bodies each subject of the final examination may be entered for and passed separately, at others all must be entered for, but only in the subject or subjects in which the candidate fails has he again to be examined, and in this group of bodies some allow a mere pass-mark to give exemption, while others require more than the ordinary pass-mark. Still other bodies require all the subjects to be entered for and passed at one examination, failure in the one entailing re-examination in all.

The report concluded by observing that the point to be considered was whether the Council should recommend uniformity of action on the part of the various examining boards, such uniformity to consist of the exclusion of all subjects from the final examination, excepting the three great subjects of medicine, surgery, and midwifery; and, further, whether the Council should recommend that these three subjects should be all passed at the same examination, failure in one to cause failure in all.

The PRESIDENT suggested that the bodies concerned should be invited to express any further opinion they might have formed on the question referred to the Committee.

Dr. MCVAIL accepted the suggestion.

The PRESIDENT, replying to Dr. NEWSHOLME, said that the subjects mentioned were those specified in the Act, and were selected for that reason.

Dr. NORMAN MOORE did not understand what the Council meant by referring this to all the qualifying bodies. It was desirable that they should be in touch with what went on in the Council; but it could not compel them to require the subjects to be taken together or separately. He himself inclined to the view that leaving the subjects to be taken separately was rather conducive to thorough study, and that a student was more likely to work steadily at surgery, medicine, and midwifery if he took them at two or three examinations instead of in one only. The whole object was that practitioners should know as much as possible of their profession when they were put upon the *Register*, and this was rather attained by leaving the licensing bodies quite free.

Sir CHARLES BALL was very anxious that each licensing body should have an opportunity of seeing in a collected form what was the practice of other licensing bodies; and it was with that view that this proposal was made. Whether the Council took any action upon it was quite another matter.

Dr. TAYLOR suggested that if the Council insisted on all subjects being taken separately, London University should be excluded from the section, allowing subjects to be taken in groups.

Dr. MCVAIL accepted the suggestion.

Sir CHRISTOPHER NIXON said that the National University of Ireland was strongly of opinion that a candidate should present himself in all these subjects at one time.

The motion was then put and carried.

Dr. MCVAIL moved, Sir CHRISTOPHER NIXON seconded, and it was resolved:

> That the recommendation of the Examination Committee be adopted with reference to this document—namely, that it be circulated to the registrars of the various licensing bodies.

PRACTICAL EXAMINATIONS IN OPHTHALMOLOGY, OTOLOGY, AND LARYNGOLOGY.

Dr. MCVAIL moved, and Sir JOHN MOORE seconded, that the following report, dated May 24th, 1910, from the Examination Committee be received and entered on the minutes:

> That the Examination Committee is of opinion that the Council should recommend to the licensing authorities that there be instruction in ophthalmology, otology, and diseases of the throat, and that every candidate be examined practically in these subjects, and that this resolution should be reported to the General Council.

Dr. KIDD asked the Council to adjourn the consideration of this until after a report had been received from the Education Committee.

Dr. MACKAY (Chairman of the Education Committee) thought the motion very comprehensive, and did not believe that the Committee could do full justice to the subject in the next year. If it was allowed to remain on the minutes it might be discussed at some future time.

Dr. KIDD moved as an amendment, Sir CHARLES BALL seconded, and it was resolved:

> That the report be referred to the Education Committee for consideration.

PROPOSED INSPECTION OF DENTAL EXAMINATIONS.

Mr. TOMES brought up a report of the Dental Education and Examination Committee, which thought it desirable, seeing the number of new dental licensing bodies that had been established, that a cycle of inspection of the examinations for the granting of dental qualifications should be commenced. There had been no inspection of examinations for licences or degrees in dental surgery such as universities give since 1897. At present the dental fund out of which such inspection came was low, but the Committee had no hesitation in recommending that the cycle should be at once commenced.

The PRESIDENT thought that as the inspection could not be commenced this year the report should be referred to the Executive Committee.

Mr. TOMES accepted the suggestion, withdrew his original motion, and substituted therefor:

> That the inspection of the dental examination of licensing bodies be undertaken, and it be referred to the Executive Committee to make the necessary arrangement for carrying it into effect.

Sir HENRY MORRIS seconded, and it was carried.

REPORT OF PHARMACOPOEIA COMMITTEE.

The Pharmacopoeia Committee reported that the number of copies sold in the year beginning May 23rd, 1909, was 1,127. The sale has thus been somewhat larger than in 1908–9. Up to the present time 41,915 copies of the *Pharmacopoeia* and 4,470 copies of the *Indian and Colonial Addendum* have been sold.

A meeting of the Conference of Members of the Committee with representatives of the Pharmaceutical Societies of Great Britain and of Ireland was held on May 21st, 1910. A second report from the Committee of Reference in Pharmacy was presented in manuscript, giving the results of the work done by the Committee to December 16th, 1909, together with recommendations on particular subjects supplementary to those contained in the similar report of 1908. The Conference recommended that the Pharmacopoeia Committee should print and publish the report, in order that its suggestions might be submitted for professional criticism. The Committee have adopted the recommendation, and copies of the print will be circulated among members of the Council and others interested, and communicated to the medical and pharmaceutical journals.

The Secretary of the Committee of Reference, Professor Greenish, is of opinion that by May, 1911, his Committee will be able to present a final report on the revision of the pharmaceutical sections of the *Pharmacopoeia*.

REPORT OF FINANCE COMMITTEE.

On the motion of Mr. TOMES, seconded by Sir HENRY MORRIS, the report of the Finance Committee on the income and expenditure for the year 1909 was received and entered on the minutes.

The Committee reported that the income of the General and Branch Councils for the year ending December 31st, 1909, was £8,467 5s. 6d., and the expenditure during the year was £8,613 11s. 9d., showing a deficit of £146 6s. 3d. From 1905 to 1907 there was an excess of income of £2,043, while in 1908 and 1909 there was a total deficit of £802; that is to say, on balance there was an average excess of income during the past five years of about £250. This is a matter on which the Council might, the Committee considered, be congratulated, for not only had the penal work been exceptionally heavy, but the Council Chamber had been enlarged and the Press Gallery built entirely out of income. In addition to this there had been added to the Council representatives from the universities of Liverpool, Leeds, and Sheffield, though the fees of the representative from Sheffield are not at present paid by the Council. The Committee, however, could not look forward to the future entirely without anxiety. The chief item of expenditure was the cost of the two annual meetings, and especially of the penal work. Moreover, the Council was continually increasing in numbers. In the last ten years four new members had been added through the creation of new universities; members would shortly be added from the Universities of Bristol and Wales, and the Queen's University, Belfast, and the Council itself obtained an additional direct representative. It is true that at present the fees of all these representatives would have to be paid by the Council eventually, and each member cost from £50 to £120 annually, according to the distance of his residence from London.

The chief receipts were from registration fees, and these showed a steady decrease:

Average Receipts.					
1890–4	£7,406		1900–4	£6,976	
1895–9	£6,948		1905–9	£6,871	

That is to say, for the last quinquennial period the fees averaged £535 per annum less than the period 1890–4, and this in spite of the fact that, for additional qualifications, restorations, etc., the charge had been raised since 1903 from 5s. to £1.

An increase in the number of licensing bodies did not necessarily mean that a larger number of students qualified each year, for each body might grant fewer qualifications. Consequently the Council was faced with the fact that, in the near

future, its expenditure would be largely increased through no action of its own, while the income from registration fees was likely to remain stationary, or even become smaller. The efforts, therefore, which had been made already to find a solution of the difficulty must not be relaxed, and steps should be taken while there was yet time to adjust matters. The item in the expenditure of the General Council for alterations to buildings would not appear again, as the whole of the cost had now been paid; it might reasonably be hoped, therefore, that the balance at the end of this year would be on the right side, but in 1911 there would be an election of Direct Representatives at a cost of something like £850, and it would be surprising if a deficit did not again appear.

Mr. TOMES said that the multiplication of schools and of licensing bodies showed no signs at present of increasing the number of students preparing to enter the profession. What it might do in the future no one could say. Possibly it might not cause any increase, because the medical profession was at present overcrowded. If new licensing bodies sought to obtain powers, which they generally did obtain, to send a representative to the General Medical Council, each new representative would become an additional charge. He would therefore ask the President to use his influence, as he had on previous occasions, to induce bodies which obtained a representative on the Council to do what the University of Sheffield had done—bear the cost until such time as the licensing body had what he might call a respectable number of men coming up to register. He did not propose to put it in the form of a recommendation, but merely personally, as the Treasurer, to ask the President to work in that direction.

Mr. TOMES moved, Sir HENRY MORRIS seconded, and it was resolved:

That, if it become necessary, a grant of £150 be made towards the expenses of the Irish Branch Council from the funds of the General Council.

EXTENSION OF THE MIDWIVES ACT TO IRELAND.

Dr. LITTLE moved and Sir JOHN MOORE seconded that the report by the Irish Branch Council be received and entered on the minutes.

At a meeting of the Irish Branch Council, held to-day, it was proposed by Dr. Kidd, seconded by Dr. Adye-Curran, and agreed to:

"That, in the opinion of the Irish Branch of the General Medical Council, it is advisable that the general provisions of the Midwives Act should be made applicable and extended to Ireland."

Dr. LITTLE said the Irish Branch Council hoped the motion might go forward to the Privy Council as the opinion of the English Council.

The PRESIDENT suggested that the motion should be:

That the President communicate the resolution of the Irish Branch Council to the Lord President of the Privy Council.

It would come better as an Irish expression of opinion than an English expression of opinion.

Dr. LITTLE, with the consent of Sir JOHN MOORE, accepted this, and the motion as modified was then put and adopted.

THE POSITION OF CHEMISTRY, PHYSICS, BOTANY, AND ZOOLOGY IN THE CURRICULUM.

Sir HENRY MORRIS brought before the Council, as having complied with the Standing Orders of the Council, the following memorial, although he held that it contained many errors and an expression of opinion which certainly could not be supported, and some of the statements were, he would not say grossly, but colourably, inaccurate. The Council might easily have written the history of the matter by merely saying: "A letter had been received from the following gentlemen, the purport of which was contained in two letters on pages 134 and 190 of the Minutes for 1901 and 1902 respectively." A comparison of those letters with this memorial would show that they were practically identical. However, he moved that it be received and entered on the minutes.

Dr. NORMAN MOORE seconded the motion, which was carried.

The memorial was as follows:

MEMORIAL TO THE GENERAL MEDICAL COUNCIL.

The position of the purely scientific subjects of chemistry, physics, botany, and zoology, in the medical curriculum being one of the questions at present before the General Medical Council, we would beg to submit the following expression of our views:

The proposal to relegate the teaching of these subjects wholly to the school period appears to us a retrograde step and one which is calculated to have a most prejudicial effect on medical education. The object of these sciences in a medical curriculum is to ensure a real scientific training for the student, to form a basis for the study of physiology, materia medica, and medicine, and to inculcate scientific method which he can apply to his purely professional studies. Were a parrot-like knowledge of the mere facts and formulae of science all that is desired, the committing of these to memory might be done at school, but knowledge thus obtained is of little practical and no educational value.

There are two chief reasons against relegating the scientific subjects wholly to school life:

1. Interference with general education.
2. It would prevent that specialization of the scientific teaching, in the direction of a student's future medical studies, which is so desirable.

1. To acquire a scientific training of real value it is necessary that the student devote his whole energy to the subject in question. This is manifestly impossible when the preliminary examination in general knowledge is impending. Either the professional subjects or the general education must suffer.

The methods of teaching best adapted to give the desired result—a true scientific training—are quite distinct from those suited to the school, and, further, the power of grasping scientific generalizations is seldom developed till a later stage than that at which the preliminary examination should be passed.

2 The whole tendency just now, and a very praiseworthy one, is to specialize the preliminary medical scientific studies in the direction of the purely medical studies. The University of London, for example, has quite recently revised its syllabus for medical students in this direction by including branches of the subject which one might properly term Physiological Physics.

Every day sees some further advance in scientific medicine; the increasing use of electricity, ionic treatment, the x rays, Finsen rays, high frequency, radium rays, etc. The physiological changes in the body are largely chemical, and synthetic compounds are being increasingly used. Medicine is thus depending more and more on organic chemistry both for methods of diagnosis and treatment. The present courses in physics, chemistry, botany, and zoology are arranged for medical students, and this applied science cannot be taught to schoolboys during school life by teachers not connected with medical study.

What should be aimed at by those who care for the proper training of the student and the consequent status of the profession is a knowledge of scientific principles, especially in their application to physiology and medicine.

In our opinion, therefore, no graver mistake could be made than that the General Medical Council should agree to the relegation of those subjects wholly to the school period.

PETER BENNETT, Professor of Physics, Anderson's College, Glasgow.
FREDERICK D. BOWER, D.Sc., F.R.S., Professor of Botany, University, Glasgow.
T. W. DRINKWATER, F.R.S.E., F.I.C., Lecturer on Chemistry, Surgeons' Hall, Edinburgh.
J. COSSAR EWART, M.D., F.R.S., Professor of Zoology, University, Edinburgh.
PATRICK GEDDES, F.R.S.E., Professor of Botany, Dundee.
F. R. JAPP, LL.D., F.R.S., Professor of Chemistry, Aberdeen.
CARGILL G. KNOTT, D.Sc., F.R.S.E., Lecturer on Medical Physics, University, Edinburgh.
MALCOLM LAURIE, B.A., D.Sc., Lecturer on Biology, Surgeons' Hall, Edinburgh.
W. C. M'INTOSH, M.D., F.R.S., Professor of Zoology, St. Andrews.
J. ARTHUR THOMSON, M.A., Professor of Zoology, Aberdeen.
GEORGE BELL TODD, M.B., Professor of Zoology, Anderson's College, Glasgow.
DAWSON TURNER, B.A., M.D., F.R.S.E., Lecturer on Medical Physics, Edinburgh.
JAMES G. MACGREGOR, D.Sc., LL.D., Professor of Natural Philosophy, University, Edinburgh.
J. ROBERTSON WATSON, M.A., Professor of Chemistry, Anderson's College, Glasgow.
I. BAILEY BALFOUR, M.D., Professor of Botany, University, Edinburgh.
L. A. L. KING, M.A., Professor of Zoology, St. Mungo's College, Glasgow.

Dr. SAUNDBY moved:

That it be referred to the Education Committee.

He thought it would be most discourteous to take no notice of it.

Sir THOMAS FRASER seconded.

The PRESIDENT thought there were other points of view besides those Sir Henry Morris had put before the Council, and the Education Committee should have an opportunity of inquiring into the matter.

Dr. NORMAN WALKER endorsed the observations of Sir Henry Morris. He thought it should be made clear to the Council, as no doubt it was, that the memorial expressed only the opinion of the signatories.

The PRESIDENT put the motion and it was carried.

VOTE OF THANKS.

It was moved by Dr. NORMAN MOORE, seconded by SIR CHRISTOPHER NIXON, and resolved:

That the best thanks of the Council be given to the President for his able services in the chair during the present session.

The PRESIDENT expressed his thanks to the members of the Council, and the proceedings terminated.

DEATH OF KING EDWARD VII.

The following is the text of the address which the General Medical Council has presented to the King:

To the King's Most Excellent Majesty:

May it please Your Majesty:

We, the President and Members of the General Council of Medical Education and Registration of the United Kingdom, in regular Session assembled, desire humbly to express to Your Majesty our heartfelt sympathy in the great sorrow which has stricken the Royal House and all the subjects of the Crown through the lamented decease of His late Most Gracious Majesty King Edward.

Throughout his life Your Majesty's beloved Father manifested a wise and effectual interest in all that concerns the people's health. Under his Royal Leadership may civic ideals, cherished by the Profession of Medicine to which we have the honour to belong, were brought within reach of realization. His sympathetic insight enabled him to appreciate the remarkable advances in the treatment and prevention of disease by which his reign and that of his illustrious Mother, Queen Victoria, were signalized; while his generous nature impelled him to encourage all well-directed efforts that were made to apply these advances for the relief of suffering and the promotion of sound conditions of life among all classes of the population. Not by this nation alone, but by all men of goodwill in every land, his memory will be revered as that of a lover and maker of peace, and an enlightened patron of those arts and sciences whose progress is the fruit of peace and international concord.

We tender also to Your Majesty in all loyal duty the assurance of our devoted attachment to the Throne, and of our unfeigned satisfaction in Your Majesty's auspicious accession. We are thankfully conscious of Your Majesty's high resolve to emulate the Kingly example of our late Sovereign. And as a Council, we treasure the manifold tokens Your Majesty has already accorded to the nation and the profession of medicine of your zealous desire to further every agency that makes for the safeguarding of life and health among the millions over whom, by Divine Providence, Your Majesty is now called to rule.

That to Your Majesty and to our Gracious Queen there may be granted many happy and peaceful years, and ever widening opportunities of beneficent influence at home and abroad, is the prayer of Your Majesty's most faithful and loyal subjects, the President and Members of the General Medical Council.

(signed) DONALD MACALISTER, *President.*
CHARLES S. TOMES, *Senior Treasurer.*
HENRY MORRIS, *Junior Treasurer.*
H. E. ALLEN, *Registrar.*

SEAL.

24th May, 1910.

CENTRAL MIDWIVES BOARD.

A MEETING of the Central Midwives Board was held at Caxton House, Westminster, on May 26th, with Dr. F. H. CHAMPNEYS in the chair.

Death of King Edward VII.

The following resolutions were put from the chair and passed:

That this Board begs humbly to offer to His Majesty the King its deep sympathy in the grievous loss which he in common with the Empire has sustained by the death of His late Majesty King Edward VII; and to tender at the same time its loyal congratulations upon His Majesty's accession to the Throne, and the expression of its hope that His reign may be long, peaceful, and happy.

That this Board begs humbly to offer to Her Majesty the Queen Mother its heartfelt sympathy in the affliction which has befallen Her, and to assure Her Majesty that the efforts made by His late Majesty King Edward VII and Herself to alleviate the condition of the poor and suffering amongst their subjects will not be forgotten by those whose work has in its degree the same objects.

Admission to Board's Examination.

A letter was received from the Clerk of the Council as to the Board's resolution of April 21st, proposing to admit to the examination without requiring further training candidates holding qualifying certificates under Section 2 of the Midwives Act, 1902.

The Board decided that, in consequence of the opinion expressed by the Clerk of the Council as to the competence of the Board to pass the resolution referred to, no action be taken by the Board thereon.

Admission to the Roll of Midwives.

A letter was received from the Clerk of the London County Council stating that in the opinion of the Council there is no necessity within the County of London for admitting to the Midwives Roll any one who does not possess a certificate of training in midwifery.

A letter was read from the Bolton Midwives Association asking the Board not to admit to the Roll under Rule B 2 any one resident in Bolton unless qualified by examination.

Midwife Declining a Case.

A letter was received from a certified midwife inquiring as to her obligation to undertake a case for which she had been engaged, but to which she was not summoned until four hours after the baby had been born.

The Board decided that the midwife be informed that she has infringed no rule of the Board in declining to undertake a case under the circumstances.

Male Midwives.

The CHAIRMAN, having detailed the complaint made by Dr. H. Scurfield, Medical Officer of Health for the City of Sheffield, received by the Board on April 21st, as to the practice of unqualified male midwives, it was decided to make representations to the Privy Council as to the desirability of amending the law so as to prevent the practice of midwifery by unqualified men.

Alleged Irregularities in Training.

On consideration of further correspondence as to alleged irregularities in training at the Royal Derby and Derbyshire Nursing Institution, the Board decided that pupils from the Royal Derby and Derbyshire Nursing Institution who present schedules, duly filled up and signed by competent authority, may be admitted to the June examination of the Board, and that, if it is desired that pupils should continue to be trained at the Royal Derby and Derbyshire Nursing Institution, application must be made by the medical practitioner who delivers the lectures on the prescribed subjects for recognition as a teacher, and by the Chief Midwife for approval for the purpose of supervising the practical work.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN seventy-seven of the largest English towns 10,076 births and 4,142 deaths were registered during the week ending Saturday last, May 28th. The annual rate of mortality in these towns, which had been 13.1, 13 8, and 12.4 per 1,000 in the three preceding weeks, rose last week to 12.7 per 1,000. The rates in the several towns ranged from 5.1 in West Hartlepool, 5 5 in Walthamstow and in Ipswich, 7.0 in East Ham and in Leyton, and 7 3 in Aston Manor to 17.4 in Stockport, in Oldham, and in Swansea, 17.9 in Rochdale, 19.9 in Burton-on-Trent, 25.4 in Dewsbury, and 25.6 in Merthyr Tydfil. The death-rate from the principal infectious diseases averaged 1 3 per 1,000 in the seventy-seven large towns; in London the rate was equal to 1 2 per 1000, while among the seventy-six other large towns it ranged upwards to 3.0 in Blackburn, 3 3 in Oldham, 4 1 in Dewsbury, 4 7 in Burton-on-Trent, and 8 5 in Merthyr Tydfil. Measles caused a death-rate of 1.4 in Liverpool, 1.9 in Blackburn, 2 0 in Dewsbury, 3 8 in Burton-on-Trent, and 7.9 in Merthyr Tydfil; and whooping-cough of 1 3 in Birkenhead and in West Hartlepool, 1 5 in Manchester, 2.1 in Wallasey, and 2.9 in Oldham. The mortality from scarlet fever, from diphtheria, or from enteric fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The number of scarlet fever cases under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,506, 1,476, and 1,476 at the end of the three preceding weeks, had further declined to 1,445 at the end of the week under notice; 194 new cases were admitted during the week, against 179, 177, and 190 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday last, May 28th, 969 births and 506 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 15.6, 15.3, and 15.5 per 1,000 in the three preceding weeks, declined to 14.0 last week,

and was 1.3 per 1,000 above the mean rate during the same period in the seventy-seven large English towns Among these Scottish towns, the death-rates ranged from 9 3 in Aberdeen, and 9.8 in Perth, to 17 0 in in Greenock and 23 0 in Dundee. The death-rate from the principal infectious diseases averaged 1 7 per 1,000, the highest rates being recorded in Greenock and in Dundee The 250 deaths in Glasgow included 9 which were referred to measles, 2 to scarlet fever, 2 to diphtheria, 4 to whooping cough, 1 to enteric fever, and 7 to diarrhoea. Two deaths from measles were recorded in Edinburgh, and 19 deaths from measles, and 6 from diarrhoea in Dundee.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, May 28th, 727 births and 467 deaths were registered in the twenty-two principal urban districts of Ireland, as against 501 births and 431 deaths in the preceding period The annual death-rate in these districts, which had been 20.1, 21 3, and 19 5 per 1,000 in the three preceding weeks, rose to 21.1 per 1,000 in the week under notice, this figure being 8 4 per 1,000 higher than the mean annual death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 19 5 and 23 5 respectively, those in other districts ranging from 4 4 in Lurgan and 4.8 in Sligo to 29 5 in Kilkenny and 35.9 in Dundalk, while Cork stood at 26 7, Londonderry at 24.0, Limerick at 24.6, and Waterford at 21 4. The zymotic death-rate in the twenty two districts averaged 2.3 per 1,000, as against 2.7 per 1,000 in the preceding week.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

THE following qualified candidates have been appointed Surgeons in His Majesty's Fleet, with seniority of May 6th:—WILLIAM H. KING, FRANCIS C. ALTON, HORACE E. R. STEPHENS, M.B, DOUGLAS A. MITCHELL, JOHN S. WARD, CHARLES F O SANKEY, M B., DAVID HORGAN, M.B., ROBERT N. W. W BIDDULPH, ERNEST MACEWAN, DERMOT LOUGHLIN, MAURICE C MASON, MATTHEW F. CALDWELL, M.B., ARTHUR H. JOY, M B., ALEXANDER S PATERSON, ERNEST L. MARKHAM, M B. They are appointed to the *Victory*, additional, for a course of instruction at the Royal Naval Hospital, Haslar, May 31st, with the exception of Surgeon MASON, whose appointment is to date December 1st.

The following appointments have been made at the Admiralty:—Staff Surgeon H. W. B. SHEWELL, M.B , to the *Assistance*, May 24th; Surgeons G M. LEVICK and E. L. ATKINSON to the *President*, additional, for the British Antarctic Expedition, June 1st; Staff Surgeon G. S DAVIDGE to Gibraltar Hospital, May 26th; Surgeon C J SPRAGUE to the *St. George*, June 9th; Fleet Surgeon H. W. MACNAMARA and Surgeon C. J. O'CONNELL to the *King Alfred* on transfer of the flag, June 13th; Surgeon A W. IREDELL to the *Bulwark*, June 15th; Surgeon J. H McDOWALL, M.B., to the *Espiegle*, June 15th; Surgeon P D. MACI. CAMPBELL to the *Victory*, additional, for disposal, June 15th; Surgeons T. E BLUNT, L. WARREN, M.B., and J. M. GORDON, M.B., to Plymouth Hospital, June 15th.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

BATH: ROYAL MINERAL WATER HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

BETHLEM HOSPITAL.—Two Resident House-Physicians. Honorarium, £25 per quarter each.

BEVERLEY: EAST RIDING LUNATIC ASYLUM.—Second Assistant Medical Officer. Salary, £150 per annum.

BRISTOL EYE HOSPITAL.—House-Surgeon. Salary, £80 per annum.

CARDIFF INFIRMARY.—House-Surgeon for the Ophthalmic and Ear and Throat Departments. Honorarium, £30 for six months.

CHICHESTER: WEST SUSSEX, EAST HANTS, AND CHICHESTER INFIRMARY.—Secretary (male). Salary, £150 per annum and commission.

FOLKESTONE: VICTORIA HOSPITAL.—House-Surgeon. Salary, £100 per annum.

GLASGOW PARISH COUNCIL.—Resident Junior Male Assistant Medical Officer for the Eastern District Hospital. Salary, £100 per annum.

GLOUCESTERSHIRE ROYAL INFIRMARY AND EYE INSTITUTION.—Assistant House-Surgeon. Remuneration at the rate of £80 per annum.

GUILDFORD: ROYAL SURREY COUNTY HOSPITAL.—Assistant House-Surgeon. Salary, £50 per annum.

HULL ROYAL INFIRMARY.—Casualty House-Surgeon. Salary at the rate of £60 per annum for six months' appointment, and £80 per annum for twelve months.

LEICESTER INFIRMARY.—(1) Second House-Surgeon; (2) Assistant House Surgeon. Salary at the rate of £100 and £60 per annum respectively.

LINCOLN COUNTY HOSPITAL.—Senior Male House-Surgeon. Salary, £125 per annum.

LONDON THROAT HOSPITAL, Great Portland Street, W.—House-Surgeon; non-resident. Honorarium at the rate of £75 per annum.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Northwood.—House-Physician. Salary, £75 per annum.

NEW ZEALAND: WHANGAREI HOSPITAL.—Medical Superintendent. Salary, £450 per annum.

NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL, Hartshill.—Junior House-Surgeon. Salary at the rate of £50 per annum.

PLAISTOW: MEDICAL MISSION HOSPITAL.—Woman Assistant Doctor for Dispensary.

PORTSMOUTH BOROUGH.—Assistant Medical Officer for the Inspection of School Children. Salary, £250 per annum, rising to £300

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, E.—(1) House-Physician; (2) two House-Surgeons. Salary at the rate of £60 per annum each.

ROYAL EAR HOSPITAL, Soho.—Honorary Assistant Anaesthetist.

ROYAL WATERLOO HOSPITAL FOR CHILDREN AND WOMEN, S.E.—Junior Resident Medical Officer. Salary at the rate of £40 per annum

ST. MARK'S HOSPITAL FOR CANCER, FISTULA, ETC., City Road, E.C.—House-Surgeon. Salary, £80 per annum.

ST. THOMAS'S HOSPITAL, S.E.—Honorary Visiting Anaesthetist.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Junior House-Surgeon (male). Salary, £80 per annum.

SHEFFIELD ROYAL HOSPITAL.—(1) Assistant House-Surgeon; (2) Assistant House-Physician. Salary, £50 per annum each.

SOUTHWARK UNION INFIRMARY.—Assistant (male) Medical Officer. Salary, £80 per annum.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—House-Surgeon. Salary, £100 per annum, increasing to £110.

STOCKPORT INFIRMARY.—Junior House-Surgeon (male). Salary, £80 per annum.

TAUNTON: TAUNTON AND SOMERSET HOSPITAL.—Resident Assistant House-Surgeon. Salary at the rate of £50 per annum.

WEST BROMWICH DISTRICT HOSPITAL.—Assistant Resident House-Surgeon. Salary, £75 per annum.

WESTMINSTER HOSPITAL, S.W.—Honorary Director of the Bacterio-Therapy Department.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary, £80 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces vacancies at Cowes, co. Hants; and Hemel Hempstead, co. Herts.

APPOINTMENTS.

BENJAFIELD, J. D., M.R.C.S., L.R.C.P., House-Physician to University College Hospital.

BROWN, A. J , M.R.C.S., L.R.C.P., Resident Assistant Medical Officer of the Kensington Parish Infirmary.

COPE, V. Z., M.D., M.S., Surgical Registrar to St. Mary's Hospital, Paddington.

GRILLS, S. H., M.D., R.U.I., Medical Superintendent of the Cheste County Asylum.

LOVELL, C., M.B., B.S., House-Surgeon to University College Hospital.

O'MEARA, W. H., M R.C.P., L.R.C.S.Irel., Medical Referee under the Workmen's Compensation Act, 1906, for co. Carlow, vice J. V. Ryan, M B., resigned.

POLLARD, Reginald, M.B., D.P.H., M.R.C.S., Honorary Anaesthetist to the Metropolitan Throat and the Royal National Orthopaedic Hospitals.

THOMSON, W. W. Dalziel, B.A., M.B., B.Ch., B.A.O., Resident House-Physician to the Purdysburn Fever Hospital, Belfast.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

DICKSON.—At Hillcrest, Lochgelly, Fife, on May 26th, the wife of D. Elliot Dickson, M.D., F.R.C.S.Ed., of a son.

MCRAE.—At Glengall House, Ayr, on May 25th, the wife of G. Douglas McRae, M D., F.R.C.P.E., of a daughter.

DEATH.

BUCKLEY.—On May 30th, at Broadhurst, Bury Old Road, Manchester, Samuel Buckley, M.D., F.R.C.S., M.R.C.P., in his 64th year.

PUBLISHERS' ANNOUNCEMENTS.

MESSRS. BAILLIÈRE, TINDALL AND COX announce for immediate publication an English translation of Dieulafoy's well-known textbook of medicine (*Pathologie interne*) by V. E. Collins, M.D., and J. A. Liebmann, M.D.; "Diseases of the Ear," by Dr. A. A. Gray, containing numerous original illustrations, many of which are stereoscopic; an eighth edition of Sir William Whitla's "Pharmacy, Materia Medica, and Therapeutics"; "An Introduction to the Study of Hypnotism," by Dr. Hugh Wingfield; and "Nursery Hygiene." by Dr. M. Feldmann. In addition to these works the same firm hopes to publish during June several other important works, including "Accidents in their Medico-Legal Aspects," by Douglas Knocker, which will be an exhaustive work on the new Employers' Liability Act; "Medical Inspection of School Children," by Dr. E. M. Stevens, the result of his investigations in this country, Canada, Germany, and the United States as commissioner for Australia; "Syphilis and its Treatment," by Colonel F. J. Lambkin, R.A.M.C.; and a second edition of "Military Hygiene," by Colonel R. Caldwell, R.A.M.C.

DIARY FOR THE WEEK.

MONDAY.

KING'S COLLEGE PHYSIOLOGICAL LABORATORY, 4.30 p.m.—Lecture by Professor F. W. Mott, F.R.S.: The Relationship of the Brain to Voice.

TUESDAY.

ROYAL SOCIETY OF MEDICINE:

SURGICAL SECTION, The Medical School, University College, W.C., 5.30 p.m.—Discussion on the Present Position of the Treatment of Syphilis. To be opened by Mr. Ernest Lane and continued by Sir Jonathan Hutchinson and others.

WEDNESDAY.

ROYAL SOCIETY OF MEDICINE, Morley Hall, George Street, Hanover Square, W., 5 p.m.—Special Meeting. Continuation of the Discussion on Vaccine Therapy, its Administration, Value, and Limitations, by Dr. Arthur Latham and others.

THURSDAY.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 11, Chandos Street, Cavendish Square, W.—8 p.m., Card Exhibits, 8.30 p.m., Papers:—Mr. Ernest Clarke: Advanced Optic Atrophy following the Use of Soamin and Orsudan for the Treatment of Syphilis in Two Patients. Mr. N. Bishop Harman: Cataract Pedigrees. Mr. R. W. Doyne: Further Notes on Family Choroiditis, with Three Illustrative Cases.

ROYAL SOCIETY OF MEDICINE:

OBSTETRICAL AND GYNAECOLOGICAL SECTION, 15, Cavendish Square, W., 7.45 p.m.—Exhibition of Specimens. Paper: Sir William Japp Sinclair: The Prophylaxis and Treatment of the Slighter Ailments Resulting from Puerperal Sepsis.

FRIDAY.

ROYAL SOCIETY OF MEDICINE:

CLINICAL SECTION, 15, Cavendish Square, W., 8 p.m.—Annual Meeting and Election of Officers. Exhibition of Cases and Specimens.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Tuesday, at 3.45 p.m., Accessory Sinuses. Friday, at 3.45 p.m., Accessory Sinuses.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Wednesday, 4 p.m., Angina Pectoris.

LONDON SCHOOL OF CLINICAL MEDICINE. Seamen's Hospital, Greenwich.—Daily arrangements: Out patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat, at noon and 4 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Thursday, and noon, Friday; Eye, 11 a.m., Wednesday and Saturday; Radiography, 4 p.m. Thursday. Special Lectures: Tuesday, 2.15 p.m., Prophylactic Vaccination; Thursday, 4 p.m., Surgical Treatment of Empyema and Hydrocephalus in Children.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Eye. Lectures at 5.15 p.m. each day will be given as follow: Monday, *Post-partum* Haemorrhage; Tuesday, Some Points in the Treatment of Nervous Diseases; Wednesday, Pregnancy after Abdominal Operations; Thursday, On Deformities of the Face and Upper and Lower Jaws, due to Nasal Obstruction.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Nerve Anastomosis; Friday, 3.30 p.m., Treatment of Epilepsy; Wednesday and Friday, 5 p.m., Demonstrations on Surgery of the Nervous System.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics, 2.30 p.m., Medical Out-patient: Nose, Throat, and Ear. Tuesday, 10 a.m., Medical Out-patient Clinic; 2.30 p.m., Operations; Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In patient; 4.30 p.m., Demonstration of Selected Surgical Cases. Wednesday, 2.30 p.m., Medical Out-patient, Skin and Eye Clinics; *X* Rays; 4.30 p.m., Special Demonstration of Selected Eye Cases. Thursday, 2.30 p.m., Gynaecological Operations; Clinics: Medical Out-patient; Surgical Out-patient; 3 p.m., Medical In-patient. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Eye; 3 p.m., Medical In-patient; 4.30 p.m., Lecture, The Surgical Treatment of High Myopia.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
JUNE.	
6 MONDAY ..	LONDON: Naval and Military Committee, 2.30 p.m.
7 TUESDAY ..	LONDON: Organization Committee, 10.45 a.m. NORTHAMPTONSHIRE DIVISION, *South Midland Branch*, Annual Meeting, Board Room, Northampton General Hospital, 2.30 p.m.; Luncheon, Franklin's Restaurant, 1.30 p.m.
8 WEDNESDAY	LONDON: Central Ethical Committee, 10.30 a.m. LONDON: Medico-Political Committee, 2 p.m. LEICESTER AND RUTLAND DIVISION, *Midland Branch*, Special Meeting, Leicester Infirmary, 4.15 p.m.
9 THURSDAY ..	LONDON: Hospitals Committee, 2.30 p.m. ALTRINCHAM DIVISION, *Lancashire and Cheshire Branch* Committee Meeting, Dr. Gough's, 4.50 p.m. GLOUCESTERSHIRE BRANCH. Annual Meeting, Hospital, Stroud, 6.30 p.m.; Dinner, Imperial Hotel, Stroud, 7.45 p.m. SOUTH WALES AND MONMOUTHSHIRE BRANCH, Annual Meeting, Newport (Mon.).
10 FRIDAY ..	EDINBURGH BRANCH, Annual Meeting, Hall of the Royal College of Surgeons, 4 p.m.; Dinner, Royal British Hotel, Princes Street, 6.30 p.m. MONMOUTHSHIRE DIVISION, *South Wales and Monmouthshire Branch* Special Meeting, Newport and Monmouthshire Hospital. SCOTTISH DIVISION, *Border Counties Branch*, Annual Meeting, Dumfries and Galloway Royal Infirmary, 3 p.m.

Date.	Meetings to be Held.
JUNE *(continued)*.	
11 SATURDAY ..	LONDON: Science Committee, 12 noon.
12 Sunday ..	
13 MONDAY ..	LONDON: Colonial Committee, 2.45 p.m. SOUTH-EASTERN COUNTIES DIVISION, *Edinburgh Branch*, Railway Hotel, St. Boswells, 3.30 p.m.
14 TUESDAY ..	LONDON: Public Health Committee, 3 p.m. WARRINGTON DIVISION, *Lancashire and Cheshire Branch*, Infirmary, Warrington, 4.30 p.m.
15 WEDNESDAY	CENTRAL DIVISION, *Birmingham Branch* Annual Meeting, Medical Institute, 3.30 p.m. HEREFORD DIVISION, *Worcestershire and Herefordshire Branch*, Hereford General Hospital, 3.15 p.m. LANCASHIRE AND CHESHIRE BRANCH, Annual Meeting, Burnley. SOUTH EASTERN BRANCH, Annual Meeting, Albany Hotel, Hastings, 2.15 p.m; Luncheon, 1 to 2 p.m.; Dinner, 6.30 p.m. SOUTH EASTERN OF IRELAND BRANCH, Meeting of Branch, also meeting of Branch Council and Local Division, Council Chamber, Clonmel, 12 noon.
16 THURSDAY ..	EAST ANGLIAN BRANCH, Annual Meeting Thetford. EAST YORK AND NORTH LINCOLN BRANCH, Annual Meeting, Royal Infirmary, Hull, 12.30 p.m. SOUTH MIDLAND BRANCH, County Hospital Bedford; Luncheon preceding Meeting. FIFE BRANCH, Annual Meeting, Hotel, Thornton 3 p.m. SOUTH CARNARVON AND MERIONETH DIVISION, *North Wales Branch*, Annual Meeting, Golden Lion Hotel, Dolgelly, 2 p.m.

Printed and Published by the British Medical Association at their Offices, No. 429, Strand, in the Parish of St. Martin-in-the-Fields in the County of Middlesex

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JUNE 11TH, 1910.

CONTENTS.

	PAGE
Notice of Extraordinary General Meetings	376
Meetings of Branches and Divisions:	
Connaught Branch	361
Dorset and West Hants Branch	361
Lancashire and Cheshire Branch: Altrincham Division ...	366
,, ,, ,, ,, Blackpool Division... ...	367
,, ,, ,, ,, Bury Division	368
,, ,, ,, ,, Manchester South Division ...	368
Metropolitan Counties Branch: St. Pancras and Islington Division	371
Metropolitan Counties Branch: Walthamstow Division ...	371
METROPOLITAN COUNTIES BRANCH	372
MIDLAND AND EAST YORK AND NORTH LINCOLN BRANCHES	372
The Seventy-eighth Annual Meeting of the British Medical Association.—THE SECTIONS	373
NAVAL AND MILITARY APPOINTMENTS	378
VITAL STATISTICS	378
VACANCIES AND APPOINTMENTS	379
BIRTHS, MARRIAGES, AND DEATHS	379
RECENT PUBLICATIONS	379
DIARY FOR THE WEEK	380
CALENDAR	380

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

CONNAUGHT BRANCH.

THE annual general meeting of the Connaught Branch was held at 1 p.m. on Wednesday, June 16th, 1909, at Ryan's Hotel, Claremorris, Dr. JOSEPH MACDONNELL, of Roscommon, in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read, confirmed, and signed.

Apologies for Non-attendance.—Apologies for non-attendance were read from D. Crowley (Loughrea), R. J. Kinkead (Galway), P. C. Gorham (Clifden), R. J. Martin (Sligo), W. Hamilton (Boyle), J. A. Hanrahan (Hollymount), T. B. Costello (Tuam), W. Rutherford (Ballinasloe), P. J. Quinlan (Athenry), T. J. Rossiter (Ballinasloe), and E. Mulligan (Foxford).

Next Meeting.—It was agreed, on a suggestion from Dr. MULLIGAN, that the next meeting should be held on a Tuesday in May or June.

Election of Officers.—The following officers were elected unanimously: *President*, Joseph MacDonnell; *President-elect*, P. J. Flanagan; *Honorary Secretary*, John Mills; *Representative to Representative Meeting*, T. B. Costello; *Representatives on Irish Committee*, R. B. Mahon, John Mills; *Executive Committee*, C. L. Birmingham, J. Carroll, T. B. Costello, J. A. Hanrahan, R. W. Kelly, R. J. Kinkead, Joseph MacDonnell, R. B. Mahon, R. J. Martyn, John Mills.

Proposed Amalgamation with the South-Eastern of Ireland Branch.—The Branch approved of the proposed amalgamation with the South-Eastern of Ireland Branch as an unit for the election of one member of Council.

Agenda of Annual General Meeting.—The agenda paper of the annual general meeting was considered. The Representative was instructed to support the motion in favour of securing remuneration for members of the profession who delivered lectures to associations on public health and kindred subjects.

Statement of Accounts.—The statement of accounts was submitted and adopted, showing a balance of £2 10s. in the hands of the Honorary Secretary and Treasurer.

Rules.—It was agreed that the rules as adopted should be printed and issued to members when approved by the Ethical and Organization Committees.

DORSET AND WEST HANTS BRANCH.

THE annual meeting of this Branch was held in the Hotel Mont Doré, Bournemouth, on Wednesday, May 18th, at 3.30 p.m. Dr. CHARLES J. MARSH, President, of Yeovil, was in the Chair. Among those present were Dr. J. A. Hosker, J.P., etc. (immediate Past-President), Dr. T. Fred. Gardner (President Elect), Dr. E. Kaye Le Fleming and Mr. W. Burrough Cosens (Vice-Presidents), Dr. James Davison (Honorary Secretary), Dr. W. Johnson Smyth, Dr. Blake, Dr. Frank Fowler, Dr. Eleanor Bond, Dr. Purkiss, Dr. Alexander, Dr. Fiske, Dr. Humphry Davy, Dr. Hopkins, Dr. Ross, Dr. Whittingdale, Dr. Hardie, Dr. Saberton, Dr. Clift, Dr. Ramsay, Dr. Mary Jeremy, Dr. Hyla Greves, Dr. Vincent Milner, Dr. Dixon, Dr. Spooner, Mr. Crespi, Mr. Yearsley, Mr. Carrington, Mr. Wood, Mr. Curme, Mr. McCarthy, Mr. Unwin, Mr. Newbold, Mr. Bushman, Mr. Parkinson, Mr. De Castro, Mr. Mahomed, Mr. Midelton, and Mr. Rea-Corbet.

The Death of King Edward.—Before commencing the business of the meeting the PRESIDENT touchingly alluded to the sad circumstances under which the Branch that day met, owing to the death of the King, and proposed the following resolution, which was adopted by the members standing, and in solemn silence:

> That this meeting of the Dorset and West Hants Branch of British Medical Association desires to record with most profound sorrow its sense of the irreparable loss which the nation as a whole and the medical profession in particular have sustained by the sudden and unexpected death of His Most Gracious Majesty King Edward the Seventh. It also desires to place on record its expression of sincere and respectful sympathy with His Majesty King George the Fifth, the Queen-Mother, and the whole of the Royal Family in their affliction and sad bereavement, and an assurance of continued loyalty and devotion to His Majesty's Throne and Person.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Apologies for Non-attendance.—Letters of apology for non-attendance were read from Surgeon-General Bainbridge, Mr. G. J. W. Flower, Mr. Bernard Scott, and Dr. P. W. Macdonald.

Financial Statement.—The Honorary Treasurer presented his financial statement for 1909.

Reports from the Divisions.—Reports from the Divisions for 1909 were read.

Report of Council.—The Honorary Secretary presented the report of the Council for 1909. With regard to a minute of Council adopted at a Council meeting in Sherborne on October 20th, 1909, as follows:

> That the Council do not wish to proceed further in opposition to the granting of a Royal Charter to the British Medical Association owing to the substantial concessions made by the Representative Meeting at Belfast to the dissentients—concessions which the Council consider amicably and fairly meet the points raised by the confederates.

Mr. C. H. Watts Parkinson disagreed, and moved that a vote on the subject should be taken at this meeting of the Branch. The matter was then put from the chair and carried in favour of the course adopted by the Council by a large majority. Mr. Parkinson desired his protest to be entered on the minutes.

Grouping of Branches for Election to Central Council.—Much dissatisfaction was expressed at the grouping of Branches adopted by the Council of the Association for the election of Representatives on the Central Council. For this purpose it was pointed out that this Branch, with 218 members, had been grouped with the South-Western Branch, consisting of 457 members, thus completely, and for all practical purposes, disfranchising the Dorset and West Hants Branch. Surely such manifestly unfair grouping can hardly be looked upon as permanent in character.

Installation of New President.—The President now vacated the chair, and in some well-chosen sentences introduced his successor. T. Fred. Gardner, M.D., M.R.C.P.Lond., Physician Royal Boscombe and West Hants Hospital.

Vote of Thanks to Retiring President.—The President moved that a cordial vote of thanks be given to Mr. Charles J. Marsh for the excellent and efficient way in which he had conducted the affairs of the Branch during the past year. This was carried by acclamation. Mr. Marsh replied.

Summer Meeting.—On the motion of Dr. Whittingdale, seconded by Mr. W. Burrough Cosens, it was resolved to hold the summer meeting in Weymouth.

Alteration of Rule.—On the motion of Mr. Hosker, seconded by Dr. Hyla Greves, it was unanimously decided that Rule IV should be altered as follows—namely, that the words "immediate Past President" be added after the words "President-Elect."

Proposed Rearrangement of Branches.—Mr. C. H. Watts Parkinson moved and Dr. Spooner seconded:

> That inasmuch as the extensive areas of the existing Divisions and the defective train service make it very difficult for many members to attend the Divisional meetings, the Branch Council be instructed to rearrange the Branch in three Divisions, at least, having regard to the train service and the convenience of members.

The resolution, on being put to the meeting, was declared lost.

The Association and Old Age Pensions.—Dr. Blake read the following note: "As far back as February, 1908, I wrote and questioned the Editor of the British Medical Journal as to the desirability of the Association setting on foot some scheme to procure 'old age pensions' for its members. I received a reply advising me, in the first instance, to bring the matter before the Branch of the Association to which I belong; but on reconsideration, seeing that the great outlay of providing new buildings for the Association was taxing it at that time, I thought it best to wait a while. As that was more than two years ago, I now take this opportunity of raising the question again and taking the Editor's advice of first putting the matter before you. I wish you to discuss it among yourselves and consider it—especially the younger men, who naturally fall into the error of thinking that their best time for making headway in a monetary point of view will be when they arrive at a mature age and have experience to help them. That is right, in a way; but many medical men, from various causes, often from physical breakdown, fail to reach the goal and provide for themselves sufficiently to give them a rest and the necessaries of life in old age. These, by having contributed to a pension fund, would find the annuity a boon; other contributors, who may not need the pension, would be doing a friendly and brotherly deed to those less fortunate than themselves among their fellow members of the Association. The total yearly income of the Association from the annual subscriptions of its members and the advertisements in its Journal together must be very large, and one may hope that something from the enormous income may be set aside annually as a nucleus for a pension fund for those members only of the British Medical Association who supplement this nucleus by addition to their annual subscriptions—such an annual amount as the Council may be advised by an actuary would allow a pension to be granted after a certain number of years' membership." It was resolved:

> That the Honorary Secretary of the Dorset and West Hants Branch of the British Medical Association be asked to inquire if the General Council will endeavour to produce a scheme in the near future to enable the Association to grant old age pensions to their members; and also that Dr. Blake's paper and this resolution be forwarded to the Editor of the British Medical Journal for publication in the next issue of the Journal.

President's Address.

Dr. Gardner delivered his presidential address, which he entitled, "Lest We Forget." The following is the text of the address:

It has occurred to me that an interesting subject for a presidential address, such as it is my duty to deliver to you to-day, might be found in a comparison between the state of medicine and surgery as it was introduced to me as a first year's medical student, and the position occupied by these two sciences at the present day. This covers a period of just over thirty years, and as one looks back one is astonished at the progress made in both sciences, at the work which has been accomplished by still living pioneers of whom I shall have more to say presently, and of the immense strides taken both in surgery and medicine through the accurate scientific observation of men trained, as you and I have been, in the art of medicine and surgery, to the assuaging of suffering, the saving and lengthening of life, the better preservation in health of the community, and the greater accuracy in diagnostic and prognostic and therapeutical and surgical acumen which distinguishes this age from the generation which immediately preceded it. I want to give you as vividly as I can a picture of the conditions which existed in 1879, and compare them with those existing in 1910. I want to ask myself and to ask you, Should we not set an example to the public, and ourselves, as physicians and surgeons, honour men who have contributed so much to the added store of learning we now possess? and I want to ask you, as I ask myself, Is it not our duty to try to follow as far as we can in the footsteps of these men; is it not our duty to safeguard the processes by which such great results have been attained; and if we can do no more is it not incumbent upon us—the mere rank and file of the medical army it may be—to keep open and safeguard from interruption and destruction those lines of communication which as scientific men we know to be necessary, along which great stores of knowledge have come in the past and along which we firmly believe even greater stores are to proceed in the near and far future? The study of our art tends doubtless to a materialism which has its dangers as well as its triumphs. In the dissecting room we are trained to observe material, we are conversant with dead matter, and throughout our early medical training we are for ever and always in touch with physiological and pathological changes which keep strictly within the frontiers of materialism. Even when we venture in more advanced days to the study of psychological medicine, we are still "cribbed, cabined, and confined" to the physiological and pathological phenomena presented by that subtle and hard to be understood entity—the mind of man—and we

are apt, because of our earlier training, to regard its phenomena wholly as emanations of a material substance, its pathology to be explained by the action on healthy physiological tissue of the toxins generated by unhealthy metabolism, on the generation of microscopic but very material bacilli, and the sclerotic or degenerative action of senile changes, which again are merely material since they form the common sequence to the life-history of every one of us. This materialistic phase of mind begets in us a strange apathy to the claims which all observers, however non-altruistic they may be, have upon our gratitude and respect. It may be true that the scientific man may be the victim of a monomania of curiosity; he may have merely the ambition of a seeker for the sake of fame; he may have the true scientific spirit, the desire to wrest from Nature her secret; and he may have no interest beyond the fact that he wishes to *know*. Whatever the motive, the *fact* that he is able to prove that fact, unknown previously to his fellows, but revealed by him and his researches, makes us his debtors; and when, as in the case of medicine, not only does he benefit his fellow-creatures by his discovery, but enables us, his fellow-workers, to go on to other unconquered fields—to be the conquerers *in posse* and *in esse*—then, should we not pay the debt we owe by a frank acknowledgement of the source from which we derive our fresh knowledge, and honour the name and memory of those who have enabled us thus to wage war against death and disease? No mere materialism should deter us from awarding the just meed of praise. No trouble ought we to spare to uphold their names and their honour who thus have waged the scientific battle.

Permit me, then, to take you back in thought to the conditions obtaining in medicine and surgery in 1879. In medicine, Wilson Fox had just completed a colossal work on the pathology of tubercle, with its references to strumous or scrofulous diathesis and grey and yellow tubercles, soon to be relegated to the waste-paper basket by the discovery of the tubercle bacillus by Koch in 1882, and all that discovery implied to pathology and the art of medicine. In surgery the dawn of antiseptic surgery was just apparent, eminent surgeons still discussed the propriety of applying linseed poultices to suppurating wounds, and a grudging acquiescence was being given to the necessities at operations of a carbolic spray, and a new gauze was being invented every week. Catheters were still taken out of an open and somewhat dusty box and passed without ado, or with a little oil taken from a not too clean vessel, down the unsuspecting urethra, and often till then, but not afterwards, to the uninflamed and healthy bladder. Operations on the abdomen involving interference with the peritoneum were looked at askance. Brain surgery and spinal cord surgery, appendicitis, and gastro-enterostomies were yet to be. In medicine, bacteriology was practically unknown. Lister had caused people to talk about germs and their wickedness, but there was but little known about them, and what was known was as foggy as the steam which proceeded from the carbolic spray producer, and you were an up-to-date surgeon if you utilized that knowledge and that instrument of ensured atmospheric cleanliness at all your operations. The battle of allopathy and homoeopathy was raging, and the publication of Ringer's *Handbook of Therapeutics* just previous to this time had produced a lively discussion, protagonists of both paths claiming Ringer for their own party. Strophanthus had not yet been given to us, buckthorn juice was discredited as grandmotherly, its modern form, "cascara sagrada," had yet to come. Fevers were treated with liquor ammonii acetatis and spirit of nitrous ether or with drop doses of aconite tincture at frequent intervals, according to whether your views were old-fashioned or up to date. Bleeding had gone out of fashion; the seton and cupping were talked of as antiquities; electrical treatment meant turning the handle of a magneto-dynamic machine and giving the patient a "shock."

Need I paint the contrasting picture as it is to-day? I think not, because you are all capable of doing so for yourselves, but the point I wish to press home upon you is, What has made the contrast—what workers and what line of work has conduced mostly to our improved knowledge, our improved methods, and our improved position as men working on scientific lines? I think there can be but one answer to this question. Research, and especially that particular form of research which necessitates experiments on animals. Take out of our present knowledge what has come to it by these methods of research and we are at once back in the old empirical days. Think what it would mean to us had there been no Pasteur, no Koch, no Lister, no Ferrier, no Hughlings Jackson, no Victor Horsley, no Burdon-Sanderson, no Schäfer, no Wilks, no Ronald Ross, no Patrick Manson, no Starling, no Almroth Wright, no Röntgen, no M. and Mme. Curie, no Haffkine. I have mentioned but a few, but all have contributed their share to the sum of medical knowledge, and the lives they have saved, and the suffering and anguish they have prevented no man can tell the sum of; nor can any comparison be drawn between the good, the incalculable good, that has been done to the human race by these pioneers of research, and the questionable good accomplished by their detractors in the various antivivisection societies.

In casting one's mind back over the last thirty years one is struck by the immense advance in practical interest, and even in accurate knowledge possessed by the fascinating study of mind. Psychology has its heroes of research as much as any other branch of medicine—not always men belonging to our own branch of science, but men of whom we may feel as proud as we do of the pioneers of our own special branches of medicine and surgery. Owing to the researches of men like F. W. H. Myers, Dr. Hodgson, Professor Sidgwick, Professor Crookes, and Sir Oliver Lodge, fascinating scientific vistas of new territory are slowly, gradually, but accurately and positively being unfolded to our gaze. Our patients are no longer merely material entities exhibiting puzzling phenomena, the bizarre results of pathological action, autointoxication, or perverse hysterical obsessions. They are psychical personalities possessed of capability of answering to suggestion and hypnotism, and with attributes of mind and power of mind over those bodies little suspected when Mesmer talked of fluid magnetism, and spiritual phenomena were the sole possession of charlatans and quacks, quick to trade on the susceptibilities of a gullible public. Milne Bramwell, Lloyd Tuckey, Charcot, Richet, Lombroso, Liebault, Mercier, Bernheim, are names which will go down to posterity as the pioneers of a movement to study these phenomena from a scientific standpoint and rescue the wheat of psychological therapeutics from the chaff and humbug of Christian Science and spiritualistic knavery. We are face to face to-day with a growing disbelief in the efficacy of our profession. The army of Christian Science grows rapidly year by year, and it behoves us to study that growth and ask ourselves its meaning. I think as a profession we have been absurdly conservative and suspicious of psychological phenomena. A man has only to express his belief that there is something behind occult phenomena, that hypnotism has its uses, that suggestion may be used legitimately, to be looked at askance by his fellow-practitioners and labelled a crank or dangerous. Meanwhile the public who read glowing advertisements of So-and-So's pills are cured by the aloes and soap contained therein, when the same ingredients prescribed by the duly registered and qualified practitioner fail to effect the slightest improvement. The neurotic *malade imaginaire* who has consulted the wisest and best of us becomes a Christian Scientist, a new woman, and an energetic propagator of the new faith all on the same day or week in which the necessary psychological stimulus has been given. The hopeless morphinomaniac or dipsomaniac is hypnotized and becomes a reformed character, when all our prescriptions and inebriate-home treatment have utterly failed, and yet we stand hesitating to inquire how these things are done. All honour to the men who have shaken off this *non*

possumus attitude and launched boldly out into the sea of psychological research and are separating the false from the true, the sincere from the humbug, the actual from the charlatanry of this potent aid to ordinary therapeutical science. Instead of the shrugged shoulder and uplifted eyebrow, we ought every one of us to be contributing our rich stores of experience gathered by every one of us day by day, and adding our quota of scientific certitude to these uncertain phenomena. The Christian Scientist, the advertising quack, the charlatan with his secret remedy, have hold of a truth which we are neglecting; and from very mixed motives, not always so honourable to ourselves as we are wont to think and say, we are refusing to face certain facts and unsettling phenomena because, forsooth, they are not orthodox or because the Royal College of Physicians frowns on the crusade, yet that same college has just listened to a Harveian oration by Savage on hypnotism which should give pause to the fossilized conservatism of the older therapeutic school and shake to their foundations the old dry-as-dust ruins of the blue pill and black draught school of therapeutists. The victories for medicine in the future will be largely gained on the psychological plane, and we, who ought to be pioneers in this work, are leaving vast territories of scientific work of immense value to us in our daily practice to the Psychical Research Society, and damning, not even with faint praise but with public and private opprobrium, those of our number who dare to shake from their wrists the gyves and fetters of an "orthodox" therapy and wish to test the truth of psychological science for ourselves and for the good of humanity. Mind does influence matter, and matter influences mind. The study of these actions and interactions, their scope and relationship to scientific treatment, is ripe for investigation. Who so capable of doing this as we medical men, trained in scientific schools and in scientific methods, aware by our daily experience of the pitfalls which beset the ordinary layman who dabbles in professional matters, and most unlikely, therefore, to consider as proved any phenomena which will not stand the strictest and most varied of scientific tests. Untrammelled by any preconceived dogma as is the theologian, we medical men are, in my estimation, *facile princeps* as investigators in this *terra incognita* of the psychology of medicine, its limitations, and its scope, and to leave these matters in the hands of faith-healers, disciples of Mrs. Eddy, or the latest cult of fashionable neurotic women, is paltering with a large realm of unknown and uncharted medical knowledge full of danger to the community at large but big with beneficent possibility to ourselves as doctors, to our fellows as patients, and to the whole race, if we would approach the matter from the single-eyed standpoint of science which should animate every one of us—a desire to know the truth and establish it in the light of science for the good of humanity and the better practice of our art of scientific healing.

Botany, chemistry, bacteriology, climatology, balneology, electricity, have each and all added marvellously to our therapeutic armoury. In botany some useful drugs have been discovered during the past thirty years, among which I think I may give the first place to strophanthus.

Chemistry has given us the tar derivatives innumerable, with long formulae, perplexing multiplicity of names, and a common action of relieving pain, lowering temperature, and depressing the heart, still valuable when cautiously and intelligently used, and of undoubted use in many cases. Solid carbonic dioxide is one of the most recent additions to our armamentarium. The salicylates were ushered in before the commencement of the period I have fixed as the opening period of this dissertation, but their dosage, their impurities, their refinements—as in the up-to-date aspirin—have greatly enlarged the scope of their usefulness, and their excellencies and drawbacks are now as familiar as household words.

Climatology has not advanced very much perhaps, but its sister science, meteorology, has enabled us to predicate with greater scientific accuracy than before the greater or lesser variation in climatic conditions, while if the researches of our distinguished townsman and member of this Branch—Mahomed—be carried to full fruition it is possible that the varying electrical conditions of the atmosphere as pointed out and measured by his ingenious apparatus may afford us valuable help in gauging yet another climatological factor of importance. Balneology has made great strides, and in the various spas, more especially at Bath, Harrogate, Llandrindod Wells, Strathpeffer, Buxton, and Woodhall Spa, we have bath establishments and an installation of hydropathic and electrical and balneological apparatus which will go far to remove the stigma of neglect which somewhat deservedly appertained to our British spas when compared with those on the Continent. Electricity has in this conjunction made immense strides, and whether it is applied with hydropathy or alone in the form of static or high-frequency currents, the conditions which govern its use and also those regulating its therapeutic value are now infinitely more scientifically understood and appraised than they were in 1879. Electricity leads me on to speak of *x* rays and the wonderful advance they have made in the treatment of such diseases as ringworm, rodent ulcer, and malignant disease. The conditions regulating the intensity of the rays, their due restriction to certain areas and certain depth of tissue, are all the result of recent research and painstaking labour. Radium, too, is a discovery within this period, and promises when more is available for experiment to outdo even *x* rays in its curative action on some of the malignant diseases with which mankind is afflicted. Organo-therapy has its triumphs as well to record. Born, one may say, from the researches with thyroid gland in the relief of myxoedema, the importance of the glands producing an internal secretion—for example, the thyroid, thymus, suprarenal, pituitary body, ovaries and testicles—is slowly making way, and investigation of the properties and therapeutic value of organic products administered as thyroid gland in myxoedema—or thyroidectin or rodagen in exophthalmic goître—is now proceeding; we have now definitely passed the experimental stage and become possessed of facts of very vital importance likely to lead to many other successes as striking as the cure of myxoedema by administration of thyroid, and *that* cure I would like to point out to the unbelievers in drugs and the general uselessness of all therapeutic measures is a fact which admits of no dispute. But I have left to the last the most important, as it has been the most prolific, of our advances in medicine—the science of bacteriology with all that branch of study includes in the localization and life-history of micro-organisms, the formation of antitoxins, the action of phagocytosis, the significance of leucocytosis, and the occurrence of agglutination as in Widal's reaction. It is in this branch of our art that the most astonishing and the most beneficent advances have occurred, and all within the last thirty years.

Bear with me while I take in detail some of the advances made in this branch of the science of our art during this fateful period. Koch is at work in Berlin and in 1882 demonstrates the presence of the tubercle bacillus. I have mentioned the knowledge of tubercle possessed by us in 1879, when the results of experiments by Cohnheim, Villemin, Chauveau, Wilson Fox, and others, had proved the inoculability of tubercle, the possibility of infection by the ingestion of tuberculous food—but what an advance was the discovery of the bacillus itself! As Koch himself said in his first published account of it:

> Henceforth in our warfare against this fearful scourge of our race we have to reckon not with a nameless something but with a definite parasite whose conditions of life are for the most part already known and can be further studied. Before all things we must shut off the sources of the infection so far as it is in the power of man to do this.

What benefits to humanity have flowed from this epoch-making discovery! The death-rate of phthisis in England has fallen during the last twenty-five years 50 per cent.

Permit me to quote words on this subject from one

who has done yeoman service in defending research—Mr. Stephen Paget. He says:

It has given to everybody a more reasonable and hopeful view of phthisis and the diseases allied to it. The older doctrine of heredity—that the child inherits the disease itself—has given way to the doctrine that the inheritance in the vast majority of cases is not that of the disease itself but that of a tendency or increased susceptibility to the disease.

It has brought about an immense improvement in the early and accurate diagnosis of the disease. In all cases the bacillus found in the sputa or the discharges or in a particle of tissue is evidence that the case is tuberculous.

It has given evidence, which till 1901 was hardly called in question, that tabes mesenterica—a tuberculous disease which kills thousands of children every year—is due in many cases to infection from the milk of tuberculous cows. In England alone in 1895 the number of children who died of this disease was 7,389, of whom 3,855 were under 1 year old.

It has proved and taught everybody to see the proof that the sputa of phthisical patients are the chief cause of the dissemination of the disease. By insisting on this fact it has profoundly influenced the nursing and the home care of phthisical patients, and it has begun to influence public opinion in favour of some sort of notification of the disease, and in favour of enforcing a law against spitting in public places and conveyances. It has also greatly helped to bring about the present rigorous control of the milk and meat trades. It has also facilitated the reasonableness of disinfection of rooms occupied by phthisical patients.

Tuberculin has come into general use for the detection of tuberculosis in cattle to shut off the sources of the infection.

More recently the discovery of the opsonic index and its use by Sir Almroth Wright and others has given a great impetus to the observation and treatment of cases of tuberculosis, while the administration of the new graduated and attenuated tuberculins give promise of results undreamed of thirty years ago. It is a far cry from the present method—scientific, accurate, and measurable—back to Villemin's rabbits. Every inch of the way, from 1881 onwards, the pathological study of every form of tuberculosis, medical or surgical, human or bovine, has been dependent on bacteriology—that is to say, to experiment on animals.

Then take diphtheria. The bacillus, the Klebs-Loeffler, was first described by Klebs in 1875, and was first obtained in pure culture by Loeffler in 1884. In 1890 Baring and Kitasato made this epoch-making announcement:

Our researches on diphtheria and tetanus have led us to the question of immunity and cure of these two diseases, and we succeeded in curing infected animals and in immunizing healthy animals so that they have become incapable of contracting diphtheria or tetanus.

In 1893 the first results of treatment with antitoxin were published, and who can resist a glow of pride at the enormous difference existing in the results of our treatment in the pre-antitoxin days and those of to-day? I do not want to weary you with statistics, but I should like to quote a report of the Metropolitan Asylums Board to contrast with our old methods and their results. In 1,482 patients who had antitoxin injected within forty-eight hours of the onset of the disease the mortality was 2¼ per cent. In 1,278 patients who did not get the antitoxin till the third day the mortality was 11¾ per cent. That is the result of one day's delay in administering antitoxin; but how splendidly this compares with the mortality of 50 or even 60 per cent. of pre-antitoxin days! And then we have to add the use of antitoxin prophylactically, and who shall estimate the number of lives thus saved? And it is not only lives saved but suffering averted. As Dr. Richet finely says in his work, *The Pros and Cons of Vivisection*:

A hundred weeping mothers, a hundred unfortunate children with gaping throats, suffocating, gasping, the death rattle at hand, that is what these sensitive souls—the antivivisectors—declare is nothing beside one rabbit which has had to receive a little blood of a dog into its abdomen. These philanthropists are creatures of a fixed idea. Let humanity suffer, weep and die. What does that matter provided that their fixed idea driven right up to the hilt of delirium, triumphs? After all, if they persist in believing that the faint and uncertain suffering of a sick rabbit is not worth the certain and excruciating suffering of a thousand human creatures I can say but one thing: I pity them from the very bottom of my heart.

Before bacteriology the cause of tetanus was unknown; thanks to Sternberg in 1880, Carle and Rattone in 1884, and Nicolaier in 1884, the fact that the disease was caused by a specific flagellate organism was established. The main credit is due to Nicolaier, who made experiments on rabbits by inoculating garden mould under the skin and thus produced tetanus, and the discharge from the points of inoculation put under the skin of other rabbits produced the disease again. In 1894 came the use of an antitoxin, and in 1895 42 cases were reported with 27 recoveries.

Pasteur's study of rabies began in 1880, and the date of the first case treated was July, 1885. In 1897 1,521 patients received inoculation treatment at the Pasteur Institute; 8 died of rabies (in two death occurred before it was possible for the vaccinations to produce their effect). This gives a mortality of 0.39 per cent. Compare the results of treatment of rabies in 1879, when nothing but a horrible and painful death awaited the unhappy sufferer from this terribly fatal disease.

Cholera.—Koch's discovery of the comma bacillus in 1883 raised a thousand questions that were solved only by infinite patience, international unity for science, and incessant research, and the Hamburg epidemic in 1892 marks the time when the comma bacillus was at last recognized as the cause of cholera. A mere list of the men who did the work would fill page after page. It was bacteriology *in excelsis*, often dangerous and always laborious. There is the same heroic note in the story of the preventive treatment of cholera by Haffkine's method, one of the men in whom Pasteur seems to live again. He began in 1889, under Pasteur's guidance, to study the immunization of animals against the cholera bacillus. I quote from the report of the Superintendent of Emigration, which shows the number of cases among the inoculated and the non-inoculated at Goalundo. Out of 1,527 non-inoculated coolies 33, or 2.09 per cent., got cholera, whereas of 873 inoculated coolies only 2, or 0.2 per cent., were attacked by the disease. Nor is this the only beneficial result. There is the use of the discovery of the bacillus in diagnosis, so that cases of suspected cholera may be quarantined before the risks of infection becomes possible.

So I might go on, and show you how plague has been reduced, enteric fever, Malta fever, malaria, yellow fever, myxoedema, the effects of snake venom, and sleeping sickness have been robbed of some, if not all, of their terrors, and the knowledge has come directly and indirectly from research made by experiments with animals and on animals, to the lasting benefit in untold measure to the human race, the lessening of disease, and the amelioration of suffering.

And who are the opponents of this system, and the loud-tongued publicists who cry from the housetops that research is worthless, who in public meetings greet the great name of Lister with cries of "Brute!" and who, when told of inoculation experiments on guinea-pigs and rabbits cry "Shame!" and return home perchance to give themselves a hypodermic of morphine?

What are the heroic deeds of the Honourable Stephen Coleridge recorded in English history, and what benefit has he conferred on suffering humanity that his name should be breathed in the same breath with Lister, Pasteur, Koch, and the others? Is it not time that the medical profession should rouse itself, and cast off the sloth, lethargy, and indifference which has so far characterized our so-called noble profession, and defend these illustrious men from the cheap slanders and untrue exaggerations of the Coleridges, the Anti- this and the Anti- that body? Ought we to remain supine while falsehoods are bandied about in drawing-rooms, and carried in the malicious gossip of the day far and wide, involving even the slightest check on this grand work for humanity and the best scientific interests of our profession? I have been saddened beyond measure that in Bournemouth, with its 181 medical men, only 23 have thought it worth their while to join the Research Defence Society. Among the 218 members of this Dorset and West Hants Branch, only 29 feel sufficient interest in these matters to enrol themselves as members of the Bournemouth Branch of the Research Defence Society, the nearest Branch geographically of the society which is best constituted to deal with the defence of the very researches which bring us in our calling so much help, so much satisfaction, so much accuracy and success. I have brought this matter to your notice to remind you of a duty which I fear you

are overlooking, to stir in your hearts some enthusiasm for your profession, and its rights, and its traditions—and its glorious traditions, too. Surely it cannot be true that the profession has travelled so far from the noble aspirations of our predecessors that unless some individual benefit is to be gained, and some material advantage in pounds, shillings, and pence is the immediate result of action on our part, our sympathies are unawakened, and our actions unstimulated and hard to be set in motion. I cannot believe it, and yet the dull apathy which characterizes most of the united action of the profession in this and in other directions fills me with misgiving. Here, and now, I call you to show a larger enterprise and rally you to a defence of your order; a crusade of truth against falsehood, a campaign of honest, meritorious deeds for the good of the human race against calumny, prejudice, ignorance, and muddle-headed thinking. Who will join? Who will stand up for the right in this matter? Unity is strength, and a feeling of comradeship, of support from those who really know the truth is of inestimable worth in this matter. How can we expect the layman to be enthusiastic in this matter when the men of the profession itself are so lukewarm in their defence of research? We have to fight against misrepresentation, sometimes in high places, against misguided ignorance, against prejudice, and an organized opposition of cranks and fanatics, not the less dangerous because they suppose themselves to be armed with motives which appeal to them as religious, moral, and humane. We want the best intelligence in the profession to meet these calumnies; we want the best men in our ranks to give the lie to these infamous stories of brutalities; we want the men whose lives are a living refutation of all that is ignoble to stand with us in this matter and to join heartily with us in resisting these infamous slanders on the great men in our noble profession, to whom humanity can never be too thankful or show too much honour; and I have brought these facts to your notice to stimulate you to defend our cause and theirs, to spread the truth about these matters among our patients and our friends, to call to our remembrance some of the grand deeds of men whom we may be proud to call our predecessors and our contemporaries—men who belong to our own profession, have been trained by our side, taught by the same teachers, stimulated by the same examples, working for the same cause, fired by the same zeal and enthusiasm, and all, in the glowing language of the "Recessional" ode by Rudyard Kipling, *Lest We Forget.*

Two other papers were postponed owing to want of time.

Exhibits.—During the afternoon Messrs. Mayer and Meltzer, the well known instrument makers of 71, Great Portland Street, London, W., attended the meeting, and in an adjoining apartment gave an exhibition of a choice selection of surgical instruments and appliances, which was much appreciated by the members present.

Luncheon.—Previous to the meeting the President-elect hospitably entertained the members to a buffet luncheon in the Hotel Mont Doré, and at 6.30 p.m. the members and friends dined together in the same hotel.

LANCASHIRE AND CHESHIRE BRANCH:

ALTRINCHAM DIVISION.

THE forty-fifth general meeting of this Division was held on April 20th, at 5 p.m. at the Greenbanks Hotel, Northwich. There were present—Drs. Garstang, Luckman, Lyon, Smyth, H. G. Cooper, Okell, Gough, Doonan, Hines, Theo. L. Fennell, G. H. Smith, P. R. Cooper, Manwaring-White, Browne, Armstrong, one associate member, Dr. J. H. Taylor (Salford). Dr. GARSTANG took the chair at 5.10 p.m.

Confirmation of Minutes.—The minutes of the last two meetings (the forty-third and forty-fourth) were read and passed.

Apologies for Non-attendance.—The HONORARY SECRETARY read apologies for absence from Drs. Golland, Savatard, Turner, Fennell, Owen-Jones, and Chas. Renshaw.

Minutes of Committee Meetings.—The minutes of the last two committee meetings (the sixtieth and sixty-first) were read and passed by the meeting.

Letter of Sympathy to Dr. Golland.—Dr. FENNELL proposed, and Dr. BROWNE seconded, that a letter of sympathy should be forwarded to the Chairman (Dr. Golland). This was carried *nemine contradicente.*

Relation of Homoeopaths to the Association.—Report of Council on the relation of homoeopaths to the Association (SUPPLEMENT, February 12th, 1910). The five questions were all answered in the affirmative.

Instruction in First Aid.—The question of instruction in first aid and field nursing to voluntary aid detachments was then considered. The motion before the meeting was:

> That while officers in command of Voluntary Aid Detachments must, of course, keep their detachments efficient without remuneration, medical practitioners should not be expected to give the preliminary instruction necessary to qualify for membership of a detachment without suitable remuneration.

The HONORARY SECRETARY reported that formerly classes in ambulance instruction were given in the various districts of the Division, and the medical instructors were paid fees. To-day in this Division no medical instructor is paid, and the loss of fees to the medical profession in the Division is calculated at 50 guineas per annum. Drs. DOONAN and P. R. COOPER, while holding that instruction should not be given free to the general public, thought that instruction should be given free to the recruits (candidates for membership) of the St. John Ambulance Brigade, etc., as well as to the members of the Brigade. The original motion was agreed to with the proviso:

> That each brigade officer should have some latitude as to where to draw the line regarding free instruction.

Nomination to Central Council.—On the motion of Dr. G. H. SMITH, seconded by Dr. P. R. COOPER, the meeting authorized the Honorary Secretary to write up for nomination forms for the election for the Central Council, "proposing Drs. Taylor and Larkin as the candidates nominated by the Altrincham Division," and Dr. Garstang as the candidate for election at the Representative Meeting.

Report of Members of the Branch Council.—Dr. LUCKMAN reported that the Charter was lost. Dr. P. R. COOPER reported that the Poor Law Reform Committee are preparing a scheme of public medical service.

Poor Law Reform.—Dr. GARSTANG next introduced Dr. J. H. Taylor, of Salford, to open the discussion on the reform of the Poor Laws. Dr. Garstang stated that the coming alterations would be a revolution in the position of the general practitioner, and would destroy a great deal of general practice. Dr. Taylor held a seat on the Poor Law Reform Committee of the British Medical Association for twelve months, and he was one of the ablest members of that committee. Dr. TAYLOR stated that there were four schemes before the Government dealing with medical relief: (i) The Minority Report of the Poor Law Commission; (ii) the Majority Report of the Poor Law Commission; (iii) Dr. Downes's report; (iv) sickness and invalidity insurance. (i) The Minority Report: First, it absolutely abolished the boards of guardians. Secondly, it was divided into five committees, one a Health Committee for the treatment of the sick; only one authority for treatment, and this is good and important. Mrs. Webb advises that treatment of the sick should come first, and inquiry as to the ability to pay should come afterwards. This is a bad feature, as it would lead to general free treatment for everybody. Also, for the great bulk of medical treatment, it is not necessary to have this great haste. Inquiry should come before treatment. If medical treatment comes first it means a great extension of free medical treatment, as the county court work for recovering payment from the patients is a farce. Another bad point in the Minority Report is that the treatment would be by whole-time medical officers, and they would treat not paupers only, but people who may become paupers through sickness. In addition, the cost of the treatment would be almost prohibitory. For instance,

in Manchester the cost would be for twenty to thirty men at £300 per annum, and these would take away the great bulk of work among the working class patients from 500 medical men. This free treatment would also lead to the undermining of the self-provident and self-respecting feelings of the community, and lower their moral and social standpoint. (ii) The Majority Report: This would also abolish the boards of guardians. There would only be one committee (not five) of the county and county borough council—namely, the Public Assistance Authority. This committee would appoint other subcommittees, as the Medical Assistance Committee (which it is recommended should contain representatives of the local Branches of the British Medical Association). The Health Committee of the County Council would not be touched in its general work of sanitation. The business of the Medical Assistance Committee would be to co-ordinate medical charities and public medical assistance. The hospitals could be forced to come into line by the power of the Charity Commissioners. Paupers would be treated by the district medical officer for some years (say thirty years). In the case of non-paupers, a wage limit would be fixed. Every one below a certain wage limit was to be encouraged to join a provident dispensary. In this report inquiry came before treatment. But the danger to the medical profession is the great increase of low contract practice. (iii) Dr. Downes's scheme: He proposes to keep the boards of guardians, but strengthen them by the addition of nominated and co-opted members. The Poor Law medical service and sanitary service would remain, as at present, separate. The important point is that Dr. Downes suggests that, before anything is done, we ought to have a Royal Commission to inquire into medical relief, and the British Medical Association strongly supports this suggestion, as the Poor Law Commission was not suited to deal with medical assistance. (iv) Sickness and invalidity insurance: The main object is to prevent the poor from becoming paupers. There is compulsory insurance in Germany, France, Austria, Switzerland, Spain, Belgium, Norway, Sweden, New South Wales. In Germany there are three forms of insurance: (1) Sickness insurance, wage limit £100 for people over 18 years of age, and this is compulsory, and involves 12,000,000 people. Payment is one-third by employer and two-thirds by the people. (2) Accident insurance, wage limit £150; this is compulsory. Payment—masters pay the whole. (3) Invalidity insurance, wage limit £100. Payment—masters pay half, people pay half, and the State gives a subsidy of £2,000,000 per annum. Benefits given are medical attendance for twenty-six weeks—pensions, sick pay, and funeral expenses. Thus we see the effect on the general practitioner will be enormous; the question of the wage limit will be a great point for the general practitioner. In England, with a wage limit of £100, 13,000,000 people will come under the insurance. If the wage limit be £160, 16,000,000 to 17,000,000 people will be insured; that is to say, about 80 per cent. of the adult patients will be taken away from the general practitioner. N.B.—This insurance is not to cover the children: they will be treated at the school clinics. Payment in Germany is on the lines of club practice, and is at the rate of 2s. per annum per head. We must look to the British Medical Association for better terms than this. The first thing to be done is for the British Medical Association officers to demand a conference with the Government (Insurance Department), and we must not allow the friendly societies to come in between us. If sickness and invalidity insurance is made legally compulsory, the medical profession must tabulate its own terms for treatment and medical attendance. The negotiations must not be left to the local private practitioners, as they are not strong enough. The local profession or local medical societies must have some say in the matter of organization of the local medical affairs, but the broad principles should be settled by agreement between the Government and the general body of the British Medical Association. The details—namely, local dispensaries, hours of consultation, disputes of members, supervising medical officer, etc.—to be carried out by local committees of the Medical Society. Every practitioner of repute in the district who agrees to the rules to be allowed to be a medical officer. The patients to have the free choice of doctor, with one limit to this—namely, that if the patient is a pauper and pays no portion of his premium, he is not to have the choice of a doctor. Payment to be as in Germany—half by employers, half by workers, and a subsidy from the State. Charity organizations or Poor Law pay for the paupers. Members not to change the medical attendant except under regulations and with consent of the local medical committee, otherwise to have the choice of a doctor. The one great difficulty here is the method of payment of the medical man: (1) Fixed salary. This is impossible where there is free choice of doctor. The State could never be expected to pay every medical man. (2) Payment per case of illness (cover attendance of whole illness). This method is carried out in parts of France to-day, but there is great difficulty in arranging for chronic illnesses. (3) Payment per visit. Here there is no safeguarp that the doctor may not pay too many visits where he is certain of a fee. This payment per visit is the commonest payment in France, but the fee is very small. (4) Payment by contract and pooling. The Government Insurance Department to pay a fixed sum per annum for each person insured. The payments to be all pooled by the local Medical Committee, and then, after deducting local administrative expenses, the balance to be divided up among the medical officers in accordance with the amount of work done by each. In this case the only contract is between the Government and the local Medical Committee, each medical officer being responsible not to the Government, but only to the local committee. The local committee is at liberty to divide up the balance on any principle it chooses, either per case, per visit, or per head per year. This would be a first-rate arrangement, but there are legal difficulties, as the local committee might have to be registered as a company, and might be responsible for any action of any one of its medical officers. (5) Direct contract between insurance department and individual doctor. This is the present club system in one sense; but it must be remembered that (*a*) the Government would fix a wage limit, and as employers and the State would both contribute it would be to their interest to enforce a wage limit. There would be a first claim for a proper fee, say, 8s. 6d. to 10s. per head per annum, as it would not all be derived from the working man as at present. (6) The system of the National Deposit Friendly Society is excellent, but the great difficulty would be how to arrange when the private deposit fund of the patient was exhausted. In the National Deposit Friendly Society, now, there is no claim for any further attendance when patient's private deposit is done, but the principle of a State insurance is to provide unlimited medical attendance however long the illness may last. Under every system there should be special fees for special cases, such as midwifery, operations, etc. And the fees paid should not include medicines, which ought to be provided by the insurance separately. The essential point is to have united action by the profession as a whole to prevent local underbidding. That can best be done by agreement between the Government and the central body of the British Medical Association for all general terms and conditions. And we should endeavour to persuade the whole medical profession to join with the British Medical Association for this purpose. Drs. P. R. COOPER and GOUGH took part in the discussion, both recommending a public scheme of medical insurance on the lines of the National Deposit Friendly Society. Dr. TAYLOR made a short reply, and the meeting terminated at 7 p.m.

Dinner.—A dinner was afterwards held at the hotel, and nine members were present.

BLACKPOOL DIVISION.

THE annual general meeting of this Division was held at Jenkinson's Café, Talbot Square, Blackpool, on May 30th, at 8.30 p.m., Dr. BOOTH in the chair. There

were also present: Drs. Dora Bunting, Rhodes, Johnson, Forbes, Richardson, Iredale, and Rees Jones.

Confirmation of Minutes.—The minutes of the general meeting held on March 9th, 1910, were read and approved.

Candidature of Dr. Garstang for Central Council.—Letters dated April 23rd and May 28th from Dr. Garstang, of Altrincham, were read, and it was resolved that the Representative of the Blackpool Division in Representative Meetings of the Association be instructed to nominate and support the candidature of Dr. Garstang for the Central Council.

Parliamentary Representation of the Profession.—A letter dated April 22nd, 1910, from the Honorary Secretary of the Chelsea Division was read, and it was resolved that the letter lie on the table for the present.

Medical Treatment of School Children.—A letter dated March 8th, 1910, from the Medical Secretary of the Association relating to medical treatment of school children was read, and the Honorary Secretary reported what reply he had sent thereto.

Programme of Annual Meeting.—A letter dated February 24th, 1910, from the Medical Secretary of the Association was read relating to the progamme of the annual meeting.

The Charter.—A letter dated May 18th, 1910, from the Medical Secretary of the Association relating to the Royal Charter was read, and it was resolved to call a special meeting of the Division on June 16th to discuss the same.

Instruction in Ambulance Work.—A letter dated February 5th from the Medical Secretary of the Association was read, and it was resolved:

> That this Division approves of the opinion of the Association relating to medical practitioners not being expected to give preliminary instruction to qualify detachments of the Territorial Force without suitable remuneration.

With regard to the portion of the letter referring to ambulance work in general, the Honorary Secretary was instructed as to the reply thereto.

Report of Executive Committee.—The report of the Executive Committee was read as follows: The only business which has occupied the attention of the Executive Committee recently has been in connexion with school inspection. The action of the Association in black-listing the local appointment on account of inadequate salary was supported. The new scheme of the Blackpool Corporation was notified to the Secretary by the Medical Officer of Health and approved by the Executive Committee. Dr. Dunderdale resigned his appointment as Honorary Secretary to the Division, and the Executive Committee appointed Dr. E. W. Rees Jones Honorary Secretary until the annual meeting. With regard to the financial position of the Division, there is at present in hand £1 3s. The membership of the Division now numbers 50. Drs. Dora Bunting and Vera Foley are fresh members. Dr. Foyl has left the area of the Division. Two members have been removed by death—namely, Dr. Clarke of Lytham and Dr. Williams of Rossall. Two have ceased to be members owing to arrears of subscription. The question of part-time medical officers of health has been discussed by the Executive Committee and referred to a special general meeting for consideration.

Election of Officers.—The following officers were elected for the ensuing year: *Chairman*, Dr. G. Forbes, proposed by Dr. BOOTH, seconded by Dr. JOHNSON; *Vice-Chairman*, Dr. F. S. Rhodes, proposed by Dr. FORBES, seconded by Dr. JOHNSON; *Honorary Secretary*, Dr. E. W. Rees Jones, proposed by Dr. FORBES, seconded by Dr. BOOTH; *Representative of the Division in Representative Meetings of the Association*, Dr. E. W. Rees Jones, proposed by Dr. JOHNSON, seconded by Dr. RHODES; *Representative of the Division on Branch Council*, Dr. E. W. Rees Jones, proposed by Dr. FORBES, seconded by Dr. RHODES. *Executive Committee* (in addition to the above-named officers), Drs. Dora Bunting, Johnson, Jeffrey, Richardson, Stewart, McIntosh, Iredale, and Dunderdale, all proposed by Dr. BOOTH and seconded by Dr. RHODES. All the above officers were elected unanimously, the eight members present all voting.

BURY DIVISION.

THE annual meeting of this Division was held in the Athenaeum, Bury, on Tuesday, May 31st.

Confirmation of Minutes.—The minutes of the last meeting were read and approved.

Practitioners and Midwives.—The SECRETARY reported that the Bury guardians had consented to pay a fee of 1 guinea to practitioners called in under the Midwives Act.

Report and Balance Sheet.—The report and balance sheet for 1909 were read and adopted.

Election of Officers.—The following office-bearers for 1910–11 were then elected: *Chairman*, Dr. A. P. Nuttall; *Vice-Chairman*, Dr. James Holmes; *Honorary Secretary*, Dr. J. C. Turnbull; *Representative on Branch Council*, Dr. J. B. Kerr; *Representative for Representative Meeting*, Dr. J. Brown; *Executive Committee*, Drs. Burnet, Cook, and Johnson.

Joint Meeting with Bury Medical Society.—Dr. DEANS, of Ramsbottom, having been elected unanimously to the chair, Dr. J. W. SMITH opened the discussion on the medical aspects of Poor Law reform by giving a concise summary of the Majority and Minority Reports of the Poor Law Commission. He was followed by Dr. BURNET and Dr. KERR, and an animated discussion ensued. As the time was limited, it was agreed to adjourn the meeting for a fortnight, so that definite proposals might be brought forward and the Representative instructed.

MANCHESTER SOUTH DIVISION.

THE seventh annual general meeting of the Division was held at the house of Dr. Sawers Scott, 57, Wilmslow Road, Withington, at 3.45 p.m., on Friday, May 27th, Dr. RUSSEN RHODES in the chair. There were nineteen other members present: Drs. Boyd, Vipont Brown, Chevers, Cotterill, Grant Davie, Edlin, Godson, Goodfellow, Gregory, Heathcote, Crichton Hood, Hopkinson, McDougall, Mitchell, Morton, Sawers Scott, Simcock, Stocks, and Professor Wild. Dr. Whitworth was present by invitation.

Apology for Absence.—Dr. Garstang (Altrincham) sent a letter of regret.

Confirmation of Minutes.—The minutes of the last meeting (April 12th) were read and confirmed.

Correspondence.—A letter was read from Dr. Niven thanking the Division for its congratulations. A letter was read from Mr. Guy Elliston acknowledging the receipt of the form nominating Mr. Larkin and Dr. Taylor for election to the Central Council. The Division formally ratified the committee's nomination. A letter was read from the Medical Secretary asking if the Division desired to challenge the decision of the Representative Meeting at Belfast with regard to Recommendation N on the subject of treatment of school children. The Division decided to oppose the recommendation.

Annual Report of Executive Committee.

The SECRETARY read the annual report of the Executive Committee, which was as follows:

Number of Meetings.—(A) The Division.—Your Executive Committee has to report that during the year 8 meetings of the Division were held, at which there was an average attendance of 13. The least number present at a meeting was 10, the greatest 16. During the year there have been 4 new members; 2 members have removed into the Division; 3 members have removed out of the Division; one member has resigned, and two members have died. The following list gives the names of members who have been present at the meetings with a record of attendances:—

> Drs. Ashton (2), Boyd (5), Vipont Brown (7), Carnwath (2), Chevers (2), Christie (1), Conway (2), Cotterill (7), Grant Davie (8), Edlin (5), Godson (5), Goodfellow (1), Gregory (5), Jones (1), Heathcote (2), Crichton Hood (2), Hopkinson (6), Howe (1), McDougall (6), Mitchell (6), Moon (1), Russen Rhodes (6), Sawers Scott (8), Senior (1), Sewell (1), Simcock (5), Stocks (7).

As the Division at present contains seventy-nine members, it will be seen that only twenty-seven have been present at one or more meetings. Of the remaining fifty-two, eight are consultants, two are professors, and

six are not in practice in the area of the Division. On account of the time and place of meeting being inconvenient for those specified to attend, there are left thirty-six members who could attend a meeting but have refrained from doing so. Your Committee feels that there is therefore scope for much improvement so far as attendances are concerned, and hopes that those who have not yet been present at a single meeting will remedy this in the coming year. Your Executive again wishes to take the opportunity of emphasizing the importance of each member taking a personal active share in the work of the Division, especially at the present time. In the near future the profession will have to face changes in its constitution and scope for work of the most fundamental character. Your Committee views this situation with seriousness, and desires to impress upon members that the profession will only be able to ensure itself from having to accept terms of service that might be objectionable from every point of view, as well as derogatory to its position and welfare—as in the majority of cases of contract practice—by every individual member being prepared to meet and discuss schemes that may be submitted in order to secure unanimity of purpose and whole-hearted co-operation. Invalidity insurance with its State contract practice is certain, and that before long. Medical inspection of school children has come, and in certain places so also has medical treatment. Drastic changes in the administration of medical relief under the Poor Law are in the air. Let, then, every member prove that to be forewarned is to be forearmed. Your Committee feels that the time is gone when members can say, as they have done in the past, "We have every faith in our Executive; let it discuss these matters and we shall carry out its decisions!" This is sheer apathy or laziness, and when the shoe begins to pinch it will then be too late to become conscious of established facts and say, "The Association has done nothing for us." The Association *can* do only as much as every individual member *will* do for the Association. These are grave questions, considered from the general practitioner's point of view, so that your Committee appeals for the warmest personal support in the future from every member of the Division, even at the expense of some inconvenience, especially when subjects of such far-reaching character are placed on your agenda.

(B) The Executive Committee.—Your Executive Committee has met seven times. Appended is a list of the attendances:

Drs. Boyd (4), Vipont Brown (4), Cotterill (4), Grant Davie (7), Edlin (2), Goodfellow (1), Hopkinson (6), McDougall (4), Mitchell (6), Russen Rhodes (5), Simcock (4).

Character of the Meetings.—The social character of the meetings has been preserved by being held in the private houses of members, and, on behalf of the Division, your Committee heartily thanks those members for so kindly and hospitably entertaining the Division. Among others the following subjects have been considered: Place of meeting of the Division the Manchester coroner and *post-mortem* examinations; recognition of a special class of consultants; National Deposit Friendly Society; Manchester Corporation and payment of medical men called in by midwives; medical inspection and treatment of school children; tariff of medical fees; terms of employment other than fees in clubs; report of the Council on the relation of homoeopaths to the Association; interim report of the Special Poor Law Committee; rules approved by the Special Committee of Consultants and General Practitioners; and the question of riders by coroners' juries. Two papers have been read this year, one by the late Dr. John Milson Rhodes on The Medical Profession and the Poor Law, and the other by Dr. E. Vipont Brown on The Medical Profession: its Present and Future.

Medical Inspection and Treatment of School Children.—All the recommendations of the Representative Meeting at Belfast were agreed to, except Recommendation "N," which states: "That in towns the work should be similarly entrusted to private practitioners discharging their duties at convenient centres (designated 'school clinics') situated in schools or in independent buildings." This Division believes in "whole-time" medical officers, and feels that much professional friction would arise in cases of part-time appointments in urban districts. Recommendation "I" was altered in one particular by the inclusion of the word "direct," causing it to read: "That the Association should oppose the *direct* reference of school children . . . to public medical charities for treatment." This would ensure patients being referred by the inspectors in the first instance to their private medical attendants, who could then, if they so desired, again refer them to the hospital for special treatment.

Place of Meeting.—Early in the winter session an opportunity was given (with one week's notice) for the members to attend to give their opinion on the place of meeting most convenient for the majority of members. Your Committee regrets that only eleven members availed themselves of this discussion, for in the past some dissatisfaction has been expressed by members in outlying districts as to the meetings being held in one area of the Division. The Division is so scattered that your Committee has always attempted to vary the places of meeting so as to bring them as near the majority of members in the different districts as was possible. After discussion, the following resolution was agreed to:

That the meetings of the Division be held in houses of members who desire to offer hospitality.

Rule Regarding Contract Work.—Members are reminded of the rule regarding the minimum rate to be accepted for new appointments to clubs: "No new appointment to a club shall be accepted at a less remuneration than 6s. per member per annum." This rule is binding upon all members of the Division. Your Committee has been successful in raising certain clubs to this standard during the year, and again requests members to inform the Secretary of the Division of any approaching fresh club appointment, where there may be difficulty in obtaining the increased fee, whether the applicants are members or non-members of the Division. Your Committee is pleased to record that a non-member notified his intention to the Secretary of raising a club from 3s. 6d. to 6s., and that he retained the club at the increased figure.

Manchester and District Warehousemen and Clerks' Association.—Your Committee regrets to be unable at present to give a satisfactory result from the preliminary conference of medical officers of this association, which was addressed by the Medical Secretary. Nevertheless, proceedings are still in progress, and it hopes during the year to see the medical arrangements being placed on a more satisfactory basis. The drawback to a proper conclusion has been owing to a deplorable lack of unanimity among the officers in question.

Ethical Relationship between the General Practitioner and Consultant.—The Committee appointed has concluded its work, and its results have been placed before you. Three new principles recommended are brought before you to-day to be approved and become ethically binding upon members.

Riders by Coroners' Juries.—As you were informed in your last annual report, in May, 1908, your Committee approached the central authorities with the object of action being taken by the Association to attempt prevention of these frequently undeserved censures upon medical men who, under the circumstances, were wholly blameless, and asked: "What is the legal power of a jury to add a rider?" To this question the Solicitor of the Association replied as follows: "A coroner's jury is empanelled for the purpose of inquiring into the cause of the death of the person upon whose body the inquest is being held. Their duty, therefore, ends in finding and recording their verdict as to the cause of death, and it is to be regarded as a gratuitous proceeding on their part and outside their duties as a jury to add to their verdict an expression of their own personal opinion in the form of a rider upon any matter which has arisen in the course of the inquiry. To this general rule, however, there is the following exception,

namely: In the case of accidents in mines or in connexion with explosives, where the inquest is not attended by any person on behalf of the Secretary of State, the coroner is, by statute, directed to send notice to the inspector of the district of any neglect contributing to the accident, or of any defect appearing to require a remedy." The result was that the Representative Meeting at Belfast instructed the Council to approach the Lord Chancellor to obtain, if possible, juster and more uniform procedure in relation to riders to verdicts by coroners' juries. It appears, however, that the recent Coroners' Departmental Committee still recognizes the rider by a jury, and that without restriction. The Division has therefore decided that the Representative shall bring forward at the Representative Meeting in London the following resolution:

> That whereas the report of the Coroners' Commission recognizes the appending of a rider by the jury to their verdict, and in view of the fact that a rider is a judgement (frequently carrying with it a severe penalty) on one who is not on trial, who has no opportunity of defence, and who may be absent or entirely ignorant of what is taking place, and is therefore an infraction of every principle of law and justice, it be an instruction to the Council to oppose to the uttermost in future legislation any such right of a jury to add a rider.

Registrar-General and Further Particulars regarding "Cause of Death."—The Division submitted a case to the Medical Secretary where the Registrar-General had asked for "further information as will assist in the classification of the cause of death." The Division desired to know if the Registrar-General could enforce this information under a penalty, as in the case of a local registrar where a medical man incurs a penalty not exceeding 40s. if he wilfully refuses to answer any question put to him by the registrar relating to the particulars required to be registered concerning such death. A reply was given by the Solicitor of the Association which may be summed up concisely as follows: The statutory obligation upon a medical practitioner is to furnish to the local registrar of deaths such information as the Act requires to be furnished with a view to the actual registration of a death. There is no statutory obligation arising in connexion with that compilation of vital statistics with which the Registrar-General has to deal.

Ethical Cases.—During the year four ethical cases have been considered by your Committee.

British Medical Journal Supplements.—Your Committee again wishes to impress upon all members the necessity of reading and preserving the Supplements of the Journal, in order to keep in touch with the work of their own Division, whose proceedings are reported therein, and to take a proper interest and part in the discussion of medico-political matters.

The late Dr. John Milson Rhodes and Dr. F. W. Jordan.—Finally, your Committee desires to record its deep sense of the very great loss the Division has sustained by the decease of two of its most esteemed members—John Milson Rhodes and Frederick William Jordan. In both members the Division has lost two past officials whose ready advice and help were on all occasions freely given and greatly valued. Dr. Milson Rhodes had prepared a paper to read to the Division on the proposed changes in Poor Law administration, but, unfortunately, passed away suddenly on the eve of his reading it. This sad duty was fulfilled by the Vice-Chairman (Dr. Hopkinson). Representatives of the Division attended the funerals of both members, and resolutions of sympathy were forwarded to the relatives of the deceased.

M. Russen Rhodes, *Chairman.*
G. H. Grant Davie, *Honorary Secretary.*

The report on being put to the meeting was adopted unanimously.

Treasurer's Report.—The financial report of the Treasurer was then taken and adopted unanimously. It was pointed out that, though the funds of the Division were used as economically as was consistent with efficient working, nevertheless there was a deficit of 11s. 10d. on the year's expenditure.

Election of Office-bearers for 1910–11.—The following office-bearers were unanimously appointed for the ensuing year: *Chairman*, Albert Hopkinson, M.B.; *Vice-Chairman*, G. H. Grant Davie, M.B.; *Honorary Secretary and Treasurer*, A. M. Mitchell, M.B.; *Representatives on Branch Council*, H. E. Edlin, M.R.C.S., and W. E. Sawers Scott, M.D.; *Representative for Representative Meeting*, the Retiring Secretary, G. H. Grant Davie, M.B.; *Committee*, A. E. Cotterill, M.R.C.S., F. A. Godson, M.B., A. Gregory, M.R.C.S., J. Simcock, M.D., and W. P. Stocks, F.R.C.S. *Representatives on Joint Committee*, the Chairman and Honorary Secretary (*ex officio*), G. Ashton, M.D., A. E. Cotterill, M.R.C.S., and G. H. Grant Davie, M.B.

Installation of New Chairman.—Dr. Albert Hopkinson took the chair in place of Dr. Russen Rhodes.

Vote of Thanks to Past Officials.—The Chairman then proposed a hearty vote of thanks to the past Chairman, Secretary, and past officers for the good work they had accomplished on behalf of the Division during their year of office. This was carried with acclamation.

Addition to the Rules on the "Ethics of Consultation."—The following principles dealing with the ethics of medical consultation were unanimously approved, and become binding upon members of the Division, all the conditions for their adoption having been complied with:

(*a*) When a patient who has not previously been seen in consultation calls on a consultant at his rooms without introduction from a general practitioner, inquiry should be made in every case as to whether the patient is under the care of any practitioner.

(*b*) If it is ascertained that the patient is not under the care of another practitioner, there is nothing ethically wrong in the consultant prescribing at his rooms for the patient; but it is inadvisable for any practitioner who wishes recognition as a consultant to attend any patient at the patient's own home except in co-operation with a general practitioner.

(*c*) If it is ascertained that the patient is under the care of another practitioner, it is the duty of the consultant to use every endeavour to persuade the patient to allow him to communicate with the attending practitioner, but should the patient refuse this permission, the consultant has the right to make an examination and to express an opinion, but not to undertake the treatment of the case.

Resolution from the Chelsea Division.—It was proposed and carried *nemine contradicente* that the resolution from the Chelsea Division with regard to a union of medical practitioners with Parliamentary representation be allowed to lie on the table, as it was felt that the scheme was altogether impracticable.

Address by Professor R. B. Wild.—Professor Wild gave an address on Some Recent Methods in the Treatment of Cancer. He prefaced his remarks by giving a warning with regard to the tendency to laud new remedies as "cures" for cancer while they were as yet in their experimental stage. He also strongly deprecated the treatment of what might be called trivial ailments by drugs which were in themselves highly toxic and therefore highly dangerous in their accumulative action. Serious diseases, such as inoperable cancer, he felt, however, justified the use of stronger remedies, even though an element of danger might be introduced, so long as there was some justification of the means to an end—the relief of the patient. Dr. Wild then gave a most interesting and instructive summary of recent means he had employed in the attempt to find a remedy for the superficial and deep forms of cancer, and divided his treatment into two groups: (*a*) Local and (*b*) general. Many of the remedies mentioned were only named to be discarded as useless. Among the local remedies which acted as a caustic he referred to: (1) Oxidizing agents —(*a*) chromic acid, (*b*) potassium bichromate, (*c*) potassium permanganate. The two former had been used greatly by cancer quacks. (2) Radium, by Wickham's "cross-fire" method and by "screening." (3) Radium emanations in sterile saline solution by injection. (4) Solid carbon dioxide. Among general remedies he spoke of (1) arsenic, (2) cacodylates, (3) atoxyl, (4) soamin, (5) arsacetin, (6) calcium salts—lactates, chlorides, and phosphates. He then remarked upon the effects produced by the action of the animal extracts of glandular bodies, and concluded by re

ferring to "pain relievers" in cancer, stating that in many early cases before morphine has had to be resorted to much relief has been obtained from aspirin, though its mode of action in these cases was unknown.

Vote of Thanks.—A hearty vote of thanks was awarded to Dr. Wild, who suitably responded.

METROPOLITAN COUNTIES BRANCH:

ST. PANCRAS AND ISLINGTON DIVISION.

AN ordinary meeting of the St. Pancras and Islington Division took place on May 24th at 4 p.m., at the board room of the Great Northern Hospital, Holloway Road, N. Dr. W. WYNN WESTCOTT was in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Election of Officers.—The following gentlemen were nominated as Branch officers: *President-elect*, Mr. H. Betham Robinson; *Vice-President*, Dr. J. F. J. Sykes; *Honorary Secretaries*, Drs. Griffith and Goodall. Dr. Walter Smith was unanimously elected as *Representative of the Division at Representative Meetings.*

Lecture.—A lecture was given by Dr. A. HOWARD PIRIE, B.Sc., on the diagnostic and therapeutic uses of *x* rays in general practice. By luminous screens and lantern slides the lecturer added greatly to the interest of his remarks, and a hearty vote of thanks was accorded him.

WALTHAMSTOW DIVISION.

THE annual and business meeting was held at the Walthamstow Hospital on Thursday, May 26th, at 4 p.m. Eleven members attended. Dr. C. F. HARFORD presided.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Correspondence.—Letters from the Chelsea Division, the Medical Secretary, the Secretary of the Branch Organization Committee, and Dr. Dowling were read and considered.

Report of Executive Committee.

The following is the report of the Executive Committee for the Session 1909–10:

The work of the Session 1909–10 has been very good, and the attendances have increased in a most gratifying manner. Since the issue of the last report six meetings and three clinical demonstrations have been held. Only one meeting was of a purely scientific character, business being transacted at the remaining five.

There are now 83 members of this Division, as compared with 71 last year. Fourteen fresh members joined during the year, and 11 members moved into the Division. We lost 7 by removal out of the Division, and the remainder by resignation or arrears.

The average attendance (including visitors) at these six meetings has been 20.5, an increase of 11.5 on last session's record.

The annual meeting was held at Livingstone College, Leyton, by the kind invitation of Dr. C. F. Harford, who also entertained the members to a sumptuous tea. The annual dinner was abandoned on account of small attendances.

The clinical demonstrations were held at Claybury (2) on Lumbar Puncture, and at the West Ham Infirmary. The attendances were 7, 3, and 20 respectively.

Deputations waited upon every parliamentary candidate at the recent election and obtained from them in writing their views upon pressing medical questions.

The following important matters have been considered by the Division, some of which are still under consideration:

1. Special class of consultants.
2. Subcommittees for local areas.
3. Deputations interviewed all Parliamentary candidates.
4. Poor Law reform.
5. Relation of members to homoeopathic practitioners.
6. Medical treatment of school children.

The Division is much indebted to Sir Victor Horsley, Dr. Risien Russell, and Messrs. McAdam Eccles and H. B. Robinson for the able and interesting papers they kindly read at the scientific meetings; to Drs. R. Jones and C. J. Muir for the clinical demonstrations they gave; and those members who read papers and showed cases at the Walthamstow Hospital.

The Division is also indebted to the Woodford and Walthamstow Hospitals, and the Trustees of St. Catherine's, Leytonstone; the Wesleyan Church Schools, Leyton; and to Dr. Harford for the use of rooms in which some of the meetings were held.

Financial statement:

	£	s.	d.
Printing and stationery	4	11	10
Postage	2	4	6½
Hire of rooms...	1	5	6
Gratuities	0	7	0
Refreshments...	0	2	10
Lantern and operator	2	10	0
	£11	1	8½

The Executive Committee met four times during the session for the purpose of transacting necessary business, at which the average attendances were 5 2.

Your Representative on the Branch Council has been summoned to ten meetings, of which he has attended five. He also served on the Medical Charities Committee, and on the Excursion and Finance Committees of the Branch, special committees formed in connexion with the annual meeting in London.

Your Representative at Representative Meetings was unable to attend the Representative Meeting at Belfast. As an *ex officio* member of the Branch Council he attended two of the meetings. He also served on the Insurance Committee of the Central Council as a co-opted member.

Your Secretary attended three of the Branch Council meetings. He also served on the Branch Organization Committee.

Your Representative at Representative Meetings and your Secretary also served on the Branch Local Entertainment Committee, a special committee in connexion with the Annual Meeting in London.

Unfortunately, the Divisional meetings clashed with the Branch Council meetings, and no doubt this was the cause of the small attendances of your Representatives.

An effort was made to establish local subcommittees, the Division being split into three wards. This was successful in Leyton and Walthamstow, but has for the time being fallen through for Woodford and district.

The Executive Committee in conclusion wish to express their gratification at increased interest taken in the Association by members and non-members, as evidenced by the large increase in attendances, and hope that the coming session will show even better results.

C. F. HARFORD, Chairman.
A. POTTINGER ELDRED, Honorary Secretary.

It was proposed by Dr. WISE and seconded by Dr. PANTING:

That the report be received.

This was carried *nemine contradicente*. A short discussion followed. It was then proposed by Dr. SHADWELL and seconded by Dr. DYKES:

That the report as printed be adopted.

This was carried *nemine contradicente.*

Election of Officers.—The following were nominated: *Chairman*, Dr. R. Jones; *Vice-Chairman*, Dr. C. J. Horner; *Representative on the Branch Council*, Dr. C. H. Wise; *Representative at the Representative Meetings*, Dr. St. C. B. Shadwell; *Executive Committee*, Drs. Harford, Berrill, Dykes, Macgregor, Hickman, and the Secretaries of the Ward Committees; *Treasurer and Honorary Secretary*, A. Pottinger Eldred. All those nominated were unanimously elected.

Alteration of Rule 4.—It was proposed by Dr. HARFORD and seconded by Dr. ELDRED to insert the words:

"The secretaries of any subcommittees" after the word Association in Rule 4, line 5.

After some discussion it was decided to insert the words:

The Secretaries of the Ward Committees.

Instructions to Representative at Representative Meetings.—It was proposed by Dr. Wise:

That the Representative be instructed to support Rider 24.

After some discussion, no seconder being forthcoming, this was withdrawn. It was proposed by Dr. Dykes, and seconded by Dr. Houston:

That the Representative be instructed to support Amendment 46.

This was carried *nemine contradicente*. It was proposed by Dr. Dykes, seconded by Dr. F. Jones:

That the Representative be instructed to support Rider 48.

This was carried *nemine contradicente*. It was unanimously agreed, on the motion of Dr. Harford, seconded by Dr. Dykes:

That Rider 43 be supported by the Division with the addition, after the concluding word "rider," of the following words: "Reflecting upon the action of an individual who is not represented, or has not had the opportunity of being represented."

It was proposed by Dr. Dykes, seconded by Dr. Wise:

That with regard to other matters of business to be brought before the Representative Meeting, the Representative has a free hand to vote as he thinks fit.

Matters Referred to Divisions.—The replies to the questions addressed to the Division by the Central Ethical Committee and the Poor Law Reform Committee, as recommended by the Executive Committee of the Division were unanimously adopted.

Programme for Ensuing Session.—It was further agreed:

That the Executive Committee be deputed to draw up a programme for the ensuing session.

METROPOLITAN COUNTIES BRANCH.

Election of Central Council, 1910.

The following letter has recently been circulated:

May, 1910.

Dear Sir (or Madam),

In accordance with the new standing orders recently adopted, the Metropolitan Counties Branch will this year be represented on the Central Council by six, instead of five, Members as hitherto.

The election of four of the Councillors will take place by direct voting through ballot papers issued from the Central Office to each Member of the Branch, whilst the other two Councillors will be elected by the Representatives of the various Divisions comprised within the Branch voting at the Representative Meeting.

We, who sign this address, are offering ourselves as candidates for the four seats which are to be filled by the direct votes of the members of the Branch, to be recorded on the voting papers which will be circulated in the course of the next few days.

We have all had the responsibility of representing the Branch upon the Central Council on former occasions, and last year in response to the joint address issued by us in conjunction with Dr. Ford Anderson, who, we regret to say is not again eligible, you did us the honour of electing all five.

At the moment there are some very important issues before the Association. As you are doubtless aware, it has been decided to abandon the attempt to obtain for the Association a Royal Charter of Incorporation. This decision will necessarily involve a careful consideration of other means whereby the Association may secure those greater opportunities of serving the profession, the possession of which was the main object of the Charter.

Should we be elected to the Council, it will be our constant aim to see that all instructions given by the Representative Meeting, with the object of bettering the organization, and extending the powers of the Association, shall be carried into effect with the least possible delay.

In our work on the various Committees, we are constantly finding the need of greater professional co-operation, and we are convinced that this can only be secured by increasing the influence and perfecting the machinery of the Association, making it clear to all medical practitioners that the Association is determined, without fear or favour, to work steadily for the good of the profession as a whole.

Where the interests of different classes of the profession seem to be in opposition, they must be adjusted by mutual concessions, arrived at after full and open discussion. For the profession to remain divided while Government Departments, County Councils, and the Lay Boards of hospitals on all hands exploit our services and disregard our expert advice, is as detrimental to the true interests of the community as it is to medical practitioners generally.

By the help of the Central Executive of the Association, we hope that the local Branches and Divisions will be able to develop satisfactory schemes for dealing with Elementary School Children found to be defective on medical inspection. By similar co-operation we hope to secure that in the reorganization of the Poor Law, which is imminent, the legitimate claims of the profession shall be upheld, and that justice shall be done to all classes of practitioners whose work may be in any way affected by the necessary changes.

We ask you to send all four of us back to the Council, that we may continue to work in order to complete the scheme for constituting the Association as the representative organization of all ranks of the profession.

We are, dear Sir (or Madam),
Yours obediently,
G. E. Haslip
Victor Horsley
Hugh R. Ker
Lauriston E. Shaw.

With reference to this circular, we have received the following letter from the Chairman of the Kensington Division:

June 2nd, 1910.

Sir,—I venture to address to you a protest against the circular letter sent to every member of the Metropolitan Counties Branch by four of the candidates for representation of the Branch on the Central Council of the Association.

The protest is endorsed by the opinion of a well-attended meeting of the Kensington Division held this afternoon.

We feel that no objection could be raised to any individual candidate explaining his views to the electorate. But that four candidates should combine in a species of caucus, and try to seize all the vacant seats by bringing their names prominently in combination before the voters, who may be influenced by their personal acquaintance with one or more of the four, appears to us an unfair attempt to pack the Council. The caucus expresses its regret that one of its former number is no longer eligible, and apparently hopes that the remaining four will continue in office until removed by the time limit. We feel very strongly that every opportunity should be given to other Divisions not represented in the caucus to send members to the Central Council; and that the introduction of some change in the representatives at shorter intervals than once in five years would be of benefit to the Association.

We hope, therefore, that all voters in the Branch will disregard the manifesto of these four candidates, and duly consider the merits of the other nominees.

Yours, etc.,
Chas. Buttar.

To the Editor,
British Medical Journal.

MIDLAND AND EAST YORK AND NORTH LINCOLN BRANCHES.

We have also received the following address which has been issued to Members of the above Branches:

Ladies and Gentlemen,

Owing to the reconstruction of the Council of the Association sanctioned at the Belfast Meeting, the above Branches are grouped together for the purpose of returning one Member to the Council.

The Leicestershire and Rutland Division has done me the honour to nominate me as a Candidate for this seat.

I have been one of the Members of the Midland Branch for upwards of fifteen years, and for the last two years have been a co-opted member. Under the new scheme there will be no co-opted members.

I venture therefore to solicit your support and vote.

I have, during my service on the Council, served on almost all the important Committees, including the Journal and Finance Committee. I was for five years Chairman of the Hospitals Committee, and am now Chairman of the Science Committee, which has many duties, not the least important of which is the care of the Library. The Council has given its sanction to a scheme for making the Library of much greater use to the provincial Members by allowing books and periodicals to be sent by post to any Member, and I hope to assist in carrying this out.

I recognize the importance of obtaining a Charter as giving the Association more freedom of action and a greater scope for its operations. I hold, however, that as long as the Council is the executive body of the Association and is elected on the present democratic basis, it should be allowed considerable liberty of action, and that the functions of the Representative Meeting should mainly be those of criticism and final decision.

I shall always oppose any attempt to convert the Association into the appanage of any social or political faction—a by no means imaginary danger.

I am familiar with all the conditions of practice in my district, and, if you do me the honour to elect me, it will be my privilege to promote the interests of the Association and these two Branches by all means in my power.

I remain,
Ladies and Gentlemen,
Yours obediently,
Frank M. Pope.

Leicester,

British Medical Association.

SEVENTY-EIGHTH ANNUAL MEETING, LONDON, JULY 26th–29th, 1910.

THE SECTIONS.

THE scientific business of the meeting will be conducted in twenty-one Sections, which will meet on Wednesday, July 27th, Thursday, July 28th, and Friday, July 29th.

The following additional information has been received between May 31st and June 7th.

The Honorary Secretaries of Sections who have not supplied full information, including synopses of the remarks to be made by members introducing discussions, are urgently requested to send this information without delay in order that it may be embodied in a full programme which it is proposed to publish in an early issue. According to the regulations of the Association such synopses ought to have been received on or before May 28th.

ANAESTHETICS.

President: FREDERIC WILLIAM HEWITT, M.V.O., M.D., London.

Vice-Presidents: DONALD C. A. MCALLUM, Edinburgh; GEORGE ROWELL, F.R.C.S., London; ALEXANDER WILSON, F.R.C.S., Manchester.

Honorary Secretaries: Miss ADA M. BROWNE, L.S.A., 64, Belsize Park, N.W.; WILLIAM JOSEPH MCCARDIE, M.B., 89, Cornwall Street, Birmingham; HERBERT J. SCHARLIEB, C.M.G., M.D., 49, Wimpole Street, W.

The following subjects have been selected for discussion:

Wednesday, July 27th.—10 a.m., Discussion on The Percentage System of Chloroform Administration. To be opened by Dr. Dudley Buxton and Professor Waller, F.R.S., followed by Mr. Alexander Wilson, Dr. Herbert Scharlieb, Dr. Paul Chapman, Dr. A. G. Levy, and Lieutenant-Colonel Lawrie.

Thursday, July 28th.—10 a.m., Discussion on The "Open" System of Ether Administration. To be opened by Mr. Bellamy Gardner and Mr. A. L. Flemming; followed by Messrs. G. Rowell, H. J. Paterson, Alexander Brownlee, E. J. Quirk, G. A. H. Barton, and Dr. Stuart V. Stock.

11 a.m., Discussion on The Prevention and Treatment of Surgical Shock during Inhalation Anaesthesia. To be opened by Mr. G. Rowell, F.R.C.S., Dr. Crile, Messrs. Lockhart Mummery, and J. D. Malcolm; followed by Professor Leonard Hill, F.R.S., Messrs. H. J. Paterson, Bellamy Gardner, and Dr. Stuart V. Stock.

Friday, July 29th.—10 a.m., Discussion on The Present Position and Limitations of Spinal Analgesia. To be opened by Dr. J. Blumfeld, Mr. E. Canny Ryall, and Dr. W. J. McCardie, followed by Messrs. Lawrie McGavin, H. Tyrrell Gray, Cecil Hughes, G. A. H. Barton, Arnold Lea, Miss Taylor, M.D., and Captain Houghton, R.A.M.C.

The following is a synopsis of Mr. CANNY RYALL'S paper:

1. *Drugs Employed.*—A. Stovaine, novocain, tropacocaine, alypin: (1) Properties, sterilization, keeping properties, toxicity, irritability, compatibility with suprarenin, action on motor nerves and nerve cells, analgesia (behaviour of). (2) Clinical, action on heart, kidneys, respiratory centre, vomiting, headaches, etc. (3) Deaths. B. Suprarenin. 2. *Dose and Site for Injection.*—(1) Importance of diminishing the dose in certain diseases, etc., if good results without danger are to be obtained. The general idea is to give the same dose in all cases, no matter what the operation or condition of patient. (2) Exploration of how one can obtain analgesia in the arm by means of a lumbar injection if an operation on the upper extremity is desired. 3. *Secondary and After-Effects, with Treatment.*—(1) How to avoid. (2) How to treat. 4. *Advantages and Disadvantages of the Method.*—(1) Contrast with general anaesthesia. (2) Death-rate. (3) Dangers. (4) Percentages of secondary and after-effects. 5. *Indications and Contraindications.*

DISEASES OF CHILDREN.

President: ARCHIBALD E. GARROD, M.D., London.

Vice-Presidents: CHAS. P. B. CLUBBE, M.R.C.S., Sydney; THOMAS SINCLAIR KIRK, M.B., Belfast; H. D. ROLLESTON, M.D., London; FRANCIS JAMES STEWARD, M.S., F.R.C.S., London.

Honorary Secretaries: HAROLD ARTHUR THOMAS FAIRBANK, M.S., 137, Harley Street, W.; FRANCIS W. GOYDER, F.R.C.S., "Marley House," Bradford; HUGH THURSFIELD, M.D., 84, Wimpole Street, W.

The following subjects have been selected for discussion:

Wednesday, July 27th.—Discussion on the Diagnosis and Treatment of Non-Tuberculous Joint Diseases in Children. To be opened by Dr. Coutts and Mr. E. M. Corner, followed by Messrs. Robert Jones, W. B. Parsons, J. Keogh Murphy, H. Tyrrell Gray, and others.

The following is a synopsis of Dr. COUTTS'S paper:

(1) Rheumatism by far the most frequent cause of joint trouble in children. The importance of rheumatic arthritis in spite of its slight severity in childhood. Some recent views as to treatment and the frequency of acute cardiac dilatation. (2) The arthropathies associated with anterior poliomyelitis and their pathological connexion with Charcot's disease. (3) Syphilitic joint affections in early infancy and later childhood. (4) Pneumoccal joint affections. They may occur as an acute disorder in a general pneumococcal infection, or as a subacute one where some remote localized pneumococcal lesion, often an empyema, acts as a focus. A similar rule applies to other pneumococcal affections, such as pericarditis and peritonitis. (5) Gonococcal arthritis may occur in the youngest infants with ophthalmia. In older children more frequent, and at a younger age in girls than in boys. (6) Joint affections in haemophilia and purpura. Rheumatoid arthritis and Still's disease. Joint affections with the acute specific fevers.

Thursday, July 28th.—Discussion on the Diagnosis and Treatment of Infections of the Urinary Tract by the *Bacillus coli*. To be opened by Dr. John Thomson, Dr. Dudgeon, and Mr. John Pardoe, followed by Dr. J. Porter Parkinson and others.

The following is an abstract of Mr. PARDOE'S paper:

(1) The more serious forms of *Bacillus coli* infection of the urinary tract in children appear to be of much less frequent occurrence than in adults. (2) Autogenous infections are much less common than those due to other conditions, such as calculus in the kidneys or in the urinary bladder. (3) Acute infections, occurring apart from other conditions, show the same tendency, as in adults, to rapid and complete cure. (4) Chronic infections, occurring apart from other conditions, are notable by their rarity. (5) Chronic infections dependent upon, or occurring during the course of other conditions, tend to more complete cure than in similar circumstances in adults.

GYNAECOLOGY AND OBSTETRICS.

President: Mrs. MARY A. D. SCHARLIEB, M.D., London.

Vice-Presidents: JOHN W. BALLANTYNE, M.D., Edinburgh; COMYNS BERKELEY, M.B., London; Professor JOHN A. C. KYNOCH, M.B., Dundee; THOMAS WILSON, M.D., Birmingham; THOMAS H. WILSON, F.R.C.P.I., Dublin.

Honorary Secretaries: W. BLAIR BELL, M.D., 7, Rodney Street, Liverpool; JOHN PRESCOTT HEDLEY,

M.B., 11, John Street, Berkeley Square, W.; CARLTON OLDFIELD, M.D., 32, Park Square, Leeds.

The Committee has selected two subjects for discussion as follows:

1. The Treatment of Fibromyomata Complicating Pregnancy. To be introduced by Dr. W. W. H. Tate.

The following is an abstract of Dr. TATE'S paper:

The occurrence of pregnancy in a woman suffering from fibroids is a cause of serious danger in only a small proportion of cases. The nature of these complications is discussed. It therefore follows that interference during pregnancy is necessary only in a small minority of cases. The induction of abortion or premature labour is not to be recommended. When surgical interference during pregnancy becomes necessary myomectomy should be the operation of election. Whether myomectomy should be done in the interest of the child, where other fibroids are present in the uterus, which *may* cause trouble later, is discussed. The preservation of the child's life demands special consideration, as the one and only chance of having a child may depend on the successful management of the pregnancy.

2. Dysmenorrhoea, its Causes and Treatment. To be opened by Dr. G. E. Herman.

Papers have been accepted from the following distinguished foreign members of the profession:

DÖDERLEIN, Professor D. (Munich). Die Entstehung und Verhütung des Puerperalfiebers.
GOTTSCHALK, Professor S. (Berlin). Title uncommunicated.
NAGEL, Professor W. (Berlin). The Operative Treatment of Uterine Fibroids.
VON HERFF-VON SALIS, Professor (Basle). The Causal Treatment of Dystocia in cases of Pelvic Contraction.

It has been arranged for a section of the Pathological Museum to be specially set aside for the exhibition of specimens, microscopic slides, photographs, etc., relating to Adenomyoma of the Uterus. The Committee will also be glad to receive other specimens of interest.

LARYNGOLOGY.

President: HERBERT TILLEY, F.R.C.S., London.

Vice-Presidents: J. LACY FIRTH, M.D., Bristol; A. BROWN KELLY, M.D., Glasgow; STEPHEN PAGET, F.R.C.S., London; H. BETHAM ROBINSON, M.S., M.B., London.

Honorary Secretaries: GEO. NIXON BIGGS, M.B., 30, Harley Street, W.; HENRY JOHN DAVIS, M.B., 8, Portman Street, W.; JOHN SMITH FRASER, M.B., 50, Melville Street, Edinburgh.

The following preliminary programme has been arranged:

Wednesday, July 27th.—10 a.m., Discussion on the Technique of the Direct Examination of the Oesophagus and Lower Air Passages. To be introduced by Professor Dr. von Eicken (Freiburg), and Dr. D. R. Paterson (Cardiff).

Thursday, July 28th.—10 a.m, Discussion on Vasomotor Rhinitis. To be introduced by Dr. H. S. Birkett (Montreal), and Mr. E. B. Waggett (London), followed by Mr. Stuart Low, and Drs. Dan McKenzie, Scanes Spicer, H. J. Davies, Watson Williams, and others. 12.30 p.m. to 1 p.m., Conjoint Meeting with the Section of Dermatology when Dr. Wickham (Paris) will give a Demonstration of Radium.

Friday, July 29th.—10 a.m., Reading of the following among other Papers.

MCKENZIE, Dr. Dan. Enucleation of the Tonsil.
SECCOMBE-HETT, Mr. The Anatomy of the Capsule of the Tonsil and its Significance in the Treatment of Diseases of the Tonsil.
WILKINSON, Dr. W. Camac. Tuberculin in the Treatment of Laryngeal Tubercle.
SMITH FRASER, Mr. J. Congenital Stenosis of the Choanae.
SCANES-SPICER, Dr. Cancers of the Throat, etc.
HEMINGTON-PEGLER, Dr. L. A Note on Headaches in Association with Obstruction in the Nasal Passages.
WATSON-WILLIAMS, Dr. P. A Note on the Osteo-Plastic Radical Operation for Frontal Sinus Suppuration.

MEDICINE.

President: R. W. PHILIP, M.D., Edinburgh.

Vice-Presidents: Professor HARRY B. ALLEN, M.D., Melbourne; GEORGE A. HERON, M.D., London; WALTER K. HUNTER, M.D., Glasgow; HENRY L. MCKISACK, M.D., Belfast; GEORGE R. MURRAY, M.D., Manchester; SIDNEY P. PHILLIPS, M.D., London.

Honorary Secretaries: H. MORLEY FLETCHER, M.D., 98, Harley Street, W.; HERBERT FRENCH, M.D., 62, Wimpole Street, W.; JOHN HAY, M.D., 12, Rodney Street, Liverpool.

The following preliminary programme has been arranged:

Wednesday, July 27th.—Morning: Discussion on the Pathogenesis, Prophylaxis, and Treatment of Acidosis. To be opened by Professor Edsall of Philadelphia. Selected Papers. Afternoon: Clinical Cases.

The following is a synopsis of Professor D. L. EDSALL'S remarks:

While there is an important distinction between acidosis and acid intoxication, there is, from the clinical as well as from the pathological standpoint, another equally important distinction between the forms of acidosis, sometimes severe and sometimes mild, that are due to lack of carbohydrates or inability to utilize them, as in diabetes, and those forms which are incidental to severe disease which is most commonly situated in the liver. Even in the latter forms, however, diet at times plays an important part in treatment as to alkalies, probably less through checking the direct effects of acidosis than through controlling secondary effects, perhaps an autolysis. While it is not certain that acid intoxication is the prime cause of the violent toxic symptoms in diabetes—and some evidence points to the contrary—it is highly probable that it is the main cause, as well as in the occasional cases of coma of the same type in non-diabetic persons. The manner in which the severe symptoms are produced is not clear. The relation of the loss of inorganic salts to the production of symptoms, and the possible relation of the same salts to the production of acidosis, need further study. It is not improbable that these salts have some relation to the symptoms in the earlier course of diabetes before severe toxic symptoms come on, especially to the common muscular fatigue. Metabolism studies, not yet complete, bearing upon this point will be cited. It seems probable that adding other bases besides sodium in the treatment of acid intoxication may help better than sodium alone in postponing a fatal issue.

Thursday, July 28th.—Morning: Discussion on the Treatment of Chronic Constipation. To be opened by Dr. J. F. Goodhart. Selected Papers. Afternoon Clinical Cases.

The following is a synopsis of Dr. GOODHART'S paper:

(1) Constipation defined to be unnatural delay in the passage of the intestinal contents along the colon. What constitutes unnatural delay? From bismuth observations the average period for the passage of the intestinal contents along the colon only would appear to be some twenty hours from taking the meal; to this must be added for delay in the collecting chamber a variable time, probably in most people three to four hours, more or less, until the call for expulsion comes. (2) Constipation thus falls into two groups—constipation of the colon, and constipation of the collecting chamber or rectum. The one is an automatic reflex outside the control of the will; the other is largely aided by voluntary effort, and the trouble comes into being when voluntary muscular effort fails. The latter is mostly present in old people, or in women of lax habit who have borne children, and in such as have habitually neglected to form good habits. (3) Constipation of the main tract of the colon is a much more intricate subject; it is in the main a physiological one. Its causes concern themselves with (*a*) the neuro-muscular apparatus of the intestinal wall; (*b*) the intestinal

contents. The nervous element in the circuit a dominant one in constipation habit; nervous vigour and its oscillations; the temparament of the subject; the mental condition, and related thereto all the disturbances of secretion, absorption, excretion, associated as they are with flatulence, pain, and mucular cramp. Muscular power is also all-important. The attributes of peristalsis; a sleeping dog; its relation to the passage of scybala; its bearing on kinks and adhesions; scybala seldom cause intestinal obstruction. (*b*) The intestinal contents. The quantity, quality, and variety of food. The colon a great feeder; it is meant to be full, not empty; the function of the colon muscle in this respect. Intestinal tone; scybala; "sheep's droppings" starvation; aperients. (4) Treatment; not every case needs it. Constipation healthy for many. The doctrine of intestinal auto-intoxication, as developed of late years, extreme and physiologically unsound. Intestinal antiseptics. The surgical treatment of chronic constipation. When treatment is necessary. Much to be gained by common-sense physiology. The obsession of the urgency of a daily stool to be attacked; so also that other, that blocks readily occur; so also a third, that the colon is a poison bag. Treat bad habits; irregularity of meals; too little food; the dietetic fad; the curse of pill-hunger. Instil the need of patience and perseverance; leave the bowels alone by thought and deed to work out their own salvation. The rôle of massage, water, salines, dinner pills, enemata.

Friday, July 29th.—Morning. Selected Papers. Afternoon: Clinical Cases.

Members who desire to take part in either of the above discussions, or to read a paper before the Section should communicate as soon as possible with the Honorary Secretaries.

ODONTOLOGY.

President: J. HOWARD MUMMERY, M.R.C.S., L.D.S., London.

Vice-Presidents: WILLIAM DONALD ANDERSON, F.F.P.S., L.D.S., Glasgow; ARTHUR W. W. BAKER, M.D., L.D.S., Dublin; W. H. DOLAMORE, M.R.C.S., L.R.C.P., L.D.S., London; WILLIAM HERN, M.R.C.S., L.D.S., London; JOHN MATHIESON MACMILLAN, L.R.C.P. and S. Edin., L.D.S., Glasgow.

Honorary Secretaries: ERNEST B. DOWSETT, M.R.C.S., L.R.C.P., L.D.S., 1, Gloucester Street, W.; A. HOPEWELL-SMITH, M.R.C.S., L.R.C.P., L.D.S., 58, Park Street, Park Lane, W.; CYRIL H. HOWKINS, M.R.C.S., L.R.C.P., L.D.S., 83A, Edmund Street, Birmingham.

The following programme has been arranged:

Wednesday, July 27th.—Special Discussion on the Prevention of Dental Caries, to be taken under the following headings: (1) The Effect of Various Food Stuffs. To be opened by Dr. Sim Wallace. (2) The Care of the Mouth during General Disorders. To be opened by Dr. Hector Mackenzie. (3) The Influence of Climate, etc. To be opened by Mr. A. S. Underwood.

The following are synopses of the opening papers:—

1. Dr. SIM WALLACE: The effect of the foodstuffs in preventing dental caries is twofold. First, the *predisposing causes* of caries may to a large extent be prevented. The two chief predisposing causes which may be most effectually prevented by foodstuffs are (*a*) the irregularities in position of the teeth and (*b*) recession of the gums in later life. When food which stimulates efficient mastication is habitually consumed the muscles of mastication, including the tongue, become well developed and the jaws grow sufficiently large to accommodate all the teeth without irregularity or crowding. Further, such foods tend to keep the mouth and alimentary canal in a hygienic condition, and thus largely prevent the ill-health and emaciation which so generally result from chronic interference with normal digestion and assimilation. This is an important factor in preventing irregularities, because ill-health associated with emaciation prevents the normal development of the jaws and thus gives rise to crowding of the teeth. Recession of the gums is also prevented by the habitual use of food which demands efficient mastication, for the teeth are kept free from tartar and other irritants which lodge about the necks of the teeth and injure the gums. The amount of nutrition, including the proportion of lime salts in the water, need not be considered, as it is never lack of nutrition of any kind *per se* which induces or predisposes to dental caries, though the unhygienic state of the mouth and alimentary canal resulting in constitutional disease may give rise to developmental defects in the enamel and thus predispose to caries. Secondly, the *immediate or exciting cause* of caries may be prevented by foods which clean the mouth and leave the teeth free from adhering carbohydrates. To secure this end, without requiring to restrict the kinds of foods eaten, it is necessary to have the meal arranged in such a way that the last foodstuff eaten will be of a detergent nature.

2. Dr. HECTOR MACKENZIE: The neglect of the hygiene of the mouth during illness all too common even at the present day. Sordes in fever a sign of neglect and inefficient nursing. Septic conditions of mouth often aggravate the effects of general illness. The prevalence of pyorrhoea and caries. Their relations to chronic toxaemia, various forms of anaemia, and affections of the joints. Their relation to chronic dyspepsia and intestinal disorders. Their effects on tuberculosis, etc. The relations of general disorders to dental caries and pyorrhoea. To what extent the latter are dependent on general disorders. Conditions of ill-health no doubt responsible for dental disease, but the latter is the cause of much ill-health.

3. Mr. A. S. UNDERWOOD: The results of a comparison of a large number of skulls of various races and periods undertaken with a view to determine, if possible, the factors favouring the occurrence of dental caries, the effects of climate and varying degrees of civilization being specially kept in view.

Thursday, July 28th.—Special Discussion on the Prevention of Dental Caries (continued)—(4) The Effect of Variations in the Buccal Secretions, and the Part Played by Bacteria Normally Present. To be opened by Mr. Kenneth W. Goadby. (5) The Need for the Correction of Malposition of the Teeth. To be opened by Mr. J. H. Badcock. (6) The Correction of the Effects of Drugs taken as Medicine. To be opened by Dr. Harold Austen. (7) The Reasons for Susceptibility and Natural Immunity. To be opened by Mr. Howard Mummery.

4. Mr. KENNETH W. GOADBY: Dental caries presents a difficult bacteriological problem, due to the number of species of bacteria involved, and the fact that until the tooth pulp is involved little or no physiological reaction takes place in the invading bacteria. Normal flora of the mouth. Bacteriological flora in acute caries. Bacteriological flora in chronic caries. Factors of etiological significance. Bacteria most closely associated with caries. Biological facts of mouth bacteria in relation to the commencement of caries.

5. Mr. J. H. BADCOCK: It is taken for granted that one of the chief causes of caries is stagnation of food and other débris around the teeth. Any oral conditions which tend to uncleanliness will favour caries, while conditions tending to cleanliness will aid in its prevention. It is natural for the mouth to be clean, and the mouths of animals living under natural conditions are clean. This natural cleanliness is due to several factors—namely: (*a*) Friction of hard food upon the teeth and gum in the act of chewing; (*b*) the hard and polished surfaces of the teeth; (*c*) the shapes of the individual teeth; (*d*) the arrangement of the teeth with relation to one another. Description of the normal arrangement of the teeth and demonstration that any departure from this arrangement favours the lodgement and stagnation of food. The correction of irregularities of the teeth tends to the prevention of caries in direct proportion to the degree in which the result attained approaches the normal.

6. Dr. HAROLD AUSTEN: There is a very widely-spread and deeply-seated popular belief that the taking of medicines is a common cause of the decay of the teeth. This belief is fostered, first, by the fact that certain drugs, such as iron, cause an obvious, though superficial, blackening; and, secondly, that decay of the teeth is found to be prevalent after such disturbances of the general health as are commonly treated by the administration of medicines. The belief that drugs injure the teeth appears, however, to rest upon but slender foundations, the popular prejudice resting upon a basis of "post, ergo propter, hoc." Two classes of drugs would appear *prima facie* to be a potential source of caries: (1) Acids, administered internally or used as local applications to the fauces. Very dilute solutions of weak acids, if applied continuously, have been shown by experiment to appreciably destroy the enamel. But in the mouth acid medicines and gargles are not applied continuously, but very intermittently, and in the case of fluids, mostly to the exposed surfaces, which are constantly washed by the saliva. All modern research tends to prove that the acids really injurious to the teeth are those generated *in situ*, in places which do not admit of natural cleansing, by the fermentation of the remains of carbohydrate foods. (2) Mercury. Mercurials when administered in infancy have been credited with the production of hypoplasia of the teeth, the so-called honeycombing. The evidence for this is far from convincing. If, however, the point be proved, it would be an instance of a medicine causing predisposition to decay, to which hypoplastic teeth are very liable. Mercurials administered in large doses have long been known to cause well-marked disturbances in the associated tissues, the gums, and even bone. It is conceivable that mercury acting in this way, where there has been actual ulceration and permanent loss of tissue, may cause a predisposition to caries at the necks of the teeth. Lead, bismuth, silver, or copper, being drugs partly excreted by the oral mucous membrane, have been credited with occasionally producing similar effects to mercury in septic mouths. The only treatment for the correction of the effects of these drugs, if any is required, seems to be to maintain complete cleanliness of the mouth, and to neutralize the effects of acids taken by the immediate use of an alkaline mouth wash.

7. Mr. J. HOWARD MUMMERY: Immunity to caries in certain individuals; how accounted for. Constitution of the teeth; attribution of antiseptic powers to saliva; potassium sulpho-cyanide in the saliva; alkalinity of saliva; chemiotaxis (attraction of white corpuscles by saliva); action of saliva on soluble products of bacteria; antagonism and symbiosis of bacteria in the mouth. Can the subordination of natural selection in modern communities account in some measure for the increased susceptibility to caries?

Friday, July 29th.—Paper: The Value of Teeth to the Human Economy, by J. G. Turner.

MOTOR GARAGE.

IT has been arranged with the Alveston Motor Garage, whose premises open out of Roland Gardens, South Kensington, London, S.W., to provide garage accommodation for members bringing their cars from the provinces. The charge will be 2s. a day, to include standing in a lock-up garage and use of electric light and water. Members desirous of availing themselves of this accommodation should make early application to the Alveston Motor Garage.

NATIONAL TEMPERANCE BREAKFAST.

THE Annual Temperance Breakfast will be held on the morning of Thursday, July 28th, at 8 a.m., under the presidency of Mr. Pearce Gould (Vice-President, R.C.S.Eng.).

British Medical Association.

NOTICE OF EXTRAORDINARY GENERAL MEETINGS.

NOTICE IS HEREBY GIVEN by the Council, that an Extraordinary General Meeting of the above-named Association will be held at the Connaught Rooms, Freemasons' Hall, Great Queen Street, London, on Wednesday, the 29th day of June, 1910, at 11 o'clock in the forenoon, for the purpose of considering the subjoined Resolution, and, if thought fit, passing the same as an Extraordinary Resolution:

> "That the Regulations contained in the printed document submitted to this Meeting, and for the purpose of identification initialled by the Chairman thereof, be and the same are hereby adopted as the Regulations of the Association in substitution for all the existing Regulations of the Association."

AND NOTICE is hereby also given by the Council, that if the above Resolution shall have been passed by the requisite majority at the above-mentioned Meeting, a further Extraordinary General Meeting of the above-named Association will be held at the Court of Common Council Chamber, Guildhall, London, on Friday, the 22nd day of July, 1910, at 2 o'clock in the afternoon, for the purpose of receiving a Report of the proceedings at the first above-mentioned Meeting, and of confirming, if thought fit, as a Special Resolution the Resolution above-set forth.

AND NOTICE is hereby also given by the Council, that the Regulations intended to be submitted to the first above-mentioned Meeting and to be referred to in the Resolution above set forth will be the proposed New Articles and By-laws which are printed on pages 290 to 301 (both inclusive) of the Supplement to "The British Medical Journal," dated May 28th, 1910, each of the proposed By-laws numbered 20, 41, and 56 being so submitted in such one of the alternative forms thereof (printed respectively on pages 295 and 296, 297 and 298 and 299 of the said Supplement) as shall have been approved by a Special Representative Meeting of the above-mentioned Association to be held in the Connaught Rooms, Freemasons' Hall, Great Queen Street, London, on Tuesday, the 28th day of June, 1910, at 3 o'clock in the afternoon.

AND that a copy of the said Regulations may be seen at the Office of the Association at any time before the 29th day of June, 1910, during business hours.

Dated this 8th day of June, 1910.

BY ORDER,

GUY ELLISTON,
Financial Secretary and Business Manager.

429, Strand, London, W.C.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH: BRISTOL DIVISION.—A meeting of the Division will be held in the Medical Library of the University of Bristol on Monday next, June 13th, at 8.30 p.m. Business: (1) Business of Annual Representative Meeting (BRITISH MEDICAL JOURNAL SUPPLEMENT, May 21st). (2) Business of Special Representative Meeting, June 28th (BRITISH MEDICAL JOURNAL SUPPLEMENT, May 28th). If those members who are unable to attend will send their opinions on any points to be considered, the Secretary will lay those opinions before the meeting.—NEWMAN NEILD, Honorary Secretary, Clifton.

BIRMINGHAM BRANCH: CENTRAL DIVISION.—The annual meeting of the Division will be held at 3.30 p.m. on Wednesday, June 15th, at the Medical Institute, for the purpose of electing a Chairman, Vice-Chairman, and two Honorary Secretaries for the ensuing year.—A. W. NUTHALL, W. T. LYDALL, Medical Institute, Edmund Street, Birmingham.

BORDER COUNTIES BRANCH.—The annual meeting will be held at the Station Hotel, Carlisle, on Friday, June 24th, at 3p.m.—G. R. LIVINGSTON, M.D., Honorary Secretary.

CONNAUGHT BRANCH.—A meeting of the Branch will be held at Ryan's Hotel, Claremorris, at 1 p.m., on Tuesday, June 14th. Business: To elect Council and officers of Branch. Appoint a Representative to Representative Meeting. Receive report of Executive Committee. Ballot for new members. Consider agenda paper of Annual General Meeting. Transact any other necessary business.—JOHN MILLS, Honorary Secretary.

DORSET AND WEST HANTS BRANCH.—Notice is hereby given that the summer meeting proposed to be held in Weymouth, on Thursday, June 30th, has reluctantly been abandoned, by order of the President, owing to the date clashing with the dates on which the Special Representative Meeting, the Extraordinary General Meeting of the Association, and the Council Meeting following, are to be held in London at the end of June.—JAMES DAVISON, Honorary Secretary, "Streateplace," Bournemouth, June 6th, 1910.

EAST ANGLIAN BRANCH.—The annual meeting of the East Anglian Branch will be held at the Town Hall, Thetford, on Thursday, June 16th. Programme of proceedings: 11.45 a.m. Council meeting. 12.15 p.m. General meeting. (1) Dr. Pembroke Minns, the President-elect, will read Notes on Two Cases of Error in Diagnosis. (2) Dr. S. W. Curl (Colchester) will show a specimen of Cystic Kidneys. 1 p.m. Luncheon, by kind invitation of the President-elect at the Town Hall. 2 p.m. Resumed general meeting. Introduction of Dr. Pembroke Minns as president. (3) Joseph Griffith, F.R.C.S. (Cambridge), will read a paper on Fractures at the Ankle and their Treatment. (4) H. H. Brown, M.D. (Ipswich), will read a paper on Appendicitis; some Points in Connexion with Operation. (5) Bernard E. A. Batt, M.B. (Bury St. Edmund's), will read a paper on Sudden Death during, or immediately following, Labour. 4 p.m. Afternoon tea at the Limes by the kind invitation of Miss Minns, Mrs. Harris, and Mrs. Allan Minns. Surgical instruments will be shown by Messrs. Down Brothers.—B. H. NICHOLSON, H. A. BALLANCE, J. GUTCH, Honorary Secretaries.

EAST ANGLIAN BRANCH: WEST NORFOLK DIVISION.—The annual meeting of this Division will be held on Thursday, June 30th, at 3.30 p.m., at the West Norfolk and Lynn Hospital.—J. L. FORREST, Honorary Secretary.

EAST YORK AND NORTH LINCOLN BRANCH.—The annual meeting of this Branch will be held at the Royal Infirmary, Hull, on Thursday, June 16th, at 12.30 p.m.—EDWARD TURTON, Honorary Secretary, 1, Albion Street, Hull.

EDINBURGH BRANCH: SOUTH-EASTERN COUNTIES DIVISION.—The annual meeting of this Division will be held in the Railway Hotel, St. Boswells, on Monday, June 13th, at 3.30 p.m., Dr. Tyrrell, Galashiels, presiding. Business: 1. Minutes of last meeting. 2. Annual Report. 3. Election of Office-bearers. 4. Consideration of following reports: (1) Relation of Homoeopaths to the Association; (2) Special Poor Law Reform Committee; (3) Medical Inspection of School Children and Treatment of those found Defective; (4) Consideration of Model Rules of Proposed Public Medical Service. 5. Instructions to Representative. 6. Any other business.—JOHN JEFFREY, Honorary Secretary.

FIFE BRANCH.—The annual meeting will be held at the Hotel, Thornton, on Thursday, June 16th, at 3 p.m.—R. BALFOUR GRAHAM, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH.—The annual meeting will be held at Burnley on the afternoon of Wednesday, June 15th. Members desiring to read papers, show cases, or otherwise to contribute to the scientific and clinical programme are requested to communicate at once with F. CHARLES LARKIN, Branch Secretary, 54, Rodney Street, Liverpool.

LANCASHIRE AND CHESHIRE BRANCH: ROCHDALE DIVISION.—A joint meeting of the Bury and Rochdale Divisions will be held in the Wellington Hotel, Drake Street, Rochdale, on Thursday, June 16th, at 8.45 p.m. Business: To consider matters referred to Divisions (see SUPPLEMENTS for May 7th, 21st, and 28th).—JAMES MELVIN, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: WARRINGTON DIVISION.—The quarterly meeting of the Warrington Division will be held at the Infirmary, Warrington, on Tuesday, June 14th, at 4.30 p.m.—T. A. MURRAY, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH.—The annual meeting of the Branch will be held on Thursday, June 23rd, at 4.30 p.m., at 429, Strand, W.C. Agenda: (*a*) To receive the report of the election of new officers. (*b*) To receive the annual report of the Council of the Branch and the annual financial statement. (*c*) To receive the annual report of the Representatives of the Branch on the Central Council. (*d*) To make new rules or alter or repeal existing rules. (*e*) Any other business. (*f*) President's Address.—E. W. GOODALL, W. GRIFFITH, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: NORWOOD DIVISION.—The next meeting will be held at Fenstanton, Christchurch Road, Streatham, on Thursday, June 30th, at 4 p.m., Dr. T. D. Greenlees in the chair.—J. A. HOWARD, Honorary Secretary, Upper Norwood.

METROPOLITAN COUNTIES BRANCH: WESTMINSTER DIVISION.—The annual meeting will be held at the Criterion Restaurant, Piccadilly, W., at 4.30 p.m., on Monday, June 20th.—J. HOWELL EVANS, Honorary Secretary.

MIDLAND BRANCH.—The annual meeting of the Branch will be held at the Guildhall, Lincoln, on Thursday, June 16th, at 2.30 p.m. Agenda: Minutes. Election of Branch officers (the Honorary Secretary not seeking re-election). Report of Branch Council. Financial statement. Any other business. Address by the President, W. H. B. Brook, M.D. Specimens and clinical cases. Members wishing to show specimens, etc., are requested to inform the Honorary Secretary before the meeting. The President-elect invites members to luncheon at the Albion Hotel, Lincoln, at 1.15 p.m. The annual dinner will be held at the Albion Hotel, Lincoln, at 6 p.m. Members who intend to be present at the lunch or dinner are requested to notify the President-elect, Dr. W. H. B. Brook, Eastgate, Lincoln, on or before June 14th.—ROBERT SEVESTRE, Honorary Secretary and Treasurer.

MUNSTER BRANCH.—The annual general meeting of this Branch will be held on Saturday, June 18th, at 4.30 p.m., in the Rooms of the Cork Medical Society, 74, South Mall, Cork. Representatives, Officers, and Council for 1910-11 will be elected, and any other necessary business transacted.—PHILIP G. LEE, 26, St. Patrick's Hill, Cork, Honorary Secretary.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH.—The annual meeting will be held on June 29th, at the Hotel, Lakeside, Windermere. The new President, J. W. Fawcitt, M.D. (Broughton-in-Furness), will deliver a presidential address. Members willing to show cases or specimens are requested to kindly communicate with A. S. BARLING, Honorary Secretary.

NORTH WALES BRANCH: SOUTH CARNARVON AND MERIONETH DIVISION.—The annual meeting of the Division will be held at the Golden Lion Hotel, Dolgelley, on Thursday, June 16th, at 2 p.m.—HENRY GLADSTONE JONES, Plas Gwilym, Criccieth, Honorary Secretary.

SOUTH-EASTERN BRANCH.—The sixty-sixth annual meeting of the Branch will be held at the Albany Hotel, Hastings, on Wednesday, June 15th, at 2.15 p.m. Dr. Allfrey (President-elect) kindly invites members to lunch at the Albany Hotel, Hastings, from 1 to 2 p.m. Agenda:—In addition to the business of an ordinary meeting: (1) To receive the report of the election of new officers who shall thereupon take office. (2) To receive the annual report of the Council on the affairs of the Branch and the annual financial statement. (3) Alteration of rule proposed by the Council, "That in Rule 7, (a), (2), the words 'two weeks' be inserted instead of 'one month' in line 9." The effect of this is that names of candidates will have to be before the Council two weeks, instead of one month, previous to election. After the meeting members will be driven to Fairlight and the neighbourhood, and the party are very kindly invited to tea at Fairlight Place by the Rev. W. C. and Mrs. Sayer-Milward. The Dinner will be held at 6.30 p.m., charge 6s., wine will be provided by the local members. Those who intend to be present at the lunch, the drive, or the dinner are requested to signify their intention to Dr. G. Vickerman Hewland, 4, Eversfield Place, St. Leonards-on-Sea, not later than Saturday, June 11th.—E. A. STARLING, Honorary Secretary, Tunbridge Wells.

SOUTH-EASTERN BRANCH: CHICHESTER AND WORTHING DIVISION.—The annual meeting of the Division will be held at the Infirmary, Worthing, on Friday, June 17th, at 3.30 p.m. Mr. W. S. Simpson (Chairman of the Division) will preside. Agenda: (1) Minutes of the last meeting. (2) To appoint the place of next meeting. (3) Election of officers—Chairman, Vice-Chairman, Honorary Secretary, Representative on Branch Council, Representative at Representative Meeting, and members of the Executive Committee. (4) Report of the Honorary Secretary. (5) The following resolution submitted by the Chelsea Division, "That this meeting recognizes the necessity for a Union of Medical Practitioners with Parliamentary Representation, and requests the executive of the British Medical Association to ascertain the wishes of members in the United Kingdom by referendum at the earliest possible date." (6) Provisional agenda of Representative Meeting. (7) Matters referred to the Division: (*a*) Report of Council on the Relation of Homoeopathy to the Association. (8) Any other business.—H. C. L. MORRIS, Honorary Secretary.

SOUTH-EASTERN BRANCH: GUILDFORD DIVISION.—The annual meeting of this Division will be held at the Royal Surrey County Hospital on Friday, June 24th, at 4.30 p.m. Tea will be provided at 4.15. Agenda: (1) Minutes. (2) Election of officers and members of the Executive Committee for the ensuing year.

(3) Annual report of the Division. (4) To consider circular letters from the Guildford and Hambledon Guardians *re* payment of medical men when called in by midwives. (5) Matters referred to Divisions: (*a*) Model rules for public medical services; (*b*) Annual Representative Meeting, July, 1910. (*c*) Special Representative Meeting, June 28th. (6) Lieutenant-Colonel A. de C. Scanlan, R.A.M.C.ret., will read a short paper on Abscess of the Liver. (7) Any other business. Any member desiring to show cases or specimens is invited to communicate with one of the Honorary Secretaries, H. B. Butler, Eastdale, Guildford; E. J. Smyth, Maythorne, Guildford.

South-Eastern Branch: Maidstone Division.—The annual meeting of this Division will be held at the Kent County Ophthalmic Hospital, Maidstone, on June 23rd, when Dr. MacNaughton Jones will give an address on the Prevention of Mortality after Pelvic Operations. The annual dinner will take place at 7.30 p.m., June 23rd, at the Royal Star Hotel, Maidstone; tickets 6s., exclusive of wines; morning dress. The Honorary Secretary would be very glad if *all the members* would kindly intimate to him *at once* if it is their intention or not to be present at the dinner, in order that arrangements may be made.—George Potts, Honorary Secretary.

South-Eastern of Ireland Branch.—A meeting of this Branch, as also a meeting of the Branch Council and the local Division, will be held at the Council Chamber, Clonmel, on Wednesday, June 15th, at 12 o'clock noon. Agenda: (1) Minutes of last meeting. (2) Letters of apology. (3) Correspondence. (4) That the subject of the Medical Attendant of the Clonmel Foresters be entertained. (5) To consider special report and proposals of the Council respecting Royal Charter (see Supplement, May 28th), and to give any necessary instructions to the Representative. (6) Luncheon. Members who intend to read papers or exhibit cases will please communicate with the Honorary Secretary at least one week before the date of meeting.—J. Quirke, Honorary Secretary.

South Midland Branch.—The annual meeting will be held at Bedford on Thursday, June 16th, under the presidency of Dr. H. Skelding. The President has promised to show some cases, and hopes for some discussion of these. This will be followed by the President's address, and then Dr. H. D. Rolleston (St. George's Hospital) will address the meeting on Acute Arthritis of Doubtful Origin. Members are invited to read papers or show cases. The meeting, and the luncheon which will precede it, will be held at the County Hospital, Bedford.—E. Harries-Jones, Northampton, Honorary Secretary.

South Wales and Monmouthshire Branch: Monmouthshire Division.—A meeting of the Division will be held at The Cedars, Chepstow, on Thursday, July 7th, 1910.—R. J. Coulter, S. Hamilton, Newport, Honorary Secretaries.

West Somerset Branch.—The sixty-eighth annual meeting of this Branch will be held at the George Hotel, Ilminster, on Friday, June 24th, at 12.15 p.m., when the chair will be taken by the new President, Dr. W. H. Maidlow. Agenda: Minutes. Annual report. Balance sheet for 1909. Election of officers for ensuing year. President's address: After Ten Years. Resolutions will also be submitted to the meeting dealing with proposed alterations in the Articles of the Association. Lunch will be served at 1.45 p.m., at a charge of 3s. per head (exclusive of wine, etc.). During the afternoon the Donyatt Golf Links will be available for those members who wish to play golf; motor cars will be provided for the rest, if necessary, and they will be driven to Barrington Court, Hinton St. George, and other places of interest in the neighbourhood. Those who intend to be present are requested to inform the Honorary Secretary by Monday, June 20th, whether they wish to have motor accommodation provided for them, or if they will be able to place any seats in their own motors at the disposal of others.—W. B. Winckworth, Honorary Secretary.

Worcestershire and Herefordshire Branch.—The annual meeting of this Branch will be held at Hereford on Thursday, June 23rd, at 3 p.m. Members wishing to show cases or specimens or read papers should communicate with the Honorary Secretary not later than June 13th. Business: Election of officers. To receive the annual report of the Council of the Branch and annual financial statement. Any other business. Members will dine together subsequently to the meeting.—C. S. Morrison, Honorary Secretary.

Worcestershire and Herefordshire Branch: Hereford Division.—The annual meeting of this Division will be held on June 15th, at 3.15 p.m., at the General Hospital.—Arthur Wood, Honorary Secretary.

Yorkshire Branch.—The annual meeting of this Branch will be held at the University, Sheffield, on Wednesday, June 22nd. The Council will meet at 3.30 p.m.; general meeting, 4 o'clock. Election of officers; report of council; president's address. Members intending to read papers, make any communications, propose new members, etc., are requested to communicate with the Secretary at once. Annual dinner, 6.30 p.m.—Adolph Bronner, 33, Manor Row, Bradford, Honorary Secretary.

Border Counties Branch and Edinburgh Branch.
It has been arranged that a motoring meeting of these two Branches shall be held at Moffat on Friday, July 8th. There will be a discussion on motoring for medical men. Any medical man interested in motoring who may happen to be in Scotland at the time will be very welcome at this meeting.

George R. Livingston, Honorary Secretary.
47, Castle Street, Dumfries.

Naval and Military Appointments.

ARMY MEDICAL SERVICE.

Lieutenant-Colonel M. W. O'Keeffe, M.D., from the Royal Army Medical Corps, to be Colonel, vice Colonel J. G. MacNeece, promoted, April 23rd. Colonel O'Keeffe's previous commissions are thus dated:—Surgeon, February 5th, 1881; Surgeon-Major, February 5th, 1893; Lieutenant-Colonel, February 5th, 1901. He was in the Egyptian war in 1882, being present in the actions of Mahsameh and Kassasin, and at the battle of Tel-el-Kebir (medal with clasp, and Khedive's bronze star); and with the Tirah Expeditionary Force, on the North-West Frontier of India in 1897-8, including the action of Dargai and the capture of the Lampagra and Arhanga Passes.

A good service pension of £100 a year has been awarded to Surgeon-General G. J. H. Evatt, C.B., M.D. retired pay, late Principal Medical Officer 2nd Army Corps, at Salisbury, and Principal Medical Officer, London District, 1900-2.

Royal Army Medical Corps.

Lieutenants T. W. Stallybrass, M.B., and V. P. Hutchinson are confirmed in that rank.

Captain E. V. Aylen, who is serving in India, is appointed Specialist in Dermatology, 6th (Poona) Division, from December 4th, 1909.

Captain C. G. Browne, also serving in India, is appointed Specialist in Dermatology, 8th (Lucknow) Division, from November 17th, 1909.

Lieutenant-Colonel R. J. Geddes, D.S.O., M.B., serving in India, is appointed to officiate as Principal Medical Officer, Jubbulpore and Jhansi Brigades.

INDIAN MEDICAL SERVICE.

Lieutenant-Colonel J. W. Rodgers is appointed to officiate as Principal Medical Officer, 5th (Mhow) Division, from May 19th.

Lieutenant-Colonel E. P. Frenchman, Madras, has retired from the service, from April 1st. He joined the department as Assistant-Surgeon, March 31st, 1879, and became Lieutenant-Colonel March 31st, 1899.

Lieutenant-Colonel S. C. Sarkies, Madras, has also retired, from May 6th. He was appointed Assistant Surgeon, March 31st, 1879, and made Lieutenant-Colonel, March 31st, 1899.

The retirement from the Service of Lieutenant-Colonel W. B. Browning, C.I.E., and D. B. Spencer, which has been already announced in the British Medical Journal, has received the approval of the King.

TERRITORIAL FORCE.

Yeomanry.

Montgomeryshire.—Surgeon-Captain F. E. Marston resigns his commission, April 4th.

Royal Army Medical Corps.

For Attachment to Units other than Medical Units.—Rupert Waterhouse, M.D., to be Lieutenant, April 15th.

First East Lancashire Field Ambulance.—Captain G. W. Fitzgerald, from the 3rd East Lancashire Field Ambulance, Royal Army Medical Corps, to be Captain, May 14th. Albert Ramsbottom, M.D. (late Captain 2nd Western General Hospital, Royal Army Medical Corps) to be Lieutenant, May 14th.

Third East Lancashire Field Ambulance.—Lieutenant Robert Burnet, M.B., from the list of officers attached to Units other than Medical Units, to be Lieutenant, May 14th. Edward H. Cox, M.B., to be Lieutenant, May 14th.

First Welsh Field Ambulance.—Major T. L. K. Davies, M.B., resigns his commission and is granted permission to retain his rank and to wear the prescribed uniform, April 30th.

Second Western General Hospital.—Captain A. Ramsbottom, M.D., resigns his commission, May 14th.

For Attachment to Units other than Medical Units.—Edward O. Libbey to be Lieutenant, March 23rd. Donald G. MacGill to be Lieutenant, April 1st. Captain W. R. N. Smithard, M.B., from the 1st East Lancashire Field Ambulance, Royal Army Medical Corps, to be Captain, May 2nd.

Attached to Units other than Medical Units.—Lieutenant F. R. Sutton, M.D., resigns his commission, April 13th. Lieutenant Henry Smurthwaite, M.D., resigns his commission, April 22nd.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

In seventy-seven of the largest English towns, 8,778 births and 3,836 deaths were registered during the week ending Saturday last, June 4th. The annual rate of mortality in these towns, which had been 13.8, 12.4, and 12.7 per 1,000 in the three preceding weeks, fell last week to 11.8 per 1,000. The rates in the several towns ranged from 3.1 in King's Norton, 3.3 in Walthamstow, 4.3 in Handsworth (Staffs), and 6.3 in Hornsey, in East Ham, and in Leyton, to 16.5 in South Shields, 17.0 in Bootle, 18.2 in Liverpool, 18.4 in Merthyr Tydfil, and 19.9 in Oldham. The death-rate from the principal infectious diseases averaged 1.1 per 1,000; in London the rate was equal to 1.2 per 1,000, while among the seventy-six other large towns it ranged upwards to 2.9 in Smethwick and in Stockton-on-Tees, 3.8 in Burton-on-Trent, and 3.9 in Merthyr Tydfil. Measles caused a death-rate of 1.4 in Bradford, 1.9 in Blackburn, 2.8 in Burton-on-Trent, and 3.9 in Merthyr Tydfil; scarlet fever of 1.3 in Coventry, whooping-cough of 1.4 in Smethwick and in Wallasey, and 1.7 in Huddersfield; and diarrhoea of 1.4 in Smethwick. The mortality from diphtheria or from enteric fever showed no marked excess in any of the large towns. One

fatal case of small-pox was registered as belonging to South Shields and 1 to Cardiff, but none to any other of the seventy-seven towns. The number of scarlet fever cases under treatment in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 1,476, 1,476 and 1,445 at the end of the three preceding weeks, rose to 1,461 at the end of the week under notice; 203 new cases were admitted during the week, against 177, 190, and 194 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday last, June 4th, 954 births and 517 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 15.3, 15.5, and 14 0 per 1,000 in the three preceding weeks, rose to 14 3 last week, and was 2.5 per 1,000 above the mean rate during the same period in the seventy-seven large English towns. Among these Scottish towns, the death-rates ranged from 9 6 in Aberdeen, and 11.4 in Edinburgh, to 15.6 in Greenock, and 20.2 in Dundee. The death-rate from the principal infectious diseases averaged 1.4 per 1,000, the highest rates being recorded in Paisley and in Dundee. The 259 deaths recorded in Glasgow included 2 which were referred to scarlet fever, 2 to diphtheria, 4 to whooping-cough, 1 to enteric fever, and 7 to diarrhoea. Two deaths from measles were recorded in Edinburgh; 9 from measles, and 2 from whooping-cough in Dundee; 7 from measles in Paisley; and 1 from typhus in Leith.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, June 4th, 704 births and 397 deaths were registered in the twenty-two principal urban districts of Ireland, as against 727 births and 467 deaths in the preceding period. The annual death-rate in these districts, which had been 21.3, 19 5, and 21.1 per 1,000 in the three preceding weeks, fell to 18.0 per 1,000 in the week under notice, this figure being 6 2 per 1,000 higher than the mean annual death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 15.7 and 22.1 respectively, those in other districts ranging from 4 4 in Lurgan and 4 5 in Lisburn to 31.2 in Waterford and 39.3 in Kilkenny, while Cork stood at 16.4, Londonderry at 13.2, and Limerick at 17.8. The zymotic death-rate in the twenty-two districts averaged 2.6 per 1,000, as against 2.3 per 1,000 in the preceding week.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

BATH: ROYAL MINERAL WATER HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

BENENDEN: NATIONAL SANATORIUM.—Assistant Medical Officer. Salary, £100 per annum.

BEVERLEY: EAST RIDING LUNATIC ASYLUM.—Second Assistant Medical Officer. Salary, £150 per annum.

BIRMINGHAM GENERAL HOSPITAL.—(1) House-Surgeon. (2) Two House-Physicians. (3) Assistant House-Surgeon. (4) Resident Surgical Officer. Salary at the rate of £50 per annum for (1) and (2), £40 for (3), and £100 for (4).

BRADFORD ROYAL INFIRMARY.—House-Surgeon (male). Salary, £100 per annum.

BRIGHTON: SUSSEX COUNTY HOSPITAL. — Resident Medical Officer, to act as locumtenent for six weeks. Honorarium, 18 guineas.

CALCUTTA: LADY DUFFERIN VICTORIA HOSPITAL.—Lady Medical Superintendent. Salary, Rs. 550 a month.

CARDIFF INFIRMARY.—(1) House-Surgeon. (2) House-Surgeon for Ophthalmic and Ear and Throat Departments. Honorarium, £30 for six months in each case.

COVENTRY AND WARWICKSHIRE HOSPITAL. — (1) Honorary Aural Surgeon. (2) Junior House-Surgeon; salary, £80 per annum.

GLOUCESTERSHIRE ROYAL INFIRMARY AND EYE INSTITUTION.—Assistant House-Surgeon. Remuneration at the rate of £80 per annum.

GUILDFORD: ROYAL SURREY COUNTY HOSPITAL.—Assistant House-Surgeon. Salary, £50 per annum.

HEREFORD COUNTY AND CITY ASYLUM. — Junior Assistant Medical Officer (male). Salary, £120 per annum, rising to £150.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Physician and Assistant Casualty Medical Officer. Salary, £30 for six months, and £2 10s. washing allowance.

HULL ROYAL INFIRMARY—Casualty House-Surgeon. Salary at the rate of £60 per annum for six months' appointment, and £80 for twelve months.

LEEDS: HOSPITAL FOR WOMEN AND CHILDREN. — House-Surgeon. Salary at the rate of £50 per annum.

LINCOLN COUNTY HOSPITAL.—(1) Senior Male House-Surgeon; salary, £125 per annum. (2) Junior Male House-Surgeon; salary at the rate of £75 per annum.

LONDON THROAT HOSPITAL, Great Portland Street, W.—House-Surgeon; non-resident. Honorarium at the rate of £75 per annum.

NOTTINGHAM CHILDREN'S HOSPITAL. — Lady House-Surgeon. Salary at the rate of £100 per annum.

NOTTINGHAM CITY ASYLUM.—Junior Assistant Medical Officer. Salary, £150 per annum.

NOTTINGHAM GENERAL HOSPITAL.—Assistant House-Surgeon. Salary, £60 per annum.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, E.—Assistant Physician.

ROYAL EAR HOSPITAL, Soho.—Honorary Assistant Anaesthetist.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—(1) Female Junior Obstetric Assistant. (2) Female Clinical Assistants in the Out-patient Department.

ROYAL WATERLOO HOSPITAL FOR CHILDREN AND WOMEN, S.E.—Junior Resident Medical Officer. Salary at the rate of £40 per annum.

SALFORD UNION INFIRMARY.—Male Resident Assistant Medical Officer. Salary, £120 per annum.

SHEFFIELD ROYAL HOSPITAL.—(1) Assistant House-Surgeon; (2) Assistant House-Physician. Salary, £50 per annum each.

STOCKPORT INFIRMARY.—Junior House-Surgeon (male). Salary, £80 per annum.

TAUNTON AND SOMERSET HOSPITAL.—Resident Assistant House-Surgeon. Salary, £50 per annum.

VENTNOR: ROYAL NATIONAL HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Assistant Resident Medical Officer. Salary, £100 per annum.

VICTORIA HOSPITAL FOR CHILDREN, Tite Street, S.W.—House-Physician. Salary, £30 for six months.

WAKEFIELD: WEST RIDING ASYLUM.—Assistant Medical Officer to act as locumtenent during summer months. Salary £3 3s. per week.

WARWICKSHIRE COUNTY COUNCIL.—Assistant County Medical Officer of Health. Salary, £250 per annum.

WEST BROMWICH DISTRICT HOSPITAL. — Assistant Resident House-Surgeon. Salary, £75 per annum.

WEST-END HOSPITAL FOR NERVOUS DISEASES, Welbeck Street, W.—Four Clinical Assistants.

WINCHESTER: ROYAL HAMPSHIRE COUNTY HOSPITAL.—House-Surgeon (male).

WORKSOP DISPENSARY AND VICTORIA HOSPITAL.—Medical Officer and House-Surgeon. Salary, £150 per annum.

CERTIFYING FACTORY SURGEONS. — The Chief Inspector of Factories announces vacancies at Glenarm, co. Antrim; Rathfriland, co. Down; and Southam, co. Warwick.

A CORRECTION.—In the notice for an Assistant Medical Officer to the Southwark Union Infirmary, published last week, the salary should have been £100 per annum.

APPOINTMENTS.

COLBORNE, G., M.A.Lond., M.R.C.S., L.R.C.P., Medical Officer of Health of the Bungay Urban District.

EVANS, D. Gordon, M.B., B.S.Lond., House-Physician to the Mount Vernon Consumption Hospital, Hampstead.

JARRATT, A. K., M.B., C.M.Edin, Medical Officer of Health of the Borough of Bridlington.

MCDONAGH, J. E. R., F.R.C.S.Eng., Surgeon to Out-patients at the London Lock Hospital.

MACLEOD, M., M.B., Certifying Factory Surgeon for the Harris District, co. Inverness.

ROBERTS, Chas., M.B., B.S.Lond., F.R.C.S.Eng., L.R.C.P.Lond., an Honorary Assistant Surgeon to the Manchester Royal Infirmary, vice J. W. Smith, F.R.C.S.Eng, appointed Honorary Surgeon, vice F. A. Southam, F.R.C.S.Eng., retired.

ROBERTS, W. Edgar, M.R.C.S., L.R.C.P., House-Surgeon to the South Devon and East Cornwall Hospital, Plymouth.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

MORE.—On June 4th, at Rothwell, near Kettering, the wife of John More, M.R.C.S.Eng., L.R.C.P.Lond., L.S.A., of a son.

WHARTON.—On May 31st, at 102, King Street, Oldham, to Dr. and Mrs. Alwyn Wharton, a son (Denis Orme).

MARRIAGES.

CLARIDGE—BURTON.—On Wednesday, June 1st, at Christ Church, Eaton, Norwich, George Percival Charles Claridge, M.B., B.S.Lond., to Grace Margaret, second daughter of Mr. and Mrs. George J. Burton, of Norwich.

COUPLAND—HENDERSON.—At St. Andrew's Church, Drumsheugh Gardens, Edinburgh, on June 1st, by the Rev. W. M. Macgregor, D.D., and the Rev. Alexander Martin, D.D., James Alane Coupland, M.B., B.S.Lond., F.R.C.S., 37, Park Square, Leeds, to Mima Alice younger daughter of the late James Thomas Henderson, Leghorn, Italy, and of the late Mrs. Henderson, 15, Blantyre Terrace, Edinburgh.

CRAWFORD—CHAVANNES—At Richmond Terrace Chapel, Bradford, on June 1st, by the Rev. George Frayn, John C. Crawford, M.B., C.M., of Keighley, to Marguerite, elder daughter of Mons. Edouard Chavannes, Civil Engineer, Lausanne. At home, 3, Haincliffe Road, Ingrow, Keighley, July 5th.

CROMBIE—HUTCHISON.—At the Parish Church of Kirkcaldy, on June 2nd, by the Rev, John Campbell, B.D., assisted by the Rev. J. R. Burt, North Berwick, J. Frank Crombie, M.D., son of John L. Crombie, M.B., North Berwick, to Mary Joanna, second daughter of the late Alexander Hutchison, Braehead, Kirkcaldy.

DEATHS.

BLANDFORD.—On June 6th, at The Manor, Norton-on-Tees, Eleanor, wife of J. W. Blandford, M.R.C.S.

SPENCER.—On May 27th, at 8, Osberton Road, Oxford, William Henry Spencer, M.A., M.D.Cantab., M.R.C.P., F.L.S., Consulting, late Senior Physician, to the Bristol Royal Infirmary, late Lecturer on Medicine at Bristol University Medical School, aged 72.

RECENT PUBLICATIONS.

The Girl's School Year Book. Issued under the direction of the editors of *The Public Schools Year Book.* London: The Year Book Press (Swan Sonnenschein and Co., Limited). (Cr. 8vo, pp. 610. 2s. 6d.)

This, the fifth issue, appears as the official book of reference of the Association of Head Mistresses. It deals with the year beginning April, 1910, and contains much information useful to parents.

DIARY FOR THE WEEK.

TUESDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—First Croonian Lecture by Dr. F. W. Andrewes: The Behaviour of the Leucocytes in Infection and Immunity.

ROYAL SOCIETY OF MEDICINE:

SURGICAL SECTION, Medical School, University College, W.C., 5.30 p.m.—Continuation of the discussion on the Present Position of the Treatment of Syphilis. (Second meeting.)

WEDNESDAY.

ROYAL INSTITUTE OF PUBLIC HEALTH, 37, Russell Square, W.C., 6 p.m.—Second Harben Lecture by Sir W. B. Leishman, M.B., F.R.S.: Antityphoid Inoculation.

ROYAL SOCIETY OF MEDICINE, Morley Hall, George Street, Hanover Square, W., 5 p.m. Special Meeting. Continuation of the Discussion on Vaccine Therapy, its Administration, Value, and Limitations, by Mr. Deane Butcher, and others. Fifth Meeting.

THURSDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Second Croonian Lecture by Dr. F. W. Andrewes: The Behaviour of the Leucocytes in Infection and Immunity.

ROYAL SOCIETY OF MEDICINE:

DERMATOLOGICAL SECTION, 11, Chandos Street, W., 5 p.m.—Demonstration of cases and specimens.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Lectures: Tuesday, 3.45 p.m., Larynx; Friday, 3.45 p.m., Larynx.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Wednesday, 4 p.m., Mitral Stenosis.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Thursday, 4 p.m., Acute and Chronic Inflammatory Lesions of Bone.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2 15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat, at noon and 4 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Thursday, and noon, Friday; Eye, 11 a.m., Wednesday and Saturday; Radiography, 4 p.m., Thursday. Special Lectures: Monday, 4 p.m., Operation for Acute Mastoid Disease; Tuesday, 4 p.m., Some Clinical and Pathological Aspects of Nervous Disease.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Medical; Friday, Ear, Nose, and Throat. Lectures at 5.15 p.m. will be given as follows: Monday, Malignant Endocarditis; Tuesday, Malignant Disease of the Bone (with lantern illustrations); Wednesday, Malignant Disease of the Nasal Passages, its Pathology, Diagnosis, and Treatment; Thursday, Some Bedside Clinical Methods, with Demonstrations and Examples.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3 30 p.m., Vertigo; Wednesday, 5 p.m., Cranial Injuries; Friday, 3 30 p.m., Clinical Cases; 5 p.m., Surgical Treatment of Lesions of the Spinal Cord.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, 10 a.m., Surgical Out-patient Clinic; 2.30 p.m., Medical Out-patient Clinic: Nose, Throat, and Ear Diseases. Tuesday, 10 a.m., Medical Out-patient Clinic; 2.30 p.m., Operations. Clinics: Surgical, Gynaecological, 3.30 p.m.; Medical In-patient, 4.30 p.m. Lecture Demonstration: Anaesthetic Dangers and how to Avoid them. Wednesday, 2.30 p.m., Medical Out-patient Clinic: Diseases of the Skin; Diseases of the Eye; *X* Rays, 3 p.m. Demonstration at the Northwood Sanatorium: The Diagnosis and Treatment of Early Pulmonary Tuberculosis. Thursday, 2.20 p.m., Gynaecological Operations; Medical Out-patient Clinic; Surgical Out-patient Clinic; 3 p.m., Medical In-patient Clinic. Friday, 10 a.m., Clinic: Surgical Out-patient; 2.30 p.m., Operations: Clinics: Medical Out-patient; Eye; 3.30 p.m., Medical In-patient.

WEST-LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Daily arrangements: Medical and Surgical Clinics, 2 p.m.: Operations, 2 p.m.; *X* rays, 2 p.m. Monday, Surgical Registrar, 10 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday, Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday, Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Practical Medicine, 12.15 p.m.; Eye, 2 p.m.: Gynaecology, 2 p.m. Thursday, Surgical Registrar, 10 a.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday, Medical Registrar, 10 a.m.; Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday, Diseases of Children, 10 a.m.; Eye, 10 a.m. Lectures at 5 p.m. each day will be given as follows: Monday, Acute Iritis; Tuesday, Clinical Pathology; Wednesday, *X*-Ray Examination of Urinary System: Thursday, Practical Surgery; Friday, Clinical Lecture.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
JUNE.	
11 SATURDAY ..	LONDON: Science Committee, 12 noon.
12 Sunday ..	
13 MONDAY ..	LONDON: Colonial Committee, 2.45 p.m. BRISTOL DIVISION, *Bath and Bristol Branch*, Medical Library, University of Bristol, 8.30 p.m. SOUTH-EASTERN COUNTIES DIVISION, *Edinburgh Branch*, Railway Hotel, St. Boswells, 3.30 p.m.
14 TUESDAY ..	LONDON: Public Health Committee, 3 p.m. CONNAUGHT BRANCH, Ryan's Hotel, Claremorris, 1 p.m. WARRINGTON DIVISION, *Lancashire and Cheshire Branch*, Infirmary, Warrington, 4.30 p.m.
15 WEDNESDAY	CENTRAL DIVISION, *Birmingham Branch*, Annual Meeting, Medical Institute, 3.30 p.m. HEREFORD DIVISION, *Worcestershire and Herefordshire Branch*, Hereford General Hospital, 3.15 p.m. LANCASHIRE AND CHESHIRE BRANCH, Annual Meeting, Burnley. SOUTH-EASTERN BRANCH, Annual Meeting, Albany Hotel, Hastings, 2.15 p.m.; Luncheon, 1 to 2 p.m.; Dinner, 6.30 p.m. SOUTH-EASTERN OF IRELAND BRANCH, Meeting of Branch, also meeting of Branch Council and Local Division, Council Chamber, Clonmel, 12 noon.
16 THURSDAY ..	EAST ANGLIAN BRANCH, Town Hall, Thetford, Council. 11.45 a.m.; General Meeting, 12.15 p.m.; Luncheon, 1 p.m.; Tea, 4 p.m. EAST YORK AND NORTH LINCOLN BRANCH, Annual Meeting, Royal Infirmary, Hull, 12.30 p.m. FIFE BRANCH, Annual Meeting, Hotel, Thornton 3 p.m. MIDLAND BRANCH, Annual Meeting, Guildhall, Lincoln, 2.30 p.m.; Lunch, Albion Hotel, 1.15 p.m.; Dinner, 6 p.m. ROCHDALE DIVISION, *Lancashire and Cheshire Branch*, Joint Meeting with Bury Division, Wellington Hotel, Drake Street, Rochdale, 8.45 p.m. SOUTH CARNARVON AND MERIONETH DIVISION, *North Wales Branch*, Golden Lion Hotel, Dolgelly, 2 p.m. SOUTH MIDLAND BRANCH, County Hospital, Bedford; Luncheon preceding Meeting.
17 FRIDAY ..	LONDON: Conference between Special Poor Law Reform Committee and Contract Practice Subcommittee, 2 p.m. CHICHESTER AND WORTHING DIVISION, *South-Eastern Branch*, Annual Meeting, Infirmary, Worthing, 3.30 p.m.
18 SATURDAY ..	MUNSTER BRANCH, Annual General Meeting, Cork Medical Society, 74, South Mall, Cork, 4.30 p.m.

Printed and Published by the British Medical Association at their Offices, No. 429, Strand, in the Parish of St. Martin-in-the-Fields in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JUNE 18TH, 1910.

CONTENTS.

	PAGE
The Seventy-eighth Annual Meeting of the British Medical Association.—PROGRAMME OF BUSINESS	381
Meetings of Branches and Divisions:	
Bath and Bristol Branch: Trowbridge Division	396
Glasgow and West of Scotland Branch: Glasgow North-Western Division	396
Lancashire and Cheshire Branch: Manchester Central Division	396
Metropolitan Counties Branch: City Division	396
" " " Norwood Division	398
" " " Westminster Division	398
North Lancashire and South Westmorland Branch: Furness Division	398
South-Eastern Branch: Eastbourne Division	399
" " Folkestone Division	399
" " Reigate Division	399
" " Tunbridge Wells Division	399
Southern Branch: Jersey Division	400
Notice of Extraordinary General Meetings, and of Special and General Meetings of Council	400
DISPENSING AND PRESCRIBING.—Conference between the British Medical Association and the British Pharmaceutical Conference	402
METROPOLITAN COUNTIES BRANCH	402
VITAL STATISTICS	402
NAVAL AND MILITARY APPOINTMENTS	402
VACANCIES AND APPOINTMENTS	403
BIRTHS, MARRIAGES, AND DEATHS	403
DIARY FOR THE WEEK	403
CALENDAR	404
ANNUAL MEETING.—List of Hotels and Boarding-houses	406

THE BRITISH MEDICAL ASSOCIATION.

78th ANNUAL MEETING, LONDON, JULY 22nd to JULY 29th, 1910.

THE Annual General Meeting of the British Medical Association this year will be held on July 22nd, 26th, 27th, 28th, and 29th, in the University of London and the adjacent collegiate buildings at South Kensington.

The Annual Representative Meeting, which will assemble on Friday morning, July 22nd, will meet in the Council Chamber of the Guildhall, by kind permission of the Lord Mayor and Corporation of the City of London.

The seat of the University was removed to the Imperial Institute Buildings at South Kensington in March, 1900. The main central portion of this fine building, including the great hall and grand entrance, and the east wing and its accessory structures are appropriated to the use of the University.

The University possesses a large number of spacious rooms which will be available for the general purposes of the Annual Meeting, including the Reception Room, Pathological Museum, and the Annual Exhibition, as well as for some of the Sections. Other accommodation for Sections will be provided in the several buildings of the Imperial College of Science and Technology.

The South Kensington stations of the District Railway and of the Brompton and Piccadilly Electric Tube are about seven minutes' walk from the University buildings, and omnibus lines pass along Cromwell Road to the south, and Kensington Gore to the north, within about five minutes' walk.

President

Sir WILLIAM WHITLA, M.D., LL.D., Professor of Materia Medica and Therapeutics, Queen's College, Belfast.

President-elect:

H. T. BUTLIN, D.C.L., LL.D., P.R.C.S., Consulting Surgeon, St. Bartholomew's Hospital, London.

Past President:

SINCLAIR WHITE, M.D., M.Ch., F.R.C.S., Senior Honorary Surgeon, The Royal Infirmary, Sheffield.

Chairman of Representative Meetings:

HAMILTON ASHLEY BALLANCE, M.S., Surgeon, Norfolk and Norwich Hospital, Norwich.

Chairman of Council:

EDMUND OWEN, LL.D., D.Sc., F.R.C.S., Consulting Surgeon to St. Mary's Hospital, London.

Treasurer:

EDWIN RAYNER, M.D., F.R.C.S., Consulting Surgeon, Stockport Infirmary, Stockport.

Honorary Local Secretaries of the London Meeting

Dr. EDWARD W. GOODALL, Eastern Hospital, Homerton, N.E.

Dr. WILLIAM GRIFFITH, 1, Chester Gate, Regent's Park, N.W.

Dr. LAURISTON E. SHAW, 64, Harley Street, W.

PROGRAMME OF BUSINESS.

The Address in Medicine will be delivered by JOHN MITCHELL BRUCE, M.D., F.R.C.P., London.

The Address in Surgery will be delivered by HARRY GILBERT BARLING, B.S., F.R.C.S., Birmingham.

THE SECTIONS.

THE scientific business of the meeting will be conducted in twenty-one Sections, which will meet on Wednesday, July 27th, Thursday, July 28th, and Friday, July 29th.

The President, Vice-Presidents, and Honorary Secretaries of each Section constitute a Committee of Reference for that Section, and exercise the power of inviting, accepting, or declining any paper, and of arranging the order in which accepted papers shall be read. Communications with respect to papers should be addressed to one of the Honorary Secretaries.

A paper read in the Section must not exceed fifteen minutes, and no subsequent speech must exceed ten minutes.

Papers read are the property of the British Medical Association, and cannot be published elsewhere than in the BRITISH MEDICAL JOURNAL *without special permission.*

The following are the general arrangements so far as they are yet complete:

ANAESTHETICS.

President: FREDERIC WILLIAM HEWITT, M.V.O., M.D., London.

Vice-Presidents: DONALD C. A. MCALLUM, Edinburgh; GEORGE ROWELL, F.R.C.S., London; ALEXANDER WILSON, F.R.C.S., Manchester.

Honorary Secretaries: Miss ADA M. BROWNE, L.S.A., 64, Belsize Park, N.W.; WILLIAM JOSEPH MCCARDIE, M.B., 89, Cornwall Street, Birmingham; HERBERT J. SCHARLIEB, C.M.G., M.D., 49, Wimpole Street, W.

The following subjects have been selected for discussion:

Wednesday, July 27th.—10 a.m., Discussion on The Percentage System of Chloroform Administration. To be opened by Dr. Dudley Buxton and Professor Waller, F.R.S., followed by Mr. Alexander Wilson, Dr. Herbert Scharlieb, Dr. Paul Chapman, Dr. A. G. Levy, and Lieutenant-Colonel Lawrie.

The following are synopses of the two opening papers:

(*a*) Dr. DUDLEY BUXTON: Unless chloroform differs from all other drugs it must produce effects proportional to the strength of the dose inhaled. It possibly affects different individuals more or less when the same strength of dose is given as do other drugs; the difference is one of degree, not of kind. Idiosyncrasy, if it exists, is displaced in this way, a small dose producing unusually severe effects. Chloroform, it has been stated, produces results which vary in degree directly as the strength of the vapour inhaled. The evidence of this was produced by Snow, Bert, Clover, Dubois, Lister. The work of the Special Chloroform Committee of the British Medical Association supports their view. Waller has insisted upon this, and advanced evidence to prove it. The evidence from all sources is derived in part from experiment upon the lower animals and in part by clinical examination of patients subjected to chloroform inhalation. Admitting that chloroform acts proportionally to the strength of the vapour inhaled, it is necessary to supply means whereby exact dosing may be obtained. Do the common methods in use provide any exact dosage? Examination of these methods: The open method, by douche, by dropping; method by mixtures; method by inhalers, the plenum inhalers; the draw-over inhalers. The heads under which it is suggested the discussion shall be considered are: (i) The desirability of accepting a maximum strength of vapour of chloroform for ordinary cases. (ii) Whether present methods supply an adequate means of supplying and controlling the strength of vapour supplied. (iii) Whether dosimetry offers a more efficient means of achieving this end. (iv) What is the best known way of practising dosimetry in chloroform inhalation which is applicable to everyday work by practitioners who are not experts. (v) What are the objections to dosimetry, and how such objections may be met. (vi) Failing dosimetry in chloroform inhalation, what safeguards can be offered which will give promise of safe anaesthesia by that anaesthetic. (vii) What criteria of safety are best, those derived from observing the effects of doses of the anaesthetic, the amount of which can only be guessed by such effects; or those derived from an accurate knowledge acquired by experiments which have proved that certain percentages of chloroform produce certain effects.

(*b*) Professor WALLER: It is desirable that the inhalation of chloroform vapour should be uniform and, as far as possible, continuous, at a percentage of between 1 and 2. This indication can be fulfilled without apparatus, but is most easily fulfilled with the aid of apparatus. Apparatus worked on the *plenum* principle is preferable to apparatus on the *vacuum* principle. Any increase of respiratory work by obstruction of the airway is an unfavourable condition.

Thursday, July 28th.—10 a.m., Discussion on The "Open" System of Ether Administration. To be opened by Mr. Bellamy Gardner and Mr. A. L. Flemming; followed by Messrs. G. Rowell, H. J. Paterson, Alexander Brownlee, E. J. Quirk, G. A. H. Barton, and Dr. Stuart V. Stock.

The following are synopses of the two papers introductory to this discussion:

(*a*) Mr. BELLAMY GARDNER: (1) The open system consists in the avoidance of all extrinsic mechanical factors which otherwise cause laboured respiration in the patient. (2) Abolition of the rebreathing of expiratory products. *Method:* A preliminary hypodermic injection of atropinae sulphatis gr. $\frac{1}{120}$, which keeps the air passages clear of mucus, prevents sweating, and diminishes surgical shock. This is combined in very athletic, nervous and alcoholic subjects with morphinae acetatis gr. $\frac{1}{6}$. *Apparatus:* A wire mask covered with twelve layers of gauze intended to be laid upon a gauze face pad, and a large ether drop bottle. A surgical mouth prop for insertion between the side teeth, and a tongue clip to maintain an oral airway. After the operation the patient to be propped up in bed and encouraged to clear the airways if mucus be present. *Results:* Surgical anaesthesia of a singularly perfect type, with regular, moderately deep respiration, strong pulse, absence of reflex disturbance by operative measures, and entire absence of after-sickness in the great majority of cases. *Remarks:* The method is suitable for all kinds of abdominal and other operations requiring complete muscular relaxation. The safety and obtundent effect of ether in preventing shock are remarkably apparent. The danger of acidosis with chloroform in cases of acute septic infection and in children is entirely avoided, and adds greatly to its value. Dental operations may safely be performed in the dental chair in the sitting position under its influence. *Warnings:* An inelastic chest wall, chronic bronchitis, and emphysema are complete contraindications, acute bronchitis and pneumonia being liable to ensue in such subjects.

(*b*) Dr. A. L. FLEMMING: (1) The property which ether possesses of increasing the activity of the respiratory machine is probably a potent factor in rendering the anaesthesia produced by this drug comparatively free from symptoms of danger. (2) During anaesthesia by this method there is especial need of caution as regards the collection of mucus in the trachea and larynx, which accumulation when it occurs, may give rise to a marked respiratory and circulatory depression not necessarily accompanied by cyanosis.. (3) In absence of cyanosis the anaesthesia of open ether may

not be accompanied by any noticeable increase in the tendency to haemorrhage during operation.

11 a.m., Discussion on The Prevention and Treatment of Surgical Shock during Inhalation Anaesthesia. To be opened by Dr. Crile, and Messrs. G. Rowell, Lockhart Mummery, and J. D. Malcolm; followed by Professor Leonard Hill, F.R.S., Messrs. H. J. Paterson, Bellamy Gardner, and Dr. Stuart V. Stock.

The following are synopses of three of the opening papers:

(*a*) Mr. ROWELL will briefly review the phenomena observed clinically, and allude to the almost general acceptance of Dr. Crile's view that the one essential characteristic of shock is a low blood pressure. Attention will then be drawn to the intimate connexion of shock with the nature and dose of the particular anaesthetic employed, with the previous condition of the patient, with obstructed respiration during the administration, and with the duration and character of the operation. The protective influence of ether, particularly when administered by the open method, will then be considered, and the propositions advanced that to prevent shock in severe cases the most important means at disposal are: (1) The use of "open ether" except in rare instances; (2) free saline transfusion subcutaneously before and during the administration; and (3) the use of the extract of the infundibular portion of the pituitary gland. The principle upon which the treatment of shock depends is the restoration of the blood pressure with the immediate object of resuscitating the centres.

(*b*) Mr. P. LOCKHART MUMMERY: For the purpose of this discussion, shock may be defined as a condition of lowered blood pressure resulting from exhaustion of the vasomotor centres. The prevention of shock is best secured by: (1) Taking steps to keep the patient warm during the operation; (2) using ether or a mixture of ether and chloroform whenever shock is anticipated, in preference to chloroform; (3) the use of the Trendelenburg position tends to prevent shock by increasing the circulation in the vital centres, but it is most important that the patient's abdomen should be bandaged before lowering the table; (4) it seems certain that shock is more readily set up under light than under deep anaesthesia, but this is to a considerable extent counterbalanced by the fact that deep anaesthesia itself tends to produce shock; (5) the administration of morphine just before the administration of a general anaesthetic undoubtedly helps to prevent the occurrence of shock, and is in my opinion of great value as a preventive. The treatment of shock depends for its success upon maintaining the blood pressure at or near the normal level by artificial means until such time as the vasomotor centres have recovered. Strychnine or any kind of stimulant is absolutely contraindicated, and will do serious harm. In the absence of other drugs, small doses of morphine are beneficial. Most reliance should be placed upon: Bandaging firmly the limbs and abdomen, maintenance of the head-down position, intravenous infusion with saline solution with the addition of adrenalin in serious cases. The drug, however, of most value is extract of the infundibular portion of the pituitary gland. This drug should be administered at the first sign of shock, and repeated in an hour. In all cases of shock the administration of easily assimilated nourishment is of the highest importance; this is often overlooked.

(*c*) Mr. J. D. MALCOLM: The facts recorded by George W. Crile in his works on shock will be accepted as of the utmost value. His interpretation of these facts will be regarded as altogether erroneous and misleading as a guide to treatment. His assertion that a low blood pressure must be due to vascular relaxation will be rejected as obviously inconsistent with the well-known fact that haemorrhage lowers blood pressure. It will be pointed out that all Crile's argument is built upon this too-comprehensive statement, and that his theory that the vasomotor centres are paralysed in shock is therefore unproved. Attention will be drawn to the work of W. T. Porter, M. G. Seelig, Eugene Boise, and others, who have found these centres active in every stage of shock. The vascular conditions in the state of shock will be attributed to an intense stimulation to contraction of the vascular system, affecting primarily the arterioles and venous radicles, but extending to all the vessels and followed by an escape of serum from the blood into the tissues and by a loss of fluid from the body as sweat. It will be argued that this loss of fluid may lower the blood pressure to a fatal extent. It will be urged that if the vessels relapse after being tensely contracted and after profuse sweating has been established—that is to say, if a tendency to recovery begins after a severe or prolonged injury has been inflicted—the blood pressure in the large vessels must fall very low, and it will be pointed out that this low blood pressure does not arise because the vascular capacity becomes excessive, nor because the vasomotor centres are paralysed, but because the volume of the blood is relatively diminished. The danger of death from collapse at this time will be considered obvious. It will be advised that treatment should be divided into two stages—that in the first stage, when the causes of shock are active, measures should be taken to prevent vascular contraction; whilst later, when the causes of shock cease to act, the treatment should be directed to the prevention of a too rapid dilatation of the vessels and to filling them up with fluid. Yandell Henderson's theory of the relationship of acapnia to shock will be referred to as promising valuable therapeutic developments. It will be held that, if his views are confirmed, the prevention of shock should come under the complete control of the anaesthetist in all ordinary cases.

Friday, July 29th.—10 a.m., Discussion on The Present Position and Limitations of Spinal Analgesia. To be opened by Dr. J. Blumfeld, Mr. E. Canny Ryall, and Dr. W. J. McCardie; followed by Messrs. Lawrie McGavin, H. Tyrrell Gray, Cecil Hughes, G. A. H. Barton, Arnold Lea, Miss Taylor, M.D., and Captain Houghton, R.A.M.C.

Syllabus of the opening papers:

(*a*) Dr. J. BLUMFELD: (1) The results obtained up to the present time by the use of spinal analgesia do not warrant its being employed as a routine anaesthetic under ordinary circumstances. (2) There are certain special cases in which probably spinal analgesia should be used in preference to any of the present methods of employing general anaesthesia. (3) Opinion is still divided as to which is the best drug to employ for the purposes of spinal analgesia, and whether the analgesic should or should not be used in conjunction with suprarenal preparations or with strychnine. (4) The use of spinal analgesia for operations above the umbilicus is at present too uncertain as to its efficiency or too dangerous in its attendant symptoms to justify its employment. (5) Apart from all other considerations, the presence of consciousness on the part of the patient during operation is a thing which is in many cases highly disadvantageous.

(*b*) Mr. E. CANNY RYALL: 1. *Drugs Employed.*—A. Stovaine, novocain, tropacocaine, alypin: (1) Properties, sterilization, keeping properties, toxicity, irritability, compatibility with suprarenin, action on motor nerves and nerve cells, analgesia (behaviour of). (2) Clinical, action on heart, kidneys, respiratory centre, vomiting, headaches, etc. (3) Deaths. B. Suprarenin. 2. *Dose and Site for Injection.*—(1) Importance of diminishing the dose in certain diseases, etc., if good results without danger are to be obtained. The general idea is to give the same dose in all cases, no matter what the operation or condition of patient. (2) Exploration of how one can obtain analgesia in the arm by means of a lumbar injection if an operation on the upper extremity is desired. 3. *Secondary and After Effects, with Treatment.*—(1) How to avoid. (2) How to treat. 4. *Advantages and Disadvantages of the Method.*—(1) Contrast with general anaesthesia. (2) Death-rate. (3) Dangers. (4) Percentages of secondary and after effects. 5. *Indications and Contraindications.*

(*c*) Dr. W. J. McCardie: (1) Drugs commonly and recently used; (2) death-rate, danger-rate, percentage of failures, and psychical effect as compared with general anaesthesia; (3) local surgical effect—for example, on muscular relaxation, bleeding, etc.; (4) shock and blood pressure from surgeon's and patient's point of view; (5) after-effects—testimony of nurses, etc.; (6) suitable cases.

Should time permit, the following subjects will also be discussed: Acidosis; The Anaesthetization of Diabetic Subjects; and The Use of Morphine and Other Drugs prior to Anaesthesia.

The President of the Section (Dr. Hewitt, M.V.O.) gives notice that he will move, and Mr. Digby Cotes-Preedy, Barrister-at-Law, will second, the following recommendation to the Council of the British Medical Association:

> The Section of Anaesthetics fully approve the form of the proposed legislation suggested by the General Medical Council and by the Departmental Committee of the Home Office respectively, and recommend the Council of the British Medical Association, on behalf of the Association, to take such steps as they may think desirable to represent to the Privy Council and to the Home Secretary the need for the proposed legislation in the interests of the public safety.

It has been arranged to hold an exhibition of past and present anaesthetic apparatus and appliances under the auspices of the Medical Museum Committee of the meeting, and a special committee has been appointed by the officers of the Section to select those modern anaesthetic appliances which seem to them worthy of exhibition. Members of the Association attending the Annual Meeting will therefore be in a position to make themselves acquainted with the most recent and trustworthy methods of anaesthetizing. Further information can be obtained on application to Miss A. M. Browne, Honorary Curator, Anaesthetic Section of the Medical Museum, 429, Strand, London, W.C.

ANATOMY.

President: Professor Arthur Keith, F.R.C.S., London.

Vice-Presidents: Professor David Hepburn, M.D., Cardiff; Fredk. Gymer Parsons, F.R.C.S., London; Professor Grafton Elliot Smith, M.D., F.R.S., Manchester; Professor William Wright, F.R.C.S., London.

Honorary Secretaries: Professor A. Campbell Geddes, M.D., Dublin; Alex. Macphail, M.B., Anatomy Dept., Medical School, Charing Cross Hospital, W.C.

BACTERIOLOGY.

President: Charles J. Martin, M.B., D.Sc., F.R.S., London.

Vice-Presidents: John W. H. Eyre, M.D., London; Professor Arthur H. White, L.R.C.P.I., Dublin.

Honorary Secretaries: Carl Hamilton Browning, M.D., Pathological Department, University of Glasgow; John Charles Grant Ledingham, M.B., Lister Institute, Chelsea Gardens, S.W.

The following subjects have been chosen for the work of the Section:

Wednesday, July 27th.—Discussion on Recently Acquired Knowledge concerning the Bionomics of Pathogenic Organisms, and its Bearing on the Spread of Disease. To be opened by Dr. A. C. Houston (London), and Professor Lentz (Institut für Infektionskrankheiten, Berlin).

The following is a synopsis of Dr. Houston's paper:

Distinction between (*a*) the passive accidental transmitters, and (*b*) the storehouses or manufactories of disease; and the importance of trying to bridge over the gap which links together in some mysterious fashion successive epidemics. Consideration of some of the agencies concerned, or supposed to be concerned, in the propagation of disease, and their relative importance: Soil; air; defective drains, sewage emanations, foul smells, etc.; water (description of two microbes isolated from river water, the one closely resembling Gaertner's bacillus and the other *B. typhosus*); sewage; solid foods; liquid foods; dust; direct personal infection, ambulatory cases; "carriers," infections through animals, flies, and insects. Danger of exaggerating the influence of (*a*) the passive non-multiplying, and underestimating the importance of (*b*) the active multiplying agencies of disease; and suggestions that future progress in preventive medicine lies not in purifying sewage and water, in preserving our foods from pollution, in building on virgin soil, in perfection of drainage arrangements and in ventilation, but in searching for, and when found in treating and rendering inoperative, the "producers" of disease. Other points considered are (1) whether, in view of existing knowledge respecting carrier cases in typhoid fever, views as to the infectious periods of other diseases do not require reconsideration; (2) the question of dose in relation to infection, and the possibility of enhanced virulence, seasonally or occasionally; (3) the bearing of recent discoveries on future legislation. Finally, it is suggested that the key to further progress probably lies in studying living, not dead, matter.

Thursday, July 28th.—Joint Discussion with the Pathological Section on Complement-Deviation Methods in Diagnosis. To be opened by Professor Wassermann (Berlin).

Friday, July 29th.—Papers on Bacteriological Subjects.

DERMATOLOGY.

President: Phineas Abraham, M.D., London.

Vice-Presidents: Alfred Eddowes, M.D., London George Pernet, M.D., London; Walter G. Smith, M.D., Dublin; Robert Briggs Wild, M.D., Manchester.

Honorary Secretaries: William Griffith, M.B., 1, Chester Gate, Regent's Park, N.W.; G. Norman Meachen, M.D., 11, Devonshire Street, W.; J. Goodwin Tomkinson, M.D., 9, Sandyford Place, Glasgow.

The following programme has been arranged:

Wednesday, July 27th.—Discussion on Modern Methods in the Diagnosis and Treatment of Syphilis.

Thursday, July 28th.—Discussion on the Influence of Diet in Diseases of the Skin. At 12.30 p.m., jointly with the Section of Laryngology, Demonstration on Radium, by Dr. Louis Wickham, Paris.

Friday, July 29th.—Paper on Palæogenesis as illustrated in Certain Affections of the Skin, by Sir Jonathan Hutchinson. Papers upon the following subjects have been accepted; many of them will be illustrated by lantern slides:

1. The Serum Diagnosis of Syphilis.
2. On Some Rashes of Doubtful Origin met with in the Acute Infectious Diseases.
3. An Unusual Case of Toxic Dermatitis, with remarks on Symmetrical Skin Eruptions.
4. A Case of Pemphigus Vegetans, with remarks on Treatment.
5. An Investigation of a Plant Dermatitis or Lily Rash amongst Flower Gatherers and Packers in the Scilly Islands.
6. The Use of Solid Carbon Dioxide in Dermatology.
7. Note on the Use of the Arylarsonates in Inveterate Psoriasis.
8. Some Varieties of Molluscum Contagiosum.
9. Some Cases of Actinomycosis.
10. The Treatment of *X*-ray Burns.
11. Vaccine Therapy in Diseases of the Skin.

Cases of interest will be shown at the Section each morning at 10 a.m., in addition to drawings, photographs, and microscopic sections.

DISEASES OF CHILDREN

President: ARCHIBALD E. GARROD, M.D., F.R.S., London.

Vice-Presidents: CHAS. P. B. CLUBBE, M.R.C.S., Sydney; THOMAS SINCLAIR KIRK, M.B., Belfast; H. D. ROLLESTON, M.D., London; FRANCIS JAMES STEWARD, M.S., F.R.C.S., London.

Honorary Secretaries: HAROLD ARTHUR THOMAS FAIRBANK, M.S., 137, Harley Street, W.; FRANCIS W. GOYDER, F.R.C.S., "Marley House," Bradford; HUGH THURSFIELD, M.D., 84, Wimpole Street, W.

The following subjects have been selected for discussion:

Wednesday, July 27th.—Discussion on the Diagnosis and Treatment of Non-Tuberculous Joint Diseases in Children. To be opened by Dr. Coutts and Mr. E. M. Corner; followed by Messrs. Robert Jones, W. B. Parsons, J. Keogh Murphy, H. Tyrrell Gray, and others.

The following is a synopsis of Dr. COUTTS'S paper:

(1) Rheumatism by far the most frequent cause of joint trouble in children. The importance of rheumatic arthritis in spite of its slight severity in childhood. Some recent views as to treatment and the frequency of acute cardiac dilatation. (2) The arthropathies associated with anterior poliomyelitis and their pathological connexion with Charcot's disease. (3) Syphilitic joint affections in early infancy and later childhood. (4) Pneumoccal joint affections. They may occur as an acute disorder in a general pneumococcal infection, or as a subacute one where some remote localized pneumococcal lesion, often an empyema, acts as a focus. A similar rule applies to other pneumococcal affections, such as pericarditis and peritonitis. (5) Gonococcal arthritis may occur in the youngest infants with ophthalmia. In older children more frequent, and at a younger age in girls than in boys. (6) Joint affections in haemophilia and purpura. Rheumatoid arthritis and Still's disease. Joint affections with the acute specific fevers.

The following is an abstract of Mr. CORNER'S paper:

From a surgical point of view, the discussion of the inflammation of joints of non-tuberculous origin offers great opportunities for excursions into the more or less enchanting and romantic regions of haemophilia and kindred conditions. Tempting though that prospect may be, it offers a very unpractical review of the subject, a surgeon seeing few cases of such affections. The most frequent cases of inflammation of joints to be seen in the surgical wards of a children's hospital are undoubtedly those due to tuberculous disease. Next in frequency would be cases which are mistaken for tuberculous disease. These latter are members of a large class of infective diseases of joint, the infection not being due to the tubercle bacillus. The more subacute or chronic the infection, the greater similitude to the clinical pictures in the text-books ascribed to tuberculous disease. In the more acute forms they approach the clinical condition ascribed to septic arthritis. Of these infective, but non-tuberculous, diseases of joints, several varieties will be brought forward illustrating this the most frequent class of non-tuberculous arthritis seen in the practice of the surgical diseases of children. Such examples will include cases due to streptococcus infection, staphylococcus infection, pneumococcic infection, uncertain infections; infections of joints with the colon bacillus, the typhoid bacillus, the influenza bacillus, after specific fevers, gonorrhoea, injury, surgical operations, etc. In the disease of children such conditions have a distinct peculiarity as contrasted with the corresponding conditions of adults. In children the joint disease is not infrequently secondary to a blood stream infection of the bone in the neighbourhood of the joint, the acute joint disease being secondary to the acute bone disease. Diagnosis will be briefly discussed. The treatment must consist of rest followed by massage, or operative measures, both being aided by medicinal and vaccine treatments.

Thursday, July 28th.—Discussion on the Diagnosis and Treatment of Infections of the Urinary Tract by the *Bacillus coli*. To be opened by Dr. John Thomson, Dr. Dudgeon, and Mr. John Pardoe; followed by Drs. J. Porter Parkinson, J. Graham Forbes, W. M. Jeffreys, and others.

The following is an abstract of Dr. THOMSON'S paper:

Many different pathogenic organisms have been shown to be capable, under certain conditions, of infecting the urinary tract in children. The *Bacillus coli*, however, is to blame in such a vast majority of the cases of urinary infection met with in ordinary practice that it seems best to devote all the short time at our disposal to considering the recognition and treatment of its effects. Under normal circumstances, the urine successfully resists the invasion of the *Bacillus coli* by which it is constantly threatened. When certain incompletely known conditions are present, however, these organisms do gain entrance and swarm in the urine without causing more than a trivial local irritation. If the resistance of the parts is further weakened, or the bacilli more aggressive, inflammation is set up in the mucous membrane. This is most commonly limited to the bladder, but often extends to the ureters and pelves, and may even invade the parenchyma of the kidneys. These inflammatory conditions are commonest in bottle-fed babies of the female sex; but they may occur in boys also, and at any age. In whatever part of the urinary tract the inflammation is present, the urine is generally acid and contains, after the first few days, numerous pus cells and crowds of bacilli, and the *local* symptoms are slight. If there is cystitis only, the *general* symptoms also are such as may escape notice. Whenever the disease spreads to the pelvis, however, marked general disturbance and misery at once appear, with a typhoid like pyrexia, ushered in, in most of the female cases at least, by faintness, shiverings, actual rigors, or convulsions. A more or less definite tenderness on pressure over the corresponding parts of the surface of the trunk can sometimes also be made out. In the *treatment* of all degrees of *Bacillus coli* inflammation of the urinary tract it is important to administer plenty of fluid and to encourage the action of the bowels. Three methods of attacking the bacteria have been extensively tried—by antiseptics, by alkalis, and by serums or vaccines. (1) Treatment by antiseptics, such as urotropine, helmitol, and salol, has been generally found disappointing, being ineffectual and apt to be followed by relapses. (2) The administration of potassium citrate in sufficient amount to render the urine alkaline and to keep it so for some weeks is very successful in the acute cases, so long as the kidneys have not become severely affected. (3) The use of serums or vaccines has given varying results, having led to speedy cure in some acute cases but not in others, and being as futile as all other therapeutic measures in those with a chronic course. The prognosis in the acute cases, when treated early, is generally very good; but if the treatment is delayed or ineffective the risk of extension of the disease to the kidney is probably considerable.

The following is an abstract of Mr. PARDOE'S paper:

(1) The more serious forms of *Bacillus coli* infection of the urinary tract in children appear to be of much less frequent occurrence than in adults. (2) Autogenous infections are much less common than those due to other conditions, such as calculus in the kidneys or in the urinary bladder. (3) Acute infections, occurring apart from other conditions, show the same tendency, as in adults, to rapid and complete cure. (4) Chronic infections, occurring apart from other conditions, are notable by their rarity. (5) Chronic infections dependent upon, or occurring during the course of other conditions, tend to more complete cure than in similar circumstances in adults.

Friday, July 29th.—Papers:

Elgood, Dr. Olive. Human Milk and Breast Feeding.
Parsons, Mr. W. B. The Diagnosis of Affections about the Hip-joint in Children.
Pritchard, Dr. Eric. The Value of Banana Flour in Infant Feeding.
Murphy, Mr. J. Keogh. The Results of Radical Treatment of Tubercle in the Tarsus and Ankle-joint in Young Children.
Zangger, Dr. Theodore. The Therapeutics of Whooping-cough.
Gauvain, Mr. H. J. The Conservative Treatment of Consumptive Cripples.
Gray, Mr. H. Tyrrell. Lesions of Solitary Appendices in Hernial Sacs.

GYNAECOLOGY AND OBSTETRICS.

President: Mrs. Mary A. D. Scharlieb, M.D., London.

Vice-Presidents: John W. Ballantyne, M.D., Edinburgh; Comyns Berkeley, M.B., London; Professor John A. C. Kynoch, M.B., Dundee; Thomas Wilson, M.D., Birmingham; Thomas H. Wilson, F.R.C.P.I., Dublin.

Honorary Secretaries: W. Blair Bell, M.D., 7, Rodney Street, Liverpool; John Prescott Hedley, M.B., 11, John Street, Berkeley Square, W.; Carlton Oldfield, M.D., 32, Park Square, Leeds.

The Committee has selected two subjects for discussion as follows:

1. The Treatment of Fibromyomata Complicating Pregnancy. To be introduced by Dr. W. W. H. Tate.

The following is an abstract of Dr. Tate's paper:

The occurrence of pregnancy in a woman suffering from fibroids is a cause of serious danger in only a small proportion of cases. The nature of these complications is discussed. It therefore follows that interference during pregnancy is necessary only in a small minority of cases. The induction of abortion or premature labour is not to be recommended. When surgical interference during pregnancy becomes necessary myomectomy should be the operation of election. Whether myomectomy should be done in the interest of the child, where other fibroids are present in the uterus, which *may* cause trouble later, is discussed. The preservation of the child's life demands special consideration, as the one and only chance of having a child may depend on the successful management of the pregnancy.

2. Dysmenorrhoea, its Causes and Treatment. To be opened by Dr. G. E. Herman.

Papers have been accepted from the following distinguished foreign members of the profession:

Döderlein, Professor D. (Munich). Die Entstehung und Verhütung des Puerperalfiebers.
Gottschalk, Professor S. (Berlin). Title uncommunicated.
Nagel, Professor W. (Berlin). The Operative Treatment of Uterine Fibroids.
Von Herff-von Salis, Professor (Basle). The Causal Treatment of Dystocia in cases of Pelvic Contraction.

It has been arranged for a section of the Pathological Museum to be specially set aside for the exhibition of specimens, microscopic slides, photographs, etc., relating to Adenomyoma of the Uterus. The Committee will also be glad to receive other specimens of interest.

LARYNGOLOGY.

President: Herbert Tilley, F.R.C.S., London.

Vice-Presidents: J. Lacy Firth, M.D., Bristol; A. Brown Kelly, M.D., Glasgow; Stephen Paget, F.R.C.S., London; H. Betham Robinson, M.S., M.B., London.

Honorary Secretaries: Geo. Nixon Biggs, M.B., 30, Harley Street, W.; Henry John Davis, M.B., 8, Portman Street, W.; John Smith Fraser, M.B., 50, Melville Street, Edinburgh.

The following preliminary programme has been arranged:

Wednesday, July 27th.—10 a.m., Discussion on the Technique of the Direct Examination of the Oesophagus and Lower Air Passages. To be introduced by Professor Dr. von Eicken (Freiburg), and Dr. D. R. Paterson (Cardiff).

Thursday, July 28th.—10 a.m, Discussion on Vasomotor Rhinitis. To be introduced by Dr. H. S. Birkett (Montreal), and Mr. E. B. Waggett (London), followed by Mr. Stuart Low, and Drs. Dan McKenzie, Scanes Spicer, H. J. Davies, Watson Williams, and others. 12.30 p.m. to 1 p.m., Conjoint Meeting with the Section of Dermatology when Dr. Wickham (Paris) will give a Demonstration of Radium.

Friday, July 29th.—10 a.m., Reading of the following among other Papers.

McKenzie, Dr. Dan. Enucleation of the Tonsil.
Seccombe-Hett, Mr. The Anatomy of the Capsule of the Tonsil and its Significance in the Treatment of Diseases of the Tonsil.
Wilkinson, Dr. W. Camac. Tuberculin in the Treatment of Laryngeal Tubercle.
Smith Fraser, Mr. J. Congenital Stenosis of the Choanae.
Scanes-Spicer, Dr. Cancers of the Throat, etc.
Hemington-Pegler, Dr. L. A Note on Headaches in Association with Obstruction in the Nasal Passages.
Watson-Williams, Dr. P. A Note on the Osteo-plastic Radical Operation for Frontal Sinus Suppuration.

In order to save time and to facilitate the necessary arrangements, all communications relating to the exhibition of preparations, specimens, drawings, etc., may be addressed to Mr. H. W. Armit, Honorary Secretary, Medical Museum Committee of the British Medical Association, Lister Institute of Preventive Medicine, Chelsea, London, S.W.

MEDICAL SOCIOLOGY.

President: James Alexander Macdonald, M.D., Taunton.

Vice-Presidents: R. Cochrane Buist, M.D., Dundee; Major Greenwood, M.D., London; Hugh R. Ker, F.R.C.S.Edin., London; Professor James T. J. Morrison, M.B., Birmingham.

Honorary Secretaries: Donald John Armour, F.R.C.S., 89, Harley Street, W.; Harvey Hilliard, M.R.C.S., 30, Wilton Place, Knightsbridge, S.W.; James Henry Taylor, M.B., 299, Eccles New Road, Salford.

The following is a provisional time table of the subjects selected for discussion. A syllabus is appended in each case.

Wednesday, July 27th, 10 a.m.

I.—The Economic Basis of Hospital Management.

1. *Provision of Funds:*—
   Proportion of payments by—
   - i. Public grants:
     - Asylum boards,
     - Corporations,
     - Boards of guardians,
     - Education committees.
   - ii. Charitable or philanthropic:
     - Sunday funds,
     - Works collections,
     - Private subscribers and endowments.
   - iii. Payments by patients.

2. *Conditions of Admission:*—
   In and out patients:
   - i. Free,
   - ii. Subscribers' letters,
   - iii. Partial payments,
   - iv. Recommendation by public bodies,
   - v. Almoners.

3. *Professional:*—
   Staff:
   - i. Public subscriptions,
   - ii. Private subscriptions.

Principles of Resolutions adopted by the Association.

In the case of patients maintained from public funds, the medical service should be paid.

In the case of patients maintained from charitable funds, the medical service should be charitable.

In the case of patients paying for themselves, the medical service should be chosen by the patient and paid for by him.

4. *The Economic Basis of the Out-patient Department:—*

(*a*) Consultative.
(*b*) Dispensary:

i. From the professional point of view,
ii. From the patient's point of view,
iii. From the hospital point of view.

Thursday, July 28th, 10 a.m.

II.—STATE SICKNESS INSURANCE (PROVISION OF MEDICAL ATTENDANCE) AS AFFECTING THE PUBLIC HEALTH AND THE MEDICAL PROFESSION.

To be introduced by the Medical Secretary, Dr. J. Smith Whitaker; followed by Drs. Armit, J. Pearse, E. J. Maclean, W. E. Thomas, and others.

The following is a synopsis of Dr. WHITAKER'S paper:

1. *The Public Health.*

A. Summary of the existing systems of medical relief of the wage-earning classes, including

(i) Private medical practice.
(ii) Contract medical practice.
(iii) Charitable services.
(iv) Public services.

B. Examination of the efficiency of such treatment, and consideration of the effects on the community of inefficiency, particularly in respect of the delay in obtaining proper treatment, and consequent prolongation of treatment or permanent disability.

C. Desirability of public provision to facilitate prompt treatment.

D. Importance of maintaining the provident element in such provision.

E. Examination of the effects of a system of national insurance in providing that prompt medical attendance shall be within the reach of every wage-earner, under conditions which secure:

(i) That he shall contribute to the cost.
(ii) That he shall have a measure of control over the provision made.

2. *As Affecting the Medical Profession.*

A. Defects of existing arrangements, particularly as regards underpayment or non-payment of those members of the profession who attend the wage-earning classes.

B. Advantages of a system of national insurance as affording means whereby the profession, if it take the proper steps, may secure adequate remuneration and satisfactory conditions of service.

C. Examination of the objections to a system of national insurance, especially:

(i) That it would perpetuate the present evils of contract medical practice.
(ii) That it would deprive the medical practitioner of his independence.

D. Indirect effects of a system of national insurance on:

(i) Charitable medical organizations.
(ii) The Poor Law medical service.

Friday, July 29th.

III.—SOCIAL ASPECTS OF THE FALLING BIRTH-RATE.

1. The facts: (*a*) Comparative national statistics; (*b*) comparative social statistics—that is, evidence as to the relative rates of decline in various social strata.

2. The factors: (*a*) spontaneous; (*b*) artificial.

3. The effects: (*a*) on selection, reproductive from more fertile classes natural, comparative class death-rates, infantile and juvenile; (*b*) on national efficiency, industrial, professional, and military; (*c*) on character, individual and national.

Problems for Discussion.

(*a*) Biological gain or loss in the process and its controllability.

(*b*) Methods of control, economic, ethical, medical.

The discussion will be opened by Dr. J. W. Ballantyne (Edinburgh), Dr. Fremantle, M.O.H. Herts, Dr. Gilchrist (Paris), and Dr. J. W. Hunter.

The following points will be raised by Dr. HUNTER:

That the elder born children of a family are more liable to suffer from defective conditions than the younger ones. Of children of the working classes this holds good up to and including the seventh born. With the eighth born, however, there is a sudden sharp rise in the liability to "defect," and the type of "defect" has become still more severe than that affecting the elder born; with still later members this liability to "defect" steadily increases. The offspring of parents who are themselves elder born members of a family shows more "defect" than the offspring of parents who are younger members. This holds good up to and including an eighth born parent. With the offspring of a ninth born parent, however, there is a marked rise in "defect." (The difference of one in order of birth between parents and children is probably due to earlier age at marriage of grandparents.) The "defect" at the close of the large family is generally of so marked a type that few such individuals survive to become parents, hence from a practical point of view the "defect" among the early born is more important. That somewhere about 24 to 25 years of age, a woman is best fitted to give birth to her firstborn. That after 25 years the capacity to bear a good child with the firstborn rapidly diminishes. That with regular pregnancies the power to reproduce well steadily increases until the mother reaches 35 years of age, after which it declines very rapidly. That a period of sterility, natural or artificial, lowers the quality of a child subsequently born. That the limitation of the family to two or three children means the annihilation of the race.

MEDICINE.

President: R. W. PHILIP, M.D., Edinburgh.

Vice-Presidents: Professor HARRY B. ALLEN, M.D., Melbourne; GEORGE A. HERON, M.D., London; WALTER K. HUNTER, M.D., Glasgow; HENRY L. MCKISACK, M.D., Belfast; GEORGE R. MURRAY, M.D., Manchester; SIDNEY P. PHILLIPS, M.D., London.

Honorary Secretaries: H. MORLEY FLETCHER, M.D., 98, Harley Street, W.; HERBERT FRENCH, M.D., 62, Wimpole Street, W.; JOHN HAY, M.D., 12, Rodney Street, Liverpool.

The following preliminary programme has been arranged:

Wednesday, July 27th.—Morning: Discussion on the Pathogenesis, Prophylaxis, and Treatment of Acidosis. To be opened by Professor Edsall of Philadelphia. Selected Papers. Afternoon: Clinical Cases.

The following is a synopsis of Professor D. L. EDSALL'S remarks:

While there is an important distinction between acidosis and acid intoxication, there is, from the clinical as well as from the pathological standpoint, another equally important distinction between the forms of acidosis, sometimes severe and sometimes mild, that are due to lack of carbohydrates or inability to utilize them, as in diabetes, and those forms which are incidental to severe disease which is most commonly situated in the liver. Even in the latter forms, however, diet at times plays an important part in treatment as to alkalies, probably less through checking the direct effects of acidosis than through controlling secondary effects, perhaps an autolysis. While it is not certain that acid intoxication is the prime cause of the violent toxic symptoms in diabetes—and some evidence points to the contrary—it is highly probable that it is the main cause, as well as in the occasional cases of coma of the same type in non-

diabetic persons. The manner in which the severe symptoms are produced is not clear. The relation of the loss of inorganic salts to the production of symptoms, and the possible relation of the same salts to the production of acidosis, need further study. It is not improbable that these salts have some relation to the symptoms in the earlier course of diabetes before severe toxic symptoms come on, especially to the common muscular fatigue. Metabolism studies, not yet complete, bearing upon this point will be cited. It seems probable that adding other bases besides sodium in the treatment of acid intoxication may help better than sodium alone in postponing a fatal issue.

Thursday, July 28th.—Morning: Discussion on the Treatment of Chronic Constipation. To be opened by Dr. J. F. Goodhart. Selected Papers. Afternoon: Clinical Cases.

The following is a synopsis of Dr. Goodhart's paper:

(1) Constipation defined to be unnatural delay in the passage of the intestinal contents along the colon. What constitutes unnatural delay? From bismuth observations the average period for the passage of the intestinal contents along the colon only would appear to be some twenty hours from taking the meal; to this must be added for delay in the collecting chamber a variable time, probably in most people three to four hours, more or less, until the call for expulsion comes. (2) Constipation thus falls into two groups—constipation of the colon, and constipation of the collecting chamber or rectum. The one is an automatic reflex outside the control of the will; the other is largely aided by voluntary effort, and the trouble comes into being when voluntary muscular effort fails. The latter is mostly present in old people, or in women of lax habit who have borne children, and in such as have habitually neglected to form good habits. (3) Constipation of the main tract of the colon is a much more intricate subject; it is in the main a physiological one. Its causes concern themselves with (*a*) the neuro-muscular apparatus of the intestinal wall; (*b*) the intestinal contents. The nervous element in the circuit a dominant one in constipation habit; nervous vigour and its oscillations; the temparament of the subject; the mental condition, and related thereto all the disturbances of secretion, absorption, excretion, associated as they are with flatulence, pain, and mucular cramp. Muscular power is also all-important. The attributes of peristalsis; a sleeping dog; its relation to the passage of scybala; its bearing on kinks and adhesions; scybala seldom cause intestinal obstruction. (*b*) The intestinal contents. The quantity, quality, and variety of food. The colon a great feeder; it is meant to be full, not empty; the function of the colon muscle in this respect. Intestinal tone; scybala; "sheep's droppings" starvation; aperients. (4) Treatment; not every case needs it. Constipation healthy for many. The doctrine of intestinal auto-intoxication, as developed of late years, extreme and physiologically unsound. Intestinal antiseptics. The surgical treatment of chronic constipation. When treatment is necessary. Much to be gained by common-sense physiology. The obsession of the urgency of a daily stool to be attacked; so also that other, that blocks readily occur; so also a third, that the colon is a poison bag. Treat bad habits; irregularity of meals; too little food; the dietetic fad; the curse of pill-hunger. Instil the need of patience and perseverance; leave the bowels alone by thought and deed to work out their own salvation. The rôle of massage, water, salines, dinner pills, enemata.

Friday, July 29th.—Morning. Selected Papers. Afternoon: Clinical Cases.

Members who desire to take part in either of the set discussions or to read papers should communicate as soon as possible with the Honorary Secretaries.

NAVY, ARMY, AND AMBULANCE.

President: Colonel Andrew Clark, A.M.S.(T.F.) London.

Vice-Presidents: Fleet Surgeon Percy W. Bassett-Smith, R.N., Haslar; Lieutenant-Colonel James Harper, R.A.M.C.T., London; Lieutenant-Colonel Michael W. H. Russell, R.A.M.C., London; Lieutenant-Colonel Robert J. S. Simpson, C.M.G., R.A.M.C., London.

Honorary Secretaries: Staff Surgeon James Garfit Wallis, M.B., R.N., Royal Naval Barracks, Chatham; Major Alfred Percy Blenkinsop, R.A.M.C., c.o. Messrs. Holt and Co., 3, Whitehall Place, S.W.; Major Arthur M. Connell, R.A.M.C.T., 79, Hanover Street, Sheffield.

Papers on the following subjects have been accepted:

Collingwood, Fleet Surgeon G. T., R.N. Naval Recruits.
Wildey, Fleet Surgeon, R.N. Hypodermic Injection in Action.
Cox, Staff Surgeon Edmund, R.N. Incontinence of Urine without Apparent Cause.
Cope, Surgeon L. F., R.N. Air and Ventilation in Modern Warships.
Pryn, Fleet Surgeon W. W., R.N. Colour Vision.
Wilson, Lieutenant-Colonel, R.A.M.C. Medical Requirements in War for Assisting the Royal Army Medical Corps on Mobilization.
Spencer, Major C. G., R.A.M.C. Local and Spinal Analgesia in Relation to Active Service.
Lloyd, Captain Langford, D.S.O., R.A.M.C. Education and Intelligence from a Recruiting Point of View, with special regard to the Royal Army Medical Corps Regular and Territorial Service.

ODONTOLOGY.

President: J. Howard Mummery, M.R.C.S., L.D.S., London.

Vice-Presidents: William Donald Anderson, F.F.P.S., L.D.S., Glasgow; Arthur W. W. Baker, M.D., L.D.S., Dublin; W. H. Dolamore, M.R.C.S., L.R.C.P., L.D.S., London; William Hern, M.R.C.S., L.D.S., London; John Mathieson MacMillan, L.R.C.P. and S. Edin., L.D.S., Glasgow.

Honorary Secretaries: Ernest B. Dowsett, M.R.C.S., L.R.C.P., L.D.S., 1, Gloucester Street, W.; A. Hopewell-Smith, M.R.C.S., L.R.C.P., L.D.S., 58, Park Street, Park Lane, W.; Cyril H. Howkins, M.R.C.S., L.R.C.P., L.D.S., 83A, Edmund Street, Birmingham.

The following programme has been arranged:

Wednesday, July 27th.—Special Discussion on the Prevention of Dental Caries, to be taken under the following headings: (1) The Effect of Various Food Stuffs. To be opened by Dr. Sim Wallace. (2) The Care of the Mouth during General Disorders. To be opened by Dr. Hector Mackenzie. (3) The Influence of Climate, etc. To be opened by Mr. A. S. Underwood.

The following are synopses of the opening papers:—

1. Dr. Sim Wallace: The effect of the foodstuffs in preventing dental caries is twofold. First, the *predisposing causes* of caries may to a large extent be prevented. The two chief predisposing causes which may be most effectually prevented by foodstuffs are (*a*) the irregularities in position of the teeth and (*b*) recession of the gums in later life. When food which stimulates efficient mastication is habitually consumed the muscles of mastication, including the tongue, become well developed and the jaws grow sufficiently large to accommodate all the teeth without irregularity or crowding. Further, such foods tend to keep the mouth and alimentary canal in a hygienic condition, and thus largely prevent the ill-health and emaciation which so generally result from chronic interference with normal digestion and assimilation. This is an important factor in preventing irregularities, because ill health associated with emaciation prevents the normal development of the jaws and thus gives rise to crowding of the teeth. Recession of the gums is also prevented by the habitual use of food which demands efficient mastication, for the teeth are kept free from tartar and other irritants which lodge about the necks of the teeth and injure the gums. The amount of nutrition, including the proportion of lime salts in the water, need not be considered, as it is never lack of nutrition of any kind *per se* which induces or predisposes to dental caries.

though the unhygienic state of the mouth and alimentary canal resulting in constitutional disease may give rise to developmental defects in the enamel and thus predispose to caries. Secondly, the *immediate or exciting cause* of caries may be prevented by foods which clean the mouth and leave the teeth free from adhering carbohydrates. To secure this end, without requiring to restrict the kinds of foods eaten, it is necessary to have the meal arranged in such a way that the last foodstuff eaten will be of a detergent nature.

2. Dr. HECTOR MACKENZIE: The neglect of the hygiene of the mouth during illness all too common even at the present day. Sordes in fever a sign of neglect and inefficient nursing. Septic conditions of mouth often aggravate the effects of general illness. The prevalence of pyorrhoea and caries. Their relations to chronic toxaemia, various forms of anaemia, and affections of the joints. Their relation to chronic dyspepsia and intestinal disorders. Their effects on tuberculosis, etc. The relations of general disorders to dental caries and pyorrhoea. To what extent the latter are dependent on general disorders. Conditions of ill-health no doubt responsible for dental disease, but the latter is the cause of much ill-health.

3. Mr. A. S. UNDERWOOD: The results of a comparison of a large number of skulls of various races and periods undertaken with a view to determine, if possible, the factors favouring the occurrence of dental caries, the effects of climate and varying degrees of civilization being specially kept in view.

Thursday, July 28th.—Continuation of the Special Discussion on the Prevention of Dental Caries—(4) The Effect of Variations in the Buccal Secretions, and the Part Played by Bacteria Normally Present. To be opened by Mr. Kenneth W. Goadby. (5) The Need for the Correction of Malposition of the Teeth. To be opened by Mr. J. H. Badcock. (6) The Correction of the Effects of Drugs taken as Medicine. To be opened by Dr. Harold Austen. (7) The Reasons for Susceptibility and Natural Immunity. To be opened by Mr. Howard Mummery.

4. Mr. KENNETH W. GOADBY: Dental caries presents a difficult bacteriological problem, due to the number of species of bacteria involved, and the fact that until the tooth pulp is involved little or no physiological reaction takes place in the invading bacteria. Normal flora of the mouth. Bacteriological flora in acute caries. Bacteriological flora in chronic caries. Factors of etiological significance. Bacteria most closely associated with caries. Biological facts of mouth bacteria in relation to the commencement of caries.

5. Mr. J. H. BADCOCK: It is taken for granted that one of the chief causes of caries is stagnation of food and other débris around the teeth. Any oral conditions which tend to uncleanliness will favour caries, while conditions tending to cleanliness will aid in its prevention. It is natural for the mouth to be clean, and the mouths of animals living under natural conditions are clean. This natural cleanliness is due to several factors—namely: (*a*) Friction of hard food upon the teeth and gum in the act of chewing; (*b*) the hard and polished surfaces of the teeth; (*c*) the shapes of the individual teeth; (*d*) the arrangement of the teeth with relation to one another. Description of the normal arrangement of the teeth and demonstration that any departure from this arrangement favours the lodgement and stagnation of food. The correction of irregularities of the teeth tends to the prevention of caries in direct proportion to the degree in which the result attained approaches the normal.

6. Dr. HAROLD AUSTEN: There is a very widely-spread and deeply-seated popular belief that the taking of medicines is a common cause of the decay of the teeth. This belief is fostered, first, by the fact that certain drugs, such as iron, cause an obvious, though superficial, blackening; and, secondly, that decay of the teeth is found to be prevalent after such disturbances of the general health as are commonly treated by the administration of medicines. The belief that drugs injure the teeth appears, however, to rest upon but slender foundations, the popular prejudice resting upon a basis of "post, ergo propter, hoc." Two classes of drugs would appear *prima facie* to be a potential source of caries: (1) Acids, administered internally or used as local applications to the fauces. Very dilute solutions of weak acids, if applied continuously, have been shown by experiment to appreciably destroy the enamel. But in the mouth acid medicines and gargles are not applied continuously, but very intermittently, and in the case of fluids, mostly to the exposed surfaces, which are constantly washed by the saliva. All modern research tends to prove that the acids really injurious to the teeth are those generated *in situ*, in places which do not admit of natural cleansing, by the fermentation of the remains of carbohydrate foods. (2) Mercury. Mercurials when administered in infancy have been credited with the production of hypoplasia of the teeth, the so called honeycombing. The evidence for this is far from convincing. If, however, the point be proved, it would be an instance of a medicine causing predisposition to decay, to which hypoplastic teeth are very liable. Mercurials administered in large doses have long been known to cause well-marked disturbances in the associated tissues, the gums, and even bone. It is conceivable that mercury acting in this way, where there has been actual ulceration and permanent loss of tissue, may cause a predisposition to caries at the necks of the teeth. Lead, bismuth, silver, or copper, being drugs partly excreted by the oral mucous membrane, have been credited with occasionally producing similar effects to mercury in septic mouths. The only treatment for the correction of the effects of these drugs, if any is required, seems to be to maintain complete cleanliness of the mouth, and to neutralize the effects of acids taken by the immediate use of an alkaline mouth wash.

7. Mr. J. HOWARD MUMMERY: Immunity to caries in certain individuals; how accounted for. Constitution of the teeth; attribution of antiseptic powers to saliva; potassium sulpho-cyanide in the saliva; alkalinity of saliva; chemiotaxis (attraction of white corpuscles by saliva); action of saliva on soluble products of bacteria; antagonism and symbiosis of bacteria in the mouth. Can the subordination of natural selection in modern communities account in some measure for the increased susceptibility to caries?

Friday, July 29th.—Paper: The Value of Teeth to the Human Economy, by J. G. Turner.

OPHTHALMOLOGY.

President: CHARLES HIGGENS, F.R.C.S., London.

Vice-Presidents: HENRY L. FERGUSON, F.R.C.S.I., Dunedin; CECIL E. SHAW, M.D., Belfast; GEORGE WM. THOMPSON, F.R.C.S., London.

Honorary Secretaries: N. BISHOP HARMAN, F.R.C.S., 108, Harley Street, W.; ARTHUR HENRY HAVEN SINCLAIR, M.D., 5, Walker Street, Edinburgh.

The following discussions have been arranged:

1. The Future of Ocular Therapeutics: (*a*) Local and General. To be opened by Dr. G. A. Berry (Edinburgh). (*b*) Bacterial Products. To be opened by Dr. J. W. H. Eyre (London).

The following is a syllabus of Dr. BERRY'S paper:

Undoubted advances in ocular therapeutics have been few of recent years, though, particularly as regards local treatment, the number of new substances and new methods employed have been considerable. Modern treatment professes to be "rational," and is based on indications afforded by advances in scientific knowledge; there are great difficulties in complying with these indications, and rational treatment, though making progress, is often no more efficacious than the older empirical methods of treatment. Various reasons why this should be the case: Directions in which views as to treatment tend towards change and advance. General treatment:

Influence of current scientific investigations. The position and scope of general as opposed to local treatment in eye affections. Reasons for efficacy of various empirically established lines of treatment in the light of modern knowledge, etc.

2. The More Chronic Forms of Anterior Uveal Inflammation: (*a*) Extra-Ocular Manifestations. To be opened by Mr. Holmes Spicer (London). (*b*) Intra-Ocular Manifestations. To be opened by Mr. Stephen Mayou (London).

The following are synopses of the two opening papers:

(*a*) Mr. HOLMES SPICER: Incidence as to age and sex. Conditions of general health in relation thereto. The local signs: Involvement of the cornea, involvement of the deeper parts. Pathological and bacteriological investigations. Treatment: Local applications, surgical methods, ionization, vaccine.

(*b*) Mr. STEPHEN MAYOU: Cyclitis. (1) The nature and sources of the infection and the means by which it is conveyed to the eye. Staphylococcal. Tuberculous. Syphilitic. The reason why both eyes are not infrequently affected. (2) The intra-ocular manifestations. K. P. Its origin and diagnostic significance. The changes in the iris. Cause of the lenticular opacity. The manifestations in the choroid. The variations in the tension of the eye mainly dependent on changes in the vitreous. (3) The means of diagnosis. The value of tests to determine the presence of organisms within the body—for example, von Pirquet's and Wassermann's reactions. The value of the local reaction after the injections of toxins into the blood. The direct bacteriological diagnosis by examination of the aqueous. (4) The treatment by vaccines.

3. The Diagnostic Values of Ophthalmoplegia, Partial and Total. To be opened by Dr. Risien Russell (London).

The following is a syllabus of Dr. RISIEN RUSSELL'S paper:

The value of ophthalmoplegia in the diagnosis of organic as opposed to functional affections of the nervous system. What estimate can be formed of the probable nature of the case from a study of the ophthalmoplegia alone. The conclusions justified by a knowledge of the mode of onset and progress of the paralysis. The significance of the combination in which the ocular muscles are affected. The value of associated ocular phenomena as aids to a correct diagnosis. The deductions that are warranted when other cranial nerves are concomitantly affected. Is a diagnosis ever justified from a study of the ophthalmoplegia in conjunction with symptoms, without the additional assistance that can be derived from a general physical examination of the patient? The importance of a knowledge of the general physical state before a correct conclusion can be formed. To what extent ophthalmoplegia is of assistance in the diagnosis of intracranial disease from general affections of the nervous system.

On the third day the following resolution will be brought forward.

In view of the importance of obtaining continuity of treatment of defects of vision in school children throughout the period of education, and of proper co-ordination of medical inspection and treatment, it is the opinion of the Ophthalmological Section of the Association that the organization of school clinics is desirable.

OTOLOGY.

President: EDWARD LAW, M.D., London.

Vice-Presidents: ALBERT ALEXANDER GRAY, M.D., Glasgow; HUNTER F. TOD, M.D., London; FREDERICK H. WESTMACOTT, F.R.C.S., Manchester.

Honorary Secretaries: CECIL IRVING GRAHAM, F.R.C.S., 47, Queen Anne Street, W.; HERBERT JAMES MARRIAGE, F.R.C.S., 109, Harley Street, W.

The following subjects have been selected for special discussion:

Wednesday, July 27th.—Discussion on Aural Tuberculosis in Children. [The discussion will be limited to diagnosis, prognosis, and treatment, without details of operative procedure.]

Thursday, July 28th.—Discussion on the Diagnosis and Treatment of Infective Labyrinthitis.

Friday, July 29th.—Papers.

Members are invited to contribute any preparations, specimens, or drawings, or any instruments or apparatus pertaining to the work of the Section, which have been designed by themselves, in order that the Committee of the Section may make arrangements to form a special exhibit of such objects.

PATHOLOGY.

President: S. G. SHATTOCK, F.R.C.S., London.

Vice-Presidents: FREDERICK W. ANDREWES, M.D., London; ERNEST F. BASHFORD, M.D., London; Professor STUART MCDONALD, M.B., Newcastle.

Honorary Secretaries: JULIUS BERNSTEIN, M.B., 10, Bentinck Street, Cavendish Square, W.; ARTHUR E. BOYCOTT, M.D., Guy's Hospital, London, S.E.; ERNEST E. GLYNN, M.B., 62, Rodney Street, Liverpool.

The following is the provisional programme for the Annual Meeting:

Wednesday, July 27th.—Dr. Mott, F.R.S., will read a paper on the Effects of Alcohol on the Nervous System, with the object of raising a discussion on the effects of alcohol.

Paper:

WILLCOX, Dr. W. H. Therapeutic Uses of Alcohol Vapour mixed with Oxygen.

Thursday, July 28th.—A conjoint meeting will be held with the Section of Bacteriology, when Professor Wassermann will open a discussion on the Complement-Deviation Method of Diagnosis.

Friday, July 29th.—Short papers on pathological subjects, including:

ADDIS, T., M.D. Pathogenesis of Hereditary Haemophilia.
WARD, Gordon, M.R.C.S. Polychromasia and the Pathology of Haematomata.
GLYNN, E. E., M.B. Some Observations upon Fatal Cases of Primary Thrombosis in the Pulmonary Artery.
HICKS, Braxton, M.B. An Investigation of the Effects of Artificial Respiration on the Stillborn.
GOODHART, G. W., M.B. Chloroform Necrosis of the Liver.
CHISHOLM, R. A., M.B. The Blood in Malignant Disease.
PRICE-JONES, C., M.B. Alterations in the Size of Red Blood Corpuscles.
BOYCOTT, A. E., M.D. Experiments on Soap Anaemia.

Members desiring to contribute papers to this Section should communicate notice thereof, with abstract, to Dr. Julius Bernstein, 10, Bentinck Street, W.

Arrangements will be made for the exhibition in the Pathological Museum of specimens illustrating the work of the Section. Members wishing to exhibit specimens or photographs should communicate with the Secretary of the Pathological Museum, Mr. H. W. Armit, Lister Institute of Preventive Medicine, S.W.

PHARMACOLOGY AND THERAPEUTICS.

President: Professor ARTHUR ROBERTSON CUSHNY, M.D., F.R.S., London.

Vice-Presidents: EDMUND H. COLBECK, M.D., London; ROBERT HUTCHISON, M.D., London.

Honorary Secretaries: ARTHUR FREDERICK HERTZ, M.D., 1, Weymouth Street, Portland Place, W.; DOUGLAS CHALMERS WATSON, M.D., 22, Coates Crescent, Edinburgh.

The programme, as at present arranged, is as follows:

Wednesday, July 27th.—Discussion on Treatment with Lactic Acid Organisms. To be opened by Drs. O. F. F. Grünbaum, R. Tanner Hewlett, and Alexander

Bryce; followed by Drs. Vaughan Harley, Saundby, Willcox, T. D. Luke, Craven Moore, and others.

The following are synopses of the opening papers:

(*a*) Dr. GRÜNBAUM: (1) Evidence from experiments by various authors that it is the presence of lactic acid in the intestinal tract that modifies the growth of the various bacilli which normally inhabit this region, and that the main advantage gained by the administration of the bacillus rather than its product is that the antiseptic is manufactured in the place where it is needed, and does not run the risk of being absorbed before it reaches that part. (2) During administration it is necessary that for a time the diet shall be such as to permit the bacillus to multiply in the intestine, and the organism given must be vigorous, and a strain which manufactures large quantities of lactic acid from carbohydrates. There are a number of different kinds of bacilli and cocci which conform to this, but there is an advantage in using a pure culture rather than a culture of several micro-organisms, in that it gives the medical man a chance to determine rapidly by the microscope whether there is any great accidental contamination. (3) The diseases which are apparently improved by the treatment come under three headings: (*a*) Those suffering from toxaemia, or rather those who either absorb toxins with abnormal ease, or have difficulty in eliminating them; (*b*) those who suffer from irritation of the intestinal mucosa caused by some micro-organism which cannot flourish in an acid medium; (*c*) a certain percentage of individuals who suffer from *maladie imaginaire*, and in whom this treatment acts by suggestion.

(*b*) Dr. TANNER HEWLETT: 1. The bacteriology of sour milks. 2. Influence of the ingestion of soured milk on the lactose-fermenting organisms of the digestive tract. 3. Influence of the ingestion of soured milk on the putrefactive organisms of the digestive tract. 4. Influence of the ingestion of soured milk on the chemical changes occurring in the digestive tract. 5. The bacteriology of various commercial preparations employed in the preparation of soured milk.

(*c*) Dr. ALEXANDER BRYCE: The indiscriminate use of curdled milk by no means free from risk. The most notable and serious deleterious effect of its use is rheumatism in some form or other. Explanation of this untoward result, with illustrative cases. Indications for the use of lactic acid therapy. Cases in which it is quite unsuitable. Curdled milk valuable as a nutrient more frequently than as a therapeutic agent.

Thursday, July 28th.—Discussion on the Effect of Digitalis on the Human Heart. To be opened by Professor Wenckebach, of Gröningen, and Dr. James Mackenzie; followed by Sir Lauder Brunton, Professor Faust (Würzburg), Drs. Turnbull, Windle, Lewis, Gossage and others.

The following is an abstract of Dr. MACKENZIE'S paper:

A preliminary investigation into the action of cardiac drugs revealed the fact that some that are supposed to have a powerful effect in treatment are entirely without effect, while others of the digitalis group, which had been supposed to be capricious or uncertain in their action, were found to be very reliable, provided the nature of the disease from which the individuals were suffering was taken into consideration. Moreover, the great advances that have been made in late years in recognizing the nature and mechanism of many cardiac phenomena enable the observer to detect the actual effect of certain remedies on the heart with great precision. From these considerations a plan has been instituted in the cardiac wards of Mount Vernon Hospital for the purpose of studying the effect of drugs upon the heart, and it is intended to describe the methods employed, and to indicate the results, with particular reference to the action of digitalis.

Other papers from Dr. Fortescue-Brickdale, Dr. Crichton Miller, Professor Dixon, Dr. H. H. Dale, Professor Faust, and Dr. Ninian Bruce have been accepted.

PHYSIOLOGY.

President: Professor WILLIAM H. THOMPSON, M.D., Dublin.

Vice-Presidents: JOHN SCOTT HALDANE, M.D., F.R.S., Oxford; Professor PERCY THEODORE HERRING, M.D., St. Andrews, N.B.

Honorary Secretaries: T. GRAHAM BROWN, M.B., Physiological Department, University, Glasgow; J. STRICKLAND GOODALL, M.B., Physiological Laboratory, Middlesex Hospital, W.

The following programme has up to now been arranged:

Wednesday, July 27th.—Opening remarks by the President, Professor W. H. Thompson. Discussion on the Food Requirements of Man for Sustenance and Work. To be opened by Lieutenant-Colonel Melville, R.A.M.C.; followed by Professor J. G. Hopkins, Professor Haldane, Dr. M. S. Pembrey, Dr. Robert Hutchison, Dr. Chalmers Watson, and others.

Thursday, July 28th.—Discussion on the Factors that make for an Efficient Circulation. To be opened by Professor E. A. Schäfer; followed by Messrs. Geo. Oliver, M. S. Pembrey, J. Mackenzie, Professor Starling, Dr. Hill, Professor McWilliam, and Dr. Ivy Mackenzie.

Friday, July 29th.—Paper: Dr. Edridge-Green, Some Visual Phenomena connected with the Yellow Spot. Dr. Edridge-Green will also demonstrate his lamp for testing colour vision.

Demonstrations will be given by Professor Haldane on the Causes of Absorption by the Lungs in Animals and Man, and Dr. C. G. Douglas on the Production of Cheyne-Stokes Breathing.

PSYCHOLOGICAL MEDICINE AND NEUROLOGY.

President: THEO. BULKELEY HYSLOP, M.D., F.R.S.E., London.

Vice-Presidents: ARCHIBALD R. DOUGLAS, L.R.C.P., Lancaster; WILLIAM GRAHAM, M.D., Belfast; THOMAS D. GREENLEES, M.D., London; J. RISIEN RUSSELL, M.D., London; DAVID G. THOMSON, M.D., Norwich.

Honorary Secretaries: ARTHUR STANLEY BARNES, M.D., 141, Great Charles Street, Birmingham; ROBERT HUNTER STEEN, M.D., City of London Mental Hospital, Dartford; REGINALD JOHN STILWELL, M.R.C.S., Moorcroft, Hillingdon, Uxbridge.

The following subjects have been selected for special discussion:

Wednesday, July 27th.—Discussion on Marriage and Insanity. To be opened by Dr. George Savage; followed by Sir James Crichton-Browne, Drs. Bevan-Lewis, Shuttleworth, Mercier, Percy Smith, Robert Jones, Maurice Craig, and others.

Paper:

BAUGH, Dr. Leonard D. H. Paranoidal Symptoms at the Female Climacteric.

Thursday, July 28th.—Discussion on the Treatment of Tabes. To be opened by J. Risien Russell, M.D., London. The following will take part in the discussion: Drs. David Ferrier, Byrom Bramwell, Alexander Bruce, Lieven, Judson Bury, J. Mitchell Clarke, and G. Farquhar Buzzard.

Papers:

BARANY, Dr. (Vienna). The Vestibular Apparatus and the Cerebellum.

WILLIAMS, Dr. Tom A. (Washington). The Practical Lessons to be Derived from Recent Work upon Hysteria.

Friday, July 29th.—Papers.

THOMSON, Dr. D. G. A Post-Graduate Curriculum and Diploma in Psychological Medicine.

ASH, Dr. Edwin. The Psychological Treatment of certain Functional Conditions.

WILSON, Dr. Albert. The Problem of Degeneracy, with a Workable Scientific Basis.

Dr. S. A. K. Wilson will give a demonstration by lantern slides: The Diagnostic Value of the *X* Rays in Nervous Diseases.

Members are invited to contribute any preparations, specimens or drawings, or any instruments or apparatus pertaining to the work of the Section, which

have been designed by themselves, in order that the Committee of the Section may make arrangements to form a special exhibit of such objects. In order to save time and to facilitate the necessary arrangements, all communications relating to the exhibition of preparations, specimens, drawings, etc., may be addressed to Mr. H. W. Armit, Honorary Secretary, Medical Museum Committee, British Medical Association, Lister Institute of Preventive Medicine, Chelsea, London, S.W.

RADIOLOGY AND MEDICAL ELECTRICITY.

President: J. MACKENZIE DAVIDSON, M.B., London.

Vice-Presidents: C. THURSTAN HOLLAND, M.R.C.S., Liverpool; H. LEWIS JONES, M.D., London; CECIL R. C. LYSTER, M.R.C.S., London; WILLIAM F. SOMERVILLE, M.D., Glasgow.

Honorary Secretaries: W. IRONSIDE BRUCE, M.D., 10, Chandos Street, W.; LEONARD A. ROWDEN, M.B., 32, Park Square, Leeds.

The following programme has been arranged:

Wednesday, July 27th.—Addresses by the President of the Section and Sir J. J. Thomson, F.R.S.

Papers:

JONES, Dr. Lewis. On the Treatment of Some Corneal Ulcers by Zinc Ions. Zinc ionization has proved successful in the treatment of four cases of Mooren's ulcer or marginal ulcer of the cornea. Reinfection of the cornea from the conjunctival sac, to which the intractable nature of this form of ulceration is due, can be prevented by the use of a zinc lotion, but it does not suffice to cure the corneal ulceration, for which the penetration of zinc ions into the substance of the cornea is necessary. Currents of 1 or 2 milliampères are sufficient.

HOLLAND, Mr. Thurstan. A Screen for Examination in the Upright Position. The necessity of the screen examination of the chest and abdomen (for stomach work) being made with the patient standing or sitting. The difficulty of ensuring adequate protection to the operator during the screen examination *and whilst handling the patient.* A method of protection devised by the author, especially for hospital work. A model of the screen will be shown.

MORTON, Dr. Reginald. Some Bony Changes Observed in a Case of Chronic *X* Ray Dermatitis.

SOMERVILLE, Dr. W. F. The Relief of Pain and Discomfort by High Frequency Currents.

Thursday, July 28th.—Papers:

JELLINEK, Dr. On Electro-Pathology.

FREUND, Dr. On the Conditions Necessary to Obtain Radical Cures from *X*-Ray Treatment.

TURNER, Dr. Dawson, and Dr. T. G. GEORGE. Some Experiments on the Effects of the *X* Ray in Therapeutic Doses on the Growing Brains of Rabbits. Object of research: To determine the action, if any, of *x* rays on the developing nervous system when the rays are administered in therapeutic doses. One half of a rabbit's cranium was exposed to a therapeutic dose of *x* rays, repeated in some cases two, three, and four times, at proper intervals. Macroscopic and microscopic examinations of the two halves of the brain were afterwards made. Difficulties in carrying out the experiments and in coming to conclusions

BAILEY, Dr. Fred. Description of a Method of Treatment by Radiant Heat and Iodine Ionization. The treatment is applicable to fibrotic deposits, thickenings, or adhesions present in or about joints in fibrositis, chronic rheumatic and rheumatoid arthritis, etc. Its object is to increase the supply of arterial blood to the joints, and to drive iodine ions into the affected parts to effect a solvent action on the fibrinous deposits. The apparatus required and the method of application will be fully described, as well as the method of treating two joints at the same time, and also a matter of estimating roughly when the disease is above the average, the value of movements to stretch adhesions at as early a stage as possible, and of application, concluding with an analysis of 21 cases.

ROWDEN, Dr. Leonard. The Value of Screen Examination in the Diagnosis of Renal Calculus. By proper screen examination many errors in the *x*-ray diagnosis of renal calculus can be avoided, its advantages being: (1) The proper quality of rays for the particular case in hand can be more certainly obtained, and therefore better contrast secured, and more likelihood of detecting a shadow. (2) The movement of any shadow or shadows can be studied, which in many cases will differentiate shadows cast by objects other than calculus. (3) The area of illumination can be accurately cut down to very small dimensions, thus very greatly increasing the definition of any suspicious spot.

SIMPSON, Dr. J. B. The Advantages of *X* Rays in Country Practice. (1) Difficulties in country practice in diagnosis, prognosis, and treatment of injuries and diseases of bones and joints. (2) Advantages of *x* rays in these conditions. (3) Simple apparatus only required. (4) A few illustrative cases, with lantern slides, will be related.

SIMMONS, Dr. The Constitution and Organization of the *X*-Ray Department of a General Hospital. The necessity of every general hospital having an *x*-ray department conducted by a qualified medical man of special experience in *x* ray and electrical work. The requirements from the surgical, medical, and special departments of a hospital that must be met by an *x* ray department. A description will be given of the *x* ray and electrical department of St. George's Hospital and of the various pieces of electrical and *x*-ray apparatus, their distribution in the *x*-ray room, and the reason for the particular position of each piece of apparatus.

Friday, July 29th.—Papers:

LAZARUS-BARLOW, Dr. On the Skotographical Properties of Tissue.

BARCLAY, Dr. The Normal and Pathological Stomach as seen by *X* Rays.

WENCKEBACH, Professor. A New Stand for *X*-Ray Work.

ORTON, Dr. Harrison. Some Points in the *X*-Ray Diagnosis of Pulmonary Tuberculosis. Apparatus required. Position of patient during examination; examination of apices of lung and of diaphragm movements. The earliest signs; examination by screen and by negatives. Importance of not relying on *x* ray findings alone. Can *x* rays detect tubercle of the lungs before ordinary physical signs appear?

JORDAN, Dr. Alfred. Types of Phthisis from the Radiographer's Point of View. Early diagnosis: Comparisons with clinical, pathological, and bacteriological diagnosis. Diaphragm: In phthisis; in other diseases of the chest. Heart: In phthisis; in other pulmonary diseases. Pulmonary phthisis: Principal types as regards distribution, place of starting, appearance of lesion, etc.; appearances of a progressive case, of a case undergoing cure. Differential diagnosis: Old fibrosis, bronchiectasis, bronchitis and emphysema, pneumonia, aneurysm. Phthisis complicating other diseases: The above (under differential diagnosis); also pleural effusion, pneumothorax, pyopneumothorax, etc.

PIRIE, Dr. Hyperidrosis Treated by *X* Rays. Effect of *x* rays on quickly growing and young cells. Preliminary observations of sweat glands unintentionally destroyed by *x* rays. Type of case suitable for *x*-ray treatment. Axillae the most troublesome part. Hands and face also treated. Characteristics of the perspiration treated—namely, worse in cold weather, excitement, or worry; none at night. Account of six cases and results.

STATE MEDICINE.

President: The Right Hon. Sir WALTER FOSTER, P.C., M.D., D.C.L., London.

Vice-Presidents: FRANCIS CLARK, M.D., M.R.C.P., D.P.H., Hong Kong; S. MONCKTON COPEMAN, M.D., F.R.S., London; THOMAS W. H. GARSTANG, M.A., M.R.C.S., D.P.H., Altrincham; HERBERT JONES, L.R.C.S.I., D.P.H., Hereford; JAMES MALCOLM MASON, M.D.Brux., L.R.C.P., D.P.H.Camb., London; CHARLES E. PAGET, M.R.C.S., Northampton.

Honorary Secretaries: GEO. FREDERICK MCCLEARY, M.D., 7, Belsize Park Gardens, Hampstead, N.W.; JOHN EDWARD SANDILANDS, M.D., Town Hall, Kensington, W.

The following discussions have been arranged:

1. The Relation of Poor Law Reform to Public Health Administration. To be opened by Mrs. Sidney Webb; followed by Mr. C. S. Loch, Drs. Ford Anderson, H. Cooper Pattin (M.O.H., Norwich), J. F. J. Sykes (M.O.H. St. Pancras), and R. A. Lyster (M.O.H. County Hants).

The following is an abstract of Mrs. WEBB'S paper:

The sweeping condemnation of the existing Poor Law Medical Service that the recent Royal Commission unanimously pronounced did not proceed from any dissatisfaction with the Poor Law medical officers, but from public health considerations. The defects revealed by the Commission are (1) the failure to provide any treatment at all for many cases, and to reach the others at the incipient stage; (2) the "deterrent" effect of the relieving officer and of the whole Poor Law system; (3) the adverse influence on treatment of the unsatisfactory system of remuneration of the district medical officer and of its inadequacy; (4) the saddling of the district medical officer with the cost of drugs, etc.; (5) the failure to provide for nursing, suitable nourishment, and convalescence; (6) the lack of connexion between the domiciliary and the institutional treatment; (7) the inadequacy of the mixed workhouse as a general hospital (in structure, in method of government, in professional staffing, in equipment, etc.); (8) the lack of suitable provision for (*a*) phthisis, (*b*) measles and whooping-cough, etc.

The position is complicated by the amount, hitherto unrealized, of duplication and overlapping of rival rate supported medical agencies. The ubiquitous public health medical service (with its 700 municipal hospitals, treating 100,000 patients annually, opening their doors to one disease after another and beginning to add out-patient departments; its growing staffs of "health visitors," giving "hygienic advice"; its domiciliary nursing staffs, its "milk dispensaries," its "school clinics") is rapidly coming to deal with as many individual cases annually as the Poor Law. Both alike are undermining the general practitioner. Three courses are open: (1) The *status quo*, with minor improvements, tempting to many, but (*a*) not practicable; (*b*) would mean still more undermining the private practitioner. (2) The Majority Report, based on extension of "provident" system and "contract practice." This (*a*) does not stop the overlap; (*b*) leaves both the Poor Law and the public health service to develop at the cost of the private practitioner; (*c*) giving up the "deterrent" Poor Law system. (3) The Minority Report unites the Poor Law medical service and the public health medical service *en bloc*, saving all personal rights, in a combined county medical service, under health committees and Minister for Health. It provides instant treatment for all in need, but safeguards private practice by providing for rigorous charge and recovery, so as to discourage resort to it, to all families above bare subsistence (say, 3s. per week per adult unit).

2. Town Planning in Relation to Public Health. To be opened by Dr. John Robertson (M.O.H. Birmingham), followed by Drs. E. W. Hope (M.O.H., Liverpool), Raymond Unwin, T. C. Horsfall, Fremantle, and others.

3. The Provision of Medical Treatment by Local Education Authorities. To be opened by Dr. James Kerr, followed by Professor Kenwood, Drs. A. E. Remmett Weaver (M.O.H. Abertillery), Barwise (M.O.H. County Derbyshire), Cooper Pattin (M.O.H. Norwich), and R. H. Lyster (M.O.H County Hants).

4. The Influence of Elementary Schools on the Spread of Infectious Disease.

5. The Etiology and Prevention of Summer Diarrhoea. To be opened by Dr. Niven (M.O.H, Manchester), followed by Dr. Boobbyer (M.O.H., Nottingham).

6. The Administrative Control of Ophthalmia Neonatorum. To be opened by Dr. Geo. Reid (County M.O.H. Staffordshire), followed by Mr. Falker and Mr. Bishop Harman.

The following is a summary of Dr. REID'S paper:

No argument is needed to emphasize the importance of providing machinery for dealing with cases of ophthalmia neonatorum, which is the cause of at least one-third of the cases of permanent blindness. Apart from the humanitarian aspect of the question, the financial return would amply warrant the trifling expenditure needed to cope with the disease, as the cost of educating a blind child amounts, in round figures, to £500 compared with £30, the cost of educating an ordinary child. A blind person is also of less value to the State than one who possesses his sight. Public health authorities have ample powers for establishing the necessary preventive machinery, and there is no branch of public health work which, from the point of view of success, will better repay the work entailed. All that is needful is to ensure (*a*) that the public health staff receives early information of cases; and (*b*) that arrangements shall be made to ensure that every case at once receives medical treatment. The first essential can be secured (1) by including the affection among the list of diseases which must be compulsorily notified, and (2) by the adoption of the Notification of Births Act, 1907. The second essential may be provided for under Section 133 of the Public Health Act, 1875. For immediate information one must depend upon notification, but it is well also to possess the means of following up the cases after the completion of treatment in case of a relapse, and this can readily be done by a health visitor appointed under the Notification of Births Act. The procedure on receiving notice of a case should be to cause immediate inquiry to be made as to whether a medical man has been called in, and if this has not been done the authority should urge such a course, and, if need be, defray the cost according to a pre-arranged scale of payment. In addition to medical treatment, however, skilled nursing is also an essential, and the services of two nurses should be available for each case, one for the day and the other for the night; and these also should be provided by the authority in all cases where the circumstances of the family do not allow of the necessary payment for such services. Such cases are not numerous; the duration of treatment is usually short; and the cost, having regard to the enormous gain, is trifling. In some cases, owing to poor home conditions, it may be desirable to send the infant to a hospital; but usually this is not necessary, and when it is the families are so poverty-stricken as to come under the pauper class, for whom the workhouse infirmary is available.

7. The Reform of Death Certification. To be opened by Sir William Collins, followed by Dr. R. A. Lyster (M.O.H. County Hants).

SURGERY.

President: Sir VICTOR HORSLEY, F.R.C.S., M.B., F.R.S., London.

Vice-Presidents: FREDERICK DOUGAN BIRD, M.S., M.R.C.S., Melbourne; JOHN BLAND-SUTTON, F.R.C.S., London; Professor A. J. MCAULEY BLAYNEY, F.R.C.S.I., Dublin; GEORGE H. MAKINS, C.B., F.R.C.S., London; F. N. GISBORNE STARR, M.B., Toronto; Professor HY. ALEXIS THOMSON, M.D., Edinburgh.

Honorary Secretaries: HERBERT SHERWELL CLOGG, M.S., 143, Harley Street, W.; DOUGLAS DREW, F.R.C.S., 6, Wimpole Street, W.; WILLIAM J. GREER, F.R.C.S.I., 19, Gold Tops, Newport, Mon.

The following programme has been arranged:

Wednesday, July 27th.—Discussion on the Principles which should Govern the Operative Treatment of Simple Fractures. To be opened by Mr. Arbuthnot Lane; followed by Messrs. Gilbert Barling, E. Deanesly, W. G. Spencer, C. H. Fagge, Maynard Smith, Robert Jones, Heygate Vernon, H. J. Paterson, R. H. A. Whitelocke, Crawford Renton, W. Wheeler, Archibald Young, C. J. Morton, E. Hey Groves, Donald Armour, Andrew Fullerton, A. S. Barling, and others.

The following is a synopsis of Mr. Lane's paper:

(1) The possibility of effecting the restoration of a broken bone to its normal form by any means other than operative. (2) The results of such treatment. (3) The value of radiography. (4) The advantages gained by operative interference. (5) The best operative technique. (6) Any special objection to operation whether general or local.

The title of this discussion has been purposely chosen with the view of obtaining a definite and authoritative statement with regard to when it is essential that operative treatment should be undertaken. At the present time the question of the complete restoration of a fractured bone is of primary importance from a medico-legal point of view, and is very incompletely discussed in works on surgery; of equal importance is the correct interpretation of a radiogram of a fractured bone.

The attention of those taking part in the discussion is directed to the above suggestions. It is desired that records or statistics of individual cases should not be presented to the Section.

Thursday, July 28th.—Discussion on the Surgical Treatment of Exophthalmic Goître. To be opened by Professor Theodore Kocher and Dr. Hector Mackenzie; followed by Messrs. G. Heaton, Robert Campbell, R. Kennedy, Gilbert Barling, Donald Armour, E. Deanesly, C. H. Fagge, W. G. Spencer, Thelwall Thomas, F. Greaves, E. Hey Groves, Wilfred Trotter, C. Leedham Green, and others.

Friday, July 29th.—The time at the disposal of the Section is limited, but it is proposed that the following papers should be read in the order indicated:

BIRD, Mr. Fred. D. (Melbourne). Conditions Simulating Cancer of the Stomach.
THOMSON, Professor Alexis. The Pathological Anatomy of Cancer of the Stomach and the Conditions which are mistaken for it. (With lantern demonstration.)
PATERSON, Mr. H. J. Early Diagnosis and Treatment of Gastric Cancer.
DEANESLY, Mr. E. Excision of Gastric Ulcers.
WHEELER, Mr. W. Two Cases of Extensive Disease of the Stomach Treated by Gastrectomy.
MILES, Mr. W. Ernest. The Radical Abdomino-perineal Operation for Cancer of the Rectum and of the Pelvic Colon, with a table showing the results of 24 cases in which the method has been employed.
BOND, Mr. C. J. Remarks on a Method of Establishing Colotomy Openings and Ureteral Permanent Fistulae by means of Elevated and more Readily Controlled Mucous Openings. (With lantern slides.)
MACLAURIN, Mr. C. (Sydney). The Clinical Manifestations, Diagnosis, and Treatment of Liver Hydatid.
KENNEDY, Mr. R. A Case of Suture of the Circumflex Nerve.
BIDWELL, Mr. L. Hepatic Abscess following Acute Appendicitis.
MACLENNAN, Mr. Alex. Fracture of the Carpal Scaphoid.
MUMMERY, Mr. P. Lockhart. The Operative Treatment of Chronic Mucous and Ulcerative Colitis.
ENGLISH, Mr. T. Crisp. Cholecystectomy. Illustrated by drawings and statistics.
MOULLIN, Mr. C. Mansell. The Action of Gastro-enterostomy in cases of Gastric and Duodenal Ulcer in which there is no Mechanical Difficulty.
FENWICK, Mr. E. Hurry. Removal of the Urinary Bladder.

A demonstration of neurological (surgical) cases will be given at the National Hospital, Queen Square, on the afternoon of Wednesday, 27th, by the President of the Section and the surgical staff of the hospital.

TROPICAL MEDICINE.

President: FLEMING M. SANDWITH, M.D., London.

Vice-Presidents: HENRY P. KEATINGE, M.B., Cairo; GEORGE C. LOW, M.B., London; LAURANCE DUDLEY PARSONS, M.B., Gibraltar; Colonel JAMES R. ROBERTS, I.M.S., F.R.C.S., Indore, C. India; RAGHAVENDRA ROW, M.D., Bombay.

Honorary Secretaries: H. SINCLAIR COGHILL, M.B., London School of Tropical Medicine, Royal Albert Dock, E.; WILLIAM THOMAS PROUT, C.M.G., M.B., 78, Rodney Street, Liverpool; EMRYS ROBERTS, M.D., 5, Buckingham Place, Queen's Road, Clifton, Bristol.

The following subjects have been selected for discussion:

Wednesday, July 27th.—10 a.m., Human Trypanosomiasis. The discussion will be opened by Colonel Sir David Bruce, C.B., F.R S.

Thursday, July 28th.—10 a.m., Special Factors Influencing the Suitability of Europeans for Life in the Tropics. The discussion will be opened by Lieutenant-Colonel Sir R. H. Charles, K.C.V.O., M.D.

The following is a syllabus of the paper of Sir R. HAVELOCK CHARLES:

The classes of people affected by the discussion. The tropics—torrid zone: Meaning of the terms. (1) Local conditions: (*a*) Climatic—torrid and third temperate zones; (*b*) racial surroundings—civilization or non-civilization; customs due to religious beliefs; innate inertia. (2) Character of the European, his temperament and physique. (3) Three factors peculiar to the tropics: What they tend to produce; the physiological effect on the European; the pathological consequences. Two things required for a good crop: (*a*) Good seed (*b*) suitable soil. Tropical parasitic life. "Acclimatization": What it is; its consequences; possible results when the sojourner in the tropics returns to Europe; a severe illness in the tropics; subsequent necessity. The best type of man for the tropics. The best type of woman to accompany him; her trials. The woman to be shunned. The man *not* wanted. Some "unfit" who may, and do, live at ease in the tropics. Consideration of tropical factors in passing candidates for Government or private service in the tropics; the side of the employer of labour; the side of the would-be emigrant; assurance offices. Returned "old Indians": What they are; where are those who went out with them, and why? The man that nothing can kill; the danger of his example and immunity. The best endowment for life and service in the tropics; the three qualifications; the greatest of these three.

Friday, July 29th, 10 a.m., will be devoted to reading the following and other papers.

ARCHIBALD, Captain, R.A.M.C. Human Botriomycosis.
BALFOUR, Dr. Andrew. The Question of Water Supply in the Tropics as Illustrated by the Supply for Khartum.
BIRT, Lieutenant-Colonel C., R.A.M.C. Phlebotomus Fever.
FÜLLEBORN, Professor. Demonstration on the Development and Morphology of Microfilaria.
PEARSE, Dr. T. Frederick. Epidemic Dropsy.

The Museum Committee will be glad to receive pathological specimens, microscopic preparations, drawings or photographs of any subject connected with tropical medicine. Lantern demonstrations will be especially welcomed.

PROVISIONAL TIME TABLE.

FRIDAY, JULY 22ND, 1910.

10 A.M.—Annual General Meeting, followed by Representative Meeting.

SATURDAY, JULY 23RD, 1910.

9.30 A.M.—Representative Meeting.

MONDAY, JULY 25TH, 1910.

10 A.M.—Representative Meeting.

TUESDAY, JULY 26TH, 1910.

10 AM.—Council Meeting.
10.30 A.M.—Representative Meeting.
2.30 P.M.—Adjourned General Meeting. Induction of President.
4 P.M.—Annual Conference of Secretaries of Divisions and Branches.
8.30 P.M.—President's Address.

WEDNESDAY, JULY 27TH, 1910.

9.30 A.M.—Council Meeting.
10 A.M. to 1 P.M.—Sectional Meetings.
12.30 P.M.—Address in Medicine.
3 P.M.—Religious Services.

THURSDAY, JULY 28TH, 1910.

8 A.M.—National Temperance League Breakfast.
9.30 A.M.—Council Meeting.
10 A.M. to 1 P.M.—Sectional Meetings.
12.30 P.M.—Address in Surgery.
7.30 P.M.—Annual Dinner.

FRIDAY, JULY 29TH, 1910.

10 A.M. to 1 P.M.—Sectional Meetings.

SATURDAY, JULY 30TH, 1910.

Excursions.

The Executive Committee of the Annual Meeting at its meeting on March 8th adopted the following resolution:

That academic dress or uniform be worn on the three following occasions, namely: Tuesday evening at the Presidential Address; Wednesday afternoon at the Church Service in Westminster Abbey; and on Wednesday evening at the Conversazione at the Guildhall by the Lord Mayor and Corporation.

It was also decided by the Executive Committee of the Annual Meeting that academic dress should be worn at an Evening Reception which will be given by the Metropolitan Counties Branch on July 29th, although it would not be obligatory.

RAILWAY ARRANGEMENTS.

A form for the use of members who propose to attend the Annual Meeting of the British Medical Association in London next month will be found at p. 405. If the form is filled up and returned to the address shown, a voucher or vouchers will be issued from the central office, giving the right to the special terms which have been arranged with the railway companies. A return ticket will be issued at a single fare and a quarter, and these tickets are available from July 21st to August 2nd, both dates inclusive.

LIST OF HOTELS AND LODGINGS.

There is also published a list of hotels and lodgings, with a scale of charges; members are requested to communicate direct with the persons whose names are given in the list, or with the managers of the hotels mentioned. The early receipt of the form stating the intention to be present will greatly facilitate the work of the local committee, so that sufficient entertainment may be provided for the large number of members expected to attend.

GENERAL ARRANGEMENTS.

The agenda paper of the Annual Representative Meeting, so far as it could then be settled, was published in the SUPPLEMENT for May 21st, while the programme of the general meetings and of the Sections appears in the SUPPLEMENT of this week. The President-elect, Mr. Butlin, President of the Royal College of Surgeons, will be inducted on Tuesday afternoon, July 26th, and will deliver his address on the evening of that day in the St. James's Hall, Great Portland Street.

GOLFING.

The Ulster Cup.

It will be remembered that a cup was presented by the Ulster Branch last year, and is to be played for annually on the following conditions, as laid down by the Ulster Branch: "Bogey play under handicap, not exceeding 18; cup to become the property of the member of the Association winning it twice in succession, or three times in all; one round of 18 holes to be played on one day at the Annual Meeting, with no previous play." At Newcastle last year about eighty competitors played, and the cup was won by Dr. Shekleton, Holywood, co. Down. The cup is a copy of the famous "Ardagh" Cup, which is in the National Museum in Dublin, and whose history is known from the eleventh century.

Owing to the conditions of play, the golf subcommittee are this year compelled to insist that the numbers competing shall be limited to 200, and that all entries must be received by July 8th, in order that they may make arrangements to reduce the numbers to 200 if necessary.

All members who wish to enter for this prize are requested to send their names to Dr. F. J. Smith, 138, Harley Street, W., as soon as possible, and *in any case before July 8th, after which no entry can be received.*

The competition will take place on Friday, July 29th, on the excellent course of the Burhill Golf Club, which has most generously been placed at the disposal of the Association for this purpose by the directors. The club is near Walton-on-Thames station—easily reached from Waterloo.

Annual Match.

The usual annual match will take place on Wednesday afternoon, July 27th. It will be between the Metropolitan Counties Branch and the visitors, and it is hoped that at least twenty a side will take part. It will be played, by the kindness of the committee, on the well-known Northwood Links. All members who wish to play are asked to send their names at once to Mr. Percy Furnivall, 28, Weymouth Street, Portland Place, W., in order that the best selection available may be made. It is particularly requested that names should be sent in as early as possible, and each should be accompanied by the player's club and lowest handicap.

Honorary Membership of Clubs.

Golfing members generally will be pleased to hear that a number of the best clubs in the neighbourhood of London have, with extreme generosity, placed at the disposal of the Association a considerable number of honorary memberships for the days of the meeting. This will give visiting members a unique opportunity to play upon these courses. Up to the present the following clubs have invited members to use their links: Acton, Ashford Manor, Burnham Beeches, Bushey Hall, Burhill, Edgware, Eltham Warren, Fulwell, Hanger Hill, Home Park, Mid-Surrey, Neasden, Princes', Richmond, Romford, Sandy Lodge, Sunningdale, Totteridge, Tooting Bec, Walton Heath, Wembley, West Middlesex, Royal Wimbledon, and Worplesdon.

Arrangements will be made by which members wishing to play a round may leave their names and handicaps at the Reception Rooms not later than the day before, in order that matches may be arranged.

PROPOSED BLACK-AND-WHITE EXHIBITION.

An effort is being made to get together for the Annual Meeting of the Association, and in connexion with the Museum Committee, a collection of prints and black-and-white drawings having reference to the medical profession and medical men. Many such pictures have appeared in *Punch* and other illustrated papers, and no doubt there are many old prints in existence which would interest and amuse. Dr. Rice-Oxley, 5, Kensington Square, W., who has undertaken the work of arranging the collection, will be most grateful for the loan of drawings, prints, or cartoons, or for any suggestions towards the carrying out of the idea. Every possible care will be taken of loans. Any good original paintings respecting medical men or matters would be acceptable. As the time is somewhat short, Dr. Rice-Oxley will be glad of immediate response to this appeal.

KING'S COLLEGE HOSPITAL.

The members of the medical staff of King's College Hospital are making arrangements whereby members attending the Annual Meeting may have an opportunity of inspecting the new hospital buildings situated at Denmark Hill. In order to facilitate these arrangements we have been requested to ask those who desire to avail themselves of the hospitality of the medical staff to intimate the fact to the Honorary Secretary of the Medical Museum Committee (Mr. H. W. Armit, Lister Institute of Preventive Medicine, Chelsea Gardens, S.W.)

MOTOR GARAGE.

It has been arranged with the Alveston Motor Garage, whose premises open out of Roland Gardens, South Kensington, London, S.W., to provide garage accommodation for members bringing their cars from the provinces. The charge will be 2s. a day, to include standing in a lock-up garage and use of electric light and water. Members desirous of availing themselves of this accommodation should make early application to the Alveston Motor Garage.

NATIONAL TEMPERANCE BREAKFAST.

The Annual Temperance Breakfast will be held on the morning of Thursday, July 28th, at 8 a.m., under the presidency of Mr. Pearce Gould (Vice-President, Royal College of Surgeons of England).

BRITISH MEDICAL ASSOCIATION LIBRARY.

BOOKS NEEDED TO COMPLETE SERIES.

THE Librarian will be glad to receive any of the following volumes, which are needed to complete series in the Library:

American Climatological Transactions. Vols. 1, 4, 5, 6.
——— Dermatological Association Transactions. Vols. 5, 7, 8, 11, and 29.
——— Journal of the Medical Sciences. New series, vols. 4, 5, 1842–3; vols. 14, 15, 1847–8; vols. 18–30, 1850; vol. 33, 1857; vol. 46, 1864–5; vol. 59; or any parts of these vols.
——— Journal of Ophthalmology. Vols. 1–9.
——— Laryngological Association. Transactions. Vols. 1–6, 8–9.

Meetings of Branches & Divisions.

[The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the JOURNAL.*]*

BATH AND BRISTOL BRANCH:
TROWBRIDGE DIVISION.

THE annual meeting of this Division was held in the Town Hall, Trowbridge, on May 28th. There were present: Drs. Rattray, G. C. Tayler, H. P. Tayler, H. C. Tayler, Tubb-Thomas, Bond, Haydon, Locket, Flemming, Pearse.

The Death of King Edward.—The Chairman, Dr. RATTRAY, in suitable terms moved that there be recorded on the minutes the sorrow of the members at the demise of the late King and their sense of loyalty to the new Sovereign. This was seconded by Dr. H P. TAYLER and carried unanimously, members standing.

Confirmation of Minutes.—The minutes of the last meeting were read, confirmed, and signed.

Election of Office bearers.—The following members were elected to the various offices for the ensuing year: *Chairman*, Dr. H. P. Tayler, Bradford-on-Avon; *Vice Chairman*, Dr. G. S. A. Waylen, Devizes; *Secretary and Treasurer*, Dr. Pearse, Trowbridge; *Representatives on Branch Council*, Dr. Rattray, Dr. H. P. Tayler, Dr. Tubb-Thomas; *Members of Executive Committee*, Dr. Bond, Dr. Rumboll, Dr. Shorland; *Representative*, Dr. Pearse.

Statement of Accounts.—The SECRETARY presented the statement of accounts for the year ending December 31st, 1909, showing a balance due to Treasurer of 6s. 7d. The Entertainment Fund showed a balance in hand of £1 7s. 6d.

Contract Practice Subcommittee.—The SECRETARY reported that this committee had met to consider the suggested model rules of a public medical service, and had adapted these to local requirements, but it was decided to take no immediate action.

Election to Central Council.—The SECRETARY reported as to the method of election to the Central Council.

Resolution from Chelsea Division.—A letter was read from the Secretary of this Division forwarding a resolution on the question of direct Parliamentary representation. It was resolved:

> That, in view of the number of other important matters demanding the consideration of the Association, it is inopportune to press forward this question at the present time.

Vote of Thanks to Retiring Chairman.—The meeting terminated with a vote of thanks to the retiring Chairman, Dr. Rattray of Frome.

GLASGOW AND WEST OF SCOTLAND BRANCH:
GLASGOW NORTH-WESTERN DIVISION.

THE annual meeting of the Division was held in the Burgh Hall, Hillhead, on May 26th, at 8.30 p.m. There were present Drs. Morton, Richmond, Whitehouse, Mackintosh, Buchanan, Hay, Edmiston, A. T. Campbell, and Caskie. Dr. MORTON presided.

Confirmation of Minutes.—The minutes of the previous meeting were read and approved.

Parliamentary Representation of the Profession.—Dr. CASKIE (Honorary Secretary) read letters he had received from the Chief Secretary and Lieutenant-Colonel Baines in reply to communications from him; also a circular from Dr. Gallard regarding the necessity for a union of medical practitioners with parliamentary representation, in reply to which the Secretary was instructed to state that the Representative would be instructed how to act at the Representative Meeting.

Annual Report.—The annual report of the Division was then read, the number of members being 122, an increase of 5, there being 1 death and 1 resignation. Besides the annual meeting there were during the session five ordinary, three executive, and two committee meetings. The subjects considered and discussed during the year were also enumerated.

Election of Officers.—The following office-bearers were elected for the ensuing year: *President*, Dr J. C. Edmiston; *Vice-President*, Dr. A. G. Hay; *Honorary Secretary and Treasurer*, Dr. W. A. Caskie; *Representative to Representative Meeting*, Dr. J. Morton; *Representatives to Branch Council*, Dr. D J. Mackintosh, M.V.O., Dr. W. A. Caskie; *Ordinary Members of Council*, Dr. R. Bruce, Dr. D. McNicol, Dr. A. Mechan, Dr. T. Richmond, Dr. H. Whitehouse, Dr. J. Baird, Dr. G. Buchanan, Dr. A. K. Chalmers.

Installation of New President.—Dr. MORTON resigned the chair to Dr. EDMISTON, who returned thanks for his appointment, and asked for the co-operation of the members in his efforts to further the interests of the profession and to attract those who were indifferent.

Vote of Thanks to Retiring Chairman.—A vote of thanks was accorded to Dr. Morton for the services he had rendered during the tenure of his office.

Alteration of Rules.—The alteration of Rule 7 and the deletion of Section (*c*) of Rule 11 was approved, due notice having been given of the proposal.

Medical Students and the Association.—Dr. BAIRD suggested the idea of approaching the medical students at the university with the object of gaining their interest in the Association, and enlisting them as honorary members. This suggestion was approved by different members, Dr. MACKINTOSH stating that the subject had been before the Central Council, and that London had taken the lead in invitations to them to attend the sectional meetings. As the Association is considering the matter, it was agreed to defer the subject.

LANCASHIRE AND CHESHIRE BRANCH:
MANCHESTER CENTRAL DIVISION.

AT the annual meeting of this Division the following were elected officers for the year 1910–11: *Chairman*, Dr. W. K. Walls; *Vice-Chairman*, Dr. C. C. Heywood; *Secretary and Treasurer*, Mr. H. H. Rayner; *Representatives on Branch Council*, Drs. T. A. Helme and W. K. Walls; *Other Members of Executive*, Drs. Annacker, Clifford, Murray, C. P. Lapage, and Mr. Charles Roberts; *Representative at Representative Meetings*, Dr. Booth; *Representatives on Conjoint Committee of Manchester and Salford*, Drs. Booth, Helme, Melland, Walls, and Mr. Rayner.

Annual Report.—The annual report was received and adopted.

Business of Annual Representative Meeting.—The business of the Annual Representative Meeting was discussed.

Consultants and General Practitioners.—It was resolved that a special meeting be called to consider rules for the conduct of general practitioners and consultants.

METROPOLITAN COUNTIES BRANCH:
CITY DIVISION.

THE eighth annual general meeting was held at the Town Hall, Hackney, on Friday, May 27th, at 4 p.m. Mr. A. WITHERS GREEN was in the chair, and there were present Drs. E. A. Lermitte (Vice-Chairman) and the following members: F. Wallace, J. W. Hunt, E. W. Goodall, C. F. Hadfield, T. F. Keenan, J. I. Jaffé, A. Tynan Swan, and the Honorary Secretary.

Confirmation of Minutes.—The minutes of the meetings of January 28th, February 25th, March 17th, and April 21st were read and approved.

Letters.—Letters were read from Dr. Major Greenwood, that owing to a meeting of the Poor Law Committee at the Central Office he was unable to attend, and from Dr. Hope Grant, a former chairman of the Division, that he had removed to Sheerness to practise, and therefore resigned from the Division. On the motion of Dr. J. W. HUNT it was resolved that the resignation be received with regret, and that the best wishes of the Division be sent to Dr. Hope Grant for his success in his new sphere of practice.

Election of Officers.—The following were then elected officers for 1910–11: *Chairman*, E. A. Lermitte, M.B.; *Vice-Chairman*, Gerald Johnson; *Representatives on*

the Council of the Branch, J. W. Hunt, M.D., C. F. Hadfield, M.D., E. W. Goodall, M.D., and the Honorary Secretary; *Representative in Representative Meetings*, E. W. Goodall, M.D., Deputy, Frederick Wallace; *Honorary Secretary and Treasurer*, A. G. Southcombe, M.D.; *Executive Committee*, Carey Barlow, J. L. Dick, M D, E. C. Evans, A Withers Green, G. B. Hicks, J. I. Jaffé, F. T. Keenan, M.B., G. W. Kendall, A. L. Marshall, M B., J. H. Porter, Major Greenwood, M.D., David Ross, M.D., A. Tynan Swan, M.B., and Fredk. Wallace; *Ethical Committee of the Division*, the Chairman and Honorary Secretary (*ex officio*), A. T. Davies, M.D., Major Greenwood, M.D., J. W. Hunt, M.D., and Fredk. Wallace.

Annual Report of Executive Committee for 1909–10.

Having been posted to all members of the Division previously to the meeting, the report was taken as read.

It was as follows:

Since the last annual general meeting on May 20th, 1909, seven meetings of the Division have been held and one meeting to which all practitioners within the area of the Division were invited.

One meeting at the Metropolitan Hospital was held conjointly with the Aesculapian Society, and another at Walthamstow Hospital with the Walthamstow Division.

The average attendance has been 15.

The Division is greatly indebted to Sir Victor Horsley, F.R.S., Mr. Mansell Moullin, F.R.C.S., and Dr. J. H. Sequeira for papers and demonstrations given or promised; to the staffs of St. Bartholomew's, the Metropolitan, and Walthamstow hospitals for demonstrations and hospitality; and to Dr. J. O. Adams and Mr. Gerald Johnston of Brooke House, and to Dr. Hadfield of Manor Lodge, for meetings and hospitality at their houses.

The financial statement for the year 1909 is as follows:

	1909. £	s.	d.	1908. £	s.	d.
Hire of rooms	3	3	0	5	13	5
Printer	10	15	0	10	5	6
Stationery	0	3	3	0	1	9
Postage by Secretary ...	0	16	6	0	18	8
Other expenses, Secretary	0	0	8	0	3	8
Gratuities to patients ...	0	13	0	1	2	6
	15	11	5	18	5	6

There are at present, by list made up to April, 170 members and one associate member.

The Executive Committee has held four meetings up to the date of issuing this report, with an average attendance of 11.

The following is the record of attendances to that date:

Dr. Withers Green (Chairman), 4; Dr. Lermitte (Vice-Chairman), 4; Dr. J. W. Hunt (Representative on Branch Council), 4; Dr. E. W. Goodall (Representative in Representative Meetings), 4; Dr. C. R. Salisbury (lately Honorary Secretary), 2; Dr. A. G. Southcombe (Honorary Secretary *pro tem.*), 4; Dr. F. H. Wallace (Assistant Honorary Secretary), 2; Dr. J. I. Jaffé, 4; Dr. Hadfield, 3; Dr. Ross, 3; Dr. Hicks, 3; Dr. Gerald Johnston, 2; Dr. F. Wallace, 2; Drs. Dick, Greenwood, and Porter, 1 each.

Drs. Brown, Daly, and Montagu Smith have not attended once, and are therefore ineligible for re-election.

Dr. C. R. Salisbury left the Division and ceased to be Honorary Secretary from December 31st, 1909. In accordance with the rules of the Division, the Executive Committee filled the vacancy, and elected Dr. A. G. Southcombe to act as Honorary Secretary and Treasurer until the annual meeting of the Division.

The Branch Council has held 10 meetings. Dr. Goodall has attended 9 times, Dr. J. W. Hunt 5, and the Honorary Secretary 5 times. Dr. Hunt has also attended 4 meetings of the Ethical Committee, and Dr. Goodall 5; Dr. Goodall 4 of the Emergency Committee and 1 each of the Organization and School Children's Committees. The Honorary Secretary has attended 2 meetings of the Medical Charities Committee and 1 each of the Organization and Special Contract Practice Subcommittee.

The Entertainment Fund at the end of last session amounted to £1 5s. Subscriptions for the current year are hereby acknowledged from Drs. Hunter, Chambers, Daly, Moore, Dixon, Marshall, Ross, Greenwood, Gibbons, Goodall, Salisbury, Dick, Jaffé, Lermitte, Hunt, Gerald Johnston, Hadfield, F. Wallace, H. Wallace, Southcombe, and a special donation from the Chairman, Dr. A. Withers Green. The total of the fund now amounts to £3 6s. The Treasurer will be pleased to receive any further subscriptions for the current year.

The Ethical Committee has not been summoned during the session.

On the statement by Dr. GOODALL that he had attended 5 meetings of the Branch Ethical Committee, it was directed that such attendance be added to the record. As amended the report was received and passed.

Annual Representative Meeting.—Notice having been given by Dr. MAJOR GREENWOOD—

> That it be an instruction to the Representative to support the resolution of which formal notice has been given by the Salford and Richmond Divisions for the rescindment of Minute 234 passed at Belfast—

the resolution was carried as an instruction. The notices of motion published in the SUPPLEMENT of April 23rd were discussed, and where no expression of opinion upon any such had been given by the Division the Representative was instructed to vote at his discretion.

Change of Rule.—Upon the motion of the HONORARY SECRETARY, who gave reasons for the change being desirable—

> That No. 11 of the rules of the Division be amended, so that seven clear days' notice be given for ordinary and annual meetings of the Division, instead of ten and fourteen as at present—

it was resolved that the alteration suggested be approved and affirmed.

Nominations by the Division.—The following nominations by the Executive on behalf of the Division were approved: *President*, Lauriston Shaw, M.D., F.R.C.P.; *President-elect*, Mr. Betham Robinson, F.R.C.S.; *Vice-President*, Dr. Wise (Walthamstow); *Treasurer*, Mr. Betham Robinson, F.R.C.S.; *Representative on the Central Council*, Major Greenwood, M.D; *Representative on Central Council elected by the Representative Meeting*, E. W. Goodall, M D.

Annual Meeting.—No nomination of subjects for discussion or of members to take part in them was made for the Sections at the annual meeting. Dr. Major Greenwood is taking part in the Sociological Section.

Medical Charities Committee.—The letter from the Honorary Secretary of the Medical Charities Committee respecting the circular issued by the Subcommittee *re* "King's Fund Inquiry of Out-patients" was read, discussed, and approved. On the motion of Dr. HUNT, seconded by Dr. LERMITTE, it was resolved that a subcommittee be appointed to deal with the matter, and the following were nominated: Dr. F. P. Keenan (Upper Clapton), Dr. J. I. Jaffé (Stoke Newington), Dr. A. Tynan Swan (Victoria Park), and the Honorary Secretary, with power to add to their number.

The Subcommittee *re* King's Fund Inquiry of Out-patients has issued the following letter to all members of the Division:

METROPOLITAN COUNTIES BRANCH:
City Division.
83, Sidney Road,
Homerton, N.E.,
June, 1910.

Dear Sir,

The question of Hospital Abuse is one that is constantly in the minds of most members of our Profession, but it is seldom that an opportunity arises for airing our views. Such a chance now presents itself, as the Committee of the King's Hospital Fund are seeking to obtain information respecting such abuse, with the intention of dealing with the matter. This golden opportunity should not be lost as it may not recur.

The Hon. Sec. of the Subcommittee appointed to deal with the enquiry of the "King's Fund" into Hospital Abuse forwarded to this Division the following questions—which were considered at the Annual Meeting held at the Hackney Town Hall on Friday, May 27th, viz.:—

I. Is there any abuse of the Out-patients Departments of Hospitals in the area of the Division?
II. Is there any provision other than the Poor Law made for the treatment of the deserving poor in the district?
III. What effect, if any, does the treatment of Patients at Hospitals have on Provident Dispensaries in the District?

It was then resolved that a Local Subcommittee be appointed and that the above questions be forwarded to all members of the Division.

You are earnestly requested to answer the following questions:—

I. Whether any cases of abuse of Out-patient Departments have recently come under your notice?
II. Can you give any assistance in answering Questions II and III?

Kindly forward your reply to a member of the Local Subcommittee, or to

Yours faithfully,
A. G. SOUTHCOMBE,
Hon. Sec.

Members of Local Subcommittee:—

Upper Clapton—T. F. KEENAN, Esq., M.B.,
49, Mount Pleasant Lane,
Upper Clapton, N.E.

Stoke Newington—J. I. JAFFÉ, Esq.,
25, Stoke Newington Road, N.

Victoria Park—A TYNAN SWAN, Esq., M.B.,
1, Cadogan Terrace,
Victoria Park, N. E.

Already a gratifying response has been obtained from many members detailing cases of hospital abuse.

Model Rules for Proposed Public Medical Service.—These were discussed by several present, and a general desire for further information as to the working of such schemes where already attempted was expressed, and the discussion was adjourned.

Vote of Thanks to Chairman.—Upon the motion of Dr. J. W. HUNT, seconded by Dr. LERMITTE, a unanimous vote of thanks was tendered to the Chairman for his services in the chair during the past year. Dr. A. WITHERS GREEN suitably responded.

The meeting closed at 5.50 p.m.

NORWOOD DIVISION.

THE first meeting of the Norwood Division as newly constituted was held on May 26th, at 7 p.m., at the Queen's Hotel, Upper Norwood, Dr. T. D. GREENLEES in the chair. The notice which appeared in the BRITISH MEDICAL JOURNAL SUPPLEMENT of May 7th approving the partition of the Norwood Division into two Divisions, named the Norwood and Greenwich Divisions respectively, was read.

Adoption of Rules.—On the motion of Dr. HOWARD, seconded by Dr. SWAYNE, it was resolved:

That the old Divisional Rules be adopted with the following alterations:
Rule 9.—The other members of the Executive Committee shall be seven in number instead of six.
Rule 11.—The annual meeting shall be in May instead of in June.
Also that the Divisional, Ethical, and the Bradford Rules as in force shall be adopted.

Annual Report.—The annual report of the Executive Committee of the old Norwood Division was received and adopted.

Election of Officers and Executive Committee.—These were proposed from the chair and elected *en bloc* as follows: *Chairman*, Dr. T. D. Greenlees; *Vice-Chairman*, Dr. G. B. Batten; *Honorary Secretary and Treasurer*, Dr. J. A. Howard; *Representative of Division at Representative Meeting*, Dr. F. G. Swayne; *Representatives on Branch Council*, Drs. Stewart and Umney; *Members of Executive Committee*, Drs. Arnold, Clark, Douglas, Hodgson, Moon, Pinkerton, Steedman.

Next Meeting.—The invitation of the Chairman, Dr. T. D. Greenlees, to hold the next meeting in the grounds of Fenstanton, Christchurch Road, Streatham, on June 30th, at 4 p.m., was accepted.

Dinner.—The first annual dinner of the new Division was then held, forty members and visitors being present.

WESTMINSTER DIVISION.

A MEETING of this Division was held on Monday, May 23rd, at the Criterion Restaurant. Invitations to attend the dinner and the meeting which followed had been sent to every medical practitioner within the area of this Division.

Nominations by the Division.—As President-elect of the Metropolitan Counties Branch, Hy. Betham Robinson, M.D., M.S., F.R.C.S.; as a Vice-President of the Metropolitan Counties Branch, J. H. Dauber, M.B.; F.R.C.S.I.; as Representative to the Central Council, G. E. Haslip, M.D.

Medical Treatment of L.C.C. School Children.—The PRESIDENT introduced the subject of the desirability of organizing the medical treatment of London County Council school children in the area of the Westminster Division (Boroughs of Westminster and Holborn) found defective on medical inspection. Sir VICTOR HORSLEY, the guest of the evening, addressed the meeting on the advisability of the local profession entering into negotiations with the local education authority in reference to a scheme for the medical treatment of school children found upon inspection to be defective, explaining not only the advisability of the procedure but giving many valuable suggestions and words of caution. In order to facilitate the plan recommended by the speaker the PRESIDENT moved:

That this meeting shall now become a General Meeting of the medical practitioners of this Divisional area.

Formation of Local Committee.—This having been unanimously agreed to, Sir VICTOR HORSLEY outlined the preliminary and subsequent procedure with regard to the formation of a local committee of the medical practitioners. Drs. ARCHER, FINUCANE, and others spoke in relation to the particular requirements of the Westminster Division. Dr. LAURISTON SHAW spoke strongly in support of the question. It was agreed to form a committee of twenty members with power to add to their number, the committee to be constituted of an equal number of members and non-members of the Association. The following were elected: Non-Members, John A. West, R. H. Browne-Carthew, M.D. Members, Drs. Allan, Archer, Cope, Crean, Evans, Finucane, Hilliard, Milligan, Roche, Sibley, Simmons, Whitehouse.

Vote of Thanks.—The meeting closed with a hearty vote of thanks to Sir Victor Horsley for his address.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH:

FURNESS DIVISION.

THE annual meeting of this Division was held on May 27th.

Election of Officers.—The following members were elected to office for 1910–11: *Chairman*, Dr. Rutherford (Barrow); *Vice-Chairman*, Dr. Kendall (Coniston); *Secretary*, Dr. Livingston (Barrow); *Representative for Representative Meeting*, Dr. Daniel (Barrow); *Representatives on Branch Council*, Drs. Forster (Dalton) and Harper (Barrow); *Executive Committee*, Drs. Sansom and J. A. Reed (Barrow).

Cases.—Dr. WILLIAMS showed a case of locomotor ataxy of two years' duration. The man had at one time been unconscious for a week, and subsequently developed extensive bedsores; he lost the use of his sphincters, and had severe cystitis for three months. When shown considerable improvement had taken place; the use of the sphincters had been regained, and the cystitis had disappeared. Dr. Williams also showed a case of a man, aged about 60, who had carcinoma of the tongue and enlarged glands so extensive that operation was considered out of the question. The tongue had been amputated by a process of sloughing and ulceration, leaving a superficially ulcerated stump. The swelling of the glands had practically gone, and the patient looked very well. There had been no treatment. Dr. J. A. REED read notes of a case of inversion of the uterus in a primipara aged 29, which occurred three months after delivery. It was replaced by means of a repositor, and the woman made a good recovery. Dr. HARPER showed a case of onychia of both great toes in a

5-weeks-old baby. The condition was first noticed three days after birth.

Sale of Practices and Clubs.—The following resolution was passed after a good deal of discussion:

> In all cases in which a practitioner, after introduction or otherwise, sells his practice to a successor, all clubs shall be taken over by the successor at 4s. 4d. per head per annum; and all members of this Division agree not to take any such clubs within twelve months of transference, if so agreed upon at a general meeting of the Division held to discuss any particular case.

Parliamentary Representation of the Profession.—The resolution respecting parliamentary representation, submitted by the Chelsea Division, was lost.

SOUTH-EASTERN BRANCH:

EASTBOURNE DIVISION.

THE eighth annual general meeting was held at the Grand Hotel, Eastbourne, on Wednesday, May 25th, Dr. K. FRAZER in the chair. There were also present: Drs. J. Adams, H. Colgate, J. H. Ewart, H. S. Gabbett, A. Harper, F. C. Goodwin, W. J. C. Merry, A. C. Roberts, and the Honorary Secretary.

Apology for Non-attendance.—Mr. H. D. Farnell sent an apology for unavoidable absence.

Confirmation of Minutes.—The minutes of last annual meeting were read and confirmed.

Report of Executive Committee.—The annual report of the Executive Committee was unanimously received and adopted.

Election of Officers.—The following officers and members of the Executive Committee were unanimously elected: *Chairman*, H. D. Farnell, F.R.C.S., J.P.; *Vice-Chairman*, Kenneth Frazer, M.D.; *Honorary Secretary and Treasurer*, Wm. Muir Smith, M.B.; *Representative on Branch Council*, W. J. C. Merry, M.D.; *Representative for Representative Meeting*, J. H. Ewart, M.R.C.S.; *Executive Committee*, H. S. Gabbett, M.D., F. C. Goodwin, M.D., C. O'B. Harding, M.R.C.S., J.P., A. Harper, M.D., A. C. Roberts, M.R.C.S.

Dinner.—At the conclusion of business the members adjourned to dinner, at which nine sat down.

FOLKESTONE DIVISION.

THE annual meeting of this Division and of the Folkestone, Ashford, and Dover Constituency was held at the Hotel Wampach, Folkestone, on Wednesday, May 25th, at 8.30 p.m. Dr. CHAMBERS occupied the chair.

Confirmation of Minutes.—The minutes of the last annual meeting were read and confirmed.

Report of Executive Committee.—The report of the Executive Committee, including the finances of the Division for the year 1909, and which had been printed and sent to each member of the Division, was received and adopted.

Election of Officers.—The following were elected officers for the ensuing year: *Representative of the Division on the Branch Council*, Dr. Eastes; *Chairman*, Dr. Wainwright; *Vice-Chairman*, Dr. Dobbs; *Representative for Representative Meeting*, Major C. H. Palk; *Honorary Secretary*, Dr. P. Vernon Dodd; *Executive Committee*, Drs. Calverley, Dobbs, and Streatfield.

Date of Annual Meeting of Division.—The by-law relating to the date for holding the annual meeting of the Division was altered from May to the third Thursday in January, so as to hold it in conjunction with the annual meeting of the Folkestone Medical Society.

Medical Inspection of School Children.—Dr. MENZIES opened a discussion on the medical inspection of school children, in which the following members took part—namely, Drs. CHAMBERS, BARRETT, DAVIES, Major PALK, and Dr. DODD.

REIGATE DIVISION.

THE annual meeting of this Division was held at the Reigate and Redhill Hospital on Thursday, May 19th, at 4 p.m., Dr. BERRIDGE in the chair. Tea was kindly provided by the Matron.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Election of Officers.—The officers for the ensuing year were elected as follows: *Chairman*, Dr. Rawlings; *Vice-Chairman*, Dr. Hewetson; *Representative on the South-Eastern Branch Council*, Dr. Caldecott; *Representative at the Annual Meeting*, Dr. Caldecott; *Deputy Representative at the Annual Meeting* (if necessary), Mr. Sewill; *Committee*, Drs. Berrridge, Blackler, Bromet, Porter, Prince, and A. R. Walters; *Honorary Secretary and Treasurer*, Dr. John G. Ogle.

Special Class of Consultants.—The report of the Central Ethical Committee on a special class of consultant was discussed, and the meeting was in favour of a special class on the lines of the report, but opposed to the Association prescribing regulations for the conduct of the practice of such a class.

Medical Inspection and Treatment of School Children.—The report on medical inspection and treatment of school children found defective was discussed, and the recommendations contained therein were approved.

Poor Law Reform.—The interim report of the special Poor Law Reform Committee was discussed, and the general principles suggested by the Committee were approved of.

Relation of Homœopaths to the Association.—The report of Council on the relation of homœopaths to the Association was discussed, and the opinion of the meeting was that the Association should not pronounce on what constitutes sound doctrine in medicine or surgery, nor condemn practitioners because they hold peculiar views.

Special Committees on Certain Diseases.—A discussion took place on the advisability of special committees issuing reports on certain diseases; and the following resolution was proposed by Mr. SEWILL and carried unanimously:

> That this Division instruct their Representative at the annual meeting of the Association to protest against the method of publishing before the Representative Meeting such reports of subcommittees as that on uterine cancer published in the BRITISH MEDICAL JOURNAL of May 15th, 1909.

Fifteen members were present at the meeting.

TUNBRIDGE WELLS DIVISION.

THE eighth annual meeting was held on Wednesday, May 25th, at the General Hospital, by kind permission of the House Committee, Dr. WALLIS in the chair. There were also present: Drs. Footner, Aylward, Starling, Pardington, Guthrie, T. Elliott, and Warde.

Election of Officers.—The election of new officers for the year 1910–11 resulted as follows: *Chairman*, Dr. Starling; *Vice-Chairman*, Dr. W. Wallis; *Executive Committee*, Drs. B. Rix, T. Elliott, Davies, Storrs, C. R. Watson, and Adeney; *Secretary*, Dr. Warde; *Representative for Representative Meeting*, Dr. Starling; *Representative to Branch Council*, Dr. Pardington.

Relation of Homœopaths to the Association.—The report of the Council on the relation of homœopaths to the Association was read and discussed. The questions were answered in the affirmative.

Public Medical Service.—It was decided that the proposed model rules for a public medical service should be considered at some future meeting, together with the promised report on the relief of distress as at present conducted, which has not yet been received.

Instructions to Representative at Annual Representative Meeting.—The Representative was instructed to oppose the Wigan Rider (No. 24 on the agenda paper), as also the Chelsea Rider (No. 44 on agenda paper). The rules were amended to admit of earlier election of the Representative.

Matters of Local Interest.—The circular letter addressed by the Manchester Corporation to the councils of large boroughs was considered. Some matters of local interest were considered.

Vote of Thanks to House Committee of General Hospital.—A vote of thanks was accorded to the House Committee of the General Hospital for the use of the room, and the sum of one guinea voted to the hospital.

Special Meeting.—It was decided to hold another meeting on Wednesday, June 22nd, to consider the business of the Special Representative Meeting to be held on June 28th, after which there would be an informal discussion on whooping-cough.

Vote of Thanks to Chairman.—The meeting concluded with a vote of thanks to the Chairman.

SOUTHERN BRANCH:

JERSEY DIVISION.

THE annual meeting of this Division was held on May 17th at the residence of the Honorary Secretary (Dr. Voisin).

Confirmation of Minutes.—The minutes of the last annual meeting were read and confirmed.

Report and Financial Statement.—The report of the Executive Committee and the financial statement were read and adopted.

Election of Officers.—The following were elected for the ensuing year: *Chairman*, A. N. Symons; *Vice-Chairman*, E. O. B. Voisin; *Honorary Secretary and Treasurer*, H. C. Major; *Representative on Branch Council*, P. B. Bentlif; *Executive Committee* (ordinary members), F. Hardwood-Hardman and C. N. Le Brocq.

British Medical Association.

NOTICE OF EXTRAORDINARY GENERAL MEETINGS.

NOTICE IS HEREBY GIVEN by the Council, that an Extraordinary General Meeting of the above-named Association will be held at the Connaught Rooms, Freemasons' Hall, Great Queen Street, London, on Wednesday, the 29th day of June, 1910, at 11 o'clock in the forenoon, for the purpose of considering the subjoined Resolution, and, if thought fit, passing the same as an Extraordinary Resolution:

"That the Regulations contained in the printed document submitted to this Meeting, and for the purpose of identification initialled by the Chairman thereof, be and the same are hereby adopted as the Regulations of the Association in substitution for all the existing Regulations of the Association."

AND NOTICE is hereby also given by the Council, that if the above Resolution shall have been passed by the requisite majority at the above-mentioned Meeting, a further Extraordinary General Meeting of the above-named Association will be held at the Court of Common Council Chamber, Guildhall, London, on Friday, the 22nd day of July, 1910, at 2 o'clock in the afternoon, for the purpose of receiving a Report of the proceedings at the first above-mentioned Meeting, and of confirming, if thought fit, as a Special Resolution the Resolution above set forth.

AND NOTICE is hereby also given by the Council, that the Regulations intended to be submitted to the first above-mentioned Meeting and to be referred to in the Resolution above set forth will be the proposed New Articles and By-laws which are printed on pages 290 to 301 (both inclusive) of the Supplement to "The British Medical Journal," dated May 28th, 1910, each of the proposed By-laws numbered 20, 41, and 56 being so submitted in such one of the alternative forms thereof (printed respectively on pages 295 and 296, 297 and 298 and 299 of the said Supplement) as shall have been approved by a Special Representative Meeting of the above-mentioned Association to be held in the Connaught Rooms, Freemasons' Hall, Great Queen Street, London, on Tuesday, the 28th day of June, 1910, at 3 o'clock in the afternoon,

AND that a copy of the said Regulations may be seen at the Office of the Association at any time before the 29th day of June, 1910, during business hours.

Dated this 8th day of June, 1910.

BY ORDER,

GUY ELLISTON,

Financial Secretary and Business Manager.

SPECIAL MEETING OF COUNCIL.

A SPECIAL MEETING of the Council will be held at the Connaught Rooms, Freemasons' Hall, Great Queen Street, London, W.C., on Wednesday, June 29th, at 10 o'clock in the forenoon, to receive the Resolutions of the Special Representative Meeting of June 28th, preparatory to their being submitted to the Extraordinary General Meeting of the British Medical Association, summoned for 11 o'clock in the forenoon at the same place on the 29th June.

QUARTERLY MEETING OF COUNCIL.

WITH reference to the Quarterly Meeting of Council, summoned for 2 p.m., on Wednesday, the 29th day of June next, in order to economise time, the Chairman of Council requests that Members will assemble at 429, Strand, W.C., within twenty minutes of the Extraordinary General Meeting, so that the ordinary business of Council may be proceeded with without loss of time.

By Order,

GUY ELLISTON,

Financial Secretary and Business Manager.

429, Strand, W.C., June 14th, 1910.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BORDER COUNTIES BRANCH.—The annual meeting will be held at the Station Hotel, Carlisle, on Friday, June 24th, at 3p m.—G. R. LIVINGSTON, M.D., Honorary Secretary.

DORSET AND WEST HANTS BRANCH.—Notice is hereby given that the summer meeting proposed to be held in Weymouth, on Thursday, June 30th. has reluctantly been abandoned, by order of the President, owing to the date clashing with the dates on which the Special Representative Meeting, the Extraordinary General Meeting of the Association, and the Council Meeting following, are to be held in London at the end of June.—JAMES DAVISON, Honorary Secretary, "Streateplace," Bournemouth, June 6th, 1910.

DORSET AND WEST HANTS BRANCH: BOURNEMOUTH DIVISION.—A meeting of the above Division will be held in the Medical Society's Rooms, Bournemouth, on Wednesday, June 22nd, at 4.30 p.m. Agenda: (1) Minutes of last meeting. (2) To consider the special report and proposals of the Council with reference to the adoption of new articles and by-laws, and the best means to be taken to obtain the additional powers required by the Association. (3) Discussion of the agenda paper for the Annual Representative Meeting.—ELEANOR C. BOND, Honorary Secretary.

EAST ANGLIAN BRANCH: WEST NORFOLK DIVISION.—The annual meeting of this Division will be held on Thursday, June 30th, at 3.30p.m., at the West Norfolk and Lynn Hospital. —J. L. FORREST, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION. —The annual meeting will be held at the Board Room of the Altrincham Hospital at 5 p.m. on Wednesday, June 22nd. Afternoon tea, 4.30 p.m. The principal business is the appointment of Officers and Committee for 1910–11. Every member is eligible for every office; nominations, in writing, and signed, may be sent to the Honorary Secretary at any time before June 20th. The membership of the Associates lapses also at this date. Agenda: (1) Minutes of last meeting (April 20th). (2) Apologies for absence. (3) Elect Chairman for 1910–11; and his induction by the retiring Chairman. (4) Elect other Officers, Committee, and Associate Members. (5) Minutes of Committee Meetings (May 25th, June 9th). (6) Correspondence (if any). (7) Matters referred to Divisions. (*a*) Model Rules, Public Medical Services (SUPPLEMENT, May 7th). (*b*) Agenda of Special Representative Meeting (SUPPLEMENT, May 28th). (8) Report of Representatives on Branch Council. (9) Any other urgent business. Dinner at the Brooklands Hotel, 7.30 p.m, *ladies invited.* Names must reach the Honorary Secretary by the first post on Monday, June 20th, in order that he may have time to cancel the arrangement, *so far as the ladies are concerned*, if there are not sufficient acceptances (say five or six at least). The Committee hopes that this will not be necessary; but if it is, the dinner will be held under ordinary conditions, members to give their names not later than first post on June 20th.—H. G. COOPER, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH.—The annual meeting of the Branch will be held on Thursday, June 23rd, at 4.30 p.m., at 429, Strand, W.C. Agenda: (*a*) To receive the report of the

election of new officers. (*b*) To receive the annual report of the Council of the Branch and the annual financial statement. (*c*) To receive the annual report of the Representatives of the Branch on the Central Council. (*d*) To make new rules or alter or repeal existing rules. (*e*) Any other business. (*f*) President's Address.—E. W. GOODALL, W. GRIFFITH, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—A general meeting of the Division will be held at the Town Hall, Mare Street, Hackney (No. 2 Committee Room), on Tuesday, June 21st, at 4 p.m. Business: (1) Minutes. (2) Letters. (3) Consideration of agenda of Special Representative Meeting (vide SUPPLEMENT, May 28th, which members are requested to bring with them, also that of May 21st). (4) Instruction of Representative. (5) Any other business.—A. G. SOUTHCOMBE, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: NORWOOD DIVISION.—The next meeting will be held at Fenstanton, Christchurch Road, Streatham, on Thursday, June 30th, at 4 p.m., Dr. T. D. Greenlees in the chair.—J. A. HOWARD, Honorary Secretary, Upper Norwood.

METROPOLITAN COUNTIES BRANCH: WALTHAMSTOW DIVISION.—Preliminary notice is given of a meeting which, by the kind invitation of Dr. R. Jones, is to be held at Claybury Asylum on Tuesday, July 5th, at 3.30 p.m. An important item in the programme will be a Lantern Lecture by Dr. Mott, on Syphilis and its Effect upon the Brain.—A. POTTINGER ELDRED, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WESTMINSTER DIVISION.—The annual meeting will be held at the Criterion Restaurant, Piccadilly, W., at 4.30 p.m., on Monday, June 20th.—J. HOWELL EVANS, Honorary Secretary.

MUNSTER BRANCH.—The annual general meeting of this Branch will be held on Saturday, June 18th, at 4.30 p.m., in the Rooms of the Cork Medical Society, 74, South Mall, Cork. Representatives, Officers, and Council for 1910–11 will be elected, and any other necessary business transacted.—PHILIP G. LEE, 26, St. Patrick's Hill, Cork, Honorary Secretary.

NORTH OF ENGLAND BRANCH: NORTH NORTHUMBERLAND DIVISION.—The annual meeting will be held at the Infirmary, Alnwick, on Thursday, June 23rd, at 3.30 p.m. Business: (1) To elect Officers, Representatives of the Division on the Branch Council, and the ordinary members of the Executive Committee for the year. (2) To consider the business of the Annual Representative Meeting. (3) Any other business.—C. CLARK BURMAN, Honorary Secretary.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH.—The annual meeting will be held on June 29th, at the Hotel, Lakeside, Windermere. The new President, J. W. Fawcitt, M.D. (Broughton-in-Furness), will deliver a presidential address. Members willing to show cases or specimens are requested to kindly communicate with A. S. BARLING, Honorary Secretary.

SOUTH-EASTERN BRANCH: GUILDFORD DIVISION.—The annual meeting of this Division will be held at the Royal Surrey County Hospital on Friday, June 24th, at 4.30 p.m. Tea will be provided at 4.15. Agenda: (1) Minutes. (2) Election of officers and members of the Executive Committee for the ensuing year. (3) Annual report of the Division. (4) To consider circular letters from the Guildford and Hambledon Guardians *re* payment of medical men when called in by midwives. (5) Matters referred to Divisions: (*a*) Model rules for public medical services; (*b*) Annual Representative Meeting, July, 1910. (*c*) Special Representative Meeting, June 28th. (6) Lieutenant-Colonel A. de C. Scanlan, R.A.M.C.ret., will read a short paper on Abscess of the Liver. (7) Any other business. Any member desiring to show cases or specimens is invited to communicate with one of the Honorary Secretaries. H. B. BUTLER, Eastdale, Guildford; E. J. SMYTH, Maythorne, Guildford.

SOUTH-EASTERN BRANCH: MAIDSTONE DIVISION.—The annual meeting of this Division will be held at the Kent County Ophthalmic Hospital, Maidstone, on June 23rd, when Dr. MacNaughton Jones will give an address on the Prevention of Mortality after Pelvic Operations. The annual dinner will take place at 7.30 p.m., June 23rd, at the Royal Star Hotel, Maidstone; tickets 6s., exclusive of wines; morning dress. The Honorary Secretary would be very glad if *all the members* would kindly intimate to him *at once* if it is their intention or not to be present at the dinner, in order that arrangements may be made.—GEORGE POTTS, Honorary Secretary.

SOUTH MIDLAND BRANCH: BUCKS DIVISION.—The annual meeting will take place on Tuesday, June 21st. The members will meet at the Royal Bucks Hospital, Aylesbury, at 3 p.m., for the transaction of business as per agenda. At 4 p.m., or as soon as the business is completed, conveyances will be ready to take members to the Stone Asylum, where Dr. Kerr will entertain them to tea, show them over the institution, and demonstrate interesting cases. As this is an opportunity not often within reach, it is hoped the attendance will be a record one. Agenda: To elect officers of the Division. To elect Branch Council Representatives. To elect Committee. To elect Representative and Deputy. To receive annual report. Consider recommendation by Council for formation of a new company to embody all objects included in application for a Royal Charter (which has been abandoned) and instruct the Representative thereon. Nominate member or members to take part in discussions at Annual Meeting in London, *re* parliamentary representation. Proposition of Committee: "That the resolution passed on March 30th, 1909, in reference to a fee of 2s. 6d. each child for each inspection be rescinded." Appoint special committee to draw up scheme for medical treatment of school children suitable for this Division. Members who have motors are asked to notify the Honorary Secretary at an early date how many passengers they can carry to Stone, so that arrangements can be made to avoid delay.—ARTHUR E. LARKING, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: MONMOUTHSHIRE DIVISION.—A meeting of the Division will be held at The Cedars, Chepstow, on Thursday, July 7th, 1910.—R. J. COULTER, S. HAMILTON, Newport, Honorary Secretaries.

STAFFORDSHIRE BRANCH.—The thirty-seventh annual meeting of the Branch will be held at the Victoria Hotel, Wolverhampton, on Thursday, June 30th, at 5.25 p.m., when an address will be delivered by the President-elect, J. A. Codd, M.D. Agenda: (1) Minutes of the last annual meeting. (2) Introduction of the new President. (3) Correspondence. (4) Address by the President. (5) Report of the Council. (6) The financial statement. (7) Election of officers for the ensuing year—President-elect, Secretary, and Treasurer. (8) To decide the place of holding the next annual meeting. Members have the privilege of introducing friends. Dinner at 7 p.m. Charge 5s. The first general meeting of the session will be held at Stoke on Thursday, November 24th. Members desiring to read papers are requested to communicate the titles to the General Secretary as soon as possible.—G. PETGRAVE JOHNSON, Honorary General Secretary.

WEST SOMERSET BRANCH.—The sixty-eighth annual meeting of this Branch will be held at the George Hotel, Ilminster, on Friday, June 24th, at 12.15 p.m., when the chair will be taken by the new President, Dr. W. H. Maidlow. Agenda: Minutes. Annual report. Balance sheet for 1909. Election of officers for ensuing year. President's address: After Ten Years. Resolutions will also be submitted to the meeting dealing with proposed alterations in the Articles of the Association. Lunch will be served at 1.45 p.m., at a charge of 3s. per head (exclusive of wine, etc.). During the afternoon the Donyatt Golf Links will be available for those members who wish to play golf; motor cars will be provided for the rest, if necessary, and they will be driven to Barrington Court, Hinton St. George, and other places of interest in the neighbourhood. Those who intend to be present are requested to inform the Honorary Secretary by Monday, June 20th, whether they wish to have motor accommodation provided for them, or if they will be able to place any seats in their own motors at the disposal of others.—W. B. WINCKWORTH, Honorary Secretary.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.—The annual meeting of this Branch will be held at Hereford on Thursday, June 23rd, at 3 p.m. Members wishing to show cases or specimens or read papers should communicate with the Honorary Secretary not later than June 13th. Business: Election of officers. To receive the annual report of the Council of the Branch and annual financial statement. Any other business. Members will dine together subsequently to the meeting.—C. S. MORRISON, Honorary Secretary.

YORKSHIRE BRANCH.—The annual meeting of the Branch will be held at the University, Sheffield, on Wednesday, June 22nd. The Council will meet at 3.30 p.m. Business: Election of new members. The Branch meeting will be held at 4 p.m., when the following business will be transacted: (1) Election of Officers—President, President-elect, Honorary Secretary and Treasurer. (2) The report of the Council will be read. (3) Mr. R. J. Pye-Smith (President-elect) will give an address on Principles of Practice in Relation to our Patients. Cases and Specimens: Dr. Arthur Hall (Sheffield) will show the following cases: (*a*) Neuro-fibromatosis (von Recklinghausen's disease); (*b*) Diabetes Insipidus in two childless brothers. Dr. Skinner (Sheffield) will show: (*a*) Parakeratosis Psoriasoforme, with histological note; (*b*) Furunculosis with subsequent lichenification, with section. Papers:—(1) Dr. Carter (Sheffield): Notes on a Case of Stokes-Adams Disease. (2) Dr. Ray (Harrogate): Gouty Eczema. (3) Dr. Bronner (Bradford): Notes on some cases of Asthma and Hay Fever, cured by Intranasal Treatment. The annual dinner will take place at the Royal Victoria Hotel at 6.30 p.m. Members who intend staying for the dinner are requested to communicate at once with Dr. A. Garrick Wilson, Riverdale Road, Sheffield.—ADOLPH BRONNER, 33, Manor Row, Bradford, Honorary Secretary.

BORDER COUNTIES BRANCH AND EDINBURGH BRANCH.

IT has been arranged that a motoring meeting of these two Branches shall be held at Moffat on Friday, July 8th.

There will be a discussion on motoring for medical men. Any medical man interested in motoring who may happen to be in Scotland at the time will be very welcome at this meeting.

GEORGE R. LIVINGSTON, Honorary Secretary.
47, Castle Street, Dumfries.

DISPENSING AND PRESCRIBING.

CONFERENCE BETWEEN THE BRITISH MEDICAL ASSOCIATION AND THE BRITISH PHARMACEUTICAL CONFERENCE.

A CONFERENCE between Representatives of the British Medical Association and Representatives of the British Pharmaceutical Conference was held at the Office of the Association, 429, Strand, London, W.C., on Thursday, May 19th, 1910, under the Chairmanship of Mr. EDMUND OWEN (Chairman of Council of the British Medical Association). There were present:

As Representatives of the British Medical Association: Dr. Edwin Rayner (Treasurer), Dr. Munro Moir, Mr. C. R. Straton, Dr. C. H. Wise, Dr. J. H. Taylor, Mr. Smith Whitaker (Medical Secretary).

As Representatives of the British Pharmaceutical Conference: Mr. J. F. Tocher (President), Mr. H. Wippell Gadd, Mr. G. C. Druce, Mr. W. F. Wells, Mr. R. Wright, Mr. A. McMillan, Mr. F. W. Gamble, Mr. C. T. Allen, Mr. J. Righton, Mr. T. Maltby Clague, Mr. E. Saville Peck (Honorary Secretary).

The Conference was the outcome of correspondence between the British Pharmaceutical Conference and the Council of the Association, through its Medico-Political Committee.

The discussion, which was both interesting and valuable, turned principally upon:

(*a*) Medical dispensing—its extent—whether it should be transferred to pharmacists; and, if so, how the transfer could be effected.
(*b*) The nature and extent of prescribing by unqualified persons, and the means by which it may be prevented.
(*c*) The possibility of co-operation in action concerning the sale of dangerous, secret, or useless nostrums.

The question was considered of the expediency of forming a Joint Standing Committee, composed of members of the British Medical Association and the British Pharmaceutical Conference, to collect data and to promote the realization of aims found to be held in common by both bodies.

It was eventually decided by the Conference that the members of the Conference recommend to their respective bodies the institution of a Joint Standing Committee, consisting of at least ten members of the British Medical Association and ten members of the British Pharmaceutical Conference.

The Conference left in the hands of the Chairman and the Secretaries the work of preparation leading up to the institution of the said Joint Standing Committee.

METROPOLITAN COUNTIES BRANCH,

Election of Central Council, 1910.

SIR,

The letter of Dr. Buttar (SUPPLEMENT, p. 372) may need some reply. The same gentlemen who issue this circular have for some successive years issued a joint address and no one has ever taken the least objection to their doing so. In addition, however, I point out that by the method of proportional election an absolutely equal opportunity is given to all candidates. Any one who can get the support of one-fifth the total number of votes, is sure of election; for example, if 600 vote, then 120 will elect one. It is not too much to ask that any two or three Divisions should find it possible to unite on some one of themselves whom they desire to see on the Council.

By the old method, the block system, it would require half the votes to make sure, namely, 300. If there are many candidates, perhaps fewer, but not likely less than the third, 200. The difference is very appreciable, in an exciting contest, between 120 and a vague 200 or more. The old way was likewise unfair in this, that those who were numerous enough to elect one generally elected all—the minority, or minorities (equalling, perhaps, in numbers the majority), electing none at all.

When Dr. Buttar asks that the merits of other candidates be regarded, he is on more solid ground.

There is but one subject requiring attention, and that of supreme importance—the reform of the Poor Law in relation to medical practice, along with the associated reforms of sick clubs and dispensaries. Two names are put forward by the Kensington Executive Committee, who on this subject are ignorant of the serious conditions in the Division, and unsympathetic with every effort at improvement. Either of those named if returned may be classed as an obstructive. They have shown unmistakably that things are to be left as they are, but every one I come across says they are actually growing worse. The choice of the men of Kensington is therefore plain. Those who support reform and wise consideration will give their first vote to the nominee of the Westminster Division, Dr. Haslip, whose statements are entirely satisfactory, or for Dr. Ker or some whose opinions they are sure of. Those who think to have peace and a quiet life by leaving those matters to politicians and county councils have their opportunity for so voting. They are, perhaps, in a majority, but I console myself with remembering that they are just those who do not fill up their voting papers.

Yours faithfully,
G. C. CRICHTON, M.D.

London, W., June 11th.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN seventy-seven of the largest English towns, 8,474 births and 3,713 deaths were registered during the week ending Saturday last, June 11th. The annual rate of mortality in these towns, which had been 12.4, 12.7, and 11.8 per 1,000 in the three preceding weeks, declined again last week to 11.4 per 1,000. The rates in the several towns ranged from 2.5 in Reading, 4.3 in King's Norton, 4.8 in Hornsey, 5.7 in East Ham, and 5.8 in Handsworth (Staffs), to 16 7 in Bury, 17.2 in Stoke-on-Trent, 17.5 in Preston, 18 0 in Liverpool and 21.6 in Merthyr Tydfil. The death-rate from the principal infectious diseases averaged 1.2 per 1,000; in London the rate was equal to 1.0 per 1,000, while among the seventy-six other large towns it ranged upwards to 2.9 in Liverpool and in Oldham, 3.0 in Blackburn, 3.2 in Stoke-on-Trent, and 3 3 in Barrow-in-Furness. Measles caused a death-rate of 1.9 in Burton 2.0 in Merthyr Tydfil, 2.3 in Blackburn, and 2.5 in Barrow-in-Furness, and whooping-cough of 1.4 in Grimsby and in Wallasey, 1.5 in Bootle, and 1.6 in St. Helens. The mortality from scarlet fever, from diphtheria, or from enteric fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The number of scarlet fever cases under treatment in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 1,476, 1,445, and 1,461 at the end of the three preceding weeks, declined to 1,401 at the end of the week under notice; 181 new cases were admitted during the week, against 190, 174, and 203 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday last, June 11th, 970 births and 514 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 15 5, 14.0, and 14.3 per 1,000 in the three preceding weeks, was 14.2 last week, and was 2.8 per 1,000 above the mean rate during the same period in the seventy-seven large English towns. Among these Scottish towns the death-rates ranged from 9.0 in Aberdeen and 10.6 in Paisley, to 19.3 in Dundee and 19.6 in Perth. The death-rate from the principal infectious diseases averaged 1.6 per 1,000, the highest rates being recorded in Perth and Dundee. The 255 deaths recorded in Glasgow included 5 which were referred to measles, 5 to scarlet fever, 4 to diphtheria, 5 to whooping-cough, and 15 to diarrhoea. Seven deaths from measles and 3 from whooping-cough were recorded in Dundee, and 4 deaths from typhus in Leith.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, June 11th, 691 births and 393 deaths were registered in the twenty-two principal urban districts of Ireland, as against 704 births and 397 deaths in the preceding period. The annual death-rates in these districts, which had been 19 5, 21.1, and 18 0 per 1,000 in the three preceding weeks, fell to 17.8 per 1,000 in the week under notice, this figure being 6.4 per 1,000 higher than the mean annual death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 16.4 and 19.7 respectively, those in other districts ranging from 4.2 in Newry and 4.7 in Wexford to 29.2 in Waterford and 48 0 in Sligo, while Cork stood at 19.9, Londonderry at 9.6, and Limerick at 16.4. The zymotic death-rate in the twenty-two districts averaged 2.6 per 1,000, or the same as in the preceding week.

Naval and Military Appointments.

INDIAN MEDICAL SERVICE.

THE undermentioned Majors are promoted to be Lieutenant-Colonels, dated March 31st:—A. J. MACNAB, JAMES JACKSON, M.B., HENRY SMITH, M.D., C. N. C. WIMBERLEY, M.B., E. W. HORE, M.B., ASHTON STREET, M.B., J. B. JAMESON, M.B., W. D. SUTHERLAND, M.D., PERCY CARR-WHITE, M.B., E. H. WRIGHT, WILLIAM MOLESWORTH, M.B., C. F. FEARNSIDE, M.B., C. A. JOHNSTON, M.B., and G. G. GIFFARD. Their first appointment is dated March 31st, 1890. Their war records include:—Lieutenant-Colonel Macnab—Hazara Expedition, 1891 (medal with clasp); Chitral Relief Force, 1895 (medal with clasp); North-West Frontier of India Campaign, 1897–8 (two clasps). Lieutenant-Colonel Wimberley—Chitral Relief Force, 1895 (medal with clasp); North-West Frontier of India Campaign, 1897–8 (two clasps); Tirah Expeditionary Force, 1897–8 (clasp); and Tibet, 1903–4 (mentioned in dispatches, medal). Lieutenant-Colonel Street—Second Miranzai Expedition, 1891 (medal with clasp). Lieutenant-Colonel Jameson—Second Miranzai Expedition, 1891 (medal with clasp); North-West Frontier of India Campaign, 1897–8 (mentioned in dispatches, medal with clasp); Tirah Expeditionary Force (clasp). Lieutenant-Colonel Sutherland—Operations on the North-East Frontier of Burma, 1891–2. Lieutenant-Colonel Carr-White—Burmese Campaign, 1891–2 (medal with clasp); North-West

Frontier of India Campaign, 1897-8 (medal with clasp). Lieutenant-Colonel Molesworth—With the Wuntho Field Force, Burma, 1891 (medal with clasp) Lieutenant-Colonel Johnston—Manipore Expedition, 1891 (medal with clasp); North-East Frontier of Burma, 1891-2 (mentioned in dispatches, clasp); Tirah Expeditionary Force, 1897-8 (medal with clasp); China, 1900 (medal).

RUSTAM H. BHARUCHA has been admitted to the Indian Medical Service as a Lieutenant, January 29th, 1910.

Colonel D. FFRENCH-MULLEN, M.D., Deputy Principal Medical Officer, Indian Army, is granted leave out of India for eight months on private affairs.

Captain G. S. HUSBAND, Brigade Laboratory, Kohat, is appointed Specialist in the Prevention of Disease, from March 2nd.

Colonel C. F. WILLIS, M.D., Principal Medical Officer, 5th (Mhow) Division, is appointed to officiate as Deputy Principal Medical Officer, Army Head Quarters.

Vacancies and Appointments.

VACANCIES.

BENENDEN: NATIONAL SANATORIUM.—Assistant Medical Officer, Salary, £100 per annum.

BERKSHIRE EDUCATION COMMITTEE. — Assistant Medical Inspector of Schools. Salary, £300 per annum.

BIRMINGHAM CITY HOSPITAL.—Medical Superintendent. Salary, £250 per annum.

BIRMINGHAM EDUCATION COMMITTEE. — Medical Officer. Salary, £250 per annum.

BIRMINGHAM: QUEEN'S HOSPITAL.—House-Physician. Salary at the rate of £50 per annum.

BRADFORD ROYAL INFIRMARY.—House-Surgeon (male). Salary, £100 per annum.

BURY INFIRMARY. — Junior House-Surgeon. Salary, £80 per annum.

CALCUTTA: LADY DUFFERIN VICTORIA HOSPITAL.—Lady Medical Superintendent. Salary, Rs. 550 a month.

CANCER HOSPITAL, Fulham Road, S.W.—Senior and Junior House-Surgeons. Salaries at the rate of £80 and £70 per annum respectively.

CARDIFF INFIRMARY.—(1) House-Surgeon. (2) House-Surgeon for Ophthalmic and Ear and Throat Departments. Honorarium, £30 for six months in each case.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—House-Surgeon. Salary, £50 per annum.

COVENTRY AND WARWICKSHIRE HOSPITAL. — (1) Honorary Aural Surgeon. (2) Junior House-Surgeon; salary, £80 per annum.

DONCASTER ROYAL INFIRMARY AND DISPENSARY.—House-Surgeon. Salary, £125 per annum.

EDINBURGH: ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN.—Four Resident Medical Officers.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road, S E —(1) House-Physician. Salary at the rate of £60 per annum. (2) Ten qualified Clinical Assistants in Out-patient Departments.

GLOUCESTERSHIRE ROYAL INFIRMARY AND EYE INSTITUTION.—Assistant House-Surgeon. Salary at the rate of £80 per annum.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway Road, N.—Resident Medical Officer. Salary, £120 per annum.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway, Road, N.—Junior House-Physician. Salary at the rate of £35 per annum.

GUILDFORD: ROYAL SURREY COUNTY HOSPITAL.—Assistant House-Surgeon. Salary, £50 per annum.

HASTINGS, ST. LEONARDS, AND EAST SUSSEX HOSPITAL.—Assistant House-Surgeon. Honorarium, £20 for six months.

HEMEL HEMPSTEAD: WEST HERTS HOSPITAL. — Junior House-Surgeon. Salary, £100 per annum.

HEREFORD COUNTY AND CITY ASYLUM.—Junior Assistant Medical Officer (male). Salary, £120 per annum, rising to £150.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Physician and Assistant Casualty Medical Officer. Salary, £30 for six months, and £2 10s. washing allowance.

HULL ROYAL INFIRMARY.—(1) Assistant House-Surgeon; salary, £100 per annum. (2) Casualty House-Surgeon; salary at the rate of £60 per annum for six months' appointment and £80 for twelve months.

JARROW-ON-TYNE: PALMER MEMORIAL HOSPITAL FOR ACCIDENTS.—House-Surgeon. Salary, £150 per annum.

LEEDS: HOSPITAL FOR WOMEN AND CHILDREN. — House-Surgeon. Salary at the rate of £50 per annum.

LEEDS UNIVERSITY.—Demonstrator of Pathology. Salary, £200 per annum.

LINCOLN COUNTY HOSPITAL. — Junior Male House-Surgeon. Salary at the rate of £75 per annum.

LIVERPOOL EYE AND EAR INFIRMARY. — House-Surgeon. Salary, £80 per annum.

LONDON LOCK HOSPITAL, Dean Street, Soho, W. — (1) House-Surgeon to Male Hospital; (2) Anaesthetist to Male Hospital; (3) House-Surgeon to Female Hospital. Salary for (1) and (3) £100 per annum.

MANCHESTER UNIVERSITY.—Junior Demonstrator in Physiology. Stipend, £100 per annum, rising to £150.

NEWPORT AND MONMOUTHSHIRE HOSPITAL.—House-Surgeon. Salary, £60 per annum.

NORTH STAFFORDSHIRE INFIRMARY, Hartshill.—Junior House-Surgeon. Salary at the rate of £50 per annum.

NOTTINGHAM CHILDREN'S HOSPITAL. — Lady House-Surgeon. Salary at the rate of £100 per annum.

NOTTINGHAM CITY ASYLUM.—Junior Assistant Medical Officer. Salary, £150 per annum.

NOTTINGHAM GENERAL HOSPITAL.—Assistant House-Surgeon. Salary, £60 per annum.

PRESTON: ROYAL INFIRMARY.—Locumtenent to act as Junior House-Surgeon. Salary, £3 3s. per week.

ROYAL EAR HOSPITAL, Soho.—Honorary Assistant Anaesthetist.

ROYAL WATERLOO HOSPITAL FOR CHILDREN AND WOMEN, S.E.—Junior Resident Medical Officer. Salary at the rate of £40 per annum.

SEAMEN'S HOSPITAL SOCIETY. — Senior House-Surgeon and House-Surgeon at the Albert Dock Hospital, E. Salary at the rate of £75 and £50 per annum respectively.

SHEFFIELD ROYAL HOSPITAL.—(1) Assistant House-Surgeon; (2) Assistant House-Physician. Salary, £50 per annum each.

SOUTHWARK UNION.—Assistant (male) Medical Officer at the Infirmary. Salary, £100 per annum.

STOCKPORT INFIRMARY.—Junior House Surgeon (male). Salary, £80 per annum.

TAUNTON AND SOMERSET HOSPITAL. — Resident Assistant House-Surgeon. Salary, £50 per annum.

WARWICKSHIRE COUNTY COUNCIL.—Assistant County Medical Officer of Health. Salary, £250 per annum.

WEST BROMWICH DISTRICT HOSPITAL.—Assistant Resident House-Surgeon. Salary, £75 per annum.

WEST HAM AND EAST LONDON HOSPITAL, Stratford, E.—Junior House-Surgeon. Salary at the rate of £75 per annum.

WEST LONDON HOSPITAL AND POST-GRADUATE COLLEGE, Hammersmith Road, W.—(1) Clinical Assistants; (2) Three Casualty Officers.

WINCHESTER: ROYAL HAMPSHIRE COUNTY HOSPITAL.—House-Surgeon (male).

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary at the rate of £80 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces vacancies at Congleton, co. Cheshire, and Clevedon, co. Somerset.

MEDICAL REFEREE.—The Home Secretary announces a vacancy as Medical Referee under the Workmen's Compensation Act, 1906, for County Court Circuits Nos. 7 and 8.

APPOINTMENTS.

ROBERTSON, James, M.D., Ch.M., Medical Officer to the Aberdeen Parish Council.

SAUNDERS, H., M.R.C.S., Certifying Factory Surgeon for the Brackley District, co. Northampton.

SCALES, J. E., M.R.C.S., L.R.C.P., Certifying Factory Surgeon for the Radstock District, co. Somerset.

WALSH, J. F., L.R.C.P. and S.Irel., Certifying Factory Surgeon for the Newport District, co. Mayo.

WILSON, R. McV., M.B., Ch.B.Glas., Certifying Factory Surgeon for the Tarbet District, co. Argyll.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

GARDNER.—On June 7th, 1910, at 18, Rastell Avenue, Telford Park, Streatham Hill, S.W., the wife of Thomas Hudson Gardner, M.B.Lond., of a daughter.

MOLLISON.—On June 5th, at the Warden's House, Guy's Hospital, the wife of W. M. Mollison, M.A., M.C., F.R.C.S., of a daughter.

SALTER.—At Park Croft, Birch Grove, Rusholme, on June 9th, the wife of S. Colley Salter, M.R.C.S., L.R.C.P.Lond., of a daughter.

MARRIAGES.

ALFORD—CANE.—On June 14th, at Great Paxton Church, Huntingdonshire, by the Rev. H. P. Aylford, M.A., uncle of the bridegroom, assisted by the Rev. Ernest Edgerley, M.A., E. Frank R. Alford, M.R.C.S.Eng., of Woodbridge, Suffolk, eldest son of the late Dr. G. E. Alford, of Weston-super-Mare, to Violet Mary, only daughter of the Rev. A. G. and Mrs. Cane, of Great Paxton Vicarage, St. Neots.

FAWKES—FUNNELL.—On Saturday, June 11th, at St. Olave's, Finsbury Park, London, by the Rev. Wynn Healey, M.A., Marmaduke Fawkes, M.B., B.S.Lond., M.R.C.S., L.R.C.P., of Midhurst, Sussex, eldest son of Mr. and Mrs. F. Attfield Fawkes, of "Hillside," Felixstowe, to Linda, elder daughter of Mr. and Mrs. Edward Funnell, formerly of Audisque, St. Etienne-au-Mont, France.

DEATHS.

CANE.—On May 20th, at his residence, 343, Fore Street, Edmonton, London, N., Francis Edward Cane, L.R.C.P., L.R.C.S.Edin., D.P.H Camb., Divisional Surgeon Metropolitan Police, the beloved husband of Helen M. Cane, son of the late Alderman Robert Cane, M.D., of Kilkenny, and brother of Lieutenant-Colonel Robert Cane, R.A., Lee, S.E.

COLQUHOUN.—At Dannhauser, Natal, on March 19th, 1910, James Smith Colquhoun, L.R.C.P.Edin., L.R.C.S.Edin., F.F.P.S., District Surgeon, Dannhauser (late of Newcastle-on-Tyne, England), accidentally drowned in Kalabash Spruit, aged 47 years. Home papers, please copy.

DIARY FOR THE WEEK.

TUESDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Third Croonian Lecture by Dr. F. W. Andrewes: The Behaviour of the Leucocytes in Infection and Immunity.

WEDNESDAY.

ROYAL INSTITUTE OF PUBLIC HEALTH, Russell Square, W.C., 6 p.m.—Third Harben Lecture by Sir W. B. Leishman, F.R.S.: Antityphoid Inoculation.

ROYAL SOCIETY OF MEDICINE, Morley Hall, George Street, Hanover Square, W., 5 p.m. Discussion on Vaccine Therapy, its Administration, Value, and Limitations. Sixth Meeting. To be re-opened by Dr. W. d'Este Emery.

THURSDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON Pall Mall East, S.W., 5 p m — Fourth Croonian Lecture by Dr. F. W. Andrewes: The Behaviour of the Leucocytes in Infection and Immunity.

ROYAL SOCIETY OF MEDICINE:

NEUROLOGICAL SECTION, 15, Cavendish Square, 8 30 p m.—Papers:—Dr. Walter K. Hunter (Glasgow): Acute Degenerative Changes in the Nervous System, as illustrated by Snake Venom Poisoning. Dr. H. R Dean: Results of the Examination of the Serum of Idiots by the Wassermann Reaction. Dr. Farquhar Buzzard and Dr. Binds Howell: Secondary Growths affecting Spinal Roots. Dr. Wilfred Harris and Dr B. H. Spilsbury: Acute Cerebral Softening Due (?) to Venous Thrombosis.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W C.—Tuesday, 3.45 p.m., Nose. Friday, 3.45 p.m., Labyrinth.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Wednesday, 4 p.m., The Diagnosis and Treatment of Cardiac Irregularities.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Monday, 5.15 p m., Nervous Diseases in Children. Wednesday, 5.15 p.m., Infant Feeding and Food Diseases. Tuesday and Thursday, 5 p.m., General Surgical Diseases Thursday, 4 p m., Demonstration of Selected Medical Cases in the Wards.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a m.; Medical and Surgical Clinics, 2 15 p.m. and 3.15 p.m. respectively; Operations, 2 p m. Special Clinics: Ear and Throat, at noon and 4 p m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Thursday, and noon, Friday; Eye, 11 a.m., Wednesday and Saturday; Radiography, 4 p m., Thursday. Special Lectures: Tuesday, 2 15 p m., The Pulse in Heart Disease. Wednesday, 3.30 p m., Retrobulbar Neuritis.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C. — The following Clinical Demonstrations have been arranged for next week at 4 p.m each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Museum Demonstration; Friday, Ear, Nose, and Throat. Lectures at 5 15 p m each day will be given as follows: Monday, The Duty of the General Practitioner towards Deaf Children; Tuesday, Some Nervous Disorders in Childhood; Wednesday, Ménière's Vertigo; Thursday. On the Great Value of the Oesophagoscope in Diagnosis and Treatment (with an Endoscopic Demonstration on Living Subjects).

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C. — Tuesday, 3 30 p.m., Clinical Cases; Wednesday, 5 p m., Demonstration on the Surgery of the Nervous System; Friday, 3 30 p.m., Surgery of the Nervous System.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N. — Monday, Clinics, 2 30 p m., Medical Out-patient: Nose, Throat, and Ear. Tuesday, 10 a.m., Medical Out-patient Clinic; 2.30 p m., Operations. Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient. Wednesday, 2.30 p.m., Medical Out-patient Skin and Eye Clinics: *X* Rays; 4 30 p m., Demonstration: Treatment of Naevus by Radium and Other Methods. Thursday, 2 30 p m., Gynaecological Operations; Clinics: Medical Out-patient; Surgical Out-patient; 3 p m., Medical In-patient; 4.30 p.m., Lecture: Pneumotherapy. Friday, 2 30 p m., Operations; Clinics: Medical Out-patient, Eye; 3 p m., Medical In-patient.

WEST-LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Daily arrangements: Medical and Surgical Clinics, 2 p.m.: Operations, 2 p.m.; *X* rays, 2 p m. Monday, Surgical Registrar, 10 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p m. Tuesday, Gynaecological Operations, 10 a.m; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday, Diseases of Children, 10 a m; Throat, Nose, and Ear Operations, 10 a.m.; Practical Medicine, 12.15 p.m; Eye, 2 p.m.: Gynaecology, 2 p.m. Thursday, Surgical Registrar, 10 a.m.; Eye, 2 p.m.; Orthopaedics, 2 p m. Friday, Medical Registrar, 10 a m.; Gynaecological Operations, 10 a m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p m. Saturday, Diseases of Children, 10 a.m.; Eye, 10 a m. Lectures at 5 p.m. each day will be given as follows: Monday, Anaesthetics; Wednesday, The Mouth in Health and Disease; Thursday, Intestinal Obstruction; Friday, Blood Examination continued; Tuesday (3 p.m., at Claybury Asylum), Treatment of Varieties of Insanity.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
JUNE.	
20 MONDAY ..	WESTMINSTER DIVISION, *Metropolitan Counties Branch*, Annual Meeting, Criterion Restaurant, Piccadilly, W., 4.30 p.m.
21 TUESDAY ..	BUCKS DIVISION, *South Midland Branch:* Annual Meeting, Royal Bucks Hospital, Aylesbury, 3 p.m. CITY DIVISION, *Metropolitan Counties Branch*, Town Hall, Mare Street, Hackney, 4 p.m.
22 WEDNESDAY	LONDON: Journal and Finance Committee, 2.30 p m. ALTRINCHAM DIVISION, *Lancashire and Cheshire Branch*, Annual Meeting, Board Room, Altrincham Hospital, 5 p.m.; Tea, 4.30 p.m.; Dinner, Brooklands Hotel, 7.30 p.m. BOURNEMOUTH DIVISION, *Dorset and West Hants Branch* Medical Society's Rooms, Bournemouth. 4 30 p m. YORKSHIRE BRANCH, Annual Meeting, University, Sheffield, Council, 3 p.m.; General Meeting, 4 p.m.; Annual Dinner, 6.30 p m.
23 THURSDAY ..	MAIDSTONE DIVISION, *South-Eastern Branch*, Annual Meeting, Kent County Ophthalmic Hospital, Maidstone; Annual Dinner, Royal Star Hotel, 7.30 p m. METROPOLITAN COUNTIES BRANCH, Annual Meeting, 429, Strand, W.C., 4.30 p.m. NORTH NORTHUMBERLAND DIVISION, *North of England Branch:* Annual Meeting, the Infirmary, Alnwick, 3.30 p m. WORCESTERSHIRE AND HEREFORDSHIRE BRANCH, Annual Meeting, Hereford, 3 p m.
24 FRIDAY ..	BORDER COUNTIES BRANCH, Annual Meeting, Station Hotel, Carlisle, 3 p.m. GUILDFORD DIVISION, *South-Eastern Branch*, Annual Meeting, Royal Surrey County Hospital, 4.30 p.m.; Tea, 4 15 p.m. HAMPSTEAD DIVISION, *Metropolitan Counties Branch*, Annual Meeting, 8 30 p.m. WEST SOMERSET BRANCH, Annual Meeting, George Hotel, Ilminster, 12.15 p.m.; Lunch, 1.45 p.m.
25 SATURDAY ..	
26 Sunday ..	
27 MONDAY ..	
28 TUESDAY ..	Special Representative Meeting, Connaught Rooms, Freemasons' Hall, Great Queen Street, W.C., 3 p.m., *and following days, if necessary.*
29 WEDNESDAY	London: Central Council: SPECIAL MEETING, Connaught Rooms, Freemasons' Hall, Great Queen Street, W.C., 10 a m.; QUARTERLY MEETING, Council Room, 429, Strand, W.C., 20 minutes after Extraordinary General Meeting. Extraordinary General Meeting, Connaught Rooms, Freemasons' Hall, Great Queen Street, London, W.C., 11 a m. NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH, Annual Meeting, Hotel, Lakeside, Windermere.
30 THURSDAY ..	NORWOOD DIVISION, *Metropolitan Counties Branch*, Fenstanton, Christchurch Road, Streatham, 4 p.m. STAFFORDSHIRE BRANCH, Annual Meeting, Victoria Hotel, Wolverhampton, 5.25 p m.; Dinner, 7 p.m.

LONDON MEETING, 1910.

JULY 26th, 27th, 28th, and 29th.

NOTIFICATION OF ATTENDANCE.

l **Members of the Association,** including residents in **LONDON,** who intend to take part the **Annual Meeting,** are earnestly requested to fill up and post this form as soon as ssible.

Early intimation will greatly facilitate the arrangements for official entertainments as ll as for private hospitality.

On receipt of this form a voucher will be sent enabling the member and those companying him to obtain Railway Tickets at reduced fares.

Notices on matters of interest to those attending the Meeting will appear from time time in the *Supplement to the Journal.* Particulars of Hotels and Lodgings are given erleaf.

It is my intention to be present at the ANNUAL MEETING in LONDON and

Please write distinctly.

*I expect to be accompanied by** .....

Name .....

Address .....

re indicate whether accompanied by a lady, as separate Railway vouchers are required for each person. **The Ladies' Entertainment Committee** will be glad to have early intimation of the *names* of ladies accompanying members to the Meeting.

THE ANNUAL DINNER.

The Annual Dinner of the Association will take place on THURSDAY EVENING, July 28th, the CONNAUGHT ROOMS, FREEMASONS' HALL, GREAT QUEEN STREET, at 7.30 o'clock. ie cost of each Dinner Ticket (exclusive of Wine) is 10s. 6d.

Early application for Tickets is requested.

Please reserve a seat for me at the Dinner for which I enclose a remittance of 10s. 6d.

Signature .....

Cheques should be made payable to Mr. ATWOOD THORNE, Hon. Secretary Dinner Committee, and this rm when filled up, posted to Dr. LAURISTON SHAW, 429, Strand, W.C.

LONDON MEETING, July, 1910.—List of Hotels.

HOTEL.	Bed and Breakfast.	Luncheon.	Dinner.	Board and Residence per day.	Board and Residence per week.	Remarks.
Anderton's Hotel, Fleet Street, E.C.	5/6	From 1/6	3/-	—	—	
Arundel Hotel, Victoria Embankment, W.C.	7/-	—	—	10/6	—	
Alexandra Hotel, Hyde Park Corner, W.	—	—	—	—	From 4½ guineas.	
Ashbourne Hotel, 135, Cromwell Road, Kensington	5/6	2/-	3/6	—	From 2 guineas.	
Aban Court Hotel, 21-3, Harrington Road, South Kensington	—	2/6	4/-	From 8/-	£2. 12s. 6d.	
Bailey's Hotel, Gloucester Road, S.W.	8/6	3/-	5/-	* 10/6	—	* Special price "to Members of the Association."
Berkeley Hotel, Piccadilly, W.	12/-	4/-	7/6	—	—	15 per cent. off these charges to Members.

Penny Stamp.

Dr. LAURISTON SHAW,

429, Strand,

London, W.C.

LONDON MEETING, July, 1910.—List of Hotels.

HOTEL.	Bed and Breakfast.	Luncheon.	Dinner.	Board and Residence per day.	Board and Residence per week.	Remarks.
ooklyn," Private Hotel, Earl's Court Square	From 4/6	1/6	2/6	From 5/6	From £2. 2s. od.	
wn's & St. George's Hotel, Dover Street, W.	8/6	From 2/6	6/-	—	—	
on Mansions Hotel, Bolton Gardens, South Kensington	From 5/-	2/6	3/6	8/6	—	
vedere Hotel, 6-7, Grenville Place, Cromwell Road	From 6/6	1/6	2/6	—	From £2.	
non Street Hotel, E.C. -	From 5/6	From 2/-	From 2/-	From 9/-	—	
lton Hotel, W.C. - -	From 14/6	5/-	12/6	—	—	
ring Cross Hotel, Strand, W.C.	From 7/6	3/6	5/-	—	—	
urg Court Hotel, Bayswater	5/6	2/6	4/5	—	£3. 3s. od.	Will reduce weekly terms by 10/6.
rendon Hotel, Clarendon Road, Holland Park	—	—	—	—	From 35/-	
Keyser's Hotel, Blackfriars, E.C.	From 8/6	2/6	5/6	12/6 (partial) 15/6 (full)	—	
lley Court Hotel, 99, Queen's Gate, S.W.	—	2/6	3/6	6/-	From £2. 2s. od.	
t Avenue Hotel, High Holborn, W.C.	From 7/-	2/6	From 3/6	10/6	—	
her's Hotel, Bond Street, W.	From 7/6	From 2/6	From 4/-	10/6	3 guineas.	
at Central Hotel, Paddington	8/-	—	—	14/-	—	
at Western, Royal, Paddington	From 7/6	From 2/-	5/-	—	—	
den Cross Hotel, West Strand	—	—	—	12/6	—	
don Hotels, Ltd., Strand, W.C.	—	—	—	14/6	—	
nd Hotel, Charing Cross	From 8/-	From 2/6	6/-	—	—	
at Northern Railway Co.'s Hotel, King's Cross Station	7/6	3/-	From 5/-	—	—	
svenor Hotel, Buckingham Palace Road	From 7/-	4/-	6/-	15/-	—	

[See next Page.

LONDON MEETING, July, 1910.—List of Hotels.

Hotel.	Bed and Breakfast.	Luncheon.	Dinner.	Board and Residence per day.	Board and Residence per week.	Remarks.
Goring Hotel, Grosvenor Gardens, Belgravia	8/-	3/-	4/6	12/6	—	5 per cent. allowed off
Grenville Hotel, De Vere Gardens, Hyde Park Gate	—	—	—	—	£2 2s.	
Hans Crescent Hotel, Sloane Street	From 7/-	From 3/6	From 3/-	—	—	10 per cent. allowed to Members
Haxell's Hotel, Strand, W.C.	5/-	From 2/-	From 2/6	—	—	
Holborn Viaduct Hotel, Holborn	From 7/- according to floor.	—	—	12/-	—	
Horrex's Hotel, Strand, W.C.	From 8/6 to 12/- according to floor	—	—	From 12/-	—	
Hotel Cecil, Strand, W.C. -	From 7/6	From 4/-	From 5/-	—	—	Special rate subject to number of guests
Hotel Curzon, Mayfair, W. -	9/6	3/6	5/6	From 12/6	—	
Hotel Russell, Russell Square, W.C.	From 7/3	From 2/6	From 4/-	—	—	
Hotel Victoria - - -	—	—	—	14/6	—	
Hotel Windsor, Victoria Street	From 6/-	From 3/-	5/-	From 12/-	—	
Hyde Park Hotel, Knightsbridge, W.	10/-	From 3/6	6/-	—	—	10 per cent. off charges for rooms
Imperial Hotel, Russell Square, W.C.	From 5/-	—	—	—	—	
Inns of Court Hotel, Lincoln's Inn Fields, W.C.	From 4/6	1/6	2/6	7/	—	
Langham Hotel, Langham Place, W.	From 6/-	From 2/6	5/-	From 15/6	—	10 per cent. off total account
Loftus Hotels, 21, Nevern Place, & 9-11, Templeton Place, Earl's Court	—	—	—	5/6	From £1. 16s.	10 per cent. off these charges
Liverpool Street Hotel - -	From 6/6	From 2/6	From 3/-	10/6	—	
Mandeville Hotel, Wigmore Street	From 7/-	2/6	3/6	From 9/-	—	
Metropole Hotel - - -	From 8/-	From 2/6	6/-	15/-	—	
Midland Grand Hotel - -	From 6/6	3/6	6/-	—	—	
Morley's Hotel - - -	From 6/-	From 2/6	5/6	14/-	—	

LONDON MEETING, July, 1910.—List of Hotels.

HOTEL.	Bed and Breakfast.	Luncheon.	Dinner.	Board and Residence per day.	Board and Residence per week.	Remarks.
Madrid Hotel, 147, Cromwell Road, S. Kensington	—	2/6	4/-	—	From 2 to 4 guineas.	
Maisonette Hotel, De Vere Gardens, W.	—	—	—	10/6	£3 3s.	10 per cent. discount
Norfolk Hotel, Surrey Street, Strand	6/6	2/6	4/-	From 10/6	—	
Norfolk Hotel, Harrington Road, S. Kensington	6/-	—	—	—	—	
Piccadilly Hotel, Piccadilly Circus	12/-	5/-	From 7/6	—	—	These prices will be increased in July, it being the height of the London season
Prince of Wales' Hotel, Kensington	—	—	—	9/-	£2. 12s. 6d.	
Queen's Gate Hotel, S.W. -	5/6	2/6	3/6	—	£2. 12s. 6d	
Royal Palace Hotel, Kensington High Street	—	—	—	14/-	—	
Rutland Hotel, 39, De Vere Gardens, Kensington	5/-	1/6	2/6	6/6	£2. 2s. 0d.	
Sandringham Hotel, 76 & 78, Cromwell Road, South Kensington,	6/6	2/-	3/-	—	From 2 guineas.	
St. Ermin's Hotel, Westminster, S.W.	From 7/-	From 2/6	5/-	13/6	—	
Strand Palace Hotel, Strand, W.C.	6/-	1/6	2/6	—	—	
University Hotel, Gordon Street	6/-	—	6/- per day, inclusive of bed and breakfast	10/-	—	
Westminster Palace Hotel, Victoria Street, S.W.	6/6	—	—	From 10/6	—	
Worcester House Hotel, 127-9, Cromwell Road, S.W.	—	—	—	—	$2\frac{1}{2}$ to $3\frac{1}{2}$ guineas.	
University College Hall, Queen's Walk, Ealing	The Hall can accommodate 36 Members providing a single room for each. It is provided with 8 bath rooms and ample lavatory accommodation. Electric light is installed throughout. The rooms are tastefully furnished in thoroughly modern style. The bedrooms are divided into two sizes, large and small. For large bedrooms the charge would be 40/- per week and for small 35/-. This charge is absolutely inclusive and covers all meals. The meals would be—breakfast, dinner, and if required and ordered in advance, lunch and afternoon tea. The hours of meals would be especially arranged to suit the convenience of Members of the Congress. There would be no extras whatever, and Members of the Congress would not be expected to give gratuities to the servants.					

[See next Page.

LONDON MEETING, July, 1910.—List of Boarding Houses.

NAME.	Bed and Breakfast.	Luncheon.	Dinner.	Board and Residence per day.	Board and Residence per week.	Remarks.
Miss Mary Atkinson, 10-12, Powis Square, Bayswater	3/6	—	—	5/-	—	
Mrs. Emily Bowen, 7, Upper Woburn Place, W.C.	3/6 or £1. 1s. od. per week	—	—	From 5/-	25/-	
Miss Chalmers, 37, Earl's Court Road, London, S.W.	—	—	—	From 5/-	From £1. 11s. 6d.	
Mrs. J. M. Collier, 2-3, Ladbroke Square, Holland Park, W.	4/6	2/-	3/-	From 8/-	From 2 guineas	
Mrs. T. G. Clarkson, 7, Pembridge Gardens, W.	—	—	—	—	2 guineas	
Miss E. E. Duggleby, 19, Endsleigh Gardens, W.C.	From 3/6	1/3	2/-	—	Partial Board 31/6 Full Board 35/-	
Henry A. Dunmore, 127, Queen's Gate, S.W.	—	2/-	3/-	7/-	2 guineas	
Mrs. I. H. Evans, 15, West Bolton Gardens, S. Kensington	—	2/-	2/6	—	From 1½ guineas	
Mr. W. P. English, Lexham Mansions, 34-8, Lexham Gardens, W.	From 3/-	1/10	2/6	7/6	—	
Mr. W. D. Fickling, 7-9, Victoria Road, Kensington	—	—	—	6/-	—	
R. Foulks-Lynch (Mrs.), 28, Nevern Place, Earl's Court	From 3/6 or 1 guinea a week	—	Without lunch £1. 5s. od. per week	—	£1. 10s. od.	
A. E. Fison (Mrs.), 175, The Grove, Hammersmith	£1. 6s. od. per week	—	—	—	£1. 10s. od.	
F. Fulford-Brown (Mrs.), 51, Earl's Court Square, S.W.	—	—	—	—	From 31/6	
Mrs. E. Fuggle, Fairfax House, 117, Cromwell Road	—	—	—	6/-	£1. 15s. od.	
Mr. H. E. How, Grosvenor House, Pembridge Square, W.	—	—	—	From 7/6	From £1 11s. 6d.	

LONDON MEETING, July, 1910.—List of Boarding Houses.

NAME.	Bed and Breakfast.	Luncheon.	Dinner.	Board and Residence per day.	Board and Residence per week.	Remarks.
Mr. H. E. How, 68-9, Lancaster Gate, Hyde Park	—	—	—	From 7/6	From £1 11s. 6d.	
Mr. H. E. How, 57-8, Lancaster Gate, Hyde Park	—	—	—	From 7/6	From £1 11s. 6d.	
Mr. H. E. How, 131-3, Cromwell Road, S. Kensington	—	—	—	From 7/6	From £1 11s. 6d.	
Mr. H. E. How, 37-8, Queen's Gate Gardens, S.W.	—	—	—	From 7/6	From £1 11s. 6d.	
Mr. H. E. How, 5-7, Harrington Gardens, S.W.	—	—	—	From 7/6	From £1 11s. 6d.	
Mr. H. E. How, 19-20, Lancaster Gate, Hyde Park	—	—	—	From 7/6	From £1 11s. 6d.	
Mrs. H. S. Jameson, 21, Earl's Court Square, S.W.	3/6	1/6	2/6	6/6	From £1 10s.	
Miss Linser, 34, Kensington Gardens Square, W.	—	—	—	5/6	From 30/-	
Mr. A. H. Lisner, Dawson Place Mansions, Pembridge Square, W.	—	—	—	7/6	2 guineas	
M. Kelsey (Mrs.), 13, Colville Gardens, W.	—	—	—	—	From 30/- to 2½ guineas	
Mrs. E. E. McDowell, 5-7, Templeton Place, Earl's Court, S.W.	—	—	—	6/-	£2 2s.	
Mr. Neil Mackay, 19, Clarendon Road, Holland Park, W.	—	—	—	6/- without lunch	35/- without lunch	
Mrs. K. Miller, 20-2, Earl's Court Square, Kensington	—	1/6	2/6	—	From 1½ guineas	
Mrs. F. Norris, 17, Earl's Court Square, S. Kensington	—	1/6	2/6	From 5/-	From 25/-	
Mrs. J. Parry, 38-40, Eardsley Crescent, Earl's Court, S.W.	From 3/-	From 1/6	From 2/6	—	—	
Miss M. B. Philby, 109, Queen's Gate, S.W.	—	—	—	—	From £2 2s.	

[See next Page.

LONDON MEETING, July, 1910.—List of Boarding Houses.

NAME.	Bed and Breakfast.	Luncheon.	Dinner.	Board and Residence per day.	Board and Residence per week.	Remarks.
Mrs. E. Richards, 137, Cromwell Road, South Kensington	—	—	—	From 6/6	From 2 guineas	
Mrs. Remington, 8, Queensberry Place, Queen's Gate, S.W.	From 5/-	2/-	3/6	—	From 2 guineas	
Mrs. E. Wilkinson, Victoria House, Pembridge Square	—	—	—	From 7/6	£2 2s.	
Misses Way, Thurloe House, Cromwell Place	—	1/6	2/6	—	From 31/6	
Miss Watts, 9, Knaresboro Place, Cromwell Road	—	—	—	—	From £1 5s.	
Mrs. K. Wilson, 30, Trebovir Road, Earl's Court, S W.	—	—	—	—	From 27/6	

NOTE.—A number of these Boarding Houses have quoted Special Terms to Members of the Association.

APARTMENTS.

Madame GAISFORD, 12, Alexander Square, South Kensington

Mrs. M. HADLEY, 118-9, Queen's Gate, S.W.

Mrs. KÜHN, 66, Alexandra Road, Gipsy Hill, S.E.

Mrs. MARY MONKS, 9, Holland Park Avenue, W.

Mrs. RAMPLING, 56, St. James Square, Holland Park, W.

Miss M. SMITH, 21, Norland Square, Holland Park Avenue, W.

Mrs. WEHNER, 46, Stanhope Gardens, S.W.

SPECIAL NOTE.—Every care has been taken in the compilation of this list, but the Committee cannot accept responsibility for the accuracy of all the details.

Printed and published by the British Medical Association at their Office, No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JUNE 25TH, 1910.

CONTENTS.

	PAGE
Meetings of Branches and Divisions:	
Cape of Good Hope—Eastern Province Branch	413
East Anglian Branch: Norwich Division	413
Edinburgh Branch	415
,, ,, South-Eastern Counties Division	415
Gibraltar Branch	415
Glasgow and West of Scotland Branch: Glasgow Central Division	416
Glasgow and West of Scotland Branch: Glasgow Eastern Division	416
Gloucestershire Branch	416
Lancashire and Cheshire Branch: Blackburn Division ...	417
,, ,, ,, ,, Blackpool Division ...	417
,, ,, ,, ,, Rochdale and Bury Divisions	417
Metropolitan Counties Branch: St. Pancras and Islington Division	417
Metropolitan Counties Branch: Stratford Division	418
,, ,, ,, Walthamstow Division ...	418
Midland Branch: Leicester and Rutland Division	418
Natal Branch	418
Perth Branch	419
Southern Branch: Guernsey and Alderney Division	419
,, ,, Isle of Wight Division	419
,, ,, Salisbury Division	419
South Midland Branch: Buckinghamshire Division	420
,, ,, Northamptonshire Division	420
South Wales and Monmouthshire Branch	421
,, ,, ,, Cardiff Division ...	422
,, ,, ,, Monmouthshire Division	422
Staffordshire Branch: South Staffordshire Division	422
Ulster Branch	422
Worcestershire and Herefordshire Branch: Hereford Division ...	24
,, ,, ,, ,, Worcester Division ..	424
Yorkshire Branch: Harrogate Division	425
The Seventy-eighth Annual Meeting of the British Medical Association.—THE SECTIONS	425
Notice of Extraordinary General Meetings, and of Special and Quarterly Meetings of Council ...	429
VITAL STATISTICS	430
NAVAL AND MILITARY APPOINTMENTS	430
VACANCIES AND APPOINTMENTS	431
BIRTHS, MARRIAGES, AND DEATHS	431
PUBLISHERS' ANNOUNCEMENTS	431
DIARY FOR THE WEEK	432
CALENDAR	432
INDEX TO SUPPLEMENT FOR VOLUME I, 1910	433

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

CAPE OF GOOD HOPE, EASTERN PROVINCE BRANCH.

AN ordinary meeting of this Branch was held in the Medical Library at Grahamstown on April 15th, at 8 p.m. Dr. E. G. DRU DRURY was in the chair, and there were present Dr. J. A. Lea, G. C. Purvis, G. Fitzgerald, C. E. Jones-Phillipson, C. F. Lillie, A. Cowper, J. Bruce-Bays, R. C. Mullins, R. T. Harrison, and Mr. Robertson, M.R.C.V.S.

Apology for Non-attendance.—An apology for absence was received from Dr. Grenfell.

Confirmation of Minutes.—The minutes of the meeting held on February 18th were confirmed.

Parliamentary Committee.—The Parliamentary Committee held a meeting on March 2nd to discuss the resolutions carried by the Transvaal Medical Society *re* legislation under the Union.

Clause 1. That a Minister holding a portfolio of Public Health alone or together with another portfolio—for example, Education—be one of the responsible Ministers of the Crown under the Union Government.

Agreed to as read.

Clause 2. That a Principal Medical Officer of Health for South Africa be appointed, who shall be administrative head of his department under the responsible Minister.

Agreed to, with added rider that

This Principal Medical Officer shall confine himself entirely to the work of his department.

Clause 3. That upon all medical questions other than those referring to public health, the Government shall consult the President of the Colonial Medical Council.

Agreed to, with the omission of the words "the President of."

Clause 4. That the establishment, maintenance, and management of hospitals and similar institutions under the Privincial Councils be entrusted to a board which shall include an adequate representation of medical men.

This clause was finally agreed to in the form in which it appears in the minutes of the ordinary meeting of April 15th. The action of the Parliamentary Committee as to medical legislation in the Union was confirmed with the following rider:

That where boards exist for the management of hospitals a d similar institutions, such boards shall include an adequate representation of medical men.

Anaesthesia for Dental Extraction.—In answer to Dr. Pitman's inquiry at the annual meeting as to the advisability of a single practitioner administering chloroform in dental extraction, the Branch expressed the following opinion:

That when other medical assistance is available the administration of a general anaesthetic by a single practitioner is extremely inadvisable.

Correspondence.—A *précis* of the proceedings of the Colonial Medical Council was laid on the table. A copy of a letter from the Cape of Good Hope Western Province Branch to Mr. Smith Whitaker was read, and the action of that Branch confirmed and approved.

Paper.—Dr. JONES-PHILLIPSON read a paper entitled, The Accessory Sinuses of the Nose.

Vote of Thanks.—A vote of thanks was passed to Dr. Jones-Phillipson for his paper.

Honorary Members.—Messrs. Robertson, M.R.C.V.S., and Albert and Cecil Collis, dentists, were unanimously elected honorary members for the ensuing year.

Vote of Condolence.—It was resolved that a vote of condolence should be conveyed to Dr. F. A. Saunders, sympathizing with him in his serious accident.

Alteration of Rule.—It was resolved that in future, subject to the confirmation thereof by the Central Council, Section V, Rule 12, shall read:

To transact special business that may be transacted at an ordinary meeting.

"special" replacing "any" in the old rule.

EAST ANGLIAN BRANCH:

NORWICH DIVISION.

Report of Executive Committee.

THE Executive Committee reports that during the year 1909 there have been five meetings of the Division. The average attendance at the Divisional

meetings has been 17.8. The number of members who attended at least one meeting was 28. There have been nine meetings of the Executive Committee.

Considerable dissatisfaction having been expressed by members of the Division on the unsatisfactory state of the question of pauper lunatics, the Honorary Secretary was instructed to draw up a report on the question in all its bearings and send it to the Medical Secretary. This was accordingly done, and the report was duly considered by the Medico-Political Committee, which was of opinion that no further action could be taken by the Division in this matter.

The definition of the term "fresh contract practice" was also referred to the Medico-Political Committee. The Division was advised that this term as set forth in Rule XV of the Rules of the Division was ambiguous and should be amended. Accordingly on June 26th, 1909, after due notice had been given, the following addition to Rule XV was agreed to: "When transference of any form of contract practice takes place to a member of the Division from his former, present, or new partner, or partners, or from a practitioner to whose practice he succeeds, the acceptance of such contract practice by such member shall be deemed to be 'fresh contract practice' within the meaning of this Rule."

Other alterations to the Rules of the Division were agreed to at a meeting of the Division held on January 23rd, 1909, as follows:

That Rule XI, Subsection (*b* 2) be deleted.

That Rule VII be amended to read as follows: "The Representative of the Division in Representative Meetings of the Association shall be elected at the October meeting of the Division and in the manner prescribed in Article XXVII."

The foregoing alterations duly received the sanction of the Organization Committee of the British Medical Association.

On January 23rd, 1909, the following important resolution was passed:

> That in view of the resolution passed at a meeting of the Division on October 17th, 1908, the time has now come when every club held at a lower rate than the corresponding rate in the Medical Institute should be raised to, at least, that rate.

The members of the Division were notified accordingly, but considerable difficulty was met with in this matter, and on June 26th, 1909, a report on this subject was issued by the Executive Committee, and, as the result of this report, all the members of the Division holding clubs below Institute rates were, with three exceptions, able to state that they had been granted the requisite rise of rates by the clubs concerned. The three exceptions were members holding juvenile clubs under the management of the Rechabites, who refused the request of their medical officers.[1]

The Local Government Board, at the request of the Privy Council, having desired that information should be collected regarding unqualified medical practice in the United Kingdom, a report on The Practice of Medicine and Surgery by Unqualified Persons was issued by a special subcommittee of the Executive Committee, and was forwarded to the Local Government Board by the Medical Officer of Health for Norwich.

The following important resolution was passed by the Division at a meeting held on May 1st, 1909:

> This Division disapproves of the principle of the services of medical men, in their capacity of honorary medical officers to a charitable institution, being regularly availed of by public authorities.

The Committee regrets that, notwithstanding this resolution, Norwich school children, found by medical inspection to be defective, still continue to be treated at charitable institutions in the city.

The net membership of the Division on December 31st, 1909, was fifty.

Statement of Accounts.—The following is the statement of accounts for 1909:

[1] Since this date two of these three members have been granted the rise of rates asked for.

Receipts.	£	s.	d.
Balance in hand from 1908	3	14	1
Per Dr. Nicholson, 6s. Capitation Grant on 50 members (received March, 1910)	15	0	0
	£18	14	1

Expenditure.	£	s.	d.
Postage	1	18	11
Clerical Aid	1	6	9
Printing, etc.... ...	6	5	0
Honorarium to Mr. Quinton	3	3	0
Ledger	0	3	3
Balance in hand ...	5	17	2
	£18	14	1

At the annual meeting of the Division for 1909 the Honorary Secretary was empowered to spend three guineas, to be taken out of the special fund mentioned in the statement of accounts, on a file and such necessaries as should be wanted for the proper preservation of the Diuisional documents. This has been done accordingly, a file and a leather bag having been bought on behalf af the Division.

H. J. STARLING, *Honorary Secretary.*

NORWICH PUBLIC MEDICAL SERVICE.

Annual Report, 1909.

The General Committee has pleasure in presenting the eighth annual report.

The acting staff has lost by resignation three members, Drs. Fielding, Phillips and Passmore.

During the past year the growth of the service has steadily increased, the number of new members admitted being 1,422.

The number of members leaving the service was unfortunately high—namely, 927, leaving a net increase of 495.

The Committee are aware that the withdrawals are large, and have prepared a tabulated list of reasons given.

Members Struck off Books, 1909.

No reason given	150	Refuse to pay	45
Left city	137	Prefer another doctor	38
Benefit societies	105	Removed	22
Other clubs, etc.	43	Dissatisfied with doctor	26
Unable to pay ...	131	Pay privately	16
Arrears	56	Other causes ...	18
Out of work ...	23		
Dead	65		927
Refused by doctor	52		

It will be seen that the largest number, 150, give no reason; benefit societies account for 105; left city, 137; other clubs, 43; and unable to pay, 131.

There can be no doubt that the large number of unemployed in the city must retard the progress of the society. Arrears accounts for 56 points to the good work done by the collectors.

The Committee would desire the medical staff to make united and continuous effort to get suitable members to join the service.

The Committee again desire to express their high appreciation of the valuable services of the Secretary (Mr. C. A. Cooper) and his staff.

	1908. £ s. d.	1909. £ s. d.
Gross receipts for quarter ending		
March	263 14 2	296 16 1
June...	258 9 4	304 4 7
September...	269 0 9	307 14 8
December	281 13 2	338 10 2
	£1,072 17 5	£1,247 5 6
Working expenses	16.25 %	15.75 %
Total number of members, December 31st	5,503	5,998
	£ s. d.	£ s. d.
Amount of weekly payments ...	22 18 7	24 19 10

R. J. Fox,
Honorary Secretary.

Statement of Account, January 1st to December 31st, 1909.

Receipts.	£	s.	d.
Balance at Bank...	296	1	3
Members' Payments	1,247	5	6
Cards	12	16	8
Bank Interest ...	2	8	6
	£1,558	11	11

Expenditure.	£	s.	d.
Medical Officers ...	1,011	9	9
Secretary	35	0	0
Collectors	144	12	0
Stationery	20	4	6
Furniture	4	5	0
Insurance	1	15	3
Cheque Book ...	0	5	0
Postages	1	6	11
Auditor	1	1	0
Balance at Bank	338	12	6
	£1,558	11	11

Of the balance, £338 12s. 6d., £277 4s. 3d. has since been paid to Medical Officers.

CHAS. H. ANDREWS, Honorary Treasurer.

I have examined the accounts of the "Norwich Public Medical Service" for the year 1909, and in my opinion the above statement is properly drawn up so as to exhibit a true and correct account of the transactions of the Society for that period, as shown by the various books and documents submitted to me.

A. C. POPE.

February 18th, 1910.

EDINBURGH BRANCH:

THE annual meeting of this Branch was held in the Hall of the Royal College of Surgeons on Friday, June 10th, at 4 p.m. There were over thirty members present. Dr. MATHESON, Vice-President, was in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read, approved, and signed.

Apologies for Absence.—Apologies for absence were received from Dr. James, President, and Dr. Carlyle Johnston.

Report of Branch Council.—The report of the Branch Council was read by the SENIOR SECRETARY. During the year the Branch Council has held seven meetings. At these meetings the attendance has been ten to fifteen out of a total membership of nineteen. Considerable time was spent over the consideration of the Draft Charter, and resolutions were submitted to the Branch for consideration. The proposed new hospital for women was discussed at a meeting on January 6th, and resolutions were drawn up and submitted to the Branch. During the year nineteen (19) new members had been elected by the Branch Council. Two cases of appointments which did not fulfil the conditions laid down by the Association had come before the Council during the year. The first was for a lady assistant medical officer to the School Board at an insufficient salary. The Warning Notice duly appeared in the JOURNAL. The candidates all withdrew their applications, and the Board raised the remuneration. The difficulty was thus satisfactorily settled through the influence of the Association and the united action of the candidates. The second was the appointment of an assistant medical officer of health for Midlothian, Linlithgow, and Peebles. The appointment has been made within the last day or two at a salary of £200. In this case efforts had been made to resist the appointment at that salary, but unsuccessfully.

Proposed Paying Nursing Home.—The JUNIOR SECRETARY made a short statement regarding the steps which had been taken in forwarding the establishment of the proposed paying nursing home. Subscriptions amounting to over £800 had been intimated by members of the profession, and it was expected that a considerable sum would yet be added. It was hoped that the public, now that the profession had shown in a marked way that the home was necessary, would, when an appeal was made to them, subscribe liberally, and make the home a success.

Election of Office-bearers.—Dr. MATHESON moved and Dr. WALKER seconded, that the nomination by the Council of the following gentlemen as office-bearers for the year be adopted. The motion was unanimously agreed to. *President*, William Russell, M.D.; *President-elect*, John R. Hamilton, M.D.; *Vice-Presidents*, A. A. Matheson, M.D., T. R. Ronaldson, M.D.; *Hon. Treasurer*, James Ritchie, M.D.; *Hon. Secretaries*, Michael Dewar, M.D., E. W. Scott Carmichael, F.R.C.S.E.

Induction of President.—Dr. WM. RUSSELL was then formally inducted as President, and in a few words expressed his thanks for the honour conferred on him.

Votes of Thanks.—The PRESIDENT proposed a vote of thanks to the retiring President, alluding to his great attention to the presidential duties and his abundant hospitality at the Council meetings. The motion was adopted. The PRESIDENT also proposed a special vote of thanks to the retiring Secretary, Dr. Boyd, thanking him for the energetic way in which he had carried out the duties of his office during the past years, and expressing the feeling of the members that his retiral was a great loss to the Branch. The motion was adopted, and Dr. BOYD replied.

Capitation Grants.—On the motion of Dr. DEWAR, the meeting instructed the Treasurer to pay to the Divisions included in the Branch the capitation grant of 1s., according to the returns of the Divisions.

Combined Motor Meeting at Moffat.—The SECRETARY drew attention to the proposed motor meeting to be held by the Border Counties and Edinburgh Branches at Moffat on July 8th. Two committees were appointed to make the necessary arrangements—one for the country district, comprising Drs. Barrie, Hamilton, Somerville, Fleming, and Blair (convener); and one for the city: Drs. Simpson, Ballantyne (Dalkeith), the two Secretaries, and Veitch (convener).

Special Representative Meeting.—An informal conversation took place regarding the Special Representative Meeting *re* Charter, but, as no change had been made in the resolution of the Branch, no further instructions were considered necessary.

The Proposals of the Poor Law Commission.—Dr. DEWAR read a paper on the future prospects and position of the medical profession under the Poor Law Commission proposals and a public medical service, which will be published, and Drs. WALKER, KEPPIE PATERSON, JAMES RITCHIE, PORTER, and K. DOUGLAS joined in the discussion. Dr. K. PATERSON moved, and Dr. DOUGLAS seconded, that it be remitted to the Branch Council to watch future legislation on the subject and to call a meeting of the Branch whenever it is considered necessary.

Vote of Thanks.—A vote of thanks to the Chairman closed the meeting.

Dinner.—The members of the Branch, with Dr. RUSSELL in the chair, dined together in the Royal British Hotel, Princes Street, and a very pleasant and enjoyable evening was spent.

SOUTH-EASTERN COUNTIES DIVISION.

THE annual meeting of this Division was held in the Railway Hotel, St. Boswells, on Monday, June 13th.

Confirmation of Minutes.—The SECRETARY read the minutes of the last meeting, which were approved.

Annual Report.—The SECRETARY also read the annual report, which was approved.

Election of Office-bearers.—The following were elected unanimously: *Chairman*, Dr. Oliver; *Vice-Chairman*, Dr. Calvert; *Secretary and Treasurer*, Dr. John Jeffrey; *Executive Committee*, Drs. Luke, Cullen, Bannerman, Somerville, Young, and Carlyle-Johnston; *Representative of Division on Branch Council*, Dr. Cullen was unanimously elected; *Representative of Division at Annual Meeting*, Dr. Blair was unanimously elected Representative, and was given instructions as to the lines the members desired him to follow upon the various questions which would come under discussion. Several reports which had been received from the Secretary of the Association were then considered and discussed.

GIBRALTAR BRANCH.

A GENERAL meeting of this Branch was held at the Royal Naval Hospital, Gibraltar, on May 31st, at 5 p.m. Deputy Inspector-General F. J. LILLY, President, was in the chair, and there were present Dr. P. F. Lyons, Vice-President; Drs. Oman, Vasquez, Gill, Staff Surgeons B. D. Ramsay and W. B. Hall, Staff Surgeon Bolster of H.S.M. *Duke of Edinburgh*, and Surgeon Bradshaw of the *Formidable*, and Dr. L. D. Parsons (Honorary Secretary and Treasurer). After the members present had been kindly entertained to tea by the President, the business of the meeting began.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Demonstration of Cases.—Dr. PARSONS showed a case of a male who had a supernumerary nipple on the right side vertically below the normally present upper one.

Visit to Hospital.—A visit was made to the wards of the hospital, and several interesting cases seen. A

case of fractured patella, illustrated by *x*-ray photographs, was shown by Dr. Ramsay: A. J., 38, yeoman of signals, was admitted to the Royal Naval Hospital on April 13th, 1910, with a transverse fracture of his right patella caused by slipping on the signal bridge. On April 18th, under gas and ether, a flap was turned down over the patella, the knee-joint was cleaned of blood, the fragments perforated and brought together with a No. 5 silver wire. The result was very satisfactory; union occurred by first intention, but a small piece of the flap necrosed. On the day following the meeting (June 1st) the patient was able to walk up and down stairs without aid of sticks or crutches. Seven years ago this same patient had his left patella wired for a similar accident. The result in his left leg is good also. Dr. PARSONS exhibited and demonstrated several varieties of the Offord truss. Dr. GILL read notes of a case of cystic spleen, particulars of which are published at page 1545.

Proposed Formation of Library.—The SECRETARY intimated the proposal to form the nucleus of a library, and asked members to suggest the names of books.

Amendment of Local Medical Ordinance.—The desirability of amending the Local Medical Ordinance was discussed, and the SECRETARY read the previous correspondence on the subject.

Votes of Thanks.—Votes of thanks to the readers of papers and to the President for his hospitality brought the meeting to a close.

GLASGOW AND WEST OF SCOTLAND BRANCH:

GLASGOW CENTRAL DIVISION.

THE annual meeting of this Division was held on Tuesday, 31st May, in the Faculty Hall, 242, St. Vincent Street, Glasgow. Dr. ROBERT JARDINE presided.

Confirmation of Minutes.—The minutes of the previous meeting were read, approved, and signed.

Election of Officers.—The following were elected office-bearers for the ensuing year: *Chairman*, Dr. Robert Jardine; *Vice-Chairman*, Mr. J. Grant Andrew; *Secretary and Treasurer*, Dr. P. N. Grant; *Representative to Representative Meeting*, Dr. John Adams; *Representatives to Branch Council*, Dr. Robert Jardine and Dr. P. N. Grant; *Executive Committee*, Dr. John Wright, Dr. John Paterson, Dr. W. D. Macfarlane, jun., Dr. W. S. Syme, Dr. A. N. McGregor, Dr. R. K. Currie.

Work of the Division.—The CHAIRMAN reviewed the work of the Division for the past year, and regretted the retiral of Dr. Robert Perry from the Executive Committee, the meetings of which he had attended so regularly.

Financial Statement.—The financial statement for the year was submitted by the HONORARY SECRETARY.

GLASGOW EASTERN DIVISION.

THE annual meeting of this Division was held on May 25th, at the Glasgow District Mental Hospital, Woodilee, Lenzie. Dr. JOHN PATRICK, Chairman of the Division, presided, and the following members were present: Drs. Malcolm Black, Hamilton C. Marr, W. L. Muir, James Dunlop, James Craig, Miller Semple, William J. Logie, P. J. O'Hare, Joseph Green, William H. Brown, W. J. H. Sinclair, and William Bryce, Honorary Secretary.

Confirmation of Minutes.—The minutes of the last meeting were read, approved, and signed by the Chairman.

Election of Officers.—The office-bearers for 1910–11 were elected as follows: *Chairman*, Malcolm Black, M.D.; *Vice-Chairman*, W. J. H. Sinclair, M.B.; *Honorary Secretary and Treasurer*, William Bryce, M.D.; *Representatives to Branch Council*, W. L. Muir, L.R.C.P., etc., and William Bryce, M.D.; *Executive Committee*, James Battersby, F.R.C.S.Eng., James Dunlop, M.B., John Patrick, M.B., Robert Scott, M.B., P. S. Buchanan, M.B., H. A. McLean, M.B., Miller Semple, M.B., R. McC. Service, M.D., and David Thomas, M.D.

The Annual Meeting in London.—Notices of motion for the annual meeting to be held in London were next considered. It was moved from the chair that the recommendations of the Executive Committee thereanent be accepted. This was carried unanimously, and the Representative instructed accordingly.

Alteration of Articles of Association.—The suggested alteration of Article of Association VIII as printed in the billet calling the meeting was then submitted, and received the hearty approval of all the members present, Dr. Muir being commissioned to bring it under the notice of the Annual Representative Meeting in whatever manner seemed to him most fit.

Nomination of Representative on Central Council.—It was moved by Dr. HAMILTON C. MARR, seconded by Dr. W. J. H. SINCLAIR, and unanimously agreed, that Dr. W. L. Muir be nominated by the Division for election as a member of Council by grouped Representatives.

Demonstrations.—Dr. HAMILTON C. MARR, the Medical Superintendent of Woodilee, gave a lantern demonstration to illustrate the modern ideas of the neurone, and the theories, including those of Flechsig, Campbell, and Shaw Bolton, regarding the exact sites of the mental centres. To illustrate the achromatic reticular structure of the neurone, several microscopic sections, prepared by the new method of Donaggio, were shown. In one of the wards of the hospital a number of cases of general paralysis were shown. The method of lumbar puncture was demonstrated, and the value of the examination of the cerebro-spinal fluid in making a diagnosis as to the presence or absence of general paralysis commented on. Dr. Marr showed several cases of syphilitic insanity which could not be distinguished by ordinary clinical examination from cases of general paralysis of the insane, but in which examination of the cerebro-spinal fluid showed the absence of a lymphocytosis. These cases had been treated by hypodermic injection of soamin—an arsenical preparation — and had benefited so greatly that in some cases the patients had been discharged as recovered, and had been at work for a period of six months. In other cases, not discharged, filthy and destructive habits had disappeared, to be replaced by outdoor work of a valuable nature. The intimate relationship of syphilis to general paralysis was discussed, and the varying views regarding general paralysis received notice. While Dr. Marr was of opinion that general paralysis was a parasyphilitic affection, he thought it only right to mention that the opinion of German observers, corroborated by actual investigations by Mackenzie and Browning of Glasgow, inclined to the view that general paralysis was due to a syphilitic condition of the nervous system, not amenable to ordinary antisyphilitic remedies, but capable of improvement or amelioration by the use of arsenic. With this end in view, an interesting treatment was in course of being adopted, whereby an arsenical preparation suggested by Ehrlich would be tried. Only one dose of this preparation was necessary, and the results would be available in the course of a few months.

Tea and Vote of Thanks.—The members present were entertained to tea by Dr. Marr, after which Dr. JOHN PATRICK in a very felicitous manner conveyed to Dr. Marr the acknowledgments of the company for his most interesting demonstration, his hospitality, and also for providing conveyance to and from the hospital

---

GLOUCESTERSHIRE BRANCH.

THE annual meeting, postponed from May, on account of the late King's death, was held on June 9th, 1909, at 6.30 p.m. in Stroud Hospital, the PRESIDENT in the chair, and thirty-nine members present.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Election of Officers.—Mr. T. S. ELLIS announced that the following officers were elected: *President*, W. W. Grosvenor, Gloucester; *Council*, G. W. Ancrum, C. Braine Hartnell, H. Bramwell, E. C. Carter, O. W. Clark, W. Cox, C. F. Cuthbert, T. S. Ellis, J. Howell, R. Kirkland, G. A. Peake, and J. G. Soutar; *Scrutineers*, G. W. Ancrum and T. S. Ellis; *Auditors*, E. Braine

Hartnell and G. A. Peake; *Ethical Committee*, W. R. Buckell, T. S. Ellis, O. H. Fowler, J. G. Soutar, and E. T. Wilson; *Secretary*, D. E. Finlay.

Report of Council.—The annual report of Council was taken as read, and passed.

Special Representative Meeting.—The SECRETARY read out and explained the amendments to be brought before the Special Representative Meeting on June 28th regarding changes in By-laws of the Association. It was proposed by Dr. A. B. DAVIES, seconded by Mr. ELLIS, and carried:

That the Representatives should be instructed to support them and also the recommendations of the Central Council to Representative Meeting.

Address.—Dr. LEONARD WILLIAMS of London gave a very interesting and suggestive address on the Quickening Spirit.

Vote of Thanks.—A hearty vote of thanks to Dr. Leonard Williams was proposed by the PRESIDENT, seconded by Dr. PRUEN, and carried.

Dinner.—After the meeting thirty-eight sat down to dinner at the Imperial Hotel, Stroud.

LANCASHIRE AND CHESHIRE BRANCH:

BLACKBURN DIVISION.

A MEETING of this Division was held at the Old Bull Hotel, Blackburn, on June 14th. Dr. MOIR (Chairman) presided, and there were present: Drs. Ballantyne, Barr, Alcock, Bannister, Henry, Taylor, Keighley, Prebble, Butterfield, Burnham-Smith, and Greenwood.

Election of Central Council.—It was moved, seconded, and resolved:

That the Blackburn Division hereby instructs its Representative, at the annual meeting in July, 1910, to vote for Dr. Garstang in the election of one member to the Central Council by the "grouped" Representatives from Lancashire and Cheshire.

It was moved, seconded, and resolved:

That Dr. Greenwood, the Secretary of the Blackburn Division, be authorized to sign a nomination form for Dr. Garstang in the name of the Blackburn Division.

Special Representative Meeting.—The agenda for the Special Representative Meeting to be held in London on June 28th, which had been reprinted from the SUPPLEMENT to the BRITISH MEDICAL JOURNAL, dated May 28th, was then considered. The objects and powers desired by the British Medical Association, which had been proposed as the best substitute resulting from the failure to obtain the grant of a Royal Charter, were considered. The meeting agreed with all the suggestions regarding the future powers and objects. It was then moved, seconded, and resolved:

That the Representative, Dr. Prebble, be authorized to vote for the recommendation that the Council be instructed to take all necessary steps with a view to the formation of a new company under the title of "The British Medical Association," incorporated in the same manner as the existing company, but with a memorandum of association providing for all the objects which are detailed in Clause 2 of the draft Charter applied for by the Association.

It was moved, seconded, and resolved:

That with reference to the mode of election of twelve members of the Council by the Representatives of constituencies, being such as shall be prescribed by the Representative Body, the Representative of the Blackburn Division, Dr. Prebble, use his own discretion as to voting, after hearing the discussion thereon.

It was moved, seconded, and resolved:

That the Deputy Representative in Representative Meetings of the British Medical Association for 1910–11 be Dr. Greenwood.

It was moved, seconded, and resolved:

That the next meeting of the Division be on Tuesday, June 21st, at 9 p.m., and that the following important matters be discussed:

1. Medical treatment of elementary school children; to be opened by Dr. Greenwood.
2. Reorganization of the State medical relief of the poor; to be opened by Dr. Heywood.
3. Voluntary medical charities; to be opened by Dr. Taylor.

BLACKPOOL DIVISION.

A GENERAL meeting of this Division was held at Jenkinson's Café, Talbot Square, Blackpool, on June 16th, at 8.30 p.m. Dr. FORBES (Chairman) presided, and there were present: Drs. Dora Bunting, Vera Foley, Rhodes, and Rees Jones.

Confirmation of Minutes.—The minutes of the general meeting of May 30th were read and approved.

Medical Practitioners and Midwives.—Dr. DORA BUNTING read a short paper on "The Position of Medical Practitioners with regard to the Midwives Act, 1902." All the members present took part in the discussion which ensued, and it was the unanimous opinion of the meeting that medical practitioners, when called in on the advice of registered midwives, should be paid by the local supervising authority, and not by the boards of guardians.

Deputy Representative.—Dr. FORBES proposed, and Dr. DORA BUNTING seconded, that the Honorary Secretary of the Division be appointed Deputy Representative at the Special Representative Meeting on June 28th. This was carried unanimously, four members voting.

Special Representative Meeting.—The agenda of the Special Representative Meeting (as contained in the BRITISH MEDICAL JOURNAL SUPPLEMENT, May 28th, 1910) was considered, and the Representative received instructions thereon.

Annual Representative Meeting.—The agenda of the Annual Representative Meeting (as contained in the BRITISH MEDICAL JOURNAL SUPPLEMENT, May 21st, 1910) was considered, and the Representative received instructions thereon.

ROCHDALE AND BURY DIVISIONS.

A JOINT meeting of the Bury and Rochdale Divisions was held in the Wellington Hotel, Rochdale, on Thursday, June 16th, Dr. MENZIES of Rochdale in the chair. There were also present: Dr. Brown of Bacup, Dr. Turnbull of Bury, Drs. Geddes and Taylor of Heywood, Drs. Anderson, Baldwin, Bateman, Carse, Harris, Lord, McMaster, Melvin, Walker, and Ward of Rochdale.

Confirmation of Minutes.—The minutes of the last two joint meetings were read and confirmed.

Apology for Non-attendance.—A letter of regret for non-attendance at the meeting was read from Dr. Thorp of Todmorden.

Address by the Chairman.—The CHAIRMAN thanked the members for electing him Chairman of the Rochdale Division, and then went over the different points with which the meeting would have to deal, and proposed they should be taken up first as in Article VI, page 286 of SUPPLEMENT.

The Draft Articles.—All were agreed upon these, except Subclause (1), Clause *c*, of Article X, which the meeting unanimously agreed should be deleted.

By-laws.—All the by-laws were agreed upon except the following: By-law 11, to which the meeting had a rider. By-law 20: Agreed unanimously upon the alternative form. By-law 41: Disagreed unanimously with the Cardiff Division amendment. By-law 56: Agreed unanimously upon the alternative form. Agreed upon the schedule.

Annual Representative Meeting.—The meeting then went over the motions for the Annual Representative Meeting, and instructed the Representative how to vote.

Model Rules.—There being no time to discuss the "model rules," it was carried unanimously:

That a joint meeting of the Bury and Rochdale Divisions with the Bury and Rochdale medical societies be held about October 1st.

Vote of Thanks.—A vote of thanks to the Chairman closed the meeting.

METROPOLITAN COUNTIES BRANCH:

ST. PANCRAS AND ISLINGTON DIVISION.

THE annual meeting took place on June 14th at the Midland Grand Hotel.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Increase in Membership.—An increase of eight in the membership for the official year was reported.

Election of Officers.—The officers for the ensuing year were then elected.

Address on Acne.—An address on acne was given by Dr. W. Griffith, M.R.C.P.Lond., Physician to St. John's Hospital for Diseases of the Skin. A number of cases was shown, and some beautiful microscopic slides were exhibited. An unusually interesting discussion followed.

Vote of Thanks.—A hearty vote of thanks was passed to Dr. Griffith.

Stratford Division.

The annual general meeting of this Division was held in the Board Room, West Ham Hospital, Stratford, E., on Thursday, June 16th, Mr. A. J. Couzens, F.R.C.S., presiding.

Confirmation of Minutes.—The minutes of the previous meeting were read and adopted.

Communications.—Thereafter several communications received by the Honorary Secretary were read and considered.

Treatment of School Children.—The Division then discussed at length a resolution of the Branch Council requesting Divisions to co-ordinate arrangements through which school children can be treated by local registered medical practitioners, and ultimately it was proposed by Dr. Bygott, and seconded by Dr. Rose:

> That a subcommittee be formed to investigate the conditions prevailing in the Division, and to formulate a scheme for the treatment of children found to be defective.

This was carried *nemine contradicente*, and the following committee was elected, with power to add to their number: Drs. Bygott, Sanders, Rose, Toland, Black, and Collins, and Nicoll (Honorary Secretary, *ex officio*).

Organization Committee.—A communication from the Organization Committee was read.

Election of Officers.—The election of office-bearers for the ensuing year resulted as follows: *Chairman*, Dr. F. H. Dayus; *Vice-Chairman*, A. J. Couzens, F.R.C.S.; *Representative at Representative Meeting*, Dr. Percy Rose; *Representative on Branch Council*, Dr. E. Hay; *Honorary Secretary and Treasurer*, Dr. P. J. S. Nicoll; *Executive Committee*, Drs. Beadles, Black, Bygott, Collins, Frederick, Randle, Taylor, and Toland.

Walthamstow Division.

A special meeting of this Division was held for the purpose of considering the recommendations of the Central Council regarding the result of application for a Charter, on Thursday, June 16th, at the Wesleyan Church Schoolroom, Leyton High Road, at 4 p.m. Dr. Robert Jones presided; six members were present.

Instructions to Representative.—It was proposed by Dr. Panting, seconded by Dr. R. Mackenzie:

> That this Division instruct its Representative to oppose Amendment 13, proposed by the Cardiff Division.

This was carried unanimously. It was proposed by Dr. Eldred, seconded by Dr. C. J. Horner:

> That this Division instruct its Representative to support Motion 19.

This was carried unanimously. The Representative was further instructed that the Division preferred the present form of By-law 20 to the alternative. In all other matters to be considered by the Special Representative Meeting the Representative of the Division was instructed to use his own discretion.

MIDLAND BRANCH:

Leicester and Rutland Division.

A special meeting of the Division was held at the Leicester Infirmary on Wednesday, June 8th, 1910, at 4.15 p.m. In the absence of Dr. Stamford, who was unavoidably prevented from attending, Dr. A. V. Clarke took the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read, confirmed, and signed. Arising therefrom, Dr. Gibbons thanked the Division for its vote of thanks to him for his services as Honorary Secretary, and expressed his strong opinion of the great value of the Association to the medical profession.

Proposed New Articles of Association.—The remainder of the time of the meeting was occupied with the consideration of the proposed new Articles of Association and new By-laws. After a lengthy discussion it was resolved:

> That the Representative be instructed to attempt to secure a postal Referendum, to be obtained by a bare majority of the Council present and voting.
>
> That he be instructed to oppose the Cardiff Division's amendment to By-law 41.
>
> That the other Articles of Association and By-laws be generally approved.
>
> That the Representative act as he thinks best on Motion 19.

NATAL BRANCH.

A meeting of the Natal Branch of the British Medical Association was held at the Medical Library, Durban, on April 29th, at 8 p.m., Dr. Murison (President) in the chair. There were present Drs. Pearson, Freer, Nicol, Edwards, Howden, Hiram Menek, and Dr. Porter (Johannesburg).

Apologies for Non-attendance.—Letters of regret for absence were read from Drs. Murray Gray, McKenzie, Smythe, Pitchford, and Hill.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Transvaal Medical Society and State Medicine.—The first resolution of the Transvaal Medical Society was accepted, substituting the words "State medicine" for "public health." Resolutions 2 and 3 were taken together. On the motion of Dr. Pearson, seconded by Dr. Freer, it was agreed that:

> A South African Board of State Medicine should be formed, having the following constitution:
>
> (*a*) A president, who shall be the Minister holding the portfolio of State Medicine in the Union Government.
>
> (*b*) A medical officer who shall be designated Chief Health Officer for South Africa.
>
> (*c*) A legal member nominated by Government, and who might be selected from the Attorney-General's department.
>
> (*d*) A lay member to be nominated by Government who would be selected for his administrative experience and knowledge of public affairs. This member would be vice-president of the board.
>
> (*e*) A permanent secretary to the Board of State Medicine.
>
> (*f*) A medical practitioner to be nominated by the Medical Council for South Africa, who would be designated the Surgeon-Superintendent.

Dr. Pearson commented upon the difference between the Natal scheme and the resolutions of the Transvaal Medical Society, and the reasons for this. He thought that both here and in the Cape there existed good reasons for viewing with apprehension the appointment of an uncontrolled Chief Health Officer. Dr. Freer spoke of the advantage of having medical matters other than those of public health managed by a man with knowledge of general practice. Dr. Murison said that any subject requiring the opinion, advice, or consideration of the South African Board of State Medicine would be relegated to either the Health Division or the Medical Division of the board. The vice-president and legal member would be the same on both divisions, but the chief health officer would be the medical member to the Health Division and the Surgeon-Superintendent would be the medical member to the Medical Division. In both cases the board's expressed opinion would only be formulated after it had been considered from the standpoint of a layman and a lawyer, together with that of a health expert in public health matters and of an experienced practitioner in matters of a general medical nature. The secretary of the board would formulate from their respective opinions the minute to be tendered to the Minister, who would issue over his signature any necessary or suitable orders or replies to corresponding town councils, etc. The official president would only very rarely, if ever, take part in the ordinary deliberations of the board. He explained

that the Chief Health Officer for South Africa would be the administrative head of a department dealing with all matters of public health and that the Surgeon Superintendent would be the administrative head of a department dealing with all general medical matters other than those of public health. At times the dividing line between public health and general medical matters is difficult to draw; in such cases the chairman would decide to which official the business should be referred, he would often obtain the opinions of both. Dr. PEARSON wished it to be understood that this scheme was on the lines of the Local Government Board of Scotland; he thought that this should be explained to the other colonies, as it would materially assist in advancing the views put forward by Natal. Dr. PEARSON moved, Dr. FREER seconded, that Resolution 4 of the Transvaal Medical Society be adopted, substituting the word "board" for "a board." This was agreed to. Dr. PEARSON moved, Dr. EDWARDS seconded:

> That all medical appointments be adequately advertised in the public press.

Agreed to. Dr. PEARSON moved, Dr. NICOL seconded:

> That it is desirable that a bill be introduced in the first session of the Union Parliament to establish a Board of State Medicine as outlined above to carry out public health administration throughout South Africa, to which shall be transferred all the necessary powers from the existing authorities.

The resolution was agreed to.

Protest against Inclusion of South African Branches with Gibraltar, etc.—On the motion of Drs. PEARSON and EDWARDS it was decided to instruct the Secretary to write protesting against the inclusion of the South African Branches with those of Gibraltar, Malta, etc., at the Representative Meeting.

Representative at Annual Representative Meeting.—On the motion of Drs. PEARSON and MURISON it was decided to instruct the Secretary to ask Dr. Dodd, of Ixopo to act as the Representative of the Branch at the Representative Meeting of the British Medical Association in England this year.

Demonstration.—Dr. EDWARDS brought a specimen of an enlarged thymus gland. The specimen was removed from a child 5 years old, who died shortly after the administration of chloroform. The child did not die under the anaesthetic, as the reflexes had been restored; it succumbed about ten minutes after. The gland weighed about 1½ oz. It was found to be pressing upon the superior vena cava, the pulmonary artery, and the right auricle. The child died from asphyxia. Dr. Edwards explained that there was no way in which the existence of the gland could have been detected during life. Some symptoms had, however, probably been produced, as the child had been under treatment several times for bronchitis and asthma, and he though that the symptoms were probably due to pressure at times when the gland was for some reason congested. The mother also reported that when giving the child a hot bath the child became livid and had attacks of dyspnoea. Dr. Edwards was thanked for the specimen, which will be added to the museum.

PERTH BRANCH.

THE summer meeting was held at Moncrieffe Island Golf Club House on Friday, June 10th. The Council meeting took place at 3 p.m. Present: Dr. BRUCE (President), Drs. J. Hume, Burnett, Lyell, and Taylor.

New Members. — The following were admitted members of the Association and Branch: Dr. J. T. Graham, Dunalastair, Perth. Dr. Peter W. Shaw, 18, High Street, Blairgowrie.

The general meeting followed at 3.15. Present: Drs. Bruce, Lyell, J. Hume, Haig, Burnett, R. Stirling, Alcock, C. Stuart, and Taylor.

Apologies for Absence.—Apologies for absence were intimated from Drs. Paton and Trotter.

Confirmation of Minutes.—The minutes of previous meeting were read, approved, and signed.

Election of Officers.—The following were elected for the ensuing year: *President*, Dr. John Lyell (Perth; *Vice-President*, Dr. William Haig (Crieff); *Secretaries*, Dr. William A. Taylor and Dr. Alexander Trotter; *Treasurer*, Dr. J. Hume; *Representative*, Dr. William Haig; *Deputy Representative*, Dr. Alexander Trotter; *Council*, Drs. Kennedy, Moffett, Edwardes, Bruce, and R. Stirling.

Instructions to Representative.—After discussion on urgent matters referred to Divisions, it was agreed to leave the Representative member a free hand to represent the Branch to the best of his ability.

Golf Match.—Thereafter golfing members from Dundee arrived, and after tea in the club house, a golf match was played, with the following result:

Perth.		Dundee.	
Alcock	0	Robertson	0
C. Stuart	1	Craig	0
Burnett	0	Smith	1
Taylor	0	Templeman	1
Bruce	0	Tuach-Mackenzie	1
Haig	0	Anderson	1

Dundee winning by 3 matches.

SOUTHERN BRANCH:

GUERNSEY AND ALDERNEY DIVISION.

THE annual meeting of this Division was held in Gardner's Royal Hotel on May 26th, Major MYLES, R.A.M.C.(ret.), President, in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Honorary Secretary's Report.—Dr. J. F. CARRUTHERS, Honorary Secretary, made his report and financial statement for the year, which were unanimously approved and accepted.

Election of Officers.—Dr. M. H. Bulteel becomes *President* for the year, and Dr. C. d'A. Collings was unanimously declared *President-elect*; Dr. Carruthers was reappointed *Honorary Secretary and Treasurer*; Major Myles was elected *Representative on the Branch Council.*

Vote of Thanks to Retiring President.—A vote of thanks was unanimously accorded to the retiring President for his conduct of office in the past year.

Dinner.—At the dinner which followed thirty-six sat down, including the Bailiff and the Procureur du Roi of Guernsey, Lieutenant-Colonel Carr Ellison, D.A.A.G., five visiting members from the Jersey Division, and several private guests.

The Division has had a quiet but useful year, and commences the new year with the same membership —28, only three of the medical men practising in the island standing outside the ranks of the British Medical Association.

ISLE OF WIGHT DIVISION.

A MEETING of this Division was held in Sandown on May 27th.

Election of Officers.—The following officers were elected for the ensuing year: *President-elect*, Dr. McKenzie (Ryde); *Vice-President*, Dr. Mayo; *Two Representatives on Branch Council*, Drs. Turner and Mayo; *Representative of Division in Representative Meetings*, Dr. J. A. Gibson (Newport, I.W.); *Deputy Representative of Division in Representative Meetings*, Dr. Furniss Potter (St. Helens, I.W.).

Special Representative Meeting.—The question of the Special Representative Meeting for June 28th was also discussed. Dr. Hollis was given instructions thereon.

SALISBURY DIVISION.

THE annual meeting of the Division was held at the Infirmary, Salisbury, on Wednesday, May 18th, at 8 p.m. The meeting was preceded by dinner at the County Hotel. There were present at the meeting: Mr. C. ENSOR (Chairman), Messrs. Ord, Straton, Bardsley, March, A. W. Straton, Atkinson, Saunders, Luckham, Fison, Williams-Freeman, and J. E. Gordon (Honorary Secretary).

Confirmation of Minutes.—The minutes of the last meeting were read and approved.

Election of Officers.—The following officers were elected: *Chairman*, Mr. L. S. Luckham; *Vice-*

Chairman, Dr. J. W. Johnstone; *Honorary Secretary and Treasurer*, Mr. J. E. Gordon; *Representative in Representative Meetings of Association*, Mr. C. R. Straton. *Representatives of Division on Branch Council*, Mr. L. S. Luckham, Mr. J. O. March. *Executive Committee*, Dr. Blackmore, Dr. Kempe, Dr. Ord, Mr. Armitage, Mr. Willcox.

Letter of Thanks.—A letter was read from Mrs. Manning, thanking the Division for their letter of condolence. It was resolved that Mrs. Manning's letter be entered on the minutes.

Parliamentary Representation of the Profession.—A letter was read from the Secretary of the Chelsea Division, asking the Division to support and approve of a union of medical practitioners to promote direct parliamentary representation, and advocating the sending of a referendum to members in the United Kingdom on the subject. Mr. LUCKHAM moved, and the meeting unanimously resolved:

> That this Division approves of the principle of parliamentary representation by the medical profession, but thinks that this should be direct representation, as in the case of the universities.

Secretary's Report and Financial Statement.—The SECRETARY submitted the balance sheet and statement of accounts, showing balance in hand of £13 3s. 11½d. He also reported that two meetings had been held during the year, the average attendance of members being 15. Four committee meetings had been held.

Fees for Medical Inspection of School Children.—A letter was read from Dr. Williams-Freeman relating to fees to be paid by boards of guardians and similar authorities for treatment of cases arising in consequence of the medical inspection of school children. The scale suggested by Dr. Williams-Freeman was as follows:

Adenoids with anaesthetic	£2
Tonsillotomy with anaesthetic ...	£2
Tonsillotomy without anaesthetic ...	£1
Refraction cases	£1
Chronic middle otitis	£1 a half-year
Ringworm by Roentgen rays ...	£2

It was resolved that the Division approved the scale of fees mentioned, and, should occasion arise, would endeavour to secure adoption of similar rate of payment.

Papers.—Mr. ENSOR read a paper on Some Cases of Angioneurotic Oedema. The cases referred to occurred in several members of the same family, and were traced through several generations. Mr. Ensor was thanked for his most interesting paper, and a discussion followed in which several members took part. Mr. LUCKHAM read notes on a case of extra-uterine gestation with unusual symptoms. Mr. ATKINSON read notes and showed temperature charts of a case of a boy who had suffered from intermittent fever following the bite of a kitten; it had been ascertained that the kitten had previously been playing with a dead rat. The illness was of several months' duration. It was mentioned that a similar case of rat-bite fever had been reported by Dr. Horder, of St. Bartholomew's Hospital, and also by Sir A. Wright at St. Mary's Hospital.

Demonstrations.—Mr. STRATON showed a pathological specimen, a uterus affected with deciduoma malignum. Dr. WILLIAMS-FREEMAN showed a case, a youth aged 20, suffering from dermatitis herpetiformis.

SOUTH MIDLAND BRANCH:

BUCKINGHAMSHIRE DIVISION.

Annual Report of Committee.

THE following is the report of the Committee; it is dated June, 1910:

The number of the members is 59, an increase of 5 during the year. There are only about half a dozen medical men practising in Bucks who do not belong to the British Medical Association.

Since the formation of the Division a year ago there have been five meetings, the attendance varying from 17 to 25—an average of 21. Scientific and professional discussions have been opened by Dr. Lauriston Shaw, Mr. William Turner, Dr. J. Shaw, and Dr. Hogarth, to whom the thanks of the members are tendered.

Other subjects to which the members have given their attention are: The medical inspection of school children, contract practice, ambulance lectures, the midwives question, guardians and payment of midwives' fees, and Poor Law reform.

At the last annual meeting the Division passed a resolution that steps should be taken to bring about a general acceptance of the sum of 5s. per annum as the minimum contract fee for adults. The Committee has taken no active steps in the matter, deeming it best to give ample time for the members to act on their own initiative. But the Committee thinks that the time has now arrived when it should, on the application of a member in any locality in the Division, take steps to secure the united action of the profession in the neighbourhood. It understands that in spite of the resolution passed a year ago there are places where fees of 4s. or less are still accepted, and it strongly urges that this should at once be terminated.

The question of treatment of school children is certain to come up sooner or later, and the Committee recommends that a Subcommittee be appointed to draw up a workable scheme so that this work can be done by the general practitioners at a remunerative rate.

A resolution was passed that if any further appointments were necessary to carry out the medical inspection of school children, the general practitioners should have an opportunity of doing the work. In spite of this the Bucks County Council have decided to appoint another whole-time officer, and the Committee regrets to note that medical members of the County Council supported this proposition. As the amount decided to be charged for each child was 2s. 6d., and as the Committee understands that this amount would lead to too great expense, it is recommended that this, in view of future possibilities, be reconsidered.

The amount received for the Entertainment Fund was £3 18s. A grant was made to our Representative to help defray his expenses at Belfast, and complimentary tickets were given to visitors at the annual dinner. There is a balance in hand of £1 12s. Several members have not contributed to this fund; it is hoped they will give their half-crown this year according to resolution passed by the Division.

Of the 59 members of the Division 36 have attended at least one meeting. It is much to be regretted that every member does not make an effort to put in an appearance at least once a year. The time of meeting has been fixed at an hour that provides every one an opportunity of coming. The railway time tables have been consulted, and some of those who seldom or never attend have the best train service. The Committee trusts that during the coming year they will be able to join actively in the work, as every year it is becoming more evident that medical men must take an active part in defending their interests.

The annual meeting this year will be held in London. Every member should try and attend, even if for only one day, as nothing gives a better insight into the useful work the Association is doing than attendance at an annual meeting.

Balance Sheet.—The following is the balance sheet:

Receipts.	£	s.	d.	Expenditure.	£	s.	d.
Received from Treasurer of South Midland Branch ...	6	0	0	Stamps and postage	1	16	8
				Stationery	0	11	2
				Printing, etc. ...	3	8	4
				Sundries	0	1	10
				Balance	0	2	0
	£6	0	0		£6	0	0

NORTHAMPTONSHIRE DIVISION.

THE annual meeting was held in the Board Room of the Northampton General Hospital on Tuesday, June 7th, at 2.30, after luncheon at Franklin's Restaurant. The following members were present: Drs. Maguire, Sedgwick, Cropley, Linnell, Evans, Chamberlain,

Milligan, Lloyd-Evans, Cobb, Digby-White, Terry, Grindon, Burt, Stewart, Hichens, Cooke, Wagstaffe. Dr. MAGUIRE took the chair, and then Dr. TERRY.

Confirmation of Minutes.—The minutes of the preceding meeting were read and confirmed,

Secretary's Annual Report.—The SECRETARY then presented the annual report of the Division for 1909. It stated that the number of members on December 31st, 1908, was 107; that six additions had been made (new members 3, through change of address 3), making an aggregate of 113, but that the Division had lost through change of address 2, through change of boundaries 15. The total deductions were 17, so that the membership on December 31st, 1909, was 96. The financial statement was as follows:

	£ s. d.		£ s. d.
Balance in hand, December 31st, 1908	17 17 10	Secretarial expenses	5 10 6
Grants received from Branch Council, at 1s. per head ...	4 16 0	Balance in hand, December 31st, 1909 ...	17 3 4
	£22 13 10		£22 13 10

The Division had held six meetings during the year; at five scientific or clinical matters were discussed, while at four medico-political or ethical matters received attention. Of social functions, six luncheons had been held, and the average attendance at the meetings amounted to 17⅔ members. The number of members who attended at least one meeting of the Division was 43; the Executive Committee had held one meeting. No matters of special local interest arose during the year. All the matters sent down from headquarters were discussed, and the Division was fortunate in having addresses by Dr. Thomas Wilson (Birmingham) on the operative treatment of uterine cancer, and by Professor Osler on the medical *versus* the surgical treatment of appendicitis, and also a clinical demonstration from him.

Election of Officers.—The following officers for the ensuing year were elected: *Chairman*, Dr. Terry; *Vice-Chairman*, Dr. Hichens; *Representative*, Dr. Baxter; *Deputy Representative*, Dr. Harries-Jones; *Honorary Secretary and Treasurer*, Dr. Hichens; *Division Representatives on Branch Council*, Drs. Digby-White, Greenfield, and Cooke; *Executive Committee*, Dr. Linnell, Darley, Grindon, Cropley, and Odgers; *Representatives on South Northants Nursing Club*, Drs. O'Rafferty and Darley.

Address by Dr. Fairbairn.—Dr. J. S. FAIRBAIRN, Assistant Obstetric Physician to St. Thomas's Hospital, then gave an interesting address on the treatment of eclampsia and allied diseases, which was discussed by Drs. Terry, Hichens, Grindon, Maguire, and Linnell.

Vote of Thanks.—Dr. MILLIGAN proposed a vote of thanks, which was seconded by Dr. LINNELL, and carried with acclamation.

Medical Representation in Parliament.—The SECRETARY then read a communication from the Chelsea Division advocating the support by special subscription of two medical members of Parliament. The Division did not think that the idea was feasible and advised that the communication should be laid on the table.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

THE fortieth annual meeting of the Branch was held at the Newport and Monmouthshire Hospital on Thursday, June 9th, 1910, at 4 p.m. Dr. GARROD THOMAS was in the chair, in the unavoidable absence of the President (Dr. J. Williams), and thirty-two other members were present. Expressions of regret at their absence were received from the following: The President, T. D. Griffiths, W. Sheen, Evan Jones, W. F. Brook, D. Arthur Davies.

Confirmation of Minutes.—The minutes of the last annual meeting were read and signed by the CHAIRMAN as correct.

Report of Council.

The report of the Council, having been previously sent to members, was taken as read and adopted. The following is the text:

Four meetings were held during the year, the spring meeting at Brecon having the good attendance of 46 members, the average attendance being 34. Last year the average attendance was 28.

The Council held six meetings, receiving at each a report from the Contract Practice Committee. The other work of the Council has been chiefly of a routine character. The average attendance was 12.

The financial position of the Branch is, owing to the diminished grant from the Central Council (2s., instead of 4s.), a matter that requires attention, and the Council have thought it necessary to apply to the Central Council for an extra grant, either to the Branch as a whole or those Divisions which at the present time are unable to meet their expenses.

Representation on Central Council.—Hitherto the Branch has returned two members to the Central Council; under the new scheme to come into force this year the South Wales Branch will, jointly with the North Wales and Mid-Wales and Shropshire Branches, elect one member. The voting papers will be issued from headquarters in a few days, and the Branch Council hope members will exercise their vote and fill up and return their papers.

Forty-five new members were elected during the year—an increase of 18 above the preceding year; 6 members were lost by death, 36 by change of residence, resignation, etc. The total membership at the end of the year is 553.

Financial Statement.—The TREASURER presented the following balance sheet for the year 1909, and moved its adoption:

Receipts.	£ s. d.	Expenditure.	£ s. d.
1908.—December 31st—Balance ...	78 0 7	Grants to Divisions—	
1909. — Capitation Grants received from Head Office	57 2 0	Cardiff	15 19 6
		Monmouthshire ...	14 5 9
		North Glamorgan	10 16 0
		Swansea	9 9 0
		South-West Wales	9 11 3
		Secretarial Expenses—Printing, Postage, Clerical Aid, etc.	29 18 6
			90 0 0
		Balance — December 31st, 1909	45 2 7
	£135 2 7		£135 2 7

The adoption of the statement was seconded by Dr. NAUNTON MORGAN and carried.

Report of Contract Practice Committee. — Dr. MACLEAN (Honorary Secretary) read the Report of the Contract Practice Committee—an eloquent, luminous, and detailed review of its work during the year. Dr. W. G. THOMAS (Chairman of the Committee) moved the adoption of the report; this was seconded by Dr. GARROD THOMAS, supported by Dr. CRAWFURD TREASURE, and unanimously carried.

Central Council.—In the absence of the representatives on the Central Council their report was omitted.

Election of Officers.—The following were then, on the nomination of the Council, elected to office for the year 1910–11: *President-elect*, Cornelius Biddle; *Honorary Treasurer*, Thomas J. Webster (re-elected); *Honorary Secretaries*, Alfred Hanson and W. E. Thomas (re-elected).

Installation of New President.—The CHAIRMAN (Dr. Garrod Thomas), in the absence of the President, then introduced the new President, Dr. J. Glendinning, congratulating him on his election to the chair and wishing him a successful year of office. Dr. GLENDINNING expressed his very sincere thanks for the honour done him.

Vote of Thanks to Ex-President.—The PRESIDENT moved:

> This annual meeting of the South Wales and Monmouthshire Branch hears with regret of the indisposition of Mr. D. J. Williams (Ex-President), accords him a hearty vote of thanks for his excellent services in the chair during the past year, and hopes he may speedily be restored to health.

This was seconded by Dr. WEBSTER and unanimously carried.

The late Dr. Fiddian.—Dr. THOS. J. WEBSTER moved:

> That a vote of condolence and sympathy be sent to the family of the late Dr. A. P. Fiddian, of Cardiff, an ex-President of the Branch.

This was carried *sub silentio*, all the members present rising.

President's Address.—The PRESIDENT then delivered his address, The Accumulation of the Insane in County and Borough Asylums. Dr. GARROD THOMAS then moved:

> That a hearty vote of thanks be accorded the President for his instructive and interesting address, which this meeting hopes he will see his way to publish.

This was seconded by Dr. C. BIDDLE, and being carried with acclamation, terminated the meeting.

Annual Dinner.—The President and seventeen members and friends were afterwards present at the annual dinner, which successfully wound up the proceedings of the day.

CARDIFF DIVISION.

THE annual meeting of the Cardiff Division was held on May 27th.

Election of Officers.—The following appointments were made for the ensuing year: *Chairman*, J. Tatham Thompson, M.B.; *Vice-Chairman*, Ewen J. Maclean, M.D., M.R.C.P., F.R.S.Edin. *Representatives on the Branch Council*, J. Tatham Thompson, J. Powell, D. R. Paterson, W. B. Crawford Treasure, C. Milward, J. J. E. Biggs, and Charles Reidy; *Executive Committee*, F. W. G. Davies, E. Brierley, K. Mackenzie, and E. Tenison Collins; *Representatives on Branch Contract Practice Committee*, C. Milward, W. W. Leigh, and K. Mackenzie; *Representative of Division at Representative Meeting*, Ewen J. Maclean; *Secretaries*, Cyril Lewis, 27, Windsor Place, Cardiff; Owen L. Rhys, 22, St. Andrews Crescent, Cardiff.

MONMOUTHSHIRE DIVISION.

THE annual meeting of this Division was held at Newport on May 27th. Dr. O. E. B. MARSH was in the chair, and twenty-five members were present.

Apology for Non-attendance.—An apology was received from Dr. Howard Jones.

Confirmation of Minutes.—The minutes of the meetings held on February 25th and March 18th were read and confirmed.

Election of Officers.—The following were elected officers for the ensuing year: *Chairman*, Dr. A. G. LAWRENCE was unanimously elected Chairman, and, having taken the chair, thanked the meeting for the honour; *Vice-Chairman*, Dr. H. C. Bevan; *Honorary Secretaries*, Drs. R. J. Coulter and S. Hamilton; *Representatives on Branch Council*, Drs. O. E. B. Marsh, W. F. Nelis, G. A. Brown, H. S. Elworthy, and W. Basset; *Executive Committee*, Drs. R. W. Haslett, R. A. Cowie, J. L. Thomas, and V. A. Crinks; *Representatives on Branch Contract Committee*, Drs. J. W. Mulligan, D. T. Richards, and W. J. Greer.

Report of Executive Committee.—The report of the Executive Committee was read and adopted.

Dates of Meetings.—Meetings were arranged for the ensuing year at Chepstow on July 7th, at Abergavenny on September 30th, at Newport on November 25th, at Pontypool on February 24th, 1911, and at Newport on May 26th, 1911 (annual).

Correspondence.—A letter was read from the Honorary Secretary of the Western Valleys Medical Association protesting against the proposed scheme of the Cwmtillery Workmen's Doctor's Fund for the payment of their medical officer by salary instead of by poundage, and it was reported that the Division had already taken action in the matter.

Address by Dr. Mott.—A letter was read from the Honorary Secretary of the Eastern Valleys Medical Association inviting the members of the Division to be present at an address by Dr. Mott, on the Significance of Pain, at Pontypool on June 23rd.

Vote of Thanks.—A vote of thanks was passed to the directors of the Newport and Monmouthshire Hospital for allowing meetings of the Division to be held in their board room.

A special meeting of this Division was held at the Newport and Monmouthshire Hospital on June 10th. Dr. A. G. LAWRENCE (the Chairman) presided, and twelve members were present.

Special Representative Meeting.—The business of the Special Representative Meeting was considered, and the following resolution was unanimously passed:

> That the Representative of the Division be instructed to support the proposals of the Central Council at the Special Representative Meeting, and be given power to act as may seem fit to him on matters of detail.

Parliamentary Representation.—The proposal of the Chelsea Division on this subject was discussed, and was considered desirable but impracticable.

STAFFORDSHIRE BRANCH:

SOUTH STAFFORDSHIRE DIVISION.

THE annual meeting of the Division was held in the Bell Library, General Hospital, Wolverhampton, on Friday, June 17th, Mr. CHOLMELEY in the Chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Election of Officers.—The following officers were elected for the ensuing year: *Chairman*, Dr. Malet; *Vice-Chairman*, Dr. Clendinnen; *Secretary*, Dr. Mactier; *Three Representatives on Branch Council*, Dr. Bailey, Mr. Cholmeley, and Mr. Deanesly; *Three Members of Executive of Division*, Dr. Badger, Mr. Cridland, and Dr. Somerset.

Matters Referred to Division.—The matters referred to the Divisions in the SUPPLEMENT of May 28th were discussed, and the Representative was instructed to use his own discretion in voting at the Special Representative Meeting on June 28th.

ULSTER BRANCH.

ANNUAL MEETING.

THE thirty-second annual meeting of the Branch was held in the Medical Institute, Belfast, on Thursday, June 2nd, at 4 p.m.; Dr. MOORHEAD (Cootehill), President, in the chair.

Apologies for Non-attendance.—Apologies were received from Drs. Calwell and Murray (Belfast).

Annual Report.—The annual report and statement of accounts of the Branch was presented and adopted on the motion of Mr. R. J. JOHNSTONE, seconded by Dr. AGNEW (Lurgan). It stated that the membership of the Branch now stood at 406, being the first time that it had exceeded 400. The accounts showed a balance in the Treasurer's hands of £40 11s. 1d. The Council wished to put on record the general satisfaction felt at the successful issue of the labours of those concerned in organizing the arrangements for the Belfast meeting of the Association in 1909, and renewed their congratulations to the President (Sir Wm. Whitla) and to those responsible.

Election of Office-bearers.—The following were then elected as office-bearers for the year 1910–11: *President*, Dr. Wm. Calwell; *Secretary*, Mr. R. J. Johnstone; *Treasurer*, Dr. J. S. Darling; *Country Representative on Irish Committee*, Dr. J. G. Cooke (Londonderry).

Report of Council.—The report of Council was read by the HONORARY SECRETARY (Dr. Cecil Shaw). It stated that two meetings had been held since the last general meeting, at which Drs. J. M'Ilroy (Belfast) and Catherine Boyd (Carnmoney) were elected members of the Association. The finances of the Branch had received careful consideration, and, owing to the reduction of the grant from the central authorities, the following resolution had been passed:

> That the secretary of each Division furnish to the spring meeting of the Branch Council an estimate of the allowance per head required to meet the expenses of his Division, and that the Branch Council make their grant to the Division on this estimate.

Myomectomy during Pregnancy.—In a paper on this subject Sir JOHN BYERS gave an account of two cases in which he had removed fibroid tumours from pregnant uteri without interruption of gestation. In one

of the cases the tumour—which was the size of a fetal head at term—was removed at the beginning of what was the third month of pregnancy, while in the other patient, who was 41 years of age, the growth was as large as the closed fist, and was removed at the fifth month. While the main indications for myomectomy during pregnancy are pressure, impaction, and severe pain, Sir John Byers said various forms of degeneration—especially the red variety—might occur, and he had seen serious symptoms arise from the presence of a fibroid in an involuting uterus. The main risks of doing a myomectomy during pregnancy were (1) haemorrhage, which was to be avoided by incising in the middle line, by cutting within, and not into, the capsule of the tumour, and by the use of forceps, plugging, or by underpinning the bleeding parts by catgut; and (2) abortion, which might be prevented first by interfering with the uterus as little as possible beyond removing the growth, and by the exhibition of morphine before and after the operation.

Streptococcic Throat.—Sir JOHN BYERS gave an account of a sore throat which occurred in the case of a boy aged 6½ years in March last, when scarlatina was so prevalent in Belfast. It resembled a diphtheritic throat, except that clinically the exudation kept to the tonsils, and it was exactly like a scarlatina angina but there was no accompanying rash and no subsequent desquamation. Bacteriologically, the exudation was found to be due to the streptococcus, probably the *anginosus* variety. The child gradually got better, and no other member of the family was affected. Sir John Byers said the case was of interest as it might have been mistaken for scarlatina or diphtheria, which the clinical history and the bacteriological examination both disproved. Other cases of a similar nature had occurred, he understood, in some adults about the same time as the boy was ill and they were shown also to be due to the streptococcus. Criticisms of the paper were made by Drs. SIMPSON and DARLING.

Midwives Act.—Sir JOHN BYERS moved, and Mr. R. J. JOHNSTONE seconded, the following resolution:

> That in the opinion of the Ulster Branch the scope of the existing Midwives Act of 1902 with the amendments as now proposed should be extended so as to include Ireland.

Dr. SIMPSON proposed and Dr. FRAZER seconded an amendment:

> That the consideration of the matter be postponed till the next meeting of the Branch.

After some discussion, in which Drs. DEMPSEY, DARLING, ST. GEORGE, and CLEMENTS took part, the amendment was lost, and the motion was then carried unanimously.

The Tuberculosis Prevention (Ireland) Act, 1908.—Dr. AGNEW read a paper on this subject. After sketching the rise and progress of the antituberculosis movement in Europe and America, and mentioning the repeated efforts of the Irish Local Government Board to arouse boards of guardians and sanitary authorities to interest themselves in the struggle, and to the necessity that existed in Ireland for extra and sustained exertions, owing to the unfortunate position occupied by this country in the mortality rates, he particularly drew attention to the great wave of enthusiasm that had spread over the island in consequence of the establishment of the Women's National Health Association, an organization originated by Her Excellency the Countess of Aberdeen, the wife of the Lord Lieutenant, in the spring of 1907. Under the auspices of this association a tuberculosis exhibition was held in Dublin, which afterwards visited most of the provincial towns, where intense interest was excited in the movement. It was the determining factor in stimulating the people to a vigorous struggle to overcome the disease as well as an inducement to the Government to introduce special legislation to combat it. Members of the County Council's general council, attending on behalf of local authorities, a large and influential deputation from the medical and other professions, and the representatives of urban and rural authorities, and of voluntary associations, headed by the Countess of Aberdeen, as President of the newly-formed Women's Health Association, waited on the Lord-Lieutenant and the Chief Secretary, and pressed strongly upon them the necessity of dealing with the subject, and suggesting the lines upon which legislation should proceed. The points specially urged upon the Irish Government by these representative deputations were:

1. Compulsory notification of tuberculosis.
2. More stringent control over the milk and meat supplies.
3. The establishment of county sanatoriums, hospitals, and dispensaries for consumptive patients.
4. Medical inspection of schools and school children.

In response to this unanimous demand the Government introduced a bill which, after a good many vicissitudes, became an Act of Parliament under the name of the Tuberculosis Prevention (Ireland) Act, 1908, which came into force on July 1st, 1909. The Act was divided into three parts. Part I deals with the notification of tuberculosis and the disinfection of premises and articles likely to retain the infection of tuberculosis, and only takes effect in the districts of such sanitary authorities as decide to adopt its provisions, subject to the approval of their county councils. Part II empowered the councils of counties and county boroughs to establish and manage hospitals, sanatoriums, and dispensaries for the treatment of persons suffering from tuberculosis; and Part III contained various sanitary provisions intended to prevent the spread of tuberculous disease, and afforded facilities for public instruction on subjects relating to tuberculosis, and for improved supervision over the public meat and milk supplies. Provision was made for the appointment of bacteriologists by county councils, and power was given to make any duly qualified veterinary surgeon, approved by the sanitary authority, a sanitary officer under the Public Health Act (1878) for the purposes of Section 132 of that Act—that is, as an inspector of food and meat. In the original draft of the bill, as introduced into Parliament, the notification of tuberculosis was to be applicable to all Ireland without adoption, but political exigencies forced the Government to yield to a certain section who would make its adoption dependent on the approval of the county councils. The consequence of this limitation has been that it had only been partially adopted, and any beneficial results likely to accrue from the Act had become consequently much restricted. It was further left to the Local Government Board, after consultation with the Presidents of the Royal Colleges of Physicians and Surgeons in Ireland, to prescribe the forms and stages to which and the circumstances in which the provisions of the Act as to notification should apply. Considering the previously expressed opinions of the Local Government Board, it was believed by those who were leading the movement that this reservation was perfectly safe, and it was with considerable astonishment that it was found on promulgation of the Orders of the Local Government Board relating to notification that the restrictions placed upon notifiable disease were entirely illusory. By Section 2 of the Act only those forms of tuberculosis were made notifiable which, by reason of infective discharges, were liable to communicate the disease to other persons. This, of course, had been restricted to cases of tuberculosis of the lung, and entirely to those cases in which there was immediate risk of infection—that is to say, the patient must *habitually* sleep or work in the same room as some other person or persons not so suffering; or be employed or engaged in handling, preparing, or distributing milk, meat, or any other article of human food intended for sale to the public. Unless a patient *habitually* slept or worked in the same room as unaffected persons the case was not notifiable. If a husband and wife occupied the same room, and both were consumptive, neither case was notifiable. If only one was affected, the medical attendant must notify it. Similarly with two brothers or sisters, or any two sleeping or working together. Before a doctor was in a position to notify

a case he must satisfy himself that the patient was living under conditions in which he was exposing some other person who had not got consumption to the risk of catching it. If a patient who was living under conditions that made his case a notifiable one, came to a physician who, immediately on recognizing the case, advised the patient as to the risk to which he was exposing others, and the patient forthwith altered the conditions, the case ceased to be notifiable. As a matter of fact, only those cases which were in the last stage of consumption really complied with the conditions. A young girl who had been very ill for several months, but slept in a room by herself, became so ill during her last week that her mother put up another bed in the room, so as to be near her at night. The case thus became notifiable. A similar thing occurred with a young man, where his father, during the last days of his illness, slept in a room with him, so that the case only became notifiable a few days before his death; and yet this young man had been for three years expectorating profusely, but, acting on advice, had neither slept or been working with any one. Bacteriologists might be appointed by county councils, but there was not much probability of such being done except in the case of county boroughs. If such an officer was appointed, a medical practitioner who resided in any sanitary district within the county, and who was in doubt as to the diagnosis of a patient whom he thought to be consumptive, was permitted to send forward a specimen of sputum, *but only when the case was otherwise a notifiable one*. Tuberculous dispensaries might with profit be established not only in county boroughs but also in certain populous towns throughout the country; but the expenses of such had to be defrayed out of the general funds of the county, and there was very little prospect of a county council establishing a tuberculosis dispensary for the benefit of a small and limited area within the county and asking the general ratepayers of the county to defray the expenses thereof. An effort was made to give veterinary surgeons an official position under the Public Health Act, and this had been further secured by the issue of a new Order under the eleventh Section of that Act, creating a new sanitary office, that of Veterinary Inspector, who was given complete supervision of the Dairies, Cowsheds, and Milkshops Order, an Order which was made under the Diseases of Animals Act, but being intended for public health purposes, was entrusted to the sanitary authorities. By this arrangement the medical officer of health was practically completely ousted from a position in which his services would have been highly advantageous. The supervision of the milk supply would have been carried out far more effectually had the Local Government Board definitely and clearly assigned the medical officer of health to his proper position, and given him the complete supervision of the dairies' order, as well as made him responsible for the proper discharge of his duties by the dairy inspector, who was nearly always the sanitary subofficer, at the same time making reasonable provision for the inspection of the cattle by a veterinary surgeon. They had just as much power to assign duties under the Order to the medical officer of health as to their newly-created sanitary officer, the veterinary inspector. The weak-kneed administration of the Public Health Acts was almost entirely responsible for the unenviable position occupied to-day by Ireland in regard to tuberculosis. Had these Acts been administered with as much activity in Ireland as in England or Scotland there would be a very different tale to unfold. The experience of the Vaccination Act showed that the Irish fell in with ideas of preventive legislation with as much docility as either the English or Scottish and a great deal more so. The condemnation of the miserable hovels in which the lower classes were forced to live would have only stimulated the sanitary authorities to take advantage of the facilities that were extended to them for erecting healthy labourers' dwellings and have thereby improved the whole atmosphere surrounding the lives of the working classes. Had the Notification Act been made compulsory as it was in England and in Scotland its provisions would have been accepted without a murmur. For years the entire press of this country had been using every opportunity to spread the gospel of preventive medicine, and all that was wanted was a little courage on the part of the responsible Government.

Multilocular Ovarian Cyst.—Dr. Dempsey exhibited a large multilocular ovarian cyst which he had removed ten days previously from an unmarried woman, the solid and liquid contents of which weighed 63 lb. The tumour had been present for nine years, and had attained an enormous size. The patient was progressing favourably.

Ovarian Cyst with Twisted Pedicle.—Dr. Dempsey also showed an interesting specimen of an ovarian cyst with twisted pedicle. The pedicle was twisted into a hard cord, the vessels were occluded, and it was on the point of becoming gangrenous, though surrounded by many adhesions. The vermiform appendix was attached to it, and was removed through the central incision. The cyst was about the size of a cricket ball, and its existence was made known to the patient some months previously by Dr. Dempsey, who, on account of its long pedicle and free mobility, recommended its removal. The patient did not consent until she had had five very severe attacks of pain and vomiting at intervals of some weeks. Each attack had evidently been due to further torsion. The last one was the most severe, and laid her up for more than a week. The case showed the necessity for early operation in cysts of the ovaries, especially if felt to be bobbing about on a long, slender pedicle.

Tubal Abortion.—Dr. Dempsey showed a Fallopian tube removed a few days before from a woman who gave a history of tubal abortion some months previously. The ampulla was considerably dilated, was adherent to the rectum, and contained grumous material. There was matting of the intestines around the tube, and small loculi after separating the adhesions seemed on the point of suppurating. Dr. Johnstone took charge of the specimen for microscopical examination.

Bony Growth from Atlas.—Professor Sinclair read notes of a case of bony growth arising from the arch of the atlas and obstructing the naso-pharynx in a girl of 16. The growth was attacked by the mouth with a special chisel after first splitting the velum palati, and was removed, the anterior arch of the atlas coming along with it. The patient recovered without any bad symptom, and the palate had healed.

Specimens.—Dr. John Campbell showed the following specimens:

1. A uterus removed by Wertheim's method for cancer of the cervix, showing the great advantage of this method over vaginal hysterectomy.
2. A uterus removed by vaginal hysterectomy on account of fibrosis uteri.
3. A uterus removed by vaginal hysterectomy, showing numerous small intramural fibroids and malignant adenoma of the endometrium.
4. A uterus removed by vaginal hysterectomy, on account of a fibrifying sarcoma of the cervix. There was also a cystic tumour containing old blood clot in the pouch of Douglas.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH:

Hereford Division.

The annual meeting of this Division was held on June 15th.

Election of Officers.—The following were elected officers for the ensuing year: *Chairman*, J. Oswald Lane, M.D.; *Vice-Chairman*, Mr. Q. R. Darling; *Honorary Secretary and Treasurer*, Mr. Arthur Wood; *Representative*, Mr. Arthur Wood.

Worcester Division.

The annual meeting was held at the General Infirmary, Worcester, on Friday, June 10th, at 4.30 p.m. The following members were present: Drs. Bertram

Addenbrooke, T. Bates, jun., S. Wellesley Coombs, J. J. Cowan, A. O. Holbeche, Shirley Jones, C. Pollard, Mabyn Read, R. T. Slinger, J. Lionel Stretton, William C. Thompson, and H. Neville Crowe (Honorary Secretary). In the absence of the Chairman (Dr. George W. Crowe) the chair was taken by Dr. A. O. HOLBECHE.

Confirmation of Minutes.—The minutes of the previous annual meeting were read, confirmed, and signed.

Letter from Vice-Chairman.—A letter was read from the Vice-Chairman (Dr. W. Moore, Stourport) regretting that he was unable to act as Chairman in the coming year. His decision was received with regret by the members present.

Apologies for Non-attendance. — Apologies for absence were received from Dr. George W. Crowe (Chairman), Drs. H. E. Dixey, S. L. Haynes, E. B. Ffennell, T. P. Gostling, S. Colen Legge, and E. S. Robinson.

Election of Officers.—The following officers were elected for the year 1910–11: *Chairman*, J. Lionel Stretton, Esq. (Kidderminster); *Vice-Chairman*, Dr. H. A. Watson (Worcester); *Honorary Secretary*, Dr. H. Neville Crowe (re-elected); *Representative of the Division at Representative Meetings*, Dr. H. Neville Crowe; *Representatives of Division on the Branch Council*, Drs. Bertram Addenbrooke, W. G. Bennett, C. H. East, H. O. Holbeche, Shirley Jones, A. H. Martin, Mabyn Read, and E. S. Robinson.

Special Representative Meeting.—The agenda of the Special Representative Meeting to be held on June 28th (SUPPLEMENT, BRITISH MEDICAL JOURNAL, May 28th) was considered and the Representative instructed thereon.

Annual Representative Meeting.—The provisional agenda of the Annual Representative Meeting (SUPPLEMENT, BRITISH MEDICAL JOURNAL, May 21st) was considered and the Representative instructed thereon.

YORKSHIRE BRANCH:

HARROGATE DIVISION.

THE annual meeting of the Division was held at the Hotel Majestic, Harrogate, on Thursday, May 26th, at 8.30 p.m., Dr. BAIN in the chair. There were also present: Drs. Grange, Black, Bowman, Crawford Watson, Solly, Green, Johnston, Edgecombe, David Brown, Durward Brown, Ray, Mantle, Pringle, Nimmo Watson, Wilson, Bertram Watson, Boyd, Nixon, and Gibson. Drs. Mair, Ryan, and Appleby, and Mr. Buckland attended the meeting as visitors.

Confirmation of Minutes.—The minutes were read and confirmed.

Election of Officers.—The following officers were elected for the ensuing year: *Chairman*, Dr. Crawford Watson; *Vice-Chairman*, Dr. D'Oyley Grange; *Honorary Secretary*, Dr. Gibson; *Representative for Representative Meetings*, Dr. Gibson; *Representative for Branch Meetings*, Dr. Solly; *Executive Committee*, Drs. Chamberlain, Collier, Daggett, Garrad, Holroyd, Lever, Mackay, Rutherford, Solly, Crawford Watson, and Bertram Watson.

Poor Law Reform.—The questions with regard to the Poor Law were considered. The report on the relation of homoeopaths was discussed, and replies prepared.

Medical Inspection of School Children.—The medical inspection of school children was referred to the Committee.

Instruction in First Aid.—A discussion took place with regard to instruction in first aid field nursing to voluntary aid detachments, and it was proposed that ambulance work should be treated as a matter of business and not philanthropy, such work having been previously gratuitous.

The Charter.—It was moved that the Royal Charter be considered and reported on by the Committee.

Dinner.—Fifteen members and friends dined together previous to the meeting at 7 p.m.

British Medical Association.

SEVENTY-EIGHTH ANNUAL MEETING, LONDON, JULY 22nd–29th, 1910.

THE SECTIONS.

THE scientific business of the meeting will be conducted in twenty-one Sections, which will meet on Wednesday, July 27th, Thursday, July 28th, and Friday, July 29th.

The following additional information has been received between June 16th and 21st.

ANAESTHETICS.

President: FREDERIC WILLIAM HEWITT, M.V.O., M.D., London.

Vice-Presidents: DONALD C. A. MCALLUM, Edinburgh; GEORGE ROWELL, F.R.C.S., London; ALEXANDER WILSON, F.R.C.S., Manchester.

Honorary Secretaries: Miss ADA M. BROWNE, L.S.A., 64, Belsize Park, N.W.; WILLIAM JOSEPH MCCARDIF, M.B., 89, Cornwall Street, Birmingham; HERBERT J. SCHARLIEB, C.M.G., M.D., 49, Wimpole Street, W.

Thursday, July 28th.—11 a.m., Discussion on The Prevention and Treatment of Surgical Shock during Inhalation Anaesthesia. To be opened by Dr. Crile, and Messrs. G. Rowell, Lockhart Mummery, and J. D. Malcolm; followed by Professor Leonard Hill, F.R.S., Messrs. H. J. Paterson, Bellamy Gardner, and Dr. Stuart V. Stock.

The following is a synopsis of Dr. CRILE'S opening paper:

The tearing, crushing type of trauma and the exposure to the air are particularly shock-producing, and are, to a large degree, under technical control. A knowledge of the comparative shock-value of the various tissues often permits the shifting of the burden of trauma to the more nearly neutral tissues. Whenever possible, the large nerve trunks should be blocked by an intraneural injection of cocaine prior to operation upon them or upon the fields they supply. The loss of blood is an active predisposing cause of shock. Rapid division of large masses of tissue, especially if attended by massive trauma of the wound—for example, the quick and rough hip-joint amputation—under certain circumstances causes more shock than when done in less haste, in a more orderly manner and with lighter touch. If available, mechanical pressure, evenly applied upon the extremities and the abdomen, is a valuable aid to the maintenance of the circulation of the head and chest. In desperate cases a direct transfusion of blood is an efficient method of preventing the failure of the circulation. There is apparently less shock in operations under nitrous oxide anaesthesia than under ether, and the combination, under certain circumstances, of general and of local anaesthesia is the least shock-producing.

GYNAECOLOGY AND OBSTETRICS.

President: Mrs. MARY A. D. SCHARLIEB, M.D., London.

Vice-Presidents: JOHN W. BALLANTYNE, M.D., Edinburgh; COMYNS BERKELEY, M.B., London; Professor JOHN A. C. KYNOCH, M.B., Dundee; THOMAS WILSON, M.D., Birmingham; THOMAS H. WILSON, F.R.C.P.I., Dublin.

Honorary Secretaries: W. BLAIR BELL, M.D., 7, Rodney Street, Liverpool; JOHN PRESCOTT HEDLEY, M.B., 11, John Street, Berkeley Square, W.; CARLTON OLDFIELD, M.D., 32, Park Square, Leeds.

The following provisional programme has been arranged:

Wednesday, July 27th.—Discussion on Dysmenorrhoea, its Causes and Treatment. To be opened by

Dr. G. E. Herman, followed by Drs. W. E. Fothergill, Inglis Parsons, Curtis Webb, and others.

Papers:

DÖDERLEIN, Professor D. (Munich). Die Entstehung und Verhütung des Puerperalfiebers. Discussed by Dr. A. G. R. Foulerton and others.
CAMPBELL, Dr. John (Belfast). Air Embolism during Labour.
MUNRO KERR, Dr. J. M. (Glasgow). Additional Cases of Rupture of the Uterus.
YOUNG, Dr. James (Edinburgh). The Structure of the Stroma of the Uterine Mucous Membrane and its Bearing on the Menstrual Changes.

Thursday, July 28th.—Discussion on the Treatment of Fibromyomata Complicating Pregnancy. To be introduced by Dr. W. W. H. Tate, followed by Mr. Stanmore Bishop, Drs. A. J. Wallace, J. H. Willett, and others.

Papers:

LOCKYER, Dr. Cuthbert (London). Some Cases of Pregnancy Complicated by Fibromyoma Uteri.
GOTTSCHALK, Professor S. (Berlin). Two Cases of Occlusion of the Bowels by the Retroverted Uterus.
LEITCH, Dr. Archibald (Dundee). The Pathological Basis of Operations on Cancer of the Uterus.
IVENS, Dr. Frances (Liverpool). Localized Necrosis in an Adenomyomatous Right Tube associated with Left Tubal Mole.

Friday, July 29th.—Papers:

NAGEL, Professor W. (Berlin). The Operative Treatment of Uterine Fibroids.
HERFF, Professor Von (Basle). The Causal Treatment of Dystocia in cases of Pelvic Contraction.
MCILROY, Dr. A. Louise (Glasgow). The Surgical Treatment of Fibrosis of the Uterus.
WALLACE, Dr. A. J. (Liverpool). Intraperitoneal Haemorrhage in Cases of Fibromyoma Uteri.
LONGRIDGE, Dr. C. Nepean (Cheltenham). The Involution of the Puerperal Uterus.

It has been arranged for a section of the Pathological Museum to be specially set aside for the exhibition of specimens, microscopic slides, photographs, etc., relating to Adenomyoma of the Uterus. The Committee will also be glad to receive other specimens of interest.

PHARMACOLOGY AND THERAPEUTICS.

President: Professor ARTHUR ROBERTSON CUSHNY, M.D., F.R.S., London.

Vice-Presidents: EDMUND H. COLBECK, M.D., London; ROBERT HUTCHISON, M.D., London.

Honorary Secretaries: ARTHUR FREDERICK HERTZ, M.D., 1, Weymouth Street, Portland Place, W.; DOUGLAS CHALMERS WATSON, M.D., 22, Coates Crescent, Edinburgh.

The programme, as at present arranged, is as follows:

Wednesday, July 27th.—Discussion on Treatment with Lactic Acid Organisms. To be opened by Drs. O. F. F. Grünbaum, R. Tanner Hewlett, Alexander Bryce and Vaughan Harley; followed by Drs. Saundby, Willcox, T. D. Luke, Craven Moore, George Herschell, and others.

Thursday, July 28th.—Discussion on the Effect of Digitalis on the Human Heart. To be opened by Professor Wenckebach of Gröningen, Dr. James Mackenzie, Dr. Thomas Lewis, and Dr. H. H. Turnbull; followed by Professor Huchard (Paris), Sir Lauder Brunton, Professor Faust (Würzburg), Drs. Windle, Gossage, and others.

The following are synopses of the papers by Dr. T. Lewis and Dr. H. H. Turnbull:

(*a*) Dr. T. LEWIS: Auricular fibrillation and the action of digitalis as it is observed clinically. A brief outline of fibrillation as it is met with in man and as it is seen experimentally. The known methods of slowing the action of the ventricle while the auricle is fibrillating. The action of the vagus and of damage to the auriculo-ventricular bundle. Complete section and the production of haemoglobin by asphyxia. Digitalis slowing in cases of auricular fibrillation. Frequency of occurrence. Type of case in which it occurs. The known action of digitalis in producing heart-block. Slowing with retention of irregularity. Slowing with return of pulse to a regular rhythm.

(*b*) Dr. H. H. TURNBULL: The results of the study of the therapeutic action of digitalis on a number of different types of case will be recorded. In this investigation special attention was paid to the dose of the tincture of digitalis necessary to produce the full physiological effect, to the character of the effects produced, and to the varying reactions shown by different forms of cardiac disease under the influence of full doses of the drug.

Papers:

MEYER, Professor Hans (Vienna). Lime Salts.
UNNA, Professor P. G. (Hamburg). The Chemistry of Chrysarobin and its Effect upon the Skin.

Other papers from Dr. Fortescue-Brickdale, Dr. Crichton Miller, Professor Dixon, Dr. H. H. Dale, Professor Faust, and Dr. Ninian Bruce, have been accepted.

PHYSIOLOGY.

President: Professor WILLIAM H. THOMPSON, M.D., Dublin.

Vice-Presidents: JOHN SCOTT HALDANE, M.D., F.R.S., Oxford; Professor PERCY THEODORE HERRING, M.D., St. Andrews, N.B.

Honorary Secretaries: T. GRAHAM BROWN, M.B., Physiological Department, University, Glasgow; J. STRICKLAND GOODALL, M.B., Physiological Laboratory, Middlesex Hospital, W.

The following programme has up to now been arranged:

Wednesday, July 27th.—Opening remarks by the President, Professor W. H. Thompson. Discussion on the Food Requirements of Man for Sustenance and Work. To be opened by Lieutenant-Colonel Melville, R.A.M.C.; followed by Professor J. G. Hopkins, Professor Haldane, Dr. M. S. Pembrey, Dr. Robert Hutchison, Dr. Chalmers Watson, and others.

Thursday, July 28th.—Discussion on the Factors that make for an Efficient Circulation. To be opened by Professor E. A. Schäfer; followed by Messrs. Geo. Oliver, M. S. Pembrey, J. Mackenzie, Professor Starling, Dr. Hill, Professor McWilliam, and Dr. Ivy Mackenzie.

The following is an abstract of Professor E. A. SCHÄFER's paper:—

In considering the factors which make for an efficient circulation our attention is naturally directed in the first instance to the heart and blood-vessels since the efficiency of the circulation depends immediately upon the conditions of these organs. But as their condition depends in large measure upon the condition of the nervous system and this upon the state of nutrition of the body and upon other circumstances which are at present imperfectly understood, the subject which is put down for discussion is wider than might at first sight appear. I propose, however, in the meantime to restrict my remarks to the circumstances which more immediately affect the circulatory mechanism under normal conditions. The effective action of the heart varies (1) with its rate of rhythm, (2) with the force of the individual beats, (3) with its condition of tone. All these conditions are influenced through the cardiac nerves, by the nervous system. By way of the vagi, influences pass which moderate the rate, diminish the force, and lower the tone; by way of the sympathetic, others which make the rate of contraction more frequent and the individual beats more powerful, and which increase the tone of its musculature. The proper balance of these opposite effects, in accordance with the variations in the work which the heart at any given time is called upon to perform, must be looked upon as one of the most important factors in the maintenance of the efficiency of the circulation. The influences which reach the heart by way of the central nervous system do not originate in the cardio-inhibitory and cardio-accelerator centres. These are themselves excited to

action by impulses which come to them from the periphery, or from higher nerve centres, the ultimate source of excitation being in the latter case also, probably, peripheral. These impulses come from all parts: from the skin and other sense organs, from the viscera, from muscles and tendons and serous membranes, from the blood vessels, and even from the heart itself; they may or may not be accompanied by conscious sensation. According to the manner in which they affect the heart-regulating centres, the cardiac contractions are caused to vary so as to promote under the given conditions the efficiency of the circulation to the best advantage. The action of the heart is also affected by the condition of the respiratory system, along with which may be included the tone of the abdominal muscular wall. The importance of this as a factor in the maintenance of the circulation was shown by the experiments of Dr. Leonard Hill and his co-workers. The respiratory apparatus acts by facilitating the flow of blood to the thorax, and thus to the heart. Within limits the greater the rate of blood flow to the heart the more efficient will be the circulation, for the heart is a machine which reacts to the amount of work thrown upon it in the same way that a gas engine, by more frequent explosions of its gases, produces a greater amount of energy in proportion to the resistance which it has to overcome. But in the case of the heart the response to increase of resistance does not take the form of increased rate of rhythm; the rate of rhythm tends, indeed, rather to diminish with increase of arterial pressure. This is a regulating effect produced through the vagi. On the other hand, increase of pressure up to a certain point within the coronary arteries is a direct excitant to cardiac activity. An isolated mammalian heart which has ceased to beat spontaneously may be started again by introducing fluid under pressure into the coronary system. Such fluid need not be of a nutrient character for this result to be manifested, since it will show itself even if liquid paraffin be injected into the coronary vessels; although, for the continuance of the contractions, a saline oxygenated fluid is essential. The condition of the blood vessels, and especially of the arteries, is scarcely, if at all, second in importance to that of the heart. Disregarding the slow rhythmic contractions which the vessels occasionally exhibit, and which may to a slight extent aid in the promotion of the blood flow, a condition of tonic contraction of the vessels is essential to the maintenance of the circulation. With all the vessels fully dilated the blood becomes contained in a system of flaccid tubes quite incapable of passing it on to the heart. The tonic contraction of the vessels adapts the vascular system to the amount of blood it contains, and by exercising pressure upon it, forces it forward, the direction being determined by the fact that the greatest amount of contraction and pressure is on the arterial side and the least on the venous, as well as by the presence of valves at the commencement of the arterial system and in the veins. When we inquire into the measures by which this tonic contraction of the vessels is maintained, we again find an obvious answer to our inquiry in the nervous arrangements connected with the vascular system. The vessels, and especially the arterioles, are provided with two sets of nerve fibres, operating from a double set of nerve centres, the activities of which balance one another. The one set sends out impulses which increase the contraction of the musculature, the other set impulses which diminish it; these are the vaso-constrictors and vaso-dilators respectively. Their origin and path are for the most part different. The vaso-constrictors follow the ordinary course taken by motor nerves, except that they are distributed through the sympathetic; whereas most of the vaso dilators, as Dr. Bayliss has demonstrated, follow the course of the afferent nerve fibres and have their origin or distribution along with these, or may even be identical with them. Through these nerves the tone of the blood vessels and thus the efficiency of the circulation is maintained by the nervous system. The impulses which start from the nerve centres to produce vaso-constriction or vaso-dilatation originate, as in the case of these which affect the heart, mainly from the periphery—from the skin and other sense organs, viscera, muscles, heart, and even from the blood vessels themselves. The impulses therefore act in a reflex manner, causing either general or local effects according to the nature and situation of the part where they originate and of the particular afferent nerve terminations which are set in activity. But as in the case of the heart the several effects may also be produced by the action of higher centres upon the centres of origin of the vasomotor fibres. In these various ways a balance is maintained in the vascular system, whereby at a given time, and for a given set of conditions, the general or local blood pressure and the efficiency of the circulatory mechanism are normally regulated. Not very long ago the above would have been all that could have been postulated regarding the means by which the circulation is maintained in its efficiency. The work of Bernard and of Ludwig about the middle of the last century and the innumerable researches which were set in activity by their discoveries, established beyond a doubt the important relations which subsist between the vascular and nervous systems, and especially the control which the nervous system exercises over the musculature of the heart and arteries. Certain facts were, however, not easily explained by this, such, for example, as the retention or recovery of some amount of tone after complete severance of parts of the vascular system from the central nervous system; although an attempt was made to explain these phenomena by the assumption of peripheral ganglia acting as reflex centres. Although it is not impossible that such centres may exist it is no longer necessary to assume their existence, since the phenomena they were required to account for may now be otherwise explained. For we know that certain glandular organs—which not long ago were regarded as of little importance and as to the functions of which nothing had been ascertained—yield on extraction materials which when introduced into the blood markedly influence both the rhythm and tone of the heart and the contraction of the blood vessels. Those which produce the greatest effect of this nature are the medulla of the suprarenal capsules and the posterior lobe of the pituitary body. The action is not entirely similar in the two cases, for while an extract of suprarenal medulla increases both the rate of rhythm and the tone of cardiac muscle, and strongly stimulates to contraction the muscular tissue of the blood vessels (with the exception of those of the heart, and perhaps also of the lungs), an extract of the pituitary body, whilst markedly raising the tone of the cardiac muscle, does not increase its rate of rhythm, but may even diminish it, and while producing constriction of nearly all the arterioles in the body, tends to produce dilatation of those of the kidney, associated with an increased secretion of urine. Although it has not yet been possible to prove in the case of the pituitary body that the substances which cause these effects are passed into the blood, and are thus normally brought to bear upon those tissues which are affected when the extracts are artificially introduced into the blood stream, such passage into the blood has been definitely proved to occur in the case of the suprarenal capsules. The blood flowing from these can, in fact, be shown to contain a larger amount of the pressor substance of the extract than ordinary blood. We are probably justified in concluding that a similar passage into the blood, either directly or indirectly (through lymph channels or by the cerebro-spinal fluid), occurs in the case of the pituitary body also. In both cases it is probable that the substances secreted exercise a material influence upon the circulatory system; this is, indeed, evidenced in the case of the suprarenals by the weakness of the heart and the low blood pressure which follow their destruction by disease or their experimental removal. And the fact that experimental removal of the pituitary body is equally fatal with that of the supra-

renal capsules points to the supreme importance to the organism of the substances which are produced by it, the most active of these substances being those which affect the circulatory system. The pituitary contains also a depressor substance which diminishes the force of the heart and inhibits the contraction of the arterioles, but the action of this is usually far overbalanced in the artificial extract by the material which produces the opposite effects. It is, however, possible that naturally the two substances may be passed into the blood in such proportions as the requirements of the vascular system and of the organism in general appear to indicate. If this is the case there would be a balancing action caused by the materials of the secretion comparable to that caused by the nerves which influence the contraction of the vascular musculature. It must further not be forgotten that a direct action upon the heart and blood vessels of hormones produced by these organs—perhaps also by other ductless glands—only represents a portion of their influence in increasing the efficiency of the circulation. It is probable that they also assist the nervous factors by their beneficial action upon the nerve centres themselves. In the instance of the pituitary body at least there appears to be evidence, mainly of a clinical character, that its extracts exert a tonic effect upon the nervous system in general. Such an effect is manifest in cases of shock, and may under normal circumstances be presumed to assist in maintaining condition of tonus of the nerve centres, which is essential to the performance of their functions, not the least important of which is, as we have seen, their action in maintaining the proper balance of the circulation. In the above remarks I have dealt only, as I proposed at the start, with the circulation under normal conditions, and with such factors alone as are more strictly concerned with the vascular mechanism. I have not attempted to deal with the manner in which the circulation is affected by varying conditions of the blood, by variations in the general nutrition of the body, by drugs, or under abnormal conditions of the heart and vessels. I am content to leave the consideration of these to succeeding speakers, who will be better able than myself to discuss them satisfactorily.

Friday, July 29th.—Paper: Dr. Edridge-Green, Some Visual Phenomena connected with the Yellow Spot. Dr. Edridge-Green will also demonstrate his lamp for testing colour vision.

Demonstrations will be given by Professor Haldane on the Causes of Absorption by the Lungs in Animals and Man, and Dr. C. G. Douglas on the Production of Cheyne-Stokes Breathing.

[DISEASES OF CHILDREN.

The discussion on the diagnosis and treatment of infections of the urinary tract by the *Bacillus coli*, in the Section of Diseases of Children, will be opened by Dr. C. R. Box, in place of Dr. John Thomson, who is prevented from being present.]

COMMITTEE FOR THE ENTERTAINMENT OF THE REPRESENTATIVE MEETING.

Should any of the members of the Central Council or Representatives of Divisions have not received a copy of the arrangements made by the Metropolitan Counties Branch through this Committee for their entertainment during the week-end, July 23rd to 25th, issued last week to those whose names and addresses were known, they are requested to apply in writing to the Honorary Secretary of the Committee, Dr. E. Rowland Fothergill, 429, Strand, W.C. As it is impossible to guarantee hotel accommodation at the end of July, it is most desirable that a reply to this circular should be received at the latest by June 29th.

RAILWAY ARRANGEMENTS.

A form for the use of members who propose to attend the Annual Meeting of the British Medical Association in London next month will be found at p. 9 of the advertisements. If the form is filled up and returned to the address shown, a voucher or vouchers will be issued from the central office, giving the right to the special terms which have been arranged with the railway companies. A return ticket will be issued at a single fare and a quarter, and these tickets are available from July 21st to August 2nd, both dates inclusive.

LIST OF HOTELS AND LODGINGS.

A list of hotels and lodgings, with a scale of charges, was published in the SUPPLEMENT of June 18th, p. 406. Members are requested to communicate direct with the persons whose names are given in the list, or with the managers of the hotels mentioned. The early receipt of the form stating the intention to be present will greatly facilitate the work of the local committee, so hat sufficient entertainment may be provided for the arge number of members expected to attend.

GENERAL ARRANGEMENTS

The agenda paper of the Annual Representative Meeting, so far as it could then be settled, was published in the SUPPLEMENT for May 21st, while the programme of the general meetings and of the Sections appears in the SUPPLEMENT of this week. The President-elect, Mr. Butlin, President of the Royal College of Surgeons, will be inducted on Tuesday afternoon, July 26th, and will deliver his address on the evening of that day in the St. James's Hall, Great Portland Street.

GOLFING.

The Ulster Cup.

It will be remembered that a cup was presented by the Ulster Branch last year, and is to be played for annually on the following conditions, as laid down by the Ulster Branch: "Bogey play under handicap, not exceeding 18; cup to become the property of the member of the Association winning it twice in succession, or three times in all; one round of 18 holes to be played on one day at the Annual Meeting, with no previous play." At Newcastle last year about eighty competitors played, and the cup was won by Dr. Shekleton, Holywood, co. Down. The cup is a copy of the famous "Ardagh" Cup, which is in the National Museum in Dublin, and whose history is known from the eleventh century.

Owing to the conditions of play, the golf subcommittee are this year compelled to insist that the numbers competing shall be limited to 200, and that all entries must be received by July 8th, in order that they may make arrangements to reduce the numbers to 200 if necessary.

All members who wish to enter for this prize are requested to send their names to Dr. F. J. Smith, 138, Harley Street, W., as soon as possible, and *in any case before July 8th, after which no entry can be received.*

The competition will take place on Friday, July 29th, on the excellent course of the Burhill Golf Club, which has most generously been placed at the disposal of the Association for this purpose by the directors. The club is near Walton-on-Thames station—easily reached from Waterloo.

Annual Match.

The usual annual match will take place on Wednesday afternoon, July 27th. It will be between the Metropolitan Counties Branch and the visitors, and it is hoped that at least twenty a side will take part. It will be played, by the kindness of the committee, on the well-known Northwood Links. All members who wish to play are asked to send their names at once to Mr. Percy Furnivall, 28, Weymouth Street, Portland Place, W., in order that the best selection available may be made. It is particularly requested that names should be sent in as early as possible, and each should be accompanied by the player's club and lowest handicap.

Honorary Membership of Clubs.

Up to the present the following clubs have invited members to use their links: Acton, Ashford Manor, Burnham Beeches, Bushey Hall, Burhill, Edgware, Eltham Warren, Fulwell, Hanger Hill, Home Park, Mid-Surrey, Neasden, Princes', Richmond, Romford, Sandy Lodge, Sunningdale, Totteridge, Tooting Bec, Walton Heath, Wembley, West Middlesex, Royal Wimbledon, and Worplesdon.

Arrangements will be made by which members wishing to play a round may leave their names and handicaps at the Reception Rooms not later than the day before, in order that matches may be arranged.

BLACK-AND-WHITE EXHIBITION.

An effort is being made to get together for the Annual Meeting of the Association, and in connexion with the

Museum Committee, a collection of prints and black-and-white drawings having reference to the medical profession and medical men. Many such pictures have appeared in *Punch* and other illustrated papers, and no doubt there are many old prints in existence which would interest and amuse. Dr. Rice-Oxley, 5, Kensington Square, W., who has undertaken the work of arranging the collection, will be most grateful for the loan of drawings, prints, or cartoons, or for any suggestions towards the carrying out of the idea. Every possible care will be taken of loans. Any good original paintings respecting medical men or matters would be acceptable. As the time is somewhat short, Dr. Rice-Oxley will be glad of immediate response to this appeal.

MOTOR GARAGE.

It has been arranged with the Alveston Motor Garage, whose premises open out of Roland Gardens, South Kensington, London, S.W., to provide garage accommodation for members bringing their cars from the provinces. The charge will be 2s. a day, to include standing in a lock-up garage and use of electric light and water. Members desirous of availing themselves of this accommodation should make early application to the Alveston Motor Garage.

British Medical Association.

NOTICE OF EXTRAORDINARY GENERAL MEETINGS.

NOTICE IS HEREBY GIVEN by the Council, that an Extraordinary General Meeting of the above-named Association will be held at the Connaught Rooms, Freemasons' Hall, Great Queen Street, London, on Wednesday, the 29th day of June, 1910, at 11 o'clock in the forenoon, for the purpose of considering the subjoined Resolution, and, if thought fit, passing the same as an Extraordinary Resolution:

"That the Regulations contained in the printed document submitted to this Meeting, and for the purpose of identification initialled by the Chairman thereof, be and the same are hereby adopted as the Regulations of the Association in substitution for all the existing Regulations of the Association."

AND NOTICE is hereby also given by the Council, that if the above Resolution shall have been passed by the requisite majority at the above-mentioned Meeting, a further Extraordinary General Meeting of the above-named Association will be held at the Court of Common Council Chamber, Guildhall, London, on Friday, the 22nd day of July, 1910, at 2 o'clock in the afternoon, for the purpose of receiving a Report of the proceedings at the first above-mentioned Meeting, and of confirming, if thought fit, as a Special Resolution the Resolution above set forth.

AND NOTICE is hereby also given by the Council, that the Regulations intended to be submitted to the first above-mentioned Meeting and to be referred to in the Resolution above set forth will be the proposed New Articles and By-laws which are printed on pages 290 to 301 (both inclusive) of the Supplement to "The British Medical Journal," dated May 28th, 1910, each of the proposed By-laws numbered 20, 41, and 56 being so submitted in such one of the alternative forms thereof (printed respectively on pages 295 and 296, 297 and 298 and 299 of the said Supplement) as shall have been approved by a Special Representative Meeting of the above-mentioned Association to be held in the Connaught Rooms, Freemasons' Hall, Great Queen Street, London, on Tuesday, the 28th day of June, 1910, at 3 o'clock in the afternoon.

AND that a copy of the said Regulations may be seen at the Office of the Association at any time before the 29th day of June, 1910, during business hours.

Dated this 8th day of June, 1910.

BY ORDER,

GUY ELLISTON,

Financial Secretary and Business Manager.

SPECIAL MEETING OF COUNCIL.

A SPECIAL MEETING of the Council will be held at the Connaught Rooms, Freemasons' Hall, Great Queen Street, London, W.C., on Wednesday, June 29th, at 10 o'clock in the forenoon, to receive the Resolutions of the Special Representative Meeting of June 28th, preparatory to their being submitted to the Extraordinary General Meeting of the British Medical Association, summoned for 11 o'clock in the forenoon at the same place on the 29th June.

QUARTERLY MEETING OF COUNCIL.

WITH reference to the Quarterly Meeting of Council, summoned for 2 p.m., on Wednesday, the 29th day of June next, in order to economise time, the Chairman of Council requests that Members will assemble at 429, Strand, W.C., within twenty minutes of the Extraordinary General Meeting, so that the ordinary business of Council may be proceeded with without loss of time.

By Order,

GUY ELLISTON,

Financial Secretary and Business Manager.

429, Strand, W.C., June 14th, 1910.

BRANCH AND DIVISION MEETINGS TO BE HELD.

DORSET AND WEST HANTS BRANCH.—Notice is hereby given that the summer meeting proposed to be held in Weymouth, on Thursday, June 30th, has reluctantly been abandoned, by order of the President, owing to the date clashing with the dates on which the Special Representative Meeting, the Extraordinary General Meeting of the Association, and the Council Meeting following, are to be held in London at the end of June.—JAMES DAVISON, Honorary Secretary, "Streateplace," Bournemouth, June 6th, 1910.

EAST ANGLIAN BRANCH: WEST NORFOLK DIVISION.—The annual meeting of this Division will be held on Thursday, June 30th, at 3.30 p.m., at the West Norfolk and Lynn Hospital. —J. L. FORREST, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: NORWOOD DIVISION.—The next meeting will be held at Fenstanton, Christchurch Road, Streatham, on Thursday, June 30th, at 4 p.m., Dr. T. D. Greenlees in the chair.—J. A. HOWARD, Honorary Secretary, Upper Norwood.

METROPOLITAN COUNTIES BRANCH: WALTHAMSTOW DIVISION.—A meeting of this Division will be held, by the kind invitation of the Chairman, Dr. R. Jones, at Claybury Asylum, Woodford Bridge (nearest station, Woodford, G.E.R.), on Tuesday, July 5th, at 3.30 p.m. Agenda: (1) 3.30 p.m., Address by Dr. R. Jones, entitled, "What Constitutes Insanity?" (2) 4 p.m., Magic Lantern Demonstration in the Pathological Laboratory of the London County Council, by Dr. F. W. Mott, on Syphilis of the Nervous System. (3) 5 p.m., Tea at Dr. Jones's house. (4) Meeting of the Executive Committee.—A. POTTINGER ELDRED, Honorary Secretary.

MIDLAND BRANCH: BOSTON AND SPALDING DIVISION.—The annual meeting of this Division will be held on Tuesday, June 28th, at the White Hart Hotel, Boston, at one o'clock. Agenda: (1) Minutes. (2) Secretary's Report. (3) Election of Officers. (4) Programme for the year. (5) Matters referred to Divisions—(*a*) Special Class of Consultants, (*b*) Fees for Assisting Midwives, (*c*) Fees for Lectures to Red Cross Society. (6) Any other business. Luncheon will be provided at 2 p.m.; tickets, 3s. 6d. each (exclusive of wine). Members are requested to reply not later than June 25th if they intend to be present at the luncheon, as those accepting will be held responsible for the value of their tickets.—A. E. WILSON, Honorary Secretary.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH.—The annual meeting will be held on June 29th, at the Hotel, Lakeside, Windermere. The new President, J. W. Fawcitt, M.D. (Broughton-in-Furness), will deliver a presidential address. Members willing to show cases or specimens are requested to kindly communicate with A. S. BARLING, Honorary Secretary.

NORTH WALES BRANCH.—The annual meeting of the Branch will be held at Llangollen on Tuesday, July 12th. Members having papers to read, cases or specimens to show, are requested to notify the Honorary Secretary before the 30th inst.—H. JONES ROBERTS, Honorary Secretary.

SOUTH-EASTERN OF IRELAND BRANCH.—A meeting of this Branch, as also a meeting of the Branch Council and the loca Division, will be held at the Club House, Carlow, on Wednesday, July 6th, at 5.30 p.m. Agenda: (1) Minutes of last meeting. (2) Letters of apology. (3) Correspondence. (4) Any other business. (5) Tea.—J. QUIRKE, Honorary Secretary, Piltown.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: MONMOUTHSHIRE DIVISION.—A meeting of the Division will be held at The Cedars, Chepstow, on Thursday, July 7th, 1910.—R. J. COULTER, S. HAMILTON, Newport, Honorary Secretaries.

STAFFORDSHIRE BRANCH.—The thirty-seventh annual meeting of the Branch will be held at the Victoria Hotel, Wolverhampton, on Thursday, June 30th, at 5.25 p.m., when an address will be delivered by the President-elect, J. A. Codd, M.D. Agenda: (1) Minutes of the last annual meeting. (2) Introduction of the new President. (3) Correspondence. (4) Address by the President. (5) Report of the Council. (6) The financial statement. (7) Election of officers for the ensuing year—President-elect, Secretary, and Treasurer. (8) To decide the place of holding the next annual meeting. Members have the privilege of introducing friends. Dinner at 7 p.m. Charge 5s. The first general meeting of the session will be held at Stoke on Thursday, November 24th. Members desiring to read papers are requested to communicate the titles to the General Secretary as soon as possible. — G. PETGRAVE JOHNSON, Honorary General Secretary.

EDINBURGH AND BORDER COUNTIES BRANCHES.

Motor Meet.

A JOINT meeting of the Edinburgh Branch and the Border Counties Branch will be held at Moffat on Friday, July 8th. Lunch will be served at the Hydropathic at 1.30 p.m., after which a discussion will be introduced by Dr. Veitch on Motor Cars for Medical Men. To enable the management of the Hydropathic, who have promised to provide lunch for those members taking part, to make the necessary arrangements, it is requested that members intending to be present will send their names to either of the secretaries. It is hoped that members who have spare seats will bring those members of the Branches who are not in possession of a car. Any member of the Association who may be motoring in Scotland at the time will be very welcome. A circular will be issued shortly with, it is hoped, the names of those who will take part in the discussion, and indicating the lines upon which a profitable discussion may run. Names may be sent to either of the secretaries, from whom any further information may be obtained,

MICHAEL DEWAR, Honorary Secretary,
Edinburgh Branch.
GEORGE R. LIVINGSTON, Honorary Secretary,
Border Counties Branch.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN seventy-seven of the largest English towns 8,613 births and 3,591 deaths were registered during the week ending Saturday last, June 18th. The annual rate of mortality in these towns, which had been 12.7, 11.8, and 11.4 per 1,000 in the three preceding weeks, further declined last week to 11 1 per 1,000. The rates in the several towns ranged from 4.4 in Willesden, 4.9 in Southampton and in Grimsby, 5.8 in Handsworth (Staffs), and 6.2 in Reading, to 16.8 in Nottingham, 16.9 in Stockport, 17.0 in Merthyr Tydfil, 19.6 in Newport (Mon.), and 20.1 in Swansea. The death-rate from the principal infectious diseases averaged 1.1 per 1,000; in London the rate was equal to 1.2 per 1,000, while among the seventy-six other large towns it ranged upwards to 2.6 in Newport (Mon.), 3.1 in Liverpool, 3.5 in Gateshead, and 3 9 in Merthyr Tydfil. Measles caused a death-rate of 1 2 in Bradford, 1.4 in Liverpool, 1 6 in Barrow-in-Furness and 2.0 in Merthyr Tydfil; whooping cough of 1.5 in Stockport and in Bootle, 2.0 in Gateshead, and 2.6 in Newport (Mon.); and diarrhoea of 1.2 in Gateshead. The mortality from scarlet fever, from diphtheria, or from enteric fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The number of scarlet fever cases under treatment in the Metropolitan Asylums Hospitals and in the London Fever Hospital, which had been 1,445, 1,461 and 1,401 at the end of the three preceding weeks, declined to 1,363 at the end of the week under notice; 166 new cases were admitted during the week, against 174, 203 and 181 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

DURING the week ending Saturday last, June 18th, 920 births and 503 deaths were registered in eight of the principal Scottish towns. The annual rate of mortality in these towns, which had been 14.0, 14 3, and 14.2 per 1,000 in the three preceding weeks, declined to 13.9 last week, and was 2.8 per 1,000 above the mean rate during the same period in the seventy-seven large English towns Among these Scottish towns the death-rates ranged from 10.4 in Edinburgh and 12.4 in Aberdeen, to 20.5 in Dundee and 20.6 in Greenock. The death-rate from the principal infectious diseases averaged 1.2 per 1,000, the highest rates being recorded in Dundee and Paisley. The 229 deaths recorded in Glasgow included 5 which were referred to measles, 2 to scarlet fever, 5 to whooping-cough, and 6 to diarrhoea. Five deaths from measles were recorded in Dundee and 4 in Paisley.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, June 18th, 702 births and 418 deaths were registered in the twenty-two principal urban districts of Ireland, as against 691 births and 393 deaths in the preceding period. The annual death-rate in these districts, which had been 21.1, 18.0, and 17.8 per 1,000 in the three preceding weeks, rose to 18.9 per 1,000 in the week under notice, this figure being 7.8 per 1,000 higher than the mean annual death-rate in the seventy-seven English towns for the corresponding period. The figures in Dublin and Belfast were 17.1 and 24.4 respectively, those in other districts ranging from 6 6 in Queenstown and 6.9 in Armagh to 28 6 in Newtownards and 35.4 in Lurgan, while Cork stood at 15.1, Londonderry at 10 8, Limerick at 20.5, and Waterford at 15 6. The zymotic death-rate in the twenty-two districts averaged 3.1 per 1,000, as against 2.6 per 1,000 in the preceding week.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

STAFF SURGEON E. S. REID, M.B., has been placed on the retired list, May 25th. He was appointed Surgeon, November 10th, 1896, and promoted to be Staff Surgeon, November 10th, 1904.

Surgeons C. A. G. PHIPPS, S. S. H. SHANNON and R. L. JONES have been promoted to be Staff Surgeons, June 9th. Their first appointment bears date June 9th, 1902.

The following appointments have been made at the Admiralty: Fleet Surgeon W. W. PRYN to the *President*, additional, for three months' hospital course, June 9th; Staff Surgeons J. G. WATT and N. J. ROCHE to the *King Alfred*, additional, June 13th; Staff Surgeon J. G. PEEBLES, M.B., to the *Natal*, June 15th; Surgeon J. J. H. ROONEY to Gibraltar Hospital, May 31st; Surgeon G. C. SPRAGUE to the *Vivid*, additional for disposal, June 9th; Surgeon W. P. YETTS to Chatham Hospital, June 15th; Surgeon E. M. W. HEARN, M.D., to the *Victory*, additional, to be lent to the Physical Training School, July 11th, and to the *Victory*, additional, for the Physical Training School, July 11th; Surgeon S. H. VICKERY, M.B., to the *Vindictive*, June 11th; Surgeon J. L. BARFORD to the *Impregnable*, June 11th; Staff Surgeon H. C. WHITESIDE to the *Circe*, temporarily, June 7th; Fleet Surgeon P. H. BOYDEN, M.D., to the *Tamar*, additional, for Wei-hai-Wei Sick Quarters, July 2nd; Fleet Surgeon J. F. HALL, M.B., to the *Fisgard*, July 2nd; Staff Surgeon T. B. SHAW, M.B., to the *Victory*, additional, for temporary service at Haslar Hospital, June 15th; Surgeon C. G. SPRAGUE to the *Inflexible*, June 15th; Staff Surgeon A. K. LAVERTINE to the *Sutlej*, June 4th; Surgeon T. C. PATTERSON to the *Pembroke*, additional, lent to Chatham Hospital, temporarily, June 10th.

ARMY MEDICAL SERVICE.

LIEUTENANT-COLONEL C. H. BURTCHAELL, M.B., to be Assistant Director-General, vice Lieutenant-Colonel J. M. IRWIN, M.B., whose tenure of that appointment has expired, June 7th.

Surgeon-General J. G. MACNEECE, on his arrival in Lucknow, will assume the duties of the Principal Medical Officer, 8th (Lucknow) Division. Colonel M. W. KERIN, on being relieved of the appointment, will rejoin his appointment as Principal Medical Officer, Bareilly and Garhwal Brigades.

ROYAL ARMY MEDICAL CORPS.

Lieutenant-Colonel J. H. CURTIS retires on retired pay, June 4th. He entered the service as Surgeon, May 30th, 1885; became Surgeon-Major, July 31st, 1897; and Lieutenant-Colonel, May 30th, 1905.

Lieutenant-Colonel W. B. DAY, M.B., also retires on retired pay, June 4th. He was appointed Surgeon, May 30th, 1885; Surgeon-Major, May 30th, 1897; and Lieutenant-Colonel, May 30th, 1905. He served in the South African war in 1900-2, being present in operations in the Transvaal, Orange River Colony, and Cape Colony, and receiving the Queen's Medal with three clasps and the King's Medal with two clasps.

Colonel R. H. FIRTH, who is serving in India, is appointed Sanitary Officer, Army Head Quarters, India, from April 1st.

Captain R. J. CAHILL, M.B., Brigade Laboratory, Madras, is appointed Specialist in the Prevention of Disease, from March 21st.

Colonel S. C. B. ROBINSON, Principal Medical Officer, 5th (Mhow) Division, Indian Army, has leave of absence for four months.

Captain C. SCAIFE, M.D., Brigade Laboratory, Colaba, India, is appointed Specialist in the Prevention of Disease, from March 25th.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL C. F. FEARNSIDE, I.M.S., whose promotion we recorded last week, served in the Chin Hills, Burma, in 1892-3, and received the medal with clasp.

TERRITORIAL FORCE.

ROYAL ARMY MEDICAL CORPS.

Cadet Colour-Sergeant THOMAS LINDSAY, from the Edinburgh University Contingent, Officers' Training Corps, to be Lieutenant (on probation), May 12th.

First Highland Field Ambulance.—The following officers to be Majors, April 1st, 1908: Captain A. OGSTON, M.B., and Captain T. FRASER, M.B.

Second Highland Field Ambulance.—Captain F. KELLY to be Major, April 1st, 1908.

Third Highland Field Ambulance.—Captain W. E. FOGGIE, M.B., to be Major, April 1st, 1908.

First Scottish General Hospital.—Major A. H. LISTER, M.B., from 2nd Highland Field Ambulance, Royal Army Medical Corps, to be Major, whose services will be available on mobilization, December 1st, 1909. Major A. H. LISTER, M.B, to be Lieutenant-Colonel, May 22nd.

Major (Honorary Lieutenant in the Army) A. C. GEDDES, M.D., is posted for duty to the Royal College of Surgeons (Dublin) Contingent, Senior Division, Officers' Training Corps, April 25th.

Highland Mounted Brigade Field Ambulance.—Lieutenant-Colonel JOHN MACDONALD, M.B., reverts at his own request to the rank of Major, April 5th. He resigns his commission, retaining his rank and uniform, April 6th.

Second East Lancashire Field Ambulance.—Lieutenant-Colonel J. J. K. FAIRCLOUGH resigns his commission, retaining his rank and uniform, May 1st.

For Attachment to Units other than Medical Units.—JOHN TAIT to be Lieutenant, June 30th, 1909. WILLIAM J. HARRISON, M.B., to be Lieutenant, April 29th. CUTHBERT D. S. AGASSIZ, M.B., to be Lieutenant, April 30th. FRANCIS D. BLANDY, M.D., to be Lieutenant, May 3rd. Lieutenant J. A. GIBB, M.B., to be Captain, December 2nd, 1909. RICHARD V. FAVELL to be Lieutenant, April 15th, 1910.

Attached to Units other than Medical Units.—Lieutenant J. W. T. WALKER, M.B., to be Captain, April 1st, 1908. Lieutenant R. V. G.

MONCKTON, M.D., resigns his commission, May 9th, 1910. Captain C. W. CRAWSHAW, M.B., resigns his commission, April 30th.

COLONIAL MEDICAL SERVICE.

THE following changes in the Colonial Medical Service are notified by the Colonial Office:

WEST AFRICAN MEDICAL STAFF.—*Appointments:* J. A. BEAMISH, M.B., Ch.B., B.A.O.Irel., D.P.H.Lond., Gold Coast; C. W. S. BOGGS, L.S.A.Lond., Gold Coast; D. T. H. CROLY, L.R.C.S., L.R.C.P.Edin., L.F.P.S.Glasg., Gold Coast; D. DUFF, M.B., Ch.B., B.A.O.Dub., Gold Coast; M. W. FRASER, M.B., Ch.B.Glasg., Gold Coast; G. H. GALLAGHER, L.R.C.S., L.R.C.P.Irel., Southern Nigeria; S. GOODBRAND, M.B., Ch.B.Aberd., Gold Coast; J. E. MOFFATT, L.R.C.S., L.R.C.P.Irel., Gold Coast; R. MUGLISTON, M.R.C.S.Eng., L.R.C.P. Lond., Gold Coast; W. A. NICHOLSON, M.B., Ch.B., B.A.O.Dub., Sierra Leone; J. Y. WOOD, M.B., Ch.B.Glasg., Sierra Leone; *Promotions:* M. C BLAIR, M.D., C.M.Glasg., D.P.H.Irel., Senior Medical Officer, Northern Nigeria, to be Senior Sanitary Officer, Northern Nigeria; R. H. KENNAN, M.D., Ch.M.Dub., F.R.C.S.Irel., D.T.M.Liverpool, D.P.H.Irel., Senior Medical Officer, Sierra Leone, to be Senior Sanitary Officer for Sierra Leone and the Gambia; W. F. MACFARLANE, L.R.C.S., L.R.C.P.Edin., L.F.P.S.Glasg., Medical Officer, Southern Nigeria, to be Senior Medical Officer, Southern Nigeria; C. E. S. WATSON, M.R.C.S.Eng., L.R.C.P.Lond., Medical Officer, Northern Nigeria, to be Senior Medical Officer, Northern Nigeria. *Transfer:* P. J. KELLY, M.B., Ch.B.Glasg., Medical Officer, Gold Coast, has been transferred to Hong Kong. *Retirement:* H. CARLAW, L.R.C.S., L.R.C.P.Edin., L.F.P.S.Glasg., retires with gratuity. *Cancellation of Retirement:* The retirement of T. R. FRAZER TOOVEY, F.R.C.S., L.R.C.P.Edin., L.F.P.S.Glasg., L.M., Medical Officer, Southern Nigeria, has been cancelled. *Death:* F. W. W. WHYTE, L.R.C.S., L.R.C.P. Edin., L.F.P.S.Glasg., Medical Officer, Gold Coast.

OTHER COLONIES AND PROTECTORATES.—P. HARPER, M.R.C.S.Eng., L.R.C.P.Lond., has been appointed Medical Officer in Fiji; W. R. W. JAMES, L.R.C.S., L.R.C.P.Edin., L.F.P.S.Glas., Medical Officer in Uganda, has been appointed a Medical Officer in Ngamiland, Bechuanaland Protectorate; J. C. MCPHERSON, M.B., B.Ch Ireland, has been appointed a supernumerary Medical Officer in the Leeward Islands.

Vacancies and Appointments.

VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

BELGRAVE HOSPITAL FOR CHILDREN, Clapham Road, S.W.—(1) Dental Surgeon. (2) Two Clinical Assistants in special departments. Salary for (1) at the rate of £20 per annum, and (2) £100 per annum.

BIRMINGHAM CITY HOSPITAL.—Medical Superintendent. Salary, £250 per annum.

BRADFORD: ROYAL EYE AND EAR HOSPITAL.—Lady Resident. Salary, £80.

CALCUTTA: LADY DUFFERIN VICTORIA HOSPITAL.—Lady Medical Superintendent. Salary, Rs. 550 a month.

CANCER HOSPITAL, Fulham Road, S.W.—Senior and Junior House-Surgeons. Salaries at the rate of £80 and £70 per annum respectively.

CARDIFF INFIRMARY.—(1) House-Surgeon. (2) House-Surgeon for Ophthalmic and Ear and Throat Departments. Honorarium, £30 for six months in each case.

CARDIFF: UNIVERSITY COLLEGE OF SOUTH WALES AND MONMOUTHSHIRE.—Lecturer in Histology and Embryology. Salary, £200 per annum.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—House-Surgeon. Salary, £50 per annum.

COVENTRY AND WARWICKSHIRE HOSPITAL.—(1) Honorary Aural Surgeon. (2) Junior House-Surgeon; salary, £80 per annum.

DONCASTER ROYAL INFIRMARY AND DISPENSARY.—House-Surgeon. Salary, £125 per annum.

EDINBURGH: ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN.—Four Resident Medical Officers.

FRIMLEY: BROMPTON HOSPITAL SANATORIUM.—Assistant Resident Medical Officer. Salary, £150 per annum, rising to £200.

GLASGOW MATERNITY AND WOMEN'S HOSPITAL.—(1) Indoor House-Surgeon. (2) Two Outdoor House-Surgeons. (3) Outdoor House-Surgeon at the West-end Branch. Salary for (1) and (3) at the rate of £50 and £72 per annum respectively.

GLOUCESTERSHIRE ROYAL INFIRMARY AND EYE INSTITUTION.—Assistant House-Surgeon. Salary at the rate of £80 per annum.

GUILDFORD: ROYAL SURREY COUNTY HOSPITAL.—Assistant House-Surgeon. Salary, £50 per annum.

HEMEL HEMPSTEAD: WEST HERTS HOSPITAL.—Junior House-Surgeon. Salary, £100 per annum.

HIGHBURY HILL HIGH SCHOOL FOR GIRLS.—Female Practitioner for Inspection of Pupils. Salary, £50 per annum.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Radiographer. Honorarium, 50 guineas per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—(1) House-Surgeon. (2) House-Physician. Salary, £30 for six months and £2 10s. washing allowance each.

HULL ROYAL INFIRMARY.—Casualty House-Surgeon. Salary at the rate of £60 per annum for six months' appointment and £80 for twelve months.

JARROW-ON-TYNE: PALMER MEMORIAL HOSPITAL FOR ACCIDENTS.—House-Surgeon. Salary, £150 per annum.

KIDDERMINSTER INFIRMARY AND CHILDREN'S HOSPITAL.—House-Surgeon. Salary, £100 per annum.

MANCHESTER UNIVERSITY.—Junior Demonstrator in Physiology. Stipend, £100 per annum, rising to £150.

MILLER GENERAL HOSPITAL, Greenwich Road, S.E.—(1) Honorary Surgeon. (2) Pathologist and Registrar; honorarium, £75 per annum.

NATIONAL SOCIETY FOR EPILEPTICS.—Visiting Physician to the Chalfont Colony School. Salary, £50 per annum.

NORTH STAFFORDSHIRE INFIRMARY, Hartshill.—Junior House-Surgeon. Salary at the rate of £50 per annum.

ORKNEY: ISLAND OF SHAPINSAY.—Medical Officer and Public Vaccinator. Salary at the rate of £80 per annum and fees.

REDHILL: EARLSWOOD ASYLUM.—Junior Assistant Medical Officer. Salary, £130 per annum, rising to £150.

ROYAL EAR HOSPITAL, Soho.—Honorary Assistant Anaesthetist.

ROYAL NATIONAL HOSPITAL FOR CONSUMPTION FOR IRELAND, Newcastle, co. Wicklow.—Senior Resident Medical Officer. Salary, £300 per annum.

ST. MARK'S HOSPITAL FOR CANCER, FISTULA, ETC., City Road, E.C.—Three Clinical Assistants.

SALFORD UNION INFIRMARY.—Male Resident Assistant Medical Officer. Salary, £120 per annum.

SALISBURY INFIRMARY.—Assistant House-Surgeon. Salary, £50 per annum.

SHEFFIELD ROYAL HOSPITAL.—(1) Assistant House-Surgeon; (2) Assistant House-Physician. Salary, £50 per annum each.

SOUTHWARK UNION.—Assistant (male) Medical Officer at the Infirmary. Salary, £100 per annum.

STOCKPORT INFIRMARY.—Junior House-Surgeon (male). Salary, £80 per annum.

STORTHES HALL ASYLUM, Kirkburton, near Huddersfield.—Locumtenent for two months. Salary, £3 3s. a week.

TAUNTON AND SOMERSET HOSPITAL.—Resident Assistant House-Surgeon. Salary, £50 per annum.

WEST BROMWICH DISTRICT HOSPITAL.—Assistant Resident House-Surgeon. Salary, £75 per annum.

WINCHESTER: ROYAL HAMPSHIRE COUNTY HOSPITAL.—House-Physician (male).

APPOINTMENTS.

BROWN, A. J., M.R.C.S., L.R.C.P., Assistant Medical Officer to the Kensington Parish Infirmary.

CUTCLIFFE, M., M.R.C.S., L.R.C.P., District Medical Officer of the Newton Abbot Union.

FALCONER, A. W., M.D.Aberd., M.R.C.S.Lond., Anaesthetist to the Aberdeen Royal Infirmary, vice J. J. Y. Dalgarno, M.B., C.M.Aberd., deceased.

DAVIES, Trevor Berwyn, M.B., B.S., B.Sc., M.R.C.S., L.R.C.P.Lond., Obstetric Assistant at University College Hospital, Gower Street, W.C.

HARVEY, C. P., M.R.C.S., L.R.C.P., District and Workhouse Medical Officer of the Witney Union.

HIGGINS, W. R., M.B., B.C.Camb., District Medical Officer of the Louth Union.

ISAACS, D., M.R.C.S., L.R.C.P., Third Resident Assistant Medical Officer of the West Ham Union Infirmary.

JOHNSTON, John, M.B., Ch.B.Aberd., Assistant Anaesthetist to the Aberdeen Royal Infirmary.

PACKE, G. G., M.A., M.B.Cantab., L.D.S., Dental Surgeon to the Evelina Hospital for Sick Children, London, S.E.

PIPER, F. P., M.B.Lond., Medical Officer of Health of the Whitstable Urban District.

RALPHS, F. G., M.B., Ch.B.Vict., District Medical Officer of the Ashton-under-Lyne Union.

STEADMAN, F. St. G., M.R.C.S., L.R.C.P., L.D.S.Eng., Honorary Assistant Dental Surgeon National Dental Hospital.

TURNER, William, M.S., F.R.C.S., Medical Officer of the London, Brighton and South Coast Railway Company, vice William Rose, M.B., F.R.C.S., deceased.

WHITEHOUSE, W. H., M.D., D.P.H., B.S., Barrister-at-Law, Medical Officer of Health for the Borough of Aston, and Medical Superintendent of the Fever and Small-pox Hospitals.

YEOMAN, J. B., M.D.Edin., Medical Officer of Health of the Neston and Parkgate Rural Districts.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

BARRIS.—On Thursday, June 16th, at 4, Spanish Place Mansions, Manchester Square, W., to Dr. and Mrs. John Davis Barris, a daughter.

GRÜNBAUM.—On June 15th, to Dr. and Mrs. Grünbaum, at Vold House, Leeds, a son.

LAING.—On June 17th, at Husbands Bosworth, Rugby, the wife of G. D. Laing, M.D., of a daughter.

ROBERTS.—June 14th, at Llywenarth, Penygroes, to Dr. and Mrs. H. Jones Roberts—a son.

DEATH.

BOYD.—On June 16th, at 134, Harley Street, W., Florence Nightingale Boyd, M.D., wife of Stanley Boyd, F.R.C.S.

PUBLISHERS' ANNOUNCEMENTS.

MESSRS. CASSELL AND COMPANY will issue very shortly new and enlarged editions of Dr. Herman's *Difficult Labour* and the *Manual of Chemistry* of Dr. Luff and Mr. Hugh Candy.

Messrs. Swan Sonnenschein and Co. will shortly publish an English translation of *Spiritism and Insanity*, by Dr. Marcel Viollet, of Paris. This book forms part of the Library of Experimental Psychology and Metapsychism, published under the direction of Dr. Raymond Marcel, of Paris, and has been translated by Mr. Dudley Wright, editor of the *Annals of Psychical Science*.

DIARY FOR THE WEEK.

MONDAY.

ROYAL SOCIETY OF MEDICINE:

ODONTOLOGICAL SECTION, 15, Cavendish Square, 8 p.m.—Discussion on Mr. Hopewell Smith's paper, Two Odontoceles and some other Cysts (deferred from the April meeting). Communications:—(1) Mr. A. S. Underwood: Some Egyptian Skulls. (2) Mr. G. Thomson: A Case showing the Result of Extraction of the six-year-old Molars. (3) Valedictory remarks by the President.

TUESDAY.

ROYAL SOCIETY OF MEDICINE:

MEDICAL SECTION, 15, Cavendish Square, 5.30 p.m.—Papers:—(1) Dr. George Oliver: A Combination of a Tactile and Auscultatory Methods of Reading the Systolic and Diastolic Blood Pressure. (2) Dr. William Ewart: Dorsal Percussion of the Thorax and of the Stomach; and a New Stomach Sign.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road W.C.—Lectures: Tuesday, 3.45 p.m., Tracheoscopy, etc. Friday, 3.45 p.m., External and Middle Ear.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Wednesday, 4 p.m., Arterio-sclerosis with some Remarks upon Treatment.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Monday and Wednesday, 5.15 p.m., Infant Feeding and Food Diseases. Tuesday and Thursday, 5 p.m., General Surgical Diseases. Thursday, 4 p.m., Hernia in Infancy.

LONDON SCHOOL OF CLINICAL MEDICINE, Seamen's Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics, 2.15 p.m. and 3.15 p.m. respectively; Operations, 2 p.m. Special Clinics: Ear and Throat, at noon and 4 p.m., Monday, and noon, Thursday; Skin, at noon and 4 p.m., Thursday, and noon, Friday; Eye, 11 a.m., Wednesday and Saturday; Radiography, 4 p.m., Thursday. Special Lectures: Monday, 3.15 p.m., Gastric Haemorrhage. Thursday, 3.15 p.m., Stone in Kidney and Ureter.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Medical; Friday, Eye. Lectures at 5.15 p.m. each day will be given as follows:—Monday: Disorders of Memory. Tuesday: The Practical Side of Vaccine Treatment. Wednesday: Diagnosis and Treatment of Gastric and Duodenal Ulcer. Thursday: Intussusception.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Clinical Lecture. Friday, 3.30 p.m., Cerebral Abscess.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics, 2.30 p.m., Medical Out-patient: Nose, Throat, and Ear. Tuesday, 10 a.m., Medical Out-patient Clinic; 2.30 p.m., Operations. Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient; 4.30 p.m., Lecture-Demonstration: Vaccine-Therapy. Wednesday, 2.30 p.m., Medical Out-patient. Skin and Eye Clinics: *X* Rays; 4.30 p.m., Demonstration: Treatment of Naevus by Radium and Other Methods. Thursday, 2.30 p.m., Gynaecological Operations; Clinics: Medical Out-patient; Surgical Out-patient; 3 p.m., Medical In-patient; 4.30 p.m., Lecture: Pneumotherapy. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Eye; 3 p.m., Medical In-patient.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—The following are the arrangements for next week: Daily arrangements, Medical and Surgical Clinics, 2 p.m.; Operations, 2 p.m.; *X* rays, 2 p.m. Monday, Surgical Registrar, 10 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday, Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday, Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Practical Medicine, 12.15 p.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday, Surgical Registrar, 10 a.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday, Medical Registrar, 10 a.m.; Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday, Diseases of Children, 10 a.m.; Eye, 10 a.m. Clinical Lectures daily at 5 p.m.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
JUNE.	
27 MONDAY ..	Special Representative Meeting, Connaught Rooms, Freemasons' Hall, Great Queen Street, W.C., 3 p.m., *and following days, if necessary.*
28 TUESDAY ..	BOSTON AND SPALDING DIVISION, *Midland Branch*, Annual Meeting, White Hart Hotel, Boston, 1 p.m.; Luncheon, 2 p.m.
29 WEDNESDAY	**London: Central Council**: SPECIAL MEETING, Connaught Rooms, Freemasons' Hall, Great Queen Street, W.C., 10 a.m.; QUARTERLY MEETING, Council Room, 429, Strand, W.C., 20 minutes after Extraordinary General Meeting. Extraordinary General Meeting, Connaught Rooms, Freemasons' Hall, Great Queen Street, London, W.C., 11 a.m. NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH, Annual Meeting, Hotel, Lakeside, Windermere.
30 THURSDAY ..	NORWOOD DIVISION, *Metropolitan Counties Branch*, Fenstanton, Christchurch Road, Streatham, 4 p.m. STAFFORDSHIRE BRANCH, Annual Meeting, Victoria Hotel, Wolverhampton, 5.25 p.m.; Dinner, 7 p.m.
JULY.	
1 FRIDAY ..	
2 SATURDAY ..	
3 Sunday ..	
4 MONDAY ..	
5 TUESDAY ..	WALTHAMSTOW DIVISION, *Metropolitan Counties Branch*, Claybury Asylum, Woodford Bridge; Address, 3.30 p.m.; Lantern Demonstration, 4 p.m.; Tea, 5 p.m.; Executive Committee.
6 WEDNESDAY	
7 THURSDAY ..	MONMOUTHSHIRE DIVISION, *South Wales and Monmouthshire Branch*, The Cedars, Chepstow.
8 FRIDAY ..	LONDON: Conference between Special Poor Law Reform Committee and the Contract Practice Subcommittee, 2 p.m. BORDER COUNTIES AND EDINBURGH BRANCHES, Motor Meeting, Moffat.
9 SATURDAY ..	
10 Sunday ..	
11 MONDAY ..	LONDON: Standing Ethical Subcommittee, 2 p.m.
12 TUESDAY ..	NORTH WALES BRANCH, Annual Meeting Llangollen,
13 WEDNESDAY	
14 THURSDAY ..	
15 FRIDAY ..	
16 SATURDAY ..	LONDON: Science Committee, 2 p.m.
17 Sunday ..	
18 MONDAY ..	
19 TUESDAY ..	
20 WEDNESDAY	
21 THURSDAY ..	
22 FRIDAY ..	ANNUAL GENERAL MEETING, Court of Common Council Chamber, Guildhall, London, 10 a.m. ANNUAL REPRESENTATIVE MEETING, immediately after Annual General Meeting.
23 SATURDAY ..	ANNUAL REPRESENTATIVE MEETING, 9.30 a.m.
24 Sunday ..	
25 MONDAY ..	ANNUAL REPRESENTATIVE MEETING, 10 a.m.

INDEX TO SUPPLEMENT FOR VOLUME I. 1910.

A.

Abdominal surgery (Henry Curtis), 96
Abdominal tumours. *See* Tumours
Abortion, tubal (Dr. Dempsey), 424
ABRAM, J. HILL: Surgery in stomach disease, 308
Act, Midwives, 28, 54, 69, 75, 76, 89, 93, 95, 97, 109, 129, 144, 157, 166, 167, 176, 368, 423; Manchester Corporation and payment of practitioners called in by midwives, 28; resolutions of—Bucks Division, 129; Bury Division, 368; Bury and Rochdale Divisions, 69; City Division, 54; Coventry Division, 93; Guildford Division, 75; Halifax Division, 76; Maidstone Division, 75, 176; Manchester (South) Division, 95, 166; Monmouthshire Division, 144; Northumberland (North) Division, 157; Staffordshire (South) Division, 97; Swansea Division, 97; Trowbridge Division, 109; Ulster Branch, 423; Winchester Division, 97; Worcester Division, 75
Act, Midwives, circular by Local Government Board, 89
Act, Tuberculosis Prevention (Ireland), 1908 (Dr. Agnew), 423
Acromegaly (Dr. Shaw), 7
ADDENBROOKE, BERTRAM: Two cases of rodent ulcer and one of multiple warts successfully treated with radium, 309
Addison's disease (Dr. Lyons), 34
AGNEW, Dr.: Tuberculosis Prevention (Ireland) Act, 1908, 423
AIKMAN, Dr.: Clinical case, 231
Altrincham Division. *See* Division
Ambulance lectures, 7, 129, 308; payment for, 308
Ambulance. *See* Voluntary aid detachments
Anaesthesia, spinal (Dr. Livingstone), 140
ANDERSON, J. FORD: Medical treatment of school children in London, 217
Ankylostomiasis (M. Watson), 127
Appendix, gangrenous and perforated (Dr. Livingstone), 140
Army, British, 10, 18, 22, 31, 36, 61, 71, 77, 89, 101, 118, 131, 146, 162, 169, 184, 201, 222, 234, 283, 315, 378, 430
Army, British: Army Medical Reserve: Promotions and appointments, 146
Army, British, Army Medical Service, promotions and appointments, 10, 18, 22, 36, 61, 89, 101, 118, 131, 146, 169, 201, 234, 315, 378, 430
Army, British, changes of stations, 10, 36, 77, 118, 184, 316
Army, British, Colonial Medical Services, 37, 162, 234, 316, 431
Army, British, exchange, 10, 18, 22, 31, 222, 234, 283, 315
Army, British, General Reserve of Officers, 118, 222
Army, British, Royal Army Medical Corps, promotions and appointments, 10, 19, 22, 36, 61, 77, 89, 102, 118, 131, 146, 169, 184, 201, 222, 234, 315, 378, 430
Army, British, Royal Hospital, Chelsea, 37
Army, British, Royal Militia of the Island of Jersey, promotions and appointments, 61
Army, British, Special Reserve of Officers, promotions and appointments, 10, 23, 36, 77, 89, 102, 146, 169, 234
Army, British, Territorial decoration, 19, 234; infantry, 19; Royal Army Medical Corps, 19
Army, British, Territorial Force, promotions and appointments, 10, 19, 23, 31, 36, 61, 71, 77, 89, 118, 131, 146, 162, 169, 184, 202, 222, 234, 316, 378, 430; infantry, 19, 23, 36, 162, 169, 316; Royal Army Medical Corps, 10, 19, 23, 31, 36, 61, 71, 77, 89, 118, 131, 146, 162, 169, 184, 202, 222, 234, 316, 378, 430; Royal Field Artillery, 146, 162; Royal Garrison Artillery, 19; for attachment to units other than medical units, 71; Yeomanry, 169, 378. *See also* Committee, Territorial Forces
Army, British, West African Medical Staff, promotions and appointments, 102
Army Indian, 10, 22, 36, 61, 77, 89, 102, 118, 131, 146, 162, 169, 184, 202, 234, 315, 378, 402, 430; promotions and appointments in the medical service of, 10, 22, 61, 77, 89, 102, 118, 131, 146, 162, 169, 184, 202, 234, 315, 378, 402, 430
Arrangements Committee. *See* Committee
Arterio-sclerosis of cerebral vessels in young females (Dr. Edington), 302
Ashton-under-Lyne Division. *See* Division
Assam Branch. *See* Branch
Association, British Medical, annual meeting, 1910, 3, 25, 81, 113, 177, 326, 373, 381, 405, 425; programme of business, 3, 25, 81, 113, 177, 382, 425; the sections, 326, 373; motor garage, 376; National Temperance Breakfast, 376; lodgings, etc., 405
Association, British Medical, Annual Representative Meeting, 173; matters referred to Divisions (*see* Matters); notices of motion, 173
Association, British Medical, notice of changes of boundaries of Divisions and Branches, 159, 207
Association, British Medical, the Charter, 54, 322, 368, 425; resolutions of—Blackpool Division, 368; Edinburgh Branch, 54; Harrogate Division, 425; Kensington Division, 322
Association, British Medical, Council proceedings, 67, 209, 248, 278, 290; Council report appendix, 209, 278, 290; minutes, 67, 279; annual report of Council, 248; apologies, 67, 279; deaths, 67, 279; Journal and Finance Committee, 67, 279; Organization Committee, 67, 258, 279; Science Committee, 67, 269, 280; Central Ethical Committee, 68, 270, 281; Medico-Political Committee, 68, 275, 281; Public Health Committee, 68, 275, 281; Hospitals Committee, 68, 276, 282; Colonial Committee, 68, 277; Special Poor Law Reform Committee, 68, 282; Territorial Forces Committee, 68, 282; Arrangements Committee, 69; candidates, 69, 282; candidates elected, 282; public vaccinators, 69; attendances of Council, Committees and Subcommittees, 209; annual report of Council, 248, 282; finance, 249; the BRITISH MEDICAL JOURNAL, 257; Naval and Military Committee, 276; Scottish Committee, 277, 282; Irish Committee, 277, 282; Hampstead Hospital, 279; presidential badge, 279; section of anaesthetics, 279; British Medical Benevolent Fund, 279; Lister Institute, 279; Special Representative Meeting, 282; societies' applications, 282; appointment of solicitor to the Association, 282; articles of Association, 290; by-laws of the Association, 294
Association, British Medical, relation of homoeopaths to. *See* Homoeopaths
Association, British Medical, the library, 56, 169, 183, 207, 311, 339, 395
Association, British Medical, members elected during the December quarter, 57; during the March quarter, 334
Association, British Medical, and old age pensions (Dr. Blake), 362
Association, British Medical, scholarships and grants in aid of scientific research, 183, 208, 233
Association, Commercial Travellers', medical officership to, 195
Association, National, for the Feeble-minded, 201; appeal for Princess Christian's Farm Colony, 201
Association, National Poor Law Reform, 108, 197; formation of, 108; first public meeting, 197
Association, South Wales Nursing, 195
Asylum, City of London, Stone, near Dartford, 318; statistical tables, 318
Asylum, Earlswood, report, 200
Asylum, Govan District, Paisley, annual report, 62
Asylum, Inverness District, annual report, 11
Asylum, Royal Albert, Lancaster, 200
Asylum, Royal Edinburgh, 100; report, 100
Asylum, Royal, Perth, annual report, 11
Asylum, Suffolk District, annual report, 11
Asylum, Surrey County, Brookwood, annual report, 62
ATKINSON, M.: Intermittent fever following cat bite, 420
Atlas, bony growths from (Professor Sinclair), 424
Atrophy, pseudo-hypertrophic, muscular (Dr. Edington), 302

B.

BARRS, Dr.: Extrauterine fetus, 166; enlarged testicle, 166
BATES, T.: Hodgkin's disease, 309; excision of knee and ankle for infantile paralysis, 309; fracture of both patellae, 309
Bath and Bristol Branch. *See* Branch
BATTEN, G.: Preparation and method of using solid CO_2, 69
BEATON, Dr.: School clinics, 73
Belfast Division. *See* Division
Beri-beri (Dr. Fraser), 127
BERRILL, A.: Some pulmonary conditions referring particularly to cases of one-sided bronchitis, 166
BEVERS, E. C.: Abdominal tumours, 157
Bill, Prevention of Destitution, 121; down for second reading, 121; explanation of, 121
Bill, Midwives, 160; memorandum, 160; Central Midwives Board, 160; provisions as to midwives, 160; provisions as to local supervising authorities, 161; payment of fees of medical practitioners called in on advice of midwives, 161; general, 162; schedule, 162
Birmingham Branch. *See* Branch
Birmingham Lying-in Charity, 187
Blackburn Division. *See* Division
Blackpool Division. *See* Division
Bladder, abdominal swab removed from (Dr. Livingstone), 140
Bladder, intraperitoneal rupture of (Victor Milward), 140
BLAKE, Dr.: The Association and old age pensions, 362
Board, Central Midwives, 61, 100, 130, 198, 221, 358; representation on Board, 61; special meeting, 221; midwife's deputy, 61; enrolment of midwives, 62, 199, 358; refusal of doctor to attend when summoned by midwife, 62; operative interference by midwives, 62; payment to medical men for statutory declarations, 62; conduct of cases against midwives, 62; discontinuance of attendance by midwife, 100; pemphigus in the practice of a midwife, 100; payment to medical practitioners called in by

midwives, 100; examinations at Cardiff, 100; conduct of penal business, 100; training of midwives, 130; suspension of midwives, 131, 199; new rule, 131; midwives struck off the roll, 198; midwives cautioned, 198; midwives censured, 198; male midwives, 199, 358; advertising, 199; death of King Edward VII, 358; admission to Board's examination, 358; midwife declining a case, 358; alleged irregularities in training, 358
Board, Local Government, 89; circular *re* Midwives Act, 89
Bolingbroke Hospital. *See* Hospital
Bombay Branch. *See* Branch
Border Counties Branch. *See* Branch
Boston and Spalding Division. *See* Division
Bournemouth Division. *See* Division
Brain lesion, operation for (L. D. Parsons), 34
Branch, Assam, 84; annual meeting, 84; apologies for non-attendance, 84; report of Council, 84; election of officers, 84; on some problems in coolie practice (J. D. Gregorson), 85; administration of quinine (Dr. Macnamara), 87; vote of thanks, 87; dinner, 87
Branch, Bath and Bristol, 5, 216, 321; accidental omission, 5; congenital deformity of arm and leg (Mary Morris), 216; biliary and intestinal sand (Geo. Parker), 216; chronic suppuration in extraordinarily large frontal sinuses (Watson Williams), 216; bromoform poisoning (R. Waterhouse), 216; oxycephaly (G. H. H. Almond), 216; annual meeting, 321; confirmation of minutes, 321; installation of new President, 321; report of Council, 321
Branch, Birmingham, 73, 139, 140; confirmation of minutes, 73; apology for non-attendance, 73; case of multiple subcutaneous tumours (Arthur Loxton), 73; two specimens of enlarged prostate with calculi (George Heaton), 73; phthisis in Birmingham (Douglas Stanley), 73; annual report of Branch, 140; Research Defence Society, 140; change of boundaries of Bromsgrove Division, 140; intraperitoneal rupture of bladder (Victor Milward), 140; transplantation of the imperfectly descended testicle (Victor Milward), 140; surgical treatment of exophthalmic goître (Mr. Leedham-Green), 140
Branch, Bombay, 125, 229; tea, 125; confirmation of minutes, 125, 229; exhibits, 125; plea for early operation in cancer (H. J. Dadysett), 125; vote of thanks, 125, 229; election of Representative, 229; grouping of Indian Branches with Malay, Ceylon, etc., 229
Branch, Border Counties, 28, 302; confirmation of minutes, 28, 302; apologies for non-attendance, 28, 302; the late Dr. Mitchell, 28; report of Executive Commission of Scottish Division, 28; Crichton Royal Institution, 28; dinner, 28; the late Dr. Stewart Lockie, 302; pseudo-hypertrophic muscular atrophy (Dr. Edington), 302; extensive intranasal sarcoma (Dr. Syme), 302; arteriosclerosis of the cerebral vessels in young females (Dr. Edington), 302; part-time medical officers of health (Dr. Fisher), 302; elections to Central Council, 302; exhibition of specimens (Dr. Livingston), 302
Branch, Burma, 149, 189, 225; annual meeting, 149, 189, 225; presidential address (by Colonel King), 149; museum, 189; notes on the pathological museum (Captain Whitmore), 190; annual dinner, 225; compound depressed fractures of skull (Major Duer), 225; election of officers, 229; vote of thanks to Chairman, 229
Branch, Cambridge and Huntingdon, 93; confirmation of minutes, 93; specimen of heart-block (G. Sims Woodhead), 93; auriculo ventricular node and bundle of His (Dr. Miller), 93; conjunctival pemphigus (Mr. Wherry), 93; impacted gall stone (Mr. Cook), 93; extrauterine gestation (Mr. Cook), 93; poisoning by oil of winter green (Dr. Graham), 93
Branch, Cape of Good Hope—Eastern Province, 33, 125, 413; confirmation of minutes, 33, 125, 413; Branch library, 33, 125; Annual Representative Meeting, 33; proposed South African Committee, 33, 125; ethical cases and non-members, 33; presentation to library, 33; nomination of officers, 33; food and its poisons (Dr. Bruce-Bays), 34; storage of supplies, 34; dinner, 34, 125; annual meeting, 125; model health rules for Grahamstown, 125; Colonial Medical Council, 125; letter from Transvaal Medical Society, 125; letter from Dr. Greenlees, 125; apology, 125; scale of fees, 125; reports of Secretary and Treasurer, 125; reports and list of members, 125; election of officers, 125; rules for South African Committee, 125; President's address, 125; vote of thanks, 125, 413; Ethical Committee, 125; recurrent carcinoma of face (Dr. Purves), 125; notice of amendment, 125; apology for non-attendance, 413; Parliamentary Committee, 413; anaesthesia for dental extraction, 413; correspondence, 413; accessory sinuses of the nose (Dr. Jones-Phillipson), 413; honorary members, 413; vote of condolence, 413; alteration of rules, 413
Branch, Cape of Good Hope—Western Province, 21; annual meeting, 21; confirmation of minutes, 21; reports, 21; election of officers, 21
Branch, Connaught, 361; annual meeting, 361; confirmation of minutes, 361; apologies for non-attendance, 361; next meeting, 361; election of officers, 361; proposed amalgamation with South-Eastern of Ireland Branch, 361; agenda of annual general meeting, 361; statement of accounts, 361; rules, 361
Branch, Dorset and West Hants, 361; annual meeting, 361; death of King Edward, 361; confirmation of minutes, 361; apologies for non-attendance, 361; financial statement, 362; reports from Divisions, 362; report of Council, 362; grouping of Branches for election to Central Council, 362; installation of new President, 362; vote of thanks to retiring President, 362; summer meeting, 362; alteration of rule, 362; proposed rearrangement of Branches, 362; the Association and old age pensions (Dr. Blake), 362; President's address, "Lest we Forget" (T. Fred. Gardner), 362; exhibits, 366; luncheon, 366
Branch, Dundee, 302; annual meeting, 302; election of officers, 302
Branch, East Anglian, 110, 175; meeting of Council, 110, 175; new members, 110, 175; reports of Divisions, 110; Branch accounts, 110; confirmation of minutes, 175; nomination of officers, 175; date of annual meeting, 175; luncheon, 175; general meeting, 175; proposed publication of proceedings, 175; menorrhagia and metrorrhagia (W. H. Slimon), 175; therapeutic uses of diet (Robert Hutchison), 175; intramuscular treatment of syphilis (George Pernet), 175; tea, 175; exhibits, 175
Branch, Edinburgh, 54, 93, 415; apologies for non-attendance, 54, 415; confirmation of minutes, 54, 415; salary of assistant school board medical officer, 54; draft Charter, 54; Treasurer's report, 54; confirmation of rule, 54; proposed new hospital for women, 54; proposed paying nursing home, 54, 415; conference with Charity Organization Society, 55; vote of thanks, 55, 415; winter clinical meeting, 93; museum, 93; clinical surgical meeting, 94; clinical medical meeting, 94; dinner, 94; report of Branch council, 415; election of office-bearers, 415; induction of President, 415; capitation grants, 415; combined motor meeting at Moffat, 415; Special Representative Meeting, 415; proposals of the Poor Law Commission (Dr. Dewar), 415; dinner, 415
Branch, Fife (and Division), 140; recently deceased members, 140; questions to parliamentary candidates, 141; Poor Law Reform Committee, 141; public medical service, 141; special class of consultants, 141; first aid and ambulance work, 141; relation of homoeopaths to the Association, 141; Research Defence Society, 141; election to Central Council, 141; the conscience clause and vaccination, 141
Branch, Gibraltar, 34, 126, 415; general meeting, 34; confirmation of minutes, 34, 126, 415; annual general meeting and dinner, 34; three cases of somewhat sudden death (Staff Surgeon Daw), 34; specimen of tapeworm with head and hooklets intact (Staff Surgeon Hull), 34; case of ichthyosis (Dr. Lyons), 34; case of Addison's disease (Dr. Lyons), 34; gangrene of the penis (L. D. Parsons), 34; foreign body in oesophagus (L. D. Parsons), 34; operation for brain lesion (L. D. Parsons), 34; carbuncle (L. D. Parsons), 35; exophthalmic goître (L. D. Parsons), 35; annual general meeting, 126; report of Branch Council, 126; election of officers, 126; representative of Branch, 126; annual dinner, 126; male with supernumerary nipple (Dr. Parsons), 415; visit to hospital, 415; proposed formation of library, 416; amendment of local medical ordinance, 416; vote of thanks, 416
Branch, Glasgow and West of Scotland, 151; special meeting, 151; medical inspection and treatment of school children, 151
Branch, Gloucestershire, 6, 87, 110, 165, 216, 416; confirmation of minutes, 6, 87, 110, 165, 216, 416; irido-cyclitis (Norman H. Pike), 6; cerebro-spinal rhinorrhoea (Norman H. Pike), 6; gastrotomy for a swallowed florin (Wayland Ancrum), 6; gastro-jejunostomy in a woman of 84 (Wayland Ancrum), 6; gastric ulcer and hour-glass contraction (Wayland Ancrum), 6; strangulated femoral hernia (J. Howell), 6; Representative at Annual Representative Meeting, 6; cerebral syphilis (Macleod Munro), 87; case of pes cavus and doubtful hereditary ataxy (Mr. Cuthbert), 87; flesh mole from uterus (Mr. Cuthbert), 87; skiagram of wired fractured olecranon (Mr. Cuthbert), 87; skiagram of wired fractured olecranon (Dr. Crosby), 87; anencephalic monster with spina bifida (Dr. Finlay), 87; malignant disease of the tongue (Mr. Cuthbert), 87; lymphangioma of tongue (Dr. Carter), 110; abdominal emergency (C. L. Coode), 110; strokes (S. T. Pruen), 110; acute peritonitis (J. Howell), 165; instruction in first aid, etc., 165; relation of homoeopaths to the Association, 216; Poor Law reform, 216; value of the examination of the cerebro-spinal fluid in general practice (Dr. Collins), 216; specimens from a case of lymphatism (Dr. Burt and Dr. Collins), 216; annual meeting, 216, 416; election of officers, 416; report of Council, 417; Special Representative Meeting, 417; the quickening spirit (Leonard Williams), 417; vote of thanks, 417; dinner, 417
Branch, Leinster, 303; thirty-third annual meeting, 303; confirmation of minutes, 303; apologies for non-attendance, 303; report of Council, 303; election of officers, 304; vote of thanks to retiring chairman, 304; President's address (Sir William Smyly), 304; Poor Law medical service, 304
Branch, Malaya, 126; annual meeting, 126; confirmation of minutes, 126; report and statement of accounts, 127; election of officers, 127; installation of new President, 127; ankylostomiasis (Mr. Watson), 127; intestinal parasites (Dr. Stanton), 127; nastin in leprosy (Dr. Mellosky), 127; malaria (Mr. Watson), 127; communications, 127; "at home," 127; beri-beri (Dr. Fraser), 127; visit to hospitals, etc., 127; annual dinner, 127
Branch, Metropolitan Counties, 217, 372, 402; medical treatment of school children in London, 217; election to Central Council, 372, 402
Branch, Munster, 144; apologies for non-attendance, 144; Poor Law Reform Committee, 144; relation of homoeopaths to the Association, 144; voluntary aid detachments and ambulance work, 144; medical sociology, 144; special class of consultants, 144; election of Council, 144; balance sheet, 144; new members, 144; medico-ethical case, 144
Branch, Natal, 128, 418; annual meeting, 128; apologies for non-attendance, 128, 418; confirmation of minutes, 128, 418;

general report of Branch, 128; Treasurer's report, 128; election of officers, 128; delegates to annual meeting, 128; election of Representative to Representative Meeting, 128, 419; next election of office-bearers, 128; South African Committee regulations, 128; Beit Memorial Fellowships for medical research, 128; votes of thanks, 128; Transvaal Medical Society and State medicine, 418; protest against the inclusion of South African Branches with Gibraltar, etc., 419; specimen of enlarged thymus gland (Dr. Edwards), 419

Branch, Northern Counties of Scotland, 306; confirmation of minutes, 306; apologies for non-attendance, 306; relation of homoeopaths to the Association, 306; medical inspection and treatment of school children found defective, 307; Representative in Representative Meetings, 307; Central Council, 307; penetrating wound of left eye (Dr. Hunter), 307; epithelioma ani (Dr. Sutter), 307; removal of front of right tibia (Gordon Lang), 308; penetrating wound of skull (Gordon Lang), 308

Branch, North Wales, 308; spring meeting, 308; confirmation of minutes, 308; report of Branch Council, 308; financial statement, 308; election of representative on Central Council, 308; election of representative on the Court of Governors of the University College of North Wales, 308; Welsh Committee, 308; excision of wrist (R. H. Mills-Roberts), 308; ruptured urethra (H. Jones Roberts), 308; use of bismuth paste in chronic sinuses (K. W. Monsarrat), 308; treatment of pruritus vulvae (J. Howell Evans), 308; denture for upper jaw filling in gap in septum after excision (Rushton Parker), 308; surgery in stomach disease (J. Hill Abram, 308; scopolamine in normal labour (A. J. Wallace), 308; unusual case of bone disease (O. T. Williams), 308; cardiac syphilis (R. J. M. Buchanan), 308; vote of thanks, 308; dinner, 308

Branch, Oxford and Reading, 308; special general meeting, 308; minutes, 308; Poor Law reform, 308; relation of homoeopaths to the Association, 308; payment for ambulance lectures, 308; special class of consultants, 308; apologies for non-attendance, 308

Branch, Perthshire, 55, 419; annual meeting, 55; new member, 55, 419; confirmation of minutes, 55, 419; apologies for non-attendance, 55, 419; report of Council, 55; report of Representative, 55; Treasurer's report, 55; effect of bacterial vaccines on nutrition (Dr. Bruce), 55; "secret remedies," 55; dinner, 55; election of officers, 419; instructions to Representative, 419; golf match, 419

Branch, Queensland, 55; annual meeting, 55; reports of Council, 55; election of officers, 55; Presidential address, eugenics in the light of higher civilization (Dr. Hardie), 55; installation of new President, 56

Branch, Somerset, West, 129; spring meeting, 129; confirmation of minutes, 129; Red Cross Society, 129; Poor Law reform, 130; cases, 130; tea, 130

Branch, South-Eastern of Ireland, 144, 167, 308; confirmation of minutes, 144, 167, 309; correspondence, 144; election of members on Central Council, 144, 167; Research Defence Society, 144; life insurance companies, 144; apologies for non-attendance, 167, 309; election of office-bearers, 167, 309; Poor Law medical service, 167; new member, 167, 309; luncheon, 167; annual meeting, 308; installation of new President, 309; vote of thanks, 309; nomination for election on Central Council, 309; vote of condolence, 309; dinner, 309

Branch, South Wales and Monmouthshire, 421; fortieth annual meeting, 421; confirmation of minutes, 421; report of Council, 421; representation on Central Council, 421; financial statement, 421; report of Contract Practice Committee, 421; Central Council, 421; election of officers, 421; installation of new President, 421; vote of thanks to ex-President, 421; President's address: accumulation of the insane in county and borough asylums (J. Glendinning), 421; the late Dr. Fiddian, 422; annual dinner, 422

Branch, Stirling, 309; annual meeting, 309; death of King Edward, 309; confirmation of minutes, 309; election of office-bearers, 309; report of Council, 309; suppurative affections of the nasal accessory sinuses (Walker Downie), 309; vote of thanks, 309

Branch, Ulster, 75, 231, 422; winter meeting, 75; confirmation of minutes, 75, 231; report of Council, 75, 231; Research Defence Society, 75; spring meeting, 231; apologies for non-attendance, 231, 422; luncheon, 231; thirty-second annual meeting, 422; annual report, 422; election of office-bearers, 422; report of council, 422; myomectomy during pregnancy (Sir John Byers), 422; streptococcic throat (Sir John Byers), 423; Midwives Act, 423; Tuberculous Prevention (Ireland) Act, 1908 (Dr. Agnew), 423; multilocular ovarian cyst (Dr. Dempsey), 424; ovarian cyst with twisted pedicle (Dr. Dempsey), 424; tubal abortion (Dr. Dempsey), 424; bony growths from atlas (Professor Sinclair), 424; various specimens of uterus (John Campbell), 424

Branch, Worcestershire and Herefordshire, 8, 309; joint meeting, 8; immuno-therapy in acute streptococcal infections (G. Scott Williamson), 8; vote of thanks, 8; medical inspection and treatment of school children, 8; confirmation of minutes, 309; significance of some symptoms in the medical examination of children (George Alexander Sutherland), 309; two cases of rodent ulcer and one of multiple warts (Bertram Addenbrooke), 309; von Recklinghausen's disease (C. S. Morrison), 309; Graves's disease (John Wilkinson), 309; Hodgkin's disease (T. Bates), 309; excision of knee and ankle for infantile paralysis (T. Bates), 309; fracture of both patellae (T. Bates), 309; double pyosalpinx (T. P. Gostling), 309; annual meeting, 309

Branch, Yorkshire, 159; new members, 159; annual reports, 159; *Specimens:* Two cases of gastrectomy (J. F. Dobson), 159; pyloric ulcer, Rodman's operation (J. F. Dobson), 159; ulcer of anterior surface of stomach (J. F. Dobson), 159; duodenal ulcer (J. F. Dobson), 159; radiograph—by Dr. Rowden—of hour-glass contraction of stomach, gastro-gastrostomy (J. F. Dobson), 159; vaccine therapy (Dr. Veitch), 159; treatment of chorea in pregnancy (Dr. Croft), 159; treatment of puerperal septic diseases (Dr. Oldfield), 159; county laboratories, 159; dinner, 159

Branches, Midland and East York and North Lincoln, 372; Central Council election, 372

Brighton Division. *See* Division

British Medical Association. *See* Association

British Medical Benevolent Fund. *See* Fund

BRUCE, Dr.: Effect of bacterial vaccines on nutrition, 55

BRUCE-BAYS, Dr.: Food and its poisons, 34

BUCHANAN, R. J. M.: Cardiac syphilis, 308

Buckinghamshire Division. *See* Division

BUNTING, DORA: The position of medical practitioners with regard to the Midwives Act, 1902, 417

Burma Branch. *See* Branch

Burma, prevention of tuberculosis in (Colonel King), 192

BURROWS, Mr.: Mesenteric chylous cyst, 97

Bury Division. *See* Division

Bury and Rochdale Divisions. *See* Divisions

BUSZARD, Dr.: Cerebral tumour, 167

BYERS, Sir JOHN: Myomectomy during pregnancy, 422; streptococcic throat, 423

C.

Caesarean section (Dr. Livingstone), 140

Cambridge and Huntingdon Branch. *See* Branch

CAMPBELL, JOHN: Various specimens of uterus, 424

Cancer, recent methods of treatment of (R. W. Wild), 370

Cancer of bowel (Dr. Livingstone), 140

Canterbury and Faversham Division. *See* Division

Cape of Good Hope Branch. *See* Branch

Carbuncle (L. D. Parsons), 35

Carcinoma. *See* Cancer

Cardiff Division. *See* Division

CARLING, Dr.: Acute inversion of uterus following labour, 159

CARTER, Dr.: Lymphangioma of tongue, 110

Central Division. *See* Division

Cerebro-spinal fever. *See* Fever

Charter. *See* Association, British Medical, the Charter

Chelsea Division. *See* Division

CHILDE, Mr.: Spindle-celled sarcoma of upper jejunum, 97; surgical points in ulcer of stomach and duodenum, 159

Childhood, common deformities of (A. H. Tubby), 128

Children, significance of some symptoms in the medical examination of (George Alexander Sutherland), 309

City Division. *See* Division

COLE-BAKER, Dr.: Wired olecranon and radius and ulna, 159

Colitis (A. Voelcker), 96

COLLINS, Dr.: Value of an examination of the cerebro-spinal fluid in general practice, 216

Colonial Committee. *See* Committee

Commercial Travellers' Association. *See* Association

Committee, Arrangements, 69

Committee, Colonial, 68, 277; report to Council, 68; report of Council on, 277

Committee, Central Ethical, 65, 68, 270, 281; report of Council on the relation of homoeopaths to the Association, 65; report to Council, 68, 281; Hampstead Hospital dispute, 68; report of Council on, 270; approval of report by Council, 281

Committee, Hospitals, 68, 276, 282; report to Council, 68, 282; report of Council on, 276; approval of report by Council, 282

Committee, Irish, 277, 282; report of Council on, 277; report of to Council, 282; approval of report by Council, 282

Committee, Journal and Finance, 67, 279; minutes, 67, 279

Committee, Medico-Political, 1, 68, 271, 281; questions for parliamentary candidates on subjects affecting the public health and the medical profession, 1; report to Council, 68, 281; report of Council on, 271; approval of report by Council, 281

Committee, Naval and Military, 276; report of Council on, 276

Committee, Organization, 67, 258, 279; report to Council, 67; Council report on, 258; approval of report of by Council, 279

Committee, Special Poor Law Reform, 41, 68, 94, 96, 97, 110, 111, 112, 127, 128, 129, 139, 141, 144, 155, 156, 157, 167, 175, 176, 195, 216, 229, 231, 275, 282, 303, 306, 308, 372, 399, 425; interim report to Divisions reviewing the relief of distress as at present conducted, 41; report to Council, 68, 282; report of Council on, 275; approval of report by Council, 282. Resolutions of—Blackburn Division, 110; Bournemouth Division, 195; Brighton Division, 167; Bucks Division, 129; Canterbury and Faversham Division, 231; Central Division, 216; Chelsea Division, 96; City Division, 141; Dorset (West) Division, 229; Dumbartonshire and Argyllshire Division, 94; Exeter Division, 112; Fife Branch and Division, 141; Glasgow Central Division, 155; Glasgow Eastern Division, 155; Glasgow North-West Division, 229; Gloucestershire Branch, 216; Guernsey and Alderney Division, 129, 231; Guildford Division, 129; Hampstead Division, 156; Harro-

gate Division, 425; Kensington Division, 176; Lambeth Division, 127; Leinster Branch, 304; Lincoln Division, 306; Manchester South Division, 303; Monmouthshire Division, 144; Munster Branch, 144; Northumberland North Division, 157; Norwood Division, 96; Oxford and Reading Branch, 308; Reigate Division, 399; Rochdale Division, 175; Salisbury Division, 111; South-Eastern of Ireland Branch, 167; Southport Division, 156; Staffordshire (South) Division, 167; Trowbridge Division, 139; Walthamstow Division, 372; Wandsworth Division, 96; Westminster Division, 128; West Somerset Branch, 129; Winchester Division, 97

Committee, Public Health, 68, 275, 281; report to Council, 68, 281; report of Council on, 275; approval of report by Council, 281

Committee, Science, 67, 269, 280; report to Council, 67; report of Council on, 269; approval of report by Council, 280

Committee, Scottish, 277, 282; report of Council on, 277; report to Council, 282; approval of report by Council, 282

Committee, Territorial Forces, 68, 229, 282; report to Council, 68, 282; approval of report by Council, 282; resolutions of —Dorset (West) Division, 229

Connaught Branch. *See* Branch

Consultants, special class of, 5, 6, 7, 8, 17, 28, 33, 54, 55, 69, 73, 74, 75, 76, 94, 95, 96, 97, 111, 128, 141, 144, 155, 156, 157, 167, 195, 229, 308, 322, 396, 399; discussion on, opened by Dr. F. J. Smith, 322; resolutions of — Belfast Division, 8; Blackburn Division, 6; Bournemouth Division, 195; Buckinghamshire Division, 7; Central Division, 33; Chelsea Division, 96; City Division, 54; Dorset (West) Division, 229; Dumbartonshire and Argyllshire Division, 94; Fife Branch and Division, 141; Folkestone Division, 55; Furness Division, 128; Glasgow Central Division, 6, 155; Glasgow, Eastern Division, 73; Guildford Division, 74; Halifax Division, 76; Hampstead Division, 17, 156; Kensington Division, 322; Lambeth Division, 28; Leeds Division, 8; Manchester Central Division, 396; Manchester South Division, 95; Monmouthshire Division, 8; Munster Branch, 144; Northumberland North Division, 157; Norwood Division, 69; Nottingham Division, 111; Oxford and Reading Branch, 308; Portsmouth Division, 7; Reigate Division, 399; St. Helens Division, 28; Salford Division, 69; Salisbury Division, 111; Southern Division, 6; Southport Division, 7; Staffordshire South Division, 167; Swansea Division, 97; Trowbridge Division, 5; Worcester Division, 75

Contract practice, 141, 155, 166, 369, 396, 421

COODE, C. L.: Abdominal emergency, 110

COOK, Mr.: Impacted gall stone, 93

Coolie practice, some problems in (J. D. Gregorson), 85

COOPER, P. R.: Medical treatment of the poor, 105

Coroners' juries, riders to verdicts by, 303, 369

Coventry Division. *See* Division

COULTER, Dr.: Fragment of steel removed by Haab's giant electro-magnet, 112

Council, General Medical, 98, 311, 340; meeting of Executive Committee, 98; new members, 98, 311; Indian Medical Service, 98; the Apothecaries' Hall, Dublin, 98, 355; dispensing of poisons by medical practitioners, 99; International Congress of Medicine, 99; Royal Faculty of Physicians and Surgeons of Glasgow, 99; Anaesthetics Bill, 99; the Apothecaries' Society, London, 99, 355; practice by British practitioners in foreign countries, 100; dental education and examination, 100, 356; finance, 100, 356; President's address, 311; vote of thanks, 313; address to the King, 313; Business Committee, 313; statistics, 313; reciprocity with Prince Edward Island, 313; the *Medical Register*, 314; sitting in camera, 315; committees, 315, 354; medical disciplinary cases, 340; case of David Thomas Jones, 340; case of Henry Vernon Taylor, 347; case of Charles Lyddon, 348; case of James Forrest, 349; case of William Gordon Hanna, 351; case of Donald Murdoch, 352; case of Robert Orr, 352; case of Charles Frederick Dillon Shaw-Mackenzie, 352; case of Jean Leon Louis, 353; dental disciplinary cases, 353; case of Ernest Horne, 353; case of Thomas Abraham Rogers, 353; case of Edward Joseph Regan, 354; examinations for the services, 355; Public Health Committee, 355; separate examinations in final subjects, 355; practical examinations in ophthalmology, otology, and laryngology, 356; proposed inspection of dental examinations, 356; report of Pharmacopoeia Committee, 356; report of Finance Committee, 356; extension of the Midwives Act to Ireland, 357; position of chemistry, physics, botany, and zoology in the curriculum, 357; vote of thanks, 358; death of King Edward VII, 358

CRAWLEY, Dr.: Case of obstructed labour, 96

CRICHTON, G. C.: Election of Central Council, 1910, 402

CROFT, Dr.: Treatment of chorea in pregnancy, 159

CROSBY, Dr.: Wired fractured olecranon, 87

CROWE, G. W.: Two cases of phthisis in children successfully treated with tuberculin injections, 75

CURTIS, HENRY: Cases of abdominal surgery, 96

CUTHBERT, WM.: Case of pes cavus and doubtful hereditary ataxy, 87; case of flesh mole from uterus, 87; skiagram of wired fractured olecranon, 87; malignant disease of tongue, 87

Cyst, ovarian, multilocular (Dr. Dempsey), 424

Cyst, ovarian, with twisted pedicle (Dr. Dempsey), 424

D.

DADYSETT, Dr.: Plea for early operation in cancer, 125

DAWS, Staff Surgeon: Three cases of somewhat sudden death, 34

Death, Registrar-General and information as to cause of, 302, 370

DEMPSEY, Dr.: Multilocular ovarian cyst, 424; ovarian cyst with twisted pedicle, 424; tubal abortion, 424

Destitution Bill. *See* Bill

DEWAR, Dr.: The proposals of the Poor Law Commission, 415

Diabetes insipidus (F. H. Jacob), 166

Dispensary, City, London, annual report, 131

Dispensing and prescribing, 402; conference between the British Medical Association and the British Pharmaceutical Conference, 402

Division, Altrincham, 165, 366; special meeting, 165; apologies for non-attendance, 165; presentation to Dr. Garstang, 165; whole-time medical officers of health, 165; forty-fifth general meeting, 366; confirmation of minutes, 366; minutes of committee meetings, 366; letter of sympathy to Dr. Golland, 366; relation of homoeopaths to the Association, 366; instruction in first aid, 366; nominations to Central Council, 366; report of members of Branch Council, 366; Poor Law reform (J. H. Taylor), 366; dinner, 367

Division, Ashton-under-Lyne, 95; annual meeting, 95; confirmation of minutes, 95; election of officers, 95; annual dinner, 95

Division, Belfast, 8; death of the Hon. Archibald Gordon, 8; special class of consultants, 8; reports of Poor Law Commission, 8

Division, Blackpool, 367, 417; annual meeting, 367; confirmation of minutes, 368, 417; candidature of Dr. Garstang for Central Council, 368; parliamentary representation of the profession, 368; medical treatment of school children, 368; programme of annual meeting, 368; the Charter, 368; instruction in ambulance work, 368; report of Executive Committee, 368; election of officers, 368; medical practitioners and midwives (Dora Bunting), 417; Deputy Representative, 417; Special Representative Meeting, 417; Annual Representative Meeting, 417

Division, Blackburn, 6, 17, 110, 230, 417; confirmation of minutes, 6, 17, 110, 230; special class of consultants, 6; public medical service, 6; questions to candidates for Parliament, 17; relation of homoeopaths to the Association, 110; report of Poor Law Reform Committee, 110; recruiting campaign, 110; annual meeting, 230; work of the Division, 230; election of officers, 230; proprietary medicines and the medical profession, 230; vote of thanks, 230; invitation to Branch, 230; election of Central Council, 417; Special Representative Meeting, 417

Division, Boston and Spalding, 195; confirmation of minutes, 195; an ethical question, 195; postponement of meeting, 195; treatment of squint (Mr. Laws), 195; vote of thanks, 195; treatment of school children, 195; tea, 195

Division, Bournemouth, 195, 321; confirmation of minutes, 195, 321; nomination of candidates to Central Council, 195; special class of consultants, 195; relation of homoeopaths to the Association, 195; Poor Law reform, 195; next meeting, 195; annual meeting, 321; report and financial statement, 321; election of officers, 322; public medical service, 322; parliamentary representation of the profession, 322; vote of condolence, 322

Division, Brighton, 166; confirmation of minutes, 166; Research Defence Society, 166; perforated gastric ulcer, 166; Poor Law reform, 167; Pathological Branch of Public Health Service, 167

ivision, Bucks, 7, 129, 420; ambulance lectures, 7; acromegaly (Dr. Shaw), 7; Annual Representative Meeting, 7; club fees in Aylesbury, 7; special class of consultants, 7; dinner, 7; apologies for non-attendance, 129; boundaries of Division, 129; election of Central Council, 129; the tuberculosis problem (Dr. Hogarth), 129; medical practitioners and midwives, 129; Poor Law reform, 129; relation of homoeopaths to the Association, 129; annual report of Committee, 420; balance-sheet, 420

Division, Bury, 368; annual meeting, 368; confirmation of minutes, 368; practitioners and midwives, 368; report and balance sheet, 368; election of officers, 368; joint meeting with Bury Medical Society, 368

Division, Canterbury and Faversham, 55, 231; luncheon, 55, 231; apology for non-attendance, 55; confirmation of minutes, 55, 231; next meeting, 55, 231; Bradford rules, 55; surgical aspect of the tonsils (George E. Waugh), 55; postponement of paper, 55; vote of thanks, 55, 231; vote of condolence, 231; correspondence, 231; State sickness insurance, 231; Poor Law reform, 231; a few points in treatment not generally found in books (Prideaux Selby), 231

Division, Cardiff, 422; annual meeting, 422; election of officers, 422

Division, Central, 33, 216; confirmation of minutes, 33, 216; apologies for non-attendance, 33, 216; scale of fees for midwives' calls, 33; West Bromwich Education Committee, 33; special class of consultants, 33; the late Professor Taylor, 216; election of extra Representative, 216; Poor Law reform, 216; relation of homoeopaths to the Association, 216; instruction in first aid, etc., 216

Division, Chelsea, 21, 95, 305; confirmation of minutes, 21, 95, 305; apology for non-attendance, 21; Fulham Board of Guardians, 21; Research Defence Society, 21; medical practitioners and midwives, 21; questions to candidates for Parliament, 21; application of rates to support of hospitals, 21; audit of

accounts, 21; letters, 95, 305; annual report, 96; Poor Law Reform Committee, 96; report on homoeopathy, 96; special class of consultants, 96; election of Representative for next Representative Meeting, 96; Dinner Committee, 96; new members, 96; Bolingbroke Hospital, 96; election of two members on the Contract Practice Committee of the Branch, 305; report of Dinner Committee, 305; hour of meeting, 305; treatment of school children, 305; vote of thanks, 305

Division, City, 54, 110, 141, 305, 396; confirmation of minutes, 54, 396; the late Dr. Wells, 54; Research Defence Society, 54; annual report to Branch Council, 54; special class of consultants, 54; medical inspection and treatment of school children, 54, 141, 305; questions to Parliamentary candidates, 54; Manchester Corporation and payments to medical men for calls by midwives, 54; inspection of the hospital, 110; cases, 110; vote of thanks, 111, 141, 398; invitation to non-members, 141; Poor Law Reform Committee, 141; relation of homoeopaths to the Association, 141; instruction in first aid to the Territorial Force and ambulance work in general, 141; Contract Practice Committee, 141; postponement of demonstration of skin diseases, 141; appointment of committee, 306; eighth annual meeting, 396, 397; letters, 396; election of officers, 396; annual report of Executive Committee, 397; Annual Representative Meeting, 397; change of rule, 397; Medical Charities Committee, 397; model rules for proposed public medical service, 398

Division, Coventry, 93; model rules for a public medical service, 93; midwives and doctors' fees, 93; sanatoriums for tuberculous workers (V. Pendred), 93; abuse of hospitals, especially of out-patient departments (Dr. Phillips), 93

Division, Dorset, West, 229; annual meeting, 229; election of officers, 229; matters referred to Divisions, 229; special class of consultants, 229; relation of homoeopaths to the Association, 229; Territorial Forces Committee, 229; Poor Law reform, 229; medical inspection and treatment of school children, 229; Central Council for 1910–11, 229; parliamentary representation of the profession, 229; report of Representative, 229

Division, Dumbartonshire and Argyllshire, 94; confirmation of minutes, 94; special class of consultants, 94; model rules of a public medical service, 94; medical inspection of schools, 94; instruction in first aid and field nursing to voluntary detachments, and ambulance work in general, 94; interim report on Poor Law, 94; relation of homoeopaths to the Association, 94; questions to parliamentary candidates, 95; Research Defence Society, 95

Division, Eastbourne, 399; eighth annual meeting, 399; apology for non-attendance, 399; confirmation of minutes, 399; report of Executive meeting, 399; election of officers, 399; dinner, 399

Division, Exeter, 112; matters referred to Divisions, 112; medical inspection and treatment of school children, 112; report of Poor Law Committee, 112; relation of homoeopaths to the Association, 112; voluntary aid detachments, 112

Division, Fife, and Fife Branch. *See* Branch

Division, Folkestone, 55, 128, 399; confirmation of minutes, 55, 129, 399; special class of consultants, 55; dinner, 56; relation of homoeopaths to the profession, 129; gall stones (Dr. Eastes), 129; annual meeting, 399; report of Executive Committee, 399; election of officers, 399; date of annual meeting of Division, 399; medical inspection of school children, 399

Division, Furness, 128, 398; confirmation of minutes, 128; treatment of defective school children, 128; discussions at annual meeting, 128; special class of consultants, 128; inquiry into unqualified practice, 128; public medical service, 128; annual meeting, 398; election of officers, 398; locomotor ataxy (Dr. Williams), 398; inversion of uterus (J. A. Reed), 398; onychia of both great toes (Dr. Harper), 398; sale of practices and clubs, 399; Parliamentary representation of the profession, 399

Division, Gateshead, 231; model rules for a public medical service, 231

Division, Glasgow Central, 6, 155, 416; confirmation of minutes, 6, 416; Representative at Annual Representative Meeting, 6; special class of consultants, 6, 155; medical inspection and treatment of school children, 6, 155; model rules of a public medical service, 6, 155; firm of unregistered practitioners, 6; next meeting, 6; report on the Poor Laws, 155; relation of homoeopaths to the Association, 155; annual meeting, 416; election of officers, 416; work of the Division, 416; financial statement, 416

Division, Glasgow Eastern, 73, 155, 416; confirmation of minutes, 73, 155, 416; special class of consultants, 73; rules for a public medical service, 73; inspection and treatment of school children, 73; Research Defence Society, 73; interview with Medical Secretary, 155; Poor Law reform, 155; relation of homoeopaths to the Association, 155; organization of Division, 155; annual meeting, 416; election of officers, 416; the Annual Meeting in London, 416; alteration of rules of Association, 416; nomination of Representative on Central Council, 416; lantern demonstration on the modern idea of the neurone (Hamilton C. Marr), 416; tea and vote of thanks, 416

Division, Glasgow North-Western, 126, 229, 396; confirmation of minutes, 126, 229, 396; questions to parliamentary candidates, 126; treatment of defective school children, 126; votes of thanks, 126, 230; proposed payment of hospital staffs, 126, 229; apology for non-attendance, 229; public health medical service, 229; Poor Law reform, 229; relation of homoeopaths to the Association, 229; instruction in first aid, 229; annual meeting, 396; parliamentary representation of the profession, 396; annual report, 396; election of officers, 396; installation of new President, 396; vote of thanks to retiring Chairman, 396; alteration of Rule 7, 396; medical students and the Association, 396

Division, Guernsey and Alderney, 129, 231, 419; Division's new house, 129; Honorary Secretary's report, 129, 419; matters referred to Divisions, 129, 231; model rules for a public medical service, 129, 231; medical inspection and treatment of school children, 129, 231; Poor Law Reform Committee's report, 129, 231; ambulance and first-aid lectures, 129; the Association and homoeopaths, 129, 231; the late Dr. H. J. Manning, 129; correspondence, 231; clinical case (Dr. Aikman), 231; library, 231; annual meeting and dinner, 231, 419; election of officers, 419; vote of thanks to retiring President, 419

Division, Guildford, 74, 129; confirmation of minutes, 74, 129; change of boundary, 74; report of the Poor Law Commission as affecting general practitioners (F. Edward Pearse), 74; report on special class of consultants, 74; medical inspection and treatment of school children, 74; payment of practitioners called in by midwives, 75; public medical service, 75; Research Defence Society, 75; clinical medicine as an aid to pathology (Thomas Horder), 129; omental cyst (A. H. Gifford), 129; matters referred to Divisions, 129; Special Poor Law Reform Committee, 129; relation of homoeopaths to the profession, 129; vote of thanks, 129

Division, Halifax, 76; confirmation of minutes, 76; apology for non-attendance, 76; special class of consultants, 76; public medical service, 76; Manchester Corporation and the Midwives Act, 76; medical inspection and treatment of school children, 76; questions to parliamentary candidates, 76; Research Defence Society, 76; medical men and police evidence, 76; Dinner Committee, 76

Division, Hampstead, 17, 73, 127, 156, 230; refraction of the eyes in children (E. A. Dorrell), 17; special class of consultants, 17, 156; treatment of school children, 17; the late Dr. J. H. Wells, 73; peripheral paralysis (Lewis Jones), 73; Hampstead Hospital, 127; protozoology and its medical aspects (Professor Minchin), 127; vote of thanks, 127; warning notices, 156; election of Representative, 156; Contract Practice Committee, 156; sanatoriums for workers suffering from tuberculosis, 156; Poor Law reform, 156; relation of homoeopaths to the Association, 157; the Wells Fund, 157; boundaries, 157; confirmation of minutes, 230; apologies for non-attendance, 230; parliamentary representation for medical practitioners, 230; Hampstead Council of Social Welfare, 230; nominations, 230; boundaries of Divisions, 230

Division, Harrogate, 425; annual meeting, 425; confirmation of minutes, 425; election of officers, 425; Poor Law reform, 425; medical inspection of school children, 425; relation of homoeopaths to the Association, 425; instruction in first aid, 425; the Charter, 425; dinner, 425

Division, Hereford, 424; annual meeting, 424; election of officers, 424

Division, Isle of Thanet, 158; confirmation of minutes, 158; specimens, 158; *Demonstrations:* Melanotic sarcoma (Dr. Spilsbury), 158; carcinoma of rectum and stomach (Dr. Spilsbury), 158; acute glanders (Dr. Spilsbury), 158; lympho-sarcoma of small intestine (Dr. Spilsbury), 158; correspondence, 158; skiagrams, 158; cases, 159; annual meeting, 159

Division, Isle of Wight, 419; election of officers, 419; Special Representative Meeting, 419

Division, Jersey, 144, 400; votes of condolence, 144; public medical service, 144; relation of homoeopaths to the Association, 144; annual meeting, 400; confirmation of minutes, 400; report and financial statement, 400; election of officers, 400

Division, Kensington, 48, 88, 176, 322; administration of a voluntary hospital (E. W. Morris), 48; discussion on, 52; vote of thanks, 54; vaccine therapy (Sir Almroth Wright), 88; demonstrations, 88; confirmation of minutes, 176; an ethical case, 176; Wells Fund, 176; treatment of school children and the proposed public medical service, 176; committee of the Branch on contract practice, 176; relation of homoeopaths to the Association, 176; Poor Law reform, 176; nominations for Branch Council and Central Council, 176; correspondence, 176; special meeting, 322; special class of consultants, 322; consultants and general practitioners, discussion on opened by Dr. F. J. Smith, 322

Division, Lambeth, 28, 88, 127, 230; confirmation of minutes, 28, 88, 127, 230; mistakes in the diagnosis of measles, German measles, chicken-pox, small-pox, and scarlet fever (E. W. Goodall), 28; the late Dr. J. H. Wells, 28; special class of consultants, 28; votes of thanks, 28, 88, 127, 230; some forms of pyuria (H. S. French), 88; cases, 88; Poor Law reform, 127; relation of homoeopaths to the Association, 127; infant feeding (David Forsyth), 127; demonstration of cases, 127, 231; annual meeting, 230; election of officers, 230; election of Representative at Representative Meetings, 230; treatment of school children. 230; tea, 231

Division, Leeds, 8; special class of consultants, 8; Annual Representative Meeting, 8; communications, 9; next meeting, 9

Division, Leicester and Rutland, 418; confirmation of minutes, 418; proposed new articles of association, 418

Division, Lincoln, 306; annual meeting, 306; election of officers, 306; Poor Law reform, 306; relation of homoeopaths to the Association, 306; the Division and

the Annual Representative Meeting, 306; fees for certification of pauper lunatics, 306; tea, 306
Division, Maidstone, 75, 176; minutes, 75; training of voluntary aid detachments, 75; apologies for non-attendance, 75, 176; midwives and medical practitioners, 75, 176; Bearsted and Thurnham Nursing Association, 75, 176; East Malling Nursing Association, 75; balance sheet, 75; Research Defence Society, 176; proposed invitation to Branch Council, 176; annual dinner, 176
Division, Manchester Central, 396; annual meeting, 396; election of officers, 396; annual report, 396; business of Annual Representative Meeting, 396; consultants and general practitioners, 396
Division, Manchester South, 95, 166, 302, 368; apologies for non-attendance, 95, 302, 368; confirmation of minutes, 95, 166, 302, 368; special class of consultants, 95; National Deposit Friendly Society, 95; Manchester Corporation and payment of medical men called in by midwives, 95, 166; model rules of a public medical service, 95; medical inspection and treatment of school children, 95, 166, 303, 369; correspondence, 166, 368; terms of employment, other than fees, in clubs, 166; relation of homoeopaths to the Association, 166; the medical tariff as issued by the Manchester Medico-Ethical Association, 166; question of fees in midwifery, 166; the Registrar-General and information as to cause of death, 302, 370; the late Dr. F. W. Jordan, 302, 370; Poor Law reform, 303; riders by coroners' juries to verdicts, 303, 369; Joint Committee—rules approved by the Special Committee of Consultants and General Practitioners, 303; congratulations to Dr. Niven, 303; annual meeting, 368 - annual report of Executive Committee, 368; rule regarding contract work, 369; Manchester and District Warehouse; men and Clerks' Association, 369; ethical relationship between the general practitioner and consultant, 369; ethical cases, 370; BRITISH MEDICAL JOURNAL SUPPLEMENTS, 370; the late Dr. John Milson Rhodes and Dr. F. W. Jordan, 370; Treasurer's report, 370; election of office-bearers, 370; installation of new Chairman, 370; vote of thanks to past officials, 370; addition to the rules on "The Ethics of Consultation," 370; resolution from the Chelsea Division, 370; some recent methods in the treatment of cancer (R. B. Wild), 370; vote of thanks, 370
Division, Monmouthshire, 7, 112, 144, 442; Poor Law report, 7, 144; vote of thanks, 8, 442; apologies for non-attendance, 8, 112, 442; confirmation of minutes, 8, 112, 442; election of Representative at Representative Meeting, 8; Ebbw Vale disputes, 8, 112, 144; consultants, 8; high temperature in pregnancy due to infection by *Bacillus coli* (J. L. Thomas), 8; wound of brachial artery by dog bite (C. B. Gratte), 8; specimens, 8; report *re* disputes, 112, 144; recommendation from Executive Committee, 112; Research Defence Society, 112; three cases of duodenal ulcer associated with acute glycosuria (O. E. B. Marsh), 112; persistent thyroglossal duct (Dr. Haslett), 112; movable enlargement of the ends of the ulnae (Dr. McAllen for Dr. Mulligan), 112; steel removed by Haab's giant electro-magnet (Dr. Coulter), 112; tea, 112; payment of medical men called in to assist midwives, 144; report on public medical service, 144; vote to Branch Contract Practice Committee, 144; medical inspection of school children, 144; Poor Law Reform Committee, 144; relation of homoeopaths to the Association, 144; instruction in first aid and field nursing to voluntary aid detachments, 145; annual meeting, 442; election of officers, 442; report of Executive Committee, 442; dates of meetings, 442; correspondence, 442; address by Dr. Mott, 442; Special Representative Meeting, 442; parliamentary representation, 442
Division, Northamptonshire, 167, 420; confirmation of minutes, 167, 421; questions to parliamentary candidates, 167; assistant medical officers of health for Northampton, 167; relation of homoeopaths to the Association, 167; Northants Amateur Athletic Club, 167; heart from a patient who died from infective endocarditis (Dr. Hichens), 167; oesophageal dilatation in an achondroplasic dwarf (Dr. Hichens), 167; tuberculosis of conjunctiva (Mr. Harries-Jones), 167; cerebral tumour (Dr. Robson and Dr. Buzzard), 167; annual meeting, 420; Secretary's annual report, 421; election of officers, 421; treatment of eclampsia (J. S. Fairbairn), 421; vote of thanks, 421; medical representation in Parliament, 421
Division, Northumberland, North, 74, 157; apologies for non-attendance, 74, 157; confirmation of minutes, 74, 157; Northumberland County Nursing Association, 74; collection of accounts, 74, 157; new members, 74; tea, 74, 157; medical practitioners and midwives, 157; public medical service, 157; medical inspection and treatment of school children, 157; special class of consultants, 157; Poor Law reform, 157; relation of homoeopaths to Association, 157; first aid and ambulance instruction, 157; paper (Dr. Macaskie), 157
Division, Norwich, 413; report of Executive Committee, 413; Norwich Public Medical Service, annual report, 414
Division, Norwood, 69, 96, 398; confirmation of minutes, 69, 96; the late Dr. J. H. Wells, 69, 96; special class of consultants, 69. *Demonstration:* Preparation and method of using solid CO_2 (G. Batten), 69; inspection of wards and buildings, 69; next meeting, 69, 96; Wells Fund, 96; correspondence, 96; Poor Law Reform Committee, 96; colitis (A. Voelcker), 96; lantern demonstration, 96; first meeting of newly constituted Division, 398; adoption of rules, 398; annual report, 398; election of officers and Executive Committee, 398; next meeting, 398; dinner, 398
Division, Nottingham, 111, 166; special meeting 111; confirmation of minutes, 111; appointment of Divisional Organizing Secretary, 111; election of Representatives, 111; special class of consultants, 111; medical inspection and treatment of school children, 111; diabetes insipidus (F. H. Jacob), 166; intestinal obstruction (W. M. Willis), 166
Division, Oxford, 157; confirmation of minutes, 157; tuberculosis in Oxford, (Dr. Ormerod), 157; postal referendum, 157; British Medical Benevolent Fund, 157; business meeting, 157; status lymphaticus (Dr. Cheatle), 157; abdominal tumours (E. C. Bevers), 158; therapeutic value of mental suggestion (H. E. Wingfield), 158; vote of thanks, 158
Division, Portsmouth, 7, 96, 159; confirmation of members, 7; special class of consultants, 7; election of Representative, 7; clinical meeting, 96, 159; case of obstructed labour (Dr. Crawley), 96; two cases of submucous resection of the nasal septum (Mr. Childe), 96; case of pneumonia (L. Maybury), 96; mesenteric chylous cyst (Mr. Burrows), 97; spindle-celled sarcoma of upper jejunum (Mr. Childe), 97; various forms of anaemia (Dr. Leon), 97; cases of wired olecranon and radius and ulna (Dr. Cole-Baker), 159; case of modified mastoidectomy with preservation of the ossicles (Mr. Ridout), 159; two cases of exophthalmic goitre (Dr. Davis Taylor), 159; acute inversion of uterus following labour (Dr. Carling), 159; some surgical points in ulcer of stomach and duodenum (Mr. Childe), 159; puerperal pyaemia (Dr. Holmes), 159; recurrent pneumococcus infection (Dr. Davis Taylor), 159; specimens (L. Maybury), 159
Division, Reigate, 399; annual meeting, 399; confirmation of minutes, 399; election of officers, 399; special class of consultants, 399; medical inspection and treatment of school children, 399; Poor Law reform, 399; relation of homoeopaths to the Association, 399; special committees on certain diseases, 399
Division, Richmond, 96, 141; interesting cases of abdominal surgery (Henry Curtis), 96; vote of thanks, 96; supervision of midwives, 141
Division, Rochdale, 175; annual meeting, 175; confirmation of minutes, 175; election of officers, 175; Executive Committee, 175; annual report, 175; Poor Law reform, 175; relation of homoeopaths to the Association, 175; election to Central Council, 176; motions from the Division to Annual Representative Meeting, 176; election of President of Association, 176; fixity of tenure for medical officers of health, 176; the BRITISH MEDICAL JOURNAL, 176; proposed two grades of subscriptions, 176
Divisions, Rochdale and Bury, 417; joint meeting, 417; confirmation of minutes, 417; apology for non-attendance. 417; address by the Chairman, 417; the draft Articles, 417; by-laws, 417; Annual Representative Meeting, 417; model rules, 417; vote of thanks, 417
Divisions, St. Helens, 28; confirmation of minutes, 28; parliamentary election (1910), 28; Manchester Corporation and the Midwives Act, 28; special class of consultants, 28; public medical service, 28; Research Defence Society, 28; medical inspection of school children, 28
Division, St. Pancras and Islington, 73, 371, 417; school clinics (Dr. Beaton), 73; confirmation of minutes, 371, 417; election of officers, 371, 418; diagnostic and therapeutic uses of *x* rays in general practice (A. Howard Pirie), 371; annual meeting, 417; increase in membership, 418; election of officers, 418; acne (W. Griffith), 418; vote of thanks, 418
Division, Salford, 69; confirmation of minutes, 69; action of Executive Committee, 69; Research Defence Society, 69; the Representative Meeting, 69; Hope Hospital, 69; special class of consultants, 69; hospital treatment of school children, 69
Division, Salisbury, 111, 419; dinner, 111; confirmation of minutes, 111, 419; apologies for non-attendance, 111; the late Dr. H. J. Manning, 111; election of Representative, 111; nomination of Branch Secretary, 111; Rule Z, 111; Research Defence Society, 111; grouping of Branches, 111; letter from Medical Secretary, 111; special class of consultants, 111; report of Poor Law Reform Committee, 111; relation of homoeopaths to the Association, 111; rules of a public medical service, 111; ambulance work and the Red Cross Society, 111; specimen of cystic kidneys and carcinoma of stomach (Dr. Fison), 111; annual meeting, 419; election of officers, 419; letter of thanks, 420; parliamentary representation of the profession, 420; Secretary's report and financial statement, 420; fees for medical inspection of school children, 420; some cases of angioneurotic oedema (Mr. Ensor), 420; extrauterine gestation (Mr. Luckham), 420; fever following bite of kitten (Mr. Atkinson), 420; specimen of uterus (Mr. Straton), 420; youth with dermatitis herpetiformis (Dr. Williams-Freeman), 420
Division, Scottish, 140; clinical meeting, 140; confirmation of minutes, 140; Caesarean section (Dr. Livingstone), 140; spinal anaesthesia (Dr. Livingstone), 140; carcinoma of bowel (Dr. Livingstone), 140; gangrenous and perforated appendix (Dr. Livingstone), 140; abdominal swab removed from bladder (Dr. Livingstone), 140; stereoscopic photographs (W. S. Syme), 140; visit to wards, 140; demonstration in electrical department, 140
Division, South Eastern Counties, 415; annual meeting, 415; annual report, 415; confirmation of minutes, 415; election of office-bearers, 415

Division, Southern, 5; confirmation of minutes, 5; Annual Representative Meeting, 5; proposed accident insurance policy, 6; proposed increased number of Representatives, 6; proposed hospital for women, 6; special class of consultants, 6; medical inspection and treatment of school children, 6; unqualified practice by masseurs, 6; lectures on medical ethics, 6; vote of thanks, 6
Division, Southport, 6, 156, 322; special meeting, 6; apology for non-attendance, 6, 156, 322; confirmation of minutes, 7, 156, 322; unqualified practice, 7; special class of consultants, 7; rules for public medical service, 7, 156, 322; Representative at Annual Representative Meeting, 7, 156; Poor Law reform, 156; medical sociology, 156; relation of homoeopaths to the Association, 156; voluntary aid detachments, 156; questions to parliamentary candidates, 156; annual meeting, 322; report of Executive Council, 322; election of officers, 322; notices of motion, 322; parliamentary representation of the profession, 322; votes of thanks to Representatives on Council, 322; the application for a Royal Charter, 322
Division, Staffordshire South, 167, 442; matters referred to Divisions, 167, 442; payment for assisting midwives, 167; annual meeting, 442; confirmation of minutes, 442; election of officers, 442
Division, Stratford, 54, 88, 128, 195, 418; confirmation of minutes, 54, 88, 128, 418; an appeal, 54; replies from parliamentary candidates, 54; tuberculosis (Sir R. Douglas Powell), 54; the late Dr. Stanley Atkinson, 88; questions to candidates for London County Council, 88; some intestinal ulcerations (W. J. Hadley), 88; treatment of some common deformities of childhood (A. H. Tubby), 128; discussion on fractures, 195; annual meeting, 418; communications, 418; treatment of school children, 418; Organization Committee, 418; election of officers, 418
Division, Suffolk, North, 322; annual meeting, 322; election of officers, 322
Division, Swansea, 97, 195; special class of consultants, 97; Midwives Act, 97; medical inspection and treatment of school children, 97; Representative at Representative Meeting, 97; confirmation of minutes, 195; cases, 195; South Wales Nursing Association, 195; medical officership to Commercial Travellers' Association, 195; proposed bacteriological laboratory, 195
Division, Trowbridge, 5, 109, 139, 396; confirmation of minutes, 5, 109, 139, 396; vote of condolence, 5, 109; report on a special class of consultants, 5; Bradford rules, 5; model rules of public medical service, 5; voluntary aid detachments, 5, 109; extension of boundaries, 5; Wilts County Council and bacteriological examinations, 5; Research Defence Society, 109; questions submitted to parliamentary candidates, 109; Wiltshire Working Men's Conservative Benefit Society, 109; payment of medical men called in to assist midwives, 109; relation of homoeopaths to the Association, 110; medical inspection and treatment of school children, 110; election to Central Council, 110, 396; special meeting, 139; report of Poor Law Reform Committee, 139; annual meeting, 396; death of King Edward, 396; election of officers, 396; statement of accounts, 396; Contract Practice Subcommittee, 396; resolution from Chelsea Division, 396; vote of thanks to retiring chairman, 396
Division, Tunbridge Wells, 399; eighth annual meeting, 399; election of officers, 399; relation of homoeopaths to the Association, 399; public medical service, 399; instructions to Representative at Annual Representative Meeting, 399; matters of local interest, 399; vote of thanks to house committee of General Hospital, 399; special meeting, 399; vote of thanks to Chairman, 399
Division, Walthamstow, 28, 166, 216, 306, 371, 418; confirmation of minutes, 28, 166, 371; acute intestinal obstruction (H. Betham Robinson), 28; correspondence, 29, 166, 371; a local sewage problem, 29; medical inspection and treatment of school children, 166, 306; Contract Practice Committee, 166; mediastinal tumour (Dr. Price), 166; enlarged testicle (Dr. Barrs), 166; congenital heart (Dr. Macgregor), 166; malformation of palate and pharynx through syphilis (Dr. Oakeley), 166; extrauterine fetus with envelope removed entire (Dr. Barrs), 166; extrauterine fetation (Dr. Stimson), 166; pulmonary conditions referring to one-sided bronchitis (A. Berrill), 166; treatment of chorea (Dr. Price), 166; vote of thanks, 166, 306; apologies for non-attendance, 306; treatment of school children found defective on inspection, 306; appointment of committee to confer with Education Committee, 306; report of Executive Committee, 371; election of officers, 371; alteration of Rule 4, 371; instruction to Representative at Representative Meetings, 372, 418; matters referred to Divisions, 372; programme for ensuing session, 372
Division, Wandsworth, 96, 142, 217; confirmation of minutes, 96; report of the Council *re* homoeopaths, 96; Poor Law Reform Committee, 96; medical inspection and treatment of school children, 142, 217; a correction, 217
Division, Warrington, 95, 230; scientific meeting, 95; cerebro-spinal fever (O. T. Williams), 95; annual meeting, 230; apology for non-attendance, 230; election of officers, 230; quarterly meetings, 230; clinical meetings, 230; letter from Chelsea Division, 230; Central Council (1910) election, 230; votes of thanks, 230
Division, Westminster, 128, 398; Hampstead Hospital, 128; Poor Law Reform Committee, 128; relation of homoeopaths to the Association, 128; equipment and organization of the *x*-ray and electrotherapeutical department of a general hospital (Allpress Simmons), 128; *x*-ray demonstration, 128; vote of thanks, 128, 398; nominations by the Division, 398; medical treatment of London County Council school children, 398; formation of local committee, 398
Division, Winchester, 97; spring meeting, 97; confirmation of minutes, 97; letters, 97; Research Defence Society, 97; Poor Law report, 97; fees for ambulance lectures, 97; payment of staffs of voluntary hospitals, 97; medical practioners and midwives, 97
Division, Worcester, 75, 424; confirmation of minutes, 75, 425; the late Dr. A. M. Weir, 75; transference of members to another Division, 75; special class of consultants, 75; payment of medical men called in by midwives, 75; rules for a public medical service, 75; accuracy in the diagnosis of urinary disease (Bernard J. Ward), 75; two cases of phthisis in children successfully treated with tuberculin injections (G. W. Crowe), 75; annual meeting, 424; letter for Vice-Chairman, 425; apologies for non-attendance, 425; election of officers, 425; Special Representative Meeting, 425; Annual Representative Meeting, 425
Divisions, Bury and Rochdale, 69; joint meeting, 69; confirmation of minutes, 69; apology for absence, 69; report of Representative Meeting, 69; part-time appointments, 69; election of Representatives, 69; infamous conduct, 69; payment under Midwives Act, 69
Divisions, Walthamstow and City, 216; conjoint meeting, 216; confirmation of minutes, 216; apologies for non-attendance, 216; School Children Committee, 216; increased pressure within the skull (Sir Victor Horsley), 216
DOBSON, J. F.: Specimens of two cases of partial gastrectomy, 159; pyloric ulcer, Rodman's operation, 159; ulcer of anterior surface of stomach, 159; duodenal ulcer, 159; radiograph by Dr. Rowden of a case of an hour-glass contraction of stomach, gastro-gastrectomy, 159
Dorset Division. *See* Division.
Dorset and West Hants Branch. *See* Branch
DOWNIE, WALKER: Suppurative affections of the nasal accessory sinuses, 309
DUER, Major: Compound depressed fractures of skull, 225
Dumbartonshire and Argyllshire Division. *See* Division
Dundee Branch. *See* Branch

E.

East Anglian Branch. *See* Branch
EASTES, Dr.: Gall stones, 129
Ebbw Vale disputes, 8, 112
Edinburgh Branch. *See* Branch
EDINGTON, Dr.: Case of pseudo-hypertrophic muscular atrophy, 302; arteriosclerosis of the cerebral vessels in young females, 302
EDWARDS, Dr.: Specimen of enlarged thymus gland, 419
ENSOR, M.: Some cases of angio-neurotic oedema, 420
Ethical Committee. *See* Committee
Eugenics in the light of higher civilization (Dr. Hardie), 55
EVANS, J. HOWELL: Treatment of pruritus vulvae, 308
Exeter Division. *See* Division
Exophthalmic goître. *See* Goitre

F.

FAIRBAIRN, J. S.: Treatment of eclampsia, 421
Feeble-minded Association. *See* Association
Feeble-minded, some institutions for, 200. *See also* JOURNAL, p. 1069
Fees for ambulance lectures, 97
Fees for certification of pauper lunatics, 306
Fees for medical inspection of school children, 420
Fees in midwifery, 166, 167. *See also* Act, Midwives
Fever, cerebro-spinal (O. T. Williams), 95
Fife Branch. *See* Branch
Fife Division. *See* Branch
FINLAY, Dr.: Anencephalic monster with spina bifida, 87
First aid. *See* Volunteer aid detachments
FISHER, Dr.: Part-time medical officers of health, 302
FISON, Dr.: Specimens of cystic kidneys and carcinoma of stomach, 111
Folkestone Division. *See* Division
Food and its poisons (Dr. Bruce-Bays), 34
Foreign body in oesophagus (L. D. Parsons), 34
FORSYTH, DAVID: Infant feeding, 127
Fractures, discussion on, 195
Fractures of skull, compound depressed, discussion on, 225
FRASER, Dr.: Beri-beri, 127
FRENCH, H. S.: Pyuria, 88
Fund, British Medical Benevolent, 157
Fund, King Edward's Hospital, 100; annual meeting, 100
Furness Division. *See* Division

G.

Gangrene of penis (L. D. Parsons), 34
GARDNER, T. FRED.: "Lest We Forget," 362
GARSTANG, T. W. H., presentation to, 165
Gastric ulcer. *See* Ulcer
Gateshead Division. *See* Division
General Medical Council. *See* Council
Gibraltar Branch. *See* Branch
GIFFORD, A. H.: Omental cyst, 129
Glasgow Division. *See* Division
Glasgow and West of Scotland Branch. *See* Branch
GLENDINNING, J.: Accumulation of the insane in county and borough asylums, 421
Gloucestershire Branch. *See* Branch
Goître, exophthalmic (L. D. Parsons), 35
GOODALL, E. W.: Mistakes in diagnosis between measles, German measles, chicken-pox, small-pox, and scarlet fever, 28

GOSTLING, T. P.: Double pyosalpinx, 309
GRAHAM, Dr.: Poisoning by oil of wintergreen, 93
GRATTE, C. B.: Wound of brachial artery by dog bite, 8
GREGORSON, J. D.: Some problems in coolie practice, 85
GRENFELL, G. B.: Notes on country practice in South Africa, 125
GRIFFITH, W.: Acne, 418
Guernsey and Alderney Division. *See* Division
Guildford Division. *See* Division

H.

HADLEY, W. J.: Some intestinal ulcerations, 88
Halifax Division. *See* Division
HALL, Staff Surgeon: Specimen of tapeworm with head and hooklets intact, 34
Hampstead Division. *See* Division
HARPER, Dr.: Onychia of both great toes, 398
HARRIES-JONES, Mr.: Tuberculosis of conjunctiva, 167
Harrogate Division. *See* Division
HASLETT, Dr.: Persistent thyroglossal duct, 112
HEATON, GEORGE: Two specimens of enlarged prostate with calculi, 73
Hereford Division. *See* Division
HICHENS, Dr.: Heart from a patient who had died from infective endocarditis, 167
HOGARTH, Dr.: The tuberculosis problem, 129
HOLMES, Dr.: Puerperal pyaemia, 159
Homoeopaths. relation of to the Association, 65, 94, 96, 110, 111, 112, 127, 128, 129, 141, 144, 155, 156, 157, 166, 167, 175, 176, 195, 216, 229, 231, 306, 308, 366, 399. Report of Council (per Ethical Committee) on, 65. Resolutions of: Altrincham Division, 366; Birmingham Central Division, 216; Blackburn Division, 110; Bournemouth Division, 195; Bucks Division, 129; Chelsea Division, 96; City Division, 141; Dorset (West) Division, 229; Dumbartonshire and Argyllshire Division, 94; Exeter Division, 112; Fife Branch and Division, 141; Folkestone Division, 129; Glasgow Central Division, 155; Glasgow Eastern Division, 155; Glasgow North-West Division, 229; Gloucestershire Branch, 216; Guernsey and Alderney Division, 129, 231; Guildford Division, 129; Hampstead Division, 157; Jersey Division, 144; Kensington Division, 176; Lambeth Division, 127; Lincoln Division, 306; Manchester South Division, 166; Monmouthshire Division, 144; Munster Branch, 144; Northamptonshire Division, 167; Northern Counties of Scotland Branch, 306; North Northumberland Division, 157; Oxford and Reading Branch, 308; Reigate Division, 399; Rochdale Division, 175; Salisbury Division, 111; Southport Division, 156; Staffordshire Division, 167; Trowbridge Division, 110; Tunbridge Wells Division, 399; Wandsworth Division, 96; Westminster Division, 128
Hope Hospital. *See* Hospital
HORDER, THOMAS: Clinical medicine as an aid to pathology, 129
HORSLEY, Sir VICTOR: Causes and treatment of increased pressure within the skull, 216
Hospital, Belfast Royal Victoria, medical report, 186
Hospital, Bingley Cottage, annual meeting, 131
Hospital, Birmingham Children's, annual report, 163
Hospital, Birmingham General, report, 146
Hospital, Birmingham Lying-in Charity, 187
Hospital, Birmingham and Midland, for Women, report, 186
Hospital, Birmingham Queen's, statistics, 147
Hospital, Bolingbroke, 96
Hospital, Bradford Children's, report, 131
Hospital, Dental, of Ireland, Incorporated, annual meeting, 147
Hospital, Dental, of London, the Royal, report, 162
Hospital, Dublin National Maternity, annual meeting, 163
Hospital, Dublin Royal Victoria Eye and Ear, annual meeting, 170
Hospital, Hampstead, 68, 127, 128, 279; decision of Council on, 68. 279; discussed at meeting of Hampstead Division, 127; resolution of Westminster Division, 128
Hospital, Harrogate Royal Bath, annual meeting, 318
Hospital, Hope, 69
Hospital, Italian, London, annual meeting, 170
Hospital, the London, 48; (E. W. Morrison), 48
Hospital, Oxford Eye, annual report, 186
Hospital, St. Andrew's, for Mental Diseases, Northampton, annual report, 318
Hospital, South Wimbledon, Merton, and District Cottage, annual report, 171
Hospital staffs, proposed payment of, 126, 229; resolution of Glasgow North-Western Division, 126, 229
Hospital, voluntary, administration of (E. W. Morris), 48
Hospital, voluntary, payment of staff of, 97
Hospital, Wimbledon Cottage, 235; fortieth annual report, 235
Hospitals, abuse of, especially of out-patient departments (Dr. Phillips), 93
Hospitals and asylums, 11, 62, 100, 131, 146, 162, 170, 186, 200, 221, 235, 317; Belfast Royal Victoria Hospital, 186; Bingley Cottage Hospital, 131; Birmingham Children's Hospital, 163; Birmingham Lying-in Charity, 187; Birmingham and Midland Hospital for Women, 186; Birmingham hospitals, 146; Bradford Children's Hospital, 131; City Dispensary, London, 131; City of London Asylum, Stone, near Dartford, 318; Dental Hospital of Ireland, Incorporated, 147; Dublin National Maternity Hospital, 163; Dublin Royal Victoria Eye and Ear Hospital, 170; Earlswood Asylum, 200; Glasgow Eye Infirmary, 62; Govan District Asylum, Paisley, 62; Halifax Royal Infirmary, 131; Harrogate Royal Bath Hospital, 318; Inverness District Asylum, 11; Italian Hospital, London, 170; King Edward's Hospital Fund, 100; Lancashire and Cheshire Permanent Care Society, 201; Lancashire Royal Albert Asylum, 200; medical inspection of children in orphanages, institutions for the blind, deaf, and dumb, etc., 221; Oxford Eye Hospital, 186; Paisley Infirmary, 186; Princess Christian's Farm Colony, 201; Royal Asylum, Perth, 11; Royal Dental Hospital of London, 162; Royal Edinburgh Asylum, 100; St. Andrew's Hospital for Mental Diseases, Northampton, 318; sanatorium reports, 317; South Wimbledon, Merton, and District Cottage Hospital, 171; Suffolk District Asylum, 11; Surrey County Asylum, Brookwood, 62; Wimbledon Cottage Hospital, 235
Hospitals, application of rates for support of, 21
Hospitals, Birmingham, reports, 146
Hospitals Committee. *See* Committee
HOWELL, J.: Acute peritonitis, 165
HUNTER, Dr.: Penetrating wound of left eye, 307
HUTCHISON, ROBERT: Therapeutic uses of diet, 175

I.

Ichthyosis (Dr. Lyons), 34
Immuno-therapy in acute streptococcal infections (G. Scott Williamson), 8
Infant feeding (David Forsyth), 127
Infirmary, Halifax Royal, annual meeting, 131
Infirmary, Glasgow Eye, eighty-sixth annual meeting, 62
Infirmary, Paisley, annual meeting, 186
Intestinal obstruction. *See* Obstruction
Irish Committee. *See* Committee
Isle of Thanet Division. *See* Division
Isle of Wight Division. *See* Division

J.

Jersey Division. *See* Division
JONES, LEWIS: Peripheral paralysis, 73
JONES-PHILLIPSON, Dr.: Accessory sinuses of the nose, 413
JOURNAL, BRITISH MEDICAL, 176; resolution of Rochdale Division, 176
Journal and Finance Committee. *See* Committee

K.

Kensington Division. *See* Division
KING, Colonel: Address as President of the Burma Branch, 149; prevention of tuberculosis in Burma, 192
King Edward's Hospital Fund. *See* Fund

L.

Lambeth Division. *See* Division
LANG, GORDON: Removal of front of right tibia, 308; penetrating wound of skull, 308
LAWS, Mr.: Treatment of squint, 195
LEEDHAM-GREEN, Mr.: Surgical treatment of exophthalmic goître, 140
Leeds Division. *See* Divison
Leicester and Rutland Division. *See* Division
"Lest we forget" (T. Fred. Gardner), 362
Lincoln Division. *See* Division
LIVINGSTONE, Dr.: Caesarean section, 140; spinal anaesthesia, 140; carcinoma of the bowel, 140; gangrenous and perforated appendix, 140; abdominal swab removed from bladder, 140; exhibition of specimens, 302
Locomotor ataxy (Dr. Williams), 398
London and Counties Medical Protection Society. *See* Society
LOXTON, ARTHUR: Case of multiple subcutaneous tumour, 73
LUCKHAM, Dr.: Extrauterine gestation with unusual symptoms, 420
LYONS, Dr.: Case of ichthyosis, 34; case of Addison's disease, 34

M.

McALLEN, Dr.: Movable enlargements of ends of ulnae, 112
McCLOSKY, Dr.: Nastin in leprosy, 127
MACGREGOR, Dr.: Congenital heart, 166
MACNAMARA, Dr.: Administration of quinine, 87
Maidstone Division. *See* Division
Malaria (Mr. Watson), 127
Malaya Branch. *See* Branch
Manchester Corporation and the Midwives Act, 28, 54, 75, 76, 95, 97. *See also* Act
Manchester Division. *See* Division
MANN, H. C.: Different types of mental defect in children, 127
MARR, HAMILTON C.: Lantern demonstration to illustrate the modern ideas of the neurone, 416
MARSH, Dr.: Perforated gastric ulcer, 166
MARSH, O. E. B.: Three cases of duodenal ulcer associated with acute glycosuria, 112
Matters referred to Divisions, 1, 41, 65, 112, 129, 159, 167, 173, 205, 229, 231, 237, 285, 372; questions for parliamentary candidates, 1; Special Poor Law Reform Committee: interim report to Divisions, 41; report of Council on the relation of homoeopaths to the Association, 65; notices of motion, 173; public medical services, 205; Annual Representative Meeting, 1910, provisional agenda, 237; agenda of Special Representative Meeting, 285
MAYBURY, L.: Case of pneumonia, 96; exhibition of specimens, 159
Medical inspection and treatment of school children. *See* School
Medical men and police evidence, 76
Medical officers of health, fixity of tenure of, 176; resolution of Rochdale Division, 176
Medical officers of health, part-time (Dr. Fisher), 302
Medical officers of health, whole-time, 165; resolutions of Altrincham Division, 165

Medical practitioners and midwives, 21, 33, 97, 109, 129, 144, 157, 368, 417. *See also* Act, Midwives
Medical treatment of the poor (P. R. Cooper), 105. *See also* Poor Law
Medicine, clinical, as an aid to pathology (Thomas Horder), 129
Medico-Political Committee. *See* Committee
Mental suggestion, therapeutic value of (H. E. Wingfield), 158
Metropolitan Counties Branch. *See* Branch
Midland and East York, and North Lincoln Branches. *See* Branches
Midwives Act. *See* Act
Midwives Bill. *See* Bill
Midwives Board. *See* Board
Midwives' calls, scale of fees for, 33, 93, 97
Midwives, supervision of, 141. *See also* Act, Midwives, *and* Medical practitioners
MILLER, Dr.: Auriculo-ventricular node and bundle of His, 93
MILLS-ROBERTS, R. H.: Excision of wrist, 308
MILWARD, VICTOR: Intraperitoneal rupture of bladder, 140; transplantation of the imperfectly descended testicle, 140
MINCHIN, Professor: Protozoology and its medical aspects, 127
Monmouthshire Division. *See* Division
MONSARRAT, K. W.: Bismuth paste in chronic sinuses, 308
MORRIS, E. W.: Administration of a voluntary hospital, 48
MORRISON, C. S.: Von Recklinghausen's disease, 309
MUNRO, MACLEOD: Cerebral syphilis, 87
Munster Branch. *See* Branch
Myomectomy during pregnancy (Sir John Byers), 422

N.

Nasal accessory sinuses, suppurative affections of (Walker Downie), 309
Natal Branch. *See* Branch
Naval and Military Committee. *See* Committee
Navy, Royal, promotions and appointments in the medical service of, 10, 18, 22, 31, 36, 61, 70, 77, 89, 101, 118, 131, 146, 162, 169, 184, 201, 222, 233, 315, 359, 430. *See also* Volunteer
Northamptonshire Division. *See* Division
Northern Counties of Scotland Branch. *See* Branch
Northumberland Division. *See* Division
North Wales Branch. *See* Branch
Norwich Division. *See* Division
Norwood Division. *See* Division
Nottingham Division. *See* Division
Nursing Association. *See* Association
Nutrition, effect of bacterial vaccines on (Dr. Bruce), 55

O.

OAKELEY, Dr.: Malformation of palate and pharynx through syphilis, 166
Obstruction, acute intestinal (H. Betham Robinson), 28; (W. M. Willis), 166
Oesophagus, foreign body in (L. D. Parsons), 34
OLDFIELD, Dr.: Treatment of puerperal septic diseases, 159
Onychia of both great toes (Dr. Harper), 398
Organization Committee. *See* Committee
ORMEROD, Dr.: Tuberculosis in Oxford, 157
Ovarian cyst. *See* Cyst
Oxford Division. *See* Division
Oxford and Reading Branch. *See* Branch
Oxford, tuberculosis in (Dr. Ormerod), 157

P.

Paralysis, peripheral (Lewis Jones), 73
PARKER, RUSHTON: Denture for upper jaw filling in gap in septum after excision, 308
PARSONS, Dr.: Male with supernumerary nipple, 415
PARSONS, L. D.: Gangrene of penis, 34; foreign body in oesophagus, 34; operation for brain lesion, 34; carbuncle, 35; exophthalmic goitre, 35
PEARSE, F. EDWARD: Report of the Poor Law Commission as affecting general practitioners, 74, 106
PENDRED, V.: Sanatoriums for tuberculous workers, 93
Penis, gangrene of (L. D. Parsons), 34
PERNET, GEORGE: Intramuscular treatment of syphilis, 175
Perthshire Branch. *See* Branch
PHILLIPS, Dr.: Abuse of hospitals, especially of out-patient departments, 93
Phthisis. *See* Tuberculosis
PIRIE, A. HOWARD: Diagnosis and therapeutic uses of *x* rays in general practice, 371
Poor, medical treatment of (P. R. Cooper), 105
Poor Law medical service, 304; resolution of Leinster Branch, 304
Poor Law Reform Association. *See* Association
Poor Law reform (J. H. Taylor), 303, 366
Poor Law Reform Committee. *See* Committee *and* Bill, Prevention of Destitution
Poor Law, Royal Commission on, 74, 106; as affecting the general practitioner (F. Edward Pearse), 74, 106
Portsmouth Division. *See* Division
POWELL, Sir R. DOUGLAS: Tuberculosis, 54
Practice, unqualified, 128; resolution of Furness Division, 128
Pregnancy, myomectomy during (Sir John Byers), 422
Prevention of Destitution Bill. *See* Bill
PRICE, Dr.: Mediastinal tumour, 166; treatment of chorea, 166
Princess Christian's Farm Colony. *See* Association for Feeble-minded
Protozoology and its medical aspects (Professor Minchin), 127
PRUEN, S. T.: Strokes, 110
Public Health Committee. *See* Committee

Publications, Recent, 12, 31, 72, 79, 91, 103, 120, 132, 164, 172, 223, 320, 379
Adams, Mrs. Hugh: *The Social Calendar, 1910*, 172
Baxter, Rev. C. Pankhurst: *Hospital Service Book*, 103
Browne, Edith A.: *The Social Calendar, 1910*, 172
Bulletin de l'Office: International d'hygiène publique, 91
Consultations médicales Françaises, No. 12 l'Avortement, 31
De Lee, Joseph B.: *Obstetrics for Nurses*, 12
Ehrlich, P.; Max Mosse, R. Krause, H. Rosin, and the late K. Weigert (editors), *Encyklopädie der mikroskopischen Technik*, 120
Friedenwald, Julius: *Dietetics for Nurses*, 12
Girls' School Year Book, 379
Harpe, Eugène de la: *Balnéo Guide en Suisse*, 79
Index du Progrès Médical, 72
Lévy, Paul Emile: *Neurasthénie et Névroses, leur guérison définitive en cure libre*, 132
Penzoldt, F., and R. Stintzing: *Handbuch der gesamten Therapie*, 72
Pharmaceutical Pocket Book, 1910–11, 320
Practical Medicine Series, vol. x, 120
Public Schools Yearbook, 120
Rudaux, P.: *L'Avortement*, 31
Saunders, T. W.: *Mushrooms and their Cultivation*, 79
Sport, Records of, 223
Watkins-Pitchford, W.: *Light, Pigmentation, and New Growth*, 79
Yearbooks, 120, 164, 379; *Public Schools*, 120; *City of London Yearbook and Civic Directory for 1910*, 164; *Schoolmaster's Yearbook and Directory, 1910*, 164; *Girl's School*, 379

Public medical service, model rules for, 5, 6, 7, 28, 73, 75, 76, 93, 94, 95, 111, 128, 141, 144, 155, 156, 157, 167, 176, 205, 229, 231, 322, 398, 399, 417; model rules issued by the Council for the consideration of the Divisions, 205; resolutions of—Blackburn Division, 6; Bournemouth Division, 322; City Division, 398; Coventry Division, 93; Dumbartonshire and Argyllshire Division, 94; Fife Branch and Division, 141; Furness Division, 128; Gateshead Division, 231; Glasgow Central Division, 6, 155; Glasgow Eastern Division, 73; Glasgow North-Western Division, 229; Guernsey and Alderney Division, 129, 231; Guildford Division, 75; Halifax Division, 76; Jersey Division, 144; Kensington Division, 176; Manchester (South) Division, 95; Monmouthshire Division, 144; North Northumberland Division, 157; Reigate Division, 399; Rochdale and Bury Divisions, 417; St. Helens Division, 28; Salisbury Division, 111; Southport Division, 7, 156, 322; Staffordshire South Division, 167; Trowbridge Division, 5; Tunbridge Wells Division, 399; Worcester Division, 75
Publishers' announcements, 19, 23, 31, 40, 64, 72, 103, 132, 187, 223, 236, 359, 431
PURVES, Dr.: Recurrent carcinoma treated with sheep serum, 125
Pyuria (H. S. French), 88

Q.

Queensland Branch. *See* Branch
Quinine administration (Dr. Macnamara), 87

R.

Recent publications. *See* Publications
Red Cross Society. *See* Voluntary aid detachments
REED, J. A.: Inversion of uterus, 398
Registrar-General and death. *See* Death
Reigate Division. *See* Division
Research Defence Society. *See* Society
Richmond Division. *See* Division
RIDOUT, Mr.: Two cases of submucous resection of nasal septum, 96; modified mastoidectomy with preservation of ossicles, 159
ROBERTS, H. JONES: Ruptured urethra, 308
ROBINSON, H. BETHAM: Acute intestinal obstruction, 28
ROBSON, Dr.: Cerebral tumour, 167
Rochdale Division. *See* Division
Rochdale and Bury Divisions. *See* Divisions

S.

St. Helens Division. *See* Division
St. Pancras and Islington Division. *See* Division
Salford Division. *See* Division
Salisbury Division. *See* Division
Sanatorium reports, 317; King Edward VII., 317; Winsley, 317; Blencathra, 317; the National Sanatorium Association's Institution at Benenden, 318
Sanatoriums for tuberculous workers (V. Pendred), 93; resolutions of Hampstead Division, 156
Sarcoma, intranasal (Dr. Syme), 302
School children found defective, treatment of, 306, 307; resolutions of—Northern Counties of Scotland Branch, 307; Walthamstow Division, 305
School children, hospital treatment of, 69; resolutions of Salford Division, 69
School children, medical inspection and treatment of, 6, 8, 17, 28, 54, 73, 74, 76, 94, 95, 97, 110, 111, 112, 126, 128, 129, 133, 141, 142, 144, 151, 155, 157, 166, 176, 195, 217, 221, 229, 230, 231, 303, 305, 306, 307, 368, 369, 398, 399, 418, 425; conference of Metropolitan Counties Branch, 217; resolutions of—Blackpool Division, 368; Boston and Spalding Division, 195; Chelsea Division, 305; City Division, 54, 141, 305; Dorset (West) Division, 229; Dumbartonshire and Argyllshire Division, 94; Exeter Division, 112; Folkestone Division, 399; Furness Division, 128; Glasgow (Central) Division, 6, 155; Glasgow (Eastern) Division, 73; Glasgow (North-Western) Division, 126; Glasgow and West of Scotland Branch, 151; Guernsey and Alderney

Division, 129, 231; Guildford Division, 74; Halifax Division, 76; Hampstead Division, 17; Harrogate Division, 425; Lambeth Division, 230; Manchester (South) Division, 95, 166, 303, 369; Metropolitan Counties Branch, 217; Monmouthshire Division, 144; Northern Counties of Scotland Branch, 307; North Northumberland Division, 157; Nottingham Division, 111; Reigate Division, 399; St. Helens Division, 28; Southern Division, 6; Stratford Division, 418; Swansea Division, 97; Trowbridge Division, 110; Walthamstow Division, 166, 306; Wandsworth Division, 142, 217; Westminster Division, 398; Worcestershire and Herefordshire Branch, 8
School children, medical inspection of, in orphanages, institutions for the blind, deaf, and dumb, etc., 221; fees for, *see* Fees
School children, medical treatment of, 133; deputation to the medical officer of the Board of Education, 133; leading article on, in JOURNAL, p. 831
School clinics (Dr. Beaton), 73
Science Committee. *See* Committee
Scottish Committee. *See* Committee
Scottish Division. *See* Division
"Secret remedies," 55
SELBY, PRIDEAUX: A few points in treatment not generally found in books, 231
SHAW, Dr.: Acromegaly, 7
SIMMONS, ALLPRESS: Equipment and organization of the *x*-ray and electrotherapeutical department of a general hospital, 128
SINCLAIR, Professor: Bony growths from atlas, 424
Skull, compound depressed fractures of (Major Duer), 225
Skull, treatment of increased pressure within (Sir Victor Horsley), 216
SLIMON, W. H.: Menorrhagia and metrorrhagia, 175
SMITH, F. J.: Consultants and general practitioners, 322
SMYLY, Sir WILLIAM, address as President of Leinster Branch, 304
Society, Lancashire and Cheshire Permanent Care, annual report, 201
Society, London and Counties Medical Protection, 199; annual general meeting, 199
Society, Red Cross. *See* Voluntary aid detachments
Society, Research Defence, 21, 28, 54, 69, 73, 75, 76, 95, 97, 111, 112, 140, 141, 144, 166, 176; resolutions of—Birmingham Branch, 140; Brighton Division, 166; Chelsea Division, 21; City Division, 54; Dumbartonshire and Argyllshire Division, 95; Fife Branch and Division, 141; Glasgow Eastern Division, 73; Guildford Division, 75; Halifax Division, 76; Maidstone Division, 176; Monmouthshire Division, 112; St. Helens Division, 28; Salford Division, 69; Salisbury Division, 111; South-Eastern of Ireland Branch, 144; Ulster Branch, 75; Winchester Division, 97
Society, Transvaal Medical, and State medicine, 418
Somerset Branch. *See* Branch
South-Eastern Counties Division. *See* Division
South-Eastern of Ireland Branch. *See* Branch
Southern Division. *See* Division
Southport Division. *See* Division
South Wales and Monmouthshire Branch. *See* Branch
SPILSBURY, Dr.: Melanotic sarcoma, 158; carcinoma of rectum and stomach, 158: acute glanders, 158; lympho-sarcoma of small intestine, 158
Spinal anaesthesia. *See* Anaesthesia
Staffordshire Division. *See* Division
STANLEY, DOUGLAS: Phthisis in Birmingham, 73
STANTON, Dr.: Intestinal parasites, 127
Status lymphaticus (Dr. Cheatle), 157
STIMSON, Dr.: Extrauterine fetation, 166
Stirling Branch. *See* Branch
Stratford Division. *See* Division
STRATON, Mr.: Uterus with deciduoma malignum, 420
Streptococcic throat (Sir John Byers), 423
Suffolk Division. *See* Division
SUTHERLAND, GEORGE ALEXANDER: Significance of some symptoms in the medical examination of children, 309
SUTTER, Dr.: Epithelioma ani, 307
Swansea Division. *See* Division
SYME, Dr.: Extensive intranasal sarcoma, 302
SYME, W. S.: Stereoscopic photographs, 140
Syphilis, cerebral (Macleod Munro), 87

T.

Tapeworm with head and hooklets intact (Staff Surgeon Hall), 34
TAYLOR, DAVIS: Exophthalmic goître, 159; recurrent pneumococcus infection, 159
TAYLOR, J. H.: Poor Law reform, 303, 366
Territorial Force. *See* Army, British
Territorial Forces Committee. *See* Committee
Tongue, malignant disease of (Mr. Cuthbert), 87
Tonsils, surgical aspect of the (George E. Waugh), 35
Transvaal Medical Society. *See* Society
Trowbridge Division. *See* Division
TUBBY, A. H.: Some common deformities of childhood, 128
Tuberculosis in Birmingham (Douglas Stanley), 73
Tuberculosis in Burma, prevention of (Colonel King), 192
Tuberculosis in Oxford (Dr. Ormerod), 157
Tuberculosis Prevention Act. *See* Act
Tuberculosis (Sir Douglas Powell), 54
Tumours, abdominal (E. C. Bevers), 158
Tunbridge Wells Division. *See* Division

U.

Ulcer, gastric, perforated (Dr. Marsh), 166
Ulcerations, intestinal (W. J. Hadley), 88
Ulster Branch. *See* Branch
Unqualified practice, 7; resolutions of—Southport Division, 7
Unqualified practice by masseurs, 6
Urinary disease, accuracy in the diagnosis of (Bernard J. Ward), 75
Uterus, inversion of (J. A. Reed), 398

V.

Vaccination, the conscience clause and, 141
Vaccine therapy (Sir Almroth Wright), 88; (Dr. Veitch), 159
VEITCH, Dr.: Vaccine therapy, 159
Vital statistics, 9, 18, 22, 30, 37, 60, 70, 78, 89, 102, 116, 146, 162, 169, 184, 202, 222, 234, 316, 358, 378, 402, 430; vital statistics of London during the fourth quarter of 1909, 30; during the first quarter of 1910, 169; English urban mortality in the fourth quarter of 1909, 37; in the first quarter of 1910, 184; epidemic mortality in London, 60, 202; Registrar-General's quarterly return, 78, 316; vital statistics of metropolitan boroughs during 1909, 89; health of English, Scottish, and Irish towns, 9, 18, 22, 30, 37, 60, 70, 78, 90, 102, 116, 146, 162, 170, 186, 203, 222, 234, 317, 358, 378, 402, 430
VOELCKER, A.: Colitis, 96
Voluntary aid detachments, 5, 75, 94, 109, 111, 112, 129, 141, 144, 156, 157, 165, 216, 229, 366, 368, 425; resolutions of—Altrincham Division, 366; Blackpool Division, 368; Central Division, 216; City Division, 141; Dorset (West) Division, 229; Dumbartonshire and Argyllshire Division, 94; Exeter Division, 112; Fife Branch and Division, 141; Glasgow North West Division, 229; Gloucestershire Branch, 165; Harrogate Division, 425; Maidstone Division, 75; Monmouthshire Division, 144; Munster Branch, 144; North Northumberland Division, 157; Salisbury Division, 111; Somerset, West, Branch, 129; Southport Division, 156; Trowbridge Division, 5, 109
Volunteer Reserve, Royal Naval, promotions and appointments, 22
Volunteers, Royal Garrison Artillery, promotions and appointments in the medical service of, 23

W.

WALLACE, A. J.: Scopolamine in normal labour, 308
Walthamstow Division. *See* Division
Walthamstow and City Divisions. *See* Divisions
Wandsworth Division. *See* Division
Warning notices, 156
WATSON, M.: Ankylostomiasis, 127; malaria, 127
WAUGH, GEORGE E.: Surgical aspect of the tonsils, 55
Walthamstow Division. *See* Division
WARD, BERNARD J.: Accuracy in the diagnosis of urinary disease, 75
Warrington Division. *See* Division
Westminster Division. *See* Division
WHERRY, Mr.: Conjunctival pemphigus, 93
WHITMORE, Captain: Notes on the Pathological Museum, Rangoon, 190
WILD, R. B.: Recent methods in the treatment of cancer, 370
WILLIAMS, Dr.: Locomotor ataxy, 398
WILLIAMS, LEONARD: The quickening spirit, 417
WILLIAMS, O. T.: Cerebro-spinal fever, 95; unusual case of bone disease, 308
WILLIAMS-FREEMAN, Dr.: Youth with dermatitis herpetiformis, 420
WILLIAMSON, G. SCOTT: Immuno-therapy in acute streptococcal infections, 8
WILLIS, W. M.: Intestinal obstruction, 166
Winchester Division. *See* Division
WINGFIELD, H. E.: Therapeutic value of mental suggestion, 158
WOODHEAD, G. SIMS: Specimen of heart-block, 93
Worcester Division. *See* Division
Worcestershire and Herefordshire Branch. *See* Branch
WRIGHT, Sir ALMROTH: Vaccine therapy, 88

Y.

Yorkshire Branch. *See* Branch

LIST OF ILLUSTRATIONS.

University of London, Imperial Institute, 177

Printed and Published by the British Medical Association at their Office, No. 429, Strand, in the Parish of St. Martin-in-the-Fields in the County of Middlesex

BOUND BY
HW

UNIVERSITY OF ILLINOIS-URBANA
3 0112 002842760